City of Franklin

109 3rd Ave S
Franklin, TN 37064
(615)791-3217

Meeting Agenda

Work Session

Tuesday, January 13, 2015 | **4:30 PM** | **Board Room**

Call to Order

Citizen Comments

WORKSESSION DISCUSSION ITEMS

1. 15-0070 *Consideration Of Resolution 2015-03, A Resolution Of The Board Of Mayor And Aldermen Of The City Of Franklin, Tennessee, To Express Support For The Maintenance Of Current Troop Levels At Fort Campbell And To Urge Congress To Oppose Any Reductions.

Sponsors: Dr. Ken Moore

Attachments: 2015-03_DRAFT Fort Campbell resolution of support_01-06-15.docx

2. 14-640 Consideration of Ordinance 2014-46, To Be Entitled "An Ordinance to Rezone 19.11 Acres from Low Residential (R-1) to Specific Development - Variety District (SD-X 2.5/36,480) for the Properties Located at 574 and 580 Franklin Road, by the City of Franklin, Tennessee." (12/18/14 FMPC 7-0; 02/10/15 BOMA 8-0) THIRD AND FINAL READING

Sponsors: Ald. Ann Petersen

Attachments: 4680 Branch Creek Crossing Rezoning MAP.pdf

Ordinance 2014-46 Branch Creek Rezoning.pdf

Branch Creek Crossing Rezoning plans 12-4-14.pdf

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

3. 14-641 PUBLIC HEARING: Consideration of Resolution 2014-97, To Be Entitled "A Resolution Approving a Development Plan for Branch Creek Crossing PUD Subdivision with 2 Modification of Standards (MOS 1 - Location of Loading Areas; MOS 2 - Parking Facing Primary Street in Traditional Area) Located at 574 and 580 Franklin Road, by the City of Franklin, Tennessee." (12/18/14 FMPC 7-0; 01/13/15 WS)

Sponsors: Ald. Ann Petersen

Attachments: 4692 Branch Creek Dev Plan Map.pdf
Res 2014-97 RESOLUTION Branch Creek Crossing Dev Plan.pdf
Conditions of Approval 01.pdf
Branch Creek Crossing Development plans 12-4-14.pdf

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

4. 14-717 Consideration of Ordinance 2014-40, To Be Entitled "An Ordinance to Rezone 4.89 Acres from Specific Development - Variety District (SD-X 0/0) to General Commercial District (GC) for the Property Located at 1214 Liberty Pike, by the City of Franklin, Tennessee." (12/18/14 FMPC 7-0; 02/10/15 BOMA 8-0) THIRD AND FINAL READING

Sponsors: Ald. Ann Petersen

Attachments: 4710 Duke Prop rezoning MAP
Ord 2014-40 ORDINANCE Duke Properties Rezoning
4710 Duke Properties Rezoning Plan 1 page

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

5. 15-0001 Consideration of Ordinance 2014-49, To Be Entitled "An Ordinance to Annex the Adams Property, Consisting of 11.88 Acres, Located on the Properties on the South Side of Murfreesboro Road and Immediately West of Ridgeway Drive." (12/18/14 FMPC 7-0; 02/10/15 BOMA 8-0) THIRD AND FINAL READING

Sponsors: Ald. Ann Petersen

Attachments: Ord 2014-49 Annex Adams Property
Adams property annexation Map

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

6. 15-0002 PUBLIC HEARING: Consideration of Resolution 2014-47, To Be Entitled "A Resolution Adopting a Plan of Services for the Annexation of Certain Areas by the City of Franklin, Tennessee, Specifically the Adams Property, Located on the South Side of Murfreesboro Road and Immediately West of Ridgeway Drive." (12/18/14 FMPC 7-0; 01/13/15 WS)

Sponsors: Ald. Ann Petersen

Attachments: Resolution 1014-47 Adams Property POS

Request for POS-Adams Property

October Park Financial Impact

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

7. 14-727 Consideration of Ordinance 2014-45, To Be Entitled "An Ordinance to Zone 11.88 Acres Specific Development - Residential District (SD-R 1.6) for Three Properties Located South of Murfreesboro Road and West of Ridgeway Drive, Located at 1100 Ridgeway Drive (October Park PUD Subdivision)." (12/18/14 FMPC 7-0; 02/10/15 BOMA 8-0) THIRD AND FINAL READING

Sponsors: Ald. Ann Petersen

Attachments: 4685 October Park Zoning Map

Ord 2014-45 ORDINANCE October Park

October Park Rezoning Request

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

8. 14-732 PUBLIC HEARING: Consideration of Resolution 2014-96, To Be Entitled "A Resolution Approving a Development Plan for October Park PUD Subdivision, Located at 1100 Ridgeway Drive, by the City of Franklin, Tennessee." (12/18/14 FMPC 7-0; 01/13/15 WS)

Sponsors: Ald. Ann Petersen

Attachments: 4686 October Park Development Plan Map

October Park Development Plan 12.4.2014

4686 October Park DP Conditions of Approval

Res 2014-96 October Park Development Plan

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

9. 14-737 Consideration of Ordinance 2014-47, To Be Entitled "An Ordinance to Rezone +/- 195.5 Acres from Specific Development - Residential District (SD-R 1.72) to Specific Development - Residential District (SD-R 1.91) for the Property Located at 4133 South Carothers Road (Waters Edge PUD Subdivision) by the City of Franklin, Tennessee." (12/18/14 FMPC 7-0; 02/10/15 BOMA 8-0) THIRD AND FINAL READING

Sponsors: Ald. Ann Petersen

Attachments: 4726 Waters Edge Rezoning Map

WATERS EDGE REZONING_12.4.2014

Ord 2014-47 ORDINANCE Waters Edge Rezoning New

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

10. 14-741 PUBLIC HEARING: Consideration of Resolution 2014-98, To Be Entitled "A Resolution Approving a Development Plan for Waters Edge PUD Subdivision, Located at 4413 South Carothers Road, by the City of Franklin, Tennessee." (12/18/14 FMPC 7-0; 01/13/15 WS)

Sponsors: Ald. Ann Petersen

Attachments: 4725 Waters Edge DP and Rezoning Map

WATERS EDGE DEV PLAN REV3_12.4.2014

4725 Waters Edge DP Conditions of Approval

Res 2014-94 Waters Edge Development Plan Rev 3 BOMA

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

11. 14-712 Consideration of Ordinance 2014-37, Amending the Zoning Ordinance by Removing Section 2.4.2 (11) Entitled Amendments or Revisions Approving Development Plan or (PUD) Concept Plan or PUD Regulating Plan and Section 2.4.2 (12) Entitled PUD's Approved between July 1, 2008 and January 10, 2012, and to Replace with a New Section 2.4.2 (11) to be Entitled Amendment or Revisions to an Approved PUD Development Plan, Concept Plan or Regulating Plan and to Renumber Successive Sections Accordingly. (12/18/14 FMPC 7-0) THIRD AND FINAL READING (03/10/15 BOMA 8-0)

Sponsors: Ald. Ann Petersen

Attachments: Ordinance 2014-37 FINAL.docx

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

12. 14-720 Consideration of Ordinance 2014-42, To Be Entitled "An Ordinance to Rezone 17.29 Acres from General Commercial District (GC) and General Office District (GO) to Specific Development - Variety (SD-X 3.39/68,961) for Property Located at 1127 Murfreesboro Road [TOWNSHIP], by the City of Franklin, Tennessee." (12/18/14 FMPC 5-2, 02/24/15 BOMA 5-2) THIRD AND FINAL READING.

Sponsors: Ald. Ann Petersen

Attachments: Ord 2014-42 ORDINANCE Township Rezoning
4717 TOWNSHIP rezoning MAP
4717 Township/Serena Plan

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably with a split vote to the Work Session

13. 14-721 PUBLIC HEARING: Consideration of Resolution 2014-93, To Be Entitled "A Resolution Approving a Development Plan for the Township PUD Subdivision, Located at 1127 Murfreesboro Road, by the City of Franklin, Tennessee." (12/18/14 FMPC 6-1; 01/13/2015 WS)

Sponsors: Ald. Ann Petersen

Attachments: Res 2014-93 Township DP Resolution
4718 Township Dev Plan MAP
Conditions of Approval 4718
Will Sq-Township/Serena Dev Plan set

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably with a split vote to the Work Session

14. 14-728 PUBLIC HEARING: Consideration of Resolution 2014-95, To Be Entitled "A Resolution Approving a Development Plan for the Franklin Housing Authority - Reddick Street Development Phase 2 PUD Subdivision with One Modification of Standards (MOS 1 - Minimum Parking Requirements), Located at 145 Strahl Street, by the City of Franklin, Tennessee." (12/18/14 FMPC 7-0; 01/13/15 WS)

Sponsors: Ald. Ann Petersen

Attachments: 4711 FHA Dev Plan MAP
Res 2014-95 Franklin Housing Authority DP Resolution
Conditions of Approval_4711
Revised Development Plan

Legislative History

12/18/14	Franklin Municipal Planning Commission	recommended favorably to the Board of Alderman and to the Work Session

15. 15-0055 *Consideration of Resolution No. 2014-77; A Resolution to Approve the Letter of Intent with GE Water & Process Technologies for the Purchase of the Hollow Fiber Membrane Filtration System Equipment for the Franklin Water Treatment Plant and Authorize the City Engineer to Execute the Final Purchase Contract (COF Contract No. 2014-0269) and Revise Final Equipment Purchase Without Seeking Approval from the Board of Mayor and Aldermen.

Sponsors: David Parker

Attachments: Letter of Intent for GE Membranes Final 12-24-14.docx
Resolution 2014-77 Approving GE Letter Of Intent & City Eng to Execute.docx
Res. 2014-77 Exhibit B 12-29-14.doc
Res 2014-77 Exhibit A 12-30-14.pdf

16. 14-680 Consideration of Resolution 2014-84 - A Resolution Authorizing Condemnation for the Acquisition of Property for the Curd Branch and Watson Branch Sanitary Sewer Improvements Project (01/13/15 WS)

Sponsors: Paul Holzen

Attachments: Res 2014-84 Map
Res 2014-84 Exhibit A
Res 2014-84 Condemnation of properties in Watson Branch sewer basin

17. 14-681 Consideration of Resolution 2014-87 - A Resolution to Adopt the Southwest Basins No. 2 & No. 3 Sanitary Sewer System Study of August 2014 (01/13/15 WS)

Sponsors: David Parker and Paul Holzen

Attachments: Res 2014-87 Southwest Basins 2&3 Study Adopt
SW Basins 2 & 3 August 2014

18. 14-685 Consideration of Resolution 2014-85 - A Resolution Authorizing Condemnation for the Acquisition of Property for the Spencer Creek at Franklin Road Sanitary Sewer Rehabilitation Project (01/13/15 WS)

Sponsors: David Parker and Paul Holzen

19. 14-716 Consideration of Resolution 2014-94 - A Resolution to Fund the Final Design of McEwen Drive Phase IV Improvements (Cool Springs Blvd to Wilson Pike) (01/13/15 WS)

Sponsors: Paul Holzen

Attachments: Res 2014-94 McEwen Dr Ph 4 Design Funding
Res 2014-94 McEwenDrPh4 Design Funding - Exhibit A

20. 15-0008 Consideration of Road Impact Fee Offset Agreement - As Amended (COF Contract 2014-0116) with Embrey Partners, Ltd for the Construction of a Traffic Signal at the Intersection of Cool Springs Blvd and Windcross Court in the amount of $156,761.18. (01/13/15 WS)

Sponsors: David Parker and Paul Holzen

Attachments: COF 2014-0116 Artessa - Impact Fee Agreement - As Amended Exhibit B

COF 2014-0116 Artessa Offset Agreement Exhibit A

COF 2014-0116 Artessa - Impact Fee Agreement - As Amended

21. 15-0011 Consideration of Right-of-Way Use Agreement (COF Contract No. 2014-0297) with Windstream KDL, Inc. (01/13/15 WS)

Sponsors: David Parker and Paul Holzen

Attachments: Franklin TN Fiber City Boundaries.pdf

COF 2014-0297 Signed Agreement 12-16-14.pdf

22. 14-722 Consideration Of Contract Award To Lifesigns / The Prevention Group Of Brentwood, TN In The Total Estimated Annual Amount Of $72,685 For Firefighter Annual Physical Medical Exam Services For Uniformed Personnel Of The Franklin Fire Department For A Term Of Award Of Three (3) Years, With Two (2) Options To Extend The Term Of Award, Each Time For Up To One (1) Additional Year, For A Maximum Possible Term Of Award Of Five (5) Years Total (Purchasing Office Procurement Solicitation No. 2015-011; $105,850 Budgeted In 110-82250-42200 For Fiscal Year 2015 For Physicals And Preventive Medical Care; Contract No. 2014-0347) Deferred from 01/13/15 BOMA

Sponsors: Rocky Garzarek

Attachments: 2015-011 Tabulation of Proposals

23. 14-723 Consideration Of Bid Award To North America Fire Equipment Co., Inc. Of Decatur, AL In The Total Amount Of $56,614.34 For Supply And Delivery Of The Specified Quantities, Makes And Models Of Firefighting Nozzles And Hydrant Wyes For The Fire Department (Purchasing Office Procurement Solicitation No. 2015-017; $60,000 Budgeted In 110-83530-42200 For Fiscal Year 2015; Contract No. 2014-0346) (01/13/15 WS)

Sponsors: Rocky Garzarek

Attachments: 2015-017 Bid Tab

2014-0346 Procurement Agreement, signed for NAFECO

24. 15-0045 A RESOLUTION AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE THE VARIOUS ASPECTS OF THE TEMPORARY FIRE STATION No. 7 PROJECT WITHIN A PROJECT BUDGET OF $150,000

Sponsors: Rocky Garzarek and Brad Wilson

Attachments: Temporary Fire Station 7 Project Budget 1-12-15

Temporary Fire Station 7 - Resolution - 1-13-15

25. 15-0020 Consideration of Contract 2014-0329, an agreement for the conveyance and dedication of in-kind property or cash donation for the future Goose Creek area Fire Hall - Station 7. (01/13/15 WS).

Sponsors: Eric Stuckey and Vernon Gerth

Attachments: Deed of Fire Station Site to City of Franklin (Lot 199 Section 4 Berry .doc

2014-0329

26. 14-724 Consideration of recommendation to reject bid to remove and replace existing pedestrian-type hand railing mounted on top of loading area ingress and egress retaining walls with new railing and to install new pipe bollards, all at the City's solid waste transfer station, for the Disposal Division of the Sanitation and Environmental Services Department (Purchasing Office Procurement Solicitation No. 2015-018) (01/13/15 WS)

Sponsors: Becky Caldwell and Brad Wilson

Attachments: 2015-018 Bid Tab

27. 15-0046 Consideration Of A Request By The Franklin Housing Authority (FHA) For A Commitment Of An Allocation In The FY 2016 Budget To Off-Set A Portion Of The Sanitary Sewer And Water Development Fees (Access, System Development, Tap, And Effluent Fees) For Phase II Of The Reddick Redevelopment Project (Continued From 1/13/15 Worksession.

Sponsors: Eric Stuckey and Vernon Gerth

Attachments: BOMA Letter of Request Reddick-12-18-14-final.docx

BOMA Letter FHA Attachment 12-18-14.docx

28. 15-0058 Assessment of Two City of Franklin Cemeteries

Sponsors: Lisa Clayton

Attachments: RC559 Franklin Cemeteries Final.pdf

Other Business

Adjournment

Anyone requestiong accommodations due ti disabilities should contact ADA coordinator at 550-5721.

RESOLUTION N0. 2015-03

A RESOLUTION OF THE BOARD OF MAYOR AND ALDERMEN OF THE CITY OF FRANKLIN, TENNESSEE, TO EXPRESS SUPPORT FOR THE MAINTENANCE OF CURRENT TROOP LEVELS AT FORT CAMPBELL AND TO URGE CONGRESS TO OPPOSE ANY REDUCTIONS.

WHEREAS, in June 2014, the U.S. Army Environmental Command issued a Supplemental Programmatic Environmental Assessment (SPEA) report stating that a reduction of 140,000 troops plus associated civilian reductions will be needed to achieve the savings required by the Budget Control Act of 2011 (Pub. L. 112-25) if sequester cuts to the defense budget are reinstated in 2016; and

WHEREAS, the impact to Fort Campbell would be devastating, as its total military population of 31,092 would be reduced by 7,000 troops, representing twenty-two percent of the total service members stationed there, with a possible loss of more than 15,000 active duty troops by 2020; and

WHEREAS, the largest employer in both Tennessee and Kentucky, Fort Campbell is the region's biggest economic driver, with an overall annual impact of $4.4 billion; and

WHEREAS, the enactment of such drastic cuts to Fort Campbell would result in staggering fiscal consequences, with yearly income in the area expected to fall by 7.7 percent or $986.6 million annually, with significant sales tax receipt losses of between $7.4 million and $11.6 million in both Tennessee and Kentucky; and

WHEREAS, these projected cuts would cause a possible population loss of 58,590 individuals, closure of ten schools, and 16,500 empty dwellings in the Fort Campbell region, as private sector jobs would be lost in construction, real estate, and education, in addition to the military and civilian post-based job losses, forcing individuals and families to relocate to find employment; and

WHEREAS, with seventy percent of those working at Fort Campbell residing off post, reductions to troop levels will not only be catastrophic to the local housing market but deeply damaging to local property tax collections and local government services; and

WHEREAS, the impact to the Clarksville-Montgomery County School System would be dire, as the projected cuts would reduce enrollment by about 8,500 students and necessitate the closure of two high schools, two middle schools, and six elementary schools, plus the elimination of 1,147 jobs; and

WHEREAS, under such circumstances, Montgomery County would be paying millions of dollars for school buildings it no longer needs after issuing fifteen-year revenue bonds to construct additional schools annually to keep up with growth in recent years; and

WHEREAS, nearby Austin Peay State University, the fastest-growing public university in the State of Tennessee, would also experience a heavy fiscal blow, as 20% of the students at the institution are military-connected and have accounted for more than $29 million in tuition and fee revenues over the past three years; and

WHEREAS, the value of Fort Campbell to the Department of the Army and the security of the United States is paramount, as the post is not only one of the most deployed installations in the country, but also strategically geographically located to be accessible by rail, water, air, or land, allowing these well-trained troops to be ready to accommodate a variety of missions on short notice; and

WHEREAS, the Volunteer State takes great pride in supporting our military men and women as they selflessly serve their fellow Americans in the United States Armed Forces, and is proud to stand by them in opposition to actions that would put our great nation at risk; now, therefore:

BE IT RESOLVED BY THE Board of Mayor and Aldermen of Franklin, Tennessee, that we strongly support the maintenance of current troop levels at Fort Campbell and express our strong opposition to any effort to reduce the personnel strength of the base and its operations.

BE IT FURTHER RESOLVED that we respectfully urge Congress to oppose any measure that would reduce current troop levels at Fort Campbell and ultimately harm the military readiness of the United States.

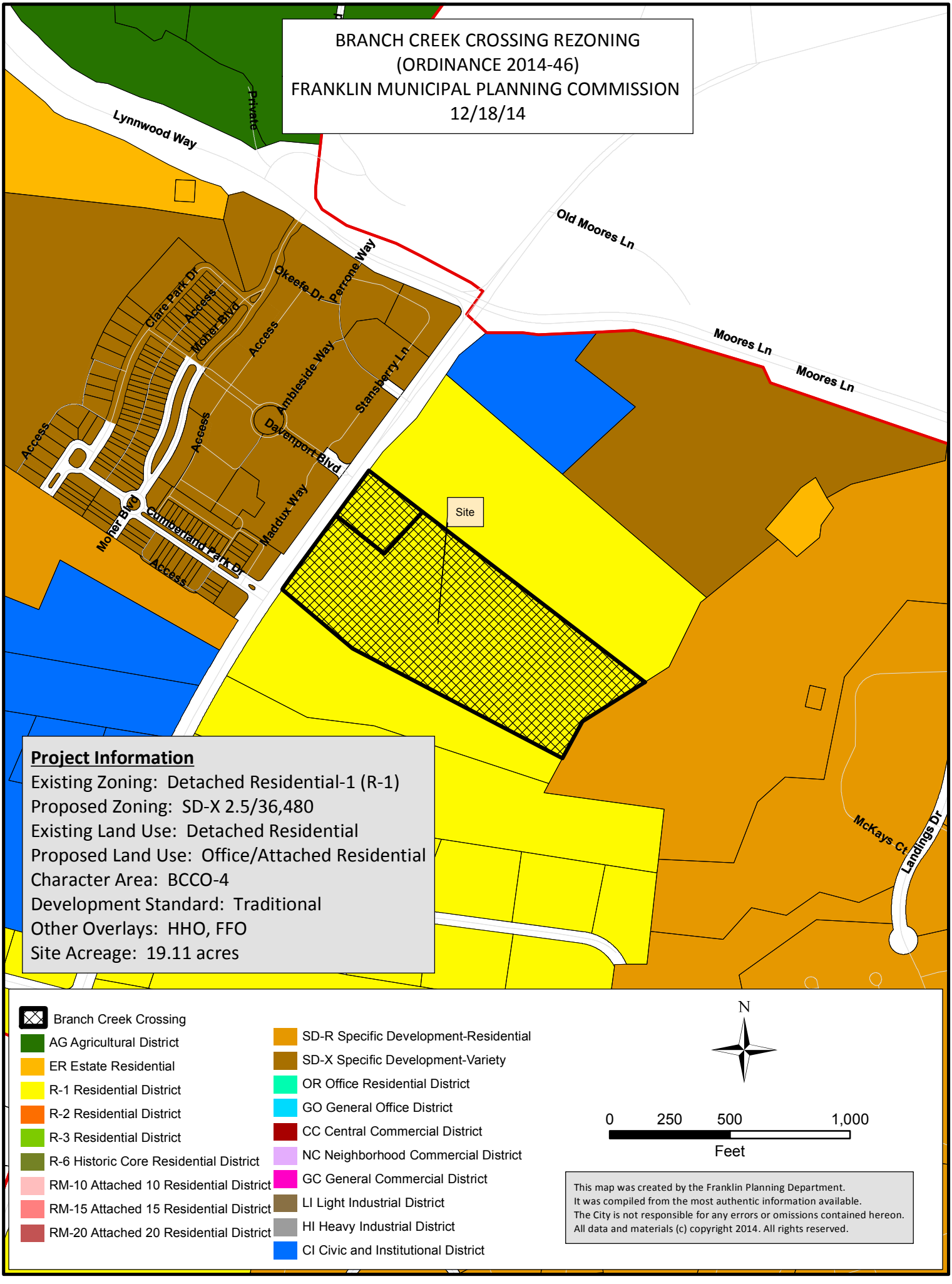
BE IT FURTHER RESOLVED, that appropriate copies of this resolution be prepared and transmitted to the President of the United States Senate, the Speaker of the United States House of Representatives, and each member of the Tennessee Congressional delegation.

ADOPTED on _____.

_____

Attest:

_____


BRANCH CREEK CROSSING REZONING
(ORDINANCE 2014-46)
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Lynnwood Way
Private
Old Moores Ln
Moores Ln
Moores Ln
Perrone Way
Okeefe Dr
Clare Park Dr
Access
Moher Blvd
Access
Ambleside Way
Stansberry Ln
Davenport Blvd
Access
Access
Moher Blvd
Cumberland Park Dr
Maddux Way
Access
Site
McKays Ct
Landings Dr
Project Information
Existing Zoning: Detached Residential-1 (R-1)
Proposed Zoning: SD-X 2.5/36,480
Existing Land Use: Detached Residential
Proposed Land Use: Office/Attached Residential
Character Area: BCCO-4
Development Standard: Traditional
Other Overlays: HHO, FFO
Site Acreage: 19.11 acres
Branch Creek Crossing
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0 250 500 1,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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ORDINANCE 2014-46

TO BE ENTITLED "AN ORDINANCE TO REZONE 19.11 ACRES FROM DETACHED RESIDENTIAL 1 (R-1) TO SPECIFIC DEVELOPMENT-VARIETY DISTRICT (SD-X 2.5/36,480) FOR THE PROPERTY LOCATED AT 574 & 580 FRANKLIN ROAD."

WHEREAS, the City of Franklin, Tennessee encourages responsibly placed density and appropriate base zoning districts for multiple kinds of projects; and

WHEREAS, the proposed SD-X zone would allow for residential development with the maximum density specified.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMAN OF FRANKLIN, TENNESSEE, AS FOLLOWS:

SECTION I: The following described property shall be, and are hereby, rezoned from its present zoning classification of Detached Residential 1 (R-1) to Specific Development-Variety District (SD-X 2.5/36,480):

A tract of land located in the Williamson County, Tennessee, said property being more specifically described as 574 and 580 Franklin Road as recorded in Deed Book 2153, page 880 and Deed Book 310, Page 846 respectively, and tax Map 53 Parcels 75.00 and 75.10 and being more particularly described as follows.

Beginning at an iron pin at the northwest corner of the property, said point being lying along the eastern margin of Highway 31;
Thence with the south property boundary of the shared property line with Brentwood Church of the Nazarene, South 56°15'46" East a distance of 235.20' to point in fence;
Thence with the south property boundary of the shared property line with Brentwood Church of the Nazarene, South 52°21'05" East a distance of 1,281.07' to an iron rod in fence;
Thence severing the shared property line with Brentwood Church of the Nazarene and running with the shared property line of VR Landings at Brentwood, LP, South 51°57'18" East a distance of 103.13 to a point in fence;
Thence with the west property boundary of the shared property line with VR Landings at Brentwood, LP, South 55°15'23" West a distance of 131.61' to an iron rod in fence;
Thence with the west property boundary of the shared property line with VR Landings at Brentwood, LP, South 61°13'17" West a distance of 154.84' to a point in fence;
Thence with the west property boundary of the shared property line with VR Landings at Brentwood, LP, South 44°53'55" West a distance of 132.86' to an iron rod in fence;

Thence severing the shared property line with VR Landings at Brentwood, LP, and running with the shared property line of James F. and Evelyn A. Holloway, North 60°50'44" West a distance of 933.63' to a point in fence;
Thence with the north margin of the shared property line with James F. and Evelyn A. Holloway, North 50°07'58" West a distance of 431.60' to a metal post lying along the eastern margin of Highway 31;
Thence with the east margin of Highway 31, North 36°01'49" East a distance of 604.49' to the point of beginning, having an area of 835,125.21 square feet, 19.11 acres.

Zoning Reference Number: 14-09:

Map-Group-Parcel	Acres
053---07500	±16.36
053---07501	±1.44
TOTAL	±19.11

SECTION II: BE IT FINALLY ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Ordinance shall take effect from and after its passage on third and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST: CITY OF FRANKLIN, TENNESSEE

BY: _____ BY:_____
ERIC S. STUCKEY DR. KEN MOORE
CITY ADMINISTRATOR/RECORDER MAYOR

PLANNING COMMISSION RECOMMENDED APPROVAL: _____

PASSED FIRST READING: _____

PUBLIC HEARING HELD: _____

PASSED SECOND READING: _____

PASSED THIRD READING: _____

Branch Creek Crossing

Rezoning Request

Franklin, Williamson County, Tennessee

Tax Map 53 & Parcels 75.00 & 75.01

Owner: Kevin Belew
Great Tennessee Land Company, LLC
642 Hampstead Lane
Ann Arbor, MI 48103
kbelew@batterseapartners.com

Architect Paul Bass
B-3 Studios
1587 Mallory Ln. Suite 175
Brentwood, TN 37027
615-469-7856
paulb@b3studio.com

Engineer/ Applicant: Tim Turner
Blake Turner
7010 Sharondale Ct.
Brentwood, TN 37027
615-678-8212
blake@t2-eng.com

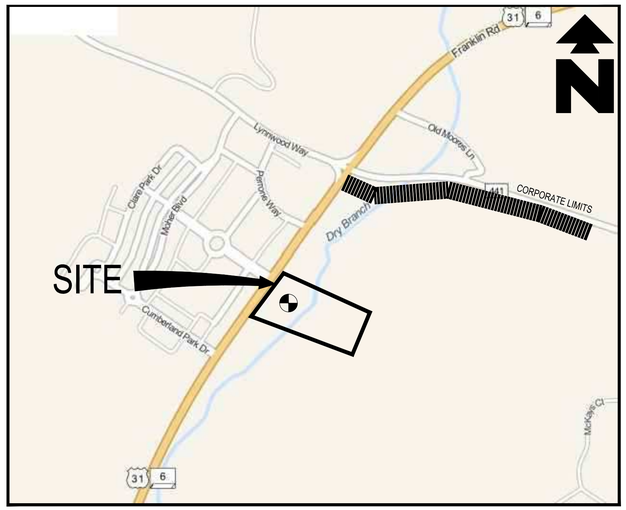
TOPOGRAPHIC BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS WAS PROVIDED BY OTHERS. TSQUARE ENGINEERING AND ITS ASSOCIATES WILL NOT BE HELD RESPONSIBLE FOR ITS ACCURACY OR FOR DESIGN ERRORS OR OMISSIONS RESULTING FROM POTENTIAL SURVEY INACCURACIES.

DETENTION AGREEMENT # _____

TDEC NOTICE OF COVERAGE - TNR#

EROSION CONTROL SPECIALIST -

MOBILE (24HR) PHONE # (---) - -------



VICINITY MAP

N.T.S.

MODIFICATION OF STANDARDS REQUESTED:

1) CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.9.12.3.B REQUIRES LOADING AREAS TO BE LOCATED TO THE REAR OF THE USE THEY SERVE AND ADJACENT TO THE BUILDING IN AN AREA THAT PROMOTES THEIR PRACTICAL USE. THE MODIFICATION OF STANDARD REQUESTED IS THE LOADING AREA TO BE LOCATED TO THE SIDE OF THE CONDOMINIUM BUILDING IN AN AREA THAT PROMOTES ITS PRACTICAL USE FOR THE TENANTS DUE TO THE PARKING GARAGE AND TOPOGRAPHY BEHIND THE CONDOMINIUM BUILDING.

2) CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.10.A.I REQUIRES NO OFF-STREET SURFACE PARKING TO BE LOCATED BETWEEN A BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 95 FOOT SETBACK FROM THE BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.

3) FRANKLIN ROAD (STATE ROUTE 6, US 31) IS FUNCTIONALLY CLASSIFIED BY THE CITY OF FRANKLIN AS A MAJOR ARTERIAL ORIENTED IN THE NORTH-SOUTH DIRECTION PROVIDING A CONNECTION BETWEEN FRANKLIN AND BRENTWOOD. MOORES LANE (STATE ROUTE 441) LYNNWOOD WAY IS FUNCTIONALLY CLASSIFIED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) AS AN URBAN MINOR ARTERIAL. DAVENPORT BOULEVARD SERVES AS THE MAIN ACCESS TO THE GATEWAY DEVELOPMENT ON THE WEST SIDE OF FRANKLIN ROAD. THE PROPOSED SITE PLAN SHOWS ACCESS TO FRANKLIN ROAD AS THE FOURTH LEG OF THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. DAVENPORT BOULEVARD CURRENTLY SERVES AS THE PRIMARY ENTRANCE TO THE EXISTING GATEWAY DEVELOPMENT.

THE TRAFFIC ANALYSIS WAS BROKEN DOWN INTO THREE (3) SEPARATE PHASES. EACH PHASE REPRESENTS A DEVELOPMENT OR ROADWAY PROJECT THAT IS PROJECTED WITHIN THE STUDY AREA. PHASE 1 ANALYZED THE BUILD-OUT IMPACTS OF THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 2 ANALYZED THE BUILD-OUT IMPACTS OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT AND THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 3 ANALYZED THE CAPACITY IMPROVEMENTS PROJECTED FROM THE COMPLETION OF THE FUTURE TDOT FRANKLIN ROAD WIDENING PROJECT WITH THE GENERATED TRAFFIC VOLUMES FROM THE DEVELOPMENTS ADDED TO THE ROADWAY NETWORK.

THE TRAFFIC ANALYSIS PROVIDED INDICATES THAT THE IMPACTS ON THE EXISTING ROADWAY NETWORK WILL BE MANAGEABLE WITH THE PHASED RECOMMENDATIONS PROVIDED BELOW. THESE RECOMMENDATIONS WILL PROVIDE SAFE AND EFFICIENT TRAFFIC OPERATIONS AT THE INTERSECTIONS WITHIN THE VICINITY OF THE PROPOSED DEVELOPMENT

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

SHEET SCHEDULE

C-0.0 COVER SHEET
A-400 EXTERIOR ELEVATIONS
A-400 EXTERIOR ELEVATIONS
C-1.0 SITE DEVELOPMENT PLAN
C-1.1 SITE PHASING PLAN
C-2.0 EXISTING CONDITIONS PLAN
C-3.0 SITE LAYOUT PLAN
C-4.0 EMERGENCY VEHICLE TURNING PLAN
C-5.0 GRADING AND DRAINAGE PLAN
C-6.0 STORMWATER MANAGEMENT PLAN
C-6.1 OFFSITE DRAINAGE AREA PLAN
C-7.0 UTILITY PLAN
C-8.0 TREE PROTECTION PLAN

STREAMSIDE BUFFER ENHANCEMENT
ENHANCEMENT SHALL INCLUDE REMOVAL OF INVASIVE SPECIES AND THE RE-ESTABLISHMENT OF NATIVE SPECIES WHICH PROVIDES A MIX OF CANOPY TREES, UNDERSTORY SHRUBS, AND A NATIVE SEED MIX OF FORBES/GRASSES/SEDGES/RUSHES SUITABLE FOR A MOIST SHADED UNDERSTORY ALONG THE BANKS OF DRY BRANCH CREET.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE 30' RIPARIAN ZONE 1 OR 30' RIPARIAN ZONE 2 STREAM BUFFER EXCEPT AS PERMITTED BY THE CITY ENGINEER.

ENHANCEMENT SHALL BE ABOVE THE NORMAL HIGH WATER MARK ONLY, AND SHALL BE BETWEEN THE NORMAL HIGH WATER MARK WITHIN THE 60 FOOT RIPARIAN BUFFER.

NOTE:
FEES IN LIEU ARE REQUESTED FOR PARKLAND DEDICATION REQUIREMENTS:

35 UNITS X 1,200 SF = 42,000 SF
13 UNITS X 600 SF = 7,800 SF
42,000 SF + 7,800 SF = 49,800 SF OR 1.14 ACRES
FEES SHALL BE PAID AT FINAL PLAT STAGE

NOTE:
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT PERMITTED BY THE CITY ENGINEER.

A PORTION OF THIS PROPERTY IS LOCATED WITHIN AN AREA ZONE AE AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F, DATED SEPTEMBER 29, 2006 AND A PORTION OF THE PROPERTY IS LOCATED WITHIN AND AREA ZONE X AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F DATED SEPTEMBER 29, 2006

NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

NO.	DATE	REVISIONS
1	11-10-2014	REVISED PER PLANNING COMMISSION COMMENTS
2	12-04-14	REVISED PER PLANNING COMMISSION COMMENTS

DATE: 05-20-2014
SCALE: 1" = 40'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING
COVER SHEET
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

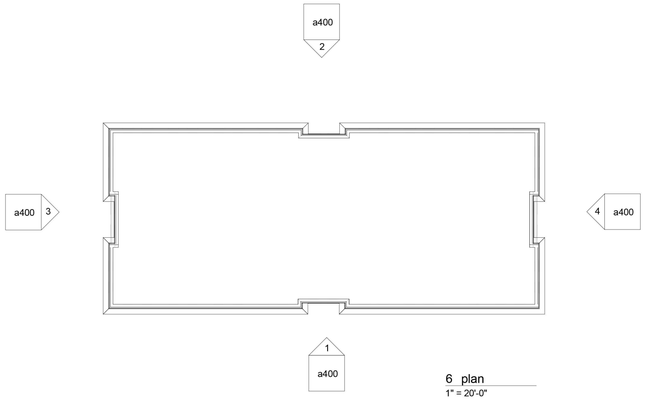
SHEET NUMBER
C-0.0

1 front elevation
1/8" = 1'-0"

2 rear elevation
1/8" = 1'-0"

3 left elevation
1/8" = 1'-0"

4 right elevation
1/8" = 1'-0"



6 plan
1" = 20'-0"

zone 4 - building requirements

ROOFS	
- INSULATION ENTIRELY ABOVE ROOF DECK	R-15ci
WALLS ABOVE GRADE	
- METAL FRAMED AND OTHER	R-13
SLAB-ON-GRADE FLOORS	NR
- UNHEATED SLABS	NR (No Requirement)
OPAQUE DOORS	
- SWINGING DOORS	U - 0.70

zone 4 - fenestration requirements

FRAMING MATERIALS OTHER THAN METAL	
- U-FACTOR	U - 0.40

material legend

- BRICK - TEXAS (ACME)
- BRICK - OLDE WORLD (ACME)
- BRICK - PALOMA GRAY (ACME)
- CUSTOM CAST STONE - TO MATCH LIGHT BUFF SMOOTH (CLOUD CERAMICS)
- FORMGLAS FIBER REINFORCED PLASTIC - FRP - TO MATCH LIGHT BUFF SMOOTH (CLOUD CERAMICS)

planning commission note

THESE ELEVATIONS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE CITY OF FRANKLIN'S ARCHITECTURAL DESIGN STANDARDS AND THE APPROVAL OF THE PLANNING COMMISSION/CITY OF FRANKLIN. CHANGES SHALL NOT BE MADE TO THE APPROVED ELEVATIONS UNLESS APPROVED BY THE CODES DIRECTOR OR THE PLANNING COMMISSION. COF NO.: **4692**

hvac screening

ALL HVAC EQUIPMENT WILL BE PLACED ON THE ROOF AND ADEQUATELY SCREENED BY THE CONTINUOUS PARAPET.

5 3D View front of building

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b3studio inc.
1587 mallory lane, suite 175 || brentwood, tn 37027 || www.b3studio.com

consultants:

project:

branch creek crossing
mixed-use development || 36,00 sf office & 48 unit condo tax map 53 & parcels 75.00 & 75.01 || franklin, tn 37069

revisions:

date: 10 november 2014
project no.: a14025.00

exterior elevations

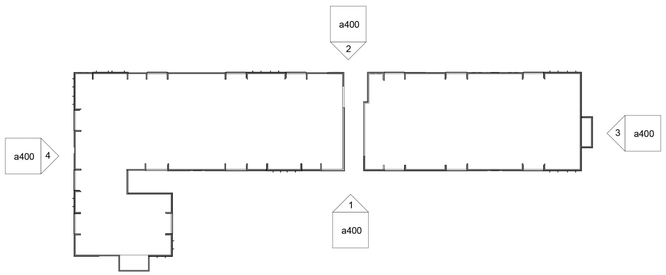
a400

1 front elevation
1/16" = 1'-0"

2 rear elevation
1/16" = 1'-0"

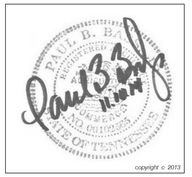
3 right elevation
1/16" = 1'-0"

4 left elevation
1/16" = 1'-0"



5 plan
1" = 50'-0"

6 3D View front of building



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OPAQUE DOORS	
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- CUSTOM CAST STONE LIGHT BUFF SMOOTH
- FORMGLAS FIBER REINFORCED PLASTIC - FRP - TO MATCH LIGHT BUFF SMOOTH (CLOUD CERAMICS)

b3studio inc.
1587 mallory lane, suite 175 || brentwood, tn 37027 || www.b3studio.com

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tax map 53 & parcels 75.00 & 75.01 || franklin, tn 37069

revisions:

date: 10 november 2014
project no.: a14025.00

exterior elevations

a400

PARKING RATIO (BASED ON RESIDENCE UNITS)				
RESIDENCE	UNITS OF BUILDING	REQUIRED PARKING	PROPSED PARKING	REQUIRED RATIO
ONE BEDROOM UNITS	9	14	14	1.5 SPACE/1 BED UNIT
TWO BEDROOM UNITS	18	45	45	2.5 SPACE/2 BED UNIT
THREE BEDROOM UNITS	21	63	63	3 SPACE/3 BED UNIT
TOTAL	48	122	122	

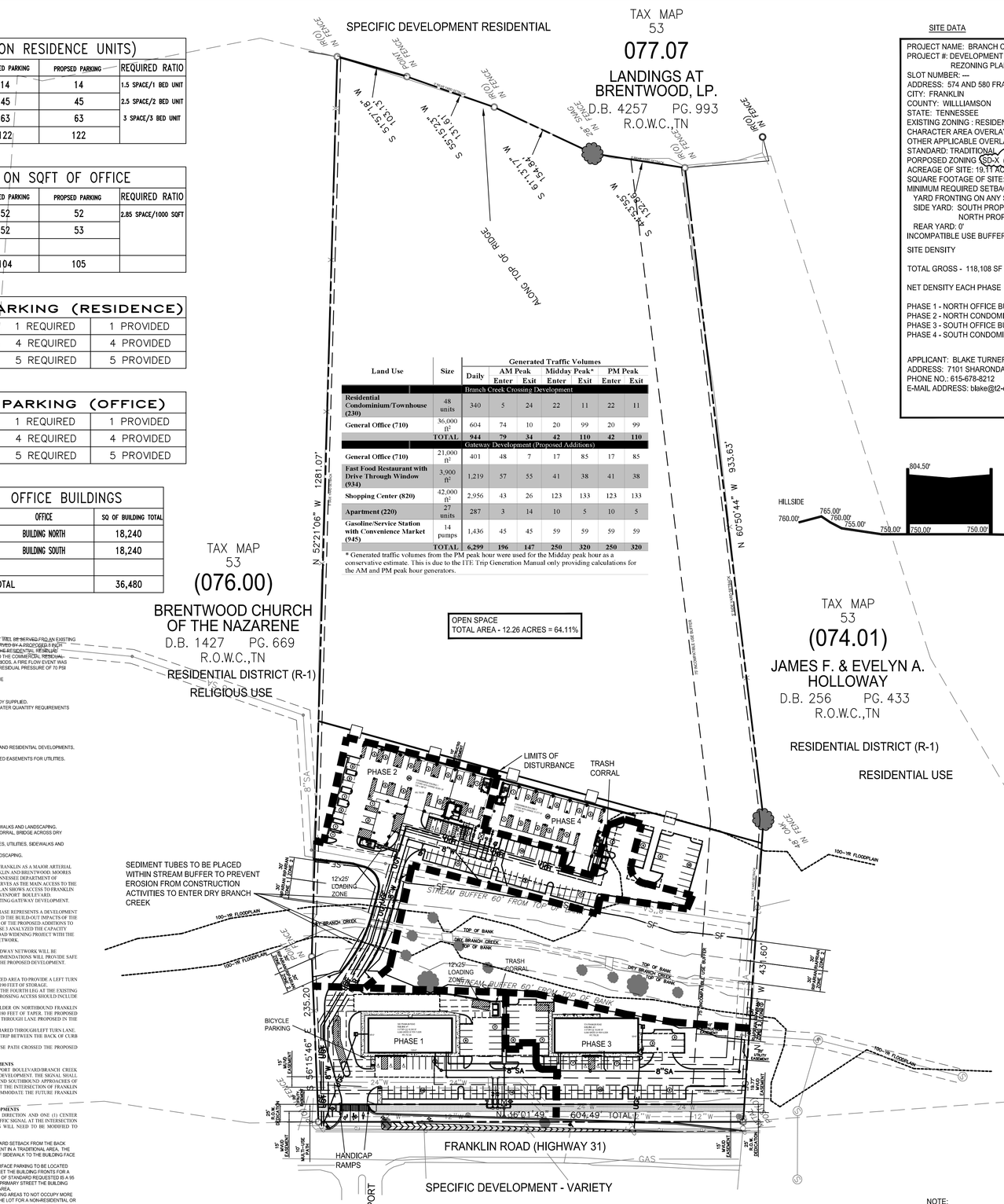
PARKING RATIO (BASED ON SQFT OF OFFICE				
OFFICE	SQ OF BUILDING TOTAL	REQUIRED PARKING	PROPSED PARKING	REQUIRED RATIO
BUILDING NORTH	18,240	52	52	2.85 SPACE/1000 SQFT
BUILDING SOUTH	18,240	52	53	
TOTAL	36,480	104	105	

ACCESSIBLE PARKING (RESIDENCE)		
VAN PARKING	1 REQUIRED	1 PROVIDED
ACCESSIBLE PARKING	4 REQUIRED	4 PROVIDED
TOTAL	5 REQUIRED	5 PROVIDED

ACCESSIBLE PARKING (OFFICE)		
VAN PARKING	1 REQUIRED	1 PROVIDED
ACCESSIBLE PARKING	4 REQUIRED	4 PROVIDED
TOTAL	5 REQUIRED	5 PROVIDED

RESIDENTIAL UNITS	
RESIDENCE	UNITS OF BUILDING
ONE BEDROOM UNITS	9
TWO BEDROOM UNITS	18
THREE BEDROOM UNITS	21
TOTAL	48

OFFICE BUILDINGS	
OFFICE	SQ OF BUILDING TOTAL
BUILDING NORTH	18,240
BUILDING SOUTH	18,240
TOTAL	36,480



DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

Land Use	Size	Generated Traffic Volumes						
		Daily	AM Peak		Midday Peak*		PM Peak	
			Enter	Exit	Enter	Exit	Enter	Exit
Branch Creek Crossing Development								
Residential Condominium/Townhouse (230)	48 units	340	5	24	22	11	22	11
General Office (710)	36,000 ft²	604	74	10	20	99	20	99
TOTAL		944	79	34	42	110	42	110
Gateway Development (Proposed Additions)								
General Office (710)	21,000 ft²	401	48	7	17	85	17	85
Fast Food Restaurant with Drive Through Window (934)	3,900 ft²	1,219	57	55	41	38	41	38
Shopping Center (820)	42,000 ft²	2,956	43	26	123	133	123	133
Apartment (220)	27 units	287	3	14	10	5	10	5
Gasoline/Service Station with Convenience Market (945)	14 pumps	1,436	45	45	59	59	59	59
TOTAL		6,299	196	147	250	320	250	320

* Generated traffic volumes from the PM peak hour were used for the Midday peak hour as a conservative estimate. This is due to the ITE Trip Generation Manual only providing calculations for the AM and PM peak hour generators.

STATEMENT OF IMPACTS

1. WATER FACILITIES: TOTAL ESTIMATED USAGE OF 27,825 GALLONS PER DAY. DEVELOPMENT WILL BE SERVED FROM AN EXISTING 12 INCH WATER LINE ON FRANKLIN ROAD AND THE RESIDENTIAL DEVELOPMENT WILL BE SERVED BY A PROPOSED 8 INCH WATER LINE EXTENSION. MODELS BY MALLORY VALLEY UTILITY DISTRICT INDICATE THAT THE RESIDENTIAL RESIDUAL PRESSURE WILL BE IN THE RANGE OF 85 TO 95 PSI DURING NORMAL SYSTEM DEMANDS AND THE COMMERCIAL RESIDUAL PRESSURES WILL BE IN THE RANGE OF 80 TO 90 PSI DURING NORMAL SYSTEM DEMAND PERIODS. A FIRE FLOW EVENT WAS ALSO CHECKED AT THE END OF THE PROPOSED 8 INCH LINE AND THE MODEL INDICATES A RESIDUAL PRESSURE OF 70 PSI DURING SUCH AN EVENT AT THE END OF THE LINE.
2. SEWER FACILITIES: A PROPOSED 8" SANITARY SEWER LINE IS BEING EXTENDED ACROSS THE PROPERTY TO THE BRENTWOOD CHURCH OF THE NAZARENE. THE PROPOSED DEVELOPMENT WILL TIE TO THE PROPOSED 8" SANITARY SEWER MAIN.
3. RE-PURIFIED WATER FACILITIES - NONE WITHIN THE DEVELOPMENT.
4. DEVELOPMENT WILL REQUIRE RIGHT TURN LANE AND SIGNALIZATION AS PER TRAFFIC STUDY SUPPLIED.
5. DRAINAGE FACILITIES - STORMWATER IS DESIGNED TO MEET THE 80%TSS REMOVAL AND WATER QUANTITY REQUIREMENTS FOR THE CITY OF FRANKLIN.
6. POLICE: 900 COLUMBIA AVENUE
   4.2 MILES (11 MINUTES)
   FIRE: 370 MALLORY STATION ROAD (MALLORY STATION 3)
   2.4 MILES (3 MINUTES)
   RECREATIONAL FACILITY: DRY BRANCH WETLANDS 0.25 MILES (1 MINUTE)
7. REFUSE STORAGE: DEVELOPMENT WILL PROVIDE TRASH CORRALS FOR THE COMMERCIAL AND RESIDENTIAL DEVELOPMENTS. COLLECTION SCHEDULE WILL BE AS SCHEDULED BY GARBAGE COLLECTION COMPANY.
8. RESTRICTIVE COVENANTS, ARCHITECTURAL CONTROLS, GRANTS OF EASEMENTS, PROPOSED EASEMENTS FOR UTILITIES. THE DEVELOPMENT HAS BEEN DESIGNED TO COMPLIMENT THE ADJACENT GATEWAY VILLAGE DEVELOPMENT. THE DEVELOPMENT WILL FOLLOW THE TRADITIONAL DESIGN STANDARDS. TRANSITIONAL FEATURES INCLUDE THE 75' INCOMPATIBLE USE BUFFER ALONG THE SOUTHERN BOUNDARY LINE. THE DEVELOPMENT WILL BE PROVIDING UTILITY EASEMENTS FOR SANITARY SEWER AND WATER MAIN EXTENSIONS AND THE ASSOCIATED GRADING.
9. WILLIAMSON COUNTY SCHOOL SYSTEM
   WALNUT GROVE ELEMENTARY SCHOOL
   BRENTWOOD MIDDLE SCHOOL
   BRENTWOOD HIGH SCHOOL
10. PHASING
    PHASE 1 - 18,240 NORTH OFFICE BUILDING AND RELATED PARKING SPACES, UTILITIES, SIDEWALKS AND LANDSCAPING.
    PHASE 2 - 30 UNIT CONDOMINIUM BUILDING AND ASSOCIATED PARKING, UTILITIES, TRASH CORRAL, BRIDGE ACROSS DRY BRANCH CREEK AND LANDSCAPING.
    PHASE 3 - 18,240 SQUARE FEET SOUTHERN OFFICE BUILDING AND RELATED PARKING SPACES, UTILITIES, SIDEWALKS AND LANDSCAPING.
    PHASE 4 - 18 UNIT CONDOMINIUM BUILDING AND ASSOCIATED PARKING, UTILITIES, AND LANDSCAPING. ELECTRIC UTILITIES AND LANDSCAPES.
11. FRANKLIN ROAD (STATE ROUTE 6, US 31) IS FUNCTIONALLY CLASSIFIED BY THE CITY OF FRANKLIN AS A MAJOR ARTERIAL ORIENTED IN THE NORTH/SOUTH DIRECTION PROVIDING A CONNECTION BETWEEN FRANKLIN AND BRENTWOOD. MOORES LANE/STATE ROUTE 441(LYNNWOOD WAY IS FUNCTIONALLY CLASSIFIED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) AS AN URBAN MINOR ARTERIAL. DAVENPORT BOULEVARD SERVES AS THE MAIN ACCESS TO THE GATEWAY DEVELOPMENT ON THE WEST SIDE OF FRANKLIN ROAD. THE PROPOSED SITE PLAN SHOWS ACCESS TO FRANKLIN ROAD AS THE FOURTH LEG OF THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. DAVENPORT BOULEVARD CURRENTLY SERVES AS THE PRIMARY ENTRANCE TO THE EXISTING GATEWAY DEVELOPMENT.

    THE TRAFFIC ANALYSIS WAS BROKEN DOWN INTO THREE (3) SEPARATE PHASES. EACH PHASE REPRESENTS A DEVELOPMENT OR ROADWAY PROJECT THAT IS PROJECTED WITHIN THE STUDY AREA. PHASE 1 ANALYZED THE BUILD OUT IMPACTS OF THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 2 ANALYZED THE BUILD-OUT IMPACTS OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT AND THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 3 ANALYZED THE CAPACITY IMPROVEMENTS PROJECTED FROM THE COMPLETION OF THE FUTURE TDOT FRANKLIN ROAD WIDENING PROJECT WITH THE GENERATED TRAFFIC VOLUMES FROM THE DEVELOPMENTS ADDED TO THE ROADWAY NETWORK.

    THE TRAFFIC ANALYSIS PROVIDED INDICATES THAT THE IMPACTS ON THE EXISTING ROADWAY NETWORK WILL BE MANAGEABLE WITH THE PHASED RECOMMENDATIONS PROVIDED BELOW. THESE RECOMMENDATIONS WILL PROVIDE SAFE AND EFFICIENT TRAFFIC OPERATIONS AT THE INTERSECTIONS WITHIN THE VICINITY OF THE PROPOSED DEVELOPMENT.

    PHASE 1: BRANCH CREEK CROSSING DEVELOPMENT
    - RESTRIPE THE EXISTING SOUTHBOUND FRANKLIN ROAD LEFT TURN LANE AND CHANNELIZED AREA TO PROVIDE A LEFT TURN INTO THE PROPOSED DEVELOPMENT. THE TURN LANE SHOULD INCLUDE APPROXIMATELY 100 FEET OF STORAGE.
    - ALIGN THE BRANCH CREEK CROSSING ACCESS WITH DAVENPORT BOULEVARD CREATING THE FOURTH LEG AT THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. THE BRANCH CREEK CROSSING ACCESS SHALL INCLUDE ONE (1) SHARED THROUGH/LEFT TURN LANE AND ONE (1) RIGHT TURN LANE.
    - CONSTRUCT A TWELVE (12) FOOT WIDE RIGHT TURN LANE WITH A TWO (2) FOOT SHOULDER ON NORTHBOUND FRANKLIN ROAD. THE TURN LANE SHOULD INCLUDE APPROXIMATELY 100 FEET OF STORAGE AND 180 FEET OF TAPER. THE PROPOSED RIGHT TURN LANE SHALL BE DESIGNED TO ALLOW FOR THE ADDITIONAL NORTHBOUND THROUGH LANE PROPOSED IN THE FRANKLIN ROAD WIDENING PROJECT.
    - RESTRIPE DAVENPORT BOULEVARD TO INCLUDE ONE (1) RIGHT TURN LANE AND ONE (1) SHARED THROUGH/LEFT TURN LANE.
    - INSTALL A TEN (10) FOOT WIDE MULTI-USE PATH WITH A MINIMUM SIX (6) FOOT GRASS STRIP BETWEEN THE BACK OF CURB AND THE MULTI-USE PATH
    - INSTALL ADA COMPLIANT HANDICAP RAMPS AND A CROSSWALK WHERE THE MULTI-USE PATH CROSSED THE PROPOSED BRANCH CREEK CROSSING ACCESS.

    PHASE 2: BRANCH CREEK CROSSING AND GATEWAY DEVELOPMENTS
    - INSTALL A TRAFFIC SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD/BRANCH CREEK CROSSING ACCESS UPON COMPLETION OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT. THE SIGNAL SHALL PROVIDE PROTECTED/PERMITTED LEFT TURN SIGNAL PHASING FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES OF FRANKLIN ROAD. THE SIGNAL SHOULD BE SYNCHRONIZED WITH THE EXISTING SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND MOORES LANE/LYNNWOOD WAY. THE SIGNAL SHALL BE DESIGNED TO ACCOMMODATE THE FUTURE FRANKLIN ROAD WIDENING PROJECT.

    PHASE 3: FUTURE TDOT FRANKLIN ROAD WIDENING AND DEVELOPMENTS
    - FRANKLIN ROAD WILL BE WIDENED TO INCLUDE TWO (2) THROUGH LANES IN EACH DIRECTION AND ONE (1) CENTER TWO-WAY LEFT TURN LANE. AS A RESULT OF THE WIDENING PROJECT THE PROPOSED TRAFFIC SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD/BRANCH CREEK CROSSING ACCESS WILL NEED TO BE MODIFIED TO ACCOMMODATE TWO (2) THROUGH LANES IN EACH DIRECTION.
12. MODIFICATION OF STANDARDS REQUESTED
1) CITY OF FRANKLIN ZONING ORDINANCE SECTION 3.3.4 AND TABLE 3-8 REQUIRES A FRONT YARD SETBACK FROM THE BACK EDGE OF SIDEWALK TO THE BUILDING FACE TO BE 0-15 FEET FOR A MIXED-USE DEVELOPMENT IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 75 FOOT SETBACK FROM THE BACK EDGE OF SIDEWALK TO THE BUILDING FACE DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
2) CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.10.A.II REQUIRES NO OFF-STREET SURFACE PARKING TO BE LOCATED BETWEEN A BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 95 FOOT SETBACK FROM THE BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
3) CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.10.A.IV REQUIRES OFF-STREET PARKING AREAS TO NOT OCCUPY MORE THAN 30 PERCENT OF THE LOT FRONTAGE ADJACENT TO THE PRIMARY STREET SERVING THE LOT FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS THE OFF-STREET PARKING AREA TO OCCUPY 72 PERCENT OF THE LOT FRONTAGE ADJACENT TO THE PRIMARY STREET SERVING THE LOT DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA AS WELL AS THE STREAM BUFFER.
13. REQUEST FOR PAYMENT IN LIEU OF FOR DEDICATION OF PARKS.

SITE DATA

PROJECT NAME: BRANCH CREEK CROSSING
PROJECT #: DEVELOPMENT PLAN COF # 4692
REZONING PLAN COF # 4680
SLOT NUMBER: ---
ADDRESS: 574 AND 580 FRANKLIN ROAD
CITY: FRANKLIN
COUNTY: WILLIAMSON
STATE: TENNESSEE
EXISTING ZONING : RESIDENTIAL DISTRICT (R-1)
CHARACTER AREA OVERLAY : BCCO-4
OTHER APPLICABLE OVERLAYS: TRADITIONAL; FFO/HHO
STANDARD: TRADITIONAL
PORPOSED ZONING SD-X (2.5/36.480) ⚠
ACREAGE OF SITE: 19.11 ACRES EXISTING
SQUARE FOOTAGE OF SITE: 832,556 SQFT
MINIMUM REQUIRED SETBACK LINES:
YARD FRONTING ON ANY STREET: 15'
SIDE YARD: SOUTH PROPERTY LINE: 5'
NORTH PROPERTY LINE: 5'
REAR YARD: 0'
INCOMPATIBLE USE BUFFER: SOUTH SIDE 75'

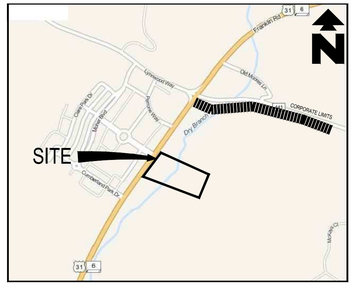
SITE DENSITY

TOTAL GROSS - 118,108 SF BUILDING / 835,556 SF PROPERTY = 0.14

NET DENSITY EACH PHASE

PHASE 1 - NORTH OFFICE BUILDING - 18,240 SF / 835,556 SF = 0.21
PHASE 2 - NORTH CONDOMINIUM BUILDING - 50,051 SF / 835,556 SF = 0.06
PHASE 3 - SOUTH OFFICE BUILDING 18,240 SF / 835,556 SF = 0.21
PHASE 4 - SOUTH CONDOMINIUM BUILDING - 31,577 SF /835,556 SF = 0.04

APPLICANT: BLAKE TURNER, TSQUARE ENGINEERING
ADDRESS: 7101 SHARONDALE CT. BRENTWOOD, TENNESSEE 37027
PHONE NO.: 615-678-8212
E-MAIL ADDRESS: blake@t2-eng.com



VICINITY MAP
N.T.S.

GRAPHIC SCALE
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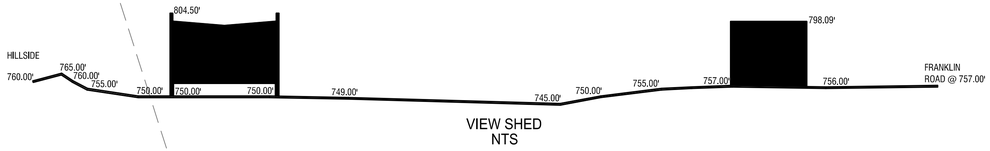
(IN FEET)
1 inch = 80 ft.



PROPERTY OWNERS WITHIN 500 FEET OF DEVELOPMENT

PRCLID	Owner	Property Address	City	State	ZIP
036---05104	GATEWAY VILLAGE DEV INC	120 DAVENPORT BLVD	BRENTWOOD	TN	37027
036---05108	BELL FUND IV FRANKLIN GATEWAY LLC	1340 MOHER BLVD	ATLANTA	GA	30343
036---05112	GATEWAY VILLAGE DEV INC	DAVENPORT BLVD	BRENTWOOD	TN	37027
036---05113	CAMDEN COMMONS PROPERTY OWNERS ASSOC	DAVENPORT BLVD	BRENTWOOD	TN	37027
036---05114	CAMDEN COMMONS PROPERTY OWNERS ASSOC	PERRONE WAY	BRENTWOOD	TN	37027
036---05200	CITY OF FRANKLIN	FRANKLIN RD	FRANKLIN	TN	37065-0305
036---05500	MADDUX WILLIAM F	7007 MOORES LN	SPRING HILL	TN	37174
053---00300	CUMBERLAND PARK LLC	567 FRANKLIN RD	NASHVILLE	TN	37203
053---00301	CAMDEN COMMONS I LLC	121 DAVENPORT BLVD	BRENTWOOD	TN	37027
053---00302	BELL FUND IV FRANKLIN GATEWAY LLC	AMBLESIDE WAY	ATLANTA	GA	30343
053---00500	CHURCH CLEARVIEW BAPTIST	557 FRANKLIN RD	FRANKLIN	TN	37069
053---06500	PARRIS JEFFREY S	1226 COUNTRY RD	FRANKLIN	TN	37069
053---06600	ZHU HUIRONG	1222 COUNTRY RD	MOUNTAIN HOUSE	CA	95391
053---06700	ROVENSTINE JOHN JASON	1218 COUNTRY RD	FRANKLIN	TN	37069
053---07300	ROGERS STEPHEN T	554 FRANKLIN RD	FRANKLIN	TN	37069
053---07401	HOLLOWAY JAMES F	562 -68 FRANKLIN RD	FRANKLIN	TN	37069
053---07500	FAGAN GARY DWAYNE	574 FRANKLIN RD	BRENTWOOD	TN	37027
053---07501	FAGAN MARY Y	580 FRANKLIN RD	FRANKLIN	TN	37069
053---07600	CHURCH BRENTWOOD OF THE NAZARENE	584 FRANKLIN RD	FRANKLIN	TN	37069
053---07707	VR LANDINGS AT BRENTWOOD LP	LANDINGS DR	ADDISON	TX	75001
053B-A00500	BROOKS LAUREN MICHELLE	1024 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A00600	FRASER DOUGLAS DAVID	1022 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A00700	HIDDEN HILLS FAMILY LTD PRTNSHP	1020 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A00800	DOMAN FRANK P	1018 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A00900	LEPPER BOBBY	1016 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01000	WYLIE SUZANNE F	1014 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01100	VAN VICKLE JOHN HAYES	1012 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01200	THORNTON DON TYLER	1010 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01300	YOUNG KIMBERLY W	1000 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01400	JONES CHRISTINA ANNE	1002 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01500	COMBS BEDFORD M	1004 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01600	TAAFFE PAULINE	1006 CUMBERLAND PARK DR	BRENTWOOD	TN	37027
053B-A01700	GATEWAY VILLAGE RESIDENTIAL LLC	CUMBERLAND PARK DR	FRANKLIN	TN	37067
053B-A01800	CAMERON DARELL C	1001 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01900	KEENAN THOMAS C	1003 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02000	REYNOLDS SALLY M	1005 CUMBERLAND PARK DR	BRENTWOOD	TN	37027
053B-A02100	AILOR RACHEL R	1007 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02200	GATEWAY VILLAGE RESIDENTIAL LLC	FRANKLIN RD	FRANKLIN	TN	37067
053B-A02300	TELFER GEORGE CURTISS	1011 CUMBERLAND PARK DR	NASHVILLE	TN	37205
053B-A02400	HIME GEORGE ALLEN	1013 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02500	MISSIRIAN RAPHAEL A & ANAHID MISSIRI	1015 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02600	BULLARO FRANCESCA	1017 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02700	ROSS RICHARD F	1019 CUMBERLAND PARK DR	BRENTWOOD	TN	37027
053B-A02800	WIENCEK TOM C	1021 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02900	MATRAVERS LAURIE M	1023 CUMBERLAND PARK DR	NASHVILLE	TN	37205

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NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

NOTE:
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TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
2-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

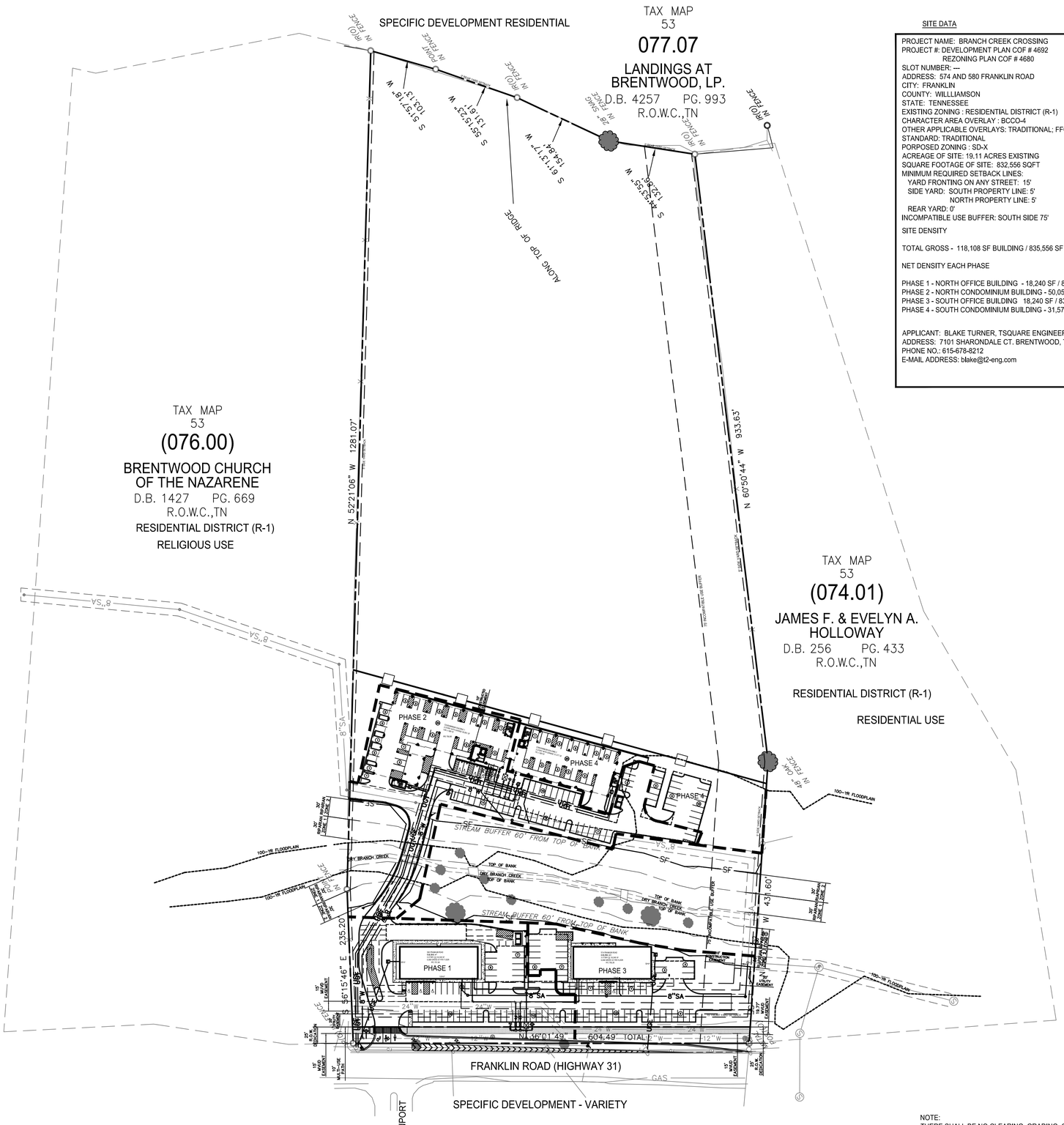
NO.	DATE	REVISIONS
1	11-10-2014	REVISED PER PLANNING COMMISSION COMMENTS
2	12-04-14	REVISED PER PLANNING COMMISSION COMMENTS

DATE: 05-20-2014
SCALE: 1" = 80'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING
SITE DEVELOPMENT PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-1.0



DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

SITE DATA

PROJECT NAME: BRANCH CREEK CROSSING
PROJECT #: DEVELOPMENT PLAN COF # 4692
REZONING PLAN COF # 4680
SLOT NUMBER: ---
ADDRESS: 574 AND 580 FRANKLIN ROAD
CITY: FRANKLIN
COUNTY: WILLIAMSON
STATE: TENNESSEE
EXISTING ZONING : RESIDENTIAL DISTRICT (R-1)
CHARACTER AREA OVERLAY : BCCO-4
OTHER APPLICABLE OVERLAYS: TRADITIONAL; FFO/HHO
STANDARD: TRADITIONAL
PORPOSED ZONING : SD-X
ACREAGE OF SITE: 19.11 ACRES EXISTING
SQUARE FOOTAGE OF SITE: 832,556 SQFT
MINIMUM REQUIRED SETBACK LINES:
YARD FRONTING ON ANY STREET: 15'
SIDE YARD: SOUTH PROPERTY LINE: 5'
NORTH PROPERTY LINE: 5'
REAR YARD: 0'
INCOMPATIBLE USE BUFFER: SOUTH SIDE 75'

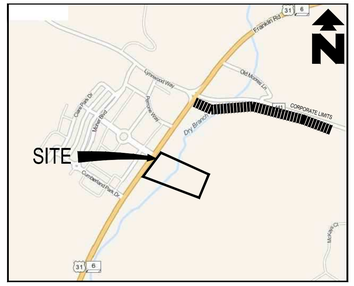
SITE DENSITY

TOTAL GROSS - 118,108 SF BUILDING / 835,556 SF PROPERTY = 0.14

NET DENSITY EACH PHASE

PHASE 1 - NORTH OFFICE BUILDING - 18,240 SF / 835,556 SF = 0.21
PHASE 2 - NORTH CONDOMINIUM BUILDING - 50,051 SF / 835,556 SF = 0.06
PHASE 3 - SOUTH OFFICE BUILDING 18,240 SF / 835,556 SF = 0.21
PHASE 4 - SOUTH CONDOMINIUM BUILDING - 31,577 SF /835,556 SF = 0.04

APPLICANT: BLAKE TURNER, TSQUARE ENGINEERING
ADDRESS: 7101 SHARONDALE CT. BRENTWOOD, TENNESSEE 37027
PHONE NO.: 615-678-8212
E-MAIL ADDRESS: blake@t2-eng.com



VICINITY MAP
N.T.S.

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(IN FEET)
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NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
12-04-14

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BRANCH CREEK CROSSING

SITE PHASING PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-1.1

SPECIFIC DEVELOPMENT RESIDENTIAL

TAX MAP 53
077.07
LANDINGS AT BRENTWOOD, LP.
D.B. 4257 PG. 993
R.O.W.C.,TN

SuE - Sulphura cherty silt loam
20 to 50 percent slopes

BoD - Dodine cherty silt loam
12 to 20 percent slopes

BoC - Bodine cherty silt loam
5 to 12 percent slopes

SuE - Sulphura cherty silt loam
20 to 50 percent slopes

HHO - HILLSIDE/HILLCREST OVERLAY DISTRICT

DeD - Delrose gravelly silt loam
12 to 20 percent slopes, eroded

TAX MAP 53
(076.00)
BRENTWOOD CHURCH OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.C.,TN

RESIDENTIAL DISTRICT (R-1)

EXISTING CHURCH

TREE PROTECTION ZONE

EXISTING SLOPES 20% PLUS

N 52°21'06" W 1271.07'

S 36°15'46" E 135.20'

N 60°50'44" W 933.63'

TAX MAP 53
(074.01)
JAMES F. & EVELYN A. HOLLOWAY
D.B. 256 PG. 433
R.O.W.C.,TN

BERRYS CHAPEL CHARACTER OVERLAY DISTRICT
HILLSIDE/HILLCREST OVERLAY DISTRICT
FLOODWAY FRINGE OVERLAY (FFO) ZONING OVERLAY
TRADITIONAL DEVELOPMENT STANDARDS

RESIDENTIAL DISTRICT (R-1)

DeE - Delrose gravelly silt loam
20 to 30 percent slopes, eroded

LIMITS OF DISTURBANCE

EXISTING SLOPES 14-19%

Rc - Rockland

Ld - Lindside cherty silt loam
phosphatic

LIMITS OF DISTURBANCE

32" TREE (FAIR)
24" TREE (FAIR)
30" TREE (FAIR)
36" TREE DOUBLE TRUNK (POOR)
38" TREE (FAIR)
EXISTING BARN
26" TREE, DOUBLE TRUNK (FAIR)
32" TREE (FAIR)
15" TREE (POOR)
16" TREE (POOR)
18" TREE (FAIR)
22" TREE (FAIR)
36" TREE (FAIR)
48" TREE DOUBLE TRUNK (FAIR)
28" TREE (FAIR)
18" TREE (FAIR)
15" TREE (FAIR)
12" TREES (FAIR)
20" TREE (POOR)
15" TREE (FAIR)
12" TREE (FAIR)
22" TREE (FAIR)
22" TREE (FAIR)
14" TREE (FAIR)
36" TREE (FAIR)
48" TREE (POOR)
24" TREE (POOR)
13"& 14" TREE DOUBLE TRUNK (POOR)
22" TREE (FAIR)
38" TREE (POOR)
15" TREE (POOR)

TREE PROTECTION ZONE

PROPERTY BOUNDARY

DRY BRANCH CREEK

100-YR FLOODPLAIN

FFO - FLOODWAY FRINGE OVERLAY DISTRICT WITHIN 100-YR FLOODPLAIN

STREAM BUFFER 60' FROM TOP OF BANK

EXISTING BUILDING

EXISTING GARAGE

EXISTING SLOPES 20% PLUS

DRY BRANCH WETLAND

Ara - Armour silt loam
0 to 2 percent slopes

N 36°01'49" E 604.49' TOTAL

EXISTING SANITARY SEWER

OVERHEAD ELECTRIC

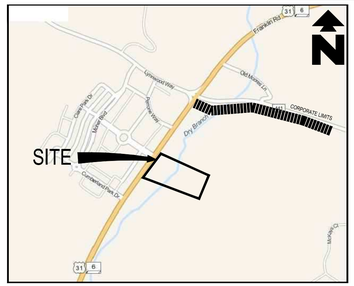
VARIOUS TREES FROM 6" TO 18" (FAIR)

FRANKLIN ROAD (HIGHWAY 31)

DAVENPORT BLVD.

SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680



VICINITY MAP
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(IN FEET)
1 inch = 80 ft.

TABLE 5-2: TREE CANOPY RETENTION STANDARDS
EXISTING TREE CANOPY - 60% - 79%
MINIMUM REQUIRED TREE CANOPY RETENTION BY ZONING - SD-X 18%
EXISTING TREE CANOPY COVER - 63.32%
PROPOSED TREE CANOPY COVER - 63.32%
TREE REPALCEMENT 2" REPLACEMENT FOR EVERY 1" REMOVED

MINERAL RIGHTS WILL BE HELD BY THE PROPERTY OWNER

EXISTING SITE SUMMARY
TOTAL SITE AREA - 19.17 ACRES
SITE USE - RESIDENTIAL
TOTAL RESIDENTIAL USE - 19.17 ACRES

NOTE:
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NOTE:
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TIMOTHY E. TURNER
REGISTERED ENGINEER
AGRICULTURAL
COMMERCIAL
No. 101615
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
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BRANCH CREEK CROSSING
EXISTING CONDITIONS PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
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SITE DENSITY

TOTAL GROSS - 118,108 SF BUILDING / 835,556 SF PROPERTY = 0.14

NET DENSITY EACH PHASE

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PHASE 4 - SOUTH CONDOMINIUM BUILDING - 31,577 SF /835,556 SF = 0.04

Land Use	Size	Generated Traffic Volumes						
		Daily	AM Peak		Midday Peak*		PM Peak	
			Enter	Exit	Enter	Exit	Enter	Exit
Branch Creek Crossing Development								
Residential Condominium/Townhouse (230)	48 units	340	5	24	22	11	22	11
General Office (710)	36,000 ft²	604	74	10	20	99	20	99
TOTAL		**944**	**79**	**34**	**42**	**110**	**42**	**110**
Gateway Development (Proposed Additions)								
General Office (710)	21,000 ft²	401	48	7	17	85	17	85
Fast Food Restaurant with Drive Through Window (934)	3,900 ft²	1,219	57	55	41	38	41	38
Shopping Center (820)	42,000 ft²	2,956	43	26	123	133	123	133
Apartment (220)	27 units	287	3	14	10	5	10	5
Gasoline/Service Station with Convenience Market (945)	14 pumps	1,436	45	45	59	59	59	59
TOTAL		**6,299**	**196**	**147**	**250**	**320**	**250**	**320**

* Generated traffic volumes from the PM peak hour were used for the Midday peak hour as a conservative estimate. This is due to the ITE Trip Generation Manual only providing calculations for the AM and PM peak hour generators.

STATEMENT OF IMPACTS

1. WATER FACILITIES: TOTAL ESTIMATED USAGE OF 27,525 GALLONS PER DAY. DEVELOPMENT WILL BE SERVED FRO AN EXISTING 12 INCH WATER LINE ON FRANKLIN ROAD AND THE RESIDENTIAL DEVELOPMENT WILL BE SERVED BY A PROPOSED 8 INCH WATER LINE EXTENSION. MODELS BY MALLORY VALLEY UTILITY DISTRICT INDICATE THAT THE RESIDENTIAL RESIDUAL PRESSURE WILL BE IN THE RANGE OF 85 TO 95 PSI DURING NORMAL SYSTEM DEMANDS AND THE COMMERCIAL RESIDUAL PRESSURES WILL BE IN THE RANGE OF 80 TO 90 PSI DURING NORMAL SYSTEM DEMAND PERIODS. A FIRE FLOW EVENT WAS ALSO CHECKED AT THE END OF THE PROPOSED 8 INCH LINE AND THE MODEL INDICATES A RESIDUAL PRESSURE OF 70 PSI DURING SUCH AN EVENT AT THE END OF THE LINE.
2. SEWER FACILITIES: A PROPOSED 8" SANITARY SEWER LINE IS BEING EXTENDED ACROSS THE PROPERTY TO THE BRENTWOOD CHURCH OF THE NAZARENE. THE PROPOSED DEVELOPMENT WILL TIE TO THE PROPOSED 8" SANITARY SEWER MAIN.
3. RE-PURIFIED WATER FACILITIES - NONE WITHIN THE DEVELOPMENT.
4. DEVELOPMENT WILL REQUIRE RIGHT TURN LANE AND SIGNALIZATION AS PER TRAFFIC STUDY SUPPLIED.
5. DRAINAGE FACILITIES - STORMWATER IS DESIGNED TO MEET THE 80%TSS REMOVAL AND WATER QUANTITY REQUIREMENTS FOR THE CITY OF FRANKLIN.
6. POLICE: 900 COLUMBIA AVENUE
   4.2 MILES (11 MINUTES)
   FIRE: 370 MALLORY STATION ROAD (MALLORY STATION 3)
   2.4 MILES (5 MINUTES)
   RECREATIONAL FACILITY: DRY BRANCH WETLANDS 0.25 MILES (1 MINUTE)
7. REFUSE STORAGE: DEVELOPMENT WILL PROVIDE TRASH CORRALS FOR THE COMMERCIAL AND RESIDENTIAL DEVELOPMENTS, COLLECTION SCHEDULE WILL BE AS SCHEDULED BY GARBAGE COLLECTION COMPANY.
8. RESTRICTIVE COVENANTS, ARCHITECTURAL CONTROLS, GRANTS OF EASEMENTS, PROPOSED EASEMENTS FOR UTILITIES.
   THE DEVELOPMENT HAS BEEN DESIGNED TO COMPLIMENT THE ADJACENT GATEWAY VILLAGE DEVELOPMENT, THE DEVELOPMENT WILL FOLLOW THE TRADITIONAL DESIGN STANDARDS. TRANSITIONAL FEATURES INCLUDE THE 75' INCOMPATIBLE USE BUFFER ALONG THE SOUTHERN BOUNDARY LINE.
   THE DEVELOPMENT WILL BE PROVIDING UTILITY EASEMENTS FOR SANITARY SEWER AND WATER MAIN EXTENSIONS AND THE ASSOCIATED GRADING.
9. WILLIAMSON COUNTY SCHOOL SYSTEM
   WALNUT GROVE ELEMENTARY SCHOOL
   BRENTWOOD MIDDLE SCHOOL
   BRENTWOOD HIGH SCHOOL
10. PHASING
    PHASE 1 - 18,240 NORTH OFFICE BUILDING AND RELATED PARKING SPACES, UTILITIES, SIDEWALKS AND LANDSCAPING.
    PHASE 2 - 30 UNIT CONDOMINIUM BUILDING AND ASSOCIATED PARKING, UTILITIES, TRASH CORRAL, BRIDGE ACROSS DRY BRANCH CREEK AND LANDSCAPING.
    PHASE 3 - 18,240 SQUARE FEET SOUTHERN OFFICE BUILDING AND RELATED PARKING SPACES, UTILITIES, SIDEWALKS AND LANDSCAPING.
    PHASE 4 - 18 UNIT CONDOMINIUM BUILDING AND ASSOCIATED PARKING, UTILITIES, AND LANDSCAPING.
    ELECTRIC UTILITIES AND LANDSCAPES.
11. FRANKLIN ROAD (STATE ROUTE 6, US 31) IS FUNCTIONALLY CLASSIFIED BY THE CITY OF FRANKLIN AS A MAJOR ARTERIAL ORIENTED IN THE NORTH-SOUTH DIRECTION PROVIDING A CONNECTION BETWEEN FRANKLIN AND BRENTWOOD. MOORES LANE (STATE ROUTE 441) LYNNWOOD WAY IS FUNCTIONALLY CLASSIFIED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) AS AN URBAN MINOR ARTERIAL. DAVENPORT BOULEVARD SERVES AS THE MAIN ACCESS TO THE GATEWAY DEVELOPMENT ON THE WEST SIDE OF FRANKLIN ROAD. THE PROPOSED SITE PLAN SHOWS ACCESS TO FRANKLIN ROAD AS THE FOURTH LEG OF THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. DAVENPORT BOULEVARD CURRENTLY SERVES AS THE PRIMARY ENTRANCE TO THE EXISTING GATEWAY DEVELOPMENT.

THE TRAFFIC ANALYSIS WAS BROKEN DOWN INTO THREE (3) SEPARATE PHASES. EACH PHASE REPRESENTS A DEVELOPMENT OR ROADWAY PROJECT THAT IS PROJECTED WITHIN THE STUDY AREA. PHASE 1 ANALYZED THE BUILD-OUT IMPACTS OF THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 2 ANALYZED THE BUILD-OUT IMPACTS OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT AND THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 3 ANALYZED THE CAPACITY IMPROVEMENTS PROJECTED FROM THE COMPLETION OF THE FUTURE TDOT FRANKLIN ROAD WIDENING PROJECT WITH THE GENERATED TRAFFIC VOLUMES FROM THE DEVELOPMENTS ADDED TO THE ROADWAY NETWORK.

THE TRAFFIC ANALYSIS PROVIDED INDICATES THAT THE IMPACTS ON THE EXISTING ROADWAY NETWORK WILL BE MANAGEABLE WITH THE PHASED RECOMMENDATIONS PROVIDED BELOW. THESE RECOMMENDATIONS WILL PROVIDE SAFE AND EFFICIENT TRAFFIC OPERATIONS AT THE INTERSECTIONS WITHIN THE VICINITY OF THE PROPOSED DEVELOPMENT.

PHASE 1: BRANCH CREEK CROSSING DEVELOPMENT

- RESTRIPE THE EXISTING SOUTHBOUND FRANKLIN ROAD LEFT TURN LANE AND CHANNELIZED AREA TO PROVIDE A LEFT TURN INTO THE PROPOSED DEVELOPMENT. THE TURN LANE SHOULD INCLUDE APPROXIMATELY 190 FEET OF STORAGE.
- ALIGN THE BRANCH CREEK CROSSING ACCESS WITH DAVENPORT BOULEVARD CREATING THE FOURTH LEG AT THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. THE BRANCH CREEK CROSSING ACCESS SHOULD INCLUDE ONE (1) SHARED THROUGH LEFT TURN LANE AND ONE (1) RIGHT TURN LANE.
- CONSTRUCT A TWELVE (12) FOOT WIDE RIGHT TURN LANE WITH A TWO (2) FOOT SHOULDER ON NORTHBOUND FRANKLIN ROAD. THE TURN LANE SHOULD INCLUDE APPROXIMATELY 100 FEET OF STORAGE AND 180 FEET OF TAPER. THE PROPOSED RIGHT TURN LANE SHALL BE DESIGNED TO ALLOW FOR THE ADDITIONAL NORTHBOUND THROUGH LANE PROPOSED IN THE FRANKLIN ROAD WIDENING PROJECT.
- RESTRIPE DAVENPORT BOULEVARD TO INCLUDE ONE (1) RIGHT TURN LANE AND ONE (1) SHARED THROUGH LEFT TURN LANE.
- INSTALL A TEN (10) FOOT WIDE MULTI-USE PATH WITH A MINIMUM SIX (6) FOOT GRASS STRIP BETWEEN THE BACK OF CURB AND THE MULTI-USE PATH.
- INSTALL ADA COMPLIANT HANDICAP RAMPS AND A CROSSWALK WHERE THE MULTI-USE PATH CROSSED THE PROPOSED BRANCH CREEK CROSSING ACCESS.

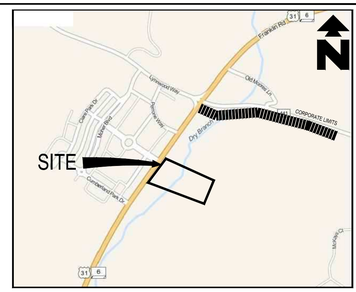
PHASE 2: BRANCH CREEK CROSSING AND GATEWAY DEVELOPMENTS

- INSTALL A TRAFFIC SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD/BRANCH CREEK CROSSING ACCESS UPON COMPLETION OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT. THE SIGNAL SHALL PROVIDE PROTECTED/PERMITTED LEFT TURN SIGNAL PHASING FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES OF FRANKLIN ROAD. THE SIGNAL SHOULD BE SYNCHRONIZED WITH THE EXISTING SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND MOORES LANE/LYNNWOOD WAY. THE SIGNAL SHALL BE DESIGNED TO ACCOMMODATE THE FUTURE FRANKLIN ROAD WIDENING PROJECT.

PHASE 3: FUTURE TDOT FRANKLIN ROAD WIDENING AND DEVELOPMENTS

- FRANKLIN ROAD WILL BE WIDENED TO INCLUDE TWO (2) THROUGH LANES IN EACH DIRECTION AND ONE (1) CENTER TWO-WAY LEFT TURN LANE, AS A RESULT OF THE WIDENING PROJECT THE PROPOSED TRAFFIC SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD/BRANCH CREEK CROSSING ACCESS WILL NEED TO BE MODIFIED TO ACCOMMODATE TWO (2) THROUGH LANES IN EACH DIRECTION.

12. MODIFICATION OF STANDARDS REQUESTED
    CITY OF FRANKLIN ZONING ORDINANCE SECTION 3.3.4 AND TABLE 3-II REQUIRES A FRONT YARD SETBACK FROM THE BACK EDGE OF SIDEWALK TO THE BUILDING FACE TO BE 0-15 FEET FOR A MIXED-USE DEVELOPMENT IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 75 FOOT SETBACK FROM THE BACK EDGE OF SIDEWALK TO THE BUILDING FACE DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
    CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.1(A) REQUIRES NO MORE THAN ONE STREET SURFACE PARKING TO BE LOCATED BETWEEN A BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 95 FOOT SETBACK FROM THE BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
    CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.10.A.IV REQUIRES OFF-STREET PARKING AREAS TO NOT OCCUPY MORE THAN 30 PERCENT OF THE LOT FRONTAGE ADJACENT TO THE PRIMARY STREET SERVING THE LOT FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS THE OFF-STREET PARKING AREA TO OCCUPY 72 PERCENT OF THE LOT FRONTAGE ADJACENT TO THE PRIMARY STREET SERVING THE LOT DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA AS WELL AS THE STREAM BUFFER.
13. REQUEST FOR PAYMENT IN LIEU OF FOR DEDICATION OF PARKS.



VICINITY MAP
N.T.S.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

NOTE:
SITE LIGHTING TO BE PER SHEET E02 PHOTOMETRICS PLAN

RESIDENTIAL UNITS	
RESIDENCE	UNITS OF BUILDING
ONE BEDROOM UNITS	9
TWO BEDROOM UNITS	18
THREE BEDROOM UNITS	21
TOTAL	48

OFFICE BUILDINGS	
OFFICE	SQ OF BUILDING TOTAL
BUILDING NORTH	18,240
BUILDING SOUTH	18,240
TOTAL	36,480

PARKING RATIO (BASED ON RESIDENCE UNITS)				
RESIDENCE	UNITS OF BUILDING	REQUIRED PARKING	PROPSED PARKING	REQUIRED RATIO
ONE BEDROOM UNITS	9	14	14	1.5 SPACE/1 BED UNIT
TWO BEDROOM UNITS	18	45	45	2.5 SPACE/2 BED UNIT
THREE BEDROOM UNITS	21	63	63	3 SPACE/3 BED UNIT
TOTAL	48	122	122	

PARKING RATIO (BASED ON SQFT OF OFFICE				
OFFICE	SQ OF BUILDING TOTAL	REQUIRED PARKING	PROPSED PARKING	REQUIRED RATIO
BUILDING NORTH	18,240	52	52	2.85 SPACE/1000 SQFT
BUILDING SOUTH	18,240	52	53	
TOTAL	36,480	104	105	

ACCESSIBLE PARKING (RESIDENCE)		
VAN PARKING	1 REQUIRED	1 PROVIDED
ACCESSIBLE PARKING	4 REQUIRED	4 PROVIDED
TOTAL	5 REQUIRED	5 PROVIDED

ACCESSIBLE PARKING (OFFICE)		
VAN PARKING	1 REQUIRED	1 PROVIDED
ACCESSIBLE PARKING	4 REQUIRED	4 PROVIDED
TOTAL	5 REQUIRED	5 PROVIDED

SITE DATA

PROJECT NAME: BRANCH CREEK CROSSING
PROJECT #: DEVELOPMENT PLAN COF # 4692
REZONING PLAN COF # 4680
SLOT NUMBER: ---
ADDRESS: 574 AND 580 FRANKLIN ROAD
CITY: FRANKLIN
COUNTY: WILLLIAMSON
STATE: TENNESSEE
EXISTING ZONING : RESIDENTIAL DISTRICT (R-1)
CHARACTER AREA OVERLAY : BCCO-4
OTHER APPLICABLE OVERLAYS: TRADITIONAL
STANDARD: TRADITIONAL
PORPOSED ZONING: SD-X (PC 556 480)
ACREAGE OF SITE: 19.17 ACRES EXISTING
SQUARE FOOTAGE OF SITE: 832,556 SQFT
MINIMUM REQUIRED SETBACK LINES:
YARD FRONTING ON ANY STREET: 15'
SIDE YARD: SOUTH PROPERTY LINE: 5'
NORTH PROPERTY LINE: 5'
REAR YARD: 0'
INCOMPATIBLE USE BUFFER: SOUTH SIDE 75'
SITE DENSITY

TOTAL GROSS - 118,108 SF BUILDING / 835,556 SF PROPERTY = 0.14

NET DENSITY EACH PHASE

PHASE 1 - NORTH OFFICE BUILDING - 18,240 SF / 835,556 SF = 0.21
PHASE 2 - NORTH CONDOMINIUM BUILDING - 50,051 SF / 835,556 SF = 0.06
PHASE 3 - SOUTH OFFICE BUILDING 18,240 SF / 835,556 SF = 0.21
PHASE 4 - SOUTH CONDOMINIUM BUILDING - 31,577 SF /835,556 SF = 0.04

APPLICANT: TSQUARE ENGINEERING
ADDRESS: 7101 SHARONDALE CT. BRENTWOOD, TENNESSEE 37027
PHONE NO.: 615-953-2998
FAX NO.: 931-489-2089
E-MAIL ADDRESS: tim@tsquareengineering.com
CONTACT NAME: TIM TURNER

NOTE:
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NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

TAX MAP 53 (076.00)
BRENTWOOD CHURCH OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.C.,TN

TAX MAP 53 (074.01)
JAMES F. & EVELYN A. HOLLOWAY
D.B. 256 PG. 433
R.O.W.C.,TN

LOADING/SERVICE AREA
CONDOMINIUM BUILDING 1
3 STORY WITH GARAGE 59,051 SF
FFE 758.00
CONDOMINIUM BUILDING 2
3 STORY WITH GARAGE 31,577 SF
FFE 4 160.70
FUTURE CROSS ACCESS
30' RIPARIAN ZONE 2
30' RIPARIAN ZONE 1
260 LF RETAINING WALL (DESIGN BY OTHERS)
165 LF RETAINING WALL (DESIGN BY OTHERS)
CONCRETE BRIDGE
100-YR FLOODPLAIN
DRY BRANCH CREEK
TOP OF BANK
STREAM BUFFER 60' FROM TOP OF BANK
265 LF RETAINING WALL (DESIGN BY OTHERS)
89 LF RETAINING WALL (DESIGN BY OTHERS)
580 FRANKLIN ROAD BUILDING #1 3 STORY || 18,240 SF 6,080 GROSS SF PER FLOOR FFE 757.00
574 FRANKLIN ROAD BUILDING #2 3 STORY || 18,240 SF 6,080 GROSS SF PER FLOOR FFE 756.35
BICYCLE PARKING
75' INCOMPATIBLE USE BUFFER
5' SIDE YARD SETBACK
15' FRONT YARD SETBACK
15' MVUD EASEMENT
19.77' MVUD EASEMENT
25' R.O.W. DEDICATION
10' MULTI-USE PATH
HANDICAP RAMP
10' MULTI USE PATH
DAVENPORT BLVD.
S 56°15'46" E 235.20'
N 36°01'49" E 604.49' TOTAL
N 31°31'60" W 431.60'
PERMEABLE PAVERS
ASPHALT PAVING OVER SANITARY SEWER

SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER
REGISTERED ENGINEER
AGENT
No. 101714
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

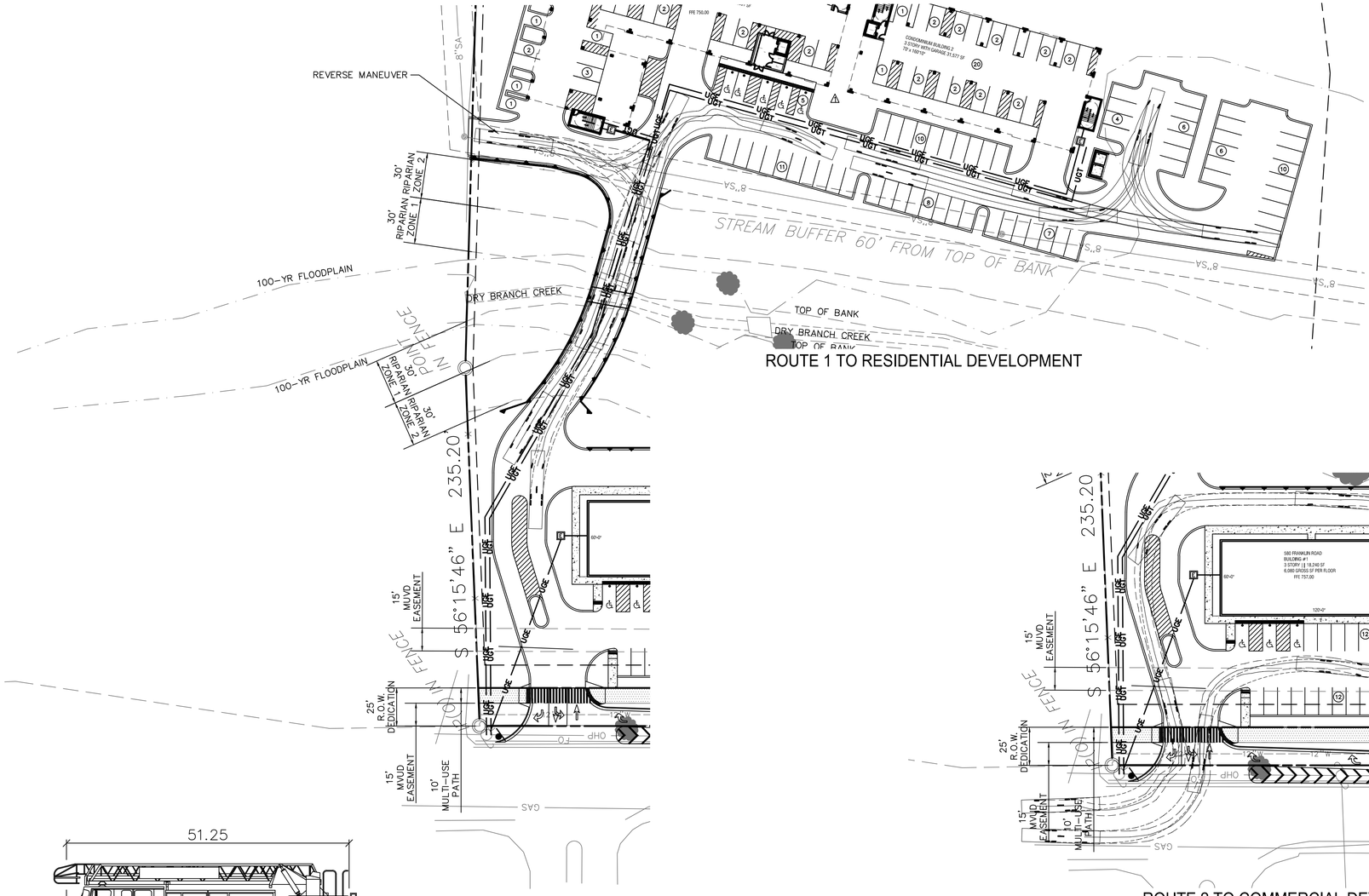
NO.	DATE	REVISIONS
1	11-10-2014	REVISED PER PLANNING COMMISSION COMMENTS
2	12-04-14	REVISED PER PLANNING COMMISSION COMMENTS

DATE: 05-20-2014
SCALE: 1" = 40'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING
SITE PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER 145061

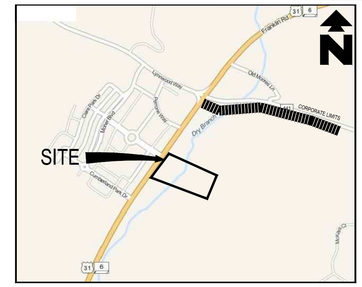
SHEET NUMBER C-3.0



ROUTE 1 TO RESIDENTIAL DEVELOPMENT

ROUTE 2 TO COMMERCIAL DEVELOPMENT

ROUTE 3 TO COMMERCIAL DEVELOPMENT



VICINITY MAP
N.T.S.

GRAPHIC SCALE
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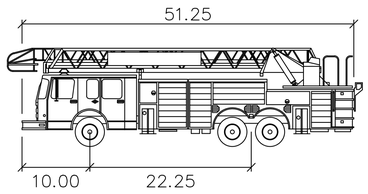
(IN FEET)
1 inch = 40 ft.



franklin t-2	feet
Width	: 8.66
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 42.0

NOTE:
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NOTE:
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DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

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DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING

EMERGENCY VEHICLE PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-4.0

TAX MAP
53
(076.00)
BRENTWOOD CHURCH OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.C.,TN

TAX MAP
53
(074.01)
JAMES F. & EVELYN A. HOLLOWAY
D.B. 256 PG. 433
R.O.W.C.,TN

DRY BRANCH CREEK:

SILTATION IMPAIRMENT – YES
SILTATION IMPAIRED DRAINAGES – YES
STREAM ASSESSMENT – NOT SUPPORTING
MS-4 CITY – FRANKLIN

LEGEND

- SF — SILT FENCE (TCP-13)
- CF — ORANGE CONSTRUCTION FENCING
- TP — TREE PROTECTION FENCING
- ST — SEDIMENT TUBE

VICINITY MAP
N.T.S.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

GRADING NOTES:

1. STRIP ALL TOPSOILS, VEGETATION, SOFT, LOOSE OR OTHERWISE UNSUITABLE MATERIAL FROM THE SITE. THIS SHALL INCLUDE REMOVAL OF ANY TREES AND ASSOCIATED ROOT SYSTEM. ANY EXISTING FILL THAT IS POORLY COMPACTED SHALL ALSO BE REMOVED.

2. AFTER STRIPPING AND PRIOR TO PLACEMENT OF FILL, THE EXPOSED SUBGRADE SHALL BE PROOFROLLED TO DETECT ANY SOFT OR UNSTABLE AREAS. PROOFROLLING SHALL BE PERFORMED IN THE PRESENCE OF A GEOTECHNICAL ENGINEER REPRESENTATIVE. ANY SOFT OR UNSTABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SELECT FILL MATERIAL AS APPROVED BY THE GEOTECHNICAL ENGINEER.

3. SITE GRADES AROUND THE BUILDING AND PAVEMENT AREAS SHALL BE GRADED TO PREVENT PONDING. ANY SURFACE WATER ACCUMULATION IN THESE AREAS SHALL BE REMOVED IMMEDIATELY TO AVOID DISTURBANCE OF THE SUBGRADE SOILS.

4. REPRESENTATIVE SAMPLE OF FILL MATERIALS SHALL BE TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

5. FILL PLACEMENT AND COMPACTION SHALL BE OBSERVED AND DOCUMENTED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER.

6. ALL EXCAVATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST OSHA GUIDELINES AS MANDATED IN CURRENT FEDERAL, STATE AND LOCAL REGULATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE IN PROVIDING SAFE WORKING CONDITIONS IN CONNECTION WITH ANY EXCAVATION WORK.

7. IF DURING EARTH OPERATIONS, THE CONTRACTOR ENCOUNTERS UNUSUAL SOIL CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER OR ITS REPRESENTATIVE IN WRITING WITHIN 24 HOURS. NEGOTIATION SHALL THEN BE INITIATED BETWEEN OWNER AND CONTRACTOR TO ARRIVE AT A CHANGE IN CONTRACT PRICE FOR ADDITIONAL WORK. IF ADDITIONAL WORK IS NOT COVERED BY A CONTRACT UNIT PRICE, THE WORK SHALL BE PAID AT TIME AND MATERIAL BASIS.

Know what's below. Call before you dig.

PHONE: 615-367-1110
800-351-1111
E-MAIL: tnocs@tnonecall.com

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SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER — REGISTERED ENGINEER — STATE OF TENNESSEE — 12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
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BRANCH CREEK CROSSING

GRADING PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

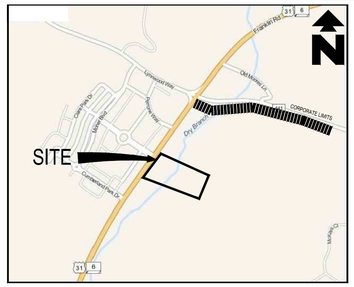
SHEET NUMBER
C-5.0

TAX MAP
53
(076.00)
BRENTWOOD CHURCH OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.C.,TN

DRY BRANCH CREEK:

SILTATION IMPAIRMENT – YES
SILTATION IMPAIRED DRAINAGES – YES
STREAM ASSESSMENT – NOT SUPPORTING
MS-4 CITY – FRANKLIN

PROPERTY AREA – 19.17 ACRES
DISTURBED AREA – 4.89 ACRES 25.50% OF PROPERTY
IMPERVIOUS AREA – 2.92 ACRES 15.23% OF PROPERTY
PERVIOUS AREA – 16.25 ACRES 84.77% OF PROPERTY



VICINITY MAP
N.T.S.

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TAX MAP
53
(074.01)
JAMES F. & EVELYN A. HOLLOWAY
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R.O.W.C.,TN

Tennessee811
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SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER
REGISTERED ENGINEER
AGRICULTURAL & BIOSYSTEMS
No. 101715
STATE OF TENNESSEE
12-04-14

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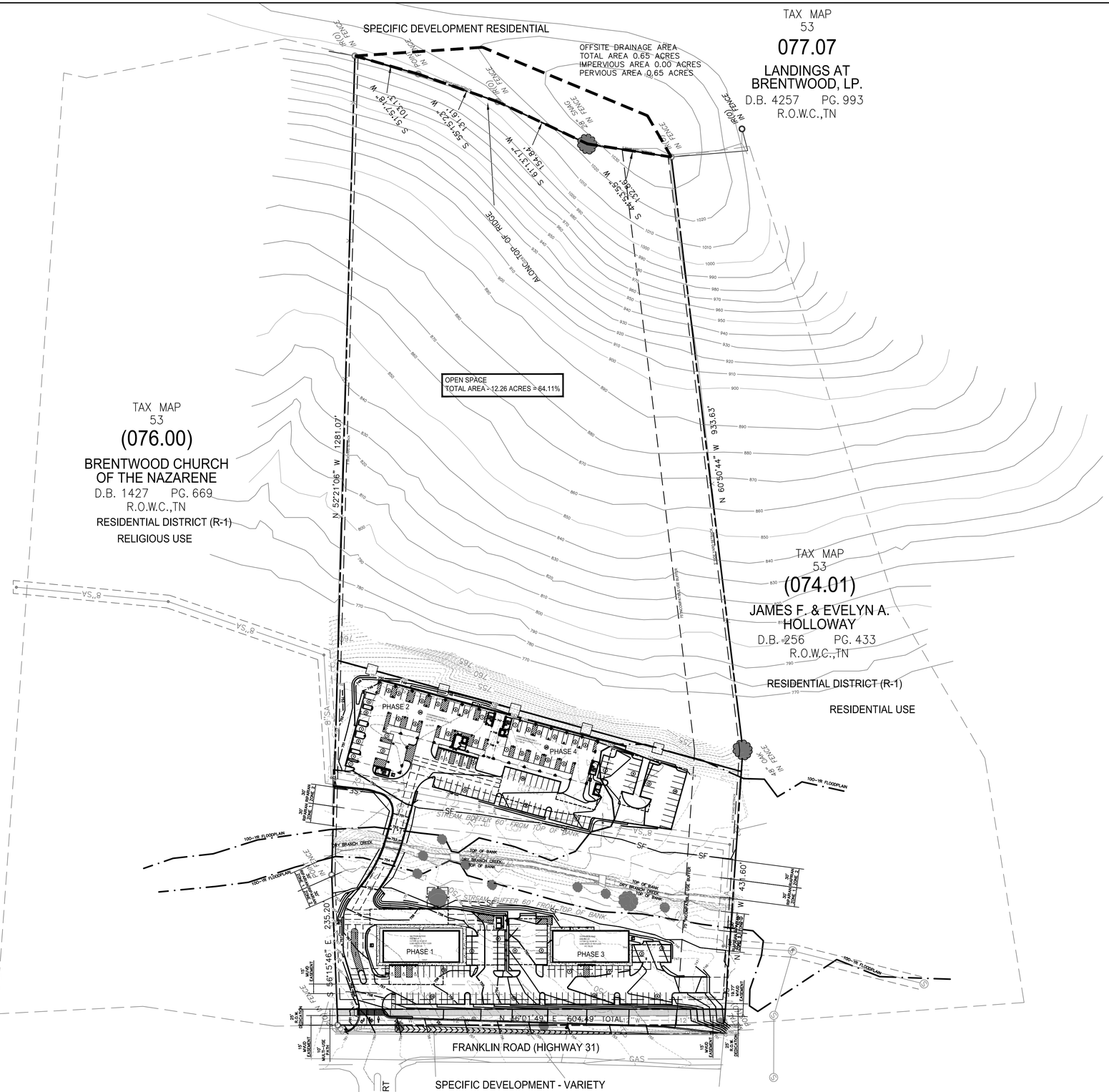
CHECKED BY: TET

BRANCH CREEK CROSSING

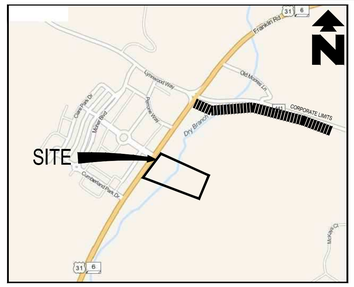
STORMWATER MANAGEMENT PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-6.0



DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680



VICINITY MAP
N.T.S.

GRAPHIC SCALE
(IN FEET)
1 inch = 80 ft.

NOTE:
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT PERMITTED BY THE CITY ENGINEER.

A PORTION OF THIS PROPERTY IS LOCATED WITHIN AN AREA ZONE AE AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F, DATED SEPTEMBER 29, 2006 AND A PORTION OF THE PROPERTY IS LOCATED WITHIN AND AREA ZONE X AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F DATED SEPTEMBER 29, 2006

NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

TIMOTHY E. TURNER
REGISTERED ENGINEER
ARCHITECT
COMMERCE
NO. 101743
STATE OF TENNESSEE
12-04-14

TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

NO.	DATE	REVISIONS
1	11-10-2014	REVISED PER PLANNING COMMISSION COMMENTS
2	12-04-14	REVISED PER PLANNING COMMISSION COMMENTS

DATE: 05-20-2014
SCALE: 1" = 80'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING

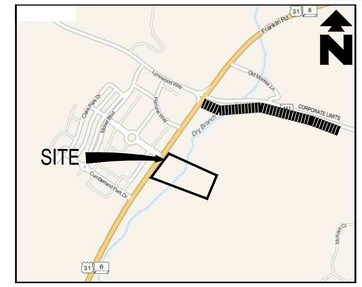
OFFSITE DRAINAGE AREA PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-6.1

TAX MAP
53
(076.00)
BRENTWOOD CHURCH
OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.,TN

NOTE:
WITHIN NEW DEVELOPMENTS AND FOR OFF-SITE LINES CONSTRUCTED AS A RESULT OF, OR TO PROVIDE SERVICE TO, THE NEW DEVELOPMENT, ALL UTILITIES, SUCH AS CABLE TELEVISION, ELECTRICAL (EXCLUDING TRANSFORMERS,), GAS, SEWER, TELEPHONE AND WATER LINES SHALL BE PLACED UNDERGROUND.



VICINITY MAP
N.T.S.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

UTILITY NOTES

1. ALL UTILITY WORKS SHALL BE IN CONFORMANCE WITH THE LOCAL UTILITY STANDARD SPECIFICATIONS AND DETAILS.
2. LOCATION OF ALL EXISTING UTILITIES ARE APPROXIMATE, THE CONTRACTOR SHALL VERIFY IN FIELD EXACT LOCATIONS PRIOR TO START OF CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL LOCAL UTILITIES AND TO HAVE ALL FACILITIES LOCATED AND EXPOSED TO VERIFY THE CLEARANCE OF NEW PIPE LINE CROSSINGS BEFORE CONSTRUCTION OF NEW PIPE LINES COMMENCES.
3. CONTRACTOR SHALL NOTIFY UTILITY OWNERS NO LESS THAN THREE DAYS OR MORE THAN TEN WORKING DAYS PRIOR TO START OF EXCAVATION WORK TO AVOID POSSIBLE HAZARD OR DAMAGE TO EXISTING UTILITIES.
4. THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES DURING CONSTRUCTION, PROPER REPAIR SHALL BE DONE TO THE SATISFACTION OF THE APPROPRIATE UTILITY COMPANY AT NO EXTRA COST TO THE OWNER.
5. IN CASE OF CONFLICT BETWEEN THIS DRAWING AND ANY OTHER DRAWING AND/OR THE SPECIFICATIONS, THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR CLARIFICATION.
6. MINIMUM COVER FOR CONDUITS SHALL BE 36" UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS.
7. PROPOSED LOCATIONS OF UTILITY STRUCTURES AND BORING LOCATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND ARE INTENDED TO BE USED AS A GUIDE. FIELD CONDITIONS ENCOUNTERED DURING CONSTRUCTION MAY REQUIRE PLACEMENT OF STRUCTURES AT LOCATIONS DIFFERENT THAN THAT WHICH IS SHOWN ON THIS PLAN. THE CONTRACTOR SHALL BE REQUIRED TO COORDINATE WITH UTILITY OWNERS REGARDING FINAL LOCATION OF STRUCTURES (TRANSFORMER PAD, WATER METERS, ETC.) ON SITE.
8. SEE BUILDING PLANS FOR EXACT LOCATION OF UTILITY SERVICE CONNECTION TO THE BUILDING AND VERIFY ALL SERVICE LOAD REQUIREMENTS.
9. THESE PLANS DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE REGISTERED PROFESSIONAL ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.

LEGEND

- WATER METER
- FIRE HYDRANT
- VALVE
- 8"W — WATER MAIN
- 8"SA — SANITARY SEWER MAIN
- S — 6" SANITARY SEWER SERVICE
- Ⓢ — SANITARY SEWER MANHOLE
- UGE — UNDERGROUND ELECTRIC
- UGT — UNDERGROUND TELEPHONE
- E — ELECTRIC TRANSFORMER
- PROPOSED POWER POLE

NOTE:
24" WATER MAIN AND ASSOCIATED 15' MALLORY VALLEY UTILITY DISTRICT EASEMENT SHOWN PER EASEMENT DESCRIPTIONS FROM MALLORY VALLEY UTILITY DISTRICT. CONTRACTOR TO LOCATE EXACT LOCATION OF 24" WATER MAIN PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY MALLORY VALLEY UTILITY DISTRICT PRIOR CONSTRUCTION OF PROPOSED WATER SERVICES FOR PROPOSED COMMERCIAL BUILDINGS AND PROPOSED CONDO DEVELOPMENT.

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NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

NOTE:
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SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
2-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
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DATE: 05-20-2014
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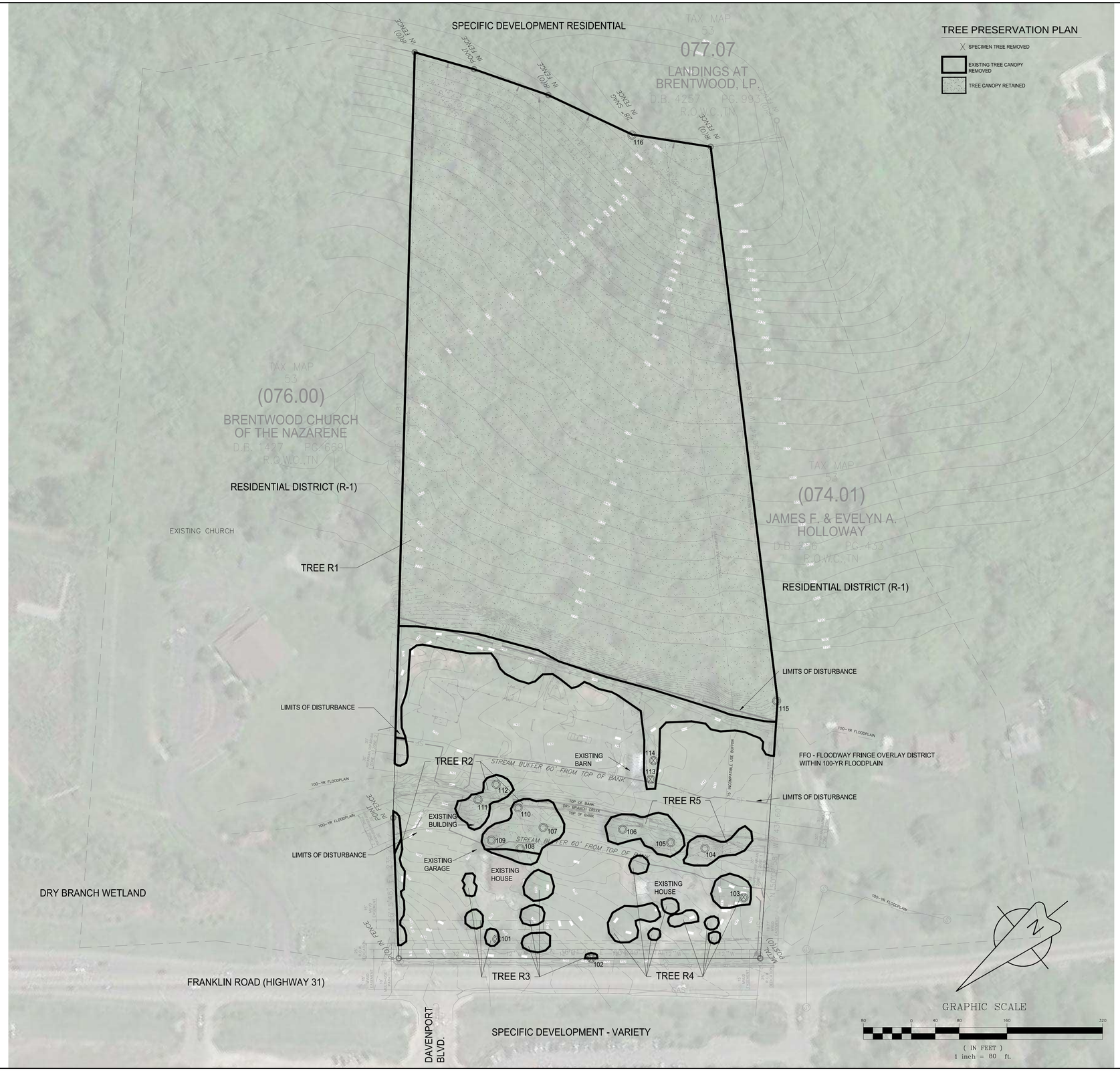
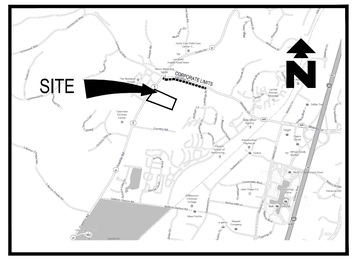
BRANCH CREEK CROSSING
UTILITY PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-7.0





VICINITY MAP
N.T.S.

TABLE 5-2: TREE CANOPY RETENTION STANDARDS
EXISTING TREE CANOPY - 60% - 79%
MINIMUM REQUIRED TREE CANOPY RETENTION BY ZONING - SD-X 18%
EXISTING TREE CANOPY COVER - 63.32%
PROPOSED TREE CANOPY COVER - 63.32%
TREE REPALCEMENT 2" REPLACEMENT FOR EVERY 1" REMOVED

MINERAL RIGHTS WILL BE HELD BY THE PROPERTY OWNER

EXISTING SITE SUMMARY
TOTAL SITE AREA - 19.17 ACRES
SITE USE - RESIDENTIAL
TOTAL RESIDENTIAL USE - 19.17 ACRES

SPECIMEN TREE SURVEY

Number	Type	Size	Health	Status
101	TREE	38"	POOR	REMOVED
102	TREE	24"	POOR	REMOVED
103	TREE	36"	FAIR	REMOVED
104	TREE	48"	FAIR	
105	TREE	36"	FAIR	
106	TREE	28"	FAIR	
107	TREE	38"	FAIR	
108	TREE	32"	FAIR	
109	TREE	48"	POOR	
110	TREE	36"	POOR	
111	TREE	30"	FAIR	
112	TREE	24"	FAIR	
113	TREE	32"	FAIR	REMOVED
114	TREE	26"	FAIR	REMOVED
115	TREE	48"	GOOD	
116	TREE	28"	GOOD	

SPECIMEN TREES REMOVED: 5
TOTAL HEALTHY INCHES REMOVED: 94 INCHES

REPLACEMENT RATIO: 2:1
REPLACEMENT REQUIRED: 188 INCHES

TREE CANOPY RETENTION

TREE AREA	EXISTING CANOPY	REMOVED CANOPY	REMAINING CANOPY
TREE R1	559,731 SF	27,866 SF	531,865 SF
TREE R2	16,429 SF	3,144 SF	13,285 SF
TREE R3	6,439 SF	6,439 SF	0 SF
TREE R4	9,752 SF	9,752 SF	0 SF
TREE R5	10,400 SF	0 SF	10,400 SF
TOTAL SF	602,751 SF	47,201 SF	555,550 SF
TOTAL ACRES	13.83 AC	1.08 AC	12.75 AC

NOTE:
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NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

CITY OF FRANKLIN ID #4692

GREGORY C. GAMBLE
REGISTERED
AGRICULTURE
TENNESSEE
LANDSCAPE ARCHITECT

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
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REVISIONS
DATE
NO.

DATE: 05-20-2014
SCALE: 1" = 80'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING

TREE PROTECTION PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
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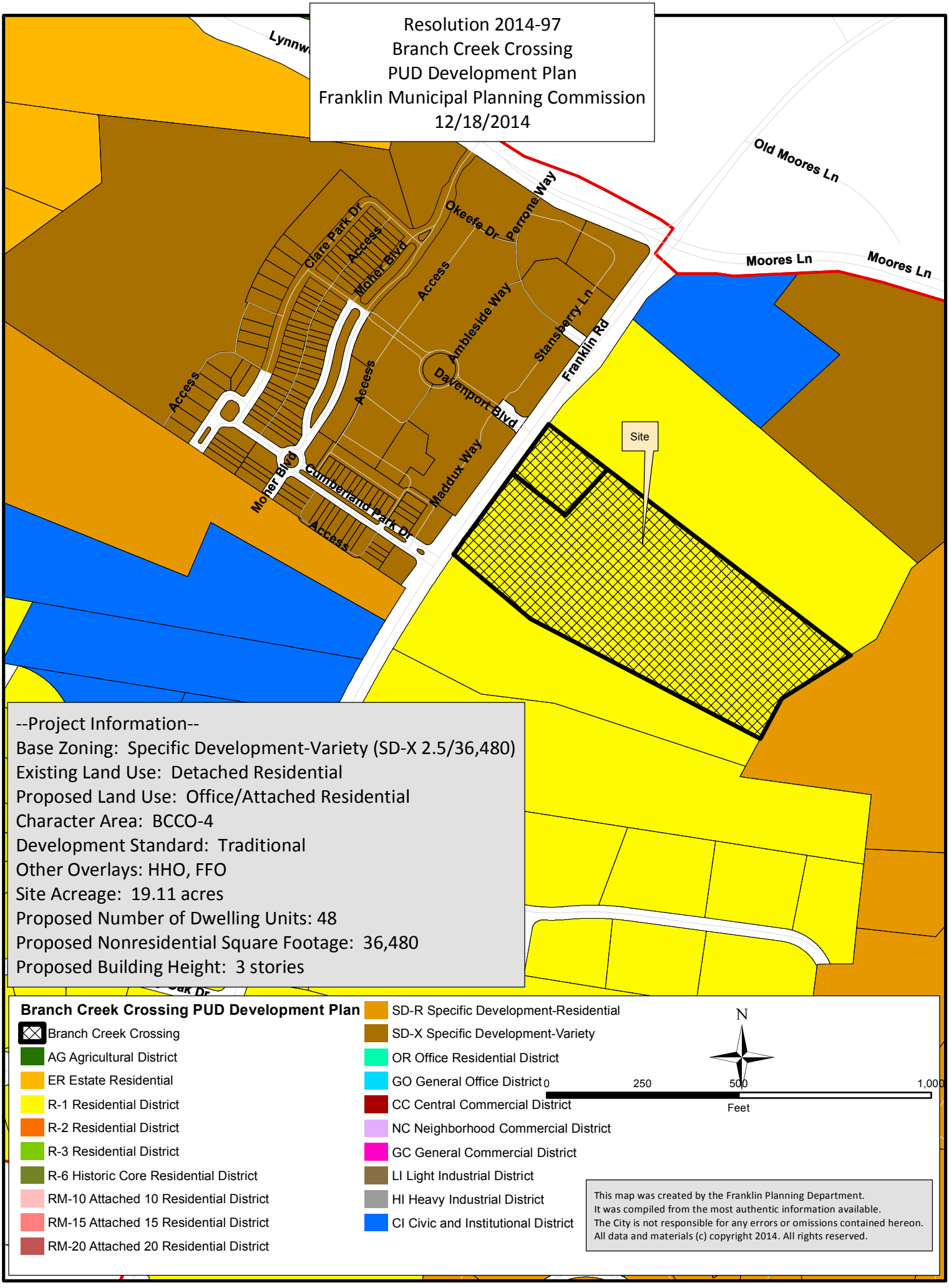
Resolution 2014-97
Branch Creek Crossing
PUD Development Plan
Franklin Municipal Planning Commission
12/18/2014
Old Moores Ln
Moores Ln
Moores Ln
Okeefe Dr
Perrone Way
Clare Park Dr
Access
Moher Blvd
Access
Ambleside Way
Stansberry Ln
Franklin Rd
Access
Access
Davenport Blvd
Site
Moher Blvd
Cumberland Park Dr
Maddux Way
Access
--Project Information--
Base Zoning: Specific Development-Variety (SD-X 2.5/36,480)
Existing Land Use: Detached Residential
Proposed Land Use: Office/Attached Residential
Character Area: BCCO-4
Development Standard: Traditional
Other Overlays: HHO, FFO
Site Acreage: 19.11 acres
Proposed Number of Dwelling Units: 48
Proposed Nonresidential Square Footage: 36,480
Proposed Building Height: 3 stories
Branch Creek Crossing PUD Development Plan
Branch Creek Crossing
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0
250
500
1,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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RESOLUTION 2014-97

A RESOLUTION APPROVING A DEVELOPMENT PLAN FOR BRANCH CREEK CROSSING PUD SUBDIVISION, LOCATED AT 574 & 580 FRANKLIN ROAD, BY THE CITY OF FRANKLIN, TENNESSEE.

WHEREAS, The PUD process is a review procedure that is intended to encourage innovative land planning and design and avoid the monotony sometimes associated with large developments by:

(a) Reducing or eliminating the inflexibility that sometimes results from strict application of zoning standards that were designed primarily for individual lots;

(b) Allowing greater freedom in selecting the means to provide access, light, open space, and design amenities;

(c) Encouraging a sensitive design that respects the surrounding established land use character and natural or man-made features of the site including, but not limited to, trees, historic features, streams, hillsides, and floodplains;

(d) Promoting quality design and environmentally sensitive development by allowing development to take advantage of special site characteristics, locations, and land uses; and

(e) Allowing deviations from certain zoning standards that would otherwise apply if not contrary to the general spirit and intent of this ordinance.

WHEREAS, The PUD review process consists of a Development Plan that is reviewed and approved by the BOMA, after a recommendation from the FMPC.

NOW, THEREFORE, BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, meeting in regular session this _____ day of _____, 2014:

1. That the legal description of the property is as follows:

Zoning Reference Number 14-09:

Map-Group-Parcel	Acres
053---07500	±16.36
053---07501	±1.44
TOTAL	±19.11

A tract of land located in the Williamson County, Tennessee, said property being more specifically described as 574 and 580 Franklin Road as recorded in Deed Book 2153, page 880 and Deed Book 310, Page 846 respectively, and tax Map 53 Parcels 75.00 and 75.10 and being more particularly described as follows.
Beginning at an iron pin at the northwest corner of the property, said point being lying along the eastern margin of Highway 31;

Thence with the south property boundary of the shared property line with Brentwood Church of the Nazarene, South 56°15'46" East a distance of 235.20' to point in fence;
Thence with the south property boundary of the shared property line with Brentwood Church of the Nazarene, South 52°21'05" East a distance of 1,281.07' to an iron rod in fence;
Thence severing the shared property line with Brentwood Church of the Nazarene and running with the shared property line of VR Landings at Brentwood, LP, South 51°57'18" East a distance of 103.13 to a point in fence;

Thence with the west property boundary of the shared property line with VR Landings at Brentwood, LP, South 55°15'23" West a distance of 131.61' to an iron rod in fence;
Thence with the west property boundary of the shared property line with VR Landings at Brentwood, LP, South 61°13'17" West a distance of 154.84' to a point in fence;
Thence with the west property boundary of the shared property line with VR Landings at Brentwood, LP, South 44°53'55" West a distance of 132.86' to an iron rod in fence;
Thence severing the shared property line with VR Landings at Brentwood, LP, and running with the shared property line of James F. and Evelyn A. Holloway, North 60°50'44" West a distance of 933.63' to a point in fence;
Thence with the north margin of the shared property line with James F. and Evelyn A. Holloway, North 50°07'58" West a distance of 431.60' to a metal post lying along the eastern margin of Highway 31;
Thence with the east margin of Highway 31, North 36°01'49" East a distance of 604.49' to the point of beginning, having an area of 835,125.21 square feet, 19.11 acres.

2. That the overall entitlements for the Branch Creek Crossing PUD Subdivision are as follows:

Entitlements	**Nichol Mill Lofts PUD Subdivision**
Base Zone	Specific Development-Residential (SD-X 2.5/36,480)
Character Area Overlay	Berrys Chapel Character Area Overlay #4
Other Zoning Overlays	HHO, FFO
Number of Dwelling Units	48
Number of Nonresidential Square Footage	36,480
Connectivity Index	2.0
Development Standard	Traditional
Open Space Requirements	Formal: 0.70 acres Informal: 12.26 acres Total: 12.96 acres

3. That the Development Plan, the exhibits accompanying the Development Plan, and all conditions and restrictions placed upon the Development Plan

by the Franklin Municipal Planning Commission and this Board shall be made a part of this Resolution as though copied verbatim herein, and that a permanent record of the Development Plan, the exhibits accompanying the Development Plan, and all such conditions and restrictions shall be kept in the Franklin Planning Department.

4. That the following Modifications of Design Standards (MOS) were requested and acted upon by FMPC:

MOS 1: Loading Area Location Approved: _____ Denied: _____	Request to allow the loading areas to the side of the structure as opposed to behind the structure. *Staff recommended approval.*

MOS 2: Parking Lot Location Approved: _____ Denied: _____	Request to allow parking between the primary elevation and the primary street in a Traditional area. *Staff recommended approval.*

5. That this Resolution shall take effect from and after its passage on its first and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST: **CITY OF FRANKLIN, TENNESSEE**

BY: _____ **BY:** _____
ERIC STUCKEY **DR. KEN MOORE**
CITY ADMINISTRATOR **MAYOR**

PLANNING COMMISSION RECOMMENDED APPROVAL: _____

BOMA APPROVAL: _____

COF# 4692

CONDITIONS OF APPROVAL:

Engineering - PUD Plan Checklist

General Comments

1. H. Stormwater Management Plan

- The previous comment "Applicant shall delineate any applicable offsite drainage areas and include in design" was not addressed. The proposed development of this property must not adversely affect any adjacent property. The offsite drainage design is incomplete.

2. D. Statement of Impacts

- This portion of the previous comment "Applicant shall add to the statement of impacts the recommended improvements as described in the traffic study" has raised an additional problem. The description of what is to be constructed with phase 1 includes the right turn lane on northbound Franklin Road. The existing utility poles must be removed and relocated prior to the construction of the right turn lane. The utility plan must indicate the removal of these utility poles.

Parks

General Comments

3. Parkland information

- Parks- Please address Parkland requirements. They are not shown on plans. List unit breakdown also.

Example:
Fees in Lieu are requested for Parkland Dedication requirements.
48 dwelling units total
35 units x 1200sf = 42,000sf
13 units x 600sf = 7,800sf
42,000sf + 7,800sf = 49,800sf or 1.14 acres

Planning

General Comments

4. Consolidation of Lots

- Applicant shall submit a final plat prior to approval of site plan.

5. Modification of Standards Location

- Applicant shall remove Modification of Standards on Sheet 1.0 under Phase 3: Future TDOT Franklin Road Widening and Developments Section.

6. Connectivity Index

- Applicant shall include a Connectivity Index.

7. Draft elevations (development plan)

- Draft elevations are not being approved with the development plan. Detailed elevations must be provided at site plan stage and will be reviewed for consistency with Zoning Ordinance as part of site plan review process.

Planning (Landscape)

General Comments

8. LSR Open Space

- Applicant shall provide a chart showing the total acreage, acreage to be preserved, total LSR and acreage of formal open space.

All of these areas shall be delinated on the landscape plans.

Water/Sewer

General Comments

9. Sewer line

- Applicant shall have agreements signed and in place to ensure the sewer trunk line crossing the property prior to site plan approval. This comment is to remain open.

Zoning

development plans 10-13-14.pdf

10. Loading Dock

- With the site plan submittal the plans shall be revised to show the loading areas next to the office buildings.

11. Codes

- Revise all applicable sheets; the Codes Department is called the Building and Neighborhood Services (BNS) Department.

Branch Creek Crossing

Development Plan

Franklin, Williamson County, Tennessee

Tax Map 53 & Parcels 75.00 & 75.01

Owner: Kevin Belew
Great Tennessee Land Company, LLC
642 Hampstead Lane
Ann Arbor, MI 48103
kbelew@batterseapartners.com

Architect Paul Bass
B-3 Studios
1587 Mallory Ln. Suite 175
Brentwood, TN 37027
615-469-7856
paulb@b3studio.com

Engineer/ Applicant: Tim Turner
Blake Turner
7010 Sharondale Ct.
Brentwood, TN 37027
615-678-8212
blake@t2-eng.com

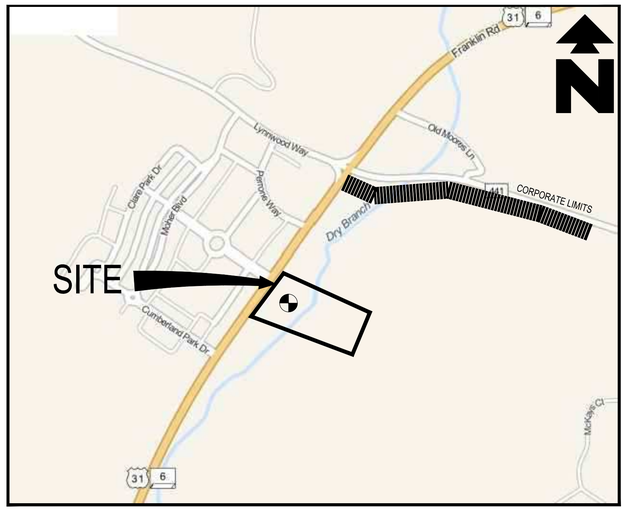
TOPOGRAPHIC BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS WAS PROVIDED BY OTHERS. TSQUARE ENGINEERING AND ITS ASSOCIATES WILL NOT BE HELD RESPONSIBLE FOR ITS ACCURACY OR FOR DESIGN ERRORS OR OMISSIONS RESULTING FROM POTENTIAL SURVEY INACCURACIES.

DETENTION AGREEMENT # _____

TDEC NOTICE OF COVERAGE - TNR#

EROSION CONTROL SPECIALIST -

MOBILE (24HR) PHONE # (---) - -------



VICINITY MAP
N.T.S.

MODIFICATION OF STANDARDS REQUESTED:

1) CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.9.12.3.B REQUIRES LOADING AREAS TO BE LOCATED TO THE REAR OF THE USE THEY SERVE AND ADJACENT TO THE BUILDING IN AN AREA THAT PROMOTES THEIR PRACTICAL USE. THE MODIFICATION OF STANDARD REQUESTED IS THE LOADING AREA TO BE LOCATED TO THE SIDE OF THE CONDOMINIUM BUILDING IN AN AREA THAT PROMOTES ITS PRACTICAL USE FOR THE TENANTS DUE TO THE PARKING GARAGE AND TOPOGRAPHY BEHIND THE CONDOMINIUM BUILDING.
2) CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.10.A.I REQUIRES NO OFF-STREET SURFACE PARKING TO BE LOCATED BETWEEN A BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 95 FOOT SETBACK FROM THE BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
3) FRANKLIN ROAD (STATE ROUTE 6, US 31) IS FUNCTIONALLY CLASSIFIED BY THE CITY OF FRANKLIN AS A MAJOR ARTERIAL ORIENTED IN THE NORTH-SOUTH DIRECTION PROVIDING A CONNECTION BETWEEN FRANKLIN AND BRENTWOOD. MOORES LANE (STATE ROUTE 441) LYNNWOOD WAY IS FUNCTIONALLY CLASSIFIED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) AS AN URBAN MINOR ARTERIAL. DAVENPORT BOULEVARD SERVES AS THE MAIN ACCESS TO THE GATEWAY DEVELOPMENT ON THE WEST SIDE OF FRANKLIN ROAD. THE PROPOSED SITE PLAN SHOWS ACCESS TO FRANKLIN ROAD AS THE FOURTH LEG OF THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. DAVENPORT BOULEVARD CURRENTLY SERVES AS THE PRIMARY ENTRANCE TO THE EXISTING GATEWAY DEVELOPMENT.

THE TRAFFIC ANALYSIS WAS BROKEN DOWN INTO THREE (3) SEPARATE PHASES. EACH PHASE REPRESENTS A DEVELOPMENT OR ROADWAY PROJECT THAT IS PROJECTED WITHIN THE STUDY AREA. PHASE 1 ANALYZED THE BUILD-OUT IMPACTS OF THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 2 ANALYZED THE BUILD-OUT IMPACTS OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT AND THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 3 ANALYZED THE CAPACITY IMPROVEMENTS PROJECTED FROM THE COMPLETION OF THE FUTURE TDOT FRANKLIN ROAD WIDENING PROJECT WITH THE GENERATED TRAFFIC VOLUMES FROM THE DEVELOPMENTS ADDED TO THE ROADWAY NETWORK.

THE TRAFFIC ANALYSIS PROVIDED INDICATES THAT THE IMPACTS ON THE EXISTING ROADWAY NETWORK WILL BE MANAGEABLE WITH THE PHASED RECOMMENDATIONS PROVIDED BELOW. THESE RECOMMENDATIONS WILL PROVIDE SAFE AND EFFICIENT TRAFFIC OPERATIONS AT THE INTERSECTIONS WITHIN THE VICINITY OF THE PROPOSED DEVELOPMENT

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

SHEET SCHEDULE

C-0.0 COVER SHEET
A-400 EXTERIOR ELEVATIONS
A-400 EXTERIOR ELEVATIONS
C-1.0 SITE DEVELOPMENT PLAN
C-1.1 SITE PHASING PLAN
C-2.0 EXISTING CONDITIONS PLAN
C-3.0 SITE LAYOUT PLAN
C-4.0 EMERGENCY VEHICLE TURNING PLAN
C-5.0 GRADING AND DRAINAGE PLAN
C-6.0 STORMWATER MANAGEMENT PLAN
C-6.1 OFFSITE DRAINAGE AREA PLAN
C-7.0 UTILITY PLAN
C-8.0 TREE PROTECTION PLAN
E02 PHOTOMERTRICS PLAN

STREAMSIDE BUFFER ENHANCEMENT
ENHANCEMENT SHALL INCLUDE REMOVAL OF INVASIVE SPECIES AND THE RE-ESTABLISHMENT OF NATIVE SPECIES WHICH PROVIDES A MIX OF CANOPY TREES, UNDERSTORY SHRUBS, AND A NATIVE SEED MIX OF FORBES/GRASSES/SEDGES/RUSHES SUITABLE FOR A MOIST SHADED UNDERSTORY ALONG THE BANKS OF DRY BRANCH CREET.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE 30' RIPARIAN ZONE 1 OR 30' RIPARIAN ZONE 2 STREAM BUFFER EXCEPT AS PERMITTED BY THE CITY ENGINEER.

ENHANCEMENT SHALL BE ABOVE THE NORMAL HIGH WATER MARK ONLY, AND SHALL BE BETWEEN THE NORMAL HIGH WATER MARK WITHIN THE 60 FOOT RIPARIAN BUFFER.

NOTE:
FEES IN LIEU ARE REQUESTED FOR PARKLAND DEDICATION REQUIREMENTS:

35 UNITS X 1,200 SF = 42,000 SF
13 UNITS X 600 SF = 7,800 SF
42,000 SF + 7,800 SF = 49,800 SF OR 1.14 ACRES
FEES SHALL BE PAID AT FINAL PLAT STAGE

NOTE:
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT PERMITTED BY THE CITY ENGINEER.

A PORTION OF THIS PROPERTY IS LOCATED WITHIN AN AREA ZONE AE AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F, DATED SEPTEMBER 29, 2006 AND A PORTION OF THE PROPERTY IS LOCATED WITHIN AND AREA ZONE X AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F DATED SEPTEMBER 29, 2006

NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

NO.	DATE	REVISIONS
1	11-10-2014	REVISED PER PLANNING COMMISSION COMMENTS
2	12-04-14	REVISED PER PLANNING COMMISSION COMMENTS

DATE: 05-20-2014
SCALE: 1" = 40'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING
COVER SHEET
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

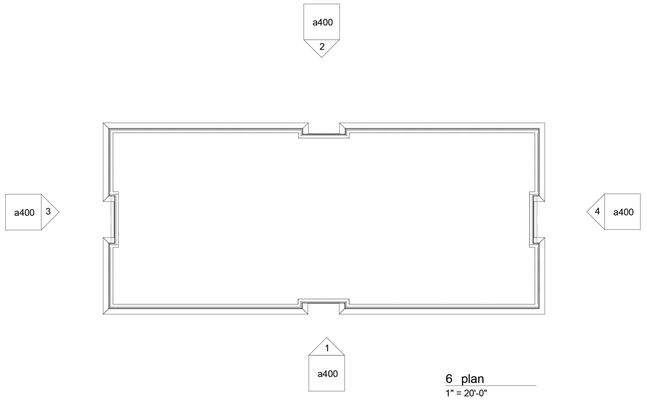
SHEET NUMBER
C-0.0

1 front elevation
1/8" = 1'-0"

2 rear elevation
1/8" = 1'-0"

3 left elevation
1/8" = 1'-0"

4 right elevation
1/8" = 1'-0"



6 plan
1" = 20'-0"

zone 4 - building requirements

ROOFS	
- INSULATION ENTIRELY ABOVE ROOF DECK	R-15ci
WALLS ABOVE GRADE	
- METAL FRAMED AND OTHER	R-13
SLAB-ON-GRADE FLOORS	NR
- UNHEATED SLABS	NR (No Requirement)
OPAQUE DOORS	
- SWINGING DOORS	U - 0.70

zone 4 - fenestration requirements

FRAMING MATERIALS OTHER THAN METAL	
- U-FACTOR	U - 0.40

material legend

- BRICK - TEXAS (ACME)
- BRICK - OLDE WORLD (ACME)
- BRICK - PALOMA GRAY (ACME)
- CUSTOM CAST STONE - TO MATCH LIGHT BUFF SMOOTH (CLOUD CERAMICS)
- FORMGLAS FIBER REINFORCED PLASTIC - FRP - TO MATCH LIGHT BUFF SMOOTH (CLOUD CERAMICS)

planning commission note

THESE ELEVATIONS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE CITY OF FRANKLIN'S ARCHITECTURAL DESIGN STANDARDS AND THE APPROVAL OF THE PLANNING COMMISSION/CITY OF FRANKLIN. CHANGES SHALL NOT BE MADE TO THE APPROVED ELEVATIONS UNLESS APPROVED BY THE CODES DIRECTOR OR THE PLANNING COMMISSION. COF NO.: **4692**

hvac screening

ALL HVAC EQUIPMENT WILL BE PLACED ON THE ROOF AND ADEQUATELY SCREENED BY THE CONTINUOUS PARAPET.

5 3D View front of building

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b3studio inc.
1587 mallory lane, suite 175 || brentwood, tn 37027 || www.b3studio.com

consultants:

project:

branch creek crossing
mixed-use development || 36,00 sf office & 48 unit condo tax map 53 & parcels 75.00 & 75.01 || franklin, tn 37069

revisions:

date: 10 november 2014
project no.: a14025.00

exterior elevations

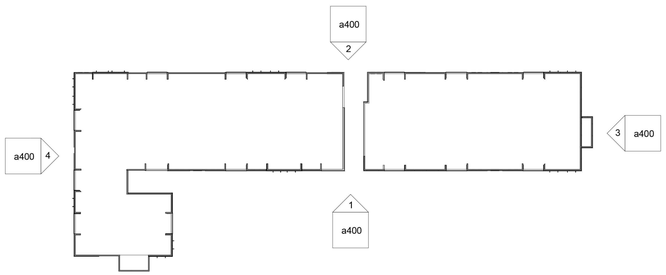
a400

1 front elevation
1/16" = 1'-0"

2 rear elevation
1/16" = 1'-0"

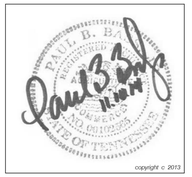
3 right elevation
1/16" = 1'-0"

4 left elevation
1/16" = 1'-0"



5 plan
1" = 50'-0"

6 3D View front of building



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zone 4 - building requirements

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- WOOD FRAMED AND OTHER	R-13
SLAB-ON-GRADE FLOORS	NR
- UNHEATED SLABS	NR (No Requirement)
OPAQUE DOORS	
- SWINGING DOORS	U - 0.70

zone 4 - fenestration requirements

FRAMING MATERIALS OTHER THAN METAL	
- U-FACTOR	U - 0.40

planning commission note

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ALL HVAC EQUIPMENT WILL BE PLACED ON THE ROOF AND ADEQUATELY SCREENED BY THE CONTINUOUS PARAPET.

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- BRICK - PALOMA GRAY (ACME BRICK)
- CUSTOM CAST STONE LIGHT BUFF SMOOTH
- FORMGLAS FIBER REINFORCED PLASTIC - FRP - TO MATCH LIGHT BUFF SMOOTH (CLOUD CERAMICS)

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1587 mallory lane, suite 175 || brentwood, tn 37027 || www.b3studio.com

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branch creek crossing
mixed-use development || 36,000 sf office & 48 unit condo
tax map 53 & parcels 75.00 & 75.01 || franklin, tn 37069

revisions:

date: 10 november 2014
project no.: a14025.00

exterior elevations

a400

PARKING RATIO (BASED ON RESIDENCE UNITS)				
RESIDENCE	UNITS OF BUILDING	REQUIRED PARKING	PROPSED PARKING	REQUIRED RATIO
ONE BEDROOM UNITS	9	14	14	1.5 SPACE/1 BED UNIT
TWO BEDROOM UNITS	18	45	45	2.5 SPACE/2 BED UNIT
THREE BEDROOM UNITS	21	63	63	3 SPACE/3 BED UNIT
TOTAL	48	122	122	

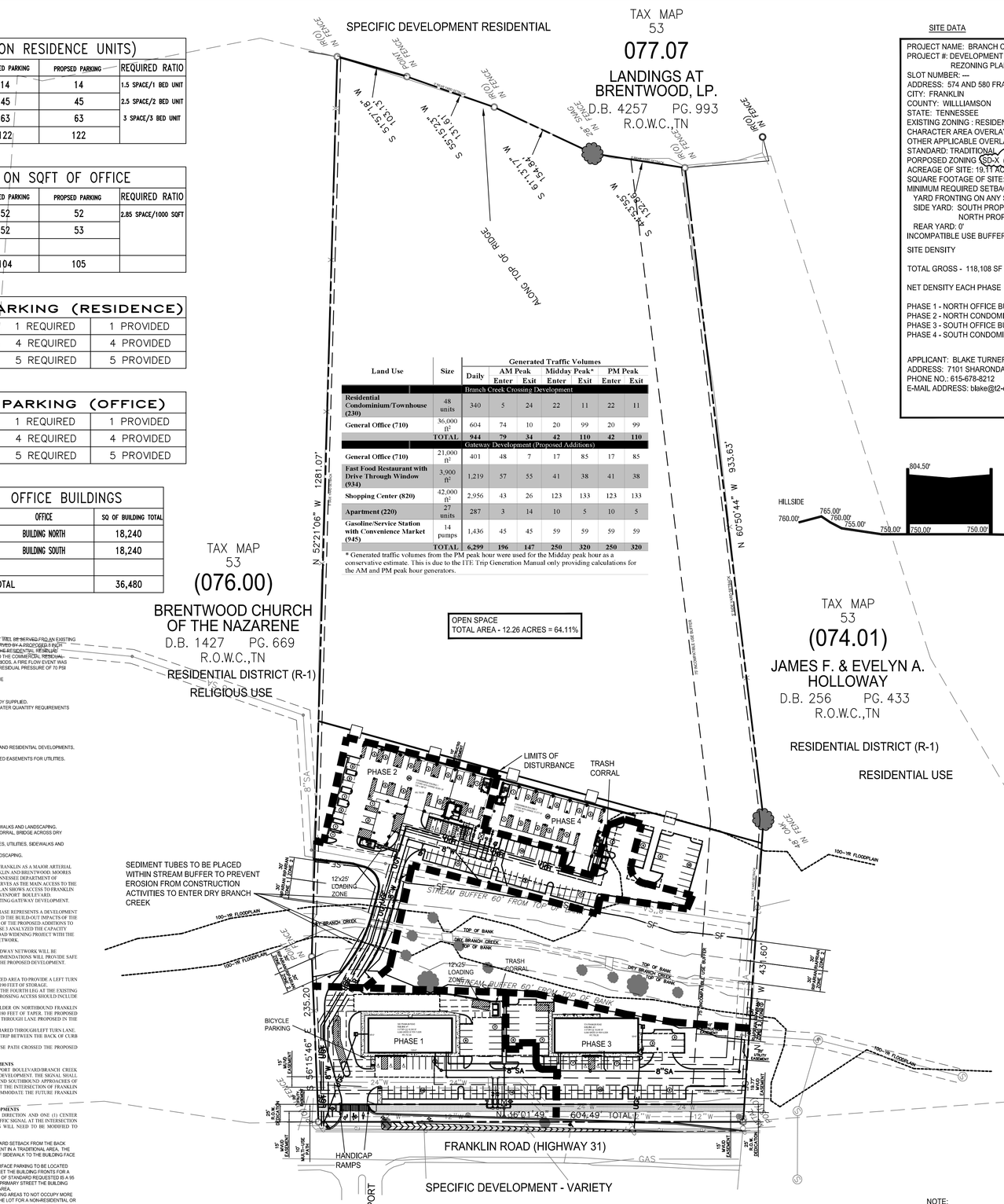
PARKING RATIO (BASED ON SQFT OF OFFICE				
OFFICE	SQ OF BUILDING TOTAL	REQUIRED PARKING	PROPSED PARKING	REQUIRED RATIO
BUILDING NORTH	18,240	52	52	2.85 SPACE/1000 SQFT
BUILDING SOUTH	18,240	52	53	
TOTAL	36,480	104	105	

ACCESSIBLE PARKING (RESIDENCE)		
VAN PARKING	1 REQUIRED	1 PROVIDED
ACCESSIBLE PARKING	4 REQUIRED	4 PROVIDED
TOTAL	5 REQUIRED	5 PROVIDED

ACCESSIBLE PARKING (OFFICE)		
VAN PARKING	1 REQUIRED	1 PROVIDED
ACCESSIBLE PARKING	4 REQUIRED	4 PROVIDED
TOTAL	5 REQUIRED	5 PROVIDED

RESIDENTIAL UNITS	
RESIDENCE	UNITS OF BUILDING
ONE BEDROOM UNITS	9
TWO BEDROOM UNITS	18
THREE BEDROOM UNITS	21
TOTAL	48

OFFICE BUILDINGS	
OFFICE	SQ OF BUILDING TOTAL
BUILDING NORTH	18,240
BUILDING SOUTH	18,240
TOTAL	36,480



DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

Land Use	Size	Generated Traffic Volumes						
		Daily	AM Peak		Midday Peak*		PM Peak	
			Enter	Exit	Enter	Exit	Enter	Exit
Branch Creek Crossing Development								
Residential Condominium/Townhouse (230)	48 units	340	5	24	22	11	22	11
General Office (710)	36,000 ft²	604	74	10	20	99	20	99
TOTAL		944	79	34	42	110	42	110
Gateway Development (Proposed Additions)								
General Office (710)	21,000 ft²	401	48	7	17	85	17	85
Fast Food Restaurant with Drive Through Window (934)	3,900 ft²	1,219	57	55	41	38	41	38
Shopping Center (820)	42,000 ft²	2,956	43	26	123	133	123	133
Apartment (220)	27 units	287	3	14	10	5	10	5
Gasoline/Service Station with Convenience Market (945)	14 pumps	1,436	45	45	59	59	59	59
TOTAL		6,299	196	147	250	320	250	320

* Generated traffic volumes from the PM peak hour were used for the Midday peak hour as a conservative estimate. This is due to the ITE Trip Generation Manual only providing calculations for the AM and PM peak hour generators.

STATEMENT OF IMPACTS

1. WATER FACILITIES: TOTAL ESTIMATED USAGE OF 27,825 GALLONS PER DAY. DEVELOPMENT WILL BE SERVED FROM AN EXISTING 12 INCH WATER LINE ON FRANKLIN ROAD AND THE RESIDENTIAL DEVELOPMENT WILL BE SERVED BY A PROPOSED 8 INCH WATER LINE EXTENSION. MODELS BY MALLORY VALLEY UTILITY DISTRICT INDICATE THAT THE RESIDENTIAL RESIDUAL PRESSURE WILL BE IN THE RANGE OF 85 TO 95 PSI DURING NORMAL SYSTEM DEMANDS AND THE COMMERCIAL RESIDUAL PRESSURES WILL BE IN THE RANGE OF 80 TO 90 PSI DURING NORMAL SYSTEM DEMAND PERIODS. A FIRE FLOW EVENT WAS ALSO CHECKED AT THE END OF THE PROPOSED 8 INCH LINE AND THE MODEL INDICATES A RESIDUAL PRESSURE OF 70 PSI DURING SUCH AN EVENT AT THE END OF THE LINE.
2. SEWER FACILITIES: A PROPOSED 8" SANITARY SEWER LINE IS BEING EXTENDED ACROSS THE PROPERTY TO THE BRENTWOOD CHURCH OF THE NAZARENE. THE PROPOSED DEVELOPMENT WILL TIE TO THE PROPOSED 8" SANITARY SEWER MAIN.
3. RE-PURIFIED WATER FACILITIES - NONE WITHIN THE DEVELOPMENT.
4. DEVELOPMENT WILL REQUIRE RIGHT TURN LANE AND SIGNALIZATION AS PER TRAFFIC STUDY SUPPLIED.
5. DRAINAGE FACILITIES - STORMWATER IS DESIGNED TO MEET THE 80%TSS REMOVAL AND WATER QUANTITY REQUIREMENTS FOR THE CITY OF FRANKLIN.
6. POLICE: 900 COLUMBIA AVENUE
   4.2 MILES (11 MINUTES)
   FIRE: 370 MALLORY STATION ROAD (MALLORY STATION 3)
   2.4 MILES (3 MINUTES)
   RECREATIONAL FACILITY: DRY BRANCH WETLANDS 0.25 MILES (1 MINUTE)
7. REFUSE STORAGE: DEVELOPMENT WILL PROVIDE TRASH CORRALS FOR THE COMMERCIAL AND RESIDENTIAL DEVELOPMENTS. COLLECTION SCHEDULE WILL BE AS SCHEDULED BY GARBAGE COLLECTION COMPANY.
8. RESTRICTIVE COVENANTS, ARCHITECTURAL CONTROLS, GRANTS OF EASEMENTS, PROPOSED EASEMENTS FOR UTILITIES. THE DEVELOPMENT HAS BEEN DESIGNED TO COMPLIMENT THE ADJACENT GATEWAY VILLAGE DEVELOPMENT. THE DEVELOPMENT WILL FOLLOW THE TRADITIONAL DESIGN STANDARDS. TRANSITIONAL FEATURES INCLUDE THE 75' INCOMPATIBLE USE BUFFER ALONG THE SOUTHERN BOUNDARY LINE. THE DEVELOPMENT WILL BE PROVIDING UTILITY EASEMENTS FOR SANITARY SEWER AND WATER MAIN EXTENSIONS AND THE ASSOCIATED GRADING.
9. WILLIAMSON COUNTY SCHOOL SYSTEM
   WALNUT GROVE ELEMENTARY SCHOOL
   BRENTWOOD MIDDLE SCHOOL
   BRENTWOOD HIGH SCHOOL
10. PHASING
    PHASE 1 - 18,240 NORTH OFFICE BUILDING AND RELATED PARKING SPACES, UTILITIES, SIDEWALKS AND LANDSCAPING.
    PHASE 2 - 30 UNIT CONDOMINIUM BUILDING AND ASSOCIATED PARKING, UTILITIES, TRASH CORRAL, BRIDGE ACROSS DRY BRANCH CREEK AND LANDSCAPING.
    PHASE 3 - 18,240 SQUARE FEET SOUTHERN OFFICE BUILDING AND RELATED PARKING SPACES, UTILITIES, SIDEWALKS AND LANDSCAPING.
    PHASE 4 - 18 UNIT CONDOMINIUM BUILDING AND ASSOCIATED PARKING, UTILITIES, AND LANDSCAPING. ELECTRIC UTILITIES AND LANDSCAPES.
11. FRANKLIN ROAD (STATE ROUTE 6, US 31) IS FUNCTIONALLY CLASSIFIED BY THE CITY OF FRANKLIN AS A MAJOR ARTERIAL ORIENTED IN THE NORTH/SOUTH DIRECTION PROVIDING A CONNECTION BETWEEN FRANKLIN AND BRENTWOOD. MOORES LANE/STATE ROUTE 441(LYNNWOOD WAY IS FUNCTIONALLY CLASSIFIED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) AS AN URBAN MINOR ARTERIAL. DAVENPORT BOULEVARD SERVES AS THE MAIN ACCESS TO THE GATEWAY DEVELOPMENT ON THE WEST SIDE OF FRANKLIN ROAD. THE PROPOSED SITE PLAN SHOWS ACCESS TO FRANKLIN ROAD AS THE FOURTH LEG OF THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. DAVENPORT BOULEVARD CURRENTLY SERVES AS THE PRIMARY ENTRANCE TO THE EXISTING GATEWAY DEVELOPMENT.

    THE TRAFFIC ANALYSIS WAS BROKEN DOWN INTO THREE (3) SEPARATE PHASES. EACH PHASE REPRESENTS A DEVELOPMENT OR ROADWAY PROJECT THAT IS PROJECTED WITHIN THE STUDY AREA. PHASE 1 ANALYZED THE BUILD OUT IMPACTS OF THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 2 ANALYZED THE BUILD-OUT IMPACTS OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT AND THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 3 ANALYZED THE CAPACITY IMPROVEMENTS PROJECTED FROM THE COMPLETION OF THE FUTURE TDOT FRANKLIN ROAD WIDENING PROJECT WITH THE GENERATED TRAFFIC VOLUMES FROM THE DEVELOPMENTS ADDED TO THE ROADWAY NETWORK.

    THE TRAFFIC ANALYSIS PROVIDED INDICATES THAT THE IMPACTS ON THE EXISTING ROADWAY NETWORK WILL BE MANAGEABLE WITH THE PHASED RECOMMENDATIONS PROVIDED BELOW. THESE RECOMMENDATIONS WILL PROVIDE SAFE AND EFFICIENT TRAFFIC OPERATIONS AT THE INTERSECTIONS WITHIN THE VICINITY OF THE PROPOSED DEVELOPMENT.

    PHASE 1: BRANCH CREEK CROSSING DEVELOPMENT
    - RESTRIPE THE EXISTING SOUTHBOUND FRANKLIN ROAD LEFT TURN LANE AND CHANNELIZED AREA TO PROVIDE A LEFT TURN INTO THE PROPOSED DEVELOPMENT. THE TURN LANE SHOULD INCLUDE APPROXIMATELY 100 FEET OF STORAGE.
    - ALIGN THE BRANCH CREEK CROSSING ACCESS WITH DAVENPORT BOULEVARD CREATING THE FOURTH LEG AT THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. THE BRANCH CREEK CROSSING ACCESS SHALL INCLUDE ONE (1) SHARED THROUGH/LEFT TURN LANE AND ONE (1) RIGHT TURN LANE.
    - CONSTRUCT A TWELVE (12) FOOT WIDE RIGHT TURN LANE WITH A TWO (2) FOOT SHOULDER ON NORTHBOUND FRANKLIN ROAD. THE TURN LANE SHOULD INCLUDE APPROXIMATELY 100 FEET OF STORAGE AND 180 FEET OF TAPER. THE PROPOSED RIGHT TURN LANE SHALL BE DESIGNED TO ALLOW FOR THE ADDITIONAL NORTHBOUND THROUGH LANE PROPOSED IN THE FRANKLIN ROAD WIDENING PROJECT.
    - RESTRIPE DAVENPORT BOULEVARD TO INCLUDE ONE (1) RIGHT TURN LANE AND ONE (1) SHARED THROUGH/LEFT TURN LANE.
    - INSTALL A TEN (10) FOOT WIDE MULTI-USE PATH WITH A MINIMUM SIX (6) FOOT GRASS STRIP BETWEEN THE BACK OF CURB AND THE MULTI-USE PATH
    - INSTALL ADA COMPLIANT HANDICAP RAMPS AND A CROSSWALK WHERE THE MULTI-USE PATH CROSSED THE PROPOSED BRANCH CREEK CROSSING ACCESS.

    PHASE 2: BRANCH CREEK CROSSING AND GATEWAY DEVELOPMENTS
    - INSTALL A TRAFFIC SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD/BRANCH CREEK CROSSING ACCESS UPON COMPLETION OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT. THE SIGNAL SHALL PROVIDE PROTECTED/PERMITTED LEFT TURN SIGNAL PHASING FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES OF FRANKLIN ROAD. THE SIGNAL SHOULD BE SYNCHRONIZED WITH THE EXISTING SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND MOORES LANE/LYNNWOOD WAY. THE SIGNAL SHALL BE DESIGNED TO ACCOMMODATE THE FUTURE FRANKLIN ROAD WIDENING PROJECT.

    PHASE 3: FUTURE TDOT FRANKLIN ROAD WIDENING AND DEVELOPMENTS
    - FRANKLIN ROAD WILL BE WIDENED TO INCLUDE TWO (2) THROUGH LANES IN EACH DIRECTION AND ONE (1) CENTER TWO-WAY LEFT TURN LANE. AS A RESULT OF THE WIDENING PROJECT THE PROPOSED TRAFFIC SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD/BRANCH CREEK CROSSING ACCESS WILL NEED TO BE MODIFIED TO ACCOMMODATE TWO (2) THROUGH LANES IN EACH DIRECTION.
12. MODIFICATION OF STANDARDS REQUESTED
1) CITY OF FRANKLIN ZONING ORDINANCE SECTION 3.3.4 AND TABLE 3-8 REQUIRES A FRONT YARD SETBACK FROM THE BACK EDGE OF SIDEWALK TO THE BUILDING FACE TO BE 0-15 FEET FOR A MIXED-USE DEVELOPMENT IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 75 FOOT SETBACK FROM THE BACK EDGE OF SIDEWALK TO THE BUILDING FACE DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
2) CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.10.A.II REQUIRES NO OFF-STREET SURFACE PARKING TO BE LOCATED BETWEEN A BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 95 FOOT SETBACK FROM THE BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
3) CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.10.A.IV REQUIRES OFF-STREET PARKING AREAS TO NOT OCCUPY MORE THAN 30 PERCENT OF THE LOT FRONTAGE ADJACENT TO THE PRIMARY STREET SERVING THE LOT FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS THE OFF-STREET PARKING AREA TO OCCUPY 72 PERCENT OF THE LOT FRONTAGE ADJACENT TO THE PRIMARY STREET SERVING THE LOT DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA AS WELL AS THE STREAM BUFFER.
13. REQUEST FOR PAYMENT IN LIEU OF FOR DEDICATION OF PARKS.

SITE DATA

PROJECT NAME: BRANCH CREEK CROSSING
PROJECT #: DEVELOPMENT PLAN COF # 4692
REZONING PLAN COF # 4680
SLOT NUMBER: ---
ADDRESS: 574 AND 580 FRANKLIN ROAD
CITY: FRANKLIN
COUNTY: WILLIAMSON
STATE: TENNESSEE
EXISTING ZONING : RESIDENTIAL DISTRICT (R-1)
CHARACTER AREA OVERLAY : BCCO-4
OTHER APPLICABLE OVERLAYS: TRADITIONAL; FFO/HHO
STANDARD: TRADITIONAL
PORPOSED ZONING SD-X (2.5/36.480) ⚠
ACREAGE OF SITE: 19.11 ACRES EXISTING
SQUARE FOOTAGE OF SITE: 832,556 SQFT
MINIMUM REQUIRED SETBACK LINES:
YARD FRONTING ON ANY STREET: 15'
SIDE YARD: SOUTH PROPERTY LINE: 5'
NORTH PROPERTY LINE: 5'
REAR YARD: 0'
INCOMPATIBLE USE BUFFER: SOUTH SIDE 75'

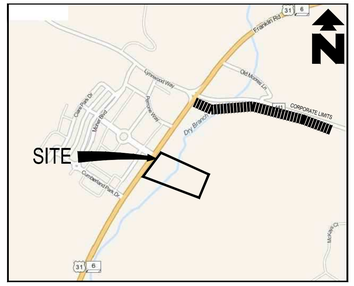
SITE DENSITY

TOTAL GROSS - 118,108 SF BUILDING / 835,556 SF PROPERTY = 0.14

NET DENSITY EACH PHASE

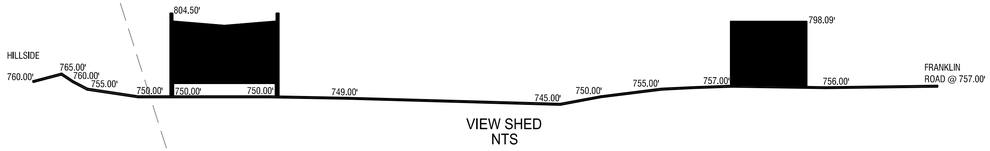
PHASE 1 - NORTH OFFICE BUILDING - 18,240 SF / 835,556 SF = 0.21
PHASE 2 - NORTH CONDOMINIUM BUILDING - 50,051 SF / 835,556 SF = 0.06
PHASE 3 - SOUTH OFFICE BUILDING 18,240 SF / 835,556 SF = 0.21
PHASE 4 - SOUTH CONDOMINIUM BUILDING - 31,577 SF /835,556 SF = 0.04

APPLICANT: BLAKE TURNER, TSQUARE ENGINEERING
ADDRESS: 7101 SHARONDALE CT. BRENTWOOD, TENNESSEE 37027
PHONE NO.: 615-678-8212
E-MAIL ADDRESS: blake@t2-eng.com



VICINITY MAP
N.T.S.

GRAPHIC SCALE
80 0 40 80 160 320
(IN FEET)
1 inch = 80 ft.



PROPERTY OWNERS WITHIN 500 FEET OF DEVELOPMENT

PRCLID	Owner	Property Address	City	State	ZIP
036---05104	GATEWAY VILLAGE DEV INC	120 DAVENPORT BLVD	BRENTWOOD	TN	37027
036---05108	BELL FUND IV FRANKLIN GATEWAY LLC	1340 MOHER BLVD	ATLANTA	GA	30343
036---05112	GATEWAY VILLAGE DEV INC	DAVENPORT BLVD	BRENTWOOD	TN	37027
036---05113	CAMDEN COMMONS PROPERTY OWNERS ASSOC	DAVENPORT BLVD	BRENTWOOD	TN	37027
036---05114	CAMDEN COMMONS PROPERTY OWNERS ASSOC	PERRONE WAY	BRENTWOOD	TN	37027
036---05200	CITY OF FRANKLIN	FRANKLIN RD	FRANKLIN	TN	37065-0305
036---05500	MADDUX WILLIAM F	7007 MOORES LN	SPRING HILL	TN	37174
053---00300	CUMBERLAND PARK LLC	567 FRANKLIN RD	NASHVILLE	TN	37203
053---00301	CAMDEN COMMONS I LLC	121 DAVENPORT BLVD	BRENTWOOD	TN	37027
053---00302	BELL FUND IV FRANKLIN GATEWAY LLC	AMBLESIDE WAY	ATLANTA	GA	30343
053---00500	CHURCH CLEARVIEW BAPTIST	557 FRANKLIN RD	FRANKLIN	TN	37069
053---06500	PARRIS JEFFREY S	1226 COUNTRY RD	FRANKLIN	TN	37069
053---06600	ZHU HUIRONG	1222 COUNTRY RD	MOUNTAIN HOUSE	CA	95391
053---06700	ROVENSTINE JOHN JASON	1218 COUNTRY RD	FRANKLIN	TN	37069
053---07300	ROGERS STEPHEN T	554 FRANKLIN RD	FRANKLIN	TN	37069
053---07401	HOLLOWAY JAMES F	562 -68 FRANKLIN RD	FRANKLIN	TN	37069
053---07500	FAGAN GARY DWAYNE	574 FRANKLIN RD	BRENTWOOD	TN	37027
053---07501	FAGAN MARY Y	580 FRANKLIN RD	FRANKLIN	TN	37069
053---07600	CHURCH BRENTWOOD OF THE NAZARENE	584 FRANKLIN RD	FRANKLIN	TN	37069
053---07707	VR LANDINGS AT BRENTWOOD LP	LANDINGS DR	ADDISON	TX	75001
053B-A00500	BROOKS LAUREN MICHELLE	1024 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A00600	FRASER DOUGLAS DAVID	1022 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A00700	HIDDEN HILLS FAMILY LTD PRTNSHP	1020 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A00800	DOMAN FRANK P	1018 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A00900	LEPPER BOBBY	1016 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01000	WYLIE SUZANNE F	1014 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01100	VAN VICKLE JOHN HAYES	1012 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01200	THORNTON DON TYLER	1010 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01300	YOUNG KIMBERLY W	1000 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01400	JONES CHRISTINA ANNE	1002 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01500	COMBS BEDFORD M	1004 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01600	TAAFFE PAULINE	1006 CUMBERLAND PARK DR	BRENTWOOD	TN	37027
053B-A01700	GATEWAY VILLAGE RESIDENTIAL LLC	CUMBERLAND PARK DR	FRANKLIN	TN	37067
053B-A01800	CAMERON DARELL C	1001 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A01900	KEENAN THOMAS C	1003 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02000	REYNOLDS SALLY M	1005 CUMBERLAND PARK DR	BRENTWOOD	TN	37027
053B-A02100	AILOR RACHEL R	1007 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02200	GATEWAY VILLAGE RESIDENTIAL LLC	FRANKLIN RD	FRANKLIN	TN	37067
053B-A02300	TELFER GEORGE CURTISS	1011 CUMBERLAND PARK DR	NASHVILLE	TN	37205
053B-A02400	HIME GEORGE ALLEN	1013 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02500	MISSIRIAN RAPHAEL A & ANAHID MISSIRI	1015 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02600	BULLARO FRANCESCA	1017 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02700	ROSS RICHARD F	1019 CUMBERLAND PARK DR	BRENTWOOD	TN	37027
053B-A02800	WIENCEK TOM C	1021 CUMBERLAND PARK DR	FRANKLIN	TN	37069
053B-A02900	MATRAVERS LAURIE M	1023 CUMBERLAND PARK DR	NASHVILLE	TN	37205

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NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

NOTE:
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TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
2-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

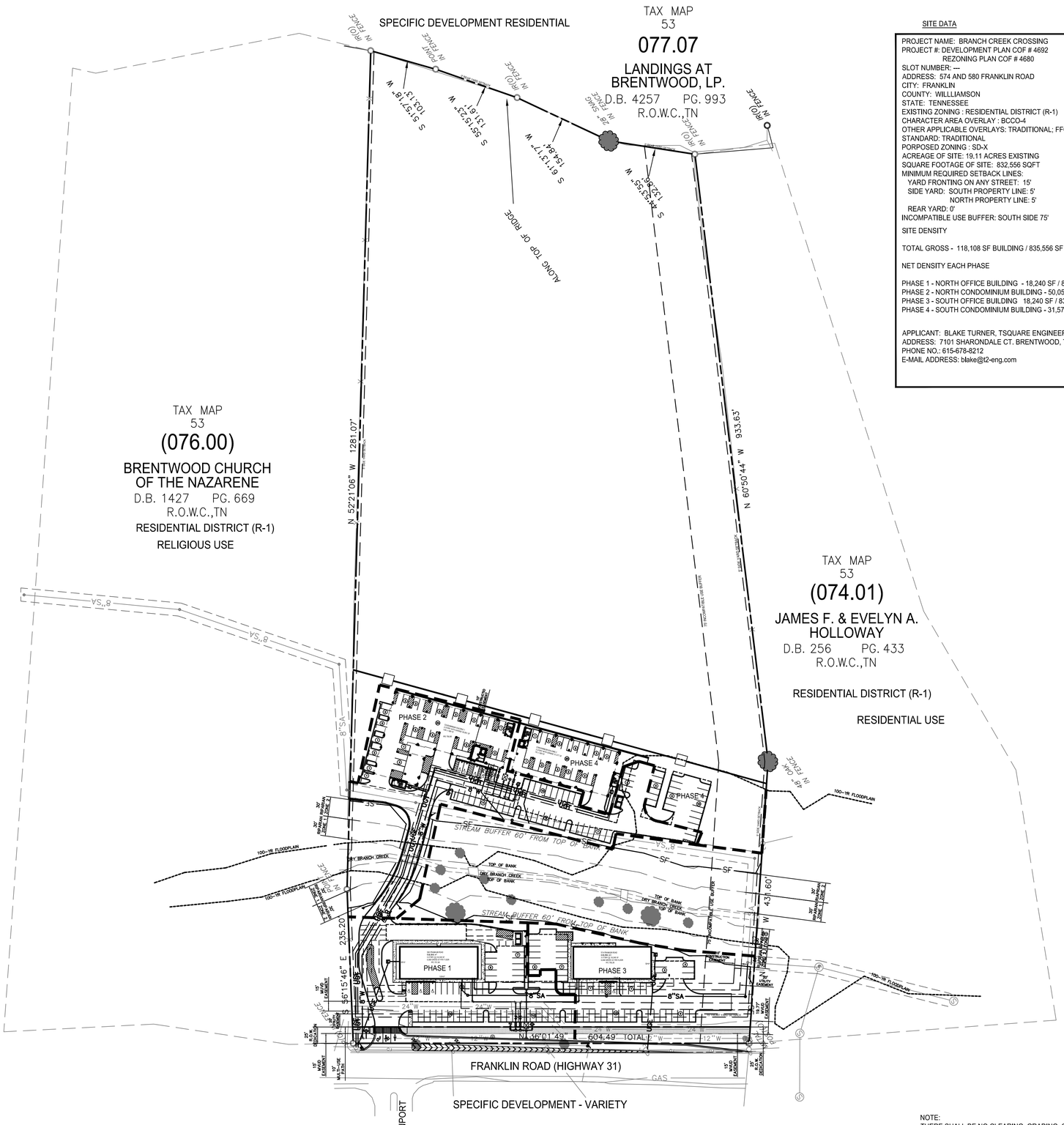
NO.	DATE	REVISIONS
1	11-10-2014	REVISED PER PLANNING COMMISSION COMMENTS
2	12-04-14	REVISED PER PLANNING COMMISSION COMMENTS

DATE: 05-20-2014
SCALE: 1" = 80'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING
SITE DEVELOPMENT PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-1.0



DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

SITE DATA

PROJECT NAME: BRANCH CREEK CROSSING
PROJECT #: DEVELOPMENT PLAN COF # 4692
REZONING PLAN COF # 4680
SLOT NUMBER: ---
ADDRESS: 574 AND 580 FRANKLIN ROAD
CITY: FRANKLIN
COUNTY: WILLIAMSON
STATE: TENNESSEE
EXISTING ZONING : RESIDENTIAL DISTRICT (R-1)
CHARACTER AREA OVERLAY : BCCO-4
OTHER APPLICABLE OVERLAYS: TRADITIONAL; FFO/HHO
STANDARD: TRADITIONAL
PORPOSED ZONING : SD-X
ACREAGE OF SITE: 19.11 ACRES EXISTING
SQUARE FOOTAGE OF SITE: 832,556 SQFT
MINIMUM REQUIRED SETBACK LINES:
YARD FRONTING ON ANY STREET: 15'
SIDE YARD: SOUTH PROPERTY LINE: 5'
NORTH PROPERTY LINE: 5'
REAR YARD: 0'
INCOMPATIBLE USE BUFFER: SOUTH SIDE 75'

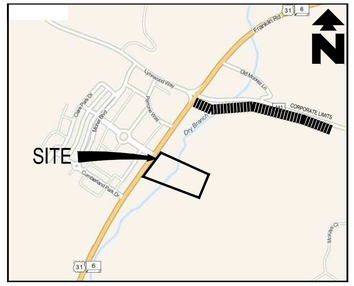
SITE DENSITY

TOTAL GROSS - 118,108 SF BUILDING / 835,556 SF PROPERTY = 0.14

NET DENSITY EACH PHASE

PHASE 1 - NORTH OFFICE BUILDING - 18,240 SF / 835,556 SF = 0.21
PHASE 2 - NORTH CONDOMINIUM BUILDING - 50,051 SF / 835,556 SF = 0.06
PHASE 3 - SOUTH OFFICE BUILDING 18,240 SF / 835,556 SF = 0.21
PHASE 4 - SOUTH CONDOMINIUM BUILDING - 31,577 SF /835,556 SF = 0.04

APPLICANT: BLAKE TURNER, TSQUARE ENGINEERING
ADDRESS: 7101 SHARONDALE CT. BRENTWOOD, TENNESSEE 37027
PHONE NO.: 615-678-8212
E-MAIL ADDRESS: blake@t2-eng.com



VICINITY MAP
N.T.S.

GRAPHIC SCALE
80 0 40 80 160 320
(IN FEET)
1 inch = 80 ft.

NOTE:
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NOTE:
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TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
12-04-14

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BRANCH CREEK CROSSING

SITE PHASING PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-1.1

SPECIFIC DEVELOPMENT RESIDENTIAL

TAX MAP 53
077.07
LANDINGS AT BRENTWOOD, LP.
D.B. 4257 PG. 993
R.O.W.C.,TN

SuE - Sulphura cherty silt loam
20 to 50 percent slopes

BoD - Dodine cherty silt loam
12 to 20 percent slopes

BoC - Bodine cherty silt loam
5 to 12 percent slopes

SuE - Sulphura cherty silt loam
20 to 50 percent slopes

HHO - HILLSIDE/HILLCREST OVERLAY DISTRICT

DeD - Delrose gravelly silt loam
12 to 20 percent slopes, eroded

TAX MAP 53
(076.00)
BRENTWOOD CHURCH OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.C.,TN

RESIDENTIAL DISTRICT (R-1)

EXISTING CHURCH

TREE PROTECTION ZONE

EXISTING SLOPES 20% PLUS

N 52°21'06" W 1271.07'

S 36°15'46" E 135.20'

N 60°50'44" W 933.63'

TAX MAP 53
(074.01)
JAMES F. & EVELYN A. HOLLOWAY
D.B. 256 PG. 433
R.O.W.C.,TN

BERRYS CHAPEL CHARACTER OVERLAY DISTRICT
HILLSIDE/HILLCREST OVERLAY DISTRICT
FLOODWAY FRINGE OVERLAY (FFO) ZONING OVERLAY
TRADITIONAL DEVELOPMENT STANDARDS

RESIDENTIAL DISTRICT (R-1)

DeE - Delrose gravelly silt loam
20 to 30 percent slopes, eroded

LIMITS OF DISTURBANCE

EXISTING SLOPES 14-19%

Rc - Rockland

Ld - Lindside cherty silt loam
phosphatic

LIMITS OF DISTURBANCE

32" TREE (FAIR)
24" TREE (FAIR)
30" TREE (FAIR)
36" TREE DOUBLE TRUNK (POOR)
38" TREE (FAIR)
EXISTING BARN
26" TREE, DOUBLE TRUNK (FAIR)
32" TREE (FAIR)
15" TREE (POOR)
16" TREE (POOR)
18" TREE (FAIR)
22" TREE (FAIR)
36" TREE (FAIR)
48" TREE DOUBLE TRUNK (FAIR)
28" TREE (FAIR)
18" TREE (FAIR)
15" TREE (FAIR)
12" TREES (FAIR)
20" TREE (POOR)
15" TREE (FAIR)
12" TREE (FAIR)
22" TREE (FAIR)
22" TREE (FAIR)
14" TREE (FAIR)
36" TREE (FAIR)
48" TREE (POOR)
24" TREE (POOR)
13"& 14" TREE DOUBLE TRUNK (POOR)
22" TREE (FAIR)
38" TREE (POOR)
15" TREE (POOR)

TREE PROTECTION ZONE

PROPERTY BOUNDARY

DRY BRANCH CREEK

100-YR FLOODPLAIN

FFO - FLOODWAY FRINGE OVERLAY DISTRICT WITHIN 100-YR FLOODPLAIN

STREAM BUFFER 60' FROM TOP OF BANK

EXISTING BUILDING

EXISTING GARAGE

EXISTING SLOPES 20% PLUS

DRY BRANCH WETLAND

Ara - Armour silt loam
0 to 2 percent slopes

N 36°01'49" E 604.49' TOTAL

EXISTING SANITARY SEWER

OVERHEAD ELECTRIC

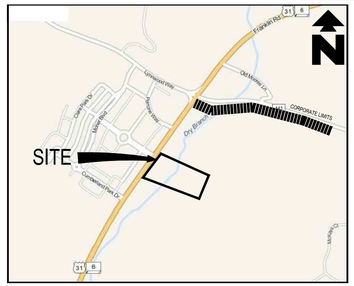
VARIOUS TREES FROM 6" TO 18" (FAIR)

FRANKLIN ROAD (HIGHWAY 31)

DAVENPORT BLVD.

SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680



VICINITY MAP
N.T.S.

GRAPHIC SCALE
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(IN FEET)
1 inch = 80 ft.

TABLE 5-2: TREE CANOPY RETENTION STANDARDS
EXISTING TREE CANOPY - 60% - 79%
MINIMUM REQUIRED TREE CANOPY RETENTION BY ZONING - SD-X 18%
EXISTING TREE CANOPY COVER - 63.32%
PROPOSED TREE CANOPY COVER - 63.32%
TREE REPALCEMENT 2" REPLACEMENT FOR EVERY 1" REMOVED

MINERAL RIGHTS WILL BE HELD BY THE PROPERTY OWNER

EXISTING SITE SUMMARY
TOTAL SITE AREA - 19.17 ACRES
SITE USE - RESIDENTIAL
TOTAL RESIDENTIAL USE - 19.17 ACRES

NOTE:
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NOTE:
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TIMOTHY E. TURNER
REGISTERED ENGINEER
AGRICULTURAL
COMMERCIAL
No. 101615
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
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BRANCH CREEK CROSSING
EXISTING CONDITIONS PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
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SHEET NUMBER
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SITE DENSITY

TOTAL GROSS - 118,108 SF BUILDING / 835,556 SF PROPERTY = 0.14

NET DENSITY EACH PHASE

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PHASE 2 - NORTH CONDOMINIUM BUILDING - 50,051 SF / 835,556 SF = 0.06
PHASE 3 - SOUTH OFFICE BUILDING 18,240 SF / 835,556 SF = 0.21
PHASE 4 - SOUTH CONDOMINIUM BUILDING - 31,577 SF /835,556 SF = 0.04

Land Use	Size	Generated Traffic Volumes						
		Daily	AM Peak		Midday Peak*		PM Peak	
			Enter	Exit	Enter	Exit	Enter	Exit
Branch Creek Crossing Development								
Residential Condominium/Townhouse (230)	48 units	340	5	24	22	11	22	11
General Office (710)	36,000 ft²	604	74	10	20	99	20	99
TOTAL		**944**	**79**	**34**	**42**	**110**	**42**	**110**
Gateway Development (Proposed Additions)								
General Office (710)	21,000 ft²	401	48	7	17	85	17	85
Fast Food Restaurant with Drive Through Window (934)	3,900 ft²	1,219	57	55	41	38	41	38
Shopping Center (820)	42,000 ft²	2,956	43	26	123	133	123	133
Apartment (220)	27 units	287	3	14	10	5	10	5
Gasoline/Service Station with Convenience Market (945)	14 pumps	1,436	45	45	59	59	59	59
TOTAL		**6,299**	**196**	**147**	**250**	**320**	**250**	**320**

* Generated traffic volumes from the PM peak hour were used for the Midday peak hour as a conservative estimate. This is due to the ITE Trip Generation Manual only providing calculations for the AM and PM peak hour generators.

STATEMENT OF IMPACTS

1. WATER FACILITIES: TOTAL ESTIMATED USAGE OF 27,525 GALLONS PER DAY. DEVELOPMENT WILL BE SERVED FRO AN EXISTING 12 INCH WATER LINE ON FRANKLIN ROAD AND THE RESIDENTIAL DEVELOPMENT WILL BE SERVED BY A PROPOSED 8 INCH WATER LINE EXTENSION. MODELS BY MALLORY VALLEY UTILITY DISTRICT INDICATE THAT THE RESIDENTIAL RESIDUAL PRESSURE WILL BE IN THE RANGE OF 85 TO 95 PSI DURING NORMAL SYSTEM DEMANDS AND THE COMMERCIAL RESIDUAL PRESSURES WILL BE IN THE RANGE OF 80 TO 90 PSI DURING NORMAL SYSTEM DEMAND PERIODS. A FIRE FLOW EVENT WAS ALSO CHECKED AT THE END OF THE PROPOSED 8 INCH LINE AND THE MODEL INDICATES A RESIDUAL PRESSURE OF 70 PSI DURING SUCH AN EVENT AT THE END OF THE LINE.
2. SEWER FACILITIES: A PROPOSED 8" SANITARY SEWER LINE IS BEING EXTENDED ACROSS THE PROPERTY TO THE BRENTWOOD CHURCH OF THE NAZARENE. THE PROPOSED DEVELOPMENT WILL TIE TO THE PROPOSED 8" SANITARY SEWER MAIN.
3. RE-PURIFIED WATER FACILITIES - NONE WITHIN THE DEVELOPMENT.
4. DEVELOPMENT WILL REQUIRE RIGHT TURN LANE AND SIGNALIZATION AS PER TRAFFIC STUDY SUPPLIED.
5. DRAINAGE FACILITIES - STORMWATER IS DESIGNED TO MEET THE 80%TSS REMOVAL AND WATER QUANTITY REQUIREMENTS FOR THE CITY OF FRANKLIN.
6. POLICE: 900 COLUMBIA AVENUE
   4.2 MILES (11 MINUTES)
   FIRE: 370 MALLORY STATION ROAD (MALLORY STATION 3)
   2.4 MILES (5 MINUTES)
   RECREATIONAL FACILITY: DRY BRANCH WETLANDS 0.25 MILES (1 MINUTE)
7. REFUSE STORAGE: DEVELOPMENT WILL PROVIDE TRASH CORRALS FOR THE COMMERCIAL AND RESIDENTIAL DEVELOPMENTS, COLLECTION SCHEDULE WILL BE AS SCHEDULED BY GARBAGE COLLECTION COMPANY.
8. RESTRICTIVE COVENANTS, ARCHITECTURAL CONTROLS, GRANTS OF EASEMENTS, PROPOSED EASEMENTS FOR UTILITIES.
   THE DEVELOPMENT HAS BEEN DESIGNED TO COMPLIMENT THE ADJACENT GATEWAY VILLAGE DEVELOPMENT, THE DEVELOPMENT WILL FOLLOW THE TRADITIONAL DESIGN STANDARDS. TRANSITIONAL FEATURES INCLUDE THE 75' INCOMPATIBLE USE BUFFER ALONG THE SOUTHERN BOUNDARY LINE.
   THE DEVELOPMENT WILL BE PROVIDING UTILITY EASEMENTS FOR SANITARY SEWER AND WATER MAIN EXTENSIONS AND THE ASSOCIATED GRADING.
9. WILLIAMSON COUNTY SCHOOL SYSTEM
   WALNUT GROVE ELEMENTARY SCHOOL
   BRENTWOOD MIDDLE SCHOOL
   BRENTWOOD HIGH SCHOOL
10. PHASING
    PHASE 1 - 18,240 NORTH OFFICE BUILDING AND RELATED PARKING SPACES, UTILITIES, SIDEWALKS AND LANDSCAPING.
    PHASE 2 - 30 UNIT CONDOMINIUM BUILDING AND ASSOCIATED PARKING, UTILITIES, TRASH CORRAL, BRIDGE ACROSS DRY BRANCH CREEK AND LANDSCAPING.
    PHASE 3 - 18,240 SQUARE FEET SOUTHERN OFFICE BUILDING AND RELATED PARKING SPACES, UTILITIES, SIDEWALKS AND LANDSCAPING.
    PHASE 4 - 18 UNIT CONDOMINIUM BUILDING AND ASSOCIATED PARKING, UTILITIES, AND LANDSCAPING.
    ELECTRIC UTILITIES AND LANDSCAPES.
11. FRANKLIN ROAD (STATE ROUTE 6, US 31) IS FUNCTIONALLY CLASSIFIED BY THE CITY OF FRANKLIN AS A MAJOR ARTERIAL ORIENTED IN THE NORTH-SOUTH DIRECTION PROVIDING A CONNECTION BETWEEN FRANKLIN AND BRENTWOOD. MOORES LANE (STATE ROUTE 441) LYNNWOOD WAY IS FUNCTIONALLY CLASSIFIED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) AS AN URBAN MINOR ARTERIAL. DAVENPORT BOULEVARD SERVES AS THE MAIN ACCESS TO THE GATEWAY DEVELOPMENT ON THE WEST SIDE OF FRANKLIN ROAD. THE PROPOSED SITE PLAN SHOWS ACCESS TO FRANKLIN ROAD AS THE FOURTH LEG OF THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. DAVENPORT BOULEVARD CURRENTLY SERVES AS THE PRIMARY ENTRANCE TO THE EXISTING GATEWAY DEVELOPMENT.

THE TRAFFIC ANALYSIS WAS BROKEN DOWN INTO THREE (3) SEPARATE PHASES. EACH PHASE REPRESENTS A DEVELOPMENT OR ROADWAY PROJECT THAT IS PROJECTED WITHIN THE STUDY AREA. PHASE 1 ANALYZED THE BUILD-OUT IMPACTS OF THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 2 ANALYZED THE BUILD-OUT IMPACTS OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT AND THE BRANCH CREEK CROSSING DEVELOPMENT. PHASE 3 ANALYZED THE CAPACITY IMPROVEMENTS PROJECTED FROM THE COMPLETION OF THE FUTURE TDOT FRANKLIN ROAD WIDENING PROJECT WITH THE GENERATED TRAFFIC VOLUMES FROM THE DEVELOPMENTS ADDED TO THE ROADWAY NETWORK.

THE TRAFFIC ANALYSIS PROVIDED INDICATES THAT THE IMPACTS ON THE EXISTING ROADWAY NETWORK WILL BE MANAGEABLE WITH THE PHASED RECOMMENDATIONS PROVIDED BELOW. THESE RECOMMENDATIONS WILL PROVIDE SAFE AND EFFICIENT TRAFFIC OPERATIONS AT THE INTERSECTIONS WITHIN THE VICINITY OF THE PROPOSED DEVELOPMENT.

PHASE 1: BRANCH CREEK CROSSING DEVELOPMENT

- RESTRIPE THE EXISTING SOUTHBOUND FRANKLIN ROAD LEFT TURN LANE AND CHANNELIZED AREA TO PROVIDE A LEFT TURN INTO THE PROPOSED DEVELOPMENT. THE TURN LANE SHOULD INCLUDE APPROXIMATELY 190 FEET OF STORAGE.
- ALIGN THE BRANCH CREEK CROSSING ACCESS WITH DAVENPORT BOULEVARD CREATING THE FOURTH LEG AT THE EXISTING INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD. THE BRANCH CREEK CROSSING ACCESS SHOULD INCLUDE ONE (1) SHARED THROUGH LEFT TURN LANE AND ONE (1) RIGHT TURN LANE.
- CONSTRUCT A TWELVE (12) FOOT WIDE RIGHT TURN LANE WITH A TWO (2) FOOT SHOULDER ON NORTHBOUND FRANKLIN ROAD. THE TURN LANE SHOULD INCLUDE APPROXIMATELY 100 FEET OF STORAGE AND 180 FEET OF TAPER. THE PROPOSED RIGHT TURN LANE SHALL BE DESIGNED TO ALLOW FOR THE ADDITIONAL NORTHBOUND THROUGH LANE PROPOSED IN THE FRANKLIN ROAD WIDENING PROJECT.
- RESTRIPE DAVENPORT BOULEVARD TO INCLUDE ONE (1) RIGHT TURN LANE AND ONE (1) SHARED THROUGH LEFT TURN LANE.
- INSTALL A TEN (10) FOOT WIDE MULTI-USE PATH WITH A MINIMUM SIX (6) FOOT GRASS STRIP BETWEEN THE BACK OF CURB AND THE MULTI-USE PATH.
- INSTALL ADA COMPLIANT HANDICAP RAMPS AND A CROSSWALK WHERE THE MULTI-USE PATH CROSSED THE PROPOSED BRANCH CREEK CROSSING ACCESS.

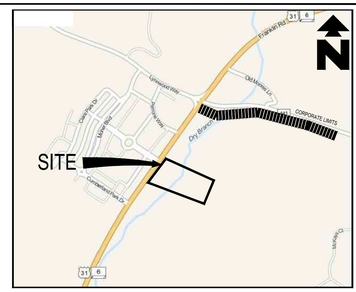
PHASE 2: BRANCH CREEK CROSSING AND GATEWAY DEVELOPMENTS

- INSTALL A TRAFFIC SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD/BRANCH CREEK CROSSING ACCESS UPON COMPLETION OF THE PROPOSED ADDITIONS TO THE GATEWAY DEVELOPMENT. THE SIGNAL SHALL PROVIDE PROTECTED/PERMITTED LEFT TURN SIGNAL PHASING FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES OF FRANKLIN ROAD. THE SIGNAL SHOULD BE SYNCHRONIZED WITH THE EXISTING SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND MOORES LANE/LYNNWOOD WAY. THE SIGNAL SHALL BE DESIGNED TO ACCOMMODATE THE FUTURE FRANKLIN ROAD WIDENING PROJECT.

PHASE 3: FUTURE TDOT FRANKLIN ROAD WIDENING AND DEVELOPMENTS

- FRANKLIN ROAD WILL BE WIDENED TO INCLUDE TWO (2) THROUGH LANES IN EACH DIRECTION AND ONE (1) CENTER TWO-WAY LEFT TURN LANE, AS A RESULT OF THE WIDENING PROJECT THE PROPOSED TRAFFIC SIGNAL AT THE INTERSECTION OF FRANKLIN ROAD AND DAVENPORT BOULEVARD/BRANCH CREEK CROSSING ACCESS WILL NEED TO BE MODIFIED TO ACCOMMODATE TWO (2) THROUGH LANES IN EACH DIRECTION.

12. MODIFICATION OF STANDARDS REQUESTED
    CITY OF FRANKLIN ZONING ORDINANCE SECTION 3.3.4 AND TABLE 3-II REQUIRES A FRONT YARD SETBACK FROM THE BACK EDGE OF SIDEWALK TO THE BUILDING FACE TO BE 0-15 FEET FOR A MIXED-USE DEVELOPMENT IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 75 FOOT SETBACK FROM THE BACK EDGE OF SIDEWALK TO THE BUILDING FACE DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
    CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.1(A) REQUIRES NO MORE THAN ONE STREET SURFACE PARKING TO BE LOCATED BETWEEN A BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS A 95 FOOT SETBACK FROM THE BUILDING WALL CONTAINING THE PRIMARY ENTRANCE AND THE PRIMARY STREET THE BUILDING FRONTS DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA.
    CITY OF FRANKLIN ZONING ORDINANCE SECTION 5.3.6.10.A.IV REQUIRES OFF-STREET PARKING AREAS TO NOT OCCUPY MORE THAN 30 PERCENT OF THE LOT FRONTAGE ADJACENT TO THE PRIMARY STREET SERVING THE LOT FOR A NON-RESIDENTIAL OR MIXED-USE STRUCTURE IN A TRADITIONAL AREA. THE MODIFICATION OF STANDARD REQUESTED IS THE OFF-STREET PARKING AREA TO OCCUPY 72 PERCENT OF THE LOT FRONTAGE ADJACENT TO THE PRIMARY STREET SERVING THE LOT DUE TO THE EXISTING UNDERGROUND UTILITIES AND UTILITY EASEMENTS IN THE AREA AS WELL AS THE STREAM BUFFER.
13. REQUEST FOR PAYMENT IN LIEU OF FOR DEDICATION OF PARKS.



VICINITY MAP
N.T.S.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

NOTE:
SITE LIGHTING TO BE PER SHEET E02 PHOTOMETRICS PLAN

RESIDENTIAL UNITS	
RESIDENCE	UNITS OF BUILDING
ONE BEDROOM UNITS	9
TWO BEDROOM UNITS	18
THREE BEDROOM UNITS	21
TOTAL	48

OFFICE BUILDINGS	
OFFICE	SQ OF BUILDING TOTAL
BUILDING NORTH	18,240
BUILDING SOUTH	18,240
TOTAL	36,480

PARKING RATIO (BASED ON RESIDENCE UNITS)				
RESIDENCE	UNITS OF BUILDING	REQUIRED PARKING	PROPSED PARKING	REQUIRED RATIO
ONE BEDROOM UNITS	9	14	14	1.5 SPACE/1 BED UNIT
TWO BEDROOM UNITS	18	45	45	2.5 SPACE/2 BED UNIT
THREE BEDROOM UNITS	21	63	63	3 SPACE/3 BED UNIT
TOTAL	48	122	122	

PARKING RATIO (BASED ON SQFT OF OFFICE				
OFFICE	SQ OF BUILDING TOTAL	REQUIRED PARKING	PROPSED PARKING	REQUIRED RATIO
BUILDING NORTH	18,240	52	52	2.85 SPACE/1000 SQFT
BUILDING SOUTH	18,240	52	53	
TOTAL	36,480	104	105	

ACCESSIBLE PARKING (RESIDENCE)		
VAN PARKING	1 REQUIRED	1 PROVIDED
ACCESSIBLE PARKING	4 REQUIRED	4 PROVIDED
TOTAL	5 REQUIRED	5 PROVIDED

ACCESSIBLE PARKING (OFFICE)		
VAN PARKING	1 REQUIRED	1 PROVIDED
ACCESSIBLE PARKING	4 REQUIRED	4 PROVIDED
TOTAL	5 REQUIRED	5 PROVIDED

SITE DATA

PROJECT NAME: BRANCH CREEK CROSSING
PROJECT #: DEVELOPMENT PLAN COF # 4692
REZONING PLAN COF # 4680
SLOT NUMBER: ---
ADDRESS: 574 AND 580 FRANKLIN ROAD
CITY: FRANKLIN
COUNTY: WILLLIAMSON
STATE: TENNESSEE
EXISTING ZONING : RESIDENTIAL DISTRICT (R-1)
CHARACTER AREA OVERLAY : BCCO-4
OTHER APPLICABLE OVERLAYS: TRADITIONAL
STANDARD: TRADITIONAL
PORPOSED ZONING: SD-X (PC 556 480)
ACREAGE OF SITE: 19.17 ACRES EXISTING
SQUARE FOOTAGE OF SITE: 832,556 SQFT
MINIMUM REQUIRED SETBACK LINES:
YARD FRONTING ON ANY STREET: 15'
SIDE YARD: SOUTH PROPERTY LINE: 5'
NORTH PROPERTY LINE: 5'
REAR YARD: 0'
INCOMPATIBLE USE BUFFER: SOUTH SIDE 75'
SITE DENSITY

TOTAL GROSS - 118,108 SF BUILDING / 835,556 SF PROPERTY = 0.14

NET DENSITY EACH PHASE

PHASE 1 - NORTH OFFICE BUILDING - 18,240 SF / 835,556 SF = 0.21
PHASE 2 - NORTH CONDOMINIUM BUILDING - 50,051 SF / 835,556 SF = 0.06
PHASE 3 - SOUTH OFFICE BUILDING 18,240 SF / 835,556 SF = 0.21
PHASE 4 - SOUTH CONDOMINIUM BUILDING - 31,577 SF /835,556 SF = 0.04

APPLICANT: TSQUARE ENGINEERING
ADDRESS: 7101 SHARONDALE CT. BRENTWOOD, TENNESSEE 37027
PHONE NO.: 615-953-2998
FAX NO.: 931-489-2089
E-MAIL ADDRESS: tim@tsquareengineering.com
CONTACT NAME: TIM TURNER

NOTE:
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT PERMITTED BY THE CITY ENGINEER.

A PORTION OF THIS PROPERTY IS LOCATED WITHIN AN AREA ZONE AE AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F, DATED SEPTEMBER 29, 2006 AND A PORTION OF THE PROPERTY IS LOCATED WITHIN AND AREA ZONE X AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F DATED SEPTEMBER 29, 2006
NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

TAX MAP 53 (076.00)
BRENTWOOD CHURCH OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.C.,TN

TAX MAP 53 (074.01)
JAMES F. & EVELYN A. HOLLOWAY
D.B. 256 PG. 433
R.O.W.C.,TN

LOADING/SERVICE AREA
CONDOMINIUM BUILDING 1
3 STORY WITH GARAGE 59,051 SF
FFE 758.00
CONDOMINIUM BUILDING 2
3 STORY WITH GARAGE 31,577 SF
FFE 4 160.70
FUTURE CROSS ACCESS
30' RIPARIAN ZONE 2
30' RIPARIAN ZONE 1
260 LF RETAINING WALL (DESIGN BY OTHERS)
165 LF RETAINING WALL (DESIGN BY OTHERS)
CONCRETE BRIDGE
100-YR FLOODPLAIN
DRY BRANCH CREEK
TOP OF BANK
STREAM BUFFER 60' FROM TOP OF BANK
265 LF RETAINING WALL (DESIGN BY OTHERS)
89 LF RETAINING WALL (DESIGN BY OTHERS)
580 FRANKLIN ROAD BUILDING #1 3 STORY || 18,240 SF 6,080 GROSS SF PER FLOOR FFE 757.00
574 FRANKLIN ROAD BUILDING #2 3 STORY || 18,240 SF 6,080 GROSS SF PER FLOOR FFE 756.35
BICYCLE PARKING
75' INCOMPATIBLE USE BUFFER
5' SIDE YARD SETBACK
15' FRONT YARD SETBACK
15' MVUD EASEMENT
19.77' MVUD EASEMENT
25' R.O.W. DEDICATION
10' MULTI-USE PATH
HANDICAP RAMP
10' MULTI USE PATH
DAVENPORT BLVD.
S 56°15'46" E 235.20'
N 36°01'49" E 604.49' TOTAL
N 31°31'60" W 431.60'
PERMEABLE PAVERS
ASPHALT PAVING OVER SANITARY SEWER

SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER
REGISTERED ENGINEER
AGENT
No. 101714
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

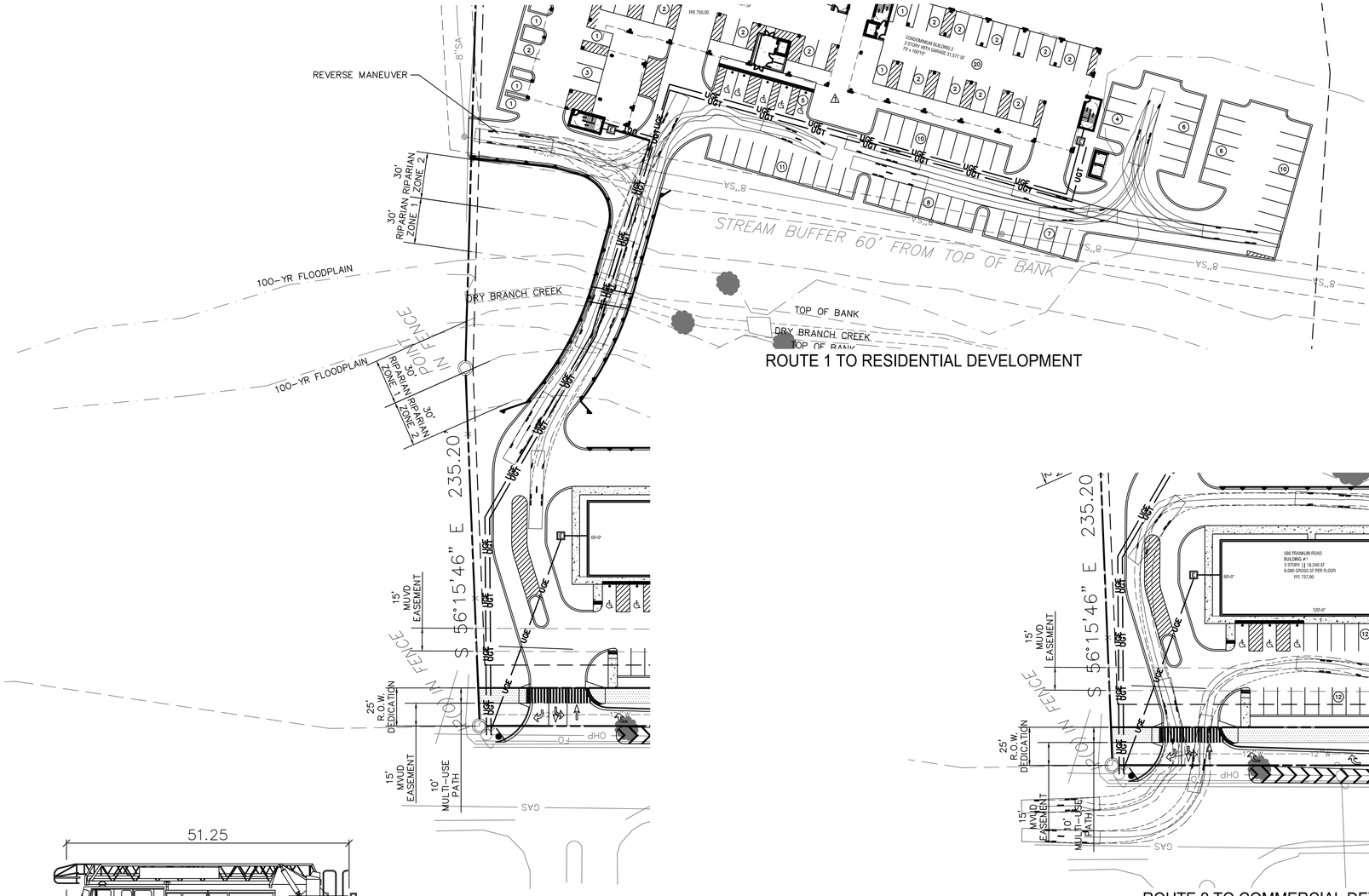
NO.	DATE	REVISIONS
1	11-10-2014	REVISED PER PLANNING COMMISSION COMMENTS
2	12-04-14	REVISED PER PLANNING COMMISSION COMMENTS

DATE: 05-20-2014
SCALE: 1" = 40'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING
SITE PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER 145061

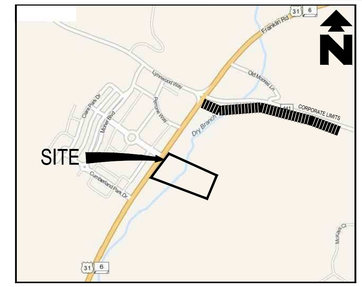
SHEET NUMBER C-3.0



ROUTE 1 TO RESIDENTIAL DEVELOPMENT

ROUTE 2 TO COMMERCIAL DEVELOPMENT

ROUTE 3 TO COMMERCIAL DEVELOPMENT



VICINITY MAP
N.T.S.

GRAPHIC SCALE
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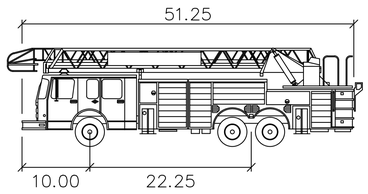
(IN FEET)
1 inch = 40 ft.



franklin t-2	feet
Width	: 8.66
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 42.0

NOTE:
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NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

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DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING

EMERGENCY VEHICLE PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-4.0

TAX MAP
53
(076.00)
BRENTWOOD CHURCH OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.C.,TN

TAX MAP
53
(074.01)
JAMES F. & EVELYN A. HOLLOWAY
D.B. 256 PG. 433
R.O.W.C.,TN

DRY BRANCH CREEK:

SILTATION IMPAIRMENT – YES
SILTATION IMPAIRED DRAINAGES – YES
STREAM ASSESSMENT – NOT SUPPORTING
MS-4 CITY – FRANKLIN

LEGEND

- SF — SILT FENCE (TCP-13)
- CF — ORANGE CONSTRUCTION FENCING
- TP — TREE PROTECTION FENCING
- ST — SEDIMENT TUBE

VICINITY MAP
N.T.S.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

GRADING NOTES:

1. STRIP ALL TOPSOILS, VEGETATION, SOFT, LOOSE OR OTHERWISE UNSUITABLE MATERIAL FROM THE SITE. THIS SHALL INCLUDE REMOVAL OF ANY TREES AND ASSOCIATED ROOT SYSTEM. ANY EXISTING FILL THAT IS POORLY COMPACTED SHALL ALSO BE REMOVED.

2. AFTER STRIPPING AND PRIOR TO PLACEMENT OF FILL, THE EXPOSED SUBGRADE SHALL BE PROOFROLLED TO DETECT ANY SOFT OR UNSTABLE AREAS. PROOFROLLING SHALL BE PERFORMED IN THE PRESENCE OF A GEOTECHNICAL ENGINEER REPRESENTATIVE. ANY SOFT OR UNSTABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SELECT FILL MATERIAL AS APPROVED BY THE GEOTECHNICAL ENGINEER.

3. SITE GRADES AROUND THE BUILDING AND PAVEMENT AREAS SHALL BE GRADED TO PREVENT PONDING. ANY SURFACE WATER ACCUMULATION IN THESE AREAS SHALL BE REMOVED IMMEDIATELY TO AVOID DISTURBANCE OF THE SUBGRADE SOILS.

4. REPRESENTATIVE SAMPLE OF FILL MATERIALS SHALL BE TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

5. FILL PLACEMENT AND COMPACTION SHALL BE OBSERVED AND DOCUMENTED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER.

6. ALL EXCAVATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST OSHA GUIDELINES AS MANDATED IN CURRENT FEDERAL, STATE AND LOCAL REGULATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE IN PROVIDING SAFE WORKING CONDITIONS IN CONNECTION WITH ANY EXCAVATION WORK.

7. IF DURING EARTH OPERATIONS, THE CONTRACTOR ENCOUNTERS UNUSUAL SOIL CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER OR ITS REPRESENTATIVE IN WRITING WITHIN 24 HOURS. NEGOTIATION SHALL THEN BE INITIATED BETWEEN OWNER AND CONTRACTOR TO ARRIVE AT A CHANGE IN CONTRACT PRICE FOR ADDITIONAL WORK. IF ADDITIONAL WORK IS NOT COVERED BY A CONTRACT UNIT PRICE, THE WORK SHALL BE PAID AT TIME AND MATERIAL BASIS.

Know what's below. Call before you dig.

PHONE: 615-367-1110
800-351-1111
E-MAIL: tnocs@tnonecall.com

NOTE:
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NOTE:
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SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER — REGISTERED ENGINEER — STATE OF TENNESSEE — 12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

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DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING

GRADING PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

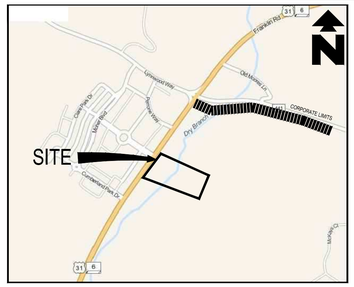
SHEET NUMBER
C-5.0

TAX MAP
53
(076.00)
BRENTWOOD CHURCH OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.C.,TN

DRY BRANCH CREEK:

SILTATION IMPAIRMENT – YES
SILTATION IMPAIRED DRAINAGES – YES
STREAM ASSESSMENT – NOT SUPPORTING
MS-4 CITY – FRANKLIN

PROPERTY AREA – 19.17 ACRES
DISTURBED AREA – 4.89 ACRES 25.50% OF PROPERTY
IMPERVIOUS AREA – 2.92 ACRES 15.23% OF PROPERTY
PERVIOUS AREA – 16.25 ACRES 84.77% OF PROPERTY



VICINITY MAP
N.T.S.

GRAPHIC SCALE
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(IN FEET)
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GRADING NOTES:

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4. REPRESENTATIVE SAMPLE OF FILL MATERIALS SHALL BE TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

5. FILL PLACEMENT AND COMPACTION SHALL BE OBSERVED AND DOCUMENTED BY A REPRESENTAITVE OF THE GEOTECHNICAL ENGINEER.

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TAX MAP
53
(074.01)
JAMES F. & EVELYN A. HOLLOWAY
D.B. 256 PG. 433
R.O.W.C.,TN

Tennessee811
Know what's below.
Call before you dig.
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800-351-1111
E-MAIL: tnocs@tnonecall.com

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NOTE:
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SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER
REGISTERED ENGINEER
AGRICULTURAL & BIOSYSTEMS
No. 101715
STATE OF TENNESSEE
12-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

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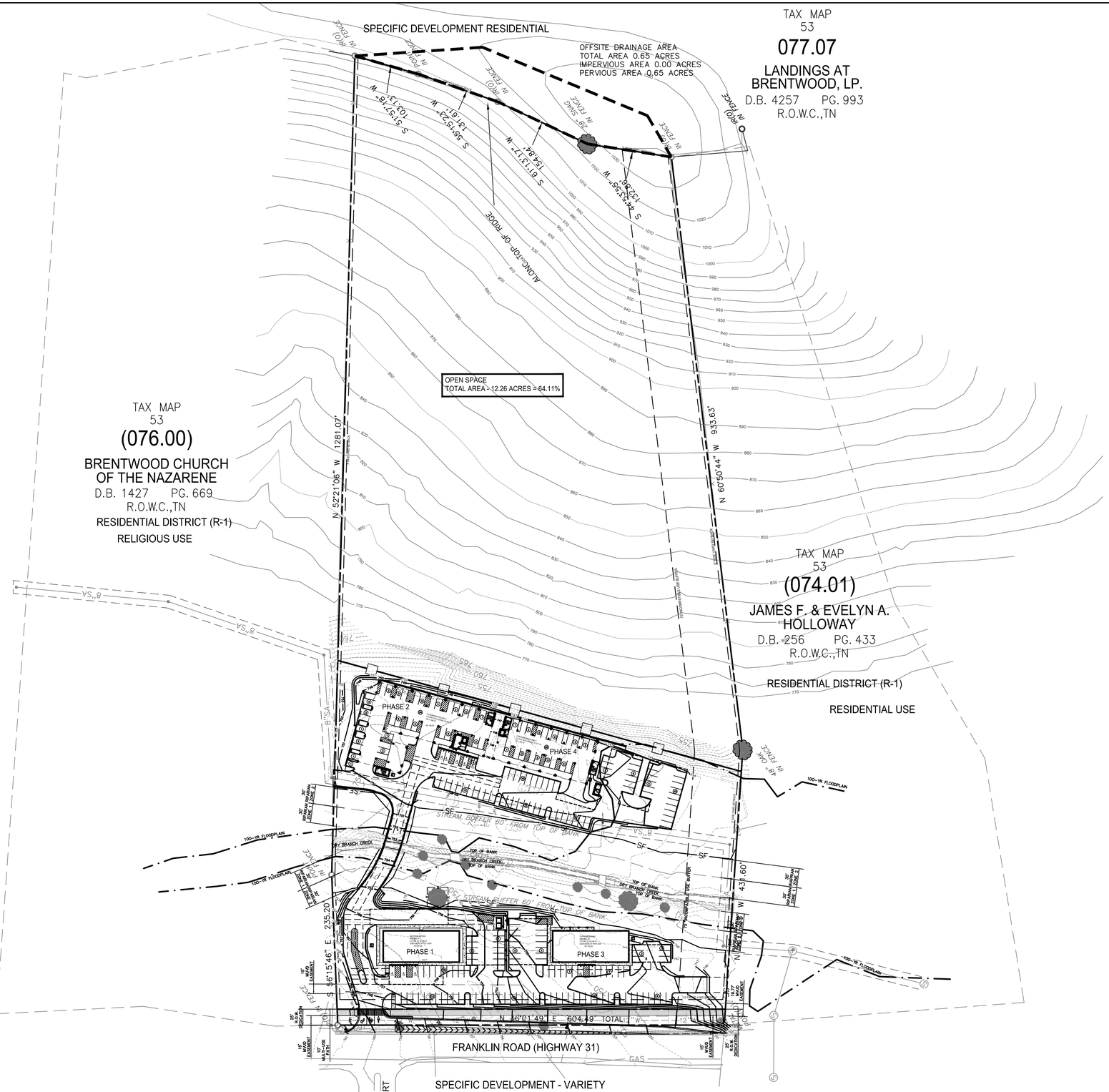
CHECKED BY: TET

BRANCH CREEK CROSSING

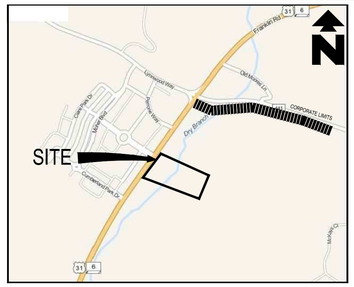
STORMWATER MANAGEMENT PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-6.0



DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680



VICINITY MAP
N.T.S.

GRAPHIC SCALE
(IN FEET)
1 inch = 80 ft.

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NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

TIMOTHY E. TURNER
REGISTERED ENGINEER
ARCHITECT
COMMERCE
NO. 101743
STATE OF TENNESSEE
12-04-14

TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
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BRANCH CREEK CROSSING

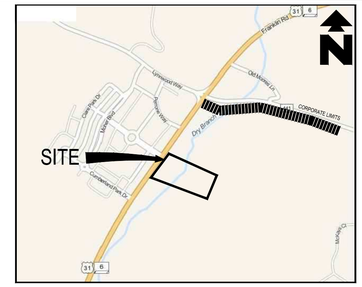
OFFSITE DRAINAGE AREA PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-6.1

TAX MAP
53
(076.00)
BRENTWOOD CHURCH
OF THE NAZARENE
D.B. 1427 PG. 669
R.O.W.,TN

NOTE:
WITHIN NEW DEVELOPMENTS AND FOR OFF-SITE LINES CONSTRUCTED AS A RESULT OF, OR TO PROVIDE SERVICE TO, THE NEW DEVELOPMENT, ALL UTILITIES, SUCH AS CABLE TELEVISION, ELECTRICAL (EXCLUDING TRANSFORMERS,), GAS, SEWER, TELEPHONE AND WATER LINES SHALL BE PLACED UNDERGROUND.



VICINITY MAP
N.T.S.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

UTILITY NOTES

1. ALL UTILITY WORKS SHALL BE IN CONFORMANCE WITH THE LOCAL UTILITY STANDARD SPECIFICATIONS AND DETAILS.
2. LOCATION OF ALL EXISTING UTILITIES ARE APPROXIMATE, THE CONTRACTOR SHALL VERIFY IN FIELD EXACT LOCATIONS PRIOR TO START OF CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL LOCAL UTILITIES AND TO HAVE ALL FACILITIES LOCATED AND EXPOSED TO VERIFY THE CLEARANCE OF NEW PIPE LINE CROSSINGS BEFORE CONSTRUCTION OF NEW PIPE LINES COMMENCES.
3. CONTRACTOR SHALL NOTIFY UTILITY OWNERS NO LESS THAN THREE DAYS OR MORE THAN TEN WORKING DAYS PRIOR TO START OF EXCAVATION WORK TO AVOID POSSIBLE HAZARD OR DAMAGE TO EXISTING UTILITIES.
4. THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES DURING CONSTRUCTION, PROPER REPAIR SHALL BE DONE TO THE SATISFACTION OF THE APPROPRIATE UTILITY COMPANY AT NO EXTRA COST TO THE OWNER.
5. IN CASE OF CONFLICT BETWEEN THIS DRAWING AND ANY OTHER DRAWING AND/OR THE SPECIFICATIONS, THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR CLARIFICATION.
6. MINIMUM COVER FOR CONDUITS SHALL BE 36" UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS.
7. PROPOSED LOCATIONS OF UTILITY STRUCTURES AND BORING LOCATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND ARE INTENDED TO BE USED AS A GUIDE. FIELD CONDITIONS ENCOUNTERED DURING CONSTRUCTION MAY REQUIRE PLACEMENT OF STRUCTURES AT LOCATIONS DIFFERENT THAN THAT WHICH IS SHOWN ON THIS PLAN. THE CONTRACTOR SHALL BE REQUIRED TO COORDINATE WITH UTILITY OWNERS REGARDING FINAL LOCATION OF STRUCTURES (TRANSFORMER PAD, WATER METERS, ETC.) ON SITE.
8. SEE BUILDING PLANS FOR EXACT LOCATION OF UTILITY SERVICE CONNECTION TO THE BUILDING AND VERIFY ALL SERVICE LOAD REQUIREMENTS.
9. THESE PLANS DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE REGISTERED PROFESSIONAL ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.

LEGEND

- WATER METER
- FIRE HYDRANT
- VALVE
- 8"W — WATER MAIN
- 8"SA — SANITARY SEWER MAIN
- S — 6" SANITARY SEWER SERVICE
- Ⓢ — SANITARY SEWER MANHOLE
- UGE — UNDERGROUND ELECTRIC
- UGT — UNDERGROUND TELEPHONE
- E — ELECTRIC TRANSFORMER
- PROPOSED POWER POLE

NOTE:
24" WATER MAIN AND ASSOCIATED 15' MALLORY VALLEY UTILITY DISTRICT EASEMENT SHOWN PER EASEMENT DESCRIPTIONS FROM MALLORY VALLEY UTILITY DISTRICT. CONTRACTOR TO LOCATE EXACT LOCATION OF 24" WATER MAIN PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY MALLORY VALLEY UTILITY DISTRICT PRIOR CONSTRUCTION OF PROPOSED WATER SERVICES FOR PROPOSED COMMERCIAL BUILDINGS AND PROPOSED CONDO DEVELOPMENT.

A PORTION OF THIS PROPERTY IS LOCATED WITHIN AN AREA ZONE AE AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F, DATED SEPTEMBER 29, 2006 AND A PORTION OF THE PROPERTY IS LOCATED WITHIN AND AREA ZONE X AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F DATED SEPTEMBER 29, 2006

NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

NOTE:
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT PERMITTED BY THE CITY ENGINEER.

SPECIFIC DEVELOPMENT - VARIETY

DEVELOPMENT PLAN CITY OF FRANKLIN ID #4692
REZONING PLAN CITY OF FRANKLIN ID #4680

TIMOTHY E. TURNER
REGISTERED ENGINEER
STATE OF TENNESSEE
2-04-14

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

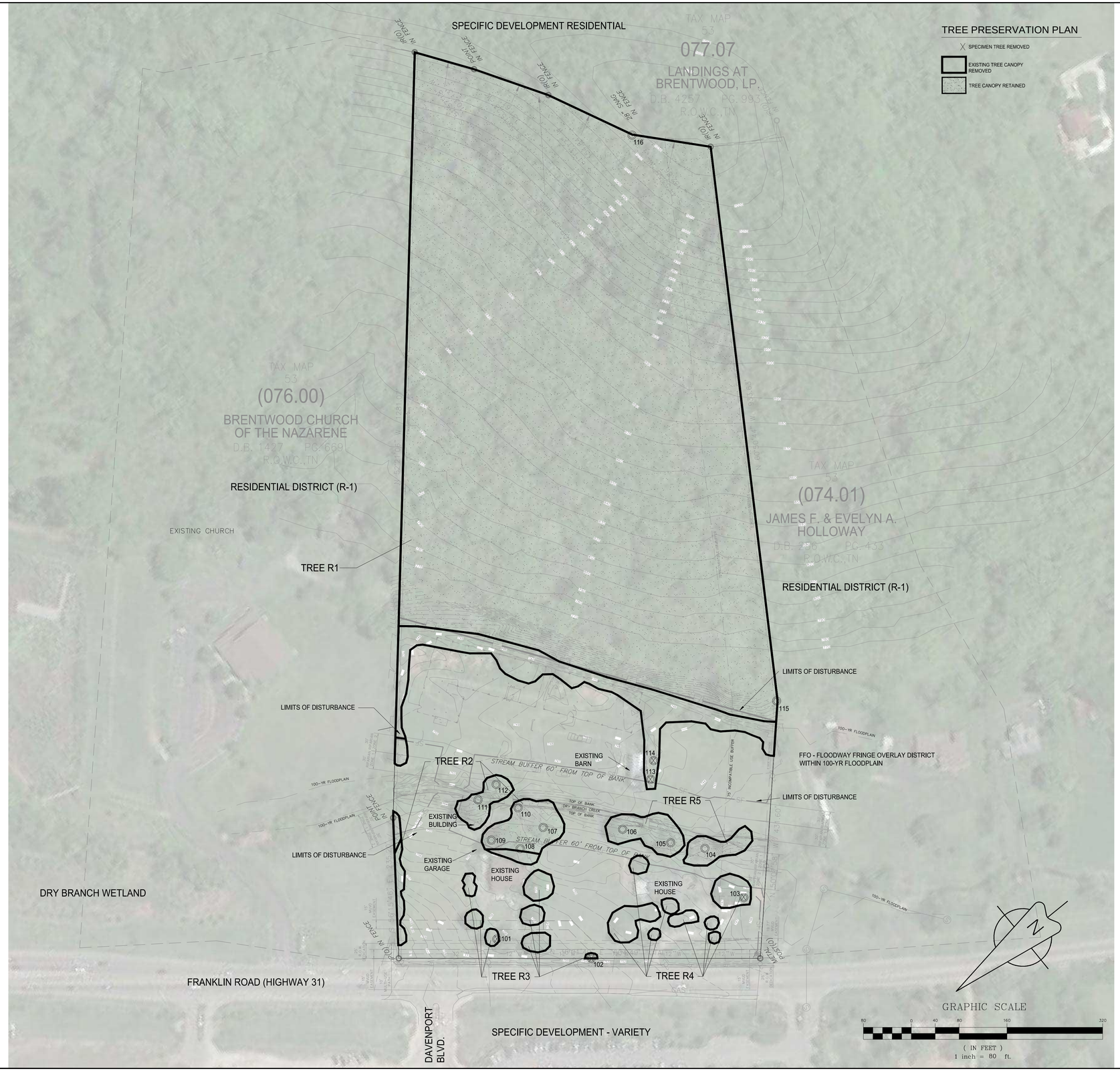
NO.	DATE	REVISIONS
1	11-10-2014	REVISED PER PLANNING COMMISSION COMMENTS
2	12-04-14	REVISED PER PLANNING COMMISSION COMMENTS

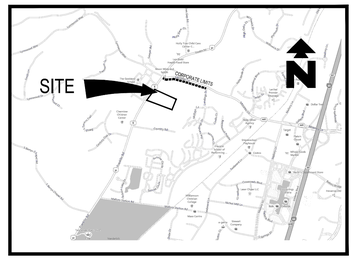
DATE: 05-20-2014
SCALE: 1" = 40'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

BRANCH CREEK CROSSING
UTILITY PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

JOB NUMBER
145061

SHEET NUMBER
C-7.0





VICINITY MAP
N.T.S.

TABLE 5-2: TREE CANOPY RETENTION STANDARDS
EXISTING TREE CANOPY - 60% - 79%
MINIMUM REQUIRED TREE CANOPY RETENTION BY ZONING - SD-X 18%
EXISTING TREE CANOPY COVER - 63.32%
PROPOSED TREE CANOPY COVER - 63.32%
TREE REPALCEMENT 2" REPLACEMENT FOR EVERY 1" REMOVED

MINERAL RIGHTS WILL BE HELD BY THE PROPERTY OWNER

EXISTING SITE SUMMARY
TOTAL SITE AREA - 19.17 ACRES
SITE USE - RESIDENTIAL
TOTAL RESIDENTIAL USE - 19.17 ACRES

SPECIMEN TREE SURVEY

Number	Type	Size	Health	Status
101	TREE	38"	POOR	REMOVED
102	TREE	24"	POOR	REMOVED
103	TREE	36"	FAIR	REMOVED
104	TREE	48"	FAIR	
105	TREE	36"	FAIR	
106	TREE	28"	FAIR	
107	TREE	38"	FAIR	
108	TREE	32"	FAIR	
109	TREE	48"	POOR	
110	TREE	36"	POOR	
111	TREE	30"	FAIR	
112	TREE	24"	FAIR	
113	TREE	32"	FAIR	REMOVED
114	TREE	26"	FAIR	REMOVED
115	TREE	48"	GOOD	
116	TREE	28"	GOOD	

SPECIMEN TREES REMOVED: 5
TOTAL HEALTHY INCHES REMOVED: 94 INCHES

REPLACEMENT RATIO: 2:1
REPLACEMENT REQUIRED: 188 INCHES

TREE CANOPY RETENTION

TREE AREA	EXISTING CANOPY	REMOVED CANOPY	REMAINING CANOPY
TREE R1	559,731 SF	27,866 SF	531,865 SF
TREE R2	16,429 SF	3,144 SF	13,285 SF
TREE R3	6,439 SF	6,439 SF	0 SF
TREE R4	9,752 SF	9,752 SF	0 SF
TREE R5	10,400 SF	0 SF	10,400 SF
TOTAL SF	602,751 SF	47,201 SF	555,550 SF
TOTAL ACRES	13.83 AC	1.08 AC	12.75 AC

NOTE:
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT PERMITTED BY THE CITY ENGINEER.

NOTE:
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT PERMITTED BY THE CITY ENGINEER.
A PORTION OF THIS PROPERTY IS LOCATED WITHIN AN AREA ZONE AE AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F, DATED SEPTEMBER 29, 2006 AND A PORTION OF THE PROPERTY IS LOCATED WITHIN AND AREA ZONE X AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 47187C0205F DATED SEPTEMBER 29, 2006

NOTE:
SITE REFERENCES TENNESSEE STATE PLANE COORDINATE SYSTEM, ZONE 5301, FIPSZONE 4100: NAD83 DATUM

CITY OF FRANKLIN ID #4692

GREGORY C. GAMBLE
REGISTERED
AGRICULTURE
TENNESSEE
LANDSCAPE ARCHITECT

T2 TSQUARE ENGINEERING
Consulting Civil Engineering
7101 Sharondale Ct. * Brentwood, TN 37027 * (615) 953-2998
tim@t2-eng.com

REVISIONS
DATE
NO.

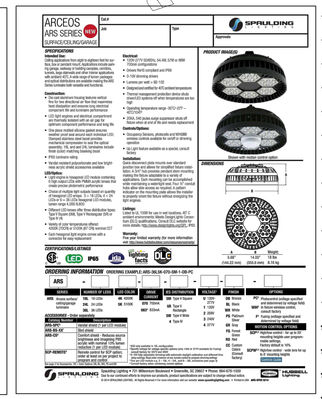
DATE: 05-20-2014
SCALE: 1" = 80'
DRAWN BY: TSQUARE ENGINEERING
CHECKED BY: TET

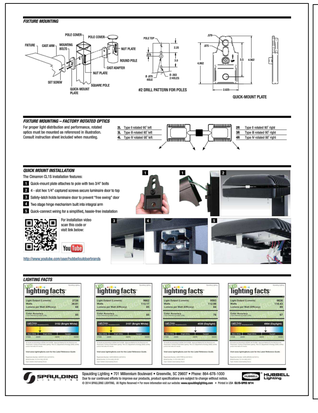
BRANCH CREEK CROSSING

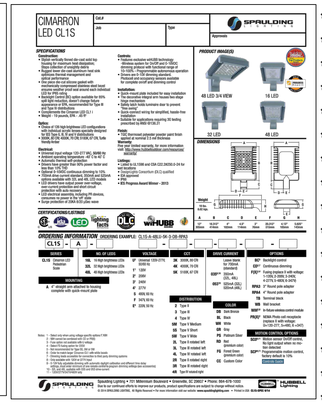
TREE PROTECTION PLAN
HIGHWAY 31 AND DAVENPORT
MAP 53 AND PARCELS 75.00 & 75.01
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

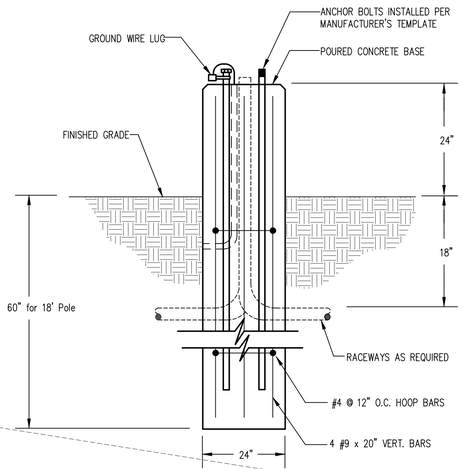
JOB NUMBER
145061

SHEET NUMBER
C-8.0



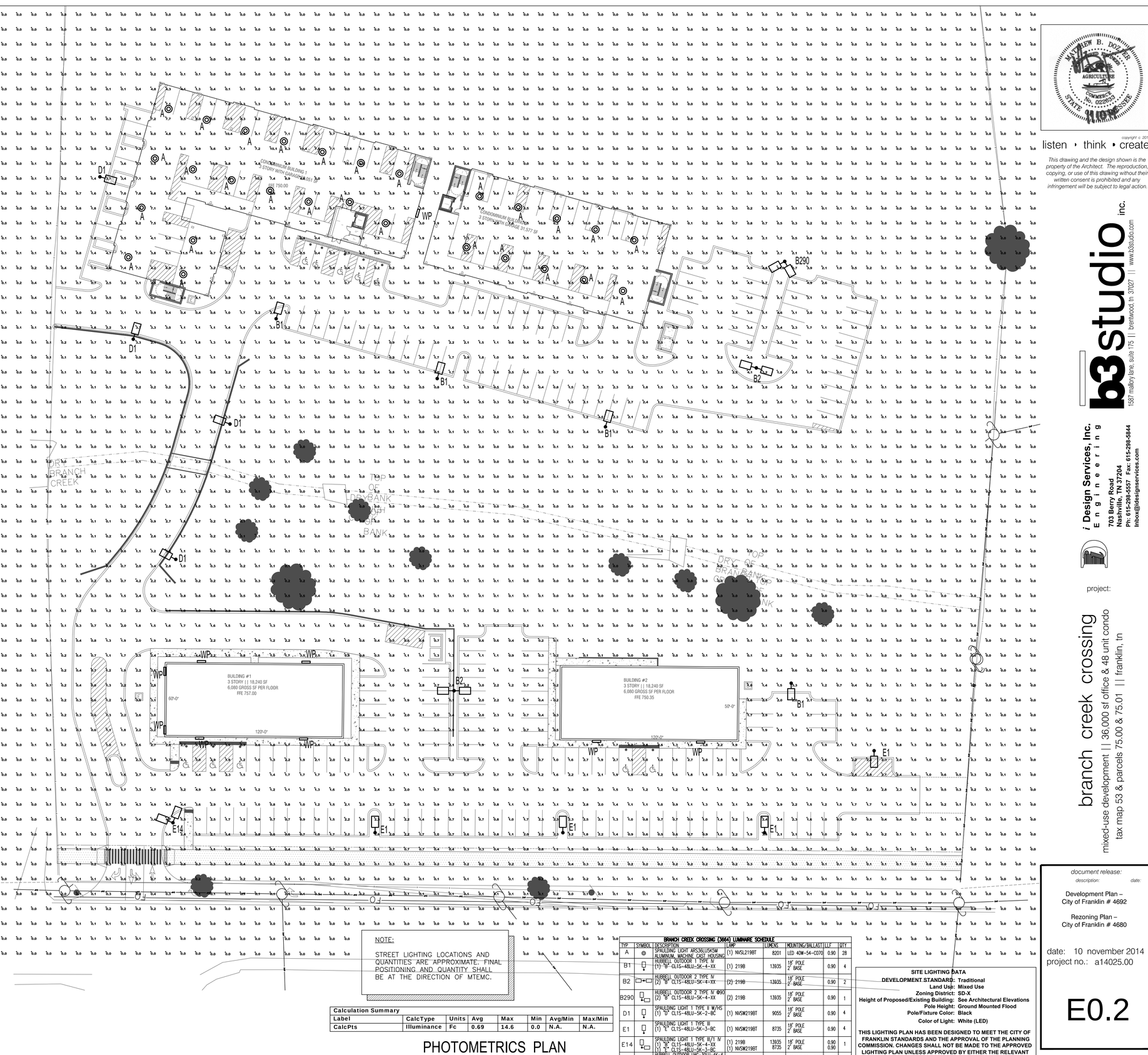






POLE BASE DETAIL

N.T.S.



NOTE:

STREET LIGHTING LOCATIONS AND QUANTITIES ARE APPROXIMATE. FINAL POSITIONING AND QUANTITY SHALL BE AT THE DIRECTION OF MTEMC.

PHOTOMETRICS PLAN

SCALE: 1" = 30'

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts	Illuminance	Fc	0.69	14.6	0.0	N.A.	N.A.

BRANCH CREEK CROSSING (3864) LUMINAIRE SCHEDULE

TYP	SYMBOL	DESCRIPTION	LAMP	LUMENS	MOUNTING/BALLAST	LLF	QTY
A		SPAULDING LIGHT ARS36L0.5K5M ALUMINUM, MACHINE CAST HOUSING	(1) NWSL219BT	8201	LED 40W-5K-C070	0.90	28
B1		HUBBELL OUTDOOR 1 TYPE IV (1) "B" CL1S-48LU-5K-4-XX	(1) 219B	13935	18' POLE 2' BASE	0.90	4
B2		HUBBELL OUTDOOR 2 TYPE IV (2) "B" CL1S-48LU-5K-4-XX	(2) 219B	13935	18' POLE 2' BASE	0.90	2
B290		HUBBELL OUTDOOR 2 TYPE IV @90 (2) "B" CL1S-48LU-5K-4-XX	(2) 219B	13935	18' POLE 2' BASE	0.90	1
D1		SPAULDING LIGHT 1 TYPE II W/HS (1) "D" CL1S-48LU-5K-2-BC	(1) NWSW219BT	9055	18' POLE 2' BASE	0.90	4
E1		SPAULDING LIGHT 1 TYPE III (1) "E" CL1S-48LU-5K-3-BC	(1) NWSW219BT	8735	18' POLE 2' BASE	0.90	4
E14		SPAULDING LIGHT 1 TYPE III/1 W (1) "B" CL1S-48LU-5K-4-XX (1) "E" CL1S-48LU-5K-3-BC	(1) 219B (1) NWSW219BT	13935 8735	18' POLE 2' BASE	0.90 0.90	1
WP		HUBBELL OUTDOOR LMC-30LU-4K-4 LAREDO LMC, 30 LED, 4200K, TYP	(1) NWSL219BT R7Q	7508	LED40W-054-C070	0.90	9

SITE LIGHTING DATA
DEVELOPMENT STANDARD: Traditional
Land Use: Mixed Use
Zoning District: SD-X
Height of Proposed/Existing Building: See Architectural Elevations
Pole Height: Ground Mounted Flood
Pole/Fixture Color: Black
Color of Light: White (LED)

THIS LIGHTING PLAN HAS BEEN DESIGNED TO MEET THE CITY OF FRANKLIN STANDARDS AND THE APPROVAL OF THE PLANNING COMMISSION. CHANGES SHALL NOT BE MADE TO THE APPROVED LIGHTING PLAN UNLESS APPROVED BY EITHER THE RELEVANT DEPARTMENT SUPERINTENDENT OR THE PLANNING COMMISSION.

MATTHEW B. DOZIER
REGISTERED
PROFESSIONAL
ENGINEER
AGRICULTURE
COMMISSION
No. 022653
STATE OF TENNESSEE

listen • think • create

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b3studio inc.
1557 mallory lane, suite 175 || brentwood, tn 37027 || www.b3studio.com

i Design Services, Inc.
Engineering
703 Berry Road
Nashville, TN 37204
Ph: 615-298-5557 Fax: 615-298-5844
Inbox@idesignservices.com

project:

branch creek crossing

mixed-use development || 36,000 sf office & 48 unit condo
tax map 53 & parcels 75.00 & 75.01 || franklin, tn

document release:

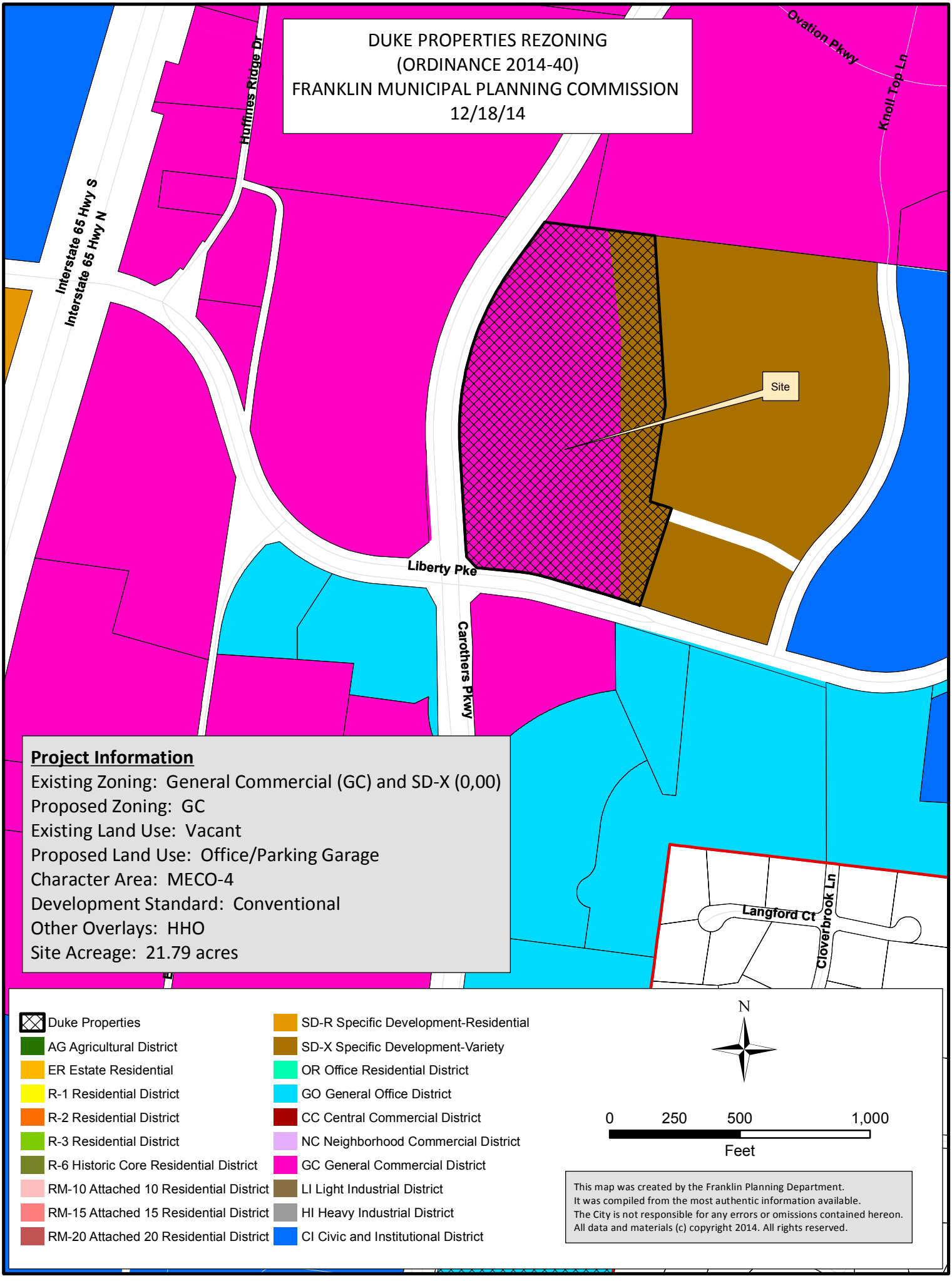
description: *date:*

Development Plan – City of Franklin # 4692

Rezoning Plan – City of Franklin # 4680

date: 10 november 2014
project no.: a14025.00

E0.2


DUKE PROPERTIES REZONING
(ORDINANCE 2014-40)
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Ovation Pkwy
Knoll Top Ln
Huffines Ridge Dr
Interstate 65 Hwy S
Interstate 65 Hwy N
Site
Liberty Pke
Carothers Pkwy
Langford Ct
Cloverbrook Ln
Project Information
Existing Zoning: General Commercial (GC) and SD-X (0,00)
Proposed Zoning: GC
Existing Land Use: Vacant
Proposed Land Use: Office/Parking Garage
Character Area: MECO-4
Development Standard: Conventional
Other Overlays: HHO
Site Acreage: 21.79 acres
Duke Properties
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0 250 500 1,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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ORDINANCE 2014-40

TO BE ENTITLED "AN ORDINANCE TO REZONE ±4.89 ACRES FROM SPECIFIC DEVELOPMENT-VARIETY DISTRICT (SD-X 0/0) TO GENERAL COMMERCIAL DISTRICT (GC) FOR THE PROPERTY LOCATED AT 1214 LIBERTY PIKE."

WHEREAS, the City of Franklin, Tennessee encourages responsibly placed density and appropriate base zoning districts for multiple kinds of projects; and

WHEREAS, the proposed GC zone would remove the current split zoning condition on the property in question.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMAN OF FRANKLIN, TENNESSEE, AS FOLLOWS:

SECTION I: The following described property shall be, and are hereby, rezoned from its present zoning classification of Specific Development-Variety District (SD-X) to General Commercial District (GC):

BEING THE EASTERNLY PORTION OF A TRACT OR PARCEL OF LAND known as Lot 3 OF the Final plat of Duke Properties, recorded at Plat Book 56 page 2 in the register's office of Williamson County Tennessee. R.O.W.C. and as situated in the Eighth Civil District of Williamson County, Tennessee. This parcel also being more particularly bounded and described as follows:

BEGINNING AT the northeast corner of Lot 3 of the Final Plat of Duke Properties (PB 56 page 2), of which this is a part, and the northwest corner of Lot 1 of the original Waterford Subdivision Final Plat (PB 55 page 28) R.O.W.C. Thence leaving said lot 1 and with the north line of the aforesaid Lot 3, North 83°00'45" West, a distance of 180.30 feet to a point; Thence Leaving the north line of the Duke properties Lot 3 and running through the parcel the following two (2) courses; (1) South 06°59'19" East, a distance of 415.06 feet; Thence (2) South 00°16'25" West, a distance of 999.72 feet to a point on the north right of way of Liberty Pike/Carothers Roadway Intersection and the south line of the aforesaid Duke Properties Parcel of which this is a part; Thence with said north right of way line and Duke Properties Parcel South 72°04'57" East, a distance of 78.85 feet to the southeast corner of said Lot 3 and the southwest corner of the aforesaid Lot 1; Thence leaving the north right of way line of Liberty Pike and with 5 lines of the common boundary of said lots 1 and 3; Thence (1) North 18°10'10" East, a distance of 390.62 feet to a point; Thence (2) North 71°05'56" West, a distance of 37.21 to a point marking the beginning of a curve concave to the south having a radius of 1400.00 feet and a central angle of 2°01'57" and being subtended by a chord which bears North 72°06'55" West 49.66 feet; thence (3) easterly along said curve, a distance of 49.66 feet to a point; thence (4) North 09°03'41" East, a distance of 371.89 feet to a point; thence (5)

North 03°30'15" West, a distance of 649.53 feet to the beginning.

And containing 4.886 acres of land more or less.

Also being the same land designated as Lot 3 on the Final Plat of Waterford as recorded in Plat Book 55 page 28 in the Register's Office of Williamson County.

Zoning Reference Number: 14-06:

Map-Group-Parcel	Acres
079G-A00400	±4.89
TOTAL	±4.89

SECTION II: BE IT FINALLY ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Ordinance shall take effect from and after its passage on third and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST:

BY: _____
ERIC S. STUCKEY
CITY ADMINISTRATOR/RECORDER

CITY OF FRANKLIN, TENNESSEE

BY:_____
DR. KEN MOORE
MAYOR

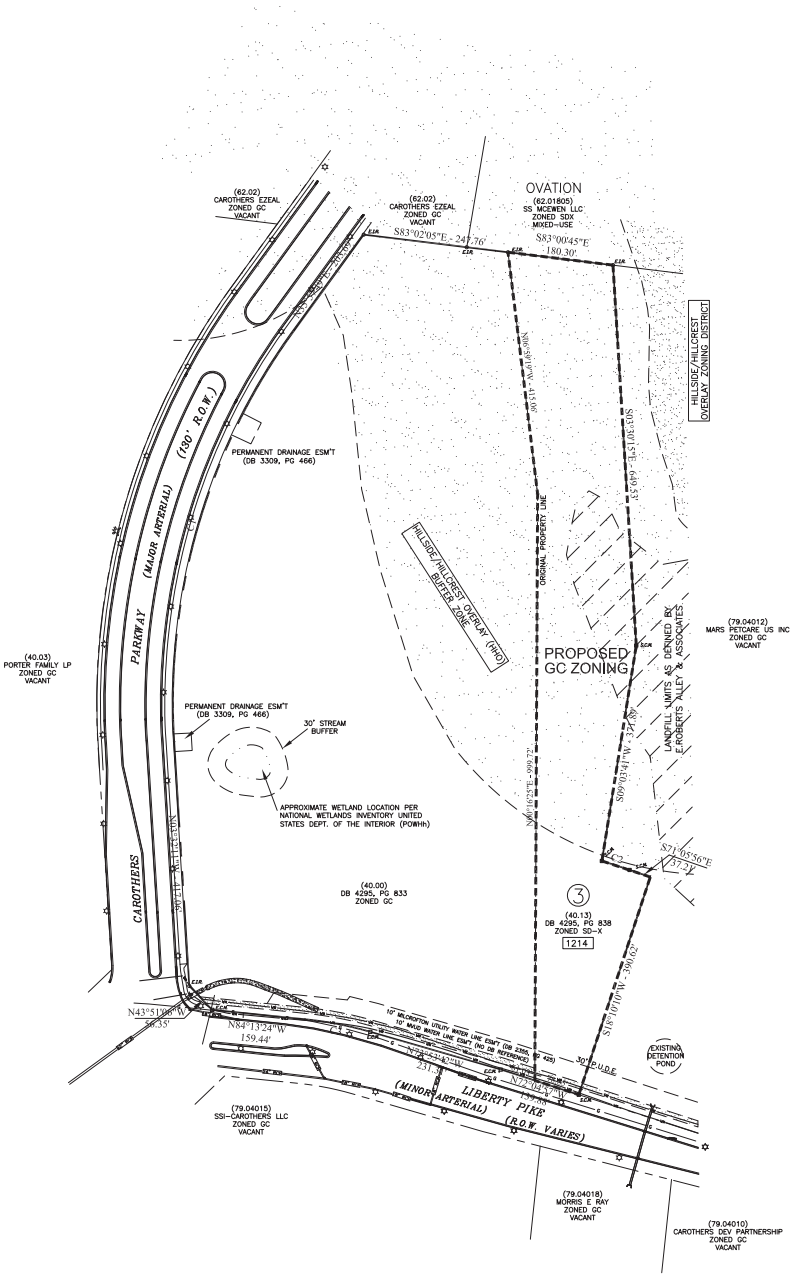
PLANNING COMMISSION RECOMMENDED APPROVAL:

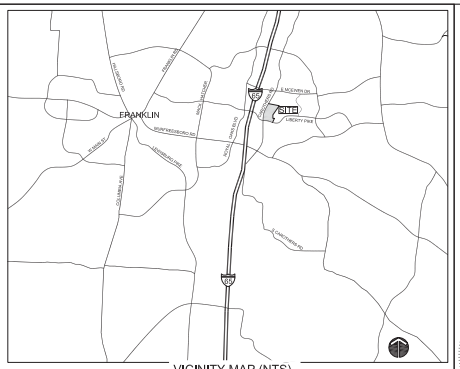
PASSED FIRST READING:

PUBLIC HEARING HELD:

PASSED SECOND READING:

PASSED THIRD READING:





VICINITY MAP (NTS)

SITE DATA:

1. PROJECT NAME: DUKE PROPERTIES
   PROJECT #: 4710
   SUBDIVISION:
   LOT NUMBER: 3
   ADDRESS: 1214 LIBERTY PIKE
   CITY: FRANKLIN
   COUNTY: WILLIAMSON
   STATE: TENNESSEE
   CIVIL DISTRICT: 9TH

   EXISTING ZONING AND CHARACTER AREA OVERLAY: SD-X, MECO-4
   PROPOSED ZONING: GC - GENERAL COMMERCIAL
   OTHER APPLICABLE OVERLAYS: HILLSIDE/HILLCREST (H,H.O.)
   ACREAGE OF OVERALL SITE: +/- 21.788
   SQUARE FOOTAGE OF OVERALL SITE: +/- 949,085.28 SF
   ACREAGE OF REZONED SITE: +/- 4.885
   SQUARE FOOTAGE OF REZONED SITE: +/- 212,795.99 SF
   APPLICABLE DEVELOPMENT STANDARD DESIGNATION: CONVENTIONAL
   MINIMUM REQUIRED SETBACK LINES:
   YARD FRONTING ON ANY STREET: 30'
   SIDE YARD: 15'
   REAR YARD: 25'

   OWNER:
   DUKE REALTY LIMITED PARTNERSHIP
   520 MARYVILLE CENTRE DRIVE
   SUITE 200
   ST. LOUIS, MO 63141
   RYAN D. HODGES, P.E.
   RYAN.HODGES@DUKEREALTY.COM

   APPLICANT:
   KISER + VOGRIN DESIGN
   5005 MERIDIAN BLVD., SUITE 100
   615.620.7171
   GARY@KISERVOGRIN.COM
   GARY M. VOGRIN

2. Survey provided by S & A Surveying, Inc. 306 Bluegrass Circle, Lebanon TN, Contact Jerry Swords, 615.394.7564
3. There are no historical structures on this site as identified by The National Registers of Historic Places.
4. Mineral rights are held by the owner of the property.
5. All public improvements to be located in an easement.
6. This site will require the use of on-site water quality practices to treat stormwater from the site.
7. Reclaimed (reuse) water facilities: Use of reclaimed water will be incorporated if available to the site.
8. Refuse collection shall be provided by onsite recycling and dumpster/service locations.
9. Nearest Facilities:
   FIRE = Franklin Fire Department Station 2, 2.9 miles
   POLICE = Franklin Police Department, 4.6 miles
   RECREATIONAL = Liberty Park, 100 feet
10. The anticipated impact on streets shown on the major thoroughfare plan is a fulfillment of the demands for off-network connections and a reduction or minimal impact on major arterials.
11. Mallory Valley Utility District is the potable water supplier.
12. This proposed zoning to GC is in keeping with the adjacent parcel along Carothers Parkway.
13. This site has direct access to Liberty Pike, which is a minor arterial and Carothers Pkwy, which is a major arterial, to collect and disperse vehicular traffic.
14. City of Franklin is the sanitary sewer provider.
15. Stormwater Quality and Quantity practices will be implemented on site.

PROPOSED GC ZONING LINE BOUNDARY

0 100 200 300

SCALE: 1"= 100'

KISERVOGRINDESIGN
5005 Meridian Blvd. Ste. 100, Franklin, TN 37067
615.620.7171

GARY M. VOGRIN TENNESSEE No. 629 LANDSCAPE ARCHITECT 12.04.14

DUKE REALTY: SUBDIVISION (GC)

DUKE REALTY LIMITED PARTNERHIP
REZONING PLAN

CITY OF FRANKLIN PROJECT # 4710

REVISIONS:
1) 6.14 - Resubmittal per Staff Comments

DATE: 11.10.14
DESIGNED BY: GMV
DRAWN BY: GMV
CHECKED BY: GMV
SCALE: 1"=100'
PROJECT #: 14.007

SHEET NUMBER:
L-1

ORDINANCE 2014-49

TO BE ENTITLED, "AN ORDINANCE TO ANNEX THE ADAMS PROPERTY, CONSISTING OF 11.88 ACRES, LOCATED ON THE PROPERTIES ON THE SOUTH SIDE OF MURFREESBORO ROAD, IMMEDIATELY WEST OF RIDGEWAY DRIVE."

WHEREAS, the City of Franklin, Tennessee, has determined that it would be in the best interests of the City to annex 11.88 acres located south of Murfreesboro Road, on the three properties south of Murfreesboro Road, immediately west of Ridgeway Drive, and;

WHEREAS, this annexation will result in a residential development the site, and;

WHEREAS, there is a Plan of Services, an agreement regarding services and responsible parties to be considered with this annexation request, therefore:

PREMISES CONSIDERED

SECTION I: BE IT ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that the following described property shall be, and is hereby, annexed in and to the corporate limits of the City of Franklin, Tennessee:

LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT I

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.789 acre tract, more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Adams, Tract II (Deed Book 495, Page 148), said rod being located 382.81 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northwestern line of Adams, Tract II, S 21° 22' 59" W, 899.73 feet to a set iron rod & cap (CCI) in the northeastern line of Lot 12, Franklin East Subdivision (Plat Book 6, Page 91);

Thence leaving the northwestern line of Adams, Tract II and with the northeastern line of Lot 12, N 68° 56' 26" W, 163.28 feet to an existing 3/4 inch iron rod, corner to Lot 13, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 12 and with the northeastern line of Lot 13, N 68° 38' 40" W, 117.61 feet to an existing concrete monument, corner to Lot 7, Cross Creek Subdivision (Plat Book 8, Page 11);

Thence leaving the northeastern line of Lot 13 and with the southeastern line of Lot 7, Cross Creek Subdivision, N 21° 33' 30" E, 139.65 feet to an existing 5/8 inch iron rod, corner to Lot 6, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 7 and with the southeastern line of Lots 6 and 5, Cross Creek Subdivision, N 21° 33' 03" E, 324.48 feet to an existing "T" Bar, corner to Lot 4, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 5 and with the southeastern lines of Lots 4 and 3, Cross Creek Subdivision, N 21° 33' 03" E, 435.04 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Lot 3 and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 278.24 feet to the Point of **BEGINNING**;

Containing 252,155.34 square feet or 5.789 acres, more or less.

LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT II

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.112 acre tract, more particularly described as follows:

BEGINNING on an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Lot 1, Franklin East Subdivision (Plat Book 6, page 91), said rod being located 130.86 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northwestern line of Lot 1, S 22° 07' 02" W, 328.41 feet to an existing "T" Bar, corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 1 and with the northwestern line of Lot 2, S 21° 28' 27" W, 244.65 feet to an existing 3/4 inch iron rod, corner to Lot 3, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 2 and with the northwestern line of Lot 3, S 22° 32' 53" W, 29.80 feet to an existing 5/8 inch iron rod, corner to Lot 4, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 3 and with the northwestern line of Lot 4, S 21° 17' 48" W, 186.13 feet to an existing 1/2 inch iron rod, corner to Lot 5, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 4 and with the northwestern line of Lot 5, S 21° 38' 31" W, 111.58 feet to an existing "T" Bar, corner to Lot 11, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 5 and with the northeastern line of Lot 11, N 68° 42' 41" W, 199.91 feet to an existing 3/4 inch iron rod, corner to Lot 12, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 11 and with the northeastern line of Lot 12, N 68° 56' 26" W, 46.61 feet to a set iron rod & cap (CCI), corner to Adams, Tract I (Deed Book 495, Page 148);

Thence leaving the northeastern line of Lot 12 and with the southeastern line of Adams, N 21° 22' 59" E, 899.73 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Adams, Tract I and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 251.95 feet to the Point of **BEGINNING**;

Containing 222,668.70 square feet or 5.112 acres, more or less.

LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT III

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being Lot 1, Franklin East Subdivision (Plat Book 6, Page 91), said lot being more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), said rod being located 26.53 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road and with a curve to the right, having a radius of 50.00 feet and a chord of S 06° 28' 56" E, 46.88 feet to a set iron rod & cap (CCI) at the northwestern right-of-way line of Ridgeway Drive;

Thence with the northwestern right-of-way line of Ridgeway Drive, with a curve to the left, having a radius of 584.14 feet and a chord of S 10° 06' 55" W, 230.01 feet to a set iron rod & cap (CCI), corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern right-of-way line of Ridgeway Drive and with the northeastern line of Lot 2, N 88° 04' 14" W, 186.01 feet to an existing "T" Bar in the southeastern line of Adams, Tract II (Deed Book 490, Page 930),

Thence leaving the northeastern line of Lot 2 and with the southeastern line of Adams, Tract II, N 22° 07' 02" E, 328.41 feet to an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road,

Thence leaving the southeastern line of Adams and with the southwestern right-of-way line of Murfreesboro Road, S 68° 56' 08" E, 104.33 feet to the Point of **BEGINNING**;

Containing 42,583.03 square feet or 0.978 acres, more or less.

Thence the following lands shall be annexed:

Map-Parcel	Acres
079---06007	5.789
079---06001	5.112
079M-B-01000	0.978
Total	11.88

SECTION III: BE IT FURTHER ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that the annexed property shall become part of Aldermanic Ward One.

SECTION IV: BE IT FINALLY ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Ordinance shall take effect from and after its passage on third and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST:

CITY OF FRANKLIN, TENNESSEE

BY: _____
ERIC S. STUCKEY
CITY ADMINISTRATOR/RECORDER

BY: _____
DR. KEN MOORE
MAYOR

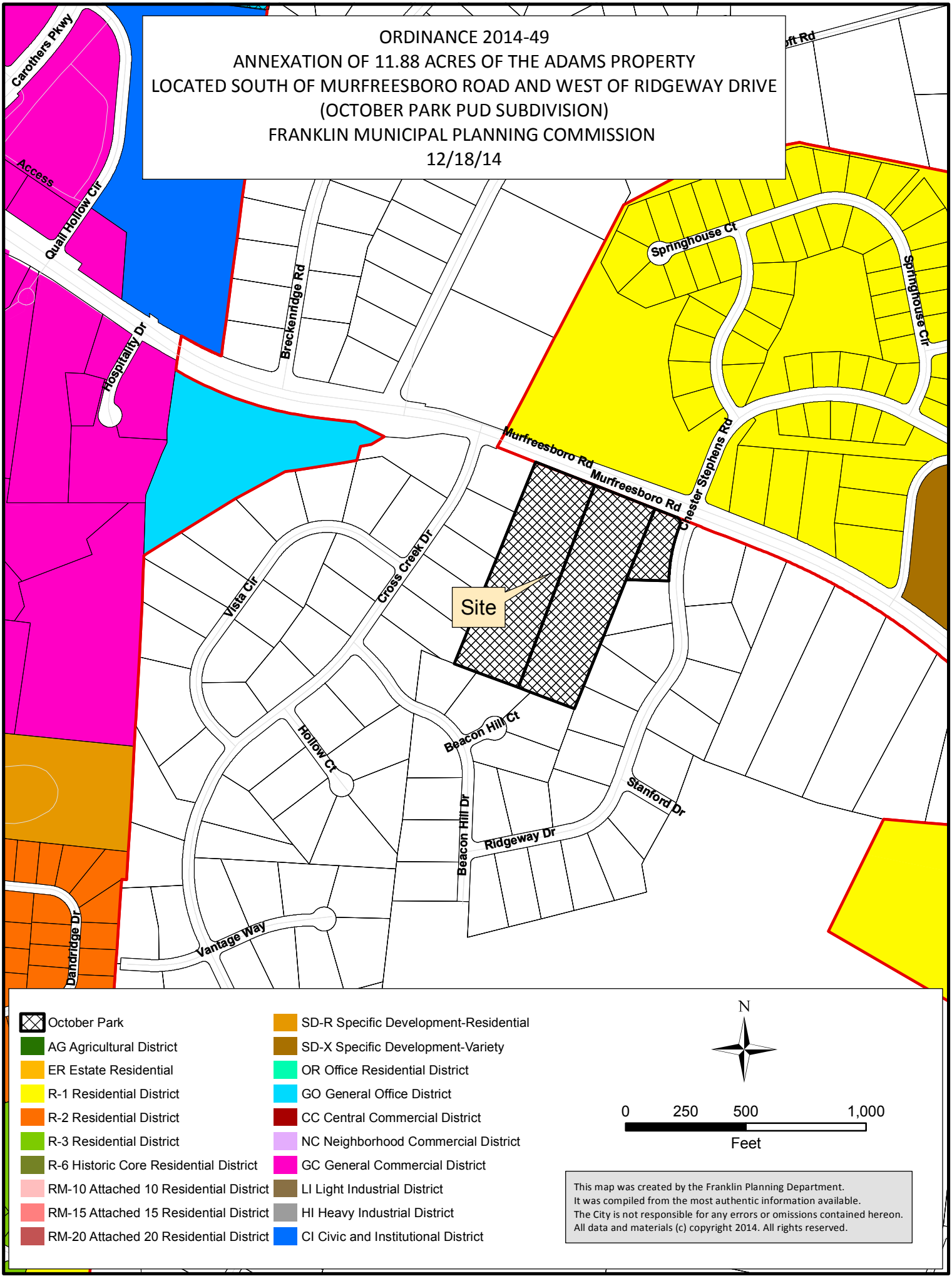
PLANNING COMMISSION RECOMMENDED APPROVAL:

PASSED FIRST READING:

PUBLIC HEARING HELD:

PASSED SECOND READING:

PASSED THIRD AND FINAL READING:


ORDINANCE 2014-49
ANNEXATION OF 11.88 ACRES OF THE ADAMS PROPERTY
LOCATED SOUTH OF MURFREESBORO ROAD AND WEST OF RIDGEWAY DRIVE
(OCTOBER PARK PUD SUBDIVISION)
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Carothers Pkwy
Access
Quail Hollow Cir
Hospitality Dr
Breckenridge Rd
Springhouse Ct
Springhouse Cir
Murfreesboro Rd
Murfreesboro Rd
Chester Stephens Rd
Site
Vista Cir
Cross Creek Dr
Hollow Ct
Beacon Hill Ct
Beacon Hill Dr
Stanford Dr
Ridgeway Dr
Vantage Way
Dandridge Dr
October Park
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0 250 500 1,000
Feet
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It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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RESOLUTION 2014-47

A RESOLUTION ADOPTING A PLAN OF SERVICES FOR THE ANNEXATION OF CERTAIN AREAS BY THE CITY OF FRANKLIN, TENNESSEE, SPECIFICALLY THE ADAMS PROPERTY.

WHEREAS, *Tennessee Code Annotated* (T.C.A.) § 6-51-102 requires that a plan of services be adopted by the municipal governing body prior to passage of an annexation ordinance; and;

WHEREAS, annexation has been requested by the property owner of the Adams Property ("Property"), which is defined as the area located immediately south of Murfreesboro Road and west of Ridgeway Drive. The site is a portion of map 079 Parcel 66.07, 60.01 and 4.00. A map is attached as Exhibit A. The area comprises a total of approximately 11 acres in one parcel with one owner. The Owner has requested annexation by the City of Franklin. The area is currently vacant; and

WHEREAS, it is now believed in the best interest of the City of Franklin to adopt a plan of services for the requested annexation of such area to provide for future development in accordance with City standards. This resolution shall not bind the City to later annex the Property.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FRANKLIN, TENNESSEE, AS FOLLOWS:

Section 1. Pursuant to the provisions of T.C.A. § 6-51-102, there is hereby adopted, for the area bounded as described above, the following Plan of Services:

A. Water

The Property is located in Milcrofton Utility District's water district. Water availability shall be approved and provided through Milcrofton. The Owner shall be required to provide adequate fire flow and pressure to the proposed development.

B. Reclaimed Water

According to the City of Franklin's Municipal Code, reclaimed water systems need to be extended to a development if the development is within 1,000 feet of an existing reclaimed water main. In the case of this Property, several miles of extension to the City's Reclaimed Water System would be required to serve the Property. For this reason, reclaimed water will not be required to be extended to the Property.

C. Wastewater

The Property lies within the Watson Branch Sanitary Sewer Drainage Basin as defined in the City of Franklin Sanitary Sewer Basin Study documents. A development of twenty-two (22) single family residential homes is proposed for this Property. The Property shall be served by an extension of the City's gravity sanitary sewer system from the existing manhole located on the Property. In addition, the Owner shall be required to extend the gravity sanitary sewer system to the adjacent properties that

will naturally drain through the Property. The Owner shall be responsible for all costs associated with the engineering, design and construction of the necessary sanitary sewer infrastructure for the development of this Property and shall comply with all requirements as outlined in the Franklin Municipal Code.

D. Stormwater

The Owner shall be responsible for all costs associated with the engineering, design and construction of the necessary Stormwater infrastructure for the development of this Property and shall comply with all requirements as outlined in the Franklin Municipal Code. As the Property develops, the City of Franklin will charge prevailing stormwater user fees per policies and procedures as outline in the Franklin Municipal Code.

E. Streets

The Owner shall be responsible for all costs associated with the engineering, design and construction of the necessary roadway (Streets) infrastructure for the development of this Property and shall comply with all requirements as outlined in the Franklin Municipal Code. The Owner shall be required to connect to Ridgeway Drive. No additional access to Murfreesboro Road (State Route 96) shall be allowed by the City of Franklin. The Owner shall prepare a traffic impact study to evaluate the intersection of Ridgeway Drive and Murfreesboro Road to determine if additional turn lanes are necessary for both Ridgeway Drive and Murfreesboro Road. Should additional turn lanes become necessary due to the proposed development of this Property, the Owner shall be responsible for all the costs for such turn lanes, including any necessary additional rights-of-way. The costs for such required turn lane improvements, including the cost of any necessary additional rights-of-way, shall not be eligible for Offsets of the City Road Impact Fees. Finally the Owner shall be required to construct five foot (5') wide sidewalks along the frontage of the Property to include both Ridgeway Drive and Murfreesboro Road, as well as providing five foot (5') sidewalks on along both sides of the Streets through any development on the Property.

F. Traffic Control

Traffic signals, traffic signs, street markings, and other traffic control devices shall be installed by the Owner as the need is established by appropriate study and traffic standards. No needs have been identified for the area at this time. New development after the effective date of annexation shall comply with City regulations governing traffic markings.

G. Planning and Zoning

The planning and zoning jurisdiction of the City will extend to the annexed area on the effective date of annexation. City planning will thereafter encompass the annexed area.

H. Street Lighting

No off-site street lighting is proposed at this time. Street lighting within new developments shall be funded and installed by the developer City policy, which includes the installation of electric meters to allow for future ownership and maintenance by the City or homeowners association. The installation and operation of street lights shall coincide with the phasing of development and issuance of Certificates of Occupancy.

I. Street Name Signs

No additional street name signs in the area have been deemed necessary. New development shall install street name signs per City policy.

J. Fire Protection

Fire protection by the present personnel and equipment of the Franklin Fire Department will be provided on an after the effective date of annexation. No additional manpower or equipment will be necessary to serve the annexation area at this time.

K. Police Protection

Police patrol and response to calls by the Franklin Police Department will be provided on and after the effective date of annexation. Police services will be provided with existing personal and equipment.

L. Building and Code Inspection Services

Any Building and Code inspection services now provided by the City will begin in the annexed area on the effective date of annexation. New development after the effective date of annexation shall comply with City building codes. New development shall pay all applicable fees and permits for inspection services.

ADOPTED THIS _____.

_____
ERIC S. STUCKEY
City Administrator

_____
DR. KEN MOORE
Mayor

Approved as to form by:

_____
Shauna R. Billingsley
City Attorney

March 27, 2014
Catherine Powers, Director
Planning and Neighborhood Services

Request for Plan of Services

Dear Catherine,

I am working with Mr. Glenn Adams, the owner of Map 079 Parcels 60.07 and 60.01, and Lipscomb University Trust, owner of Map 079M B Parcel 1 in Williamson County, Tennessee. They are requesting annexation of their property into the City of Franklin. I have attached an Exhibit A showing the location of the approximate 11 acres located just south of Murfreesboro Road. We are requesting a plan of services for the property to be annexed. A legal description of the property will be provided with a boundary survey when the annexation request is filed.

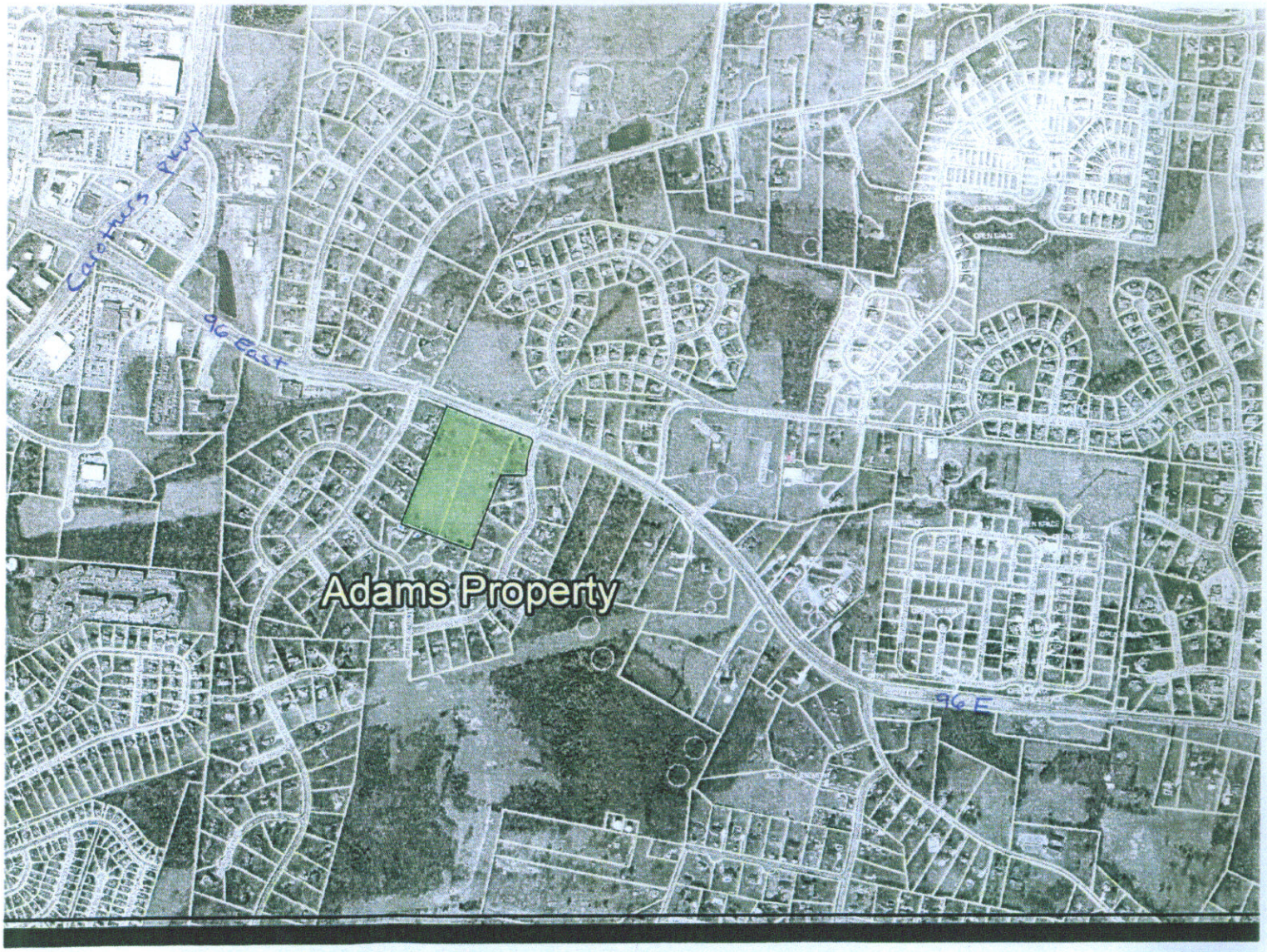
This property is planned for the development of 22 single family detached homes. A Development Plan and a Rezoning Request will be filed concurrently with the Annexation Request. Exhibit B included herein shows the proposed plan. The property lays within the McEwen Character Area #4. The guiding principles for this area state that the development of this area is appropriate for Single Family Detached Homes.

The water service provider for this area is Milcrofton Utility District. The sewer service provider is City of Franklin. A sewer availability request has been filed with the City of Franklin, and a sewer man hole exists on the property.

Please do not hesitate to contact me if you have any questions or need any additional information.
Sincerely,

Steve Bethel

1212 Hoss Road Powell, TN 37849



ADAMS PROPERTY

FRANKLIN, TN

gamble design collaborative

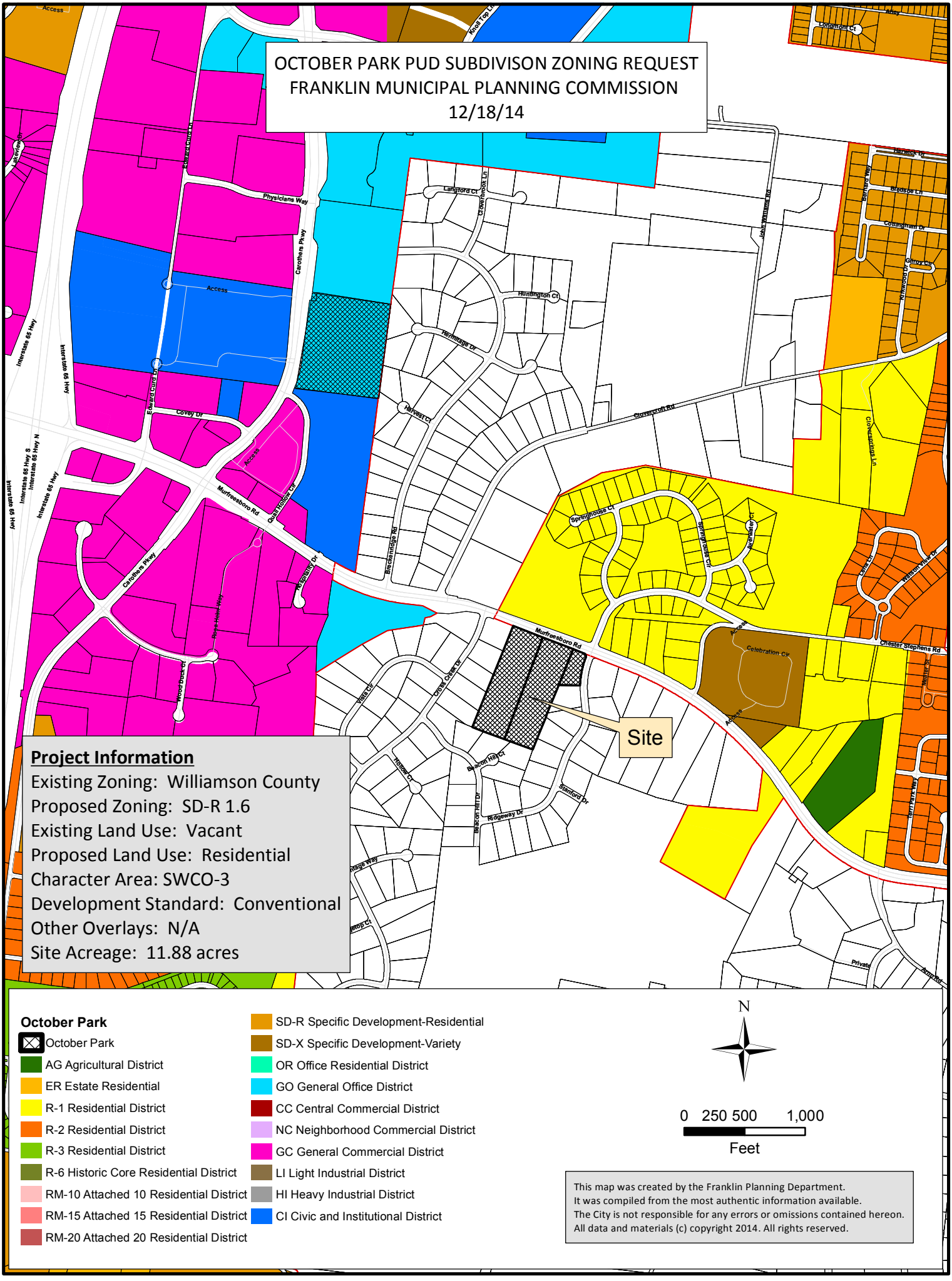
Exhibit A

City of Franklin, TN - DEVELOPMENT FEE ESTIMATOR

PROJECT - 22 Single Family Detached Residences

Prepared by: Lynn Osland Date: 8.15.2014

City of Franklin Fee	Overall Planning/ Development Fees	Fees Per Dwelling	COF Department		
Project Description				22 Single Family Detached Residences - approximately 3500 sq ft each	
Rezoning	$400		Zoning	$400 Fixed Review Fee	
PUD - Conceptual Workshop	$50		Planning	$50 Fixed Review Fee	
PUD Development Fee	$820		Planning	$600 +.02 per sf of nonres bldg & $10 per dwelling unit	
Final Plat	$750		Planning	$200 + $25 per Lot	
FMPC Site Plan Review	$520		Planning	$300 +.02 per sf of nonres bldg & $10 per dwelling unit	
Water and Sewer Plans Review	$300		Utility Billing	$300 + $300 Fixed Review Fee	
Water Line Inspection	TBD		Engineering	$1.25/ LF	
Sewer Inspections	TBD		Engineering	Gravity Main - $2/ LF, Force Main - $1.50/ LF	
Stormwater Permit Fee	$100		Engineering	$100 Fixed Review Fee	
Drainage Inspection	$1,000		Engineering	TBD - $1000 min	
Reclaim Water Plan Review	$300		Engineering	$300 Fixed Review Fee	
Reclaim Water Line Inspection	TBD		Engineering	$1.25/ LF	
Grading Plan Review	$300		Engineering	$300 Fixed Review Fee	
Grading Permit Fee	$100		Engineering	$100 Fixed Review Fee	
Roadway Plans Review	$300		Engineering	$300 Fixed Review Fee	
Roadway Inspection	$1,000		Engineering	TBD - $1000 min, $2/ LF	
Utility Permit Fee	$100		Utility Billing	$100 Fixed Review Fee	
Water Tap Fee	**Milcrofton Water District**		**Water**	**Determined by Milcrofton Water District**	
System Development Fee (SDF)				Varies by meter size	
Access Fee				Varies by meter size	
Installation of meter and box				Varies by meter size	
Irrigation Meter (plus install)				Varies by meter size - Lawn Sprinklers	
Application Fee				$25 Fixed Application Fee	
Water Tap Fee Subtotal		$0	Water		
Fire Line Tap Fee	TBD	TBD	Water	$500 per inch of diameter - 6" is typical, w/ 8" if tied to a hydrant	Non-res sprinkler requirement; Required for residential in remote locations
Sewer Tap Fee	COF	3/4" meter	Water	Determined by engineering - based on flow 3/4" to 8"	
System Development Fee (SDF)		*$1,444*		Varies by meter size	
Access Fee		*$2,100*		Varies by meter size	
Installation of meter and box		*$1,240*		Fee is fixed, but varies, for tap already made or tap not made	
Effluent Disposal Fee (EDF)		*$450*		Varies by meter size	
Application Fee		*$25*		$25 Fixed Application Fee - waived if also applying for water tap fees	Addl $25 appl fee not required if submitted with Water Tap Fee
Sewer Tap Fee Subtotal		$5,259	Water		
Building Permit Fee		$1,295	Building	Res $0.37/ sq ft	
Road Impact Fee		$4,911	Building	2014 RIF Schedule	
Facilities Tax		$3,115	Building	Res = $0.89 per gross sf	
Electrical Permit Fee		$213	Building	$0.0609/ sq ft	
Mechanical Permit Fee		$44	Building	$0.0127/ sq ft	
Plumbing Permit Fee		$127	Building	$0.0364/ sq ft	
Additional Fees - Trash Container Fee		$75	Building	$75/ ea - Residential	
TOTAL EST FEES for Permitting		$15,040			
Williamson County Privilege Tax		*$7,000*	*Williamson County*	*Residential Only - $2 x heated SF plus any future expansion sf*	*Paid directly to Williamson County - all res - inc apts*
Payment in Lieu of Dedication of Parkland		*TBD*	*COF Parks*	*Residential Only - Based on number of units and fair market value of land - Zoning Ordinance - Subsection 5.5.4.*	
Total est Planning & Development Fees	$6,040				
Total est Fees per dwelling		$22,040			
	Planning & Development Fees	**Permit Fees for 22 Dwelllings**	**Total Estimated Fees**		
	$6,040	**$484,880**	**$490,920**		


OCTOBER PARK PUD SUBDIVISON ZONING REQUEST
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Site
Project Information
Existing Zoning: Williamson County
Proposed Zoning: SD-R 1.6
Existing Land Use: Vacant
Proposed Land Use: Residential
Character Area: SWCO-3
Development Standard: Conventional
Other Overlays: N/A
Site Acreage: 11.88 acres
October Park
October Park
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0 250 500 1,000
Feet
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It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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ORDINANCE 2014-45

TO BE ENTITLED "AN ORDINANCE TO ZONE 11.88 ACRES TO SPECIFIC DEVELOPMENT-RESIDENTIAL DISTRICT (SD-R 1.6) FOR THE PROPERTY LOCATED AT SOUTH OF MURFREESBORO ROAD AND WEST OF RIDGEWAY DRIVE ENCOMPASSING 1100 RIDGEWAY DRIVE."

WHEREAS, the City of Franklin, Tennessee encourages responsibly placed density and appropriate base zoning districts for multiple kinds of projects; and

WHEREAS, the proposed SD-R zone would allow for residential development with the maximum density specified.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMAN OF FRANKLIN, TENNESSEE, AS FOLLOWS:

SECTION I: The following described property shall be, and are hereby, rezoned from its present Williamson County zoning classification to Specific Development-Residential District (SD-R 1.6):

R. GLENN ADAMS, TRACT I

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.789 acre tract, more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Adams, Tract II (Deed Book 495, Page 148), said rod being located 382.81 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northwestern line of Adams, Tract II, S 21° 22' 59" W, 899.73 feet to a set iron rod & cap (CCI) in the northeastern line of Lot 12, Franklin East Subdivision (Plat Book 6, Page 91);

Thence leaving the northwestern line of Adams, Tract II and with the northeastern line of Lot 12, N 68° 56' 26" W, 163.28 feet to an existing 3/4 inch iron rod, corner to Lot 13, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 12 and with the northeastern line of Lot 13, N 68° 38' 40" W, 117.61 feet to an existing concrete monument, corner to Lot 7, Cross Creek Subdivision (Plat Book 8, Page 11);

Thence leaving the northeastern line of Lot 13 and with the southeastern line of Lot 7, Cross Creek Subdivision, N 21° 33' 30" E, 139.65 feet to an existing 5/8 inch iron rod, corner to Lot 6, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 7 and with the southeastern line of Lots 6 and 5, Cross Creek Subdivision, N 21° 33' 03" E, 324.48 feet to an existing "T" Bar, corner to Lot 4, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 5 and with the southeastern lines of Lots 4 and 3, Cross Creek Subdivision, N 21° 33' 03" E, 435.04 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Lot 3 and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 278.24 feet to the Point of **BEGINNING**;

Containing 252,155.34 square feet or 5.789 acres, more or less.

R. GLENN ADAMS, TRACT II

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.112 acre tract, more particularly described as follows:

BEGINNING on an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Lot 1, Franklin East Subdivision (Plat Book 6, page 91), said rod being located 130.86 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northwestern line of Lot 1, S 22° 07' 02" W, 328.41 feet to an existing "T" Bar, corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 1 and with the northwestern line of Lot 2, S 21° 28' 27" W, 244.65 feet to an existing 3/4 inch iron rod, corner to Lot 3, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 2 and with the northwestern line of Lot 3, S 22° 32' 53" W, 29.80 feet to an existing 5/8 inch iron rod, corner to Lot 4, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 3 and with the northwestern line of Lot 4, S 21° 17' 48" W, 186.13 feet to an existing 1/2 inch iron rod, corner to Lot 5, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 4 and with the northwestern line of Lot 5, S 21° 38' 31" W, 111.58 feet to an existing "T" Bar, corner to Lot 11, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 5 and with the northeastern line of Lot 11, N 68° 42' 41" W, 199.91 feet to an existing 3/4 inch iron rod, corner to Lot 12, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 11 and with the northeastern line of Lot 12, N 68° 56' 26" W, 46.61 feet to a set iron rod & cap (CCI), corner to Adams, Tract I (Deed Book 495, Page 148);

Thence leaving the northeastern line of Lot 12 and with the southeastern line of Adams, N 21° 22' 59" E, 899.73 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Adams, Tract I and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 251.95 feet to the Point of **BEGINNING**;

Containing 222,668.70 square feet or 5.112 acres, more or less.

R. GLENN ADAMS, TRACT III

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being Lot 1, Franklin East Subdivision (Plat Book 6, Page 91), said lot being more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), said rod being located 26.53 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road and with a curve to the right, having a radius of 50.00 feet and a chord of S 06° 28' 56" E, 46.88 feet to a set iron rod & cap (CCI) at the northwestern right-of-way line of Ridgeway Drive;

Thence with the northwestern right-of-way line of Ridgeway Drive, with a curve to the left, having a radius of 584.14 feet and a chord of S 10° 06' 55" W, 230.01 feet to a set iron rod & cap (CCI), corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern right-of-way line of Ridgeway Drive and with the northeastern line of Lot 2, N 88° 04' 14" W, 186.01 feet to an existing “T” Bar in the southeastern line of Adams, Tract II (Deed Book 490, Page 930),

Thence leaving the northeastern line of Lot 2 and with the southeastern line of Adams, Tract II, N 22° 07' 02" E, 328.41 feet to an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road,

Thence leaving the southeastern line of Adams and with the southwestern right-of-way line of Murfreesboro Road, S 68° 56' 08" E, 104.33 feet to the Point of **BEGINNING**;

Containing 42,583.03 square feet or 0.978 acres, more or less.

Zoning Reference Number: 14-10:

Map-Group-Parcel	Acres
079M-B00100	5.79
079-06001	5.11
079-06007	0.98
TOTAL	±11.88

SECTION II: BE IT FINALLY ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Ordinance shall take effect from and after its passage on third and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST: CITY OF FRANKLIN, TENNESSEE

BY: _____ BY:_____
ERIC S. STUCKEY DR. KEN MOORE
CITY ADMINISTRATOR/RECORDER MAYOR

PLANNING COMMISSION RECOMMENDED APPROVAL: 12-18-2014

PASSED FIRST READING:

PUBLIC HEARING HELD:

PASSED SECOND READING:

PASSED THIRD READING:

Rezoning Request
for
October Park

A Planned Residential Development
Map 079 Parcels 60.07, 60.01, and Parcel 1.00 Group B on Map 79M
FRANKLIN, TN

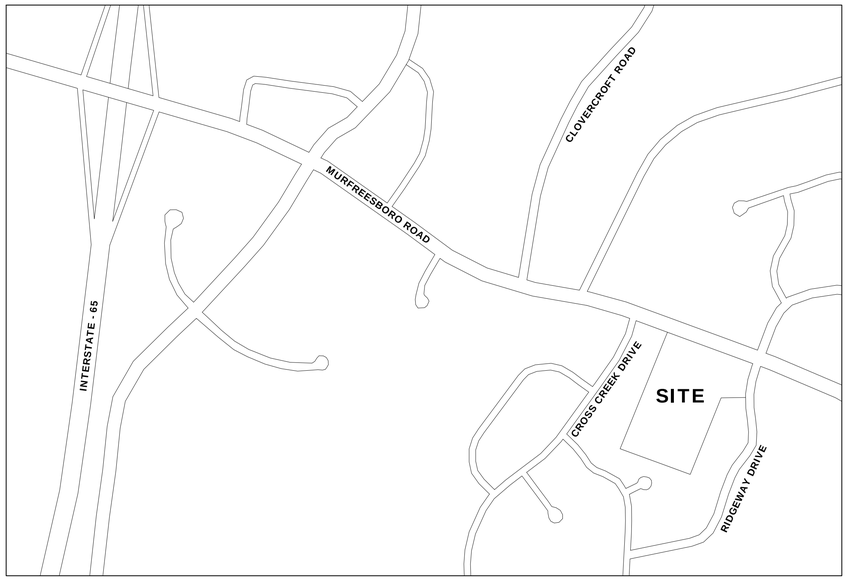
OWNER:
R. GLENN ADAMS
1100 RIDGEWAY DRIVE
FRANKLIN, TN 37067

APPLICANT:
VERTEX COMPANY
STEVE BETHEL
1212 HOSS ROAD
POWELL, TN 37849
865.384.8124
sbethel.bethel@gmail.com

CONSULTANT:
GAMBLE DESIGN COLLABORATIVE
GREG GAMBLE, RLA
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN TN 37064
615.975.5765
greggamble209@gmail.com

CIVIL ENGINEER:
CANNON & CANNON
ERIC GARDENER, PE
1 VANTAGE WAY, SUITE C-210
NASHVILLE, TN 37228
615.770.0010
egardeneer@cannon-cannon.com

SURVEY DATA PROVIDED BY:
CANNON & CANNON
1 VANTAGE WAY, SUITE C-210
NASHVILLE, TN 37228
615.770.0010
egardeneer@cannon-cannon.com



GRAPHIC SCALE: 1"=500 FT
0 500

14TH CIVIL DISTRICT OF WILLIAMSON COUNTY
CITY OF FRANKLIN, TENNESSEE

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND
LANDSCAPE ARCHITECTURE
PROJECT NO. 14____
greggamble209@gmail.com
615-975-5765

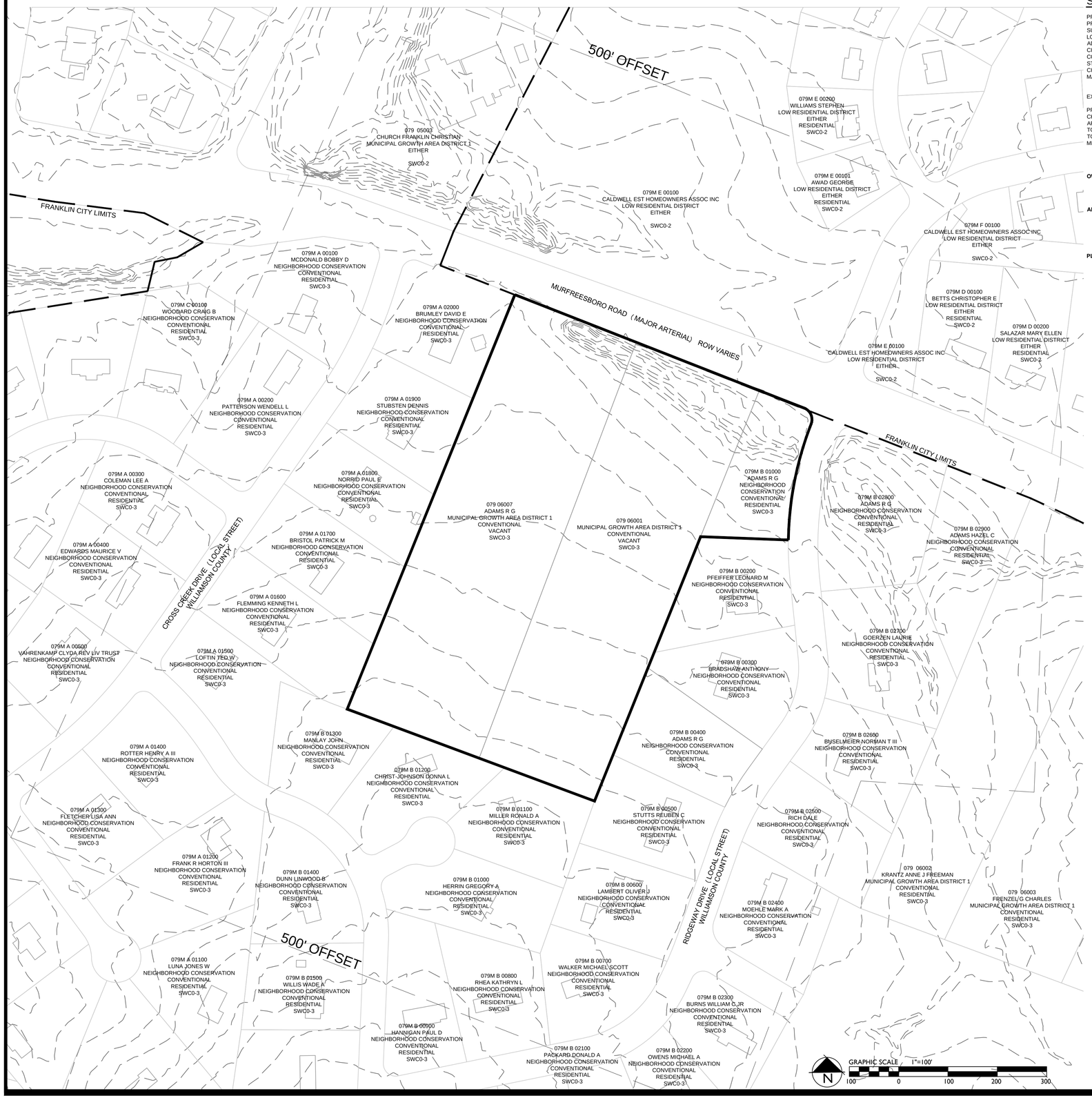
INDEX OF SHEETS

SHEET	DESCRIPTION
C 0.0	COVER SHEET AND LOCATION MAP
C 1.0	BOUNDARY MAP
C 2.0	EXISTING CONDITIONS / AERIAL

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
10772

NOVEMBER 10, 2014
RESUBMITTAL DECEMBER 4, 2014

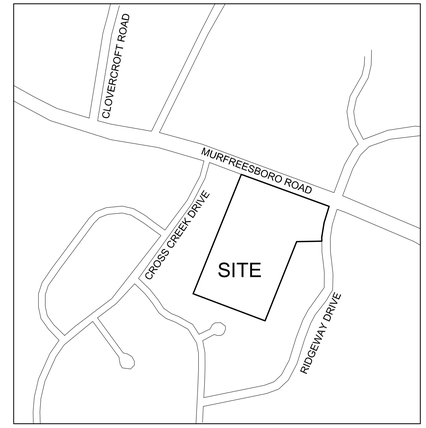
COF # 4685



SITE DATA:

PROJECT NAME:	OCTOBER PARK
PROJECT NUMBER:	4685
SUBDIVISION:	NA
LOT NUMBER:	NA
ADDRESS:	1110 RIDGEWAY DRIVE
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
MAP, GROUP, PARCEL NUMBERS:	MAP 79, PARCELS 60.07, 60.01, AND MAP 79M GROUP B PARCEL 1.00
EXISTING ZONING:	WILLIAMSON COUNTY NEIGHBORHOOD CONSERVATION
PROPOSED ZONING:	SD-R 1.6 DUA
CHARACTER AREA OVERLAY:	SWCO-3
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL ACREAGE:	11.88 AC
TOTAL SQUARE FOOTAGE:	517,412 SF
MINIMUM REQUIRED SETBACKS:	
FRONT YARD: 15'	
REAR YARD: VARIES WITH BUFFER TREATMENT	
SIDE YARD: 5'	

OWNER:	R. GLENN ADAMS
ADDRESS	1100 RIDGEWAY DRIVE
	FRANKLIN, TN 37067
CONTACT	GLENN ADAMS
APPLICANT:	VERTEX DEVELOPMENTN, LLC
ADDRESS	1212 HOSS ROAD
	POWELL, TN 37849
OFFICE PHONE	865-384-8124
EMAIL ADDRESS	sbethel.bethel@gmail.com
CONTACT	STEVE BETHEL
PLANNER/LANDSCAPE ARCHITECT:	GAMBLE DESIGN COLLABORATIVE
ADDRESS	144 SOUTHEAST PARKWAY
	SUITE 200
	FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
EMAIL ADDRESS	greggamble209@gmail.com
CONTACT	GREG GAMBLE



LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT I

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.789 acre tract, more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Adams, Tract II (Deed Book 493, Page 148), said rod being located 392.81 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northwestern line of Adams, Tract II, S 21° 22' 59" W, 899.73 feet to a set iron rod & cap (CCI) in the northeastern line of Lot 12, Franklin East Subdivision (Plat Book 6, Page 91);

Thence leaving the northeastern line of Adams, Tract II and with the northeastern line of Lot 12, N 68° 56' 20" W, 163.28 feet to an existing 3/4 inch iron rod, corner to Lot 13, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 12 and with the northeastern line of Lot 13, N 68° 38' 01" W, 117.61 feet to an existing concrete monument, corner to Lot 7, Cross Creek Subdivision (Plat Book 8, Page 11);

Thence leaving the northeastern line of Lot 13 and with the southeastern line of Lot 7, Cross Creek Subdivision, N 21° 33' 30" E, 139.65 feet to an existing 5/8 inch iron rod, corner to Lot 6, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 7 and with the southeastern line of Lots 6 and 5, Cross Creek Subdivision, N 21° 33' 03" E, 324.48 feet to an existing "T" Bar, corner to Lot 4, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 5 and with the southeastern lines of Lots 4 and 3, Cross Creek Subdivision, N 21° 33' 03" E, 435.04 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Lot 3 and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 278.24 feet to the Point of **BEGINNING**;

Containing 252,155.34 square feet or 5.789 acres, more or less.

This description was prepared November 4, 2014 by Cannon & Cannon, Inc., 8550 Kingston Pike, Knoxville, Tennessee 37919.

LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT II

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.112 acre tract, more particularly described as follows:

BEGINNING on an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Lot 1, Franklin East Subdivision (Plat Book 6, page 91), said rod being located 130.86 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northwestern line of Lot 1, S 22° 07' 02" W, 328.41 feet to an existing "T" Bar, corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 1 and with the northwestern line of Lot 2, S 21° 28' 27" W, 244.65 feet to an existing 3/4 inch iron rod, corner to Lot 3, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 2 and with the northwestern line of Lot 3, S 22° 32' 53" W, 29.80 feet to an existing 5/8 inch iron rod, corner to Lot 4, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 3 and with the northwestern line of Lot 4, S 21° 17' 48" W, 186.13 feet to an existing 1/2 inch iron rod, corner to Lot 5, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 4 and with the northwestern line of Lot 5, S 21° 38' 31" W, 111.98 feet to an existing "T" Bar, corner to Lot 11, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 5 and with the northwestern line of Lot 11, N 68° 42' 41" W, 159.51 feet to an existing 3/4 inch iron rod, corner to Lot 12, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 11 and with the northeastern line of Lot 12, N 68° 56' 26" W, 46.61 feet to a set iron rod & cap (CCI), corner to Adams, Tract I (Deed Book 493, Page 148);

Thence leaving the northeastern line of Lot 12 and with the southeastern line of Adams, N 21° 22' 59" E, 899.73 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Adams, Tract I and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 251.95 feet to the Point of **BEGINNING**.

Containing 222,668.70 square feet or 5.112 acres, more or less.

This description was prepared November 4, 2014 by Cannon & Cannon, Inc., 8550 Kingston Pike, Knoxville, Tennessee 37919.

LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT III

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being Lot 1, Franklin East Subdivision (Plat Book 6, Page 91), and lot being more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), said rod being located 26.55 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road and with a curve to the right, having a radius of 50.00 feet and a chord of S 66° 28' 56" E, 44.88 feet to a set iron rod & cap (CCI) at the northwestern right-of-way line of Ridgeway Drive;

Thence with the northwestern right-of-way line of Ridgeway Drive, with a curve to the left, having a radius of 584.14 feet and a chord of S 11° 06' 55" W, 239.01 feet to a set iron rod & cap (CCI), corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern right-of-way line of Ridgeway Drive and with the northeastern line of Lot 2, N 88° 04' 14" W, 186.01 feet to an existing "T" Bar in the southeastern line of Adams, Tract II (Deed Book 493, Page 936);

Thence leaving the northeastern line of Lot 2 and with the southeastern line of Adams, Tract II, N 22° 07' 02" E, 328.41 feet to an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road;

Thence leaving the southeastern line of Adams and with the southwestern right-of-way line of Murfreesboro Road, S 68° 56' 08" E, 104.33 feet to the Point of **BEGINNING**;

Containing 42,583.03 square feet or 0.978 acres, more or less.

This description was prepared November 4, 2014 by Cannon & Cannon, Inc., 8550 Kingston Pike, Knoxville, Tennessee 37919.

ADJACENT PROPERTY OWNERS

PARCEL ID	OWNER	OWNER ADDRESS	CITY	STATE	ZIP	ZONE	CHARACTER AREA	LAND USE
079M A 00100	MCDONALD BOBBY D	1100 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M C 00100	WOODARD CRAIG B	1002 VISTA CIRCLE	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 00200	PATTERSON WENDELL L	1104 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 02000	BRUMLEY DAVID E	1101 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01900	STUBSTEN DENNIS	1105 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01800	NORRID PAUL E	1109 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01700	BRISTOL PATRICK M	1113 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01600	FLEMMING KENNETH L	1117 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01500	LOFTIN TED W	1121 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 00300	COLEMAN LEE A	1112 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 00400	EDWARDS MAURICE V	1116 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 00500	VAHRENKAMP CLYDA REV LIV TRUST	1120 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01400	ROTTER HENRY A III	1123 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01300	FLETCHER LISA ANN	1125 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01200	FRANK R HORTON III	104 HOLLOW CT	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01100	LUNA JONES W	115 HOLLOW CT	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01400	DUNN LINWOOD B	2005 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01500	WILLIS WADE A	2001 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01300	MANLAY JOHN	2014 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01200	CHRIST-JOHNSON DONNA L	2010 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01100	MILLER RONALD A	2008 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01000	HERRIN GREGORY A	2006 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00900	HANNIGAN PAUL D	1210 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00800	RHEA KATHRYN L	1206 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00700	WALKER MICHAEL SCOTT	1200 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00600	LAMBERT OLIVER J	1114 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00500	STUTTS REUBEN C	1112 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00400	ADAMS R G	PO BOX 680098	FRANKLIN	TN	37068	NC	SWCO-3	RESIDENTIAL
079M B 00300	BRADSHAW ANTHONY	1108 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00200	PFEIFFER LEONARD M	1104 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02100	PACKARD DONALD A	1205 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02200	OWENS MICHAEL A	1203 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02300	BURNS WILLIAM C JR	1101 STANFORD DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02400	MOEHLE MARK A	1115 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02500	RICH DALE	1111 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079 06002	KRANTZ ANNE J FREEMAN	4090 IRONWOOD DR	GREENBRIER	TN	37073	MGA-1	SWCO-3	VACANT
079 06003	FRENZEL G CHARLES	4091 MURFREESBORO RD	FRANKLIN	TN	37067	MGA-1	SWCO-3	VACANT
079M B 02600	BUSELMEIER NORMAN T III	1109 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02700	GOERZEN LAURIE	1105 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02800	ADAMS R G	PO BOX 680098	FRANKLIN	TN	37068	NC	SWCO-3	RESIDENTIAL
079M B 02900	ADAMS HAZEL C	PO BOX 680098	FRANKLIN	TN	37068	NC	SWCO-3	VACANT
079M D 00300	BOZEMAN H ANDREW	4076 MURFREESBORO RD	FRANKLIN	TN	37067	NC	SWCO-2	RESIDENTIAL
079M D 00200	SALAZAR MARY ELLEN	4072 MURFREESBORO RD	FRANKLIN	TN	37067	R-1	SWCO-2	RESIDENTIAL
079M D 00100	BETTS CHRISTOPHER E	4068 MURFREESBORO RD	FRANKLIN	TN	37067	R-1	SWCO-2	RESIDENTIAL
079M F 00100	CALDWELL EST HOMEOWNERS ASSOC INC	PO BOX 24520	NASHVILLE	TN	37202	R-1	SWCO-2	RESIDENTIAL
079M E 00100	CALDWELL EST HOMEOWNERS ASSOC INC	PO BOX 24521	NASHVILLE	TN	37202	R-1	SWCO-2	RESIDENTIAL
079M E 00100	CALDWELL EST HOMEOWNERS ASSOC INC	PO BOX 24522	NASHVILLE	TN	37202	R-1	SWCO-2	RESIDENTIAL
079M E 00101	AWAD GEORGE	209 SPRINGHOUSE CIR	FRANKLIN	TN	37067	R-1	SWCO-2	RESIDENTIAL
079M E 00200	WILLIAMS STEPHEN	213 SPRINGHOUSE CIR	FRANKLIN	TN	37067	R-1	SWCO-2	RESIDENTIAL
079 05003	CHURCH FRANKLIN CHRISTIAN	PO BOX 680815	FRANKLIN	TN	37068	MGA-1	SWCO-2	INSTITUTIONAL
079 06007	ADAMS R G	PO BOX 680098	FRANKLIN	TN	37068	MGA-1	SWCO-3	RESIDENTIAL
079 06001	ADAMS R G	PO BOX 680098	FRANKLIN	TN	37068	MGA-1	SWCO-3	RESIDENTIAL
079M B 00100	ADAMS R G	PO BOX 680099	FRANKLIN	TN	37068	NC	SWCO-3	RESIDENTIAL

COF 4685

Revisions:

Drawing Notes:

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

Date: NOV 10, 2014

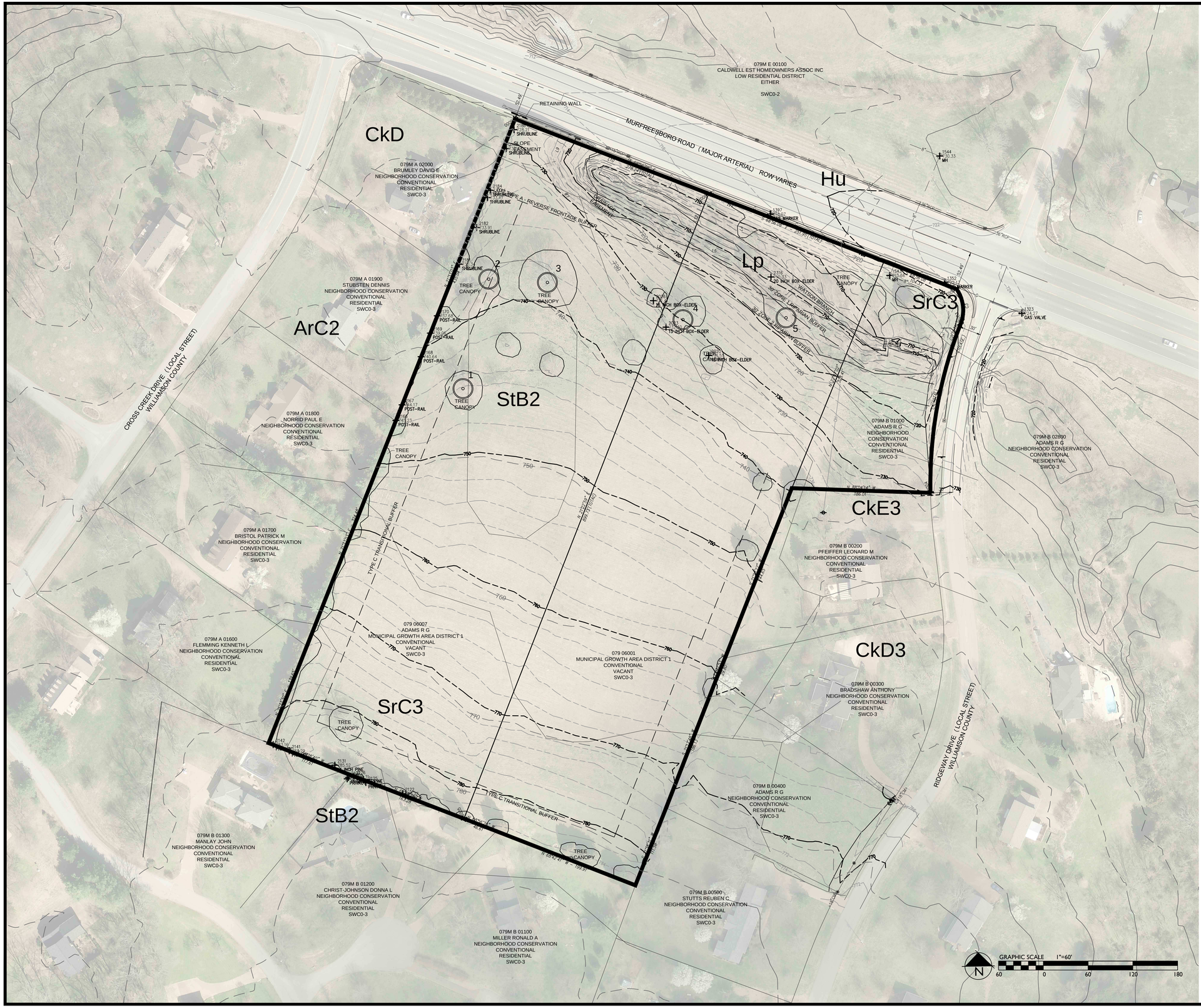
OCTOBER PARK SUBDIVISION
REZONING PLAN

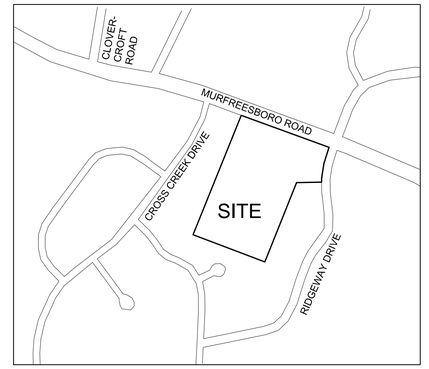
Parcels 60.07, 60.01 on Map 79M and 1.00 in Group B on Tax Map 79
Franklin, Williamson County, Tennessee

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 330
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

BOUNDARY MAP

C 1.0





SITE DATA:

PROJECT NAME:	OCTOBER PARK
PROJECT NUMBER:	4686
SUBDIVISION:	NA
LOT NUMBER:	NA
ADDRESS:	1110 RIDGEWAY DRIVE
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
MAP, GROUP, PARCEL NUMBERS:	MAP 79, PARCELS 60.07, 60.01, AND MAP 79M GROUP B PARCEL 1.00
EXISTING ZONING:	WILLIAMSON COUNTY NEIGHBORHOOD CONSERVATION
PROPOSED ZONING:	SD-R 1.6 D/UA
CHARACTER AREA OVERLAY:	SWCO-3
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL ACREAGE:	11.88 AC
TOTAL SQUARE FOOTAGE:	517,412 SF
MINIMUM REQUIRED SETBACKS:	
FRONT YARD: 15'	
REAR YARD: VARIES WITH BUFFER TREATMENT	
SIDE YARD: 5'	
OWNER:	R. GLENN ADAMS
ADDRESS	1100 RIDGEWAY DRIVE FRANKLIN, TN 37067
CONTACT	GLENN ADAMS
APPLICANT:	VERTEX DEVELOPMENTN, LLC
ADDRESS	1212 HOSS ROAD POWELL, TN 37849
OFFICE PHONE	865-384-8124
EMAIL ADDRESS	sbethel.bethel@gmail.com
CONTACT	STEVE BETHEL
PLANNER/LANDSCAPE ARCHITECT:	GAMBLE DESIGN COLLABORATIVE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 200 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
EMAIL ADDRESS	greggamble209@gmail.com
CONTACT	GREG GAMBLE

SPECIMEN TREES

NUMBER	TYPE	SIZE	HEALTH	STATUS
1	WALNUT	28	GOOD	RETAINED
2	CHERRY	32	GOOD	REMOVED
3	SUGAR MAPLE	32	GOOD	RETAINED
4	ELM	24	GOOD	RETAINED
5	HACKBERRY	24	GOOD	RETAINED

TREE CANOPY PRESERVATION

EXISTING TREE CANOPY: 72,559 SF
72,559 SF/517,412 SF = .14 (14%) OF TOTAL SITE
REQUIRED CANOPY PRESERVATION =
54% OF TOTAL CANOPY
72,559 SF * 54% = 39,182 SF

TRIP GENERATION

SINGLE FAMILY DETACHED HOUSING
ITE CODE 210

AM PEAK	ENTER 6	EXIT 18	TOTAL 24	
MIDDAY PEAK	N/A		N/A	
PM PEAK	ENTER 16	EXIT 9	TOTAL 25	

SOIL TYPES

ArC2	Armour Silt Loam, 5-12%, Eroded
CkD	Culleoka Silt Loam, 12-20%
CkD3	Culleoka Silt Loam, 15-20%, Severely Eroded
CkE3	Culleoka Silt Loam, 20-35%, Severely Eroded
Hu	Huntington Silt Loam, Phosphatic
SrC3	Stiversville Clay Loam, 5-12% Severely Eroded
StB2	Stiversville Silt Loam, 2-5% Severely Eroded

COF 4686

Revisions:
1. 11.10.2014

Drawing Notes:

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

Date: NOV 10, 2014

OCTOBER PARK PUD SUBDIVISION DEVELOPMENT PLAN

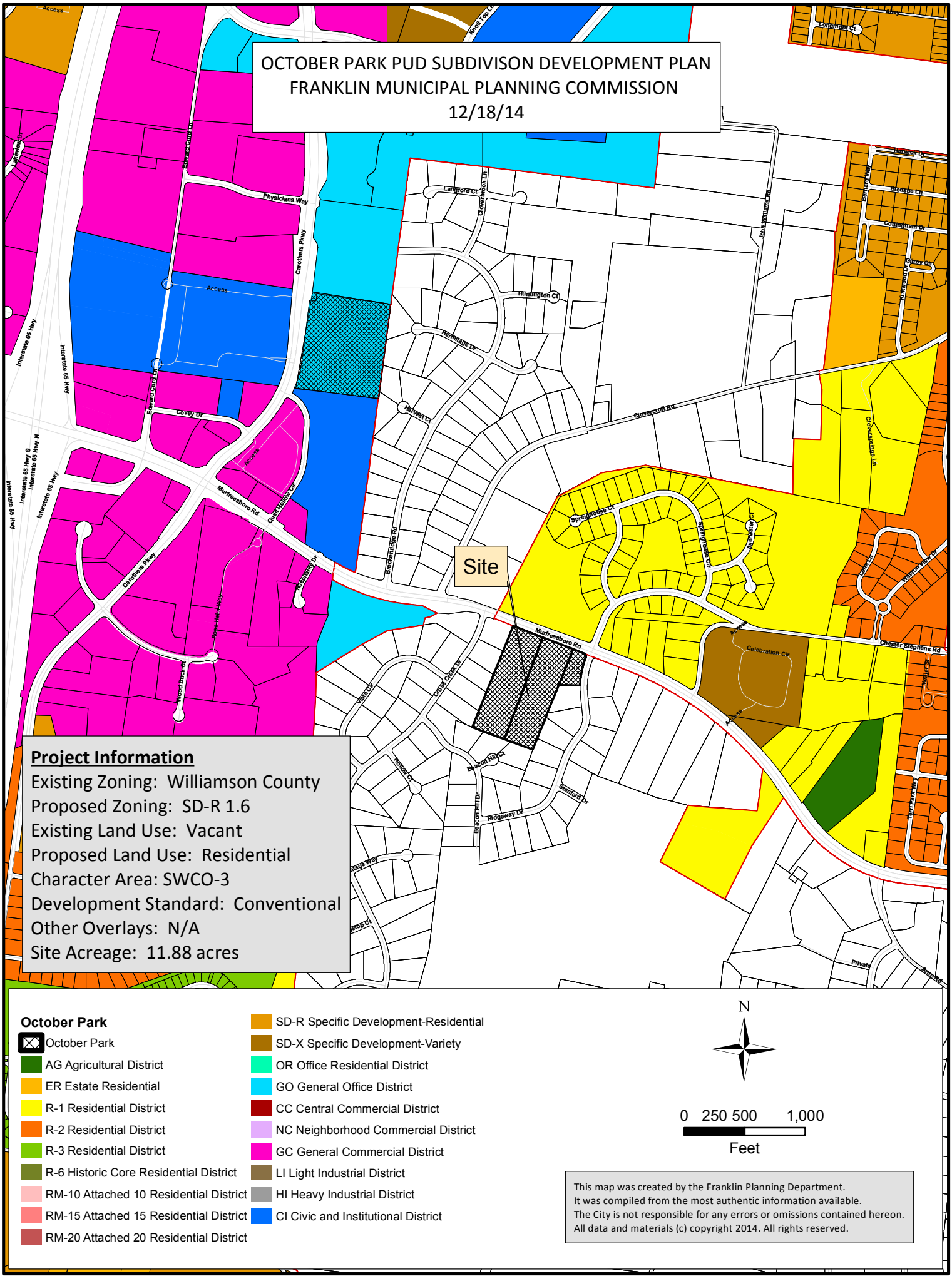
Parcels 60.07, 60.01 on Map 79 and 1.00 in Group B on Tax Map 79M
Franklin, Williamson County, Tennessee

GREGORY C. GAMBLE
TENNESSEE
101365
REGISTERED LANDSCAPE ARCHITECT

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

EXISTING CONDITIONS PLAN

C 2.0


OCTOBER PARK PUD SUBDIVISON DEVELOPMENT PLAN
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Site
Project Information
Existing Zoning: Williamson County
Proposed Zoning: SD-R 1.6
Existing Land Use: Vacant
Proposed Land Use: Residential
Character Area: SWCO-3
Development Standard: Conventional
Other Overlays: N/A
Site Acreage: 11.88 acres
October Park
October Park
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0 250 500 1,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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Development Plan
for
October Park

A Planned Residential Development
Map 079 Parcels 60.07, 60.01, and Parcel 1.00 Group B on Map 79M
FRANKLIN, TN

OWNER:
R. GLENN ADAMS
1100 RIDGEWAY DRIVE
FRANKLIN, TN 37067

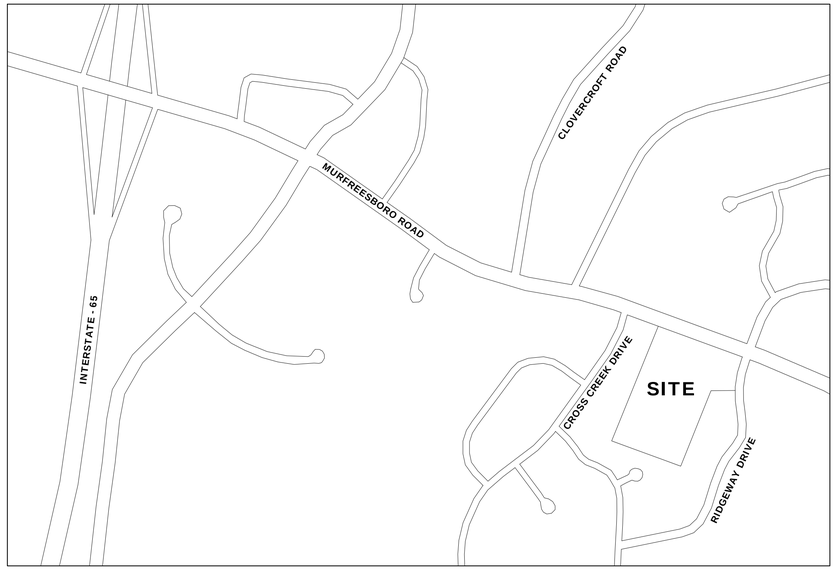
APPLICANT:
VERTEX COMPANY
STEVE BETHEL
1212 HOSS ROAD
POWELL, TN 37849
865.384.8124
sbethel.bethel@gmail.com

CONSULTANT:
GAMBLE DESIGN COLLABORATIVE
GREG GAMBLE, RLA
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN TN 37064
615.975.5765
greggamble209@gmail.com

CIVIL ENGINEER:
CANNON & CANNON
ERIC GARDENER, PE
1 VANTAGE WAY, SUITE C-210
NASHVILLE, TN 37228
615.770.0010
egardeneer@cannon-cannon.com

SURVEY DATA PROVIDED BY:
CANNON & CANNON
1 VANTAGE WAY, SUITE C-210
NASHVILLE, TN 37228
615.770.0010
egardeneer@cannon-cannon.com

STATE COORDINATES NOTE



14TH CIVIL DISTRICT OF WILLIAMSON COUNTY
CITY OF FRANKLIN, TENNESSEE

SCALE: 1"=500 FT
0 500

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND
LANDSCAPE ARCHITECTURE
PROJECT NO. 14____
greggamble209@gmail.com
615-975-5765

INDEX OF SHEETS

SHEET	DESCRIPTION
C 0.0	COVER SHEET AND LOCATION MAP
C 1.0	BOUNDARY MAP
C 2.0	EXISTING CONDITIONS / AERIAL
C 3.0	DEVELOPMENT PLAN
C 4.0	TREE PRESERVATION PLAN
C 5.0	UTILITY PLAN
C 6.0	GRADING PLAN
A 1.0	ARCHITECTURAL ELEVATION

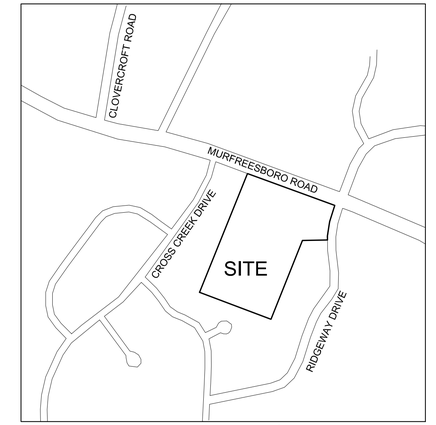
OCTOBER 13, 2014
REVISED NOVEMBER 10, 2014
REVISED DECEMBER 4, 2014

COF # 4686

SITE DATA:

PROJECT NAME:	OCTOBER PARK
PROJECT NUMBER:	4686
SUBDIVISION:	NA
LOT NUMBER:	NA
ADDRESS:	1110 RIDGEWAY DRIVE
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
MAP, GROUP, PARCEL NUMBERS:	MAP 79, PARCELS 60.07, 60.01, AND MAP 79M GROUP B PARCEL 1.00
EXISTING ZONING:	WILLIAMSON COUNTY NEIGHBORHOOD CONSERVATION
PROPOSED ZONING:	SD-R 1.6 D/UA
CHARACTER AREA OVERLAY:	SWCO-3
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL ACREAGE:	11.88 AC
TOTAL SQUARE FOOTAGE:	517,412 SF
MINIMUM REQUIRED SETBACKS:	FRONT YARD: 15' REAR YARD: VARIES WITH BUFFER TREATMENT SIDE YARD: 5'

OWNER:		R. GLENN ADAMS
	ADDRESS	1100 RIDGEWAY DRIVE FRANKLIN, TN 37067
	CONTACT	GLENN ADAMS
APPLICANT:		VERTEX DEVELOPMENTN, LLC
	ADDRESS	1212 HOSS ROAD POWELL, TN 37849
	OFFICE PHONE	865-384-8124
	EMAIL ADDRESS	sbethel.bethel@gmail.com
	CONTACT	STEVE BETHEL
PLANNER/LANDSCAPE ARCHITECT:		GAMBLE DESIGN COLLABORATIVE
	ADDRESS	144 SOUTHEAST PARKWAY SUITE 200 FRANKLIN, TN 37064
	OFFICE PHONE	615.575.5765
	EMAIL ADDRESS	greggamble209@gmail.com
	CONTACT	GREG GAMBLE



LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT I

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.789 acre tract, more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Adams, Tract II (Deed Book 495, Page 188), said rod being located 382.81 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northeastern line of Adams, Tract II, S 21° 25' 50" W, 899.73 feet to a set iron rod & cap (CCI) in the northeastern line of Lot 12, Franklin East Subdivision (Plat Book 6, Page 91);

Thence leaving the northeastern line of Adams, Tract II and with the northeastern line of Lot 12, N 68° 56' 26" W, 163.28 feet to an existing 3/4 inch iron rod, corner to Lot 13, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 12 and with the northeastern line of Lot 13, N 68° 38' 49" W, 117.61 feet to an existing concrete monument, corner to Lot 7, Cross Creek Subdivision (Plat Book 8, Page 11);

Thence leaving the northeastern line of Lot 13 and with the southeastern line of Lot 7, Cross Creek Subdivision, N 21° 39' 30" E, 159.65 feet to an existing 5/8 inch iron rod, corner to Lot 6, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 7 and with the southeastern line of Lots 6 and 5, Cross Creek Subdivision, N 21° 33' 03" E, 324.48 feet to an existing "T" bar, corner to Lot 4, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 5 and with the southeastern lines of Lots 3 and 4, Cross Creek Subdivision, N 21° 33' 03" E, 455.04 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Lot 3 and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 278.24 feet to the Point of **BEGINNING**;

Containing 252,155.34 square feet or 5.789 acres, more or less.

This description was prepared November 4, 2014 by Cannon & Cannon, Inc., 8550 Kingston Pike, Knoxville, Tennessee 37919.

LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT II

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.112 acre tract, more particularly described as follows:

BEGINNING on an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Lot 1, Franklin East Subdivision (Plat Book 6, page 91), said rod being located 130.86 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northeastern line of Lot 1, S 21° 07' 42" W, 328.41 feet to an existing "T" Bar, corner to Lot 2, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 1 and with the northeastern line of Lot 2, S 21° 28' 27" W, 244.65 feet to an existing 5/8 inch iron rod, corner to Lot 3, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 2 and with the northeastern line of Lot 3, S 22° 32' 53" W, 29.80 feet to an existing 5/8 inch iron rod, corner to Lot 4, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 3 and with the northeastern line of Lot 4, S 21° 17' 48" W, 186.13 feet to an existing 1/2 inch iron rod, corner to Lot 5, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 4 and with the northeastern line of Lot 5, S 21° 38' 31" W, 111.58 feet to an existing "T" Bar, corner to Lot 11, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 5 and with the northeastern line of Lot 11, N 68° 42' 41" W, 199.91 feet to an existing 3/4 inch iron rod, corner to Lot 12, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 11 and with the northeastern line of Lot 12, N 68° 56' 26" W, 44.61 feet to a set iron rod & cap (CCI), corner to Adams, Tract I (Deed Book 495, Page 188);

Thence leaving the northeastern line of Lot 12 and with the southeastern line of Adams, N 21° 22' 50" E, 899.73 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Adams, Tract I and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 251.95 feet to the Point of **BEGINNING**;

Containing 222,668.70 square feet or 5.112 acres, more or less.

This description was prepared November 4, 2014 by Cannon & Cannon, Inc., 8550 Kingston Pike, Knoxville, Tennessee 37919.

LEGAL DESCRIPTION
R. GLENN ADAMS, TRACT III

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being Lot 1, Franklin East Subdivision (Plat Book 6, Page 91), said lot being more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), said rod being located 26.53 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road and with a curve to the right, having a radius of 50.00 feet and a chord of S 86° 28' 56" E, 46.88 feet to a set iron rod & cap (CCI) at the northwestern right-of-way line of Ridgeway Drive;

Thence with the northwestern right-of-way line of Ridgeway Drive, with a curve to the left, having a radius of 584.11 feet and a chord of S 19° 06' 55" W, 230.01 feet to a set iron rod & cap (CCI), corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern right-of-way line of Ridgeway Drive and with the northeastern line of Lot 2, S 07° 14' 56" W, 186.01 feet to an existing "T" Bar in the southwestern line of Adams, Tract II (Deed Book 499, Page 930);

Thence leaving the northeastern line of Lot 2 and with the southeastern line of Adams, Tract II, N 22° 07' 42" E, 328.41 feet to an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road;

Thence leaving the southeastern line of Adams and with the southwestern right-of-way line of Murfreesboro Road, S 68° 56' 08" E, 164.35 feet to the Point of **BEGINNING**;

Containing 42,583 03 square feet or 0.978 acres, more or less.

This description was prepared November 4, 2014 by Cannon & Cannon, Inc., 8550 Kingston Pike, Knoxville, Tennessee 37919.

ADJACENT PROPERTY OWNERS

PARCEL ID	OWNER	OWNER ADDRESS	CITY	STATE	ZIP	ZONE	CHARACTER AREA	LAND USE
079M A 00100	MCDONALD BOBBY D	1100 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M C 00100	WOODARD CRAIG B	1002 VISTA CIRCLE	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 00200	PATTERSON WENDELL L	1104 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 02000	BRUMLEY DAVID E	1101 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01900	STUBSTEN DENNIS	1105 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01800	NORRID PAUL E	1109 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01700	BRISTOL PATRICK M	1113 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01600	FLEMMING KENNETH L	1117 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01500	LOFTIN TED W	1121 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 00300	COLEMAN LEE A	1112 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 00400	EDWARDS MAURICE V	1116 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 00500	VAHRENKAMP CLYDA REV LIV TRUST	1120 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01400	ROTTER HENRY A III	1123 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01300	FLETCHER LISA ANN	1125 CROSS CREEK DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01200	FRANK R HORTON III	104 HOLLOW CT	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M A 01100	LUNA JONES W	115 HOLLOW CT	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01400	DUNN LINWOOD B	2005 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01500	WILLIS WADE A	2001 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01300	MANLAY JOHN	2014 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01200	CHRIST-JOHNSON DONNA L	2010 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01100	MILLER RONALD A	2008 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 01000	HERRIN GREGORY A	2006 BEACON HILL DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00900	HANNIGAN PAUL D	1210 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00800	RHEA KATHRYN L	1206 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00700	WALKER MICHAEL SCOTT	1200 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00600	LAMBERT OLIVER J	1114 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00500	STUTTS REUBEN C	1112 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00400	ADAMS R G	PO BOX 680098	FRANKLIN	TN	37068	NC	SWCO-3	RESIDENTIAL
079M B 00300	BRADSHAW ANTHONY	1108 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 00200	PFEIFFER LEONARD M	1104 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02100	PACKARD DONALD A	1205 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02200	OWENS MICHAEL A	1203 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02300	BURNS WILLIAM C JR	1101 STANFORD DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02400	MOEHLE MARK A	1115 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02500	RICH DALE	1111 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079 06002	KRANTZ ANNE J FREEMAN	4090 IRONWOOD DR	GREENBRIER	TN	37073	MGA-1	SWCO-3	VACANT
079 06003	FRENZEL G CHARLES	4091 MURFREESBORO RD	FRANKLIN	TN	37067	MGA-1	SWCO-3	VACANT
079M B 02600	BUSELMEIER NORMAN T III	1109 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02700	GOERZEN LAURIE	1105 RIDGEWAY DR	FRANKLIN	TN	37067	NC	SWCO-3	RESIDENTIAL
079M B 02800	ADAMS R G	PO BOX 680098	FRANKLIN	TN	37068	NC	SWCO-3	RESIDENTIAL
079M B 02900	ADAMS HAZEL C	PO BOX 680098	FRANKLIN	TN	37068	NC	SWCO-3	VACANT
079M D 00300	BOZEMAN H ANDREW	4076 MURFREESBORO RD	FRANKLIN	TN	37067	NC	SWCO-2	RESIDENTIAL
079M D 00200	SALAZAR MARY ELLEN	4072 MURFREESBORO RD	FRANKLIN	TN	37067	R-1	SWCO-2	RESIDENTIAL
079M D 00100	BETTS CHRISTOPHER E	4068 MURFREESBORO RD	FRANKLIN	TN	37067	R-1	SWCO-2	RESIDENTIAL
079M F 00100	CALDWELL EST HOMEOWNERS ASSOC INC	PO BOX 24520	NASHVILLE	TN	37202	R-1	SWCO-2	RESIDENTIAL
079M E 00100	CALDWELL EST HOMEOWNERS ASSOC INC	PO BOX 24521	NASHVILLE	TN	37202	R-1	SWCO-2	RESIDENTIAL
079M E 00100	CALDWELL EST HOMEOWNERS ASSOC INC	PO BOX 24522	NASHVILLE	TN	37202	R-1	SWCO-2	RESIDENTIAL
079M E 00101	AWAD GEORGE	209 SPRINGHOUSE CIR	FRANKLIN	TN	37067	R-1	SWCO-2	RESIDENTIAL
079M E 00200	WILLIAMS STEPHEN	213 SPRINGHOUSE CIR	FRANKLIN	TN	37067	R-1	SWCO-2	RESIDENTIAL
079 05003	CHURCH FRANKLIN CHRISTIAN	PO BOX 680815	FRANKLIN	TN	37068	MGA-1	SWCO-2	INSTITUTIONAL
079 06007	ADAMS R G	PO BOX 680098	FRANKLIN	TN	37068	MGA-1	SWCO-3	RESIDENTIAL
079 06001	ADAMS R G	PO BOX 680098	FRANKLIN	TN	37068	MGA-1	SWCO-3	RESIDENTIAL
079M B 00100	ADAMS R G	PO BOX 680099	FRANKLIN	TN	37068	NC	SWCO-3	RESIDENTIAL

COF 4686

Revisions:
1. 11.10.2014

Drawing Notes:

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

Date: OCT 13, 2014

OCTOBER PARK SUBDIVISION
DEVELOPMENT PLAN

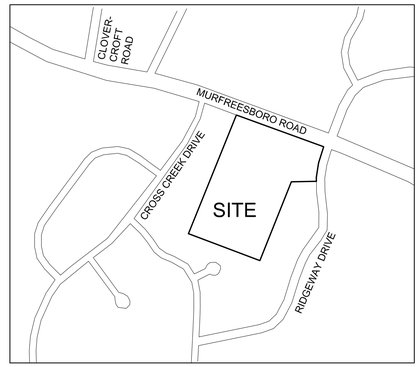
Parcels 60.07, 60.01 on Map 79 and 1.00 in Group B on Tax Map 79M
Franklin, Williamson County, Tennessee

GREGORY C. GAMBLE — REGISTERED LANDSCAPE ARCHITECT — STATE OF TENNESSEE

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

BOUNDARY MAP

C 1.0



GRAPHIC SCALE: 1"=500 FT
0 500

SITE DATA:

PROJECT NAME:	OCTOBER PARK
PROJECT NUMBER:	4686
SUBDIVISION:	NA
LOT NUMBER:	NA
ADDRESS:	1110 RIDGEWAY DRIVE
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
MAP, GROUP, PARCEL NUMBERS:	MAP 79, PARCELS 60.07, 60.01, AND MAP 79M GROUP B PARCEL 1.00
EXISTING ZONING:	WILLIAMSON COUNTY NEIGHBORHOOD CONSERVATION
PROPOSED ZONING:	SD-R 1.6 DUA
CHARACTER AREA OVERLAY:	SWCO-3
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL ACREAGE:	11.88 AC
TOTAL SQUARE FOOTAGE:	517,412 SF
MINIMUM REQUIRED SETBACKS:	
FRONT YARD: 15'	
REAR YARD: VARIES WITH BUFFER TREATMENT	
SIDE YARD: 5'	
OWNER:	R. GLENN ADAMS
ADDRESS	1100 RIDGEWAY DRIVE FRANKLIN, TN 37067
CONTACT	GLENN ADAMS
APPLICANT:	VERTEX DEVELOPMENTN, LLC
ADDRESS	1212 HOSS ROAD POWELL, TN 37849
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CONTACT	STEVE BETHEL
PLANNER/LANDSCAPE ARCHITECT:	GAMBLE DESIGN COLLABORATIVE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 200 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
EMAIL ADDRESS	greggamble209@gmail.com
CONTACT	GREG GAMBLE

SPECIMEN TREES

NUMBER	TYPE	SIZE	HEALTH	STATUS
1	WALNUT	28	GOOD	RETAINED
2	CHERRY	32	GOOD	RETAINED
3	SUGAR MAPLE	32	GOOD	RETAINED
4	ELM	24	GOOD	RETAINED
5	HACKBERRY	24	GOOD	RETAINED

TREE CANOPY PRESERVATION

EXISTING TREE CANOPY: 72,559 SF
72,559 SF/517,412 SF = .14 (14%) OF TOTAL SITE
REQUIRED CANOPY PRESERVATION =
54% OF TOTAL CANOPY
72,559 SF * 54% = 39,182 SF

SOIL TYPES

ArC2	Armour Silt Loam, 5-12%, Eroded
CkD	Culleoka Silt Loam, 12-20%
CkD3	Culleoka Silt Loam, 15-20%, Severely Eroded
CkE3	Culleoka Silt Loam, 20-35%, Severely Eroded
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COF 4686

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DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

Date: October 13, 2014

OCTOBER PARK PUD SUBDIVISION DEVELOPMENT PLAN

Parcels 60.07, 60.01 on Map 79 and 1.00 in Group B on Tax Map 79M
Franklin, Williamson County, Tennessee

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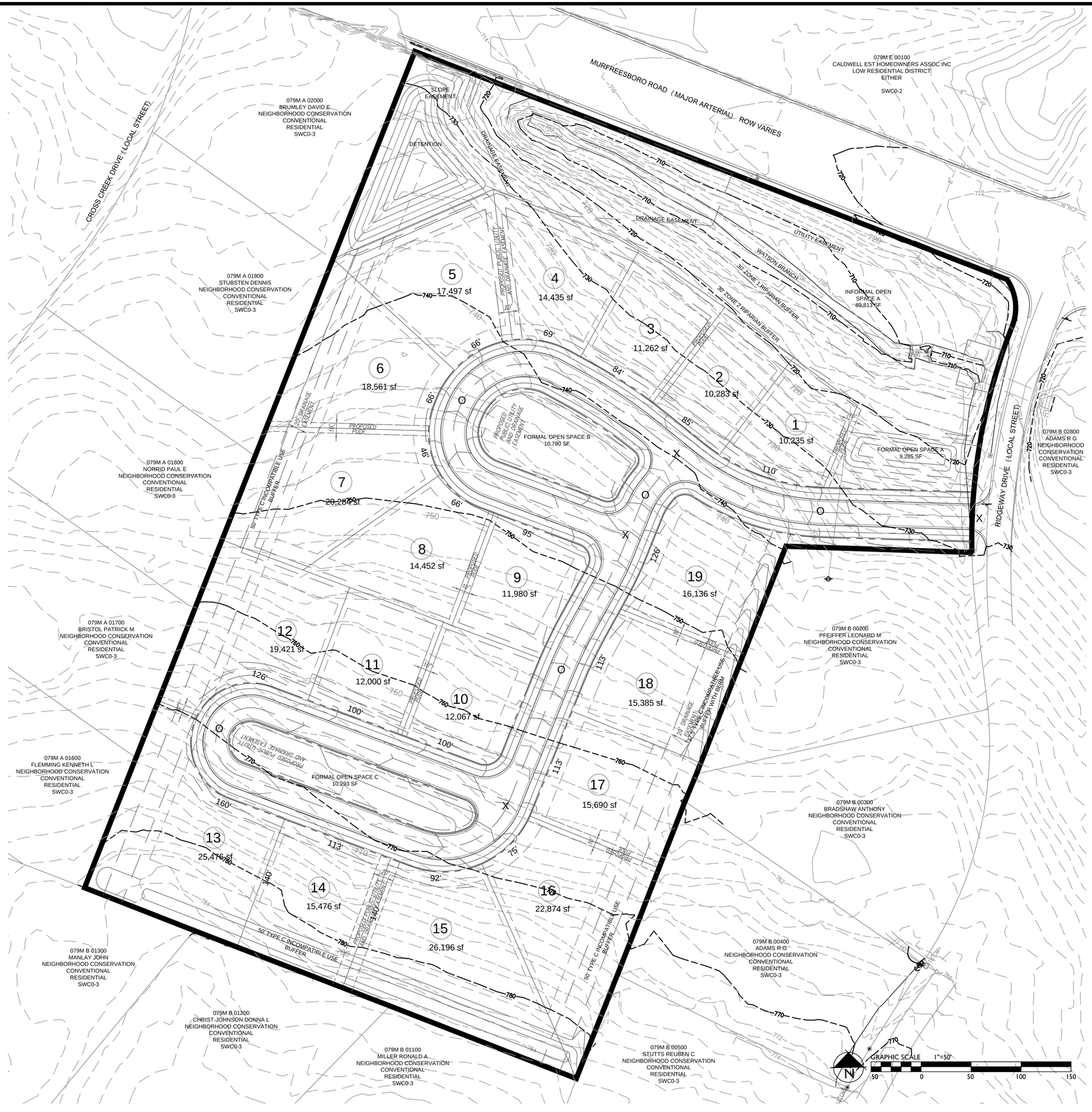
EXISTING CONDITIONS PLAN

C 2.0



LAND USE PLAN COMPLIANCE

CHARACTER AREA OVERLAY: SWCO-3
APPLICABLE DEVELOPMENT STANDARD: CONVENTIONAL

1. THE EXISTING USES WITHIN SEWARD HALL CHARACTER AREA 3 ARE PREDOMINANTLY SINGLE FAMILY DETACHED HOMES. THE PROPOSED PLAN PROVIDES SINGLE FAMILY HOME LOTS.

2. THE PROPOSED DEVELOPMENT PLAN PRESERVES THE FRONT PORTION OF THE PROPERTY ALONG MURFREESBORO ROAD AS OPEN SPACE. THIS OPEN SPACE "FRONT YARD" IS CONSISTENT WITH THE CHARACTER OF THE CORRIDOR.

3. THE PROPOSED DEVELOPMENT WILL BE ACCESSED FROM RIDGEWAY DRIVE.

LOCAL COMPATIBILITY

THE PROPOSED SUBDIVISION IS PLANNED WITH TWO STORY SINGLE FAMILY HOMES RANGING IN SIZE BETWEEN 3500 SQUARE FEET AND 4600 SQUARE FEET. THESE HOMES ARE COMPATIBLE WITH THE HOMES WITHIN THE ADJACENT NEIGHBORHOODS, RIDGEWAY AND CROSS CREEK SUBDIVISIONS EVEN THOUGH THEY ARE PROPOSED ON LOTS LESS THAN ONE ACRE, .

THE HOMES WITHIN THE RIDGEWAY AND CROSS CREEK SUBDIVISIONS ARE BETWEEN 1900 TO 5700 SQUARE FEET IN SIZE. THE AVERAGE HOME IS 3500 SQUARE FEET IN SIZE. THESE HOMES WERE BUILT ON ONE ACRE LOTS WITH SEPTIC TANKS ACCORDING TO WILLIAMSON COUNTY DEVELOPMENT REGULATIONS. SINCE THE DEVELOPMENT OF THESE HOMES, SEWER HAS BEEN MADE ACCESSIBLE BY THE CITY OF FRANKLIN WITH A SEWER MAIN ALONG MURFREESBORO ROAD.

THE PROPOSED PUD PLAN FOLLOWS THE ZONING ORDINANCE'S REQUIREMENTS FOR PROVIDING A TYPE 'C' INCOMPATIBLE USE BUFFERS WHERE ADJACENT LOTS ARE LESS THAN 75% OF THE ADJACENT LOTS. A TYPE 'C' BUFFER IS PLANNED ON 3 BOUNDARIES OF THE SITE ADJOINING ADJACENT LOTS ZONED NEIGHBORHOOD CONSERVATION (WILLIAMSON COUNTY). IN ADDITION TO SPACIAL REQUIREMENTS, THIS BUFFER WILL INCLUDE 16 TREES AND 40 SHRUBS EVERY ONE HUNDRED LINEAR FEET. THE NEIGHBORING HOMES AVERAGE A REAR SETBACK OF 88 FEET FROM OCTOBER PARK'S BOUNDARY. HOMES ARE AS CLOSE AS 25 FEET TO THE PROPERTY AND AS FAR AWAY AS 165 FEET. THE AVERAGE DISTANCE BETWEEN THE NEW HOMES AND THE EXISTING HOMES WILL BE 138 FEET.

COMPATIBILITY OF LOT SIZE SHOULD NOT BE THE ONLY FACTOR TO DETERMINE APPROPRIATENESS OF THE DEVELOPMENT PLAN. THE PROPOSED PLAN IS COMPATIBLE IN THE SIZE OF HOME AND COST OF HOME, AND ARE FULLY SCREENED FOR THE PRIVACY OF THE EXISTING NEIGHBORS AND THE NEW RESIDENTS.

THE DEVELOPMENT OF ONE ACRE LOTS WITHIN THE CITY OF FRANKLIN IS OFTEN BOTH COST PROHIBITIVE FOR DEVELOPMENT AND COST PROHIBITIVE FOR LONG TERM MAINTENANCE OF INFRASTRUCTURE. THE DENSITY AND LOT SIZES PROPOSED IN THE PUD ARE NECESSARY DUE TO THE COST OF INFRASTRUCTURE AND COST OF LAND. BOTH RIDGEWAY AND CROSS CREEK SUBDIVISIONS WERE DEVELOPED WITHOUT STORMWATER DETENTION BASINS, SEWER, CURB AND GUTTER, SIDEWALKS, FORMAL OPEN SPACE, NOR INFORMAL OPEN SPACE PRESERVATION AREAS. THE PER LOT COST OF DEVELOPMENT, INSTALLATION, AND MAINTENANCE IS DISPROPORTIONATELY HIGHER FOR NEW DEVELOPMENT THAN THE ADJACENT EXISTING SUBDIVISIONS DUE TO THE CITY'S DESIGN STANDARDS.

CONNECTIVITY INDEX

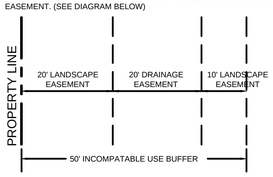
0 LINKS 1
X NODES 4

INDEX = 1.0

DUE TO EXISTING CONDITIONS OF THIS PROPERTY, AND ADJACENT EXISTING SUBDIVISION, OFF-SITE CONNECTIONS ARE NOT POSSIBLE AND ARE NOT PROVIDED WITH THIS PUD. A SPECIAL EXCEPTION IS REQUESTED FROM THE ENGINEERING DEPARTMENT FOR OFF SITE CONNECTIONS.

INCOMPATIBLE USE BUFFER

THE SOUTHERN, EASTERN, AND WESTERN BOUNDARIES SHALL HAVE A TYPE 'C' INCOMPATIBLE USE BUFFER AS SHOWN ON THE SITE PLAN. INCOMPATIBLE USE BUFFERS ARE TO BE PLACED IN A LANDSCAPE EASEMENT. (SEE DIAGRAM BELOW)



PARKLAND DEDICATION

PARKLAND DEDICATION SHALL BE FEE IN LIEU OF FOR THIS DEVELOPMENT PLAN.

19 X 1200SF = 22,800 SF (0.52 ACRES)

HYDRANT FIRE FLOW

(HYDRANT LOCATED 500' EAST OF THE INTERSECTION OF RIDGEWAY DR AND HWY 96)

WATER MAIN 16" DUCTILE IRON
FLOW: 1455 GPM
STATIC PRESSURE: 99 PSI
RESIDUAL PRESSURE: 75 PSI

STREAMSIDE BUFFER ENHANCEMENT

ENHANCEMENT SHALL INCLUDE REMOVAL OF INVASIVE SPECIES AND THE RE-ESTABLISHMENT OF NATIVE SPECIES WHICH PROVIDES A MIX OF CANOPY TREES, UNDERSTORY SHRUBS, AND A NATIVE SEED MIX OF FORBES/GRASSES/SEDGES/RUSHES SUITABLE FOR A MOIST SHADED UNDERSTORY.

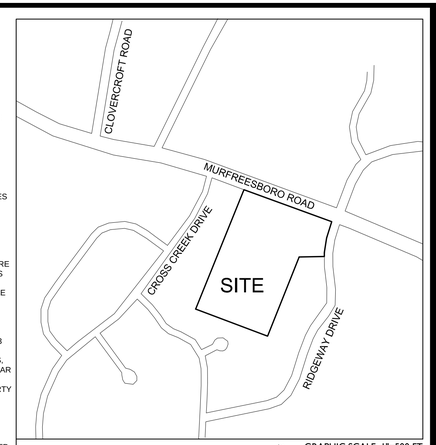
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT AS PERMITTED BY THE CITY ENGINEER.

PHASING

THE DEVELOPMENT WILL BE CONSTRUCTED AS A SINGLE PHASE.

CRITCAL TREE LOTS

LOTS 3, 4, 5, 6, 14, 16 & 20 ARE CRITICAL TREE LOTS.



SITE DATA:

PROJECT NAME:	OCTOBER PARK
PROJECT NUMBER:	4686
SUBDIVISION:	NA
LOT NUMBER:	NA
ADDRESS:	1110 RIDGEWAY DRIVE
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
MAP, GROUP, PARCEL NUMBERS:	MAP 79, PARCELS 60.07, 60.01, AND MAP 79M GROUP B PARCEL 1.00
EXISTING ZONING:	WILLIAMSON COUNTY NEIGHBORHOOD CONSERVATION
PROPOSED ZONING:	SD-R 1.6 DUA
CHARACTER AREA OVERLAY:	SWCO-3
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL ACREAGE:	11.88 AC
TOTAL SQUARE FOOTAGE:	517,412 SF
MINIMUM REQUIRED SETBACKS:	
FRONT YARD: 15'	
REAR YARD: VARIES WITH BUFFER TREATMENT	
SIDE YARD: 5'	

OWNER:	R. GLENN ADAMS
ADDRESS	1100 RIDGEWAY DRIVE FRANKLIN, TN 37067
CONTACT	GLENN ADAMS
APPLICANT:	VERTEX DEVELOPMENTN, LLC
ADDRESS	1212 HOSS ROAD POWELL, TN 37849
OFFICE PHONE	865-384-8124
EMAIL ADDRESS	sbethel.bethel@gmail.com
CONTACT	STEVE BETHEL
PLANNER/LANDSCAPE ARCHITECT:	GAMBLE DESIGN COLLABORATIVE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 200 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
EMAIL ADDRESS	greggamble209@gmail.com
CONTACT	GREG GAMBLE

PROJECT CHARACTERISTICS	
BUILDING SQUARE FOOTAGE:	N/A
BUILDING HEIGHT:	2 STORY
LANDSCAPE SURFACE RATIO:	0.84
MINIMUM LANDSCAPE RATIO:	0.40
INCOMPATIBLE-USE BUFFER REQUIRED:	YES TYPE A BUFFER TO NORTH TYPE C BUFFER, SOUTH, EAST, AND WEST
MINIMUM PARKING REQUIRED:	N/A
MAXIMUM PARKING LIMIT:	N/A
EXISTING PARKING:	N/A
PARKING PROVIDED:	SINGLE FAMILY DETACHED 2 PER UNIT
RESIDENTIAL DENSITY:	1.60 DU/A (19 UNITS)
EXISTING TREE CANOPY:	1.66 AC
PRESERVED TREE CANOPY:	1.48 AC
PARKLAND	FEE IN LIEU
OPEN SPACE:	2.76 AC PROVIDED (23.22%)
TOTAL REQUIRED: 1.79 AC (15% OF ACREAGE)	
TOTAL PROVIDED: 2.76 AC (23.22%)	
FORMAL: .70 AC (39.1% OF REQUIRED)	
REQUIRED: .59 AC (33%)	
PROVIDED: .70 AC (39.1%)	
INFORMAL PROVIDED: 2.06 AC	

STATEMENT OF IMPACTS

WATER
WATER SERVICE WILL BE PROVIDED BY THE MILCROFTON UTILITY DISTRICT. THE WATER MAIN WILL BE SERVED FROM A MAIN IN RIDGEWAY DRIVE.
19 x 350 GDP = 6,650 GDP

SEWER
SEWER SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN. SEWER MAIN CONNECTION AT MANHOLE LOCATED AT THE INTERSECTION OF RIDGEWAY DRIVE AND HIGHWAY 96.

DRAINAGE FACILITIES
THE PROPERTY WILL BE DRAINED TO THE NORTH TO DETENTION FACILITY. THE DETENTION POND WILL DRAIN TO WATSONS BRANCH BETWEEN THE SITE AND HWY 96.

POLICE AND FIREP
FRANKLIN FIRE DEPT STATION #2 - 2.2 MILES DRIVING DISTANCE
COLUMBIA AVE POLICE STATION - 3.8 MILES DRIVING DISTANCE

RECREATION FACILITIES
LIBERTY PARK - 3.0 MILES DRIVING DISTANCE

PROJECTED STUDENT POPULATION
THE STUDENT POPULATION IS PROJECTED AT A RATE OF .64 STUDENTS PER HOME: 19 x .64 = 12.2 STUDENTS

TRINITY ELEMENTARY SCHOOL	2.7 MILES
PAGE MIDDLE SCHOOL	6.0 MILES
PAGE HIGH SCHOOL	6.0 MILES

REFUSE COLLECTION
REFUSE COLLECTION SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN SOLID WASTE.

RESTRICTIVE COVENANTS
A HOME OWNER'S ASSOCIATION WILL BE ESTABLISHED PRIOR TO THE FIRST OCCUPANCY OF RESIDENTS. THE HOME OWNER'S ASSOCIATION WILL REGULATE ARCHITECTURAL STANDARDS AND THE MAINTENANCE OF THE COMMUNITY. THE HOA WILL MAINTAIN ALL COMMON OPEN SPACE AND RECREATIONAL AREAS.

MINERAL RIGHTS
NO THIRD PARTY MINERAL RIGHTS ARE ASSOCIATED WITH THIS PROPERTY.

COF 4686

Revisions:
1. 11.10.2014
2. 12.03.2014

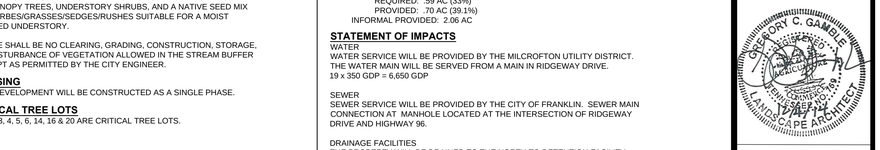
Drawing Notes:

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

Date: OCT 13, 2014

OCTOBER PARK PUD SUBDIVISION DEVELOPMENT PLAN

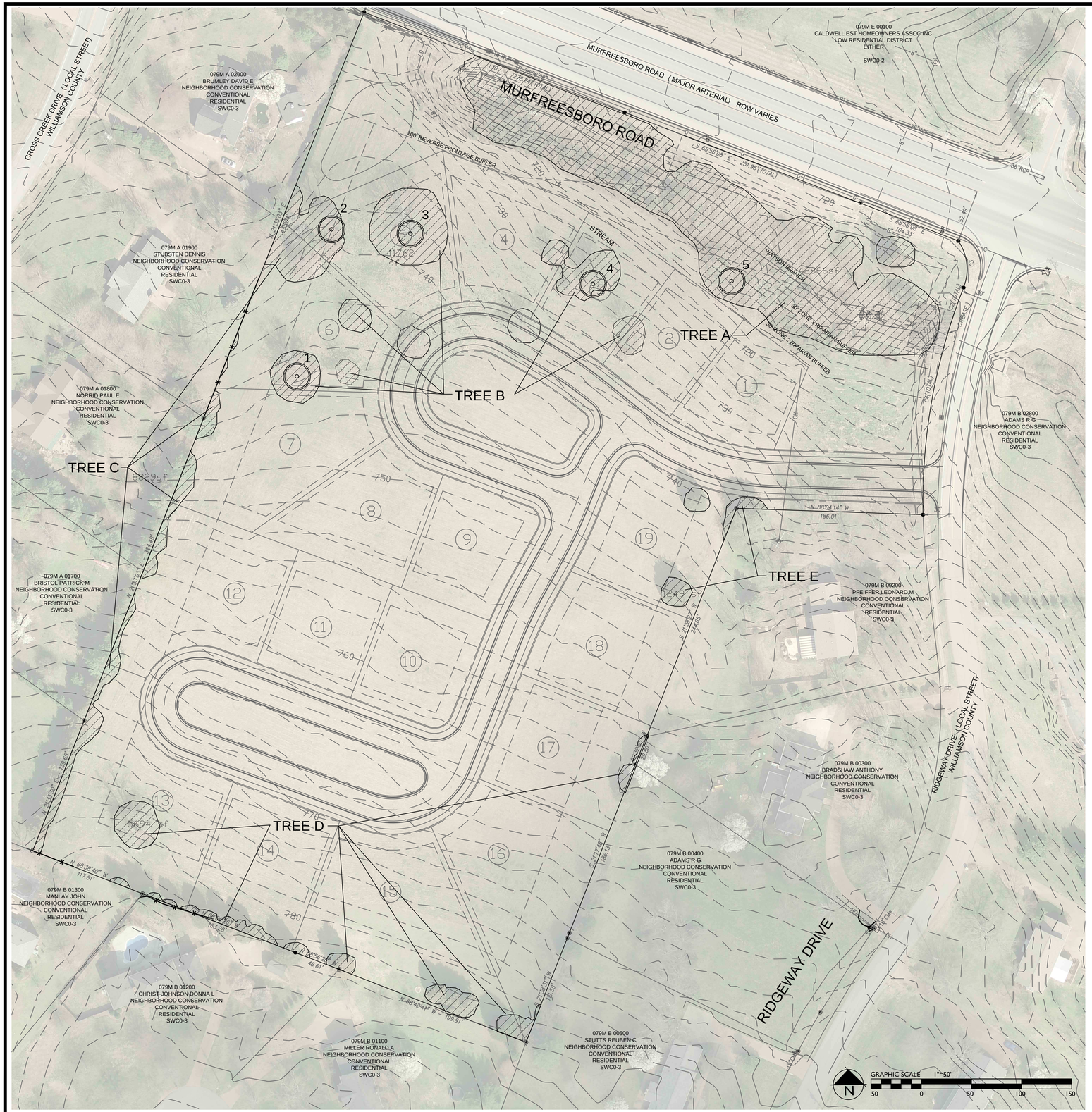
Parcels 60.07, 60.01 on Map 79 and 1.00 in Group B on Tax Map 79M
Franklin, Williamson County, Tennessee

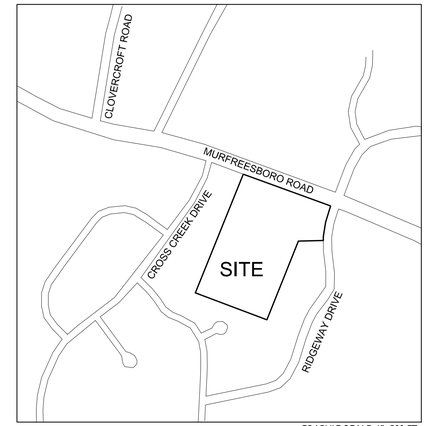


GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

DEVELOPMENT PLAN

C 3.0





SPECIMEN TREES

NUMBER	TYPE	SIZE	HEALTH	STATUS
1	WALNUT	28	GOOD	RETAINED
2	CHERRY	32	GOOD	RETAINED
3	SUGAR MAPLE	32	GOOD	RETAINED
4	ELM	24	GOOD	RETAINED
5	HACKBERRY	24	GOOD	RETAINED

TOTAL SPECIMEN INCHES REMOVED: 0
TOTAL HEALTHY INCHES REMOVED: 0

TREE CANOPY RETENTION

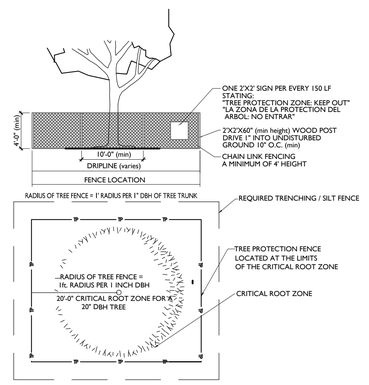
TREE AREA	EXISTING	REMOVED	RETAINED
TREE A	42,866 SF	0 SF	42,866 SF
TREE B	13,432 SF	1,670 SF	11,762 SF
TREE C	8,829 SF	0 SF	8,829 SF
TREE D	5,694 SF	0 SF	5,694 SF
TREE E	1,738 SF	489 SF	1,249 SF
TOTAL SF	72,559 SF	2,159 SF	70,400 SF
TOTAL ACRES	1.66 AC	0.05 AC	1.61 AC

TREE CANOPY DATA

EXISTING TREE CANOPY: 72,559 SF
72,559 SF/517,412 SF = .14 (14%) OF TOTAL SITE
REQUIRED CANOPY PRESERVATION =
54% OF TOTAL CANOPY
72,559 SF * 54% = 39,182 SF
PROVIDED CANOPY PRESERVED =
70,400 SF (97%) OF TOTAL EXISTING CANOPY

KEY:

SPECIMEN TREE



TREE PROTECTION FENCING DETAIL

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SUBDIVISION:	NA
LOT NUMBER:	NA
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PROPOSED ZONING:	SD-R 1.6 D/UA
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OWNER:	R. GLENN ADAMS
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CONTACT	STEVE BETHEL
PLANNER/LANDSCAPE ARCHITECT:	GAMBLE DESIGN COLLABORATIVE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 200 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
EMAIL ADDRESS	greggamble209@gmail.com
CONTACT	GREG GAMBLE

TREE PROTECTION NOTES:

1. The tree protection barriers shall be constructed before the issuance of any permits, and shall remain intact throughout the entire period of construction.

2. The tree protection barrier shall be installed as labeled on this plan or a distance to the radius of the dripline, whichever is greatest, as measured from the trunk of the protected tree.

3. Any required excavation in or around the protection zone to accomadate underground services, footins, etc; shall be indicated on the plan, and shall be excavated by hand. In addition, related root pruning shall be accomplished via ANSI A-300-95 standard so as to minimize impact on the general root system.

4. The storage of building materials or stock piling shall not be permitted within the limits of or against the protection barriers.

5. Trees within the protection barriers must be adequately cared for throughout the construction process (i.e., they must be watered sufficiently). Fill shall not be placed upon the root system as to endanger the health or life of the affected tree.

COF 4686

Revisions:

Drawing Notes:

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

Date: OCT 13, 2014

OCTOBER PARK PUD SUBDIVISION DEVELOPMENT PLAN

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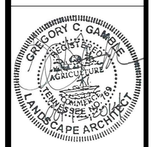
Franklin, Williamson County, Tennessee



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144 SOUTHEAST PARKWAY
SUITE 210
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

TREE PRESERVATION PLAN

C 4.0

TN STATE PLANE
(NAD 83)

0 40 80

SCALE: 1" = 40'

COORDINATES HAVE BEEN DATUM ADJUSTED BY A FACTOR OF 1.00006

GENERAL UTILITIES NOTES:

1. THE ANTICIPATED IMPACT TO WATER AND SEWER IS 19 SFU THROUGH 19 SINGLE FAMILY TAPS, OR APPROXIMATELY 6,650 GPD. NO IMPACT TO RECLAIMED WATER IS ANTICIPATED.
2. UTILITY DESIGN WILL BE FINALIZED AT SITE PLAN STAGE.
3. FIRE HYDRANT PRESSURES PER MILCROFTON UTILITY. TESTING PERFORMED OCTOBER 15, 2014 AT 4076 MURFREESBORO PIKE.
   STATIC PRESSURE = 99± PSI
   RESIDUAL PRESSURE = 75± PSI
4. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE APPROPRIATE UTILITY COMPANIES INVOLVED.
5. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD THE EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. FURNISH ANY SPECIAL EQUIPMENT REQUIRED TO WORK OVER AND AROUND THE UTILITIES.
6. CONTRACTOR TO INSTALL ALL WATER LINES AND APPURTENANCES PER MANUFACTURER'S SPECIFICATIONS.
7. TRENCH DESIGN AND SAFETY FOR PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
8. THE STONE BEDDING AND BACKFILL SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS.
8. WATER LINE PIPE SHALL BE IN ACCORDANCE WITH CITY OF FRANKLIN BUILDING CODE SPECIFICATIONS; FROM THE METER TO THE MAIN SYSTEM SHALL MEET KNOXVILLE UTILITIES BOARD SPECIFICATIONS..
9. CONTRACTOR TO INSTALL WATER LINES AT A POSITIVE GRADE BETWEEN DESIGNATED HIGH AND LOW POINTS TO PREVENT TRAPPING OF AIR.
10. CONTRACTOR TO USE FITTINGS WITH REACTION BLOCKING AS REQUIRED FOR PROPER HORIZONTAL AND VERTICAL ALIGNMENT.
11. ALL SANITARY SEWER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROPRIATE UTILITIES BOARD STANDARD SPECIFICATIONS FOR WASTEWATER CONSTRUCTION.

UTILITY SERVICE PROVIDERS

WATER
MILCROFTON UTILITY DISTRICT
6333 ARNO ROAD
FRANKLIN, TN 37064
(615) 794-5947

CABLE TELEVISION
COMCAST
2501 MCGAVOCK PIKE
SUITE 1200
NASHVILLE, TN 37214
(615) 244-7462

TELEPHONE
AT&T
333 COMMERCE STREET
NASHVILLE, TN 37201
(615) 214-4871

GAS
ATMOS ENERGY
810 CRESCENT CENTER DRIVE
SUITE 600
FRANKLIN, TN 37067
(615) 771-8311

ELECTRIC
MIDDLE TENNESSEE ELECTRIC MEMBERSHIP CORPORATION
555 NEW SALEM ROAD
MURFREESBORO, TN 37129
(615) 890-9762

SEWER
CITY OF FRANKLIN
84 LUMBER DRIVE
FRANKLIN, TN 37064
(615) 794-4554

Revisions:

Drawing Notes:

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

Date: AUG 29, 2014

OCTOBER PARK

Parcels 60.07, 60.01 on Map 79 and
1.00 in Group B on Tax Map 79M
Franklin, Williamson County, Tennessee

FOR AGENCY REVIEW ONLY

ERIC L. GARDNER
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
No. 100061
STATE OF TENNESSEE

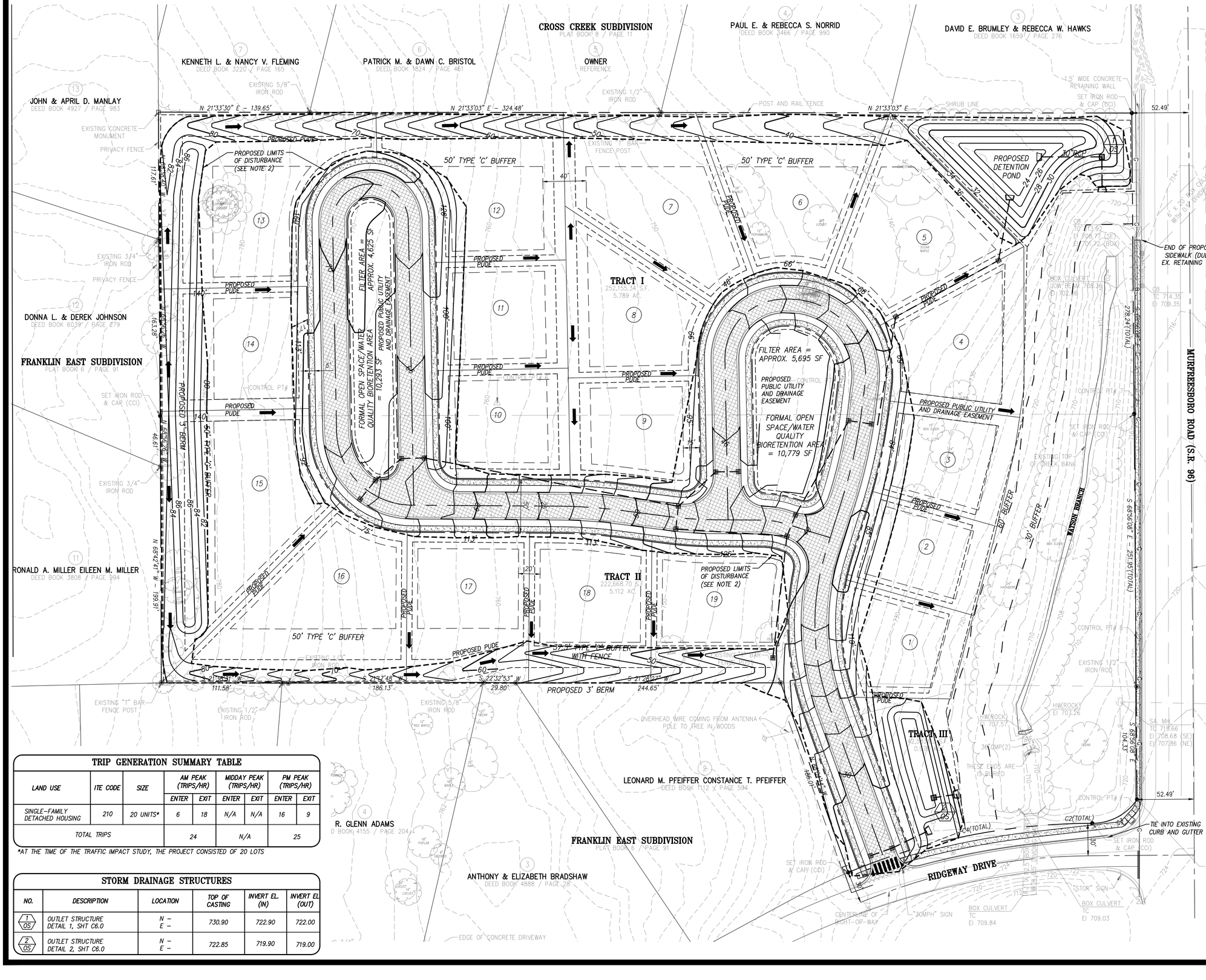
GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble2094@gmail.com
615.975.5765

UTILITY PLAN

C 5.0

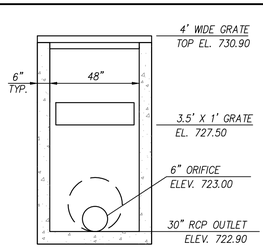
CCI PROJECT #01119-0000

CANNON & CANNON INC
CONSULTING ENGINEERS · FIELD SURVEYORS
TEL 865.670.8555
WWW.CANNON-CANNON.COM
8550 Kingston Pike
Knoxville, TN 37919

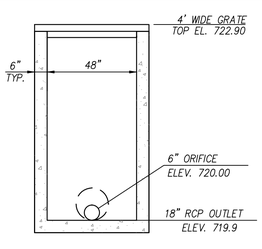


NOTES:

1. THE BOUNDARY AND TOPOGRAPHIC DATA SHOWN WAS PROVIDED BY PROVIDED BY CANNON & CANNON, INC. DATED APRIL 26, 2014. THE SURVEY WAS SUPPLEMENTED WITH DATA FROM CITY OF FRANKLIN GIS.
2. THE TOTAL PROPERTY AREA IS 11.88± ACRES. THE TOTAL DISTURBED AREA IS APPROXIMATELY 4.71± ACRES. THE TOTAL IMPERVIOUS AREA IS APPROXIMATELY 1.34± ACRES.
3. UNLESS NOTED OTHERWISE, DIMENSIONS ARE TAKEN FROM OUTSIDE FACE OF BUILDING AND/OR FACE OF CURB.
4. UNLESS NOTED OTHERWISE, THE PROPOSED GRADES SHOWN ON THESE DRAWINGS ARE FINISH GRADE. EXISTING AND PROPOSED CONTOURS ARE SHOWN AT 2 FT. INTERVALS.
5. THE SITE SHALL BE CLEARED AND GRUBBED WITHIN THE LIMITS OF EXCAVATION. COMPLETELY DISPOSE OF ALL MATERIALS RESULTING FROM CLEARING AND GRUBBING OFF-SITE OR ON-SITE AT A LOCATION DETERMINED BY THE OWNER.
6. ALL TREE STUMPS, BOULDERS, AND OTHER OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH OF 2 FT BELOW THE SUBGRADE. ROCK SHALL BE SCARIFIED TO A DEPTH OF 1 FT BELOW SUBGRADE.
7. STRIP TOPSOIL TO A MINIMUM DEPTH OF 8-IN. AND TEMPORARILY STOCKPILE EXCAVATED MATERIALS. INSTALL SILT FENCE OR OTHER APPROPRIATE EROSION CONTROL STRUCTURES ON THE DOWN HILL SIDE OF THE STOCKPILE.
8. PROOF ROLL AREAS TO RECEIVE FILL AND PLACE FILL IN ACCORDANCE WITH THE SITE SPECIFIC REPORT OF GEOTECHNICAL EXPLORATION.
9. A 4 IN. (MIN) LAYER OF TOPSOIL SHALL BE PLACED OVER THE AREAS TO BE SEEDED AND TO THE FINISH GRADE ELEVATIONS AS SHOWN ON THE DRAWINGS.
10. ALL NEWLY GRADED EARTHEN AREAS THAT ARE NOT TO BE PAVED, STABILIZED, OR SODDED SHALL BE SEEDED, FERTILIZED, AND MULCHED WITHIN 30 DAYS OF ATTAINMENT OF FINAL GRADE.
11. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT AS PERMITTED BY THE CITY ENGINEER.
12. LOTS TO BE GRADED ON AN INDIVIDUAL LOT BASIS. FINAL DRAINAGE DETAIL OF LOTS TO BE PROVIDED AT SITE PLAN STAGE.



1 / C6.0 **OUTLET STRUCTURE DETAIL**
N.T.S.



2 / C6.0 **OUTLET STRUCTURE DETAIL**
N.T.S.

TRIP GENERATION SUMMARY TABLE

LAND USE	ITE CODE	SIZE	AM PEAK (TRIPS/HR)		MIDDAY PEAK (TRIPS/HR)		PM PEAK (TRIPS/HR)	
			ENTER	EXIT	ENTER	EXIT	ENTER	EXIT
SINGLE-FAMILY DETACHED HOUSING	210	20 UNITS*	6	18	N/A	N/A	16	9
TOTAL TRIPS			24		N/A		25	

*AT THE TIME OF THE TRAFFIC IMPACT STUDY, THE PROJECT CONSISTED OF 20 LOTS

STORM DRAINAGE STRUCTURES

NO.	DESCRIPTION	LOCATION	TOP OF CASTING	INVERT EL. (IN)	INVERT EL (OUT)
1 / OS	OUTLET STRUCTURE DETAIL 1, SHT C6.0	N – E –	730.90	722.90	722.00
2 / OS	OUTLET STRUCTURE DETAIL 2, SHT C6.0	N – E –	722.85	719.90	719.00

Revisions:

Drawing Notes:

GDC
GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE
Date: AUG 29, 2014

OCTOBER PARK

Parcels 60.07, 60.01 on Map 79 and
1.00 in Group B on Tax Map 79M
Franklin, Williamson County, Tennessee

FOR AGENCY REVIEW ONLY

ERIC J. GARDNER
REGISTERED
LICENSED
PROFESSIONAL ENGINEER
NO. 108051
STATE OF TENNESSEE

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble2098@gmail.com
615.975.5765

GRADING PLAN

C 6.0

CCI PROJECT #01119-0000

CANNON & CANNON INC
CONSULTING ENGINEERS · FIELD SURVEYORS
TEL 865.670.8555
WWW.CANNON-CANNON.COM
8550 Kingston Pike
Knoxville, TN 37919

SAMPLE FRONT ELEVATIONS

SITE DATA:

PROJECT NAME:	OCTOBER PARK
PROJECT NUMBER:	4686
SUBDIVISION:	NA
LOT NUMBER:	NA
ADDRESS:	1110 RIDGEWAY DRIVE
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
MAP, GROUP, PARCEL NUMBERS:	MAP 79, PARCELS 60.07, 60.01, & MAP 79M GROUP B PARCEL 1.00
EXISTING ZONING:	WILLIAMSON COUNTY NEIGHBORHOOD CONSERVATION
PROPOSED ZONING:	SD-R 1.6 D/UA
CHARACTER AREA OVERLAY:	SWCO-3
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL ACREAGE:	11.88 AC
TOTAL SQUARE FOOTAGE:	517,412 SF

ARCHITECTURAL ELEVATION NOTES

1. These elevations have been designed to meet the requirements of the City of Franklin's architectural design standards and the approval of the Planning Commission/City of Franklin. Changes shall not be made to the approved elevations unless approved by either the Codes Director or the Planning Commission.

2. Elevations shown are typical for this development. Final design plans shall be submitted with the request for Building Permits and shall indicate compliance with the City of Franklin's architectural design standards; specifically the requirement for exposed foundations or water tables/elevated finished floors and garage door separation/maximum widths.

3. Single family detached homes are to be designed for lots with side access garages.

4. One to two stories in height.

5. Materials include brick, simulated stone, cementatious siding and architectural shingles.

7. Garage doors shall be a maximum of 9 feet in width with a minimum separation (if two car garage is provided) by a minimum of 2 feet.

8. Homes for October Park shall be between 3,600 SF and 4,600 SF.

9. Homes located on Lots 9, 10 and 19 shall contain facade features on both streets that they front on.

The home elevations shown here are representative of the homes planned for October Park. They are the basis for design review by the City of Franklin at the time of building permit. Based on my professional experience, the plans presented meet or exceed the design standards set forth by the City of Franklin.

Greg Gamble, Registered Landscape Architect.

COF 4686

Revisions:
1. 12.03.14 Note 9

Drawing Notes:

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

Date: OCT 13, 2014

OCTOBER PARK PUD SUBDIVISION
DEVELOPMENT PLAN

Parcels 60.07, 60.01 on Map 79 and 1.00 in Group B on Tax Map 79M
Franklin, Williamson County, Tennessee

GREGORY C. GAMBLE — REGISTERED — AGRICULTURE — TENNESSEE — LANDSCAPE ARCHITECT

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

ARCHITECTURE

A 1.0

COF# 4686

CONDITIONS OF APPROVAL:

BNS

October Park Preapplication Submittal.pdf

1. Address

- Applicant shall have street names approved and on plans before site plan submittal.

Engineering

General Comments

2. Adverse grading

- The previous comment "The site must be graded in a manner that does not adversely affect the adjacent properties. The stormwater runoff from the adjacent properties must be allowed to continue to flow across the property" was not completely addressed. Provide adequate design information that indicates the landscape and incompatible use buffers can be approved for use as drainage swales and berms. Indicate the trees that will be removed on the tree preservation plan.

Engineering - PUD Plan Checklist

General Comments

3. F. Development Plan

- The previous comment "Applicant shall indicate public road approach and drive locations, with drive-through lanes and queuing identified" was not completely addressed. Provide a sidewalk along Highway 96. Provide funds in lieu of a sidewalk where the sidewalk cannot be constructed because of the retaining wall.

4. H. Stormwater Management Plan

- The previous comment "Applicant shall indicate total property area, disturbed area, and impervious area for total project listed on plan" was not completely addressed. The impervious area must include streets, houses, driveways, patios, sidewalks, etc.

5. H. Stormwater Management Plan

- The previous comment "Applicant shall comply and show all Stormwater BMPs in compliance with the City's Best Management Practices Stormwater Management Manual. Stormwater from all proposed impervious surfaces must be directed to areas of infiltration, water quality management and detention" was not completely addressed. No stormwater runoff from an impervious area is permitted to flow directly into the stream buffer prior to stormwater detention, water quality and infiltration.

6. H. Stormwater Management Plan

- The previous comment "Applicant shall locate all permanent stormwater BMPs and Green Infrastructure in open space lots. All water resource buffers shall also be placed in open space lots or conservation easements" was not completely addressed. A drainage easement must be provided for all drainage pipes including the pipe shown crossing lot 5.

7. I. Utility Plan

- The previous comment "Applicant shall indicate all existing and proposed easements associated with utilities. City of Franklin Easement Requirements (per Technical Specifications - General Design Requirements):
  - 0-12' depth: 20' exclusive easement on center
  - 12'-20' depth: 30' exclusive easement on center
  - Depths greater than 20' require prior approval from Engineering/Water Management Departments
  - Minimum 10' temporary construction easement on each side of permanent easement shall be provided.
  - All sewer easements must be located outside of the stream buffer

was not completely addressed.
The sewer line must be located at least 10 feet away from the end walls of the existing box culvert under Ridgeway Drive.

Fire-Planning

General Comments

8. Residential Fire Sprinkler System

- A previous comment indicating residential fire sprinklers may be necessary was acknowledged by the applicant.

Upon additional review and consideration in context with the development plan, COF Street Standards, and lack of connectivity - the applicant shall provide residential fire sprinklers (NFPA 13D) in all homes to offset the issues related to access.

Parks

General Comments

9. Parkland information

- Please show on all future sets of plans:

Fees in Lieu are requested for Parkland Dedication requirements.
19 units x 1200sf = 22,800sf or .52acres
Fees shall be paid at Final Plat stage.

Please include counts. Information is not shown on sheet C2.0. Fees tag is shown on C3, but not the details.

Planning

General Comments

10. Post PC Development Plans

- **PROCEDURAL REQUIREMENTS:**

1. Fifteen (15) half-size copies of the Development Plan shall be submitted to the Department of Planning and Sustainability by 9am on the Monday after the Planning Commission meeting in order to be placed on the Board of Mayor and Aldermen agenda.
2. If the plan receives BOMA approval, the applicant shall upload the corrected plan to the online plan review website (https://franklin.contractorsplanroom.com/secure/) and submit one (1) complete and folded set and a .pdf file of corrected development plan to the Department of Building and Neighborhood Services (Suite 110, Franklin City Hall). All revisions to the approved plans shall be "clouded." With the resubmittal, each condition of approval/open issue in the online plan review system shall contain a full response from the applicant as to the satisfaction or completion of that condition.
3. The city's project identification number shall be included on all correspondence with any city department relative to this project.

11. Post PC Development Plans

- The Post PC Development Plan shall be submitted and approved prior to approval of site plans. A copy of the Development Plan Sheet shall be included with the site plan submittal.

12. Architecture

- Draft elevations are not being approved with the development plan. Detailed elevations must be provided at site plan stage and will be reviewed for consistency with Zoning Ordinance as part of site plan review process.

Planning (Landscape)

General Comments

13. Critical Tree Lots

- The critical tree lots shall have an * on the lots with proper note.

14. Grading and Tree Protection

- Sheets C3.0 and C6.0 grading do not match.

This shall be corrected. The grading shall be removed from the area beside the property line where tree protection is required for the trees along the property.

Grading can occur in the incompatible use buffer but not in the drip line of the trees along the property lines.

Water/Sewer

October Park Dev Plan_10.13.2014.pdf

15. Sanitary sewer

- Water Management agrees on sewer line location. A manhole shall be added in front of lot 5 for sewer to maintain center of street and out of open space. This comment has been added due to the sewer line being moved to center of street.

RESOLUTION 2014-96

A RESOLUTION APPROVING A DEVELOPMENT PLAN FOR OCTOBER PARK PUD SUBDIVISION, LOCATED AT 1100 RIDGEWAY DRIVE BY THE CITY OF FRANKLIN, TENNESSEE."

WHEREAS, The PUD process is a review procedure that is intended to encourage innovative land planning and design and avoid the monotony sometimes associated with large developments by:

(a) Reducing or eliminating the inflexibility that sometimes results from strict application of zoning standards that were designed primarily for individual lots;

(b) Allowing greater freedom in selecting the means to provide access, light, open space, and design amenities;

(c) Encouraging a sensitive design that respects the surrounding established land use character and natural or man-made features of the site including, but not limited to, trees, historic features, streams, hillsides, and floodplains;

(d) Promoting quality design and environmentally sensitive development by allowing development to take advantage of special site characteristics, locations, and land uses; and

(e) Allowing deviations from certain zoning standards that would otherwise apply if not contrary to the general spirit and intent of this ordinance.

WHEREAS, The PUD review process consists of a Development Plan that is reviewed and approved by the BOMA, after a recommendation from the FMPC.

NOW, THEREFORE, BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, meeting in regular session this _____ day of _____, 2015:

1. That the legal description of the property is as follows:

Map—Parcel	Acres
079M-B00100	5.79
079-06001	5.11
079-06007	0.98
TOTAL	±11.88

R. GLENN ADAMS, TRACT I

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.789 acre tract, more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Adams, Tract II (Deed Book 495, Page 148), said rod being located 382.81 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northwestern line of Adams, Tract II, S 21° 22' 59" W, 899.73 feet to a set iron rod & cap (CCI) in the northeastern line of Lot 12, Franklin East Subdivision (Plat Book 6, Page 91);

Thence leaving the northwestern line of Adams, Tract II and with the northeastern line of Lot 12, N 68° 56' 26" W, 163.28 feet to an existing 3/4 inch iron rod, corner to Lot 13, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 12 and with the northeastern line of Lot 13, N 68° 38' 40" W, 117.61 feet to an existing concrete monument, corner to Lot 7, Cross Creek Subdivision (Plat Book 8, Page 11);

Thence leaving the northeastern line of Lot 13 and with the southeastern line of Lot 7, Cross Creek Subdivision, N 21° 33' 30" E, 139.65 feet to an existing 5/8 inch iron rod, corner to Lot 6, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 7 and with the southeastern line of Lots 6 and 5, Cross Creek Subdivision, N 21° 33' 03" E, 324.48 feet to an existing “T” Bar, corner to Lot 4, Cross Creek Subdivision;

Thence leaving the southeastern line of Lot 5 and with the southeastern lines of Lots 4 and 3, Cross Creek Subdivision, N 21° 33' 03" E, 435.04 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Lot 3 and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 278.24 feet to the Point of **BEGINNING**;

Containing 252,155.34 square feet or 5.789 acres, more or less.

R. GLENN ADAMS, TRACT II

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being a 5.112 acre tract, more particularly described as follows:

BEGINNING on an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), corner to Lot 1, Franklin East Subdivision (Plat Book 6, page 91), said rod being located 130.86 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road (S.R. 96) and with the northwestern line of Lot 1, S 22° 07' 02" W, 328.41 feet to an existing “T” Bar, corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 1 and with the northwestern line of Lot 2, S 21° 28' 27" W, 244.65 feet to an existing 3/4 inch iron rod, corner to Lot 3, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 2 and with the northwestern line of Lot 3, S 22° 32' 53" W, 29.80 feet to an existing 5/8 inch iron rod, corner to Lot 4, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 3 and with the northwestern line of Lot 4, S 21° 17' 48" W, 186.13 feet to an existing 1/2 inch iron rod, corner to Lot 5, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 4 and with the northwestern line of Lot 5, S 21° 38' 31" W, 111.58 feet to an existing “T” Bar, corner to Lot 11, Franklin East Subdivision;

Thence leaving the northwestern line of Lot 5 and with the northeastern line of Lot 11, N 68° 42' 41" W, 199.91 feet to an existing 3/4 inch iron rod, corner to Lot 12, Franklin East Subdivision;

Thence leaving the northeastern line of Lot 11 and with the northeastern line of Lot 12, N 68° 56' 26" W, 46.61 feet to a set iron rod & cap (CCI), corner to Adams, Tract I (Deed Book 495, Page 148);

Thence leaving the northeastern line of Lot 12 and with the southeastern line of Adams, N 21° 22' 59" E, 899.73 feet to a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96);

Thence leaving the southeastern line of Adams, Tract I and with the southwestern right-of-way line of Murfreesboro Road (S.R. 96), S 68° 56' 08" E, 251.95 feet to the Point of **BEGINNING**;

Containing 222,668.70 square feet or 5.112 acres, more or less.

R. GLENN ADAMS, TRACT III

Situated in the Fourteenth (14th) Civil District of Williamson County, Tennessee and being Lot 1, Franklin East Subdivision (Plat Book 6, Page 91), said lot being more particularly described as follows:

BEGINNING on a set iron rod & cap (CCI) at the southwestern right-of-way line of Murfreesboro Road (S.R. 96), said rod being located 26.53 feet northwest of the point of intersection of the southwestern right-of-way line of Murfreesboro Road (S.R. 96) with the northwestern right-of-way line of Ridgeway Drive;

Thence leaving the southwestern right-of-way line of Murfreesboro Road and with a curve to the right, having a radius of 50.00 feet and a chord of S 06° 28' 56" E, 46.88 feet to a set iron rod & cap (CCI) at the northwestern right-of-way line of Ridgeway Drive;

Thence with the northwestern right-of-way line of Ridgeway Drive, with a curve to the left, having a radius of 584.14 feet and a chord of S 10° 06' 55" W, 230.01 feet to a set iron rod & cap (CCI), corner to Lot 2, Franklin East Subdivision;

Thence leaving the northwestern right-of-way line of Ridgeway Drive and with the northeastern line of Lot 2, N 88° 04' 14" W, 186.01 feet to an existing “T” Bar in the southeastern line of Adams, Tract II (Deed Book 490, Page 930),

Thence leaving the northeastern line of Lot 2 and with the southeastern line of Adams, Tract II, N 22° 07' 02" E, 328.41 feet to an existing 1/2 inch iron rod at the southwestern right-of-way line of Murfreesboro Road,

Thence leaving the southeastern line of Adams and with the southwestern right-of-way line of Murfreesboro Road, S 68° 56' 08" E, 104.33 feet to the Point of **BEGINNING**;

Containing 42,583.03 square feet or 0.978 acres, more or less.

2. That the overall entitlements for October Park PUD Subdivision are as follows:

Entitlements	October Park PUD Subdivision)
Base Zone	Specific Development Residential (SD-R 1.6)
Character Area Overlay	SWCO-3
Other Zoning Overlays	None
Number of Dwelling Units	19
Number of Nonresidential Square Footage	N/A
Connectivity Index	1.0
Development Standard	Conventional
Open Space Requirements	Formal: 0.70 acres Informal: 2.06 acres Total: 2.76 acres

3. That the Development Plan, the exhibits accompanying the Development Plan, and all conditions and restrictions placed upon the Development Plan by the Franklin Municipal Planning Commission and this Board shall be made a part of this Resolution as though copied verbatim herein, and that a permanent record of the Development Plan, the exhibits accompanying the Development Plan, and all such conditions and restrictions shall be kept in the Franklin Planning Department.

4. That this Resolution shall take effect from and after its passage on its first and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST: **CITY OF FRANKLIN, TENNESSEE**

BY: _____ **BY:** _____

ERIC STUCKEY **DR. KEN MOORE**

CITY ADMINISTRATOR **MAYOR**

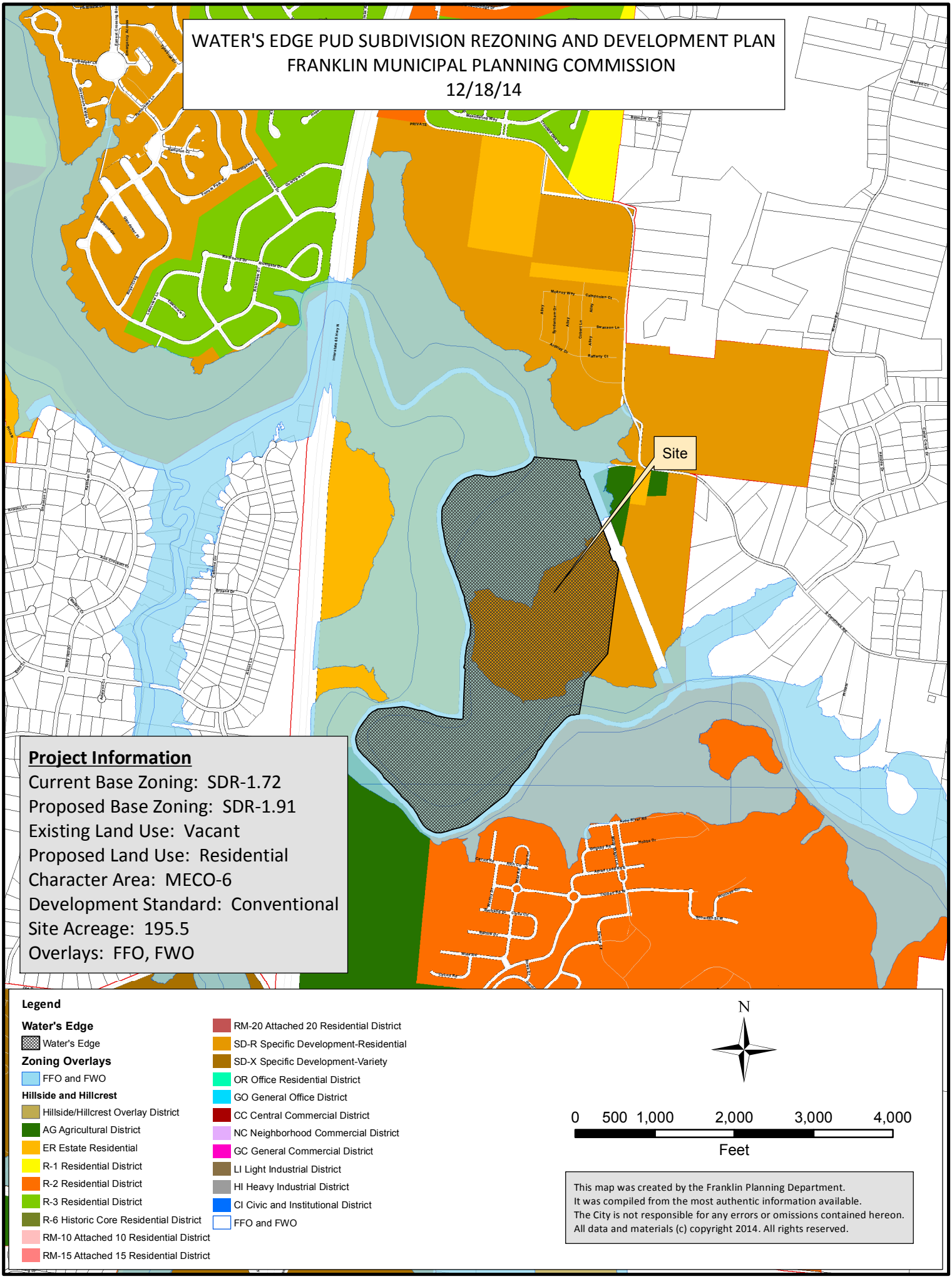
PREAPPLICATION CONFERENCE: 9/9/14

CONCEPTUAL PROJECT WORKSHOP: 9/25/14

REQUIRED NEIGHBORHOOD MEETING: 9/16/14

PLANNING COMMISSION RECOMMENDED APPROVAL:

BOMA PASSED/PUBLIC HEARING HELD:


WATER'S EDGE PUD SUBDIVISION REZONING AND DEVELOPMENT PLAN
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Site
Project Information
Current Base Zoning: SDR-1.72
Proposed Base Zoning: SDR-1.91
Existing Land Use: Vacant
Proposed Land Use: Residential
Character Area: MECO-6
Development Standard: Conventional
Site Acreage: 195.5
Overlays: FFO, FWO
Legend
Water's Edge
Water's Edge
Zoning Overlays
FFO and FWO
Hillside and Hillcrest
Hillside/Hillcrest Overlay District
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
FFO and FWO
N
0 500 1,000 2,000 3,000 4,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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REZONING REQUEST FOR

WATER'S EDGE PUD SUBDIVISION

Revision 1

A PLANNED RESIDENTIAL DEVELOPMENT
MAP 89 PARCELS 49.00
FRANKLIN, TENNESSEE

OWNER / APPLICANT:
REAL ESTATE SOLUTIONS GROUP, LLC
100 SADDLE SPRINGS BLVD
THOMPSONS STATION, TN 37179

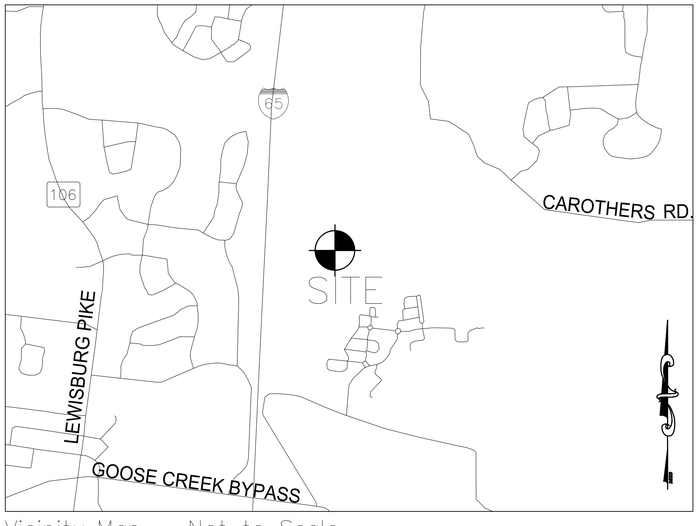
BUILDER:
GOODALL HOMES COMMUNITIES
JACK LUDINGTON
393 MAPLE STREET, SUITE 100
GALLATIN, TN 37066
JLUDINGTON@GOODALLHOMES.COM
615.451.5029

CONSULTANT:
GAMBLE DESIGN COLLABORATIVE
GREGG GAMBLE, RLA
GREGGAMBLE209@GMAIL.COM
615.975.5765
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TN 37064

CIVIL ENGINEER:
DEWEY - ESTES ENGINEERING, LLC
KEVIN ESTES, P.E.
2925 BERRY HILL DRIVE
NASHVILLE, TN 37024
615.300.8496
KESTES@DEWEY-ESTES.COM

SURVEY DATA PROVIDED BY:
DALE & ASSOCIATES
STEVE MATTHEWS, RLS
516 HEATHER PLACE
NASHVILLE, TN 37204
615.297.5166

TRAFFIC ENGINEER
FTG, LLC
MS. GILLIAN L. FISCHBACH, PE, PTOE
P.O. BOX 682736
FRANKLIN, TN 37068
615.771.8022
GFISCHBACK@FTGTRAFFIC.COM



Vicinity Map – Not to Scale

THIS REZONING REQUEST IS TO ACCOMPANY DEVELOPMENT PLAN REVISION 3, WHICH IS ASKING FOR AN INCREASE IN DENSITY AND REZONING FROM SD-R (1.72) TO SD-R(1.91)

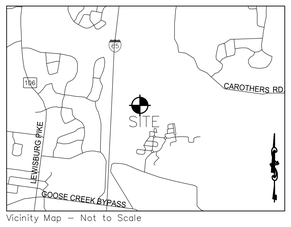
INDEX OF SHEETS

SHEET	DESCRIPTION
C	COVER SHEET AND LOCATION MAP
C 1.0	BOUNDARY SURVEY
C 2.0	EXISTING CONDITIONS PLAN
C 2.1	EXISTING CONDITIONS PLAN

14TH CIVIL DISTRICT OF WILLIAMSON COUNTY
CITY OF FRANKLIN, TENNESSEE

COF #4726

NOVEMBER 10, 2014
REVISED: DECEMBER 4, 2014



Vicinity Map – Not to Scale

DEED REFERENCE:
BEING PROPERTY CONVEYED TO TIM C. HILL BY DEED OF RECORD
IN BOOK 4156, PAGE 539 & BOOK 4156, PAGE 542, R.O.W.C.

PROPERTY MAP REFERENCE:
BEING PARCELS NO. 31.00 & 31.01 AS SHOWN ON WILLIAMSON COUNTY
PROPERTY MAP NO. 80.

NUMBER	DIRECTION	DISTANCE
L1	S 21°05'44" E	28.94'
L2	S 23°17'39" W	40.24'
L3	S 23°46'32 E	66.77'
L4	S 66°10'33" E	35.35'
L5	S 21°05'44" E	934.66'
L6	S 23°54'16" W	35.36'
L7	S 21°05'44" E	120.00'
L8	S 66°05'44" E	35.36'
L9	S 21°05'44" E	99.92'
L10	S 07°54'52" W	352.89'
L11	S 06°58'02" W	716.88'
L12	S 37°24'01" W	226.56'
L13	S 37°45'27" W	181.40'
L14	S 16°37'42" W	267.88'
L15	S 19°19'11" W	69.33'
L16	S 15°25'57" W	144.37'
L17	S 7°7'10'59" W	69.51'
L18	S 56°45'56" W	141.68'
L19	S 43°32'18" W	106.78'
L20	S 37°57'39" W	153.54'
L21	S 31°17'57" W	248.53'
L22	S 33°19'26" W	263.21'
L23	S 37°47'22" W	270.72'
L24	S 49°32'39" W	362.46'
L25	S 49°58'17" W	330.75'
L26	S 73°32'23" W	295.76'
L27	S 63°23'31" W	135.61'
L28	N 86°18'24 W	55.22'
L29	N 70°56'26" W	68.99'
L30	N 56°42'45" W	60.12'
L31	N 49°40'15" W	56.52'
L32	N 35°59'03" W	84.76'
L33	N 36°27'38" W	416.05'
L34	N 43°39'01" W	666.82'
L35	N 27°13'05" W	224.23'
L36	N 00°43'11" W	91.40'
L37	N 25°52'04" E	258.64'
L38	N 40°17'13" E	125.94'
L39	N 58°35'03" E	95.33'
L40	N 81°48'03" E	183.00'
L41	S 87°03'59" E	299.23'
L42	S 70°51'36" E	395.49'
L43	N 88°14'15" E	145.35'
L44	N 54°07'33" E	98.80'
L45	N 02°19'56" W	164.37'
L46	N 00°16'11" E	374.56'
L47	N 06°30'23" E	364.95'
L48	N 22°23'50" E	92.19'
L49	N 06°01'34" W	200.24'
L50	N 15°21'48" W	507.85'
L51	N 22°19'39" W	386.00'
L52	N 10°54'14" W	417.24'
L53	N 20°03'52" E	238.53'
L54	N 36°52'05" E	324.79'
L55	N 59°01'42" E	176.66'
L56	S 79°52'03" E	242.01'
L57	N 72°49'49" E	403.22'
L58	N 46°47'32" E	164.11'
L59	S 84°14'52" E	589.21'

NUMBER	DELTA	RADIUS	TANGENT	ARC	CHORD BEARING	CHORD LENGTH
C1	02°22'43"	2799.79	58.13	116.24	S 22°17'05" E	116.23

PROPERTY DESCRIPTION
TRACT 1
MAP 89 OF PARCEL 49
Land located in the 14th civil district of Williamson County, Tennessee, and said tract of land being more particularly
described by metes and bounds, as follows:

Commencing at an iron rod near the intersection of South Carothers Road and a future Connector Road thence in a Westerly direction 757.5+/- feet to a point situation in the Westerly margin of South Carothers Parkway being the Northeast corner of the subject property. Said point also being the Southeast corner of Southern Carothers Partners, L.L.C. property record in Book 4877, Page 537, in the Register's Office for Williamson County, Tennessee: and being the Point of Beginning;

Thence, continuing with margin of said road with a curve to the right, having a Radius of 2799.29 feet, Delta angle of 02°22'43", Tangent of 58.13 feet, Arc Length of 116.24 feet, with a chord bearing of S 22°17'05" E, a chord distance of 116.23 feet to a point;
Thence, S 21°05'44" E, a distance of 28.94 feet to a point;
Thence, S 23°17'39" W, a distance of 40.24 feet to a point;
Thence, S 23°46'32" E, a distance of 66.77 feet to a point;
Thence, S 66°10'33" E, a distance of 35.35 feet to a point;
Thence, S 21°05'44" E, a distance of 934.66 feet to a point;
Thence, S 23°54'16" W, a distance of 35.36 feet to a point;
Thence, S 21°05'44" E, a distance of 120.00 feet to a point;
Thence, S 66° 05'44" E, a distance of 35.36 feet to a point;
Thence S 21°05'44" E, a distance of 99.92 feet to an iron rod found by Gresham Smith and being the Northeast corner of Thomas Helm, III property as recorded in Book 610, Page 344, in the Register's Office of Williamson County, Tennessee;

Thence, continuing with Helm Westerly property line S 07°54'52" W, a distance of 352.89 feet to an iron rod found by TN RLDA 2039;
Thence, S 06°58'02" W, a distance of 716.88 feet to a wood fence post;
Thence, S 37°24'01" W, a distance of 226.56 feet to a point;
Thence, S 37°45'27" W, a distance of 181.40 feet to a wood fence post;
Thence, S 16°37'42" W, a distance of 267.88 feet to a point;
Thence, S 19°19'11" W, a distance of 69.33 feet to a point;
Thence, S 15°25'57" W, passing an iron rod found near the top of bank at 84.61, for a total distance of 144.37 feet to a point on the center of the Big Harpeth River;

Thence, continuing with center of the Big Harpeth River S 7°7'10'59" W, a distance of 69.51 feet to a point;
Thence, S 56°45'56" W, a distance of 141.68 feet to a point;
Thence, S 43°32'18" W, a distance of 106.78 feet to a point;
Thence, S 37°57'39" W, a distance of 153.54 feet to a point;
Thence, S 31°17'57" W, a distance of 248.53 feet to a point;
Thence, S 33°19'26" W, a distance of 263.21 feet to a point;
Thence, S 37°47'22" W, a distance of 270.72 feet to a point;
Thence, S 49°32'39" W, a distance of 362.46 feet to a point;
Thence, S 49°58'17" W, a distance of 330.75 feet to a point;
Thence, S 76° 32'23" W, a distance of 295.76 feet to a point;
Thence, S 63°23'31" W, a distance of 135.61 feet to a point;
Thence, N 86°18'24" W, a distance of 55.22 feet to a point;
Thence, N 70°56'26" W, a distance of 68.99 feet to a point;
Thence, N 56°42'45" W, a distance of 60.12 feet to a point;
Thence, N 49°40'15" W, a distance of 56.52 feet to a point;
Thence, N 35°59'03" W, a distance of 84.76 feet to a point;
Thence, N 36°27'38" W, a distance of 416.05 feet to a point;
Thence, N 43°39'01" W, a distance of 666.82 feet to a point;
Thence, N 27°13'05" W, a distance of 224.23 feet to a point;
Thence, N 00°43'11" W, a distance of 95.40 feet to a point;
Thence, N 25°52'04" E, a distance of 258.64 feet to a point;
Thence, N 40°17'13" E, a distance of 124.94 feet to a point;
Thence, N 58°35'03" E, a distance of 95.33 feet to a point;
Thence, N 81°48'03" E, a distance of 183.00 feet to a point;
Thence, S 87°03'59" E, a distance of 299.23 feet to a point;
Thence, S 70°51'36" E, a distance of 395.49 feet to a point;
Thence, N 88°14'15" E, a distance of 145.35 feet to a point;
Thence, N 54°07'33" E, a distance of 98.80 feet to a point;
Thence, N 02°19'56" W, a distance of 164.37 feet to a point;
Thence, N 00°16'11" E, a distance of 374.56 feet to a point;
Thence, N 06°30'23" E, a distance of 364.95 feet to a point;
Thence, N 22°23'50" E, a distance of 92.19 feet to a point;
Thence, N 06°01'34" W, a distance of 200.24 feet to a point;
Thence, N 15°21'48" W, a distance of 507.82 feet to a point;
Thence, N 22°19'39" W, a distance of 386.00 feet to a point;
Thence, N 10°54'14" W, a distance of 417.24 feet to a point;
Thence, N 20°03'52" E, a distance 238.53 feet to a point;
Thence, N 36°52'05" E, a distance of 324.79 feet to a point;
Thence, N 59°01'42" E, a distance of 176.66 feet to a point;
Thence, N 79°52'03" E, a distance of 242.01 feet to a point;
Thence, N 72°49'49" E, a distance of 403.22 feet to a point;
Thence, N 46°47'32" E, a distance of 164.11 feet to a point and being the Southwesterly corner of South Carothers Partners, L.L.C. property record in Book 4877, Page 537, in the Register's Office for Williamson County, Tennessee;

Thence, leaving said river with South Carothers Partners, L.L.C. southerly property line S 84°14'52" E, passing an iron rod found by TN RLS#2036 at 72.48 feet for a total distance of 589.21 feet to The Point of Beginning and containing 8,515,810.330 square feet or 195.497 acres of land.

Being a portion of the same property conveyed to Carothers Land Company, L.L.C. of record in Book 4745, Page 445, in the Register's Office for Williamson County, Tennessee.

NOTES:

1. 100 YEAR FLOOD PLANE EXISTIS ON THE PROPERYT; FEMA PANEL 47187C0214F.

2. NO MINERAL RIGHTS ARE HELD BY PARTIES OUTSIDE OF THE OWNER.

3. SURVEY INFORMATION PROVIDED BY:
DALE AND ASSOCIATES
STEVE MATHEWS, RLS
615.297.5166

Legend

• EIP	Existing Iron Pin
• IPS	Iron Pin Set (#5 Rebar)
• CM	Concrete Monument
• PT	Calculated Point
UP	Utility Pole
LP	Light Pole
OU	Overhead Utility
x	Fence Line
G	Gas Line
UT	Underground Telephone
	Sign
SMH	Sanitary Manhole
EMH	Electric Manhole
CI	Curb Inlet
DI	Drain Inlet
FH	Fire Hydrant
WM	Water Meter
WV	Water Valve
BOC	Back of Curb
EOP	Edge of Pavement
R/W	Right-of-Way
N/F	Now or Formerly
CGF	Combined Grid Factor

BOUNDARY MAP

GRAPHIC SCALE 1"=300'
300 0 300 600 900

ADJACENT OWNERS WITHIN 500 FEET

PARCEL	OWNER	ZONE	MUNICIPALITY	CARACT. AREA
089-04801	CRESCENT LOCKWOOD LLC	AG	FRANKLIN	SWCO-4
089-04900	REAL ESTATE SOLUTIONS GROUP LLC	AG	FRANKLIN	SWCO-4
089-4901	CAROTHERS LAND CO	AG	FRANKLIN	SWCO-4
089-05000	HELM JON THOMAS III	AG	FRANKLIN	SWCO-4
089-05001	CRESCENT HELM LLC	AG	FRANKLIN	SWCO-4
106-18121	CRESCENT HELM LLC	AG	FRANKLIN	SWCO-4
106-18400	TRILLIUM FARMS	R-2	FRANKLIN	SWCO-4
106-18411	PARTHENON INV PARTNERS	R-2	FRANKLIN	SWCO-4
106-18500	BASKIN SADIE T	R-2	FRANKLIN	SWCO-2
106-18600	CITY OF FRANKLIN	R-2	FRANKLIN	SWCO-2
106K-A01500	NELSON CHRISTOPHER A	R-2	FRANKLIN	SWCO-2
106K-A01600	CICHOSTEPSKI ADAM	R-2	FRANKLIN	SWCO-2
106K-A01700	FOX MICHAEL RAY	R-2	FRANKLIN	SWCO-2
106K-A02000	BOGEN BRUCE MARSHALL	R-2	FRANKLIN	SWCO-2
106K-A02100	PRANTZ CRYSTAL	R-2	FRANKLIN	SWCO-2
106K-A02200	GLASS TERRY	R-2	FRANKLIN	SWCO-2
106K-A02300	LANG RYAN	R-2	FRANKLIN	SWCO-2
106K-A02400	DUTT JACK D JR	R-2	FRANKLIN	SWCO-2
106K-A02500	MUELLER ERIC S	R-2	FRANKLIN	SWCO-2
106K-A02600	SANDERS ROBERT	R-2	FRANKLIN	SWCO-2
106K-A02700	HENRY AMY L	R-2	FRANKLIN	SWCO-2
106K-A02800	BLACKWELL BENNY E	R-2	FRANKLIN	SWCO-2
106K-A02900	BROWN BARRY T	R-2	FRANKLIN	SWCO-2
106K-A03000	FRANKLIN LAND BANC LLC	R-2	FRANKLIN	SWCO-2
106K-A03200	TRILLIUM FARMS LP	R-2	FRANKLIN	SWCO-2
106K-E01000	TRILLIUM FARMS LP	R-2	FRANKLIN	SWCO-2

SITE DATA

PROJECT NAME:	WATERS EDGE SUBDIVISION REZONING REQUEST REV. 1
PROJECT NUMBER:	4726
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6
	FFO, FLOODWAY FRINGE OVERLAY
	FWO, FLOODWAY OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD
	THOMPSONS STATION, TN 37179
OFFICE PHONE	
CONTACT	
EMAIL ADDRESS	
PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY
	SUITE 230
	FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

BUILDING SQUARE FOOTAGE:	N/A
BUILDING HEIGHT:	2 STORY
LANDSCAPE SURFACE RATIO:	.71 (not including lots or ROW)
MINIMUM LANDSCAPE SURFACE RATIO:	.10
PARKING REQUIREMENTS:	SINGLE FAMILY DETACHED - 2 PER UNIT / COTTAGE HOME - 2 FOR THE FIRST BEDROOM 0.5 PER EACH ADDITIONAL BEDROOM
RESIDENTIAL DENSITY:	1.91
EXISTING TREE CANOPY:	41.87 AC
REQUIRED CANOPY PRESERVATION:	20.10 AC
PARKLAND (IF APPLICABLE):	GREENWAY DEDICATION
OPEN SPACE:	
FORMAL REQUIRED:	9.77 AC
FORMAL PROVIDED:	11.04 AC
INFORMAL REQUIRED:	19.56
INFORMAL PROVIDED:	105.02 AC
TOTAL REQUIRED:	29.32 AC
TOTAL PROVIDED:	116.06 AC

TOTAL DENSITY

SECTION	SINGLE FAMILY HOMES	COTTAGE HOMES	
1	32	16	
2	34	22	
3	28	37	
4	34	28	
5	35	29	
6	40	" "	
7	38	" "	
TOTALS:	241	132	DENSITY **1.91 DU/AC** **373 UNITS**

SETBACKS: (PER LOT STANDARDS ON PAGE A1.0)
LANDSCAPE SURFACE RATIO: .10
LANDSCAPE SURFACE RATIO: .71 (NOT INCLUDING RESIDENTIAL LOTS OR RIGHT-OF-WAY)
INCOMPATIBLE USE BUFFER: NONE

STATEMENT OF IMPACTS

WATER
WATER SERVICE WILL BE PROVIDED BY MILCROFTON UTILITY DISTRICT. THE WATER MAIN WILL BE LOCATED ON S. CAROTHERS PARKWAY.
373*350 GPD = 130,550 GPD

SEWER
SEWER SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN. SITE TO BE SERVICED BY GRAVITY SEWER.

REPURIFIED (REUSE) WATER FACILITIES
REUSE WATER IS CURRENTLY NOT AVAILABLE

STREET NETWORK
THE MAJOR THOROUGHFARE PLAN INDICATES CAROTHERS PARKWAY AS A MAJOR ARTERIAL. ONCE CONSTRUCTED, THIS ROAD WILL BE THE MAIN ACCESS TO THE DEVELOPMENT. THE EXISTING ACCESS TO THE SITE IS FROM SOUTH CAROTHERS ROAD. CREATING ACCESS TO THE NEWLY CONSTRUCTED CAROTHERS PARKWAY COMPLIES WITH THE MAJOR THOROUGHFARE PLAN.

DRAINAGE FACILITIES
DEVELOPMENT WILL HAVE NO IMPACT ON EXISTING CITY OF FRANKLIN DRAINAGE FACILITIES. ALL DRAINAGE TO BE TREATED ON SITE.

POLICE AND FIRE
FRANKLIN FIRE STATION #2 - 3.6 MILES DRIVING DISTANCE
COLUMBIA AVE. POLICE STATION - 5.8 MILES DRIVING DISTANCE

RECREATION FACILITIES
A NEW CITY OF FRANKLIN PARK IS PLANNED ADJACENT TO THIS PROPERTY TO THE NORTH.

PROJECTED STUDENT POPULATION
THE STUDENT POPULATION IS PROJECTED AT A RATE OF ONE STUDENT PER .64 HOMES
373 X .64 = 239 STUDENTS

TRINITY ELEMENTARY	3.5 MILES
PAGE MIDDLE SCHOOL	4.6 MILES
PAGE HIGH SCHOOL	4.8 MILES

REFUSE COLLECTION
REFUSE COLLECTION SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN SOLID WASTE.

RESTRICTIVE COVENANTS
THE WATER'S EDGE HOME OWNER'S ASSOCIATION WILL BE ESTABLISHED PRIOR TO THE FIRST OCCUPANCY OF RESIDENTS. THE HOME OWNER'S ASSOCIATION WILL REGULATE ARCHITECTURAL STANDARDS AND MAINTENANCE OF THE COMMUNITY. THE HOA WILL MAINTAIN ALL COMMON OPEN SPACE AND RECREATION AREAS.

MINERAL RIGHTS
NO THIRD PARTY MINERAL RIGHTS ARE ASSOCIATED WITH THIS PROPERTY.

NOTES

1. THE APPLICANT SHALL PROVIDE AN EASEMENT FOR THE CITY TO ACCESS THE PROPOSED SOUTH TREATMENT PLANT, WHICH WILL BE LOCATED BEHIND THIS PROPERTY. THE APPLICANT SHALL ALSO BE REQUIRED TO GIVE NOTIFICATION TO THE PROSPECTIVE BUYERS THAT THIS DEVELOPMENT WILL BE ADJACENT TO A WASTEWATER TREATMENT PLANT.
2. THE APPLICANT HAS PROVIDED A DOCUMENT TO THE CITY THAT STATES THAT WATER SERVICE WILL BE AVAILABLE UPON COMPLETION OF A FUTURE WATER LINE EXTENSION. THE APPLICANT SHALL PROVIDE HOMES WITH RESIDENTIAL FIRE SPRINKLER SYSTEMS UNTIL THE REQUIRED 1,500 GPM / 20 PSI IS AVAILABLE.

TRIP GENERATION DATA

*TRAFFIC GENERATION DATA PROVIDED BY FISCHBACH TRANSPORTATION GROUP, INC.

Water's Edge Land Use: Size:	LUC 210 Single-Family 241	LUC 230 Condo/Town 132	TOTAL 373
Average Daily Traffic	2,294	819	**3,113**
Daily Enter	1,147	409	**1,557**
Daily Exit	1,147	409	**1,557**
AM Peak Hour Total	181	64	**245**
AM Peak Hour Enter	45	11	**56**
AM Peak Hour Exit	136	54	**189**
MID Peak Hour Total	161	57	**218**
MID Peak Hour Enter	80	29	**109**
MID Peak Hour Exit	80	29	**109**
PM Peak Hour Total	241	75	**316**
PM Peak Hour Enter	152	51	**202**
PM Peak Hour Exit	89	25	**114**

Trip Generation 9th Edition

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION

REZONING REQUEST - REVISION 1

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

rev.	date
1	Dec. 4, 2014

GCG Job No. 2012-04
November 10, 2014

SHEET
C1.0

COF # 4726

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REZONING REQUEST REV. 1
PROJECT NUMBER:	4726
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY FWO, FLOODWAY OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(REFER LOT STANDARDS ON DEVELOPMENT PLAN SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	
CONTACT	
EMAIL ADDRESS	
PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 230 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

TREE CANOPY RETENTION:

EXISTING TREE CANOPY -	TREE A:	1,634,856 SF
	TREE B:	9,853 SF
	TREE C:	6,120 SF
	TREE D:	362 SF
	TREE E:	26,825 SF
	TREE F:	527 SF
	TREE G:	572 SF
	TREE H:	50,824 SF
	TREE I:	1,027 SF
	TREE J:	1,208 SF
	TREE K:	71,717 SF
	TREE L:	171 SF
	TREE M:	2,033 SF
	TREE N:	12,763 SF
	TREE O:	2,626 SF
	TOTAL:	1,824,120 SF (41.87 AC)
TOTAL TREE CANOPY REQUIRED: 41.87 AC/195.5 AC =		48% REQUIRED PRESERVATION 21.4% OF TOTAL AREA

SPECIMEN TREES

#	TREE	SIZE	CONDITION
1	OAK	24	DEAD
2	LOCUST	30	
3	OSAGE	36	
4	ASH	20	
5	HACKBERRY	28	
6	SYCAMORE	24	
7	WALNUT	28	
8	OSAGE	36	DEAD
9	HACKBERRY	32	
10	OSAGE	18	
11	HACKBERRY	20	
12	SYCAMORE	36	
13	OSAGE	24	
14	OSAGE	36	DEAD
15	HACKBERRY	24	
16	HACKBERRY	20	
17	HACKBERRY	28	
18	HACKBERRY	38	
19	HACKBERRY	30	
20	ELM	24	
21	HACKBERRY	36	
22	HACKBERRY	30	POOR
23	ELM	15	
24	ELM	12	
25	ELM	20	
26	ELM	20	
27	ELM	20	
28	ELM	20	
29	ASH	29	
30	HACKBERRY	24	
31	HACKBERRY	24	
32	WALNUT	24	
33	BOX ELDER	20	
34	HACKBERRY	24	
35	OAK	20	
36	HACKBERRY	24	
37	HACKBERRY	32	
38	SASSAFRAS	24	
39	HACKBERRY	24	
40	HACKBERRY	36	
41	HACKBERRY	38	
42	HACKBERRY	34	
43	HACKBERRY	24	
44	ELM	40	
45	OAK	20	
46	ELM	40	
47	ASH	48	
48	ASH	30	
49	HACKBERRY	40	
50	OAK	24	
51	MAPLE	24	
52	POPLAR	24	
53	POPLAR	20	
54	MAPLE	24	
55	OAK	28	
56	MAPLE	24	
57	MAPLE	28	
58	POPLAR	20	
59	OAK	40	DEAD
60	ASH	24	

#	TREE	SIZE	CONDITION
111	OSAGE	24	
112	HACKBERRY	18	
113	OAK	36	
114	HACKBERRY	24	
115	HACKBERRY	2	
116	OAK	34	
117	OAK	24	
118	CEDAR	20	
119	HACKBERRY	24	
120	CEDAR	20	POOR
121	OAK	20	
122	OAK	28	
123	OAK	20	
124	OAK	15	
125	OAK	20	
126	OAK	24	
127	OAK	24	
128	OAK	28	
129	OAK	24	DEAD
130	OAK	40	POOR
131	OAK	24	POOR
132	OAK	36	DEAD
133	OAK	15	POOR
134	MAPLE	24	POOR
135	OAK	24	
136	OAK	24	
137	OAK	20	
138	OAK	20	
139	OAK	36	
140	HACKBERRY	36	
141	MAPLE	24	
142	MAPLE	28	
143	MAPLE	24	
144	HACKBERRY	24	
145	HICKORY	24	DEAD
146	WALNUT	24	
147	HICKORY	24	
148	HACKBERRY	28	
149	OAK	28	
150	HICKORY	30	
151	OAK	24	
152	WALNUT	28	
153	HICKORY	32	
154	OAK	24	
155	OAK	48	
156	MAPLE	36	DEAD
157	OAK	30	DEAD
158	HACKBERRY	36	
159	OAK	24	
160	HICKORY	24	
161	OAK	24	
162	OAK	26	
163	OAK	24	
164	OAK	24	
165	OAK	24	
166	OAK	26	
167	ELM	26	
168	SYCAMORE	30	
169	OAK	24	
170	ELM	20	

EXISTING CONDITIONS PLAN

GRAPHIC SCALE 1"=100'
100 0 100 200 300

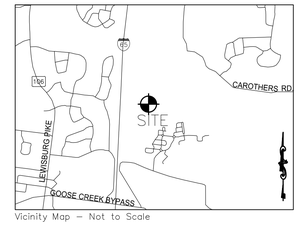
SLOPES

SLOPES 14% TO 19%

SLOPES 20% TO 100%

SOIL TYPES

ArA	Armour silt loam, 0 to 2 percent slope
ArB	Armour silt loam, 2 to 5 percent slope
ArB2	Armour silt loam, 2 to 5 percent slope, eroded
CaA	Captina silt loam, phosphatic, 0 to 2 percent slope
CaB	Captina silt loam, phosphatic, 2 to 5 percent slope
CaB2	Captina silt loam, phosphatic, 2 to 5 percent slope, eroded
Hu	Huntington silt loam, phosphatic
MbB2	Maury silt loam, 2 to 5 percent, eroded
MbC2	Maury silt loam, 5 to 12 percent, eroded
MbC3	Maury silty clay loam, 5 to 12 percent, eroded
MoD	Mimosa and Ashwood very rocky soils, 5 to 20 percent slopes
Lp	Lindside silt loam, phosphatic
Se	Sequatchie loam, phosphatic
Tb	Taft silt loam, phosphatic



Vicinity Map – Not to Scale

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION

REZONING REQUEST - REVISION 1

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
REGISTERED
TENNESSEE
LANDSCAPE ARCHITECT

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

rev.	date
1.	Dec. 4, 2014

GCG Job No. 2012-04

November 10, 2014

SHEET

C2.0

COF # 4726

EXISTING CONDITIONS PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

SLOPES

SLOPES 14% TO 19%

SLOPES 20% TO 100%

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REZONING REQUEST REV.1
PROJECT NUMBER:	4726
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY FWO, FLOODWAY OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON DEVELOPMENT PLAN SHEET A1.0)
OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	
CONTACT	
EMAIL ADDRESS	
PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 230 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

TREE CANOPY RETENTION:

EXISTING TREE CANOPY -	TREE A:	1,634,856 SF
	TREE B:	9,853 SF
	TREE C:	6,120 SF
	TREE D:	362 SF
	TREE E:	26,825 SF
	TREE F:	527 SF
	TREE G:	572 SF
	TREE H:	50,824 SF
	TREE I:	1,027 SF
	TREE J:	1,208 SF
	TREE K:	71,717 SF
	TREE L:	171 SF
	TREE M:	2,033 SF
	TREE N:	12,763 SF
	TREE O:	2,626 SF
	TOTAL:	1,824,120 SF (41.87 AC)
TOTAL TREE CANOPY REQUIRED:		48% REQUIRED PRESERVATION
41.87 AC/195.5 AC =		21.4% OF TOTAL AREA

SPECIMEN TREES

#	TREE	SIZE	CONDITION
1	OAK	24	DEAD
2	LOCUST	30	
3	OSAGE	36	
4	ASH	20	
5	HACKBERRY	26	
6	SYCAMORE	24	
7	WALNUT	28	
8	OSAGE	36	DEAD
9	HACKBERRY	30	
10	OSAGE	18	
11	HACKBERRY	20	
12	SYCAMORE	36	
13	OSAGE	24	
14	OSAGE	36	DEAD
15	HACKBERRY	24	
16	HACKBERRY	20	
17	HACKBERRY	28	
18	HACKBERRY	38	
19	HACKBERRY	30	
20	ELM	24	
21	HACKBERRY	36	
22	HACKBERRY	30	POOR
23	ELM	15	
24	ELM	12	
25	ELM	20	
26	ELM	20	
27	ELM	20	
28	ELM	20	
29	ASH	29	
30	HACKBERRY	24	
31	HACKBERRY	24	
32	WALNUT	24	
33	BOX ELDER	20	
34	HACKBERRY	24	
35	OAK	20	
36	HACKBERRY	24	
37	HACKBERRY	32	
38	SASSAFRAS	24	
39	HACKBERRY	24	
40	HACKBERRY	36	
41	HACKBERRY	38	
42	HACKBERRY	34	
43	HACKBERRY	24	
44	ELM	40	
45	OAK	20	
46	ELM	40	
47	ASH	48	
48	ASH	30	
49	HACKBERRY	40	
50	OAK	24	
51	MAPLE	24	
52	POPLAR	24	
53	POPLAR	20	
54	MAPLE	24	
55	OAK	28	
56	MAPLE	24	
57	MAPLE	28	
58	POPLAR	20	
59	OAK	40	DEAD
60	ASH	24	

#	TREE	SIZE	CONDITION
111	OSAGE	24	
112	HACKBERRY	18	
113	OAK	36	
114	HACKBERRY	24	
115	HACKBERRY	2	
116	OAK	34	
117	OAK	24	
118	CEDAR	20	
119	HACKBERRY	24	
120	CEDAR	20	POOR
121	OAK	20	
122	OAK	28	
123	OAK	20	
124	OAK	15	
125	OAK	20	
126	OAK	24	
127	OAK	24	
128	OAK	28	
129	OAK	24	DEAD
130	OAK	40	POOR
131	OAK	24	POOR
132	OAK	36	DEAD
133	OAK	15	POOR
134	MAPLE	24	POOR
135	OAK	24	
136	OAK	24	
137	OAK	20	
138	OAK	20	
139	OAK	36	
140	HACKBERRY	36	
141	MAPLE	24	
142	MAPLE	28	
143	MAPLE	24	
144	HACKBERRY	24	
145	HICKORY	24	DEAD
146	WALNUT	24	
147	HICKORY	24	
148	HACKBERRY	28	
149	OAK	28	
150	HICKORY	30	
151	OAK	24	
152	WALNUT	28	
153	HICKORY	32	
154	OAK	24	
155	OAK	48	
156	MAPLE	30	DEAD
157	OAK	30	DEAD
158	HACKBERRY	36	
159	OAK	24	
160	HICKORY	24	
161	OAK	24	
162	OAK	26	
163	OAK	24	
164	OAK	24	
165	OAK	24	
166	OAK	26	
167	ELM	26	
168	SYCAMORE	30	
169	OAK	24	
170	ELM	20	

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION

REZONING REQUEST - REVISION 1

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

rev.	date
1.	Dec. 4, 2014
△	
△	
△	

GCG Job No. 2012-04
November 10, 2014

SHEET

C2.1

COF #4726

ORDINANCE 2014-47

TO BE ENTITLED "AN ORDINANCE TO REZONE +/- 195.5 ACRES FROM SPECIFIC DEVELOPMENT-RESIDENTIAL (SD-R 1.72) TO SPECIFIC DEVELOPMENT RESIDENTIAL (SD-R 1.91) FOR WATER'S EDGE PUD SUBDIVISION LOCATED AT 4413 SOUTH CAROTHERS ROAD, BY THE CITY OF FRANKLIN, TENNESSEE."

WHEREAS, Water's Edge PUD Subdivision Rezoning was originally approved upon third reading on 9/24/2013; and

WHEREAS, the originally approved density was 1.72 units/acre.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMAN OF FRANKLIN, TENNESSEE, AS FOLLOWS:

SECTION I: The following described property shall be, and are hereby, rezoned from its present zoning classification of Specific Development (SD-R 1.72) to Specific Development-Residential District (SD-R 1.91):

MAP 89 OF PARCEL 49

Land located in the 14th civil district of Williamson County, Tennessee, and said tract of land being more particularly described by metes and bounds, as follows:

Commencing at an iron rod near the intersection of South Carothers Road and a future Connector Road thence in a Westerly direction 757.5+/- feet to a point situation in the Westerly margin of South Carothers Parkway being the Northeast corner of the subject property. Said point also being the Southeast corner of Southern Carothers Partners, L.L.C. property record in Book 4877, Page 537, in the Register's Office for Williamson County, Tennessee: and being the Point of Beginning;

Thence, continuing with margin of said road with a curve to the right, having a Radius of 2799.29 feet, Delta angle of 02°22'43", Tangent of 58.13 feet, Arc Length of 116.24 feet, with a chord bearing of S 22°17'05" E, a chord distance of 116.23 feet to a point;
Thence, S 21°05'44" E, a distance of 28.94 feet to a point;
Thence, S 23°17'37" W, a distance of 40.24 feet to a point;

Thence, S 23°46'32" E, a distance of 66.77 feet to a point;
Thence, S 66°10'33" E, a distance of 35.35 feet to a point;
Thence, S 21°05'44" E, a distance of 934.66 feet to a point;
Thence, S 23°54'16" W, a distance of 35.36 feet to a point;
Thence, S 21°05'44" E, a distance of 120.00 feet to a point;
Thence, S 66° 05'44" E, a distance of 35.36 feet to a point;
Thence S 21°05'44" E, a distance of 99.92 feet to an iron rod found by Gresham Smith and being the Northeast corner of Thomas Helm, III property as recorded in Book 610, Page 344, in the Register's Office of Williamson County, Tennessee;

Thence, continuing with Helm Westerly property line S 07°54'52" W, a distance of 352.89 feet to an iron rod found by TN RLS# 2039;
Thence, S 06°58'02" W, a distance of 716.88 feet to a wood fence post;
Thence, S 37°24'01" W, a distance of 226.56 feet to a point;
Thence, S 37°45'27" W, a distance of 181.40 feet to a wood fence post;
Thence, S 16°37'42" W, a distance of 267.88 feet to a point;
Thence, S 19°19'11" W, a distance of 69.33 feet to a point;
Thence, S 15°25'57" W, passing an iron rod found near the top of bank at 84.61, for a total distance of 144.37 feet to a point on the center of the Big Harpeth River;

Thence, continuing with center of the Big Harpeth River S 77°10'59" W, a distance of 69.51 feet to a point;
Thence, S 56°45'56" W, a distance of 141.68 feet to a point;
Thence, S 42°32'18" W, a distance of 106.78 feet to a point;
Thence, S 37°57'39" W, a distance of 153.54 feet to a point;
Thence, S 31°12'57" W, a distance of 248.53 feet to a point;
Thence, S 33°19'26" W, a distance of 263.21 feet to a point;
Thence, S 37°47'22' W, a distance of 270.72 feet to a point;
Thence, S 49°22'29" W, a distance of 362.46 feet to a point;
Thence, S 49°58'17" W, a distance of 330.75 feet to a point;
Thence, S 76°32'23" W, a distance of 295.76 feet to a point;
Thence, S 63°23'31" W, a distance of 135.61 feet to a point;
Thence, N 86°18'24" W, a distance of 55.22 feet to a point;
Thence, N 70°56'26" W, a distance of 68.99 feet to a point;
Thence, N 65°42'45" W, a distance of 60.12 feet to a point;
Thence, N 49°40'15" W, a distance of 56.52 feet to a point;
Thence, N 35°59'03" W, a distance of 84.76 feet to a point;
Thence, N 36°27'38" W, a distance of 416.05 feet to a point;
Thence, N 43°59'01" W, a distance of 666.82 feet to a point;
Thence, N 27°13'05" W, a distance of 224.23 feet to a point;
Thence, N 00°43'11" W, a distance of 95.40 feet to a point;
Thence, N 25°52'04" E, a distance of 258.64 feet to a point;
Thence, N 40°17'13" E, a distance of 124.94 feet to a point;
Thence, N 58°35'03" E, a distance of 95.33 feet to a point;
Thence, N 81°48'03" E, a distance of 183.00 feet to a point;
Thence, S 87°03'59 E, a distance of 299.23 feet to a point;

Thence, S 70°51'36" E, a distance of 395.49 feet to a point;
Thence, N 88°14'15" E, a distance of 145.35 feet to a point;
Thence, N 54°07'33" E, a distance of 98.80 feet to a point;
Thence, N 02°19'56" W, a distance of 164.37 feet to a point;
Thence, N 00°16'11" E, a distance of 374.56 feet to a point;
Thence, N 06°30'23" E, a distance of 364.95 feet to a point;
Thence, N 22°23'50" E, a distance of 92.19 feet to a point;
Thence, N 06°01'34" W, a distance of 200.24 feet to a point;
Thence, N 15°21'48" W, a distance of 507.82 feet to a point;
Thence, N 22°19'29" W, a distance of 386.00 feet to a point;
Thence, N 10°54'14" W, a distance of 417.24 feet to a point;
Thence, N 20°03'52" E, a distance 238.53 feet to a point;
Thence, N 36°52'05" E, a distance of 324.79 feet to a point;
Thence, N 59°01'42" E, a distance of 176.66 feet to a point;
Thence, N 79°52'03" E, a distance of 242.01 feet to a point;
Thence, N 72°49'49" E, a distance of 403.22 feet to a point;
Thence, N 46°43'32" E, a distance of 164.11 feet to a point and being the Southwesterly corner of South Carothers Partners, L.L.C. property record in Book 4877, Page 537, in the Register's Office for Williamson County, Tennessee;

Thence, leaving said river with South Carothers Partners, L.L.C. southerly property line S 84°14'52" E, passing an iron rod found by TN RLS#2036 at 72.48 feet for a total distance of 589.21 feet to The Point of Beginning and containing 8,515,833.530 square feet or 195.497 acres of land;

Being a portion of the same property conveyed to Carothers Land Company, L.L.C. of record in Book 4745, Page 442, in the Register's Office for Williamson County, Tennessee;

Zoning Reference Number: 14-11:

Map-Group-Parcel	Acres
089-04900	± 195.5
TOTAL	± 195.5

SECTION II: BE IT FINALLY ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Ordinance shall take effect from and after its passage on third and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST: CITY OF FRANKLIN, TENNESSEE

BY: _____ BY:_____
ERIC S. STUCKEY DR. KEN MOORE
CITY ADMINISTRATOR/RECORDER MAYOR

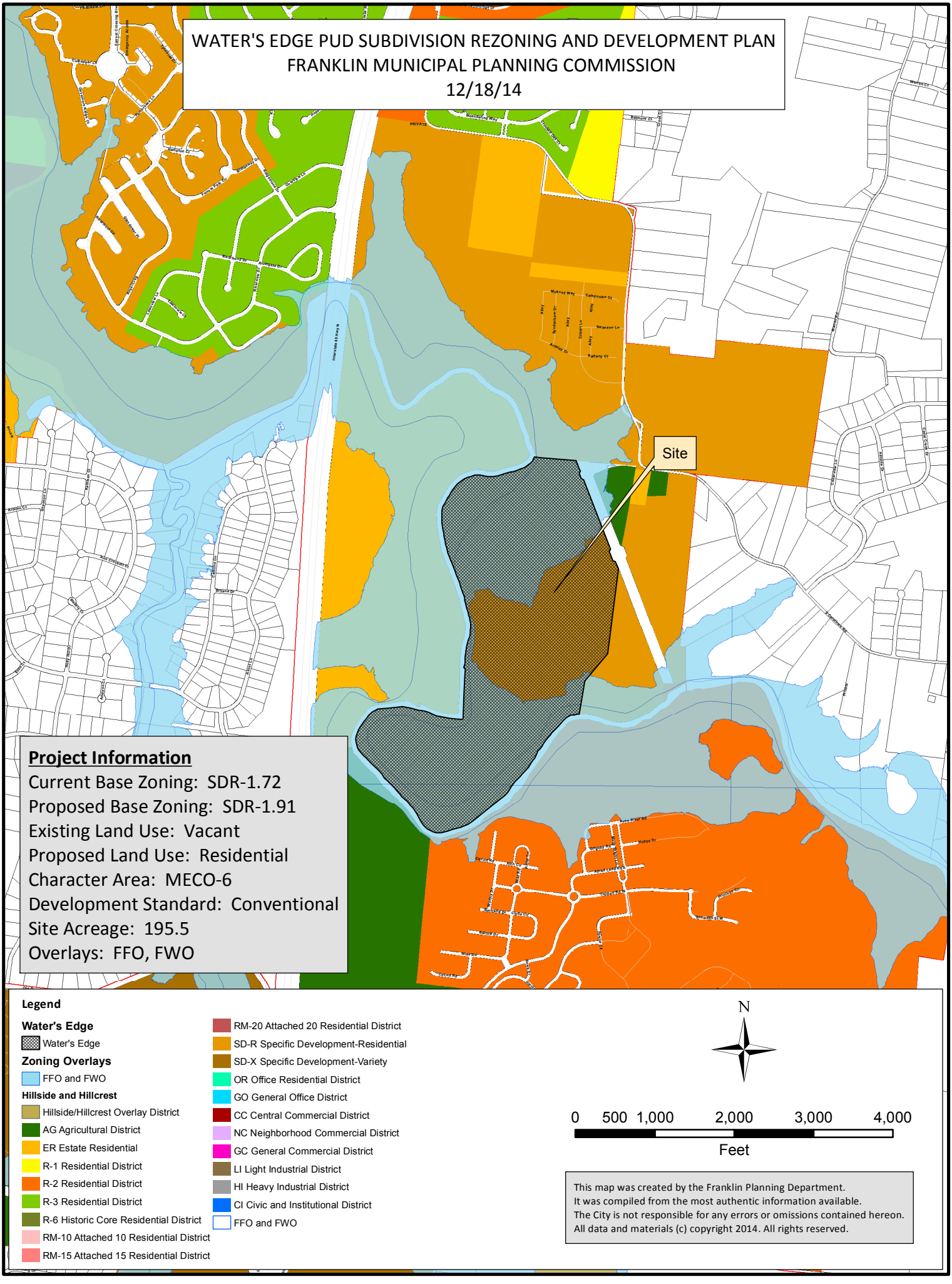
PLANNING COMMISSION RECOMMENDED APPROVAL: 12/18/14

PASSED FIRST READING:

PUBLIC HEARING HELD:

PASSED SECOND READING:

PASSED THIRD READING:


WATER'S EDGE PUD SUBDIVISION REZONING AND DEVELOPMENT PLAN
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Site
Project Information
Current Base Zoning: SDR-1.72
Proposed Base Zoning: SDR-1.91
Existing Land Use: Vacant
Proposed Land Use: Residential
Character Area: MECO-6
Development Standard: Conventional
Site Acreage: 195.5
Overlays: FFO, FWO
Legend
Water's Edge
Water's Edge
Zoning Overlays
FFO and FWO
Hillside and Hillcrest
Hillside/Hillcrest Overlay District
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
FFO and FWO
N
0 500 1,000 2,000 3,000 4,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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DEVELOPMENT PLAN
FOR
WATER'S EDGE PUD SUBDIVISION
REVISION 3

A PLANNED RESIDENTIAL DEVELOPMENT
MAP 89 PARCELS 49.00
FRANKLIN, TENNESSEE

OWNER / APPLICANT:
REAL ESTATE SOLUTIONS GROUP, LLC
100 SADDLE SPRINGS BLVD
THOMPSONS STATION, TN 37179

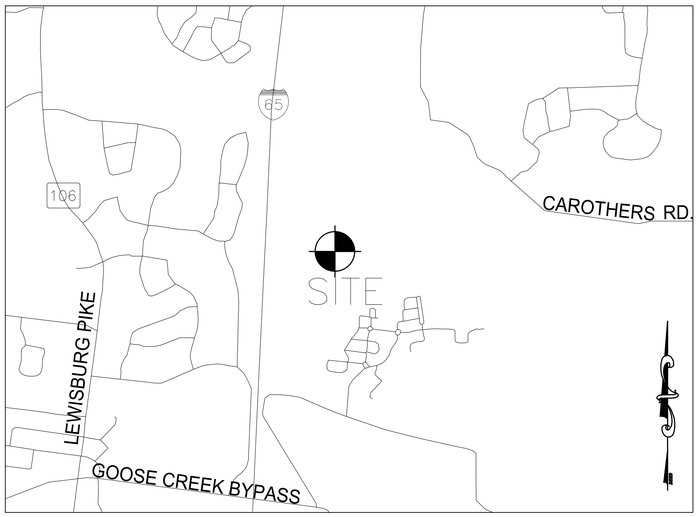
BUILDER:
GOODALL HOMES COMMUNITIES
JACK LUDINGTON
393 MAPLE STREET, SUITE 100
GALLATIN, TN 37066
JLUDINGTON@GOODALLHOMES.COM
615.451.5029

CONSULTANT:
GAMBLE DESIGN COLLABORATIVE
GREGG GAMBLE, RLA
GREGGAMBLE209@GMAIL.COM
615.975.5765
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TN 37064

CIVIL ENGINEER:
DEWEY - ESTES ENGINEERING, LLC
KEVIN ESTES, P.E.
2925 BERRY HILL DRIVE
NASHVILLE, TN 37024
615.300.8496
KESTES@DEWEY-ESTES.COM

SURVEY DATA PROVIDED BY:
DALE & ASSOCIATES
STEVE MATTHEWS, RLS
516 HEATHER PLACE
NASHVILLE, TN 37204
615.297.5166

TRAFFIC ENGINEER
FTG, LLC
MS. GILLIAN L. FISCHBACH, PE, PTOE
P.O. BOX 682736
FRANKLIN, TN 37068
615.771.8022
GFISCHBACK@FTGTRAFFIC.COM



Vicinity Map – Not to Scale

14TH CIVIL DISTRICT OF WILLIAMSON COUNTY
CITY OF FRANKLIN, TENNESSEE

REVISION 3
THIS REVISION INCREASES THE NUMBER OF LOTS FROM 336 LOTS TO 373 LOTS, AN INCREASE OF 37 LOTS.

MODIFICATIONS OF STANDARDS REQUEST:
The applicant requests a modification of standards to Ordinance 5.3.5; 2-d-i, Garage Dimensions, to permit garage doors exceeding 9 feet in width on rear-loaded garages accessed from the alley.

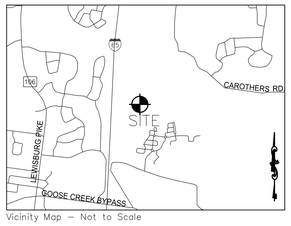
INDEX OF SHEETS

SHEET	DESCRIPTION
C	COVER SHEET AND LOCATION MAP
C 1.0	BOUNDARY SURVEY
C 2.0	EXISTING CONDITIONS PLAN
C 2.1	EXISTING CONDITIONS PLAN
C 3.0	DEVELOPMENT PLAN
C 3.1	DEVELOPMENT PLAN
C 4.0	TREE PRESERVATION PLAN
C 4.1	TREE PRESERVATION PLAN
C 5.0	GRADING PLAN
C 5.1	GRADING PLAN
C 6.0	UTILITY PLAN
C 6.1	UTILITY PLAN
C 7.0	STORMWATER REGULATING PLAN
C 7.1	STORMWATER REGULATING PLAN
C 8.0	ARCHITECTURAL ELEVATIONS
C 9.0	APPARATUS AUTOTURN PLAN
C9.1	APPARATUS AUTOTURN PLAN

COF #4725

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT

NOVEMBER 10, 2014
REVISED: DECEMBER 4, 2014



Vicinity Map – Not to Scale

DEED REFERENCE:
BEING PROPERTY CONVEYED TO TIM C. HILL BY DEED OF RECORD
IN BOOK 4156, PAGE 539 & BOOK 4156, PAGE 542, R.O.W.C.

PROPERTY MAP REFERENCE:
BEING PARCELS NO. 31.00 & 31.01 AS SHOWN ON WILLIAMSON COUNTY
PROPERTY MAP NO. 80.

NUMBER	DIRECTION	DISTANCE
L1	S 21°05'44" E	28.94'
L2	S 23°17'39" W	40.24'
L3	S 23°46'32 E	66.77'
L4	S 66°10'33" E	35.35'
L5	S 21°05'44" E	934.66'
L6	S 23°54'16" W	35.36'
L7	S 21°05'44" E	120.00'
L8	S 66°05'44" E	35.36'
L9	S 21°05'44" E	99.92'
L10	S 07°54'52" W	352.89'
L11	S 06°58'02" W	716.88'
L12	S 37°24'01" W	226.56'
L13	S 37°45'27" W	181.40'
L14	S 16°37'42" W	267.88'
L15	S 19°19'11" W	69.33'
L16	S 15°25'57" W	144.37'
L17	S 79°11'059" W	69.51'
L18	S 56°45'56" W	141.68'
L19	S 43°32'18" W	106.78'
L20	S 37°57'39" W	153.54'
L21	S 31°12'57" W	248.53'
L22	S 33°19'26" W	263.21'
L23	S 37°47'22" W	270.72'
L24	S 49°32'39" W	362.46'
L25	S 49°58'17" W	330.75'
L26	S 73°32'23" W	295.76'
L27	S 63°23'31" W	135.61'
L28	N 86°18'24 W	55.22'
L29	N 70°56'26" W	68.99'
L30	N 56°42'45" W	60.12'
L31	N 49°40'15" W	56.52'
L32	N 35°59'03" W	84.76'
L33	N 36°27'38" W	416.05'
L34	N 43°59'01" W	666.82'
L35	N 27°13'05" W	224.23'
L36	N 00°47'11" W	95.40'
L37	N 25°52'04" E	258.64'
L38	N 40°17'13" E	125.94'
L39	N 58°35'03" E	95.33'
L40	N 81°48'03" E	183.00'
L41	S 87°03'59" E	299.23'
L42	S 70°51'36" E	395.49'
L43	N 88°14'15" E	145.35'
L44	N 54°07'33" E	98.80'
L45	N 02°19'56" W	164.37'
L46	N 00°16'11" E	374.56'
L47	N 06°30'23" E	364.95'
L48	N 22°23'50" E	92.19'
L49	N 06°01'34" W	200.24'
L50	N 15°21'48" W	507.85'
L51	N 22° 19'39" W	386.00'
L52	N 10°54'14" W	417.24'
L53	N 20°03'52" E	238.53'
L54	N 36°53'05" E	324.79'
L55	N 59°01'42" E	176.66'
L56	S 79°52'03" E	242.01'
L57	N 72°49'49" E	403.22'
L58	N 46°47'32" E	164.11'
L59	S 84°14'52" E	589.21'

NUMBER	DELTA	RADIUS	TANGENT	ARC	CHORD BEARING	CHORD LENGTH
C1	02°22'43"	2799.79	58.13	116.24	S 22°17'05" E	116.23

PROPERTY DESCRIPTION
TRACT 1
MAP 89 OF PARCEL 49
Land located in the 14th civil district of Williamson County, Tennessee, and said tract of land being more particularly
described by metes and bounds, as follows:

Commencing at an iron rod near the intersection of South Carothers Road and a future Connector Road thence in a Westerly direction 757.5+/- feet to a point situation in the Westerly margin of South Carothers Parkway being the Northeast corner of the subject property, Said point also being the Southeast corner of Southern Carothers Partners, L.L.C. property record in Book 4877, Page 537, in the Register's Office for Williamson County, Tennessee: and being the Point of Beginning;

Thence, continuing with margin of said road with a curve to the right, having a Radius of 2799.29 feet, Delta angle of 02°22'43", Tangent of 58.13 feet, Arc Length of 116.24 feet, with a chord bearing of S 22°17'05" E, a chord distance of 116.23 feet to a point;
Thence, S 21°05'44" E, a distance of 28.94 feet to a point;
Thence, S 23°17'39" W, a distance of 40.24 feet to a point;
Thence, S 23°46'32 E, a distance of 66.77 feet to a point;
Thence, S 66°10'33" E, a distance of 35.35 feet to a point;
Thence, S 21°05'44" E, a distance of 934.66 feet to a point;
Thence, S 23°54'16" W, a distance of 35.36 feet to a point;
Thence, S 21°05'44" E, a distance of 120.00 feet to a point;
Thence, S 66° 05'44" E, a distance of 35.36 feet to a point;
Thence S 21°05'44" E, a distance of 99.92 feet to an iron rod found by Gresham Smith and being the Northeast corner of Thomas Helm, III property as recorded in Book 610, Page 344, in the Register's Office of Williamson County, Tennessee;

Thence, continuing with Helm Westerly property line S 07°54'52" W, a distance of 352.89 feet to an iron rod found by TN RLS# 2039;
Thence, S 06°58'02" W, a distance of 716.88 feet to a wood fence post;
Thence, S 37°24'01" W, a distance of 226.56 feet to a point;
Thence, S 37°45'27" W, a distance of 181.40 feet to a wood fence post;
Thence, S 16°37'42" W, a distance of 267.88 feet to a point;
Thence, S 19°19'11" W, a distance of 69.33 feet to a point;
Thence, S 15°25'57" W, passing an iron rod found near the top of bank at 84.61, for a total distance of 144.37 feet to a point on the center of the Big Harpeth River;

Thence, continuing with center of the Big Harpeth River S 79°11'059" W, a distance of 69.51 feet to a point;
Thence, S 56°45'56" W, a distance of 141.68 feet to a point;
Thence, S 43°32'18" W, a distance of 106.78 feet to a point;
Thence, S 37°57'39" W, a distance of 153.54 feet to a point;
Thence, S 31°12'57" W, a distance of 248.53 feet to a point;
Thence, S 33°19'26" W, a distance of 263.21 feet to a point;
Thence, S 37°47'22" W, a distance of 270.72 feet to a point;
Thence, S 49°32'39" W, a distance of 362.46 feet to a point;
Thence, S 49°58'17" W, a distance of 330.75 feet to a point;
Thence, S 76°32'23" W, a distance of 295.76 feet to a point;
Thence, S 63°23'31" W, a distance of 135.61 feet to a point;
Thence, N 86°18'24" W, a distance of 55.22 feet to a point;
Thence, N 70°56'26" W, a distance of 68.99 feet to a point;
Thence, N 65°42'45" W, a distance of 60.12 feet to a point;
Thence, N 49°40'15" W, a distance of 56.52 feet to a point;
Thence, N 35°59'03" W, a distance of 84.76 feet to a point;
Thence, N 36°27'38" W, a distance of 416.05 feet to a point;
Thence, N 43°59'01" W, a distance of 666.82 feet to a point;
Thence, N 27°13'05" W, a distance of 224.23 feet to a point;
Thence, N 00°47'11" W, a distance of 95.40 feet to a point;
Thence, N 25°52'04" E, a distance of 258.64 feet to a point;
Thence, N 40°17'13" E, a distance of 124.94 feet to a point;
Thence, N 58°35'03" E, a distance of 95.33 feet to a point;
Thence, N 81°48'03" E, a distance of 183.00 feet to a point;
Thence, S 87°03'59" E, a distance of 299.23 feet to a point;
Thence, S 70°51'36" E, a distance of 395.49 feet to a point;
Thence, N 88°14'15" E, a distance of 145.35 feet to a point;
Thence, N 54°07'33" E, a distance of 98.80' feet to a point;
Thence, N 02°19'56" W, a distance of 164.37 feet to a point;
Thence, N 00°16'11" E, a distance of 374.56 feet to a point;
Thence, N 06°30'23" E, a distance of 364.95 feet to a point;
Thence, N 22°23'50" E, a distance of 92.19' feet to a point;
Thence, N 06°01'34" W, a distance of 200.24 feet to a point;
Thence, N 15°21'48" W, a distance of 507.85 feet to a point;
Thence, N 22° 19'39" W, a distance of 386.00 feet to a point;
Thence, N 10°54'14" W, a distance of 417.24' feet to a point;
Thence, N 20°03'52" E, a distance of 238.53 feet to a point;
Thence, N 36°53'05" E, a distance of 324.79 feet to a point;
Thence, N 59°01'42" E, a distance of 176.66 feet to a point;
Thence, N 79°52'03" E, a distance of 242.01 feet to a point;
Thence, N 72°49'49" E, a distance of 403.22 feet to a point;
Thence, N 46°47'32" E, a distance of 164.11 feet to a point and being the Southwesterly corner of South Carothers Partners, L.L.C. property record in Book 4877, Page 537, in the Register's Office for Williamson County, Tennessee;

Thence, leaving said river with South Carothers Partners, L.L.C. southerly property line S 84°14'52" E, passing an iron rod found by TN RLS#2036 at 72.48 feet for a total distance of 589.21 feet to The Point of Beginning and containing 8,515,833.320 square feet or 195.497 acres of land.

Being a portion of the same property conveyed to Carothers Land Company, LLC. of record in Book 4745, Page 442, in the Register's Office for Williamson County, Tennessee;

NOTES:
1. 100 YEAR FLOOD PLANE EXISTS ON THE PROPERYT; FEMA PANEL 47187C0214F.

2. NO MINERAL RIGHTS ARE HELD BY PARTIES OUTSIDE OF THE OWNER.

3. SURVEY INFORMATION PROVIDED BY:
DALE AND ASSOCIATES
STEVE MATHEWS, RLS
615.297.5166

Legend

● EIP	Existing Iron Pin
■ IPS	Iron Pin Set (#5 Rebar)
■ CM	Concrete Monument
● PT	Calculated Point
UP	Utility Pole
LP	Light Pole
—ou—	Overhead Utility
—x—	Fence Line
—G—	Gas Line
—UT—	Underground Telephone
—s—	Sign
SMH	Sanitary Manhole
EMH	Electric Manhole
CI	Curb Inlet
DI	Drain Inlet
FH	Fire Hydrant
WM	Water Meter
WV	Water Valve
BOC	Back of Curb
EOP	Edge of Pavement
R/W	Right-of-Way
N/F	Now or Formerly
CGF	Combined Grid Factor

BOUNDARY MAP

GRAPHIC SCALE 1"=300'
300 0 300 600 900

ADJACENT OWNERS WITHIN 500 FEET

PARCEL	OWNER	ZONE	MUNICIPALITY	CARACT. AREA
089-04801	CRESCENT LOCKWOOD LLC	AG	FRANKLIN	SWCO-4
089-04900	REAL ESTATE SOLUTIONS GROUP LLC	AG	FRANKLIN	SWCO-4
089-4901	CAROTHERS LAND CO	AG	FRANKLIN	SWCO-4
089-05000	HELM JON THOMAS III	AG	FRANKLIN	SWCO-4
089-05001	CRESCENT HELM LLC	AG	FRANKLIN	SWCO-4
106-18121	CRESCENT HELM LLC	AG	FRANKLIN	SWCO-4
106-18400	TRILLIUM FARMS	R-2	FRANKLIN	SWCO-4
106-18411	PARTHENON INV PARTNERS	R-2	FRANKLIN	SWCO-4
106-18500	BASKIN SADIE T	R-2	FRANKLIN	SWCO-2
106-18600	CITY OF FRANKLIN	R-2	FRANKLIN	SWCO-2
106K-A01500	NELSON CHRISTOPHER A	R-2	FRANKLIN	SWCO-2
106K-A01600	CICHOSTEPSKI ADAM	R-2	FRANKLIN	SWCO-2
106K-A01700	FOX MICHAEL RAY	R-2	FRANKLIN	SWCO-2
106K-A02000	BOGEN BRUCE MARSHALL	R-2	FRANKLIN	SWCO-2
106K-A02100	FRANTZ CRYSTAL	R-2	FRANKLIN	SWCO-2
106K-A02200	GLASS TERRY	R-2	FRANKLIN	SWCO-2
106K-A02300	LANG RYAN	R-2	FRANKLIN	SWCO-2
106K-A02400	DUTY JACK D JR	R-2	FRANKLIN	SWCO-2
106K-A02500	MUELLER ERIC S	R-2	FRANKLIN	SWCO-2
106K-A02600	SANDERS ROBERT	R-2	FRANKLIN	SWCO-2
106K-A02700	HENRY AMY L	R-2	FRANKLIN	SWCO-2
106K-A02800	BLACKWELL BENNY E	R-2	FRANKLIN	SWCO-2
106K-A02900	BROWN BARRY T	R-2	FRANKLIN	SWCO-2
106K-A03000	FRANKLIN LAND BANC LLC	R-2	FRANKLIN	SWCO-2
106K-A03200	TRILLIUM FARMS LP	R-2	FRANKLIN	SWCO-2
106K-E01000	TRILLIUM FARMS LP	R-2	FRANKLIN	SWCO-2

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY FWO, FLOODWAY OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	
CONTACT	
EMAIL ADDRESS	
PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 230 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION
DEVELOPMENT PLAN - REVISION 3
PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

rev. date
1. Dec. 4, 2014
2.
3.
4.

GCG Job No. 2012-04
November 10, 2014

SHEET
C1.0

COF # 4725

EXISTING CONDITIONS PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

SLOPES

SLOPES 14% TO 19%

SLOPES 20% TO 100%

SOIL TYPES

ArA	Armour silt loam, 0 to 2 percent slope
ArB	Armour silt loam, 2 to 5 percent slope
ArB2	Armour silt loam, 2 to 5 percent slope, eroded
CaA	Captina silt loam, phosphatic, 0 to 2 percent slope
CaB	Captina silt loam, phosphatic, 2 to 5 percent slope
CaB2	Captina silt loam, phosphatic, 2 to 5 percent slope, eroded
Hu	Huntington silt loam, phosphatic
MbB2	Maury silt loam, 2 to 5 percent, eroded
MbC2	Maury silt loam, 5 to 12 percent, eroded
MbC3	Maury silty clay loam, 5 to 12 percent, eroded
MoD	Mimosa and Ashwood very rocky soils, 5 to 20 percent slopes
Lp	Lindside silt loam, phosphatic
Se	Sequatchie loam, phosphatic
Tb	Taft silt loam, phosphatic

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY FWO, FLOODWAY OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

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OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

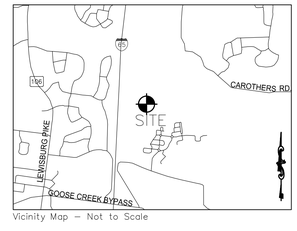
TREE CANOPY RETENTION:

EXISTING TREE CANOPY -	TREE A:	1,634,856 SF
	TREE B:	9,853 SF
	TREE C:	6,120 SF
	TREE D:	362 SF
	TREE E:	26,825 SF
	TREE F:	527 SF
	TREE G:	572 SF
	TREE H:	50,824 SF
	TREE I:	1,027 SF
	TREE J:	1,208 SF
	TREE K:	71,717 SF
	TREE L:	171 SF
	TREE M:	2,033 SF
	TREE N:	12,763 SF
	TREE O:	2,626 SF
	TOTAL:	1,824,120 SF (41.87 AC)
TOTAL TREE CANOPY REQUIRED: 41.87 AC/195.5 AC =		48% REQUIRED PRESERVATION 21.4% OF TOTAL AREA

SPECIMEN TREES

#	TREE	SIZE	CONDITION
1	OAK	24	DEAD
2	LOCUST	30	
3	OSAGE	36	
4	ASH	20	
5	HACKBERRY	26	
6	SYCAMORE	24	
7	WALNUT	28	
8	OSAGE	36	DEAD
9	HACKBERRY	32	
10	OSAGE	18	
11	HACKBERRY	20	
12	SYCAMORE	36	
13	OSAGE	24	
14	OSAGE	36	DEAD
15	HACKBERRY	24	
16	HACKBERRY	20	
17	HACKBERRY	28	
18	HACKBERRY	38	
19	HACKBERRY	30	
20	ELM	24	
21	HACKBERRY	36	
22	HACKBERRY	30	POOR
23	ELM	15	
24	ELM	12	
25	ELM	20	
26	ELM	20	
27	ELM	20	
28	ELM	20	
29	ASH	29	
30	HACKBERRY	24	
31	HACKBERRY	24	
32	WALNUT	24	
33	BOX ELDER	20	
34	HACKBERRY	24	
35	OAK	20	
36	HACKBERRY	24	
37	HACKBERRY	32	
38	SASSAFRAS	24	
39	HACKBERRY	24	
40	HACKBERRY	36	
41	HACKBERRY	38	
42	HACKBERRY	34	
43	HACKBERRY	24	
44	ELM	40	
45	OAK	20	
46	ELM	40	
47	ASH	48	
48	ASH	30	
49	HACKBERRY	40	
50	OAK	24	
51	MAPLE	24	
52	POPLAR	24	
53	POPLAR	20	
54	MAPLE	24	
55	OAK	28	
56	MAPLE	24	
57	MAPLE	28	
58	POPLAR	20	
59	OAK	40	DEAD
60	ASH	24	

#	TREE	SIZE	CONDITION
111	OSAGE	24	
112	HACKBERRY	18	
113	OAK	36	
114	HACKBERRY	24	
115	HACKBERRY	2	
116	OAK	34	
117	OAK	24	
118	CEDAR	20	
119	HACKBERRY	24	
120	CEDAR	20	POOR
121	OAK	20	
122	OAK	28	
123	OAK	20	
124	OAK	15	
125	OAK	20	
126	OAK	24	
127	OAK	24	
128	OAK	28	
129	OAK	24	DEAD
130	OAK	40	POOR
131	OAK	24	POOR
132	OAK	36	DEAD
133	OAK	15	POOR
134	MAPLE	24	POOR
135	OAK	24	
136	OAK	24	
137	OAK	20	
138	OAK	20	
139	OAK	36	
140	HACKBERRY	36	
141	MAPLE	24	
142	MAPLE	28	
143	MAPLE	24	
144	HACKBERRY	24	
145	HICKORY	24	DEAD
146	WALNUT	24	
147	HICKORY	24	
148	HACKBERRY	28	
149	OAK	28	
150	HICKORY	30	
151	OAK	24	
152	WALNUT	28	
153	HICKORY	32	
154	OAK	24	
155	OAK	48	
156	MAPLE	36	DEAD
157	OAK	30	DEAD
158	HACKBERRY	36	
159	OAK	24	
160	HICKORY	24	
161	OAK	24	
162	OAK	26	
163	OAK	24	
164	OAK	24	
165	OAK	24	
166	OAK	26	
167	ELM	26	
168	SYCAMORE	30	
169	OAK	24	
170	ELM	20	



Vicinity Map – Not to Scale

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION
DEVELOPMENT PLAN - REVISION 3
PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
TENNESSEE
REGISTERED
LANDSCAPE ARCHITECT

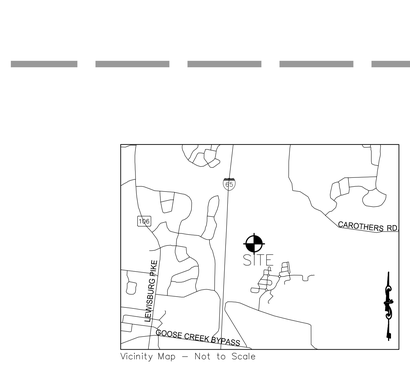
GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

rev.	date
1.	Dec. 4, 2014

GCG Job No. 2012-04
November 10, 2014

SHEET
C2.0

COF # 4725



Vicinity Map – Not to Scale

MATCHLINE

MATCHLINE

TREE SAVE AREA 'P2'
160,427 SF

TREE SAVE AREA 'P10'
156,984 SF

TREE A
1,634,866 SF

TREE SAVE AREA 'P11'
221,982 SF

TREE K
71,717 SF

TREE SAVE AREA 'P12'
403,498 SF

EXISTING TREE CANOPY

60' TDA BUFFER

100 YR FLOODPLAIN
FFO DISTRICT

FLOOD WAY
FFO DISTRICT

MbB2
MbC2
ArB2
Hu
Se
MoD

L36
L35
L34
L33
L32
L31
L30
L29
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L26
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L14
L13
L12
L11
L10
L9
L8
L7
L6
L5
L4
L3
L2
L1

TAX MAP 106
PARCEL 185
SADIE T. BASKIN
DEED BOOK 3542,
PAGE 501, R.O.W.C.,TN.

TAX MAP 106
PARCEL 184
TILLIUM FARMS, L.P.
PLAT BOOK 4981,
PAGE 285, R.O.W.C.,TN.

SECTION 'C'
HIGHLAND
PARK PUD
PLAT
PAGE 120

LADD PARK

TAX MAP 106
PARCEL 186
FRANKLIN
4576
R.O.W.C.,TN.

EXISTING CONDITIONS PLAN

GRAPHIC SCALE 1"=100'
100 0 100 200 300

SLOPES

SLOPES 14% TO 19%

SLOPES 20% TO 100%

SITE DATA:

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TOTAL AC:	195.5 AC
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MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
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TREE CANOPY RETENTION:

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	TREE H:	50,824 SF
	TREE I:	1,027 SF
	TREE J:	1,208 SF
	TREE K:	71,717 SF
	TREE L:	171 SF
	TREE M:	2,033 SF
	TREE N:	12,763 SF
	TREE O:	2,626 SF
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SPECIMEN TREES

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3	OSAGE	36	
4	ASH	20	
5	HACKBERRY	26	
6	SYCAMORE	24	
7	WALNUT	28	
8	OSAGE	36	DEAD
9	HACKBERRY	32	
10	OSAGE	18	
11	HACKBERRY	20	
12	SYCAMORE	36	
13	OSAGE	24	
14	OSAGE	36	DEAD
15	HACKBERRY	24	
16	HACKBERRY	20	
17	HACKBERRY	28	
18	HACKBERRY	38	
19	HACKBERRY	30	
20	ELM	24	
21	HACKBERRY	36	
22	HACKBERRY	30	POOR
23	ELM	15	
24	ELM	12	
25	ELM	20	
26	ELM	20	
27	ELM	20	
28	ELM	20	
29	ASH	29	
30	HACKBERRY	24	
31	HACKBERRY	24	
32	WALNUT	24	
33	BOX ELDER	20	
34	HACKBERRY	24	
35	OAK	20	
36	HACKBERRY	24	
37	HACKBERRY	32	
38	SASSAFRAS	24	
39	HACKBERRY	24	
40	HACKBERRY	36	
41	HACKBERRY	38	
42	HACKBERRY	34	
43	HACKBERRY	24	
44	ELM	40	
45	OAK	20	
46	ELM	40	
47	ASH	48	
48	ASH	30	
49	HACKBERRY	40	
50	OAK	24	
51	MAPLE	24	
52	POPLAR	24	
53	POPLAR	20	
54	MAPLE	24	
55	OAK	28	
56	MAPLE	24	
57	MAPLE	28	
58	POPLAR	20	
59	OAK	40	DEAD
60	ASH	24	

#	TREE	SIZE	CONDITION
111	OSAGE	24	
112	HACKBERRY	18	
113	OAK	36	
114	HACKBERRY	24	
115	HACKBERRY	7	
116	OAK	34	
117	OAK	24	
118	CEDAR	20	
119	HACKBERRY	24	
120	CEDAR	20	POOR
121	OAK	20	
122	OAK	28	
123	OAK	20	
124	OAK	15	
125	OAK	20	
126	OAK	24	
127	OAK	24	
128	OAK	28	
129	OAK	24	DEAD
130	OAK	40	POOR
131	OAK	24	POOR
132	OAK	36	DEAD
133	OAK	15	POOR
134	MAPLE	24	POOR
135	OAK	24	
136	OAK	24	
137	OAK	20	
138	OAK	20	
139	OAK	36	
140	HACKBERRY	36	
141	MAPLE	24	
142	MAPLE	28	
143	MAPLE	24	
144	HACKBERRY	24	
145	HICKORY	24	DEAD
146	WALNUT	24	
147	HICKORY	24	
148	HACKBERRY	28	
149	OAK	28	
150	HICKORY	30	
151	OAK	24	
152	WALNUT	28	
153	HICKORY	32	
154	OAK	24	
155	OAK	48	
156	MAPLE	36	DEAD
157	OAK	30	DEAD
158	HACKBERRY	36	
159	OAK	24	
160	HICKORY	24	
161	OAK	24	
162	OAK	28	
163	OAK	24	
164	OAK	24	
165	OAK	24	
166	OAK	26	
167	ELM	26	
168	SYCAMORE	30	
169	OAK	24	
170	ELM	20	

GCD
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION

DEVELOPMENT PLAN - REVISION 3

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

rev.	date
1.	Dec. 4, 2014
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△	
△	

GCG Job No. 2012-04
November 10, 2014

SHEET
C2.1

COF # xxxx

OPEN SPACE AREAS

#	INFORMAL TYPE	SQ/FT	ACREAGE
501	GREENBELT	1,650,610 SF	37.89
510	GREENBELT	24,992 SF	.57
509	GREENBELT	13,949 SF	.32
507	REMOVED	7,447 SF	.17
512	GREENBELT	2,878,027 SF	66.07
TOTAL		4,575,025 SF	105.02 AC

#	FORMAL TYPE	SQ/FT	ACREAGE
500	PARK / AMENITY CTR	176,758 SF	4.06
502	PARK	42,643 SF	.98
503	PARK	8,979 SF	.21
504	PARK	26,247 SF	.60
505	PARK	18,745 SF	.43
506	PARK	96,669 SF	2.22
508	PARK	48,695 SF	1.12
511	PARK	62,077 SF	1.42
TOTAL		480,813 SF	11.04 AC

OPEN SPACE PROVISION

TOTAL PUD AREA:	8,515,980 SF	195.50 AC	
TOTAL REQUIRED OPEN SPACE:	1,277,397 SF	29.32 AC	15%
PROVIDED OPEN SPACE:	5,049,960 SF	115.93AC	59%
INFORMAL REQUIRED:	843,082 SF	19.56 AC	66%
FORMAL REQUIRED:	421,541 SF	9.77 AC	33%
INFORMAL PROVIDED:	4,575,025 SF	105.02 AC	
FORMAL PROVIDED:	480,813 SF	11.04 AC	

NOTE: GREENWAY TRAIL SHALL BE LOCATED OUTSIDE OF THE STREAM BUFFER. IT SHALL BE FIELD LOCATED TO BEST ACCOMODATE TREE PRESERVATION AND SLOPES.

MATCHLINE C3.0

MATCHLINE C3.1

DEVELOPMENT PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

SLOPES

SLOPES 14% TO 19%

SLOPES 20% TO 100%

LAND USE PLAN COMPLIANCE:

CHARACTER AREA OVERLAY: MECO-6
APPLICABLE DEVELOPMENT STANDARD* CONVENTIONAL

1. THE EXISTING USES WITHIN MECO-5 ARE PREDOMINANTLY ATTACHED OR DETACHED RESIDENTIAL. THE PROPOSED PLAN PROVIDES BOTH ATTACHED AND DETACHED RESIDENTIAL HOMES CONSISTENT WITH THE PREDOMINATE USES.

2. COMMERCIAL, OFFICE OR RETAIL USES ARE NOT SUPPORTED BY THE LAND USE PLAN, AND ARE NOT PROPOSED.

3. NEW GROWTH SHOULD BE ENCOURAGED IN AREAS WHERE ADEQUATE PUBLIC WATER, SEWER AND STREETS ARE CURRENTLY AVAILABLE OR ARE PLANNED.

-CITY OF FRANKLIN SEWER MAIN IS CURRENTLY ALONG THE CAROTHERS CREEK BASIN AND STOPS AT A MAN HOLE ON OLD SOUTH CAROTHERS ROAD.
-MILCROFTON WATER MAIN IS PLANNED ALONG SOUTH CAROTHERS PARKWAY.

5. THE MAJOR THOROUGHFARE PLAN IDENTIFIES THE LOCATION OF SOUTH CAROTHERS PARKWAY. THIS ROAD WILL BE THE ACCESS TO THE PROPERTY.

LOCAL COMPATIBILITY

THE PROPOSED WATER'S EDGE NEIGHBORHOOD IS PLANNED WITH SIMILAR DESIGN STANDARDS TO THOSE IN NICHOLS BEND, LADD PARK, AND SIMMONS RIDGE. LOT SIZES, STREET RIGHT-OF-WAYS, AND NEIGHBORHOOD PARKS ARE CONSISTENT ELEMENTS OF ALL FOUR SUBDIVISIONS. THE PLAN ADDRESSES THE HOMESTEADS OF THE ADJACENT NEIGHBORS TO THE EAST AND WEST WITH SIGNIFICANT OPEN SPACE SET ASIDE AREAS BORDERING THESE PROPERTIES. THE LONG RANGE PLAN FOR THIS AREA IS FOR SOUTH CAROTHERS PARKWAY TO BE EXTENDED ALONG WITH UTILITIES.

SITE DATA

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6
	FFO, FLOODWAY FRINGE OVERLAY
	FWO, FLOODWAY OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD
	THOMPSONS STATION, TN 37179
OFFICE PHONE	
CONTACT	
EMAIL ADDRESS	
PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY
	SUITE 230
	FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

BUILDING SQUARE FOOTAGE:	N/A
BUILDING HEIGHT:	2 STORY
LANDSCAPE SURFACE RATIO:	.71 (not including lots or ROW)
MINIMUM LANDSCAPE SURFACE RATIO:	.10
PARKING REQUIREMENTS:	SINGLE FAMILY DETACHED - 2 PER UNIT / COTTAGE HOME - 2 FOR THE FIRST BEDROOM 0.5 PER EACH ADDITIONAL BEDROOM
RESIDENTIAL DENSITY:	1.91
EXISTING TREE CANOPY:	41.87 AC
REQUIRED CANOPY PRESERVATION:	20.10 AC
PARKLAND (IF APPLICABLE):	GREENWAY DEDICATION
OPEN SPACE:	
FORMAL REQUIRED:	9.77 AC
FORMAL PROVIDED:	11.04 AC
INFORMAL REQUIRED:	19.56
INFORMAL PROVIDED:	105.02 AC
TOTAL REQUIRED:	29.32 AC
TOTAL PROVIDED:	116.06 AC

TOTAL DENSITY

SECTION	SINGLE FAMILY HOMES	COTTAGE HOMES
1	32	16
2	34	22
3	28	37
4	34	28
5	35	29
6	40	" "
7	38	" "
TOTALS:	241	132

DENSITY
1.91 DU/AC
373 UNITS

SETBACKS: (PER LOT STANDARDS ON PAGE A1.0)
LANDSCAPE SURFACE RATIO: .10
LANDSCAPE SURFACE RATIO: .71 (NOT INCLUDING RESIDENTIAL LOTS OR RIGHT-OF-WAY)
INCOMPATIBILE USE BUFFER: NONE

STATEMENT OF IMPACTS

WATER
WATER SERVICE WILL BE PROVIDED BY MILCROFTON UTILITY DISTRICT. THE WATER MAIN WILL BE LOCATED ON S. CAROTHERS PARKWAY.
373*350 GPD = 130,550 GPD

SEWER
SEWER SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN. SITE TO BE SERVICED BY GRAVITY SEWER.

REPURIFIED (REUSE) WATER FACILITIES
REUSE WATER IS CURRENTLY NOT AVAILABLE

STREET NETWORK
THE MAJOR THOROUGHFARE PLAN INDICATES CAROTHERS PARKWAY AS A MAJOR ARTERIAL. ONCE CONSTRUCTED, THIS ROAD WILL BE THE MAIN ACCESS TO THE DEVELOPMENT. THE EXISTING ACCESS TO THE SITE IS FROM SOUTH CAROTHERS ROAD. CREATING ACCESS TO THE NEWLY CONSTRUCTED CAROTHERS PARKWAY COMPLIES WITH THE MAJOR THOROUGHFARE PLAN.

DRAINAGE FACILITIES
DEVELOPMENT WILL HAVE NO IMPACT ON EXISTING CITY OF FRANKLIN DRAINAGE FACILITIES. ALL DRAINAGE TO BE TREATED ON SITE.

POLICE AND FIRE
FRANKLIN FIRE STATION #2 - 3.6 MILES DRIVING DISTANCE
COLUMBIA AVE. POLICE STATION - 5.8 MILES DRIVING DISTANCE

RECREATION FACILITIES
A NEW CITY OF FRANKLIN PARK IS PLANNED ADJACENT TO THIS PROPERTY TO THE NORTH.

PROJECTED STUDENT POPULATION
THE STUDENT POPULATION IS PROJECTED AT A RATE OF ONE STUDENT PER .64 HOMES.
373 X .64 = 239 STUDENTS

TRINITY ELEMENTARY	3.5 MILES
PAGE MIDDLE SCHOOL	4.6 MILES
PAGE HIGH SCHOOL	4.8 MILES

REFUSE COLLECTION
REFUSE COLLECTION SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN SOLID WASTE.

RESTRICTIVE COVENANTS
THE WATER'S EDGE HOME OWNER'S ASSOCIATION WILL BE ESTABLISHED PRIOR TO THE FIRST OCCUPANCY OF RESIDENTS. THE HOME OWNER'S ASSOCIATION WILL REGULATE ARCHITECTURAL STANDARDS AND MAINTENANCE OF THE COMMUNITY. THE HOA WILL MAINTAIN ALL COMMON OPEN SPACE AND RECREATION AREAS.

MINERAL RIGHTS
NO THIRD PARTY MINERAL RIGHTS ARE ASSOCIATED WITH THIS PROPERTY.

NOTES

1. THE APPLICANT SHALL PROVIDE AN EASEMENT FOR THE CITY TO ACCESS THE PROPOSED SOUTH TREATMENT PLANT, WHICH WILL BE LOCATED BEHIND THIS PROPERTY. THE APPLICANT SHALL ALSO BE REQUIRED TO GIVE NOTIFICATION TO THE PROSPECTIVE BUYERS THAT THIS DEVELOPMENT WILL BE ADJACENT TO A WASTEWATER TREATMENT PLANT.
2. THE APPLICANT HAS PROVIDED A DOCUMENT TO THE CITY THAT STATES THAT WATER SERVICE WILL BE AVAILABLE UPON COMPLETION OF A FUTURE WATER LINE EXTENSION. THE APPLICANT SHALL PROVIDE HOMES WITH RESIDENTIAL FIRE SPRINKLER SYSTEMS UNTIL THE REQUIRED 1,500 GPM / 20 PSI IS AVAILABLE.

TRIP GENERATION DATA

*TRAFFIC GENERATION DATA PROVIDED BY FISCHBACH TRANSPORTATION GROUP, INC.

Water's Edge Land Use:	LUC 210 Single-Family	LUC 230 Condo/Town	TOTAL
Size:	241	132	373
Average Daily Traffic	2,294	819	**3,113**
Daily Enter	1,147	409	**1,557**
Daily Exit	1,147	409	**1,557**
AM Peak Hour Total	181	64	**245**
AM Peak Hour Enter	45	11	**56**
AM Peak Hour Exit	136	54	**189**
MID Peak Hour Total	161	57	**218**
MID Peak Hour Enter	80	29	**109**
MID Peak Hour Exit	80	29	**109**
PM Peak Hour Total	241	75	**316**
PM Peak Hour Enter	152	51	**202**
PM Peak Hour Exit	89	25	**114**

Trip Generation 9th Edition

PARKLAND DEDICATION

PARKLAND DEDICATION SHALL BE PROVIDED THROUGH THE DEDICATION AND CONSTRUCTION OF A GREENWAY TRAIL AND CANOE ACCESS. TRAIL DESIGNED PER CITY OF FRANKLIN STANDARDS, ALONG THE PERIMETER OF THE PROPERTY ADJACENT TO THE HARPETH RIVER.

373 UNITS = 244,800 SF (5.62 ACRES) OF REQUIRED DEDICATED PARKLAND.

PROPOSED TRAIL:	9600 LINEAR FEET
ASSOCIATED 25' EASEMENT:	240,000 SF (5.5 ACRES)
CANOE ACCESS:	5,227 SF (.12 ACRES)

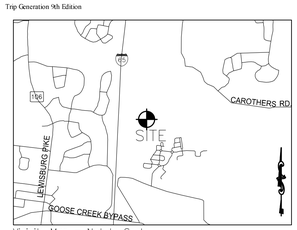
GREENWAY TRAIL EASEMENT TO BE AAPE - ALL PUBLIC ACCESS EASEMENT.

CONNECTIVITY INDEX

O	LINKS	41
X	NODES	26

42 / 26 = 1.58 INDEX

REDUCED INDEX IS DUE TO ENVIRONMENTAL CONSTRAINTS OF THE PROPERTY TO THE NORTH, SOUTH, AND WEST. THREE ACCESS POINTS ARE PLANNED TO CAROTHERS PARKWAY.



Vicinity Map – Not to Scale

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION
DEVELOPMENT PLAN - REVISION 3
PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE

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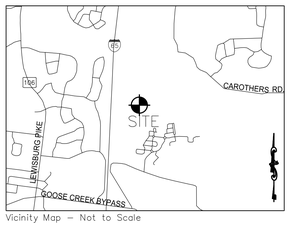
C3.0

COF # 4725



Vicinity Map – Not to Scale

MATCHLINE C3.0

MATCHLINE C3.2

SECTION ④

SECTION ③

SECTION ②

SECTION ⑥

SECTION ⑦

LEATHERWOOD DRIVE 450' ROW/LOCAL

DOGWOOD SPRINGS DRIVE 150' ROW/LOCAL

SUGAR CREEK DRIVE 150' ROW/LOCAL

CALM WATERS STREET-150' ROW/ LOCAL

HEADWATERS DRIVE (50' ROW) LOCAL

FORMAL OPEN SPACE 48,695 SF

FORMAL OPEN SPACE 62,097 SF

FORMAL OPEN SPACE 2,870,027 SF

100 YEAR FLOOD PLAIN (ZONE AE)

FWO DISTRICT

NOTE: GREENWAY TRAIL SHALL BE LOCATED OUTSIDE OF THE STREAM BUFFER. IT SHALL BE FIELD LOCATED TO BEST ACCOMODATE TREE PRESERVATION AND SLOPES.

CANOE LAUNCH

GREENWAY TRAIL

60' TOP OF BANK BUFFER

NOTE: GREENWAY TRAIL SHALL BE LOCATED OUTSIDE OF THE STREAM BUFFER. IT SHALL BE FIELD LOCATED TO BEST ACCOMODATE TREE PRESERVATION AND SLOPES.

GREENWAY TRAIL

25' GREENWAY TRAIL EASEMENT AAPE ALE PUBLIC ACCESS EASEMENT

FLOODWAY AND DISTRICT

LADD PARK

TAX MAP 106 PARCEL 184

CALLIUM FARMS, LP PLAT BOOK 4981, PAGE 285 R.O.W.C.,TN

JEFFERSON KIRKLAND 3 R.O.W.C.,TN BOOK 4276 PAGE 106

TAX MAP 106 PARCEL 189

DEVELOPMENT PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

SLOPES

SLOPES 14% TO 19%

SLOPES 20% TO 100%

WATER'S EDGE SUBDIVISION

DEVELOPMENT PLAN - REVISION 3

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

GAMBLE DESIGN COLLABORATIVE

DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

GREGORY C. GAMBLE REGISTERED LANDSCAPE ARCHITECT

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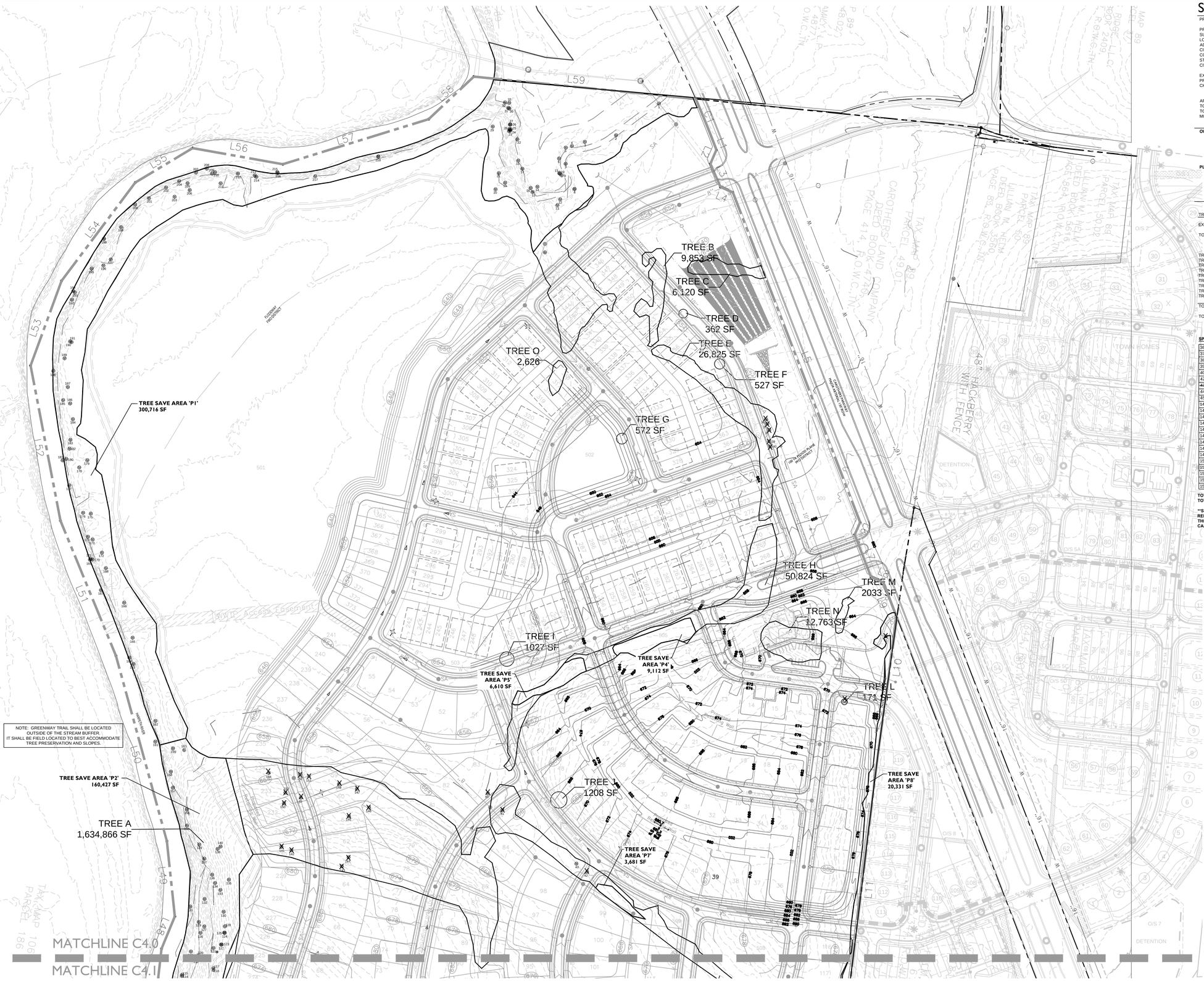


TREE PRESERVATION PLAN

GRAPHIC SCALE 1"=100'
100 0 100 200 300

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY FWO FLOODWAY OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1-0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	
CONTACT	
EMAIL ADDRESS	
PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 230 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

TREE PROTECTION ZONE

EXISTING TREE CANOPY - 1,824,120 SF (41.87 AC)

TOTAL TREE CANOPY REQUIRED: 48% REQUIRED PRESERVATION
41.87 AC / 195.5 AC = 21.4% OF TOTAL AREA

TREE SAVE 'P1'	300,716 SF
TREE SAVE 'P2'	160,427 SF
TREE SAVE 'P4'	9,112 SF
TREE SAVE 'P5'	6,610 SF
TREE SAVE 'P7'	3,681 SF
TREE SAVE 'P8'	20,331 SF
TREE SAVE 'P10'	156,984 SF
TREE SAVE 'P11'	221,982 SF
TREE SAVE 'P12'	403,498 SF
TOTAL	1,286,462 SF

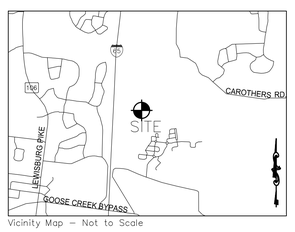
TOTAL TREE CANOPY RETAINED: 29.45 AC (70.3% OF TREE CANOPY AREA)

SPECIMEN TREES REMOVED

36	HACKBERRY	24	
37	HACKBERRY	32	
38	SASSFRAS	24	
39	HACKBERRY	24	
40	HACKBERRY	36	
42	HACKBERRY	34	
~~43~~	~~HACKBERRY~~	~~24~~	SAVED
44	ELM	40	
45	OAK	20	
141	MAPLE	24	
142	MAPLE	28	
143	MAPLE	24	
144	HACKBERRY	24	
145	HICKORY	24	DEAD
146	WALNUT	24	
147	HICKORY	24	
148	HACKBERRY	28	
149	OAK	28	
150	HICKORY	30	
151	OAK	24	
152	WALNUT	28	
153	HICKORY	32	
154	OAK	24	

TOTAL CALIPER INCHES OF HEALTHY SPECIMEN TREES: 4,848
TOTAL CALIPER INCHES OF SPECIMEN TREES FOR REMOVAL: 614

****SPECIMEN TREES SHALL BE REPLACED AT A RATIO OF 2 INCHES OF REPLACEMENT TREE FOR EACH INCH OF SPECIMEN TREE REMOVED PER THE CITY OF FRANKLIN DESIGN REQUIREMENTS. REPLACEMENT TREES CAN NOT BE USED TO MEET ANY OTHER LANDSCAPE REQUIREMENT.**



Vicinity Map — Not to Scale

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WATER'S EDGE SUBDIVISION
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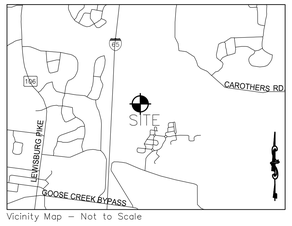

Vicinity Map – Not to Scale

MATCHLINE C4.0

MATCHLINE C4.1

TREE SAVE AREA 'P2'
160,427 SF

TREE K
71,717 SF

TREE SAVE AREA 'P8'
20,331 SF

NOTE: GREENWAY TRAIL SHALL BE LOCATED OUTSIDE OF THE STREAM BUFFER. IT SHALL BE FIELD LOCATED TO BEST ACCOMMODATE TREE PRESERVATION AND SLOPES.

TREE SAVE AREA 'P10'
156,984 SF

TREE A
1,634,866 SF

TREE SAVE AREA 'P11'
221,982 SF

TREE SAVE AREA 'P12'
403,498 SF

LADD PARK

TREE PROTECTION ZONE

EXISTING TREE CANOPY - 1,824,120 SF (41.87 AC)

TOTAL TREE CANOPY REQUIRED: 41.87 AC / 195.5 AC = 48% REQUIRED PRESERVATION 21.4% OF TOTAL AREA

TREE SAVE 'P1'	300,716 SF
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TOTAL	1,286,462 SF

TOTAL TREE CANOPY RETAINED: 29.45 AC (70.3% OF TREE CANOPY AREA)

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37	HACKBERRY	32	
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39	HACKBERRY	24	
40	HACKBERRY	36	
42	HACKBERRY	34	
~~43~~	~~HACKBERRY~~	~~24~~	SAVED
44	ELM	40	
45	OAK	20	
141	MAPLE	24	
142	MAPLE	28	
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TREE PRESERVATION PLAN

GRAPHIC SCALE 1"=100'
100 0 100 200 300

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION

DEVELOPMENT PLAN - REVISION 3

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

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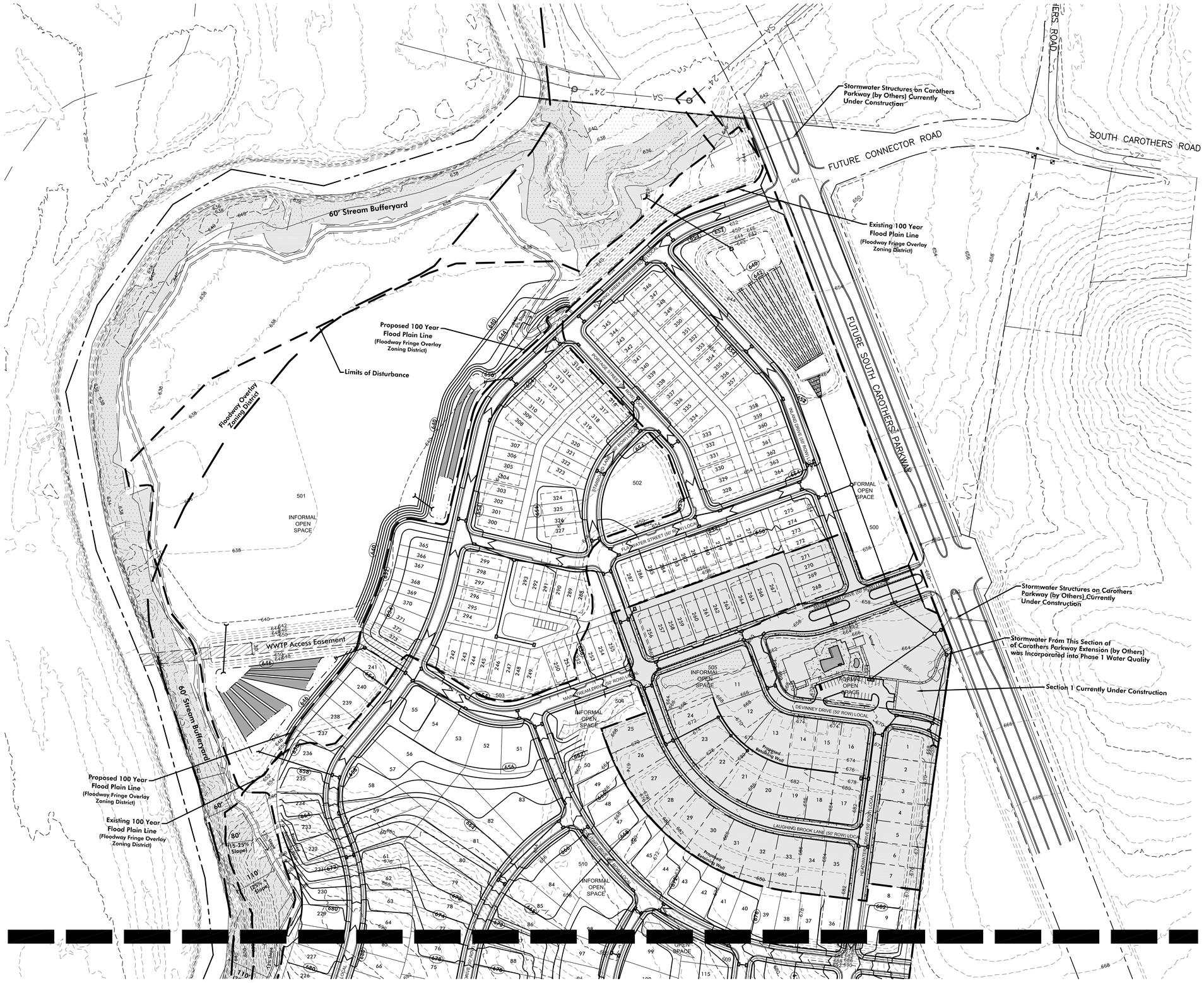

GRADING PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

SITE DATA:

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SUBDIVISION:	WATERS EDGE PUD
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CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6
	FFO, FLOODWAY FRINGE OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	973.641.1953
CONTACT	ANDRE JAECKLE
EMAIL ADDRESS	AJAECKLE@EPERFORMAX.COM
PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 230 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

BUILDING SQUARE FOOTAGE:	N/A
BUILDING HEIGHT:	2 STORY
LANDSCAPE SURFACE RATIO:	.71 (not including lots or ROW)
MINIMUM LANDSCAPE SURFACE RATIO:	.10
PARKING REQUIREMENTS:	SINGLE FAMILY DETACHED - 2 PER UNIT / COTTAGE HOME - 2 FOR THE FIRST BEDROOM 0.5 PER EACH ADDITIONAL BEDROOM
RESIDENTIAL DENSITY:	1.91
EXISTING TREE CANOPY:	41.97 AC
REQUIRED CANOPY PRESERVATION:	20.10 AC
PARKLAND (IF APPLICABLE):	GREENWAY DEDICATION
OPEN SPACE:	
FORMAL REQUIRED:	9.77 AC
FORMAL PROVIDED:	11.04 AC
INFORMAL REQUIRED:	19.56
INFORMAL PROVIDED:	104.89 AC
TOTAL REQUIRED:	29.32 AC
TOTAL PROVIDED:	115.93 AC

Notes:

1) All lots as shown will be located 100% out of the floodplain. The floodplain shall be balanced at a minimum of a 1:1 ratio.

2) Floodplain alteration will not decrease storage capacity. This section of the Harpeth River is not located in a damage reach.

3) Any grading that will disturb proposed ponds along Carothers Parkway will be coordinated with the City of Franklin and will not result in a loss of storage area.

4) No storage of stormwater shall be accounted for in the floodplain alteration calculations.

5) Alterations of the floodplain are to occur in a method that will provide improved water quality, recreational value, and a natural habitat. This alteration will be an improvement upon existing agricultural use and fallow conditions.

6) The applicant shall obtain a floodplain development permit and complete floodplain alteration prior to the submittal of a site plan. Once a final letter of map revision has been issued from FEMA, the applicant shall go to the BZA to have the FFO Zoning boundary revised. After BZA has revised the FFO, the applicant may submit a site plan for any lots not within the newly delineated FFO.

7) All proposed retaining walls are shown.

8) The Greenway Trail will consist of Asphalt.

9) Drainage Easements shall be provided between lots to convey stormwater runoff where necessary. The easements shall be provided in the Site Plan and Final Plat.

10) Cross Slope on Trail shall not exceed 2%.

11) Development will have no impact on existing City of Franklin drainage facilities. All drainage to be treated on-site.

FLOODPLAIN MANIPULATION TABLE	
Floodplain Fill	= 181,000 c.y.
Floodplain Cut	= 190,000 c.y.

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION

DEVELOPMENT PLAN - REVISION 3

PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

DEWEY-ESTES ENGINEERING

KEVIN D. ESTES — LICENSED PROFESSIONAL ENGINEER — STATE OF TENNESSEE

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
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greggamble209@gmail.com
615.975.5765

rev.	date
1	December 4th, 2014

GCG Job No. 2012-04
November 10th, 2014

SHEET

C5.0

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
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FLOODPLAIN MANIPULATION TABLE

Floodplain Fill = 181,000 c.y.

Floodplain Cut = 190,000 c.y.

Proposed 100 Year Flood Plain Line (Floodway Fringe Overlay Zoning District)

Existing 100 Year Flood Plain Line (Floodway Fringe Overlay Zoning District)

Bio Retention Swale

Pedestrian Crossing

60' Stream Bufferyard

50' Sewer Line Easement

Sewer Easement

Parkland Easement

Parkland Dedication

35' Open Space Area for Walking Trail

30' Sewer Line Easement

Earthen Overflow Weir

Limits of Disturbance

Floodway Overlay Zoning District

INFORMAL OPEN SPACE

FORMAL OPEN SPACE

GRADING PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

WATER'S EDGE SUBDIVISION

DEVELOPMENT PLAN - REVISION 3

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

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C5.1

UTILITY PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	973.641.1963
CONTACT	ANDRE JAECKLE
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PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 230 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

BUILDING SQUARE FOOTAGE:	N/A
BUILDING HEIGHT:	2 STORY
LANDSCAPE SURFACE RATIO:	.71 (not including lots or ROW)
MINIMUM LANDSCAPE SURFACE RATIO:	.10
PARKING REQUIREMENTS:	SINGLE FAMILY DETACHED - 2 PER UNIT / COTTAGE HOME - 2 FOR THE FIRST BEDROOM 0.5 PER EACH ADDITIONAL BEDROOM
RESIDENTIAL DENSITY:	1.91
EXISTING TREE CANOPY:	41.87 AC
REQUIRED CANOPY PRESERVATION:	20.10 AC
PARKLAND (IF APPLICABLE):	GREENWAY DEDICATION
OPEN SPACE:	
FORMAL REQUIRED:	9.77 AC
FORMAL PROVIDED:	11.04 AC
INFORMAL REQUIRED:	19.56
INFORMAL PROVIDED:	104.89 AC
TOTAL REQUIRED:	29.32 AC
TOTAL PROVIDED:	115.93 AC

Notes:

1) Applicant will coordinate with city on location of Sewer Easements to accommodate new sewer collection lines to treatment plant.

2) With 373 total units in the development (241 single-family detached units and 132 single-family attached units) at 350 gallons per day usage, there will be 130,550 gallons per day usage for water and 130,550 gallons per day usage for sewer.

3) The applicant shall provide an easement for the City to access the proposed south treatment plant, which will be located behind this property. The applicant shall also be required to give notification to prospective buyers that this development will be adjacent to a wastewater treatment plant.

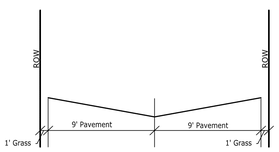
4) Applicant shall provide homes with residential sprinkler systems if 1,500 gallons per minute at 20 psi is not available at time of construction.

5) Site to be serviced by Gravity Sewer, no on-site Sewer Pump Station will be needed.

6) Within new developments and for off-site lines constructed as a result of, or to provide service to, the new development, all utilities, such as cable television, electrical (excluding transformers), gas, sewer, telephone and water lines shall be placed underground.

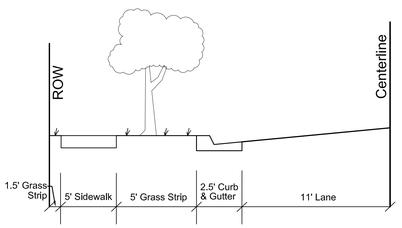
7) Location of Water Line and Fire Hydrants is approximate. True location of water line, fire hydrants, water valves, etc. to be designed by Milcrofton Utility District during sectional Site Plan phase of development.

8) Minimum 10' temporary construction easement shall be provided as needed on each side of permanent easement while utilities are being installed.



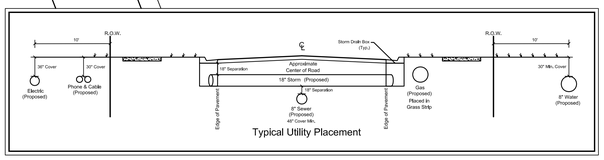
Alley Section
(20' R.O.W.)

N.T.S.



Roadway Section
(50' R.O.W.)

N.T.S.



Typical Utility Placement

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION
DEVELOPMENT PLAN - REVISION 3
PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

DEWEY-ESTES ENGINEERING

KEVIN D. ESTES — REGISTERED LANDSCAPE ARCHITECT — AGRICULTURE — COMMERCIAL — RESIDENTIAL — 101 — STATE OF TENNESSEE

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615.975.5765

rev.	date
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GCG Job No. 2012-04
November 10th, 2014

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C6.0

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
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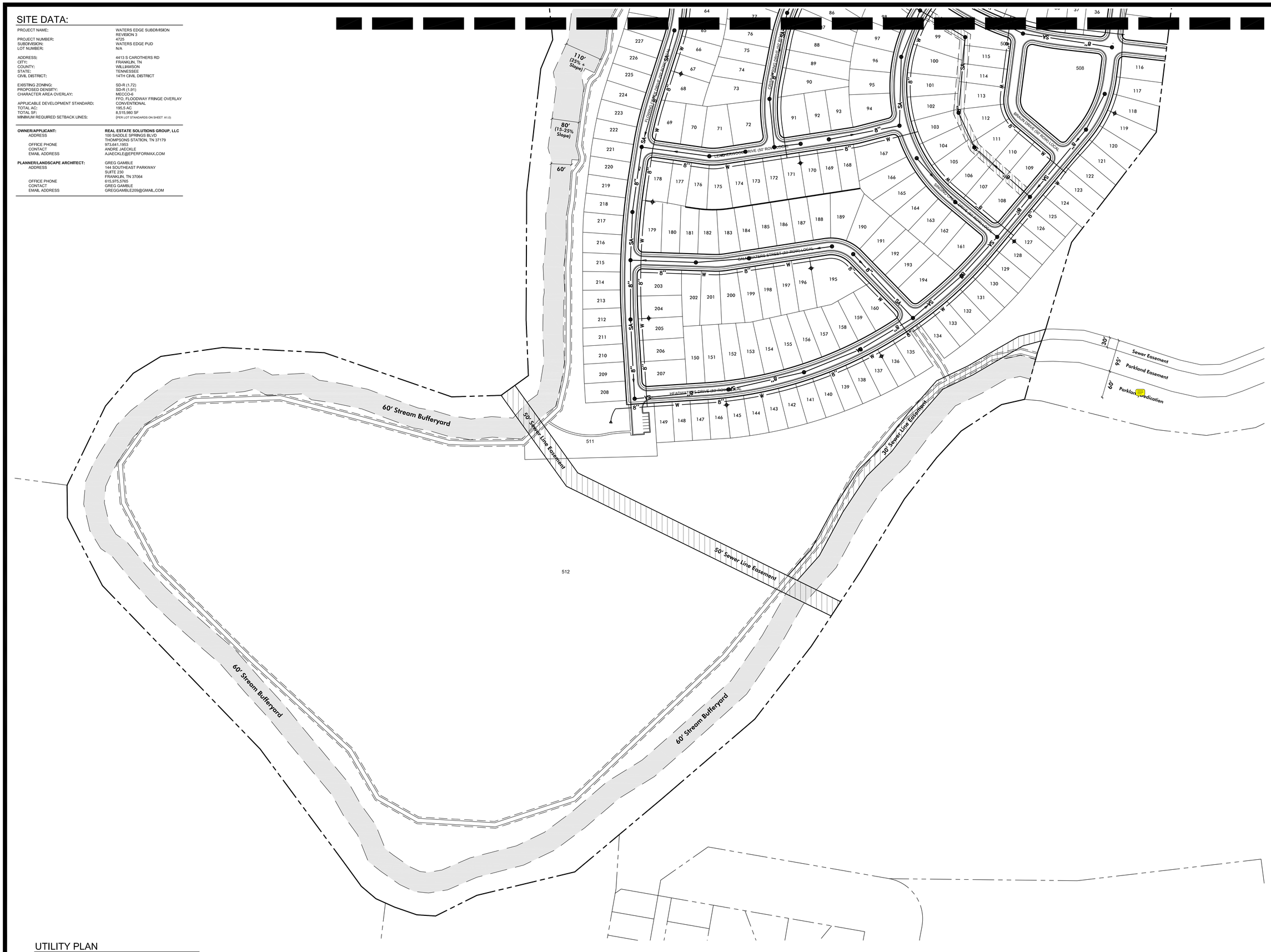

UTILITY PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

GDC

GAMBLE DESIGN COLLABORATIVE

DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBIVISION

DEVELOPMENT PLAN - REVISION 3

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

DEWEY-ESTES ENGINEERING

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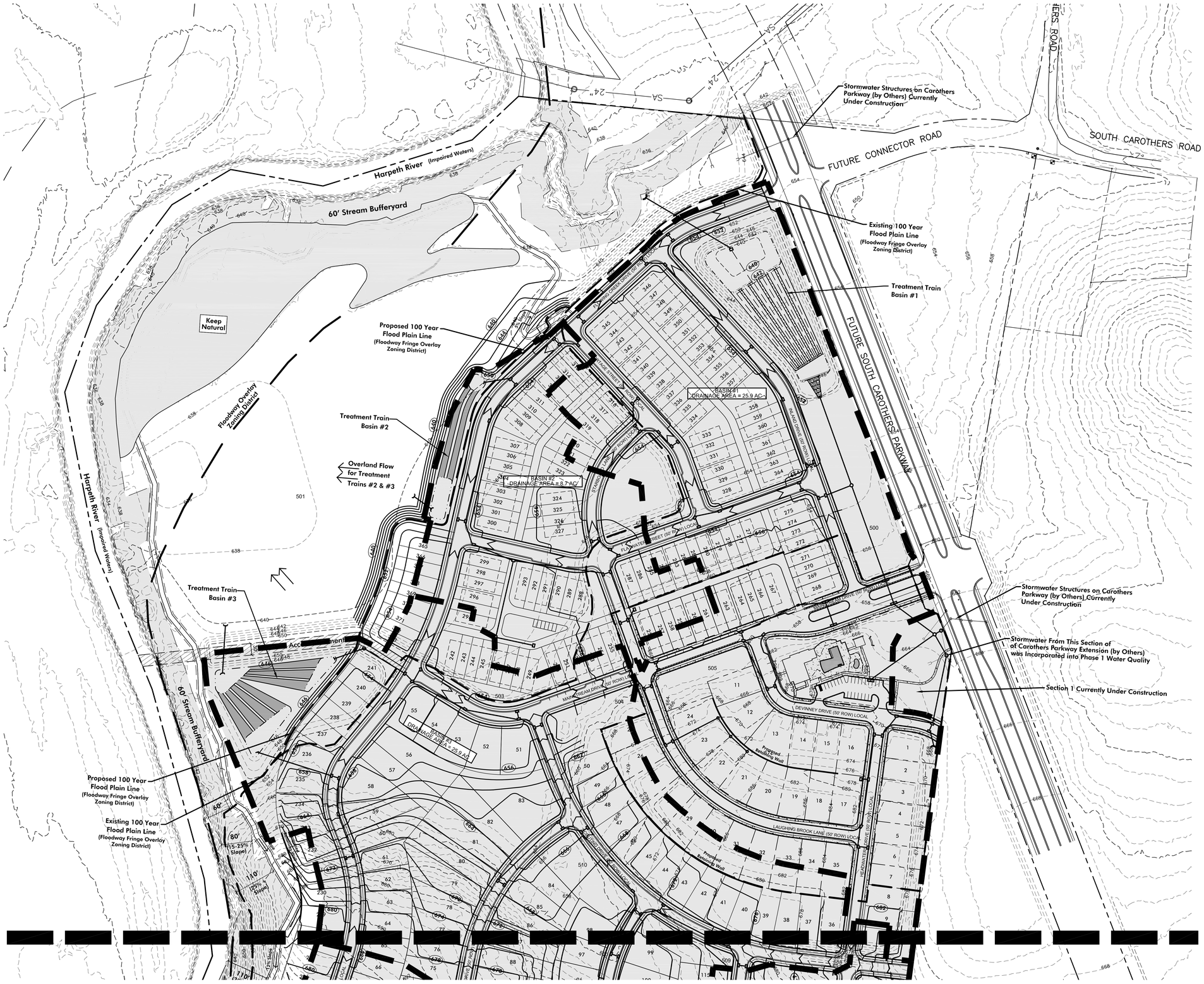

STORMWATER REGULATING PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6
	FFO, FLOODWAY FRINGE OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	973.641.1963
CONTACT	ANDRE JAECKLE
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PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
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OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

BUILDING SQUARE FOOTAGE:	N/A
BUILDING HEIGHT:	2 STORY
LANDSCAPE SURFACE RATIO:	.71 (not including lots or ROW)
MINIMUM LANDSCAPE SURFACE RATIO:	.10
PARKING REQUIREMENTS:	SINGLE FAMILY DETACHED - 2 PER UNIT / COTTAGE HOME - 2 FOR THE FIRST BEDROOM 0.5 PER EACH ADDITIONAL BEDROOM
RESIDENTIAL DENSITY:	1.91
EXISTING TREE CANOPY:	41.87 AC
REQUIRED CANOPY PRESERVATION:	20.10 AC
PARKLAND (IF APPLICABLE):	GREENWAY DEDICATION
OPEN SPACE:	
FORMAL REQUIRED:	9.77 AC
FORMAL PROVIDED:	11.04 AC
INFORMAL REQUIRED:	19.56
INFORMAL PROVIDED:	104.89 AC
TOTAL REQUIRED:	29.32 AC
TOTAL PROVIDED:	115.93 AC

PRELIMINARY STORMWATER MANAGEMENT SUMMARY

Treatment Train for Basin #1
Drainage Area = 25.9 Acres
Train will Consist of:
1) Filter Strip
2) Gravel Diaphragm
3) Bio Retention Cells
4) Dry Pond
Proposed TSS Goal = 85%

Treatment Train for Basin #2
Drainage Area = 8.7 Acres
Train will Consist of:
1) Filter Strip
2) Gravel Diaphragm
3) Bio Retention Cells
4) Dry Pond
Proposed TSS Goal = 85%

Treatment Train for Basin #3
Drainage Area = 25.9 Acres
Train will Consist of:
1) Filter Strip
2) Gravel Diaphragm
3) Bio Retention Cells
4) Dry Pond
Proposed TSS Goal = 85%

WATER QUALITY BASIN #1 SUMMARY:
DRAINAGE AREA: 25.9 AC TOTAL
-IMPERVIOUS: 13.3 AC
-GREEN: 12.2 AC
WQv REQUIRED: 29,710 CF
WQv PROPOSED: 44,250 CF

WATER QUALITY BASIN #2 SUMMARY:
DRAINAGE AREA: 8.7 AC TOTAL
-IMPERVIOUS: 4.9 AC
-GREEN: 3.8 AC
WQv REQUIRED: 9,900 CF
WQv PROPOSED: 11,000 CF

WATER QUALITY BASIN #3 SUMMARY:
DRAINAGE AREA: 25.9 AC TOTAL
-IMPERVIOUS: 14.2 AC
-GREEN: 11.7 AC
WQv REQUIRED: 31,820 CF
WQv PROPOSED: 44,500 CF

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION
DEVELOPMENT PLAN - REVISION 3
PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

DEWEY-ESTES ENGINEERING

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GCG Job No. 2012-04
November 10th, 2014

SHEET

C7.0

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	973.641.1953
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OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

PRELIMINARY STORMWATER MANAGEMENT SUMMARY

Treatment Train for Basin #4
Drainage Area = 35.1 Acres
Train will Consist of:
1) Bio-Retention Swales
2) Filter Strip
3) Gravel Diaphragm
4) Bio Retention Cells
5) Overland Flow

Proposed TSS Goal = 85%

WATER QUALITY BASIN #4 SUMMARY:
DRAINAGE AREA: 35.1 AC TOTAL
-IMPERVIOUS: 14.4 AC
-GREEN: 20.7 AC
WQv REQUIRED: 42,500 CF
WQv PROPOSED: 50,100 CF

STORMWATER REGULATING PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

GDC
GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBIVISION
DEVELOPMENT PLAN - REVISION 3
PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

DEWEY-ESTES ENGINEERING

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GCG Job No. 2012-04
November 10th, 2014

SHEET
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Typical Single Family Home Elevations

ARCHITECTURAL ELEVATION NOTES

1. These elevations have been designed to meet the requirements of the City of Franklin's architectural design standards and the approval of the Planning Commission/City of Franklin. Changes shall not be made to the approved elevations unless approved by either the Codes Director or the Planning Commission.

2. Elevations shown are typical for this development. Final design plans shall be submitted with the request for Building Permits and shall indicate compliance with the City of Franklin's architectural design standards; specifically the requirement for exposed foundations or water tables/elevated finished floors and garage door separation/maximum widths.

3. Single family detached homes are to be designed for lots of garage access for the front-facing street with attached garage.

4. One to two stories in height.

5. Materials include brick, simulated stone, cementatious siding and architectural shingles.

6. Garage is setback a minimum of 10 feet from the front facade.

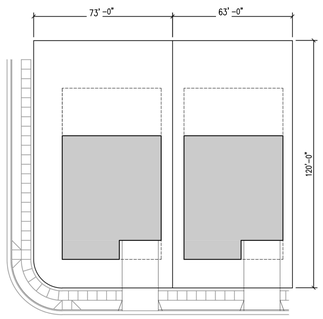
7. Garage doors shall be a minimum of 9 feet in width with a minimum separation (if two car garage is provided) by a minimum of 2 feet.

8. Homes shall have a foundation of 18" or more on the Front Elevation.

9. Garage Elevation is required to be no more than 50% of the dwelling unit facade.

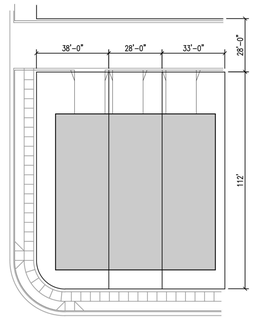
10. A minimum of 10 feet separation is required between buildings.

Typical Lot Standards



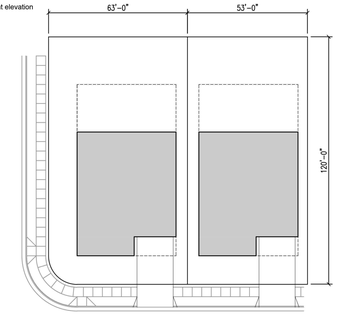
Single Family Detached A
Typical Lot: 63' x 130'
Setbacks: Front 15'
Side 5'
Side Street 15'
Rear 20'

Garage Recess: 10' from front elevation



Cottage Home
Typical Lot: 28' x 112'
Setbacks: Front 10'
Side (exterior walls) 5' / 10' between buildings
Side (shared walls) 0'
Side Street 10'
Rear 20'

Driveway length: 22' from alley travel way.



Single Family Detached B
Typical Lot: 53' x 130'
Setbacks: Front 15'
Side 5'
Side Street 15'
Rear 20'

Garage Recess: 10' from front elevation

Typical Cottage Home Elevations

ARCHITECTURAL ELEVATION NOTES

1. These elevations have been designed to meet the requirements of the City of Franklin's architectural design standards and the approval of the Planning Commission/City of Franklin. Changes shall not be made to the approved elevations unless approved by either the Codes Director or the Planning Commission.

2. Elevations shown are typical for this development. Final design plans shall be submitted with the request for Building Permits and shall indicate compliance with the City of Franklin's architectural design standards; specifically the requirement for exposed foundations or water tables/elevated finished floors and garage door separation/maximum widths.

3. Attached homes are to be designed for lots with garage access from the alley with attached garage.

4. One to two stories in height.

5. Materials include brick, simulated stone, cementatious siding and architectural shingles.

6. Homes shall have a foundation of 18" or more on the Front Elevation.

7. Garage Elevation is required to be no more than 50% of the dwelling unit facade.

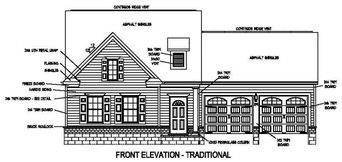
8. A minimum of 10 feet separation between buildings.

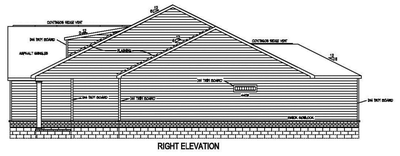
MODIFICATIONS OF STANDARDS REQUEST:

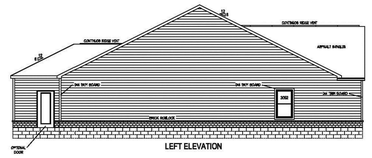
The applicant requests a modification of standards to Ordinance 5.3.5; 2-d-i, Garage Dimensions, to permit garage doors exceeding 9 feet in width on rear-loaded garages accessed from the alley.

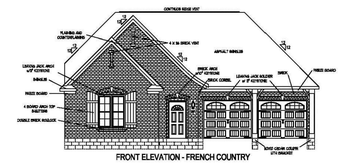
The home elevations shown here are representative of the homes planned for Water's Edge. They are the basis for design review by the City of Franklin at the time of building permit. Based on my professional experience, the plans presented meet or exceed the design standards set forth by the City of Franklin.

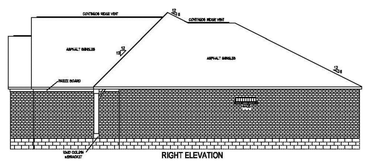
Greg Gamble, Registered Landscape Architect.

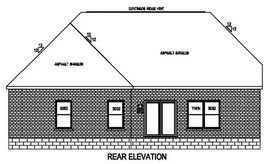












SAMPLE MID-BLOCK LOT PLAN

GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBDIVISION
DEVELOPMENT PLAN - REVISION 3

PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

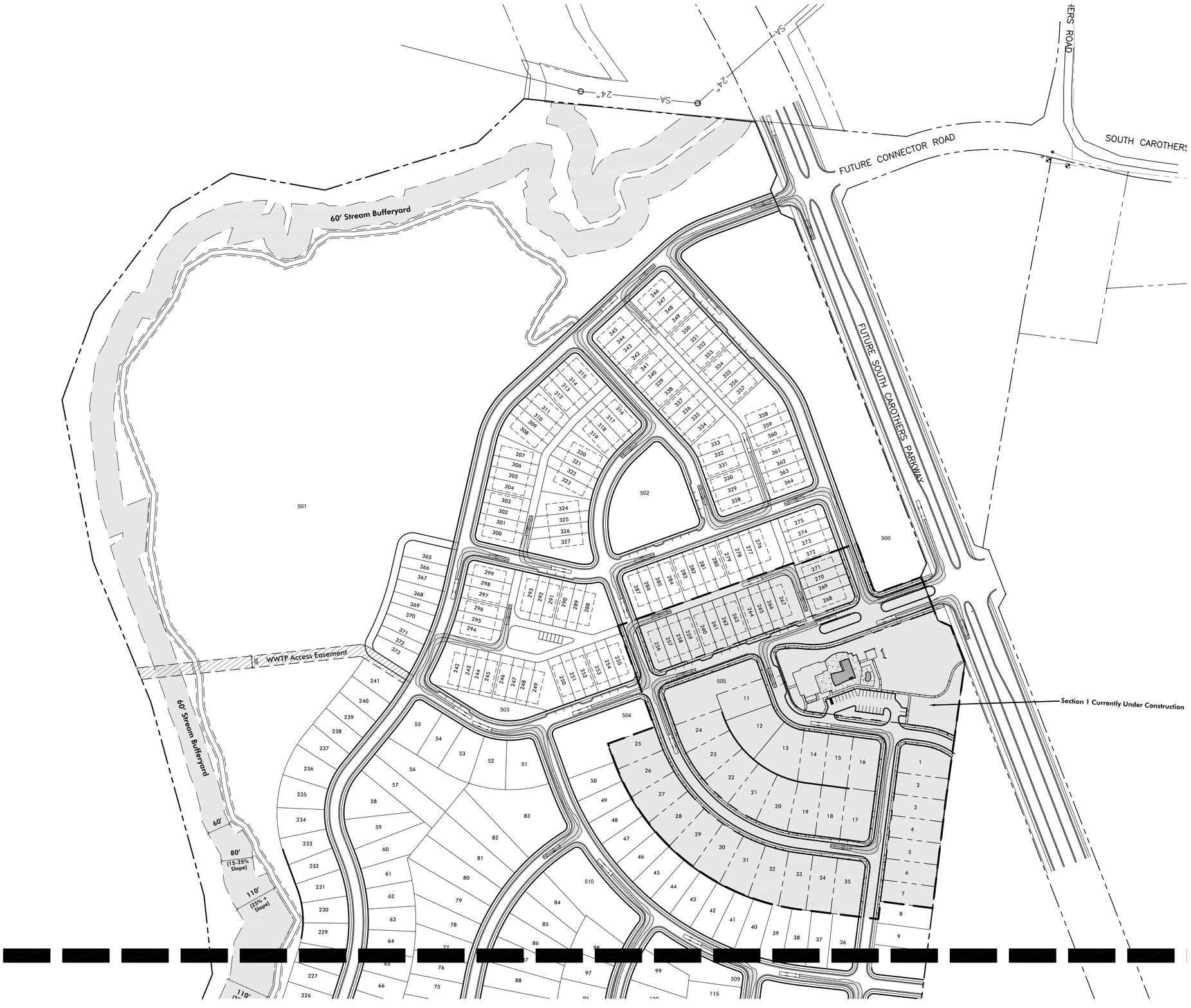
GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

rev.	date
1.	DEC. 4, 2014
△	
△	
△	

GCG Job No. 2012-04
November 10, 2014

SHEET
C8.0

COF # 4725



APPARATUS AUTOTURN PLAN

GRAPHIC SCALE 1"=100'

100 0 100 200 300

SITE DATA:

PROJECT NAME:	WATERS EDGE SUBDIVISION REVISION 3
PROJECT NUMBER:	4725
SUBDIVISION:	WATERS EDGE PUD
LOT NUMBER:	N/A
ADDRESS:	4413 S CAROTHERS RD
CITY:	FRANKLIN, TN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	14TH CIVIL DISTRICT
EXISTING ZONING:	SD-R (1.72)
PROPOSED DENSITY:	SD-R (1.91)
CHARACTER AREA OVERLAY:	MECCO-6 FFO, FLOODWAY FRINGE OVERLAY
APPLICABLE DEVELOPMENT STANDARD:	CONVENTIONAL
TOTAL AC:	195.5 AC
TOTAL SF:	8,515,980 SF
MINIMUM REQUIRED SETBACK LINES:	(PER LOT STANDARDS ON SHEET A1.0)

OWNER/APPLICANT:	**REAL ESTATE SOLUTIONS GROUP, LLC**
ADDRESS	100 SADDLE SPRINGS BLVD THOMPSONS STATION, TN 37179
OFFICE PHONE	973.641.1953
CONTACT	ANDRE JAECKLE
EMAIL ADDRESS	AJAECKLE@EPERFORMAX.COM
PLANNER/LANDSCAPE ARCHITECT:	GREG GAMBLE
ADDRESS	144 SOUTHEAST PARKWAY SUITE 230 FRANKLIN, TN 37064
OFFICE PHONE	615.975.5765
CONTACT	GREG GAMBLE
EMAIL ADDRESS	GREGGAMBLE209@GMAIL.COM

BUILDING SQUARE FOOTAGE:	N/A
BUILDING HEIGHT:	2 STORY
LANDSCAPE SURFACE RATIO:	.71 (not including lots or ROW)
MINIMUM LANDSCAPE SURFACE RATIO:	.10
PARKING REQUIREMENTS:	SINGLE FAMILY DETACHED - 2 PER UNIT / COTTAGE HOME - 2 FOR THE FIRST BEDROOM 0.5 PER EACH ADDITIONAL BEDROOM
RESIDENTIAL DENSITY:	1.91
EXISTING TREE CANOPY:	41.87 AC
REQUIRED CANOPY PRESERVATION:	20.10 AC
PARKLAND (IF APPLICABLE):	GREENWAY DEDICATION
OPEN SPACE:	
FORMAL REQUIRED:	9.77 AC
FORMAL PROVIDED:	11.04 AC
INFORMAL REQUIRED:	19.56
INFORMAL PROVIDED:	104.89 AC
TOTAL REQUIRED:	29.32 AC
TOTAL PROVIDED:	115.93 AC

Notes:

1) Based on the Franklin Fire Department's "Tower 2" Sutphen SP100 autoturn template.

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBIVISION
DEVELOPMENT PLAN - REVISION 3
PARCEL 49.00 ON TAX MAP 89
FRANKLIN, TENNESSEE

DEWEY-ESTES ENGINEERING

KEVIN D. ESTES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 108528
STATE OF TENNESSEE

GAMBLE DESIGN COLLABORATIVE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

rev. date
1 December 4th, 2014

GCG Job No. 2012-04
November 10th, 2014

SHEET
C9.0

SITE DATA:

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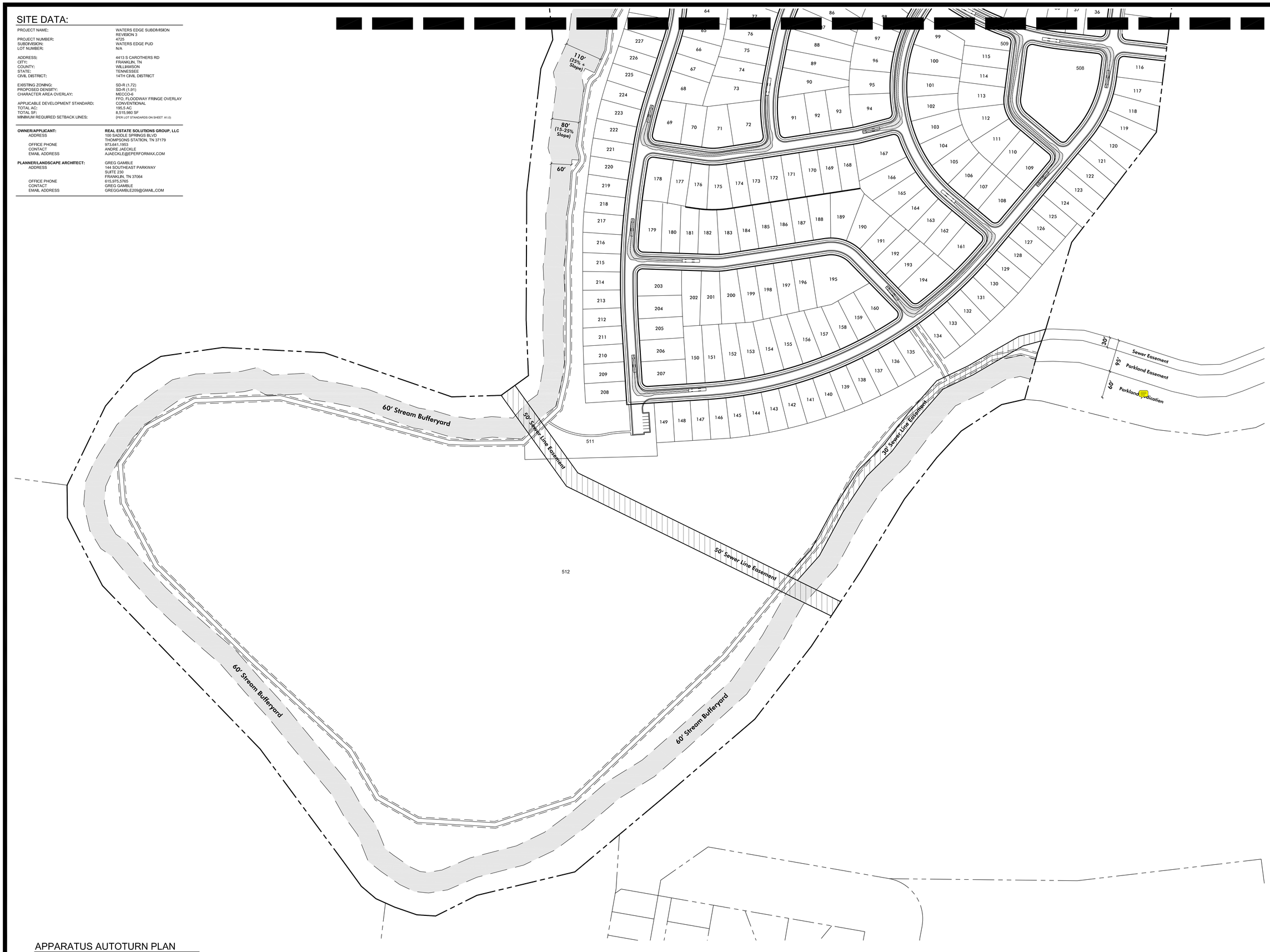

APPARATUS AUTOTURN PLAN

GRAPHIC SCALE 1"=100'

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GDC

GAMBLE DESIGN COLLABORATIVE

DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATER'S EDGE SUBIVISION

DEVELOPMENT PLAN - REVISION 3

PARCEL 49.00 ON TAX MAP 89

FRANKLIN, TENNESSEE

DEWEY-ESTES ENGINEERING

KEVIN D. ESTES REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 106878 STATE OF TENNESSEE

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1	December 4th, 2014
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GCG Job No. 2012-04
November 10th, 2014

SHEET

C9.1

COF# 4725

CONDITIONS OF APPROVAL:

Engineering - PUD Plan Checklist

General Comments

1. B. General Information

- The previous comment has not been addressed: "Applicant shall include Phasing schedule, including expected commencement date by phase, anticipated rate of development, and estimated date of completion by phase. Development milestones such as dwelling units, nonresidential building square footage, or significant off-site improvements are appropriate substitutions for dates."

The presentation of phase lines and breakdown of dwelling units per section are appreciated, but do not speak to the anticipated Phasing Schedule requested.

Parks

General Comments

2. parkland dedication

- Parks Dept. has received further information that if the HOA would take over control and maintenance of the trail and a warranty deed will not be needed. The easement shows public access. Parks Dept. will do a *landscape/parkland maintenance agreement* to satisfy all requirements.

Planning

General Comments

3. Post PC Development Plans

- **PROCEDURAL REQUIREMENTS:**

1. Fifteen (15) half-size copies of the Development Plan shall be submitted to the Department of Planning and Sustainability by 9am on the Monday after the Planning Commission meeting in order to be placed on the Board of Mayor and Aldermen agenda.
2. If the plan receives BOMA approval, the applicant shall upload the corrected plan to the online plan review website (https://franklin.contractorsplanroom.com/secure/) and submit one (1) complete and folded set and a .pdf file of corrected development plan to the Department of Building and Neighborhood Services (Suite 110, Franklin City Hall). All revisions to the approved plans shall be “clouded.” With the resubmittal, each condition of approval/open issue in the online plan review system shall contain a full response from the applicant as to the satisfaction or completion of that condition.
3. The city’s project identification number shall be included on all correspondence with any city department relative to this project.

4. Architecture

- Draft elevations are not being approved with the development plan. Detailed elevations must be provided at site plan stage and will be reviewed for consistency with Zoning Ordinance as part of site plan review process.

5. Post PC Development Plans

- The Post PC Development Plan shall be submitted and approved prior to approval of site plans. A copy of the Development Plan Sheet shall be included with the site plan submittal.

6. Site Plan/Site Layout page

- Sheets C3.0 and C3.1 are different. Please include the same updated plan for both sheets.

Zoning

Waters Edge Dev Plan REV 3_PreApp 9.26.2014.pdf

7. FWO

- A no rise certificate is required to be provided by a licensed engineer for the proposed encroachment in the floodway.

RESOLUTION 2014-98

A RESOLUTION APPROVING A DEVELOPMENT PLAN FOR WATER'S EDGE PUD SUBDIVISION, LOCATED AT 4413 SOUTH CAROTHERS ROAD, BY THE CITY OF FRANKLIN, TENNESSEE.

WHEREAS, The PUD process is a review procedure that is intended to encourage innovative land planning and design and avoid the monotony sometimes associated with large developments by:

(a) Reducing or eliminating the inflexibility that sometimes results from strict application of zoning standards that were designed primarily for individual lots;

(b) Allowing greater freedom in selecting the means to provide access, light, open space, and design amenities;

(c) Encouraging a sensitive design that respects the surrounding established land use character and natural or man-made features of the site including, but not limited to, trees, historic features, streams, hillsides, and floodplains;

(d) Promoting quality design and environmentally sensitive development by allowing development to take advantage of special site characteristics, locations, and land uses; and

(e) Allowing deviations from certain zoning standards that would otherwise apply if not contrary to the general spirit and intent of this ordinance.

WHEREAS, The PUD review process consists of a Development Plan that is reviewed and approved by the BOMA, after a recommendation from the FMPC.

NOW, THEREFORE, BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, meeting in regular session this _____ day of _____, 2015:

1. That the legal description of the property is as follows:

Map—Parcel	Acres
089—04900	195.5
TOTAL	**195.5**

PROPERTY DESCRIPTION
TRACT 1
MAP 89 OF PARCEL 49
Land located in the 14th civil district of Williamson County, Tennessee, and said tract of land being more particularly described by metes and bounds, as follows:

Commencing at an iron rod near the intersection of South Carothers Road and a future Connector Road thence in a Westerly direction 757.5 +/- feet to a point situated in the Westerly margin of South Carothers Parkway being the Northeast corner of the subject property. Said point also being the Southeast corner of South Carothers Partners, L.L.C. property record in Book 4877, Page 537, in the Register's Office for Williamson County, Tennessee; and being the Point of Beginning;

Thence, continuing with margin of said road with a curve to the right, having a Radius of 2799.79 feet, Delta angle of 02°22'43", Tangent of 58.13 feet, Arc Length of 116.24 feet, with a chord bearing of S 22°17'05" E, a chord distance of 116.23 feet to a point;
Thence, S 21°05'44" E, a distance of 28.94 feet to a point;
Thence, S 23°17'37" W, a distance of 40.24 feet to a point;
Thence, S 23°46'32" E, a distance of 66.77 feet to a point;
Thence, S 66°10'33" E, a distance of 35.35 feet to a point;
Thence, S 21°05'44" E, a distance of 934.66 feet to a point;
Thence, S 23°54'16" W, a distance of 35.36 feet to a point;
Thence, S 21°05'44" E, a distance of 120.00 feet to a point;
Thence, S 66°05'44" E, a distance of 35.36 feet to a point;
Thence, S 21°05'44" E, a distance of 99.92 feet to an iron rod found by Gresham Smith and being the Northeast corner for Thomas Helm, III property as recorded in Book 610, Page 344, in the Register's Office for Williamson County, Tennessee;

Thence, continuing with Helm Westerly property line S 07°54'52" W, a distance of 352.89 feet to an iron rod found by TN RLS# 2039;
Thence, S 06°58'02" W, a distance of 716.88 feet to a wood fence post;
Thence, S 37°24'01" W, a distance of 226.56 feet to a point;
Thence, S 37°45'27" W, a distance of 181.40 feet to a wood fence post;
Thence, S 16°37'42" W, a distance of 267.88 feet to a point;
Thence, S 19°19'11" W, a distance of 69.33 feet to a point;
Thence, S 15°25'57" W, passing a iron rod found near the top of bank at 84.61, for a total distance of 144.37 feet to a point on the center of the Big Harpeth River;

Thence, continuing with center of the Big Harpeth River S 77°10'59" W, a distance of 69.51 feet to a point;
Thence, S 56°45'56" W, a distance of 141.68 feet to a point;
Thence, S 42°32'18" W, a distance of 106.78 feet to a point;
Thence, S 37°57'39" W, a distance of 153.54 feet to a point;
Thence, S 31°12'57" W, a distance of 248.53 feet to a point;
Thence, S 33°19'26" W, a distance of 263.21 feet to a point;
Thence, S 37°47'22" W, a distance of 270.72 feet to a point;
Thence, S 49°22'29" W, a distance of 362.46 feet to a point;
Thence, S 49°58'17" W, a distance of 330.75 feet to a point;
Thence, S 76°32'23" W, a distance of 295.76 feet to a point;

Thence, S 63°23'31" W, a distance of 135.61 feet to a point;
Thence, N 86°18'24" W, a distance of 55.22 feet to a point;
Thence, N 70°56'26" W, a distance of 68.99 feet to a point;
Thence, N 65°42'45" W, a distance of 60.12 feet to a point;
Thence, N 49°40'15" W, a distance of 56.52 feet to a point;
Thence, N 35°59'03" W, a distance of 84.76 feet to a point;
Thence, N 36°27'38" W, a distance of 416.05 feet to a point;
Thence, N 43°59'01" W, a distance of 666.82 feet to a point;
Thence, N 27°13'05" W, a distance of 224.23 feet to a point;
Thence, N 00°43'11" W, a distance of 95.40 feet to a point;
Thence, N 25°52'04" E, a distance of 258.64 feet to a point;
Thence, N 40°17'13" E, a distance of 125.94 feet to a point;
Thence, N 58°35'03" E, a distance of 95.33 feet to a point;
Thence, N 81°48'03" E, a distance of 183.00 feet to a point;
Thence, S 87°03'59" E, a distance of 299.23 feet to a point;
Thence, S 70°51'36" E, a distance of 395.49 feet to a point;
Thence, N 88°14'15" E, a distance of 145.35 feet to a point;
Thence, N 54°07'33" E, a distance of 98.80 feet to a point;
Thence, N 02°19'56" W, a distance of 164.37 feet to a point;
Thence, N 00°16'11" E, a distance of 374.56 feet to a point;
Thence, N 06°30'23" E, a distance of 364.95 feet to a point;
Thence, N 22°23'50" E, a distance of 92.19 feet to a point;
Thence, N 06°01'34" W, a distance of 200.24 feet to a point;
Thence, N 15°21'48" W, a distance of 507.82 feet to a point;
Thence, N 22°19'29" W, a distance of 386.00 feet to a point;
Thence, N 10°54'14" W, a distance of 417.24 feet to a point;
Thence, N 20°03'52" E, a distance of 238.53 feet to a point;
Thence, N 36°52'05" E, a distance of 324.79 feet to a point;
Thence, N 59°01'42" E, a distance of 176.66 feet to a point;
Thence, S 79°52'03" E, a distance of 242.01 feet to a point;
Thence, N 72°49'49" E, a distance of 403.22 feet to a point;
Thence, N 46°43'32" E, a distance of 164.11 feet to a point and being the Southwesterly corner of South Carothers Partners, L.L.C. property record in Book 4877, Page 537, in the Register's Office for Williamson County, Tennessee;

Thence, leaving said river with South Carothers Partners, L.L.C. southerly property line S 84°14'52" E, passing a iron rod found by TN RLS# 2036 at 72.48 feet for a total distance of 589.21 feet to The Point of Beginning and containing 8,515,833.530 square feet or 195.497 acres of land;

Being a portion of the same property conveyed to Carothers Land Company, L.L.C. of record in Book 4745, Page 442, in the Register's Office for Williamson County, Tennessee;

2. That the overall entitlements for Water's Edge PUD Subdivision are as follows:

Entitlements	Water's Edge PUD Subdivision (Overall)
Base Zone	Specific Development Residential (SD-R 1.91)
Character Area Overlay	McEwen Character Area Overlay (MECO) 6
Other Zoning Overlays	FWO; FFO
Number of Dwelling Units	373 (241 detached and 132 attached)
Number of Nonresidential Square Footage	N/A
Connectivity Index	1.58
Development Standard	Conventional
Open Space Requirements	Formal: 11.04 acres Informal: 105.02 acres Total: 116.06 acres

3. That the Development Plan, the exhibits accompanying the Development Plan, and all conditions and restrictions placed upon the Development Plan by the Franklin Municipal Planning Commission and this Board shall be made a part of this Resolution as though copied verbatim herein, and that a permanent record of the Development Plan, the exhibits accompanying the Development Plan, and all such conditions and restrictions shall be kept in the Franklin Planning Department.

4. That this Resolution shall take effect from and after its passage on its first and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST:

BY: _____
ERIC STUCKEY
CITY ADMINISTRATOR

CITY OF FRANKLIN, TENNESSEE

BY: _____
DR. KEN MOORE
MAYOR

PREAPPLICATION CONFERENCE: 10/9/14

CONCEPTUAL PROJECT WORKSHOP: 10/23/14

REQUIRED NEIGHBORHOOD MEETING: 10/29/14

PLANNING COMMISSION RECOMMENDED APPROVAL:

BOMA PASSED/PUBLIC HEARING HELD:

ORDINANCE 2014-37

AN AMENDMENT TO THE ZONING ORDINANCE TO REMOVE SECTION 2.4.2 (11) ENTITLED "AMENDMENTS OR REVISIONS TO AN APPROVED PLANNED UNIT DEVELOPMENT (PUD), CONCEPT PLAN OR PUD REGULATING PLAN" AND SECTION 2.4.2 (12) ENTITLED "PUDs APPROVED BETWEEN JULY 1, 2008 AND JANUARY 10, 2012" AND TO REPLACE WITH A NEW SECTION 2.4.2 (11) TO BE ENTITLED, "AMENDMENTS OR REVISIONS TO AN APPROVED PUD DEVELOPMENT PLAN, CONCEPT PLAN OR REGULATING PLAN," AND TO RENUMBER SUCCESSIVE SECTIONS ACCORDINGLY

WHEREAS, the City of Franklin, Tennessee encourages unique, innovative, and sustainable development through the PUD process; and

WHEREAS, the City of Franklin, Tennessee approves development plans associated with PUD to assure quality development; and

WHEREAS, the City of Franklin, Tennessee has a specific process prescribed by the Zoning Ordinance for approval of development plans; and

WHEREAS, circumstances can require certain sections, provisions, or conditions of approved development plans be revised after approval; and

WHEREAS, Zoning Ordinance Section 2.4.2 (11) and Section 2.4.2 (12) has provided the regulations for such amendments but needs more detail; and

WHEREAS, greater clarification will make the process more predicable for the FMPC, BOMA, the applicant and staff; and

WHEREAS, staff sought input from the development community at a Design Professional meeting and FMPC/BOMA at a Joint Conceptual meeting; and

WHEREAS, the proposed Zoning Ordinance Amendment for approving revisions to development plans provides the BOMA, FMPC, staff and the applicant more specific guidance related to the process and entity responsible for review and approval.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMEN OF FRANKLIN, TENNESSEE, AS FOLLOWS:

SECTION I. That Chapter 2, Section 2.4.2 (11) and (12), of the Franklin Zoning Ordinance is hereby amended to delete the following text noted with a ~~strikethrough~~; and to add the following text noted in **bold,** with all successive sections being renumbered accordingly**.**

(11) Amendments or Revisions to an Approved PUD Development Plan, Concept Plan or PUD Regulating Plan

~~The following subsections provide the framework for revisions or amendments to Concept Plans, Regulating Plans, or Development Plans. For those Concept Plans approved prior to July 1, 2008, Subsection 2.4.2(11) (a) shall be the governing review process, as they were originally approved by BOMA, with review from the FMPC. For Concept Plans or Regulating Plans approved between July 1, 2008 and January 10, 2012, either subsection 2.4.2(11)(a) or 2.4.2(11)(b) shall apply, depending on the elements of the development proposed for revision (for example, Subsection 2.4.2(11)(a) would be the governing review process for an increase to the overall entitlements, while Subsection 2.4.2(11)(b) would be the governing review process for a change in the overall block-structure of a development).~~

~~(a) Franklin Municipal Planning Commission and BOMA Review~~

~~The items below, in each case, are considered deviations from a Development Plan or Concept Plan of record and require approval of a revised Development Plan by the FMPC and the BOMA, according the procedure described in Subsection 2.4.2(6), above. These items relate to the overall entitlements for a development. These items are:~~

- ~~(i) The total gross amount of open space is decreased by more than 10%. However, all plans shall provide, at a minimum, the amount of open space required by the Franklin Zoning Ordinance.~~
- ~~(ii) The number of external access points, the street network, or streets identified in the Major Thoroughfare Plan are substantially changed and impacts the project, as approved.~~
- ~~(iii) The revised plan must be submitted if there is a change to a BOMA condition that impacts the physical character of the development. For example, a change to a specific condition regarding placement/materials of an aspect of the construction. If the condition does not address a construction related condition for example a condition for monetary set-aside, only the request need be considered.~~
- ~~(iv) Any revision that requires a Modification of Standards or that requires a change to a Modification of Standards previously approved for the development. However, Design Modifications, as described in Section 5.3.11 of the Franklin Zoning Ordinance, may be granted by the FMPC as part of the Development Plan or Site Plan review process.~~

~~(b) Franklin Municipal Planning Commission Review~~

~~The items below, in each case, are considered deviations from a Development Plan, Concept Plan, or Regulating Plan of record and require approval of a revised Development Plan by the FMPC. These items relate to the conceptual layout of a development. A Development Plan shall not be submitted in conjunction with a site plan. These items are:~~

(i) ~~Any increase in density or intensity of more than 10%, or the number of stories is changed within a particular phase of the development and such revision impacts a particular aspect of the project established by the Development Plan.~~

(ii) ~~Any removal of specimen trees shown as preserved on the Concept Plan/Regulating Plan; the removal of trees that establish a desired buffer for particular resources, such as historic resources, water bodies or adjacent properties. Removal of trees shall in any event require replacement trees according to Section 5.2.5(7) of the Franklin Zoning Ordinance.~~

(iii) ~~A reduction of more than 10% in open space within a section of development that alters the character of the development in that section. For example, a reduction in the overall number of pocket parks in one of the residential sections of a development.~~

(iv) ~~Any impact to existing historic structures or sites.~~

(v) ~~Any revisions to drainage, streets, or other engineering design changes that alter items approved in the Concept Plan, including significant changes in traffic circulation.~~

(vi) ~~Any change that could potentially create adverse impacts on stormwater quality or quantity management.~~

(vii) ~~Changes to the internal street network or block layout, such as the elimination of streets or connection points.~~

~~Any revision or amendment that meets any of the items in Subsection 2.4.2(11) (b) (I-viii), above, shall follow the following review and approval procedure:~~

~~Step 1 – Department of Planning and Sustainability Review and Recommendation on the Development Plan~~

~~(1) The applicant shall meet with the Department of Planning and Sustainability and other departments, as appropriate, for a preapplication conference unless waived in accordance with Subsection 2.3.6, Waiver of Required Meetings.~~

~~(2) The Department of Planning and Sustainability shall organize and conduct a meeting of the DRT to review the Development Plan pursuant to the deadlines described in the Administrative Manual.~~

~~(3) The applicant shall submit an application in accordance with Section 2.3, Common Development Review Requirements.~~

~~(4) If the applicant fails to submit an application within 120 days of the preapplication conference, the applicant shall be required to begin the review procedure again from the Step 1 (1), above.~~

(5) The Department of Planning and Sustainability shall make available, in writing via checklist, checkprint or memo, all comments and recommendations from the DRT to the applicant.

(6) From the date of receipt of the DRT comments, the applicant shall have until the deadline established in the Administrative Manual to address the comments and submit a revised Development Plan.

(7) Upon submittal of a revised Development Plan, the Department of Planning and Sustainability shall prepare a final review of the Development Plan by the deadline established in the Administrative Manual, and recommend to the FMPC the approval, approval with modifications, or disapproval of the Development Plan application. The Department of Planning and Sustainability may also recommend the continuance of the matter to allow for further review.

Step 2 – FMPC Review and Decision on the Development Plan

(1) The FMPC shall hold a public meeting by the date established in the FMPC Bylaws and the Administrative Manual.

(2) The FMPC shall review, hear, and make the final decision on all applications for a Development Plan application in accordance with this ordinance, state law, and the FMPC Bylaws.

(3) The FMPC shall make a decision on the Development Plan in accordance with this ordinance and state law.

(4) Upon approval of the Development Plan by the FMPC, site plan review shall be required, in accordance with Subsection 2.4.3, Site Plan Review.

(c) Staff Review

The items below, in each case, are considered deviations from a Development Plan, Concept Plan, or Regulating Plan of record and may be approved by the Director of Planning and Sustainability. The Director of Planning and Sustainability or his/her designee may at his/her discretion choose to forward any change to the DRT and/or FMPC for review.

(i) There are changes in open space, which do not reduce the amount by more than 10% and do not alter the character of the development.

(ii) There are changes in density or intensity that are less than 10%, which do not alter the character of the development.

(iii) There are parking changes or other minor engineering revisions that do not impact the character of the project.

(iv) There are minor changes to the street network, which do not impact the character of the development.

~~A revision or amendment that meets any of the items in Subsection 2.4.2(11) (c) (I-iv), above, shall submit the revision or amendment to staff and the approval of the revision or amendment shall be listed on the Administrative Agenda.~~

(12) ~~PUDs Approved Between July 1, 2008 and January 10, 2012~~

~~For any PUD Concept Plan or Regulating Plan approved between July 1, 2008 and January 10, 2012, the following review procedure shall apply:~~

~~(a) Concept Plans that are to be amended or revised shall follow the process and procedure, as described in Subsection 2.4.2(11) (a), above.~~

~~(b) Concept Plans which do not have approved Regulating Plans for all Sections or Phases within the PUD which have Sectioned or Phased Regulating Plans shall follow the process and procedure as described in Subsection 2.4.2(11)(b), above for approval of those unapproved sections or phases.~~

~~(c) Concept Plans that have not submitted any Regulating Plans for a PUD shall follow the process and procedure as described in Subsection 2.4.2(11)(b), above.~~

2.4.2 (11) Amendments for Revisions to an Approved PUD, Concept Plan or Regulating Plan – January 1, 2000 to December 31, 2014

The following subsections provide the framework for revisions or amendments to Concept Plans, Regulating Plans, or Development Plan. The review process, which applies to the proposed revision, depends upon the elements of the plan proposed for revision. The below sections define the process and the reviewing entity for different types of revisions.

(A) Board of Mayor and Aldermen (BOMA) and Franklin Municipal Planning Commission (FMPC) Review

The items below are considered deviations from the Development Plan, Concept Plan or Regulating Plan and require approval of a revised Development Plan by the FMPC and the BOMA, according to the procedure described in 2.4.2(6). The Development Plan shall be approved before the Site Plan is accepted for review.

I. Any Increase in entitlements, including the number of dwelling units for residential projects and square footage for non-residential or either for mixed use projects.

II. Changes or increase from detached to attached dwelling unit(s).

III. Changes in non-residential square footage related to the institutional and/or industrial use.

IV. A change in the number and/or location of external access points, or streets classified as collector or arterial roadways.

V. Revisions to the widths or lengths of provided buffers (historic, incompatible use, incompatible lot size, stormwater, etc.).

VI. Any revision to a condition required by the BOMA.

VII. Any revision that requires a Modification of Standards (MOS) or that requires a change to an MOS previously approved.

(B) FMPC Review

The items below are considered deviations from the Development Plan, Concept Plan or Regulating Plan and require approval of a revised Development Plan by the FMPC. The Development Plan shall be approved before the Site Plan is accepted for review.

I. Changes to setbacks approved as part of the Development Plan, which change the character of the project.

II. Major changes to typical lots in either dimension and/or number of lots revised in a section or throughout the development.

III. Reduction in approved open space within a section of the plan, which impacts the plan.

IV. Changes in building heights, or number of stories, which impact the visual character or transitional features of the section or plan.

V. Significant changes to the internal street network, block layout, and/or intersection configuration, such as the elimination of streets or connection points, or any reduction to the connectivity index.

VI. Any impact to existing historic sites or structures, other than impacts previously approved.

VII. Major changes to parking layout, which adversely alters parking convenience or changes the character of the plan.

VIII. Substantial revision to drainage, streets, stormwater quality or quantity or other engineering design changes that alter those items as approved in the Development Plan, including significant changes in traffic circulation.

(C) Staff Review

Items not meeting the criteria of Subsections 2.4.2 (11) (a) and (b) may be addressed according to the provisions of this subsection related to staff review. These items are

considered minor in nature and have minimal impact upon the project. For staff review, the revised Development Plan shall be submitted simultaneously with a revised Site Plan for staff approval.

The Planning Director or his/her designee may at his/her discretion choose to forward any revised Development Plan to the BOMA, the FMPC or the Department Review Team (DRT) for review, comment and approval.

Should the Planning Director or his/her designee require the revised Development Plan be considered by FMPC and/or the BOMA, the submittal requirements for those entities shall apply.

2.4.2 (12) Amendments for Revisions to Development Plans, Site Plans, Preliminary Plats approved after January 1, 2015,

Amendments to Development Plans, Site Plans and Preliminary Plats approved after January 1, 2015, will meet the criteria set forth in the State of Tennessee Vesting Property Rights Act of 2014, Section 1, (h) (l), addressing amendments.

An amendment to an approved development plan by the developer must be approved by the Board of Mayor and Aldermen to retain the protections of the vested property right.

An amendment may be denied based upon a written finding by the local government that the amendment:

(A) Alters the proposed use;

(B) Increases the overall area of the development;

(C) Alters the size of any nonresidential structures included in the development plan;

(D) Increases the density of the development so as to affect traffic, noise or other environmental impacts, or

(E) Increases any local government expenditure necessary to implement or sustain the proposed use.

(2) If an amendment is denied by the Board of Mayor and Aldermen based upon such a written finding, then the applicant may either proceed under the prior approved plan with the associated vested property right or, alternatively, allow the vested property right to terminate and submit a new application under this section. Notwithstanding this subsection (h), a vested property right shall not terminate if the Board of Mayor and Aldermen determines, in writing, that it is in the best interest of the community to allow the development to proceed under the amended plan without terminating the vested property rights.

(3) Staff will review all amendments requested by developer(s) and approve those with minor changes not impacting the development and meeting the criteria of the Vesting Property Rights Act of 2014. Staff will forward to the Board

of Mayor and Aldermen all requests for amendments to project approved after January 1, 2015, that contain changes related to 2.4.2 (12) (1) (A) through E.

SECTION II. BE IT FINALLY ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Ordinance shall take effect from and after its passage on third and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST:

By: _____

Eric Stuckey

City Administrator/Recorder

CITY OF FRANKLIN, TENNESSEE:

By: _____

Dr. Ken Moore

Mayor

PLANNING COMMISSION RECOMMENDED:

PASSED FIRST READING:

DEFERRED SECOND READING:

PASSED SECOND READING:

PUBLIC HEARING HELD:

PASSED THIRD READING:

ORDINANCE 2014-42

TO BE ENTITLED "AN ORDINANCE TO REZONE 17.29 ACRES FROM GENERAL COMMERCIAL DISTRICT (GC) AND GENERAL OFFICE DISTRICT (GO) TO SPECIFIC DEVELOPMENT-VARIETY DISTRICT (SD-X 3.39/68,961) FOR PROPERTY LOCATED AT 1127 MURFREESBORO ROAD"

WHEREAS, the City of Franklin, Tennessee encourages responsibly placed density and appropriate base zoning districts for multiple kinds of projects; and

WHEREAS, the proposed SD-X zone would allow for residential and assisted living development with the maximum residential density and assisted living square footage specified.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMAN OF FRANKLIN, TENNESSEE, AS FOLLOWS:

SECTION I: The following described properties shall be, and are hereby, rezoned from their present zoning classification of General Commercial District (GC) and General Office District (GO) to Specific Development-Variety District (SD-X 3.39/68,961):

LOT 8

Beginning at a southeasterly corner of Lot 9 of the Williamson Square Subdivision Final Plat, Revision Two, Resubdivision of Lot 8, of record in Book 29, Page 10 in the Register's Office for Williamson County, Tennessee, said point also being the southeasterly corner of the herein described Lot 8 of the Williamson Square Subdivision Final Plat, Revision Two, Resubdivision of Lot 8, of record in Book 29, Page 10 in said Register's Office and the point of beginning:

thence North 82 degrees 05 minutes 33 seconds West, a distance of 341.75 feet

to a point; thence North 52 degrees 20 minutes 18 seconds West, a distance of

166.70 feet to a point;

thence with a curve turning to the right with an arc length of 95.59 feet, having a radius of 299.83 feet, a chord bearing of North 49 degrees 55 minutes 02 seconds East, and a chord length of 95.19 feet;

thence North 59 degrees 02 minutes 35 seconds East, a distance of 81.00 feet to a point;

thence with a curve turning to the right with an arc length of 30.45 feet, having a radius of 25.00 feet, a chord bearing of South 84 degrees 23 minutes 08 seconds East, and a chord length of 28.60 feet;

thence South 49 degrees 29 minutes 34 seconds East, a distance of 130.69 feet to

a point; thence South 51 degrees 16 minutes 49 seconds East, a distance of

202.21 feet to a point;

thence South 48 degrees 30 minutes 32 seconds East, a distance of 56.84 feet to a point to the point of beginning, having an area of 52,941.69 square feet or 1.215 acres of land.

LOT 9

Beginning at the southwesterly corner of Lot 7 of the Williamson Square Subdivision, Resubdivision of Lot 6, Revision 1, of record in Plat Book 26, Page 43, in the Register's Office for Williamson County, Tennessee, said point also being a southwesterly corner of the herein described Lot 9 of the Williamson Square Subdivision Final Plat, Revision Two, Resubdivision of Lot 8, of record in Book 29, Page 10 in said Register's Office and the point of beginning:

thence North 82 degrees 45 minutes 24 seconds West, a distance of 236.34 feet

to a point; thence North 07 degrees 49 minutes 08 seconds East, a distance of

327.12 feet to a point; thence North 07 degrees 37 minutes 14 seconds East, a

distance of 307.47 feet to a point; thence South 82 degrees 07 minutes 24

seconds East, a distance of 1254.21 feet to a point thence South 07 degrees 37

minutes 50 seconds West, a distance of 300.42 feet to a point; thence South 07

degrees 43 minutes 12 seconds West, a distance of 461.67 feet to a point;

thence North 82 degrees 05 minutes 33 seconds West, a distance of 103.25 feet to a point; thence North 48 degrees 30 minutes 32 seconds West, a distance of 56.84 feet to a point; thence North 51 degrees 16 minutes 49 seconds West, a distance of 202.21 feet to a point; thence North 49 degrees 29 minutes 34 seconds West, a distance of 130.69 feet to a point;

thence with a curve turning to the left having an arc length of 30.45 feet, with a radius of 25.00 feet, a chord bearing of North 84 degrees 23 minutes 08 seconds West, and a chord length of 28.60 feet;

thence South 59 degrees 02 minutes 35 seconds West, a distance of 81.00 feet to a point;

thence with a curve turning to the left having an arc length of 95.59 feet, with a radius of 299.83 feet, a chord bearing of South 49 degrees 55 minutes 02 seconds West, and a chord length of 95.19 feet;

thence North 52 degrees 20 minutes 18 seconds West, a distance of 34.80 feet to a point; thence North 27 degrees 57 minutes 23 seconds East, a distance of 31.64 feet to a point;

thence with a curve turning to the right having an arc length of 4.67 feet , with a radius of 8.17 feet , a chord bearing of North 44 degrees 20 minutes 21 seconds East, and a chord length of 4.61 feet;

thence North 60 degrees 43 minutes 18 seconds East, a distance of 132.00 feet to a point;

thence with a curve turning to the left having an arc length of 64.05 feet, with a radius of 50.00 feet, a chord bearing of North 24 degrees 01 minutes 20 seconds East, and a chord length of 59.76 feet;

thence with a reverse curve turning to the right having an arc length of 91.24 feet, with a radius of 195.02 feet , a chord bearing of North 00 degrees 43 minutes 41 seconds East, a chord length of 90.41 feet;

thence North 14 degrees 07 minutes 59 seconds East, a distance of 187.66

feet to a point; thence North 82 degrees 09 minutes 38 seconds West, a

distance of 543.47 feet to a point;

thence South 07 degrees 52 minutes 37 seconds West, a distance of 416.67 feet to a point the point of beginning having an area of 596,027.47 square feet or 13.683 acres of land.

LOT 10

Beginning at the southeasterly corner of Lot 7 of the Williamson Square Subdivision, Resubdivision of Lot 6, Revision 1, of record in Plat Book 26, Page 43, in the Register's Office for Williamson County, Tennessee, said point also being the northeasterly corner of the herein described Lot 10 of the Williamson Square Subdivision Final Plat, Revision Two, Resubdivision of Lot 8, of record in Book 29, Page 10 in said Register's Office and the point of beginning:

Thence South 27 degrees 57 minutes 23 seconds West, a distance of 31.64

feet to a point; thence South 70 degrees 17 minutes 36 seconds West, a

distance of 405.79 feet to a point;

thence North 82 degrees 05 minutes 33 seconds West, a distance of 275.00 feet to a point; thence North 07 degrees 44 minutes 26 seconds East, a distance of 214.91 feet to

a point; thence South 82 degrees 45 minutes 24 seconds East, a distance of

236.34 feet to a point;

thence South 82 degrees 06 minutes 55 seconds East, a distance of 409.72 feet to the point of beginning, having an area of 104,235.36 square feet or 2.393 acres of land.

Zoning Reference Number: 14-08:

Map-Group-Parcel	Acres
079G-B00601	±1.22
079G-B00603	±13.68
079G-B00604	±2.39
TOTAL	±17.29

SECTION II: BE IT FINALLY ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Ordinance shall take effect from and after its passage on third and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST:

BY: _____
ERIC S. STUCKEY
CITY ADMINISTRATOR/RECORDER

CITY OF FRANKLIN, TENNESSEE

BY:_____
DR. KEN MOORE
MAYOR

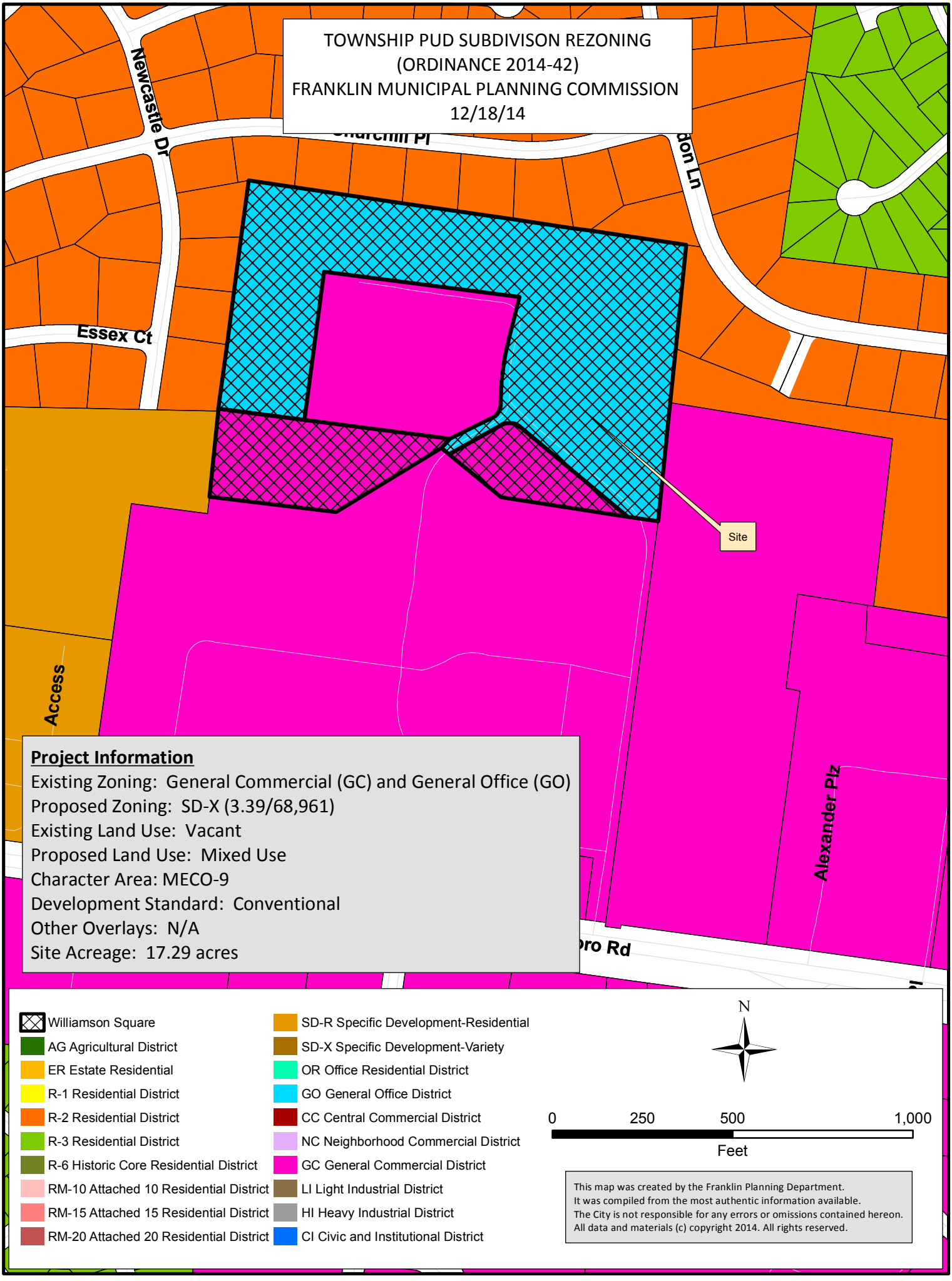
PLANNING COMMISSION RECOMMENDED APPROVAL:

PASSED FIRST READING:

PUBLIC HEARING HELD:

PASSED SECOND READING:

PASSED THIRD READING:


TOWNSHIP PUD SUBDIVISON REZONING
(ORDINANCE 2014-42)
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Newcastle Dr
Essex Ct
Site
Access
Alexander Plz
Project Information
Existing Zoning: General Commercial (GC) and General Office (GO)
Proposed Zoning: SD-X (3.39/68,961)
Existing Land Use: Vacant
Proposed Land Use: Mixed Use
Character Area: MECO-9
Development Standard: Conventional
Other Overlays: N/A
Site Acreage: 17.29 acres
Williamson Square
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0
250
500
1,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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SERENA
REZONING PLAN

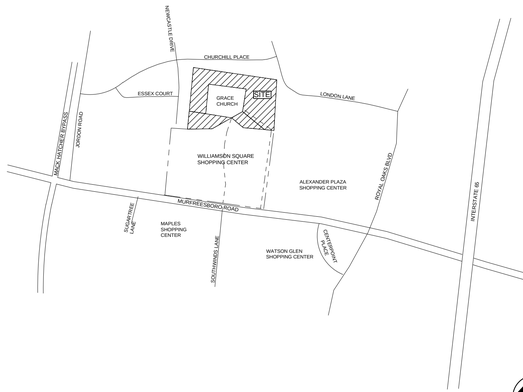
1127 MURFREESBORO ROAD
WILLIAMSON SQUARE COMMERCIAL CENTER
MAP 79G GRP "B" PARCELS 6.01-6.03-6.04

OWNER / DEVELOPER
J.D. EATHERLY
1720 W. END AVENUE
NASHVILLE, TN 37203
EMAIL: serena@vastland.com
PHONE: (615) 329-1720

LANDSCAPE ARCHITECT / PLANNER JOB NO. 14007
GAMBLE DESIGN COLLABORATIVE, LLC
144 SOUTHEAST PARKWAY, SUITE 200
FRANKLIN TN 37064
CONTACT: GREG GAMBLE, RLA
EMAIL: greggamble209@gmail.com
PHONE: (615) 975-5765

CIVIL ENGINEER / SURVEYOR:
DALE AND ASSOCIATES
516 HEATHER PLACE
NASHVILLE, TENNESSEE 37204
CONTACT: MICHAEL GARRIGAN
EMAIL: michael@daleandassoicates.com
PHONE: (615) 297-5166

ARCHITECT
LON RABY, ARCHITECT
201A WOODMONT CIRCLE
NASHVILLE, TN 37205
EMAIL: LFR2501@comcast.net
PHONE: (615) 479-7040



VICINITY MAP

SCALE 1" = 1000'

SHEET INDEX

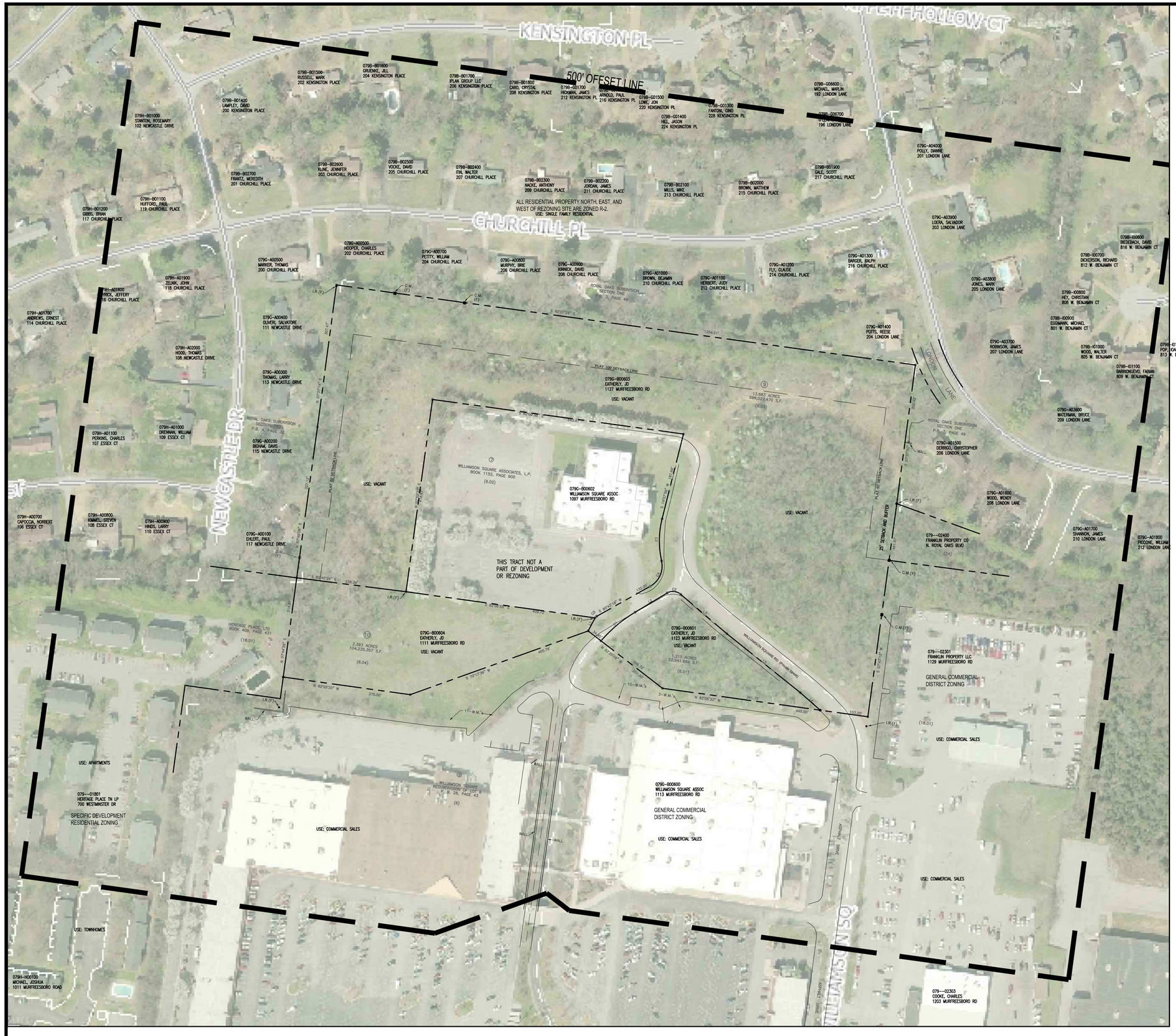
C 0.0	COVER SHEET AND LOCATION MAP
C 1.0	BOUNDARY MAP
C 2.0	EXISTING CONDITIONS

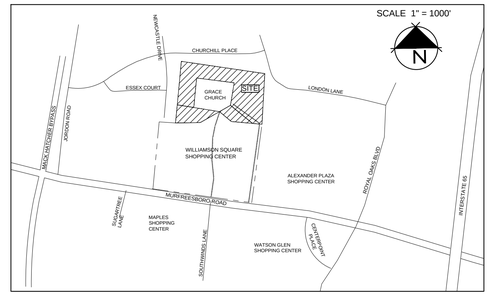
9TH CIVIL DISTRICT OF WILLIAMSON COUNTY
CITY OF FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND
LANDSCAPE ARCHITECTURE
greggamble209@gmail.com

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT

DECEMBER 4, 2014
NOVEMBER 10, 2014
COF # 4717





VICINITY MAP

Site Data:

Project Name:	Williamson Square
Address:	1127 Murfreesboro Road Franklin, TN 37203
Civil District:	9th
Map, Parcels:	M 79G, Grp B, P 6.01-6.03-6.04
Owner:	J.D. Eatherly 1720 West End Ave. #600 Nashville, Tennessee 37027 (615) 373-8850
Developers:	J.D. Eatherly 1720 West End Ave. #600 Nashville, Tennessee 37027 (615) 373-8850 Richard Chevaz 3595 Carothers Pkway Franklin, TN 37067 (615) 330-1618
Site Area:	17.291 acres 6.01- 1.215 Ac 6.03- 13.683 Ac 6.04- 2.393 Ac Townhomes 12.69 Ac / 552,808.40 SF Assisted Living 4.60 Ac / 200,387.56 SF
Disturbed Area:	±11.69 ac onsite ± -0- ac offsite ±11.69 ac total
Existing Zoning:	**(GC) and (GO)**
Proposed Zoning:	**SD-X 3.39, 68,961**
Character Area Overlay:	McEwen (MECO-9)
Other Overlays:	None
Development Standard:	Conventional

NOTE:
THE DEVELOPMENT AND ALL LOTS WITHIN 500 FEET ARE IN THE McEWEN - 9 CHARACTER DISTRICT

STATEMENT OF IMPACTS

WATER
WATER SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN. THE 8" WATER MAIN WILL BE SERVED BY A LOOP CREATED BY CONNECTING TO A LINE ON LONDON LANE TO AN EXISTING LINE ON-SITE RUNNING TO MURFREESBORO ROAD. THE FACILITY WILL CONNECT TO EXISTING SERVICE; NO NEW LINES ARE BEING RUN TO THE SITE. WE ARE WAITING FOR A REPORT FROM THE CITY WATER SERVICE FOR SYSTEM CAPACITY.
WATER / SEWER FLOWS: 38,850 GPD or 105 SFUE

REUSE WATER FACILITIES
THERE IS NOT A GRAY WATER LINE NEAR THE SITE.

SEWER
SEWER SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN. SEWER MAIN CONNECTION IS EXISTING MANHOLE ON-SITE. NO NEW SERVICE IS BEING RUN TO THE SITE. WE ARE WAITING FOR A REPORT FROM THE CITY SEWER SERVICE FOR SYSTEM CAPACITY.

DRAINAGE FACILITIES
THE PROPERTY WILL BE DRAINED TO 3 RAIN GARDENS AND A DRY POND. STORMWATER WILL BE TREATED PER THE CITY OF FRANKLIN'S STORMWATER MANAGEMENT REQUIREMENTS. STORMWATER LEAVING THE DRY POND WILL BE DIRECTED TO AN ON-SITE WET WEATHER CONVEYANCE.
THE PROJECT SITE CURRENTLY HANDLES UPSTREAM AND ON-SITE RUNOFF FROM DATED DRAINAGE STRUCTURES AND REGULATIONS. THE APPROVED PLANS WILL IMPROVE DRAINAGE CONTROLS FOR "QUANTITY AND QUALITY."

POLICE AND FIRE
FRANKLIN FIRE STATION 2, 907 MURFREESBORO RD - .3 MILES DRIVING DISTANCE
FRANKLIN POLICE STATION 900 COLUMBIA AVE.- 2.6 MILES DRIVING DISTANCE

RECREATION FACILITIES
PINKERTON PARK - 1.6 MILES DRIVING DISTANCE
ASSISTED LIVING WILL NOT USE PARK FACILITIES. PINKERTON PARK IS VERY SUITABLE TO THE NEEDS OF SENIOR CITIZENS WHO MAY CARE FOR GRANDCHILDREN AND UTILIZE PASSIVE FEATURES SUCH AS WALKING TRAILS AND PICNIC SHELTERS.

PROJECTED STUDENT POPULATION
THE STUDENT POPULATION IS PROJECTED TO BE ZERO TO VERY LITTLE BECAUSE THIS IS A SENIOR LIVING DEVELOPMENT. TOWNHOUSES ARE RESTRICTED TO 55 AND OLDER RESIDENTS, BUT MAY PROVIDE CHILD CARE. ASSISTED LIVING IS FOR SENIORS WHO ARE PAST CARING FOR CHILDREN.

REFUSE COLLECTION
REFUSE COLLECTION SERVICE FOR THE ASSISTED LIVING FACILITY WILL BE PROVIDED BY PRIVATE COLLECTION. REFUSE COLLECTION FOR THE TOWN HOMES WILL BE PROVIDED BY CITY OF FRANKLIN. DUMPSTER FOR ASSISTGED LIVING WILL BE SCREENED PER COF STANDARDS; IT IS LOCATED BEHIND THE BUILDING.

RESTRICTIVE COVENANTS
A HOMEOWERS ASSOCIATION INCLUDING THE ASSISTED LIVING FACILITY WILL BE ESTABLISHED PRIOR TO THE FIRST OCCUPANCY. COMMON AREAS WILL BE MAINTAINED THROUGH THE ASSOCIATION.

STREET NETWORK
THE PROJECT UTILIZES EXISTING STREETS ON-SITE AND CONNECTING TO MAJOR THOROUGHFARE HWY 96/MURFREESBORO ROAD. THE ASSISTED LIVING RESIDENTS WILL NOT HAVE CARS. THE IMPACT ON ADJACENT ROADS WILL BE SMALL DUE TO THE LIMITED STAFF MEMBERS AND SENIOR CITIZENS LIVING ON-SITE. THE ASSISTED LIVING FACILITY WILL OFFER MEALS TO RESIDENTS IN SENIOR TOWNHOMES REDUCING DRIVING.

MINERAL RIGHTS
NO THIRD PARTY MINERAL RIGHTS ARE ASSOCIATED WITH THIS PROPERTY.

BOUNDARY PLAN

GRAPHIC SCALE 1"=100'
100 0 100 200

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

SERENA REZONING PLAN

1127 MURFREESBORO ROAD
FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
REGISTERED LANDSCAPE ARCHITECT
No. 2109
STATE OF TENNESSEE
LANDSCAPE ARCHITECT

rev.	date
1	12-4-2014

GCG Job No. 14006
NOVEMBER 11, 2014

SHEET
C1.0

COF # 4717

Site Data:

Project Name:	Williamson Square
Address:	1127 Murfreesboro Road Franklin, TN 37203
Civil District:	9th
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Proposed Zoning:	SD-X 3.39, 68,961
Character Area Overlay:	McEwen (MECO-9)
Other Overlays:	None
Development Standard:	Conventional

EXISTING TREE CANOPY

SPECIMEN TREE SURVEY

Number	Type	Size	Health	
4	LOCUST	28"	GOOD	
37	OAK	26"	GOOD	
40	OAK	24"	GOOD	
49	HACKBERRY	30"	GOOD	
54	OAK	30"	GOOD	
73	OAK	36"	GOOD	
88	HACKBERRY	26"	GOOD	
137	HACKBERRY	32"	GOOD	
158	OAK	30"	GOOD	
209	HICKORY	30"	GOOD	
213	OAK	32"	GOOD	
262	HACKBERRY	28"	GOOD	
266	HACKBERRY	30"	GOOD	
328	HACKBERRY	24"	GOOD	
344	HACKBERRY	28"	GOOD	
351	HACKBERRY	30"	GOOD	
407	HACKBERRY	32"	GOOD	
415	HACKBERRY	24"	GOOD	
420	HACKBERRY	34"	GOOD	
672	HACKBERRY	28"	GOOD	
704	HACKBERRY	32"	GOOD	
733	HACKBERRY	24"	GOOD	
953	OAK	24"	GOOD	
1431	LOCUST	24"	GOOD	
1597	HACKBERRY	36"	GOOD	
1598	CHERRY	28"	GOOD	
1599	CHERRY	32"	GOOD	
1601	CHERRY	28"	GOOD	
1606	CHERRY	24"	GOOD	
1608	CHERRY	30"	GOOD	
1609	CHERRY	28"	GOOD	
1610	CHERRY	36"	GOOD	
1631	HACKBERRY	24"	GOOD	
1633	HACKBERRY	24"	GOOD	
1640	HACKBERRY	24"	GOOD	

TOTAL SPECIMEN TREES REMOVED: 22
TOTAL HEALTHY INCHES REMOVED: 634 INCHES
REPLACEMENT REQUIRED: 1268 INCHES

REQUIRED TREE CANOPY PRESERVATION CHART

(WHOLE SITE REZONED TO SD-R)

TOTAL SITE AREA:	753,219 SF (17.29 AC)	
EXISTING CANOPY AREA:	350,617 SF (8.05 AC)	47% OF SITE
SD-R REQUIRED PRESERVATION:	45%, 157,777 SF (3.62 AC)	
PROVIDED PRESERVATION:	45%, 158,855 SF (3.65 AC)	

GRAPHIC SCALE 1"=60'
60 0 60 120

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND
LANDSCAPE ARCHITECTURE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

SERENA
REZONING PLAN
FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE
No. 717
LANDSCAPE ARCHITECT

rev.	date
1	12-4-2014

GCG Job No. 14006
NOVEMBER 11, 2014

SHEET
C2.0

COF # 4717

RESOLUTION 2014-93

A RESOLUTION APPROVING A DEVELOPMENT PLAN FOR THE TOWNSHIP PUD SUBDIVISION, LOCATED AT 1127 MURFREESBORO ROAD, BY THE CITY OF FRANKLIN, TENNESSEE.

WHEREAS, The PUD process is a review procedure that is intended to encourage innovative land planning and design and avoid the monotony sometimes associated with large developments by:

(a) Reducing or eliminating the inflexibility that sometimes results from strict application of zoning standards that were designed primarily for individual lots;

(b) Allowing greater freedom in selecting the means to provide access, light, open space, and design amenities;

(c) Encouraging a sensitive design that respects the surrounding established land use character and natural or man-made features of the site including, but not limited to, trees, historic features, streams, hillsides, and floodplains;

(d) Promoting quality design and environmentally sensitive development by allowing development to take advantage of special site characteristics, locations, and land uses; and

(e) Allowing deviations from certain zoning standards that would otherwise apply if not contrary to the general spirit and intent of this ordinance.

WHEREAS, The PUD review process consists of a Development Plan that is reviewed and approved by the BOMA, after a recommendation from the FMPC.

NOW, THEREFORE, BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, meeting in regular session this _____ day of _____, 2014:

1. That the legal description of the property is as follows:

Map--Parcel	Acres
079G-B00601	±1.22
079G-B00603	±13.68
079G-B00604	±2.39
TOTAL	**±17.29**

LOT 8

Beginning at a southeasterly corner of Lot 9 of the Williamson Square Subdivision Final Plat, Revision Two, Resubdivision of Lot 8, of record in Book 29, Page 10 in the Register's Office for Williamson County, Tennessee, said point also being the southeasterly corner of the herein described Lot 8 of the Williamson Square Subdivision Final Plat, Revision Two, Resubdivision of Lot 8, of record in Book 29, Page 10 in said Register's Office and the point of beginning:

thence North 82 degrees 05 minutes 33 seconds West, a distance of 341.75 feet to a

point; thence North 52 degrees 20 minutes 18 seconds West, a distance of 166.70 feet

to a point;

thence with a curve turning to the right with an arc length of 95.59 feet, having a radius of 299.83 feet, a chord bearing of North 49 degrees 55 minutes 02 seconds East, and a chord length of 95.19 feet;

thence North 59 degrees 02 minutes 35 seconds East, a distance of 81.00 feet to a point;

thence with a curve turning to the right with an arc length of 30.45 feet, having a radius of 25.00 feet, a chord bearing of South 84 degrees 23 minutes 08 seconds East, and a chord length of 28.60 feet;

thence South 49 degrees 29 minutes 34 seconds East, a distance of 130.69 feet to a

point; thence South 51 degrees 16 minutes 49 seconds East, a distance of 202.21 feet to

a point;

thence South 48 degrees 30 minutes 32 seconds East, a distance of 56.84 feet to a point to the point of beginning, having an area of 52,941.69 square feet or 1.215 acres of land.

LOT 9

Beginning at the southwesterly corner of Lot 7 of the Williamson Square Subdivision, Resubdivision of Lot 6, Revision 1, of record in Plat Book 26, Page 43, in the Register's Office for Williamson County, Tennessee, said point also being a southwesterly corner of the herein described Lot 9 of the Williamson Square Subdivision Final Plat, Revision Two, Resubdivision of Lot 8, of record in Book 29, Page 10 in said Register's Office and the point of beginning:

thence North 82 degrees 45 minutes 24 seconds West, a distance of 236.34 feet to a

point; thence North 07 degrees 49 minutes 08 seconds East, a distance of 327.12 feet to

a point; thence North 07 degrees 37 minutes 14 seconds East, a distance of 307.47 feet to a point; thence South 82 degrees 07 minutes 24 seconds East, a distance of 1254.21 feet to a point thence South 07 degrees 37 minutes 50 seconds West, a distance of 300.42 feet to a point; thence South 07 degrees 43 minutes 12 seconds West, a distance of 461.67 feet to a point;

thence North 82 degrees 05 minutes 33 seconds West, a distance of 103.25 feet to a point; thence North 48 degrees 30 minutes 32 seconds West, a distance of 56.84 feet to a point; thence North 51 degrees 16 minutes 49 seconds West, a distance of 202.21 feet to a point; thence North 49 degrees 29 minutes 34 seconds West, a distance of 130.69 feet to a point;

thence with a curve turning to the left having an arc length of 30.45 feet, with a radius of 25.00 feet, a chord bearing of North 84 degrees 23 minutes 08 seconds West, and a chord length of 28.60 feet;

thence South 59 degrees 02 minutes 35 seconds West, a distance of 81.00 feet to a point;

thence with a curve turning to the left having an arc length of 95.59 feet, with a radius of 299.83 feet, a chord bearing of South 49 degrees 55 minutes 02 seconds West, and a chord length of 95.19 feet;

thence North 52 degrees 20 minutes 18 seconds West, a distance of 34.80 feet to a point; thence North 27 degrees 57 minutes 23 seconds East, a distance of 31.64 feet to a point;

thence with a curve turning to the right having an arc length of 4.67 feet , with a radius of 8.17 feet , a chord bearing of North 44 degrees 20 minutes 21 seconds East, and a chord length of 4.61 feet;

thence North 60 degrees 43 minutes 18 seconds East, a distance of 132.00 feet to a point;

thence with a curve turning to the left having an arc length of 64.05 feet, with a radius of 50.00 feet, a chord bearing of North 24 degrees 01 minutes 20 seconds East, and a chord length of 59.76 feet;

thence with a reverse curve turning to the right having an arc length of 91.24 feet, with a radius of 195.02 feet , a chord bearing of North 00 degrees 43 minutes 41 seconds East, a chord length of 90.41 feet;

thence North 14 degrees 07 minutes 59 seconds East, a distance of 187.66 feet to a

point; thence North 82 degrees 09 minutes 38 seconds West, a distance of 543.47

feet to a point;

thence South 07 degrees 52 minutes 37 seconds West, a distance of 416.67 feet to a point the point of beginning having an area of 596,027.47 square feet or 13.683 acres of land.

LOT 10

Beginning at the southeasterly corner of Lot 7 of the Williamson Square Subdivision, Resubdivision of Lot 6, Revision 1, of record in Plat Book 26, Page 43, in the Register's Office for Williamson County, Tennessee, said point also being the northeasterly corner of the herein described Lot 10 of the Williamson Square Subdivision Final Plat, Revision Two, Resubdivision of Lot 8, of record in Book 29, Page 10 in said Register's Office and the point of beginning:

Thence South 27 degrees 57 minutes 23 seconds West, a distance of 31.64 feet to a

point; thence South 70 degrees 17 minutes 36 seconds West, a distance of 405.79

feet to a point;

thence North 82 degrees 05 minutes 33 seconds West, a distance of 275.00 feet to a point;

thence North 07 degrees 44 minutes 26 seconds East, a distance of 214.91 feet to a

point; thence South 82 degrees 45 minutes 24 seconds East, a distance of 236.34 feet to

a point;

thence South 82 degrees 06 minutes 55 seconds East, a distance of 409.72 feet to the point of beginning, having an area of 104,235.36 square feet or 2.393 acres of land.

2. That the overall entitlements for the Township PUD Subdivision are as follows:

Entitlements	Township PUD Subdivision
Base Zone	General Commercial (GC) and General Office (GO)
Character Area Overlay	McEwen Character Area Overlay #9
Other Zoning Overlays	N/A
Number of Dwelling Units	43
Number of Nonresidential Square Footage	68,961
Connectivity Index	N/A
Development Standard	Conventional
Open Space Requirements	Formal: 0.86 acres Informal: N/A Total: 0.86 acres

3. That the Development Plan, the exhibits accompanying the Development Plan, and all conditions and restrictions placed upon the Development Plan by the Franklin Municipal Planning Commission and this Board shall be made a part of this Resolution as though copied verbatim herein, and that a permanent record of the Development Plan, the exhibits accompanying the Development Plan, and all such conditions and restrictions shall be kept in the Franklin Planning Department.

4. That this Resolution shall take effect from and after its passage on its first and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST: **CITY OF FRANKLIN, TENNESSEE**

BY: _____ **BY: _____**
ERIC STUCKEY **DR. KEN MOORE**
CITY ADMINISTRATOR **MAYOR**

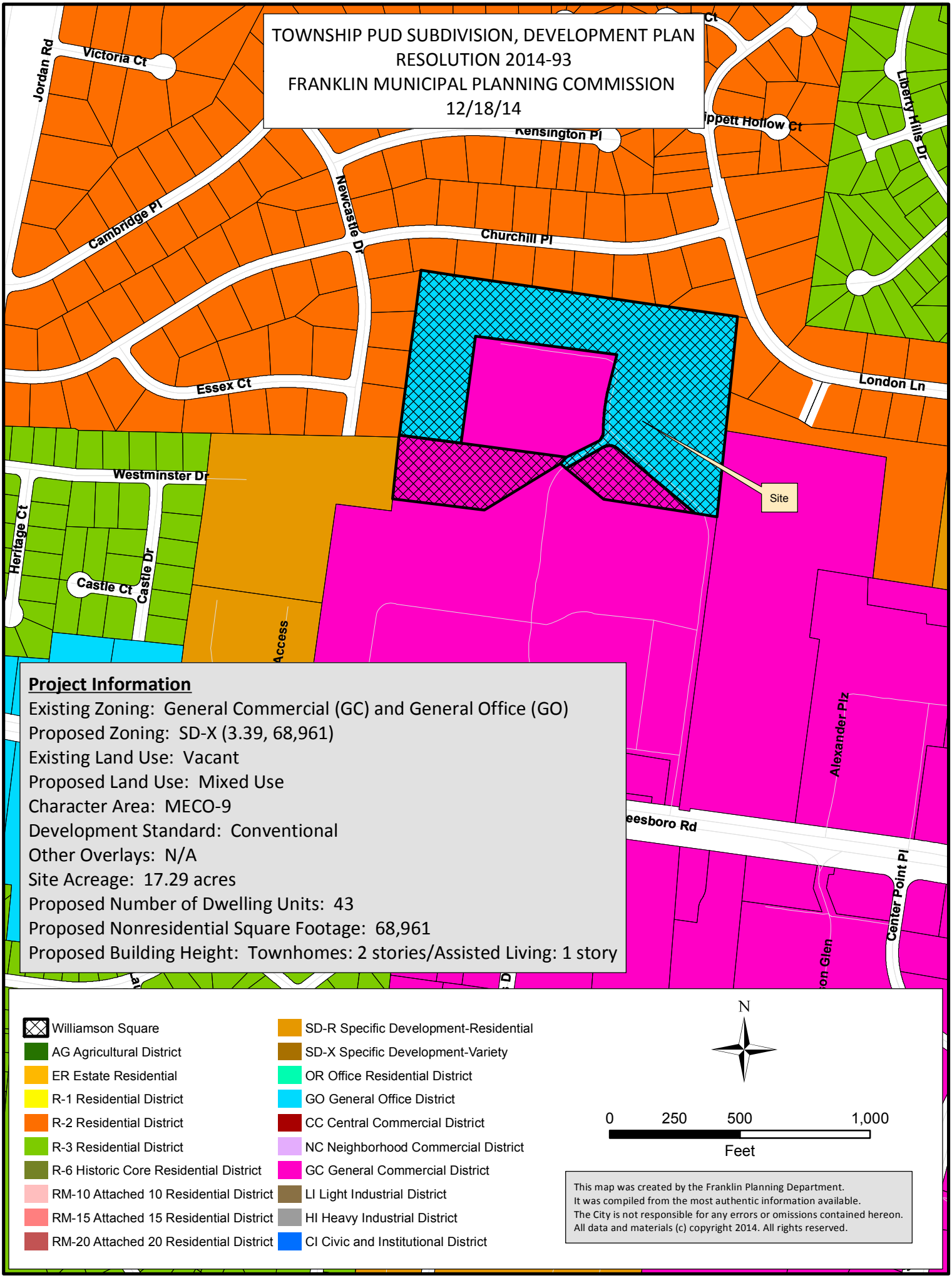
PREAPPLICATION CONFERENCE: 08/21/14

BOMA/FMPC JOINT CONCEPTUAL WORKSHOP: 08/28/14

NEIGHBORHOOD MEETING: 08/21/14

PLANNING COMMISSION RECOMMENDED APPROVAL:

BOMA APPROVAL:


TOWNSHIP PUD SUBDIVISION, DEVELOPMENT PLAN
RESOLUTION 2014-93
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Jordan Rd
Victoria Ct
Kensington Pl
Liberty Hills Dr
Cambridge Pl
Newcastle Dr
Churchill Pl
Essex Ct
London Ln
Westminster Dr
Heritage Ct
Castle Ct
Castle Dr
Access
Site
Alexander Plz
Center Point Pl
Project Information
Existing Zoning: General Commercial (GC) and General Office (GO)
Proposed Zoning: SD-X (3.39, 68,961)
Existing Land Use: Vacant
Proposed Land Use: Mixed Use
Character Area: MECO-9
Development Standard: Conventional
Other Overlays: N/A
Site Acreage: 17.29 acres
Proposed Number of Dwelling Units: 43
Proposed Nonresidential Square Footage: 68,961
Proposed Building Height: Townhomes: 2 stories/Assisted Living: 1 story
Williamson Square
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0 250 500 1,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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COF# 4718

CONDITIONS OF APPROVAL:

BNS

Williamson Square Pre-App Submittal _8.7.2014.pdf

1. Address

- This comment needs to remain open until street names have been approved.

Engineering - PUD Plan Checklist

General Comments

2. F. Development Plan

-

Applicant shall comply with Cul-de-sac requirements (Section 3.3.7 of Street Standards):

- Cul-de-sacs shall not extend for mor than 500' as measured from the center of the cul-de-sac turn around to the nearest right-of-way boundary of the adjoing street right-of-way intersection. If adjoining properties install fire sprkinker systems, this length may be extended to 1,000' in accorance with the adopted fire code. In no case shall a cul-de-sac or temporary dead end street serve more than 20 single-family residential lots.
- Cul-de-sac streets shall have a minimum paved radius of 50' at its outside edge.

The previous comment was addressed in a meeting. The developer is to obtain an access easement across the adjoining property that will eliminate the need for a cul-de-sac. If this easement is not obtained the cul-de-sac will be required and the development plan must be resubmitted for approval by the planning commission.

Fire-Planning

Williamson Square Development Plan R.pdf

3. Access

- No later than Site Plan submittal, The applicant shall provide documentation confirming an access easement across the adjoining property or provide the code-required vehicle turnaround at the end of the drive lane (at Lot 43). Until such time, the applicant shall show the turnaround on the plan. The plan will not be granted Post-PC approval until the appropriate turnaround is shown and approved. on the post-pc plan

Williamson Square Pre-App Submittal _8.7.2014.pdf

4. Fire Protection

- The applicant has not provided the requested fire flow results with a recent/valid flow test date.

The applicant shall provide the results from a fire demand flow test.

Parks

General Comments

5. Parkland information

- Parks-The fees-in-lieu of dedication shall be paid prior to recording the first Final Plat for the subdivision . See section 5.5.4 for the process.

This comment will stay conditionally approved until payment has been received.

Planning

General Comments

6. Subdivision name

- Subdivision name must be approved prior to first reading at BOMA.

Will Sq-Serena Set Resub 12.4.14.pdf

7. Cover sheet

- The applicant shall re-label the "Modification of Standards" as "Design Modifications". As these items are referencing section 5.3 of the zoning ordinance, they can be voted on by FMPC only and do not require approval by BOMA.

Williamson Square Development Plan R.pdf

8. non-residential square footage

- The applicant shall list the actual proposed zoning on the development plan sheet, and remove the placeholder listed.

9. Loading zone

- The applicant shall provide two loading zone locations, as required by the Zoning Ordinance for this size structure.

10. Existing Conditions

- The applicant shall label the lots associated with this development plan as their platted lot number (Lot 8, BK XX, PGXX), on the existing conditions sheet C1.0.

11. Draft elevations (development plan)

- The applicant shall list a single FFE for each townhome 8-35, and remove the erroneously listed FFE, on both the Utilities Plan and the Grading Plan.

12. Draft elevations (development plan)

- Porches are required to be a minimum of 6' in depth. Applicant shall revise renderings to reflect this distance, or make a note on the elevations that state the minimum required porch depth. Site layout may need to be revised at site plan to accommodate the depth of the porches between buildings, and may cause the plan to reduce the number of units shown in the area of units 8-35.

13. Modification of Standards

- Should MOS #3 be disapproved, the applicant shall revise elevations and site plan to show a side or rear loaded garage for all townhome units.

Williamson Square Pre-App Submittal _8.7.2014.pdf

14. Sidewalks

- The applicant shall extend the sidewalk along the assisted living parking lot to Williamson Square Road.

15. Existing Conditions

- The applicant shall label each parcel within this development with its existing zoning on the existing conditions sheet.

SERENA PUD
DEVELOPMENT PLAN

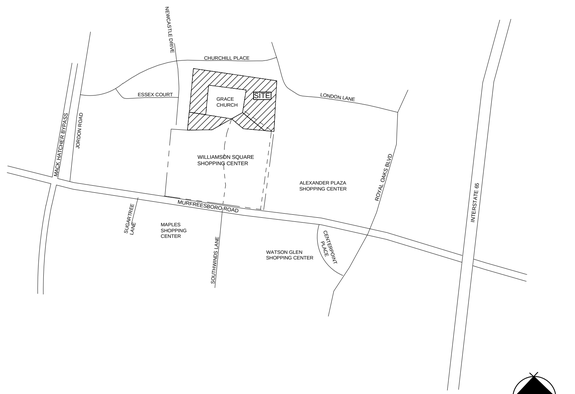
1127 MURFREESBORO ROAD
WILLIAMSON SQUARE PUD COMMERCIAL CENTER
MAP 79G GRP "B" PARCELS 6.01-6.03-6.04

OWNER / DEVELOPER
J.D. EATHERLY
1720 W. END AVENUE
NASHVILLE, TN 37203

LANDSCAPE ARCHITECT / PLANNER JOB NO. 14007
GAMBLE DESIGN COLLABORATIVE, LLC
144 SOUTHEAST PARKWAY, SUITE 200
FRANKLIN TN 37064
CONTACT: GREG GAMBLE, RLA
EMAIL: greggamble209@gmail.com
PHONE: (615) 975-5765

CIVIL ENGINEER / SURVEYOR:
DALE AND ASSOCIATES
516 HEATHER PLACE
NASHVILLE, TENNESSEE 37204
CONTACT: MICHAEL GARRIGAN
EMAIL: michael@daleandassoicates.com
PHONE: (615) 297-5166

ARCHITECT
LON RABY, ARCHITECT
201A WOODMONT CIRCLE
NASHVILLE, TN 37205
EMAIL: LFR2501@comcast.net
PHONE: (615) 479-7040



VICINITY MAP

SCALE 1" = 1000'

SHEET INDEX

C 0.0	COVER SHEET AND LOCATION MAP
C 1.0	BOUNDARY MAP
C 1.1	EXISTING CONDITIONS
C 1.2	DEVELOPMENT PLAN
C 1.3	TREE PRESERVATION PLAN
C 2.0	UTILITY PLAN
C 3.0	GRADING PLAN
C 3.1	SUPPLEMENTAL GRADING PLAN
C 4.0	STORMWATER MANAGEMENT PLAN
A 1.0	ARCHITECTURAL ELEVATIONS

MODIFICATION OF STANDARDS

1. MOS1: SECTION 5.3.5 (3) (B) REQUEST TO INCREASE THE MAXIMUM BUILDING LENGTH OF THE ASSISTED LIVING BUILDING FROM 200 FEET TO A LENGTH OF 381 FEET. THIS DISTANCE IS THE LENGTH OF THE BUILDING VISIBLE FROM BUILDING FRONTAGE FACING THE ACCESS ROAD. BUILDING ARCHITECTURE IS ENHANCED WITH VERTICAL AND HORIZONTAL CHANGES IN THE FACADE PLANE AND SEVERAL DIFFERENT MATERIALS ACROSS THE FRONT OF THE BUILDING.

2. MOS 2: SECTION 5.3.5, RESIDENTIAL GARAGE STANDARDS. REQUEST TO PERMIT FRONT FACING GARAGE DOORS. GARAGE DOORS WOULD FACE THE PRIVATE DRIVE.

3. MOS 3: SECTION 5.3.5, RESIDENTIAL GARAGE STANDARDS. REQUEST TO PERMIT ONE 16 FOOT WIDE GARAGE DOOR.

4. MOS 4: MINIMUM BUILDING FOUNDATION. REQUEST TO PERMIT THE MINIMUM HEIGHT OF THE FOUNDATION FOR THE TOWN HOMES AT 4 INCHES FROM FINISHED GRADE.

MODIFICATIONS OF STANDARDS REQUEST NUMBERS 2, 3 AND 4 ARE TO ADDRESS THE NEED FOR HANDICAP ACCESSIBILITY TO THE TOWN HOMES PROPOSED FOR THIS PUD. ACCESS TO THE GARAGE AND WITHIN THE GARAGE FOR SPECIAL NEEDS IS CRITICAL TO THE INTENT OF THESE INDEPENDENT LIVING TOWN HOMES. DUE TO SPACE CONSTRAINTS AND A NEED TO BUFFER THE RESIDENTIAL HOMES TO THE NORTH OF THIS PROPERTY WITH LANDSCAPING, THE ACCESS TO THE TOWN HOME GARAGES ARE FROM THE PRIVATE DRIVE BEHIND THE EXISTING CHURCH.

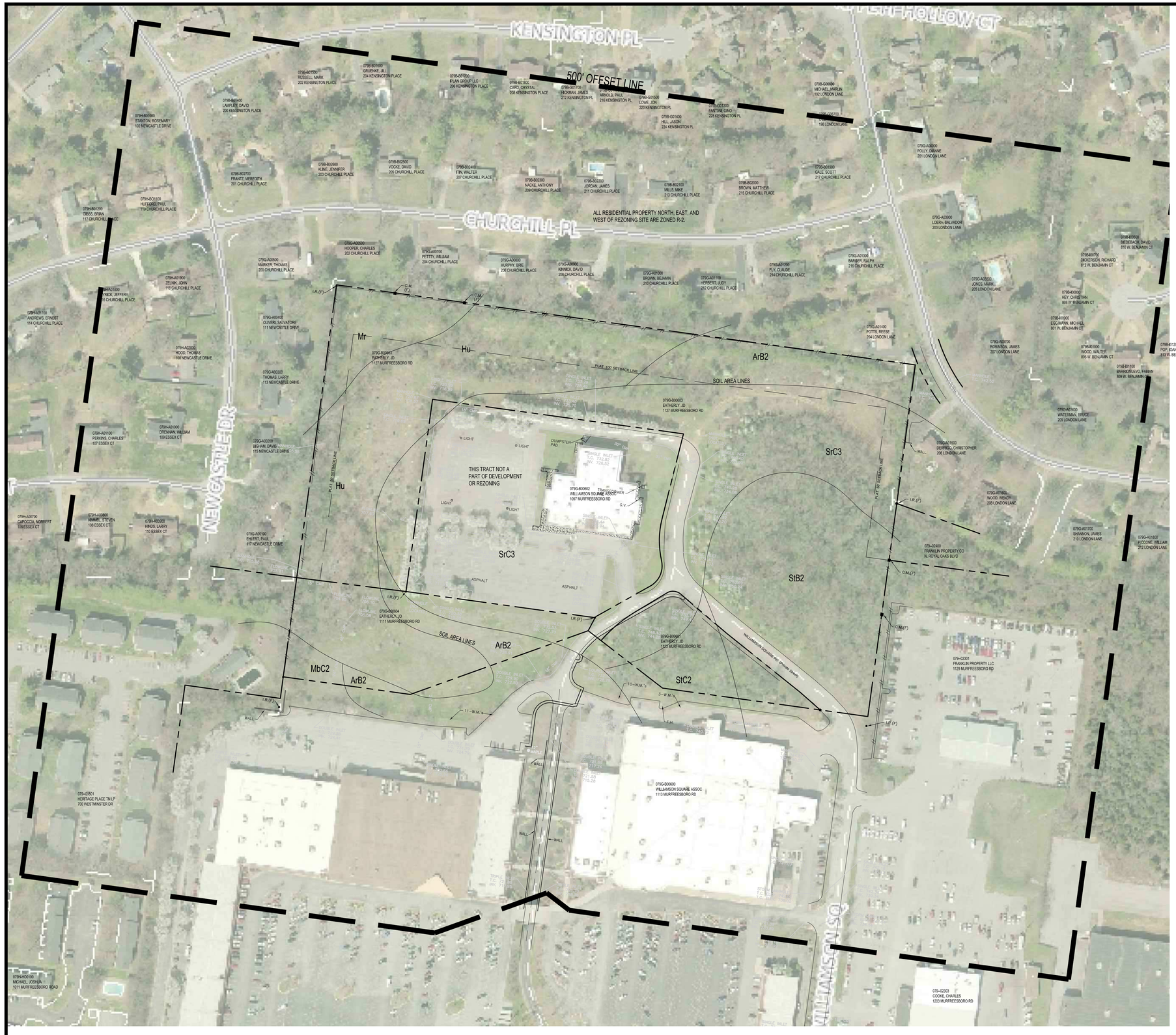
9TH CIVIL DISTRICT OF WILLIAMSON COUNTY
CITY OF FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

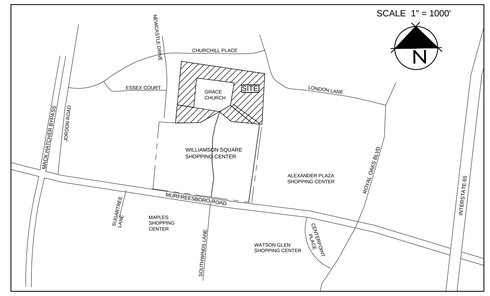
GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND
LANDSCAPE ARCHITECTURE
greggamble209@gmail.com

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
#718

DECEMBER 4, 2014
NOVEMBER 10, 2014

COF #4718





VICINITY MAP

Site Data:

Project Name:	Williamson Square
Address:	1127 Murfreesboro Road Franklin, TN 37203
Civil District:	9th
Map, Parcels:	M 79G, Grp B, P 6.01-6.03-6.04
Owner:	J.D. Eatherly 1720 West End Ave. #600 Nashville, Tennessee 37027 (615) 373-8850
Developers:	J.D. Eatherly 1720 West End Ave. #600 Nashville, Tennessee 37027 (615) 373-8850 Richard Chevaz 3595 Carothers Pkway Franklin, TN 37067 (615) 330-1618
Site Area:	17.291 acres 6.01- 1.215 Ac 6.03- 13.683 Ac 6.04- 2.393 Ac Townhomes 12.69 Ac / 552,808.40 SF Assisted Living 4.60 Ac / 200,387.56 SF
Existing Zoning:	(GC) and (GO)
Proposed Zoning:	SD-X 3.39, 68,961
Character Area Overlay:	McEwen (MECO-9)
Other Overlays:	None
Development Standard:	Conventional

NOTE:
THE DEVELOPMENT AND ALL LOTS WITHIN 500 FEET ARE IN THE McEWEN - 9 CHARACTER DISTRICT

SOIL IDENTIFICATION

ArB2 ARMOUR SILT LOAM, 2-5 % ERODED
Hu HUNTINGTON SILT LOAM, PHOSPHATIC
MbC2 MAURY SILT LOAM, 5-12% ERODED
Mr MINE LAND, RECLAIMED
SrC3 STIVERSVILLE CLAY LOAM, 5-12% SEVERLEY ERODED
StB2 STIVERSVILLE SILT LOAM, 2-5% ERODED
StC2 STIVERSVILLE SILT LOAM, 5-12% ERODED

NOTE:
THE DEVELOPMENT AND ALL LOTS WITHIN 500 FEET ARE IN THE McEWEN - 9 CHARACTER DISTRICT

BOUNDARY PLAN

GRAPHIC SCALE 1"=100'
100 0 100 200

GDC
GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

SERANA
DEVELOPMENT PLAN
1127 MURFREESBORO ROAD
FRANKLIN, TENNESSEE

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
STATE OF TENNESSEE
No. 328

rev.	date
1	12-4-14

GCG Job No. 14006
NOVEMBER 11, 2014

SHEET
C1.0

COF #4718

TOTAL AREA = 17.291 ACRES
= 753,204.516 S.F.

EXISTING CONDITIONS

GRAPHIC SCALE 1"=50'

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 3706
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

SERENA PUD SUBDIVISION DEVELOPMENT PLAN

1127 MURFREESBORO ROAD
FRANKLIN, TENNESSEE

Dale & Associates
Consulting Civil Engineering
Land Planning & Zoning
Landscape Architecture
Surveying

MICHAEL CHRISTOPHER GARRIGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 00110726
STATE OF TENNESSEE
12/4/14

rev. date

COF: 12/4/14

GCG Job No. 14006
JULY 8, 2014

SHEET

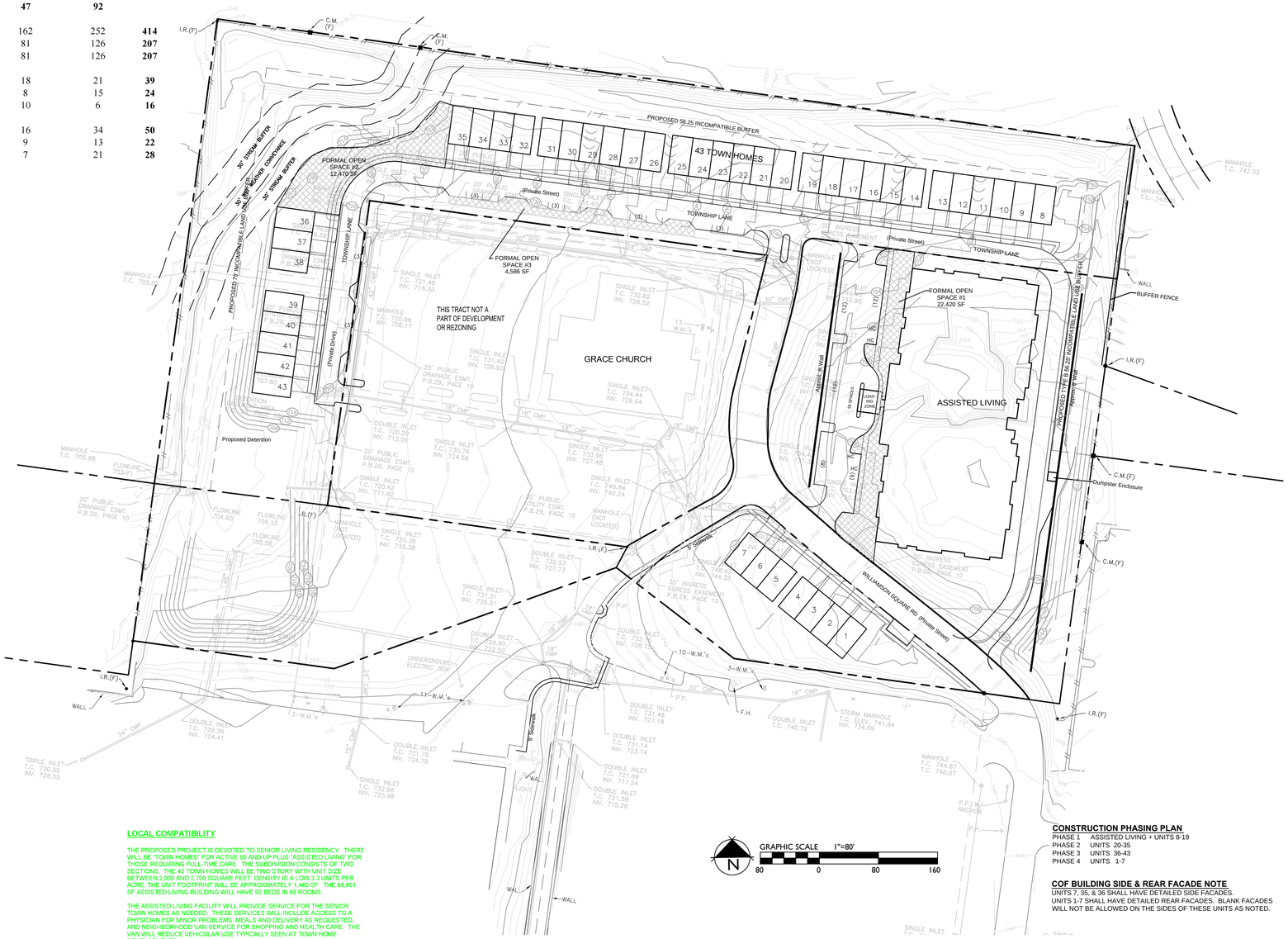
C1.1

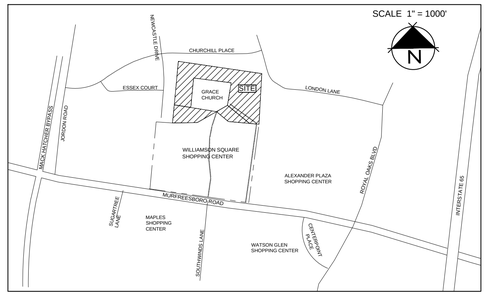
COF # 4718

TRIP GENERATION PEAK HOUR CHART

Williamson Square Land Use:	LUC 252 Sr. Adult Housing (Attached)	LUC 254 Assisted Living	TOTAL
Size:	**47**	**92**	
Average Daily Traffic	162	252	**414**
Daily Enter	81	126	**207**
Daily Exit	81	126	**207**
AM Peak Hour Total (gen)	18	21	**39**
AM Peak Hour Enter	8	15	**24**
AM Peak Hour Exit	10	6	**16**
PM Peak Hour Total (gen)	16	34	**50**
PM Peak Hour Enter	9	13	**22**
PM Peak Hour Exit	7	21	**28**

Trip Generation 9th Edition





VICINITY MAP

Site Data:

Project Name:	Williamson Square
Address:	1127 Murfreesboro Road Franklin, TN 37203
Civil District:	9th
Map, Parcels:	M 79G, Grp B, P 6.01-6.03-6.04
Owner:	J.D. Eatherly 1720 West End Ave. #600 Nashville, Tennessee 37027 (615) 373-8850
Developer:	J.D. Eatherly 1720 West End Ave. #600 Nashville, Tennessee 37027 (615) 373-8850
Site Area:	17.30 acres 6.01- 1.22 ac 6.03- 13.69 ac 6.04- 2.39ac
Disturbed Area:	±11.69 ac onsite ± -0- ac offsite ±11.69 ac total
Existing Zoning:	(GC) and (GO)
Proposed Zoning:	SD-X, DENSITY, SF OF COM
Character Area Overlay:	McEwen (MECO-9)
Other Overlays:	None
Development Standard:	Conventional
Drainage Basin:	---
Existing Structures:	None
Incompatible Use Buffer	Type 'B' Buffer adjacent to SF Residential BUFFER SHOWN IS 56.25' WITH THE ADDITION OF A BERM
Building setbacks:	N/A Front 15' Side 30' Rear
Permitted Commercial Uses:	Assisted Living Attached Residential
Ex. Building Area:	No structures present
Prop. Building Area:	Assisted Living 59,736 sf Townhouses 62,608 sf
Total Building Area:	122,344 sf
Proposed Building Height:	Assisted Living 1-story Townhouses 2-story
Min. Landscape Surface Ratio:	0.20
Proposed LSR:	0.49
Minimum Parking Required:	Assisted Living 34 0.5/room (x68) Townhouses 129 3/unit for 3 bedroom(x43) Total: 163 total spaces required
Provided Parking:	Assisted Living 53 Spaces Townhouses 86 Driveway 86 Garage 27 Parking Lots Street Total Provided 252
Bike Parking	12 spaces (1/20 Parking Spaces)
Open Space:	OPEN SPACE REQUIRED SEE CHART THIS PAGE

STATEMENT OF IMPACTS

WATER
WATER SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN. THE 8" WATER MAIN WILL BE SERVED BY A LOOP CREATED BY CONNECTING TO A LINE ON LONDON LANE TO AN EXISTING LINE ON-SITE RUNNING TO MURFREESBORO ROAD. THE FACILITY WILL CONNECT TO EXISTING SERVICE; NO NEW LINES ARE BEING RUN TO THE SITE. WE ARE WAITING FOR A REPORT FROM THE CITY WATER SERVICE FOR SYSTEM CAPACITY.
WATER / SEWER FLOWS: 38,850 GPD or 105 SFUE

REUSE WATER FACILITIES
THERE IS NOT A GRAY WATER LINE NEAR THE SITE.

SEWER
SEWER SERVICE WILL BE PROVIDED BY THE CITY OF FRANKLIN. SEWER MAIN CONNECTION IS EXISTING MANHOLE ON-SITE. NO NEW SERVICE IS BEING RUN TO THE SITE. WE ARE WAITING FOR A REPORT FROM THE CITY SEWER SERVICE FOR SYSTEM CAPACITY.

DRAINAGE FACILITIES
THE PROPERTY WILL BE DRAINED TO 3 RAIN GARDENS AND A DRY POND. STORMWATER WILL BE TREATED PER THE CITY OF FRANKLIN'S STORMWATER MANAGEMENT REQUIREMENTS. STORMWATER LEAVING THE DRY POND WILL BE DIRECTED TO AN ON-SITE WET WEATHER CONVEYANCE.
THE PROJECT SITE CURRENTLY HANDLES UPSTREAM AND ON-SITE RUNOFF FROM DATED DRAINAGE STRUCTURES AND REGULATIONS. THE APPROVED PLANS WILL IMPROVE DRAINAGE CONTROLS FOR "QUANTITY AND QUALITY."

POLICE AND FIRE
FRANKLIN FIRE STATION 2, 907 MURFREESBORO RD - .3 MILES DRIVING DISTANCE
FRANKLIN POLICE STATION 900 COLUMBIA AVE.- 2.6 MILES DRIVING DISTANCE

RECREATION FACILITIES
PINKERTON PARK - 1.6 MILES DRIVING DISTANCE
ASSISTED LIVING WILL NOT USE PARK FACILITIES. PINKERTON PARK IS VERY SUITABLE TO THE NEEDS OF SENIOR CITIZENS WHO MAY CARE FOR GRANDCHILDREN AND UTILIZE PASSIVE FEATURES SUCH AS WALKING TRAILS AND PICNIC SHELTERS.

PROJECTED STUDENT POPULATION
THE STUDENT POPULATION IS PROJECTED TO BE ZERO TO VERY LITTLE BECAUSE THIS IS A SENIOR LIVING DEVELOPMENT. TOWNHOUSES ARE RESTRICTED TO 55 AND OLDER RESIDENTS, BUT MAY PROVIDE CHILD CARE. ASSISTED LIVING IS FOR SENIORS WHO ARE PAST CARING FOR CHILDREN.

REFUSE COLLECTION
REFUSE COLLECTION SERVICE FOR THE ASSISTED LIVING FACILITY WILL BE PROVIDED BY PRIVATE COLLECTION; REFUSE COLLECTION FOR THE TOWN HOMES WILL BE PROVIDED BY CITY OF FRANKLIN. DUMPSTER FOR ASSISTGED LIVING WILL BE SCREENED PER COF STANDARDS; IT IS LOCATED BEHIND THE BUILDING.

RESTRICTIVE COVENANTS
A HOMEOWERS ASSOCIATION INCLUDING THE ASSISTED LIVING FACILITY WILL BE ESTABLISHED PRIOR TO THE FIRST OCCUPANCY. COMMON AREAS WILL BE MAINTAINED THROUGH THE ASSOCIATION.

STREET NETWORK
THE PROJECT UTILIZES EXISTING STREETS ON-SITE AND CONNECTING TO MAJOR THOROUGHFARE HWY 96/MURFREESBORO ROAD. THE ASSISTED LIVING RESIDENTS WILL NOT HAVE CARS. THE IMPACT ON ADJACENT ROADS WILL BE SMALL DUE TO THE LIMITED STAFF MEMBERS AND SENIOR CITIZENS LIVING ON-SITE. THE ASSISTED LIVING FACILITY WILL OFFER MEALS TO RESIDENTS IN SENIOR TOWNHOMES REDUCING DRIVING.

MINERAL RIGHTS
NO THIRD PARTY MINERAL RIGHTS ARE ASSOCIATED WITH THIS PROPERTY.

LOCAL COMPATIBILITY

THE PROPOSED PROJECT IS DEVOTED TO SENIOR LIVING RESIDENCY. THERE WILL BE 'TOWN HOMES' FOR ACTIVE 55 AND UP PLUS 'ASSISTED LIVING' FOR THOSE REQUIRING FULL-TIME CARE. THE SUBDIVISION CONSISTS OF TWO SECTIONS. THE 43 TOWN HOMES WILL BE TWO STORY WITH UNIT SIZE BETWEEN 2,000 AND 2,700 SQUARE FEET. DENSITY IS A LOW 3.3 UNITS PER ACRE. THE UNIT FOOTPRINT WILL BE APPROXIMATELY 1,460 SF. THE 68,961 SF ASSISTED LIVING BUILDING WILL HAVE 92 BEDS IN 68 ROOMS.

THE ASSISTED LIVING FACILITY WILL PROVIDE SERVICE FOR THE SENIOR TOWN HOMES AS NEEDED. THESE SERVICES WILL INCLUDE ACCESS TO A PHYSICIAN FOR MINOR PROBLEMS, MEALS AND DELIVERY AS REQUESTED, AND NEIGHBORHOOD VAN SERVICE FOR SHOPPING AND HEALTH CARE. THE VAN WILL REDUCE VEHICULAR USE TYPICALLY SEEN AT TOWN HOME DEVELOPMENTS.

THE FUTURE CONSTRUCTION SURROUNDS A 1990 MOVIE THEATER THAT HAS BECOME A CHURCH. ONE ENTERS THE PROJECT THROUGH THE COMMERICAL WILLIAMSON SQUARE SHOPPING CENTER. TO THE REAR OF THE PROJECT IS THE ROYAL OAKS SUBDIVISION WITH HOMES IN THE 2,500+ SF RANGE ON .5 ACRE+ LOTS.

CURRENT ZONING FOR THE ASSISITED LIVING SITE ALLOWS THIS BUILDING USE. HOWEVER, CURRENT ZONING (GO) FOR THE TOWN HOMES DOES NOT ALLOW ATTACHED RESIDENTIAL. THE PROPOSED PLAN REQUIRES REZONING OF THE PROPERTY TO SDX TO ACCOMODATE THE TOWN HOMES. REZONING IS BEING REQUESTED FOR THE ENTIRE PROJECT SITE.

THE ASSISTED LIVING FACILITY WILL BE A NON-INSTRUSIVE NEIGHBOR WITH MINIMAL TRAFFIC CREATION. RESIDENTS WILL NOT HAVE VEHICLES; ANY THAT WISH TO GO AWAY FROM THE FACILITY WILL BE DRIVEN BY OTHERS OR THE RESIDENT VAN. MANY OF THEIR RESIDENTS AT THESE FACILITIES ARE NOT MOBILE; WALKING TO THE FRONT PORCH IS OFTEN THE EXTENT THAT THEY MOVE ON THEIR OWN. PETS ARE FEW IF ANY.

THE TOWN HOMES WILL BE SEPARATED FROM THE ROYAL OAKS SUBDIVISION BY AN EXISTING WOODED BERM. THE EXISTING LANDSCAPE WILL BE SUPPLIMENTED AS NEEDED WITH ADDITIONAL EVERGREENS. THE NEIGHBORS BORDERING THE PROJECT WILL BE INVOLVED IN THE PROCESS TO IMPROVE THE NATRUAL SCREEN. THE PROJECT WILL HAVE A 56.25 LANDSCAPE BUFFER FACING THE SINGLE FAMILY ROYAL OAK HOMES. THERE IS A 50' REAR SETBACK FOR THIS SITE.

OPEN SPACE AREAS

#	FORMAL TYPE	SQ/FT	ACREAGE
1	POCKET PARK	22,420 SF	0.51
2	POCKET PARK	12,470	0.29
3	POCKET PARK	4,586	0.11
	TOTAL:	39,476 SF	0.91 AC

OPEN SPACE PROVISION

TOTAL SITE AREA:	753,204 SF	17.29 AC	
TOTAL REQUIRED OPEN SPACE:	37,660 SF	0.86 AC	5%
FORMAL REQUIRED:	37,660 SF	0.86 AC	5%
FORMAL PROVIDED:	39,476 SF	0.91 AC	

FORMAL SPACE DESCRIPTION

THE FORMAL OPEN SPACE ON THIS PROJECT CONSISTS OF TWO POCKET PARKS. ONE WILL BE IN FRONT OF THE ASSISTED LIVING CLOSE TO PATIENT ROOMS. THE OTHER IS IN-BETWEEN UNITS 35 AND 36. IN BOTH OF THESE PARKS, THERE WILL BE SOLID PATIO SURFACES AND OUTDOOR FURNITURE. THERE WILL ALSO BE OUTDOOR LIGHTS. BOTH WILL BE HANDICAP ACCESSIBLE WITH SPACIOUS LEVEL AREAS AND RAMPS AS NEEDED.

CONNECTIVITY INDEX
NOT APPLICABLE

INCOMPATIBLE USE BUFFER
REQUIRED BUFFER 75'
REDUCED BY EXISTING BERM TO 56.25'
50' OTHER SIDES AGAINST RESIDENTIAL

PARKLAND DEDICATION
PARKLAND DEDICATION SHALL BE FEE IN LIEU FOR THIS DEVELOPMENT PLAN. NONE REQUIRED FOR ASSISTED LIVING.

35 X 1200SF = 42,000 SF 8 X 600SF = 4,800 SF
TOTAL PARKLAND DEDICATION AREA: 46,800 SF

HYDRANT FIRE FLOW
WATER MAIN 16" DUCTILE IRON
FLOW: 1,100 GPM
STATIC PRESSURE: 64 PSI
RESIDUAL PRESSURE: 22 PSI
FLOW at 20 PSI: 2,239 GPM

NOTE: FIRE FLOW
NEW FIRE FLOW REQUESTED

CONSTRUCTION PHASING PLAN
PHASE 1 ASSISTED LIVING + UNITS 8-19
PHASE 2 UNITS 20-35
PHASE 3 UNITS 36-43
PHASE 4 UNITS 1-7

COF BUILDING SIDE & REAR FACADE NOTE
UNITS 7, 35, & 36 SHALL HAVE DETAILED SIDE FACADES.
UNITS 1-7 SHALL HAVE DETAILED REAR FACADES. BLANK FACADES WILL NOT BE ALLOWED ON THE SIDES OF THESE UNITS AS NOTED.

STREAMSIDE BUFFER ENHANCEMENT
ENHANCEMENT SHALL INCLUDE REMOVAL OF INVASIVE SPECIES AND THE RE-ESTABLISHMENT OF NATIVE SPECIES WHICH PROVIDES A MIX OF CANOPY TREES, UNDERSTORY SHRUBS, AND A NATIVE SEED MIX OF FORBES/ GRASSES/ SEDGES/ RUSHES SUITABLE FOR THE BANKS OF THE ON-SITE STREAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, STORAGE, OR DISTURBANCE OF VEGETATION ALLOWED IN THE STREAM BUFFER EXCEPT AS PERMITTED BY THE CITY ENGINEER.

LAND USE PLAN COMPLIANCE

CHARACTER AREA OVERLAY:	MEC0-9
APPLICABLE DEVELOPMENT STANDARD:	TRADITIONAL

1. THIS BLOCK IS LOCATED IN THE CENTER OF THE McEWEN CHARACTER AREA 9.

2. THE PROPOSED DEVELOPMENT PLAN IS AN ADAPTATION OF AN INFILL SITE TO A NEW LAND USE SIMILAR TO THE SURROUNDING SINGLE FAMILY HOUSING. THE PLAN FOR THE DONUT SHAPED PROPERTY IS TO CONSTRUCT AN ASSISTED LIVING FACILITY AND TOWN HOMES FOR 55 AND UP. EXISTING VEGETATION ALONG THE PROPERTY LINES AND IN THE DETENTION AREA WILL BE PRESERVED. FORMAL OPEN SPACE HAS BEEN CREATED FOR BOTH THE ASSISTED LIVING AND THE TOWNHOMES THE NEW PLAN FOR THE UNDEVELOPED PROPERTY OFFERS MEDIUM DENSITY RESIDENTIAL HOUSING AS TRANSITIONAL ZONING FROM COMMERCIAL TO SINGLE FAMILY.

3. THE PROPOSED DEVELOPMENT IS ACCESSED FROM 1 ROADWAY FROM MURFREESBORO ROAD AND 2 DRIVEWAYS THROUGH THE WILLIAMSON SQUARE SHOPPING CENTER.

DEVELOPMENT PLAN

GDC
GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE
144 SOUTHEAST PARKWAY
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GREG GAMBLE
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SERENA
DEVELOPMENT PLAN
FRANKLIN, TENNESSEE

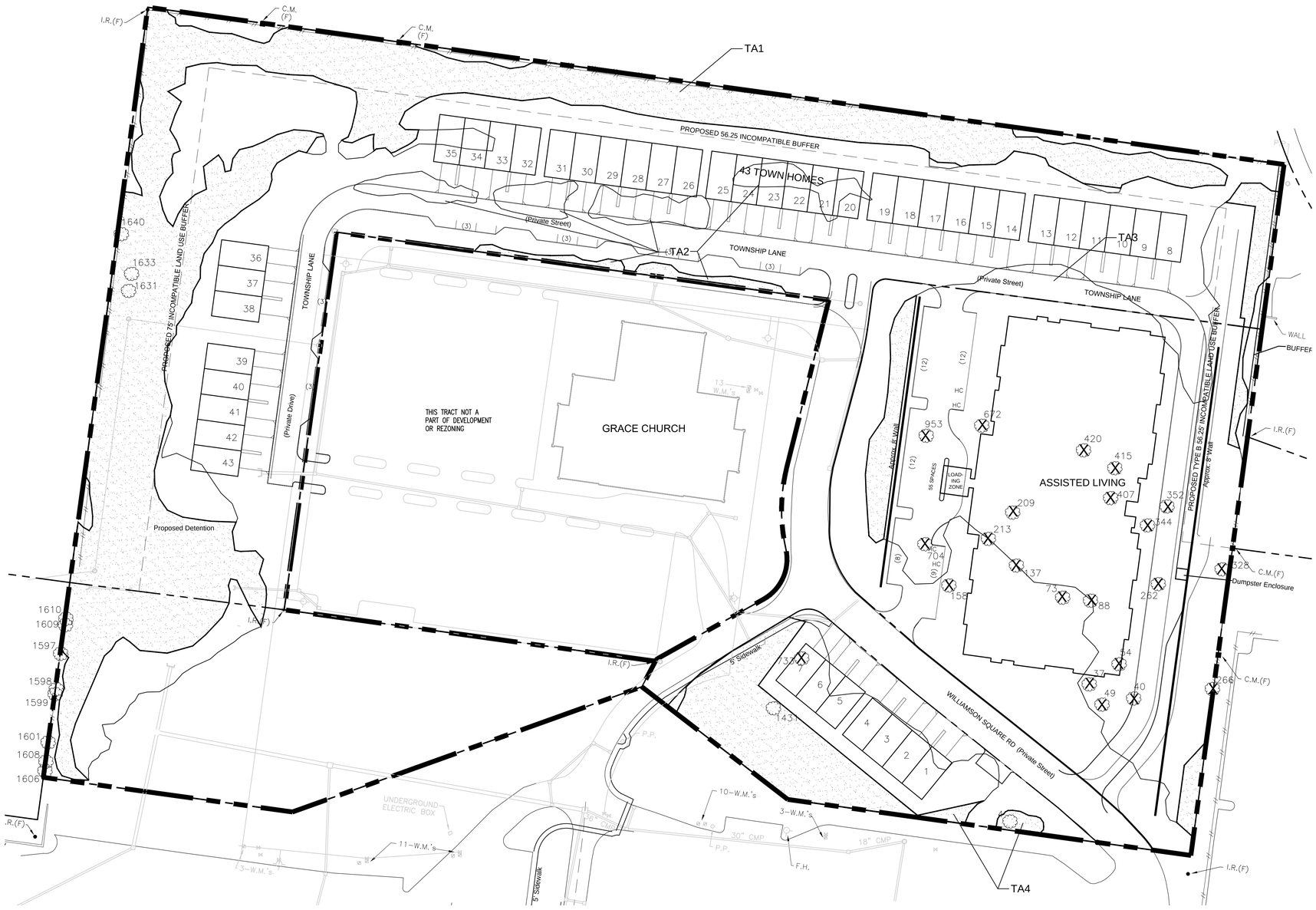
GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
1747

rev.	date
1	12-4-14

GCG Job No. 14006
NOVEMBER 11, 2014

SHEET
C1.2

COF #4718



TREE PRESERVATION PLAN

X SPECIMEN TREE REMOVED

EXISTING TREE CANOPY REMOVED

EXISTING TREE CANOPY

REQUIRED TREE CANOPY PRESERVATION CHART

(WHOLE SITE REZONED TO SD-R)

TOTAL SITE AREA:	753,219 SF (17.29 AC)	
EXISTING CANOPY AREA:	350,617 SF (8.05 AC)	47% OF SITE
SD-R REQUIRED PRESERVATION:	45%, 157,777 SF (3.62 AC)	
PROVIDED PRESERVATION:	45%, 158,855 SF (3.65 AC)	

TREE CANOPY RETENTION

TREE AREA	EXISTING	REMOVED	RETAINED
TA 1	140,085 SF	18,137 SF	121,948 SF
TA 2	15,368 SF	12,478 SF	2,890 SF
TA 3	155,272 SF	142,885 SF	12,387 SF
TA 4	39,990 SF	18,360 SF	21,630 SF
TOTAL SF	350,715 SF	191,860 SF	158,855 SF
TOTAL ACRES	8.05 AC	4.40 AC	3.65 AC

TREE CANOPY DATA

EXISTING TREE CANOPY: 350,715 SF
350,715 SF/753,219 SF = .47 (47%) OF TOTAL SITE
REQUIRED CANOPY PRESERVATION =
45% OF TOTAL CANOPY
350,715 SF * 45% = 157,822 SF
PROVIDED CANOPY PRESERVED =
158,855 SF (45%) OF TOTAL EXISTING CANOPY

Site Data:

Project Name:	Williamson Square
Address:	1127 Murfreesboro Road Franklin, TN 37203
Civil District:	9th
Map, Parcels:	M 79G, Grp B, P 6.01-6.03-6.04
Owner:	J.D. Eatherly 1720 West End Ave. #600 Nashville, Tennessee 37027 (615) 373-8850
Developers:	J.D. Eatherly 1720 West End Ave. #600 Nashville, Tennessee 37027 (615) 373-8850 Richard Chevaz 3595 Carothers Pkway Franklin, TN 37067 (615) 330-1618
Site Area:	17.291 acres 6.01- 1.215 Ac 6.03- 13.683 Ac 6.04- 2.393 Ac Townhomes 12.69 Ac / 552,808.40 SF Assisted Living 4.60 Ac / 200,387.56 SF

SPECIMEN TREE SURVEY

Number	Type	Size	Health	Status
4	LOCUST	28"	GOOD	
37	OAK	26"	GOOD	REMOVED
40	OAK	24"	GOOD	REMOVED
49	HACKBERRY	30"	GOOD	REMOVED
54	OAK	30"	GOOD	REMOVED
73	OAK	36"	GOOD	REMOVED
88	HACKBERRY	26"	GOOD	REMOVED
137	HACKBERRY	32"	GOOD	REMOVED
158	OAK	30"	GOOD	REMOVED
209	HICKORY	30"	GOOD	REMOVED
213	OAK	32"	GOOD	REMOVED
262	HACKBERRY	28"	GOOD	REMOVED
266	HACKBERRY	30"	GOOD	REMOVED
328	HACKBERRY	24"	GOOD	
344	HACKBERRY	28"	GOOD	REMOVED
351	HACKBERRY	30"	GOOD	REMOVED
407	HACKBERRY	32"	GOOD	REMOVED
415	HACKBERRY	24"	GOOD	REMOVED
420	HACKBERRY	34"	GOOD	REMOVED
672	HACKBERRY	28"	GOOD	REMOVED
704	HACKBERRY	32"	GOOD	REMOVED
733	HACKBERRY	24"	GOOD	
953	OAK	24"	GOOD	REMOVED
1431	LOCUST	24"	GOOD	REMOVED
1597	HACKBERRY	36"	GOOD	
1598	CHERRY	28"	GOOD	
1599	CHERRY	32"	GOOD	
1601	CHERRY	28"	GOOD	
1606	CHERRY	24"	GOOD	
1608	CHERRY	30"	GOOD	
1609	CHERRY	28"	GOOD	
1610	CHERRY	36"	GOOD	
1631	HACKBERRY	24"	GOOD	
1633	HACKBERRY	24"	GOOD	
1640	HACKBERRY	24"	GOOD	REMOVED

TOTAL SPECIMEN TREES REMOVED: 22
TOTAL HEALTHY INCHES REMOVED: 634 INCHES
REPLACEMENT REQUIRED: 1268 INCHES

TREE PRESERVATION PLAN

GRAPHIC SCALE 1"=60'

60 0 60 120

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE
144 SOUTHEAST PARKWAY
SUITE 230
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GREG GAMBLE
greggamble209@gmail.com
615.975.5765

SERENA
DEBELOPMENT PLAN
FRANKLIN, TENNESSEE

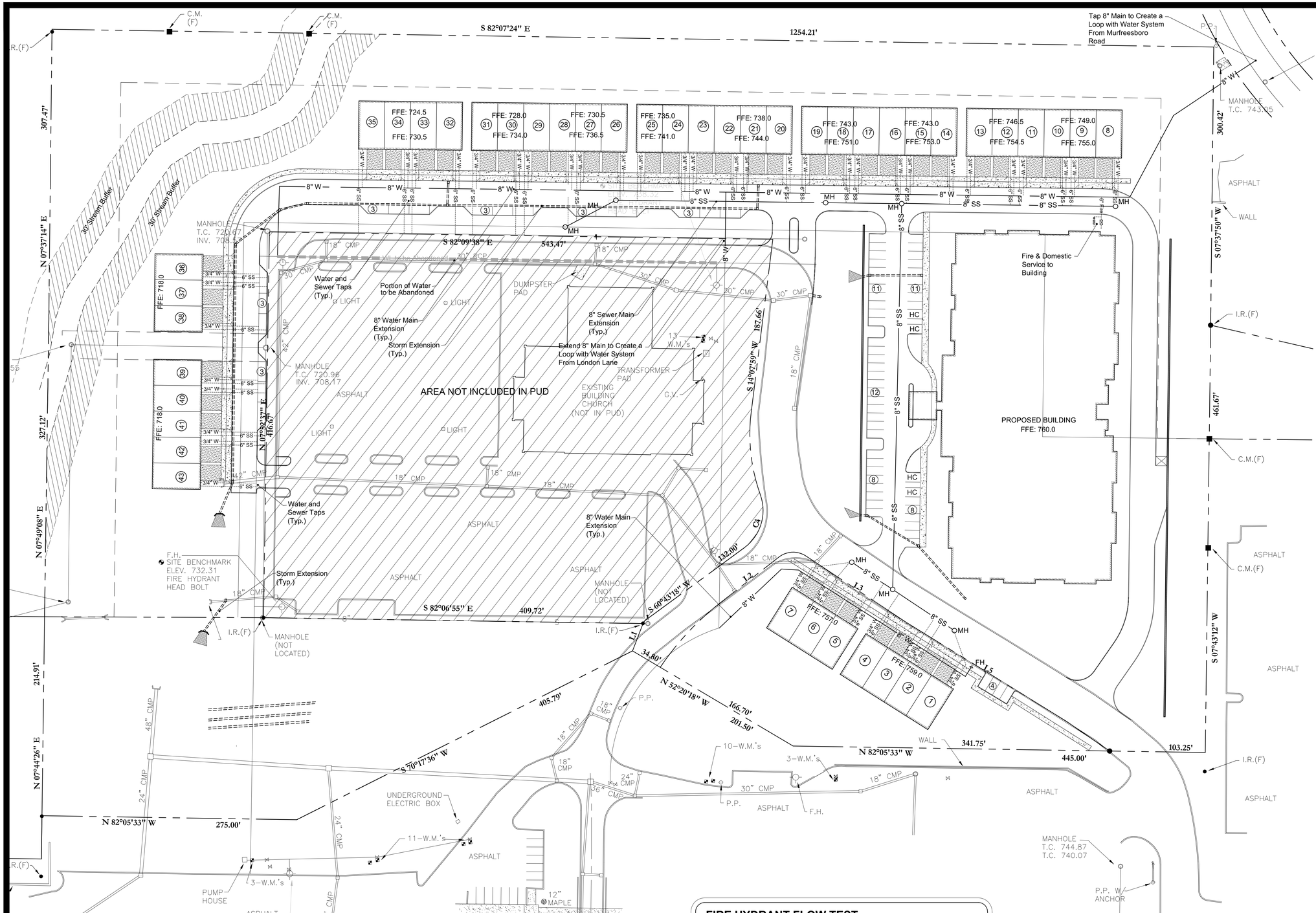
GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE
12/4/14

rev.	date
1	12-4-14

GCG Job No. 14006
NOVEMBER 11, 2014

SHEET
C1.3

COF #4718



TOTAL AREA = 17.291 ACRES
= 753,204.516 S.F.

IMPERVIOUS AREA = 5.961 ACRES
= 259,653 S.F.

DISTURBED AREA = 11,689 ACRES
= 509,166.23 S.F.

WATER & SEWER IMPACT

A Water and Sewer Availability Letter and Request Form was submitted to City of Franklin on August 25, 2014. The Letter and Request Form predicts that 36,850 GPD or 105 SFU's will be the Impact of this development.

FIRE HYDRANT FLOW TEST

Results from the Two-Hydrant Flow Test Performed on 9/16/08 using the Hydrants located along the north side of Murfreesboro Rd infront of Williamson Square. New connection insures the systems will be within the same loop.

Flow test results:
Static=64 psi
Residual=22 psi
Flow=1,110 gpm
Extrapolated Flow at 20 psi=2,239 gpm

NOTE: UPDATED HYDRANT TEST REQUESTED AND TO BE PROVIDED ONCE RESULTS ARE BACK.

UTILITIES PLAN

GRAPHIC SCALE 1"=50'

GDC
GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE
144 SOUTHEAST PARKWAY
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SERENA PUD SUBDIVISION DEVELOPMENT PLAN

1127 MURFREESBORO ROAD
FRANKLIN, TENNESSEE

Dale & Associates
Consulting Civil Engineering
Land Planning & Zoning
Landscape Architecture
Surveying

MICHAEL CHRISTOPHER GARRIGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 00110726
STATE OF TENNESSEE
12/4/14

rev. date
COF: 12/4/14

GCG Job No. 14006
JULY 8, 2014

SHEET
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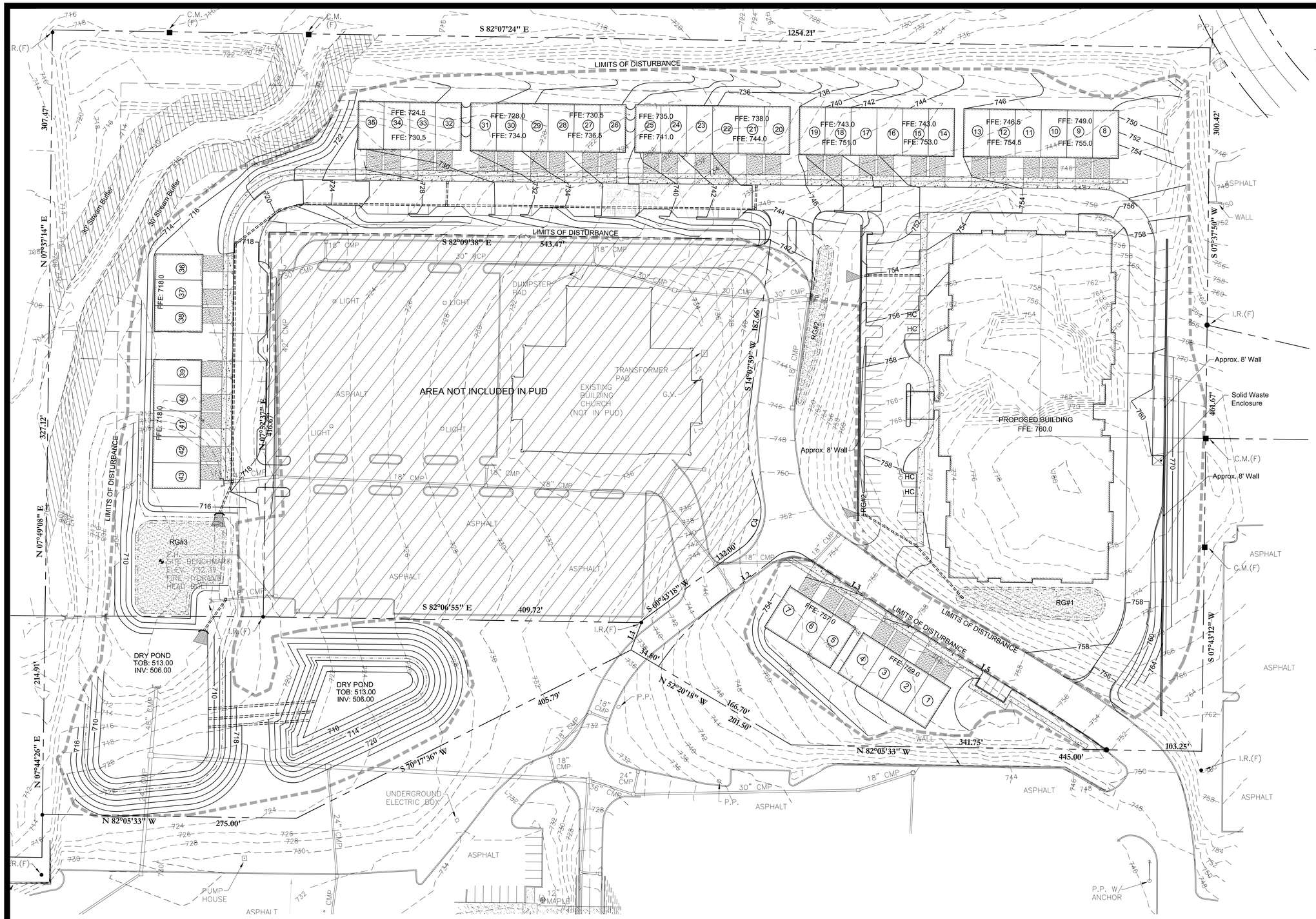
COF # 4718



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DISTURBED AREA = 11,689 ACRES
= 509,166.23 S.F.

Flood Note

This Property Does NOT lie within a Flood Hazard Area, as depicted on Flood Insurance Rate Map (FIRM) Number 47187C0212F, Date September 29, 2006.

GRADING PLAN

GRAPHIC SCALE 1"=50'

GDC
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SERENA PUD SUBDIVISION DEVELOPMENT PLAN

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FRANKLIN, TENNESSEE

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SHEET

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SERENA PUD SUBDIVISION
DEVELOPMENT PLAN

1127 MURFREESBORO ROAD
FRANKLIN, TENNESSEE

Dale & Associates
Consulting Civil Engineering
Land Planning & Zoning
Landscape Architecture
Surveying

CHRISTOPHER G. DALE
REGISTERED ENGINEER
COMMERCE
STATE OF TENNESSEE
12/4/14

rev. date
COF: 12/4/14

GCG Job No. 14006
JULY 8, 2014

SHEET
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COF # 4718

Flood Note

This Property Does NOT lie within a Flood Hazard Area, as depicted on Flood Insurance Rate Map (FIRM) Number 47187C0212F, Date September 29, 2006.

SUPPLEMENTAL GRADING PLAN

GRAPHIC SCALE 1"=50'

TOTAL AREA = 17.291 ACRES
= 753,204.516 S.F.

IMPERVIOUS AREA = 5.961 ACRES
= 259,653 S.F.

DISTURBED AREA = 11,689 ACRES
= 509,166.23 S.F.

DRAINAGE AREA SUMMARY:

RAIN GARDEN # 1 (Basin 1)
DRAINAGE AREA: 1.05 AC TOTAL
-IMPERVIOUS: 0.77 AC
-GREEN: 0.28 AC
Tv REQUIRED: 3,548 CF
Tv PROPOSED: 11,096 CF

RAIN GARDEN # 2 (Basin 1)
DRAINAGE AREA: 1.68 AC TOTAL
-IMPERVIOUS: 1.31 AC
-GREEN: 0.37 AC
Tv REQUIRED: 5,949 CF
Tv PROPOSED: 14,119 CF

BYPASS (Basin 2)
DRAINAGE AREA: 0.43 AC TOTAL
-GREEN: 0.43 AC

RAIN GARDEN # 3 (Basin 3)
DRAINAGE AREA: 7.84 AC TOTAL
-IMPERVIOUS: 6.05 AC
-GREEN: 1.79 AC
Tv REQUIRED: 27,541 CF
Tv PROPOSED: 28,225 CF

11 Acres @ 78.7(CN) To Detention Pond

6.73 Acres @ 85(CN) To Detention Pond

11.27 Acres @ 92(CN) Offsite To Detention Pond

1.03 Acres @ 72(CN) Bypass

TOTAL BASIN 30.03 Acres

Flood Note

This Property Does NOT lie within a Flood Hazard Area, as depicted on Flood Insurance Rate Map (FIRM) Number 47187C0212F, Date September 29, 2006.

PRELIMINARY STORMWATER MANAGEMENT SUMMARY:

WATER QUALITY BASIN SUMMARY:
DRAINAGE AREA: 11.00 AC TOTAL *(SEE NOTE BELOW)
-IMPERVIOUS: 8.13 AC
-GREEN: 2.87 AC
Tv REQUIRED: 37,038 CF
Tv PROPOSED: 53,440 CF (RAIN GARDENS 1, 2 & 3 COMBINED)

* NOTE: THIS SITE HAS BEEN DESIGNED ACCOUNTING FOR ALL PROPOSED DEVELOPED FLOW. THERE IS A 1.86 ACRE PORTION OF DEVELOPED FLOW THAT WILL BYPASS, BUT APPROXIMATELY 2.67 ACRES OF EXISTING FACILITY WILL BE TREATED TO OFFSET THE BYPASS

PRELIMINARY WATER QUANTITY SUMMARY:

TO HANDLE WATER QUANTITY, A DRY POND DESIGNED PER THE VOLUME/TIME METHOD IS BEING PROPOSED. THE RUNOFF FROM THIS SITE WILL BE ROUTED TO THE POND IN ITS CURRENT PIPES. NEWLY DEVELOPED PORTIONS OF THE SITE WILL BE TREATED BY 3 RAIN GARDENS DESIGNED TO THE LID MANUAL, THEN DETENTION WILL BE PROVIDED IN THE DRY POND AS SHOWN.

STORM EVENT	PRE-DEVELOPED FLOWS	POST-DEVELOPED FLOWS	DECREASE IN RUNOFF
2-YR	24.10 CFS	20.38 CFS	3.72 CFS
5-YR	46.38 CFS	26.44 CFS	19.94 CFS
10-YR	62.53 CFS	36.75 CFS	25.78 CFS
25-YR	84.79 CFS	54.74 CFS	30.05 CFS
50-YR	101.98 CFS	85.57 CFS	16.41 CFS
100-YR	119.32 CFS	117.39 CFS	1.93 CFS

STORMWATER MANAGEMENT PLAN

GRAPHIC SCALE 1"=50'

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE
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Dale & Associates
Founding Civil Engineering
Land Development
Landscape Architecture

SERENA PUD SUBDIVISION
DEVELOPMENT PLAN

1127 MURFREESBORO ROAD
FRANKLIN, TENNESSEE

CHRISTOPHER GAMBLE — REGISTERED ENGINEER — STATE OF TENNESSEE — AGRICULTURE — 109170 — COMMERCIAL

12/4/14

rev.	date
COF: 12/4/14	

GCG Job No. 14006
JULY 8, 2014

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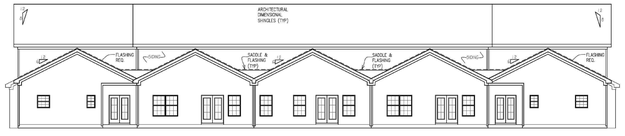
COF # 4718

ASSISTED LIVING FACILITY FRONT ELEVATION

TOWNHOUSE FRONT ELEVATIONS

LEFT SIDE ELEVATION



REAR ELEVATION

RIGHT SIDE ELEVATION

TOWNHOUSE REAR ELEVATIONS

ASSISTED LIVING FACILITY

ARCHITECTURAL DATA
BUILDING HEIGHT: 1 STORY, 59,736 SF
BUILDING MATERIALS: FIBER CEMENT SIDING & BRICK

ARCHITECTURAL DESCRIPTION:
The facility is a 1 story structure. The 68 unit facility faces the entry drive to the site. Parking is located in front of the building. There will be outdoor leisure area in front of the building. Residents at this facility are limited in mobility.

GENERAL ARCHITECTURAL ELEVATION NOTES:

1. These elevations have been designed to meet the requirements of the City of Franklin's architectural design standards and the approval of the Planning Commission/City of Franklin. Changes shall not be made to the approved elevations unless approved by either Codes Director or Planning Commission.

2. Elevations shown are typical for this development. Final design plans shall be submitted with the request for building permits and shall indicate compliance with the City of Franklin's architectural design standards.

3. Elevations included in this submittal are in draft version and are included for staff/FMPC review purposes only. Approval of the development shall not be inferred as approval of the draft elevations. Complete building elevations shall be submitted and fully evaluated for compliance with Zoning Ordinance standards at the site plan stage.

4. The architecture is designed with detailing and facade variations to meet the requirements for the Franklin MOS. Side and rear elevations will be completed in a similar design at the same level of articulation.

NOTE: TOWNHOME FRONT DOORS
The rendered elevation shows side doors on end units; the actual units will have front doors facing the roadway in front of the house as seen in the middle unit of the rendering.

The elevations shown here are representative of the buildings planned for the townhomes at this project.. They are the basis for design review by the City of Franklin at the time of building permit. Based on my professional experience, the plans presented meet or exceed the design standards set forth by the City of Franklin.

Greg Gamble, Registered Landscape Architect.

ARCHITECTURAL ELEVATIONS

GDC
GAMBLE
DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND
LANDSCAPE ARCHITECTURE
144 SOUTHEAST PARKWAY
SUITE 230
FRANKLIN, TENNESSEE 37064
GREG GAMBLE
greggamble209@gmail.com
615.975.5765

SERENA
DEVELOPMENT PLAN
1127 MURFREESBORO ROAD
FRANKLIN, TENNESSEE

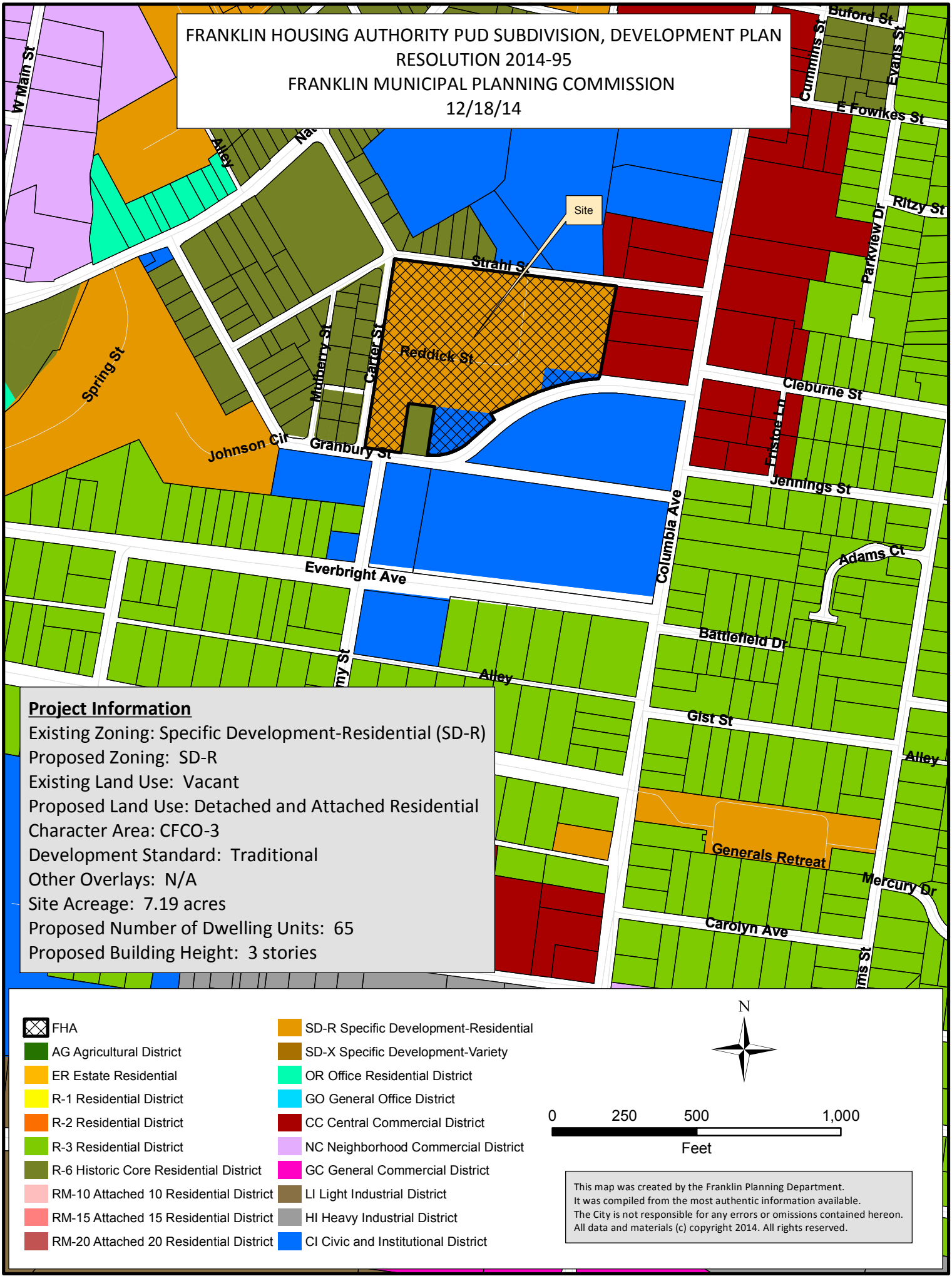
GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
12/4/14

rev.	date
1	12-4-14

GCG Job No. 14006
NOVEMBER 11, 2014

SHEET
A1.0

COF #4718


FRANKLIN HOUSING AUTHORITY PUD SUBDIVISION, DEVELOPMENT PLAN
RESOLUTION 2014-95
FRANKLIN MUNICIPAL PLANNING COMMISSION
12/18/14
Site
W Main St
Alley
Strahl St
Reddick St
Mulberry St
Carter St
Spring St
Johnson Cir
Granbury St
Buford St
Cummins St
Evans St
E Fowlkes St
Parkview Dr
Ritzy St
Cleburne St
Jennings St
Columbia Ave
Everbright Ave
Adams Ct
Battlefield Dr
Alley
Gist St
Generals Retreat
Mercury Dr
Carolyn Ave
Project Information
Existing Zoning: Specific Development-Residential (SD-R)
Proposed Zoning: SD-R
Existing Land Use: Vacant
Proposed Land Use: Detached and Attached Residential
Character Area: CFCO-3
Development Standard: Traditional
Other Overlays: N/A
Site Acreage: 7.19 acres
Proposed Number of Dwelling Units: 65
Proposed Building Height: 3 stories
FHA
AG Agricultural District
ER Estate Residential
R-1 Residential District
R-2 Residential District
R-3 Residential District
R-6 Historic Core Residential District
RM-10 Attached 10 Residential District
RM-15 Attached 15 Residential District
RM-20 Attached 20 Residential District
SD-R Specific Development-Residential
SD-X Specific Development-Variety
OR Office Residential District
GO General Office District
CC Central Commercial District
NC Neighborhood Commercial District
GC General Commercial District
LI Light Industrial District
HI Heavy Industrial District
CI Civic and Institutional District
N
0
250
500
1,000
Feet
This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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RESOLUTION 2014-95

A RESOLUTION APPROVING A DEVELOPMENT PLAN FOR THE FRANKLIN HOUSING AUTHORITY-REDDICK STREET DEVELOPMENT PHASE 2 PUD SUBDIVISION WITH 1 MODIFICATIONS OF STANDARDS (MOS1-MINIMUM PARKING REQUIREMENTS), LOCATED AT 145 STRAHL STREET, BY THE CITY OF FRANKLIN,TENNESSEE.

WHEREAS, The PUD process is a review procedure that is intended to encourage innovative land planning and design and avoid the monotony sometimes associated with large developments by:

(a) Reducing or eliminating the inflexibility that sometimes results from strict application of zoning standards that were designed primarily for individual lots;

(b) Allowing greater freedom in selecting the means to provide access, light, open space, and design amenities;

(c) Encouraging a sensitive design that respects the surrounding established land use character and natural or man-made features of the site including, but not limited to, trees, historic features, streams, hillsides, and floodplains;

(d) Promoting quality design and environmentally sensitive development by allowing development to take advantage of special site characteristics, locations, and land uses; and

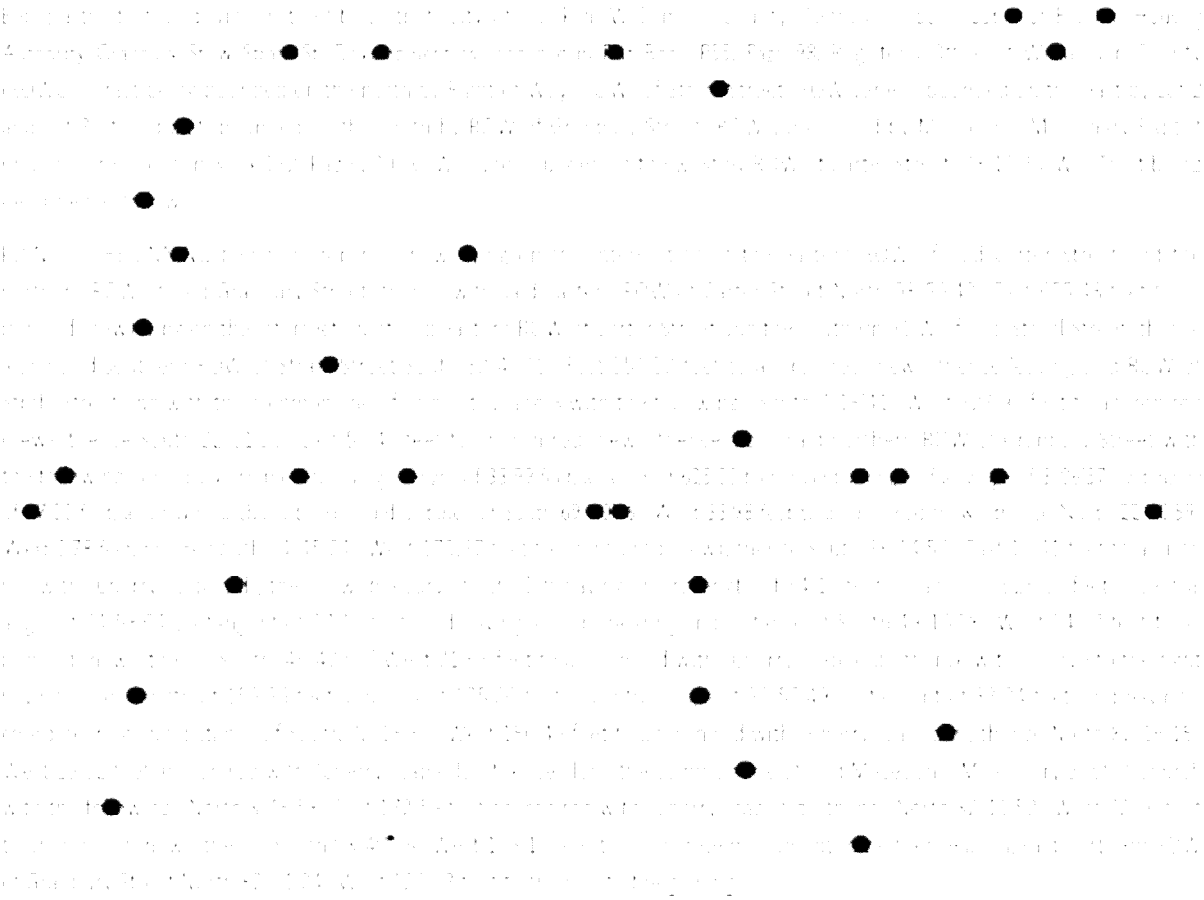
(e) Allowing deviations from certain zoning standards that would otherwise apply if not contrary to the general spirit and intent of this ordinance.

WHEREAS, The PUD review process consists of a Development Plan that is reviewed and approved by the BOMA, after a recommendation from the FMPC.

NOW, THEREFORE, BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, meeting in regular session this _____ day of _____, 2014:

1. That the legal description of the property is as follows:

Map--Parcel	Acres
Portion of 078J-D00100	±7.19
TOTAL	**±7.19**



Tract contains 312,983 square feet or 7.19 acres.

Bearings based on Tennessee State Plane Coordinate System.

2. That the overall entitlements for the Franklin Housing Authority-Reddick Street Development Phase 2 PUD Subdivision are as follows:

Entitlements	FHA Reddick Street Phase 2 PUD Subdivision
Base Zone	Specific Development-Residential (SD-R)
Character Area Overlay	Central Franklin Character Area Overlay #3
Other Zoning Overlays	N/A
Number of Dwelling Units	65
Connectivity Index	2.0
Development Standard	Traditional
Open Space Requirements	Formal: 0.22 acres Informal: N/A Total: 0.22 acres

3. That the Development Plan, the exhibits accompanying the Development Plan, and all conditions and restrictions placed upon the Development Plan by the Franklin Municipal Planning Commission and this Board shall be made a part of this Resolution as though copied verbatim herein, and that a permanent record of the Development Plan, the exhibits accompanying the Development Plan, and all such conditions and restrictions shall be kept in the Franklin Planning Department.

4. That the following Modifications of Standards (MOS) were requested and acted upon by BOMA, after FMPC review:

MOS 1: Minimum Parking Requirements Approved: _____ Denied: _____	Request to reduce the required parking provided to 2.2 spaces per unit. *Staff recommended approval.*

5. That this Resolution shall take effect from and after its passage on its first and final reading, the health, safety, and welfare of the citizens requiring it.

ATTEST: **CITY OF FRANKLIN, TENNESSEE**

BY: _____
ERIC STUCKEY
CITY ADMINISTRATOR

BY: _____
DR. KEN MOORE
MAYOR

PREAPPLICATION CONFERENCE: 08/05/14

BOMA/FMPC JOINT CONCEPTUAL WORKSHOP: N/A

NEIGHBORHOOD MEETING: N/A

PLANNING COMMISSION RECOMMENDED APPROVAL:

BOMA APPROVAL:

COF# 4711

CONDITIONS OF APPROVAL:

Engineering - PUD Plan Checklist

General Comments

1. D. Statement of Impacts

- The previous comment has not been fully addressed: "Applicant shall provide a statement describing the anticipated impact on water, sewer, re-claimed water, and drainage facilities, including expected needs in total gallons per day (where appropriate). It is noted that a Sanitary Sewer Summary has been provided as a separate document showing these calculations. Please show the max. demands/flows for each of the above on the utility sheet as well."

Applicant shall show the expected max. demands for water and sewer on the Site Utility Plan.

2. F. Development Plan

- The previous comment has not been fully addressed: "Applicant shall provide a sidewalk ramp for each crosswalk at each street corner and at approved midblock crossings (see Standard Drawings). Sidewalk intersections shall be made in a perpendicular fashion."

Applicant shall revise sidewalk intersections so that the sidewalk along Strahl Street meets the sidewalks along Battlement and Reddick Streets in a perpendicular fashion. Similarly revise the orientation of the sidewalks at Battlement and Granbury so that they intersect in a perpendicular fashion.

Applicant shall show all sidewalk ramp locations on the plans.

3. I. Utility Plan

- The previous comment: "

Applicant shall indicate all existing and proposed easements associated with utilities. City of Franklin Easement Requirements (per Technical Specifications - General Design Requirements):

- 0-12' depth: 20' exclusive easement on center
- 12'-20' depth: 30' exclusive easement on center
- Depths greater than 20' require prior approval from Engineering/Water Managmenet Departments
- Minimum 10' temporary construction easement on each side of permanent easement shall be provided"

has not been addressed. Applicant has noted that discussion is ongoing with COF Water Department on the requirement for an easement beneath Battlement Street centered on the 8" sanitary sewer. This comment to remain open pending resolution of this discussion.

Fire-Planning

20100011_2014-11-10_Development Plan.pdf

4. Access

- Several points along the apparatus path indicate collision with curbing.

The applicant shall provide mountable/rolled curbs in areas identified as impact spots along the autoturn path.

5. Fire Sprinkler System

- Per original concept and development plan approval, please include reference to the requirement for residential fire sprinkler systems in all dwelling units and buildings.

The Franklin Municipal Code was not referenced in the concept and development plans as the requirement. Furthermore, the ordinance applies to one- and two-family dwellings on individual lots. These dwellings are on a single lot and are not individual-owners.

Fire sprinklers have been and continue to be a requirement per original acceptance. Additionally, the removal of one point of connection during the revision process was predicated on the presence of residential fire sprinklers (connection to Granbury St).

The applicant shall indicate/acknowledge the requirement for residential fire sprinklers on the revised development plans.

Planning (Landscape)

General Comments

6. Bio-Detention Areas

- These areas are just concept on this plan. At site plan stage they shall be properly delineated.

7. Parking

- Applicant shall strongly consider parallel parking along Carter and Strahl Streets.

Water/Sewer

General Comments

8. Sewer design

- Municipal code title 18 does not allow for multiple buildings to share sewer services. Applicant shall revise sewer plan to meet required code. The added flow to the sewer line does require the affected sewer lines to be upgraded. This comment was not addressed.

9. Water design

- Municipal code Title 18 Reads No customer shall supply water service to more than one dwelling or premise from a single service line. Applicant shall revise the development plan to meet code. Each unit must be metered separate. This comment was not addressed.

REVISED DEVELOPMENT PLAN

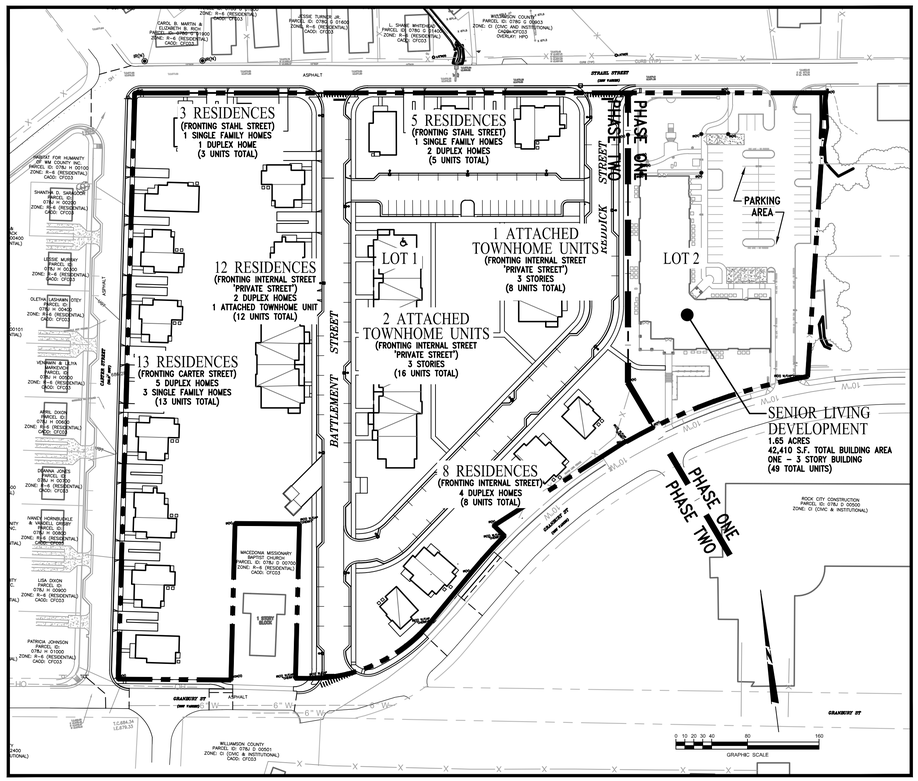
FRANKLIN HOUSING AUTHORITY

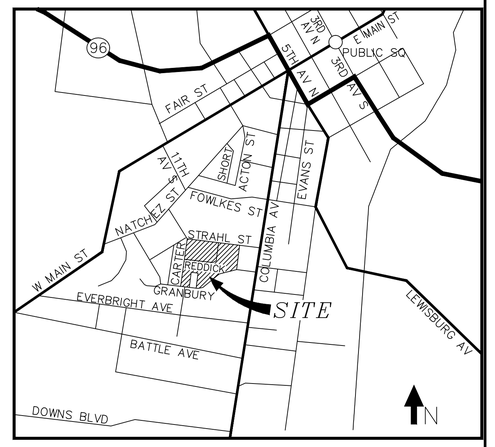
REDDICK STREET DEVELOPMENT PHASE 2

Franklin, Williamson County, Tennessee

CITY OF FRANKLIN PROJECT NO. 4711

NOVEMBER 10, 2014
DECEMBER 4, 2014 (RESUBMITTAL)





VICINITY MAP
SCALE: 1" = 1,000'

INDEX OF SHEETS

SHEET NO.	SHEET TITLE
C0.0	COVER SHEET
C1.0	SITE SLOPE ANALYSIS
C2.0	EXISTING CONDITIONS
C3.0	SITE CONCEPT PLAN
C4.0	SITE CONCEPT GRADING PLAN
C5.0	CONCEPTUAL STORMWATER MANAGEMENT PLAN
C6.0	SITE CONCEPT UTILITY PLAN
L1.0	TREE CANOPY RETENTION & SPECIMEN TREE PRESERVATION PLAN

SITE DATA

PROJECT NAME	FRANKLIN HOUSING AUTHORITY – REDDICK STREET DEVELOPMENT PHASE 2, DEVELOPMENT PLAN	
PROJECT NUMBER:	CITY OF FRANKLIN # 4711	
LOTS:	1	
ADDRESS:	145 STRAHL ST.	
CITY:	FRANKLIN	
COUNTY:	WILLIAMSON	
STATE:	TENNESSEE	
CIVIL DISTRICT:	9TH	
MAP, GROUP AND PARCEL NUMBERS:	WILLIAMSON CO. TAX MAP 78J, GROUP D, PARCEL 1 PLAT RECORDED 2011-02-22. DEED BOOK 5268, PAGE 838	
EXISTING ZONING:	SD-R (FORMERLY RX) SPECIAL DISTRICT-RESIDENTIAL	
CHARACTER AREA OVERLAY:	CFCO-3	
OTHER APPLICABLE OVERLAYS:	-	
APPLICABLE DEVELOPMENT STANDARD:	TRADITIONAL	
ACREAGE OF SITE:	7.19 Ac.	
SQUARE FOOTAGE OF SITE:	312,983 S.F.	
MINIMUM REQUIRED SETBACK LINES:	RESIDENTIAL ATTACHED	OFFICE USE
YARD FRONTING ON ANY STREET	0' OR 5' TO 25'	0'-20'
SIDE YARD	MIN. 0' EA. SIDE; 10' BETWEEN BLDGS.	0'
REAR YARD	5'	0'
OWNERSHIP ENTITY:	REDDICK STREET ASSOCIATES 1, LP	
OWNER:	FRANKLIN HOUSING AUTHORITY	
DEVELOPER:	THE MICHAELS ORGANIZATION	
ADDRESS:	100 SPRING STREET, FRANKLIN, TN 37065	
PHONE NO.:	615.794.1247	
FAX NO.:	615.794.9254	
E-MAIL ADDRESS:	djackson@franklinhousingauthority.com	
CONTACT NAME:	MR. DERWIN JACKSON, EXEC. DIRECTOR	
APPLICANT:	LITTLEJOHN ENGINEERING ASSOCIATES	
ADDRESS:	1935 21st AVENUE SOUTH NASHVILLE, TN 37212	
PHONE NO.:	615.385.4144	
FAX NO.:	615.385.4020	
E-MAIL ADDRESS:	JBROUILLETTE@LEAINC.COM	
CONTACT NAME:	MR. JASON BROUILLETTE, ASLA	
BUILDING SQUARE FOOTAGE:		
SINGLE AND MULTI-FAMILY UNITS (CONDITIONED SPACE)	65 UNITS, 66,273 S.F.	
TOTAL (CONDITIONED SPACE + PORCHES AND STORAGE)	65 UNITS, 77,449 S.F.	
BUILDING HEIGHT		
ALLOWABLE	3 STORIES MAXIMUM	
PROPOSED MULTI-FAMILY	3 STORIES	
FLOOR AREA RATIO OF SITE:		
SINGLE AND MULTI-FAMILY UNITS	0.175	
PROPOSED LANDSCAPE SURFACE RATIO:	0.48	
MINIMUM LANDSCAPE SURFACE RATIO:	0.20	
RESIDENTIAL DENSITY:		
EXISTING GROSS DENSITY	5.5 DU/Ac. EXISTING (44 DU ON 8.03 Ac.)	
PROPOSED GROSS DENSITY	Phase 2 : 9.04 DU/Ac. PROPOSED (65 DU ON 7.19 Ac.) Phases 1-2 : 12.90 DU/Ac. PROPOSED (114 DU ON 8.84 Ac.)	
TREE CANOPY:	NOT APPLICABLE	
PARKLAND DEDICATION:	NOT APPLICABLE	
OPEN SPACE:		
PHASE TWO OPEN SPACE REQ'D (5% OF 7.19 AC.)	0.36 AC.	
PHASE TWO OPEN SPACE PROPOSED	0.55 AC.	

NOTES:

PROPERTY IS LOCATED ON MAP 78J AS PARCELS 1 AND A PORTION OF PARCEL 5 CONTAINING 8.84 ACRES.

THE PROPERTY DOES NOT LIE WITHIN THE 100-YEAR FLOOD PLAIN AS INDICATED BY FIRM MAP NOS. 47187C019F AND 47187C021F, DATED SEPTEMBER 29, 2006.

PHASING

SINGLE PHASE DEVELOPMENT OF LOT 1 – SINGLE AND MULTI-FAMILY RESIDENCES
BEGIN 2014 – COMPLETION ESTIMATE 2016

PARKING

PARKING REQUIRED:	
ATTACHED DWELLING	
0–1BR: 1.50	9 SPACES
2BR: 2.50	98 SPACES
3+BR:3.00	54 SPACES
DETACHED DWELLING:	
2/UNIT	10 SPACES
TOTAL PARKING REQUIRED:	171 SPACES
PARKING PROVIDED:	143 SPACES*

*MODIFICATION OF PARKING STANDARDS IS BEING REQUESTED AT (2.2 SP/UNIT)

MODIFICATION OF STANDARDS (PARKING)

PER MODIFICATION REQUEST AND DOCUMENTATION PROVIDED ALONG WITH DEVELOPMENT PLAN SUBMITTAL PARKING REQUIREMENT MODIFICATIONS AT AVERAGE OF 2.2 SPACES PER DWELLING UNIT IS REQUESTED FOR A TOTAL OF 143 SPACES.

LEGAL DESCRIPTION

Being a tract of land lying in the 9th District, City of Franklin, Williamson County, Tennessee, being Lot 1 of Franklin Housing Authority Granbury St. & Strahl St. Development as recorded in Plat Book P55, Page 98, Register's Office of Williamson County (ROWC). Tract being bounded on the north by Right of Way (ROW) of Strahl Street (ROW varies); bounded on the east by Lot 2 and Lot 3 of said plat; bounded on the south by ROW of Granbury Street (ROW varies), and by Macedonia Missionary Baptist Church as recorded in Book 132, Page 270, ROWC; and bounded on the west by ROW of Carter Street (38.11' ROW). Tract being described as follows:

POINT OF BEGINNING being an iron rod (new) lying on the intersection of the eastern ROW of said Carter Street and the northern ROW of said Granbury Street; thence with said eastern ROW of Carter Street North 08°56'42" East 655.48 feet to an iron rod (new) lying on the intersection of said eastern ROW of Carter Street and the southern ROW of said Strahl Street; thence along said southern ROW of Strahl Street South 82°41'19" East 551.52 feet to an iron rod (new); thence leaving said ROW of Strahl Street and with the common line of said Lots 2 and 3 with the following: South 7°18'41" West 323.99 feet to an iron rod (new); thence South 22°01'20" East 57.40 feet to an iron rod (new); thence along said northern ROW of Granbury Street with the following: on a curve to the left having a length of 33.99 feet, a radius of 625.00 feet, a central angle of an angle of 3°06'57", a tangent of 17.00 feet, and having a chord bearing and distance of South 69°18'16" West 33.98 feet to an iron rod (new); thence North 22°10'59" West 0.78 feet; thence South 64°45'24" West 175.37 feet to an iron rod (new); thence South 38°14'50" East 16.41 feet to an iron rod with "Cherry" cap (old); thence with a curve to the left having an arc length of 54.19 feet, a radius of 625.00 feet, a central angle of 04°58'04", a tangent of 27.11 feet, and having a chord bearing and distance of South 49°16'58" West 54.17 feet to an iron rod (new); thence South 46°47'56" West 71.65 feet to an iron rod with "Cherry" cap (old); thence with a curve to the right having an arc length of 155.56 feet, a radius of 175.00 feet, a central angle of 50°55'49", a tangent of 83.34 feet, and having a chord bearing and distance of South 72°15'51" West 150.49 feet to an iron rod with "Cherry" cap (old); thence North 82°16'15" West 15.52 feet an iron rod with "Cherry" cap (old); thence along the common line of said Macedonia Missionary Baptist Church with the following: North 8°48'58" East 172.59 feet an iron rod with "Cherry" cap (old); thence North 82°11'52" West 72.00 feet to an iron rod (new); thence South 08°49'56" West 175.10 feet to a concrete monument (old); thence along said northern ROW of Granbury Street North 82°11'24" West 126.13 feet to the point of beginning.

Tract contains 312,983 square feet or 7.19 acres.

Bearings based on Tennessee State Plane Coordinate System.

PREPARED FOR:

FRANKLIN
HOUSING AUTHORITY
100 Spring Street
Franklin, Tennessee
615-794-1247

ANDREW WOLTHERS — REGISTERED LANDSCAPE ARCHITECT — No. 109523 — STATE OF TENNESSEE — 12/4/14

JASON M. BROUILLETTE — REGISTERED LANDSCAPE ARCHITECT — No. 328 — TENNESSEE — 12/4/14

PREPARED BY:

Littlejohn

1935 21st Avenue South, NASHVILLE, TENNESSEE 37212
T 615.385.4144 F 615.385.4020 www.leainc.com

Nashville | Chattanooga | Decatur | Huntsville | Knoxville | Orlando | Phoenix | Tri-Cities

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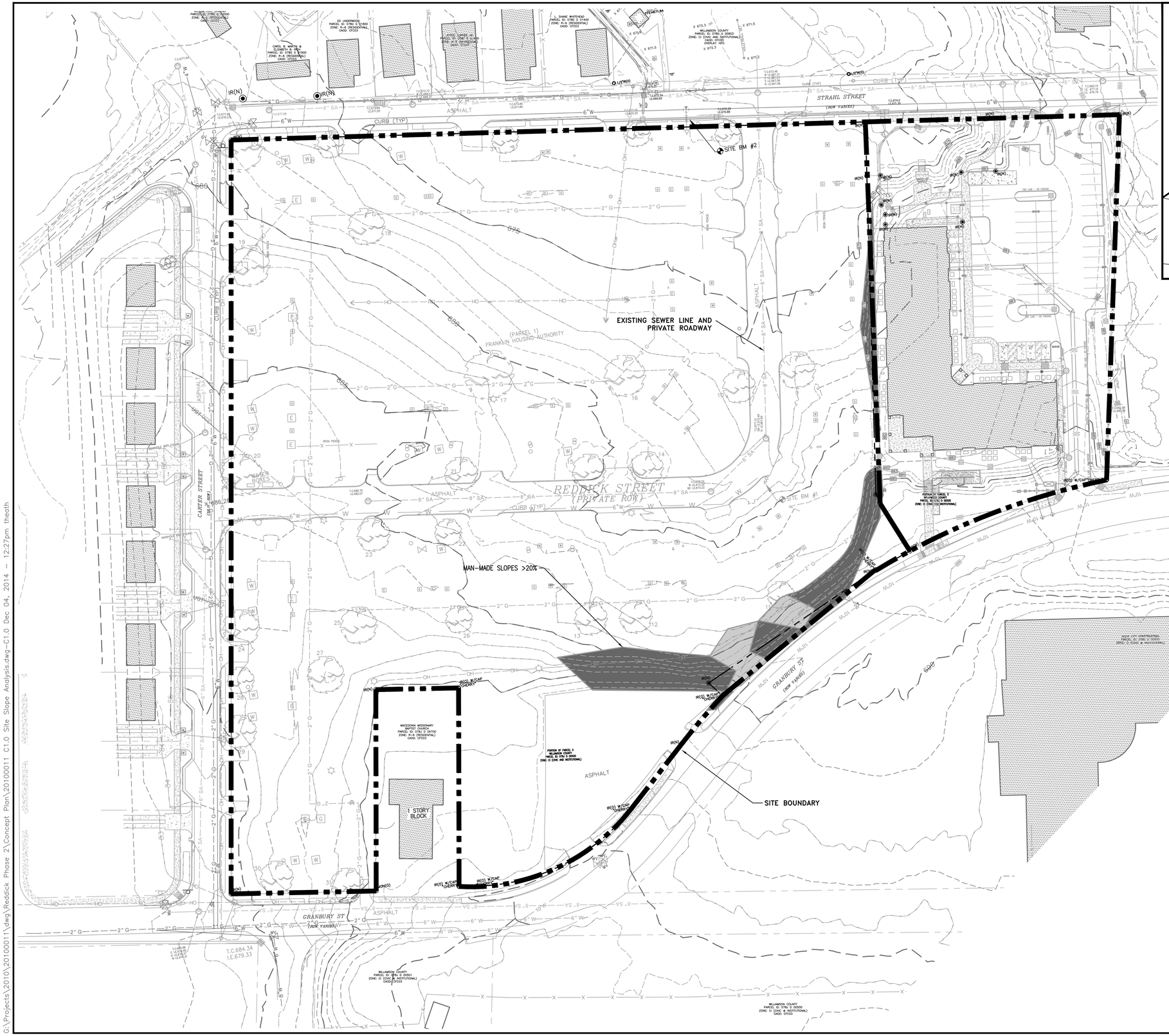
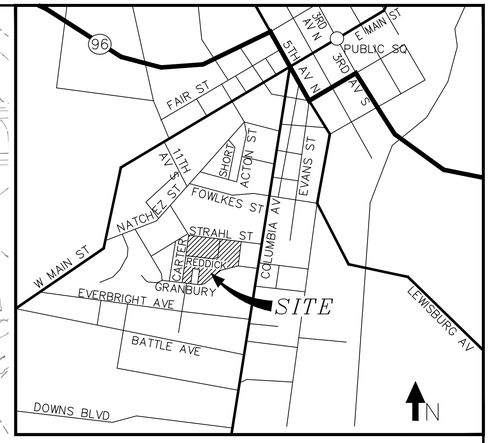




VICINITY MAP
SCALE: 1" = 1,000'

GENERAL NOTES

1. THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLANE AND IS DETERMINED TO BE IN ZONE "X" AS PER FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NUMBER 47187C0192F, DATED SEPTEMBER 29, 2006 AND MAP NUMBER 47187C0211F, DATED SEPTEMBER 29, 2006.
2. THIS SITE IS LOCTED IN THE DRAINAGE BASIN.

Slopes Table			
Number	Minimum Slope	Maximum Slope	Color
1	14.00%	19.99%	
2	20.00%	1000.00%	

LEGEND

EXISTING TREE

EXISTING TREE COVER

EXISTING CONTOUR 00

0 10 20 30 40 80 120
GRAPHIC SCALE

Littlejohn
1935 21st Avenue South, NASHVILLE, TENNESSEE 37212
T 615.385.4144 F 615.385.4020 www.tealnc.com
Nashville | Chattanooga | Decatur | Huntsville | Knoxville | Orlando | Phoenix | Tri-Cities

FRANKLIN HOUSING AUTHORITY
REDDICK STREET DEVELOPMENT
PHASE 2
DEVELOPMENT PLAN

FRANKLIN HOUSING AUTHORITY
100 Spring Street
Franklin, TN 37064
615-794-1247

ANDREW WOLTHER
REGISTERED LANDSCAPE ARCHITECT
No. 109525
STATE OF TENNESSEE
12/3/14

DATE	REVISIONS
12/4/14	PER CITY COMMENTS
2014-11-10	20100011

C1.0
SITE
SLOPE ANALYSIS/
PHYSICAL FEATURES

G:\Projects\2010\20100011\dwg\Reddick Phase 2\Concept Plan\20100011 C1.0 Site Slope Analysis.dwg—C1.0 Dec 04, 2014 - 12:27pm theath

500' DISTANCE FROM PROPERTY BOUNDARY (TYPICAL)

HISTORIC CORE RESIDENTIAL DISTRICT

CARTER HOUSE

CIVIC AND INSTITUTIONAL DISTRICT

ARTERIAL

PHASE ONE
PHASE TWO

LOCAL ROAD

CENTRAL COMMERCIAL DISTRICT

PHASE 1
(COMPLETED 2013)

REDDICK STREET SA
(PRIVATE ROW)

PHASE ONE
PHASE TWO

WILLIAMSON COUNTY LIBRARY

LOCAL ROAD

SITE BOUNDARY

LOCAL ROAD

PHASE 2

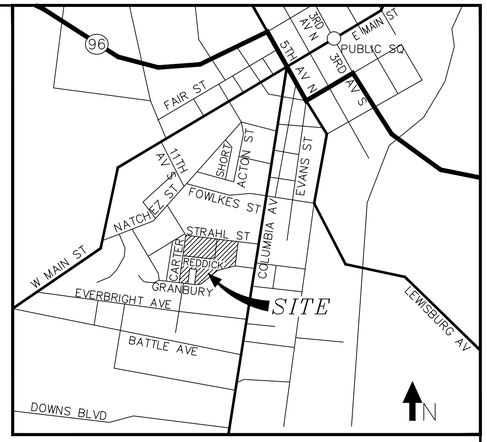
CIVIC AND INSTITUTIONAL DISTRICT

COLUMBIA AVENUE

ACADEMY STREET

500'

500' DISTANCE FROM PROPERTY BOUNDARY (TYPICAL)



VICINITY MAP
SCALE: 1" = 1,000'

SITE DATA

PROJECT NAME	FRANKLIN HOUSING AUTHORITY – REDDICK STREET DEVELOPMENT PHASE 2, DEVELOPMENT PLAN
PROJECT NUMBER:	CITY OF FRANKLIN # 4711
LOTS:	1
ADDRESS:	145 STRAHL ST.
CITY:	FRANKLIN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	9TH
MAP, GROUP AND PARCEL NUMBERS:	WILLIAMSON CO. TAX MAP 78J, GROUP D, PARCEL 1 PLAT RECORDED 2011-02-22. DEED BOOK 5268, PAGE 838
EXISTING ZONING:	SD-R (FORMERLY RX) SPECIAL DISTRICT-RESIDENTIAL
CHARACTER AREA OVERLAY:	CFCO-3
OTHER APPLICABLE OVERLAYS:	
APPLICABLE DEVELOPMENT STANDARD:	TRADITIONAL
ACREAGE OF SITE:	7.19 Ac.
SQUARE FOOTAGE OF SITE:	312,983 S.F.

MINIMUM REQUIRED SETBACK LINES:	RESIDENTIAL ATTACHED	OFFICE USE
YARD FRONTING ON ANY STREET	0' OR 5' TO 25'	0'-20'
SIDE YARD	MIN. 0' EA. SIDE; 10' BETWEEN BLDGS.	0'
REAR YARD	5'	0'

OWNERSHIP ENTITY:	REDDICK STREET ASSOCIATES 1, LP
OWNER:	FRANKLIN HOUSING AUTHORITY
DEVELOPER:	THE MICHAELS ORGANIZATION
ADDRESS:	100 SPRING STREET, FRANKLIN, TN 37065
PHONE NO.:	615.794.1247
FAX NO.:	615.794.9254
E-MAIL ADDRESS:	djackson@franklinhousingauthority.com
CONTACT NAME:	MR. DERWIN JACKSON, EXEC. DIRECTOR
APPLICANT:	LITTLEJOHN ENGINEERING ASSOCIATES
ADDRESS:	1935 21st AVENUE SOUTH NASHVILLE, TN 37212
PHONE NO.:	615.385.4144
FAX NO.:	615.385.4020
E-MAIL ADDRESS:	JBROUILLETTE@LEAINC.COM
CONTACT NAME:	MR. JASON BROUILLETTE, ASLA
BUILDING SQUARE FOOTAGE:	
SINGLE AND MULTI-FAMILY UNITS (CONDITIONED SPACE)	65 UNITS, 66,273 S.F.
TOTAL (CONDITIONED SPACE + PORCHES AND STORAGE)	65 UNITS, 77,449 S.F.
BUILDING HEIGHT	
ALLOWABLE	3 STORIES MAXIMUM
PROPOSED MULTI-FAMILY	3 STORIES
FLOOR AREA RATIO OF SITE:	
SINGLE AND MULTI-FAMILY UNITS	0.175
PROPOSED LANDSCAPE SURFACE RATIO:	0.48
MINIMUM LANDSCAPE SURFACE RATIO:	0.20
RESIDENTIAL DENSITY:	
EXISTING GROSS DENSITY	5.5 DU/Ac. EXISTING (44 DU ON 8.03 Ac.)
PROPOSED GROSS DENSITY	Phase 2 : 9.04 DU/Ac. PROPOSED (65 DU on 7.19 Ac.) Phases 1-2 : 12.90 DU/Ac. PROPOSED (114 DU ON 8.84 Ac.)
TREE CANOPY:	NOT APPLICABLE
PARKLAND DEDICATION:	NOT APPLICABLE
OPEN SPACE:	
PHASE TWO OPEN SPACE REQ'D (5% OF 7.19 AC.)	0.36 AC.
PHASE TWO OPEN SPACE PROPOSED	0.55 AC.

NOTES:
PROPERTY IS LOCATED ON MAP 78J AS PARCELS 1 AND A PORTION OF PARCEL 5 CONTAINING 8.84 ACRES.

THE PROPERTY DOES NOT LIE WITHIN THE 100-YEAR FLOOD PLAIN AS INDICATED BY FIRM MAP NOS. 47187C019F AND 47187C0211F, DATED SEPTEMBER 29, 2006.

PHASING
SINGLE PHASE DEVELOPMENT OF LOT 1 – SINGLE AND MULTI-FAMILY RESIDENCES
BEGIN 2014 – COMPLETION ESTIMATE 2016

PARKING
PARKING REQUIRED:
ATTACHED DWELLING
0-1BR: 1.50
2BR: 2.50
3+BR:3.00
DETACHED DWELLING:
2/UNIT

	9 SPACES
	98 SPACES
	54 SPACES
	10 SPACES
TOTAL PARKING REQUIRED:	171 SPACES
PARKING PROVIDED:	143 SPACES*

*MODIFICATION OF PARKING STANDARDS IS BEING REQUESTED AT (2.2 SP/UNIT)

LINE DATA

LINE	LENGTH	BEARING
L1	7.01'	S10°55'32"W
L2	0.78'	N22°10'59"W
L3	16.41'	S38°14'50"E
L4	15.52'	N82°16'15"W
L5	3.94'	N08°48'58"E

AREA SUMMARY

TRACT	SQ. FT.	ACRES
1	349,645	8.03
2	27,808	0.64
3	7,417	0.17
TOTAL	384,870	8.84

CURVE DATA

CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	CHD BEARING
C1	19°50'18"	625.00	109.30	216.40	215.32	S77°31'57"W
C2	04°58'04"	625.00	27.11	54.19	54.17	S49°16'58"W
C3	50°55'49"	175.00	83.34	155.56	150.49	S72°15'51"W

GENERAL NOTES

1. BOUNDARY WAS TAKEN FROM A BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY LITTLEJOHN ENGINEERING ASSOCIATES, DATED 4-30-2010. ADJACENT PROPERTY INFORMATION WAS TAKEN FROM CITY OF FRANKLIN TOPOGRAPHICAL MAPS.
2. PROPERTY IS SHOWN ON WILLIAMSON COUNTY TAX MAP 78J, GROUP D, PARCEL 1 AND TAX MAP 78J, GROUP D, A PORTION OF PARCEL 5, CONTAINING 8.84 ACRES.
3. THERE ARE NO HISTORICAL STRUCTURES ON THIS SITE AS IDENTIFIED BY THE NATIONAL REGISTRY OF HISTORIC PLACES.
4. THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLANE AND IS DETERMINED TO BE IN ZONE "X" AS PER FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NUMBER 47187C0192F, DATED SEPTEMBER 29, 2006 AND MAP NUMBER 47187C0211F, DATED SEPTEMBER 29, 2006.
5. FROM THIS SITE:
   +/-1.2 MILES TO
   CITY POLICE DEPARTMENT
   109 2nd AVENUE SOUTH

   +/-0.7 MILES TO
   CITY OF FRANKLIN FIRE STATION NO. 1
   CORNER HWY. 96 WEST AND 11th AVE. NORTH
6. THE PROPERTY IS LOCATED WITHIN THE CF30-3 CHARACTER OVERLAY DISTRICT.
7. NO KNOWN MINERAL RIGHTS ARE IN PLACE REGARDING THE PROPERTY.

EXISTING TREES ON SITE

PT. NO.	SIZE/TYPE	HEALTH
1	36" SYCAMORE	GOOD
2	12" MAPLE	GOOD
3	12" MAPLE	GOOD
4	10" LOCUST	GOOD
5	12" LOCUST	GOOD
6	10" LOCUST	GOOD
7	30" SYCAMORE	GOOD
8	10" SYCAMORE	GOOD
9	26" SUGAR MAPLE	GOOD
10	16" OAK	GOOD
11	14" MAPLE	GOOD
12	16" OAK	GOOD
13	18" OAK	GOOD
14	16" OAK	GOOD
15	18" OAK	GOOD
16	8" QUAD SYCAMORE	GOOD

PT. NO.	SIZE/TYPE	HEALTH
17	36" SYCAMORE	GOOD
18	24" SYCAMORE	GOOD
19	32" ELM	GOOD
20	30" MAPLE	GOOD
21	16" OAK	GOOD
22	14" MAPLE	GOOD
23	18" SYCAMORE	GOOD
24	24" MAPLE	GOOD
25	24" SYCAMORE	GOOD
26	12" MAPLE	GOOD
27	24" SYCAMORE	GOOD
28	12" MAPLE	GOOD
29	18" MAPLE	GOOD
30	18" SYCAMORE	GOOD
31	16" MAPLE	GOOD
32	18" SYCAMORE	GOOD

0 10 20 30 40 80 160
GRAPHIC SCALE

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FRANKLIN HOUSING AUTHORITY
REDDICK STREET DEVELOPMENT
PHASE 2
DEVELOPMENT PLAN

FRANKLIN HOUSING AUTHORITY
100 Spring Street
Franklin, TN 37064
615-794-1247

ANDREW WOLHFORD
REGISTERED LANDSCAPE ARCHITECT
No. 109525
STATE OF TENNESSEE
12/9/14

DATE	REVISIONS
12/4/14	PER CITY COMMENTS
2014-11-10	20100011

C2.0

EXISTING CONDITIONS

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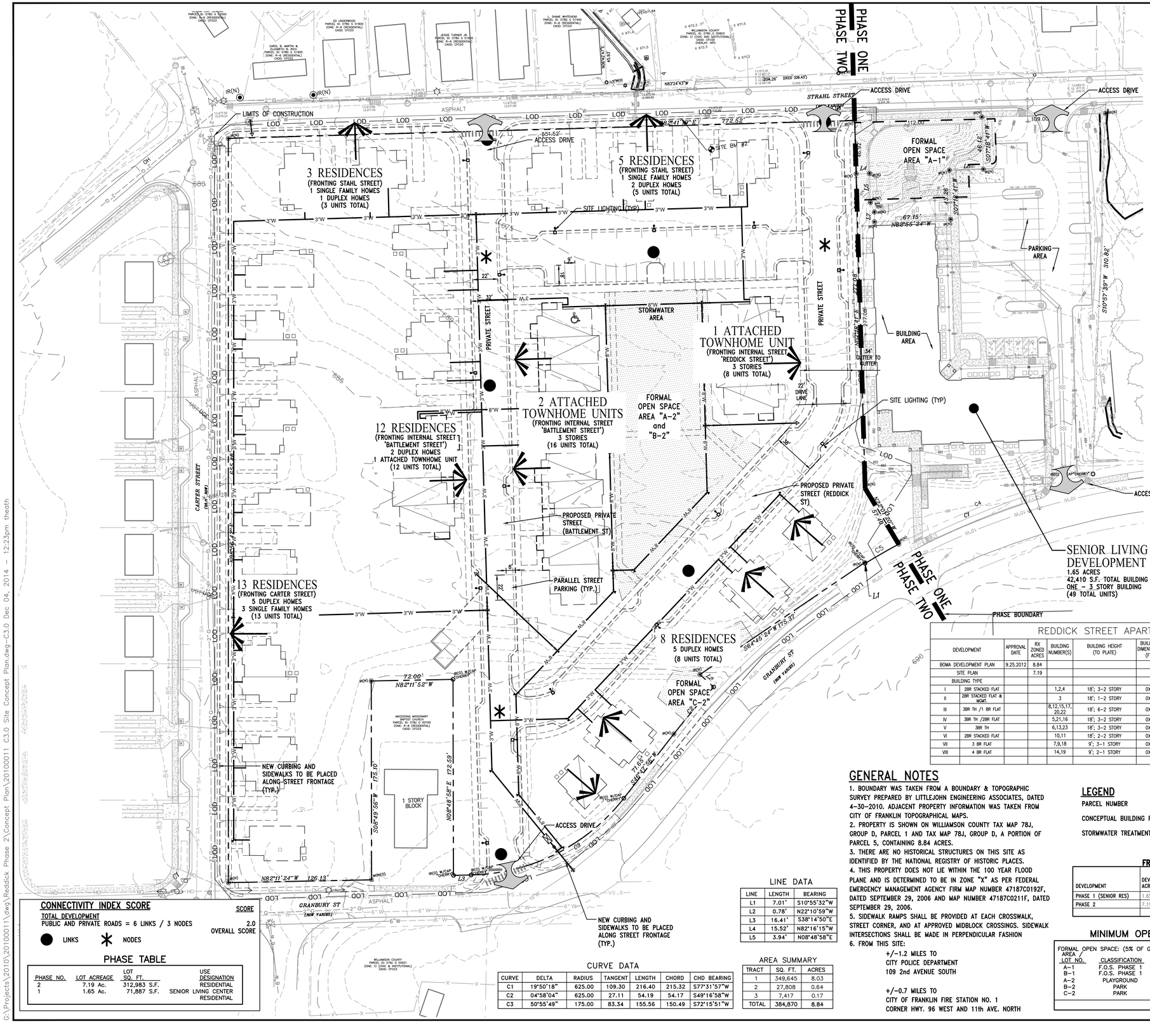

SITE DATA

PROJECT NAME	FRANKLIN HOUSING AUTHORITY – REDDICK STREET DEVELOPMENT PHASE 2, DEVELOPMENT PLAN
PROJECT NUMBER:	CITY OF FRANKLIN # 4711
LOTS:	1
ADDRESS:	145 STRAHL ST.
CITY:	FRANKLIN
COUNTY:	WILLIAMSON
STATE:	TENNESSEE
CIVIL DISTRICT:	9TH
MAP, GROUP AND PARCEL NUMBERS:	WILLIAMSON CO. TAX MAP 78J, GROUP D, PARCEL 1
	PLAT RECORDED 2011-02-22. DEED BOOK 5268, PAGE 838
EXISTING ZONING:	SD-R (FORMERLY RX)
	SPECIAL DISTRICT-RESIDENTIAL
CHARACTER AREA OVERLAY:	CFCO-3
OTHER APPLICABLE OVERLAYS:	
APPLICABLE DEVELOPMENT STANDARD:	TRADITIONAL
ACREAGE OF SITE:	7.19 Ac.
SQUARE FOOTAGE OF SITE:	312,983 S.F.
MINIMUM REQUIRED SETBACK LINES:	RESIDENTIAL ATTACHED / OFFICE USE
YARD FRONTING ON ANY STREET	0' OR 5' TO 25' / 0'-20'
SIDE YARD	MIN. 0' EA. SIDE; 10' BETWEEN BLDGS.; / 0'
REAR YARD	5' / 0'
OWNERSHIP ENTITY:	REDDICK STREET ASSOCIATES I, LP
OWNER:	FRANKLIN HOUSING AUTHORITY
DEVELOPER:	THE MICHAELS ORGANIZATION
ADDRESS:	100 SPRING STREET, FRANKLIN, TN 37065
PHONE NO.:	615.794.1247
FAX NO.:	615.794.9254
E-MAIL ADDRESS:	djackson@franklinhousingauthority.com
CONTACT NAME:	MR. DERWIN JACKSON, EXEC. DIRECTOR
APPLICANT:	LITTLEJOHN ENGINEERING ASSOCIATES
ADDRESS:	1935 21st AVENUE SOUTH NASHVILLE, TN 37212
PHONE NO.:	615.385.4144
FAX NO.:	615.385.4020
E-MAIL ADDRESS:	JBROUILLETE@LEAINC.COM
CONTACT NAME:	MR. JASON BROUILLETTE, ASLA
BUILDING SQUARE FOOTAGE:	
SINGLE AND MULTI-FAMILY UNITS (CONDITIONED SPACE)	65 UNITS, 66,273 S.F.
TOTAL (CONDITIONED SPACE + PORCHES AND STORAGE)	65 UNITS, 77,449 S.F.
BUILDING HEIGHT	
ALLOWABLE	3 STORIES MAXIMUM
PROPOSED MULTI-FAMILY	3 STORIES
FLOOR AREA RATIO OF SITE:	
SINGLE AND MULTI-FAMILY UNITS	0.175
PROPOSED LANDSCAPE SURFACE RATIO:	0.48
MINIMUM LANDSCAPE SURFACE RATIO:	0.20
RESIDENTIAL DENSITY:	
EXISTING GROSS DENSITY	5.5 DU/Ac. EXISTING (44 DU ON 8.03 Ac.)
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	Phases 1-2 : 12.90 DU/Ac. PROPOSED (114 DU ON 8.84 Ac.)
TREE CANOPY:	NOT APPLICABLE
PARKLAND DEDICATION:	NOT APPLICABLE
OPEN SPACE:	
PHASE TWO OPEN SPACE REQ'D (5% OF 7.19 AC.)	0.36 AC.
PHASE TWO OPEN SPACE PROPOSED	0.55 AC.

NOTES:

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PHASING

SINGLE PHASE DEVELOPMENT OF LOT 1 – SINGLE AND MULTI-FAMILY RESIDENCES
BEGIN 2014 – COMPLETION ESTIMATE 2016

PARKING

PARKING REQUIRED:	
ATTACHED DWELLING	
0-1BR: 1.50	9 SPACES
2BR: 2.50	98 SPACES
3+BR:3.00	54 SPACES
DETACHED DWELLING:	
2/UNIT	10 SPACES
TOTAL PARKING REQUIRED:	171 SPACES
PARKING PROVIDED:	147 SPACES*

*MODIFICATION OF PARKING STANDARDS IS BEING REQUESTED AT (2.2 SP/UNIT)

REDDICK STREET APARTMENTS RESIDENTIAL LAND USE DATA

DEVELOPMENT	APPROVAL DATE	RX ZONED ACRES	BUILDING NUMBER(S)	BUILDING HEIGHT (TO PLATE)	BUILDING DIMENSIONS (FT)	*GROSS BUILDING AREA (SF)	SINGLE-FAM DWELLING UNITS	MULTI-FAM. DWELLING UNITS	TOTAL DWELLING UNITS	LOT NUMBER OF OPEN SPACE LOTS	UNITS 1BR	2BR	3BR	4BR	BEDROOMS	REMAINING ACRES	REMAINING DWELLING UNITS
BOMA DEVELOPMENT PLAN	9.25.2012	8.84					0	1	1							0	0
SITE PLAN		7.19					5	60	65	0	6	39	18	2	146	0	1
BUILDING TYPE																	
I 2BR STACKED FLAT			1,2,4	18'; 3-2 STORY	0X0	27,729		24	8 /BLDG		0	48	0	0	48		
II 2BR STACKED FLAT & MGMT.			3	18'; 1-2 STORY	0X0	10,823		8	1 /BLDG		0	8	0	0	16		
III 3BR TH /1 BR FLAT			8,12,15,17, 20,22	18'; 6-2 STORY	0X0	14,178		12	2 /BLDG		6	0	6	0	24		
IV 3BR TH /2BR FLAT			5,21,16	18'; 3-2 STORY	0X0	7,854		6	2 /BLDG		0	3	3	0	15		
V 3BR TH			6,13,23	18'; 3-2 STORY	0X0	9,192		6	2 /BLDG		0	0	6	0	18		
VI 2BR STACKED FLAT			10,11	18'; 2-2 STORY	0X0	4,312		4	2 /BLDG		0	4	0	0	8		
VII 3 BR FLAT			7,9,18	9'; 3-1 STORY	0X0	4,269	3	0	1 /BLDG		0	0	3	0	9		
VIII 4 BR FLAT			14,19	9'; 2-1 STORY	0X0	3,354	2	0	1 /BLDG		0	0	2	2	8		

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4. THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLANE AND IS DETERMINED TO BE IN ZONE "X" AS PER FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NUMBER 47187C0192F, DATED SEPTEMBER 29, 2006 AND MAP NUMBER 47187C0211F, DATED SEPTEMBER 29, 2006.
5. SIDEWALK RAMPS SHALL BE PROVIDED AT EACH CROSSWALK, STREET CORNER, AND AT APPROVED MIDBLOCK CROSSINGS. SIDEWALK INTERSECTIONS SHALL BE MADE IN PERPENDICULAR FASHION
6. FROM THIS SITE:

+/-1.2 MILES TO
CITY POLICE DEPARTMENT
109 2nd AVENUE SOUTH

+/-0.7 MILES TO
CITY OF FRANKLIN FIRE STATION NO. 1
CORNER HWY. 96 WEST AND 11th AVE. NORTH

LEGEND

PARCEL NUMBER
CONCEPTUAL BUILDING PLACEMENT
STORMWATER TREATMENT AREAS
FORMAL OPEN SPACE
SPECIMEN TREES TO BE PRESERVED
S.W.T.
F.O.S.
PROPOSED PARCEL ACCESS POINTS

OPEN SPACE TAKE DOWN CHART (ALL PHASES)
FRANKLIN HOUSING AUTHORITY – REDDICK STREET DEVELOPMENT

DEVELOPMENT	DEVELOPABLE ACREAGE	MIN. REQD. ACRES INFORMAL	PROPOSED ACRES INFORMAL	MIN. REQD. ACRES FORMAL	PROPOSED ACRES FORMAL	MIN. REQD. ACRES TOTAL	PROPOSED OPEN SPACE TOTAL	REMAINING ACRES
PHASE 1 (SENIOR RES)	1.65 AC.	N/A	N/A	.08 AC. (5%)	.38 AC.	.08 AC.	.38 AC.	0 AC.
PHASE 2	7.19 AC	N/A	N/A	.36 AC (5%)	.54 AC.	.36 AC.	.55 AC.	0 AC.

MINIMUM OPEN SPACE REQUIREMENTS

FORMAL OPEN SPACE: (5% OF GROSS DEVELOPMENT AREA): 19,244 S.F. (0.44 Ac.)

AREA / LOT NO.	CLASSIFICATION	TYPE	AREA OF OPEN SPACE	ACRES OF OPEN SPACE
A-1	F.O.S. PHASE 1	FORMAL	7715 S.F.	0.18 Ac.
B-1	F.O.S. PHASE 1	FORMAL	8900 S.F.	0.20 Ac.
A-2	PLAYGROUND	FORMAL	5500 S.F.	0.13 Ac.
B-2	PARK	FORMAL	17250 S.F.	0.39 Ac.
C-2	PARK	FORMAL	2500 S.F.	0.06 Ac.
		TOTAL PROVIDED	40,070 S.F.	0.96 Ac.

GRAPHIC SCALE 0 20 40 80

CONNECTIVITY INDEX SCORE

TOTAL DEVELOPMENT
PUBLIC AND PRIVATE ROADS = 6 LINKS / 3 NODES

LINKS ✱ NODES

SCORE
2.0
OVERALL SCORE

PHASE TABLE

PHASE NO.	LOT ACREAGE	LOT SQ. FT.	USE DESIGNATION
2	7.19 Ac.	312,983 S.F.	RESIDENTIAL
1	1.65 Ac.	71,887 S.F.	SENIOR LIVING CENTER RESIDENTIAL

LINE DATA

LINE	LENGTH	BEARING
L1	7.01'	S10°55'32"W
L2	0.78'	N22°10'59"W
L3	16.41'	S38°14'50"E
L4	15.52'	N82°16'15"W
L5	3.94'	N08°48'58"E

CURVE DATA

CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	CHD BEARING
C1	19°50'18"	625.00	109.30	216.40	215.32	S77°31'57"W
C2	04°58'04"	625.00	27.11	54.19	54.17	S49°16'58"W
C3	50°55'49"	175.00	83.34	155.56	150.49	S72°15'51"W

AREA SUMMARY

TRACT	SQ. FT.	ACRES
1	349,645	8.03
2	27,808	0.64
3	7,417	0.17
TOTAL	384,870	8.84

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FRANKLIN HOUSING AUTHORITY
REDDICK STREET DEVELOPMENT
PHASE 2
DEVELOPMENT PLAN

FRANKLIN HOUSING AUTHORITY
100 Spring Street
Franklin, TN 37064
615-794-1247

ANDREW WOLTHERS — REGISTERED ENGINEER — AGREEMENT — No. 109525 — STATE OF TENNESSEE — 12/4/14

DATE	REVISIONS
12/4/14	PER CITY COMMENTS
2014-11-10	20100011

C3.0
SITE CONCEPT PLAN

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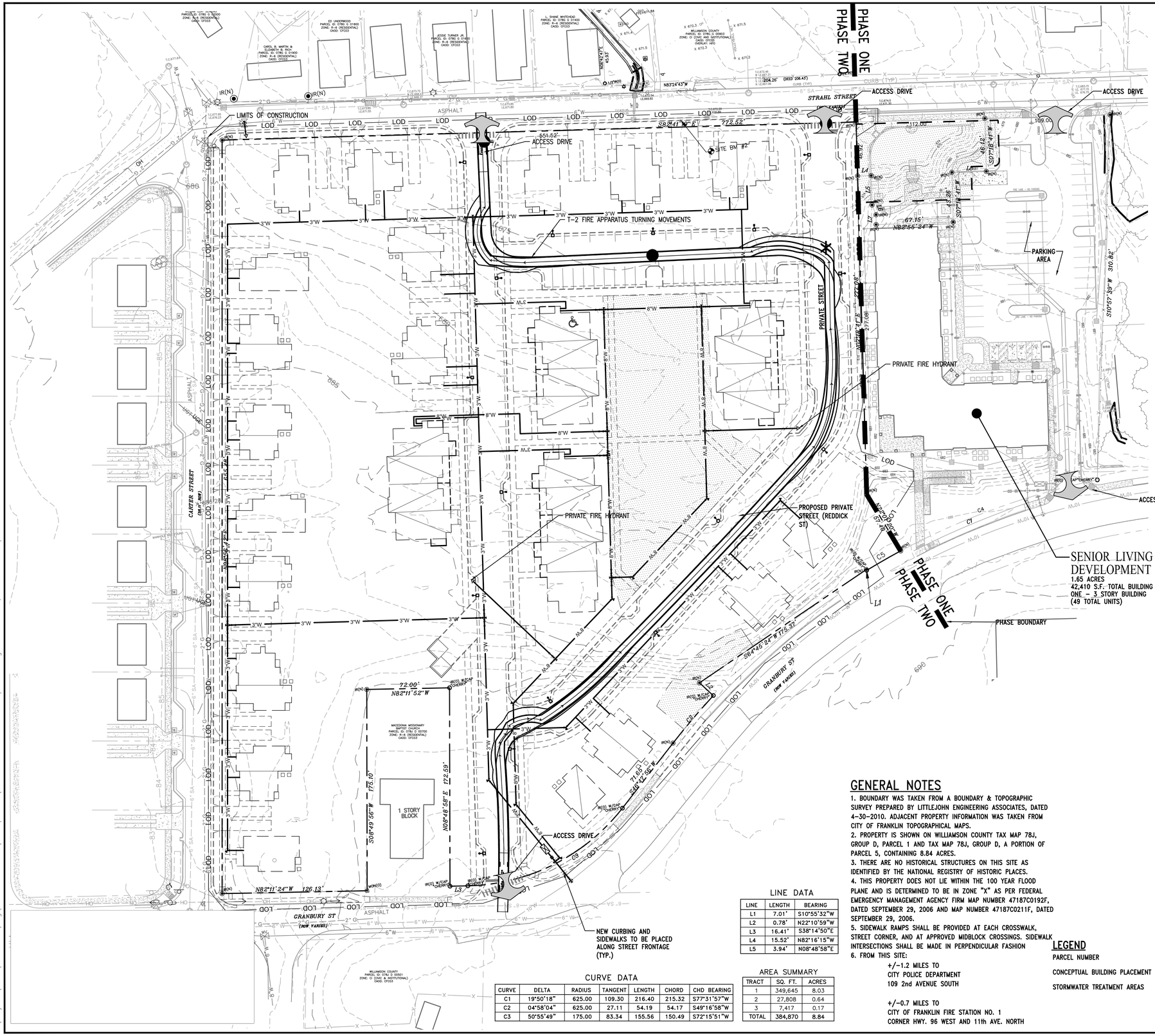
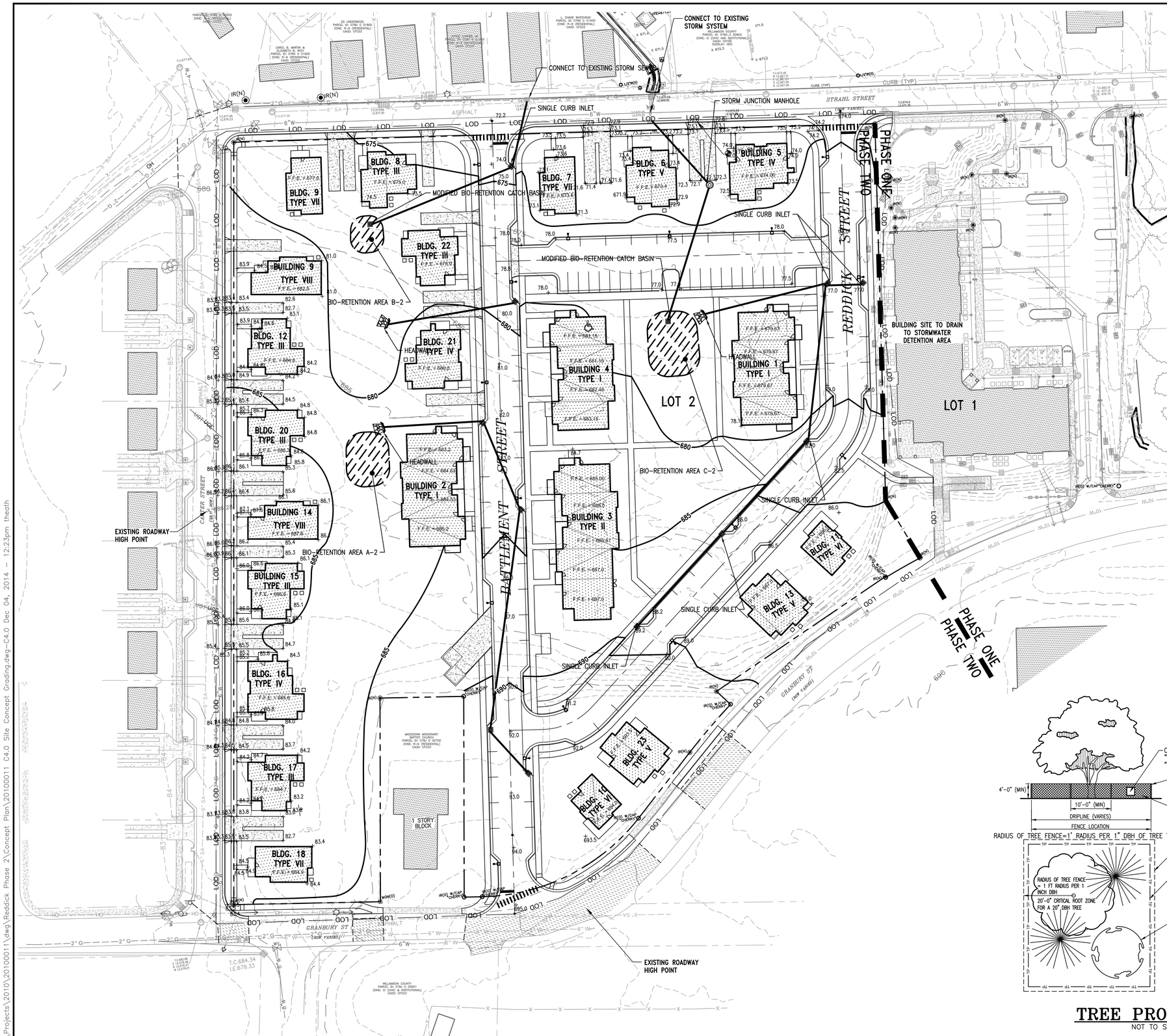
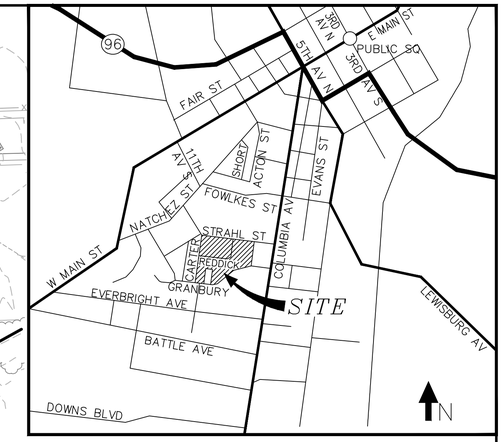

PHASE ONE
PHASE TWO
ACCESS DRIVE
STRAHL STREET
LIMITS OF CONSTRUCTION
S82°41'06"E 772.52'
551.62'
SITE BM #2
T-2 FIRE APPARATUS TURNING MOVEMENTS
PRIVATE STREET
PARKING AREA
PRIVATE FIRE HYDRANT
PROPOSED PRIVATE STREET (REDDICK ST)
SENIOR LIVING DEVELOPMENT
1.65 ACRES
42,410 S.F. TOTAL BUILDING AREA
ONE - 3 STORY BUILDING
(49 TOTAL UNITS)
PHASE BOUNDARY
CARTER STREET
(50' R/W)
CRANBURY ST
(ROW VARIES)
ASPHALT
1 STORY BLOCK
MACEDONIA MISSIONARY BAPTIST CHURCH
PARCEL ID: 078J D 00700
ZONE: R-8 (RESIDENTIAL)
CADD: CF033
WILLIAMSON COUNTY
PARCEL ID: 078J D 00501
ZONE: O (OAC & INSTITUTIONAL)
CADD: CF033
NEW CURBING AND SIDEWALKS TO BE PLACED ALONG STREET FRONTAGE (TYP.)
ACCESS DRIVE
N82°11'24"W 126.13'
72.00'
N82°11'52"W
175.10'
S06°49'56"W
122.59'
N08°48'58"E
67.15'
N82°56'24"W
310.82'
S10°57'39"W
112.00'
109.00'
S07°18'41"W
48.12'
S07°14'41"W
43.28'
N82°11'24"W 175.37'
S64°45'24"W 175.37'
S10°42'58"W 71.65'
N22°10'59"W 27.11'
N22°10'59"W 27.11'
S07°14'41"W 22.08'
S10°55'32"W 7.01'
N82°16'15"W 54.19'
S38°14'50"E 16.41'
N08°48'58"E 3.94'
N82°16'15"W 54.19'
S38°14'50"E 16.41'
N08°48'58"E 3.94'
S10°55'32"W 7.01

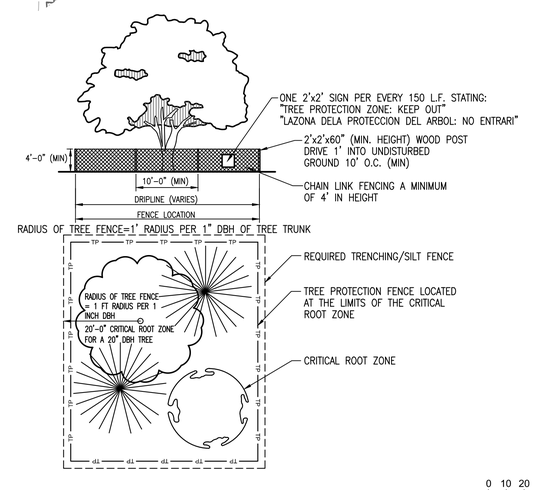




VICINITY MAP
SCALE: 1" = 1,000'

LEGEND

- EXISTING CONTOUR
- 80 PROPOSED CONTOUR
- 76.5 SPOT ELEVATION
- PROPOSED STORM DRAINAGE
- SORMWATER DETENTION AREA
- WATER QUALITY AREA
- TP TREE PROTECTION FENCE
- EXISTING TREE



TREE PROTECTION
NOT TO SCALE

0 10 20 30 40 80 120
GRAPHIC SCALE

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AGRICULTURE
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STATE OF TENNESSEE
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DATE	REVISIONS
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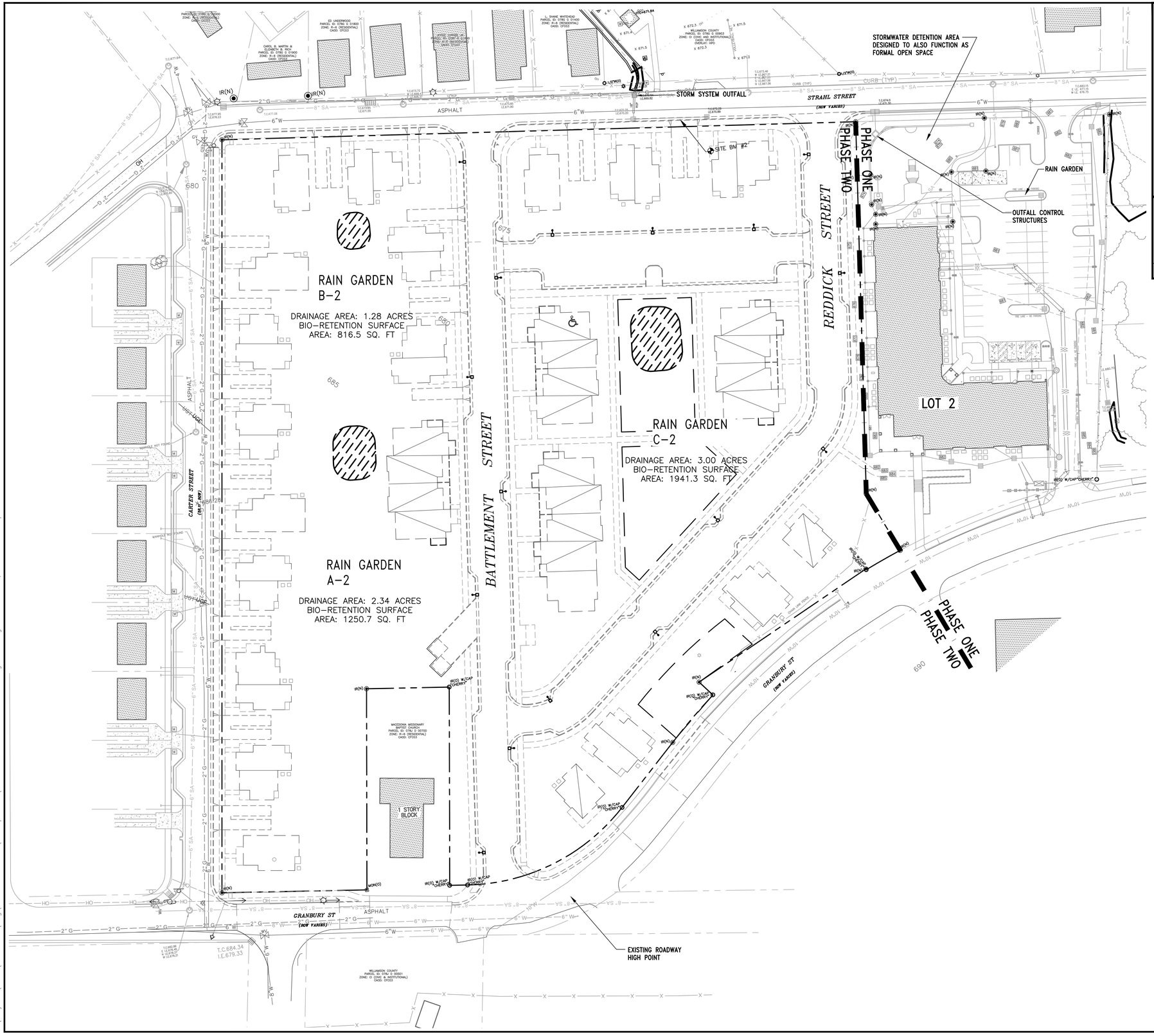
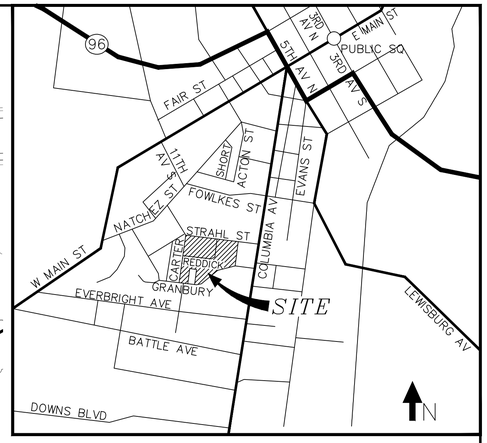
2014-11-10 20100011

C4.0
SITE CONCEPT GRADING PLAN





VICINITY MAP
SCALE: 1" = 1,000'

LEGEND

- EXISTING CONTOUR
- 80 — PROPOSED CONTOUR
- 76.5 — SPOT ELEVATION
- PROPOSED STORM DRAINAGE
- STORMWATER DETENTION AREA
- WATER QUALITY AREA
- TP — TREE PROTECTION FENCE
- EXISTING TREE

NOTE:

STORMWATER TREATMENT TO BE DESIGNED TO ACHIEVE A MINIMUM RUNOFF REDUCTION OF 0.80 ORIGINAL VALUE.

DOWNSPOUT DISCONNECTION, REDUCTION OF IMPERVIOUS AREAS, AND BIO-RETENTION PONDS HAVE BEEN UTILIZED TO PROVIDE WATER QUALITY TREATMENT

PROPERTY AREA: 8.84 ACRES

DISTURBED AREA: 7.19 ACRES

IMPERVIOUS AREA: 2.81 ± ACRES

0 10 20 30 40 80 120
GRAPHIC SCALE

FRANKLIN HOUSING AUTHORITY
REDDICK STREET DEVELOPMENT
PHASE 2
DEVELOPMENT PLAN

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ANDREW WOLTHERS — REGISTERED PROFESSIONAL ENGINEER — No. 109529 — STATE OF TENNESSEE

DATE	REVISIONS
12/4/14	PER CITY COMMENTS
2014-11-10	20100011

C5.0
CONCEPTUAL STORMWATER MANAGEMENT PLAN

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PHASE ONE
PHASE TWO

STRAHL STREET (ROW VARIES)

ACCESS DRIVE

6" 157' OF 4" SANITARY SEWER AT 2% SLOPE MINIMUM

280' OF 4" SANITARY SEWER AT 2% SLOPE MINIMUM

PROPOSED PUBLIC FIRE HYDRANT

8" SANITARY SEWER

447' OF 3" DOMESTIC WATER LINE

8" FIRE SERVICE LINE

545' OF 3" DOMESTIC WATER LINE

PROPOSED PRIVATE FIRE HYDRANT

528' OF 8" SANITARY SEWER AT 2% SLOPE MINIMUM

223' OF 3" DOMESTIC WATER LINE

3" DOMESTIC WATER LINE

237' OF 8" SANITARY SEWER AT 2% SLOPE MINIMUM

55' OF 8" SANITARY SEWER AT 2% SLOPE MINIMUM

8" FIRE SERVICE LINE

3" DOMESTIC WATER METER AND BACKFLOW PREVENTER

1 STORY BLOCK

CARTER STREET (58'R/W)

GRANBURY ST (ROW VARIES)

ASPHALT

HIGHRISE

CHRB (TYP)

S82°41'39"E 772.52'

S72°18'41"E 48.12'

S07°18'41"W 43.28'

N82°56'24"W 67.15'

N07°03'41"E 227.09'

S10°57'39"W 310.82'

S64°45'24"W 175.37'

N82°11'24"W 126.13'

S06°49'56"W 175.07'

N06°46'56"E 172.59'

N82°11'52"W 72.00'

S42°43'43"E 43.57'

N83°24'43"W 204.26' (DEED 206.43')

112.00'

109.00'

GENERAL NOTES

1. BOUNDARY WAS TAKEN FROM A BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY LITTLEJOHN ENGINEERING ASSOCIATES, DATED 4-30-2010. ADJACENT PROPERTY INFORMATION WAS TAKEN FROM CITY OF FRANKLIN TOPOGRAPHICAL MAPS.
2. PROPERTY IS SHOWN ON WILLIAMSON COUNTY TAX MAP 78J, GROUP D, PARCEL 1 AND TAX MAP 78J, GROUP D, A PORTION OF PARCEL 5, CONTAINING 8.84 ACRES.
3. THERE ARE NO HISTORICAL STRUCTURES ON THIS SITE AS IDENTIFIED BY THE NATIONAL REGISTRY OF HISTORIC PLACES.
4. THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLANE AND IS DETERMINED TO BE IN ZONE "X" AS PER FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NUMBER 47187C0192F, DATED SEPTEMBER 29, 2006 AND MAP NUMBER 47187C0211F, DATED SEPTEMBER 29, 2006.
5. FROM THIS SITE:

+/-1.2 MILES TO
CITY POLICE DEPARTMENT
109 2nd AVENUE SOUTH

+/-0.7 MILES TO
CITY OF FRANKLIN FIRE STATION NO. 1
CORNER HWY. 96 WEST AND 11th AVE. NORTH

FIRE FLOW TEST RESULTS

MAIN SIZE: 10"
STATIC PRESSURE: 77.5 PSI
RESIDUAL PRESSURE: 65 PSI
PITOT PRESSURE: 35.1 PSI
FLOW: 992.7 GPM

PROPOSED UTILITIES LEGEND:

- SANITARY SEWER
- 6"W — WATER LINE
- GAS — GAS LINE
- O2 — OXYGEN LINE
- UGE — UNDERGROUND ELECTRIC LINE
- UGT — UNDERGROUND TELECOMMUNICATIONS LINE

GRAPHIC SCALE 0 10 20 30 40 80 120

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FRANKLIN HOUSING AUTHORITY
REDDICK STREET DEVELOPMENT
PHASE 2
DEVELOPMENT PLAN

FRANKLIN HOUSING AUTHORITY
100 Spring Street
Franklin, TN 37064
615-794-1247

ANDREW WOLTHERS — REGISTERED ENGINEER — AGENT — No. 109529 — STATE OF TENNESSEE — 12/4/14

DATE	REVISIONS
12/4/14	PER CITY COMMENTS
2014-11-10	20100011

C6.0

SITE UTILITY PLAN

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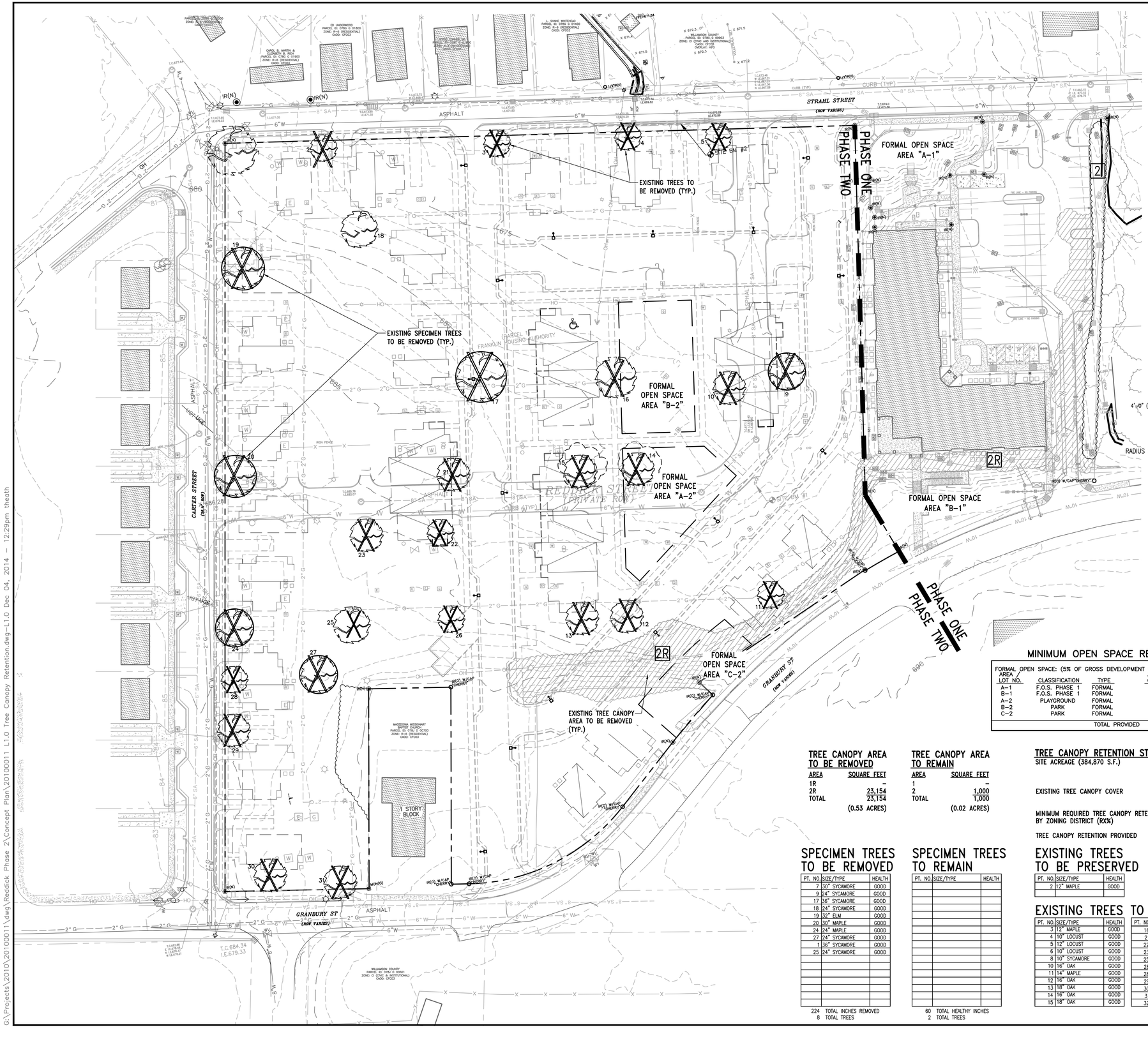
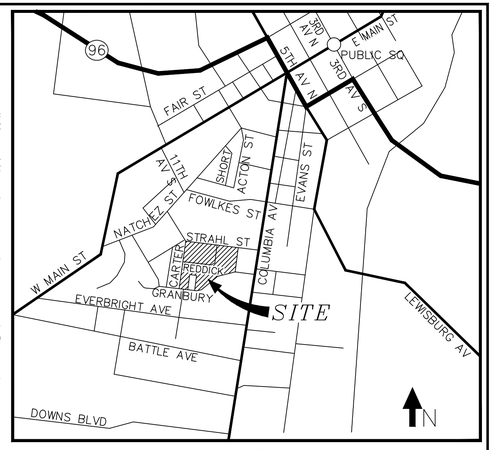
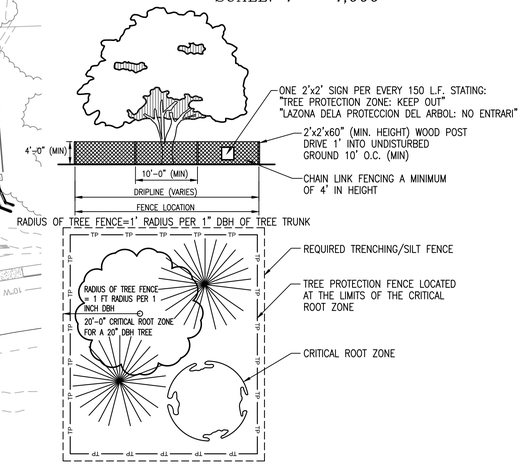




VICINITY MAP
SCALE: 1" = 1,000'



TREE PROTECTION
NOT TO SCALE

MINIMUM OPEN SPACE REQUIREMENTS

FORMAL OPEN SPACE: (5% OF GROSS DEVELOPMENT AREA): 19,244 S.F. (0.44 Ac.)

AREA / LOT NO.	CLASSIFICATION	TYPE	AREA OF OPEN SPACE	ACRES OF OPEN SPACE
A–1	F.O.S. PHASE 1	FORMAL	7715 S.F.	0.18 Ac.
B–1	F.O.S. PHASE 1	FORMAL	8900 S.F.	0.20 Ac.
A–2	PLAYGROUND	FORMAL	5500 S.F.	0.13 Ac.
B–2	PARK	FORMAL	17250 S.F.	0.39 Ac.
C–2	PARK	FORMAL	2500 S.F.	0.06 Ac.
		TOTAL PROVIDED	40,070 S.F.	0.96 Ac.

LEGEND

- PROPOSED TREE CANOPY LIMIT TO REMAIN
- EXISTING TREE CANOPY
- SPECIMEN TREE
- 12 — SPECIMEN TREE TO BE REMOVED
- TREE CANOPY TO BE REMOVED
- TP — TREE PROTECTION FENCE

TREE CANOPY AREA TO BE REMOVED

AREA	SQUARE FEET
1R	–
2R	23,154
TOTAL	23,154
	(0.53 ACRES)

TREE CANOPY AREA TO REMAIN

AREA	SQUARE FEET
1	–
2	1,000
TOTAL	1,000
	(0.02 ACRES)

TREE CANOPY RETENTION STANDARDS

SITE ACREAGE (384,870 S.F.) 8.84 Ac.

	AREA Ac.	PERCENTAGE TOTAL
EXISTING TREE CANOPY COVER	0.59	6.67%
MINIMUM REQUIRED TREE CANOPY RETENTION BY ZONING DISTRICT (RX%)	EXEMPT	0.0%
TREE CANOPY RETENTION PROVIDED	0.02	±3.4%

SPECIMEN TREES TO BE REMOVED

PT. NO.	SIZE/TYPE	HEALTH
7	30" SYCAMORE	GOOD
9	24" SYCAMORE	GOOD
17	36" SYCAMORE	GOOD
18	24" SYCAMORE	GOOD
19	32" ELM	GOOD
20	30" MAPLE	GOOD
24	24" MAPLE	GOOD
27	24" SYCAMORE	GOOD
1	36" SYCAMORE	GOOD
25	24" SYCAMORE	GOOD

224 TOTAL INCHES REMOVED
8 TOTAL TREES

SPECIMEN TREES TO REMAIN

PT. NO.	SIZE/TYPE	HEALTH

60 TOTAL HEALTHY INCHES
2 TOTAL TREES

EXISTING TREES TO BE PRESERVED

PT. NO.	SIZE/TYPE	HEALTH
2	12" MAPLE	GOOD

EXISTING TREES TO BE REMOVED

PT. NO.	SIZE/TYPE	HEALTH
3	12" MAPLE	GOOD
4	10" LOCUST	GOOD
5	12" LOCUST	GOOD
6	10" LOCUST	GOOD
8	10" SYCAMORE	GOOD
10	16" OAK	GOOD
11	14" MAPLE	GOOD
12	16" OAK	GOOD
13	18" OAK	GOOD
14	16" OAK	GOOD
15	18" OAK	GOOD

PT. NO.	SIZE/TYPE	HEALTH
16	8" QUAD SYCAMORE	GOOD
21	16" OAK	GOOD
22	14" MAPLE	GOOD
23	18" SYCAMORE	GOOD
25	24" SYCAMORE	GOOD
26	12" MAPLE	GOOD
28	12" MAPLE	GOOD
29	18" MAPLE	GOOD
30	18" SYCAMORE	GOOD
31	16" MAPLE	GOOD
32	18" SYCAMORE	GOOD

0 10 20 30 40 80 120
GRAPHIC SCALE

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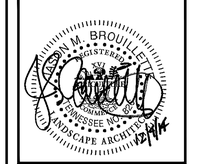

DATE	REVISIONS
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L1.0
TREE CANOPY RETENTION PLAN

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ADMINISTRATION

David Parker
City Engineer/CIP Executive

Dr. Ken Moore
Mayor

Eric S. Stuckey
City Administrator

HISTORIC
FRANKLIN
TENNESSEE

December 22, 2014 COF Contract No. 2014-0269

Ms. Jennifer Watt
Director, Southeast USA
GE Water & Process Technologies
3239 Dundas Street West
Oakville, Ontario L6M 4B2
Canada

Subject: Letter of Intent
City of Franklin, Tennessee
Franklin Water Treatment Plant Modifications

Dear Ms. Watt:

This letter represents the intent of the City of Franklin (City) to preselect the GE Water and Process Technologies (GE) ZeeWeed® 1500 hollow fiber membrane ultrafiltration membrane system for the Franklin Water Treatment Plant (WTP) Modifications (Project). The following documents form the basis of this selection and are collectively referred to as the "Proposal":

- GE's quote number 795690, originally dated September 23, 2014.
- The Request for Proposals (RFP) package; issued by Smith Seckman Reid (SSR) and dated September 1, 2014.
- Addendum No. 1 to the RFP package; issued by SSR and dated September 18, 2014.

In order to complete the design and prepare a bid package, SSR and the City of Franklin require information and design assistance from GE Water & Process Technologies. It is anticipated that the following information will be required:

- PFDs, process control descriptions, P&IDs
- Single line diagrams, network architecture
- General arrangements drawings, equipment cutsheets, itemized bill of materials
- Attendance at design meetings as defined in the Proposal.

The anticipated membrane system design milestone dates are as follows:

30% - January 30, 2015
60% - March 31, 2015
90% - April 30, 2015

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It is anticipated that GE's project manager will work with SSR and the City to develop a work plan that will further define the schedule and design deliverables required.

By signing this letter, GE agrees to the following:

- GE agrees to provide the equipment, materials and services at the Adjusted Selling Price, calculated in accordance with the attached Method of Cost Escalation for Membrane Filtration Equipment (Attachment A).
- The City reserves the right to delete optional items from the scope of supply and deduct the cost of these optional items from the Base Selling Price.
- No additional compensation will be paid for the design services described herein
- If, for any reason, the City does not award the Project, the City is under no obligation to purchase the equipment.
- If for any reason, GE is not under contract for supply of a membrane filtration system before October 5, 2015, GE will be compensated by the City for design services performed up to a maximum amount of $100,000.

After signing this letter in the space below, please return one signed original to me.

We look forward to working with you on this project. If you have any questions or comments, please do not hesitate to contact me at (616) 550-6660.

Sincerely,

David Parker, P.E.
City Engineer/CIP Executive
City of Franklin

Signed:
GE Water and Process Technologies

_____ _____

Title: _____ Date

Print Name: _____

Attachment

cc: Eric Stuckey, City Administrator
Mark Hilty, Director Water Management Department
Michelle Hatcher, Assistant Director Water Management Department
Bo Butler, Andrew Johnson, Joe Griffey - SSR
Brent Fulghum, Bill Allen – Southern Sales Company

Attachment A **COF Contract No. 2014-0269**
City of Franklin, Tennessee
Franklin WTP Improvements Project (City Contract No. 2012-0183)
Method of Cost Escalation for Membrane Filtration Equipment

1. The Base Selling Price of the Franklin WTP hollow-fiber membrane ultrafiltration equipment is set at $1,318,000. This price includes the following items listed in the Proposal:

Item	Description	Price
a.	Membrane Filtration System including the following: • Design and Bidding Assistance • 2-Year Full Replacement Warranty • 10-Year Pro-Rated Warranty • Manufacturer's Construction Services including Installation Assistance, Testing, Commissioning, and Training • Manufacturer's Continuing Services	$1,318,000
	Base Selling Price	**$1,318,000**

This Base Selling Price is valid as of September 23, 2014, the Due Date for Hollow-Fiber Membrane Filtration Proposals.

2. The Base Selling Price shall be adjusted in accordance with the percent change in the Producer Price Index (PPI) for Capital Equipment, not seasonally adjusted, as appears in the monthly PPI Detailed Report published by the Bureau of Labor Statistics (http://www.bls.gov/ppi/ppi_dr.htm).

In the event that the PPI for Capital Equipment is unavailable for either or both of the time periods used in the adjustment of the Base Selling Price, the PPI for Finished Goods Less Foods and Energy, not seasonally adjusted, shall be used in its place.

3. The Adjusted Selling Price shall be calculated according to the following formula:

Adjusted Selling Price =
Base Selling Price x (PPI as of Date of Advertisement for Bids / PPI as of September 23, 2014)

Where;

- Base Selling Price is as listed in Paragraph 1 above.

- PPI as of Date of Advertisement for Bids = PPI for Capital Equipment, not seasonally adjusted, available on the first Date of Advertisement for Bids. The PPI used shall be for the most recent month for which data are available and shall be the first-published version.

- PPI as of September 23, 2014 = Latest version of the PPI for Capital Equipment, not seasonally adjusted, available for September 2014. The latest version of the PPI shall incorporate revisions or corrections made by BLS prior to the first Date of Advertisement for Bids.

4. The Hollow-Fiber Membrane Ultrafiltration System Manufacturer shall honor the Adjusted Selling Price for a period of two (2) years from September 23, 2014.

RESOLUTION NO. 2014-77

A RESOLUTION TO APPROVE THE LETTER OF INTENT WITH GE WATER & PROCESS TECHNOLOGIES FOR THE PURCHASE OF THE HOLLOW FIBER MEMBRANE FILTRATION SYSTEM EQUIPMENT FOR THE FRANKLIN WATER TREATMENT PLANT AND AUTHORIZE THE CITY ENGINEER TO EXECUTE THE FINAL PURCHASE CONTRACT (COF CONTRACT NO. 2014-0269) AND REVISE FINAL EQUIPMENT PURCHASE WITHOUT FIRST SEEKING APPROVAL FROM THE BOARD OF MAYOR AND ALDERMEN

WHEREAS, the City of Franklin (City) Board of Mayor and Aldermen (BOMA) approved on November 27, 2012, COF Contract No 2014-0183, the Franklin Water Treatment Plant (WTP) Modifications Project (Project) with Smith Seckman Reid, Inc. (Consultant) to provide for the design of the upgrade of the WTP in order to upgrade equipment and processes to provide for the Environmental Protections Agency's (EPA) enhanced treatment regulations; and

WHEREAS, during the design process, the Consultant with concurrence of the City's staff determined that it would be in the best interest of the Project to preselect the hollow fiber membrane filtration system (Membrane) to be utilized in the Project due to each different manufacturer of Membrane equipment requiring a different designed facility for their equipment; and

WHEREAS, on September 23, 2014, proposals to provide the hollow fiber filtration system for the WTP were received and then evaluated (see Exhibit A) to determine which proposal would best suit the City's need; and

WHEREAS, it is the recommendation of the Consultant with concurrence of City staff to enter into a contract with GE Water & Process Technologies (GE) for purchase of the Membrane equipment for the WTP at a cost of One Million Three Hundred Eighteen Thousand and No/100 Dollars ($1,318,000.00) with the ability to have the purchase contract assigned to the successful bidder (general contractor) for the WTP Upgrade construction contract; and

WHEREAS, the BOMA also find that it is in the best interest of the City and for the efficiency of performing the future WTP construction contracts to approve the GE Membrane Purchase Letter of Intent for COF Contract No 2014-0269 and to authorize the City Engineer to negotiate an Agreement for Procurement (COF Contract No. 2014-0269) for said Membrane in a form substantially similar to Exhibit B, to execute said Agreement with concurrence of the City Administrator and City Attorney of the final terms of the Agreement and the authority to administer COF Contract No. 2014-0269 on behalf of the City; and

WHEREAS, the BOMA believes this is in the best interest of the City of Franklin, Tennessee.

NOW THEREFORE, BE IT RESOLVED, BY THE BOARD OF MAYOR AND ALDERMEN OF THE CITY OF FRANKLIN, TENNESSEE THAT:

The Letter of Intent for COF Contract No. 2014-0269 with GE is approved and the City Engineer is authorized to negotiate a purchase agreement with GE for the Membrane equipment with a Base Selling Price of One Million Three Hundred Eighteen Thousand and No/100 Dollars ($1,318,000.00), to execute said Contract with concurrence of the City Administrator and City Attorney of the final Contract terms and approve necessary revisions to the equipment to be purchased and adjust the Base Selling Price in accordance with the Method of Cost Escalation as found in Attachment A of the Letter of Intent on behalf of the City of Franklin without seeking prior approval from the Board of Mayor and Aldermen.

RESOLVED this the 13th day of January, 2015

CITY OF FRANKLIN, TENNESSEE

Dr. Ken Moore
Mayor

Attest:

Eric S. Stuckey
City Administrator

APPROVED AS TO FORM BY:

Shauna R. Billingsley
City Attorney

Exhibit B

AGREEMENT BETWEEN BUYER AND SELLER FOR PROCUREMENT CONTRACTS

Prepared by

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by

ACEC
American Council of Engineering Companies

AGC of America
The Associated General Contractors of America
Quality People. Quality Projects.

ASCE American Society of Civil Engineers

National Society of Professional Engineers
Professional Engineers in Private Practice

AMERICAN COUNCIL OF ENGINEERING COMPANIES

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PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
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TABLE OF CONTENTS

Article 1 – GOODS AND SPECIAL SERVICES 1

Article 2 – THE PROJECT 1

Article 3 – ENGINEER 1

Article 4 – POINT OF DESTINATION 1

Article 5 – CONTRACT TIMES 1

Article 6 – CONTRACT PRICE 4

Article 7 – PAYMENT PROCEDURES 5

Article 8 – INTEREST 5

Article 9 – SELLER'S REPRESENTATIONS 5

Article 10 – CONTRACT DOCUMENTS 6

Article 11 – MISCELLANEOUS 7

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AGREEMENT

THIS AGREEMENT is by and between The City of Franklin, TN ("Buyer") and ZENON Environmental Corporation d/b/a GE Water & Process Technologies("Seller").

Buyer and Seller hereby agree as follows:

ARTICLE 25 – GOODS AND SPECIAL SERVICES

25.01 Seller shall furnish the Goods and Special Services as described in Seller's Proposal No. 795690, originally dated September 23, 2014, inclusive of Seller's terms and conditions contained therein all in response to the RFP for Proposal for a Hollow Fiber Membrane Filtration System for Surface Water Treatment Plant dated September 1, 2014.

ARTICLE 26 – THE PROJECT

26.01 The Project, of which the Goods and Special Services may be the whole or only a part, is identified as follows: The design, fabrication and delivery of a complete Hollow Fiber Membrane Filtration System as described in the contract documents. Installation and commissioning assistance, process guarantees and warranties, and on-going services shall be included as described in the Contact Documents.

ARTICLE 27 – ENGINEER

27.01 The Specifications for the Goods and Special Services have been prepared by Smith Seckman Reid (SSR), 2995 Sidco Drive, Nashville, TN 37204, dated September 1, 2014 ("Engineer"), which is to act as Buyer's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with Seller's furnishing of Goods and Special Services.

ARTICLE 28 – POINT OF DESTINATION

28.01 The Point of Destination is designated as: A point to be determined by the assignee, generally, Franklin, Tennessee.

ARTICLE 29 – CONTRACT TIMES

29.01 *Time of the Essence*

A. All time limits for Milestones, if any, including the submittal of Shop Drawings and Samples, the delivery of Goods, and the furnishing of Special Services as stated in the Contract Documents, are of the essence of the Contract.

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29.02 *Milestones*

A. Days for Submittal of Shop Drawings and Samples: Seller shall submit all Shop Drawings and Samples required by the Contract Documents to Buyer for Engineer's review and approval within One Hundred-Twenty 120 days after the date when the Contract Times commence to run as provided in Paragraph 2.04 of the General Conditions. It is the intent of the parties that (1) Engineer conducts such review and issue its approval, or a denial accompanied by substantive comments regarding information needed to gain approval, within fourteen (14) days of Seller's submittal of such Shop Drawings and Samples; and (2) resubmittals be limited whenever possible. If more than one resubmittal is necessary for reasons not the fault and beyond the control of Seller, then Seller shall be entitled to seek appropriate relief under Paragraph 7.02.B of the General Conditions.

29.03 *Days to Achieve Delivery of Goods:*

A. The Goods are to be delivered to the Point of Destination and ready for Buyer's receipt of delivery on the dates approved by both parties.

B. The place of delivery specified therein shall be firm and fixed, provided that Buyer may notify Seller no later than 45 days prior to the scheduled shipment date of the products of an alternate point of delivery. Provided the parties agree to a change order to take into account any additional cost [or delay] incurred by Seller in implementing this change, the alternate place of delivery shall become the agreed place of delivery for all purposes under this Agreement. In such event the following conditions shall apply: (i) title and risk of loss shall thereupon pass to the Buyer; (ii) any amounts payable to the Seller upon delivery or shipment shall become payable; (iii) any additional expenses incurred by the Seller in connection with such shipment to storage shall become payable by the Buyer upon submission of the Seller's invoice(s) (including but not limited to costs of any additional transportation, preparation for and placement into storage, handling, inspection, preservation, insurance, storage, removal charges and any applicable taxes); (iv) transportation of the products from the storage facility to their place of installation shall be the Buyer's responsibility; and, (v) if the Contract includes Services, subject to the terms and conditions in the Contract the Seller shall resume provision of Services to Buyer when instructed to do so by Buyer provided that all amounts due hereunder plus any costs incurred by Seller in delaying such Services have been paid.

C. Seller shall provide written notice to Buyer at least 10 days before shipment of the manner of shipment and the anticipated delivery date. The notice shall also include any instructions concerning special equipment or services required at the Point of Destination to unload and care for the Goods. Seller shall also require the carrier to give Buyer at least 24 hours' notice by telephone prior to the anticipated time of delivery.

D. Buyer will be responsible and bear all costs for unloading the Goods from carrier.

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E. Buyer will assure that adequate facilities are available to receive delivery of the Goods during the Contract Times for delivery set forth in the Agreement, or another date agreed by Buyer and Seller.

F. Partial deliveries and payments for partial deliveries shall be permitted.

G. If Seller is prevented from delivering the Goods or performing the Special Services within the Contract Times for any unforeseen reason beyond its control and not attributable to its actions or inactions, then Seller shall be entitled to an adjustment of the Contract Times to the extent attributable to such reason. Such reasons include but are not limited to acts or neglect by Buyer, inspection delays, fires, floods, epidemics, abnormal weather conditions, acts of God, and other like matters. If such an event occurs and delays Seller's performance, Seller shall notify Buyer in writing within 15 days of knowing or having reason to know of the beginning of the event causing the delay, stating the reason therefor.

H. Seller shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Seller. Delays attributable to and within the control of Seller's subcontractors or suppliers shall be deemed to be delays within the control of Seller.

I. If Seller is prevented from delivering the Goods or furnishing the Special Services within the Contract Times due to the actions or inactions of Buyer, Seller shall be entitled to any reasonable and necessary additional costs arising out of such delay to the extent directly attributable to Buyer.

J. Neither Buyer nor Seller shall be entitled to any damages arising from delays which are beyond the control of both Buyer and Seller, including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, and other like matters.

29.04 *Days for Furnishing Special Services:*

A. The furnishing of Special Services to Buyer will commence on the date of Substantial Completion of the Construction Contact or other time that is mutually agreed upon.

29.05 *Buyer's Final Inspection*

A. Days to Achieve Final Inspection: Buyer shall make its final inspection of the Goods pursuant to Paragraph 8.01.C of the General Conditions within Seven (7) days after Buyer's acknowledgement of receipt of delivery of the Goods and Seller's completion of furnishing Special Services, if any.

29.06 *Liquidated Damages*

A. Buyer and Seller recognize that Buyer may suffer financial loss if the Goods are not delivered at the Point of Destination and ready for receipt of delivery by Buyer within the times specified in Paragraph 5.02 above, plus any extensions thereof allowed in

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accordance with Article 7 of the General Conditions. The parties also recognize that the timely performance of services by others involved in the Project is materially dependent upon Seller's specific compliance with the requirements of Paragraph 5.02. Further, they recognize the delays, expense, and difficulties involved in proving the actual loss suffered by Buyer if complete acceptable Goods are not delivered on time. Accordingly, instead of requiring such proof, Buyer and Seller agree that as liquidated damages for delay (but not as a penalty) attributed solely to Seller, Seller shall pay Buyer $500.00 for each day that expires after the time specified in Paragraph 5.02.B for delivery of acceptable Goods. Seller shall have no liability to Buyer under this Article if Seller's delay causes no damages or losses to Buyer.

B. The liquidated damages set forth in Article 5.04 shall constitute the Buyer's sole and exclusive remedy for delay by Seller in achieving completion of the Work within the time specified in the Contract Documents. Seller's obligation to pay liquidated damages pursuant to Article 5.04 shall be limited to an amount equal to ten percent (10%) of the Seller's Contract Price.

ARTICLE 30 – CONTRACT PRICE

30.01 Buyer shall pay Seller for furnishing the Goods and Special Services in accordance with the Contract Documents as follows:

A. The prices stated in Seller's Proposal, attached hereto as an exhibit and as modified through subsequent negotiations. The Initial Capital Price of the equipment and services shall be US$1,318,000.00

B. Upon signing of the agreement the Seller will commence Engineering Services to permit the Buyer and Buyer's Engineer to perform overall WTP design. By signing this agreement Buyer is not authorizing Seller to commence fabrication or procurement as such the Buyer has no financial obligations to the Seller related to providing Goods and Special Services until such time as the Agreement is assigned to a General Contractor who will provide Seller with a Notice to Proceed for the fabrication and procurement of Goods and Special Services.

C. In the event that a Notice to Proceed is not received September 1st, 2015 or the project is cancelled, Buyer shall reimburse Seller the cost for Engineering Services completed to the date of NPT or cancellation to an upset limit of $89,000.00.

D. The parties acknowledge that the Owner may seek loans or grants from various state or federal agencies to fund the project. Buyer and Seller agree that they will comply with the Owner's request for information in order to support applications for loans or grants.

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ARTICLE 31 – PAYMENT PROCEDURES

31.01 *Submittal and Processing of Payment*

A. Seller shall submit Applications for Payment in accordance with Article 10 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

31.02 *Progress Payments; Retainage*

A. Buyer shall make progress payments on account of the Contract Price on the basis of Seller's Applications for Payment as per Seller's Proposal which are as follows:

10% On Approval of Shop Drawings

15% On Notice of Proceed with Procurement (NTP)

65% On Delivery of Equipment (partial shipments permitted)

10% On Substantial Completion

ARTICLE 32 – INTEREST

32.01 All monies not paid when due as provided in Article 10 of the General Conditions shall bear interest at the rate of 12% per annum or at the statutory rate, whichever is lowest.

ARTICLE 33 – SELLER'S REPRESENTATIONS

33.01 In order to induce Buyer to enter into this Agreement, Seller makes the following representations:

A. Seller has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents, as applicable to Seller's obligations identified in Article 1 above.

B. If required by the Bidding Documents to visit the Point of Destination and site where the Goods are to be installed or Special Services will be provided, or if, in Seller's judgment, any local condition may affect cost, progress, or the furnishing of the Goods and Special Services, Seller has visited the Point of Destination and site where the Goods are to be installed or Special Services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, and the furnishing of the Goods and Special Services.

C. Seller is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and the furnishing of the Goods and Special Services.

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D. Seller has carefully studied, considered, and correlated the information known to Seller; information commonly known to sellers of similar goods doing business in the locality of the Point of Destination and the site where the Goods will be installed or where Special Services will be provided; information and observations obtained from Seller's visits, if any, to the Point of Destination and site where the Goods are to be installed or Services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Point of Destination and the site where the Goods will be installed or where Special Services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of Seller's obligations under the Contract Documents.

E. Seller has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Seller has discovered in the Contract Documents, and the written resolution (if any) thereof by Engineer is acceptable to Seller.

F. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing Goods and Special Services.

ARTICLE 34 – CONTRACT DOCUMENTS

34.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (pages 1 to 11, inclusive), including Seller's As-Sold Proposal as accepted by Buyer and attached hereto and forming an integral part of this Agreement;

2. Performance Bond (pages 1 to 2, inclusive);

3. Payment Bond (pages 1 to 2, inclusive);

4. General Conditions (pages 1 to 18, inclusive);

5. Supplementary Conditions (pages 1 to 4, inclusive). As well as amendments to Supplementary Conditions as provided in Seller's Proposal.

6. Specifications as shown in Article 1.0;

7. Addenda (Numbers ____ to ____, inclusive);

8. Exhibits to this Agreement (enumerated as follows):

    a. Exhibit A-1 to Agreement between Buyer and Seller dated _____, Assignment of Contract; Consent to Assignment; and Acceptance of Assignment.

    b. Exhibit A-2 to Agreement between Buyer and Seller dated _____, Agreement to Assignment by Seller's Surety.

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c. Minutes of Negotiation Meeting(s);

9. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:

   a. Notice to Proceed (pages __ to __, inclusive);

   b. Written Amendments;

   c. Change Orders(s);

   d. Field Order(s);

   e. Engineer's Written Interpretation(s);

B. The documents listed in Paragraph 10.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 10.

D. The Contract Documents may only be amended, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 35 – MISCELLANEOUS

35.01 *Terms*

A. Terms used in this Agreement will have the meanings indicated in the General Conditions and the Supplementary Conditions.

35.02 *Assignment of Contract*

A. Buyer has the right to assign this Contract for furnishing Goods and Special Services, but only to a person or entity with sufficient ability to satisfy all of Buyer's obligations under this Contract, and Seller hereby consents to such assignment. Forms documenting the assignment of the Contract, and consent of Seller's surety to the assignment, have been executed by Buyer, Seller, and Seller's surety, and are attached as exhibits to this Agreement. Buyer and Seller agree to the following terms and conditions regarding assignment of Seller's Contract to a General Contractor retained by the Buyer:

1. that the General Contractor shall provide the Buyer with a Labor and Material Payment Bond in the full amount of the general contract, including Seller's contract amount;

2. that Seller's contract shall be assigned 'as is', with no new or additional terms and conditions being imposed upon Seller by the General Contractor;

3. that the General Contractor shall not have the right to re-assign Seller's Contract, other than to re-assign it back to the Buyer, without Seller's prior written approval, such approval may be withheld at Seller's sole discretion;

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B. The Contract will be executed in the name of Buyer initially, and will be assigned to a construction contractor designated by Buyer. Such construction contractor's responsibilities will include the installation of the Goods. The assignment will occur on the effective date of the agreement between Buyer and the construction contractor, which is expected to occur on or about Q3, 2015. As of the date of acceptance of assignment by the construction contractor, all references in the Contract Documents to Buyer shall mean the designated construction contractor whose responsibilities will include the installation or erection or incorporation of the Goods.

1. The assignment of the Contract shall relieve the assignor from all further obligations and liabilities under this Contract. After assignment, Seller shall become a subcontractor or supplier to the assignee and, except as noted herein, all rights, duties, and obligations of Buyer under the Contract shall become the rights, duties, and obligations of the assignee.

2. After assignment:

    a. All performance warranties, guarantees, and indemnifications required by the Contract Documents will continue to run for the benefit of assignor and, in addition, for the benefit of the assignee. However, if assignor and assignee make the same warranty or guarantee claim, then Seller shall only be liable once for such claim.

    b. Except as provided in this Paragraph 11.02.A.2.b, all rights, duties, and obligations of Engineer to assignee and Seller under this Contract will cease.

        1) Engineer will review Seller's Applications for Payment and make recommendations to assignee for payments as provided in Paragraphs 10.02 and 10.06 of the General Conditions.

        2) Upon the written request of either the assignee or Seller, Engineer will issue with reasonable promptness clarifications or interpretations of the Contract Documents pursuant to the terms of Paragraph 9.02.A of the General Conditions.

C. No other assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound. Specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by Laws and Regulations). Unless specifically stated to the contrary in any written consent to such an assignment, such an assignment will not release or discharge the assignor from any duty or responsibility under the Contract Documents.

35.03 *Successors and Assigns*

A. Buyer and Seller each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

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35.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Buyer and Seller. The Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

35.05 *Seller's Certifications*

A. Seller certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 11.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Buyer, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Buyer of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Buyer, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

35.06 *Limitations*

A. Notwithstanding any other provisions of the Contract Documents, Seller's total liability arising at any time under any of the Contract Documents or otherwise in connection with completing the Project (whether arising under breach of contract, tort, strict liability or any other theory of law) shall not exceed the Seller's contract price. Notwithstanding anything to the contrary in the Contract Documents or otherwise, under no circumstances shall either party to the contract be liable to the other party for any loss of profit or revenues, incidental, consequential, special, punitive or other indirect damages (other than liquidated damages expressly provided for in the Contract Documents), regardless of whether such damages arise under breach of contract, tort, strict liability, or any other theory of law.

B. Seller's liability shall end upon the expiration of the applicable warranty period, provided that Buyer may continue to enforce a claim for which it has given notice prior to that date by commencing an action or arbitration, as applicable under this Agreement, before the expiration of any statute of limitations or other legal time limitation but in no event – to

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the extent permitted by applicable law – later than five (5) months after expriation of such warranty period.

C. Upon assignment the terms of this Paragraph 11.06.B shall be binding upon both the assignor and assignee with respect to Seller's liability, and upon Seller with respect to both assignor's and assignee's liabilities. The terms of this mutual limitation do not apply to or limit any claim by either Buyer or Seller against the other based on any of the following: (a) contribution or indemnification with respect to third-party claims, losses, and damages; (b) costs, losses, or damages attributable to personal or bodily injury, sickness, disease, or death, or to injury to or destruction of the tangible property of others, (c) intentional or reckless wrongful conduct, or (d) rights conferred by any bond provided by Seller under this Contract.

IN WITNESS WHEREOF, Buyer and Seller have signed this Agreement. Counterparts have been delivered to Buyer and Seller. All portions of the Contract Documents have been signed or identified by Buyer and Seller or on their behalf.

This Agreement will be effective on ***[insert date]*** (which is the Effective Date of the Agreement).

Buyer: _____	Seller: ZENON Environmental Corporation
By: _____	By: _____
[Corporate Seal]	[Corporate Seal]
Attest: _____	Attest: _____
Address for giving notice:	Address for giving notice:
_____	3239 Dundas Street West
_____	Oakville, ON
_____	L6M 4B2
(If Buyer is a corporation, attach evidence of authority to sign. If Buyer is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Buyer-Seller Agreement.)	Agent for service of process:
	David Bingham
	Address as Above
	_____
	_____
	(If Seller is a corporation or a partnership, attach evidence of authority to sign.)
Designated Representative:	Designated Representative:
Name: _____	Name: TBA
Title: _____	Title: Project Manager
Address: _____	Address: As Above
Phone: _____	Phone: 905-465-3030 Extension; xxxx

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Facsimile:	Facsimile: 905-465-3050

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EXHIBIT A-1 to Agreement Between Buyer and Seller dated ____

ASSIGNMENT OF CONTRACT; CONSENT TO ASSIGNMENT; AND ACCEPTANCE OF ASSIGNMENT

This assignment will be effective on the Effective Date of the Agreement between Buyer and Construction Contractor.

The Contract between _____("Buyer") and _____("Seller")
for furnishing Goods and Special Services under the Contract Documents entitled

_____

is hereby assigned, transferred, and set over to _____ ("Construction Contractor"). Construction Contractor shall be totally responsible for the performance of Seller and for the duties, rights and obligations of Buyer, not otherwise retained by Buyer, under the terms of the Contract between Buyer and Seller.

ASSIGNMENT DIRECTED BY: _____
Buyer

(If Buyer is a corporation, attach evidence of authority to sign. If Buyer is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Buyer-Seller Agreement.)

By: _____
(Signature) (Title)

ASSIGNMENT
ACKNOWLEDGED AND ACCEPTED BY: _____
Seller

(If Seller is a corporation, attach evidence of authority to sign.)

By: _____
(Signature) (Title)

ASSIGNMENT ACCEPTED BY: _____
Construction Contractor

(If Construction Contractor is a corporation, attach evidence of authority to sign.)

By: _____

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EXHIBIT A-2 to Agreement Between Buyer and Seller dated _____

AGREEMENT TO ASSIGNMENT BY SELLER'S SURETY

Surety hereby acknowledges and agrees that the Contract for furnishing Goods and Special Services under the Contract Documents entitled_____ _____ by and between _____("Buyer") and _____ ("Seller") may be assigned, transferred, and set over to _____ ("Construction Contractor"), in accordance with Paragraph 11.02 of Agreement between Buyer and Seller.

Surety further agrees that, upon assignment of the Contract, the Construction Contractor shall have all the rights of the Buyer under the Performance Bond.

(Corporate Seal)

Surety

Company: _____

By: _____
Signature and Title
(Attach Power of Attorney)

EJCDC P-520, Agreement Between Buyer and Seller for Procurement Contracts.
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October 8, 2014

Exhibit A
Resolution No 2014-77

Mr. David Parker, P.E.
Engineering / Capital Improvements
109 3rd Avenue South
Franklin, TN 37064

Re: Recommendation of Membrane System Manufacturer
Water Treatment Facility Improvements
SSR No. 12-41-013.0

Dear David,

On September 23, 2014, Smith Seckman Reid, Inc. received four (4) proposals in response to the Hollow Fiber Membrane Filtration System Request for Proposals issued by the City of Franklin on August 31, 2014. Of the four responses received, three (3) of the proposals met the minimum quality assurance requirements and were deemed responsive. The fourth proposal submitted by ECONITY, Co., Ltd. did not meet the U.S. marketplace experience requirement and was not evaluated or ranked. The three responsive proposals that were evaluated by the selection committee were submitted by GE, Pall Corporation, and Tonka Water.

Non-Cost Evaluation:

The selection committee first evaluated each proposal based on twenty (20) non-cost criteria. The non-cost evaluation considered previous experience, company stability, system design, post-construction services, and reliability. A maximum of 100 points could be awarded. Each of the non-cost criteria was individually weighted.

The table below shows the individual non-cost criteria, the relative point values, and the awarded points by the selection committee for each of the three evaluated systems.

Criteria	Points Available	Points Awarded		
		GE	Pall	Tonka
US Marketplace Experience and Past Performance	6	4.60	5.40	2.80
Stability of Company	6	4.80	4.60	2.80
System Reliability	6	4.80	4.00	4.40
Operational Strategy	6	5.20	5.60	5.20
Flux Adjustment Capacity	2	1.93	1.20	1.60
System Performance	6	3.60	4.00	4.80
Equipment Layout	4	2.67	2.40	3.20
Module Servicing	2	1.47	1.47	1.40
Manufacturer Services	6	4.80	4.40	4.00
Manufacturer Support	6	5.60	4.00	3.00
System Configuration	4	3.20	2.13	2.53
System Production and Flow Rates	6	3.60	4.00	4.40
System Design	6	4.00	4.16	4.32
Operational Parameters	4	2.67	2.80	2.80
Chemical Compatibility	4	2.93	2.27	3.20

Criteria	Points Available	Points Awarded		
		GE	Pall	Tonka
Cleaning Protocol	6	3.60	4.60	4.40
Exceptions Taken	6	4.00	1.60	4.60
Process Guarantee	6	5.20	5.60	1.20
Warranty	6	4.40	3.60	5.80
Schedule	2	1.53	1.87	1.40
Total	100	74.6	69.7	67.9
Non-Cost Rank		1	2	3

Cost Evaluation:

Cost scoring was based upon a 20-year net present value (NPV). The cost evaluation considered equipment capital cost, annual operating costs (electrical, chemical, water, neutralization of cleaning solutions, etc.), membrane replacement costs (annualized), construction cost, finance burden and estimated taxes. A maximum score of 100 points could be achieved.

The table below shows the initial equipment cost, evaluated net present value, the individual NPV ratio (ratio of individual NPV relative to lowest overall NPV), and the score awarded for the cost evaluation. Individual scores were calculated using the following formula:

$$S_{Cost} = [1/(^{NPV}/_{NPV_{low}})] \times 100$$

Criteria	GE	Pall	Tonka
Equipment Capital Cost	$1,318,000	$2,114,858	$1,451,299
Net Present Value	$4,419,847	$6,386,323	$5,270,522
NPV Ratio	1.00	1.44	1.19
Points Awarded	100.0	69.3	83.9
Cost Rank	1	3	2

Combined Scoring:

The non-cost evaluation was weighed twice the value of the cost evaluation. As such, the total score was calculated using the following formula:

$$S_{final} = (2 \times S_{Non-Cost}) + S_{Cost}$$

The table below summarizes the scoring breakdown, final combined scoring, and evaluated rank for each of the three membrane systems.

Criteria	GE	Pall	Tonka
Weighted Non-Cost Score	149.2	139.4	135.8
Cost Score	100.0	69.3	83.9
Total Score	249.2	208.7	219.7
Combined Rank	1	3	2

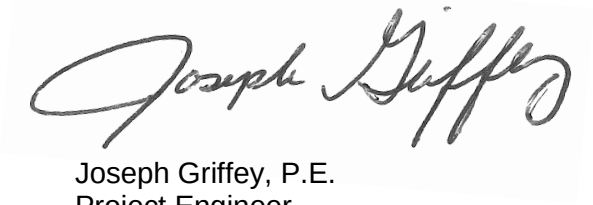
Recommendation:

The selection committee believes that the City of Franklin received three responsive proposals from reputable hollow fiber membrane manufacturers. The three companies evaluated all have the experience, technical expertise, and system reliability that would serve the needs of the City at the water treatment facility. Given that GE scored the highest on both the non-cost evaluation and the cost evaluation, we believe the proposal submitted by GE is in the best interest of the City of Franklin and recommends the City enter into contract negotiations with GE for the hollow-fiber membrane filtration system.

If you have any questions in this regard, please do not hesitate to contact me.

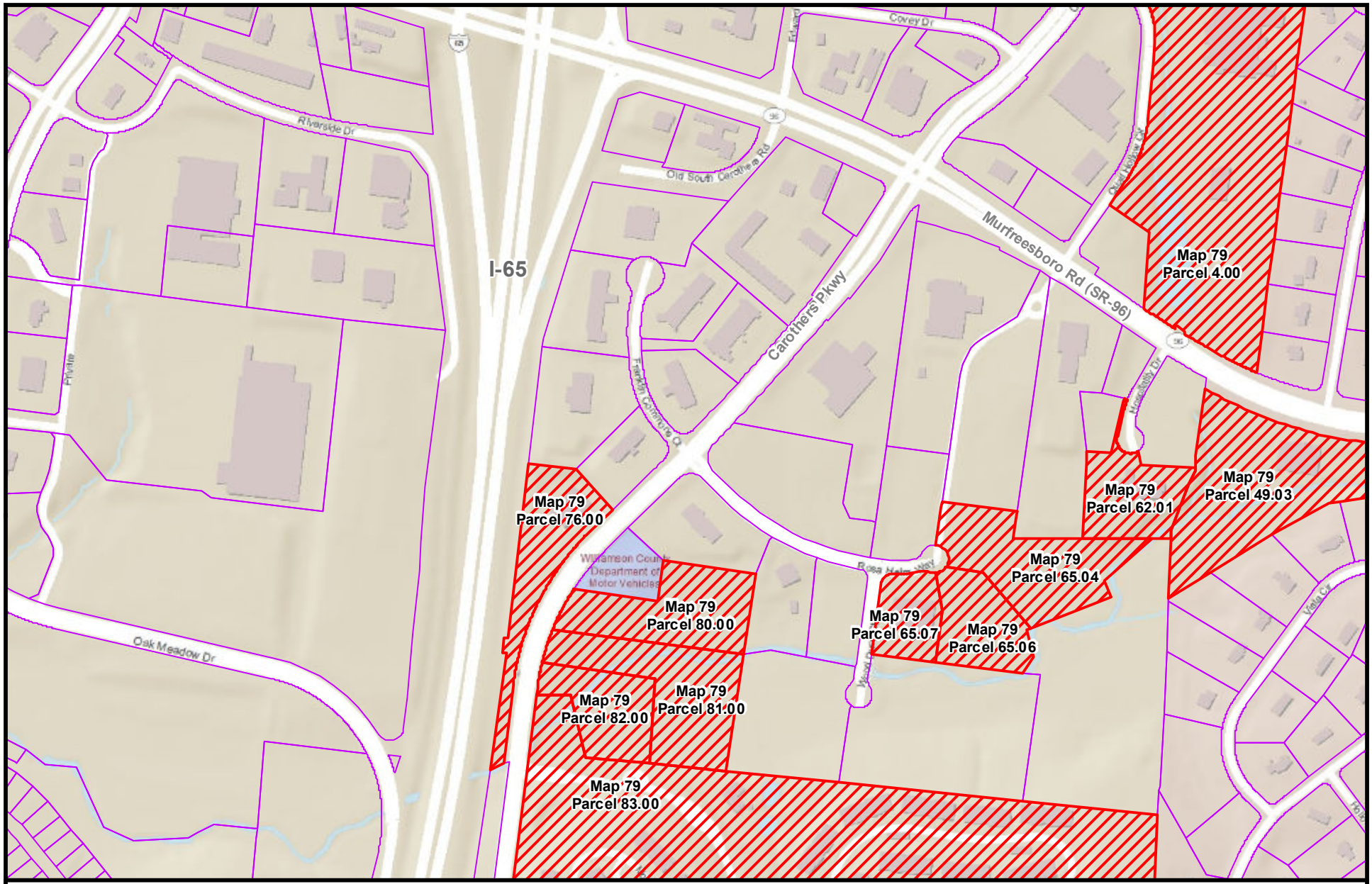
Sincerely,

SMITH SECKMAN REID, INC.



Joseph Griffey, P.E.
Project Engineer

cc: Mark Hilty – City of Franklin
JHB, MLB, ATJ, LBB
File (1)



1 inch = 500 feet

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PARCEL MAP

Resolution 2014-84

EXHIBIT A
RESOLUTION 2014-84

OWNER	TAX MAP		PARCEL
The Gate Church	79		76.00
United Dominion	79		83.00
J. Donald Nichols	79		82.00
Richland South, LLC	79		81.00
Richland South, LLC	79		80.00
Rosa Helm Partners, LLC	79		65.07
Waltrip-Hendrick Realty Investments	79		65.06
Waltrip-Hendrick Realty Investments	79		65.04
Continental Inns of America, Franklin	79		62.01
Intercontinental Lumber Corporation, NV	79		49.03
Rolling Hills Hospital, LLC	79	Group A	4.00

RESOLUTION 2014-84

A RESOLUTION AUTHORIZING CONDEMNATION FOR THE ACQUISITION OF PROPERTY FOR THE CURD BRANCH AND WATSON BRANCH SANITARY SEWER IMPROVEMENTS PROJECT

WHEREAS, the City of Franklin (City) has determined that certain sanitary sewer improvements are necessary within the Watson Branch Sewer Basin to provide sanitary sewer service within the City Limits and the City's Urban Growth Boundary; and

WHEREAS, these improvements are generally described as the construction of a 24-inch diameter sanitary sewer line parallel to the existing 15-inch Watson Branch Sanitary Sewer line from I65 to Highway 96 East; and

WHEREAS, it will be necessary for the City to obtain easements from landowners for the construction of the Project; and

WHEREAS, the Franklin Board of Mayor and Aldermen expressly finds that the City has the power of eminent domain to extend public roads, see T.C.A. §29-17-301 *et seq.,* and to acquire Rights-of-Way and Easements necessary for proper completion of the said Project, and that the acquisition of such Rights-of-Way and/or Easements is for a public purpose and for a public use, and that the acquisition of the private property hereinafter described is necessary to accomplish said public use.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN OF THE CITY OF FRANKLIN, TENNESSEE, that the City Engineer and /or City Attorney, are authorized to obtain the necessary rights-of-way, permanent easements and/or temporary easements across the properties listed in Exhibit A hereto and may enter into agreements with property owners with respect to the compensation to be paid for the said rights-of-way and easements, so long as such amounts are reasonable, within the project budget and supported by a qualified appraisal.

The City Engineer and City Attorney are authorized to continue negotiating with any landowner for the acquisition of the rights-of-way and/or easements without resort to condemnation. However, if an impasse is reached with a property owner and condemnation is the only alternative, then the City Attorney, or his/her designee, is authorized to commence necessary condemnation proceedings. After condemnation proceedings have commenced, the City Engineer and /or City Attorney, are authorized to enter into settlement agreements with property owners with respect to the compensation to be paid for the said rights-of-way and easements, so long as such amounts are reasonable, within the project budget and supported by a qualified appraisal.

IT IS SO RESOLVED AND DONE on this the ____ day of _____, 2014.

ATTEST: **CITY OF FRANKLIN, TENNESSEE**

By:_____

ERIC S. STUCKEY
City Administrator/Recorder

By: _____

DR. KEN MOORE
Mayor

Approved As To Form By:

_____

Shauna R. Billingsley
City Attorney

RESOLUTION NO. 2014-87

A RESOLUTION TO ADOPT THE SOUTHWEST BASINS NO. 2 AND NO. 3 SANITARY SEWER SYSTEM STUDY OF AUGUST 2014

WHEREAS, on March 11, 2014, the Franklin Board of Mayor and Aldermen (BOMA) approved COF Contract No. 2014-0048 with Smith Seckman Reid, Inc. (SSR) for the Southwest Basins No. 2 & No. 3 Sanitary Sewer System Study; and

WHEREAS, the Southwest Basins No. 2 & No. 3 Sanitary Sewer System Study provides three (3) options for the routing and size of the sanitary sewer interceptors required to provide sanitary sewer service needed for the Southwest No. 2 & No. 3 Drainage Basins located within the City Limits and Urban Growth Boundary; and

WHEREAS, City Staff has reviewed the options as presented by SSR in the Southwest Basins No. 2 & No. 3 Sanitary Sewer System Study, Exhibit A (attached and made a part herein) for the general location and sizing of the sanitary sewer interceptors required to provide the future sanitary sewer services needed for these basins; and

WHEREAS, the BOMA is committed to sound planning and high quality and efficient infrastructure that will facility an orderly, safe and economically vital growth for the residents and future residents of the City of Franklin; and

WHEREAS, it is understood that the exact location for sanitary sewer pump stations and routing of sanitary sewer gravity mains and force mains cannot be determined until there has been some surveying and engineering design efforts expended; and

WHEREAS, due to economic and design considerations it may become necessary to phase various aspects for providing the approved option for the Sanitary Sewer System for the Southwest Drainage Basins No. 2 & No. 3.

NOW THEREFORE:

SECTION 1: BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that Option 3 as presented in the Southwest Basins No. 2 & No. 3 Sanitary Sewer System Study of August 2014, be adopted as the preferred method of providing the Sanitary Sewer System in the Southwest Drainage Basins No. 2 & No. 3 located within the City's limits or approved Urban Growth Boundary.

SECTION 2: BE IT FURTHER RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that the City Engineer and the Water Management Department Director are authorized to make the final decision as to the sizing and location of any sanitary sewer pump station and the routing of associated force mains should phasing of the Southwest No. 2 & No. 3 Drainage Basins Sanitary Sewer System be desired, and as to the sizing and routing of the sanitary sewer gravity collectors and mains to be constructed in the Southwest Basins No. 2 & No. 3.

SECTION 3: BE IT FURTHER RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that the City Engineer and the Water Management Department Director are authorized to determine the appropriate phasing of the infrastructure to be provided and constructed as a part of the Sanitary Sewer System to serve the Southwest No. 2 & No. 3 Drainage Basins with a report to the Board of Mayor and Aldermen of same required prior to the commencement of any bidding and/or construction activities for the work to be phased.

ADOPTED THIS ____ DAY OF _____ 201__.

ATTEST: **CITY OF FRANKLIN, TENNESSEE**

By: _____ **By**: _____
Eric S. Stuckey **Dr. Ken Moore**
City Administrator/Recorder **Mayor**

Approved as to Form:

By: _____
Shauna R. Billingsley, City Attorney

Southwest Basins No. 2 & No. 3

Sanitary Sewer System Study

Prepared for the City of Franklin

Engineering Department

August 2014

HISTORIC
FRANKLIN
TENNESSEE

Prepared by:

Smith Seckman Reid, Inc.

Table of Contents

Executive Summary 1

Description 1

Southwest Basin No. 2 1

Southwest Basin No. 3 2

Development of Sanitary Sewer Flows 2

Rationale 2

Project Flows 5

Existing Interceptor Sewers 8

Option Descriptions 10

Option 1: Force Main to GCB with New 27” Line and 18” Extension 10

Option 2: Force Main to GCB with New 24” Line and 24” Expansion 11

Option 3: Force Main to Berry Farms Gravity Sewer 11

Recommendations 11

Figures

Figure 1: Southwest Basin No. 2 Land Use 4

Figure 2: Southwest Basin No. 3 Land Use 4

Figure 3: Population Peaking Factors 5

Figure 4: Southwest Basin No. 2 Land Use and Flow Results 7

Figure 5: Southwest Basin No. 3 Land Use and Flow Results 7

Figure 6: Existing Goose Creek Gravity Sewer 9

Figure 7: Engineers Opinion of Probable Cost, Option 1 13

Figure 8: Engineers Opinion of Probable Cost, Option 2 14

Figure 9: Engineers Opinion of Probable Cost, Option 3 14

Appendix

Table A-1: Southwest Basin No. 2 Sewer Calculations

Table A-2: Southwest Basin No. 3 Sewer Calculations

Exhibit B-1: Overview of Southwest Basin No. 2 and No. 3

Exhibit B-2: Overview of Option 1

Exhibit B-3: Overview of Option 2

Exhibit B-4: Overview of Option 3

I. Executive Summary

This study was authorized on March 25, 2014 by the Franklin Engineering Department in order to evaluate and update the expected sewer demand in the Southwest Basins No. 2 and No. 3. This evaluation uses data from the 2011 Development Report that was compiled by the Department of Planning and Sustainability, provided by the Engineering Department, and as-built drawings from the Waste Management Department. This information was implemented to produce expected sewer flows from Southwest Basins No. 2 and No. 3. The findings, conclusions, and recommendations for the two basins are detailed in the following report.

II. Description

i. Southwest Basin No. 2

The Southwest Basin No. 2 is located in the southwestern sections of the City of Franklin's Urban Growth Boundary (UGB). The borders are roughly comprised of: Coleman Road to the north, Goose Creek Bypass to the east, Snowbird Hollow Road and West Harpeth River to the south, and Kelly Branch to the west. The exact location and boundaries are shown in Exhibit B-1.

The Southwest Basin No. 2 is comprised of approximately 2,045 acres, in which 1,441 acres are undeveloped. There are currently 197 existing lots with capacity to expand to 2,359 projected lots. The fully developed basin is anticipated to have a population of 6,486 residents.

Based on the natural terrain of the Southwest Basin No. 2, it has been divided into two distinct sub-basins. The area does not currently offer gravity sewer service to its residents.

ii. Southwest Basin No. 3

The Southwest Basin No. 3 is located in the southwestern sections of the City of Franklin's UGB. The borders are roughly comprised of: Snowbird Hollow Road to the north, Lewisburg Pike to the east, West Harpeth River to the south, and Hunter Road to the west. The exact location and boundaries are shown in Exhibit B-1.

The Southwest Basin No. 3 is comprised of approximately 2,092 acres, in which 1,135 acres are undeveloped. There are currently 231 existing lots with capacity to expand to 1,933 projected lots. The fully developed basin is anticipated to have a population of 5,316 residents.

Based on the natural terrain of the Southwest Basin No. 3, it has been divided into three distinct sub-basins. The area does not currently offer gravity sewer service to its residents.

III. Development of Sanitary Sewer Flows

i. Rationale

The two Basins flow to a common point and were analyzed together to size the gravity sewer lines. Figures 1 and 2 lists the various areas delineated within the sub-basins of Southwest Basin No. 2 and Southwest Basin No. 3 respectively. Existing information from the 2011 Development

Report and as-built drawings were utilized to determine land use within each basin.

Each sub-basin was evaluated in terms of land use, and Franklin Planning Department estimates and projections were used to identify the type and extent of future development for properties where no submittals have been submitted.

FIGURE 1 - SOUTHWEST BASIN NO. 2 LAND USE

Area Number	Description	Total Acreage	Total Undeveloped Acreage	No. Of Estimated Developed Lots	Est. Total Developed Lots In Area
1	Kittrell Rd and Hunter Rd Intersection	1,545	1,195	1,792	1,843
2	Hunter Rd to Columbia Pk	500	246	369	515
	Totals	**2,045**	**1,441**	**2,162**	**2,359**

FIGURE 2 - SOUTHWEST BASIN NO. 3 LAND USE

Area Number	Description	Total Acreage	Total Undeveloped Acreage	No. Of Estimated Developed Lots	Est. Total Developed Lots In Area
1	Hunter Rd, Columbia Pk, and Snowbird Hollow Rd	898	452	678	767
2	Goose Creek Bypass	579	199	298	389
3	Tom Anderson Rd	615	484	726	777
	Totals	**2,092**	**1,135**	**1,702**	**1,933**

The State of Tennessee Sewage Works Design Manual provides guidance for incremental flow for various land uses. The Manual recommends a flow of 350 gallons/day (gpd) for a single family residence. Every property in the two Basins were understood to be zoned for single family residence and the flow projections are based on the recommended flow.

For the purpose of this study, flood plains, steep slopes and roads were included in the undeveloped acreage calculation. Average projected flows from each sub-basin are calculated from the general information presented in Figures 1 and 2 above. Sanitary sewer lines must be designed for the maximum flow that will be encountered in a given area within the drainage basin. Peaking Factors are applied that allow for the differences in average daily flows and instantaneous sewer flows. These factors vary according to the number of people in the sub-basin contributing to the flow. The following peaking factors listed in Figure 3 are taken from ASCE "Sewer Design & construction Manuals and Reports on Engineering Practices" and are used in this study.

FIGURE 3 - POPULATION PEAKING FACTORS

Tributary Population	Peaking Factor
0-500	5
501-1000	4
1001+	3.25

ii. Projected Flows

Figure 4 and 5 represent an overview of the entire land development plan for the Southwest Basin No. 2 and No. 3, respectively. A more detailed analysis of the information contained in Figure 1, 2, 4, and 5 is contained

in Table 1 and Table 2 in the Appendix. Table 1 contains projected flows associated with each sub-basin for Southwest Basin No. 2 and Table 2 contains the project flows for Southwest Basin No. 3. The information in the tables is based on the information from the 2011 Development Report and counts of actual properties on the as-built drawings.

The calculations included in the tables project numbers of future residential units and sewage flow from each sub-basin attributable to the proposed development. A majority of the information was derived from population densities. The City of Franklin's land use plan calls for a residential density of 1.0 unit per acre. After further review a value of 1.5 residential units per acre was used based on the existing high density subdivisions in the basins and at the request of the City of Franklin.

FIGURE 4 - SOUTHWEST BASIN NO. 2 LAND USE and FLOW RESULTS

Area Number	Description	Total Acreage	No. Of Estimated Developed Lots	Est. Total Developed Lots In Area	Est. Population In Area 2.75/unit	Est. Total Population In Area	Total Average Flow (MGD)	Total Peak Flow (MGD)
1	Kittrell Rd and Hunter Rd Intersection	1,545	1,792	1,843	4,928	5,069	0.645110	2.096606
2	Hunter Rd to Columbia Pk	500	369	515	1,016	1,418	0.180413	0.586341
	Totals	**2,045**	**2,162**	**2,359**	**5,944**	**6,486**	**0.825522**	**2.682947**

FIGURE 5 - SOUTHWEST BASIN NO. 3 LAND USE and FLOW RESULTS

Area Number	Description	Total Acreage	No. Of Estimated Developed Lots	Est. Total Developed Lots In Area	Est. Population In Area 2.75/unit	Est. Total Population In Area	Total Average Flow (MGD)	Total Peak Flow (MGD)
1	Hunter Rd, Columbia Pk, and Snowbird Hollow Rd	898	678	767	1,865	2,110	0.268555	0.872804
2	Goose Creek Bypass	579	298	389	819	1,069	0.136115	0.442374
3	Tom Anderson Rd	615	726	777	1,996	2,136	0.271898	0.883667
	Totals	**2,092**	**1,702**	**1,933**	**4,681**	**5,316**	**0.676568**	**2.198844**

The average daily flow for the Southwest Basin No. 2 is estimated to have an average of 0.826 million gallons per day (MGD) and the Southwest Basin No. 3 estimated average is 0.677 MGD. The average flows will have a significant increase to 2.683 MGD and 2.199 MGD, respectively, after applying peaking factors and the two flows combine to equal 4.882 MGD.

iii. Existing Interceptor Sewers

Previous sections have provided a rationale for projections of sewer flows from the study basins. With the flows from each sub-basin defined, existing sanitary sewer lines can be evaluated, areas of insufficient capacity can be identified, and specific infrastructure improvements can be recommended. To develop Southwest Basins No. 2 and No. 3 the flow will have to be conveyed through the Goose Creek sanitary sewer that reaches out to Berry Farms and flows into the Five Mile Creek Interceptor. This is the most logical tie-in location in relation to distance and existing infrastructure capable of handling the flow from the two basins. Figure 6 below shows the size and slope of the existing sewer, and the full flow capacities. City of Franklin provided the as-built drawings from Littlejohn Engineering Associates to analyze the existing infrastructure. The existing sewer material is PVC and a Manning's roughness value of n = 0.011 was used to calculate capacity.

FIGURE 6 - EXISTING GOOSE CREEK GRAVITY SEWER			
SHEET	**PVC SEWER DIAMETER**	**SLOPE**	**FULL FLOW CAPACITY, MGD**
C2.2	18-inch	0.59%	6.176
	18-inch	0.68%	6.631
	18-inch	0.55%	5.979
	18-inch	0.75%	6.955
C2.1	18-inch	0.46%	5.441
	18-inch	0.58%	6.111
	18-inch	0.85%	7.404
	18-inch	0.66%	6.524
C2.0	18-inch	1.49%	9.789
	18-inch	0.62%	6.309
	18-inch	0.45%	5.375
	18-inch	0.75%	6.964
	18-inch	1.09%	8.380
	18-inch	0.79%	7.138

A study of the Goose Creek sub-basin, that the flow will be conveyed through, was conducted to develop the estimated peak flow from the area which is projected at 3.17 MGD. This projection came from the existing 322 units, 2.8 million square feet of commercial zoned areas, and the possible development of 254 acres. The combined projected flows for the Goose Creek sub-basin and Southwest Basin No. 2 and No.3 have a peak flow of 8.05 MGD. After analyzing the full flow capacities of the existing sewer, it is anticipated that the existing gravity sewer will not be able to handle the total combined flow and a solution is described in the following paragraphs.

The terrain between the Berry Farms gravity sewer and the common low area for the Southwest Basins, has elevation changes that causes a problem. This problem of having the water carried between the two points left only one option and that was to pump the water. The selected site for the proposed pump station is located in the southwest corner of Southwest Basin No. 2 and sits close to the West Harpeth River. This

location was selected based on the contour lines and the ability to have the Southwest Basins on gravity sewer. All proposed gravity sewers are anticipated to be able to serve all areas of the basins. A 16-inch force main will need to be constructed to convey the flow from the proposed pump station to Berry Farms sanitary sewer.

IV. Option Descriptions

There are three options to consider when conveying flows from Southwest Basin No. 2 and No. 3 to the Goose Creek sub-basin.

i. Option1: Force Main to GCB with New 27" Line and 18" Extension

Option 1, shown in Exhibit B-2, is to construct the force main to the intersection of Snowbird Hollow Road and Goose Creek Bypass, then lay a 27-inch line along the south side of the Goose Creek Bypass to the Five Mile Creek Interceptor. This will be used to convey the flows from the two Southwest Basins and lots on the southern boundary of the Goose Creek Bypass. An extension of the existing 18-inch Berry Farms sewer will be required to serve the northern boundary of the Goose Creek Bypass. This extension was calculated using the existing slope of the Berry Farms sewer. The total length of 16-inch force main is 17,398 linear feet, the proposed 27-inch line length is 10,749 linear feet and the extension of gravity sewer is 2,766 linear feet. The projected total flow to be handled is 8.05 MGD.

ii. Option 2: Force Main to GCB with New 24" Line and 24" Expansion

Option 2, shown in Exhibit B-3, is slightly different than Option 1 were a 24-inch line will run along the northern boundary of the Goose Creek Bypass until it reaches the existing Berry Farms 18-inch gravity sewer. A minimum slope was assumed for the 24-inch proposed gravity sewer. Do to the projected flows, the existing Berry Farms 18-inch sewer will need to be upsized to a 24-inch gravity sewer. Existing slopes were utilized to size the proposed 24-inch gravity sewer. This option will enable the properties north of the Goose Creek Bypass to be on gravity sewer while the southern properties will remain on septic systems. The projected quantities are: 17,398 linear feet for the 16-inch force main and 10,568 linear feet of new 24-inch gravity sewer, where 3,661 linear feet of 24-inch gravity sewer will replace the existing 18-inch Berry Farms sewer. The projected total flow to be handled is 5.56 MGD.

iii. Option 3: Force Main to Berry Farms Gravity Sewer

Option 3, shown in Exhibit B-4, is to construct the 16-inch force main the entire length to the existing 18-inch Berry Farms sewer. This will give the City of Franklin gravity sewer in the two Southwest Basins and the existing and projected area of Berry Farms Town Center. The projected density of 3.75 units per acre, for the Berry Farms Town Center, was obtained through the 2011 Development Report. The Berry Farms Town Center area to be developed is estimated at 86 acres. The existing and projected units are estimated to have a peak flow of 0.89 MGD, combined with the projected 4.88 MGD from the Southwest Basins, equals a total peak flow of 5.77 MGD. The current capacity of the Berry Farms gravity sewer has

two sections that are under sized for this amount but the overall capacity is estimated to handle the additional flow.

V. Recommendations

All three options have pros and cons when deciding which option is more suitable for the City of Franklin's needs. The price difference between the three options is estimated at $2.4 million dollars and a breakdown of the cost estimates can be found below in Figure 7, 8, and 9. Option 1, on Exhibit B-2, will give the City of Franklin the ability serve the Southwest Basins and the entire Goose Creek sub-basin but is higher in cost. Option 2 will also allow the City to serve the Southwest Basins but will only have the capability of serving the northern portion of the Goose Creek sub-basin. The estimated 43 properties along the southern boundary of the Goose Creek Bypass will remain on septic systems. Option 3 requires a force main to be constructed across a span of almost five miles but is estimated to cost less and will not serve the portions of the Goose Creek sub-basin.

All three options share a common flaw that will require periodic flushing of the 16-inch force main to stir up the sediment in the line to produce more favorable conditions for an unknown period of time while development takes place. As shown in Table 1 and 2, in the Appendix, the existing, combined peak flow for Southwest Basin No. 2 and No. 3 is 749,000 gallons. This flow will have an estimated velocity of 0.830 feet per second (fps) which is not enough to keep the sediment suspended and the flushing will have to be continued until a flow of 1.8 MGD can be maintained. An additional option the City may want to consider is constructing two (2) parallel force mains to handle the flows from the Southwest Basins. Due to higher construction costs this option was not investigated further.

After reviewing the options for Southwest Basins No. 2 and No. 3, it will be more beneficial for the City to lay the proposed 27-inch line and extend the existing 18-inch gravity sewer from Berry Farms to allow for present and future residents to be served around the Goose Creek Bypass. The cost difference for this option is minimal while maximizing service in the Goose Creek sub-basin. Should this area be proposed to develop with greater densities, the City will need to reevaluate the basins in this area and update as necessary.

FIGURE 7 - ENGINEERS OPINION OF PROBABLE COST
OPTION 1 - FORCE MAIN TO GCB, GRAVITY TO BF & FMC

Description	Quantity / Unit	Unit Cost	Total
8-inch Gravity Sewer	35,166 LF	$ 86.00	$ 3,024,276.00
10-inch Gravity Sewer	14,270 LF	$ 95.00	$ 1,355,650.00
12-inch Gravity Sewer	4,235 LF	$ 110.00	$ 465,850.00
15-inch Gravity Sewer	14,000 LF	$ 150.00	$ 2,100,000.00
18-inch Gravity Sewer	7,615 LF	$ 200.00	$ 1,523,000.00
24-inch Gravity Sewer	1,127 LF	$ 225.00	$ 253,575.00
27-inch Gravity Sewer	10,749 LF	$ 240.00	$ 2,579,760.00
Manholes	210 EA	$ 4,250.00	$ 894,285.00
4.9 MGD Pump Station	1 LS	$ 2,750,000.00	$ 2,750,000.00
16-inch Force Main	17398 LF	$ 175.00	$ 3,044,650.00
SUBTOTAL			**$ 17,991,046.00**
10% Misc. Allow. For Bypass, Mobilization, etc.	1 LS	$ 1,799,104.60	$ 1,799,104.60
15% Contingency Allow. For Legal, Engineering, Admin. & Esmts.	1 LS	$ 2,698,656.90	$ 2,698,656.90
TOTAL			$ 22,489,000.00

FIGURE 8 - ENGINEERS OPINION OF PROBABLE COST OPTION 2 - FORCE MAIN TO GCB, GRAVITY TO BF & FMC				
Description	Quantity / Unit		Unit Cost	Total
8-inch Gravity Sewer	35,166	LF	$ 86.00	$ 3,024,276.00
10-inch Gravity Sewer	14,270	LF	$ 95.00	$ 1,355,650.00
12-inch Gravity Sewer	4,235	LF	$ 110.00	$ 465,850.00
15-inch Gravity Sewer	14,000	LF	$ 150.00	$ 2,100,000.00
18-inch Gravity Sewer	4,849	LF	$ 200.00	$ 969,800.00
24-inch Gravity Sewer	11,695	LF	$ 225.00	$ 2,631,375.00
Remove Existing 18-inch	3,661	LF	$ 41.00	$ 150,101.00
Manholes	210	EA	$ 4,250.00	$ 894,285.00
4.9 MGD Pump Station	1	LS	$ 2,750,000.00	$ 2,750,000.00
16-inch Force Main	17,398	LF	$ 175.00	$ 3,044,650.00
SUBTOTAL				**$ 17,385,987.00**
10% Misc. Allow. For Bypass, Mobilization, etc.	1	LS	$ 1,738,598.70	$ 1,738,598.70
15% Contingency Allow. For Legal, Engineering, Admin. & Esmts.	1	LS	$ 2,607,898.05	$ 2,607,898.05
TOTAL				$ 21,733,000.00

FIGURE 9 - ENGINEERS OPINION OF PROBABLE COST OPTION 3 - FORCE MAIN TO BERRY FARMS GRAVITY SEWER				
Description	Quantity / Unit		Unit Cost	Total
8-inch Gravity Sewer	35,166	LF	$ 86.00	$ 3,024,276.00
10-inch Gravity Sewer	14,270	LF	$ 95.00	$ 1,355,650.00
12-inch Gravity Sewer	4,235	LF	$ 110.00	$ 465,850.00
15-inch Gravity Sewer	14,000	LF	$ 150.00	$ 2,100,000.00
18-inch Gravity Sewer	4,849	LF	$ 200.00	$ 969,800.00
24-inch Gravity Sewer	1,127	LF	$ 225.00	$ 253,575.00
Manholes	210	EA	$ 4,250.00	$ 894,285.00
4.9 MGD Pump Station	1	LS	$ 2,750,000.00	$ 2,750,000.00
16-inch Force Main	24572	LF	$ 175.00	$ 4,300,100.00
SUBTOTAL				**$ 16,113,536.00**
10% Misc. Allow. For Bypass, Mobilization, etc.	1	LS	$ 1,611,353.60	$ 1,611,353.60
15% Contingency Allow. For Legal, Engineering, Admin. & Esmts.	1	LS	$ 2,417,030.40	$ 2,417,030.40
TOTAL				$ 20,142,000.00

APPENDIX

TABLE A-1

SOUTHWEST BASIN NO. 2 SEWER CALCULATIONS
DEVELOPMENT OF SANITARY SEWER FLOWS

Area Number	Description	Total Acreage	Total Undeveloped Acreage	Prop. Density (Units/ Acre)	No. Of Existing Developed Lots	No. Of Lots Planned (Planning Dept.)	Prop. Density (Units/ Acre)	Population In Area 2.75/unit	Ave. Flow (GPD)	Peaking Factor	Total Average Flow (MGD)	Total Peak Flow (MGD)
1	Kittrell Rd and Hunter Rd Intersection	1,545	1,189		51	0	2	140	17,850	5	0.017850	0.089250
	1.A	229	205		3	0	1.5	8	1,050	5	0.001050	0.005250
	1.B	727	541		38	0	1.5	105	13,300	5	0.013300	0.066500
	1.C	440	294		10	0	1.5	28	3,500	5	0.003500	0.017500
	1.D	101	101		0	0	0	0	0	0	0	0
	1.E	48	48		0	0	0	0	0	0	0	0
2	Hunter Rd to Columbia Pk	500	246		146	0	1.5	402	51,100	5	0.051100	0.255500
	Totals	2,045	1,436		197	0		542	68,950		0.068950	0.344750

FUTURE PLANNING USING THE EXISTING PROP. DENSITY OVER THE UNDEVELOPED ACREAGE

Area Number	Description	Total Undeveloped Acreage	Prop. Density (Units/ Acre)	No. Of Estimated Developed Lots	Est. Total Developed Lots In Area	Est. Population In Area 2.75/unit	Est. Total Population In Area	Ave. Flow (GPD)	Peaking Factor	Total Average Flow (MGD)	Total Peak Flow (MGD)
1	Kittrell Rd and Hunter Rd Intersection	1,189	1.5	1,784	1,835	4,907	5,047	642,327	3.25	0.642327	2.087563
	1.A	205	1.5	308	311	846	854	108,675	3.25	0.108675	0.353194
	1.B	541	1.5	812	850	2,232	2,336	297,325	3.25	0.297325	0.966306
	1.C	294	1.5	442	452	1,215	1,242	158,102	3.25	0.158102	0.513832
	1.D	101	1.5	152	152	417	417	53,025	3.25	0.053025	0.172331
	1.E	48	1.5	72	72	198	198	25,200	3.25	0.025200	0.081900
2	Hunter Rd to Columbia Pk	246	1.5	369	515	1,016	1,418	180,413	3.25	0.180413	0.586341
	Totals	1,436		2,154	2,351	5,923	6,464	822,740		0.822740	2.673904

TABLE A-2

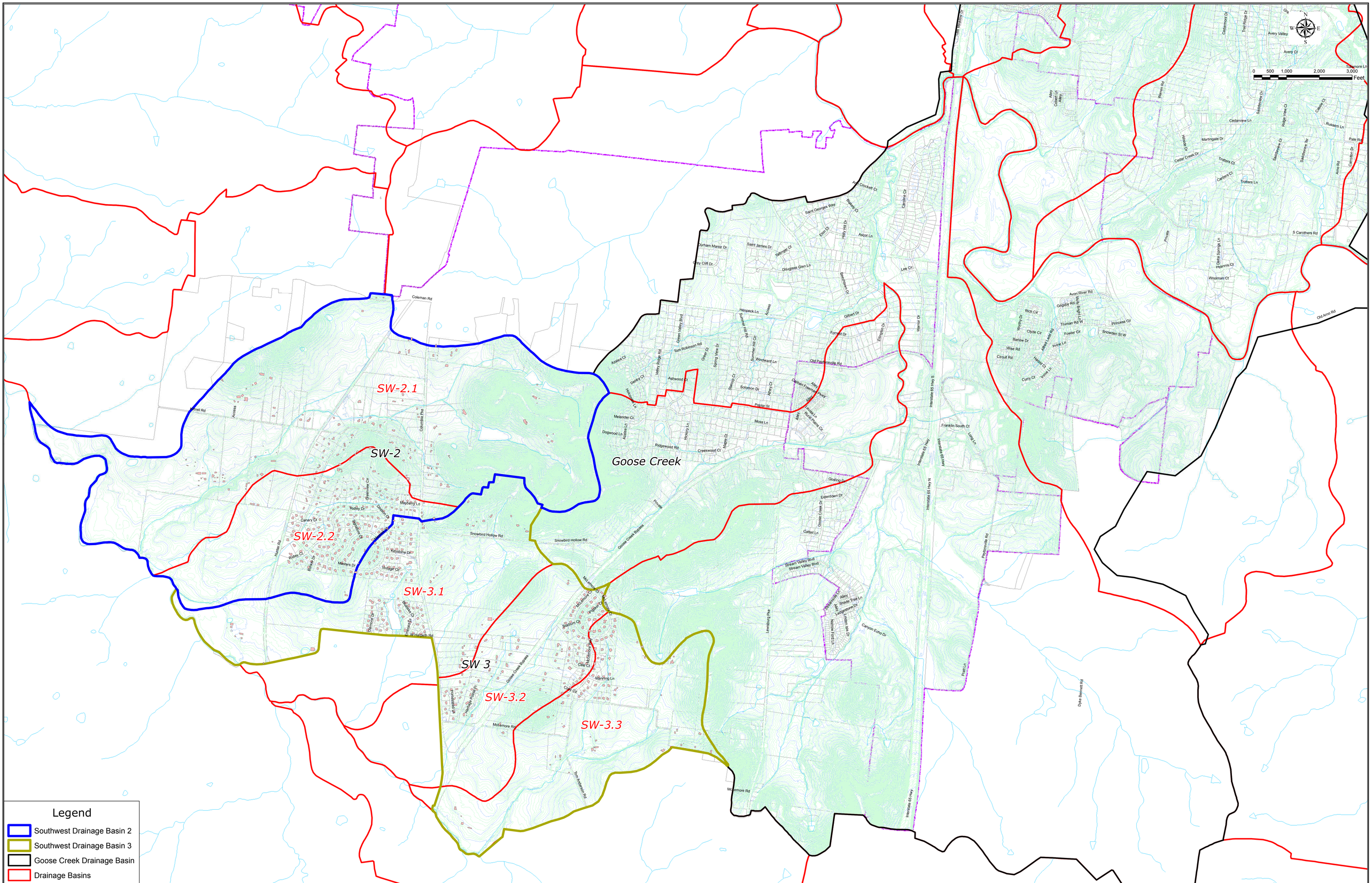
SOUTHWEST BASIN NO. 3 SEWER CALCULATIONS
DEVELOPMENT OF SANITARY SEWER FLOWS

Area Number	Description	Total Acreage	Total Undeveloped Acreage	Prop. Density (Units/ Acre)	No. Of Existing Developed Lots	No. Of Lots Planned (Planning Dept.)	Prop. Density (Units/ Acre)	Population In Area 2.75/unit	Ave. Flow (GPD)	Peaking Factor	Total Average Flow (MGD)	Total Peak Flow (MGD)
1	**Hunter Rd, Columbia Pk, and Snowbird Hollow Rd**	**898**	**452**		**89**	**0**	**1.5**	**245**	**31,150**	**5**	**0.031150**	**0.155750**
1.A		600	272		69	0	1.5	190	24,150	5	0.024150	0.120750
1.B		298	180		20	0	1.5	55	7,000	5	0.007000	0.035000
2	**Goose Creek Bypass**	**579**	**199**		**91**	**0**	**1.5**	**250**	**31,850**	**5**	**0.031850**	**0.159250**
2.A		200	51		60	0	1.5	165	21,000	5	0.021000	0.105000
2.B		69	34		8	0	1.5	22	2,800	5	0.002800	0.014000
2.C		311	114		23	0	1.5	63	8,050	5	0.008050	0.040250
3	**Tom Anderson Rd**	**615**	**484**		**51**	**0**	**1.5**	**140**	**17,850**	**5**	**0.017850**	**0.089250**
3.A		85	85		1	0	1.5	3	350	5	0.000350	0.001750
3.B		57	37		5	0	1.5	14	1,750	5	0.001750	0.008750
3.C		155	117		43	0	1.5	118	15,050	5	0.015050	0.075250
3.D		76	65		1	0	1.5	3	350	5	0.000350	0.001750
3.E		242	180		1	0	1.5	3	350	5	0.000350	0.001750
	Totals	**2,092**	**1,135**		**231**	**0**		**635**	**80,850**		**0.080850**	**0.404250**

FUTURE PLANNING USING THE EXISTING PROP. DENSITY OVER THE UNDEVELOPED ACREAGE

Area Number	Description	Total Undeveloped Acreage	Prop. Density (Units/ Acre)	No. Of Estimated Developed Lots	Est. Total Developed Lots In Area	Est. Population In Area 2.75/unit	Est. Total Population In Area	Ave. Flow (GPD)	Peaking Factor	Total Average Flow (MGD)	Total Peak Flow (MGD)
1*	**Hunter Rd, Columbia Pk, and Snowbird Hollow Rd**	**452**	**1.5**	**678**	**767**	**1,865**	**2,110**	**268,555**	**3.25**	**0.268555**	**0.872804**
1.A		272	1.5	408	477	1,122	1,312	166,950	3.25	0.166950	0.542588
1.B		180	1.5	270	290	743	798	101,605	3.25	0.101605	0.330216
2*	**Goose Creek Bypass**	**199**	**1.5**	**298**	**389**	**819**	**1,069**	**136,115**	**3.25**	**0.136115**	**0.442374**
2.A		51	1.5	77	137	210	375	47,775	3.25	0.047775	0.155269
2.B		34	1.5	51	59	140	162	20,650	3.25	0.020650	0.067113
2.C		114	1.5	170	193	469	532	67,690	3.25	0.067690	0.219993
3*	**Tom Anderson Rd**	**484**	**1.5**	**726**	**777**	**1,996**	**2,136**	**271,898**	**3.25**	**0.271898**	**0.883667**
3.A		85	1.5	128	129	351	353	44,975	3.25	0.044975	0.146169
3.B		37	1.5	56	61	154	168	21,333	3.25	0.021333	0.069331
3.C		117	1.5	176	219	483	601	76,475	3.25	0.076475	0.248544
3.D		65	1.5	98	99	268	271	34,475	3.25	0.034475	0.112044
3.E		180	1.5	269	270	741	744	94,640	3.25	0.094640	0.307580
	Totals	**1,135**		**1,702**	**1,933**	**4,681**	**5,316**	**676,568**		**0.676568**	**2.198844**

* Includes acreage outside the UGB.



Franklin Water Management Department
Southwest Basins 2 & 3 Study

Exhibit B-1

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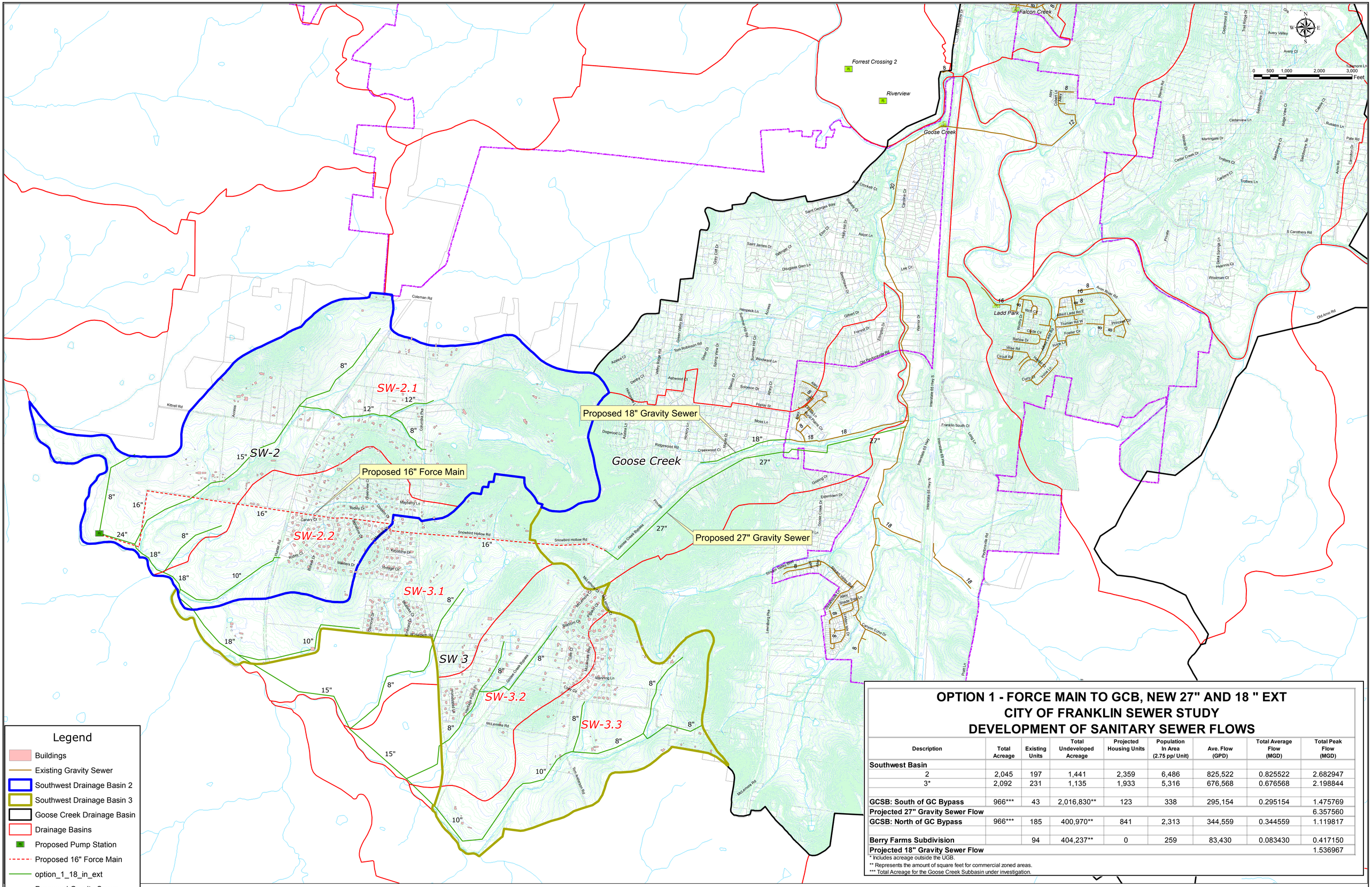
Fax: 615.386.8469
ssr-inc.com



Legend

- Buildings
- Existing Gravity Sewer
- Southwest Drainage Basin 2
- Southwest Drainage Basin 3
- Goose Creek Drainage Basin
- Drainage Basins
- Proposed Pump Station
- Proposed 16" Force Main
- option_1_18_in_ext
- Proposed Gravity Sewer
- Streams
- Franklin City Limits
- Index Contour
- Minor Contour
- Existing Pump Station

OPTION 1 - FORCE MAIN TO GCB, NEW 27" AND 18 " EXT
CITY OF FRANKLIN SEWER STUDY
DEVELOPMENT OF SANITARY SEWER FLOWS

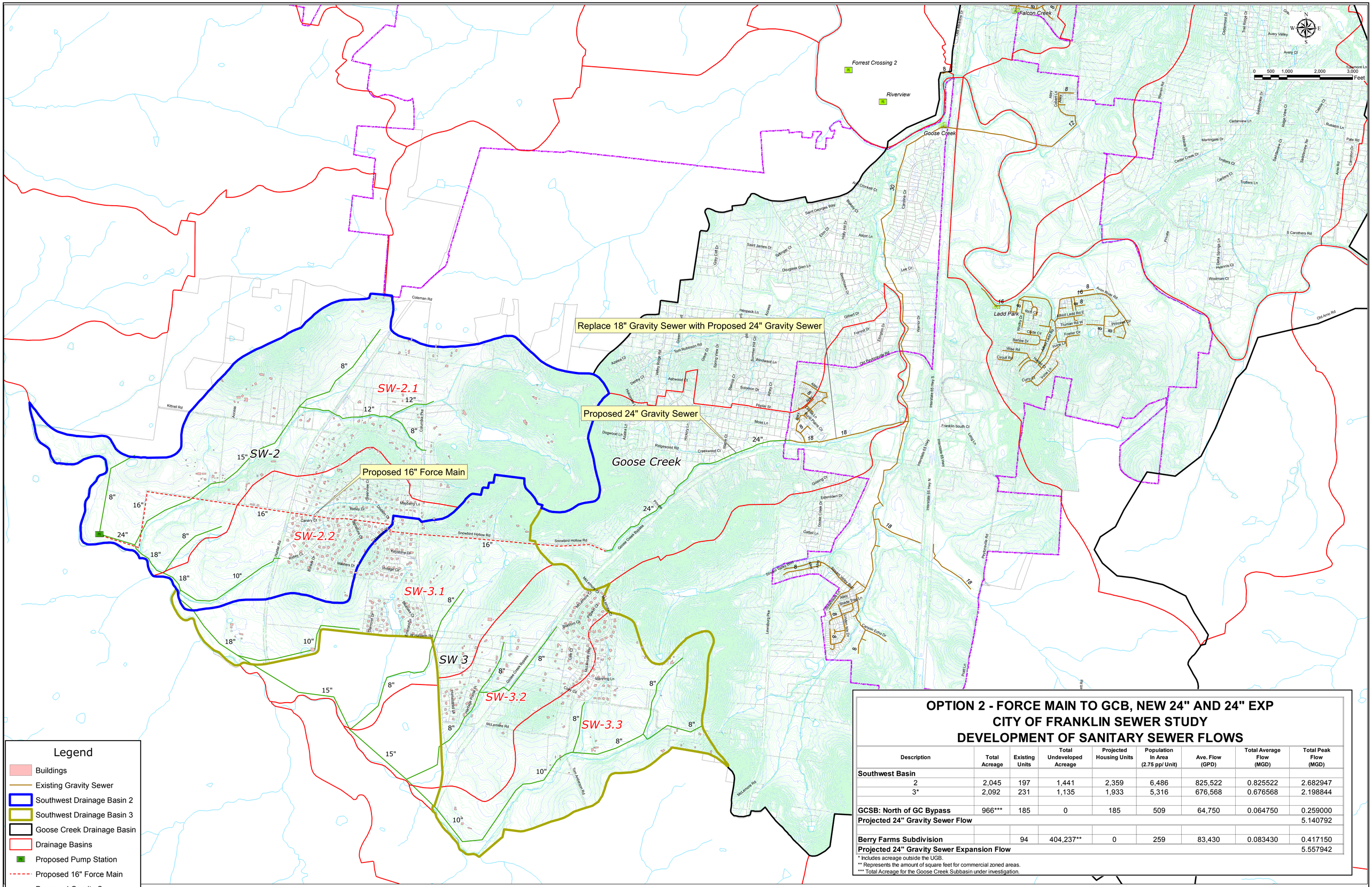
Description	Total Acreage	Existing Units	Total Undeveloped Acreage	Projected Housing Units	Population In Area (2.75 pp/ Unit)	Ave. Flow (GPD)	Total Average Flow (MGD)	Total Peak Flow (MGD)
Southwest Basin								
2	2,045	197	1,441	2,359	6,486	825,522	0.825522	2.682947
3*	2,092	231	1,135	1,933	5,316	676,568	0.676568	2.198844
GCSB: South of GC Bypass	966***	43	2,016,830**	123	338	295,154	0.295154	1.475769
Projected 27" Gravity Sewer Flow								6.357560
GCSB: North of GC Bypass	966***	185	400,970**	841	2,313	344,559	0.344559	1.119817
Berry Farms Subdivision		94	404,237**	0	259	83,430	0.083430	0.417150
Projected 18" Gravity Sewer Flow								1.536967

* Includes acreage outside the UGB.
** Represents the amount of square feet for commercial zoned areas.
*** Total Acreage for the Goose Creek Subbasin under investigation.

Franklin Water Management Department
Southwest Basins 2 & 3 Study

Exhibit B-2

Smith Seckman Reid, Inc.
2995 Sidco Drive
Nashville, TN 37204
615.383.1113
Fax: 615.386.8469
ssr-inc.com



OPTION 2 - FORCE MAIN TO GCB, NEW 24" AND 24" EXP
CITY OF FRANKLIN SEWER STUDY
DEVELOPMENT OF SANITARY SEWER FLOWS

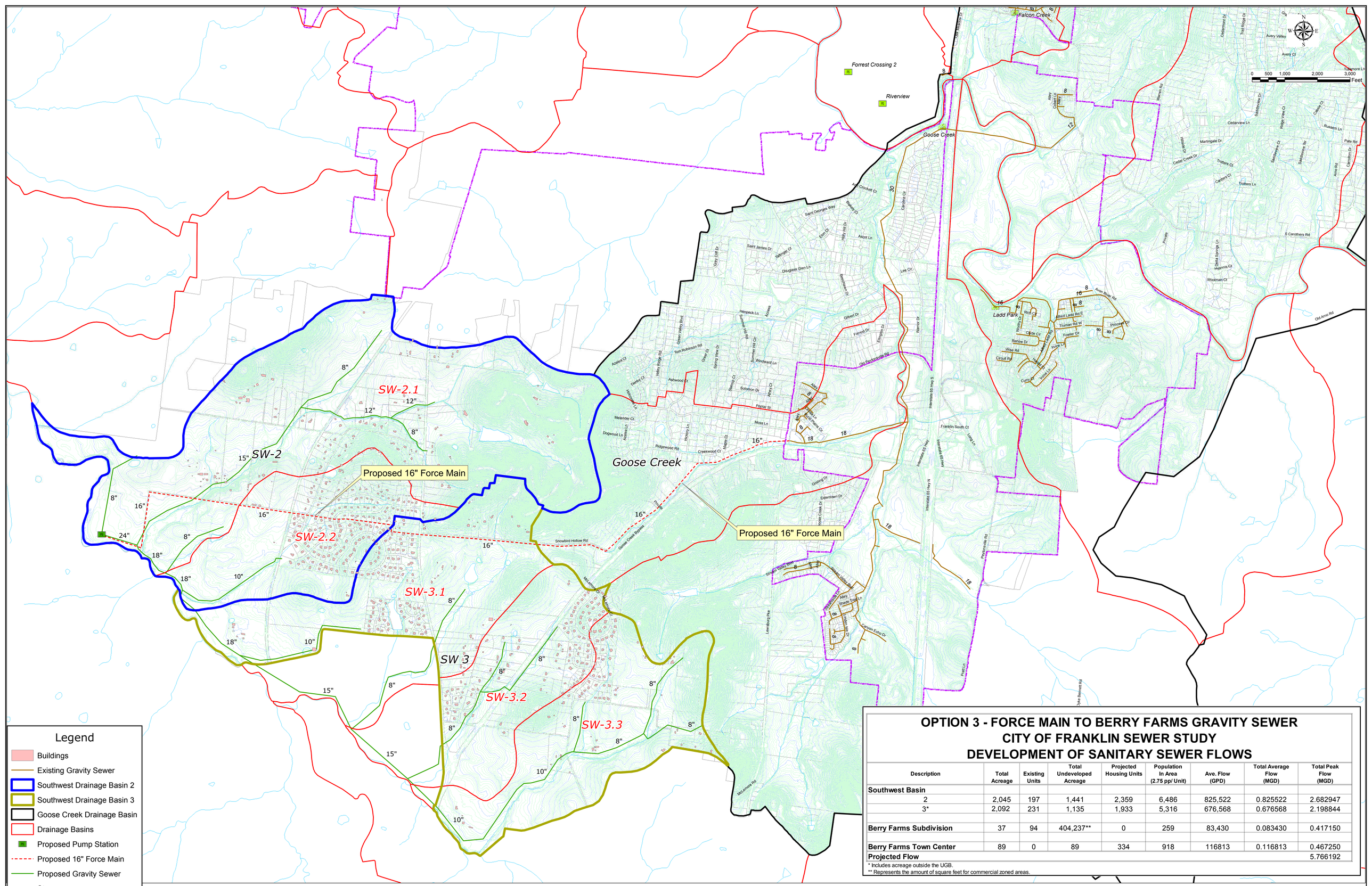
Description	Total Acreage	Existing Units	Total Undeveloped Acreage	Projected Housing Units	Population In Area (2.75 pp/ Unit)	Ave. Flow (GPD)	Total Average Flow (MGD)	Total Peak Flow (MGD)
Southwest Basin								
2	2,045	197	1,441	2,359	6,486	825,522	0.825522	2.682947
3*	2,092	231	1,135	1,933	5,316	676,568	0.676568	2.198844
GCSB: North of GC Bypass	966***	185	0	185	509	64,750	0.064750	0.259000
Projected 24" Gravity Sewer Flow								5.140792
Berry Farms Subdivision		94	404,237**	0	259	83,430	0.083430	0.417150
Projected 24" Gravity Sewer Expansion Flow								5.557942

* Includes acreage outside the UGB.
** Represents the amount of square feet for commercial zoned areas.
*** Total Acreage for the Goose Creek Subbasin under investigation.

Franklin Water Management Department
Southwest Basins 2 & 3 Study

Exhibit B-3

SSR Smith Seckman Reid, Inc.
2995 Sidco Drive
Nashville, TN 37204
615.383.1113
Fax: 615.386.8469
ssr-inc.com


SW-2
SW-2.1
SW-2.2
SW-3.1
SW 3
SW-3.2
SW-3.3
Proposed 16" Force Main
Proposed 16" Force Main
Goose Creek
Falcon Creek
Forrest Crossing 2
Riverview
Ladd Park
Goose Creek
Slowbird Hollow Rd
Goose Creek Bypass
Old Peytonsville Rd
Old Arm Rd
Interstate 65 Hwy S
Interstate 65 Hwy N
Leiper's Fork
Peytonsville Rd
Franklin South Cir
Lewisburg Pike
McLemore Rd
McLemore Dr
Gosling Dr
Elderdown Dr
Ironie Creek Dr
Shade Trail Ln
Canyon Echo Dr
Pratt Ln
Clyde Cir
Barlow Dr
Wise Rd
Circuit Rd
Curry Ct
Wood Ln
Fowler Cir
Truman Rd W
Princess Dr
Alfred Ladd Rd E
Avon River Rd
Rich Cir
Wrenn Ct
Wood Ln
Ryder Ln
Tom Robinson Rd
Green Valley Blvd
Valley Ridge Rd
Summer Hill Rd
Summer Hill Cir
Spring View Dr
Windward Ln
Ashwood Ct
Derby Ct
Azalea Ct
Hespeck Ln
Douglass Glen Ln
Saint James Dr
Saint Georges Way
Eton Ct
Ascot Ln
Hilly Hill Dr
Glen Cliff Dr
Talbinger Ct
Bellefield Ct
Ann Crockett Ct
Gilbert Dr
Forrest Dr
Ellington Dr
Warner Dr
Caroline Cir
Lee Cir
Old Ramsonville Rd
Poplar St
Moss Ln
Solomon Dr
Alley Ct
Alley
Alley
Alley

RESOLUTION 2014-94

A RESOLUTION TO FUND THE FINAL DESIGN OF MCEWEN DRIVE, PHASE IV IMPROVEMENTS (COOL SPRINGS BLVD TO WILSON PIKE)

WHEREAS, on March 13, 2014 the Board of Mayor and Aldermen (BOMA) approved Resolution 2014-13, a resolution to adopt the funding plan for the FY 2014-2018 CIP (Capital Investment Program); and

WHEREAS, the BOMA desire to complete the final design of McEwen Drive, Phase IV Improvements (Cool Springs Blvd to Wilson Pike); and

WHEREAS, Resolution 2014-13 included $340,000 for the McEwen Drive, Phase IV Improvements (Cool Springs Blvd to Wilson Pike), Professional Design Services; and

WHEREAS, the CIP sheets provided to the BOMA estimated the final design at approximately Six Hundred Eighty Thousand Dollars ($680,000) ($340,000 in FY 2015 and $340,000 in FY 2016); and

WHEREAS, Sullivan Engineering, Inc. has provided the City of Franklin with a proposal to complete the design for an amount not to exceed Seven Hundred Thirteen Thousand Dollars ($713,000); and

WHEREAS, the final design for McEwen Drive, Phase IV Improvements (Cool Springs Blvd to Wilson Pike) includes 4~12’ travel lanes separated by a 20’ median, curb and gutter, storm drainage, street lights, ITS conduit, retaining walls, 12’ bike/pedestrian path on the south side and no sidewalk on the north side.

NOW THEREFORE, BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that the McEwen Drive, Phase IV Improvements (Cool Springs Blvd to Wilson Pike) project shall be funded for design in the amount of **Seven Hundred Thirteen Thousand Dollars ($713,000)** and shall include 4~12’ travel lanes separated by a 20’ median, curb and gutter, storm drainage, street lights, ITS conduit, retaining walls, 12’ bike/pedestrian path on the south side and no sidewalk on the north side.

IT IS SO RESOLVED AND DONE on this __ day of _____, 2015

ATTEST:

By:_____

ERIC S. STUCKEY
City Administrator

CITY OF FRANKLIN, TENNESSE

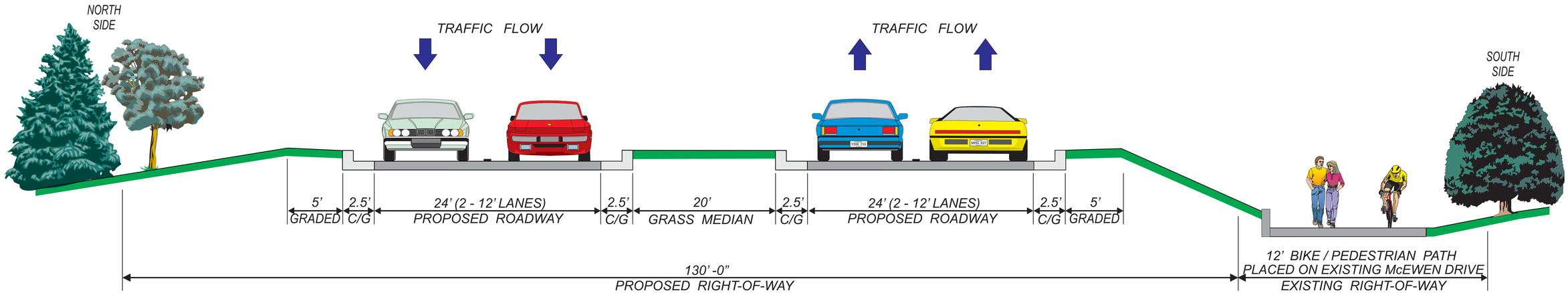
By:_____

DR. KEN MOORE
Mayor

Approved as to Form

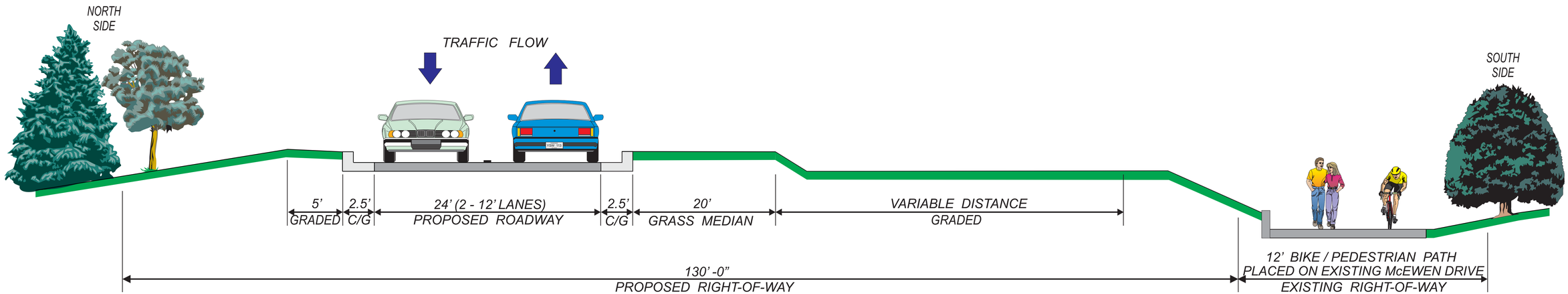
By: _____

Shauna R. Billingsley
City Attorney



4-LANE SECTION

Not To Scale



2-LANE SECTION

Not To Scale

SULLIVAN ENGINEERING, INC.
317 MAIN STREET, SUITE 201
FRANKLIN, TN. 37064

EAST McEWEN DRIVE PHASE 4 IMPROVEMENTS
TYPICAL SECTIONS (Exhibit A)

DECEMBER 1, 2014

HISTORIC FRANKLIN TENNESSEE

EMBREY
Development | Construction | Management

November 12, 2014

Mr. Eric Stuckey
City Administrator – City of Franklin
109 3rd Avenue South
Franklin, TN 37064

RE: Road Impact Fee Offset Agreement COF Contract No 2014-0116; Cool Springs Blvd and Windcross Court Traffic Signal Installation (COF Project 2986)

Dear Mr. Stuckey,

Embrey Partners, Ltd has completed the construction of the traffic signal located at the intersection of Windcross Court and Cool Springs Blvd. The City of Franklin has signed off and accepted the improvements. Embrey Partners, Ltd is now requesting the reimbursement of a portion of the total costs associated with the design and construction of the signal.

Per the Road Impact Fee Offset Agreement COF Contract No 2014-0116, Embrey's eligible reimbursement is $192,125. Per section 4 of the agreement, we are providing:

1) Invoice from Embrey Builders, LLC to Artessa Franklin, LLC for $303,022.35.
2) Letter from Embrey Builders, LLC to Artessa Franklin, LLC acknowledging payment in full.
3) Final pay application from Embrey Builders, LLC to Stansell Electric including Stansell's acknowledgement (waiver of lien) that they have been paid in full the amount of $269,353.20.
4) Letter from Fischbach Transportation Group, LLC to Embrey Partners, Ltd acknowledging that they have been paid in full $8,500 for the design of the signal.
5) Copy of the check from Embrey Partners, Ltd to FTG, LLC (Fischbach Transportation) for $8,500.
6) Excerpts from the design contract between Embrey Partners, Ltd and FTG, LLC.
7) Letter from Littlejohn Engineering Associates, Inc. to Embrey Partners, Ltd. acknowledging that they have been paid in full $2,000 for the partial boundary and topographic survey related to the signalization plan.
8) Fee schedule from Littlejohn Engineering Associates showing the contracted amount of $2,000.

Please let me know if you need additional information regarding the design, construction and payment for this work.

5/8 1½ 1 4/8

Sincerely,

Brad D. Knolle
Senior Vice President - Development
Embrey Partners, Ltd

Approved
reimbursement shall be for 50% cost $156,761.20

EMBREY
Builders

INVOICE

DATE: November 3, 2014

INVOICE: EB14-9001

TO: Artessa Franklin LLC
1020 NE Loop 410, Suite 700
San Antonio, TX 78209

Installation of streetlight at intersection of Windcross and Cool Springs Blvd.

Contract with Stansell Electric Co., Inc.	$269,353.20
Contractors General Requirements (7.5% of cost of work)	20,201.49
Overhead Fee (5% of cost of work)	13,467.66
Total Due	**$303,022.35**

Please make check payable to: Embrey Builders LLC
1020 NE Loop 410, Suite 700
San Antonio, TX 78209

1020 NE Loop 410, Suite 700 San Antonio, Texas 78209 210/824-6044 Fax: 210/824-7656

EMBREY
Builders

November 11, 2014

Brad Knolle
Senior Vice President – Development
Artessa Franklin, LLC
1020 NE Loop 410 Suite 700
San Antonio, TX 78209

RE: Payment Received for Invoice EB14-9001

Dear Brad,

This letter is to confirm that Embrey Builders, LLC has received payment in full from Artessa Franklin, LLC in the amount of $303,022.35 for the installation of a traffic signal at the intersection of Windcross Court and Cool Springs Blvd. in Franklin, TN.

Sincerely,

Ted Emrie
President
Embrey Builders, LLC

EXHIBIT "G"

RECEIVED
OCT 20 2014
BY: [signature]

EMBREY BUILDERS, LLC

1020 N.E. Loop 410, Suite 700 San Antonio, TX 78209
Office (210) 210-6044 Fax (210) 824-7656

Subcontractor's Note: Application for payment must be received by noon on the 20th of the month at the jobsite office for EMBREY BUILDERS, LLC for the month payments are requested. Application for payment not received by noon on the 20th will not be included in the request by EMBREY BUILDERS, LLC for payment to the owner and thus will not be processed until the following month.

SUBCONTRACTOR'S APPLICATION FOR PAYMENT

Project Name:	Artessa at Franklin	Project Number:	EB-14
Address:	1000 Artessa Circle	Vendor Number:	14609
	Franklin, TN 37067	Contract Number:	EB14-9001
Subcontractor:	Stansell Electric Co. Inc.	Cost Code:	17.1765.01
Address:	860 Visco Dr.	Application Number:	Request for Retainage
	Nashville, TN 37210	SEC Invoice Number: 143150R1	
Application Period:	Project Start to October 20, 2014		

			Office Use Only
1.	Original Subcontract Amount	$ 265,558.20	
2.	Approved Change Order 2 through 2	$ 3,795.00	
3.	Current Subcontract Sum	$ 269,353.20	
4.	Total Work in Place (per attached schedule)	$ 269,353.20	
5.	Total Stored Materials (per attached schedule)	$ 0.00	
6.	Total Value to Date	$ 269,353.20	Gross
7.	Total Previous Application	$ 269,353.20	$
8.	Total Amount This Application	$ 0.00	Retainage
9.	5% Retainage (5% of Line 8)	$ 0.00	$
10.	Payment Amount Requested – Retainage Due	$ 13,467.66	Net
11.	Total Retainage to Date (5% of Line 6)	$ 0.00	$

WAIVER OF LIEN TO DATE FOR PREVIOUS APPLICATIONS FOR PAYMENT

The undersigned, for payments previously received, and other good and valuable considerations, the receipt whereof is hereby acknowledged, does hereby waive and release all bond claims, payment claims, and all liens or claim of, or right to, lien under statutes of the State of Tennessee relating to mechanics liens, with respect to above described premises, and improvements thereon, and on material, fixture apparatus or machinery furnished, and on the monies, funds or other considerations due or become due from the owner, or account labor, services, materials, fixtures, apparatus or machinery, furnished to that previous payment ending date by the undersigned for the above described premise. The undersigned further certify that amounts shown in this request for payment are correct; that work performed and materials stored are as specified for the Project and that all applicable requirements of the subcontract have been fulfilled.

MARGARET W. SMITH STATE OF TENNESSEE NOTARY PUBLIC JOHNSON COUNTY

Subscribed and sworn before me this 22nd day of October 2014.

Notary Public: Margaret W. Smith By: Amy Feldschmidt by JG

My Commission Expires: May 5, 2015 Title: Project Mgr

EMBREY BUILDERS, LLC. Approvals

Project Supt.: [signature] Project Manager: [signature] Payroll: _____

Stansell Electric Co. Inc. Initials: _____

THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. IT IS PROHIBITED FOR A PERSON TO REQUIRE YOU SIGN THIS DOCUMENT IF YOU HAVE NOT BEEN PAID THE PAYMENT AMOUNT SET FORTH BELOW. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

UNCONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT

Project: Artessa Franklin
Job No: EB-14

Contract #: EB14-9001

The signer of this document has been paid in full for all labor, services, equipment, or materials furnished to the property or to Embrey Builders, LLC (person with whom siger contracted) on the property of Artessa Franklin, LLC("Owner") located at 1000 Artessa Circle, in the city of Franklin, Williamson County, Tennessee, known as Artessa Franklin,(Location) to the following extent: Traffic Signal Installation (job description) and summarized as follows:

*Executed an Original Contract in the amount of:	265,558.20
*Received Change Orders as follows:	3,795.00
Revised Contract Amount:	269,353.20
*Completed work to date on Revised Contract:	269,353.20
*Payments received through 10/20/2014 ("Completion Date")	269,353.20
*Is not owed any amounts, and no amounts have bee retained:	

The Signer therefore waives and releases any mechanice's lien right, any right arising from a payment bond that complies with a state or federal statue, and any common law payment bond right, any claim for payment and any rights under any similar ordinance, rule or statute related to claim or payment rights for persons in the signer's position.

The signer warrants that the signer as already paid or will use the funds received from this final payment to promptly pay in full all of the signer's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided for or to the above referenced project up to the date of this waiver and release.

In consideration of its funding of loan proceeds to be used to pay for Work furnished by the undersigned, the undersigned hereby agrees and acknowledges for the benefit of Wellls Fargo Bank ("Lender") that all mechanic's liens or rights to the same now or hearafter owned or held by the undersigned are and shall be subordinate and inferior to the lien of the deed of trust held by the Lendor on the Property.

Stansell Electric Co., Inc.
Company Name

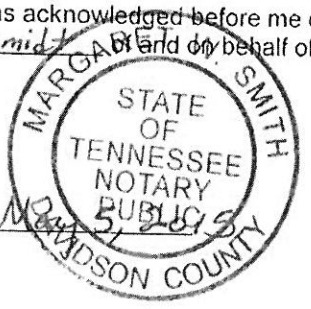
By: Amy S Goldschmidt

Name: Amy S Goldschmidt

Title: Project Manager

THE STATE OF Tennessee
COUNTY OF Davidson

This instrument was acknowledged before me on the 12th day of November by Amy Goldschmidt of and on behalf of Stansell Electric Co., Inc. a Corporation



Margaret W. Smith
Notary Public in and for the State of _____

My Commission Expires: May 5, 2018

Margaret W. Smith
Printed or Typed Name of Notary

THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. IT IS PROHIBITED FOR A PERSON TO REQUIRE YOU SIGN THIS DOCUMENT IF YOU HAVE NOT BEEN PAID THE PAYMENT AMOUNT SET FORTH BELOW. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT

Project: Artessa Franklin
Job No: EB-14

Contract #: EB14-9001
Cost Code: 17.1675.01

The signer of this document has been paid and has received a progress payment in the amount of $92,175.83 for all labor, services, equipment, or materials furnished to the property or to Embrey Builders, LLC (person with whom siger contracted) on the property of Artessa Franklin, LLC("Owner") located at 1000 Artessa Circle, in the city of Franklin, Williamson County, Tennessee, known as Artessa Franklin,(Location) to the following extent: Traffic Signal Installation (job description). The signer therefore waives and releases any mechanic's lien right, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment, and any rights under any similar ordiance, rule or statue related to claim or payment rights for persons in signer's position that the signer has on the above referenced project to the following extent:

This release covers a progress payment for all labor, services, equipment or materials furnished to the property or to Embrey Builders, LLC (person with whom signer contracted as indicated in the attached statement(s) or progress payment request(s), except for unpaid retention, pending modifications and changes, or other items furnished, summarized as follows:

*Executed an Original Contract in the amount of:	265,558.20
*Received Change Orders as follows:	3,795.00
Revised Contract Amount:	269,353.20
*Completed work to date on Revised Contract:	269,353.20
*Payments received through 9/20/14 ("Prior Down Date")	177,177.37
*Current Payment: 10/20/2014 ("Current Down Date")	92,175.83
*Except for retainage, not yet due and payable:	13,467.67

The Signer warrants that the signer has already paid or will use the funds received from this progress payment to promptly pay in full all of the signer's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided for or to the above referenced project in regard to the attached statement(s) or progress payment request(s).

In consideration of its funding of loan proceeds to be used to pay for Work furnished by the undersigned, the undersigned hereby agrees and acknowledges for the benefit of Wellls Fargo Bank ("Lender") that all mechanic's liens or rights to the same now or hearafter owned or held by the undersigned are and shall be subordinate and inferior to the lien of the deed of trust held by the Lendor on the Property.

EXECUTED this 12th day of November 2014.

Stansell Electric Co., Inc.
By: Amy S Goldschmidt
Name: Amy S Goldschmidt
Title: Project Manager
Stansell Electric Co., Inc.
860 Visco Drive
Nashville, TN 37210

THE STATE OF TENNESSEE
COUNTY OF WILLIAMSON

This instrument was acknowledged before me on the 12th day of November
by Amy Goldschmidt of and on behalf of Stansell Electric Co., Inc. a Corporation

MARGARET W. SMITH
STATE OF TENNESSEE NOTARY PUBLIC
DAVIDSON COUNTY

Margaret W. Smith
Notary Public in and for the State of

My Commission Expires: May 5, 2016

Margaret W. Smith
Printed or Typed Name of Notary

SUBCONTRACTOR DRAW SCHEDULE

COMPANY: **Embrey Builders, LLC**
PROJECT NAME: **Franklin (Artessa)**
PROJECT NO.: **EB-14**
SUBCONTRACT NO.: EB14-9001
SUBCONTRACTOR: **Stansell Electric Co., Inc**
ADDRESS: **860 Visco Drive**
CITY / STATE / ZIP: **Nashville, TN 37210**
CONTACT: **615/369.4944**

APPLICATION NUMBER: **Request for Retainage**
APPLICATION DATE: **October 20, 2014**
PERIOD TO: **10/20/2014**
SEC INVOICE NO: **143150R1**

A ITEM NO.	B DESCRIPTION OF WORK		C SCHEDULED VALUE	WORK COMPLETED D FROM PREVIOUS APPLICATION (D + E)	WORK COMPLETED E THIS PERIOD	F MATERIALS PRESENTLY STORED (NOT IN D OR E)	G TOTAL COMPLETED AND STORED TO DATE (D + E + F)	% (G / C)	H BALANCE TO FINISH (C-G)	I RETAINAGE
	Description (30 characters or less)	**Cost Code (Embrey Use)**								
1	CONCRETE HANDICAP RAMP		$ 7,800.00	$ 7,800.00	$ -	$ -	$ 7,800.00	100%	$ -	$ 390.00
2	TRAFFIC CONTROL		$ 2,676.00	$ 2,676.00	$ -	$ -	$ 2,676.00	100%	$ -	$ 133.80
3	SIGNS (SIGNAL AHEAD)		$ 352.00	$ 352.00	$ -	$ -	$ 352.00	100%	$ -	$ 17.60
4	SIGNS (BE PREPARED TO STOP)		$ 241.00	$ 241.00	$ -	$ -	$ 241.00	100%	$ -	$ 12
5	SIGNS (WHEN FLASHING)		$ 214.00	$ 214.00	$ -	$ -	$ 214.00	100%	$ -	$ 10.
6	SIGNS (INTERN ILLUM ST NAME)		$ 10,812.00	$ 10,812.00	$ -	$ -	$ 10,812.00	100%	$ -	$ 540.60
7	LUMINAIRES (LED)		$ 3,564.00	$ 3,564.00	$ -	$ -	$ 3,564.00	100%	$ -	$ 178.20
8	PLAS PVT MKG (8"BARRIER LN)		$ 3,250.00	$ 3,250.00	$ -	$ -	$ 3,250.00	100%	$ -	$ 162.50
9	PLAS PVT MKG (CHNZ STRIPE)		$ 585.00	$ 585.00	$ -	$ -	$ 585.00	100%	$ -	$ 29.25
10	PLAS PVT MKG (STOP LINE)		$ 2,200.00	$ 2,200.00	$ -	$ -	$ 2,200.00	100%	$ -	$ 110.00
11	PLAS PVT MKG (TURN LN ARROW)		$ 1,173.00	$ 1,173.00	$ -	$ -	$ 1,173.00	100%	$ -	$ 58.65
12	PLAS PVT MKG (LONG XWALK)		$ 13,800.00	$ 13,800.00	$ -	$ -	$ 13,800.00	100%	$ -	$ 690.00
13	SPRY THERM PVT MKG (4" LINE)		$ 1,694.20	$ 1,694.20	$ -	$ -	$ 1,694.20	100%	$ -	$ 84.71
14	MOBILIZATION		$ 958.00	$ 958.00	$ -	$ -	$ 958.00	100%	$ -	$ 47.90
15	FIBER SPLICE ENCLOSURE		$ 700.00	$ 700.00	$ -	$ -	$ 700.00	100%	$ -	$ 35.00
16	FUSION SPLICE		$ 552.00	$ 552.00	$ -	$ -	$ 552.00	100%	$ -	$ 27.60
17	PRETERM FO CABLE ASSEM (6FSM)		$ 790.00	$ 790.00	$ -	$ -	$ 790.00	100%	$ -	$ 39.50
18	FIBER OPTIC CABLE (48FSM)		$ 4,200.00	$ 4,200.00	$ -	$ -	$ 4,200.00	100%	$ -	$ 210.00
19	SIGNAL HEAD ASSEM (110)		$ 1,454.00	$ 1,454.00	$ -	$ -	$ 1,454.00	100%	$ -	$ 72.70
20	SIGNAL HEAD ASSEM (130 W/BP)		$ 6,853.00	$ 6,853.00	$ -	$ -	$ 6,853.00	100%	$ -	$ 342.65
21	SIGNAL HD ASSEM (150A2H W/BP)		$ 1,592.00	$ 1,592.00	$ -	$ -	$ 1,592.00	100%	$ -	$ 79.60
22	INSTALL PULL BOX (TYPE A)		$ 1,842.00	$ 1,842.00	$ -	$ -	$ 1,842.00	100%	$ -	$ 92.10
23	INSTALL PULL BOX (TYPE B)		$ 2,105.00	$ 2,105.00	$ -	$ -	$ 2,105.00	100%	$ -	$ 105.25
24	INSTALL PULL BOX (FO-TYP-A)		$ 6,250.00	$ 6,250.00	$ -	$ -	$ 6,250.00	100%	$ -	$ 312.50
25	ELECTRICAL SVC CONNECTION		$ 3,840.00	$ 3,840.00	$ -	$ -	$ 3,840.00	100%	$ -	$ 192.00
26	SERVICE CABLE (LUMIN AC)		$ 637.50	$ 637.50	$ -	$ -	$ 637.50	100%	$ -	$ 31.88
27	SIGNAL CABLE - 3 COND		$ 1,525.00	$ 1,525.00	$ -	$ -	$ 1,525.00	100%	$ -	$ 76.25
28	SIGNAL CABLE - 5 COND		$ 520.00	$ 520.00	$ -	$ -	$ 520.00	100%	$ -	$ 26.00
29	SIGNAL CABLE - 7 COND		$ 1,260.00	$ 1,260.00	$ -	$ -	$ 1,260.00	100%	$ -	$ 63.00
30	SIGNAL CABLE (DETECTOR 138)		$ 1,360.00	$ 1,360.00	$ -	$ -	$ 1,360.00	100%	$ -	$ 68.00
31	CONDUIT 2" (PVC)		$ 7,030.00	$ 7,030.00	$ -	$ -	$ 7,030.00	100%	$ -	$ 351.50
32	CONDUIT 3" (PVC)		$ 470.00	$ 470.00	$ -	$ -	$ 470.00	100%	$ -	$ 23.50
33	CONDUIT 3" (PVC)		$ 8,460.00	$ 8,460.00	$ -	$ -	$ 8,460.00	100%	$ -	$ 423.00
34	CONDUIT 3" (RGS)		$ 2,100.00	$ 2,100.00	$ -	$ -	$ 2,100.00	100%	$ -	$ 105.00
35	CONDUIT 2" (DIRECT BORE)		$ 5,200.00	$ 5,200.00	$ -	$ -	$ 5,200.00	100%	$ -	$ 260.00
36	CONDUIT 3" (DIRECT BORE)		$ 7,280.00	$ 7,280.00	$ -	$ -	$ 7,280.00	100%	$ -	$ 364.00
37	CONDUIT 3" (DIRECT BORE)		$ 4,500.00	$ 4,500.00	$ -	$ -	$ 4,500.00	100%	$ -	$ 225.00
38	VEHICLE DETECT (4-CHAN, RACK)		$ 1,600.00	$ 1,600.00	$ -	$ -	$ 1,600.00	100%	$ -	$ 80.00
39	VEHICLE DETECT (OPT ACT)		$ 4,503.00	$ 4,503.00	$ -	$ -	$ 4,503.00	100%	$ -	$ 225.15
40	VEHICLE DETECT (RADIO/GPS)		$ 9,715.00	$ 9,715.00	$ -	$ -	$ 9,715.00	100%	$ -	$ 485.75
41	SHIELDED DECTECTOR CABLE		$ 3,780.00	$ 3,780.00	$ -	$ -	$ 3,780.00	100%	$ -	$ 189.00
42	SAW SLOT		$ 2,880.00	$ 2,880.00	$ -	$ -	$ 2,880.00	100%	$ -	$ 144.00
43	LOOP WIRE		$ 1,202.50	$ 1,202.50	$ -	$ -	$ 1,202.50	100%	$ -	$ 60.13
44	CABINET (8-PH ACTUATED)		$ 14,340.00	$ 14,340.00	$ -	$ -	$ 14,340.00	100%	$ -	$ 717.00
45	8-PH ACTUATED CONTROLLER		$ 4,732.00	$ 4,732.00	$ -	$ -	$ 4,732.00	100%	$ -	$ 236.60
46	PEDESTAL POLE		$ 1,435.00	$ 1,435.00	$ -	$ -	$ 1,435.00	100%	$ -	$ 71.75

Subcontractor Initials: _____

SUBCONTRACTOR DRAW SCHEDULE

COMPANY: **Embrey Builders, LLC**
PROJECT NAME: **Franklin (Artessa)**
PROJECT NO.: **EB-14**
SUBCONTRACT NO.: EB14-9001
SUBCONTRACTOR: **Stansell Electric Co., Inc**
ADDRESS: **860 Visco Drive**
CITY / STATE / ZIP: **Nashville, TN 37210**
CONTACT: **615/369.4944**

APPLICATION NUMBER: **Request for Retainage**
APPLICATION DATE: **October 20, 2014**
PERIOD TO: **10/20/2014**
SEC INVOICE NO: **143150R1**

A ITEM NO.	B DESCRIPTION OF WORK		C SCHEDULED VALUE	WORK COMPLETED D FROM PREVIOUS APPLICATION (D + E)	WORK COMPLETED E THIS PERIOD	F MATERIALS PRESENTLY STORED (NOT IN D OR E)	G TOTAL COMPLETED AND STORED TO DATE (D + E + F)	% (G / C)	H BALANCE TO FINISH (C-G)	I RETAINAGE
	Description (30 characters or less)	**Cost Code (Embrey Use)**								
47	CANT SIG SUPT 1@40)		$ 14,367.00	$ 14,367.00	$ -	$ -	$ 14,367.00	100%	$ -	$ 718.35
48	CANT SIG SUPT (1@55 W/LUM ARM)		$ 45,818.00	$ 45,818.00	$ -	$ -	$ 45,818.00	100%	$ -	$ 2,290.90
49	CANT SIG SUPT (1@65 W/LUM ARM)		$ 23,836.00	$ 23,836.00	$ -	$ -	$ 23,836.00	100%	$ -	$ 1,191.80
50	PED PUSHBUTTON W 15" SIGN		$ 1,974.00	$ 1,974.00	$ -	$ -	$ 1,974.00	100%	$ -	$ 98.7
51	COUNTDOWN PED SIGNAL		$ 4,536.00	$ 4,536.00	$ -	$ -	$ 4,536.00	100%	$ -	$ 226.
52	BATTER BACKUP PWR CONDITION		$ 11,000.00	$ 11,000.00	$ -	$ -	$ 11,000.00	100%	$ -	$ 550.00
	CHANGE ORDER #1									
53	RMIS REGISTRATION COSTS	17.1765.01	$ 670.00	$ 670.00	$ -	$ -	$ 670.00	100%	$ -	$ 33.50
	CHANGE ORDER #2									
53	TREE TRIMMING	17.1675.01	$ 3,125.00	$ 3,125.00	$ -	$ -	$ 3,125.00	100%	$ -	$ 156.25
			$ 269,353.20	**$ 269,353.20**	**$ -**	**$ -**	**$ 269,353.20**	**100%**	**$ -**	**$ 13,467.66**

Subcontractor Initials: _____

F i s c h b a c h
Transportation Group, LLC
Traffic Engineering and Planning
Ms. Gillian L. Fischbach, P.E., PTOE, President

November 11, 2014

Mr. Brad Knolle
Executive Vice President-Development
Embrey Partners, Ltd.
1020 NE Loop 410, Suite 700
San Antonio, TX 78209

Dear Brad:

FTG, LLC (Fischbach Transportation Group) has been paid in full for all traffic engineering services related to the Artessa multi-family project on Windcross Court in Franklin, TN. Specifically, FTG, LLC's fees for the traffic signal design for the intersection of Cool Springs Boulevard and Windcross Court have been paid in full.

Sincerely,

Gillian L. Fischbach, P.E., PTOE

Ms. Gillian L. Fischbach, P.E., PTOE
President

PO Box 682736 Franklin, TN 37068 (615)771-8022 phone Gillian@FTGtraffic.com

OPERATIONAL ASSETS LTD

DATE	INVOICE NO	DESCRIPTION	INVOICE AMOUNT	DEDUCTION	BALANCE
1/06/14	014946	#10529 TRAFFIC CONSULT	8500.00	.00	8500.00

CHECK DATE	2/13/14	CHECK NUMBER	1445	TOTAL >	8500.00	.00	8500.00

PLEASE DETACH AND RETAIN FOR YOUR RECORDS

TAC (TM) SHARONB 0C0B3CBE-1D8FAE-D4CB-4E 2/12/2014 11:34:51 1445 8500.00

OPERATIONAL ASSETS LTD
1020 NE Loop 410, Suite 700
San Antonio, TX 78209

BBVA Compass Bank
200 Concord Plaza
San Antonio, TX 78216

DATE	CHECK NO.	AMOUNT
February 13, 2014	1445	$******8,500.00

Pay: **********Eight thousand five hundred dollars and no cents

Pink-Invoice File Copy

** VOID * VOID * VOID **

PAY TO THE ORDER OF
FTG, LLC
P.O. Box 682736
Franklin, TN 37068

**** NOT NEGOTIABLE ****

F i s c h b a c h
Transportation Group, Inc.
Traffic Engineering and Planning
Ms. Gillian L. Fischbach, P.E., PTOE, President

January 6, 2014

Mr. Brad Knolle
Senior Vice President - Development
Embrey Partners, Ltd.
1020 NE Loop 410, Suite 700
San Antonio, TX 78209

Invoice for Traffic and Transportation Consulting Services
The Artessa Multi-Family Development
Windcross Court and Jordan Road
Fischbach Transportation Group Project Number 10529

Services (October 2013 – January 2014)	**TOTAL AMOUNT DUE**
Preparation of Traffic Signal Installation Plans	$8,500.00

The current amount due is payable upon receipt. Please make check payable to:

FTG, LLC
P.O. Box 682736
Franklin, TN 37068

I have enjoyed working on this project, and I look forward to working with you in the future. Please let me know if I can help you with any other traffic and transportation engineering and planning needs.

Approved by:
JOB: 1208
Date: 1/30/14
Cost Code: 50.5019.01

PO Box 682736 Franklin, TN 37068 (615)771-8022 phone Gillian@FTGtraffic.com

JAN 2 3 2014

Attachment C - Compensation

The fee for completing the scope of services for the proposed signal design will be a lump sum amount of **$8,500.00**. This fee is based on the estimated time and hourly rates shown below. Significant changes to the proposed scope of services will be considered additional services and billed at a rate of $125.00 per hour.

Services	Hours	Rate	Fee
Prepare Signal Installation Plans (engineering time)	40	$125.00	$5,000.00
Coordinate with the City	8	$125.00	$1,000.00
Project Management	20	$125.00	$2,500.00
GRAND TOTAL			**$8,500.00**

Littlejohn

November 11, 2014

Mr. Brad Knolle
Embrey Partners, Ltd.
1020 NE Loop 410, Suite 700
San Antonio, TX 78209

Dear Mr. Knolle:

This letter serves as confirmation that Littlejohn Engineering Associates, Inc. has received payment in full for the Partial Boundary and Topographic Survey related to the Signalization Plan at the Artessa Apartment Site in Franklin, TN.

Should you have any questions regarding this matter, I can be reached at 615-324-6988.

Sincerely,
LITTLEJOHN ENGINEERING ASSOCIATES, INC.

Marshall Gregory
Staff Accountant

1935 21ST AVENUE SOUTH, NASHVILLE, TENNESSEE 37212
T 615.385.4144 F 615.385.4020

Nashville | Chattanooga | Decatur | Huntsville | Knoxville | Orlando | Phoenix | Tri-Cities

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Environmental Services
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Economic Development

LITTLEJOHN ENGINEERING ASSOCIATES

Tree Location Survey

The Consultant will provide locations of 14" and larger trees in the Incompatible Use Buffer Zone located along the southern boundary being approximately 50'x780' as shown on the Development Plan. All trees shall be tagged in the field with the corresponding number on the tree survey provided on the drawing.

Partial Boundary & Topographic Survey Required for Signalization Plan

The Consultant will provide a Partial Boundary and Topographic Survey to the Minimum Standard Detail Requirements listed in the Tennessee Standards of Practice for Land Surveying. Said survey will serve as a basis for the Signalization plans (by others) at the intersection of Cool Springs Blvd. and Windcross Ct.

Partial Boundary & Topographic Survey Required for Offsite Sidewalk Plan

The Consultant will provide a Partial Boundary and Topographic Survey to the Minimum Standard Detail Requirements listed in the Tennessee Standards of Practice for Land Surveying, including location of all trees greater than 12" diameter within the scope area. Said survey will serve as a basis for the Offsite Sidewalk plans from the proposed development, along Jordan Road, to the intersection with McEwen Drive.

Offsite Sidewalk Infrastructure Plans

The Consultant will provide a construction document set detailing the routing of a proposed sidewalk from the proposed development to McEwen Drive (approximately 800 linear feet). Said plan will identify the proposed layout, proposed grading, necessary erosion prevention and sediment control devices, identify necessary offsite easements, and provide construction details. This scope includes providing metes & bounds descriptions of the offsite easements, but does not include any easement acquisition services.

Our fees for the professional services described herein are estimated as follows:

- Site Plan Submittal Documents $29,500
- Storm Water Detention/Water Quality Analysis Design and Permitting ..... $ 4,800
- Detailed Hardscape Design Documents ..... $ 6,500
- Post Planning Commission Submittals $14,800
- Construction Admin and Meeting/Coordination Services (hourly estimate) ..... ($22,000)
- Record Documents & Bond Release Requests ..... $ 4,800
- Consolidation Plat ..... $ 6,900
- Detailed Stormwater Detention Design $10,000
- Tree Location Survey ..... $ 2,400
- Partial Boundary & Topographic Survey – Signalization Plan ..... $ 2,000
- Partial Boundary & Topographic Survey – Offsite Sidewalk Plan ..... $ 3,600
- Offsite Sidewalk Infrastructure Plans ..... $ 9,500

Approximate Total = $116,800

Excluded from the above fees shall be all reimbursable expenses incurred on the project's behalf, including printing, plotting, reproduction, postage, long distance telephone, travel, and express mail and courier services. Reimbursable expenses will be billed at a cost plus fifteen (15) percent. We will bill monthly for all expenses incurred on the project's behalf. Unpaid invoices after 30 days will accrue service charges at 1½% per month and will also include any costs of collection and reasonable attorney's fees.

EXECUTION
VERSION (2)

GUARANTEED MAXIMUM PRICE CONSTRUCTION CONTRACT

ARTESSA FRANKLIN, LLC

("OWNER")

AND

EMBREY BUILDERS, LLC

("CONTRACTOR")

* * *

THE ARTESSA

FRANKLIN, TENNESSEE

MARCH 31, 2014

TABLE OF CONTENTS

Paragraph	Description	Page
1.	Scope of the Work	1
2.	Work Progress	1
3.	Payments and Exceptions	3
4.	Sales Taxes	9
5.	Contractor's Warranties	10
6.	Investigation	11
7.	Indemnities and Insurance	11
8.	Changes and Extras	13
9.	Defective Work and Claims	13
10.	Liens	13
11.	Approvals of Supplemental Materials	14
12.	Inspections	14
13.	As-Built Survey	14
14.	Certificate of Completion	14
15.	Cleanup	15
16.	Failure to Perform	15
17.	Company Agreement Default	16
18.	Investor Member Termination Rights	16
19.	Assignment	17
20.	Material Subcontractors	17
21.	Materials and Equipment	17
22.	Protection of Work	18
23.	Temporary Facilities	18
24.	Tests and Inspections	18
25.	Permits, Licenses, and Codes	18
26.	Taxes	19
27.	Patents	19
28.	Equal Employment	19
29.	Legal Qualification	19
30.	Use of Equipment	19

31. Safety 19
32. Commencement of Work 20
33. Written Notice 20
34. Binding Effect 21
35. Entire Agreement 21
36. Governing Law and Venue 21
37. Amendment 21
38. No Third Party Beneficiaries 21
39. Severability 21

Exhibits:

"A" Property Description
"B" Description of Plans and Specifications
"C" Progress Schedule for the Work
"D" Schedule of Values
"E" Schedule of Allowance Items
"F" Schedule of Qualifications
"G" Schedule of Exclusions
"H" Schedule of Alternates

GUARANTEED MAXIMUM PRICE CONSTRUCTION CONTRACT

This GUARANTEED MAXIMUM PRICE CONSTRUCTION CONTRACT (this "*Contract*") is made as of March 31, 2014, by and between ARTESSA FRANKLIN, LLC, a Delaware limited liability company ("*Owner*"), and EMBREY BUILDERS, LLC, a Texas limited liability company ("*Contractor*"), for the purpose of evidencing their agreements as hereinafter set forth.

1. Scope of the Work. Except as hereinafter expressly provided, Contractor shall perform all of the work (the "*Work*") required for the construction of a multi-family residential apartment complex containing at least 249 units and ancillary parking and other facilities to be known as "The Artessa" (the "*Project*"), and to be located on certain real estate located in the City of Franklin, Williamson County, Tennessee, which is more particularly described in **Exhibit "A"** which is attached hereto and made a part hereof for all purposes (the "*Property*"), in a good and workmanlike manner and in accordance with the Contract Documents (as defined below), including the plans and specifications (the "*Plans and Specifications*") for the Project, consisting of architectural plans and specifications prepared by Beeler Guest Owens Architects ("*Architect*"), and engineering plans and specifications prepared by Littlejohn Engineering Associates, Inc. ("*Engineer*"), which Plans and Specifications are more particularly described in **Exhibit "B"** which is attached hereto and made a part hereof for all purposes. The Plans and Specifications are subject to the qualifications set forth in the *"Schedule of Allowances"* (herein so called) attached hereto as **Exhibit "E"** and made a part hereof for all purposes, the *"Schedule of Qualifications"* (herein so called) attached hereto as **Exhibit "F"** and made a part hereof for all purposes, the *"Schedule of Exclusions"* (herein so called) attached hereto as **Exhibit "G"** and made a part hereof for all purposes and the *"Schedule of Alternates"* (herein so called) attached hereto as **Exhibit "H"** and made a part hereof for all purposes. The term *"Contract Documents,"* which together constitute the Contract, means this Guaranteed Maximum Price Construction Contract, the Plans and Specifications and all exhibits hereto, as the foregoing may be modified as provided herein.

2. Work Progress. Contractor hereby represents and warrants that the following provisions are true as of the date hereof and agrees that they shall be true at any time prior to Final Completion:

(a) The Work to be performed under this Contract (i) shall be commenced within twenty (20) days after the occurrence of all of the following events: (A) this Contract shall have been fully-executed by the parties; (B) Owner shall have delivered to Contractor the "For Construction Plans" from the Architect, Engineer and Owner's other design consultants; (C) the Construction Loan Documents (as hereinafter defined) shall have been fully executed by Owner and the Construction Lender (as hereinafter defined); (D) the permit for the site work for the Project shall have been issued by the City of Franklin; (E) Owner shall have given Contractor a notice to proceed (the "*Notice to Proceed*"); and (F) the deed of trust securing the Construction Loan (as hereinafter defined) shall have been recorded in the appropriate public records; and (ii) shall be

diligently prosecuted thereafter. Contractor shall achieve Substantial Completion (as hereinafter defined) of the Work on or before the date (the "*Scheduled Completion Date*") which is twenty-six (26) months after the date of commencement of construction, subject to extension as hereinafter provided. Time is of the essence in this Contract.

(b) Contractor agrees to supply materials, labor and equipment as necessary to commence each portion of the Work at a time and in a manner which will allow for Substantial Completion of the entire Project by the Scheduled Completion Date and all materials and equipment furnished under the Contract will be of good quality and new unless expressly provided for herein or in the Plans and Specifications. Contractor shall provide sufficient and properly skilled workers, either directly or through subcontractors, to perform the Work in accordance with the provisions of this Contract. Contractor shall diligently pursue the completion of each portion of the Work, and coordinate the Work of subcontractors with that being done on the Project by Contractor and other subcontractors so that any such Work shall not be delayed or impaired by any act or omission of an act by any subcontractor or Contractor. Contractor shall have complete control of the premises on which Work is to be performed and, in general, all matters relating to the timely and orderly conduct of the Work on the premises, but Owner shall have the right to decide the time or order in which the various portions of the Work shall be installed or the priority of the Work of subcontractors. The initial schedule for construction which has been approved by Owner is set forth in **Exhibit "C"** which is attached hereto and made a part hereof for all purposes.

(c) Contractor will maintain a coordinated Progress Schedule of the Work to be accomplished on the Project and shall notify Owner of such schedule and any changes thereto that affect the date of Substantial Completion within ten (10) working days after the establishment of the schedule or any such change. This Paragraph 2(c) shall also cover Change Orders (as defined in Paragraph 8) for extra Work.

(d) In the event that Contractor is unable to accomplish Substantial Completion of the Work by the Scheduled Completion Date and such delay is caused by reason of strikes, riots, acts of God, rain, unpredictable shortages of labor or materials, war, or governmental laws, regulations or restrictions (other than violations thereof by the Contractor), or failure of the Construction Lender to fund the Construction Loan as required under the Construction Loan Documents, or any other cause beyond the control of Contractor ("*Force Majeure*"), then the period for Substantial Completion of the Work and the Scheduled Completion Date shall be extended to such extent as may be necessary to allow for the delays caused by such Force Majeure not to exceed 60 days (or such longer period of time as may be permitted under the Construction Loan Documents) beyond the Scheduled Completion Date. Contractor shall provide Owner with copies of the daily job reports for the Work and a monthly recapitulation, by month and on a cumulative basis, showing the number of days of Force Majeure delays theretofore experienced within the meaning of the foregoing provision.

(e) Contractor agrees that, in the event that Substantial Completion of the Work covered by this Contract is not accomplished within the time called for herein

(including extensions thereof permitted under Paragraph 2(d) hereof), and such delay was not caused by a failure by Owner to perform Owner's obligations hereunder, then Owner shall be entitled to retain from the amounts otherwise to be paid to Contractor hereunder the sum of Five Hundred and No/100 Dollars ($500.00) for each working day beyond such specified date which is required in order to accomplish Substantial Completion of the Work. The parties acknowledge and agree that the actual damages Owner will incur as a result of Contractor's failure to complete the Work within the specified time are presently indeterminable or difficult to measure and that the specified amount of liquidated damages are a reasonable estimate of the actual damages which Owner will sustain per day upon failure of Contractor to complete the Work within the specified time, and no portion of such sum is to be construed as a penalty, in any sense. The retention of such sum as liquidated damages shall be the sole remedy of Owner for damages arising from any such delay in accomplishing Substantial Completion.

3. Payments and Exceptions. Subject to the other provisions of this Contract, payments by Owner to Contractor for the Work shall be made in accordance with the following provisions:

(a) Owner shall reimburse Contractor in an amount not exceeding $29,147,970 (the "*Contract Sum*") (which includes a contingency amount of $848,970) for the actual Cost of the Work to be borne by Contractor in accordance with this Contract. Such reimbursement is not available for and is in addition to the compensation to be paid to Contractor as specified in Paragraph 3(b). The Contract Sum shall be paid in accordance with the "*Schedule of Values*" that is attached hereto as **Exhibit "D"** and made a part hereof by reference for all purposes.

(b) Contractor shall be entitled to receive compensation for Contractor's services under this Contract in accordance with the following provisions. Owner shall pay Contractor a fixed fee (the "*General Contractor's Fee*") for the Work in the amount of $1,457,398, payable as the Work progresses, as specified in Paragraph 3(d), with the amount of such General Contractor's Fee which is payable at the time of each payment of a portion of the Contract Sum under Paragraph 3(d) being an amount which is equal to the product of multiplying the total General Contractor's Fee by a fraction, the numerator of which is the amount of the advance for the Cost of the Work being made at that time and the denominator of which is the Contract Sum. Any portion of the General Contractor's Fee which has not been previously paid shall be paid by Owner to Contractor upon Final Completion (as hereinafter defined).

(c) In addition to terms which are defined elsewhere in this Contract, the terms specified below shall have the following meanings for purposes of this Contract:

(1) "*Actual Hard Costs*" means the Cost of the Work actually paid or incurred through Completion for all labor and materials used in the construction of the Project, including the General Contractor's Fee.

(2) "*Allowance Items*" means the categories of the Cost of the Work which are set forth in **Exhibit "E"** which is attached hereto and made a part

hereof for all purposes, it being understood and agreed that the actual amount to be expended for the Allowance Items shall be determined by Owner in a manner which is substantially consistent with the Work contemplated in the Plans and Specifications and with the concurrence of Contractor, with such concurrence not to be unreasonably withheld or delayed.

(3) "*Company Agreement*" shall mean that certain Amended and Restated Limited Liability Company Agreement of Owner dated March 27, 2014, between Managing Member and Investor Member.

(4) "*Construction Lender*" shall mean Wells Fargo Bank, N.A., a national banking association.

(5) "*Construction Loan*" shall mean that certain loan from Construction Lender to Owner in the original principal amount of $31,300,463 which is evidenced by a promissory note in such amount from Owner to Construction Lender dated on or about the day immediately preceding the date of this Contract and is secured by the documents contemplated in such promissory note.

(6) "*Construction Loan Documents*" shall mean the documents evidencing and securing the Construction Loan.

(7) "*Cost of the Work*" shall mean costs necessarily incurred by the Contractor in good faith and in the proper performance of the Work (including any reserve established pursuant to Paragraph 5(b) hereof) which are within the Guaranteed Maximum Price. It is understood and agreed that Contractor may use cost savings and the contingency amount which is included in the Contract Sum for any reason within the Plans and Specifications and the Work and subject to compliance with the requirements of Owner's Construction Lender and the terms of the Company Agreement.

(8) "*Exclusions*" means the information set forth in **Exhibit "G"** which is attached hereto and incorporated herein by reference for all purposes.

(9) "*Final Completion*" means the first date by which all of the following shall have occurred: (i) Substantial Completion shall have occurred; (ii) the Contractor shall have executed a certificate of substantial completion for the Project in accordance with Paragraph 14 hereof; (iii) all contractors, subcontractors, suppliers, architects, and engineers who performed work for the Project shall have been paid in full and all liens arising from the acquisition and construction of the Project (other than liens securing the Owner's Construction Loan, if any, and liens of incidental suppliers) shall have been satisfied except for any liens (or claims which with the passage of time or notice or both could mature into liens) which are being contested by Owner or Contractor that have been bonded or otherwise secured in a manner reasonably satisfactory to Owner and Owner's counsel; and (iv) the requirements of Owner's Construction Lender for

disbursement of the final construction draw which are within Contractor's control shall have been satisfied, including, if required by the Construction Lender, the execution of a certificate of substantial completion by the Architect.

(10) "*Guaranteed Maximum Price*" shall mean an amount equal to the sum of the Contract Sum specified above (including contingency amount) and the General Contractor's Fee specified above, as adjusted by Change Orders approved in the manner herein prescribed.

(11) "*Improvements*" shall mean all of the improvements contemplated in the Plans and Specifications.

(12) "*Inspector*" means AECC, Inc., 11931 Wickchester, Suite 401, Houston, Texas, 77043.

(13) "*Investor Member*" shall mean NW-Windcross, LLC, an Ohio limited liability company.

(14) "*Managing Member*" shall mean Artessa Windcross, LLC, a Texas limited liability company.

(15) "*Material Subcontract*" has the meaning assigned to such term in Paragraph 17 hereof.

(16) "*Material Subcontractor*" shall mean a subcontractor which has or will have a Material Subcontract with Contractor.

(17) "*Qualifications*" means the matters set forth in **Exhibit "F"** which is attached hereto and incorporated herein as a part hereof by reference for all purposes.

(18) "*Substantial Completion*" means the first date by which the Work is substantially complete so that Owner can occupy or utilize the Project for its intended use and by which all necessary permits and approvals for operation of the Project, including but not limited to temporary or final certificates of occupancy for all apartment units in the Project, shall have been issued by the applicable governmental authority or other applicable person.

(d) Payments shall be made to the Contractor monthly (or semi-monthly for certain labor intensive subcontract trades such as framing, trusses, steel or drywall) as Contractor may request pursuant to Applications for Payment submitted by Contractor which comply with the requirements of the Construction Lender and are otherwise in accordance with the following provisions:

(1) Contractor shall, between the 1st and 3rd business days of each month (or between the 13th and 17th calendar days of each month with respect to mid-month applications), deliver simultaneously to Owner and Inspector an

Application and Certificate for Payment duly executed by Contractor showing all moneys paid or costs incurred by Contractor on account of the Cost of the Work during the prior month (or semi-monthly period, as applicable), for which Contractor is to be reimbursed hereunder, and the amount of the General Contractor's Fee payable for such month with each monthly advance. Within ten (10) business days after receipt of each such Application for Payment from Contractor (or such other period, if any, as shall be specified for receipt of advances by Owner from its Construction Lender), Owner shall remit payment to Contractor of the amount due based upon the Application for Payment.

(2) All progress payments are to be made at such place and at such time as herein provided or as Contractor from time to time may reasonably designate.

(3) All Applications for Payment are to be accompanied by all documents required by this Contract or reasonably requested by Owner's Construction Lender, and the submission of all such documents shall be a condition to the obligation of Owner to make progress payments to Contractor pursuant to Applications for Payment submitted by Contractor.

(4) Subject to the provisions of Paragraph 3(d)(1), above, progress payments of the Cost of the Work and the General Contractor's Fee shall be made as herein provided pursuant to Applications for Payment submitted by Contractor for the Work performed and materials stored at the Project or at some other location approved by Owner and Construction Lender subsequent to the last day of the preceding period for which the immediately preceding Application for Payment shall have been submitted.

(5) Subject to the provisions of Paragraph 3(d)(1), above, final payment, including the remaining balance of the General Contractor's Fee and all remaining retainage then being held by Owner, shall be made upon the Final Completion of the Work.

Notwithstanding any provision of this Paragraph 3 to the contrary, Owner may withhold from any payment the sum required by the provisions hereof for retainage, with such retainage to be released by Owner to Contractor as is herein provided. No amount shall be withheld as retainage hereunder for equipment, materials or supplies purchased by Contractor or with respect to disbursements to Contractor for general conditions or for the General Contractor's Fee. With respect to subcontracts, except as set forth below, retainage of five percent (5%) of the amount due under each subcontract shall be withheld until thirty (30) days after completion of the portion of the Work subject to such subcontract and satisfaction of the applicable conditions imposed by Owner's Construction Lender, whereupon the amount theretofore withheld as retainage on such subcontract shall be released to Contractor. No retainage shall be withheld on amounts expended by subcontractors for lumber, trusses, steel or drywall. Retainage shall be withheld on amounts expended on materials by subcontractors for doors/trim and

roofing materials, but such retainage shall be released to Contractor for the relevant subcontractor monthly as such materials are actually installed on the Project.

(e) In the event Owner disputes any amount set forth in an Application for Payment or is of the opinion that the Work is not being completed substantially in accordance with the Plans and Specifications or in a good and workmanlike manner, the following provisions shall be applicable:

(1) If the matter involves, or is alleged to involve, a material variation from the Plans and Specifications, a material structural defect, defective material, defective workmanship or a violation of an ordinance or regulation of the City of Franklin or any other applicable laws, Owner shall notify Contractor of same by telephone and as soon as possible thereafter send to Contractor by facsimile transmission and by first-class mail, postage prepaid, a list of said exceptions, hereinafter called "*Inspection Exceptions*". Upon receipt of telephone notification of the Inspection Exceptions, Contractor, not later than the next succeeding business day, shall meet with Owner and endeavor to resolve the Inspection Exceptions with Owner. In the event that: (A) Contractor agrees that there are Inspection Exceptions, and Owner and Contractor are able to agree as to the extent of the Inspection Exceptions and the manner of resolving same, then Owner and Contractor shall prepare and sign a memorandum stating the Inspection Exceptions and the actions to be taken by Contractor to correct the same; or (B) Contractor does not agree that there are Inspection Exceptions and fails to so convince Owner, or Contractor and Owner agree that there are Inspection Exceptions but are unable to agree upon the extent of the Inspection Exceptions or the course(s) of action to be taken to correct such Inspection Exceptions, then Owner and Contractor shall prepare and sign a memorandum stating the matters on which they are able to agree, if any, and the Inspection Exceptions and/or course(s) of action to be taken to correct same and the Inspection Exceptions on which Owner and Contractor are unable to agree shall be submitted to arbitration as provided in Paragraph 3(e)(3) hereof. As used herein, a "material" variation or structural defect shall be a variation or defect that: (i) violates any leases; (ii) results in a breach of any applicable insurance requirements; (iii) violates any applicable safety standards; (iv) prevents or materially detracts from the use of the property for its intended purpose; or (v) the reasonable cost of correction exceeds $25,000.00 individually or $100,000.00 in the aggregate, regardless of the dollar amount of each individual item comprising the total.

(2) In the event Owner does not agree with the amount of an Application for Payment, it shall give Contractor telephone notification of the items and the amounts it disputes, if any, hereinafter called "*Draw Request Exceptions*", within three (3) days after receipt thereof; and within five (5) days after receipt of such Application for Payment, it shall send to Contractor a list of the Draw Request Exceptions by facsimile transmission and by first-class mail, postage prepaid. Upon receipt of telephone notification of Owner's Draw Request

Exceptions, Contractor shall endeavor to resolve such exceptions with Owner. In the event that: (A) Contractor and Owner are able to agree about the amount of the Draw Request Exceptions, Contractor and Owner shall prepare and sign a memorandum stating the Draw Request Exceptions and the agreed amount thereof, and a revised Application for Payment shall reflect such amendment; or (B) Contractor and Owner are unable to agree that there are Draw Request Exceptions or are unable to agree upon the amount thereof, then such matter shall be submitted to arbitration as provided in Paragraph 3(e)(3) hereof; provided, however, that, in the event that a Draw Request Exception is not resolved within 20 days after the date submitted to arbitration, the amount of the Draw Request Exception in dispute shall be deducted from the Application for Payment submitted to the Owner subject to later adjustment, if necessary, when the dispute is resolved.

(3) In the event Contractor and Owner are unable to resolve any Inspection Exceptions or Draw Request Exceptions to their satisfaction pursuant to subparagraphs (e)(1) or (e)(2) above, as applicable, within 20 days after submission by Owner to Contractor, the same shall be submitted to arbitration in accordance with the following terms and conditions:

(A) Contractor shall name one arbitrator and Owner shall name one arbitrator, each one of which shall have not less than five (5) years' experience in the construction of apartment complexes in Tennessee, and Contractor shall send to both arbitrators and Owner a copy of the Inspection Exceptions or a copy of the Application for Payment and Draw Request Exceptions, as the case may be.

(B) Within two (2) business days after an Inspection Exception is received by the arbitrators and within three (3) business days after a Draw Request Exception is received by the arbitrators, they shall render a decision in writing specifying in detail any course of action to be taken by Contractor to correct any Inspection Exceptions and/or the manner of resolving any Draw Request Exceptions. In the event the two arbitrators are unable to agree, they shall select a third arbitrator, and the decision in which any two arbitrators concur shall in all cases be binding on both Contractor and Owner. The arbitrators shall notify both Contractor and Owner of their decision by sending the complete text thereof to each party by facsimile transmission on the date rendered.

(C) In the case of an Inspection Exception, it is agreed that if the arbitrators rule: (i) that any matter excepted to by Owner is not a valid exception, such exception shall be considered waived; or (ii) that any matter excepted to by Owner is a valid exception, such exception shall be corrected forthwith by Contractor at Contractor's expense to the extent that the cost thereof would cause the Cost of the Work to exceed the Guaranteed Maximum Price.

(D) In the case of a Draw Request Exception, it is agreed that if the arbitrators rule: (i) that the Application for Payment, as submitted, is correct, the Draw Request Exception shall be considered waived; and, if previously deducted from an Application for Payment, the deducted amount shall be added to the next Application for Payment; or (ii) that any of the items and amounts excepted to are proper exceptions, Contractor's objections to said Draw Request Exceptions shall be considered waived and unless theretofore deducted from an Application for Payment, the amount excepted to as determined shall be deducted from the next Application for Payment submitted by Contractor to Owner.

(E) Each party shall pay the fees and expenses of the arbitrator appointed by such party. The fees and expenses of the third arbitrator, if any, in connection with each arbitration shall be paid by Contractor in the event the arbitrators uphold all of the Inspection Exceptions or all of the Draw Request Exceptions, and by Owner if the arbitrators waive all of the Inspection Exceptions or all of the Draw Request Exceptions, as the case may be. In the event the exceptions are upheld in part and disallowed in part by the arbitrators, said fees and expenses of the third arbitrator shall be paid by Contractor and Owner in inverse proportion to the allocations made by the arbitrators with respect to the exceptions.

(F) Pending the arbitrators' decisions of any Inspection Exceptions, construction of the Project shall be halted to the extent that the parties agree that continuation of such construction might adversely affect the correction of the Inspection Exceptions or materially increase the cost of such correction. If the parties disagree as to such matter, then any party electing to proceed with construction under such circumstances shall be responsible for any additional costs incurred in order to correct such matter that are caused by such decision to proceed with the Work before such Inspection Exception is resolved.

(f) Contractor acknowledges that amounts advanced to Contractor by Owner under this Contract will be trust funds under the applicable provisions of Tennessee law and agrees to comply with applicable law in handling and disbursing such funds.

4. Sales Taxes. The parties agree that this Contract shall be subject to the following provisions, any other provisions hereof to the contrary notwithstanding:

(a) The parties hereby agree that Contractor and the subcontractors shall be liable and responsible for all sales taxes incurred in connection with the purchase of materials physically incorporated into the Work pursuant to the terms and provisions of this Contract and, where appropriate, any subcontract or sub-subcontract entered into by Contractor or its subcontractors pursuant hereto. Such sales taxes shall be part of the Cost of the Work for which Contractor is entitled to be reimbursed under Paragraph 3 hereof.

(b) The term "*sales taxes*", as used in this Paragraph 4, shall mean all state sales, excise or use taxes, any applicable city sales, excise or use taxes and any applicable metropolitan transit authority taxes and regional transportation authority taxes.

5. Contractor's Warranties. Owner and Contractor hereby agree that the following provisions shall be applicable with respect to warranties concerning the Work:

(a) Contractor shall, before requesting final payment of the General Contractor's Fee, deliver to Owner all manufacturers' and suppliers' equipment warranties required by the Plans and Specifications and assign to Owner all warranties provided by Contractor's subcontractors. Any such warranties shall be assigned to Owner by Contractor without recourse to Contractor for performance of such warranties by such subcontractors and subject to Contractor's retention of the right to have access to such warranties with respect to any matters which are also covered by Contractor's warranty to Owner.

(b) Contractor, in signing this Contract, hereby agrees that if, within one year after the date upon which Substantial Completion shall have been achieved with respect to each building comprising a portion of the Project or within one year after the date upon which any other discrete portion of the Work shall have reached Substantial Completion, any of the materials or workmanship in connection with the construction of such building or other discrete portion of the Work are found to be defective or not in substantial compliance with the Plans and Specifications, Contractor shall, at its own expense (except as hereinafter set forth), promptly correct the same. In addition, Contractor shall, at its own expense (except as hereinafter set forth), accomplish any repair or replacement of adjacent materials or construction which may be damaged due to the failure of Contractor's material or construction and/or damaged as a result of the replacement or repair thereof. The foregoing provisions to the contrary notwithstanding, it is understood and agreed by the parties that an amount equal to the Warranty Reserve (as hereinafter defined) shall be reserved for reimbursement to Contractor as and when required for the purpose of defraying warranty costs to the extent incurred pursuant to the foregoing provisions. Any costs for such warranty work in excess of the Warranty Reserve (to the extent there is a Warranty Reserve) or resulting from the gross negligence, recklessness or willful misconduct of Contractor or its employees shall be borne by Contractor. For purposes of the foregoing provisions, the term "*Warranty Reserve*" shall mean an amount equal to the amount by which the Guaranteed Maximum Price exceeds the Actual Hard Costs incurred by the Owner through Substantial Completion of the Work; provided, however, the parties acknowledge that the Warranty Reserve shall not exceed Five Hundred Thousand and No/100 Dollars ($500,000). Disbursements for which Contractor is entitled to reimbursement from the Warranty Reserve will be funded from draws under the Construction Loan to the extent permitted by the Construction Lender. Any such reimbursement amounts for which funding is not available under the Construction Loan shall be deemed to be non-interest bearing loans from Contractor to Owner that will be paid out of the first funds available therefor from the operation, sale or refinancing of the Project.

(c) The foregoing warranties by Contractor shall be in addition to of any and all other warranties, express or implied, by Contractor in connection with the Work described in this Contract; provided, however, such warranties shall be limited to that period of time when Owner and/or its affiliates are the fee simple owners of the Project.

6. Investigation. Contractor shall become thoroughly familiar with the provisions of this Contract and the Plans and Specifications, as well as the building site and conditions affecting the Work and all applicable building codes, rules, regulations and ordinances relating to building or site specifications. Except for the use of the contingency amount which is included in the Contract Sum, no allowance will subsequently be made on behalf of Contractor for errors due to Contractor's negligence in failing to become acquainted with this Contract, the Plans and Specifications, the site conditions or any applicable building codes, rules, regulations and ordinances relating to building or site specifications before starting Work; provided, however, the contingency amount shall not be used for errors resulting from the gross negligence, recklessness or willful misconduct of Contractor or its employees and such costs shall be at their sole cost and expense.

7. Indemnities and Insurance. The Contractor hereby agrees to provide indemnities and insurance in connection with the Work in accordance with the following provisions:

(a) Contractor shall agree and shall cause all of Contractor's subcontractors to agree, in writing, to protect, indemnify and hold Owner, its partners, officers, agents, employees, successors and assigns free and harmless from and against any and all claims, demands and causes of action of every kind and character (including the amounts of judgments, penalties, interest, court costs and legal fees incurred by Owner in defense of same) arising in favor of governmental agencies or any and all other third parties whomsoever (including employees of Contractor or any subcontractor or anyone directly or indirectly employed by either of them) on account of taxes, claims, debts, bodily injuries, death, damage to property or Environmental Condition (as hereinafter defined), occurring in or in any way incident to, in connection with, or arising out of the performance of this Contract or the Work to be performed hereunder or under any subcontract, or on account of or incident to any defective, faulty or nonconforming equipment or material, or on account of or incident to any defective, faulty or nonconforming construction or workmanship, excluding only liability for damages arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of an indemnified party or the indemnified party's agents or employees. Equipment, material, construction and workmanship which are substantially in accordance with the Plans and Specifications shall not be considered to be defective, faulty or nonconforming. "*Environmental Condition*" shall mean any condition caused by the act or failure to act of any officer, employee or owner of the Contractor or any subcontractor which results in the contamination of the soil or water on, in or under the Property or the existence of which on the Property constitutes a violation of applicable law or regulation.

(b) Contractor (i) shall assume, and shall cause all of Contractor's subcontractors to assume, all risks incident to the performance of this Contract arising on

account of death, bodily injury or property damage suffered by Contractor and/or subcontractors or any of their agents or employees occurring, or in any way incident to, in connection with or arising out of the Work to be performed by Contractor and/or any subcontractor under this Contract or any subcontract; (ii) shall indemnify, and shall cause all of Contractor's subcontractors to indemnify, Owner, its partners, officers, agents, employees, successors and assigns against all claims arising therefrom; and (iii) shall release, waive and relinquish, and cause all of Contractor's subcontractors to release, waive and relinquish, any claim against Owner by reason of any such occurrence. CONTRACTOR'S AGREEMENT TO INDEMNIFY AND HOLD OWNER HARMLESS FROM LIABILITY ARISING OUT OF CONTRACTOR'S PERFORMANCE OR FAILURE TO PERFORM HEREUNDER BY REASON OF BODILY INJURY TO ANY EMPLOYEE, AGENT OR REPRESENTATIVE OF CONTRACTOR SHALL INCLUDE, BUT NOT BE LIMITED TO, LIABLITY ARISING OUT OF ANY NEGLIGENT ACT OR OMISSION OR FAULT OF OWNER, EXCLUDING ONLY LIABILITY FOR DAMAGES ARISING OUT OF BODILY INJURY TO PERSONS OR DAMAGE TO PROPERTY CAUSED BY OR RESULTING FROM THE SOLE NEGLIGENCE OF AN INDEMNIFIED PARTY OR AN INDEMNIFIED PARTY'S AGENTS OR EMPLOYEES.

(c) In addition to, and not in lieu of or satisfaction of, the foregoing, Contractor agrees to procure and keep in force for the duration of any Work hereunder the following insurance with companies acceptable to Owner:

(1) Workers' Compensation and Employer's Liability Insurance providing statutory benefits and with minimum liability limits of $100,000.00 for Employer's Liability Coverage.

(2) Comprehensive General Public Liability Insurance, including insurance for bodily injury and property damage and product liability (including personal injury), completed operations extending at least two (2) years beyond the date of Final Completion and automobile liability (including non-owned automobiles), employer's liability, blanket contractual liability and independent contractor's liability, including the perils of explosion, collapse and underground hazards for not less than $1,000,000 arising out of any one occurrence.

(3) Comprehensive Automobile Liability Insurance for all owned, non-owned and hired vehicles with minimum combined liability limits of $500,000 each occurrence for bodily injury, including death, at any time resulting therefrom, and $100,000 for each accident for property damage.

(4) From and after commencement of vertical construction, Contractor's Builder's Risk Insurance providing coverage of the improvements, independent contractor coverage, elevator and hoist coverage, contractual coverage and completed operations coverage with minimum limits equal to the Cost of the Work, excluding the cost of site work.

(d) Contractor agrees to furnish Owner with Certificates of Insurance indicating compliance with the above requirements and specifically evidencing Contractual Coverage for assumed liability as set forth in subparagraphs (a), (b) and (c), above. Each such Certificate of Insurance shall contain a provision that the applicable insurance coverages will not be canceled without thirty (30) days' prior written notice to Owner. All insurance coverages shall name Owner as an additional insured, as its interest may appear. Each such insurance coverage must be with an insurance company licensed to do business in Tennessee and with an A.M. Best rating of A or better.

(e) Contractor agrees to require all subcontractors to obtain and maintain insurance which meets the standards specified in the foregoing provisions, except that the minimum coverage of general comprehensive liability insurance shall be not less than $1,000,000, and to cause all subcontractors to provide Contractor with certificates of insurance confirming the existence of such insurance and otherwise complying with the requirements of this Paragraph 7.

8. Changes and Extras. Should Owner or Contractor, at any time during the progress of the Work, request any alterations or deviations ("*Change Order*") in the scope of the Work described in this Contract, Contractor shall, within a period of five (5) business days, submit an itemized estimate of any cost changes Contractor foresees to make the alterations or revisions, setting forth in connection with such itemized estimate the amount of materials necessary, if any, to make such change, the sales taxes on such materials, the labor, job overhead, and adjustments to the General Contractor's Fee, together with the total cost for the change and the effect of such change upon progress of the Work. It is understood and agreed that no alterations or deviations in the scope of the Work are to be made except by a Change Order issued by Owner, specified in writing to Contractor, or by Contractor in writing to Owner, and then only in the event such order sets forth the amount of any addition to or deduction from the Contract Sum and the Guaranteed Maximum Price and is signed by both parties hereto. Contractor shall not be obligated to accept any such Change Order which would extend the time required to complete the Work unless Owner agrees to a commensurate extension of the Scheduled Completion Date. Contractor shall not perform Work pursuant to any Change Order unless the Contractor shall have received Investor Member's written approval of such Change Order or such Change Order does not require Investor Member's prior written approval pursuant to the Company Agreement. The foregoing provisions to the contrary notwithstanding, it is understood and agreed that Contractor may make field changes without Owner's consent which are reasonably necessary or appropriate in order to accomplish the Work in accordance with the intent of the Plans and Specifications as long as such changes are not material in scope or cost and are within the Guaranteed Maximum Price; provided, however, such field changes shall not: include the substitution of materials where the original materials were specified by Owner, or adversely impact the Scheduled Completion Date. Execution of Change Orders will also be subject to satisfaction of the applicable conditions imposed by Owner's Construction Lender. To the extent that any material documentation is otherwise prepared and readily available in connection with any significant field change orders effected without the consent of the Owner under the foregoing provisions, Contractor agrees to provide Owner not less often than monthly with copies of such documentation.

9. Defective Work and Claims. Subject to the provisions of Paragraph 3 hereof, payments otherwise due may be withheld by Owner on account of defective Work not remedied, claims filed, reasonable evidence indicating probability of filing of claims or failure of Contractor to make payments properly to its subcontractors or for material or labor. If such circumstances are not cured or removed, on not less than ten (10) days' prior written notice, Owner may rectify the same at Contractor's expense.

10. Liens. Contractor will save and keep the Project and the Property free from all mechanics' liens and all other liens arising by reason of Contractor's Work or the Work of any subcontractor or of any materials or other things used by Contractor or any subcontractor therein. If Contractor fails to remove any lien by bonding it, or otherwise, Owner may retain sufficient funds out of any money due or thereafter to become due by Owner to Contractor to pay the same and all costs incurred by reason thereof, and may pay said lien or liens and costs out of any funds at any time in the hands of Owner owing to Contractor or from funds provided to Owner by Contractor to make permitted payments on such claims; provided, however, that, unless otherwise required by the Construction Lender, nothing herein shall be deemed to require Contractor, or to permit Owner, to pay any such lien or claim which Contractor is contesting in good faith for as long as such contest is being diligently prosecuted and the claimant does not commence legal proceedings against the Owner or the Property to establish or foreclose its claimed lien. Notwithstanding the foregoing, liens or claims being contested by Contractor must be removed by bonding and/or other means by Contractor, within ten (10) days after receipt of notice from Owner. Unless otherwise instructed by Owner, Contractor will provide Owner with each Application for Payment lien waivers in the form provided by Owner for each of Contractor's subcontractors and their suppliers for labor or material included in prior progress payments, excluding lien claims that are being contested as provided above.

11. Approval of Supplemental Materials. Contractor shall carefully examine the requirements of the Plans and Specifications for approval of material to be submitted such as shop drawings, data, schedules, samples, etc. Contractor shall submit such material to Owner in such form and in sufficient time as is required in order to prevent any delay in the delivery of such materials and the installation thereof.

12. Inspections. Contractor agrees that Owner's Construction Lender, if any, through its officers, agents, or employees, shall have the right at all reasonable times and at reasonable intervals at Owner's expense:

(a) To enter upon the Property and inspect the construction to determine that it is in conformity with the Plans and all of the Construction Lender's requirements, and

(b) To examine, copy and make extracts of the books, records, accounting data and other documents of Contractor that relate in any way to the Property, including without limiting the generality of the foregoing, all permits, licenses, consents and approvals of all governmental authorities having jurisdiction over Owner or the Property and all the relevant books and records of the Contractor. All such books, records and documents shall be made available to any Construction Lender at Contractor's principal place of business promptly upon written demand therefor; and at the request of any

Construction Lender, Contractor shall furnish the Construction Lender with convenient facilities at Contractor's principal place of business for the foregoing purpose.

13. As-Built Survey. Upon Substantial Completion of construction of the Project, Contractor shall furnish to Owner an "*as-built*" survey of the Project. The cost of such survey shall be part of the Cost of the Work.

14. Certificate of Completion. Upon Final Completion of construction of the Project, Contractor shall execute and deliver to Owner a certificate of completion in favor of Owner in which the Contractor certifies as follows:

(a) That the Project has been completed substantially in accordance with the Plans and Specifications, as changed by approved Change Orders;

(b) That all subcontractors performing work and all suppliers providing materials and supplies have been paid in full except for any bills then being contested and identified to Owner in writing and to be paid from funds reserved by Contractor therefor;

(c) That no liens exist or can arise against the Project by reason of any materials supplied to or services performed in connection with the construction of the Project except for liens, if any, which (1) are covered by one or more bonds acceptable to Owner and filed in compliance with the applicable provisions of Tennessee law and, because of the filing of such bonds, do not entitle the lien claimants to file suit against the Owner or the Project to satisfy the claims covered by the liens; and (2) secure claims that in the aggregate do not exceed the lesser of $100,000 or other limit imposed by Owner's Construction Lender;

(d) That there is no unsatisfied requirement of Owner's Construction Lender pertaining to the Work which is known to Contractor;

(e) Contractor has completed the correction of all "punch list" items identified by the Inspector more than sixty (60) days prior to the date of the certificate; and

(f) Contractor has received all necessary permits and approvals from the appropriate governmental authorities, including, but not limited to temporary certificates of occupancy and/or certificates of occupancy.

15. Cleanup. Contractor acknowledges that the execution of the Work will result in an indeterminate amount of debris. Contractor agrees to retrieve, pick up and remove from the job site all such debris during the course of the Work and on Final Completion of the Work. Disposal of debris shall be done on a day-to-day basis as is reasonably possible, taking into account the presence of incoming tenants to the extent practicable and appropriate. If, after twenty four (24) hours' notice by Owner's representative to Contractor's representative at the job site, Contractor has not diligently proceeded with the cleanup as outlined in this paragraph, then Owner has the right to proceed with the cleanup work with its own labor or that of a third-party contractor at Contractor's cost and expense

16. Failure to Perform. As used herein, "*Contractor Default*" shall mean (a) Contractor at any time shall refuse or neglect to supply adequate and competent supervision, or a reasonable sufficiency of properly skilled workers or subcontractors, or material of the proper quality or quantity, or fails in any respect to prosecute the Work with reasonable promptness and diligence in accordance with the progress schedule, or fails to complete any Work in substantial compliance with the Contract Documents, or fails in the performance of any agreement on Contractor's part herein contained, and fails within thirty (30) days after delivery of written notice of any such default from Owner to cure such default or neglect, or, if such matter can be cured but cannot reasonably be cured within thirty (30) days and the nature of the default is such that there is not a likelihood of material loss, liability or prejudice to Owner, fails to commence to cure such matter promptly or fails to diligently pursue the curing thereof to a successful conclusion within a reasonable period thereafter, not exceeding an additional ninety (90) days; provided, however, Contractor shall bear any loss and indemnify Owner against any loss incurred during any aforesaid thirty (30) day period, or any extension as applicable, during which the Contractor is effectuating or attempting to effectuate a cure for such default; (b) Contractor files any type of voluntary petition in bankruptcy; (c) there is filed against Contractor by any person other than Owner any type of involuntary petition in bankruptcy which is not dismissed within ninety (90) days after filing; (d) Contractor makes a general assignment for the benefit of creditors; or (e) a receiver is appointed for all or substantially all of Contractor's assets and such receivership is not dissolved within ninety (90) days thereafter. Upon the occurrence of a Contractor Default, Owner may (without prejudice to any other remedy, but subject to the limitations of this Contract), either (i) terminate the rights (but not the obligations) of Contractor pursuant to this Contract or (ii) enter upon the premises and take possession of all materials or appliances, of any kind whatsoever thereon (it being understood that Owner shall own all of such materials at the time of their purchase), and employ any other person or persons to finish the Work and to provide the materials therefor. In the event that Owner fails to exercise its termination rights or other remedies within twenty-five (25) days after the expiration of the applicable cure period, Investor Member may, subject to the limitations of this Contract, exercise any termination rights or other remedies which may be available to Owner pursuant to this Paragraph 16 as a result of any breach or default by Contractor which is not cured within any grace or cure period specified in this Contract. Contractor and Owner hereby agree and acknowledge that Investor Member shall have the right, concurrently with Owner, to give any notices of non-performance or default which are permitted under this Contract. In the event Owner terminates this Contract pursuant to this Paragraph 16, Owner shall be entitled to recover from Contractor (in addition to any other remedies, but subject to the limitations of this Contract) the costs incurred by Owner less the unpaid amounts which Contractor would have been entitled to receive pursuant to Paragraph 3 if Contractor had completed the Work.

17. Company Agreement Default. Contractor and Owner hereby agree and acknowledge, notwithstanding anything in this Contract to the contrary, during the existence of a Removal Event (as defined in Section 5.4 of the Company Agreement), Investor Member shall have the sole right, on behalf of Owner: (a) to exercise in a commercially reasonable manner all review, inspection, waiver, and approval rights that may be available to Owner under this Contract; (b) to take such commercially reasonable action as the Investor Member may at any time determine to be necessary or advisable to cure any default under this Contract or to protect the rights of Owner thereunder; (c) to enforce all rights of Contractor under any subcontracts

with the same subcontractor with a contract amount in excess of $500,000.00 in the aggregate ("*Material Subcontract*"); and (d) to exercise any renewal and/or extension rights which may be available from time to time under this Contract.

18. Investor Member Termination Rights.

(a) Contractor hereby agrees and acknowledges that, notwithstanding anything contained in this Contract to the contrary, Investor Member has the right to terminate this Contract if (i) a Removal Event has occurred; and (ii) Investor Member notifies Contractor in writing that (A) a Removal Notice has been given under the Company Agreement and has not been rescinded; and (B) Investor Member has not received written notice from Managing Member that Managing Member has a good faith belief that Investor Member has breached any material obligation under the Company Agreement prior to Managing Member's receipt of the Removal Notice.

(b) However, Contractor shall, at Investor Member's request, continue performance on Owner's behalf under this Contract in accordance with the terms thereof, provided that Investor Member agrees in writing that (i) Investor Member will (A) continue funding amounts to Owner that Investor Member is obligated to fund under the Company Agreement and (B) use commercially reasonable efforts to cause Construction Lender to continue funding of the Construction Loan in accordance with the Construction Loan Documents and (ii) subject to Construction Lender's continued funding of the Construction Loan, Contractor shall be paid in accordance with this Contract for the following: (A) all work, labor and materials rendered by Contractor on Owner's behalf prior to Investor Member's request and for which funds have not been advanced to Contractor by Owner (excluding reimbursement amounts previously advanced to Owner by Investor Member or Construction Lender, if any, which shall have not been advanced to Contractor but are no longer available to Company and/or Investor Member); and (B) all work, labor and materials rendered by Contractor on Owner's behalf following Investor Member's request. Nothing in this Section 18(b) shall impair or prejudice in any manner the right of Contractor to cease performing under this Contract if Owner defaults in funding amounts due Contractor as provided herein.

19. Assignment. Contractor agrees that Contractor will not assign, transfer, convey, or otherwise dispose of this Contract or any part hereof, or Contractor's right, title or interest herein, or Contractor's power to execute the same without the consent in writing of Owner and Nationwide Mutual Insurance Company ("Nationwide"), which consent shall be at their sole discretion. If Contractor does, with such consent, assign, convey or otherwise dispose of this contract or any part hereof, Contractor shall require that its assignee be bound to Contractor and assume toward Contractor all of the obligations and responsibilities that Contractor has assumed toward Owner.

20. Material Subcontractors. Contractor shall enter into Material Subcontracts only with subcontractors which have been approved by Owner, which approval shall not be unreasonably withheld, conditioned or delayed and shall be deemed to have been granted as to a

subcontractor unless Owner gives Contractor written notice of disapproval within five (5) business days after Contractor requests Owner's approval of such subcontractor.

21. Materials and Equipment. Unless otherwise specified in the Plans and Specifications, all materials and equipment used to complete the Work shall be new and of the best quality of their respective kinds. Materials or equipment shall be delivered to the site in the manufacturer's original, unopened, labeled containers and shall be adequately protected against moisture, tampering or damage. Proposed substitutions of materials or equipment specified in the Plans and Specifications by manufacturer's name or trade name shall be equal or superior to the original in all respects and must be approved by Owner in writing. At Owner's option, detailed specifications, performance data, or samples may be required to be submitted in addition to that data required in the Plans and Specifications. In instances where the manufacturers of materials or fixtures used on this job provide installation or maintenance directions not covered in the Plans and Specifications, or detailed on the drawings provided by the Architect, Contractor shall follow such directions of the manufacturer in furnishing or installing such item as though specifically mentioned in the Plans and Specifications. Contractor will not knowingly incorporate into the Work any materials or equipment that do not comply with applicable law. Except for the leased model apartment furniture and leased office equipment, title to all materials and equipment incorporated into the Work by Contractor will pass unconditionally to Owner free and clear of all liens and claims upon payment therefor by Owner.

22. Protection of Work. Contractor shall take every reasonable precaution to protect the Work from loss or damage. If Contractor or its employees fails to take such reasonable precautions, Contractor shall be solely responsible for any loss or damage to the Work which is not a loss which is covered by insurance provided hereunder, Contractor shall be charged with same, and any monies necessary to replace such loss or repair such damage shall be deducted from monies due Contractor; provided, however, if such loss is covered by insurance Contractor shall be responsible only for the cost of any deductible under such policy. The foregoing provisions to the contrary notwithstanding, it is specifically understood and agreed that any loss which occurs as a result of good faith actions or omissions on the part of Contractor or its subcontractors, and/or not as the result of gross negligence, recklessness or willful misconduct, shall be deemed to be part of the Cost of the Work (including, without limitation, the deductible amount under any insurance policy.)

23. Temporary Facilities. Contractor shall provide and maintain at the Work site a commercially reasonable number of sanitary toilet facilities throughout the construction period, and such facilities shall be used exclusively in lieu of toilet facilities in buildings under construction or completed. Contractor shall obtain and have installed a temporary power service line to a point convenient for all trades. Contractor shall provide temporary water for all trades. Contractor and its subcontractors shall provide such storage as may be needed on the site, and there will be no storage allowed in unfinished or finished buildings unless specifically authorized in writing by the Owner or its duly authorized agent.

24. Tests and Inspections. If the Plans and Specifications or any laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the costs of such inspections, tests or approvals shall

be reimbursed under Paragraph 3 hereof as part of the Guaranteed Maximum Price and not in addition thereto; provided, however, Contractor shall, at its sole cost and expense, be responsible for the cost of any additional inspections, tests or approvals required due to a previously failed inspection, test or approval resulting from the gross negligence, recklessness or willful misconduct of Contractor or its employees. Contractor shall give Owner timely notice of its readiness and of the date arranged therefor so Owner or its agent may observe such inspections, tests or approvals.

25. Permits, Licenses, and Codes. All permits, licenses and easements necessary for the prosecution of the Work shall be procured by Contractor and the costs thereof shall be reimbursed pursuant to Paragraph 3 hereof as part of the Guaranteed Maximum Price and not in addition thereto. Contractor shall not knowingly or negligently perform any of the Work requiring any governmental permit or approval without first obtaining such permit or approval. Contractor shall give all notices and comply with all laws, building codes, ordinances, rules and regulations bearing on the conduct of the Work as drawn and specified in the Plans and Specifications. Subject to terms of Section 6 hereof, it is not the responsibility of Contractor, however, to make certain that the Plans and Specifications are in accordance with all laws, building codes, ordinances, rules and regulations. If Contractor observes that the Plans and Specifications are at variance therewith, Owner shall be promptly notified in writing, and any necessary changes shall be accomplished by a Change Order. If Contractor or its employees is grossly negligent or acts with willful misconduct in performing any Work contrary to such laws, building codes, ordinances, rules and regulations without such notice to Owner, Contractor shall bear all costs arising therefrom.

26. Taxes. Contractor shall pay all social security and other taxes imposed upon Contractor as an employer in connection with the performance of this Contract and shall furnish evidence, when required by Owner, showing that all such payments required to be made have been paid. Contractor shall pay all local, state and federal taxes in connection with the Work. The foregoing amounts shall be reimbursed under Paragraph 3 as part of the Guaranteed Maximum Price and not in addition thereto.

27. Patents. Contractor agrees to forever indemnify and hold Owner harmless from and against any claims, demands, or damages of any nature on account of the use of any patented invention, article or process in connection with the Work under this Contract, either in the course of construction or after Final Completion of the Work, and Contractor further agrees to defend, at its own expense, any suits for infringements.

28. Equal Employment. Contractor agrees to abide by and comply with all procedures, rules and regulations with regard to nondiscrimination issued or to be issued by Equal Employment Opportunity Commission or Executive Order, insofar as they may apply to the Work covered by this Contract.

29. Legal Qualification. Contractor hereby represents that it is legally qualified to transact business and to execute the Work as embodied in this Contract in the State of Tennessee.

30. Use of Equipment. In the event Contractor shall use any of Owner's equipment or facilities in connection with the Work, Contractor shall reimburse Owner at a predetermined rate

unless otherwise stated herein. Further, in so doing, Contractor assumes all responsibility for, and shall hold Owner harmless from and against, any claims, actions, damages, liabilities or expenses, including attorney's fees and expenses, resulting from the use of such equipment or facilities by Contractor or Contractor's agents, employees or permitees.

31. Safety. Contractor shall be responsible to Owner for the compliance with all safety rules and regulations, including specifically, but not by way of limitation, the Occupational Safety and Health Act of 1970, and any amendments thereto or acts in place thereof, during the conduct of Contractor's performance of, and in connection with, the Work. Contractor shall be responsible separately and not as part of the Cost of the Work for any and all liabilities, losses, costs, expenses, claims, damages, costs of corrective measures, and fines and penalties incurred by Owner that result from acts of commission or omission constituting gross negligence or willful misconduct by the Contractor, or Contractor's subcontractors, agents, employees, and assigns in failing to comply with such safety rules and regulations. Contractor shall indemnify Owner for any and all liabilities, losses, costs, expenses, claims, damages, costs of corrective measures, fines and penalties incurred by Owner that result from acts of commission or omission not constituting gross negligence or willful misconduct by the Contractor, or Contractor's subcontractors, agents, employees, and assigns, in failing to comply with such safety rules and regulations to the extent, and only to the extent, that payment of such amounts by Owner would cause the Cost of the Work paid or incurred by Owner to exceed the Guaranteed Maximum Price; otherwise, such costs shall be borne by Owner as part of the Cost of the Work.

32. Commencement of Work. Contractor agrees that, except for site work, it will not commence the Work, nor allow any of its subcontractors to commence the Work, until the satisfaction of the conditions specified in Paragraph 2(a)(i) of this Contract.

33. Written Notice. At any time that written notice is provided for under the terms of this Contract, such notice shall be deemed to have been given when deposited in a receptacle regularly serviced by the U.S. Postal Service, if mailed by certified mail, postage prepaid, return receipt requested, addressed to the person or persons to whom such notice is to be given at the last business address known to the person giving notice. Written notice may also be given by personal delivery, facsimile transmission, regular mail or other commercially reasonable means, in which event such notice shall be deemed to have been given when received by the party to whom addressed; provided, however, that any notice that is received on a day which is not a business day or is received after 4:00 p.m. Central Time on a business day, shall be deemed to have been received on the next business day. The current addresses of the parties are set forth below. Changes of address for purposes of notice hereunder may be effected from time to time upon not less than ten (10) days' prior written notice as herein required. Subject to the foregoing provisions, the addresses of the parties for purposes of notices hereunder are as follows:

If to Owner:

Artessa Franklin, LLC
1020 N.E. Loop 410, Suite 700
San Antonio, Texas 78209
Attention: Brent Goodwin
Telephone: 210-804-5298
Telecopier: 210-798-7111
Email: bgoodwin@embreydc.com

With a copy to:

NW-Windcross, LLC
c/o Nationwide Mutual Insurance Company
One Nationwide Plaza, 1-05-703
Columbus, OH 43215
Attention: Brian Schauss
Real Estate Investments
Telephone: (614) 249-7105
Telecopier: (614) 249-3416
Email: schausb@nationwide.com

If to Contractor:

Embrey Builders, LLC
1020 N.E. Loop 410, Suite 700
San Antonio, Texas 78209
Attention: Ted Emrie
Telephone: 210-824-6044
Telecopier: 210-804-2888
Email: TEmrie@embreydc.com

34. Binding Effect. This Contract shall be binding upon and shall inure to the benefit of the parties hereto and their respective partners, legal representatives, successors and assigns when permitted by this Contract.

35. Entire Agreement. This Contract constitutes the entire agreement between the parties regarding the subject matter herein described and supersedes any prior oral or written understandings regarding such subject matter.

36. Governing Law and Venue. THIS CONTRACT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HERETO SHALL BE GOVERNED BY THE LAWS OF THE STATE OF TENNESSEE. The obligations of the parties hereto are performable in their entirety in Williamson County, Tennessee.

37. Amendment. This Contract may not be amended orally, but may be amended only by the execution of a Change Order or other instrument in writing signed by the party to be charged with such amendment. Contractor hereby agrees and acknowledges that Investor Member's consent is required for all modifications, amendments and revisions to this Contract and Material Subcontracts, excluding change orders which are expressly permitted pursuant to

the Company Agreement, and Contractor shall not amend this Contract or any Material Subcontract without Investor Member's consent.

38. No Third Party Beneficiaries. No person other than Owner, Contractor and Investor Member, Construction Lender and their permitted successors and assigns shall have any right of action under the Contract.

39. Severability. If any term or provision of this Contract or the application thereof to any person or circumstances shall, to any extent, be deemed invalid or unenforceable, the remainder of this Contract, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and shall be valid and enforced to the fullest extent permitted by law.

[SIGNATURES APPEAR ON NEXT PAGE]

M:\5000\5200\5275 - Franklin, Tennessee\5275.002 Artessa Franklin, LLC\Construction Contract\Construction Contract.20140326-2.BEC.EXE.Doc

IN WITNESS WHEREOF, the parties have executed this Contract to be effective as of the date first written above.

OWNER:

ARTESSA FRANKLIN, LLC,
a Delaware limited liability company

By: Artessa Windcross, LLC,
a Texas limited liability company,
its managing member

By: _____
Brent Goodwin,
Vice President - Accounting

CONTRACTOR:

EMBREY BUILDERS, LLC
a Texas limited liability company,

By: _____
Ted Emrie, President

EXHIBIT "D"
TO
GUARANTEED MAXIMUM PRICE
CONSTRUCTION CONTRACT
BETWEEN
ARTESSA FRANKLIN, LLC
AND
EMBREY BUILDERS, LLC

SCHEDULE OF VALUES

[see attached]

Embrey Partners, Ltd.
1020 NE Loop 410, Suite 700
San Antonio, Texas 78209

Artessa - Franklin GMAX#2
Franklin, TN

BGO Architects

229,948 NRSF
18 Month Duration
2/12/2014
The Artessa PUD
250 Units
229,948 NRSF
250,664 GSF
920 SF Avg Unit
35 Unit Types
6 Apartment Buildings
11.21 Acres
22.3% Density
71% Building Efficiency
415 Parking Spaces
231 Surface Parking Spaces
3 Trash Enclosure
Mail Kiosk
184 Parking Garage Spaces
5,032 SF Club/Leasing Space

1000	GENERAL CONDITIONS	
1312	PROJECT MGT & COOR	$744,560
1314	CONSTRUCTION MANAGEMENT	$389,222
1315	PROJECT MANAGEMENT COST	$497,157
1320	PROFESSIONAL SERVICES	$117,925
1450	SAFETY	$5,000
1500	TEMPORARY FACILITES	$258,770
1510	TEMPORARY UTILITIES	$92,287
1520	JOB MOBILIZATION	$77,915
1530	CONSTRUCTION TOOLS & EQUIP.	$47,850
		2,230,686
2000	SITEWORK	
2005	SURVEYING SERVICES	$102,317
2020	TESTING SERVICES	$70,725
2302	OFFSITE IMPROVEMENTS	$47,624
2315	EXCAVATION & FILL	$551,432
2335	ASPHALT PAVING	$209,603
2370	EROSION CONTROL	$84,107
2480	RETAINING WALLS	$425,045
2505	WATER DISTRIBUTION	$349,035
2530	SANITARY SEWER	$93,827
2550	DRY UTILITIES	$166,379
2577	MISC. SLEEVES & CONDUIT	$10,000
2580	SITE ELECTRIC STRUCTURES	$294,058
2630	STORM DRAINAGE	$309,632
2640	SITE CONCRETE	$32,200
2735	TEMP.BARRICADES/ENCLOSURES	$12,300
2750	CONCRETE PAVING	$16,972
2760	PAVEMENT MARKING	$19,966
2770	CURBS & GUTTERS	$61,515
2775	SIDEWALKS	$94,298
2777	SWIMMING POOL	$349,847
2780	UNIT PAVERS	$278,909
2820	FENCES & GATES	$162,594
2840	TRAFFIC CONTROL	$15,000
2860	SCREENING DEVICES	$1,275
2870	SITE FURNISHINGS	$18,600
2875	SITE SHELTERS	$141,466
2905	LANDSCAPING	$266,673

3000	**CONCRETE**	
3250	POST TENSIONING	$1,157,700
3310	CAST IN PLACE CONCRETE	$1,429,811
3312	TERMITE TREATMENT	$15,794
3510	CEMENTITIOUS DECK	$278,001
3520	CONCRETE TOPPINGS	$288,500
4000	**MASONRY**	
4210	BRICK MASONRY	$1,012,280
4220	CONCRETE MASONRY UNITS	$179,850
4720	CAST STONE	$53,750
5000	**METALS**	
5120	STRUCTURAL STEEL	$112,386
5510	MISC. METALS	$50,759
5715	FABRICATED STAIRS	$149,081
5720	ORNAMENTAL RAILING	$174,696
5810	EXP.JOINT COVERS	$4,000
6000	**WOOD & PLASTICS**	
6105	ROUGH CARPENTRY	$1,768,987
6106	THIRD PARTY INSPECTIONS	$19,800
6110	WOOD FRAMING	$1,965,298
6115	ROUGH HARDWARE	$129,000
6120	TRUSSES & BEAMS	$778,000
6200	FINISH CARPENTRY LABOR	$251,340
6220	MILLWORK	$213,500
6410	CABINETS	$433,837
6415	COUNTER TOPS	$318,531
6470	WOOD SCREENS/SHUTTERS	$19,500
7000	**THERMAL/MOISTURE PROTECT**	
7120	WATERPROOFING	$35,233
7210	BUILDING INSULATION	$192,274
7310	SHINGLES	$254,153
7410	METAL ROOF/WALL PANELS	$9,559
7540	THERMO-PLASTIC ROOFING	$91,426
7620	SHEET METAL FLASHING/TRIM	$22,995
7702	GUTTERS & DOWNSPOUTS	$32,683
7920	JOINT SEALANTS	$172,920

8000	**DOORS & WINDOWS**	
8005	DOOR BID	$562,620
8252	SHOWER DOORS	$36,712
8310	ACCESS DOORS	$2,117
8360	OVERHEAD DOORS	$37,035
8410	METAL FRAMED STOREFRONTS	$62,921
8510	VINYL WINDOWS	$129,683
8710	DOOR HARDWARE	$147,727
8810	GLASS & GLAZING	$6,250
8830	MIRRORS	$45,212
9000	**FINISHES**	
9250	GYPSUM WALL BOARD	$1,329,840
9310	CERAMIC TILE	$144,038
9650	RESILIENT FLOORING	$289,616
9680	CARPET	$112,976
9735	ROUGH CLEANING	$212,500
9740	PROJECT FINAL CLEANING	$48,289
9910	PAINTING	$528,109
10000	**SPECIALTIES**	
10060	ALLOWANCES	$325,000
10103	EXERCISE EQUIPMENT	$50,000
10305	FIREPLACES	$5,500
10430	EXTERIOR SIGNAGE	
10520	FIRE PROTECTION	$13,295
10550	POSTAL SPECIALTIES	$27,606
10820	BATH ACCESSORIES	$18,238
10900	CLOSET SPECIALTIES	
11000	**EQUIPMENT**	
11460	UNIT KITCHENS	$590,746
11902	LAUNDRY EQUIPMENT	$198,830
12000	**FURNISHINGS**	
12490	WINDOW TREATMENTS	$65,539
13000	SPECIAL CONSTRUCTION	
13710	SECURITY & SURVEILLANCE	$72,042
14000	**CONVEYING SYSTEMS**	
14240	TRACTION ELEVATORS	$342,850

15000	MECHANICAL	
15100	PLUMBING	$1,345,823
15110	INDIVIDUAL WATER METERS	$33,375
15300	FIRE PROTECTION	$709,000
15510	HVAC	$879,995
16000	ELECTRICAL	
16010	ELECTRICAL	$1,140,296
16510	LIGHT FIXTURES	$282,939
16520	EXTERIOR LIGHT FIXTURES	$34,410
16705	FIRE ALARM SYSTEM	$176,185
16720	TELEPHONE SYSTEM	
16740	DATA COMMUNICATION SYSTEM	
Totals		$28,039,043

Subcontract		**$28,039,043**
Builders Risk	$138,513	
General Liability	$121,445	
		$28,299,000
Contingency	$848,970	
		$29,147,970
Fee	$1,457,398	
Total		**$30,605,368**

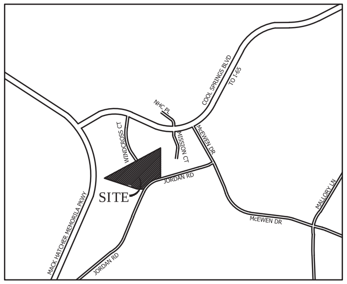
→ General Conditions = $2,230,686
This is 7.65% total contract. They are requesting 7.5% of cost of work

→ Overhead Fee (5% of cost of work)

$1,457,398 / $29,147,970 = .05 ≅ 5%

5% of 269,353.20 = $13,467.66

COF 2014-0116
Exhibit A



VICINITY MAP

Notes:

1. The project site is located at 1034 and 1035 Windcross Court in Franklin, TN. and is located within the 8th Civil District. The property is referenced as Map 62G, Group A, Parcels 6.00 and 7.00 on the Williamson County tax maps.
2. Survey information provided by Crawford and Cummings, PC.
3. Trip Generation Data - see Traffic Study by Fischbach Transportation Group, Inc.
4. Fire hydrant flow for the hydrant located at the southern end of Windcross Court (test date November 15, 2012)
   - Static Pressure: 110 psi
   - Residual Pressure: 105 psi
   - Flow: 1,043 gpm
   - Predicted flow at 20 psi: 4,966 gpm
5. The acreage of this development is ±11.21 acres.
6. There are no individual list National Registered historic structures within 500' of the property.
7. Each residential unit will be sprinklered.
8. No mineral rights are known to be held by parties outside of the property owner.
9. All streets will be private unless otherwise noted. Adequate turning movements shall be provided for utility and service vehicles.
10. Based on graphic plotting of FEMA FIRM map 47187C0204F dated September 29, 2006, this site is located within Zone X which is determined to be outside of the 0.2% annual floodplain chance.
11. All public improvements shall be located within an easement.

Statement of Impacts:

1. Water - The property is within the Mallory Valley Utility District for domestic water. This project will have a domestic water demand of approximately 73,450 gallons per day.
   - 162 - 1 BR apartment units @ 250 gpd = 40,500 gpd
   - 87 - 2 BR apartment units @ 350 gpd = 30,450 gpd
   - Total = 70,950 gpd
2. Sewer - The property is within the City of Franklin service district for sanitary sewer service. Proposed sewer main will connect to the existing gravity sewer line at the north east corner of the site.
3. Reclaimed Water - Re-purified water from the City of Franklin is not available to this project.
4. Street Network - The Major thoroughfare Plan indicates the future improvement of Cool Springs Boulevard from Mack Hatcher Parkway to Carothers Parkway. The identified improvements would widen the road from 4 lanes to 6 lanes. The plan also includes the on-going improvements to Mack Hatcher Parkway from Franklin Road to Murfreesboro Road which will widen the road from 2 lanes to 4 lanes.
5. Drainage Facilities - A blueline stream has been identified along the eastern edge of the property and requires a buffer per the City of Franklin Storm Water regulations. A wet weather conveyance runs along the northern property line. A buffer will be applied to the eastern portion of this feature based on the drainage basin area per the City of Franklin Storm Water regulations. The storm water runoff for this project flows north to an un-named tributary to Spencer Creek.
6. Police and Fire
   - Franklin Police Department:
     - Police Headquarters
     - 900 Columbia Avenue
     - 3.4 miles from site
   - Franklin Fire Department:
     - Fire Station #3
     - 298 Mallory Station Road
     - 1.8 miles from site
7. Recreation Facilities
   - Aspen Grove Park:
     - 3200 Aspen Grove Drive
     - 1.0 miles from site
   - Harlinsdale Park:
     - 239 Franklin Road
     - 1.8 miles from site
8. Projected Student Population
   The student population is projected at a rate of one student per 0.23 units. 249 units x 0.23 = ±58 students

   The schools that could be affected by this development are:
   - Elementary: Johnson Elementary School (3.9 miles)
   - Middle: Freedom Intermediate School (4.1 miles)
   - Freedom Middle School (4.5 miles)
   - High: Centennial High School (1.4 miles)
9. Refuse Collection - Refuse storage and sanitation collection will be provided by a private service.

Site Data

Project Name:	The Artessa
Address:	1034 and 1035 Windcross Court Franklin, TN
Subdivision:	Aspen Grove
Lot Numbers:	10 and 11
Civil District:	8th
Map, Parcels:	62G, Group A, Parcels 6.00 and 7.00
Developer/Applicant	Embrey Partners 1020 NE Loop 410, Suite 700 San Antonio, TX 78209 contact: Brad Knolle bknolle@embreydc.com
Site Area:	Lot 10 254,282 sf (5.84 ac) Lot 11 233,960 sf (5.37 ac) Total 488,242 sf (11.21 ac)
Existing Zoning:	General Commercial (GC)
Proposed Zoning:	Residential Variety (RX)
Character Area Overlay:	McEwen (MECO-4)
Other Overlays:	None
Development Standard:	Conventional
Drainage Basin:	Spencer Creek
Existing Structures:	None
Incompatible Use Buffer	50' along southern property line
Building setbacks:	30' Front 10' Side 20' Rear
Proposed Units:	249
Proposed Density:	22.2 DUA
Building Area:	236,049 sf
Building Height:	4 Story (max.)
Floor Area Ratio:	0.48 (236,049 sf/488,242 sf)
Min. Landscape Surface Ratio:	0.10
Proposed LSR:	0.50
Minimum Parking Required: See MOS request #2	162 (1 BR) x 2.0 spaces = 324.0 87 (2 BR) x 2.5 spaces = 217.5 Total spaces required = 541.5 use 542 (with MOS#2 461 spaces required)
Parking Provided: See MOS request #2	Individual Garage Spaces = 38 Driveway Spaces = 18 Surface spaces = 219 Compact Spaces = 12 Structured parking spaces = 192 Total spaces provided = 479
Bicycle Parking:	461/20 = 23 spaces
Open Space: Required:	73,236 sf (15%)
Open Space: Provided:	214,016 sf (44%)
Open Space - Formal Required:	24,412 sf (33%)
Open Space - Formal Provided:	35,116 sf
Open Space - Informal Required:	48,824 SF (66%)
Open Space - Informal Provided:	178,900 SF
Parkland Dedication:	243 Total Units 35*1200 = 42,000 208*600 = 124,800 Total = 166,800 Fee in lue of Parkland dedication shall be paid by the development prior to building permit.

Legal Descriptions

Lot 10: Being Lot 10 on the Plan of Revision Six, Section "Q", Aspen Grove Subdivision, as record in Plat Book 26, page 93, in the Register's Office for Williamson County, Tennessee, to which the plan reference is hereby made for a more complete description.

Lot 11: Being Lot 11, on the Plan of Aspen Grove, Section Q, as shown on the plat of record in Plat Book 14, page 46, in the register's Office of Williamson County, Tennessee, to which plat reference is hereby made for a more complete description.

Planning Narrative

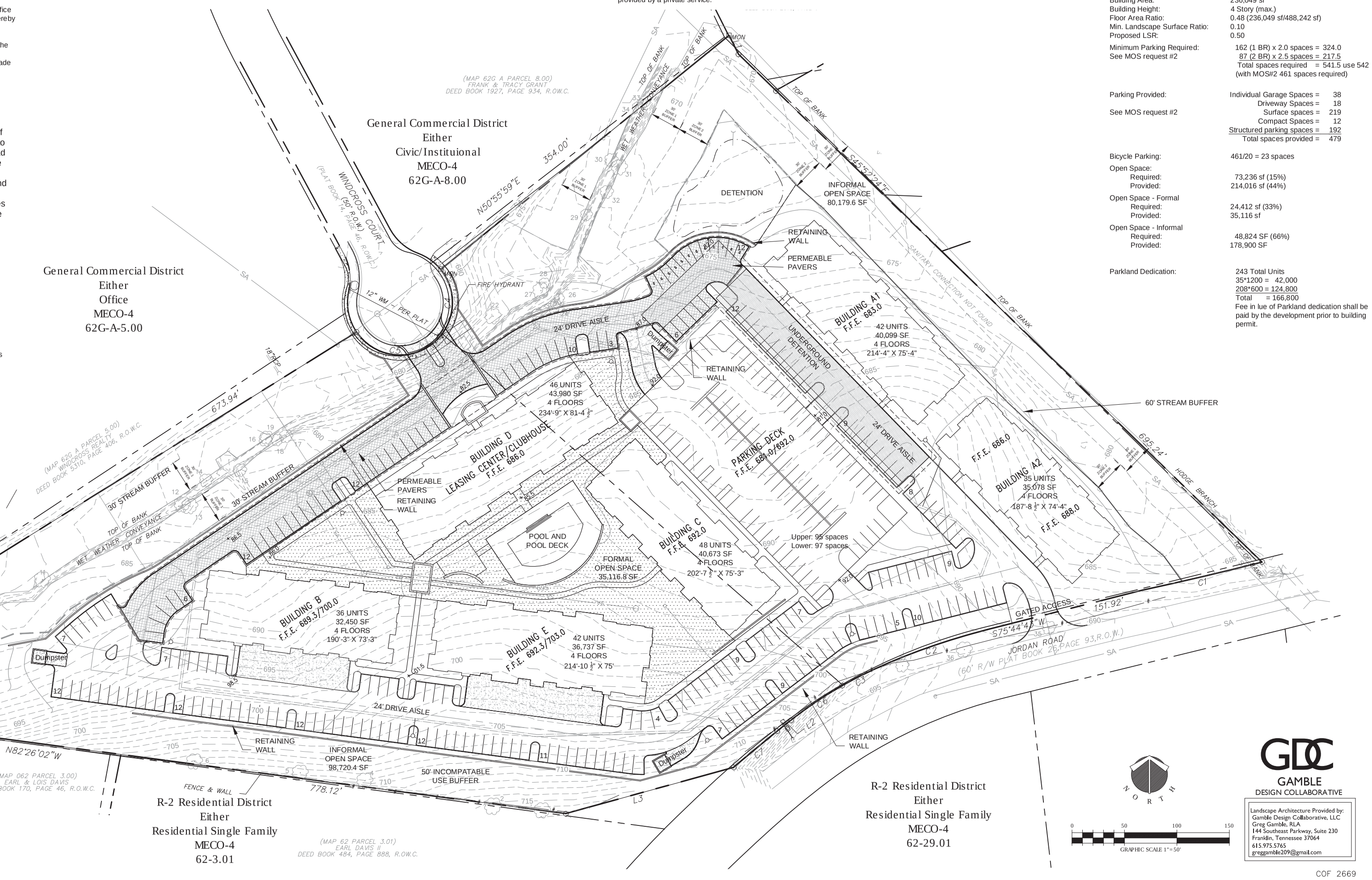
The site is located within the McEwen Character Area, Special Area 4. The site is located South of McEwen Drive and East of Cool Springs Boulevard. The surrounding uses include office to the north and west, and single family homes along Jordan Road to the East. The proposed apartment development will provide housing options within the business corridors of Cool Springs and McEwen. The apartments, which is consistant with the land use plan, will serve as a transitional use between the office/commercial uses to the west, and the single family homes to the east. The proposed development is planned to meet the development standards of the Aspen Grove Business Association's guidelines. The proposed development will be comparable in scale and design with the surrounding area.

Connectivity Index

Not Applicable.

Modification of Standards requests:

1. Allow for multi-family development to be reviewed under the non-residential and mixed use category of the City of Franklin wall and fence standards. This would allow for the a maximum wall height of 10' and a maximum change in elevation of 16' provided that two or more retaining walls are used, the wall heights do not exceed 8', and there is a minimum horizontal separation of 6' between walls.
2. Required parking to be reduced to 1.5 spaces per one-bedroom unit and 2.5 spaces per two-bedroom unit.
3. The maximum length of any attached residential building shall be 236 feet.



GDC
GAMBLE
DESIGN COLLABORATIVE

Landscape Architecture Provided by:
Gamble Design Collaborative, LLC
Greg Gamble, RLA
144 Southeast Parkway, Suite 230
Franklin, Tennessee 37064
615.975.5765
greggamble209@gmail.com

COF 2669

LITTLEJOHN ENGINEERING ASSOCIATES
1935 21st Avenue South, NASHVILLE, TENNESSEE 37212
T 615.385.4144 F 615.385.4020 www.leainc.com
Nashville | Chattanooga | Decatur | Huntsville | Knoxville | Orlando | Phoenix | Tri-Cities

DEVELOPMENT PLAN

THE ARTESSA PUD DEVELOPMENT

1034 AND 1035 WINDCROSS COURT
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE
MAP 62G, GROUP A, PARCEL 6.00 AND 7.00

EMBREY PARTNERS, LTD
1020 NE LOOP 410
SUITE 700
SAN ANTONIO, TX 78209

GREGORY C. GAMBLE LANDSCAPE ARCHITECT

1	08.01.2013	
DATE	REVISIONS	
05.13.13	PROJ. NO.	

C2.0

ROAD IMPACT FEE OFFSET AGREEMENT – AS AMENDED
COF CONTRACT NO 2014-0116

This Agreement is entered into between THE CITY OF FRANKLIN, TENNESSEE ("City") and Embrey Partners, Ltd, ("Developer"), on this the _____ day of _____, 2015, pursuant to Title 16, Chapter 4 of the Franklin Municipal Code ("FMC").

WHEREAS, the Developer has previously submitted to the Franklin Municipal Planning Commission The Artessa PUD Subdivision, Development Plan COF Project #2669 for approval (the "Development Project") as shown on **Exhibit A**; and

WHEREAS, the City has required the Developer to design and construct certain arterial roadway improvements to include the dedication of arterial right-of-way, the engineering design of non-site related arterial improvements and/or the construction of certain non-site related arterial improvements as a requirement of the Development Project; and

WHEREAS, the arterial improvements required as part of the Development Project are identified in the City's Major Thoroughfare Plan; and

WHEREAS, the Developer has made application to offset a portion of the costs of construction of these improvements against any Road Impact Fees due from the Development Project, and the estimated amount of such eligible costs, and potential offset, was determined by the Board of Mayor and Aldermen (BOMA) on February 11, 2014, to be One Hundred Ninety-Two Thousand One Hundred Twenty-Five and No/100 Dollars ($192,125.00); and

WHEREAS, at the February 11, 2014, Board of Mayor and Aldermen meeting staff was directed to prepare a road impact offset agreement for an amended percentage of fifty percent (50%) at approximately One Hundred Ninety-Two Thousand One Hundred Twenty-Five and No/100 Dollars ($192,125.00); and

WHEREAS, the Developer has completed the arterial roadway improvements and submitted the required invoices, contracts, and release of liens as shown on **Exhibit B,** said invoices dictate that the final cost of the project was Three Hundred Thirteen Thousand Five Hundred Twenty-Two and Thirty-Five/100 Dollars ($313,522.35); and

WHEREAS, based on the approval of the BOMA for the Development Project's Road Impact Fee Agreement of fifty percent (50%) of the final cost of the eligible improvements, the final Road Impact Fee Offset is One Hundred Fifty-Six Thousand Seven Hundred Sixty-One and Eighteen/100 Dollars ($156,761.18).

NOW THEREFORE, the City and the Developer, their successors and assignees, do hereby agree as follows:

1. The foregoing recitals are incorporated into this Agreement and made a part thereof.

2. Developer has submitted reliable information related to the final costs of construction of the following arterial roadway improvements and/or works:

3. The City agrees to pay the property owner One Hundred Fifty-Six Thousand Seven Hundred Sixty-One and Eighteen/100 Dollars ($156,761.18) (50% of $313,522.35) for the completed arterial roadway improvements.

4. The Developer shall provide to the Road Impact Fee Administrator (City Engineer) a letter of assignment for any portion of an eligible Road Impact Fee offset for the Development Project prior to such assignment being granted to a successor(s) in interest. Should a successor(s) in interest pay a Road Impact Fee prior to the Road Impact Fee Administrator (City Engineer) receiving from the Developer a letter of assignment, there shall be no reimbursement of the paid Road Impact Fee to the intended successor(s) in interest.

Approved by the Franklin Board of Mayor and Aldermen on the 13th day of January, 2015.

WITNESS our hands on the dates as indicated.

DEVELOPER

Embrey Partners, Ltd.

By:_____

Print Name:_____

Title:_____

STATE OF TENNESSEE)
)
COUNTY OF _____)

Before me, _____, a Notary Public of said County and State, personally appeared _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged _____self to be _____ (or other officer authorized to execute the instrument) of _____, the within named bargainor, a _____, and that _____ as such _____ executed the foregoing instrument for the purposes therein contained.

Witness my hand and seal on this ___ day of _____, 20___.

_____
Notary Public
My Commission Expires:_____

CITY

CITY OF FRANKLIN, TENNESSEE, a municipality

By:_____
DR. KEN MOORE
Mayor

Date:_____

ATTEST:

By:_____
ERIC S. STUCKEY
City Administrator

Date:_____

STATE OF TENNESSEE)
)
COUNTY OF WILLIAMSON)

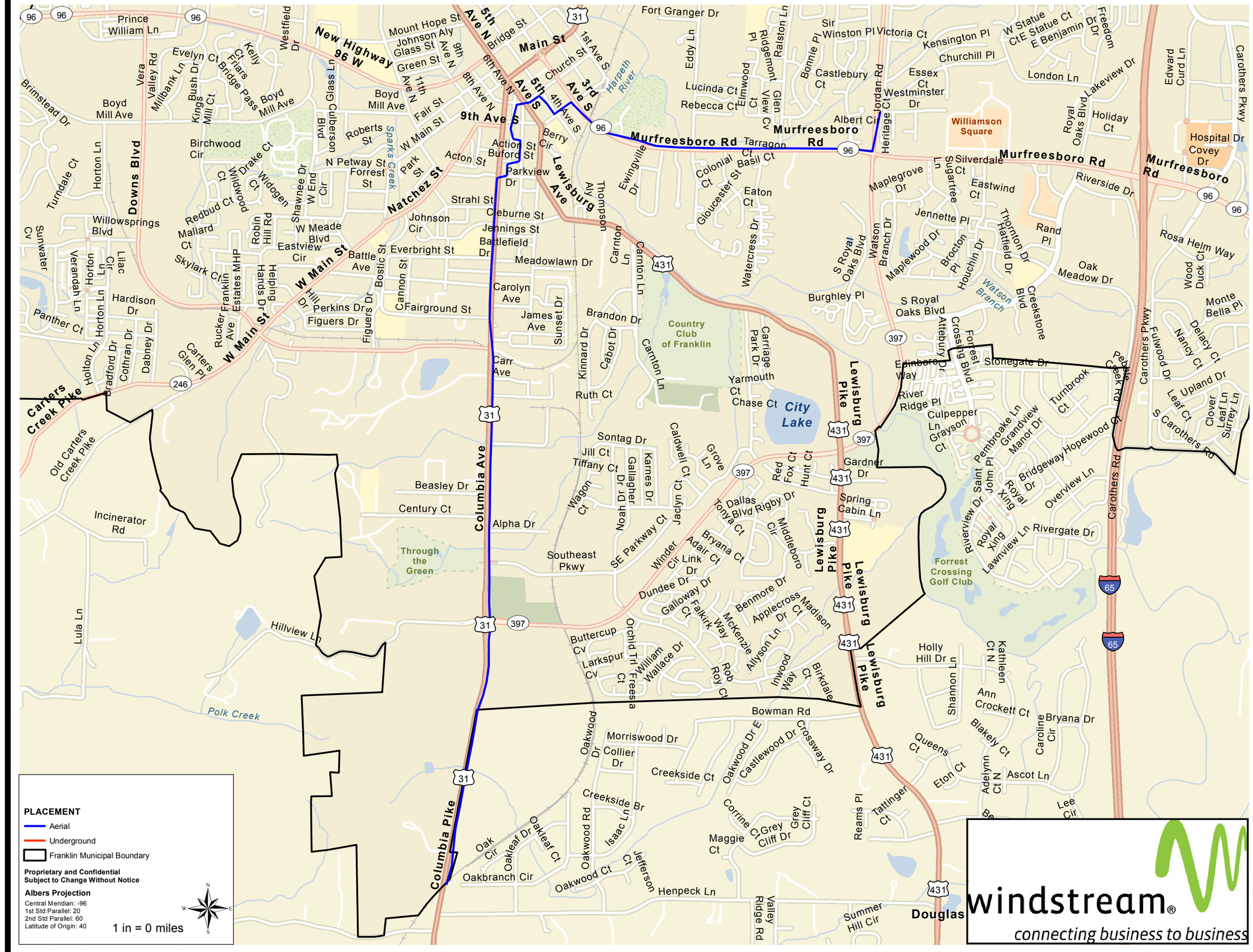
Before me, the undersigned Notary Public of said County and State, personally appeared DR. KEN MOORE and ERIC S. STUCKEY, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged themselves to be the Mayor and City Administrator, respectively, of the City of Franklin, Tennessee, the within named bargainor, a municipality, and that as such Mayor and City Administrator executed the foregoing instrument for the purposes therein contained, by signing the name of the municipality by themselves as Mayor and City Administrator.

Witness my hand and seal this _____ day of _____, 20___.

_____
Notary Public
My Commission Expires:_____

Approved as to form by:

_____
Shauna R. Billingsley, City Attorney


Prince William Ln
New Highway 96 W
Mount Hope St
Johnson Aly
Glass St
Green St
9th Ave N
5th Ave N
Bridge St
Main St
1st Ave S
Church St
3rd Ave S
5th Ave S
4th Ave S
6th Ave N
8th Ave N
11th Ave N
Fair St
Boyd Mill Ave
Harpeth River
Fort Granger Dr
Eddy Ln
Ridgemont Pl
Ralston Ln
Sir Winston Pl
Victoria Ct
Kensington Pl
Churchill Pl
W Statue Ct
E Statue Ct
E Benjamin Dr
Freedom Dr
London Ln
Lakeview Dr
Edward Curd Ln
Carothers Pkwy
Hospital Dr
Covey Dr
Holiday Ct
Royal Oaks Blvd
Williamson Square
Murfreesboro Rd
Riverside Dr
Rosa Helm Way
Wood Duck Ct
Monte Bella Pl
Delacy Ct
Nancy Ct
Fulwood Dr
Upland Dr
Leaf Ct
Clover Leaf Ln
Surrey Ln
S Carothers Rd
Peoples Creek Rd
Stonegate Dr
Forest Crossing Blvd
Attebury Dr
Creekstone Blvd
Oak Meadow Dr
Rand Pl
Thornton Dr
Hatfield Dr
Houchin Dr
Brocton Pl
Maplewood Dr
Watson Branch Dr
S Royal Oaks Blvd
Watson Branch
Burghley Pl
Jennette Pl
Eastwind Ct
Sugartree Ct
Silverdale Ln
Maplegrove Dr
Albert Ct
Heritage Ct
Jordan Rd
Westminster Dr
Essex Ct
Castlebury Ct
Lucinda Ct
Rebecca Ct
Elmwood Ct
Ridgemont View Cv
Glen Ct
Bonnie Pl
Tarragon Ct
Basil Ct
Colonial Ct
Gloucester St
Eaton Ct
Watercress Dr
Ewingville Dr
Thomson Aly
Carnton Ln
Country Club of Franklin
Carriage Park Dr
Yarmouth Ct
Chase Ct
City Lake
Lewisburg Pike
Edinboro Dr
Edinboro Way
River Ridge Pl
Culpepper Ln
Grayson Ct
Pembroke Ln
Grandview Manor Dr
Turnbrook Ct
Bridgeway
Hopewood Ct
Overview Ln
Rivergate Dr
Riverview Dr
Saint John Pl
Royal Xing
Lawnview Ln
Forrest Crossing Golf Club
Gardner Dr
Spring Cabin Ln
Dallas Blvd
Rigby Dr
Tonya Ct
Middleboro Cir
Bryana Ct
Adair Ct
Winder Cir
Link Dr
Dundee Dr
Galloway Dr
Falkirk Way
Benmore Dr
Applecross Ct
Madison Dr
McKenzie Ct
Allyson Ln
Inwood Way
Birkdale Ct
Rob Roy Ct
Holly Hill Dr
Shannon Ln
Kathleen Ct N
Ann Crockett Ct
Blakely Ct
Caroline Cir
Bryana Dr
Queens Ct
Eton Ct
Adelynn Ct N
Ascot Ln
Lee Cir
Reams Pl
Tattinger Ct
Grey Cliff Dr
Grey Cliff Ct
Corrine Ct
Maggie Ct
Oakwood Dr E
Castlewood Dr
Crossway Dr
Morriswood Dr
Collier Dr
Creekside Ct
Creekside Br
Oakwood Dr
Oakwood Rd
Oakwood Ct
Oakleaf Dr
Oakleaf Ct
Oak Cir
Oakbranch Cir
Isaac Ln
Jefferson Ct
Henpeck Ln
Valley Ridge Rd
Summer Hill Cir
Douglas
Sontag Dr
Jill Ct
Tiffany Ct
Caldwell Ct
Grove Ln
Karnes Dr
Gallagher Dr
Noah Dr
Wagon Ct
Jaclyn Ct
Tonya Ct
SE Parkway Ct
Southeast Pkwy
Through the Green
Alpha Dr
Century Ct
Beasley Dr
Columbia Ave
Columbia Pike
Hillview Ln
Lula Ln
Polk Creek
Incinerator Rd
Old Carters Creek Pike
Carters Creek Pike
Holton Ln
Bradford Dr
Cothran Dr
Dabney Dr
Carters Glen Pl
Panther Ct
Horton Ln
Verandah Ln
Lilac Cir
Hardison Dr
Sunwater Cv
Willowsprings Blvd
Turndale Ct
Brimstead Dr
Vera Valley Rd
Millbank Ln
Kings Bush Dr
Mill Ct
Evelyn Ct
Friars Bridge Pass
Kelly Ct
Westfield Dr
Boyd Mill Ave
Downs Blvd
Birchwood Cir
Drake Ct
Widogen Ct
Wildwood Ct
Redbud Ct
Mallard Ct
Skylark Ct
Rucker Ave
Franklin Estates MHP
Robin Hill Rd
Helping Hands Dr
W Meade Blvd
Eastview Cir
W Main St
Hill Dr
Perkins Dr
Figuers Dr
Battle Ave
Bostic St
Everbright St
Cannon St
Fairground St
Johnson Cir
Natchez St
Roberts St
Glass Ln
Glass Blvd
Sparks Creek
W Main St
N Petway St
Forrest St
Park St
W End Cir
Shawnee Dr
Acton St
Action St
Buford St
Berry Cir
Parkview Dr
Strahl St
Cleburne St
Jennings St
Battlefield Dr
Meadowlawn Dr
Carolyn Ave
James Ave
Sunset Dr
Brandon Dr
Carr Ave
Ruth Ct
Kinnard Dr
Cabot Dr
Lewisburg Ave
9th Ave S
Murfreesboro Rd
Tarragon Ct
Carnton Ln
Carnton Ln
Carnton Ln

Date: 12/16/14

windstream.

City of Franklin, TN
Engineering Department
Attn: David Parker, P.E.
109 Third Avenue South
Franklin, TN 37064

Dear Mr. Parker,

Enclosed please find a signed Right-of-Way Use Agreement between the City of Franklin, TN and Windstream KDL, Inc. Also included is a current map of our Telecommunications System (marked Exhibit A) located in the City's Rights-of-Way. If everything is in order, please place this agreement on the next available Board of Mayor and Aldermen meeting agenda for approval. Upon approval of the agreement, please email me an executed copy of the agreement at the address below. If anything else is needed, please feel free to contact me.

Thank you,

Autry L. Meeker

Autry L. Meeker
Sr. Analyst, OSP Engineering
Easements, Franchises, ROWs
Windstream Communications, Inc.
11101 Anderson Drive
Little Rock, AR 72212
P: 501-748-5234
autry.meeker@windstream.com

COF Contract No 2014-0297

This Instrument Was Prepared By:
City of Franklin, Tennessee
P.O. Box 305
Franklin, TN 37065

CITY OF FRANKLIN, TENNESSEE

RIGHT-OF WAY USE AGREEMENT

THIS RIGHT-OF-WAY USE AGREEMENT ("Agreement") is entered into effective the ____ day of _____, 201_, between the City of Franklin, a municipal corporation existing and operating under the laws of the State of Tennessee, ("City") located in Williamson County, and Windstream KDL, Inc., a corporation organized and existing under the laws of the State of Tennessee, ("Company") doing business within the State of Tennessee, with its principal place of business located at 11101 Anderson Drive; Little Rock, AR 72212 (collectively referred to as the "Parties").

R E C I T A L S

A. The City owns, manages and maintains rights-of-ways within its corporate limits; and

B. The Company desires to occupy the City's rights-of-ways to install, construct, operate, and maintain its telecommunications facilities and network for the purpose of providing voice, Internet and data services to its customers at locations within the City; and

C. The Parties desire to establish the terms and conditions of the Company's occupation and use of City's rights-of-ways.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein and other good and valuable consideration, receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

SECTION 1. Definitions. For the purposes of this Agreement, the following terms, phrases, words, and their derivations shall have the meanings given herein. When not inconsistent with the context,

words, using the present tense include the future tense, words in the plural number include the singular number, and words in the singular number include the plural number. The word "shall" is always mandatory and not merely directory.

(1) Windstream KDL, Inc. is the "Grantee" of the rights under this Agreement.

(2) "City" is the City of Franklin, Tennessee, a municipal corporation and is the "Grantor".

(3) "Day" or "Days" shall mean a calendar day or days.

(4) "FCC" shall mean the Federal Communications Commission, or any successor agency.

(5) "Person" is any, firm, partnership, association, corporation, company or organization of any kind.

(6) "Public Right-of-Way" shall mean real property; surface, subsurface and air rights; acquired by the City by any lawful means and includes the surface and that area below the surface which is necessary to support the public highway, street, avenue, road, lane, way, alley, path, bridge, tunnel, sidewalk, planting strip, median, public ground, or Public Utility Easement. No reference herein or in any franchise, or right-of-way agreement, for use of any public right-of-way shall be deemed to be a representation or guarantee by the City that its title to any public right-of-way or any improvement or object located therein is sufficient to permit or authorize its use by the Grantee.

(7) "Public Utility Easement" shall mean easements conveyed, granted or dedicated to the City or public dedicated or devoted to utility purposes not exclusive in nature for a particular utility, such as water, sanitary sewer, drainage, electrical, etc. Public Utility Easements are typically designated as Public Utility and Drainage Easement (PU&DE) on recorded plats.

(8) "Rights-Of-Way Use" shall mean the non-exclusive authorization granted as provided in this Agreement to occupy or use the public streets and/or rights-of-way within the City of Franklin for the construction, operation and maintenance of a telecommunications system within all or a portion of the City.

(9) "System" or "Telecommunications System" shall mean Grantee's network of cables (wires and/or fiber optic), lines, and any associated equipment, or facilities designed and constructed for the purpose of providing voice, Internet and data services to customers at locations within the City.

SECTION 2. Authority. There is hereby granted by the City to the Company, its successors and assigns, the non-exclusive right, authority, and privilege to erect, construct, operate and maintain a Telecommunications System in, upon, under, along, across and over the highways, streets, avenues, roads, alleys, lanes, ways, Public Utility Easements, parkways and other public grounds in the present or future corporate limits of the City, for the supplying and selling of telecommunication services to said City and the inhabitants, institutions and businesses thereof, and for such purposes to construct, maintain, operate, renew, replace, repair, and extend its System as may be necessary for said purposes.

SECTION 3. Term. This Agreement and the rights granted herein shall take effect and be enforced from and after the Effective Date hereof, as required by law, and shall continue in force for ten (10) years from and after the approval and execution by the Parties.

SECTION 4. Construction Standards. The Telecommunications System constructed, maintained and operated by virtue of this Agreement, shall be so constructed, maintained and operated in accordance with all applicable engineering codes adopted or approved by the City, State of Tennessee, federal government and/or engineering profession and in accordance with any applicable Statutes of the State of Tennessee, Rules and Regulations of the Tennessee Regulatory Authority, Ordinances of the City or of any other governmental regulatory commission, board or agency having jurisdiction over the Company. Said facilities shall be constructed as not to interfere with the drainage of City or unreasonably interfere with or injure any street, sewer, water main or any other public improvement which City has heretofore made or may hereafter make in, upon, along or under any highway, street, avenue, road, alley, lane, way, Public Utility Easement, parkway, or other public ground, or unnecessarily impede or obstruct such highways, streets, avenues, roads, alleys, lanes, ways, Public Utility Easements, parkways and other public grounds of City, and shall conform to the grade as then or hereafter established. The Company agrees to attempt to utilize known Public Right-of-Way whenever practical before resorting to right of condemnation to which the Company may be entitled to utilize by law.

The Company shall have the sole responsibility for obtaining, at its own cost and expense, all permits, licenses, or other forms of approval or authorization necessary to construct, operate, maintain or repair or expand the System, and to construct, maintain and repair any part thereof prior to commencement of any such activity.

SECTION 5. Construction Safety. When the highways, streets, avenues, alleys, road, lanes, ways, Public Utility Easements, parkways or other public grounds are opened, or any other opening is made by the Company within the City, whether the same be made for the purpose of laying, constructing, replacing or repairing the mains, pipes and other appliances and fixtures of the Company, the Company shall place and maintain necessary safety devices, barriers, lights and warnings to properly notify persons of any dangers resulting from such entrances, and shall comply with applicable

safety regulations required by federal, state and local laws.

SECTION 6. Protection of Trees. Trimming of trees and shrubbery within the public rights-of-way to prevent contact with the Company's facilities shall be done in such a manner to cause the minimum amount of damage to trees and shrubs. If trees in the public rights-of-way are excessively damaged as a result of the work undertaken by or on behalf of the Company, the Company shall pay the City within thirty (30) days of submission of a statement by the City, the cost of any treatment required to preserve a tree or shrub and/or cost for removal and replacement of the tree or shrub with landscaping of equal value and/or the value of the tree or shrub prior to the damage or removal, as determined by the City Engineer or other authorized agent of the City. Any trimming or removal of trees or shrubs shall be done in full compliance with the City's Tree Ordinance, Zoning Ordinance, and all other laws or regulations of the City.

SECTION 7. Relocation. In the event it becomes necessary or expedient for the City to change the course or grade, or to reconstruct, resurface, relocate or otherwise alter or improve (including, but not limited to, the installation, maintenance or repair of sidewalks, curbs, gutters, drainage facilities, water mains, sanitary sewer mains, traffic signals, trees or other street improvement amenities) of any highway, street, avenue, road, alley, way, public utility, parkway, or other public ground in which the Company is maintaining its Telecommunication System, then, upon the written request of the City, the Company shall, at its own cost and expense and within one hundred twenty (120) days, protect, remove, alter or relocate the System as necessary to conform to the proposed alteration. Notice to the Company will include detailed project plans and proposed project schedule. Relocation must be substantially complete prior to the City issuance of a Notice to Proceed to its general contractor for the project necessitating the relocation, unless in the opinion of the City Engineer the project coordination prohibits same. The Company's failure to comply with these provisions may be considered a breach of this Agreement and cause for termination of the Agreement and the City shall have the right to break through, remove, alter or relocate such part of the System, without any liability to the City, and the Company shall pay to the City the costs incurred in connection with such breaking through, removal, alteration or relocation.

SECTION 8. Construction Permit. Whenever the Company wishes to enter upon any Public Right-of-Way or Public Utility Easement for the purpose of constructing, replacing or repairing any portion of its System, it will, notify the City, file a plan or map of the proposed work and obtain a permit as required before commencing same. Whenever any Public Right-of-Way or other Public Utility Easement shall be entered, dug up or disturbed by the Company, the Company shall, at its expense and as soon as possible after the work is completed, restore such Public Right-of-Way or other Public Utility Easement in as good condition as existed before the work was done and to the reasonable satisfaction of the City. In the event the Company shall fail to fulfill its obligations under this Section, the City, after giving the Company reasonable written notice, and failure of the Company to make such repairs or restoration, may make the necessary restoration or repairs itself and the Company shall be liable for the cost of same.

The provisions of this Section shall not be applied or interpreted in such a way as to prevent or delay Company work that may be required as a result of any emergency, leak or other immediate hazard or danger. Likewise, the provisions of this Section anticipate that the Company shall not be unreasonably denied permission to perform necessary work.

SECTION 9. Map of System. A current map or map of the proposed facilities of the Telecommunication System is hereby attached as Exhibit "A" and provided on a CD formatted using ARC Info for inclusion in the City's GIS mapping. An annual construction work plan for any proposed additions to the Telecommunications System within the City shall be filed with the City Engineer upon annual approval of such plan by the Company. Company shall file a complete new "as built" System map with the City Engineer, updated upon the request of the City, within a reasonable time of such request, but no less frequently than every twelve (12) months showing the location of the Company's System within the City. Except as provided herein, this section shall not be construed nor is it intended to require the approval of the City of the Company's construction and projects for services within the City.

SECTION 10. Utility Easements. Nothing contained herein shall be construed as preventing the Company from installing, placing, replacing, taking up, repairing, maintaining, or removing any portion of its System, from using any Public Utility Easements for telecommunication service which are shown on any plats of any portion of the City hereto or hereafter platted or recorded, or any such Public Utility Easement which may hereafter be created, granted or dedicated for any such utility purpose by any person, form or corporation whatsoever.

SECTION 11. Liability. The Company shall at all times indemnify and hold harmless the City from and against any and all lawful claims for injury, including death, to any person or property by reason of the Company or its employees' failure to exercise due care and diligence in and about the installing and maintenance of said System, guarding trenches and excavation while said System is being installed or subsequent extensions, repairs or alterations are being made or generally in the operation and maintenance of said System, provided the Company shall have been notified in writing of any claim against the City on account thereof, and shall have been afforded the opportunity fully to defend the same.

The Company shall comply with all provisions of the workers' compensation laws of the State of Tennessee and the federal government and Tennessee Employment Security laws (including unemployment compensation), and with all state and federal laws regulating the operation and maintenance of business enterprises and the employment of personnel.

SECTION 12. Fees. The Company shall pay to the City a fee in the amount equal to the cost incurred by the City in the issuance of the construction permit and the supervision of the Company's Rights-Of-Ways Use. Fees shall include, without the implication of limitation, costs itemized in the Schedule of Fees, attached hereto and incorporated herein by reference as Exhibit B. Said fees shall be due and payable at the time of the issuance of the construction permit. The City may increase the fees set forth in Exhibit B no more often than once in a twelve (12) month period, upon thirty (30) days written notice, to cover any increased costs of issuing the permit and supervising the Rights-of-Way.

SECTION 13. Local Office Compliant Procedures. During the term of this Agreement, and any renewal thereof, the Company shall maintain within twenty-five (25) miles of the City limits of the City of Franklin a business office or agent for the purpose of receiving and resolving all complaints regarding the quality of service, new service equipment malfunction, and similar matters. The local office shall be open to receive inquiries or complaints from subscribers during normal business hours, and in no event less than 9:00 a.m. to 4:00 p.m., Monday through Friday. Any complaints from subscribers may be made orally or in writing and shall be investigated and acted upon as soon as possible, but at least within ten (10) business days of their receipt. The Company shall keep a log of complaints and actions taken concerning each complaint. This log shall be available for periodic inspection by the City.

SECTION 14. Sale or Transfer. No sale or transfer of the Telecommunication System, or the transfer of any rights under this Agreement shall be effective until the assignee or lessee has filed in the Office of the City Recorder for the City of Franklin an instrument, duly executed, reciting the fact of such sale, assignment or lease, accepting the terms of this Agreement, and agreeing to perform all the conditions thereof.

SECTION 15. Sundry Provisions. The Company will not refuse to hire or employ, nor bar or discharge from employment, nor discriminate against any person in compensation or in terms, conditions, or privileges of employment because of race, creed, religion, national origin, sex or age. The Company shall establish, maintain and effect equal employment policies and procedures set forth both by federal statute and pursuant to the rules of any applicable governmental agency to extent applicable to the Company. Such policies and procedures shall be made known to the general public. The Company shall establish a system and a procedure for the periodic review of its employment practices and procedures to ensure their compliance with federal statutes and the rules promulgated by applicable governmental agencies. The Company shall further carry out a periodic review of its employment practices to determine whether unfair or discriminatory practices occur and, if so, shall make all necessary changes.

SECTION 16. Force Majeure. Company shall not be required to perform any covenant or obligation in this Agreement, or be liable in damages to the City, so long as the performance or non-performance of the covenant or obligation is delayed, caused or prevented by an act of God, force majeure or by the other party. An "act of God" or "force majeure" is defined for purposes of this Agreement as strikes, lockouts, sit-downs, material or labor restrictions by any governmental authority, unusual transportation delays, riots, floods, washouts, explosions, earthquakes, fire, storms, weather (including wet grounds or inclement weather which prevents construction), acts of the public enemy, wars, terrorism, insurrections, and/or any other cause not reasonably within the control of Company or which by the exercise of due diligence Company is unable wholly or in part, to prevent or overcome.

SECTION 17. Applicable Law; Choice of Forum/Venue. These Standard Terms and Conditions are made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to any state's choice-of-law rules. The choice of forum and venue shall be exclusively in the Courts of Williamson County, Tennessee.

SECTION 18. Acceptance. The Company shall acknowledge the terms and conditions of this Agreement by the verified signature of an officer of the Company authorized to act on its behalf. After such execution, this Agreement shall constitute a contract between the Parties and shall, subject to the rights and powers vested in the Tennessee Regulatory Authority or such other regulatory body of the State of Tennessee as may hereafter succeed to the rights and powers of the Tennessee Regulatory Authority or as may exercise statutory jurisdiction of telecommunication companies furnishing telecommunication service in the State of Tennessee, be the measure of the rights, powers, obligations, privileges and liabilities of said City and of said Company.

SECTION 19. Successors and Assigns. All the privileges given and obligations created by this Agreement shall be binding upon the successors and assigns of the Company.

SECTION 20. Severability. If any section or portion of any section, of this Agreement shall

hereafter be declared or determined by any court of competent jurisdiction to be invalid, the remaining provisions of this Agreement shall remain in full force and effect.

SECTION 21. Effective Date. This Agreement shall take effect and be in force immediately upon its approval and execution by the Company and the City and approval by the Board of Mayor and Aldermen of the City.

IN WITNESS WHEREOF, the authorized representatives of the Parties affix their signatures hereto effective as of the day and date first above written.

ATTEST:

By: _____
Eric S. Stuckey
City Administrator

Date: _____

CITY OF FRANKLIN, TENNESSEE

By: _____
Dr. Ken Moore
Mayor

Date: _____

Approved As To Form:

By: _____
Shauna Billingsley
City Attorney

WINDSTREAM KDL, INC.

By: Stacy M. Light
Stacy M. Light
Manager-OSP Engineering

Date: 12/16/14

EXHIBIT B

SCHEDULE OF FEES

I. ROADWAY CUTS

Permit Fees

First 30 Linear Feet:	$50.00
Each Additional Linear Foot:	$5.00
Maximum Fee:	$200.00

BOND AMOUNT

Min Bond for 30' or less:	$4500.00 ($150.00 / ft. x 30')
Over 30 Linear Feet:	$150.00 per linear foot

II. RIGHT-0F-WAY CUTS

Permit Fees

First 100 Linear Feet:	$100.00
Each Additional Linear Foot:	$0.50

III. BOND AMOUNT

Per Linear Foot:	$25.00

City of Franklin, Tennessee

Tabulation of Submittals*

Purchasing Office Solicitation No.:	**2015-011 (physical medical exam services for uniformed personnel of the Franklin Fire**
Notice to proposers published in the *Williamson Herald* on:	**10/23/14**
Number of potential proposers that were notified of / that submitted a proposal in response to this request for proposals:	**8 / 3**
Date and time proposal due and publicly opened:	**11/25/14 2:00 PM**
Present at opening of proposals:	**Tyler Crews of the City of Franklin Fire Department; and Dee Settle, Suzanne Ward and Brian Wilcox of the City of Franklin Purchasing Office**
Target meeting of BOMA at which recommendation will be considered:	**1/13/15**

Proposals received from:	**Does the proposal include all required documents?**	**Does the proposal take any exceptions to the City's procurement solicitation? / If so, how many?**	**Average points allocated by proposal evaluation team (out of a possible 100, utilizing evaluation criteria as listed in RFP):**	**Payment terms:**	**Proposal is valid and may be accepted through:**
Lifesigns / The Prevention Group 105 Westwood Place, Suite 350 Brentwood, TN 37027 Laura Abston, Director of Center Operations 615/371-3000 Ext. 1101 labston@Lifesignsmd.com	Yes	Proposer takes no exceptions to procurement process	73.50	Net 30 days	5/1/2015
Professional Health Services, Inc. 83 South Eagle Rd. Havertown, PA 19083 David P. Hartman, Sales Manager 610/853-1330, ext. 156 dhartman@phsmobile.com	Yes	Proposer takes no exceptions to procurement process	72.00	Net 30 days	3/31/2015
SiteMed North America LLC 112 Donmoor Ct. Garner, NC 27529 Vanessa Flores Medina, COO 919/661-3779 vflores@sitemed.net	Yes	Proposer takes no exceptions to procurement process	66.00	Net 30 days	3/1/2015

*Shaded submittal is the submittal scored highest by the interview team

City of Franklin, Tennessee

Tabulation of Bids*

Purchasing Office Solicitation No.:	**2015-017 (supply and delivery of firefighting nozzles and hydrant wyes)**
Notice to Bidders published in the *Williamson Herald* on:	**11/20/14**
Number of vendors that were notified of / that responded to this solicitation for bids:	**5 / 4**
Date and time bids due and publicly opened:	**12/4/14 2:00 PM**
Present at opening of bids:	**Don Ballington of Cumberland; Robby Hall of Safe Industries; Tyler Crews and Todd Horton of the City of Franklin Fire Department; and Dee Settle, Suzanne Ward and Brian Wilcox of the City of Franklin Purchasing Office**
Target meeting of BOMA at which recommendation will be considered:	**1/27/15**

Bids received from:	Does the bid include all required documents?	Specification No.:	Quantity:	Description:	Warranty duration, years:	Total delivered bid price, per unit:	Extended pricing:	Does the bid MOES[1]? / If not, how many exceptions do not MOES[1]?	Payment terms:	Estimated time of delivery after receipt of order:	Bid and bid pricing is valid through:	Bid pricing valid for potential future orders:
Cumberland 1901 Lebanon Pike Nashville, TN 37210 Don Ballington, Fire Apparatus Sales 615/829-7921 dballington@cltte.com	Yes	11.4.7	46	Akron brass 1-1/2" break-apart nozzle shutoff and fog tip	5 / 10	$557.00	$25,622.00	No / 2 (Pricing shall be extended for only 1 additional order; additional order must be placed prior to 7/1/15)	Net 30 days	45 days	02/28/15	07/01/15
		11.4.8	12	Akron brass 2-1/2" break-apart nozzle with shutoff and fog tip	5 / 10	$635.00	$7,620.00					
		11.4.9	14	Akron brass 2-1/2" break-apart nozzle with plain tip	5	$343.00	$4,802.00					
		11.4.10	7	Gated Akron brass 2-1/2" hydrant wye	5	$797.00	$5,579.00					
		Grand Total					$43,623.00					
MES 6701-C Northpark Blvd. Charlotte, NC 26216 Keith Crowell, Middle Tennessee Sales 615/200-6371 kcrowell@mesfire.com	Yes	11.4.7	46	Elkhart brass 1-1/2" break-apart nozzle shutoff and fog tip	5 / 10	$647.10	$29,766.60	No / 12 (primarily part number/style and trade-name substitutes)	Net 30 days	60 days	03/01/15	08/01/15
		11.4.8	12	Elkhart brass 2-1/2" break-apart nozzle with shutoff and fog tip	5 / 10	$739.00	$8,868.00					
		11.4.9	14	Elkhart brass 2-1/2" break-apart nozzle with plain tip	5	$418.70	$5,861.80					
		11.4.10	7	Gated Elkhart brass 2-1/2" hydrant wye	5	$911.30	$6,379.10					
		Grand Total					$50,875.50					

[1]**MOES indicates "meet(s) or exceed(s) specifications"**

*__Shaded bid is apparent lowest best bid__

City of Franklin, Tennessee

Tabulation of Bids*

Purchasing Office Solicitation No.:	**2015-017 (supply and delivery of firefighting nozzles and hydrant wyes)**
Notice to Bidders published in the *Williamson Herald* on:	**11/20/14**
Number of vendors that were notified of / that responded to this solicitation for bids:	**5 / 4**
Date and time bids due and publicly opened:	**12/4/14 2:00 PM**
Present at opening of bids:	**Don Ballington of Cumberland; Robby Hall of Safe Industries; Tyler Crews and Todd Horton of the City of Franklin Fire Department; and Dee Settle, Suzanne Ward and Brian Wilcox of the City of Franklin Purchasing Office**
Target meeting of BOMA at which recommendation will be considered:	**1/27/15**

Bids received from:	Does the bid include all required documents?	Specification No.:	Quantity:	Description:	Warranty duration, years:	Total delivered bid price, per unit:	Extended pricing:	Does the bid MOES[1]? / If not, how many exceptions do not MOES[1]?	Payment terms:	Estimated time of delivery after receipt of order:	Bid and bid pricing is valid through:	Bid pricing valid for potential future orders:
North America Fire Equipment Co., Inc. (NAFECO) 1515 West Moulton Street Decatur, AL 35601 Ronald Woodall, Vice President 800/628-6233 ronald.woodall@nafeco.com	Yes	11.4.7	46	Akron brass 1-1/2" break-apart nozzle shutoff and fog tip	5 / 10	$699.97	$32,198.62	Bidder takes no exceptions	Net 30 days	30 days	07/31/15	07/31/15
		11.4.8	12	Akron brass 2-1/2" break-apart nozzle with shutoff and fog tip	5 / 10	$849.94	$10,199.28					
		11.4.9	14	Akron brass 2-1/2" break-apart nozzle with plain tip	5	$478.66	$6,701.24					
		11.4.10	7	Gated Akron brass 2-1/2" hydrant wye	5	$1,073.60	$7,515.20					
		Grand Total					$56,614.34					
Safe Industries 133 Charter Place Lavergne, TN 37086 Robby Hall, Sales Associate 615/335-7785 rhall@safeindustries.com	Yes	11.4.7	46	Akron brass 1-1/2" break-apart nozzle shutoff and fog tip	5 / 10	$736.00	$33,856.00	Bidder takes no exceptions	Net 30 days	30-60 days	02/28/16	02/28/16
		11.4.8	12	Akron brass 2-1/2" break-apart nozzle with shutoff and fog tip	5 / 10	$885.00	$10,620.00					
		11.4.9	14	Akron brass 2-1/2" break-apart nozzle with plain tip	5	$503.00	$7,042.00					
		11.4.10	7	Gated Akron brass 2-1/2" hydrant wye	5	$1,128.00	$7,896.00					
		Grand Total					$59,414.00					

[1]MOES indicates "meet(s) or exceed(s) specifications"

*Shaded bid is apparent lowest best bid

CITY OF FRANKLIN, TENNESSEE
PROCUREMENT AGREEMENT

(City of Franklin Contract No. 2014-0346)

THIS PROCUREMENT AGREEMENT ("AGREEMENT") is by and between the City of Franklin, Tennessee ("CITY"), and North America Fire Equipment Co., Inc., also known as NAFECO, ("VENDOR"), who mutually agree as follows:

1. CITY issued on November 21, 2014 Purchasing Office Solicitation No. 2015-017, a procurement solicitation for bids for supply and delivery of firefighting nozzles and hydrant wyes ("SOLICITATION"), a copy of which is attached hereto as Attachment No. 1 and hereby incorporated by reference as if fully set forth herein.

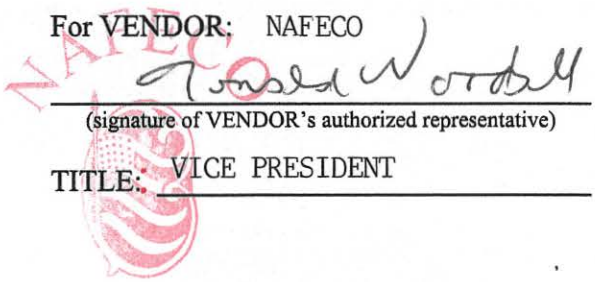
2. In response to CITY's SOLICITATION, VENDOR submitted a bid dated December 2, 2014 ("SUBMITTAL"), a copy of which is attached hereto as Attachment No. 2 and hereby incorporated by reference as if fully set forth herein.

3. CITY awarded on January 27, 2015 and now desires to place an order from VENDOR for supply and delivery of firefighting nozzles and hydrant wyes pursuant to SOLICITATION and SUBMITTAL. The total value of the award is $56,614.34.

4. In the event of a conflict between CITY's SOLICITATION and VENDOR's SUBMITTAL, CITY's SOLICITATION shall supersede any conflicting terms and conditions within VENDOR's SUBMITTAL, except for any exceptions identified by VENDOR in its SUBMITTAL and accepted at the time of award by CITY.

EXECUTED THIS _____ DAY OF _____ 20__.

For VENDOR: NAFECO



(signature of VENDOR's authorized representative)

TITLE: VICE PRESIDENT

For CITY:

_____

(signature of CITY's authorized representative)

TITLE: Mayor

Approved as to Form:

_____

Attorney for City of Franklin

CITY OF FRANKLIN, TENNESSEE
PROCUREMENT AGREEMENT

(City of Franklin Contract No. 2014-0346)

Attachment No. 1

SOLICITATION

NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that the City of Franklin, TN, will receive sealed written bids in the City's Purchasing Office, City Hall, Suite 107, 109 3rd Avenue South, Franklin, TN 37064, until 2:00 p.m. Central Time on December 4, 2014, at which time and location they will be publicly opened, for the following procurement: supply and delivery of firefighting nozzles and hydrant wyes (Purchasing Office Solicitation No. 2015-017). Bids must be prepared and submitted in accordance with the City of Franklin's specifications and other procurement documents pertaining to this solicitation, including any addenda that may be issued, available on the Business Opportunities page of the City's website (http://www.franklintn.gov/) or by contacting the City of Franklin Purchasing Office (purchasing@franklintn.gov; 615/550-6692). The City reserves the right to reject any and all bids, and to waive formalities.

{text below this line not to be published}

DATE OF PUBLICATION OF THIS NOTICE TO BIDDERS: **November 20, 2014**

City of Franklin Instructions for Bidders

Purchasing Office Solicitation No.: 2015-017

1. Solicitation identified: These instructions apply to the following procurement:

   supply and delivery of firefighting nozzles and hydrant wyes

   Purchasing Office Solicitation No.: 2015-017

2. Solicitation packet component documents: These Instructions for Bidders accompany the following documents which, in total, represent the complete solicitation packet:

   a. Notice to Bidders;
   b. City of Franklin Instructions for Bidders (this document);
   c. City of Franklin specifications;
   d. City of Franklin Bid Submittal Form;
   e. City of Franklin Affidavit of Non-Collusion;
   f. City of Franklin Standard Procurement Terms and Conditions; and
   g. City of Franklin Procurement Agreement form.

3. Location of bid opening: Bid opening will be held in the City of Franklin Purchasing Office (see address below, under "Delivery of bids"), or at another location within the City of Franklin City Hall. If the location of the bid opening is other than at the Purchasing Office, such location shall be posted on the front door of the Purchasing Office at least five (5) minutes before the appointed time of bid opening.

4. Who may attend bid openings: City of Franklin bid openings are open to the public. Bidders are specifically welcome to attend.

5. Withdrawal of bids; expiration of submittal validity (see also "Errors and omissions" below):

   a. Before the bid submittal deadline, submitted bids may be withdrawn upon the request of the submitting party. At the request of the submitting party, withdrawn bids may be returned unopened to the submitting party but only at the submitting party's expense. Such a request to withdraw a bid and such a request to return a withdrawn bid must be in writing, shall be addressed to the Purchasing Office, must be received by the Purchasing Office before the bid submittal deadline, and may be submitted via either e-mail (purchasing@franklintn.gov) or fax (615/550-0079).

   b. After the bid submittal deadline, submitted bids may not be withdrawn.

   c. Before award, all bids and associated pricing as submitted shall be considered valid and may be accepted by the City at least through **February 28, 2015** and until the date indicated on the bidder's Bid Submittal Form as the "last date that bid and associated pricing is valid and may be accepted by the City," up to when the specified item is no longer available for purchase new.

   d. After award, the accepted bid and associated pricing shall be considered valid until the specified item has been supplied and delivered to the satisfaction of the City of Franklin. However, quoted bid prices are to be offered by the bidder on a per unit basis for potential future orders at least through **July 31, 2015** and until the date indicated on the bidder's Bid Submittal Form as the "last date that bid pricing on a per unit basis is valid for potential future orders," up to when the specified item is no longer available for purchase new.

6. Submittal timing: Bids are to be delivered *no earlier than* five (5) City of Franklin business days before the submittal deadline. Bids delivered either more than five (5) City of Franklin business days before the submittal deadline or at any time after the submittal deadline shall be rejected and not evaluated.

7. Submittals rejected on account of timing: Submitters of bids rejected on account of timing shall be notified by the City of such rejection as soon as practicable. Bids rejected on account of timing may be retrieved by the submitter at the submitter's expense. The City shall promptly cause to be destroyed and discarded any and all bids rejected on account of timing and not retrieved by the submitter within five (5) City of Franklin business days of the submitter being notified of the rejection.

8. Bid to be sealed: Each bid shall be submitted inside one (1) or more sealed container(s).

9. Submittal to include one (1) set of original documents plus two (2) complete duplicate sets: Please submit one (1) set of bid documents with original signatures plus two (2) complete duplicate sets.

10. Bid submittal contents: Included with the bid are to be the following:

    a. City of Franklin Bid Submittal Form, executed in full;
    b. Detailed vendor-supplied description of bid product(s) or item(s);
    c. Detailed vendor-supplied description of the warranties included in the pricing;
    d. City of Franklin specifications for this procurement, marked by the bidder as to compliance therewith as per the instructions therein;
    e. Detailed vendor-supplied identification, listing and description of any exceptions to the written specifications as per the instructions therefor;
    f. Vendor-supplied contact information for a minimum of three references (see below);
    g. City of Franklin Standard Procurement Terms and Conditions, with the vendor's contact information inserted;
    h. Vendor's proposed terms and conditions, if any, that are not inconsistent with the City's Standard Procurement Terms and Conditions; and
    i. City of Franklin Affidavit of Non-Collusion, executed in full.

11. Bid container label: The outside face of the bid container(s) must be labeled with the following information:

    a. the bidder's name and address; and

    b. the following text:

SEALED BID
City of Franklin solicitation no. 2015-017 (firefighting nozzles and hydrant wyes)
NOT TO BE OPENED EXCEPT AT BID OPENING **December 4, 2014, 2:00 p.m. Central Time**

12. Delivery of bids:

    a. Bids are to be addressed and delivered to:

       City of Franklin Purchasing Office
       Franklin City Hall, Suite 107
       109 3rd Ave. South
       Franklin, TN 37064

    b. Bids must be printed on paper and signed. A bid may be mailed via U.S. Mail or shipped or hand-delivered via courier. Bids submitted to the City electronically (e.g., via e-mail or fax) are not permitted and shall be rejected.

    c. A bid is not considered delivered unless and until it has been received by the City of Franklin Purchasing Office at the physical location listed above. A bid that is en route via U.S. Mail or courier, or delivery of a bid to another City office or location, does not in and of itself constitute delivery of that bid to the City of Franklin Purchasing Office.

    d. The Purchasing Office shall exclusively determine whether a bid was received before the submittal deadline, and shall use the most accurate time piece available in its office as an aide to doing so.

13. Reference request: Bidders must provide three references for similar goods or products sold within the last twelve months. Information to be provided shall include: client name, client address, description of good or product sold, contact name and title, and contact telephone number.

14. Selection criteria: Selection of the lowest and best responsive and responsible bid shall be based upon a combination of some or all of the following factors: the quoted purchase costs and/or life-cycle costs to the City of bids that are responsive to the solicitation; compliance with the City's instructions, specifications and standard procurement terms and conditions; any terms and conditions stated by the bidder in the bid; anticipated timeliness of delivery of the bid item(s); the character, integrity and reputation of the bidder; the results of any reference checks; and any prior experience of the City of Franklin with the bidder and/or the bid item(s) and/or any component thereof.

15. Bid tabulation; notice of intent to award: The tabulation of bids received, as prepared by the City, may also indicate a recommendation as to the selection of the lowest and best responsive and responsible bid, in which case the tabulation of bids received also functions as the City's notice of intent to award. Bidders may request a copy of the tabulation of bids received by contacting the City's Purchasing Office (see contact information below) at any time on or after the tentative date of release of the City's tabulation of bids received and notice of intent to award (see Specifications).

16. Awards to be made by BOMA: Purchases shall be awarded by the City of Franklin's Board of Mayor and Aldermen. See Specifications for tentative date of award. Purchases shall be awarded to the bidder who submits the lowest and best responsive and responsible bid.

17. Other documents to be required of successful bidder: Before award of the procurement by the City, the successful bidder (that is, the vendor who is recommended be awarded the purchase) shall provide the following documents:

    a. Vendor-supplied agreement or contract, if any, by and between the City and the bidder to be awarded the procurement, the final terms and conditions of which are mutually acceptable to both parties, executed for the vendor;
    b. City of Franklin Procurement Agreement, executed for the vendor; and
    c. If the vendor prefers to be paid by direct deposit (such as "ACH" or "Electronic Funds Transfer") as opposed to credit card, and if the vendor has not been paid by the City by means of direct deposit within the last two (2) years, then the vendor shall submit a completed City of Franklin Vendor Information Form and IRS Form W-9 (both of which forms are available upon request from the Purchasing Office).

18. City's right to reject bids, waive formalities: The City of Franklin reserves the right to reject any and all bids, and to waive formalities.

19. Errors and omissions (see also "Withdrawal of bids; expiration of submittal validity" above):

    a. Errors made by the bidder on the Bid Submittal Form or elsewhere in the bidder's submittal packet that are discovered by the bidder before submittal shall be corrected by the bidder. If such a correction results in altering but not replacing one or more documents, then the bidder's representative shall initial each such correction in non-erasable ink.

    b. Errors made by the bidder on the Bid Submittal Form or elsewhere in the bidder's submittal packet that are discovered by the bidder after submittal but before the bid submittal deadline may be corrected by the bidder but only by submitting such replacement documents as necessary to make the correction. Such a submittal of replacement documents shall be labeled "SEALED AMENDED BID" and shall otherwise be submitted pursuant to the same instructions above as for the submittal of the original bid documents. Such a submittal of replacement documents shall not be submitted electronically, and shall not be submitted after the bid submittal deadline.

    c. Uncorrected errors made by the bidder on the Bid Submittal Form or elsewhere in the bidder's submittal packet shall be considered on a case-by-case basis by the City. Uncorrected errors made by the bidder may be deemed by the City to be so severe as to make the bid non-responsive. At the discretion of the City, bidders may be permitted to clarify a submitted bid, but no bid shall be altered or amended by the bidder after submittal. In the case of a discrepancy between the bidder's unit price for a particular line item as quoted in the bid and the unit price calculated by dividing the bidder's extension price for that same line item by the quantity indicated for that same line item, then the bidder's unit price for that line item as quoted in the bid shall prevail.

    d. Omissions from a bidder's submittal packet shall be considered on a case-by-case basis by the City. Omissions may be deemed by the City to be so severe as to make the bid non-responsive. At the discretion of the City, bidders may be permitted to clarify a submitted bid, but no bid shall be altered or amended by the bidder after submittal.

20. Questions, requests for clarifications, and requests to revise the procurement solicitation; addenda: To ask questions, to request clarifications about any aspect of this procurement solicitation, or to request revisions to the procurement solicitation before the deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of the procurement solicitation, please contact:

    City of Franklin Purchasing Office (see address above)
    purchasing@franklintn.gov
    Tel: 615/550-6692
    Fax: 615/550-0079

    Depending upon the inquiry, the City may request that the question, request for clarification, or request for revision be submitted in writing, whereupon the City may make all vendors known or thought to be interested in the solicitation aware of the inquiry and of the City's response thereto.

    Addenda to this procurement solicitation may be issued. Before submitting its response, it is the responsibility of each respondent to confirm whether any addenda to this procurement solicitation have in fact been issued by the City. To do so, please contact the City's Purchasing Office (see contact information above).

21. Communication with City during procurement phase: Any questions about either the content of or the procurement process pertaining to this procurement solicitation should be addressed as described above. Until the procurement award has been made, vendors shall not communicate about either the content of or the procurement process pertaining to this procurement solicitation with any official, employee or other representative of the City except through the City's Purchasing Office. The City reserves the right to disqualify any vendor that initiates unauthorized communication with the City during the procurement phase.

22. Vendor protest: A vendor who feels the need to object to either a deficiency of this procurement solicitation or a proposed award pertaining to this procurement solicitation are encouraged, as soon as possible, to express their concerns to and seek remedy from the Purchasing Manager (see contact information above). Vendors who are not satisfied with, or who choose not to pursue, such an informal resolution of their concerns and who feel compelled to lodge a formal protest about some aspect of a City procurement not pertaining to new construction shall do so pursuant to the City's Vendor Protest Procedure for City procurements not pertaining to new construction, a mandatory administrative procedure which all aggrieved actual or prospective vendors must utilize and exhaust prior to seeking judicial review or remedy. For a copy of the City's Vendor Protest Procedure for City of Franklin procurements not pertaining to new construction, please contact the City's Purchasing Office (see contact information above) or click on the following link: http://www.franklintn.gov/government/finance-administration/purchasing-office/vendor-protest-procedure.

City of Franklin Specifications

Purchasing Office Solicitation No.: 2015-017

1. Solicitation identified: These specifications apply to the following procurement:

   supply and delivery of firefighting nozzles and hydrant wyes

   Purchasing Office Solicitation No.: 2015-017

2. Notice to Bidders publication date: **November 20, 2014**

3. Solicitation release date: **November 21, 2014**

4. Deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of this procurement solicitation: **November 25, 2014, 2:00 p.m. Central Time**

5. Bids submittal deadline and scheduled opening: **December 4, 2014, 2:00 p.m. Central Time**

6. Tentative date of release of City's tabulation of bids received and notice of intent to award: **January 9, 2015**

7. Tentative date of award: Meeting of Board of Mayor and Aldermen at which is tentatively scheduled to be awarded the selection of the lowest and best responsive and responsible bid: **January 27, 2015**

8. Objective: To secure, by means of a competitive procurement process, the selection of the lowest and best responsive and responsible bid from a vendor to furnish all materials and means necessary to supply and deliver to the City of Franklin Fire Department firefighting nozzles and hydrant wyes as specified below. See the accompanying Instructions for Bidders for additional information and instructions.

9. Exceptions:

   a. In order to avoid the need to take an exception to a specification, potential bidders may request revisions to the specifications before the deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of the specifications. See the accompanying Instructions for Bidders for contact information.

   b. Any deviation or variance from the City's specifications shall be considered to be an exception.

   c. Any exceptions to the City's specifications shall be identified by the bidder on the City's specifications document as well as listed and described in detail, along with any other exceptions to this procurement solicitation, in a separate written document to be prepared and submitted by the bidder, referencing any subsection number. Such listing

shall include a description of exactly how such exceptions deviate from the City's expectations as expressed and implied by the procurement solicitation, and shall indicate why such exceptions should be judged by the City to meet or exceed those expectations. Any and all exceptions to this procurement solicitation which the City, in its sole discretion, deems not to meet or exceed the City's intention as expressed and implied by the procurement solicitation may be considered by the City as a factor in evaluating the bid.

10. General terms and conditions:

    a. Bid price: The bid price shall include all equipment, labor, materials, permit(s), freight and required insurance to supply and deliver the specified products.

    b. Delivery terms: As a matter of practice, the City of Franklin expects vendor to ship any and all deliverables FOB destination, freight prepaid and added. The City's preferred delivery terms, as described in the preceding sentence, are offered to the bidder or proposer as a condition of award. If the City's preferred delivery terms are unacceptable to the bidder or proposer, then the bidder or proposer shall indicate on the Submittal Form its preferred delivery terms. Delivery terms may be a factor in the City's selection criteria. Delivery terms are non-negotiable after award is made.

    c. Payment terms: As a matter of practice, the City of Franklin pays for goods and/or services only after receipt and acceptance by the City of such goods and/or services, and only after receipt of an accurate, proper, complete and itemized invoice for such goods and/or services, net 30 calendar days from date of delivery and/or completion/installation/rendering or date of invoice, whichever is later. The City's preferred payment terms, as described in the preceding sentence, are offered to the bidder or proposer as a condition of award. If the City's preferred payment terms are unacceptable to the bidder or proposer, then the bidder or proposer shall indicate on the Submittal Form its preferred payment terms. Payment terms may be a factor in the City's selection criteria. Payment terms are non-negotiable after award is made.

    d. Applicable laws and regulations: All applicable federal and state laws, city ordinances, orders, rules and regulations of all authorities having jurisdiction over the specified products shall apply to the quoted purchase price, and they will be deemed to be included in these specifications the same as though they are written out in full herein.

    e. Standard Procurement Terms and Conditions: By submitting its bid, the vendor certifies that it has read and accepts all terms, conditions and requirements of this solicitation, including the terms and conditions identified and listed in the City of Franklin Standard Procurement Terms and Conditions attached hereto and hereby incorporated by reference.

    f. Refusal to honor submittal: If and after an award is made by the City, if the vendor refuses to execute an agreement or contract or in any other way honor the terms and conditions of its submittal, the City shall be entitled to seek compensation for its damages, which may include the cost of conducting a new solicitation.

g. Confidential and/or proprietary information; trade secrets. All contents of all submittals are subject to public disclosure and shall not contain any confidential and/or proprietary information and/or trade secrets. Further, by submitting its bid, the vendor indemnifies and holds the City of Franklin harmless against any loss or damage, including reasonable attorney fees, it may incur as a result of the City's reliance upon the vendor's representation that materials supplied by the vendor do not contain trade secrets or proprietary information which is not subject to public disclosure.

11. Detailed specifications: Please note:

- Bidders are required to submit with their bid a detailed description of all bid products and/or items.
- Bidders are required to mark with a "C" the blank line next to any specification below to which their bid COMPLIES.
- Bidders are required to mark with an "E" the blank line next to any specification below to which their bid takes EXCEPTION.
- Any exceptions to the City's specifications shall be identified by the bidder on the City's specifications document as well as listed and described in detail, along with any other exceptions to this procurement solicitation, in a separate written document to be prepared and submitted by the bidder, referencing any subsection number. Such listing shall include a description of exactly how such exceptions deviate from the City's expectations as expressed and implied by the procurement solicitation, and shall indicate why such exceptions should be judged by the City to meet or exceed those expectations.
- Bidders are required to submit with their bid these Specifications for this procurement, marked by the bidder as to compliance herewith as per the instructions above.

11.1. General.

11.1.1. _____ City intends for the Franklin Fire Department to use the specified nozzles and wyes on firefighting hand lines in the activity of fire suppression. Items as bid shall be designed and manufactured according to industry standards for this intended use.

11.1.2. _____ Nozzles and wyes are to be purchased new and unused by the City.

11.1.3. _____ Purchased nozzles and wyes shall be of current production only.

11.1.4. _____ The quantities of items to be ordered upon award of the bid are noted below. However, quoted bid prices are to be offered by the bidder on a per unit basis for potential future orders at least through July 31, 2015 and until the date indicated on the bidder's Bid Submittal Form as the "last date that bid price on a per unit basis is valid for potential future orders," up to when the specified item is no longer available for purchase new.

11.2. **Warranty.**

11.2.1. _____ Manufacturer's warranty, for durations not less than the durations indicated below, shall be included in the bid.

11.2.2. _____ Bidder shall indicate the durations of the manufacturer's warranty on the Bid Submittal Form.

11.2.3. _____ Bidder shall supply a description of the manufacturer's warranty along with the Bid Submittal Form.

11.3. **Delivery, Documentation and Training.**

11.3.1. _____ Vendor shall indicate on the Bid Submittal Form the estimated time of delivery, measured in number of calendar days after receipt of order.

11.3.2. _____ Vendor specifically acknowledges and accepts City's standard delivery terms as expressed under "General terms and conditions" above.

11.3.3. _____ Vendor shall include delivery and unloading or offloading and deposit of the nozzles and wyes at the following location:

City of Franklin Fire Department Headquarters
Franklin City Hall
109 3rd Ave. South
Franklin, TN 37064

11.3.4. _____ Vendor shall provide any labor and equipment necessary to unload or offload the deliverable in a manner (a) consistent with best practices for shipping and receiving, (b) that does not involve undue risk to the safety of anyone at the delivery site or the condition of the deliverable, (c) that does not involve City personnel, and (d) without the need for a loading dock.

11.3.5. _____ Delivery shall be made between the hours of 7:00 a.m. and 3:30 p.m., Monday through Friday except holidays observed by the City.

11.3.6. _____ Documentation, including both operator and service manuals, warranties, detailed troubleshooting information, and any available unit-specific training videos, shall be provided upon delivery of unit.

11.3.7. _____ Training by a qualified product manufacturer representative shall be provided within 30 days of delivery of the nozzles and wyes.

11.3.8. _____ Training shall be delivered in a minimum of three (3) three-hour sessions on three (3) separate days to be scheduled on days mutually acceptable to the City and the manufacturer's representative.

11.3.9. _____ Training shall include both detailed instruction and hands-on demonstrations of the nozzles utilizing a flow meter and piezometer for pumping and handling operation, routine maintenance and routine repair.

11.4. **Hardware.**

11.4.1. _____ All nozzle tip pieces utilizing a polymer bumper, all polymer bales and all polymer pistol grips shall be available in a variety of colors. Color options will be made available in any variety and combination of the COF Fire Department's choosing.

11.4.2. _____ All fog tips shall use an interchangeable baffle to control flow.

11.4.3. _____ All valves shall be of full round ball construction.

11.4.4. _____ All threads shall be NST.

11.4.5. _____ All nozzle tips and bases shall be laser etched for internal inventory purposes. Franklin Fire Department will provide to the awarded vendor an inventory number for each piece, maximum 5 characters long.

11.4.6. _____ All nozzles shall be maintainable by routine maintenance only. Routine maintenance defined as cleaning, not involving disassembling the nozzle, other than break-apart pieces, or any pieces of it. No lubrication shall be required to maintain any part of the nozzle base or tip.

11.4.7. _____ Akron Brass 1-1/2" break-apart nozzles, consisting of a Style 2431 shutoff and a Style 4866 fog tip, for each nozzle.

11.4.7.1. _____ A quantity of forty-six (46).

11.4.7.2. _____ The Style 2431 Saber Shutoff shall have a 1-1/2" inlet and 1-1/2" outlet, be made of Pyrolite, have pistol grip and integrated 15/16" smoothbore, and shall include a manufacturer's warranty for a minimum duration of five (5) years.

11.4.7.3. _____ The Style 4866 Assault fixed orifice fog tip shall be calibrated to 175 GPM at 50 PSI, have a 1-1/2" swivel inlet, be made of Pyrolite, and shall include a manufacturer's warranty for a minimum duration of ten (10) years.

11.4.7.4. _____ The fog nozzle shall be equipped with spinning teeth, ¼ turn quick change adjustment from straight stream to fog pattern and raised lug to indicate fog pattern location.

11.4.8. _____ Akron Brass 2-1/2" break-apart nozzles, consisting of a Style 2433 shutoff and a Style 4824 fog tip, for each nozzle.

11.4.8.1. _____ A quantity of twelve (12).

11.4.8.2. _____ The Style 2433 Saber Shutoff shall have a 2-1/2" inlet and 1-1/2" outlet, be made of Pyrolite, have pistol grip and integrated 1-1/4" smoothbore, and shall include a manufacturer's warranty for a minimum duration of five (5) years.

11.4.8.3. _____ The Style 4824 High-Range Assault fixed orifice fog tip shall be calibrated to 250 GPM at 50 PSI, have a 1-1/2" swivel inlet, be made of Pyrolite, and shall include a manufacturer's warranty for a minimum duration of ten (10) years.

11.4.8.4. _____ The fog nozzle shall be equipped with spinning teeth, 1/4 turn quick change adjustment from straight stream to fog pattern and raised lug to indicate fog pattern location.

11.4.9. _____ Akron Brass 2-1/2" break-apart nozzles, consisting of a Style 2433 shutoff and a Style 1417 plain tip, for each nozzle.

11.4.9.1. _____ A quantity of fourteen (14).

11.4.9.2. _____ Shall include a manufacturer's warranty for a minimum duration of five (5) years.

11.4.9.3. _____ The Style 2433 Saber Shutoff shall have a 2-1/2" inlet and 1-1/2" outlet, be made of Pyrolite, have pistol grip and integrated 1-1/4" smoothbore.

11.4.9.4. _____ The style 1417 plain tip shall have an orifice of 1-1/8".

11.4.10. _____ Gated Akron brass 2-1/2" hydrant wye style 1582 made of Pyrolite material, consisting of one (1) 2-1/2" female swivel inlet and two (2) 2-1/2" male outlets.

11.4.10.1. _____ A quantity of seven (7).

11.4.10.2. _____ Shall include a manufacturer's warranty for a minimum duration of five (5) years.

11.4.10.3. _____ Shall utilize self-locking Tork-lok handles for positive handle positioning.

Bid Submittal Form

a form required of Bidders and Proposers on purchases of supplies, materials, equipment and services for the

City of Franklin, Tennessee

Purchasing Office Solicitation No.: 2015-017

Vendor's name, street address, and mailing address:	_____ _____ _____ _____
Vendor's contact person's name (printed), title, telephone number and e-mail address:	_____ _____ _____ _____
Does the bidder take any exceptions to the City's procurement solicitation?	☐ Yes, see enclosed. ☐ No, bidder takes no exceptions.
Are exceptions, if any, to the City's procurement solicitation listed separately, described, compared to the City's intention as expressed and implied by the City's solicitation documents and submitted?	☐ Yes, see enclosed. ☐ No, bidder takes no exceptions.

Bid warranty duration and pricing for all specified hardware:

Specification No.	Description	Warranty Duration	Quantity	Units	Unit Price	Extended Price (Quantity multiplied by Unit Price)
11.4.7	Akron Brass 1-1/2" break-apart nozzles, including …		46	Each	$_____ per each	$_____
	… Style 2431 shutoff	_____ (=/> 5 yrs.)				
	… Style 4866 fog tip	_____ (=/> 10 yrs.)				
11.4.8	Akron Brass 2-1/2" break-apart nozzles, including …		12	Each	$_____ per each	$_____
	… Style 2433 shutoff	_____ (=/> 5 yrs.)				
	… Style 4824 fog tip	_____ (=/> 10 yrs.)				
11.4.9	Akron Brass 2-1/2" break-apart nozzles, consisting of a Style 2433 shutoff and a Style 1417 plain tip	_____ (=/> 5 yrs.)	14	Each	$_____ per each	$_____
11.4.10	Gated Akron brass 2-1/2" hydrant wye Style 1582	_____ (=/> 5 yrs.)	7	Each	$_____ per each	$_____
Grand total:						**$**_____

Are the City's preferred delivery terms (FOB destination, freight prepaid and added) acceptable to bidder?	☐ Yes. ☐ No, bidder requests the following delivery terms: _____.
Are the City's preferred payment terms (net 30 days from date of delivery or date of invoice, whichever is later) acceptable to bidder?	☐ Yes. ☐ No, bidder requests the following payment terms: _____.

Bid Submittal Form

a form required of Bidders and Proposers on purchases of supplies, materials, equipment and services for the

City of Franklin, Tennessee

Purchasing Office Solicitation No.: 2015-017

Vendor's name:	_____
Estimated time of delivery:	_____ days after receipt of order.
Last date (no sooner than February 28, 2015) that bid and associated pricing is valid and may be accepted by the City:	_____
Last date (no sooner than July 31, 2015) that bid pricing on a per unit basis is valid for potential future orders:	_____
Method of payment – The City prefers to pay its vendors electronically, either by direct deposit (i.e., "ACH" or "Electronic Funds Transfer"), or by Visa credit card, rather than by conventional check. Which payment method would the bidder prefer?	☐ ACH or Electronic Funds Transfer. ☐ Visa credit card.
Are the following included with this Bid Submittal Form in the bid submittal? • Detailed vendor-supplied description of bid product(s) or item(s); • Detailed vendor-supplied description of the warranties included in the pricing; • City of Franklin specifications for this procurement, marked by the bidder as to compliance therewith as per the instructions therein; • Detailed vendor-supplied identification, listing and description of any exceptions to the written specifications as per the instructions therefor; • Vendor-supplied contact information for minimum of three references; • City of Franklin Standard Procurement Terms and Conditions, with the vendor's contact information inserted; • Vendor proposed terms and conditions, if any, that are not inconsistent with the City's Standard Procurement Terms and Conditions; and • City of Franklin Affidavit of Non-Collusion, executed in full.	☐ Yes, see enclosed. ☐ No, bidder chooses not to include all of these documents (NOTE: doing so may cause the City to deem the bid non-responsive).
Receipt acknowledged of any and all issued addenda to this solicitation:	☐ Addendum No. _____ received. ☐ Addenda Nos. _____ received. ☐ No addenda received.
Signature of bidder's authorized representative: I have received and read, and do understand and consent, to all instructions, terms and conditions, including those imposed by reference, which apply to this procurement solicitation and compliance with which is required as a condition precedent to consideration of the bid submitted herewith.	_____ (signature)
Title of bidder's authorized representative:	_____
Date of signature:	_____

Affidavit of Non-Collusion

a form required of Bidders and Proposers on purchases of supplies, materials, equipment and services for the

City of Franklin, Tennessee

State of _____)
) SS
County of _____)

Affiant, _____, deposes and makes oath that:
(printed name of person signing Affidavit)

1. He or she is the _____ of
(Owner or Authorized Partner, Officer, Representative or Agent of Owner)

_____,
(legal name of entity submitting bid or proposal)

the Bidder or Proposer who has submitted the attached bid or proposal;

2. The Bidder or Proposer is fully informed respecting the preparation and content of the attached bid or proposal and of all pertinent circumstances respecting such bid or proposal;

3. Such bid or proposal is genuine and is not a collusive or sham bid or proposal;

4. Neither the said Bidder or Proposer nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this Affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any official or agent of the City of Franklin or with any other firm, person, or potential or actual bidder or proposer to submit a collusive or sham bid or proposal in connection with the contract for which the attached bid or proposal has been submitted, or to refrain from bidding or proposing indirectly, or sought by agreement, or collusion, or communication, or conference with any other firm, person, or potential or actual bidder or proposer to fix the price or prices or cost element of the bid, quoted or proposed price or the bid, quoted or proposed price of any other potential or actual bidder or proposer, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the City of Franklin or any person interested in the proposed contract;

5. The price or prices quoted in the attached bid or proposal are fair and proper and are not tainted by a collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this Affiant; and

6. He or she understands that Article VIII, Section 16, of the City Charter of Franklin, and T.C.A. §6-54-107, prohibit any member of the Board of Mayor and Aldermen, or officer elected by said Board, from being interested in any contract, or work of any kind whatever, under its control and direction, and any contract in which any such person shall have an interest shall be void and unenforceable, subjecting any funds received by contractor to be returned in full to the City, in addition to any other penalties provided by law.

_____ _____
(signature of Affiant) (title of Affiant)

Sworn and subscribed to before me this _____ day of _____, 20_____

_____ My Commission Expires: _____
(Notary Public)

(Submitted in response to City of Franklin Purchasing Office Solicitation No. _____-_____)

Standard Procurement Terms and Conditions
City of Franklin, Tennessee

1. Assignment/Subcontracting. Neither party may assign any rights or obligations under these Standard Procurement Terms and Conditions or any Statement of Work without the prior written consent of the other party. These Standard Procurement Terms and Conditions will be binding upon and inure to the benefit of the parties and their respective successors and permitted assigns. Vendor may subcontract any portion of the work only with the prior consent of the City, but such subcontracting will not relieve Vendor of its duties under these Standard Procurement Terms and Conditions.

2. Time of the Essence. The parties agree that TIME IS OF THE ESSENCE with respect to the vendor's performance of all provisions of this procurement.

3. Taxes. As a tax-exempt entity, the City shall not be responsible for sales or use taxes incurred for products or services. Upon request, the City shall supply Vendor with a copy of its Sales and Use Tax Exemption Certificate. Vendor shall bear the burden of providing its suppliers with a copy of the City's tax exemption certificate and shall assume all liability for such taxes, if any, that should be incurred.

4. Notices. Any notice provided pursuant to these Standard Procurement Terms and Conditions, if specified to be in writing, will be in writing and will be deemed given: (a) if by hand delivery, then upon receipt thereof; (b) if mailed, then three (3) City business days after deposit in the mail where sender is located, postage prepaid, certified mail return receipt requested; (c) if by next day delivery service, then upon such delivery; or (d) if by facsimile transmission or electronic mail, then upon confirmation of receipt. All notices will be addressed to the parties at the addresses set forth below (or set forth in such other document which these Standard Procurement Terms and Conditions may accompany, or such other address as either party may in the future specify in writing to the other):

In the case of the City:	In the case of Vendor:
City of Franklin	_____
Attn: Purchasing Manager	_____
Re: City of Franklin Purchasing Office Solicitation No. _____-_____	
109 Third Ave. South	_____
P.O. Box 305	_____
Franklin, TN 37065-0305	_____
FAX: 615/550-0079	_____
E-mail: purchasing@franklintn.gov	_____

5. Confidentiality and Proprietary rights. Vendor waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page (or section as the case may be) as confidential or proprietary. Proprietary rights do not extend to the data created by the City's users of the System; all rights to that data (including derivative or hidden data such as metadata) shall vest solely in City at the moment of creation and City shall retain exclusive rights, title, and ownership of all data and images created therefrom at the moment of creation and utilization, through and including image creation. City may be required to disclose documents under state or federal law. City shall notify Vendor if a request for documents has been made and shall give Vendor a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. In exchange, Vendor agrees to indemnify, defend, and hold harmless City for any claims by third parties relating thereto or arising out of (i) the City's failure to disclose such documents or information required to be disclosed by law, or (ii) the City's release of documents as a result of City's reliance upon Vendor 's representation that materials supplied by Vendor (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Vendor and Vendor assumes control over that claim.

6. Derivative Works. To the extent that the Agreement contains Vendor's reservation of rights, such definitions and limitations are superseded by the following: "Derivative Work" means a program that is based on or derived from one or more existing programs or components. If the original software is modified to create a new program, a derived work is created. If the original software was designed to accept plug-ins or drivers using a defined mechanism, such a driver or plug-in does not form a derived work. Linking to a library in the way it was designed to be interfaced with, does *not* constitute deriving a work. "Derivative work" is *not* the data that the Licensee inputs, manipulates, modifies or otherwise improves, nor the images resulting therefrom.

7. Arbitration/Mediation. No arbitration shall be required as a condition precedent to filing any legal claim arising out of or relating to the Contract. No arbitration or mediation shall be binding.

8. Waiver. Neither party's failure or delay to exercise any of its rights or powers under these Standard Procurement Terms and Conditions will constitute or be deemed a waiver or forfeiture of those rights or powers. For a waiver of a right or power to be effective, it must be in writing signed by the waiving party. An effective waiver of a right or power shall not be construed as either (a) a future or continuing waiver of that same right or power, or (b) the waiver of any other right or power.

9. Warranties/Limitation of Liability/Waiver. City reserves all rights afforded to local governments under law for all general and implied warranties. The City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Vendor to limit its liability shall be void and unenforceable.

10. Severability. If any term or provision of these Standard Procurement Terms and Conditions is held to be illegal or unenforceable, the validity or enforceability of the remainder of these Standard Procurement Terms and Conditions will not be affected.

11. Precedence. In the event of conflict between the provisions of these Standard Procurement Terms and Conditions and any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany, the provisions of these Standard Procurement Terms and Conditions will to the extent of such conflict take precedence unless such document expressly states that it is amending these Standard Procurement Terms and Conditions.

12. Indemnification. Vendor agrees to indemnify and save the Government of Franklin, the City of Franklin and individual, on or off duty, officers, and employees of the City of Franklin, harmless from any and all losses, damages and expenses, including court costs and attorneys' fees, by reason of any loss, whatsoever, arising out of or relating to or in consequence of the work done in connection with the contract of which this agreement is a part, excepting only such losses as shall be occasioned solely by the negligence of the City of Franklin.

13. Additions/Modifications. If seeking any addition or modification to the Contract, the parties agree to reference the specific paragraph number sought to be changed on any future document or purchase order issued in furtherance of the Contract, however, an omission of the reference to same shall not affect its applicability. In no event shall either party be bound by any terms contained in any purchase order, acknowledgement, or other writings unless: (a) such purchase order, acknowledgement, or other writings specifically refer to the Contract or to the specific clause they are intended to modify; (b) clearly indicate the intention of both parties to override and modify the Contract; and (c) such purchase order, acknowledgement, or other writings are signed, with specific material clauses separately initialed, by authorized representatives of both parties.

14. Applicable Law; Choice of Forum/Venue. These Standard Procurement Terms and Conditions are made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to any state's choice-of-law rules. The choice of forum and venue shall be exclusively in the Courts of Williamson County, TN.

15. Termination. Unless the City has indicated otherwise for a specific procurement solicitation, either party may terminate these Standard Procurement Terms and Conditions, with or without cause, upon thirty (30) calendar days' notice to the other. Upon termination by the vendor, the City shall be entitled to retain ownership of any and all goods and equipment purchased. Upon termination by the City, the vendor shall be entitled to receive any amounts due as a result of goods and equipment already delivered and/or services already rendered; however, the City shall maintain ownership and control of any goods and equipment purchased. Upon termination of services, whether connected or unconnected to goods and equipment, such services shall be rendered until the conclusion of the 30th calendar day as stated in the notice or until a contractual benchmark has been achieved, or as the parties may otherwise agree.

16. Breach. Upon deliberate breach of these Standard Procurement Terms and Conditions, or of any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany, by either party, the non-breaching party shall be entitled to terminate these Standard Procurement Terms and Conditions without notice, with all of the remedies it would have in the event of termination under section 10 ("Severability") above, and may also have such other remedies as it may be entitled to in law or in equity.

17. Default. If Vendor fails to perform or comply with any provision of these Standard Procurement Terms and Conditions, or of any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany, then the City (i) may cancel the purchase award and/or the accompanying contract or agreement or purchase order, in whole or in part, without penalty or protest by Vendor; (ii) may consider such failure to perform or comply as a breach of contract; (iii) reserves the right to purchase its requirements from the vendor that submitted the next lowest and best responsive and responsible bid, or the vendor that submitted the next best proposal, if that vendor will still honor that bid or proposal, or to seek new bids or proposals, or to pursue one or more other options available to the City in compliance with its then current purchasing policy; and (iv) may hold the defaulting vendor liable for all damages provided by law, including cost of cover.

18. Entire Agreement. These Standard Procurement Terms and Conditions, including any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany, constitutes the entire agreement between the parties and supersedes any prior or contemporaneous communications, representations or agreements between the parties, whether oral or written, regarding the subject matter of these Standard Procurement Terms and Conditions. The terms and conditions of these Standard Procurement Terms and Conditions may not be changed except by an amendment expressly referencing these Standard Procurement Terms and Conditions by section number and signed by an authorized representative of each party.

19. Survival. These Standard Procurement Terms and Conditions shall survive the completion of or any termination of any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany.

CITY OF FRANKLIN, TENNESSEE
PROCUREMENT AGREEMENT

(City of Franklin Contract No. 2014-0346)

Attachment No. 2

SUBMITTAL

ORIGINAL ORIGINAL

Bid Submittal Form

a form required of Bidders and Proposers on purchases of supplies, materials, equipment and services for the

City of Franklin, Tennessee

Purchasing Office Solicitation No.: 2015-017

Vendor's name, street address, and mailing address:	NORTH AMERICA FIRE EQUIPMENT CO., INC. (NAFECO) 1515 West Moulton Street Decatur, AL 35601
Vendor's contact person's name (printed), title, telephone number and e-mail address:	Ronald Woodall, Vice President 800-628-6233 ronald.woodall@nafeco.com
Does the bidder take any exceptions to the City's procurement solicitation?	☐ Yes, see enclosed. ☒ No, bidder takes no exceptions.
Are exceptions, if any, to the City's procurement solicitation listed separately, described, compared to the City's intention as expressed and implied by the City's solicitation documents and submitted?	☐ Yes, see enclosed. ☒ No, bidder takes no exceptions.

Bid warranty duration and pricing for all specified hardware:

Specification No.	Description	Warranty Duration	Quantity	Units	Unit Price	Extended Price (Quantity multiplied by Unit Price)
11.4.7	Akron Brass 1-1/2" break-apart nozzles, including …		46	Each	$ 699.97 per each	$ 32,198.62
	… Style 2431 shutoff	5Yr (=/> 5 yrs.)				
	… Style 4866 fog tip	10Yr (=/> 10 yrs.)				
11.4.8	Akron Brass 2-1/2" break-apart nozzles, including …		12	Each	$ 849.94 per each	$ 10,199.28
	… Style 2433 shutoff	5YR (=/> 5 yrs.)				
	… Style 4824 fog tip	10Yr (=/> 10 yrs.)				
11.4.9	Akron Brass 2-1/2" break-apart nozzles, consisting of a Style 2433 shutoff and a Style 1417 plain tip	5Yr (=/> 5 yrs.)	14	Each	$ 478.66 per each	$ 6,701.24
11.4.10	Gated Akron brass 2-1/2" hydrant wye Style 1582	5Yr (=/> 5 yrs.)	7	Each	$ 1,073.60 per each	$ 7,515.20
Grand total:						$ 56,614.34

Are the City's preferred delivery terms (FOB destination, freight prepaid and added) acceptable to bidder?	☒ Yes. ☐ No, bidder requests the following delivery terms: _____.
Are the City's preferred payment terms (net 30 days from date of delivery or date of invoice, whichever is later) acceptable to bidder?	☒ Yes. ☐ No, bidder requests the following payment terms: _____.

Bid Submittal Form

a form required of Bidders and Proposers on purchases of supplies, materials, equipment and services for the

City of Franklin, Tennessee

Purchasing Office Solicitation No.: 2015-017

Vendor's name:	NAFECO
Estimated time of delivery:	(30) days after receipt of order.
Last date (no sooner than February 28, 2015) that bid and associated pricing is valid and may be accepted by the City:	July 31, 2015
Last date (no sooner than July 31, 2015) that bid pricing on a per unit basis is valid for potential future orders:	July 31, 2015
Method of payment – The City prefers to pay its vendors electronically, either by direct deposit (i.e., "ACH" or "Electronic Funds Transfer"), or by Visa credit card, rather than by conventional check. Which payment method would the bidder prefer?	[X] ACH or Electronic Funds Transfer. [ ] Visa credit card.
Are the following included with this Bid Submittal Form in the bid submittal? • Detailed vendor-supplied description of bid product(s) or item(s); • Detailed vendor-supplied description of the warranties included in the pricing; • City of Franklin specifications for this procurement, marked by the bidder as to compliance therewith as per the instructions therein; • Detailed vendor-supplied identification, listing and description of any exceptions to the written specifications as per the instructions therefor; • Vendor-supplied contact information for minimum of three references; • City of Franklin Standard Procurement Terms and Conditions, with the vendor's contact information inserted; • Vendor proposed terms and conditions, if any, that are not inconsistent with the City's Standard Procurement Terms and Conditions; and • City of Franklin Affidavit of Non-Collusion, executed in full.	[X] Yes, see enclosed. [ ] No, bidder chooses not to include all of these documents (NOTE: doing so may cause the City to deem the bid non-responsive).
Receipt acknowledged of any and all issued addenda to this solicitation:	[ ] Addendum No. _____ received. [ ] Addenda Nos. _____ received. [X] No addenda received.
Signature of bidder's authorized representative: I have received and read, and do understand and consent, to all instructions, terms and conditions, including those imposed by reference, which apply to this procurement solicitation and compliance with which is required as a condition precedent to consideration of the bid submitted herewith.	Ronald Woodall (signature) Ronald Woodall
Title of bidder's authorized representative:	Vice President
Date of signature:	12/2/14

City of Franklin Specifications

Purchasing Office Solicitation No.: 2015-017

1. Solicitation identified: These specifications apply to the following procurement:

   supply and delivery of firefighting nozzles and hydrant wyes

   Purchasing Office Solicitation No.: 2015-017

2. Notice to Bidders publication date: **November 20, 2014**

3. Solicitation release date: **November 21, 2014**

4. Deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of this procurement solicitation: **November 25, 2014, 2:00 p.m. Central Time**

5. Bids submittal deadline and scheduled opening: **December 4, 2014, 2:00 p.m. Central Time**

6. Tentative date of release of City's tabulation of bids received and notice of intent to award: **January 9, 2015**

7. Tentative date of award: Meeting of Board of Mayor and Aldermen at which is tentatively scheduled to be awarded the selection of the lowest and best responsive and responsible bid: **January 27, 2015**

8. Objective: To secure, by means of a competitive procurement process, the selection of the lowest and best responsive and responsible bid from a vendor to furnish all materials and means necessary to supply and deliver to the City of Franklin Fire Department firefighting nozzles and hydrant wyes as specified below. See the accompanying Instructions for Bidders for additional information and instructions.

9. Exceptions:

   a. In order to avoid the need to take an exception to a specification, potential bidders may request revisions to the specifications before the deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of the specifications. See the accompanying Instructions for Bidders for contact information.

   b. Any deviation or variance from the City's specifications shall be considered to be an exception.

   c. Any exceptions to the City's specifications shall be identified by the bidder on the City's specifications document as well as listed and described in detail, along with any other exceptions to this procurement solicitation, in a separate written document to be prepared and submitted by the bidder, referencing any subsection number. Such listing

shall include a description of exactly how such exceptions deviate from the City's expectations as expressed and implied by the procurement solicitation, and shall indicate why such exceptions should be judged by the City to meet or exceed those expectations. Any and all exceptions to this procurement solicitation which the City, in its sole discretion, deems not to meet or exceed the City's intention as expressed and implied by the procurement solicitation may be considered by the City as a factor in evaluating the bid.

10. General terms and conditions:

a. Bid price: The bid price shall include all equipment, labor, materials, permit(s), freight and required insurance to supply and deliver the specified products.

b. Delivery terms: As a matter of practice, the City of Franklin expects vendor to ship any and all deliverables FOB destination, freight prepaid and added. The City's preferred delivery terms, as described in the preceding sentence, are offered to the bidder or proposer as a condition of award. If the City's preferred delivery terms are unacceptable to the bidder or proposer, then the bidder or proposer shall indicate on the Submittal Form its preferred delivery terms. Delivery terms may be a factor in the City's selection criteria. Delivery terms are non-negotiable after award is made.

c. Payment terms: As a matter of practice, the City of Franklin pays for goods and/or services only after receipt and acceptance by the City of such goods and/or services, and only after receipt of an accurate, proper, complete and itemized invoice for such goods and/or services, net 30 calendar days from date of delivery and/or completion/installation/rendering or date of invoice, whichever is later. The City's preferred payment terms, as described in the preceding sentence, are offered to the bidder or proposer as a condition of award. If the City's preferred payment terms are unacceptable to the bidder or proposer, then the bidder or proposer shall indicate on the Submittal Form its preferred payment terms. Payment terms may be a factor in the City's selection criteria. Payment terms are non-negotiable after award is made.

d. Applicable laws and regulations: All applicable federal and state laws, city ordinances, orders, rules and regulations of all authorities having jurisdiction over the specified products shall apply to the quoted purchase price, and they will be deemed to be included in these specifications the same as though they are written out in full herein.

e. Standard Procurement Terms and Conditions: By submitting its bid, the vendor certifies that it has read and accepts all terms, conditions and requirements of this solicitation, including the terms and conditions identified and listed in the City of Franklin Standard Procurement Terms and Conditions attached hereto and hereby incorporated by reference.

f. Refusal to honor submittal: If and after an award is made by the City, if the vendor refuses to execute an agreement or contract or in any other way honor the terms and conditions of its submittal, the City shall be entitled to seek compensation for its damages, which may include the cost of conducting a new solicitation.

g. Confidential and/or proprietary information; trade secrets. All contents of all submittals are subject to public disclosure and shall not contain any confidential and/or proprietary information and/or trade secrets. Further, by submitting its bid, the vendor indemnifies and holds the City of Franklin harmless against any loss or damage, including reasonable attorney fees, it may incur as a result of the City's reliance upon the vendor's representation that materials supplied by the vendor do not contain trade secrets or proprietary information which is not subject to public disclosure.

11. Detailed specifications: Please note:

- Bidders are required to submit with their bid a detailed description of all bid products and/or items.
- Bidders are required to mark with a "C" the blank line next to any specification below to which their bid COMPLIES.
- Bidders are required to mark with an "E" the blank line next to any specification below to which their bid takes EXCEPTION.
- Any exceptions to the City's specifications shall be identified by the bidder on the City's specifications document as well as listed and described in detail, along with any other exceptions to this procurement solicitation, in a separate written document to be prepared and submitted by the bidder, referencing any subsection number. Such listing shall include a description of exactly how such exceptions deviate from the City's expectations as expressed and implied by the procurement solicitation, and shall indicate why such exceptions should be judged by the City to meet or exceed those expectations.
- Bidders are required to submit with their bid these Specifications for this procurement, marked by the bidder as to compliance herewith as per the instructions above.

11.1. **General.**

11.1.1. C City intends for the Franklin Fire Department to use the specified nozzles and wyes on firefighting hand lines in the activity of fire suppression. Items as bid shall be designed and manufactured according to industry standards for this intended use.

11.1.2. C Nozzles and wyes are to be purchased new and unused by the City.

11.1.3. C Purchased nozzles and wyes shall be of current production only.

11.1.4. C The quantities of items to be ordered upon award of the bid are noted below. However, quoted bid prices are to be offered by the bidder on a per unit basis for potential future orders at least through July 31, 2015 and until the date indicated on the bidder's Bid Submittal Form as the "last date that bid price on a per unit basis is valid for potential future orders," up to when the specified item is no longer available for purchase new.

11.2.		**Warranty.**
11.2.1.	C	Manufacturer's warranty, for durations not less than the durations indicated below, shall be included in the bid.
11.2.2.	C	Bidder shall indicate the durations of the manufacturer's warranty on the Bid Submittal Form.
11.2.3.	C	Bidder shall supply a description of the manufacturer's warranty along with the Bid Submittal Form.
11.3.		**Delivery, Documentation and Training.**
11.3.1.	C	Vendor shall indicate on the Bid Submittal Form the estimated time of delivery, measured in number of calendar days after receipt of order.
11.3.2.	C	Vendor specifically acknowledges and accepts City's standard delivery terms as expressed under "General terms and conditions" above.
11.3.3.	C	Vendor shall include delivery and unloading or offloading and deposit of the nozzles and wyes at the following location: City of Franklin Fire Department Headquarters Franklin City Hall 109 3rd Ave. South Franklin, TN 37064
11.3.4.	C	Vendor shall provide any labor and equipment necessary to unload or offload the deliverable in a manner (a) consistent with best practices for shipping and receiving, (b) that does not involve undue risk to the safety of anyone at the delivery site or the condition of the deliverable, (c) that does not involve City personnel, and (d) without the need for a loading dock.
11.3.5.	C	Delivery shall be made between the hours of 7:00 a.m. and 3:30 p.m., Monday through Friday except holidays observed by the City.
11.3.6.	C	Documentation, including both operator and service manuals, warranties, detailed troubleshooting information, and any available unit-specific training videos, shall be provided upon delivery of unit.
11.3.7.	C	Training by a qualified product manufacturer representative shall be provided within 30 days of delivery of the nozzles and wyes.
11.3.8.	C	Training shall be delivered in a minimum of three (3) three-hour sessions on three (3) separate days to be scheduled on days mutually acceptable to the City and the manufacturer's representative.

11.3.9.	C	Training shall include both detailed instruction and hands-on demonstrations of the nozzles utilizing a flow meter and piezometer for pumping and handling operation, routine maintenance and routine repair.
11.4.		**Hardware.**
11.4.1.	C	All nozzle tip pieces utilizing a polymer bumper, all polymer bales and all polymer pistol grips shall be available in a variety of colors. Color options will be made available in any variety and combination of the COF Fire Department's choosing.
11.4.2.	C	All fog tips shall use an interchangeable baffle to control flow.
11.4.3.	C	All valves shall be of full round ball construction.
11.4.4.	C	All threads shall be NST.
11.4.5.	C	All nozzle tips and bases shall be laser etched for internal inventory purposes. Franklin Fire Department will provide to the awarded vendor an inventory number for each piece, maximum 5 characters long.
11.4.6.	C	All nozzles shall be maintainable by routine maintenance only. Routine maintenance defined as cleaning, not involving disassembling the nozzle, other than break-apart pieces, or any pieces of it. No lubrication shall be required to maintain any part of the nozzle base or tip.
11.4.7.	C	Akron Brass 1-1/2" break-apart nozzles, consisting of a Style 2431 shutoff and a Style 4866 fog tip, for each nozzle.
11.4.7.1.	C	A quantity of forty-six (46).
11.4.7.2.	C	The Style 2431 Saber Shutoff shall have a 1-1/2" inlet and 1-1/2" outlet, be made of Pyrolite, have pistol grip and integrated 15/16" smoothbore, and shall include a manufacturer's warranty for a minimum duration of five (5) years.
11.4.7.3.	C	The Style 4866 Assault fixed orifice fog tip shall be calibrated to 175 GPM at 50 PSI, have a 1-1/2" swivel inlet, be made of Pyrolite, and shall include a manufacturer's warranty for a minimum duration of ten (10) years.
11.4.7.4.	C	The fog nozzle shall be equipped with spinning teeth, ¼ turn quick change adjustment from straight stream to fog pattern and raised lug to indicate fog pattern location.

11.4.8.	C	Akron Brass 2-1/2" break-apart nozzles, consisting of a Style 2433 shutoff and a Style 4824 fog tip, for each nozzle.
11.4.8.1.	C	A quantity of twelve (12).
11.4.8.2.	C	The Style 2433 Saber Shutoff shall have a 2-1/2" inlet and 1-1/2" outlet, be made of Pyrolite, have pistol grip and integrated 1-1/4" smoothbore, and shall include a manufacturer's warranty for a minimum duration of five (5) years.
11.4.8.3.	C	The Style 4824 High-Range Assault fixed orifice fog tip shall be calibrated to 250 GPM at 50 PSI, have a 1-1/2" swivel inlet, be made of Pyrolite, and shall include a manufacturer's warranty for a minimum duration of ten (10) years.
11.4.8.4.	C	The fog nozzle shall be equipped with spinning teeth, 1/4 turn quick change adjustment from straight stream to fog pattern and raised lug to indicate fog pattern location.
11.4.9.	C	Akron Brass 2-1/2" break-apart nozzles, consisting of a Style 2433 shutoff and a Style 1417 plain tip, for each nozzle.
11.4.9.1.	C	A quantity of fourteen (14).
11.4.9.2.	C	Shall include a manufacturer's warranty for a minimum duration of five (5) years.
11.4.9.3.	C	The Style 2433 Saber Shutoff shall have a 2-1/2" inlet and 1-1/2" outlet, be made of Pyrolite, have pistol grip and integrated 1-1/4" smoothbore.
11.4.9.4.	C	The style 1417 plain tip shall have an orifice of 1-1/8".
11.4.10.	C	Gated Akron brass 2-1/2" hydrant wye style 1582 made of Pyrolite material, consisting of one (1) 2-1/2" female swivel inlet and two (2) 2-1/2" male outlets.
11.4.10.1.	C	A quantity of seven (7).
11.4.10.2.	C	Shall include a manufacturer's warranty for a minimum duration of five (5) years.
11.4.10.3.	C	Shall utilize self-locking Tork-lok handles for positive handle positioning.

Standard Procurement Terms and Conditions
City of Franklin, Tennessee

1. Assignment/Subcontracting. Neither party may assign any rights or obligations under these Standard Procurement Terms and Conditions or any Statement of Work without the prior written consent of the other party. These Standard Procurement Terms and Conditions will be binding upon and inure to the benefit of the parties and their respective successors and permitted assigns. Vendor may subcontract any portion of the work only with the prior consent of the City, but such subcontracting will not relieve Vendor of its duties under these Standard Procurement Terms and Conditions.

2. Time of the Essence. The parties agree that TIME IS OF THE ESSENCE with respect to the vendor's performance of all provisions of this procurement.

3. Taxes. As a tax-exempt entity, the City shall not be responsible for sales or use taxes incurred for products or services. Upon request, the City shall supply Vendor with a copy of its Sales and Use Tax Exemption Certificate. Vendor shall bear the burden of providing its suppliers with a copy of the City's tax exemption certificate and shall assume all liability for such taxes, if any, that should be incurred.

4. Notices. Any notice provided pursuant to these Standard Procurement Terms and Conditions, if specified to be in writing, will be in writing and will be deemed given: (a) if by hand delivery, then upon receipt thereof; (b) if mailed, then three (3) City business days after deposit in the mail where sender is located, postage prepaid, certified mail return receipt requested; (c) if by next day delivery service, then upon such delivery; or (d) if by facsimile transmission or electronic mail, then upon confirmation of receipt. All notices will be addressed to the parties at the addresses set forth below (or set forth in such other document which these Standard Procurement Terms and Conditions may accompany, or such other address as either party may in the future specify in writing to the other):

In the case of the City:	In the case of Vendor:
City of Franklin	NAFECO
Attn: Purchasing Manager	Attn: Ronald Woodall
Re: City of Franklin Purchasing Office Solicitation No. 2015-017	
109 Third Ave. South	1515 West Moulton Street
P.O. Box 305	
Franklin, TN 37065-0305	Decatur, AL 35601
FAX: 615/550-0079	Fax: 256-355-0852
E-mail: purchasing@franklintn.gov	ronald.woodall@nafeco.com

5. Confidentiality and Proprietary rights. Vendor waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page (or section as the case may be) as confidential or proprietary. Proprietary rights do not extend to the data created by the City's users of the System; all rights to that data (including derivative or hidden data such as metadata) shall vest solely in City at the moment of creation and City shall retain exclusive rights, title, and ownership of all data and images created therefrom at the moment of creation and utilization, through and including image creation. City may be required to disclose documents under state or federal law. City shall notify Vendor if a request for documents has been made and shall give Vendor a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. In exchange, Vendor agrees to indemnify, defend, and hold harmless City for any claims by third parties relating thereto or arising out of (i) the City's failure to disclose such documents or information required to be disclosed by law, or (ii) the City's release of documents as a result of City's reliance upon Vendor 's representation that materials supplied by Vendor (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Vendor and Vendor assumes control over that claim.

6. Derivative Works. To the extent that the Agreement contains Vendor's reservation of rights, such definitions and limitations are superseded by the following: "Derivative Work" means a program that is based on or derived from one or more existing programs or components. If the original software is modified to create a new program, a derived work is created. If the original software was designed to accept plug-ins or drivers using a defined mechanism, such a driver or plug-in does not form a derived work. Linking to a library in the way it was designed to be interfaced with, does *not* constitute deriving a work. "Derivative work" is *not* the data that the Licensee inputs, manipulates, modifies or otherwise improves, nor the images resulting therefrom.

7. Arbitration/Mediation. No arbitration shall be required as a condition precedent to filing any legal claim arising out of or relating to the Contract. No arbitration or mediation shall be binding.

8. Waiver. Neither party's failure or delay to exercise any of its rights or powers under these Standard Procurement Terms and Conditions will constitute or be deemed a waiver or forfeiture of those rights or powers. For a waiver of a right or power to be effective, it must be in writing signed by the waiving party. An effective waiver of a right or power shall not be construed as either (a) a future or continuing waiver of that same right or power, or (b) the waiver of any other right or power.

9. Warranties/Limitation of Liability/Waiver. City reserves all rights afforded to local governments under law for all general and implied warranties. The City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Vendor to limit its liability shall be void and unenforceable.

10. Severability. If any term or provision of these Standard Procurement Terms and Conditions is held to be illegal or unenforceable, the validity or enforceability of the remainder of these Standard Procurement Terms and Conditions will not be affected.

11. Precedence. In the event of conflict between the provisions of these Standard Procurement Terms and Conditions and any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany, the provisions of these Standard Procurement Terms and Conditions will to the extent of such conflict take precedence unless such document expressly states that it is amending these Standard Procurement Terms and Conditions.

12. Indemnification. Vendor agrees to indemnify and save the Government of Franklin, the City of Franklin and individual, on or off duty, officers, and employees of the City of Franklin, harmless from any and all losses, damages and expenses, including court costs and attorneys' fees, by reason of any loss, whatsoever, arising out of or relating to or in consequence of the work done in connection with the contract of which this agreement is a part, excepting only such losses as shall be occasioned solely by the negligence of the City of Franklin.

13. Additions/Modifications. If seeking any addition or modification to the Contract, the parties agree to reference the specific paragraph number sought to be changed on any future document or purchase order issued in furtherance of the Contract, however, an omission of the reference to same shall not affect its applicability. In no event shall either party be bound by any terms contained in any purchase order, acknowledgement, or other writings unless: (a) such purchase order, acknowledgement, or other writings specifically refer to the Contract or to the specific clause they are intended to modify; (b) clearly indicate the intention of both parties to override and modify the Contract; and (c) such purchase order, acknowledgement, or other writings are signed, with specific material clauses separately initialed, by authorized representatives of both parties.

14. Applicable Law; Choice of Forum/Venue. These Standard Procurement Terms and Conditions are made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to any state's choice-of-law rules. The choice of forum and venue shall be exclusively in the Courts of Williamson County, TN.

15. Termination. Unless the City has indicated otherwise for a specific procurement solicitation, either party may terminate these Standard Procurement Terms and Conditions, with or without cause, upon thirty (30) calendar days' notice to the other. Upon termination by the vendor, the City shall be entitled to retain ownership of any and all goods and equipment purchased. Upon termination by the City, the vendor shall be entitled to receive any amounts due as a result of goods and equipment already delivered and/or services already rendered; however, the City shall maintain ownership and control of any goods and equipment purchased. Upon termination of services, whether connected or unconnected to goods and equipment, such services shall be rendered until the conclusion of the 30th calendar day as stated in the notice or until a contractual benchmark has been achieved, or as the parties may otherwise agree.

16. Breach. Upon deliberate breach of these Standard Procurement Terms and Conditions, or of any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany, by either party, the non-breaching party shall be entitled to terminate these Standard Procurement Terms and Conditions without notice, with all of the remedies it would have in the event of termination under section 10 ("Severability") above, and may also have such other remedies as it may be entitled to in law or in equity.

17. Default. If Vendor fails to perform or comply with any provision of these Standard Procurement Terms and Conditions, or of any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany, then the City (i) may cancel the purchase award and/or the accompanying contract or agreement or purchase order, in whole or in part, without penalty or protest by Vendor; (ii) may consider such failure to perform or comply as a breach of contract; (iii) reserves the right to purchase its requirements from the vendor that submitted the next lowest and best responsive and responsible bid, or the vendor that submitted the next best proposal, if that vendor will still honor that bid or proposal, or to seek new bids or proposals, or to pursue one or more other options available to the City in compliance with its then current purchasing policy; and (iv) may hold the defaulting vendor liable for all damages provided by law, including cost of cover.

18. Entire Agreement. These Standard Procurement Terms and Conditions, including any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany, constitutes the entire agreement between the parties and supersedes any prior or contemporaneous communications, representations or agreements between the parties, whether oral or written, regarding the subject matter of these Standard Procurement Terms and Conditions. The terms and conditions of these Standard Procurement Terms and Conditions may not be changed except by an amendment expressly referencing these Standard Procurement Terms and Conditions by section number and signed by an authorized representative of each party.

19. Survival. These Standard Procurement Terms and Conditions shall survive the completion of or any termination of any contract, agreement or other document which these Standard Procurement Terms and Conditions may accompany.

Affidavit of Non-Collusion

a form required of Bidders and Proposers on purchases of supplies, materials, equipment and services for the

City of Franklin, Tennessee

State of ALABAMA)
) SS
County of MORGAN)

Affiant, RONALD WOODALL, deposes and makes oath that:
(printed name of person signing Affidavit)

1. He or she is the VICE PRESIDENT of
(Owner or Authorized Partner, Officer, Representative or Agent of Owner)

NORTH AMERICA FIRE EQUIPMENT CO., INC. (NAFECO),
(legal name of entity submitting bid or proposal)

the Bidder or Proposer who has submitted the attached bid or proposal;

2. The Bidder or Proposer is fully informed respecting the preparation and content of the attached bid or proposal and of all pertinent circumstances respecting such bid or proposal;
3. Such bid or proposal is genuine and is not a collusive or sham bid or proposal;
4. Neither the said Bidder or Proposer nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this Affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any official or agent of the City of Franklin or with any other firm, person, or potential or actual bidder or proposer to submit a collusive or sham bid or proposal in connection with the contract for which the attached bid or proposal has been submitted, or to refrain from bidding or proposing indirectly, or sought by agreement, or collusion, or communication, or conference with any other firm, person, or potential or actual bidder or proposer to fix the price or prices or cost element of the bid, quoted or proposed price or the bid, quoted or proposed price of any other potential or actual bidder or proposer, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the City of Franklin or any person interested in the proposed contract;
5. The price or prices quoted in the attached bid or proposal are fair and proper and are not tainted by a collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this Affiant; and
6. He or she understands that Article VIII, Section 16, of the City Charter of Franklin, and T.C.A. §6-54-107, prohibit any member of the Board of Mayor and Aldermen, or officer elected by said Board, from being interested in any contract, or work of any kind whatever, under its control and direction, and any contract in which any such person shall have an interest shall be void and unenforceable, subjecting any funds received by contractor to be returned in full to the City, in addition to any other penalties provided by law.

Ronald Woodall — VICE PRESIDENT
(signature of Affiant) — (title of Affiant)

Sworn and subscribed to before me this 2nd day of DECEMBER, 2014

Angela Diane Thompson — My Commission Expires: 7/15/18
(Notary Public)

(Submitted in response to City of Franklin Purchasing Office Solicitation No. 2015-017)

NAFECO

CITY OF FRANKLIN, TN
SOLICITATION NO. 2015-017

REFERENCES

NASHVILLE FIRE LOGISTICS
CAPTAIN RANDY CANE
POST OFFICE BOX 196300
NASHVILLE, TN 37219-6300
615-862-5480
Purchases PPE, Fire Equipment, etc. on an on-going basis

MURFREESBORO FIRE DEPARTMENT
CHIEF ALLAN SWADER
POST OFFICE BOX 1139
MURFREESBORO, TN 37133
615-893-1422
Purchases PPE, Fire Equipment, etc. on an on-going basis

LEWISBURG FIRE DEPARTMENT
CHIEF LARRY WILLIAMS
118 WATER STREET
LEWISBURG, TN 37091
931-359-4214
Purchases PPE, Fire Equipment, etc. on an on-going basis

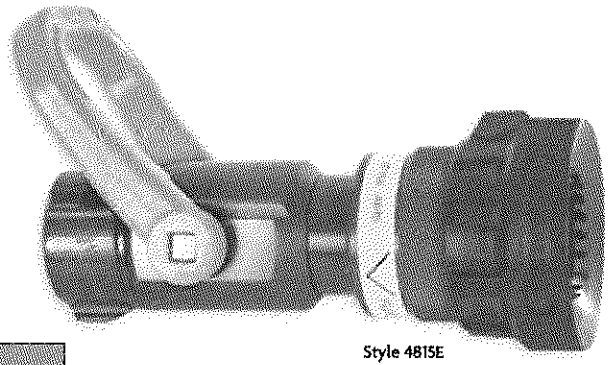
Assault™ Nozzles

1 ½" Electrical Assault Nozzles

- Designed to be used on class "C" hazards
- No straight stream capabilities (min. 30° fog)
- 100 psi (7 bar) operation pressure
- SPECIFY FLOW, 95 or 125 gpm (3600 or 475 lpm)
- 95 and 125 gpm only

4815E **1 ½" Electrical Assault Nozzle with Spinning Teeth**

4820E **1 ½" Electrical Assault Nozzle with Pistol Grip and Spinning Teeth**



Style 4815E

Style	Swivel Inlet	Length	Weight lbs. (kg)	Flow Range	
				GPM	LPM
4815E	1 ½" (38 mm)	8 ⅜" (213 mm)	3 ½ (1.6 kg)	95 or 125 only *	360 or 475 only*
4820E	1 ½" (38 mm)	8 ⅜" (213 mm)	3 ¾ (1.7 kg)	95 or 125 only *	360 or 475 only*

* Must specify

Mid-Range Assault Nozzles

- Quick change pattern adjustment
- SPECIFY PRESSURE AND FLOW, see chart below
- Compatible with Quick-Attack Foam Tube Style 777, See page 35
- Optional 2.5" inlet available upon request

4862 **Mid-Range Assault Nozzle**

4863 **Mid-Range Assault Nozzle with Pistol Grip**

4864 **Mid-Range Assault Breakapart Nozzle**
- Combination of Style 4867 tip with twist shutoff + Style 2129 shutoff

4865 **Mid-Range Assault Breakapart Nozzle with Pistol Grip**
- Combination of Style 4867 tip with twist shutoff + Style 2127 shutoff

4866 **Mid-Range Assault Tip**

4867 **Mid-Range Assault Tip with Twist Shutoff**

Style 4863

Style	Swivel Inlet*	Length	Weight lbs. (kg)
4862	1 ½" (38 mm)	8 ¾" (222 mm)	4 (1.8 kg)
4863	1 ½" (38 mm)	9" (222 mm)	4 ¼ (1.9 kg)
4864	1 ½" (38 mm)	10 ⅞" (276 mm)	4 ¼ (1.9 kg)
4865	1 ½" (38 mm)	10 ⅞" (276 mm)	4 ⅝ (2.1 kg)
4866	1 ½" (38 mm)	6 ½" (165 mm)	2 ¾ (1.2 kg)
4867	1 ½" (38 mm)	6 ½" (165 mm)	2 ¾ (1.2 kg)

* Optional 2.5" inlet available upon request

Pressure & Flow For Mid-Range Assault Nozzles

NOZZLE PSI	150 @ 50	150 @ 75	150 @ 100	175 @ 50	175 @ 75	175 @ 100	200 @ * 50	200 @ 75	200 @ 100	225 @ 100
	Actual GPM									
50	150	122	106	175	143	124	200	163	141	159
75	184	150	130	214	175	152	245	200	173	195
100	212	173	150	247	202	175	283	231	200	225

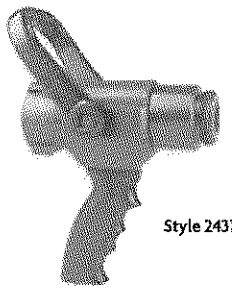
Pressure & Flow For Mid-Range Assault Nozzles

NOZZLE BAR	550 @ 3	550 @ 5	550 @ 7	660 @ 3	660 @ 5	660 @ 7	750 @ 3	750 @ 5	750 @ 7	850 @ 7
	Actual LPM									
3	550	462	401	660	541	469	750	617	534	602
5	696	550	492	810	660	575	927	750	655	738
7	802	738	550	435	765	660	1071	874	750	852

* No baffle kits available. Factory set only. Not available on 2.5" (65mm) inlets.

Saber™ Shutoffs With Integral Tip

Lightweight ball shutoff with an integral straight bore tip.

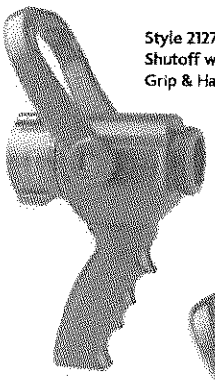


Style 2431

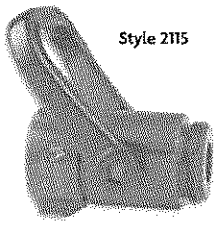
Style	Pistol Grip	Finish	Length	Weight lbs. (kg)	Orifices	Threads Inlet	Threads Outlet	Shutoff Waterway Size
2428	-	Pyrolite	6" (150 mm)	1 5/8 (.74 kg)	3/8", 1/2" (10, 13 mm)	1" (25 mm)	1" (25 mm)	1" (25 mm)
2429	YES	Pyrolite	6" (150 mm)	2 3/8 (1.1 kg)	3/8", 1/2" (10, 13 mm)	1" (25 mm)	1" (25 mm)	1" (25 mm)
2430	-	Pyrolite	6 7/8" (175 mm)	2 1/4 (1.0 kg)	3/4", 7/8", 15/16", 1", 1 1/8", 1 1/4" (19, 22, 24, 25, 29, 32 mm)	1 1/2" (38 mm)	1 1/2" (38 mm)	1 3/8" (29 mm)
2431	YES	Pyrolite	6 7/8" (175 mm)	3 (1.4 kg)	3/4", 7/8", 15/16", 1", 1 1/8", 1 1/4" (19, 22, 24, 25, 29, 32 mm)	1 1/2" (38 mm)	1 1/2" (38 mm)	1 3/8" (29 mm)
2432	-	Pyrolite	7 3/8" (187 mm)	3 (1.4 kg)	3/4", 7/8", 15/16", 1", 1 1/8", 1 1/4" (19, 22, 24, 25, 29, 32 mm)	2 1/2" (65 mm)	1 1/2" (38 mm)	1 3/8" (29 mm)
2433	YES	Pyrolite	7 3/8" (187 mm)	3 1/2 (1.6 kg)	3/4", 7/8", 15/16", 1", 1 1/8", 1 1/4" (19, 22, 24, 25, 29, 32 mm)	2 1/2" (65 mm)	1 1/2" (38 mm)	1 3/8" (29 mm)

Pyrolite Shutoffs

- Tough, lightweight ball shutoffs with a full-time swivel base ensures the handle can be positioned for easy operation.



Style 2127
Shutoff with Pistol Grip & Handle



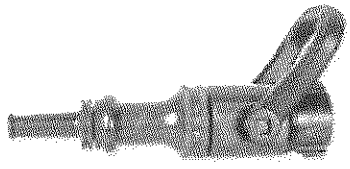
Style 2115

Style	Pistol Grip	Finish	Length	Weight lbs. (kg)	Threads Inlet	Threads Outlet	Shutoff Waterway Size
2101	-	Pyrolite	4 1/4" (108 mm)	1 1/4 (.6 kg)	1" (25 mm)	1" (25 mm)	1" (25 mm)
2102	YES	Pyrolite	4 1/4" (108 mm)	2 (.9 kg)	1" (25 mm)	1" (25 mm)	1" (25 mm)
2108	YES	Pyrolite	4 1/2" (114 mm)	1 5/8 (.7 kg)	1" (25 mm)	1 1/2" (38 mm)	1" (25 mm)
2115	-	Pyrolite	4 1/2" (114 mm)	1 1/2 (.7 kg)	1 1/2" (38 mm)	1 1/2" (38 mm)	1" (25 mm)
2116	YES	Pyrolite	4 1/2" (114 mm)	1 7/8 (.9 kg)	1 1/2" (38 mm)	1 1/2" (38 mm)	1" (25 mm)

Style	Pistol Grip	Finish	Length	Weight lbs. (kg)	Threads Inlet	Threads Outlet	Shutoff Waterway Size
2125	-	Pyrolite	6" (152 mm)	2 5/8 (1.2 kg)	2 1/2" (65 mm)	1 1/2" (38 mm)	1 3/8" (35 mm)
2126	YES	Pyrolite	6" (152 mm)	2 7/8 (1.3 kg)	2 1/2" (65 mm)	1 1/2" (38 mm)	1 3/8" (35 mm)
2127	YES	Pyrolite	4 7/8" (124 mm)	2 1/8 (1.0 kg)	1 1/2" (38 mm)	1 1/2" (38 mm)	1 3/8" (35 mm)
2129	-	Pyrolite	4 7/8" (124 mm)	1 3/4 (.8 kg)	1 1/2" (38 mm)	1 1/2" (38 mm)	1 3/8" (35 mm)
2130	-	Pyrolite	6 5/8" (162 mm)	4 1/4 (1.9 kg)	2 1/2" (65 mm)	2 1/2" (65 mm)	2" (51 mm)

Pyrolite® Shutoffs With Dual Stacked Tips

Lightweight ball shutoff with Style 439 tips for use where a fog nozzle is not required. Base tip has a female thread on the outlet for added protection and durability.

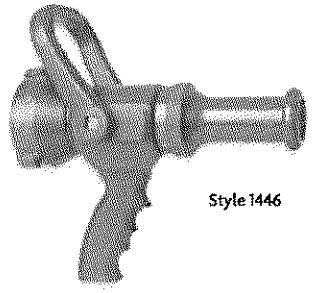


Style 1440

Style	Pistol Grip	Finish	Length	Weight lbs. (kg)	Inlet	Orifices	Combinations Shutoff	Combinations Tip	Shutoff Waterway Size
1440	-	Pyrolite	10 3/8" (264 mm)	2 1/2 (1.3 kg)	1 1/2" (38 mm)	15/16" x 1/2" (24 x 13 mm)	2129	439	1 3/8" (35 mm)
1441	YES	Pyrolite	10 3/8" (264 mm)	2 7/8 (1.3 kg)	1 1/2" (38 mm)	15/16" x 1/2" (24 x 13 mm)	2127	439	1 3/8" (35 mm)
1442	-	Pyrolite	11 1/2" (292 mm)	3 3/8 (1.5 kg)	2 1/2" (65 mm)	1 1/8" x 1/2" (29 x 13 mm)	2125	439	1 3/8" (35 mm)
1443	YES	Pyrolite	11 1/2" (292 mm)	4 5/8 (2.1 kg)	2 1/2" (65 mm)	1 1/8" x 1/2" (29 x 13 mm)	2126	439	1 3/8" (35 mm)

Blitz Tips

Pyrolite shutoff with pistol grip and straight tip for high volume low pressure operation. Nearly 400 gpm at 50 psi.



Style 1446

Style	Pistol Grip	Finish	Length	Weight lbs. (kg)	Orifices	Threads Inlet	Threads Tip	Combinations Shutoff	Combinations Tip	Shutoff Waterway Size
1445	YES	Pyrolite	10" (254 mm)	3 3/8 (1.5 kg)	1 3/8" (35 mm)	1 1/2" (38 mm)	1 1/2" (38 mm)	2127	1499	1 3/8" (35 mm)
1446	YES	Pyrolite	10 5/8" (270 mm)	4 5/8 (2.1 kg)	1 3/8" (35 mm)	2 1/2" (65 mm)	1 1/2" (38 mm)	2126	1499	1 3/8" (35 mm)

High-Range Assault Nozzles

- Quick change pattern adjustment
- SPECIFY PRESSURE AND FLOW, see chart below

FM APPROVED *

4822 **1 1/2" High-Range Assault Nozzle with Spinning Teeth**

4722 **1 1/2" High-Range Assault Nozzle Less Teeth**

4823* **1 1/2" High-Range Assault Nozzle with Pistol Grip and Spinning Teeth***

4824 **1 1/2" High-Range Assault Tip with Spinning Teeth**

4724 **1 1/2" High-Range Assault Tip Less Teeth**

4825 **2 1/2" High-Range Assault Nozzle with Spinning Teeth**

4826* **2 1/2" High-Range Assault Nozzle with Pistol Grip and Spinning Teeth***

4726 **2 1/2" High-Range Assault Nozzle with Pistol Grip Less Teeth**

4827 **1 1/2" High-Range Assault Tip with Twist Shutoff and Spinning Teeth**

4830 **2 1/2" High-Range Assault Tip with Axial Playpipe**
- Combination of Style 4827 tip with twist shutoff + Style 2390 playpipe

4834 **1 1/2" High-Range Assault Breakapart Nozzle with Pistol Grip**
- Combination of Style 4827 tip with twist shutoff + Style 2127 shutoff

4835 **1 1/2" High-Range Assault Breakapart Nozzle**
- Combination Style 4827 tip with twist shutoff + Style 2129 shutoff

4836 **2 1/2" High-Range Assault Breakapart Nozzle with Pistol Grip**
- Combination of Style 4827 tip with twist shutoff + Style 2126 shutoff

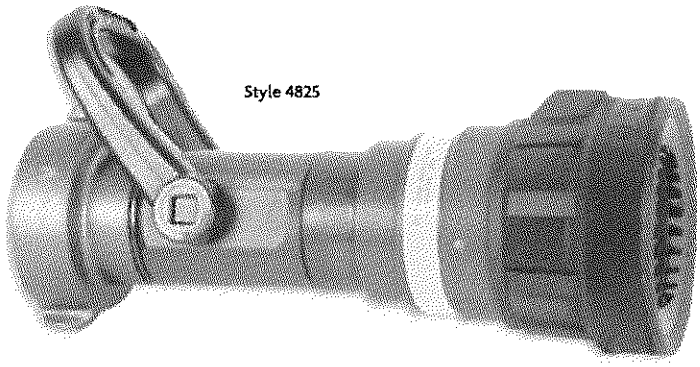
4837* **2 1/2" High-Range Assault Tip with Twist Shutoff and Spinning Teeth***

4838 **2 1/2" High-Range Assault Breakapart Nozzle**
- Combination of Style 4827 tip with twist shutoff + Style 2125 shutoff

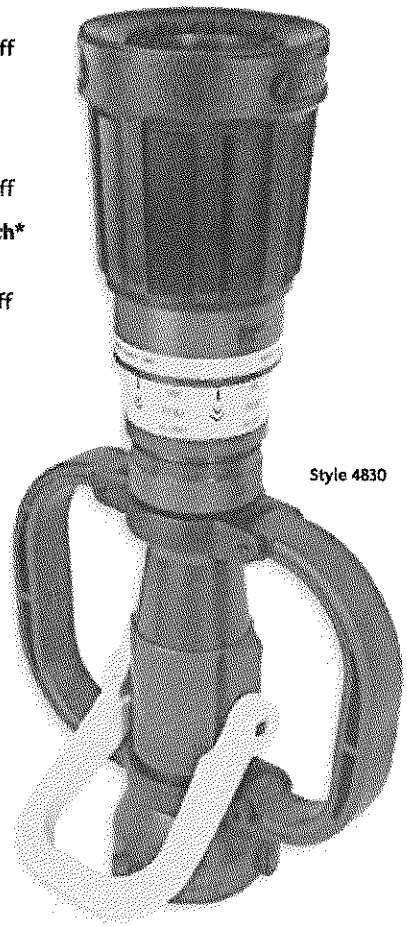
Style	Stated Inlet	Length	Weight (lbs) (kg)
4722	1 1/2" (38 mm)	12 31/64" (309 mm)	6 1/2 (7.5 kg)
4724	1 1/2" (38 mm)	9 3/32" (231 mm)	5 1/8 (3.2 kg)
4726	2 1/2" (65 mm)	12 31/64" (309 mm)	7 1/8 (3.2 kg)
4822	1 1/2" (38 mm)	11 1/2" (292 mm)	6 1/2 (7.5 kg)
4823*	1 1/2" (38 mm)	11 1/2" (292 mm)	7 1/4 (3.3 kg)
4824	1 1/2" (38 mm)	8 1/4" (210 mm)	5 1/4 (2.4 kg)
4825	2 1/2" (65 mm)	12 1/8" (206 mm)	7 1/8 (3.2 kg)
4826*	2 1/2" (65 mm)	12 1/8" (206 mm)	7 5/8 (3.5 kg)
4827	1 1/2" (38 mm)	8 3/4" (222 mm)	5 7/8 (2.7 kg)
4830	2 1/2" (65 mm)	16 3/4" (425 mm)	11 3/8 (5.2 kg)
4834	1 1/2" (38 mm)	13 1/2" (343 mm)	8 (3.6 kg)
4835	1 1/2" (38 mm)	13 3/8" (333 mm)	7 5/8 (3.5 kg)
4836	2 1/2" (65 mm)	14" (356 mm)	8 3/4 (4.0 kg)
4837*	2 1/2" (65 mm)	9 1/2" (241 mm)	6 1/2 (2.9 kg)
4838	2 1/2" (65 mm)	13 5/8" (346 mm)	8 1/2 (3.9 kg)

* FM Approved Styles 4823, 4826 & 4837

2 1/2" Assaults meet Insurance Services Office (ISO) requirements.



Style 4825



Style 4830

Pressure & Flow Options For High-Range Assault Nozzles

NOZZLE PSI	200 @ 75	200 @ 100	250 @ 50	250 @ 75	250 @ 100	300 @ 75	300 @ 100	350 @ 100
	Actual GPM							
50	163	141	250	204	177	245	212	247
75	200	173	306	250	217	300	260	303
100	231	200	354	289	250	346	300	350

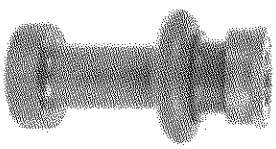
Pressure & Flow Options For High-Range Assault Nozzles

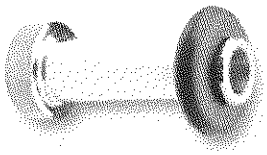
NOZZLE Bar	750 @ 5	750 @ 7	950 @ 3	950 @ 5	950 @ 7	1140 @ 5	1140 @ 7	1325 @ 7
	Actual LPM							
3	617	534	950	772	670	927	802	935
5	750	655	1158	950	821	1140	984	1147
7	874	750	1340	1094	950	1310	1140	1325

Straight Tips

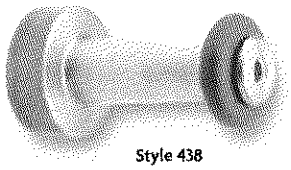
Straight Tips

416 **1 1/2" Thread Tip**
- Now available in Pyrolite®
- Intergrated Thread Protector
- Protective rubber bumper
- 1 1/8" standard orifice (see chart below for orifice options)


Style 416


Style 417

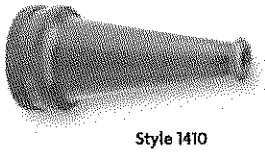
417 **1 1/2" Plain Tip**
- Protective rubber bumper
- 1 1/8" standard orifice (see chart below for orifice options)

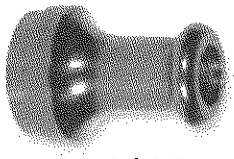

Style 438

Style 489

438 **1 1/2" Plain Tip**
- Protective rubber bumper
- 1/2" standard orifice (see chart below for orifice options)

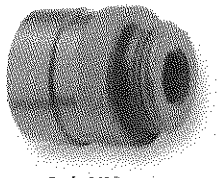
489 **Plain Deluge Tip**
- 2 1/2" Inlet
  - o 1 1/2" standard orifice (see chart below for orifice options)
- 3" Inlet
  - o 2" standard orifice (see chart below for orifice options)

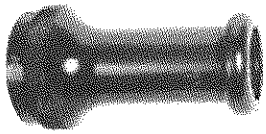

Style 1410


Style 1417

1410 **1" Plain Tip**
- 3/8" standard orifice (5/8" optional orifice)

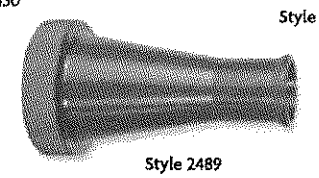
1417 **1 1/2" Plain Tip**
- 7/8" standard orifice (see chart below for orifice options)


Style 1430


Style 1499

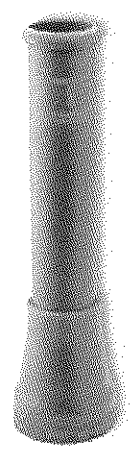
1430 **1 1/2" Threaded Saber™ Tip**
- Can be used with a fog tip, foam nozzle or applicator
- Designed for use in high rise packs
- 7/8" standard orifice (15/16" optional orifice)

1499 **1 1/2" Plain Tip**
- 1 3/8" standard orifice (see chart below for orifice options)


Style 2489

2489 **3 1/2" MasterStream Tip**
- 2" Orifice

3489 **3 1/2" Shaper Tip**
- Combination stream shaper & tip designed for use with Akron Brass StreamMaster™ monitors.
- 2 1/2" standard orifice (2 3/4" optional orifice)


Style 3489

Style	Length	Weight lbs. (kg)	Orifices		Threads	Finish
			Standard	Optional		
416	6" (152 mm)	2 3/4 (1.2 kg)	1 1/8" (29 mm)	3/4", 7/8", 1", 1 1/4" (19, 22, 25, 32 mm)	1 1/2" X 1 1/2" (38 x 38 mm)	Brass or Pyrolite
417	6" (152 mm)	2 (.9 kg)	1 1/8" (29 mm)	3/4", 7/8", 1", 1 1/4" (19, 22, 25, 32 mm)	1 1/2" (38 mm)	Brass
438	4 3/8" (111 mm)	1 1/4 (.6 kg)	1/2" (13 mm)	3/8", 5/8" (9.5, 16 mm)	1 1/2" (38 mm)	Brass
489	9" (229 mm)	3-brass (1.4 kg) 1-alum. (.5 kg)	1 1/2" (38 mm)	7/8", 1 1/4", 1 3/8", 1 3/4", 2", 2 1/4" * (22, 32, 35, 44, 50, 57 mm)	2 1/2" (65 mm)	Brass or Aluminum
489	10 1/2" (267 mm)	5-brass (2.3 kg) 1 3/4 -alum. (.8 kg)	2" (50 mm)	1 3/4", 2 1/4", 2 1/2" (44, 57, 65 mm)	3" NPSH (75 mm)	Brass or Aluminum
1410	4 1/2" (114 mm)	3/8 (.2 kg)	3/8" (10 mm)	5/8" (16 mm)	1" (25 mm)	Pyrolite
1417	3 3/4" (95 mm)	3/4 (.3 kg)	7/8" (22 mm)	3/8", 1/2", 5/8" 3/4", 15/16", 1", 1 1/8", 1 1/4" ◦ (9.5, 13, 16, 19, 24, 25, 29, 32 mm)	1 1/2" (38 mm)	Pyrolite
1430	2 7/8" (73 mm)	3/4 (.3 kg)	7/8" (22 mm)	15/16" (25 mm)	1 1/2" X 1 1/2" (38 x 38 mm)	Pyrolite
2489	9" (229 mm)	2 3/4 (1.2 kg)	2" (52 mm)	3" (75 mm)	3 1/2" NH (89 mm)	Pyrolite
1499*	5" (127 mm)	3/4 (.3 kg)	1 3/8" (35 mm)	7/8", 15/16", 1", 1 1/8", 1 1/4" (22, 24, 25, 29, 32 mm)	1 1/2" NH (38 mm)	Pyrolite
3489	19" (483 mm)	6 (2.7 kg)	2 1/2" (65 mm)	2 3/4" (70 mm)	3 1/2" NH (89 mm)	Pyrolite

* Available with set screw for permanent attachment - Must Specify
** 2 1/4 designed for testing purposes only
◦ 3/8" tip NH thread only

Wyes & Water Thief

Gated Wyes

1480 **1 1/2" Wye**

1482 **Hydrant Wye**
- Self-locking Tork-Lok® handles for positive handle positioning

1581 **Leader Line Wye**
- Self-locking Tork-Lok® handles for positive handle positioning

1582 **Hydrant Wye**
- Self-locking Tork-Lok handles for positive handle positioning

2580 **1 1/2" Wye**
- High strength polymer handles

2581 **Leader Line Wye**
- High strength polymer handles

2582 **3-Way Hydrant Wye**
- Self-locking Tork-Lok handles for positive handle positioning

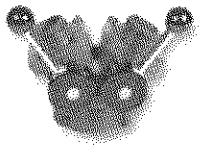
2681 **Leader Line Wye**
Designed for heavy-duty use in severe environments.
- High strength polymer handles & balls standard
- Optional metal handles & balls

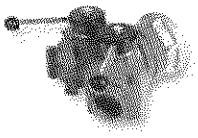
Style	Material	Length	Width	Weight lbs. (kg)	Inlet	Outlet
1480	Brass	5 1/8" (130 mm)	6 5/8" (168 mm)	11 1/4 (5.1 kg)	1 1/2" F (38 mm)	(2) 1 1/2" M (38 mm)
1482	Brass	8 1/4" (209 mm)	12" (305 mm)	* 31 1/4 (14.2 kg)	2 1/2"- 6" F (65-150 mm)	(2) 2 1/2" M (65 mm)
1581	Pyrolite®	5 3/4 (146 mm)	6 3/4" (171 mm)	5 1/2 (2.5 kg)	2 1/2" F (65 mm)	(2) 1 1/2" M (38 mm)
1582	Pyrolite	9 1/2" (241 mm)	11" (279 mm)	* 16 3/4 (7.6 kg)	2 1/2"- 6" F, (65-150 mm) 4" or 5" Storz (100 or 125 mm)	(2) 2 1/2" M (65 mm)
2580	Pyrolite	5 1/2" (140 mm)	7" (178 mm)	3 (1.4 kg)	1 1/2" F (38 mm)	(2) 1 1/2" M (38 mm) or (2) 1" M (25 mm)
2581	Pyrolite	5 1/2" (140 mm)	7" (178 mm)	3 (1.4 kg)	2 1/2" F (65 mm)	(2) 1 1/2" M (38 mm)
2582	Pyrolite	11 3/4" (298 mm)	15 1/2" (394 mm)	* 24 1/2 (11 kg)	2 1/2"- 6" F, (65-150 mm) 4" or 5" Storz (100 or 125 mm)	(3) 2 1/2" M (65 mm)
2681	Brass	7 1/2" (19 cm)	5 1/4" (13.3 cm)	10 1/2 (3.4 kg)	2 1/2" F (65 mm)	(2) 1 1/2" M (38 mm)

* Weight with 4 1/2" (11.4 cm) inlet

Style 1480

Style 1482


Style 1581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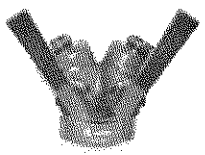
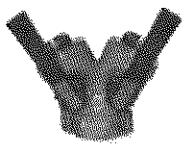
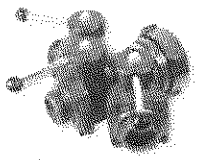

Style 2580


Style 2581


Style 2582

Style 2681

Plain Wyes

Style	Material	Length	Width	Weight lbs. (kg)	Inlet	Outlet
260	Brass	6 3/4" (171 mm)	8" (203 mm)	7 * (3.2 kg)	2 1/2"-6" F (65-150 mm)	(2) 1 1/2" or 2 1/2" M (38 or 65 mm)
1260	Pyrolite	9 1/8" (232 mm)	8" (203 mm)	6 3/4 * (3.1 kg)	2 1/2"- 6" F ** (65-150 mm)	2" - 2 1/2" M** (50 - 65 mm)

* Weight with 4 1/2" (114 mm) inlet
** Storz optional

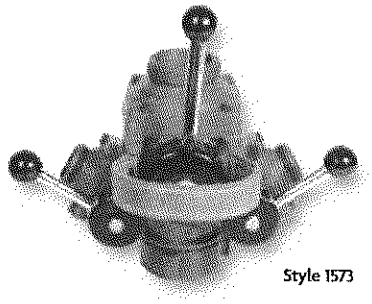
Style 260

Style 1260

Water Thief

For extending 1 1/2" or 2 1/2" lines without interfering with the operation of other lines.
Includes Self-locking Tork-Lok handles for more positive handle positioning.

Style	Material	Length	Width	Weight lbs. (kg)	Inlet	Outlet
1573	Pyrolite	9 3/8" (238 mm)	10 1/2" (267 mm)	12 (5.4 kg)	2 1/2" F (65 mm)	(2) 1 1/2" M & (1) 2 1/2" M (38 & 65 mm)
273	Brass	9 3/8" (238 mm)	10 1/2" (267 mm)	27 (12.5 kg)	2 1/2" F (65 mm)	(2) 1 1/2" M & (1) 2 1/2" M (38 & 65 mm)


Style 1573

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Warranty Information

Akron Brass

WARRANTY AND DISCLAIMER: We warrant Akron Brass products for a period of five (5) years* after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service. We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; damage; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty.

*Turbojet, Assault, SaberJet, Heavy Duty Swing Out Valves and Black Max Piston Intake Valves all carry an extended 10 year warranty. All Industrial electronic warranties are limited to 1 year.

Weldon, a division of Akron Brass:

The Supplier warrants that for a minimum period of twenty-four (24) months from the date of manufacture, goods sold hereunder will be free from defects in materials and workmanship. Supplier produces multiple goods, some having warranty periods beyond twenty-four (24) months; please call the Customer Service Department to obtain the exact warranty length for specific goods. All warranty periods commence from the date the goods were manufactured. The sole and exclusive remedy of the Buyer for a breach of the Supplier's warranty hereunder shall be the repair or replacement, at the Supplier's option, of any defective or non-conforming goods. This warranty shall apply only where the Buyer has returned the goods under a RGA, shipping costs prepaid by the Buyer, along with a detailed written notice of the alleged defects or deficiencies within ninety (90) days after such defect or nonconformity is discovered. This warranty does not extend to any goods that are considered by Supplier to be consumable or wear goods, or to goods that have been subjected to abuse, misuse, neglect or accident, or to any goods that has been repaired or altered by other than the Supplier. THE WARRANTY SET FORTH IN THIS PARAGRAPH IS THE SOLE AND EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, TITLE, OR FITNESS FOR A PARTICULAR PURPOSE. THE SUPPLIER SHALL UNDER NO CIRCUMSTANCES BE LIABLE TO THE BUYER OR TO ANY THIRD PARTY FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, PUNITIVE, OR SPECIAL DAMAGES, IRRESPECTIVE OF WHETHER THE ALLEGED BASIS FOR LIABILITY IS FOUNDED ON WARRANTY, CONTRACT, TORT, STATUTE, REGULATION, EQUITABLE CONSIDERATION OR ANY OTHER THEORY.

REQUEST PRODUCT DEMO

Contact us for a hands-on demonstration.

FIND A DISTRIBUTOR

Learn where to buy.

CUSTOM SOLUTIONS

Contact an engineer for a solution customized to your needs.

RESOURCE CENTER

Get access to useful guides and reference material to help you get the most out of your Akron Brass products.

NORTAMF-01 BROB

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER (256) 355-7951 Stovall Marks Insurance Inc. 2601 Danville Rd SW Decatur, AL 35603	CONTACT NAME: Barbara Broadfoot PHONE (A/C, No, Ext): (256) 355-7951 FAX (A/C, No): (256) 350-2022 E-MAIL ADDRESS: bbroadfoot@stovallmarks.com
INSURED North America Fire Equipment Co., Inc. 1515 W. Moulton St. Decatur, AL 35601	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : AIX Specialty Insurance Company — 12833 INSURER B : Ohio Security Insurance Company — 24082 INSURER C : Associated International Insurance Company — 27189 INSURER D : Ala SIWCF/Midwest Employers Casualty Co. — 23612 INSURER E : Sentry Insurance Company — 24988 INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [ ] OCCUR [X] GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:			LIA A179022	12/12/2013	12/12/2014	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ 50,000 $ 1,000 $ 2,000,000 $ 4,000,000 $ 4,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS [ ]			BAS54389438	3/10/2014	3/10/2015	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	UMBRELLA LIAB [X] OCCUR X EXCESS LIAB [ ] CLAIMS-MADE DED [ ] RETENTION $			XOBW5031314	3/10/2014	3/10/2015	EACH OCCURRENCE AGGREGATE	$ 1,000,000 $ 1,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [N] N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	1-3745114-PKAL-129001	1/1/2014	1/1/2015	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
E	Workers Compensation			90-53270-01 00 141	1/1/2014	1/1/2015	Out of State	1/1/1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

COPY

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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TEMPORARY FIRE STATION 7		
JOB	ESTIMATE	ACTUAL
Survey	$650.00	
Stormwater Protection	$1,100.00	
Excavation of site including gravel drive and culvert verifyseptic dig and size of drive and parking.	$11,468.00	
Water Line	$2,650.00	
Electric Line	In Below	
Mobile Home as Living Quarters	$52,000.00	
Mobile Home Skirting/Splash Blocks	$2,400.00	
ADA ramp and stairs	$4,500.00	
Linoleum Option	$350.00	
Pole barn unit acting as apparatus bay.	$23,531.00	
Septic Permit incls. County		
Septic Tank unit.	$5,200.00	
Septic Tank Install	$2,500.00	
Crane Rental	$1,000.00	
Generac Generator	$6,800.00	
Propane tank.	NC	
Electric Line	In Below	
HVAC	$5,000.00	
Carbon Monoxide units		
Plumbing Water Line/Septic Line/Ground Faucet	$1,600.00	
Electric	$4,500.00	
Furnishing Items	$2,000.00	
ATT or Comcast Fiber		
Contingency	$24,501.00	
TOTAL	$150,000.00	

RESOLUTION NO. 2015-07

A RESOLUTION AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE THE VARIOUS ASPECTS OF THE TEMPORARY FIRE STATION #7 PROJECT WITHIN A PROJECT BUDGET OF $150,000

WHEREAS, on the morning of Friday, August 15, 2014, a tragic accident occurred on Interstate 65 at exit 61 (Peytonsville Road), requiring removal and reconstruction of the Peytonsville Road bridge; and

WHEREAS, certain City residents were made subject to a much greater risk due to increased response times from emergency personnel resulting from the closed major thoroughfare; and

WHEREAS, realizing the added risk created to some of our residents, the City began immediate discussions with Williamson County ("County") about medical, law enforcement and fire protection needs for the affected area, and the County offered temporary free space at the Williamson County Ag Expo Center for Franklin Fire operations; and

WHEREAS, although the Peytonsville Road bridge is now open, this area remains vulnerable to future events until additional access can be completed, making it prudent for the City to continue providing services through a continued Temporary Fire Station #7; and

WHEREAS, the County has agreed to allow the City to use a different portion of the improved property located at 4215 Long Lane, Franklin, Tennessee to construct a pole barn and temporary housing unit for a Temporary Fire Station #7; and

WHEREAS, the City anticipates that to construct Temporary Fire Station #7 will require a project budget of approximately One Hundred Fifty Thousand and No/100 Dollars ($150,000.00), funded through the City's Facilities Tax Fund; and

WHEREAS, the Board of Mayor and Aldermen believe it is in the best interest of the citizens of the City of Franklin to grant authority to the City Administrator to execute various aspects of this project within the project budget so that the project may proceed efficiently.

NOW THEREFORE, BE IT RESOLVED, BY THE BOARD OF MAYOR AND ALDERMEN OF THE CITY OF FRANKLIN, TENNESSEE THAT:

The City Administrator shall be authorized to enter into agreements and authorize purchases on behalf of the City of Franklin for the process of the construction of the Temporary Fire Station #7 project, so long as such agreements and purchases remain within the project budget of One Hundred Fifty Thousand and No/100 Dollars ($150,000.00). The City Administrator will report to the Board on a monthly basis any agreements entered into or purchases made on behalf of the City for this project.

IT IS SO RESOLVED AND DONE on this 13th day of January, 2015

ATTEST:

By:_____
ERIC S. STUCKEY
City Administrator

CITY OF FRANKLIN, TENNESSEE

By:_____
DR. KEN MOORE
Mayor

Approved as to Form

By: _____
Kristen L. Corn, Staff Attorney

THIS INSTRUMENT PREPARED BY AND RETURN TO:	**NEW PROPERTY OWNER AND SEND TAX BILLS TO:**	**TAX ID #** _____
EVANS | PETREE PC **1000 RIDGEWAY LOOP ROAD, SUITE 200** **MEMPHIS, TENNESSEE 38120**	**CITY OF FRANKLIN** _____ _____	**PROPERTY ADDRESS: VACANT**

SPECIAL WARRANTY DEED WITH RESTRICTIONS

THIS INDENTURE made and entered into as of this ___ day of _____, 2014, by and between **Rural Plains Partnership,** a Tennessee general partnership whose partners are BNB-WCO Investors, LLC, a Tennessee limited liability company, The Avalyn Berry Swain and Tyler Berry IV Rural Plains Partnership, a Tennessee general partnership whose partners are The Avalyn Berry Swain Family Partnership, a Tennessee partnership, and The Tyler Berry IV Rural Plains Partnership, a Tennessee partnership, as Grantor, and **The City of Franklin**, Grantee,

WITNESSETH: That for and in consideration of Ten Dollars ($10.00) cash in hand paid, and other good and valuable consideration, the receipt of all of which is hereby acknowledged, the said Grantor has bargained and sold and does hereby bargain, sell, convey and confirm unto the said Grantee the following described real estate situated and being in Williamson County, Tennessee:

> Lot 199, Section 4 ("Property" or "Lot"), Berry Farms Town Center ("Development") which Lot is shown on plat of record in Plat Book ____, Page ____ ("Plat"), in the Register's Office of Williamson County, Tennessee, to which plat reference is hereby made for a more particular description of said property and incorporated herein by reference as if copied verbatim.
>
> Being part of the same property as that conveyed to Grantor by Quitclaim Deeds of record in Book 2654, Page 817, and Book 2654, Page 823, in the Register's Office of Williamson County, Tennessee.

TO HAVE AND TO HOLD the aforesaid real estate, together with all the appurtenances and hereditaments thereunto belonging or in any wise appertaining unto the said Grantee, its heirs and assigns in fee simple forever.

And the said Grantor does hereby covenant with the said Grantee that it is lawfully seized in fee of the aforedescribed real estate, that it has a good right to sell and convey the same; that the same is unencumbered except for those matters of record in the Register's Office of Williamson County, Tennessee and which would be shown by survey, and that the title and quiet possession thereto it will warrant and forever defend against the lawful claims of all persons claiming by, through, or under Grantor, but not further or otherwise.

The Property is conveyed "As Is", and Grantor makes no representations, written, oral or implied, as to the condition of the Property or any improvements thereon.

In addition, the Property is conveyed to the following restriction:

For a period of _____ years from the date of recording hereof, the Property conveyed herein shall used solely as a fire station. The Property is being given to the Grantee with the express understanding that if the Property shall cease to be used as a fire station during the aforementioned ___ year period, then the Property shall revert back to the Grantor and its successors free from any encumbrances whatsoever and this conveyance shall become null and void. Upon cessation of fire station use, the Grantee will execute a quit deed conveying title to the Property free from any encumbrances whatsoever back to Grantor. The forgoing restriction shall be for a term of _____ years from the date of recording hereof and shall run with the land and be binding on the successors and assigns of party of the second part.

DRAFT

The word "party" as used herein shall mean "parties" if more than one person or entity be referred to, and pronouns shall be construed according to their proper gender and number according to the context hereof.

WITNESS the signature of the said Grantor the day and year first above written.

Rural Plains Partnership

By: BNB-WCO Investors, LLC
Managing General Partner

By:_____

Title:_____

STATE OF TENNESSEE
COUNTY OF SHELBY

Personally appeared before me, a Notary Public, _____, with whom I am personally acquainted and who acknowledged that he executed the within instrument for the purposes therein contained, and who further acknowledged that he is the _____ of ***BNB-WCO Investors, LLC,*** a Tennessee limited liability company, which is one of two partners of ***Rural Plains Partnership,*** a Tennessee general partnership, Maker, and is authorized by ***BNB-WCO Investors, LLC,*** a Tennessee limited liability company, which is authorized by the Maker to execute this instrument on behalf of the Maker.

WITNESS my hand and seal this _____ day of _____, 2014.

_____
Notary Public

My Commission expires:

_____

State Tax $0.00
Register's Fee..... 2.00
Recording Fee 10.00
Total $12.00

I, or we, hereby swear or affirm that, to the best of affiant's knowledge, information and belief, the actual consideration for this transfer or value of the property transferred, whichever is greater, is $0.00, which amount is equal to or greater than the amount which the property transferred would command at a fair and voluntary sale.

_____
Affiant

Subscribed and sworn to before me this _____ day of _____, 2014.

DRAFT

_____

_____ My Commission expires:_____

Notary Public

4810-4083-0748, v. 3

DRAFT

AGREEMENT FOR CONVEYANCE AND DEDICATION OF IN-KIND PROPERTY OR CASH DONATION

COF Contract 2014-0329

THIS AGREEMENT ("Agreement") is entered into as of _____, 2014, between **RURAL PLAINS PARTNERSHIP**, a Tennessee general partnership ("Owner"), and **THE CITY OF FRANKLIN** ("City").

WITNESSETH:

WHEREAS, Owner is the owner of that that certain real property commonly known as Berry Farms Town Center located in the City of Franklin, Tennessee (the "Development"); and

WHEREAS, pursuant to Ordinance 2005-17, one of the conditions of approval for the Development was that a lot be conveyed and dedicated to the City for a fire station site, said condition being more particularly set forth in the aforementioned Ordinance ("Condition"); and

WHEREAS, the Owner and the City have reached certain agreements regarding such Condition and desire to enter into this Agreement in order to set forth their mutual understanding with regard thereto.

NOW THEREFORE, in consideration of Ten and No/100 Dollars ($10.00), the foregoing recitals and the mutual covenants contained herein, the receipt and sufficiency of which are hereby confessed and acknowledged, the parties hereby agree as follows:

AGREEMENT

1. Condition Satisfied by Cash Donation or In kind Property Conveyance. The City hereby agrees that the Condition that a fire station site be dedicated to the City by Owner, as more particularly set forth in Ordinance 2005-17, may be satisfied by either (a) a conveyance by Owner of Lot 199 in proposed Section 4 of the Development to the City pursuant to the draft deed attached hereto as **Exhibit "A"**, or (b) a cash donation by Owner to the City. Said cash donation shall be based on the combined square foot sales price, net of closing costs, the Owner actually receives at closing and as documented on the closing statements for Lots 199 and 205 multiplied by 57,064 square feet which is equivalent to the 1.31 acres contained within Lot 199 or, $696,808.00 ($12.21 per square foot) net closing costs, whichever is greater.

On or before that date which is (i) thirty (30) days following the closing of Lots 199 and 205 or (ii) September 30, 2015, whichever is later to occur, Owner shall satisfy the Condition by electing, in Owner's sole and absolute discretion, (a) or (b) above.

2. Section 4 Plat. The City and Owner agree that development activity on Lots within Section 4 may commence once the Final Plat is recorded but shall cease on all Lots within Section 4 if the Owner has failed to satisfy the terms of this agreement on or before that date which is the later of the following (i) thirty (30) days following the closing of the sale of Lots 199 and 205 or (ii) September 30, 2015.

3. Satisfaction of Condition. Upon satisfaction of the Condition, whether by deed or cash donation, the City shall provide Owner with evidence that the Condition and the terms this Agreement have been satisfied in full.

4. Miscellaneous. This Agreement shall be governed by and construed in accordance with the laws of the State of Tennessee, without regard for choice of law rules. The parties irrevocably consent to the jurisdiction and venue in the state courts for Williamson County, Tennessee. If either party hereto brings an action, lawsuit, or other legal proceeding against the other party arising out of this Agreement, the prevailing party in such action, lawsuit, or proceeding shall be entitled to recover from the other party all reasonable costs and expenses (including, but not limited to, all court costs and reasonable attorneys' fees and expenses) incurred in connection with such action, lawsuit, or proceeding. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of such counterparts shall constitute one Agreement. To facilitate execution of this Agreement, the parties may execute and exchange by scanned, pdf, electronic or facsimile counterparts of the signature pages.

IN WITNESS WHEREOF, the parties have executed this Agreement the day and date set forth hereinabove.

Rural Plains Partnership

By: BNB-WCO Investors, LLC
Managing General Partner

By: Phil Fawcett

Title: Manager

STATE OF TENNESSEE
COUNTY OF Williamson

Personally appeared before me, a Notary Public, Phil Fawcett, with whom I am personally acquainted and who acknowledged that he/she executed the within instrument for the purposes therein contained, and who further acknowledged that he/she is the Manager of ***BNB-WCO Investors, LLC,*** a Tennessee limited liability company, which is one of two partners of ***Rural Plains Partnership,*** a Tennessee general partnership, Maker, and is authorized by ***BNB-WCO Investors, LLC,*** a Tennessee limited liability company, which is authorized by the Maker to execute this instrument on behalf of the Maker.

WITNESS my hand and seal this 23rd day of January, ~~2014~~ 2015.

JOAN G. HINES STATE OF TENNESSEE NOTARY PUBLIC WILLIAMSON COUNTY My Commission Expires 01-14-2018

Joan Hines
Notary Public

My Commission expires:
1-14-2018

IN WITNESS WHEREOF, the parties have executed this Agreement the day and date set forth hereinabove.

Attest **City of Franklin**

By: _____
Eric Stuckey
City Administrator

By:_____
Dr. Ken Moore
Mayor

STATE OF TENNESSEE
COUNTY OF WILLIAMSON

Personally appeared before me, a Notary Public, Eric Stuckey and Dr. Ken Moore, with whom I am personally acquainted and who acknowledged that they executed the within instrument for the purposes therein contained, and who further acknowledged that Eric Stuckey is the City Administrator for the City of Franklin, Tennessee and Dr. Ken Moore is the Mayor of the City of Franklin, Tennessee and are authorized to execute this instrument on behalf of the Maker.

WITNESS my hand and seal this ____ day of _____, 2014.

_____
Notary Public

My Commission expires:

_____

Approved as to form

By: _____
Shauna R. Billingsley
City Attorney

THIS INSTRUMENT
PREPARED BY AND RETURN TO:

EVANS | PETREE PC
1000 RIDGEWAY LOOP ROAD, SUITE 200
MEMPHIS, TENNESSEE 38120

NEW PROPERTY OWNER AND
SEND TAX BILLS TO:

CITY OF FRANKLIN

TAX ID #

PROPERTY ADDRESS: VACANT

SPECIAL WARRANTY DEED
WITH RESTRICTIONS

THIS INDENTURE made and entered into as of this ___ day of _____, 2014, by and between **Rural Plains Partnership,** a Tennessee general partnership whose partners are BNB-WCO Investors, LLC, a Tennessee limited liability company, The Avalyn Berry Swain and Tyler Berry IV Rural Plains Partnership, a Tennessee general partnership whose partners are The Avalyn Berry Swain Family Partnership, a Tennessee partnership, and The Tyler Berry IV Rural Plains Partnership, a Tennessee partnership, as Grantor, and **The City of Franklin**, Grantee,

WITNESSETH: That for and in consideration of Ten Dollars ($10.00) cash in hand paid, and other good and valuable consideration, the receipt of all of which is hereby acknowledged, the said Grantor has bargained and sold and does hereby bargain, sell, convey and confirm unto the said Grantee the following described real estate situated and being in Williamson County, Tennessee:

Lot 199, Section 4 ("Property" or "Lot"), Berry Farms Town Center ("Development") which Lot is shown on plat of record in Plat Book ____, Page ____ ("Plat"), in the Register's Office of Williamson County, Tennessee, to which plat reference is hereby made for a more particular description of said property and incorporated herein by reference as if copied verbatim.

Being part of the same property as that conveyed to Grantor by Quitclaim Deeds of record in Book 2654, Page 817, and Book 2654, Page 823, in the Register's Office of Williamson County, Tennessee.

TO HAVE AND TO HOLD the aforesaid real estate, together with all the appurtenances and hereditaments thereunto belonging or in any wise appertaining unto the said Grantee, its heirs and assigns in fee simple forever.

And the said Grantor does hereby covenant with the said Grantee that it is lawfully seized in fee of the aforedescribed real estate, that it has a good right to sell and convey the same; that the same is unencumbered except for those matters of record in the Register's Office of Williamson County, Tennessee and which would be shown by survey, and that the title and quiet possession thereto it will warrant and forever defend against the lawful claims of all persons claiming by, through, or under Grantor, but not further or otherwise.

The Property is conveyed "As Is", and Grantor makes no representations, written, oral or implied, as to the condition of the Property or any improvements thereon.

In addition, the Property is conveyed to the following restriction:

For a period of _____ years from the date of recording hereof, the Property conveyed herein shall used solely as a fire station. The Property is being given to the Grantee with the express understanding that if the Property shall cease to be used as a fire station during the aforementioned ___ year period, then the Property shall revert back to the Grantor and its successors free from any encumbrances whatsoever and this conveyance shall become null and void. Upon cessation of fire station use, the Grantee will execute a quit deed conveying title to the Property free from any encumbrances whatsoever back to Grantor. The forgoing restriction shall be for a term of _____ years from the date of recording hereof and shall run with the land and be binding on the successors and assigns of party of the second part.

The word "party" as used herein shall mean "parties" if more than one person or entity be referred to, and pronouns shall be construed according to their proper gender and number according to the context hereof.

WITNESS the signature of the said Grantor the day and year first above written.

Rural Plains Partnership

By: BNB-WCO Investors, LLC
Managing General Partner

By:_____

Title:_____

STATE OF TENNESSEE
COUNTY OF SHELBY

Personally appeared before me, a Notary Public, _____, with whom I am personally acquainted and who acknowledged that he executed the within instrument for the purposes therein contained, and who further acknowledged that he is the _____ of ***BNB-WCO Investors, LLC,*** a Tennessee limited liability company, which is one of two partners of ***Rural Plains Partnership,*** a Tennessee general partnership, Maker, and is authorized by ***BNB-WCO Investors, LLC,*** a Tennessee limited liability company, which is authorized by the Maker to execute this instrument on behalf of the Maker.

WITNESS my hand and seal this ____ day of _____, 2014.

_____
Notary Public

My Commission expires:

_____

State Tax.....$0.00
Register's Fee..... 2.00
Recording Fee..... 10.00
Total $12.00

I, or we, hereby swear or affirm that, to the best of affiant's knowledge, information and belief, the actual consideration for this transfer or value of the property transferred, whichever is greater, is $0.00, which amount is equal to or greater than the amount which the property transferred would command at a fair and voluntary sale.

_____
Affiant

Subscribed and sworn to before me this _____ day of _____, 2014.

_____
Notary Public

My Commission expires:_____

City of Franklin, Tennessee

Tabulation of Bids*

Purchasing Office Solicitation No.:	**2015-018 (remove and replace existing pedestrian-type hand railing mounted on top of loading area ingress and egress retaining walls, with new railing to be core-drilled into concrete walls, and install new pipe bollards to be core-drilled into concrete floor, all at the City's solid waste transfer station)**
Notice to Bidders published in the *Williamson Herald* on:	**11/20/14**
Number of vendors that were notified of / that responded to this solicitation for bids:	**5 / 1**
Date and time bids due and publicly opened:	**December 9, 2014, 2:00 p.m.**
Present at opening of bids:	**Carl Herbert of Lee Company; Brad Wilson of the City of Franklin Project and Facilities Management Department; and Dee Settle and Suzanne Ward of the City of Franklin Purchasing Office**
Target meeting of BOMA at which recommendation will be considered:	**1/27/15**

Bids received from:	Project Component:	Does the bid include all required documents?	Duration of installer's guarantee of workmanship:	Does the bid MOES[1]? / If not, how many exceptions do not MOES[1]?	Total delivered bid price, per unit:	Payment terms:	Estimated no. of days of completion of project after receipt of order:	Bid and bid pricing is valid through:
Lee Company 331 Mallory Station Road Franklin, TN 37067 Carl Herbert, Business Unit Manager - Axium 615/468-6208 or 615/504-0327 carl.herbert@leecompany.com	A: hand railing	Yes	one year after date of installation	Bidder takes 4 exceptions (CoF notes all exceptions appear to MOES)	$36,905.79	net 30 days	21 days	03/27/15
	B: pipe bollards				$5,903.62			
	Total Project				$42,809.41			

[1]MOES indicates "meet(s) or exceed(s) specifications"

*Shaded bid is apparent lowest best bid

FRANKLIN HOUSING AUTHORITY

FRANKLIN, TENNESSEE

Lighting your path to affordable housing

December 18, 2014

Mr. Vernon Gerth
City Hall
109 3rd Avenue South
Franklin, Tn. 37064

Dear Mr. Gerth:

Thank you for meeting with us recently about Phase II of the Reddick site redevelopment project. This development is the next phase of the Master Housing Plan designed to redevelop or rehabilitate not only the public housing stock in Franklin but add additional affordable housing for the Franklin community.

For over 50 years, the Franklin Housing Authority has provided safe, decent affordable housing to low income families. We are attempting to not only continue to provide housing for low income families but also to create more affordable housing for the community.

When the first public housing properties were developed in Franklin it was not without concessions and support from the City. Those concessions and support are still critical today and can be addressed through the Cooperation Agreement. The current agreement on the Reddick Apartments is the same agreement that has been in place for many years and is in place between cities and housing authorities across the country.

As we move through the planning and permitting process for the Reddick Apartments, we have been working with the planning staff on infrastructure costs, fees and other anticipated expenses for the development. They have been very helpful and we appreciate their diligence and cooperation. As a result of those conversations, we are requesting consideration by the City of Franklin Board of Mayor and Aldermen of the following:

1. Allow Sanitary Sewer and Water fees to be calculated on one, 3" master meter. Master meters had been approved and installed to serve the existing properties when originally developed in the 1960's. The FHA agrees to extend service lines and separate water meters to the individual buildings to comply with current City of Franklin design standards.

2. FHA agrees to incur the cost of approximately $127,000 for street and sewer work, much of which is beneficial to the city. (see the attached list). The FHA acknowledges it will receive $50,000 in CDBG funds to assist with these costs.

3. Based on the one, 3" water meter to serve Phase II, the FHA will incur the cost of approximately $179,250 for water and sanitary sewer development fees associated with the master meter for the project plus the additional costs associated with extending service lines and waters meters to individual buildings to comply with current City of Franklin design standards and Municipal Code.

We believe these requests are reasonable in an effort to provide affordable housing and can be handled at the staff level rather than through BOMA. This belief is based on Paragraph 4, Section C of the Cooperation Agreement previously approved by BOMA with states:

> *Insofar as the Municipality may lawfully do so, (i) grant such deviations from the building code of the Municipality as are reasonable and necessary to promote economy and efficiency in the development and administration of the Project, and at the same time safeguard health and safety*

If additional information is needed regarding these requests, please contact me to discuss. We look forward to working together to continue to provide housing for the Franklin community.

Sincerely,

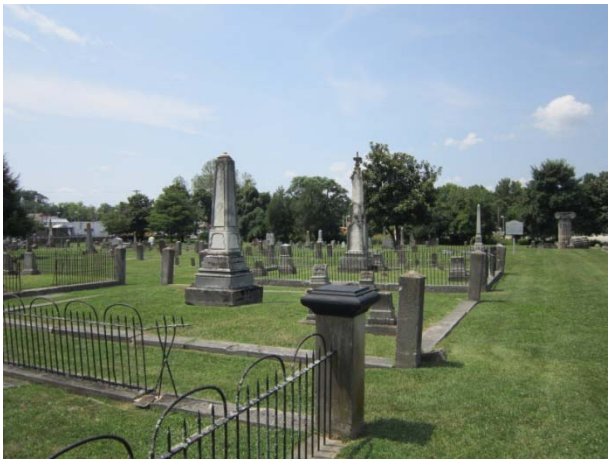
Derwin Jackson
Executive Director

Reddick Street Apartments
Sewer and street work

- New sewer line & removal of old - $65,148
- Sewer connections $3,120
- Manholes $5,400
- Mill paving (strahl/carter/Granbury) $53,332
-

Total estimate $127,000 approx.

ASSESSMENT OF TWO CITY OF FRANKLIN CEMETERIES, FRANKLIN, TENNESSEE



Chicora Research Contribution 559

ASSESSMENT OF TWO CITY OF FRANKLIN CEMETERIES, FRANKLIN, TENNESSEE

Research Contribution 559

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Funded by the Tennessee Historical Commission and the City of Franklin, Tennessee

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“I don't embrace excuses. I embrace solutions.”
— Jon Taffer

MANAGEMENT SUMMARY

This study was funded by a grant from the Tennessee Historical Commission. The project was administered by the City of Franklin, Tennessee and the field investigations were conducted from July 29 through 31, 2014. Report production followed immediately afterwards.

The study examines the City of Franklin's two oldest burial grounds. City Cemetery began in 1811 and was used by the area's citizens, black and white, until just prior to the Civil War. This cemetery, encompassing about 2 acres, was situated on the outskirts of the community, next to the Harpeth River. It is today bounded by North Margin Street on the south and North Third Avenue to the west. On the east is the newly completed North Third Avenue extension.

In 1855 what became known as Rest Haven Cemetery opened immediately across North Third Avenue from City Cemetery. This cemetery, about 7 acres in size, was reserved exclusively for whites. Blacks presumably continued to use the filled City Cemetery until the African American Toussaint L'Ouverture Cemetery opened in 1884.

A cemetery assessment is designed to help the cemetery caregivers to think about long-range preservation in a structured way, to better understand what is significant and why, and how it should be managed in order to preserve its historical significance and ensure the cemetery's preservation for future generations. Issues of access, roads, security, landscape maintenance, and monuments are examined. Current conditions are detailed and recommendations are offered.

Franklin, Tennessee is doing an admirable job preserving and protecting its historic houses and battlefield. The two City cemeteries could provide exceptional benefits to these efforts. Unfortunately, maintenance has been minimal and it is reported that in the past local citizens, in an effort to control rank vegetation, simply burned off the cemeteries yearly. Even more recently it appears that maintenance has been limited to mowing.

After decades of either inaction or minimal action, the two cemeteries were transferred to Franklin's Parks Department and this grant was secured.

Conditions in both cemeteries are desperate. About 20% of City Cemetery's stone boundary wall requires repair. Fully 40% of the stone boundary wall at Rest Haven requires repair or rebuilding. About 40% of the chain link fence along City Cemetery's north boundary requires extensive repairs. It is critical that a western boundary fence be constructed at Rest Haven Cemetery.

None of the iron gates associated with either cemetery are operable and the ironwork requires extensive repairs.

The condition of monuments in the two cemeteries is equally dire. At City Cemetery nearly 300 monuments – representing about 80% of the memorials at the cemetery – require conservation treatment. At Rest Haven cemetery nearly 400 monuments, or about 82% of the cemetery's total, require preservation intervention.

Nearly a quarter of the family plot fences in the two cemeteries have disappeared. Of what remains nearly a third are in poor condition and will require extensive intervention if they are to be saved. Nearly half can be rated, at best, as in only fair condition. Only 3 fences, or less than a quarter, are considered to be in good condition.

Overwhelming deterioration, whether it represents failing walls, falling fences, or broken monuments, affects the entire cemetery landscape, making these properties less attractive places and reducing the heritage tourism potential of these properties. Moreover, it ignores that the

City is the steward of these cemeteries, holding and maintaining them for future generations. Simply put, after years of deferring preservation activities, the City of Franklin is facing a massive maintenance responsibility.

This assessment has identified five critical preservation issues at the two cemeteries.

First, while maintenance operations have already improved at both cemeteries, additional actions are necessary. Among these maintenance improvements are developing a dedicated, full-time cemetery maintenance staff. Devoting 1½ days a week to mowing these properties, with less than a 30 minutes a week oversight by the Grounds Foreman and Crew Chief, will simply not permit adequate maintenance.

Second, it is critical that the porous boundaries of the two cemeteries be improved. The stone walls must be repaired. The chain link fence at City Cemetery must be repaired. A new fence must be erected along the western boundary of Rest Haven Cemetery. The iron work associated with these two cemeteries must be repaired before it is so badly damaged that repair becomes impossible.

Third, the family plot fences, which are an important cemetery landscape feature especially at Rest Haven, must receive intervention. In some cases extensive repairs will be necessary, including structural modifications. In other cases, simple caulking and painting will provide years of preventative conservation.

Fourth, the condition of the stones in the two cemeteries is so deplorable that immediate actions are essential. It will be difficult to effectively encourage or integrate heritage tourism given the overall poor condition of these critical landscape features.

Finally, the City must post regulatory signage at every cemetery entrance to ensure that they have control over the properties.

We acknowledge that the recommendations will be costly. Nevertheless, the City of Franklin has deferred care for generations – it is now time to ensure that these early Franklin cemeteries are appropriately preserved for future generations.

TABLE OF CONTENTS

List of Figures v

List of Tables vii

Introduction 1
- *The Project* 3
- *Why Preserve?* 4
- *Preservation or Restoration?* 6
- *Preservation Fundamentals* 6
- *A Brief History* 8
- *The Cemetery Location, Setting, and Context* 11
- *Factors Affecting Landscape Character* 14
- *Recommendations* 17

Administrative Issues 19
- *City of Franklin Municipal Ordinances* 19
- *Recommendations for Additional Regulations* 20
- *Visitation* 20
- *Budget* 21
- *Recommendations* 22

Roads and Pedestrian Issues 23
- *City Cemetery* 23
- *Rest Haven Cemetery* 25
- *Universal Access* 26
- *Recommendations* 28

Cemetery Boundary Walls and Fencing 29
- *City Cemetery* 29
- *Rest Haven Cemetery* 36
- *Recommendations* 44

Cemetery Security 47
- *Vandalism* 47
- *Vandalism Records* 51
- *Theft* 51
- *Dealing with the Homeless* 53
- *Recommendations* 54

Cemetery Fixtures and Furnishings 55
- *Various Amenities* 55
- *Introduction of Additional Memorials* 55
- *Recommendations* 57

Landscape Issues 59
- *Staffing* 59

Cemetery Soil *64*
City Cemetery *67*
Rest Haven Cemetery *78*
Other Cemetery Issues *88*
Recommendations *88*

Other Maintenance Issues 93
Signage *93*
Flowers and Other Grave Decorations *96*
Trash *97*
Lost and Orphan Stones *97*
Plot Curbs or Coping *102*
Recommendations *102*

Conservation Issues 105
Standards for Conservation Work *105*
Past Conservation Efforts *106*
General Types of Stone Damage *107*
Cleaning *119*
Plot Walls *123*
Plot Fences *123*
Recommendations *126*

Priorities and Funding 127
Recommended Priorities *127*

Sources Cited 137

LIST OF FIGURES

Figure

1. City of Franklin in Williamson County, Tennessee 1
2. Aerial photograph of City and Rest Haven cemeteries 2
3. City and Rest Haven cemeteries along the Harpeth River 3
4. Plat of City Cemetery based on the calls identified in the deed 9
5. A portion of the 1878 D.G. Beers *Map of Williamson County, Tennessee* 10
6. A portion of the 1927 *City of Franklin* map 10
7. Portion of an oblique 1948 aerial showing flooding up to the cemeteries 11
8. Portion of the 1958 aerial showing the two cemeteries 11
9. Intrusive elements in the vicinity of the cemeteries 12
10. Contour map of City and Rest Haven cemeteries 13
11. Census tracts in the Franklin, Tennessee area 14
12. Soils in City and Rest Haven cemeteries 15
13. FEMA 100-year flood zone at City and Rest Haven cemeteries 15
14. Palmer Drought Severity Index 16
15. Plant Hardiness Zones in the vicinity of Williamson County 16
16. Rainfall pH in Tennessee 17
17. Brochures that promote City and Rest Haven cemeteries 21
18. Example of a removable bollard 23
19. East entrance of Rest Haven looking west 24
20. Grassed verge along the east side of Rest Haven Cemetery 25
21. The proposed parking area along Hillsboro Road will require screening 26
22. Newly constructed Hillsboro Road sidewalk terminating in Rest Haven Cemetery 26
23. Specifications for one brand of grass reinforcement system 27
24. Evidence of hard Portland cement mortar in some areas 29
25. Different base construction north and south of the west gate 30
26. City Cemetery stone wall defects 31
27. City Cemetery gates 32
28. South end of the east gate showing the missing granite stroup 34
29. Chain link fence along the north property line 35
30. Condition of the stone wall at Rest Haven Cemetery 37
31. Condition of the stone wall at Rest Haven Cemetery 38
32. Wall and column damage at the east entrance 39
33. Sprinklers wetting the north cemetery wall 41
34. Gate problems 42
35. Examples of probable vandalism 48
36. Example of a vandalism report 52
37. Example of a gate protected with stainless steel cabling 53
38. Pre-adolescents cutting through Rest Haven Cemetery 54
39. Introduction of new elements 56
40. Monthly condition report form 62
41. Soil sample results 66
42. Pecan tree at City Cemetery 67
43. Additional tree problems in City Cemetery 71
44. Shrubs and trash vegetation 72
45. Weedy turf at City Cemetery 74

46. Mowing issues at City Cemetery 75
47. Sharpness of mower blades at City Cemetery 76
48. Examples of bare spots at City Cemetery 77
49. Magnolia at the east side of Rest Haven Cemetery 78
50. Dying sycamore at the southwest corner of Rest Haven Cemetery 79
51. Improper cutting of stumps 80
52. Additional tree issues at Rest Haven Cemetery 82
53. Junk vegetation in Rest Haven Cemetery 83
54. Turf problems at Rest Haven Cemetery 84
55. Mowing damage in Rest Haven Cemetery 85
56. Grave depressions in a lot 86
57. Examples of nylon string trimmer damage 86
58. Examples of existing signage 94
59. Example of combined identification and regulatory sign for City Cemetery 95
60. Trash in City and Rest Haven cemeteries 98
61. Orphan stones in City Cemetery 99
62. Orphan stones and fence parts in Rest Haven Cemetery 100
63. Monument Fragment and Removal Record 101
64. Displaced or damaged curbs and copings 102
65. Damaged stones and conservation problems in City Cemetery 106
66. Damaged stones and conservation problems in Rest Haven Cemetery 107
67. Examples of stones requiring resetting 109
68. Examples of die on base and cradle grave damage 111
69. Examples of tab in socket stones 113
70. Examples of broken stones 114
71. Examples of ferrous pins and iron jacking 116
72. Box tombs 117
73. Examples of box and table tombs 118
74. Spalling 120
75. Extensive spalling on two sandstone obelisks in City Cemetery 121
76. Cleaning issues in the cemeteries 122
77. Plot wall in Rest Haven Cemetery 123
78. Fence problems 125

LIST OF TABLES

Table
1. Secretary of Interior's Standards for Preservation 7
2. ISA Certified Arborists in Franklin 63
3. Recommended Liming for Turf Areas 65
4. Comparison of Historically Appropriate Trees 69
5. Comparison of Different Cleaning Techniques 123
6. Prioritization of Recommendations 130

Introduction

This study examines two City of Franklin owned and maintained cemeteries in Williamson County, Tennessee (Figure 1). Separated by what is today Fourth Avenue North these are City Cemetery to the east and Rest Haven Cemetery to the west.

City Cemetery was began ca. 1811 and continued in use until Rest Haven Cemetery was created on the opposite side of Fourth Avenue North ca. 1855. Situated largely in the flood plain of the Harpeth River, the two cemeteries exhibit a gradual slope from about 630 feet above mean sea level (AMSL) on the southern edge of City Cemetery to about 620 feet AMSL at the northern edge of Rest Haven Cemetery.

City Cemetery is identified as parcel 063N

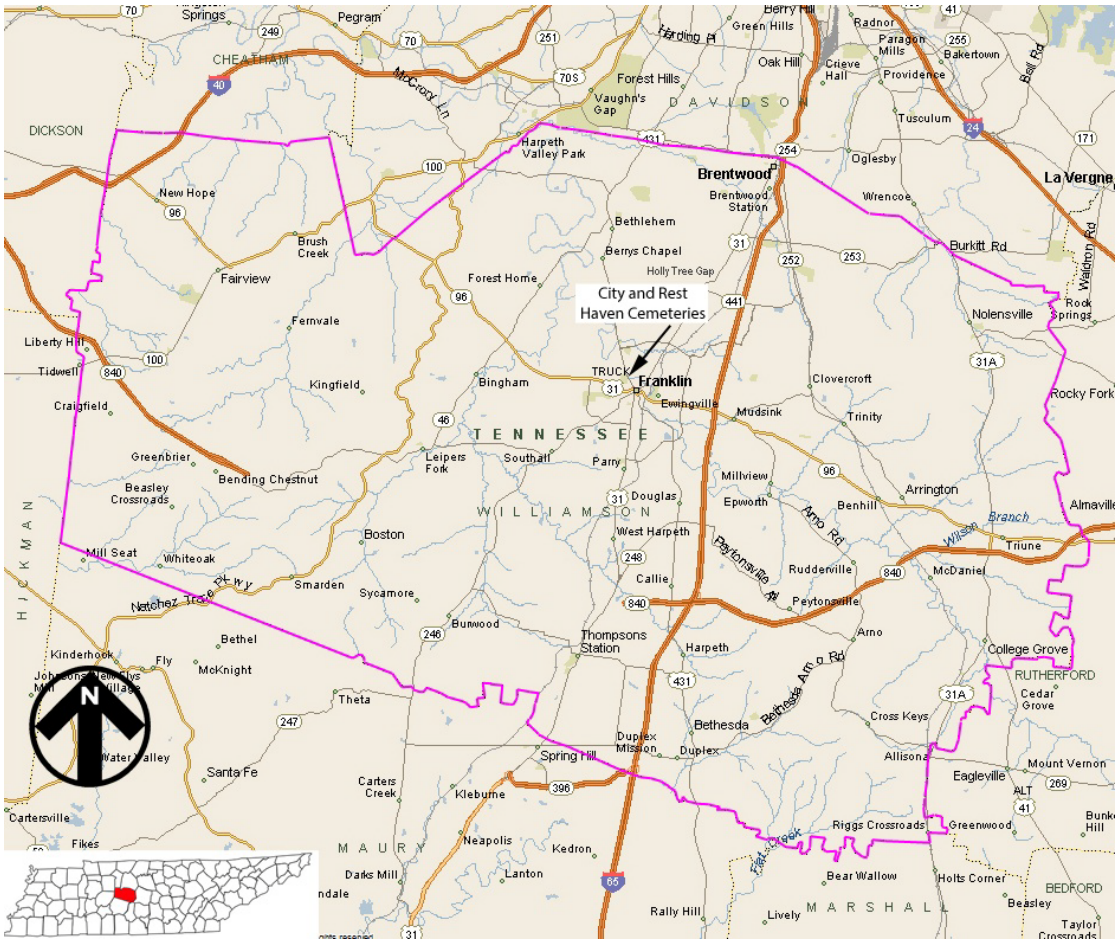

Figure 1. City of Franklin in Williamson County, Tennessee.

Figure 2. Aerial photograph of City and Rest Haven cemeteries.

D 00600 and is listed as 1.9 acres, very close to the 2 acres claimed by the deed. Rest Haven Cemetery is parcel 063N D 01400, identified as 6 acres (Figure 2). Burials appear to be limited to the southern 3.7 acres of the parcel and if the area to the north was used there is no visual indication today.

In spite of both cemeteries being listed on the National Register in 2012, there has never been any detailed inventory of extant graves. It is estimated that City Cemetery contains between 285 and 373 marked graves in the western half, as well as perhaps 300 unmarked graves of African Americans in the eastern portion of the cemetery. Rest Haven is thought to contain at least 475 marked burials, perhaps more, although this cemetery excluded African Americans.

In spite of the uncertain number of burials – or perhaps because of this uncertainty, both cemeteries are considered closed. There are no maps or burial registers for either property, although the City is anticipating the use of ground penetrating radar (GPR) in an effort to further explore various "open" areas.

As previously mentioned, both cemeteries were placed on the National Register of Historic Places in 2012 and are considered significant under Criteria A (association with events) and C (embodies distinctive characteristics). The burial

Figure 3. City (top) and Rest Haven (bottom) cemeteries along the Harpeth River.

monuments reflect funerary traditions from the early-nineteenth century through the first quarter of the twentieth century. A variety of architectural styles are found in the obelisks, headstones, and other markers.

The landscape architecture of the City Cemetery is characteristic of early churchyard cemeteries with rigid geometric formality. There is little evidence of early garden styles and only a few defined family plots, although often family members are found as groups of burials. The cemetery is, however, situated on the outskirts of Franklin, typical of the town/city cemetery movement away from populous areas.

While established much later, Rest Haven Cemetery exhibits a continuation of town/city cemetery landscape begun at City Cemetery and lacks any clear indication of the rural cemetery movement. The cemetery is, however, dominated by defined family lots, generally 30 by 20 feet.

Consequently, both cemeteries document transition periods between the churchyard, town/city, and rural cemetery. It demonstrates that not all communities quickly, or convincingly, adopted common cemetery styles and many retained a basic conservative approach.

The Project

There have been at least two previous assessments of the cemeteries. The first, from 2006, was conducted by Ilene R. Tyler and Tracy L. Coffing with Quinn Evans Architects as part of the City's study of the area for Bicentennial Park (Tyler and Coffing 2006). While very brief, the study does provide insightful recommendations. It does not appear, however, that the City acted on any of the recommendations.

The second study was conducted in 2010 by five students from the Middle Tennessee State University (MTSU) Center for Historic Preservation. This document provides updated information on conditions and, in particular, provides the only detailed historic documentation other than the brief National Register nominations available for the two cemeteries (Eubank et al.

2010). The document also includes as an appendix the WPA transcriptions for both cemeteries, a very useful document given the amount of damage seen at both properties. Although not incorporating specific recommendations, this study does provide good overviews.

It was about 2012 that care of the cemeteries was transferred from the Street Department to the City's Park Department. By 2013 Ms. Anna Shuford contacted Chicora seeking information on our cemetery assessment program. A scope of work was issued by the City in March 2014 and Chicora submitted a proposal for the work in April. An agreement was reached by early June 2014.

The assessment was conducted from July 21 through 31 by the authors, Michael Trinkley and Debi Hacker. The work involved a three day inspection of the two cemeteries. The work included not only a careful inspection of the overall condition, but also a series of meetings with representatives of the City of Franklin Park Department, including Ms. Anna Shuford, Mr. James Bilbo, and Mr. Brian Walker, as well as the City's Preservation Planner, Ms. Amanda Hall.

This document may be viewed as a "comprehensive or master plan" in so far as it is a long-range plan that provides a policy framework to guide preservation planning decisions. We view long-range as ideally five years, believing that after that length of time progress should be evaluated and needs of the cemeteries re-assessed. This document is not, however, a business, financial, or fundraising plan, although each of those topics impacts preservation and will be at least briefly examined.

This preservation plan incorporates issues of not only maintenance of the landscape, but also security, pedestrian and vehicular access, vandalism, and maintenance of the cemeteries' hardscape. The assessment also includes a review of critical conservation issues associated with monuments, plot fences, and surrounding walls.

The presence of a plan, however, does not guarantee improvement. This document is a "road-map" for preservation issues, but it is incumbent on the City's Board of Mayor and Aldermen to not simply implement its recommendations, but to embrace them. Many of the recommendations focus on fundamental operational changes.

Yet failure to make substantive changes will have serious effects on the long-term quality of the landscape, the cemetery monuments, and community support of the two cemeteries.

Why Preserve?

Preservationists may take the question "why preserve" for granted; yet it remains an important issue, especially in the current economic climate. It is useful to provide at least some brief discussion of why preservation of Franklin's two historic cemeteries is a worthwhile – even critical – goal for the city and its citizens.

Cemeteries are different from all other types of historic sites. Most fundamentally they contain the physical remains of past generations and are considered sacred, consecrated ground. The right to a decent burial has long been recognized in common law. So, too, is the duty to continue a cemetery once begun. Thus a municipality or other organization, by opening a cemetery, creates a duty through its officials to execute the trust and maintain the cemetery for the benefit of the public. This is a fundamental responsibility of the Board of Mayor and Aldermen.

Cemeteries are also artistic sites, such as a sculpture garden or outdoor museum, which contain a collection of three-dimensional artifacts. The monuments trace changes in both designs and social attitudes toward religious and moral views, death and eternity. They provide examples of the largely disappeared art of stone carving, illustrating numerous famous artisans. They are permanent collections, but must be considered finite and irreplaceable.

These collections are archives, having the same value and importance to the community as any paper archives. They are storehouses of genealogical information that often cannot be identified through any other means. They provide information concerning both the individual and collective pasts.

Sometimes it is thought that once a genealogical assemblage of the cemetery is collated and published, archival concerns have been fulfilled. This is incorrect. Few such compilations include detailed photographs and full transcriptions, including verses.

In addition, part of this archive is the archaeological and bioanthropological information the cemetery contains – even if the burials are never excavated. The graves and tombs can provide information on mortuary behavior, such as the coffins and hardware chosen by relatives. The human remains can provide information on diet, disease, and burial practices – information that is available from no other source.

Cemeteries are also scenic landscapes, similar to parks or open spaces, except they are much more. They are far more fragile and susceptible to damage and deterioration. As such they require distinctly different care.

Thus, cemeteries are important social, historic, architectural, and archaeological artifacts. When there is little else physically remaining of a community's earliest history, there will often be a cemetery that provides a unique tie to the community's collective past that would otherwise be lost.

Beyond these ties to the community's history and the ethical responsibility of caregivers, the preservation of our past also has clear economic benefits to a community. These serve to dispel the argument that while history may be important, there are more pressing needs. History can, in fact, generate the economic stimulus to help address the other needs of a community.

Taking just a few examples from the numerous studies available:

- Historic preservation activities generate more than $1.4 billion of economic activity in Texas each year.
- Rehabilitation of historic properties in Georgia during a five-year period created 7,550 jobs and $201 million in earnings.
- Each dollar of Maryland's historic preservation tax credit leverages $6.70 of economic activity within that State.
- In one year, direct and indirect expenditures by heritage tourists in Colorado reached $3.1 billion.
- A New York state study found that prices of houses in historic districts are higher than those of similar houses outside historic districts.
- A detailed Massachusetts study found that heritage tourism travelers spend "considerably more" than other travelers and that most come from out of state, further accentuating the economic contribution of heritage tourism. The study found that heritage tourists contributed an estimated $2.5 billion annually over the 1998 through 2000 period. Considering both direct and multiplier effects, Massachusetts received annually from heritage tourism 53,000 jobs; $1.2 billion in income; $1.8 billion in gross state product; $559 million in taxes (including $301 million in state-local taxes); and annual in-state wealth creation of about $1.5 billion.

Thus, we see a broad range of reasons why we should be concerned about the preservation of City and Rest Haven cemeteries. We argue, in fact, that the significance of cemetery preservation is actually greater than the sum of its parts.

Preservation or Restoration?

Preservation is *not* restoration. Restoration means, very simply, making something "like new." Restoration implies dramatic changes of the historic fabric, including the elimination of fabric that does not "fit" the current "restoration plan." Restoration is inherently destructive of patina and what makes a property historic in the first place. The "restorer" of a property too often knows little of the Secretary of the Interior's Standards for Preservation and may care even less.

One of the most important early writings was that of nineteenth century art critic and observer John Ruskin. In *The Seven Lamps of Architecture* published in 1849 and in particular, "The Lamp of Memory," Ruskin introduces us to the issue of trusteeship where he explains,

> it is again no question of expediency or feeling whether we shall preserve the buildings of past times or not. *We have no right whatever to touch them.* They are not ours. They belong partly to those who built them, and partly to all the generations of mankind who are to follow us (Ruskin 1989:245)

Ruskin also crisply stated the difference between restoration and repair, noting that "restoration" means,

> the most total destruction which a building can suffer: a destruction out of which no remnants can be gathered: a destruction accompanied with false description of the thing destroyed (Ruskin 1989:241).

In contrast, preservation (or conservation for that matter) can be defined as preventing or delaying loss, depletion, waste, or harm. Preservation seeks to limit natural deterioration.

Preservation will respect the historic fabric, examine the variety of options available, and select those that pose the least potential threat to the property. Preservation (as well as conservation) will ensure complete documentation, whether it is of cleaning, painting, or repair. Preservation treatments will ensure that the work done today does not affect our ability to treat the object tomorrow.

Preservation Fundamentals

Preservation is not an especially difficult concept to grasp, although the key principles are not always clearly articulated. The fundamental concepts are well presented in the Secretary of the Interior's Standards for Preservation (see Table 1).

This document reminds us – at least at a general level – of what caregivers need to be thinking about as they begin a cemetery preservation plan. Those responsible for the care of City and Rest Haven cemeteries should be intimately familiar with the eight critical issues it outlines.

For example, all other factors being equal, a cemetery should be used as a cemetery. Until the caregivers are able to do what needs to be done, it is their responsibility to make certain that the site is preserved – it must not be allowed to suffer damage under their watch.

Caregivers must work diligently to understand – and retain – the historic character of the cemetery. In other words, they must look at the cemetery with a new vision and ask themselves, "what gives this cemetery its unique, historical character?" Whatever it is, those undertaking its care and preservation become the guardians responsible for making certain those elements are protected and enhanced (whether they are particularly appealing to the caregivers or not).

Whatever conservation efforts are necessary must be done to the highest professional standards; these conservation efforts

Table 1.
Secretary of the Interior's Standards for Preservation

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.

2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

must be physically and visually compatible with the original materials; these conservation efforts must not seek to mislead the public into thinking that repairs are original work; and the conservation efforts must be documented for future generations. If the caregivers aren't conservators, it is their responsibility as the stewards of the property to retain a conservator appropriately trained and subscribing to the Code of Ethics and Standards of Practice of the American Institute for Conservation (AIC). If volunteers are to be used, they must be thoroughly trained and carefully supervised to ensure that correct methods are used.

The Secretary of the Interior reminds those responsible for the resources that each and every cemetery has evolved and represents different styles and forms. Few, if any, cemeteries are "frozen in time." For example, Franklin's cemeteries, while originating in the antebellum period, contain examples of a variety of later memorials, including late nineteenth and early twentieth century granite die on base monuments. The landscaping provides transitions from a churchyard style to a city cemetery with some indications of rural cemetery influence.

It is the responsibility of care-givers to care for all of these modifications and not seek to create a "Disney-land" version of the cemetery, tearing out features that don't fit into their concept of what the cemetery "ought" to look like.

Likewise, caregivers are reminded that there will be designs, monuments, and other features that characterize the cemetery – and the caregivers are responsible for identifying these items and ensuring their preservation. Caregivers must be circumspect in any modifications, ensuring that they are not destroying what they seek to protect (a problem with virtually all "restoration" efforts).

Before acting, those responsible for preservation are required as good and careful stewards to explore and evaluate the property, determining exactly what level of intervention – what level of conservation – what level of tree pruning – is actually necessary. And where it is necessary to introduce new materials – perhaps a pathway – into the cemetery, they must do their best to make certain these new elements are not only absolutely necessary, but also match the old elements in composition, design, color, and texture.

In other words, if the cemetery has dry laid rock walls, they would be failing as good stewards if they allowed synthetic stone on concrete masonry units – especially if the only justification was because new wall was less expensive or easier to maintain.

Where conservation treatments are necessary, the Secretary of the Interior tells stewards that they must be the gentlest possible. However phrased – less is more – think smart, not strong – caregivers have an obligation to make certain that no harm comes to the resource while under their care. And again, one of the easiest ways to comply is to make certain that caregivers retain a conservator subscribing to the ethics and standards of the American Institute for Conservation.

Finally, the caregivers must also recognize that the cemetery is not just a collection of monuments and the associated landscape – the cemetery is also an archaeological resource. They must be constantly thinking about how their efforts – whether to repair a monument, put in a parking lot, or resurface a path – will affect the archaeological resources – archaeological resources that are the remains of people buried at the cemetery by their loved ones.

These are especially critical issues for the City and Rest Haven cemeteries. The cemeteries have been fighting gradual – and at times exponential – deterioration since at least the early twentieth century. One previous assessment has characterized the monuments in City Cemetery as in "fair to poor condition," they note that many stones at Rest Haven have been moved from their original locations "and piled against the east wall (Tyler and Coffing 2006:6, 14). More recently, it was noted that "virtually all of the tombstones in the Old City Cemetery are in poor condition," the result of years of neglect (Eubank et al. 2010:56).

Attention to the Secretary of Interior Standards for Preservation is even more critical today since Franklin's cemeteries have recently been listed on the National Register of Historic Places. There is no longer an option for "business as usual." The City must embrace these Standards and we recommend that a working meeting be held during which the standards are fully explained to all participants and care-givers.

A Brief History

While some brief history is provided by the National Register nominations, the best historical synthesis is offered by Eubanks et al. (2010) and this document will be relied on for this historic context.

The City Cemetery, situated at the edge of Franklin, was purchased by the City from Joel Parrish in 1811. The calls from the deed (quoted in Eubanks et al. 2010:4) provide a near perfect match for the cemetery as it exists today. The deed specifies the parcel was 2 acres; the calls result in a parcel 1.995 acres (Figure 4).

After only four years, Eubanks et al. (2010:4) note that the cemetery "became the church yard of the First Presbyterian Church" built northwest of the cemetery. No additional information concerning this was provided, leaving unaddressed if the city sold part of the cemetery or whether the church simply began using the available cemetery.

It is also reported that the western third of the cemetery is the oldest, with many of the early graves in this area. In the eastern third are very few marked graves, although depressions suggest that the cemetery is fully occupied. A number of African Americans, including Catherine

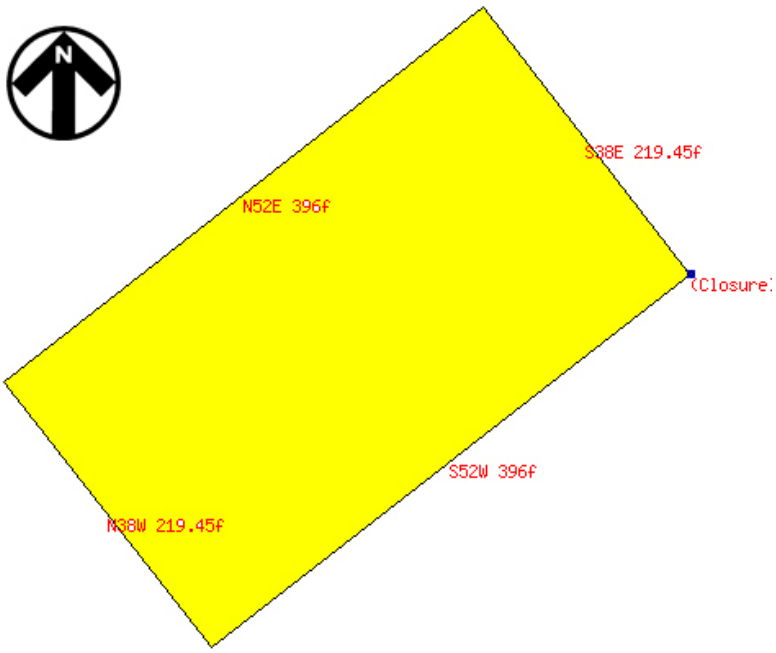

Figure 4. Plat of City Cemetery based on the calls identified in the deed.

Brown, Daniel Brown, Lena Brown, Letitia Brown, Anarchy Cowles, Harvey Otey, and Phebey Otey, are found in the eastern quadrant of the cemetery. It has been assumed that the eastern portion of the cemetery was used by the poor and African Americans. With a third of Williamson's county population being African American in 1820, it is likely that such a burial place was in great need.

Although burials continued until 1936, by the 1850s the cemetery was recognized as being full. In 1855 John Marshall sold 7.928 acres to the City (Williamson County Deed Book V, pg. 444). At the time this parcel was described as being covered in large part by the "New Cemetery," suggesting that not only was all of the lot not cemetery, but that the "new cemetery" actually began prior to the purchase of the property in 1855. This is supported by the earliest known burial on the tract occurring in 1842.

In 1860 the City ordered the construction of a wall for the north, south, and west sides of the cemetery, while the east side, bordering what was then Indigo Street and today Fourth Street North, was to remain a board fence. Unlike City Cemetery before it, the "New Cemetery" excluded African Americans. Since the Toussaint L'Ouverture Cemetery for African Americans wasn't chartered until 1884 (although the first burial occurred in 1864), it is unclear where Williamson County blacks were buried. It seems likely that the heavily used City Cemetery continued to be used until burials began at what became Toussaint L'Ouverture Cemetery.

When the "New Cemetery" became known as Rest Haven is not documented. By 1916, the Old Glory Chapter of the Daughters of the American Revolution (DAR) engaged in a cemetery improvement project, part of which included the construction of the wall surrounding City Cemetery and perhaps completing the wall along the east side of the "New Cemetery." If so, this cemetery was known as Rest Haven at least by this date since the name is incorporated in the pillars at either side of the entrance.

The 1878 D.G. Beers *Map of Williamson County, Tennessee* includes an inset of Franklin (Figure 5) that shows the "Old Cemetery" and "New Cemetery," suggesting that the name "Rest Haven" had not been adopted by that time.

The 1909 Franklin topographic map fails to show either cemetery – a seemingly major failure considering the importance of these city cemeteries.

By 1927 the *City of Franklin* map shows both cemeteries simply identified as "Old Cemetery" and showing both seemingly filled (Figure 6).

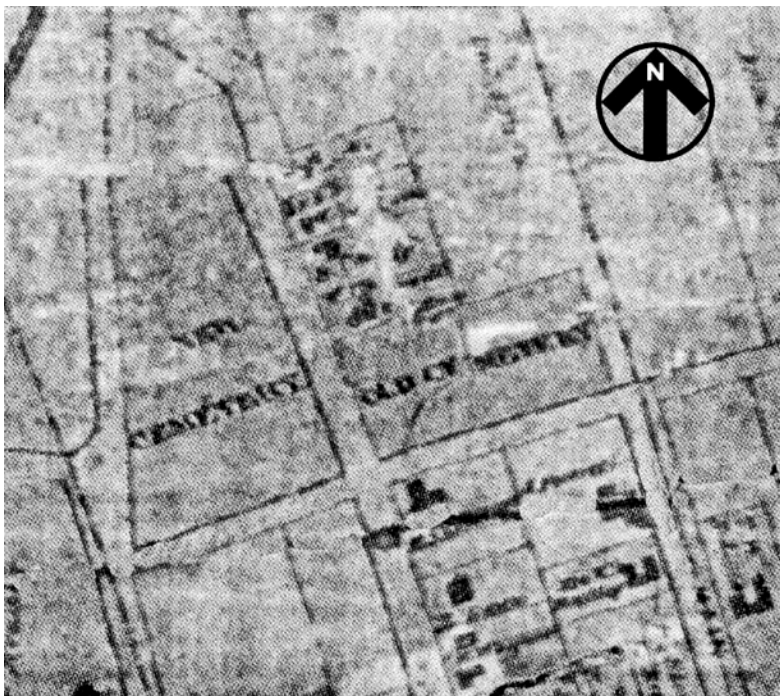

Figure 5. A portion of the 1878 D.G. Beers *Map of Williamson County, Tennessee* showing the two Franklin cemeteries.

Although uncited, it appears that maintenance at the cemeteries was frequently lacking. At some point in their history, families simply chose to burn off the tracts rather than attempt to mow them. In 1948 there is an oblique aerial showing the Harpeth River flooding up to the boundaries of the cemeteries.

A 1953 aerial photography, although of poor quality, allows both cemeteries to be recognized and shows them to have very similar vegetation. Since there is no evidence of monuments, it is likely this vegetation is relatively high, consistent with the suspected lack of maintenance.

Burials at Rest Haven largely ceased in the late 1960s, although one occurred as late as 2009.

These brief comments serve to reveal that much more research should be devoted to these two properties. In particular, period newspapers should be examined for evidence of activities, especially activities related to the opening and closing of the cemeteries, and the care they were receiving. City records, such as the minutes of the Board of Aldermen, should be carefully reviewed to determine what sorts of cemetery activities were being discussed.

An undated and unsourced map indicates that plots at Rest Haven were being sold for $20, so it is likely that additional information would be available if it were simply sought.

While additional research is not a necessary prerequisite for long-term preservation planning, it would certainly assist the City in telling the story

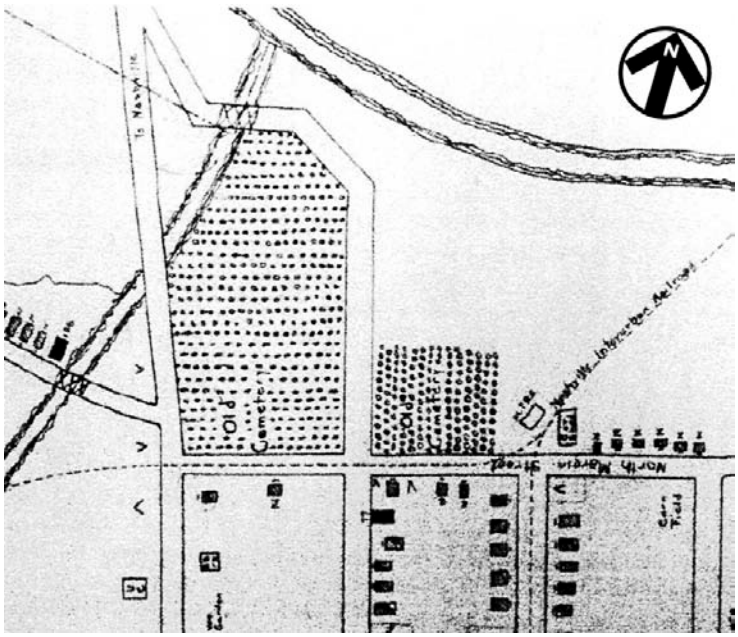

Figure 6. A portion of the 1927 *City of Franklin* map showing the vicinity of the Franklin cemeteries.

Figure 7. Portion of an oblique 1948 aerial showing flooding up to the boundary of the two cemeteries.

of these two cemeteries.

The Cemetery Location, Setting, and Context

City and Rest Haven cemeteries, once at the northern edge of Franklin, are today surrounded by development. South and west of Rest Haven are a number of retail tracts and Hillsboro Road, a major arterial route, has recently been improved to accommodate more traffic and likely spurring more development. In 2010, Hillsboro Road in the vicinity of the cemeteries was noted as reaching an unstable flow pattern. The 2013 Annual Average Daily Traffic (AADT) count at Hillsboro just south of its intersection with Fourth Avenue North is 16,491. A nursery and fruit stand is located north of City Cemetery and east of Rest Haven. Both cemeteries are located at the edge of Bicentennial Park with uncertain future activities. To the south of City Cemetery are retail, commercial, and mixed residential lots.

Unfortunately, there is relatively little vegetative screening, especially to the west of Rest Haven, and the 4-lane Hillsboro Road has a significant visual and noise impact on the cemetery. No screening exists to shelter either cemetery from activities to the south, many of which are also intrusive to the National Register properties (Figure 9).

Efforts to address the traffic problems include a bus system (Franklin Transit Authority) and a variety of bike routes. The closest bus route is along Hillsboro Street to the west of the cemeteries. There are no bike lanes in the immediate vicinity of the cemeteries. In spite of this we observed at least one group bike into City Cemetery for a tour.

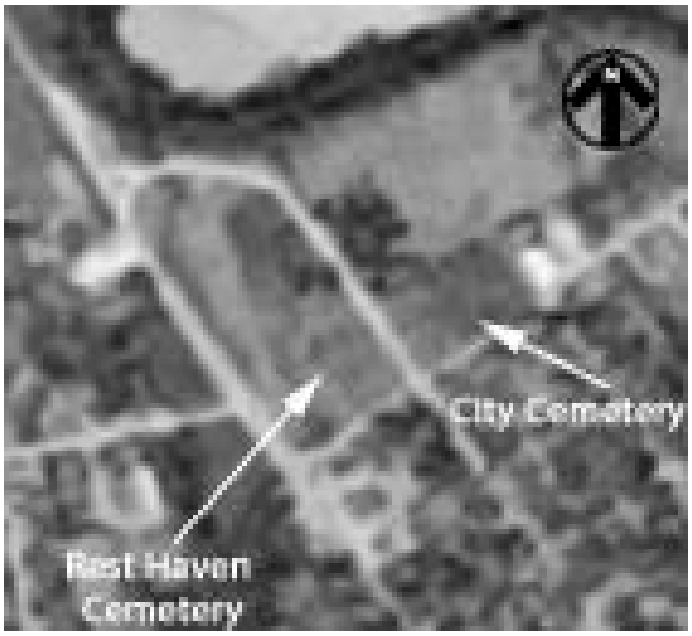

Figure 8. Portion of the 1958 aerial ARA001080556176 showing the two cemeteries.

Figure 9. Intrusive elements in the vicinity of the cemeteries. Upper left shows Hillsboro Road from Rest Haven. Upper right shows the proposed parking lot on Hillsboro Road from Rest Haven. Lower left shows the Bicentennial Park building from City Cemetery. Lower right shows commercial development south of Rest Haven Cemetery.

There are no vehicular entrances to City Cemetery, although pedestrian gates are present on the west and south sides, with one recently added on the east side. A vehicular gate for Rest Haven is present on the east side, although it is currently chained closed. Pedestrian gates exist on the south and north sides of the property. Both cemeteries have very porous boundaries, an issue discussed in greater detail in a following section.

Franklin is situated in what is known as the Central Basin, also known as the Interior Plateau. This is a diverse physiographic and ecological region that extends from southern Indiana and Ohio to northern Alabama. Rock types are distinctly different from the coastal plain sands of western Tennessee and include limestone, chert, sandstone, and siltstone. Elevations are lower than the Appalachian region to the east; topography is extremely level and has an average elevation of 650 feet above mean sea level (AMSL). Relief in most areas is less than 50 feet. The few hills and knobs that rise above the landscape are commonly less than 100 feet in height. The cemeteries exhibit a gradual slope from about 630 feet AMSL on the southern edge of City Cemetery to about 620 feet AMSL at the northern edge of Rest Haven Cemetery.

The natural vegetation is primarily

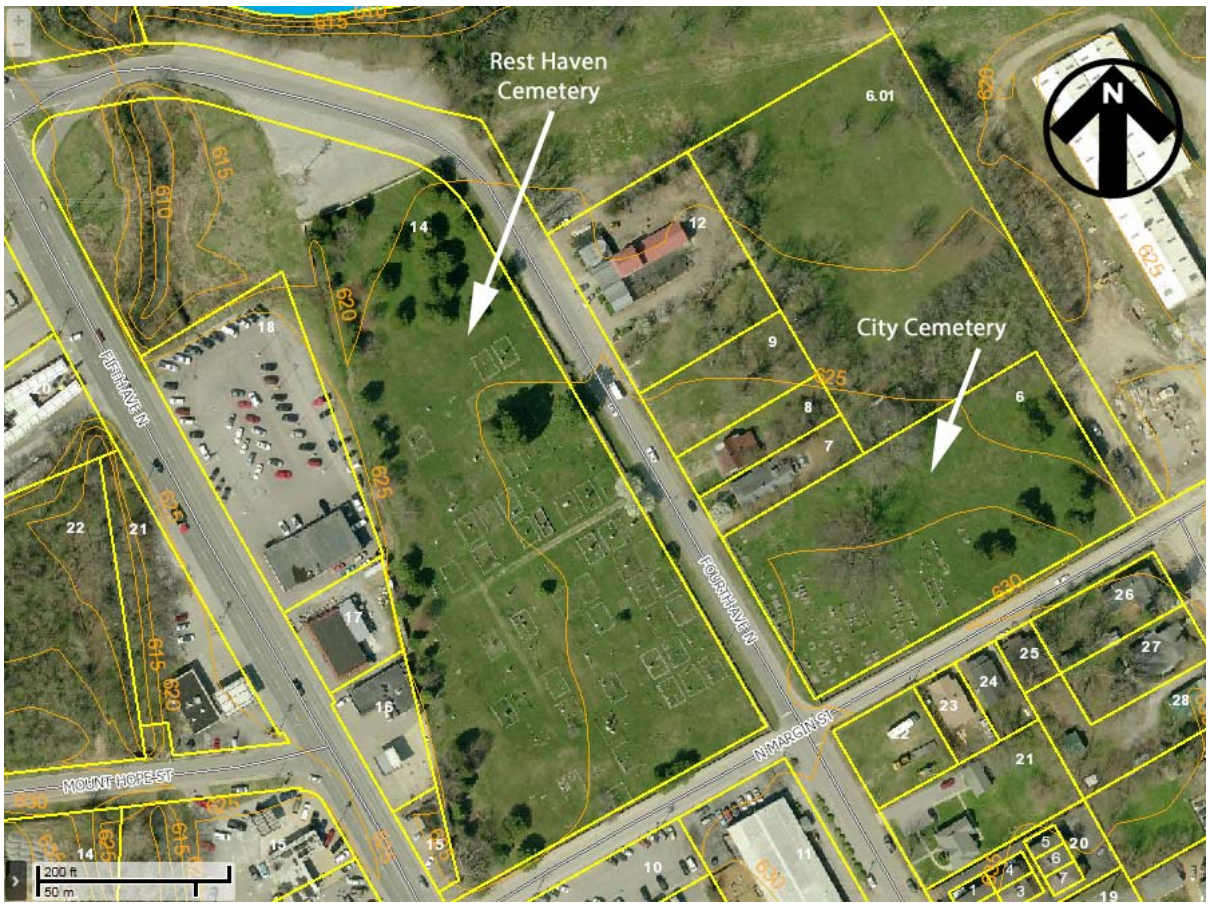

Figure 10. Contour map of City and Rest Haven cemeteries in Franklin.

oak-hickory forest. The cemeteries, however, are dominated by an urban environment of grass, pines, pecan, hemlock, cedars, and magnolia.

It is only with some effort that the original rural nature of these two cemeteries may be appreciated. This rural flavor may, however, be reclaimed by limiting future development in the vicinity of the cemeteries and judicious use of screening vegetation. The spatial arrangement of City Cemetery is dominated by a geometric arrangement; Rest Haven by a similar gridded arrangement, as well rectangular plots, and abundant ironwork. Both cemeteries are also characterized by their low limestone walls. Vegetation in both cemeteries is limited.

The cemeteries are at the north edge of census tract 508, which encompasses most of downtown Franklin (Figure 11). The value in examining these areas is that they surround the cemetery and can affect it in terms of community support.

The population in 2010 was 62,487, with an estimated increase to 68,886 in 2013. Most of the residents (84.4%) are white and only 6.7% are African American. Education levels exceed those for Tennessee in general, with 94% of the county's residents having a high school degree, and over half (54.1%) having a B.A. degree. In contrast, only 23.5% of Tennessee resident has a college degree.

Residents are also comparatively wealthy. The median value of owner-occupied housing units for Franklin is $309,400 compared to $138,700 statewide. The median household income in Franklin is $79,894, while that for

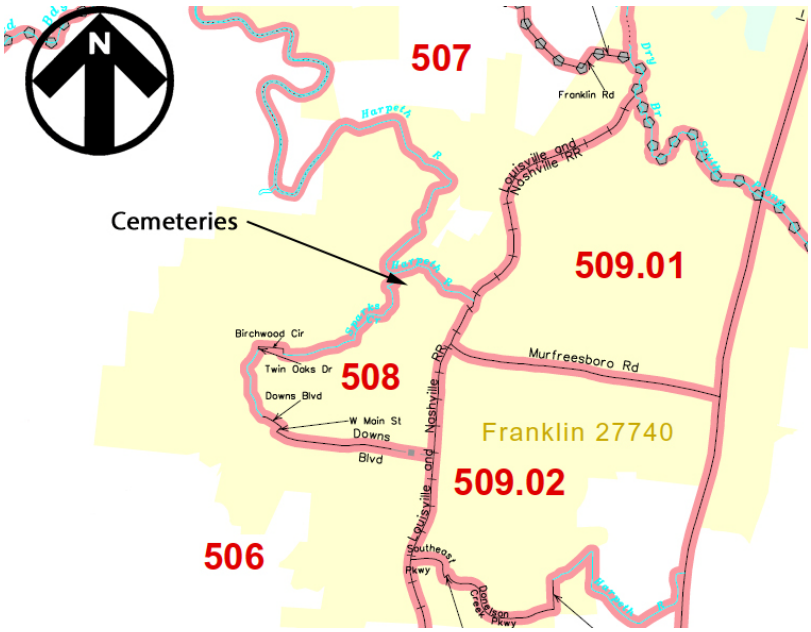

Figure 11. Census tracts in the Franklin, Tennessee area.

Tennessee is only $44,140. While only 7.7% of Franklin residents are below the poverty level, 17.3% statewide fall below that threshold.

Franklin's residents are typically white, well educated, and comparatively wealthy. This is the demographic typically identified as most supportive of historic preservation and heritage tourism.

The 2012 index crime rate per 100,000 people in Franklin was 1,783. This is significantly lower than for Tennessee as a whole, where the 2012 crime rate was 4,015 per 100,000. Property crime, which is most likely to affect long-term cemetery preservation, was very high, 1,619 per 100,000, although this too is lower than for Tennessee as well (3,371 per 100,000). Franklin has relatively few law enforcement employees (2.5 per 100,000 compared to the state average of 3.5). This may have an impact on the Police Department's ability to respond to vandalism issues at the cemeteries.

We were unable to find a count of the current homeless population in Williamson County, although it appears that in 2010 the number was listed as only 15. City representatives do not believe that they have a significant homeless issue in the cemeteries at present.

Factors Affecting the Landscape Character

As previously discussed, Franklin is situated in Tennessee's Central Basin or Interior Plateau. The topography is level and most of the rocks are limestone – evidenced throughout the region in the numerous walls.

Only three soils series are present in the two cemeteries (Figure 12). The most common soil, found in both and accounting for over 80% of the parcels is Armour silt loam, 2 to 5% slopes. This is deep, well-drained soil developed in phosphatic alluvium on stream terraces and foot slopes, especially along the Harpeth River. A typical profile reveals about a foot of dark brown friable silt loam overlying a brown or dark brown friable, silty clay loam to a depth of about 3 feet. It is generally fertile and often cultivated.

Armour silt loam, 0-2% slopes is found at the southeast corner of Rest Haven and the south corner of City Cemetery. This soil is almost identical to the Armour soils with a slightly greater slope, except that they are typically found on broad, level stream terraces.

The last soil series is the Lindside silt loam, phosphatic. This is a deep, moderately well-drained soil found on the first bottoms of streams that flow through phosphatic limestone uplands. This soil also exhibits about a foot of dark brown friable silt loam overlying about a foot of grayish-brown friable silt loam. Below this is a mottled gray and brown silt loam or silty clay loam. This series may exhibit a relatively high water table with ponding, especially in the winter

Figure 12. Soils in City and Rest Haven cemeteries.

walls and monuments might be possible, depending on water flow. Water is rarely just water and it is also possible that known hazardous and toxic materials may migrate into the cemetery soils as a result of flooding.

Of equal importance, the flood would cut off access to the cemeteries and the damage to the community would likely delay disaster recovery in the cemeteries.

and spring. It was this condition that probably resulted in using this portion of City Cemetery for the poor and African Americans.

Franklin is characterized by mild winters, warm summers, and abundant rainfall. Seasonal, and even daily, variations in humidity can be

As Figure 13 reveals, both cemeteries are entirely within the 100-year flood zone. While the 1948 flood (Figure 7) was not a 100-year event, the 2010 flood crested at 35.11 feet, breaking the old record of 33.6 feet. It is reported that both cemeteries were under up to 3 feet of water.

While the 2010 event was the most severe recorded, major floods have occurred in 1929, 1948, 1955, 1960, 1962, 1973, 1975, and 1979 (U.S. Army Corps of Engineers 2012).

Given the age of the cemetery, it is unlikely that flooding would cause vaults or caskets to float, but damage to

Figure 13. FEMA 100-year flood zone at City and Rest Haven cemeteries.

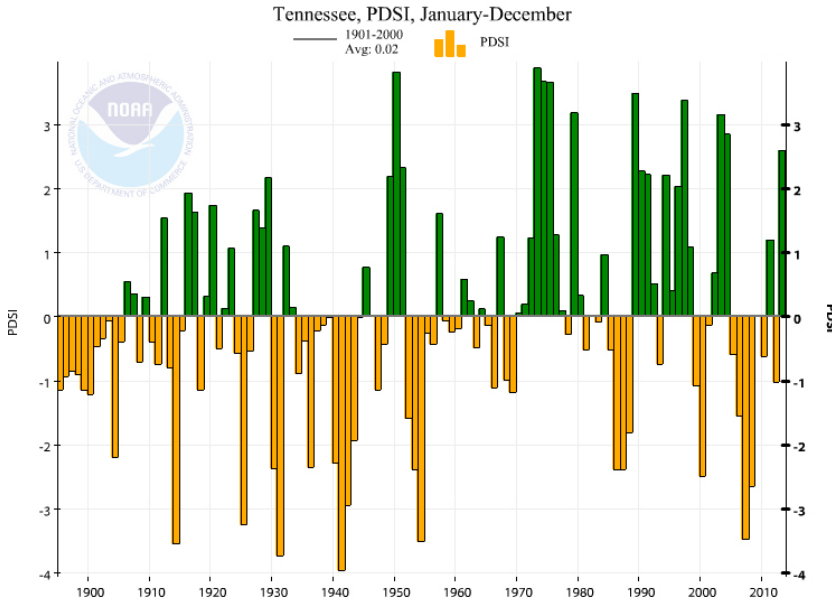

Figure 14. Palmer Drought Severity Index for Tennessee.

significant. The average annual relative humidity is 70%. The average annual temperature is 57°F. Winter temperatures range from the mid 20s to the mid-50s, while the summer temperatures are in the high 80s.

Typically abundant precipitation is distributed fairly evenly throughout the year, with an average annual precipitation of about 48 inches. Figure 14, however, reveals that Tennessee exhibits considerable potential for drought. On a finer scale, Middle Tennessee received above normal precipitation during 2013, although thus far in 2014 the precipitation has been near normal in the area. This is important since droughts can have a significant impact on plantings, even native tree species.

While Tennessee has had 1,131 tornadoes since 1950, Williamson County has had only one documented event. The F1 tornado occurred on April 21, 1972 just northeast of the cemeteries on the bank of the Harpeth River.

The area has an average growing season of about 191 days, although this will vary by specific location, with low areas often evidencing late frosts. Figure 15 shows that all of Williamson County is situated in Plant Hardiness Zone 7a, where the minimum temperatures are expected to be between 0 and 5°F. Since this "new" planting zone map was released the zones have shifted even further northward, potentially placing City and Rest Haven cemeteries in Zone 7b.

This is also a transition zone where both warm and cool season turf grasses may grow, depending on local conditions. Typical grasses include Bermuda, Zoysia, and fescue.

A factor not only affecting the landscape but also stone preservation is the level of pollutants. Based on monitoring in the region, the annual mean of NO_2 is 0.042 ppm and the annual

Figure 15. Plant Hardiness Zones in the vicinity of Williamson County, Tennessee.

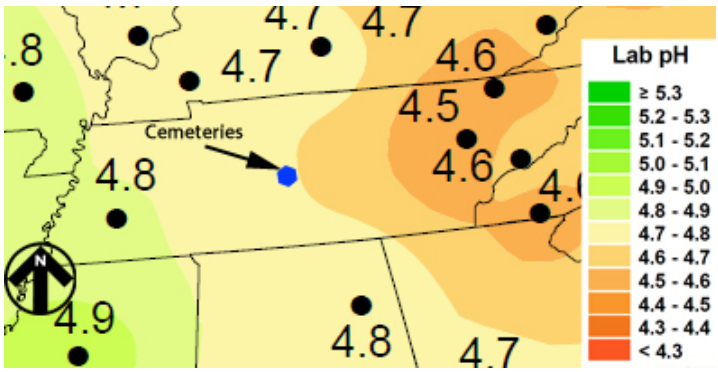

Figure 16. Rainfall pH in Tennessee.

mean of SO_2 is 0.010 ppm. These levels result in significant levels of acid rain and deterioration of marble and many sandstones. Figure 16 shows the impact of these pollutants on rainfall, with pH averages of about 4.7.

There are two sources of EPA regulated air pollution within 0.5 mile of the cemetery. To the north is Superior Cleaners and to the south is Franklin Laundry. A third source, the Georgia Boot Plant to the east, recently closed. There are 12 nearby sources of hazardous waste. The closed Georgia Boot plant was also a source of hazardous waste and toxins. These locations are important since prevailing winds are from the south, pushing any releases into the cemetery with relatively little dilution. Less mobile are three areas of hazardous waste and associated land contamination within a half mile of the cemetery.

This review reveals that the cemetery faces a variety of natural and man-made environmental factors, all of which have the potential to impact monuments, the cemetery hardscape and the cemetery vegetation. Long-term preservation involves balancing all of these concerns.

The only way for cemetery caregivers to deal with all of these potential events is to develop a detailed cemetery disaster plan. Just as museums, libraries, archives, and businesses must have plans to deal with floods, loss of electrical power, hurricanes, and weather events, cemeteries too must be ready to respond when there is a significant event – either weather-related or caused by humans.

Chicora Foundation has developed a detailed manual to assist cemeteries in disaster planning, but it is critical that Oconee Hill take the threat seriously and conduct the planning in order to respond in an effective and timely manner.

Recommendations

- A joint meeting of Park staff and the Battlefield Preservation Commission should be devoted to a careful review of the Secretary of Interior Standards. The caregivers should focus on a fuller understanding of how daily operations affect the long-term preservation of the cemeteries, making necessary adjustments to current policies and procedures. A presentation should then be prepared for the Board of Mayor and Aldermen.

- Historic research should focus on the newspaper and city records to obtain a fuller understanding of the cemeteries and their use.

- The City should prepare a disaster plan to cover events such as flooding and tornadoes.

Administrative Issues

In this section we will examine a broad range of administrative issues that affect preservation efforts, including the laws protecting the cemetery, and cemetery rules. It is important to realize that we are neither attorneys nor financial planners and the observations made here are intended to promote discussion and further exploration.

City of Franklin Municipal Ordinances

There is only one municipal ordinance that refers to burials or burial grounds. Section 20-302 requires the Franklin Building and Neighborhood Services Department Director to maintain a list of "burial grounds and human remains, located within the City of Franklin." Section 20-303 allows the Director to condition the issuance of building permits on not disturbing human remains or burial sites. Presumably this would include both City and Rest Haven cemeteries. Otherwise, the municipal code provides no specific protections to any cemetery within the City.

There are, however, other broad ordinances which are applicable to the cemetery. For example, Section 8-121 makes it a violation to be in possession of unsealed alcoholic containers in public parks; Section 20-103 establishes curfews for individuals under 17 years old which would be applicable to the cemeteries; Section 10-201 makes the Williamson County regulations concerning dogs applicable to the City as well and establishes a leash law; Section 11-402 concerns disturbing the peace; Section 11-603 makes it illegal to discharge firearms in the City, including the cemeteries; and Section 11-702 would apply to damage or theft of cemetery items, as well as trespass.

The City of Franklin also has a series of zoning ordinances. Of particular applicability to City and Rest Haven cemeteries is 5.7, Protection of Historic Lands and Structures. This ordinance is designed to protect historic properties listed on the National Register of Historic Places, such as the cemeteries, from "negative visual impacts associated with new development occurring in their proximity." The requirements are applicable to activities on the cemeteries, on property adjacent to the cemeteries, and to property across the street from the cemeteries. The ordinance primarily requires buffers.

Given the existing visual and noise intrusion from activities along Hillsboro Road as well as the potential for intrusion from Bicentennial Park, this ordinance is of special concern for the long-term preservation of the cemeteries.

It is worth noting that as long ago as 2001, Franklin's historic preservation plan remarked that the historic setting of the community's cemeteries "has been compromised by adjacent development" (Mary Means and Associates 2001:34).

Tennessee also has several state laws that are applicable to cemeteries and provide additional protections. For example, 39-17-311 makes it illegal to "desecrate" a burial while 39-17-312 makes it illegal to disinter a corpse.

Although there are currently no park ordinances that deal specifically with the cemeteries, this is being remedied. The Parks Department has developed a series of regulations that will be presented to the Board of Mayor and Aldermen in the near future. These cover a broad range of critical regulations, including:

- Establishes that the cemeteries are open from sunrise to sunset;
- Requires that only established gates be used for entrance;
- Establishes further noise and conduct stipulations;
- Prohibits animals from the cemetery, except for service animals;
- Prohibits any work in the cemetery except with the Parks Department permission;
- Prohibits firearms, alcohol, and illegal drugs in the cemeteries;
- Establishes where flags may be placed and length of time they will be allowed;
- Prohibits signs and advertising;
- Prohibits grave rubbings;
- Prohibits damage to vegetation, monuments, fences, or walls, as well as their removal;
- Prohibits plantings except with the Parks Department permission;
- Prohibits climbing or walking on monuments;
- Prohibits skateboarding, vehicles, or bikes in the cemeteries;
- Prohibits use of the cemeteries as thoroughfares;
- Requires that children be accompanied by an adult; and
- Prohibits commercial use of the cemeteries.

These are well thought out and we encourage their adoption.

Recommended Additional Regulations

There are several additional regulations that we routinely suggest at all cemeteries.

It is also appropriate to notify lot owners and visitors regarding the Parks Department's flower policy. A reasonable policy, adopted by many cemeteries is, "Flowers will be removed by the staff 10 days after holidays or when the arrangements become wilted and unsightly." This appears to incorporate some subjectivity, but it is the only approach that does not require staff to document when individual graves are decorated off-season.

It is also appropriate to include a notice of who to contact, both for routine requests or information, as well as in the case of an emergency, "For additional information concerning maintenance issues, please contact the _____ at _____. In case of emergency contact _____."

Visitation

We do not have specific data on annual visitation, but during our three-day assessment we observed eight people visiting the two cemeteries. While this is relatively low visitation – perhaps only a thousand individuals a year – we suspect that number is low given the promotion that the cemeteries receive.

There are at least two brochures advertising the City's cell phone tour (Figure 17). Available in both English and Spanish, this tour includes stops that focus on not only Franklin's Civil War history, but also the City's two cemeteries (recently, the African American Toussaint L'Ouverture Cemetery was also added to the tour). Although one brochure is more dated and does not include all 15 of the tour stops, these are still excellent promotional pieces that allow visitors to focus on topics of interest to them.

Both brochures also contains a QR code for Historic Franklin's parks. This is excellent since increasingly "smart phone" users are relying on this quick connection technique.

In addition, the private company, Franklin on Foot, offers daily guided tours of the cemetery, as well as yearly reenactor tours (http://www.franklin-onfoot.com/cemeterytours.htm; see also http://www.franklinis.com/dead-men-tell-no-tales-but-their-tombstones-do). Save A Grave (http://saveagrave.net/franklin-tenn) also includes a page on Franklin's cemeteries. Wikipedia includes stub articles for both Rest Haven (http://en.wikipedia.org/wiki/Rest_Haven_Cemetery) and City Cemetery (http://en.wikipedia.org/wiki/Franklin_City_Cemetery). It would be useful for the City to expand these articles, providing additional history, locational information, and photographs.

There are a variety of additional options for promotion available to the Parks Department and we encourage the examination of work being done at Atlanta's Oakland Cemetery (http://www.oaklandcemetery.com/) and Cincinnati's Spring Grove Cemetery (http://www.springgrove.org/events/events.aspx). While both are far larger than either of Franklin's cemeteries, the range of activities should provide some additional programming options.

Figure 17. Brochures that promote City and Rest Haven cemeteries.

Budget

Cemeteries are very different from the more conventional parks that the City has typically manages. They require different mowing and trimmer equipment and procedures; they require different periodic visitation; and they require a host of maintenance activities not typically associated with other park types. As a result, we recommend that special budgetary consideration be given to the cemeteries to ensure that they are adequately funded. At the present time the cemeteries do not have a line-item budget and we recommend that they should have a protected line of funding.

As this document reveals, the cemeteries have been allowed to deteriorate and receive, at best, what may be viewed as deferred maintenance. To bring them back up to reasonable preservation standards will require a great deal of additional attention and funding.

Recommendations

- Modifications of proposed regulations include a specific flower policy for the cemeteries. Otherwise the proposed regulations are excellent and should be adopted by Board of Mayor and Aldermen as expeditiously as possible.

- The brochure QR codes are an excellent promotional tool, but should be carefully reviewed on a periodic basis.

- The City should begin integrating additional community activities at Rest Haven and City cemeteries in order to increase visitation and support. Within two or three years several activities per month should be sustainable.

- The cemeteries should receive a line-item budget allocation commensurate with their needs and the special care that they will require.

Roads and Pedestrian Issues

City Cemetery

Vehicular Access and Circulation

At least by 1916 City Cemetery had an 8-foot drive gate erected along its western side. It is unknown what entrance predated this gate. The gate today is too narrow to allow most vehicles access to any part of the cemetery. Regardless, there is only a very narrow drive extending about 30 feet into the cemetery before it can no longer be discerned and becomes blocked with monuments. Thus, if a roadway ever existed, it was likely taken over in an effort to obtain a few additional graves.

An opening has recently been created in the east wall of City Cemetery to allow access from the Bicentennial Park pavilion east of Third Avenue Extension. While presumably the entrance will be for pedestrian access, it seems to be sized for vehicles.

The cemetery is so filled that there is no appropriate vehicle circulation route and we strongly discourage even maintenance vehicles from entering the cemetery. Only small utility vehicles are capable of maneuvering in the cemetery.

Consequently, we recommend the installation of removable bollards that are locked to a concrete set pad (Figure 18). These are manufactured by a variety of companies. Critical issues include the weatherability of the metal (the best is powder coated stainless steel), the keying alike of all padlocks, and the placement of the bollards sufficiently close together to prevent the entry of automobiles.

Parking

There is no designated parking for the cemetery. Typically visitors park on the grass verge along the west side of the cemetery on

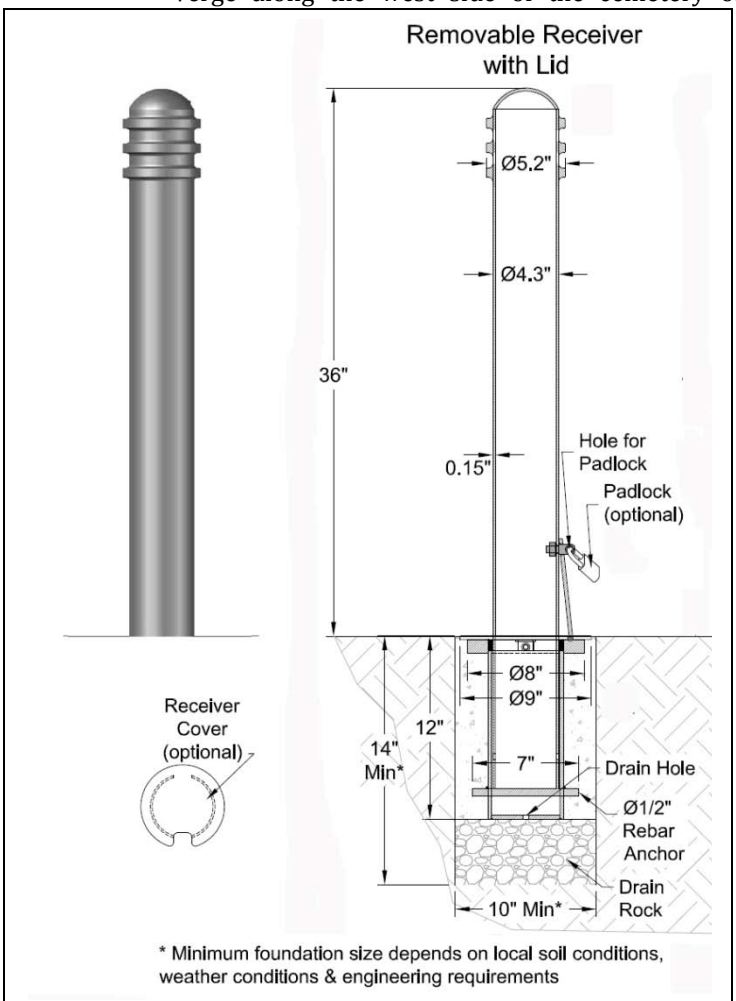

Figure 18. Example of a removable bollard (courtesy Reliance Foundry).

Fourth Avenue North (see, for example, Figure 2). There is also additional on-street parking on the west side of the Third Avenue North extension.

While this is acceptable for the current low visitation, we understand that the City, perhaps in anticipation of Bicentennial Park, wishes to create a parking lot west of Rest Haven Cemetery off Hillsboro Road. This will be further discussed in a following section.

Pedestrian Access, Pathways, and Sidewalks

Most people visiting City Cemetery come by vehicle. There is no nearby bus stop and bike routes are limited. The only sidewalks are on Hillsboro Street and along Third Avenue North extension.

Figure 19. East entrance looking west at Rest Haven. The chain should be removed and replaced with a removable bollard.

The cemetery is walled on the east, west, and south sides and fenced along the north. There are pedestrian gates at the west entrance, although they are not functional and pedestrians enter through the drive gate. Another pedestrian gate is found in the south wall, although it is also non-functional. Finally, a gate of some sort is to be erected in the east wall. All existing pedestrian gates have a free opening of 36-inches or less. This creates a very porous boundary.

Some consideration should be given to locking the south entrance gate. With no sidewalk or parking along North Margin Street, its usefulness is limited.

There are no visible formal pathways in the cemetery and examination of various photographs fails to suggest that any existed within the past 50 years. Visitation is sufficiently low that we observed no social trails (informal trails or paths created by erosion due to foot traffic from people and animals).

We did notice that currently most visitors enter through the west gate, proceeding roughly straight into the cemetery, occasionally moving off to the right or left to view a specific monument. Thus, if social trails are to be expected, they will likely appear in this northeast-southwest trajectory through the cemetery. As Bicentennial Park becomes more heavily used the City should pay special attention to the development of social trails from the east gate.

Rest Haven Cemetery

Vehicular Access and Circulation

Originally Rest Haven Cemetery had at least two drive gates. One, located on the east wall bordering Fourth Avenue North, is still present. Although inoperable, the 12-foot iron gate is in the open position and the entrance is blocked by a chain set on two metal sign posts (Figure 19).

A second drive gate was also located on the Margin Street wall, but was at some point since 2006 converted into a pedestrian gate.

Remnants of raised and crowned north-south and east-west drives are still visible in the cemetery. The western entry point still exhibits some gravel in the roadway, although this entrance point has been closed by a chain.

We recommend that the chain and metal sign posts be removed and a bollard similar to those recommended for City Cemetery be installed here. This will more positively prevent vehicular entry, but will still allow maintenance vehicles some access.

Parking

The parking situation at Rest Haven is identical to that for City Cemetery. A 15-foot grassed verge along the east wall is today used for parking (Figure 20). This is less than ideal since on this side of the road there is a ditch.

The City is anticipating the construction of a parking area on Hillsboro Street that will allow access to Rest Haven.

A major consideration for the design of this parking area is appropriate screening to prevent a visual intrusion on the cemetery.

At present, visitors are funneled into the cemetery along a partially graveled road, thereby greatly reducing the potential to produce worn pathways. It will become important to ensure that a limited entry point from this parking lot will not create a social trail and erosion where it enters the cemetery.

Figure 20. Grassed verge along the east side of Rest Haven Cemetery currently used for parking.

The creation of this lot and access to the cemetery may be further complicated by the desire to make it handicapped accessible. This issue will be discussed in a following section.

Pedestrian Access, Pathways, and Sidewalks

Like City Cemetery, Rest Haven is largely visited by individuals arriving in cars. There are no convenient bus stops and bike routes are limited. Entrance may be gained to the cemetery using gates along the north, south, and east walls, although at present it seems most visit through

Figure 21. The proposed parking area along Hillsboro Road will require visual screening to prevent intrusion into Rest Haven Cemetery.

the main, eastern entry.

The northern gate may receive more use with the opening of Bicentennial Park, although its entry is in a relatively open portion of the cemetery.

Of greater concern is the construction of the sidewalk on the east side of Hillsboro Road. Where this sidewalk turns the corner at Margin Street, it terminates, dumping users – as well as rain water – directly into Rest Haven Cemetery. This is an exceptionally poor design that will increase maintenance and serve absolutely no function since it cannot be extended. This is a poor design feature and we recommend that the sidewalk turn off Hillsboro Road into the cemetery be removed.

Universal Access

Many who visit cemeteries are elderly and therefore impairments associated with older age should particularly be taken into consideration, especially when cemeteries are amenities for tourism as in the case of Franklin's City and Rest Haven cemeteries.

Figure 22. Newly constructed Hillsboro Road sidewalk terminating in Rest Haven Cemetery.

There is concern that the entrance into Rest Haven from the proposed parking lot be accessible. This seems to be of little concern if access throughout the cemetery is not also accessible.

Of course while it is not always possible to make a natural landscape fully accessible, partial access is better than none at all. Moreover, all future modifications should explore accessibility issues in an effort to maximize access by all citizens.

The cemeteries lack steep grades and thus there are no elevation barriers to access. Nevertheless, virtually all areas have rough terrain and in a few locations the proximity of monuments can make movement difficult. In addition, we found animal burrows throughout both cemeteries, offering further obstacles to those with handicaps.

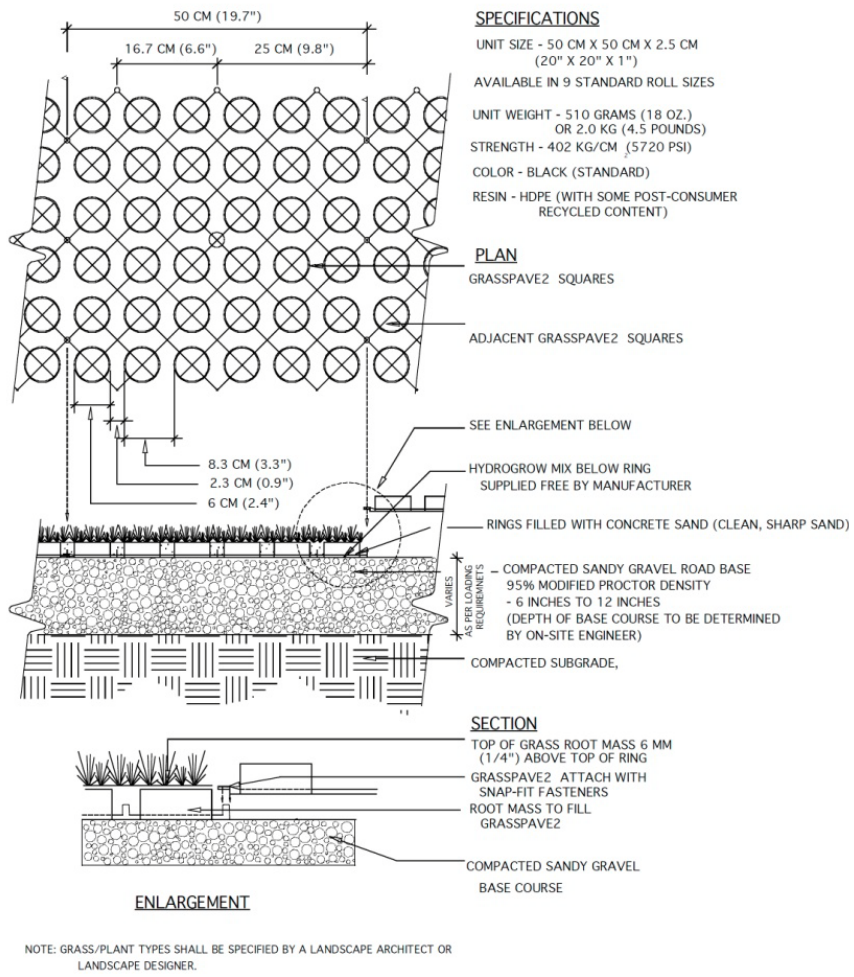

Figure 23. Specifications for one brand of grass reinforcement system.

The existing grass is a less than ideal surface for wheelchairs and others with mobility or sight disabilities. Paths in a cemetery or grassed setting should have a smooth, regular surface, with tactile warning underfoot of any hazards such as a change in level. A critical factor is to avoid simply repeating street pavement details that would clash with the cemetery setting.

Gravel should only be used if it is well compacted, with no loose stones greater than ¼". This makes it possible to push wheelchairs and reduces the possibility of tripping for those who are unsteady on their feet. Regular maintenance is required, although bound gravel or epoxy bound gravel reduces the level of maintenance. Gravel, however, is often a harsh introduction into a burial ground where pathways were never found historically or were historically grassed. Moreover, the gravel should not use stone already found in the cemetery (such as marble or granite) since such efforts may confuse the public, giving the impression that monuments were converted to paving material.

Should paving pathways eventually be required, a far better choice is to use grass tracks

underlain by a reinforcing system to provide a firm, but free draining layer on which the grass can grow. If the grass is well maintained it will not unduly hinder wheelchairs. Unattended, however, it will inhibit wheelchairs, as well as hide tripping hazards – so maintenance is critical. The pathway can be clearly identified by using a grass distinct in color and texture, providing clear visual clues to those using it.

One grass reinforcement system commonly available is the Grasspave2 porous pavement by Invisible Structures, Inc. (http://www.invisiblestructures.com/grasspave2.html). This system has the added benefit of having been approved for ADA use.

The construction of any pathways will, however, require archaeological investigations to ensure that burials or other archaeological features are not damaged.

Ideally paths should be at least 5'7" in width to accommodate wheelchair users and people with visual impairments assisted by a sighted person or guide dog. A path of this width will also allow an adult and child to walk together. The minimal suitable width is 3'11".

There are, of course, additional issues in achieving universal access, such as the use of appropriate signage and even the selection of routes in the cemeteries. While ADA compliance may not be required, the goal should be to create additions to the cemeteries that are as accessible as possible. In addition, existing obstacles to access should be removed wherever possible.

Recommendations

City Cemetery

- The City should place bollards at drive gate entrances to prevent vehicle entry.
- The southern pedestrian gate should be locked closed since there are no sidewalks or other convenient pedestrian access route along the south.
- The current on-street parking is acceptable if visitation stays at the current levels.

Rest Haven Cemetery

- The chain at the west entry should be removed and a removable bollard installed instead.
- Any parking lot on Hillsboro Road should be appropriately screened from Rest Haven Cemetery to prevent visual intrusion.
- The parking on Hillsboro Road must not be allowed to create pedestrian wear at the entry into the cemetery.
- The proposed parking on Hillsboro Road must be visually screened from the cemetery to prevent a visual intrusion.
- The sidewalk turning off Hillsboro Road on the north side of Margin Street should be removed since it currently dumps pedestrians directly into the cemetery.

Universal Access

- All future modifications at the cemeteries should be evaluated for their impact on universal access. Universal access should be a goal whenever possible.
- Future consideration should be given to establishing grass tracks underlain by a reinforcing system to achieve ADA compliance on selected pathways of appropriate widths and road access.
- Installation of pathways in the cemeteries will require archaeological investigations.

Cemetery Boundary Walls and Fences

City Cemetery

Stone Walls

City Cemetery is surrounded by a stone wall on its west, south, and east sides. It is presumed that this wall was erected in 1916 by the DAR at the same time the gate was installed, although this has not been conclusively demonstrated.

Figure 24. Evidence of hard Portland cement mortar in some areas of the walls.

Although the wall is typically called dry laid (see, for example, Tyler and Coffing (2006:4), there are many portions with large amounts of a hard Portland cement mortar (Figure 24). It is not known if this extends throughout the length of the wall or only reflects recent, inappropriate repairs.

The walls consist of stacked limestone rubble about three feet in height. The walls appear to be built without a batter, exhibiting no noticeable slope inward, and are about a foot in width. There are some noticeable differences in construction. For example, north of the west gate there are large basal stones, lacking to the south of this gate (Figure 25). All of the wall heads are retained by stone stoups (or at the west gate, with mortared stone columns). The presence of foundation stones was not determined along the east and west walls. The south wall appears to have been built on a concrete foundation, suggesting that section, at least, is relatively recent. In spite of these differences, all of the top stones are laminar angled. However, it was apparently not possible to obtain a size sufficient to span the wall width, so in most places there are double copes. These are often not interlocked, resulting in the losses noted below.

The condition of the walls is generally good; they would be given a B Condition Class – "some structural defects, but effective" and stockproof. Major defects include missing top stones, loose top stones, some bellying, and some stone loss. These conditions are shown in Figure 26.

Problems occur throughout the top cap. More significant structural problems exist primarily at the east interior wall. There are approximately 190 linear feet requiring repair (about 20% of the total wall), although most of this involves only the laminar cap and repairs should require only a few weeks. Nevertheless, these repairs should receive a high priority in order to prevent further deterioration, especially

Figure 25. Different base construction north and south of the west gate.

in the context of greater visitation with the opening of Bicentennial Park.

Repairs should be conducted by individuals with training in stone walling techniques. We understand that some members of the Parks Department have received training from the Dry Stone Conservancy (http://www.drystone.org/). If the staff cannot perform the work, we recommend that the minimum qualifications be Certified Journeyman Drystone Mason (http://www.drystone.org/masons/). A simple document that may be of assistance is the Dry Stone Walling Association's *Technical Specifications for Dry Stone Walls* (http://www.dswa.org.uk/userfiles/file/Leaflets/1-Technical-specifications-updatd-2011.pdf).

The two 1916 gate columns at the west entrance require pointing. This should be conducted by a skilled preservation mason.

A critical standard in pointing mortar joints is the National Park Service Preservation Brief 2, *Repointing Mortar Joints in Historic Masonry Buildings*, available online at http://www.nps.gov/hps/tps/briefs/brief02.htm. It is written by two of the foremost authorities in the United States.

This document makes several critical points:

- the new mortars must match the historic mortar in color, texture and tooling;
- color of new mortar is largely controlled by the sand aggregate, thus matching aggregate is critical;
- the new mortar must have greater vapor permeability and be softer (measured in compressive strength) than the masonry units;
- the new mortar must be as vapor permeable and as soft or softer (measured in compressive strength) than the historic mortar; and
- mortar is designed to be – and must be – sacrificial.

If these five rules are followed, the mortar will comply with NPS standards, be appropriate for repair work on historic structures, and most importantly "will do no harm."

Often masons use a Type S masonry cement field mixed with sand. Masonry cement is a prepackaged combination of Portland cement and plasticizers. The mix of these bagged mortar mixes is typically proprietary and is not required by ASTM standards to include hydrated lime (ground limestone is accepted). Great compressive strength is neither needed nor appropriate. The 28 day compressive strength of these mortars is 1,800 psi – far too hard for the historic bricks or even limestone. Consequently, masonry cements are not recommended for use on preservation projects.

Figure 26. City Cemetery stone wall defects. Upper row shows damage to the eastern wall, exterior (left) and interior (right). Middle left, southeast interior corner showing stone loss. Middle right, south exterior loss of capping stones. Lower left, jumbled and dumped capping stones on the south wall. Lower right, west wall damaged cap.

Figure 27. City Cemetery gates. Upper left shows the north gate at the west entrance. Upper right shows the south gate at the west entrance. Middle left shows the damaged pivot bracket on the north gate. Middle right shows the bent replacement rebar pivot rod on the south gate. Bottom left shows a welded repair on the south gate. Bottom right shows the pedestrian gate on the south wall.

An alternative for this project is the use of natural hydraulic lime (NHL) 5 which is eminently hydraulic. While not used historically, a benefit of this mortar is that it provides a quicker initial set while maintaining many of the other benefits of lime. The 28-day compressive strength of NHL 5 is about 290 psi, increasing to 1,225 psi in a year.

An alternative – and we believe better choice - to field mixes are prebagged NHL mortar and sand mixes offered by a variety of companies, including Limeworks.us (http://www.limeworks.us/ecologic_more.html), Virginia Lime Works (http://www.virginialimeworks.com/mix-go.html), and U.S. Heritage (http://usheritage.com/repointing-mortars/).

Gates

There are currently three iron gates associated with City Cemetery's boundary wall. There are two drive gates at the west entrance and one pedestrian gate at the south entrance. All of these gates are in very poor condition and require immediate intervention.

The two drive gates almost certainly date from 1916. In contrast, the south pedestrian gate is very likely nineteenth century and exhibits far finer workmanship.

In 2006 it was noted that the east entrance gate was missing and one of the stone stroups was fallen. Since that time the stone stroup is also missing.

At the west entrance are two 4-foot gates. Both are buried in soil and their hinges are no longer functional. The southern gate is missing a picket and another picket on the gate is bent and unattached from the bottom rail. It is possible that both bottom rails have suffered so much corrosion that replacement will be necessary.

At the south entrance the pedestrian gate is also buried in soil although its hinges appear to be sound. Because it is likely of wrought iron, there is less corrosion on it and it seems in overall better condition.

The bottom rails of all gates should be removed from the soil. Typically this requires the soil in this area be removed, providing positive drainage away from the ironwork and ensuring that the bottom rail is at least 2-inches above the soil. If it is not possible to establish positive drainage, we recommend that sufficient soil be removed to create a swale or drainage area that will keep the ironwork above grade.

It is likely that all three will need to be removed to a shop for repairs. These may consist of repair or replacement of the bottom rails where corrosion has made them weak or non-functional. The lost picket on the southern drive gate should be replaced. The bent picket should be straightened and reattached to the bottom rail (replacement may be needed).

The pivot brackets and the pivots will need to be repaired or replaced. The rebar is entirely too soft to provide reasonable support and should be replaced with a stronger iron rod. The pivots will need to be reset in the stone columns.

Welding repairs are acceptable where little or no expansion or contraction of the iron is anticipated. Where there were originally slip joints, however, welding is inappropriate since it will create stresses that can cause additional damage. For these areas it is necessary to infill the fabric and recreate slip joints that allow movement.

Where welding is appropriate, it must be of very high quality. Appropriate welding processes may include gas tungsten arc welding (GTAW) and shielded metal arc welding (SMAW). Since these gates represent either wrought iron or mild steel, welding should pose no real problems. Often NiRod Ni-99, silicon-bronze wire, or stainless steel wire will be used. These are selected for their compatibility and ductility.

All welds must be continuous and ground smooth.

At the completion of this work the fences

should be painted. Since the drive gates exhibit remnant paint they require different treatment than the pedestrian gate.

We do not recommend anything more than brushing of the gates to remove loose corrosion and flaking paint. Open joints and other areas where water can penetrate through capillary action should be carefully caulked with Sikaflex 1a, an elastomeric caulk that is often used in fence repair. Under no circumstance should a silicon caulk be used.

Figure 28. South end of the east gate showing the missing granite stroup.

The gates and associated mounting hardware should then receive one coat of an alkyd primer, such as Rust Oleum Professional High Performance Metal Primer 7769. After this has cured it should be followed by two top coats of flat black alkyd paint, such as Rust Oleum Professional High Performance Flat Black 7776402.

In contrast, the pedestrian gate exhibits no remaining paint. This is a perfect situation for light brushing to remove loose corrosion followed by the application of Rust-Oleum Rust Reformer®. This product has been tested by the Canadian Conservation Institute, including exposure to very harsh salt spray and was one of their top three best performers (it is, today, the only formulation still available). Rust Reformer® is a conversion process that stabilizes the corrosion products and serves as a primer. This product cures to a blue-black color.

It should be top coated with Rust-Oleum High Performance Protective Enamel® in flat white followed by a final top coat of flat black 24 hours later. This is a quality assurance process since any areas missed by the flat white will immediately be identified by the undercoat of black Rust Reformer®. Similarly any areas missed by the application of final top coat of flat black will immediately be recognized by the underlying white paint.

Paint application should be by brush, producing initial dry coat of 1-2 mils (the wet build-up is typically twice this).

It is also important to emphasize that in the future paint must be maintained and not allowed to deteriorate to the point currently observed. In addition, the quality of past painting was unacceptable, with much paint being applied to the stone columns. The City must ensure higher quality work.

As previously suggested, the south entrance gate should be locked to eliminate use of this entrance. Locking will also help protect this gate, which likely has considerable antiquity and deserves additional protection to prevent theft.

Proposed New Gate

We understand that the eastern drive gate is to be replaced. We do not feel this is an especially high priority for several reasons. First, none of the gates will be closed on any regular basis and even if they were, the relatively low wall forms at best a permeable boundary. Second, there do not appear to be any photographs showing the original gate, so any replacement will

Figure 29. Chain link fence along the north property line. Upper left, vines and other vegetation should be removed from the fence. Limbs from adjoining property should be removed to the property line. Upper right shows a tree grown into the fence. Middle left shows a tree fallen on the fence. Middle right shows a second tree growing into the fence which must also be removed. Lower left shows a damaged and bent top rail. Lower right shows a section of fence that is totally down.

likely lack historic authenticity. Finally, there are many other very high priority needs at the cemetery where funding could be better spent.

Assuming, however, that a new gate is already "in the works," we will offer several recommendations.

The missing stone stroup at the south end of the entrance must be replaced. The replacement may be modeled after the remaining stroup at this entrance. The gate should be modeled after the pedestrian gate at the south entrance which appears to have some age and is likely a good candidate for the now missing east gate.

Fence

Along the north boundary there is a residential grade chain link fence spanning the roughly 400 linear feet. This fence is heavily overgrown and approximately 160 linear feet (about 40%) requires repair or in many cases replacement.

We recommend that all vegetation be removed from the fence. This includes vines and downed timber. We also recommend that all trees under 4-inch dbh be removed from within 10 feet of the fence. This will minimize future damage from downed limbs.

Where vegetation exists on adjacent private property and the owner will not allow removal, all limbs overhanging the cemetery should be removed to the property line.

In areas where the top rail or line posts have been damaged, they must be replaced and the fence restretched. If the damage is too severe, the sections should be entirely replaced with new fabric being woven into the existing fence.

In the future, the City should monthly inspect this fence line to ensure that it is in good condition. The use of herbicides should be limited and instead nylon trimmers should reduce vegetation on either side of the fence periodically.

Rest Haven Cemetery

Stone Walls

Rest Haven Cemetery is surrounded by a stone wall on its south, east, and north sides. This wall continued south from the northwest corner for about 120 feet before disappearing.

Historic accounts are unclear, suggesting that originally the cemetery was walled on its west, south, and north sides, with a board fence along its eastern side.

By 2006, the southern wall extended only about 200 feet to what was a southern drive gate. It appears that this wall was built or rebuilt in 2007 and the drive gate was converted into a pedestrian gate. What became of the removed iron work is not known.

Unlike the City Cemetery wall, the Rest Haven wall does appear to be dry laid throughout its length except at the southeast corner where it appears the corner has been extensively repaired using a hard Portland cement mortar. Given the proximity to the roads, this may reflect an earlier traffic accident repair.

The walls consist of stacked limestone rubble about three feet in height. The walls appear to be built without a batter, exhibiting no noticeable slope inward in most places, and are about 2 feet in width.

Wall heads at the south and north gates are retained by stone stoups. At the east drive gate there are mortared stone columns. There are no wall heads at the terminus points along the northwest wall or the western end of the southern wall. Along the south, adjacent to Margin Street, the wall appears to have been built on a concrete foundation. As with City Cemetery, it appears that much of this is recent, having been built in 2007.

All of the top stones are laminar angled. In general, a size sufficient to span the wall width was used. Only in a few areas are there double copes.

Figure 30. Condition of the stone wall at Rest Haven Cemetery. Upper left shows a slump on the east exterior wall. Upper right shows stone loss and incipient slump on the east wall. Middle left, stone loss with stones partially buried in the soil beyond the wall. Middle right shows more extensive area of wall collapse. Lower left shows total collapse of the wall. Lower right shows bowing of the wall.

Figure 31. Condition of the stone wall at Rest Haven Cemetery. Upper left shows an overview of damage along the east wall. Upper right shows very poor construction techniques in one area. Middle left shows the terminus of the southern wall without a stroup. Middle right shows vegetation allowed to overtake the wall. Lower left shows the southeast corner with Portland cement repair. Lower right, missing top stones, northeast corner.

Figure 32. Wall and column damage at the east entrance. Upper row shows extensive loss of mortar at the entrance gate and pedestrian gate columns. Bottom left photo shows the entrance with damage to the north and south inset flank walls. Bottom right shows a closer view of the damage to the north flank wall.

The condition of the walls exhibits much greater variability than the walls at City Cemetery. Many of the walls, especially the southern portion, have an A Condition Class, being in excellent condition with nearly all top stones in place, the sides smooth and straight. Other sections exhibit lower condition classes, exhibiting fallen stones, bellying, slumping, and in one area extensive plant growth. Problems occur throughout the top cap. One section along the east exhibits a large gap where the wall has collapsed and has an E Condition Class. These conditions are shown in Figures 30 and 31.

We estimate that about 300 feet of top stones require resetting. More significantly, about 270 linear feet of the walls require minor to major reconstruction. In many places it will be necessary to completely remove the wall and rebuild it. This represents about 40% of the total extant wall – clearly demonstrating how the Rest Haven wall has been allowed to significantly deteriorate on the City's watch. These repairs should receive a high priority in order to prevent further deterioration.

Not included in these estimates is the area of the drive and pedestrian gates at the east entrance. The stone walls here are in near complete failure and the columns exhibit much

loss of mortar – far worse than seen at City Cemetery.

Repairs of the dry laid stone walls should be conducted by individuals with training in stone walling techniques. We understand that some members of the Parks Department have received training from the Dry Stone Conservancy (http://www. drystone.org/). If the staff cannot perform the work, we recommend that the minimum qualifications be Certified Journeyman Drystone Mason (http://www.drystone.org /masons/). A simple document that may be of assistance is the Dry Stone Walling Association's *Technical Specifications for Dry Stone Walls* (http://www.dswa.org.uk/userfiles/file/Leaflets/ 1-Technical-specifications-updatd-2011.pdf).

Our previous discussions regarding the pointing of the columns at City Cemetery will be briefly repeated here for the convenience of readers. It is essential that the Parks Department be familiar with the National Park Service Preservation Brief 2, *Repointing Mortar Joints in Historic Masonry Buildings*, available online at http://www.nps.gov/hps/tps/briefs/brief02.htm. It is written by two of the foremost authorities in the United States.

This document makes several critical points:

- the new mortars must match the historic mortar in color, texture and tooling;
- color of new mortar is largely controlled by the sand aggregate, thus matching aggregate is critical;
- the new mortar must have greater vapor permeability and be softer (measured in compressive strength) than the masonry units;
- the new mortar must be as vapor permeable and as soft or softer (measured in compressive strength) than the historic mortar; and
- mortar is designed to be – and must be – sacrificial.

If these five rules are followed, the mortar will comply with NPS standards, be appropriate for repair work on historic structures, and most importantly "will do no harm."

Often masons use a Type S masonry cement field mixed with sand. Masonry cement is a prepackaged combination of Portland cement and plasticizers. The mix of these bagged mortar mixes is typically proprietary and is not required by ASTM standards to include hydrated lime (ground limestone is accepted). Great compressive strength is neither needed nor appropriate. The 28 day compressive strength of these mortars is 1,800 psi – far too hard for the historic bricks or even limestone. Consequently, masonry cements are not recommended for use on preservation projects.

An alternative for this project is the use of natural hydraulic lime (NHL) 5 which is eminently hydraulic. While not used historically, a benefit of this mortar is that it provides a quicker initial set while maintaining many of the other benefits of lime. The 28-day compressive strength of NHL 5 is about 290 psi, increasing to 1,225 psi in a year.

While field mixes can be prepared, we believe that a better choice is the use of prebagged NHL mortar and sand mixes offered by a variety of companies, including Limeworks.us (http://www.limeworks .us/ecologic more.html), Virginia Lime Works (http://www.virginia limeworks.com/mix-go.html), and U.S. Heritage (http://usheritage.com /repointing-mortars/).

The columns reveal that the original jointing was a protruded bead. Good preservation practice mandates that this tooling be replicated.

For unknown reasons, the architect designing the Bicentennial Park landscape along Fourth Avenue North extension at the north end of Rest Haven Cemetery located a variety of sprinklers in such a manner that the limestone walls are becoming saturated every time the system is turned on (Figure 33). This will promote the premature deterioration of these walls, making their long-term maintenance much more

Figure 33. Sprinklers wetting the north cemetery wall should be removed or adjusted to ensure the wall remains dry.

difficult.

It is critical that these sprinklers be adjusted to prevent wetting the limestone walls.

In addition, a sprinkler head was located almost in the middle of the north cemetery entrance. This head will suffer constant damage by pedestrian activity and should be relocated.

Gates

There are currently four iron gates associated with Rest Haven Cemetery's boundary wall. There is one drive gate at the east entrance coupled with two pedestrian gates at the same location. All of these gates are in poor – and inoperable – condition. There is a fourth gate at the south entrance.

The drive gate is about 12 feet in length and constructed from mild steel. It likely dates from the very late nineteenth or early twentieth century. While no name plate is present, the style is very similar to gates manufactured by Stewart Iron Works during this period. The flanking pedestrian gates match the design of the drive gate.

The bottom rail of the drive gate is buried in the soil. Both the right and left frames are bent, as are multiple pickets. Connections to the stone column have failed and one is missing.

The bottom rail of the north pedestrian gate is buried in soil and six finials are missing. The riveted connections between the gate frame and the hinge in the upper corner have failed. The hinges, however, appear to be sound. The closing/locking mechanism is missing.

The bottom rail of the south pedestrian gate is also buried, making the gate inoperable.

Figure 34. Gate problems. Upper left is the east drive gate showing damage. Upper right is the upper drive gate hinge showing damage to the stone column. Middle left shows the lower drive gate hinge. Middle right shows the northern pedestrian gate. Lower left shows the southern pedestrian gate. Lower right shows the small southern pedestrian gate with the missing section to the west.

Four finials are missing and two pickets are bent. The hinges appear sound, although there is no closing/locking mechanism present.

The southern pedestrian gate is found in a 9-foot entrance; the other gate section identified in 2006 is no longer present today. This ironwork is heavy, consisting of both wrought and cast elements. It is far better constructed than the eastern gates and likely dates from the nineteenth century.

Several cast sections are broken and missing (although they may still be present, but buried in the soil). While the bottom of the southern gate is also buried in the soil, the hinges appear sound. There are multiple open areas between the cast design and the gate frame that allow water entry.

The bottom rails of all gates should be removed from the soil. Typically this requires the soil in this area be removed, providing positive drainage away from the ironwork and ensuring that the bottom rail is at least 2-inches above the soil. If it is not possible to establish positive drainage, we recommend that sufficient soil be removed to create a swale or drainage area that will keep the ironwork above grade.

It is likely that all four will need to be removed to a shop for repairs. These may consist of repair or replacement of the bottom rails where corrosion has made them weak or non-functional. Bent pickets should be straightened. Finials need not be replicated, although it may be possible to find readily available replacements.

The drive gate, in particular, will require extensive hinge repairs at the stone column in order for the gate to be hung and for it to be functional. The column should be pointed first and allowed several months to cure to ensure it is structurally able to support the gate.

Welding repairs are acceptable where little or no expansion or contraction of the iron is anticipated. Where there were originally slip joints, however, welding is inappropriate since it will create stresses that can cause additional damage. For these areas it is necessary to infill the fabric and recreate slip joints that allow movement.

Where welding is appropriate, it must be of very high quality. Appropriate welding processes may include gas tungsten arc welding (GTAW) and shielded metal arc welding (SMAW). Since these gates represent either wrought iron or mild steel, welding should pose no real problems. Often NiRod Ni-99, silicon-bronze wire, or stainless steel wire will be used. These are selected for their compatibility and ductility.

All welds must be continuous and ground smooth.

At the completion of this work the gates should be painted. We do not recommend anything more than brushing of the gates to remove loose corrosion and flaking paint. Open joints and other areas where water can penetrate through capillary action should be carefully caulked with Sikaflex 1a, an elastomeric caulk that is often used in fence repair. Under no circumstance should a silicon caulk be used.

The gates and associated mounting hardware should then receive one coat of an alkyd primer, such as Rust Oleum Professional High Performance Metal Primer 7769. After this has cured it should be followed by two top coats of flat black alkyd paint, such as Rust Oleum Professional High Performance Flat Black 7776402.

Paint application should be by brush, producing initial dry coat of 1-2 mils (the wet build-up is typically twice this).

It is also important to emphasize that in the future paint must be maintained and not allowed to deteriorate to the point currently observed. In addition, the quality of past painting was unacceptable, with much paint being applied to the stone columns. The City must ensure higher quality work.

Western Boundary

At the present time there is no fence along the cemetery's western boundary. This exposes the cemetery to cut-through pedestrian traffic and reduces security. We believe that this boundary should be secured in some manner.

While a stone wall could certainly be constructed, matching the small portion already present, this would be a very expensive option given that approximately 600 linear feet would be required. Since the lots along Hillsboro are about 5 feet above the grade of the cemetery, a 3-foot wall would offer little in the way of an effective barrier. In addition, given the development along Hillsboro, it will be necessary to plant screening vegetation, dramatically reducing the visibility of whatever boundary is established. Construction of a stone wall seems, therefore, an unnecessary expenditure.

Consequently, we recommend that approximately 600 linear feet of chain link be erected along this western cemetery boundary. The City should use higher security fencing than is typically provided by residential or even commercial fencing. It is, however, necessary to balance security with the concern that the cemetery not appear like a fortress. The cemetery is a public space and must remain inviting.

- Height – The height should be evaluated against the ease of breaching. Since the fill section along Hillsboro Street is about 3 feet above the cemetery grade, the fence must be a minimum of 6 feet in height and preferably 8 feet.

- Top Rail – Fencing should eliminate the top rail, installing instead a 7-gauge coil spring wire. This will make the fence more difficult to climb.

- Bottom Rail – Fencing should require a bottom rail that is secured in the center of the two line posts using a 3/8" eye hook anchored into a concrete footing. This eliminates the possibility of forcing the mesh up to crawl under the fence.

- Chain Link Fabric – The material should be PVC color coated per ASTM F668 Class 1 minimum. The coating will significantly reduce maintenance and improve the life span of the fencing. Mesh should be 1" and 11 gauge. Most chain link is 2"; the reduced size makes it much more difficult to climb. Twisted selvage should be specified for the top and bottom selvage if permitted by local code; this will enhance security.

- Bolts – All bolt threads should be peened to eliminate the removal of bolt nuts.

- Fittings and framework – Higher security fences generally require heavier brace and tension bands, as well as wire ties. Likewise, the framework is typically heavier. Line posts should not be spaced more than 8' apart.

If the City intends to create a parking lot for the cemetery as we have been told, then a 4-foot wide pedestrian gate should be included in the design. This gate should be lockable.

The benefits of this fence extend beyond increased security. This grade fence, with PVC coating, will have a much longer lifespan and will require much less maintenance.

While it may seem unattractive, in a following section we will make recommendations regarding screening that will reduce the visibility of the fence from within the cemetery.

Recommendations

City Cemetery

- About 190 linear feet of the stone wall requires repair. Most of this involves resetting of the angled laminar top stones, although several wall sections do require rebuilding.

- The southern pedestrian gate should be locked closed since there are no sidewalks or other convenient pedestrian access route along the south.

- The 1916 gate columns require pointing using a softer mortar than the existing Portland cement mortar.

- The west drive gates should be operable. This will involve removing them from the soil, repairing the bottom rails and pickets, and resetting the gates properly, replacing the lost pivots and repairing pivot arms.

- The south pedestrian gate should be removed from the soil and further evaluated for needed repairs.

- All gates should be painted, using either an appropriate primer and top coat as specified if there is remnant paint, or using Rust Oleum Rust Reformer and top coats where only bare metal is present.

- We do not recommend the replacement of the east drive gate, although the missing stroup should be reset.

- If the eastern drive gate must be replaced, we recommend that it be modeled after the southern pedestrian gate, which we believe dates to at least the nineteenth century.

- All of the vegetation under 4-inches dbh along the northern chain link fence should be removed, including trees that have grown into the fence.

- A 10 foot clear zone should be establish on either side of this fence and overhanging branches should be removed to the fence line.

- About 160 linear feet of the chain link fence requires repair or replacement.

- The repaired fence line should be inspected by the City on a yearly basis to ensure its maintenance.

Rest Haven Cemetery

- About 570 linear feet of stone wall at Rest Haven requires repair. About 300 linear feet will involve primarily the resetting of the angled laminar top stones. An additional 270 linear feet, however, will involve extensive rebuilding of the wall.

- The east entrance gate columns all require extensive pointing using a 1:2.5 mix of gray NHL 5 and sand.

- The east entrance flanker walls require rebuilding.

- Sprinklers wetting the north wall must be relocated and/or adjusted to prevent the limestone walls from being wetted. The sprinkler head in the middle of the north entrance must also be moved.

- All gates should be made operable. This will involve removing them from the soil, repairing the bottom rails, straightening pickets, and resetting the gates properly, replacing or repairing hinges and column mounts.

- All gates should be painted, using an appropriate primer and top coat as specified.

- We recommend the installation of about 600 feet of higher security industrial chain link as specified along the western cemetery boundary.

Cemetery Security

Franklin's City and Rest Haven cemeteries, like virtually all cemeteries, have over time been plagued by vandalism. Unfortunately, the level of attention devoted to the cemeteries in the past, coupled with a lack of detailed historical research, makes it difficult to determine the level of vandalism or when it has occurred. The Parks Department is, however, aware that during the summer of 2013 a 6x6 inch cornerstone was removed from the cemetery. Moreover, during this investigation we were able to identify other instances of probable vandalism or theft.

We are told that the City of Franklin's insurance of city property would cover damage in the cemetery. Of course, it would be necessary to demonstrate that the damage was not pre-existing, all insurance has deductibles, and insurance rates can rise with the number of losses reported. Nevertheless, the City is fortunate to have this coverage in case of a major incident at either City or Rest Haven cemeteries.

Vandalism

The Parks Department does not have a formalized mechanism for identifying or reporting vandalism specific to the cemetery setting. Nor is maintenance at a sufficient level to preclude the likelihood of vandalism (there is a correlation between maintenance and vandalism).

At the present time there is no systematic inspection process. It seems unlikely that the maintenance staff would recognize vandalism for what it is, or have any idea when it occurred. It will be difficult to ascertain the level of damage the cemeteries suffer without some method of periodic inspection.

There are relatively few studies of the causes of vandalism. Those that exist present a broad range of possible reasons, including poverty, unemployment, disintegration of family life, and availability of drugs and alcohol. Other studies include problems inherent in single family homes and parents that fail to guide their children in social and moral issues. Even the judicial system itself is thought to contribute to the problem by failing to deal more harshly with offenders (see, for example, De Wet 2004).

Unfortunately, cemetery specific vandalism has not been studied and we must rely on studies largely focused on school vandalism to understand the phenomenon (although we have no assurance that the two can be reasonably related). Most school vandals are typically young (junior high school), male, and act in small groups. Participating in vandalism often helps a youth to maintain or enhance his or her status among peers. They have typically done poorly academically and have little or no understanding of how their behavior affects others. They are not, however, any more likely to be emotionally disturbed than their peers who do not commit vandalism. Those who commit vandalism are not likely to be judged harshly by their peers. Youth who lack fulltime parental supervision during after-school hours are more likely to commit vandalism.

To this we can add that our experience with vandalism suggests a very strong correlation between the vandalism and considerable alcohol consumption. Moreover, we find that vandals extend in age well into the 20s.

Physical measures to reduce vandalism – such as installing fences and erecting lights – have great appeal. Such projects are easy to understand and physical measures generally have only a one-time outlay of funds. Nevertheless, most authorities agree that vandalism is the combined

Figure 35. Examples of probable vandalism. The top photo shows a pinned stone with a level base in City Cemetery. It is likely this was intentionally pushed over. The bottom photo, from Rest Haven Cemetery shows a toppled obelisk. While the base was tilted, it was not yet at a point that the obelisk would have fallen without assistance.

result of the offenders' characteristics and those of the physical and social environment in which the behavior occurs. If our response is to be effective we must focus on both the person and the environment. Programs that target only one of these variables – such as physical measures – will not be successful in the long-term. Moreover, they run the risk of making the cemetery appear fortress-like.

Unfortunately, measures that examine offender behavior, administrative policies, or community involvement seem more complex and difficult to implement. Group consensus for more complex programs may be more difficult, largely because the possible responses can be overwhelming. To simplify, we will focus on four main tactics: those that impact the physical environment, those that impact the offender, those that focus on administrative practices, and those that enlist the community's help. We encourage the implementation of a balanced approach involving all four tactics and believe that the success of programs to reduce cemetery vandalism rely on a broad-based initiative.

It is worth noting that while we see probable evidence of vandalism at the cemeteries, we cannot determine its prevalence or whether it is increasing or decreasing.

Changes to the Physical Environment

Control access to deter unauthorized entry

The boundaries for the cemeteries must be less permeable. In practice this means immediate effective repair of the existing City Cemetery fencing along the north border and the erection of chain link fencing along the west boundary of Rest Haven Cemetery. These measures can reduce the opportunities for illegal or inappropriate entry and can also delay or make the intruders' efforts to get away more difficult.

Post Regulatory Signage

Access-control signs are an important part of "rule setting" in that they establish the types of activities prohibited in the cemeteries. As discussed in the section entitled “Other Maintenance Issues,” the cemeteries require regulatory signage. These signs need to be installed at all entrance gates.

Lighting

Lighting is sometimes seen as reducing vandalism. There is no consensus on whether well-lit areas or "dark" locations are superior in terms of crime prevention. Cemeteries were not lighted historically. Thus, the introduction of lighting detracts from the historical integrity of the properties, changing the historic fabric. Another issue to be considered is that lighting is only useful if there is someone guarding the property, using the lighting to identify problems. This is not the case in most cemeteries, including those in Franklin.

There are currently several Cobra Head luminaires in the immediate vicinity of the cemeteries. They are not, however, sufficiently common that they likely provide any significant illumination of either cemetery.

Regardless, we do not recommend that any additional lighting be installed.

Repair damage quickly and improve the appearance of the Cemetery

Clean, well-maintained cemeteries free of debris or garbage, free of evidence of past vandalism, and with attractively landscaped grounds are less at risk for vandalism. Consistent maintenance may serve as an "occupation proxy," giving the appearance that the cemetery is under steady surveillance by those concerned about keeping it safe. Conversely, cemeteries with much trash, evidence of damage, or poorly maintained grounds give the appearance of abandonment; if no one in society cares for the property, why should the prospective vandal? Simply put, the appearance of abandonment breeds additional damage and vandalism. Thus, it is critical that the level of maintenance at City and Rest Haven cemeteries be immediately improved.

Ensure Ready Access to the Property by Law Enforcement

None of the cemetery gates are locked and we do not recommend that they be routinely closed or locked except for the south pedestrian gate at City Cemetery – the boundaries are simply too porous for this action to be meaningful. In addition, it is of benefit if police can quickly enter the cemeteries, even if on foot.

Offender-Focused Responses

Increase the Frequency of Police Patrols

Increasing the frequency with which police patrol the periphery of the cemeteries increases the likelihood that potential vandals will be seen. Even though there are no roads through the cemeteries that would allow police to readily access the grounds, the act of raking their spot light through the cemeteries will give the appearance of visibility.

Patrols should be especially vigilant during holidays such as Halloween and once the Bicentennial Park is open to the public.

Use of Electronic, CCTV, or Photographic Monitoring

An option for hardening cemetery targets is the use of video and photographic imaging technologies. At the high end are systems such as VistaScape – an automated wide-area surveillance system that detects, tracks, and classifies objects in real time on a computer screen. If an object violates a policy set by the user, the software streams live video of the alarm event to the display and can also send wireless alerts to law enforcement personnel. Although an ideal solution, the cost makes such system beyond the reach of most cemeteries.

An alternative, however, is the Flashcam by Q-Star Technology (http://www.qstartech.com). This self-contained digital system is motion activated; a photograph is taken (a flash unit allows night photographs at 100 feet), and a customized recorded announcement is played. Units are solar powered, eliminating the need for electrical connections. Photographs are high resolution and time/date stamped. Units can be

downloaded wirelessly. Although not inexpensive, they are among the most affordable solutions for cemeteries facing on-going vandalism and theft problems.

Though the initial financial outlay may be significant, over the long term, these surveillance systems may be less expensive than security patrols. Nevertheless, we would only encourage this outlay if the cemeteries experiences significant problems in the future.

Provide Caretakers on the Cemetery Grounds

The continuous presence of a caretaker in a cemetery can deter potential intruders. At one time this was achieved by resident superintendents who lived on cemetery properties in exchanged for rent free housing. While this is not possible at in Franklin, several other options are possible.

Volunteers should be given readily identifiable t-shirts (distinctive color and logo) to wear when working in the cemeteries and this should be publicized. Volunteers should be scheduled to conduct periodic inspections of the cemeteries during the week and on weekends, throughout the year. Like police patrols, these visits should be unscheduled and occur at different times and on different days. These volunteers should not confront vandals, but should be eyes and ears, providing a presence in the cemeteries and immediately reporting any suspicious activities.

Hold Offenders Accountable

Very few perpetrators of cemetery vandalism are identified and apprehended, and even fewer are prosecuted. Courts are generally lenient with offenders, and in most cases, the damage from an individual incident is seen as minor and does not appear to warrant harsh penalties. However, creative and well-publicized interventions to hold offenders accountable can have both a specific and a general deterrence effect. Restitution programs include a set of administrative and legal procedures to get money from offenders to pay for repair or replacement of damaged property. Publicizing the results of these efforts is important to maintain their deterrent effect.

The City should ensure that police investigate vandalism and work to secure an arrest. If an arrest is made, representatives of the cemeteries should be present in court, testify concerning the impact – and cost – of the damage, and ask for the maximum punishment possible. If no restitution is required by the court, the City should consider civil court action to recover costs associated with professional repair of the damage.

Management Practices

Maintain an Inventory of Cemetery Stones and Their Condition

Vandalism often goes unreported because cemetery caregivers do not know what is present in the cemetery or its condition. Thus, vandalism can be overlooked as pre-existing damage. This makes a complete stone-by-stone assessment critical for near-term inventory purposes.

Volunteers must also become familiar with the stones in the cemeteries and their condition. While it is obviously impossible to know each stone, volunteers may be assigned specific areas to become familiar with the stones and the condition of the stones in that one area. Inspections could then be conducted monthly.

Community-Focused Responses

Provide Rewards for Information Concerning Vandalism

Offender-focused responses require that vandals be identified and apprehended. Police investigations of vandalism incidents can be enhanced by high-quality information provided by community residents and even students from local schools. As seen with traditional "Crime Stoppers" programs, setting up telephone or internet-based tip-lines, offering rewards for information, and

guaranteeing anonymity encourages people to come forward with specific information. The most effective programs actively involve volunteers in collecting and synthesizing information for police, and in determining payout amounts in the event of apprehension.

Create "Cemetery Watch" Programs

Similar to "Neighborhood Watch" efforts, community residents can conduct citizen patrols of cemetery property during evenings and weekends. Membership and regular participation in voluntary patrols increase when some form of prestige is offered to volunteers. Effective practices include:

- patrolling regularly, but at unpredictable times;
- ensuring volunteers have cell phones for prompt communication with police or other emergency services;
- engaging in passive surveillance only, and not interacting with potential vandals or intruders in any way; and
- publicizing activities and outcomes through school-based and local media outlets.

As an adjunct to this, residents in adjacent buildings should be especially encouraged to be attentive to problems in the cemeteries. Unusual noise, lights, or activities should be sufficient to have neighbors call the police to report their concerns. The City should seek to encourage the active participation of residents surrounding the Cemetery, especially the residences along North Margin Street. Meetings should be held, preferably in the evening and preferably on the premises of the residents, to allow the City to enlist the support of these residents.

In response to a specific problem or rash of incidents, Watch programs can produce short-term reductions in vandalism. However, these programs are difficult to sustain, so the City will likely need to periodically "rejuvenate" the program by holding new meetings and bringing in new participants.

The City should also consider developing similar programs using volunteers to assist in collecting trash, cleaning stones, painting fences, or other activities. Boy and Girl Scout troops should also be contacted. Involving students in the care of cemeteries, and engaging them in ongoing, active projects will help establish a strong bond in the community.

Vandalism Records

We recommend that the City develop a form designed for the reporting of cemetery-specific vandalism (Figure 36). This form should include information such as what was damaged, with specific information concerning each stone, including the name and lot/plot; how the stone was damaged (toppled, broken into how many fragments, scratched, etc.); where is the stone now (was the broken stone gathered up for storage, if so, where is it stored); an estimate of when the damage occurred, including the last time the stone was known to be undamaged; an estimate – from a conservator – of the extent of the damage and cost for repair; a photograph of the damaged stone; when police were notified; when police responded and took a report, with a copy of the report attached; and the outcome of the police investigation.

Theft

There are no specific records of theft other than the one item mentioned in the introduction to these discussions. Nevertheless, we suspect that theft has been a long-standing issue, as evidenced by lost gates and fencing.

For example, three of the 11 gates in Rest Haven Cemetery are missing (27%) and an additional two gates are no longer attached and could be easily stolen (representing an additional 18%). The single remaining fenced plot in City Cemetery is missing its gate. Three boundary

Chicora Foundation, Inc.
PO Box 8664
Columbia, SC 29202
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CEMETERY VANDALISM/DAMAGE REPORT FORM

Cemetery: **Number of Stones/Objects Involved:** **Are Human Remains Involved:** ☐ yes ☐ no

Grave #: **Section #:** **Lot #:**

Date/Time Damage was First Observed: am/pm **Name of Observer:**

Date Last Observed Undamaged: am/pm **Name of Observer:**

Potential Witnesses:

Nature of Damage (attach photographs of damage):

Date Reported to Police: **Investigating Officer:**

Police Incident No: **(Attach a legible copy of police report to this form)**

Estimate of Damage (attach justification, conservation treatment proposals): **$**

Owners of Monuments Identified: ☐ yes ☐ no **Owners Will Repair:** ☐ yes ☐ no ☐ not certain

Follow Up with Police:

Repairs Undertaken by Cemetery (attach conservation treatment reports):

Total Cost of Repairs: $ **Insurance Eligible:** ☐ yes ☐ no **Date Claim Submitted:**
Date Claim Approved/Paid: **Amount of Claim Payment: $**

Internal Evaluation for Future Prevention:

Form Completed By: **Date(s):**

Figure 36. Example of a vandalism report recommended by Chicora.

gates – one at City Cemetery and two at Rest Haven Cemetery – have been stolen.

Many of the numerous gates in the cemeteries are easy to lift off their connectors and steal. These gates are valued in antique stores and are almost impossible to recover once stolen.

Figure 37. Example of a gate protected with stainless steel cabling that has been painted to blend with the fence.

It is a simple maintenance step to use woven stainless steel wire to secure gates to their hinge posts. This allows the gates to open and close, but makes them considerably more difficult to lift off their hinges and steal. The cost to protect gates is less than $20 each and the time involved is about 15 minutes. This is something that the Parks Department staff or volunteers could easily accomplish. The NPS article, http://crm.cr.nps.gov/archive/25-02/25-2-15.pdf provides additional information.

Dealing with the Homeless

It appears that there is a very low incidence of homelessness in the Franklin area. Nevertheless, we recommend that the City evaluate the need for a defined policy.

All laws with respect to public behavior should be enforced in the cemeteries by law enforcement. Should any shopping carts, bedding, or other personal belongings be found secreted away in the cemeteries, they should be removed from the property promptly. The landscape must be maintained to prevent hiding places and to ensure clear lines of sight. The Cemetery must be kept free of litter and debris.

Other Issues

During our assessment we observed pre-adolescents cutting through Rest Haven Cemetery from Fourth Avenue North to Hillsboro Street (Figure 38). This is made easy and convenient by the collapsed stone wall and the absence of any barrier along Hillsboro. It also demonstrates the need for the stone wall to receive a high priority for repair and for a security fence to be constructed along Hillsboro. Unaddressed this behavior will create social pathways or trails and will also promote vandalism.

Recommendations

- While evidence of vandalism exists in both cemeteries, it is difficult to determine the extent of the problem. The City should, however, review options to combat vandalism and determine which could be implemented to help harden the cemeteries against vandalism.

- The boundary fence should be cleared of

Figure 38. Pre-adolescents cutting through Rest Haven Cemetery.

all vegetation using a combination of brush killer and hand labor. Once cleared the fence should be inspected and repairs made as necessary.

- Repair of the City Cemetery chain link fence and installation of a similar fence along the west boundary of Rest Haven Cemetery will enhance security in the two cemeteries.

- All plot gates should have stainless steel cabling used to attach the gate to the hinge post to reduce the potential for theft.

- The City should begin using a cemetery-specific form to identify and record evidence of vandalism.

- The City should periodically evaluate the need for policies dealing with homelessness in the cemeteries.

- Rest Haven is being used as a cut through, making it critical that both the collapsed stone wall along Fourth Avenue North and the absence of a boundary fence along Hillsboro Road be addressed.

Cemetery Fixtures and Furnishings

Boundary fences and walls, sometimes discussed under "fixtures and furnishings" have already been discussed in a separate section because of their complexity. Readers should review that previous section for additional information on the boundary fences, walls, and associated gates.

Various Amenities

City and Rest Haven cemeteries are rather Spartan in their appearance. There are, for example, no benches, vases, or urns at any of the monuments or in any of the plots.

This is not necessarily bad. The absence is certainly related to the time period of the burials at both cemeteries. Benches tend to be rather late introductions, occurring after the period when active use at both cemeteries ceased. Their absence absolves the Park Department of their maintenance – which can often be significant. In addition, benches are often attractive nuisances and we generally do not recommend their installation.

Similarly, urns and vases tend to be maintenance issues. Urns are often sold by monument companies to clients who are unaware of the upkeep. As a result, the urns often hold water, breed mosquitoes, collect trash, are turned upside down, or are just ignored. They are rarely repaired or replaced when broken. They are likely not used since most floral arrangements today come in their own plastic container, rendering the urns and vases redundant.

Since with the proposed regulations, all work – including the setting of urns and vases – must be approved, some consideration should be given to prohibiting the introduction of urns or vases in the cemetery.

There may come a time when some group wishes to place a flag pole at the cemetery. We view this as essentially an amenity and worthy of brief mention here.

Flags and flagpoles in these two cemeteries would be inconsistent with the eighteenth and nineteenth century features and designs inherent in the two properties. The City should be careful not to permit the introduction of incongruous items into the cemetery, as well as avoiding the introduction of items that require long-term maintenance. There are simply too many demands already placed on the funding ability of the caregivers.

Introduction of Additional Memorials

Various groups may wish to introduce new markers or memorials into the cemeteries. Several recent examples are present and worthy of discussion. In general, since both cemeteries are now listed on the National Register of Historic Places, the City should be very circumspect in allowing modern additions to the landscape or modifications of the existing historic fabric. It is very important that the historic context and appearance of the cemeteries be carefully maintained.

The Unknown Soldier Monument

This is an example of a monument that is out of scale with the cemetery and surrounding monuments. Its placement disrupts the natural lines of the cemetery, as well as the original drive paths. It introduces elements that would not be found in a cemetery of this type or age.

Figure 39. Introduction of new elements. Upper left shows an inappropriate style monument introduced into City Cemetery. Upper right shows the monument to the unknown soldier that is out of scale with the cemetery and all other monuments. Middle left shows recarving of a monument which damages the original historic fabric and should never be allowed. Middle right shows an acceptable flush mounted emblem that doesn't detract from the cemetery landscape. The lower two photographs show examples of inappropriate markers that should be removed since the graves are already well marked or minimally should be laid as flush lawn markers.

We mention these concerns since it is important that the City carefully review and consider any modifications in light of the Secretary of the Interior's Standards for Preservation.

Replacement Monuments

All people deserve the dignity of ensuring their grave is marked and there are times when a marker is so eroded or difficult to read that it no longer serves as an appropriate memorial.

The original marker should never be removed. Nor should it be recarved (as has occurred in several cases at City Cemetery). Instead, the original marker should be left in place and a new marker laid at its foot as a lawn marker (a horizontal plaque). The new marker may be bronze or granite as both exhibit considerable longevity. By allowing only lawn markers, the three-dimensional landscape of the cemetery is maintained, while the grave continues to be memorialized.

The new marker should contain only what is (or was) on the original marker, with the addition in small letters that it is a replacement marker erected in a particular year. This helps ensure that it is made clear that it is a recent introduction into the historic cemetery.

New Monuments

New monuments should be allowed only for new burials. These new monuments should match existing markers as closely as possible. If granite must be used, it should be limited to shades of gray (pinks, reds, blacks, and similar colors should not be permitted). Preferably lawn markers (flush-to-the-ground) should be used in order to preserve the three-dimensional appearance of the cemetery.

In addition, the City should not allow the mounting of any plaques, emblems, or other devices on historic monuments (i.e., monuments 50 years or more in age). Any organization that wishes to especially recognize an individual in the cemetery with such plaques or emblems should be allowed only to attach the devices to a granite lawn marker and place the marker flush with the ground in proximity to the existing historic marker.

Recommended Modifications to Some Existing Monuments

In Rest Haven Cemetery there are a series of bronze markers that have been placed at graves with existing markers. These new introductions, erected 2 to 3 feet above the landscape detract from the historic appearance of the cemetery. Since they are on already marked graves, they serve no purpose..

If they must remain, all should be laid flush to the ground, mounted on poured concrete pads.

Recommendations

- The City should not allow the introduction of benches, urns, or vases in the cemeteries.

- The City should also be careful to prevent other introductions that are out of character with the historic cemeteries such as flag poles or grave decorations.

- The introduction of new memorials must be very carefully monitored and limited. New monuments should be allowed only when the historic monument is no longer legible. In such cases, the original monument must remain and a new flush marker with the precise language of the original marker erected as a flush-to-ground lawn marker.

- New monuments marking new burials (if any are allowed) should match existing markers in size, material, and design. If this is not possible, then new markers should be limited to gray granite. Preferably any new marker should be erected as a lawn marker flush to the ground.

- Existing brass signs in Rest Haven Cemetery either should be removed entirely or reset flush to the ground on concrete pads.

Landscape Issues

Staffing

In the assessment questionnaire, it appears that the full time maintenance staff consists of six individuals, with one seasonal maintenance staff. However, staffing levels can fluctuate. During the growing season, for example, there are multiple staff on-site mowing about 1.5 days per week. However, the landscape staff may have only two individuals at the cemeteries twice a month.

While this is common at municipal cemeteries, it makes it almost impossible to ascertain staffing levels or to judge the appropriateness of those levels.

Size of Staff

We typically recommend two workers and one supervisor full-time per 10 acres. This is based on the Boston Historic Burying Grounds Initiative (Atwood et al. 1989) and is particularly suitable for the situation at City and Rest Haven cemeteries since it is estimated that mowing old cemeteries with 3-dimensional monuments requires six-times the labor than modern lawn park cemeteries (Klupar 1962:239; Llewellyn 1998:100).

Thus, for the approximately 9 acres at the two Franklin cemeteries, we would recommend a full-time staff of 3 people – dedicated to nothing other than the maintenance of these properties.

It may seem difficult to understand the work available for three individuals assigned to only these two cemeteries; that is because too many caregivers assume that cemeteries require nothing more than occasional grass mowing. Nothing could be further from the truth and it is this thinking, focusing on little more than grass mowing, which has led to the overall deteriorated conditions.

Appropriate maintenance established by good practice includes weed control, tree trimming, pruning, seasonal cleanup, maintaining the paths, conducting section inspections, survey of monuments for maintenance needs, maintenance of shrub beds, maintaining section signs, maintaining water lines, rehabilitation of barren areas, raking, resetting stones as needed, inspecting and repairing fences, watering newly planted areas, sodding as necessary, identification of trees for removal, removal of flowers and grave decorations, and removal of wild growth (see, for example, Klupar 1962:226-228).

The importance of maintenance was clearly stated by West, “one thing is certain, the cemetery must be maintained in a proper manner or public confidence will suffer” (West 1917:26). Improved management and maintenance of the cemeteries will improve public confidence in the City's stewardship of these sites.

This permanent crew would also allow the City to train certain employees in the appropriate way to reset monuments, as well as make simple repairs. It would be possible to undertake, for example, an appropriate level of fence maintenance, including the collapsing stone walls.

Operating a permanent crew will also allow the employees to develop a sense of ownership and continuity. It also reduces the need to identify seasonal staff, appropriately train them, and ensure adequate oversight – only to lose those employees only a few months later.

While it is likely unheard of to assign

permanent staff to a particular site, the City should consider the benefits of such a program, given the very specific training and expertise necessary to maintain a cemetery as opposed to other landscapes areas of the community.

Job Descriptions

In the hope that the City will consider assigning specific employees to the maintenance of the two cemeteries, it may be useful to more fully understand the job descriptions appropriate for the two workers and supervisor. While it is likely that the City of Franklin already has specific job descriptions for employees, they likely are not focused on the specific needs of cemetery maintenance.

Cemetery Landscape Manager

A position such as Cemetery Landscape Manager would be appropriate for the supervisor. This may be the equivalent of the current Grounds Crew Chief.

A general statement of duties may be along the lines of, "Directs cemetery program, supervises workers in maintaining graves and equipment."

The individual should have training in equipment such as backhoe, mowers, lowering devices, compactors, trimmers, air compressors, grinders, hand and power equipment, chains, ropes, saws, paint brushes, bars, sod rollers, rakes, heaters, etc. They should also have knowledge of replacement parts, hardware, lubricants, paints, grave markers, records, and miscellaneous reports. They should also be capable of updating and maintaining computer systems.

The work environment should be specified as "Indoor/outdoor all weather conditions." The description should specify that the individual is responsible for exercising supervision over equipment operators, landscape maintenance technicians, and laborers. Physical requirements should include a statement that the individual will be responsible for manual labor including lifting and carrying heavy objects, bending, kneeling, climbing, extensive walking, and the ability to operate Cemetery equipment is required daily in the position.

Specific job duties, often referred to as "performance responsibilities," should include such items as: performs turf management; prunes trees and shrubs; responsible for maintaining cemetery grounds and equipment; directs the location of burial markers installed by other persons; plans and performs landscaping; plants new trees and removes old ones; hires, evaluates, and disciplines landscape technicians; locate graves, supervise opening of graves, internments, and reinternments when occasionally necessary; maintain time records for regular employees and other employees; make purchases in accordance with Department policy; make recommendations for equipment purchases and cemetery improvements; assure that the grounds crews' uniforms, personal appearance, actions, and demeanor present an appropriate image to families and visitors; maintain a safe working environment by training the staff in proper techniques and use of safety equipment; manages landscape contracts and contractors to ensure compliance with Department standards; and assure that the cemeteries comply with OSHA and EPA regulations and that the employees comply with appropriate regulations. As with most job descriptions, there should be a phrase noting that the list is not all-inclusive and duties will vary depending on the direction of the individual's supervisor.

Knowledge, skills, and abilities should include a minimum of two years' experience; knowledge of computer systems; understanding the rules and regulations pertaining to the cemetery, including requirements related to lots; and good public relations skills. The description should specify a thorough knowledge of turf management, plant nutrition, equipment repair and maintenance techniques, safety procedures, mechanics, and a working knowledge of mathematics.

The individual must be able to operate

tractors, backhoes, loaders, mowers, turf maintenance equipment, pruning equipment, hand tools, and other cemetery equipment. The ability to understand and anticipate problems, to enforce department safety policies and procedures, and to interpret written instructions, maps, schematics, diagrams, reports, and manuals is required. This employee should possess a strong mechanical aptitude, and excellent public relation, supervisory, organizational, oral and written communication skills. The individual must also be able to work as a team member.

The minimum qualifications should be a high school diploma or equivalent, a minimum of three years cemetery experience, prior supervisory experience in the same or related field, a valid driver's license, and a clean driving record. The job description must also make clear that continuing education in a related field is expected. It would be appropriate to note that this is a hands-on supervisory position that will manage the maintenance operations at City and Rest Haven cemeteries.

It would be ideal for this individual to hold a Tennessee Horticulture – Lawn and Turf (HTL) license (which also requires a C03 - Ornamental and Turf Commercial Certification. It may be easier for the City to have an existing license holder on staff perform these duties.

Cemetery Landscape Technician

This job description can obviously be simpler, although it should still cover all of the previous broad headings. It should indicate that the position is for semi-skilled work in general cemetery maintenance.

Essential duties might include such items as: hand rake around memorials, shrubs, trees and clean up low spots; use hand tools to dig ditches or holes; remove tree suckers and other undesirable vegetation; pick up trash; hand shovel dirt, gravel or asphalt; operate large deck mowers; operate small push mowers; service mowers; sharpen blades daily; clean equipment; wear safety equipment, including eye and ear protection; use shovel, rake, sod roller, etc.; seed and sod; weedeat using gasoline powered nylon trimmers; trash and rubbish removal; chipping vegetative debris; general clean-up of grounds; washing mowers and equipment; general clean-up of tools and return to proper place; light carpentry and painting; repositioning or resetting memorials; and running errands (fill gas cans, obtain parts, etc.).

Knowledge, skills, and abilities should specify that the individual must be at least 18 years old; must have a valid driver's license; must have and maintain a satisfactory driving record; must have the ability to perform the cited tasks; must be able to work 40 hours a week, plus overtime if required; ability to arrive at work on time; and ability to maintain a regular and reliable level of attendance.

The work environment should be specified as "Indoor/outdoor all weather conditions." Physical requirements should include a statement that the individual will be responsible for manual labor including lifting and carrying heavy objects, bending, flexing, twisting, stooping, crouching, kneeling, climbing, extensive walking, and the ability to operate Cemetery equipment is required daily in the position.

Job Oversight

Regardless of the credentials or certification, the complexities of cemetery maintenance require that the technicians are well supervised and are held accountable for their performance. It is especially important, therefore, that the supervisor(s) be carefully defined. The selected individual(s) must not only be well trained and knowledgeable, but also possess demonstrated supervisory experience. The supervisor(s) must be expected to work alongside the crews on a daily basis.

Cemetery Maintenance Inspection Form

Cemetery:_____ Date:_____ Inspected By:_____

Elements	Issues	Good	Requires Attention	Not Applicable	Comments/Location
LAWNS	General Appearance				
	Mowing Height				
	Water/Moisture				
	Edging/Trimming				
	Pest/Disease Control				
	Weed Control				
	Fertilization				
	Other				
BEDDING PLANTS & PLANTERS	Plant condition				
	Water/Moisture				
	Pest/Disease Control				
	Cultivation				
	Staking				
	Dead Heading				
	Trimming				
	Fertilizing				
	Weed Control				
	Edging				
	Mulching				
	Other				
PERENNIALS & GRASSES	Plant Condition				
	Water/Moisture				
	Pest/Disease Control				
	Cultivation				
	Staking				
	Dead Heading				
	Trimming				
	Fertilizing				
	Weed Control				
	Edging				
	Other				

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Elements	Issues	Good	Requires Attention	Not Applicable	Comments/Location
SHRUBS & GROUNDCOVERS	General Condition				
	Water/Moisture				
	Pest/Disease Control				
	Pruning				
	Shearing				
	Trimming				
	Weed Control				
	Cultivation				
	Fertilizing				
	Mulching				
	Other				
TREES	General Condition				
	Water/Moisture				
	Pest/Disease Control				
	Edging Wells				
	Mulching				
	Pruning				
	Repair				
	Hazards				
	Plant Support				
	Stakes/Wires/Anchors				
	Base Damage/Girdling				
	Fertilization				
	Other				
IRRIGATION	Heads/Risers				
	Pressure				
	Coverage				
	Controller Settings				
	Leaks				
	Other				
DRAINS/DITCHES	Debris				
	Pollution				
	Other				
FURNISHINGS & FIXTURES	Damage				
	Dirty				
OTHER					

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Figure 40. Form that can be adapted by the Cemetery Landscape Manager as a monthly report on conditions.

The Cemetery Landscape Manager should be responsible for providing the City with a written monthly report itemizing activities during the month. This document need not be extensive; Figure 40 provides a brief list that may be helpful.

Staff Hiring and Continuity

Maintaining the continuity of a maintenance staff with a commitment to the preservation of a historic cemetery is critical. It not only serves to help ensure the highest possible quality of care, but also allows the specialized knowledge that accrues to be transferred to new staff members over time.

The City must evaluate mechanisms for obtaining this continuity.

Staff Training

We are told that staff are trained during their orientation on job specific equipment and those assigned to the cemeteries receive "training specific to the cemeteries." Several of the Parks Department members have received training from the Dry Stone Conservancy.

A horticultural degree is a significant asset in cemetery landscape management, as is membership in professional organizations such as the Professional Grounds Maintenance Society (PGMS).

We understand that the City has an arborist who is International Society of Arboriculture (ISA) Certified. Certified arborists have a minimum of three years experience in some aspect of tree care and have passed an exam developed by an international panel of experts. The exam extensively covers every aspect of tree care and the individuals must have an acceptable level of knowledge in all areas of arboriculture.

Since the cemetery will require considerable involvement of an arborist in evaluating and maintaining tree health, as well as ensuring proper pruning, it may be that the City will need to contract out some work. There are two Certified Arborists in the Franklin area that the City could contract with if needed (Table 2).

The PGMS offers certifications for both managers and technicians. It also offers the PGMS Landscape Management and Operations Accreditation.

In 2005 the Associated Landscape Contractors of America (ALCA) and the Professional Lawn Care Association of America (PLCAA) merged to form the Professional Landcare Network (PLANET). There is a local chapter in Nashville. This organization offers three certification programs.

The first is the Certified Landscape Technician – Exterior. The exam for this certification is a hands-on field test and candidates can be tested in Installation, Maintenance, or Irrigation.

The second is Certified Turfgrass Professional – a comprehensive study of both warm and cool-season turf grasses developed by the University of Georgia Center for Continuing Education. Certification in this area demonstrates a mastery of weed, insect and disease identification/control, as well as diagnosis of common turfgrass problems. The material supports Integrated Pest Management concepts and pesticide safety – significantly reducing the City's liability for operations.

The third is Certified Ornamental Landscape Professional. This certification emphasizes tree and shrub maintenance procedures with candidates concentrating on landscape trees and ornamental woody plant

Table 2.
ISA Certified Arborists in Franklin, Tennessee

Name	Company Name	Telephone
Martin Shaw	Green Season Consulting	615-794-4377
Tom Powers	Powers Technology	615-642-9577

physiology, health care management, and establishment.

The University of Georgia has developed several exceptional training programs readily available either on-line or through DVDs. One is the SuperCrew series that provides professional training developed in cooperation with industry leaders and endorsed by professional organizations. Topics range from "Being Safe with Grounds Equipment" to "Pruning Ornamentals."

The training is available through either nine DVD programs that can be used to train staff on-site or through individual on-line enrollment. The former has a cost of $470, although the DVDs can be used to train an unlimited number of individuals and include both English and Spanish scripts. The second option allows a single individual to take the nine lessons self-paced for a total of $170. The latter option allows the individual to receive a Certificate of Completion after successfully completing the online quizzes. Additional information is available at http://www.supercrew.caes.uga.edu/.

We encourage the City to support staff seeking certifications and additional training. In fact, the City should not simply provide opportunities for its staff to become certified in different areas, but must insist on continuing education and training for all employees.

While out of Tennessee, we encourage participation in the Georgia Municipal Cemetery Association (http://www.gmcaweb.org/) as another means of obtaining further training and exposure to the issues specific to municipal cemetery management and maintenance.

General Employee Behavior

While the City already has rules regarding employee behavior, cemeteries are special places and work in cemeteries may require supplemental employee guidance. For example, no employee should sit, lean or place any item on headstones or markers and should never place or lean equipment on any headstone or marker.

Cemetery Soil

The City reports that no soil sampling for turf or trees is currently conducted at either City or Rest Haven cemeteries. Commercial analysis is no more than $10 per sample and it is impossible to manage vegetation in the cemetery if there is no data on the condition of the soils.

It is good practice to test soils every three to five years and we recommend this practice begin immediately. A simple tutorial on soil sample collection is provided at http://www.caes.uga.edu/applications/publications/files/pdf/C%20896_4.PDF.

For this assessment samples were collected from City Cemetery, the north half of Rest Haven Cemetery, and the south half of Rest Haven Cemetery. Analysis was conducted by A&L Eastern Laboratories. The results of these tests are provided in Figure 41.

The soils have moderate to relatively cation exchange capacity (between 12.7 meg/100g at City Cemetery and as high as 28.5 meg/100g at Rest Haven Cemetery). The cation exchange capacity is the maximum quantity of total cations, of any class, that a soil is capable of holding, at a given pH value, available for exchange with the soil solution. It is used as a measure of fertility and nutrient retention capacity, and in general, the higher the number, the higher the soil fertility. The cation exchange capacity can be improved with the introduction of humus and organic matter. The results of this study show that all of the tests soils are able to retain nutrients and thus are relatively fertile.

Nevertheless, organic matter is not especially high, ranging from only 4.6% in City Cemetery to as much as 12.1% inRest Haven Cemetery. The soils would benefit from soil amendments, although this is difficult to accomplish in turf soils. More important than the current levels are changes over time – providing another reason by periodic testing is beneficial.

At City Cemetery the soil pH is 5.8. Most

plants prefer levels from 5.8 to 7.0, so this is just within the acceptable range, but certainly not optimal. At Rest Haven Cemetery the soil pH ranges from 5.7 to 7.0, suggesting considerable variation.

Liming is recommended at City Cemetery and in the northern half of Rest Haven in order to increase the soil pH and promote greater microbial activity. Recommendations for liming are shown in Table 3.

Phosphorus (P) levels are high in all three samples. This is not surprising since the soils were all formed in phosphatic alluvium. Phosphorus is essential for photosynthesis, seed and fruit production, plant energy production, and cell division. Adequate supplies will promote root growth and formation, greater flowering and seed production, better growth in cold temperatures, and efficient water use.

Potassium (K) is also essential in photosynthesis, plant growth, and effective response to drought stress. Like phosphorus, it tends to be reduced by low pH and low cation exchange capacities. Thus, it is not surprising that it is relatively high in the south half of Rest Haven Cemetery where the soil pH is neutral, but low in the north half of Rest Haven and City cemeteries, where soil pH is acidic. Balancing soil pH will likely improve potassium levels.

Calcium and magnesium levels range from low to high. The reason for this is not known. In general, all three are affected by the soil acidity and the low cation exchange capacity. Finally, we tested for soluble salts. These may be contributed by road salts, but are common is virtually all commercial fertilizers. They can affect not only the plants, but also the stones at the cemetery. Soluble salt levels were between 0.1 and 0.32 mmho/cm and these levels are considered very low.

According to the soil surveys, all of the soils in the cemeteries are silt loams. Our analysis of soil texture reveals some variation. The soils tested in City Cemetery were silt loams (with 52.8% silt), but those from Rest Haven Cemetery varied from a sandy loam in the southern half of the property (with 56.4% sand) to loam in the northern half (where the sample reveals 44.4% sand and 44.8% silt).

This brief discussion reveals that the availability of many plant nutrients is being affected by the low soil pH. Thus, while fertilizers could productively be used in several areas, we recommend instead that an effort first be made to raise the pH and then conduct additional soil tests to further evaluate macro and micronutrient levels.

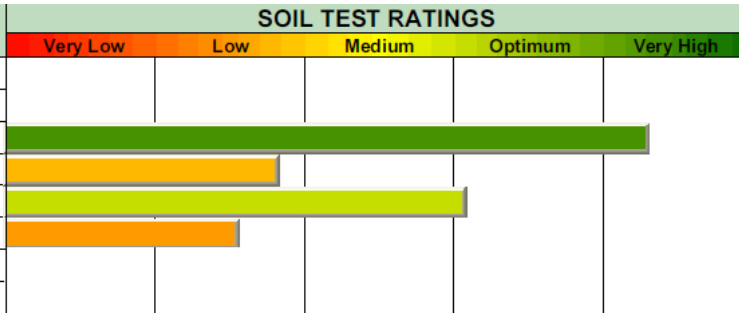
If fertilizers are to be applied, based on the current soil tests the recommended levels are 10 pounds per 1,000 square feet of 10-0-20 at City Cemetery, 6 pounds per 1,000 square feet of 21-0-0 in the south half of Rest Haven, and 10 pounds per 1,000 square feet of 10-0-20 in the north half of Rest Haven Cemetery.

Table 3.
Recommended Liming for Turf Areas

Section	Lime (lbs/1000 ft^2)
City Cemetery	30
Rest Haven N½	98
Rest Haven S½	0

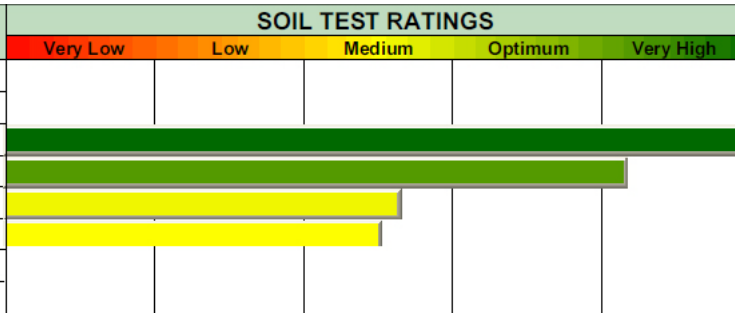
If future fertilizers are to be applied now or in the future, slow release organic fertilizers are preferable to commercial inorganic fertilizers since they have significantly lower salt indices. An excellent source explaining the differences between organic and inorganic fertilizers is http://www.cmg.colostate.edu/gardennotes/234.pdf. The publication at http://www.caes.uga.edu/applications/publications/files/pdf/C%20853_3.PDF provides information on converting traditional inorganic fertilizer recommendations to safer organic recipes.

Test	Results	
Soil pH	5.8	
Buffer pH	6.69	
Phosphorus (P)	140 ppm	
Potassium (K)	75 ppm	
Calcium (Ca)	1804 ppm	
Magnesium (Mg)	124 ppm	
Soluble Salts	0.1 mmhos/cm	
Organic Matter	4.6 % ENR 124	



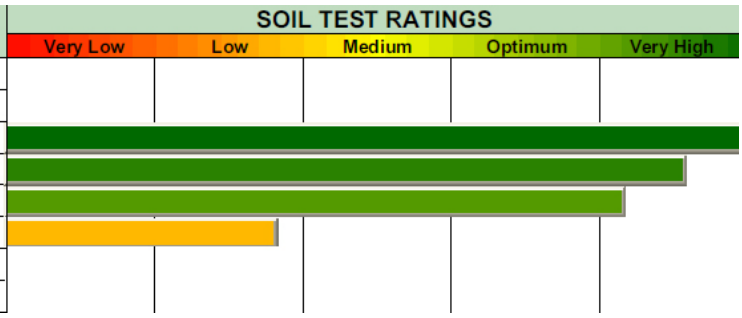
City Cemetery

Test	Results	
Soil pH	5.7	
Buffer pH	6.57	
Phosphorus (P)	310 ppm	
Potassium (K)	200 ppm	
Calcium (Ca)	2172 ppm	
Magnesium (Mg)	253 ppm	
Soluble Salts	0.26 mmhos/cm	
Organic Matter	6.8 % ENR 150	



Rest Haven N½

Test	Results	
Soil pH	7.0	
Buffer pH		
Phosphorus (P)	369 ppm	
Potassium (K)	304 ppm	
Calcium (Ca)	5021 ppm	
Magnesium (Mg)	312 ppm	
Soluble Salts	0.32 mmhos/cm	
Organic Matter	12.1 % ENR 150	



Rest Haven S½

Figure 41. Soil sample results.

Figure 42. Pecan tree at City Cemetery. Upper photo shows splits in the bark and piles of branches at the base. Lower photo shows drooping branches on monuments.

City Cemetery

Cemetery Trees

Trees are limited to a centrally located specimen pecan (*Carya illinoinensis*) and scattered pines (probably shortleaf pines, *Pinus echinata*) in the eastern half. Eubank et al. (2010:8) insist that the pecan is an intentional planting, although there is no real evidence to support this, while they suggest that the pines, "not arranged in any particular order," were likely volunteer trees. It seems unlikely that so many of a single species would be found, but we suppose it is possible.

The pecan is an excellent specimen tree. It is an American native with a uniform, symmetrical, broadly oval crown. Pecans will typically grow 70 to 100 feet tall with a spread of 40 to 75 feet. They exhibit large major limbs growing up and out from the trunk in a distinctive upright, spreading fashion. The pecan also exhibits a high drought tolerance.

Nevertheless, the pecan is not an especially good cemetery tree and doesn't appear to be highly recommended for planting by the City. The fruit, twigs, and foliage cause significant litter – an issue that is immediately obvious at City Cemetery. Surface roots tend to lift monuments and interfere with mowing. The tree is sensitive to a variety of pests and diseases. Finally, the wood itself tends to be weak and susceptible to breakage. This last issue can be minimized if the tree is pruned to a central leader early. This adds longevity and greater safety since well-spaced limbs are better attached to a tree than those that cluster together.

Given the potential problems this tree may exhibit – as well as its extraordinary importance as a central cemetery element – we strongly recommend that the tree be carefully evaluated by a certified arborist and a management program developed.

We also recommend that the tree be pruned in order to remove dead wood and to raise the crown in order to remove branches from monuments. It is also important that downed branches and other litter be removed from under the tree to help minimize disease and pests.

The adaptability of the shortleaf pine at least partially accounts for its wide distribution. It is listed as an acceptable, and drought resistant, species on the Franklin tree list. They exhibit relatively few problems. The wood tends to be strong and they don't have root problems that would affect monuments (although most are located in areas with few monuments at City Cemetery).

Selection Issues

Cemeteries, in general, have historically been dominated by large deciduous trees, although evergreens such as cedar are also very common. The trees provide a distinctly inviting image for visitors and passersby. They also provide some visual separation from adjacent buildings – especially in cluttered urban environments. They provide shade, reduce stormwater runoff, stabilize soil, and reduce evaporative water loss.

All other issues being equal – plantings should focus on those tree species that are known to have been used. While diversification may be acceptable, it should not dilute the original design or intent. Therefore, we urge care in selecting additional plantings, focusing on a small number of historically appropriate trees to maintain the historical integrity of the cemetery.

Some trees, whether historically appropriate or not, should probably be avoided since they pose significant maintenance issues. These include trees that produce dense shade (causing problems with the turfgrass); trees that exhibit suckers or surface roots (also causing turfgrass problems, e.g., beech, honeylocust, linden, poplar, and willow); trees that drop large quantities of leaves, seeds, or sap (such as ash, black cherry, catalpa, ginkgo, horsechestnut, mulberry, and sweetgum); and trees that are especially weak or vulnerable to wind or ice damage (such as ash, black cherry, pine, poplar, red maple, silver maple, tuliptree, willow, and white ash).

For Franklin we also assume some limitations are placed on selections by the City's tree and plant list.

Obviously, there is no such thing as a perfect tree. Many of the historically appropriate species have significant problems as shown in Table 4. At least some of these problems, however, can be overcome through judicious placement, appropriate planning, and careful early pruning.

Replanting

Trees should be replanted as older ones are removed and a general effort should be made to plan for future tree replacement, perhaps using a mix of fast-growing but short-lived trees intermixed with slow-growing but long-lived trees to create a planned appearance.

It is also appropriate to plant replacement trees in anticipation of their need, allowing them an opportunity to become established before the diseased or damaged tree is removed.

Planting Issues

Locations chosen for planting should not interfere with gravestones, curbing, or fences. Issues of security should also be considered and the use of small trees that obscure eye level views should generally be limited or avoided.

Research is suggesting that trees, especially older mature trees, improve in health when turfgrass is removed under the branch spread and mulch is applied at a depth not exceeding 3 to 4-inches. Fine-textured mulches prevent evaporative water loss better than coarse-textured mulches. This is a practice that could be productively employed at the City Cemetery, especially under the pecan tree. Staff

Table 4.
Comparison of Historically Appropriate Trees That Might Be Used in the Franklin Cemeteries

Common Name	Scientific Name	Origin	Cultivation			Size (HxS)	Litter	Breakage	Roots	Notes
			Zone	Light	Drought					
Norway Maple	*Acer platanoides*	Exotic: 1792	4-7A	PS-FS	M	40-60x35-40	None	Resistant	Problem	"foliage gives rash effects of color"
Silver Maple	*Acer saccharinum*	Native: 1735	3-9	PS-FS	H	60-80x40-60	Moderate	Weak	Problem	"next to the American Elm in beauty and desirability"
Sugar Maple	*Acer saccharum*	Native: 1735	3-8A	S-FS	M	50-80x35-80	None	Resistant	No Problem	Excellent colors through all seasons; frequently used for ornamental plantings
River Birch	*Betula nigra*	Native: ?	4-9A	PS-FS	M	40-50x25-35	None	Resistant	No Problem	Plant and prune to form a single trunk specimen
American Ash	*Fraxinus americana*	Native: 1724	3-9A	PS-FS	M	50-80x40-60	Moderate	Weak	Problem	Not tolerant of urban soils or heavy clay
Green Ash	*Fraxinus pennsylvanica*	Native: 1724	3-9A	FS	H	60-70x45-50	Moderate	Weak	Problem	"very ornamental and worth transplanting:' should be grown with a single leader
Eastern Red Cedar	*Juniperus virginiana*	Native: 1664	2-9	PS-FS	H	40-50x10-20	None	Weak	No Problem	Traditional cemetery tree; planted for "perfect columnar growth"
Norway Spruce	*Picea abies*	Exotic: 1771	2B-7A	FS	M	80-100x25-40	None	Resistant	No Problem	"extensively planted"
White Oak	*Quercus alba*	Native: 1724	3B-8	PS-FS	M	60-100x60-80	Moderate	Resistant	No Problem	A northern oak; was a favored tree, however
Red Oak	*Quercus rubra*	Native: 1783	5-8A	FS	H	60-70x50-60	Moderate	Weak	Problem	Not as popular as elm and maple
Post Oak	*Quercus stellata*	Native: ?	6-9A	FS	H	40-50x35-50	Moderate	Resistant	No Problem	Not widely available in nurseries
Weeping Willow	*Salix babylonia*	Exotic:1730	2-9A	PS-FS	H	45-70x45-70	Moderate	Weak	Problem	Roots are especially aggressive
Arborvitae	*Thuja occidentalis*	Native: 1536	2-7	PS-FS	M	20-40x10-12	None	Resistant	No Problem	Good screen or hedge plant; not commonly used as a specimen tree
American Linden	*Tilia americana*	Native: 1752	3-8	PS-FS	M	50-80x35-80	Moderate	Weak	No Problem	Good specimen tree; typically more formal landscape
American Elm	*Ulmus americana*	Native: 1670	2-9	PS-FS	M	70-90x50-70	Moderate	Weak	Problem	Dirr recommends "Valley Forge," "New Harmony," and Princeton" as respectably disease tolerant
Leyland Cypress	*x Cupressocyparis leylandii*	Exotic: ?	6-10A	PS-FS	H	35-50x15-25	None	Resistant	No Problem	clumps or buffers

Key:
Light: S = shade; PS + partial shade; S = sun; FS = full sun
Drought: M = moderately tolerant; H = highly tolerant
Size: height by spread in feet
Roots: reflects the presence of surface roots capable of lifting stones
Species in red are permitted by the City of Franklin
Data from USDA, Forest Service Plat Fact Sheets, Adams (2004), Dirr (2011), Simonds (1917)

should be closely supervised to prevent over mulching of vegetation.

All replacement trees or new plantings should be of at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). Since there is no water at City Cemetery, new trees must be provided water bags. There are a variety of water bags for young trees, including the Treegator (http://www.treegator.com/home/). In fact, bags are now readily available in big box stores. Their use will require the City to acquire a water tank, but the City may already have this equipment.

Special care should be exercised to prevent bark damage from mowers and trimmers. We recommend the use of tree guards (http://www.amleo.com/tree-bark-protectors/p/VP-BG/).

Tree Maintenance

Maintenance involves at least four basic issues: watering, fertilization, pruning, and pest control.

The City does not water mature trees, relying instead on rainfall. While this is typically acceptable, the landscape plan should include provisions for deep-root water during periods of severe drought (assuming this is permissible). This is a critical step necessary to protect the historic landscape fabric of the cemeteries. Using a root feeder without fertilizer, it is possible to apply water 12-inches below the surface. This approach can not only be used during severe drought, but also during extended periods of dry weather during the winter (as long as the temperatures are above freezing).

The staff also reports that no mature tree fertilization is conducted, presumably because of the funds required. The pecan tree in particular is a vital component of the landscape. It represents part of the historic fabric and steps must be taken to protect that aspect of the landscape and vista. A certified arborist can determine if a feeding program would benefit this tree.

Based on the recommendations of an ISA Certified Arborist, the City should anticipate periodic fertilization of mature trees. Fertilization should be conducted on the basis of need as excess fertilization can damage trees; nevertheless, the ISA position is that, "tree fertilization should be done in accordance with ANSI A300 standards" (Lilly 2001:47). These ANSI A300 (Part 2)-1998 standards represent the standard of care of the industry. This is why more proactive involvement by certified arborists in cemetery maintenance is essential.

Fertilization is typically accomplished through deep root fertilization – an approach where the liquid fertilizer is injected into the soil with a probe, usually 6 to 12-inches below the surface at a spacing of about 2 to 3 feet. This process not only provides fertilization, but also some aeration of the soil. An alternative approach uses a drill to excavate holes in a similar pattern which are then filled with a granular fertilizer. Either is acceptable. The ANSI 300 standards allow foliar applications, injections, or implants only when soil application is impractical or ineffective.

It is best to fertilize trees when they are actively growing and have available water to help absorb nutrients. In Franklin this is typically from the spring, after new leaves emerge, through mid-season. Fertilizer should not be applied late in the season, during the winter, or during periods of drought.

In a cemetery setting organic fertilizers should be the primary choice. These materials, such as cottonseed meal and bone meal, have much lower salt indices than inorganic fertilizers – resulting in reduced salt uptake by monuments. This is important since salts cause staining, spalling, and deterioration of marbles, sandstones, brick, and even granites. In addition, organic fertilizers have a slower release rate and are easy on the root systems.

While we defer to an inspection by a

Figure 43. Additional tree problems in City Cemetery. Upper photos show dead wood in pines that requires pruning. Lower left photo shows a limb correctly pruned (blue arrow) and an incorrectly pruned limb that left a stub (yellow arrow). Lower right photo shows caterpillar tents in the pecan tree.

Certified Arborist regarding specifics of tree health at City Cemetery, we have noted that the pines require careful pruning. We found examples of both proper and improper pruning leaving stubs 2 to 4 feet from the collar, and many of the trees contain abundant dead wood. They require pruning for either thinning or cleaning.

Thinning is a technique of pruning that removes selected branches to increase light and air movement through the crown. This also decreases weight on heavy branches. The natural shape of the tree is retained and its overall health is improved. In cleaning, the pruning removes branches that are dead, dying, diseased, crowded, broken, or otherwise defective. This includes narrow crotches.

Trees should be pruned in such a manner as to preserve the natural character of the plant and in accordance with ANSI A300 (Part 1) - 2001 standards. Branches should always be cut just beyond the branch collar (an extension of the main stem) and not flush with the trunk. Large branches should be removed with three cuts to prevent tearing of the bark which can weaken the branch and lead to disease. All pruning within the cemetery should be performed by or under the supervision of an ISA Certified Arborist.

Trees should be inspected for potential threats to monuments, as well as general health.

Figure 44. Shrubs and undesirable vegetation. The upper left photo shows a yucca taken over by undesirable vegetation. The upper right shows yuccas, one of which has been mowed. The middle left photo shows vegetation growing up in an iron fence. Without removal, it will destroy the fence. Middle right photo shows trees growing out of a broken box tomb. The two lower photos show vines and other undesirable vegetation taking over the interiors of box tombs. All of this invasive vegetation must be removed.

Ideally these inspections should be made yearly and after any storm where the winds exceed 55 mph. They should be pruned to remove potentially hazardous dead wood on a yearly basis, but safe pruning every 5 years by a certified arborist is acceptable.

During this assessment we observed that the Pecan tree has been colonized by a tenting caterpillar. The pecan also evidenced abundant carpenter ants, indicating wood rot. These problems should be further evaluated.

Shrubs and Undesirable Vegetation

City Cemetery appears to have few shrubs planted by families. Unfortunately most of those are today in poor condition, being largely over-run by undesirable vegetation and in desperate need of careful restoration pruning.

We have previously discussed the need to remove all of the vegetation, including trees under 4-inches dbh along the north chain link fence. This will not be further referenced in this section.

Selection and Planting

Most shrubs appear to be individual specimens, probably anticipated to serve as accents. The only intentional plantings identified in City Cemetery are yucca, although it is likely that others exist, but simply cannot be distinguished among the other undesirable plants that have grown up around them (Figure 44).

Because of the low incidence of shrubs, little needs to be done except to ensure that they are not run over by mowers. The larger task is the removal of the undesirable vegetation that has been allowed to take over box tombs, grow in fence lines, and even take over legitimate plantings. These plants must be cut down to the ground and the stumps painted with a full-strength herbicide such as Round-up, Garlon, or Tordon to prevent their return.

Turf and Mowing

City Cemetery does not exhibit a good stand of turf. While there are areas with both Bermuda and fescue, much of the turf consists of broadleaf weeds (Figure 45).

The City reports the use of a granular preemergent herbicide in the Spring at the rate of 5 pounds per 1,000 square feet. Although this treatment may have been applied only once or twice with the Parks Department taking over maintenance, it does not appear to have had much of an impact. It may be appropriate to combine the effort with one or more postemergent applications. An excellent guide for Tennessee is available at http://www.tennesseeturfgrassweeds.org/admin/Lists/Fact%20Sheets/Attachments/12/PB1789_editedJan2011.pdf.

Mowing at City Cemetery is conducted primarily by two mowers, a John Deere 60-inch zero turn mower and an Exmark stand-on mower with a 36-inch deck.

These represent very large deck mowers to be used in historic cemeteries and even a zero turn mower can prove difficult to operate among closely spaced monuments.

Stones in the cemetery clearly reveal the damage that can be done by large equipment combined with less than perfect handling. We even have observed tire marks on monuments, where they have been run over by mowers (Figure 46). We admit that it is difficult to distinguish recent mower damage from the damage done over years of less than ideal maintenance, but the whiter the impact area, the more recent the damage.

Regardless, we recommend limiting large deck mowers to only the large open areas in the eastern half of the cemetery and convert mowing in the remainder of the cemetery to walk behind mowers with decks no larger than 21-inches.

Since Tennessee is in a transition zone between cool and warm season grasses, proper

mowing height for Bermuda and fescue depends on current weather conditions.

In cool and humid weather conditions, tall fescue is typically cut to a height of 2 to 3-inches and Bermuda is cut to a height of 1 to 2-inches. During hot and dry conditions, when grasses are under stress, it is appropriate to raise the cutting height, with fescue cut to 2½ to 3½-inches and Bermuda cut to 1¾ to 3 inches. Research reveals that grasses maintained at higher mowing heights have deeper root systems and improved drought tolerance. In addition, raising the mowing height of warm-season grasses as fall approaches will help the grass better over-winter.

It is good practice to increase the mowing height for grass growing in the shade. This allows for more leaf area to intercept as much available light as possible. In addition, leaf blades in shaded areas will be longer and narrower and a lower cutting height will cause an excessive reduction in leaf length.

Figure 45. Weedy turf at City Cemetery.

In cases such as City Cemetery where there are no pure stands, it is reasonable to arrive at a compromise of cutting height, perhaps ranging from 2-inches in cool weather to 3-inches in warm weather (the bulk of the growing season).

It is also essential that blades be sharp to ensure that mowing cuts grass blades rather than tearing them. As Figure 47 shows, while the blades could be sharper, there is not a great deal of tearing.

Mowing is conducted every week during the roughly 10 month growing season. The frequency of mowing is at least partially the result of the abundance of broadleaf weeds that grow more quickly than either the Bermuda or fescue, making the grass look ragged.

There were a few areas where we observed scalping. Many of these areas are the result of large deck mowers being used where there are many sunken graves, resulting in uneven ground surfaces. Scalping causes severe visual damage. More importantly, scalping shocks the grass plants and growth slows or stops, limiting the vigor of the turf. A scalped lawn may dry out quickly from drought, or may develop unusual

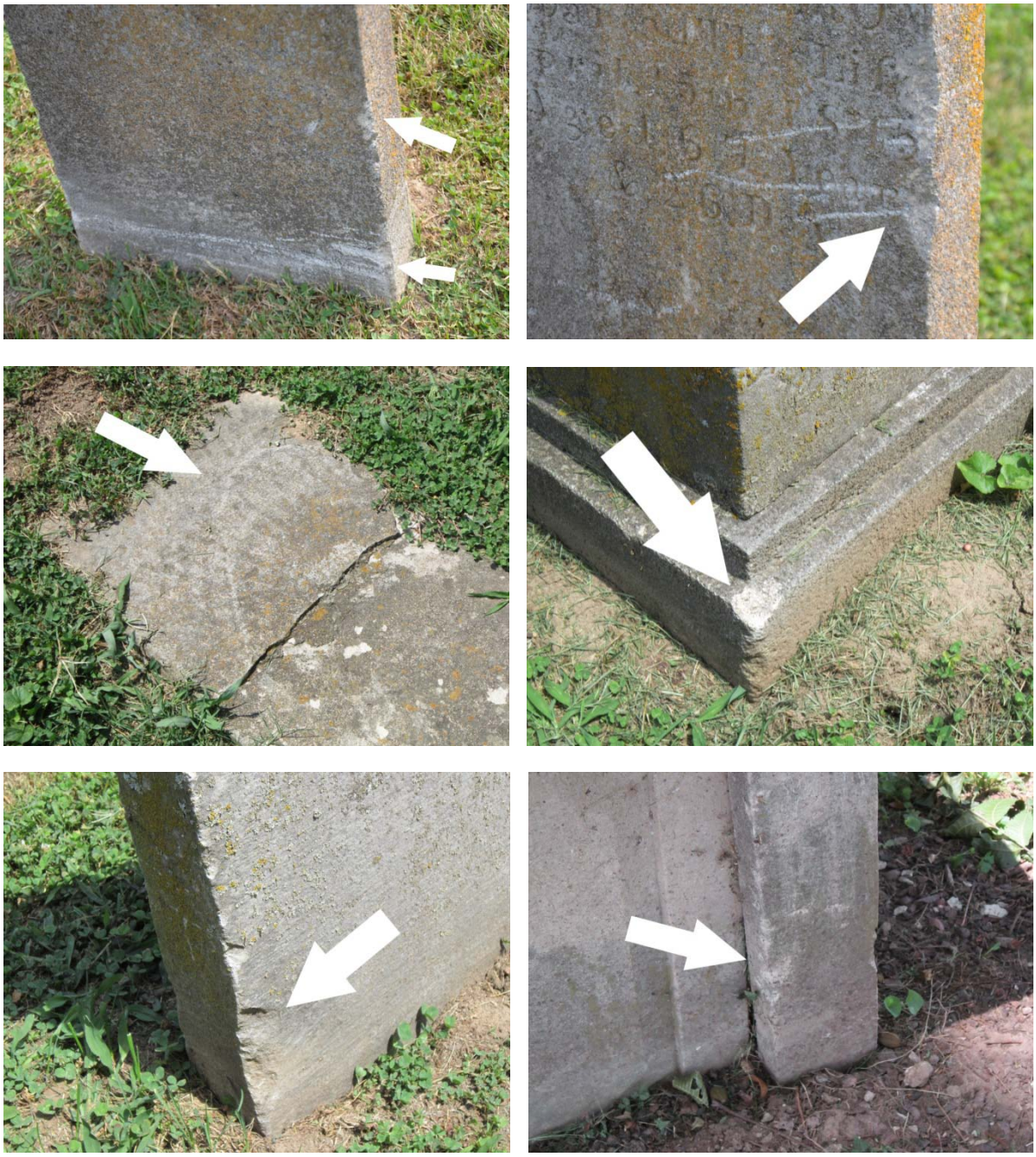


Figure 46. Mowing issues at City Cemetery. Upper left shows scrapes at ground level from mower guards. Upper right shows scrapes from riding mowers. Middle left shows tire tracks across a broken stone. Middle right shows edge damage to a base. Lower left shows edge damage to a headstone. Lower right shows edge damage to a box tomb from mower impacts.

Figure 47. Mower blades could be sharper, but there is relatively little tearing of the grass at City Cemetery.

weed and disease problems.

In addition to mowing, nylon trimmers are used around monuments, coping, fencing, and plantings. This is an acceptable practice, but it is critical that a very light weight line be used – along with worker attention – to minimize damage to soft stone such as marble.

We observed two line weights being used. One was a round line 0.080 inches in diameter. The other is a line with four edges, intended to provide greater cutting power. This line is 0.105 inches in diameter.

Lines this thick can cause extensive, and unnecessary, damage to stones. We recommend a line diameter no greater than 0.065-inch. If the trimmers being used cannot accept line with this diameter, then the lightest weight line possible should be used.

In addition to carefully training staff on proper mowing and trimming, there are several additional steps that can be taken to minimize problems.

We recommend that the edges and sides of each mower be painted a different color. This will transfer when stones are hit and it will be possible to determine who caused the damage.

A second step that can be taken is to install closed cell foam pad attached to the sides and front edges. This bumper will help to minimize accidental damage and its damage will also provide evidence of impacts.

Finally, the City must establish a clear rule that no monuments in the cemetery should be mowed over. City Cemetery is not a lawn park cemetery and its monuments are not meant to be driven over. This includes driving over ledgers – on which we observed many tire tracks. This is not only hazardous since not all of these ledgers are well supported, but it is disrespectful to the plot owners.

We were informed that all grass clippings were blown off stones and this is certainly the expected practice. It demonstrates pride in work, attention to detail, and respect for the monuments and families.

Throughout the cemetery we observed bare spots. These areas require renovation as discussed below.

Irrigation

City Cemetery lacks an irrigation system and, in general, we do not recommend them – they use very large quantities of water, their placement can interfere with markers and graves, and their operation can cause erosion to stones.

Unfortunately, City Cemetery also lacks

Figure 48. Examples of a bare spots in the cemetery. In the upper photo there is a fallen monument almost totally covered by soil.

functional hose bibs. This absence of readily accessible water in the cemetery poses a variety of problems. It severely limits the potential for landscape modifications, new plantings, and irrigation of stressed areas. It limits the ability to clean stones. Families must bring water to their plots for flowers and plants.

Consequently we recommend that several water bibs be installed. With only three bibs being installed – one at each of the existing entrances (east, west, and south), all parts of the cemetery could be reached with no more than 200 feet of hose. Each of these lines could be laid from existing street lines with no disturbance to the cemetery walls or any graves.

We recommend the use of Woodward sanitary hydrants, which would provide back flow prevention, frost proofing to a depth of 2-3 feet, and would allow the water to remain on during the winter and still prevent freezing. Although more expensive than conventional hydrants, these would eliminate the need for winterizing the system.

Renovation

We recommend that the cemetery implement a renovation program in order to establish a good stand of a single grass type. This work can be accomplished section by section, gradually implementing the efforts throughout the cemetery.

The City has expressed a preference for fescue, which we readily understand and support. Bermuda is somewhat more complex to maintain, requiring more fertilization, thatch control, and more frequent mowing. Bermuda also tends to look significantly better if mowed with a reel-type mower. As a result, a fescue turf is likely a better choice should there be efforts to renovate the turf. We recommend that the use of fescue be coupled with mulching under trees and shady areas where almost no grass will grow. There are a variety of

Figure 49. Magnolia at the east side of the cemetery. The photo on the left shows the hollow trunk. The right photo shows the abundant dead wood in the canopy that requires removal if the tree is not being removed.

fescue options (https://utextension.tennessee.edu/publications/Documents/W159-E.pdf), although a tall fescue blend would be our recommendation. The City probably has a preferred seed and we endorse using what is known and has been found effective in the past.

Tennessee lacks a good overview of the renovation process. The publication *Lawns in Georgia* (http://extension.uga.edu/publications/files/pdf/B%20773_2.PDF) provides information on renovation of existing turfgrass areas.

Rest Haven Cemetery

Cemetery Trees

Te center of this cemetery includes mature magnolia (*Magnolia sp.*) and hemlock (probably *Tsuga canadensis*) trees; to the east are small pines (*Pinus sp*., probably *P. echinata*) and deciduous trees, while a variety of hollies and other small shrubs or trees are scattered along the west border. The two Bradford pear trees (*Pyrus calleryana* 'Bradford') that flanked the entrance in 2006 were recently removed as a result of storm damage and were not replaced.

Although Eubanks et al. (2010:25) suggest that many of the trees here were planted and the landscape "reflects the Rural Cemetery Movement aesthetic," this should be interpreted with caution. There seems to be little evidence of a planned landscape here, anymore than there is one at City Cemetery. In fact, many of the trees in Rest Haven appear to have been planted in past 20 years.

Magnolias are not an especially good cemetery tree, primarily because of their litter. Historically this problem was resolved by allowing branches to droop and not limbing up specimen trees. This allowed the litter to remain hidden and serve as mulch. Today, most magnolias are limbed up to improve security and prevent hiding places, with the result that the tree's abundant litter becomes a significant issue.

At Rest Haven Cemetery the magnolia along the eastern side of the cemetery is in poor

health. The entire interior of the trunk is hollow, and there is very little live tree surviving. If the tree were to fail it would likely do considerable damage to either the wall or adjacent stones. We recommend that the tree be removed. If it is allowed to remain, it requires extensive pruning to remove the abundant dead wood in the canopy.

We understand that the sycamore (*Platanus occidentalis*) at the southwest corner of the cemetery has been seriously injured by the Hillsboro Street renovations. While sycamores are

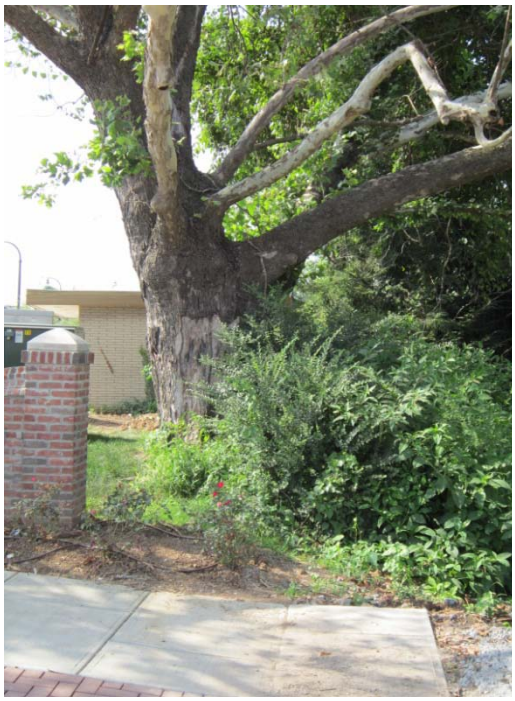


Figure 50. Dying sycamore at the southwest corner of the cemetery.

not ideal cemetery trees, this is a significant landscape feature and we regret the need to remove the tree.

Selection Issues

We have previously discussed how trees are historically appropriate at cemeteries and how they soften the landscape. This is just as true for Rest Haven Cemetery where the absence of trees gives anything but a restful appearance. A tree planting program would dramatically improve the landscape vista. Table 4 provides a range of trees that are both appropriate to cemetery landscapes and approved by the City of Franklin.

Trees should not be limited to the largely open northern end of the cemetery, but should also be selected for planting where the sycamore and magnolia may be removed, as well as other areas in the more densely populated portion of the cemetery.

Replanting

Trees should be replanted as older ones are removed and a general effort should be made to plan for future tree replacement, perhaps using a mix of fast-growing but short-lived trees intermixed with slow-growing but long-lived trees to create a planned appearance.

It is also appropriate to plant replacement trees in anticipation of their need, allowing them an opportunity to become established before the diseased or damaged tree is removed.

Planting Issues

Locations chosen for planting should not interfere with gravestones, curbing, or fences. Issues of security should also be considered and the use of small trees that obscure eye level views should generally be limited or avoided.

Research is suggesting that trees, especially older mature trees, improve in health when turfgrass is removed under the branch spread and mulch is applied at a depth not exceeding 3 to 4-inches. Fine-textured mulches prevent evaporative water loss better than coarse-textured mulches. This is a practice that could be productively employed at the Rest Haven Cemetery, especially under the magnolia trees. Staff should be closely supervised to prevent over-mulching of vegetation.

All replacement trees or new plantings should be of at least 1-inch caliper and meet the

minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). Since there is no water at City Cemetery, new trees must be provided water bags. There are a variety of water bags for young trees, including the Treegator (http://www.treegator.com/home/). In fact, bags are now readily available in big box stores. Their use will require the City to acquire a water tank, but the City may already have this equipment.

Special care should be exercised to prevent bark damage from mowers and trimmers. We recommend the use of tree guards (http://www.amleo.com/tree-bark-protectors/p/VP-BG/).

Figure 51. Improper cutting of stumps. Stumps should be cut flush to the ground and allowed to gradually decay. Stump grinders should never be used in the cemetery.

Tree Maintenance

Maintenance involves at least four basic issues: watering, fertilization, pruning, and pest control.

The City does not water mature trees, relying instead on rainfall. While this is typically acceptable, the landscape plan should include provisions for deep-root water during periods of severe drought (assuming this is permissible). This is a critical step necessary to protect the historic landscape fabric of the cemeteries. Using a root feeder without fertilizer, it is possible to apply water 12-inches below the surface. This approach can not only be used during severe drought, but also during extended periods of dry weather during the winter (as long as the temperatures are above freezing).

The staff also reports that no fertilization of mature trees is conducted, presumably because of the funds required. Based on the recommendations of an ISA Certified Arborist, the City should anticipate periodic fertilization. Fertilization should be conducted on the basis of need as excess fertilization can damage trees; nevertheless, the ISA position is that, "tree fertilization should be done in accordance with ANSI A300 standards" (Lilly 2001:47). These ANSI A300 (Part 2)-1998 standards represent the standard of care of the industry. This is why more proactive involvement by certified arborists in cemetery maintenance is essential.

Fertilization is typically accomplished through deep root fertilization – an approach where the liquid fertilizer is injected into the soil with a probe, usually 6 to 12-inches below the surface at a spacing of about 2 to 3 feet. This process not only provides fertilization, but also some aeration of the soil. An alternative approach uses a drill to excavate holes in a similar pattern which are then filled with a granular fertilizer.

Either is acceptable. The ANSI 300 standards allow foliar applications, injections, or implants only when soil application is impractical or ineffective.

It is best to fertilize trees when they are actively growing and have available water to help absorb nutrients. In Franklin this is typically from the spring, after new leaves emerge, through mid-season. Fertilizer should not be applied late in the season, during the winter, or during periods of drought.

In a cemetery setting organic fertilizers should be the primary choice. These materials, such as cottonseed meal and bone meal, have much lower salt indices than inorganic fertilizers – resulting in reduced salt uptake by monuments. This is important since salts cause staining, spalling, and deterioration of marbles, sandstones, brick, and even granites. In addition, organic fertilizers have a slower release rate and are easy on the root systems.

While we defer to an inspection by a Certified Arborist regarding specifics of tree health at Rest Haven Cemetery, we have previously noted that the magnolia, if retained, requires pruning. Considerable dead wood is also found on other trees in the cemetery and they, too, require pruning for either thinning or cleaning.

Trees should be pruned in such a manner as to preserve the natural character of the plant and in accordance with ANSI A300 (Part 1) - 2001 standards. Branches should always be cut just beyond the branch collar (an extension of the main stem) and not flush with the trunk. Large branches should be removed with three cuts to prevent tearing of the bark which can weaken the branch and lead to disease. All pruning within the cemetery should be performed by or under the supervision of an ISA Certified Arborist. We noted that not all pruning had been conducted properly.

Trees should be inspected for potential threats to monuments, as well as general health. Ideally these inspections should be made yearly and after any storm where the winds exceed 55 mph. They should be pruned to remove potentially hazardous dead wood on a yearly basis, but safe pruning every 5 years by a certified arborist is acceptable.

We observed a variety of other problems among the trees at Rest Haven Cemetery, almost all relating to the condition of the original nursery stock or the manner in which the trees were originally planted.

Foremost among these problems are the number of trees that exhibit griddled roots. Although this topic is not addressed in the American Standard for Nursery Stock (ANSI Z60.1), it is commonly recognized that girdled or encircling roots can choke off vascular tissues, leading to decline and even death. Good practice dictates that prior to planting roots should be closely inspected and if closely matted, they should either be teased apart or cut in two places to stop the circling. We observed this problem in a number of trees at Rest Haven Cemetery.

We also observed examples of nylon bagging or string that was left on the root balls during planting, as well as remnant guying hose.

Good practice demands that binding twine be cut and bags folded down to permit unhindered growth of roots. Staking of trees is often not necessary and can even have detrimental effects on tree development; in no case should staking material be left on the trunk of the tree.

The observations suggest that substandard practices have characterized planting at Rest Haven Cemetery. The City must be certain that these past practices are improved.

Shrubs and Undesirable Vegetation

We observed no intentionally planted shrubs in Rest Haven Cemetery and this is a little surprising for what has elsewhere been reported as a Rural Cemetery landscape.

Figure 52. Additional tree issues at Rest Haven Cemetery. Upper left shows a cedar with an abandoned strap left in place. Note also improper pruning that left a stub. Even during pruning no effort was made to remove the choking strap. Upper right shows a tree with a weak crotch and girdling roots. Middle left shows nylon strings from balled roots left in place. Middle right shows multiple girdling roots. Lower left shows girdled roots. Lower right shows dead and dying branches on a tree requiring pruning.

Figure 53. Undesirable vegetation in Rest Haven Cemetery. Upper left shows vegetation and vines along the west border of the cemetery. Upper right shows a portion of the cemetery being taken over by undesirable vegetation. Lower left shows poison ivy climbing up a plot corner post. Lower right shows vines taking over a tree.

What we did observe and have previously discussed is the abundant undesirable vegetation that has been allowed to grow up along the west boundary. In some areas this vegetation has even been allowed to overtake monuments in the cemetery. This area requires careful cleaning as part of the erecting of a boundary fence and better screening vegetation (one choice would be the use of Leyland cypress, *Cupressocyparis leylandii*).

We also observed relatively little vegetation invading plots or fences such as is common in City Cemetery.

What we did observe were numerous trees with vines, including poison ivy. These plants must be cut down to the ground and the stumps pained with a full-strength herbicide such as Round-up, Garlon, or Tordon to prevent their return.

Turf and Mowing

The turf at Rest Haven is almost identical to that found at City Cemetery. While there are areas with both Bermuda and fescue, much of the turf consists of broadleaf weeds.

The City reports the use of a granular preemergent herbicide in the Spring at the rate of 5 pounds per 1,000 square feet. Although this

Figure 54. Turf problems at Rest Haven Cemetery. Upper left shows primarily broadleaf weeds. Upper right shows much bare ground in a shady area that would be suitable for mulch. Bottom left shows a displaced monument being covered by soil and grass. Bottom right shows extensive mole damage which seems worse at Rest Haven than City Cemetery.

treatment may have been applied only once or twice with the Parks Department taking over maintenance, it does not appear to have had much of an impact. It may be appropriate to combine the effort with one or more postemergent applications. An excellent guide for Tennessee is available at http://www.tennesseeturfgrassweeds.org/admin/Lists/Fact%20Sheets/Attachments/12/PB1789_editedJan2011.pdf.

Mowing at Rest Haven Cemetery is conducted primarily by two mowers, a John Deere 60-inch zero turn mower and an Exmark stand-on mower with a 36-inch deck.

These represent very large deck mowers to be used in historic cemeteries and even a zero turn mower can prove difficult to operate among closely spaced monuments.

Stones and coping (which are more abundant in Rest Haven than in City Cemetery) clearly reveal the damage that can be done by large equipment combined with less than perfect handling (Figure 55). In other cases we observed large stones being displaced and even shifted off their foundations by mower impacts.

Regardless, we recommend limiting large deck mowers to only the large open areas in the northern half of the cemetery and convert mowing in the remainder of the cemetery to walk behind mowers with decks no larger than 21-inches. These are much less likely to cause damage and

Figure 55. Mowing damage in Rest Haven Cemetery. Upper left shows a footstone repeatedly run over by mowers fragmenting and destroying the top. Upper right shows coping repeatedly impacted by mowers running over it. Middle left shows a bronze lawn marker damaged by a mower. Middle right shows a monument scraped by a mower. Bottom left shows both mower impacts and mower scrapes on a toppled monument. Bottom right shows a lawn marker displaced by mower impacts.

Figure 56. Grave depressions in a lot.

are far easier to maneuver over coping without damaging either the cemetery feature or the mower.

As previously discussed, the proper mowing height for Bermuda and fescue depends on current weather conditions. In cool and humid weather conditions, tall fescue is typically cut to a height of 2 to 3-inches and Bermuda is cut to a height of 1 to 2-inches. During hot and dry conditions, when grasses are under stress, it is appropriate to raise the cutting height, with fescue cut to 2½ to 3½-inches and Bermuda cut to 1¾ to 3 inches. Research reveals that grasses maintained at higher mowing heights have deeper root systems and improved drought tolerance. In addition, raising the mowing height of warm-season grasses as fall approaches will help the grass better over-winter.

It is good practice to increase the mowing height for grass growing in the shade. This allows for more leaf area to intercept as much available light as possible. In addition, leaf blades in shaded areas will be longer and narrower and a lower cutting height will cause an excessive reduction in leaf length.

At Rest Haven Cemetery a good cutting height compromise ranges from 2-inches in cool weather to 3 inches in warm weather (the bulk of the growing season). It is also essential that blades be sharp to ensure that mowing cuts grass blades rather than tearing them.

Mowing is conducted every week during the roughly 10 month growing season. The frequency of mowing is at least partially the result of the abundance of broadleaf weeds that grow more quickly than either the Bermuda or fescue, making the grass look ragged.

There were a few areas where we observed scalping. Many of these areas are the result of large deck mowers being used where there are many sunken graves, resulting in uneven ground surfaces. Scalping causes severe visual damage. More importantly, scalping shocks the

Figure 57. Examples of nylon string trimmer damage at Rest Haven Cemetery.

grass plants and growth slows or stops, limiting the vigor of the turf. A scalped lawn may dry out quickly from drought, or may develop unusual weed and disease problems.

In addition to mowing, nylon trimmers are used around monuments, coping, fencing, and plantings. This is an acceptable practice, but it is critical that a very light weight line be used – along with worker attention – to minimize damage to soft stone such as marble (Figure 57).

We observed two line weights being used. One was a round line 0.080 inches in diameter. The other is a line with four edges, intended to provide greater cutting power. This line is 0.105 inches in diameter.

Lines this thick can cause extensive, and unnecessary, damage to stones. We recommend a line diameter no greater than 0.065-inch. If the trimmers being used cannot accept line with this diameter, then the lightest weight line possible should be used.

In addition to carefully training staff on proper mowing and trimming, there are several additional steps that can be taken to minimize problems.

We recommend that the edges and sides of each mower be painted a different color. This will transfer when stones are hit and it will be possible to determine who caused the damage.

A second step that can be taken is to install closed cell foam pad attached to the sides and front edges. This bumper will help to minimize accidental damage and its damage will also provide evidence of impacts.

Finally, a problem noted in City Cemetery is the tendency of staff to drive over monuments. This is not only a hazardous practice and disrespectful, but it can cause extensive damage to monuments. We observed several in Rest Haven that had been "scalped" with extensive damage to the monument. The City must establish a clear rule that no monuments in the cemetery should be mowed over.

We were informed that all grass clippings were blown off stones and this is certainly the expected practice. It demonstrates pride in work, attention to detail, and respect for the monuments and families.

Throughout the cemetery we observed bare spots. These areas require renovation as discussed below.

Irrigation

Although Rest Haven Cemetery does not have an irrigation system, and we do not recommend the installation of one, it also lacks working hose bibs. We did observe one historic bib, suggesting that at some point the cemetery had water.

This absence of readily accessible water in the cemetery poses a variety of problems. It severely limits the potential for landscape modifications, new plantings, and irrigation of stressed areas. It limits the ability to clean stones. Families must bring water to their plots for flowers and plants.

Consequently we recommend that several water bibs be installed. With only two bibs being installed – one at each of the existing entrances (south and east), most parts of the cemetery could be reached with no more than 200 feet of hose. Each of these lines could be laid from existing street lines with no disturbance to the cemetery walls or any graves.

We recommend the use of Woodward sanitary hydrants, which would provide back flow prevention, frost proofing to a depth of 2-3 feet, and would allow hoses to remain on during the winter and still prevent freezing. Although more expensive than conventional hydrants, these would eliminate the need for winterizing the system.

Renovation

We recommend that the cemetery implement a renovation program in order to establish a good stand of a single grass type. This work can be accomplished section by section, gradually implementing the efforts throughout the cemetery.

The City has expressed a preference for fescue, which we readily understand and support. Bermuda is somewhat more complex to maintain, requiring more fertilization, thatch control, and more frequent mowing. Bermuda also tends to look significantly better if mowed with a reel-type mower. As a result, a fescue turf is likely a better choice should there be efforts to renovate the turf. We recommend that the use of fescue be coupled with mulching under trees and shady areas where almost no grass will grow. There are a variety of fescue options (https://utextension.tennessee.edu/publications/Documents/W159-E.pdf), although a tall fescue blend would be our recommendation. The City probably has a preferred seed and we endorse using what is known and has been found effective in the past.

Tennessee lacks a good overview of the renovation process. The publication *Lawns in Georgia* (http://extension.uga.edu/publications/files/pdf/B%20773_2.PDF) provides information on renovation of existing turfgrass areas.

Other Landscape Issues

Leaves

It appears that the City is doing a good job dealing with leaves since we observed no piles of leaves at wall corners or in other difficult to reach areas of the cemetery.

There are numerous methods of dealing with leaves, although perhaps the most effective is to blow the leaves away from markers, then mulch them with riding mowers. If the appropriate mulching blades are used, the resulting mulch is sufficiently fine that there is no need to gather any of the debris – everything is simply mulched back into the soil.

Graveled Plots

None of the plots at either City or Rest Haven cemetery have been covered with gravel and this is good. Sometimes lot owners replace grass with gravel, thinking that it will reduce maintenance. Unfortunately this is rarely the case. In fact, these graveled lots almost always present a variety of long-term maintenance problems and the practice is not historically appropriate. The City should prohibit this practice should the issue come up in the future.

Sinking and Collapsing Graves

Both City and Rest Haven cemeteries have a number of sinking or collapsing graves. These depressions mark grave locations and they should not be filled until such time that all depressions have been accurately mapped. After that is accomplished, backfilling them with clean sand and seeding will reduce mowing difficulty and improve general pedestrian safety.

Recommendations

General Issues

- The City should establish a dedicated cemetery maintenance staff with a Cemetery Landscape Manager and two Cemetery Landscape Technicians.

- Landscape technician activities require a great deal of oversight and the Cemetery Landscape Manager should be on-site during all maintenance activities.

- The Cemetery Landscape Manager should make monthly written reports to the City regarding activities and conditions at City and Rest Haven cemeteries.

- The Cemetery Landscape Manager must exhibit interest in continuing education. We recommend membership in landcare organizations such as PLANET or other similar groups, in addition to the

Professional Grounds Maintenance Society.

- The City should not only provide educational opportunities to its employees to become certified in landscape areas, but must insist on continuing education as a condition of continuing employment.

- The City should establish an employee code of conduct that focuses on the specific needs of cemetery work.

- Soil tests reveal that many plant nutrients are being affected by the low soil pH and we recommend that the Cemetery grounds be limed with dolomitic lime, broadcast prior to a rainfall.

- Additional soil tests should be conducted in 2015, after liming, to determine if additional treatments or fertilization are needed.

- All pruning within the cemeteries should be performed by an ISA Certified Arborist, preferably one who is also an ISA Certified Tree Worker/Climber Specialist. We have provided a list of ISA Certified Arborists for the Trustees to use.

- All trees in the cemeteries must be pruned to remove dead wood at no greater than five year intervals.

- All trees must be inspected by an ISA Certified Arborist on a yearly basis and after any significant wind storm.

- The City should prohibit the creation of graveled plots.

City Cemetery

- The pecan tree should be inspected by a certified arborist since it exhibits several problems and may require specific treatment to ensure its continued health.

- The pecan tree requires pruning to remove dead wood and to raise the crown.

- Trees to be planted on cemetery grounds must be carefully identified to be historically appropriate and to avoid significant issues such as surface roots, excessive litter, or weak structure. A list of potential plantings is provided.

- Every tree removed should be replaced by a new tree. It is also appropriate to plant replacement trees in anticipation of their need.

- All replacement trees or new plantings should be at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). All nursery stock should be carefully inspected prior to acceptance and planting.

- All new plantings should have water bags and rigid tree guards installed.

- Older, mature trees in the cemetery – such as the pecan – should have turf removed from under their drip lines and 3-inches of mulch installed.

- All weedy plants and vines must be removed from cemetery shrubs. These shrubs must be inspected on at least a yearly basis to ensure they remain clear of intrusive vegetation.

- Weedy plants and vines must also be removed from around stones and within box tombs. An herbicide should be applied to cut stumps to eliminate new sprouts.

- The cemetery turf exhibits extensive weed invasion. The City should institute a weed control program, using

preemergent and postemergent herbicides.

- The use of large deck mowers in City Cemetery is problematical and only 21-inch walk behind mowers should be used in the western half of the cemetery.

- Many stones in the cemetery are being needlessly damaged by the use of mowers that are too large. These problems are exacerbated by a lack of adequate supervision.

- All mowers must have closed cell foam bumpers installed. These must be replaced as needed. Operators with excessive wear on the bumpers should be given remedial training and instruction.

- Mowing must be conducted with sufficient frequency to maintain turf at a height of about 2-inches in cool weather and 3-inches during the growing season.

- Scalping of the grass must be prevented by more careful grave filling and seeding after all graves have been mapped.

- The line weight used on trimmers is too heavy. We recommend a line no greater than 0.065-inch.

- Grass clippings should continue to be blown off all monuments after every mowing or trimming.

- The Cemetery requires the installation of hose bibs at the three entrances both for landscape maintenance and also stone cleaning.

- Lawn renovation should be undertaken to promote a pure stand of fescue.

Rest Haven Cemetery

- The magnolia tree at the east edge of the cemetery should be inspected by a certified arborist since it exhibits several problems and may require removal.

- Many trees requires pruning to remove dead wood and improve their health.

- Trees to be planted on cemetery grounds must be carefully identified to be historically appropriate and to avoid significant issues such as surface roots, excessive litter, or weak structure. A list of potential plantings is provided.

- Every tree removed should be replaced by a new tree. It is also appropriate to plant replacement trees in anticipation of their need.

- All trees removed should have their stumps cut flush with the ground. Stump grinders should not be used.

- All replacement trees or new plantings should be at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). All nursery stock should be carefully inspected prior to acceptance and planting.

- All new plantings should have water bags and rigid tree guards installed.

- Older, mature trees in the cemetery should have turf removed from under their drip lines and 3-inches of mulch installed.

- Weedy plants and vines must be removed from trees, around stones, and from fences. An herbicide should be applied to cut stumps to eliminate new sprouts.

- The cemetery turf exhibits extensive weed invasion. The City should institute a weed control program, using pre-emergent and postemergent herbicides.

- The use of large deck mowers in Rest Haven Cemetery is problematical and only 21-inch walk behind mowers should be used in the southern half of the cemetery.

- Many stones in the cemetery are being needlessly damaged by the use of mowers that are too large. These problems are exacerbated by a lack of adequate supervision.

- All mowers must have closed cell foam bumpers installed. These must be replaced as needed. Operators with excessive wear on the bumpers should be given remedial training and instruction.

- Mowing must be conducted with sufficient frequency to maintain turf at a height of about 2-inches in cool weather and 3-inches during the growing season.

- Scalping of the grass must be prevented by more careful grave filling and seeding after all graves have been mapped.

- The line weight used on trimmers is too heavy. We recommend a line no greater than 0.065-inch.

- Grass clippings should continue to be blown off all monuments after every mowing or trimming.

- The Cemetery requires the installation of hose bibs at the two entrances both for landscape maintenance and also stone cleaning.

- Lawn renovation should be undertaken to promote a pure stand of fescue.

Other Maintenance Issues

This section briefly explores other cemetery maintenance concerns exclusive of the landscape. We will briefly discuss signage issues, trash, flowers and grave decorations, and policies dealing with orphan stones.

Signage

At the present time City and Rest Haven cemeteries do not have effective signage. It is scattered, not available at each entrance, and is all different with no unifying theme.

From a cemetery preservation perspective signage is of four basic types: identification, regulatory, informational, and interpretative. They are generally recommended in this same priority.

Identification signage might include the name of the cemetery and might also include the cemetery's date of founding and historic significance (i.e., listed on the National Register).

Regulatory signage specifies laws, regulations, or expected standards of behavior.

The last two types of signage are informational (for example, directional signs) and interpretative (information on historic people buried in the cemetery). While these are excellent and improve the visitor experience, they are not recommended at this point, but may be added in the future.

The City must strive to develop effective and well-designed signage. Signage should combine good and consistent design, and meet the needs of visitors.

Specifically, the signage should provide consistent information; should be universally accessible; viewable by several people at once; and be very durable and able to withstand abuse or constant touching. Signage should be located near entrances and at major circulation intersections.

If the City currently has standardized signage, this should be used, so long as it is not too industrial looking (i.e., as though it came from the sign department of a highway agency).

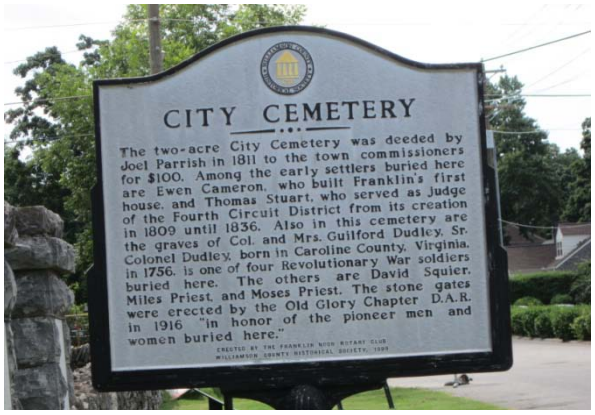
Identification Signage

The current identification signs consist of the standard Tennessee Historical Markers for the two cemeteries (Figure 58). The one for City Cemetery is erected at its western entrance and the one for Rest Haven Cemetery is placed at its eastern entrance. In addition, the cemetery names are on the columns at each entrance, although these are likely often overlooked. There is no identification signage at the other entrances for either cemetery.

We proposed a new sign in classic black with rich gold lettering using a contemporary, but easily read typeface (Figure 59). The new sign should be located outside each entrance, pointing the way into the cemetery and beckoning visitors.

Regulatory Signage

There is no regulatory signage of any description. This signage is critical and should be located at each entrance, so visitors, no matter how they enter the cemeteries, will be clearly informed concerning correct behavior. The signage should be erected parallel to the road, making it readable not only to those entering through the gates, but also those driving by and perhaps preparing to park.



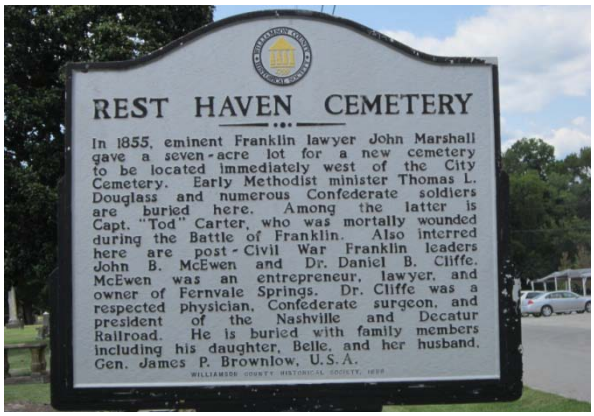


Figure 58. Examples of existing signage. Upper right shows the west entrance to City Cemetery with the historical marker, two marble plaques on the gate columns, and two tour signs. The upper right shows the historical marker. Middle left shows the walking tour sign, with a date different from other documents and the cell phone tour sign. Middle right shows the east entrance to Rest Haven Cemetery with the historical marker, cell phone tour sign, and several additional numbered signs. Lower left shows the historical marker. Lower right shows two numbered tour stops that are today obsolete.

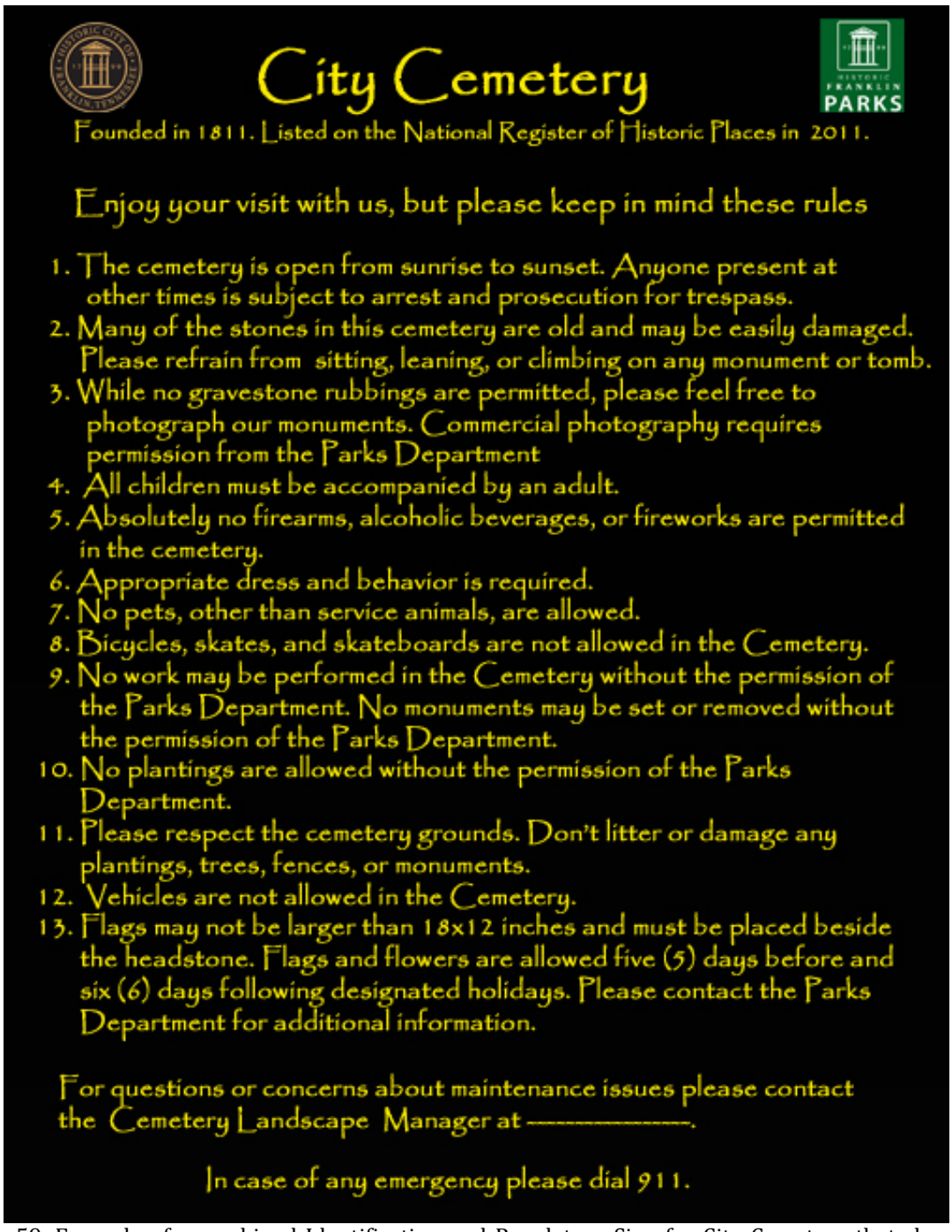


Figure 59. Example of a combined Identification and Regulatory Sign for City Cemetery that should be erected at all entrances. The sign for Rest Haven Cemetery would be identical with the exception that the heading and second line should be adjusted.

Informational Signage

Given the relatively small size of both cemeteries, informational signage (i.e., directions or maps) seems unnecessary and would only clutter the entrances. A simple tour brochure might be useful, but this is a relatively low priority given the numerous significant issues facing the City.

Interpretative Signage

Both cemeteries currently have historical markers at their main entrances on North Margin Street. These signs provide brief historical accounts and should be sufficient for the foreseeable future.

The cell phone tour stops also provide access to additional historical and interpretative information.

Other Signage

Both cemeteries include additional signage for walking tours that we understand is obsolete. Although these tours may be reactivated in the future, we encourage the removal of these signs. They clutter the entrances and confuse visitors. Moreover, they serve no function, making them appear as yet one more example of the lack of care the cemeteries have received over time.

Once you enter Rest Haven Cemetery there are several upright bronze signs that have been placed by various groups promoting historical figures. We have previously observed how these distract from the cemetery landscape and should either be removed or, minimally, mounted as flush to ground markers.

The Parks Department's proposed regulation prohibiting the future erection of markers should be carefully policed. Signage can clutter a cemetery, disturbing its solemnity. Thus, it becomes critical that signage not make the cemetery look cluttered or garish.

Flowers and Other Grave Decorations

As historic cemeteries, neither cemetery seems to have many flowers placed on graves, although the practice may be more common during holidays.

Regardless, the only regulations established by the Parks Department involve flags. These limit the size and establish the holidays when flags may be displayed and for the length of time before and after the holiday.

We recommend that the City adopt a flower policy that will minimize maintenance problems. Extending the flag policy to also include floral arrangements would be simple procedure that should cover most issues.

We observed no grave decorations at either cemetery. Many cemeteries, however, are beginning to struggle with the increasing tendency for the public to load graves with personal items. This problem is not unique to the United States, but has also been documented in Great Britain, where solar-powered lights, statues and windmills have appeared.

Some cemeteries have established rules based entirely on appearances in an effort to limit this practice. At times these are intentionally vague, for instance referring to "adornments considered offensive or otherwise inconsistent with the dignity of the cemetery." In other cases a fairly detailed list of objectionable items has been devised: "Toys, stuffed or otherwise manufactured or sculptured animals, statues or statuettes, personal items and/or other unsightly objects."

Although aesthetics may reasonably be considered to suffer, most cemeteries attempt to control the proliferation on the grounds of the potential hazard to workers – a legitimate concern considering the use of mowers and trimmers on a routine basis.

Many cemeteries enact provisions that

allow staff to remove such objects ("temporary objects") when they become withered, unsightly, or an obstruction to maintenance. Other cemeteries exclude all objects made of concrete, glass, plastic, fiberglass, metal, ceramic, and wood, again with the justification of safety. And additional cemeteries prohibit objects that tend to increase maintenance efforts, such as bird feeders, statuary, and concrete pots.

While wishing to be sensitive to those who have lost loved ones, there must still be a middle ground that helps control the abundance of materials beginning to appear on graves. The City should revisit this issue yearly to determine if a need for action exists.

Trash

While trash is not as significant a problem at City and Rest Haven cemeteries as it is in many municipal cemeteries, we did observe trash in a variety of locations, including on the stone walls.

Given the age of some trash, it appears that it has been in the cemeteries for a very long time. This means that repeated mowings have occurred and staff has not picked this trash up.

This may suggests a lack of supervision. It does not appear that staff is taking the time to carefully inspect the cemeteries for trash; instead, it seems that mowing may be rushed in an effort to get on to the next project. This is yet another reason we recommend a dedicated staff for the maintenance of the cemeteries. Regardless, it is critical that all trash be quickly identified and removed.

The only trash containers are those at the front entrances (on North Margin Street) of the two cemeteries. These are discrete containers that nicely blend with the cemetery. Since these are major entrances, their locations should be sufficient at least until Bicentennial Park becomes more visited. Then it may be prudent to install an additional trash container at the east entrance to City Cemetery and at the north entrance to Rest Haven.

Lost and Orphan Objects

Every cemetery has stones that are no longer associated with their grave. Good management requires that these stones be documented, collected and an effort made to return them to their proper locations. Long-term storage or simply ignoring them is inappropriate.

Stones should never be allowed to removed from their original location without full documentation – where was the stone found, why is it being removed, where is it being stored, what should be done to reset the stone, what action is being taken to resolve the issue. Staff must understand that once a stone is separated from the grave, the potential that the grave will become lost – regardless of the quality of the cemetery records – dramatically increases. Thus, every effort should be made to ensure that stones remain on their grave.

We observed a variety of orphan objects at both City Cemetery and Rest Haven Cemetery. These include stones scattered across the landscape with no obvious grave association.

Many stones have fallen and over time have been covered by soil or grass. Others have been removed from graves and stacked against trees or on top of coping. Others appear to have been little more than flung or dumped against walls. Rest Haven Cemetery even exhibits a variety of fence parts stacked (or dumped?) against the stone wall.

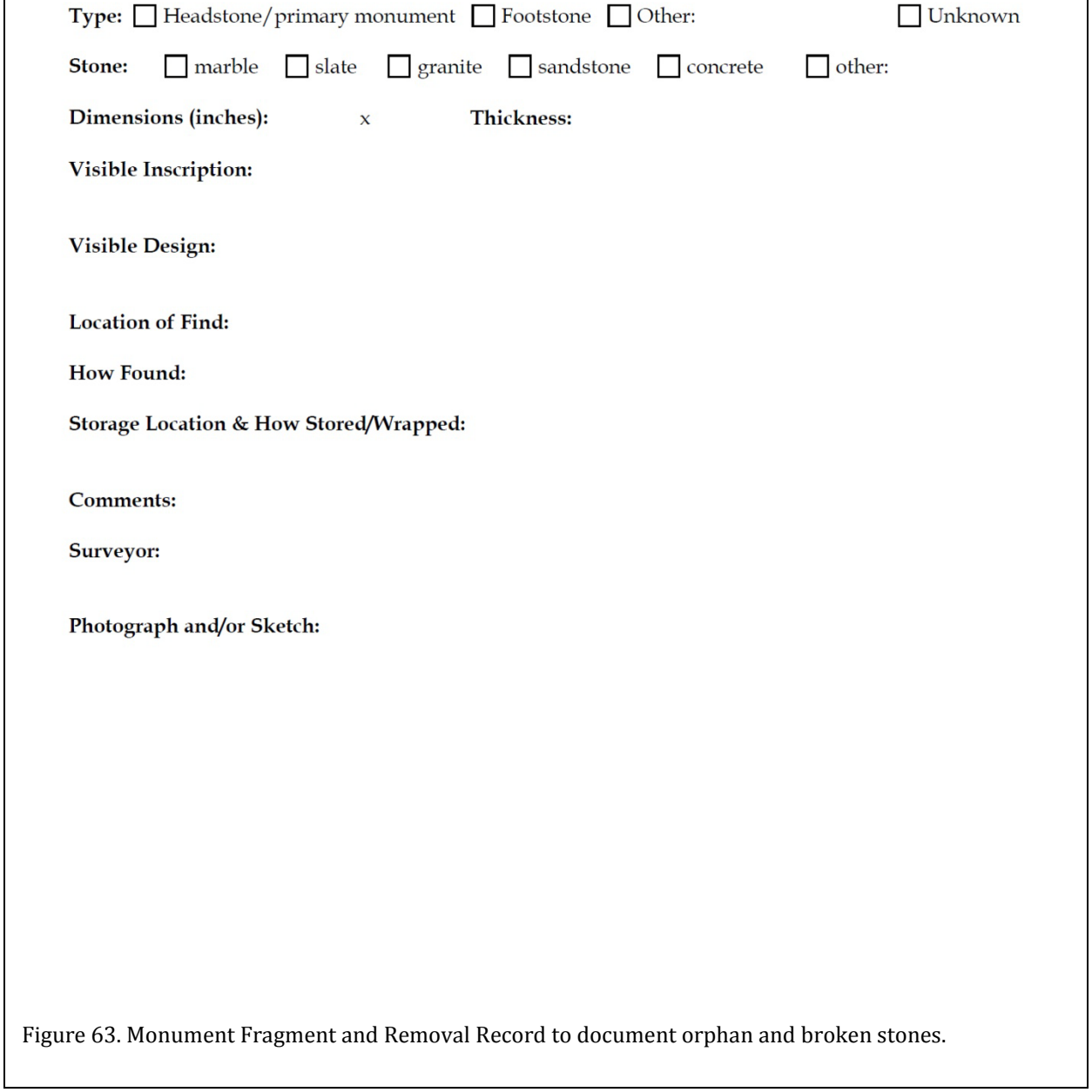
The extent of removals appears tied to the poor maintenance the cemeteries have received. Rather than mow around foot stones, it seems that many were intentionally removed. The problem is especially bad in Rest Haven Cemetery.

Unsecured, these fence parts and even stones beckon both vandals and thieves. When cemetery artifacts appear uncared for, it increases the temptation for the public to take souvenirs home with them.

Figure 60. Trash in City and Rest Haven cemeteries. Upper left shows trash on the stone walls, present in both cemeteries. Upper right shows trash along northern boundary of City Cemetery. Middle left shows a sheet of Styrofoam insulation board that has been mowed over in City Cemetery. Middle right shows a piece of roofing metal at the front gate of City Cemetery. Lower left, construction trash on the Rest Haven wall. Lower right, trash on the Rest Haven wall.

Figure 61. Orphan stones in City Cemetery. Upper left shows stones set on a box tomb for so long that stains have been created. Upper right shows stones stacked on plot coping. Middle left shows stone fragments dumped against the boundary wall. Middle right, stones set on plot coping. Lower left, obelisk fragment leaning against another monument. Lower right, stone fragment almost buried in the soil with no obvious grave association.

Figure 62. Orphan stones and fence parts in Rest Haven Cemetery. Upper left, a pile of foot stones stacked on plot coping. Upper right, foot stones tossed on the east stone boundary wall. Middle left, headstones dumped along the boundary wall. Middle right, table tomb legs and other fragments dumped along the boundary wall. Lower left, fence sections dumped against the boundary wall. Lower right, a second pile of fence parts.



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MONUMENT FRAGMENT AND REMOVAL RECORD

Cemetery: **Date:** **Fragment ID#:**

Origin, if known: Grave #: **Section #:** **Lot #:**

Type: ☐ Headstone/primary monument ☐ Footstone ☐ Other: ☐ Unknown

Stone: ☐ marble ☐ slate ☐ granite ☐ sandstone ☐ concrete ☐ other:

Dimensions (inches): x **Thickness:**

Visible Inscription:

Visible Design:

Location of Find:

How Found:

Storage Location & How Stored/Wrapped:

Comments:

Surveyor:

Photograph and/or Sketch:

Figure 63. Monument Fragment and Removal Record to document orphan and broken stones.

A form that can be used to document fragments or orphans is provided as Figure 63. Such a form should be completed for every object found orphaned in the cemetery in preparation for storage.

Until it is possible for repairs to be made, every orphan object should be documented with a photograph and form. The object should be carefully identified using a stainless steel tag (such as available from Forestry Suppliers, http://www.forestry-suppliers.com/product_pages/Products.asp?mi=11821&title=Double-Faced%20Aluminum%20Tags,%203%94%20x%204%94,%20Box%20of%2050&itemnum=79262) and then stored to prevent loss or additional damage. All objects should be stored in one secure location, such as the building at the southwest corner of Rest Haven Cemetery currently being used as a construction office.

Figure 64. Displaced or damaged curbs and copings. Upper photo shows displaced coping in City Cemetery. Lower photo shows broken and badly displaced wall coping at Rest Haven Cemetery.

Plot Curbs or Coping

Plot curbs and coping are considered here since they are of secondary important to the condition of the monument. However, the curbs and coping are in overall poor condition with considerable displacement. Several examples are shown in Figure 64.

Marble, limestone, and granite curbs are sinking or have been displaced. Some concrete curbs, not being reinforced, are broken as the ground sinks under them.

Infilling of depressed areas and resetting of curbs should be a routine maintenance operation. The use of a curb setting tool would be of assistance, but is not essential and the job can be done by hand.

Recommendations

- A sign theme should be developed for the cemeteries using consistent colors and type faces.
- The cemeteries require a combined identification and regulatory sign placed at each entrance. An example of one

possibility has been provided.

- The current roadside historical markers can be left in place, but obsolete signage should be removed.

- The City should establish a flower policy similar to that developed for flags.

- The City should periodically evaluate whether it would be appropriate to establish a policy that allows staff to remove all "temporary objects" on graves or in plots when they become withered, unsightly, or an obstruction to maintenance.

- Staff must be responsible for collecting and disposing of trash prior to mowing.

- The Cemetery will need additional trash containers once Bicentennial Park becomes operational; the two at entrances along North Margin Street will not be sufficient.

- "Orphan" stones should be documented using a form and collected for short-term safe keeping until their appropriate location is identified through research. In so far as possible, stones should not be allowed to become disassociated with their graves as this effectively loses the grave location.

- Plot curbs or coping throughout the cemeteries are in deteriorating condition. The repair of these curbs must be viewed as routine maintenance and must be integrated into the maintenance plan.

Conservation Issues

In the introduction to this plan we briefly discussed a variety of preservation issues, tackling the question of why it is important to preserve sites like City and Rest Haven cemeteries, as well as how preservation and restoration differ, and introducing the reader to the Secretary of Interior's Standards for Preservation. Readers may want to refer back to those discussions since they form a foundation for our discussion of the conservation needs at Franklin's two cemeteries.

Standards for Conservation Work

The City of Franklin is the steward of these cemeteries, holding what belonged to past generations in trust for future generations. As such the Mayor and Aldermen bear a great responsibility for ensuring that no harm comes to the property during their watch.

One way to ensure the long-term preservation of the cemetery is to ensure that all work meets or exceeds the Secretary of the Interior's Standards for Preservation, discussed on pages 6-8 of this study.

Another critical requirement is that Parks Department ensures that any work performed in the cemeteries be conducted by a trained conservator who subscribes to the Guidelines for Practice and Code of Ethics of the American Institute for Conservation of Historic and Artistic Works (AIC) (http://www.nps.gov/training/tel/Guides/HPS1022_AIC_Code_of_Ethics.pdf).

These standards cover such issues as:

- Respect the original fabric and retain as much as possible – don't replace it needlessly.
- Ensure that the treatment chosen is suitable for the object, recognizing that at times no treatment is the best option.
- Choose the gentlest and least invasive methods possible.
- Is the treatment reversible? Is retreatment possible?
- Don't use a chemical without understanding its effect on the object and future treatments.
- Don't falsify the object by using designs or materials that imply the artifact is older than it is.
- Replication and repairs should be identified as modern so that future researchers are not misled.
- Use methods and materials that do not impede future investigation.
- Document all conservation activities and ensure that documentation is available.
- Use preventative methods whenever possible – be proactive, not reactive.

The AIC Code and Guidelines also require a professional conservator provide clients with a written, detailed treatment proposal prior to undertaking any repairs; once repairs or treatments are completed, the conservator must provide the client with a written, detailed treatment report that specifies precisely what was done and the materials used. The conservator must ensure the suitability of materials and methods – judging and evaluating the multitude of possible treatment options to arrive at the best recommendation for a particular object.

These Guidelines of Practice and Code of Ethics place a much higher standard on AIC conservators than individuals or commercial monument companies that offer "restoration

services." This higher standard, however, helps ensure that City and Rest Haven cemeteries receive the very best possible care and that the treatments conducted are appropriate and safe.

Past Conservation Efforts

Review of the monuments during this assessment revealed that at some point in the past various efforts to repair stones were made. Universally these efforts, while well meaning, were inappropriate and ultimately resulted in additional, unnecessary damage.

These efforts should demonstrate that well-meaning, but otherwise uniformed repair efforts should be avoided – whether undertaken by individuals or the City itself.

We understand and sympathize with efforts to control costs and use staff for as many tasks as possible; however, conservation is more than a trade where, with a few workshops, any individual can be considered competent.

There are many tasks where volunteers and staff, with limited training, can make a significant difference in the long-term preservation of these cemeteries. It is important, however, to realize that untrained individuals with poorly formulated plans can cause extensive damage.

If the City wishes to dedicate staff to the maintenance of City and Rest Haven cemeteries on a full-time basis and take the steps necessary to ensure continuity, then it makes sense to provide the training necessary to expand their abilities to repair stones. The City should realize that stone conservation requires extensive training and a large tool kit. This means that the City must be willing to devote employees to multiple weeks of training in order to develop the necessary skill

	Table Tomb	Box Tomb	Ledger	Headstone	Footstone	Tab in Socket	Die on Base	Pedestal Marker	Obelisk	Others
Unstable	3	15								
Collapsed	3	41						3		
Broken	3	33	10	14		8	2		6	1
Spalling	1	7	4	12	1				3	
Missing Parts		14								
Recarved		2						1		
Displaced			9	30	5	8				19
Set as Headstones			2							
Tilted				7	5					
Fallen							6	2	2	
Loose							1	4	2	
Cracked								2		
Old Repair Failing									2	

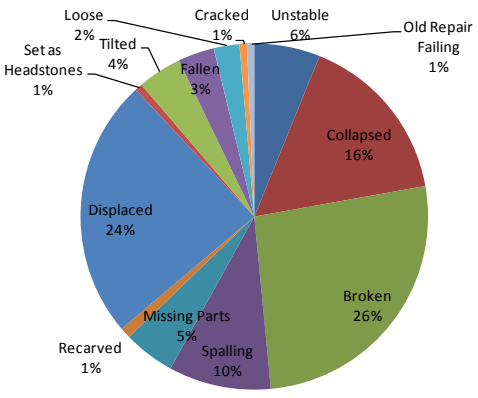

Figure 65. Damaged stones and conservation problems in City Cemetery.

	Table Tomb	Box Tomb	Ledger	Headstone	Footstone	Tab in Socket	Die on Base	Pedestal Marker	Obelisk	Lawn Marker	Cradle Grave	Others
Collapsed		1										
Broken		1	2	16	11	11	5	4			7	
Spalling	1		1	5	2		3	1				
Displaced				13	43	5	4			4		83
Set as Headstones			1									
Tilted/Sinking		1		10	9	7	3	3	2	16	2	
Fallen				1		3	8	3	2			
Loose						19	27	5	3			
Cracked								3				
Old Repair Failing				4		11	5					
Other Damage	1				1	3	8	2	5			

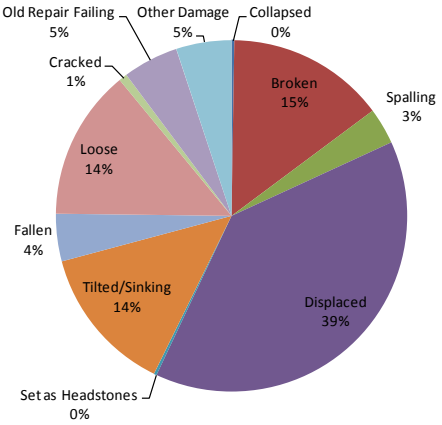

Figure 66. Damaged stones and conservation problems in Rest Haven Cemetery.

sets, plus a significant sum of money to obtain the tools and equipment necessary for monument work.

On the other hand, if the City is not willing to take these steps, then it would be best to anticipate contracting out monument conservation tasks.

General Types of Stone Damage

Although a stone-by-stone assessment was not included in this assessment, it is possible to provide some general observations concerning the types of problems faced by the monuments in the two cemeteries. These discussions provide general observations that will help place the recommendations in a broader context.

Figure 65 shows a tabulation of damage in City Cemetery. Nearly 300 stones in this cemetery require repair. With some authors reporting about 370 interments (certainly this must mean marked graves), over 80% of the monuments in the cemetery require intervention.

The most common damage (representing 26% of the tabulations) is breakage, followed by stones that are displaced or moved from their original location to somewhere else in the cemetery. Box and table tombs are in particularly dire condition, with 44 collapsed and 36 broken. Although we identify "only" 14 as missing parts, the way these tombs have been stacked and moved about, this is only an estimate; the number may be much larger.

The condition cannot be thought of as any better at Rest Haven Cemetery (Figure 66). There we understand there are about 475 interments (which we take to mean monuments). Of these, 391 require conservation – representing 82% of the monuments.

At Rest Haven Cemetery the greatest

damage or problem are displaced monuments, representing 39% of those tabulated. An additional 15% of the monuments are broken, another 14% are loose, and 14% are tilted or sinking. There are at least 152 displaced stones in the cemetery, including many that we view as orphans.

The damage at these two cemeteries is unprecedented. We have never seen a cemetery with so much damage. Readers should understand that this damage did not occur in a matter of weeks or months. Rather it reflects decades of inattention. Consequently, it is important to understand that the repair of these problems will require much effort and a very large budget – whether done by a professional conservator, City employees, or volunteers.

Displaced Monuments

The most significant problem at Rest Haven Cemetery and a major problem at City Cemetery are the stones characterized as displaced. A great many of these are orphan stones, which have been discussed in the previous section. This discussion will serve as a reminder that it is critical to collect and protect these orphan stones until conservation efforts are able to determine where they should be reset.

Some of the displaced monuments have been dislocated by aggressive mowing practices. These can be immediately reset as described below.

The prevalence of this problem documents the need for a much more careful maintenance program that will ensure stones are protected and preserved.

Figures 62 and 64 can be reviewed for examples of displaced monuments. Figure 63 is a form we recommend using as these are collected in order to provide complete documentation.

Sinking and Tilted Monuments

Monuments tend to sink or tilt because they were originally set without an adequate foundation on the grave shaft. As a result, as the grave collapsed inward, the monument followed. Of course, some tilting occurs because of maintenance impacts as well.

This is a significant, long-term problem for the Cemetery since as stones sink they become more likely to topple. As they topple not only is the appearance of the Cemetery dramatically altered, but the monuments can present a significant liability to the City. In addition, as monuments topple they are very likely to hit coping, walls, or other stones, causing damage to themselves or the objects they hit. This dramatically increases repair costs.

The solution involves the resetting of these monuments, prior to their further collapse.

Simple Resetting

A large number of stones in the cemetery require resetting. Some of these are flush-to-ground lawn markers or tablets that have sunk and are now either tilted or being covered with soil and grass. Others have fallen and are being covered by soil and grass. Resetting is generally simple and a suitable task for volunteers.

The stone should be excavated, being careful to avoid shovel damage. If the monument has been set in concrete, the removal of this material may require a conservator to ensure that the stone itself isn't damaged. Otherwise, the hole can be deepened and filled with pea gravel or decomposed granite as bedding. The lawn marker should be reset about 1 inch above the ground level – tall enough to prevent being covered by soil and grass, but not so tall that it will be damaged by mowing. Tablets should be set with about 25 to 33% of the stone below grade. Additional pea gravel should be packed in around the stone as it is being leveled. The upper inch of backfill should be soil to allow for revegetation.

Figure 67. Examples of stones requiring resetting. Upper left, die on base that has collapsed. Upper right, tilted footstone. Middle left, tilted footstone. Middle right, sunken granite footstone being damaged by mowing. Lower left, toppled obelisk that requires resetting. This monument will require lifting equipment and rigging. The bases must first be leveled, and the bases and obelisk shaft drilled for the installation of a stainless steel pin. Bottom right, tilted headstone that requires resetting.

It is critical that Portland cement never be used to reset stones since it removes their ability to shift if they are accidently hit by mowing or other landscape activities.

Resetting Die on Base Stones

All cemeteries have a number of granite or marble die on base stones that were originally set using setting compound. This is a commercial product typically consisting of calcium carbonate, talc, and occasionally calcium silicate in linseed oil or a similar material. It is designed to be applied under a granite monument to help seal it to base and prevent water intrusion. Because it contains oil it may leave a halo on marble and should only be used for setting granite monuments. Setting compound is not an adhesive and will eventually dry out. It also does not prevent a monument from being tipped over, so care must be taken when the monument being set is top heavy, very tall, or is in a setting where vandalism is likely. In such cases it is good practice to set the monument not only with setting compound, but also with one or more fiberglass pins.

Marble stones were typically set with a mortar rather than setting compound, although this too is not an adhesive and will often fail.

In order to reset a die on base that is loose or shifted, it is first necessary to remove the die and set it aside. The base then must be checked to determine if it is both stable and level. In many cases it will be necessary to remove the base, establish a new foundation with pea gravel or decomposed granite.

All old mortar or setting compound must be removed from the base and the die. This can usually be accomplished using plastic spatulas or a small chisel. Care must be taken not to disfigure the stone during this cleaning process.

If pins are to be installed holes must be drilled and cleaned in both the die and base. Either fiberglass or stainless steel pins should be inserted that are slightly shorter and smaller than the holes. While they may be set using epoxy or lime mortar, it is often acceptable to leave them loose.

The purpose of these pins is to help secure the base and die, making it more difficult to accidently (or intentionally) tip a monument over.

If setting compound is being used on granite markers, it should be rolled between your hands to create “strings” 1-2 feet in length and about ½ inch in diameter. These strings should be set about ½ inch inside the edge of where the die will make contact with the base. Poly cushion spaces should be used at the four corners to prevent the setting compound from being expelled when the die is reset.

If the monument is marble, then a lime based mortar (never Portland cement mortar) should be used rather than setting compound. Setting cushions should be used to ensure that the mortar is not forced out by the heavy die.

The stone is then reset and appropriately centered – there are special monument setting devices to assist in this. Setting compound that is pushed out can be cut off using a plastic spatula for later reuse. Excess mortar can be manually removed and then the monument can be cleaned off using a barely damp sponge and fresh water. If there are any gaps, additional setting compound or mortar will need to be used to fill these gaps.

At times the dies were originally set using ferrous pins. This further complicates resetting since these ferrous pins must be removed and replaced with either fiberglass or stainless steel.

Cradle Graves

Cradle graves, also called bedstead monuments, are combinations of headstones and footstones connected by side rails, giving the appearance of a bed. Historically these were often planted in flowers or groundcover.

Resetting cradle graves is more difficult and time consuming then other monument types, but involves essentially the same techniques. The

Figure 68. Examples of die on base and cradle grave damage. Upper left shows a die on base. Still present are two ferrous pins in the die which must be replaced with fiberglass or stainless steel pins prior to resetting. Upper right is a die on base that because of its height will require pinning. Middle left shows a modern granite die on base that has shifted significantly and requires resetting. Middle right shows a toppled die on base that requires leveling and pinning as part of resetting. Lower photos show cradle graves that require resetting and repair.

individual parts were typically connected by ferrous or brass pins. These fail as the grave shaft collapses and individual components begin sinking or tilting. Sometimes the side rails are unable to take the stress and break, further complicating resetting efforts.

The first step is removal of the individual components and infilling the grave with decomposed granite in order to establish a good foundation for rebuilding the monument. If all of the parts are intact, they are simply reset as described in the above sections.

If the side rails are broken, which is unfortunately common once they are exposed, then the monument requires conservation treatment. The side rails must be drilled and fiberglass pins installed to link the broken fragments. Further information is provided in the discussion on repair of broken monuments.

Loose Monuments

There are a number of loose monuments throughout the two cemeteries. These are typically die on base markers where the monument company failed to insert a pin to stabilize the two parts (the die and the base). These monuments remain upright through gravity and consequently pose a significant threat to the public, other monuments, and themselves.

For such monuments we recommend drilling and pining as described earlier to improve stability and reduce the City's liability.

Large Monuments

There are, unfortunately, some large monuments that are severely tilted or fallen. Depending on their size, these will require the use of a tripod, small equipment, or even a crane to facilitate resetting. These should be reset by a conservator trained in rigging and using the equipment needed for large, heavy monuments.

Tab in Socket Monuments

These are monuments where the base has a recess or socket into which a tab on the die fits, joining the base and die. Tab in socket stones were originally set with a high lime mortar. Over time these may come loose and require resetting.

Resetting correctly is very simple, but too often past repair efforts have used Portland cement mortar, which is very hard and inflexible. If the stone received any impacts after such a repair the tab is almost certain to break off in the socket, requiring a much more complex repair involving pinning, described below.

If still in good condition, however, resetting can be relatively simple. The socket must be cleaned of loose mortar and releveled using pea gravel or decomposed granite. Then the stone should be reset using a soft mortar such as a 1:2.5 mix of NHL 3.5 and sand. It is always important that the mortar used be soft – should the stone be impacted, we want the mortar to fail, not the stone. Afterwards, the stone is braced for 48 hours to allow the mortar to set.

Broken Stones

There are at least 77 broken monuments at City Cemetery and at least an additional 57 at Rest Haven. Leaving these stones laying on the ground or leaning against other stones subjects them to additional damage, increasing the eventual cost of appropriate repair. Stones on the ground are walked on, may have mowers run over them, and if they are marble or limestone, are subject to greater acid rain damage. It is always critical to erect fallen stones and this simple resetting is an activity that volunteers could undertake.

Adding to the problem there are many stones that have been improperly repaired, using poor materials and techniques. It is always far easier to conduct an appropriate conservation treatment than to "undo" inappropriate actions, such as simple epoxy repairs or the use of ferrous pins. The use of "simple epoxy" repairs – where

Figure 69. Examples of tab in socket stones. Upper photo shows a stone entirely out its socket. Lower photo shows a stone with a tab loose in its socket.

stone fragments are joined using a continuous bead of epoxy are inappropriate. Experience indicates that for a long-lasting repair, particularly in structural applications, use of pins is necessary. Moreover, most adhesives are far stronger than the stone itself, meaning that failure of the repair is likely to cause additional damage to the stone. The use of ferrous pins will be discussed below.

Appropriate conservation treatment requires a blind pin repair. This drilling and pinning is a process that involves carefully aligning the fragments, drilling the stones, and setting fiberglass, or occasionally threaded 316 stainless steel rod, using a structural epoxy in the drill holes.

Diameters and lengths of pins vary with the individual application, depending on the nature of the break, the thickness of the stone, its condition, and its expected post-repair treatment. The choice of epoxy depends on the required strength, among other factors.

Since there is also usually some loss of fabric along the break, this treatment will also involve infilling areas of loss with a compatible mortar. This consists of a natural cementitious composite stone material resembling the original as closely as possible in texture, color, porosity, and strength. This type of repair may be used to fill gaps or losses in marble.

Under no circumstances should latex or acrylic modified materials be used in composite stone repair. These additives may help the workability of the product, but they have the potential to cause long-term problems. Such products are not appropriately matched in terms of strength or vapor permeability.

More suitable materials include Jahn (distributed by Cathedral Stone) or the lime-based mortars of U.S. Heritage. These closely resemble the natural strength of the original stone, contain no synthetic polymers, exhibit good adhesion, and can be color matched if necessary.

Drilling stones is a complex treatment that should only be conducted by a trained conservator. Infill is similarly complex and the Jahn products require certification in their use

Figure 70. Examples of broken stones. Upper left shows a die on two bases. When the stone fell or was pushed over, the impact of hitting the ground caused the die to break. Upper right shows a badly broken marble ledger. Middle left shows a tab in socket with the die broken and use of ferrous pins in a failed repair. Middle right shows a broken tab in socket. Lower left shows a headstone and use of ferrous pins in a failed repair. Lower right shows a failed simple epoxy repair.

through Cathedral Stone.

Ferrous Pins

City and Rest Haven cemeteries exhibit a number of die on base stones joined using ferrous pins. In other cases old repairs were made using ferrous pins. In one case join fragments were joined using iron bars and ferrous bolts.

These stones should be given a high treatment priority since, left untreated, the corrosion of the ferrous pins will cause significant spalling, cracking, and breakage of the stones – a process known as "iron jacking." The corrosion products of these ferrous pins have a greater volume than the original pin and as the corrosion products expand, they crack the stone. Many of these stones already exhibit corrosion staining and cracking.

It is necessary to use diamond core drills to remove the corroded ferrous pins and replace them with either fiberglass or, rarely, stainless steel. Afterwards it is necessary to fill the voids with a natural cementitious composite stone material such as that previously described for infill repairs.

In some cases the iron pins have already caused the stone to spall. Treatment is similar, except that the replacement pins must often be longer and inserted into stone that is still capable of bearing the weight of the monument. Such repairs also necessitate major reproduction of lost stone and therefore are more time consuming and expensive.

Box and Table Tomb Problems

City Cemetery reveals a special problem related to box and table tombs. These range from instability, partial or total collapse, breaks, and incorrect setting of box tomb ledgers as headstones.

Box and Table tombs are among the oldest stone types and represent great artistry. Unfortunately, they have been so poorly maintained by the City that they serve to significantly devalue the cemetery landscape. Consequently it is especially important that conservation efforts be devoted to these monuments.

Given the range of problems and the extent of damage, it is difficult to provide even basic recommendations. Essentially each monument will require a treatment plan to be developed specifically for that tomb.

Where all of the parts of box tombs are present, consisting of a base, two end panels, two side panels, often (but not always) four corner posts, and a ledger, reconstruction may be relatively simple.

It is first necessary to relevel the base which provides support to the box itself. This base should be at ground level and set on decomposed granite or pea gravel to promote drainage. If there are corner posts, typically the side and end panels slide into slots. Without corner posts, usually either the side or end panels are notched to allow the parts to join. Often ferrous dogs or clamps were used to attach the different parts. These should be discarded and either stainless steel or naval brass dogs used instead. The use of different dogs may require redrilling the holes.

At times an internal armature is necessary to hold the side panels and prevent their movement.

Once the box is reset, the ledger should be set on a high lime mortar, such as a 1:2.5 mix of NHL 3.5 and sand.

Broken panels may be drilled and pinned, and still be self-supporting if the damage is not too bad. Sometimes, however, and internal brick or CMU armature is necessary to help support the repairs. If the ledger is broken, it may be necessary to use a new marble ledger to provide support, reassembling the original ledger on the new marble support.

Table tombs are similar, consisting of a support base, four or six legs, and a ledger. Often

Figure 71. Examples of ferrous pins and iron jacking. Upper left shows a headstone reinforced with iron bars and bolts, all of which are corroding. Upper right shows the die cracking as a result of iron jacking resulting from two ferrous pins. Middle left shows the next phase in the process, with the corners of the die completely shattered by iron jacking. Middle right shows the loss of the middle base (in the grass, foreground) as a result of iron jacking. Lower left shows inappropriate repair using ferrous pins. Lower right shows die on base setting using a ferrous pin.

Figure 72. Box tombs. Upper left shows an ornate example that, while intact, has badly shifted on its base. Without resetting it will collapse and suffer damage. Upper right shows a box tomb that has collapsed, resulting in the breakage of the ledger – dramatically increasing repair costs. Middle left shows a partially collapsed box tomb with both the side walls and ledger broken. This box tomb does not have corner posts. Middle right, a box tomb that is badly damaged, but still standing. It also reveals much vegetation growing out of the box, which will eventually cause even more damage. Lower left shows a collapsed box tomb with its parts neatly stacked. Lower right shows a ferrous dog in a still standing box tomb.

Figure 73. Examples of box and table tombs. Upper left shows a collapsed box tomb. The bottom slab is broken and anyone walking on the supported ledger will cause it to break. Upper right shows a ledger from a box tomb reset as a headstone. Middle left shows a table tomb that, while still standing, is unstable. If it collapses it will likely further break the ledger and possibly one of more of the legs. Middle right shows another unstable table tomb where parts of other monuments have been used in an effort to level the ledger. Lower left shows broken legs from Rest Haven Cemetery dumped along the wall. At that cemetery many of the ledgers were probably originally box or table tombs. Lower right shows one of the few still standing table tombs in Rest Haven Cemetery. In the background are two ledgers that were probably originally table tombs.

some or all of the legs are damaged. The ledger is also often broken.

Once again, repair is not difficult if all of the parts are present and in reasonably good condition. It is often necessary to drill and pins legs to their ground support, as well to the ledger.

Where legs are badly damaged or missing, it is necessary to fabricate new ones. While original designs can typically be replicated by a marble wholesaler, this is not always necessary. It may be appropriate to use a simple square shaft of similar dimensions, clearly indicating to the public a replacement.

Broken ledgers for table tombs are more difficult problems. Repairs rarely provide adequate stability and it is almost always necessary to first set a blank marble ledger on which the original ledger can be pieced back together. Although this slightly changes the three-dimensional appearance of the monument, the ability to stabilize and reset the monument more than justifies this slight modification.

Spalling

We are using this term to cover a variety of problems inherent to sandstone, including blistering and delamination.

It is likely that soluble salts are a leading cause of blistering which consists of rounded blisters forming on the stone. The blisters are hollow, frequently break, and expose friable stone below. Associated with what are known as contour scaling, these may reveal locations of salt concentrations. Generally it is best to leave these blisters alone for as long as possible since this helps maintain the historic fabric. Eventually it may be necessary to remove salts through brushing and the use of poltices. Some conservators also remove the friable stone to solid material and infill the areas of loss.

Delamination is also known as exfoliation and consists of the stone separating along its bedding planes (whether those planes are visible or not). The split sections can be very thin, affecting the stone only near the surface, or they can be several centimeters thick. Its cause is associated with weakening of the bedding planes. The ones lost may be more permeable or may contain more soluble material. These problems allow more water access into some parts of the stone than others. Delamination may be aggravated by setting stones to allow their beds to be exposed to water penetration.

Treatment depends on the extent of damage and whether the bedding plans are accessible. If they are, treatments include the use of injection grout to reattach loose material and seal the cracks to prevent additional water penetration. Where edges cannot be accessed, it become necessary to drill holes to facilitate injection of the grout. Damage may be so extensive that there is little option but to remove the loose material (which will likely be eventually lost) and patch the surface to replicate the original profile and match the cleaned color.

At times these problems may also be addressed by consolidation, process in which the conservator attempts to bind the friable layers back together. Most of these treatments are based on silicic ethyl esters. Their extremely small molecular structure enables them to penetrate deeply into deteriorated stone, collecting at contact points between individual stone grains. An internal catalyst and atmospheric humidity then convert the liquid consolidant into a glass-like silicon dioxide ($Si0_2$) gel which binds the stone particles together.

Cleaning

Many of the stones exhibit relatively dense deposits of lichen (a symbiotic association typically between fungus and green algae). While sometimes viewed as only an aesthetic issue, there are many stones in City and Rest Haven cemeteries where the biologicals have become so thick that the carving on the stone is today illegible. These biologicals may damage stone in a variety of additional ways. As lichen and other plants grow, they can exert pressure on the mineral grains, weakening the intergranular

Figure 74. Spalling. Upper left shows a sandstone side panel of a box tomb with heavy spalling or exfoliation to the point that a large segment has been lost. Upper right shows spalling at the base of a headstone resulting from salts. Left unchecked, the headstone will eventually collapse. Middle left shows a spalling (and broken) ledger. Eventually all of the inscription will be lost. Middle right shows a badly deteriorated base where the bedding planes are clearly visible. Bottom left shows another spalling base that is causing instability in the overhead obelisk. Lower right photo shows a crack developing in a headstone. Left untreated this will cause the carved face to spall off the monument.

Figure 75. Extensive spalling on two sandstone obelisks in City Cemetery.

structure. Some organisms produce acid compounds that dissolve the calcium carbonate. Some can even etch granite. Many of the lichen and algae allow water to migrate into cracks and crevices of the stone, leading to freeze-thaw damage.

While cleaning is often recommended, inappropriate cleaning can result in a significant amount of damage. We observed multiple examples at Franklin's cemeteries where individuals, in an effort to read the stone, have used a coin or other metal object to scrape the surface. This causes damage to the stone surface which often can be removed only by polishing the surface.

Table 14 lists problems with a variety of "common" stone cleaning processes widely used by commercial firms and the public. This information is important to the Parks Department and should also be made available to any families that may inquire about cleaning their specific monuments.

A suitable biocide for cleaning stones is D/2 Biological Solution (http://d2bio.com/) available from a variety of conservation suppliers. Stones should always be prewetted prior to application of D/2 and after dwelling for a few minutes followed by gentle scrubbing, should be flushed from the stone. Figure 76 shows a photograph of the Sarah Rodgers monument in City Cemetery before and after cleaning with D/2. After only 10 minutes a stone that is unreadable because of the accumulations of biologicals is legible and will not require cleaning again for a year or more.

Figure 76. Cleaning issues in the cemeteries. Upper left shows a close-up of lichen on a stone at City Cemetery. Upper right shows a different lichen form at Rest Haven Cemetery. Middle left shows a table tomb harshly cleaned in an effort to read the inscription. Middle right shows an improperly cleaned inscription on an obelisk; the remainder of the monument was left soiled. Bottom shows a stone before and 10 minutes after cleaning with D/2 Biological Solution.

Table 5.
Comparison of Different Cleaning Techniques

Cleaning Technique	Potential Harm to Stone	Health/Safety Issues
Sand Blasting	Erodes stone; highly abrasive; will destroy detail and lettering over time.	Exposure to marble dust is a source of the fatal lung disease silicosis.
Pressure Washers	High pressure abrades stone. This can be exacerbated by inexperienced users. Pressures should not exceed 90 psi.	None, unless chemicals are added or high temperature water is used.
Acid Cleaning	Creates an unnatural surface on the stone; deposits iron compounds that will stain the stone; deposits soluble salts that damage the stone.	Acids are highly corrosive, requiring personal protective equipment under mandatory OSHA laws; may kill grass and surrounding vegetation.
Sodium Hypochlorite & Calcium Hypochlorite (household and swimming pool bleach)	Will form soluble salts, which will reappear as whitish efflorescence; can cause yellowing; some salts are acidic.	Respiratory irritant; can cause eye injury; strong oxidizer; can decompose to hazardous gasses.
Hydrogen Peroxide	Often causes distinctive reddish discolorations; will etch polished marble and limestone.	Severe skin and eye irritant.
Ammonium Hydroxide	Repeated use may lead to discoloration through precipitation of hydroxides.	Respiratory, skin, and eye irritant.
D/2 Architectural Antimicrobial	No known adverse effects, has been in use for nearly 15 years.	No special precautions required for use, handling, or storage.

Plot Walls

Only one of the plots, at Rest Haven Cemetery, is surrounded by a wall constructed of limestone blocks measuring about 11 by 20 feet. It is mortared and in generally good condition. There is no opening. No work is required on this wall at the present time.

Plot Fences

Plot fences are found in both cemeteries and are characterized as being in good, fair, or poor condition in Table 6. Fences in good condition are those that, minimally, are painted or have little corrosion and that are structurally stable. Fences listed in fair condition are structural stable, but are missing parts and not painted. Finally, those listed in poor condition are unstable, unpainted, and missing many parts or even entire fence sections.

We have added a fourth category, "missing." These are plots where there is evidence that a fence once existed, but it has been completely removed. While often cemeteries talk of fences being donated during the WWII scrape drives, it seems more common to have fences stolen, especially during periods when the cemetery received little or no care.

Eight of the 17 fences at the two cemeteries (47%) are either in poor condition or have been entirely lost. An additional six fences (35%) are in, at best, fair condition. Only three fences in the two cemeteries can be classified as

Figure 77. Plot wall in Rest Haven Cemetery

being in good condition. While these findings are very troubling, they are sadly consistent with our discovery of the great many monuments that are damaged. Unfortunately, the fences in these two cemeteries were did not receive preventative maintenance. As a result, almost immediate intervention is critical.

Treatments

All fences receiving treatment should first be examined for open joints and other areas where water can penetrate through capillary action. These areas should be carefully caulked with Sikaflex 1a, an elastomeric caulk that is often used in fence repair. Under no circumstance should a silicon caulk be used.

It did not appear that any of the fences exhibit remaining paint. This is a perfect situation for light brushing to remove loose corrosion followed by the application of Rust-Oleum Rust Reformer®. This product has been tested by the Canadian Conservation Institute, including exposure to very harsh salt spray and was one of their top three best performers (it is, today, the only formulation still available). Rust Reformer® is a conversion process that stabilizes the corrosion products and serves as a primer. This product cures to a blue-black color.

It should be top coated with Rust-Oleum High Performance Protective Enamel® in flat white followed by a final top coat of flat black 24 hours later. This is a quality assurance process since any areas missed by the flat white will immediately be identified by the undercoat of black Rust Reformer®. Similarly any areas missed by the application of final top coat of flat black will immediately be recognized by the underlying white paint.

Paint application should be by brush, producing an initial dry coat of 1-2 mils (the wet build-up is typically twice this).

While fences in good condition may require little more than paint as we describe here, the other fences require far greater intervention for their long-term preservation.

Many, but not all, of the fences are sitting on stone coping. Where coping is not present or has sunk, it is critical that fence bottom rails (or other elements) not be allowed to be covered by soil. Prior to any repair or painting it is essential that the ironwork be removed from ground contact. This will usually require re-sculpting or contouring the ground to allow exposure and ensure that water flows away from the fence.

Whenever possible, painting should be by brush. If airless sprayers must be used there will be much overspray, requiring much larger amounts of paint. In addition, all vegetation and all stones within the plot – and all immediately adjacent plots – must be fully wrapped in plastic to prevent damage from drift. The requirement for additional paint and the time required to wrap vegetation and monuments will significantly increase the cost of the work.

Welding is appropriate in some situations, but not all. Welding, if performed using continuous (not spot) welds that are ground smooth, is acceptable where little or no expansion or contraction of the iron is anticipated. Where there were originally slip joints, however, welding is inappropriate since it will create stresses that can cause additional damage. For these areas it is necessary to infill the fabric and recreate slip joints that allow movement.

Where welding is appropriate, it must be of very high quality. Appropriate welding processes may include gas tungsten arc welding (GTAW) and shielded metal arc welding (SMAW). Success in repair of cast iron has been achieved in the past using a nickel welding electrode called a NiRod Ni-99. This rod allows elasticity that eliminates the cracking in the transition zone characteristic of low carbon steel electrodes. It should be combined with peening the weld upon completion, reducing surface stress during cooling. The GTAW process uses silicon-bronze wire and stainless steel wire. These are selected for their compatibility and ductility.

As previously mentioned, we do not typically encourage restoration. It is very costly

Figure 78. Fence Problems. Upper left shows a fence rated in poor condition. The gate, several sections, and individual pickets are missing; coping is displaced; and the fence requires painting. Upper right shows a fence that has been completely lost, being cut off its stone coping using a cutting torch. Middle left photo shows a fence that is almost entirely missing. Middle right shows grass growing over the coping and bottom of the ironwork. Lower left shows a fence classified in fair condition, requiring some structural support and painting. Lower right shows a fence considered to be in good condition that requires only painting.

and funnels money away from preservation activities that have a much greater impact on a much larger assemblage.

Where fence sections are missing, we recommend that "ghost sections," be created and installed. These are simple top and bottom rails sized to match the original ironwork with only a few, if any, vertical pickets. These provide support and help stabilize fences at a very low cost. They can be removed at a later date if the lost sections are recovered.

Where line or corner posts are missing it is usually possible to obtain plain round or square posts to fill the void and allow the fence to be stabilized.

Small elements such as individual finials or individual pickets are essentially aesthetic issues and will not affect the stability and preservation of the fence. We recommend such items receive a very low priority, although occasionally mass produced replacements can be found that come very close to matching original items.

Where recasting is critical, we recommend Robinson Iron in Alexander City, Alabama (http://www.robinsoniron.com/). Castings are typically produced in Class 30 gray iron. We discourage the use of aluminum and alternative metals since they cannot match the original castings. After casting, the individual pieces should be machined as necessary and then primed with a two component epoxy primer.

We identified fence parts lying on the ground in several locations, as well as being stacked against the wall and at a stump in Rest Haven Cemetery. All such parts should be collected and stored for possible repair, replacement, or replication. They should not be ignored and allowed to be stolen or destroyed.

Recommendations

- The Parks Department must require that all work performed in the cemeteries on monuments, fences, or walls be conducted or overseen by a trained conservator who subscribes to the Guidelines for Practice and Code of Ethics of the American Institute for Conservation of Historic and Artistic Works (AIC).

- While a stone-by-stone assessment might further refine stone treatment priorities, there are at least 684 monuments at City and Rest Haven cemeteries that require conservation treatment.

- The cleaning of the worst soiled stones in the cemeteries using D/2 Biological Solution should be undertaken by volunteers. This will dramatically improve overall appearance and provide a very visible improvement to the landscape of the two cemeteries.

- Three plot fences in the two cemeteries are structurally stable, but require caulking, priming, and painting. These should be given a very high priority to prevent further deterioration and increased costs of treatment.

- Ten plot fences in the cemeteries are unstable and require extensive rehabilitation prior to painting. Each of these fences should receive detailed conservation assessments to determine appropriate treatments.

Funding and Priorities

Past decisions, or lack of decisions, have created what can only be described as an extremely dire situation with large sections of crumbling stone walls, four-fifths of the monuments requiring immediate intervention, and most family plot fences requiring attention before they collapse.

Without doubt the one extraordinarily bright spot in this situation is our impression that the City desires to do the best possible job in caring for and preserving these properties.

But, the long-term prognosis for the cemeteries is entirely dependent on the actions taken by the Battlefield Preservation Commission and the recommendations offered to the Mayor and Aldermen over the next several years to support and sustain preservation efforts.

Those actions must be carefully formulated and designed to make substantive changes and promote long-term preservation. Most critically, these preservation efforts will require substantial allocations of funds. We estimate that the conservation of the monuments alone will require over $700,000.

Recommended Priorities

Many municipalities or caregiver groups seem inexplicably out of touch with the problems facing their cemeteries. In the case of City and Rest Haven cemeteries, the City clearly identified many of the main issues, for example noting that "stone/marker preservation – physical structure preservations (i.e., dry stack stone walls, iron work)" were among the most critical issues, followed by "proper maintenance/care." It is refreshing to work with a group that already has a very clear understanding of critical preservation concerns. We hope this study will help refine those concerns.

It is our professional view, based on the questionnaire responses, considerable research, three-days on-site, and several meetings that the five fundamental needs of City and Rest Haven cemeteries are:

1. Improved maintenance operations at the two cemeteries.

   The most beneficial change would be assigning at least three maintenance staff – a crew chief and two technicians – to full-time maintenance of the cemeteries. These individuals would be on-site 5 days a week, 12 months a year.

   These individuals would be responsible for far more than mowing – although we recommend that the use of large deck mowers be eliminated in favor of smaller mowers likely to do less damage. This staff would be responsible for weed control, tree trimming, pruning, seasonal cleanup, conducting section inspections, survey of monuments for maintenance needs, rehabilitation of barren areas, raking, resetting stones as needed, inspecting and repairing fences, watering newly planted areas, sodding as necessary, identification of trees for removal, removal of flowers and grave decorations, and removal of wild growth.

   Other issues include the addition of water bibs at the entrances of each cemetery since these are critical for turf improvements.

2. Reduction of the pervious boundaries at the two cemeteries.

While cemeteries must not appear as fortresses, they must also have clearly defined boundaries. At both cemeteries this means the stone walls are repaired. At City Cemetery the chain link fence along the northern boundary must be repaired. At Rest Haven Cemetery a chain link fence must be erected along its western boundary. Also important is the effort to soften this western boundary by plantings to minimize the visual intrusion of Hillsboro Road.

A critical component of this work is the repair of the iron gates present at both cemeteries. None of these gates is operable and repair will require their removal, repair, painting, and remounting.

3. Repair the plot fences at both City and Rest Haven cemeteries.

   For some fences all that is needed is careful caulking and painting. Others, however, require creating "ghost" sections to provide structural stability, removal of bottom rails from the soil, and other repairs prior to painting.

4. Begin conservation treatments on the 80% of the monuments in the two cemeteries.

   Some of this work can be accomplished by volunteers or staff, such as resetting of smaller monuments and cleaning of stones prior to their recordation. Other work, such as repair of broken stones and the reconstruction of box and table tombs will require a stone conservator.

   Many of these monuments are a threat not simply to themselves and other monuments, but also to the public. Moreover, many of the monuments have been allowed to deteriorate to the point where intervention is required immediately; waiting for another several years will be too long.
   We understand that the Parks Department wishes to train their staff in these more complex repairs. To accomplish this will require at least three weeks of intensive training, as well as the City's investment in suitable equipment and supplies.

5. Erecting regulatory signs at the two cemeteries.

   While signage seems to be a relatively small concern, we view it as necessary for the City to fully take ownership of these cemeteries and inform the public that there are clear rules and regulations for these historic resources, just as there are for other historic properties in the community.

But even if there is considerable agreement concerning what needs to be done, it is often difficult to prioritize all of the actions necessary to achieve those goals. It is also easy to become distracted as other problems occur. Assigning a permanent staff to the cemeteries will help combat some of this distraction since there will be individuals consistently responsible for the condition and appearance of the cemeteries.

Table 6 lists the recommendations offered throughout this assessment, classifying them as an *organizational need, a first priority, a second priority, or a third priority*.

Organizational needs are rules, policies, or procedural issues that can be quickly resolved by either the Mayor and Aldermen or the Director of the Parks Department. These organizational needs require little or no funding, but do demand a philosophical change in how the cemeteries are operated. They must be enacted as a foundation upon which other changes are constructed. We strongly believe that most cemetery projects fail through inadequate or inappropriate planning – thus, we recommend in the strongest possible terms that the City of Franklin engage in the necessary planning to help ensure success.

First priorities are those we recommend undertaking during the coming fiscal or calendar year (2015). Some are issues that have the potential to affect the public health and safety and consequently require immediate attention.

Second priorities are those that should be budgeted for over the next 2 to 3 years (2016-2017). They represent urgent issues that, if ignored, will result in both significant and noticeable deterioration of the two cemeteries as historic resources.

Third priorities are those that may be postponed for 4 to 5 years (2018-2019), or alternatively, may require 3 to 5 years to see fruition. They are issues that can wait for appropriations to build up to allow action. Some actions are also less significant undertakings that require other stages to be in place in order to make them feasible or likely to be successful. Although they are given this lower priority they should not be dismissed as trivial or unimportant.

Within these four categories, the individual items are not ranked, as all are essentially equal in importance.

It is likely that some of these recommendations will not be achievable in the five years allotted for this plan. That does not mean that the issues will no longer be of consequence or will not still be critical for the survival of City and Rest Haven cemeteries. What it does mean is that after 5 years we recommend sitting down and re-evaluating what has been achieved, what still needs to be done, and determine how to move forward.

Where appropriate, we note that some actions may be suitable for volunteers. We typically do not provide cost estimates since these vary so dramatically from location to location. In addition, costs depend on whether actions are contracted out or conducted in-house. There may also be activities that can be facilitated by other governmental entities with no direct costs.

Although we have not identified per item costs, we have previously remarked that stone repairs may cost in excess of $700,000. Some of these repairs can be conducted by trained staff. If the City would like to consider this option, it would cost about $35,000 for a three-week hands-on training program where Chicora staff works with City staff to repair a variety of the monuments at the cemeteries. The work would cover a range of the different repair techniques previously described and Chicora would provide the initial supplies, such as D/2 Biological Solution, NHL mortar, epoxies, fiberglass and stainless steel pins. The City would be provided with a list of necessary equipment, such as generator, hoses, extension cords, air compressor, drills, and a water source. During the three weeks Chicora would continue to refine and specify additional materials that the City would need to continue the repair process.

This program would provide critical skills to City staff. Perhaps equally important, it would allow the City to make a better informed determination of whether it has the staff time and wishes to invest in the tools and equipment to continue this process.

We believe a period of three weeks is the minimum amount of time necessary to expose the staff to the techniques and procedures necessary to address the range of stone problems in the two cemeteries. We anticipate that staff would be present five days a week, 8 hours a day.

Table 6.
Prioritization of Recommendations

Priority	Action	Notes
Organizational	0.1 A joint meeting of Park staff and the Battlefield Preservation Commission should be devoted to a careful review of the Secretary of Interior Standards. The caregivers should focus on a fuller understanding of how daily operations affect the long-term preservation of the cemeteries, making necessary adjustments to current policies and procedures.	
	0.2 The City should prepare a disaster plan to cover events such as flooding, tornadoes, and other events.	
	0.3 Modifications of proposed regulations include a specific flower policy for the cemeteries. Otherwise the proposed regulations are excellent and should be adopted by Board of Mayor and Aldermen as expeditiously as possible.	
	0.4 The brochure QR codes are an excellent promotional tool; the City should ensure they link correctly with the City web site.	
	0.5 The City should begin integrating additional community activities at Rest Haven and City cemeteries in order to increase visitation and support. Initially at least one activity a month should be planned and within two or three years several activities per month should be sustainable.	
	0.6 The cemeteries should receive a line-item budget allocation commensurate with their needs and the special care that they will require.	
	0.7 All future modifications at the cemeteries should be evaluated for their impact on universal access. Universal access should be a goal whenever possible.	
	0.8 While evidence of vandalism exists in both cemeteries, it is difficult to determine the extent of the problem. The City should, however, review options to combat vandalism and determine which could be implemented to help harden the cemeteries against vandalism.	
	0.9 The City should begin using a form to identify and record evidence of vandalism specific to the cemeteries.	Form provided
	0.10 Homelessness may currently not be a significant cemetery issue, but the City should periodically review the situation. In particular, evidence of inappropriate use of the cemetery must not be overlooked.	
	0.11 The City should not allow the introduction of benches, urns, or vases in the cemeteries.	
	0.12 The City should also be careful to prevent other introductions that are out of character with the historic cemeteries such as flag poles or grave decorations.	

Table 6.
Prioritization of Recommendations continued.

Priority	Action	Notes
Organizational, continued	0.13 The introduction of new memorials must be very carefully monitored and limited. New monuments should be allowed only when the historic monument is no longer legible. In such cases, the original monument must remain and a new flush marker with the precise language of the original marker erected as a lawn marker flush to the ground.	
	0.14 New monuments, marking new burials (if any are allowed) should match existing markers in size, material, and design. If this is not possible, then new markers should be limited to gray granite. Preferably these new markers should be erected as a lawn marker flush to the ground.	
	0.15 The Cemetery Landscape Manager should make monthly written reports to the City regarding activities and conditions at City and Rest Haven cemeteries.	
	0.16 The City should ensure that their employee Code of Conduct includes specific references to appropriate cemetery behavior, such as not sitting or leaning on monuments, or leaning equipment against monuments.	
	0.17 The City should prohibit the creation of graveled plots.	
	0.18 A sign theme should be developed for the cemeteries using consistent colors and type faces.	
	0.19 The City should periodically evaluate whether it would be appropriate to establish a policy that allows staff to remove all “temporary objects” on graves or in plots when they become withered, unsightly, or an obstruction to maintenance.	
	0.20 The City must require that all work performed in the cemeteries on monuments, fences, or walls be conducted or overseen by a trained conservator who subscribes to the Guidelines for Practice and Code of Ethics of the American Institute for Conservation of Historic and Artistic Works (AIC).	
	0.21 Any installation of pathways in the cemeteries will require archaeological investigations.	
	0.22 All pruning within the cemeteries should be performed by an ISA Certified Arborist, preferably one who is also an ISA Certified Tree Worker/Climber Specialist. We have provided a list of ISA Certified Arborists for the City to use if necessary.	
	0.23 All trees must be inspected by an ISA Certified Arborist on a yearly basis and after any significant wind storm.	
	0.24 Trees to be planted in the cemeteries must be carefully identified to be historically appropriate and to avoid significant issues such as surface roots, excessive litter, or weak structure.	List provided

Table 6.
Prioritization of Recommendations, continued

Priority	Action	Notes
Organizational, continued	0.25 Every tree removed should be replaced by a new tree. It is also appropriate to plant replacement trees in anticipation of their need.	
	0.26 All replacement trees or new plantings should be at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). All nursery stock should be carefully inspected prior to acceptance and planting.	
	0.28 All new plantings should have water bags and rigid tree guards installed.	
1st Priority (2015)	1.1 The City should establish a dedicated cemetery maintenance staff with a Cemetery Landscape Manager and two Cemetery Landscape Technicians.	
	1.2 Landscape technician activities require a great deal of oversight and the Cemetery Landscape Manager should be on-site during all maintenance activities.	
	1.3 The Cemetery Landscape Manager must exhibit interest in continuing education. We recommend membership in landcare organizations such as PLANET or other similar groups, in addition to the Professional Grounds Maintenance Society.	
	1.4 The City should not only provide educational opportunities to its employees to become certified in landscape areas, but must insist on continuing education as a condition of continuing employment.	
	1.5 The cemeteries require a combined identification and regulatory sign placed at each entrance.	Example provided
	1.6 Obsolete signage at each cemetery entrance should be removed.	
	1.7 The cemeteries will need additional trash containers once Bicentennial Park becomes operational.	
	1.8 The cleaning of the worst soiled stones in the cemeteries using D/2 Biological Solution should be undertaken by volunteers.	
	1.9 The current on-street parking for both cemeteries is acceptable if visitation stays at the current levels.	
	1.10 The use of large deck mowers in both cemeteries is problematical and only 21-inch walk behind mowers should be used where monuments are clustered; open areas may have larger mowers used.	

Table 6.
Prioritization of Recommendations, continued

Priority	Action	Notes
1st Priority, continued	1.11 All mowers must have closed cell foam bumpers installed. These must be replaced as needed. Operators with excessive wear on the bumpers should be given remedial training and instruction.	
	1.12 Mowing must be conducted with sufficient frequency to maintain turf at a height of about 2-inches in cool weather and 3-inches during the growing season.	
	1.13 The line weight used on trimmers is too heavy. We recommend a line no greater than 0.065-inch.	
	1.14 Grass clippings should continue to be blown off all monuments after every mowing or trimming.	
	1.15 All trees removed should have their stumps cut flush with the ground. Stump grinders should not be used.	
	1.37 While a stone-by-stone assessment might further refine stone treatment priorities, there are at least 684 monuments at City and Rest Haven cemeteries that require conservation treatment. While work should begin on critical stones, the repairs will likely span 3-5 years.	
	1.16 About 190 linear feet of the stone wall requires repair. Most of this involves resetting of the angled laminar top stones, although several wall sections do require rebuilding.	City Cemetery
	1.17 The west drive gates should be operable. This will involve removing them from the soil, repairing the bottom rails and pickets, and resetting the gates properly, replacing the lost pivots and repairing pivot arms.	City Cemetery
	1.18 The south pedestrian gate should be removed from the soil and further evaluated for needed repairs.	City Cemetery
	1.19 All boundary gates should be painted, using either an appropriate primer and top coat as specified if there is remnant paint, or using Rust Oleum Rust Reformer and top coats where only bare metal is present.	City Cemetery
	1.20 We do not recommend the replacement of the east drive gate, although the missing stroup should be reset. If it must be replaced, we recommend that it be modeled after the southern pedestrian gate, which we believe dates to at least the nineteenth century.	City Cemetery
	1.21 All weedy plants and vines must be removed from cemetery shrubs. These shrubs must be inspected on at least a yearly basis to ensure they remain clear of intrusive vegetation.	City Cemetery

Table 6.
Prioritization of Recommendations, continued

Priority	Action	Notes
1st Priority, continued	1.22 Weedy plants and vines must also be removed from around stones and within box tombs. An herbicide should be applied to cut stumps to eliminate new sprouts.	City Cemetery
	1.23 All of the vegetation under 4-inches dbh along the northern chain link fence should be removed, including trees that have grown into the fence.	City Cemetery
	1.24 A 10 foot clear zone should be establish on either side of this fence and overhanging branches should be removed to the fence line.	City Cemetery
	1.25 About 160 linear feet of the chain link fence requires repair or replacement.	City Cemetery
	1.26 The pecan tree should be inspected by a certified arborist since it exhibits several problems and may require specific treatment to ensure its continued health.	City Cemetery
	1.27 The pecan tree requires pruning to remove dead wood and to raise the crown.	City Cemetery
	1.28 About 570 linear feet of stone wall at Rest Haven requires repair. About 300 linear feet will involve primarily the resetting of the angled laminar top stones. An additional 270 linear feet, however, will involve extensive rebuilding of the wall.	Rest Haven Cemetery
	1.29 All gates should be made operable. This will involve removing them from the soil, repairing the bottom rails, straightening pickets, and resetting the gates properly, replacing or repairing hinges and column mounts.	Rest haven Cemetery
	1.30 All boundary gates should be painted, using an appropriate primer and top coat as specified.	Rest Haven Cemetery
	1.31 About 600 feet of higher security industrial chain link as specified should be erected along the western cemetery boundary.	Rest Haven Cemetery
	1.32 This fence and the proposed parking on Hillsboro Road must be visually screened from the cemetery to prevent a visual intrusion.	Rest Haven Cemetery
	1.33 The parking on Hillsboro Road must not be allowed to create pedestrian wear at the entry into the cemetery.	Rest Haven Cemetery
	1.34 Weedy plants and vines must be removed from trees, around stones, and from fences. An herbicide should be applied to cut stumps to eliminate new sprouts.	Rest Haven Cemetery

Table 6.
Prioritization of Recommendations, continued

Priority	Action	Notes
1st Priority, continued	1.35 The sidewalk turning off Hillsboro Road on the north side of Margin Street should be removed since it currently dumps pedestrians directly into the cemetery.	Rest Haven Cemetery
	1.36 The magnolia tree at the east edge of the cemetery should be inspected by a certified arborist since it exhibits several problems and may require removal.	Rest Haven Cemetery
	1.37 Sprinklers wetting the north wall must be relocated and/or adjusted to prevent the limestone walls from being wetted. The sprinkler head in the middle of the north entrance must also be moved.	Rest Haven Cemetery
2nd Priority (2016-2017)	2.1 All plot gates should have stainless steel cabling used to attach the gate to the hinge post to reduce the potential for theft.	
	2.2 Soil tests indicate that the major issue at the two cemeteries is the low pH. This should be rectified by liming the two cemeteries and testing the soils again in a year. If fertilizers are added, they should be organic in order to minimize salt levels.	Specifications provided
	2.3 Additional soil tests should be conducted in 2015, after liming, to determine if additional treatments or fertilization are needed.	
	2.4 All cemetery trees must be pruned to remove dead wood at no greater than five year intervals.	
	2.5 "Orphan" stones should be documented using a form and collected for short-term safe keeping until their appropriate location is identified through research. In so far as possible, stones should not be allowed to become disassociated with their graves as this effectively loses the grave location.	
	2.6 Three plot fences in the two cemeteries are structurally stable, but require caulking, priming, and painting.	
	2.7 The City should place bollards at drive gate entrances to prevent vehicle entry.	
	2.8 Older, mature trees in the cemeteries should have turf removed from under their drip lines and 3-inches of mulch installed.	
	2.9 Scalping of the grass must be prevented by more careful grave filling and seeding after all graves have been mapped.	
	2.10 The cemetery turf exhibits extensive weed invasion. The City should institute a weed control program, using preemergent and postemergent herbicides.	

Table 6.
Prioritization of Recommendations, continued

Priority	Action	Notes
2nd Priority (2016-2017) Continued	2.11 The 1916 gate columns require pointing using a softer mortar than the existing Portland cement mortar.	City Cemetery
	2.12 The east entrance gate columns require extensive pointing using a 1:2.5 mix of gray NHL 5 and sand.	Rest Haven Cemetery
	2.13 The east entrance flanker walls require rebuilding.	Rest Haven Cemetery
	2.14 Existing brass signs in Rest Haven Cemetery either should be removed entirely or reset flush to the ground on concrete pads.	Rest Haven Cemetery
3rd Priority (2018-2019)	3.1 Historic research should focus on the newspaper and city records to obtain a fuller understanding of the cemeteries and their use.	
	3.2 Future consideration should be given to establishing grass tracks underlain by a reinforcing system to achieve ADA compliance on selected pathways of appropriate widths and road access.	
	3.3 Ten plot fences in the cemeteries are unstable and require extensive rehabilitation prior to painting. Each of these fences should receive detailed conservation assessments to determine appropriate treatments.	
	3.4 The southern pedestrian gate should be locked closed since there are no sidewalks or other convenient pedestrian access routes along the south.	
	3.5 All boundary fence lines should be inspected by the City on a yearly basis to ensure their maintenance.	
	3.6 Lawn renovation should be undertaken to promote a pure stand of fescue at the cemeteries.	
	3.7 Plot curbs or coping throughout the cemeteries are in deteriorating condition. The repair of these curbs must be viewed as routine maintenance and must be integrated into the maintenance plan.	
	3.8 The cemetery requires the installation of hose bibs at the three entrances both for landscape maintenance and also stone cleaning.	City Cemetery
	3.9 The cemetery requires the installation of hose bibs at the two entrances both for landscape maintenance and also stone cleaning.	Rest Haven Cemetery

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