

Index Of Sheets  
SEE SHEET IA

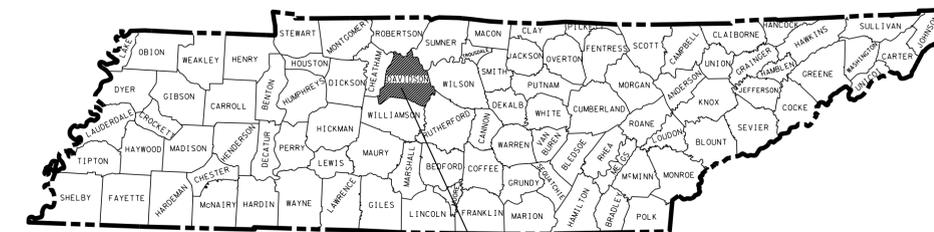
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF ENGINEERING

DAVIDSON COUNTY

I-40 INTERCHANGE AT CHURCH STREET,  
WESTBOUND EXIT RAMP IN NASHVILLE

CONSTRUCTION

TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	HSIP-I-40-4(82)	
STATE PROJ. NO.	19005-3157-94	

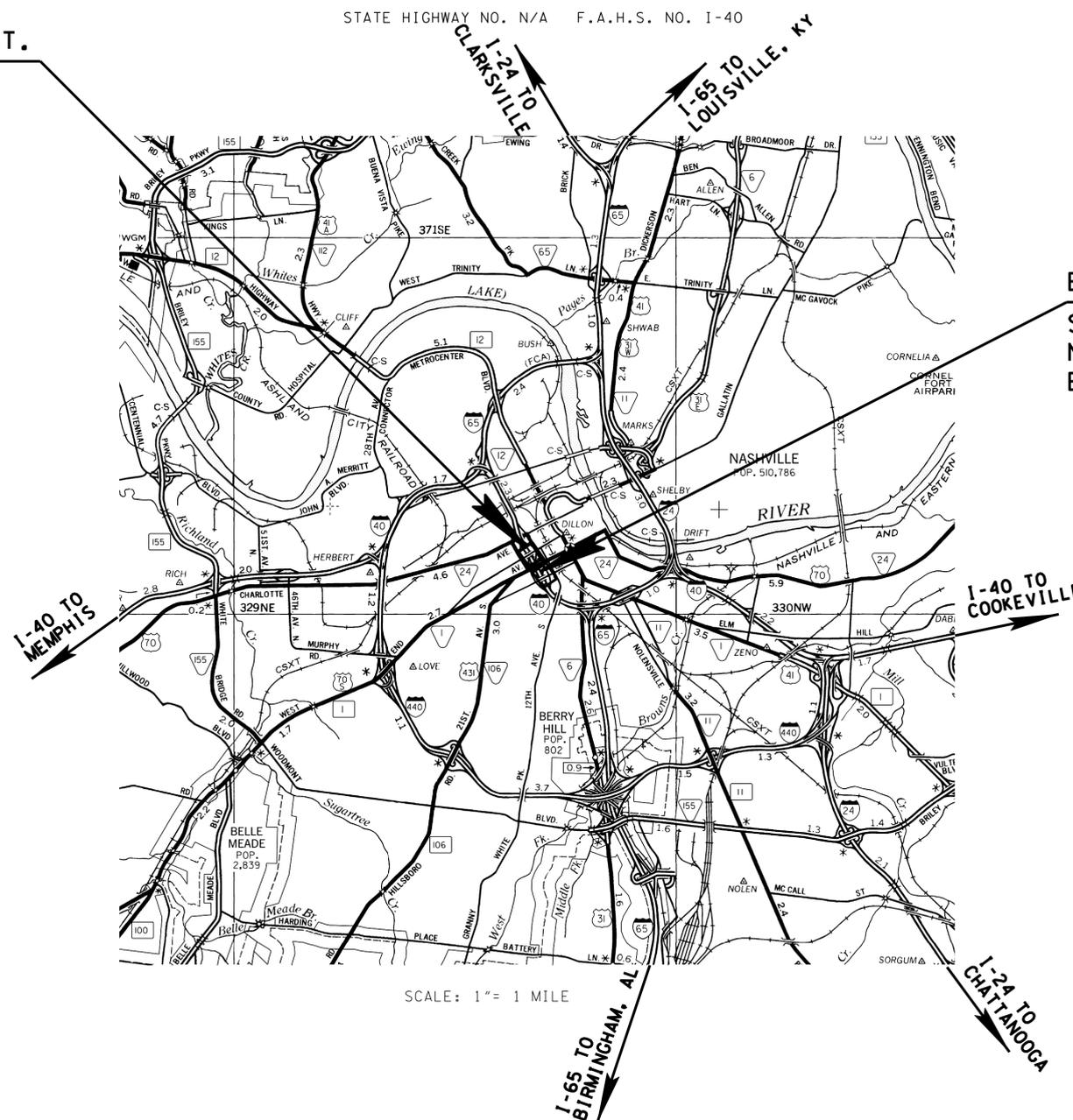


PROJECT LOCATION

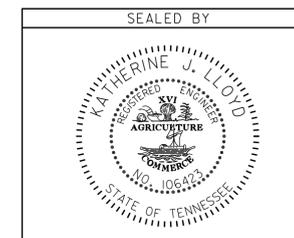
19005-3157-94  
BEGIN. PROJECT HSIP-I-40-4(82) CONST.  
STA. 18+26.68 GEORGE L. DAVIS BLVD.  
N 665725.4624  
E 1734932.7806

STATE HIGHWAY NO. N/A F.A.H.S. NO. I-40

19005-3157-94  
END PROJECT HSIP-I-40-4(82) CONST.  
STA. 36+79.67 GEORGE L. DAVIS BLVD.  
N 664136.4449  
E 1735879.3282



SCALE: 1" = 1 MILE



RSAR PROJECT - PROJECT OF LIMITED SCOPE

APPROVED: *Paul D. Degges*  
PAUL D. DEGGES, CHIEF ENGINEER

NO EXCLUSIONS  
NO EQUATIONS

UNOFFICIAL  
SET  
NOT FOR  
BIDDING

TRAFFIC DATA	
ADT (2014)	15,940
ADT (2034)	21,510
DHV (2034)	2,451
D	100
T (ADT)	3 %
T (DHV)	2 %
V	35 MPH

APPROVED: *John Schroer*  
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

DATE OF SURVEY: 5/30/12

APPROVED: \_\_\_\_\_  
DIVISION ADMINISTRATOR DATE

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

ROADWAY LENGTH 0.35 MILES  
BRIDGE LENGTH 0.04 MILES \*  
PROJECT LENGTH 0.35 MILES  
TOTAL LANE MILES RESURFACED 1.03 MILES

\* NOT INCLUDED IN PROJECT LENGTH

16-APR-2014 11:02 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\001.sht

TDOT ROAD SP. SV. 2 ROBERT BRAUN, P.E.  
DESIGNER BRAD ABEL/RANDY DUKE CHECKED BY CINDY WILLIAMS  
P.E. NO. 19005-1157-94 (Design)  
PIN NO. 115420.00

# INDEX

# STANDARD ROADWAY DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	1A

## SHEET NAME

## SHEET NO.

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PROPOSED SIGNAL LAYOUTS .....	18, 18A
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NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS

## STANDARD BRIDGE DRAWINGS

DWG. NO.	REV.	DESCRIPTION
STD-8-4		SIGN, LUMINAIRE AND TRAFFIC SIGNAL SUPPORTS

## DWG. NO REV. DESCRIPTION

### ROADWAY DESIGN STANDARDS

RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-8		STANDARD LEGEND FOR NATURAL STREAM DESIGN
RD-UD-3	09-05-96	UNDERDRAIN DETAILS
RD-UD-4	05-27-01	UNDERDRAIN LATERAL DETAILS
RD-UD-9	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-S-11B	10-15-02	DESIGN AND CONSTRUCTION DETAILS FOR ROCK CUT SLOPE AND CATCHMENT
RD01-SA-1	10-15-02	SAFETY APPROACH TO UNDERPASSES GRADING DESIGN & SLOPE PROTECTION
RD01-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD01-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD01-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
RD01-SD-5		INTERSECTION SIGHT DISTANCE 4-LANE DIVIDED HIGHWAYS
RD01-SE-2	10-15-02	URBAN SUPERELEVATION DETAILS
RD01-TS-5B	10-15-02	DESIGN STANDARDS FREEWAYS WITH MEDIAN BARRIER
RD01-TS-6A	07-31-13	TYPICAL CURB AND GUTTER SECTIONS WITHOUT SHOULDER
RD01-TS-7A	10-15-02	DESIGN STANDARDS 2-LANE CURB & GUTTER WITH CONTINUOUS 2-WAY LEFT-TURN LANE

### DRAINAGE - CULVERTS AND ENDWALL

D-PB-1	01-02-13	STANDARD DETAILS CLASS "B" BEDDING AND CULVERT EXCAVATION
D-PB-2	01-02-13	STANDARD DETAILS FOR PLASTIC PIPE INSTALLATION

## DWG. NO REV. DESCRIPTION

### DRAINAGE-CATCH BASINS AND MANHOLES

D-TD-1		TRENCH DRAIN
D-CBB-12A	05-27-01	TYPE "B" CAST IRON FRAME, GRATE & NONMOUNTABLE INLET DETAILS FOR NOS. 10, 12, 14, 16, & 17 TYPE CATCH BASINS

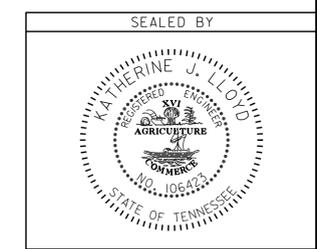
### ROADWAY AND PAVEMENT APPURTENANCES

RP-H-3	06-04-13	HANDICAP RAMP AND TRUNCATED DOME SURFACE DETAIL
RP-H-5	06-04-13	PARALLEL CURB RAMP
RP-H-8	06-04-13	PERPENDICULAR CURB RAMP TYPE 2
RP-R-1	05-27-01	STANDARD RAMPS TO SIDE ROADS

### SAFETY APPURTENANCES AND FENCE

S-CZ-1		CLEAR ZONE CRITERIA
S-F-1	05-24-12	HIGH VISIBILITY FENCE
S-F-10B	05-14-10	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-F-10C	05-14-10	RIGHT-OF-WAY FENCE AT BRIDGES AND BOX CULVERTS
S-F-10D		RIGHT-OF-WAY FENCE LOCATIONS AT INTERCHANGES
S-GR-31-1		W-BEAM GUARDRAIL
S-GRC-1		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL
S-PL-2		SAFETY PLAN AT SIDE ROADS OR PRIVATE DRIVES
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS
S-GRS-2		SPECIAL CASE: GUARDRAIL ATTACHMENT TO CONCRETE DECKS
S-GRC-1		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL
S-PL-3		SAFETY PLAN MINIMUM INSTALLATION AT BRIDGE ENDS
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
S-GRT-2R		EARTH PAD FOR TYPE 38 TERMINAL (RETROFIT)
S-GRT-2		TYPE 38 GUARDRAIL TERMINAL
S-SSMB-4	07-30-10	FLARED SINGLE SLOPE CONCRETE MEDIAN BARRIER WALL (BRIDGE PIER PROTECTION)
S-SSMB-8		FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 51" MEDIAN BARRIER WALL

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

INDEX  
AND  
STANDARD  
DRAWINGS

# STANDARD ROADWAY DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	1B

TENNESSEE D.O.T.  
 DESIGN DIVISION  
 FILE NO.

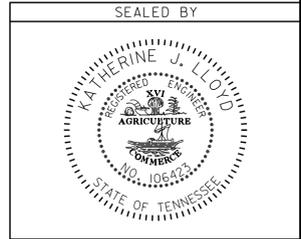
DWG. NO	REV.	DESCRIPTION
<b>TRAFFIC CONTROL APPURTENANCES</b>		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-FO-1		FIBER OPTIC AERIAL ENTRANCE DETAILS
T-FO-2		FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
T-FO-3		FIBER OPTIC AERIAL CONNECTION DETAILS
T-FO-4		FIBER OPTIC PULL BOX, CABINET & POLE DETAILS
T-L-1	02-15-07	STANDARD LIGHTING FOUNDATION DETAILS
T-L-1SA	07-29-04	STANDARD LIGHTING DETAILS FOR SINGLE ARM SUPPORTS
T-L-1TM		STANDARD LIGHTING DETAILS TENON MOUNTED OFFSET LIGHTING SUPPORTS
T-L-2	09-11-03	FOUNDATION DETAIL FOR LUMINAIRE MOUNTED ON A CONCRETE MEDIAN BARRIER
T-L-3	04-15-96	STANDARD LIGHTING DETAILS PULL BOXES
T-L-4	05-25-11	STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-15-13	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	09-19-91	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-5	04-23-13	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-6	06-22-12	MARKING DETAIL FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-7	01-12-12	GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-8	01-12-12	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-9	11-01-11	MARKING DETAILS FOR RAMP INTERSECTIONS
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE
T-S-6	02-12-91	STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
T-S-9	11-01-11	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-13	07-20-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-16A	11-01-11	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE

DWG. NO	REV.	DESCRIPTION
T-S-18	05-27-01	END OF ROADWAY AND DEAD END SIGNS, METAL BARRICADES (TYPE III) & WORK ZONE SPEED SIGNS
T-S-19	07-19-13	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	11-01-11	SIGN DETAILS
T-S-23A	07-19-13	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY SQUARE TUBE SIGN SUPPORT
T-S-21	02-28-13	DETAILS FOR SIGNS MOUNTS ON CONC. MEDIAN BARRIERS
T-SG-1	11-01-11	WOOD POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-2	07-29-04	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3	11-11-04	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A		ALTERNATE DETECTION DETAILS
T-SG-4		SPAN WIRE AND MESSENGER CABLE DETAILS
T-SG-5	07-29-04	CONTROLLER CABINET DETAILS
T-SG-7	11-01-11	SIGNAL HEAD ASSEMBLIES AND PEDESTRIAN PUSH BUTTON SIGNS
T-SG-7A	11-01-11	TYPICAL SIGNAL HEAD PLACEMENT
T-SG-8	11-01-11	STRAIN POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-9	11-16-07	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A		MISCELLANEOUS SIGNAL DETAILS
T-SG-10	05-06-13	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	07-29-04	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-SG-12	11-01-11	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-SG-13	06-01-09	FLASHING BEACON DETAIL
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-11	03-13-09	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
T-WZ-12	03-13-09	ONE LANE CLOSURE DETAIL FOR BRIDGES ON DIVIDED HIGHWAYS
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-21	03-15-11	LANE CLOSURE WITH LEFT HAND MERGE AND LANE
T-WZ-36	04-02-12	LANE CLOSURE ON LOW-VOLUME 2-LANE HIGHWAY
T-WZ-50	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 2 OR 3 LANE MAJOR ROUTES
T-WZ-55		SIDEWALK TRAFFIC CONTROL

<b>EROSION PREVENTION AND SEDIMENT CONTROL</b>		
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-33	08-01-12	SUSPENDED PIPE DIVERSION (DOWNSTREAM)
EC-STR-37	08-01-12	SEDIMENT TUBE
EL-W-2	05-27-01	STANDARD GRAVITY-TYPE RETAINING WALLS

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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

**INDEX  
 AND  
 STANDARD  
 DRAWINGS**

**ESTIMATED ROADWAY QUANTITIES**

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
201-01	CLEARING AND GRUBBING	LS	1
201-07.04	REMOVAL OF ROCK - CUTS	LS	1
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	851
203-01.29	ROCK EXCAVATION	C.Y.	1346
203-06	WATER	M.G.	1
203-10.15	WASTE MATERIAL	C.Y.	1575
209-05	SEDIMENT REMOVAL	C.Y.	32
14) 209-09.01	SANDBAGS	BAG	50
14) 209-40.30	CATCH BASIN PROTECTION (TYPE A)	EACH	10
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	1176
303-01.03	GRANULAR BACKFILL (RETAINING WALLS)	TON	183
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	176
307-02.02	ASPHALT CEMENT (PG70-22)(BPMB-HM) GRADING A-S	TON	5
307-02.03	AGGREGATE (BPMB-HM) GRADING A-S MIX	TON	132
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	116
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	4
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	15
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	6
411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	63
411-02.10	ACS MIX(PG70-22) GRADING D	TON	572
415-01.01	COLD PLANING BITUMINOUS PAVEMENT	TON	354
604-07.01	RETAINING WALL (522+00 - 524+00 RT.)	S.F.	1211
611-05.01	TRENCH DRAINS	L.F.	20
611-05.02	12IN PVC PIPE FOR TRENCH DRAINS	L.F.	19
2) 611-09.01	ADJUSTMENT OF EXISTING CATCHBASIN	EACH	4
611-09.03	CAPPING EXISTING CATCHBASIN	EACH	2
701-02.01	CONCRETE HANDICAP RAMP (RETROFIT)	S.F.	40
3) 703-01	CEMENT CONCRETE DITCH PAVING	C.Y.	80
705-01.01	GUARDRAIL AT BRIDGE ENDS	L.F.	27
705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	36
705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	1
4) 705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	1
706-01	GUARDRAIL REMOVED	L.F.	165
707-01.11	CHAIN LINK FENCE (6 FOOT)	L.F.	380
707-01.12	END & CORNER POST ASSEMBLY(CHAIN-LINK FENCE 6')	EACH	65
707-06.01	REMOVAL OF FENCE (STA. 517+00 LT. TO STA. 520+65 LT.)	L.F.	350
19) 709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	65
710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	606
17) 711-04.03	CONCRETE GLARE SCREEN (TAPER TO 32" )	L.F.	60
16) 711-05.01	REMOVAL & DISPOSAL OF CONCRETE MEDIAN BARRIER	L.F.	80
712-01	TRAFFIC CONTROL	LS	1
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	950
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	126
712-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	48
712-05.01	WARNING LIGHTS (TYPE A)	EACH	10
712-05.03	WARNING LIGHTS (TYPE C)	EACH	30
712-06	SIGNS (CONSTRUCTION)	S.F.	549
712-08.03	ARROW BOARD (TYPE C)	EACH	3
712-09.01	REMOVABLE PAVEMENT MARKING LINE	L.F.	3941
712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	1180
713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGN SUPPORTS)	C.Y.	0.36
713-01.02	STEEL BAR REINFORCEMENT(FOUNDATION FOR SIGN SUPPORTS)	LB.	100
713-06	STEEL I-BEAMS & WF-BEAMS(BREAKAWAY) SIGN SUPPORT	LB.	177
713-09.01	STEEL OVERHEAD SIGN STRUCTURE (SPAN 100'-0"+/-)	EACH	1
713-09.02	STEEL OVERHEAD SIGN STRUCTURE (SPAN 90'-0"+/-)	EACH	1
713-11.01	"U" SECTION STEEL POSTS	LB.	87
713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	200
713-11.21	P POST SLIP BASE	EACH	2
713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	55
713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	92
713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.F.	935
15) 713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1

**ESTIMATED ROADWAY QUANTITIES**

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2
18) 713-16.41	RELOCATE SIGN	LS	1
713-17.02	INSTALL AUXILIARY SUPPORT FOR EXIT NUMBER PANEL	EACH	2
716-01.05	TEMPORARY RAISED PAVEMENT MARKER	EACH	34
716-01.22	SNWPLWBLE PVMT MRKRS (MONO-DIR)(1 COLOR)	EACH	30
716-01.30	REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER	EACH	30
716-02.04	PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING)	S.Y.	111
716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	2
716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.	90
5) 716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.	186
716-03.01	PLASTIC WORD PAVEMENT MARKING (ONLY)	EACH	6
716-04.01	PLASTIC PAVEMENT MARKING (STRAIGHT-TURN ARROW)	EACH	1
716-04.05	PLASTIC PAVEMENT MARKING (STRAIGHT ARROW)	EACH	1
6) 716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	1.2
7) 716-05.02	PAINTED PAVEMENT MARKING (8" BARRIER LINE)	L.F.	5520
7) 716-05.21	PAINTED PAVEMENT MARKING(4"DOTTED LINE)	L.F.	360
716-10.07	PREFORMED PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	156
716-10.30	TRUNCATED DOME DETECTABLE WARNING MAT	S.F.	24
8) 716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	0.6
9) 716-13.06	SPRAY THERMO PVMT MRKNG (40 mil) (4IN LINE)	L.M.	0.6
717-01	MOBILIZATION	LS	1
19) 740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	112
740-11.03	TEMPORARY SEDIMENT TUBE 18IN (EROSION CONTROL)	L.F.	500
1), 13) 801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	2
10), 13) 801-02.01	CROWN VETCH MIXTURE (WITHOUT MULCH)	UNIT	5
11), 12), 13) 801-03	WATER (SEEDING & SODDING)	M.G.	1
13), 14) 803-01	SODDING (NEW SOD)	S.Y.	100

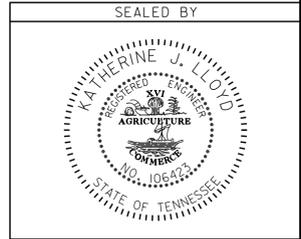
**FOOTNOTES**

- 1) INCL. 650 C.Y. FOR RETAINING WALL EXCAVATION
- 2) FOR INLET GRATES AT CHURCH ST.
- 3) FOR 3' CONCRETE SWALE
- 4) THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUAD-GUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.
- 5) THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
- 6) TEMPORARY MARKINGS FOR GEORGE L. DAVIS BLVD. AND CHURCH ST.
- 7) TEMPORARY MARKINGS FOR RAMP
- 8) PERMANENT MARKINGS FOR RAMP
- 9) PERMANENT MARKINGS FOR GEORGE L. DAVIS BLVD. AND CHURCH ST.
- 10) TO BE USED ON SLOPES 3:1 OR STEEPER THAT ARE INACCESSIBLE FOR MOWING
- 11) INCLUDES 0.50 M.G. FOR EROSION PREVENTION AND SEDIMENT CONTROL
- 12) 7 M.G. FOR SOD, 0.50 M.G. FOR CROWN VETCH
- 13) SEE SUBSECTION 209-07 OF THE STD. SPECIFICATIONS FOR MAINTENANCE REPLACEMENT
- 14) FOR DITCH @ 518+00 RT.
- 15) REMOVE SIGN FACE, SUPPORTS AND FOOTINGS ON SIGN NO. 3,4,18,19,20,21,22,23,24 & 31. REMOVE BRIDGE MOUNT SIGN & SUPPORT SIGN NO. 32, REMOVE OVERHEAD SIGN STRUCTURE SIGN NO. 27, OR AS DIRECTED BY THE ENGINEER.
- 16) REMOVE OVERHEAD SIGN STRUCTURE FOOTING AND TRANSITIONS ON THE EXISTING BARRIER WALL.
- 17) TRANSITIONS ON THIS STRUCTURE SHALL BE REMOVED FROM EXISTING 32" MEDIAN BARRIER WALL TO THE PROPOSED 51" OVERHEAD SIGN STRUCTURE FOOTING. (SEE DETAIL SHEET 17B)
- 18) SIGNS NUMBER 26 & 30.
- 19) FOR TEMPORARY CONSTRUCTION EXIT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	2

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**ESTIMATED  
ROADWAY  
QUANTITIES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	2A

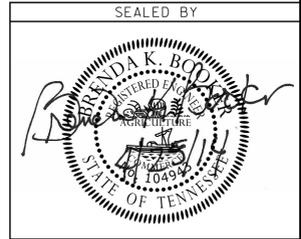
### ESTIMATED SIGNAL AND LIGHTING QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(1)	713-15.07	SUSPENDED FLAT SHEET ALUMINUM SIGN (0.080" THICK)	EACH 8
(2)	713-16.20	SIGNS (STREET NAME SIGNS - INSTALL ONLY)	EACH 3
(3)	713-16.50	REMOVE AND REPLACE SIGN (BUS STOP)	EACH 1
(4)	714-01.20	STRUCTURAL LIGHTING (RET. WALL NO. 1)	LS 1
	714-03.01	DIRECT BURIAL CONDUIT (2" PVC, SCHEDULE 40)	L.F. 670
	714-05.04	PULL BOXES (TYPE C)	EACH 2
(5)	714-06.05	CABLE (1/C # 6 AWG)	L.F. 250
(6)	714-06.06	CABLE (1/C # 4 AWG)	L.F. 1850
	714-06.08	CABLE (# 6 COPPER SOFT DRAWN BARE) (GROUND)	L.F. 700
(7)	714-08.10	LIGHT STANDARDS (BARRIER WALL MOUNTED)	EACH 1
(8)	714-08.20	FOUNDATION (ONLY) FOR LIGHT STANDARD	EACH 3
(9)	714-08.30	REMOVE & RELOCATE LIGHT STANDARD	EACH 3
(10)	714-08.32	REMOVAL OF LIGHT STANDARD & FOUNDATION	EACH 1
(11)	730-01.02	REMOVAL OF SIGNAL EQUIPMENT	EACH 2
(12)	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH 10
(12,13)	730-02.17	SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE)	EACH 1
(12,13)	730-02.30	SIGNAL HEAD ASSEMBLY (130A3 WITH BACKPLATE)	EACH 2
	730-03.20	INSTALL PULL BOX (TYPE A)	EACH 2
	730-03.21	INSTALL PULL BOX (TYPE B)	EACH 5
	730-03.25	INSTALL PULL BOX (TYPE A - INTERCONNECT)	EACH 2
(14)	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH 1
	730-05.03	SERVICE CABLE (3 CONDUCTOR, #6 AWG)	L.F. 550
	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F. 1100
	730-08.05	SIGNAL CABLE - 12 CONDUCTOR	L.F. 1250
(15)	730-08.30	INTERCONNECT CABLE (COPPER-TWISTED PAIR)	L.F. 200
(16)	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F. 2370
(17)	730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F. 535
	730-13.01	VEHICLE LOOP DETECTOR (SHELF MOUNT)	EACH 8
(18)	730-13.02	VEHICLE DETECTOR (VIDEO)	EACH 2
	730-14.01	SHIELDED DETECTOR CABLE	L.F. 1080
	730-14.02	SAW SLOT	L.F. 850
	730-14.03	LOOP WIRE	L.F. 950
(12)	730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	EACH 1
	730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH 2
(12,19)	730-16.03	CONTROLLER (FLASHING BEACON)	EACH 1
	730-18.01	MASTER CONTROLLER	EACH 1
(12,20)	730-23.30	PEDESTAL POLE (10')	EACH 1
(12,21)	730-23.72	CANTILEVER SIGNAL SUPPORT (1 ARM @ 35')	EACH 1
(12,21)	730-23.88	CANTILEVER SIGNAL SUPPORT (1 ARM @ 45')	EACH 1
(12,21)	730-23.96	CANTILEVER SIGNAL SUPPORT (1 ARM @ 55')	EACH 1
(12,21)	730-23.97	CANTILEVER SIGNAL SUPPORT (1 ARM @ 60')	EACH 1
(12)	730-26.05	COUNTDOWN PEDESTRIAN SIGNAL	EACH 6

#### PAY ITEM FOOTNOTES:

- (1) INCLUDES (2) R3-5L, (1) R3-5A, (1) R3-6L, (1) R3-7, (1) R6-2L, (1) R6-2R, AND (1) R10-12. FOR SIGN SIZES, SEE SHEET 18 AND 18A.
- (2) INCLUDED FOR INSTALLATION OF STREET NAME SIGNS.
- (3) INCLUDES REMOVAL AND RELOCATION OF BUS STOP SIGN FACE ONTO NEW POST. INCLUDES THE COST OF THE NEW POST.
- (4) INCLUDES THE COST OF INSTALLATION OF CONDUIT, ANCHOR BOLTS, PULL BOXES, AND JUNCTION BOXES. ALSO INCLUDES ALL COSTS FOR FURNISHING AND INSTALLING ALL MATERIALS AND LABOR NECESSARY TO CONSTRUCT THE PORTION OF THE CONCRETE RETAINING WALL AND THE FOOTINGS SUPPORTING THE LIGHT STANDARD, SEE SHEET 19C.
- (5) INCLUDED FOR GROUNDING WITHIN STRUCTURES.
- (6) INCLUDES ALL APPURTENANCES AND COSTS ASSOCIATED WITH RECONNECTING THE PROPOSED LIGHT POLES TO THE EXISTING LIGHTING SYSTEM.
- (7) POLE HEIGHT TO BE DETERMINED BY CONTRACTOR. LUMINAIRE MOUNTING HEIGHT = 45 FT.
- (8) SHALL BE CLASS 'A' CONCRETE FOUNDATION, SEE TDOT STD. DWG. T-L-1.
- (9) INCLUDES THE COST OF RELOCATION OF POLE ARMS AND LUMINAIRES FOR LIGHT STANDARDS LP 1, LP 2, AND LP 4. ALSO INCLUDES THE COST OF REMOVAL OF FOUNDATION 6" BELOW GRADE.
- (10) INCLUDES THE COST OF RELOCATING 250 WATT LUMINAIRE AND 15' ARM TO NEW LIGHT STANDARD ON THE RETAINING WALL (LP 3). ALSO INCLUDES THE COST OF REMOVING THE POLE AND REMOVAL OF FOUNDATION 6" BELOW GRADE.
- (11) INCLUDES (1) EACH FOR EACH SIGNAL. FOR REMOVAL ITEMS, SEE SHEETS 18D AND 18E.
- (12) SHALL BE BLACK.
- (13) SHALL BE FOR LEFT TURN APPLICATION.
- (14) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR PROVIDING ELECTRICAL SERVICE TO THE TWO (2) SIGNALS. CHARGES SHALL BE INCLUDED IN THE BID FOR THIS ITEM. ALSO, INCLUDES THE COST OF THE STEEL CONDUIT RISER ASSEMBLIES AND PROPOSED POWER CABLE OVERHEAD AS REQUIRED.
- (15) SHALL BE 19 GAUGE, 6 PAIR.
- (16) SHALL BE SCHEDULE 40.
- (17) SHALL BE SCHEDULE 80.
- (18) INCLUDES TWO (2) CAMERA SENSOR UNITS, TWO (2) PROCESSOR UNITS, HARDWARE, SOFTWARE, CAMERA MOUNTING ASSEMBLIES (ASTRO BRACKET TYPE WITH MIN. 6 FT HEIGHT ADJUSTMENT), POWER CABLING, COAXIAL CABLING, CONDUIT, SURGE PROTECTION, AND ALL RELATED EQUIPMENT TO PROVIDE ALL DETECTION ZONES, AT THE (2) INTERSECTIONS, AS INDICATED ON THE PLANS. MIN. MOUNTING HEIGHT IS 35'. REFER TO STD. DWG. T-SG-3A FOR DETAILS.
- (19) SHALL BE INSTALLED AT SIGNAL POLE SP4 .
- (20) INCLUDES THE COST OF CLASS 'A' CONCRETE FOUNDATION. FOUNDATION SHALL BE 2 FT. DIAMETER WITH MIN. 3'-00" DEEP FOOTING, REFER TO TDOT STD. DWG T-SG-10.
- (21) INCLUDES THE COST OF CLASS 'A' CONCRETE FOUNDATION. FOUNDATION SHALL BE 3 FT. DIAMETER WITH MIN. 15'-00" DEEP FOOTING, REFER TO TDOT STD. DWG T-SG-10.

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**ESTIMATED  
SIGNAL &  
LIGHTING  
QUANTITIES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	2A1

# GENERAL SIGNALIZATION AND LIGHTING NOTES

## SIGNALIZATION

- EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.
- EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE TDOT "SPECIAL PROVISIONS REGARDING SECTION 730N-TRAFFIC SIGNALS."
- ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.
- SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.
- THE CONTRACTOR SHALL CONTACT CHIP KNAUF, (615) 880-2445, A MINIMUM OF THIRTY (30) DAYS PRIOR TO ACTIVATION OF THE SIGNAL TO OBTAIN THE INITIAL SIGNAL TIMINGS.

## LIGHTING

- INSTALLATION AND MATERIALS SHALL COMPLY WITH SECTIONS 714 AND 917 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED MARCH 1, 2006 AND WITH THE LATEST REVISIONS TO THE NATIONAL ELECTRIC CODE, NFPA 70.
- EXISTING FOUNDATIONS TO BE REMOVED A MINIMUM OF SIX INCHES BELOW GRADE.
- ALL INCIDENTAL EQUIPMENT AND MATERIAL REQUIRED FOR THE SUCCESSFUL EXECUTION OF THIS WORK SHALL BE FURNISHED IN 714 ITEMS WHETHER SPECIFICALLY NOTED OR NOT.
- LIGHT STANDARDS SHALL BE ROUND TAPERED POLES. LENGTH SHALL BE DETERMINED BY REQUIRED MOUNTING HEIGHT.
- STANDARDS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.

## SPECIAL NOTES

### SIGNALIZATION

- THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.
- THE TRAFFIC SIGNAL SUPPORT POLES SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS (CURRENT EDITION WITH ADDENDA). WIND LOADS SHALL BE BASED ON A BASIC WIND SPEED OF 90 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY I. FATIGUE LOADS ARE BASED ON THE REQUIREMENTS OF SECTION 11.7 OF THE SUBJECT AASHTO DOCUMENT AND THE FOLLOWING LOADS:

**GALLOPING** – NO DESIGN NECESSARY. VIBRATION DAMPENERS SHALL BE USED ON ALL CANTILEVERED ARMS THAT ARE 50' OR LONGER.

**VORTEX SHEDDING** – NOT APPLICABLE ON TRAFFIC SIGNAL SUPPORTS WITH A TAPER OF AT LEAST 0.14 IN/FT.

**NATURAL WIND GUSTS** – THE YEARLY MEAN WIND SPEED FOR NATURAL WIND GUSTS SHALL BE 11.2 MPH.

THE TRAFFIC SIGNAL SUPPORT POLES SHALL BE POLES WITH CURVED CANTILEVERED ARM(S) IN ACCORDANCE WITH METRO PUBLIC WORKS. FOR POLE AND ARM DETAILS, CONTACT MIKE HIRTZER AT (615) 880-3261.

### LIGHT EMITTING DIODES (LED)

- ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED ON PLANS.
- ALL PEDESTRIAN TRAFFIC CONTROL INDICATIONS, WHERE CALLED FOR, SHALL CONSIST OF LED MODULES DISPLAYING "WALKING PERSON" AND "HAND" SYMBOLS WITHIN THE SAME FACE UNLESS OTHERWISE NOTED ON PLANS.
- ALL LED'S SHALL MEET THE MINIMUM STANDARDS AS OUTLINED IN CHAPTER 2A AND INCLUDING PROVISIONS OF TECHNICAL NOTES IN THE CHAPTER APPENDIX OF THE PUBLICATION EQUIPMENT AND MATERIAL STANDARDS OF THE INSTITUTE OF TRANSPORTATION ENGINEERS, PUBLISHED BY ITE, NOVEMBER 1997.
- INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.
- COMPATIBILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.
- MANUFACTURER SHALL PROVIDE A FIVE-YEAR WARRANTY FOR OPERATION OF THE UNIT.
- ALL VEHICULAR SIGNAL HEADS SHALL BE FABRICATED FROM ALUMINUM AND SHALL BE PAINTED YELLOW.
- CONTRACTOR SHALL INSTALL A 50 AMP TWO POLE WEATHERPROOFED EXTERNAL DISCONNECT ON THE POLE WITH THE AC SERVICE CONNECTION. THE ENCLOSURE SHALL BE METALLIC WITH A 50 AMP SINGLE POLE CIRCUIT BREAKER.

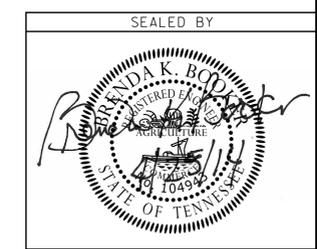
### LIGHTING

- ALL LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE NOTED.
- CONDUIT BENDS SHALL NOT EXCEED A 24" RADIUS.
- FOR JACK AND BORE, USE ONLY POLYETHYLENE PIPE. NO SEAMS ARE PERMITTED. CONTRACTOR SHALL USE POLYETHYLENE PIPE ADHESIVE AT JUNCTIONS.
- ALL PROPOSED LUMINAIRES SHALL BE BALLASTED FOR 240V OPERATION.
- ALL LIGHT POLES SHALL HAVE CONCRETE FOUNDATIONS AND BREAK-AWAY COUPLINGS.
- ALL LIGHT POLES SHALL BE INSTALLED WITH THE HAND HOLE ON THE DOWNSTREAM SIDE OF ONCOMING TRAFFIC.
- POLES MAY BE ADJUSTED 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
- SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.
- CABLES FOR STREET LIGHTING SHALL BE INSTALLED IN CONDUIT AND PULL BOXES INDEPENDENT OF ANY OTHER SYSTEM.
- LIGHTING PULL BOXES SHALL BE LABELED 'STREET LIGHTING'.
- CONTRACTOR SHALL ENSURE THE EXISTING LIGHTING SYSTEM REMAINS ENERGIZED DURING ALL PHASES OF CONSTRUCTION.
- THE CONTRACTOR SHALL ENSURE THAT ANY LUMINAIRE THAT REMAINS IN PLACE REMAINS ENERGIZED.
- AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL PROVIDE A SCHEDULE FOR ALL PLANNED ELECTRICAL CONSTRUCTION, REMOVALS, AND/OR EQUIPMENT RELOCATIONS. SCHEDULE SHALL ALSO BE PROVIDED TO CUSTOMER ENGINEERING (615) 747-3641 AT NES, AND MPW SPECIAL OPERATIONS, RICK CAWOOD, (615) 533-0499, TWO (2) WEEKS PRIOR TO ANY DESIRED ACTIVITY.
- PRIOR TO COMMENCMENT OF WORK ON THE LIGHTING SYSTEM, THE CONTRACTOR SHALL CONTACT BRAD McKELVEY, OF NASHVILLE ELECTRIC SERVICE (NES), AT (615) 747-3542.
- SALVAGEABLE EQUIPMENT SHALL BE STOCKPILED ON THE JOBSITE FOR PICK UP BY NES, CONTRACTOR SHALL CONTACT BRAD McKELVEY, OF NASHVILLE ELECTRIC SERVICE (NES), AT (615) 747-3542, FOR PICKUP.
- ALL WORK SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 714-N.

## LIGHTING SCOPE OF SERVICES NOTES

- THE PROPOSED LIGHTING DESIGN LIMITS INCLUDE I-40 FROM WESTBOUND EXIT RAMP TO CHURCH STREET.
- THE PROPOSED LIGHTING DESIGN CONSISTS OF:
  - REMOVAL OF 4-LIGHT STANDARDS WITH ROADWAY LUMINAIRES (COBRAHEADS) AND ARMS. (ARM LENGTHS VARY)
  - RELOCATION OF 3-LIGHT STANDARDS WITH ROADWAY LUMINAIRES (COBRAHEAD) AND ARMS (LP 1, LP2 AND LP4). LP 1 AND LP 2 SHALL HAVE A 6' ARM AND LP 4 SHALL HAVE A 15' ARM.
  - RELOCATION OF 1-ROADWAY LUMINAIRE (COBRAHEAD) AND ARM ONTO A NEW LIGHT STANDARD INSTALLED ON THE RETAINING WALL (LP 3 WITH 6' ARM).
- THE RELOCATED LIGHT STANDARDS WITH ROADWAY LUMINAIRES (COBRAHEAD) SHALL BE RECONNECTED TO THE EXISTING LIGHTING SYSTEM AT PULL BOXES PBA AND PBB.

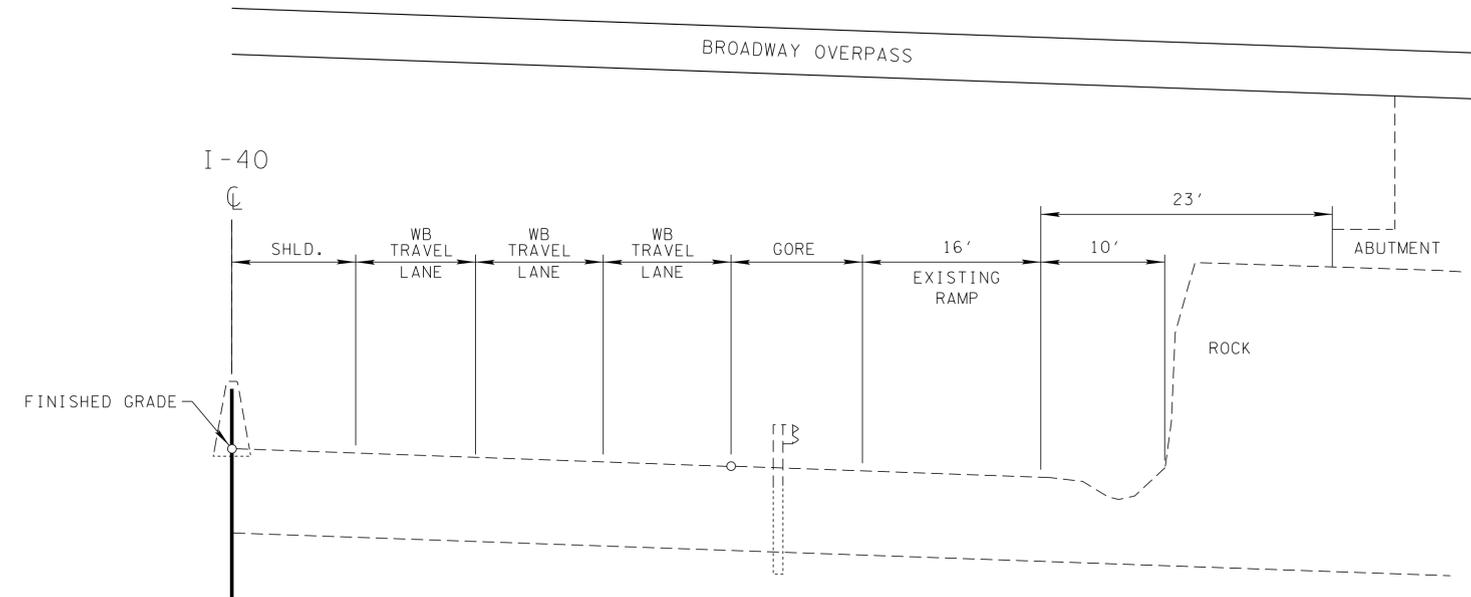
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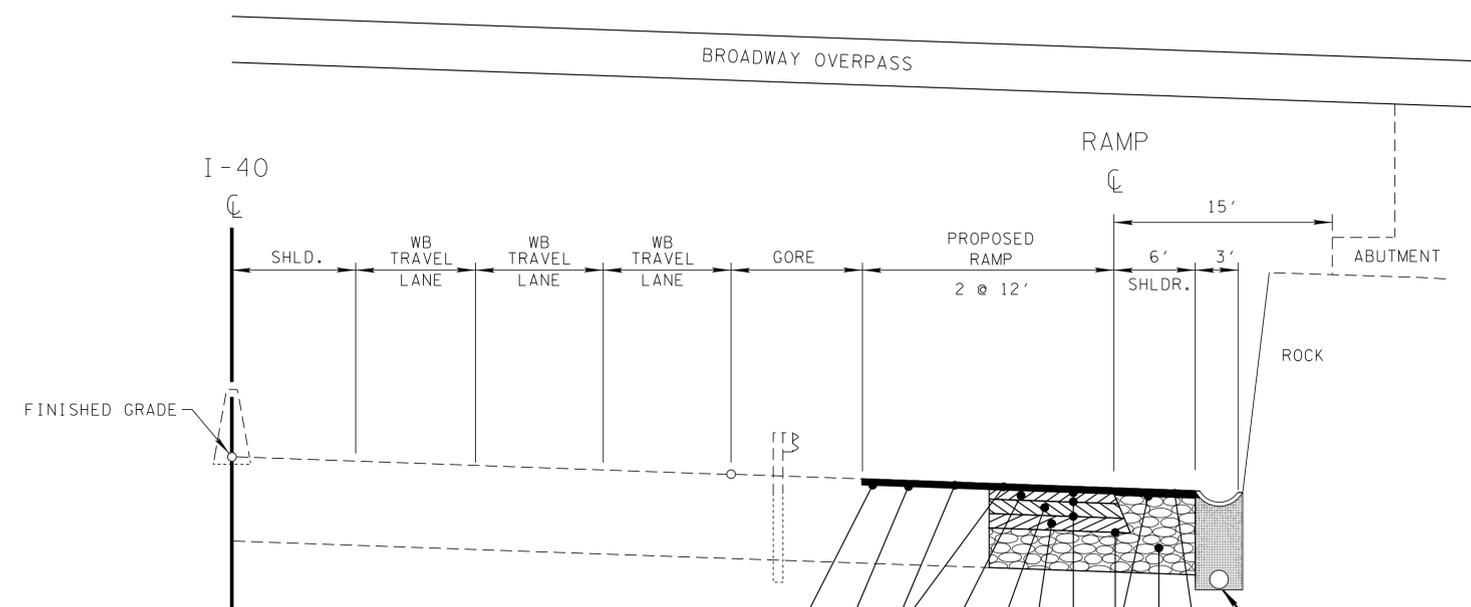
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**GENERAL  
SIGNALIZATION  
AND LIGHTING  
NOTES**

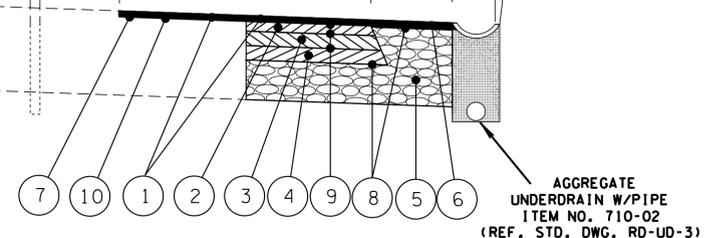
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4-(82)	2
CONST.	2014	HSIP-I-40-4-(82)	2B



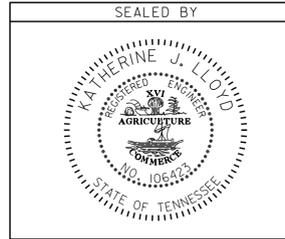
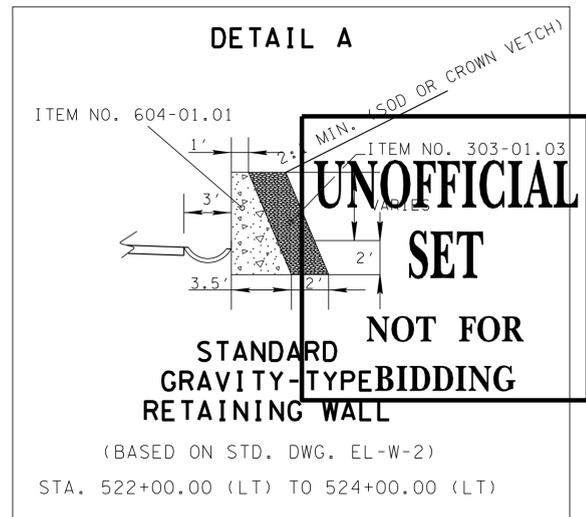
**EXISTING RAMP TANGENT SECTION**  
(BASED ON STD. DWG. RD01-TS-5B)  
STA. 516+97.50 TO STA. 524+61.79



**PROPOSED RAMP TANGENT SECTION**  
(BASED ON STD. DWG. RD01-TS-5B)  
STA. 516+97.50 TO STA. 524+61.79 (WIDENING & RESURFACING)  
STA. 512+53.60 TO STA. 516+97.50 (RESURFACING ONLY)



AGGREGATE UNDERDRAIN W/PIPE  
ITEM NO. 710-02  
(REF. STD. DWG. RD-UD-3)

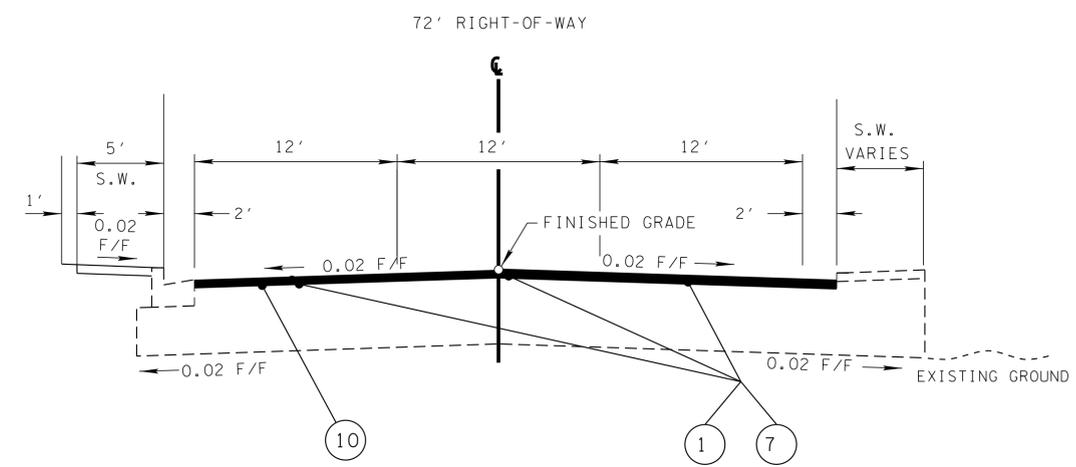


STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

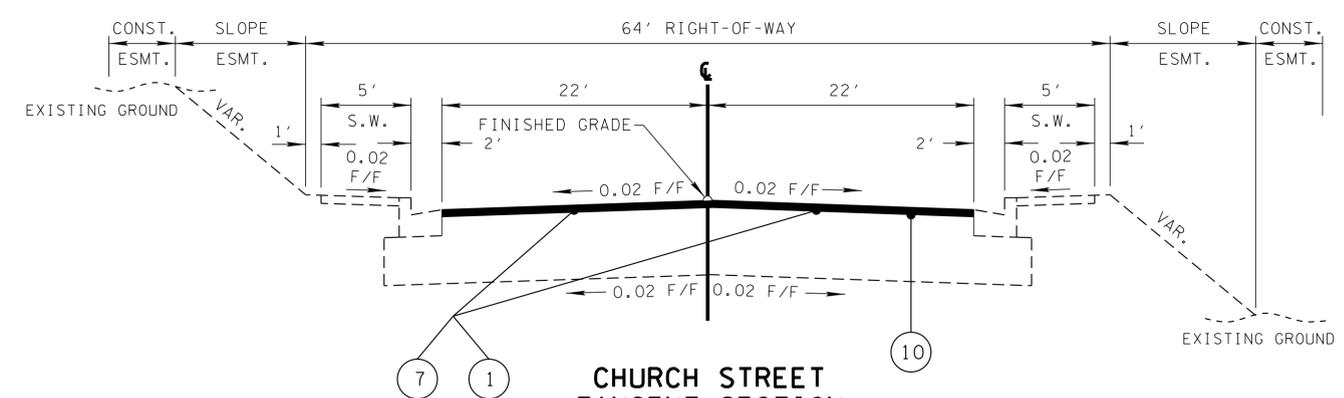
**TYPICAL SECTIONS**

SEE SHEET 2D FOR PAVING SCHEDULE

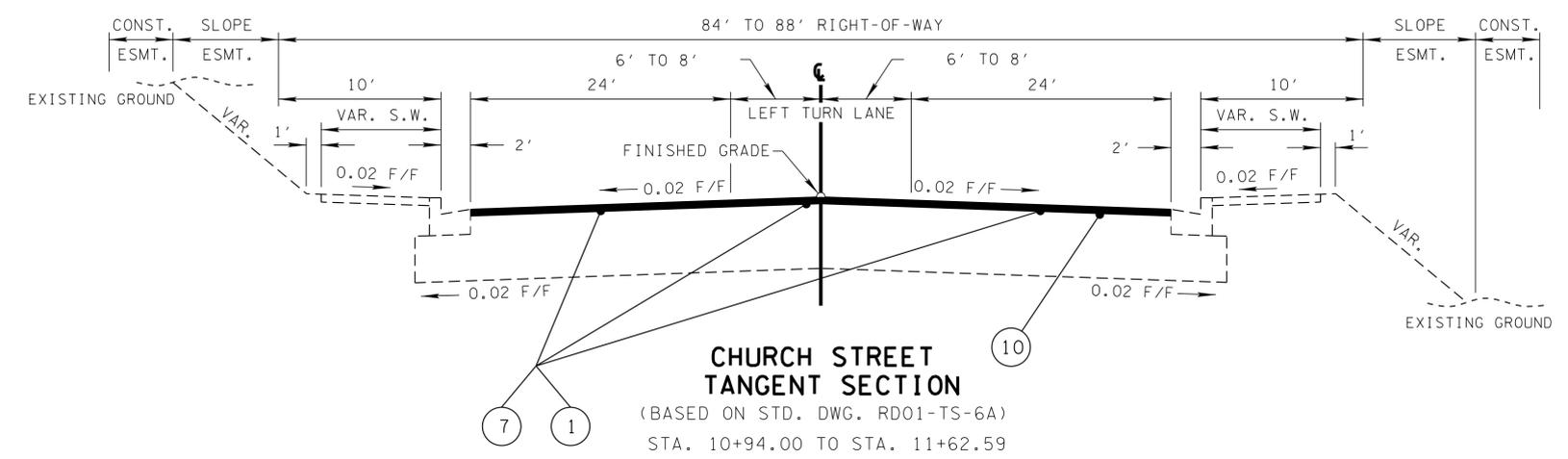
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	2A
CONST.	2014	HSIP-1-40-4(82)	2C



**GEORGE L. DAVIS BOULEVARD  
 TANGENT SECTION**  
 (BASED ON STD. DWG. RD01-TS-7A)  
 STA. 22+56.29 TO STA. 32+97.33

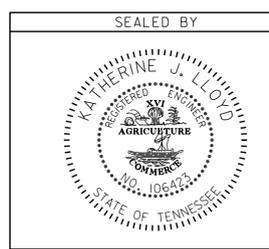


**CHURCH STREET  
 TANGENT SECTION**  
 (BASED ON STD. DWG. RD01-TS-6A)  
 STA. 11+62.59 TO STA. 12+56.00



**CHURCH STREET  
 TANGENT SECTION**  
 (BASED ON STD. DWG. RD01-TS-6A)  
 STA. 10+94.00 TO STA. 11+62.59

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**TYPICAL  
 SECTIONS**

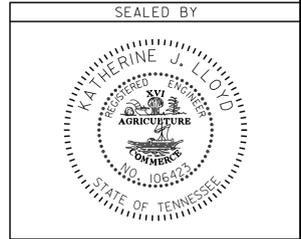
SEE SHEET 2D FOR PAVING SCHEDULE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	20

PROPOSED PAVEMENT SCHEDULE	
<b>① SURFACE (ROADWAY) @ 1.25" THICK (132.5 LB/S.Y.)</b> 411-02.10 ASPHALT CONCRETE MIX (PG70-22) (ACS) GRADING "D"	<b>⑥ SURFACE (SHOULDERS) @ 1.50" THICK (154.5 LB/S.Y.)</b> 411-01.07 ASPHALT CONCRETE MIX (PG64-22) (ACS) GRADING "E"
<b>② BINDER @ 2.00" THICK (226.0 LB/S.Y.)</b> 307-02.08 ASPHALT CONCRETE MIX (PG70-22) (ACS) GRADING "B-M2"	<b>⑦ COLD PLANING @ 1.25" +/-</b> (APPROX. 157.5 LBS./SQ.YD.) (ROADWAY & SHOULDERS) 415-01.01 COLD PLANING (TON)
<b>③ BLACK BASE @ 3.00" THICK (460.0 LB/S.Y.)</b> 307-02.01 ASPHALT CONCRETE MIX (PG70-22) (ACS) GRADING "A"	<b>⑧ BITUMINOUS MATERIAL FOR PRIME COAT @ 0.30 -0.35 GAL./S.Y.</b> 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) 402-02 AGGREGATE FOR COVER MATERIAL
<b>④ BLACK BASE @ 3.00" THICK (460.0 LB/S.Y.)</b> 307-02.02 ASPHALT CONCRETE MIX (PG70-22) (ACS) GRADING "A-S" 307-02.03 AGGREGATE (BPMB-HM) GRADING "A-S"	<b>⑨ BITUMINOUS MATERIAL FOR TACK COAT @ 0.07 GAL./S.Y.</b> 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)
<b>⑤ MINERAL AGGREGATE BASE</b> 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D (TON) (8" THICK ON ROADWAY, 15.75" THICK ON SHOULDER)	<b>⑩ BITUMINOUS MATERIAL FOR TACK COAT @ 0.10 GAL./S.Y.</b> 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**PROPOSED  
PAVEMENT  
SCHEDULE**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	2E

**GRADING**

- (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 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.

**SEEDING AND SODDING**

- (1) SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.
- (2) ITEM NO. 801-02.01 SHALL BE USED ON SLOPES 3:1 OR STEEPER AND OTHER AREAS AS INDICATED IN THE PLANS THAT ARE INACCESSIBLE FOR MOWING.

**GUARDRAIL**

- (1) THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.
- (2) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

**DRAINAGE**

- (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) EXCAVATION FOR TRENCH DRAINS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).
- (3) 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).
- (4) 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.
- (5) 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.

**GENERAL NOTES**

**UTILITIES**

- (1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. 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) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
- (3) 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.
- (4) 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.
- (5) 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.

**FENCING**

- (1) LOCATION OF THE FENCE SHALL BE ONE FOOT INSIDE THE RIGHT-OF-WAY EXCEPT WHERE SHOWN ON THE PLANS.
- (2) FENCES SHALL BE TURNED IN AT DRAINAGE STRUCTURES, STOCK PASSES AND BRIDGES WHERE DIRECTED BY THE ENGINEER SO AS TO ABUT WINGWALLS AND/OR ABUTMENTS.
- (3) THE CONTRACTOR SHALL GIVE THE AFFECTED PROPERTY OWNERS TWO WEEKS NOTICE PRIOR TO CUTTING FENCES.

**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) 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

**PAVEMENT MARKINGS**

**TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS**

- (1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, PAINTED PAVEMENT MARKING (4" LINE), L.M.

- (2) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.02, PAINTED PAVEMENT MARKING (8" BARRIER LINE), L.F.
- (3) WIDE (8 INCH) TEMPORARY PAVEMENT MARKING LINE WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.02 PAINTED PAVEMENT MARKING (8" BARRIER LINE), LIN. FT.

**FINAL PAVEMENT MARKING IF 6" ENHANCED FLATLINE THERMOPLASTIC IS USED**

- (4) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.02, ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

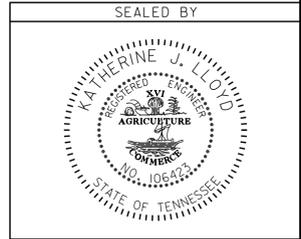
**FINAL PAVEMENT MARKING IF 4" SPRAY THERMOPLASTIC (40 mil) IS USED**

- (5) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" SPRAY THERMOPLASTIC (40 mil) INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-13.06, SPRAY THERMO PVMT MRKNG (40 mil) (4IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

**DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS**

- (6) THE PAVEMENT MARKING ON THE LANE SHIFTS FOR CENTERLINES, LANE LINES AND EDGE LINES WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, LIN. MI.
- (7) BEFORE OPENING THE LANE SHIFTS TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM 712-09.01 REMOVABLE PAVEMENT MARKING LINE, LIN. FT. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THESE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01 TRAFFIC CONTROL, LUMP SUM.

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**GENERAL  
NOTES**

**PAVEMENT PAVING**

- (1) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.
- (2) THE CONTRACTOR SHALL ATTACH A DEVICE TO THE SCREED OF THE PAVER SUCH THAT MATERIAL IS CONFINED AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A CONSOLIDATED WEDGE-SHAPE PAVEMENT EDGE OF APPROXIMATELY 25 TO 30 DEGREES AS IT LEAVES THE PAVER (MEASURED FROM A LINE PARALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION 407SE.

**RESURFACING**

- (3) WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (4) ALL PUBLIC SIDE ROADS SHALL BE PAVED ONE PAVER WIDTH THROUGH THE INTERSECTION AS A MINIMUM. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD OR BUSINESS ENTRANCE SHALL BE PROVIDED. SHOULD THE PAVEMENT OF THE INTERSECTING PUBLIC ROAD BE DISTRESSED, THE RESURFACING WIDTH MAY BE INCREASED TO THE NORMAL RIGHT OF WAY LINE.
- (5) PRIVATE DRIVEWAYS, FIELD ENTRANCES, AND BUSINESS ENTRANCES WILL BE RESURFACED A PAVER WIDTH (LANE WIDTH) AS A MINIMUM. A PAVEMENT TAPER TO TRANSITION THE NEW PAVEMENT SHALL BE REQUIRED, IT SHALL BE BASED ON AN ADDITIONAL ONE FOOT OF WIDTH PER ONE INCH DEPTH OF PAVEMENT. IF THE SHOULDER IS NARROW ENOUGH THAT THE SUM OF THE SHOULDER AND THE TRANSITION ARE LESS THAN A PAVER WIDTH, THE TRANSITION SHALL OCCUR WITHIN THE PAVER WIDTH. IF THE SUM OF THE SHOULDER AND THE TRANSITION IS GREATER THAN A PAVER WIDTH (LANE WIDTH), THE TRANSITION SHALL OCCUR OUTSIDE OF THE PAVER WIDTH.
- (6) ON CURB AND GUTTER SECTIONS, PUBLIC ROAD INTERSECTIONS SHALL BE RESURFACED TO THE END OF RADIUS. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD SHALL BE PROVIDED.
- (7) ON URBAN TYPICAL SECTIONS, (CURB AND GUTTER), RESIDENTIAL DRIVEWAYS AND BUSINESS ENTRANCES SHALL HAVE A MINIMUM WIDTH OF MATERIAL NOT LESS THAN ONE FOOT USED IN THE TRANSITION TO FEATHER THE PAVEMENT EDGE.
- (8) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

**SIGNING**

- (1) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUTOUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND. THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL EXTRUDED PANEL SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE, AS OUTLINED IN THE STANDARD SPECIFICATIONS. ALL SHIELDS ON GUIDE SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE AS OUTLINED IN THE STANDARD SPECIFICATIONS.
- (2) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (3) AFTER THE SIGN LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING ANY MATERIAL FOR THE SUPPORTS, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE REGIONAL CONSTRUCTION OFFICE.
- (4) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS (3 SETS) OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. THE LAYOUT DRAWINGS SHALL BE SENT TO THE ROADWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, SUITE 1300, J. K. POLK BUILDING, NASHVILLE, TN 37243-1402.

**GENERAL NOTES (CONT'D.)**

- (5) ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.
- (6) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.
- (7) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

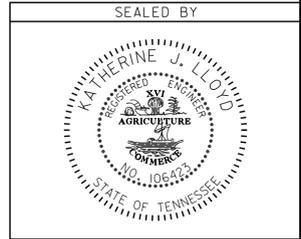
**TRAFFIC CONTROL DIRECTIONAL SIGNING**

- (1) ON ALL ACCESS CONTROLLED AND INTERSTATE RECONSTRUCTION AND NEW CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL UTILIZE ALL EXISTING DIRECTIONAL SIGNING FOR AS LONG AS POSSIBLE. THESE EXISTING SIGNS CAN BE MOVED USING TEMPORARY SUPPORTS AS NEEDED. AS SOON AS THESE EXISTING DIRECTIONAL SIGNS COME DOWN PERMANENTLY, THE CONTRACTOR SHALL HAVE UP AT LEAST ONE NEW TEMPORARY "ADVANCE GUIDE SIGN" AND ONE NEW TEMPORARY "EXIT DIRECTIONAL SIGN" AT ALL EXIT RAMPS. THESE SIGNS ARE TO BE MAINTAINED WITHIN CLEAR VIEW OF THE PUBLIC ON THE RIGHT SIDE OF THE HIGHWAY AND SHALL BE REPLACED IF DAMAGED, DURING ALL PHASES OF CONSTRUCTION, AS DIRECTED BY THE ENGINEER.
- (2) THE SIZE OF THESE NEW TEMPORARY SIGNS WILL BE DETERMINED BY THE MESSAGE. THE MESSAGE SHALL BE THE SAME AS THE EXISTING SIGN THAT THESE NEW TEMPORARY SIGNS WILL BE REPLACING. THE LETTER SIZE SHALL BE A MINIMUM OF 8 INCH, "D" UPPER CASE LETTER. THE DIRECTIONAL ARROW WILL BE A "B" ARROW AT A 45 DEGREE ANGLE (SAME ANGLE AS THE EXISTING ARROW). THE MATERIAL SHALL BE 0.100 INCH SHEET ALUMINUM; THE COLOR SHALL BE A REFLECTIVE GREEN BACKGROUND WITH REFLECTIVE WHITE COPY.
- (3) ALL WORK AND MATERIAL TO MAKE THESE NEW TEMPORARY DIRECTIONAL SIGNS ALONG WITH ADEQUATE SUPPORTS AND TO MOVE THEM AS NEEDED DURING EACH PHASE OF CONSTRUCTION WILL BE PAID FOR UNDER ITEM NO. 712-06, AS DIRECTED BY THE ENGINEER.
- (4) SOME OF THESE DIRECTIONAL SIGNS WILL NEED AN INTERSTATE, U.S., OR A STATE HIGHWAY SHIELD, A CARDINAL DIRECTION, AND A DIRECTION ARROW TO ACCOMPANY THE DIRECTIONAL SIGN. THESE SIGNS SHALL BE MOUNTED BELOW THE DIRECTIONAL SIGN.
- (5) ALL EXISTING "EMERGENCY REFERENCE MARKERS" AND "HOSPITAL SIGNS" SHALL BE MAINTAINED WITHIN FULL VIEW OF THE MOTORING PUBLIC THROUGHOUT ALL PHASES OF CONSTRUCTION. ALL WORK IN MOVING AND TEMPORARY SUPPORTS SHALL BE PAID FOR UNDER ITEM NO. 712-06.
- (6) WHEN "LOGO" SIGNS ARE ON ACCESS CONTROLLED AND INTERSTATE RECONSTRUCTION AND NEW CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THESE SIGNS IN FULL VIEW TO THE MOTORING PUBLIC DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE TO THE DEPARTMENT FOR THE REIMBURSEMENT OF THE SIGN FACE IF IT IS DAMAGED. ALL WORK IN MOVING THESE "LOGO" SIGNS AND THE TEMPORARY SUPPORTS ARE TO BE PAID FOR UNDER ITEM NO. 712-06, AS DIRECTED BY THE ENGINEER. THE SUPPORTS FOR THE FINAL LOCATION OF THESE SIGNS WILL BE PAID FOR UNDER OTHER ITEMS OF CONSTRUCTION.
- (7) WHEN EXISTING "TOURIST ORIENTED DIRECTIONAL SIGNS" (TODS) ARE ON NON-ACCESS CONTROLLED CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THESE SIGNS IN FULL VIEW TO THE MOTORING PUBLIC DURING ALL PHASES OF CONSTRUCTION. ALL WORK IN MOVING THESE "TODS" AND TEMPORARY SUPPORTS ARE TO BE PAID FOR UNDER ITEM NO. 712-06, AS DIRECTED BY THE ENGINEER. NEW SUPPORTS AND SIGN FACE FOR FINAL LOCATION WILL BE PAID FOR UNDER OTHER ITEMS OF CONSTRUCTION.

**CONSTRUCTION WORK ZONE & TRAFFIC CONTROL**

- (1) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (2) 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.
- (3) 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.
- (4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (5) 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 FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. 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 REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (6) 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 FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF A OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE.. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED AND THE VERTICAL PANELS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	2F



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	26

**EROSION PREVENTION AND SEDIMENT CONTROL**

**DISTURBED AREA**

- (1) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- (2) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.
- (3) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- (4) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (5) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

**SEDIMENT CONTROL**

- (6) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- (7) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (8) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.
- (9) CHECK DAMS SHALL BE USED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, GABION, OR SANDBAG CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO REDUCE VELOCITY AND CONTROL EROSION.
- (10) IF PERMANENT OR TEMPORARY VEGETATION IS TO BE USED AS AN EPSC MEASURE, THEN THE TIMING OF PLANTING OF VEGETATION SHALL BE SHOWN IN THE SWPPP. DELAYING PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.
- (11) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- (12) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

**INSPECTION, MAINTENANCE, REPAIR**

- (13) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.
- (14) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.
- (15) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.
- (16) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. TDOT AND/OR THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.
- (17) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.
- (18) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
- (19) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- (20) THE TDOT PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

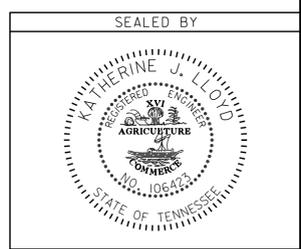
**MATERIALS**

- (21) WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.

**LITTER, DEBRIS, WASTE, PETROLEUM**

- (22) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.
- (23) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

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STATE OF TENNESSEE  
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**GENERAL  
NOTES**

# SPECIAL NOTES

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## GRADING

- (1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.
- (2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.
- (3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 1 BUILDING IN KNOXVILLE, TN.
- (4) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
- (5) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

## PAVEMENT

### RESURFACING

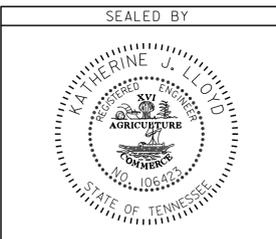
- (1) TRAFFIC WILL BE ALLOWED TO TEMPORARILY DRIVE ON THE MILLED SURFACE OF THE ROADWAY UNDER THE FOLLOWING CONDITIONS ONLY:
  - A. THE MILLED SURFACE IS FINE TEXTURED. THE FINE TEXTURE SHALL BE OBTAINED BY A MILLING MACHINE UTILIZING A MILLING HEAD WITH TEETH SPACING 3/8" OR LESS OPERATING AT LESS THAN 80 FEET PER MINUTE.
  - B. THE SURFACE SHALL BE SWEEPED AND CLEANED OF ALL LOOSE MATERIALS.
  - C. THE DIFFERENCE IN ELEVATION BETWEEN THE MILLED SURFACE AND THE ADJACENT LANE SHALL NOT EXCEED 1 1/2 INCHES.
  - D. THE MILLED SURFACE SHALL BE PAVED WITHIN 48 HOURS.
  - E. RAIN OR INCLEMENT WEATHER IS NOT EXPECTED OR FORECASTED WITHIN 48 HOURS AFTER MILLING.
  - F. ALL APPLICABLE SIGNING IS INSTALLED IN ACCORDANCE WITH THE MUTCD SIGNING SHALL INCLUDE MOTORCYCLE WARNING SIGNS (TN-64) PLACED IN ADVANCE OF ANY MILLED AREAS.
  - G. IF RAVELING OR DETERIORATION OF THE MILLED SURFACE IS OCCURRING WHILE TRAFFIC IS DRIVING ON THE MILLED SURFACE, THEN THIS PRACTICE WILL NOT BE ALLOWED AND PAVING SHALL BE COMPLETED IMMEDIATELY AFTER MILLING.
  - H. ONLY ONE LANE IN EACH DIRECTION SHALL HAVE A MILLED SURFACE AT ONE TIME.

### EROSION PREVENTION AND SEDIMENT CONTROL

#### NPDES

- (2) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 8, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

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STATE OF TENNESSEE  
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**SPECIAL  
NOTES**

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CROSS DRAIN TABULATION																				
STATION	RCP CLASS III OR CMP 14 GA. OR HDPE OR PVC (L.F.) FILL HEIGHT < OR = 18 FT.					RCP CLASS IV OR CMP 14 GA. OR PVC (L.F.) FILL HEIGHT > 18 FT. AND < OR = 27 FT.					SKEW	RIP-RAP 709-05.06 (TON)	END TREATMENT						REMARKS	
	18"	24"	30"	36"	48"	18"	24"	30"	36"	48"			INLET		OUTLET		CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)		STRUC. STEEL 611-07.03 (LB.)
	*												TYPE	DRAWING NO.	TYPE	DRAWING NO.				
520+72.23	12										60								12" PVC FOR TRENCH DRAINS	
522+46.35	7										90								12" PVC FOR TRENCH DRAINS	
<b>TOTALS</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>				<b>0</b>	<b>0</b>	<b>0</b>		

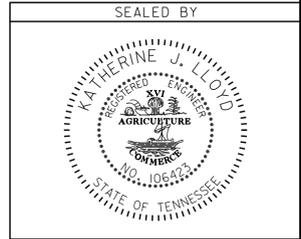
\* ITEM 611-05.02 (12" PVC)

ESTIMATED GRADING QUANTITIES							
STATION TO STATION	ROAD & DRAINAGE EXC. (UNCL.)		BORROW EXCAVATION		CHANNEL EXC. C.Y.	EXCESS EXC. WASTE (C.Y.) 203-10.15	EMB. C.Y.
	203-01 COMMON - C.Y.	203-01.29 S. ROCK - C.Y.	UNCL. - C.Y.	S. ROCK - C.Y.			
517+00.00 TO 524+50.00	324	1346				1605	65
522+00.00 TO 524+00.00	527					-30	557
<b>TOTALS</b>	<b>851</b>	<b>1346</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1575</b>	<b>622</b>

1) ADDITIONAL EXCAVATION FOR CONSTRUCTION OF RETAINING WALL

PAVEMENT QUANTITIES											
LOCATION	PAY ITEMS										
	303-01 (TON)	307-02.01 (TON)	307-02.02 (TON)	307-02.03 (TON)	307-02.08 (TON)	402-01 (TON)	402-02 (TON)	403-01 (TON)	411-01.07 (TON)	411-02.10 (TON)	415-01.01 (TON)
SE Ramp	1176	176	5	132	116	4	15	3	63	215	273
George L. Davis Blvd.								2		276	
Church St.								1		81	81
<b>TOTALS</b>	<b>1176</b>	<b>176</b>	<b>5</b>	<b>132</b>	<b>116</b>	<b>4</b>	<b>15</b>	<b>6</b>	<b>63</b>	<b>572</b>	<b>354</b>

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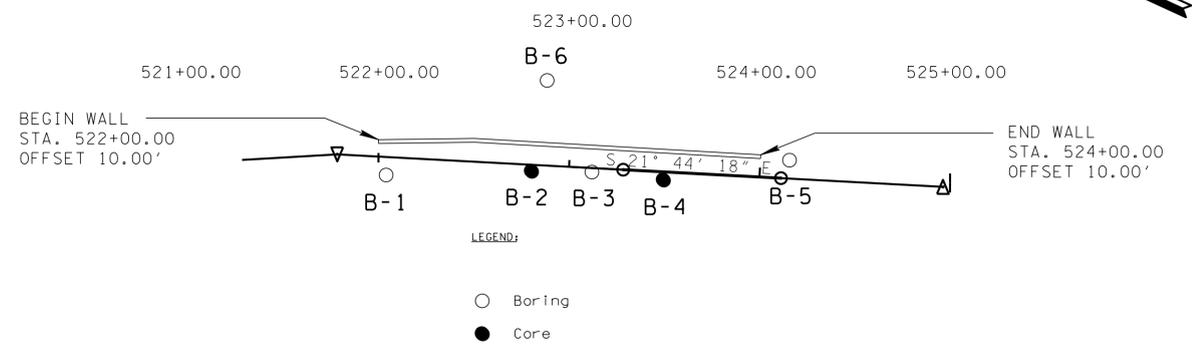


STATE OF TENNESSEE  
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**TABULATED  
QUANTITIES**

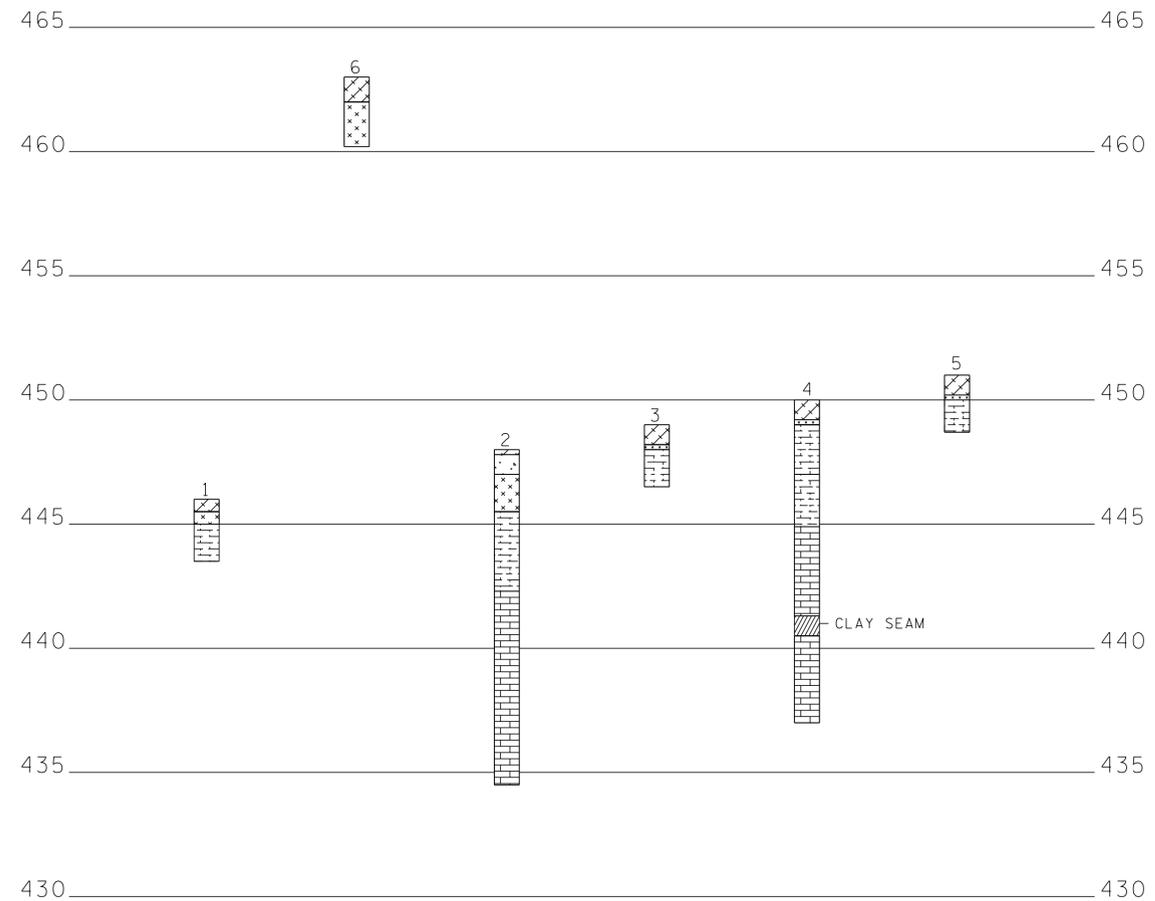
TYPE	YEAR	PROJECT NO.	SHEET NO.
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### WALL PLAN VIEW (1" = 50')



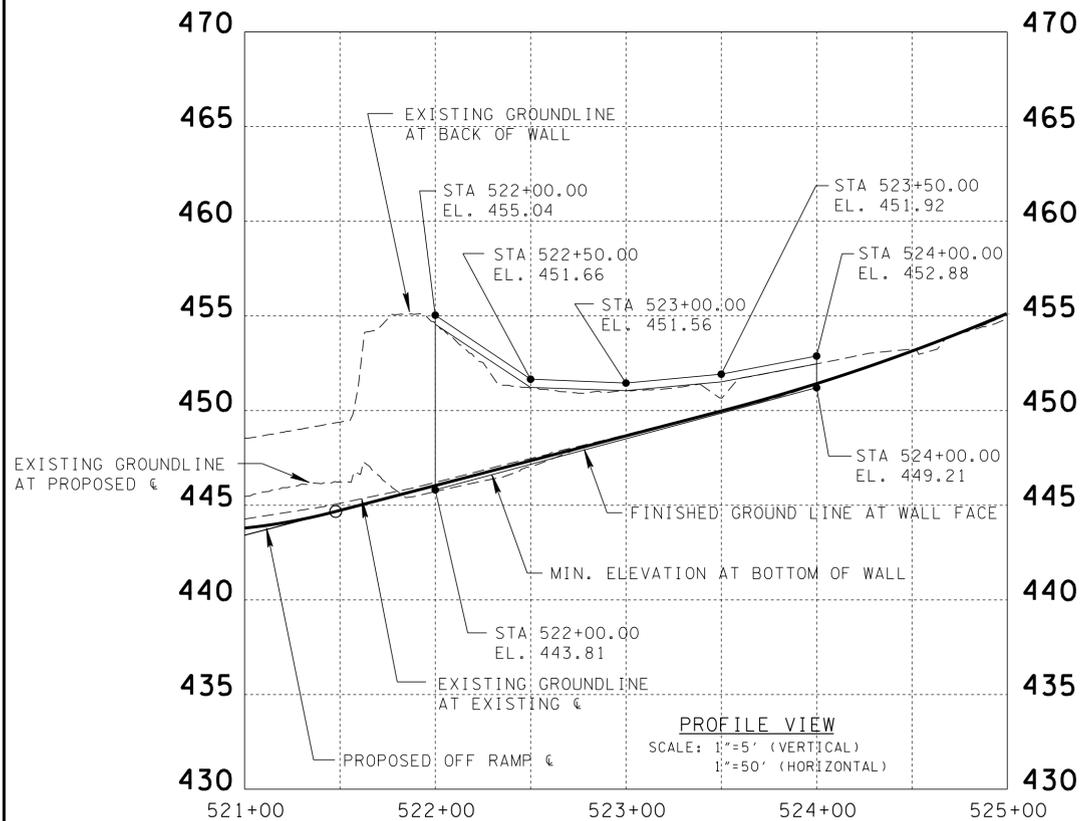
#### BORING INFORMATION

BORING NO.	STATION	OFFSET DISTANCE	DEPTH	GROUND ELEVATION	TOP OF ROCK ELEVATION
B-1	522+04	6.6' RT	2.5'	446.0	-----
B-2	522+80	2.9' RT	13.5'	448.0	442.3
B-3	523+12	2.1' RT	2.5'	449.0	-----
B-4	523+50	4.2' RT	13.0'	450.0	444.9
B-5	524+15	9.7' LT	2.3'	451.0	-----
B-6	522+87	45.3' LT	2.8'	463.0	-----

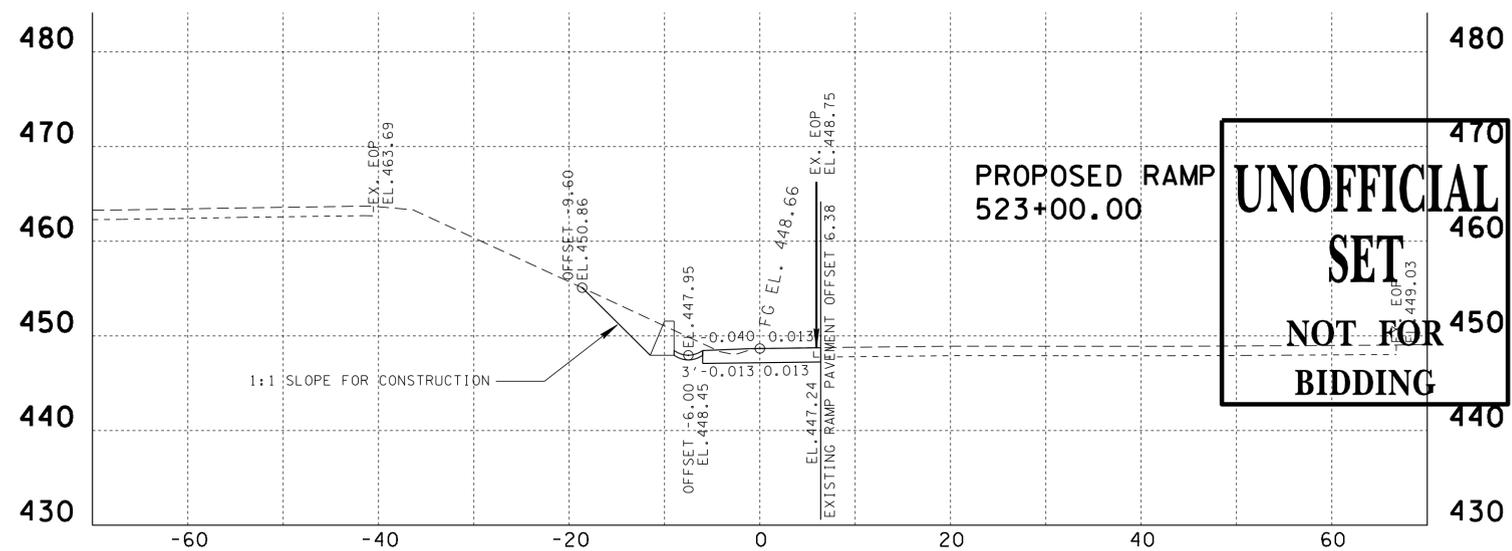


- ASPHALT
- CONCRETE
- AGGREGATE
- LIMESTONE FRACTURED/BROKEN
- LIMESTONE

### WALL ELEVATION VIEW



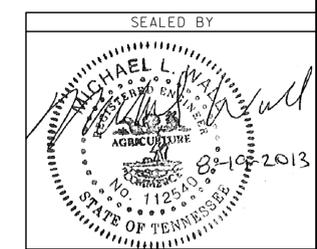
### TYPICAL SECTION STA. 523+00.00



**NOTES:**

1. THE INFORMATION FOR THE PLAN AND ELEVATION VIEWS PRESENTED ON THIS DRAWING WAS PROVIDED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION ON APRIL 9, 2013.
2. THIS DRAWING IS FOR FOUNDATION DATA ONLY AND IS NOT TO BE USED AS A LAYOUT.

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STATE OF TENNESSEE  
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**RETAINING WALL CONCEPTUAL DRAWINGS**

16-APR-2014 11:26 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\02K.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
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**RETAINING WALL DESIGN NOTES**

UNLESS SPECIFICALLY STATED OTHERWISE IN THE CONTRACT PLANS, THE BIDDING FOR, THE DESIGN OF AND THE CONSTRUCTION OF RETAINING WALLS SHOWN IN THE PLANS SHALL BE GOVERNED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION 624 REGARDING RETAINING WALLS. THIS SPECIAL PROVISION SHALL BE CONSIDERED AS ONE OF THOSE DOCUMENTS WHICH THE BIDDER/CONTRACTOR HAS EXAMINED AND MADE HIMSELF FAMILIAR WITH AS DESCRIBED IN SECTION 102.04 - EXAMINATION OF THE SITE, THE WORK, THE PLANS, AND THE SPECIFICATIONS IN THE TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

EXCAVATION FOR THE WALL AND/OR ITS FOOTING SHALL NOT BE ACCOMPLISHED UNTIL THE CONTRACTOR HAS SUBMITTED WALL DESIGNS AND CALCULATIONS AND HAS BEEN ISSUED AN APPROVED SET OF WALL PLANS AND HAS LABOR AND MATERIAL RESOURCES AVAILABLE TO BEGIN AND CONTINUE WALL CONSTRUCTION IMMEDIATELY AFTER EXCAVATION.

THIS WALL SHALL BE DESIGNED IN ACCORDANCE WITH LRFD DESIGN PROCEDURES AND REQUIREMENTS AS DESCRIBED IN 1) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2007 AND INTERIMS AND 2) PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS.

FOR PROPRIETARY WALL SYSTEMS THAT HAVE BEEN APPROVED AS SHOWN IN SPECIAL PROVISION 624, THE WALL DESIGNER SHALL BE RESPONSIBLE FOR PROVIDING WALL DESIGNS INCORPORATING MATERIALS AND COMPONENTS (I.E. REINFORCEMENT CONNECTION DEVICES, SPECIFIC MANUFACTURER AND PROPERTIES OF GEOGRID) AS WAS ORIGINALLY SUBMITTED AND APPROVED BY TDOT. IF A MATERIAL AND/OR COMPONENT OF THE WALL SYSTEM HAVE BEEN MODIFIED FROM THE ORIGINALLY APPROVED SYSTEM, A WALL DESIGN AND SET OF PLANS AND CALCULATIONS FOR THIS WALL SYSTEM CANNOT BE SUBMITTED FOR REVIEW AND APPROVAL UNTIL THE WALL SYSTEM DESIGNER WHO ORIGINALLY SUBMITTED THE WALL SYSTEM FOR APPROVAL BY TDOT SUBMITS A REQUEST FOR RE-APPROVAL UTILIZING THE MODIFIED ELEMENTS OF THE WALL. THIS SUBMITTAL DOES NOT GUARANTEE APPROVAL OF THE MODIFIED SYSTEM. IF THIS RE-APPROVAL PROCESS DOES NOT MEET THE CONTRACTOR'S SCHEDULE OR IF THE MODIFIED SYSTEM IS NOT APPROVED, THE CONTRACTOR/WALL DESIGNER SHALL PROVIDE A WALL DESIGN FOR ONE OF THE APPROVED SYSTEMS AT NO CHANGE IN CONTRACT PRICE FOR THE RETAINING WALL AND NO CHANGE IN PROJECT SCHEDULE REQUIREMENTS WILL BE ALLOWED.

THE WALL DESIGNER SHALL PROVIDE RETAINING WALL PLANS, DETAILS AND CALCULATIONS AS REQUIRED BY SPECIAL PROVISION 624 AND AS REQUIRED HEREIN.

- THE WALL DESIGNER SHALL UTILIZE THE GEOTECHNICAL PARAMETERS AND RESISTANCE FACTORS AS PROVIDED FOR EACH PROJECT RETAINING WALL ON THE WALL CONCEPT SHEET AND RELATED RETAINING WALL SHEETS TO PREPARE AND SUBMIT DESIGN CALCULATIONS. LOAD FACTORS AND OTHER PERTINENT DESIGN REQUIREMENTS PROVIDED IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2007 AND INTERIMS SHALL BE USED FOR NON-MSE WALLS AND PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS.

- CALCULATIONS FOR BOTH INTERNAL AND EXTERNAL STABILITY (SLIDING, ECCENTRICITY, AND BEARING CAPACITY-GLOBAL STABILITY AND SETTLEMENT BEING THE EXCEPTIONS) SHALL BE PROVIDED FOR EACH CRITICAL WALL SECTION WHICH DEMONSTRATES THE REQUIRED CAPACITY TO DEMAND RATIO OF 1.0 IS MET UTILIZING THE DESIGN PARAMETERS PROVIDED. FOR ME WALLS, THE WALL DESIGNER MUST ADJUST THE REINFORCEMENT LENGTHS BEYOND THOSE MINIMUM REQUIRED LENGTHS, IF REQUIRED, TO MEET BOTH INTERNAL AND EXTERNAL REQUIREMENTS. THE WALL DESIGNER/CONTRACTOR PLANS MUST INCLUDE ANY FOUNDATION IMPROVEMENTS AS REQUIRED HEREIN ON THE WALL DESIGNER/CONTRACTOR'S WALL ELEVATION VIEWS AND ANY CROSS-SECTIONAL DETAIL DRAWINGS.

- UNLESS OTHERWISE STATED, THE WALL DESIGNER CAN ASSUME THAT MINIMUM GLOBAL STABILITY AND SETTLEMENT CRITERIA IS ACHIEVED WITH A WALL DESIGN MEETING OTHER MINIMUM EXTERNAL STABILITY REQUIREMENTS AND ASSUMING WALL FOUNDATION CONDITIONS ARE MET. WHILE THE WALL DESIGNER'S DESIGN MUST DEMONSTRATE COMPLIANCE WITH EXTERNAL STABILITY REQUIREMENTS AS DISCUSSED ABOVE, THE WALL DESIGNER MAY PROVIDE CERTIFICATION (BY SIGNING AND STAMPING BY PROFESSIONAL ENGINEER REGISTERED IN STATE OF TENNESSEE) OF THE WALLS PLANS AND CALCULATIONS "FOR INTERNAL STABILITY ONLY".

- LOAD COMBINATIONS STRENGTH I, EXTREME EVENT I, AND EXTREME EVENT II AS GIVEN IN TABLE 4-1 OF PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS SHALL BE EVALUATED FOR MSE WALLS. LOAD COMBINATIONS FOR OTHER WALL TYPES SHALL BE AS GIVEN IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2007 AND INTERIMS

**NOTE REGARDING CONSTRUCTION SLOPES**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE EXCAVATION IN ACCORDANCE WITH OSHA AND OTHER APPLICABLE STATE AND LOCAL REGULATIONS REGARDING CONSTRUCTION SLOPES AND TRENCHES. IN ADDITION TO FOLLOWING APPLICABLE REGULATORY REQUIREMENTS, AS A MINIMUM REQUIREMENT, ALL TEMPORARY CONSTRUCTION SLOPES SHALL BE PLACED AT A MAXIMUM OF A 1:1 SLOPE IN SOIL AND SHALL NOT BE LEFT OPEN WITHOUT SHORING FOR ANY LONGER THAN ABSOLUTELY NECESSARY. THE CONTRACTOR BUILDING THE WALL SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF SLOPE IS UNSTABLE, BECOMES UNSTABLE, IS CUT STEEPER THAN A 1:1 SLOPE OR IS UNACCEPTABLE FOR ANOTHER REASON, THEN TEMPORARY SHORING SHALL BE USED. ANY UNUSUAL SOIL CONDITIONS OTHER THAN THOSE ASSUMED SHOULD BE REPORTED TO THE PROJECT ENGINEER.

**ACCEPTABLE WALL TYPES**

THE RETAINING WALL SHALL BE ONE OF THE WALL TYPES LISTED BELOW. FOR RETAINING WALL SYSTEMS LISTED AS BIN WALL, CRIB WALL, MSE (EITHER SEGMENTAL PANEL OR MODULAR BLOCK) AND GROUND ANCHOR WALL, THE SPECIFIC WALL SYSTEM SUPPLIER/INSTALLER SHALL BE ONE OF THOSE LISTED AS PRE-APPROVED IN THE SPECIAL PROVISION 624.

- PRE-CAST GRAVITY WALL
- CAST-IN-PLACE CONCRETE GRAVITY WALL
- CAST-IN-PLACE CONCRETE CANTILEVER WALL

**TABLE 1-DESIGN REQUIREMENTS AND PARAMETERS**

DESCRIPTION	VALUE-MSE WALLS	VALUE-OTHER WALLS	NOTE *
DESIGN LIFE	NOT APPLICABLE	75 YEARS	
SEISMIC ACCELERATION COEFFICIENT (Amax)	0.089 g	0.089 g	
EFFECTIVE (DRAINED) FRICTION ANGLE			
RETAINED BACKFILL-UNCLASSIFIED SITE OR BORROW SOIL	NOT APPLICABLE		
RETAINED BACKFILL-SELECT BACKFILL	NOT APPLICABLE	34 ° TO MAX 40 °	1
REINFORCED BACKFILL	NOT APPLICABLE	NOT APPLICABLE	1
UNIT WEIGHT			
UNCLASSIFIED SITE OR BORROW SOIL	NOT APPLICABLE		
SELECT BACKFILL MATERIAL	NOT APPLICABLE	VARIES	1A
MINIMUM LENGTH OF SOIL REINFORCEMENT, B	NOT APPLICABLE	NOT APPLICABLE	2,2A
LIMITING ECCENTRICITY	NOT APPLICABLE	B/4 (SOIL), 3/8B (ROCK)	
COEFFICIENT OF SLIDING FRICTION	NOT APPLICABLE	SEE TABLE 2	3
NOMINAL BEARING CAPACITY	NOT APPLICABLE	SEE TABLE 2	3
RESISTANCE FACTORS			
SLIDING-STATIC	NOT APPLICABLE	0.85	4
SLIDING-COMBINED STATIC+EARTHQUAKE	NOT APPLICABLE	1.0	4
BEARING-STATIC	NOT APPLICABLE	0.45	5
BEARING-COMBINED STATIC+EARTHQUAKE	NOT APPLICABLE	1.0	
PULLOUT RESISTANCE			
STATIC	NOT APPLICABLE	NOT APPLICABLE	6
COMBINED STATIC/EARTHQUAKE	NOT APPLICABLE	NOT APPLICABLE	6
TENSILE RESISTANCE OF METALLIC REINFORCEMENTS AND CONNECTORS			
STATIC	NOT APPLICABLE	NOT APPLICABLE	
-STRIP REINFORCEMENT	NOT APPLICABLE		7
-GRID REINFORCEMENT	NOT APPLICABLE		7,8
COMBINED STATIC/EARTHQUAKE			
-STRIP REINFORCEMENT	NOT APPLICABLE		7
-GRID REINFORCEMENT	NOT APPLICABLE	NOT APPLICABLE	7,8
TENSILE RESISTANCE OF GEOSYNTHETIC REINFORCEMENTS AND CONNECTORS			
STATIC	NOT APPLICABLE	NOT APPLICABLE	
COMBINED STATIC/EARTHQUAKE	NOT APPLICABLE	NOT APPLICABLE	
*REFER TO TABLE 1.1 FOR NOTES.			

**TABLE 1.1  
NOTES FOR TABLE 1**

NO.	NOTE
1	A MINIMUM FRICTION ANGLE OF 34 DEGREES CAN BE ASSUMED FOR MATERIAL MEETING SPECIFICATIONS IN SECTION F, PART 1, AND ITEM E OF TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION 624 REGARDING RETAINING WALLS. A HIGHER FRICTION ANGLE CAN BE UTILIZED IF THE CONTRACTOR SUBMITS INDEPENDENT TESTING AND IT IS VERIFIED BY TDOT. HOWEVER, IN NO CASE SHALL THE FRICTION ANGLE FOR ANALYSIS EXCEED 40-DEGREES.
1A	SELECT BACKFILL UNIT WEIGHT TO BE DETERMINED BY CONTRACTOR/DESIGNER DEPENDING ON ACTUAL BACKFILL MATERIAL USED. SELECT BACKFILL IS DEFINED AS MATERIAL MEETING SPECIFICATIONS IN SECTION F, PART 1, AND ITEM E OF TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION 624 REGARDING RETAINING WALLS. IN ORDER TO UTILIZED FOR SELECT BACKFILL DESIGN, SELECT BACKFILL MUST BE PLACED FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE FROM 2 FEET BEHIND THE BOTTOM OF BACK OF WALL FOOTING OR REINFORCED SOIL ZONE FOR MSE WALLS UP TO FINISHED GRADE.
2	H IS DESIGN HEIGHT OF THE WALL AND IS DEFINED AS THE DIFFERENCE IN ELEVATION BETWEEN THE FINISHED GRADE AT THE TOP OF THE WALL AND THE TOP OF LEVELING PAD OR BOTTOM OF FOOTING FOR NON-MSE WALLS. THE TOP OF THE LEVELING PAD SHALL ALWAYS BE BELOW THE MINIMUM EMBEDMENT REFERENCE LINE AS INDICATED ON THE PLANS FOR THAT LOCATION. THE LENGTH OF THE SOIL REINFORCEMENT, B, IS MEASURED FROM THE BACKFACE OF THE WALL FACING UNIT. IN CASE OF GRID TYPE REINFORCEMENTS THE LENGTH OF THE SOIL REINFORCEMENT IS MEASURED FROM THE BACKFACE OF THE WALL FACING UNIT TO THE LAST FULL TRANSVERSE MEMBER. FOR MODULAR BLOCKFACING UNITS, THE TOTAL LENGTH OF THE REINFORCEMENT, B, AS MEASURED FROM THE FRONT FACE OF THE WALL IS THE LENGTH B AS DEFINED ABOVE PLUS THE WIDTH OF THE MODULAR BLOCK UNIT (THE HORIZONTAL DIMENSION OF THE BLOCK UNIT MEASURED PERPENDICULAR TO THE WALL FACE).
2A	WALL DESIGNER MUST ADJUST THE REINFORCEMENT LENGTHS BEYOND THOSE MINIMUM REQUIRED LENGTHS, IF REQUIRED, TO MEET BOTH INTERNAL AND EXTERNAL STABILITY REQUIREMENTS. MINIMUM REINFORCEMENT LENGTHS MAY BE REQUIRED FOR GLOBAL STABILITY. THIS REQUIREMENT WILL BE SHOWN IN THE PLANS.
3	THESE VALUES WILL BE PROVIDED IN TABLES 2 AND/OR 3
4	PASSIVE RESISTANCE SHALL NOT BE CONSIDERED IN EVALUATION OF SLIDING RESISTANCE.
5	FOR ALL LIMIT STATES, THE DESIGN LOADING FOR THE MSE RETAINING WALL SYSTEM SHALL NOT EXCEED THE FACTORED GENERAL AND LOCAL BEARING RESISTANCE SPECIFIED IN TABLES 2.
6	LIVE LOAD DUE TO VEHICULAR TRAFFIC SHALL BE INCLUDED IN THE COMPUTATIONS TO DETERMINE THE MAXIMUM TENSILE FORCES IN REINFORCEMENT LAYERS, BUT SHALL BE NEGLECTED IN THE COMPUTATIONS FOR PULLOUT RESISTANCE.
7	APPLY TO GROSS CROSS-SECTION LESS SACRIFICIAL AREA. FOR SECTIONS WITH HOLES, REDUCE GROSS AREA IN ACCORDANCE WITH ARTICLE 6.8.3 OF AASHTO (2007) AND APPLY TO NET SECTION LESS SACRIFICIAL AREA.
8	APPLIES TO GRID REINFORCEMENTS CONNECTED TO A RIGID FACING ELEMENT, E.G., A CONCRETE PANEL OR BLOCK. FOR GRID REINFORCEMENTS CONNECTED TO A FLEXIBLE FACING MAT OR WHICH ARE CONTINUOUS WITH THE FACING MAT, USE THE RESISTANCE FACTOR FOR STRIP REINFORCEMENTS.
	UNLESS OTHERWISE SPECIFIED, ALL RESISTANCE FACTORS SHALL BE TAKEN AS 1.0 WHEN INVESTIGATING AN EXTREME EVENT LIMIT STATE.

NOTE: TABLES 1 AND 1.1 ARE MODIFICATIONS OF TABLES 1 AND 1.1 OF PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009.

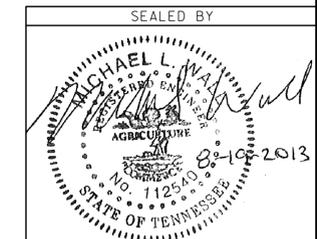
**TABLE 2-FOUNDATION PARAMETERS AND REQUIREMENTS FOR OTHER GRAVITY OR SEMI-GRAVITY WALLS**

STATION LIMITS	FOUNDATION BEARING CONDITION REQUIREMENT	NOMINAL BEARING PRESSURE (tsf)	COEFFICIENT OF SLIDING FRICTION
522+00 THRU 524+00	ON COMPETENT BEDROCK AT MINIMUM EMBEDMENT DEPTH	90	0.60

**OTHER DESIGN REQUIREMENTS**

THE WALL SHALL HAVE A DRAINAGE GUTTER AT THE TOP DESIGNED TO CARRY SURFACE RUNOFF TO EITHER OR BOTH ENDS OF WALLS. DETAILS OF THIS DRAINAGE FEATURE SHALL BE PROVIDED IN WALL DESIGNER/CONTRACTOR'S WALL DESIGN PLANS. IF A CONCRETE CANTILEVER WALL IS USED, THE WALL DESIGNER MUST PROVIDE FOR A DRAINAGE LAYER BEHIND THE WALL STEM WITH ADEQUATE DRAINAGE PROVIDED VIA WEEP HOLES.

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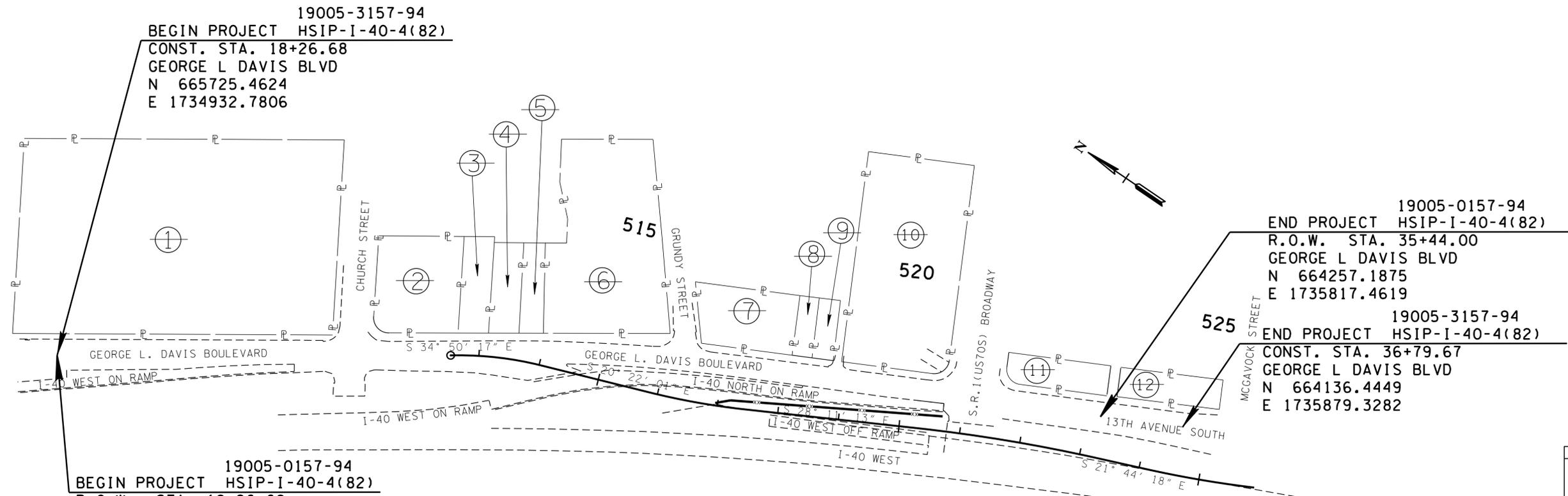
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**GEOTECHNICAL  
DESIGN NOTES  
& REQUIREMENTS**

- RIGHT - OF - WAY NOTES**
- IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, ROADWAY DESIGN DIVISION IS TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.
  - IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, DESIGN DIVISION AND THE CIVIL ENGINEERING MANAGER 1, REGIONAL DESIGN OFFICE, ARE TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.
  - ALL RAMP MUST CONFORM TO THE DEPARTMENT'S "POLICY ON FINANCING CONSTRUCTION OF PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS ON HIGHWAY RESURFACING, RECONSTRUCTION AND CONSTRUCTION PROJECTS ON NEW LOCATIONS", THE MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHT-OF-WAY, STANDARD DRAWING RP-R-1, AND OTHER ACCEPTED DESIGN AND SAFETY STANDARDS.
  - EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.
  - WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.
  - ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.
  - NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.
  - ON NON-STATE ROUTES, ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS SHALL REQUIRE A PERMIT ONLY IF THE LOCAL AGENCY SPECIFIES THE NEED FOR THAT PERMIT.

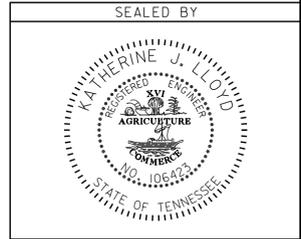
- UTILITIES**
- THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.
  - UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
  - 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.
  - 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.
  - 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.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4(82)	3
CONST.	2014	HSIP-I-40-4(82)	3



UTILITY OWNERS						
UTILITY	OWNER	ADDRESS	PHONE NO.	CONTACT	email	
TELEPHONE	AT&T	333 Commerce St., Room 23C142 Nashville, TN 37201	615-214-7318	Kim Bean	kb1078@att.com	
FIBER OPTIC	Level 3 Communications	1025 Eldorado Blvd., 33A-521 Broomfield, CO 80021	720-888-7280	Tim Boykin	tim.boykin@level3.com	
WATER	Metro Water & Sewer Services	1600 Second Avenue North Nashville, TN 37208	615-862-4534	Steve Nunley	steve.nunley@nashville.gov	
SEWER	Metro Water & Sewer Services	1600 Second Avenue North Nashville, TN 37208	615-862-4534	Steve Nunley	steve.nunley@nashville.gov	
GAS	Piedmont Natural Gas	83 Century Blvd. Nashville, TN 37214	615-872-2389	Roger Byrd	roger.byrd@piedmontng.com	
ELECTRIC	Nashville Electric Service	1214 Church St., Room 353 Nashville, TN 37246	615-747-3530	Hank Dunning	hdunning@nespower.com	
CABLE TV	Comcast	660 Mainstream Drive Nashville, TN 37228	615-244-7462 ,ext. 1115251	Nick Lee	Nick_Lee@cable.comcast.net	
STREET LIGHTS	Metro Public Works	720 South Fifth St. Nashville, TN 37206	615-862-8714	Billy Davis	billy.davis@nashville.gov	

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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**PROPERTY MAP  
AND  
UTILITY OWNERS**

SCALE: 1"=100'

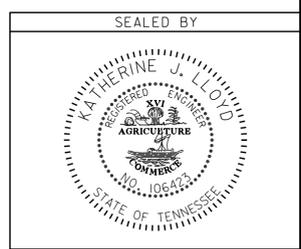
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4(82)	3A
CONST.	2014	HSIP-I-40-4(82)	3A

**R.O.W. ACQUISITION TABLE**

TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA ACRES			AREA TO BE ACQUIRED ACRES			AREA REMAINING ACRES		EASEMENT (SQUARE FEET)		
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE		LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	SLOPE	CONST.
				BK.	PAGE											
1	METRO GOV'T NE POWER BOARD	93-05	12200	1422	189	3.890		3.890			3.890					
2	PROFESSIONAL REAL ESTATE DEV., LLC	93-09	7500	4642	748	0.511		0.511			0.511					
3	PROFESSIONAL REAL ESTATE DEV., LLC	93-09	7400	11059	822	0.180		0.180			0.180					
4	PROFESSIONAL REAL ESTATE DEV., LLC	93-09	7300	11059	822	0.160		0.160			0.160					
5	AMSOUTH BANK, TRS.	93-09	7200	20020801	92564	0.120		0.120			0.120					
6	HIPPODROME MOTORS	93-09	7100	2437	234	1.290		1.290			1.290					
7	DANIEL R. SCOGGIN, TR., ET AL	93-09	10500	20090166	4360	0.360		0.360			0.360					
8	MATTHEW A. & ALLISON W. SIMMS	93-09	10400	20120131	8839	3049 S.F.		3049 S.F.			3049 S.F.					
9	MATTHEW A. & ALLISON W. SIMMS	93-09	10300	20120131	8839	3485 S.F.		3485 S.F.			3485 S.F.					
10	1212 BROADWAY PARTNERS	93-09	11800	20101216	100165	1.400		1.400			1.400					
11	1212 BROADWAY PARTNERS	93-09	15400	20110816	63162	0.190		0.190			0.190					
12	RAJESH AGGARWAL	93-09	17900	20060915	114623	0.190		0.190			0.190					

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NOT FOR BIDDING**



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**RIGHT-OF-WAY  
ACQUISITION  
TABLE**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4(82)	4
CONST.	2014	HSIP-I-40-4(82)	4

GEORGE L DAVIS BLVD STA. 23+06.46 =  
CHURCH ST. STA. 11+62.59  
N 665328.9825  
E 1735202.9450

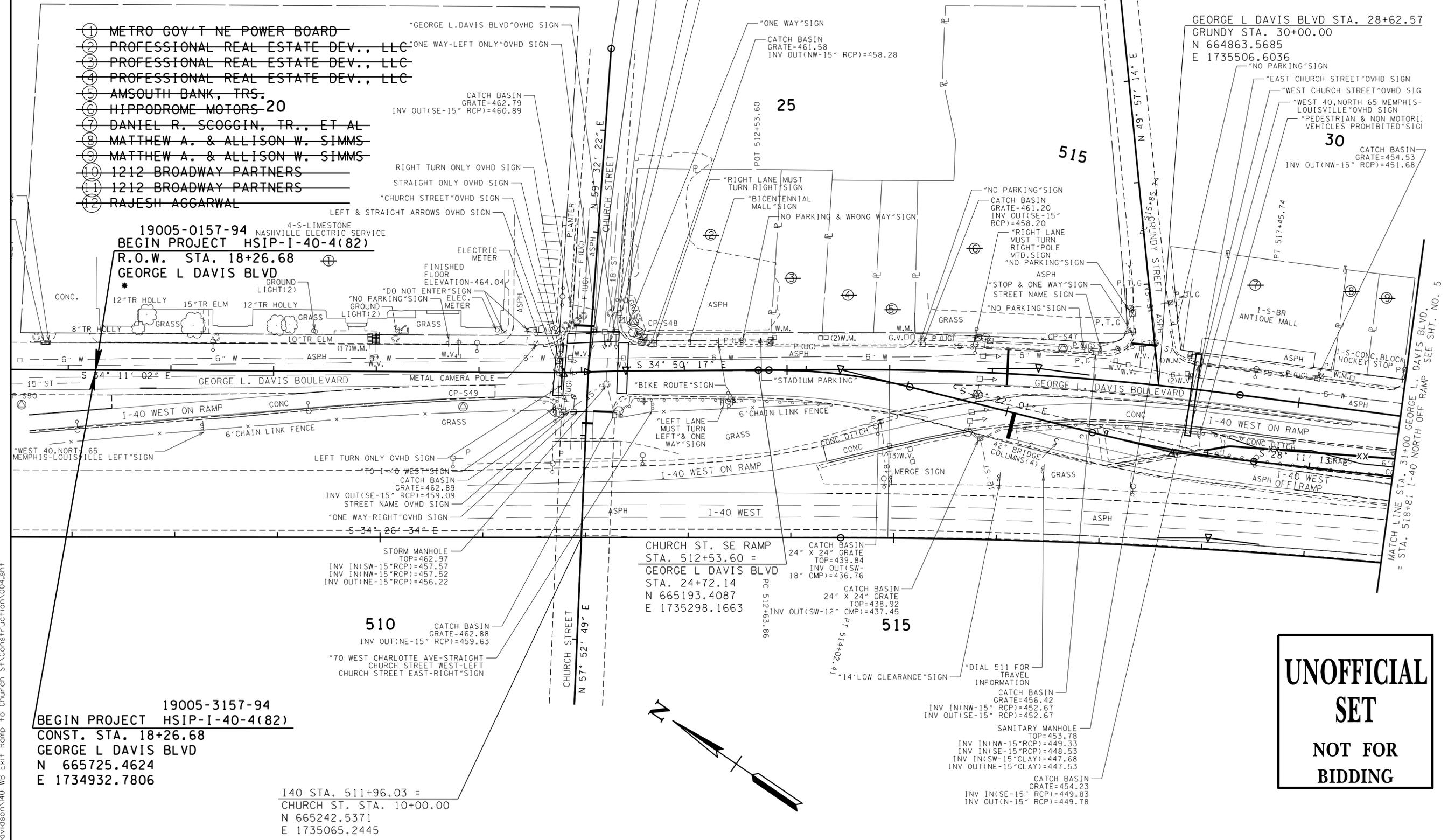
CHURCH ST. STA. 14+80.58  
N 665490.1872  
E 1735477.0477

GEORGE L. DAVIS BLVD.  
CURVE DC102  
PI 513+33.50  
N 665,127.8253  
E 1,735,343.8127  
Δ 14° 28' 16" (RT)  
D 10° 26' 41"  
R 548.57  
L 138.55  
T 69.65

I-40 N. OFF RAMP  
CURVE DC103  
PI 516+65.86  
N 664,815.5518  
E 1,735,459.7411  
Δ 7° 49' 13" (LT)  
D 4° 53' 15"  
R 1,172.27  
L 160.00  
T 80.12

GRUNDY ST. STA. 33+98.68  
N 665120.0793  
E 1735811.8015

GEORGE L DAVIS BLVD STA. 28+62.57  
GRUNDY STA. 30+00.00  
N 664863.5685  
E 1735506.6036



- ① METRO GOV'T NE POWER BOARD
- ② PROFESSIONAL REAL ESTATE DEV., LLC
- ③ PROFESSIONAL REAL ESTATE DEV., LLC
- ④ PROFESSIONAL REAL ESTATE DEV., LLC
- ⑤ AMSOUTH BANK, TRS.
- ⑥ HIPPODROME MOTORS 20
- ⑦ DANIEL R. SCOGGIN, TR., ET AL
- ⑧ MATTHEW A. & ALLISON W. SIMMS
- ⑨ MATTHEW A. & ALLISON W. SIMMS
- ⑩ 1212 BROADWAY PARTNERS
- ⑪ 1212 BROADWAY PARTNERS
- ⑫ RAJESH AGGARWAL

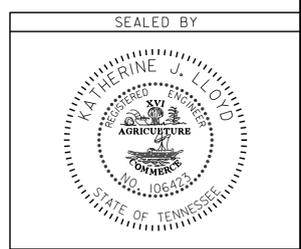
19005-0157-94  
NASHVILLE ELECTRIC SERVICE  
BEGIN PROJECT HSIP-I-40-4(82)  
R.O.W. STA. 18+26.68  
GEORGE L DAVIS BLVD

19005-3157-94  
BEGIN PROJECT HSIP-I-40-4(82)  
CONST. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

140 STA. 511+96.03 =  
CHURCH ST. STA. 10+00.00  
N 665242.5371  
E 1735065.2445

CHURCH ST. SE RAMP  
STA. 512+53.60 =  
GEORGE L DAVIS BLVD  
STA. 24+72.14  
N 665193.4087  
E 1735298.1663

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SET  
NOT FOR  
BIDDING**



COORDINATES ARE NAD/83(1995),  
ARE DATUM ADJUSTED BY THE  
FACTOR OF 1.00006 AND TIED TO  
THE TGRN. ALL ELEVATIONS ARE  
REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**PRESENT  
LAYOUT**

BEGIN PROJ. TO STA.31+00

SCALE: 1"=50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	4B
CONST.	2014	HSIP-1-40-4(82)	4B

GEORGE L DAVIS BLVD STA. 23+06.46 =  
CHURCH ST. STA. 11+62.59  
N 665328.9825  
E 1735202.9450

CHURCH ST. STA. 14+80.58  
N 665490.1872  
E 1735477.0477

GRUNDY ST. STA. 33+98.68  
N 665120.0793  
E 1735811.8015

GEORGE L DAVIS BLVD STA. 28+62.57 =  
GRUNDY STA. 30+00.00  
N 664863.5685  
E 1735506.6036

**LIMIT OF RESURFACING**  
CHURCH STREET  
STA. 12+56.00  
N 665376.3365  
E 1735283.4629

**LIMIT OF RESURFACING**  
GEORGE L DAVIS BLVD  
STA. 22+56.29  
N 665370.0667  
E 1735174.1611

19005-0157-94  
**BEGIN PROJECT HSIP-1-40-4(82)**  
R.O.W. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

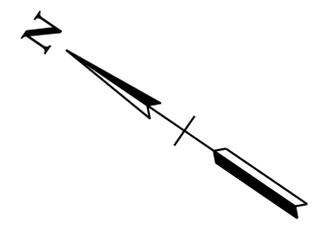
**LIMIT OF RESURFACING**  
CHURCH STREET  
STA. 10+94.00  
N 665292.5209  
E 1735144.8647

CHURCH ST. SE RAMP  
STA. 512+53.60 =  
GEORGE L DAVIS BLVD  
STA. 24+72.14  
N 665193.4087  
E 1735298.1663

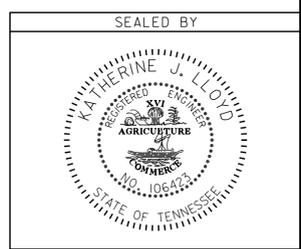
**LIMIT OF RESURFACING**  
WESTBOUND EXIT RAMP  
STA. 516+97.50  
N 664788.1837  
E 1735475.4813

19005-3157-94  
**BEGIN PROJECT HSIP-1-40-4(82)**  
CONST. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

I40 STA. 511+96.03 =  
CHURCH ST. STA. 10+00.00  
N 665242.5371  
E 1735065.2445



**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**



COORDINATES ARE NAD/83(1995),  
ARE DATUM ADJUSTED BY THE  
FACTOR OF 1.00006 AND TIED TO  
THE TGRN. ALL ELEVATIONS ARE  
REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**PROPOSED  
LAYOUT**

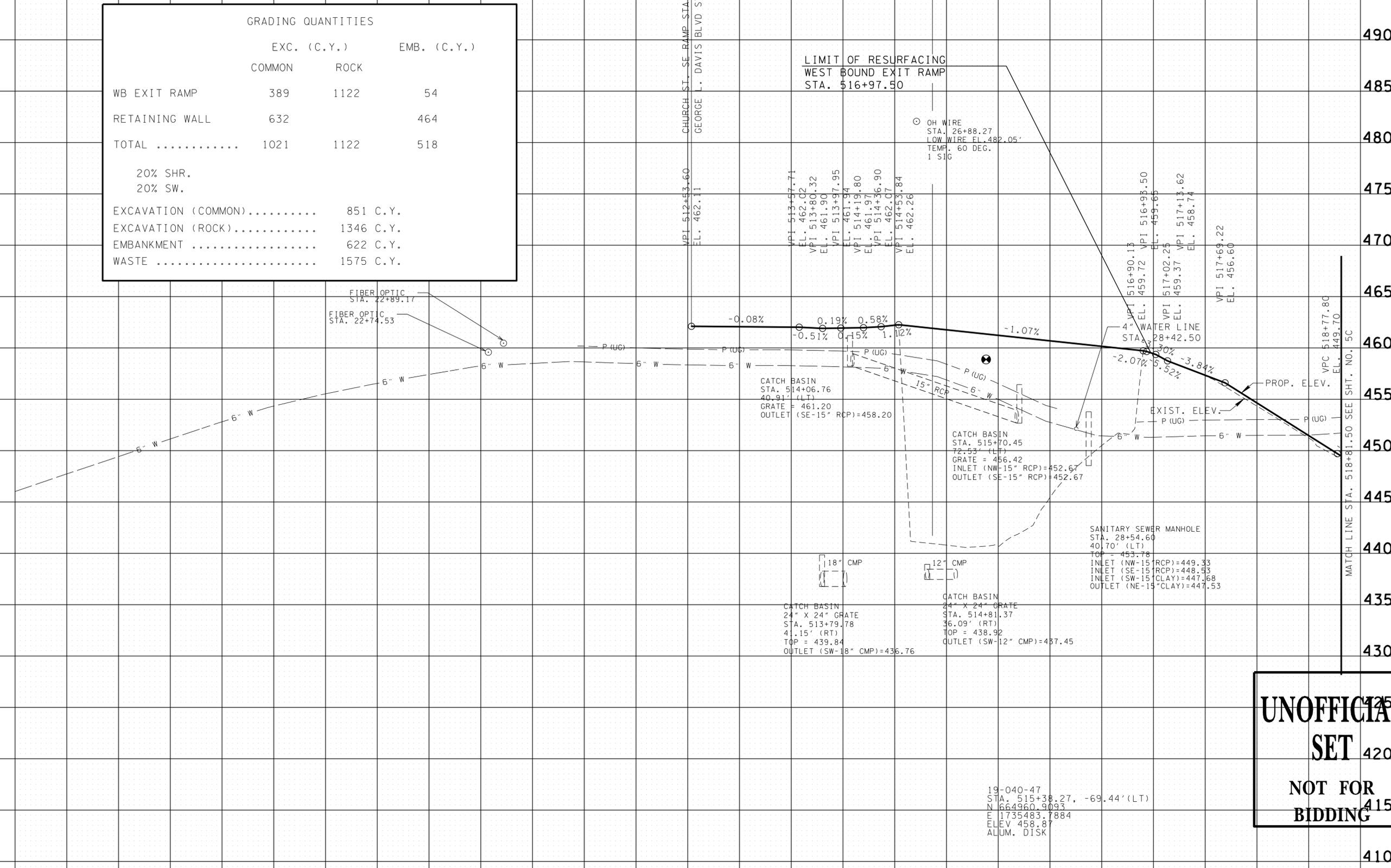
BEGIN PROJ. TO STA. 31+00

SCALE: 1"=50'

16-APR-2014 11:46 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\004B.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	4C
CONST.	2014	HSIP-1-40-4(82)	4C

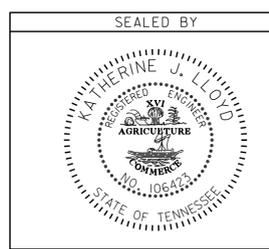
	GRADING QUANTITIES		
	EXC. (C.Y.) COMMON	ROCK	EMB. (C.Y.)
WB EXIT RAMP	389	1122	54
RETAINING WALL	632		464
TOTAL .....	1021	1122	518
20% SHR.			
20% SW.			
EXCAVATION (COMMON).....		851 C.Y.	
EXCAVATION (ROCK).....		1346 C.Y.	
EMBANKMENT .....		622 C.Y.	
WASTE .....		1575 C.Y.	



490  
485  
480  
475  
470  
465  
460  
455  
450  
445  
440  
435  
430  
425  
420  
415  
410

NOTE:  
UTILITIES ARE STATIONED TO GEORGE L. DAVIS BLVD.

**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

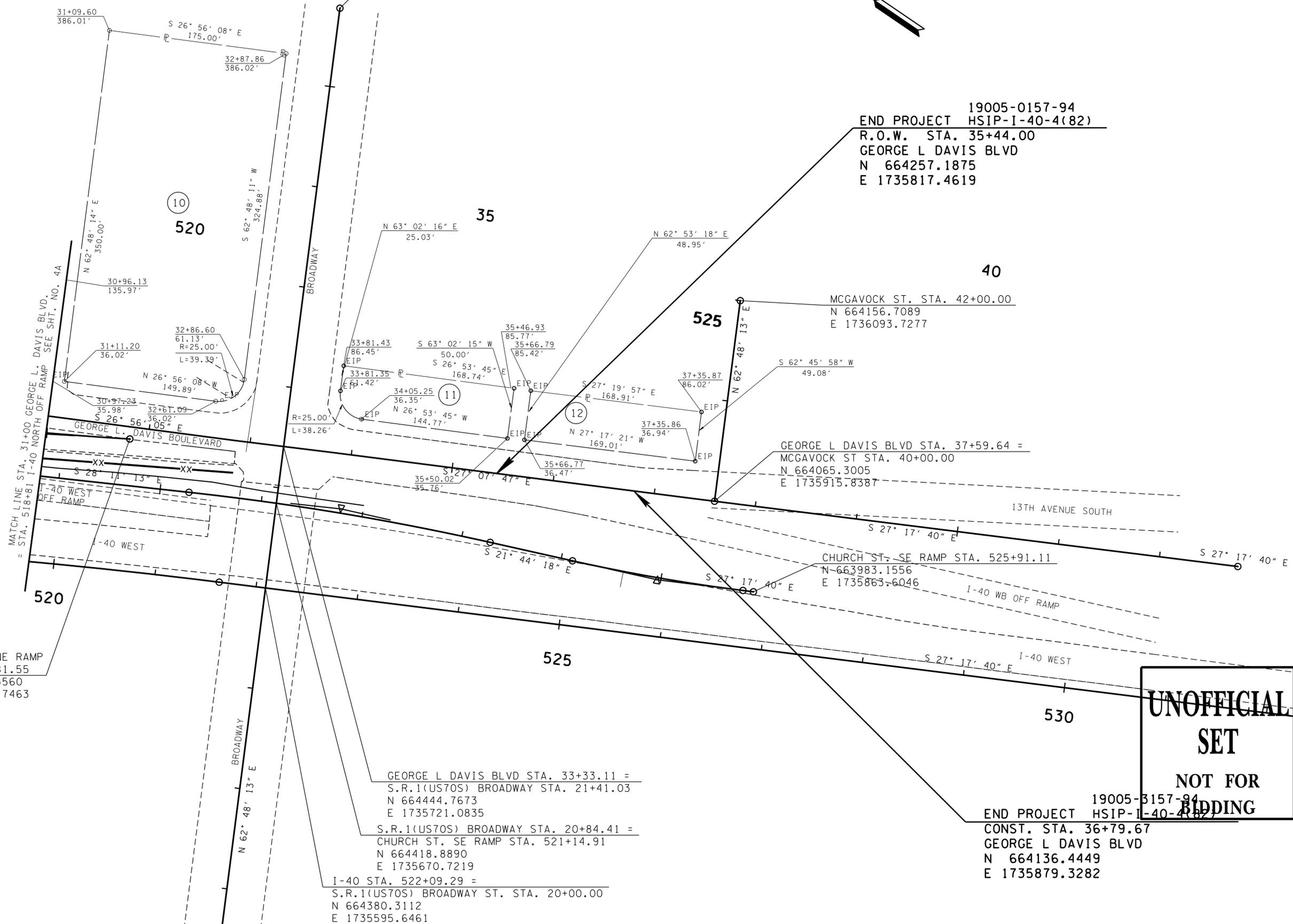
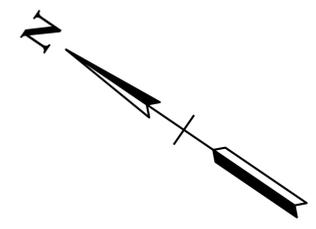
**PROPOSED  
PROFILE**

STA. 512+53.60 TO STA. 518+81.50  
SCALE: 1"=50' HORIZ.  
1"=5' VERT.



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	5A
CONST.	2014	HSIP-1-40-4(82)	5A

S.R.1(US70S) BROADWAY STA. 25+78.04  
N 664644.4982  
E 1736109.7780



19005-0157-94  
END PROJECT HSIP-1-40-4(82)  
R.O.W. STA. 35+44.00  
GEORGE L DAVIS BLVD  
N 664257.1875  
E 1735817.4619

MCGAVOCK ST. STA. 42+00.00  
N 664156.7089  
E 1736093.7277

GEORGE L DAVIS BLVD STA. 37+59.64 =  
MCGAVOCK ST STA. 40+00.00  
N 664065.3005  
E 1735915.8387

CHURCH ST. SE RAMP STA. 525+91.11  
N 663983.1556  
E 1735863.6046

BROADWAY NE RAMP  
STA. 520+81.55  
N 664573.5560  
E 1735641.7463

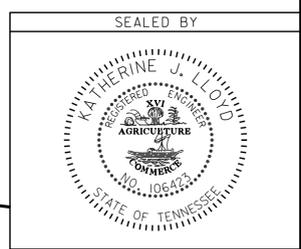
GEORGE L DAVIS BLVD STA. 33+33.11 =  
S.R.1(US70S) BROADWAY STA. 21+41.03  
N 664444.7673  
E 1735721.0835

S.R.1(US70S) BROADWAY STA. 20+84.41 =  
CHURCH ST. SE RAMP STA. 521+14.91  
N 664418.8890  
E 1735670.7219

I-40 STA. 522+09.29 =  
S.R.1(US70S) BROADWAY ST. STA. 20+00.00  
N 664380.3112  
E 1735595.6461

19005-3157-94  
END PROJECT HSIP-1-40-4(82)  
CONST. STA. 36+79.67  
GEORGE L DAVIS BLVD  
N 664136.4449  
E 1735879.3282

**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**



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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**R.O.W.  
DETAILS**  
STA. 31+00 STA. 34+44

SCALE: 1"=50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	5B
CONST.	2014	HSIP-1-40-4(82)	5B

S.R.1(US70S) BROADWAY STA. 25+78.04  
N 664644.4982  
E 1736109.7780

GEORGE L DAVIS  
BLVD STA. 32+86.15  
N 664486.4488  
E 1735699.4607

**LIMIT OF RESURFACING**  
GEORGE L DAVIS BLVD  
STA. 32+97.33  
N 664476.5236  
E 1735704.6096

19005-0157-94  
**END PROJECT HSIP-1-40-4(82)**  
R.O.W. STA. 35+44.00  
GEORGE L DAVIS BLVD  
N 664257.1875  
E 1735817.4619

MCGAVOCK ST. STA. 42+00.00  
N 664156.7089  
E 1736093.7277

GEORGE L DAVIS  
BLVD STA. 37+34.10  
N 664088.0069  
E 1735904.1470

GEORGE L DAVIS BLVD STA. 37+59.64 =  
MCGAVOCK ST STA. 40+00.00  
N 664065.3005  
E 1735915.8387

GEORGE L DAVIS BLVD STA. 42+77.50  
N 663605.1116  
E 1736153.3445

525  
GEORGE L DAVIS  
BLVD STA. 33+80.06  
N 664403.0858  
E 1735742.7063

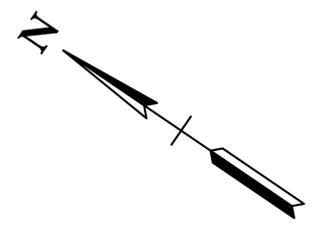
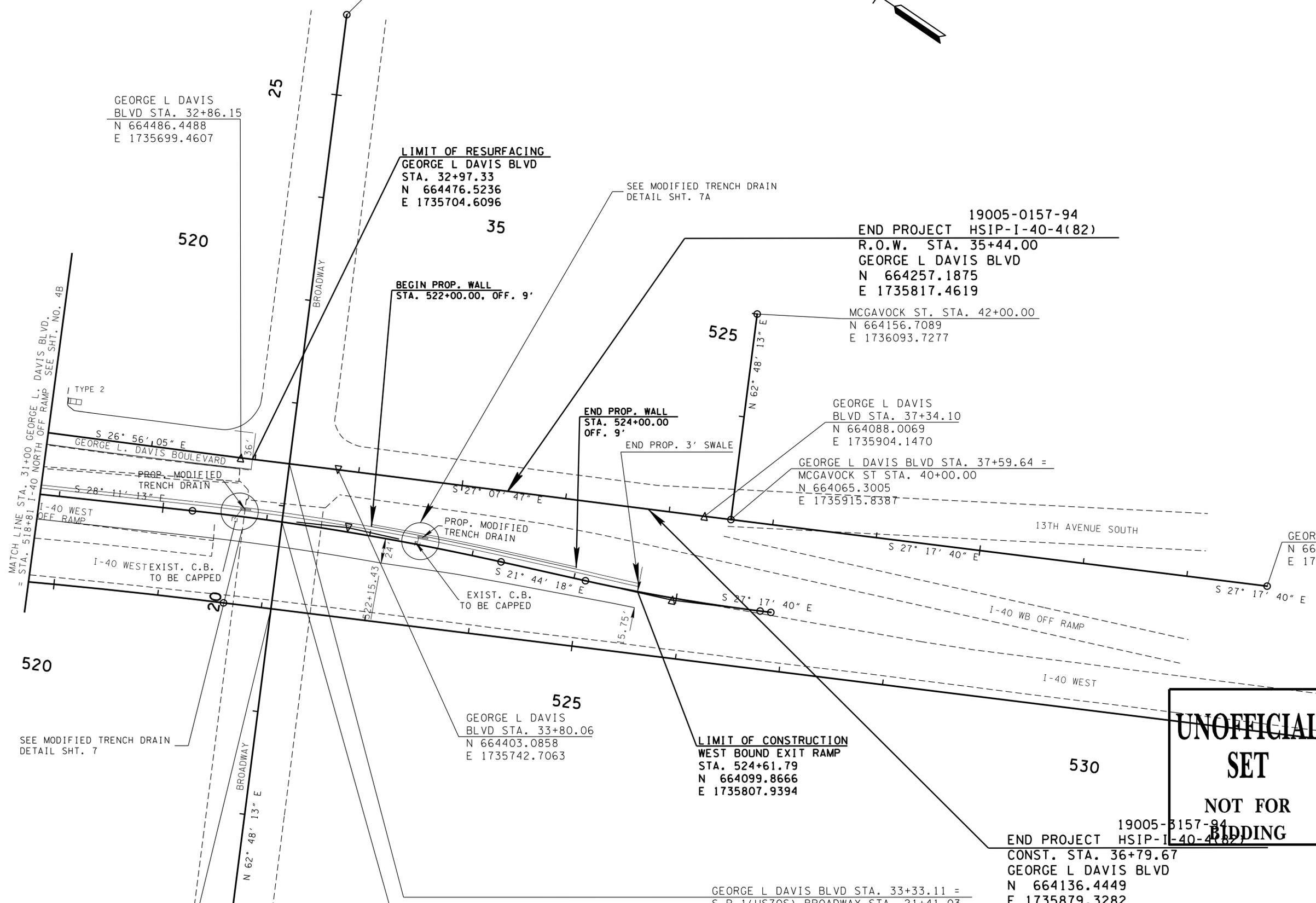
**LIMIT OF CONSTRUCTION**  
WEST BOUND EXIT RAMP  
STA. 524+61.79  
N 664099.8666  
E 1735807.9394

19005-3157-94  
**END PROJECT HSIP-1-40-4(82)**  
CONST. STA. 36+79.67  
GEORGE L DAVIS BLVD  
N 664136.4449  
E 1735879.3282

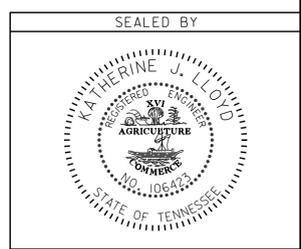
GEORGE L DAVIS BLVD STA. 33+33.11 =  
S.R.1(US70S) BROADWAY STA. 21+41.03  
N 664444.7673  
E 1735721.0835

S.R.1(US70S) BROADWAY STA. 20+84.41 =  
CHURCH ST. SE RAMP STA. 521+14.91  
N 664418.8890  
E 1735670.7219

I-40 STA. 522+09.29 =  
S.R.1(US70S) BROADWAY ST. STA. 20+00.00  
N 664380.3112  
E 1735595.6461



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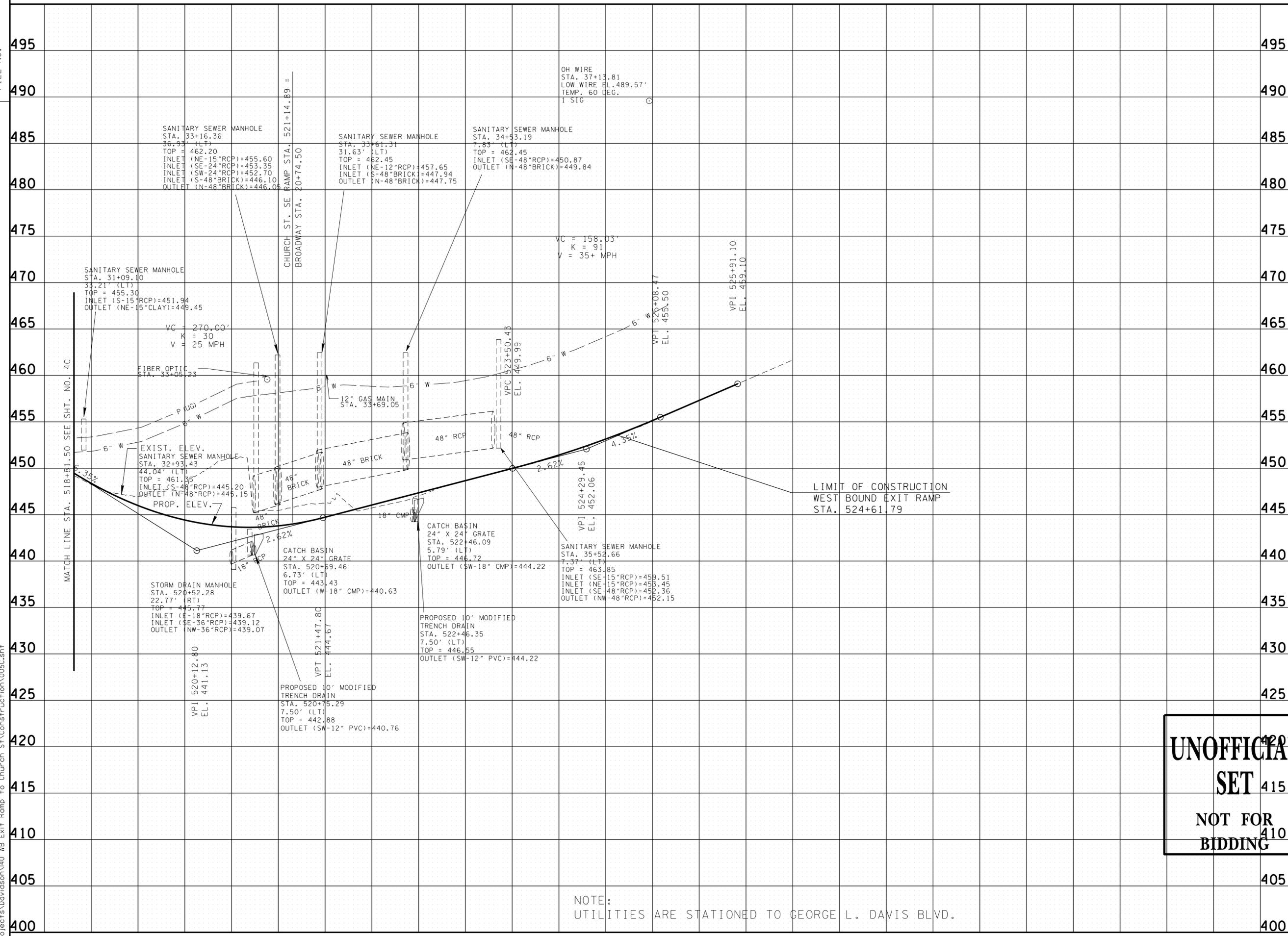
**PROPOSED  
LAYOUT**  
STA. 31+00 TO END PROJ.

SCALE: 1"=50'

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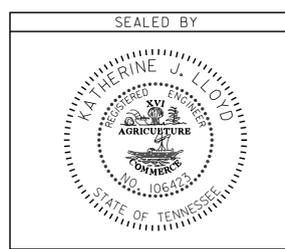
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	5C
CONST.	2014	HSIP-1-40-4(82)	5C



NOTE:  
UTILITIES ARE STATIONED TO GEORGE L. DAVIS BLVD.

**UNOFFICIAL SET**  
NOT FOR BIDDING

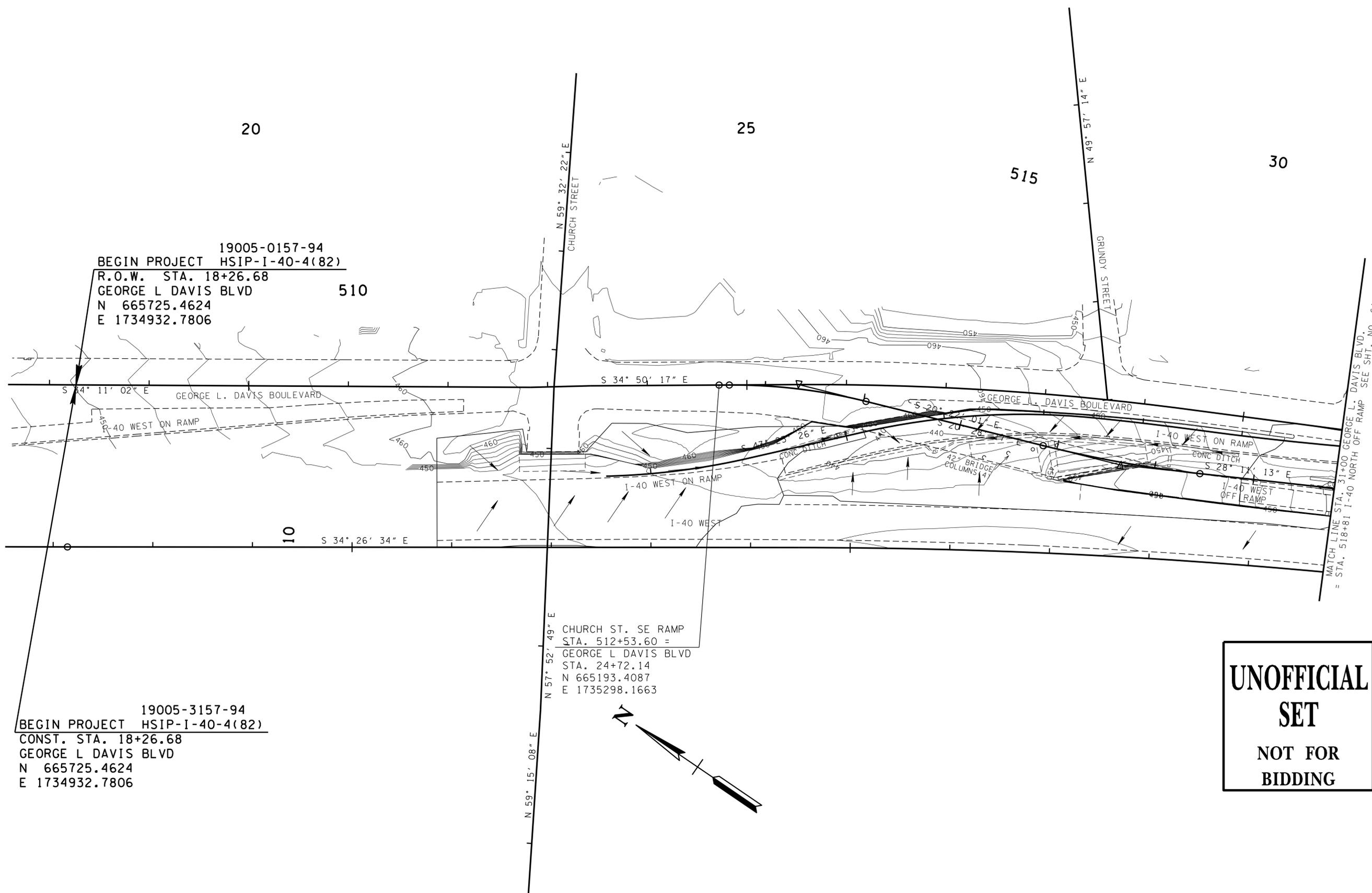


STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

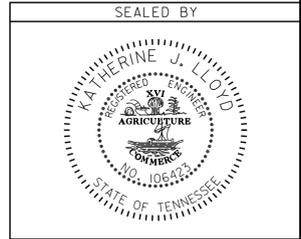
**PROPOSED PROFILE**  
STA. 518+81.50 TO STA. 525+91.10  
SCALE: 1"=50' HORIZ.  
1"=5' VERT.

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4(82)	6
CONST.	2014	HSIP-I-40-4(82)	6



**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**



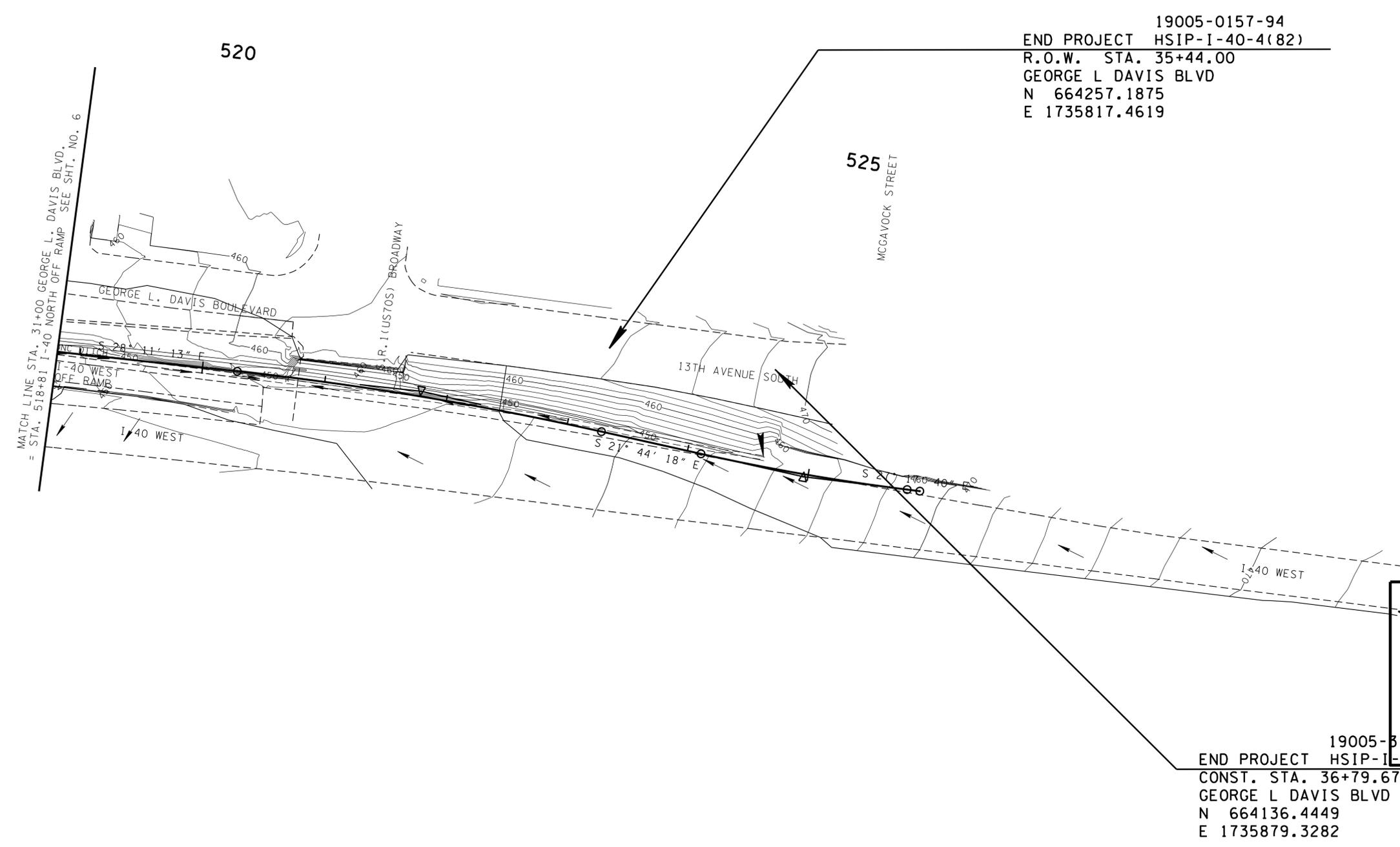
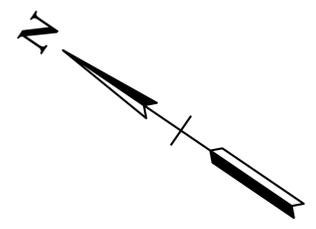
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DEPARTMENT OF TRANSPORTATION

**DRAINAGE  
MAP**  
BEGIN PROJ. TO STA. 31+00  
SCALE: 1"=50'

16-APR-2014 13:12  
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	6A
CONST.	2014	HSIP-1-40-4(82)	6A

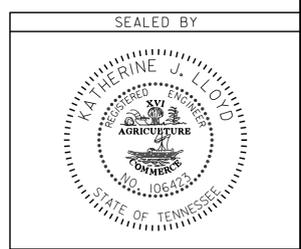


19005-0157-94  
END PROJECT HSIP-1-40-4(82)  
R.O.W. STA. 35+44.00  
GEORGE L DAVIS BLVD  
N 664257.1875  
E 1735817.4619

19005-0157-94  
END PROJECT HSIP-1-40-4(82)  
CONST. STA. 36+79.67  
GEORGE L DAVIS BLVD  
N 664136.4449  
E 1735879.3282

**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**

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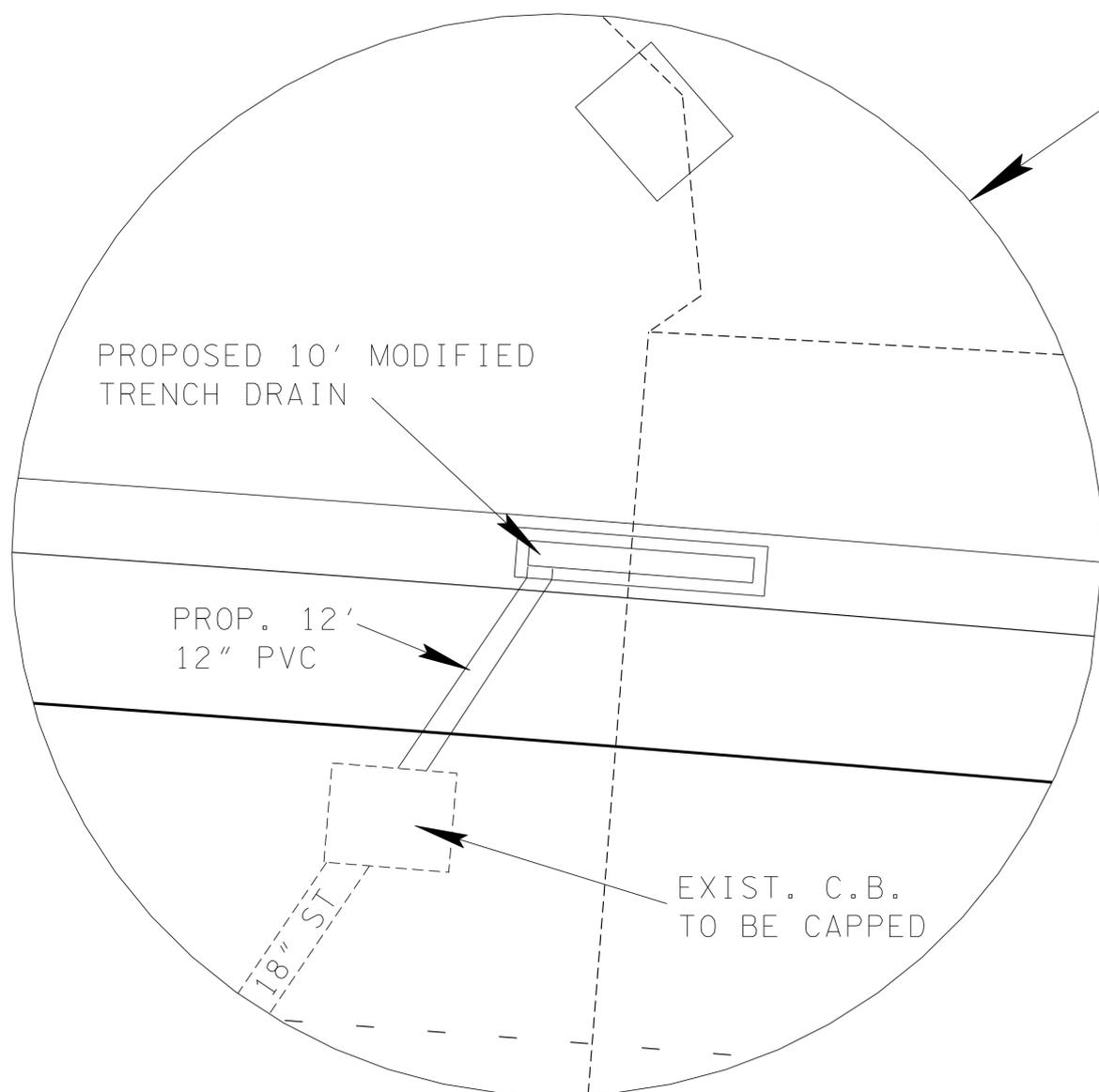
COORDINATES ARE NAD/83(1995),  
ARE DATUM ADJUSTED BY THE  
FACTOR OF 1.00006 AND TIED TO  
THE TGRN. ALL ELEVATIONS ARE  
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DEPARTMENT OF TRANSPORTATION

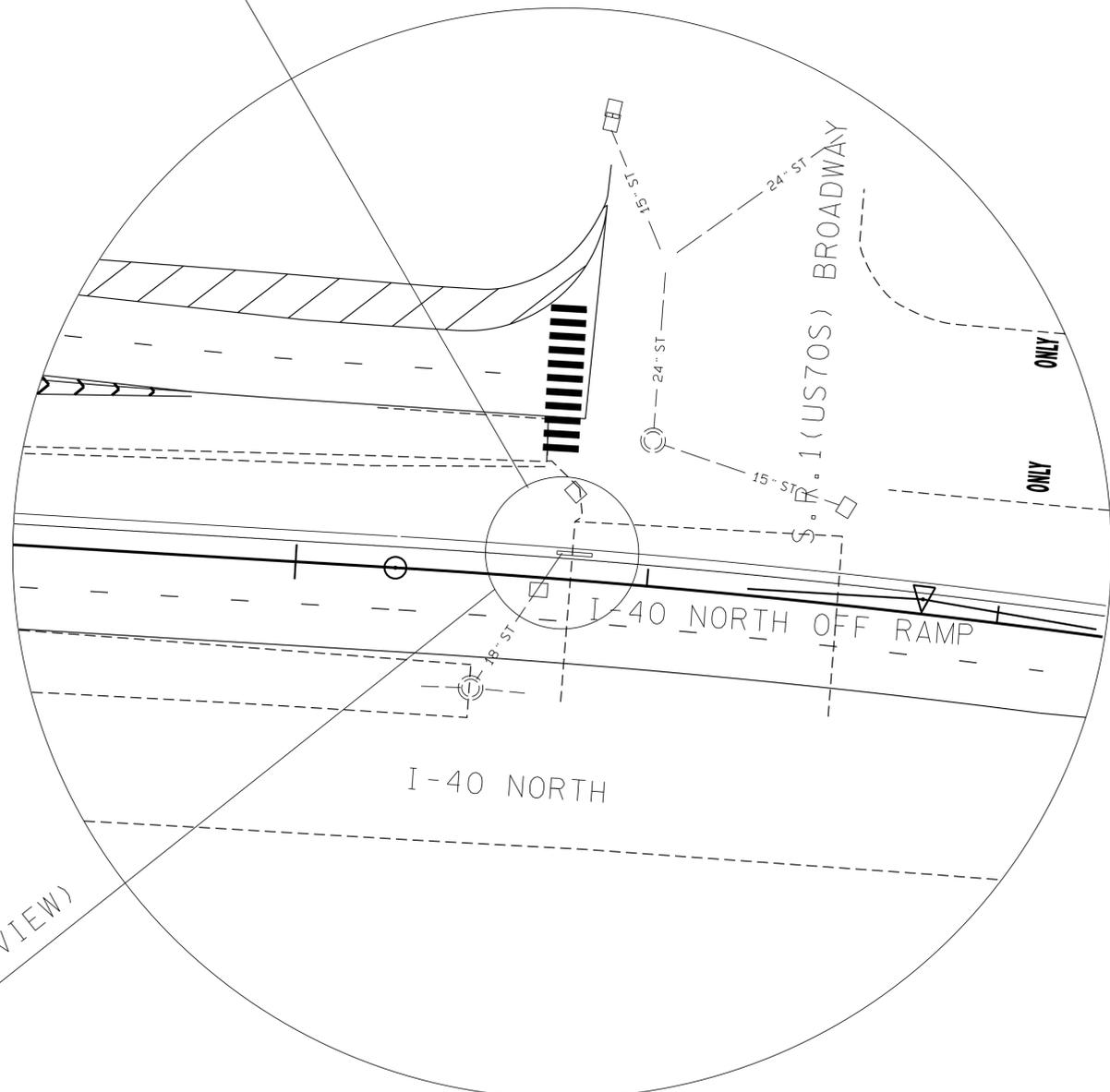
**DRAINAGE  
MAP**

STA. 31+00 TO END PROJ.  
SCALE: 1"=50'

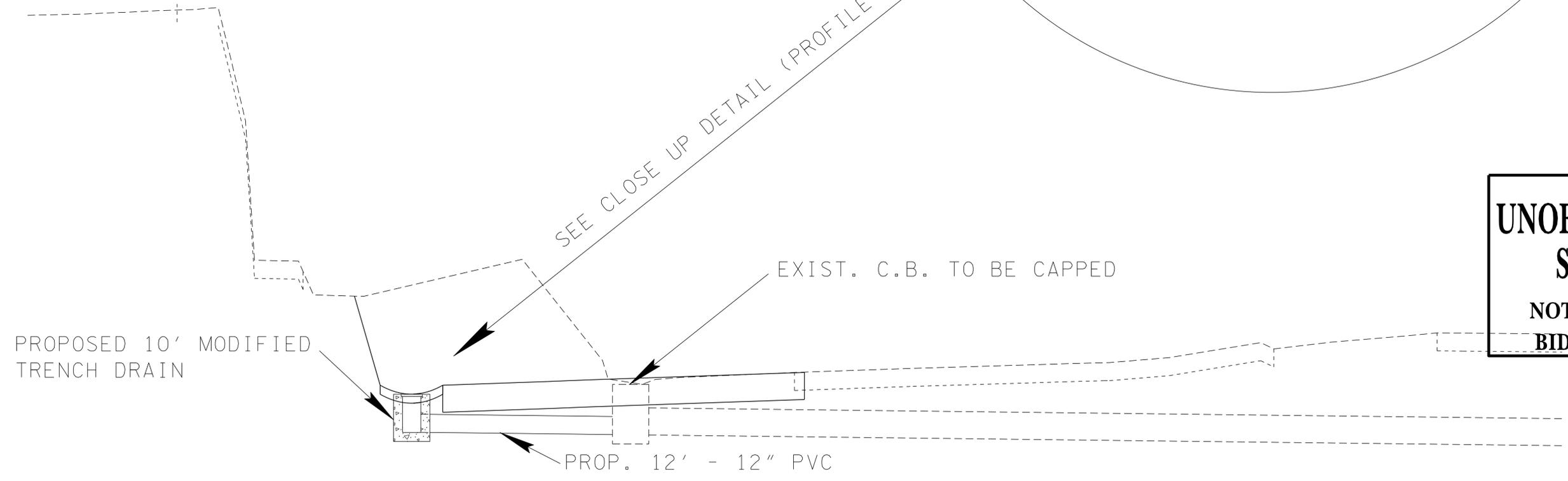
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4(82)	7
CONST.	2014	HSIP-I-40-4(82)	7



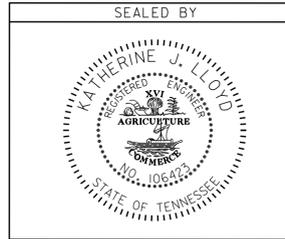
SEE CLOSE UP DETAIL  
(PLAN VIEW)



SEE CLOSE UP DETAIL (PROFILE VIEW)



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SET  
NOT FOR  
BIDDING**



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**MODIFIED  
TRENCH DRAIN  
DETAIL**

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# EROSION PREVENTION AND SEDIMENT CONTROL NOTES

## SPECIAL NOTES

### NPDES

- (1) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.
- (2) THE EPSC MEASURES AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.
- (3) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES, INCLUDING WITHOUT LIMITATION AS FOLLOWS:
  - A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
  - B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
  - C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
  - D. NO GRADING, EXCAVATION, CUTTING, FILLING, OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
- (4) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 15 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER RUNS WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.
- (5) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

### UTILITY RELOCATION

- (6) RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.
- (7) SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY.
- (8) UTILITY CROSSINGS FOR PERENNIAL STREAMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO UTILITIES IN THIS PROJECT IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC). THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTION PREVENTION PLANS (SWPPP).
- (9) IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR INSTALLER TO PROTECT FROM EROSION EXPOSED EARTH RESULTING

FROM THEIR OPERATIONS AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.

- (10) FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), **TRENCHES SHALL BE BACKFILLED DAILY** AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
- (11) IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC), TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS IN THIS PROJECT, THEREFORE, THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTIONS PREVENTION PLANS (SWPPP). THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT WORK.
- (12) TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORM WATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.
- (13) FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.
- (14) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).
- (15) THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES TO REPLACE IN-PLACE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT PROJECT ENGINEER BEFORE COMMENCING WORK.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
	CATCH BASIN PROTECTION (TYPE A)	EC-STR-19
	TEMPORARY BERM	EC-STR-27
	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	SAND BAG BERM	EC-STR-33
	SEDIMENT TUBE	EC-STR-37

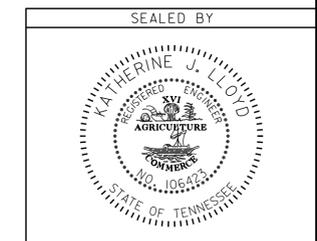
OUTFALL DRAINAGE AREAS		
SHEET NO.	OUTFALL NO.	DRAINAGE AREA (ACRES)
10A	1	0.6
10A	2	0.4

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1)			
	209-05	SEDIMENT REMOVAL	C.Y. 32
	209-09.01	SANDBAGS	BAG 50
	209-40.30	CATCH BASIN PROTECTION (TYPE A)	EACH 10
2)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON 65
2)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y. 112
3)	740-11.03	TEMPORARY SEDIMENT TUBE 18IN (EROSION CONTROL)	L.F. 500
3)	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT 2

- 1) BASED ON 17 C.Y./ ACRE (DISTURBED AREA)
- 2) FOR TEMPORARY CONSTRUCTION EXIT - LOCATION TO BE DETERMINED BY THE ENGINEER
- 3) LOCATION TO BE DETERMINED BY THE ENGINEER

**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	8
CONST.	2014	HSIP-1-40-4(82)	8



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**EROSION  
PREVENTION  
AND SEDIMENT  
CONTROL (EPSC)  
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4(82)	9
CONST.	2014	HSIP-I-40-4(82)	9

GEORGE L DAVIS BLVD STA. 23+06.46 =  
CHURCH ST. STA. 11+62.59  
N 665328.9825  
E 1735202.9450

CHURCH ST. STA. 14+80.58  
N 665490.1872  
E 1735477.0477

GRUNDY ST. STA. 33+98.68  
N 665120.0793  
E 1735811.8015

GEORGE L DAVIS BLVD STA. 28+62.57  
GRUNDY STA. 30+00.00  
N 664863.5685  
E 1735506.6036

**LIMIT OF RESURFACING**  
CHURCH STREET  
STA. 12+56.00  
N 665376.3365  
E 1735283.4629

**LIMIT OF RESURFACING**  
GEORGE L DAVIS BLVD  
STA. 22+56.29  
N 665370.0667  
E 1735174.1611

19005-0157-94  
**BEGIN PROJECT HSIP-I-40-4(82)**  
R.O.W. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

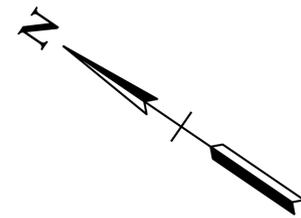
**LIMIT OF RESURFACING**  
CHURCH STREET  
STA. 10+94.00  
N 665292.5209  
E 1735144.8647

CHURCH ST. SE RAMP  
STA. 512+53.60 =  
GEORGE L DAVIS BLVD  
STA. 24+72.14  
N 665193.4087  
E 1735298.1663

**LIMIT OF RESURFACING**  
WESTBOUND EXIT RAMP  
STA. 516+97.50  
N 664788.1837  
E 1735475.4813

19005-3157-94  
**BEGIN PROJECT HSIP-I-40-4(82)**  
CONST. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

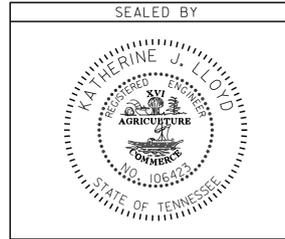
I40 STA. 511+96.03 =  
CHURCH ST. STA. 10+00.00  
N 665242.5371  
E 1735065.2445



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NOT FOR  
BIDDING**

EPSC PLAN PHASE 1:  
CLEARING AND GRUBBING

NOTE: EXISTING CONTOURS SHOWN



COORDINATES ARE NAD/83(1995),  
ARE DATUM ADJUSTED BY THE  
FACTOR OF 1.00006 AND TIED TO  
THE TGRN. ALL ELEVATIONS ARE  
REFERENCED TO THE NAVD 1988.

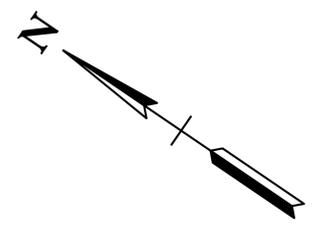
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**EROSION  
PREVENTION  
AND SEDIMENT  
CONTROL (EPSC) PLAN  
(PHASE 1)**  
BEGIN PROJ. TO STA. 31+00  
SCALE: 1"=50'

16-APR-2014 13:25 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\009.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	9A
CONST.	2014	HSIP-1-40-4(82)	9A

S.R.1(US70S) BROADWAY STA. 25+78.04  
N 664644.4982  
E 1736109.7780



GEORGE L DAVIS  
BLVD STA. 32+86.15  
N 664486.4488  
E 1735699.4607

LIMIT OF RESURFACING  
GEORGE L DAVIS BLVD  
STA. 32+97.33  
N 664476.5236  
E 1735704.6096

19005-0157-94  
END PROJECT HSIP-1-40-4(82)  
R.O.W. STA. 35+44.00  
GEORGE L DAVIS BLVD  
N 664257.1875  
E 1735817.4619

MCGAVOCK ST. STA. 42+00.00  
N 664156.7089  
E 1736093.7277

GEORGE L DAVIS  
BLVD STA. 37+34.10  
N 664088.0069  
E 1735904.1470

GEORGE L DAVIS BLVD STA. 37+59.64 =  
MCGAVOCK ST STA. 40+00.00  
N 664065.3005  
E 1735915.8387

GEORGE L DAVIS BLVD STA. 42+77.50  
N 663605.1116  
E 1736153.3445

GEORGE L DAVIS  
BLVD STA. 33+80.06  
N 664403.0858  
E 1735742.7063

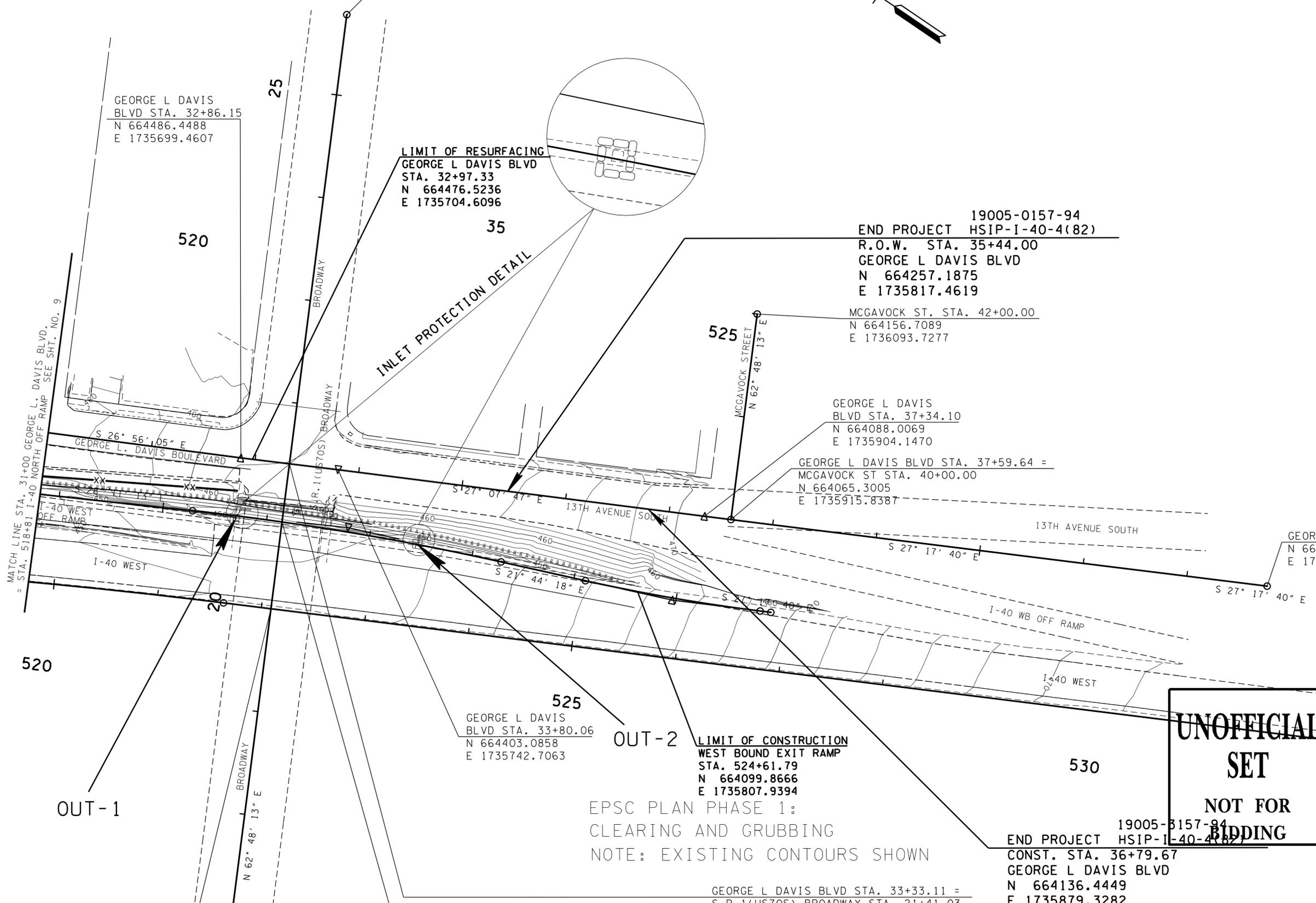
LIMIT OF CONSTRUCTION  
WEST BOUND EXIT RAMP  
STA. 524+61.79  
N 664099.8666  
E 1735807.9394

19005-3157-94  
END PROJECT HSIP-1-40-4(82)  
CONST. STA. 36+79.67  
GEORGE L DAVIS BLVD  
N 664136.4449  
E 1735879.3282

GEORGE L DAVIS BLVD STA. 33+33.11 =  
S.R.1(US70S) BROADWAY STA. 21+41.03  
N 664444.7673  
E 1735721.0835

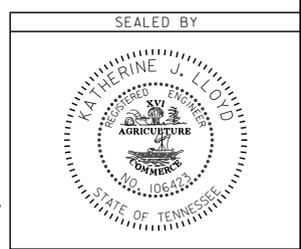
S.R.1(US70S) BROADWAY STA. 20+84.41 =  
CHURCH ST. SE RAMP STA. 521+14.91  
N 664418.8890  
E 1735670.7219

I-40 STA. 522+09.29 =  
S.R.1(US70S) BROADWAY ST. STA. 20+00.00  
N 664380.3112  
E 1735595.6461



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EPSC PLAN PHASE 1:  
CLEARING AND GRUBBING  
NOTE: EXISTING CONTOURS SHOWN

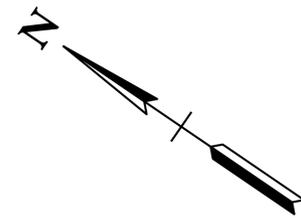
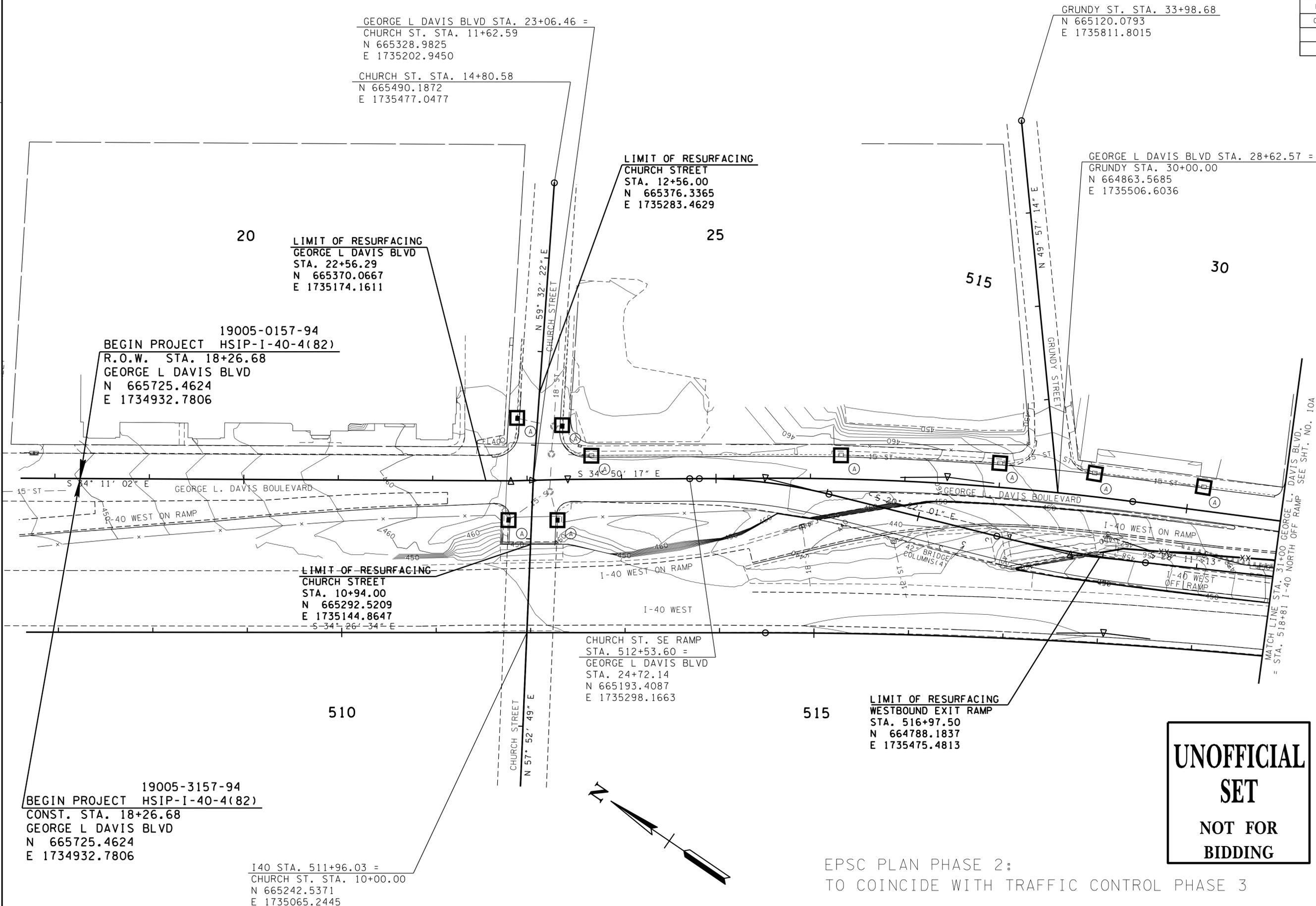


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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**EROSION  
PREVENTION  
AND SEDIMENT  
CONTROL (EPSC) PLAN  
(PHASE 1)**  
STA. 31+00 TO END PROJ.  
SCALE: 1"=50'

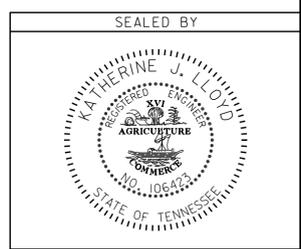
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4(82)	10
CONST.	2014	HSIP-I-40-4(82)	10



**UNOFFICIAL  
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EPSC PLAN PHASE 2:  
TO COINCIDE WITH TRAFFIC CONTROL PHASE 3

NOTE: BOTH EXISTING AND PROPOSED CONTOURS SHOWN



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**EROSION  
PREVENTION  
AND SEDIMENT  
CONTROL (EPSC) PLAN  
(PHASE II)**  
 BEGIN PROJ. TO STA. 31+00  
 SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-I-40-4(82)	10A
CONST.	2014	HSIP-I-40-4(82)	10A

S.R.1(US70S) BROADWAY STA. 25+78.04  
N 664644.4982  
E 1736109.7780

GEORGE L DAVIS  
BLVD STA. 32+86.15  
N 664486.4488  
E 1735699.4607

LIMIT OF RESURFACING  
GEORGE L DAVIS BLVD  
STA. 32+97.33  
N 664476.5236  
E 1735704.6096

19005-0157-94  
END PROJECT HSIP-I-40-4(82)  
R.O.W. STA. 35+44.00  
GEORGE L DAVIS BLVD  
N 664257.1875  
E 1735817.4619

MCGAVOCK ST. STA. 42+00.00  
N 664156.7089  
E 1736093.7277

GEORGE L DAVIS  
BLVD STA. 37+34.10  
N 664088.0069  
E 1735904.1470

GEORGE L DAVIS BLVD STA. 37+59.64 =  
MCGAVOCK ST STA. 40+00.00  
N 664065.3005  
E 1735915.8387

LIMIT OF CONSTRUCTION  
WEST BOUND EXIT RAMP  
STA. 524+61.79

525  
GEORGE L DAVIS  
BLVD STA. 33+80.06  
N 664403.0858  
E 1735742.7063

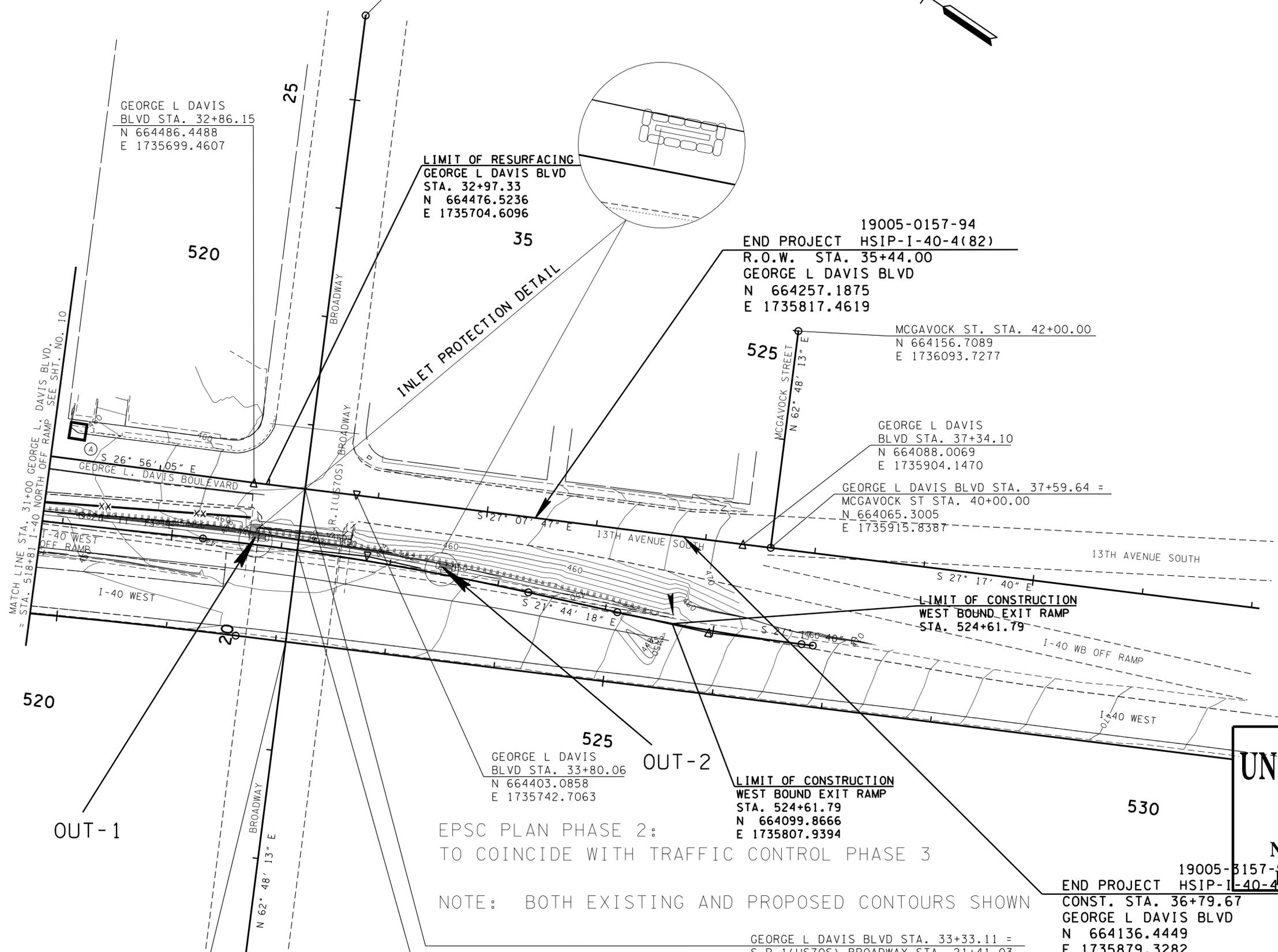
LIMIT OF CONSTRUCTION  
WEST BOUND EXIT RAMP  
STA. 524+61.79  
N 664099.8666  
E 1735807.9394

19005-3157-94  
END PROJECT HSIP-I-40-4(82)  
CONST. STA. 36+79.67  
GEORGE L DAVIS BLVD  
N 664136.4449  
E 1735879.3282

GEORGE L DAVIS BLVD STA. 33+33.11 =  
S.R.1(US70S) BROADWAY STA. 21+41.03  
N 664444.7673  
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S.R.1(US70S) BROADWAY STA. 20+84.41 =  
CHURCH ST. SE RAMP STA. 521+14.91  
N 664418.8890  
E 1735670.7219

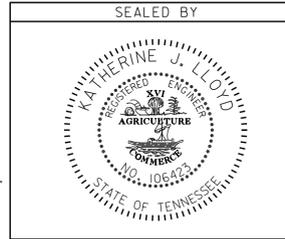
I-40 STA. 522+09.29 =  
S.R.1(US70S) BROADWAY ST. STA. 20+00.00  
N 664380.3112  
E 1735595.6461



EPSC PLAN PHASE 2:  
TO COINCIDE WITH TRAFFIC CONTROL PHASE 3

NOTE: BOTH EXISTING AND PROPOSED CONTOURS SHOWN

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STATE OF TENNESSEE  
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**EROSION  
PREVENTION  
AND SEDIMENT  
CONTROL (EPSC) PLAN  
(PHASE II)**  
STA. 31+00 TO END PROJ.  
SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	11

**TRAFFIC CONTROL NOTES**

- THE CONSTRUCTION SIGNING PLAN IS TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.
- THE TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- LANE CLOSURES WILL BE PERMITTED ONLY DURING NON-PEAK HOURS. NO LANE CLOSURES WILL BE PERMITTED DURING HOLIDAY WEEKENDS.
- LANE CLOSURES TO BE EQUAL IN LENGTH TO ONE DAY'S WORK.
- WHERE TRAFFIC IS TO BE SHIFTED OR DETOURED ON THE EXISTING SHOULDERS, THE CONTRACTOR WILL ENSURE THAT THE PAVED SHOULDERS ARE IN GOOD CONDITION PRIOR TO SHIFTING THE TRAFFIC. IF THE SHOULDERS NEED REPAIRING PRIOR TO, DURING OR AFTER ANY TRAFFIC HAS BEEN PLACED ON THEM, THEN THE SHOULDERS WILL BE REPAIRED AS DIRECTED BY THE ENGINEER. ALL COSTS TO BE PAID IN RESPECTIVE ITEMS.
- EXISTING CONFLICTING MARKINGS SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC. COST TO BE INCLUDED IN ITEM NO. 712-01.
- PORTABLE SIGNS MAY BE USED AT SOME LOCATIONS WITH THE ENGINEER'S APPROVAL. THE CONTRACTOR SHALL REFER TO SECTION 6B-4 AND FIGURE 6-11 OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" REGARDING PORTABLE SIGNS.
- TYPE "A" WARNING LIGHTS SHALL BE PLACED ON ALL ADVANCE WARNING SIGNS. IN ADDITION, FLAGS SHALL BE PLACED ON ALL ADVANCE WARNING SIGNS.
- ADVANCE WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT(48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED 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 THE ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- LONG TERM BUT SPORADIC USE WARNING SIGNS, SUCH AS FLAGGER SIGNS MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSTIATING WARNING.
- 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 THIRTY (30) FEET SETBACK, THE ENGINEER SHALL APPROVE ALTERNATE LOCATIONS.
- THE CONTRACTOR WILL 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 BE PARKED 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 THIRTY (30) FEET SETBACK, THE ENGINEER SHALL APPROVE ALTERNATE LOCATIONS.
- CONTRACTOR SHOULD COORDINATE WITH MR. RAYMOND HALLAVANT AT (615)253-0039 WITH THE TENNESSEE DEPARTMENT OF TRANSPORTATION TRAFFIC OPERATIONS DIVISION FOR THE USE OF MESSAGE SIGNS TO ALERT MOTORISTS OF CONSTRUCTION ON CHURCH STREET RAMP.

**PHASE I:**

CONSTRUCT WIDENING ON NORTH SIDE OF RAMP.  
CONSTRUCT CONCRETE SWALE DITCH AND RETAINING WALL.  
COLD PLANE AND RESURFACE NORTH SIDE OF RAMP AND SOUTH SIDE OF GEORGE L. DAVIS BLVD.

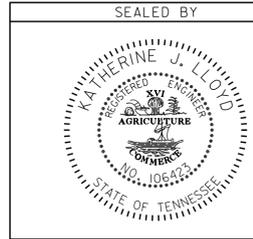
**PHASE II:**

COLD PLANE AND RESURFACE SOUTH SIDE OF RAMP, CHURCH ST. SOUTH OF GEORGE L. DAVIS BLVD. AND CENTER SECTION OF GEORGE L. DAVIS BLVD.

**PHASE III:**

COLD PLANE AND RESURFACE NORTH SIDE OF GEORGE L. DAVIS BLVD. AND CHURCH ST. NORTH OF GEORGE L. DAVIS BLVD.

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL  
NOTES,  
LEGEND AND  
QUANTITIES**

**TRAFFIC CONTROL QUANTITIES**

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	ITEM NO. 712-06 (S.F.)	SIZE	M.U.T.C.D. NO.	REMARKS
705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	1				
712-01	TRAFFIC CONTROL	L.S.	1				
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	950				
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	126				
712-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	48				
712-05.01	WARNING LIGHTS (TYPE A)	EACH	10				
712-05.03	WARNING LIGHTS (TYPE C)	EACH	30				
712-06	END ROAD WORK		7	31.5	36"x18"	G20-2A	
712-06	END ROAD WORK		2	16	48"x24"	G20-2A	
712-06	YIELD		2	14	48"x48"x48"	R1-2	
712-06	RIGHT LANE MUST TURN RIGHT		2	18	36"x36"	R3-7R	
712-06	LANE ENDS MERGE SYMBOL - LEFT		2	18	36"x36"	W4-2L	
712-06	LANE ENDS MERGE SYMBOL -RIGHT		3	27	36"x36"	W4-2R	
712-06	DIVIDED HIGHWAY BEGINS		1	9	36"x36"	W6-1 (MOD.)	
712-06	TWO WAY TRAFFIC		2	18	36"x36"	W6-3	
712-06	CENTER LANE CLOSED AHEAD		1	9	36"x36"	W9-3	
712-06	ROAD WORK 500 FT		6	54	36"x36"	W20-1	
712-06	RAMP WORK 500 FT		2	18	36"x36"	W20-1	
712-06	ROAD WORK 1000 FT		6	54	36"x36"	W20-1	
712-06	ROAD WORK 1000 FT		2	32	48" x 48"	W20-1	
712-06	ROAD WORK AHEAD		1	9	36"x36"	W20-1	
712-06	ROAD WORK 1/2 MILE		2	18	36"x36"	W20-1	
712-06	ROAD WORK 1/2 MILE		2	32	48" x 48"	W20-1	
712-06	ROAD WORK 1 MILE		2	32	48" x 48"	W20-1	
712-06	THRU TRAFFIC MERGE LEFT		1	9	36"x36"	W4-7	
712-06	LEFT LANE CLOSED AHEAD		2	18	36"x36"	W20-5L	
712-06	CENTER LANE CLOSED AHEAD		2	18	36"x36"	W9-3	
712-06	RIGHT LANE CLOSED AHEAD		2	18	36"x36"	W20-5R	
712-06	LEFT LANE		1	2.5	30"x12"	R3-5bP	
712-06	RIGHT LANE		1	2.5	30"x12"	R3-5fP	
712-06	STRAIGHT LEFT TURN ONLY		1	5	24"x30"	R3-8(MOD.)	
712-06	KEEP RIGHT		1	5	24"x30"	R4-7B	
712-06	EXT RIGHT		1	9	36"x36"		
712-06	RIGHT TURN (SUPPLEMENTAL)		1	4	24"x24"		
712-06	CHURCH ST. - EAST		2	16	48"x24"		
712-06	CHURCH ST./CHARLOTTE AVE.		1	8	48"x24"		
712-06	BROADWAY EAST/CHURCH ST. -EAST		1	8	48"x24"		
712-06	BROADWAY WEST/CHURCH ST. -WEST		1	8	48"x24"		
712-06	GEORGE L. DAVIS BLVD.		1	8	48"x24"		
712-08.03	ARROW BOARD (TYPE C)	EACH	3				
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2				
<b>TOTAL</b>	<b>712-06</b>			<b>548.5</b>			

- SIGN WILL BE USED THROUGH VARIOUS PHASES OF CONSTRUCTION
- SEE NOTE 15.

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	PORTABLE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
	TEMPORARY ATTENUATOR
	ARROW BOARD TYPE C
	ARROW BOARD TYPE C (CAUTION)
	ARROW BOARD TYPE C (SINGLE ARROW)
	CHANGEABLE MESSAGE SIGN
	FLAGGER

# PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	11A

- A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:
1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:
    - a. WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
    - b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
    - c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
    - d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.
  2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.
    - a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
      - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
      - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
    - b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
    - c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:
  - a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
    - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
    - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

  - b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.
  - c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS.
  - d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN WITH PLAQUE (W8-17 AND W8-17P). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES. SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

- B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.
 

WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:
  - a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
    - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
    - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:
  - a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
    - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
    - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
  - b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

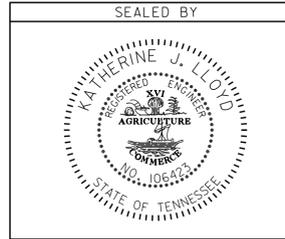
- C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

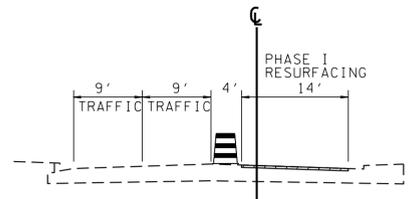
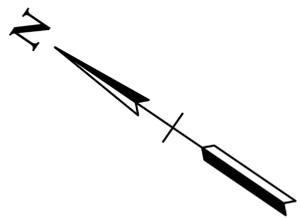
**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

TRAFFIC  
CONTROL  
NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	12



TYPICAL SECTION OF CONSTRUCTION  
GEORGE L. DAVIS BLVD.

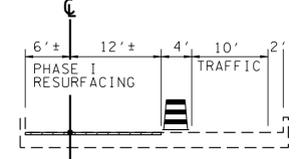
LIMIT OF RESURFACING  
CHURCH STREET  
STA. 12+56.00  
N 665376.3365  
E 1735283.4629

LIMIT OF RESURFACING  
GEORGE L DAVIS BLVD  
STA. 22+56.29  
N 665370.0667  
E 1735174.1611

LIMIT OF RESURFACING  
WESTBOUND EXIT RAMP  
STA. 516+97.50  
N 664788.1837  
E 1735475.4813

19005-3157-94  
BEGIN PROJECT HSIP-1-40-4(82)  
CONST. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

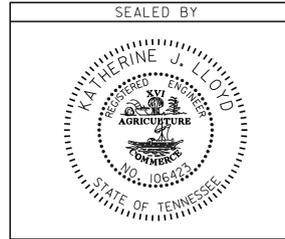
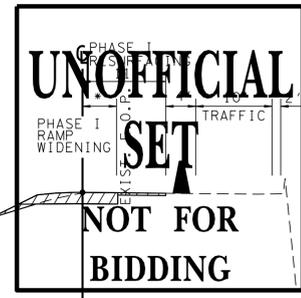
I40 STA. 511+96.03 =  
CHURCH ST. STA. 10+00.00  
N 665242.5371  
E 1735065.2445



TYPICAL SECTION OF CONSTRUCTION

STA. 514+00± - 516+97.50      516+97.50 - 518+00

\* VARIES- 2' AT 516+97.50 TO 6' AT 518+00



COORDINATES ARE NAD/83(1995),  
ARE DATUM ADJUSTED BY THE  
FACTOR OF 1.00006 AND TIED TO  
THE TGRN. ALL ELEVATIONS ARE  
REFERENCED TO THE NAVD 1988.

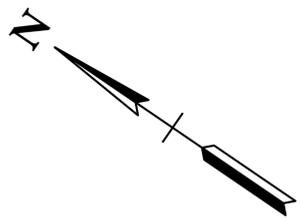
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN  
PHASE I  
BEGIN PROJ. TO STA. 31+00  
SCALE: 1"=50'

25-APR-2014 11:09 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\02.sht

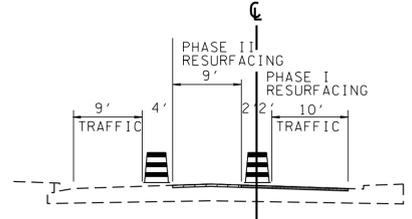


TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	13



GEORGE L DAVIS BLVD STA. 23+06.46 =  
CHURCH ST. STA. 11+62.59  
N 665328.9825  
E 1735202.9450

CHURCH ST. STA. 14+80.58  
N 665490.1872  
E 1735477.0477



TYPICAL SECTION OF CONSTRUCTION  
GEORGE L. DAVIS BLVD.

GRUNDY ST. STA. 33+98.68  
N 665120.0793  
E 1735811.8015

GEORGE L DAVIS BLVD STA. 28+62.57  
GRUNDY STA. 30+00.00  
N 664863.5685  
E 1735506.6036

**LIMIT OF RESURFACING**  
GEORGE L DAVIS BLVD  
STA. 22+56.29  
N 665370.0667  
E 1735174.1611

**LIMIT OF RESURFACING**  
CHURCH STREET  
STA. 12+56.00  
N 665376.3365  
E 1735283.4629

**LIMIT OF RESURFACING**  
CHURCH STREET  
STA. 10+94.00  
N 665292.5209  
E 1735144.8647

**LIMIT OF RESURFACING**  
WESTBOUND EXIT RAMP  
STA. 516+97.50  
N 664788.1837  
E 1735475.4813

19005-3157-94  
**BEGIN PROJECT** HSIP-1-40-4(82)  
CONST. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

140 STA. 511+96.03 =  
CHURCH ST. STA. 10+00.00  
N 665242.5371  
E 1735065.2445

NOTE:  
SEE SHEET 14B FOR CHURCH STREET TRAFFIC CONTROL DETAILS

AREAS CONSTRUCTED UNDER PREVIOUS PHASES

END ROAD WORK  
G20-2  
36" X 18"

EXIST. MARKINGS

4" SSWL

ROAD WORK 1000 FT  
W20-1  
36" X 36"

ROAD WORK 500 FT  
W20-1  
36" X 36"

W20-1  
36" X 36"

END ROAD WORK  
G20-2  
36" X 18"

R3-1  
24" X 24"

NOTE:  
ALLOW SPACING FOR RIGHT TURN  
ONTO CHURCH ST.

YIELD

R1-2  
48" X 48" X 48"

CHURCH ST. - EAST

KEEP RIGHT

R4-7B  
24" X 30"

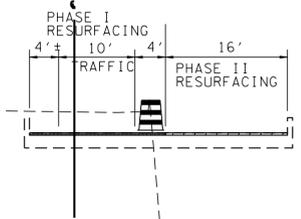
END ROAD WORK  
G20-2  
36" X 18"

515

30

510

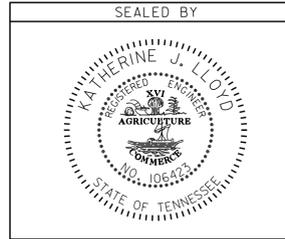
515



TYPICAL SECTION OF CONSTRUCTION

STA. 514+00± - 516+97.50      516+97.50 - 518+00

**UNOFFICIAL SET NOT FOR BIDDING**



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL PLAN PHASE II**  
BEGIN PROJ. TO STA. 31+00  
SCALE: 1"=50'

25-APR-2014 11:20 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\03.sht

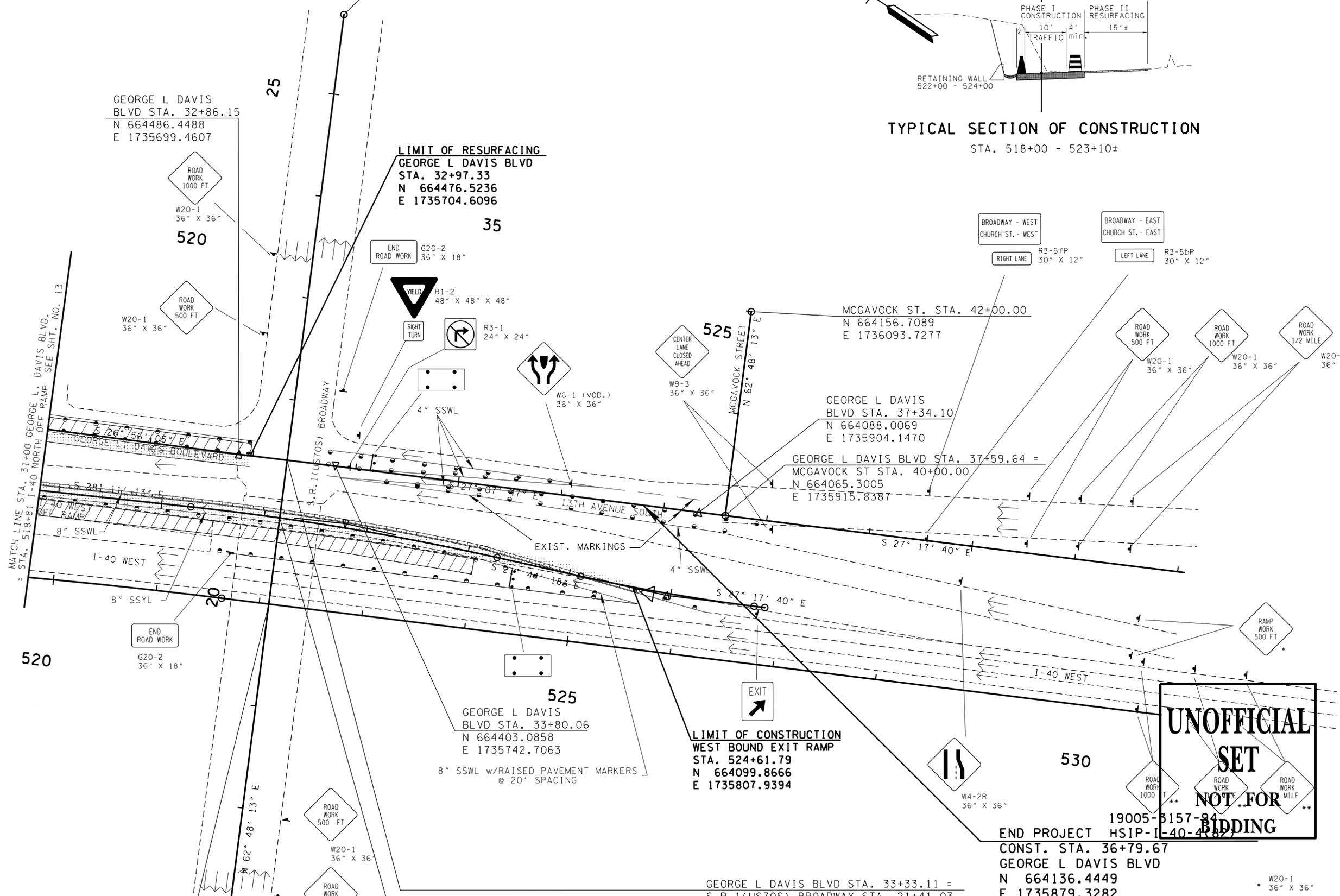
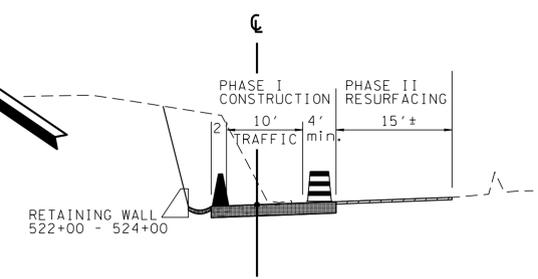
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	13A

S.R.1(US70S) BROADWAY STA. 25+78.04  
N 664644.4982  
E 1736109.7780

GEORGE L DAVIS  
BLVD STA. 32+86.15  
N 664486.4488  
E 1735699.4607

**LIMIT OF RESURFACING**  
GEORGE L DAVIS BLVD  
STA. 32+97.33  
N 664476.5236  
E 1735704.6096

**TYPICAL SECTION OF CONSTRUCTION**  
STA. 518+00 - 523+10±



BROADWAY - WEST  
CHURCH ST. - WEST  
RIGHT LANE R3-5fP 30" X 12"  
LEFT LANE R3-5bP 30" X 12"

MCGAVOCK ST. STA. 42+00.00  
N 664156.7089  
E 1736093.7277

GEORGE L DAVIS  
BLVD STA. 37+34.10  
N 664088.0069  
E 1735904.1470

GEORGE L DAVIS BLVD STA. 37+59.64 =  
MCGAVOCK ST STA. 40+00.00  
N 664065.3005  
E 1735915.8387

GEORGE L DAVIS  
BLVD STA. 33+80.06  
N 664403.0858  
E 1735742.7063

**LIMIT OF CONSTRUCTION**  
WEST BOUND EXIT RAMP  
STA. 524+61.79  
N 664099.8666  
E 1735807.9394

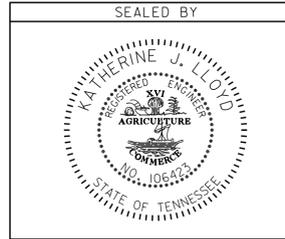
END PROJECT STA. 36+79.67  
CONST. STA. 36+79.67  
GEORGE L DAVIS BLVD  
N 664136.4449  
E 1735879.3282

GEORGE L DAVIS BLVD STA. 33+33.11 =  
S.R.1(US70S) BROADWAY STA. 21+41.03  
N 664444.7673  
E 1735721.0835

S.R.1(US70S) BROADWAY STA. 20+84.41 =  
CHURCH ST. SE RAMP STA. 521+14.91  
N 664418.8890  
E 1735670.7219

I-40 STA. 522+09.29 =  
S.R.1(US70S) BROADWAY ST. STA. 20+00.00  
N 664380.3112  
E 1735595.6461

**UNOFFICIAL SET**  
**NOT FOR BIDDING**



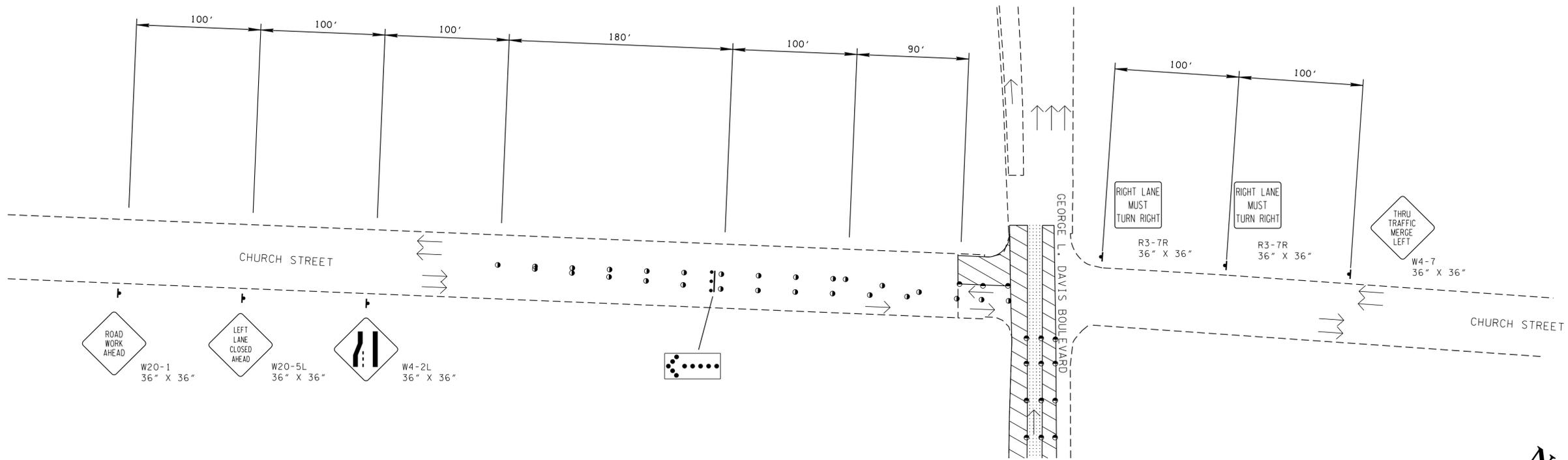
COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

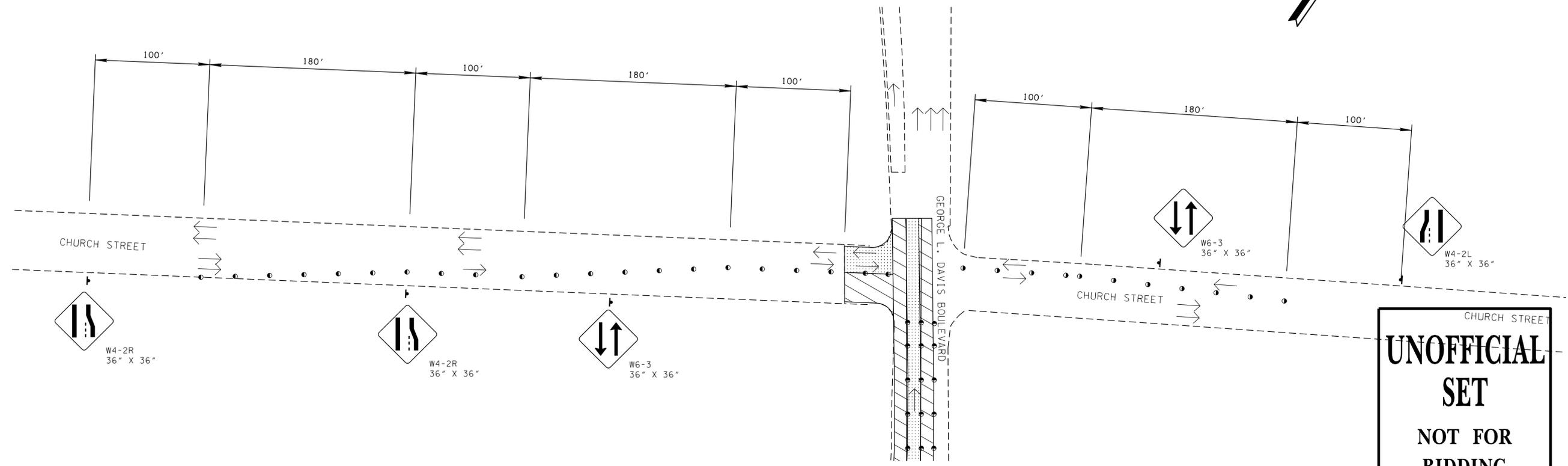
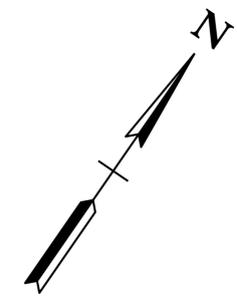
**TRAFFIC CONTROL PLAN**  
**PHASE II**  
STA. 31+00 TO END PROJ.  
SCALE: 1"=50'

25-APR-2014 11:20 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\03A.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	138



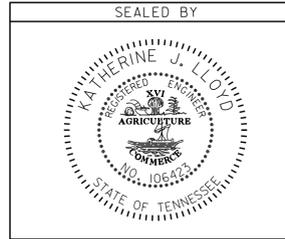
CHURCH STREET - SOUTHBOUND LANES CONSTRUCTION



CHURCH STREET - NORTHBOUND LANES CONSTRUCTION

AREAS CONSTRUCTED UNDER PREVIOUS PHASES

**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**

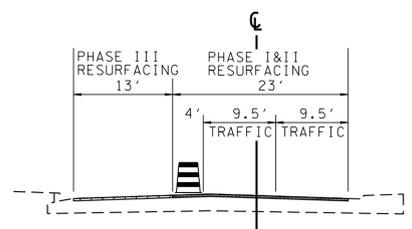


STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC  
CONTROL PLAN  
PHASE II**  
BEGIN PROJ. TO STA.31+00  
SCALE: 1"=50'

16-APR-2014 13:36 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\013B.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	14



TYPICAL SECTION OF CONSTRUCTION  
GEORGE L. DAVIS BLVD.

GEORGE L DAVIS BLVD STA. 23+06.46 =  
CHURCH ST. STA. 11+62.59  
N 665328.9825  
E 1735202.9450

CHURCH ST. STA. 14+80.58  
N 665490.1872  
E 1735477.0477

GRUNDY ST. STA. 33+98.68  
N 665120.0793  
E 1735811.8015

GEORGE L DAVIS BLVD STA. 28+62.57  
GRUNDY STA. 30+00.00  
N 664863.5685  
E 1735506.6036

LIMIT OF RESURFACING  
CHURCH STREET  
STA. 12+56.00  
N 665376.3365  
E 1735283.4629

LIMIT OF RESURFACING  
GEORGE L DAVIS BLVD  
STA. 22+56.29  
N 665370.0667  
E 1735174.1611

LIMIT OF RESURFACING  
WESTBOUND EXIT RAMP  
STA. 516+97.50  
N 664788.1837  
E 1735475.4813

LIMIT OF RESURFACING  
CHURCH STREET  
STA. 10+94.00  
N 665292.5209  
E 1735144.8647

CHURCH ST. SE RAMP  
STA. 512+53.60 =  
GEORGE L DAVIS BLVD  
STA. 24+72.14  
N 665193.4087  
E 1735298.1663

19005-3157-94  
BEGIN PROJECT HSIP-1-40-4(82)  
CONST. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

140 STA. 511+96.03 =  
CHURCH ST. STA. 10+00.00  
N 665242.5371  
E 1735065.2445

END ROAD WORK  
G20-2  
36" X 18"

EXIST. MARKINGS

4" SSWL

GEORGE L. DAVIS BOULEVARD

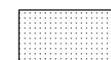
I-40 WEST ON RAMP

END ROAD WORK  
G20-2  
48" X 24"

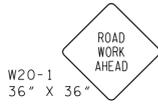
END ROAD WORK  
G20-2  
36" X 18"

I-40 WEST ON RAMP

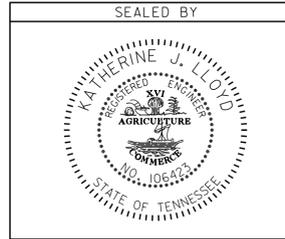
I-40 WEST



AREAS CONSTRUCTED UNDER PREVIOUS PHASES



**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**



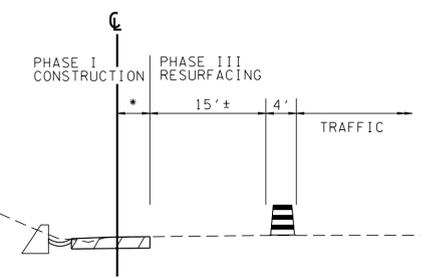
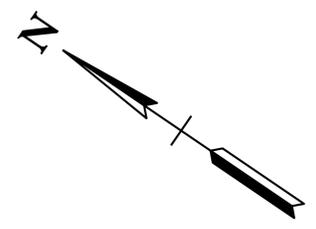
COORDINATES ARE NAD/83(1995),  
ARE DATUM ADJUSTED BY THE  
FACTOR OF 1.00006 AND TIED TO  
THE TGRN. ALL ELEVATIONS ARE  
REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC  
CONTROL PLAN  
PHASE III**  
BEGIN PROJ. TO STA. 31+00  
SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	14A

S.R.1(US70S) BROADWAY STA. 25+78.04  
N 664644.4982  
E 1736109.7780

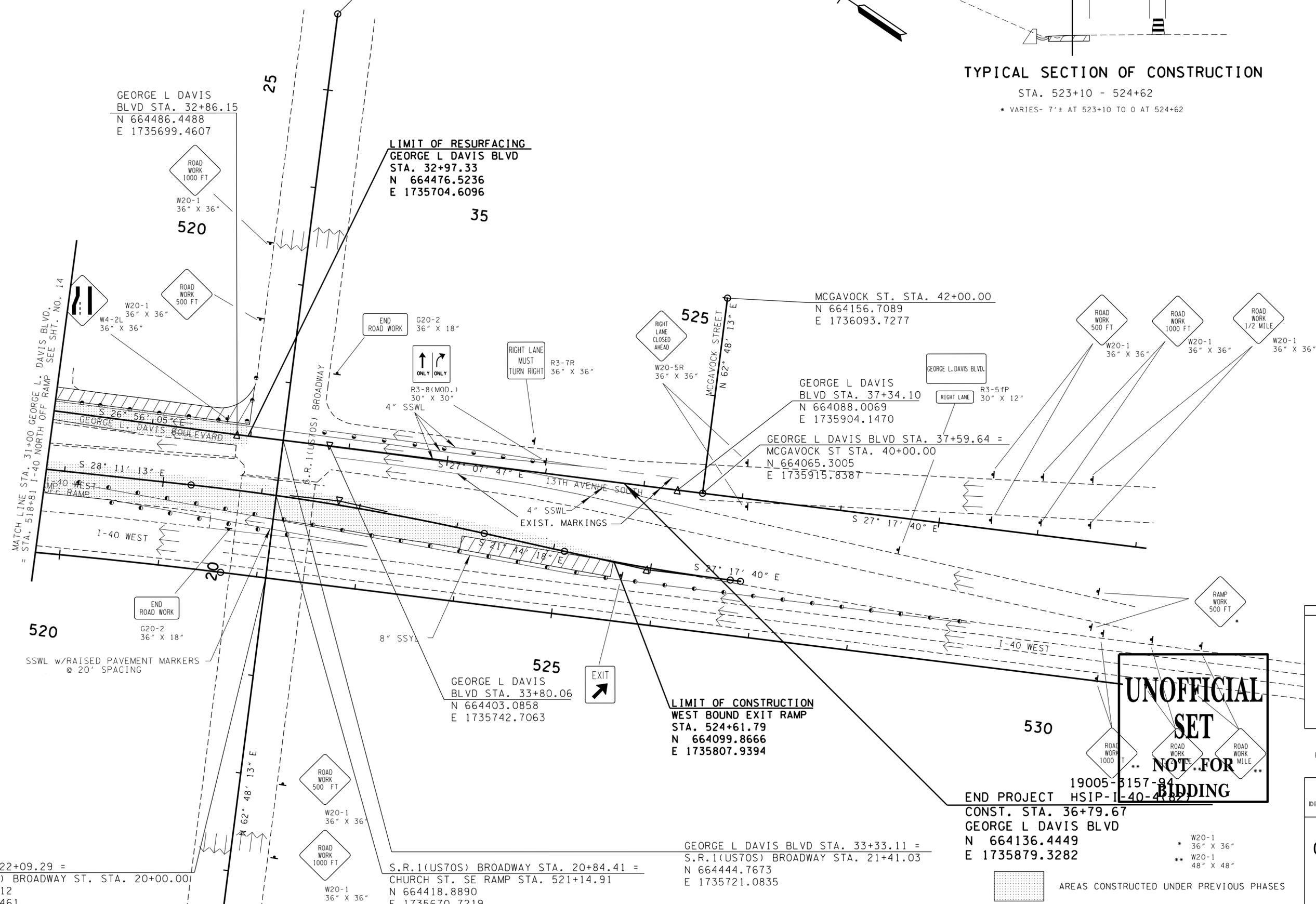


**TYPICAL SECTION OF CONSTRUCTION**

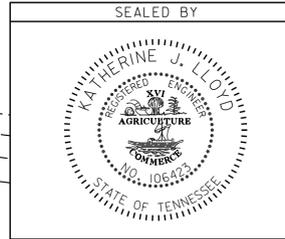
STA. 523+10 - 524+62  
\* VARIES- 7'± AT 523+10 TO 0 AT 524+62

GEORGE L DAVIS  
BLVD STA. 32+86.15  
N 664486.4488  
E 1735699.4607

**LIMIT OF RESURFACING**  
GEORGE L DAVIS BLVD  
STA. 32+97.33  
N 664476.5236  
E 1735704.6096



**UNOFFICIAL SET**  
**NOT FOR BIDDING**



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

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DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL PLAN**  
**PHASE III**  
STA. 31+00 TO END PROJ.  
SCALE: 1"=50'

END PROJECT HSIP-1-40-4(82)  
CONST. STA. 36+79.67  
GEORGE L DAVIS BLVD  
N 664136.4449  
E 1735879.3282

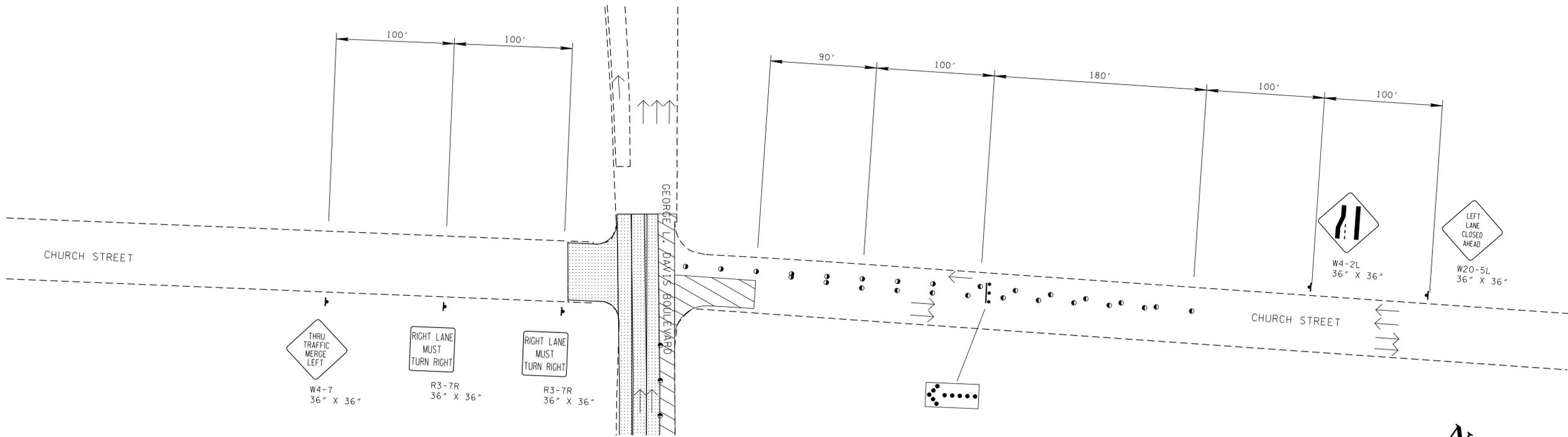
GEORGE L DAVIS BLVD STA. 33+33.11 =  
S.R.1(US70S) BROADWAY STA. 21+41.03  
N 664444.7673  
E 1735721.0835

S.R.1(US70S) BROADWAY STA. 20+84.41 =  
CHURCH ST. SE RAMP STA. 521+14.91  
N 664418.8890  
E 1735670.7219

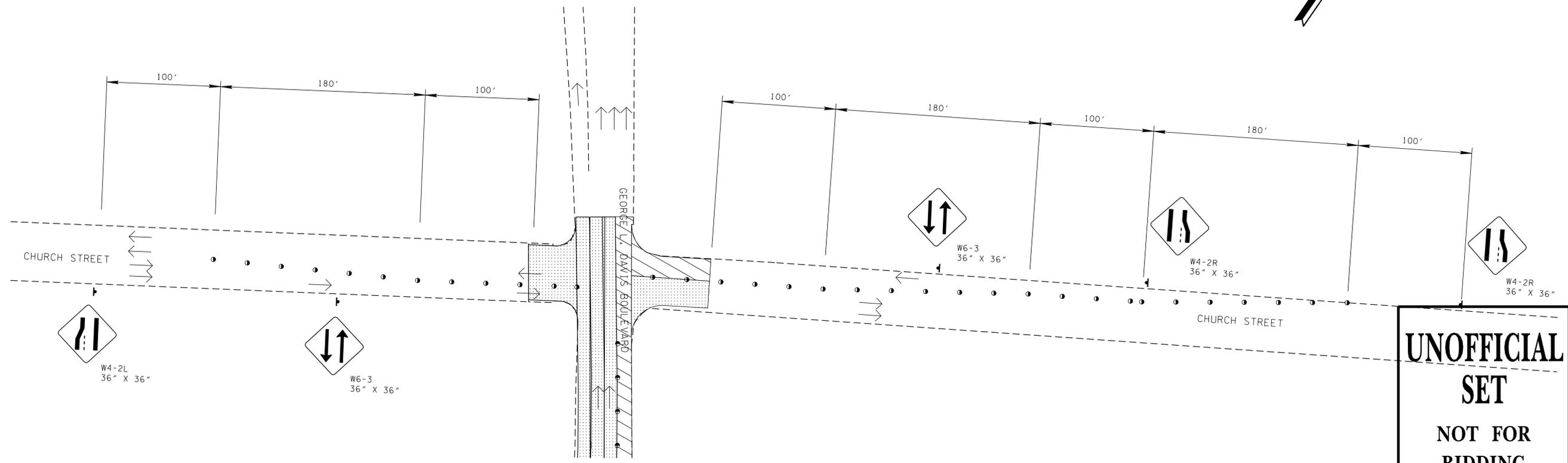
I-40 STA. 522+09.29 =  
S.R.1(US70S) BROADWAY ST. STA. 20+00.00  
N 664380.3112  
E 1735595.6461

25-APR-2014 11:21 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\044a.sht

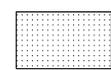
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	148



CHURCH STREET - NORTHBOUND LANES CONSTRUCTION



CHURCH STREET - SOUTHBOUND LANES CONSTRUCTION

 AREAS CONSTRUCTED UNDER PREVIOUS PHASES

**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**

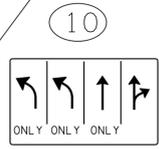
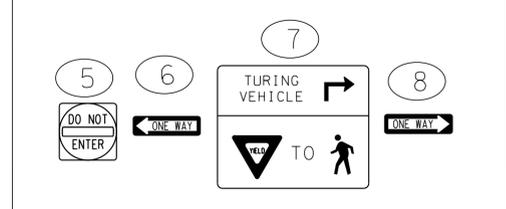
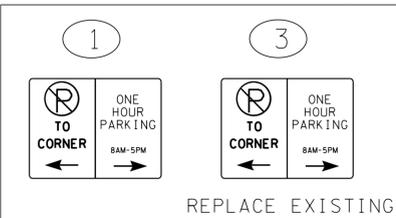
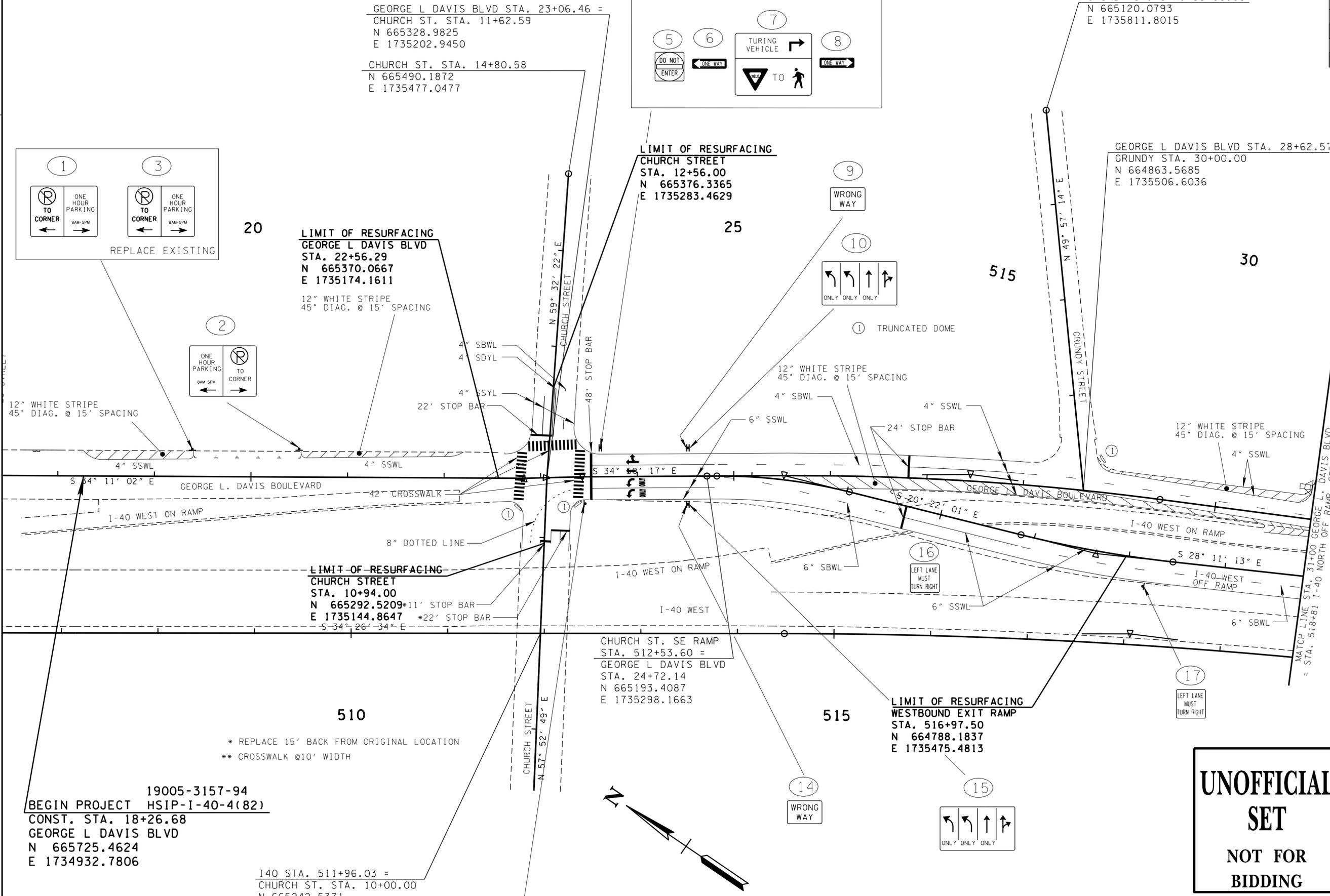
SEALED BY  


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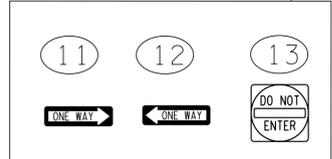
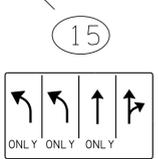
**TRAFFIC  
CONTROL PLAN  
PHASE III**  
BEGIN PROJ. TO STA.31+00  
SCALE: 1"=50'

16-APR-2014 13:38 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\04B.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-4(82)	15

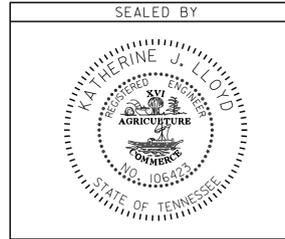


① TRUNCATED DOME



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NOTE: See Sheets 18 and 18B for overhead signs at signal locations.



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**SIGNING AND PAVEMENT MARKING**  
BEG. PROJ. TO STA. 31+00  
SCALE: 1:50

25-APR-2014 11:21 C:\Projects\Davidson\40 WB Exit Ramp to Church St\Construction\015.sht

\* REPLACE 15' BACK FROM ORIGINAL LOCATION  
\*\* CROSSWALK @10' WIDTH

19005-3157-94  
**BEGIN PROJECT HSIP-I-40-4(82)**  
CONST. STA. 18+26.68  
GEORGE L DAVIS BLVD  
N 665725.4624  
E 1734932.7806

I40 STA. 511+96.03 =  
CHURCH ST. STA. 10+00.00  
N 665242.5371  
E 1735065.2445

**LIMIT OF RESURFACING**  
GEORGE L DAVIS BLVD  
STA. 22+56.29  
N 665370.0667  
E 1735174.1611  
12" WHITE STRIPE  
45° DIAG. @ 15' SPACING

**LIMIT OF RESURFACING**  
CHURCH STREET  
STA. 12+56.00  
N 665376.3365  
E 1735283.4629

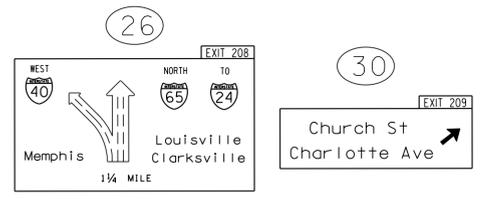
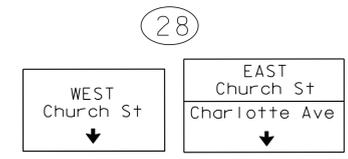
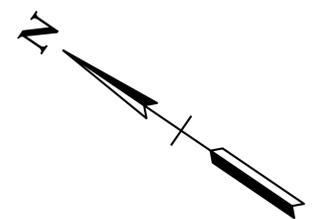
GEORGE L DAVIS BLVD STA. 28+62.51  
GRUNDY STA. 30+00.00  
N 664863.5685  
E 1735506.6036

CHURCH ST. SE RAMP  
STA. 512+53.60 =  
GEORGE L DAVIS BLVD  
STA. 24+72.14  
N 665193.4087  
E 1735298.1663

**LIMIT OF RESURFACING**  
WESTBOUND EXIT RAMP  
STA. 516+97.50  
N 664788.1837  
E 1735475.4813

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	15A

S.R.1(US70S) BROADWAY STA. 25+78.04  
N 664644.4982  
E 1736109.7780



GEORGE L DAVIS  
BLVD STA. 32+86.15  
N 664486.4488  
E 1735699.4607

**LIMIT OF RESURFACING**  
GEORGE L DAVIS BLVD  
STA. 32+97.33  
N 664476.5236  
E 1735704.6096

12" WHITE STRIPE  
45° DIAG. @ 15" SPACING  
12" WHITE CHEVRON  
@ 10" SPACING

MATCH LINE STA. 31+00 GEORGE L. DAVIS BLVD.  
= STA. 518+81 I-40 NORTH OFF RAMP SEE SHT. NO. 15

MCGAVOCK ST. STA. 42+00.00  
N 664156.7089  
E 1736093.7277

GEORGE L DAVIS  
BLVD STA. 37+34.10  
N 664088.0069  
E 1735904.1470

GEORGE L DAVIS BLVD STA. 37+59.64 =  
MCGAVOCK ST STA. 40+00.00  
N 664065.3005  
E 1735915.8387

GEORGE L DAVIS BLVD STA. 42+77.50  
N 663605.1116  
E 1736153.3445

GEORGE L DAVIS  
BLVD STA. 33+80.06  
N 664403.0858  
E 1735742.7063

**LIMIT OF CONSTRUCTION**  
WEST BOUND EXIT RAMP  
STA. 524+61.79  
N 664099.8666  
E 1735807.9394

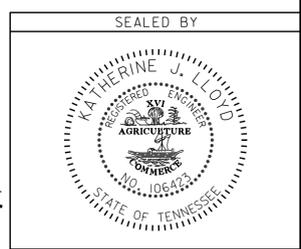
I-40 STA. 522+09.29 =  
S.R.1(US70S) BROADWAY ST. STA. 20+00.00  
N 664380.3112  
E 1735595.6461

S.R.1(US70S) BROADWAY STA. 20+84.41 =  
CHURCH ST. SE RAMP STA. 521+14.91  
N 664418.8890  
E 1735670.7219

GEORGE L DAVIS BLVD STA. 33+33.11 =  
S.R.1(US70S) BROADWAY STA. 21+41.03  
N 664444.7673  
E 1735721.0835

END PROJECT  
CONST. STA. 36+79.67  
GEORGE L DAVIS BLVD  
N 664136.4449  
E 1735879.3282

**UNOFFICIAL  
SET  
NOT FOR  
BIDDING**



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ARE DATUM ADJUSTED BY THE  
FACTOR OF 1.00006 AND TIED TO  
THE TGRN. ALL ELEVATIONS ARE  
REFERENCED TO THE NAVD 1988.

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DEPARTMENT OF TRANSPORTATION

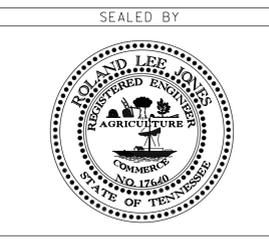
**SIGNING AND  
PAVEMENT  
MARKING**  
STA. 31+00 TO STA. 34+44  
SCALE: 1:50

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONSI.	2014	HSIP-1-40-4(82)	16

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS		
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN. STEEL LBS.				
29		W13-2	48"	60"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	S3X5.7	h <sub>1</sub> =15'-6" h <sub>2</sub> =15'-6"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"			
7		R10-15	30"	30"									BLACK	YELLOW (REF.)	0.080" SHEET ALUMINUM						7'-0"	MOUNT BEHIND SIGN NO. 5		
10		R3-8a (MOD)	60"	36"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	P8	h <sub>1</sub> =12'-6" h <sub>2</sub> =13'-0"					7'-0"		
15																	h <sub>1</sub> =12'-6" h <sub>2</sub> =13'-0"							
1		R7-200	24"	18"									RED (REF.)	WHITE (REF.)	0.080" SHEET ALUMINUM	U3	h = 11'-6"					7'-0"		
3																	h = 11'-6"							
2		R7-200	24"	18"									RED (REF.)	WHITE (REF.)	0.080" SHEET ALUMINUM	U3	h = 11'-6"							
5		R5-1	36"	36"									WHITE (REF.)	WHITE (REF.)	0.100" SHEET ALUMINUM	P6	h = 9'-6"					7'-0"	SLIP BASE REQUIRED ITEM NO. 713-11.21 SEE STD. DWG. T-S-23A.	
13																	h = 9'-6"							
9		R5-1A	36"	24"									WHITE (REF.)	RED (REF.)	0.080" SHEET ALUMINUM							7'-0"	MOUNTED BEHIND SIGN NO. 10	
14																							MOUNTED BEHIND SIGN NO. 15	
8		R6-1R	36"	12"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM						6'-0"	MOUNTED UNDER SIGN NO. 5		
11																						MOUNTED UNDER SIGN NO. 13		
6		R6-1L	36"	12"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM						6'-0"	MOUNTED UNDER SIGN NO. 5		
12																						MOUNTED UNDER SIGN NO. 13		

**UNOFFICIAL SET  
NOT FOR BIDDING**



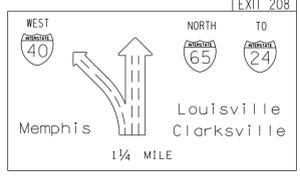
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SEE STD. DWG. NO. T-S-19

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONSI.	2014	HSIP-1-40-4(82)	16A

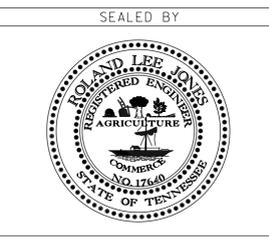
SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN. STEEL LBS.		
16 17	 R3-7L		30"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM						7'-0"	MOUNT ON BARRIER WALL ITEM NO. 713-30.09 (2"X2") STD. DWG. T-S-21
25			48"	72"	6"	1"	10"	15"			EMOD	TYPE "F" @ 45°	WHITE (REF.)	GREEN (REF.)	0.100" SHEET ALUMINUM						7'-0"	MOUNT ON BARRIER WALL ITEM NO. 713-30.10 (4"X4") STD. DWG. T-S-21 REDUCE LETTER SPACING AS NEEDED TO FIT.
28			10'-0"	10'-0"	12"	2"	12"	16"			EMOD	TYPE "H"	WHITE (REF.)	GREEN (REF.)	10-12" ALUMINUM EXTRUSIONS							OVERHEAD SIGN STRUCTURE USE AUXILIARY SUPPORTS FOR EXIT PANEL ITEM NO. 713-17.02.
			12'-0"	15'-0"	12"	2"	12"	16"	12"		EMOD	TYPE "H"	WHITE (REF.)	GREEN (REF.)	15-12" ALUMINUM EXTRUSIONS							
30			10'-0"	2'-0"			10"	16"			EMOD	TYPE "G" @45°	WHITE (REF.)	GREEN (REF.)	2-12" ALUMINUM EXTRUSIONS 6-12" ALUMINUM EXTRUSIONS							OVERHEAD SIGN STRUCTURE USE AUXILIARY SUPPORTS FOR EXIT PANEL ITEM NO. 713-17.02.
26			10'-0"	2'-0"			10"	12"			EMOD		WHITE (REF.)	GREEN (REF.)	2-12" ALUMINUM EXTRUSIONS 15-12" ALUMINUM EXTRUSIONS							OVERHEAD SIGN STRUCTURE USE AUXILIARY SUPPORTS FOR EXIT PANEL ITEM NO. 713-17.02.

U-POST SUBSTITUTION TABLE

BID ITEM	SUBSTITUTION ALLOWED
713-11.01	2*/FT. U1 2*/FT. MUI OR 2*/FT. R1
2*/FT. U1	2.5*/FT. U3 2.5*/FT. MU3 OR 3*/FT. R2*
2.5*/FT. U3	3*/FT. U6
3*/FT. U6	4*/FT. U7
4*/FT. U7	NO SUBSTITUTES

\* PAID AT A RATE OF 2.5\*/FT.

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE





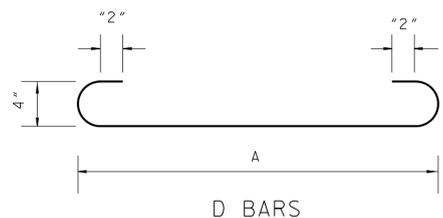
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	17B

REQUIRED BEARING AREA FOR ANCHOR BOLT	
ANCHOR BOLT DIA (IN)	HEAD OR NUT AREA (SQ IN)
1"	1.800
1 1/4"	2.812
1 1/2"	4.050
1 3/4"	5.512
2"	7.199
2 1/4"	9.122
2 1/2"	11.249



**ANCHOR BOLT DETAIL**

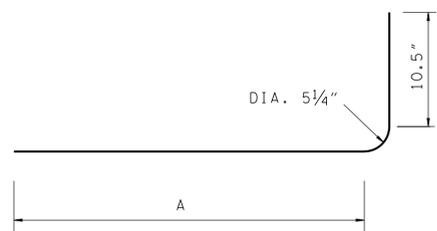
ASTM F1554 ANCHOR BOLTS (55KSI, HEADED OR THREADED/NUTTED) TO BE DESIGNED BY SIGN STRUCTURE MANUFACTURER



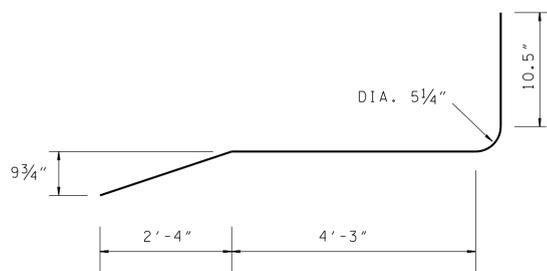
D BARS



L BARS

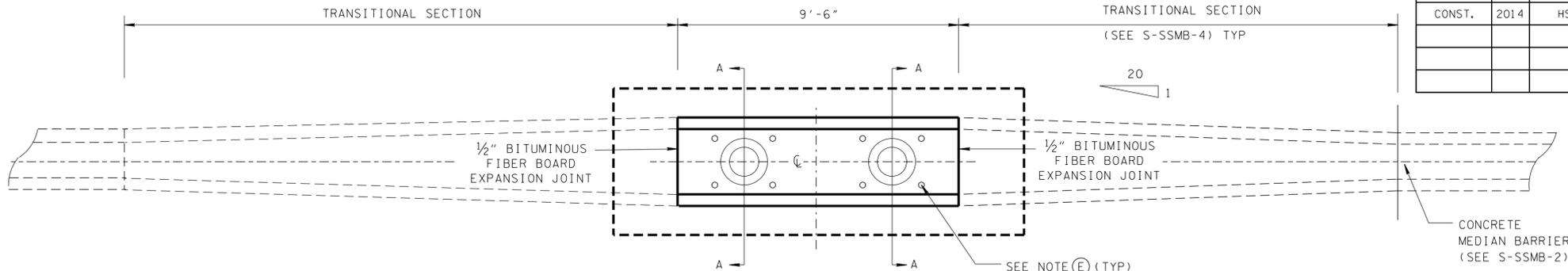


C BARS

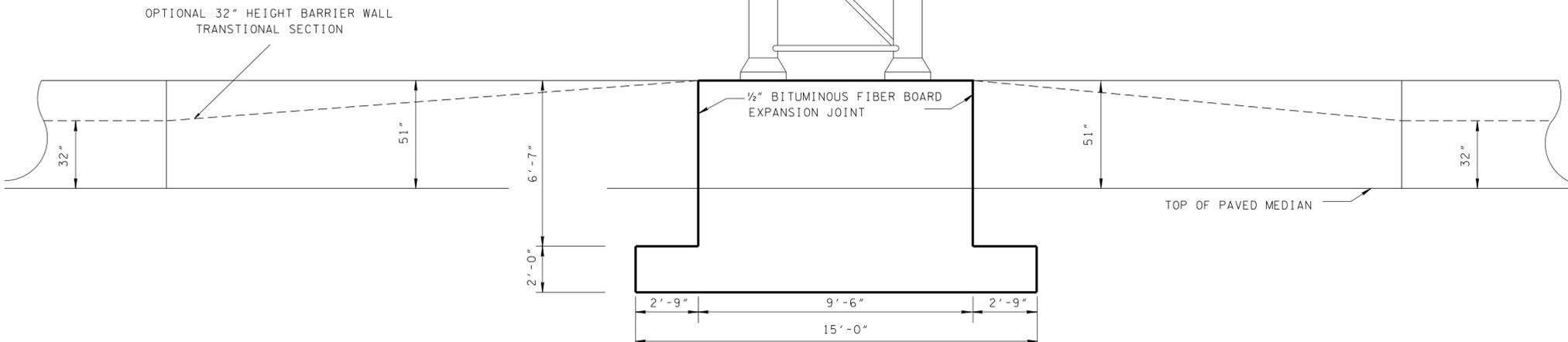


BARS CA 700

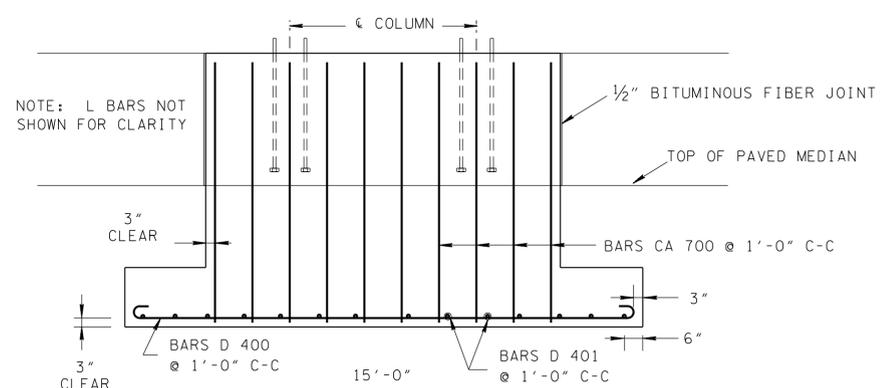
BAR DETAIL



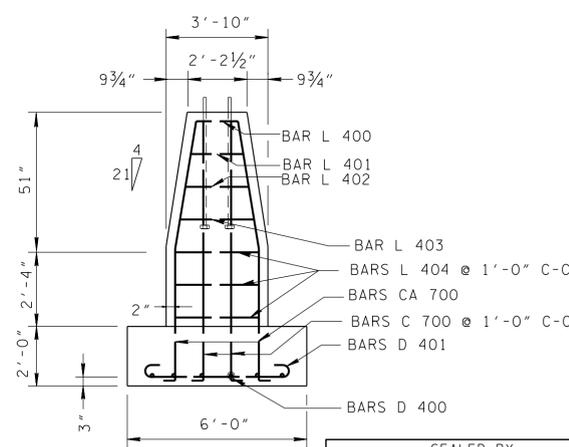
PLAN



ELEVATION



FOOTING



SECTION "A-A"

BILL OF STEEL - PER FOOTING				
BAR	SIZE	NO. REQ'D.	DIM "S"	LENGTH
C 700	7	4	8'-2"	9'-3"
CA 700	7	20		9'-1"
D 400	4	6	14'-6"	15'-6"
D 401	4	15	5'-6"	6'-6"
L 400	4	3	2'-1"	22'-2"
L 401	4	1	2'-2"	23'-0"
L 402	4	1	2'-8"	24'-0"
L 403	4	1	3'-1"	25'-10"
L 404	4	3	3'-7"	25'-10"

QUANTITIES	
CLASS "A" CONCRETE	13.3 C.Y.
REINFORCING STEEL	658 LB.

**GENERAL NOTES**

(A) FINISHED CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604-2 OF THE TENNESSEE STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS FOR OVERHEAD SIGN STRUCTURE SECTION 604-CONCRETE STRUCTURES. A TEXTURED COATED FINISH SHALL BE USED IN LIEU OF A CLASS 2 FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO WHITE FEDERAL SPECIFICATION NO. 37778. A COLOR SAMPLE SHALL BE SUBMITTED TO THE MATERIALS AND TEST ENGINEER FOR APPROVAL.

(B) EPOXY COATED DOWEL BARS WILL BE PERMITTED AS AN ALTERNATE TO PAINTED AND GREASED DOWEL BARS. THE EPOXY COATING SHALL BE AN APPROVED HIGH DENSITY POLYETHYLENE 17 MILS (+ 2 MILS) BONDED TO THE BAR WITH AN APPROVED ADHESIVE 1 TO 8 MILS THICK (4 MILS NOMINAL).

(C) IF A STORM DRAINAGE SYSTEM IS PLACED UNDER THE CENTER LINE OF THE MEDIAN BARRIER, THE PIPE SHALL BE SHIFTED HORIZONTALLY AROUND THE FOOTING.

(D) OVERHEAD SIGN FOOTING COST IS TO BE INCLUDED IN THE COST OF THE OVERHEAD SIGN STRUCTURE.

(E) LOCATION OF ANCHOR BOLTS TO BE DETERMINED IN THE FIELD BY THE ENGINEER TO MATCH SIGN STRUCTURE MANUFACTURERS SHOP DRAWING.

(F) ANCHOR BOLTS, NUTS AND WASHERS ARE TO BE GALVANIZED STEEL.

(G) CONCRETE: F<sub>c</sub> = 4000 POUNDS PER SQUARE INCH AT 28 DAYS.  
REINFORCING STEEL: ASTM A615, F<sub>y</sub> = 60,000 POUNDS PER SQUARE INCH  
ALL REINFORCEMENT IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

**UNOFFICIAL SET NOT FOR BIDDING**

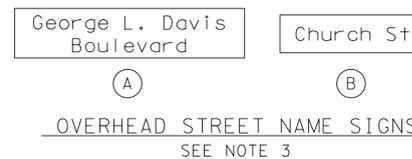
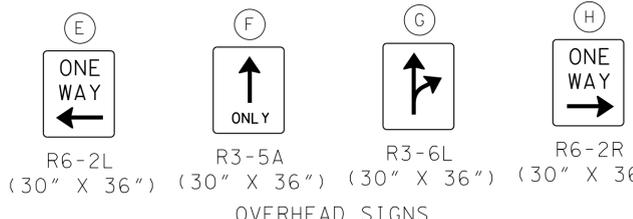
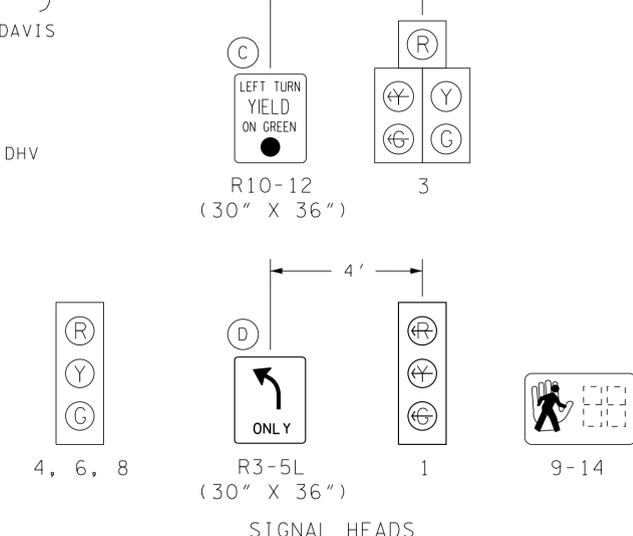
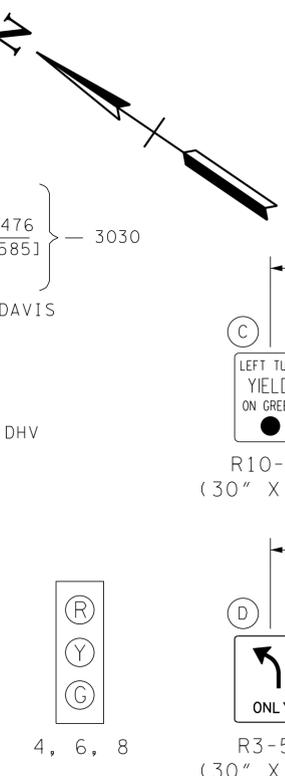
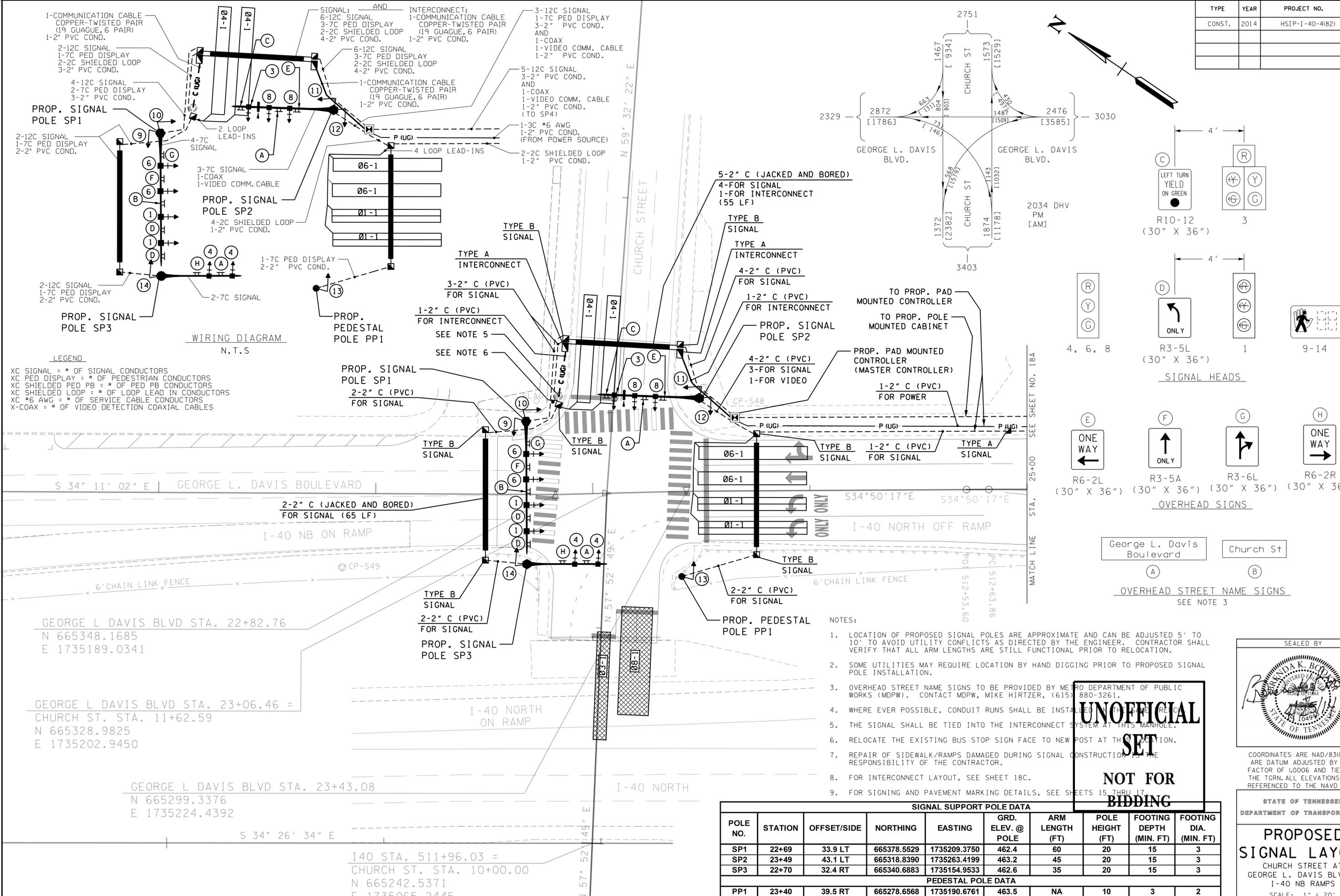
SEALED BY

"FOR REFERENCE ONLY"

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 51" MEDIAN BARRIER WALL

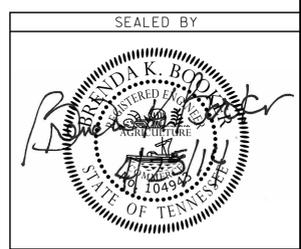
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	18



- NOTES:**
- LOCATION OF PROPOSED SIGNAL POLES ARE APPROXIMATE AND CAN BE ADJUSTED 5' TO 10' TO AVOID UTILITY CONFLICTS AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL VERIFY THAT ALL ARM LENGTHS ARE STILL FUNCTIONAL PRIOR TO RELOCATION.
  - SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED SIGNAL POLE INSTALLATION.
  - OVERHEAD STREET NAME SIGNS TO BE PROVIDED BY METRO DEPARTMENT OF PUBLIC WORKS (MDPW). CONTACT MDPW, MIKE HIRTZER, (615) 880-3261.
  - WHERE EVER POSSIBLE, CONDUIT RUNS SHALL BE INSTALLED UNDER THE SAME RECORD.
  - THE SIGNAL SHALL BE TIED INTO THE INTERCONNECT SYSTEM AT THIS MANHOLE.
  - RELOCATE THE EXISTING BUS STOP SIGN FACE TO NEW POST AT THE SAME LOCATION.
  - REPAIR OF SIDEWALK/RAMPS DAMAGED DURING SIGNAL CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - FOR INTERCONNECT LAYOUT, SEE SHEET 18C.
  - FOR SIGNING AND PAVEMENT MARKING DETAILS, SEE SHEETS 15 THRU 17.

**UNOFFICIAL SET**  
**NOT FOR BIDDING**

SIGNAL SUPPORT POLE DATA									
POLE NO.	STATION	OFFSET/SIDE	NORTHING	EASTING	GRD. ELEV. @ POLE	ARM LENGTH (FT)	POLE HEIGHT (FT)	FOOTING DEPTH (MIN. FT)	FOOTING DIA. (MIN. FT)
SP1	22+69	33.9 LT	665378.5529	1735209.3750	462.4	60	20	15	3
SP2	23+49	43.1 LT	665318.8390	1735263.4199	463.2	45	20	15	3
SP3	22+70	32.4 RT	665340.6883	1735154.9533	462.6	35	20	15	3
PEDESTAL POLE DATA									
PP1	23+40	39.5 RT	665278.6568	1735190.6761	463.5	NA	10	3	2



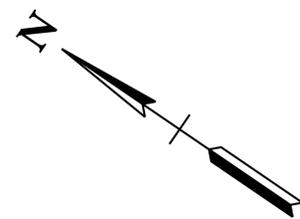
COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

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DEPARTMENT OF TRANSPORTATION

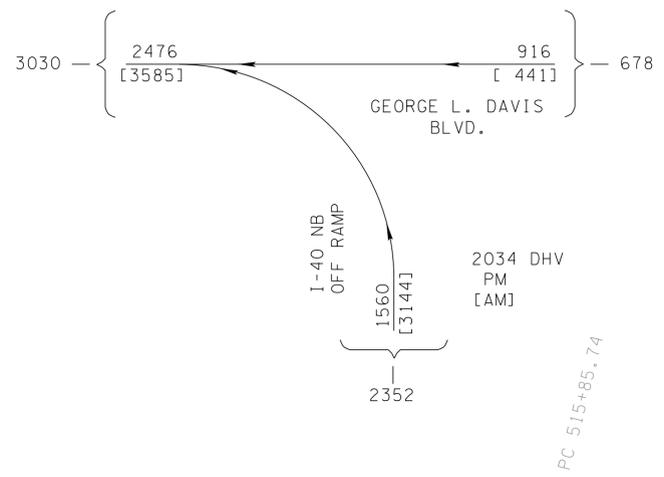
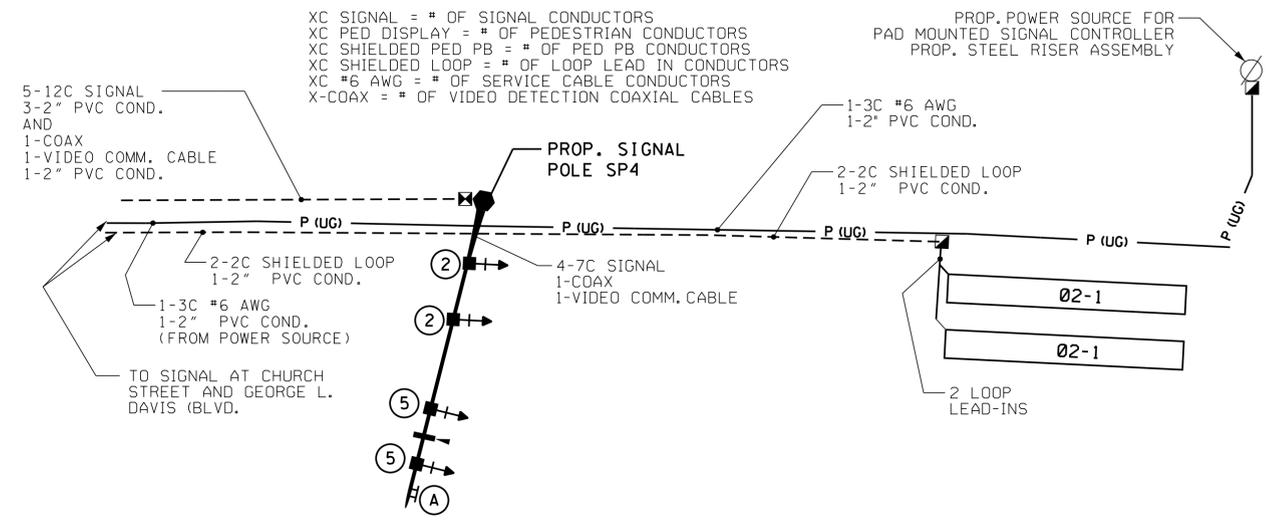
**PROPOSED SIGNAL LAYOUT**  
 CHURCH STREET AT  
 GEORGE L. DAVIS BLVD./  
 I-40 NB RAMPS  
 SCALE: 1" = 20'

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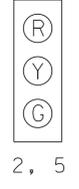
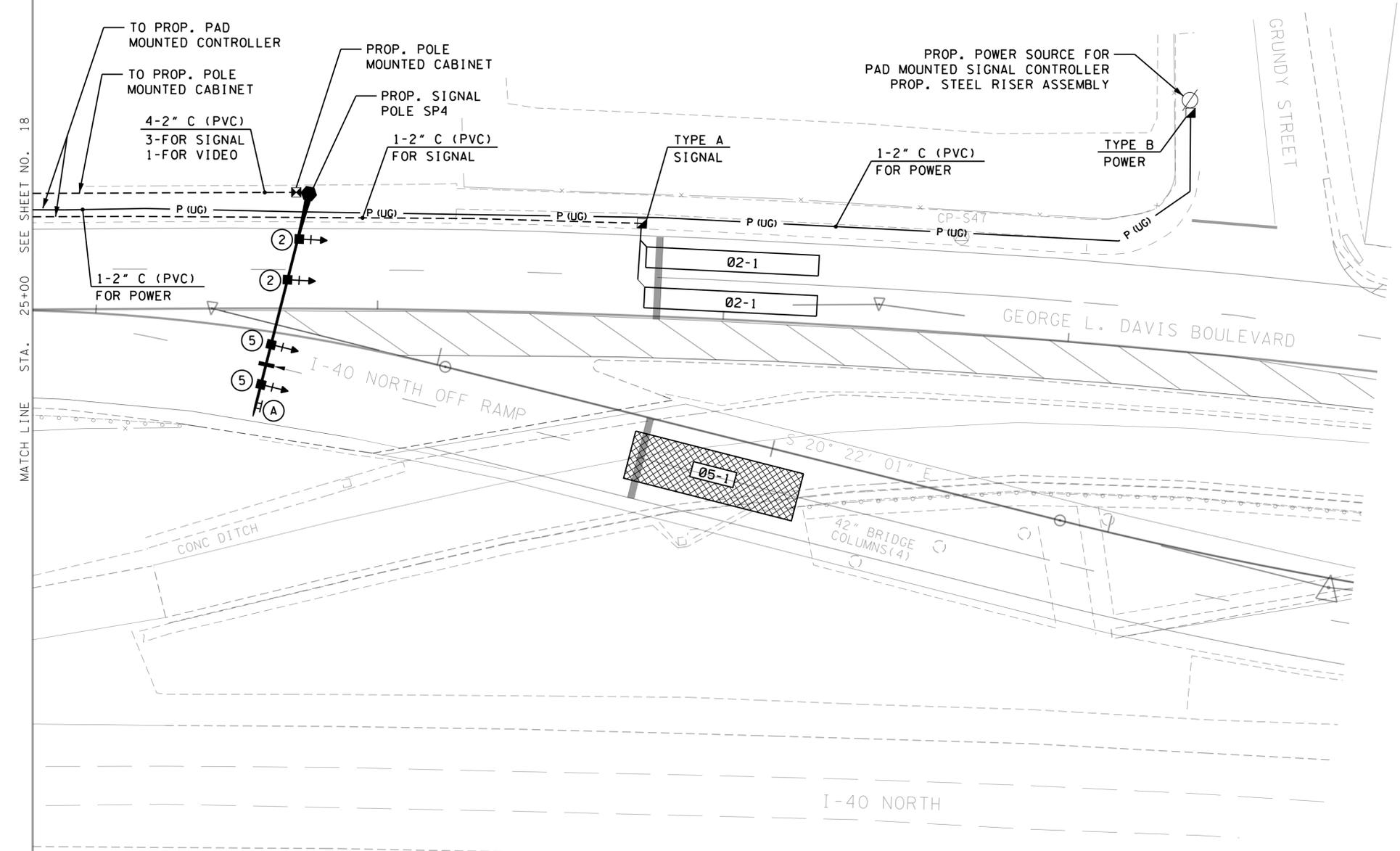
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	18A



**LEGEND**  
 XC SIGNAL = # OF SIGNAL CONDUCTORS  
 XC PED DISPLAY = # OF PEDESTRIAN CONDUCTORS  
 XC SHIELDED PED PB = # OF PED PB CONDUCTORS  
 XC SHIELDED LOOP = # OF LOOP LEAD IN CONDUCTORS  
 XC #6 AWG = # OF SERVICE CABLE CONDUCTORS  
 X-COAX = # OF VIDEO DETECTION COAXIAL CABLES

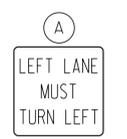


**WIRING DIAGRAM**  
N.T.S



2, 5

**SIGNAL HEADS**



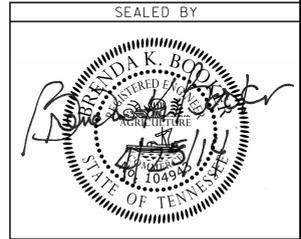
R3-7  
(36" X 36")

**OVERHEAD SIGNS**

**NOTES:**

1. LOCATION OF PROPOSED SIGNAL POLES ARE APPROXIMATE AND CAN BE ADJUSTED 5' TO 10' TO AVOID UTILITY CONFLICTS AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL VERIFY THAT ALL ARM LENGTHS ARE STILL FUNCTIONAL PRIOR TO RELOCATION.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED SIGNAL POLE INSTALLATION.
3. WHERE EVER POSSIBLE, CONDUIT RUNS SHALL BE INSTALLED IN THE SAME TRENCH.
4. REPAIR OF SIDEWALK/RAMPS DAMAGED DURING SIGNAL CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. FOR INTERCONNECT LAYOUT, SEE SHEET 18C.
6. FOR SIGNING AND PAVEMENT MARKING DETAILS, SEE SHEETS 15 THRU 17.

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DEPARTMENT OF TRANSPORTATION

**PROPOSED  
SIGNAL LAYOUT**

GEORGE L. DAVIS BLVD.  
AT I-40 NB OFF RAMP

SCALE: 1" = 20'

SIGNAL SUPPORT POLE DATA									
POLE NO.	STATION	OFFSET/SIDE	NORTHING	EASTING	GRD. ELEV. @ POLE	ARM LENGTH (FT)	POLE HEIGHT (FT)	FOOTING DEPTH (MIN. FT)	FOOTING DIA. (MIN. FT)
SP4	25+80	33.4 LT	665123.5975	1735387.2770	462.1	55	20	15	3

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	18B

BASIC OR FULLY ACTUATED TIMINGS (SECS)											
PHASE	MIN GREEN (INITIAL INTERVAL)	VEHICLE INTERVAL	MAX I	MAX II	CLEARANCE		PEDESTRIAN		RECALL TO	MEMORY POSITION (1)	LEFT-TURN OPERATION (2)
					YELLOW	ALL RED	WALK	FLASHING DON'T WALK			

- (1) NL = NONLOCK  
L = LOCK
- (2) PERM = PERMITTED  
PROT = PROTECTED  
P + P = PROT / PERM

CONTACT METRO PUBLIC WORKS FOR INITIAL TIMINGS.

LOOP & AMP ASSIGNMENTS				
DETECTOR LOOP NO.	DETECTOR NO.	LOOP LENGTH	AMP MODE	ASSOC. PHASE
*Ø1-1	1	2 @ 50	PRES	1
Ø2-1	2	2 @ 50	PRES	2
Ø4-1	3	2 @ 50	PRES	4
Ø6-1	4	2 @ 50	PRES	6

\* LOOP 1 IS A QUADROPOLE.

ALL LOOPS ARE 6' IN WIDTH AND CENTERED IN THE TRAFFIC LANE.

LOOP WIRE CONNECTIONS SHALL BE WIRED TO PROVIDE THE APPROPRIATE INDUCTANCE AS REQUIRED BY TDOT STD. DWG. T-SG-3.

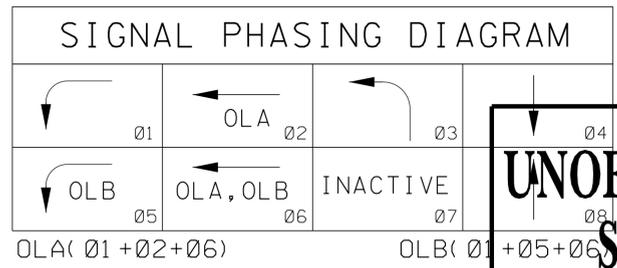
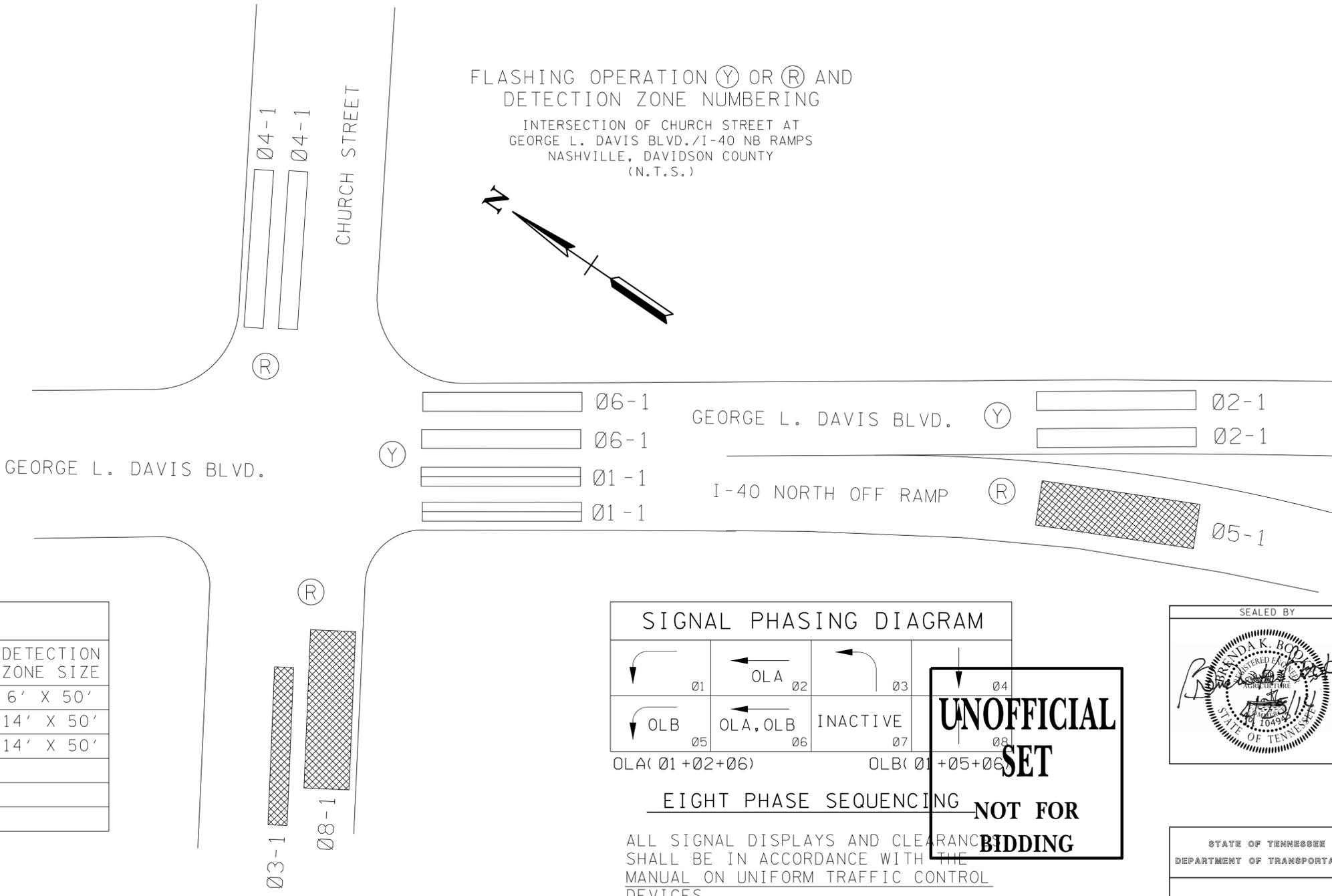
DETECTOR LOOP NUMBERS CORRESPOND WITH INPUT PHASE NUMBERS.

REFER TO TDOT STD. DWG T-SG-3 FOR NUMBER OF LOOP TURNS REQUIRED FOR EACH DETECTOR LOOP.

VIDEO ZONE & AMP ASSIGNMENTS					
VIDEO ZONE NO.	ZONE NO.	ZONE AREA	AMP MODE	ASSOC. PHASE	DETECTION ZONE SIZE
Ø3-1	1	LEFT TURN LANE	PRES	3	6' X 50'
Ø5-1	2	I-40 N OFF RAMP	PRES	5	14' X 50'
Ø8-1	3	THRU LANES	PRES	8	14' X 50'

REFER TO STD. DWG T-SG-3A FOR VIDEO DETECTION DETAILS.

ZONE NUMBERS CORRESPOND WITH INPUT PHASE NUMBERS.

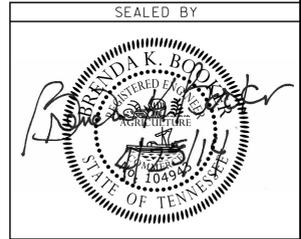


**EIGHT PHASE SEQUENCING**

ALL SIGNAL DISPLAYS AND CLEARANCE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

FULL SKIP CAPABILITY

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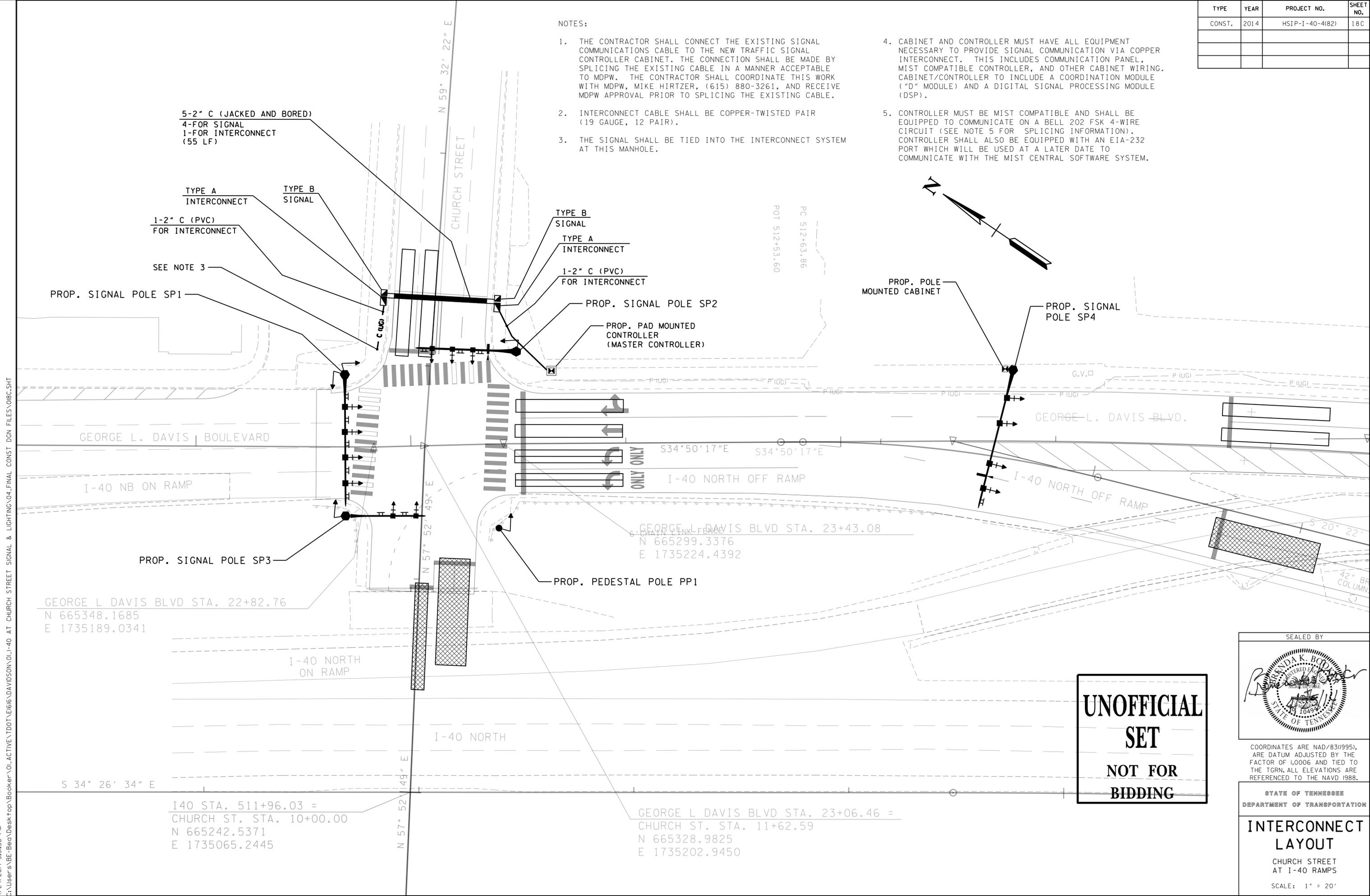
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**PHASING, TIMING, AND DETECTOR ASSIGNMENT**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	18 C

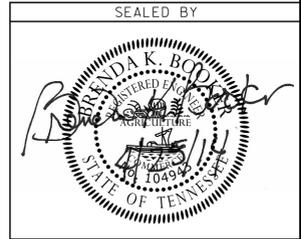
NOTES:

1. THE CONTRACTOR SHALL CONNECT THE EXISTING SIGNAL COMMUNICATIONS CABLE TO THE NEW TRAFFIC SIGNAL CONTROLLER CABINET. THE CONNECTION SHALL BE MADE BY SPLICING THE EXISTING CABLE IN A MANNER ACCEPTABLE TO MDPW. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH MDPW, MIKE HIRTZER, (615) 880-3261, AND RECEIVE MDPW APPROVAL PRIOR TO SPLICING THE EXISTING CABLE.
2. INTERCONNECT CABLE SHALL BE COPPER-TWISTED PAIR (19 GAUGE, 12 PAIR).
3. THE SIGNAL SHALL BE TIED INTO THE INTERCONNECT SYSTEM AT THIS MANHOLE.
4. CABINET AND CONTROLLER MUST HAVE ALL EQUIPMENT NECESSARY TO PROVIDE SIGNAL COMMUNICATION VIA COPPER INTERCONNECT. THIS INCLUDES COMMUNICATION PANEL, MIST COMPATIBLE CONTROLLER, AND OTHER CABINET WIRING. CABINET/CONTROLLER TO INCLUDE A COORDINATION MODULE ("D" MODULE) AND A DIGITAL SIGNAL PROCESSING MODULE (DSP).
5. CONTROLLER MUST BE MIST COMPATIBLE AND SHALL BE EQUIPPED TO COMMUNICATE ON A BELL 202 FSK 4-WIRE CIRCUIT (SEE NOTE 5 FOR SPLICING INFORMATION). CONTROLLER SHALL ALSO BE EQUIPPED WITH AN EIA-232 PORT WHICH WILL BE USED AT A LATER DATE TO COMMUNICATE WITH THE MIST CENTRAL SOFTWARE SYSTEM.



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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

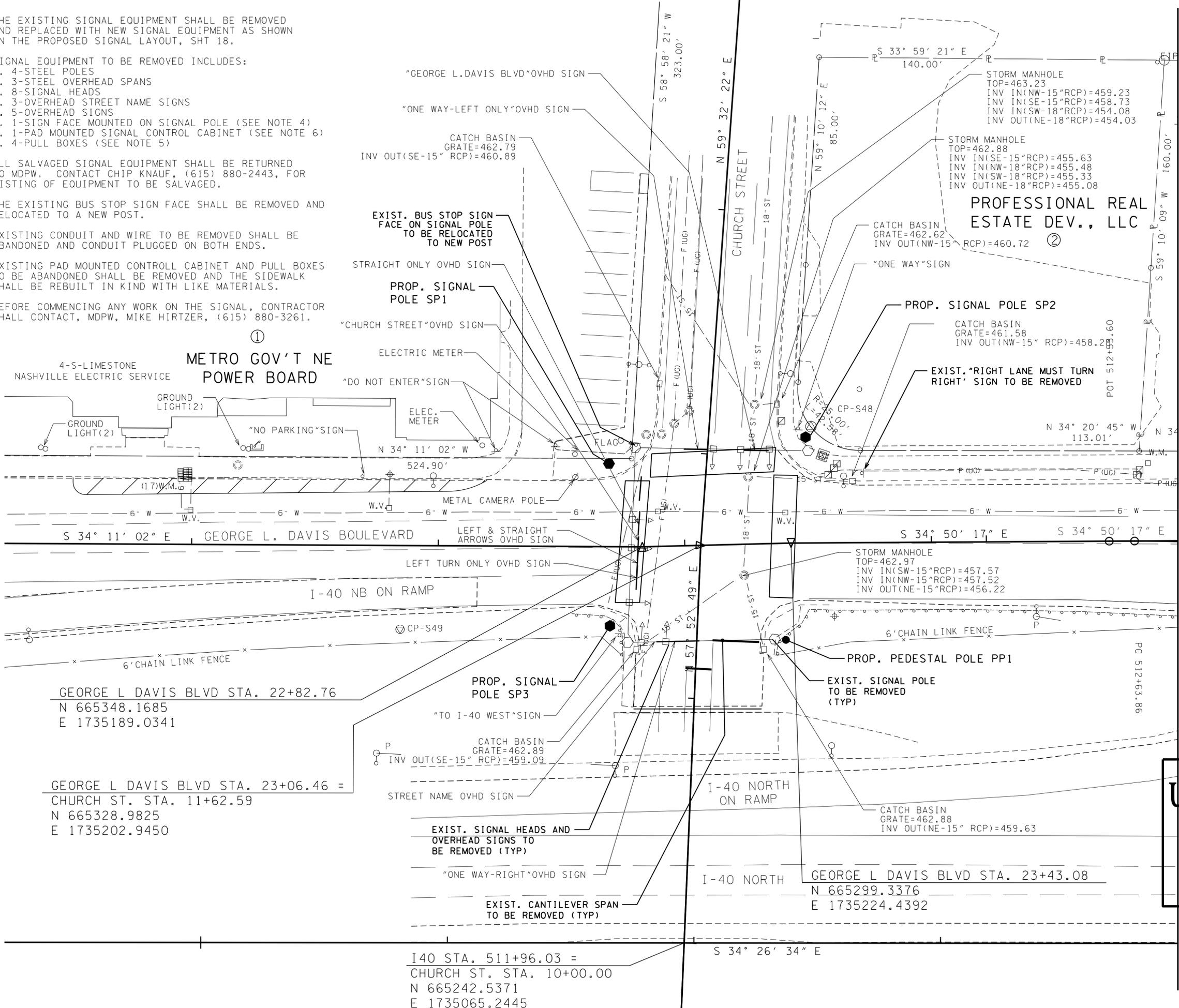
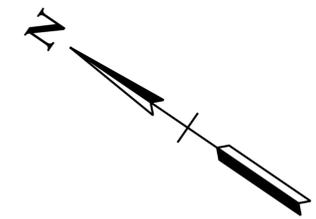
**INTERCONNECT  
LAYOUT**

CHURCH STREET  
 AT I-40 RAMPS  
 SCALE: 1" = 20'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	18D

NOTES:

1. THE EXISTING SIGNAL EQUIPMENT SHALL BE REMOVED AND REPLACED WITH NEW SIGNAL EQUIPMENT AS SHOWN IN THE PROPOSED SIGNAL LAYOUT, SHT 18.
2. SIGNAL EQUIPMENT TO BE REMOVED INCLUDES:
  - A. 4-STEEL POLES
  - B. 3-STEEL OVERHEAD SPANS
  - C. 8-SIGNAL HEADS
  - D. 3-OVERHEAD STREET NAME SIGNS
  - E. 5-OVERHEAD SIGNS
  - F. 1-SIGN FACE MOUNTED ON SIGNAL POLE (SEE NOTE 4)
  - G. 1-PAD MOUNTED SIGNAL CONTROL CABINET (SEE NOTE 6)
  - H. 4-PULL BOXES (SEE NOTE 5)
3. ALL SALVAGED SIGNAL EQUIPMENT SHALL BE RETURNED TO MDPW. CONTACT CHIP KNAUF, (615) 880-2443, FOR LISTING OF EQUIPMENT TO BE SALVAGED.
4. THE EXISTING BUS STOP SIGN FACE SHALL BE REMOVED AND RELOCATED TO A NEW POST.
5. EXISTING CONDUIT AND WIRE TO BE REMOVED SHALL BE ABANDONED AND CONDUIT PLUGGED ON BOTH ENDS.
6. EXISTING PAD MOUNTED CONTROLL CABINET AND PULL BOXES TO BE ABANDONED SHALL BE REMOVED AND THE SIDEWALK SHALL BE REBUILT IN KIND WITH LIKE MATERIALS.
7. BEFORE COMMENCING ANY WORK ON THE SIGNAL, CONTRACTOR SHALL CONTACT, MDPW, MIKE HIRTZER, (615) 880-3261.



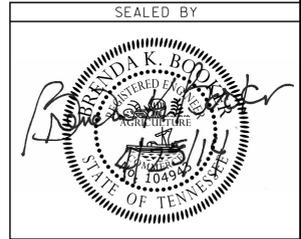
GEORGE L DAVIS BLVD STA. 22+82.76  
 N 665348.1685  
 E 1735189.0341

GEORGE L DAVIS BLVD STA. 23+06.46 =  
 CHURCH ST. STA. 11+62.59  
 N 665328.9825  
 E 1735202.9450

I40 STA. 511+96.03 =  
 CHURCH ST. STA. 10+00.00  
 N 665242.5371  
 E 1735065.2445

GEORGE L DAVIS BLVD STA. 23+43.08  
 N 665299.3376  
 E 1735224.4392

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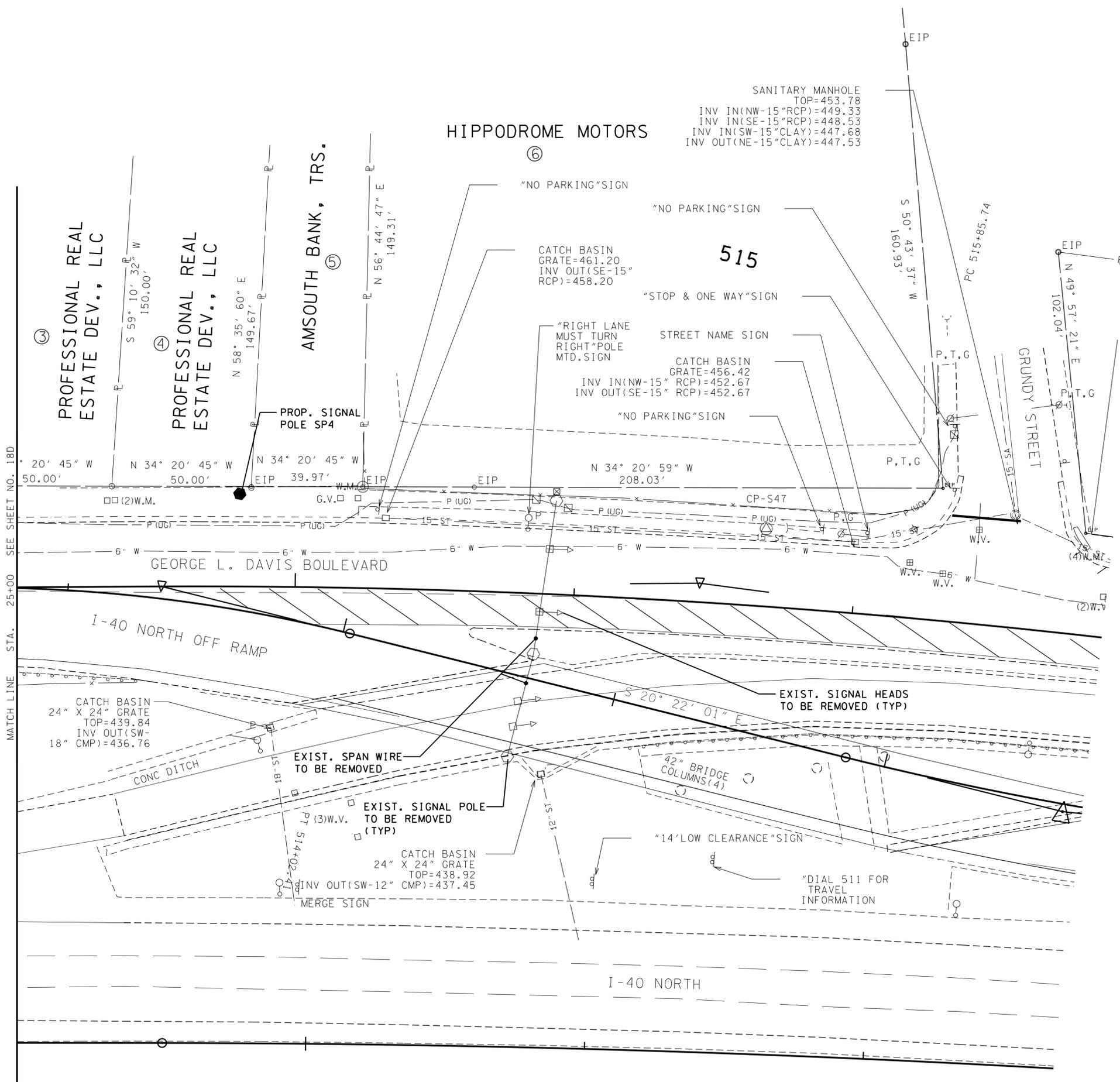
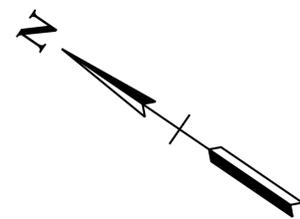
COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

**SIGNAL  
 REMOVAL**  
 CHURCH STREET AT  
 GEORGE L. DAVIS BLVD./  
 I-40 NB RAMP  
 SCALE: 1" = 20'

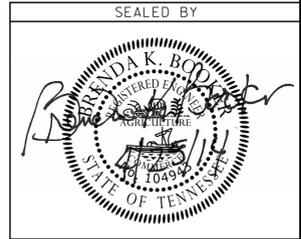
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	18E



- NOTES:
1. THE EXISTING SIGNAL EQUIPMENT SHALL BE REMOVED AND REPLACED WITH NEW SIGNAL EQUIPMENT AS SHOWN IN THE PROPOSED SIGNAL LAYOUT, SHT 18A.
  2. SIGNAL EQUIPMENT TO BE REMOVED INCLUDES:
    - A. 3-STEEL POLES
    - B. 2-OVERHEAD SPAN WIRES
    - C. 4-SIGNAL HEADS
    - D. 1-POLE MOUNTED SIGNAL CONTROL CABINET
    - E. 2-PULL BOXES ADJACENT CABINET (SEE NOTE 5)
  3. ALL SALVAGED SIGNAL EQUIPMENT SHALL BE RETURNED TO MDPW. CONTACT CHIP KNAUF, (615) 880-2443. FOR LISTING OF EQUIPMENT TO BE SALVAGED.
  4. EXISTING CONDUIT AND WIRE TO BE REMOVED SHALL BE ABANDONED AND CONDUIT PLUGGED ON BOTH ENDS.
  5. EXISTING PULL BOXES TO BE ABANDONED SHALL BE REMOVED AND THE SIDEWALK SHALL BE REBUILT IN KIND WITH LIKE MATERIALS.
  6. BEFORE COMMENCING ANY WORK ON THE SIGNAL, CONTRACTOR SHALL CONTACT, MDPW, MIKE HIRTZER, (615) 880-3261.

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SET  
NOT FOR  
BIDDING**



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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**SIGNAL  
REMOVAL**

GEORGE L. DAVIS BLVD.  
AT I-40 NB OFF RAMP

SCALE: 1" = 20'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	19

### ROADWAY LIGHT POLE SCHEDULE

	LIGHT POLE NO.	SHEET NO.	LAMP WATTAGE (HPS)	VOLTAGE	LUMINAIRE TYPE	NO. OF LAMPS	CONTROL CENTER NO.	CIRCUIT NO.	MOUNTING HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
(1, 2)	LP 1	19A	250	240	A	1	EXIST.	NA	45	I-40 NB OFF RAMP	517+46.50	8.1	LT	664746.9333	1735504.3859
(1, 2)	LP 2	19B	250	240	A	1	EXIST.	NA	45	I-40 NB OFF RAMP	520+03.50	20.5	LT	664522.6720	1735629.0447
(1, 2)	LP 3	19B	250	240	B	1	EXIST.	NA	45	I-40 NB OFF RAMP	522+39.00	RET. WALL NO. 1	LT	NA	NA
(1, 2)	LP 4	19B	250	240	B	1	EXIST.	NA	45	I-40 NB OFF RAMP	524+05.00	11.7	LT	664156.9381	1735796.3716

A = COBRA HEAD LUMINAIRE WITH 6' ARM  
 B = COBRA HEAD LUMINAIRE WITH 15' ARM

(1) TO BE RECONNECTED TO CIRCUIT BRANCH IN EXISTING CONTROL CENTER AT NE CORNER OF 12TH AVE. S. AND MCGAVOCK ST.  
 (2) RELOCATED LUMINAIRE ON NEW POLE

**NOTES:**

- RELOCATED LUMINAIRES SHALL BE RECONNECTED TO THE EXISTING LIGHTING SYSTEM.
- THE EXISTING LIGHTING CONTROL CENTER IS LOCATED AT THE NORTHEAST CORNER OF 13TH AVE. S. AND MCGAVOCK ST (STA. 37+47.00, 46.5 LT).

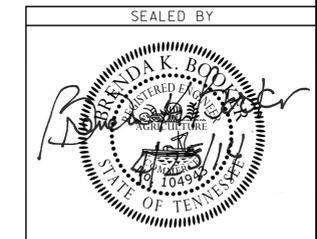
### WIRING AND CONDUIT SCHEDULE

RUN NO.	POLE NO. TO POLE NO.			TRENCHED CONDUIT LENGTH (FT)	CONDUIT IN RETAINING WALL (FT)	CABLE LENGTH (FT)	SPECIAL NOTES	CONTROL CENTER NO.	CIRCUIT NO.	NO. OF 2" SCH. 40 PVC CONDUIT (1)	NO. & SIZE OF WIRE
	EXIST	TO	LP 4 THRU LP 1								
1	EXIST	TO	LP 4 THRU LP 1	670	225	895	(2)	EXISTING	EXISTING	1	2 @ #4 AWG 1 @ #6 GROUND

- (1) MAX ALLOWABLE FILL = 40%  
 (2) RECONNECT LIGHTS TO EXISTING CIRCUITRY.

PBA THRU PBB = PULL BOX A THRU PULL BOX B

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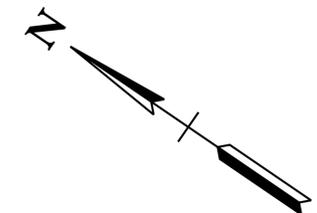
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**LIGHTING DETAILS**  
(POLE & WIRING DATA)

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	19A

**LIGHTING NOTES:**

1. RECONNECT ALL LIGHTING CIRCUITRY AT PULL BOX PBA LOCATED ADJACENT TO THE EXISTING LIGHT POLE LP1. CONTRACTOR SHALL MAINTAIN EXISTING LIGHTING CIRCUITRY.
2. CONTRACTOR SHALL ENSURE THAT ALL OVERHEAD CIRCUITRY REMAINS ENERGIZED.



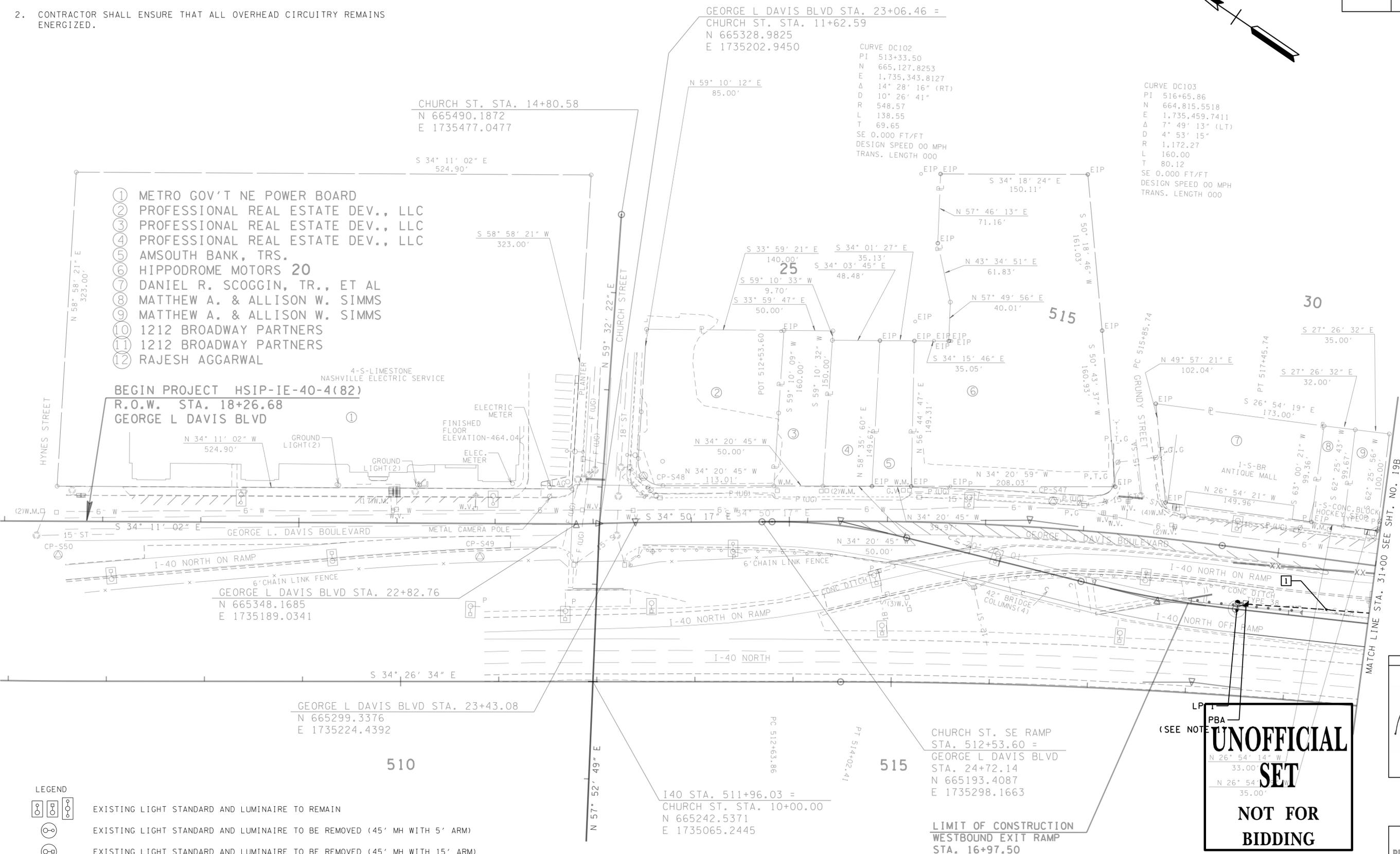
GEORGE L DAVIS BLVD STA. 23+06.46 =  
 CHURCH ST. STA. 11+62.59  
 N 665328.9825  
 E 1735202.9450

CURVE DC102  
 PI 513+33.50  
 N 665,127.8253  
 E 1,735,343.8127  
 Δ 14° 28' 16" (RT)  
 D 10° 26' 41"  
 R 548.57  
 L 138.55  
 T 69.65  
 SE 0.000 FT/FT  
 DESIGN SPEED 00 MPH  
 TRANS. LENGTH 000

CURVE DC103  
 PI 516+65.86  
 N 664,815.5518  
 E 1,735,459.7411  
 Δ 7° 49' 13" (LT)  
 D 4° 53' 15"  
 R 1,172.27  
 L 160.00  
 T 80.12  
 SE 0.000 FT/FT  
 DESIGN SPEED 00 MPH  
 TRANS. LENGTH 000

- ① METRO GOV'T NE POWER BOARD
- ② PROFESSIONAL REAL ESTATE DEV., LLC
- ③ PROFESSIONAL REAL ESTATE DEV., LLC
- ④ PROFESSIONAL REAL ESTATE DEV., LLC
- ⑤ AMSOUTH BANK, TRS.
- ⑥ HIPPODROME MOTORS 20
- ⑦ DANIEL R. SCOGGIN, TR., ET AL
- ⑧ MATTHEW A. & ALLISON W. SIMMS
- ⑨ MATTHEW A. & ALLISON W. SIMMS
- ⑩ 1212 BROADWAY PARTNERS
- ⑪ 1212 BROADWAY PARTNERS
- ⑫ RAJESH AGGARWAL

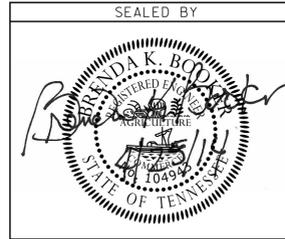
BEGIN PROJECT HSIP-1E-40-4(82)  
 R.O.W. STA. 18+26.68  
 GEORGE L DAVIS BLVD



**LEGEND**

- |  |   |  |   |
|--|---|--|---|
|  | EXISTING LIGHT STANDARD AND LUMINAIRE TO REMAIN                           |  | PROPOSED LIGHTING PULL BOX (INCLUDED WITH LIGHTING ITEMS) |
|  | EXISTING LIGHT STANDARD AND LUMINAIRE TO BE REMOVED (45' MH WITH 5' ARM)  |  | PROPOSED LIGHTING PULL (INCLUDED WITH ROADWAY ITEMS)      |
|  | EXISTING LIGHT STANDARD AND LUMINAIRE TO BE REMOVED (45' MH WITH 15' ARM) |  | PROPOSED LIGHTING CONDUIT (2" PVC, SCHEDULE 40)           |
|  | RELOCATED LIGHT STANDARD AND LUMINAIRE (45' MH WITH 6' ARM)               |  | CONDUIT RUN NUMBER (SEE SHEET 19)                         |
|  | RELOCATED LIGHT STANDARD AND LUMINAIRE (45' MH WITH 15' ARM)              |  |   |
|  | NEW LIGHT STANDARD WITH RELOCATED LUMINAIRE (45' MH WITH 15' ARM)         |  |   |
|  | EXISTING LIGHTING CONTROL CENTER TO REMAIN                                |  |   |

**UNOFFICIAL SET**  
**NOT FOR BIDDING**



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

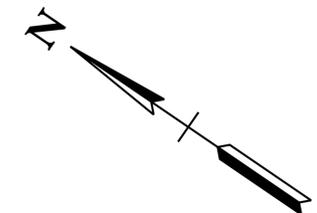
**LIGHTING LAYOUT**  
 STA. 18+26 TO STA. 31+00  
 SCALE: 1" = 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	19B

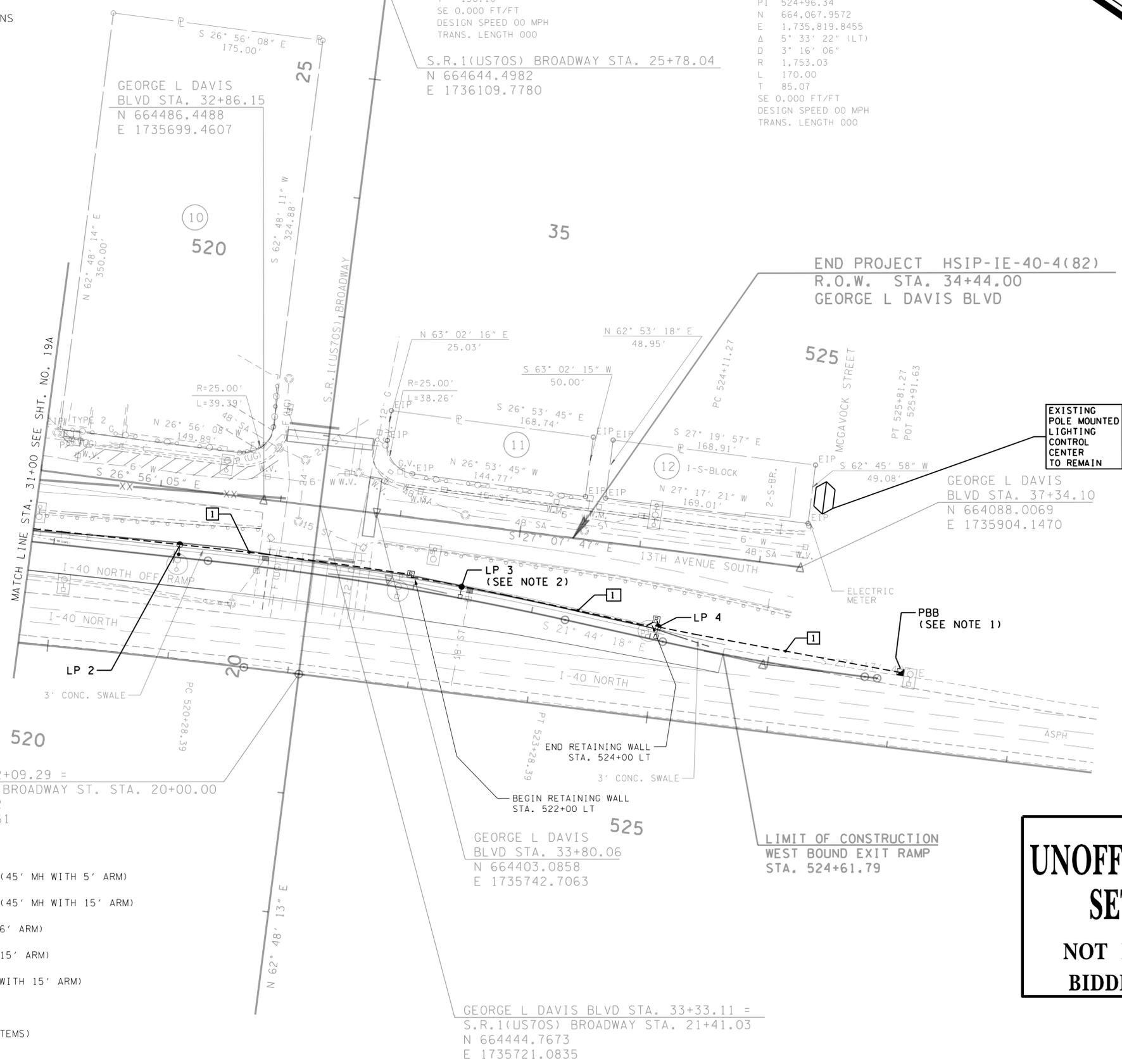
LIGHTING NOTES:

1. RECONNECT ALL LIGHTING CIRCUITRY AT PULL BOX PBB LOCATED ADJACENT TO THE EXISTING LIGHT POLE NEAR STA. 527+12. CONTRACTOR SHALL MAINTAIN EXISTING LIGHTING CIRCUITRY.
2. LIGHT POLE (LP 3) TO BE RELOCATED TO THE RETAINING WALL SHALL CONSISTS OF A RELOCATED LUMINAIRE WITH 15' ARM ON A NEW LIGHT STANDARD.
3. CONTRACTOR SHALL ENSURE THAT ALL OVERHEAD CIRCUITRY REMAINS ENERGIZED.



CURVE DC104  
 PI 521+78.55  
 N 664,363.4407  
 E 1,735,702.0297  
 Δ 6° 26' 56" (RT)  
 D 2° 08' 59"  
 R 2,665.41  
 L 300.00  
 T 150.16  
 SE 0.000 FT/FT  
 DESIGN SPEED 00 MPH  
 TRANS. LENGTH 000

CURVE DC105  
 PI 524+96.34  
 N 664,067.9572  
 E 1,735,819.8455  
 Δ 5° 33' 22" (LT)  
 D 3° 16' 06"  
 R 1,753.03  
 L 170.00  
 T 85.07  
 SE 0.000 FT/FT  
 DESIGN SPEED 00 MPH  
 TRANS. LENGTH 000



I-40 STA. 522+09.29 =  
 S.R.1(US70S) BROADWAY ST. STA. 20+00.00  
 N 664380.3112  
 E 1735595.6461

GEORGE L DAVIS BLVD STA. 33+80.06  
 N 664403.0858  
 E 1735742.7063

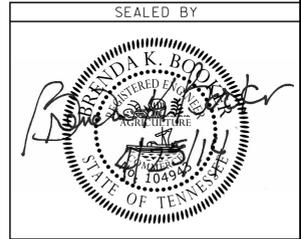
GEORGE L DAVIS BLVD STA. 33+33.11 =  
 S.R.1(US70S) BROADWAY STA. 21+41.03  
 N 664444.7673  
 E 1735721.0835

LEGEND

- EXISTING LIGHT STANDARD AND LUMINAIRE TO REMAIN
- EXISTING LIGHT STANDARD AND LUMINAIRE TO BE REMOVED (45' MH WITH 5' ARM)
- EXISTING LIGHT STANDARD AND LUMINAIRE TO BE REMOVED (45' MH WITH 15' ARM)
- RELOCATED LIGHT STANDARD AND LUMINAIRE (45' MH WITH 6' ARM)
- RELOCATED LIGHT STANDARD AND LUMINAIRE (45' MH WITH 15' ARM)
- NEW LIGHT STANDARD WITH RELOCATED LUMINAIRE (45' MH WITH 15' ARM)
- EXISTING LIGHTING CONTROL CENTER TO REMAIN
- PROPOSED LIGHTING PULL BOX (INCLUDED WITH LIGHTING ITEMS)
- PROPOSED LIGHTING PULL (INCLUDED WITH ROADWAY ITEMS)
- PROPOSED LIGHTING CONDUIT (2" PVC, SCHEDULE 40)
- CONDUIT RUN NUMBER (SEE SHEET 19)

EXISTING POLE MOUNTED LIGHTING CONTROL CENTER TO REMAIN

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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

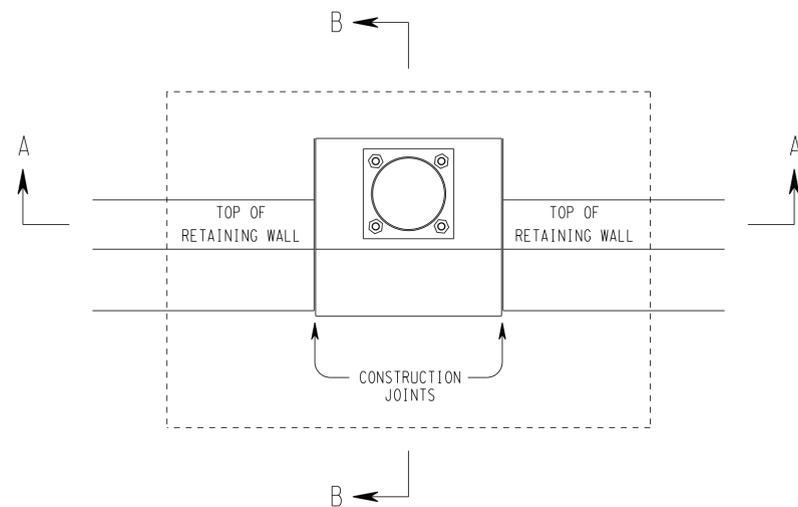
STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

**LIGHTING LAYOUT**  
 STA. 31+00 STA. 34+44

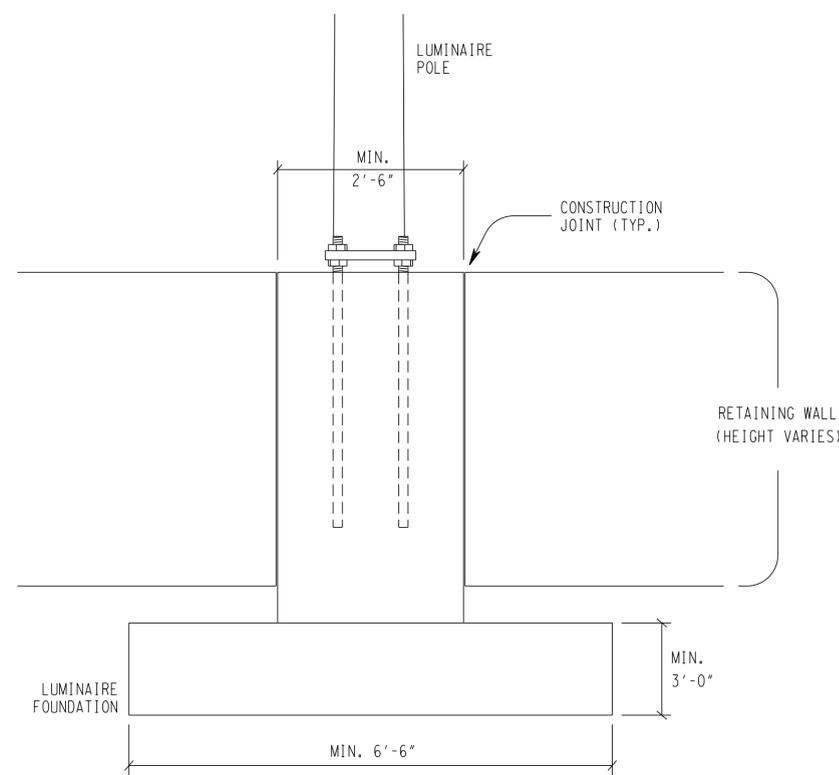
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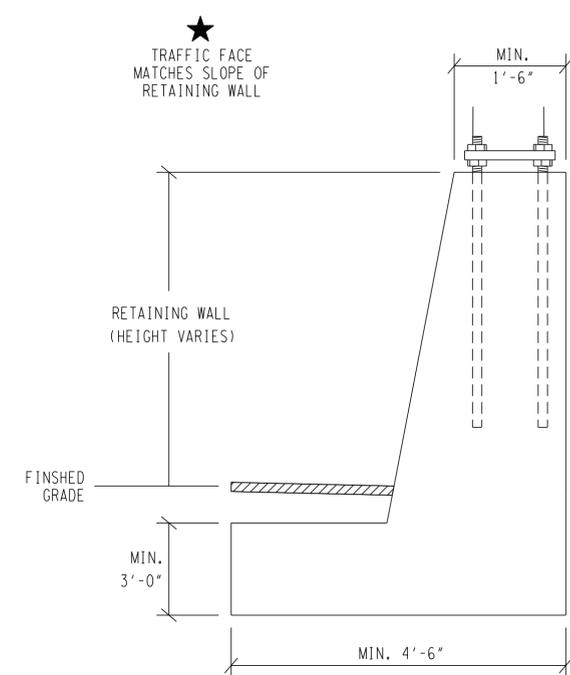
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-1-40-4(82)	19C



PLAN VIEW



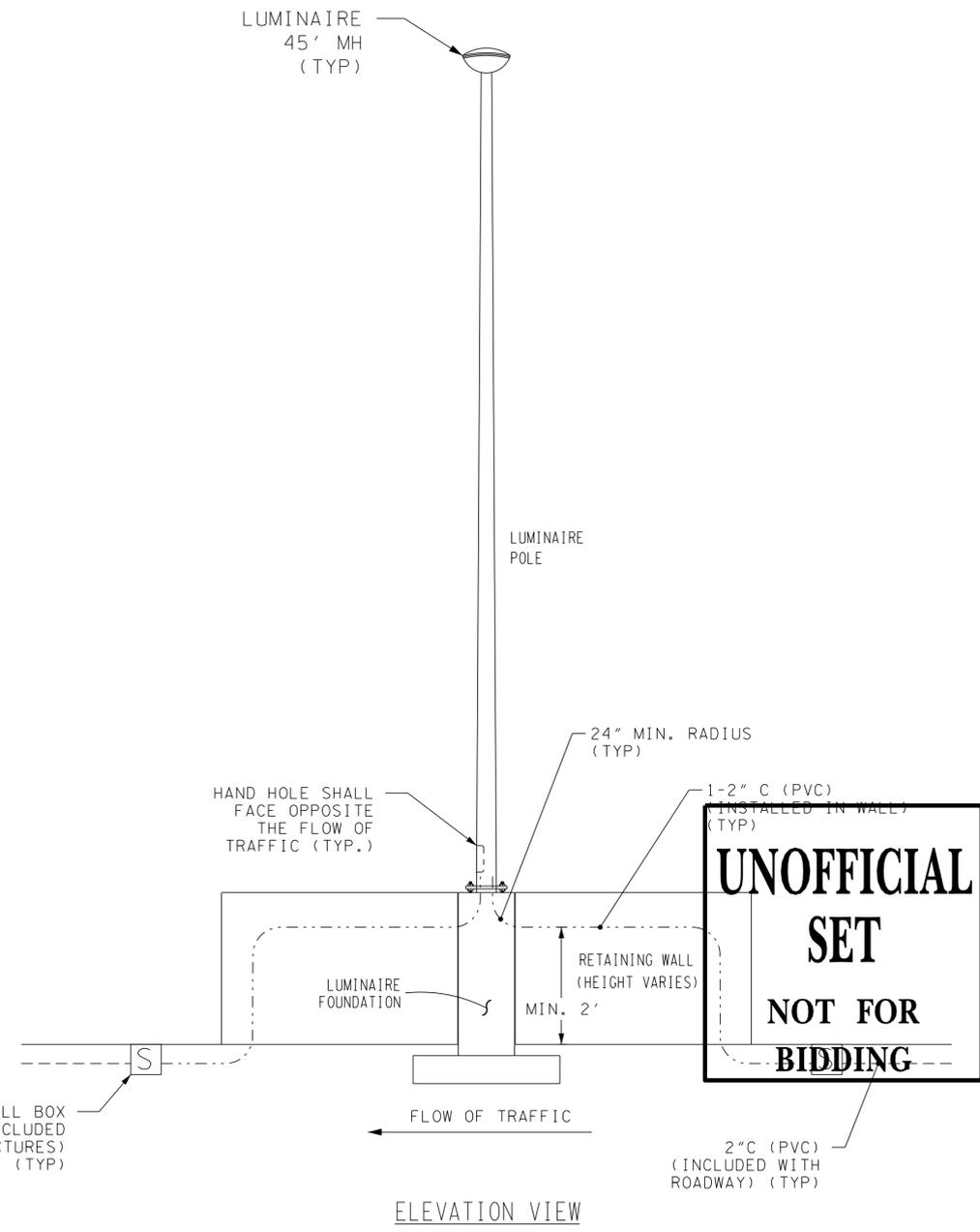
SECTION A-A



SECTION B-B

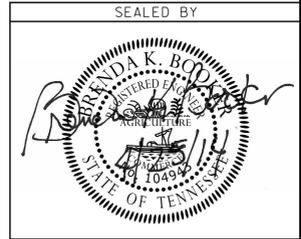
RETAINING WALL STRUCTURAL LIGHTING QUANTITIES					
RETAINING WALL NO. 1					
BEGIN RETAINING WALL I-40 NB OFF RAMP C <sub>L</sub> STA. 522+00 LT					
END RETAINING WALL I-40 NB OFF RAMP C <sub>L</sub> STA. 524+00 LT					
LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 3	45	I-40 NB OFF RAMP	522+39.00	RET. WALL NO. 1	LT
ITEMS 714-01.20 L.S. - STRUCTURAL LIGHTING (RET. WALL NO. 1) INCLUDES:					
A) 225 L.F. OF 2" C (SCHEDULE 40 PVC)					
B) 4 - ANCHOR BOLTS (4 PER POLE)					
C) 2 - PULL BOXES (TYPE C)					
(1), (2)					

FOOTNOTES:  
 (1) CONDUIT SHALL BE RUN THE ENTIRE LENGTH OF THE RETAINING WALL.  
 (2) SEAL AND COVER OPEN CONDUIT IN FOOTINGS WITH TAPE.



ELEVATION VIEW

- NOTES:
1. LIGHT STANDARD FOUNDATIONS FOR POLES ON THE RETAINING WALL SHALL BE INSTALLED AS AN INTEGRAL PART OF THE RETAINING WALL. PAYMENT SHALL BE INCLUDED IN PAY ITEM 714-01.20. THE LIGHTING CONTRACTOR SHALL COORDINATE LIGHT POLE FOUNDATIONS WITH THE ENGINEER.
  2. ANY CONDUIT, ANCHOR BOLTS, AND PULL BOXES INTEGRAL TO THE RETAINING WALL SHALL BE INSTALLED DURING ITS CONSTRUCTION. THE COST FOR THESE ITEMS SHALL BE INCLUDED IN LUMP SUM STRUCTURAL LIGHTING PAY ITEM 714-01.20.
  3. THE FOUNDATION SHOWN ON THIS SHEET IS FOR REFERENCE ONLY. FOUNDATION DESIGN SHALL BE APPROVED BY STRUCTURES.



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

RETAINING WALL  
STRUCTURAL  
LIGHTING AND  
FOUNDATION  
DETAILS

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Index Of Sheets	
SHEET NAME	SHEET NUMBER
UTILITIES INDEX, UTILITIES OWNERS	UI-1

# STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

## DAVIDSON COUNTY

I-40 INTERCHANGE AT CHURCH STREET,  
WESTBOUND EXIT RAMP IN NASHVILLE (RAMP QUEUE PROJECT)

STATE HIGHWAY NO. I-40 F.A.H.S. NO. N/A

THERE ARE NO UTILITIES IN CONFLICT WITH THIS PROJECT

STANDARD LEGEND				
<u>EXISTING UTILITIES</u>				
POWER	— P —	— P —	POWER POLE	⊕
TELEPHONE	— T —	— T —	TELEPHONE POLE	⊕
WATER	— W —	— W —	POWER/TELEPHONE POLE	⊕
CABLE TV	— C —	— C —	MANHOLE	⊕
SANITARY SEWER	— SA —	— SA —	WATER METER	□ W.M.
UNDERGROUND TELEPHONE	— T (UG) —	— T (UG) —	WATER VALVE	□ W.V.
GAS	— G —	— G —	LIGHT POLE	○-○
FORCE MAIN SEWER	— FMS —	— FMS —	POWER POLE	● P
UNDERGROUND POWER	— P (UG) —	— P (UG) —	TELEPHONE POLE	● T
<u>PROPOSED UTILITIES</u>				
POWER	— P —	— P —	WATER METER	■ W.M.
UNDERGROUND POWER	— P (UG) —	— P (UG) —		
TELEPHONE	— T —	— T —		
WATER	— W —	— W —		
CABLE TV	— C —	— C —		
UNDERGROUND TELEPHONE	— T (UG) —	— T (UG) —		
GAS	— G —	— G —		
FORCE MAIN SEWER	— FMS —	— FMS —		
(R) REMOVE		(A) ABANDON		

UTILITY OWNERS AND CONTACTS:			
<b>ELECTRIC:</b>	NASHVILLE ELECTRIC SERVICE 1214 CHURCH ST., RM. 353 NASHVILLE, TN 37246 HANK DUNNING PH: (615)747-3530	<b>TELEPHONE:</b>	AT&T 333 COMMERCE ST., 23C142 NASHVILLE, TN 37021 KIM BEAN PH: (615)214-7318
<b>WATER:</b>	METRO WATER & SEWER 1600 SECOND AVENUE NORTH NASHVILLE, TN 37208 STEVE NUNLEY PH: (615)862-4534	<b>GAS:</b>	PIEDMONT NATURAL GAS 83 CENTURY BOULEVARD NASHVILLE, TN 37214 ROGER BYRD PH: (615)872-2389
<b>FIBER OPTIC:</b>	COMCAST 660 MAINSTREAM DRIVE NASHVILLE, TN 37228 NICK LEE PH: (615)244-7462, EXT. 1115251	<b>STREET LIGHTS:</b>	METRO PUBLIC WORKS 720 SOUTH 5TH STREET NASHVILLE, TN 37206 BILLY DAVIS PH: (615)862-8714
	<b>FIBER OPTIC:</b>		LEVEL III 1025 ELDORADO BLVD., 33A-521 BROOMFIELD, CO 80021 TIM BOYKIN PH: (720)888-7280

SPECIAL NOTES

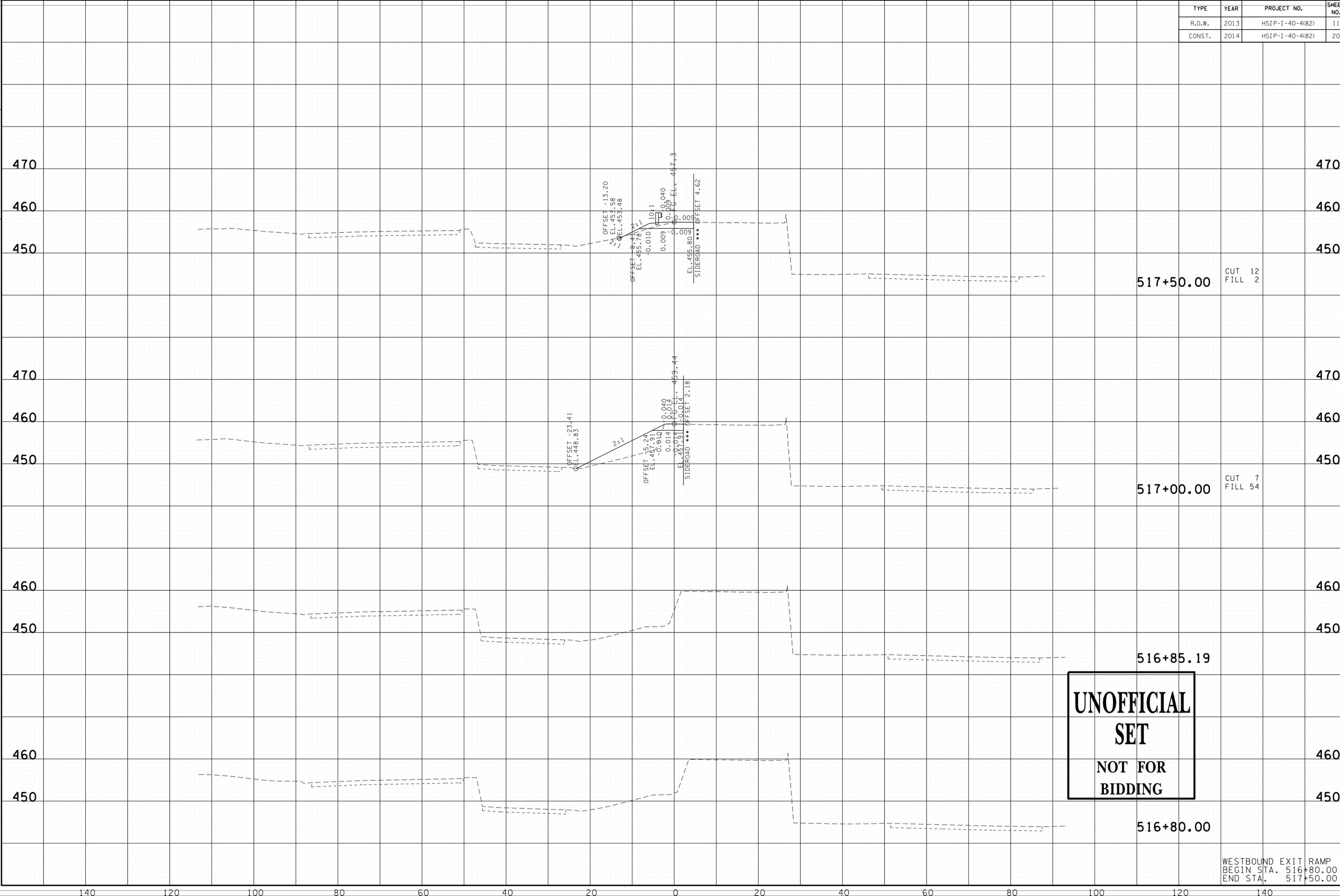
SOME UTILITIES CAN BE LOCATED BY CALLING THE  
TENNESSEE ONE CALL SYSTEM, INC.  
AT 1-800-351-1111

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BIDDING

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	11
CONST.	2014	HSIP-1-40-4(82)	20

TENNESSEE D.O.T.  
DESIGN DIVISION

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517+50.00  
CUT 12  
FILL 2

517+00.00  
CUT 7  
FILL 54

516+85.19

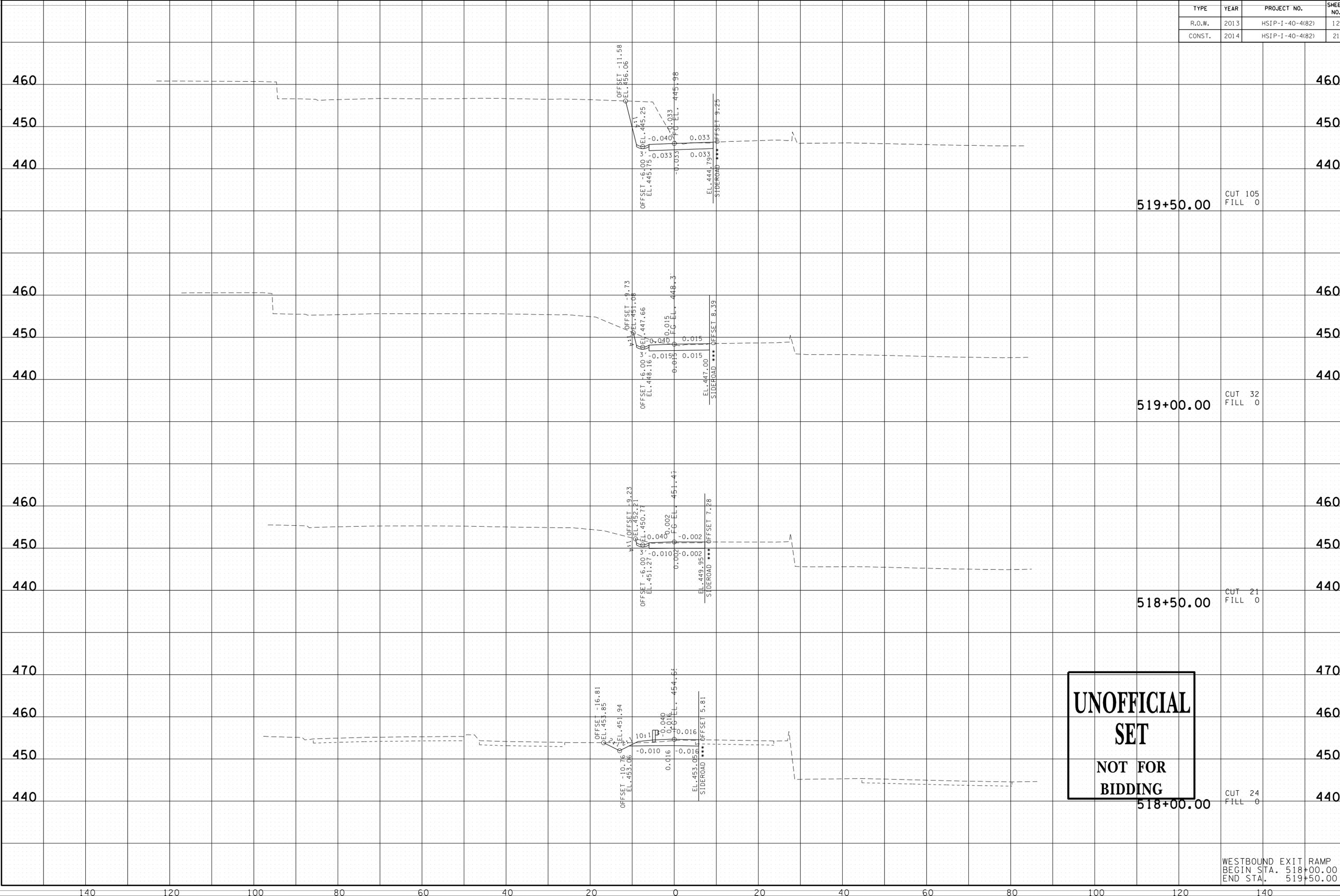
516+80.00

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SET  
NOT FOR  
BIDDING**

WESTBOUND EXIT RAMP  
BEGIN STA. 516+80.00  
END STA. 517+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	12
CONST.	2014	HSIP-1-40-4(82)	21

TENNESSEE D.O.T.  
DESIGN DIVISION  
FILE NO.



519+50.00  
CUT 105  
FILL 0

519+00.00  
CUT 32  
FILL 0

518+50.00  
CUT 21  
FILL 0

518+00.00  
CUT 24  
FILL 0

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BIDDING**

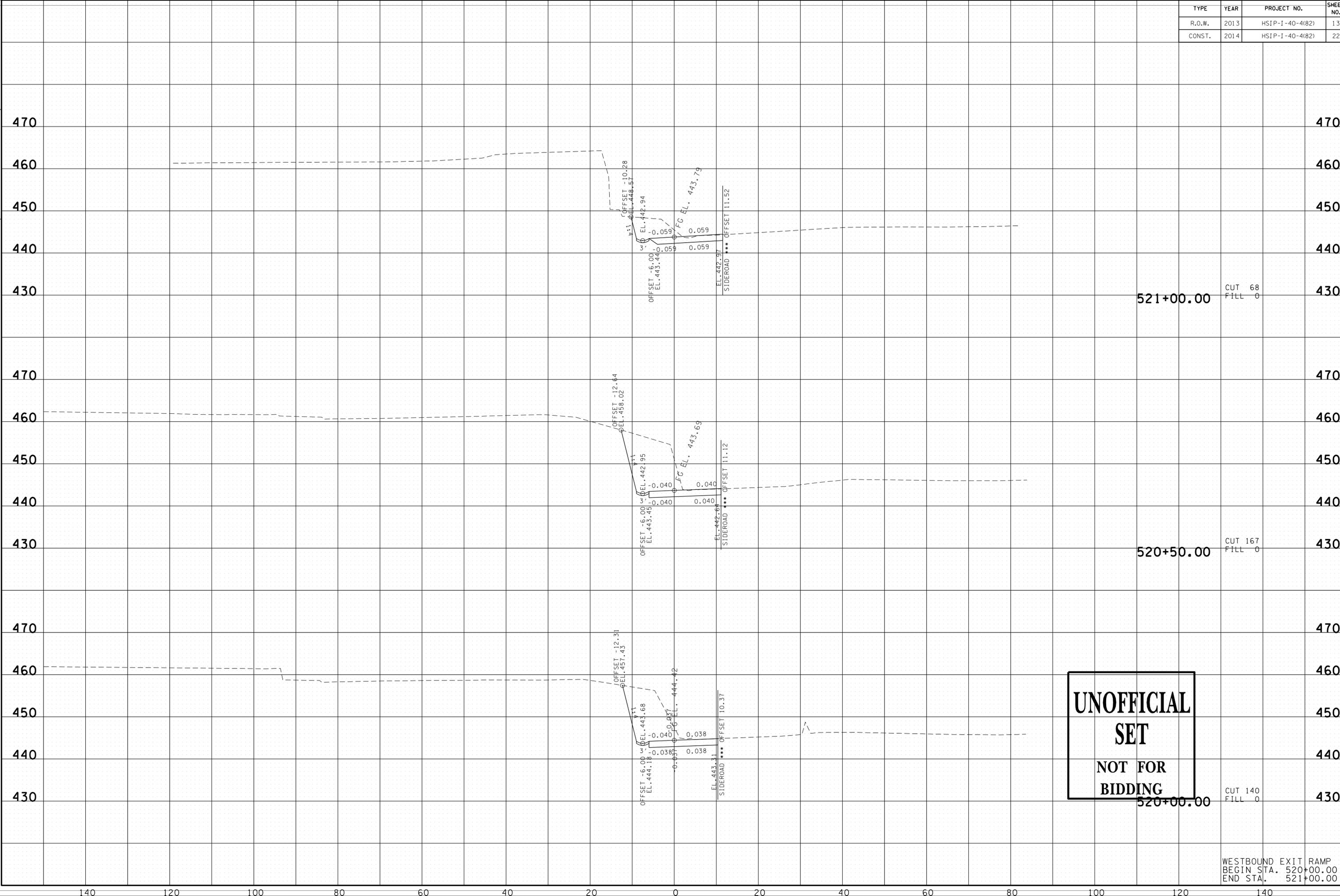
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BEGIN STA. 518+00.00  
END STA. 519+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	13
CONST.	2014	HSIP-1-40-4(82)	22

TENNESSEE D.O.T.  
DESIGN DIVISION

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FILE NO.



521+00.00  
CUT 68  
FILL 0

520+50.00  
CUT 167  
FILL 0

520+00.00  
CUT 140  
FILL 0

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NOT FOR  
BIDDING**

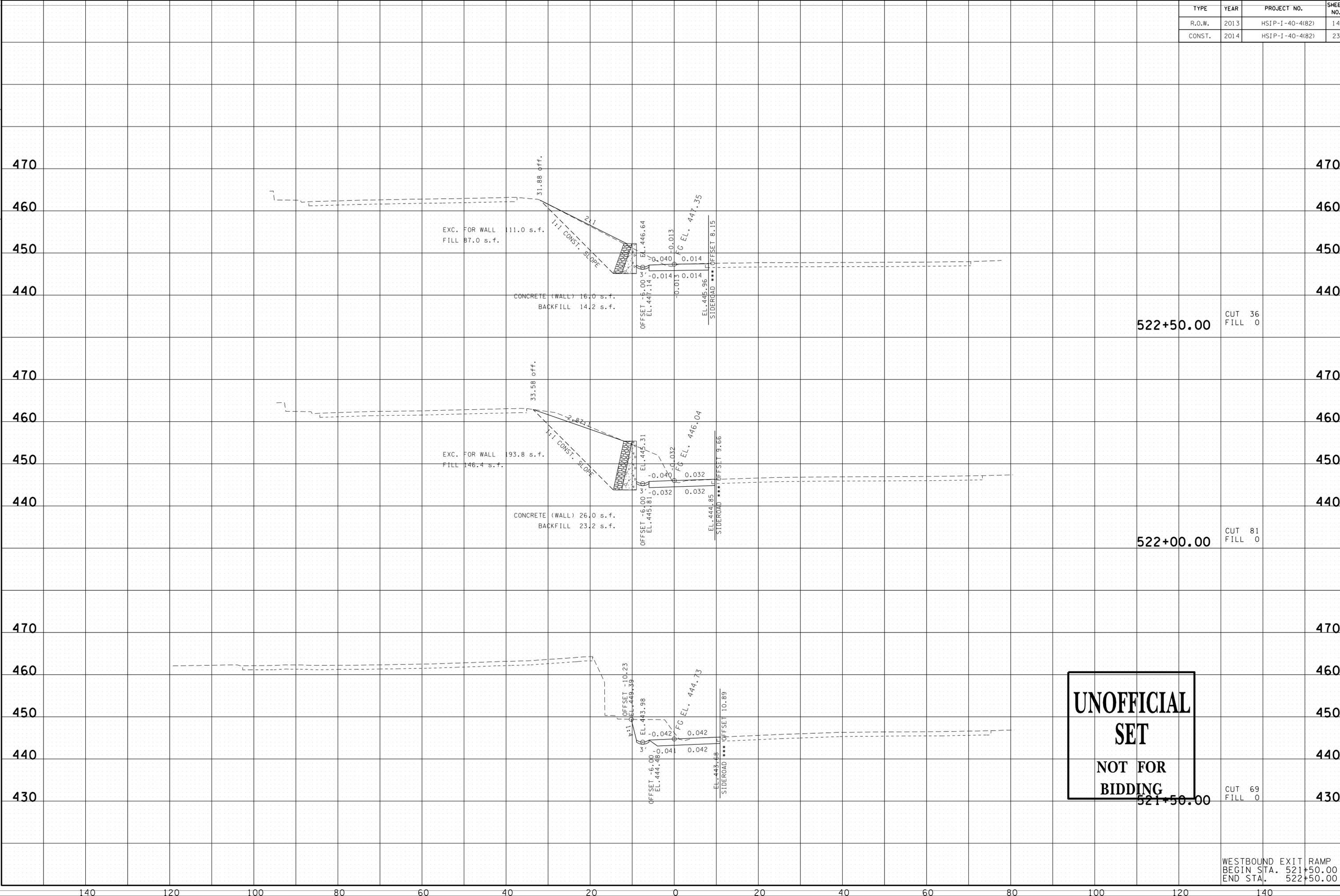
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BEGIN STA. 520+00.00  
END STA. 521+00.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	14
CONST.	2014	HSIP-1-40-4(82)	23

TENNESSEE D.O.T.  
DESIGN DIVISION

FILE NO.  
470  
460  
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440  
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430

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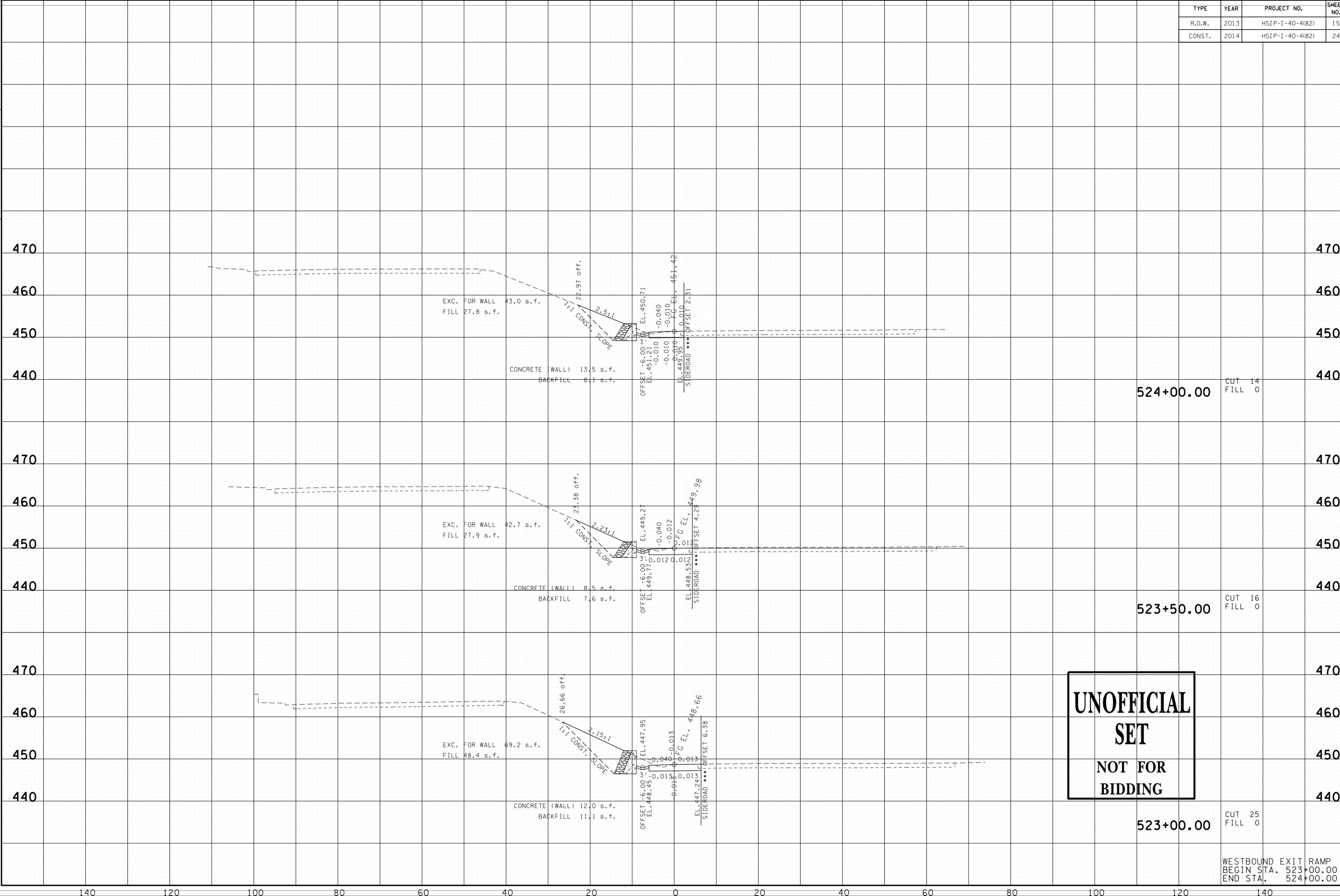
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END STA. 522+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-1-40-4(82)	15
CONST.	2014	HSIP-1-40-4(82)	24

TENNESSEE D.O.T.  
DESIGN DIVISION

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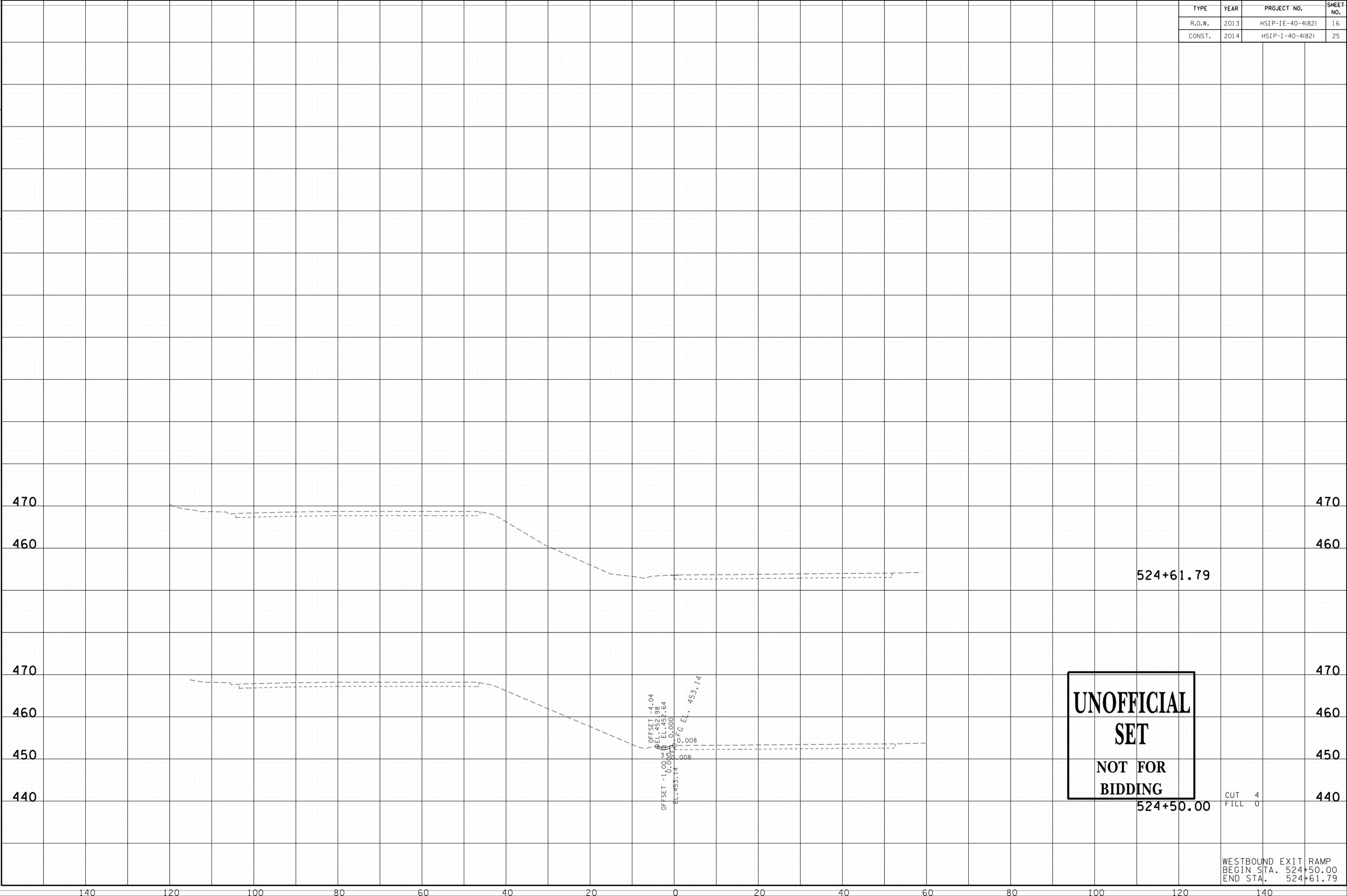
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	HSIP-IE-40-4(82)	16
CONST.	2014	HSIP-1-40-4(82)	25

TENNESSEE D.O.T.  
DESIGN DIVISION

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NOT FOR  
BIDDING**

CUT 4  
FILL 0

WESTBOUND EXIT RAMP  
BEGIN STA. 524+50.00  
END STA. 524+61.79