

STATE# 60LPLM-F3-017
 FED # STP-EN-9302(18)
 TDOT PIN# 105525.51

INDEX OF SHEETS

SHEETS	DESCRIPTION
1	COVER AND KEY PLAN
2	ENLARGEMENT AREA I
3	ENLARGEMENT AREA II
4	DETAIL SHEET

Special Note

Proposals may be rejected by the city if any of the unit prices contained therein are either excessive or below the reasonable cost analysis value.

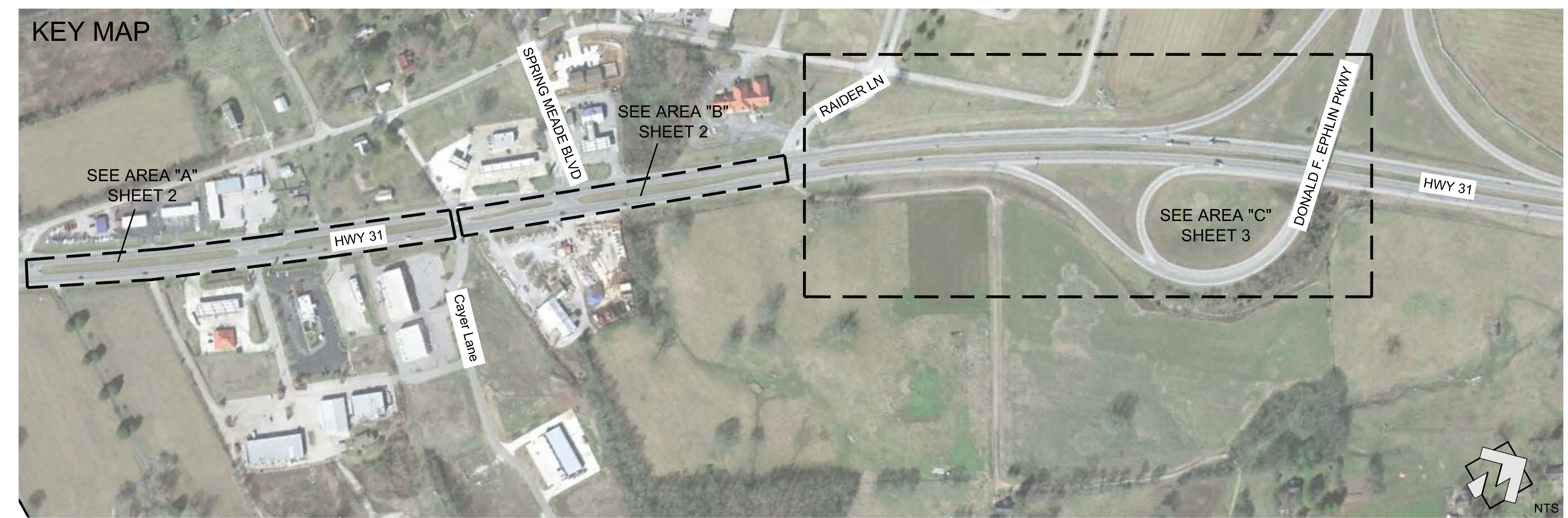
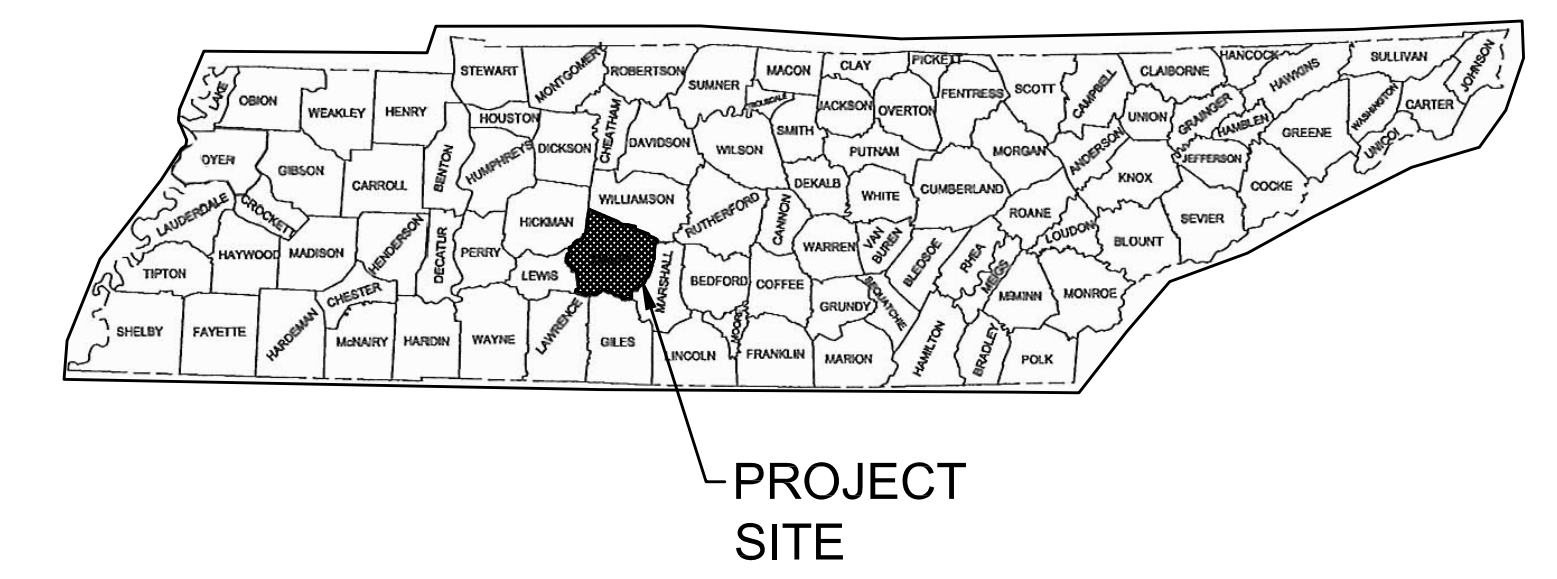
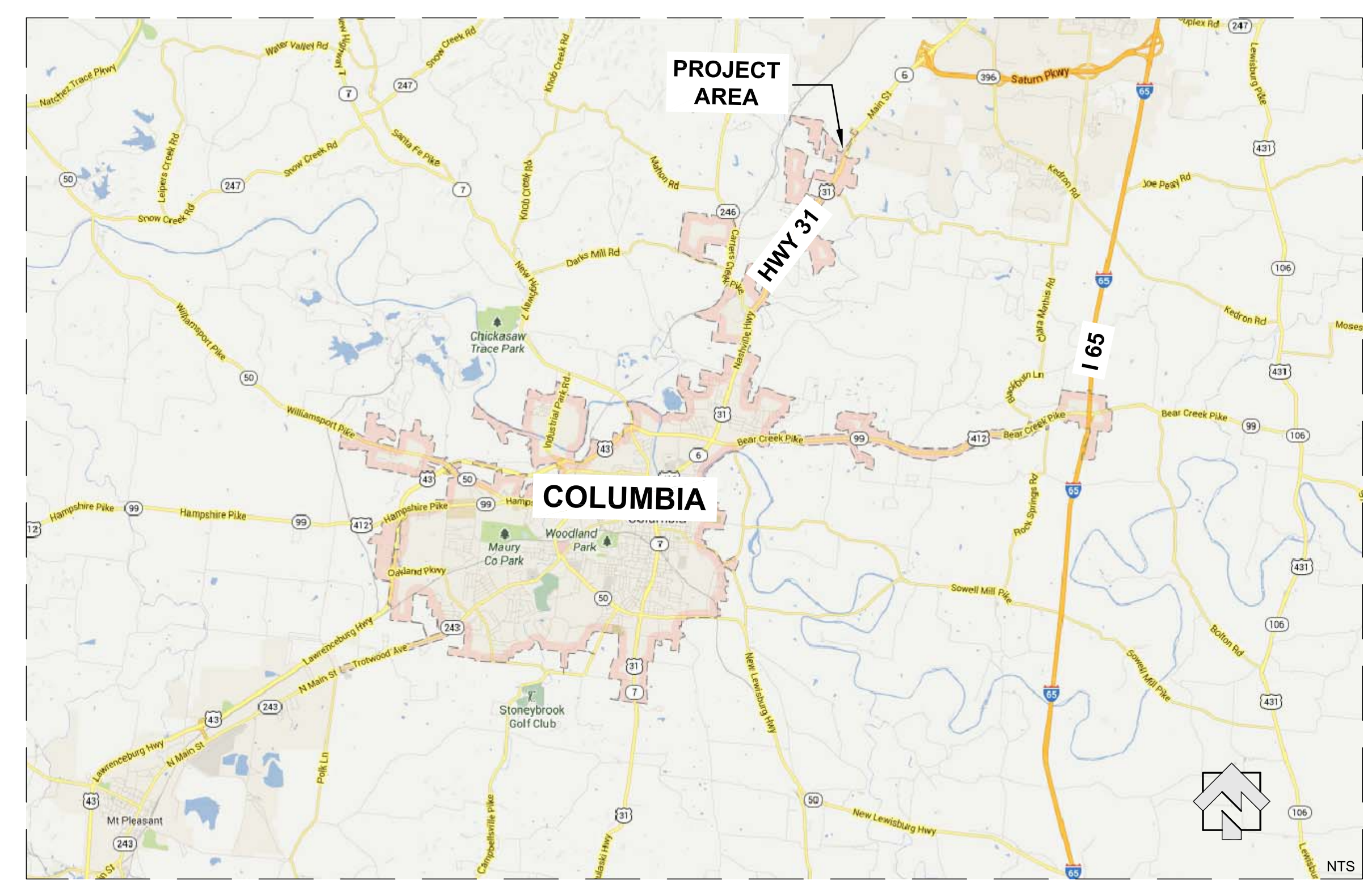
CITY OF COLUMBIA

MAURY COUNTY

LOCALLY MANAGED PROJECT

TYPE	YEAR	PROJECT NO.	SHEET NO.
STATE #		60LPLM-F3-017	1
FEDERAL #		STP-EN-9302(18)	1

GRANT #105525.51 PROJECT LOCATIONS:
PROJECT SITE: LOCATED IN THE MEDIAN OF HWY 31 NEAR THE INTERSECTION OF DONALD F. EPHLIN PKWY



NOTE:
 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.

PREPARED BY: LOSE & ASSOCIATES, INC.
 PROJECT NO. 60LPLM-F3-017
 TDOT PIN: 105525.51

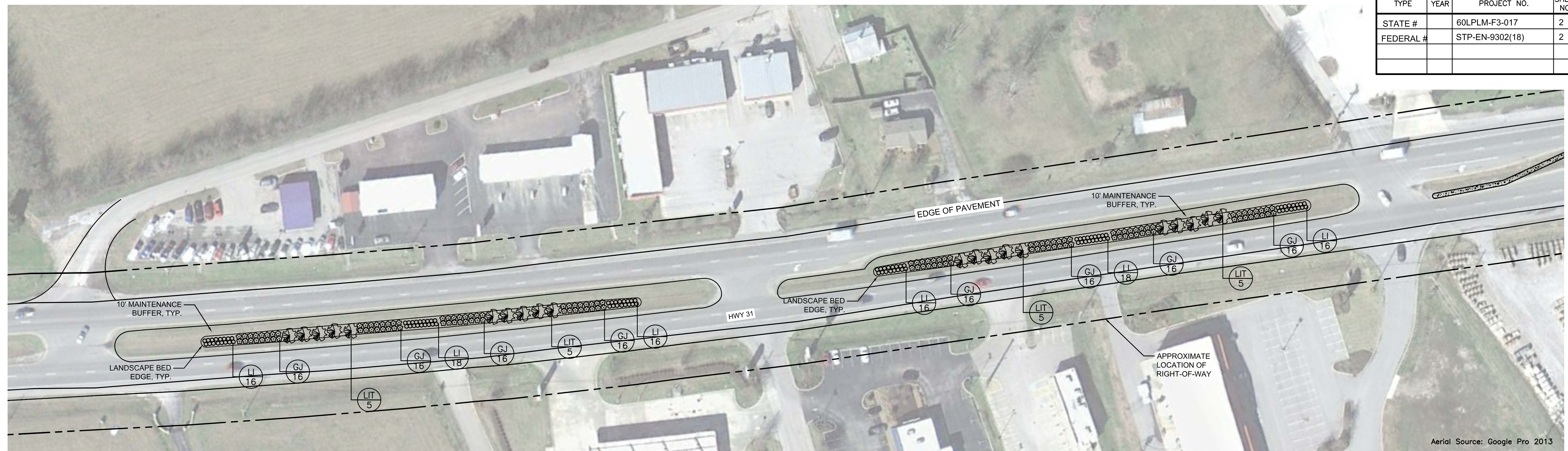
LOSE & ASSOCIATES, INC.
 LANDSCAPE ARCHITECTURE ARCHITECTURE ENGINEERING
 1314 5th Avenue North Suite 200 Nashville, TN 37208 615.242.0040

April 20, 2016

SHEET 1
 Cover
 Columbia, TN

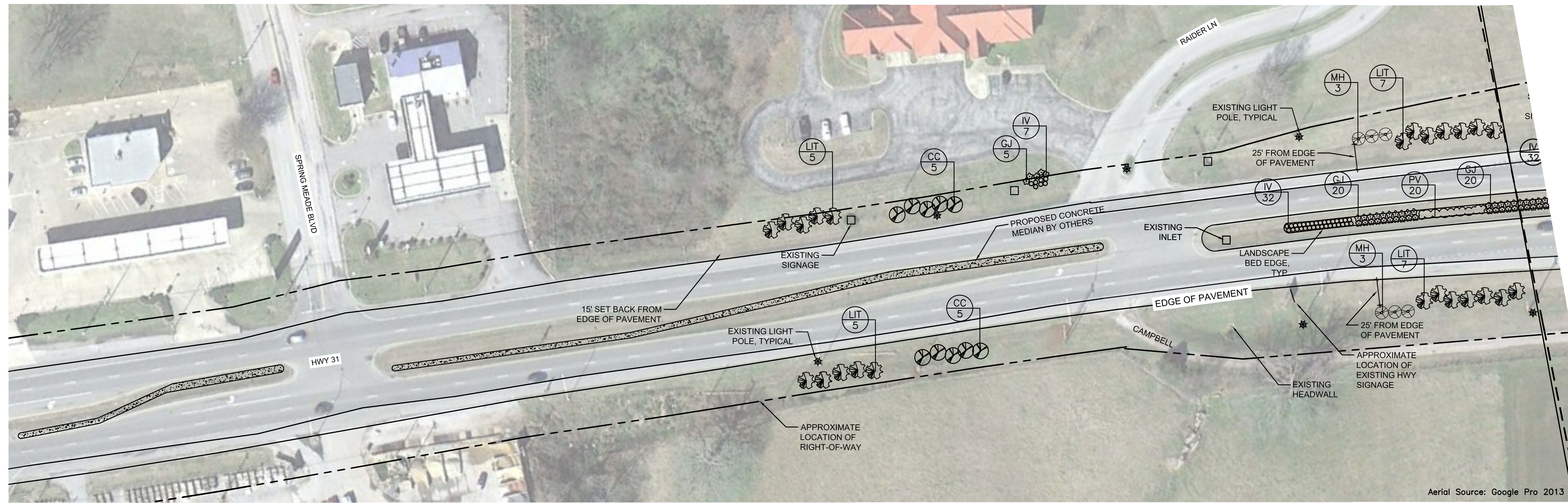
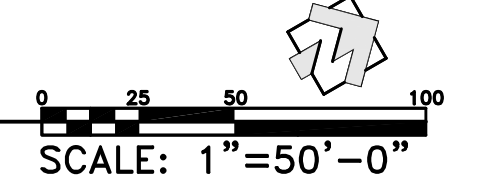
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TYPE	YEAR	PROJECT NO.	SHEET NO.
STATE #		60LPLM-F3-017	2
FEDERAL #		STP-EN-9302(18)	2



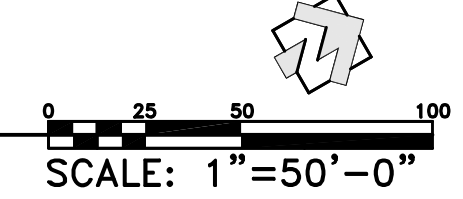
Aerial Source: Google Pro 2013

(A) AREA "A" PLANTING PLAN ENLARGEMENT



Aerial Source: Google Pro 2013

(B) AREA "B" PLANTING PLAN ENLARGEMENT



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 1-800-351-1111

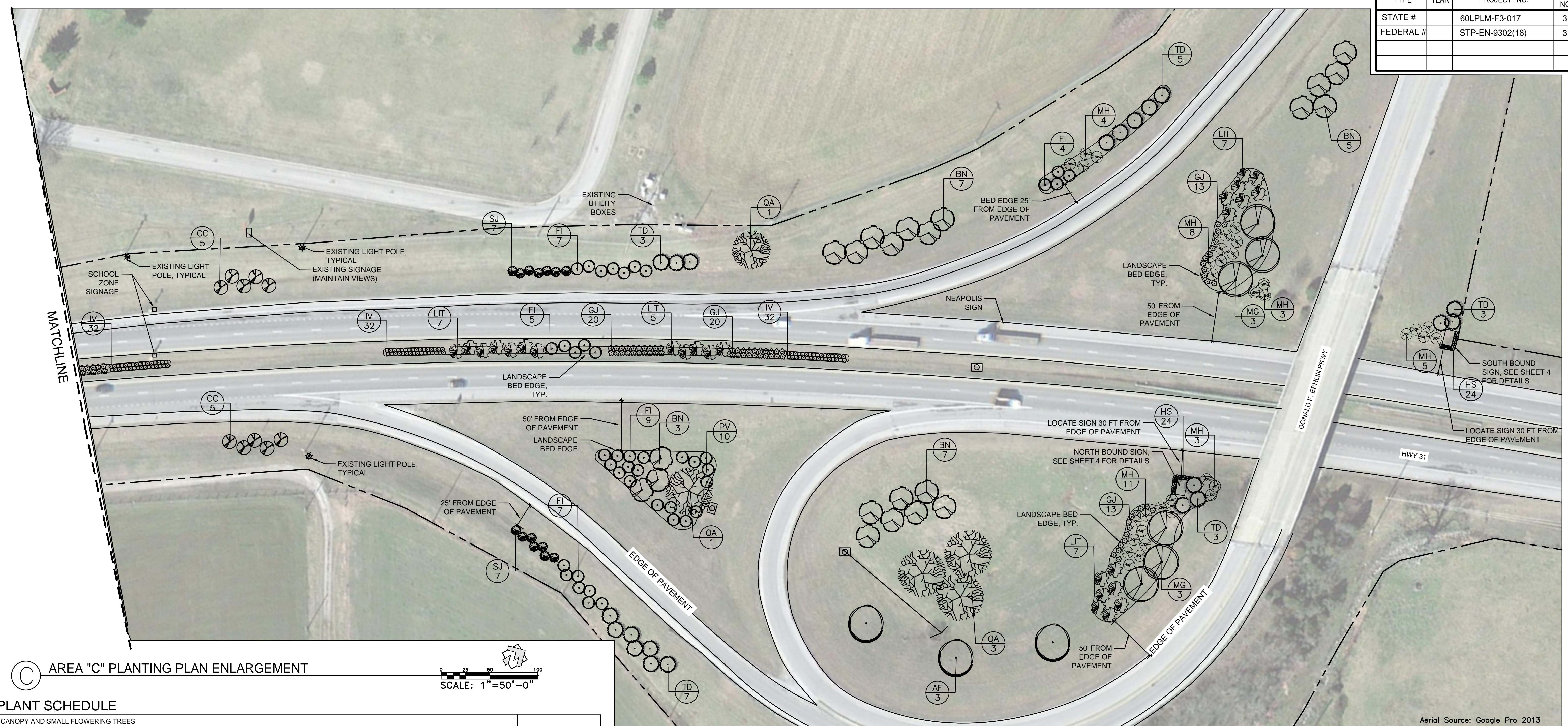
LOSE & ASSOCIATES, INC.
 LANDSCAPE ARCHITECTURE - ARCHITECTURE - ENGINEERING
 1314 5th Avenue North Suite 200 Nashville, TN 37208 615.242.0500

April 20, 2016

SHEET 2
 ENLARGEMENT
 AREA I
 Columbia, TN

TDOT PIN# 105525.51

TYPE	YEAR	PROJECT NO.	SHEET NO.
STATE #		60LPLM-F3-017	3
FEDERAL #		STP-EN-9302(18)	3



© AREA "C" PLANTING PLAN ENLARGEMENT

PLANT SCHEDULE

CANOPY AND SMALL FLOWERING TREES										
ITEM NUMBER	SYM	QUAN	BOTANICAL NAME	COMMON NAME	UNIT	CONT.	SIZE	HEIGHT	SPACING	REMARKS
802-11.02	AF	3	<i>Acer x freemanii 'Jeffsred'</i>	AUTUMN BLAZE RED MAPLE	Ea.	B&B	2.0" CAL	14'-0" MIN	AS SHOWN	MATCHED TREES
802-01.05	BN	22	<i>Betula nigra</i>	RIVER BIRCH	Ea.	B&B	MULTI-TRUNK	12'-0" MIN	AS SHOWN	MATCHED TREES
802-11.11	CC	20	<i>Cercis canadensis</i>	REDBUD	Ea.	B&B	-	8'-0" MIN	AS SHOWN	THORNLESS
802-01.11	LIT	70	<i>Lagerstroemia indica 'Natchez Trace'</i>	NATCHEZ TRACE CRAPE MYRTLE	Ea.	B&B	MULTI-TRUNK	6'-0" MIN	AS SHOWN	MATCHED TREES
802-01.20	MG	6	<i>Magnolia grandiflora</i>	SOUTHERN MAGNOLIA	Ea.	B&B	-	6'-0" MIN	AS SHOWN	MATCHED TREES
802-01.12	MH	40	<i>Malus 'Adirondack'</i>	ADIRONDACK CRABAPPLE	Ea.	B&B	-	6'-0" MIN	AS SHOWN	MATCHED TREES
802-01.10	QA	5	<i>Quercus alba</i>	WHITE OAK	Ea.	B&B	2.0" CAL	14'-0" MIN	AS SHOWN	MATCHED TREES
802-01.14	TD	21	<i>Thuja occidentalis</i>	AMERICAN ARBORVITAE	Ea.	B&B	-	6'-0" MIN	AS SHOWN	Full to base
SHRUBS, GRASSES & GROUNDCOVERS										
ITEM NUMBER	SYM	QUAN	BOTANICAL NAME	COMMON NAME	UNIT	CONT.	SIZE	HEIGHT	SPACING	REMARKS
802-03.05	FI	32	<i>Forsythia x intermedia</i>	FORSYTHIA	Ea.	3 gal	36"	-	48" O.C.	
802-04.71	HS	48	<i>Hemerocallis 'Stella de Oro'</i>	STELLA DE ORO DAYLILLY	Ea.	1 gal	full	-	18" O.C.	Triangular spacing in bed
802-03.08	IV	135	<i>Itea virginica 'Henry's Garnet'</i>	HENRY'S GARNET ITEA	Ea.	3 gal	24"	-	48" O.C.	
802-03.07	GJ	239	<i>Juniperus virginiana 'Grey Owl'</i>	GREY OWL JUNIPER	Ea.	3 gal	18-24"	-	60" O.C.	
802-03.06	LI	100	<i>Lagerstroemia indica 'Baton Rouge'</i>	DWARF CRAPE MYRTLE BATON ROUGE	Ea.	3 gal	48"	-	48" O.C.	
802-04.70	PV	10	<i>Panicum virgatum 'Heavy Metal'</i>	HEAVY METAL SWITCHGRASS	Ea.	3 gal	24"	-	48" O.C.	
802-03.09	SJ	14	<i>Styrax japonicus</i>	SNOWBELL	Ea.	B&B	-	4'-0" MIN	AS SHOWN	
MISCELLANEOUS										
ITEM NUMBER	SYM	QUAN	BOTANICAL NAME	COMMON NAME	UNIT	CONT.	SIZE	HEIGHT	SPACING	REMARKS
801-06.10		345	na	Shredded Hardwood Mulch	CY	345	-	3"	-	See details and plans
717-01.11		-	na	Mobilization	L.S.	1	-	-	-	-
802M03.15		-	na	Planting Bed Prep	Each	1	-	-	-	-
201-01.LS		-	na	Clearing and Grubbing	L.S.	1	-	-	-	-
805-01		-	na	Water (Plant Establishment)	M.G.	1	-	-	-	-
805-01.68		-	na	Remove unwanted trees/shrubs/brush	L.S.	1	-	-	-	-
712-01.02		-	na	Traffic Control Lane Closure	L.S.	1	-	-	-	-

GENERAL NOTES:

- UNDERGROUND UTILITIES:
 - UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, LANDSCAPE ARCHITECT, OR THEIR REPRESENTATIVES. BEFORE YOU DIG CALL TENNESSEE ONE CALL SYSTEM - 1-800-351-1111.
 - THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.
- THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO ENSURE THAT THE NEW WORK SHALL FIT INTO THE EXISTING SITE IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK IN THE AREA INVOLVING DIFFERENCES. NOTIFICATION SHALL BE MADE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND NOTES RELATING TO THE AREA.
- THE LANDSCAPE CONTRACTOR WILL BE HELD FINANCIALLY LIABLE FOR ANY DAMAGE CAUSED TO NEW OR EXISTING PAVEMENT, CURBING, OR OTHER COMPLETED CONSTRUCTION ITEMS INCURRED DURING THE LANDSCAPE INSTALLATION.
- THE LANDSCAPE CONTRACTOR IS TO PERFORM A THOROUGH CLEANUP AND QUALITY CONTROL INSPECTION.
- THE LANDSCAPE CONTRACTOR IS SUBJECT TO RANDOM INSPECTIONS BY TDOT OR A TDOT REPRESENTATIVE AT ANY TIME DURING THE INSTALLATION PROCESS. WORK NOT IN COMPLIANCE WITH PLANS WILL BE REMOVED AND BROUGHT INTO COMPLIANCE.

LANDSCAPE NOTES:

- PLANTING BEDS AND PLANT LOCATIONS SHALL BE STAKED OR MARKED WITH SPRAY PAINT BY THE LANDSCAPE CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL NOTIFY TDOT OR A TDOT REPRESENTATIVE (CONTACT LOSE & ASSOCIATES 615-242-0040) FOR APPROVAL PRIOR TO INSTALLATION OF THE PLANTS.
- PLANTING BEDS SHALL BE CLEARED OF ALL GRASS AND WEEDS PRIOR TO INSTALLATION OF PLANTS, INCLUDING SPRAYING HERBICIDE TO KILL ACTIVELY GROWING PLANTS. PLANT BEDS SHALL BE PREPARED AS CALLED FOR IN PLANTING DETAILS AND AS NOTED ON PLANS.
- ALL DISTURBED AREAS BY THE CONTRACTOR, WHICH ARE OUTSIDE OF THE PLANT BEDS, ARE TO BE SEEDED.
- PLANTING BEDS SHALL HAVE A THREE (3) INCH SHREDDED HARDWOOD BARK MULCH OVER THE ENTIRE BED, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- PRIOR TO PLANTING, ALL MULCH TREE RINGS SHALL BE TREATED WITH A WATER-SOLUBLE HERBICIDE FOR THE NON-SELECTIVE CONTROL OF ANNUAL AND PERENNIAL WEEDS PRIOR TO PLANTING.
- ALL TREE PLANTING PITS SHALL BE BACKFILLED WITH A PLANTING SOIL MIXTURE OF 50% ORIGINAL SOIL AND 50% TOPSOIL, THOROUGHLY MIXED. SAMPLE OF MIXTURE TO BE APPROVED BY TDOT OR A TDOT REPRESENTATIVE (CONTACT LOSE & ASSOCIATES 615-242-0040) PRIOR TO INSTALLATION.
- ALL PLANTED AREAS ARE TO BE FERTILIZED WITH GRANULAR FERTILIZER. LANDSCAPE CONTRACTOR IS TO PROVIDE SOIL TEST RESULTS AND PROPOSED FERTILIZER APPLICATION RATES TO TDOT OR A TDOT REPRESENTATIVE FOR APPROVAL.
- ALL PLANT MATERIAL IS TO BE NURSERY GROWN AND TO COMPLY WITH AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60 1-CURRENT ADDITION).

- DO NOT PRUNE ANY PLANT MATERIAL UNTIL IT HAS BEEN INSPECTED AND ACCEPTED BY TDOT OR A TDOT REPRESENTATIVE.
- ALL LANDSCAPE MATERIAL SHALL BE APPROVED BY TDOT OR A TDOT REPRESENTATIVE CONTRACTOR'S HOLDING SITE OR AT THIS SITE. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO NOTIFY TDOT OR A TDOT REPRESENTATIVE OF THE AVAILABILITY OF THE MATERIALS TO BE INSPECTED.
- ALL MATERIALS INSPECTED ON THE SITE AND FOUND TO BE UNACCEPTABLE SHALL BE REMOVED FROM THE SITE ON THE DAY OF INSPECTION.
- EXISTING PLANT MATERIAL IS TO BE EVALUATED BY THE LANDSCAPE ARCHITECT FOR POSSIBLE RELOCATION ON SITE. THE LANDSCAPE CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT FORTY-EIGHT (48) HOURS BEFORE BEGINNING WORK.
- ALL PLANT MATERIAL SHALL BE SUPPLIED BY APPROPRIATE SOURCES TO PREVENT UNDUE STRESS OR PROLONGED ACCLIMATIZATION WHICH WOULD INHIBIT PLANT GROWTH.
- LANDSCAPE CONTRACTOR IS TO VERIFY PLANT QUANTITIES SHOWN ON PLAN AND IN PLANT LIST. IF DISCREPANCIES OCCUR, LANDSCAPE CONTRACTOR IS TO CONTACT LANDSCAPE ARCHITECT IMMEDIATELY AT 615-242-0040. QUANTITIES SHOWN ON PLAN TAKE PRECEDENCE.
- CONTRACTOR TO PROVIDE A ONE YEAR WARRANTY ON ALL PLANTS.
- MULTI-TRUNK PLANT MATERIAL SHALL BE ONE PLANT GROWN FROM SINGLE SEEDLING. NO CLUMP MULTI-PLANT STOCK WILL BE ACCEPTED.
- CONTRACTOR TO PROVIDE A V-SHAPED TRENCHED LANDSCAPE BED EDGE. SEE PLAN FOR LOCATIONS.



TENNESSEE ONE-CALL SYSTEM
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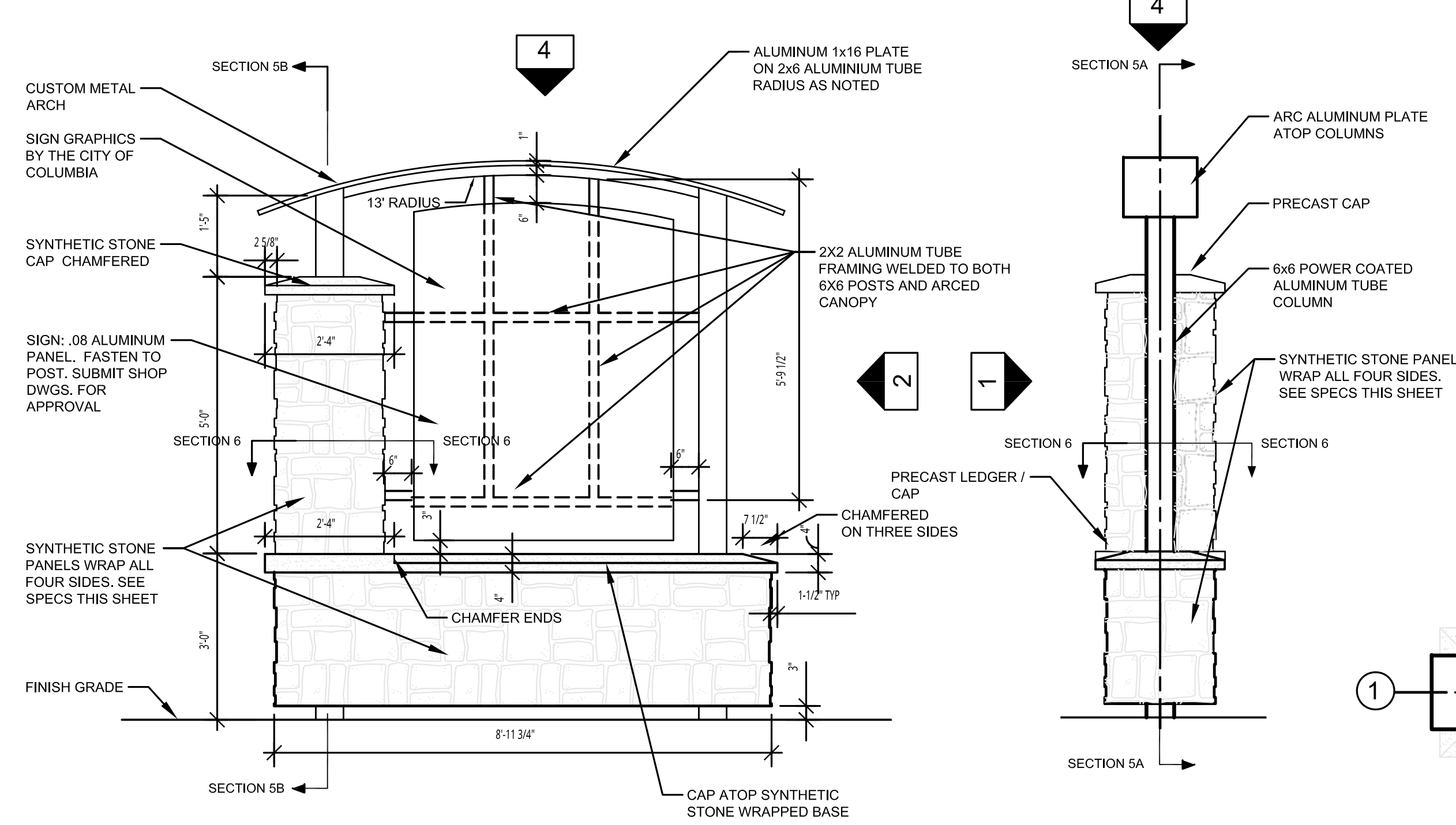


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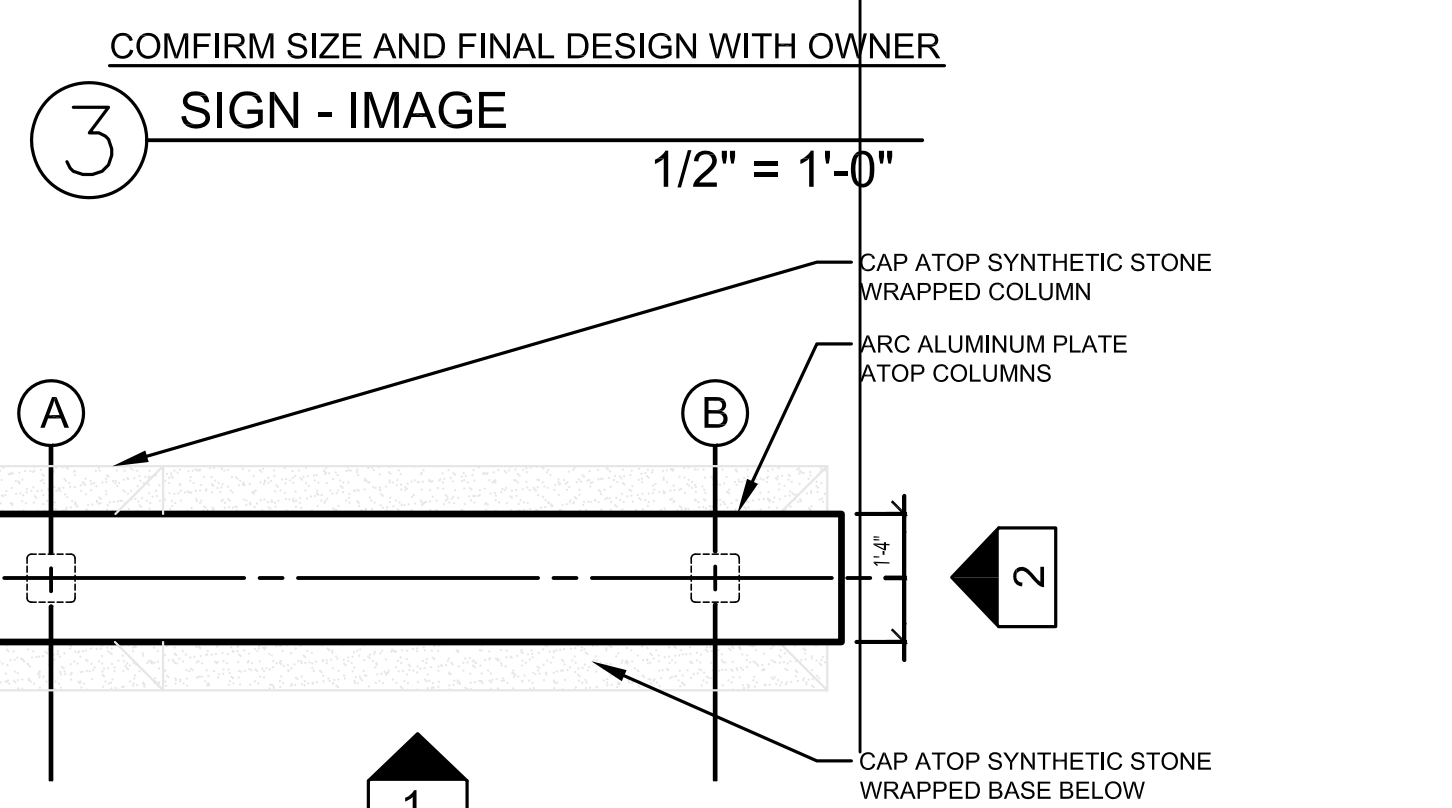
**SHEET 3
 ENLARGEMENT
 AREA II**
 Columbia, TN

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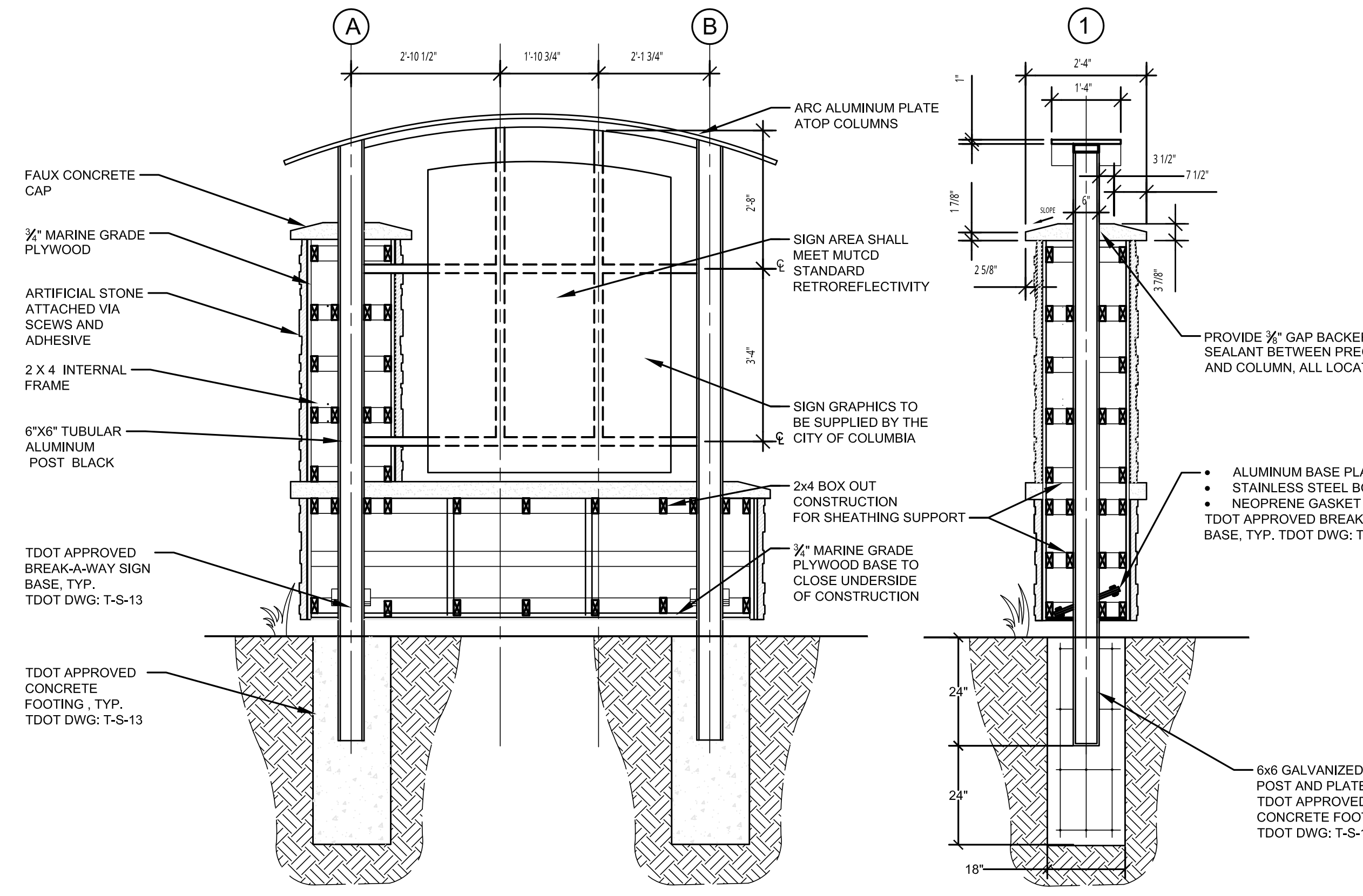
TYPE	YEAR	PROJECT NO.	SHEET NO.
STATE#		60PLM-F3-017	4
FEDERAL#		STP-EN-9302(18)	4



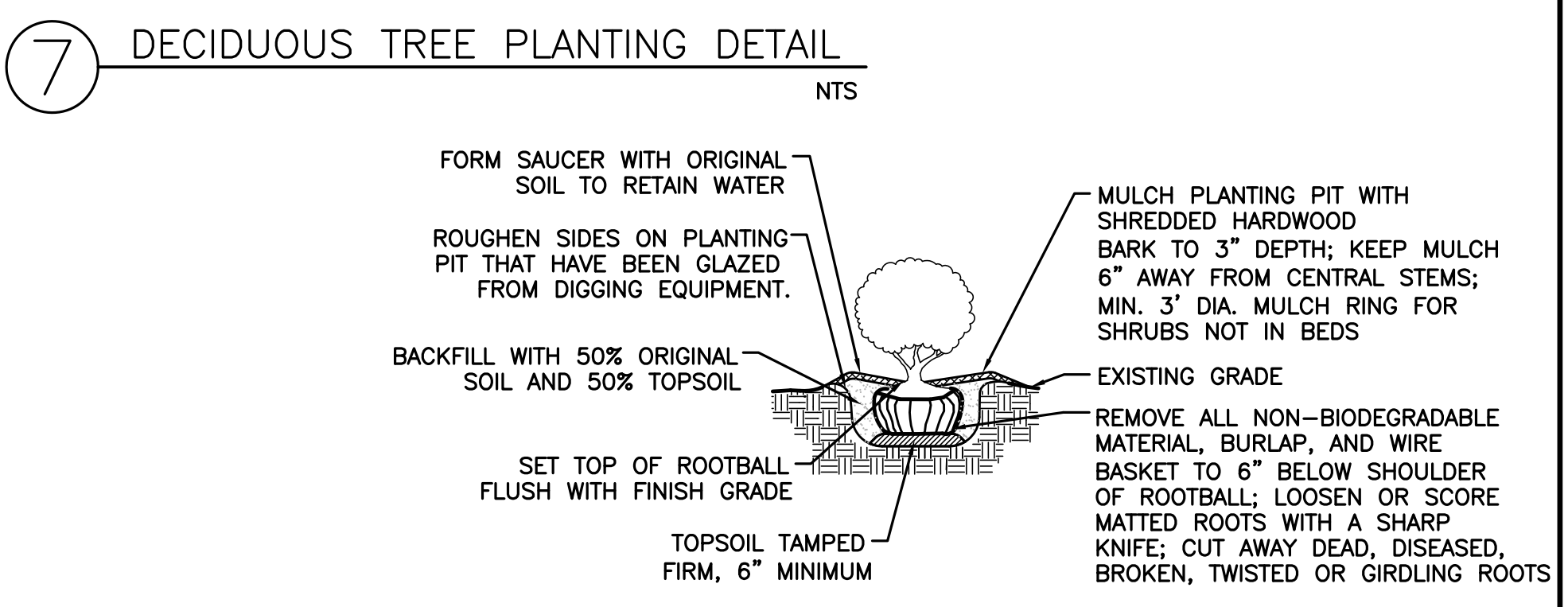
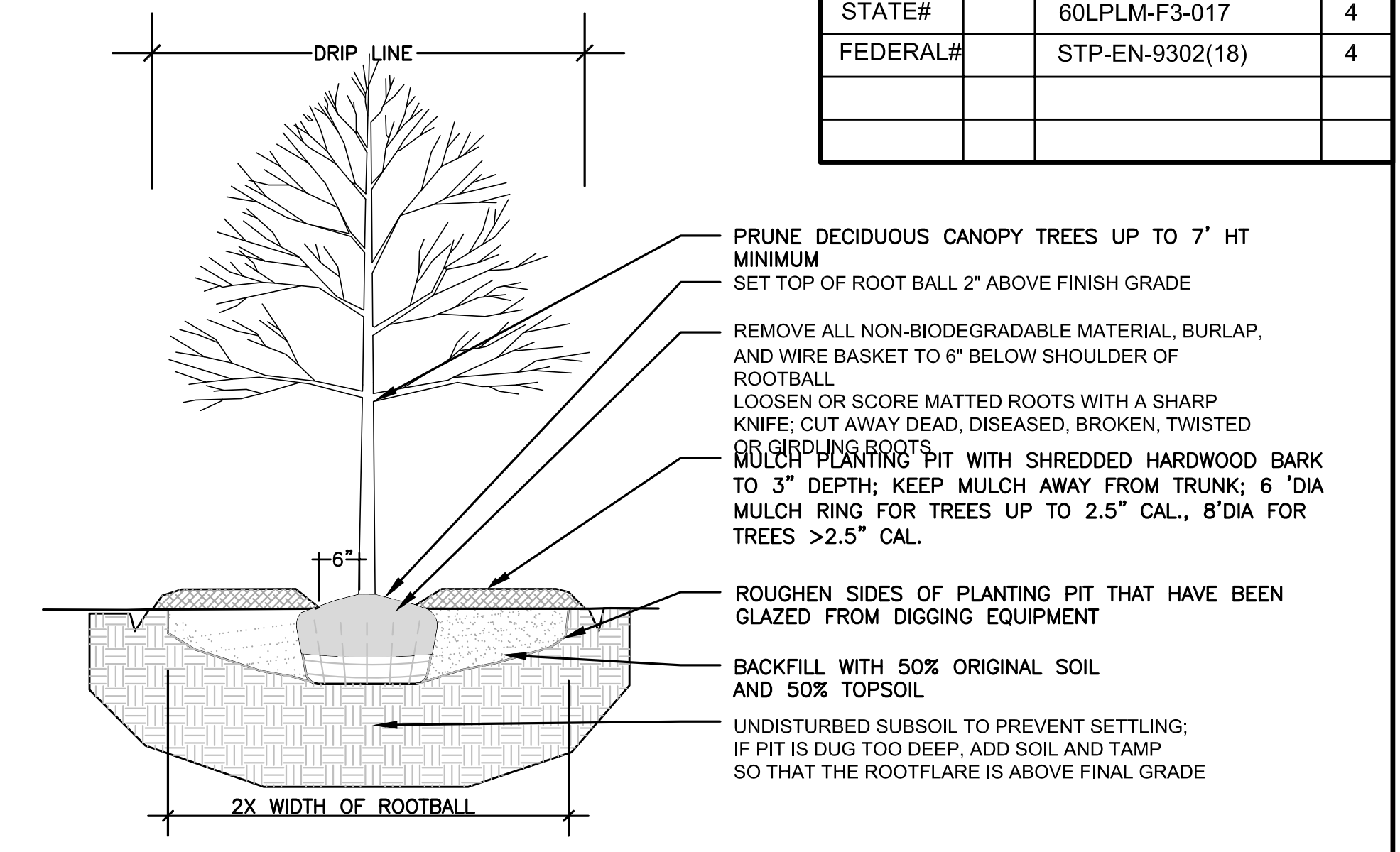
NOTE: DIMENSIONS SHOWN TO FACE OF SYNTHETIC STONE PANELS ARE APPROXIMATE DUE TO THE IRREGULAR SURFACE OF THE PRODUCT



- SIGNAGE NOTES:
- SIGNAGE CONSTRUCTION TO MEET TDOT CONSTRUCTION REQUIREMENTS PER SECTION 713.04 TDOT THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - SEE DETAIL FOR FONT STYLE. CONTRACTOR TO PROVIDE DETAILED INFORMATION IN SHOP DRAWINGS FOR OWNER REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
 - SIGN FACE AND LETTERING TO BE REFLECTIVE AND MEET MINIMUM LEVELS AS REQUIRED BY TDOT FOR ROADWAY SIGNAGE.
 - ALUMINUM POSTS AND FRAME TO BE POWDER COATED BLACK AND SHALL MEET TDOT SPECIFICATION 910.03 - INORGANIC ZINC PAINT SYSTEM FOR STEEL STRUCTURES.
 - ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 602.19
 - ALL EXPOSED EDGES TO BE SMOOTH, ALL EXPOSED SHEET ALUMINUM EDGES TO BE ROLLED FOR SAFETY.
 - CITY TO REVIEW AND APPROVE COLOR OF SYNTHETIC STONE PANELS AND CAP PRIOR TO PURCHASE



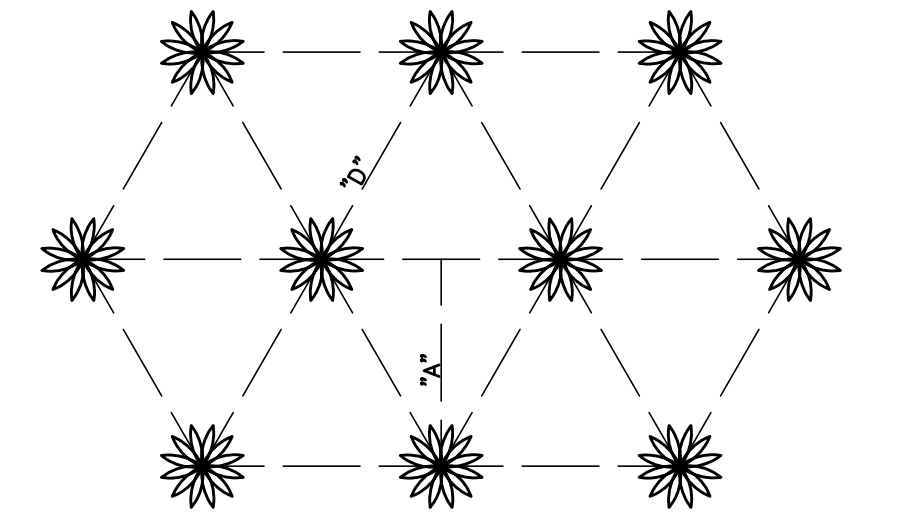
NOTE: CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS OF SIGN MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION.



SYNTHETIC PANEL AND CAP SPECIFICATIONS

Drystack Panels
Material: Polyurethane
Typical Overall Size: 46 1/2" Wide x 24" High x 1 1/2" Thick
Typical Coverage Size: 44 1/2" Wide x 24" High
Typical Coverage: Approx. 7.42 sq. ft.
Weight: Approx. 7 lbs 13 oz each
Amount of Caulk / Glue: 1 tube per 4 panels
Exterior Use: Weather Proof, near zero UV degradation

Structural performance testing on decorative stone. Tongue and groove, decorative stone panels Product shall meet test procedure ASTM E330-02 as specified on FauxPanel.com or approved substitute. Submit sample of panel and cap for approval.



Physical Properties	Test Method	Results
Solids by Weight	ASTM D 1553	100%
Tensile Strength	ASTM D 638	2350 PSI
Elongation	ASTM D 638	0.00%
Temperature Limitations	ASTM D 497	-30F to 180F
Flexural Strength	ASTM 790	9500
Flexural Modulus	ASTM 790	230,000 PSI
Chamber Impact	ASTM D 3029 7'F - 40F	120 IN/LB 35 IN/IN
Heat Deflection @66 psi	ASTM D 648	65F
Compressive Strength at 10% Deflection	ASTM D 695	4500PSI
Abrasion Resistance	ASTM D 1242 Method A, 1,000 Revolutions, 20 lb load number 60 TR aluminum oxide grit thickness loss in MILS 7.4	percentage thickness loss 2
UV Resistance	Inspect with approved coating	
Surface Burning Characteristics	ASTM D649-9 a	
Flame Spread	30	
Smoke Index	450	

GROUNDCOVERS & BULBS TO BE PLANTED ON TRIANGULAR GRID. MULCH ALL LANDSCAPE BEDS WITH 3" OF HARDWOOD MULCH.
* SEE PLANT LIST FOR REQUIRED SPACING *

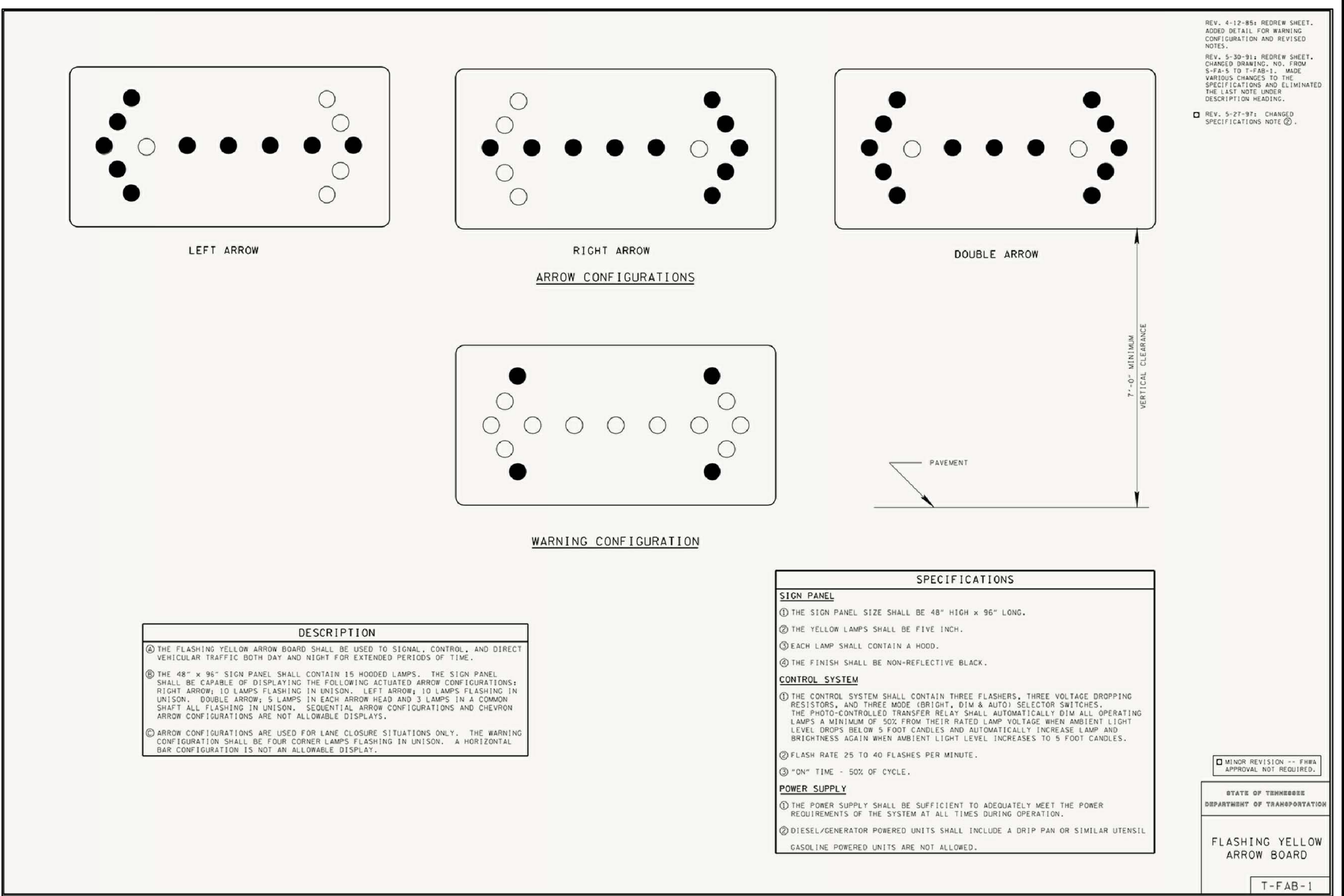
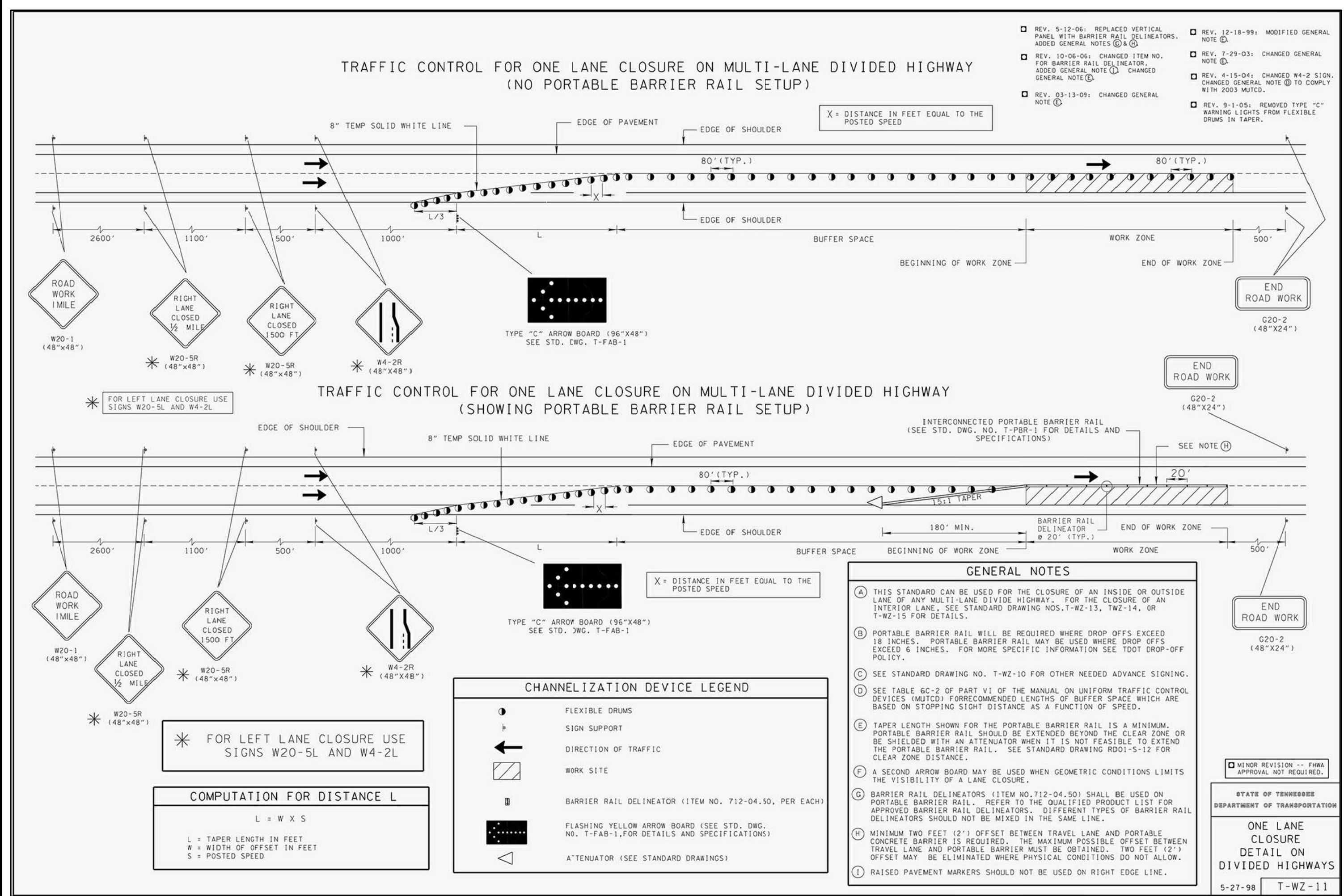
SPACING "D"	ROW WIDTH "A"	NO. OF PLANTS/1 S.F.
6" O.C.	5.2"	4.61
8" O.C.	6.93"	2.60
10" O.C.	8.66"	1.66
12" O.C.	10.4"	1.15
15" O.C.	13.0"	.738
18" O.C.	15.6"	.512
24" O.C.	20.8"	.330

9. GROUNDCOVER SPACING

MONUMENTAL SIGNS - PLANS AND SECTIONS TYPICAL OF TWO SIGNS TOTAL ONE NORTHBOUND AND ONE IDENTICAL SOUTHBOUND.

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① One Lane Closure Detail on Divided Highway
 TDOT Standard Drawing T-WZ-11 NTS

② Flashing Yellow Arrow Board
 TDOT Standard Drawing T-FAB-1 NTS

NOTES:

- THE CONTRACTOR SHALL PROVIDE A CERTIFIED FLAGGER ON SITE DURING INSTALLATION TO ASSIST TRAFFIC AND PROMOTE A SAFER WORK ENVIRONMENT.
- THE CONTRACTOR MAY PROPOSE CHANGES OR MODIFICATIONS TO THIS TRAFFIC CONTROL PLAN DURING THE PRE CONSTRUCTION MEETING. ALL MODIFICATIONS SHALL BE APPROVED BY TDOT CONSTRUCTION REPRESENTATIVES PRIOR TO IMPLEMENTATION.

LOPE ASSOCIATES, INC.
 ARCHITECTURE - INTERIORS - ENGINEERS
 114 5th Avenue North, Suite 200, Nashville, TN 37203 615.242.0006

April 20, 2016

SHEET 5
Traffic Control Plan

Columbia, TN