

CITY OF LAKELAND, TENNESSEE

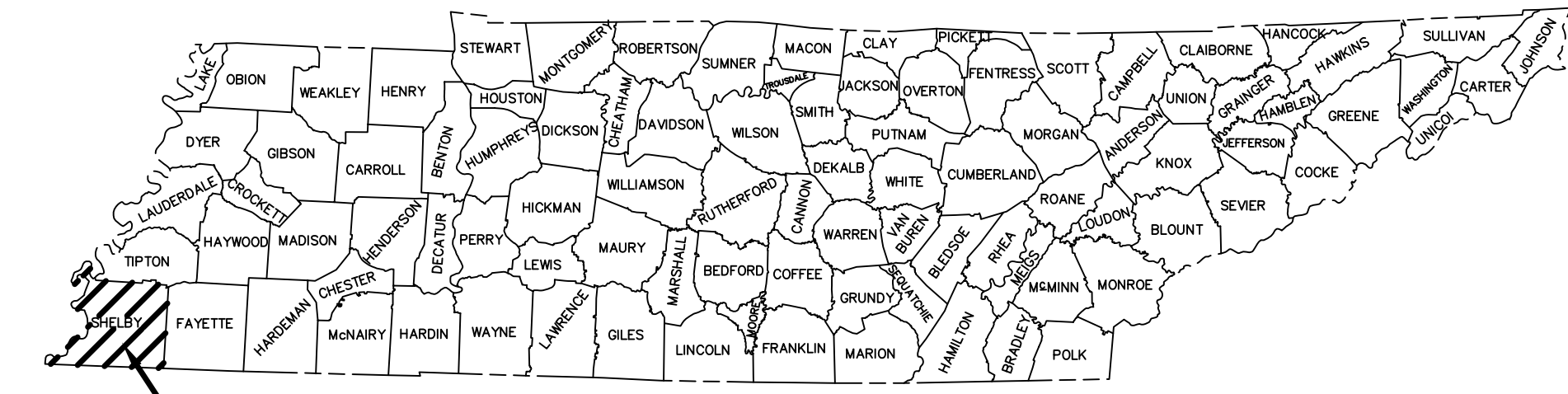


SHELBY COUNTY CANADA ROAD PEDESTRIAN AND BICYCLE FACILITIES PHASE I

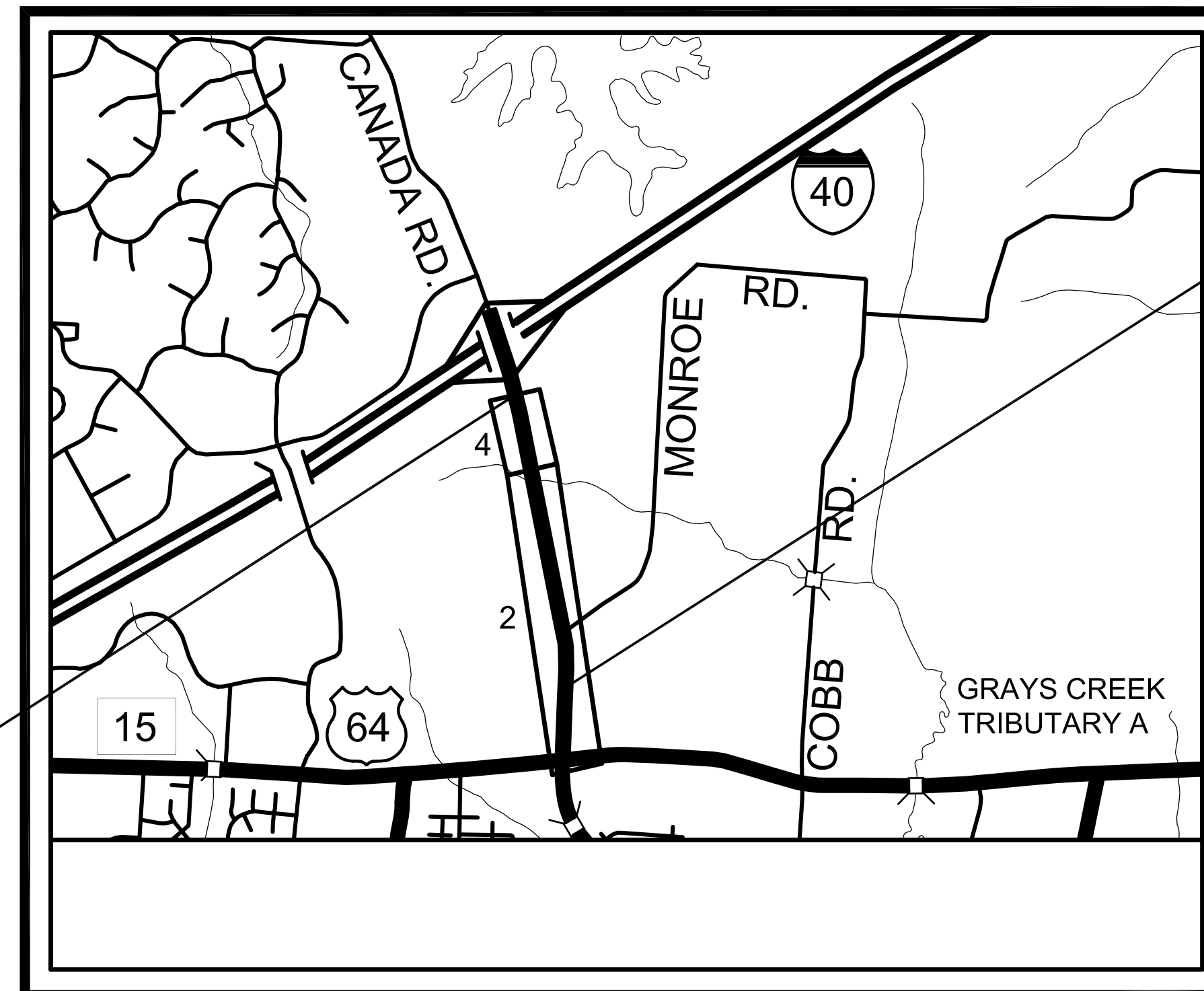
TENN.	YEAR 2019	SHEET NO. 1
FED. AID PROJ. NO.	TAP-M-7900(59)	
STATE PROJ. NO.	79LPLM-F3-554	

**LOCALLY MANAGED PROJECT
LOCALLY LET PROJECT**

INDEX OF SHEETS
SEE SHEET NO. 1A



PROJECT LOCATION



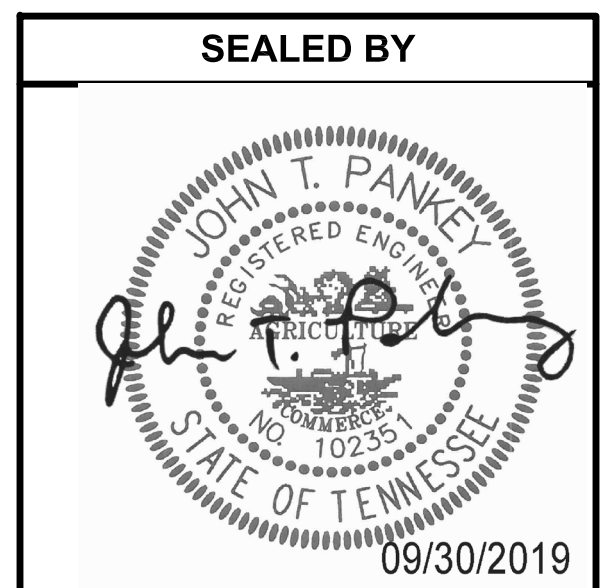
BEGIN PROJECT NO. 79LPLM-F3-554
CANADA ROAD STA. 158+43.77
N: 339932.9824
E: 853639.9038

**CONST.
PLANS**

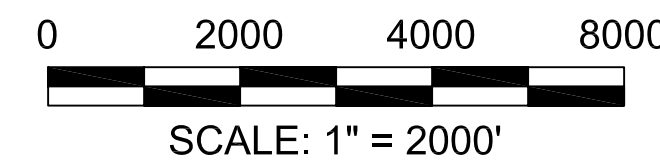
END PROJECT NO. 79LPLM-F3-554 CONSTRUCTION
CANADA ROAD STA. 195+50.00
N: 343579.7000
E: 853023.5341

COORDINATES ARE STATE PLANE
AND NOT DATUM ADJUSTED

TRAFFIC
DATA
POSTED SPEED: 45 M.P.H.
2017 ADT: 13,194



SITE LOCATION MAP



NO EXCLUSIONS
NO EQUATIONS

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE CITY 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 JANUARY 1, 2015 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT TRANSPORTATION PROGRAM MONITOR: _____
DESIGNED BY: FISHER & ARNOLD, INC.
DESIGNER: JEREMY BEVILL, P.E. CHECKED BY: JOHN PANKEY, P.E.
STATE PROJECT NO. 79LPLM-F3-554
PIN NO. 125590.00

PREPARED BY:
FISHER ARNOLD
ENGINEERS | ARCHITECTS | CONSULTANTS | PLANNERS
9180 Crestwyn Hills Drive | Memphis, Tennessee 38125-8538
901.748.1811 | Fax: 901.748.3115 | www.fisherarnold.com

APPROVED: _____
CITY ENGINEER
DATE _____
APPROVED: _____
MAYOR
DATE _____

ROADWAY INDEX

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NOTE: THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT USED IN NUMBERING OF SHEETS.

STANDARD ROADWAY DRAWINGS

DWG.	REV.	DESCRIPTION	DWG.	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS			MM-PM-1		SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PATHS
RD-A-1	12-18-99	STANDARD ABBREVIATIONS	MM-BPR-1		BIKE AND PEDESTRIAN SAFETY RAIL
RD-L-1	10-26-94	STANDARD LEGEND	MM-PS-1		DETAILS FOR PEDESTRIAN STEPS AND HANDRAILS
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL	MM-SW-1		DETAILS FOR CONCRETE SIDEWALKS
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL	MM-TS-1	01-07-19	BIKE ACCOMMODATION DESIGN GUIDANCE
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL	MM-TS-2	01-07-19	LATERAL OFFSETS FOR SIDEWALK AND SHARED USE PATH
PIPE CULVERTS AND ENDWALLS			MM-TS-3		SEPARATED SHARED USE PATH TYPICAL SECTIONS
D-PB-1	03-16-17	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION	SAFETY DESIGN AND FENCES		
D-PE-18A	01-06-15	18" CONCRETE ENDWALL CROSS DRAIN (FOR 3:1, 4:1 & 6:1 SLOPES)	S-CZ-1		CLEAR ZONE CRITERIA
D-PE-18B		18" CONCRETE ENDWALL CROSS DRAIN (FOR 3:1, 4:1 & 6:1 SLOPES)	S-CB-1		CABLE BARRIER PLACEMENT
D-PE-24A	07-05-17	24" CONCRETE ENDWALL CROSS DRAIN (FOR 3:1, 4:1 & 6:1 SLOPES)	S-CC-1	03-28-17	CRASH CUSHION
D-PE-24B		24" CONCRETE ENDWALL CROSS DRAIN (FOR 3:1, 4:1 & 6:1 SLOPES)	S-CC-2		CRASH CUSHION (GATING) BARREL ARRAY
D-PE-9	04-25-90	CONCRETE ENDWALLS TYPE "B" (FOR ROUND & SIDE TAPERED INLETS, PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES) 1976	DESIGN - TRAFFIC CONTROL		
CATCH BASINS AND MANHOLES			T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
D-CB-12P	05-15-18	STANDARD PRECAST RECTANGULAR CONCRETE NO.12 CATCH BASIN	EROSION PREVENTION AND SEDIMENT CONTROL		
D-CB-12S	05-15-18	STANDARD RECTANGULAR CONCRETE NO. 12 CATCH BASIN	EC-STR-3B	03-16-17	SILT FENCE
D-CB-14P	05-15-18	STANDARD PRECASE RECTANGULAR CONCRETE NO.14 CATCH BASIN	EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
D-CB-14S	05-15-18	STANDARD RECTANGULAR CONCRETE NO.14 CATCH BASIN	EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3 & 4
D-CB-99R	03-11-14	MISCELLANEOUS DETAILS FOR ROUND STRUCTURES	EC-STR-40		CATCH BASIN FILTER ASSEMBLY FOR CIRCULAR STRUCTURES
D-CB-99RA	03-19-14	BILL OF STEEL FOR ROUND CATCH BASIN LIDS	EC-STR-41		CATCH BASIN FILTER ASSEMBLY (TYPE 1)
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	EC-STR-41A		CATCH BASIN FILTER ASSEMBLY (TYPE 1) SLIPCOVER DETAILS
ROADWAY AND PAVEMENT APPURTENANCES					
RP-VC-10		VERTICAL CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS			
W-CIP-1	05-07-18	ROADWAY FEATURES AT CAST IN PLACE RETAINING WALL			
MULTIMODAL					
MM-CR-1		DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS			
MM-CR-2		PERPENDICULAR CURB RAMP			
MM-CR-3		PARALLEL CURB RAMP			
MM-CR-5		SINGLE CROSSING CURB RAMP IN CURVE			
MM-CR-6		DUAL CROSSING CURB RAMP PLACED OUTSIDE CURVE			
MM-CR-7		CURB RAMPS IN CURVE BI-DIRECTIONAL DUAL CROSSING			
MM-CR-8		MONO-DIRECTIONAL SINGLE CROSSWALK CURB RAMP DETAILS			
MM-CR-9		ALTERNATIVE CURB RAMP DETAILS			

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	1A



ROADWAY INDEX
AND
STANDARD
ROADWAY
DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	1B

* NO PROJECT COMMITMENTS

PROJECT COMMITMENTS			
COMMITMENT ID	SOURCE DIVISON	DESCRIPTION	STA. / LOCATION



09/30/2019

**PROJECT
COMMITMENTS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	2

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY 79LPLM-F3-556
202-01.56	Removal of Structures and Obstructions (Guardrail)	LS	1
202-03	Removal of Rigid Pavement, Sidewalk, Etc.	SY	320
202-03.01	Removal of Asphalt Pavement	SY	450
202-08.15	Removal of Curb and Gutter	LF	400
③ 203-01	Road & Drainage Excavation (Unclassified)	CY	8
203-10	Embankment (Compacted in Place)	CY	600
③ 209-03.21	Filter Sock (12 inch)	LF	50
③ 209-05	Sediment Removal	CY	10
③ 209-08.02	Temporary Silt Fence (With Backing)	LF	900
③ 209-09.43	Curb Inlet Protection (Type 4)	EA	8
③ 209-40.34	Catch Basin Protection (Type E)	EA	6
① 303-01	Mineral Aggregate, Type A Base, Grading D	TON	319
③ 303-10.01	Mineral Aggregate, Size 57	TON	368
① 307-01.08	Asphalt Concrete Mix(PG64-22) (BPMB-HM) Grading B-M2	TON	92
① ④ 402-02	Aggregate for Cover Material (PC)	TON	3
① 403-01	Bituminous Materials for Tack Coat (TC)	TON	0.3
407-20.05	Saw-Cutting Asphalt Pavement	LF	1,990
① 411-01.07	ACS Mix (PG64-22) Grading E Shoulder	TON	43
501-01.03	Portland Cement Concrete Pavement, Plain (10")	SY	602
501-03.02	Concrete Shoulders	SY	113
502-04.03	Transverse Tie Bars	EA	216
604-01.20	Box Tube Safety Rail	LF	170
604-12.01	Concrete Imprinting	SF	5,410
604-12.03	Concrete Pigment	LB	4,500
607-03.02	18" Concrete Pipe Culvert (Class III)	LF	223
607-05.02	24" Concrete Pipe Culvert (Class III)	LF	465
611-07.01	Class A Concrete (Pipe Endwalls)	C.Y.	3
611-07.02	Steel Bar Reinforcement (Pipe Endwalls)	LB.	282
① 611-12.01	Catch Basin, Type 12, 0'-4' Depth	EA	4
① 611-12.02	Catch Basin, Type 12, 4'-8' Depth	EA	2
① 611-14.02	Catch Basin, Type 14, 4'-8' Depth	EA	1
701-01.01	Concrete Sidewalk (4")	SF	8,567
701-02.03	Concrete Curb Ramp	SF	850
702-01	Concrete Curb	CY	11
702-03	Concrete Combined Curb and Gutter	CY	157
708-03.10	Sign Walls	EA	2
③ 709-05.05	Machined Rip-Rap (Class A-3)	TON	50
709-05.06	Machined Rip-Rap (Class A-1)	TON	35
712-01	Traffic Control	LS	1
712-04.01	Flexible Drums (Channelizing)	EA	60
712-06	Signs (Construction)	S.F.	259
712-07.03	Temporary Barricades (Type III)	L.F.	96
712-08.03	Arrow Board (Type C)	EA	2
713-11.04	Surface Mnt Breakaway Base for Sign Post	EA	7
713-11.05	Square Tube Sign Support	LB	355
713-13.03	Flat sheet aluminum signs (0.100" thick)	SF	38
716-02.07	Plastic pavement marking (24" barrier line)	LF	128

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY 79LPLM-F3-556
716-08.32	Hydroblast Removal of Pavement Marking (Crosswalks)	LF	1,345
716-12.06	Enhanced flat thermal pavement marking (8" line)	LF	1,214
717-01	Mobilization	LS	1
③ 740-10.03	Geotextile (Type III) (Erosion Control)	SY	86
797-07.04	48" Manhole in 8-10' depth	EA	3
801-01	Seeding (with mulch)	UNIT	30
801-03	Water (seeding and sodding)	MG	71
802-01.10	Trees - Emerald Sentinal Red Cedar - 5-6' ht.	EA	15
802-01.11	Trees - Keteleeri Chinese Juniper - 5-6' ht.	EA	23
802-01.12	Trees - Shantung Maple - 2.5" Cal.	EA	48
802-01.13	Trees - Teddy Bear Magnolia - 5-6' ht.	EA	3
802-03.01	Shrubs - Green Mound Juniper - 18" spr.	EA	56
802-03.02	Shrubs - Hameln Fountain Grass - 5 gal.	EA	24
802-03.03	Shrubs - Sweetspire - 18" spr.	EA	58
802-04.01	Groundcover - Blue Pacific Juniper - 18" spr.	SY	19
802-04.02	Groundcover - Happy Returns Daylily - 1 gal	SY	71
802-05	Water (Plant Establishment)	M.G.	30
802-05.03	Refillable Drip Irrigation Flexible Bag	EA	89
803-01	Sodding (New Sod)	SY	1,050
805-01.68	2" wood mulch	CY	12
920-10.04	Decorative solar bollards	EA	20
② 920-11	Steel backed timber guardrail, Type A	LF	510
② 920-11.04	Terminal Anchor Type SBT, FAT - 30 Approach End	EA	2
② 920-12.04	Terminal Anchor Type SBT, FAT - 30 Departure End	EA	2
920-13	Pedestrian Timber Boardwalk	L.F.	110
920-13.04	Removable Bollard	EA	2

FOOTNOTES:

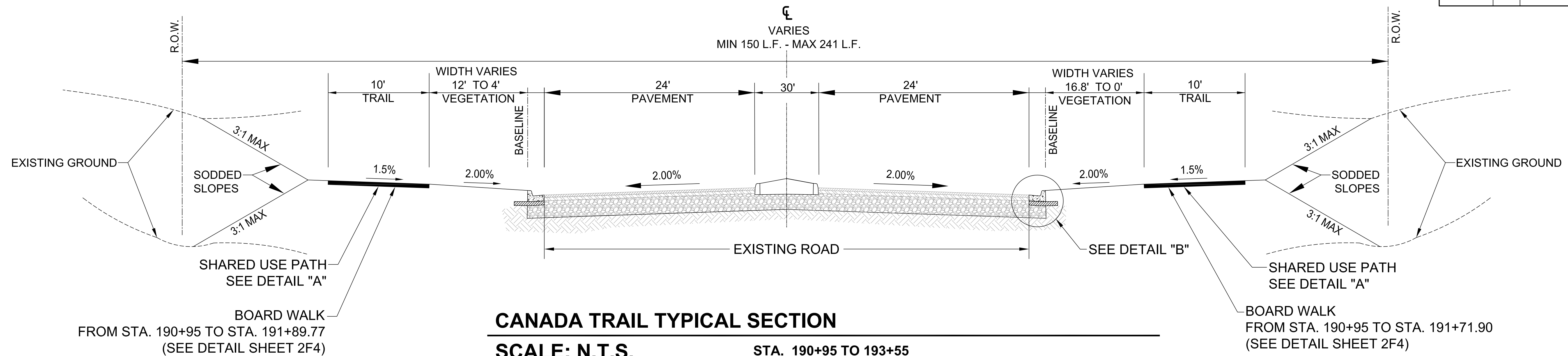
1. SEE TABULATED QUANTITIES ON SHT. 2E.
2. SEE DETAIL SHTS. 2F AND 2F1.
3. TO BE USED FOR EROSION CONTROL.
4. ITEM TO BE USED AS DIRECTED BY THE ENGINEER.

REVISIONS:
DATE: 10/21/2019
CORRECTED FOOTNOTES



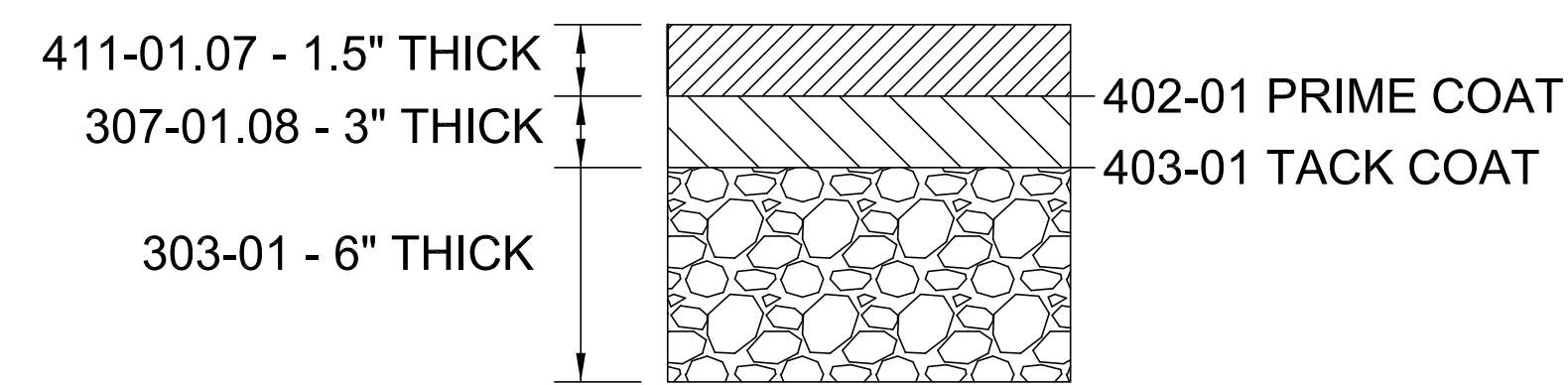
ESTIMATED
ROADWAY
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2019	79LPLM-F3-554	2B

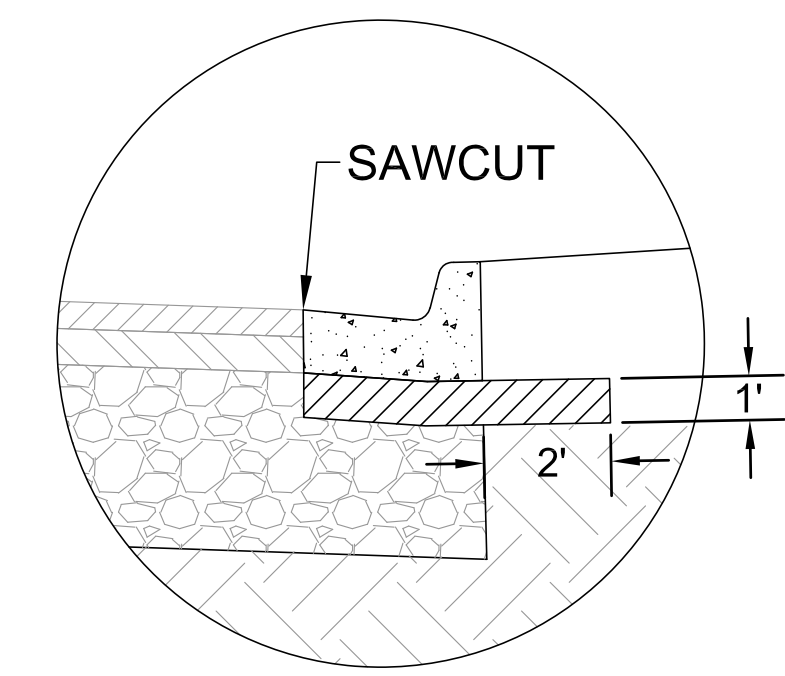


BOARD WALK
FROM STA. 190+95 TO STA. 191+89.77
(SEE DETAIL SHEET 2F4)

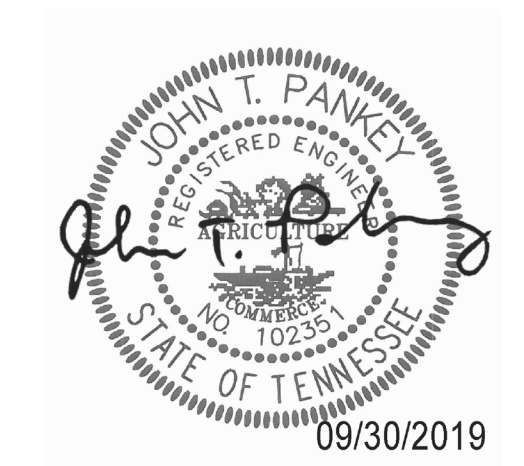
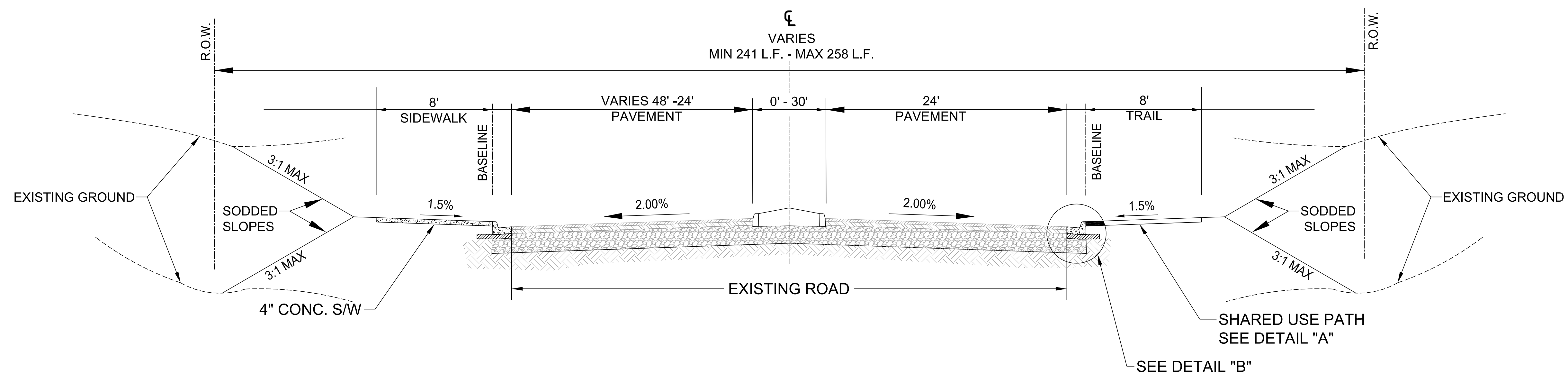
BOARD WALK
FROM STA. 190+95 TO STA. 191+71.90
(SEE DETAIL SHEET 2F4)



DETAIL "A" - ASPHALT PAVEMENT SECTION
SEE STD. DWG. MM-TS-3



DETAIL "B" - 6-30 CURB AND GUTTER
C&G TO BE PLACED ON 1" THICK
303-01 MINERAL AGGREGATE, TYPE A BASE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL
SECTIONS AND
PAVEMENT
DETAILS**

GENERAL NOTES

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) CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.
- (3) 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 (FEMA) WITHOUT APPROVAL BY FEMA. 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

- (4) ALL EXISTING ROADS WITHIN THE RIGHT-OF-WAY AND NOT IN THE GRADED AREA THAT ARE TO BE ABANDONED SHALL BE SCARIFIED, OBLITERATED, TOPSOILED AND SEEDED. SCARIFYING AND OBLITERATING THE PAVEMENT WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS. TOPSOIL, IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEMS 203-04 AND/OR 203-07. SEEDING, IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM 801-01.
- (5) 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.
- (6) ITEM NO. 801-01, SEEDING (WITH MULCH), SHALL BE USED WHERE EROSION CONTROL BLANKET OR SOD ARE NOT APPLIED.

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 TEMPORARY BARRICADES OR DRUMS WITH TYPE "A" LIGHTS TO DELINEATE GUARDRAIL END AND A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL END TERMINAL.

DRAINAGE

- (3) 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.
- (4) EXCAVATION FOR DRAINAGE PIPES 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).
- (5) 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.
- (6) 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.

- (7) ALL EXISTING PIPES AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER THAT ARE TO BE LEFT IN PLACE AND ABANDONED MUST BE BACKFILLED AND PLUGGED. ALL COST FOR THIS WORK SHALL BE INCLUDED IN ITEM NO. 204-08.01, BACKFILL MATERIAL (FLOWABLE FILL), C.Y.

MISCELLANEOUS

- (8) 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.
- (9) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES AND POSTS WHERE AND AS DIRECTED BY THE ENGINEER. COST TO BE INCLUDED IN PRICE BID FOR OTHER CONSTRUCTION ITEMS.
- (10) 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.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (11) 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.
- (12) 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.
- (13) 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.
- (14) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (15) USE OF BARRICADES, PORTABLE BARRIER RAILS, 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.
- (16) 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 AN 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.
- (17) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (18) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED, AND FLEXIBLE DRUMS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

- (19) IF DISTURBED ACREAGE IS EQUAL TO ONE ACRE OR MORE, PLEASE CONTACT CITY OF LAKELAND AS SOON AS POSSIBLE BECAUSE AN NPDES PERMIT WILL BE REQUIRED.
- (20) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- (21) UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL NOT CLEAR/DISTURB ANY AREA BEYOND 15 FEET FROM SLOPE LINES.
- (22) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 14 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS APPLIED.
- (23) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION, INCLUDING STREAM AND WETLAND BUFFERS (UNLESS PERMITTED), SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

SEDIMENT CONTROL

- (24) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- (25) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE/DURING A PRECIPITATION EVENT.
- (26) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFFSITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFFSITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE 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 NEGOTIATED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (27) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION EXIT (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- (28) THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS, EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER DISCHARGED SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. 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.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LMLP-F3-554	2C



GENERAL
NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
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NATURAL RESOURCES

- (1) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT NATURAL RESOURCES AND WATER QUALITY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG NATURAL RESOURCES IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS, WETLANDS OR OTHER NATURAL FEATURES IN ACCORDANCE WITH TDOT STANDARDS. EPSC MEASURES SHALL BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- (2) NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL.
- (3) INSTREAM EPSC DEVICES REQUIRE A REVIEW BY CITY OF LAKELAND TO OBTAIN WATER QUALITY PERMITS.
- (4) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, IS NOT ALLOWED.
- (5) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING, NOT TO EXCEED THE WIDTH SPECIFIED IN THE STANDARD DRAWING.
- (6) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CULVERT CROSSINGS SHALL BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES SHALL BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK SHALL BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS SHALL BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO PREEXISTING ELEVATIONS. ALL TEMPORARY CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (E.G. BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.
- (7) HEAVY EQUIPMENT WORKING IN WETLANDS WITH PERMITTED TEMPORARY IMPACTS SHALL BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE AND COMPACTION UNLESS SPECIFICALLY ADDRESSED IN THE CONSTRUCTION PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED. ALL AFFECTED AREAS SHOULD BE RETURNED TO PRE-EXISTING CONDITIONS.
- (8) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION PLANS AND PERMITS.
- (9) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO ANY CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE CITY OF LAKELAND IMMEDIATELY.

SPECIES

- (10) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA.
- (11) SHOULD CLIFF SWALLOW OR BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) BE PRESENT, THE CONTRACTOR SHALL CONTACT THE LOCAL U.S. FISH & WILDLIFE SERVICE OFFICE TO DETERMINE IF SEASONAL RESTRICTIONS WILL BE NECESSARY. GENERALLY, BIRDS, NESTS, AND EGGS MAY NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS CAN BE REMOVED OR DESTROYED SO LONG AS BIRDS OR EGGS ARE NOT PRESENT, AND MEASURES IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (I.E., CLOSING OFF AREA USING NETTING).
- (12) IF THE REMOVAL OF ANY TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 3 INCHES IS DEEMED NECESSARY THE ENGINEER

SHALL CONTACT THE LOCAL U.S. FISH & WILDLIFE SERVICE OFFICE PRIOR TO REMOVAL OF ANY TREES.

INSPECTION, MAINTENANCE & REPAIR

- (13) THE CONSTRUCTION SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S RESPONSIBLE PARTY ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONSTRUCTION SUPERVISOR OR THEIR DESIGNEE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.
- (14) CONSULTANTS AND CONTRACTOR STAFF RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE, AND/OR REPAIR OF EPSC MEASURES SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION.
- (15) EPSC CONTROLS SHALL BE INSPECTED ACCORDING TO PERMIT REQUIREMENTS TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE EPSC INSPECTION REPORT.
- (16) DISCHARGE POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING NATURAL RESOURCES AND ADJACENT PROPERTY OWNERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWN GRADIENT LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE ROADWAY SEDIMENT TRACKING.
- (17) 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 24 HOUR TIMEFRAME, WRITTEN DOCUMENTATION SHALL BE PROVIDED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- (18) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES SHALL 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 STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.
- (19) THE EPSC PLAN SHALL BE UPDATED WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY.
- (20) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE ONTO ADJACENT PROPERTIES AND INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT SHALL BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.

EROSION PREVENTION

- (21) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.
- (22) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING, FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- (23) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE RESPONSIBLE PARTY. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN.

- (24) TEMPORARY STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION MEASURES IN DISTURBED AREAS SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY PHASE OF CONSTRUCTION.
- (25) STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT.
- (26) PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (27) TEMPORARY OR PERMANENT STABILIZATION MUST BE FREE OF FINES (SILT AND CLAY SIZED PARTICLES). UNPACKED GRAVEL CONTAINING FINES OR CRUSHER-RUN WILL NOT BE CONSIDERED SUFFICIENT STABILIZATION.
- (28) DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED.

PERMITS, PLANS & RECORDS

- (29) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE CITY OF LAKELAND PRIOR TO THE USE OF THE PERMITTED AREA(S).
- (30) ANY DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE CITY OF LAKELAND. THE CITY OF LAKELAND SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- (31) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE CITY OF LAKELAND SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE CITY OF LAKELAND SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (32) THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATE. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE CITY OF LAKELAND TO COMMENCE PERMIT RENEWAL PROCESS.
- (33) ALL WATER QUALITY PERMITS SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.
- (34) THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER A CHANGE IN THE DESIGN OR CONSTRUCTION OF THE PROJECT OCCURS. THE STAGES DEPICTED IN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL PHASES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION, THUS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLAN IS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS PHASES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE PHASES OF CONSTRUCTION THAT WILL OCCUR, THUS THESE DOCUMENTS WILL HAVE TO BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.



GENERAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LMLP-F3-554	2C2

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

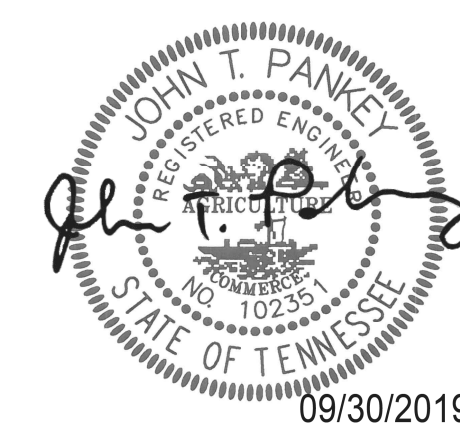
- (1) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.
- (2) 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. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.
- (3) CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.
- (4) WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.
- (5) IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.
- (6) ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.
- (7) WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.
- (8) ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.
- (9) ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.
- (10) OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.
- (11) DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
- (12) WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

SUPPORT ACTIVITIES

- (13) MATERIALS AND STAGING AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY ENVIRONMENTAL PERMITS, OBTAINED SOLELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE CITY OF LAKE LAND TO COMMENCE PERMIT RENEWAL PROCESS.
- (14) IF OFFSITE BORROW AND WASTE AREAS BECOME NECESSARY DURING THE LIFE OF THE PROJECT, THIS SUPPORT ACTIVITY SHALL BE ADDRESSED PER THE TDOT WASTE AND BORROW MANUAL.
- (15) MATERIALS AND STAGING AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN.
- (16) IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY EPSC PLANS FOR THE MATERIAL AND STAGING AREAS TO THE CITY OF LAKE LAND FOR REVIEW.

SPILL PREVENTION, MANAGEMENT & NOTIFICATION

- (17) ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE AND SPILLS.
- (18) FOR ALL HAZARDOUS MATERIALS STORED ONSITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP SHALL BE CLEARLY POSTED. SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.
- (19) APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ONSITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.
- (20) ALL SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- (21) THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.
- (22) IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION SHALL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR SHALL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.
- (23) FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.
- (24) IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE CITY OF LAKE LAND. 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.
- (25) WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD, SEE THE LATEST TENNESSEE GENERAL PERMIT NO. TNR1000000 STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES SECTION 5.1 FOR REPORTING REQUIREMENTS.
- (26) CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ONSITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE CONTAINERS WITH A COMBINED CAPACITY OF 1320 GALLONS OR MORE SHALL HAVE SECONDARY CONTAINMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN FOR THE BULK STORAGE AND BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ONSITE AND A COPY PROVIDED TO THE CITY OF LAKE LAND PRIOR TO STORING 1320 GALLONS ON SITE.



GENERAL NOTES

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SPECIAL NOTE

MULTIMODAL

- (1) DURING CONSTRUCTION, IF THE CONSTRUCTION SUPERVISOR IDENTIFIES CURB RAMP LOCATIONS WITHIN THE PROJECT LIMITS WHERE THE TDOT ROADWAY STANDARDS CANNOT BE USED DUE TO SITE LIMITATIONS, A SKETCH OR PICTURE, SHOWING EXISTING CONDITIONS AS WELL AS PROPOSED MODIFICATIONS SHOULD BE SUBMITTED TO THE REGIONAL PROJECT DEVELOPMENT OFFICE THREE WEEKS PRIOR TO THE BEGINNING OF CURB RAMP CONSTRUCTION. THE OFFICE WILL REVIEW AND EVALUATE THE LOCATIONS TO DEVELOP PROPER CURB RAMP DESIGN THAT WILL MEET REGULATIONS.

EROSION PREVENTION AND SEDIMENT CONTROL

ENVIRONMENTAL

- (1) STAFF FROM THE CITY OF LAKE LAND SHALL BE INVITED TO ALL PRE-CONSTRUCTION MEETINGS.

PROJECT COMMITMENTS

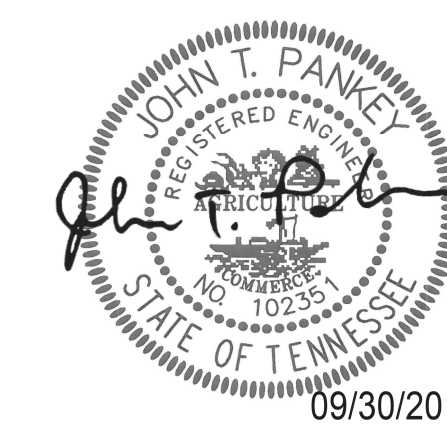
- (2) SEE PROJECT COMMITMENTS, SHEET 1B, FOR DETAILS RELATING TO SPECIAL ENVIRONMENTAL COMMITMENTS REQUIRED BY THIS PROJECT.

STREAMS, WETLANDS & BUFFER ZONES

- (3) FOR PROJECTS THAT DISCHARGE INTO KNOWN EXCEPTIONAL TENNESSEE WATERS OR WATERS IMPAIRED BY SILTATION, A 60 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM WITH THIS DESIGNATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 60 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 30 FEET AT ANY MEASURED LOCATION.
- (4) A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES.
- (5) BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND MUST NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPs) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE CITY OF LAKE LAND SHALL REVIEW AND APPROVE THIS REVISION OF THE EPSC PLANS BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

SCOPE OF WORK

THIS PROJECT INVOLVES THE CONSTRUCTION OF APPROX. 1,020 L.F. OF CONCRETE TRAIL AND 600 L.F. OF ASPHALT TRAIL PAVEMENT, INCLUDING OTHER SIDEWALK IMPROVEMENTS, RETAINING WALL CONSTRUCTION, ADA UPGRADES, CROSSWALKS, STRIPING, SIGNAGE, LIGHTING, CLEARING AND GRADING, LANDSCAPE, ENTRY FEATURE SIGNS, AND OTHER RELATED WORK AS SHOWN ON THE PLA



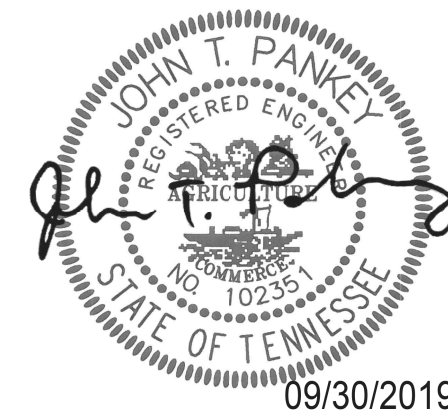
**SPECIAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	2E

PAVEMENT QUANTITIES					
LOCATION	PAY ITEMS				
	303-01 (TON)	307-01.08 (TON)	402-02 (TON)	403-01 (TON)	411-01.07 (TON)
SHARED-USE PATH	319.0	92.0	3.0	0.3	43.0
TOTALS	319.0	92.0	3.0	0.3	43.0

CATCH BASINS										PAY ITEMS		
SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSION	DEPTH (FT.)	STANDARD DRAWINGS	TYPE 12 611-12.01 0'-4'	TYPE 12 611-12.02 4'-8'	TYPE 14 611-14.02 4'-8'
4B	CANADA RD	191+08.43	42.00	CB 1	362.58	14S	96" X 36"	5.33	D-CB-14S			1
4B	CANADA RD	191+46.15	-42.00	CB 2	362.15	12S	48" X 36"	3.00	*	1		
4B	CANADA RD	191+75.15	-42.00	CB 2A	362.14	12S	48" X 36"	3.09	*	1		
4B	CANADA RD	192+08.38	42.00	CB 3	362.55	12S	48" X 36"	4.45	D-CB-12S		1	
4B	CANADA RD	193+04.72	42.00	CB 4	363.37	12S	48" X 36"	4.45	D-CB-12S		1	
4B	CANADA RD	193+87.42	-42.00	CB 5	364.97	12S	48" X 36"	3.90	D-CB-12S	1		
4B	CANADA RD	195+42.72	-42.00	CB 6	369.32	12S	48" X 36"	3.90	D-CB-12S	1		
TOTAL										4	2	1

* SEE DETAIL SHEET # 2F7 (TDOT STANDARD DRAWING D-CB-12B MODIFIED)

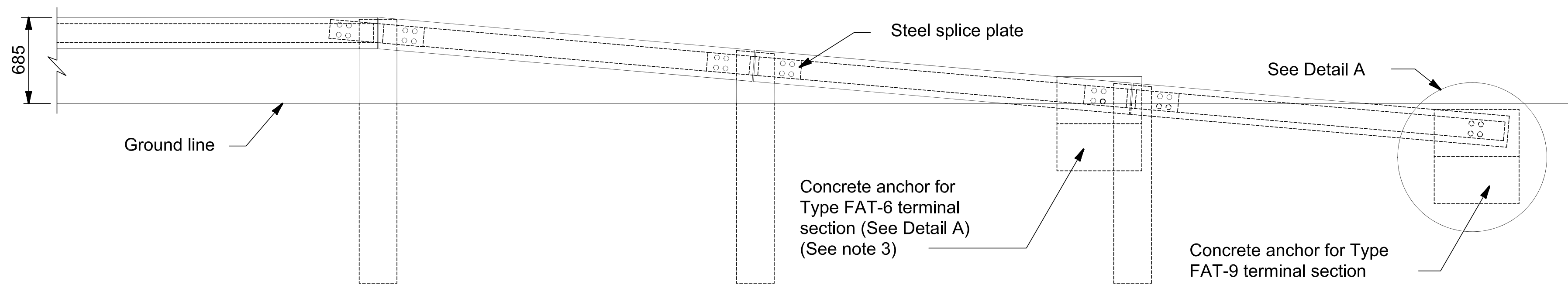
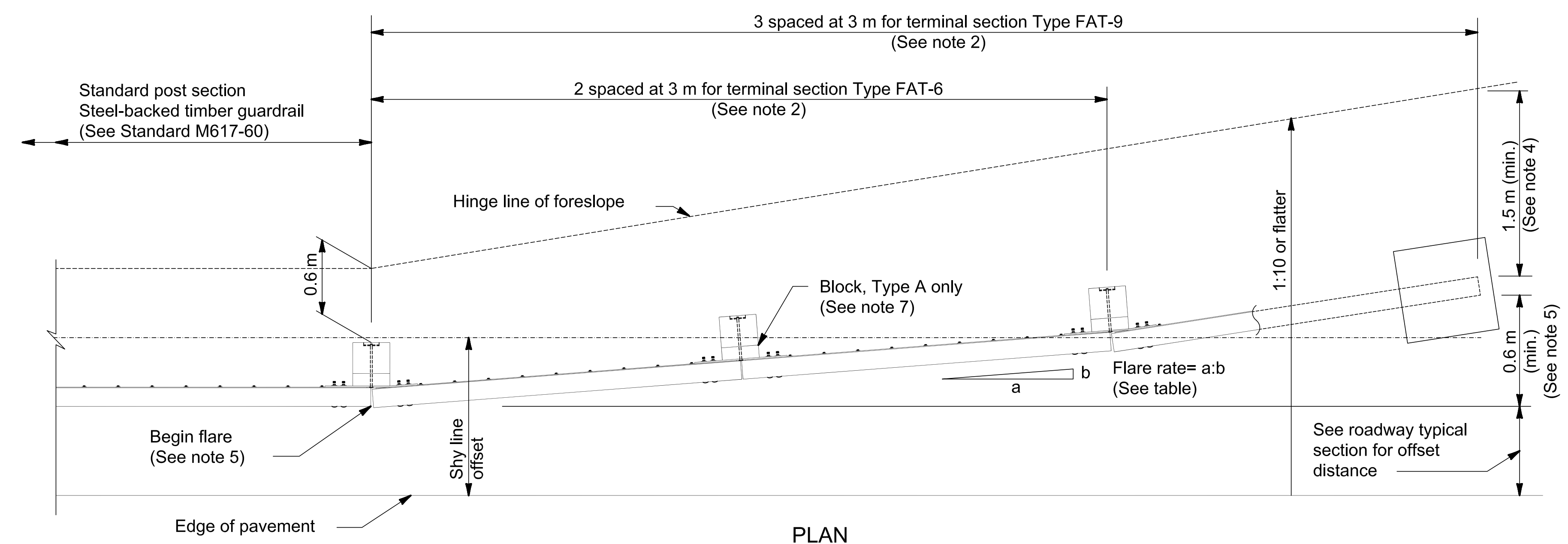


STORM DRAINAGE PIPES							
SHEET NO.	FROM		TO		% GRADE	REINFORCED CONC. PIPE - CLASS III SIZE & LENGTH (L.F.)	
	CODE	OUTLET ELEV.	CODE	INLET ELEV.		18"	24"
4B	CB 1	357.25	EW 1	357.00	1.00		25
4B	CB 2	359.15	CB 2A	359.05	0.40	25	
4B	CB 2A	359.05	EW 2	358.98	0.30	22	
4B	CB 3	358.10	CB 1	357.25	0.85		101
4B	CB 4	358.92	CB 3	358.10	0.85		97
4B	EX CB	363.70	CB 4	359.02	1.94		242
4B	CB 5	361.07	EW 3	360.80	1.08	25	
4B	CB 6	365.42	CB 5	361.17	2.82	151	
TOTALS						223	465

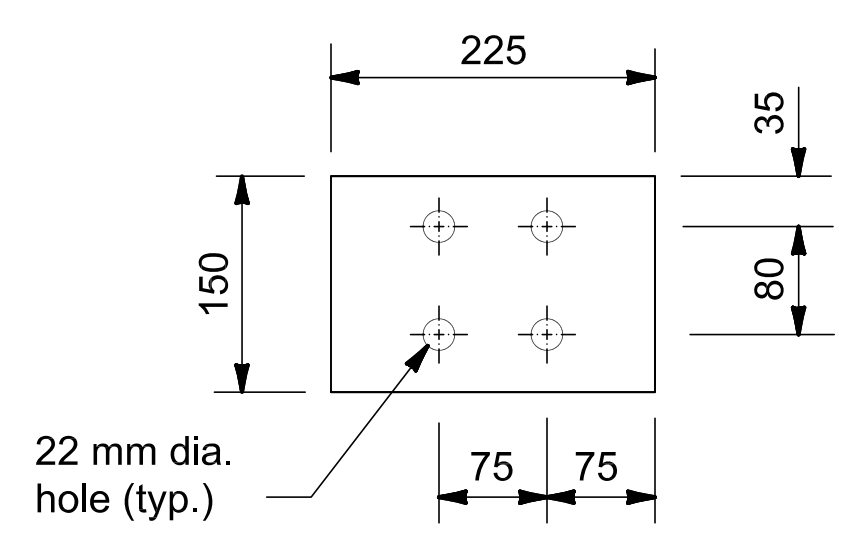
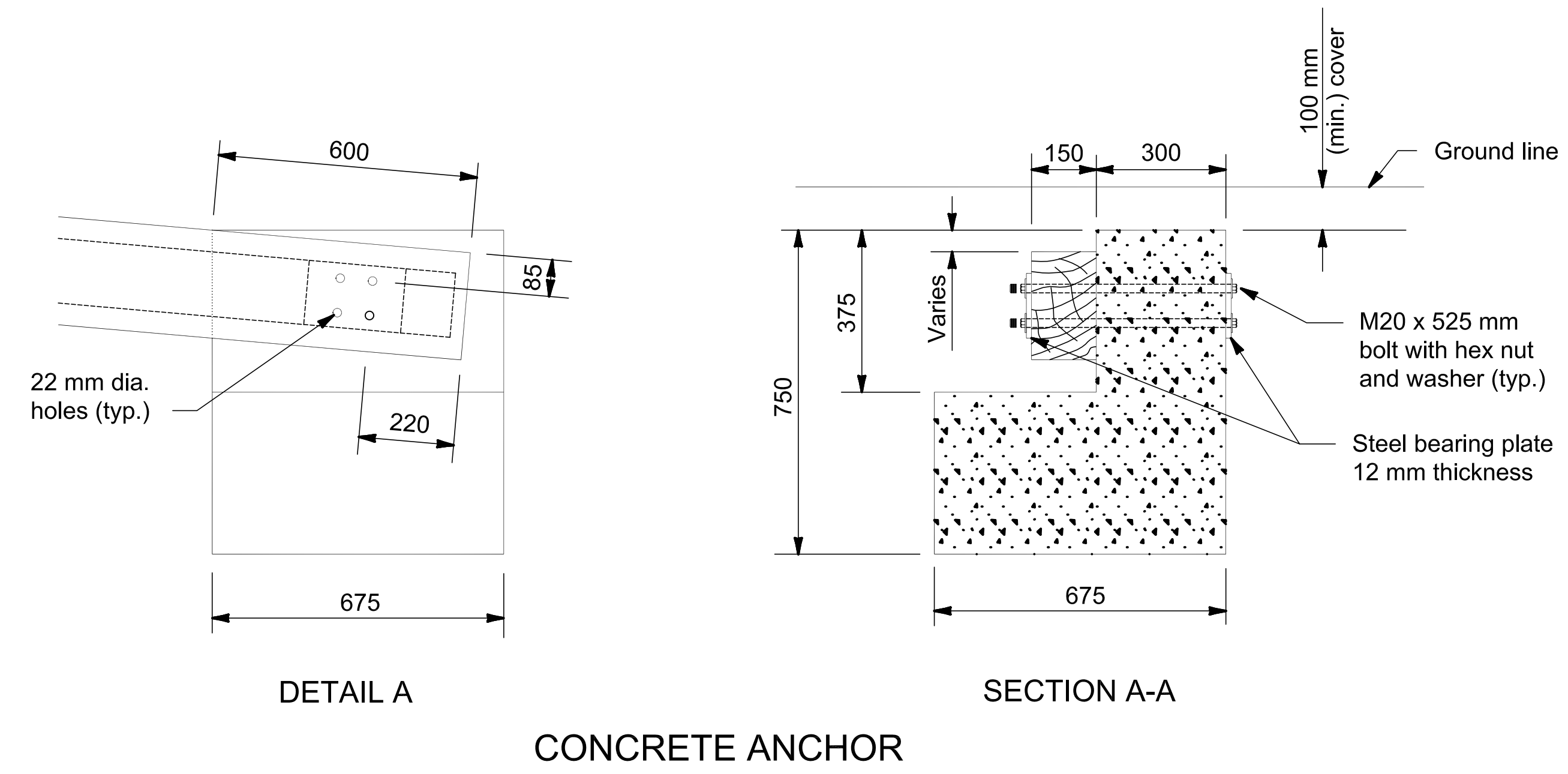
STORM DRAINAGE ENDWALLS								
SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	STRUCTURE TYPE	STANDARD DRAWING	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)
4B	CANADA RD.	191+08.93	68.93' RT	EW 1	24" 3:1	D-PE-24A, D-PE-24B	1.28	124
4B	CANADA RD.	191+75.10	62.40' LT	EW 2	18" 3:1	D-PE-18A, D-PE-18B	0.87	79
4B	CANADA RD.	193+75.16	62.86' LT	EW 3	18" 3:1	D-PE-18A, D-PE-18B	0.87	79
TOTALS							3.02	282

TABULATED QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2019	79LPLM-F3-554	2F



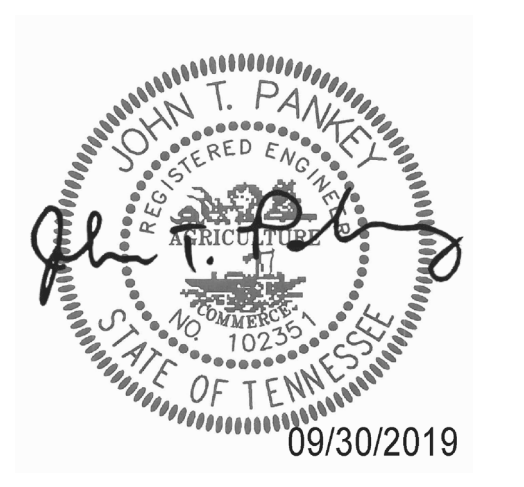
APPROACH & DEPARTURE FLARE WITH FLARED ANCHOR TERMINAL (FAT)



Design Speed (km/h)	Shy line offset (m)	Flare rate	
		inside shy line (a:b)	outside shy line (a:b)
100	2.5	26:1	13:1
80	2.0	21:1	11:1
60	1.5	17:1	9:1
50 or less	1.0	13:1	7:1

- NOTE:
- Dimensions not labeled are in millimeters.
 - Use 9 m long Type FAT-9 (Flared Anchor Terminal) terminal section or the 6 m long Type FAT-6 (Flared Anchor Terminal) terminal section as specified.
 - For the Type FAT-6 terminal section, the third rail on the Type FAT-9 terminal section is deleted and the concrete anchor is relocated to the end of the second rail. See Standard M204-1, Earth berm for Roadside Barrier Terminal Sections, for construction of the earth berm.
 - For the Type FAT-9 terminal section, extend the fill widening a minimum of 1.5 m behind the guardrail, unless otherwise directed by the CO.
 - The guardrail flare shown in the plan view is the minimum length and rate required. As directed by the CO, flare the guardrail so that the terminal section is outside the clear zone. If the terminal section cannot be located outside the clear zone, it should be flared as far as practical from the road at the maximum rate indicated on the Guardrail Flare Rates table.
 - See Standard M617-60, Steel-Backed Timber Guardrail, Type SBTA and SBTB, for timber, structural steel, and hardware details.
 - On the Type A, blocked-out guardrail, include the blocks in terminal section, except on the concrete anchor. For the Type B, non-blocked-out guardrail, no blocks are included.
 - Finish hardware in the metric sizes shown. Equivalent imperial sizes may be used when metric sizes are not available.

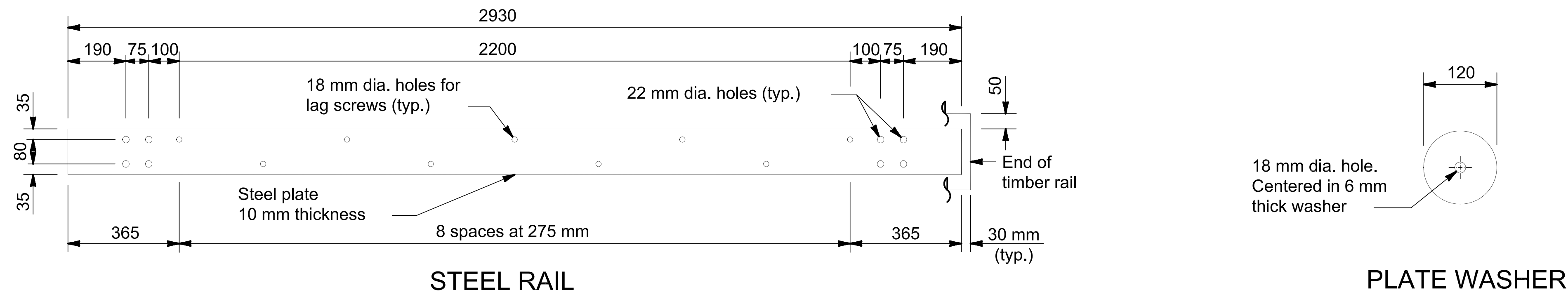
METRIC STANDARD
STEEL-BACKED TIMBER GUARDRAIL
TERMINAL SECTION, TYPE FAT-9
AND TYPE FAT-6
STANDARD
M617-61



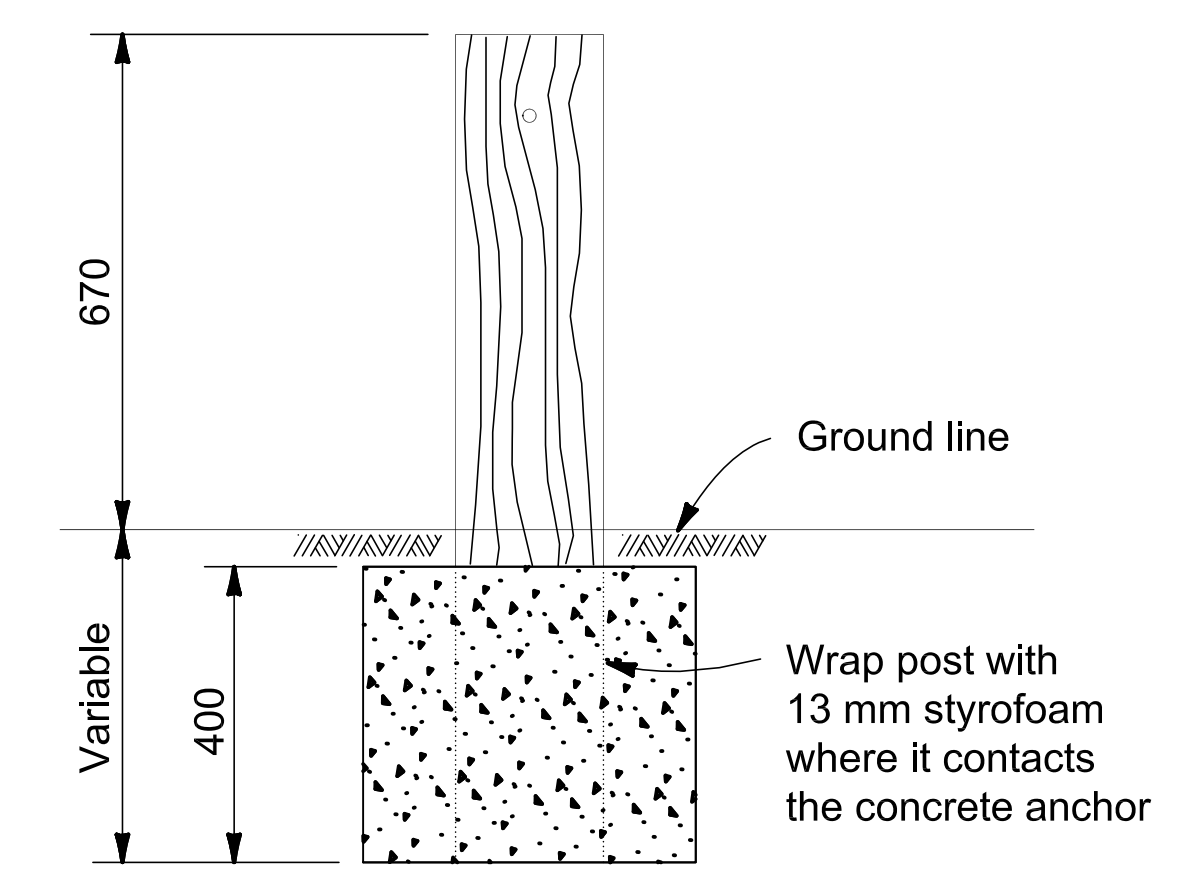
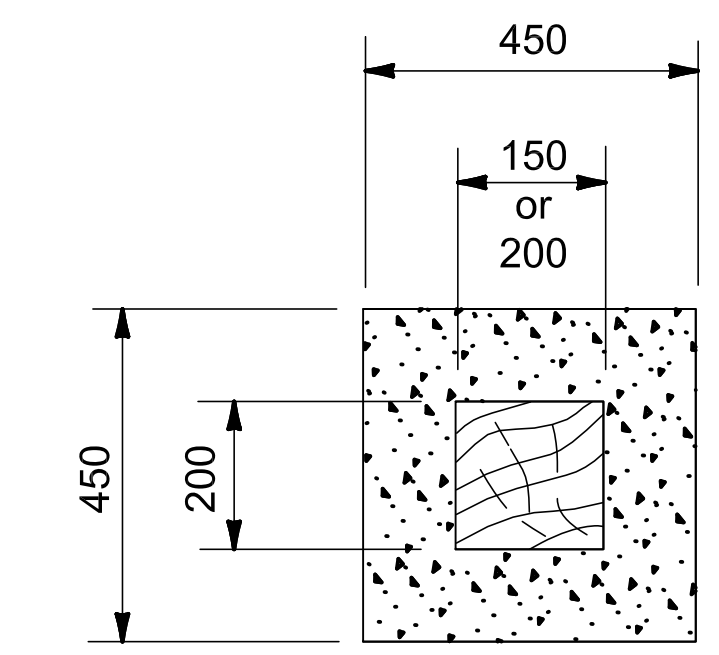
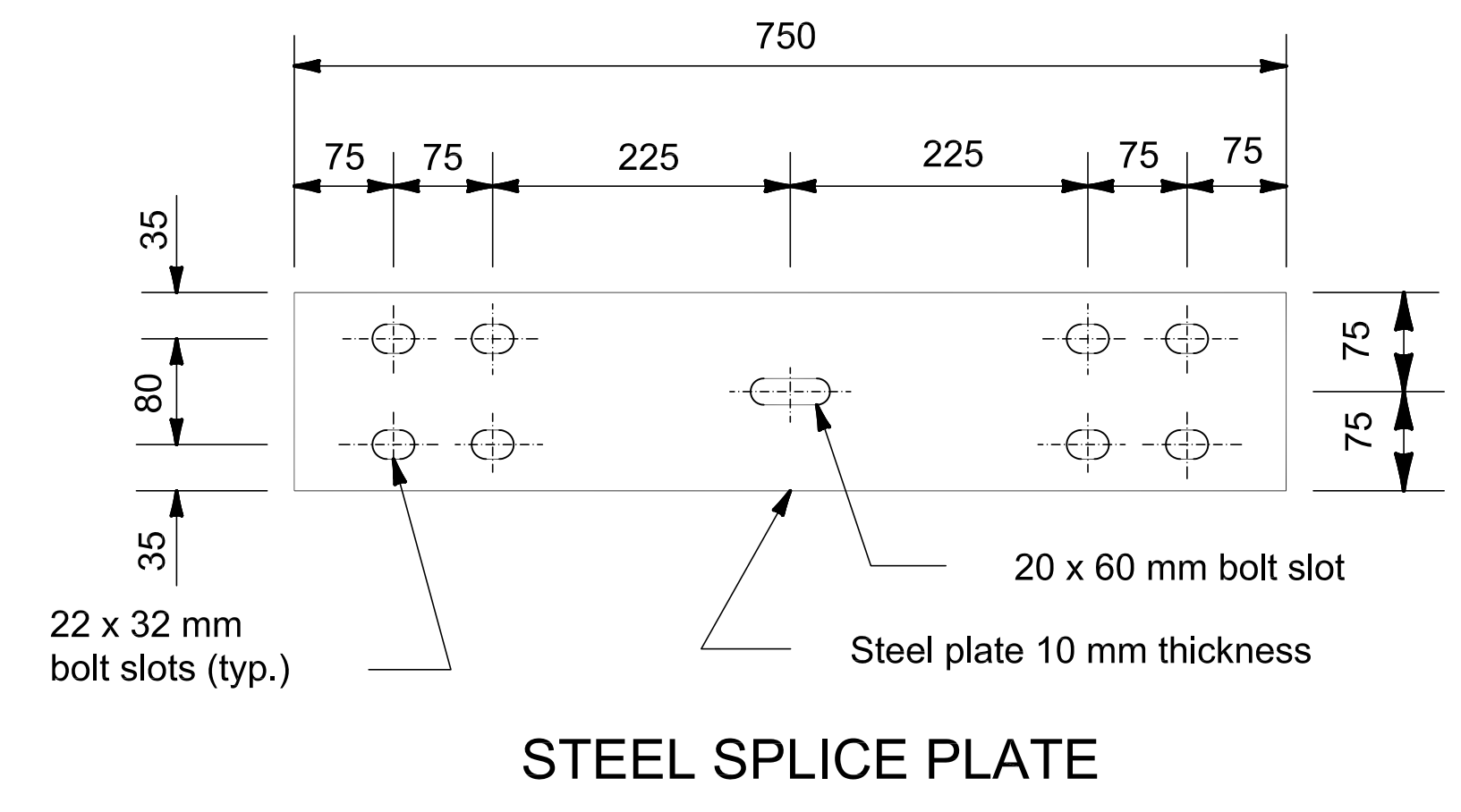
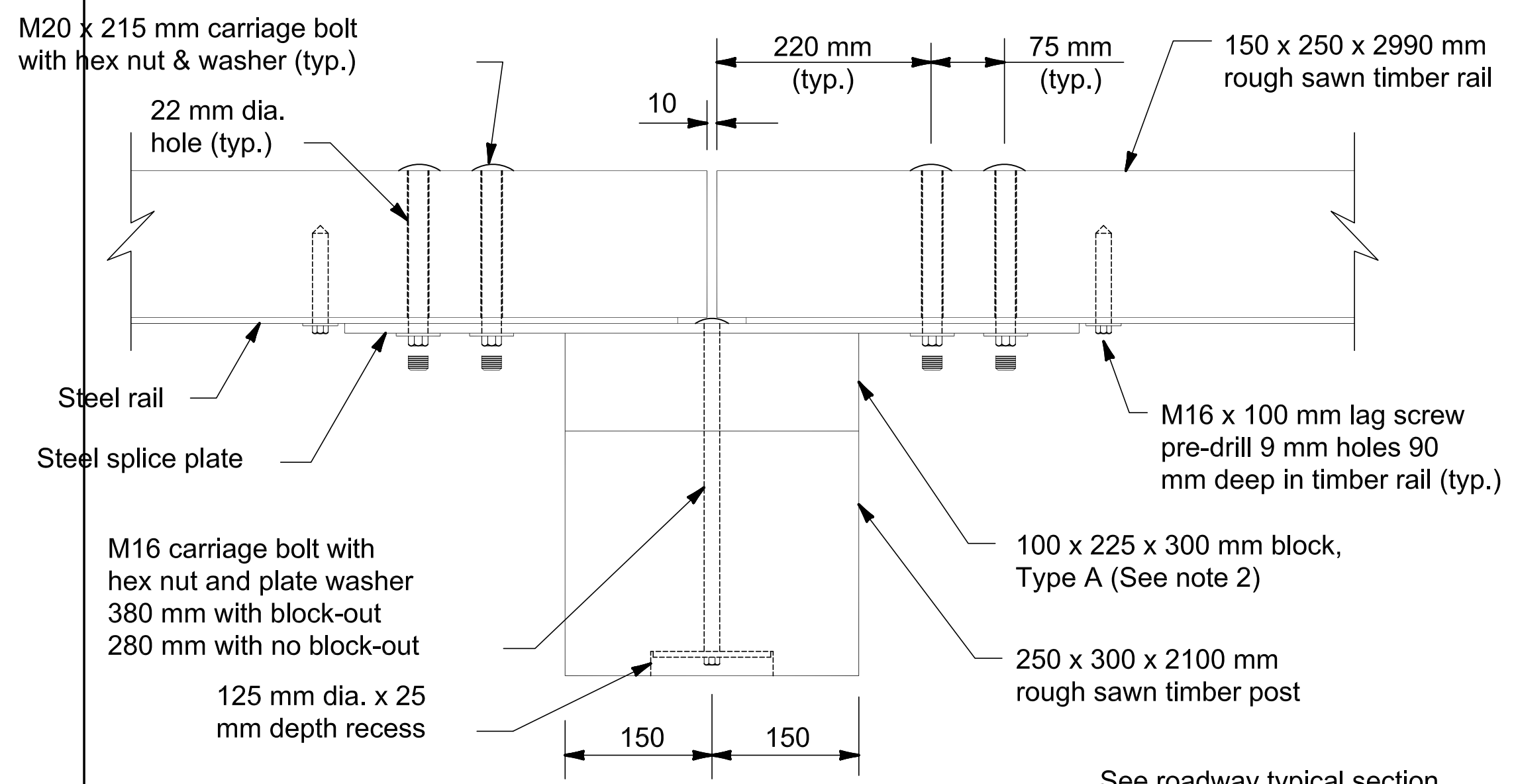
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETAILS
TIMBER
GUARDRAIL

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2019	79LPLM-F3-554	2F1

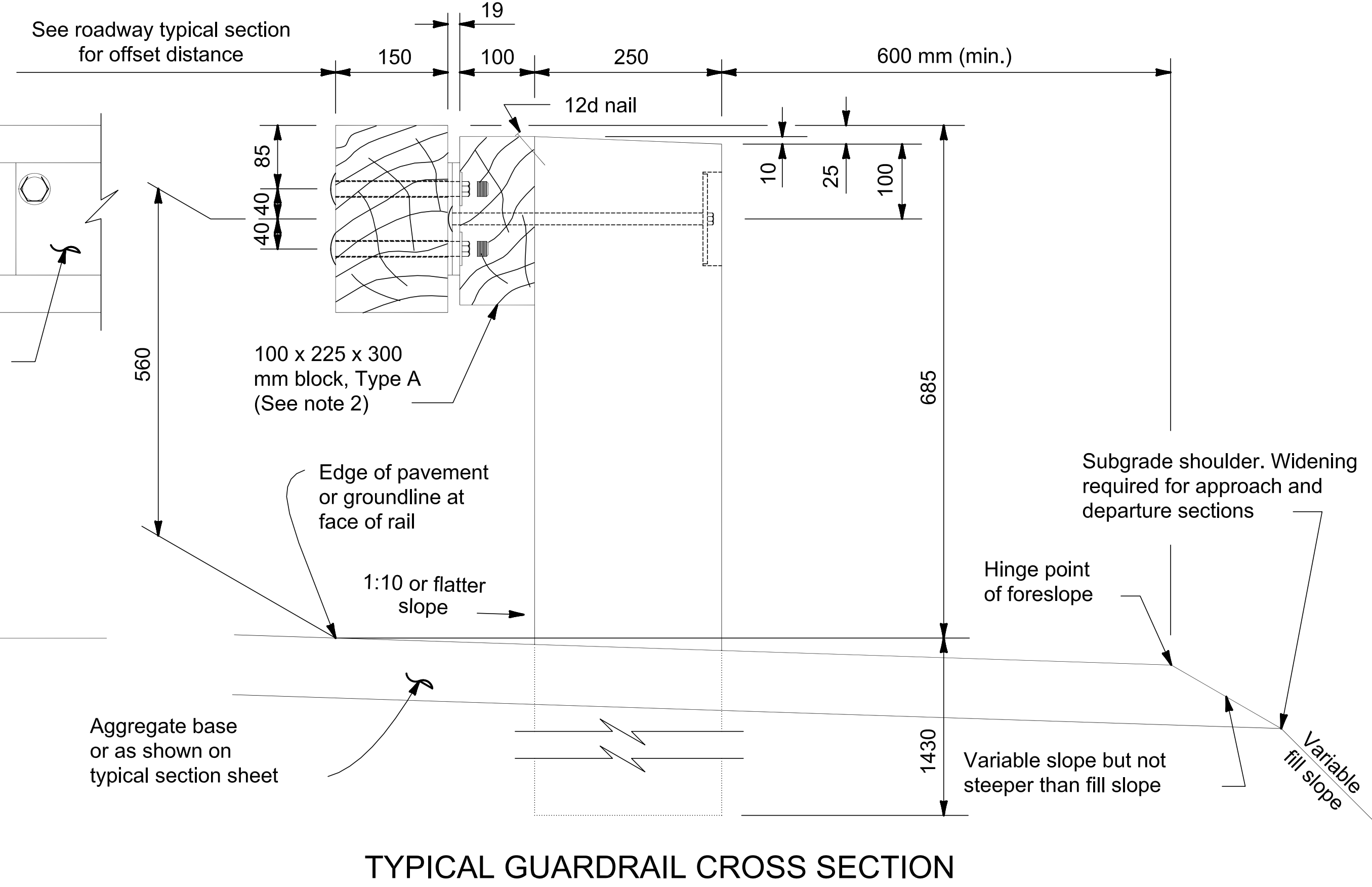
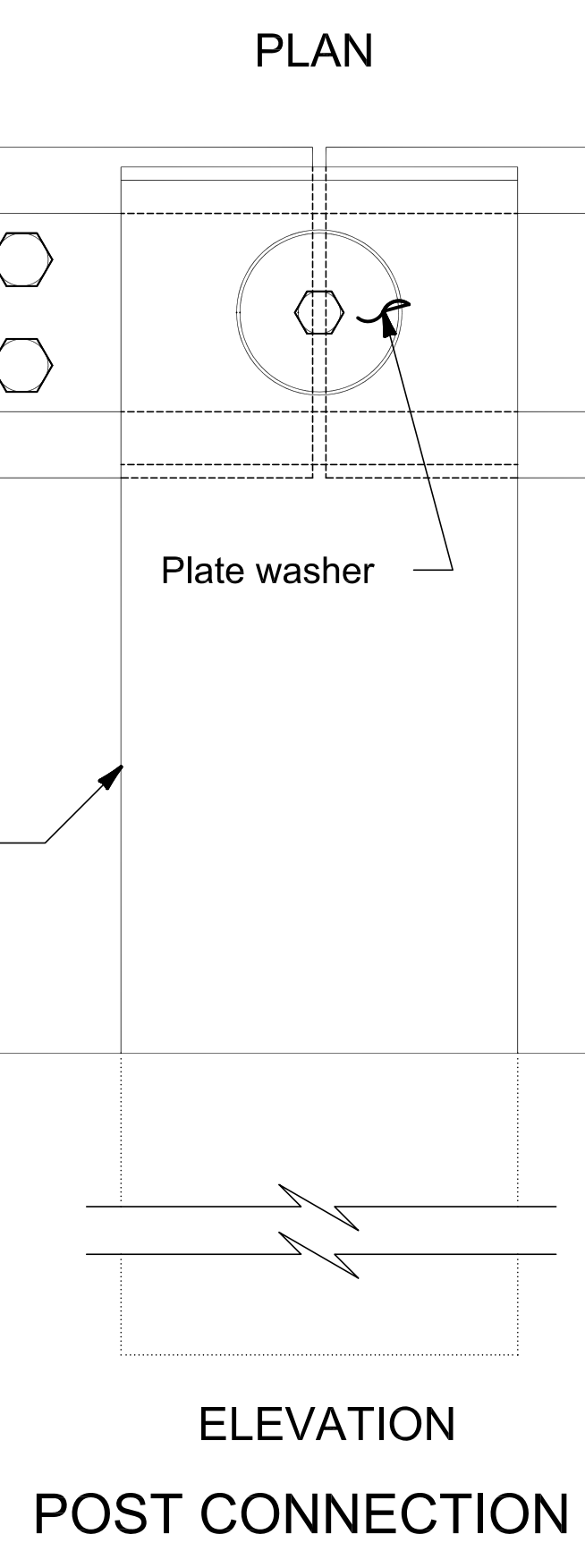
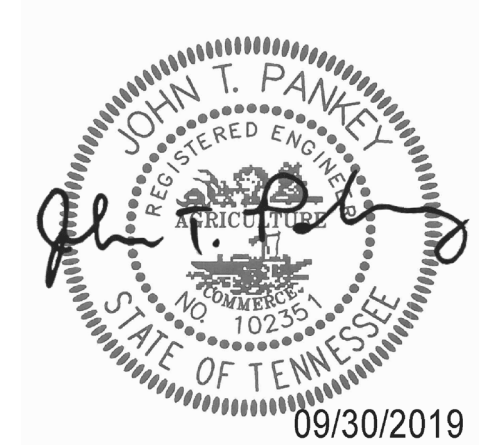


- NOTE:**
1. Dimensions not labeled are in millimeters.
 2. Use the Type A, blocked-out, system or the Type B, non-blocked-out, system as specified.
 3. Use weathering steel for all structural steel and fastener hardware as specified.
 4. Place a terminal section (See Standards M617-61 and M617-62) on both approach and trailing ends of barrier installations.
 5. Furnish hardware in the metric sizes shown. Equivalent imperial sizes may be used when metric sizes are not available.



Use 550 mm diameter round anchor or 500 mm square anchor. Reduced size acceptable in solid rock.

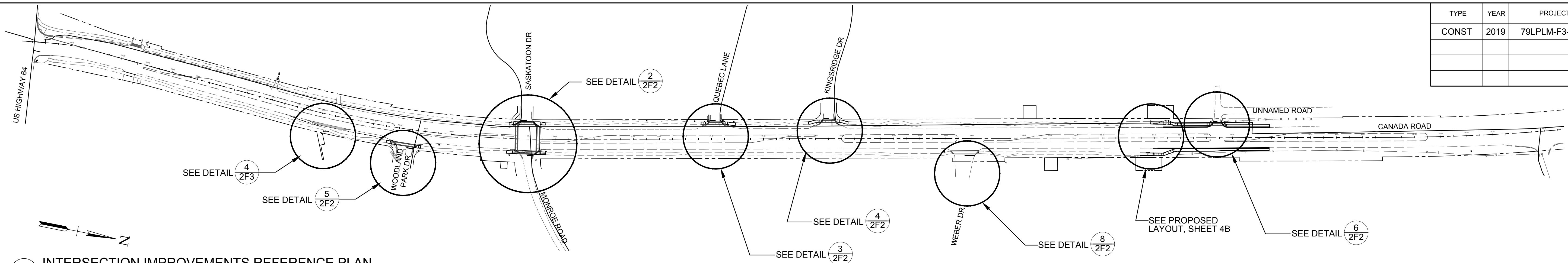
CONCRETE ANCHOR FOR SHORT GUARDRAIL POST



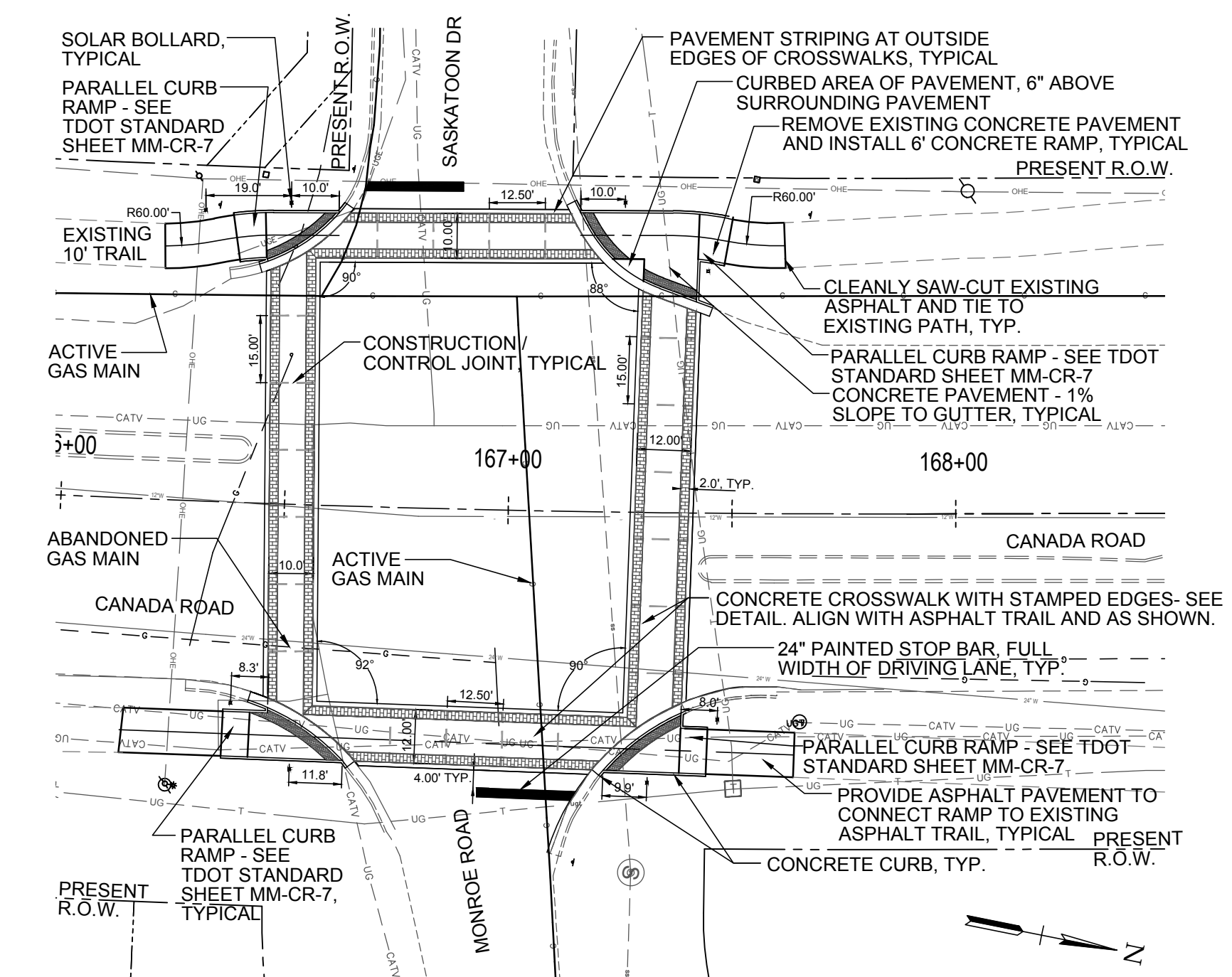
STANDARD
STEEL-BACKED TIMBER GUARDRAIL, TYPE A & TYPE B
 STANDARD
 M617-60

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
**DETAILS
 TIMBER
 GUARDRAIL**

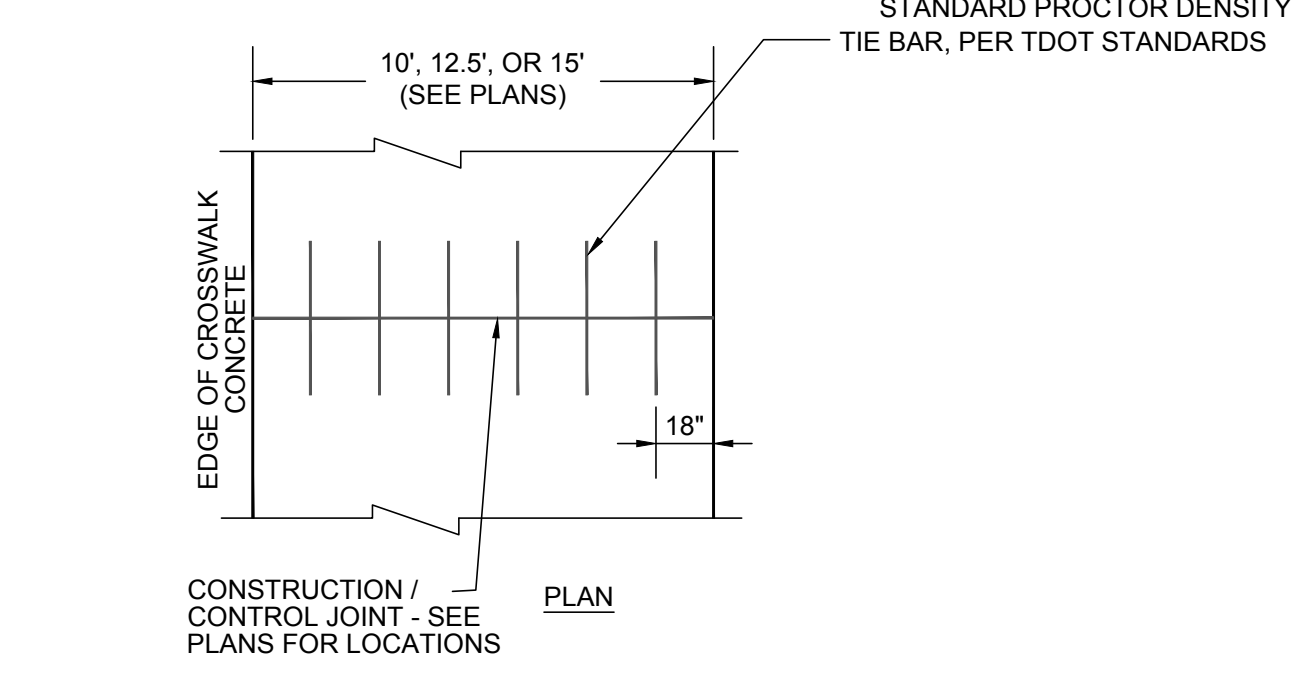
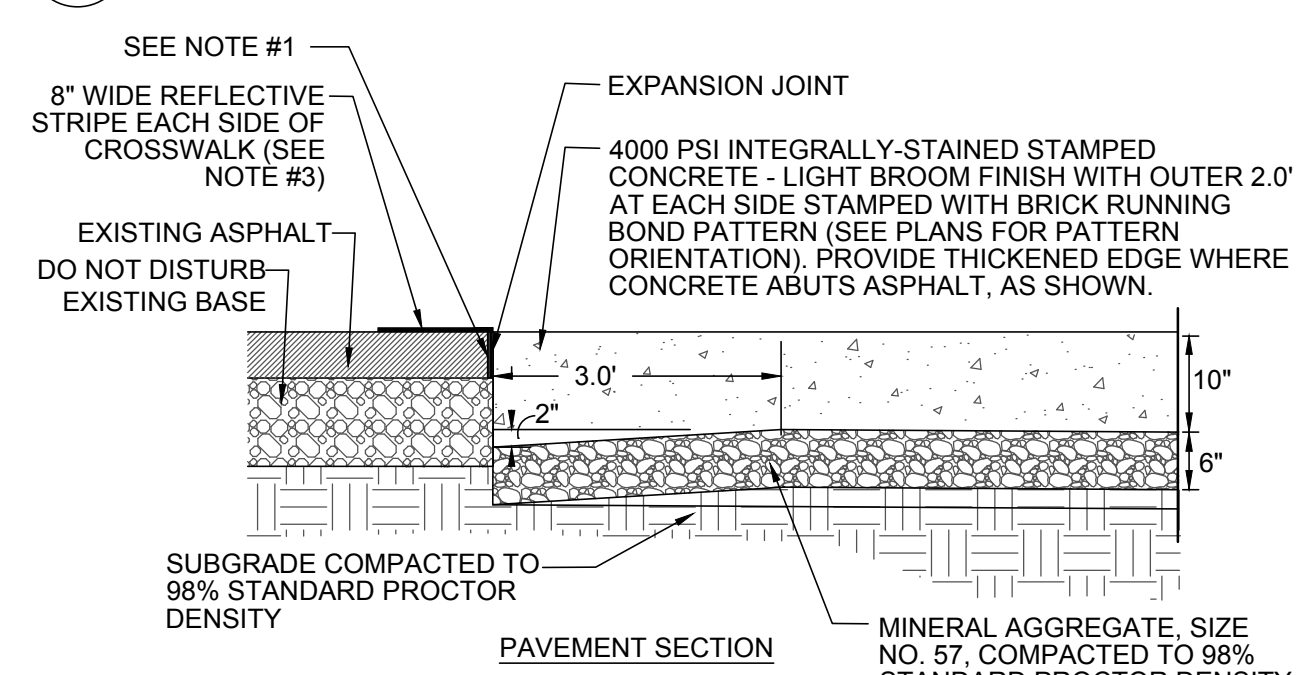
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2019	79LPLM-F3-554	2F2



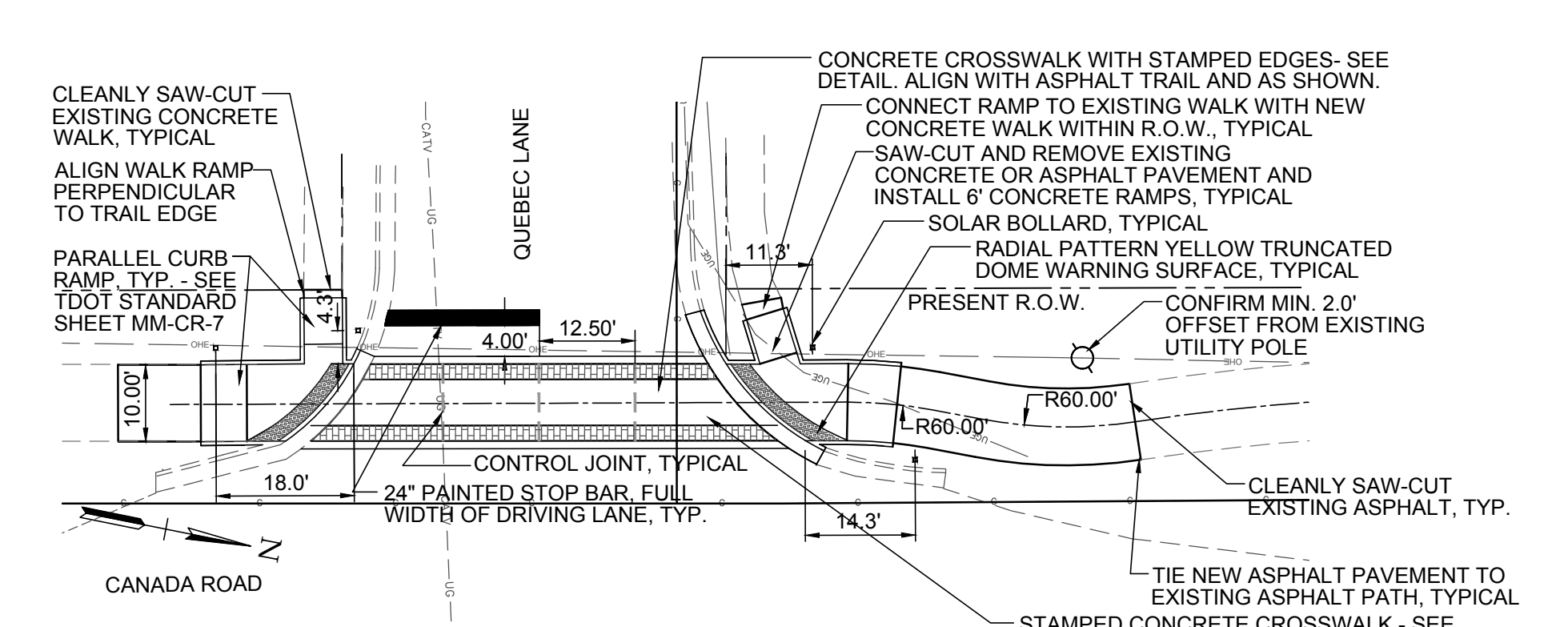
1 INTERSECTION IMPROVEMENTS REFERENCE PLAN
SCALE: 1" = 200'-0"



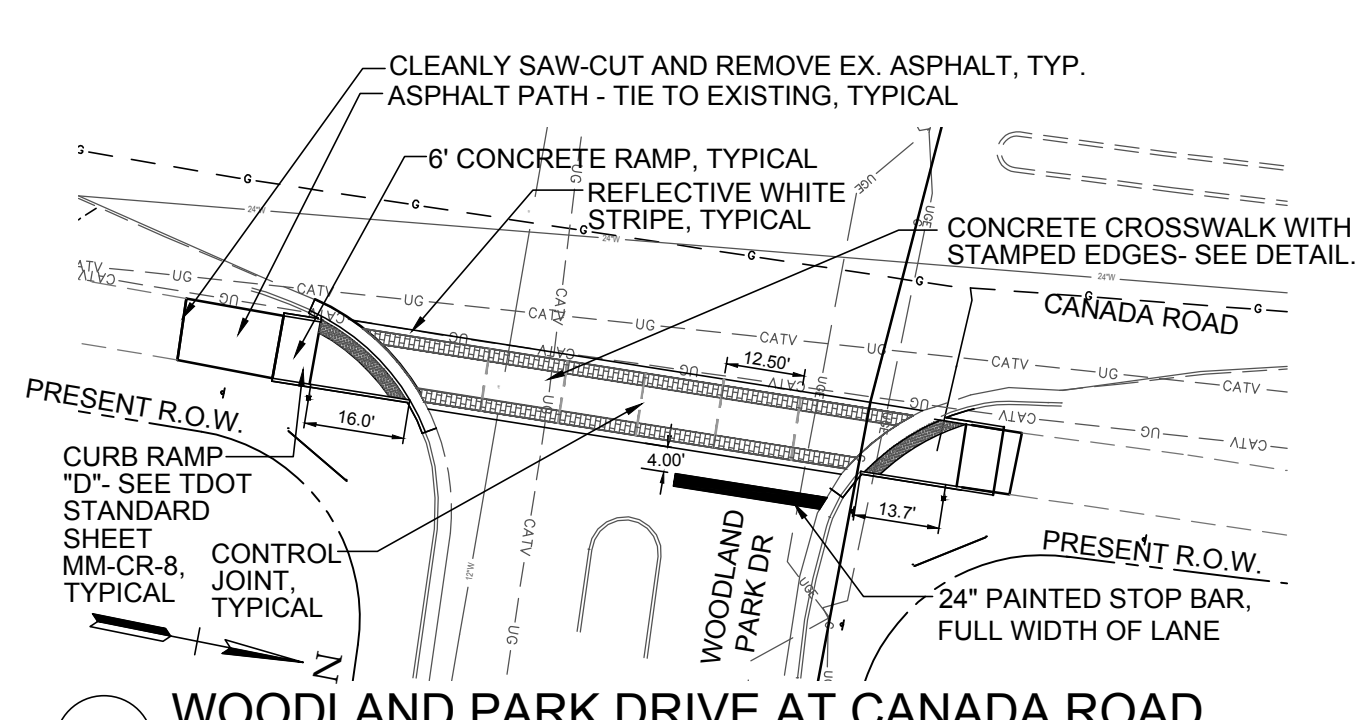
2 MONROE ROAD NORTH / SASKATOON DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



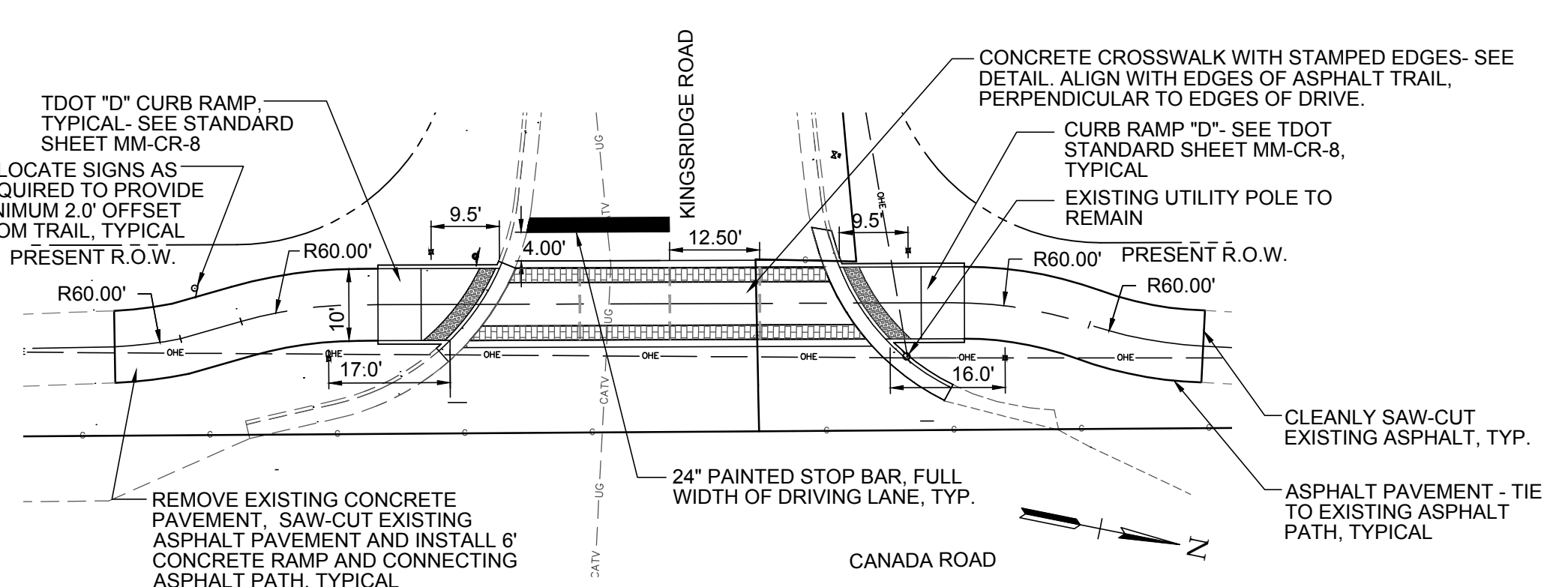
7 CONCRETE PEDESTRIAN CROSSWALK
SCALE: NONE



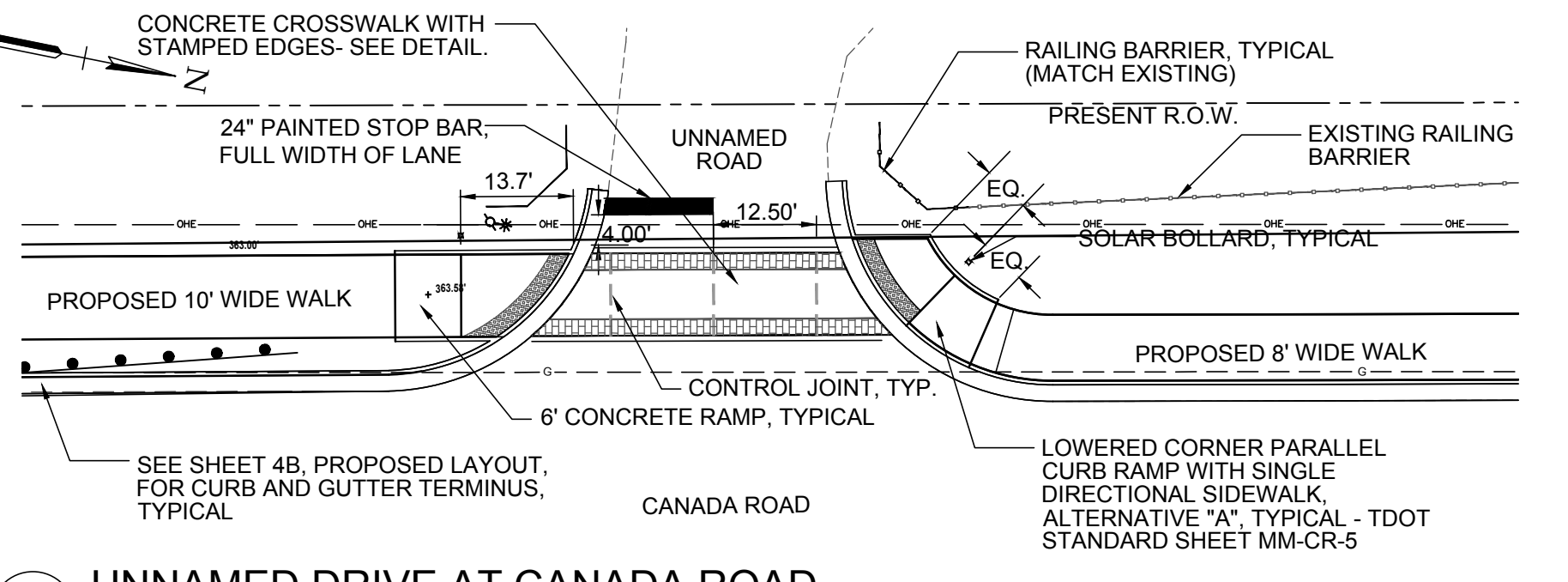
3 QUEBEC LANE AT CANADA ROAD
SCALE: 1" = 20'-0"



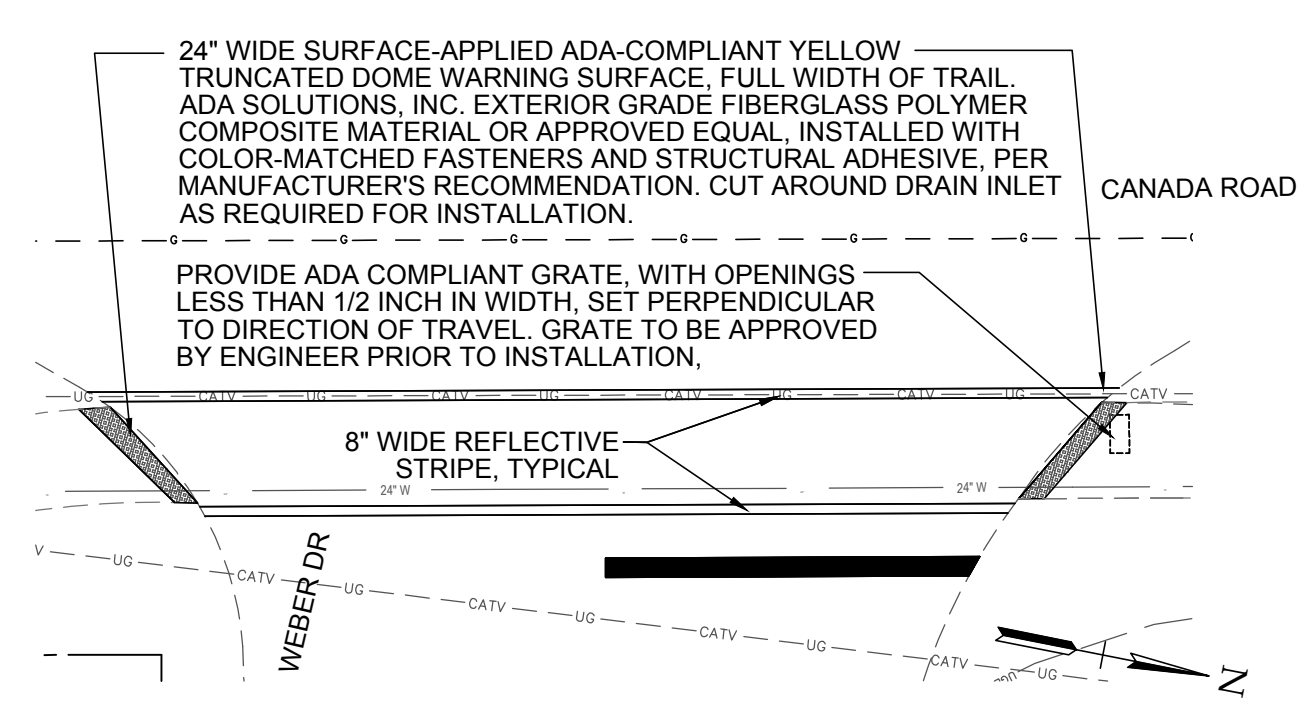
5 WOODLAND PARK DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



4 KINGSRIDGE DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



6 UNNAMED DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



8 WEBER DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"

- NOTE:
- 1) SAW CUT EXISTING ASPHALT AND REMOVE, TAKING CARE NOT TO DISTURB THE EXISTING SUBGRADE.
 - 2) HYDROBLAST TO REMOVE EXISTING CROSSWALK PATTERN OUTSIDE NEW CROSSWALK AREAS AT ALL INTERSECTIONS SHOWN ON THE PLANS.
 - 3) PROVIDE REINFORCED TDOT STANDARD LONGITUDINAL CONTROL JOINTS OR CONSTRUCTION JOINTS IN LOCATIONS SHOWN. PROVIDE FULL-DEPTH EXPANSION JOINTS WHERE CONCRETE MEETS EXISTING ASPHALT, CONCRETE, OR UTILITY STRUCTURES. FINISHED DEPTH OF JOINTS TO TOP OF JOINT SEALANT SHALL NOT EXCEED 1/4-INCH.
 - 3) 8" WIDE PREFORMED PLASTIC PAVEMENT STRIPES ON OUTSIDE EDGES OF CROSSWALKS SHALL CONFORM TO TDOT STANDARDS FOR PREFORMED PLASTIC PAVEMENT MARKINGS.
 - 4) SUBMIT CONCRETE COLORS AND PATTERN FOR APPROVAL. JOINTS SHALL NOT EXCEED 1/4" IN DEPTH AND WIDTH.
 - 5) PROVIDE SLIP-RESISTANT CONCRETE CURING AND SEALING COMPOUND, IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS. SUBMIT PRODUCT DATA SHEETS FOR APPROVAL.
 - 6) ALL JOINT SEALANTS WITHIN INTEGRALLY-COLORED PAVEMENT TO BE COLORED TO MATCH PAVEMENT.

EXISTING UTILITY LEGEND

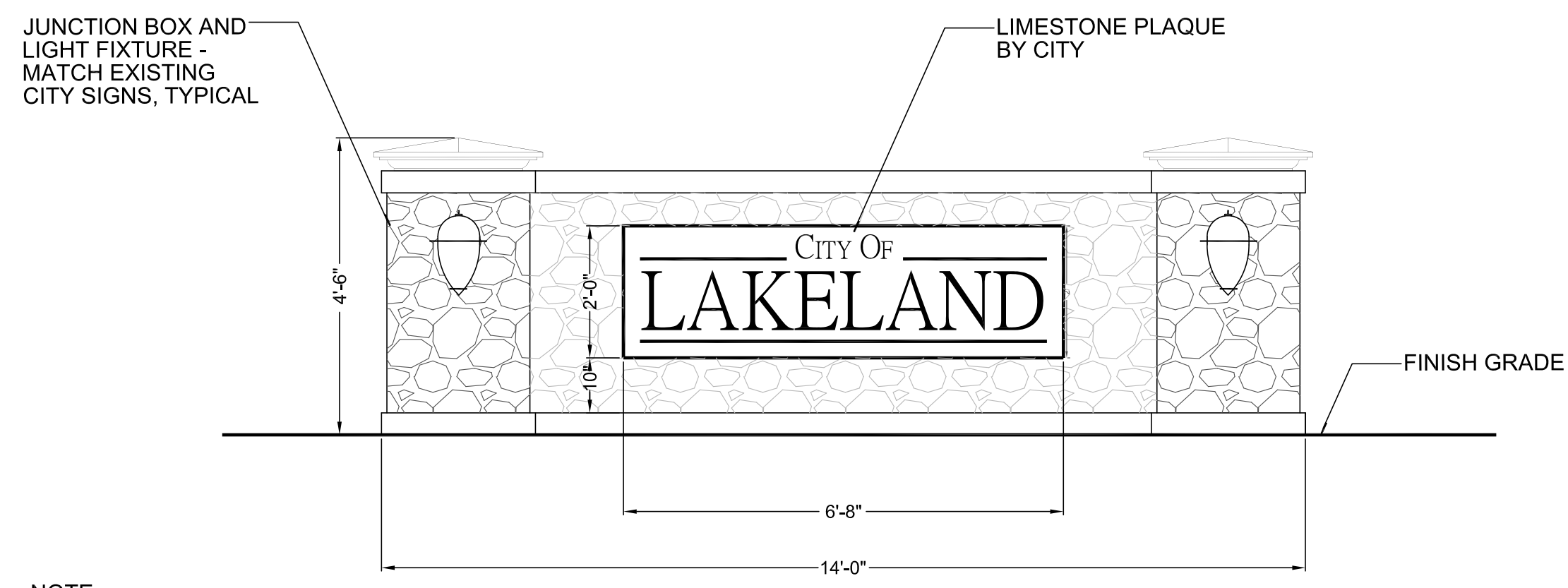
—	GAS MAIN
—	OVERHEAD ELECTRIC
—	SANITARY SEWER
—	UNDERGROUND CABLE
—	UNDERGROUND ELECTRIC
—	WATER (WITH SIZE INDICATION)



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

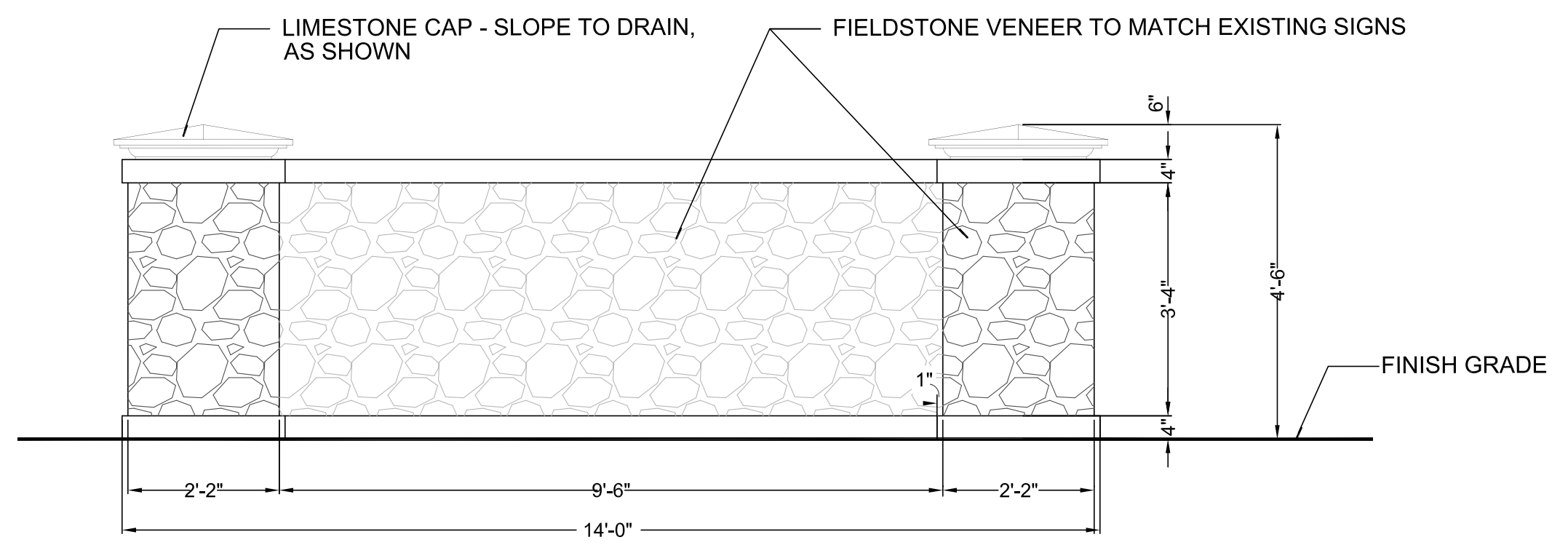
INTERSECTION DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2019	79LPLM-F3-554	2F3

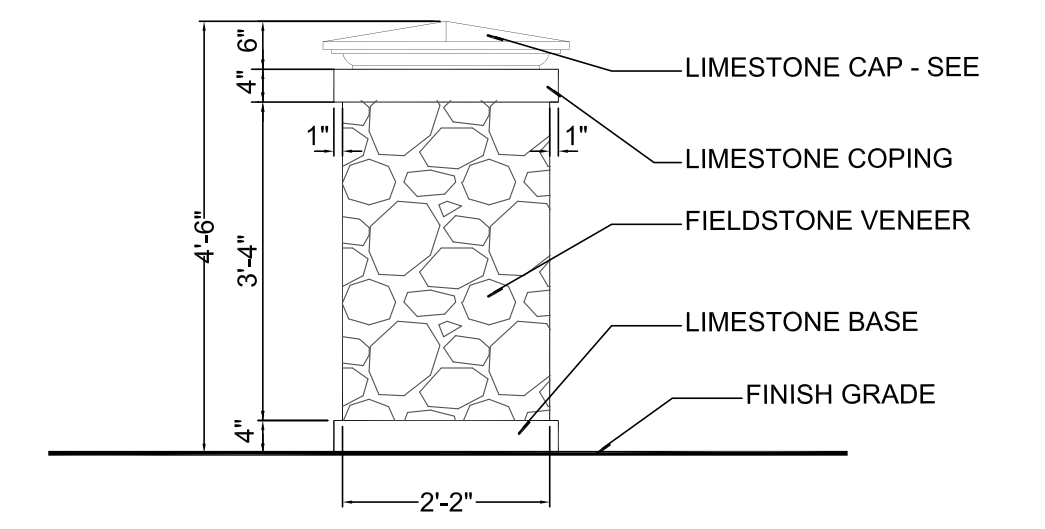


NOTE:
ELECTRICAL CONNECTIONS TO BE PROVIDED BY CITY OF LAKELAND

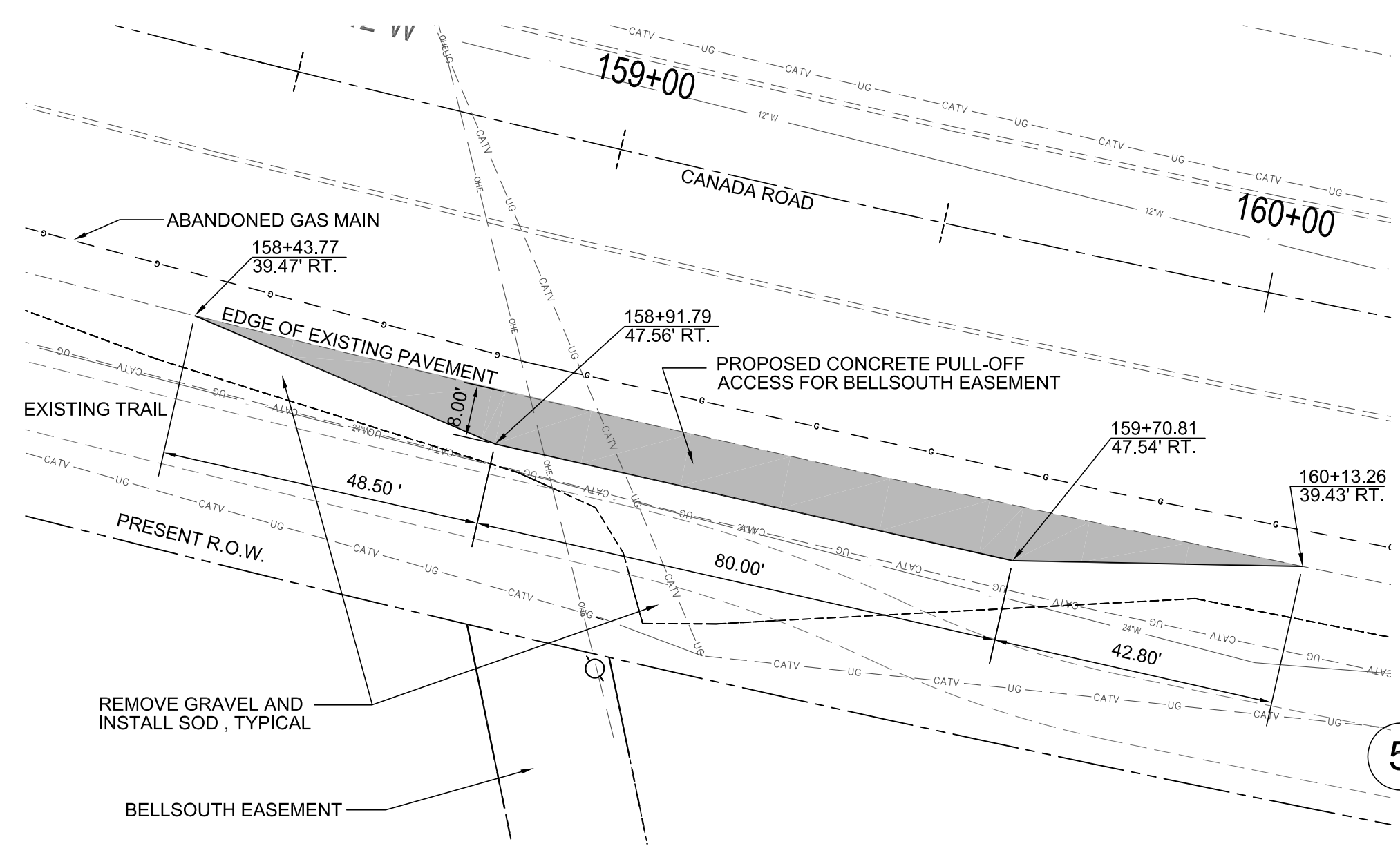
1 SIGN FRONT ELEVATION
SCALE: 1/2" = 1'-0"



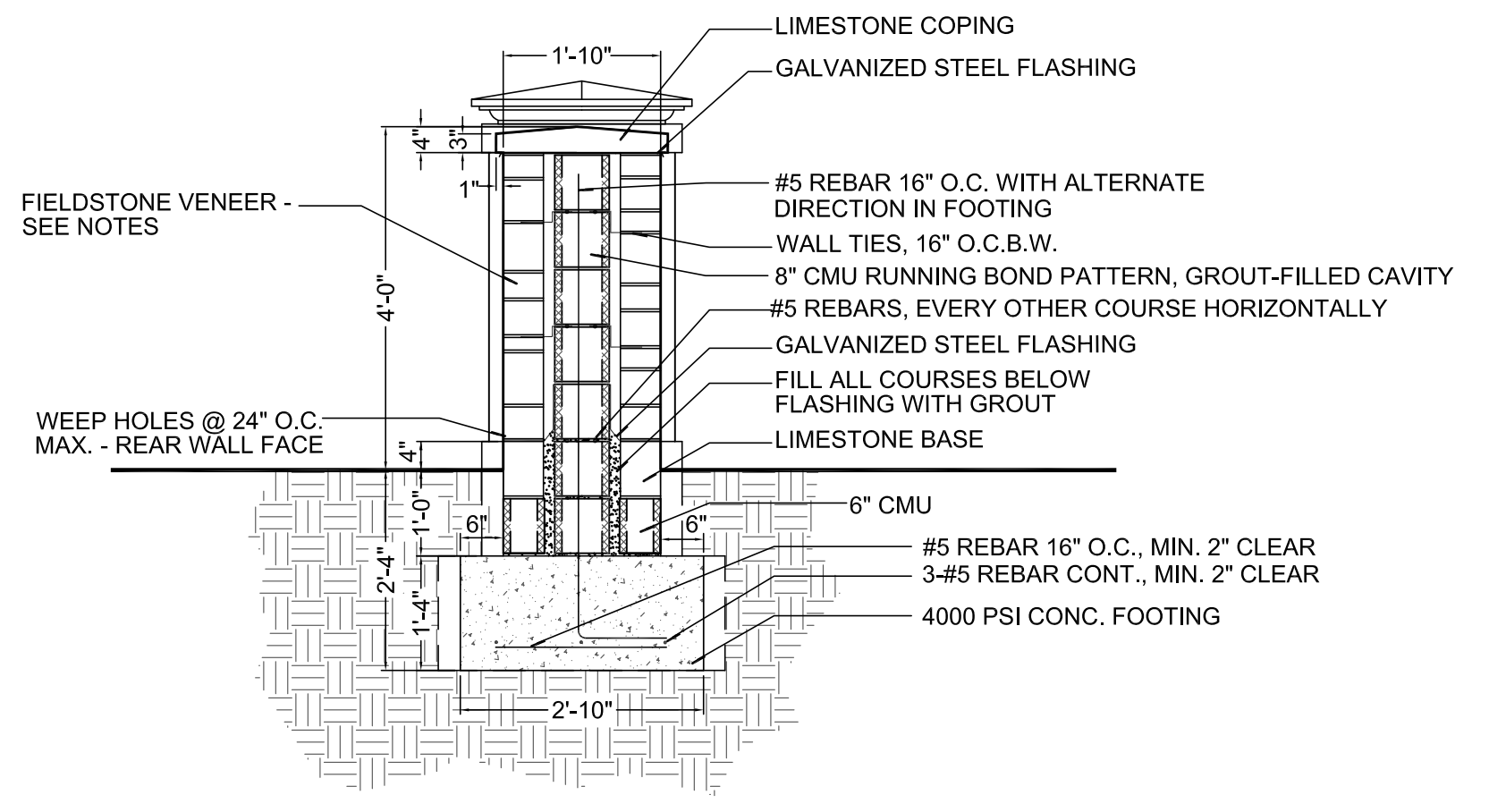
2 SIGN REAR ELEVATION
SCALE: 1/2" = 1'-0"



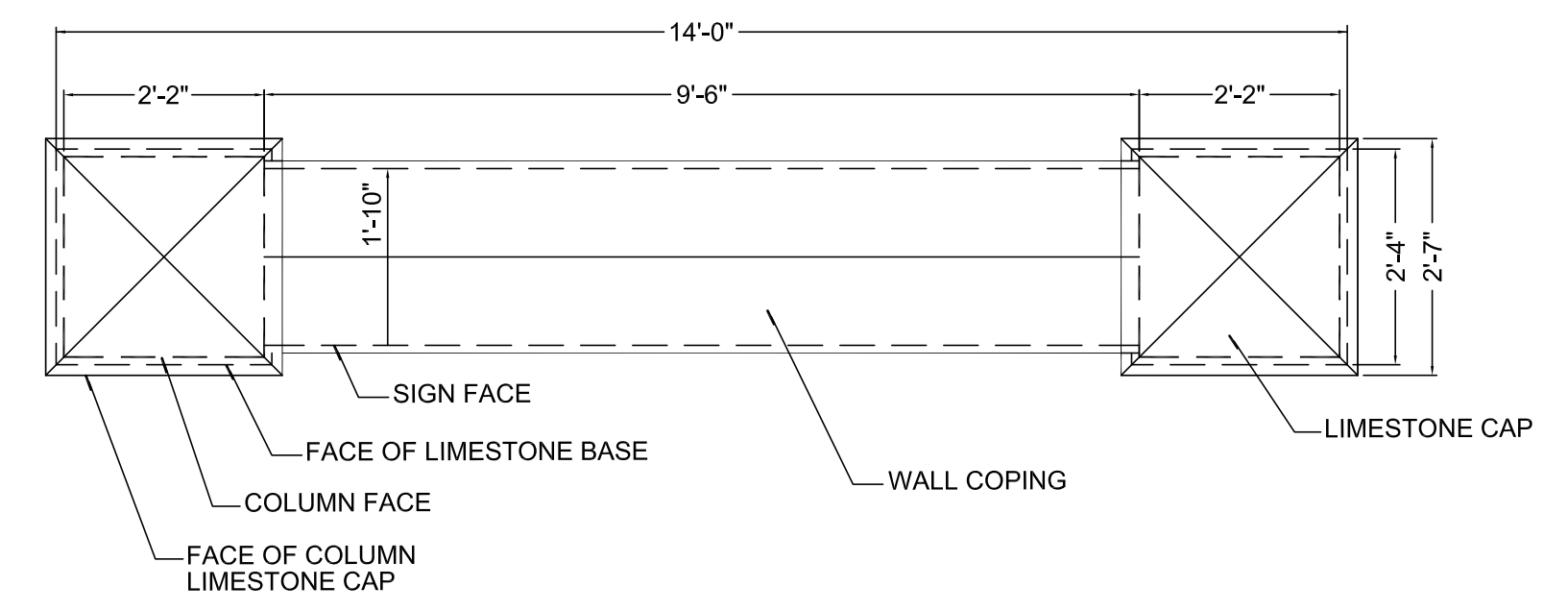
3 SIGN COLUMN ELEVATION
SCALE: 1/2" = 1'-0"



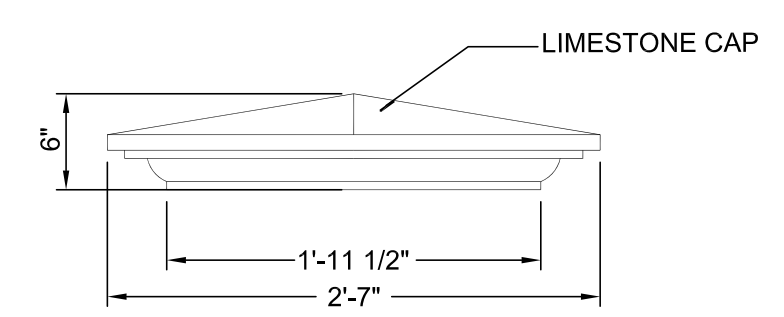
4 PULL-OFF AT BELLSOUTH EASEMENT
SCALE: 1" = 20'-0"



5 SIGN WALL SECTION
SCALE: 1/2" = 1'-0"



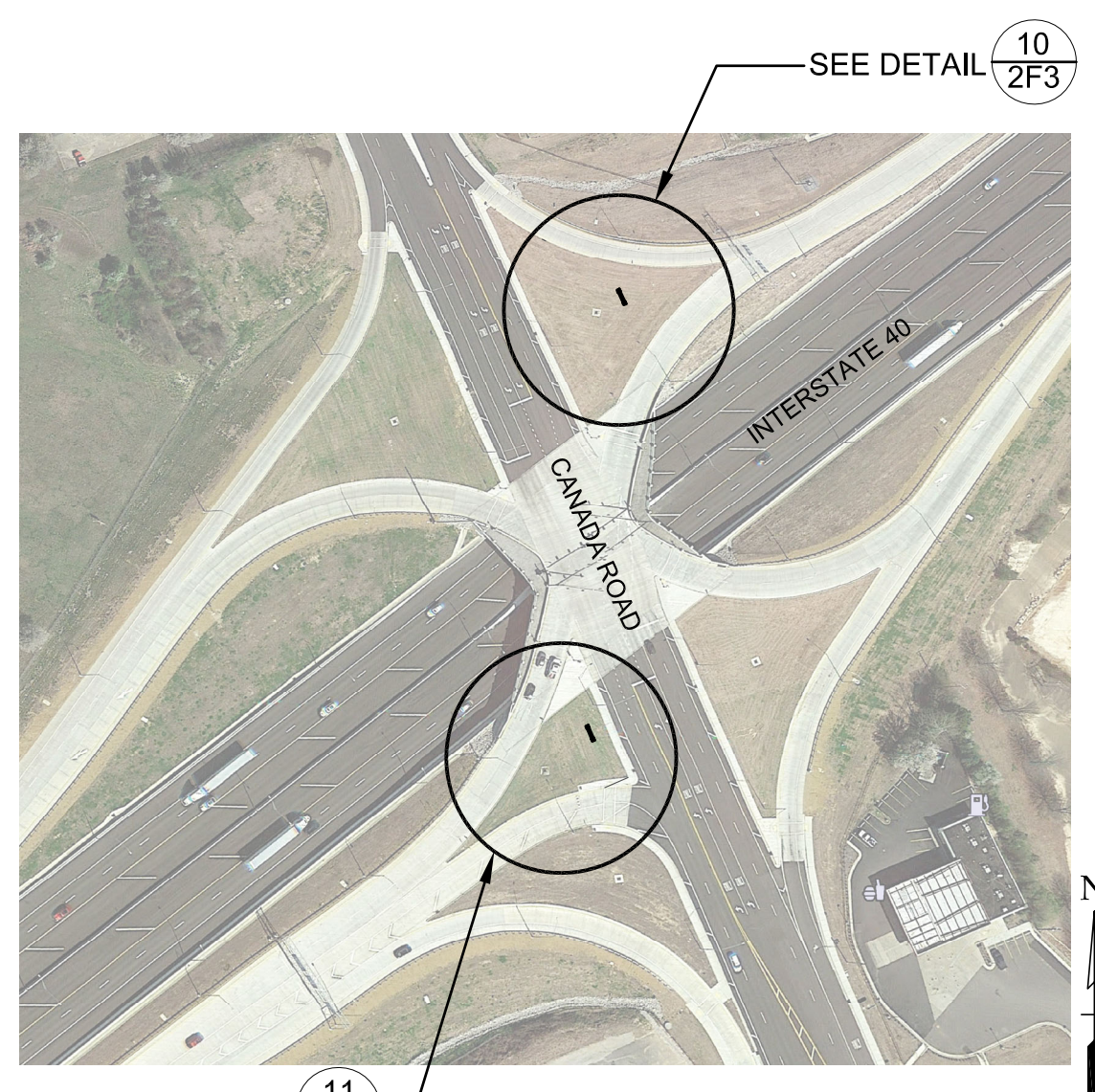
6 SIGN WALL PLAN VIEW
SCALE: 1/2" = 1'-0"



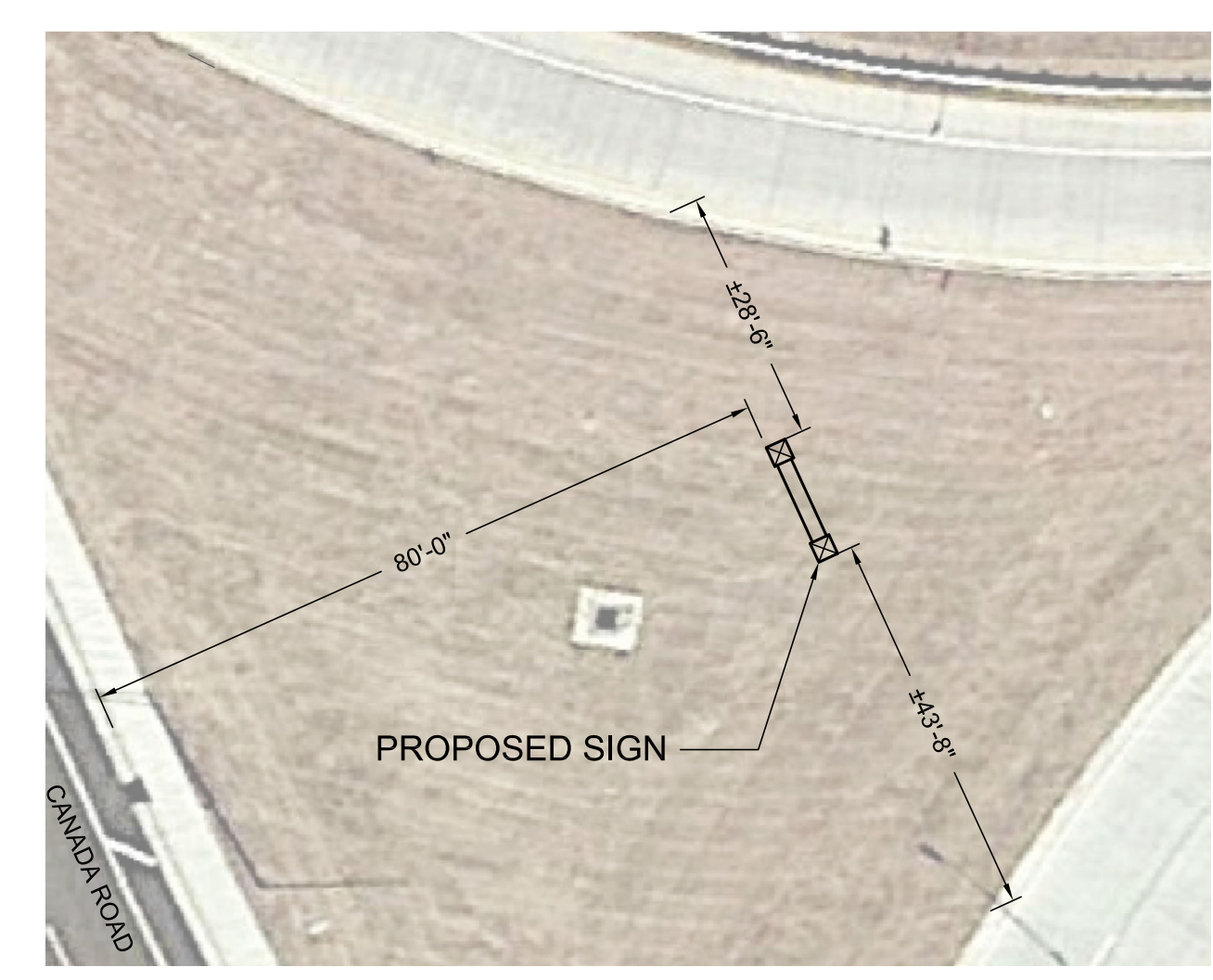
7 LIMESTONE COLUMN CAP DETAIL
SCALE: 1" = 1'-0"

1. FIELDSTONE VENEER SHALL MATCH EXISTING SIGN IN CANADA ROAD MEDIAN, NEAR US HIGHWAY 64.
2. CONTRACTOR SHALL PROVIDE SAMPLES OF STONE VENEER AND LIMESTONE CAP MATERIALS FOR APPROVAL BY OWNER'S REPRESENTATIVE.
3. LAYOUT DIMENSIONS ARE FROM FACE OF CURB UNLESS OTHERWISE NOTED.
4. SIGNS SHALL BE PLACED PARALLEL TO CANADA ROAD CURB FACE AND SHALL FACE THE TRAFFIC EXITING THE INTERSTATE.
5. ELECTRICAL UTILITY SHALL BE PROVIDED BY THE OWNER. CONTRACTOR SHALL PROVIDE LIGHT FIXTURES, JUNCTION BOXES, AND ELECTRICAL CONDUITS THROUGH THE COLUMNS.

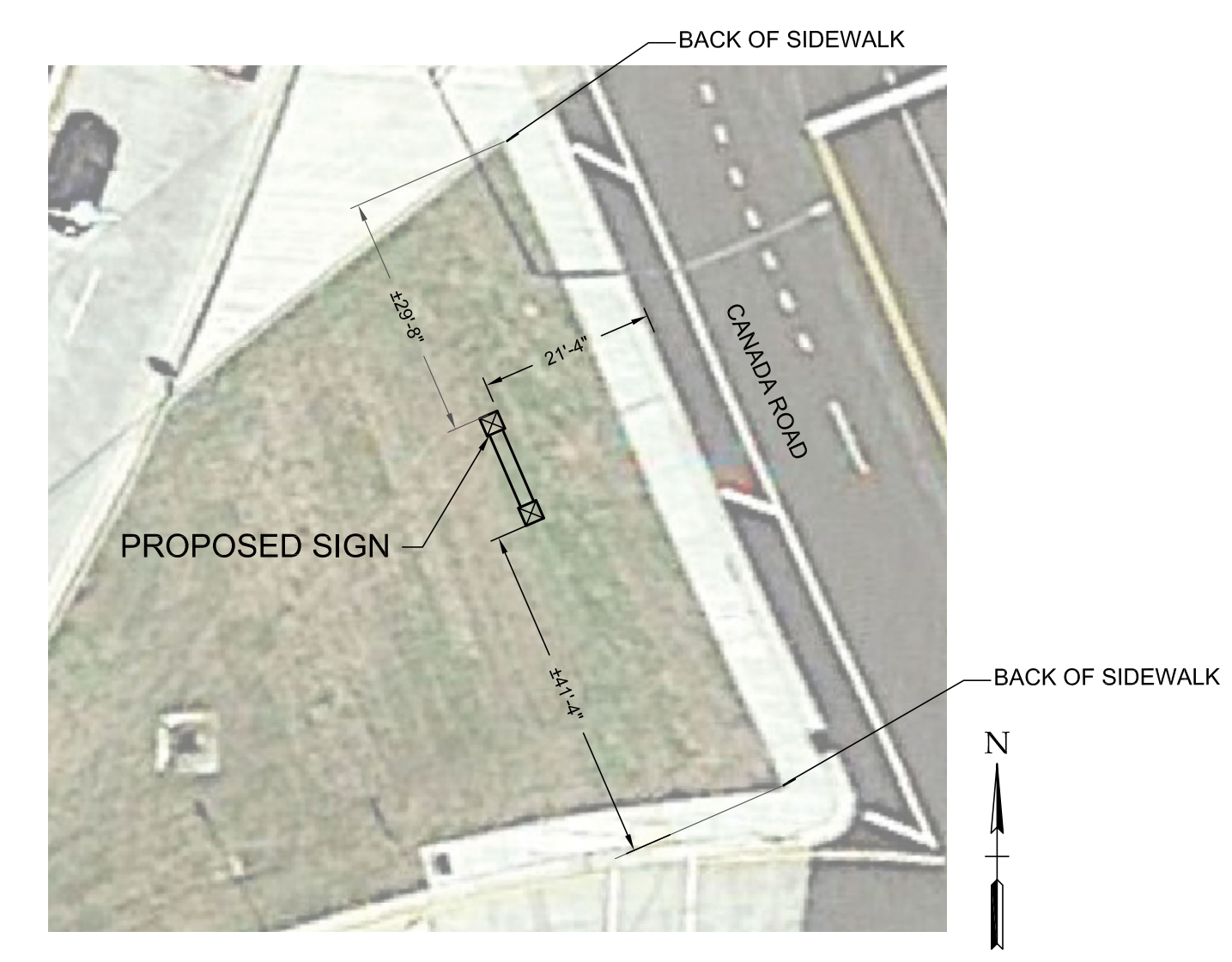
8 SIGN GENERAL NOTES
SCALE: 1" = 1'-0"



9 SIGN REFERENCE PLAN
SCALE: NOT TO SCALE



10 I-40/CANADA ROAD SIGN NORTH
SCALE: 1" = 20'-0"



11 I-40/CANADA ROAD SIGN SOUTH
SCALE: 1" = 20'-0"

EXISTING UTILITY LEGEND

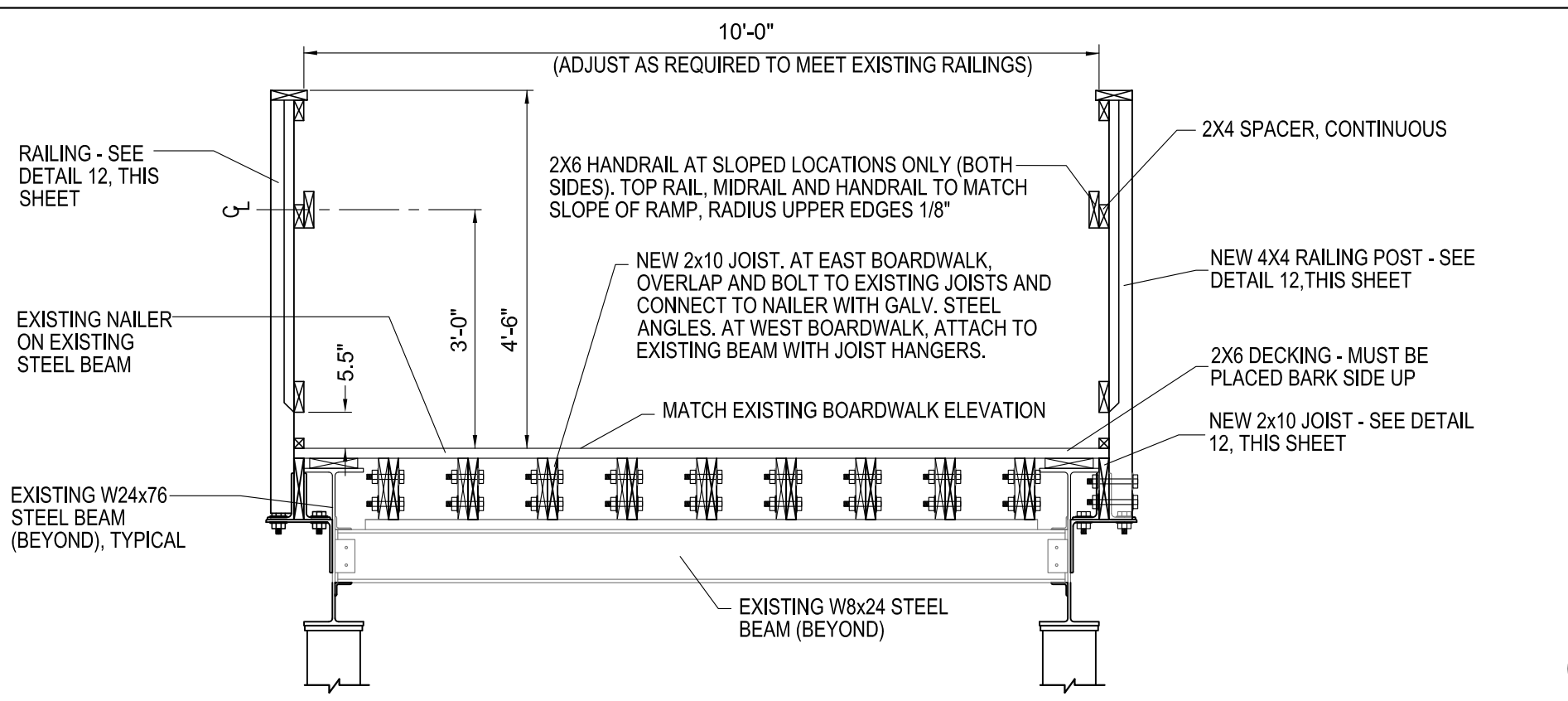
---	GAS MAIN
---	OVERHEAD ELECTRIC
---	SANITARY SEWER
---	UNDERGROUND CABLE
---	UNDERGROUND ELECTRIC
---	WATER (WITH SIZE INDICATION)



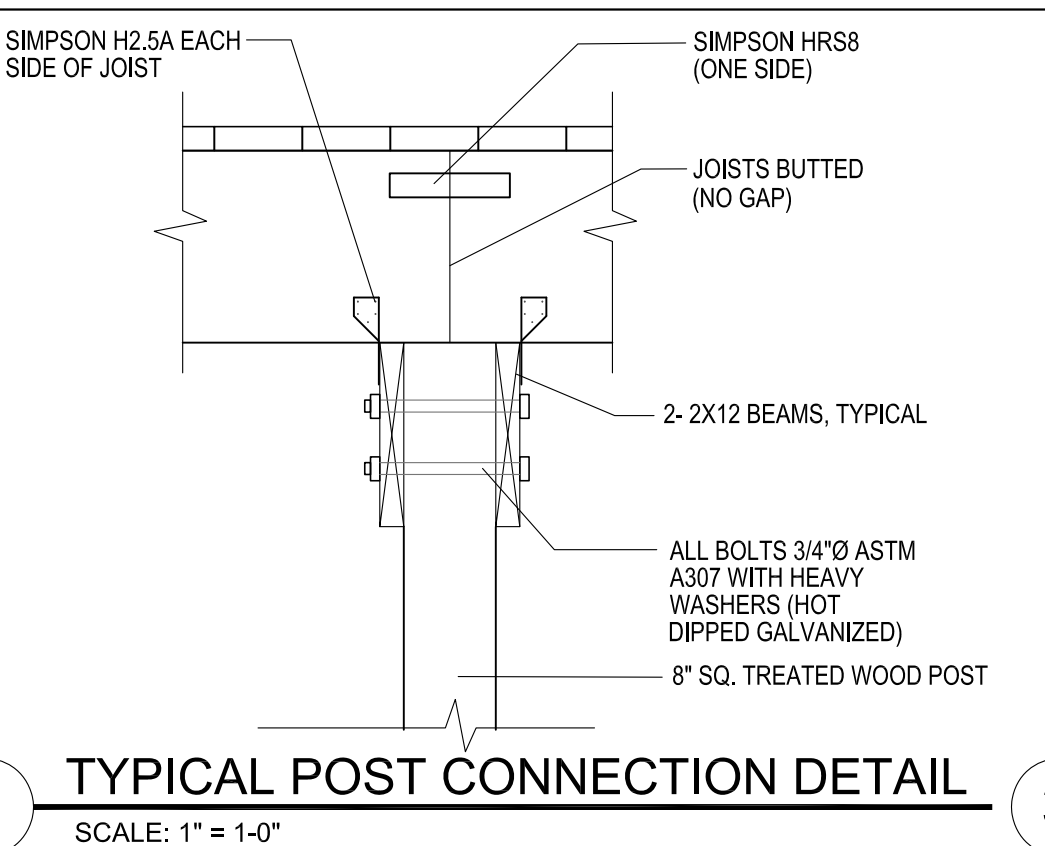
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PULL-OFF
AND SIGN
DETAILS

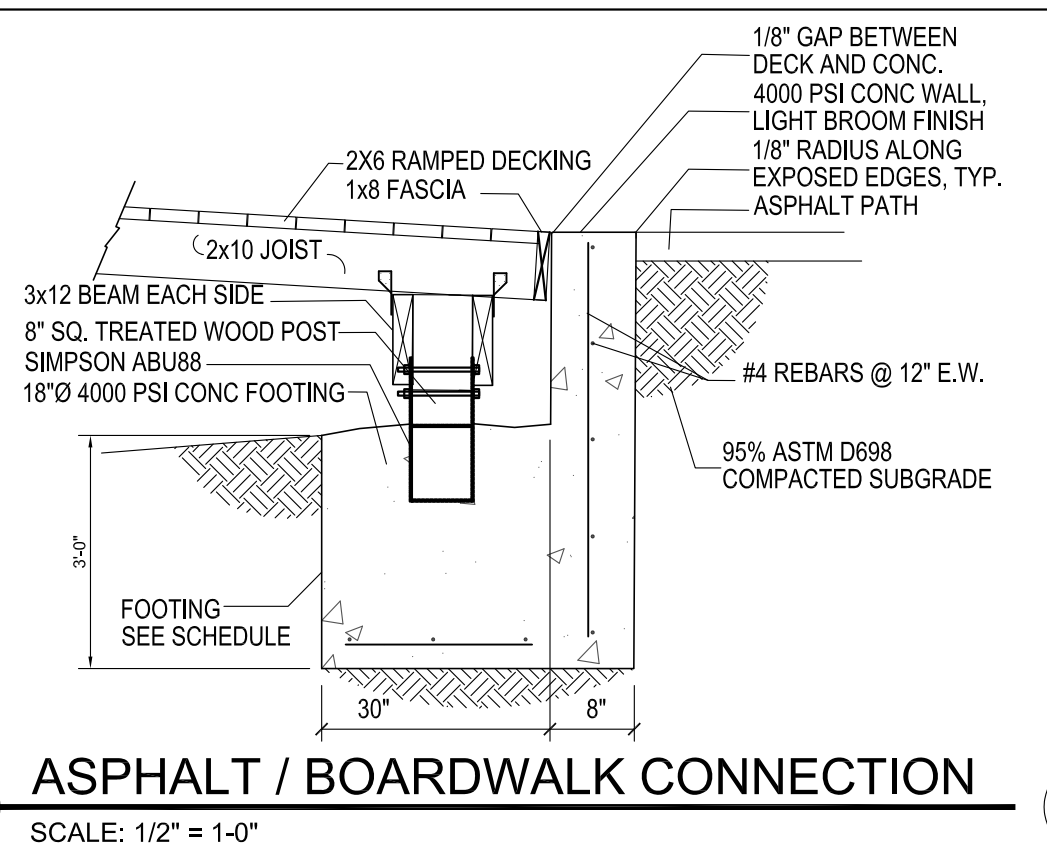
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2019	79LPLM-F3-554	2F4



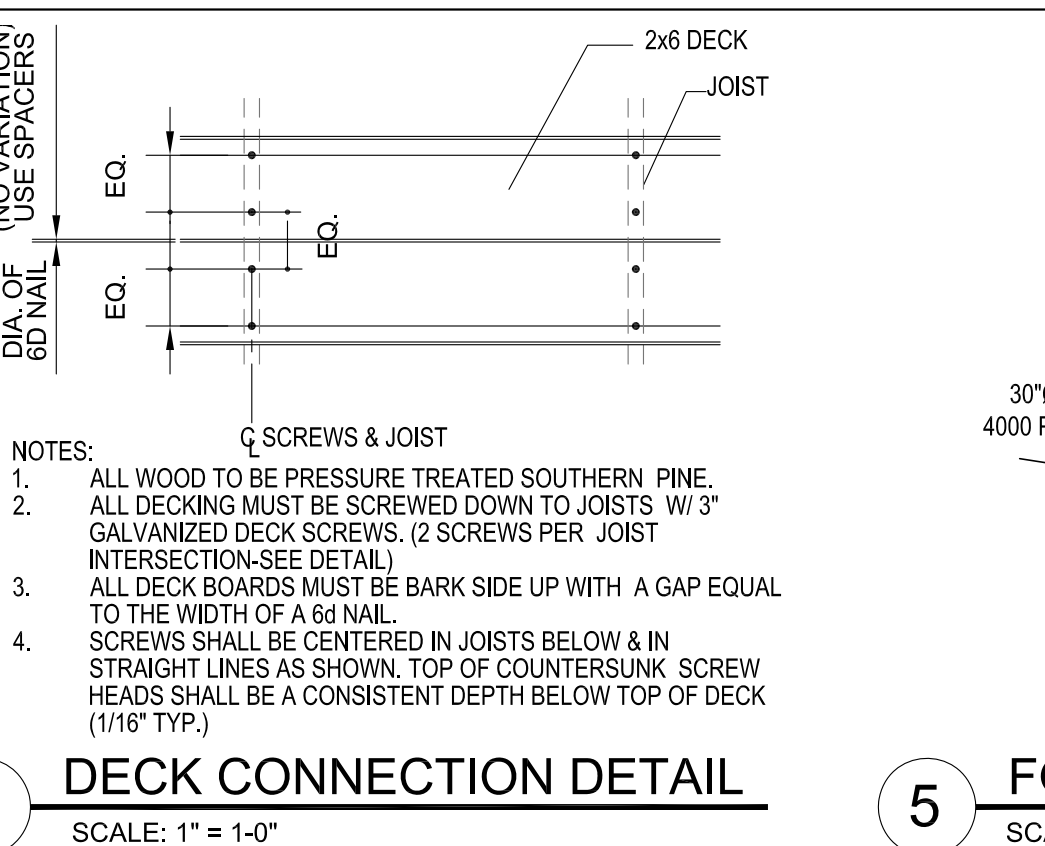
1 CONNECTION TO EXISTING BOARDWALK ELEVATION DETAIL
SCALE: 1/2" = 1'-0"



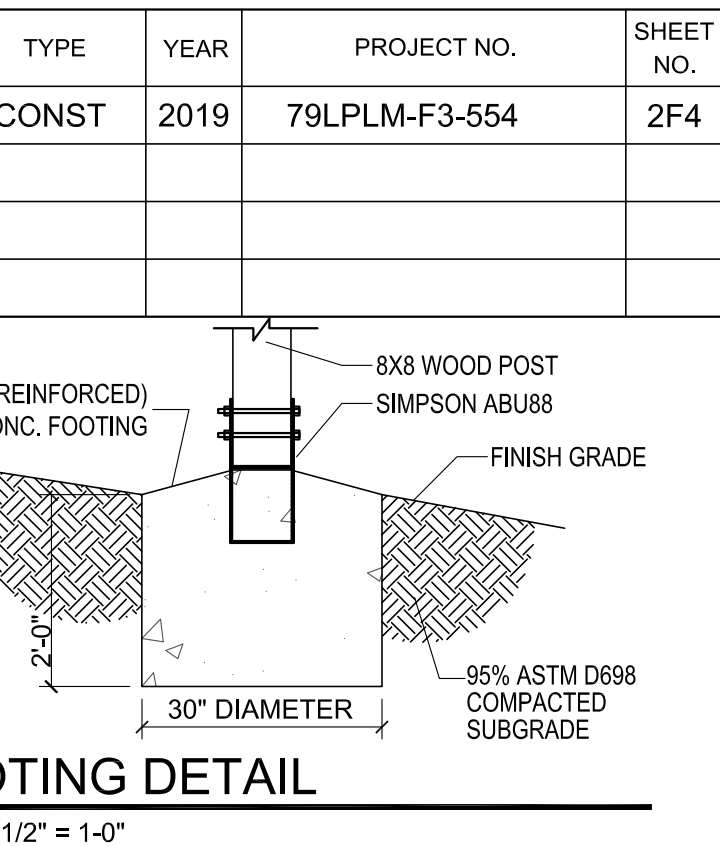
2 TYPICAL POST CONNECTION DETAIL
SCALE: 1/2" = 1'-0"



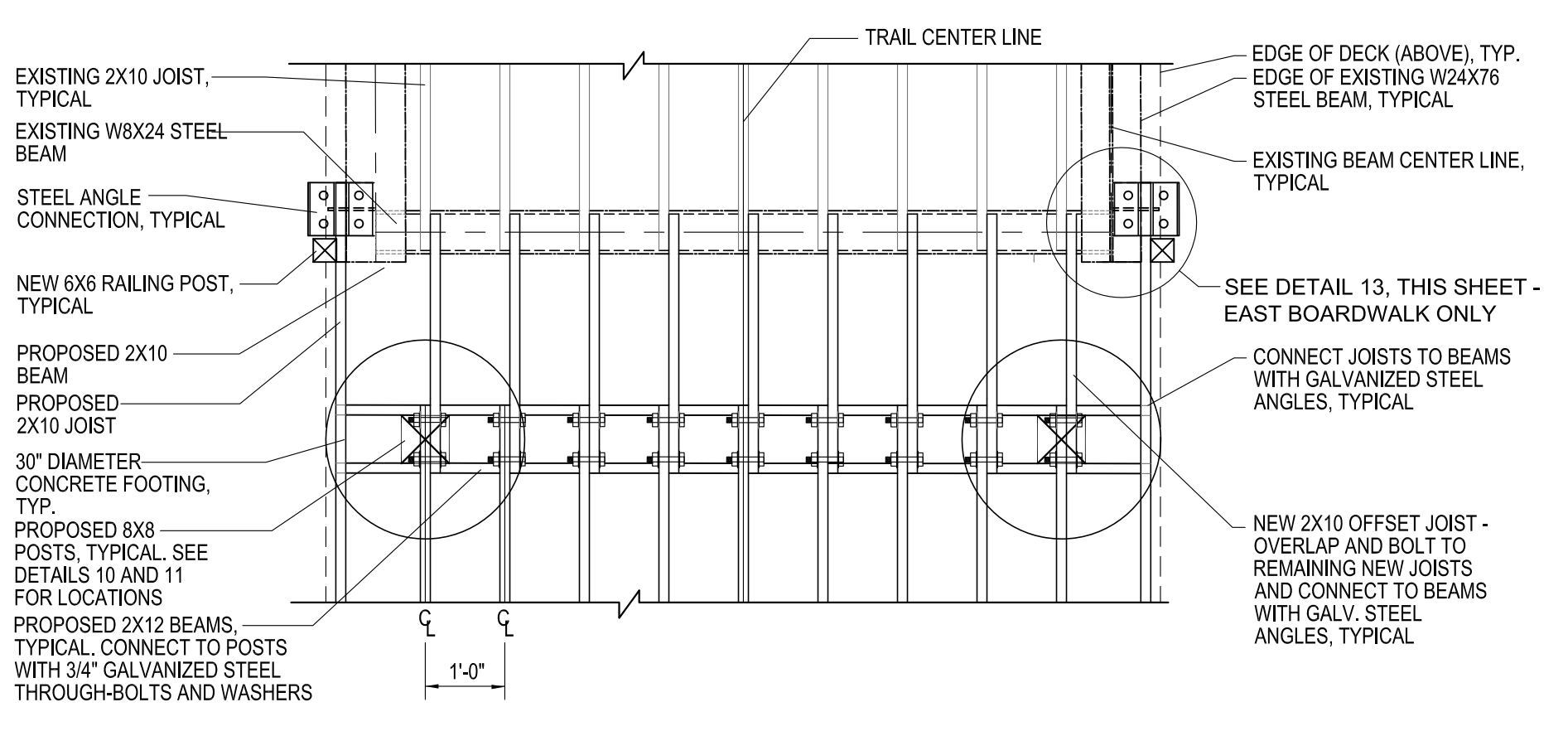
3 ASPHALT / BOARDWALK CONNECTION
SCALE: 1/2" = 1'-0"



4 DECK CONNECTION DETAIL
SCALE: 1" = 1'-0"



5 FOOTING DETAIL
SCALE: 1/2" = 1'-0"



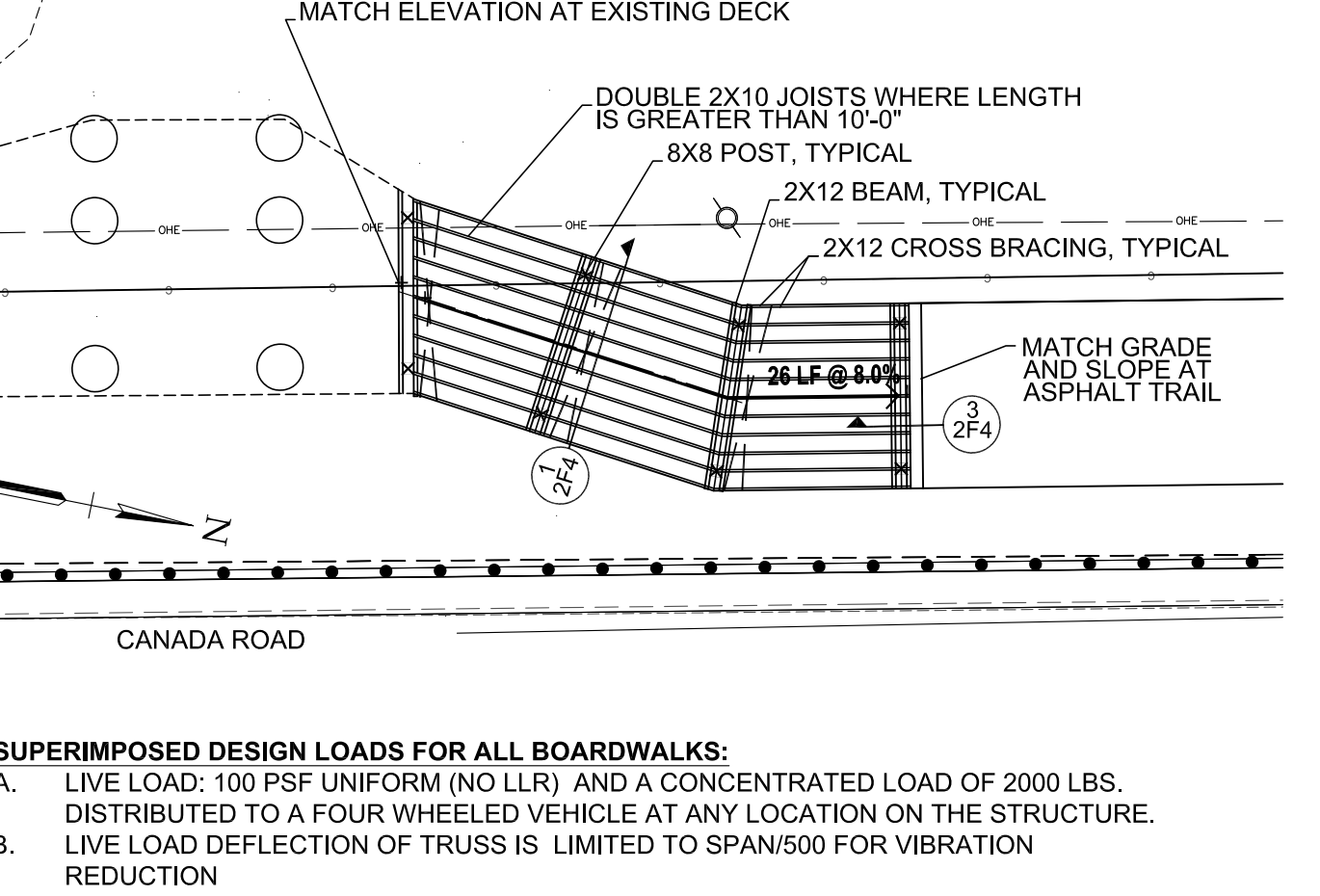
6 BOARDWALK FRAMING PLAN
SCALE: 1/2" = 1'-0"

- II. DESIGN CRITERIA**
- A. Building Code. Tennessee D.O.T. Specifications
- B. Superimposed Design Loads:
- See plan notes for live and dead loads.
- C. Foundations:
- See Geotechnical/Subsurface Investigation Report by Hall Blake & Assoc. dated March 5, 2010.
 - Spread Footings: Allowable bearing pressure 2000 psf (individual column footings or continuous pier footings) on firm, undisturbed, virgin soil or engineered, compacted fill. Minimum density 95% ASTM D 698 (Standard Proctor). Conform to Geotechnical recommendations. (Note undercutting requirements.)
- III. TESTING AND INSPECTION**
- A. Foundations and Earthwork. Geotechnical engineer/testing laboratory to provide testing and inspection services.
- B. Materials and Procedures. Testing Laboratory to provide testing and inspection services.
- IV. EARTHWORK** Review Geotechnical/Subsurface investigation report (Conform to geotechnical report)
- Subgrade under foundations: minimum density 95% ASTM D 698.
- V. CAST-IN-PLACE REINFORCED CONCRETE:**
- A. Design Code. ACI 318 - Strength Design. Reference Standard: ACI 301.
- B. Mix Design shall be documented in accord with ACI 301, Chapter 3 "Proportioning". Mix designs which are submitted without the required documentation will be rejected. Strength data from a lab mix or 30 test reports with adequate strengths and performed within two years. Field slumps recorded at job site shall not exceed the slump established for the mix design.

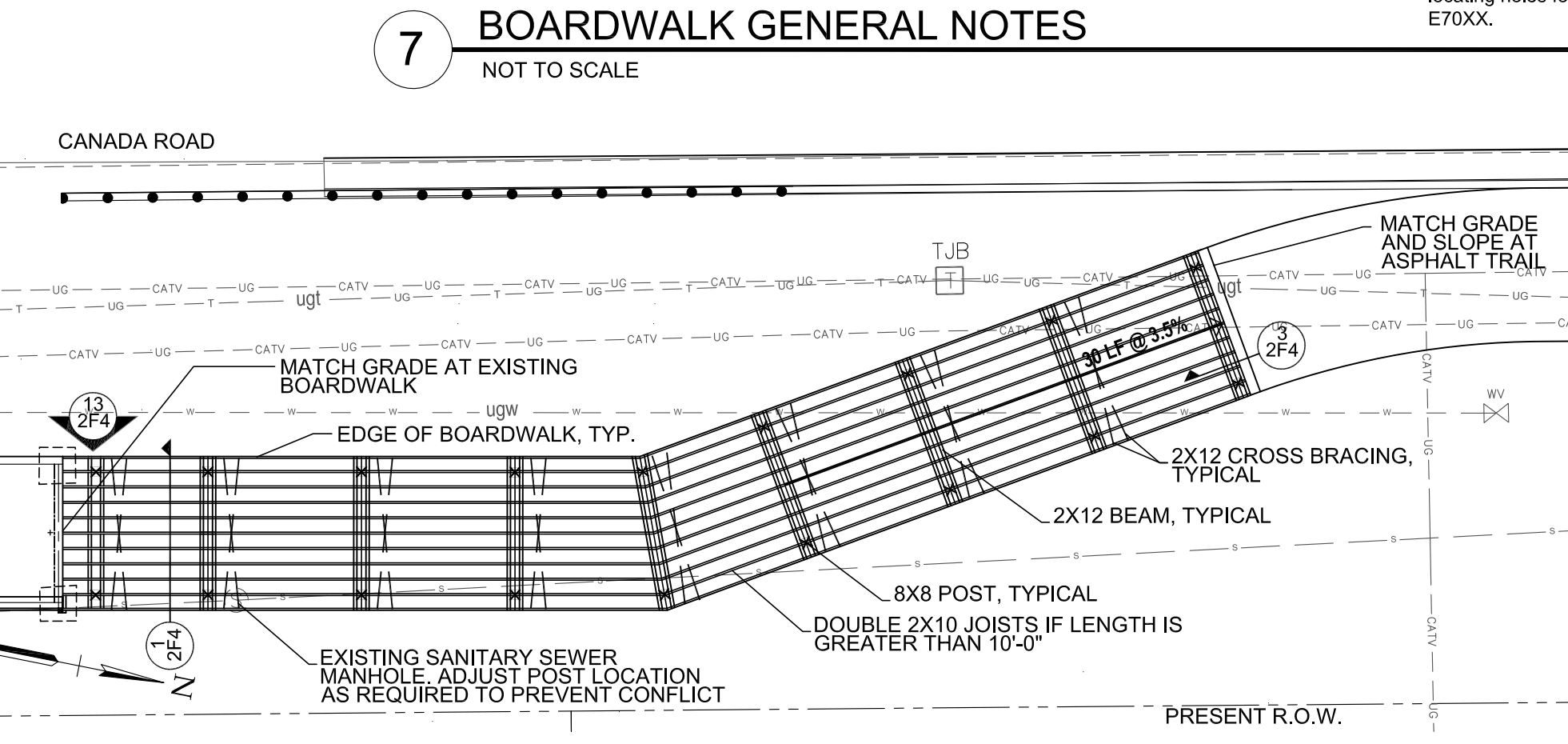
- C. Type Concrete. (28 day compressive strengths)
- Foundations: 4,000 psi N.W.
 - Site walls, and foundation walls: 4,000 psi N.W.
 - All other structural concrete shown on these plans: 4,000 psi N.W. u.n.
 - All concrete exposed to the elements shall be limestone aggregate, air-entrained 5% (+ 1%).
 - Flyash will not be permitted in any concrete.
- D. Formwork:
- Keys Indicated are to be 2 x 4 nominal continuous, u.n.
- E. Reinforcement:
- Reinforcing Bars. Deformed, Grade 60, ASTM A615, A616, A617 or A706.
 - Fabrication: ACI 315 "Details and Detailing of Concrete Reinforcement or CRSI "Reinforcing Bar Detailing" (Manual of Standard Practice).
 - Splices. Continuous reinforcement bars shall be lapped 30 bar diameters at all splices, u.n., including corner bars.
 - Minimum cover for protection typical, u.n.
 - Uniformed surface in contact with ground - 3"
 - Formed surface in contact with ground or exposed to the elements - 2"
 - Structural slabs and walls - 3/4"
 - In all cases not less than the diameter of the bar.
 - Hooks indicated are ACI/CRSI standard 90 deg. or 180 deg. hooks. Bar lengths shown are out-to-out and do not include hook length.
 - Dowels from footings shall match vertical reinforcing noted. Provide 48 db lap typ.
 - Grout. Sand-cement grout, 3,000 psi minimum.
- G. Concrete Finishes:
- Formed surfaces:
 - Painted or exposed to view: rubbed, u.n. on plans.
 - Covered or as noted on plans: as-cast.
 - Curing and Protection. Per ACI 301.
- VI. STRUCTURAL STEEL:**
- A. Design, Fabrication, and Erection. See AISC spec. for the design, fabrication, and erection of structural steel for buildings.
- B. Grade Steel:
- Wide flange members, angles, etc: (Grade 50) weathering steel ASTM A588, ASTM A242, ASTM A606 (minimum corrosion ASTM G101 shall be 6.0)
 - High-strength bolts: Hot dipped galvanized G-90 ASTM A 325 bearing type installed in conformance with "Specifications for Structural Joints Using ASTM A 325 or A 490 Bolts", Research Council on Riveted and Bolted Structural Joints. Unless noted otherwise, standard AISC "Usual Gage" dimensions shall be used for locating holes for bolts, expansion anchors, etc. in all angles, beam flanges, etc. Welds: AWS D1.1, Series E70XX.

- D. Tolerances. AISC Code of Standard Practice 1992, Section 6.4 & 7.11
- E. Camber. Provide positive camber as noted on plans. Where no camber is noted, residual mill camber is to be upwards.
- F. Shop Drawings. Submit shop drawings.
- VII. WOOD FRAMING NOTES**
- A. STRUCTURAL WOOD FRAMING
- Design Standard: National Design Specification 2015, and Supplements.
 - Sawn Lumber:
 - All sawn lumber to be Southern Yellow Pine, No. 2 KD or better, u.n. (19% moisture content max.)
 - All wood members shall be pressure treated.
 - No bowed or warped members shall be used.
 - Substructure members (wood columns, headers, and bracing) may be rough sawn & pressure treated.
 - All pressure treated members shall be treated in accordance with the following: ACQ-D treated for ground contact (0.40 pounds/cubic foot preservation retention). Stain and sealant shall be applied on decking and railing members by owner, one year following installation.
 - Connections:
 - Nailed connections. All nailing shall comply with IBC. Nailing at connecting hardware per manufacturer recommendations. All nails common wire gauge, u.n. Power driven nails not allowed. Deck connection to joists-see plan.
 - Connection hardware to be by Simpson Strong-Tie Company, Inc. or approved equivalent. Where indicated on plans, hardware designated represents connection details contemplated in design. Connection hardware, in general, to develop connected member capacity. Submit shop drawing, technical data, etc. indicating connection hardware proposed for use. All hardware shall have Zmax hot dipped galvanized coating. (Galvanizing shall meet ASTM A153 & A653)
 - Powder actuated fasteners (Hilti, Ramset, Redhead, etc.) subject to A/E approval. Submit proposed use and technical data.
 - Erection/Construction Phase Stability:
 - Member design stability. Studs, joists, etc. typically are designed for design loads noted anticipating lateral support from wall sheathing, floor and roof decking, etc. Contractor shall provide sheathing, decking, etc. noted prior to loading members or consider and provide, if necessary, suitable temporary lateral support.
 - Frame stability. Building frames typically are designed for general frame stability and lateral design loads noted dependent upon permanent bracing which has not been constructed until later in the construction. Contractor shall provide temporary bracing to resist all construction phase loading, including wind.
- VIII. TEMPORARY BRACING OF STRUCTURE**
- A. Contractor shall provide temporary bracing as required until all lateral force resisting elements are in place.
- IX. EXISTING CONSTRUCTION AND EXISTING UTILITIES.**
- A. Contractor is to verify existing conditions noted on contract documents (dimensions, elevations, construction, etc.) and to coordinate same in all affected shop drawings prior to submittal.
- B. Report any existing conditions not as indicated on the contract documents.
- C. The contractor is encouraged to inspect the premises and review available record plans and shop drawings of existing construction if available.

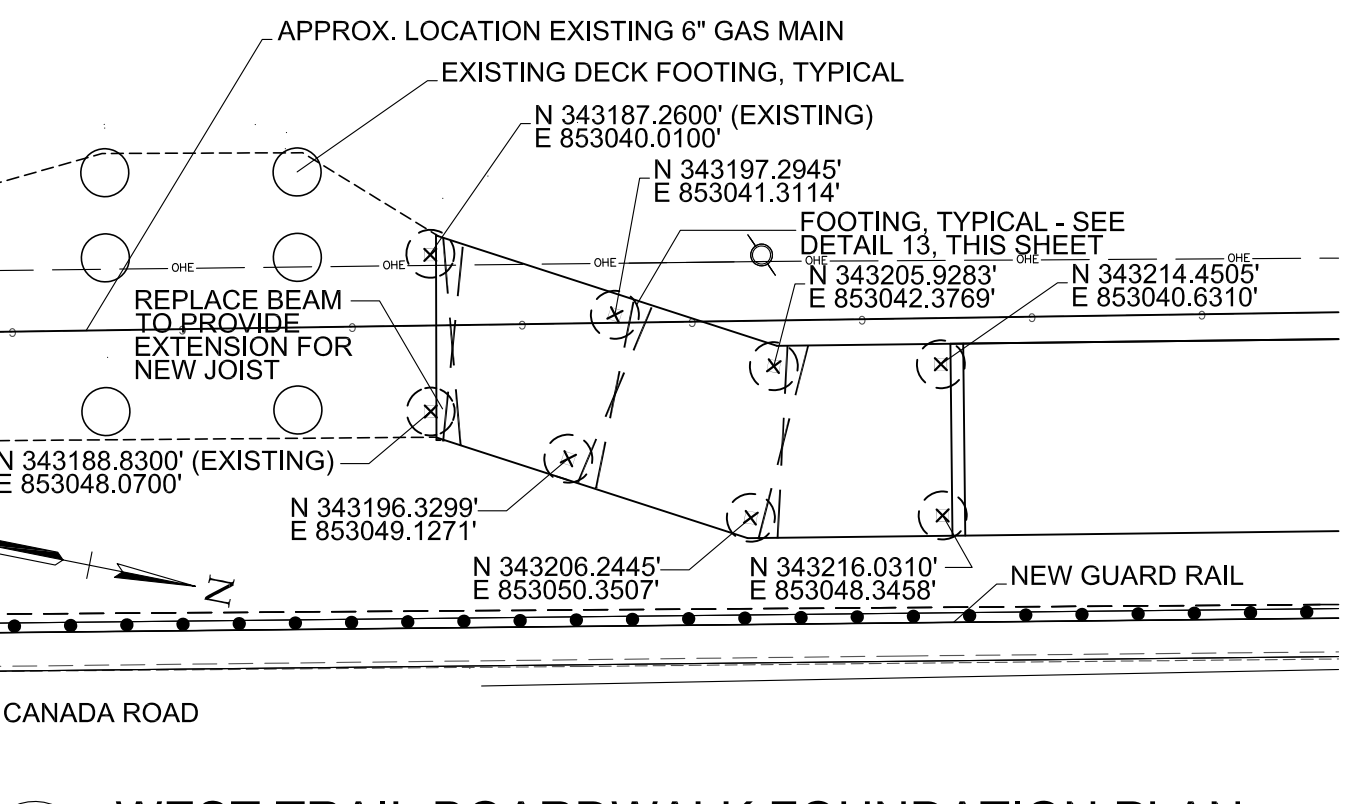
7 BOARDWALK GENERAL NOTES
NOT TO SCALE



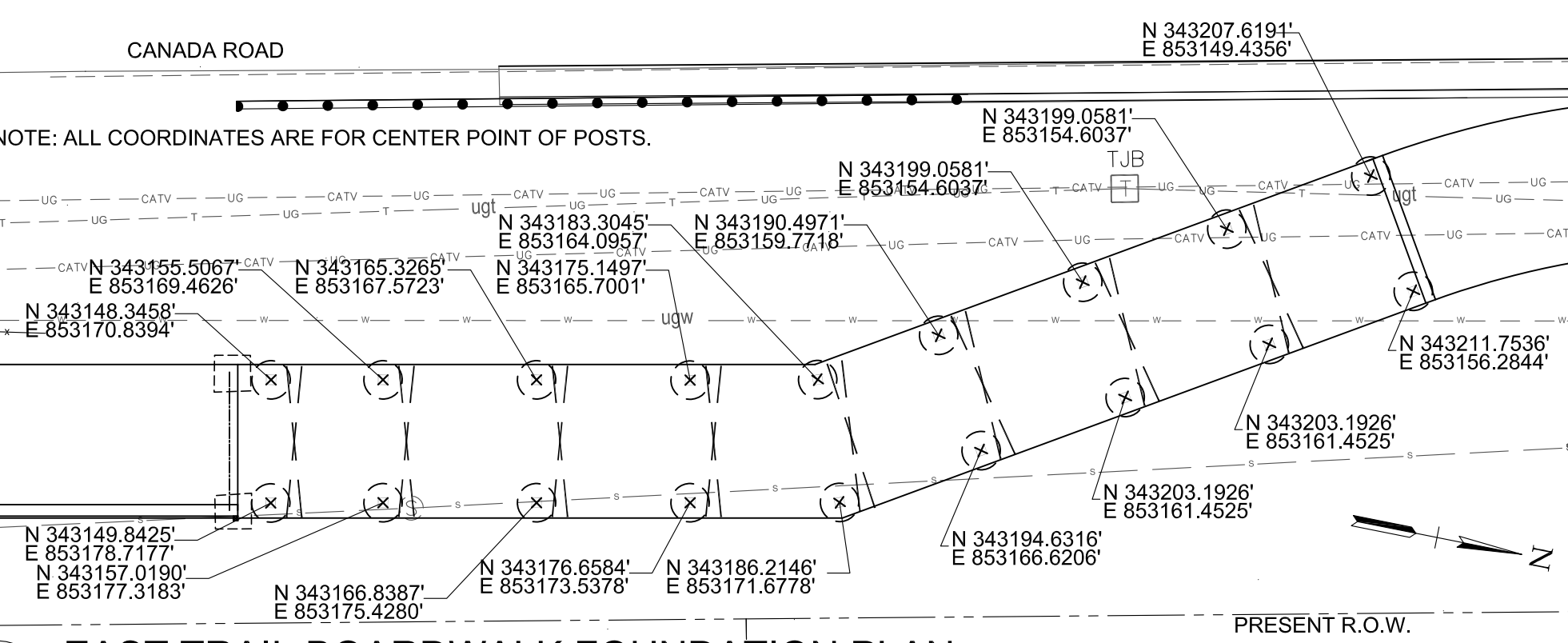
8 WEST TRAIL BOARDWALK FRAMING PLAN
SCALE: 1" = 10'-0"



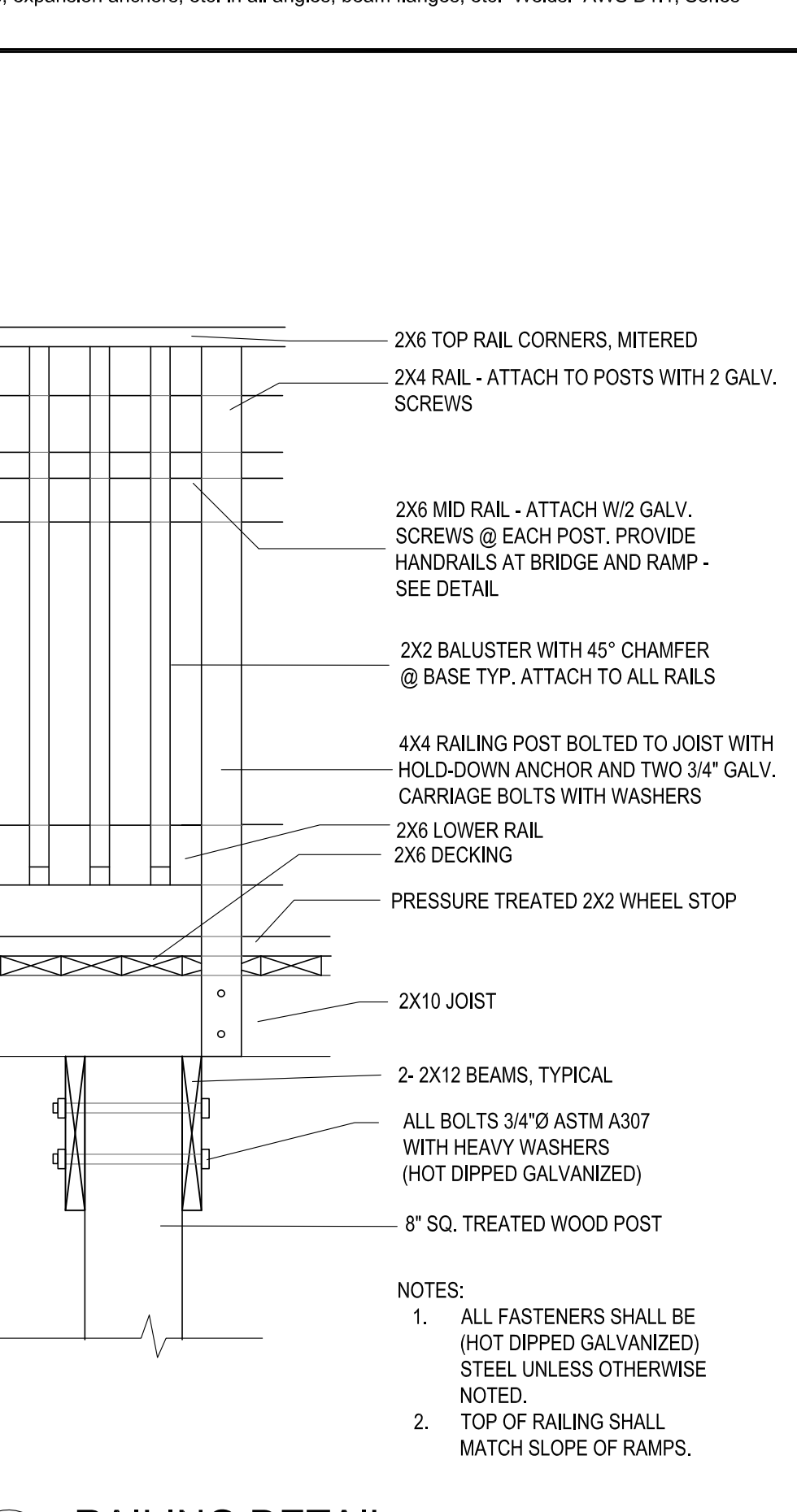
9 EAST TRAIL BOARDWALK FRAMING PLAN
SCALE: 1" = 10'-0"



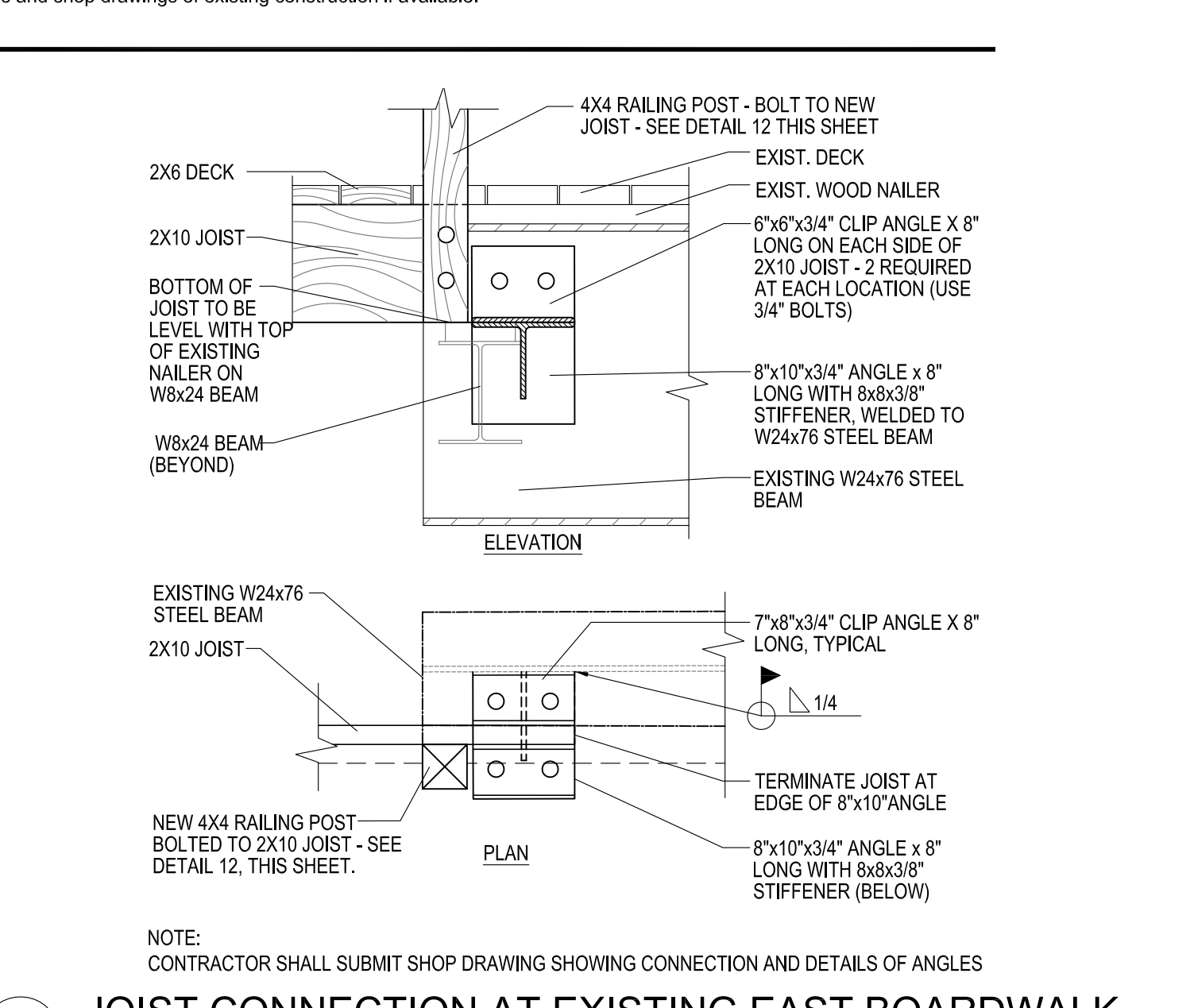
10 WEST TRAIL BOARDWALK FOUNDATION PLAN
SCALE: 1" = 10'-0"



11 EAST TRAIL BOARDWALK FOUNDATION PLAN
SCALE: 1" = 10'-0"



12 RAILING DETAIL
SCALE: 1" = 1'-0"



13 JOIST CONNECTION AT EXISTING EAST BOARDWALK
SCALE: 1/2" = 1'-0"

- SUPERIMPOSED DESIGN LOADS FOR ALL BOARDWALKS:**
- A. LIVE LOAD: 100 PSF UNIFORM (NO LLR) AND A CONCENTRATED LOAD OF 2000 LBS. DISTRIBUTED TO A FOUR WHEELED VEHICLE AT ANY LOCATION ON THE STRUCTURE.
- B. LIVE LOAD DEFLECTION OF TRUSS IS LIMITED TO SPAN/500 FOR VIBRATION REDUCTION

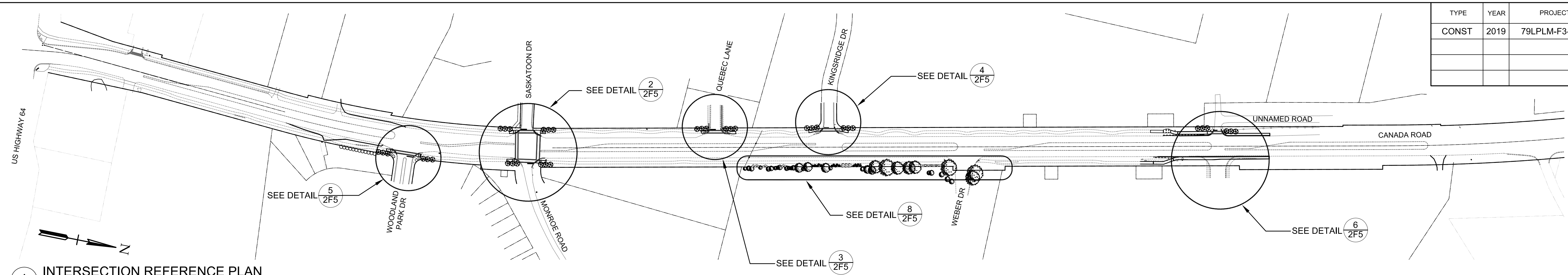
- NOTES:**
- ALL FASTENERS SHALL BE (HOT DIPPED GALVANIZED) STEEL UNLESS OTHERWISE NOTED.
 - TOP OF RAILING SHALL MATCH SLOPE OF RAMPS.



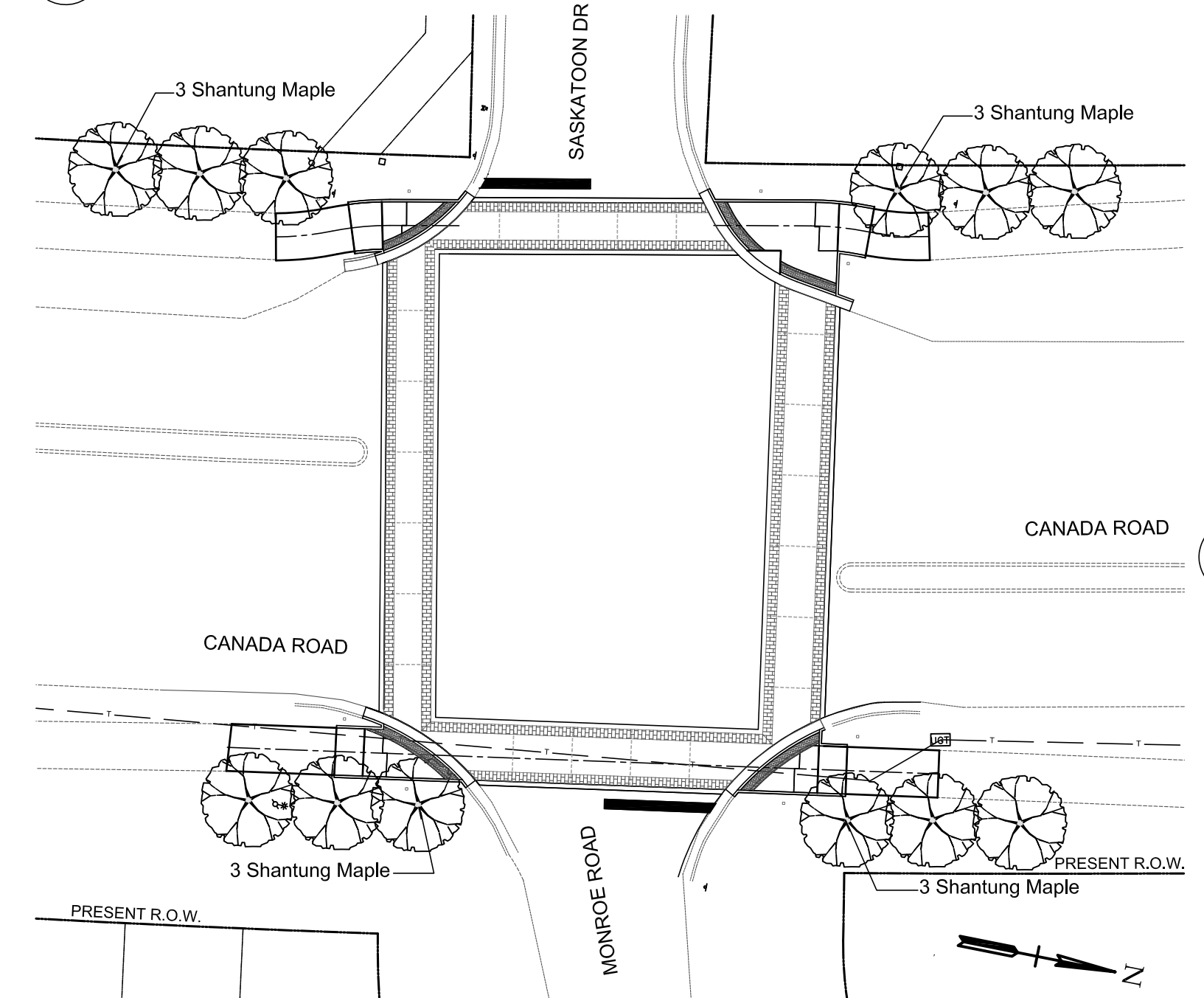
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BOARDWALK DETAILS

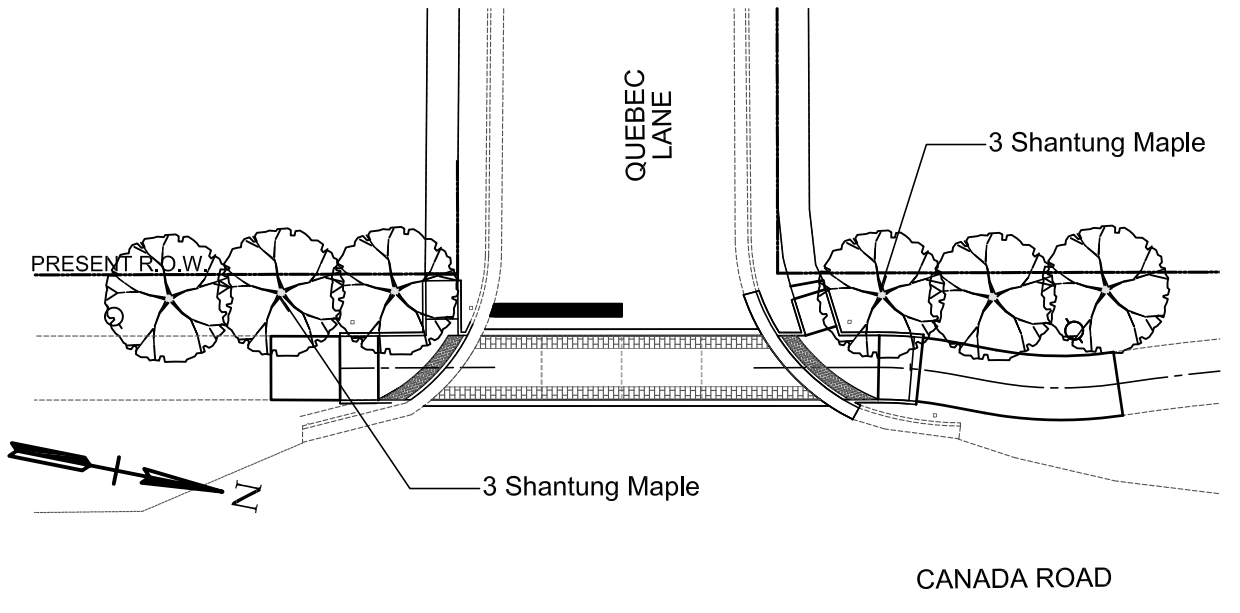
TYPE	YEAR	PROJECT NO.	SHEET NO.
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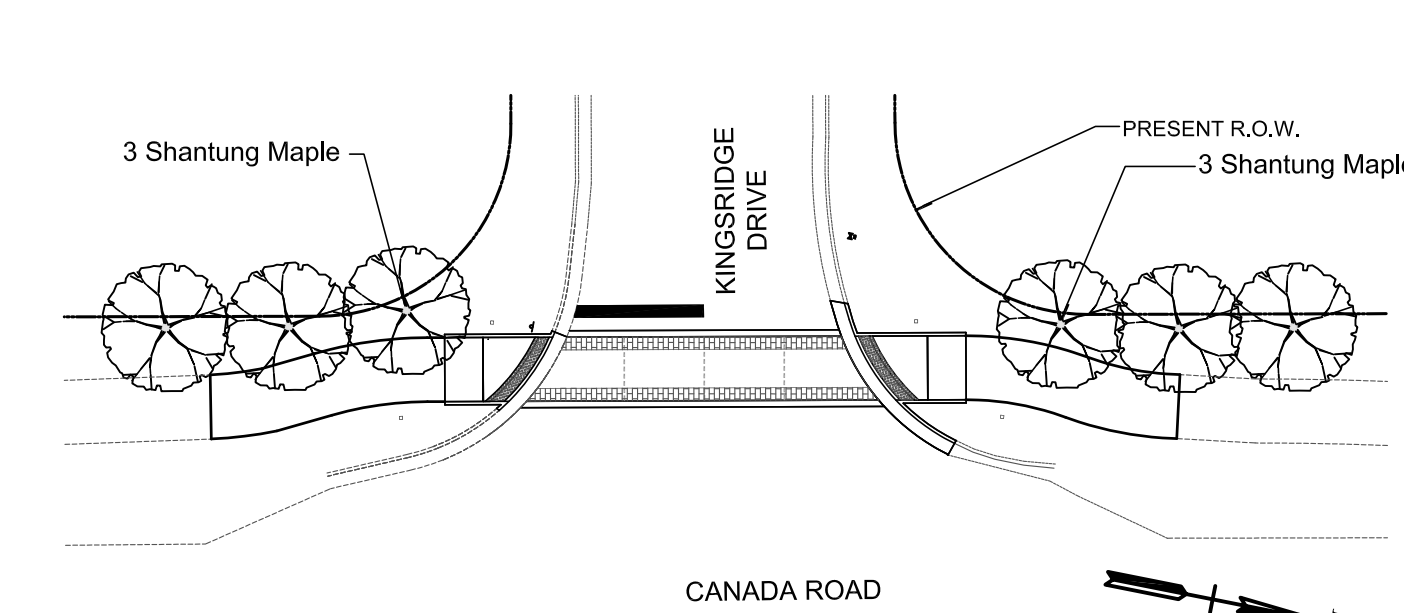
1 INTERSECTION REFERENCE PLAN



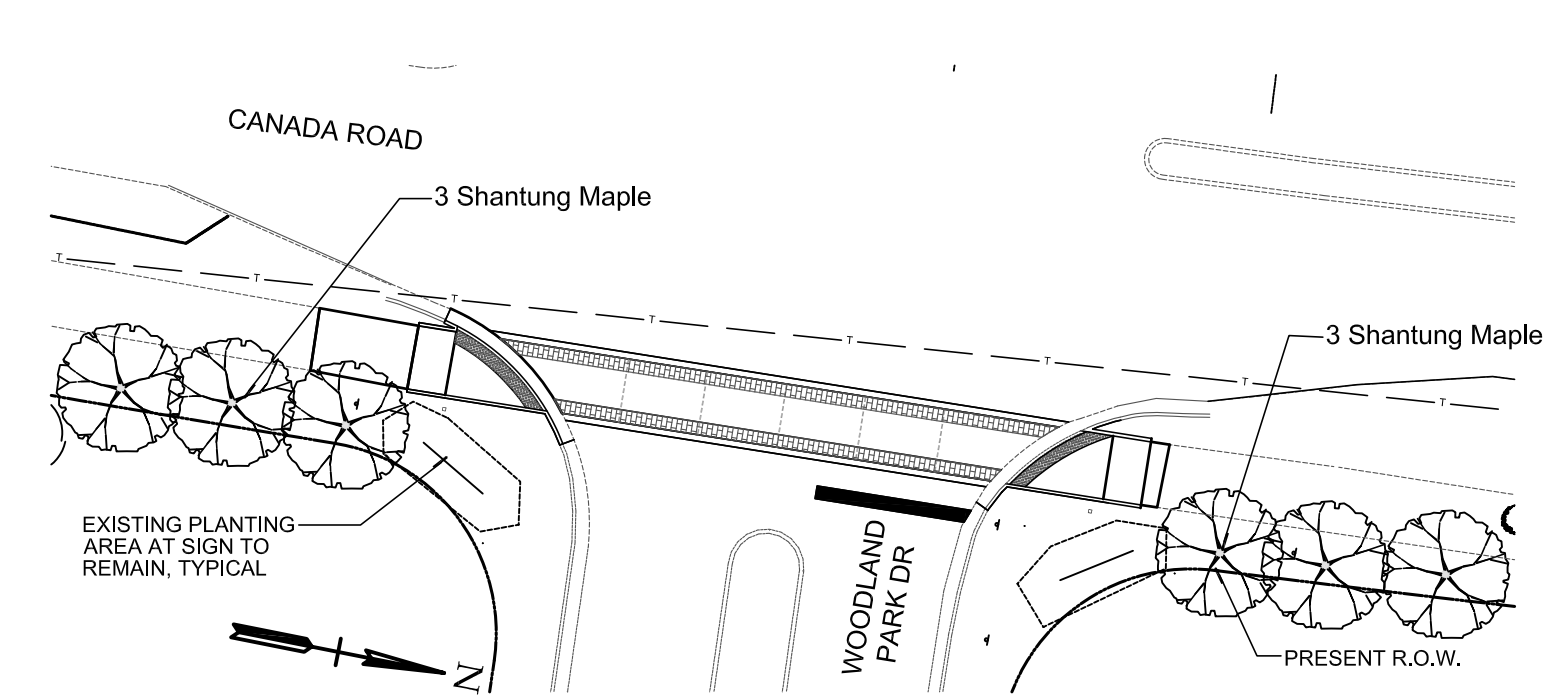
2 MONROE ROAD NORTH / SASKATOON DRIVE AT CANADA ROAD
SCALE: 1" = 30'-0"



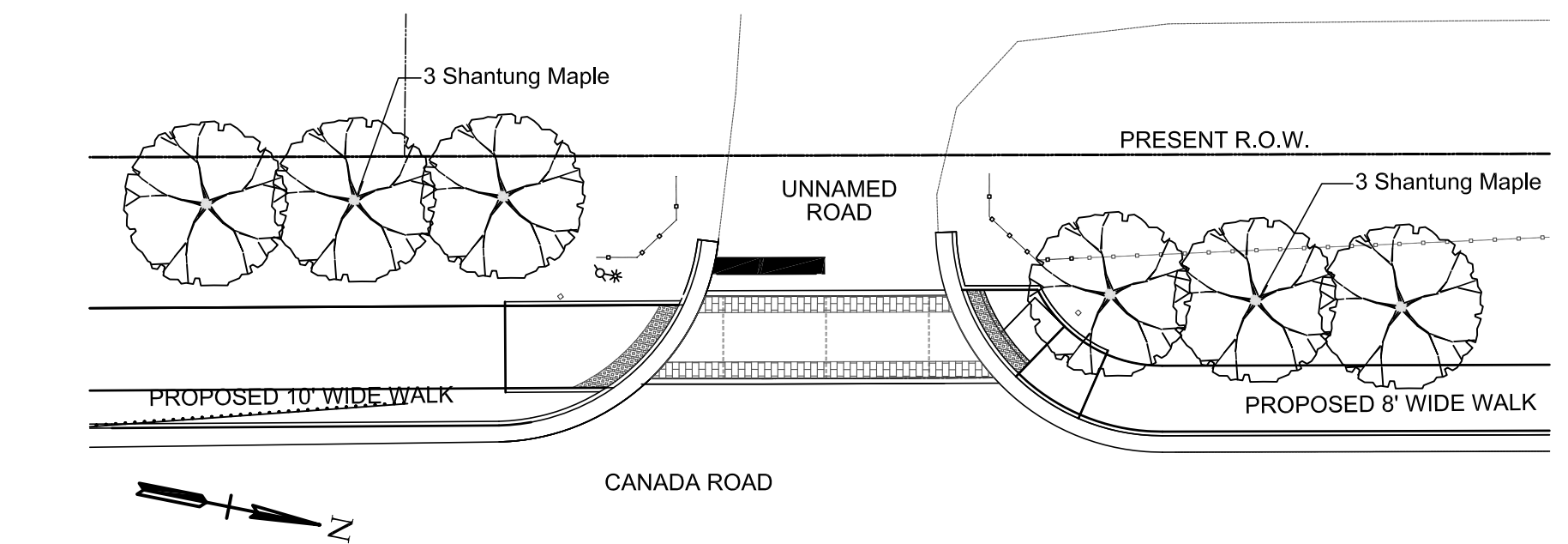
3 QUEBEC LANE AT CANADA ROAD
SCALE: 1" = 20'-0"



4 KINGSRIDGE DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



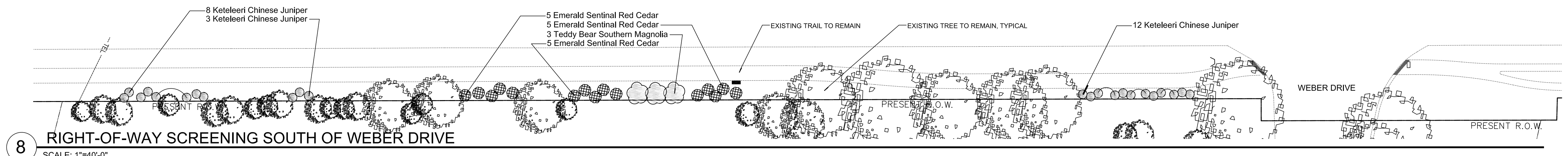
5 WOODLAND PARK DRIVE AT CANADA ROAD
SCALE: 1" = 30'-0"



6 UNNAMED DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"

TREES	COMMON NAME	BOTANICAL NAME	CONDITION	CAL	SIZE	REMARKS
15	Emerald Sentinel Red Cedar	Juniperus virginiana 'Corcoror'	--		5-6' ht.	Matched specimens, full to ground
23	Keteleeri Chinese Juniper	Juniperus chinensis 'Keteleeri'	--		5-6' ht.	Matched specimens, full to ground
36	Shantung Maple	Acer truncatum	--	2.5" Cal		Matched specimens, min. 3 stems
3	Teddy Bear Southern Magnolia	Magnolia grandiflora 'Southern Charm'	--		5-6' ht.	Matched specimens, full to ground

7 PLANT SCHEDULE - THIS SHEET ONLY
NOT TO SCALE



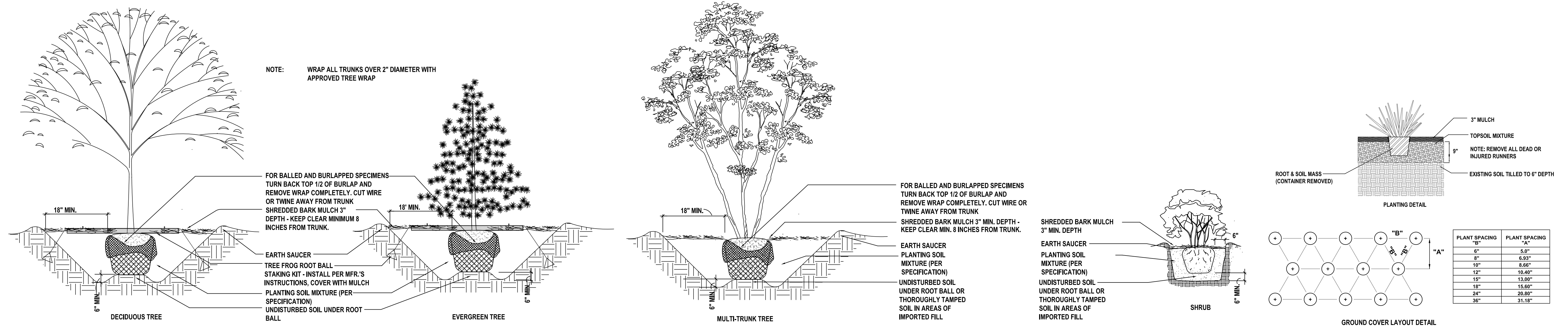
8 RIGHT-OF-WAY SCREENING SOUTH OF WEBER DRIVE
SCALE: 1" = 40'-0"



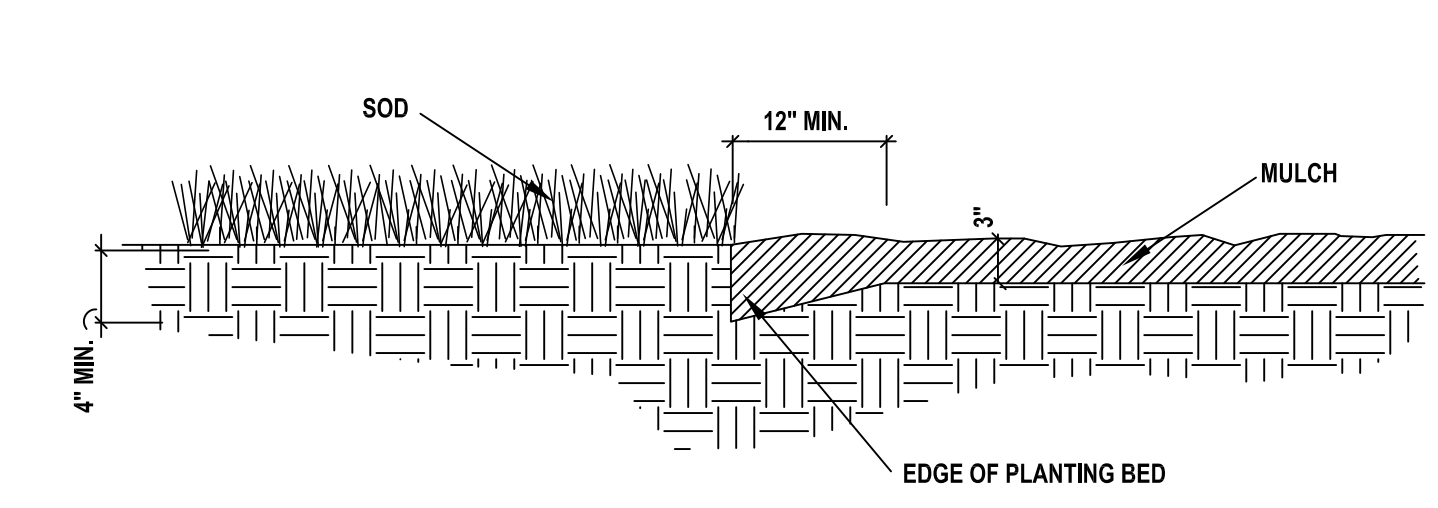
STATE OF TENNESSEE
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PLANTING PLANS

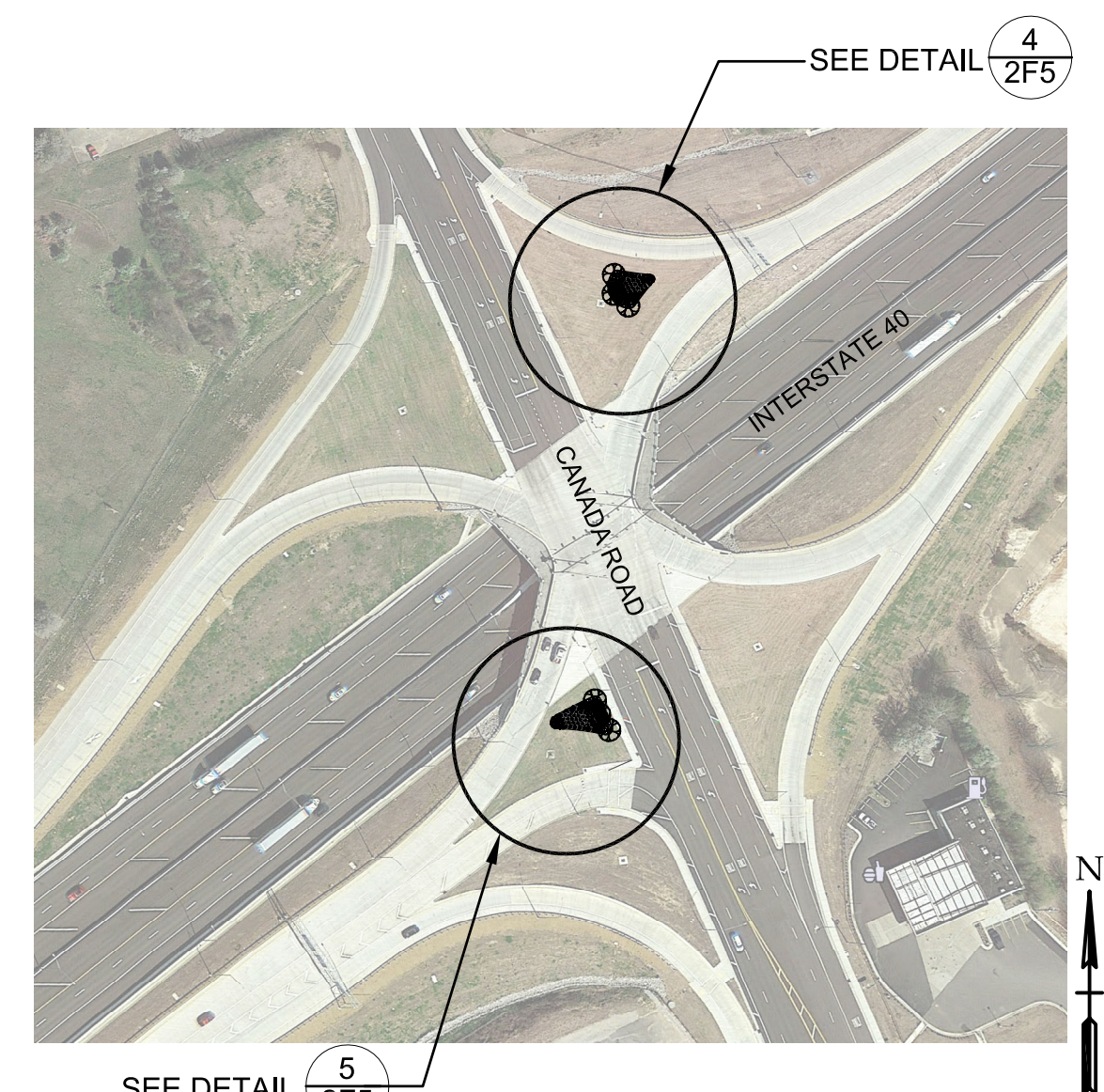
TYPE	YEAR	PROJECT NO.	SHEET NO.
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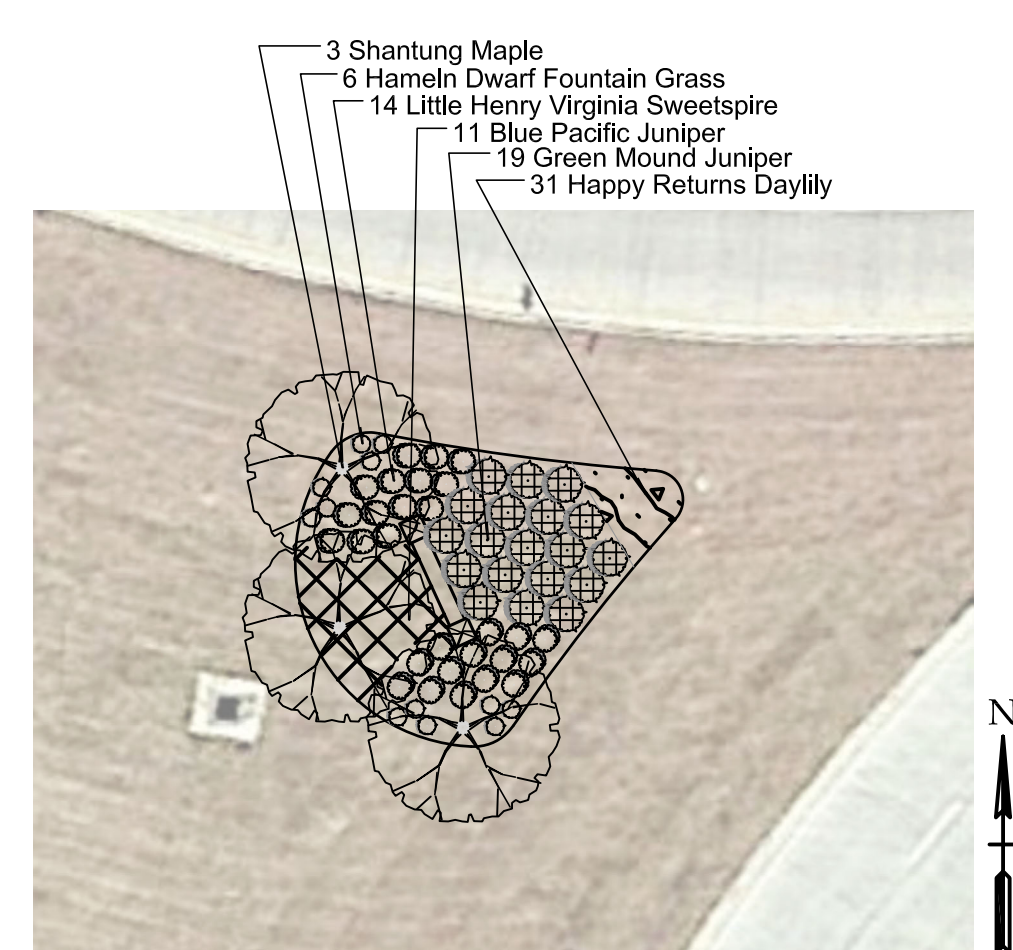
1 TYPICAL PLANTING DETAILS
NOT TO SCALE



2 SPADE EDGE PLANTING BED DETAIL
NOT TO SCALE



3 SIGN REFERENCE PLAN
SCALE: NOT TO SCALE



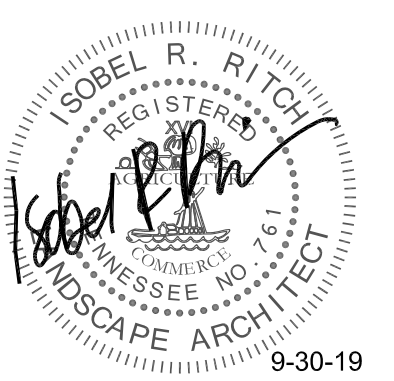
4 I-40/CANADA ROAD SIGN NORTH
SCALE: 1" = 20'-0"

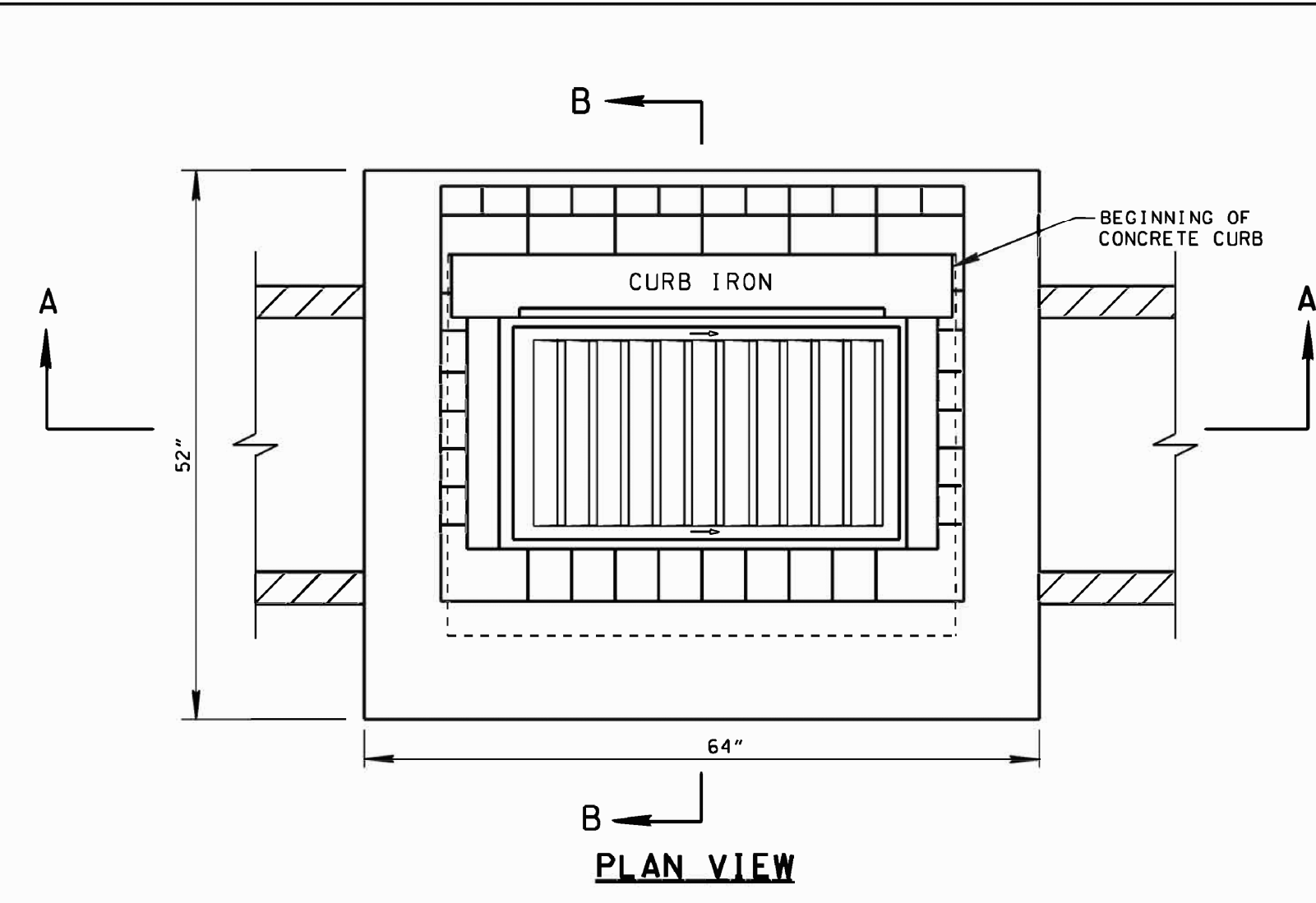


5 I-40/CANADA ROAD SIGN SOUTH
SCALE: 1" = 20'-0"

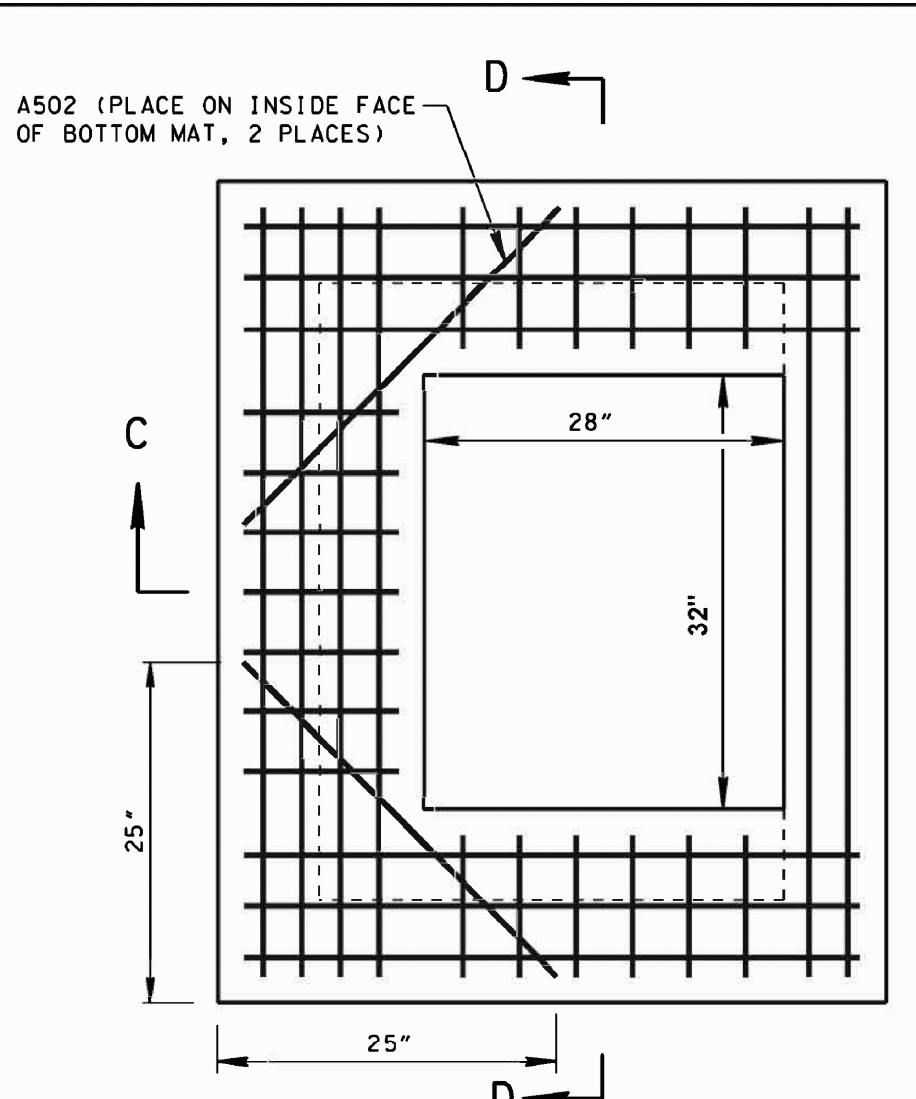
TREES	COMMON NAME	BOTANICAL NAME	CONDITION	CAL	SIZE	REMARKS
12	Shantung Maple	Acer truncatum	--	2.5" Cal		Matched specimens, min. 3 stems
SHRUBS	COMMON NAME	BOTANICAL NAME	CONDITION	SPR.	HT.	REMARKS
56	Green Mound Juniper	Juniperus procumbens 'Green Mound'	--	18" spread		Dense, full matching specimens
24	Hameln Dwarf Fountain Grass	Pennisetum alopecuroides 'Hameln'	5 gal			Dense, full specimens
58	Little Henry Virginia Sweetspire	Itea virginica 'Sprich'	--	18" spread		Dense, full matching specimens
GROUND COVERS	COMMON NAME	BOTANICAL NAME	CONT	SPACING	REMARKS	
19	Blue Pacific Juniper	Juniperus conferta 'Blue Pacific'		4' on centers	Dense, full plants	
71	Happy Returns Daylily	Hemerocallis x 'Happy Returns'	1 gal	18" on centers	Min. 4 pips per pot	

6 PLANT SCHEDULE - THIS SHEET ONLY
NOT TO SCALE

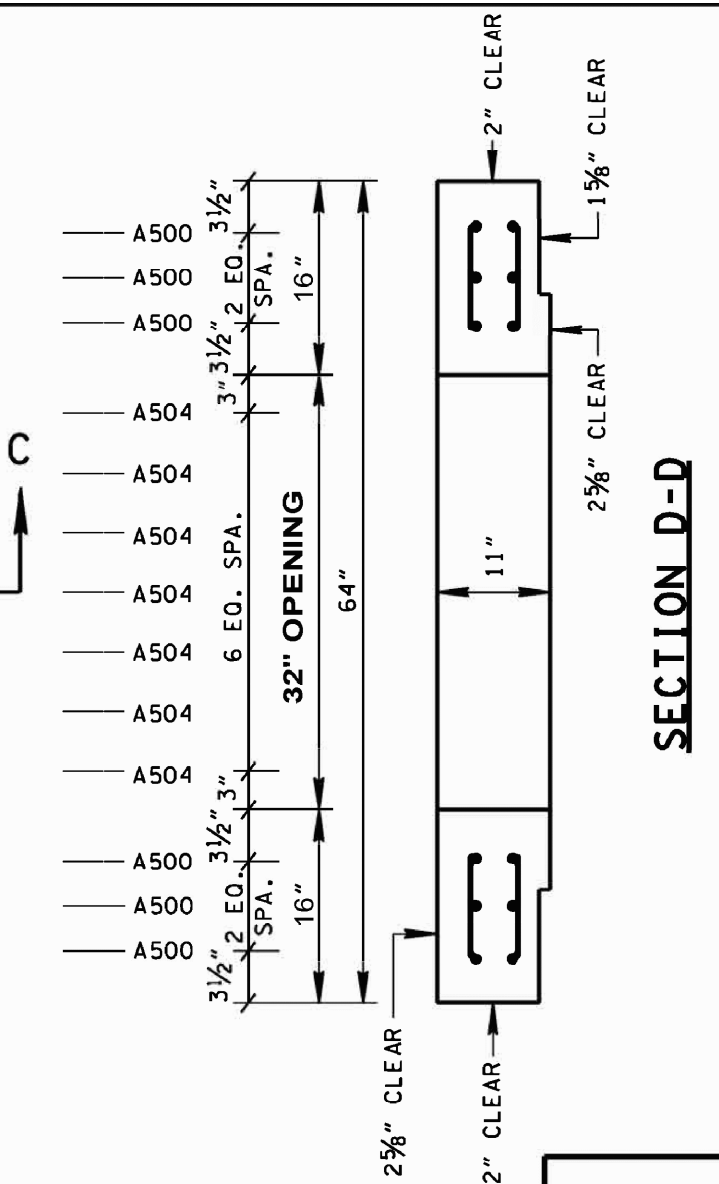




PLAN VIEW



PLAN VIEW



SECTION D-D

CATCH BASIN MAXIMUM DEPTH NOTE
 MAXIMUM DEPTH FOR THIS STRUCTURE IS 8.00'.

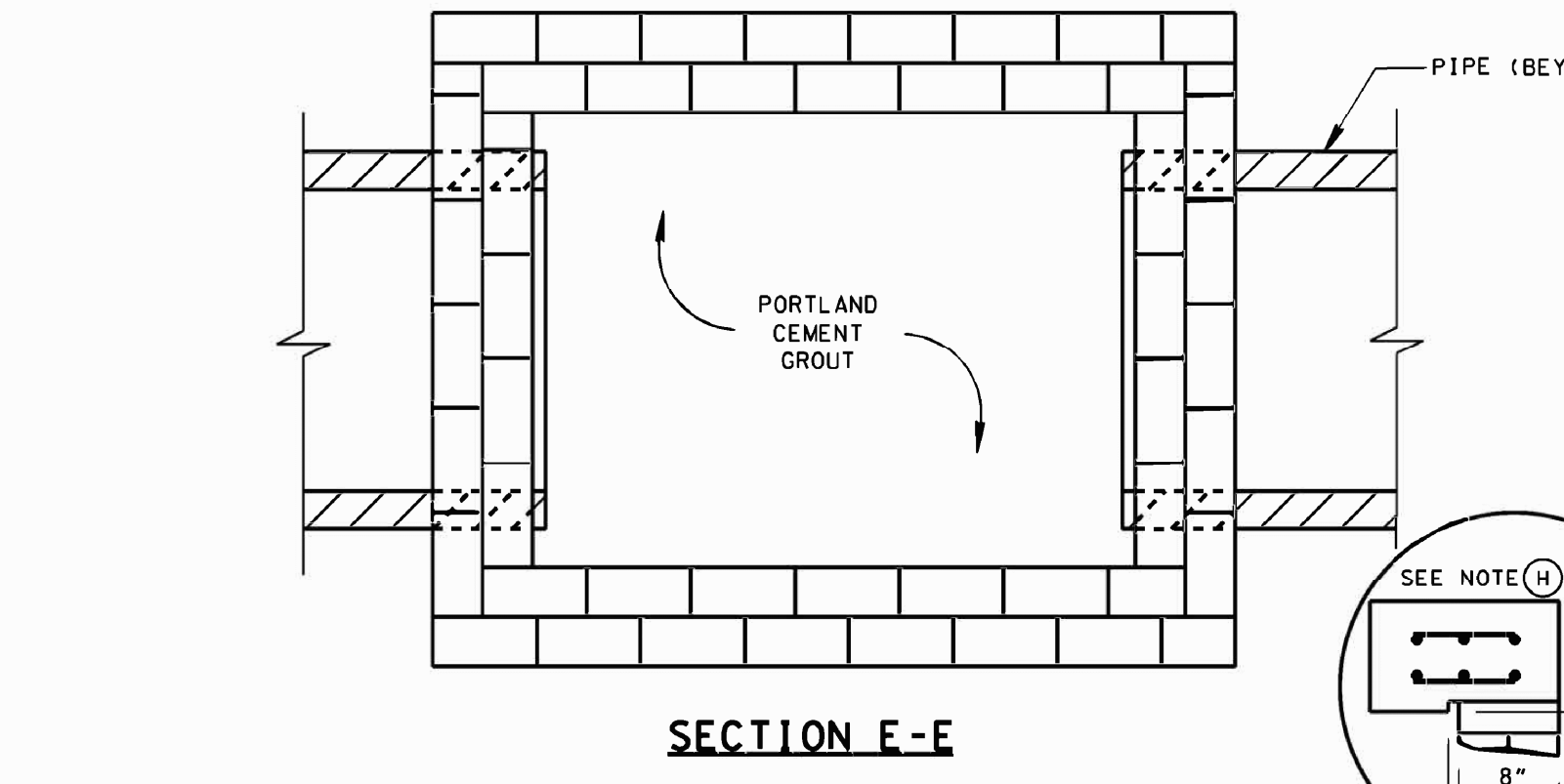
CATCH BASIN DIMENSIONS				
INSIDE DIAMETER (D) OF PIPE (INCHES)	PIPE WALL THICKNESS (INCHES)	DIAMETER OF PIPE OPENING (INCHES)	BOX SECTION MINIMUM HEIGHTS (INCHES)	FOR DESIGN USE ONLY CATCH BASIN MINIMUM DESIGN DEPTH (FEET)
18	2 1/2	25	51	3.88
24	3	32	58	4.42
30	3 1/2	39	65	4.96
36	4	46	72	5.50

- ① CUT-OUT HOLES BASED ON REINFORCED CONCRETE PIPE WITH WALL TYPE "B".
- ② ALL FLEXIBLE PIPE MATERIALS REQUIRE GASKET. SEE STANDARD DRAWING D-PB-2.
- ③ TO BE USED IN 48 INCH INTERIOR WALLS ONLY.

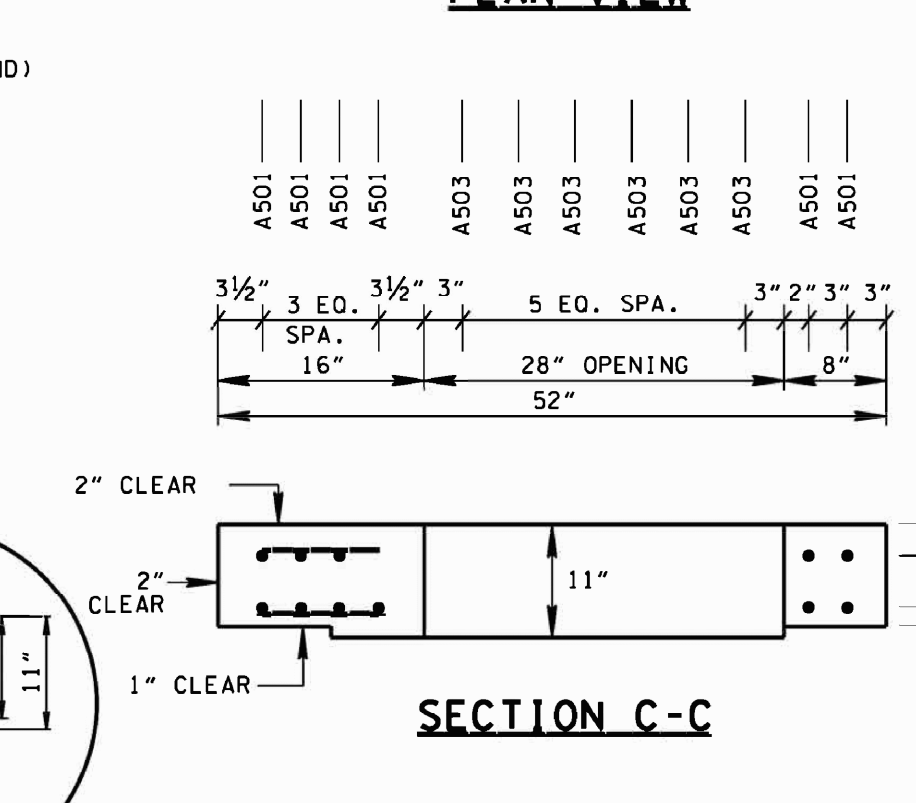
- REV. 1-19-96: MODIFIED DRAWING NO. D-CB-12S BY CHANGING MATERIAL IN SIDE WALLS FROM CONCRETE TO BRICK.
- REV. 12-18-96: REMOVED 0.5" PREMOULDED FIBER EXPANSION JOINT FROM SECTION "B-B". REMOVED OLD GENERAL NOTE ① CHANGED LABEL OF LAST THREE GENERAL NOTES.
- REV. 4-15-97: CHANGED LABEL OF BASE SECTION.
- REV. 10-26-97: CHANGED MINIMUM DEPTH TABLE AND MODIFIED STEEL IN BASE SECTION.
- REV. 1-19-99: MODIFIED CATCH BASIN MINIMUM DEPTH TABLE.
- REV. 5-27-01: CHANGED PAY ITEM IN GENERAL NOTE ①
- REV. 7-29-02: CHANGED ASTM SPECIFICATION IN GENERAL NOTE ①
- REV. 8-01-12: REVISED CATCH BASIN TOP & BOTTOM SLABS FOR COMPLIANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION WITH INTERIMS. REVISED REINFORCING, GENERAL NOTES, LEGEND AND ADDITIONAL MISC. DRAFTING EDITS.
- REV. 9-24-12: MODIFIED TOP SLAB AND MINIMUM DEPTH.
- REV. 3-11-14: ELIMINATED STIRRUPS.

GENERAL NOTES

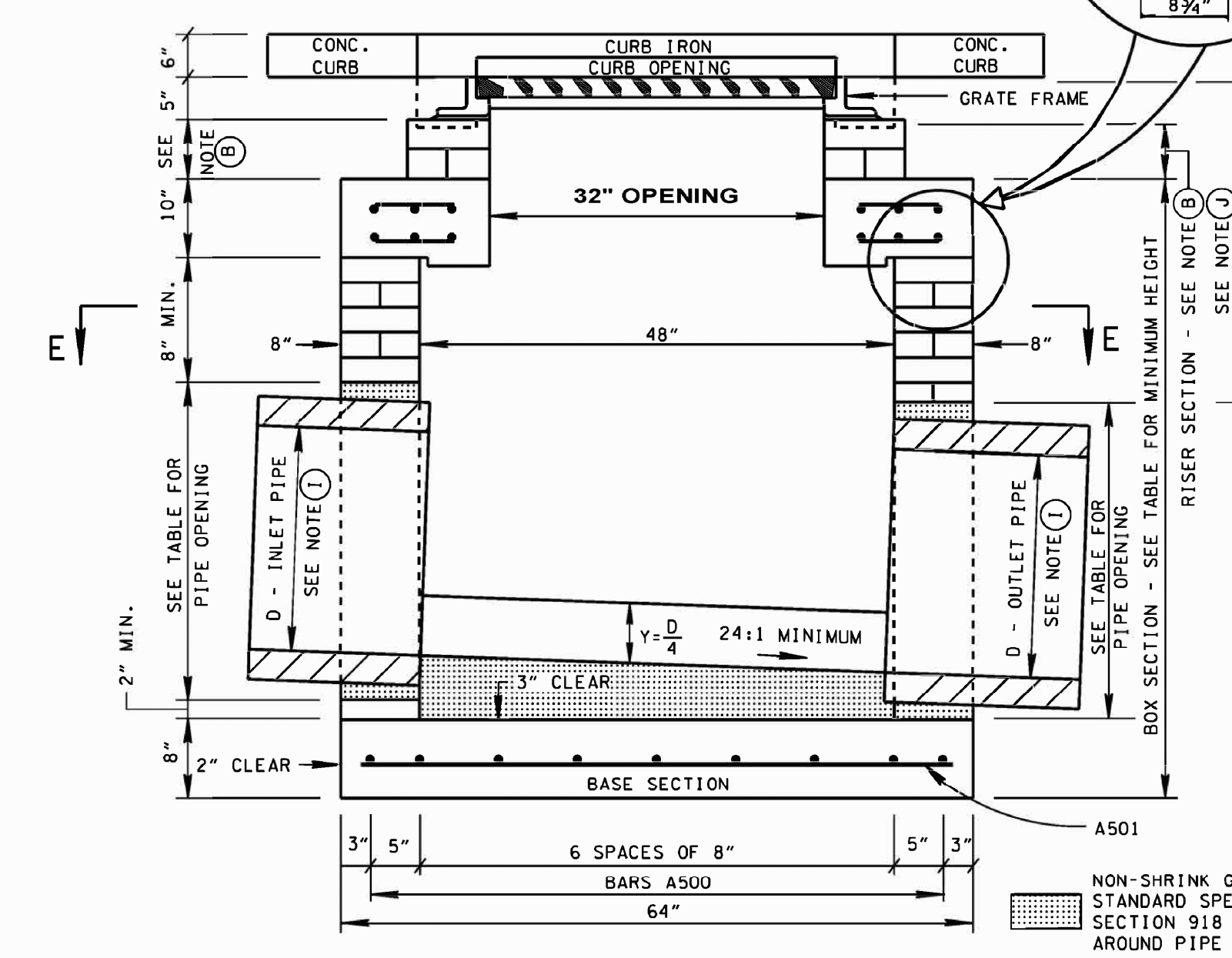
- (A) DRAWING TO BE USED FOR NO. 12 BRICK CATCH BASINS THAT ARE EIGHT FEET AND LESS IN DEPTH. SEE STANDARD DRAWINGS D-CB-12P AND D-CB-12S FOR DETAILS OF NO. 12 CONCRETE CATCH BASINS THAT ARE MORE THAN EIGHT FEET IN DEPTH.
- (B) THIS DIMENSION MAY VARY FROM A MINIMUM OF 0 INCHES TO A MAXIMUM OF 24 INCHES AS LONG AS 23 INCHES IS SATISFIED. THE CONTRACTOR HAS THE OPTION OF USING BRICK OR STANDARD PRECAST CONCRETE RISER FRAMES. THE USE OF BRICK SHALL BE LIMITED TO 6 INCHES. IF THIS DIMENSION EXCEEDS 6 INCHES, PRECAST CONCRETE RISER FRAMES SHALL BE USED AS SHOWN ON STANDARD DRAWING D-RF-1.
- (C) CAST-IN-PLACE CONCRETE USED IN BRICK CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS UNLESS SUPERSEDED BY THIS DRAWING. THE CONTRACTOR MAY WITH PERMISSION FROM THE ENGINEER SUBSTITUTE PRECAST CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM C913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.
- (D) THE FOLLOWING MATERIAL PROPERTIES ARE REQUIRED FOR BOTH CAST-IN-PLACE AND PRECAST STRUCTURES:
 CONCRETE: $f'_c = 4,000$ POUNDS PER SQUARE INCH AT 28 DAYS
 REINFORCING STEEL: ASTM A615, $F_y = 60,000$ POUNDS PER SQUARE INCH
 ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.
- (E) PRECAST CATCH BASIN UNITS USED FOR LIDS AND FLOORS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED CATCH BASIN UNITS AT HIS OWN EXPENSE.
- (F) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.
- (G) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES WITH GROUT AND PLACE A MINIMUM OF ONE (1) INCH OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.
- (H) ALTERNATIVE JOINT DETAILS MAY BE ACCEPTABLE. SEE STANDARD DRAWING D-CB-99 FOR ADDITIONAL DETAILS.
- (I) SEE ROADWAY PLANS DRAINAGE TABULATION FOR PIPE INLET AND OUTLET ELEVATIONS. IF NEEDED, INVERT ELEVATIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.
- (J) FOR CASES WHERE THE OUTLET PIPE DIAMETER IS LARGER THAN THE INLET PIPE DIAMETER, A MINIMUM 23 INCH DEPTH SHALL BE MAINTAINED ABOVE THE OUTLET PIPE.
- (K) SEE STANDARD DRAWING D-CBB-12A FOR DETAILS REGARDING CAST IRON GRATES, FRAMES AND CURB INLETS.
- (L) PAY DEPTH MEASUREMENT MADE FROM TOP OF GRATE TO OUTLET FLOW ELEVATION. PAYMENT FOR CATCH BASIN WILL BE MADE UNDER ITEM NUMBERS 611-12.01 CATCH BASINS, TYPE 12, 0'-4' DEPTH AND 611-12.02 CATCH BASINS, TYPE 12, > 4'-8' DEPTH PER EACH. PAYMENT INCLUDES RISER SECTION AND GRATE.



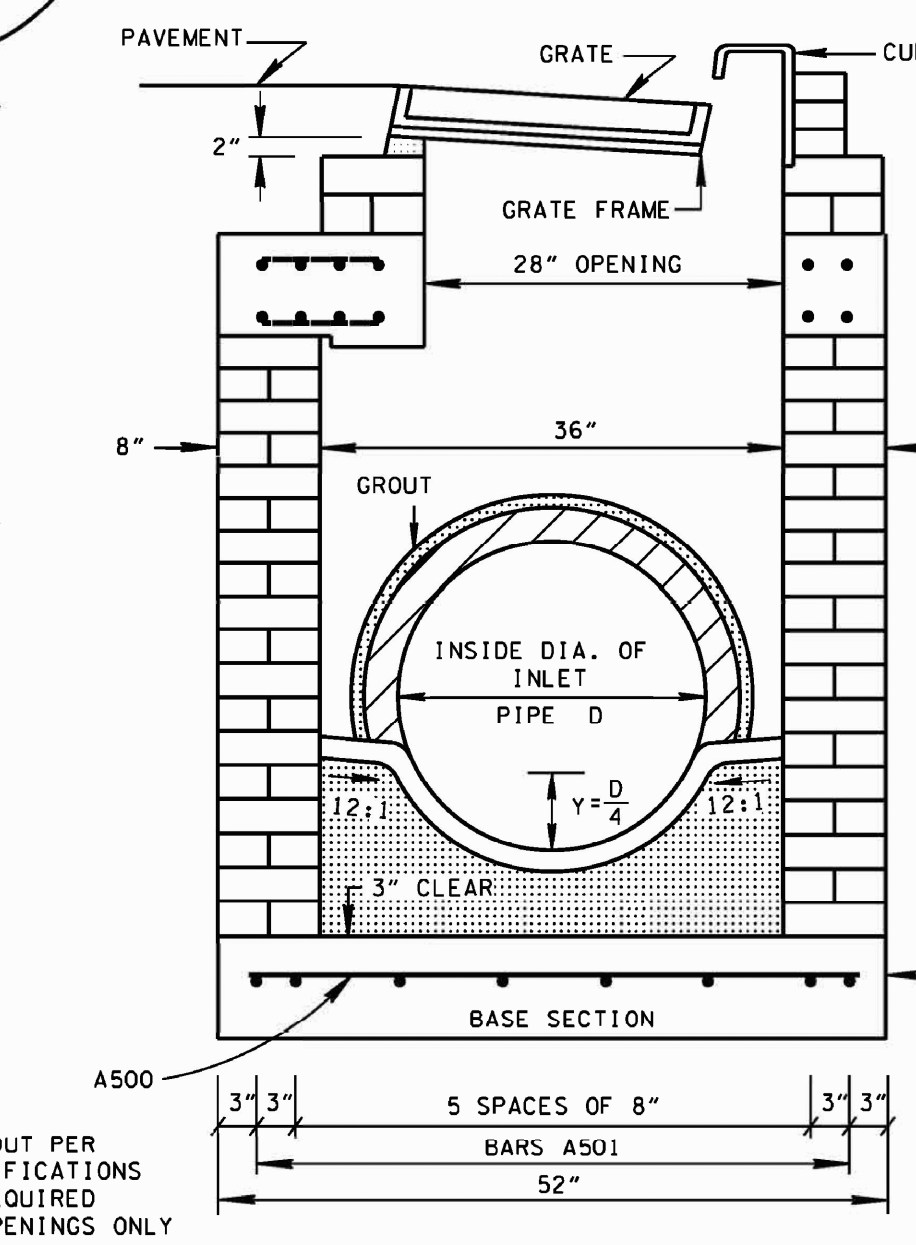
SECTION E-E



SECTION C-C



SECTION A-A



SECTION B-B

REINFORCING STEEL LEGEND

A500	48"	A503	12"
A501	60"	A504	12"
A502	33"		

DIMENSIONS SHOWN ON THIS LEGEND ARE OUTSIDE TO OUTSIDE OF BAR. STANDARD C.R.S.-1. HOOK AND TIE DETAILS SHALL APPLY, EXCEPT AS NOTED.

□ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**STANDARD
 RECTANGULAR
 BRICK NO. 12
 CATCH BASIN**

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

NOT TO SCALE 1-19-96 D-CB-12B

**MODIFIED
 RECTANGULAR
 BRICK NO. 12
 CATCH BASIN**

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UTILITY NOTES

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 ITS 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.

UTILITY OWNERS

TELEPHONE:
 AT&T
 315 E COLLEGE STREET
 JACKSON, TN 38301
 CONTACT: COREY BARTHOLOMEW
 OFFICE PHONE: 615-986-3435
 EMAIL: CB6521@ATT.COM

SEWER:
 CITY OF LAKELAND
 10001 HIGHWAY 70
 LAKELAND, TN 38002
 CONTACT: EMILY HARRELL
 OFFICE PHONE: 901-867-5418
 EMAIL: EHARREL@LAKELANDTN.ORG

FIBER OPTIC:
 C-SPIRE/ TELEPAK
 1015 HIGHLAND COLONY PKWY, SUITE 420
 RIDGELAND, MS 39157
 CONTACT: JAMIE COPELIN
 OFFICE PHONE: 601- 355-1522
 EMAIL: NOCC@CSPIRE.COM

FIBER OPTIC:
 COMCAST CABLE COMMUNICATIONS, LLC
 1701 JOHN F KENNEDY BLVD.
 PHILADELPHIA, PA 19103
 CONTACT: BRUCE HARRIS
 OFFICE PHONE: 215-665-1700
 EMAIL: BRUCE.HARRIS@CABLE.COMCAST.COM

FIBER OPTIC:
 VERIZON BUSINESS/ MCI
 2400 N. GLENVILLE DRIVE
 RICHARDSON, TX 75082
 CONTACT: JOHN BACHELDER
 OFFICE PHONE: 972-729-6016
 EMAIL: INCESTIGATIONS@VERIZON.COM

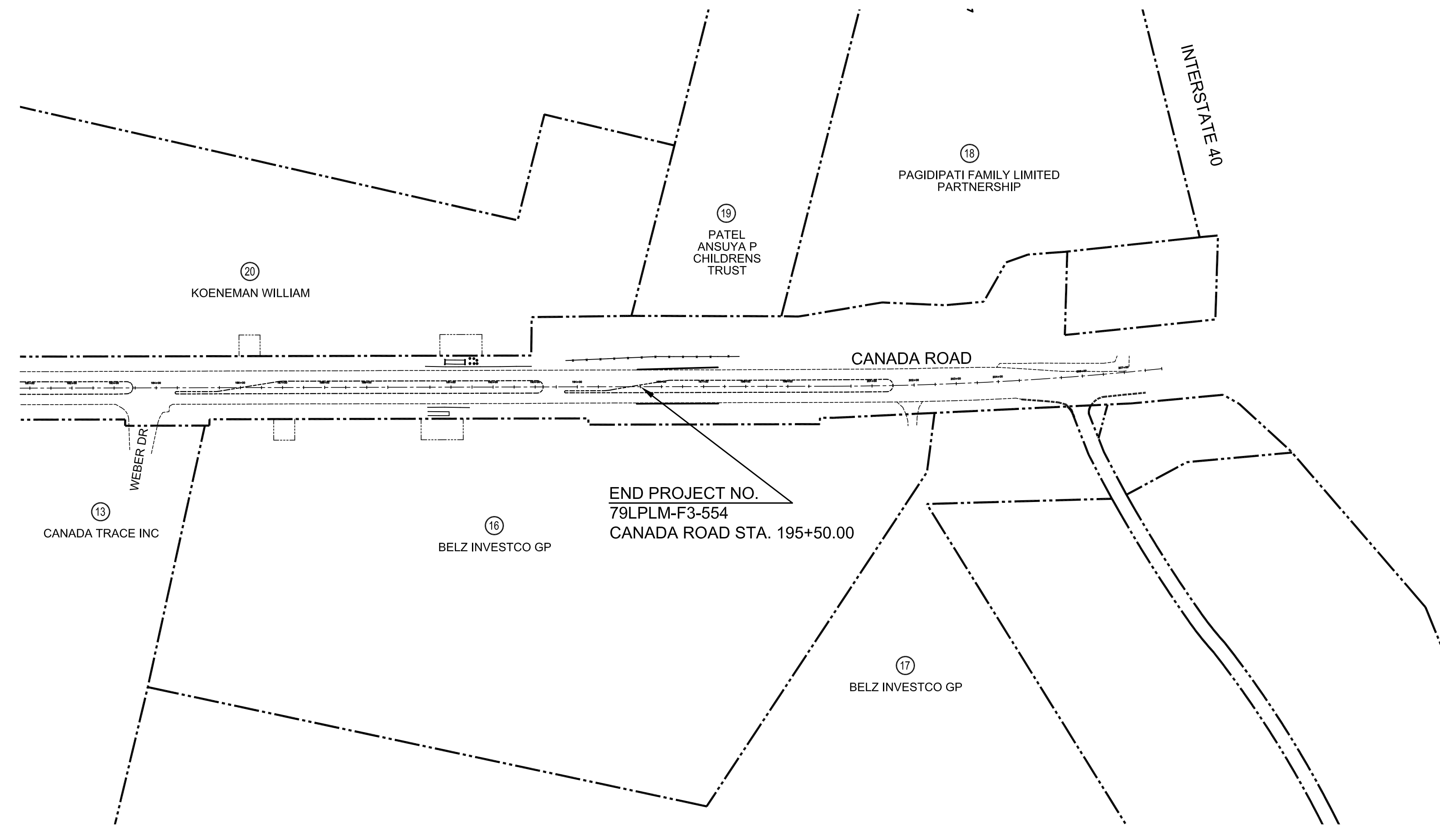
FIBER OPTIC:
 ZAYO GROUP
 1805 29TH STREET, SUITE 2050
 BOULDER, CO 80301
 CONTACT: DAVID MATHEWS
 OFFICE PHONE: 901-579-0610
 EMAIL: DAVE.MATHEWS@ZAYO.COM

GAS, WATER & POWER:
 MEMPHIS LIGHT, GAS, WATER DIVISION
 220 SOUTH MAIN STREET
 MEMPHIS, TN 38103
 CONTACT: TOM WORD
 OFFICE PHONE: 901-528-4186
 EMAIL: TWORD@MLGW.ORG



UTILITY
 NOTES &
 OWNERS

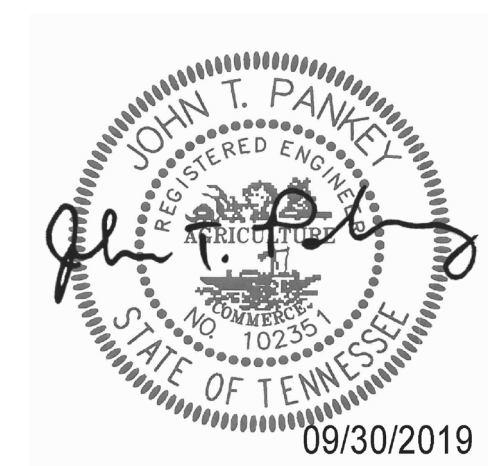
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	3A



1 PROPERTY MAP
SCALE: 1" = 200'-0"

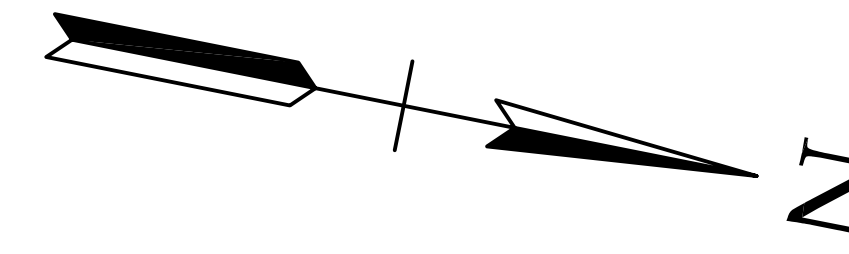
NO R.O.W. REQUIRED
TOTAL DISTURBED AREA 0.53 (AC)

R.O.W. ADJACENT PROPERTY OWNERS TABLE						
TRACT NO.	PROPERTY OWNER	COUNTY RECORDS				TOTAL AREA
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT BOOK	PAGE	
13	CANADA TRACE INC	98O	L0159 00140	--	--	33.4
14	C CUBED LAND INVESTORS	103B	L0159 00173	--	--	8.14
15	C CUBED LAND INVESTORS	103B	L0159 00175	--	--	2.12
16	BELZ INVESTCO GP	98	L0159 00139	--	--	26.66
17	BELZ INVESTCO GP	98	L0159 00445	--	--	97.36
18	PAGIDIPATI FAMILY LIMITED PARTNERSHIP	98	L0159 00124	--	--	14.86
19	PATEL ANSUYA P CHILDRENS TRUST	98	L0159 00125	--	--	8.78
20	KOENEMAN WILLIAM	98O	L0159 00530	--	--	16.75



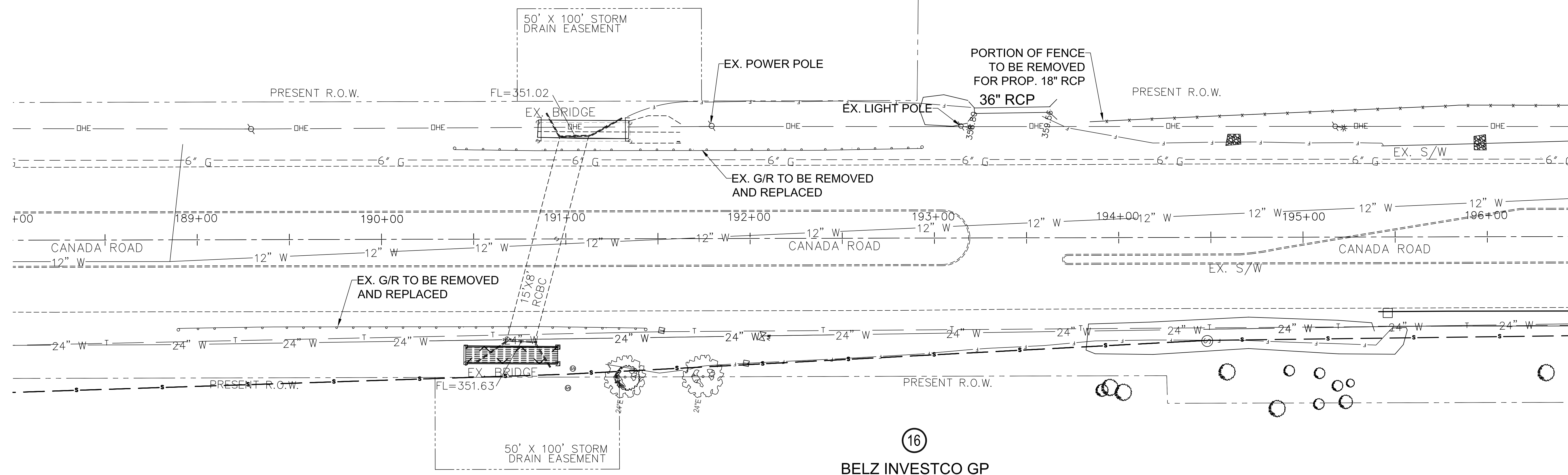
ACQUISITION
TABLE &
PROPERTY MAP
SCALE 1"=200'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	4

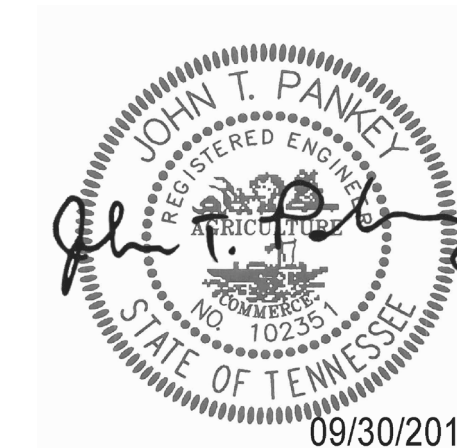


19
 PATEL ANSUYA P
 CHILDRENS TRUST

20
 KOENEMAN WILLIAM

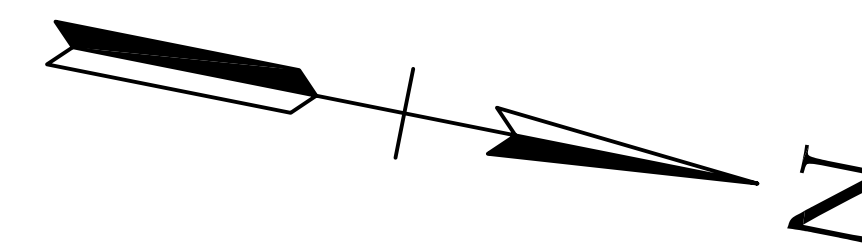


16
 BELZ INVESTCO GP



PRESENT
 LAYOUT
 CANADA ROAD STA. 188+00
 TO STA. 196+50
 SCALE: 1" = 30'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	4B

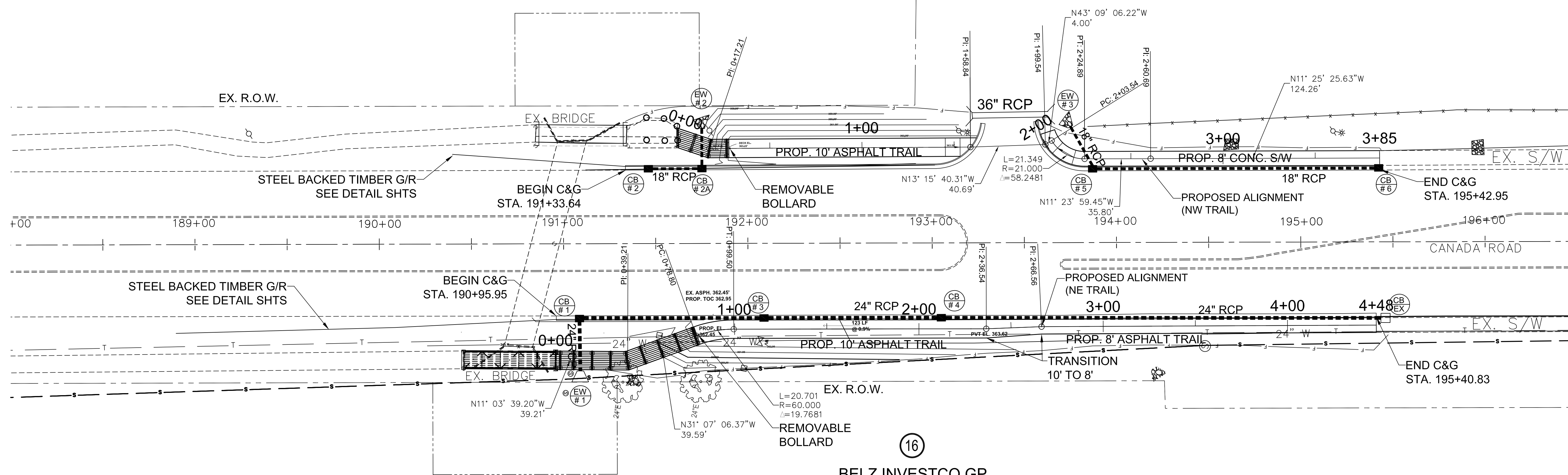


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PATEL ANSUYA P
CHILDRENS TRUST

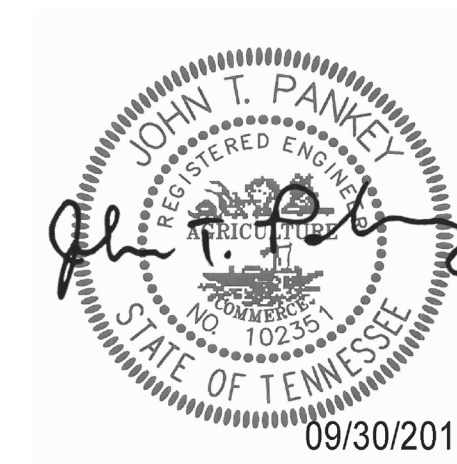
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KOENEMAN WILLIAM



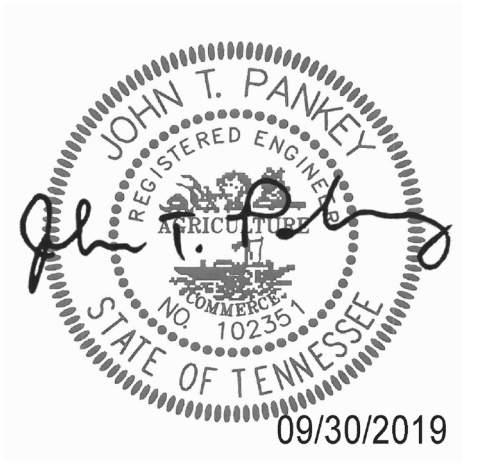
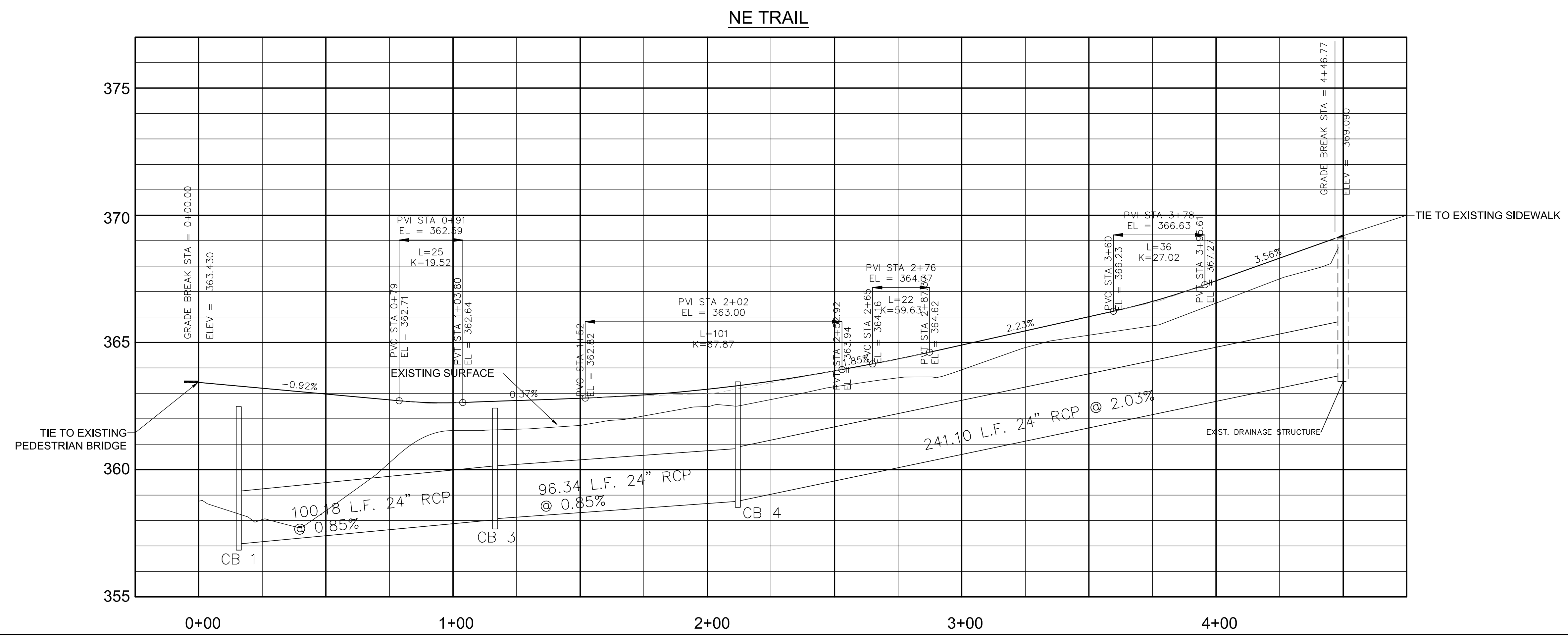
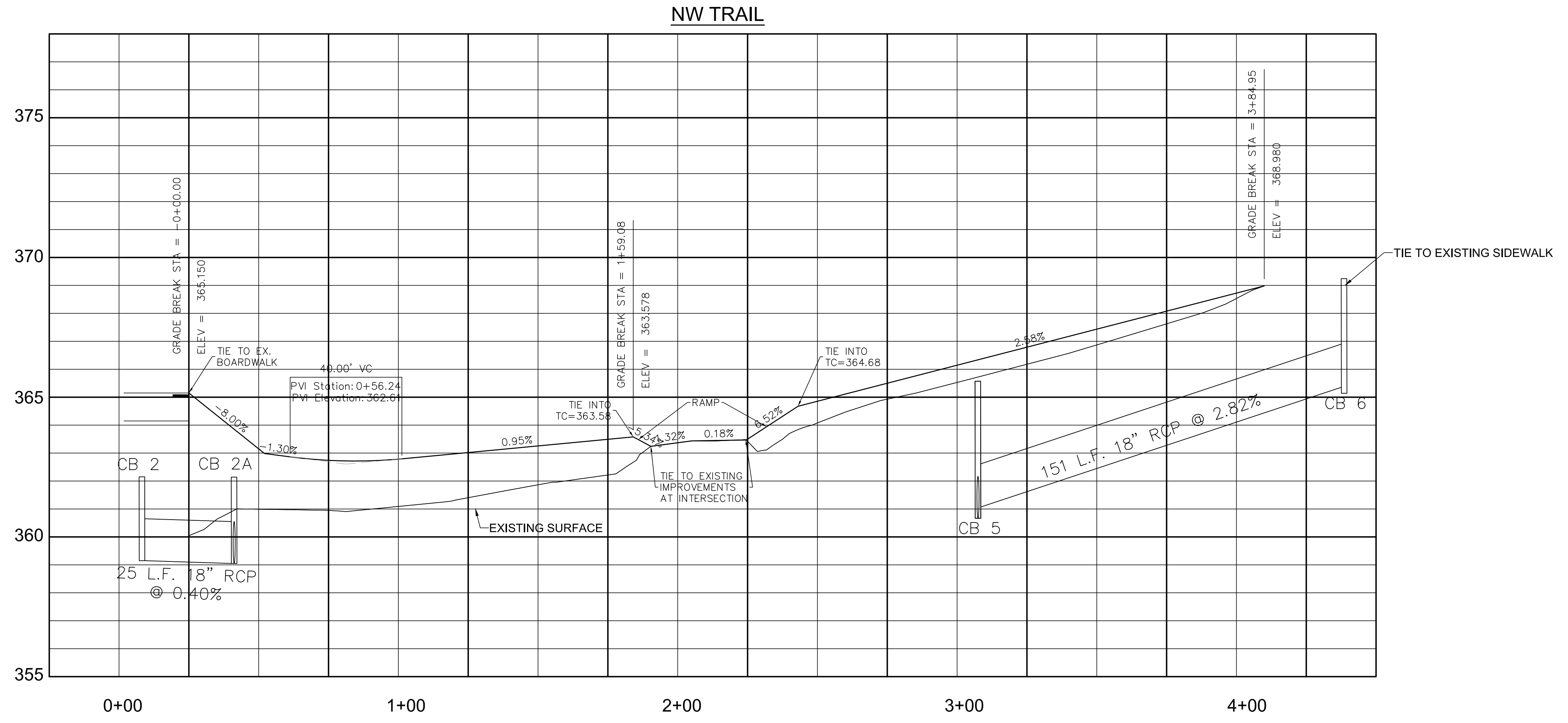
16

BELZ INVESTCO GP



PROPOSED LAYOUT
CANADA ROAD STA. 188+00
TO STA. 196+50
SCALE: 1" = 30'

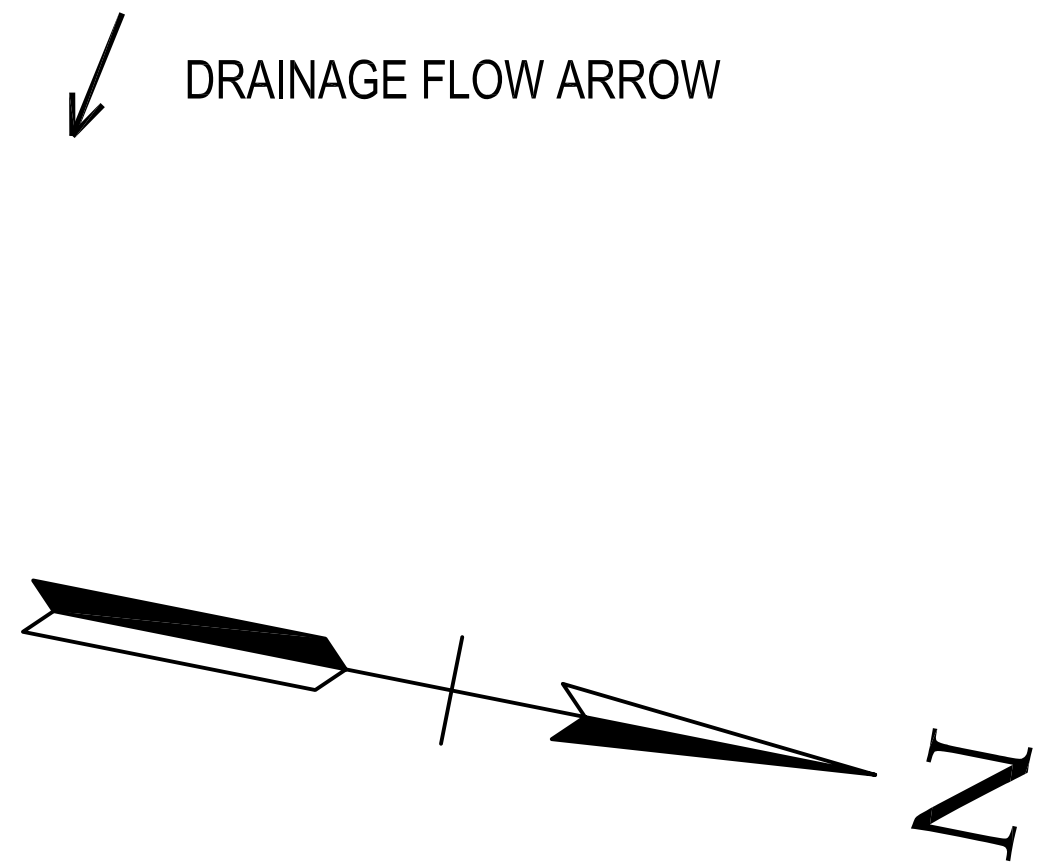
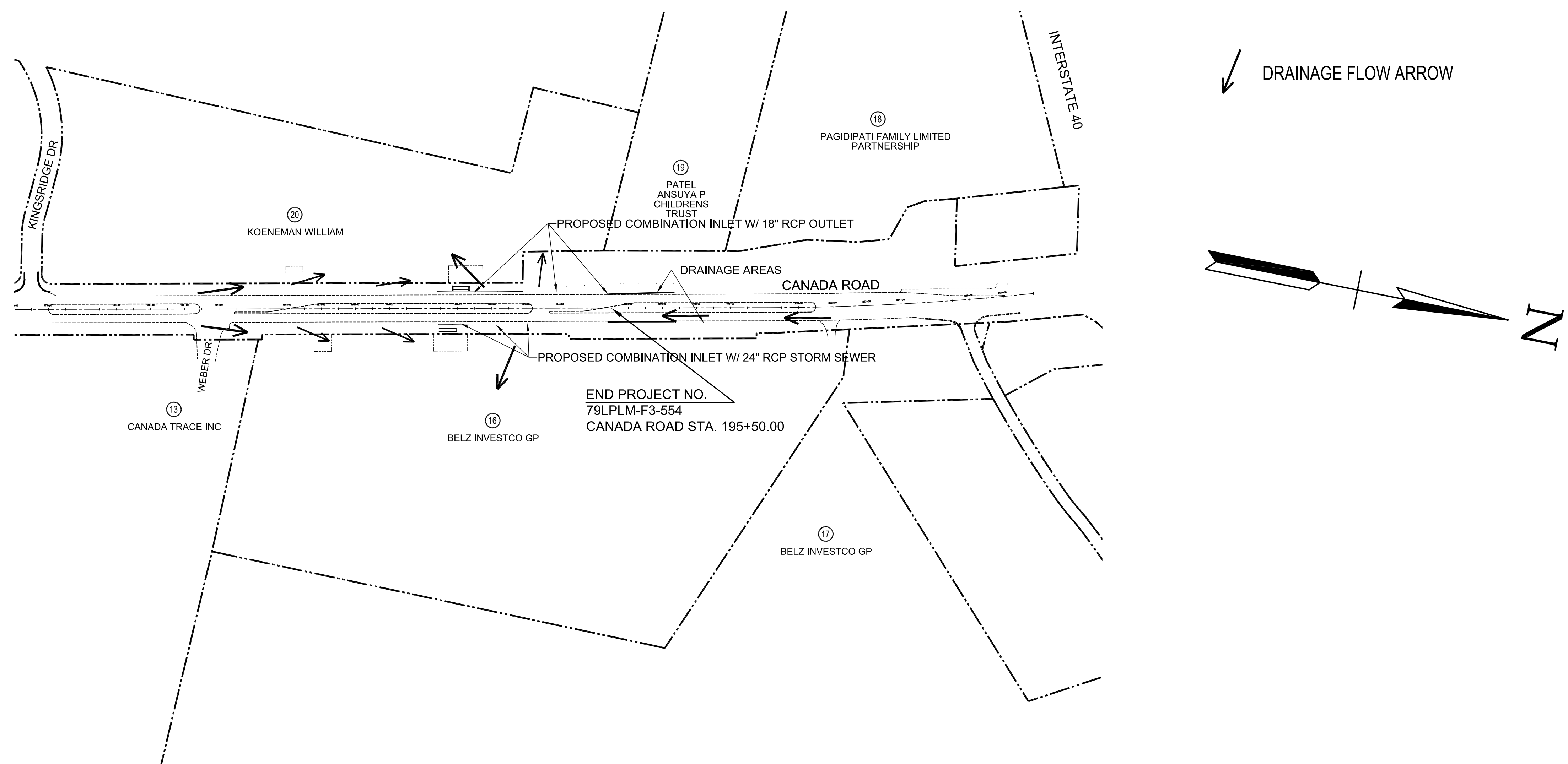
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2019	79LPLM-F3-554	4C



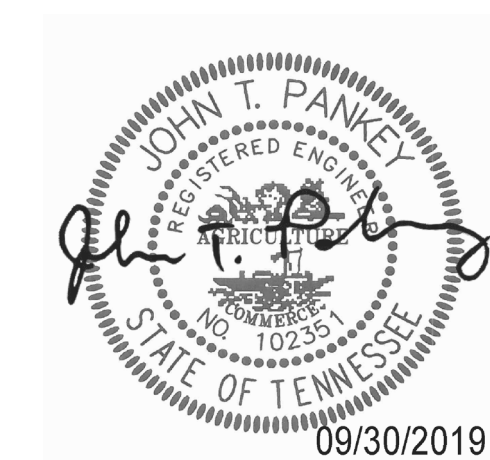
PROFILE: 1"=25' HORZ
1"=2.5' VERT

TRAIL PROFILE
STA. 190+95.00 TO STA. 195+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	5



1 DRAINAGE MAP
SCALE: 1" = 100'-0"



DRAINAGE MAP
SCALE 1"=200'

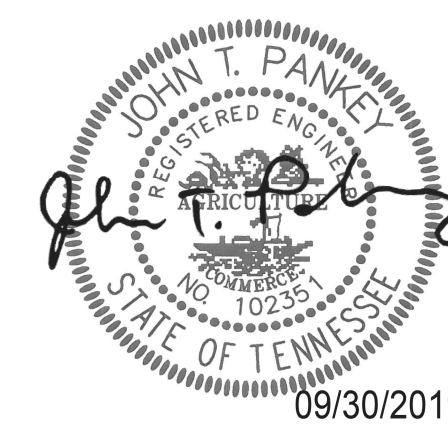
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	6

EPSC NOTES

ENVIRONMENTAL

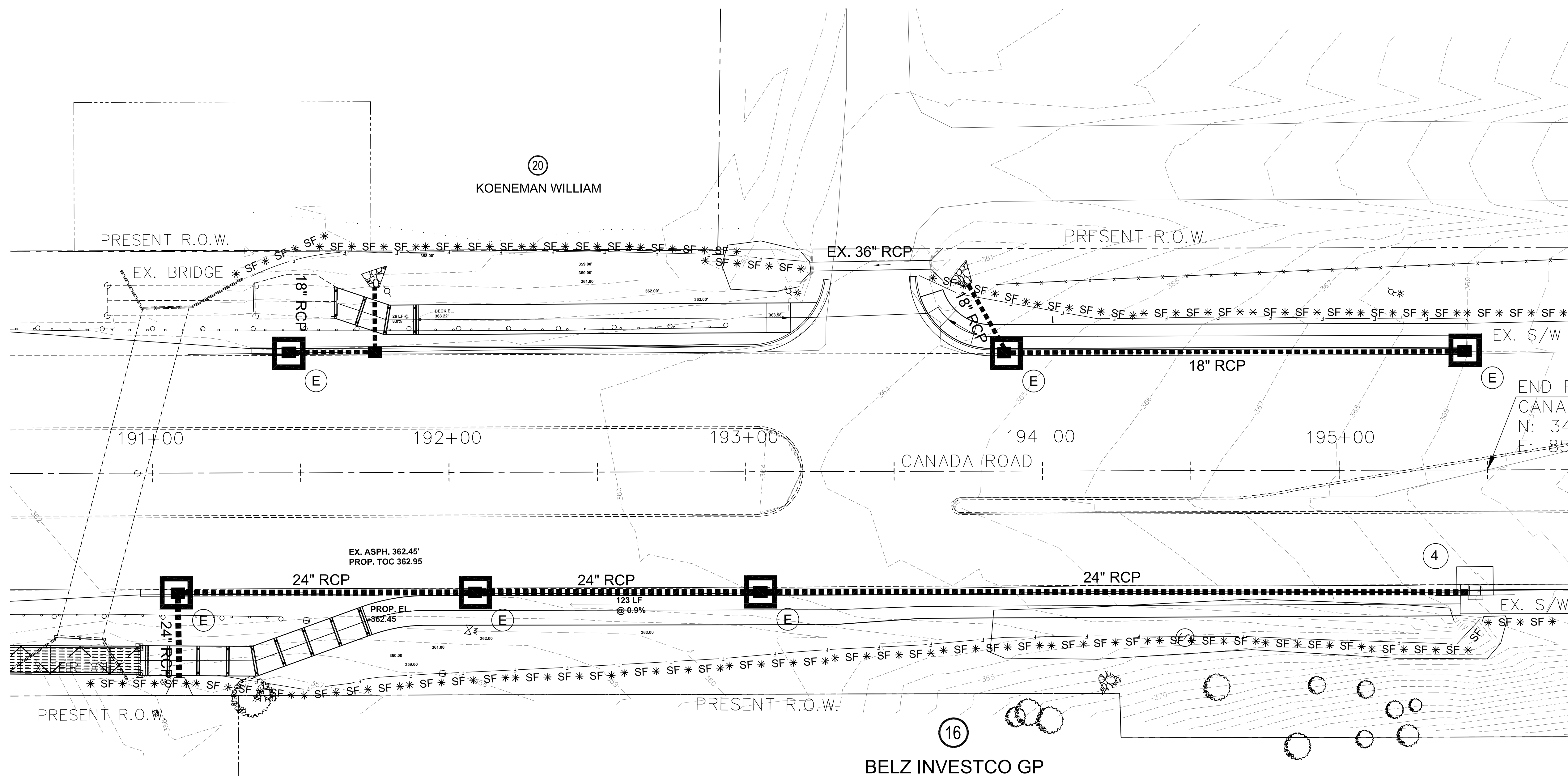
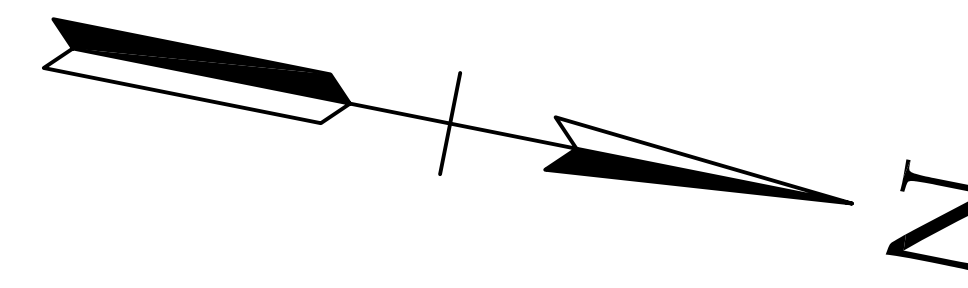
- (1) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

TABULATED EPSC QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
203-01	ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	8
209-03.21	FILTER SOCK (12 INCH)	LF	50
209-05	SEDIMENT REMOVAL	C.Y.	10
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	900
209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	8
209-40.34	CATCH BASIN PROTECTION (TYPE E)	EACH	6
709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	50
740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	SY	86

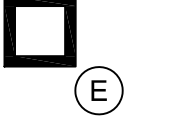
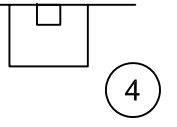
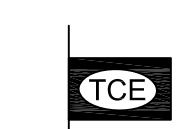


EROSION
PREVENTION &
SEDIMENT CONTROL
(EPSC) NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	7

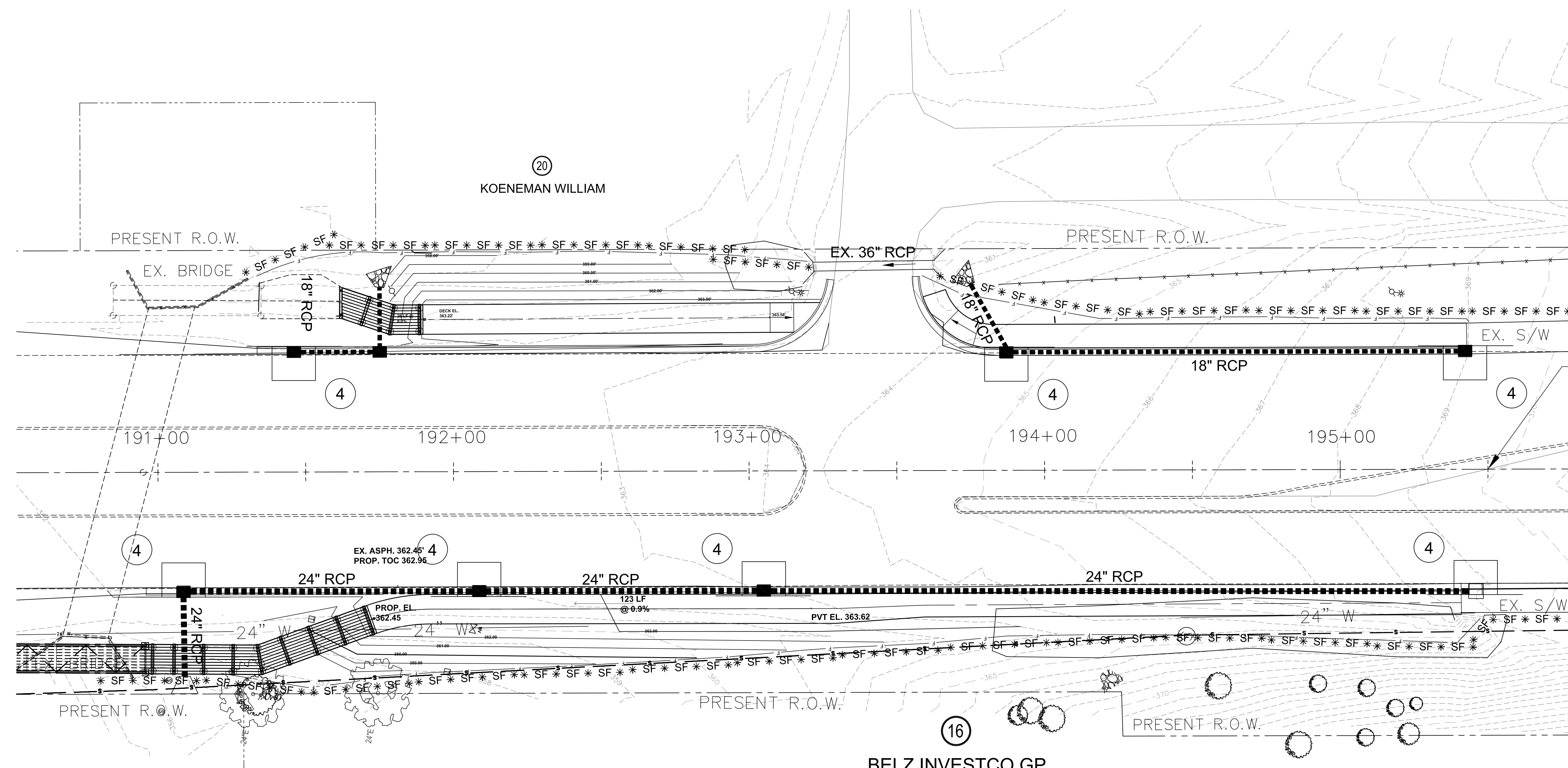
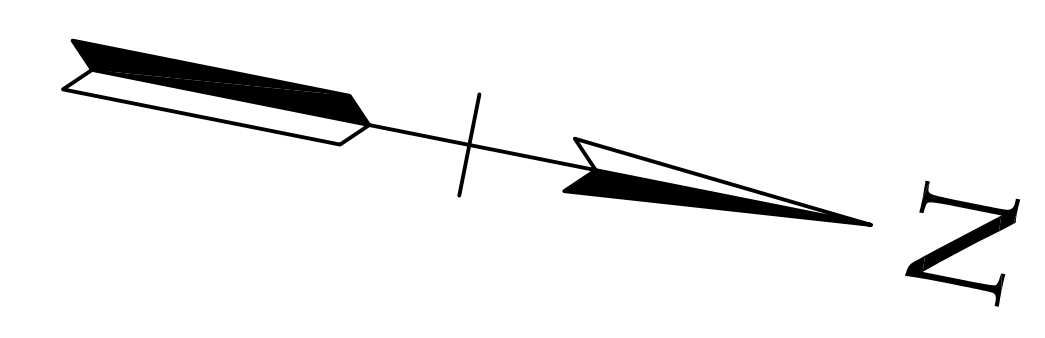


END PROJECT NO. 79LPM-F3-554
 CANADA ROAD STA. 195+50
 N: 343579.7000
 E: 853023.5341

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
* SF * SF * SF *	SILT FENCE	EC-STR-3B
	CATCH BASIN PROTECTION (TYPE E)	EC-STR-19
	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
	TEMPORARY CONSTRUCTION EXIT	EC-STR-25

EPSC PLAN
 STAGE 1
 CANADA ROAD STA. 190+95
 TO STA. 195+50
 SCALE: 1" = 20'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	8



END PROJECT
 NO. 79LPM-F3-554
 CANADA RD. STA 195+50
 N: 343579.7000
 E: 853023.5341

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
* SF * SF * SF *	SILT FENCE	EC-STR-3B
(4)	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25

EPSC PLAN
 STAGE 2
 CANADA ROAD STA. 190+95
 TO STA. 195+50
 SCALE: 1" = 20'

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	T1

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 1.75 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 1.75 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 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.
 - a. 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.

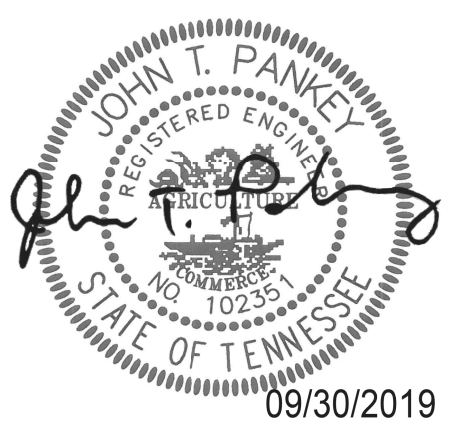
THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE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

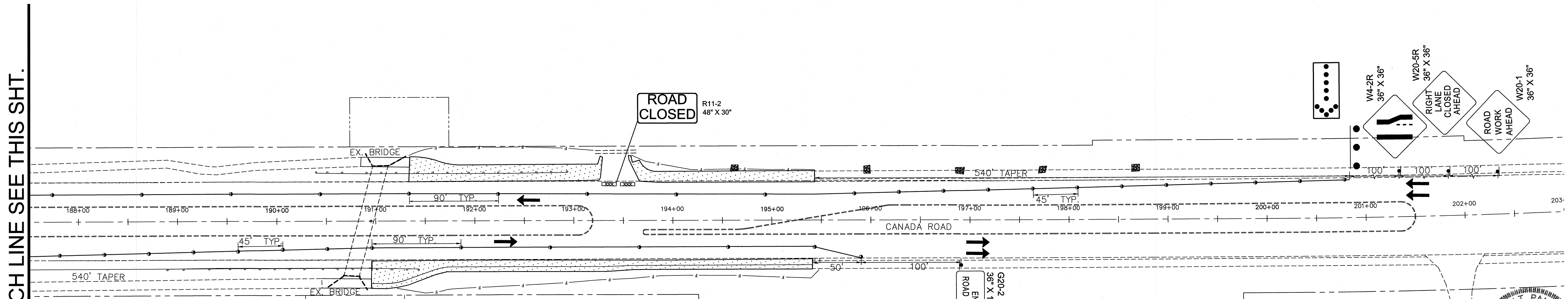
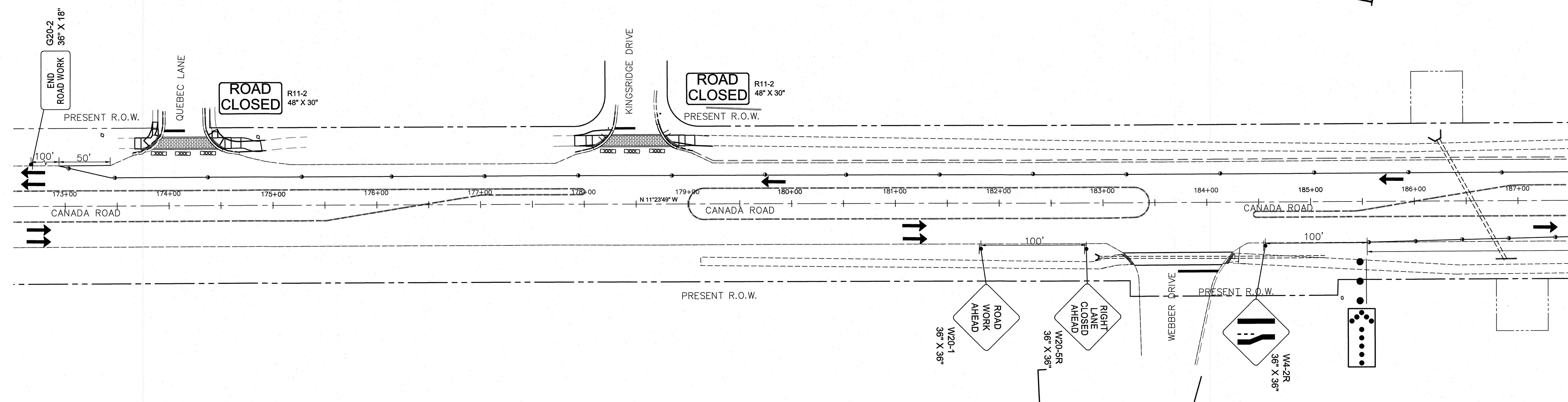
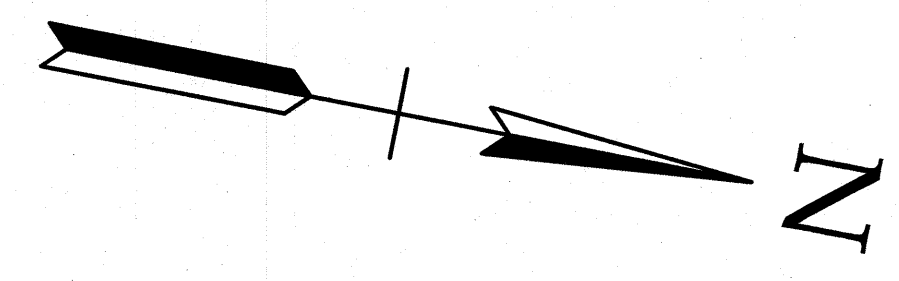
1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

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.

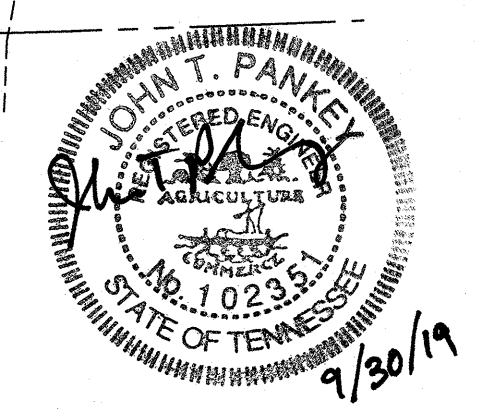


**PAVEMENT EDGE
DROP-OFF NOTES
FOR
TRAFFIC CONTROL**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	T2

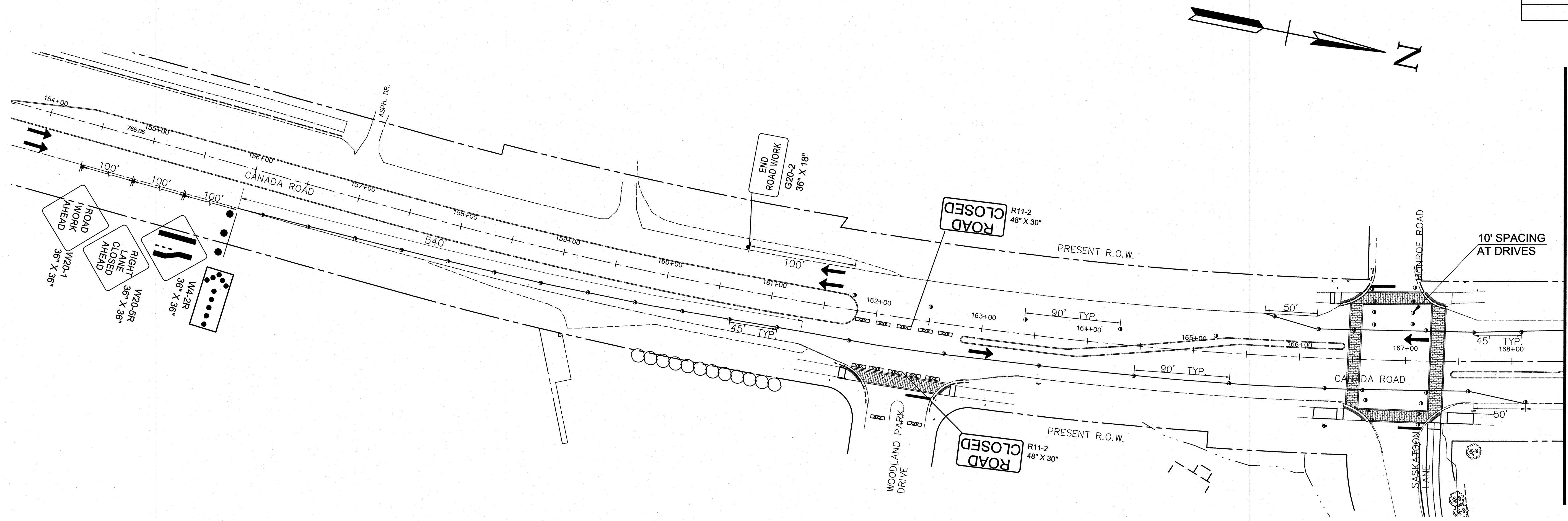


TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	ZONE CONES (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TRAFFIC FLOW
	ARROW BOARD TYPE C
	TEMPORARY BARRICADE (TYPE III)

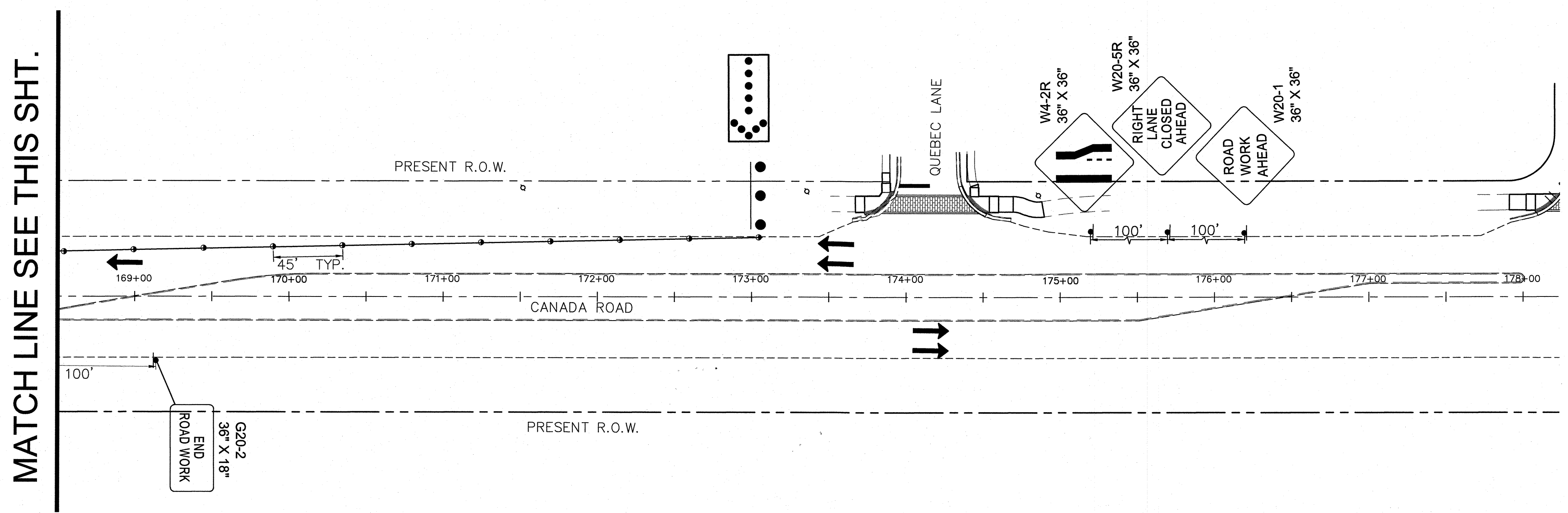


TRAFFIC CONTROL PHASE 1
 CANADA ROAD STA. 172+50 TO STA. 203+00
 SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	T3

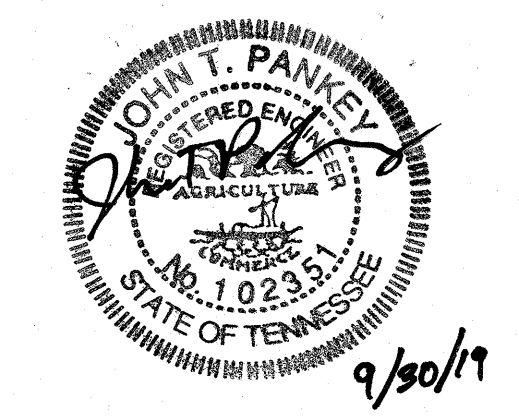


MATCH LINE SEE THIS SHT.



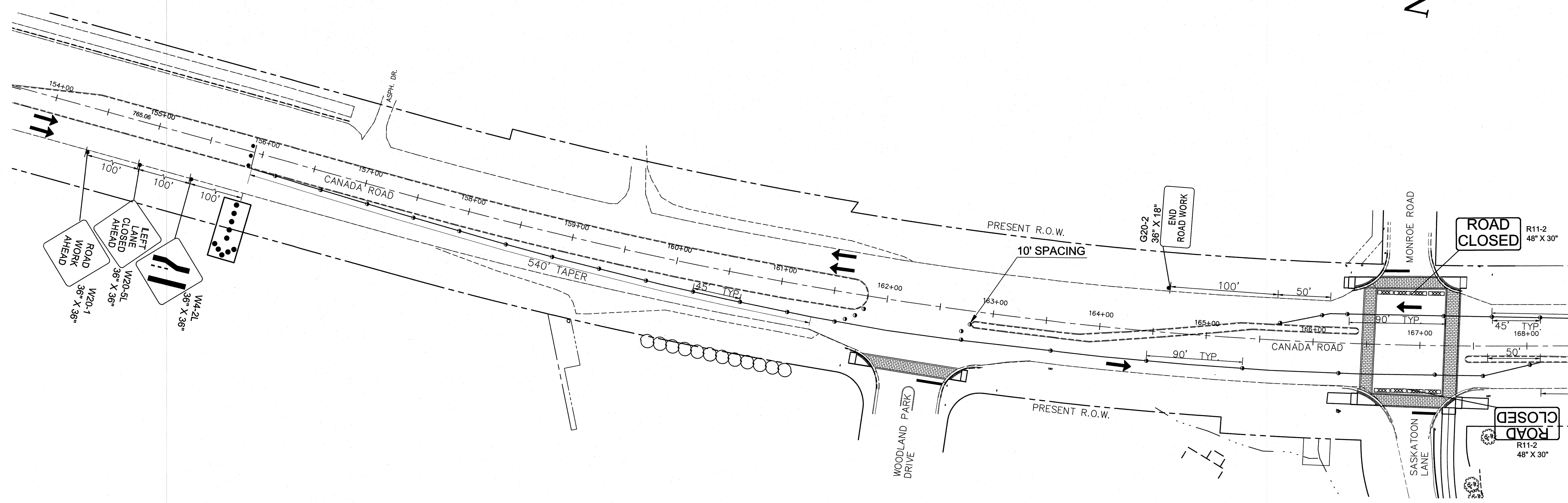
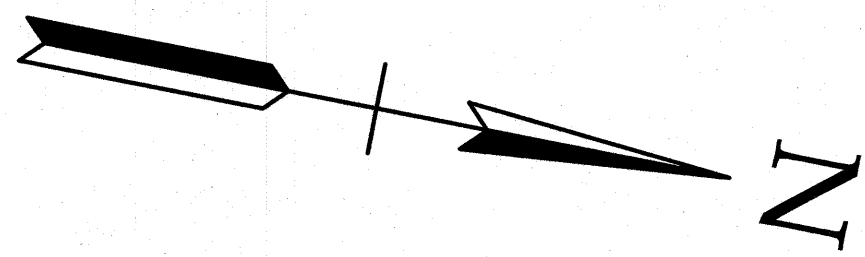
MATCH LINE SEE THIS SHT.

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
XXXX	TEMPORARY BARRICADE (TYPE III)
●	ZONE CONES (CHANNELIZING)
▬	SIGN (CONSTRUCTION)
→	TRAFFIC FLOW
⋮	ARROW BOARD TYPE C



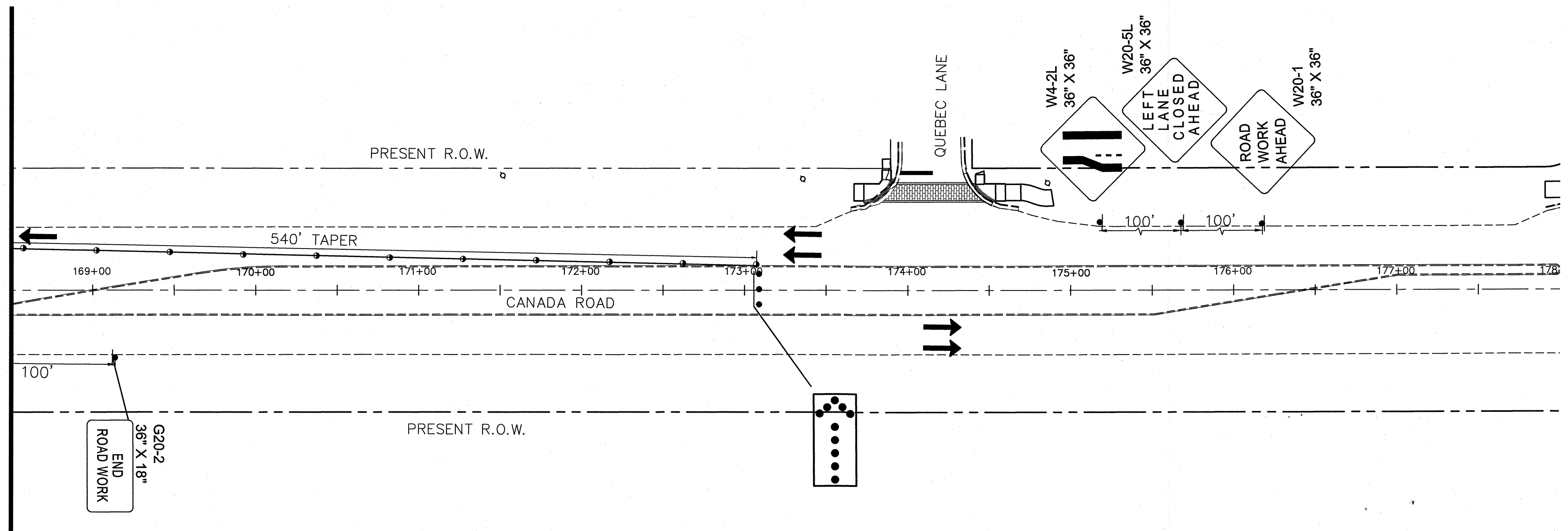
TRAFFIC CONTROL PHASE 2
 CANADA ROAD STA. 154+00 TO STA. 178+00
 SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	79LPLM-F3-554	T4

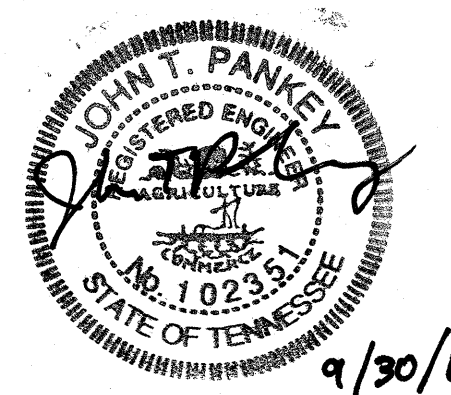


MATCH LINE SEE THIS SHT.

MATCH LINE SEE THIS SHT.

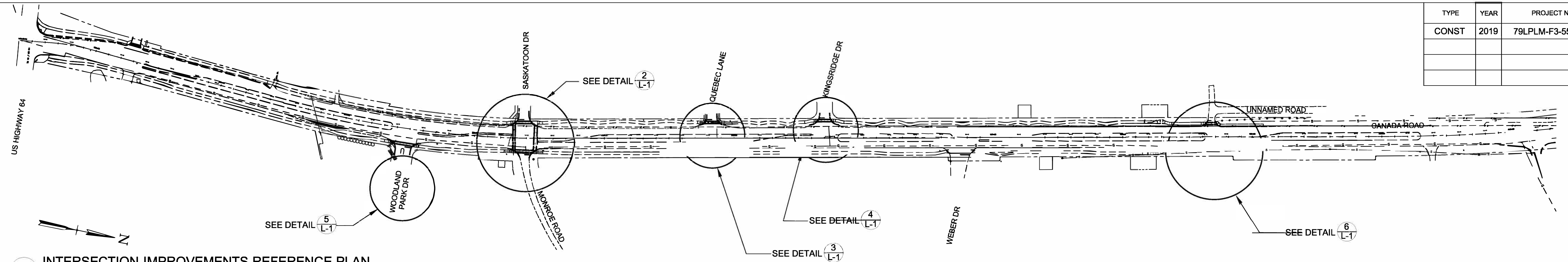


TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
○	ZONE CONES (CHANNELIZING)
▬	SIGN (CONSTRUCTION)
→	TRAFFIC FLOW
⋮	ARROW BOARD TYPE C
⊠	TEMPORARY BARRICADE (TYPE III)

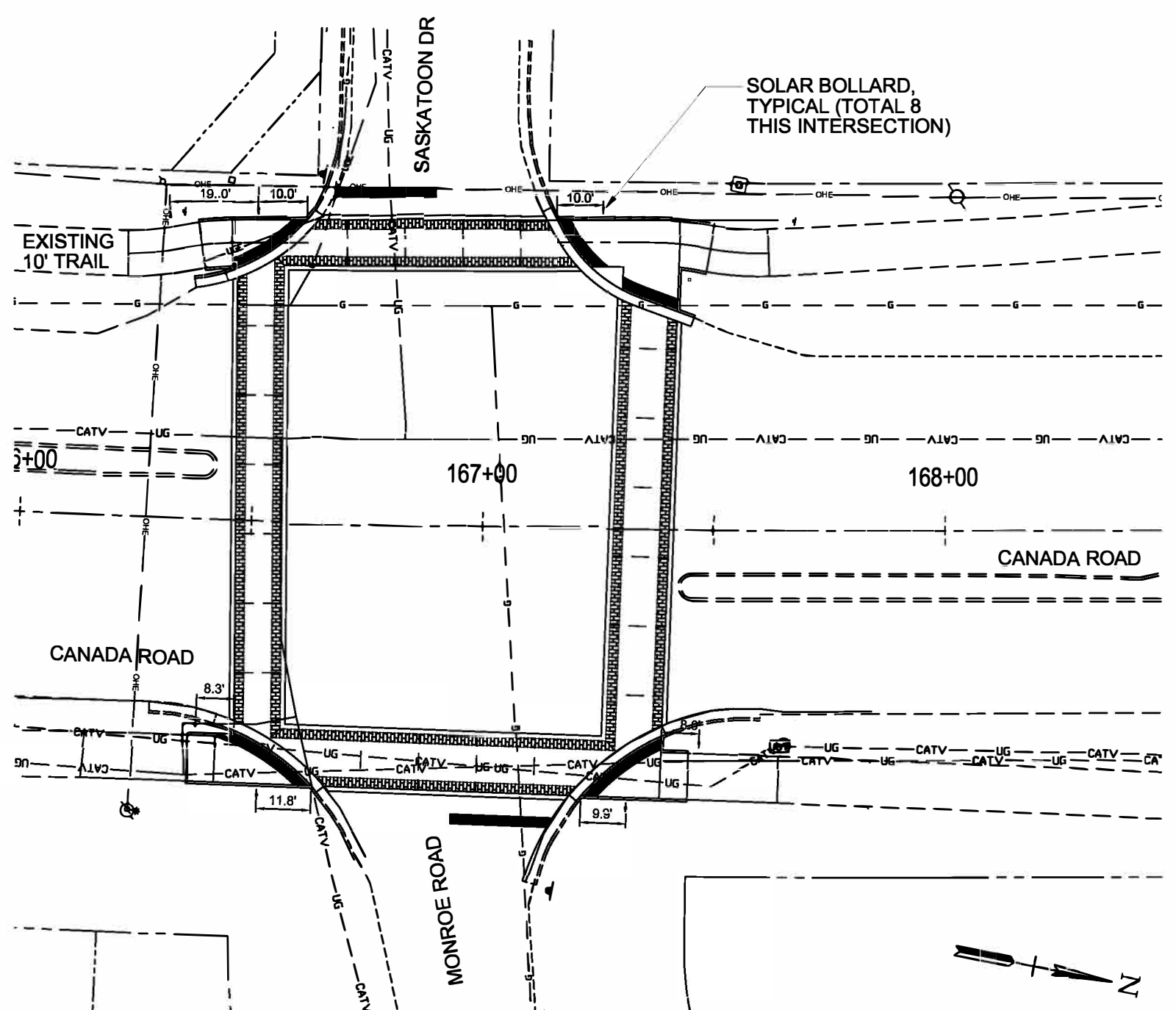


TRAFFIC CONTROL PHASE 3
 CANADA ROAD STA. 154+00 TO STA. 178+00
 SCALE: 1" = 50'

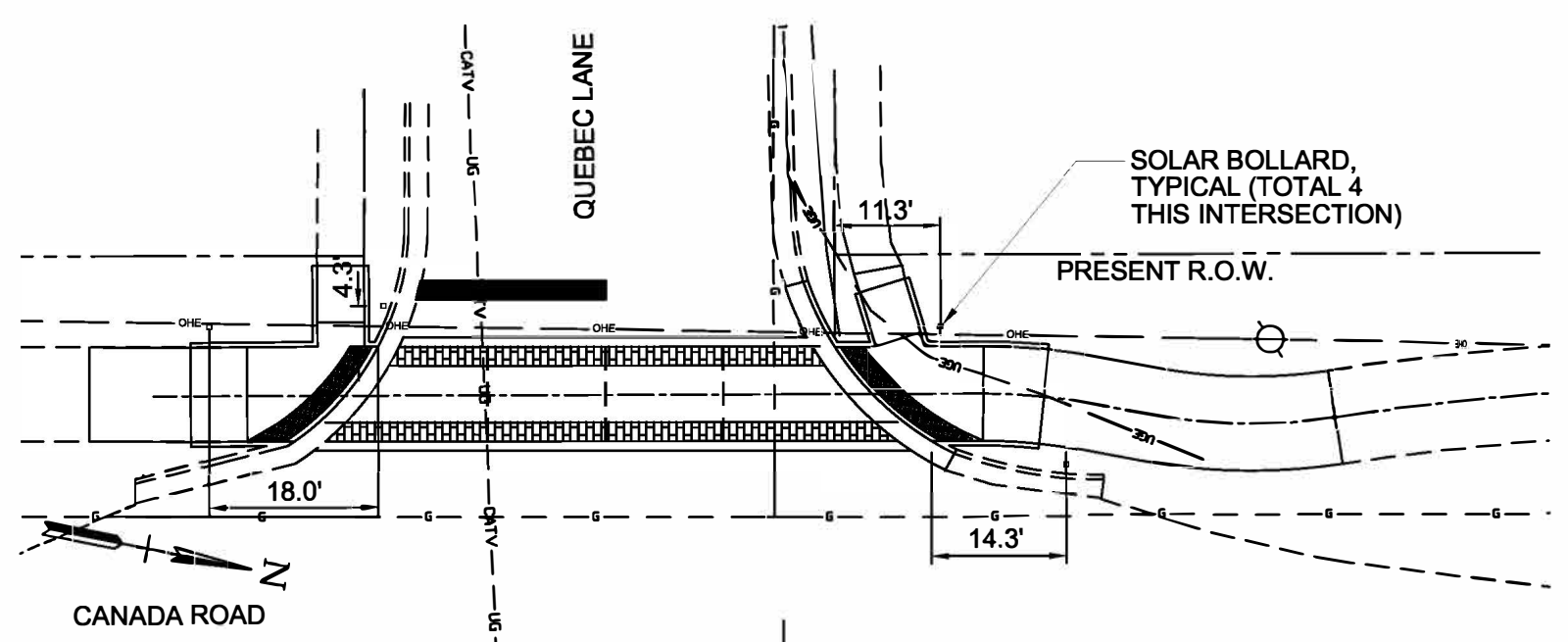
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2019	79LPLM-F3-554	L-1



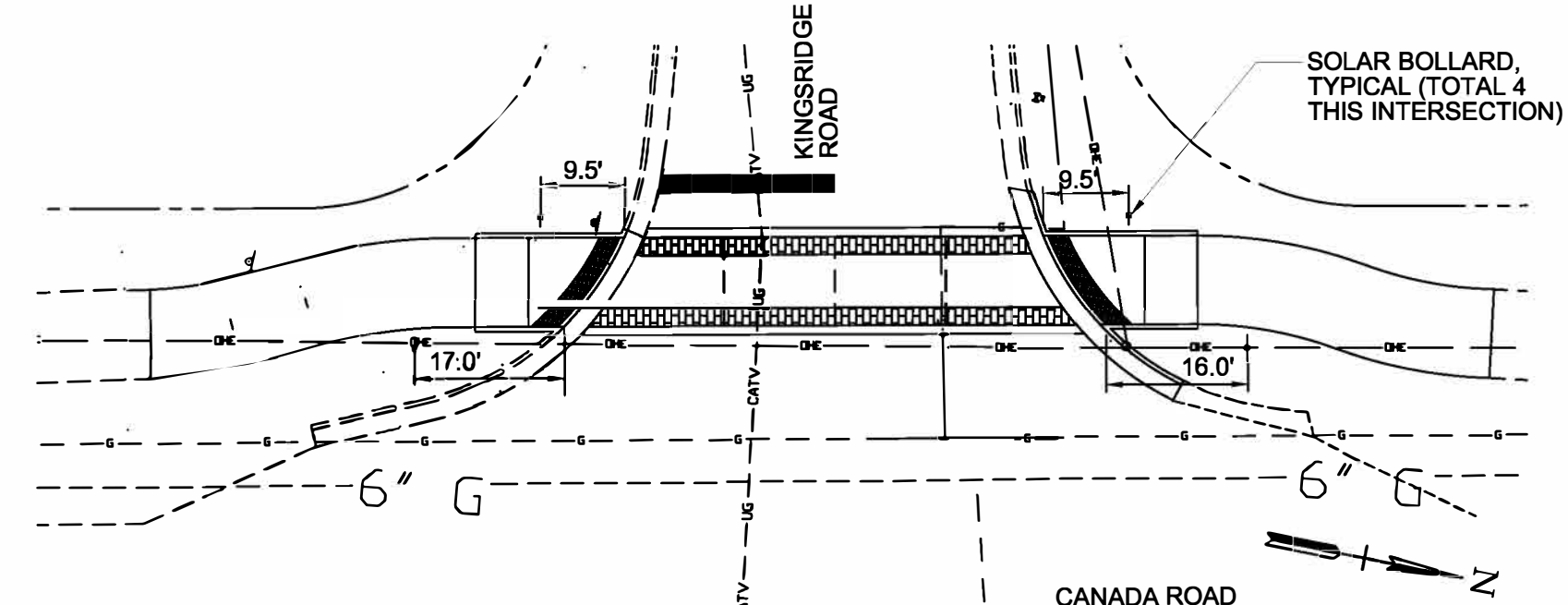
1 INTERSECTION IMPROVEMENTS REFERENCE PLAN
SCALE: 1" = 200'-0"



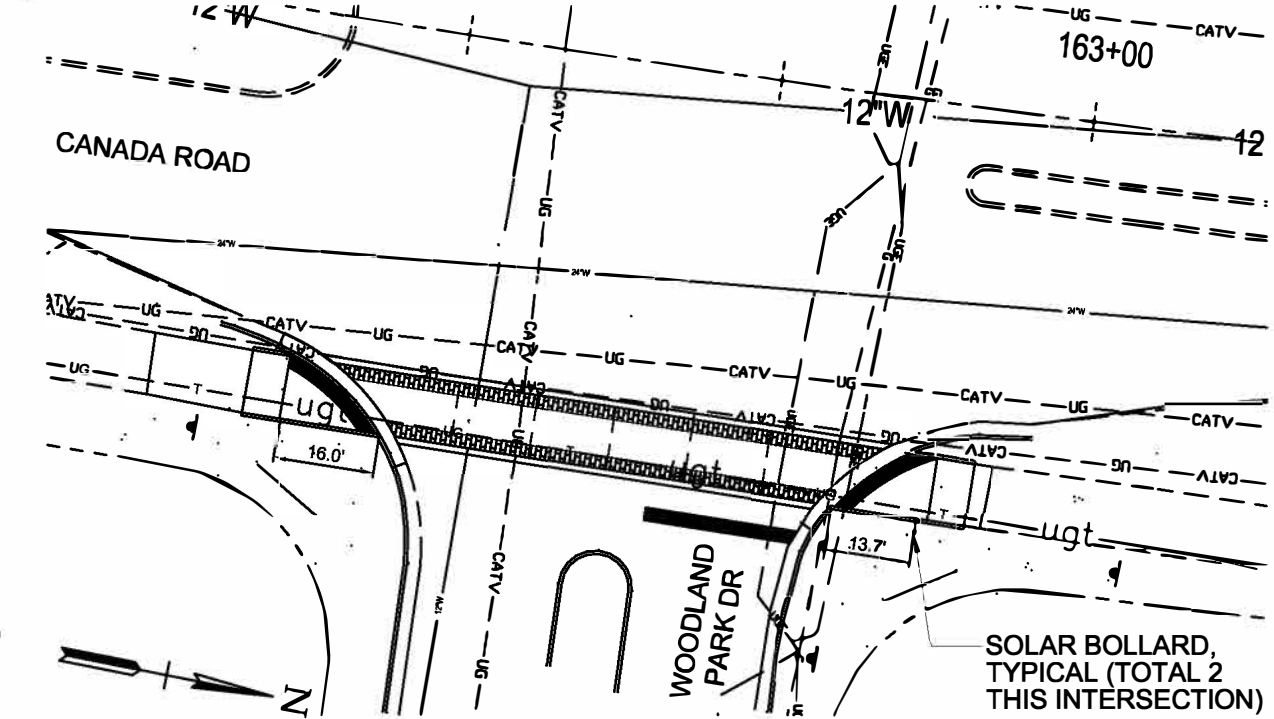
2 MONROE ROAD NORTH / SASKATOON DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



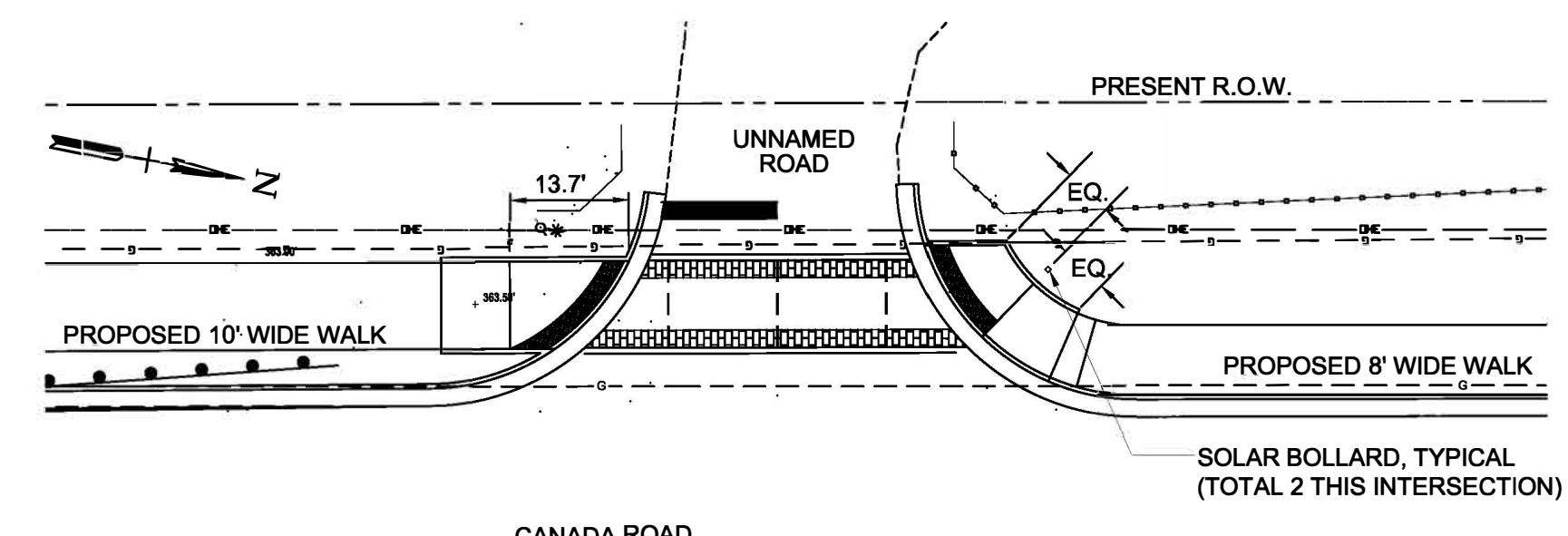
3 QUEBEC LANE AT CANADA ROAD
SCALE: 1" = 20'-0"



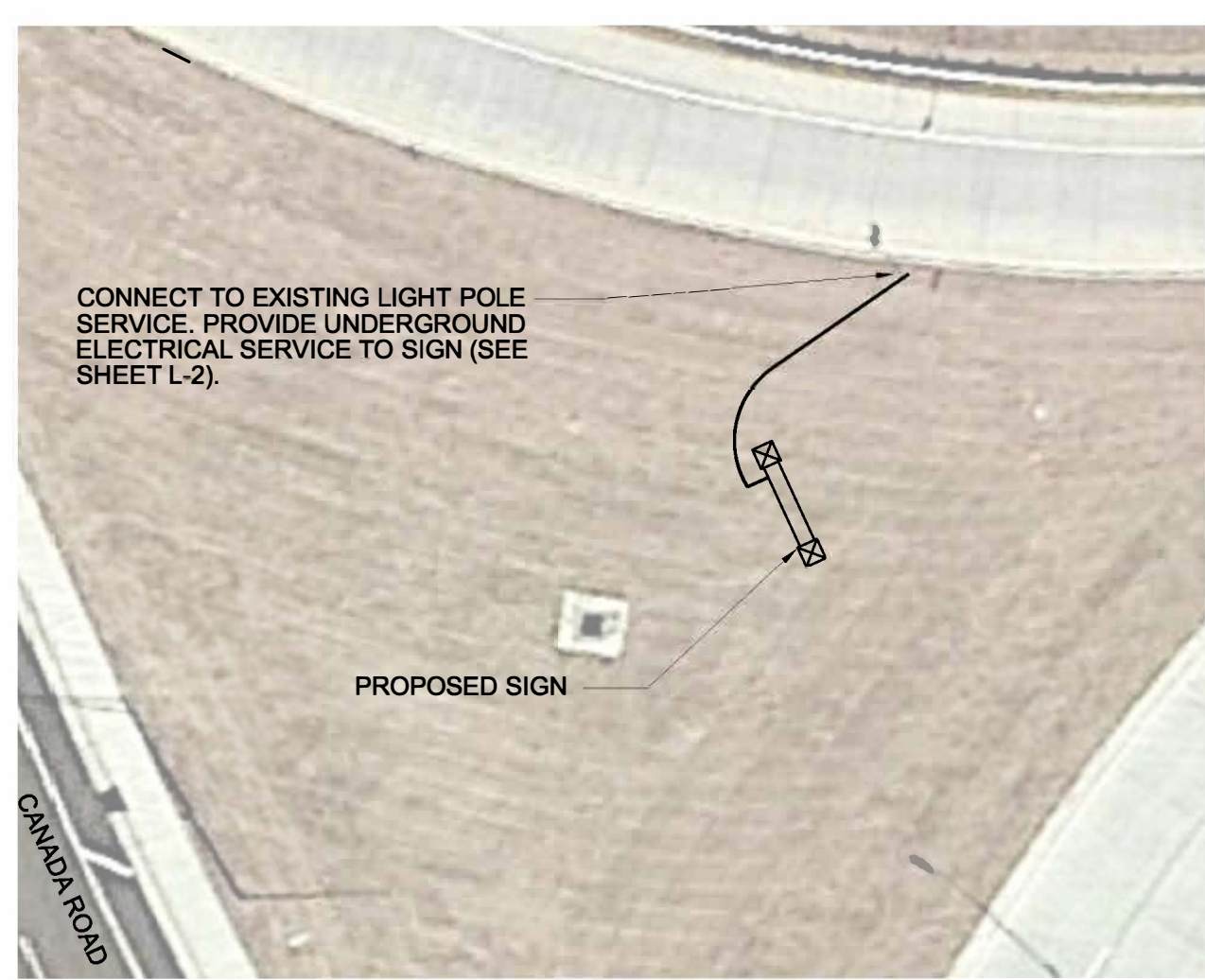
4 KINGSRIDGE DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



5 WOODLAND PARK DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



6 UNNAMED DRIVE AT CANADA ROAD
SCALE: 1" = 20'-0"



7 I-40/CANADA ROAD SIGN NORTH
SCALE: 1" = 20'-0"



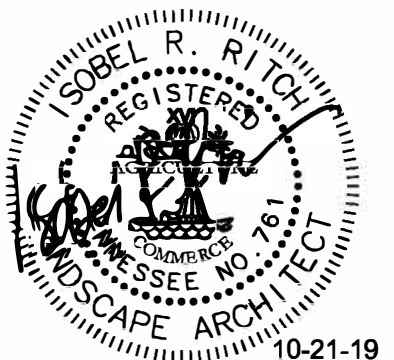
8 I-40/CANADA ROAD SIGN SOUTH
SCALE: 1" = 20'-0"

GENERAL NOTES:

- ALL DIMENSIONS SHOWN ARE TO MIDDLE POINT OF FACE OF BOLLARD CLOSEST TO THE TRAIL, AS MEASURED FROM THE FACE OF CURB WHERE IT INTERSECTS THE TRAIL.
- BOLLARDS TO BE PLACED 2'-0" FROM EDGE OF TRAIL AS SHOWN ON THE PLAN.
- BOLLARDS TO BE SURFACE MOUNTED ON 4000 PSI, 12" DIAMETER CONCRETE BASE, 36" DEPTH, IN LOCATIONS SHOWN ON THE PLANS.
- BOLLARD LIGHTING TO BE CONFIGURED WITH WIDE DISTRIBUTION, ORIENTED SO AS TO ILLUMINATE THE GREATEST LENGTH OF PATHWAY POSSIBLE.
- COLOR OF BOLLARD TO BE BLACK, OR AS APPROVED BY OWNER.
- SIGN LIGHTS TO MATCH EXISTING FIXTURES ON SIGN IN MEDIAN LOCATED NEAR INTERSECTION OF CANADA ROAD AND US HIGHWAY 64. SEE SHEET L-2 FOR ELECTRICAL REQUIREMENTS.

LIST OF ACCEPTABLE SOLAR BOLLARD PRODUCTS / MANUFACTURERS:

- FIRST LIGHT TECHNOLOGIES:** PLB Solar Bollard
3303B Tennyson Ave, Victoria, BC V8Z 3P5, Canada
(844) 279-8754 www.firstlighttechnologies.com
- METEOR LIGHTING:** SP-018 Bollard
1300 John Reed Court, Unit B, City of Industry, California 91745
(213) 255-2060 www.meteor-lighting.com
- RELIANCE FOUNDRY:** Solar Bollard R-9811
Unit 207, 6450-148th Street
Surrey, British Columbia, Canada V3S-7G7
(877) 789-3245 www.reliance-foundry.com



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2019	79LPLM-F3-554	L-2

GENERAL NOTES:

- SERVICE SHALL BE 120 VOLTS. VERIFY SERVICE VOLTAGE WITH UTILITY COMPANY.
- ALL CONDUIT SHALL BE RUN CONCEALED UNLESS SPECIFICALLY SHOWN EXPOSED.
- THE CONTRACTOR SHALL CHECK ALL LIGHTING FIXTURES FOR EXACT TYPE MOUNTING AND SPACE REQUIRED BEFORE ROUGHING IN.
- THE CONTRACTOR SHALL WORK CLOSELY WITH THE GENERAL CONTRACTOR AND VERIFY EXACT TYPE OF EQUIPMENT TO BE INSTALLED AND THE DIMENSIONS WHICH MAY AFFECT THE EXACT PLACEMENT OF ELECTRICAL WORK.
- ALL BRANCH CIRCUITS AND FEEDERS SHALL HAVE AN INSULATED GROUND WIRE PULLED IN THE CONDUIT WITH CURRENT CONDUCTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE GROUNDING CONDUCTOR SHALL BE SIZED ACCORDING TO TABLE 250-122 OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE UNLESS INDICATED TO BE LARGER IN THE SPECIFICATIONS OR PLANS.
- DO ALL WORK IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS AND ORDINANCES, THE NATIONAL ELECTRICAL CODE (HEREINAFTER REFERRED TO AS "CODE" OR "NEC"), THE AMERICANS WITH DISABILITIES ACT, AND THE REGULATIONS OF THE LOCAL AUTHORITIES HAVING JURISDICTION AND, WHERE APPLICABLE, UTILITY COMPANIES. OBTAIN AND PAY FOR ANY AND ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES OF INSPECTIONS AND APPROVAL, AND THE LIKE, AND DELIVER SUCH CERTIFICATES TO THE OWNER.
- THE MAIN SERVICE SHALL HAVE THE GROUNDING CONDUCTOR (NEUTRAL) GROUND TO THE GROUNDING ELECTRODE SYSTEM AT THE SUPPLY SIDE OF THE SERVICE DISCONNECTING MEANS BY A GROUNDING ELECTRODE CONDUCTOR NOT SMALLER THAN THAT SHOWN IN TABLE 250-56 OF THE NEC. THE GROUNDING CONDUCTOR (NEUTRAL), THE GROUNDING ELECTRODE CONDUCTOR, AND THE EQUIPMENT GROUNDING CONDUCTOR CONNECTIONS SHALL BE MADE INSIDE THE SERVICE ENTRANCE EQUIPMENT.
- ALL CONDUCTORS SHALL BE COPPER.
- MINIMUM CONDUCTOR SIZE SHALL BE #12.
- ALL CONDUIT INSTALLED INDOORS SHALL BE EMT, OTHERWISE SHALL BE IMC.
- ALL FUSES SHALL BE DUAL ELEMENT, TIME DELAY, RATED 100,000 AIC.
- ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE.
- ALL CONDUCTORS SHALL BE THHN TYPE INSULATION.
- IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR, PRIOR TO BID, TO REAFFIRM WITH THE UTILITY COMPANIES INVOLVED, THAT THE LOCATION, ARRANGEMENT (AND THE POWER COMPANY: VOLTAGE, PHASE & METERING REQUIRED) AND CONNECTIONS AT THE UTILITY SERVICE ARE IN ACCORDANCE WITH THEIR REGULATIONS & REQUIREMENTS. IF THEIR REQUIREMENTS ARE AT A VARIANCE WITH THESE DRAWINGS & SPECIFICATIONS, THE CONTRACT PRICE SHALL INCLUDE ANY ADDITIONAL COST NECESSARY TO MEET THOSE REQUIREMENTS WITHOUT EXTRA COST TO THE OWNER AFTER A CONTRACT HAS BEEN ENTERED INTO.
- ON MANY PROJECTS, THE UTILITY COMPANY MAY LEVY CHARGES DUE TO LOCATION, SIZE OR TYPE OF SERVICE INVOLVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THESE CHARGES, UNLESS SUCH CHARGES ARE NOT AVAILABLE PRIOR TO BID & CONTRACTOR SO DOCUMENTS AT BID OPENING. SHOULD THE COST NOT BE AVAILABLE, PRIOR TO BID, THE CONTRACTOR SHALL SUBMIT A LETTER SO STATING WITH HIS BID.
- ARRANGE WITH UTILITY COMPANIES FOR SUCH SERVICE AS SHOWN OR HEREIN SPECIFIED & INSTALLATION OF METER WHERE SHOWN. FURNISH WITH SHOP DRAWINGS, A SIGNED DOCUMENT FROM UTILITY COMPANIES DESCRIBING THE LOCATION & TYPE OF SERVICES TO BE FURNISHED AND ANY REQUIREMENTS THEY MAY HAVE. THIS DOCUMENT SHALL BE SIGNED FOR EACH UTILITY COMPANY BY A PERSON RESPONSIBLE FOR GRANTING SUCH SERVICES.
- PAY ALL CHARGES (IF ANY) IN CONNECTION THEREWITH, INCLUDING PERMANENT METER DEPOSIT. METER DEPOSIT WILL BE REFUNDED TO THE CONTRACTOR AT TIME OF OWNER'S ACCEPTANCE.
- SEE ARCHITECTURAL/CIVIL DRAWINGS FOR LOCATIONS OF MONUMENT SIGNS.

GRAPHICAL ELECTRICAL SYMBOLS

BRANCH CIRCUIT SYMBOLS	
	BRANCH CIRCUIT HOMERUN TO 20A, 1-POLE CIRCUIT BREAKER IN PANELBOARD OR DEVICE NOTED. WIRE SIZE IS 2#12&1#12GRD-3/4"
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL.
	BRANCH CIRCUIT CONCEALED IN FLOOR.
	BRANCH CIRCUIT EXISTING CONDUIT BARS DENOTE NEW CONDUCTORS.
	BRANCH CIRCUIT EXPOSED.
	BRANCH CIRCUIT RISER UP.
	BRANCH CIRCUIT RISER DOWN.
BRANCH CIRCUIT NOTES	
	BRANCH CIRCUIT 3#12&1#12GRD-3/4"
	BRANCH CIRCUIT 4#12&1#12GRD-3/4"
	BRANCH CIRCUIT 2#10&1#10GRD-3/4"
	BRANCH CIRCUIT 3#10&1#10GRD-3/4"

SIZE CONDUIT PER NEC FOR GREATER NUMBER OF CONDUCTORS OR AS NOTED. THE NUMBER IN THE CIRCUIT INDICATES AWG WIRE SIZE AND THE HASHMARKS INDICATE THE NUMBER OF WIRES REQUIRED. EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH NEC TABLE 250-122. THE NUMBER OF HASH MARKS DO NOT INCLUDE EQUIPMENT GROUNDING CONDUCTOR.

GENERAL SYMBOLS	
	SAFETY SWITCH, NON-FUSED.
	SAFETY SWITCH, FUSED.

GENERAL ABBREVIATIONS	
H	MOUNTING HEIGHT ABOVE FINISHED FLOOR.
AF	ABOVE FINISHED FLOOR.
WP	WEATHER PROOF - NEMA 3R
RT	RAIN TIGHT - NEMA 4.
EP	EXPLOSION PROOF.
TP	TAMPER PROOF.
A	MOUNT ABOVE COUNTER.
BC	MOUNT BELOW COUNTER.
F	FLUSH MOUNTED.
SLD	SEE SINGLE LINE DIAGRAM.
GF	GROUND FAULT INTERRUPTING.
C	CONDUIT.
GC	FLEXIBLE CONDUIT.
SFC	SEAL-TITE FLEXIBLE CONDUIT.
EMT	ELECTRICAL METALLIC TUBING.
IMC	INTERMEDIATE METALLIC CONDUIT.
RG	RIGID CONDUIT.
PVC	NONMETALLIC RIGID CONDUIT.
EX	EXISTING.
XR	EXISTING TO BE REMOVED
RL	EXISTING TO BE REMOVED AND RELOCATED.
RQ	EXISTING TO BE REMOVED. EXTEND CIRCUIT CONDUCTORS AS REQUIRED AND INSTALL FINISHED BLANK COVER.
RR	EXISTING TO BE REMOVED AND REPLACED WITH NEW.
R/LD	RELOCATED POSITION.

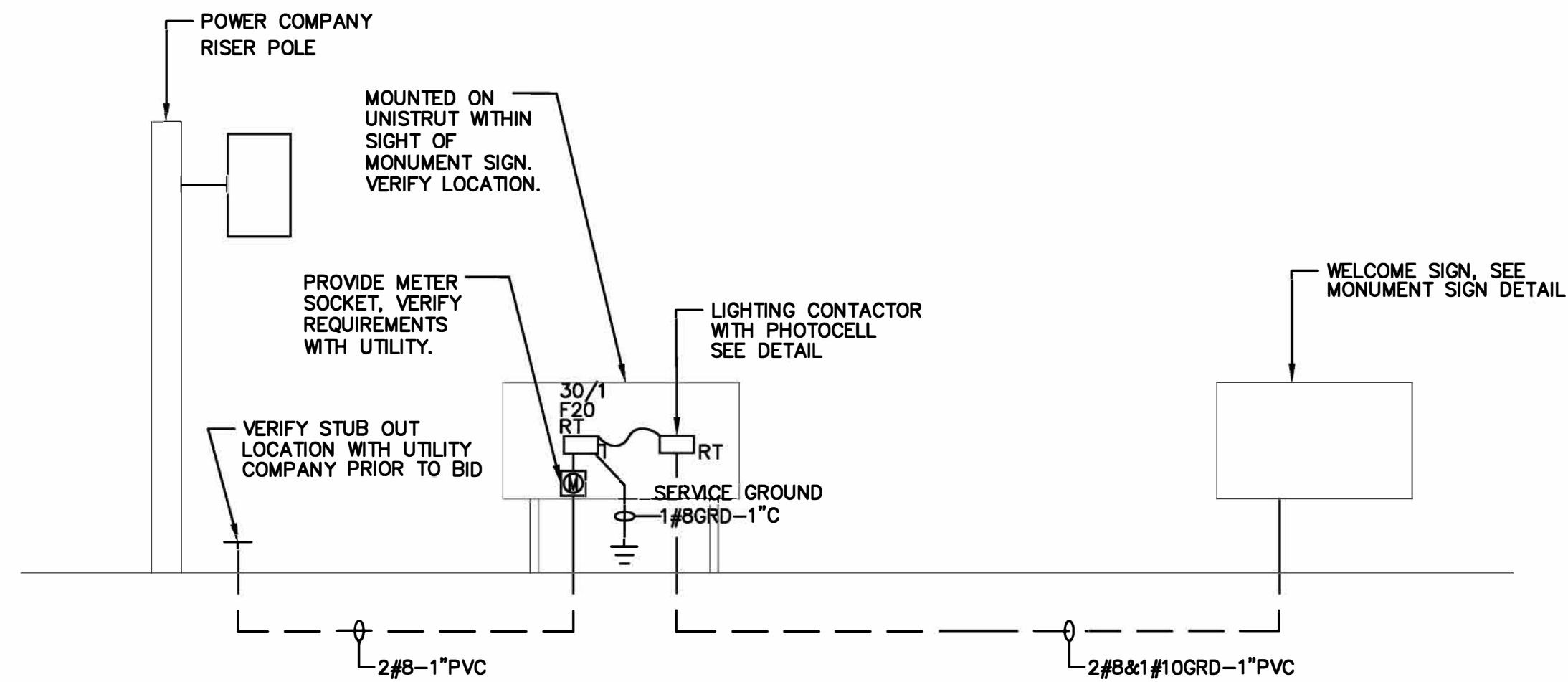
LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS			MTG. TYPE	MTG. HT.	REC. DEPTH	DESCRIPTION
			LAMP/FIX	WATTS	TYPE				
M	-	-	LOT	-	LED	S	W	-	MONUMENT LANTERN LIGHT, MATCH EXISTING FIXTURES, VERIFY VOLTAGE.
V	-	-	LOT	-	LED	S	G	-	MONUMENT FLOOD LIGHT, MATCH EXISTING FIXTURES, VERIFY VOLTAGE.

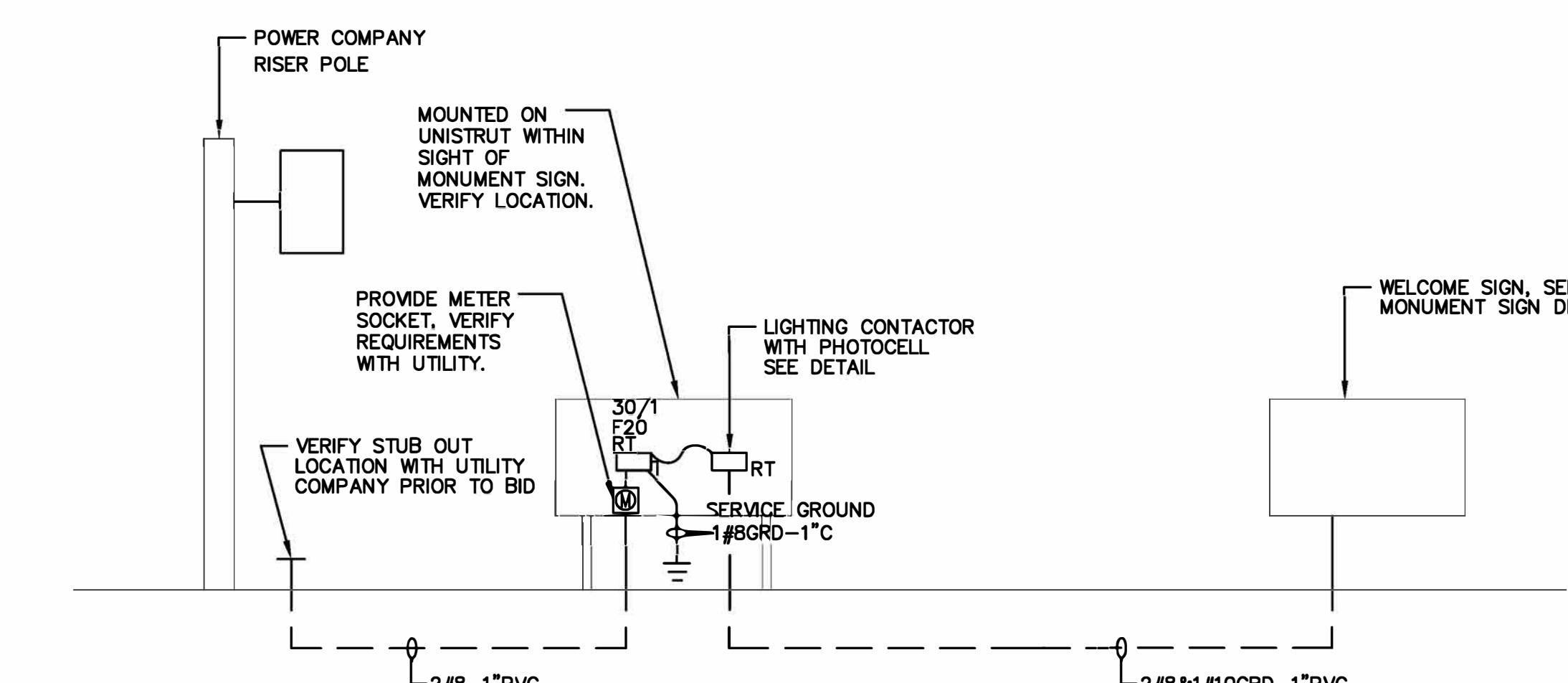
ABBREVIATIONS: LI-LAY-IN C-CEILING LG-LENS GASKETING GMF-INTERNAL SLOW BLOW FUSE FL-FLUORESCENT MH-METAL HALIDE HO-HIGH OUTPUT
 AFF-ABOVE FINISH FLOOR P-PENDENT FC-FROM CEILING R-RECESSED AM-ABOVE MIRROR W-WALL AD-ABOVE DOOR
 S-SURFACE DTT-DOUBLE TWIN TUBE FLUORESCENT CA-CANOPY TC-TOP OF METAL CANOPY AW-ABOVE WINDOW G-GROUND

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

- EACH LIGHT FIXTURE SHALL BE EQUIPPED WITH LAMPS. FURNISH AND INSTALL LAMPS AS SHOWN IN SCHEDULE AND IN SPECIFICATIONS.
- FIXTURE OUTLET BOX LOCATIONS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND APPROXIMATE IN LOCATION. EXACT POSITION OF THE OUTLET BOX SHALL DEPEND ON THE FIXTURE AND THE MOUNTING DETAIL.
- MOUNTING AND SUPPORT DETAILS FOR LIGHTING FIXTURES SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER BEFORE THE FIXTURES ARE INSTALLED. NO COMBUSTIBLE MATERIALS SHALL BE USED.
- WET LOCATION FIXTURES SHALL BE MOUNTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION SO AS TO ENSURE THE PREVENTION OF MOISTURE FROM ENTERING THE FIXTURE. IN ADDITION, EACH CONDUIT ENTRY WILL BE SEALED BY USE OF AN APPROVED SWEDGE FITTING WITH A NEOPRENE SEAL, AS MANUFACTURED BY JOHN REMKE COMPANY OR APPROVED EQUAL.
- OUTLET BOXES SERVING WET LOCATION FIXTURE SHALL BE CODE SIZE, WITH A WATERTIGHT SOLID CAST TOP. CONDUIT ENTRIES SHALL BE THREADED.



**1-40 CANADA ROAD SIGN SOUTH
SINGLE LINE DIAGRAM
NEW POWER
NOT TO SCALE**



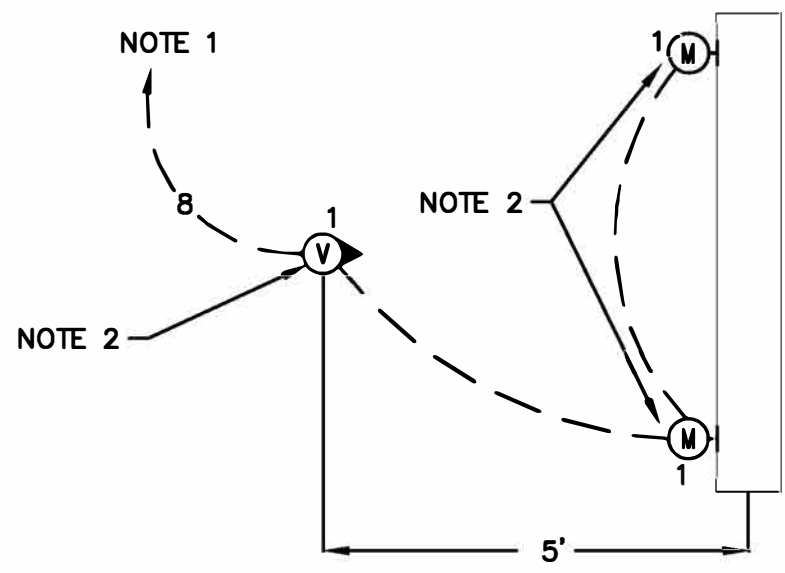
**1-40 CANADA ROAD SIGN NORTH
SINGLE LINE DIAGRAM
NEW POWER
NOT TO SCALE**

GENERAL NOTES:

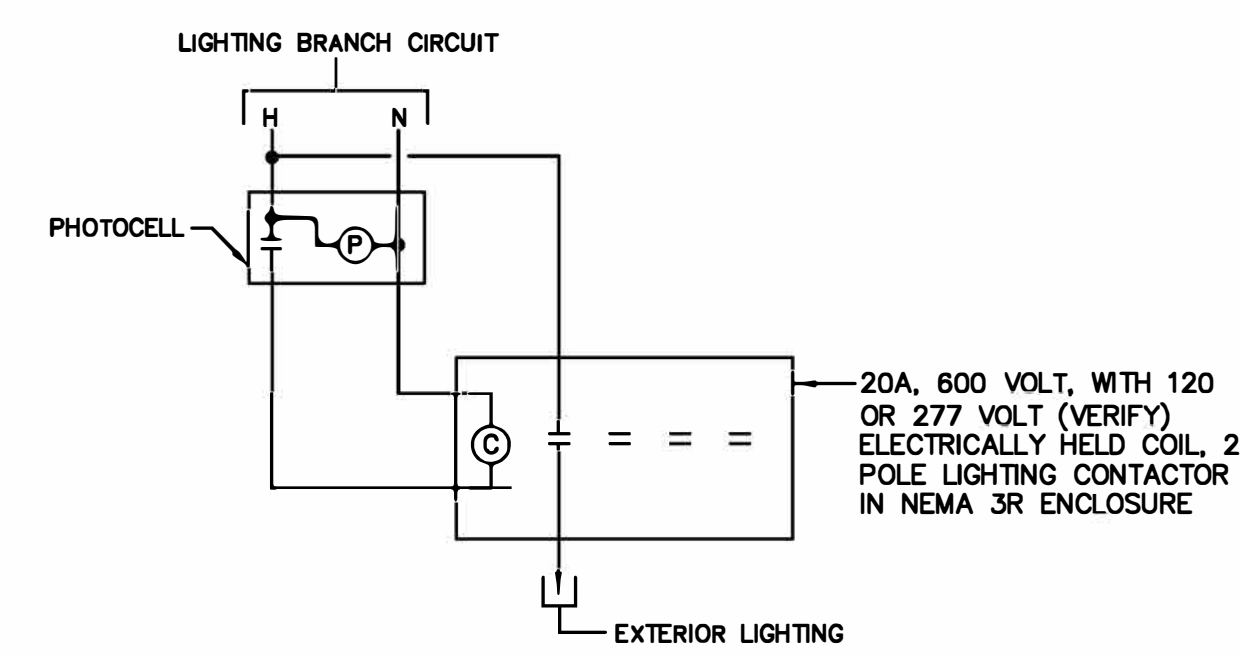
- SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND ELEVATIONS.

NOTES:

- HOMERUN TO DISCONNECT SWITCH THROUGH LIGHTING CONTACTOR. SEE DETAIL.
- MATCH NEW FIXTURES WITH EXISTING FIXTURES ON EXISTING MONUMENT SIGN. VERIFY FIXTURES WITH ARCHITECT.



**MONUMENT SIGN
LIGHTING DETAIL
NOT TO SCALE**



**LIGHTING CONTACTOR
DETAIL
NOT TO SCALE**



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL
DETAILS**