

LOCATION MAP

PLANS FOR:
*EAST MAIN STREET
ROADWAY IMPROVEMENT
PROJECT*

IN THE
CITY OF ANSONIA, CONNECTICUT

APRIL 1, 2021

MAYOR
HONORABLE DAVID S. CASSETTI

ECONOMIC DEVELOPMENT DIRECTOR
SHEILA O'MALLEY



PROJECT ROADWAY MAP

LIST OF ROADWAYS						
STREET NAME	BEGIN STREET	END STREET	ROADWAY CLASSIFICATION	ROADWAY LENGTH	AVERAGE DAILY TRAFFIC	DESIGN SPEED
EAST MAIN STREET	KINGSTON DRIVE	MAIN STREET	LOCAL	1100 LF	N/A	30 MPH

DWG. NO.	TITLE	SHEET NO.
TLS-1	TITLE SHEET	01
GNA-1	LEGEND, ABBREVIATIONS, & GENERAL NOTES	02
MDS-1 TO MDS-3	MISCELLANEOUS DETAILS	03-05
TYP-1	TYPICAL SECTIONS	06
EXT-1	EXISTING CONDITIONS PLAN	07
PLN-1	CONSTRUCTION PLAN	08
LTG-1	LIGHTING PLAN	09

LIST OF CTDOT STANDARD DRAWINGS		
DWG. NO.	TITLE	SHEET NO.
HW_INX_01	HIGHWAY STANDARD SHEET INDEX	10
HW_INX_02	HIGHWAY STANDARD SHEET INDEX	11
HW-286_01	DRAINAGE TRENCH EXCAVATION	12
HW-586_01	CATCH BASIN AND DROP INLET TYPES "C" AND "C-L"	13
HW-586_07	CATCH BASIN TOPS TYPE "C" AND "C-L"	14
HW-586_08	CATCH BASIN FRAMES AND GRATES	15
HW-813_02	STONE CURBING	16
HW-913_01a	CHAIN LINK FENCE	17
HW-913_01b	CHAIN LINK FENCE HARDWARE	18
HW-921_01	DRIVEWAY RAMPS AND SIDEWALKS	19
HW-949_01a	LANDSCAPE PLANTING	20
TR-STD_INDEX	TRAFFIC STANDARD SHEET INDEX	21
TR-1001_01	TRENCHING AND BACKFILLING - ELECTRICAL CONDUIT	22
TR-1208_01	SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS	23
TR-1208_02	METAL SIGN POSTS AND SIGN MOUNTING DETAILS	24
TR-1210_04	PAVEMENT MARKINGS, LINES, AND SYMBOLS	25
TR-1210_08	PAVEMENT MARKINGS ON NON FREEWAYS	26
TR-1220_01	SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS	27
TR-1220_02	CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES	28

DEVELOPED FOR:
CITY OF ANSONIA
PUBLIC WORKS DEPARTMENT
North Division Street
Ansonia, CT, 06401

DEVELOPED BY:



100 Great Meadow Road, Suite 200
Wethersfield, Connecticut 06109
860-807-4300 - FAX 860-372-4570

BID SET



2020 SPECIFICATIONS, FORM 818 AND ALL LATEST
SUPPLEMENTAL SPECIFICATIONS THERETO GOVERN.



UI Standards, Installation Procedures for Underground-Fed Lighting (UI's Outdoor Lighting Program)

Prior to your construction, please contact UI's Construction Manager:

Tony Antonino antonino@ui.net (203) 926-4977 - office (203) 314-8175 - cell	Bruce Bevan bruceb@ui.net (203) 499-2657 - office (203) 836-7401 - cell	Bill Schobert schobert@ui.net (203) 499-3781 - office (203) 315-2906 - cell
East Haven Hamden New Haven North Haven North Branford	Easton Fairfield Trumbull Bridgeport Shelton Stratford Dorby Ansonia	Orange Milled West Haven Woodbridge

Customer's Responsibilities

- Customer to provide UI with site drawing. UI Engineer will provide electrical trenching & wiring drawing.
- The customer is responsible for supplying all material to the conduit system. UI will provide concrete bases to the customer to install. UI will provide and install all wire and lights.
- Customer to install concrete bases that will be delivered to the site by UI.
- Provide and install all 2" PVC (Schedule 40) and tag-lines to appropriate power source as shown on a UI electrical trenching and wiring drawing that will be provided by UI Engineer. Galvanized steel or concrete encased PVC is usually required under roadway and/or paved parking areas. This will be shown on UI's electrical trenching and wiring drawing. **See UI Standard #21005 attached.**
- An adapter male PVC 2" coupling is required to attach PVC to the concrete base. **Duct tape is not acceptable.** Concrete bases should be installed approximately 2" above final grade. **See UI Standard #21005 attached.**
- If riser poles are involved, the Customer is to provide necessary 2" galvanized steel conduit for **ALL** sections of the pole and associated material (standoff brackets, threadless weatherhead, "U" bolts, and lag bolts). Customer to install first ten feet of conduit, UI to install the remaining material (**all provided by Customer**). **See UI Standard #18001 attached.**
- Tag-lines must be a minimum of 400 lb test. Tag-lines should not be installed until all glue has dried in conduit. **See UI Standard #21005 attached, Item J.**
- Care must be taken when backfilling the trench. Many times PVC is crushed by backfill. **See UI Standard #21005 attached, Items F & H.**
- When stubbing conduit into an underground transformer or secondary pedestal, you must contact your Construction Manager for assistance in excavation and tag-line. **See UI Standard #21005 attached, Item K.**
- UI electrical trenching and wiring drawing (provided by UI Engineer) cannot be changed without the approval of the Underground Construction Manager.
- All trenches and base installation **MUST** be inspected by UI's Underground Construction Manager **PRIOR** to back-filling.

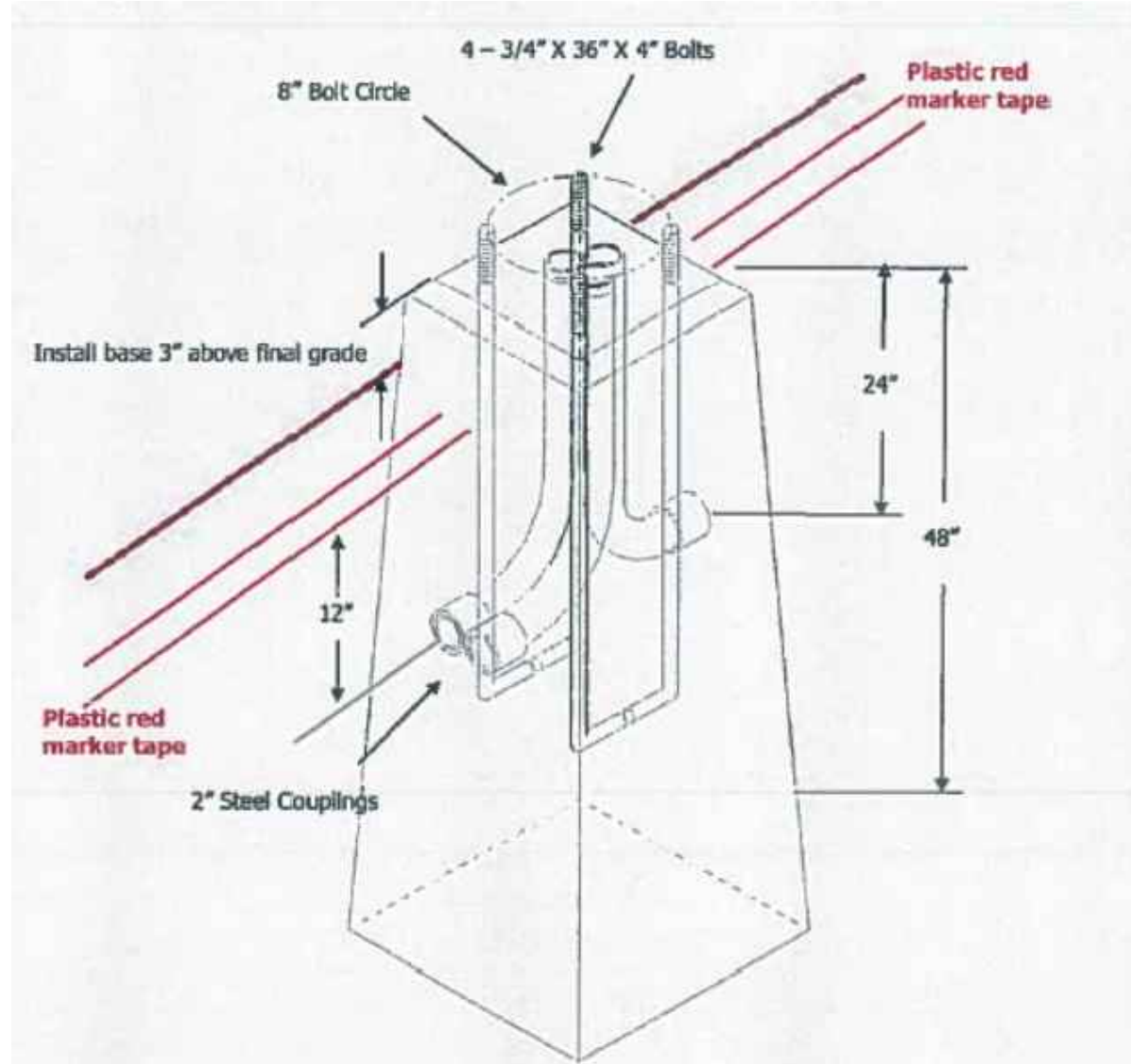
In the event UI's equipment is damaged, the Customer/Developer will be held financially responsible for UI's damaged material. This includes bases, shafts, fixtures, transformers, etc. If the base studs are damaged, the studs cannot be repaired; the entire base must be replaced at the Customer/Developer's expense.

Should any problems be encountered during construction, please contact your Underground Construction Manager.

Revised: June 6, 2020:up

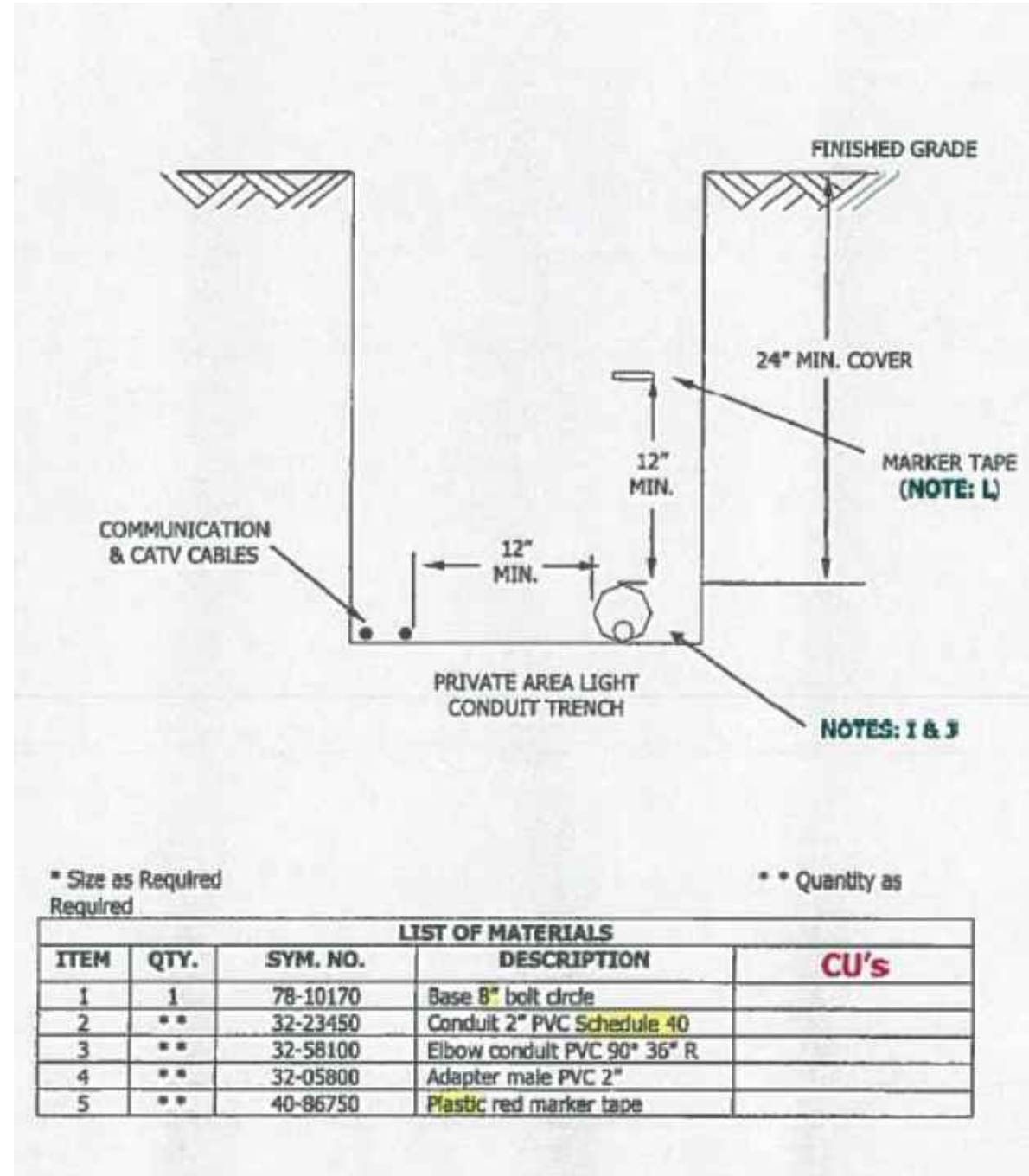
LIGHT THE NIGHT INSTALLATION PROCEDURES

N.T.S



Notes:

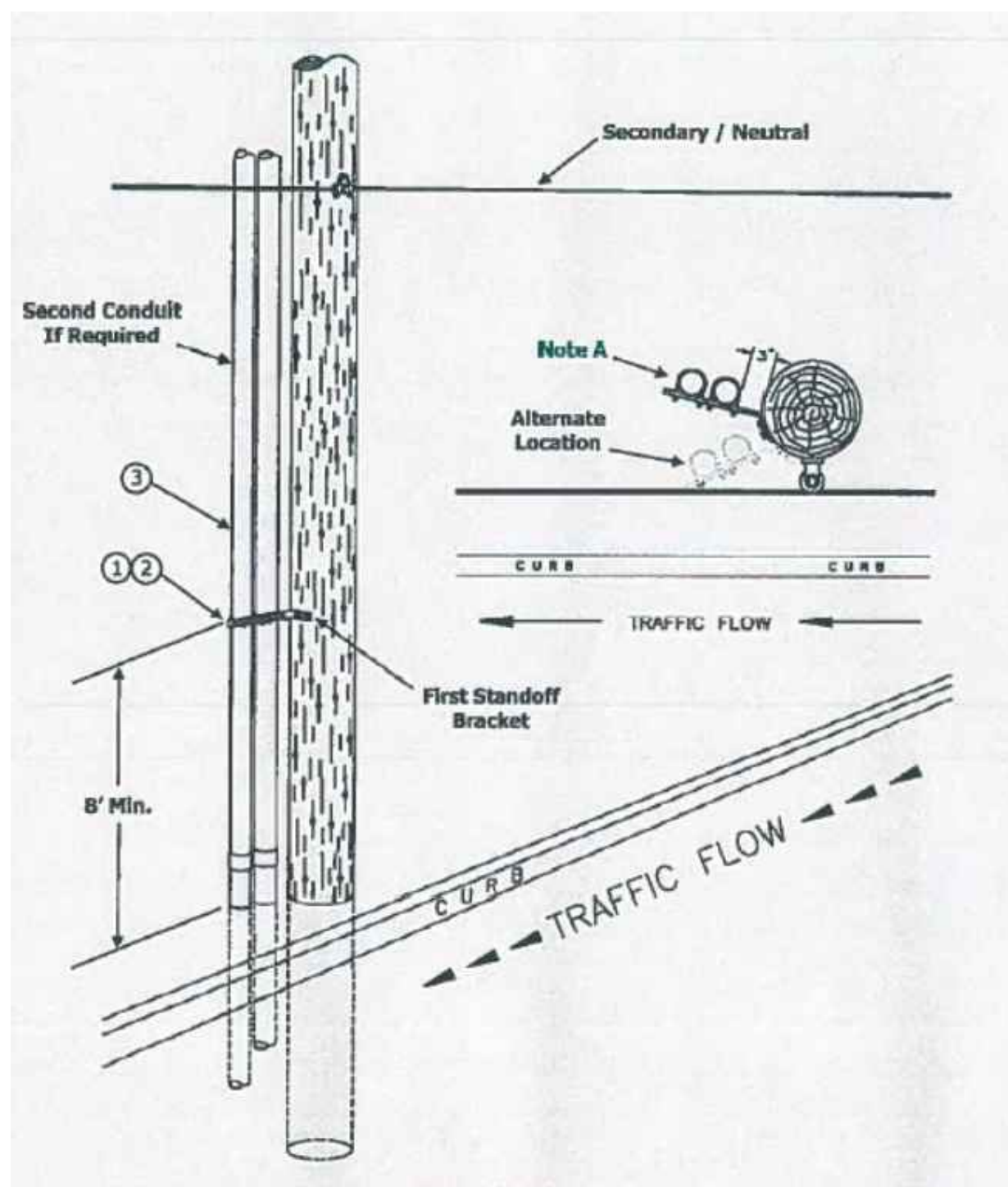
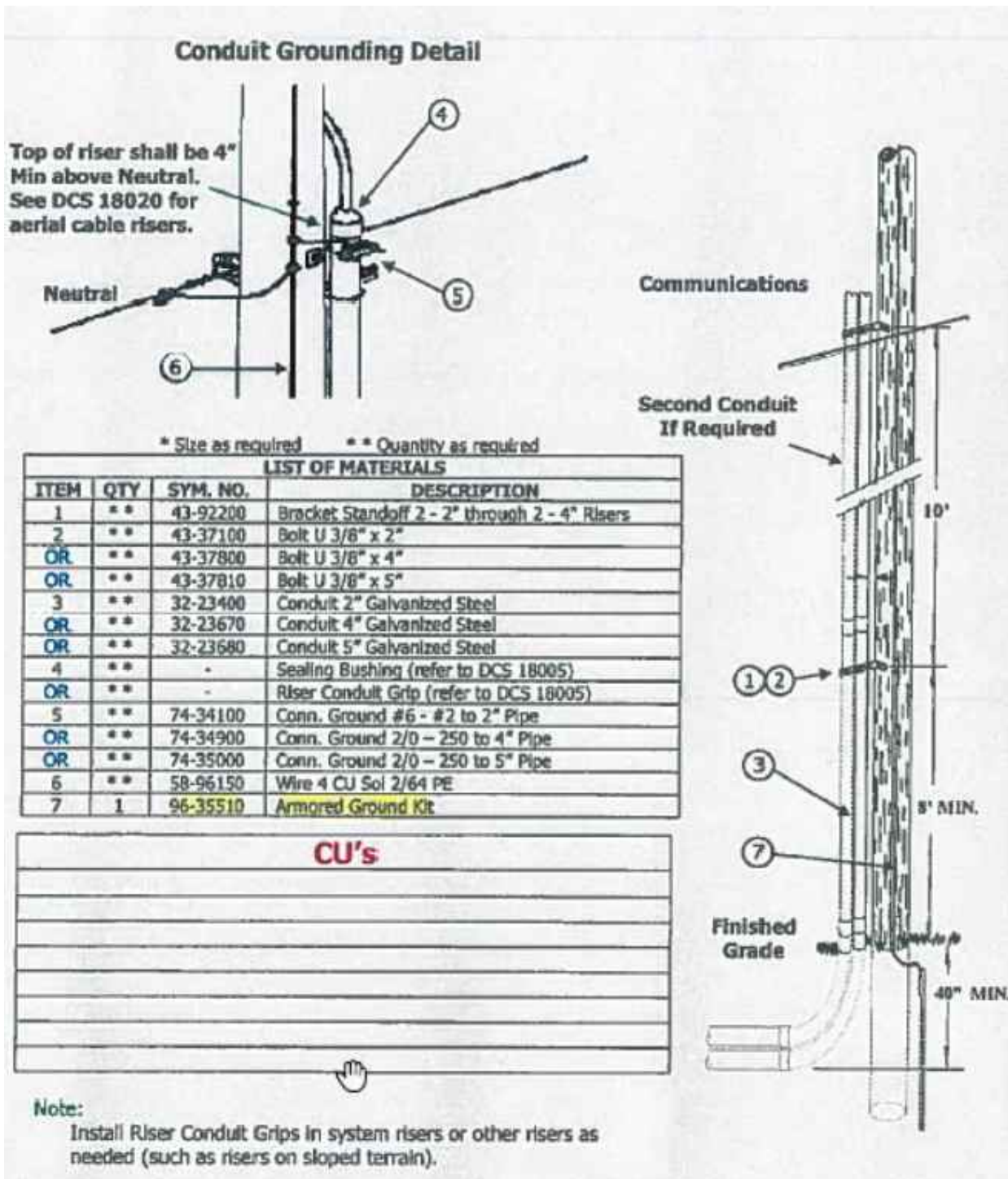
- Concrete base weighs 1250 lbs.
- Base - UI Code 7810170, per UI Specification B-09
- Marker on tape "CAUTION ELECTRIC LINE BURIED BELOW".



* Size as Required Required			** Quantity as	
LIST OF MATERIALS				
ITEM	QTY.	SYM. NO.	DESCRIPTION	CU's
1	1	78-10170	Base 8" bolt circle	
2	**	32-23450	Conduit 2" PVC Schedule 40	
3	**	32-58100	Elbow conduit PVC 90° 3/2" R	
4	**	32-05800	Adapter male PVC 2"	
5	**	40-86750	Plastic red marker tape	

DECORATIVE LIGHTING WIRING DETAILS

N.T.S



DECORATIVE LIGHTING CABLE RISER DETAILS

N.T.S

NOTES:

- Call Before You Dig (1-800-922-4455).
- Trench width depends on type of trenching equipment used.
- A minimum of 12" separation, vertical or horizontal, shall be maintained between communication or CATV and electrical conduit(s).
- A minimum separation of 4 feet shall be maintained between electrical conduits and gas service lines. Joint trenching is not permitted for gas lines.
- A minimum separation of 12" shall be maintained between electrical conduits and water service lines. Separation between electrical conduits and main water lines shall be 18".
- The trench bottom shall be undisturbed or well tamped earth, (i.e. not loose backfill), such that the trench bottom will not settle and disturb conduits. The trench bottom shall be free from all sharp objects and stones.
- Private area lighting concrete bases shall be placed on undisturbed earth or machine tamped earth and vertically plumbed. Backfilled shall be tamped to maintain a vertical plumb.
- All backfill shall be free of stones, debris or any sharp object that may damage the conduit.
- A 2" diameter conduit (minimum Schedule 40 PVC) is required from the service pedestal and between street light bases. Install galvanized steel or concrete encased PVC under roadways or paved parking areas.
- A nylon draw cord, (1/8", 400 lb. minimum test) facilitating future cable installation, shall be installed inside the conduit. The draw cord shall extend continuously through the entire length of all conduit sections. Foam or duct seal shall be used to prevent soil from clogging the conduit.
- Machine digging shall stop not less than 36" from vaults, foundations, equipment, cables, and poles. Trenching shall be completed by hand digging.
- All **UI** buried cables and/or conduits shall be identified by a red, plastic film, marker tape, **UI** code 40-86750. The marker tape shall run directly above the entire length of each cable and/or conduit section and shall have a minimum vertical separation of 12".

NOTES:

- The preferred location for UI risers is the field quarter of the pole away from traffic.
- Riser conduits shall be supported at least every 10 feet.
- Steel conduit must be grounded. Inter-connect the conduit and earth ground with the system neutral.
- The following combinations of primary and secondary risers are allowed on a single pole:
 - Using standoff brackets:
 - One three phase primary.
 - Two single phase primary.
 - One primary riser (1-Ph or 3-Ph) and one secondary riser.
 - Any combination of single or three phase secondaries up to two conduits.
 - Combinations not allowed:
 - One three phase primary and one single phase primary.
- When other utilities attach risers to the pole it may be desirable to limit the number of UI risers to minimize pole congestion. UI or communications may be required to rise on another pole to keep the number of riser conduits to an acceptable level.
- Separate riser conduits shall be installed for each riser. Secondary risers are limited to 3 conductors for single phase and 4 conductors for three phase.
- Riser conduits must not interfere with secondary conductors.
- The top of the conduit shall extend at least 4 inches above the secondary or neutral height. **See DCS 18020 for aerial cable risers.**
- Appropriate conduit fittings shall be used for coupling conduit, changing conduit diameters and transitions from steel to PVC.
- All metal riser conduits shall be effectively grounded.**

REV.	DATE	DESCRIPTION REVISIONS	SHEET. NO.



DESIGNER: JRE
DRAFTER: JRE
CHECKED BY: BAA
APPROVED BY: SON

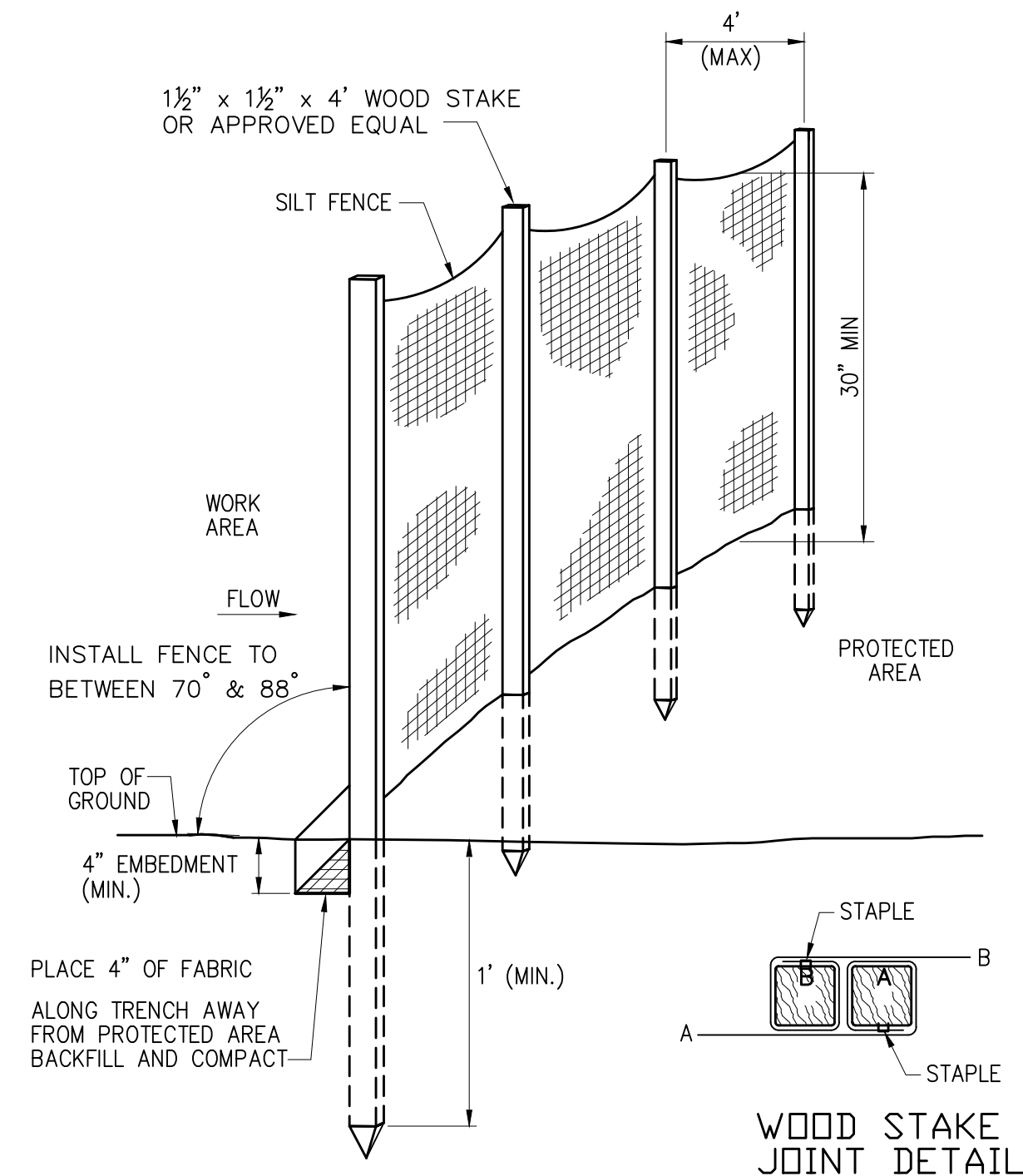
Engineers Scientists Planners Designers
ISSUED FOR CONSTRUCTION
DATE: APRIL, 2021



PROJECT TITLE: EAST MAIN STREET ROADWAY IMPROVEMENT PROJECT
CADD FILENAME: MDS-4230700.DWG

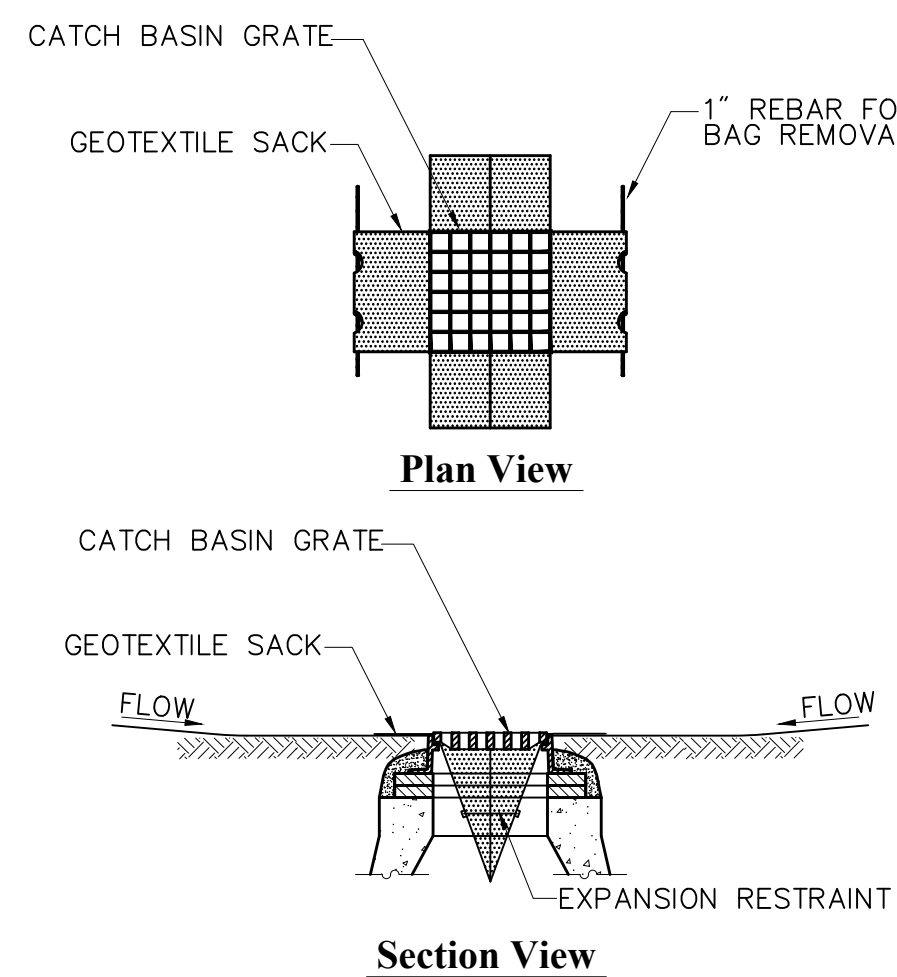
TOWN: ANSONIA, CONNECTICUT
DRAWING TITLE: MISCELLANEOUS DETAILS

PROJECT NO.: 42307.00
DRAWING NO.: MDS-1
SHEET NO.: 03 OF 28



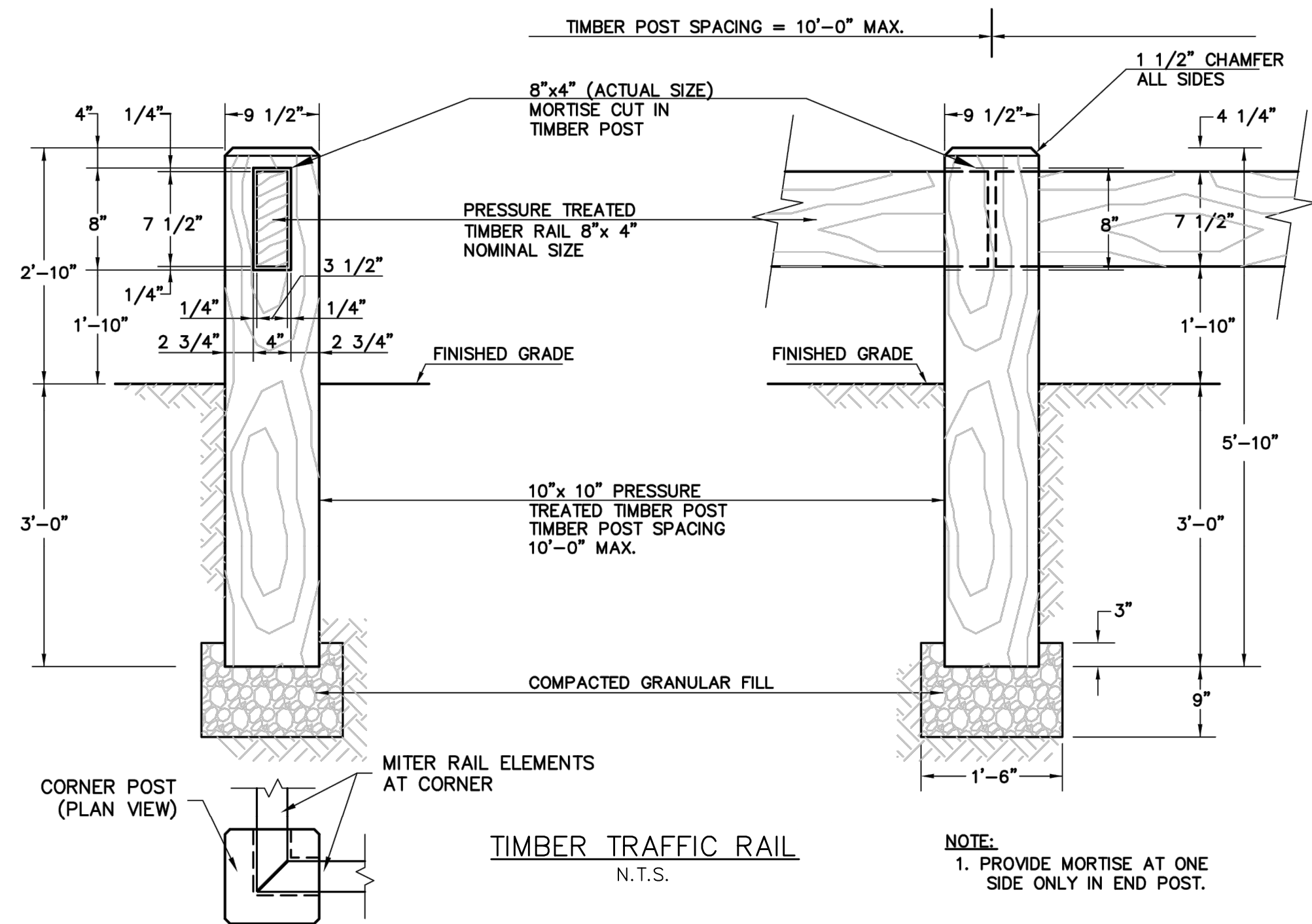
- DETAIL NOTES:**
-
1. THE CONTRACTOR SHALL MAINTAIN OR REPLACE THE SEDIMENTATION CONTROL SYSTEM THROUGHOUT THE CONSTRUCTION DURATION AND UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
 2. THE CONTRACTOR SHALL INSPECT THE SYSTEM ONCE A WEEK AND WITHIN 12 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCHES OR GREATER.
 3. THE CONTRACTOR SHALL CLEANOUT ACCUMULATED SEDIMENT WHEN ONE HALF OF THE ORIGINAL HEIGHT OF THE SYSTEM IS FILLED WITH SEDIMENT, OR AS ORDERED BY THE ENGINEER.
 4. FOLLOWING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN ALL DRAINAGE FACILITIES OF ANY ACCUMULATED SEDIMENT AND TRANSPORT SEDIMENT OFF SITE.
 5. ALL COSTS ASSOCIATED WITH INSTALLING, MAINTAINING AND THE REMOVAL OF SILT FENCE SHALL BE INCLUDED IN THE CONTRACT UNIT COST PER LINEAR FOOT FOR "SEDIMENTATION CONTROL SYSTEM."

SEDIMENTATION CONTROL SYSTEM
N.T.S.

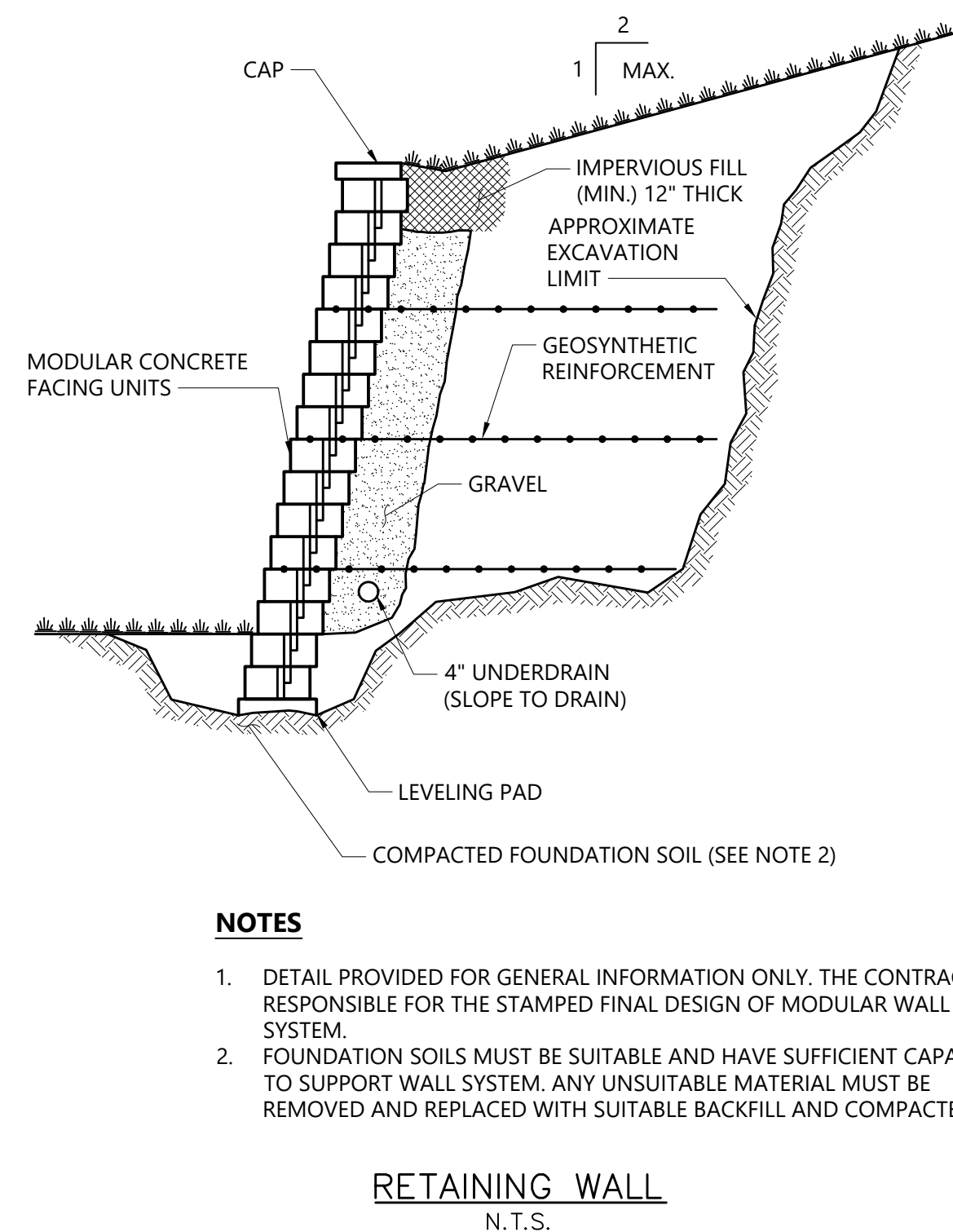
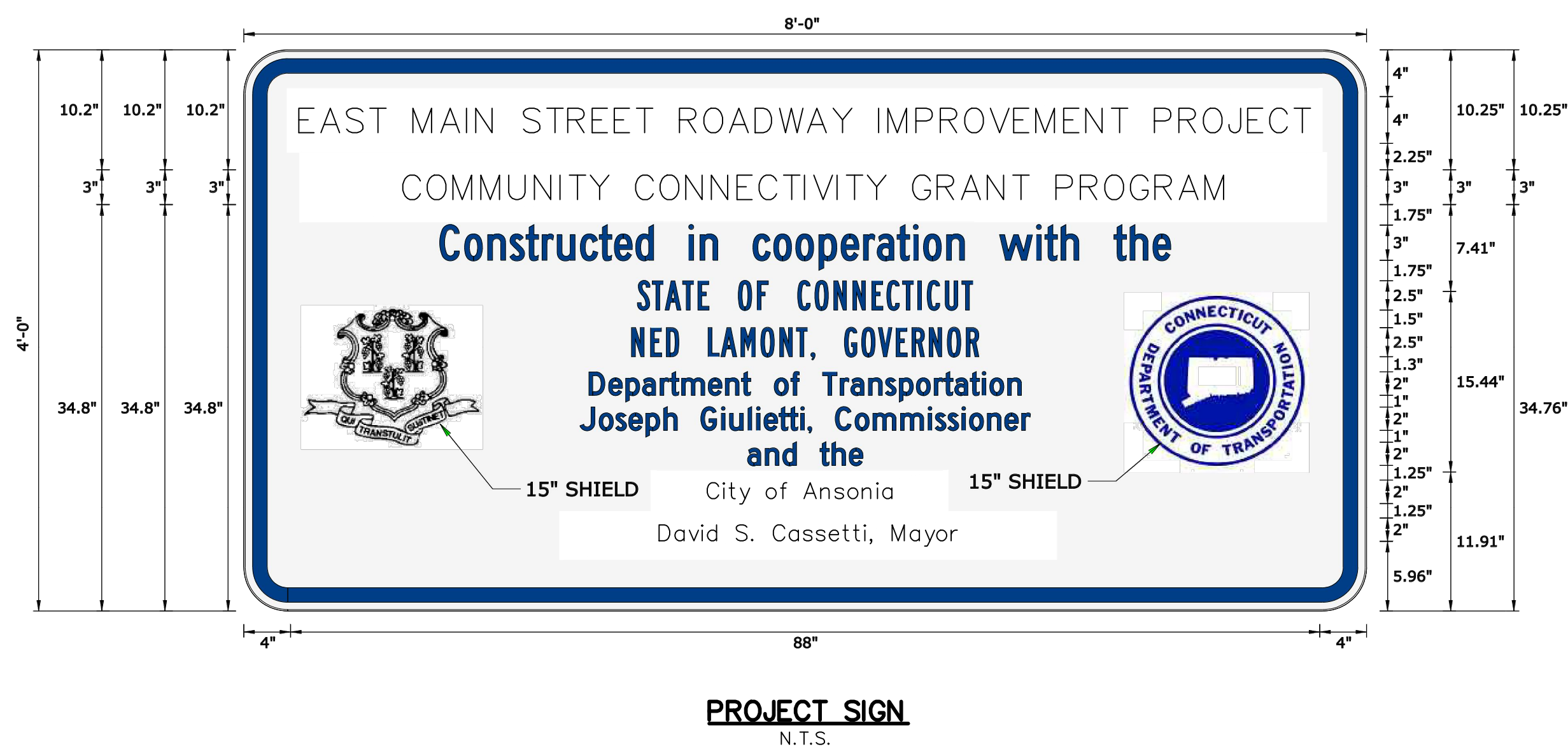
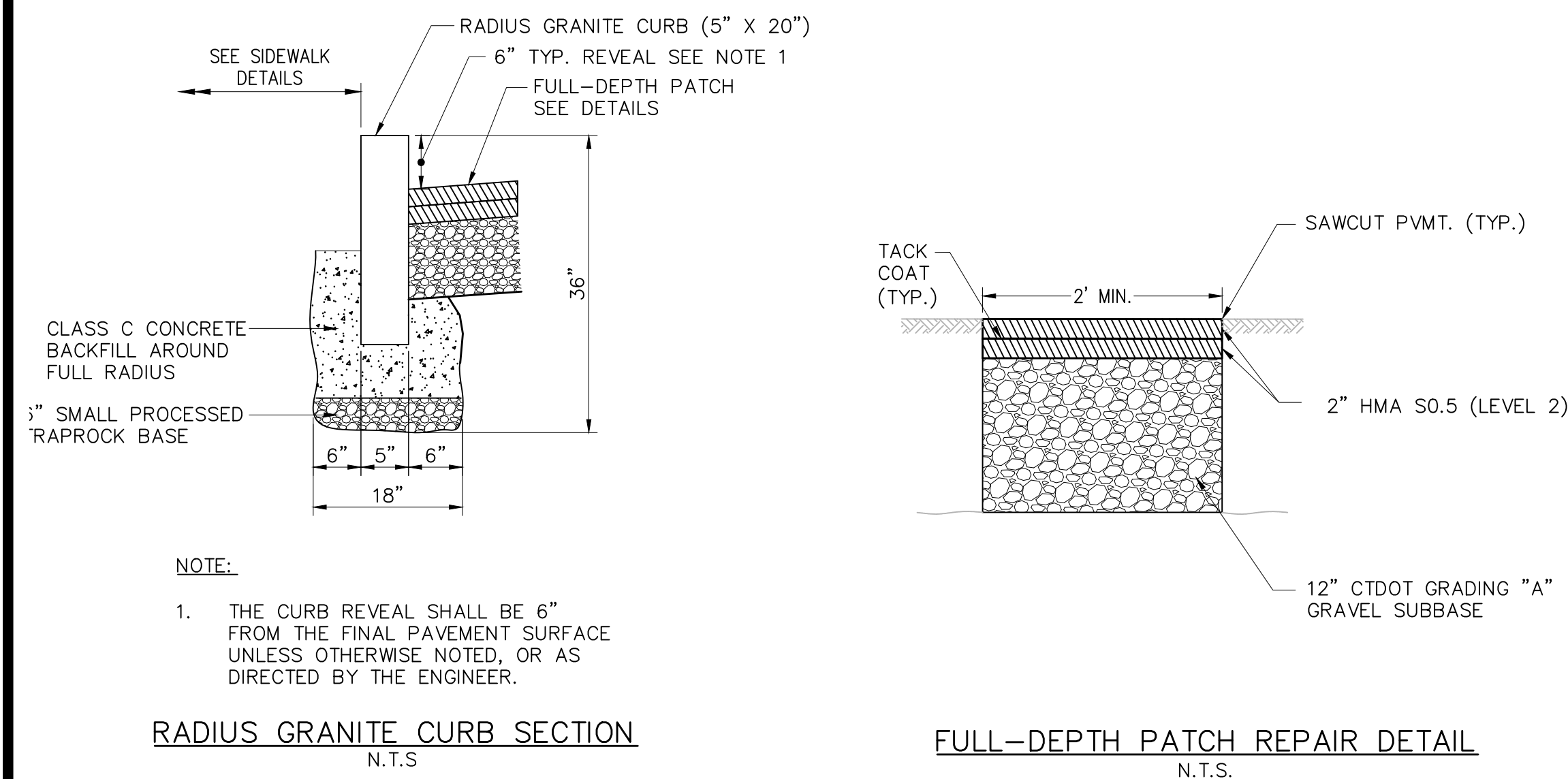


- DETAIL NOTES:**
1. INSTALL GEOTEXTILE SACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN OR AS DIRECTED BY THE ENGINEER BEFORE COMMENCING WORK.
 2. GRATE TO BE PLACED OVER GEOTEXTILE SACK.
 3. GEOTEXTILE SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.
 4. ALL COSTS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND REMOVAL OF THE GEOTEXTILE SACK, INCLUDING THE DISPOSAL OF COLLECTED MATERIALS, SHALL BE INCLUDED IN THE CONTRACT UNIT COST PER EACH "SEDIMENT CONTROL SYSTEM AT CATCH BASIN."

SEDIMENTATION CONTROL SYSTEM
AT CATCH BASIN DETAIL
N.T.S.



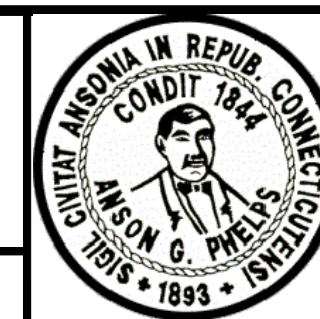
- NOTE:**
1. PROVIDE MORTISE AT ONE
SIDE ONLY IN END POST.



REV.	DATE	DESCRIPTION REVISIONS	SHEET. NO.



DESIGNER:	JRE
DRAFTER:	JRE
CHECKED BY:	BAA
APPROVED BY:	SON



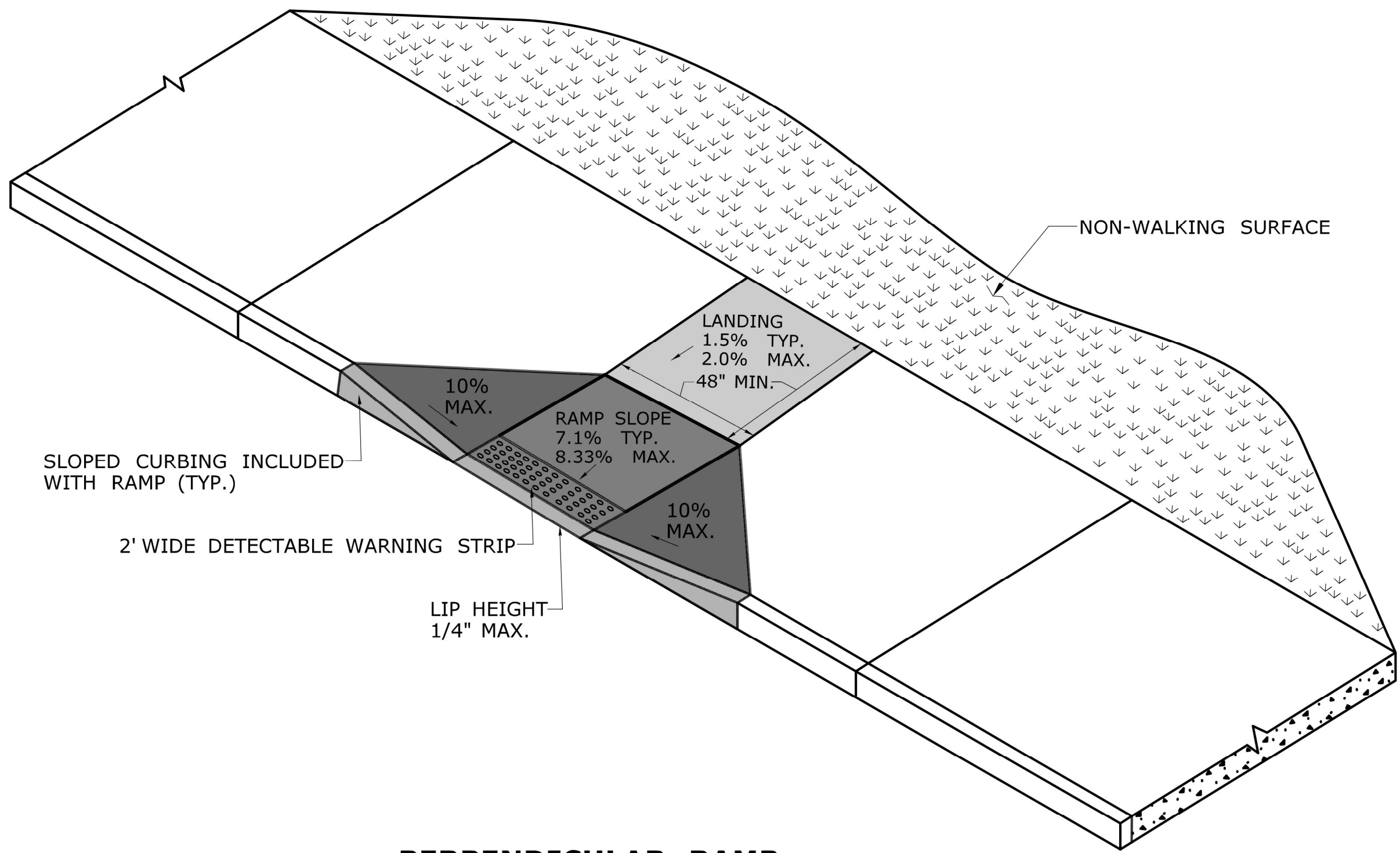
PROJECT TITLE:

EAST MAIN STREET
ROADWAY IMPROVEMENT PROJECT

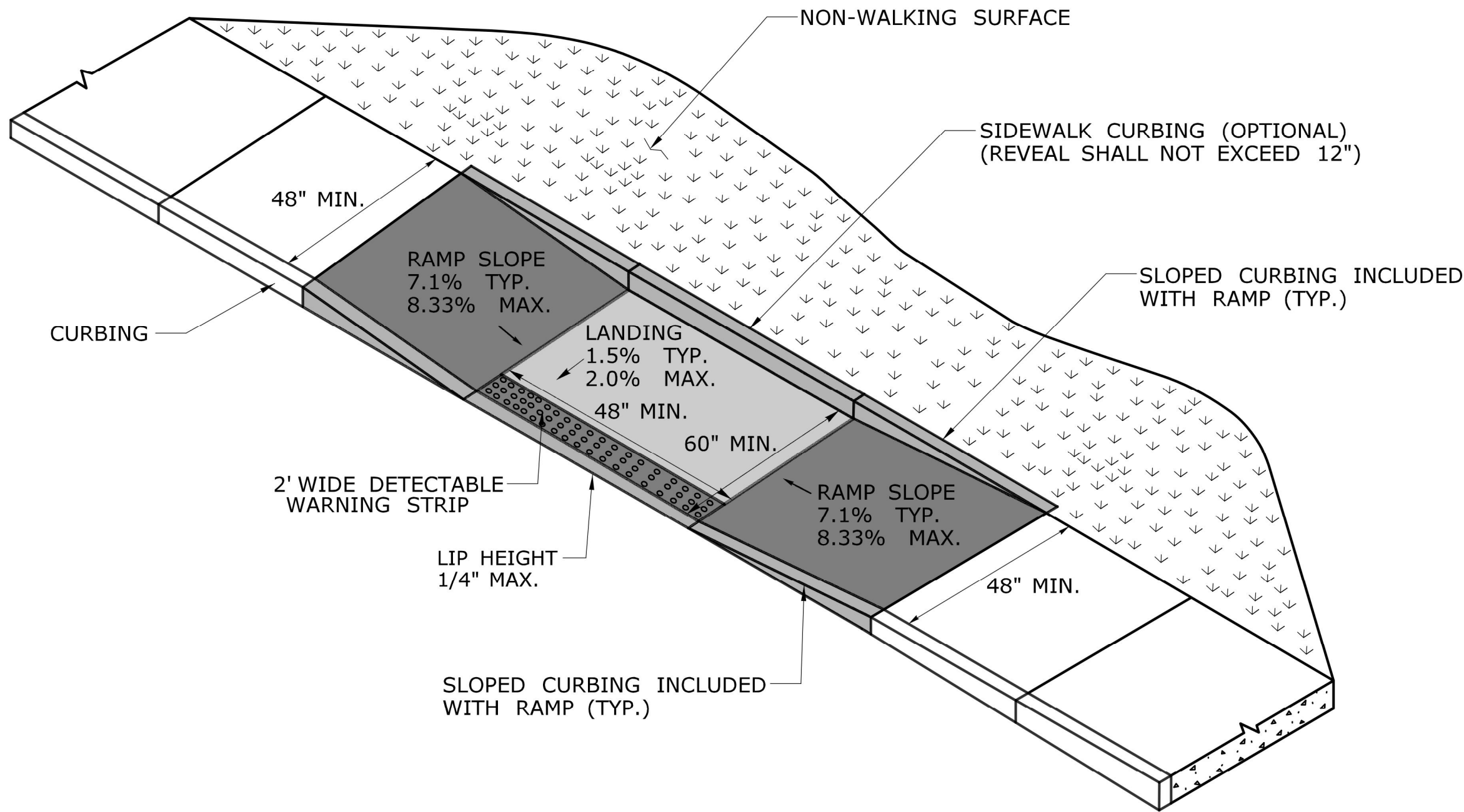
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TOWN:	ANSONIA, CONNECTICUT
DRAWING TITLE:	MISCELLANEOUS DETAILS

PROJECT NO.:	42307.00
DRAWING NO.:	MDS-2
SHEET NO.:	04 OF 28



**PERPENDICULAR RAMP
WITH 48" BY-PASS
(TYPE 8)**



**PARALLEL RAMP WITHOUT
NON-WALKING SURFACE
(TYPE 9)**

REV.	DATE	DESCRIPTION REVISIONS	SHEET. NO.



DESIGNER: JRE
DRAFTER: JRE
CHECKED BY: BAA
APPROVED BY: SON



Engineers Scientists Planners Designers

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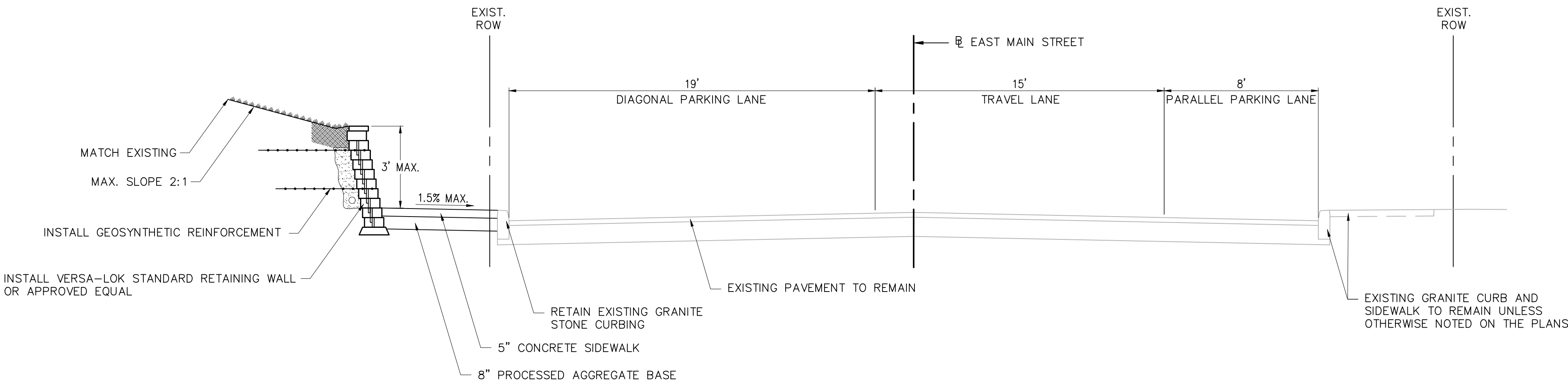
DATE: APRIL, 2021



PROJECT TITLE: EAST MAIN STREET ROADWAY IMPROVEMENT PROJECT
CADD FILENAME: MDS-4230700.DWG

TOWN: ANSONIA, CONNECTICUT
DRAWING TITLE: MISCELLANEOUS DETAILS

PROJECT NO.: 42307.00
DRAWING NO.: MDS-3
SHEET NO.: 05 OF 28




EAST MAIN STREET
STA. 105+77.40 TO STA. 110+86.00
NOT TO SCALE

REV.	DATE	DESCRIPTION REVISIONS	SHEET. NO.



DESIGNER: JRE
DRAFTER: JRE
CHECKED BY: BAA
APPROVED BY: SON



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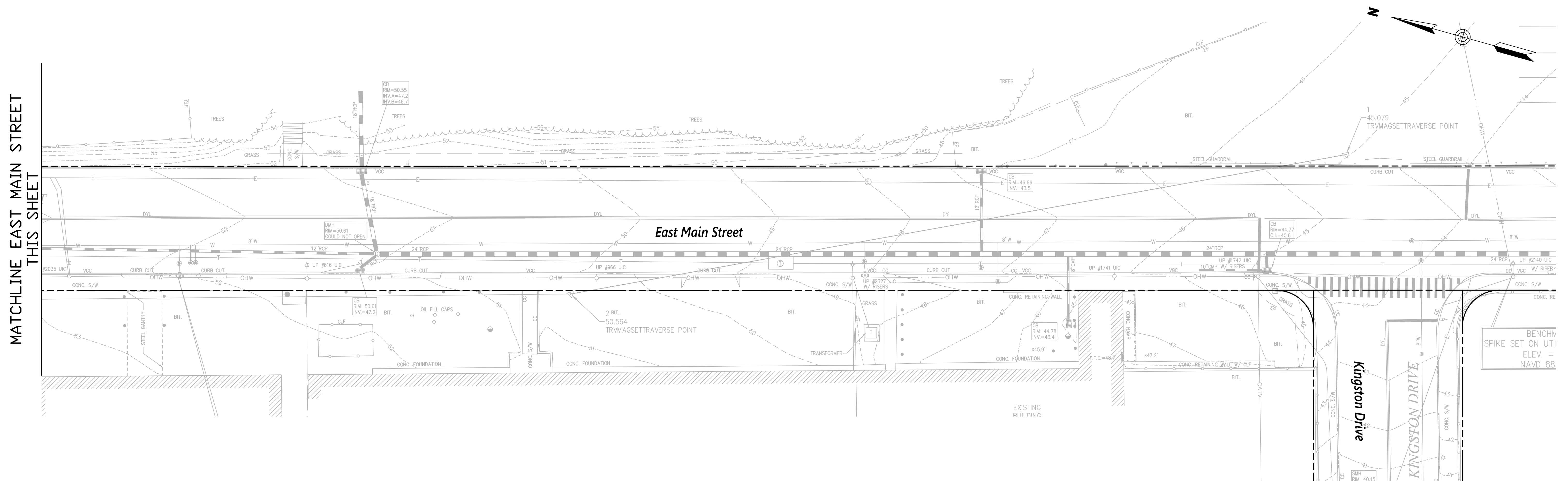
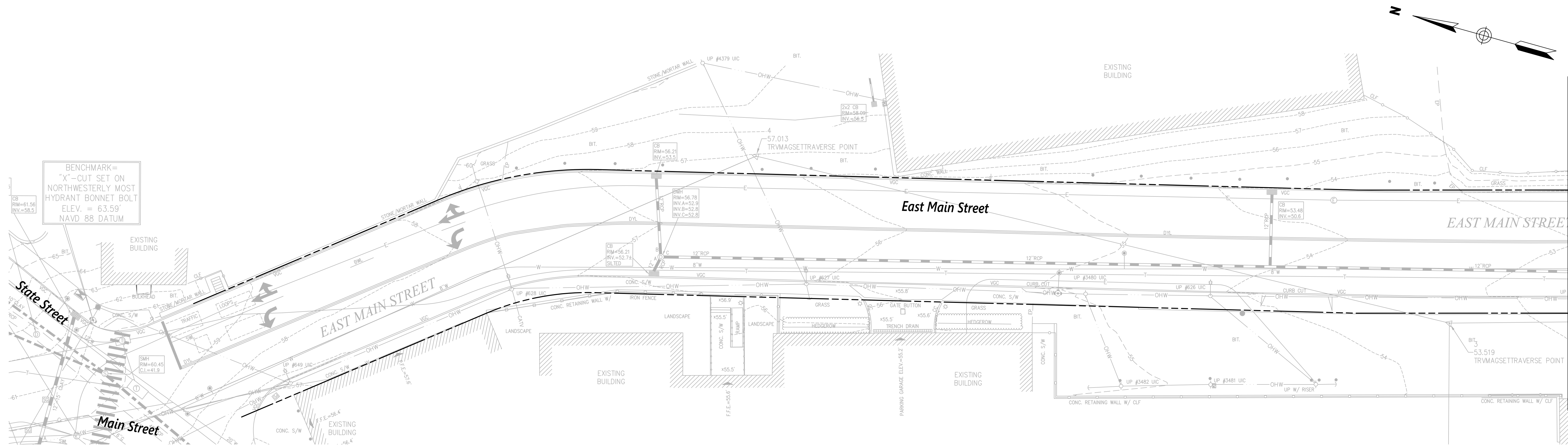
DATE: APRIL, 2021



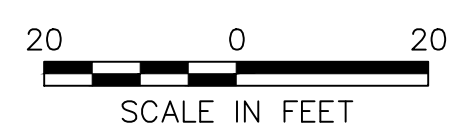
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TOWN: ANSONIA, CONNECTICUT
DRAWING TITLE: TYPICAL SECTIONS EAST MAIN STREET

PROJECT NO.: 42307.00
DRAWING NO.: TYP-1
SHEET NO.: 06 OF 28



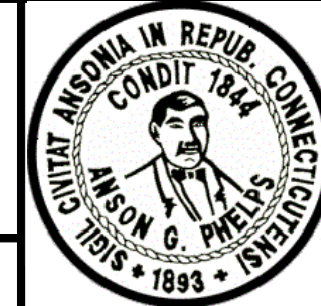
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DESIGNER:	JRE
DRAFTER:	JRE
CHECKED BY:	BAA
APPROVED BY:	SON



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ISSUED FOR CONSTRUCTION		DATE: APRIL, 2021	



PROJECT TITLE:

EAST MAIN STREET
ROADWAY IMPROVEMENT PROJECT

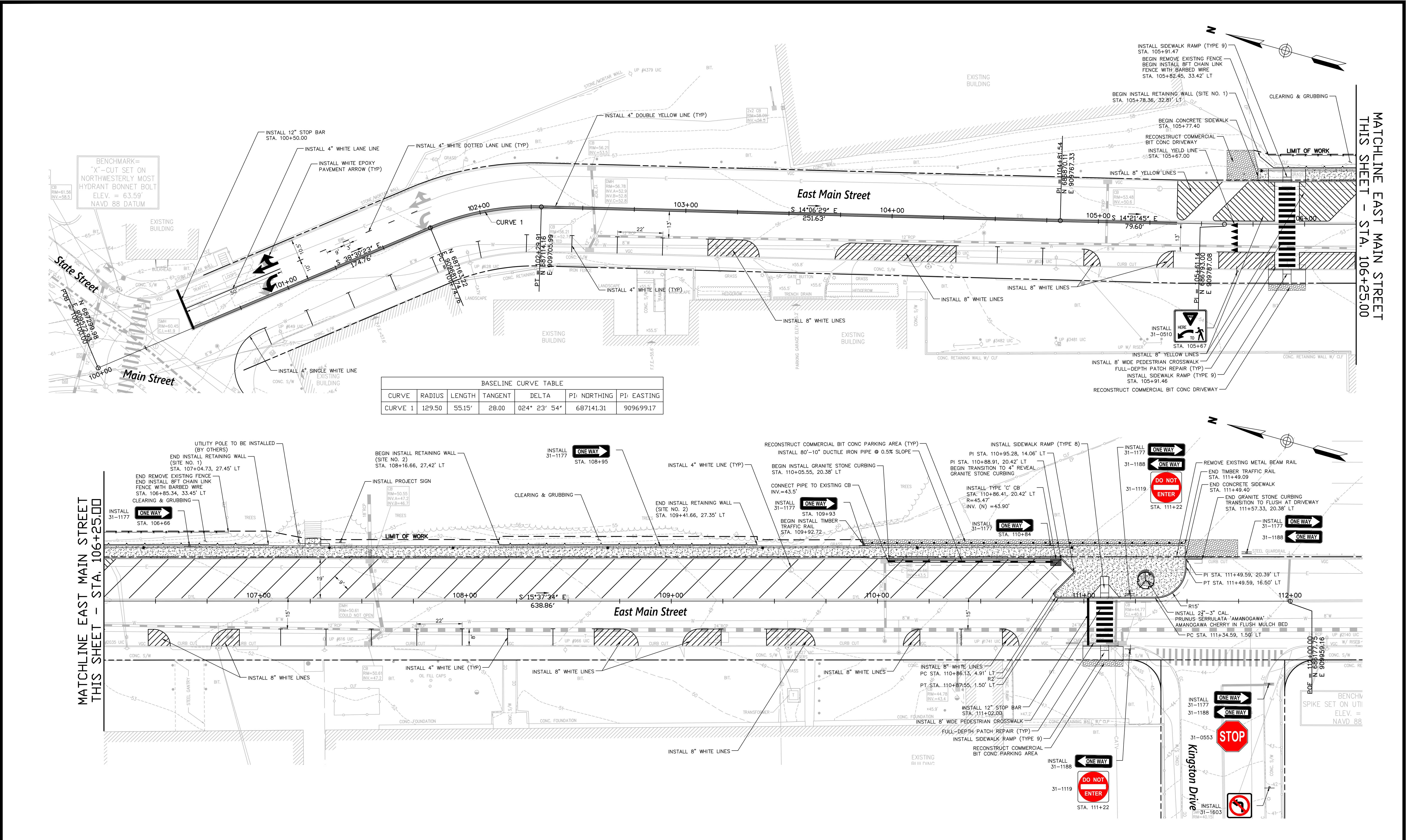
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TOWN:	ANSONIA, CONNECTICUT
DRAWING TITLE:	EXISTING CONDITIONS PLAN EAST MAIN STREET

PROJECT NO.:
42307.00

DRAWING NO.:
EXT-1

SHEET NO.:
07 OF 28



REV.

DATE

DESCRIPTION

REVISIONS

SHEET. NO.

20

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SCALE IN FEET

DESIGNER:
JRE

DRAFTER:
JRE

CHECKED BY:
BAA

APPROVED BY: SON

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Engineers Scientists Planners Designers

ISSUED FOR CONSTRUCTION

DATE: APRIL, 2021

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ALANSON G. PHILLIPS

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PROJECT TITLE:
EAST MAIN STREET
ROADWAY IMPROVEMENT PROJECT

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TOWN:
ANSONIA, CONNECTICUT

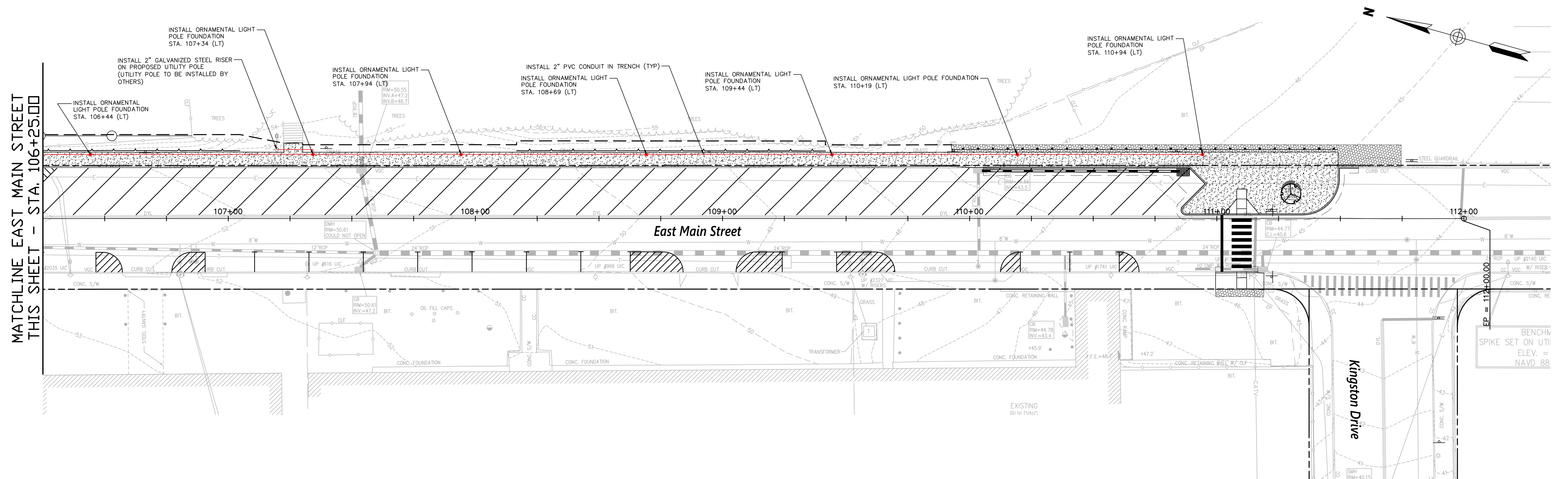
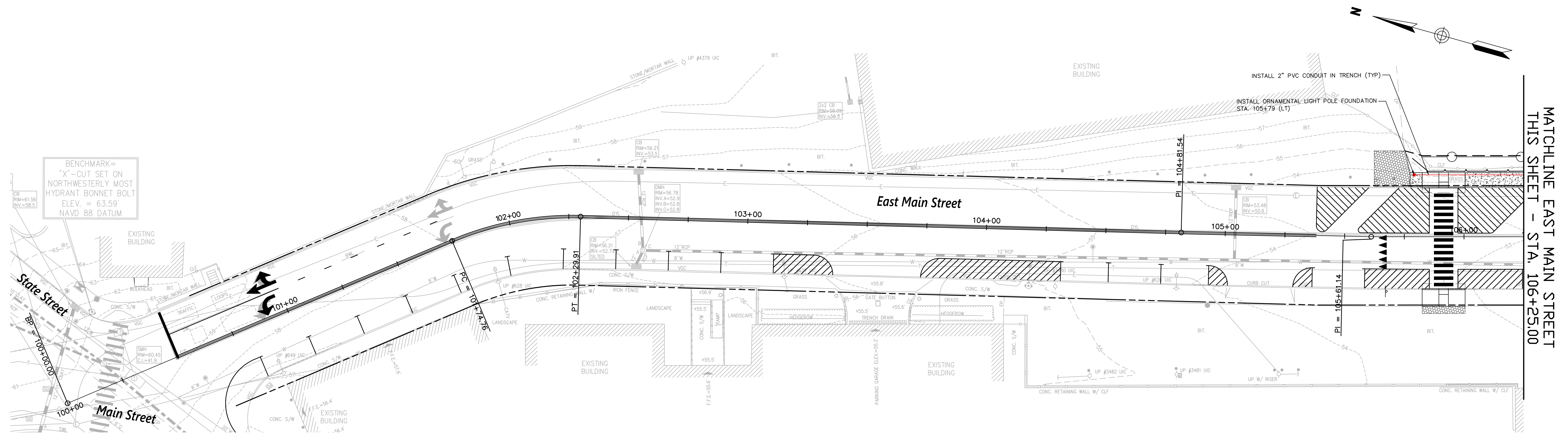
DRAWING TITLE:
CONSTRUCTION PLAN
EAST MAIN STREET

PROJECT NO.:
42307.00

DRAWING NO.:
PLN-1

SHEET NO.:
08 OF 28

Apr 06, 2021



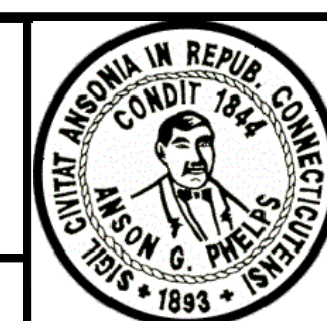
REV.	DATE	DESCRIPTION REVISIONS	SHEET. NO.



DESIGNER:	JRE
DRAFTER:	JRE
CHECKED BY:	BAA
APPROVED BY:	SON



Engineers	Scientists	Planners	Designers
ISSUED FOR CONSTRUCTION		DATE: APRIL, 2021	



PROJECT TITLE:

EAST MAIN STREET
ROADWAY IMPROVEMENT PROJECT

CADD FILENAME: LTG-4230700.DWG

TOWN: ANSONIA, CONNECTICUT

DRAWING TITLE: LIGHTING PLAN
EAST MAIN STREET

PROJECT NO.:
42307.00

DRAWING NO.:
LTG-1

SHEET NO.:
09 OF 28

*ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

**REVISED OR ADDED

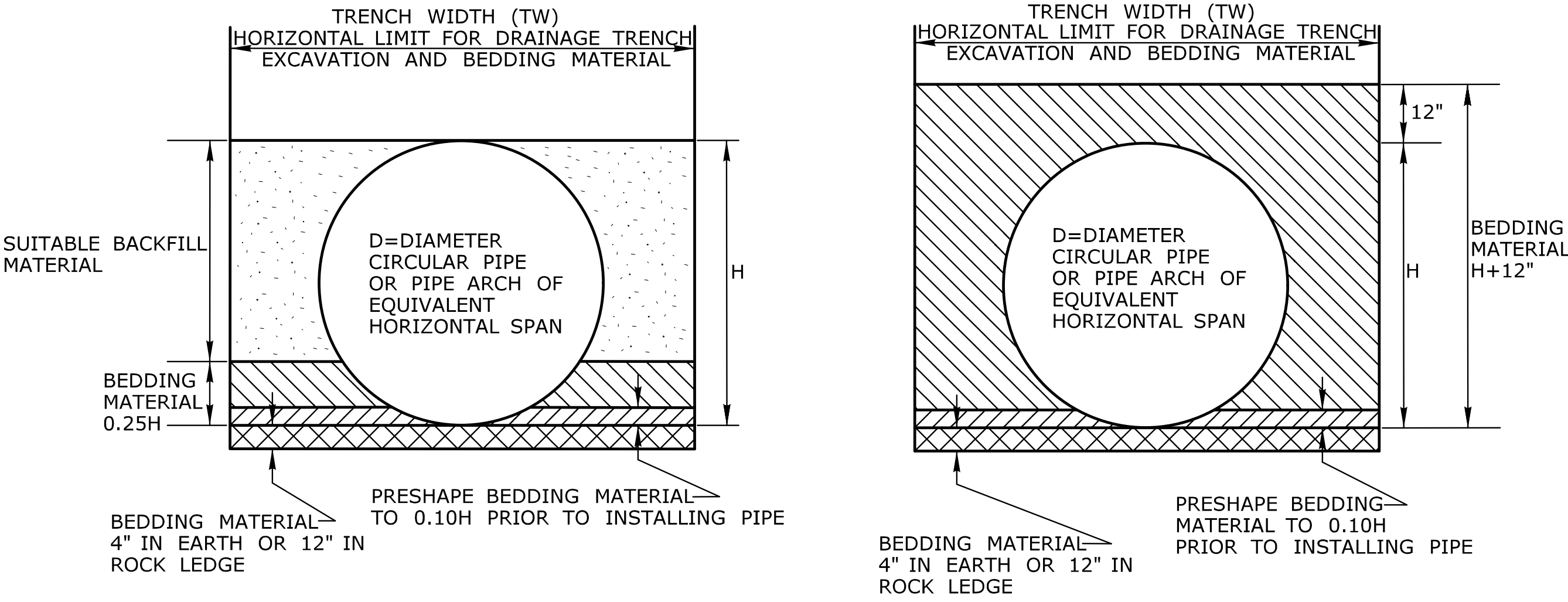
✓*	SHEET NO.	TITLE	APPROVAL DATE**
✓	HW-286_01	DRAINAGE TRENCH EXCAVATION	7-15-20
	HW-506_01	ENDWALLS, SLOPE PAVED INLETS AND OUTLETS	1-26-12
	HW-506_02	TYPE "D-G" & "L" ENDWALLS	7-13-12
	HW-506_03	ENDWALLS FOR PIPE - ARCH	9-18-09
✓	HW-586_01	CATCH BASIN AND DROP INLET TYPES "C" AND "C-L"	7-15-20
	HW-586_02	CATCH BASIN TOPS (TYPES "C" AND "C-L") FOR DOUBLE GRATE TYPE I	7-15-20
	HW-586_03	CATCH BASIN TOPS (TYPES "C" AND "C-L") FOR DOUBLE GRATE TYPE II	7-15-20
	HW-586_04	PRECAST CATCH BASIN AND ROUND STRUCTURE	7-15-20
	HW-586_05	PRECAST CATCH BASIN TYPES FOR DOUBLE GRATE TYPE I	7-15-20
	HW-586_06	PRECAST CATCH BASIN TYPES FOR DOUBLE GRATE TYPE II	7-15-20
✓	HW-586_07	CATCH BASIN TOPS TYPE "C" AND "C-L"	7-15-20
✓	HW-586_08	CATCH BASIN FRAMES AND GRATES	7-15-20
	HW-586_09	CATCH BASIN LOCK DOWN TOPS	7-15-20
	HW-586_10a	MANHOLE FRAME AND COVER	7-15-20
	HW-586_10b	MANHOLE FRAME AND GRATE	7-15-20
	HW-586_10c	REINFORCED PRECAST CONCRETE MANHOLE	7-15-20
	HW-586_10d	MANHOLE NON-PRECAST CONCRETE UNIT	7-15-20
	HW-686_01	C.C.M. PIPE INSTALLATION	7-15-20
	HW-686_02	PIPE ENDS	7-15-20
	HW-751_01	UNDERDRAINS AND UNDERDRAIN OUTLETS	7-12-12
	HW-803_01a	PAVED APRONS	6-07-17
	HW-803_01b	PAVED DITCHES AND PAVED CHANNELS	6-07-17
	HW-811_01	CONCRETE CURBING	6-07-17
	HW-813_01	GRANITE STONE TRANSITION CURBING	7-24-13
✓	HW-813_02	STONE CURBING	6-07-17
	HW-815_01	BITUMINOUS CONCRETE CURBING	6-07-17
	HW-821_01a	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12
	HW-821_01b	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10
	HW-821_01c	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	1-26-12
	HW-821_02a	45" F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 1	1-27-20
	HW-821_02b	45" F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 2	1-27-20
	HW-821_03a	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12

✓*	SHEET NO.	TITLE	APPROVAL DATE**
	HW-821_03b	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10
	HW-821_03c	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	10-18-10
	HW-821_03d	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 4	10-18-10
	HW-821_03e	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) F-SHAPE	7-24-13
	HW-821_04a	MERRITT PARKWAY NARROW MEDIAN BARRIER	6-09-11
	HW-821_04b	MERRITT PARKWAY - 2' (610) WIDE MEDIAN BARRIER AND ROADSIDE BARRIER	7-24-13
	HW-821_05a	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 1	1-26-12
	HW-821_05b	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 2	1-26-12
	HW-821_06	54" (1372) VERTICAL SHAPE BARRIER	2-06-12
	HW-821_07	MISCELLANEOUS DETAILS FOR BARRIER TRANSITIONS	7-12-12
	HW-821_08a	F-SHAPE CONC. BARRIER CURB (21"x45") TRANSITION FOR THRIE-BEAM	1-09-20
	HW-821_08b	F-SHAPE CONC. BARRIER CURB (21"x45") TRANSITION FOR THRIE-BEAM - REINF.	1-09-20
	HW-821_09a	SINGLE SLOPE CONC. BARRIER CURB (20"x42") TRANS. FOR THRIE-BEAM	1-09-20
	HW-821_09b	SINGLE SLOPE CONC. BARRIER CURB (20"x42") TRANS. FOR THRIE-BEAM - REINF.	1-09-20
	HW-821_10a	VERTICAL FACE CONC. (21"x54") TRANSITION FOR THRIE-BEAM	1-09-20
	HW-821_10b	VERTICAL FACE CONC. (21"x54") TRANSITION FOR THRIE-BEAM - REINF.	1-09-20
	HW-821_11a	42" SINGLE SLOPE PRECAST CONCRETE BARRIER CURB -SHEET 1	1-27-20
	HW-821_11b	42" SINGLE SLOPE PRECAST CONCRETE BARRIER CURB -SHEET 2	1-27-20
	HW-822_01	TEMPORARY PRECAST CONCRETE BARRIER CURB	7-24-13
	HW-905_01	STONE WALL FENCE	1-25-19
	HW-906_01	WIRE FENCE	1-25-19
	HW-910_01	W-BEAM METAL BEAM RAIL HARDWARE	6-09-11
	HW-910_02	METAL BEAM RAIL (TYPE R-B 350) GUIDERAIL	6-09-11
	HW-910_03	METAL BEAM RAIL (TYPE MD-B 350) GUIDERAIL	6-09-11
	HW-910_04	METAL BEAM RAIL (TYPE R-B 350) SYSTEMS 5, 5A, & 6	6-09-11
	HW-910_05	METAL BEAM RAIL R-B 350 SPAN TYPE I, II, III SECTIONS	7-24-13
	HW-910_06	R-B 350 BRIDGE ATTACHMENT SAFETY SHAPE PARAPET	6-09-11
	HW-910_07	R-B 350 BRIDGE ATTACHMENT VERTICAL SHAPE PARAPET	1-25-19
	HW-910_08	R-B 350 BRIDGE ATTACHMENT TRAILING END	6-09-11
	HW-910_09a	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 1	1-26-12
	HW-910_09b	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 2	7-25-12
	HW-910_10	METAL BEAM RAIL 8" (203) X 6" (152) BOX BEAM	7-24-13
	HW-910_11	CURVED GUIDERAIL TREATMENT DETAIL	7-25-12

*ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

**REVISED OR ADDED

✓*	SHEET NO.	TITLE	APPROVAL DATE**	✓*	SHEET NO.	TITLE	APPROVAL DATE**
<input type="checkbox"/>	HW-910_12a	MERRITT PARKWAY GUIDERAIL LEADING END ATTACHMENTS AND SYSTEMS 2&3	7-24-13	<input checked="" type="checkbox"/>	HW-921_01	DRIVEWAY RAMPS AND SIDEWALKS	6-07-17
<input type="checkbox"/>	HW-910_12b	MERRITT PARKWAY GUIDERAIL HARDWARE DETAILS	7-24-13	<input checked="" type="checkbox"/>	HW-949_01a	LANDSCAPE PLANTING	6-15-19
<input type="checkbox"/>	HW-910_12c	MERRITT PARKWAY GUIDERAIL TRAILING END ATTACHMENTS	7-24-13	<input type="checkbox"/>	HW-949_01b	TREE STAKING	6-15-19
<input type="checkbox"/>	HW-910_12d	MERRITT PARKWAY MEDIAN GUIDERAIL AND END ANCHOR	6-09-11	<input type="checkbox"/>	HW-1800_01	GRADING PLAN FOR IMPACT ATTENUATION SYSTEMS (FLARED AND TANGENTIAL)	1-25-19
<input type="checkbox"/>	HW-910_13a	THRIE-BEAM METAL BEAM RAIL HARDWARE	7-24-13	<input type="checkbox"/>	HW-1800_02	GRADING PLAN FOR IMPACT ATTENUATION SYSTEMS (MEDIAN/GORE)	1-25-20
<input type="checkbox"/>	HW-910_13b	THRIE-BEAM TRANSITIONS	7-24-13				
<input type="checkbox"/>	HW-910_14a	THRIE-BEAM 350 BRIDGE ATTACHMENT	6-09-11				
<input type="checkbox"/>	HW-910_14b	THRIE-BEAM 350 GUIDERAIL TRANSITION TO R-B 350 GUIDERAIL	6-09-11				
<input type="checkbox"/>	HW-910_15	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE I	6-09-11				
<input type="checkbox"/>	HW-910_16	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE II	6-09-11				
<input type="checkbox"/>	HW-910_17	R-B TERMINAL SECTION	7-24-13				
<input type="checkbox"/>	HW-910_18	METAL BEAM RAIL (TYPE MD-I) GUIDERAIL	10-18-10				
<input type="checkbox"/>	HW-910_19a	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE I	7-24-13				
<input type="checkbox"/>	HW-910_19b	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE II	7-24-13				
<input type="checkbox"/>	HW-910_19c	METAL BEAM RAIL (MODIFIED TYPE R-I) SYSTEMS 2 AND 3	7-24-13				
<input type="checkbox"/>	HW-910_20	MASH W-BEAM HARDWARE	1-05-18				
<input type="checkbox"/>	HW-910_21	METAL BEAM RAIL (R-B MASH) GUIDERAIL	1-25-19				
<input type="checkbox"/>	HW-910_22	METAL BEAM RAIL (MD-B MASH) GUIDERAIL	1-05-18				
<input type="checkbox"/>	HW-910_23	METAL BEAM RAIL (R-B MASH) HALF & QUARTER POST SPACING GUIDERAIL	1-05-18				
<input type="checkbox"/>	HW-910_24	METAL BEAM RAIL SPAN SECTION TYPES II AND III	1-05-18				
<input type="checkbox"/>	HW-910_25	METAL BEAM RAIL TRANSITION 350 TO MASH	1-05-18				
<input type="checkbox"/>	HW-910_26	THRIE-BEAM ATTACHMENT HARDWARE	1-09-20				
<input type="checkbox"/>	HW-910_27	THRIE-BEAM ATTACHMENT	1-09-20				
<input type="checkbox"/>	HW-911_01	R-B END ANCHORAGE TYPE I AND II	1-25-19				
<input type="checkbox"/>	HW-911_02	MD-B END ANCHORAGE TYPE I	1-05-18				
<input type="checkbox"/>	HW-911_03	ANCHOR IN EARTH CUT SLOPE & ANCHOR IN ROCK CUT SLOPE	10-18-10				
<input type="checkbox"/>	HW-911_05	MERRITT PARKWAY GUIDERAIL END ANCHORS	7-24-13				
<input checked="" type="checkbox"/>	HW-913_01a	CHAIN LINK FENCE	5-06-19				
<input checked="" type="checkbox"/>	HW-913_01b	CHAIN LINK FENCE HARDWARE	5-06-19				
<input type="checkbox"/>	HW-913_02	CHAIN LINK FENCE GATES	5-06-19				
<input type="checkbox"/>	HW-918_01a	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 1	7-24-13				
<input type="checkbox"/>	HW-918_01b	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 2	1-26-12				
<input type="checkbox"/>	HW-918_01c	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 3	7-24-13				

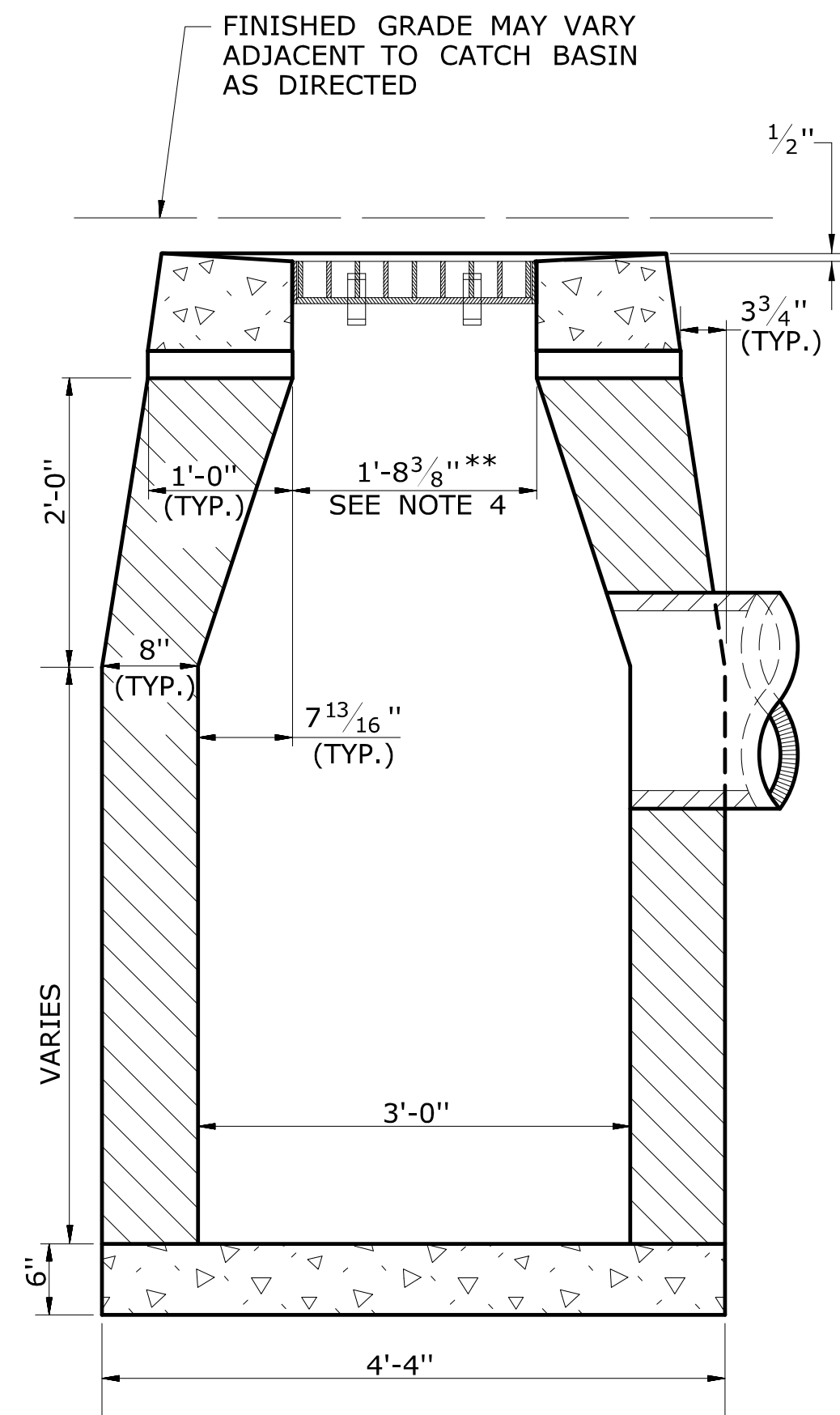


**PIPE TRENCH
FOR PIPES LESS THAN 48"**

**PIPE TRENCH
FOR PIPES GREATER THAN
OR EQUAL TO 48"**

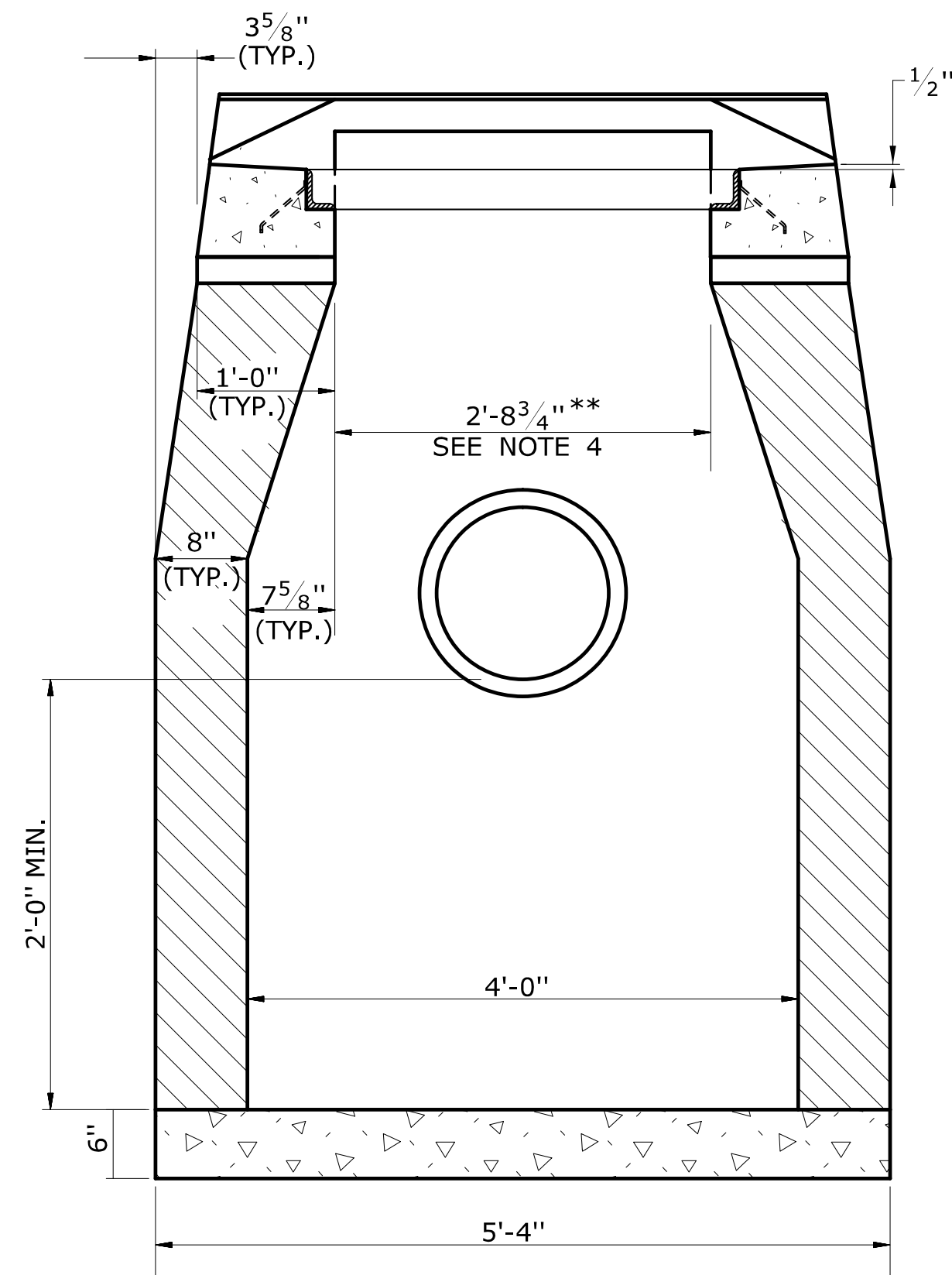
TRENCH WIDTH (TW) CHART

PIPE, PIPE-ARCH, OR DRAINAGE STRUCTURE	TRENCH WIDTH
PIPE OR PIPE-ARCH WITH NOMINAL INSIDE HORIZONTAL SPAN LESS THAN 30"	2' GREATER THAN NOMINAL INSIDE HORIZONTAL SPAN
PIPE OR PIPE-ARCH WITH NOMINAL INSIDE HORIZONTAL SPAN GREATER THAN OR EQUAL TO 30"	3' GREATER THAN NOMINAL INSIDE HORIZONTAL SPAN
PIPE OR PIPE-ARCH FABRICATED FROM STRUCTURAL PLATES	4' GREATER THAN NOMINAL INSIDE HORIZONTAL SPAN
DRAINAGE STRUCTURES	2' BEYOND ALL EXTERIOR OR FOUNDATION WALLS



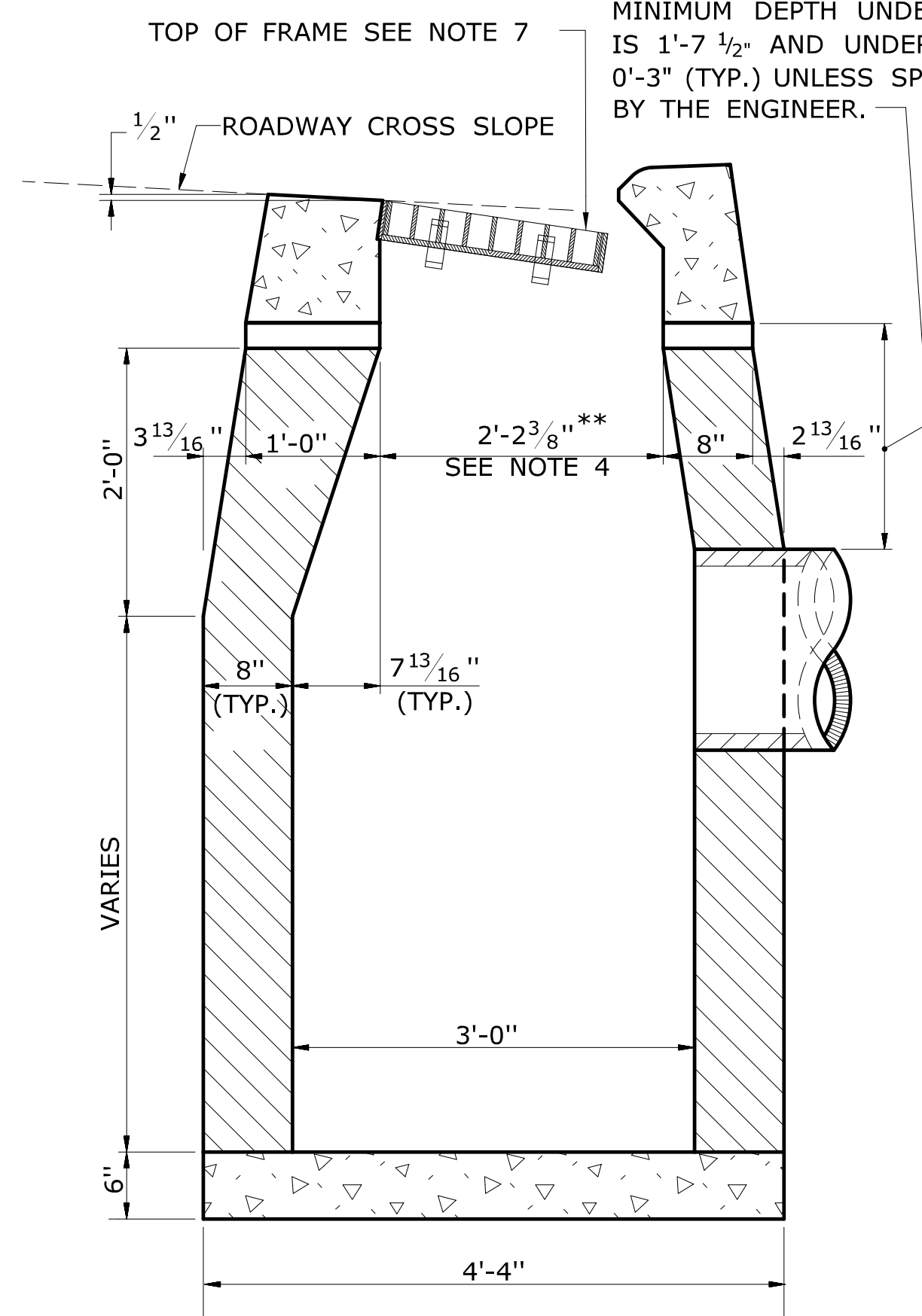
SECTION B

TYPE "C-L" CATCH BASIN



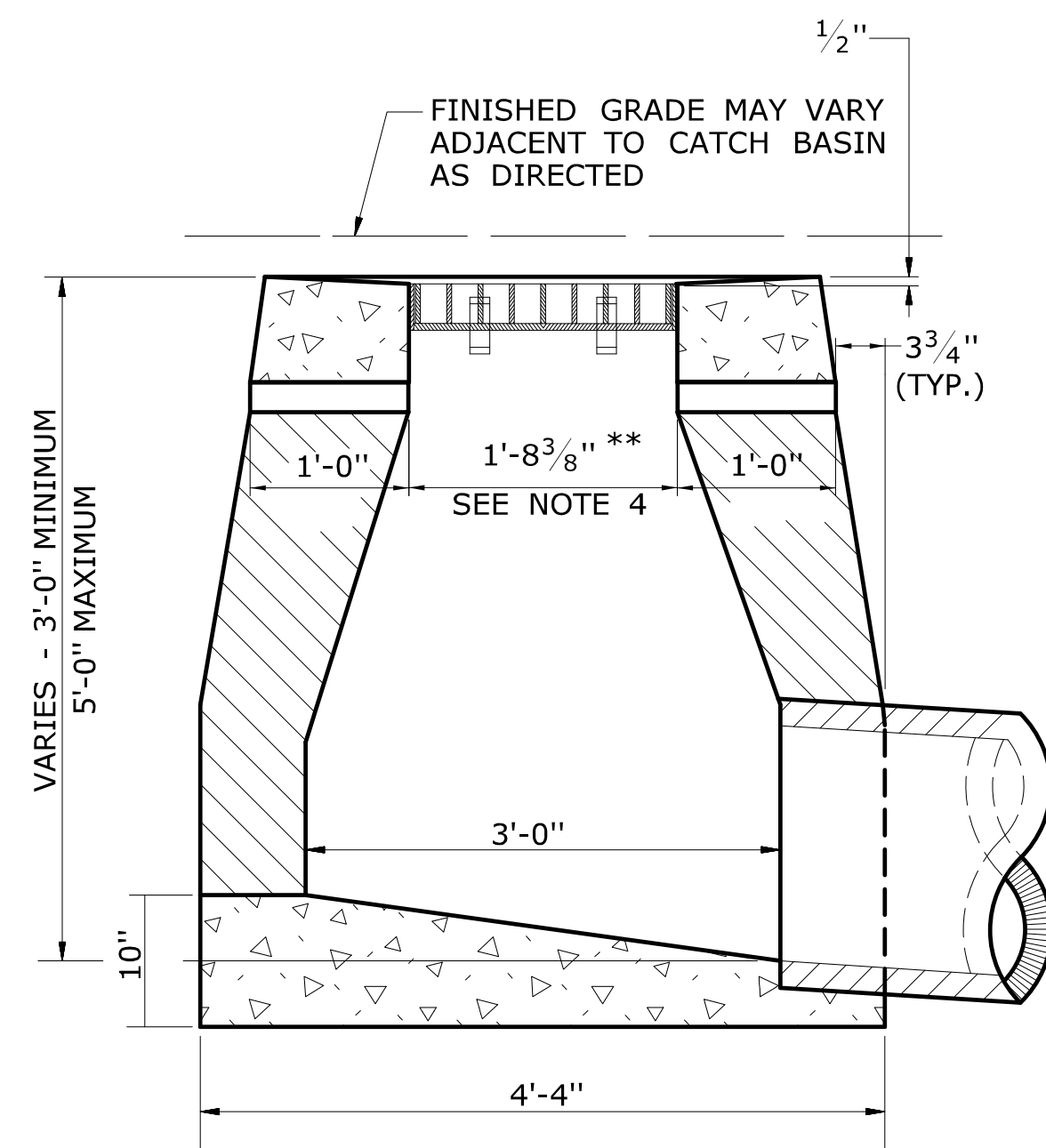
SECTION A

TYPE "C" & "C-L" CATCH BASIN
(TYPE "C" TOP SHOWN)



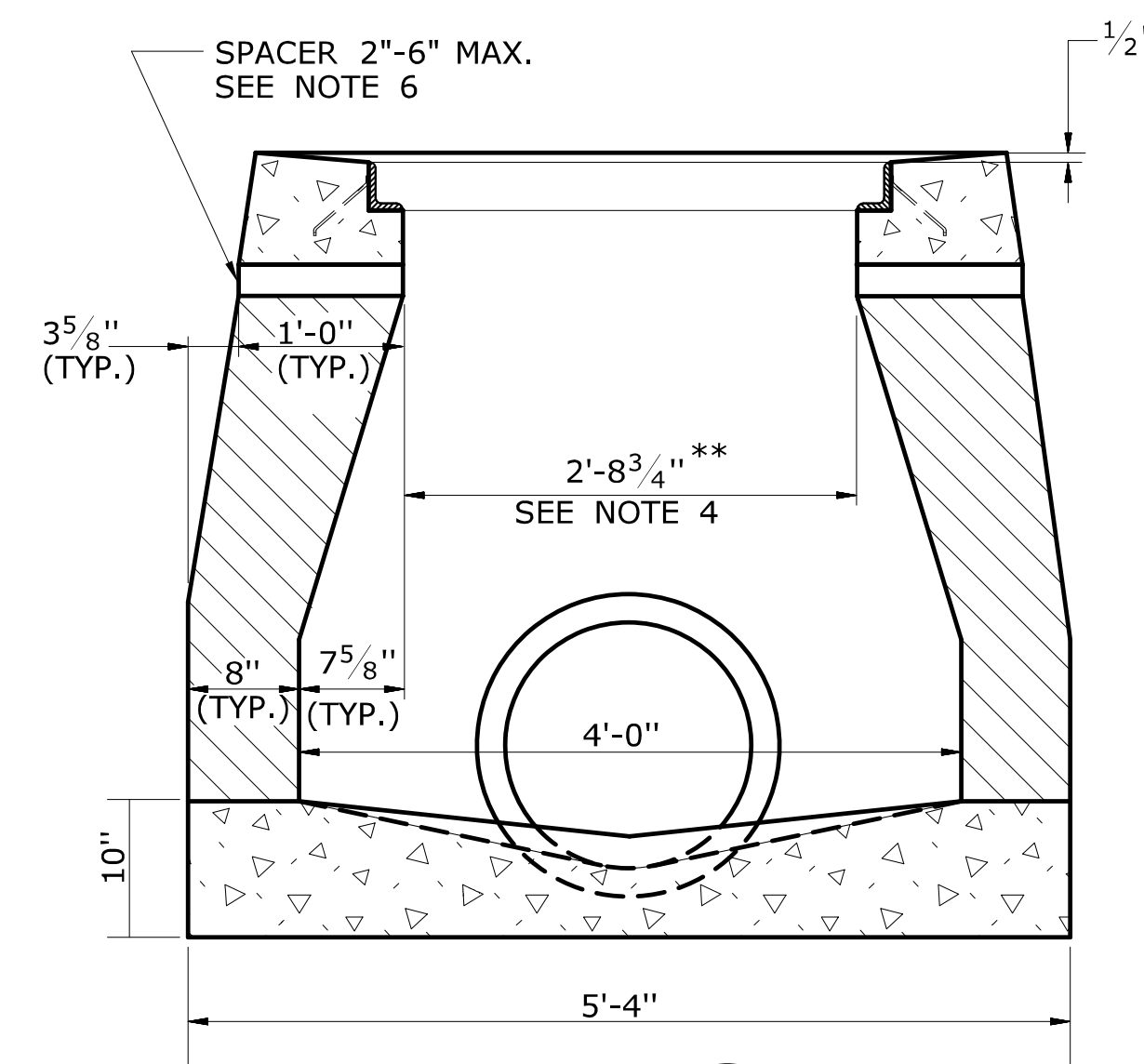
SECTION B

TYPE "C" CATCH BASIN



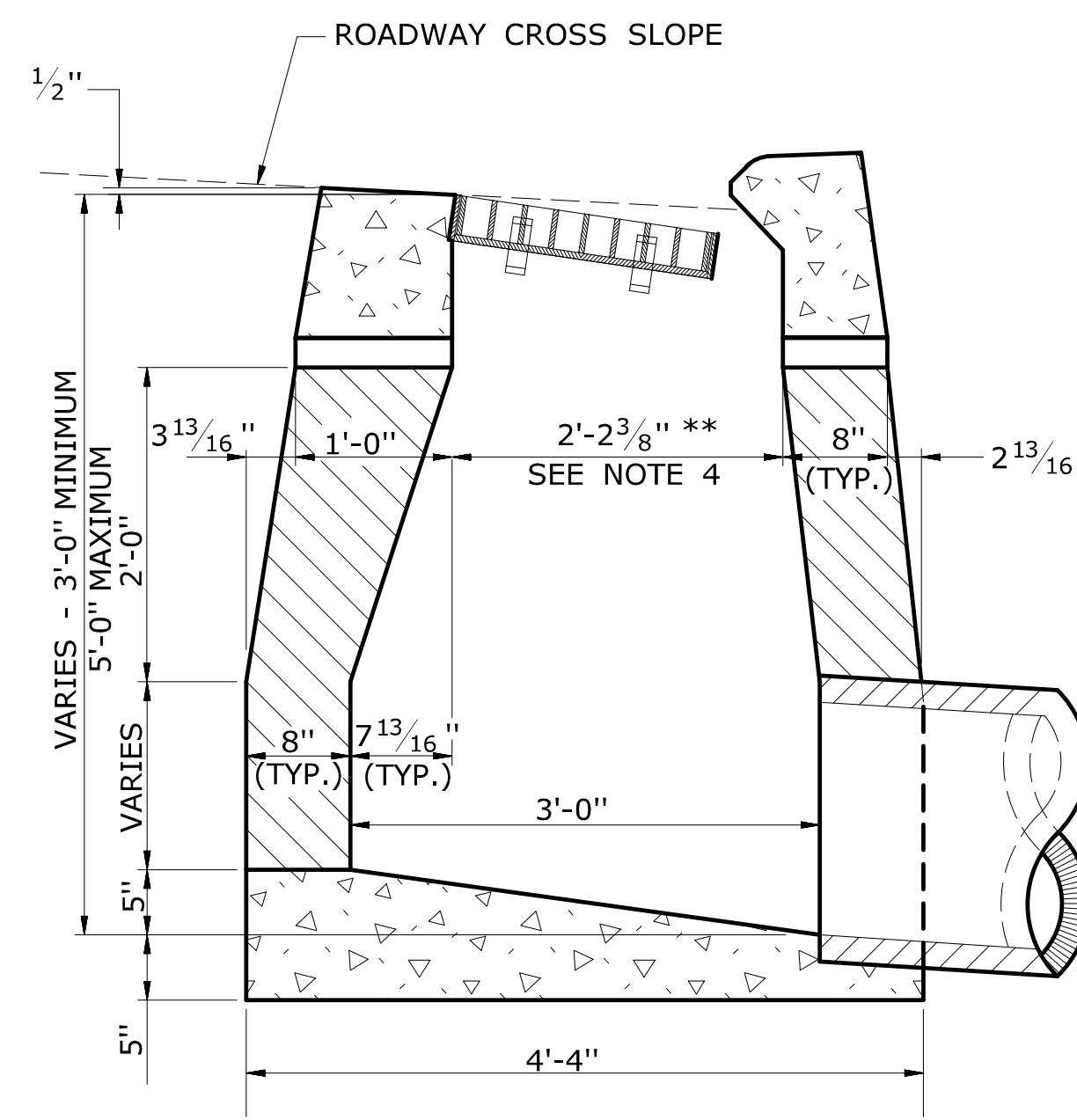
SECTION B

TYPE "C-L" DROP INLET



SECTION A

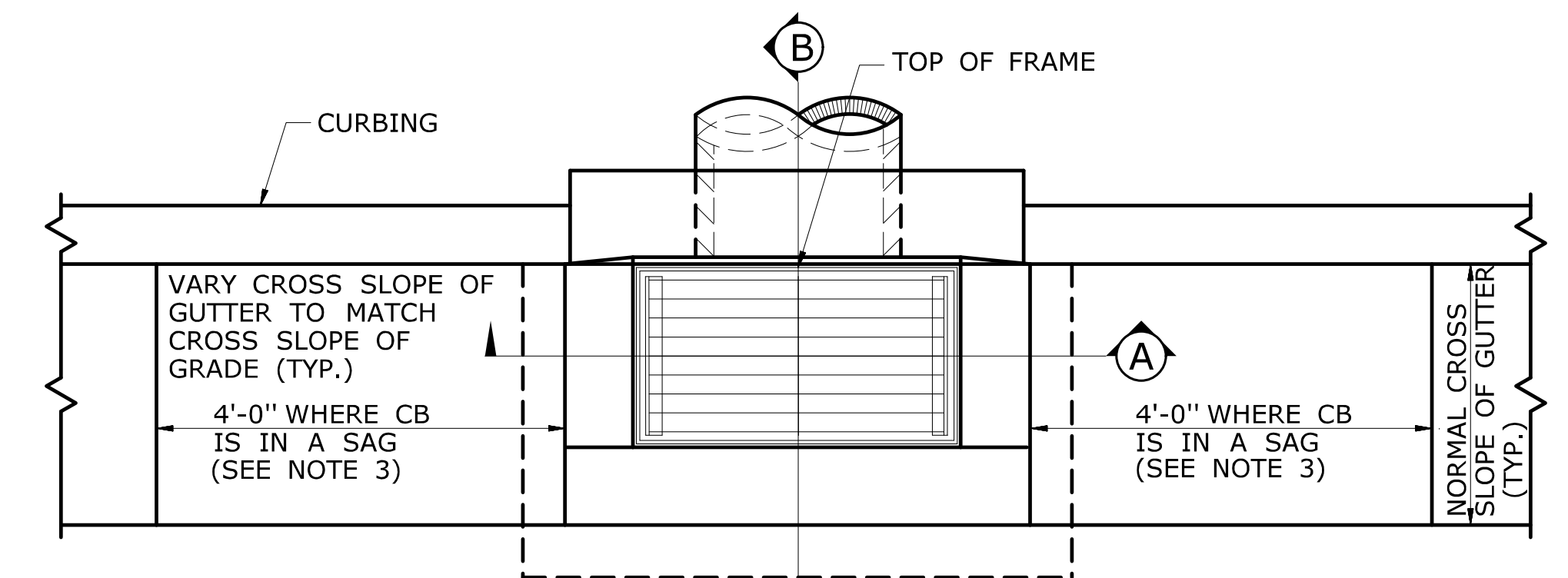
TYPE "C" & "C-L" DROP INLET
(TYPE "C-L" TOP SHOWN)



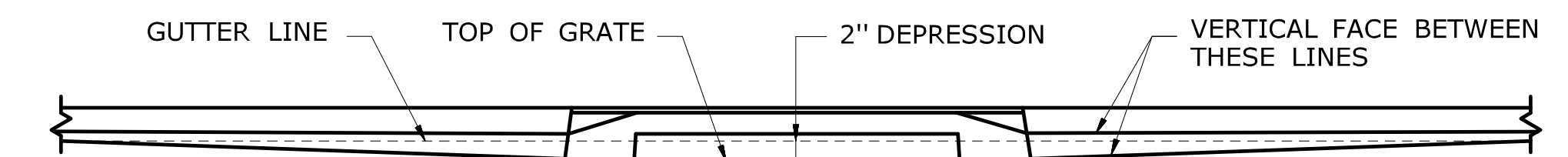
SECTION B

TYPE "C" DROP INLET

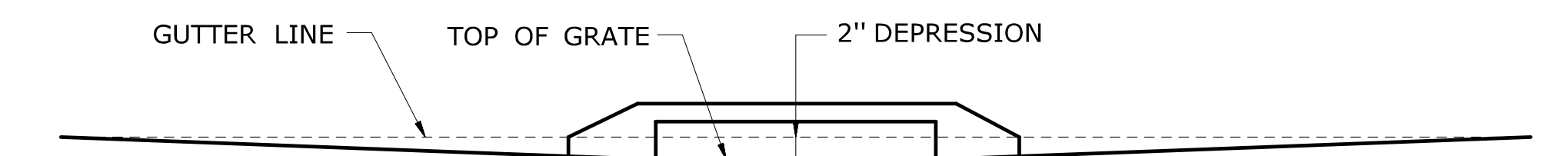
- GENERAL NOTES:**
1. FOR CATCH BASIN TOPS, SEE SHEET NO. HW-586-07.
 2. ALL FACES OF STRUCTURES IN CONTACT WITH CONCRETE PAVEMENT SHALL BE COVERED WITH A LAYER OF TAR PAPER OR APPROVED EQUAL.
 3. USE 6'-0" ON UPGRADE SIDE (SEE PLAN VIEW) OF CONTINUOUS GRADE AND 1'-0" ON DOWNGRADE SIDE OF CONTINUOUS GRADE OR AS DIRECTED BY THE ENGINEER.
 4. IF MASONRY UNITS ARE REQUIRED, THE BASIN SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE DIMENSIONS SHOWN. CORBELLING SHALL BE PERMITTED TO A MAXIMUM OF 3". NO PROJECTION SHALL EXTEND INSIDE THE LIMITS FOR THE CATCH BASIN OPENINGS SHOWN IN THE SECTION VIEWS **.
 5. WALL THICKNESS OF ALL CATCH BASINS OVER 10' DEEP SHALL BE INCREASED TO 12" THICK. INSIDE DIMENSION SHALL REMAIN THE SAME. 12" THICKNESS SHALL START AFTER THE FIRST 10'.
 6. SPACERS CAN BE EITHER CONCRETE MASONRY UNIT OR PRECAST WITH THE REQUIRED REINFORCING (RECOMMENDED BY THE MANUFACTURER) AS NEEDED TO PROVIDE THE PROPER GRADE SHOWN ON THE PLANS.
 7. TOP OF FRAME ELEVATION SHALL BE MEASURED IN THE CENTER OF GRATE AT GUTTER LINE.



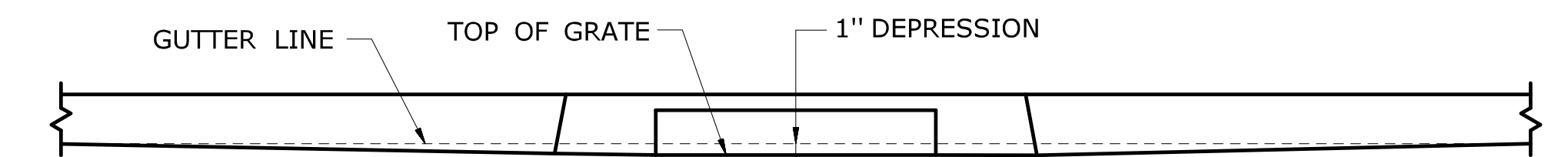
PLAN



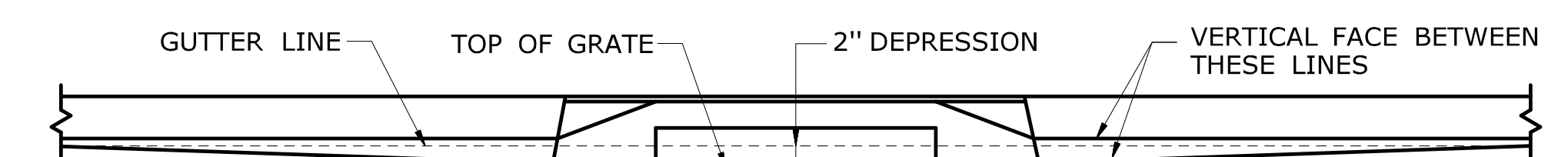
CATCH BASINS IN A LINE WITH 4" CONCRETE PARK CURBING OR 4" BITUMINOUS CONCRETE PARK CURBING



CATCH BASINS WHERE NO CURBING OF ANY TYPE EXISTS OR IS PROPOSED

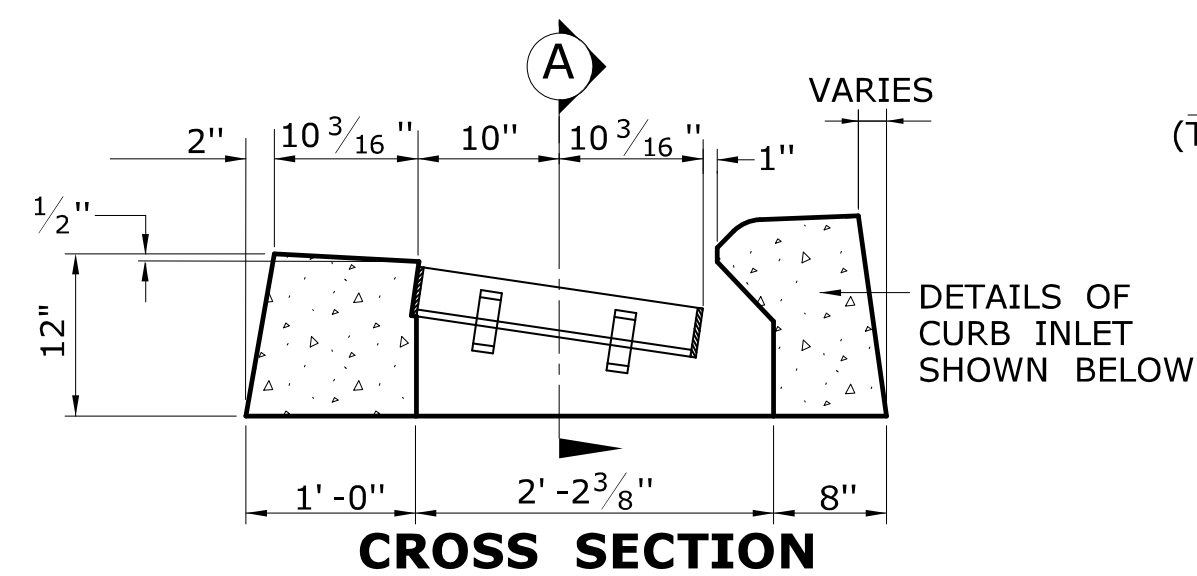


CATCH BASINS IN A LINE WITH 6" CONCRETE CURBING OR 6" STONE CURBING

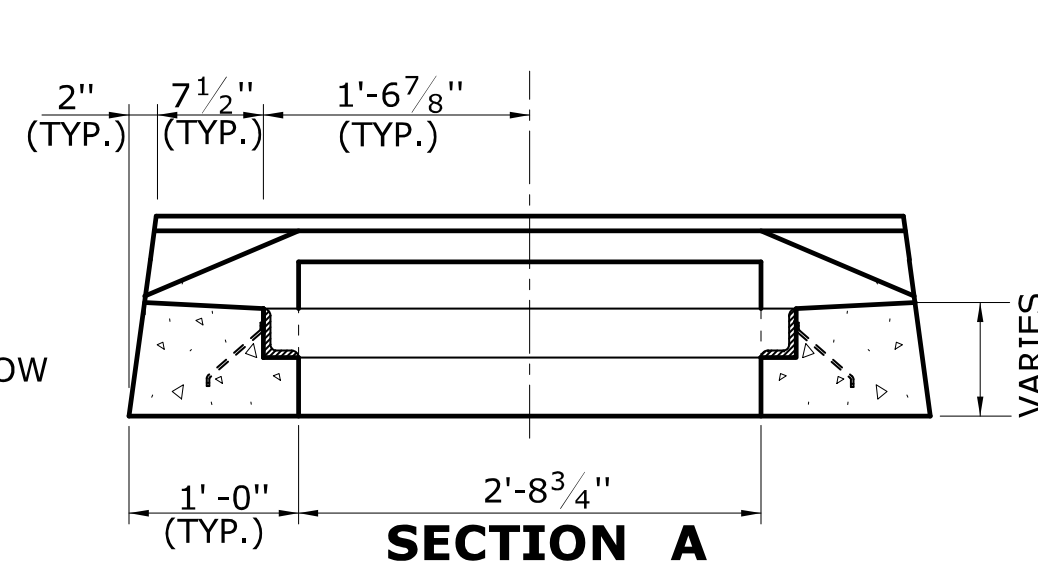


CATCH BASINS IN A LINE WITH 6" BITUMINOUS CONCRETE LIP CURBING (MACHINE FORMED)

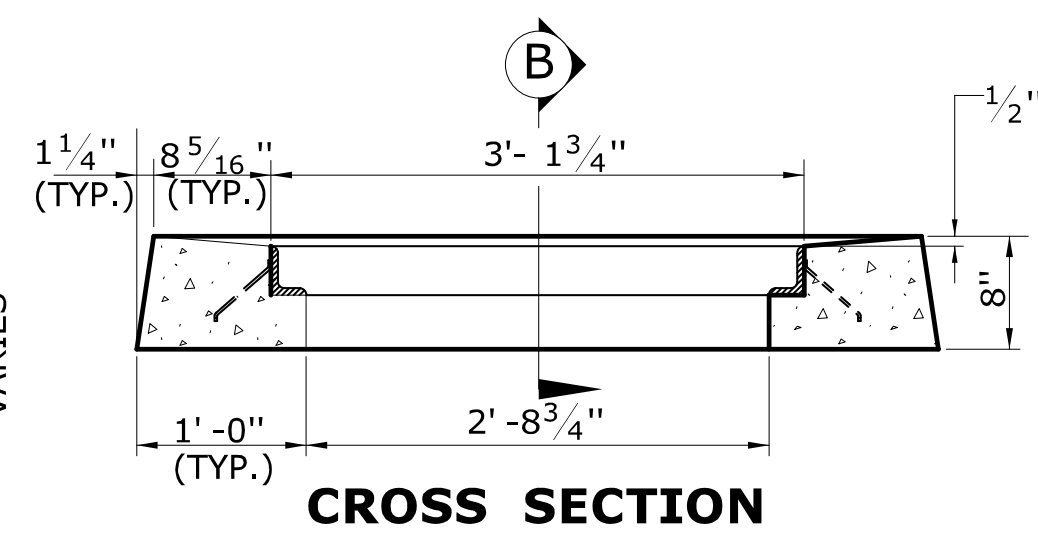
DETAILS OF DEPRESSED GUTTER STRIP
FOR TYPE "C" CATCH BASIN



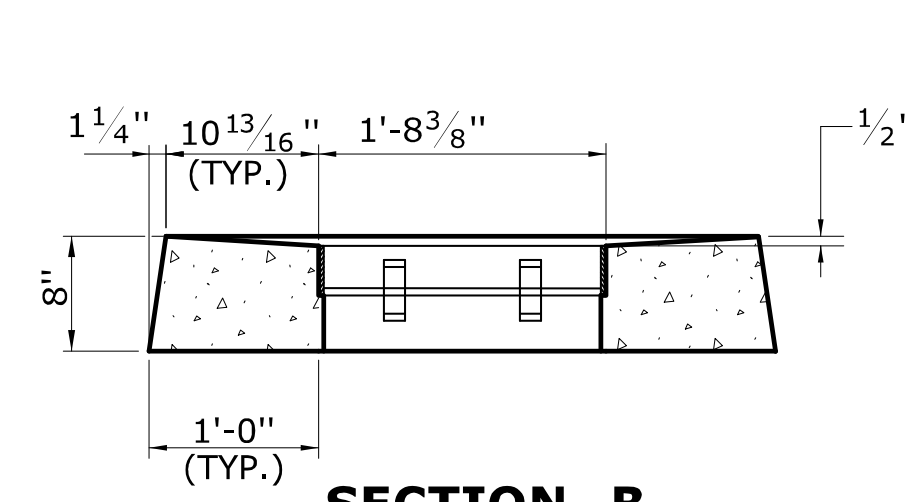
CROSS SECTION
TYPE "C" CATCH BASIN TOP



SECTION A



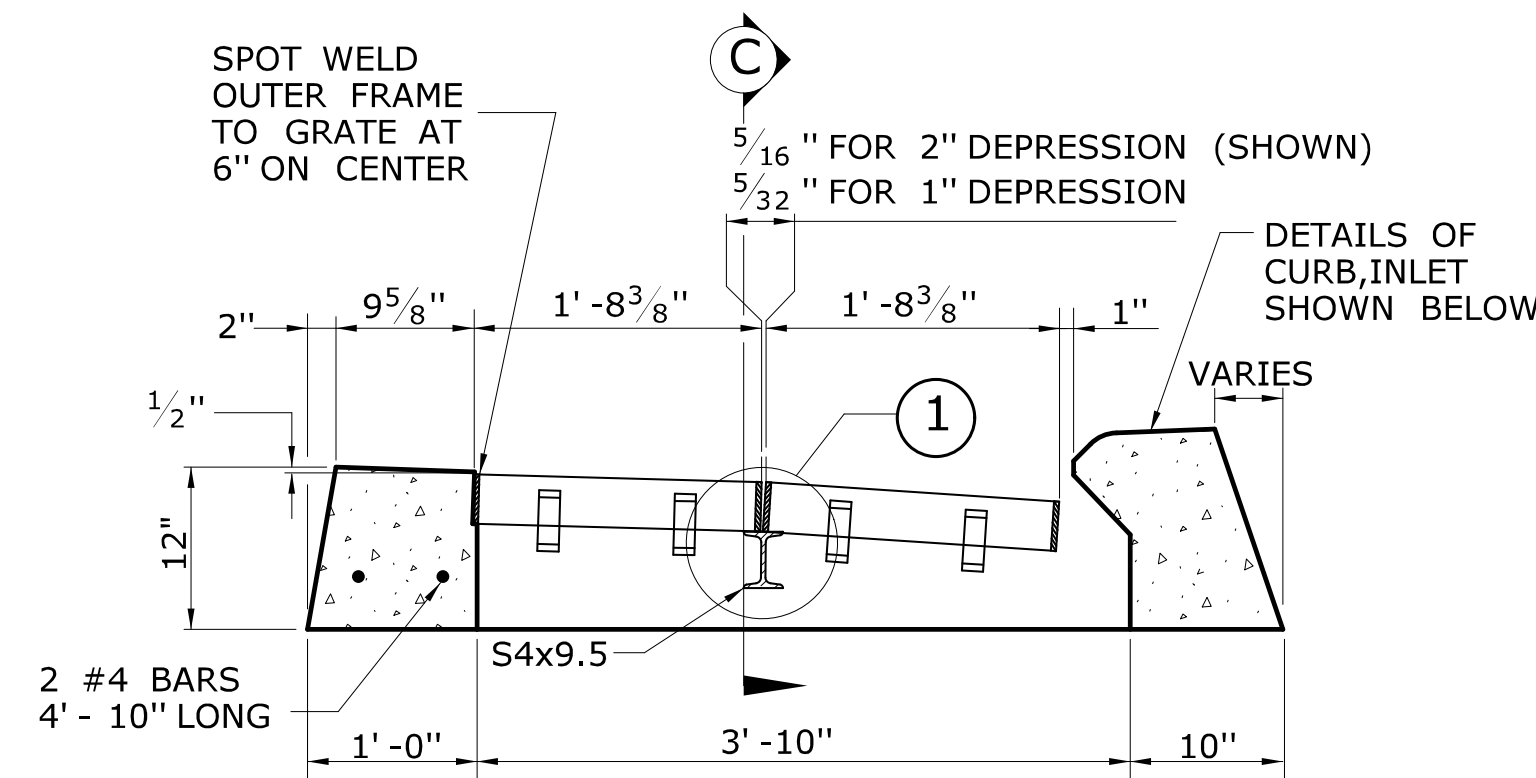
CROSS SECTION



SECTION B

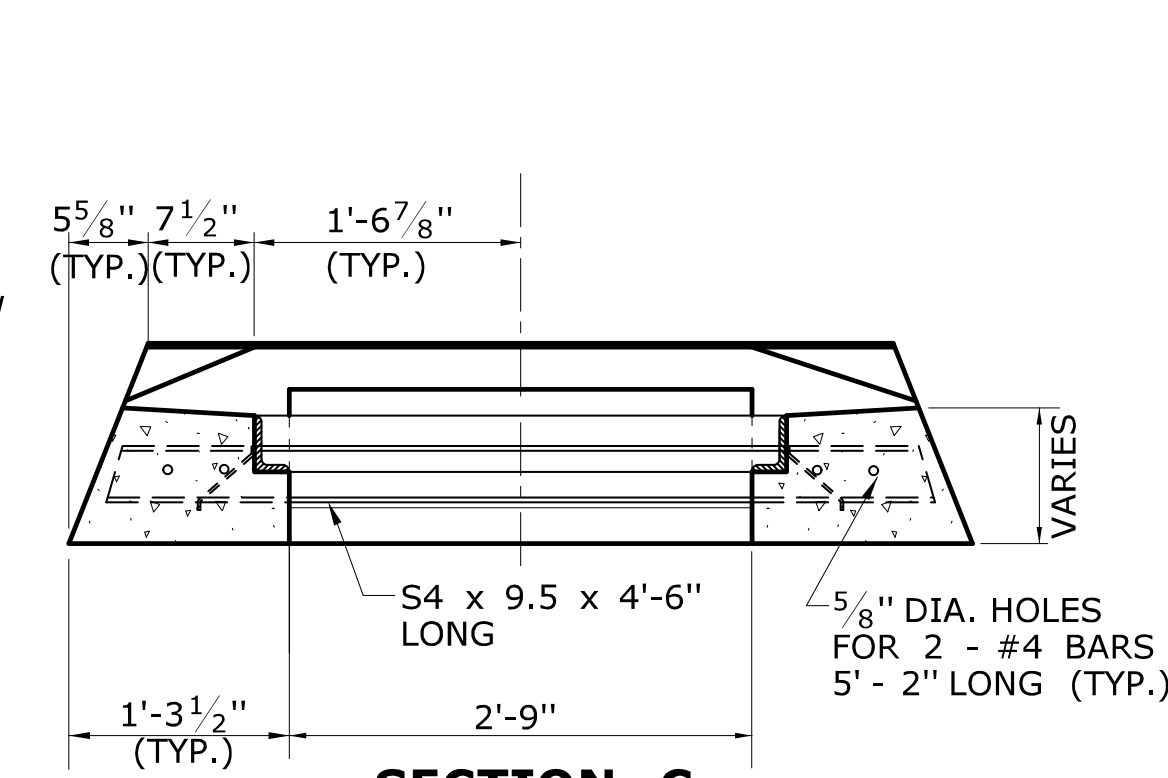
GENERAL NOTES:

1. FOR DETAILS OF FRAMES AND GRATES, SEE SHEET NO. HW-586-08.
2. ALL BARS SHALL HAVE A MINIMUM 2" COVER.

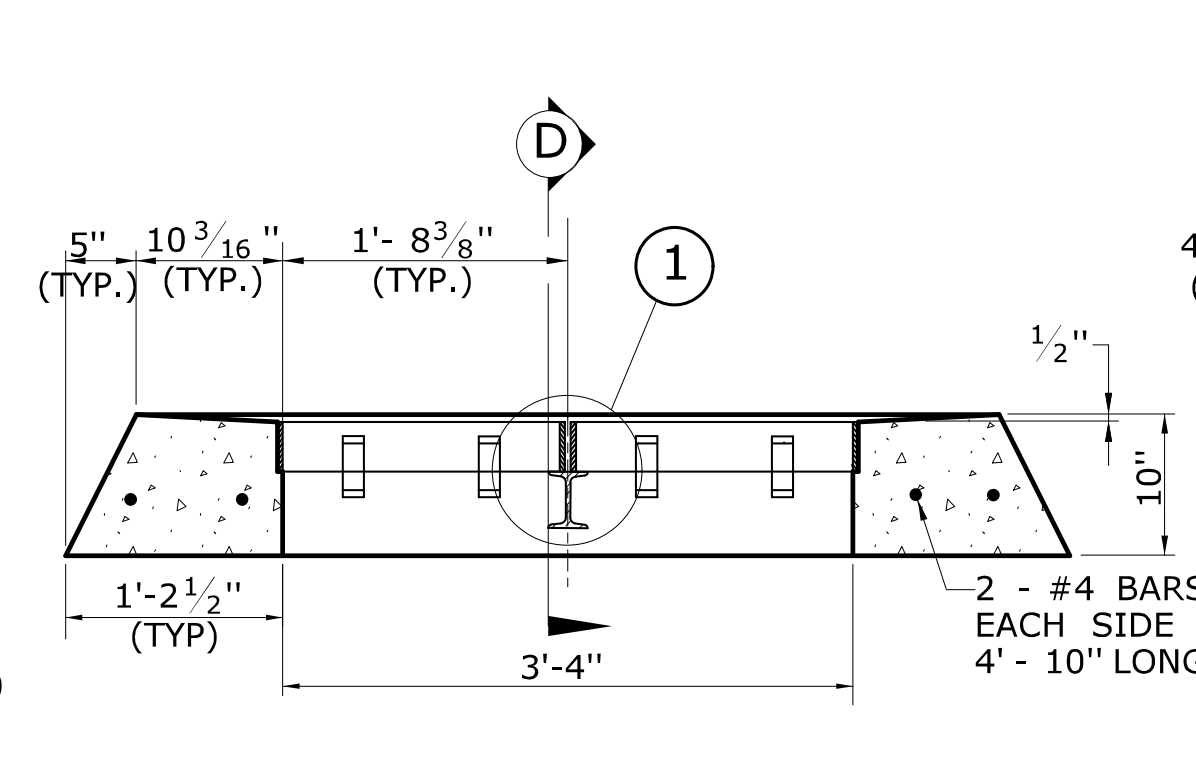


CROSS SECTION

TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE I TOP

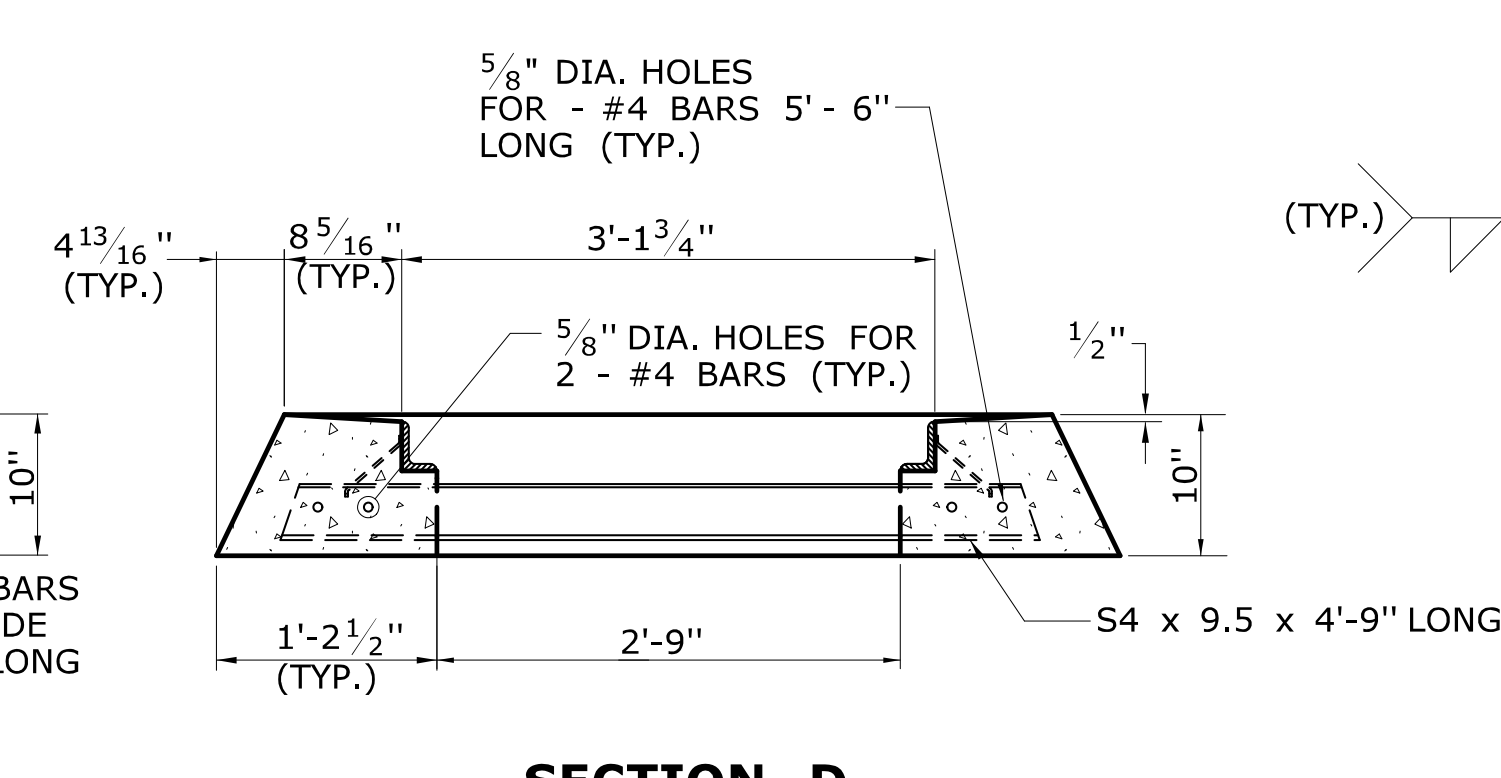


SECTION C

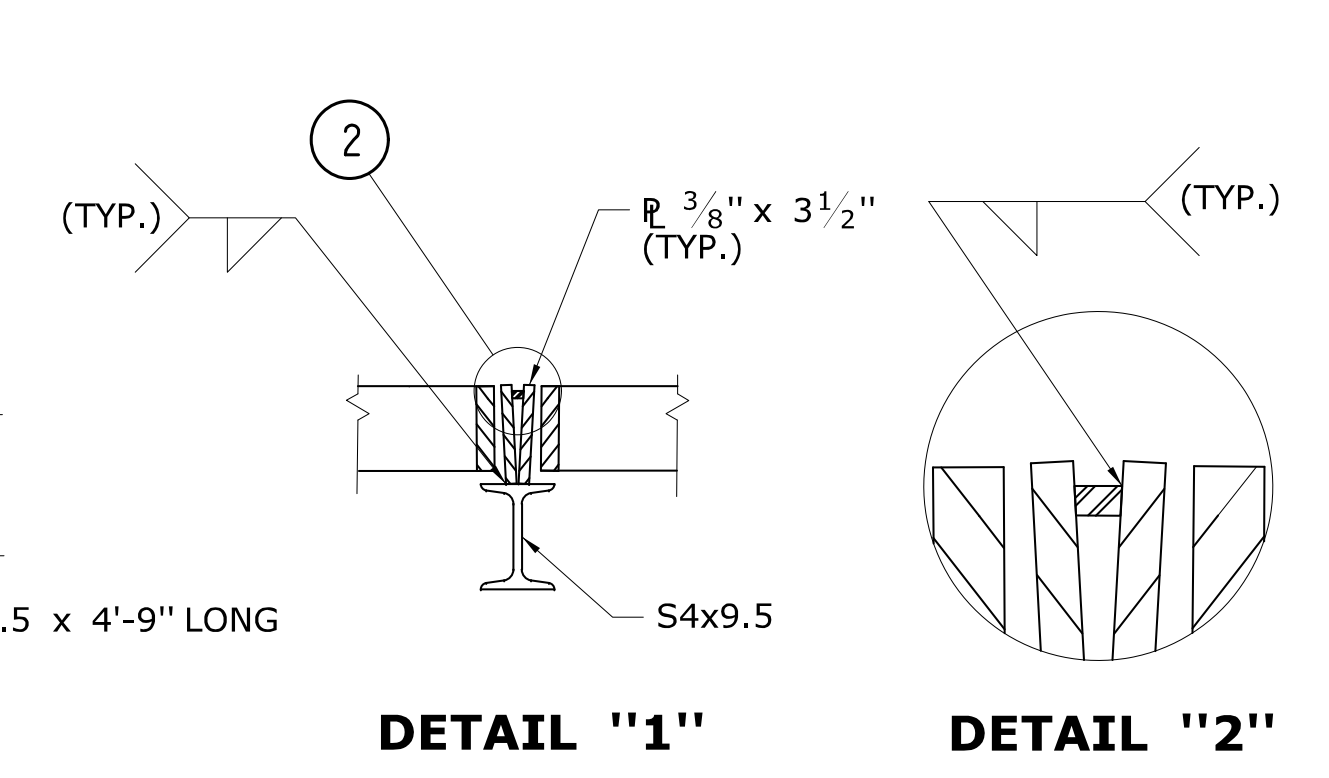


CROSS SECTION

TYPE "C-L" CATCH BASIN DOUBLE GRATE - TYPE I TOP

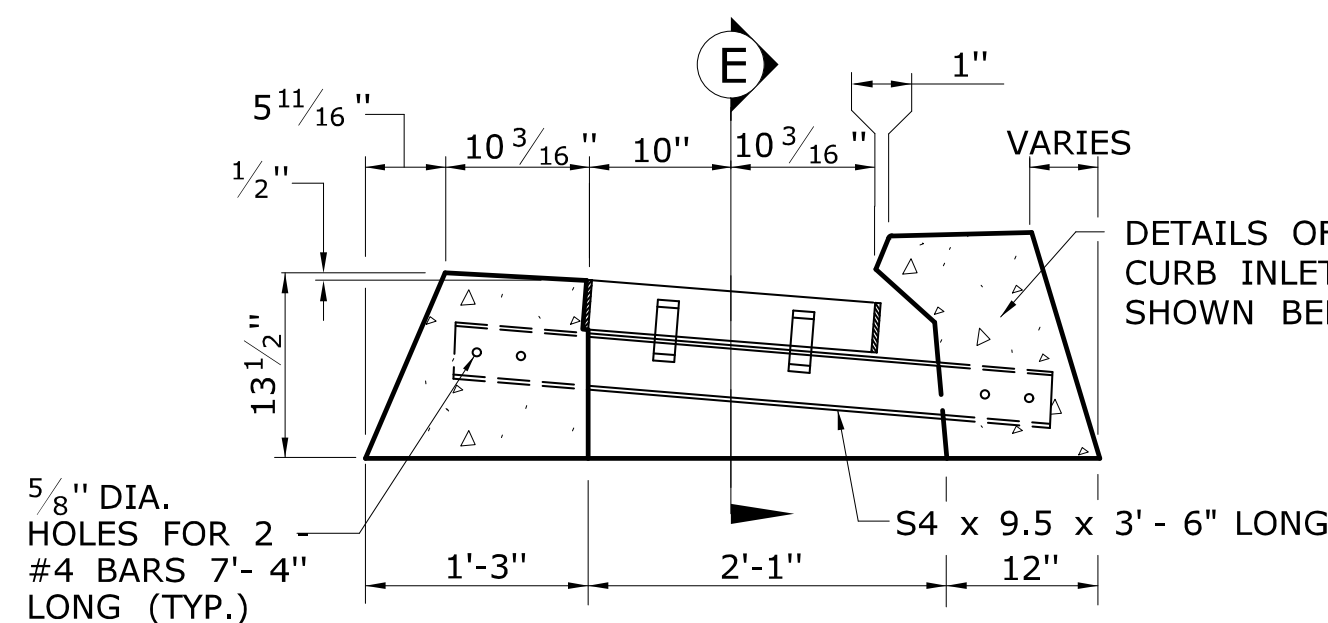


SECTION D



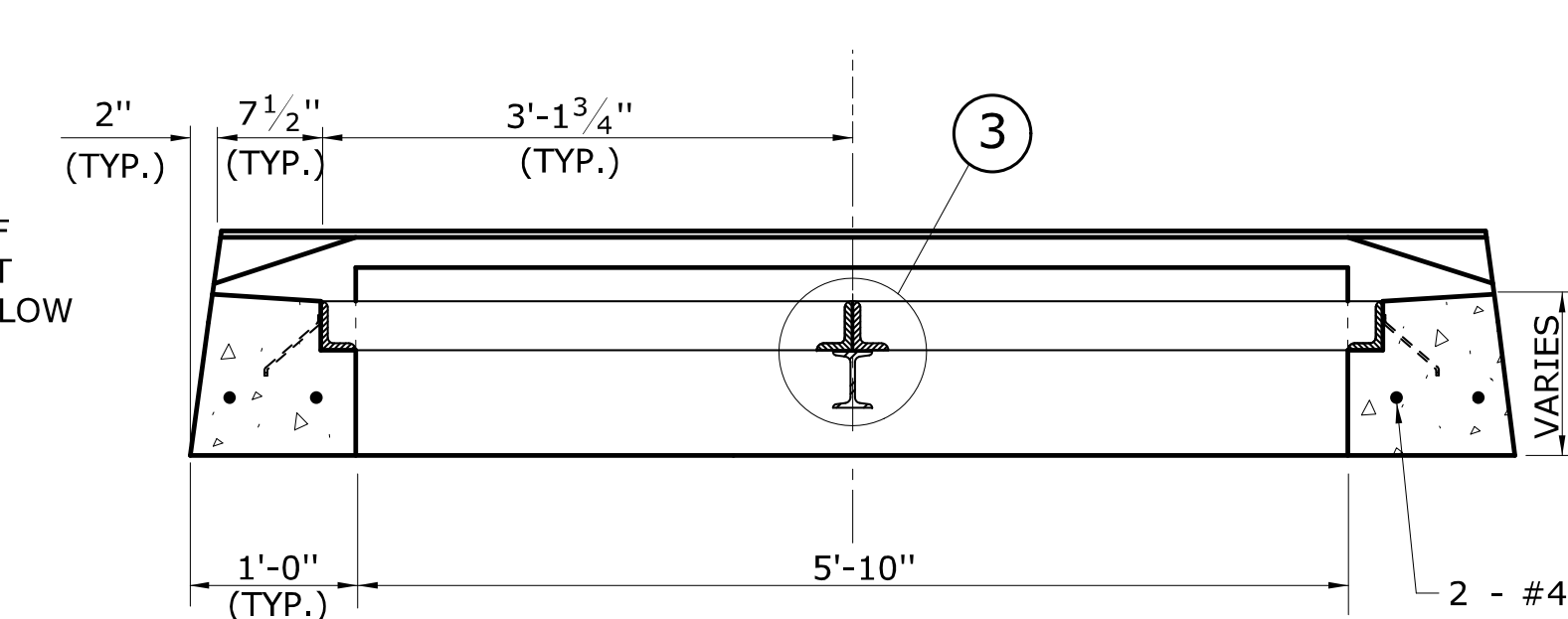
DETAIL "1"

DETAIL "2"

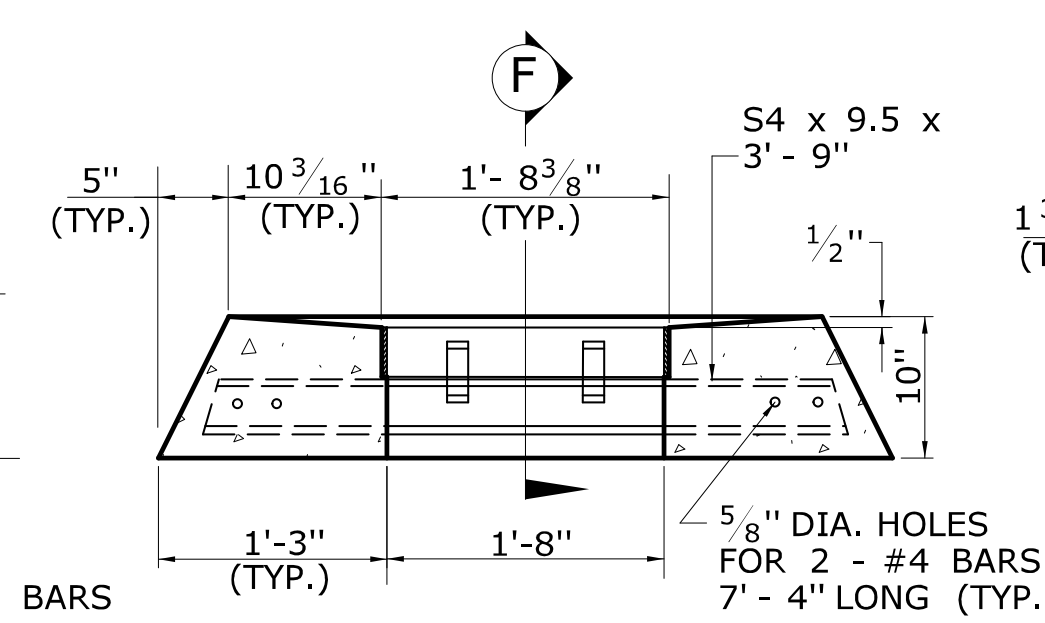


CROSS SECTION

TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE II TOP

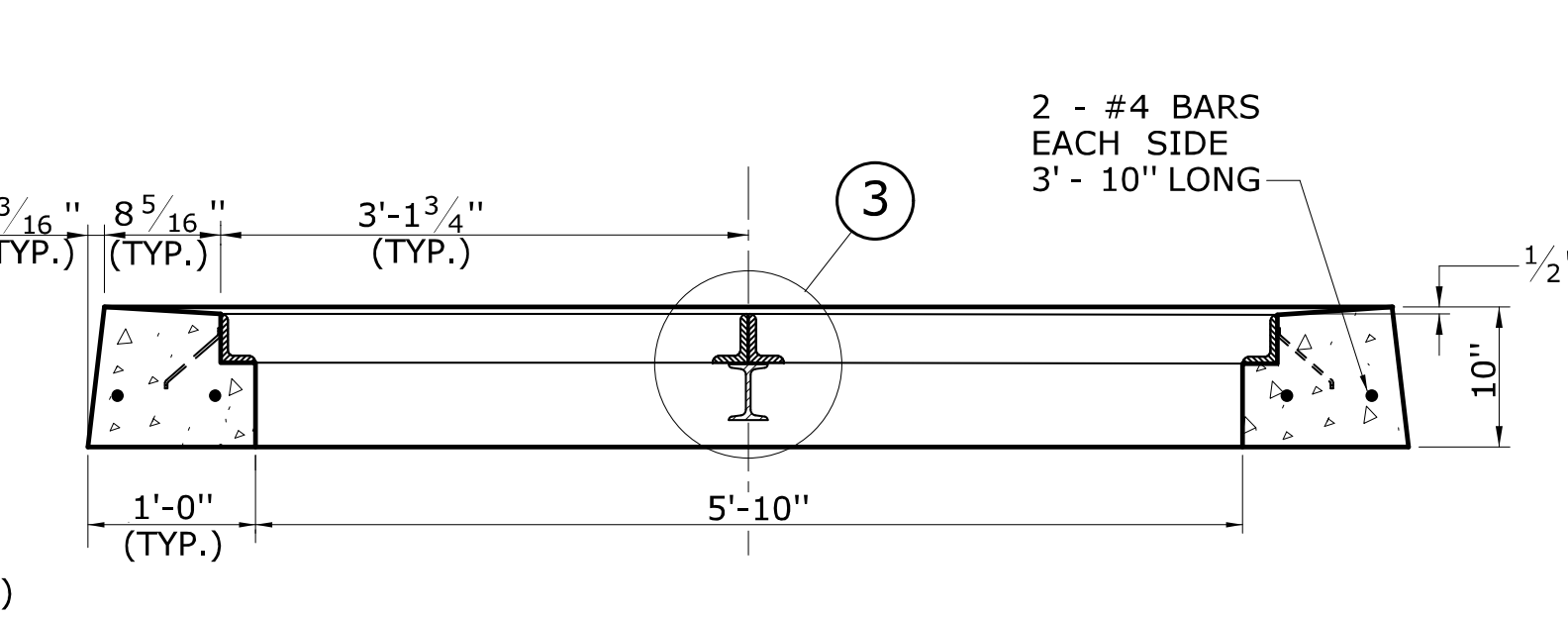


SECTION E

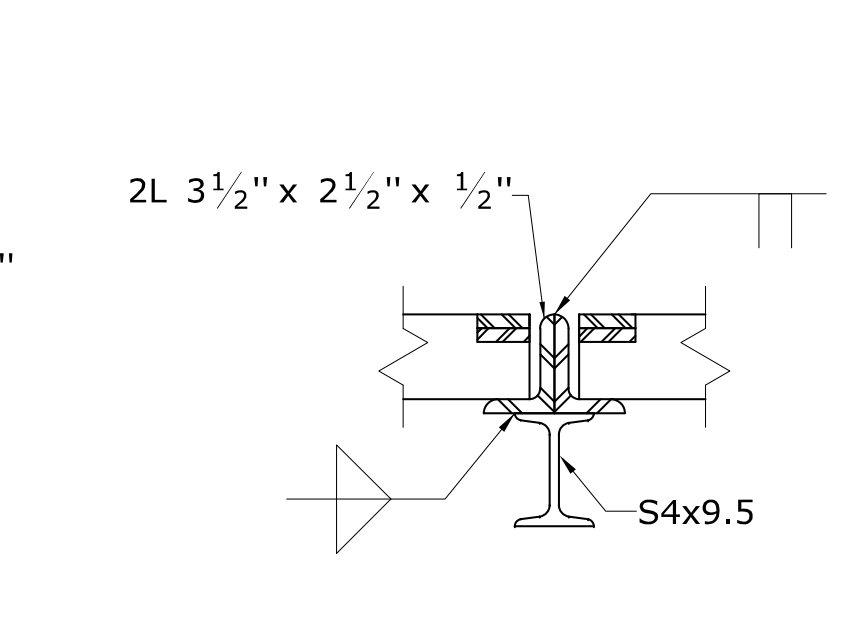


CROSS SECTION

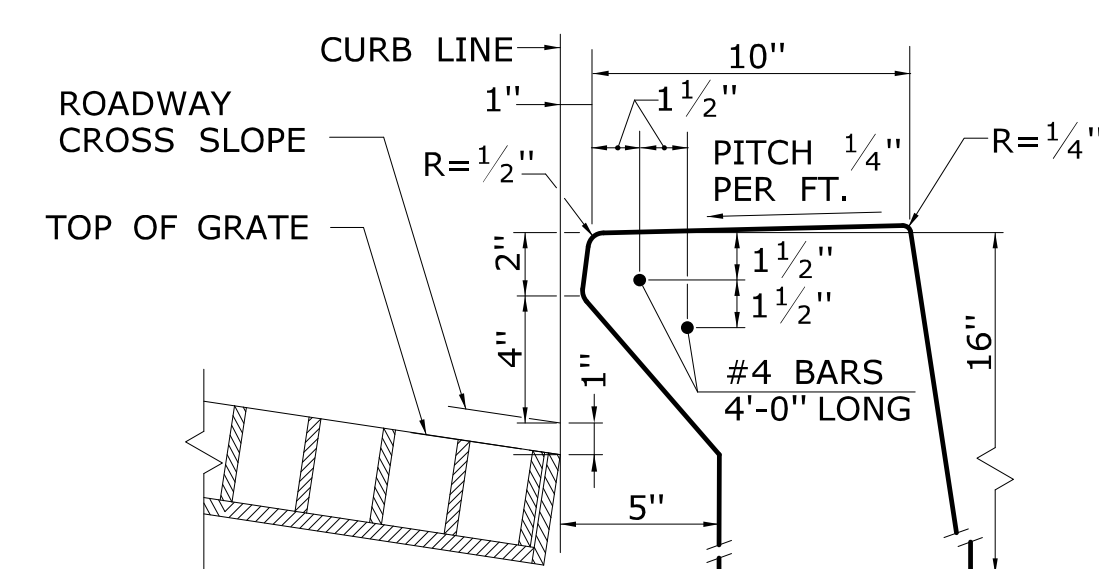
TYPE "C-L" CATCH BASIN DOUBLE GRATE - TYPE II TOP



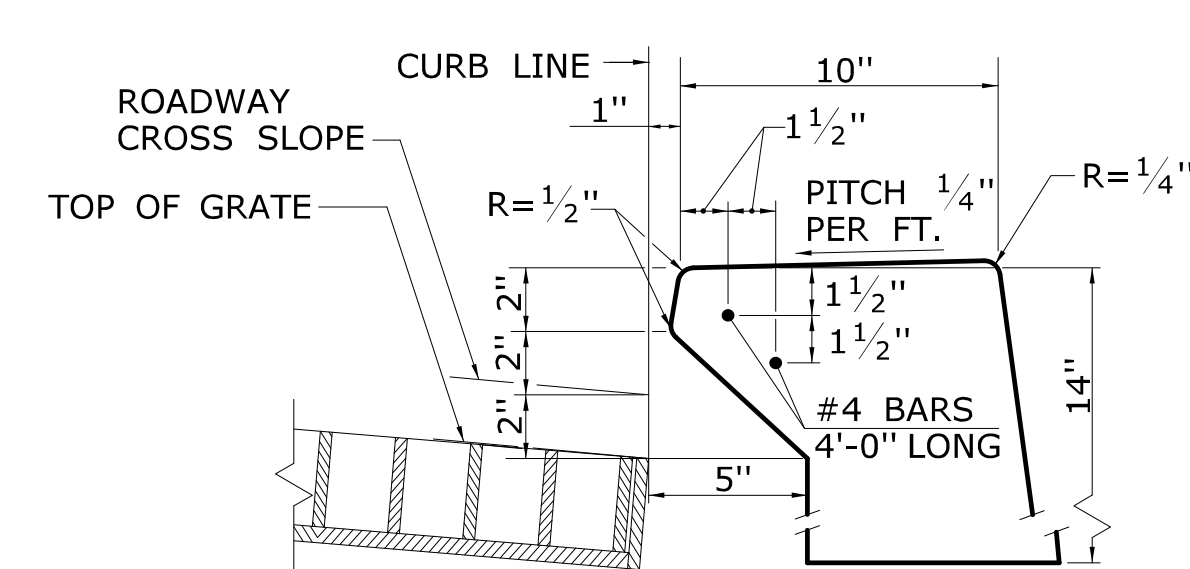
SECTION F



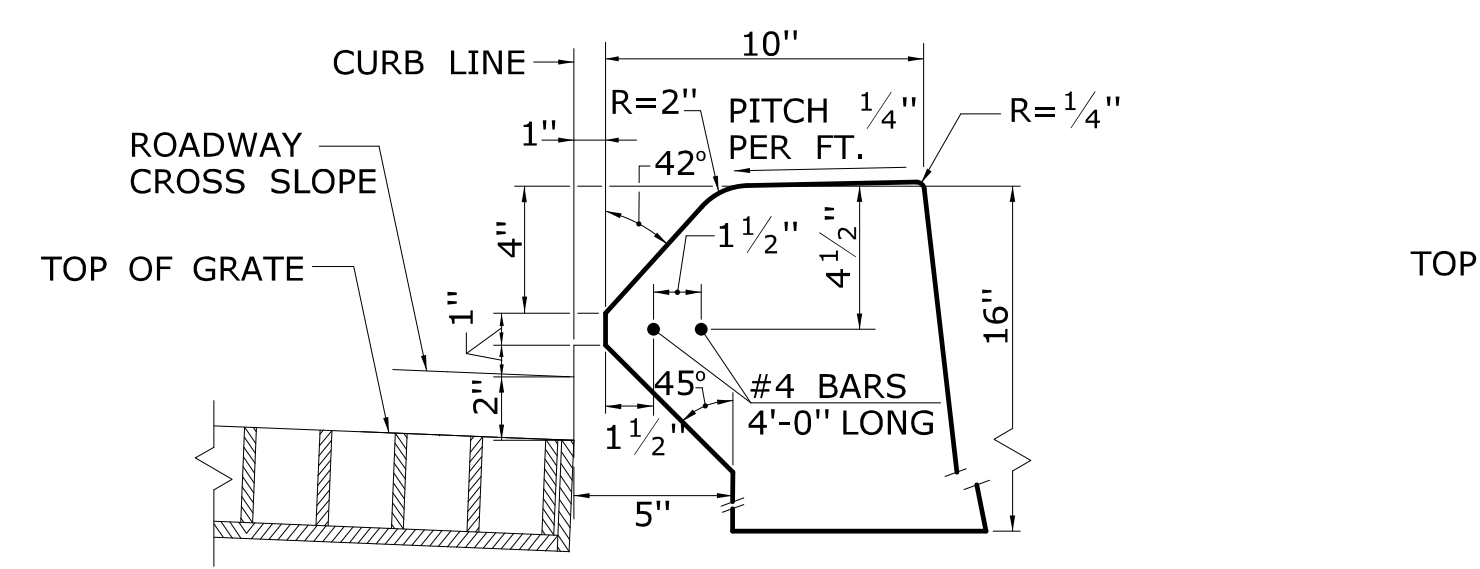
DETAIL "3"



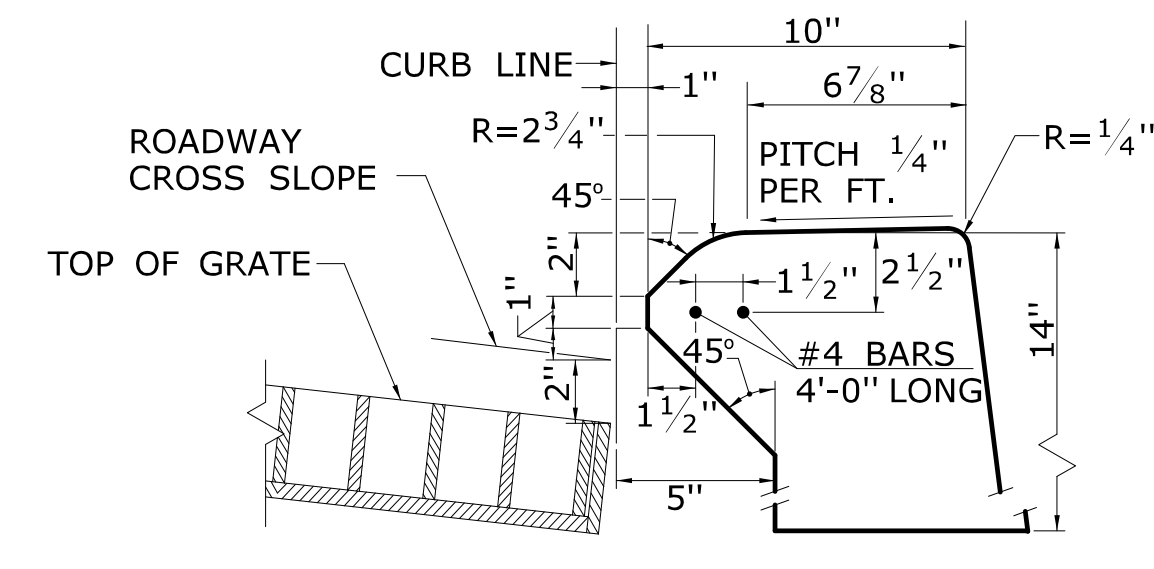
INLET WITH 6" CONCRETE OR
STONE CURBING FOR TYPE "C" CB



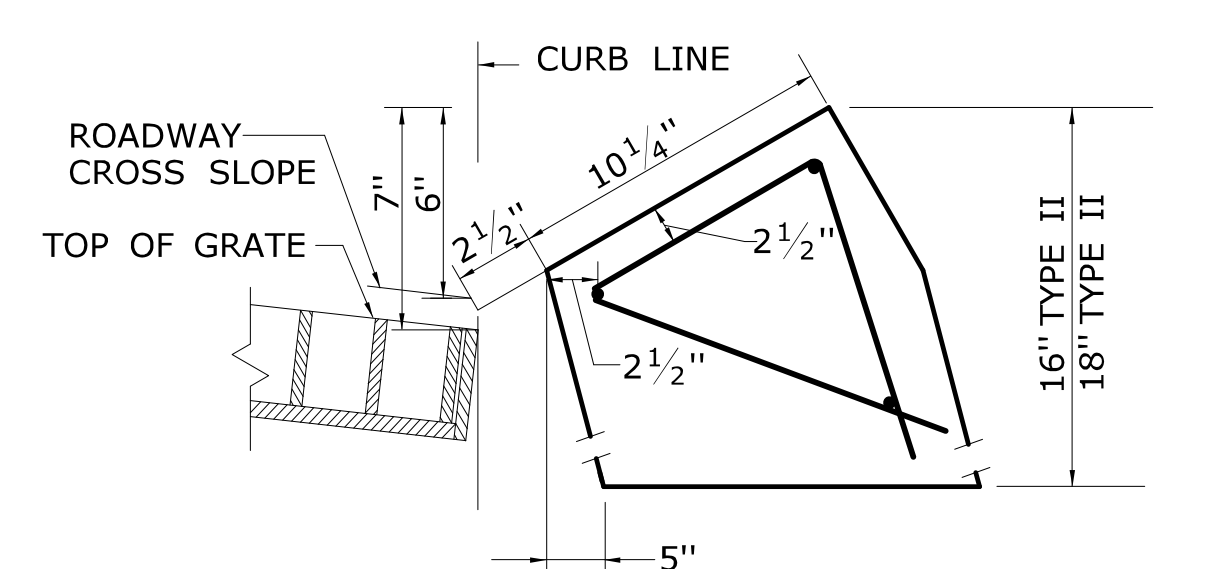
INLET WITH NO CURBING
(PLAIN TYPE) FOR TYPE "C" CB



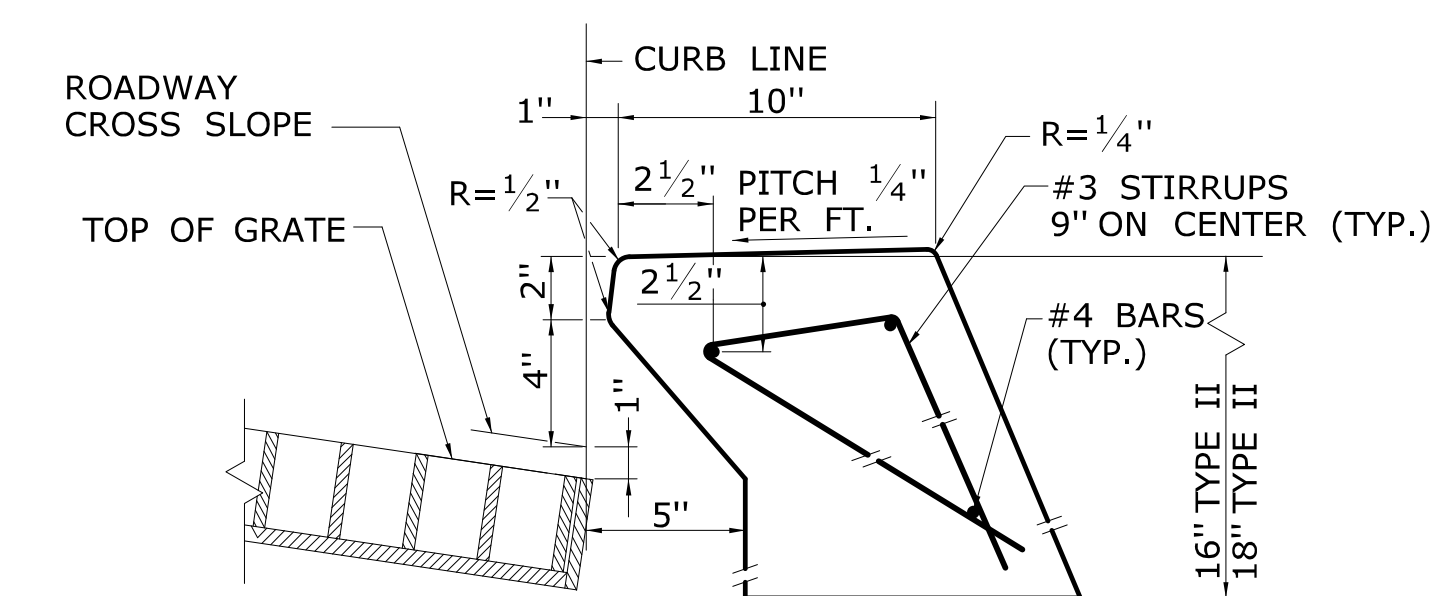
INLET WITH 6" BITUMINOUS
CONCRETE LIP CURBING FOR TYPE "C" CB



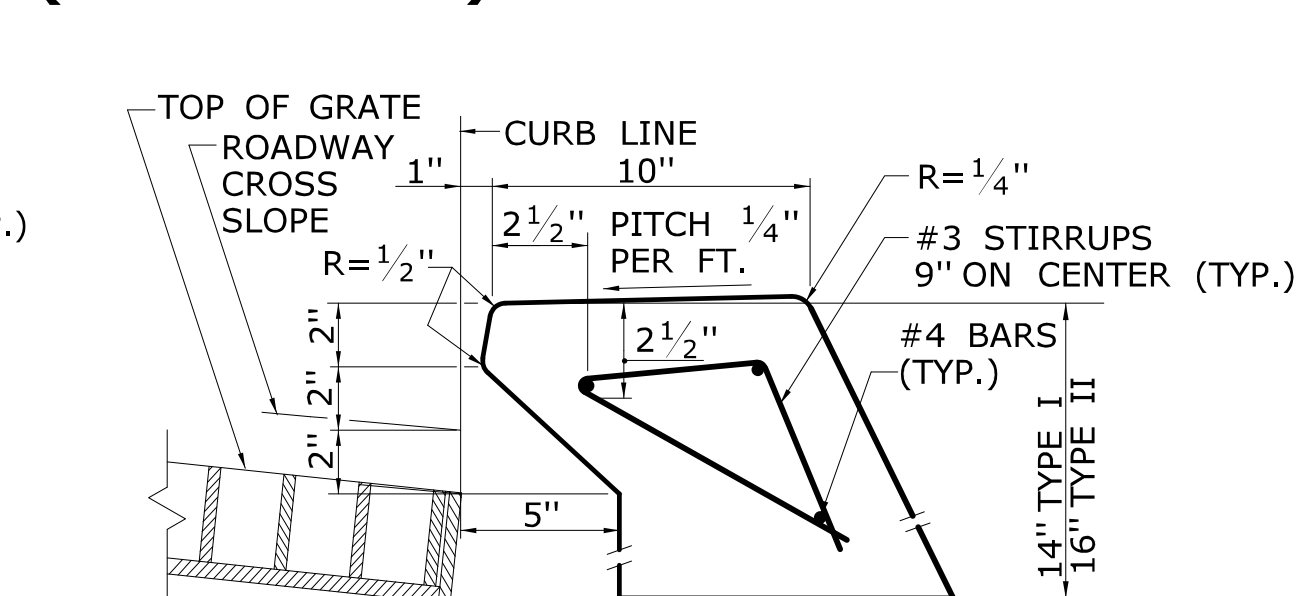
INLET WITH 4" CONCRETE
PARK CURBING FOR TYPE "C" CB



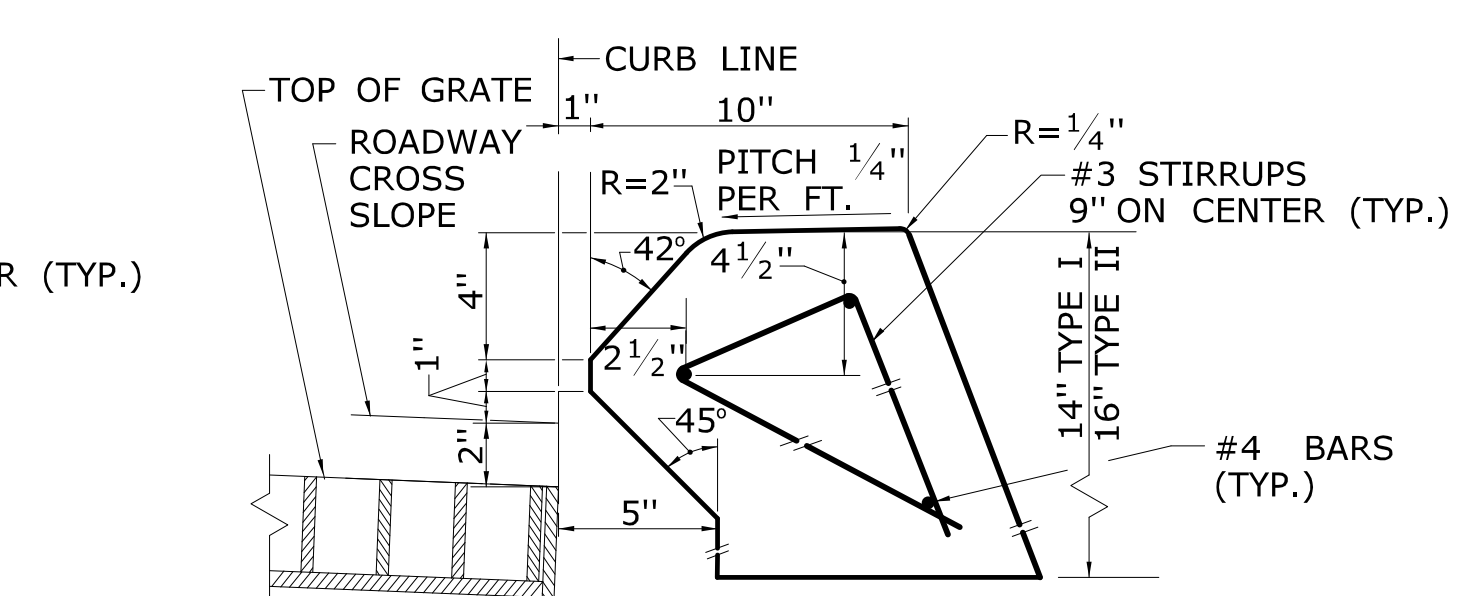
INLET WITH GRANITE
SLOPE CURB FOR TYPE "C" CB



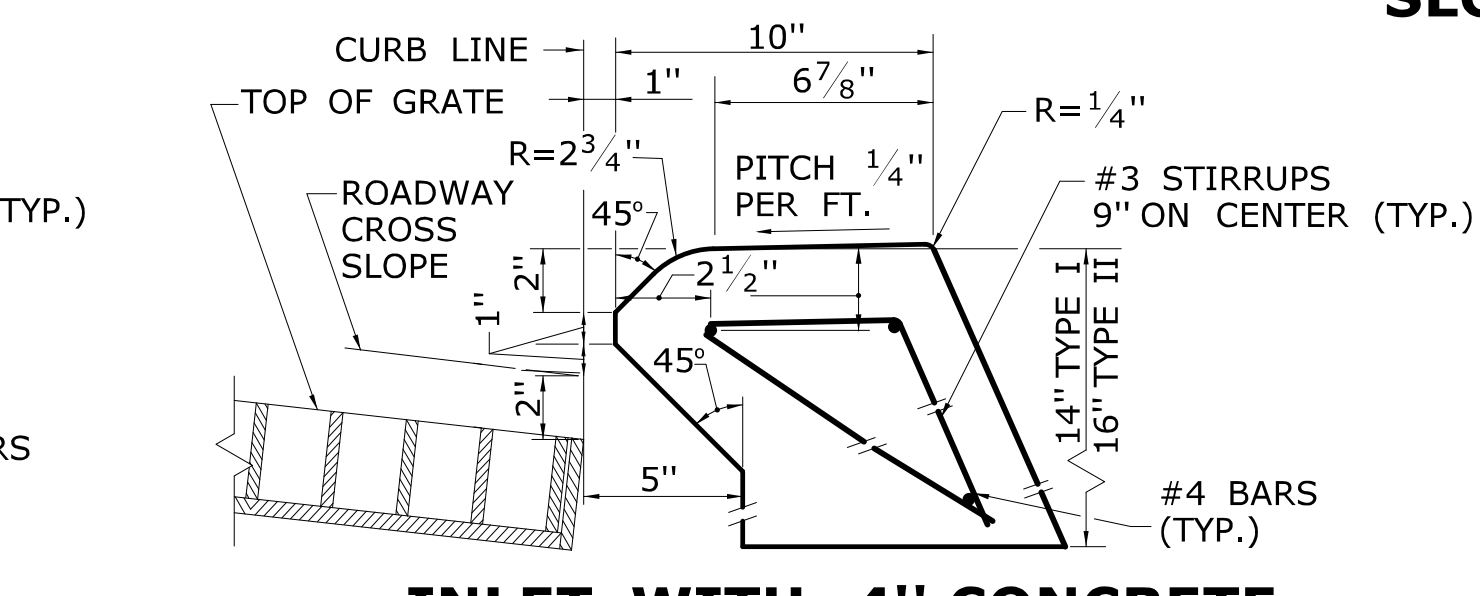
INLET WITH 6" CONCRETE OR
STONE CURBING FOR TYPE "C" CB
DOUBLE GRATE TYPE I & II



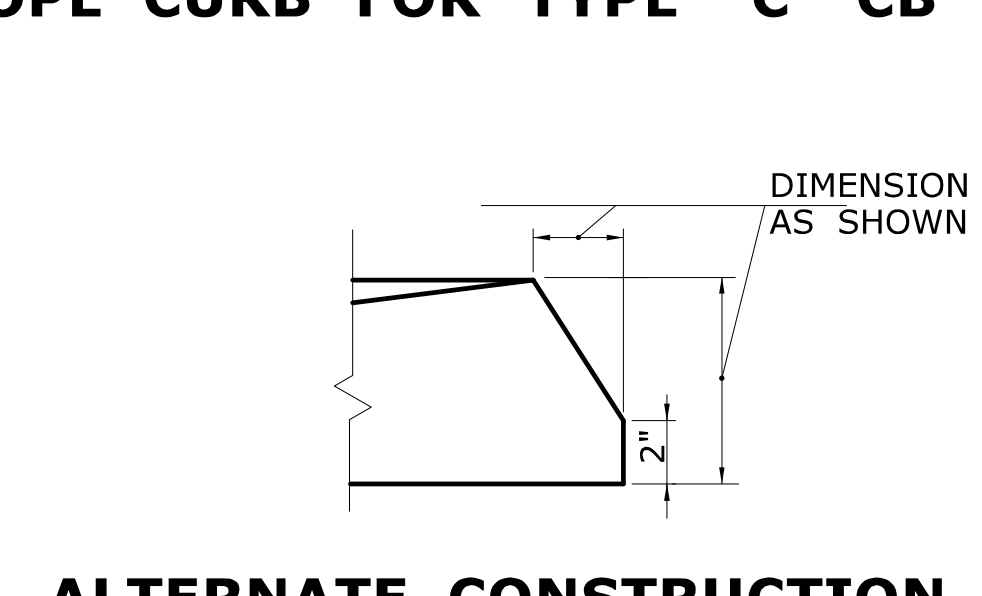
INLET WITH NO CURBING
(PLAIN TYPE) FOR TYPE "C" CB
DOUBLE GRATE TYPE I & II



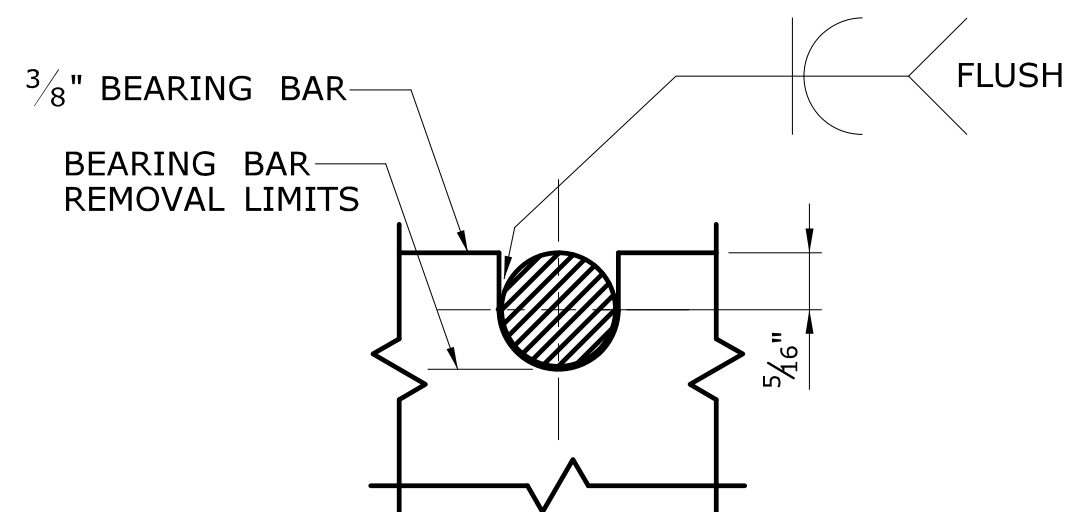
INLET WITH 6" BITUMINOUS
CONCRETE LIP CURBING FOR TYPE "C" CB
DOUBLE GRATE TYPE I & II



INLET WITH 4" CONCRETE
PARK CURBING FOR TYPE "C" CB
DOUBLE GRATE TYPE I & II

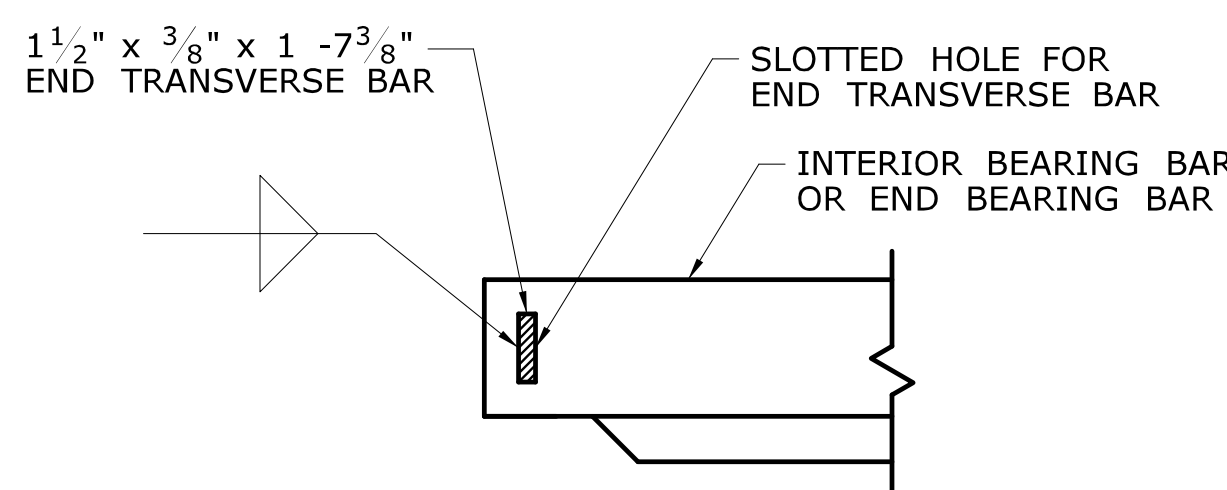


ALTERNATE CONSTRUCTION
OF TYPE II TOP

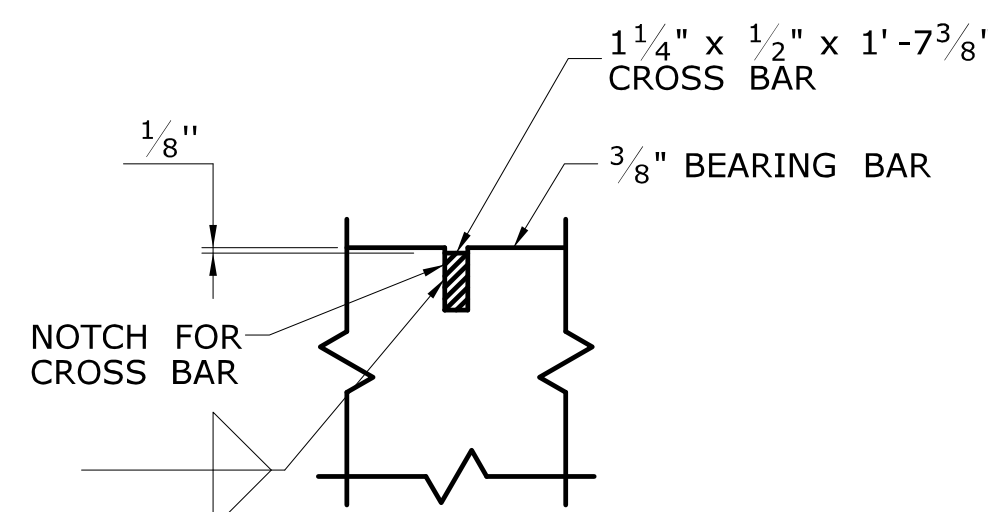


NOTE:
5/8" DIA. ROUND BAR SHALL CONTACT BEARING BAR AT BOTTOM AND BE FLUSH AT TOP.

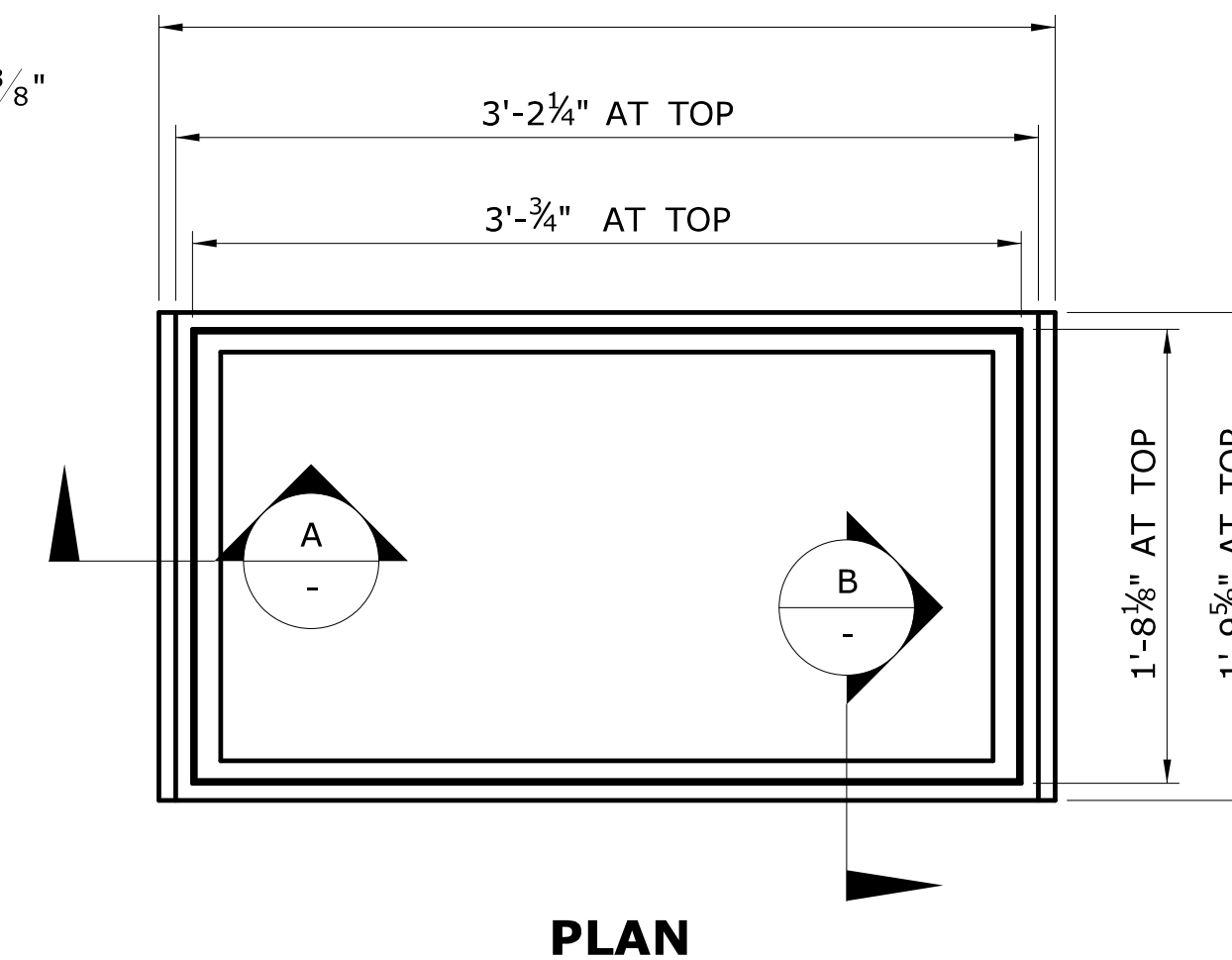
**ROUND BAR ATTACHMENT
CATCH BASIN GRATE TYPE A**



**END TRANSVERSE BAR ATTACHMENT
CATCH BASIN GRATE TYPE A AND B**



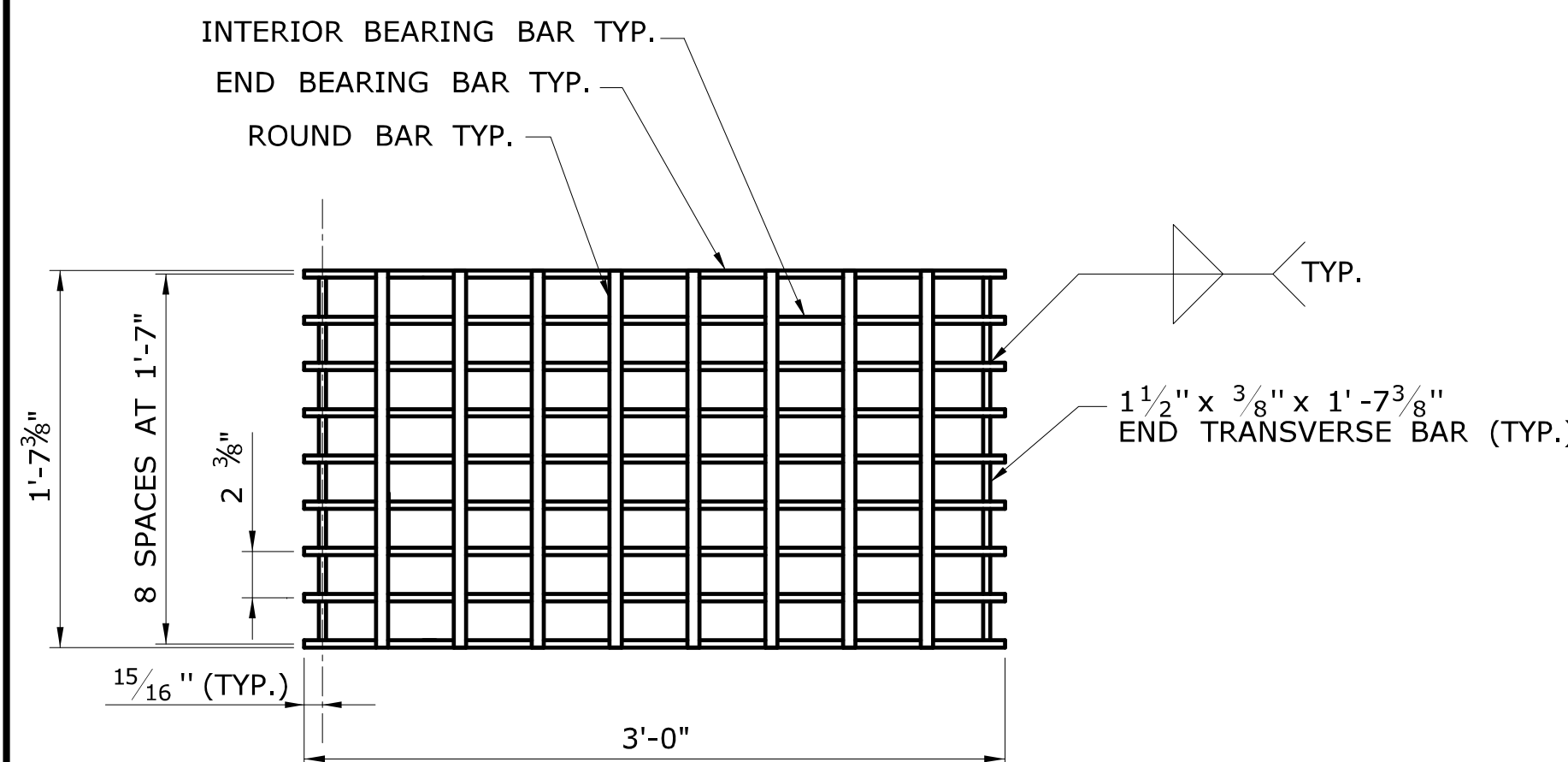
**CROSS BAR ATTACHMENT
CATCH BASIN GRATE TYPE B**



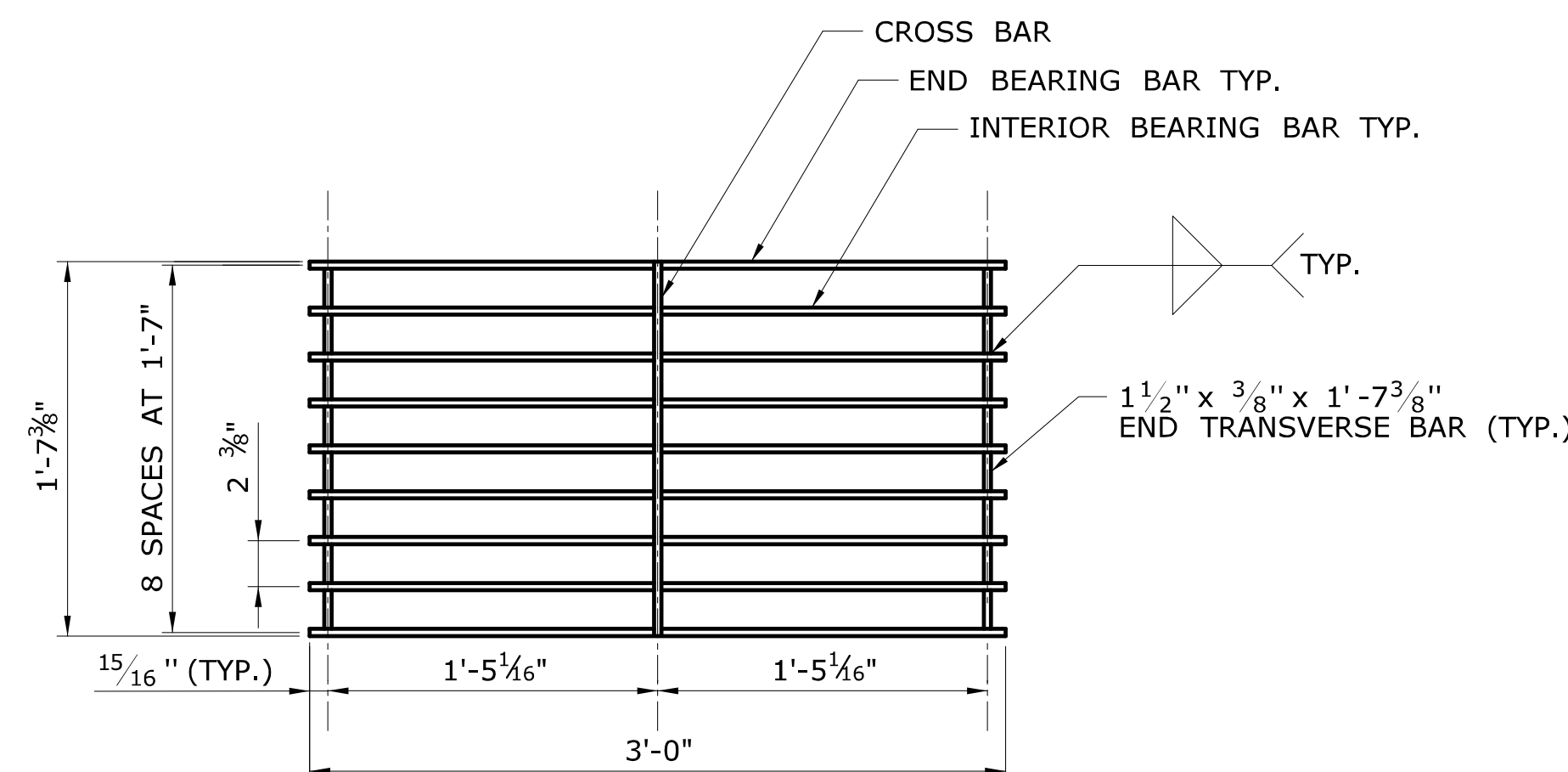
PLAN

GENERAL NOTES:

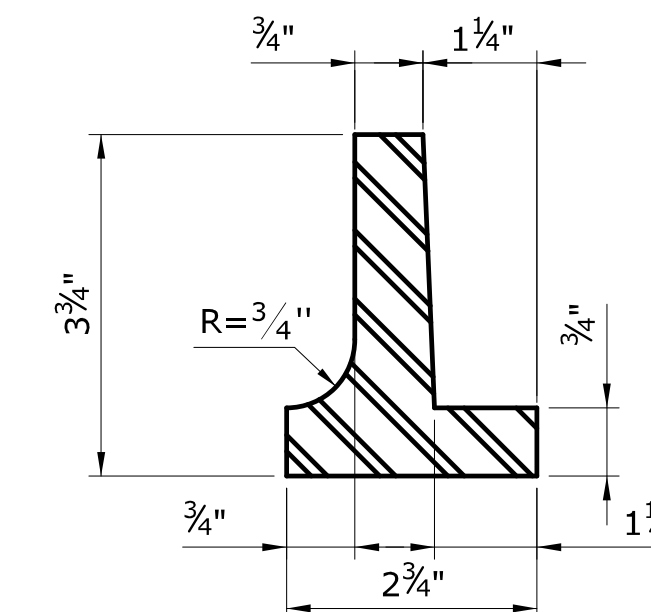
1. STEEL OR CAST IRON SHALL BE USED FOR FRAMES. STEEL SHALL BE USED FOR TYPE "A" AND "B" GRATES.
2. TYPE "A" GRATES SHALL BE USED ON ALL ROADWAYS WHERE BICYCLE TRAFFIC IS ALLOWED OR ON HEAVY DUTY LOCK DOWN TOPS AS DIRECTED BY THE ENGINEER.
3. TYPE "B" GRATES SHALL BE USED ON ALL LIMITED ACCESS HIGHWAYS, RAMP AND WHERE BICYCLE TRAFFIC IS NOT ALLOWED OR AS DIRECTED BY THE ENGINEER.
4. DO NOT GALVANIZE CAST IRON FRAMES.
5. DIMENSIONAL TOLERANCES SHALL BE $\pm 1/16$ INCH.
6. ALL STEEL BARS SHALL BE WELDED AT ALL INTERSECTIONS.



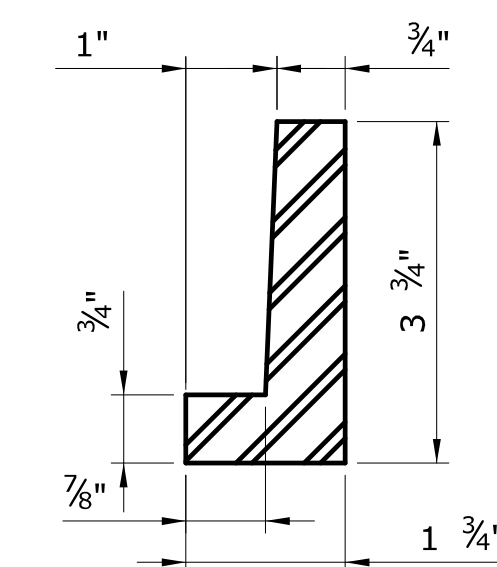
PLAN



PLAN

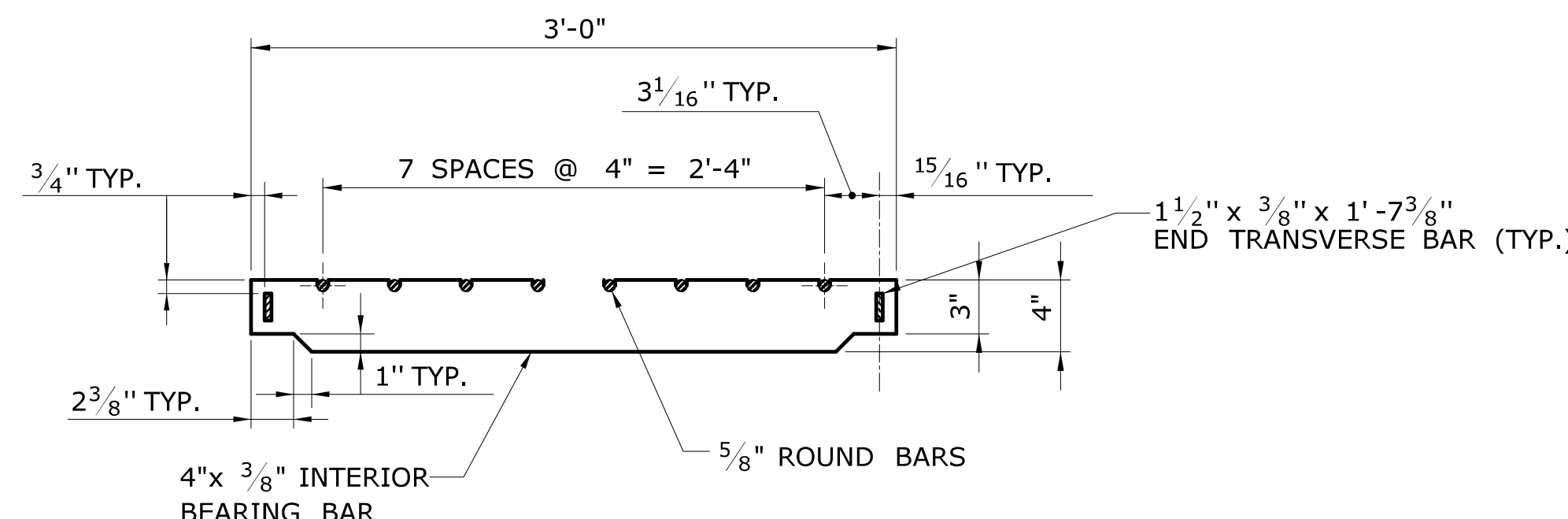


SECTION A

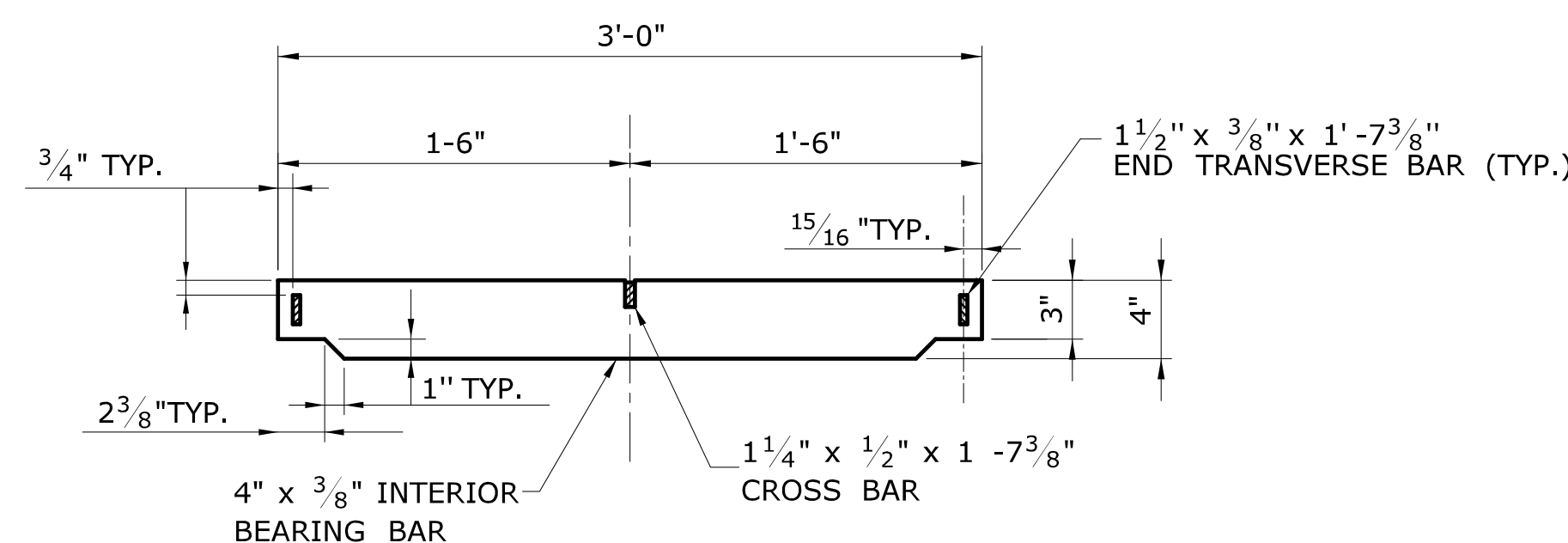


SECTION B

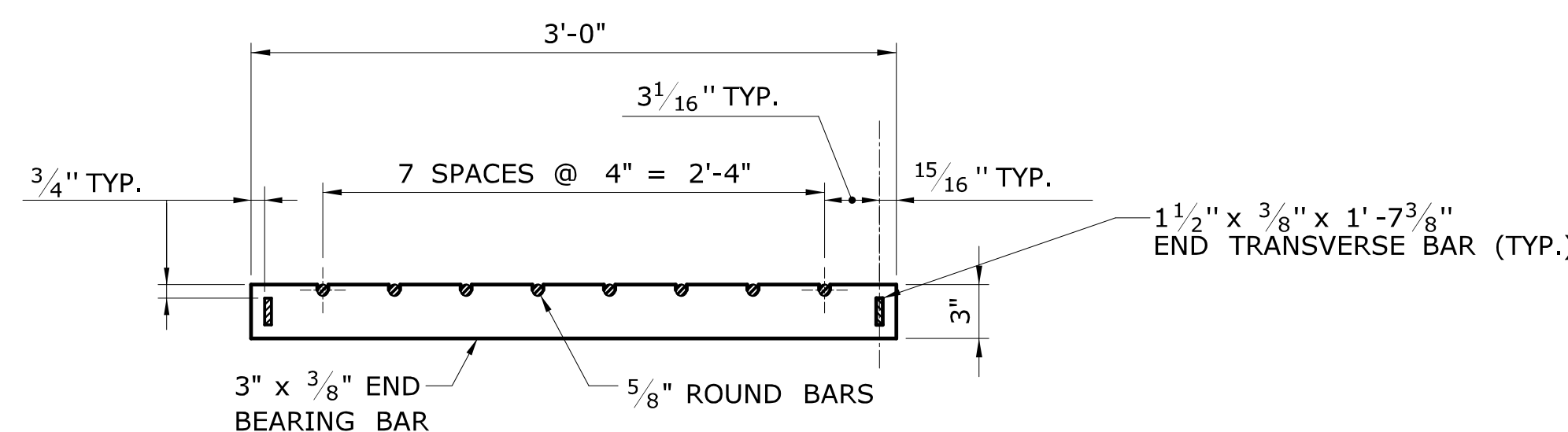
CAST IRON FRAME ALTERNATE



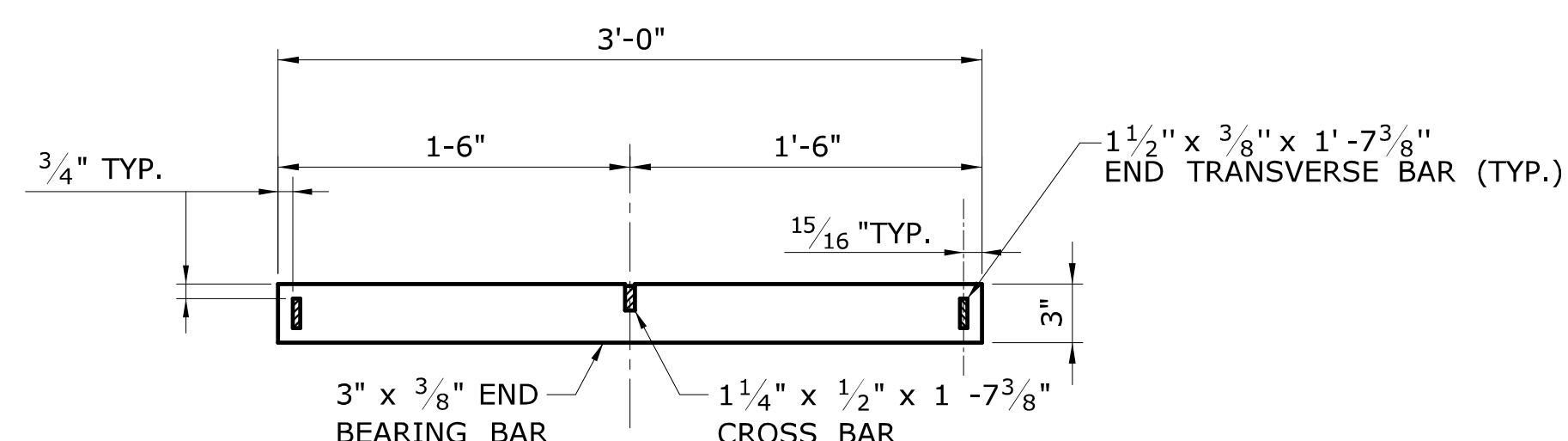
ELEVATION- INTERIOR BEARING BAR



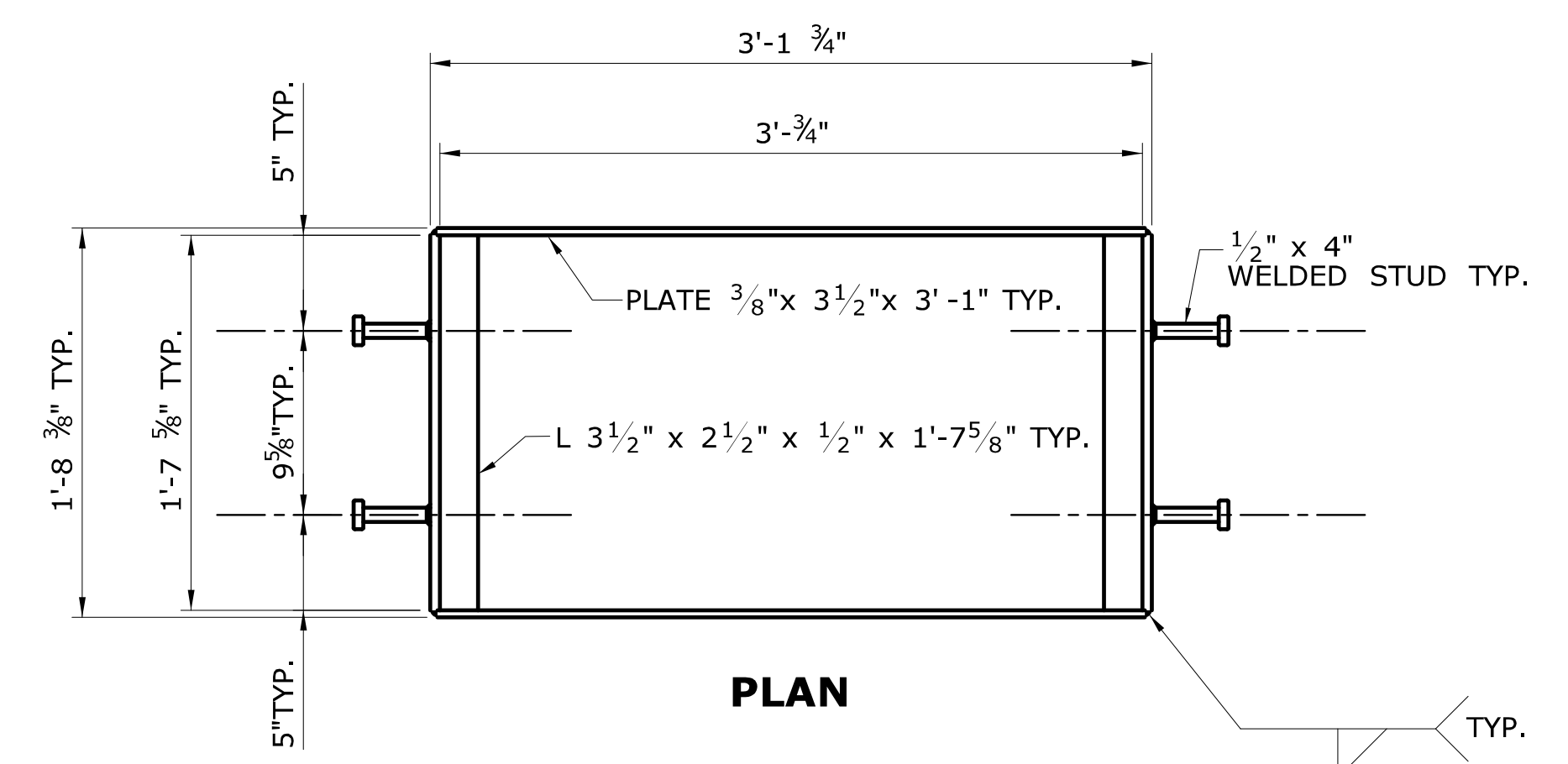
ELEVATION- INTERIOR BEARING BAR



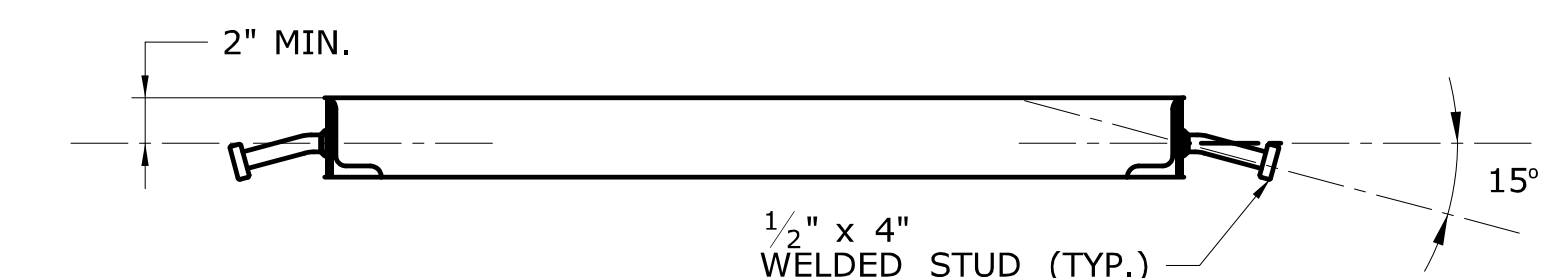
**ELEVATION- END BEARING BAR
CATCH BASIN GRATE TYPE A**



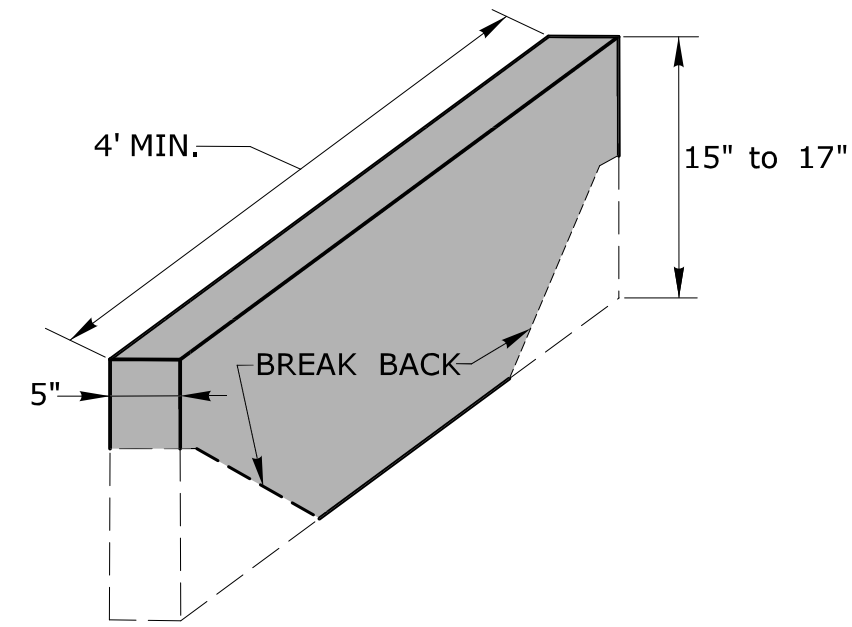
**ELEVATION- END BEARING BAR
CATCH BASIN GRATE TYPE B**



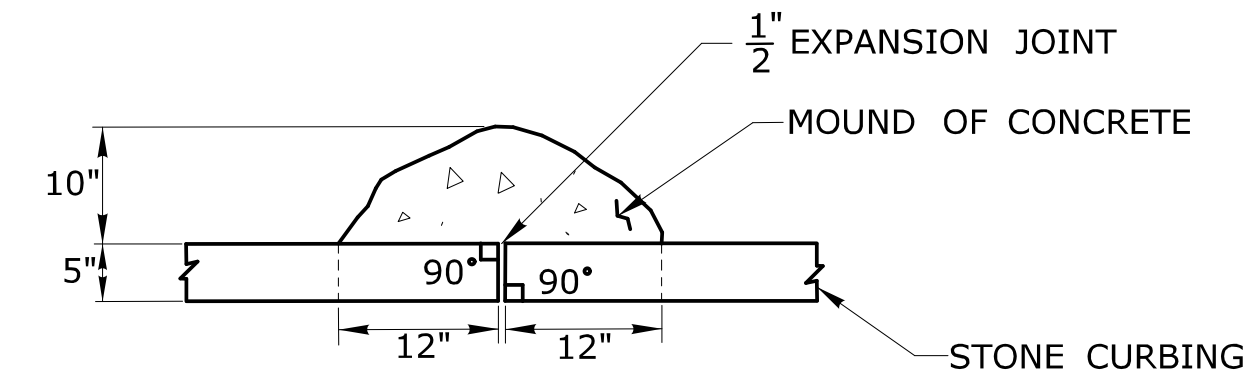
PLAN



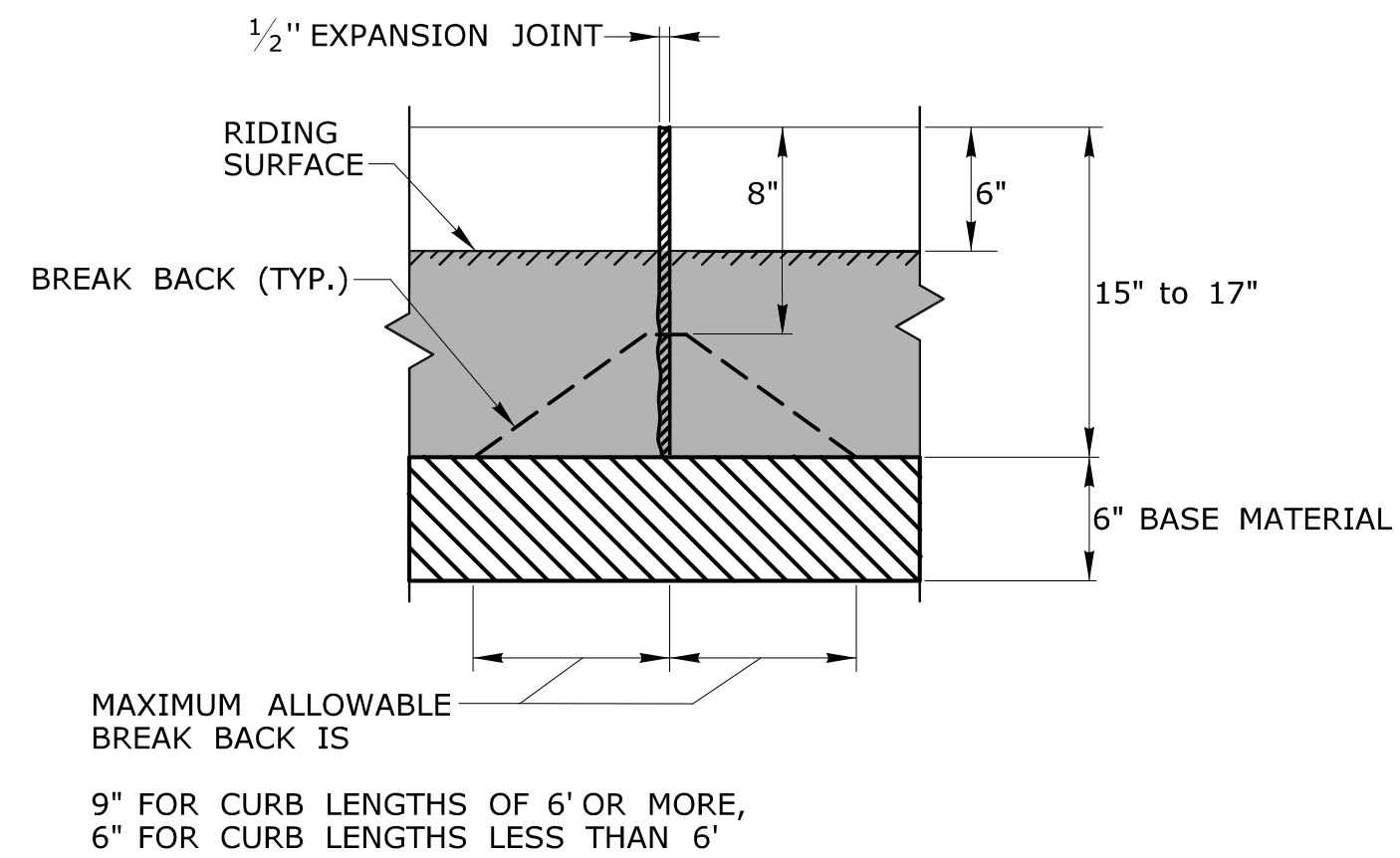
**WELDED STUD ANCHOR DETAILS
STEEL FRAME**



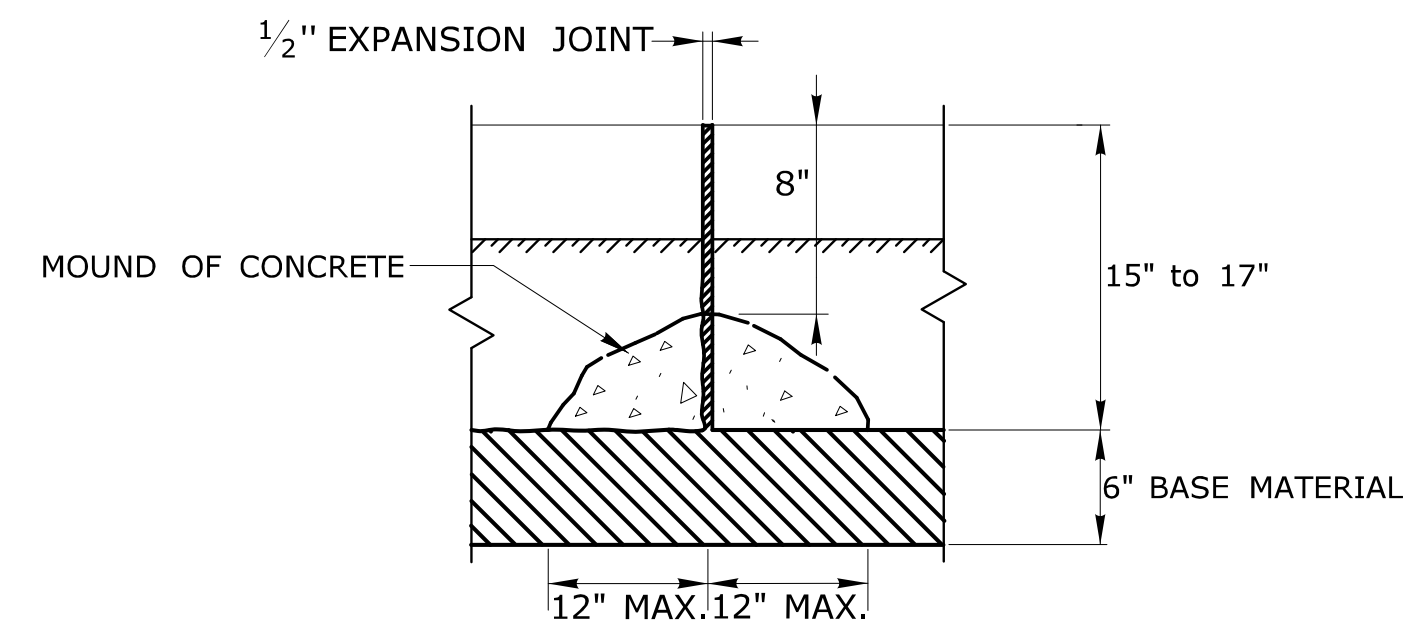
STONE CURBING



PLAN

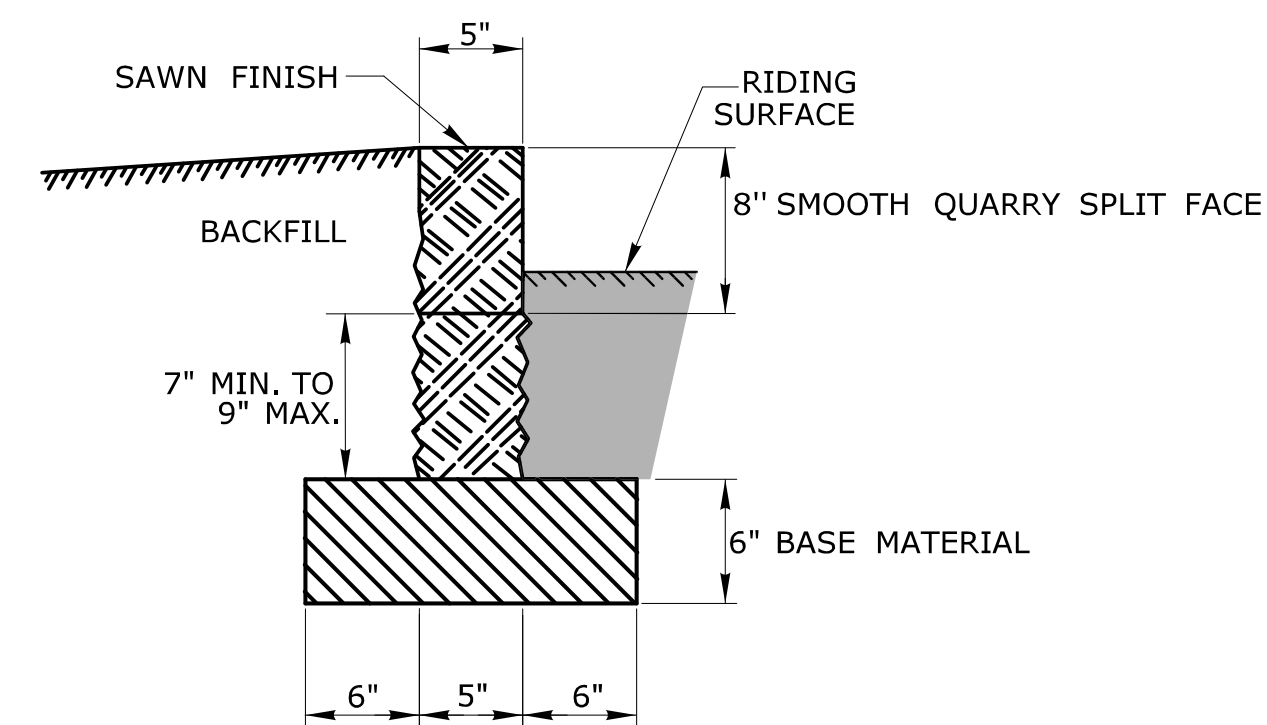


FRONT
ELEVATION



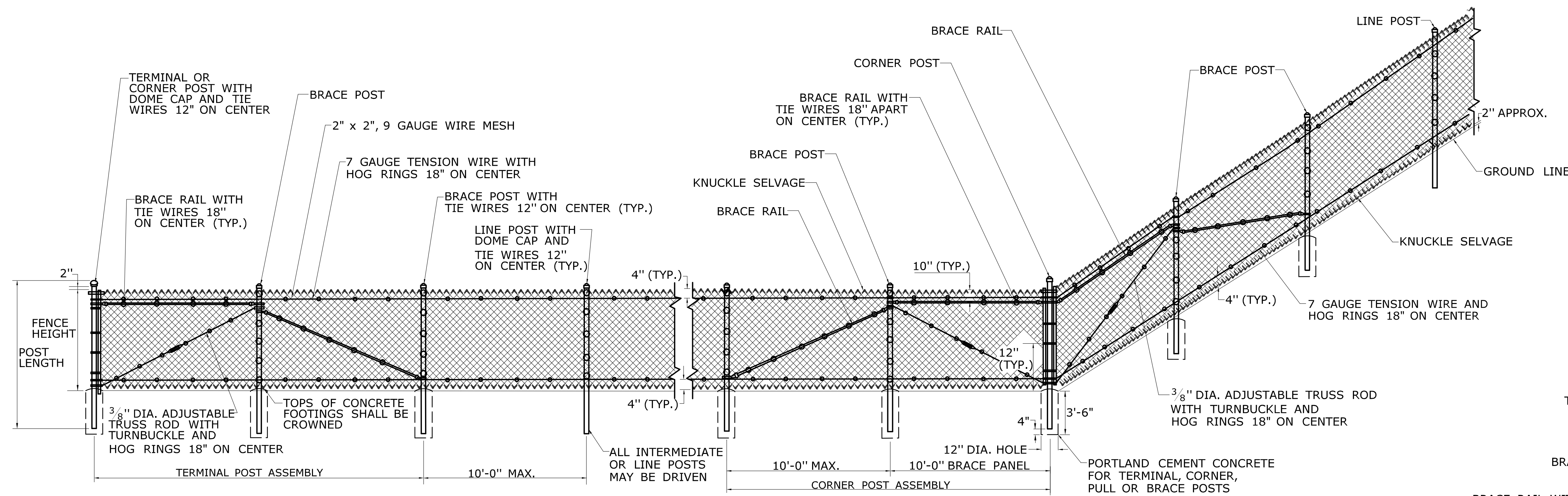
BACK
ELEVATION

MOUND OF CONCRETE AT ALL JOINTS
FOR STONE CURBING

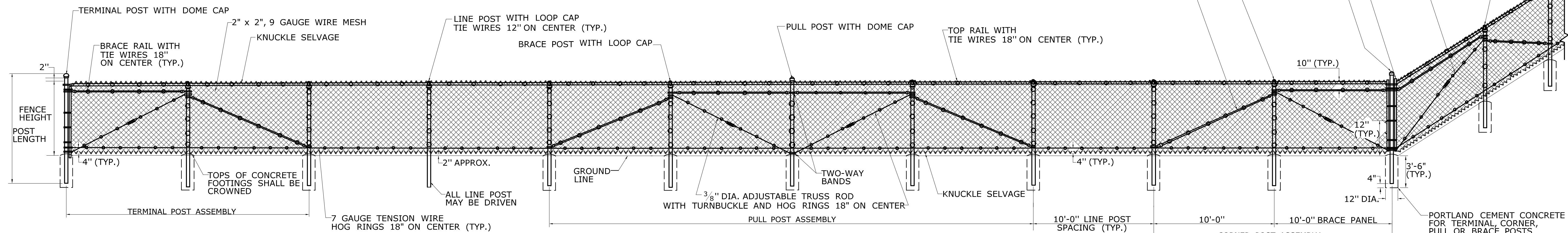


SECTION

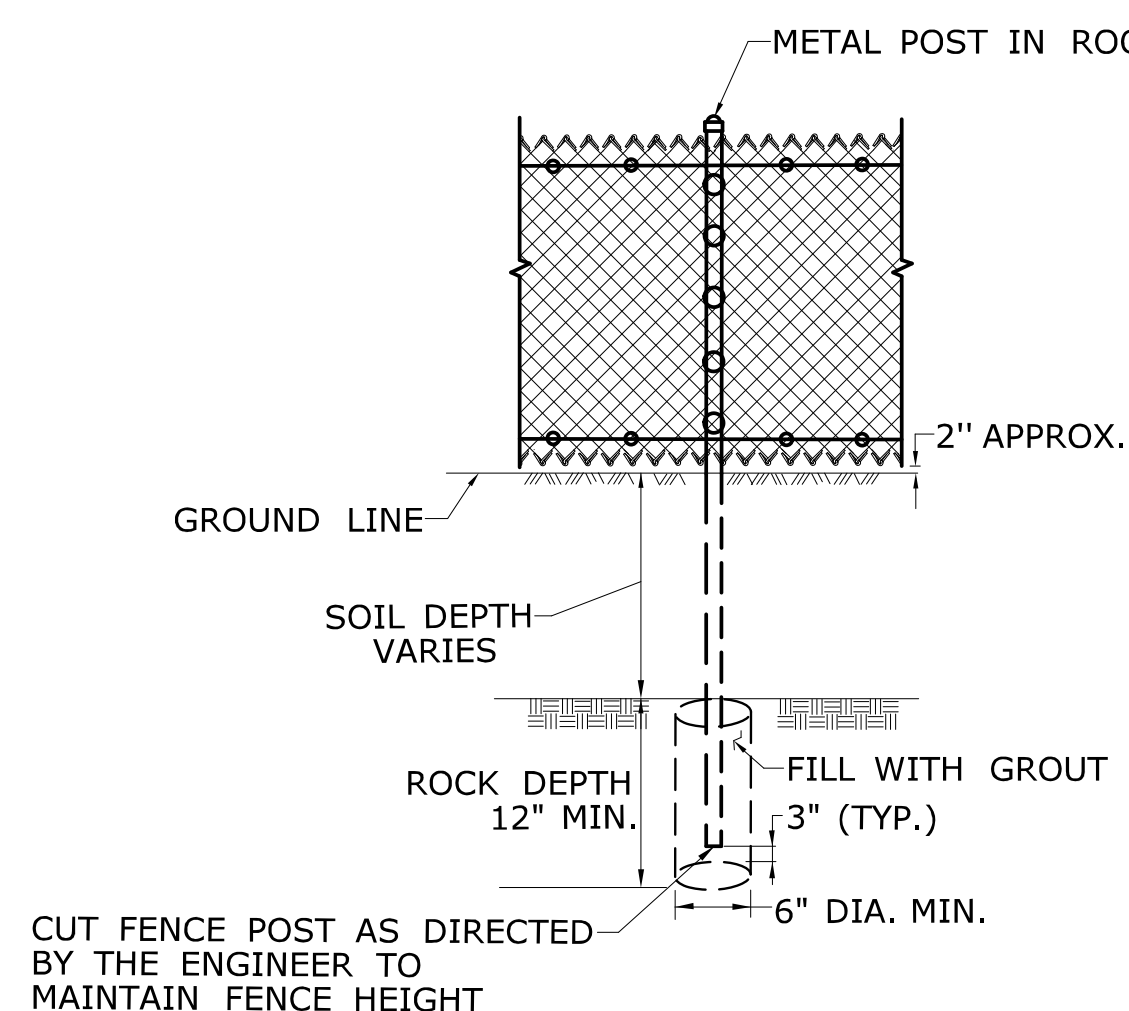
	NOT TO SCALE ###	SIGNATURE BLOCK: OFFICE OF ENGINEERING 2800 BERLIN TURNPIKE NEWINGTON, CT 06111	SUBMITTED BY: Leo Fontaine, P.E. 2020.07.08 09:33:33-04'00'	APPROVED BY: James Fallon, P.E. 2020.07.08 09:33:33-04'00'	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	CTDOT STANDARD SHEET	STANDARD SHEET TITLE: STONE CURBING	STANDARD SHEET NO.: HW-813_02



CHAIN LINK FENCE WITH TOP TENSION WIRE



CHAIN LINK FENCE WITH TOP BRACE RAIL AND INTERMEDIATE OR BOTTOM TENSION WIRE

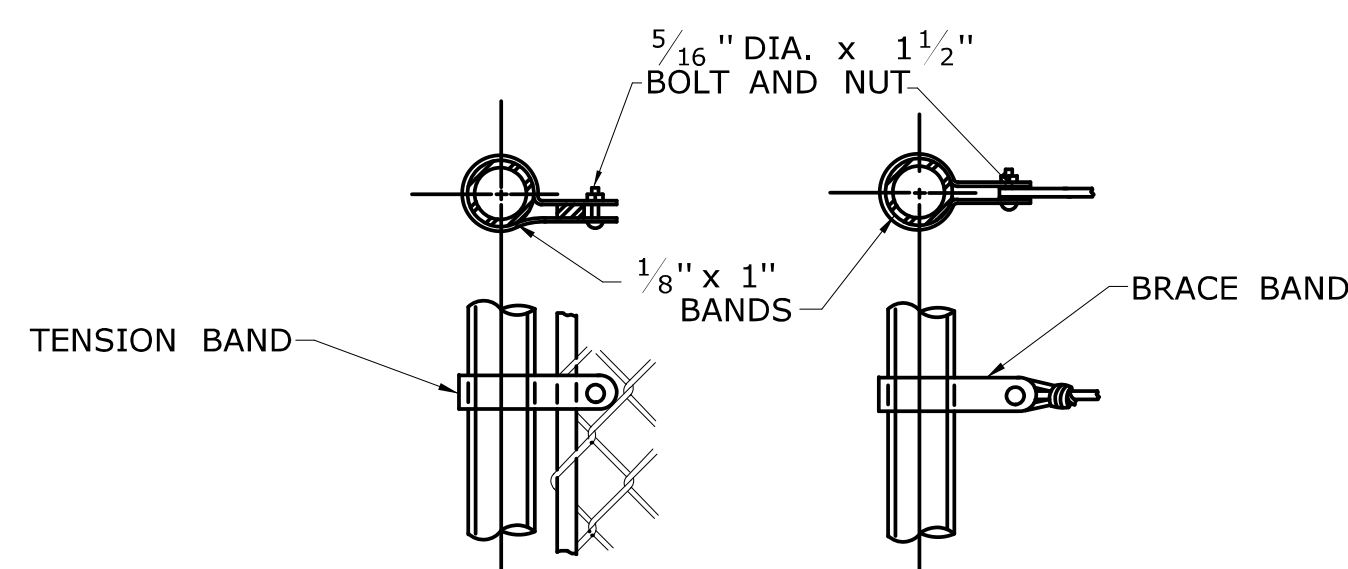


METAL POST IN ROCK

GENERAL NOTES:

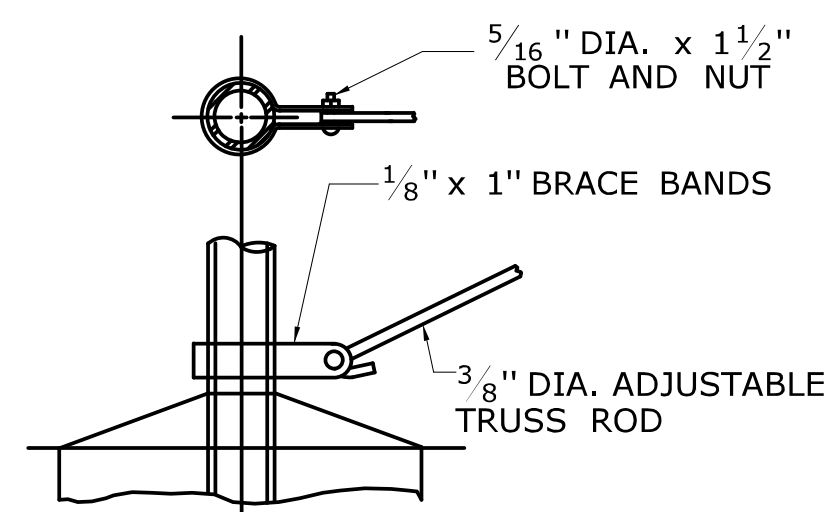
1. INSTALL PULL POST ASSEMBLIES AT ALL CHANGES IN VERTICAL TO HORIZONTAL OF 10 DEGREES OR MORE.
2. ALL POSTS WILL BE CAPPED.
3. WHERE ROCK IS ENCOUNTERED, IT SHALL BE DRILLED AND THE POSTS SET IN MORTAR.
4. FENCE SHALL BE PLACED WITH FABRIC FACING OUTSIDE HIGHWAY RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER.
5. SEE HW-913.01b FOR CHAIN LINK FENCE HARDWARE.

FENCE FABRIC HEIGHT	GROUP 1A ASTM F1083 SCH. 40 PIPE 50,000 PSI DIAMETER	GROUP 1C ASTM F1043 ELEC. RESISTANCE WELDED PIPE 50,000 PSI DIAMETER
LINE OR INTERMEDIATE POST		
UP TO 5'-0"	1 7/8"	1 7/8"
6'-0" TO 7'-0"	2 3/8"	2 3/8"
8'-0" TO 9'-0"	2 7/8"	2 7/8"
10'-0"	3 1/2"	3 1/2"
12'-0" OR HIGHER	4"	4"
TERMINAL, CORNER OR PULL POST		
UP TO 5'-0"	2 3/8"	2 3/8"
6'-0" TO 7'-0"	2 7/8"	2 7/8"
8'-0" TO 9'-0"	3 1/2"	3 1/2"
10'-0" OR HIGHER	4"	4"
TOP OR BRACE RAIL POSTS UP TO 6'-0"	1 5/8"	1 5/8"
POSTS HIGHER THAN 6'-0"	1 7/8"	1 7/8"

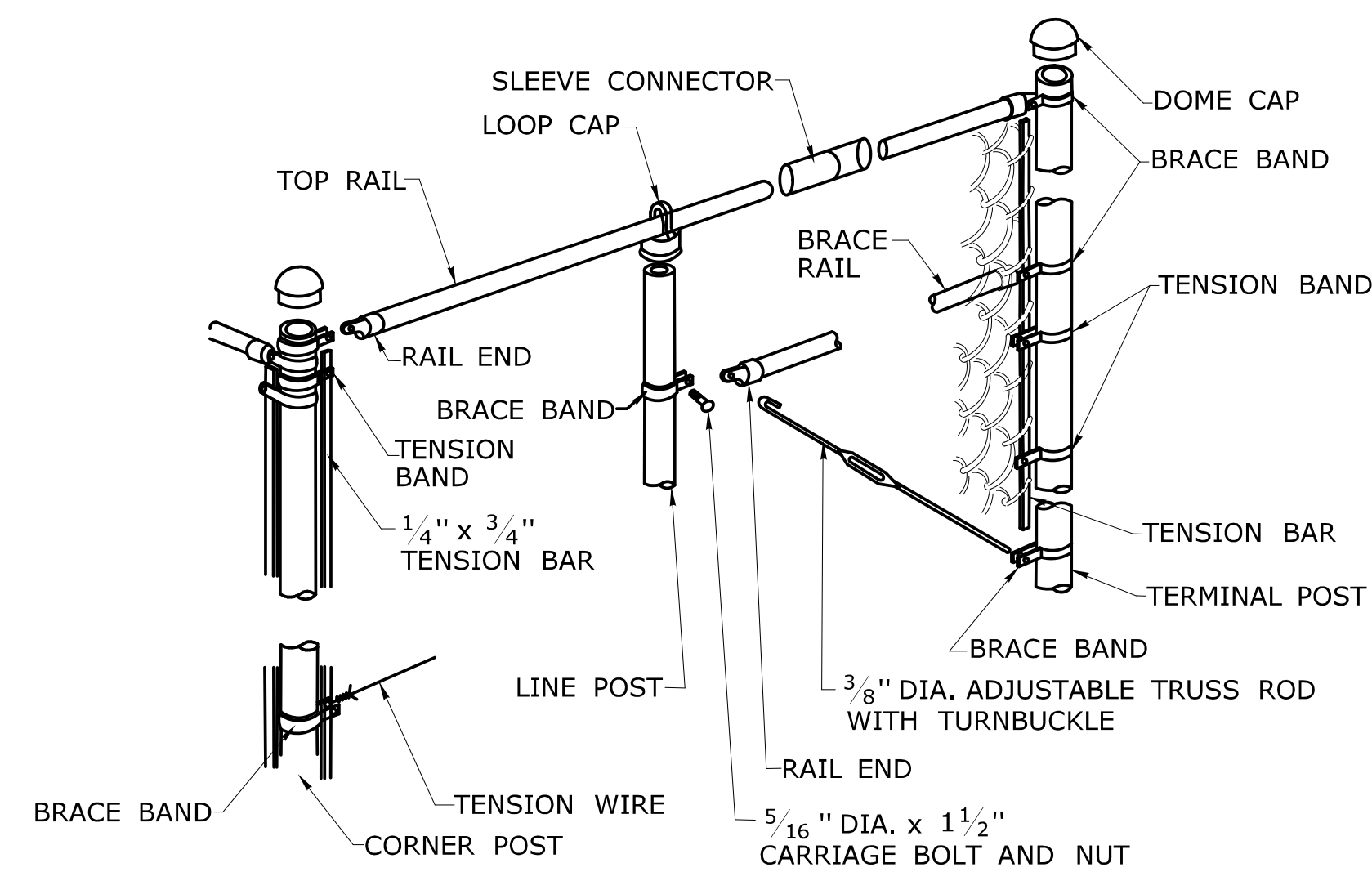


TENSION BAR

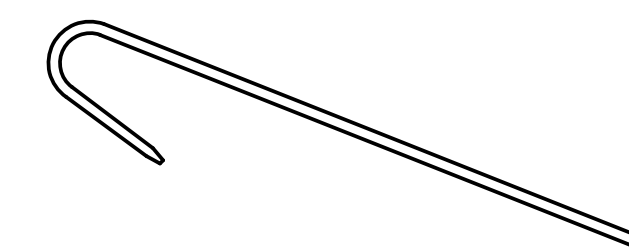
TENSION WIRE



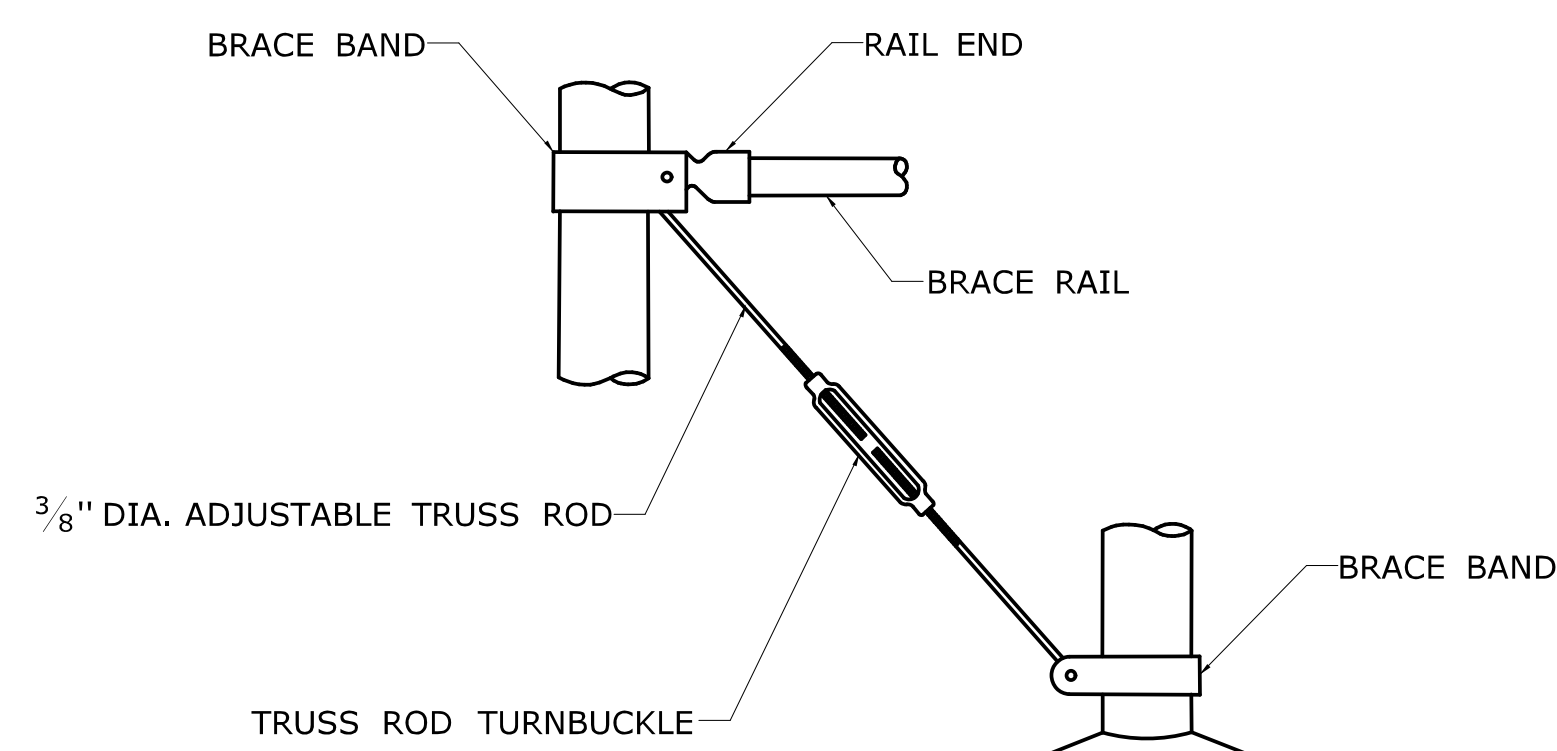
ADJUSTABLE TRUSS ROD



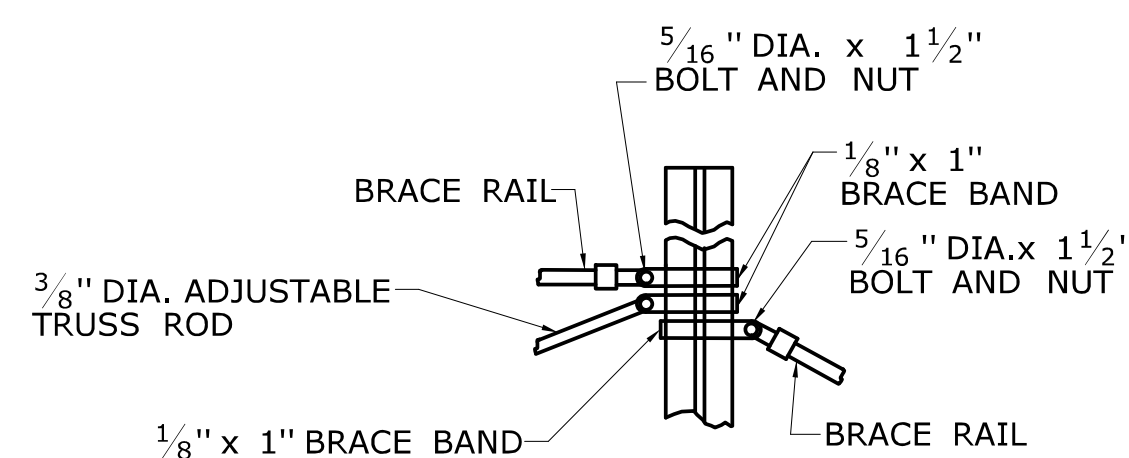
**TOP RAIL / TRUSSED BRACE RAIL
WITH BOTTOM TENSION WIRE**



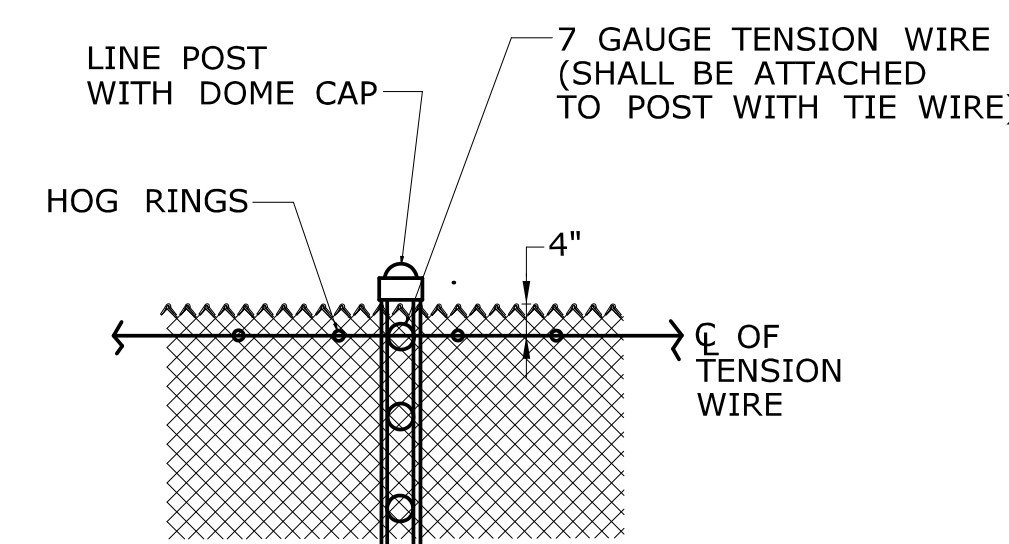
TIE WIRE



BRACE & TRUSS CONNECTIONS



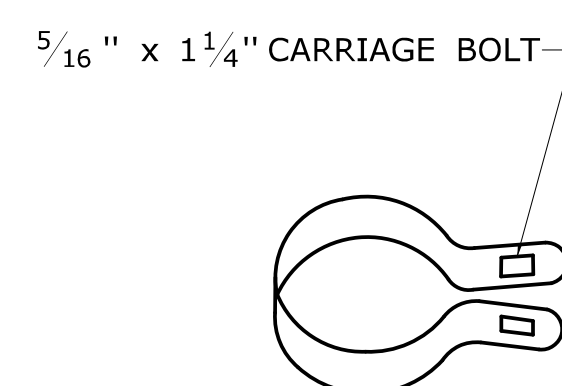
**BRACE RAILS ATTACHMENT
TO LINE POSTS**



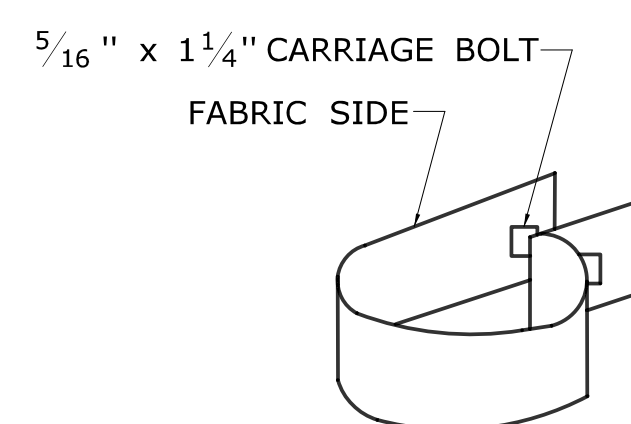
TENSION WIRE



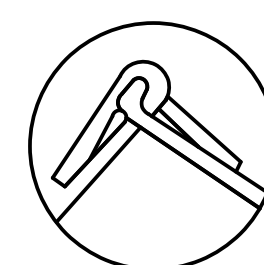
HOG RING



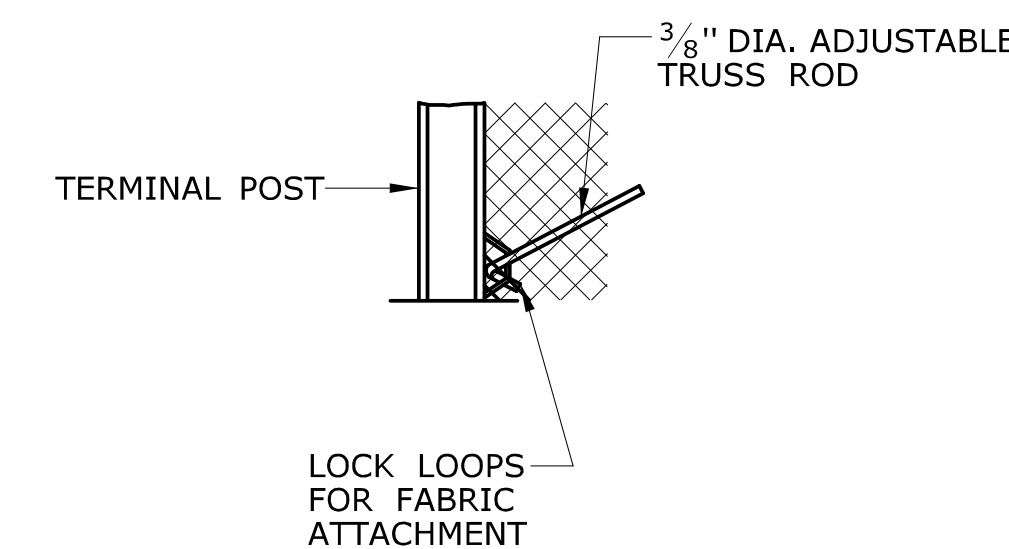
1/8" x 1" BRACE BAND



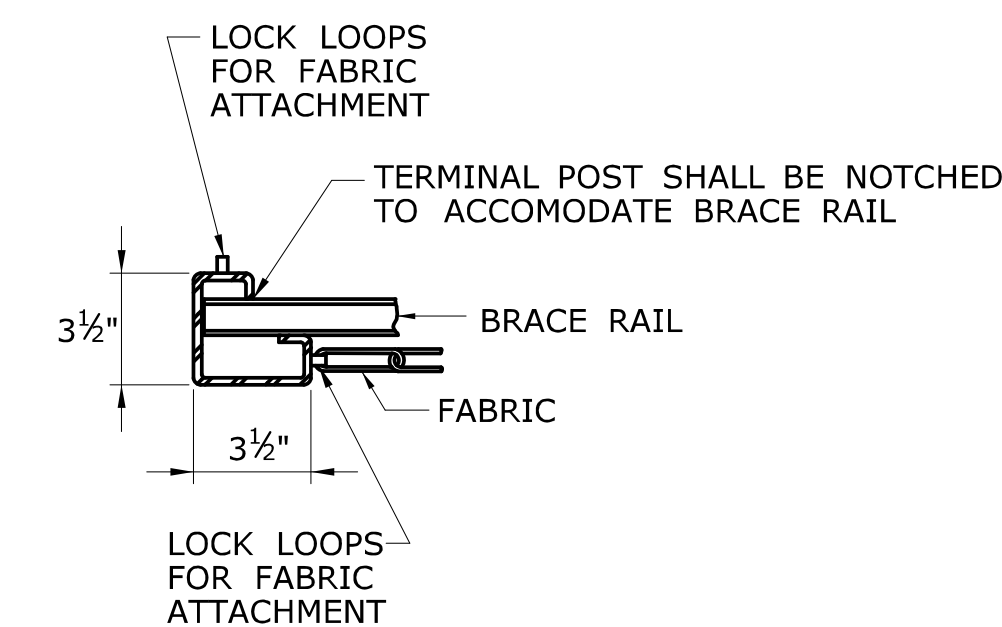
1/8" x 1" TENSION BAND



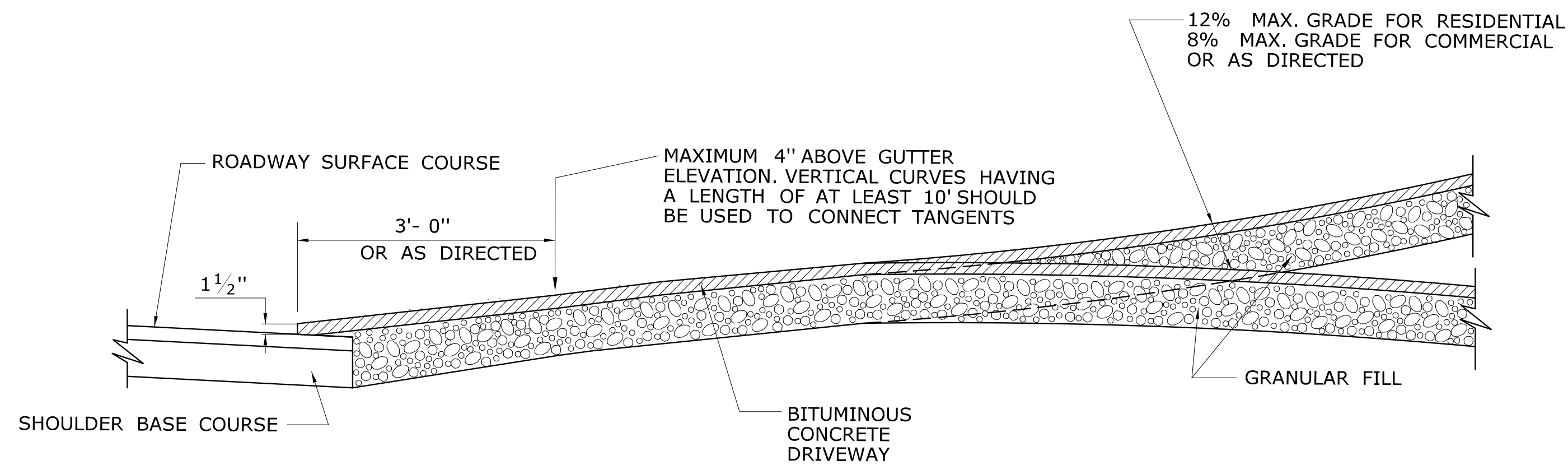
KNUCKLE SELVAGE



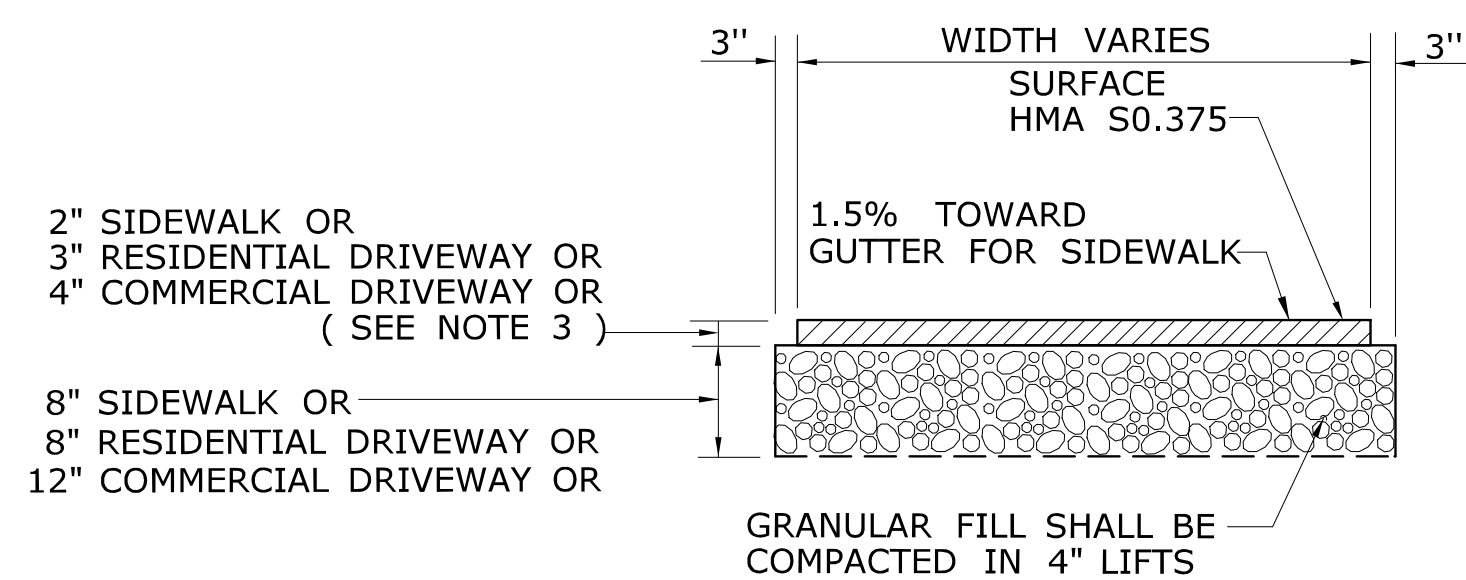
**TRUSS ROD
ATTACHMENT**



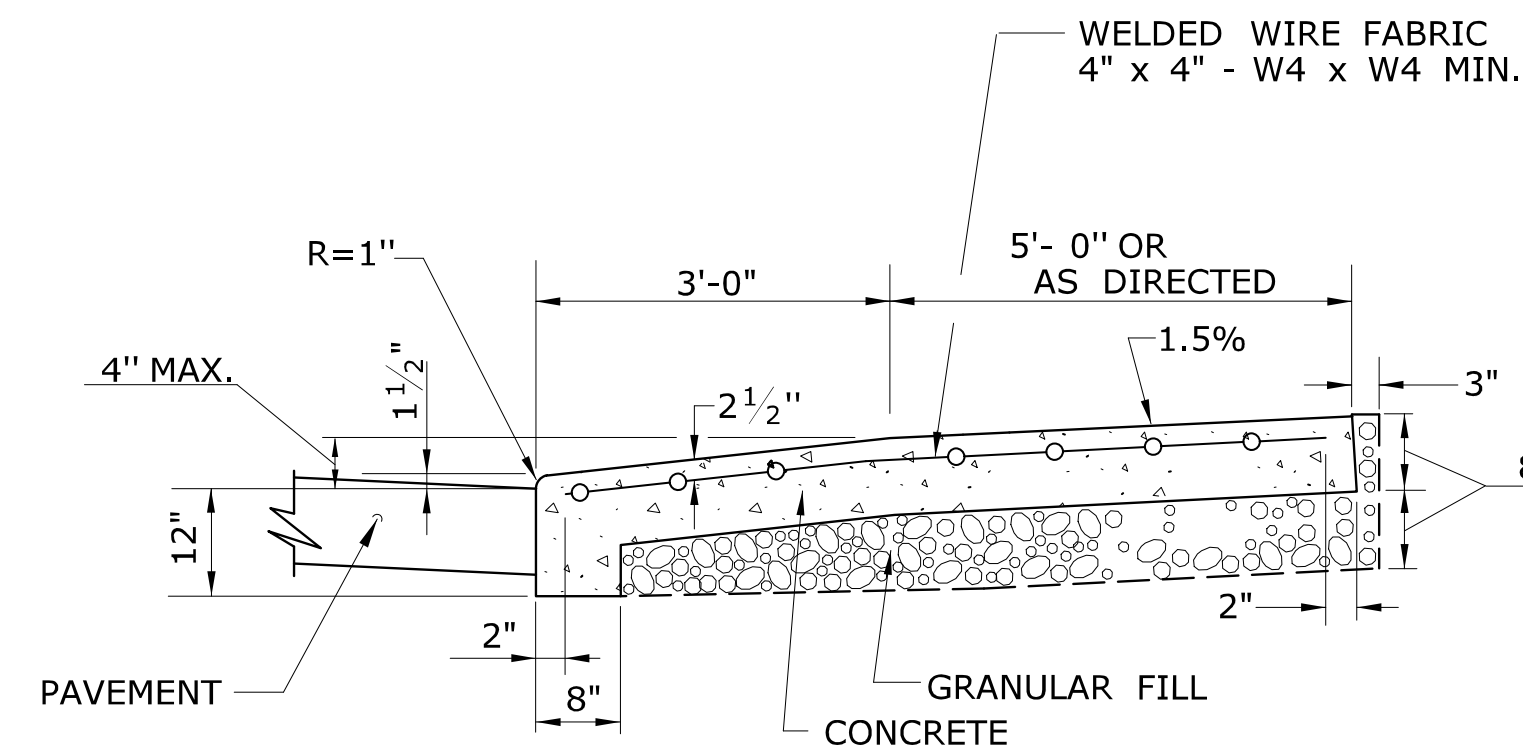
**FABRIC AND BRACE
RAIL ATTACHMENT**



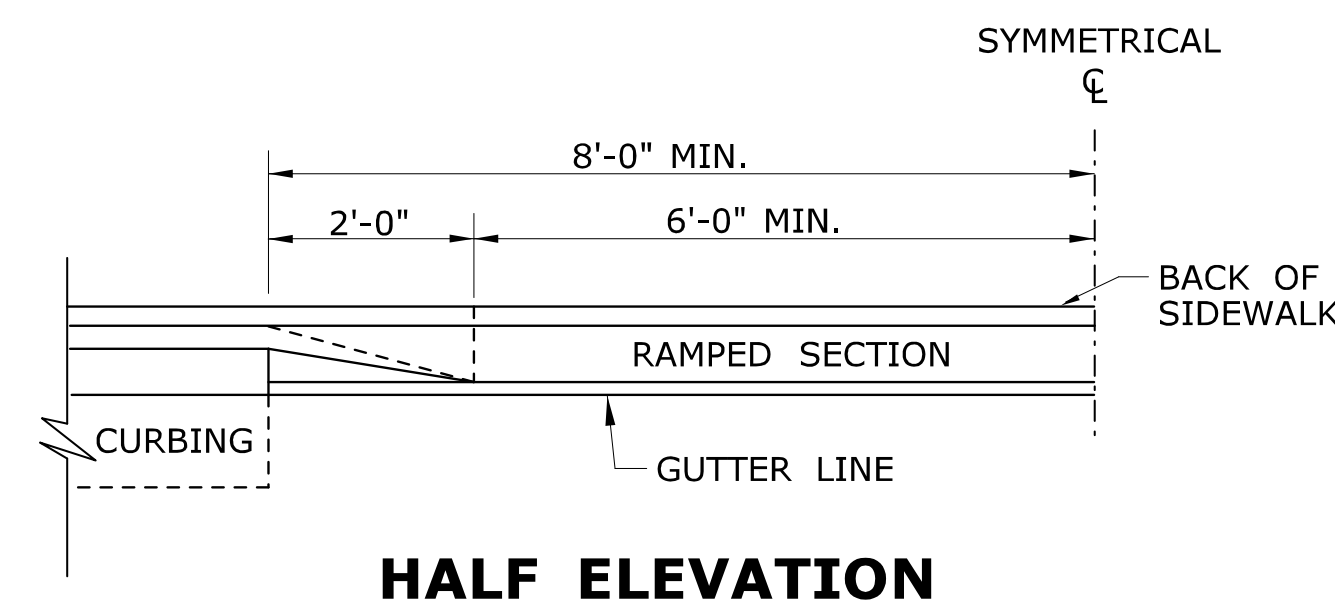
SECTION A



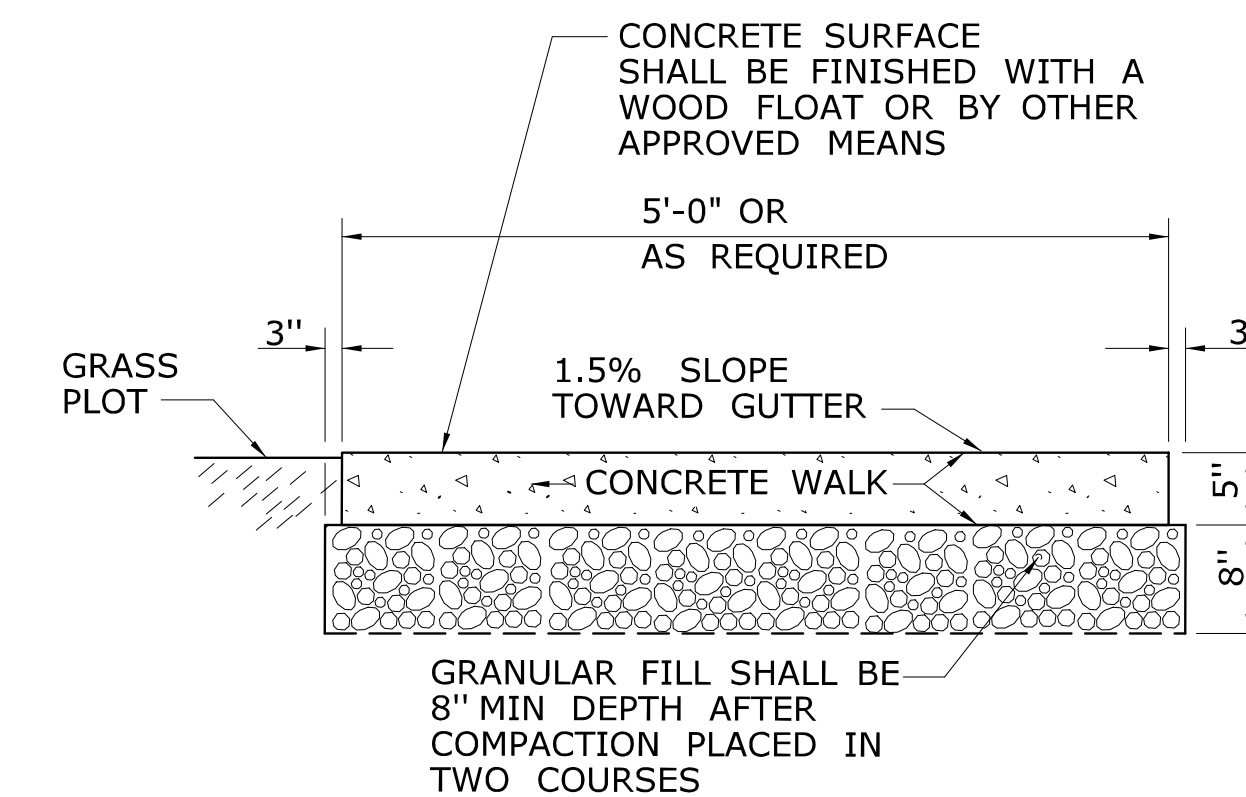
TYPICAL SECTION
BITUMINOUS CONCRETE
SIDEWALK AND DRIVEWAY



SECTION C

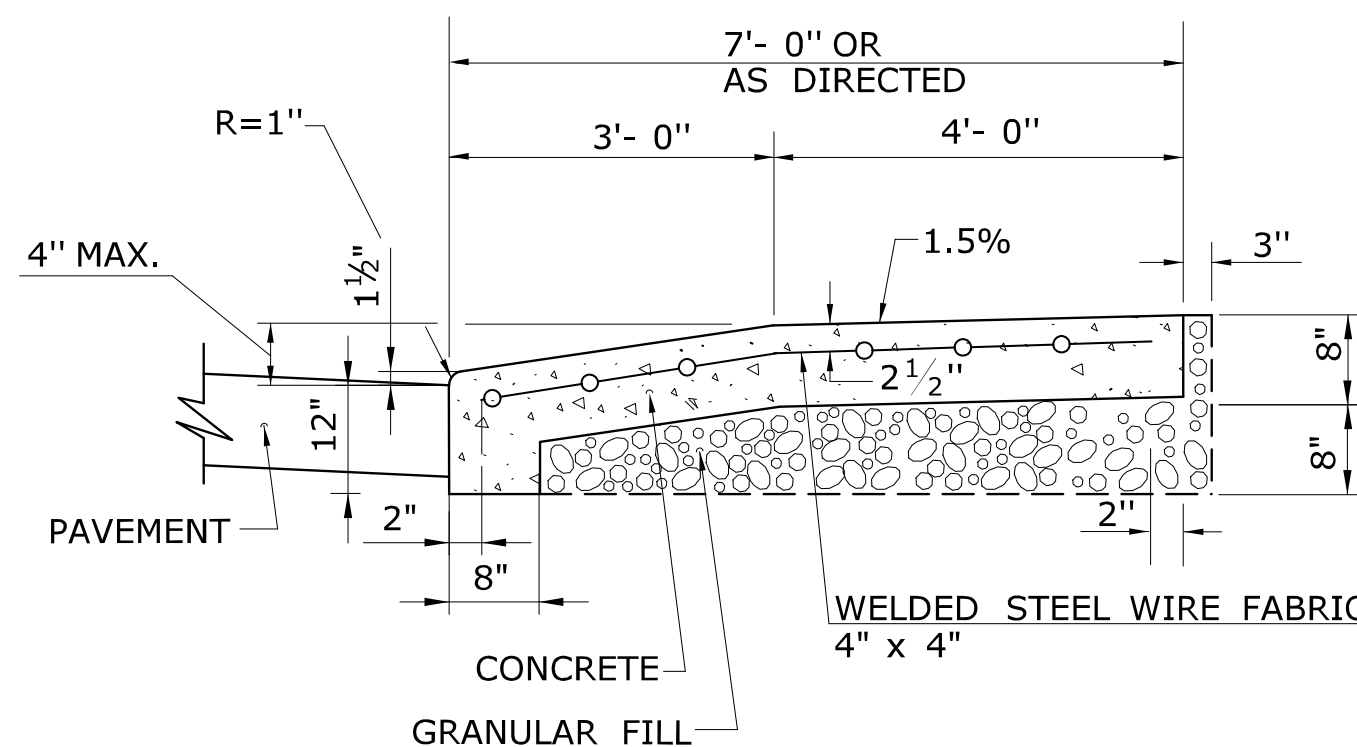


HALF ELEVATION

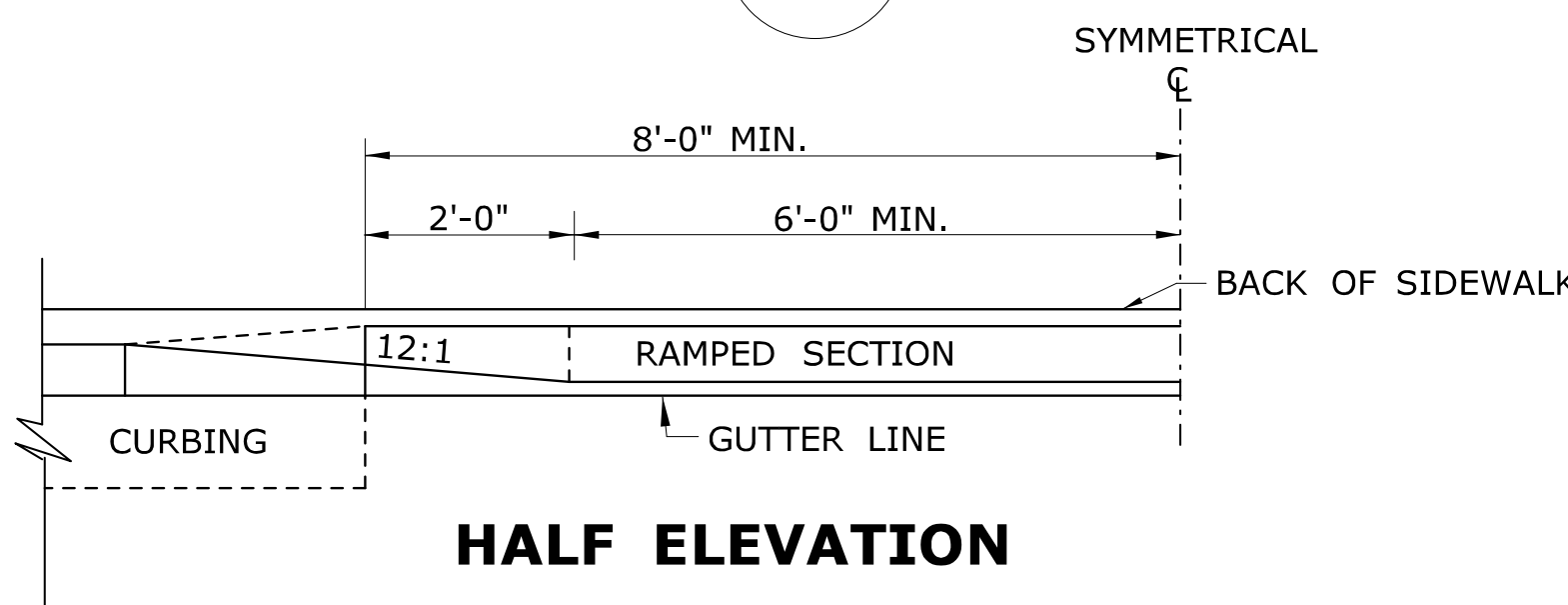


SECTION D

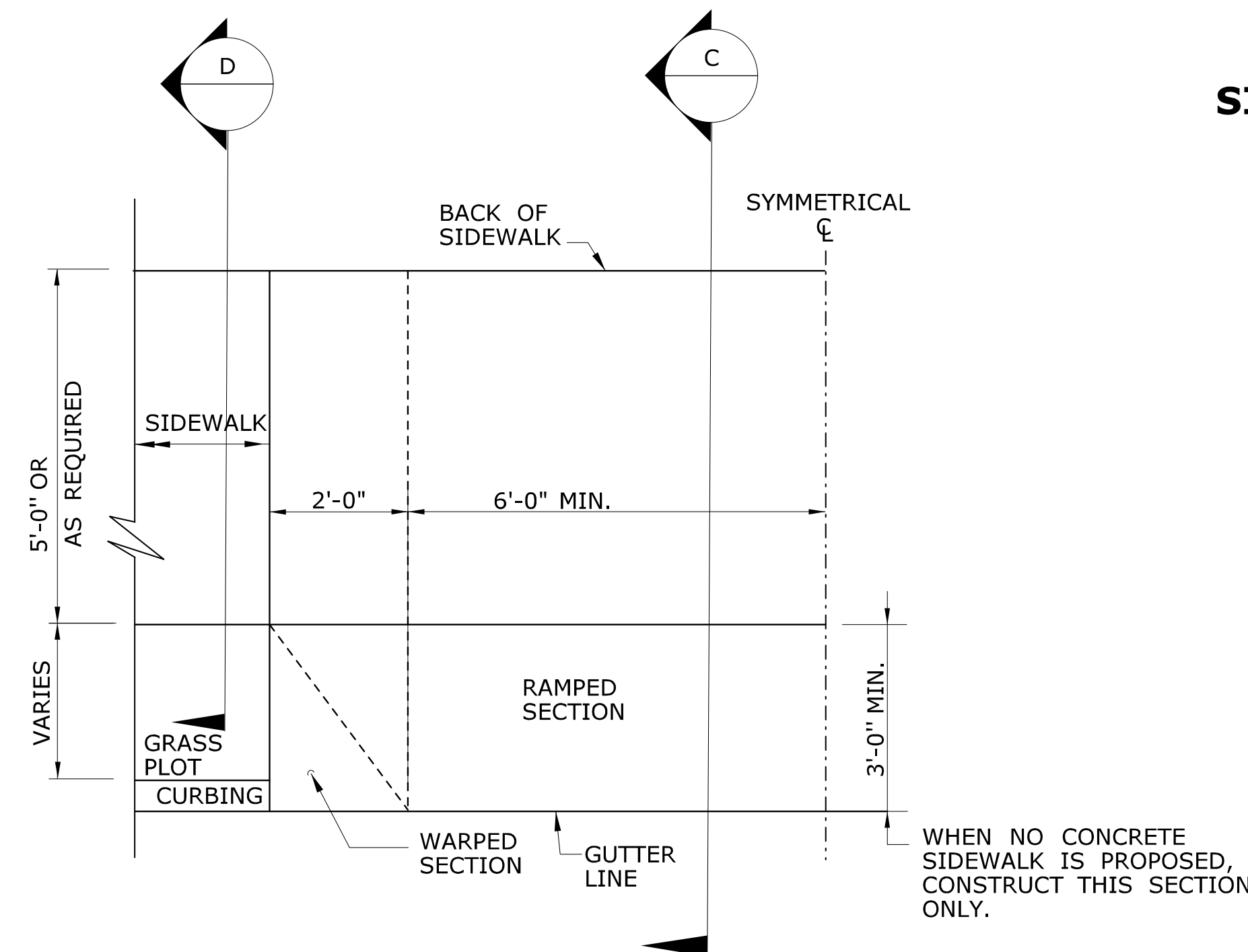
5' WIDE CONCRETE
SIDEWALK WITH GRASS PLOT



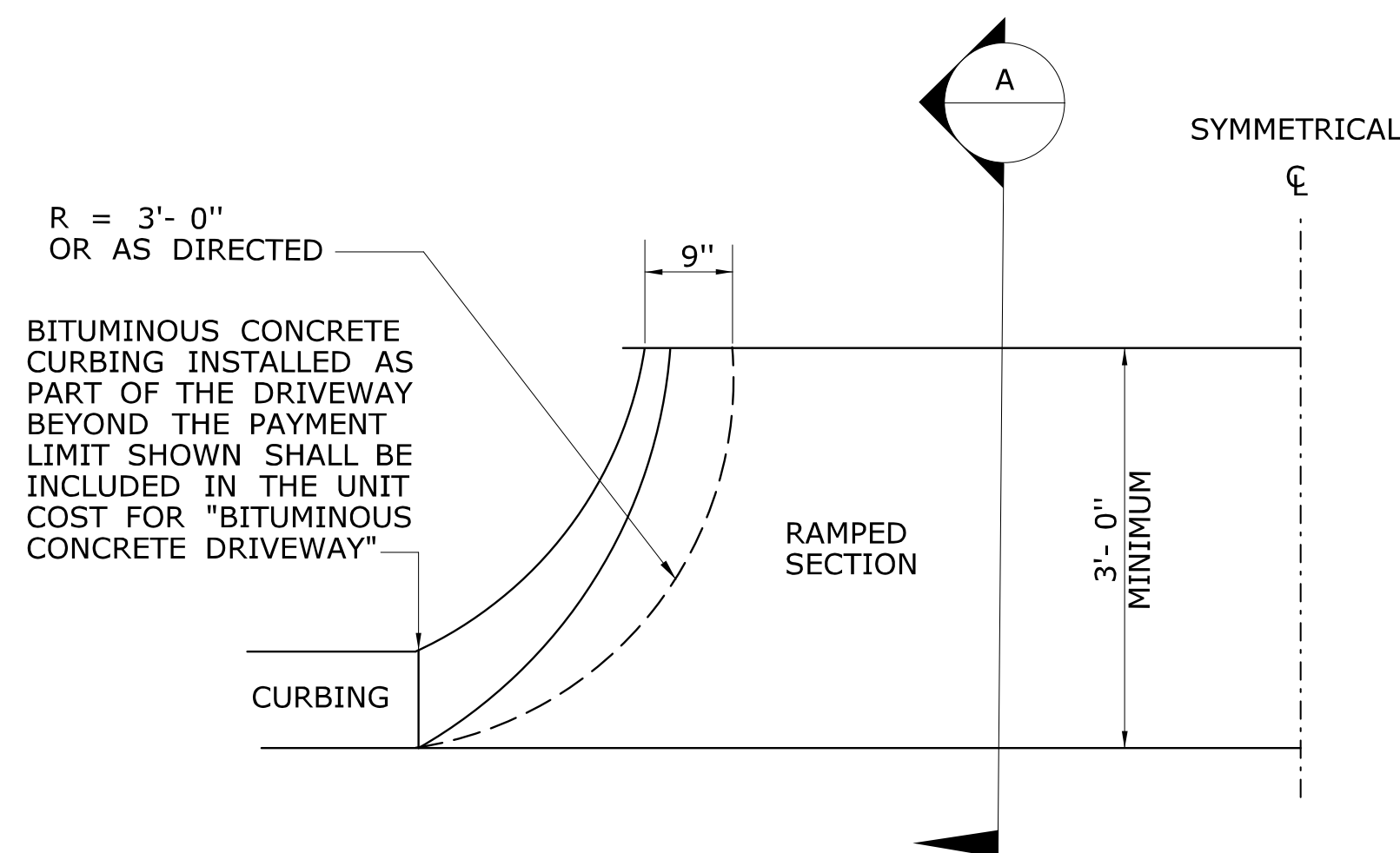
SECTION B



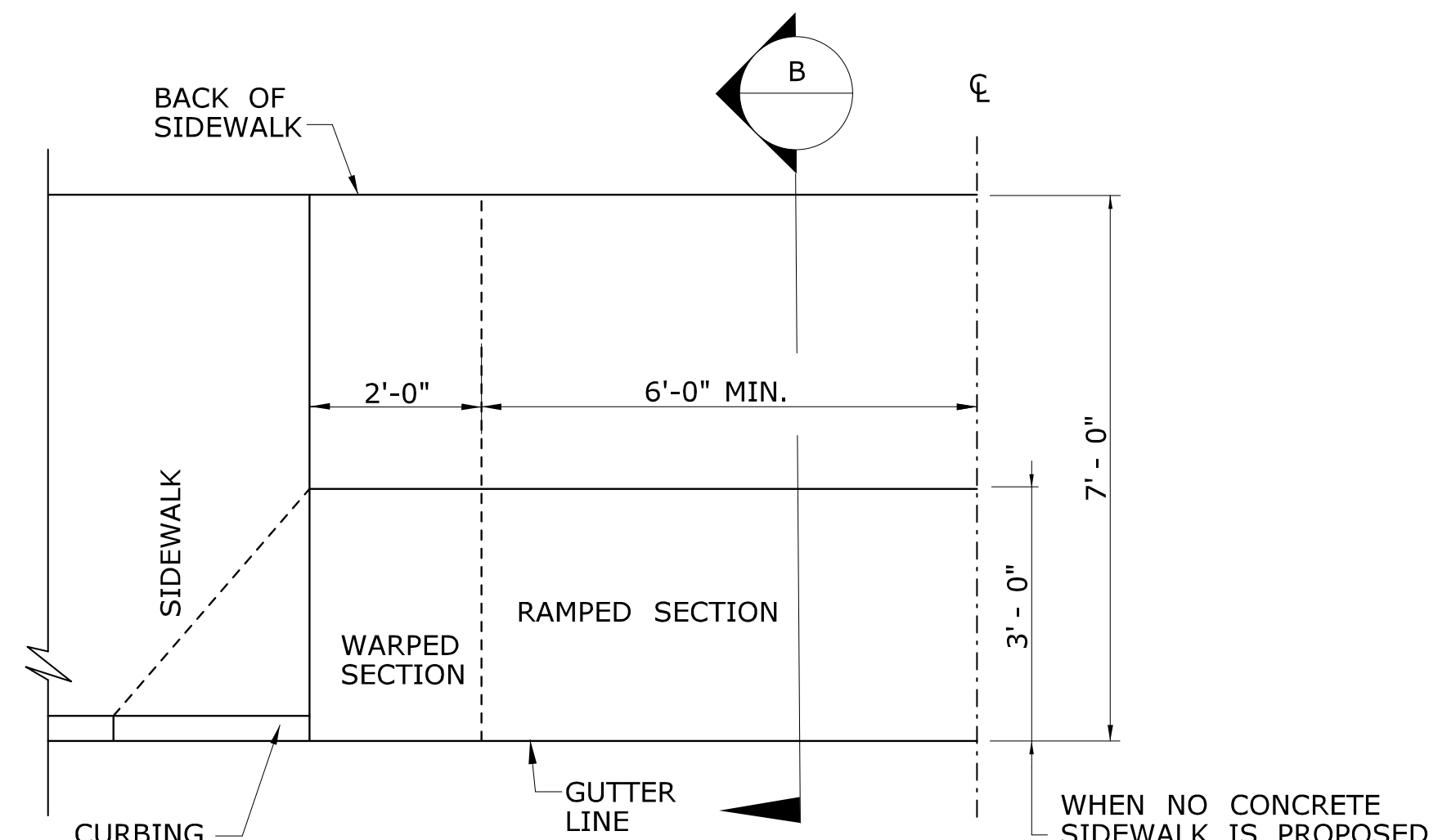
HALF ELEVATION



HALF PLAN OF
CONCRETE DRIVEWAY RAMP WHERE
CURB IS SEPARATED FROM
SIDEWALK BY GRASS PLOT



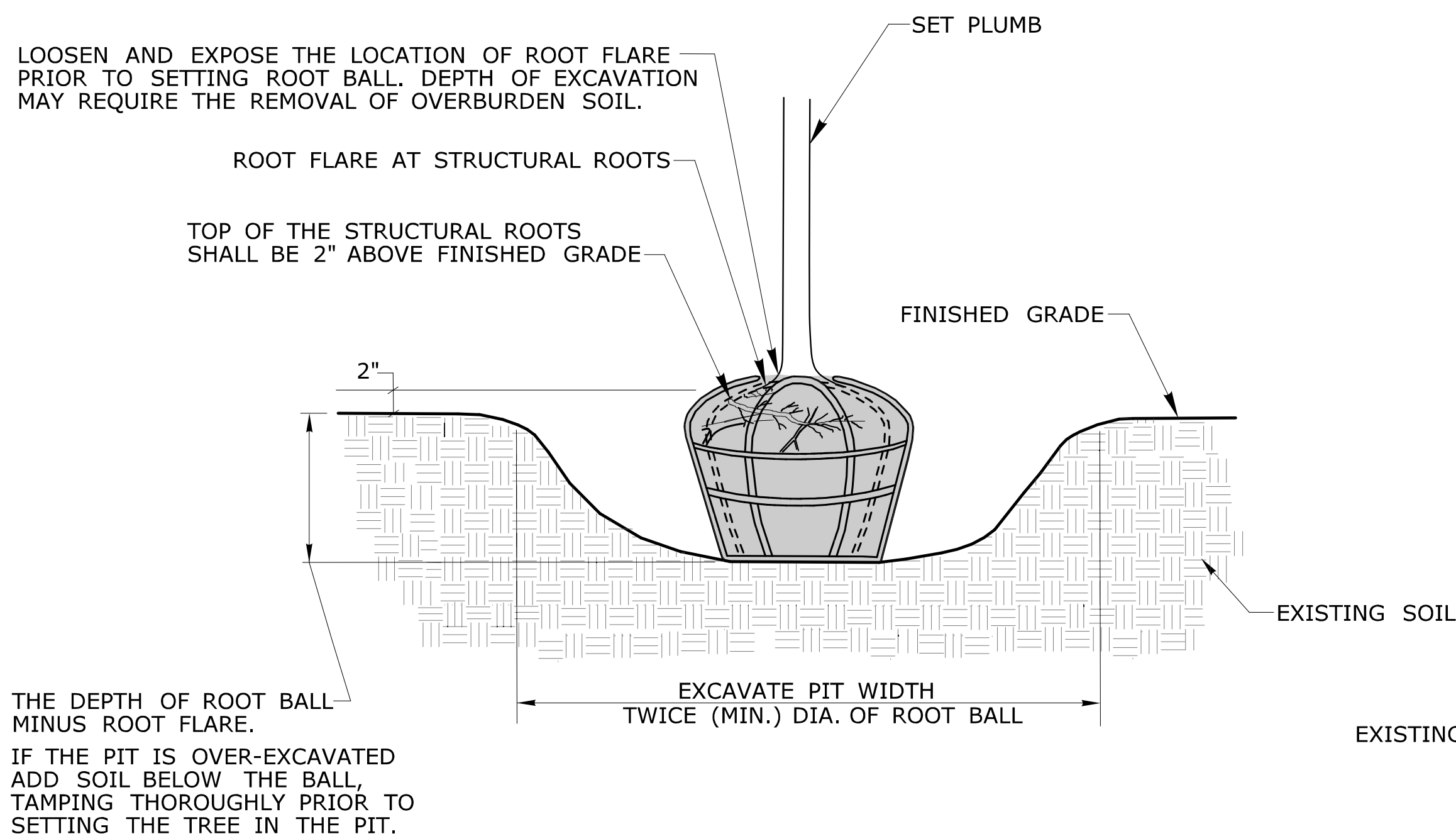
HALF BITUMINOUS CONCRETE
DRIVEWAY PLAN



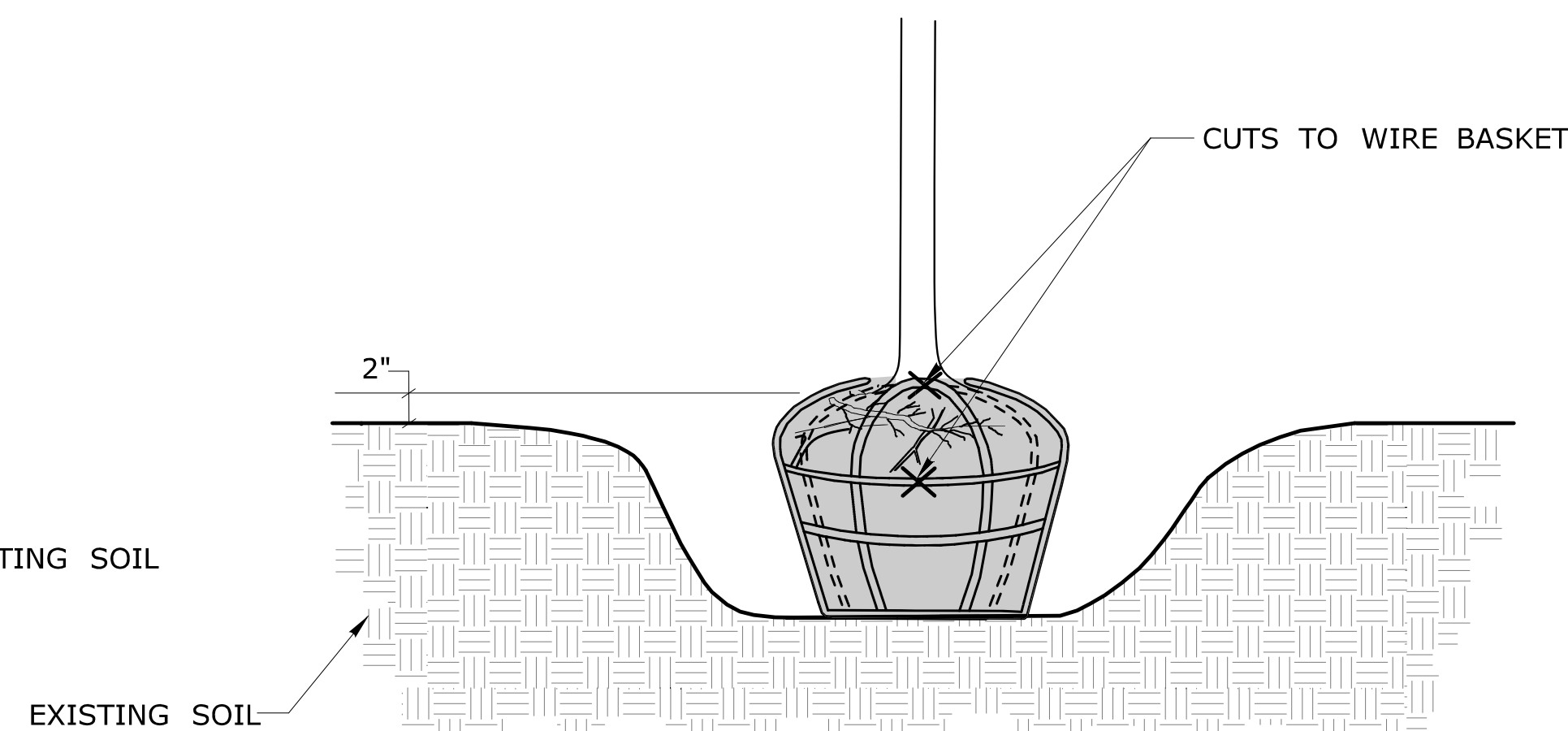
HALF PLAN OF
CONCRETE DRIVEWAY RAMP WHERE
SIDEWALK ADJOINS CURBING

GENERAL NOTES:

1. DRIVEWAY ENTRANCE SHALL BE A MINIMUM OF 12' WIDE, EXCLUDING CURBING WHEN PRESENT.
2. WELDED WIRE FABRIC MATS WITH REINFORCING AT CLOSER SPACING MAY BE USED.
3. SURFACE HMA S0.375 TO BE PLACED IN TWO EQUAL LIFTS FOR BOTH RESIDENTIAL AND COMMERCIAL DRIVEWAYS.

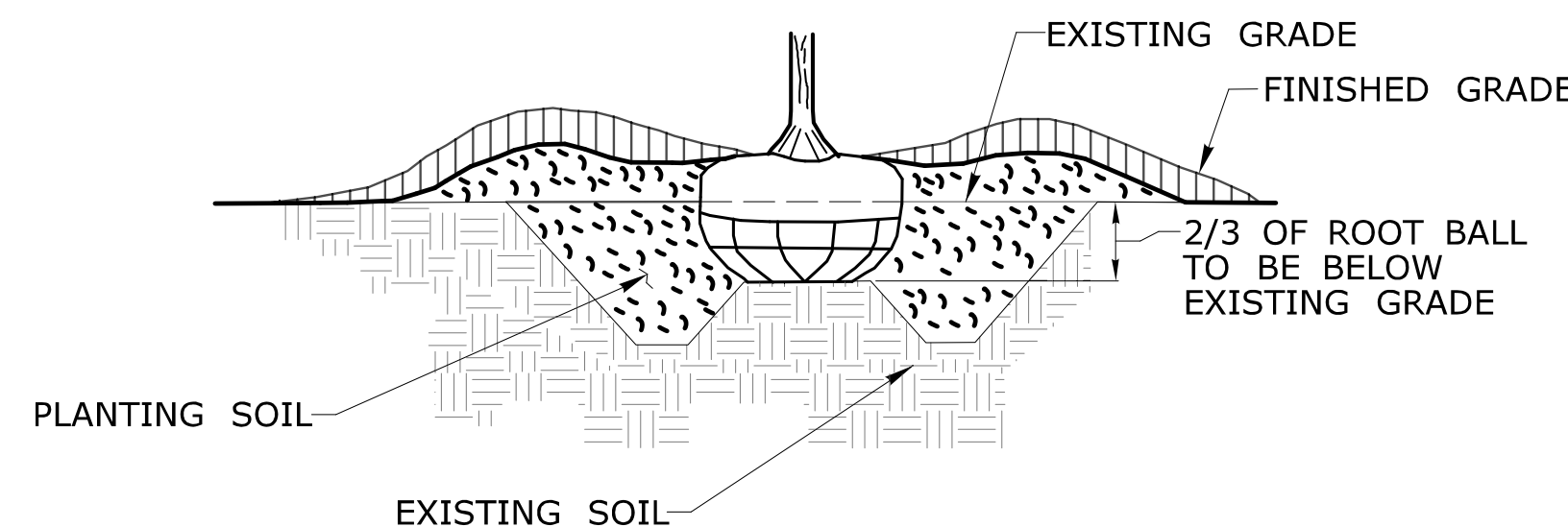


PIT EXCAVATION AND SETTING OF PLANTING

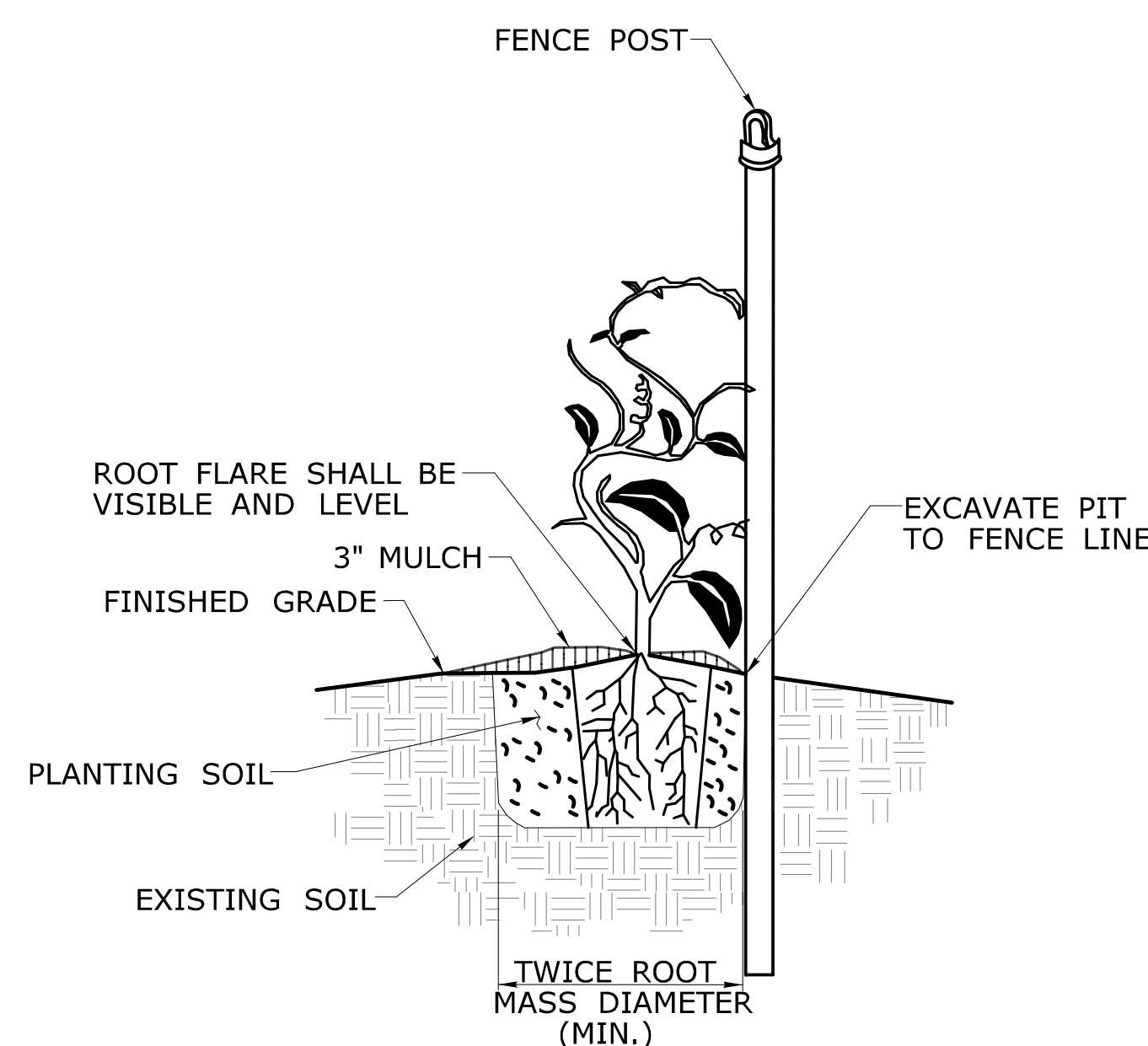


WIRE BASKET REMOVAL

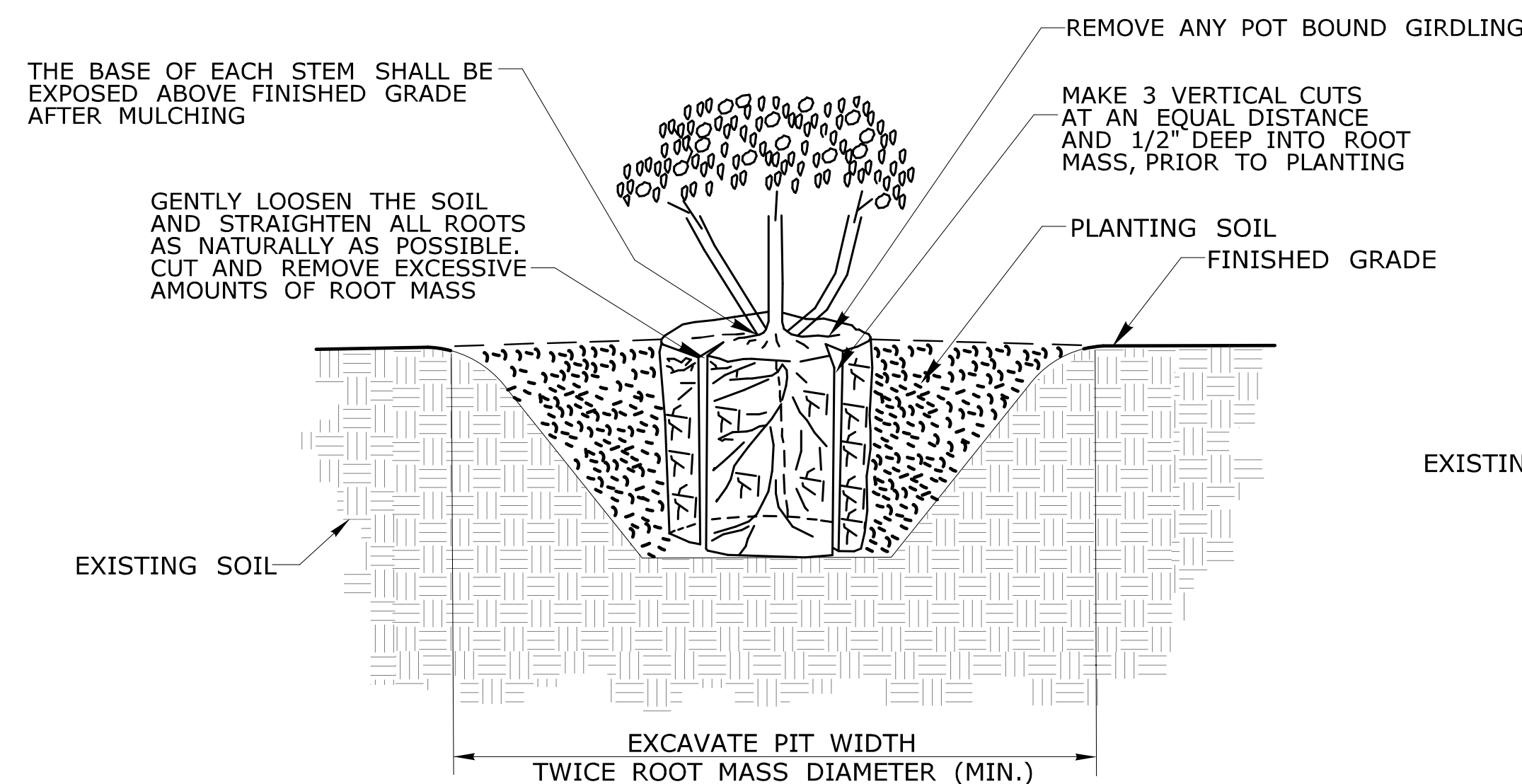
NOTE: IF WIRE BASKETS ARE USED, THE CONTRACTOR SHALL CUT ALL OF THE HORIZONTAL WIRES IN THE TOP $\frac{2}{3}$ OF THE ROOT BALL AND BEND DOWN OR REMOVE THE TOP $\frac{1}{3}$ OF THE WIRE BASKET



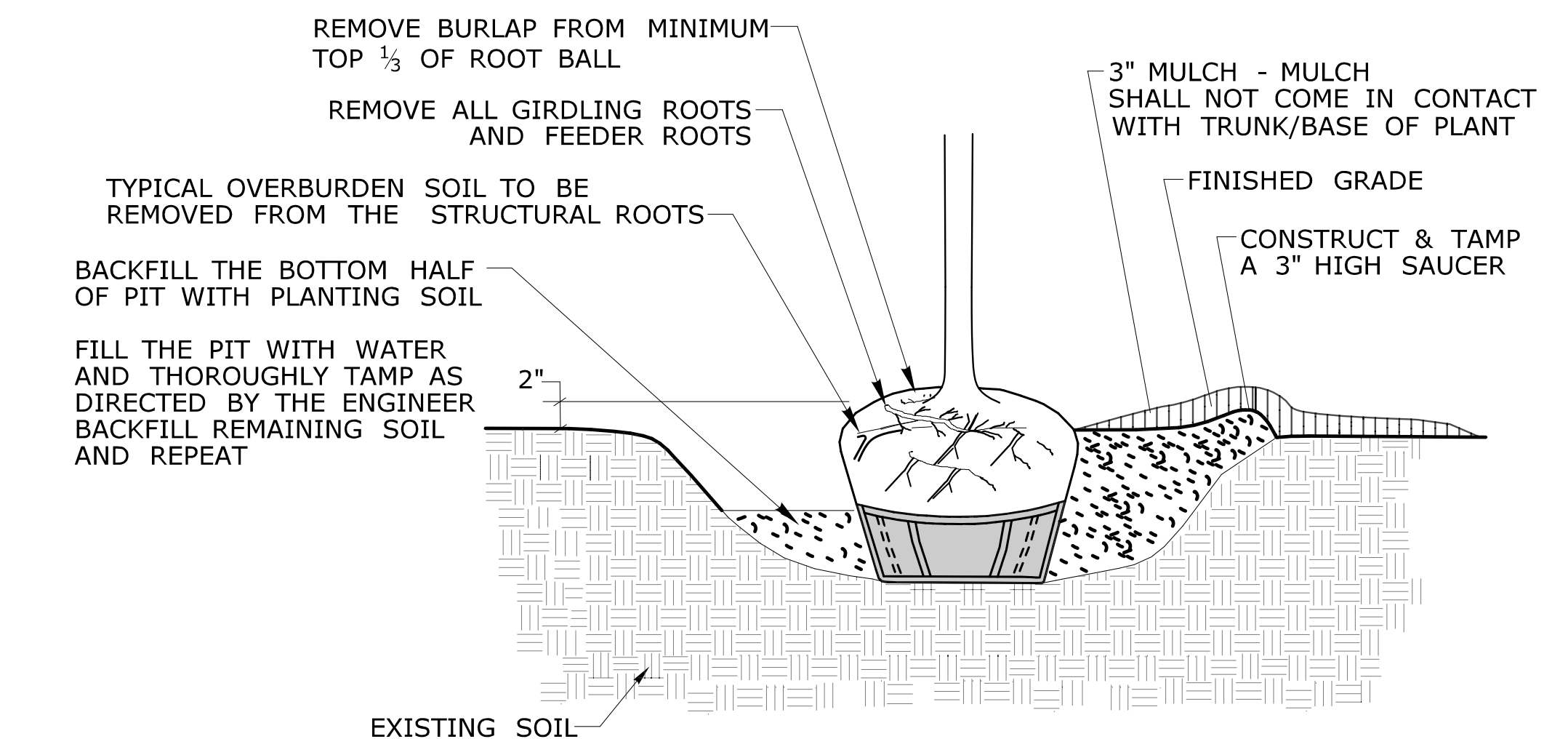
HEAVY CLAY PLANTINGS



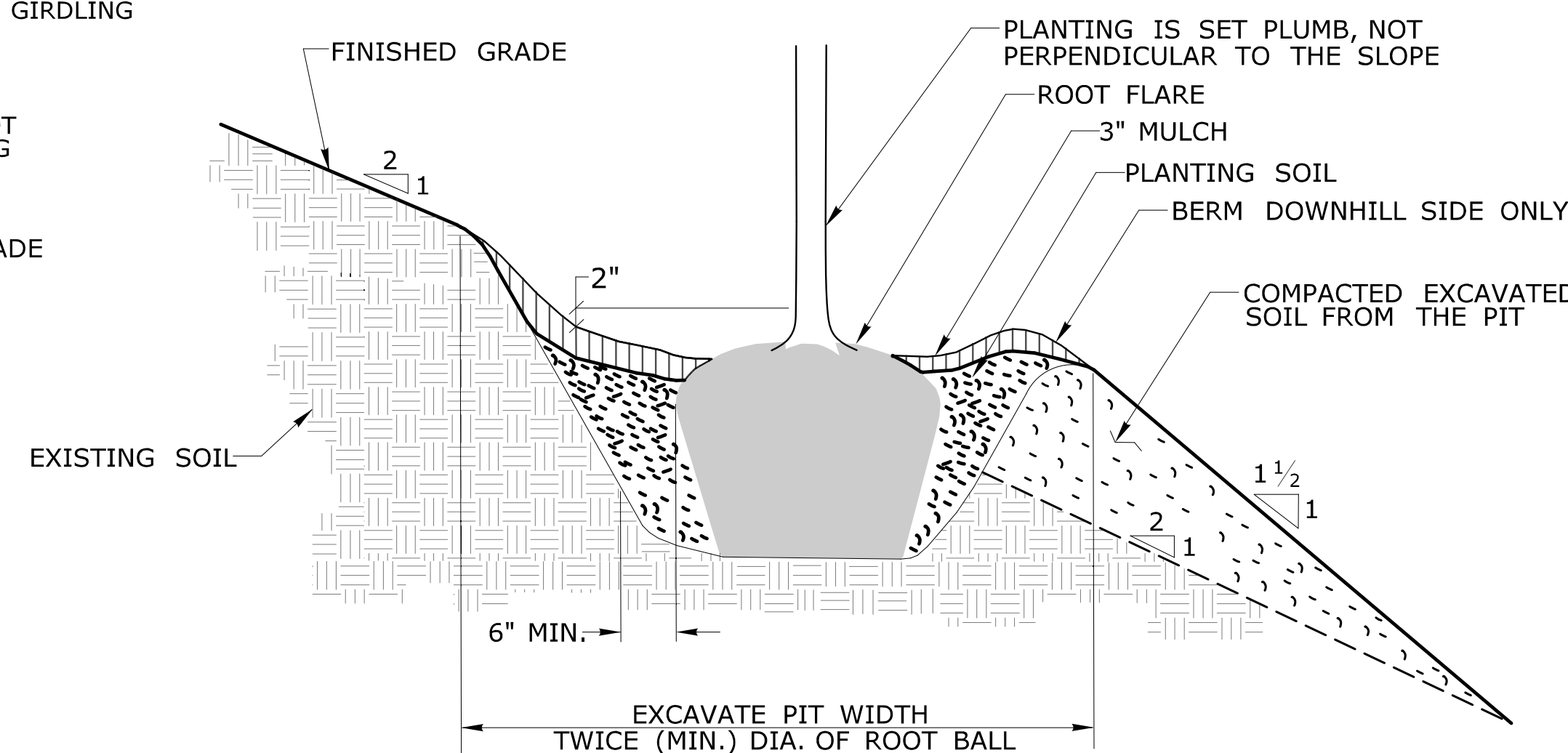
VINE PLANTING



CONTAINER GROWN PLANTING



BACKFILL AND MULCH FOR PLANTING



SLOPE PLANTING


GENERAL NOTES:

1. ALL EXTERIOR PACKAGING MATERIAL APPLIED TO PLANTS SHALL BE REMOVED AFTER THE PLANT IS LOCATED IN THE PIT EXCAVATION. CUT AND REMOVE TWINE, BURLAP OR WIRE BASKETS FROM THE TOP TWO-THIRDS OF THE ROOT BALL.
2. PLANT MALUS SPECIES (DECIDUOUS APPLE TREES OR SHRUBS) DEEP ENOUGH IN PIT TO COVER THE GRAFT TO PREVENT SPROUTING FROM THE ROOT STOCK.

ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

[illegible][illegible]

STANDARD SHEETS SHALL BE USED WITH STANDARD SPECIFICATIONS

			THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	FILENAME: CTDOT_TRAFFIC_STD_DGN.DGN MODEL: TR-01-STD_INDEX	SUBMITTED BY: _____ NAME/DATE/TIME: _____	CTDOT STANDARD SHEET OFFICE OF ENGINEERING	STANDARD SHEET TITLE:	STANDARD SHEET NO.:
4	4-2017	REMOVED TR-1210_01 TO TR-1210_03. ADDED TR-1210_04 TO TR-1210_09							TRAFFIC STANDARD SHEET INDEX TR-STD_INDEX
3	4-2014	REMOVED TR-1111_02.							
2	1-2014	REMOVED TR-1103_01.							
1	4-2012	RENUMBERED TR-1107_02 TO TR-1114_01. REMOVED TR-1116_01.							
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 8/16/2018	NOT TO SCALE					



L. RESTORE AREAS DISTURBED BY TRENCH TO ORIGINAL CONDITION

2. INSTALL PULL BOX A MINIMUM OF 10' (3.0 m) FROM CURB UNLESS OTHERWISE SHOWN ON PLANS OR DIRECTED BY ENGINEER.



1. WHEN ENCOUNTERED AT APPROXIMATELY THE SAME DEPTH, CROSS BENEATH.

- ## 2. PROTECT & SUPPORT EXPOSED EXISTING UTILITY.



STANDARD SPECIFICATIONS, ARTICLE: 1.05.15

1. TAPE COLORS:
COMMUNICATION - ORANGE BACKGROUND / BLACK LEGEND
POWER - RED BACKGROUND / BLACK LEGEND



STANDARD SPECIFICATIONS, ARTICLE: 3.04 & 4.06.03

1. TOTAL HOT MIX ASPHALT (HMA) THICKNESS TO MATCH EXISTING BITUMINOUS CONCRETE AND PORTLAND CEMENT CONCRETE (PCC) THICKNESS.
2. WHEN ALLOWED BY ENGINEER, USE CONTROLLED LOW STRENGTH MATERIAL (CLSM) AS BEDDING MATERIAL. TOP OF CLSM AT LEAST 20" (500) BELOW SURFACE.



STANDARD SPECIFICATIONS, ARTICLE: 9.21 & 9.22

1. WHERE CONCRETE SIDEWALK DAMAGED OR CUT, REPLACE THE ENTIRE SECTION BETWEEN JOINTS. REPLACEMENT SIDEWALK IS PAID FOR AT THE CONTRACT UNIT PRICE FOR "CONCRETE SIDEWALK".



STANDARD SPECIFICATIONS, ARTICLE: 9.50

1. IN MOWED AREAS: PLACE TOPSOIL, FERTILIZER, SEED, & MULCH



1. 4" x 4" (100 x 100) NOMINAL, PRESSURE TREATED WOOD POST.

2. ATTACH SIGN TO POST WITH 1/4" x 1 1/4" (6 x 31) STAINLESS STEEL LAG SCREW WITH NYLON WASHER ON FACE OF SIGN.
3. SIGN COLORS: BACKGROUND - ORANGE (RETROREFLECTIVE) LEGEND - BLACK (OPAQUE).
4. INSTALL POST APPROX 24" (600) FROM RMC IN VICINITY OF EACH PULL BOX.
5. INSTALL POSTS BETWEEN PULL BOXES, APPROX 10' (3.0 m) OFF CURB. SPACE POSTS 1500'+ (460 m+) APART.
6. PERMANENTLY ATTACH STAINLESS STEEL NUMBERS INDICATING DISTANCE TO TRENCH IN FEET (METERS) CONTAINING COMMUNICATION CABLE. ATTACH NUMBERS TO SIDE OF POST FACING CONDUIT. INCLUDE "M" SUFFIX IF METERS.

1. TOP OF CONDUIT NO LESS THAN 24" (600) DEEP
2. COMPACT BACKFILL IN $\leq 6"$ (150) LIFTS.
HAND COMPACTION NOT PERMITTED.

1	4-2012	REVISED BITUMINOUS CONCRCE TO HMA, & MINOR REVISIONS.
REV.	DATE	REVISION DESCRIPTION

Plotted Date: 4/14/2012

NOT TO SCALE



Model: TR-1001-03

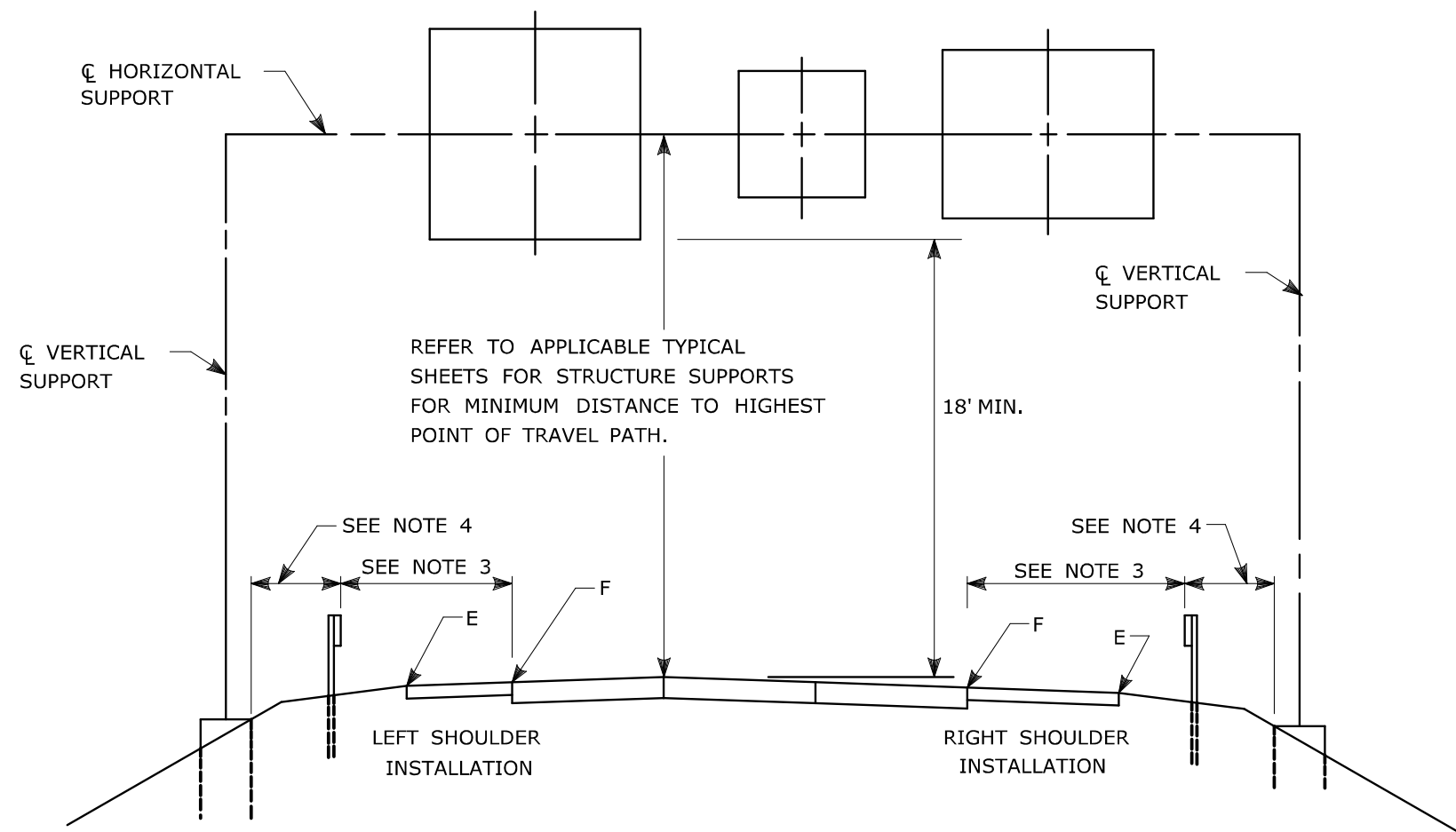
APPROVED BY: _____ NAME/DATE/TIME: _____

Timothy M. Wilson
2012.05.09 10:23:34-04'00

OFFICE OF ENGINEERING

TRENCHING & BACKFILLING, ELECTRICAL CONDUIT

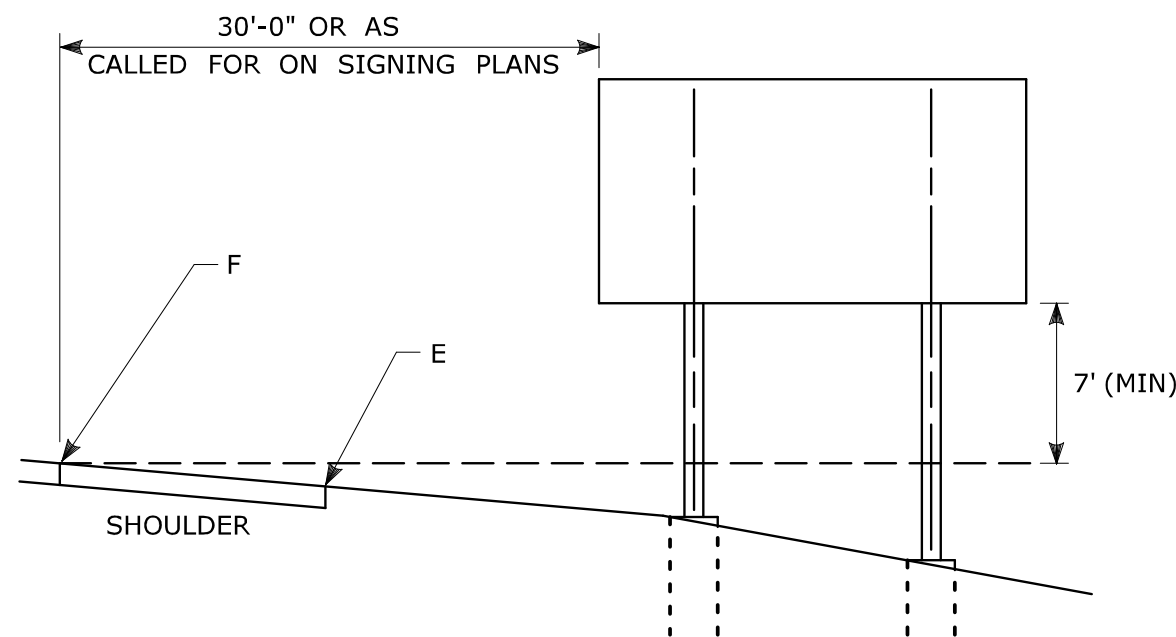
TR-1001_01



TYPICAL PLACEMENT OF OVERHEAD SIGNS ON SIGN SUPPORTS

NOTES:

- 1) FOR PLACEMENT OF CANTILEVER SIGN SUPPORT USE APPLICABLE PORTION OF ABOVE DETAIL.
- 2) BARRIER SYSTEMS MAY BE REQUIRED FOR BOTH SIDES OF SUPPORTS IN MEDIANS.
- 3) IMPACT PROTECTION SHALL BE PROVIDED FOR THE SIGN SUPPORTS LOCATED WITHIN CLEAR ZONE.
- 4) SIGN SUPPORT FOUNDATIONS SHALL BE LOCATED OUTSIDE OF BARRIER SYSTEMS DEFLECTION AREA.
- 5) ALL SIGNS ARE TO BE LEVEL, REGARDLESS OF CAMBER IN SUPPORT.



TYPICAL PLACEMENT OF SIDE MOUNTED SIGNS ON STRUCTURAL STEEL BREAKAWAY SIGN SUPPORTS

NOTES:

- 1) MIN. VERTICAL CLEARANCE ABOVE SIDEWALKS SHALL BE 7'.
- 2) WHERE GUIDE RAIL IS USED, THE OFFSET TO THE NEAR EDGE OF SIGN FACE SHALL BE AS SHOWN ELSEWHERE IN THE CONTRACT PLANS.
- 3) ON INTERSECTING ROADS AT RAMP TERMINI, THE OFFSET TO THE NEAR EDGE OF OF SIGN FACE SHALL BE 6' MIN. FROM POINT "E".
- 4) IF 30'-0" MIN. CANNOT BE MET, PLEASE CONTACT THE ENGINEER.

FOR MAXIMUM EFFECTIVENESS, POSITION SIDE MOUNTED SIGNS ON STRUCTURAL STEEL BREAKAWAY SIGN SUPPORTS AS FOLLOWS:

ON A TANGENT SECTION, POSITION THE SIGN SO THE VERTICAL AXIS IS PLUMB AND THE HORIZONTAL AXIS IS AT AN ANGLE OF 90° WITH THE TRAFFIC LANE WHICH THE SIGN SERVES. SIGNS LOCATED 30 FT OR MORE FROM THE EDGE OF THE ROAD SHALL BE TURNED APPROXIMATELY 3° TOWARD THE ROAD.

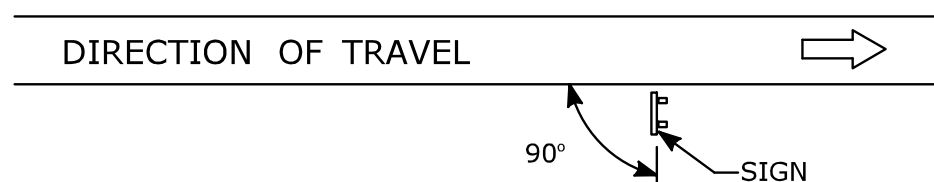


DIAGRAM "A"

ON A HORIZONTAL CURVE SECTION, POSITION THE SIGN SO THE VERTICAL AXIS IS PLUMB AND THE HORIZONTAL AXIS IS AT AN ANGLE OF 90° WITH A STRAIGHT LINE BETWEEN THE SIGN AND THE POINT AT WHICH THE SIGN SHALL BE READ.

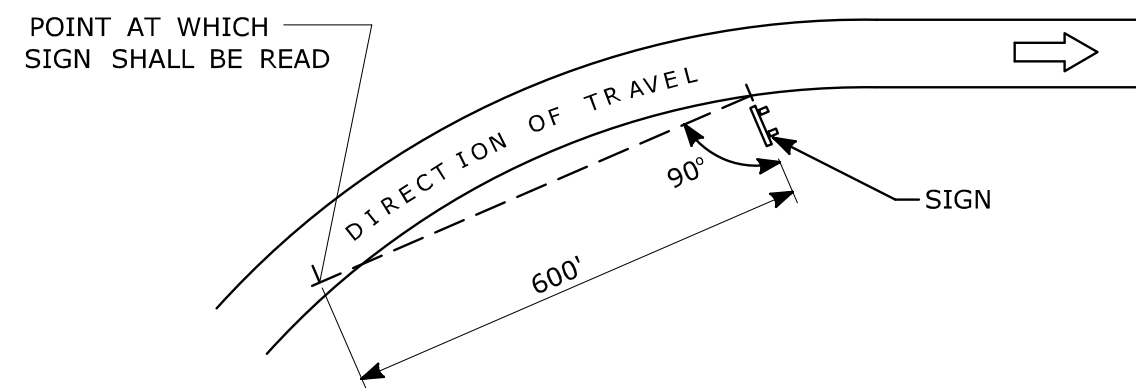


DIAGRAM "B"

SIGN ORIENTATION DETAILS

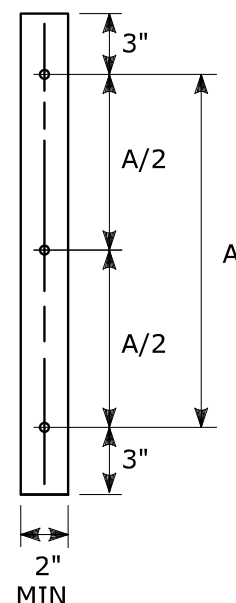
FOR SIDE MOUNTED SIGNS ON

STRUCTURAL STEEL BREAKAWAY SIGN SUPPORTS

RETROREFLECTIVE STRIPS
48" LONG OR LESS:



RETROREFLECTIVE STRIPS
OVER 48" LONG:

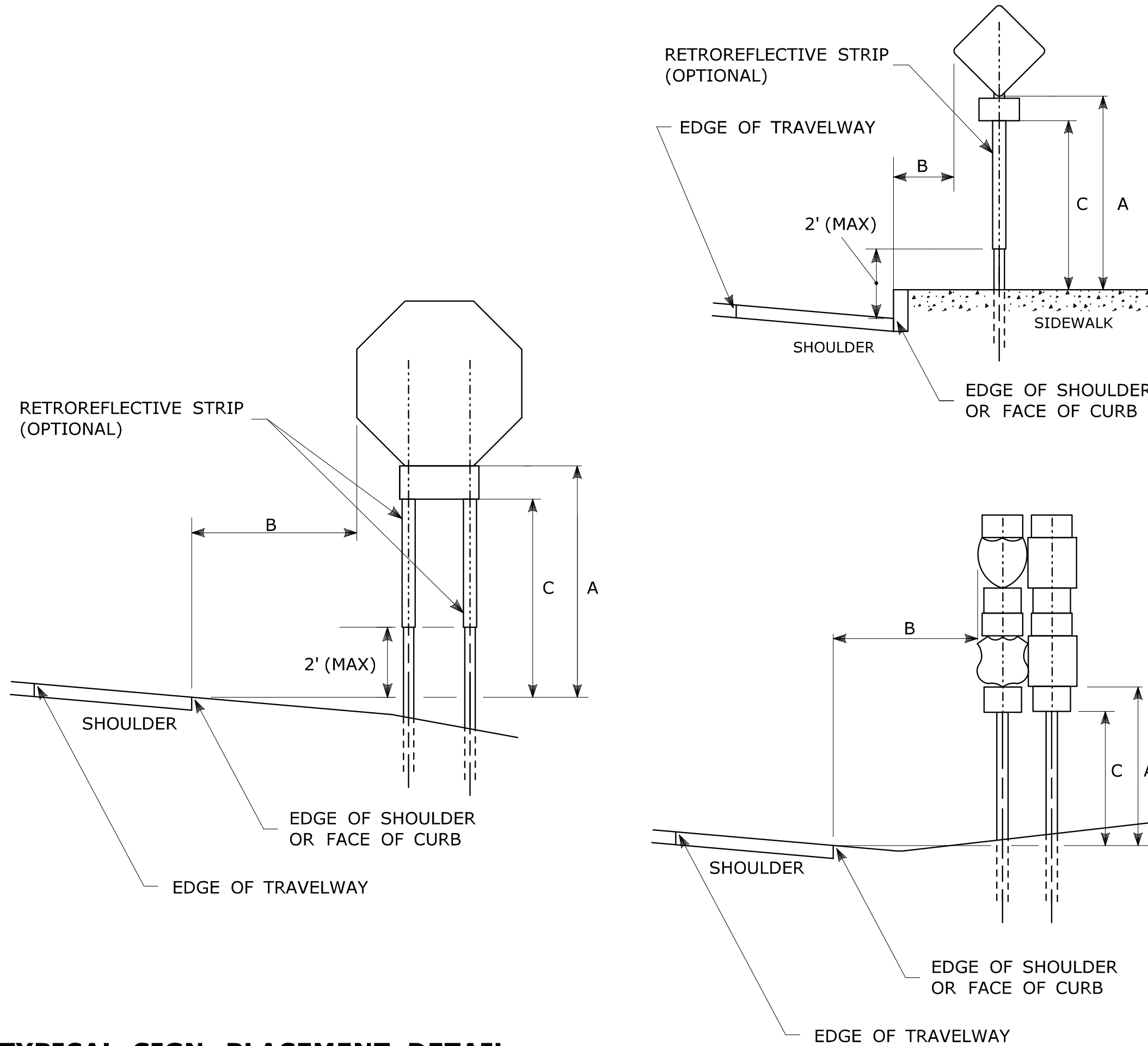


RETROREFLECTIVE STRIP DETAIL

NOTES:

RETROREFLECTIVE STRIPS WHICH ARE 48 IN LONG OR LESS SHALL BE ATTACHED USING 2 BOLTS AND RETROREFLECTIVE STRIPS OVER 48 IN LONG SHALL BE ATTACHED USING 3 BOLTS AS SHOWN ON THE DETAILS ABOVE.
REFER TO STANDARD SHEET No. TR-1208-02 "METAL SIGN POSTS AND SIGN MOUNTING DETAILS" FOR MOUNTING DETAILS.

RETROREFLECTIVE STRIP COLOR SHALL MATCH THE BACKGROUND COLOR OF THE SIGN, EXCEPT THAT THE COLOR OF THE STRIP FOR "YIELD" AND "DO NOT ENTER" SIGNS SHALL BE RED.



TYPICAL SIGN PLACEMENT DETAIL

NOTES:

ALL SIGNS AND SHIELDS ON DIRECTIONAL ASSEMBLIES SHALL ABUT VERTICALLY.

REFER TO STANDARD SHEET No. TR-1208-02 "METAL SIGN POSTS AND SIGN MOUNTING DETAILS" FOR SIGN POSTS AND SIGN MOUNTING.

IF A RETROREFLECTIVE STRIP IS USED ON SIGN SUPPORT, IT SHALL BE PLACED FOR THE FULL LENGTH OF THE SUPPORT FROM THE BOTTOM OF THE SIGN TO WITHIN 2 FT ABOVE THE EDGE OF THE ROADWAY.

PARKING SIGNS TYPICALLY USE 45° MOUNTING BRACKET.

DIM. "A" MIN SIGN HEIGHT	DIM. "B" MIN LATERAL OFFSET ①	DIM. "C" MIN PLAQUE HEIGHT ①	ASSEMBLY LOCATION
7' ②	6' 12' ③	5'	SIGNS ON FREEWAYS AND EXPRESSWAYS EXCEPT CHEVRON ALIGNMENT SIGNS, ONE-DIRECTION LARGE ARROW SIGNS, DO NOT ENTER SIGNS, AND WRONG WAY SIGNS
5'	2'	4'	• SIGNS IN RURAL AREAS • DO NOT ENTER AND WRONG WAY SIGNS ALONG EXIT RAMP • DO NOT ENTER AND WRONG WAY SIGNS ON LIMITED ACCESS HIGHWAYS
5'	2'	N/A	• CHEVRON ALIGNMENT SIGNS LOCATED ON FREEWAYS, EXPRESSWAYS, RAMPS, AND IN RURAL AREAS • ONE-DIRECTION LARGE ARROW SIGNS LOCATED ON FREEWAYS, EXPRESSWAYS, RAMPS, AND IN RURAL AREAS
4'	6' 12' ③	N/A	INCIDENT MANAGEMENT SIGNS AND MILE POST MARKER ASSEMBLIES LOCATED ON FREEWAYS AND EXPRESSWAYS
4'	2'	4'	CENTRAL ISLANDS OF ROUNDABOUTS
7'	2' ④	6'	BUSINESS & RESIDENTIAL AREAS WHERE PARKING OR OTHER OBSTRUCTIONS LIMIT VISIBILITY
7'	2' ④	7'	SIDEWALKS ⑤





① OR AS DIRECTED BY THE ENGINEER

② 8 FT MINIMUM HEIGHT REQUIRED IF A SUPPLEMENTAL PLAQUE IS SUBMOUNTED BELOW THE MAJOR SIGN.

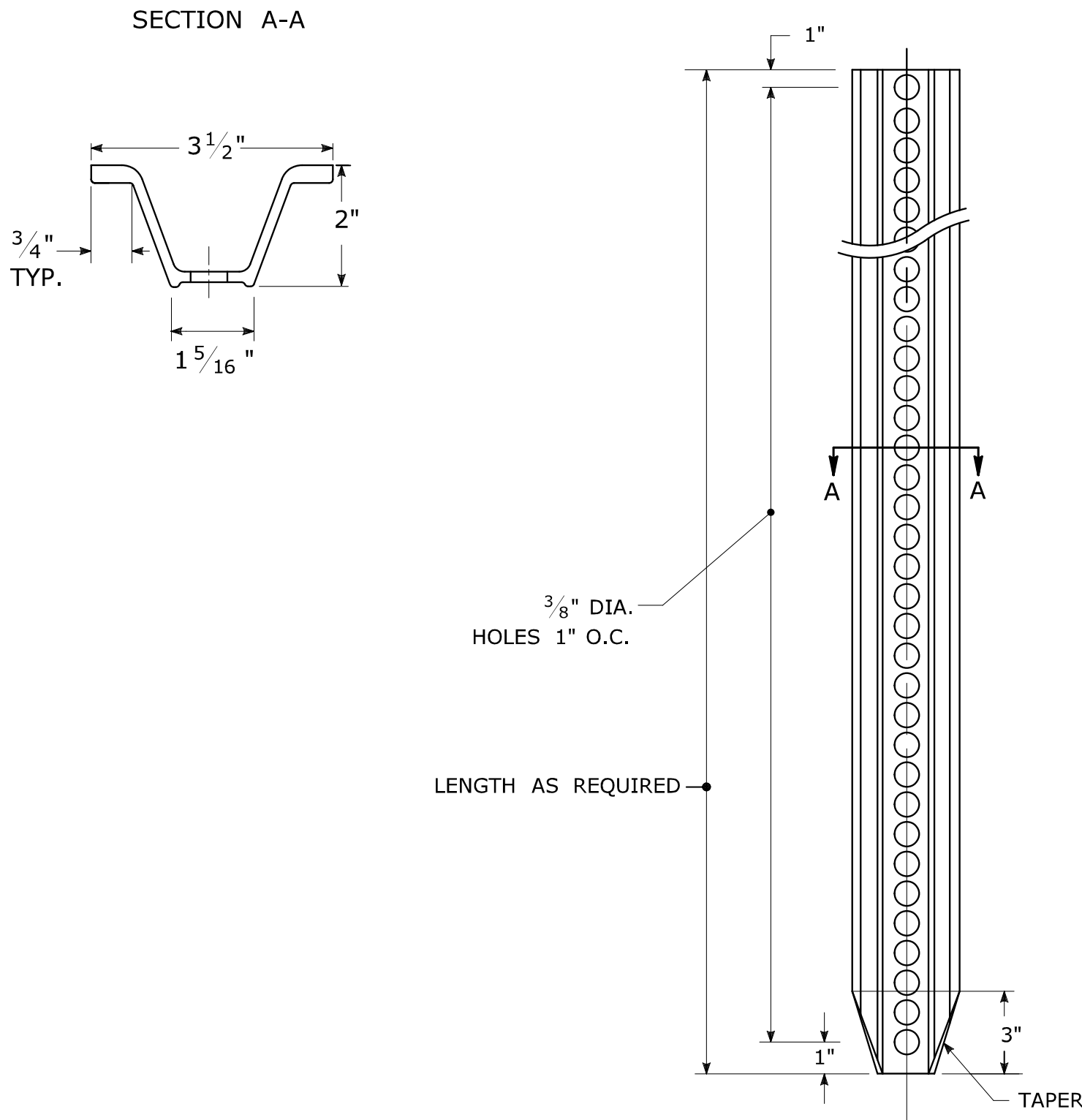
③ 6 FT FROM EDGE OF SHOULDER, WHEN SHOULDER IS OVER 6 FT WIDE
12 FT FROM EDGE OF TRAVELWAY, WHEN SHOULDER IS LESS THAN 6 FT WIDE.

④ A LATERAL OFFSET OF AT LEAST 1 FT FROM THE FACE OF THE CURB MAY BE USED WHERE SIDEWALK WIDTH IS LIMITED OR WHERE EXISTING UTILITY POLES ARE CLOSE TO THE CURB.

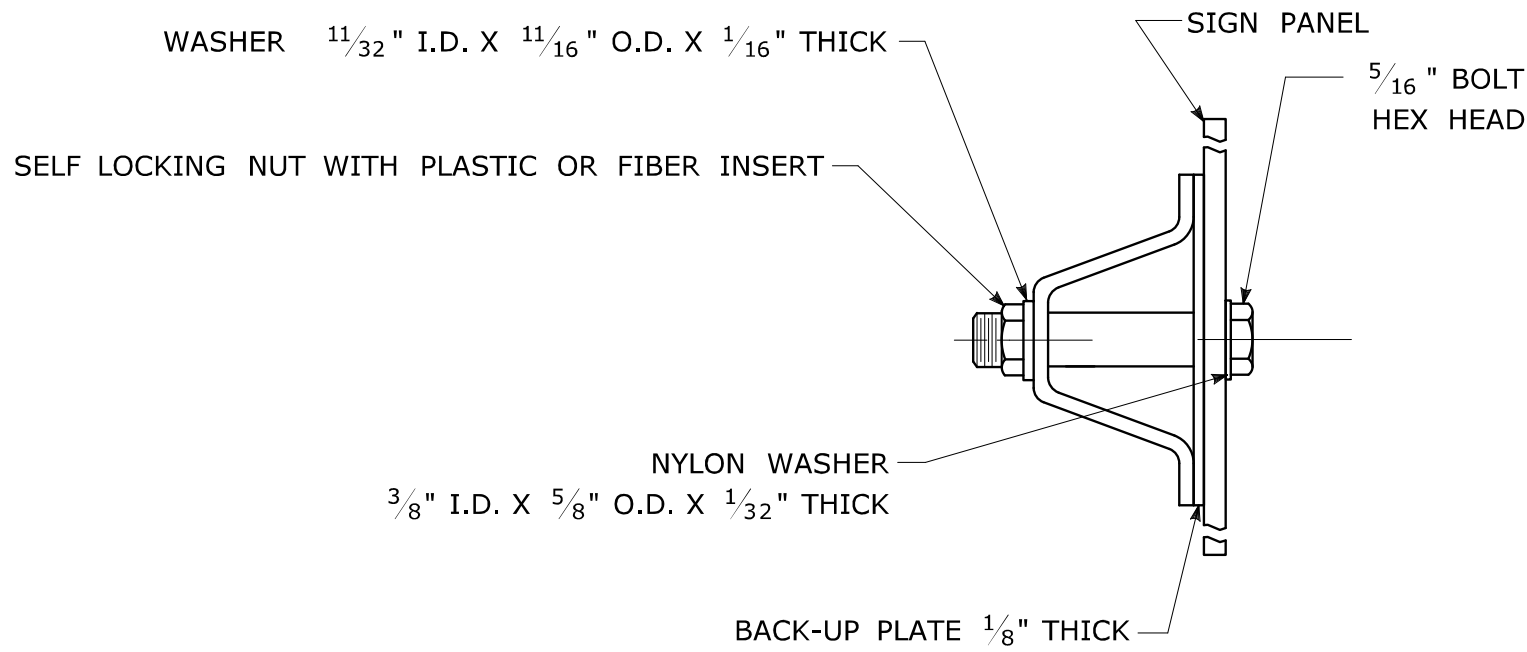
⑤ A CLEAR PATH OF NOT LESS THAN 4 FT SHALL BE PROVIDED IN SIDEWALK AREAS.

			THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		 <div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div> 	SUBMITTED BY:  Mark F. Makuch, P.E. 2018.08.17 09:06:06-04'00'	CTDOT STANDARD SHEET	SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS	TR-1208_01
3	8-2018	INCLUDED INCIDENT MANAGEMENT AND MILE MARKER SIGNS.	NOT TO SCALE	Filename: TR_1208-01-1-2018.dgn	Model: TR-1208-01	APPROVED BY:  Mark F. Carlino, P.E. 2018.08.21 07:48:06-04'00'			
2	4-2017	MINOR REVISIONS.							
1	2-2011	MINOR REVISIONS.							
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 8/10/2018						

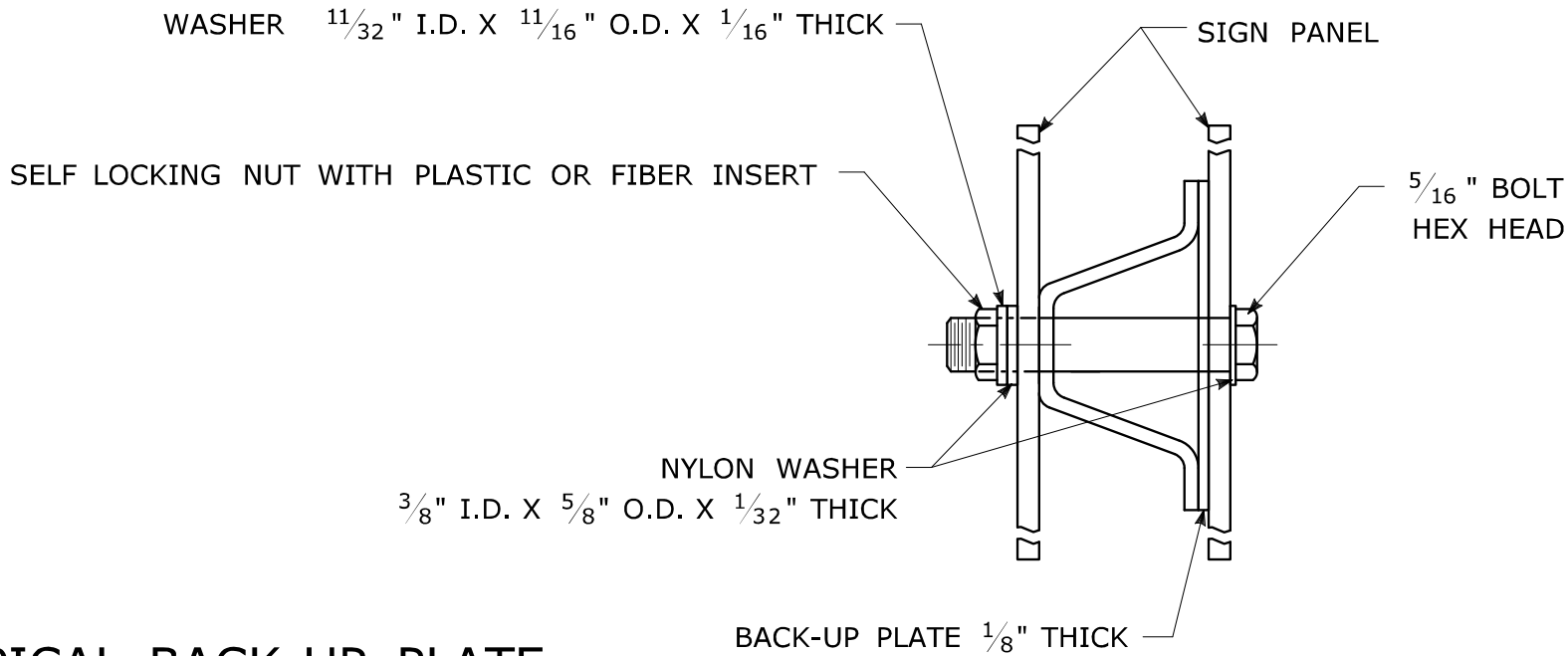
TYPICAL METAL SIGN POSTS



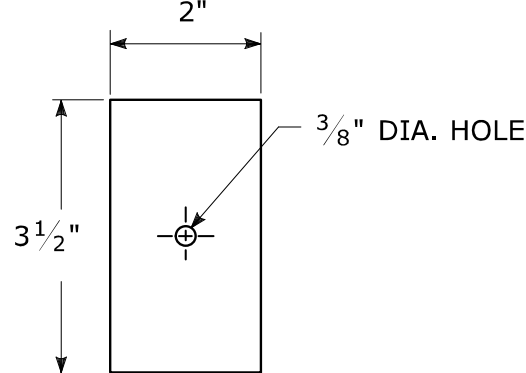
TYPICAL SIGN PANEL ATTACHMENT



TYPICAL BACK TO BACK SIGN PANEL ATTACHMENT



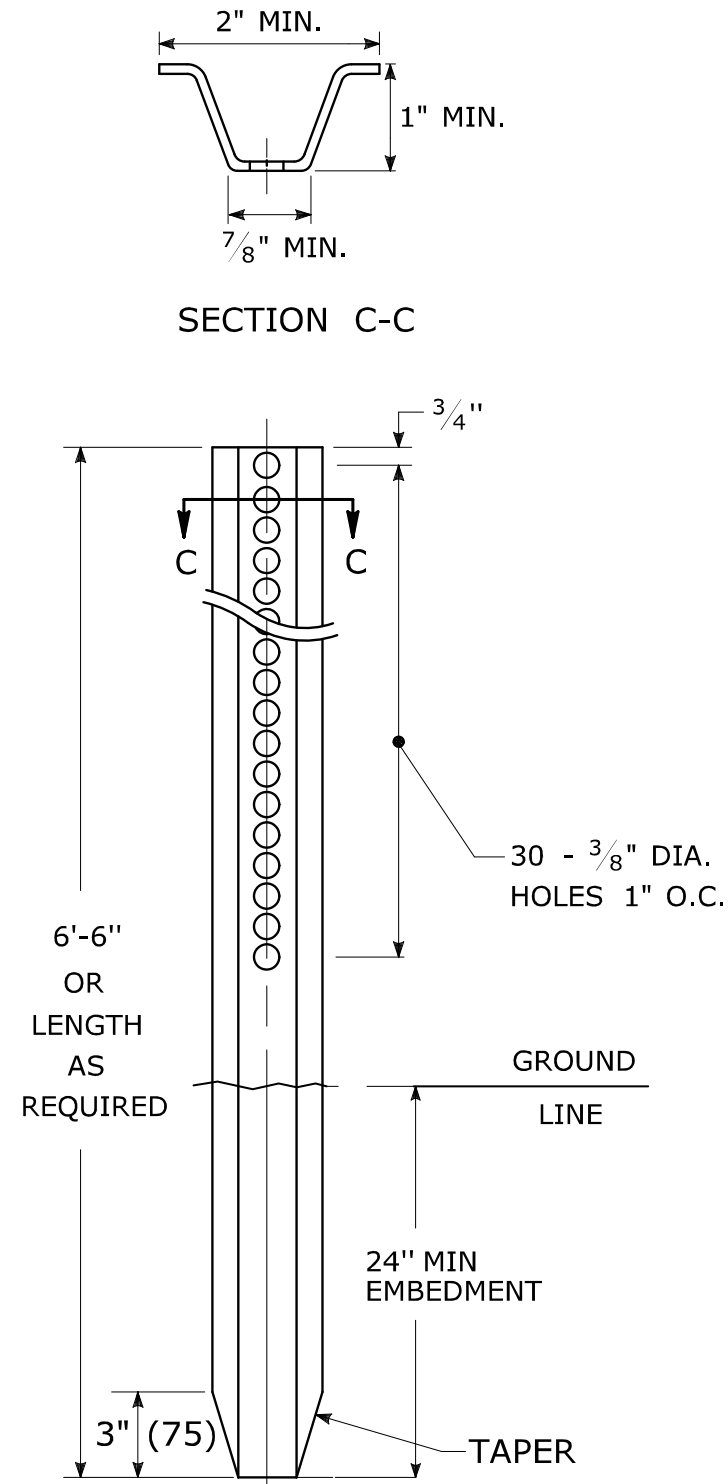
TYPICAL BACK-UP PLATE



BOLTS - STAINLESS STEEL CONFORMING TO ASTM F593, ALLOY GROUP 1 OR 2 (ALLOY TYPES 304 OR 316).
SELF LOCKING NUTS - STAINLESS STEEL CONFORMING TO ASTM F594, ALLOY GROUP 1 OR 2 (ALLOY TYPES 304 OR 316).
WASHERS - STAINLESS STEEL CONFORMING TO ASTM A240, (ALLOY TYPES 304 OR 316).

METAL DELINEATOR POST

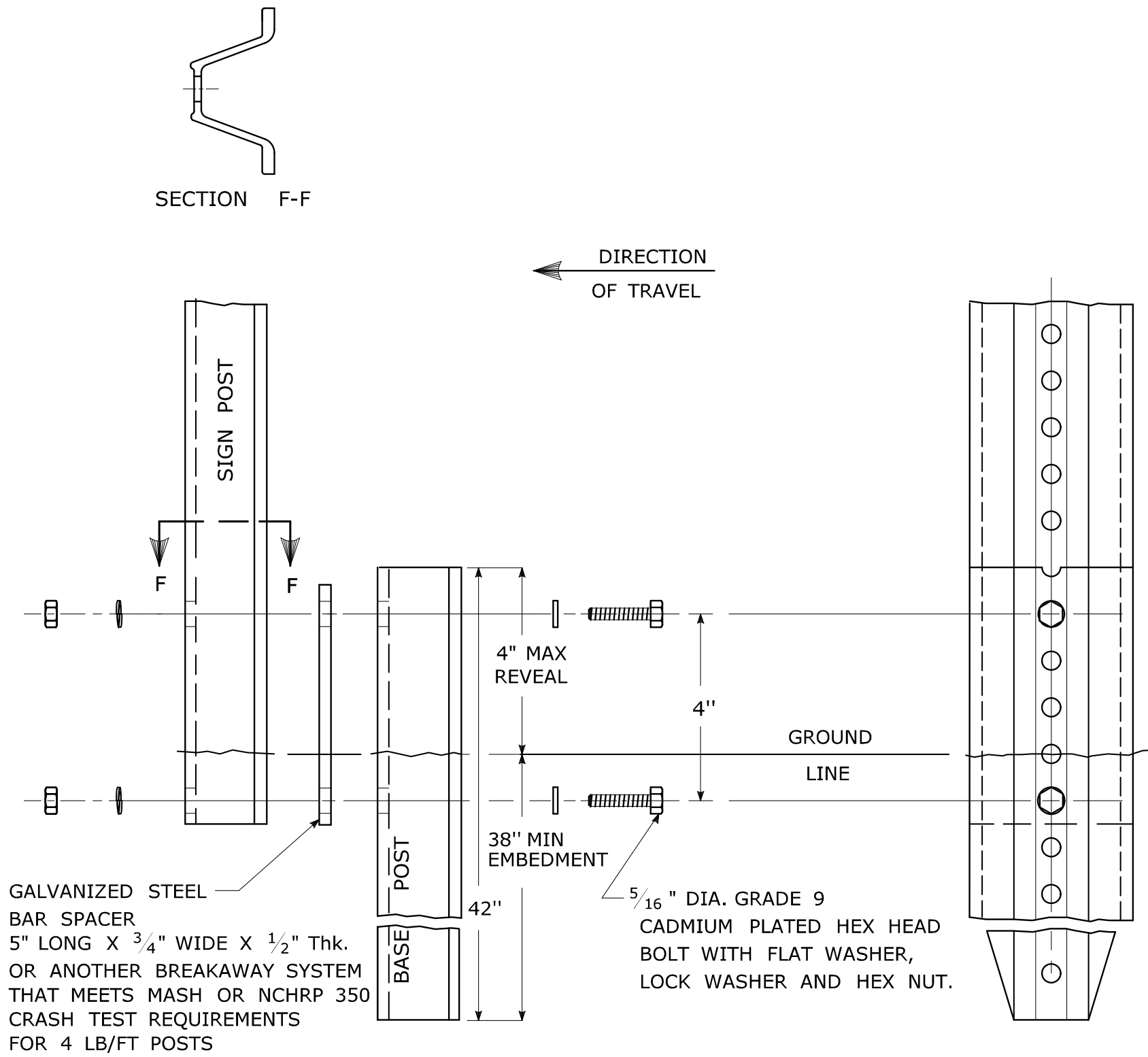
WT./FT. = 1.12 LBS./FT. MIN.



GENERAL NOTES:

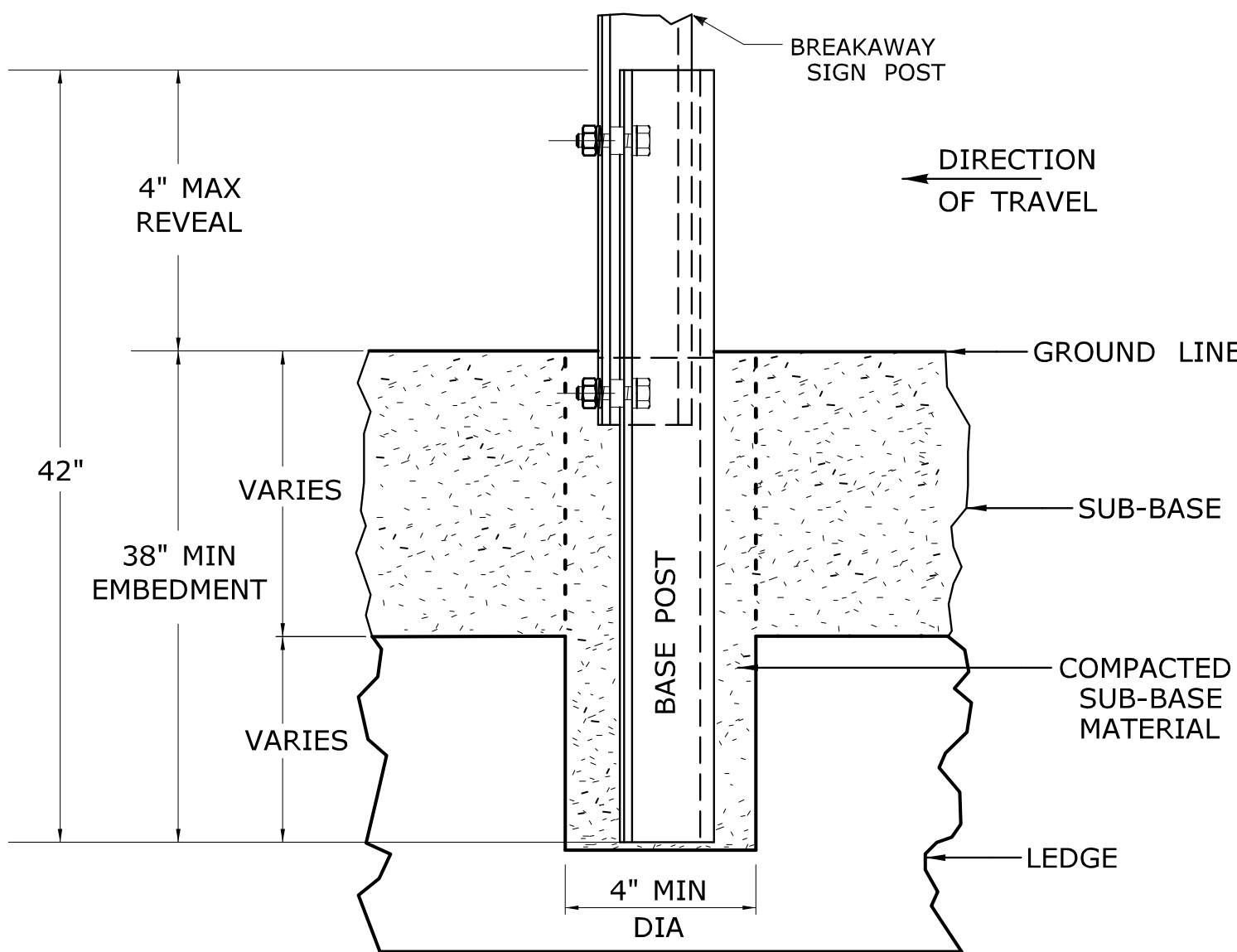
1. STEEL FOR DELINEATOR POSTS SHALL BE ASTM A36 STEEL. STEEL FOR ALL OTHER POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499 GRADE 80 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT (MASS) OF 91 LBS. OR GREATER PER LINEAR YARD.
2. AFTER FABRICATION, ALL STEEL POSTS, STRAPS AND PLATES SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A123.
3. WASHERS FOR BREAKAWAY INSTALLATIONS SHALL MEET ASTM F436, TYPE 1.
4. SPACER BAR FOR BREAKAWAY INSTALLATION SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A36.
5. ALL BOLTS, NUTS, AND WASHERS FOR BREAKAWAY INSTALLATIONS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A153.
6. ALL SIGN POSTS SHALL HAVE BREAKAWAY FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS." THE BREAKAWAY FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 60 mph WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
7. SIGN POSTS SHALL BE 4 LBS./FT.

BREAKAWAY INSTALLATION
FOR 4 LBS./FT. POSTS

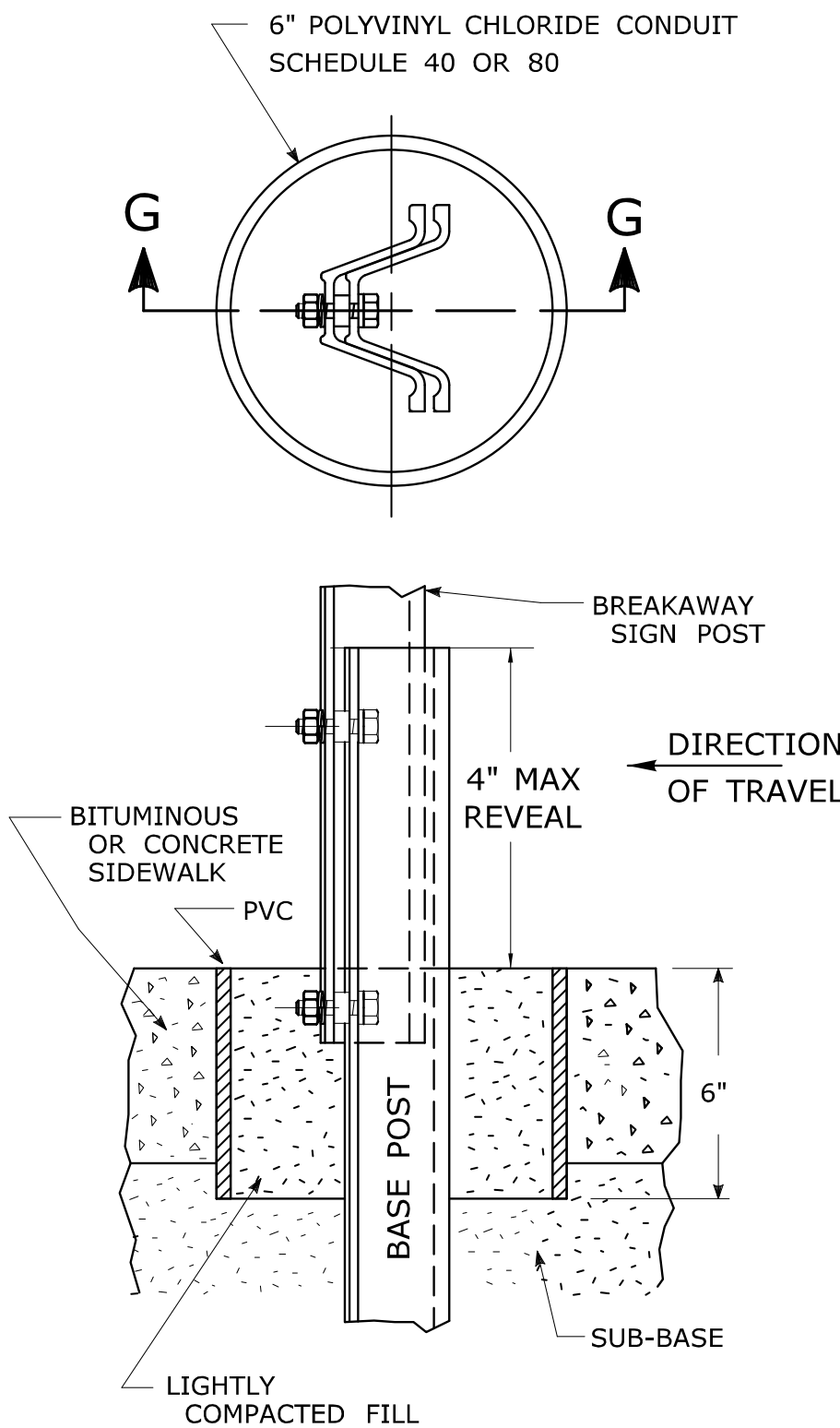


TYPICAL SIGN POST INSTALLATION IN LEDGE

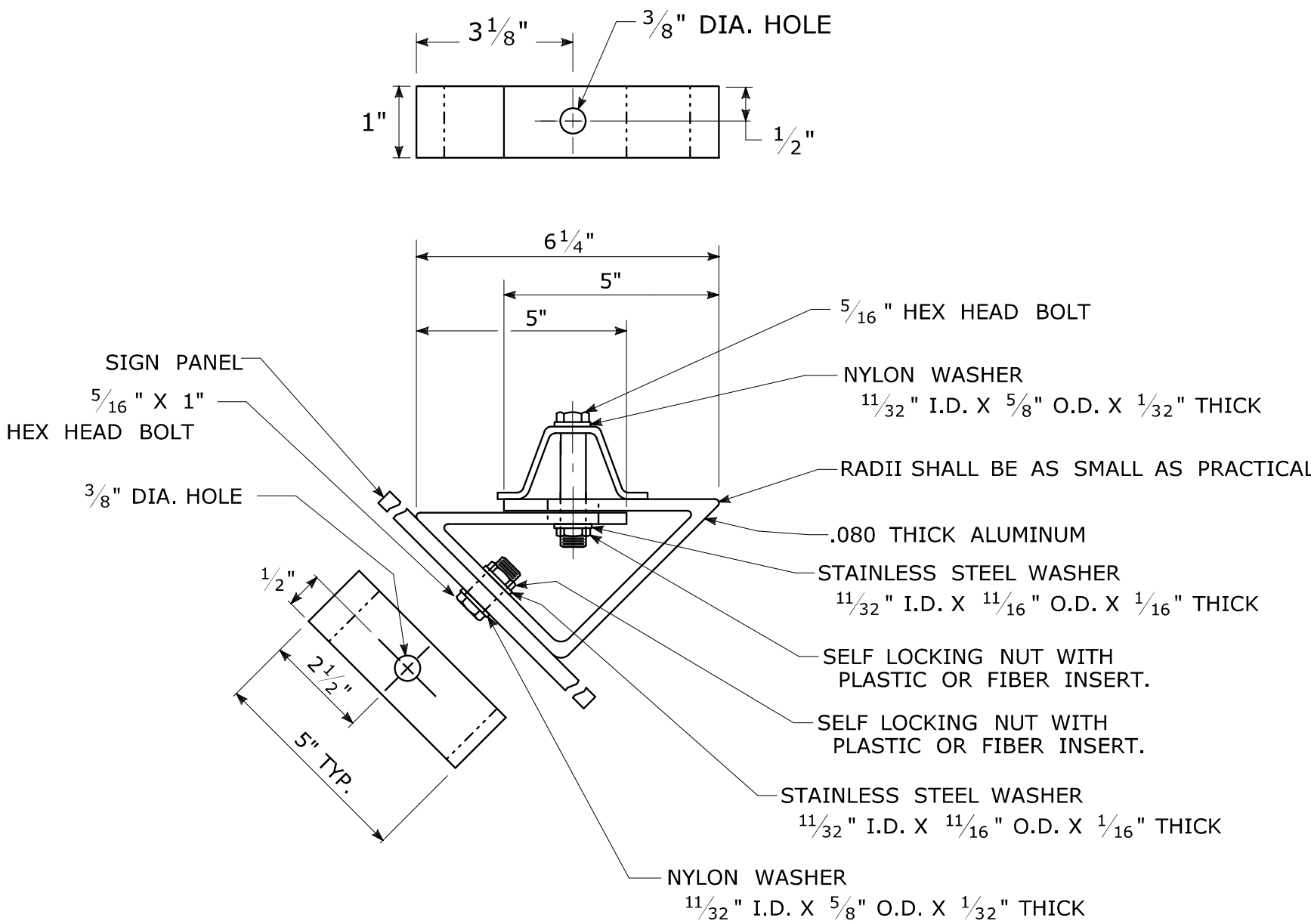
LEDGE SHALL BE REMOVED TO DRIVE THE BASE POST TO A DEPTH OF 38".
HOLE SHALL BE FILLED WITH SUB-BASE MATERIAL AND COMPACTED WITH A TAMPING BAR, OR TECHNIQUE APPROVED BY THE ENGINEER, PRIOR TO BASE POST INSTALLATION.



TYPICAL SLEEVE
FOR PAVED AREAS



45° MOUNTING BRACKET
FOR INSTALLATION OF PARKING SIGNS



REV.	DATE	REVISION DESCRIPTION
2	6-2017	SIGN POST REVISIONS.
1	2-2011	MINOR REVISIONS.

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Plotted Date: 6/6/2017

NOT TO SCALE

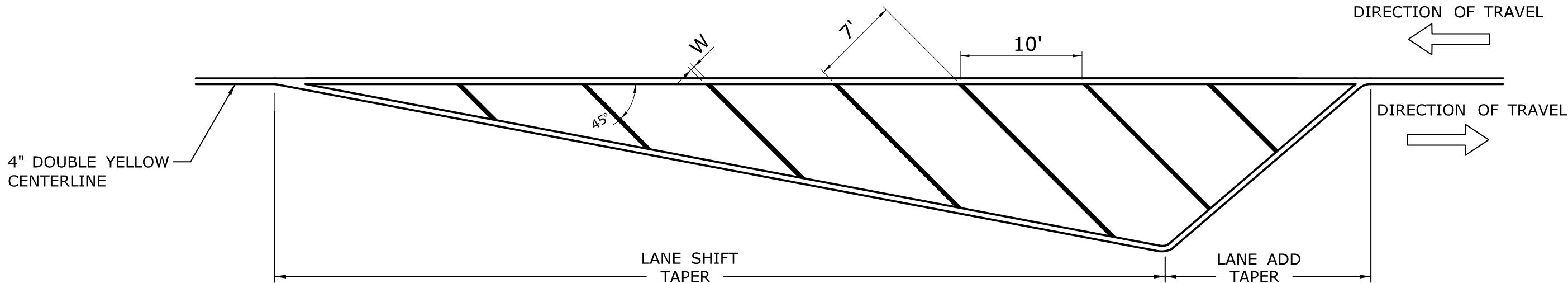
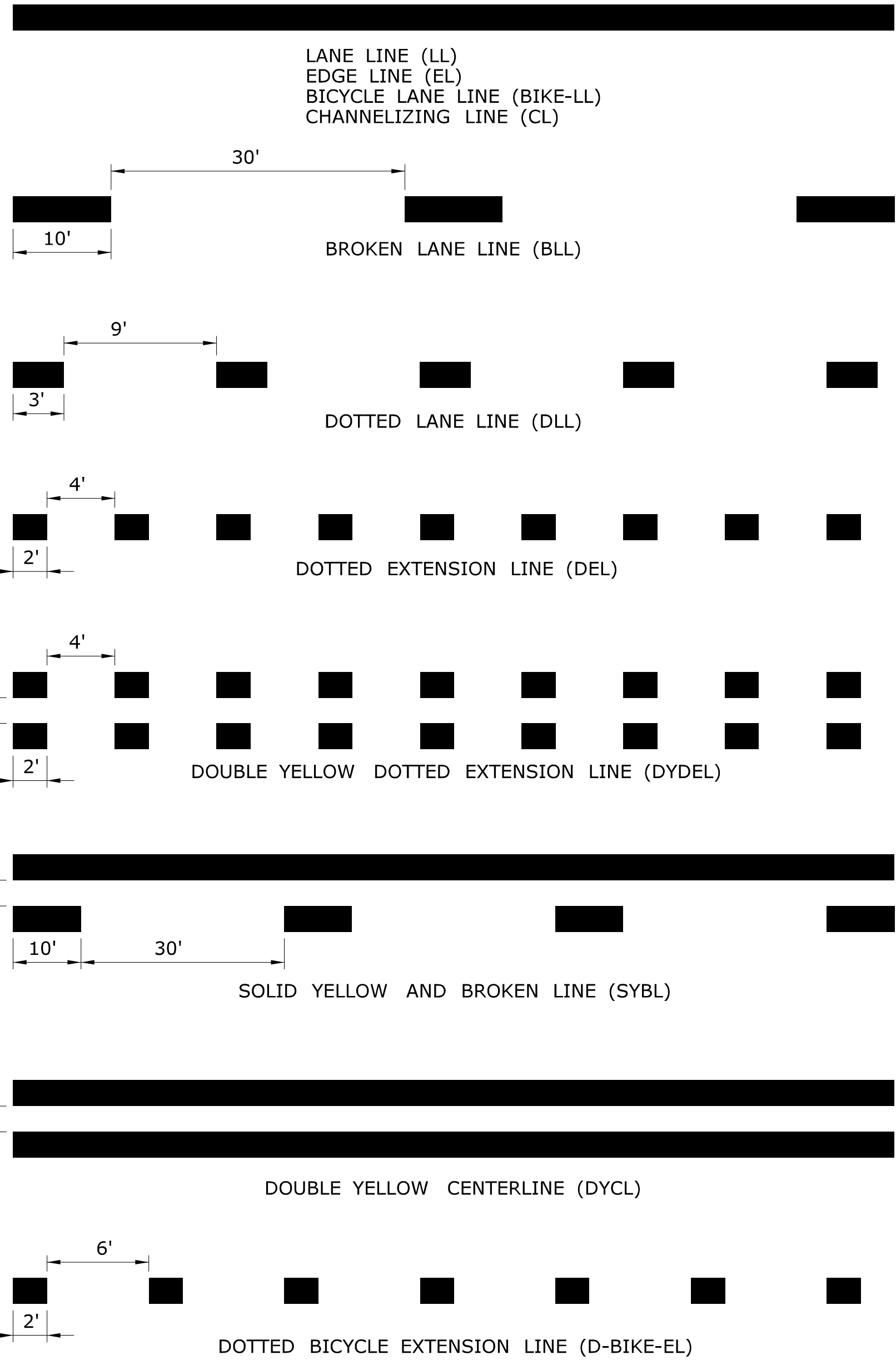
	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION
Filename: TR-1208_02_May_2017_Revision.dgn	Model: TR-1208_02

SUBMITTED BY: 	NAME/DATE/TIME: Mark F. Makuch, P.E. 2017.06.07 07:30:30-04'00'
APPROVED BY: 	NAME/DATE/TIME: Mary E. Baker, P.E. 2017.06.13 15:28:14-04'00'
	Gregory M. Dorosh, P.E. 2017.06.15 09:27:29-04'00'

**CTDOT
STANDARD SHEET**

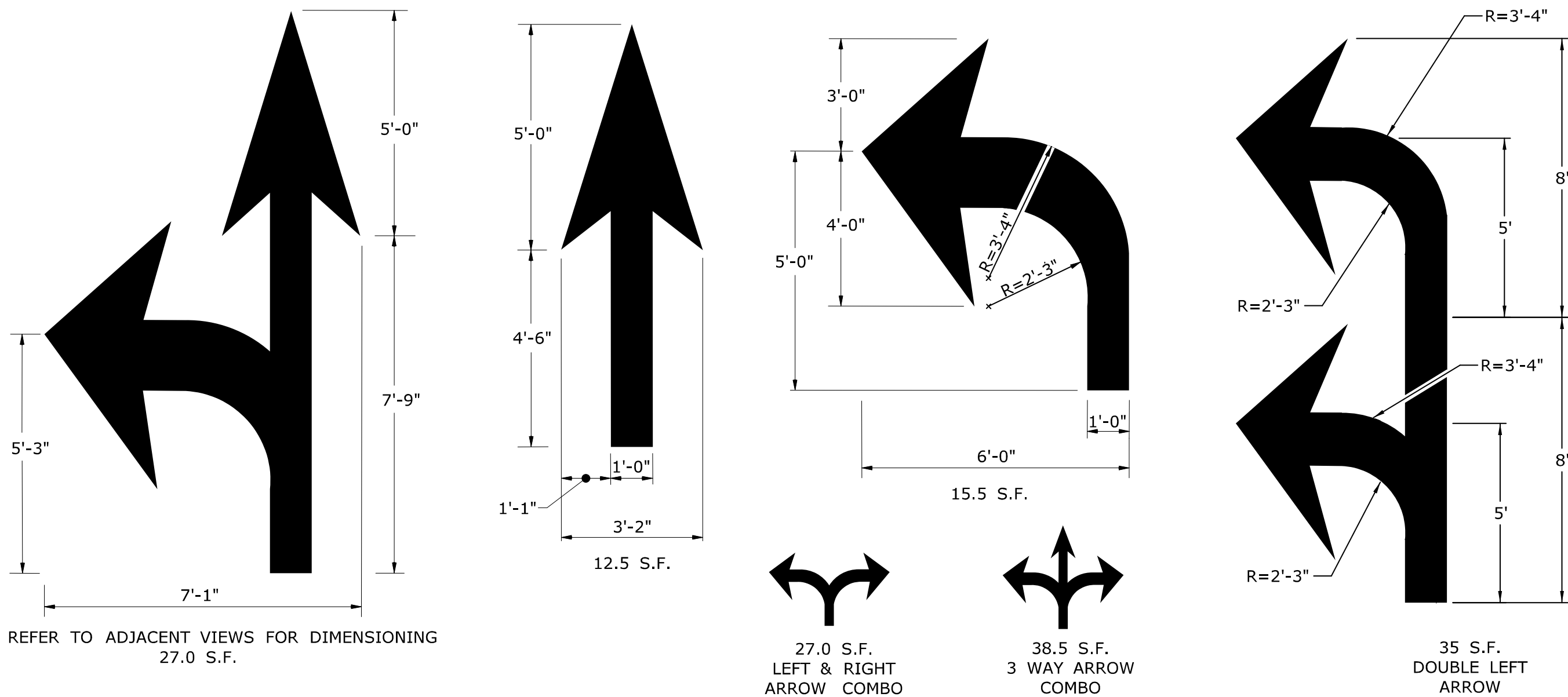
OFFICE OF ENGINEERING

STANDARD SHEET TITLE: METAL SIGN POSTS AND SIGN MOUNTING DETAILS	GUIDE SHEET NO.: TR-1208_02
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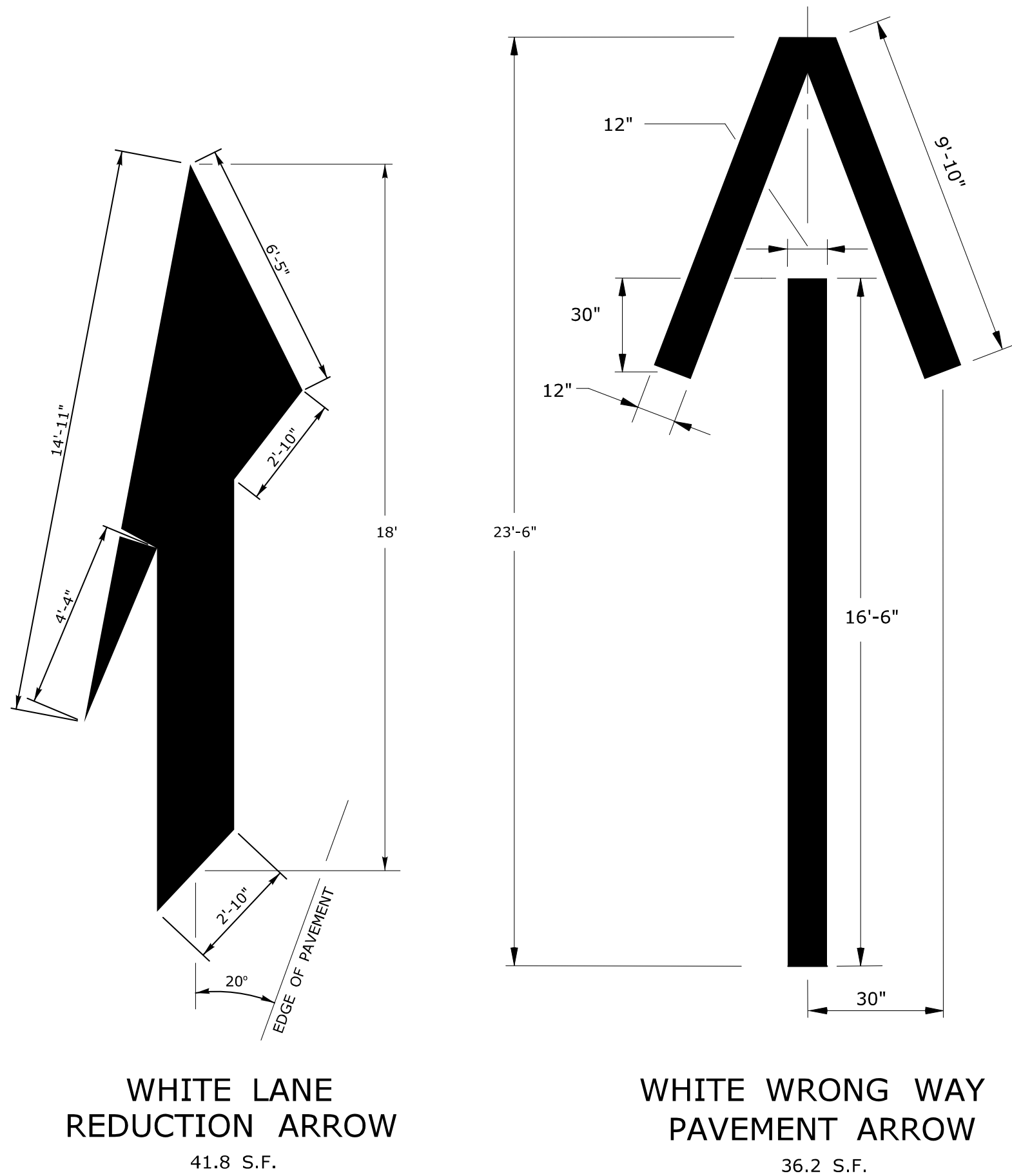
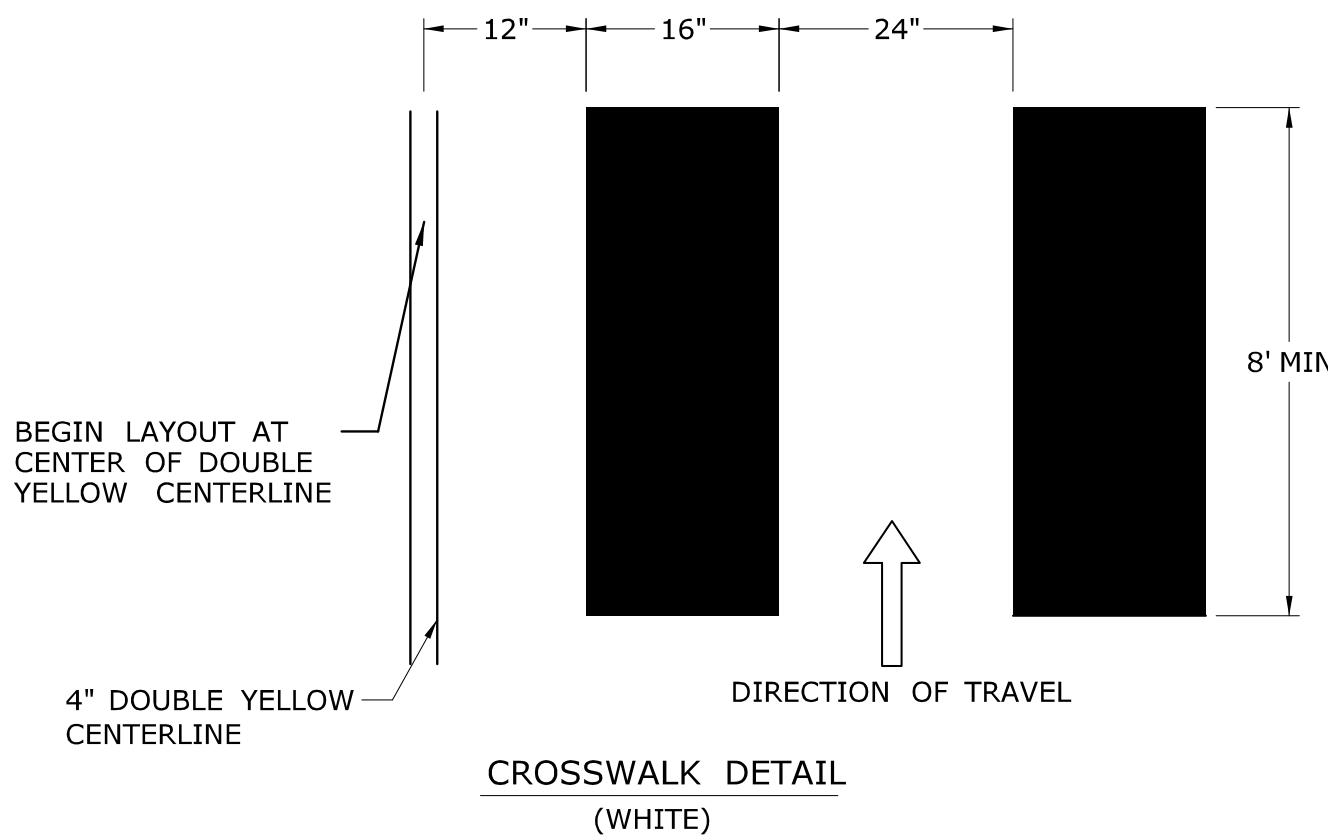
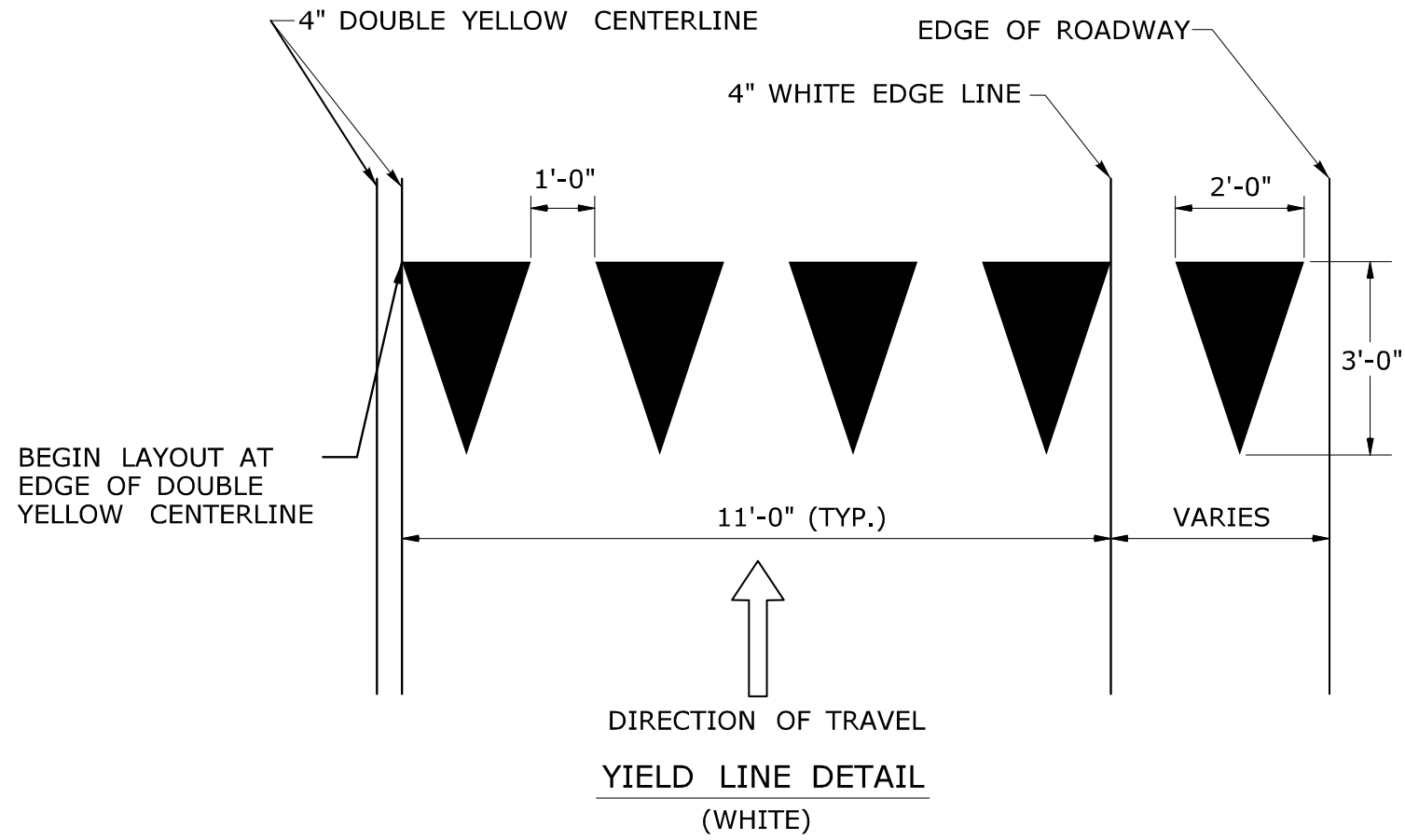
CROSS HATCHED ISLAND DETAIL
(YELLOW)

W IS TO BE 6" WHEN POSTED SPEED \leq 45 MPH
W IS TO BE 12" WHEN POSTED SPEED $>$ 45 MPH
CROSS HATCHED ISLANDS ARE TO BE INSTALLED WHERE CALLED FOR ON THE PLANS



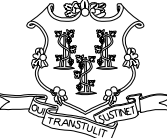

PAVEMENT ARROW DETAILS
(WHITE)

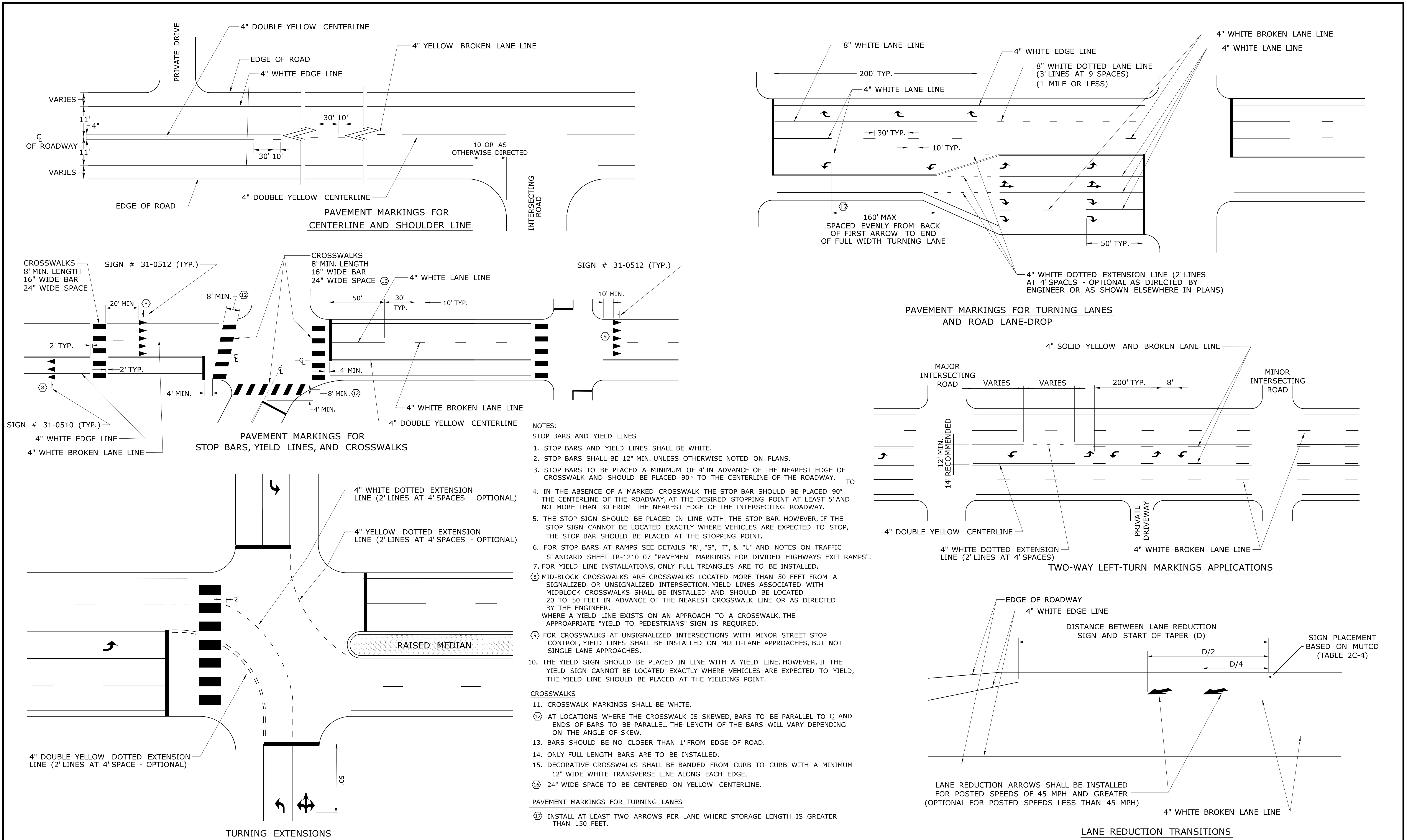
ARROWS SHALL BE CENTERED IN TRAVEL LANE


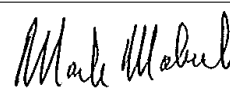



NOTES :

1. AREA OF PAVEMENT MARKINGS AS INDICATED IS APPROXIMATE.
2. RIGHT TURN PAVEMENT MARKING ARROWS ARE MIRROR IMAGE OF LEFT TURN PAVEMENT MARKING ARROWS.

			THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION 	SUBMITTED BY: <i>Mark F. Makuch</i> Mark F. Makuch, P.E. 2018.08.17 09:07:44-04'00'	NAME/DATE/TIME:	CTDOT STANDARD SHEET	STANDARD SHEET TITLE: PAVEMENT MARKING LINES AND SYMBOLS	STANDARD SHEET NO.: TR-1210_04
1	8-2018	REMOVED ROUNDABOUT MARKINGS.				APPROVED BY: <i>Mark F. Carino</i> Mark F. Carino, P.E. 2018.08.21 07:48:45-04'00'	NAME/DATE/TIME:			
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 8/10/2018		Filename: TR-1210_04.dgn	Model: CT-Civil2D-Sheet		OFFICE OF ENGINEERING		



			THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	<div></div> <div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div>	<div><div>SUBMITTED BY: </div><div>APPROVED BY: </div></div> <div><div>NAME/DATE/TIME: Mark F. Makuch, P.E. 2018.08.17 09:10:18-04'00'</div><div>NAME/DATE/TIME: Mark F. Carino, P.E. 2018.08.21 07:49:18-04'00'</div></div>	CTDOT STANDARD SHEET OFFICE OF ENGINEERING	STANDARD SHEET TITLE: PAVEMENT MARKINGS FOR NON FREEWAYS	STANDARD SHEET NO.: TR-1210_08
1	8-2018	REVISED YIELD LINE SIGNAGE AND NOTES.							
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 8/10/2018		Filename: TR-1210_08.DGN	Model: TR-1210_05			



NOTES FOR PORTABLE SIGN SUPPORTS:

- * FOR E5-1 (EXIT SIGNS) USE MIN 48".



- NOTES:

- # TRAFFIC CONE

NOTES:

- ## TYPE II BARRICADE



NOTES:

- ## RURAL AREA

URBAN AREA







NOTES:

SUPPORTS SHALL BE METAL SIGN POSTS AND HAVE BREAK-AWAY FEATURES.

REFER TO STANDARD SHEETS:
 TR-1208_01 - "SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS."
 TR-1208_02 - "METAL SIGN POSTS AND SIGN MOUNTING DETAILS."

- NOTES:

- | | | | | | | | | | | | | |
|------|--------|---|---|--|---|---|---------------------------------------|--|-----------------------|---------------------|---|------------------------------|
| | | | THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. |  STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION |  | SUBMITTED BY: NAME/DATE/TIME: | CTDOT
STANDARD SHEET | CONSTRUCTION SIGN SUPPORTS
AND CHANNELIZING DEVICES | STANDARD SHEET TITLE: | STANDARD SHEET NO.: | | |
| 3 | 8-2018 | UPDATED SHEETING TYPE AND COLOR. | NOT TO SCALE | | | APPROVED BY: NAME/DATE/TIME: | | | | | Mark F. Makuch, P.E.
2018.08.17
09:12:43-04'00" | OFFICE OF ENGINEERING |
| 2 | 8-2015 | UPDATED PER MUTCD AND FORM 816 JAN 2015 REVISION. | | | |  | | | | | Mark F. Carlinio, P.E.
2018.08.21 07:49:51-04'00" | |
| 1 | 2-2011 | MINOR REVISIONS. | | | |  | | | | | | |
| REV. | DATE | REVISION DESCRIPTION | | | | Plotted Date: 8/10/2018 | | | | | | |