

**ROAD IMPACT FEE OFFSET AGREEMENT  
COF CONTRACT No. 2018-0228**

This agreement is entered into between **THE CITY OF FRANKLIN, TENNESSEE** (“City”) and **Embrey Partners Ltd.**, (“Developer”), on this the \_\_\_\_\_ day of \_\_\_\_\_, 2018, pursuant to Title 16, Chapter 4 of the Franklin Municipal Code (“FMC”).

**WHEREAS**, the Developer has previously submitted to the Franklin Municipal Planning Commission a Development Plan for Carothers Crossing West PUD Subdivision (the “Development Project”); and

**WHEREAS**, the City has required the Developer to design and construct certain 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 estimated Arterial Impact Fees to be generated by the development is ONE MILLION THIRTY-SIX THOUSAND TWO HUNDRED NINETY-SIX AND 00/100 DOLLARS (\$1,036,296.00) (333 multi-family units at \$3,112/single-family home) 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 Road Impact Fee Administrator (City Engineer) on September 26, 2018, to be Two Hundred Forty-Nine Thousand Three Hundred Fifty-Eight and 30/100 Dollars (\$249,358.30), as shown on Exhibit A.

**NOW THEREFORE**, the City and the Developer, their successors and assigns, 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, as shown in Exhibit A, related to the costs of construction of the following arterial roadway improvements and/or works:

**Liberty Pike**

The total estimated costs of engineering/design, right-of-way and construction of the Improvements is **Two Hundred Forty-Nine Thousand Three Hundred Fifty-Eight and 30/100 Dollars (\$249,358.30)** for the Development Project and the total reimbursement to the Developer is **the same amount**. The following costs are specifically excluded: fiscal cost, including interest of money borrowed to finance the construction, cost for utility relocations, turn lanes, internal management fees and signals improvements that benefit solely the development and not the arterial roadway. **At no time shall reimbursement exceed the Arterial Impact Fees collected as part of the Development Project.**

3. The Developer shall be responsible for obtaining all offsite right-of-way and easements associated with the offsite arterial improvements. Should negotiations fail, the City agrees to acquire the right-of-way and easements necessary for the Arterial Roadway Improvements as shown in Exhibit A.

4. The City Engineer shall review and approve all design contracts, ROW acquisition offers, and construction bids prior to the spending of any funding in which the Developer is seeking reimbursement from the City. The Developer agrees that failure to obtain contract approval from the City Engineer may result in loss of City funding / reimbursement.
5. The Developer may submit periodic invoices to the City during the course of construction (not more frequently than every ninety (90) days), which invoices shall be payable within thirty (30) days after approval by the Road Impact Fee Administrator (City Engineer), subject to collected impact fees and paragraph 3 above. Invoices shall include copies of approved contracts and invoices associated with the arterial roadway improvements and copies of checks to show proof of payment.
6. Within 60 days of completion and acceptance of the improvements, the Developer and the City shall settle on a final billing. The Developer will provide reasonable documentation for all such cost and provide notarized release of liens.
7. The City and Developer agree that the terms and conditions contained herein shall be binding on and shall inure to their heirs, representatives, successors, and assigns and that there are no understandings or agreements between them except as contained in this instrument.
8. The City shall have no liability except as specifically provided in this Agreement.
9. Applicable Law/Choice of Forum and Venue. This Agreement is made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to that state's choice of law rules. The parties' choice for forum and venue shall be exclusively in the courts of Williamson County, Tennessee.
10. Entire Agreement. This Agreement together with its exhibit(s) constitutes the entire agreement between the parties and may not be modified except as by a written agreement by both parties.

**Approved by the Franklin Board of Mayor and Aldermen on \_\_\_\_\_, 201\_\_.**

**(Signatures on pages 3 and 4)**

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: \_\_\_\_\_

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:

\_\_\_\_\_  
Tiffani M. Pope, Staff Attorney



October 19, 2018

Mr. Paul Holzen  
Director of Engineering  
City of Franklin, Tennessee  
109 3<sup>rd</sup> Avenue South  
Franklin, Tennessee 37064

**RE:   *Road Impact Fee Offset Agreement Request  
Carothers Crossing West  
Northwest Corner of Carothers Parkway and Liberty Pike***

Dear Paul,

Please consider this formal request for a road impact fee offset for the Carothers Crossing West Mixed Use Development located at the northwest corner of Carothers Parkway and Liberty Pike. This fee offset is estimated below and includes the costs associated with the extension of the eastbound left turn lane on Liberty Pike. The left turn lane extension has already been approved with another Development Plan, therefore the design fees are not included as part of this request. In addition, costs associated with the right-of-way dedication for Carothers Parkway (arterial roadway) right-of-way have been included with the estimate below.

The proposed development, Carothers Crossing West, consists of a mixed-use development. Phase one includes four multi-family buildings of 333 units by Embrey Partners Ltd. (Embrey). Through an agreement between Embrey and Southstar, the co-developer of Carothers Crossing West, Embrey will be responsible for constructing the offsite improvements outlined in this request. Therefore, the roadway impact fee offset request is for Embrey and the full design will be shown on Embrey’s Site Plan, assuming the Development Plan is approved. Preliminary estimates of the anticipated Arterial Roadway Impact fees for this development have been estimated using the City of Franklin Road Impact Fees Outline totaling \$1,036,296.00. The fees required by the City of Franklin for the Road Impact fee have not yet been paid to the City of Franklin, but will be paid prior to plat recordation. We propose that the required roadway impact fees be reimbursed by the amount provided below after payment of roadway impact fees and documentation of work completed and ROW dedicated.

Left Turn Lane Extension on Liberty Pike	\$149,358.30
R.O.W. Dedication Fee (0.113 Acres)	<u>\$100,000.00</u>
	\$249,358.30

TOTAL IMPACT FEE OFFSET ESTIMATE - \$249,358.30

The ROW dedication fee outlined above was based upon the recent appraisal performed by Boozer and Company, P.C. The appraisal and location of ROW dedication are attached to this letter for review. The cost for the Left Turn Lane Extension along Liberty Pike is based on cost estimates provided by the City of Franklin which are attached to this letter.



*Mr. Holzen, October 19, 2018, Page 2 of 2*

The total anticipated cost of these improvements does not exceed the Arterial Roadway Impact Fee estimate. As a result, we are requesting the roadway impact fees be reimbursed by the above costs associated with the left turn lane extension and ROW dedication, shown as \$249,358.30.

Please contact me at (615) 800-4004 or [mary.mcgowan@kimley-horn.com](mailto:mary.mcgowan@kimley-horn.com) should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Mary McGowan".

Mary McGowan, P.E.

Attachments: Boozer and Company Appraisal  
ROW and Access Plan from Development Plan Submittal  
City of Franklin Cost Estimate for Left Turn Lane Extension

# EXHIBIT A

Contractor Item No.	TDOT Line Item Information			Unit Pricing Comparison			Unit Price (Engineer)	Quantity	Ext. Amount
	Item No.	TDOT Description	Unit	TDOT (2017)	TDOT + 15%	COF (2018)			
10	105-01	Construction Stakes, Lines and Grades	LS	N/A	N/A	N/A	\$ 15,000.00	1	\$ 15,000.00
30	202-03.01	Removal of Asphalt Pavement	SY	\$ 12.00	\$ 13.80	\$ 27.00	\$ 30.00	321	\$ 9,630.00
40	202-03	Removal of Ridge Pavement, Sidewalk, Etc.	SY	\$ 12.00	\$ 13.80	\$ 36.00	\$ 30.00	267	\$ 8,010.00
50	203-01	Road & Drainage Excavation (Unclassified)	CY	\$ 9.00	\$ 10.35	\$ 3.50	\$ 25.00	317	\$ 7,925.00
60	203-05	Undercutting	CY	\$ 29.00	\$ 33.35	\$ 55.00	\$ 50.00	135	\$ 6,750.00
70	203-04	Placing and Spreading Topsoil	CY	\$ 7.00	\$ 8.05	N/A	\$ 25.00	25	\$ 625.00
80	209-08.03	Temporary Silt Fence (Without Backing)	LF	\$ 2.00	\$ 2.30	N/A	\$ 3.00	300	\$ 900.00
100	209-09.35/37	Silt Saver/Sack Inlet Protection	EACH	N/A	N/A	N/A	\$ 385.00	1	\$ 385.00
110	303-01	Mineral Aggregate, Type A Base, Grading D	TON	\$ 22.00	\$ 25.30	\$ 10.00	\$ 25.00	276	\$ 6,900.00
120	307-02.01	AC Mix (PG70-22) (BPMB-HM) Grading A	TON	\$ 69.00	\$ 79.35	\$ 60.00	\$ 120.00	80	\$ 9,600.00
130	307-01.21	AC Mix (PG70-22) (BPMB-HM) Grading A-S	TON	\$ 64.00	\$ 73.60	N/A	\$ 120.00	80	\$ 9,600.00
140	307-02.08	AC Mix (PG70-22) (BPMB-HM) Grading B-M2	TON	\$ 75.00	\$ 86.25	\$ 82.00	\$ 140.00	42	\$ 5,880.00
150	402-01	Bituminous Material for Prime Coat (PC)	TON	\$ 683.00	\$ 785.45	\$ 200.00	\$ 1,000.00	1	\$ 1,000.00
160	402-02	Aggregate for Cover Material (PC)	TON	\$ 45.00	\$ 51.75	\$ 15.00	\$ 50.00	18	\$ 900.00
170	403-01	Bituminous Material for Tack Coat (TC)	TON	\$ 606.00	\$ 696.90	\$ 1,100.00	\$ 1,000.00	2	\$ 2,000.00
180	411-02.10	ACS Mix (PG70-22) Grading D	TON	\$ 85.00	\$ 97.75	\$ 102.00	\$ 100.00	130	\$ 13,000.00
190	415-01.02	Cold Planing Bituminous Pavement	SY	\$ 2.00	\$ 2.30	N/A	\$ 3.00	1182	\$ 3,546.00
280	611-09.01	Adjustment of Existing Catchbasin	EACH	N/A	N/A	N/A	\$ 2,500.00	1	\$ 2,500.00
290	611-09.02	Rework Catchbasin	EACH	N/A	N/A	N/A	\$ 1,500.00	1	\$ 1,500.00
350	702-03	Concrete Combined Curb & Gutter	CY	\$ 323.00	\$ 371.45	\$ 2.85	\$ 400.00	26	\$ 10,400.00
360	710-02	Aggregate Underdrains (With Pipe)	LF	\$ 6.00	\$ 6.90	N/A	\$ 25.00	300	\$ 7,500.00
370	712-01	Traffic Control	LS	N/A	N/A	N/A	\$ 10,000.00	1	\$ 10,000.00
380	712-04.01	Flexible Drums (Channelizing)	EACH	\$ 27.00	\$ 31.05	N/A	\$ 35.00	12	\$ 420.00
390	712-06	Signs (Construction)	S.F.	\$ 8.00	\$ 9.20	N/A	\$ 10.00	90	\$ 900.00
420	716-12.01	Enhanced Flatline Thermo Pvmt Mrkng (4IN Line)	LM	\$ 3,326.00	\$ 3,824.90	\$ 4,200.00	\$ 5,000.00	0.3	\$ 1,500.00
430	716-02.04	Plastic Pavement Marking (Channelization Striping)	SY	\$ 18.00	\$ 20.70	N/A	\$ 50.00	50	\$ 2,500.00
450	716-02.06	Plastic Pavement Marking (Turn Lane Arrow)	EACH	\$ 150.00	\$ 172.50	N/A	\$ 375.00	2	\$ 750.00
460	716-04.13	Plastic Pavement Marking (Bike Lane Symbol & Arrow)	EACH	\$ 381.00	\$ 438.15	N/A	\$ 375.00	2	\$ 750.00
480	716-05.01	Painted Pavement Marking (4" Line)	LM	\$ 805.00	\$ 925.75	\$ 2,200.00	\$ 2,500.00	0.1	\$ 250.00
510	801-03	Water (Seeding & Sodding)	MG	\$ 23.00	\$ 26.45	N/A	\$ 25.00	5	\$ 125.00
520	803-01	Sodding (New Sod)	SY	\$ 4.00	\$ 4.60	N/A	\$ 15.00	100	\$ 1,500.00
490	717-01	Mobilization	LS	N/A	N/A	N/A	N/A	1	\$7,112.30
TOTAL:									\$ 149,358.30

# CITY OF FRANKLIN

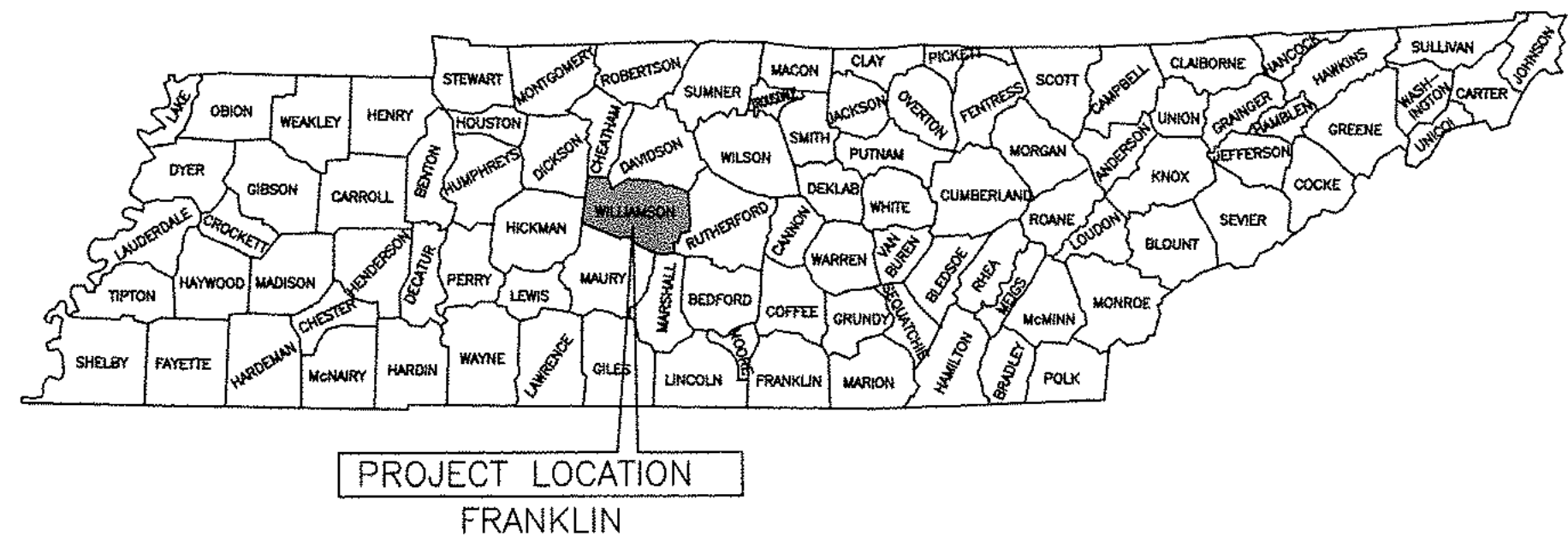
## DEPARTMENT OF ENGINEERING

### LIBERTY PIKE WIDENING

### CAROTHERS PKWY TO EAST OF KNOLL TOP LANE

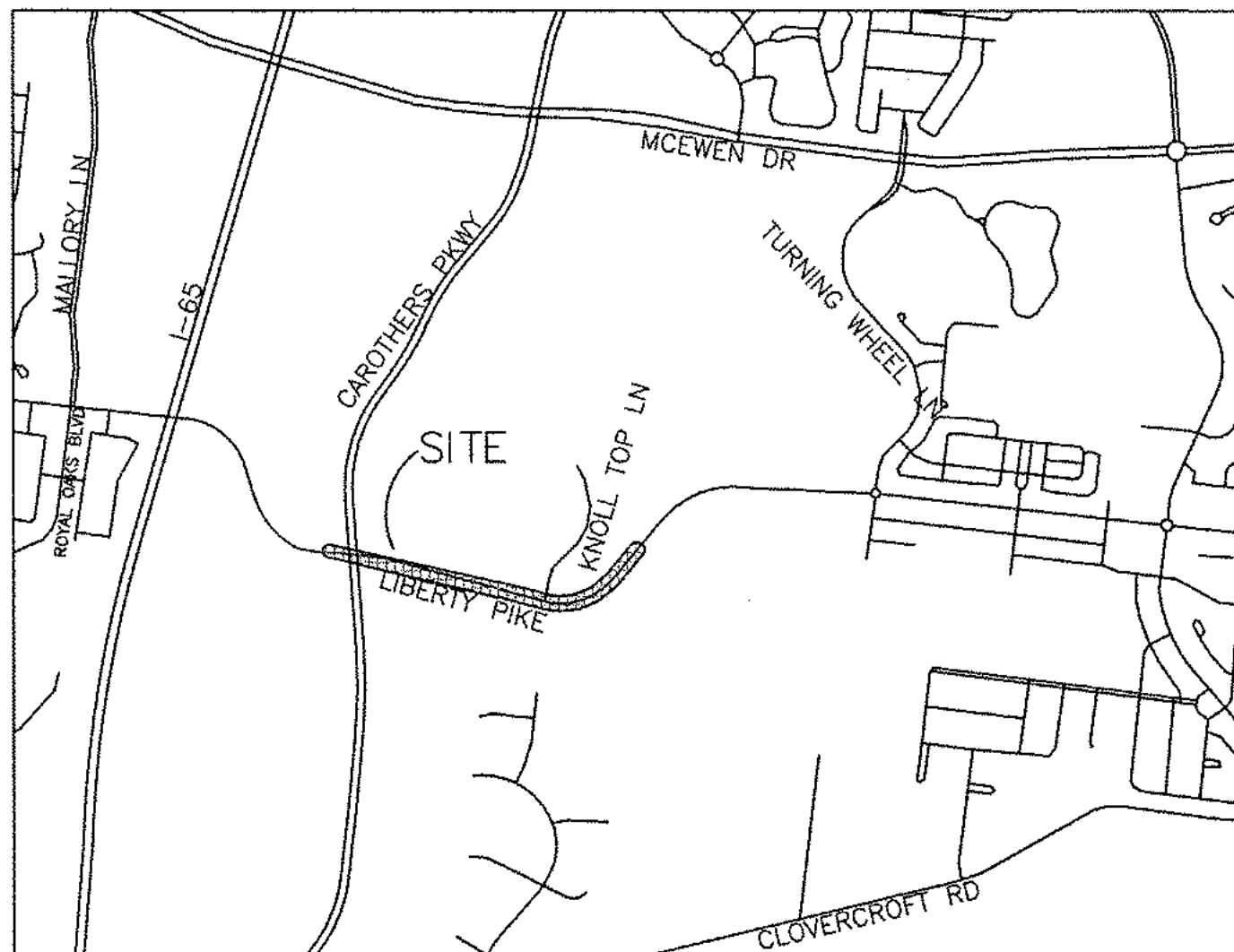
### APPROXIMATE LENGTH 0.38 MILES

### COF Project No. 6787



## INDEX OF DRAWINGS

SHEET NAME:	SHEET NO.
COVER SHEET	1
TYPICAL SECTIONS AND DRAINAGE TABLES	2-2A
GENERAL NOTES	2B
DETAILS	2C-2D
RIGHT OF WAY PLAN	3
EXISTING LAYOUT	4
PLAN AND PROFILE	5-6
LIBERTY PIKE WEST APPROACH	7
UTILITY PLAN	8
PAVEMENT MARKINGS AND SIGNS	9
TRAFFIC CONTROL PLAN	10
INITIAL ESPC PLAN	11
FINAL ESPC PLAN	12
LIBERTY PIKE CROSS SECTIONS	XS1-XS4



SITE LOCATION MAP  
NTS

#### ENGINEERING APPROVAL

FRANKLIN ENGINEERING DEPARTMENT  
CITY HALL  
109 3RD AVE S #142  
FRANKLIN, TN 37064  
PHONE: (615) 791-3218

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

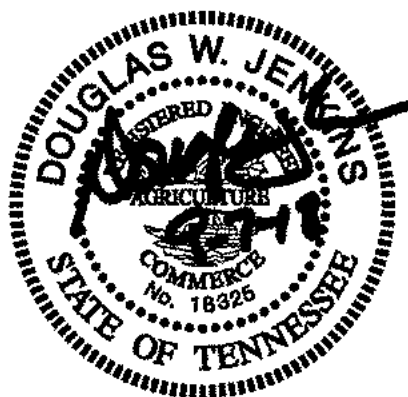
**SEC, Inc.** SITE ENGINEERING CONSULTANTS  
ENGINEERING • SURVEYING • LAND PLANNING

850 MIDDLE TENNESSEE BOULEVARD MURFREESBORO, TENNESSEE 37129

PH (615) 890-7901 DJENKINS@SEC-CIVIL.COM FAX (615) 895-2567

*Douglas W. Jenkins*  
Douglas W. Jenkins, P.E.

**9-7-18**  
Date



KEN MOORE, MAYOR

#### ALDERMEN

BEVERLY BURGER ANN PETERSEN  
DANA MCLENDON CLYDE BARNHILL  
MICHAEL SKINNER BRANDY BLANTON  
MARGARET MARTIN PEARL BRANSFORD

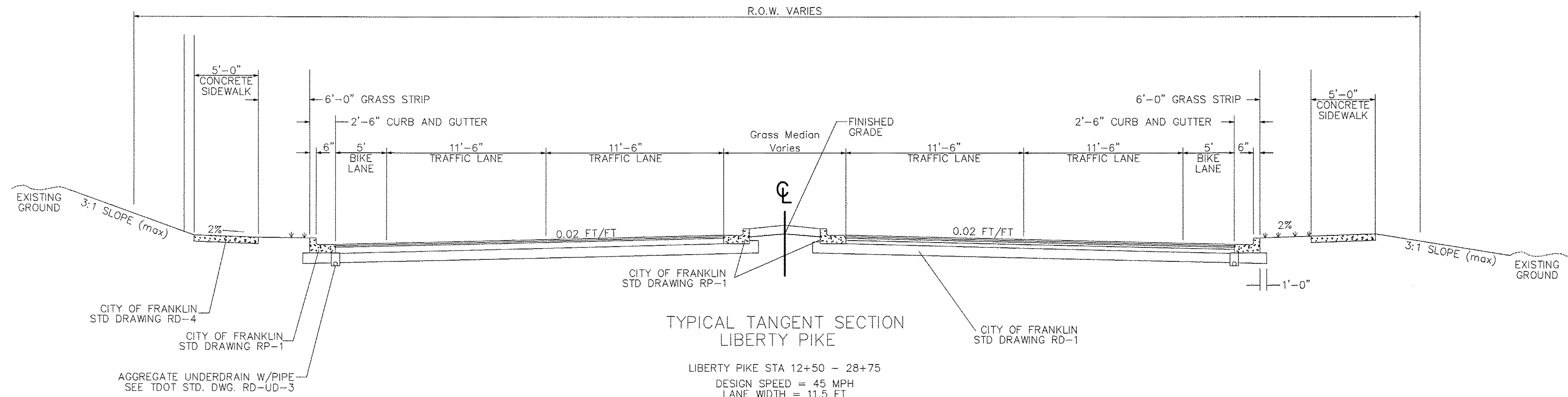
ERIC STUCKEY, CITY ADMINISTRATOR

Plans are based on a survey prepared by Barge Waggoner Sumner and Cannon, Inc. dated for General Issue Nov. 4, 2016. Survey North was based on the Tennessee Coordinate System of 1983(NAD-1983), Elevations are based on NAVD-1988, using GEOID 2003 for orthometric height determination.

Contours on Parcel 40.19 were updated using a survey provided by the City of Franklin. The survey was prepared by Barge Design Solutions, titled "Lot 1 The Standard at Cool Springs" and last revised on 8-14-18. Existing Easements were obtained from a Final Plat for the Waterford Subdivision, recorded in P.B. 55 Pg. 28

LIBERTY PIKE  
SEC# 14432  
MARCH 2017

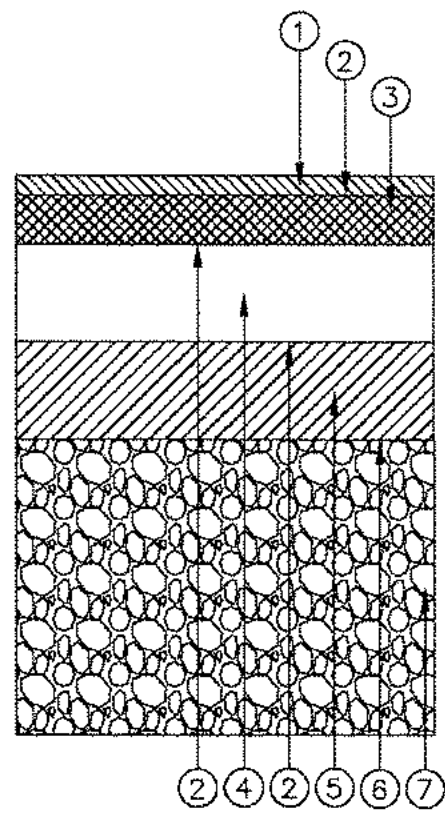




ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	WEST SIDE QUANTITY	EAST SIDE QUANTITY
105-01	STAKES, LINES AND GRADES	LS	0.1	0.80
201-01	CLEARING AND GRUBBING	LS	0	1
202-03.01	REMOVAL OF ASPHALT PAVING	SY	0	2265
202-08.15	REMOVAL OF SIDEWALK & CURB AND GUTTER	SY	57	1130
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	310	5300
203-05	UNDERCUTTING	CY	0	400
203-04	PLACING AND SPREADING TOPSOIL	CY	5	462
209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	LF	0	2074
209-08.09	FILTER SOCK CHECK DAM	EA	0	1
209-09.01	DROP INLET FILTER	EA	1	20
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	260	4986
307-02.01	ASPHALT CONCRETE MIX (PG70-22) GRADING A	TON	55	1377
307-02.02	ASPHALT CONCRETE MIX (PG70-22) GRADING AS	TON	55	1377
307-02.08	ASPHALT CONCRETE MIX (PG70-22) GRADING B-M2	TON	30	750
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	2	10
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	7	34
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	.4	2.3
411-02.10	ACS MIX (PG70-22) GRADING D	TON	125	1188
415-01.01	ASPHALT MILLING	CY	400	2533
604-01.01	CLASS A CONCRETE	CY	0	6
604-01.02	STEEL BAR REINFORCEMENT	LB	0	8
607-02.02	15" CONCRETE PIPE CULVERT (CLASS III)	LF	0	681
607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	LF	0	424
607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	LF	0	243
607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	LF	0	5
611-01.02	48" MANHOLE, 6' - 10' DEPTH	EACH	0	3
	CONNECT TO EXISTING BOX CULVERT	EACH	0	2
	EXISTING BASIN RELOCATED	EACH	1	4
	EXISTING BASIN CASTING REMOVED AND REPLACED	EACH	0	3
611-07.30	ENDWALL 15" RCP	EACH	0	9
611-12.01	#12 SINGLE INLET, 0' - 6' DEPTH	EACH	0	5
611-12.02	#14 DOUBLE INLET, 4' - 10' DEPTH	EACH	0	5
701-01.01	CONCRETE SIDEWALK (4")	SF	0	14982
701-02.01	CONCRETE HANDICAP RAMP	SF	0	420
702-03	CONCRETE COMBINED CURB AND GUTTER	LF	263	5637
710-02	AGGREGATE UNDERDRAIN WITH PIPE	LF	260	3140
712-01	TRAFFIC CONTROL	LS	0.1	0.90
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	8	40
712-06	SIGNS (CONSTRUCTION)	SF	0	112.5
712-07.03	TYPE III BARRICADE	LF	0	
713-16.20	SIGNS (R1-1, R4-7, W4-2R, R6-1R)	EA	0	9
716-02.01	PLASTIC PAVEMENT MARKINGS (4" LINE)	LF	980	8820
716-02.04	PLASTIC PAVEMENT MARKINGS (CHANNELIZATION STRIPING)	SY	0	458
716-02.05	PLASTIC PAVEMENT MARKINGS (24" STOP BAR)	LF	0	45
716-02.06	PLASTIC PAVEMENT MARKINGS (TURN ARROWS)	EA	2	9
716-03.01	PLASTIC PAVEMENT MARKINGS (BIKE LANE SYMBOL)	EA	0	5
716-03.02	PLASTIC PAVEMENT MARKINGS (CROSS WALKS)	SF	0	1350
716-05.01	PAINTED PAVEMENT MARKINGS (4" LINE TEMPORARY)	LF	250	6250
717-01	MOBILIZATION	LS	0.10	0.90
801-01	SEEDING (WITH MULCH)	SY	140	8760
801-03	WATER (SEEDING)	MG		
803-01	SODDING (NEW SOD)	SY	0	0
E-1	RELOCATED LIGHT POLE AND BASE	EA	2	13
E-2	2" SCHEDULE 40 PVC (LIGHTS)	EA	120	1326
E-3	STREET LIGHT JUNCTION BOX	EA	0	10
E-4	3" PVC (W/ 3 INNERDUCTS FOR FIBER OPTIC)	LF	0	1250
E-5	TYPE "A" PULL BOX	EA	0	7
E-6	60F FIBER OPTIC LINE	LF	0	1250

NOTE: PRIOR TO THE INSTALLATION OF THE NEW PAVEMENT SECTION, THE CONTRACTOR SHALL SAWCUT THE EXISTING PAVEMENT AT A LOCATION SUFFICIENT TO INSURE THAT THE INTEGRITY OF THE EXISTING PAVEMENT SECTION IS MAINTAINED. WHERE SOUND PAVEMENT HAS BEEN GOUGED, TORN OR OTHERWISE DAMAGED DURING THE MILLING OPERATIONS OR DAMAGE IS DONE TO ANY OTHER PROPERTY OF ANY KIND INCLUDING UTILITY FRAMES, GRATES, COVERS AND DETECTOR LOOPS, THE CONTRACTOR IS TO MAKE REPAIRS AT NO COST TO THE CITY OF FRANKLIN.



PAVEMENT SCHEDULE

- 1.5" - BITUMINOUS SURFACE COURSE  
411-02.10 ACS MIX (PG70-22) GRADING D
- TACK COAT  
403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) @0.07 GAL/SY (80.10 GAL/SY MILLED SURFACES)
- 2" ASPHALT BINDER (226 LB/SQ. YD.)  
307-02.08 ASPHALT CONCRETE MIX (PG70-22)(BPMB-HM) GRADING B-M2
- 4" ASPHALTIC AGGREGATE BASE BINDER (460 LBS/SQ. YD.)  
307-02.01 ASPHALT CONCRETE MIX (PG70-22)(BPMB-HM) GRADING A
- 4" - ASPHALT AGGREGATE BASE (360 LBS/SQ. YD.)  
307-02.02 ASPHALT CEMENT (PG70-22) BPMB-HM GRADING "A-S"  
307-02.03 AGGREGATE (BPMB-HM) GRADING "A-S"
- PRIME COAT  
402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) @0.30-0.35 GAL/SY  
402-02 AGGREGATE FOR COVER MATERIAL (PC) @8-12LBS/SY
- 12" MINERAL AGGREGATE BASE 303-01 MINERAL  
303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"
- AGGREGATE UNDER DRAINS (W/PIPE)  
(COORDINATE WITH STANDARD TDOT STD. DRAWING RD-UD-3)

- GENERAL NOTES
1. MAXIMUM SIDESLOPE WHETHER IN CUT OR FILL IS TO BE 3:1.
  2. ASPHALT THICKNESSES ARE MINIMUMS. THICKNESSES TO BE DETERMINED BY GEOTECHNICAL DESIGN.
  3. REFERENCE TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
- N.T.S.

CITY OF FRANKLIN

MAJOR AND MINOR ARTERIAL PAVEMENT SECTION

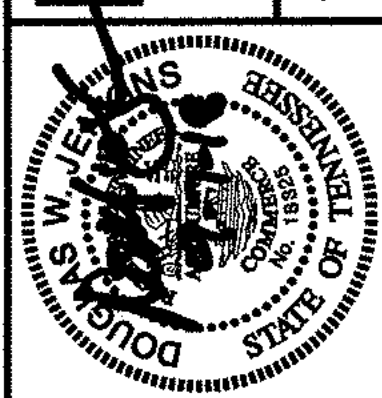
DWG. NO. RD-1

EFFECTIVE DATE: 8/1/2018

*Paul P. [Signature]* 8/1/2018  
CITY ENGINEER DATE

*Adam [Signature]* 8/1/2018  
ASST. DIRECTOR OF ENG. DATE

SITE ENGINEERING CONSULTANTS  
ENGINEERING • SURVEYING • LAND PLANNING  
LANDSCAPE ARCHITECTURE



LIBERTY PIKE WIDENING  
COF Project No. 6787  
Franklin, Tennessee

REVISIONS:  
08-07-18 City Comments

DRAWN: MLG  
DATE: 3-10-17

CHECKED:  
DWJ

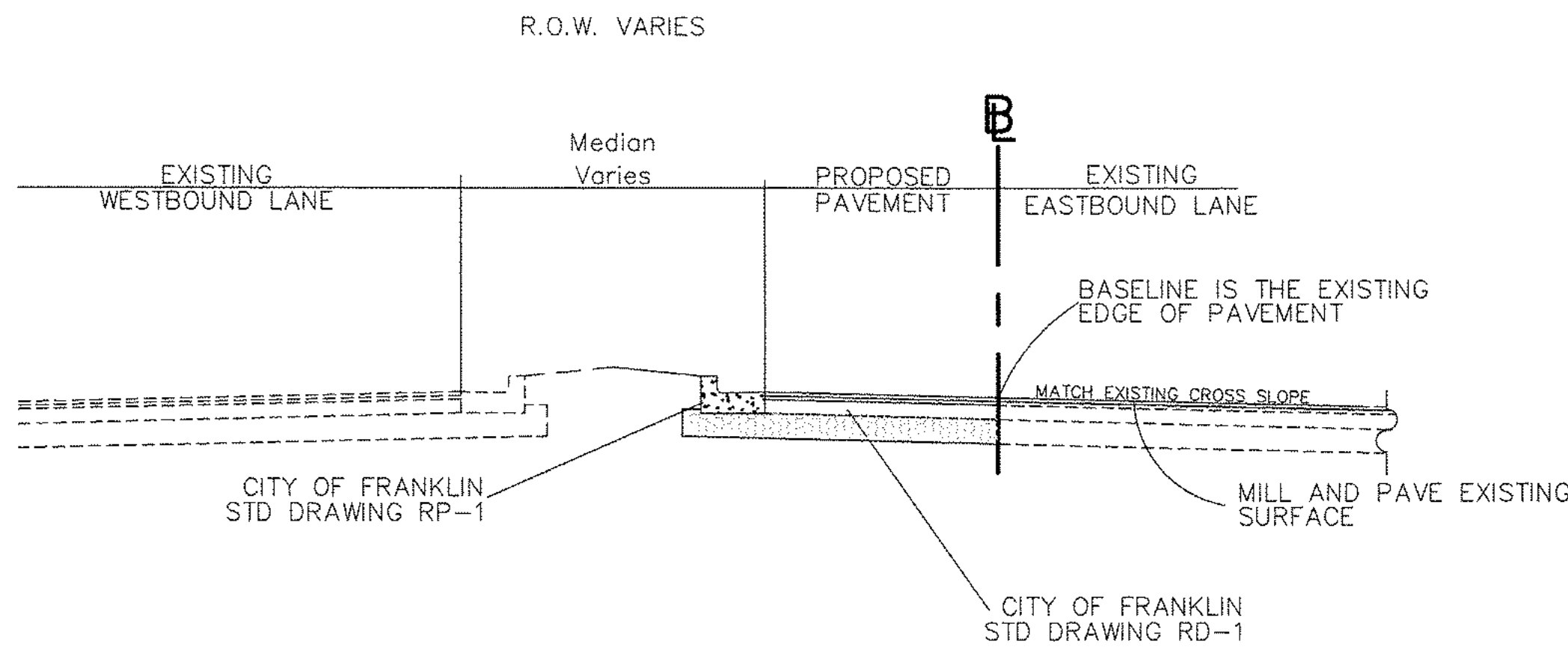
FILE NAME:  
14432project

SCALE:  
1"=50'

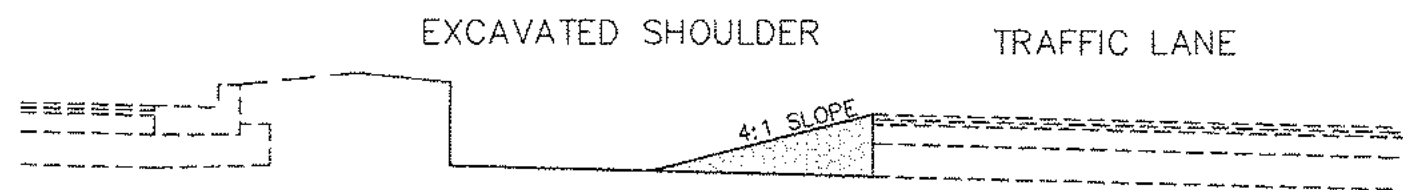
JOB NO.  
14432

SHEET:

Typical Sections &  
Drainage Tables



TYPICAL TANGENT SECTION  
LIBERTY PIKE



PAVEMENT EDGE DROP OFF

Note: The Contractor shall eliminate the vertical difference in elevation by constructing a stone wedge or grading to a 4:1 slope or flatter.

NOTE: PRIOR TO THE INSTALLATION OF THE NEW PAVEMENT SECTION, THE CONTRACTOR SHALL SAWCUT THE EXISTING PAVEMENT AT A LOCATION SUFFICIENT TO INSURE THAT THE INTEGRITY OF THE EXISTING PAVEMENT SECTION IS MAINTAINED. WHERE SOUND PAVEMENT HAS BEEN GOUGED, TORN OR OTHERWISE DAMAGED DURING THE MILLING OPERATIONS OR DAMAGE IS DONE TO ANY OTHER PROPERTY OF ANY KIND INCLUDING UTILITY FRAMES, GRATES, COVERS AND DETECTOR LOOPS, THE CONTRACTOR IS TO MAKE REPAIRS AT NO COST TO THE CITY OF FRANKLIN.

STORM SEWER PIPES											
SHEET NO	FROM		TO		% GRADE	STORM SEWER PIPES (RCP)					
	CODE	OUTLET ELEV.	CODE	INLET ELEV.		15"	18"	24"	30"	36"	
5	2	775.45	1	775.91	0.50		90				
5	1	775.91	2B	783.00	1.23		236				
5	2C	774.06	2	775.45	1.50		93				
5	10	785.58	6	786.30	0.50	144					
5	8A	785.70	8	786.10	1.38	29					
5	8B	781.25	8A	785.70	5.11	87					
5	9	785.21	10	785.58	0.50	74					
5	7	779.94	11	785.43	6.17			89			
6	11	785.53	13	786.35	2.10	39					
6	14	790.10	16	790.55	2.25	20					
6	14	790.10	18	799.40	4.95	188					
5	17	779.75	9	781.94	3.13	70					
5	EX1	780.00	4	779.95	1.00				5		
6	11	785.53	12	786.57	3.47	30					
6	EX3	790.96	15	791.00	1.00		5				
6	11	785.53	14	789.90	2.84			154			

NOTE: ALL PIPE TRENCHES ARE TO BE BACKFILLED WITH CRUSHED STONE TO ROADWAY SUBGRADE. COST OF BACKFILL TO BE INCLUDED IN COST OF PIPE.

CATCH BASINS AND MANHOLES									
SHEET NO	LOCATION	STATION	OFFSET (FT)	DRAINAGE CODE	GRATE/TOP ELEV.	INVERT ELEV.	STRUCTURE TYPE (Note)	DEPTH (FT)	
5	LIBERTY PIKE	14+75	53.57 LT	1	780.19	775.91	#14 Basin (1)	4.28	
5	LIBERTY PIKE	14+92	40.00 RT	2	781.19	775.45	#12 BASIN (1)	5.24	
5	LIBERTY PIKE	12+72	1.0 RT	2A	775.96	771.34	#3 MH (2)	4.62	
5	LIBERTY PIKE	17+22	40 LT	2B	787.00	783.10	#14 BASIN (1)	4.10	
5	LIBERTY PIKE	13+93	40 RT	2C	778.16	774.06	#12 BASIN (1)	4.06	
5	LIBERTY PIKE	18+57	8.48 LT	3	789.75	780.15	#3 MH (2,3)	9.60	
5	LIBERTY PIKE	18+57	42.00 RT	4	788.64	779.95	#14 Basin (1)	8.69	
5	LIBERTY PIKE	18+59	42.00 LT	5	788.64	780.57	#14 Basin (1)	8.07	
5	LIBERTY PIKE	22+33	42.00 RT	6	790.32	786.30	#12 Basin (1)	4.02	
6	LIBERTY PIKE	24+73	6.20 RT	7	NA	779.94	(4)	NA	
5	KNOLL TOP DR	0+70	16.50 LT	8	790.10	786.10	#12 Basin (1)	4.00	
5	KNOLL TOP DR	0+70	16.50 RT	8A	789.90	785.70	#12 Basin (1)	4.20	
5	KNOLL TOP DR	0+97	103 RT	8B	NA	781.25	HEADWALL	NA	
5	LIBERTY PIKE	23+83	42.00 RT	9	789.52	785.21/781.94	(5)	7.58	
5	LIBERTY PIKE	23+82	42.00 LT	10	789.52	785.58	#14 Basin (1)	3.94	
6	LIBERTY PIKE	25+52	5.81 RT	11	791.76	785.43	#3 MH (2)	6.33	
6	LIBERTY PIKE	25+52	42.00 RT	12	790.37	786.57	#12 BASIN (1)	3.80	
6	LIBERTY PIKE	25+52	42.00 LT	13	790.37	786.35	#12 Basin (1)	4.02	
6	LIBERTY PIKE	27+13	2.45 LT	14	795.53	789.91	#3 MH (2)	5.63	
6	LIBERTY PIKE	27+15	33.92 RT	15	796.74	791.00	(5)	5.74	
6	LIBERTY PIKE	27+14	34.53 LT	16	794.57	790.55	#12 Basin (1)	4.02	
6	LIBERTY PIKE	24+74	38.68 RT	17	NA	779.85	(4)	NA	
6	LIBERTY PIKE	29+13	21.47 LT	18	804.07	799.40	#12 Basin (1)	4.35	
7	LIBERTY PIKE	6+59	3.15 LT	19	770.82	766.40	(5)	4.42	

- Notes:
- See TDOT Dwg. No. D-CB-14 & D-CB-12LP for Details. Casting shall be a NENA R-3067 Type "L" Grate with Environotice Plates R-3000-C Surface Mount.
  - See TDOT Dwg. No. D-MH-2 for Details.
  - Remove casting and replace with manhole cover. Provide a top slab if required. See TDOT DWG. No. D-MH-2 for casting details.
  - Connect to existing Box Culvert. Plug existing connection with non-shrinking grout.
  - Existing Basin relocated to proposed curb location.

SITE ENGINEERING CONSULTANTS  
ENGINEERING • SURVEYING • LAND PLANNING  
LANDSCAPE ARCHITECTURE

SEC, Inc.

850 MIDDLE TENNESSEE BOULEVARD  
MURFREESBORO, TENNESSEE 37129  
PHONE: (615) 890-7901 E-MAIL:DIENKINS@SEC-CIVIL.COM FAX: (615) 890-2587  
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The City of Franklin has reviewed these construction drawings to insure that they comply with the applicable codes and standards. It is the City's responsibility to ensure that the design of the project is in accordance with the applicable codes and standards. The engineer assumes no administrative liability or responsibility for the drawings. The City is responsible for the construction of the project.



LIBERTY PIKE WIDENING  
COF Project No. 6787  
Franklin, Tennessee

REVISED:  
09-07-18 City Comments

DRAWN: MLG  
DATE: 3-10-17  
CHECKED:  
DWJ  
FILE NAME:  
14432project  
SCALE:  
1"=50'  
JOB NO.  
14432

SHEET:

Typical Sections &  
Drainage Tables

2A



Grading Notes:

- (1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- (2) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF CITY OR STATE--OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON--WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.
- (3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE AREAS ON WHICH THE TOPSOIL MATERIAL SHALL BE STOCKPILED. THE COST OF THIS SHALL NOT BE PAID DIRECTLY BUT SHALL BE INCLUDED UNDER THE COST OF OTHER ITEMS.
- (4) ANY GRADED OR DISTURBED AREAS SHALL HAVE 2 INCHES OF TOPSOIL, SEED, MULCH, FERTILIZER AND WATER APPLIED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. THE RESTORATION SHALL CLOSELY FOLLOW CONSTRUCTION.
- (5) WHERE CONSTRUCTION LIMITS INCLUDE EXISTING TREES, ONLY THE TREES OBSTRUCTING CONSTRUCTION SHALL BE REMOVED. ALL OTHER TREES SHALL BE PROTECTED FROM DAMAGE.

Drainage Notes:

- (1) THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.
- (2) THE CUTTING OF INLET AND OUTLET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203--01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).
- (3) WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.
- (4) DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.
- (5) EXISTING STRUCTURES TO BE RELOCATED (HEADWALLS, CULVERTS, ETC.) MAY BE REINSTALLED ONLY IF UNDAMAGED AND APPROVED BY THE CITY'S PUBLIC WORKS INSPECTOR PRIOR TO BACKFILL OF TRENCH.
- (6) EXCAVATION FOR PIPE CULVERTS SHALL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT SHALL BE INCLUDED UNDER THE COST OF OTHER ITEMS.
- (7) ALL PIPE TRENCHES ARE TO BE BACKFILLED WITH STONE TO SUBGRADE.

Utilities Notes:

- (1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1--800--351--1111 AS REQUIRED BY TCA 65--31--106 WILL BE REQUIRED.
- (2) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (3) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.
- (4) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65--31--106.
- (5) ALL UNDERGROUND UTILITIES (WATER, SANITARY SEWER, STORM SEWER, AND ANY OTHER MISCELLANEOUS), SHALL BE IN--PLACE PRIOR TO THE PLACEMENT OF BASE COURSE MATERIAL.
- (6) ALL EXCAVATION FOR UNDERGROUND UTILITIES SHALL CONSIST OF 100% STONE BACKFILL. COST TO BE INCLUDED IN THE COST FOR PIPE.
- (7) THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL UNDERGROUND UTILITIES WITH HIS WORK.

Miscellaneous :

- (1) ALL DETOUR, ACCESS, SERVICE AND FRONTAGE ROADS SHALL BE CONSTRUCTED WITH A MINIMUM OF ONE (1) COURSE OF BASE MATERIAL BEFORE TRAFFIC IS INTERRUPTED ON EXISTING ROADS.
- (2) THE CONTRACTOR SHALL COORDINATE ADJUSTMENT OF MANHOLE CASTINGS WITH THE UTILITY.
- (3) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.
- (4) CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS AND FIELD CONDITIONS PRIOR TO OR DURING CONSTRUCTION.
- (5) APPARENT ERRORS, DISCREPANCIES, OR OMISSIONS ON THE DRAWING SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL. THE CONTRACTOR MAY NOT USE APPARENT ERRORS, DISCREPANCIES, OR OMISSIONS PRESENT ON THE DRAWINGS PRESENTED FOR BIDDING FOR ADDITIONAL CHARGES AFTER BIDS HAVE BEEN SUBMITTED. THE ENGINEER SHALL BE PERMITTED TO MAKE CORRECTIONS AND INTERPRETATIONS AS MAY BE DEEMED NECESSARY FOR THE FULFILLMENT OF THE INTENT OF THE CONTRACT DOCUMENTS.
- (6) ANY ITEMS NOT SPECIFICALLY LISTED IN THE BID FORM BUT REQUIRED FOR CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND THE COST SHALL BE INCLUDED IN THE PRICE OF OTHER ITEMS OF WORK.
- (7) ALL NECESSARY PERMITS AND APPROVALS FROM AGENCIES GOVERNING THIS WORK SHALL BE SECURED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- (8) THE NOTES AND PLANS SHOWN CALL ATTENTION TO CERTAIN REQUIRED FEATURES OF THE CONSTRUCTION BUT DO NOT CLAIM TO COVER ALL DETAILS OF DESIGN AND CONSTRUCTION. THE CONTRACTOR SHALL FURNISH AND INSTALL THE WORK COMPLETE AND READY FOR OPERATION.
- (9) AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PERFORM SITE CLEANUP TO REMOVE ALL TRASH, DEBRIS, EXCESS MATERIALS, EQUIPMENT, AND OTHER DELETERIOUS MATERIALS ASSOCIATED WITH CONSTRUCTION. THE CONTRACTOR IS EXPRESSLY RESPONSIBLE FOR ENSURING THE SITE IS CLEAN AND IN OPERABLE CONDITION AT THE TIME OF FINAL ACCEPTANCE.
- (10) NOT USED.
- (11) THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND REPLACEMENT OF ALL PROPERTY PINS ON THIS PROJECT.
- (12) THESE DRAWINGS ARE INTENDED FOR USE ON THIS SITE ONLY AND AS AN INTEGRATED SET FOR THIS SPECIFIC PROJECT. THESE DRAWINGS MAY NOT BE USED IN WHOLE OR IN PART ON ANY OTHER PROJECT UNDER THE PROFESSIONAL ENGINEER'S SEAL, THE OWNER SHALL HOLD HARMLESS AND INDEMNIFY THE OWNER AND ENGINEER FROM AND AGAINST ANY AND ALL CLAIMS OF ANY NATURE WHATSOEVER ARISING FROM SUCH USE.
- (13) CURB TURNOUTS TO EXISTING SHOULDER SHALL BE TAPERED TO FORM A SMOOTH TRANSITION TO EXISTING GRADE.
- (14) INGRESS AND EGRESS TO ALL PROPERTIES MUST BE MAINTAINED WHEN FEASIBLY POSSIBLE.
- (15) THE CONTRACTOR SHALL PROTECT PRIVATE PROPERTY AND RESTORE ANY DAMAGED PROPERTY TO A CONDITION SIMILAR TO THAT EXISTING PRIOR TO WORK. THE RESTORATION SHALL CLOSELY FOLLOW CONSTRUCTION.

Road Closure Notes:

- (1) NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF THE ROAD, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: LOCAL LAW ENFORCEMENT OFFICE, (2) LOCAL FIRE DEPARTMENT, (3) AMBULANCE SERVICE, (4) LOCAL SCHOOL SUPERINTENDENT, (5) UNITED STATES POSTAL SERVICE, AND (6) LOCAL ROAD SUPERINTENDENT.

Storm Water Pollution Prevention Notes:

1. The site contractor is responsible for establishing and maintaining suitable erosion and sediment control devices on--site during construction as required to prevent silt from leaving site. Silt will not be allowed beyond construction limits.
2. The contractor is responsible for removing silt from site if not reusable on--site and assuring plan alignment and grade in all ditches at completion of construction.
3. Erosion control measures shall be provided for all cut and fill operations within the limits of the construction site, throughout the construction period to provide the site with maximum protection from erosion at all times.
4. Erosion control measures are to be installed prior to any grading on--site and are to be maintained in place until stabilization of erodable soils has been accomplished.
5. The Storm Water Pollution Prevention Plan (SWPPP) is an integral part of the Erosion Prevention and Sediment Control (EPSC) Plan and should be followed during all phases of construction (bidding, site work, final stabilization).
6. The construction drawings shall be made available on site at all times and presented upon request. If unforeseen storm water pollution prevention is encountered, additional Storm Water Pollution Prevention (SWPP) measures may be requested by the engineer.
7. Apply temporary seeding and mulching in all areas that shall be inactive for 15 days or more. All disturbed and eroded earth shall be regraded and seeded within 7 days with seeding, as defined above and as shown on the table below to establish stability and provided sediment control.
8. Permanent vegetation shall be installed within 7 days at the completion of any graded area, weather permitting.
9. At such time rough grading or the site is complete and drainage diverts to inlets, inlet sediment filters shall be installed at all inlet structures to keep piping systems free of siltation.
10. Storm water pollution prevention measures shall be installed around all dirt or topsoil stockpiles and other temporarily disturbed areas.
11. Contractor shall inspect all SWPPP measures daily and repair as necessary to prevent erosion. Siltation shall be removed from areas where failures have occurred and corrective action taken within 24 hours to maintain all SWPPP items.
12. Silt barriers, construction entrances, and silt fences shall remain in place until a good stand of grass has been obtained and/or paving operations are complete. Contractor shall keep silt from entering any storm drainage system. Once site has been completely stabilized, and silt in pipes and drainage swales shall be removed within 10 days.
13. All storm water pollution prevention practices shall be installed before any other earth moving occurs.
14. The following storm water pollution prevention and sediment control measures will be used on this site:

A) Silt fence

B) Filter fabric inlet protection

C) Concrete washout facility

D) Erosion EELs

E) Temporary seeding

F) Permanent seeding or sodding
15. Sediment shall be removed from sediment controls as necessary but at least when the design capacity of the control has been reduced by 50%.

THE CONTRACTOR IS REQUIRED TO ATTEND A PRE--CONSTRUCTION MEETING WITH THE CITY OF FRANKLIN ENGINEERING DEPARTMENT AND STREET DEPARTMENT PRIOR TO THE COMMENCEMENT OF THE PROJECT. CONTACT DERRICK MCCORD AT 615--478--0359 TO SCHEDULE A MEETING.

ROAD AND LANE CLOSURES SHALL BE LIMITED TO THE HOURS OF 9AM TO 3PM UNLESS SPECIAL APPROVAL IS RECEIVED FROM THE ENGINEERING DEPARTMENT. EACH SUCH CLOSURE SHALL BE CALLED IN TO THE ENGINEERING DEPARTMENT TRAFFIC OPERATIONS CENTER AT 615--791--3218 WITH 72 HOURS PRIOR NOTICE.

SEC, Inc.

850 MIDDLE TENNESSEE BOULEVARD  
MEMPHIS, TENNESSEE 38117  
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ENGINEERING, ARCHITECTURE, LANDSCAPE ARCHITECTURE  
LAND PLANNING  
LANDSCAPE ARCHITECTURE  
REGISTERED PROFESSIONAL ENGINEER  
REGISTERED PROFESSIONAL ARCHITECT  
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT  
REGISTERED PROFESSIONAL PLANNING

DOUGLAS W. JENKINS  
REGISTERED PROFESSIONAL ENGINEER  
No. 15922  
STATE OF TENNESSEE

THE SITE AS SHOWN ON THESE CONSTRUCTION DRAWINGS IS INTENDED TO ACHIEVE SPECIFIC ENGINEERING DESIGN CRITERIA AND OBJECTIVES. IT IS THE RESPONSIBILITY OF THE ENGINEER TO ENSURE THAT THE CONSTRUCTION OF THE SITE SHOWN ON THESE CONSTRUCTION DRAWINGS IS IN ACCORDANCE WITH THE INTENT OF THE DESIGN CRITERIA AND OBJECTIVES. THE ENGINEER SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE SITE IN ACCORDANCE WITH THE INTENT OF THE DESIGN CRITERIA AND OBJECTIVES.

LIBERTY PIKE WIDENING  
COF Project No. 6787  
Franklin, Tennessee

REVISIONS:


DRAWN: MLG

DATE: 2--2--16

CHECKED: DWJ

FILE NAME: 14432project

SCALE: 1"=50'

JOB NO. 14432

SHEET: 2B

General Notes



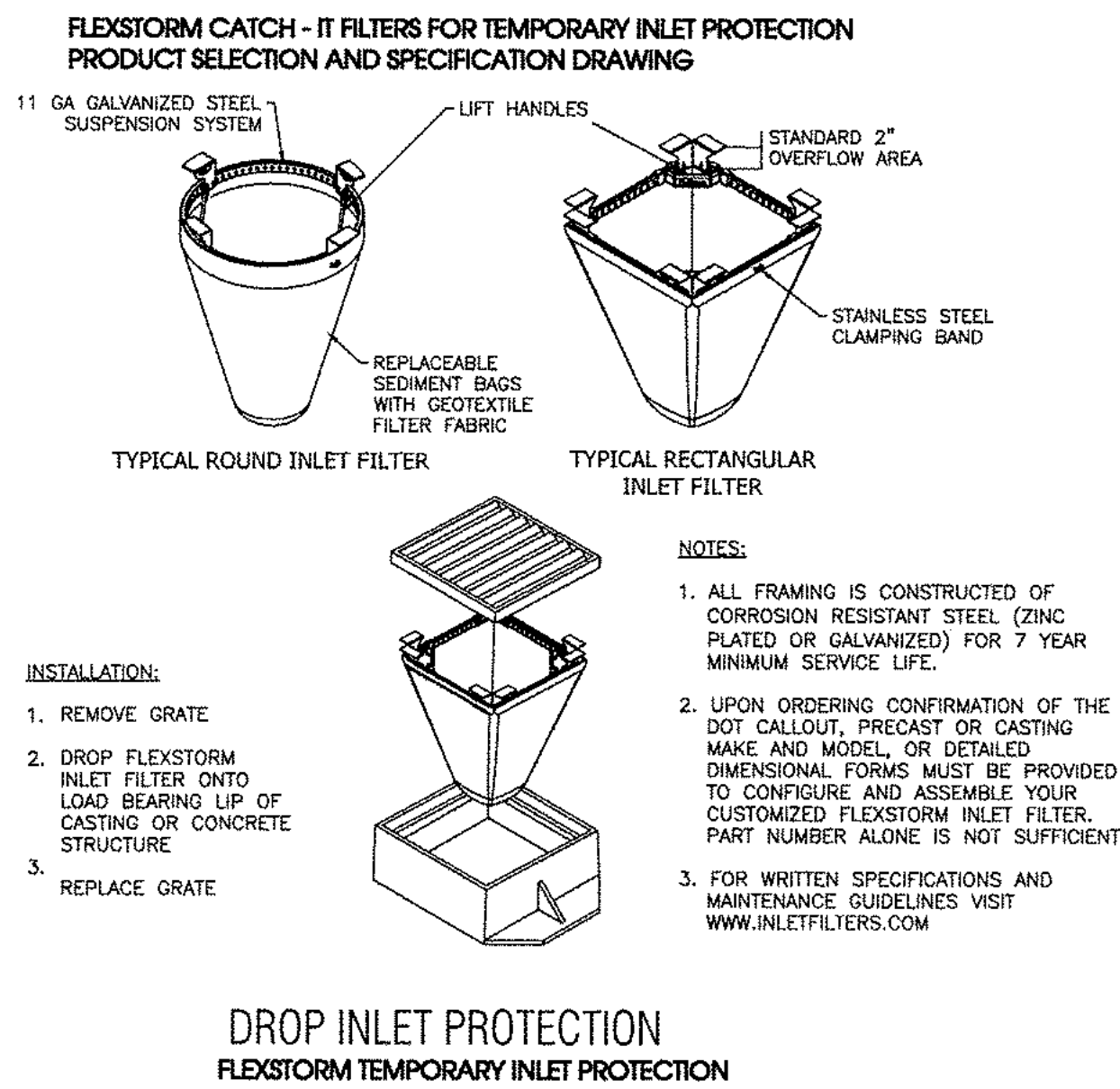
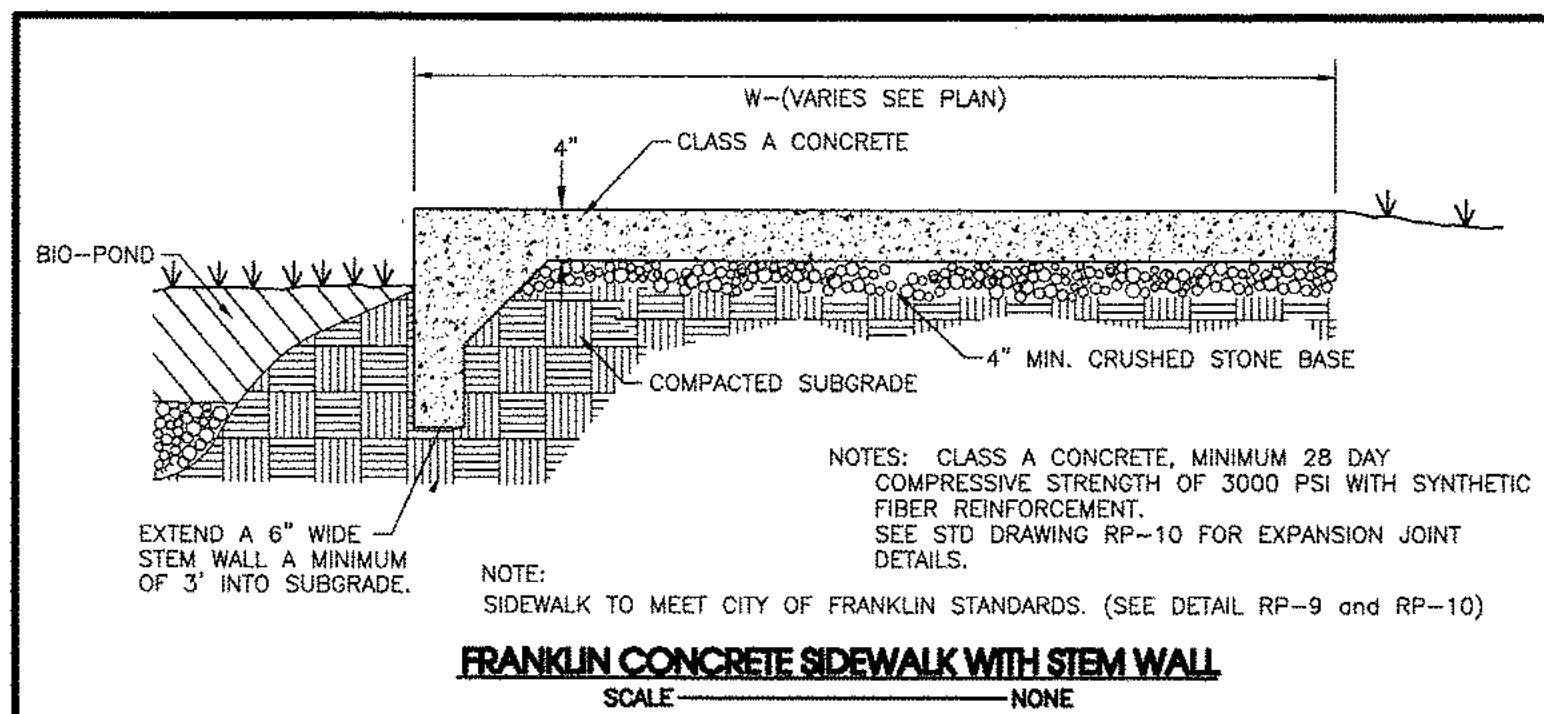
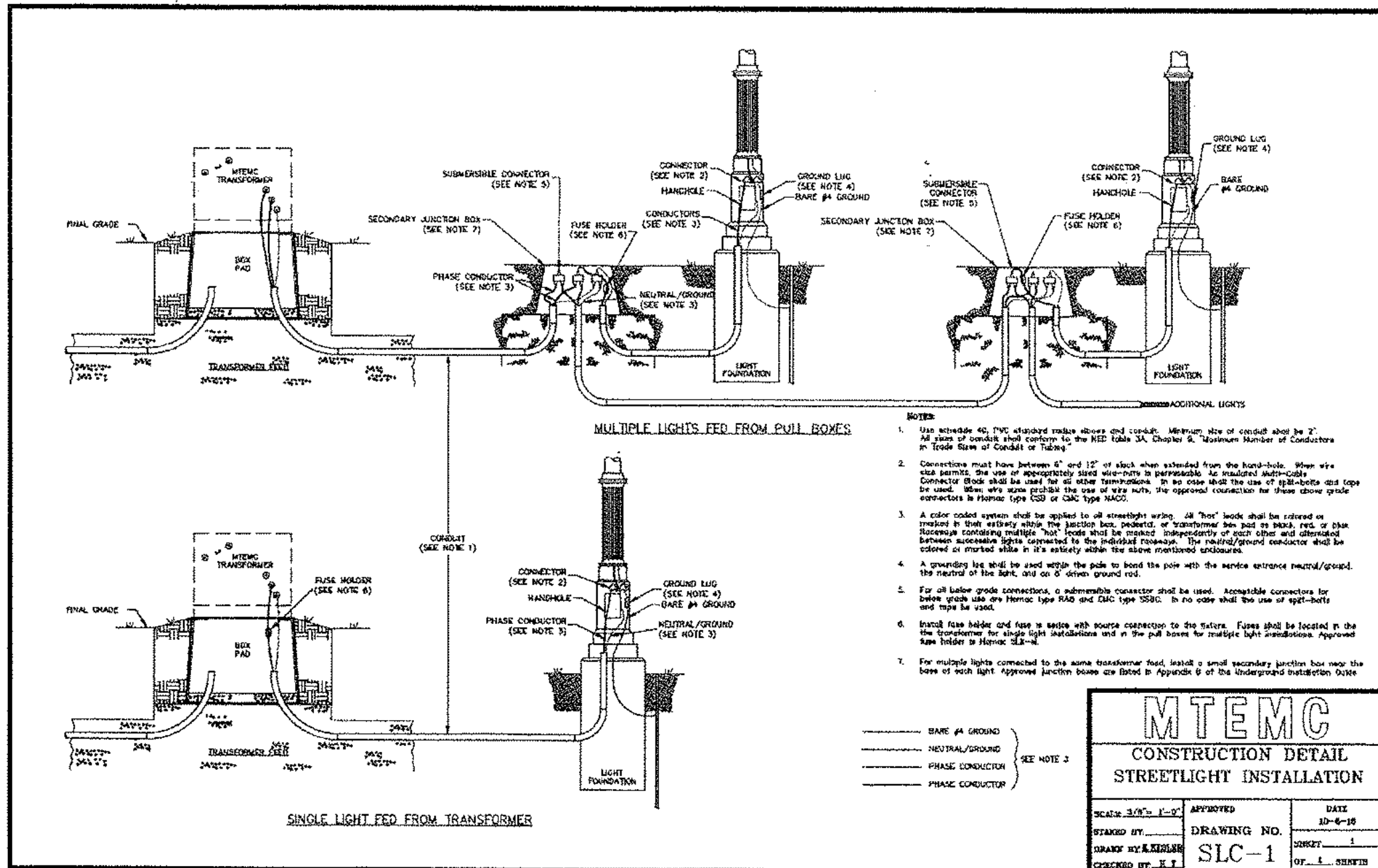
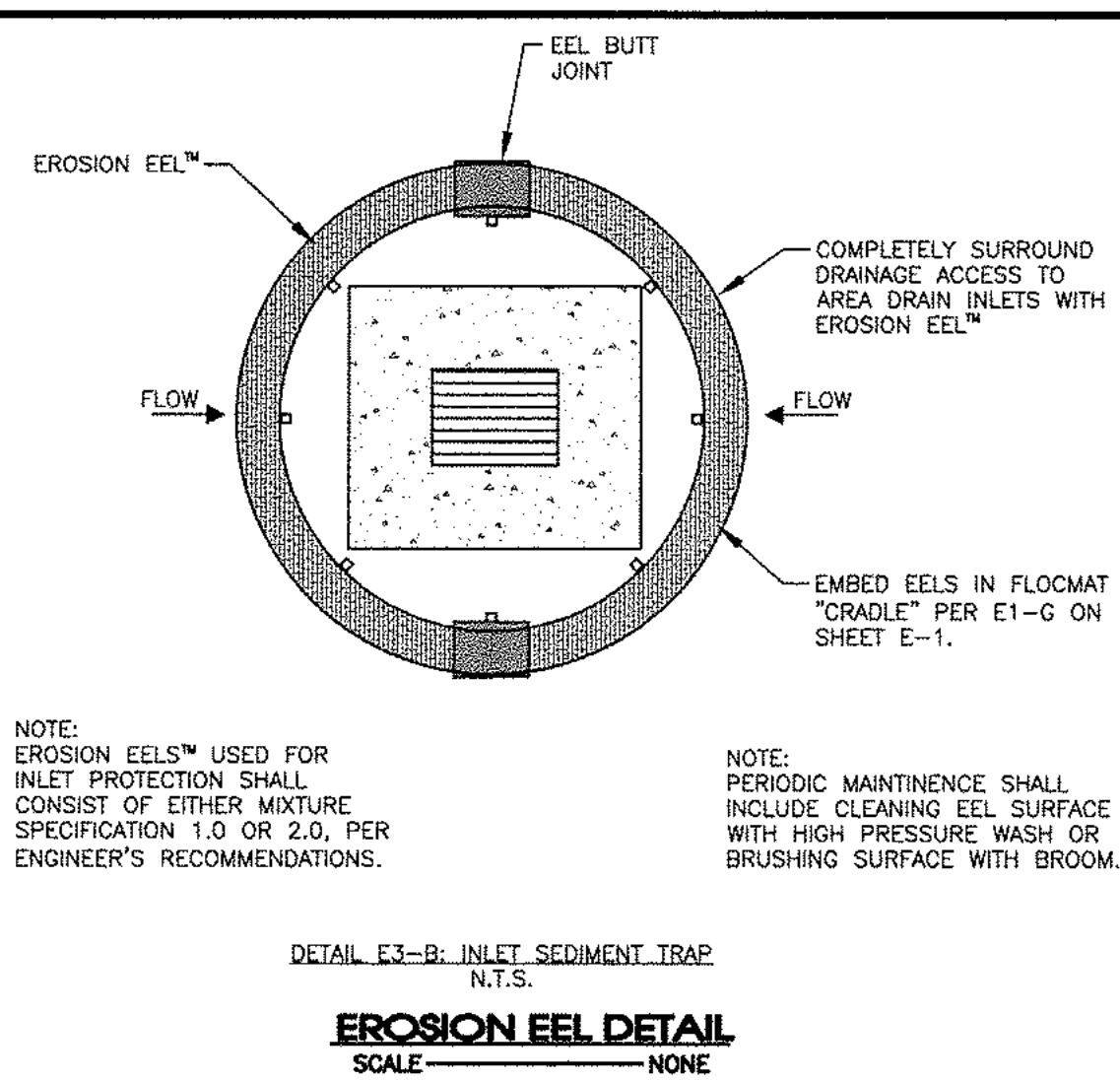
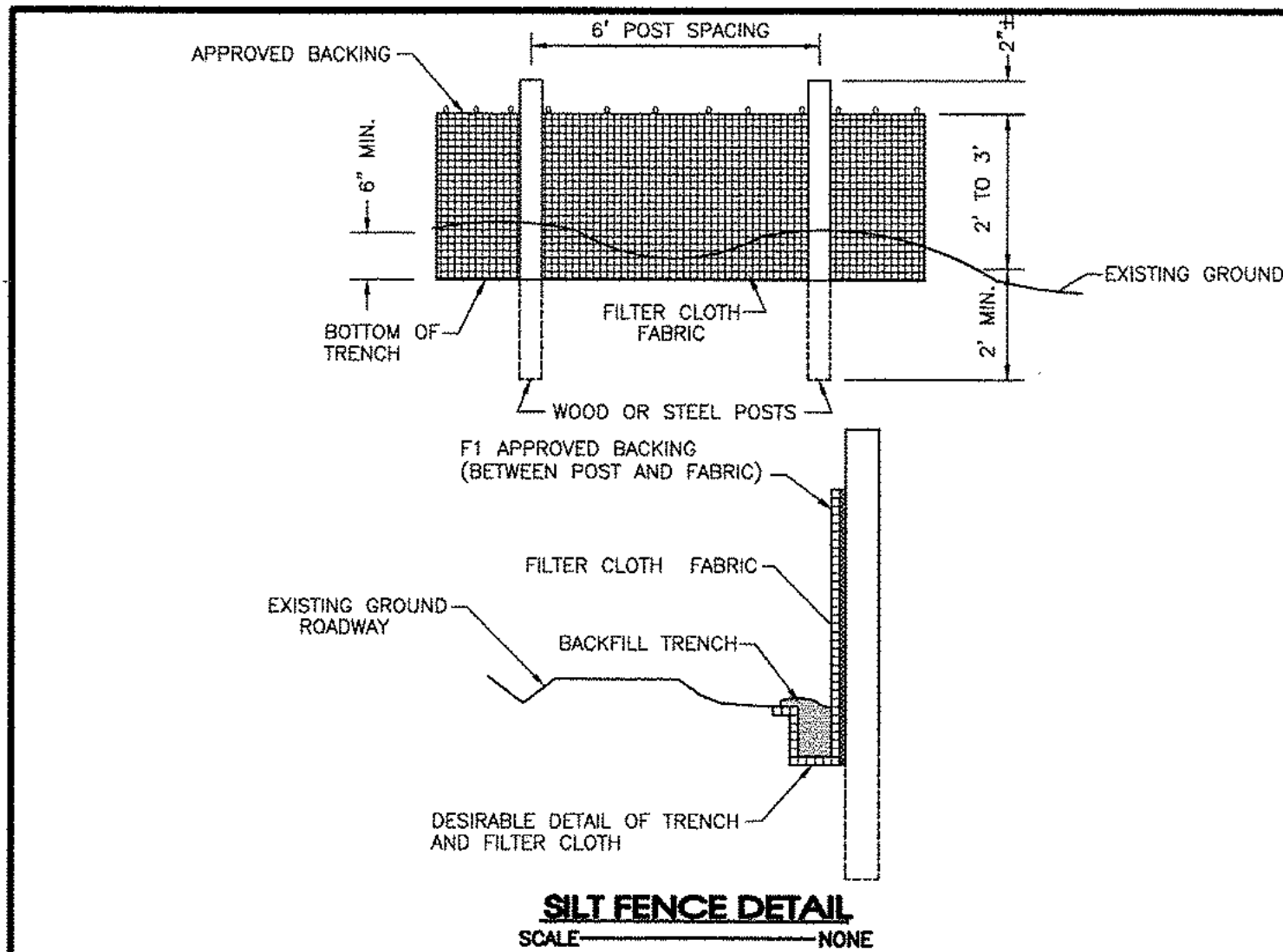
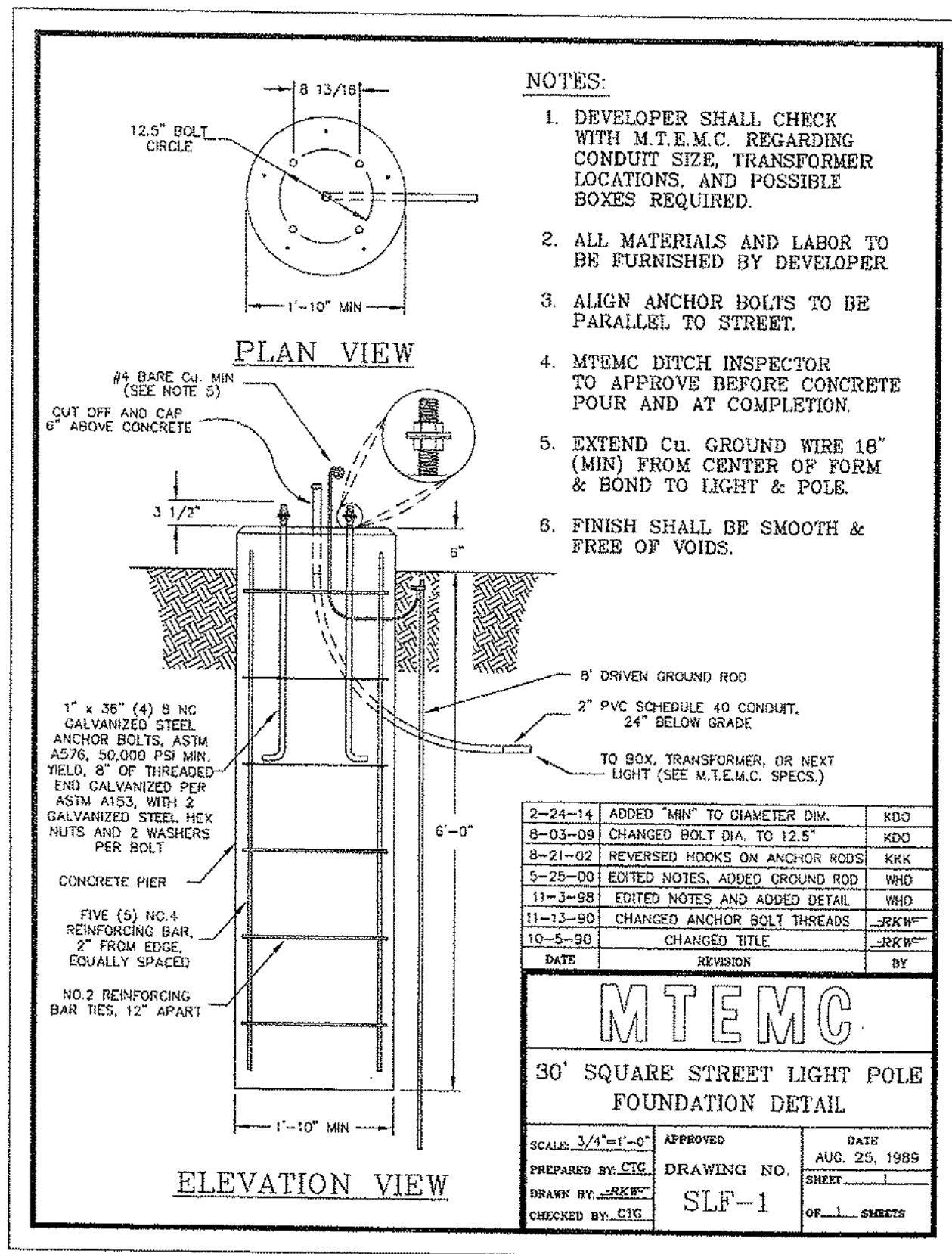




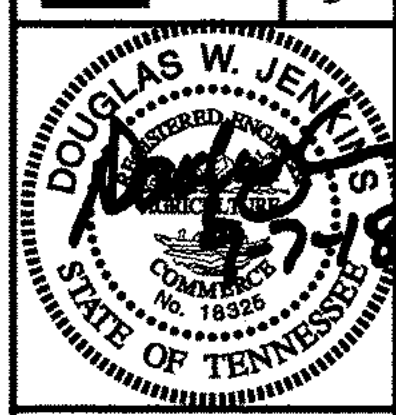
NOTE: MTEM APPROVED UNDERGROUND BOXES (AS OF 11-13-2014)

SECONDARY JUNCTION BOX (SMALL) STREET LIGHT INSTALLATION ONLY:  
HUBBELL QUAZITE PG1324Z594MT  
HIGHLINE PHA132418SE732  
OLDCASTLE 13246038

ALL WORK AND EQUIPMENT SHALL MEET THE SPECIFICATIONS OF MTEM AND SHALL BE APPROVED BY MTEM.

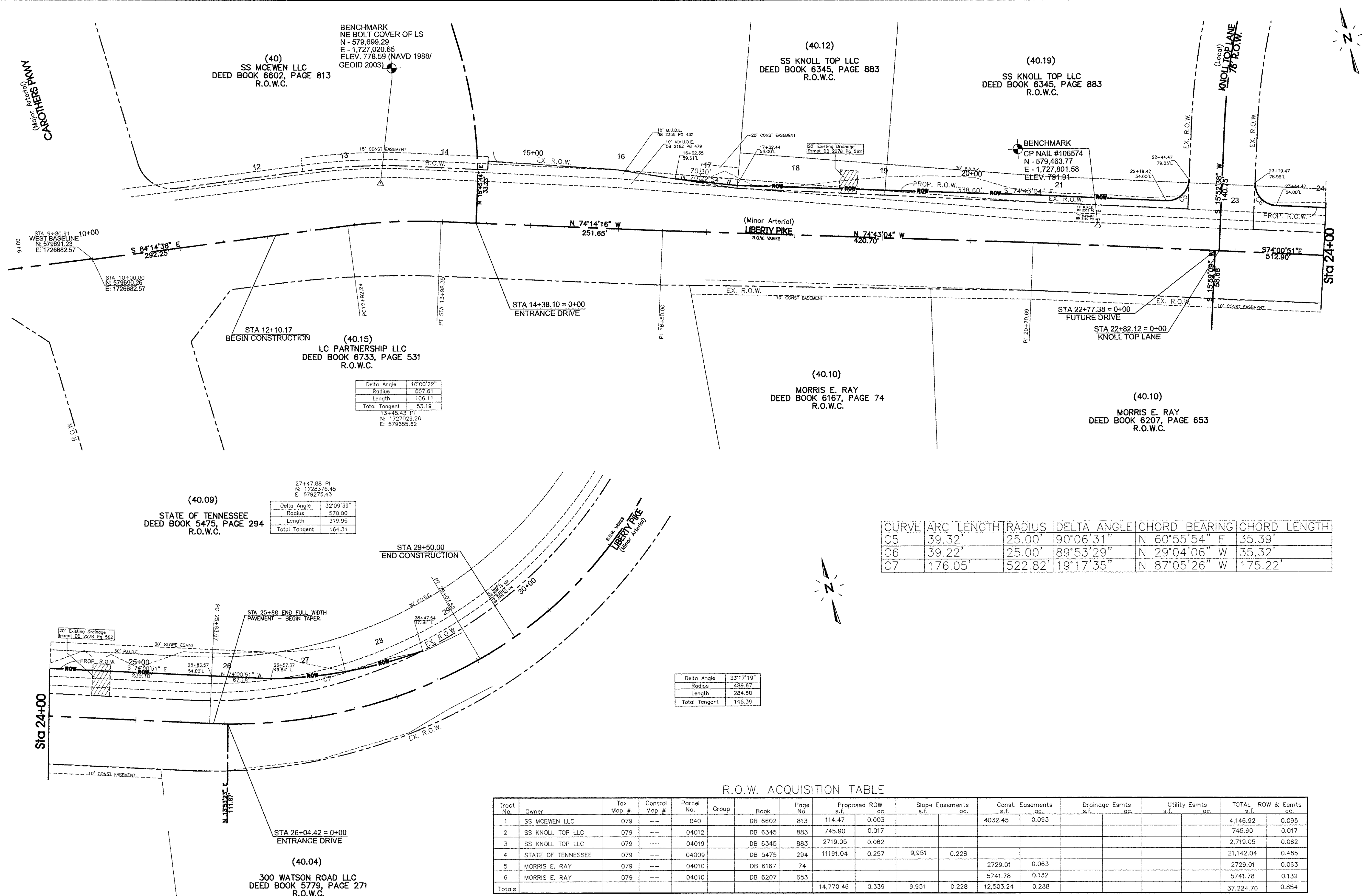


**SEC, Inc.**  
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LIBERTY PIKE WIDENING  
COF Project No. 6787  
Franklin, Tennessee

Details	
REVISED:	09-07-18 City Comments
DRAWN: MLG	
DATE: 2-2-16	
CHECKED: DWJ	
FILE NAME: 14432project	
SCALE: 1"=50'	
JOB NO. 14432	
SHEET: 2D	

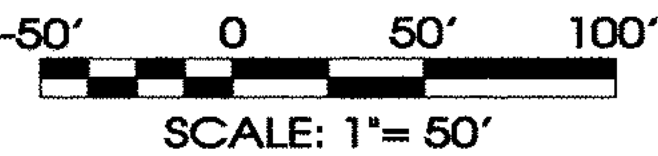


CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C5	39.32'	25.00'	90°06'31"	N 60°55'54" E	35.39'
C6	39.22'	25.00'	89°53'29"	N 29°04'06" W	35.32'
C7	176.05'	522.82'	19°17'35"	N 87°05'26" W	175.22'

Delta Angle	33°17'19"
Radius	489.67
Length	284.50
Total Tangent	146.39

R.O.W. ACQUISITION TABLE

Tract No.	Owner	Tax Map #	Control Map #	Parcel No.	Group	Book	Page No.	Proposed ROW s.f.		Slope Easements s.f.		Const. Easements s.f.		Drainage Esmts s.f.		Utility Esmts s.f.		TOTAL ROW & Esmts s.f.	
1	SS MCEWEN LLC	079	---	040		DB 6602	813	114.47	0.003			4032.45	0.093					4,146.92	0.095
2	SS KNOLL TOP LLC	079	---	04012		DB 6345	883	745.90	0.017									745.90	0.017
3	SS KNOLL TOP LLC	079	---	04019		DB 6345	883	2719.05	0.062									2,719.05	0.062
4	STATE OF TENNESSEE	079	---	04009		DB 5475	294	11191.04	0.257	9,951	0.228							21,142.04	0.485
5	MORRIS E. RAY	079	---	04010		DB 6167	74					2729.01	0.063					2729.01	0.063
6	MORRIS E. RAY	079	---	04010		DB 6207	653					5741.78	0.132					5741.78	0.132
Totals								14,770.46	0.339	9,951	0.228	12,503.24	0.288					37,224.70	0.854



SITE ENGINEERING CONSULTANTS

ENGINEERING - SURVEYING - LAND PLANNING

LANDSCAPE ARCHITECTURE

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SEC, Inc.

850 MIDDLE TENNESSEE BOULEVARD

MURFREESBORO, TENNESSEE 37129

PHONE: (615) 890-7901

E-MAIL: DANKINS@SEC-INC.COM

FAX: (615) 895-2587

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DOUGLAS W. JENKINS

REGISTERED PROFESSIONAL ENGINEER

NO. 18926

STATE OF TENNESSEE

LIBERTY PIKE WIDENING

COF Project No. 6787

Franklin, Tennessee

REVISED: 09-07-18 City Comments

DRAWN: DWJ

DATE: 2-2-16

CHECKED: DWJ

FILE NAME: 14432(Liberty)project

SCALE: 1"=50'

JOB NO. 14432

SHEET: 3

Right of Way Plan

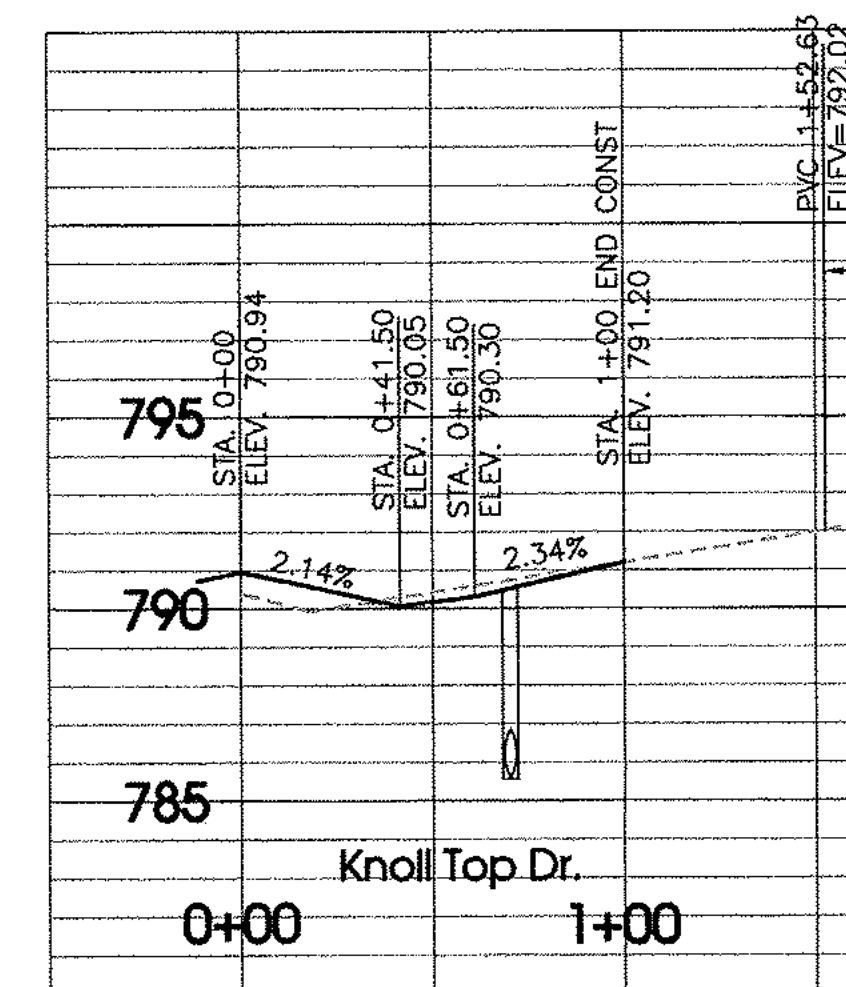








Know what's below.  
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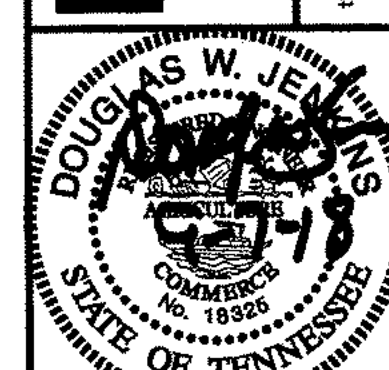


-50' 0 50'

SCALE: 1" = 50'

**SITE ENGINEERING CONSULTANTS**

# STC Inc.

LIBERTY PIKE WIDENING  
COF Project No. 6787

Franklin, Tennessee

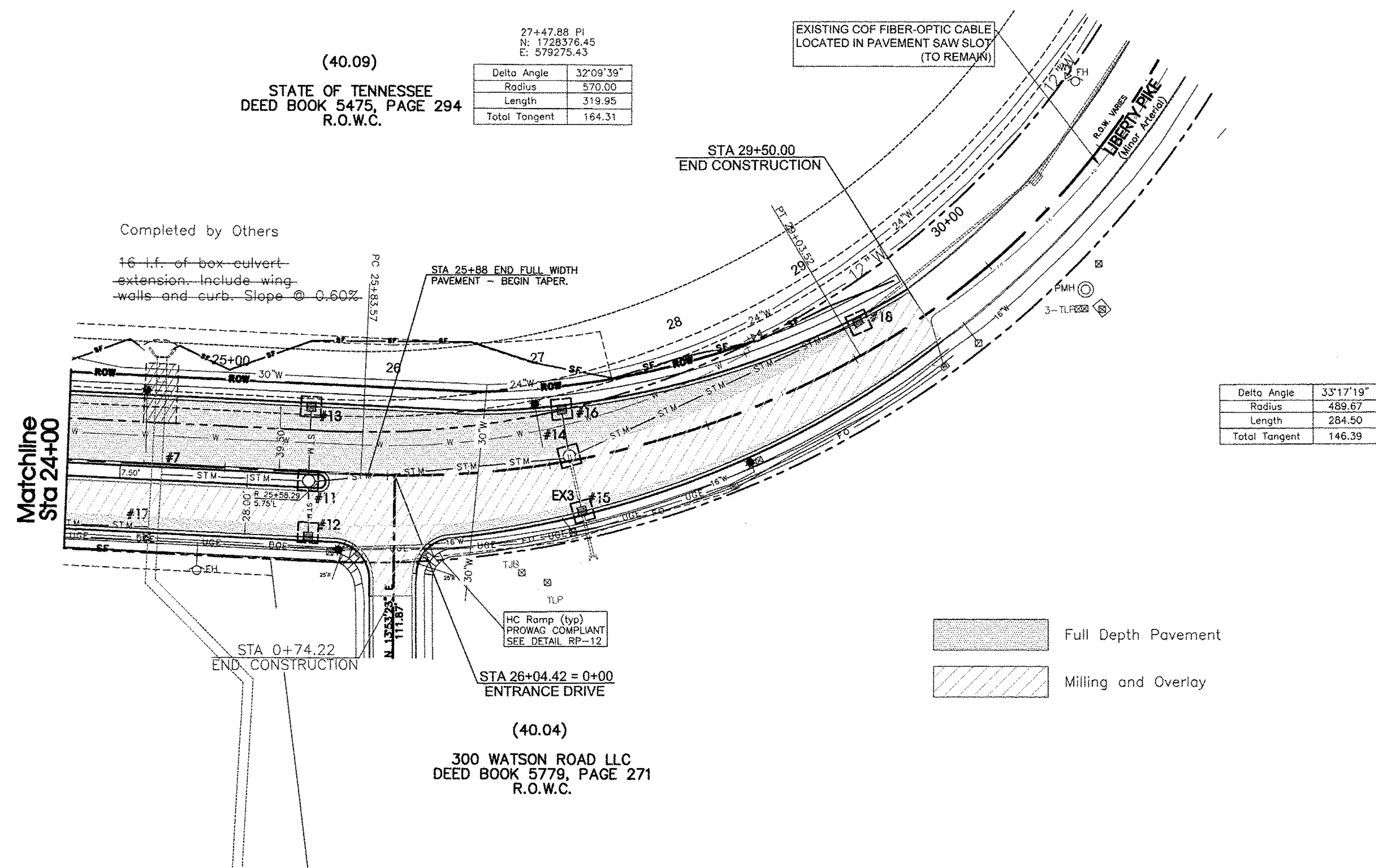
## Liberty Pike Improvements

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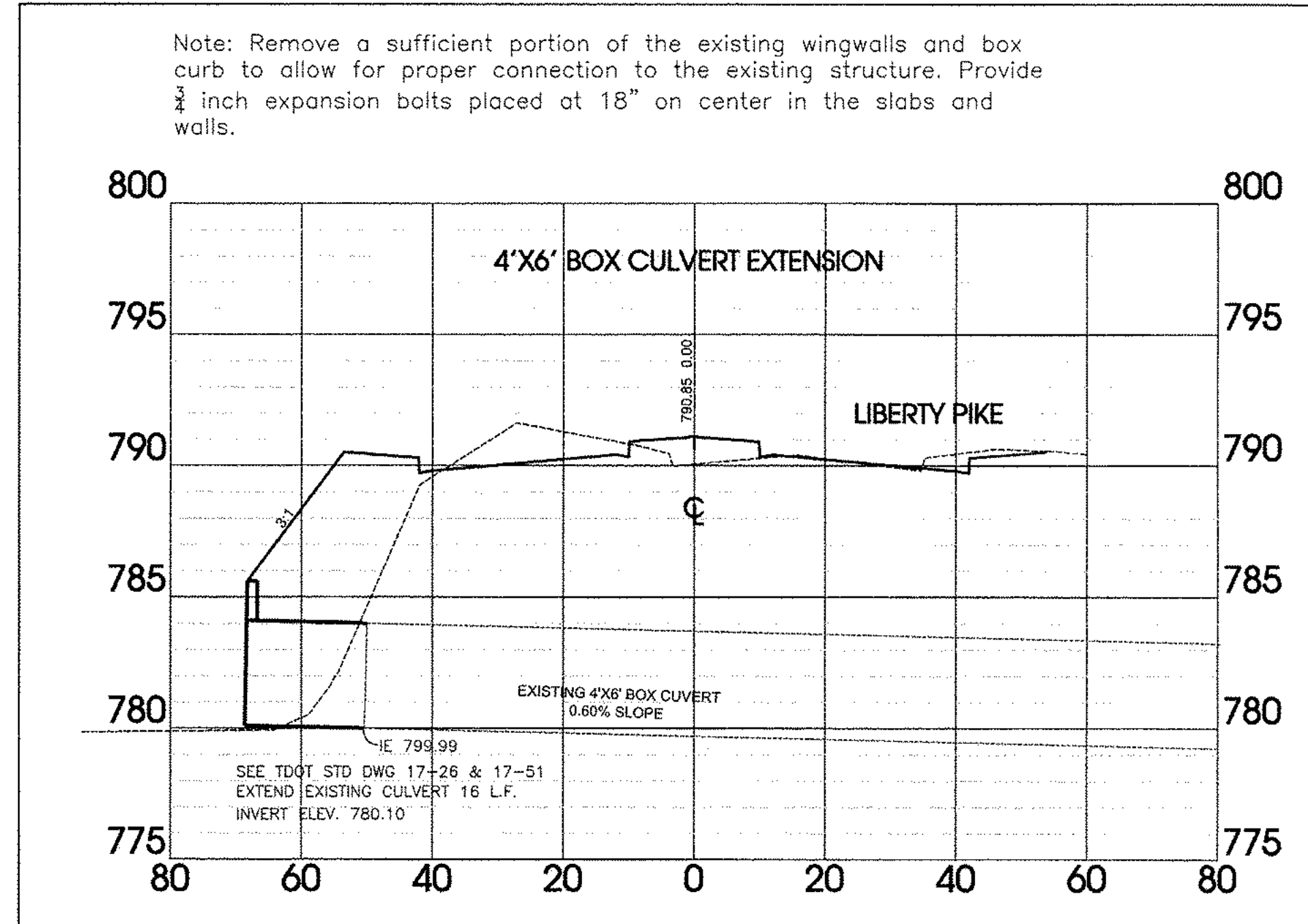
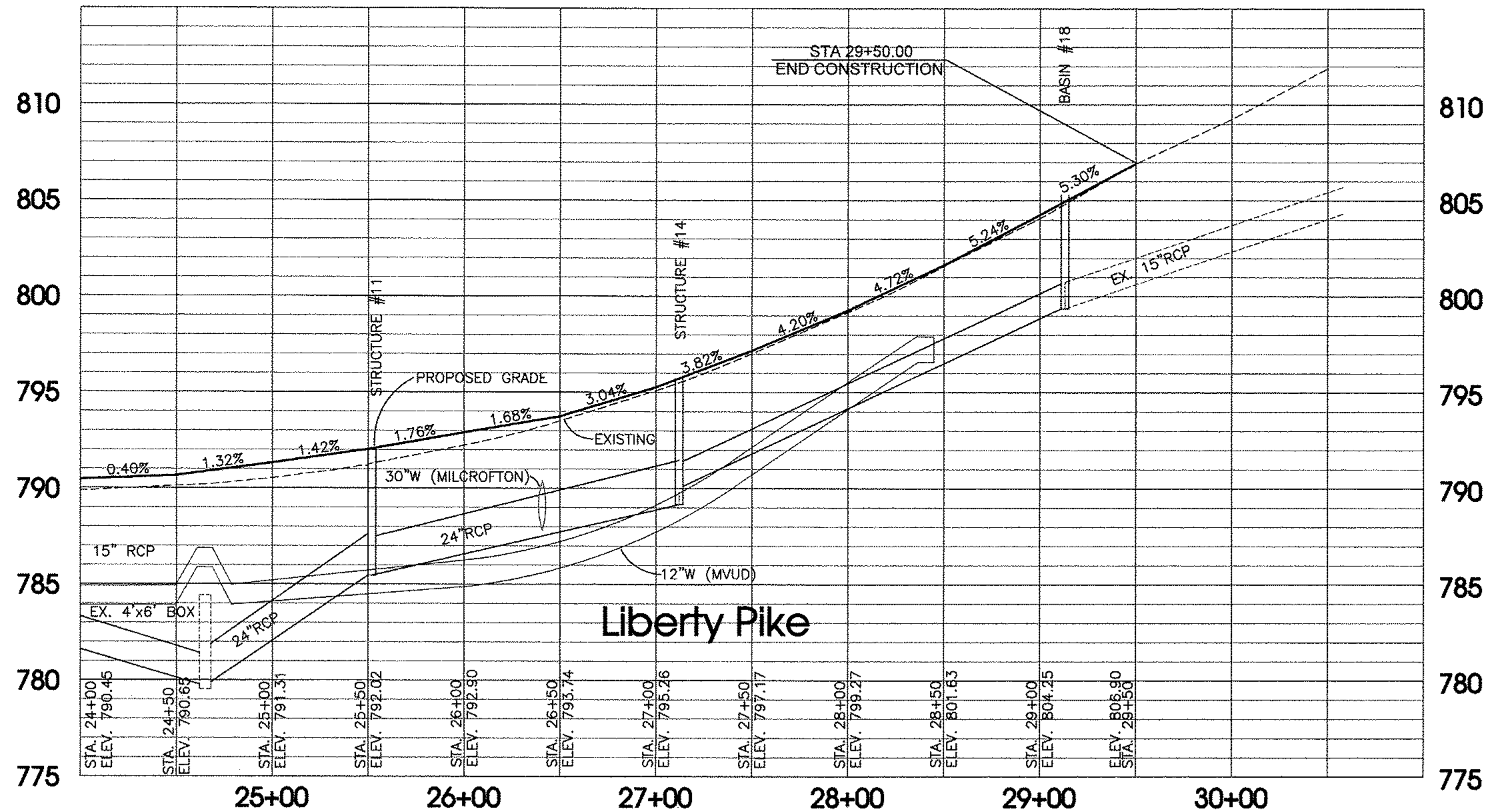
SHEET 11

5





The Box Culvert Extension has been previously completed by others.



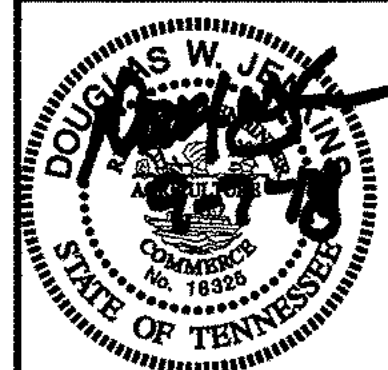
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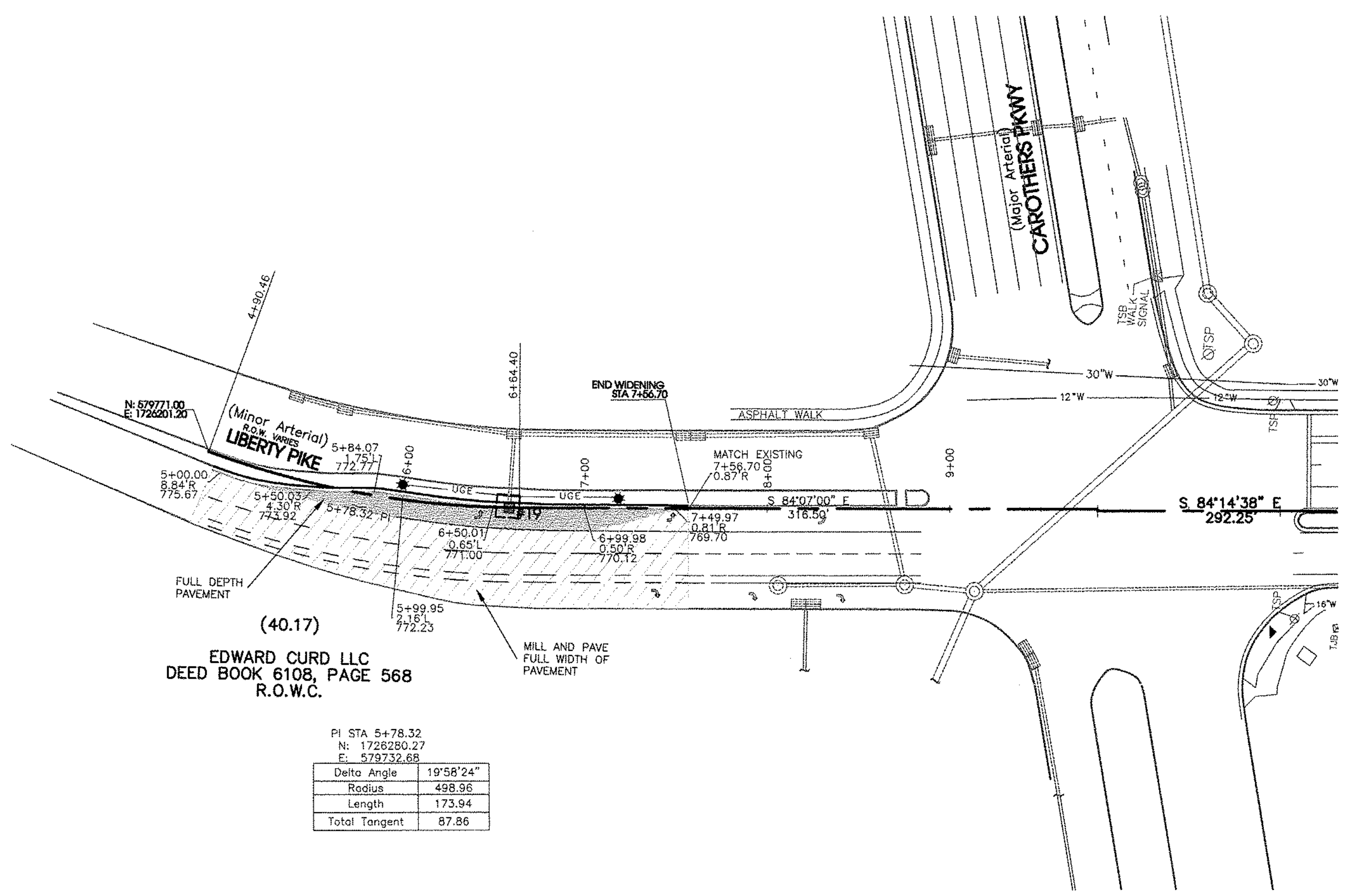
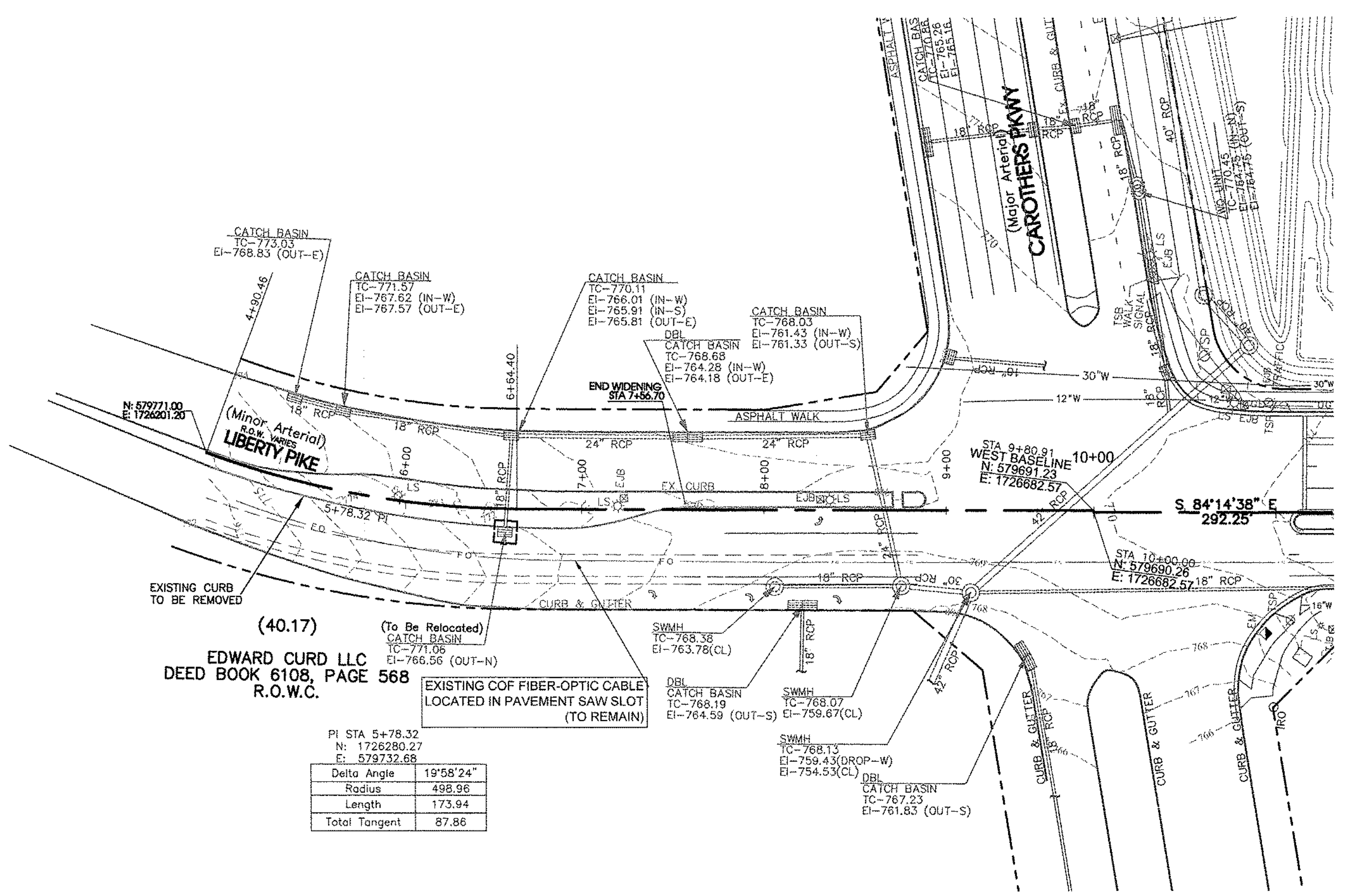


LIBERTY PIKE WIDENING  
COF Project No. 6787

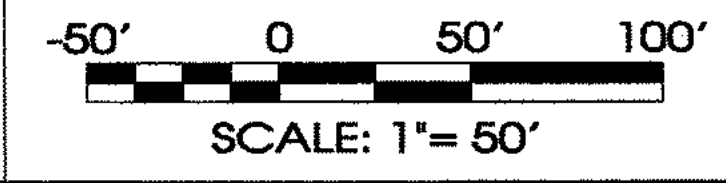
Franklin, Tennessee

REVISED:	09-07-18 City Comments
DRAWN:	MLG
DATE:	2-2-16
CHECKED:	DWJ
FILE NAME:	15316project
SCALE:	1"=50'
JOB NO.	15316
SHEET:	

Liberty Pike Improvements



Legend:			
EXIST. CONCRETE MONUMENT	INLET PROTECTION FILTER	IRON PIN SET (I.P.S.)	HANDICAP PARKING SYMBOL
IRON PIN FOUND (I.P.F.)	HC SIGN	EXIST. SIGN POST	HEADWALL
EXIST. SEWER CLEANOUT	WINGED HEADWALL	EXIST. MANHOLE (SEWER & PHONE)	MANHOLE
EXIST. CATCH BASIN (STORM SEWER)	PROPOSED SPOT ELEVATION	EXIST. WATER/GAS VALVE	EXIST. SPOT ELEVATION
EXIST. TELEPHONE RISER	POST INDICATOR VALVE	EXIST. GAS RISER	REDUCER
ELECTRICAL ENCLOSURE	REMOTE FIRE DEPT. CONNECTION	EXIST. WATER METER	REVISION NUMBER
EXIST. UTILITY POLE	RIP RAP	EXIST. FIRE HYDRANT	RUNOFF FLOW ARROW
BENCHMARK	SEWER/STORM FLOW DIRECTION	BLOW OFF VALVE	TRAFFIC ARROW
CONCRETE BOLLARD	TURN LANE ARROWS	CATCH BASIN	VAN ACCESSIBLE HANDICAP DESIGNATION
CURB INLET	WATER METER	AREA DRAIN	WHEEL STOP
CONCRETE THRUST BLOCK	GREASE TRAP	DOUBLE DETECTOR CHECK VALVE DESIGNATION	DRAINAGE STRUCTURE DESIGNATION
FIRE DEPT. CONNECTION	DRAINAGE PIPE DESIGNATION	FIRE HYDRANT	CONCRETE SIDEWALK
GAS METER	EXTRUDED CURB	GATE VALVE & BOX	CURB & GUTTER
EXTERIOR CLEANOUT	CONCRETE SWALE	EXISTING PHONE	UGT
EXISTING ELECTRIC	OH	PROPERTY LINE	
EASEMENTS		RIGHT OF WAY	
EROSION CONTROL SILT FENCE	SF SF	EXISTING TREELINE	
EXISTING FENCELINE	X X	MINIMUM BUILDING SETBACK LINE	MBSL
PHASE BOUNDARY		EXISTING GAS LINE	GAS GAS
PROPOSED GAS LINE	GAS GAS	EXISTING STORM	
PROPOSED STORM		EXISTING CONTOUR LINES	601
PROPOSED CONTOUR LINES		EXISTING SANITARY SEWER	SS SS
PROPOSED SANITARY SEWER	SS SS	EXISTING WATER	W W
PROPOSED WATER	W W	EROSION EEL	E E E E



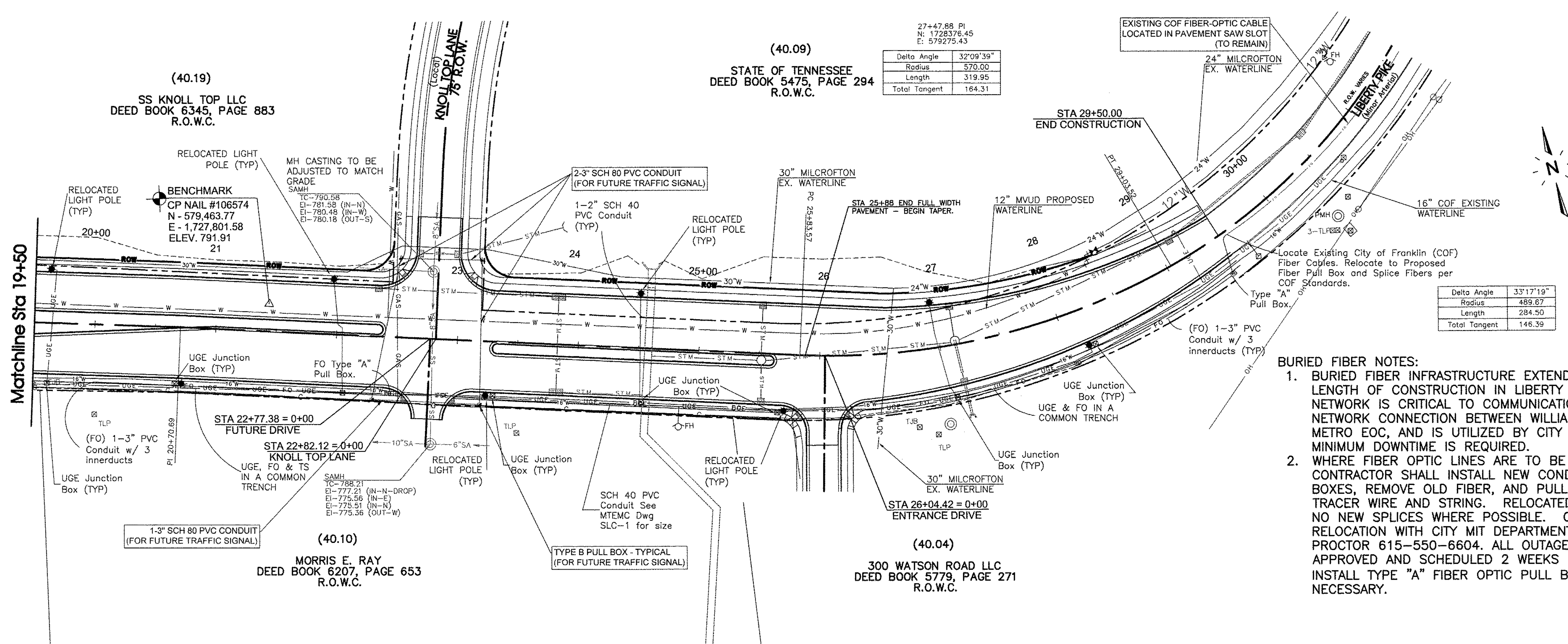
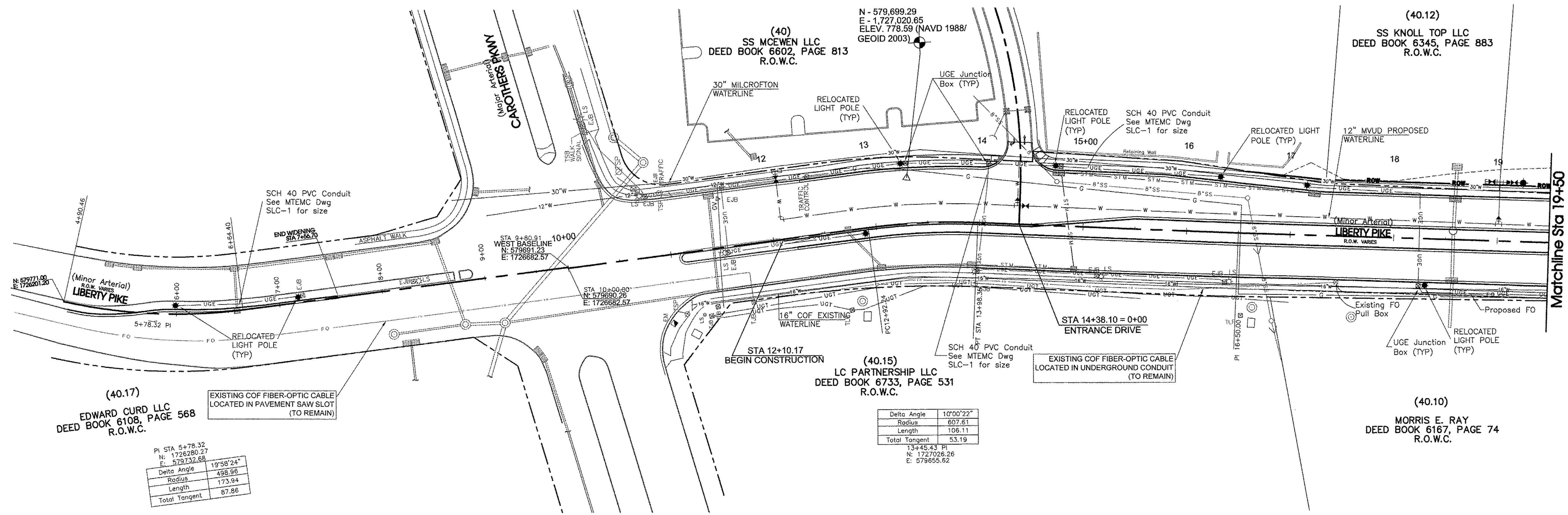
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**Liberty Pike Widening**  
**COF Project No. 6787**  
**Franklin, Tennessee**

REVISED: 09-07-18 City Comments  
DRAWN: MLG  
DATE: 2-2-16  
CHECKED: DWJ  
FILE NAME: 14432project  
SCALE: 1"=50'  
JOB NO. 14432  
SHEET: 7



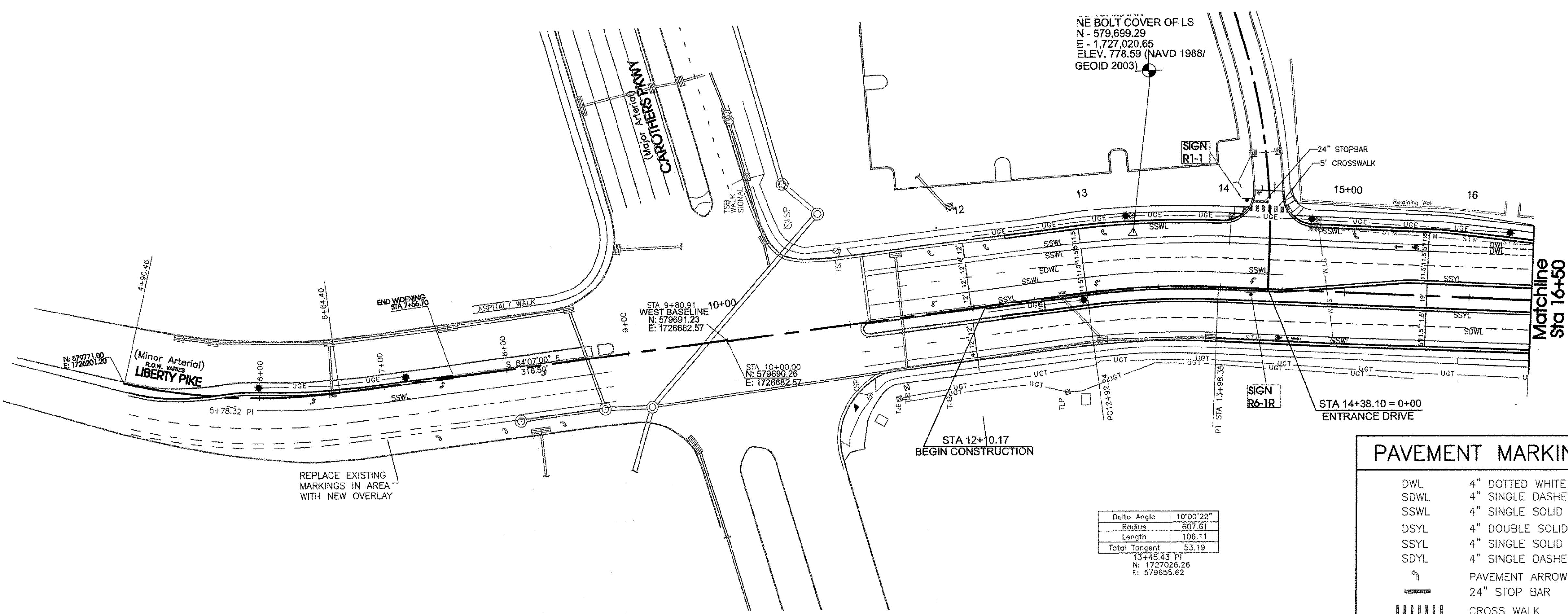


NOTE: SEE MVUD WATERLINE  
RELOCATION PLAN FOR DETAILS AND  
PROPOSED LOCATION. WATERLINE  
DESIGN BY OTHERS.

Know what's **below**.  
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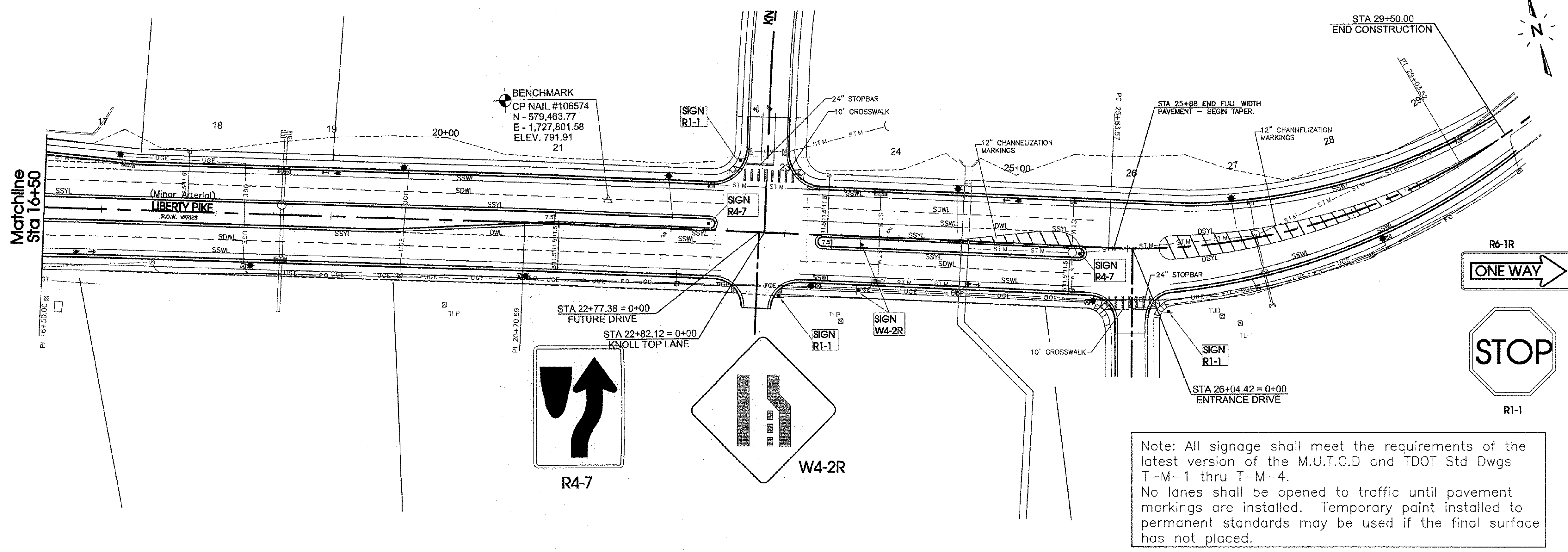




PAVEMENT MARKING LEGEND	
DWL	4" DOTTED WHITE LINE
SDWL	4" SINGLE DASHED WHITE LINE
SSWL	4" SINGLE SOLID WHITE LINE
DSYL	4" DOUBLE SOLID YELLOW LINE
SSYL	4" SINGLE SOLID YELLOW LINE
SDYL	4" SINGLE DASHED YELLOW LINE
	PAVEMENT ARROW
	24" STOP BAR
	CROSS WALK
	BIKE LANE MARKINGS

Lane markings shall comply with TDOT standard markings as shown in TDOT drawings T-M-1 through T-M-14.

Final markings shall be thermoplastic and shall be inlaid with the pavement at the appropriate time during construction.



Note: All signage shall meet the requirements of the latest version of the M.U.T.C.D and TDOT Std Dwg T-M-1 thru T-M-4.

No lanes shall be opened to traffic until pavement markings are installed. Temporary paint installed to permanent standards may be used if the final surface has not placed.

**Legend:**

EXIST. CONCRETE MONUMENT	INLET PROTECTION
IRON PIN SET (I.P.S.)	HANDICAP PARKING SYMBOL
IRON PIN FOUND (I.P.F.)	HC SIGN
EXIST. SIGN POST	HEADWALL
EXIST. SEWER CLEANOUT	WINGED HEADWALL
EXIST. MANHOLE (SEWER & PHONE)	MANHOLE
EXIST. CATCH BASIN (STORM SEWER)	PROPOSED SPOT ELEVATION
EXIST. WATER/GAS VALVE	EXIST. SPOT ELEVATION
EXIST. TELEPHONE RISER	POST INDICATOR VALVE
EXIST. GAS RISER	REDUCER
ELECTRICAL ENCLOSURE	REMOTE FIRE DEPT. CONNECTION
EXIST. WATER METER	REVISION NUMBER
EXIST. UTILITY POLE	RIP RAP
EXIST. FIRE HYDRANT	RUNOFF FLOW ARROW
BENCHMARK	SEWER/STORM FLOW DIRECTION
BLOW OFF VALVE	TRAFFIC ARROW
CONCRETE BOLLARD	TURN LANE ARROWS
CATCH BASIN	V.A. VAN ACCESSIBLE HANDICAP DESIGNATION
CURB INLET	WATER METER
AREA DRAIN	WHEEL STOP
CONCRETE THRUST BLOCK	GREASE TRAP
DOUBLE DETECTOR CHECK VALVE	#1 DRAINAGE STRUCTURE DESIGNATION
FIRE DEPT. CONNECTION	DRAINAGE PIPE DESIGNATION
FIRE HYDRANT	CONCRETE SIDEWALK
GAS METER	EXTRUDED CURB
GATE VALVE & BOX	CURB & GUTTER
EXTERIOR CLEANOUT	CONCRETE SWALE

EXISTING PHONE	UGT
EXISTING ELECTRIC	OH
PROPERTY LINE	
EASEMENTS	
RIGHT OF WAY	ROW
EROSION CONTROL SILT FENCE	SF SF
EXISTING TREELINE	
EXISTING FENCELINE	X X
MINIMUM BUILDING SETBACK LINE	MBSL
PHASE BOUNDARY	-----
EXISTING GAS LINE	GAS GAS
PROPOSED GAS LINE	GAS GAS
EXISTING STORM	
PROPOSED STORM	
EXISTING CONTOUR LINES	601
PROPOSED CONTOUR LINES	601
EXISTING SANITARY SEWER	SS SS
PROPOSED SANITARY SEWER	SS SS
EXISTING WATER	W W
PROPOSED WATER	W W
EROSION EEL	E E E E

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**DOUGLAS W. JENKINS**  
REGISTERED PROFESSIONAL ENGINEER  
No. 18925  
STATE OF TENNESSEE

**LIBERTY PIKE WIDENING**  
**COF Project No. 6787**  
**Franklin, Tennessee**

**811**  
Know what's below.  
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**STOP**  
R1-1

**ONE WAY**  
R6-1R

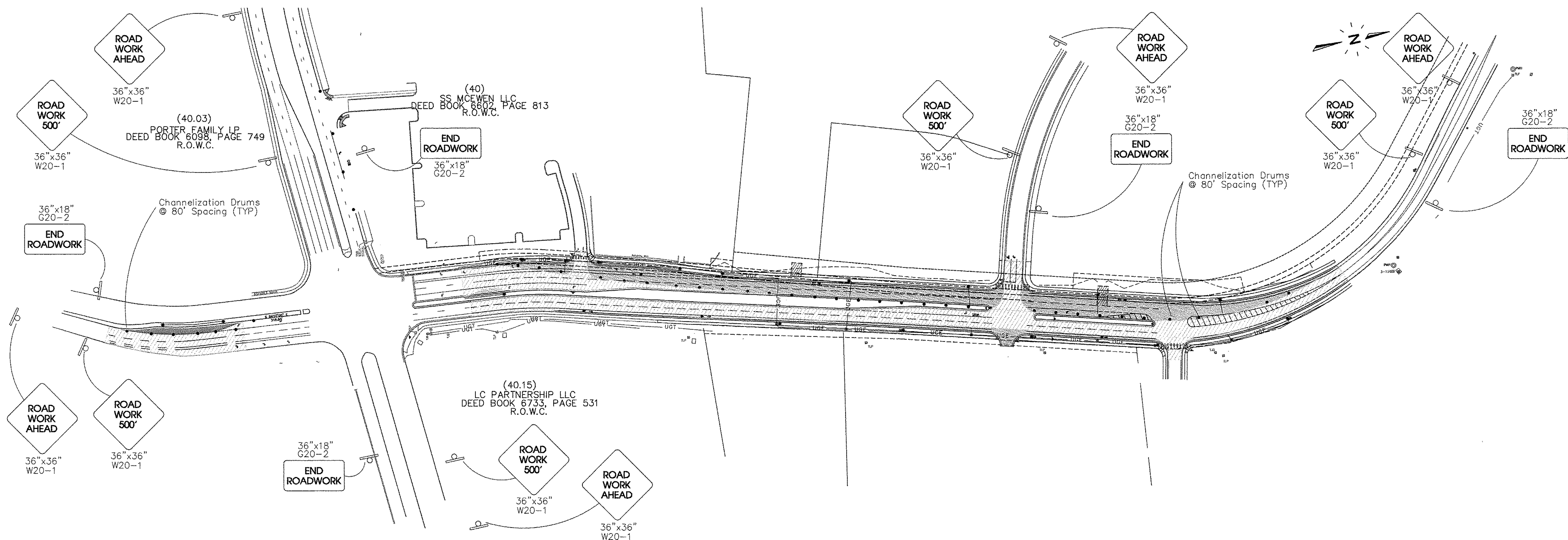
**R4-7**

**W4-2R**

REVISION: 09-07-18 City Comments  
DRAWN: MLG  
DATE: 2-2-16  
CHECKED:  
DWI  
FILE NAME: 15316project  
SCALE: 1"=50'  
JOB NO. 15316  
SHEET: 9

**Pavement Markings and Signs**



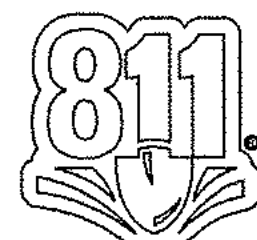
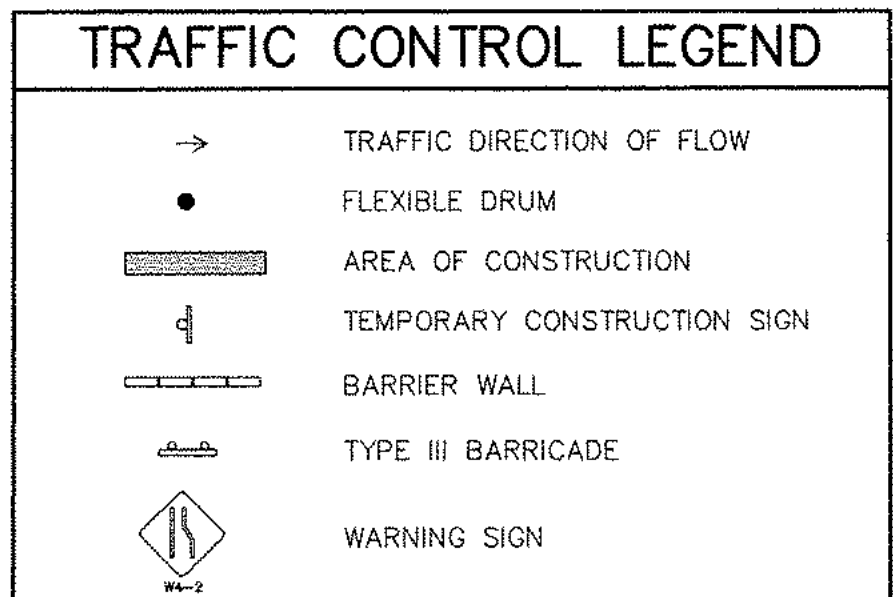


TRAFFIC CONTROL NOTES

- ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERRECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS 30-FOOT SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC. UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS 30-FOOT SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERRECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- THIS SET OF PLANS IS NOT INTENDED TO SUPERSEDE OR RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY TOWARD MOTORISTS OR PROPERTY OWNERS WITHIN THE CONSTRUCTION LIMITS.
- THE CONSTRUCTION SIGNING IS TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION. ALL REGULATORY AND WARNING SIGNS WHICH ARE NO LONGER APPROPRIATE BECAUSE OF THE CONSTRUCTION SHALL BE COVERED OR REMOVED.
- THE APPROPRIATE TRAFFIC CONTROL SHALL BE INSTALLED AT THE INCEPTION OF EACH STAGE OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED AND/OR OPERATED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE IMMEDIATELY REMOVED THEREAFTER.
- ALL TRAFFIC CONTROL DEVICES AND THEIR INSTALLATION SHALL MEET THE STANDARD PRESCRIBED IN THE STATE OF TENNESSEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL COMPLY WITH THE STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAYS, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 712 -- TEMPORARY TRAFFIC CONTROL.
- BARRICADE WARNING LIGHTS SHALL BE ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD FOR FLASHING AND STEADY BURN BARRICADE WARNING LIGHTS 1978.
- AT ALL TIMES THE ROADWAY MUST BE MAINTAINED IN A CONDITION TO ALLOW THE PASSAGE OF EMERGENCY VEHICLES AND THEIR ACCESS TO RESIDENCES THROUGHOUT THE CONSTRUCTION ZONE.
- THE TRAFFIC CONTROL PLAN AS SHOWN SHALL BE CONSIDERED AS A MINIMUM. OTHER DEVICES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER. EXTRA PAYMENT WILL BE MADE UNDER THE APPROPRIATE ITEM.
- ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED IMMEDIATELY UPON COMPLETION OF THE PROJECT.
- TYPE III BARRICADES OR DRUMS WITH ATTACHED TYPE C WARNING LIGHTS BE PROVIDED AS NECESSARY TO PROVIDE SAFE MOVEMENT OR TRAFFIC THROUGH CONSTRUCTION ZONE AT 40' C TO C. PARTICULAR ATTENTION SHALL BE PAID AT PAVEMENT EDGES WHERE CURB & GUTTER OR SHOULDERS ARE REMOVED OR TO BE REPLACED.
- ANY LANE CLOSURES SHALL BE SIGNED IN ACCORDANCE WITH SECTION VI OF MUTCD.
- THE CONTRACTOR IS DIRECTLY RESPONSIBLE FOR THE PROVISION OF ANY AND ALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH MUTCD AND SECTION 712 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED IMMEDIATELY UPON COMPLETION OF THE PORTION OF THE PROJECT. DURING CONSTRUCTION, CONTRACTOR SHALL FOLLOW T.D.O.T.'S "GUIDELINES FOR HANDLING DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS".
- PRIOR TO CLOSING ANY ROAD TO THROUGH TRAFFIC, THE CONTRACTOR WILL BE REQUIRED TO NOTIFY ALL AFFECTED LOCAL AGENCIES CONCERNING THE ROAD CLOSURE. THE AGENCIES TO BE CONTACTED SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING: FIRE DEPT., SHERIFFS DEPT., POST OFFICE, BOARD OF EDUCATION, ETC.
- SIGNAGE SHALL COMPLY WITH M.U.T.C.D. AND WITH T.D.O.T. STD. DWGS. T-M-1 THROUGH T-M-4.
- TRAFFIC AND STREET NAME SIGNS SHALL BE RELOCATED AND RESET AS AN INTEGRAL PART OF THE WORK.
- TRENCHES IN STREETS TEMPORARILY REOPENED TO TRAFFIC SHALL BE MAINTAINED AND SURFACED WITH COLD MIX OR BINDER UNTIL FINAL CONSTRUCTION.
- THE CONTRACTOR MAY DEVELOP AN ALTERNATE TRAFFIC CONTROL PLAN IF APPROVED BY THE CITY TRAFFIC DEPT AND CITY ENGINEER.
- ACCESS TO PROPERTY WITHIN CONSTRUCTION LIMITS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL FURNISH FLAGGER(S) AS NECESSARY. COST IS TO BE INCLUDED IN ITEM FOR TRAFFIC CONTROL.
- THESE PLANS ARE NOT INTENDED TO SUPERSEDE OR RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY TOWARD MOTORISTS OR PROPERTY OWNERS WITHIN CONSTRUCTION LIMITS OR TOWARD INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH CURRENT M.U.T.C.D. REQUIREMENTS.

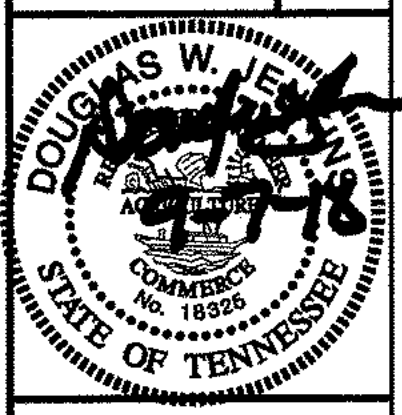
ROAD AND LANE CLOSURE SHALL BE LIMITED TO THE HOURS OF 9AM TO 3PM UNLESS SPECIAL APPROVAL IS RECEIVED FROM THE ENGINEERING DEPARTMENT. EACH SUCH CLOSURE SHALL BE CALLED IN TO THE ENGINEERING DEPARTMENT TRAFFIC OPERATIONS CENTER 615-791-3218 WITH 72 HOURS PRIOR NOTICE.

CONSTRUCTION SIGNS				
ITEM	DESCRIPTION	SIZE	# REQ'D	SF
G20-2	END ROAD WORK	36" x 18"	5	22.5
W20-1	ROAD CONSTRUCTION AHEAD	36" x 36"	10	90
	TOTAL			112.5



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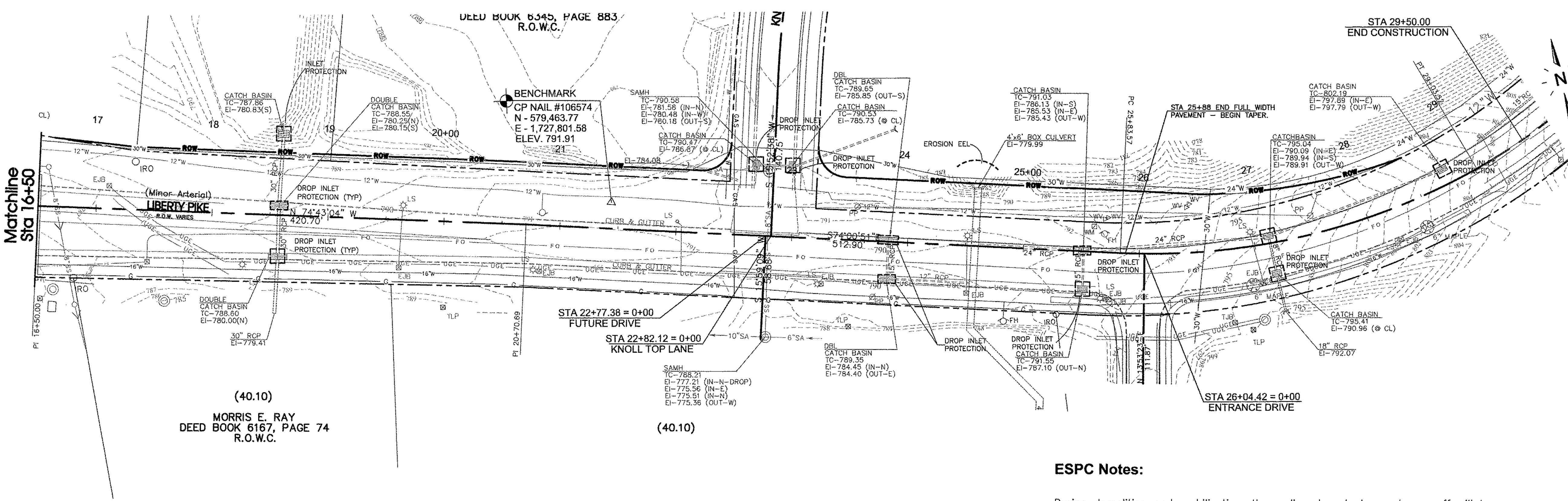
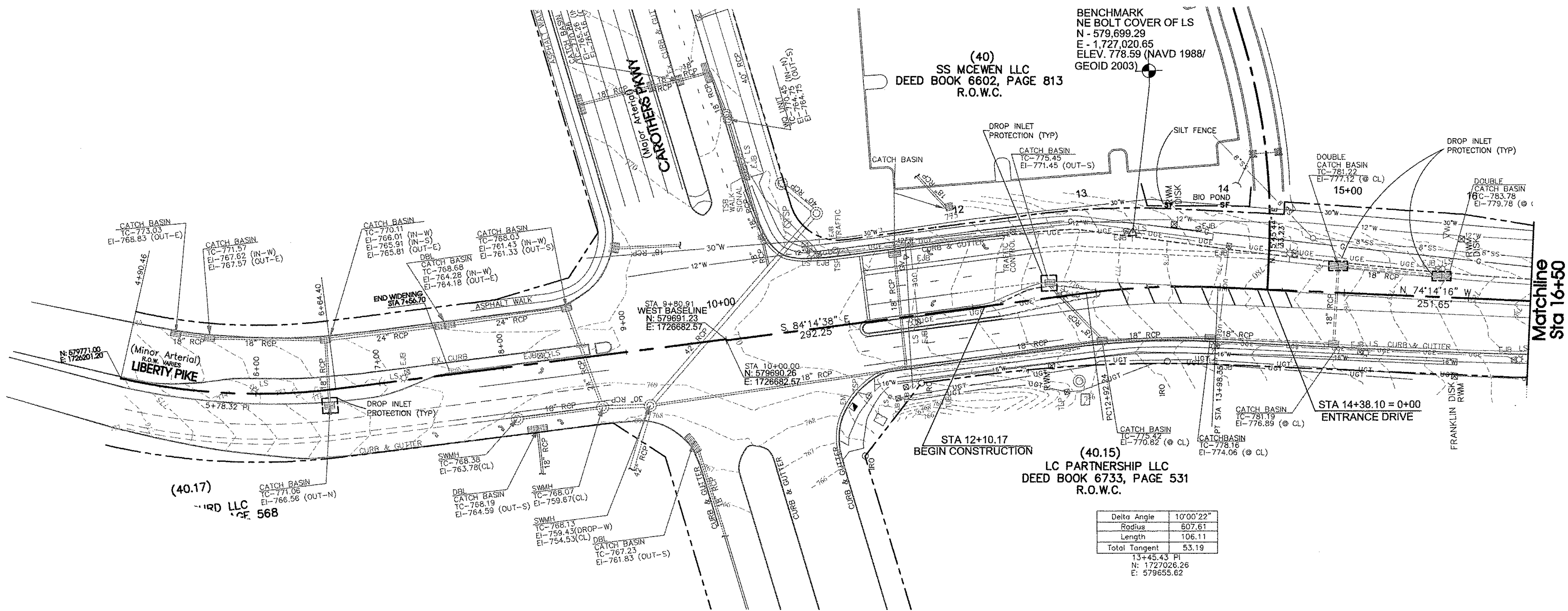
LIBERTY PIKE WIDENING  
COF Project No. 6787  
Franklin, Tennessee

REVISIONS:

DATE:	2-2-16
CHECKED:	DWJ
FILE NAME:	15316project
SCALE:	1"=100'
JOB NO.	15316
SHEET:	10

Traffic Control Plan





ESPC Notes:

During demolition and mobilization, the sediment and stormwater runoff will be controlled with certain Best Management Practices (BMPs). Silt fence will be installed on the downslope sides of the site. The existing storm inlets will be protected with drop bag type inlet protection. Erosion EELS are should be placed at the entrance to the existing box culvert to prevent sediment from entering the culvert. A washout area will be provided for the concrete trucks as required.

It is the contract's responsibility during construction to install and maintain all sedimentation and storm water pollution prevention BMPs described above and detailed within the plans at all times, which includes regular removal and disposal of accumulated debris. All erosion and sediment controls must be maintained properly until the site is stabilized. Maintenance must include inspections of all erosion and sediment controls after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair replacement, re-grading, re-seeding, re-mulching and re-netting must be performed immediately.

See Sheet 2B for additional notes.

**Legend:**

EXIST. CONCRETE MONUMENT	INLET PROTECTION FILTER
IRON PIN SET (I.P.S.)	HANDICAP PARKING SYMBOL
IRON PIN FOUND (I.P.F.)	HC SIGN
EXIST. SIGN POST	HEADWALL
EXIST. SEWER CLEANOUT	WINGED HEADWALL
EXIST. MANHOLE (SEWER & PHONE)	MANHOLE
EXIST. CATCH BASIN (STORM SEWER)	PROPOSED SPOT ELEVATION
EXIST. WATER/GAS VALVE	EXIST. SPOT ELEVATION
EXIST. TELEPHONE RISER	POST INDICATOR VALVE
EXIST. GAS RISER	REDUCER
ELECTRICAL ENCLOSURE	REMOTE FIRE DEPT. CONNECTION
EXIST. WATER METER	REVISION NUMBER
EXIST. UTILITY POLE	RIP RAP
EXIST. FIRE HYDRANT	RUNOFF FLOW ARROW
BENCHMARK	SEWER/STORM FLOW DIRECTION
BLOW OFF VALVE	TRAFFIC ARROW
CONCRETE BOLLARD	TURN LANE ARROWS
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CONCRETE THRUST BLOCK	GREASE TRAP
DOUBLE DETECTOR CHECK VALVE	DRAINAGE STRUCTURE DESIGNATION
FIRE DEPT. CONNECTION	DRAINAGE PIPE DESIGNATION
FIRE HYDRANT	CONCRETE SIDEWALK
GAS METER	EXTRUDED CURB
GATE VALVE & BOX	CURB & GUTTER
EXTERIOR CLEANOUT	CONCRETE SWALE

EXISTING PHONE	UGT
EXISTING ELECTRIC	OH
PROPERTY LINE	
EASEMENTS	
RIGHT OF WAY	ROW
EROSION CONTROL SILT FENCE	SF SF
EXISTING TREELINE	
EXISTING FENCELINE	X X
MINIMUM BUILDING SETBACK LINE	MBSL
PHASE BOUNDARY	
EXISTING GAS LINE	GAS GAS
PROPOSED GAS LINE	GAS GAS
EXISTING STORM	
PROPOSED STORM	
EXISTING CONTOUR LINES	601
PROPOSED CONTOUR LINES	601
EXISTING SANITARY SEWER	SS SS
PROPOSED SANITARY SEWER	SS SS
EXISTING WATER	W W
PROPOSED WATER	W W
EROSION EEL	E E E E

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**LIBERTY PIKE WIDENING**  
**COF Project No. 6787**  
Franklin, Tennessee

**Initial ESPC Plan**

REVISIONS:  
DRAWN: MLG  
DATE: 2-2-16  
CHECKED: DWJ  
FILE NAME: 15316project  
SCALE: 1"=50'  
JOB NO. 15316  
SHEET: 11





# SEC, Inc.

## SITE ENGINEERING CONSULTANTS

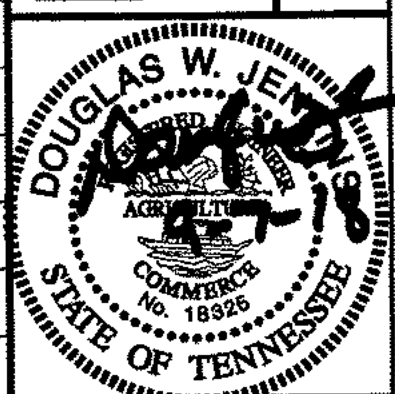
850 MIDDLE TENNESSEE BOULEVARD  
 MEMPHIS, TENNESSEE 38102  
 PHONE (615) 268-2587  
 TELETYPE (615) 268-2587

LANDSCAPE ARCHITECTURE  
 ENGINEERING • SURVEYING • LAND PLANNING  
 MORRIS SHORR, INC. 37-69  
 1000 WILKINSON ROAD, SUITE 100  
 NORTON, MASSACHUSETTS 01946  
 PHONE (617) 894-2587

NO PORTION OF THE DRAWING MAY BE REPRODUCED WITHOUT THE EXPRESSED WRITTEN CONSENT OF S.E.C., INC.

The site as shown on these construction drawings is intended to achieve specific engineering design criteria and objectives. It is the belief of the engineer that the design as noted described, and illustrated, meets the minimum engineering requirements for the intended use of the site.

The engineer assumes no administrative liability or responsibility in the design as shown. The construction of the site is constrained in accordance with the construction plans.

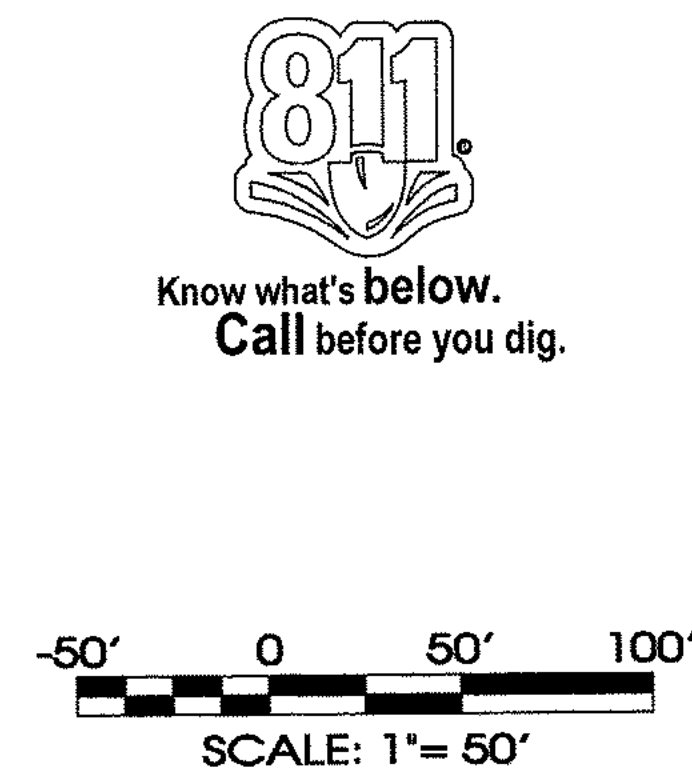


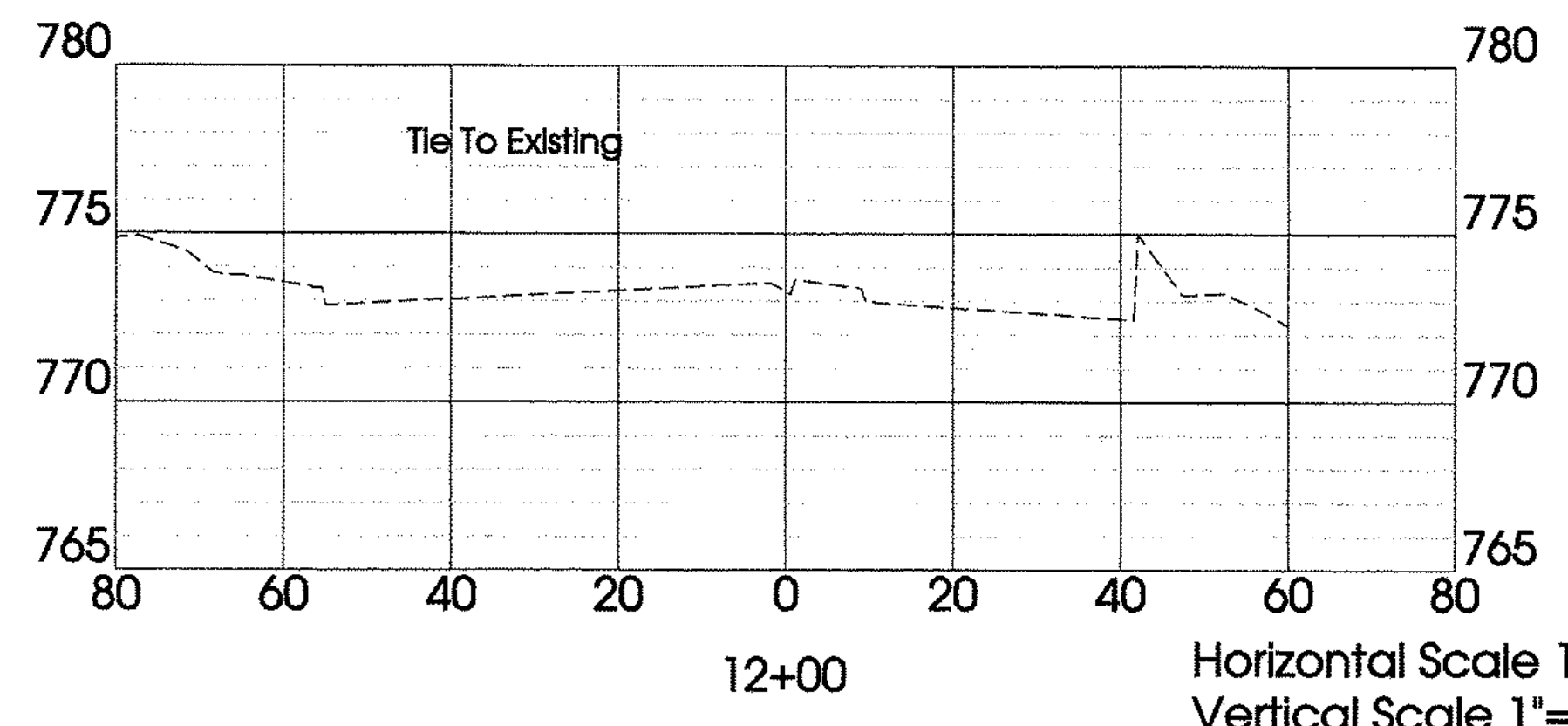
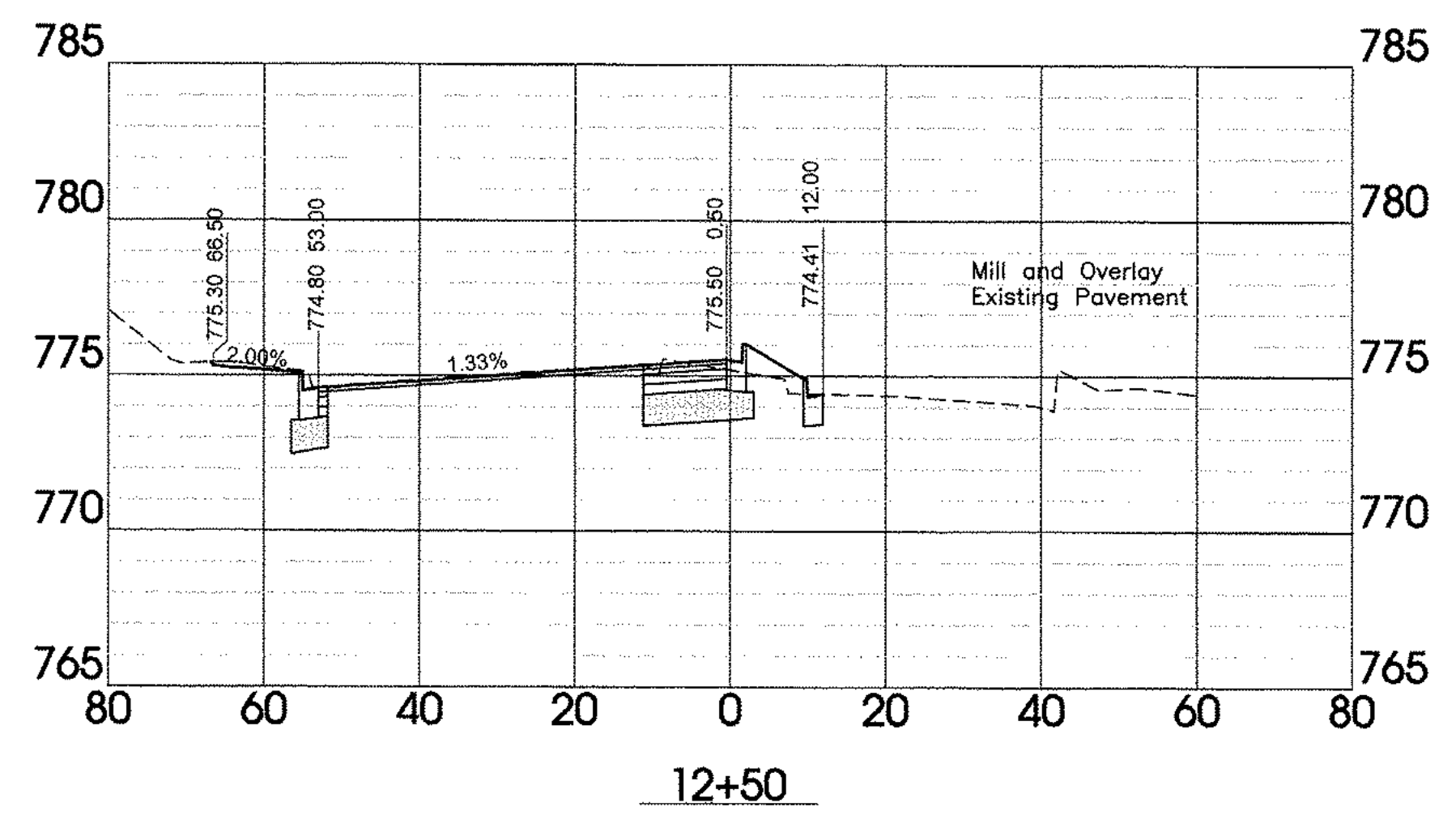
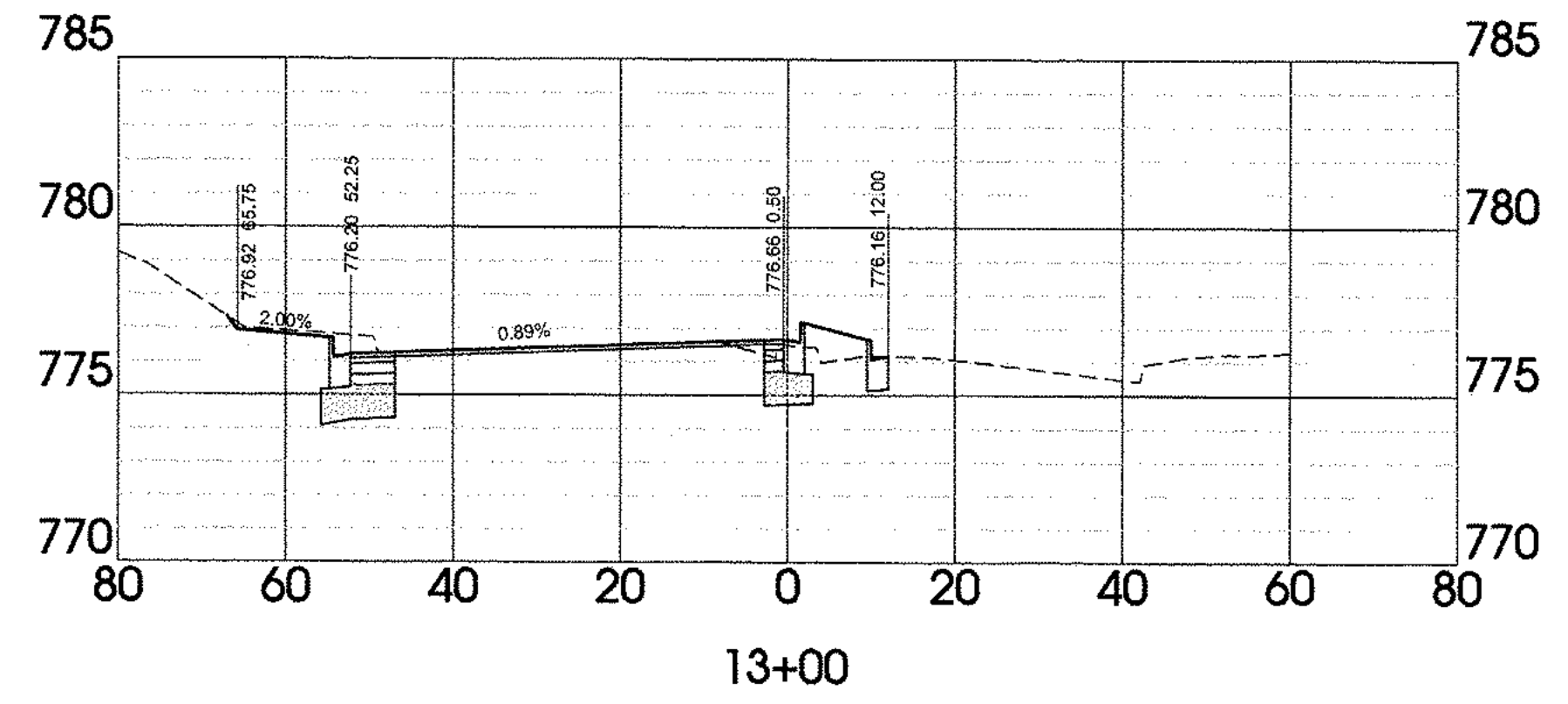
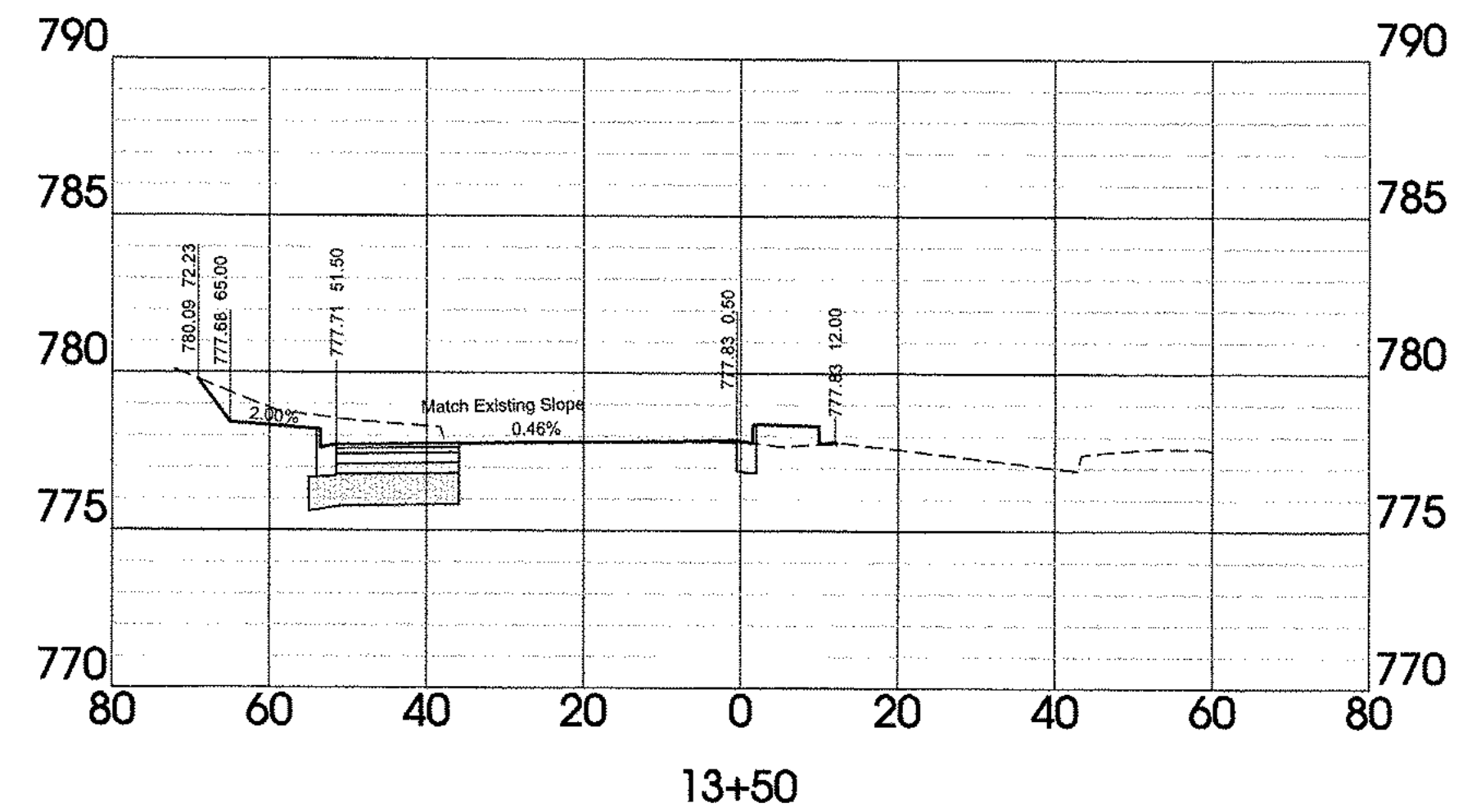
LIBERTY PIKE WIDENING  
COF Project No. 6787  
Franklin, Tennessee

Franklin, Tennessee

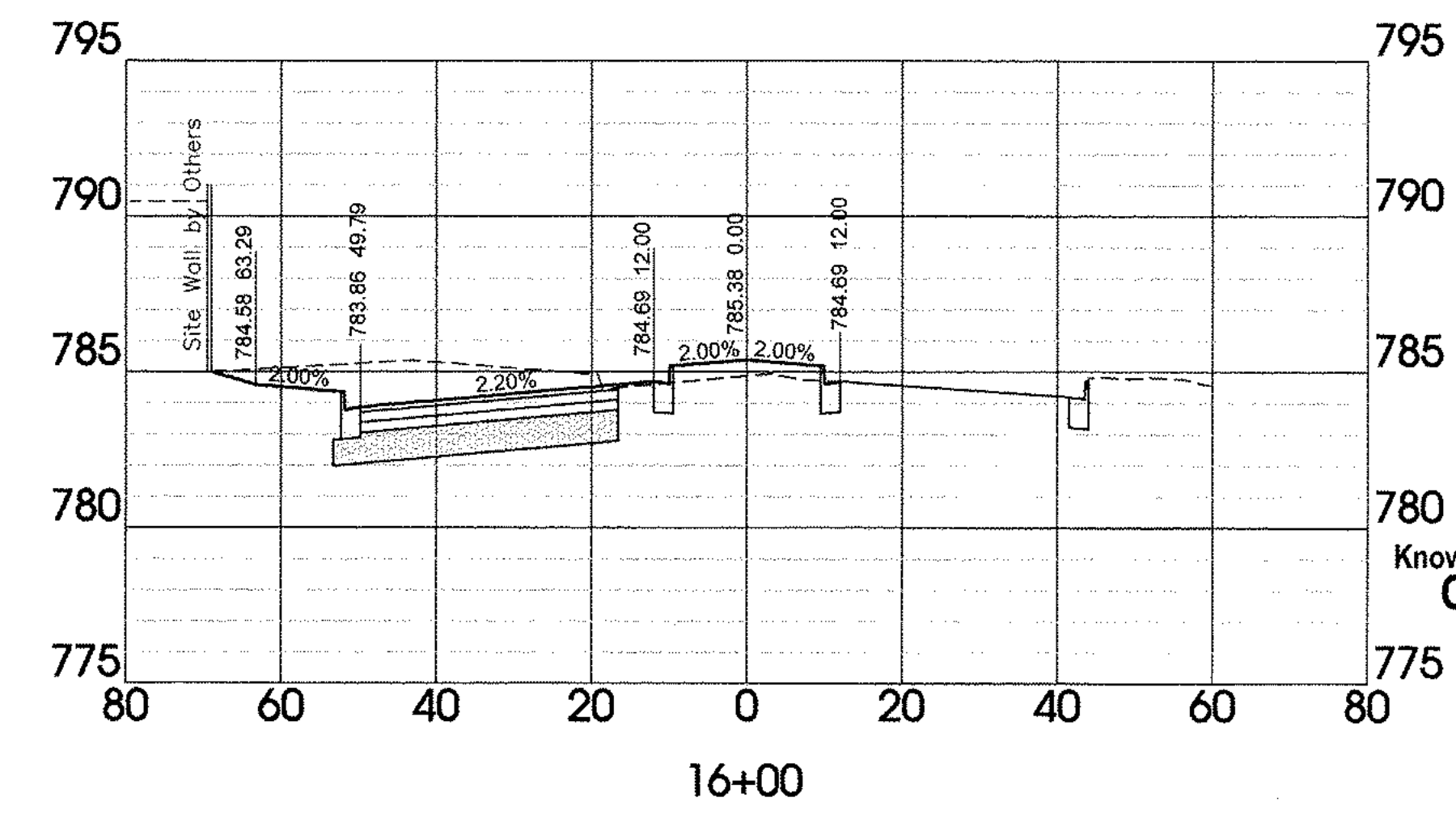
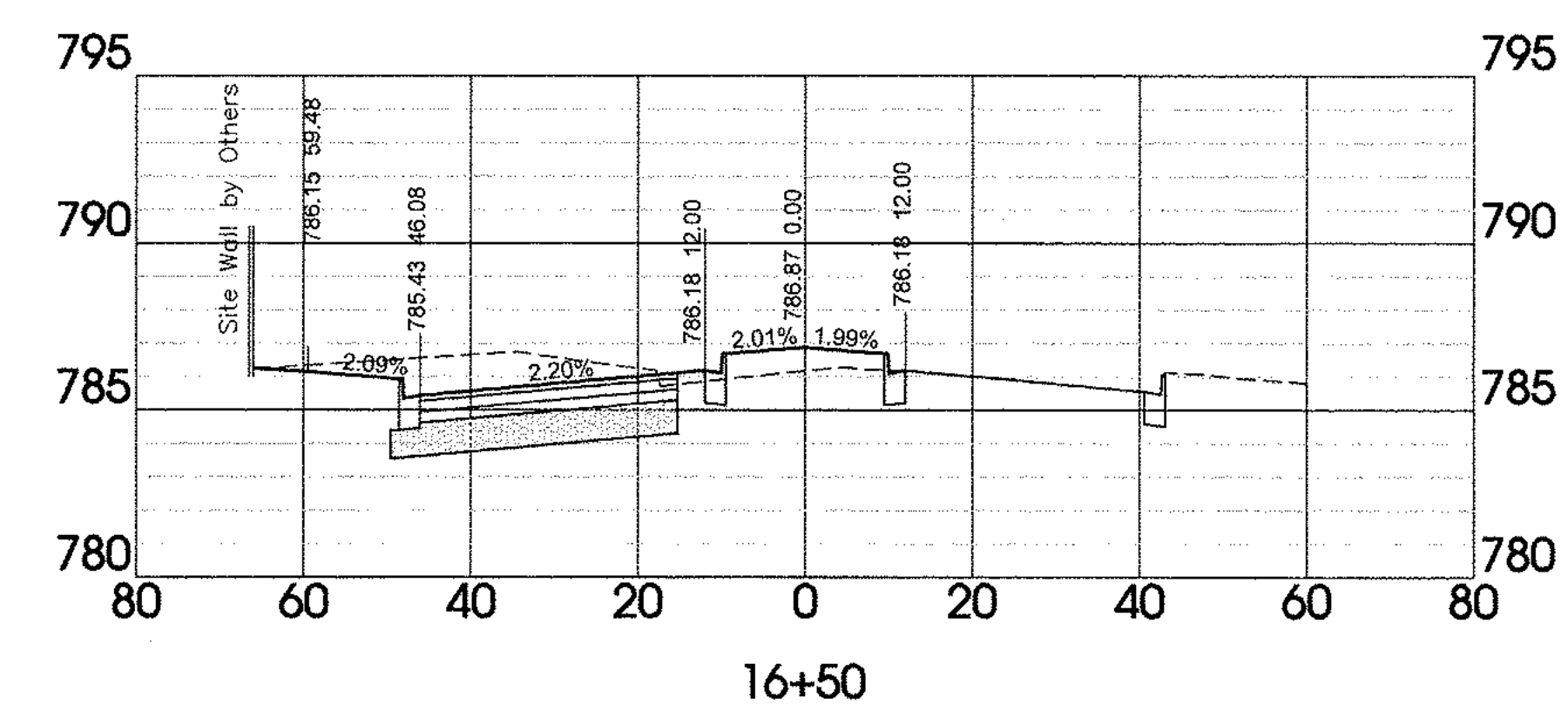
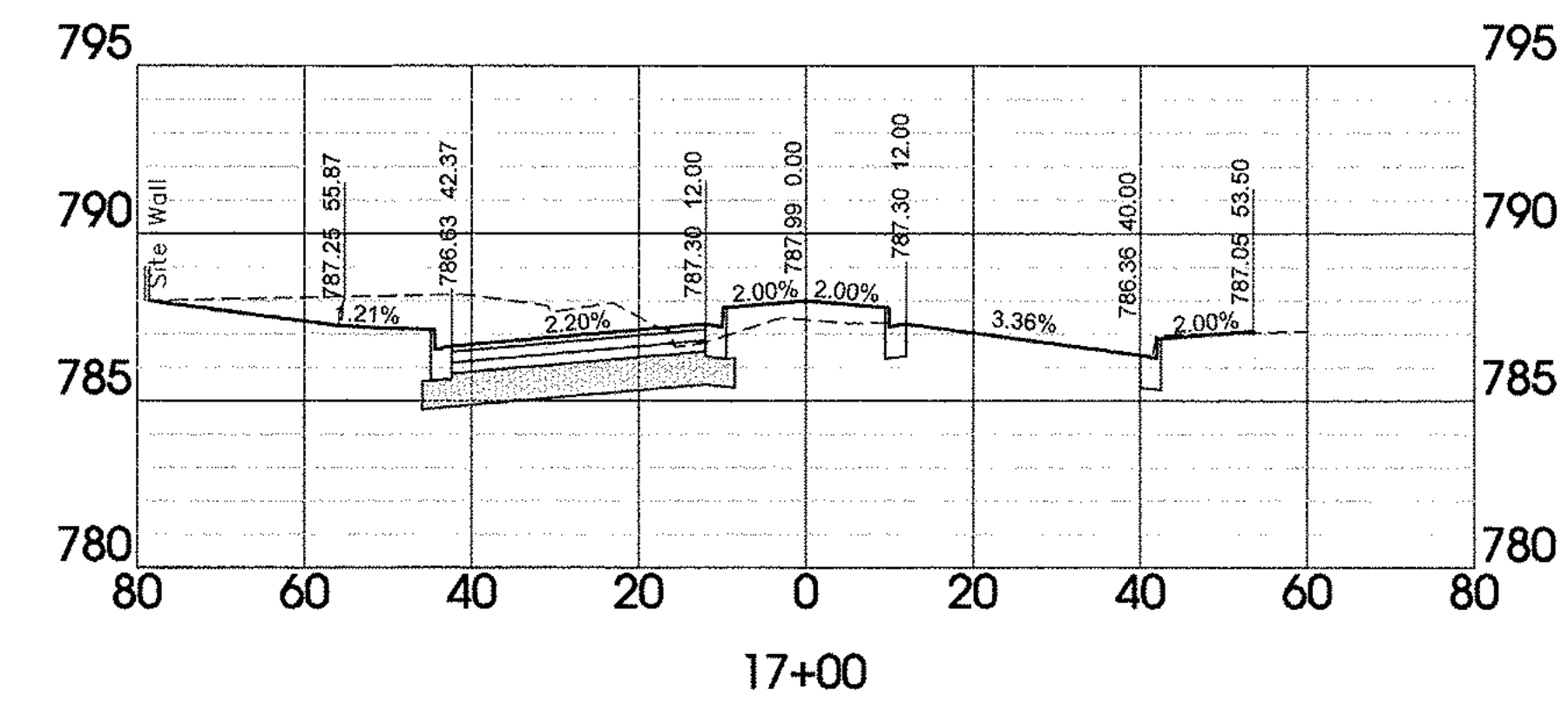
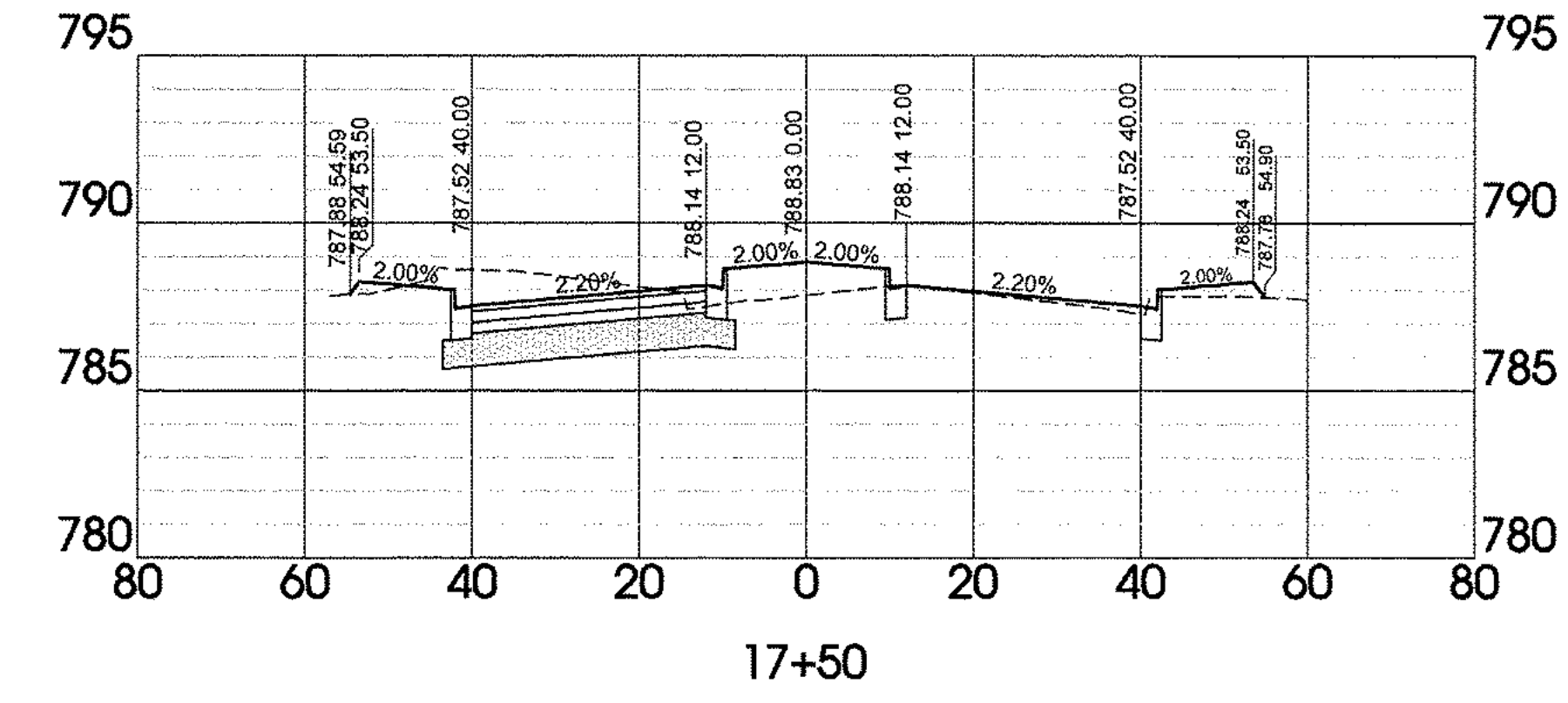
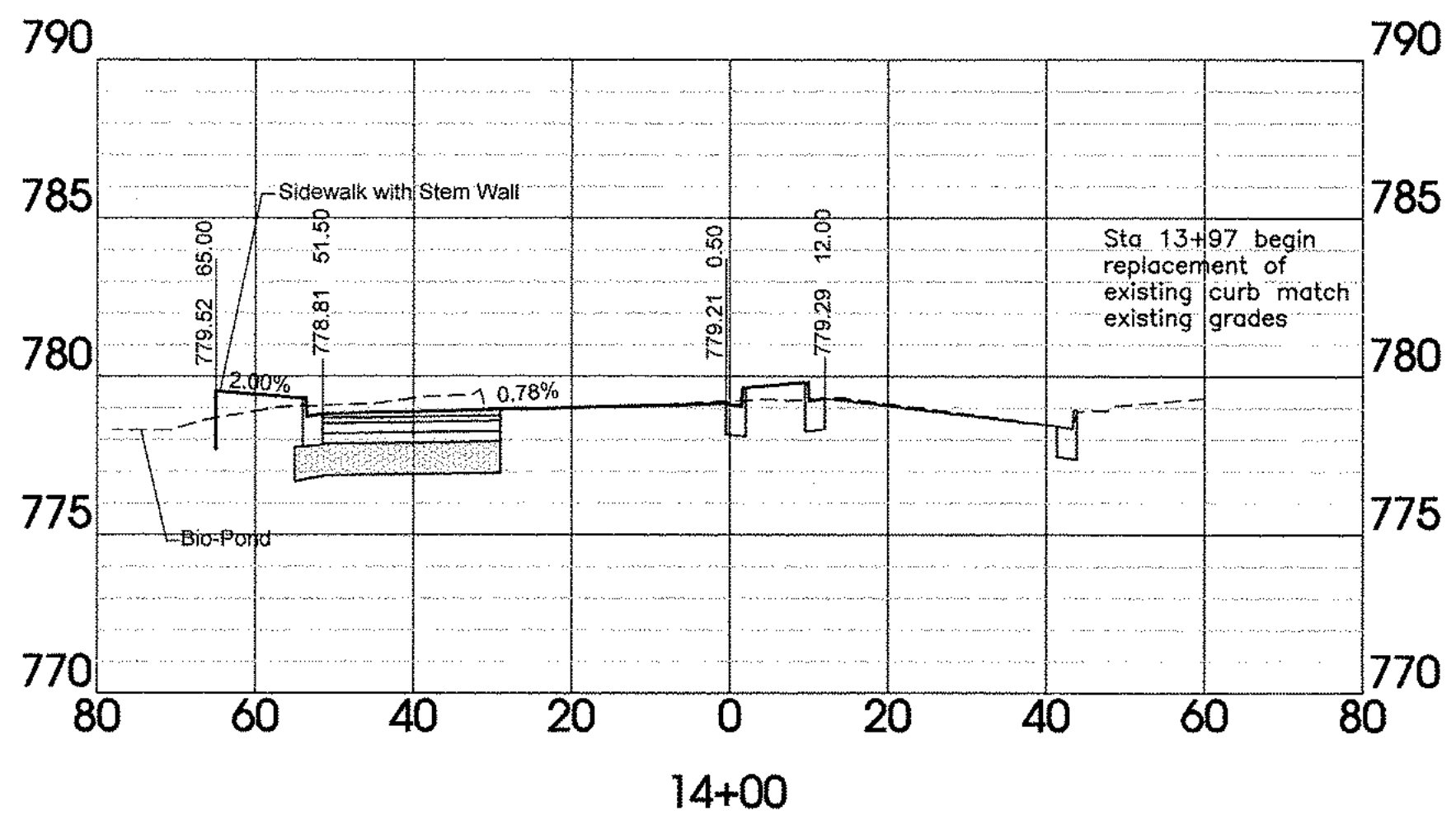
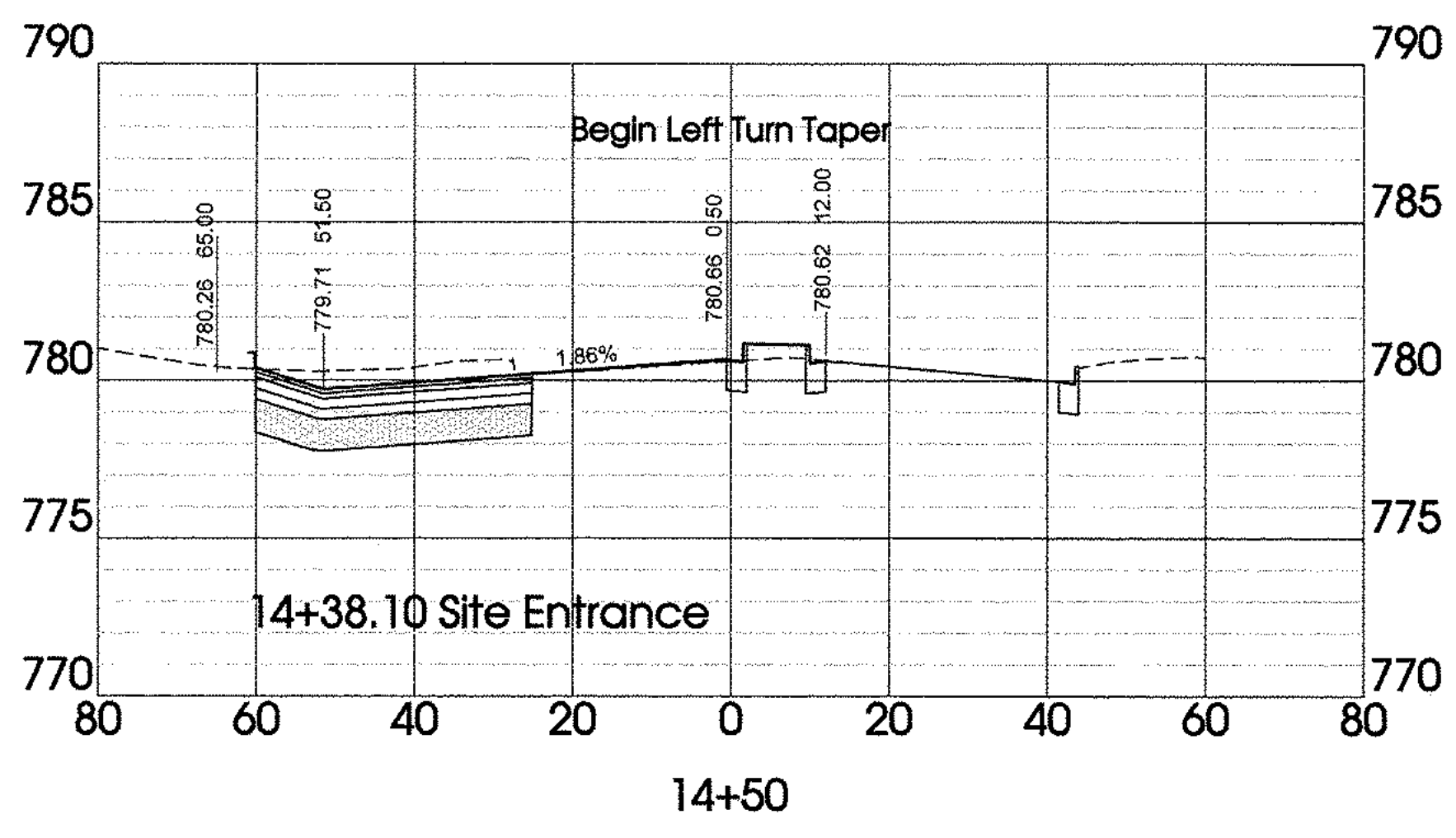
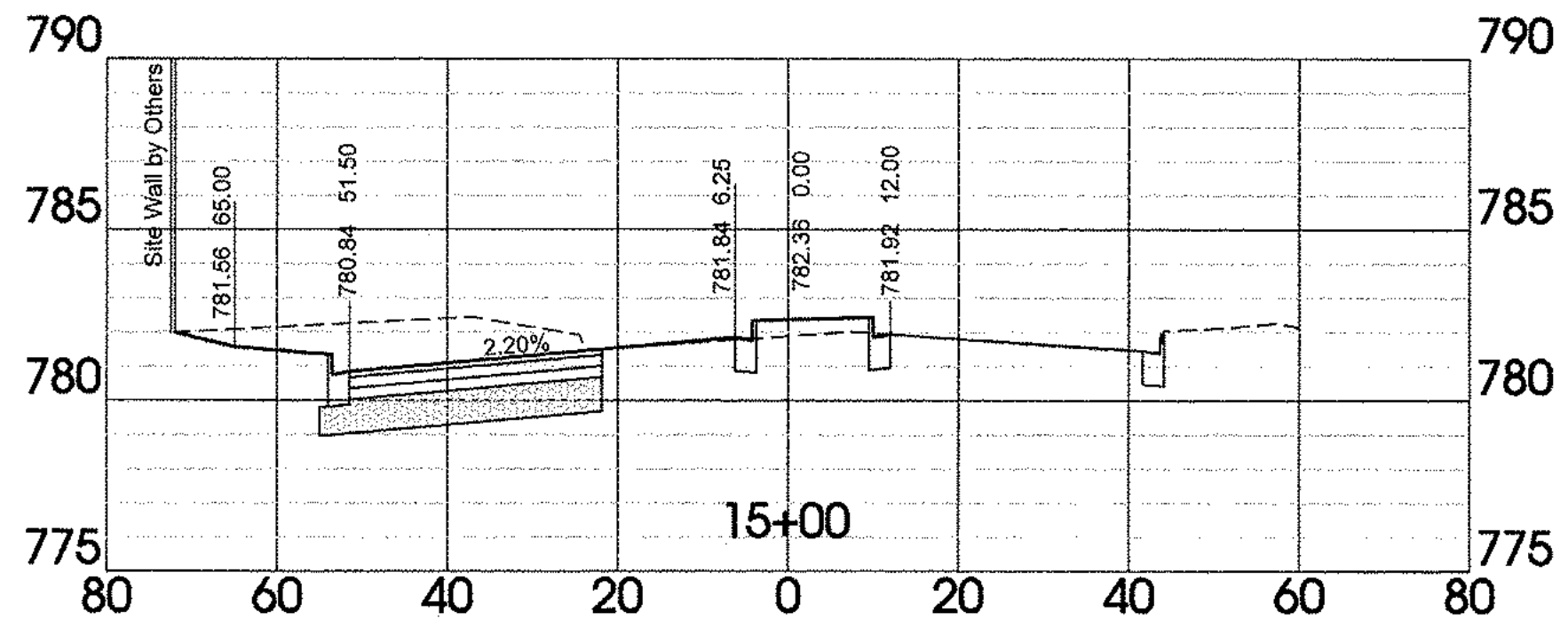
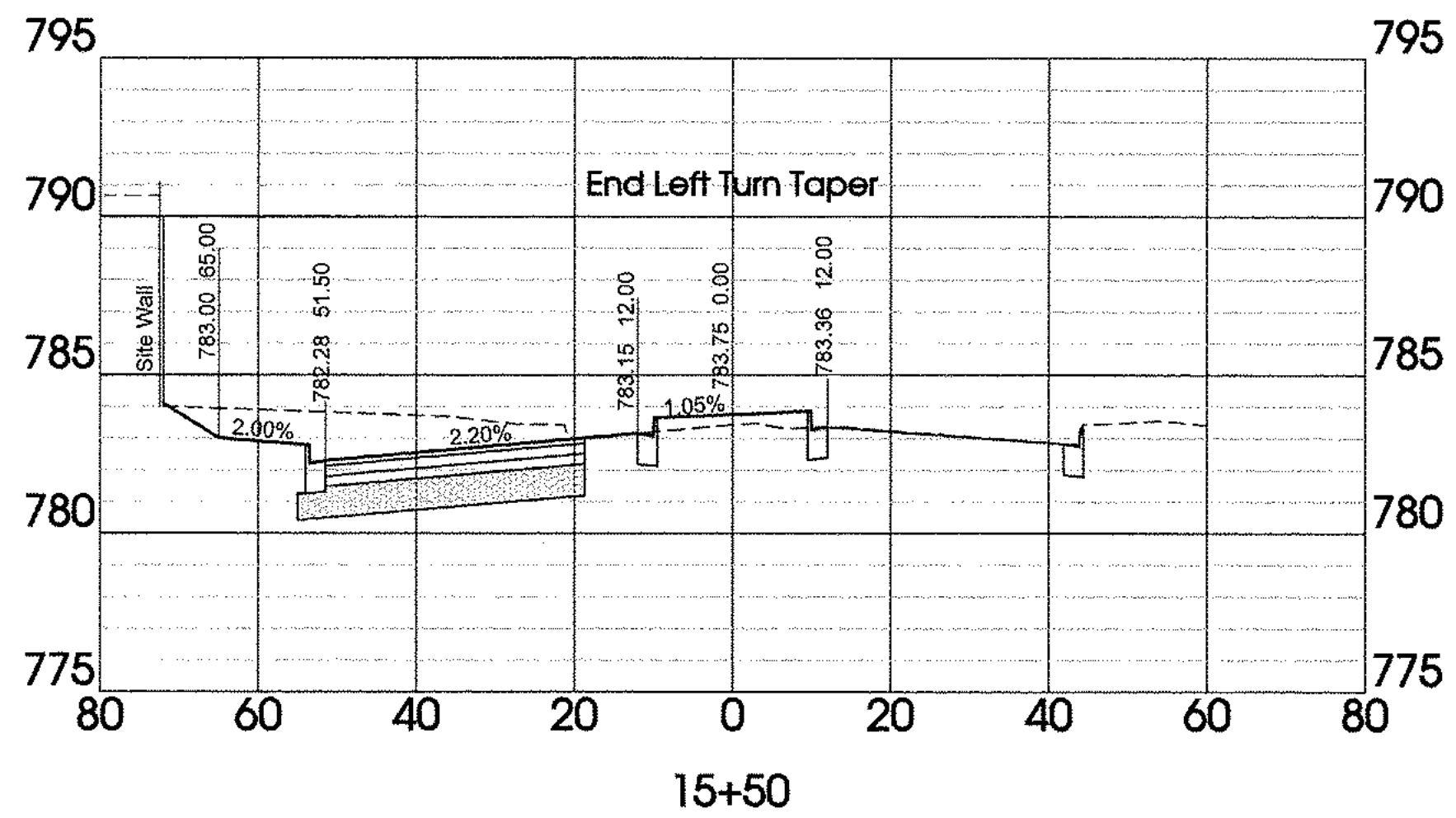
## Final ESPC Plan

12

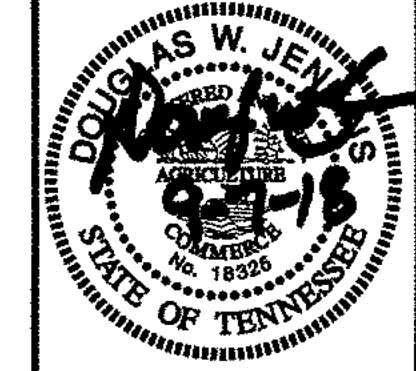




Horizontal Scale 1"=20'  
Vertical Scale 1"=5'



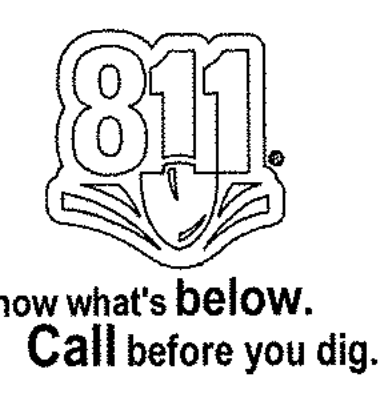
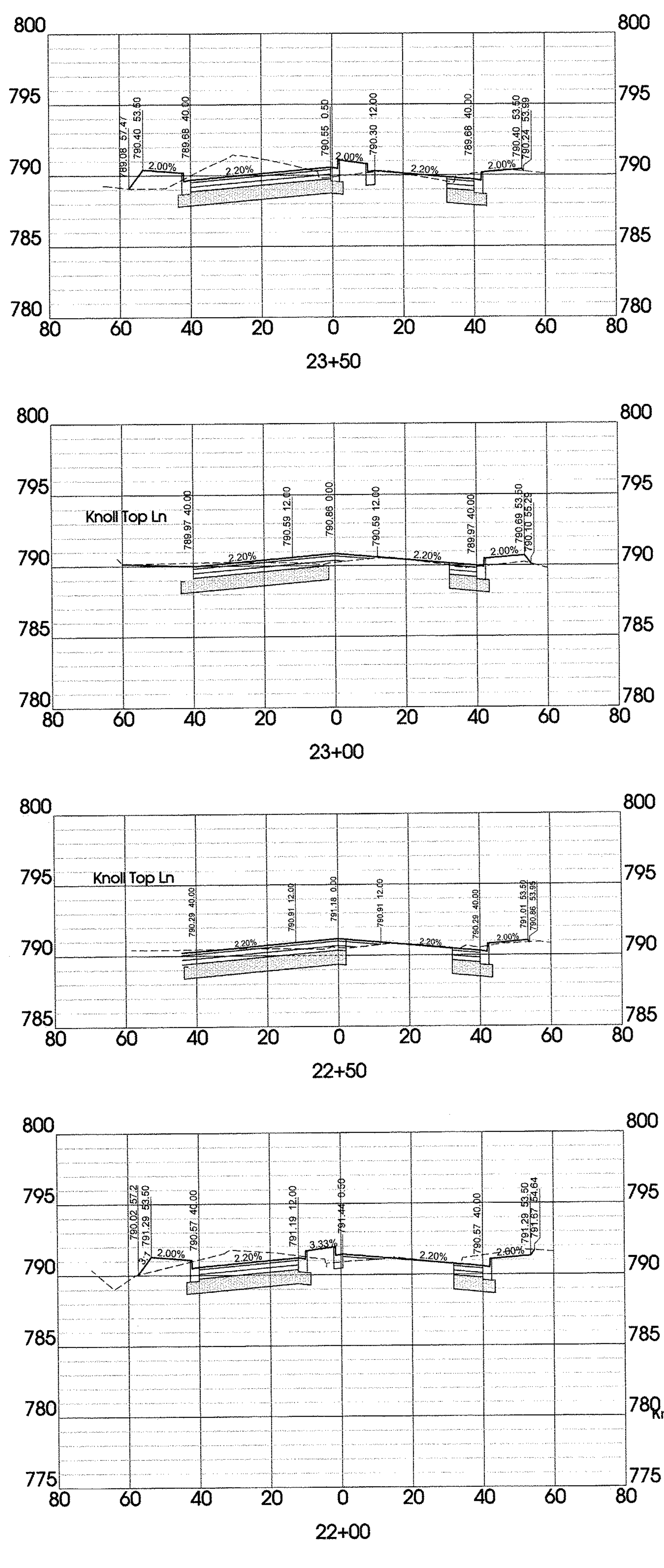
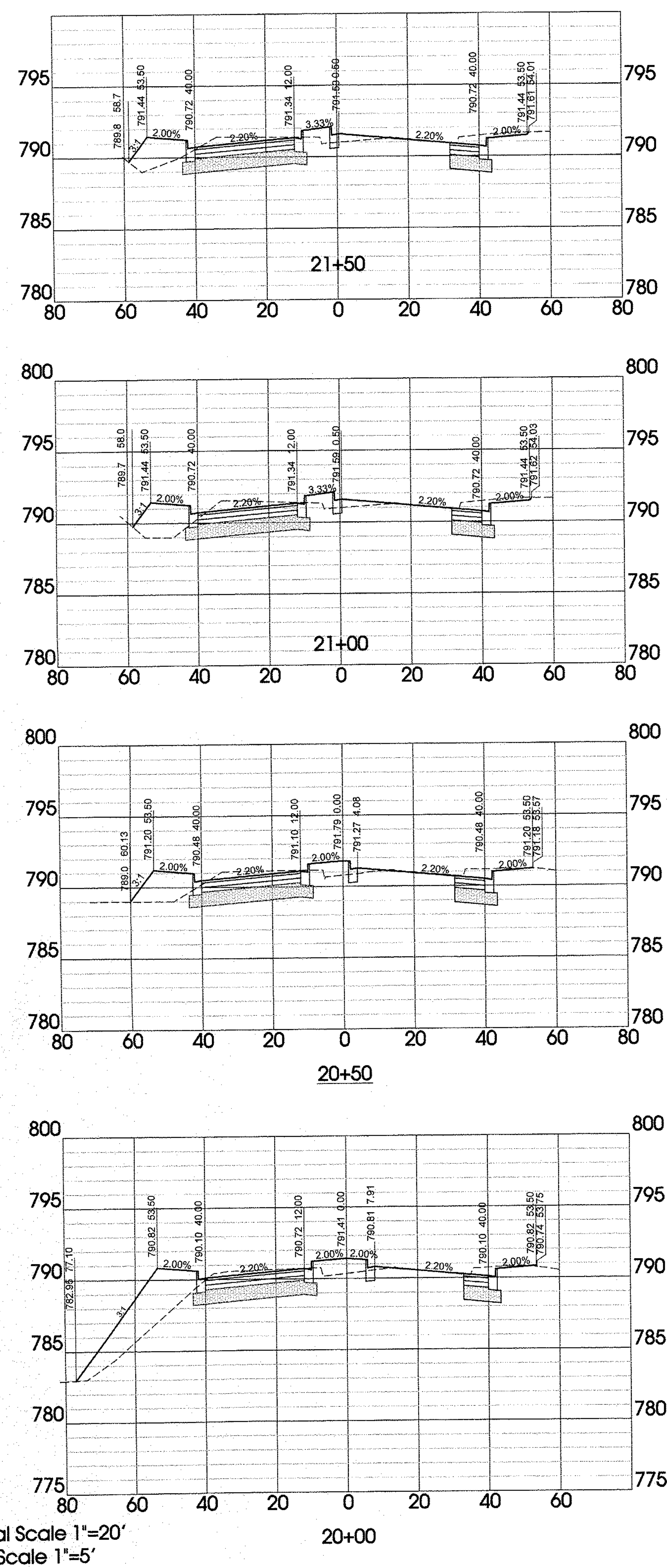
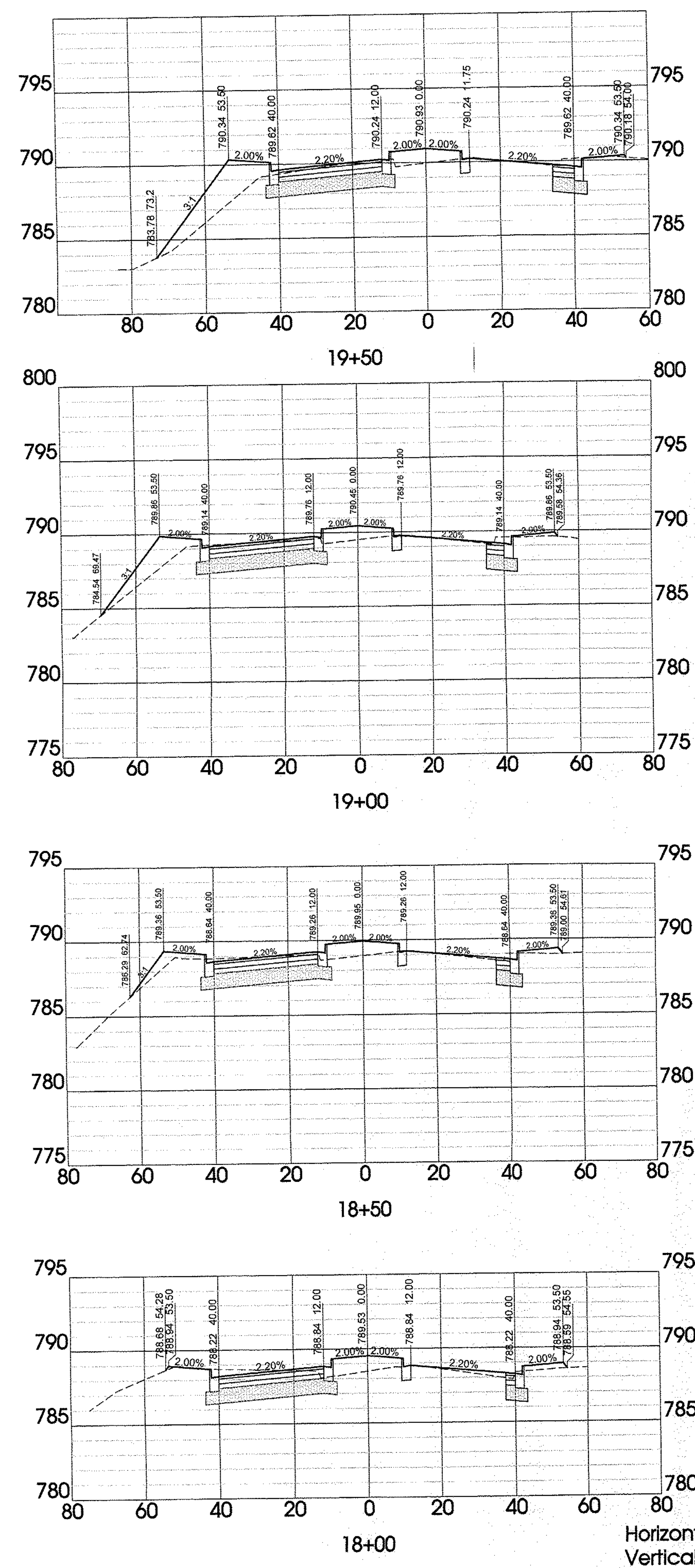
**SEC, Inc.**  
SITE ENGINEERING CONSULTANTS  
ENGINEERING • SURVEYING • LAND PLANNING  
LANDSCAPE ARCHITECTURE  
850 MIDDLE TENNESSEE BOULEVARD  
MURFREESBORO, TENNESSEE 37129  
PHONE: (615) 890-7800 FAX: (615) 895-2567  
E-MAIL: [SEC@SEC-INC.COM](mailto:SEC@SEC-INC.COM)  
NO PORTION OF THIS DRAWING MAY BE REPRODUCED WITHOUT THE EXPRESSED WRITTEN CONSENT OF SEC, INC.



**Liberty Pike Widening**  
**COF Project No. 6787**  
Franklin, Tennessee

REVISION:	09-07-18 City Comments
DRAWN:	MLG
DATE:	2-2-16
CHECKED:	DWJ
FILE NAME:	15316project
SCALE:	As Shown
JOB NO.	15316
SHEET:	XS1





**SITE ENGINEERING CONSULTANTS**  
ENGINEERING • SURVEYING • LAND PLANNING  
LANDSCAPE ARCHITECTURE  
850 MIDDLE TENNESSEE BOULEVARD  
MURFREESBORO, TENNESSEE 37129  
PHONE: (615) 890-7801 E-MAIL: DJENKINS@SEC-CIVIL.COM FAX: (615) 895-2667  
NO PORTION OF THIS DRAWING MAY BE REPRODUCED WITHOUT THE EXPRESSED WRITTEN CONSENT OF S.E.C. INC.

The site as shown on these construction drawings is intended to show the general location of the proposed project and is not intended to be used for any other purpose. The engineer assumes no liability for the construction of the project or for the safety of the project. The engineer assumes no liability for the construction of the project or for the safety of the project.

**SEC, Inc.**

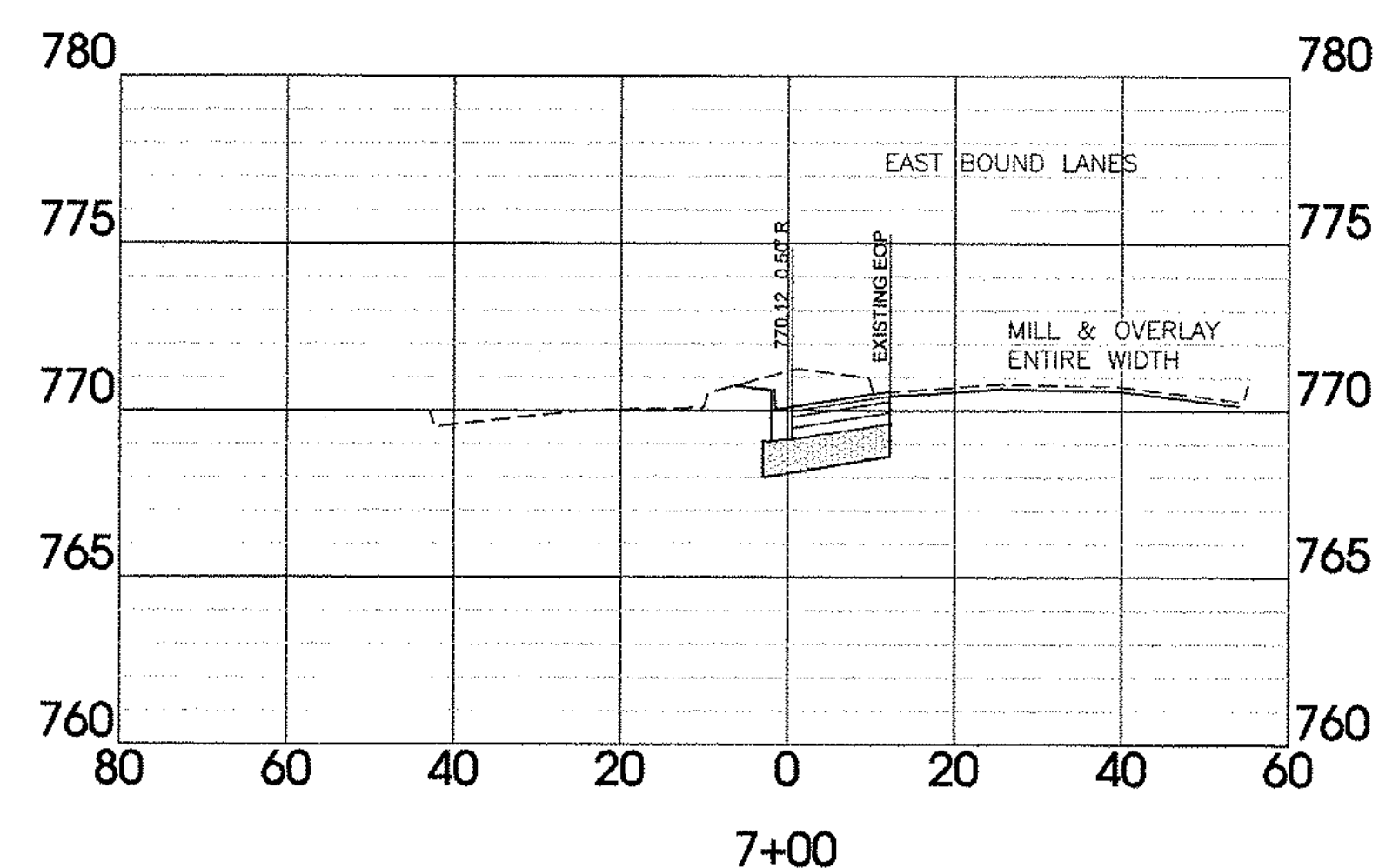
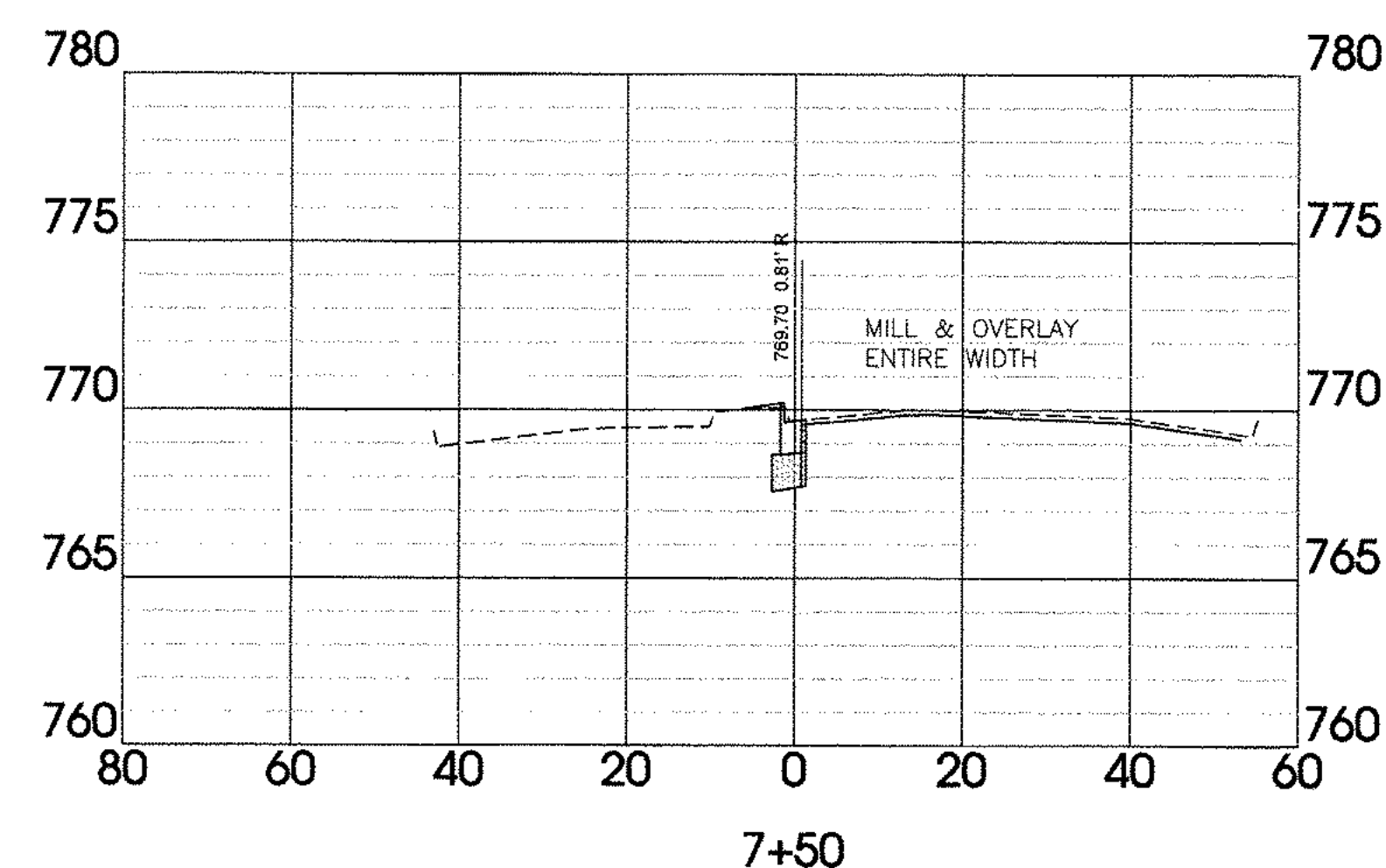
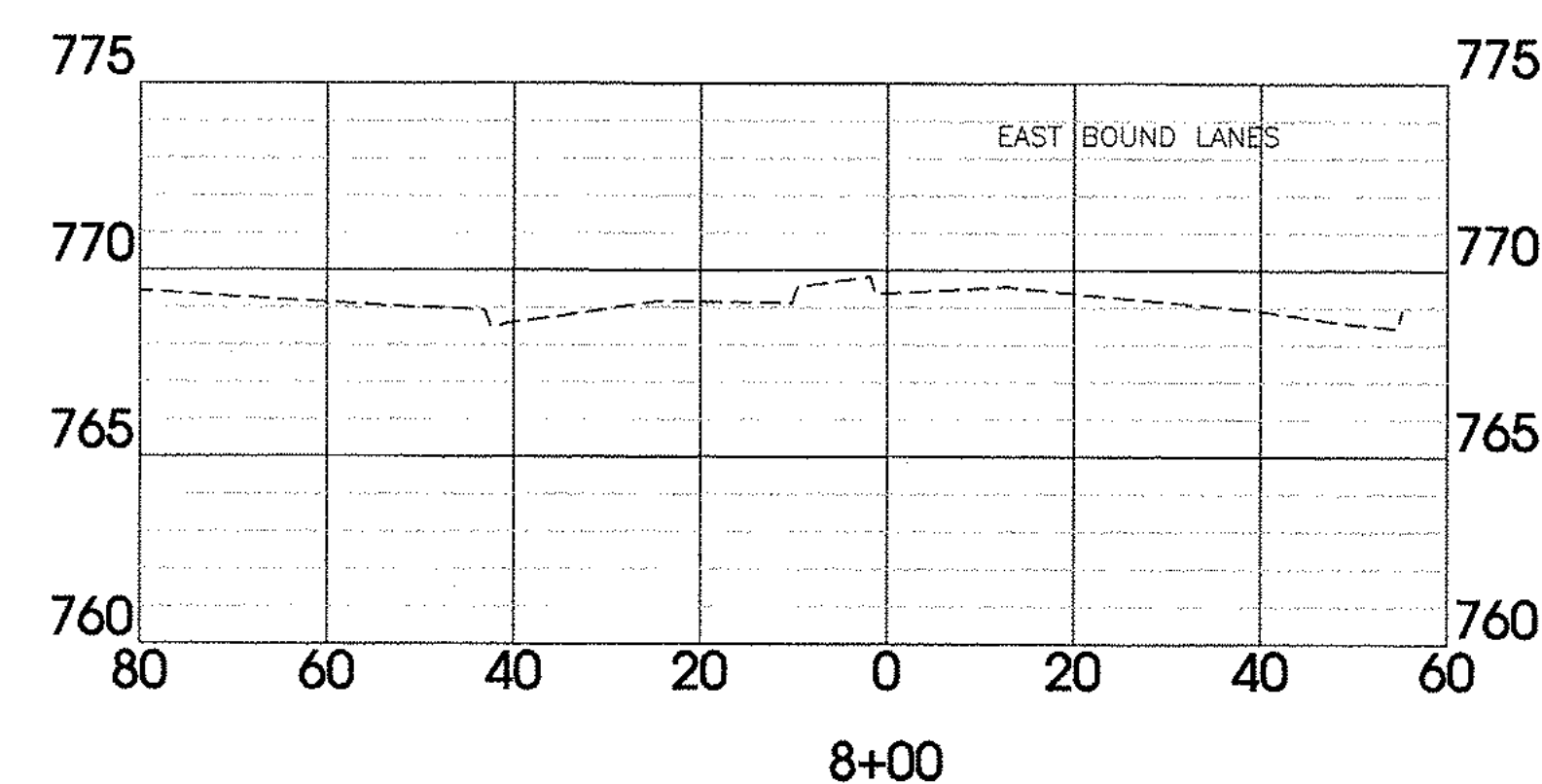
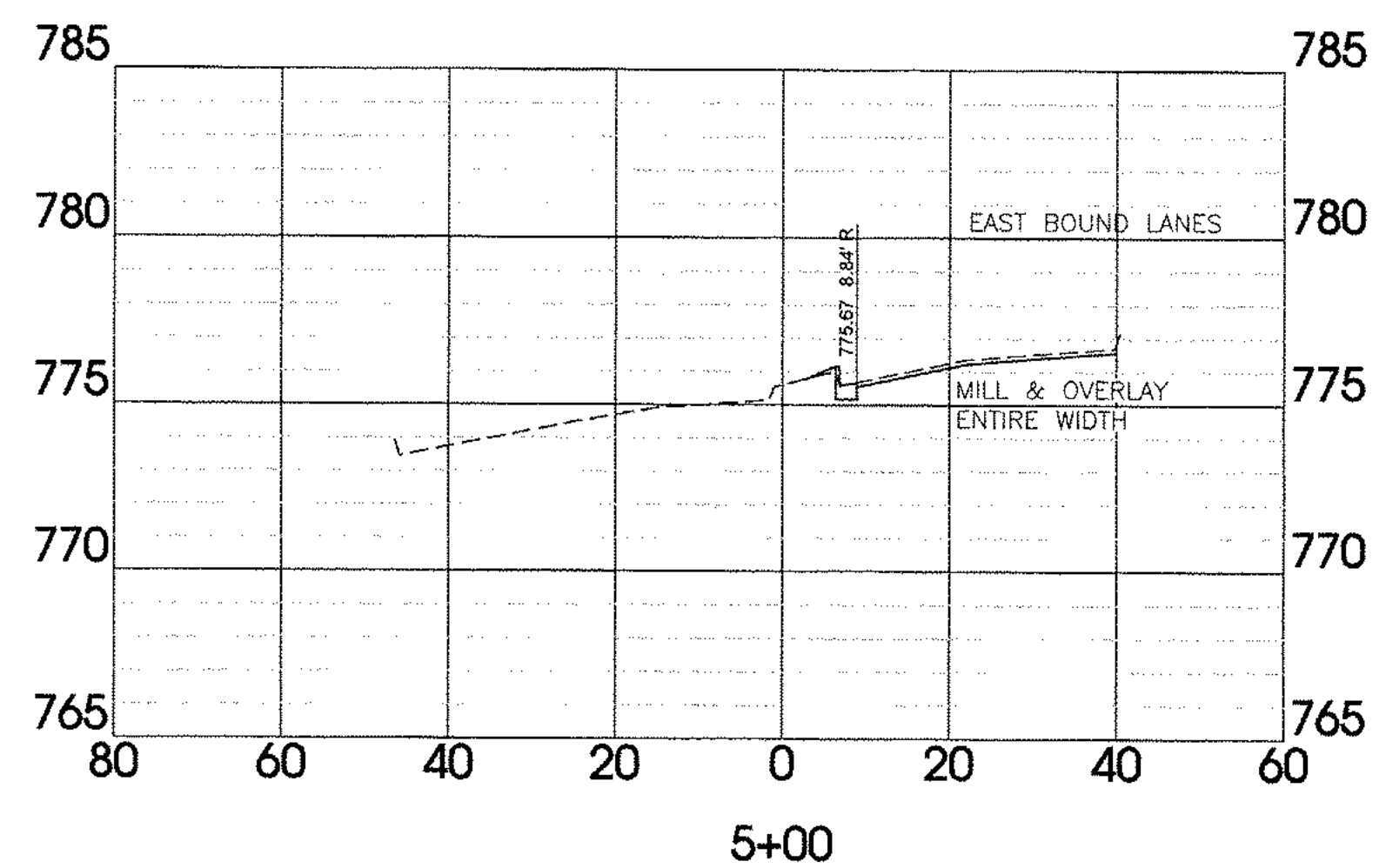
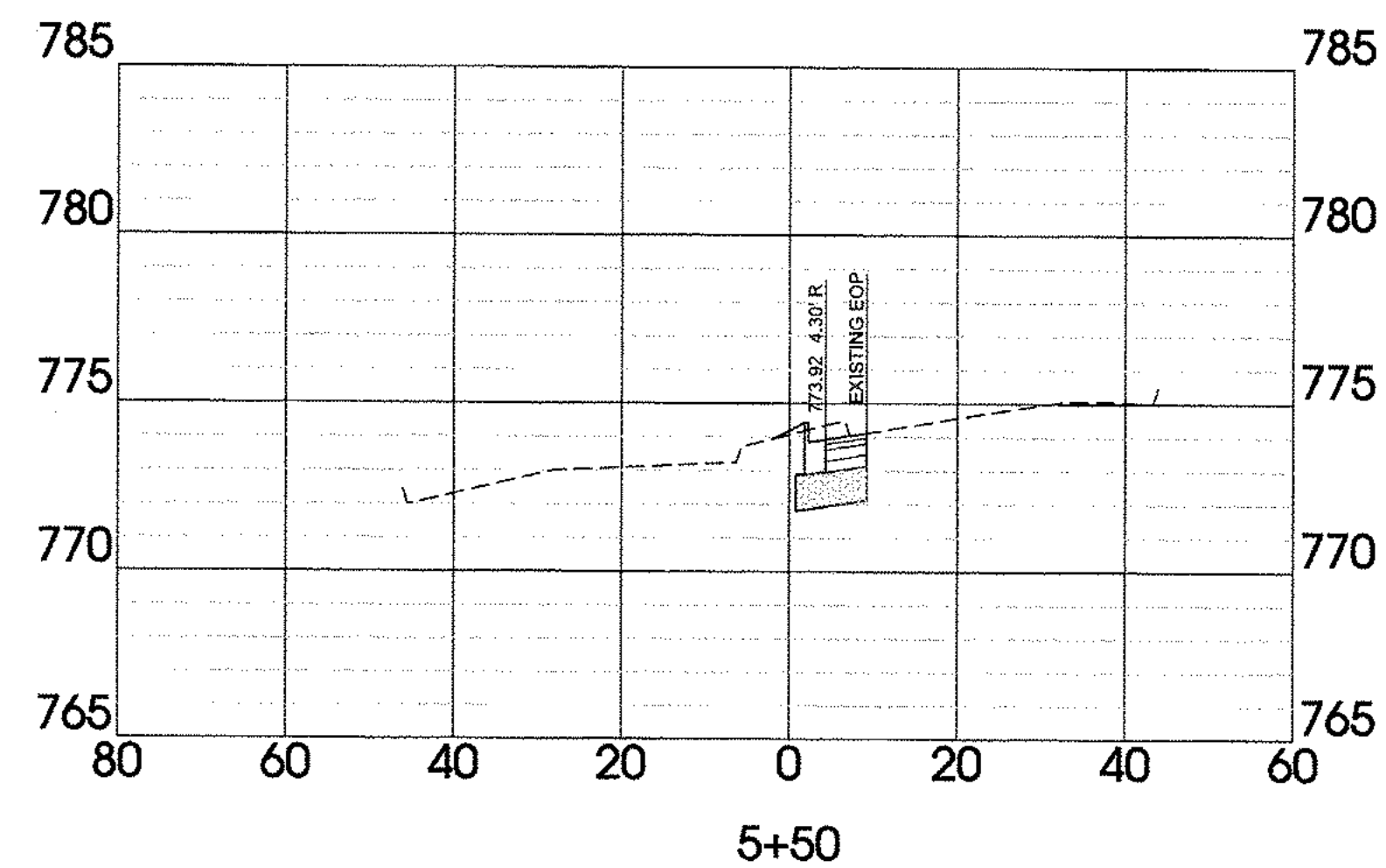
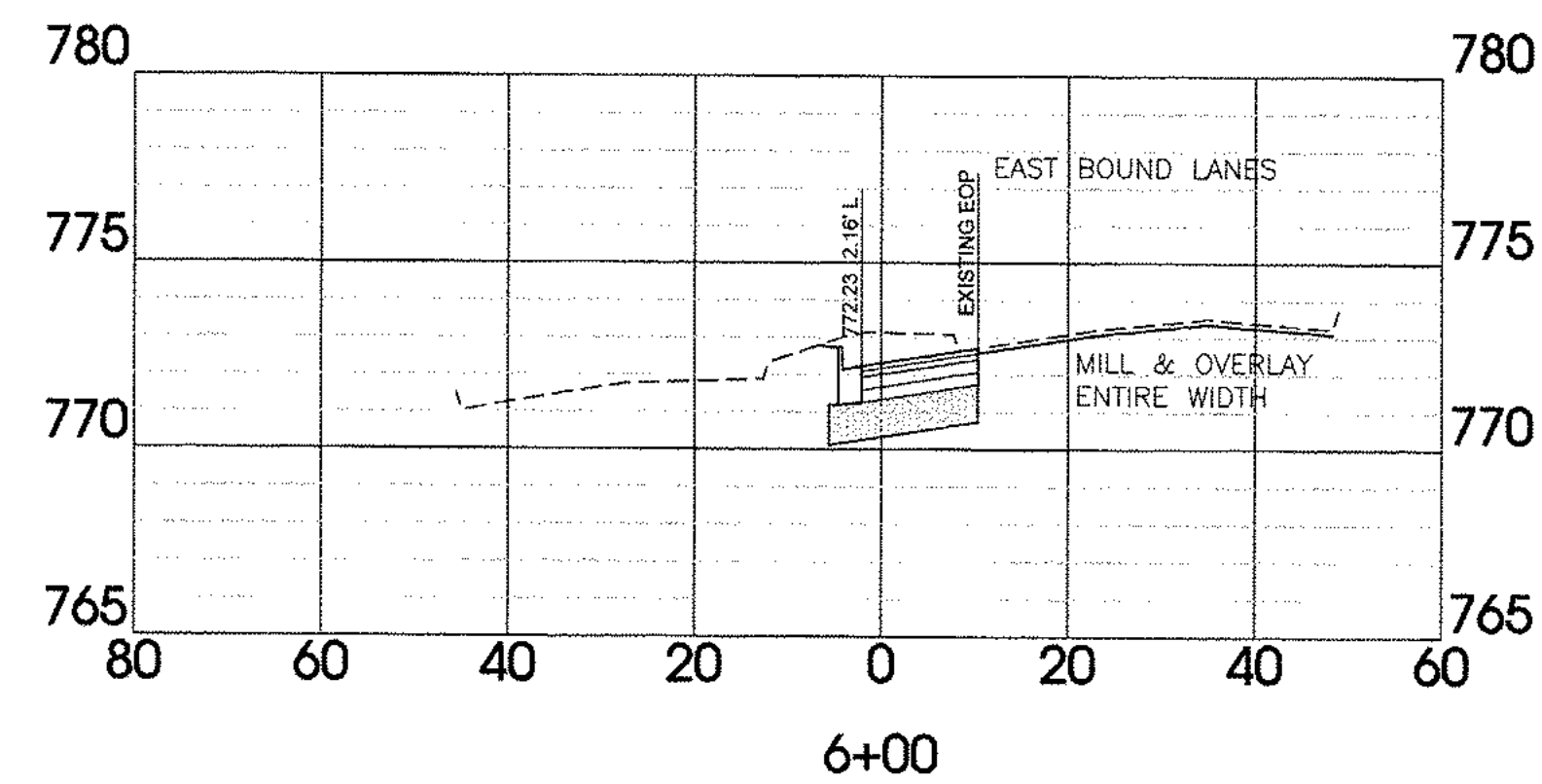
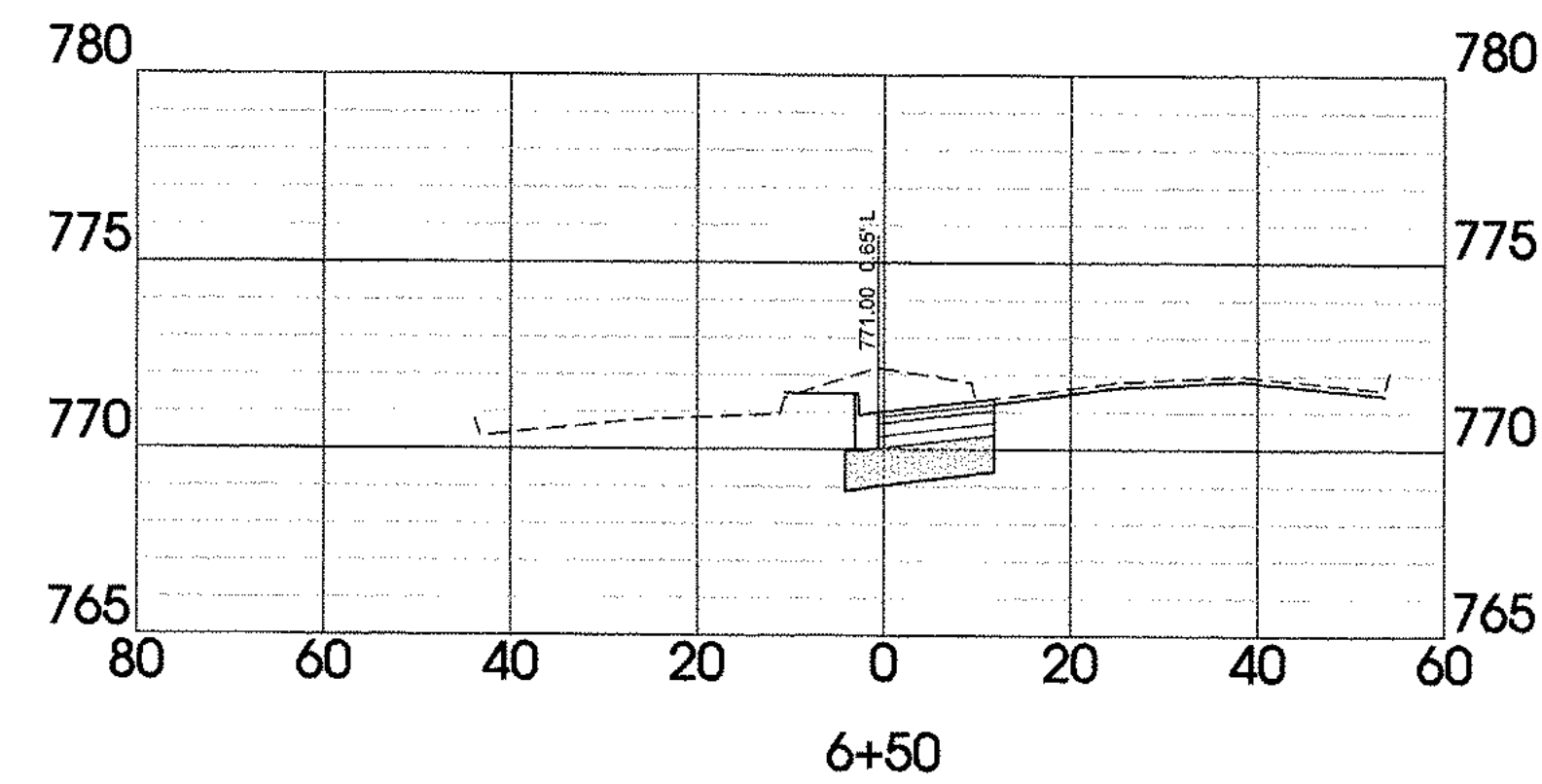
DOUGLAS W. JENKINS  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF TENNESSEE  
1988

**Liberty Pike Widening**  
**COF Project No. 6787**  
Franklin, Tennessee

REVISION:	09-07-18	City Comments
DRAWN:	MLG	
DATE:	2-2-16	
CHECKED:		
DWJ		
FILE NAME:	15316project	
SCALE:	As Shown	
JOB NO.	15316	
SHEET:	XS2	





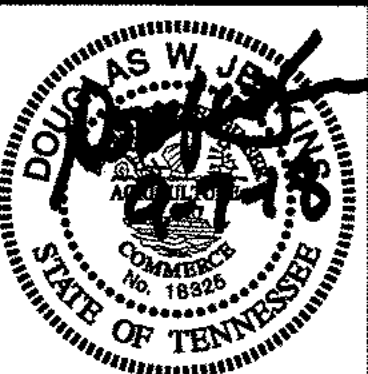


Horizontal Scale 1"=20'  
Vertical Scale 1"=5'



Know what's below.  
Call before you dig.

**SITE ENGINEERING CONSULTANTS**  
ENGINEERING • SURVEYING • LAND PLANNING  
LANDSCAPE ARCHITECTURE  
850 MIDDLE TENNESSEE BOULEVARD  
MURFREESBORO, TENNESSEE 37199  
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**Liberty Pike Widening**  
**COF Project No. 6787**  
Franklin, Tennessee

REVISED:	
DRAWN: MLG	
DATE: 2-2-16	
CHECKED:	
DWJ	
FILE NAME:	15316project
SCALE:	As Shown
JOB NO.	15316
SHEET:	

**XS4**

# Williamson County Property Assessment Database

---

## Property Details for: 5060 CAROTHERS PKWY

---

County Number 94

Current Tax Year 2018

## Property Owner and Address

---

**Owner** TRI STAR ENERGY LLC

**Address** 1740 ED TEMPLE BLVD  
NASHVILLE, TN 37208

## Property Location

---

**Address** 5060 CAROTHERS PKWY

**DI** 09

**Map** 079

**Group**

**Ctrl** 079

**Parcel** 04022

**PI**

**SI**

000

# Value Information

---

**Valuation Year** 2017

## Market Appraisal

<b>Land Market Value</b>	\$1,254,000
<b>Improvement Value</b>	\$0
<b>Total Market Appraisal</b>	\$1,254,000

**Assessment %** 40%

**Assessment** \$501,600

# General Information

---

**Lot Dimensions** 0.0 × 0.0

**Legal Acreage** 2.2800

**Property Class** 108 Commercial

**City** Franklin (263264)

**Subdivision & Lot** 1. CAROTHERS CROSSING EAST, lot  
0004

**Plat Book & Page** 1. Book: 64, Page:  
148

# Building Information

---

No buildings on record

# Features

No features on record.

# Sales Information

Sales Date	Price	Deed Book	Deed Page
2016-10-27	\$3,809,322	6915	810



## Facilities Tax

Residential – Single-Family Detached Dwellings	\$.89 Per Gross SQ. FT. to include heated and unheated
Non-Residential	\$1.18 Per Gross SQ. FT.
Other Residential – including Condos, Townhomes, Duplexes, and Apartments	\$.71 Per SQ. FT.

Road Impact Fees  
Implementation of Fee Schedule

Land Use Type	Unit	Pre-2011	Effective <sup>1</sup> 1-Jul-11	Effective <sup>2</sup> 1-Jul-12	Effective <sup>3</sup> 1-Jul-13	Effective <sup>4</sup> 1-Sep-14
Single-Family Detached	Dwelling	\$2,191.00	\$2,700.00	\$3,514.00	\$4,227.00	\$4,911.00
Multi-Family	Dwelling	\$1,537.00	\$1,844.00	\$2,336.00	\$2,766.00	\$3,112.00
Mobile Home Park	Site	\$1,144.00	\$1,378.00	\$1,752.00	\$2,079.00	\$2,338.00
Congregate Care Facility	Dwelling	\$440.00	\$566.00	\$767.00	\$943.00	\$1,093.00
Hotel/Motel	Room	\$1,126.00	\$1,432.00	\$1,922.00	\$2,350.00	\$2,567.00
Retail/Commercial						
Shopping Center/General Retail	1000 sq. ft.	\$2,681.00	\$3,510.00	\$4,836.00	\$5,996.00	\$6,484.00
Restaurant, Quality	1000 sq. ft.	\$4,964.00	\$6,499.00	\$8,955.00	\$11,104.00	\$12,069.00
Restaurant, Fast Food	1000 sq. ft.	\$7,177.00	\$9,426.00	\$13,023.00	\$16,171.00	\$17,442.00
Office/Institutional						
Office	1000 sq. ft.	\$1,891.00	\$2,430.00	\$3,291.00	\$4,045.00	\$4,632.00
Hospital	1000 sq. ft.	\$2,867.00	\$3,595.00	\$4,760.00	\$5,779.00	\$5,359.00
Nursing Home	1000 sq. ft.	\$996.00	\$1,411.00	\$2,074.00	\$2,654.00	\$3,082.00
Church	1000 sq. ft.	\$1,127.00	\$1,447.00	\$1,958.00	\$2,406.00	\$3,258.00
Elementary/Sec. School	1000 sq. ft.	\$543.00	\$704.00	\$960.00	\$1,185.00	\$1,606.00
Industrial						
Manufacturing	1000 sq. ft.	\$830.00	\$1,067.00	\$1,445.00	\$1,776.00	\$2,030.00
Industrial Park	1000 sq. ft.	\$1,513.00	\$1,944.00	\$2,634.00	\$3,237.00	\$3,636.00
Business Park	1000 sq. ft.	\$2,773.00	\$3,563.00	\$4,828.00	\$5,934.00	\$6,613.00
Warehouse	1000 sq. ft.	\$1,078.00	\$1,222.00	\$1,453.00	\$1,655.00	\$1,893.00
Mini-Warehouse	1000 sq. ft.	\$388.00	\$493.00	\$662.00	\$809.00	\$885.00

<sup>1</sup>The impact fees effective July 1, 2011 are calculated at 25 percent of the increase for fees from the current fee schedule to that as indicated being needed by the November 2010 Road Impact Fee Update Study.

<sup>2</sup>The impact fees effective July 1, 2012, are calculated at 65 percent of increase for fees from the current fee schedule to that as indicated being needed by the November 2010 Road Impact Fee Update Study.

<sup>3</sup>The impact fees effective July 1, 2013, are the impact fees needed as indicated in the November 2010 Road Impact Fee Update Study.

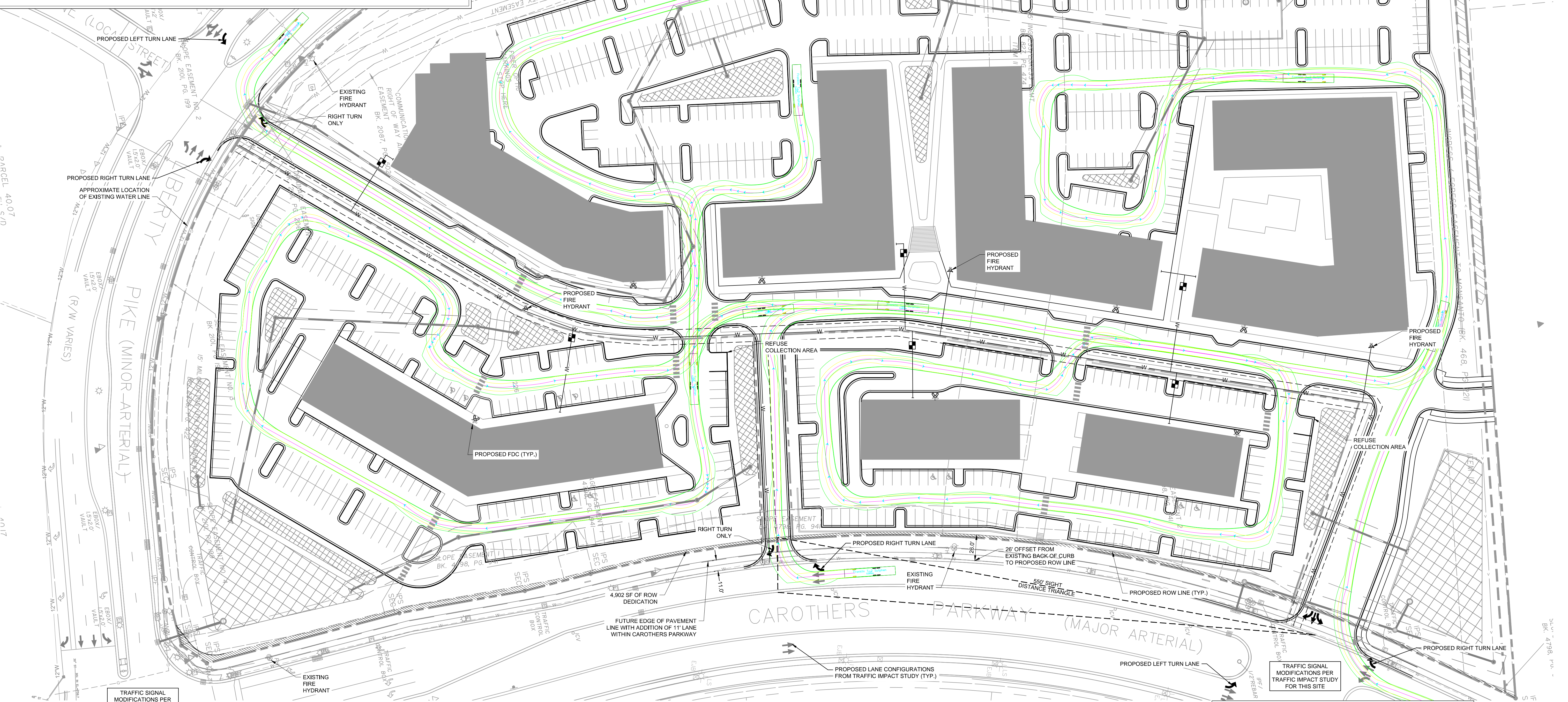
<sup>4</sup>The impact fees effective September 1, 2014, are the impact fees needed as indicated in the March 2014 Road Impact Fee Update Study.

All Fees are taken from Appendix A - Title 12 of the City of Franklin Municipal Code.



# UTILITY AGENCIES CONTACT LIST

WATER	GAS	TELEPHONE	ENGINEER
MALLORY VALLEY 465 DUKE DRIVE FRANKLIN, TN 37067 PHONE: (615) 628-0237 CONTACT: BOBBY NUTT	ATMOS ENERGY 200 NOAH DRIVE FRANKLIN, TN 37064 PHONE: (615) 794-2596 CONTACT: RON MYATT	AT&T (615) 595-7816 CONTACT: DAVID TUTTEROW	KIMLEY-HORN AND ASSOCIATES, INC. 214 OCEANSIDE DRIVE NASHVILLE, TENNESSEE 37204 PHONE: (615) 564-2701 CONTACT: RYAN MCMASTER, P.E.
ELECTRIC	SANITARY SEWER	CABLE	CITY OF FRANKLIN
MIDDLE TN ELECTRIC 2156 EDWARD CURD LN. FRANKLIN, TN 37067 PHONE: (615) 595-4693 CONTACT: DALE HOOD	CITY OF FRANKLIN 124 LUMBER DRIVE FRANKLIN, TN 37064 PHONE: (615) 550-6855 CONTACT: UTILITY INSPECTOR	COMCAST 2501 MCGAVOCK PK. SUITE 1206 NASHVILLE, TN 37214 PHONE: (615) 440-2920 CONTACT: PAULA BROOKS	109 3rd AVENUE SOUTH, FRANKLIN, TN 37067 CONTACT: PLANNING : JOSH KING 615-550-6977 ENGINEERING : LANCE FITTRO 615-550-6676

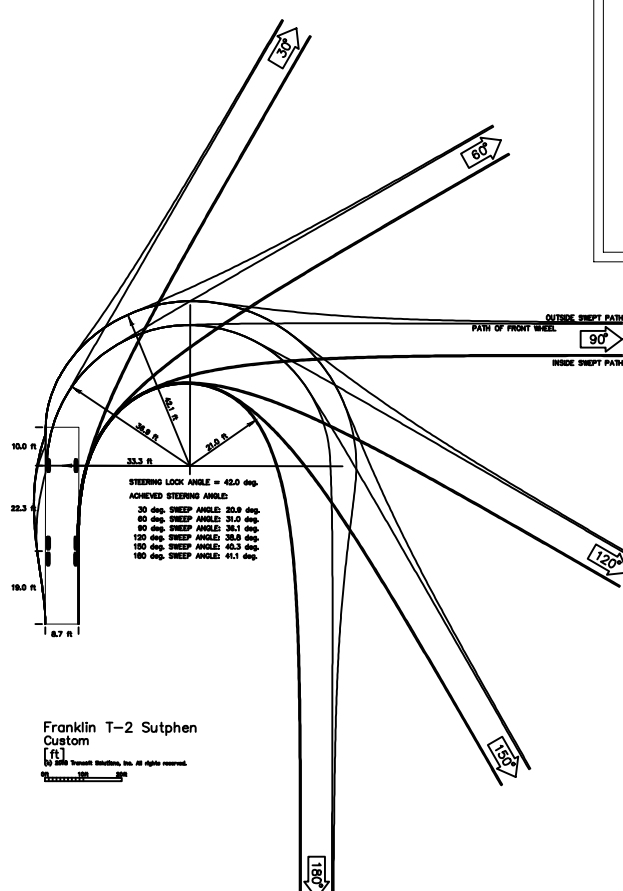


## ROW & ACCESS GENERAL NOTES

- PRIOR TO BEGINNING ANY CONSTRUCTION, THE DEVELOPER AND/OR CONTRACTOR, SHALL OBTAIN ALL NECESSARY PERMITS AS REQUIRED BY LAW. SUCH PERMITS MAY INCLUDE, BUT ARE NOT LIMITED TO, THOSE REQUIRED BY STATE OF TENNESSEE, WILLIAMSON COUNTY AND OTHER CITY OF FRANKLIN AGENCIES.
- ALL OFF-SITE WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE AN APPROVED TRAFFIC CONTROL PLAN WHICH COMPLIES WITH THE MUTCD. NO OFF-SITE EXCAVATION MAY BE UNDERTAKEN IN ANY STREET, ROAD, ALLEY OR RIGHT-OF-WAY OF ANY UTILITY OR TEMPORARY CONSTRUCTION EASEMENT OF THE CITY OF FRANKLIN BY ANY ENTITY UNLESS 72-HOUR NOTICE HAS BEEN GIVEN TO THE CITY OF FRANKLIN TRAFFIC OPERATIONS CENTER. THE CONTRACTOR SHALL HAVE AN APPROVED TRAFFIC CONTROL PLAN ON-SITE DURING CONSTRUCTION.
- CONSTRUCTION MATERIALS SHALL BE FULLY TESTED IN ACCORDANCE WITH THE DESIGNATIONS AND REQUIREMENTS WITHIN THE REFERENCED 'DOT' STANDARD SPECIFICATIONS' SECTIONS, UNLESS OTHERWISE NOTED WITHIN THE 'STANDARD SPECIFICATIONS' SECTION OF THE CITY OF FRANKLIN TRANSPORTATION & STREET TECHNICAL STANDARDS.
- AN AUTHORIZED REPRESENTATIVE OF THE CITY SHALL MAKE A FINAL INSPECTION OF THE PROJECT AFTER COMPLETION TO DETERMINE ACCEPTABILITY OF THE WORK AND FOR RELEASE OF PERFORMANCE BONDS IF REQUIRED. BEFORE THIS FINAL INSPECTION CAN BE MADE, THE ENGINEER RESPONSIBLE FOR THE PROJECT SHALL CERTIFY IN WRITING TO THE CITY ENGINEER THAT THE WORK HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS.
- LOCATING AND COORDINATION FOR THE RELOCATION OF EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. TENNESSEE'S ONE-CALL AND THE CITY OF FRANKLIN UTILITY LOCATION SERVICE SHALL BE UTILIZED IN ADDITION TO COORDINATION WITH LOCAL UTILITY OWNERS. THE CONTRACTOR SHALL AT ALL TIMES PROTECT EXISTING UTILITIES AND WILL BE RESPONSIBLE FOR COSTS DUE TO DAMAGE CAUSED TO ANY UTILITY LINES.
- ALL TEMPORARY STRIPING SHALL CONFORM TO 'STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION' PUBLISHED BY TDOT, THE LATEST REVISION EXCEPT AS HEREIN AMENDED. WHEN APPROVED, TEMPORARY STRIPING SHALL BE REQUIRED PRIOR TO THE OPENING OF A STREET FOR TRAVEL WHERE PAVEMENT AND/OR PERMANENT STRIPING CANNOT BE COMPLETED DUE TO WEATHER AND/OR TIME CONSTRAINTS.
- THERMOPLASTIC PAVEMENT MARKINGS SHOULD BE USED ON ALL PUBLIC AND PRIVATE CITY STREET PROJECTS. THERMOPLASTIC TRAFFIC STRIPING AND PAVEMENT MARKINGS SHALL CONFORM TO SECTION 716.03 'THERMOPLASTIC PAVEMENT MARKINGS' OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS (TDOT), AND TO THE CITY OF FRANKLIN TRANSPORTATION & STREET TECHNICAL STANDARDS.

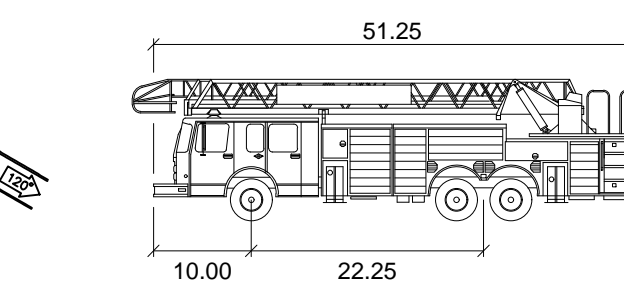
Trip Generation - Carothers Crossing West												
ITE Code	Land Use	Setting/Location	Density	Daily	AM Peak Hour			PM Peak Hour			Total	Exit
					Total	Enter	Exit	Total	Enter	Exit		
221	Multifamily Housing (Mid-Rise)	General Urban/Suburban	338	d.u.	1,840	113	29	84	143	87	56	
210	General Office Building	General Urban/Suburban	24,065	s.f.	266	49	42	7	30	5	25	
820	Shopping Center (Fitted Curve Equation)	General Urban/Suburban	34,565	s.f.	2,919	169	105	64	248	119	129	
912	Drive-In Bank	General Urban/Suburban	3,900	s.f.	440	37	21	16	80	40	40	
932	High-Turnover (Sit-Down) Restaurant	General Urban/Suburban	4,800	s.f.	538	47	26	21	47	29	18	
GROSS TRIPS					6,003	415	223	192	548	280	268	
Gross Trips - Before Reductions					6,009	415	223	192	548	280	268	
Residential					1,840	113	29	84	143	87	56	
Office					266	49	42	7	30	5	25	
Retail					3,359	206	126	80	328	159	169	
Restaurant					538	47	26	21	47	29	18	
Reduction - Internal Capture					-784	-72	-36	-36	-180	-90	-90	
Residential					-96	-9	-2	-7	-66	-44	-22	
Office					-127	-15	-9	-6	-12	-5	-7	
Retail					-242	-19	-6	-13	-78	-28	-50	
Restaurant					-319	-29	-19	-10	-24	-13	-11	
Reduction - Pass-By					-1,158	-72	-36	-36	-96	-48	-48	
Shopping Center					34%	34%	-52	-26	-26	-64	-32	
Drive-In Bank					29%	33%	-143	-12	-6	-22	-11	
High-Turnover (Sit-Down) Restaurant					43%	43%	-94	-8	-4	-10	-5	
NEW TRIPS					4,061	271	151	120	272	142	130	
DRIVEWAY VOLUMES					5,219	343	187	156	368	190	178	

## COF STANDARD FIRE APPARATUS TURNING TEMPLATE



## CONNECTIVITY INDEX

6 LINKS / 3 NODE = 2.00 CONNECTIVITY INDEX



Franklin T-2 Sutphen

Width : 8.66 feet  
Track : 8.00  
Lock to Lock Time : 6.0  
Steering Angle : 42.0

NOTE: MINIMUM 5 MPH DESIGN SPEED

## IMPACT STATEMENT

ACCESS TO THE MULTIFAMILY PORTION OF THE DEVELOPMENT WILL BE PROVIDED VIA PRIVATE ROAD WITH ONE CONNECTION DIRECTLY FROM LIBERTY PIKE AND TWO CONNECTIONS INDIRECTLY OFF OF CAROTHERS PARKWAY. THE COMMERCIAL PORTION OF THIS SITE WILL BE ACCESSED VIA THE PRIVATE ROAD WITH NO CONNECTION DIRECTLY TO CAROTHERS PARKWAY OR LIBERTY PIKE.  
OFFSITE IMPROVEMENTS ARE TO BE MADE PER RECOMMENDATIONS FROM THE TRAFFIC IMPACT ANALYSIS PREPARED BY KIMLEY HORN FOR THIS SITE AND DISCUSSIONS WITH CITY OF FRANKLIN OFFICIALS.

## FIRE FLOW TEST

FLOW TEST DATE: 08/23/2018, 2:30 PM  
STATIC PRESSURE: 124 psi  
RESIDUAL PRESSURE: 110 psi  
FLOW: 1,194 GPM

TESTED BY CORY BORUM AND BEN BUTLER, HEATHCOAT & DAVIS, INC.



## SITE LEGEND

SS	PROPOSED SANITARY SEWER PIPE
W	PROPOSED WATER MAIN
SS	EXISTING SANITARY SEWER PIPE
W	EXISTING WATER MAIN
ST	EXISTING GAS MAIN
LOD	LIMITS OF DISTURBANCE
PH	FIRE HYDRANT

GRAPHIC SCALE IN FEET

