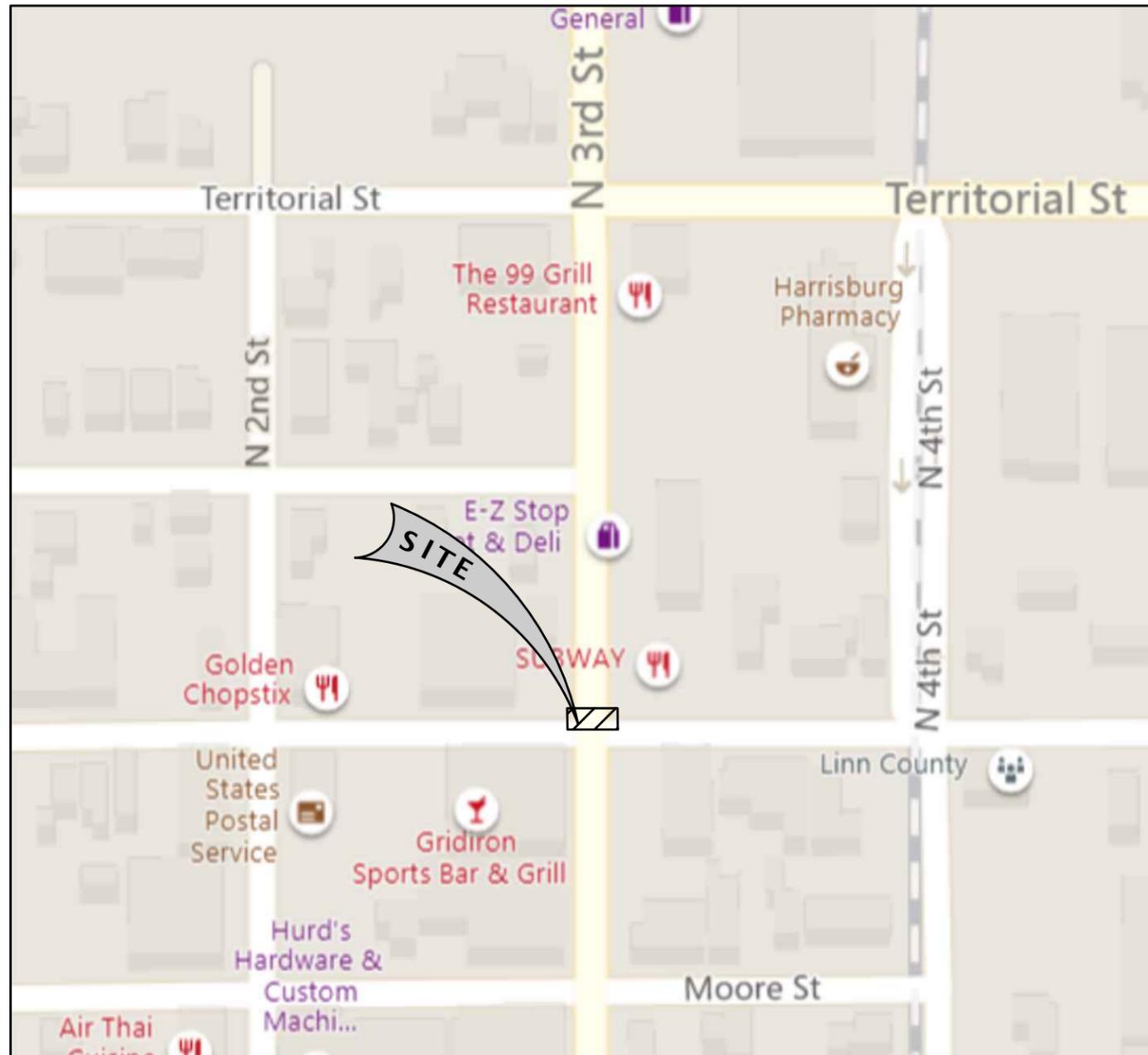


CITY OF HARRISBURG

3RD AND SMITH STREET

RRFB CROSSING IMPROVEMENTS

3RD/HWY. 99E & SMITH STREET



SHEET #	SHEET TITLE
C1	COVER SHEET
C2	EXISTING CONDITIONS AND DEMOLITION PLAN
C3	ADA GRADING DETAILS
C4	RRFB PLAN
TC1	TPARP – NORTHWEST CORNER
TC2	TPARP – NORTHEAST CORNER

TO BE ACCOMPANIED BY ODOT STANDARD DRAWINGS
TM200, TM457, TM467, TM493, TM500, TM501,
TM503, TM521, TM530, TM531, TM676, TM820,
TM821, TM844

UTILITY PROVIDERS		
UTILITY	PROVIDER	PHONE NUMBER
WATER	CITY OF HARRISBURG	541-995-6655
SEWER	CITY OF HARRISBURG	541-995-6655
STORM	CITY OF HARRISBURG	541-995-6655
ELECTRIC	PACIFIC POWER	541-967-6179
GAS	NW NATURAL	971-376-1293
TELEPHONE	LUMEN	541-636-9971
TELEVISION	COMCAST	541-230-0079

HARRISBURG
3RD AND SMITH STREET RRFB
HARRISBURG, OR

revisions:

date: MARCH 26, 2026
drawn by: DNH
designer: DNH
project no: 24-009C

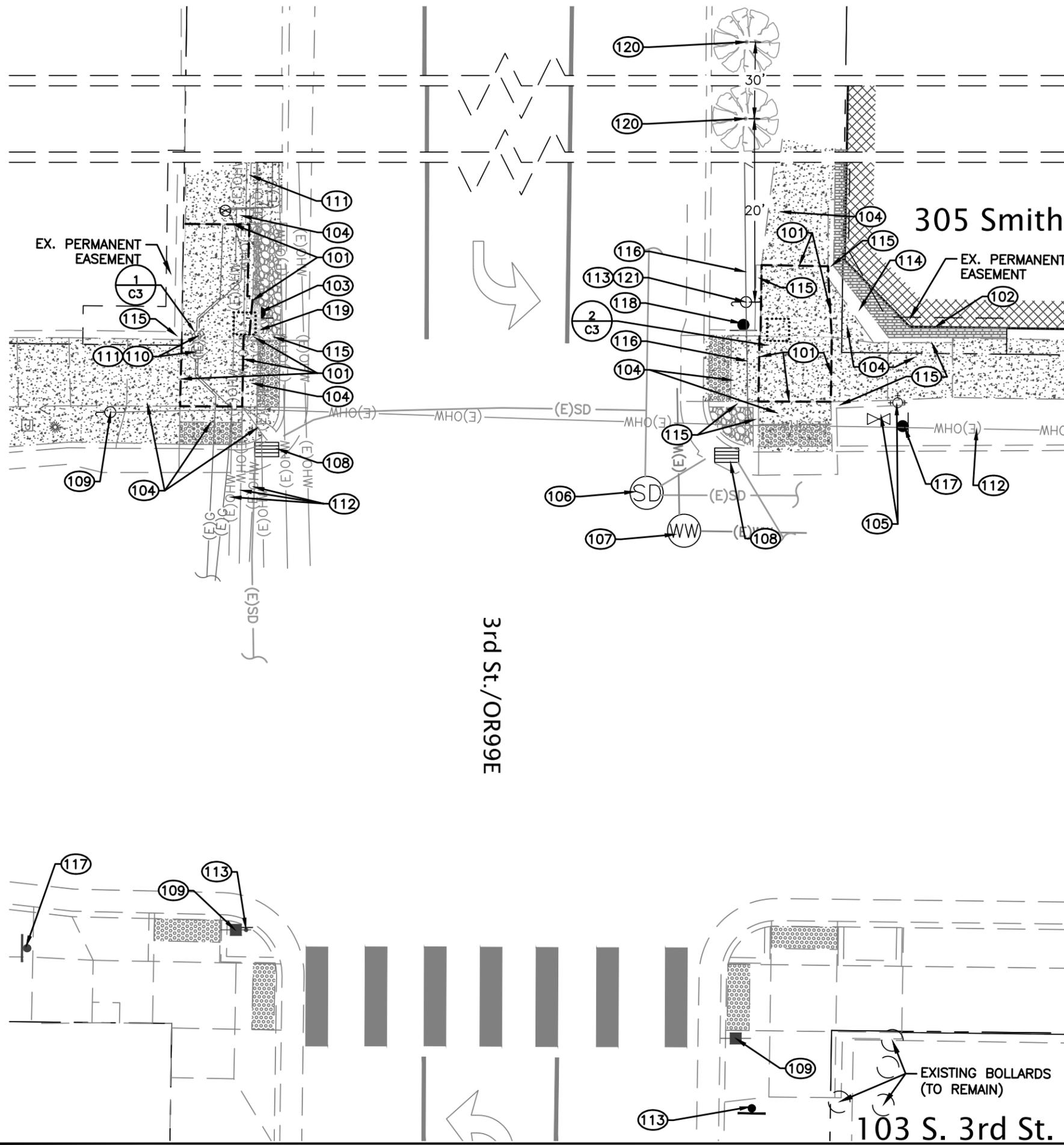
Cover Sheet

sheet:

C1



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CONSTRUCTION NOTES

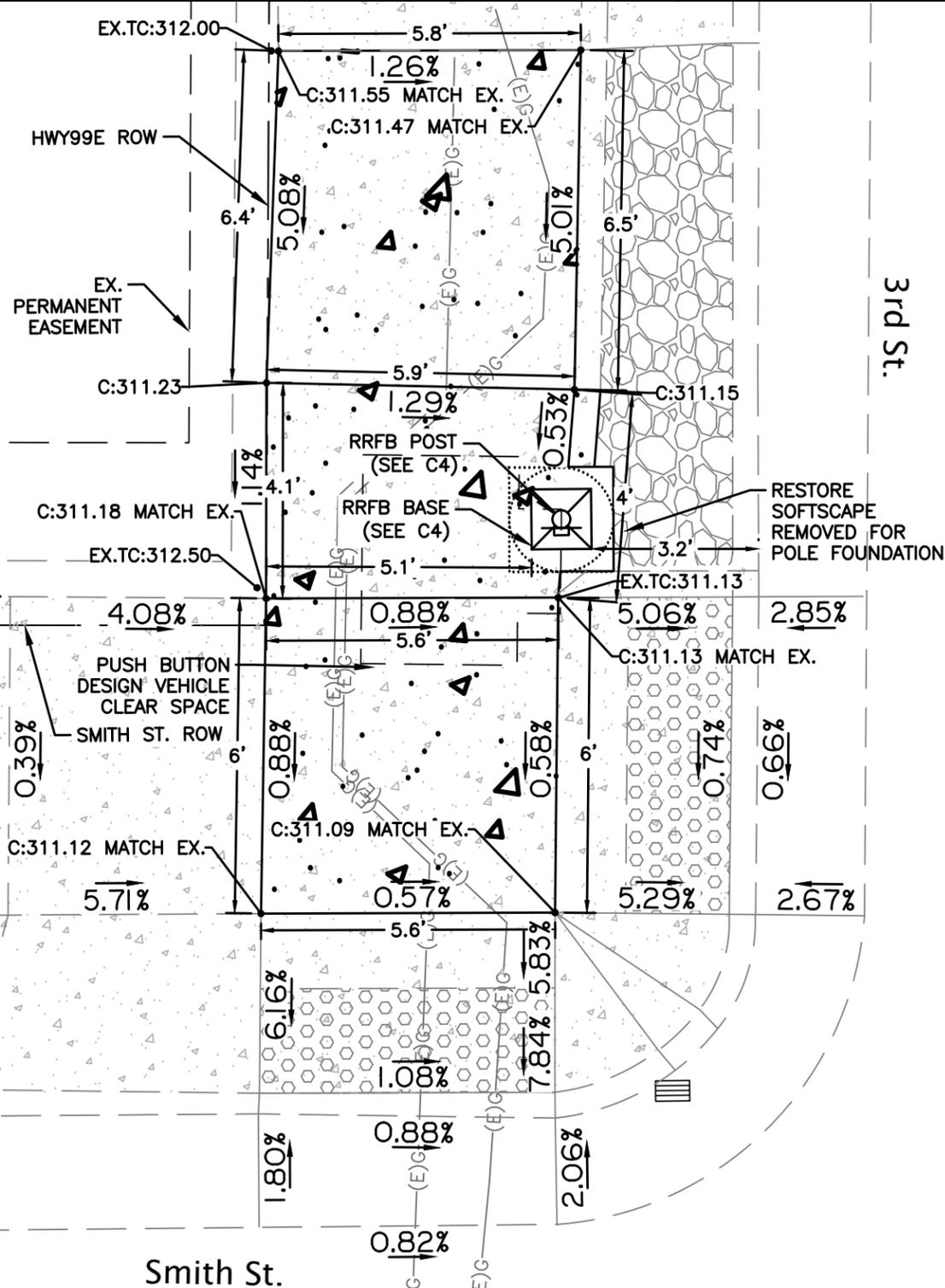
- 101 → SAWCUT AND REMOVE EXISTING CONCRETE SURFACE TO EXTENTS SHOWN. PROTECT SAWCUT EDGE FROM DAMAGE. CONCRETE SHOWN AT NORTHWEST CORNER MAY BE ASPHALT SURFACING FROM GAS LINE RELOCATION. SEE NOTE 111.
- 102 → PROTECT EXISTING BRICK SURFACE.
- 103 → REMOVE AND SAVE EXISTING SIGN. REMOVE EXISTING SUPPORT AND FOUNDATION. SEE SHEET C4.
- 104 → PROTECT EXISTING CONCRETE SIDEWALK.
- 105 → PROTECT EXISTING FIRE HYDRANT AND WATER VALVE.
- 106 → PROTECT EXISTING STORM MANHOLE.
- 107 → PROTECT WASTE WATER MANHOLE.
- 108 → PROTECT EXISTING CATCH BASIN AND STORM LINE.
- 109 → PROTECT EXISTING UTILITY POLE TO REMAIN. COORDINATE ANY CONFLICTS WITH LUMEN (DEREK VAIL 541-636-9971) AND PACIFIC POWER (JEFFREY STONE 541-967-6179).
- 110 → PROTECT EXISTING GAS LINE.
- 111 → PROTECT RELOCATED GAS LINE. LOCATION SHOWN IS APPROXIMATE. NORTHWEST NATURAL TO RELOCATE GAS LINE PRIOR TO CONSTRUCTION. COORDINATE WITH SARAH FOLLETT AT NWNG (971) 376-1293
- 112 → PROTECT EXISTING OVERHEAD FIBER OPTIC LINE.
- 113 → REMOVE EXISTING SIGN. PROTECT EXISTING SUPPORT TO REMAIN. SEE SHEET C4.
- 114 → PROTECT EXISTING CONCRETE STEP.
- 115 → PROTECT EXISTING CONCRETE CURB.
- 116 → PROTECT EXISTING GUY WIRE.
- 117 → PROTECT EXISTING SIGN AND SUPORT TO REMAIN.
- 118 → REMOVE EXISTING SIGN AND SUPPORT.
- 119 → REMOVE EXISTING ROCK SOFTSCAPE AS NEEDED FOR NEW POLE FOUNDATION. RESTORE AFTER POLE FOUNDATION AND SIDEWALK REPLACEMENT IS COMPLETE.
- 120 → TRIM TREE LIMBS AND BRANCHES ON ALL SIDES OF TREE TO PROVIDE VERTICAL CLEARANCE OF 9.0 FEET, AS MEASURED ABOVE THE EXISTING ADJACENT SIDEWALK GRADE. BACKSIDE (NORTH FACING) RRFB LED ARRAY SHALL BE VISIBLE FOR A DISTANCE OF 250' (MIN) APPROACHING FROM SOUTHBOUND THROUGH TRAVEL LANE.
- 121 → EXISTING WOOD UTILITY POLE TO BE REPLACED BY OTHERS (PP&L) PRIOR TO CONSTRUCTION. NEW POLE TO INCLUDE LIGHTING (BY OTHERS). PROTECT POLE AND GUY WIRES.
- 1 C3 → RECONSTRUCT ADA LANDING AT NORTHWEST CORNER AFTER POLE FOUNDATION IS IN PLACE. SEE SHEETS C3 AND C4.
- 2 C3 → RECONSTRUCT ADA LANDING AT NORTHEAST CORNER AFTER POLE FOUNDATION IS IN PLACE. SEE SHEETS C3 AND C4.



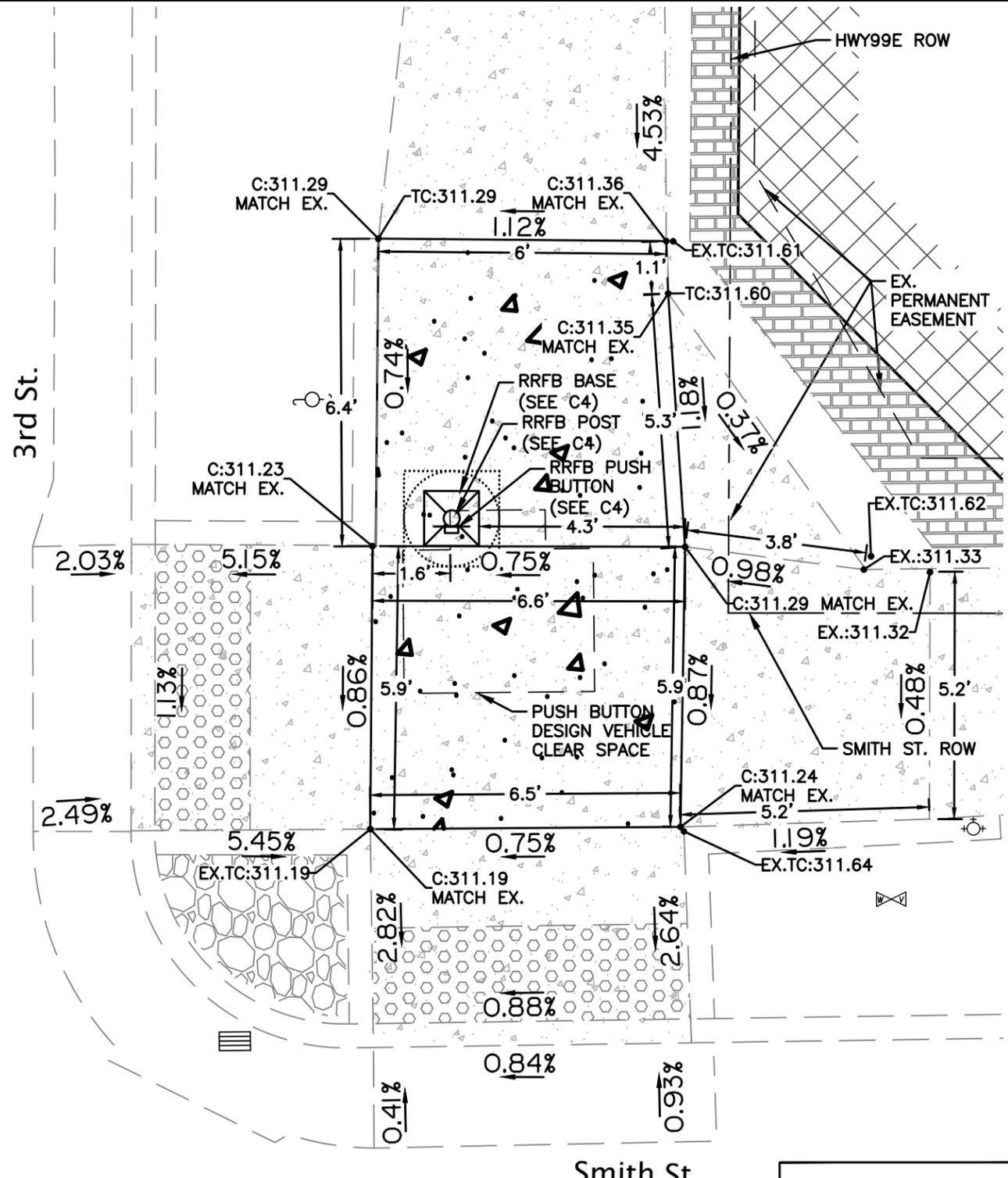
**HARRISBURG
 3RD AND SMITH STREET RRFB**
 HARRISBURG, OR

revisions:
 date: MARCH 26, 2026
 drawn by: DNH
 designer: DNH
 project no: 24-009C
 EX. CONDS & DEMO
 sheet: **C2**

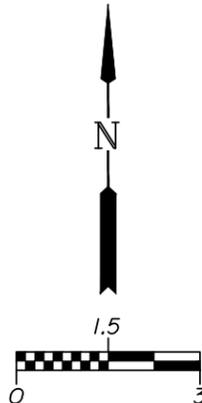
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1
 C3 **3rd & Smith - NW ADA Ramp**
 SCALE: 1"=5'



2
 C3 **3rd & Smith - NE ADA Ramp**
 SCALE: 1"=5'

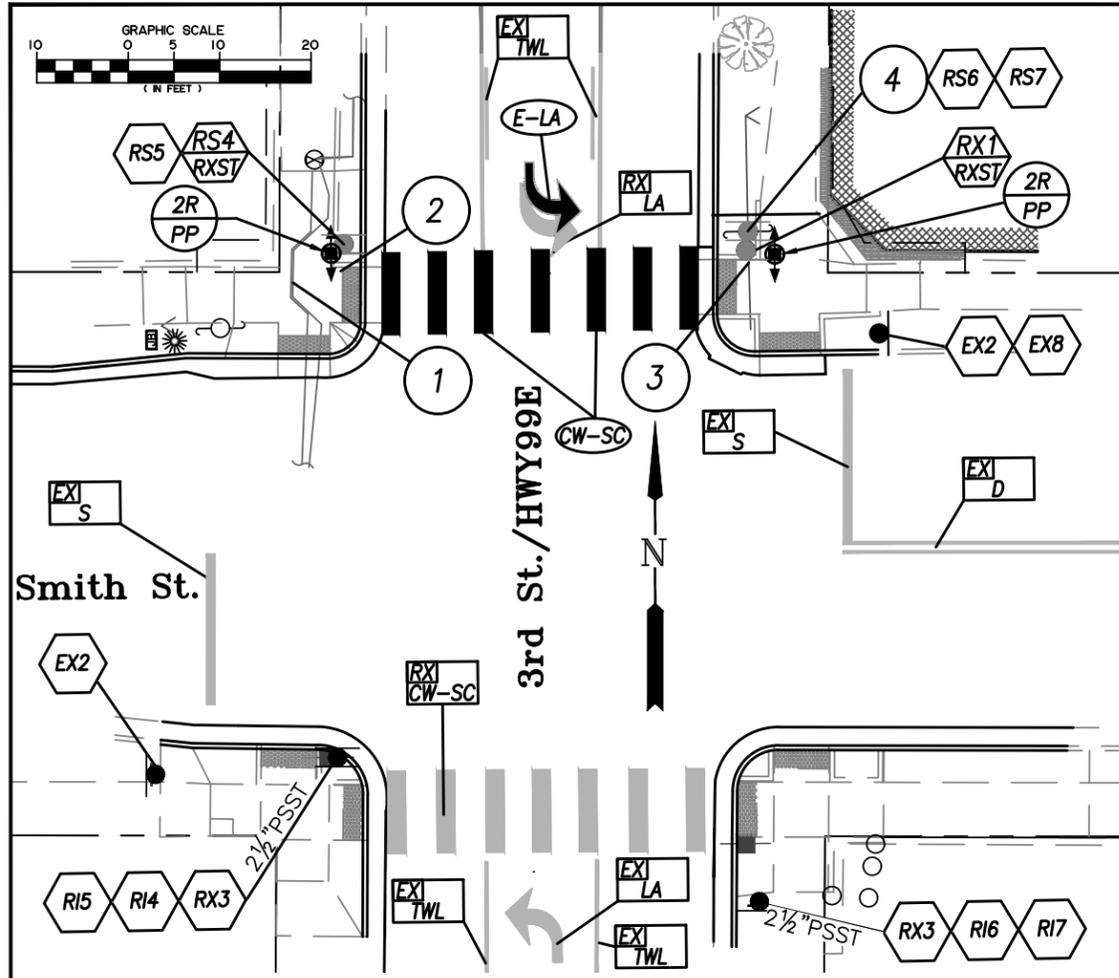


**HARRISBURG
 3RD AND SMITH STREET RRFB**
 HARRISBURG, OR

revisions:

date:	MARCH 26, 2026
drawn by:	DNH
designer:	DNH
project no:	24-009C
ADA GRADING PLAN	





RRFB CONSTRUCTION NOTES:

- (XR/PP)** INSTALL (X=NUMBER) SIDED WIRELESS AND SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON SYSTEM, AND PEDESTRIAN PUSH BUTTON ON VEHICLE SIGNAL PEDESTAL FOUNDATION. SEE ADDITIONAL DETAILS THIS SHEET
- (NOTE)** USE ONLY GREEN SHEET LISTED RRFB SYSTEMS. CONTROLLER, BATTERY AND OTHER HARDWARE TO BE ENCLOSED IN SOLAR PANEL COMPARTMENT.
- (1)** EXISTING GAS LINE TO BE RELOCATED PRIOR TO DRILLING NEW FOUNDATION. LOCATION SHOWN IS APPROXIMATE LOCATION OF RELOCATED GAS LINE.
- (2)** EXISTING OVERHEAD CLEARANCE (BOTTOM OF LOW VOLTAGE FIBER OPTIC SPLICE, SEE SHEET C2)= 16.66'.
- (3)** EXISTING OVERHEAD CLEARANCE (GUY WIRE)=19.77'. CHECK CLEARANCE PRIOR TO ORDERING AND RRFB SYSTEM. NOTIFY ENGINEER IF CONFLICTS EXIST.
- (4)** EXISTING WOOD POLE TO BE REPLACED AND NEW POLE AND STREET LIGHT TO BE INSTALLED BY OTHERS (PP&L) PRIOR TO RRFB CONSTRUCTION.

FLASHING BEACON PLAN
 OR-99E ALBANY-JUNCTION CITY HWY
 AT SMITH STREET (HARRISBURG)
 HIGHWAY 058 AT M.P. 28.59

TRAFFIC SECTION APPROVAL-SCOTT CRAMER		
HWY: 058	TSSU NO. 4S200	TRS
MP: 28.59	4S201	20239

STRIPING NOTES:

- (EX/T)** MAINTAIN AND PROTECT EXISTING STRIPING (T=TYPE)
- (RX/T)** REMOVE STRIPING (T=TYPE) USING AN APPROVED METHOD PER CURRENT ODOT STANDARD SPECIFICATIONS
- (CW-SC)** CONSTRUCT CONTINENTAL CROSSWALK PER ODOT STANDARD DRAWINGS TM503 AND TM530
- (E-LA)** CONSTRUCT (E-LA) ELONGATED LEFT-TURN ARROW PER ODOT STANDARD DRAWING TM501

REFER TO STANDARD DRAWINGS TM530, TM560 AND TM561 FOR STRIPING INSTALLATION DETAILS

ALL LONGITUDINAL MARKINGS SHALL BE EXTRUDED OR SPRAYED THERMOPLASTIC APPLIED USING METHOD AB.

TRANSVERSE MARKINGS AND LEGENDS SHALL BE TYPE B-HS PREFORMED FUSED THERMOPLASTIC FILM HIGH SKID.

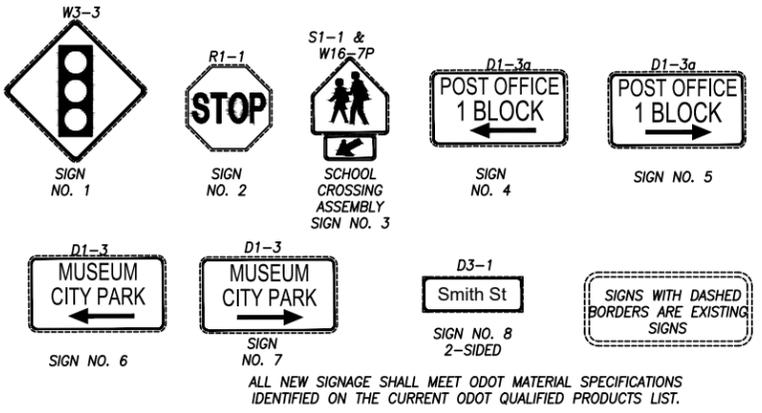
EXISTING STRIPING TYPES (T)
 S = STOP BAR
 TWL = TWO-WAY LEFT-TURN 4" YELLOW LINES
 LA = LEFT TURN ARROW
 D = DOUBLE NO-PASS 4" YELLOW

SIGNING NOTES:

- (EXN)** MAINTAIN AND PROTECT EXISTING SIGN (N) AND SIGN SUPPORT
- (RXN)** REMOVE EXISTING SIGN (N). PROTECT SIGN SUPPORT TO REMAIN
- (RSN)** REMOVE AND SAVE EXISTING SIGN (N).
- (RXN/RXM)** REMOVE EXISTING SIGN (N) AND (M) SIGN SUPPORT.
- (RSN/RXM)** REMOVE AND SAVE EXISTING SIGN (N). REMOVE (M) SIGN SUPPORT AND FOUNDATION PER SPECIFICATIONS.
- (RIN)** REINSTALL EXISTING SIGN (N).

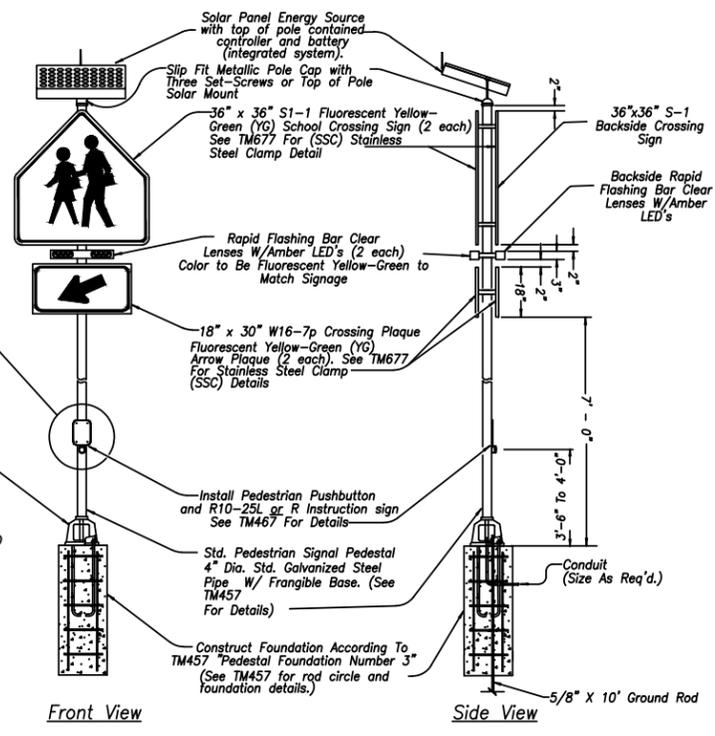
N = SIGN NUMBER
 M = SUPPORT MATERIAL:
 ST = PERFORATED STEEL TUBE

SEE ODOT STANDARD DRAWING TM457		EQUIPMENT ON POLE				
POLE NO.	TRS DWG. NO.	TYPE	FOUNDATION NUMBER	PED. SIGNAL DEG.	PED PUSH BUTTON DEG.	SIGN DEG.
4S201	20239	PP	3	0,180	180	0,180
4S200	20239	PP	3	0,180	180	0,180

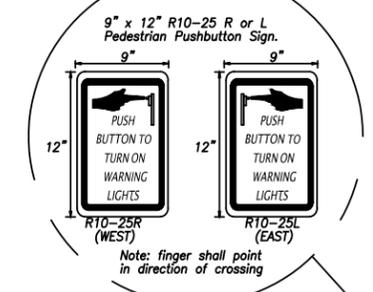


ALL NEW SIGNAGE SHALL MEET ODOT MATERIAL SPECIFICATIONS IDENTIFIED ON THE CURRENT ODOT QUALIFIED PRODUCTS LIST.
 REINSTALLATION OF SIGNAGE SHALL BE IN COMPLIANCE WITH ODOT STANDARD DRAWINGS TM200 AND TM687, WHERE APPLICABLE.
 THIS DRAWING TO BE ACCOMPANIED BY ODOT STANDARD DRAWINGS TM200, TM457, TM467, TM493, TM500, TM501, TM503, TM521, TM530, TM531 & TM676.

NOTE: CONTACT THE REGION 2 SIGNAL OPERATIONS ENGINEER (DARREN LAWRENCE 971-599-9419) TO SCHEDULE ACTIVATION OF RRFB SYSTEM THE ODOT SIGNAL TIMER TO PROVIDE AND VERIFY DURATION OF FLASHING INTERVAL
 FIELD VERIFY OVERHEAD CLEARANCE TO EXISTING UTILITIES BEFORE ORDERING AND INSTALLING EQUIPMENT.



RECTANGULAR RAPID FLASHING BEACON SYSTEM
 PEDESTRIAN PEDESTAL INSTALLATION (TWO SIDED)
 NOT TO SCALE



THE NORTH ARROW SHOWN RELATES TO ZERO DEGREES ON PEDESTRIAN AND VEHICLE SIGNAL POLES. DEGREES SHOWN IN THE POLE ENTRANCE CHART SHOW THE DEGREES CLOCKWISE FROM PLAN SHEET NORTH ARROW (ZERO) TO EQUIPMENT LOCATED ON THE POLE.
 NOTE: EQUIPMENT SHOWN ON THE ORIENTATION DIAGRAM IS A CLARIFICATION OF ANGLES OF EQUIPMENT THAT MAY BE LOCATED ON A PEDESTRIAN PEDESTAL OR VEHICLE PEDESTAL.
 © OF FLASHING BEACON AND PUSH BUTTON

PEDESTRIAN PEDESTAL ORIENTATION DIAGRAM

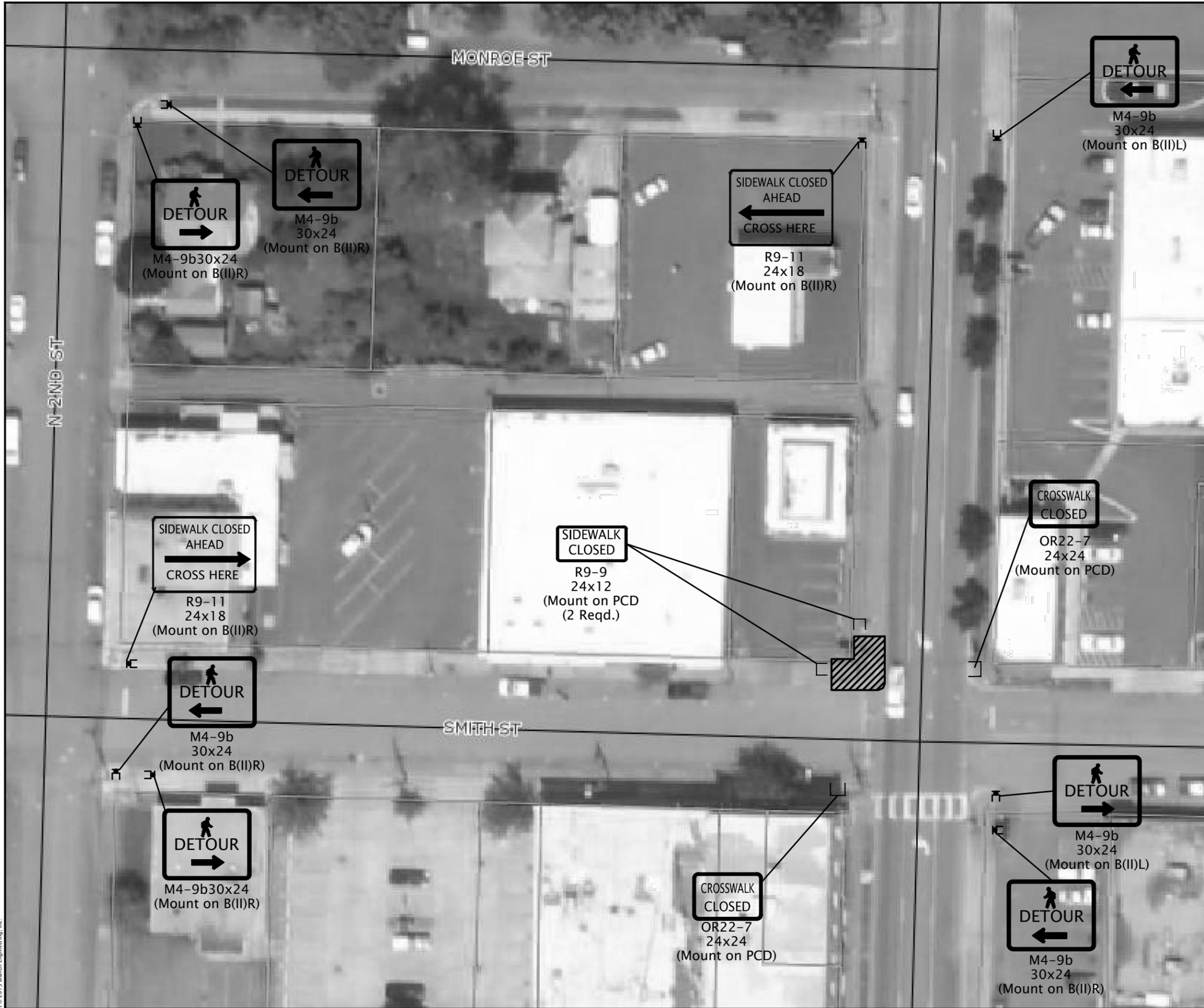
**HARRISBURG
 3RD AND SMITH STREET RRFB
 HARRISBURG, OR**

revisions:
 date: MARCH 26, 2026
 drawn by: DNH
 designer: DNH
 project no: 24-009C
 RRFB PLAN
 sheet: **C4**



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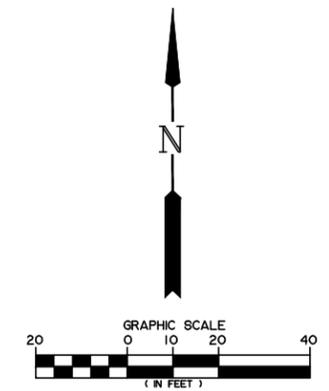
**HARRISBURG
 3RD AND SMITH STREET RRFB
 HARRISBURG, OR**

revisions:

date: JUNE 5, 2025
 drawn by: DNH
 designer: DNH
 project no: 24-009C

TPARP
 NW RAMP
 3RD AND SMITH

sheet: **TC1**



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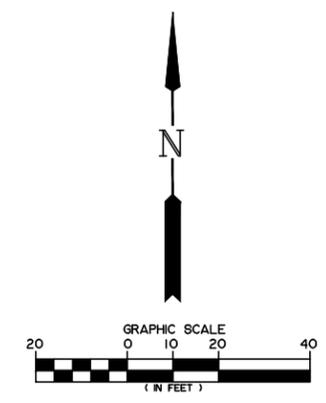
**HARRISBURG
3RD AND SMITH STREET RRFB
HARRISBURG, OR**

revisions:

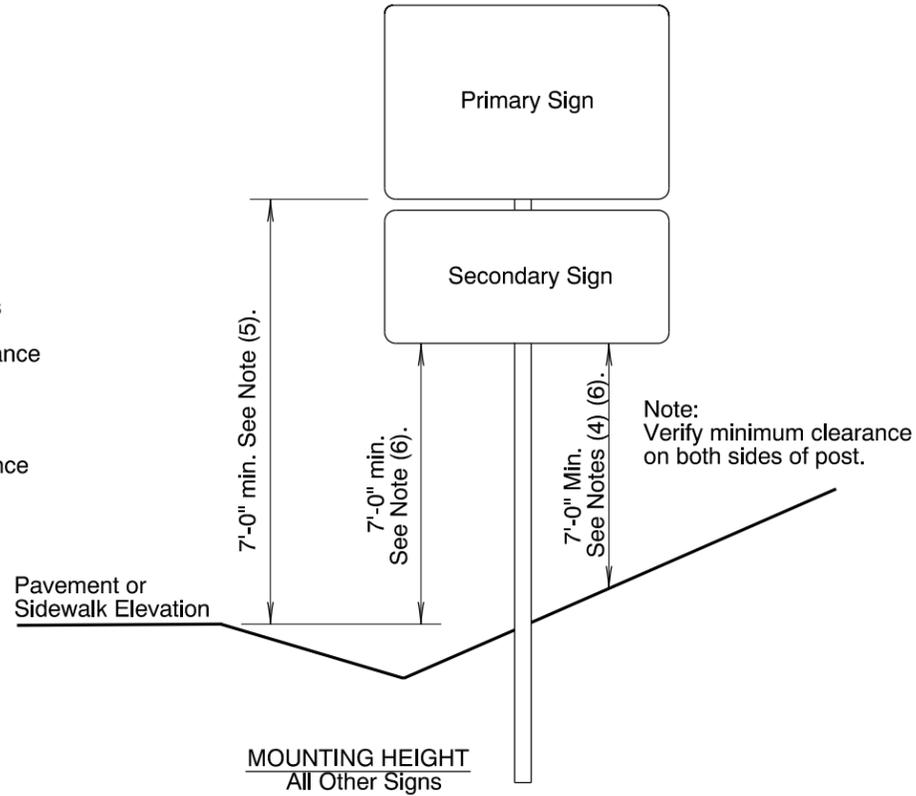
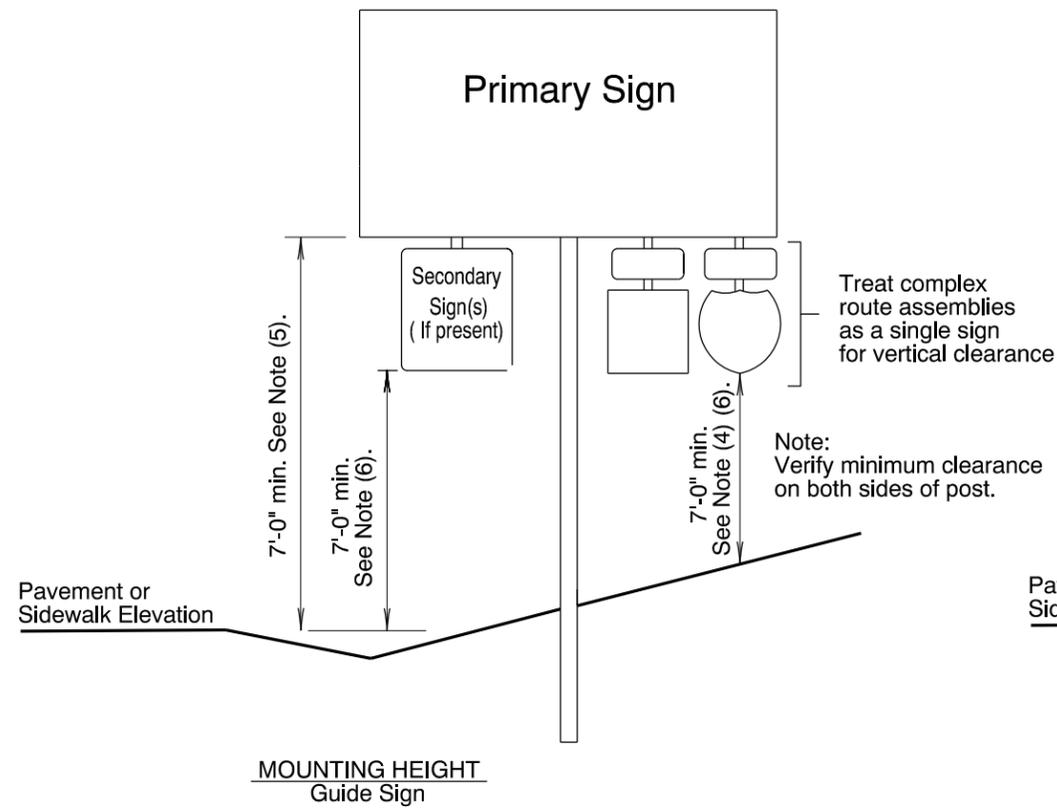
date: JUNE 5, 2025
 drawn by: DNH
 designer: DNH
 project no: 24-009C

TPARP
NE RAMP
3RD AND SMITH

sheet: **TC2**



REGISTERED PROFESSIONAL
ENGINEER
#79199PE
DIGITALLY SIGNED
OREGON
JUNE 7, 2012
DANIEL N HAGA
EXPIRES: JUNE 30, 2025

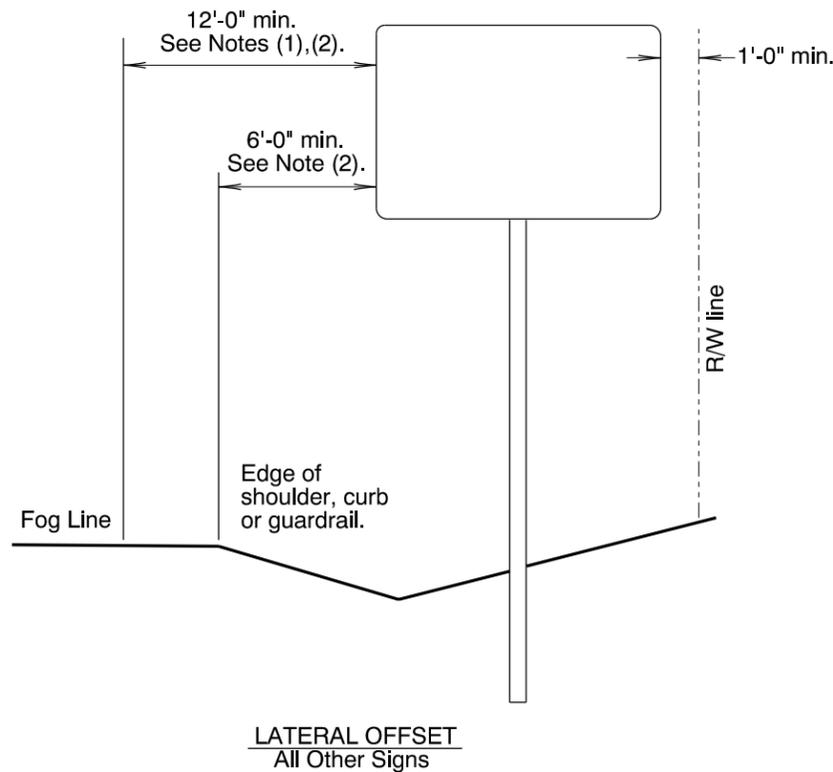
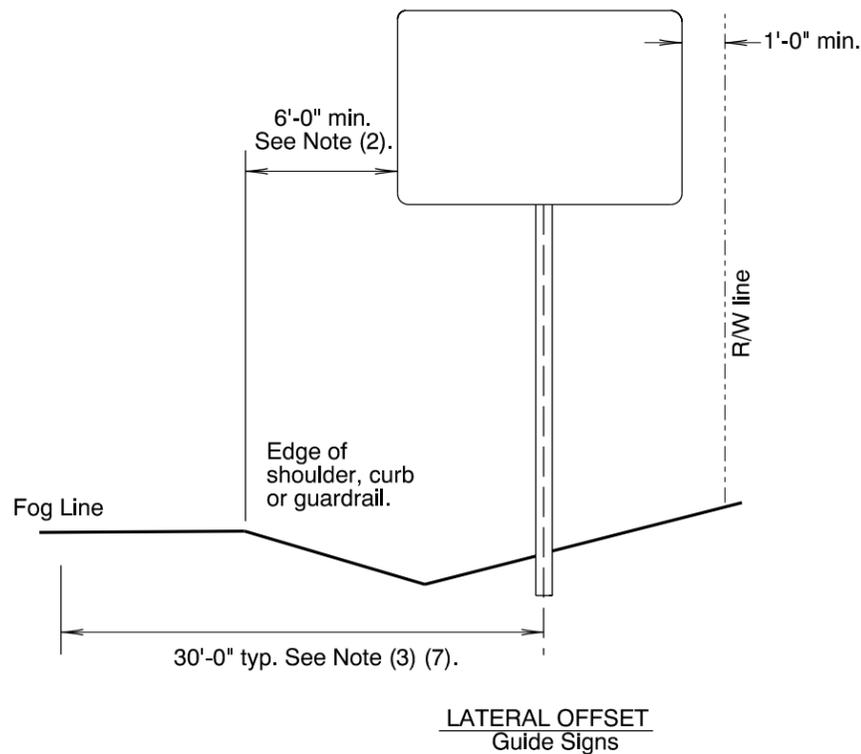


General Installation Notes:

- a. Signing details shown on this sheet are intended to convey "typical" conditions only. Individual locations may require installation different from those shown. For guidance regarding unique installations or exceptions call the Project Sign Designer or Region Traffic Section.
- b. Locate breakaway supports away from ditches to avoid problems with erosion, corrosion, debris, maintenance and breakaway performance. See Dwg. No. TM635 for more information.
- c. For wood post support details see Dwg. No. TM670.
- d. For perforated steelsquare tube support details see Dwg. No. TM681.
- e. For triangular base breakaway support details see Dwg. No. TM602.
- f. For multi-post breakaway support details see Dwg. No. TM600.
- g. Mounting heights should not be more than 3 inches more than the minimum heights shown, where practical.
- h. 2" vertical spacing between all signs.

Notes:

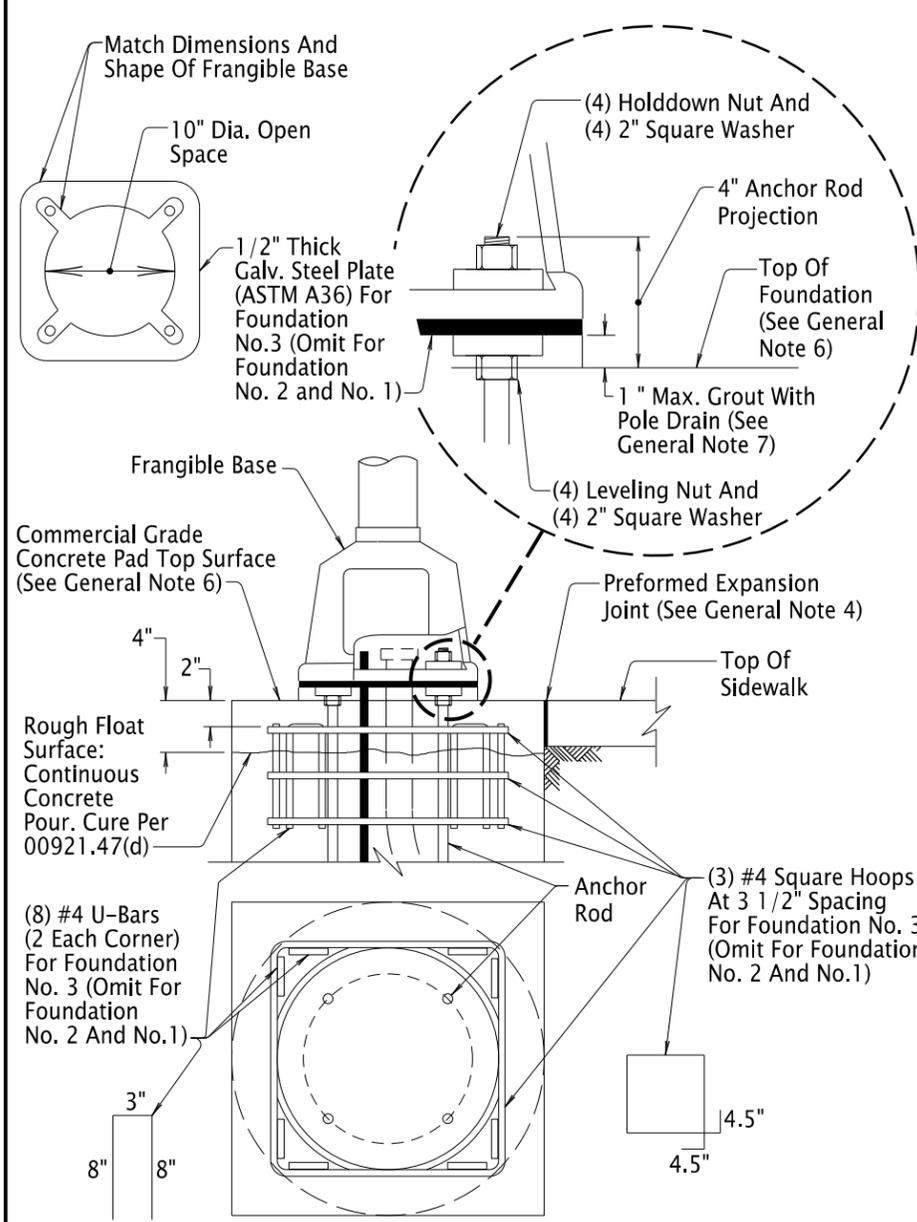
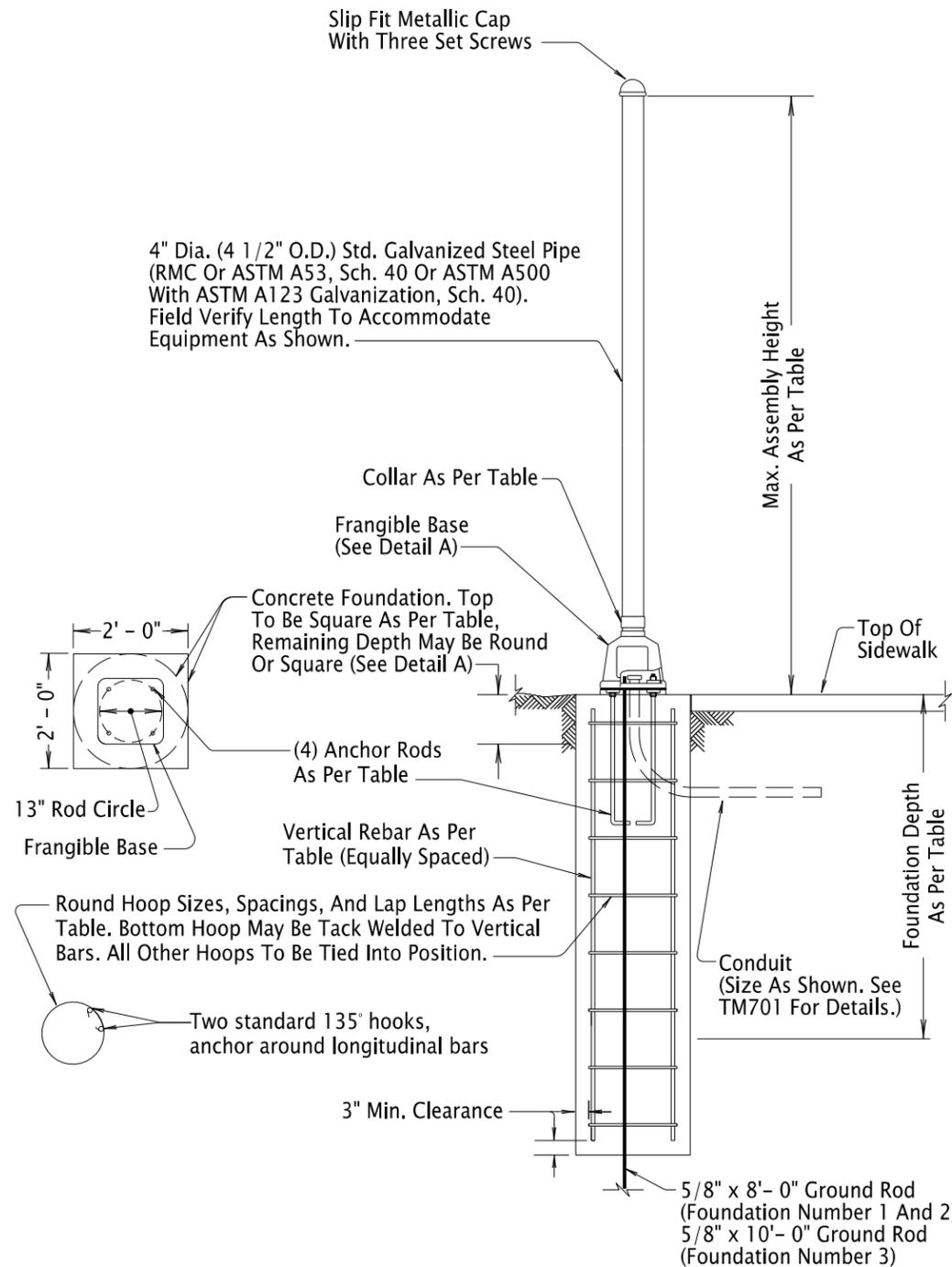
- 1). 6' minimum if behind barrier.
- 2). 2' minimum if restricted R/W.
- 3). 20' for ramp terminals.
- 4). 8' minimum if bicycle path underneath.
- 5). 8' minimum if secondary signs attached.
- 6). 5' minimum if outside clearzone, in rural areas and no pedestrians underneath.
- 7). For multi-post installations measure distance from post closest to roadway.



<p><i>The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.</i></p>		<p>All materials shall be in accordance with the current Oregon Standard Specifications.</p>	
		<p>OREGON STANDARD DRAWINGS</p> <p>SIGN INSTALLATION DETAILS</p>	
		<p>2024</p>	
DATE	REVISION	DESCRIPTION	
01/22		Edited elevation text in Mounting Height details	
CALC. BOOK NO.	N/A	SDR DATE	07 JAN 2022
			TM200

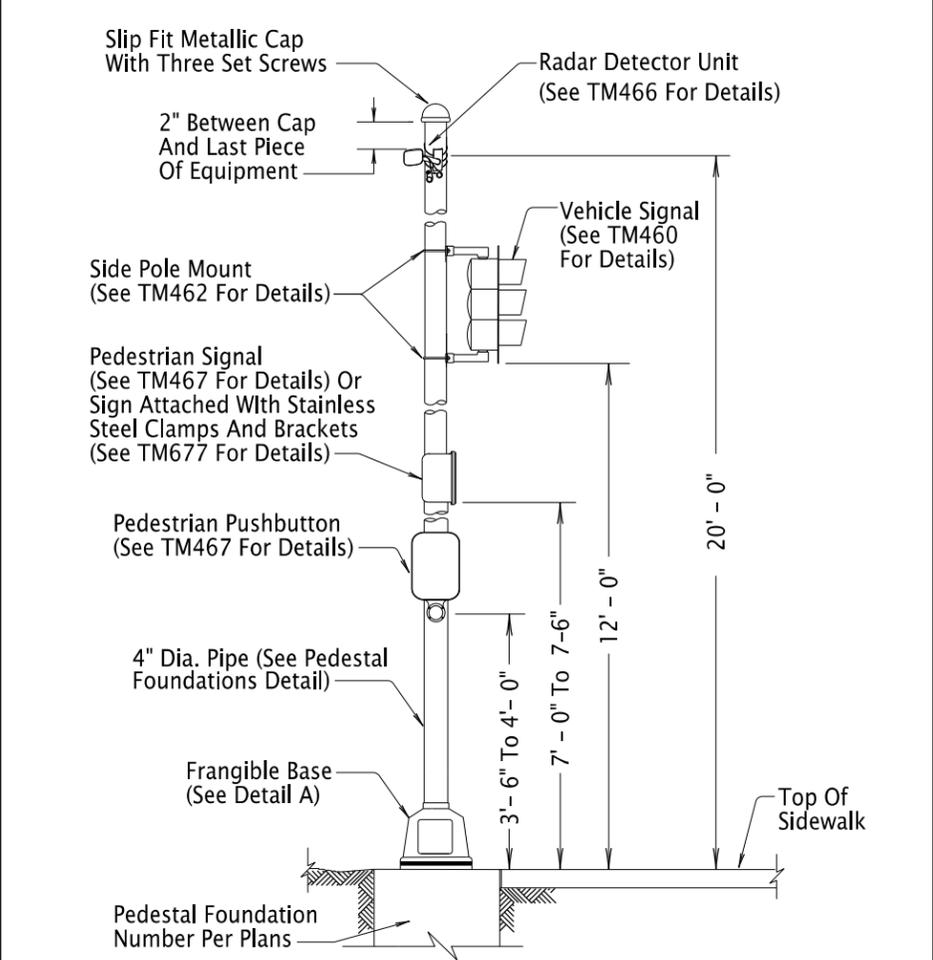
10-JAN-2025

TM457.dgn



DETAIL A - FRANGIBLE BASE

- General Notes:**
- All Bolts, Nuts And Washers To Conform To 02560.20 And Be Galvanized Steel According To 02560.40 Unless Noted Otherwise.
 - All Anchor Rods To Be Galvanized Steel Conforming To 02560.30.
 - All Pole Entrances Containing Wiring To Be Smooth.
 - Install 1/4" Thick Preformed Expansion Joint Filler Around Footing In Sidewalk Areas.
 - The Entire Foundation To Be Located On A Single Plane With Less Than 2% Slope. The Flat Edge(s) Of The Foundation May Be Adjacent To The Turn Space, Back Of Walk, Or A Curb Ramp Grade Break Line.
 - Install Commercial Grade Concrete Pad Above Rough Float Surface With Top Surface Matching Sidewalk Grade And Less Than 1/4" Vertical Exposure From Adjacent Grade. Clean Rough Float Surface Prior To Placing Fresh Concrete By Removing All Scum, Laitance, Loose Gravel, And Sediment. Pour During Sidewalk Installation After Installing Pipe And Appurtenances.
 - Non-Shrink High Early Strength Grout (Non-Ferrous) with 3/4" Diameter Pole Drain And A Minimum Strength of 5000 psi. Do Not Use Footing Concrete.



- Notes:**
- Equipment Shown In The Assembly Detail Is An Example Of The Equipment That May Be Mounted. Install Equipment As Shown.
 - See TM492 For Ramp Meter Pedestal Mounting Details.
 - See TM493 For RRFB Pedestal Mounting Details.

TRAFFIC SIGNAL PEDESTAL ASSEMBLY

Pedestal Foundation Number	Max. Assembly Height	Foundation Depth	Depth of Square Foundation	Anchor Rods (ASTM F 1554 Grade 36)	Reinforcing Steel			Collar
					Vertical Rebar	Hoop Size & Spacing	Hoop Lap Length	
1	6' - 0"	2' - 0"	4"	3/4" x 18" x 4" (6" Thread)	N/A	N/A	N/A	N/A
2	10' - 0"	3' - 0"	4"	1" x 36" x 4" (6" Thread)	8-#6	#4-12"	6" with 2 hooks	Req'd
3	20' - 6"	8' - 0"	12"	1" x 36" x 4" (6" Thread)	8-#6	#4-12"	6" with 2 hooks	Req'd

PEDESTAL FOUNDATIONS

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

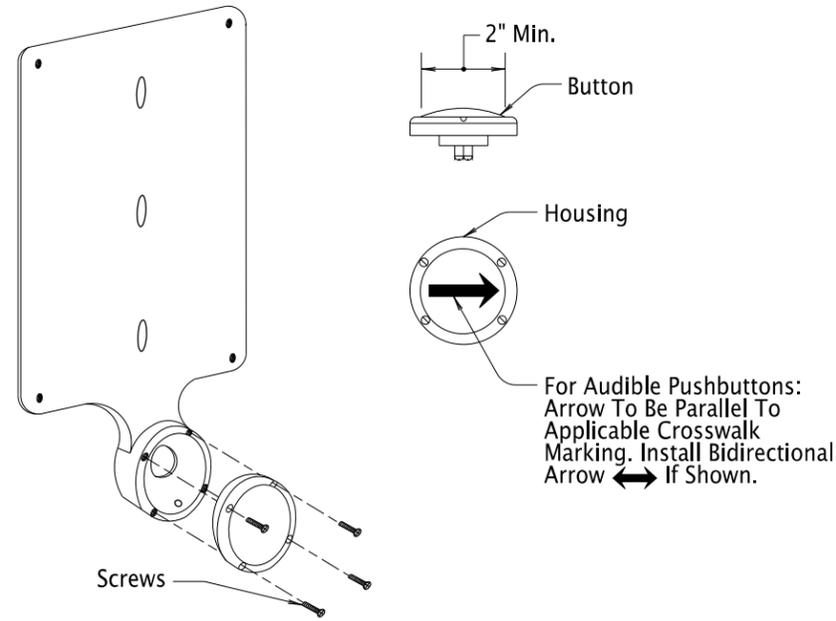
PEDESTAL FOUNDATION AND TRAFFIC SIGNAL ASSEMBLY

2024

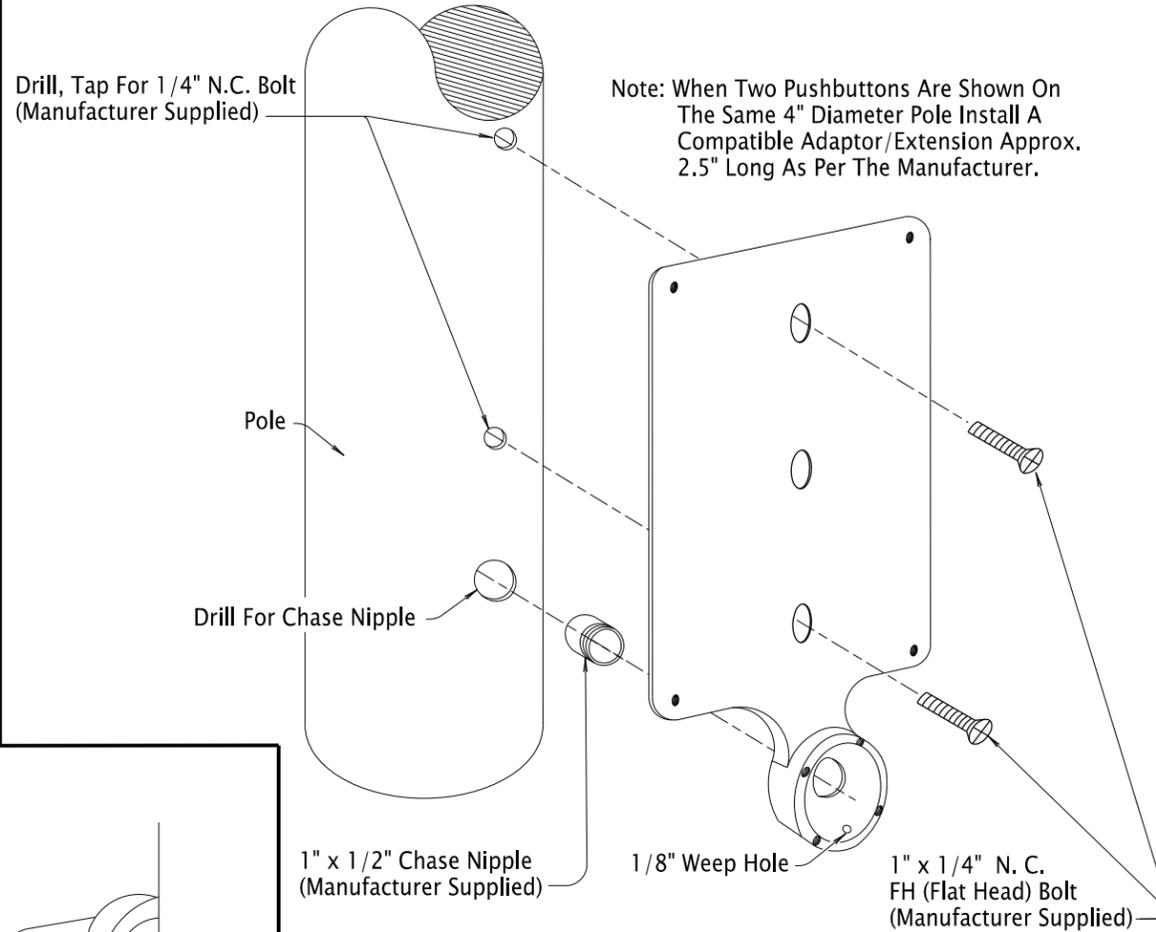
DATE	REVISION	DESCRIPTION
01-2021		UPDATED ALL ANCHOR ROD DETAILS. CORRECTED STD. DWG. REFERENCE
07-2022		COMPLETE REDESIGN OF FOUNDATION AND INSTALLATION PROCEDURE
07-2023		NOTE 5 - CHANGED TO 2% SLOPE. ADDED RMC AS PIPE OPTION. MINOR TEXT CHANGES FOR CLARITY.
01-2025		TYPO CORRECTION. UPDATED STANDARD DRAWING REFERENCES

CALC. BOOK NO. --- N/A --- SDR DATE: 10-JAN-2025 **TM457**

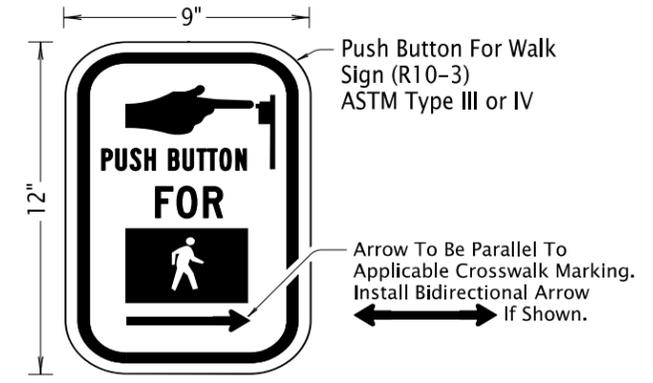
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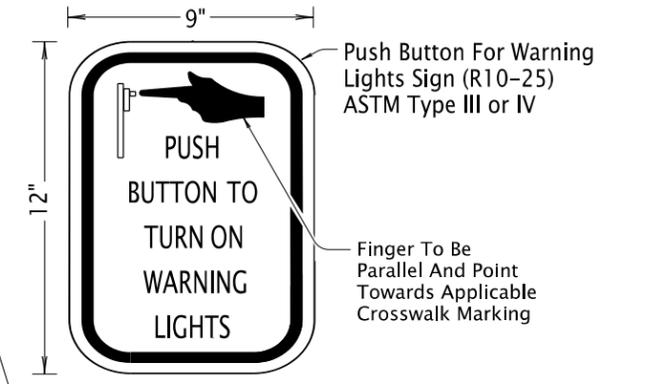
STANDARD PUSHBUTTON



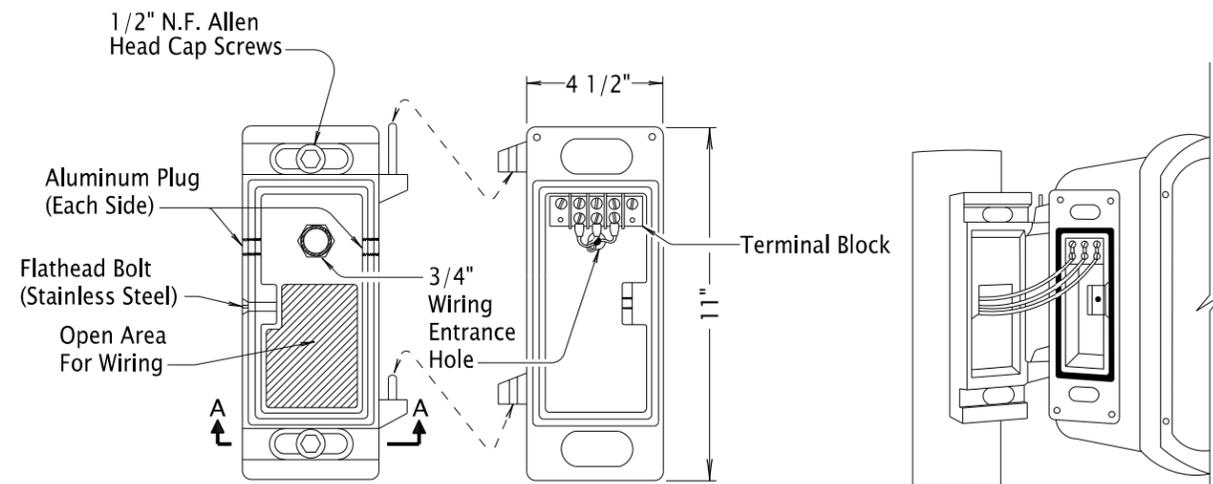
STANDARD PUSHBUTTON STATION AND INSTRUCTION SIGN



SIGN FOR PEDESTRIAN SIGNALS



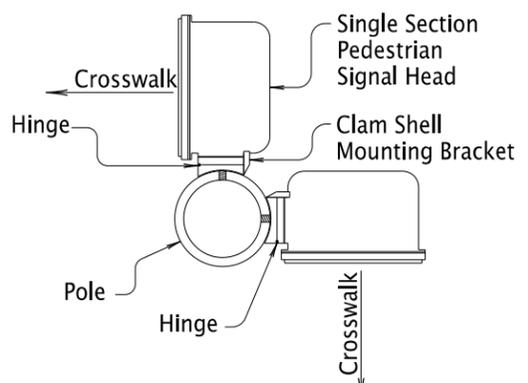
SIGN FOR WARNING BEACON ASSEMBLY



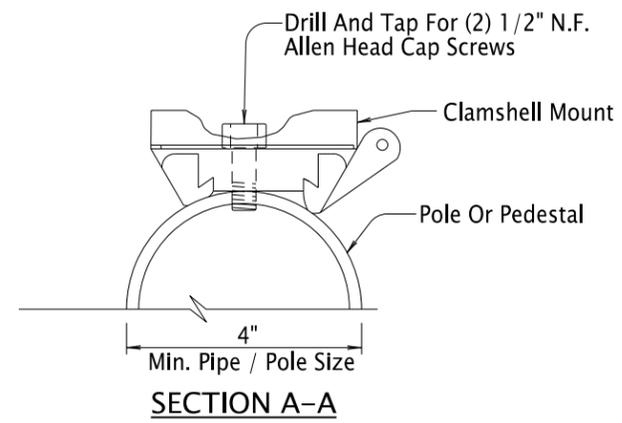
PEDESTRIAN SIGNAL MOUNT (CLAM SHELL)

- General Notes:**
1. All Screws, Bolts, Nuts And Washers To Be Type 304 Or 316 Stainless Steel Unless Noted Otherwise.
 2. Bolts And Screws To Have Square Or Hex Heads. Allen Head Fasteners Not Allowed.
 3. Drill And Tap Pole As Per Orientation Shown On Plans.
 4. Horizontal Reach To The Pushbutton To Be 10 Inches Maximum. See Plans Or Consult Engineer To Ensure Compliance.

- NOTES:**
1. Where Two Heads Are Side Mounted On 4 inch Conduit, Proper Clearance To Be Maintained To Allow Legend To Be Fully Visible.
 2. Clam Shells To Be Orientated So That The Heads Can Be Opened For Maintenance. (Verify Hinge Placement Of Clamshell).



TOP VIEW



CLAM SHELL ORIENTATION

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

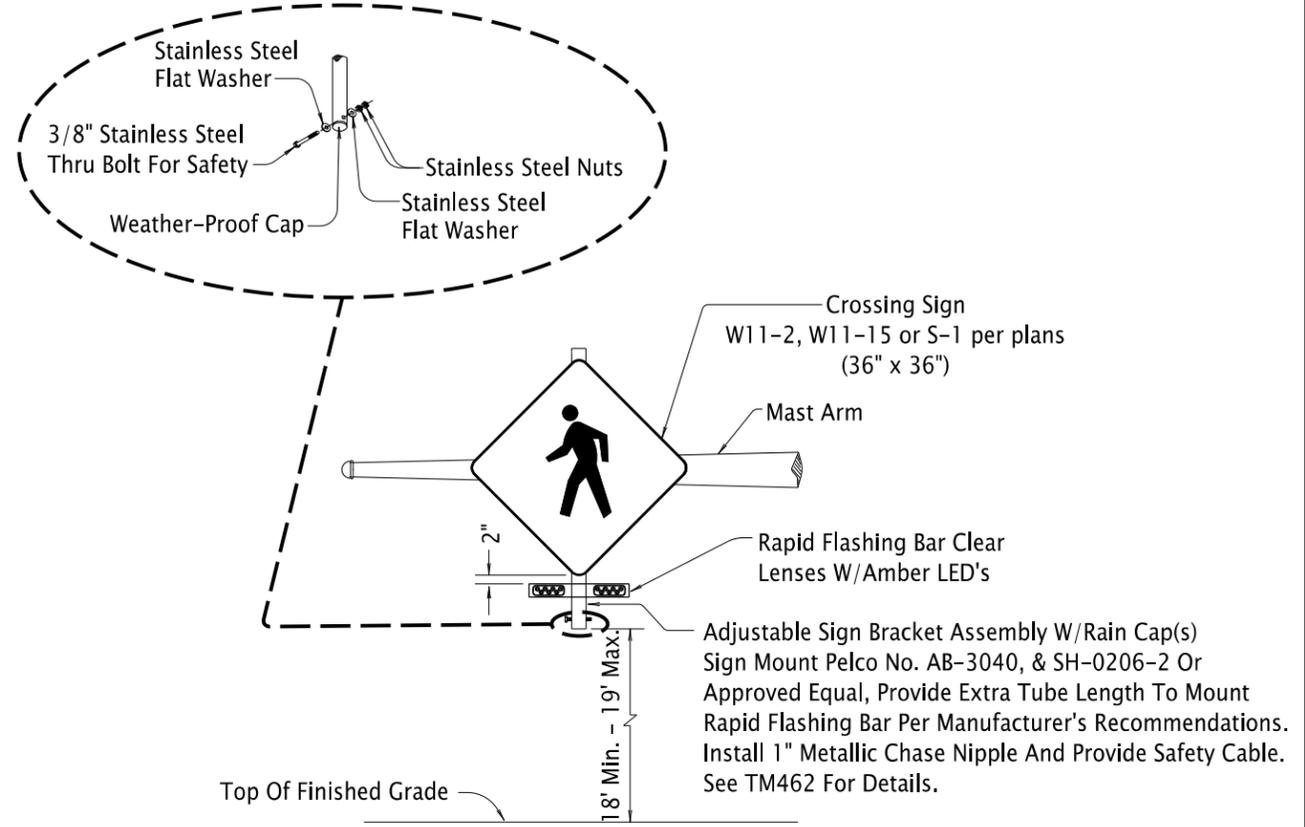
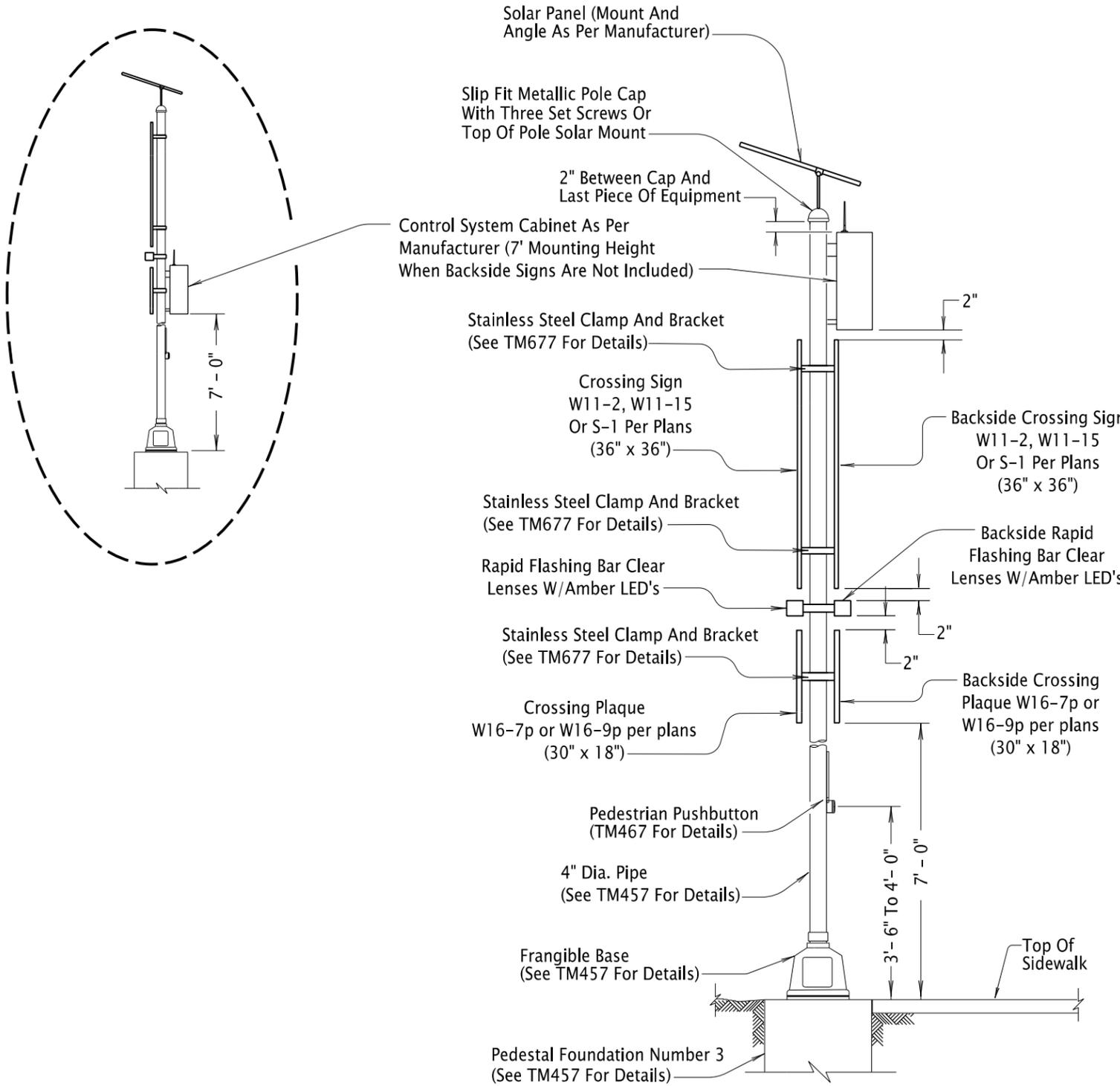
PEDESTRIAN SIGNAL MOUNT AND PEDESTRIAN PUSHBUTTON DETAILS

2024

DATE	REVISION	DESCRIPTION
07-2022	ADDED R10-25 SIGN. ADDED EXTENSION MOUNTING NOTE FOR 2 PUSHBUTTONS ON SAME 4" DIA. POLE.	
07-2024	ADDED ARROW TO PUSHBUTTON. ADDED BI-DIRECTIONAL ARROW.	

CALC. BOOK NO. ---	N/A ---	SDR DATE- 12-JUL-2024	TM467
--------------------	---------	-----------------------	--------------

10-JAN-2025
TM493.dgn



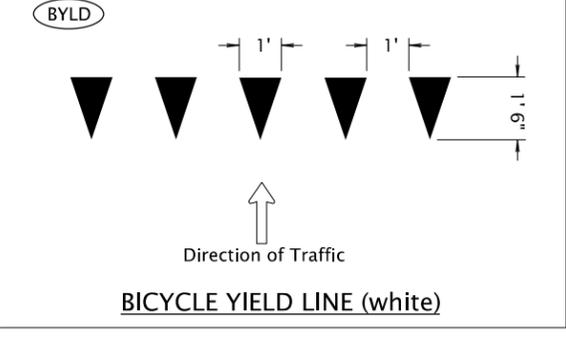
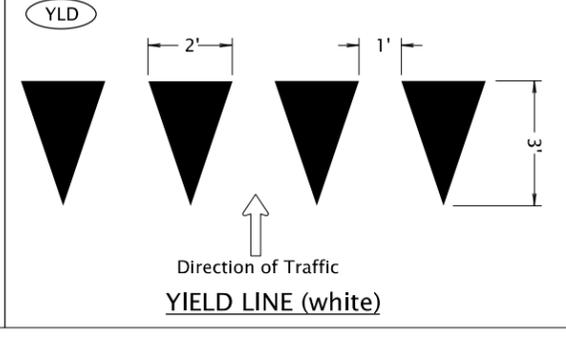
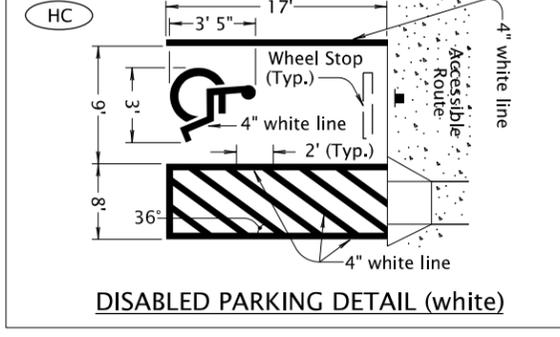
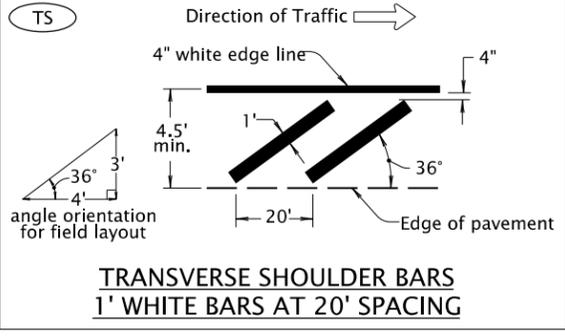
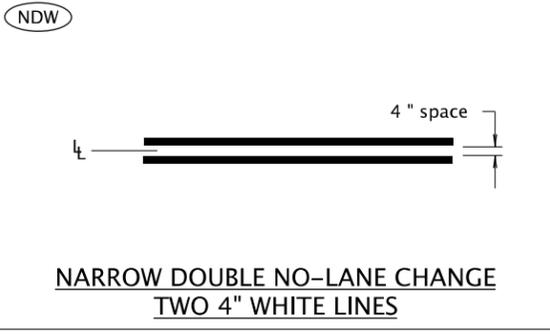
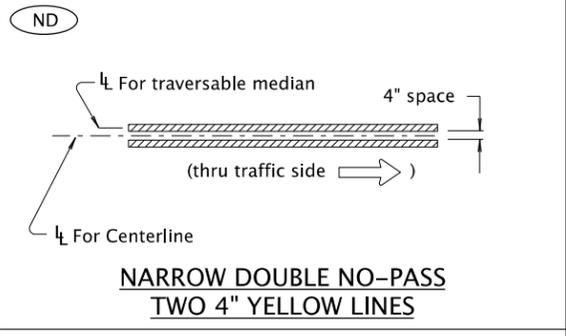
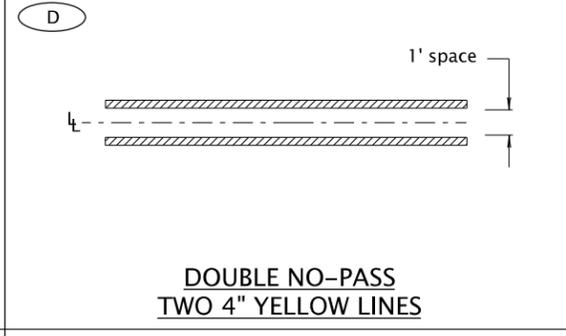
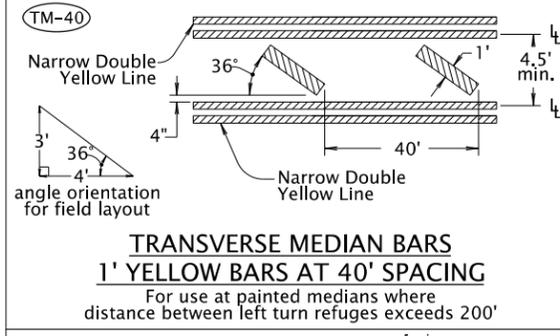
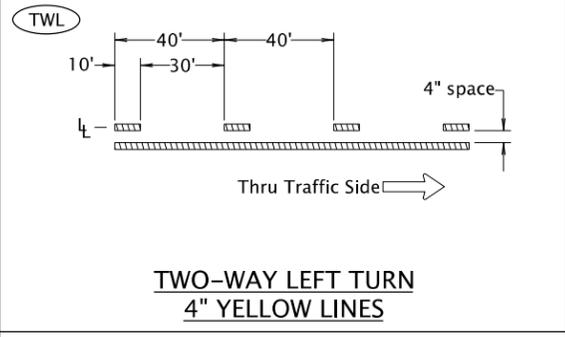
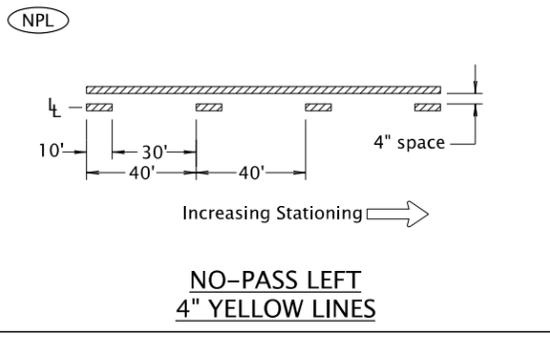
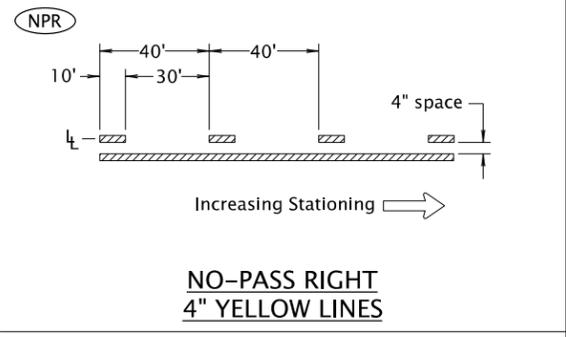
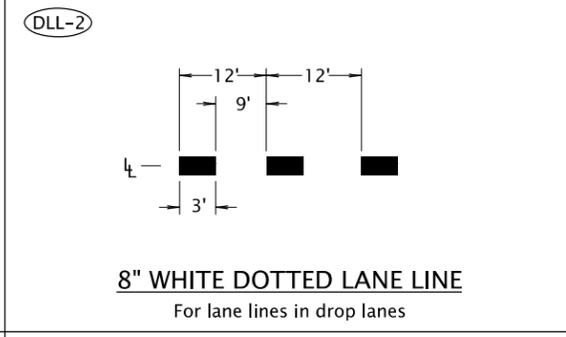
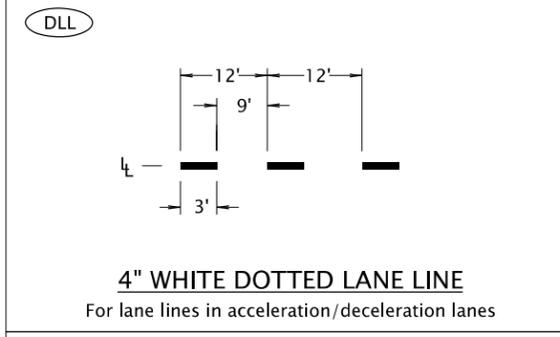
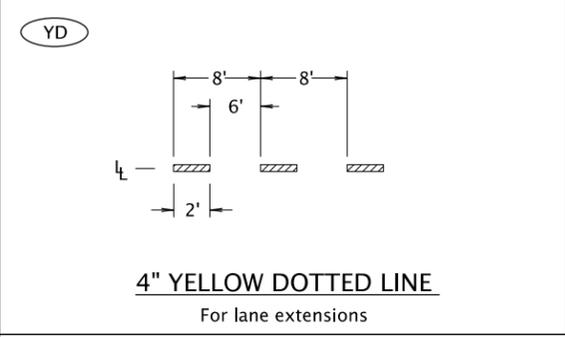
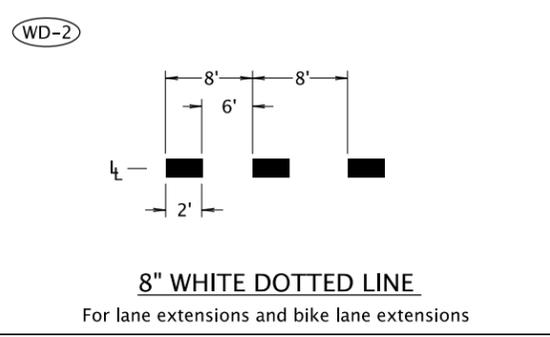
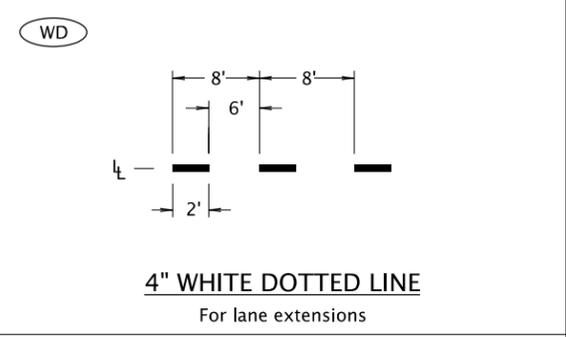
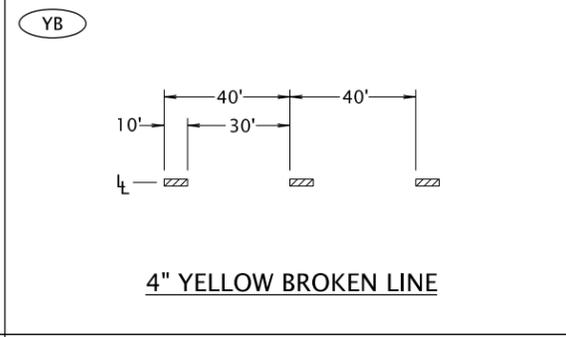
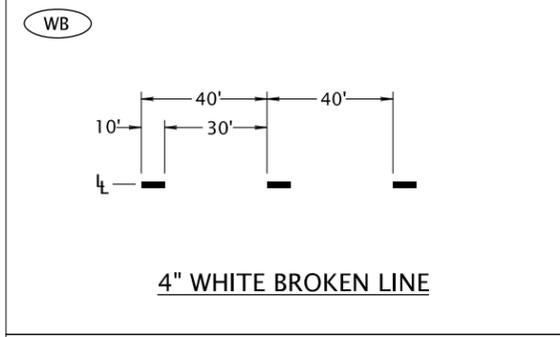
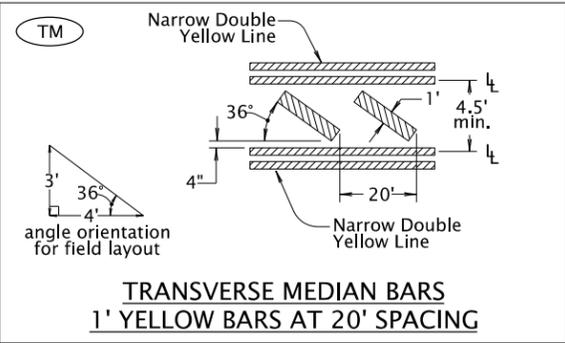
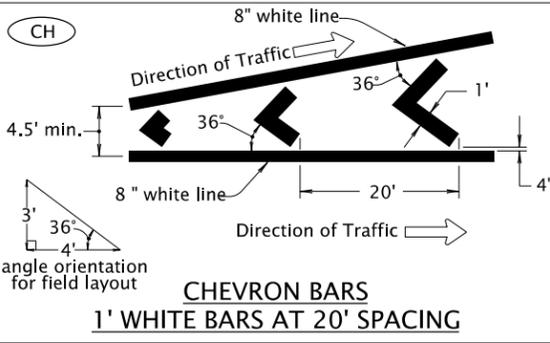
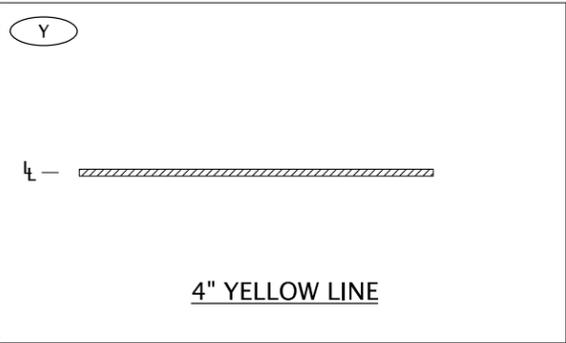
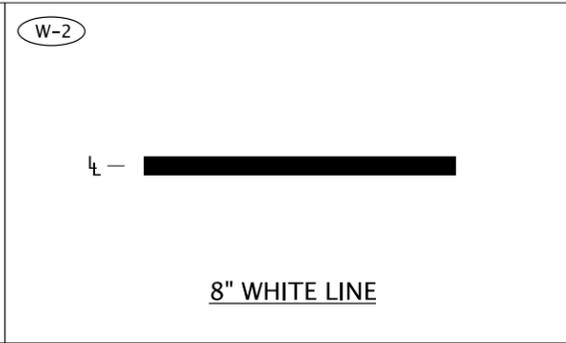
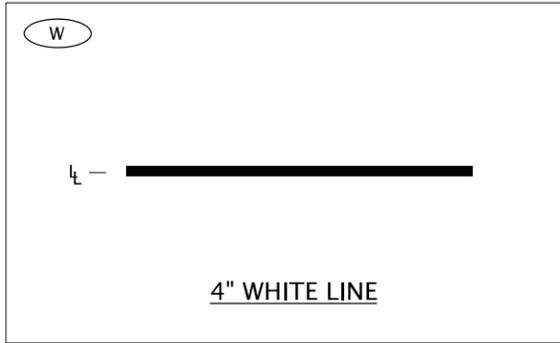
RECTANGULAR RAPID FLASHING BEACON MAST ARM ASSEMBLY
(Use Green Sheet Listed Items Only)

- Note:
1. Equipment Shown In The Assembly Detail Is An Example Of The Equipment That May Be Mounted. Install Equipment As Shown.
 2. Equipment Mounting Details Shown Are Also Applicable When Mounting Equipment To A Large Signal Pole.

RECTANGULAR RAPID FLASHING BEACON PEDESTAL ASSEMBLY
(Use Green Sheet Listed Items Only)

<p><i>The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.</i></p>		<p align="center">All materials shall be in accordance with the current Oregon Standard Specifications.</p> <p align="center">OREGON STANDARD DRAWINGS</p> <p align="center">RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLIES</p> <p align="center">2024</p>																
		<table border="1"> <thead> <tr> <th>DATE</th> <th>REVISION</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>07-2022</td> <td>NEW DRAWING</td> <td></td> </tr> <tr> <td>07-2023</td> <td>MINOR TEXT CHANGES FOR CLARITY</td> <td></td> </tr> <tr> <td>01-2025</td> <td>CORRECTED TYPO</td> <td></td> </tr> </tbody> </table>	DATE	REVISION	DESCRIPTION	07-2022	NEW DRAWING		07-2023	MINOR TEXT CHANGES FOR CLARITY		01-2025	CORRECTED TYPO		<table border="1"> <tr> <td>CALC. BOOK NO.</td> <td>N/A</td> <td>SDR DATE</td> <td>10-JAN-2025</td> <td>TM493</td> </tr> </table>	CALC. BOOK NO.	N/A	SDR DATE
DATE	REVISION	DESCRIPTION																
07-2022	NEW DRAWING																	
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CALC. BOOK NO.	N/A	SDR DATE	10-JAN-2025	TM493														

Effective Date: June 1, 2025 – November 30, 2025



LEGEND

← Direction Of Traffic, Increasing Stationing Or Thru Traffic Side

⊥ Lane line dimensions are shown on the striping plans

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.	
OREGON STANDARD DRAWINGS	
PAVEMENT MARKING STANDARD DETAIL BLOCKS	
2024	
DATE	REVISION DESCRIPTION
07-2020	Changed Min. widths for CH, TM, TM-40, and TS
CALC. BOOK NO.	SDR DATE
N/A	07-01-2020
TM500	

SA

STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

LA

LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

RA

RIGHT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

LSA

LEFT TURN STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

RSA

RIGHT TURN STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

RALA

RIGHT TURN LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

RSLA

RIGHT TURN STRAIGHT LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-SA

ELONGATED STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-LA

ELONGATED LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-RA

ELONGATED RIGHT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-LSA

ELONGATED LEFT TURN STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-RSA

ELONGATED RIGHT TURN STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-RALA

ELONGATED RIGHT TURN LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-RSLA

ELONGATED RIGHT TURN STRAIGHT LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

F-LA

FISH-HOOK LEFT TURN ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-RALA

FISH-HOOK RIGHT TURN LEFT TURN ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-SA

FISH-HOOK STRAIGHT ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-RSA

FISH-HOOK RIGHT TURN STRAIGHT ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-LSA

FISH-HOOK LEFT TURN STRAIGHT ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-RSLA

FISH-HOOK RIGHT TURN STRAIGHT LEFT TURN ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

LRA-L

LANE REDUCTION ARROW - LEFT LANE ENDS (white)
For arrow proportion details, see current version of Standard Highway Signs

LRA-R

LANE REDUCTION ARROW - RIGHT LANE ENDS (white)
For arrow proportion details, see current version of Standard Highway Signs

WWA

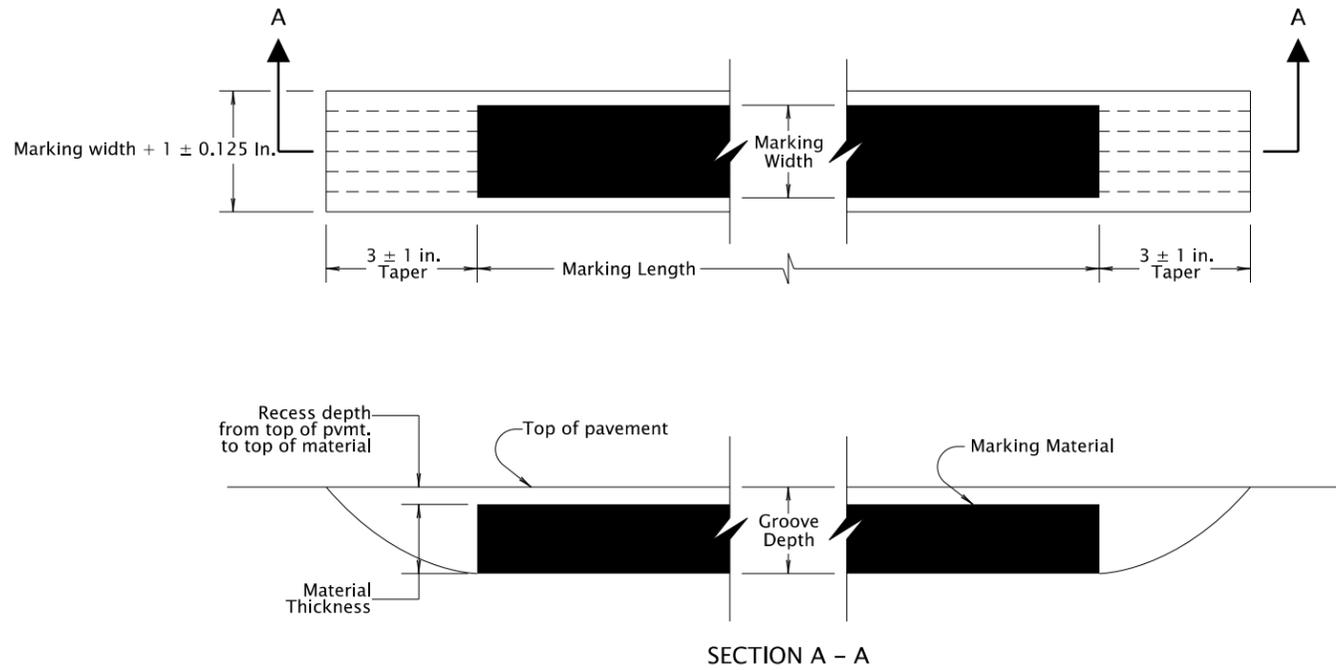
WRONG-WAY ARROW (white)

General Note:

- Center pavement markings within the lane width.
- Arrow and letter dimensions nominal, excluding WWA.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

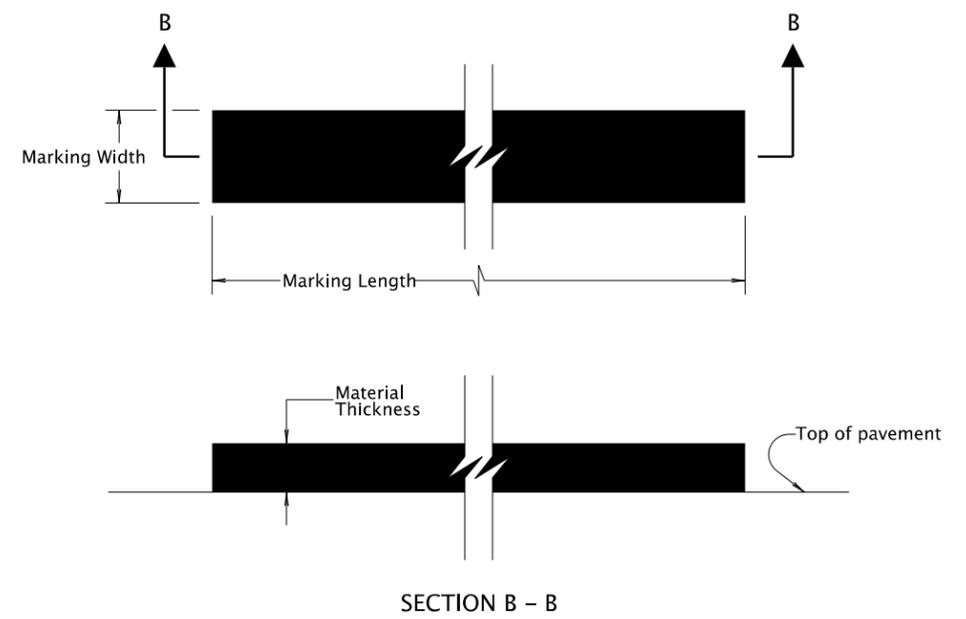
All materials shall be in accordance with the current Oregon Standard Specifications.		
OREGON STANDARD DRAWINGS		
PAVEMENT MARKING STANDARD DETAIL BLOCKS		
2024		
DATE	REVISION	DESCRIPTION
07-2020		Some Detail Blocks moved to new Std. Drawing TM504
01-2022		Fish-hook Arrows added, LRA split into LRA-L and LRA-R
		Corrected bubble callout of LRA-L and typo in LRA-R
CALC. BOOK NO.	N/A	SDR DATE: 01-03-2022
		TM501



GROOVE INSTALLED GROOVE AND MATERIAL DIMENSIONS

Pavement Marking Material Type	Groove Depth	Recess Depth	Material Thickness
Durable Method 'A' & Method 'D'	220 ± 20 mils	45 ± 5 mils	Var.
High Performance	60 ± 10 mils	Var.	25 mils

GROOVE INSTALLED MARKINGS



SURFACE INSTALLED MATERIAL THICKNESS

Pavement Marking Material Type	Thickness
Durable Method 'A' & Method 'B' & Method 'D'	120 mils
High Performance	25 mils

SURFACE INSTALLED MARKINGS

General Notes:

- 1) See Standard Drawing TM500 and/or project plans for marking length and width dimensions.
- 2) See Standard Specification 00850.46 for marking installation tolerances.

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All materials shall be in accordance with the current Oregon Standard Specifications.

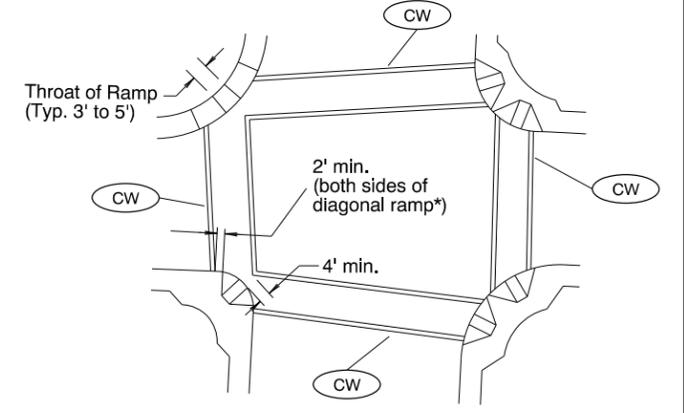
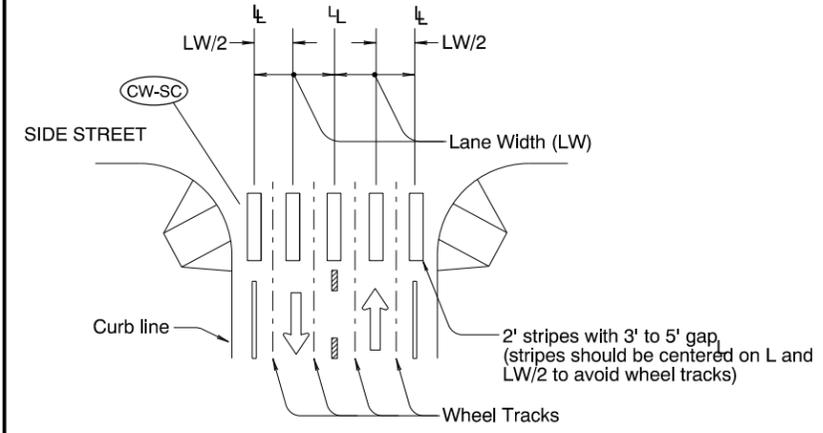
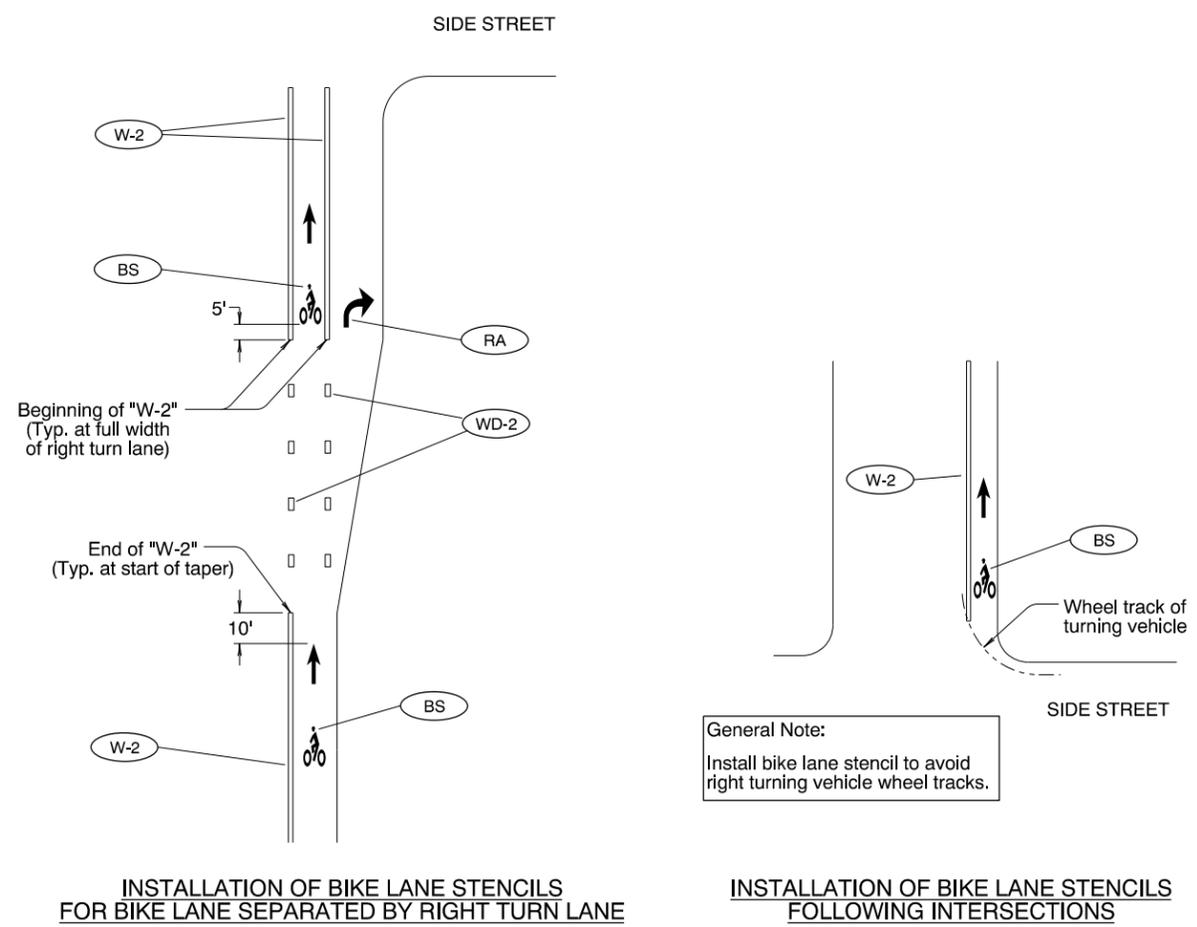
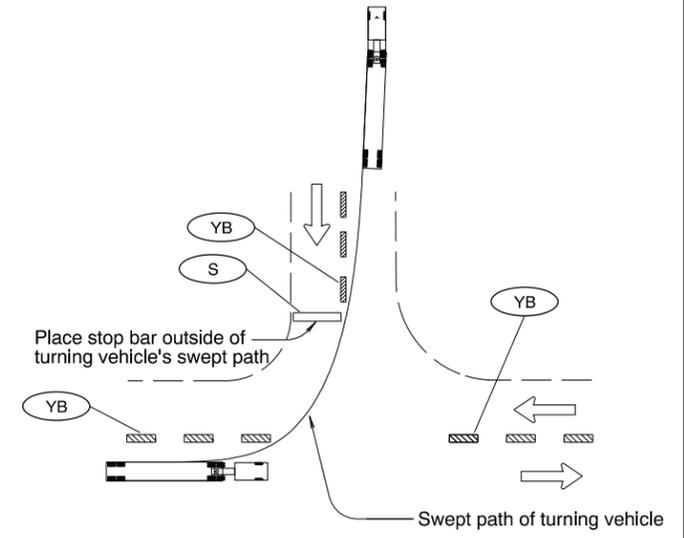
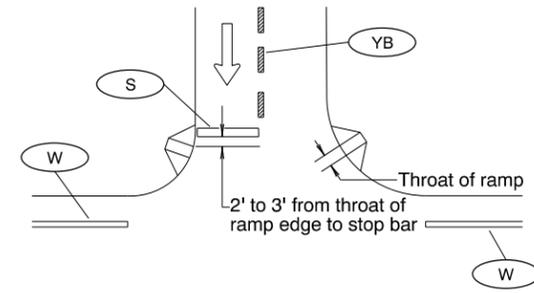
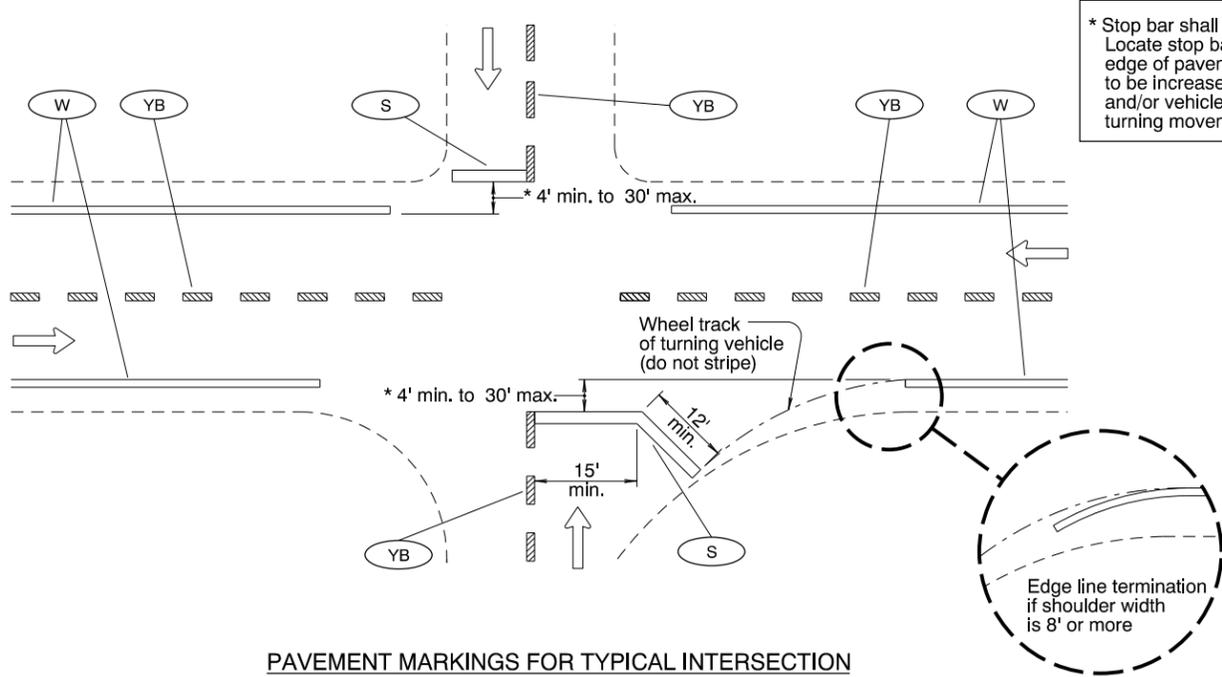
**OREGON STANDARD DRAWINGS
DURABLE & HIGH PERFORMANCE
PAVEMENT MARKINGS
SURFACE & GROOVE INSTALLED
NON-PROFILED
2024**

DATE	REVISION DESCRIPTION
07-2021	Changed groove width for 4 in. markings
01-2023	Changed groove width back to previous width for 4 in. markings

CALC. BOOK NO.	N/A	SDR DATE_ 20-JAN-2023 _	TM521
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06-JUL-2022

TM530.dgn



General Note:
1. Install crosswalk bars such that the throat of the ADA ramp is entirely within crosswalk markings, or 5' back of extended fog line, edge of pavement, or curb face.

LEGEND

← Direction of Travel

L - Lane line dimensions are shown on the striping plans

To be accompanied by Standard Dwg. Nos. TM500 thru TM504

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

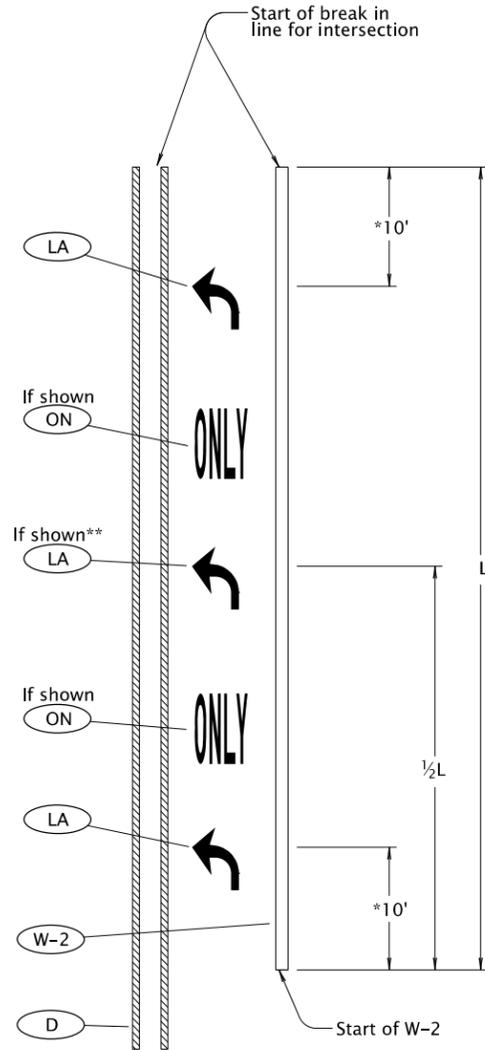
INTERSECTION PAVEMENT MARKINGS (CROSSWALK, STOP BAR & BIKE LANE STENCIL)

2024

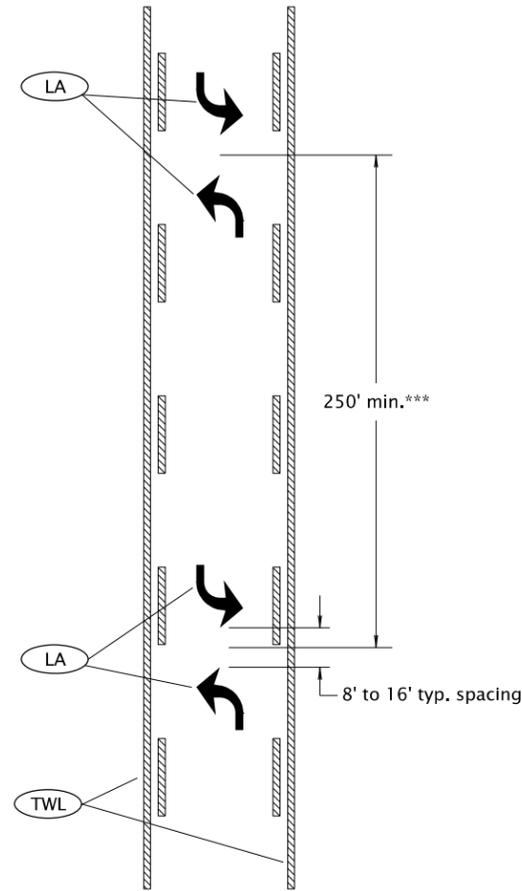
DATE	REVISION	DESCRIPTION
07-2022	Added Roadway Standard Drawing reference to detail for clarity	

CALC. BOOK NO. N/A SDR DATE: 06-JUL-2022 **TM530**

Effective Date: June 1, 2025 – November 30, 2025



LANE USE ARROW PLACEMENT FOR TURN LANE
DETAIL "A"



TWO-WAY LEFT TURN LANE ARROW PLACEMENT
DETAIL "B"

General Notes:

- 1) Center pavement marking legends within the lane.
- 2) Placement of lane use arrows with respect to the 8" wide white line (W-2) channelization shown in Detail "A" applies to both left and right turn lanes.
- 3) Center "ONLY" markings between lane use arrows.

* 15' when installing elongated arrows.

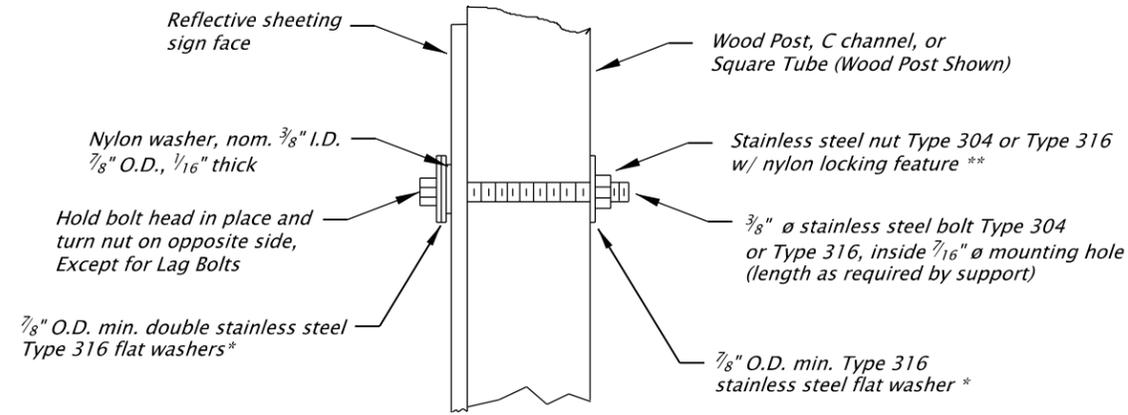
** When L is greater than 400', install 3rd lane use arrow at 1/2 L as shown in Detail "A".

*** Double arrows to be placed at even intervals, proportioned within block or as shown.

To be accompanied by Standard Dwg. Nos. TM500 thru TM504

All materials shall be in accordance with the current Oregon Standard Specifications.	
OREGON STANDARD DRAWINGS	
TURN ARROW MARKING DETAILS	
2024	
DATE	REVISION DESCRIPTION
07-2020	Extended accompanied by drawings to Include TM504
CALC. BOOK NO. --- N/A ---	SDR DATE- 07-01-2020 - TM531

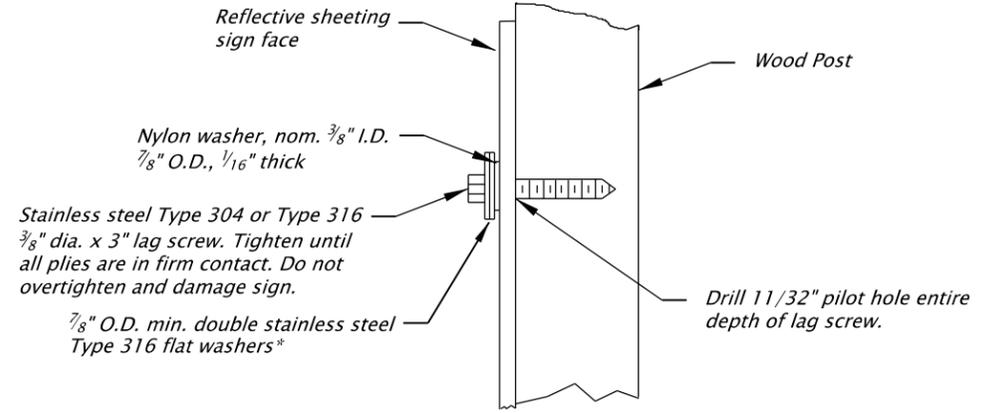
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.



Note:
 1) When signs are placed on opposing sides of post, $\frac{3}{8}$ " x 3" stainless steel Type 304 or Type 316 lag screws can be used instead of through bolt.
 2) Use nylon and stainless steel washers when signs are placed on both sides of post.
 3) Burr threads at junction with nut when locknuts are not used.
 4) Post bolts to extend beyond the tightened nuts within the limits of $\frac{1}{4}$ " to 1".

* Stainless steel bonded sealing washer with neoprene layer is an acceptable substitute
 ** Acceptable substitute for nylon locking nuts: Stainless steel TRI-LOC® Top Lock Locknut

SIGN ATTACHMENT DETAIL



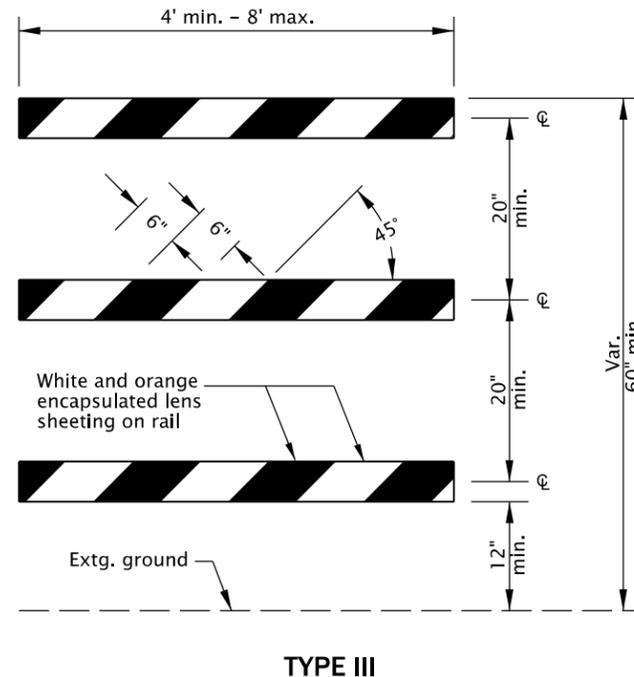
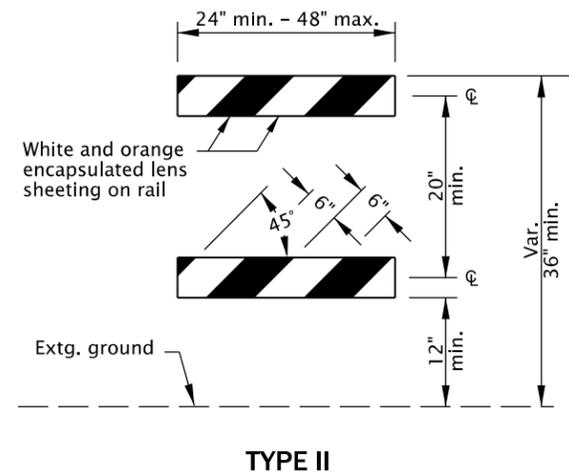
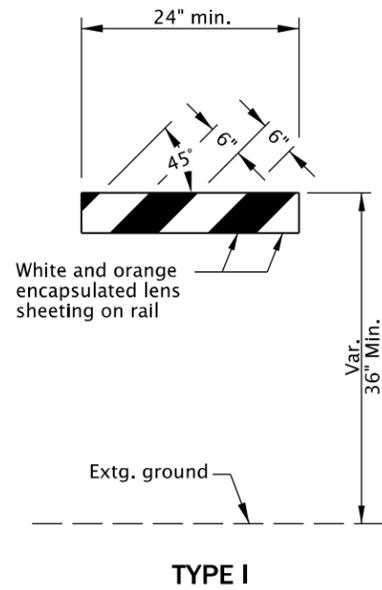
* Stainless steel bonded sealing washer with neoprene layer is an acceptable substitute

Note: This optional detail is to be used only when specified on a project.

OPTIONAL WOOD POST LAG SCREW DETAIL

<p>The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.</p>	All materials shall be in accordance with the current Oregon Standard Specifications.		
	OREGON STANDARD DRAWINGS		
	SIGN ATTACHMENTS		
	2024		
	DATE	REVISION	DESCRIPTION
07-2020		ADDED OPTIONAL LAG SCREW DETAIL	
01-2025		ADDED STAINLESS STEEL TO ALL HARDWARE AND REMOVED ANCO PIN- LOC	
CALC. BOOK NO.	N/A	SDR DATE	10-JAN-2025
			TM676

01-JUL-2020
TM820.dgn



BARRICADE RAIL LAYOUT

GENERAL NOTES FOR ALL DETAILS:

- Sandbags (approximately 25 lb sack filled with sand) may be placed on lower frame to provide additional ballast.
- Ballast shall not extend above bottom rail or be suspended from barricade.
- For rails less than 36" long, 4" wide stripes shall be used.
- Rails must be 8" min. to 12" max. in height.
- Use barricades from ODOT Qualified Products List (QPL).
- Use 4' Type III barricades where horizontal space is limited.
- Do not block bike lanes or shoulders unless the facility is properly closed and signed.
- Do not place barricades in sidewalks unless sidewalk is closed and a temporary pedestrian accessible route (TPAR) is signed according to the TCP. See Dwg. No. TM844.

NOTES:

- Markings for barricade rails shall slope downward at an angle of 45° in the direction traffic is to pass.
- Where a barricade extends entirely across a roadway, it is desirable that the stripes slope downward in the direction toward which traffic must turn in detouring.
- Where both right and left turns are provided for, slope the chevron striping downward in both directions from the center of the barricade.
- For full roadway closures, the C or LR barricade may be used. Extend barricades completely across roadway unless access is required for local road users.

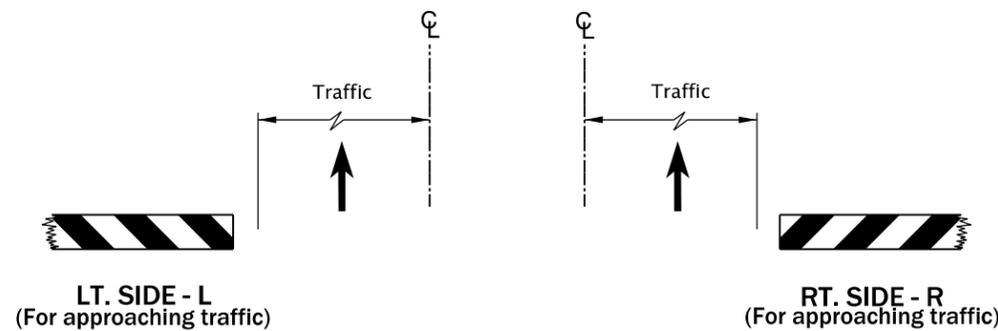
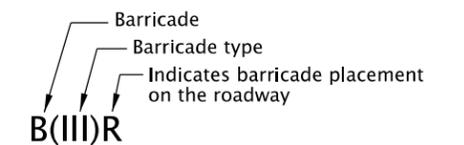


DIAGRAM FOR BARRICADE PLACEMENT AND SLOPE MARKING



BARRICADE NOTATION

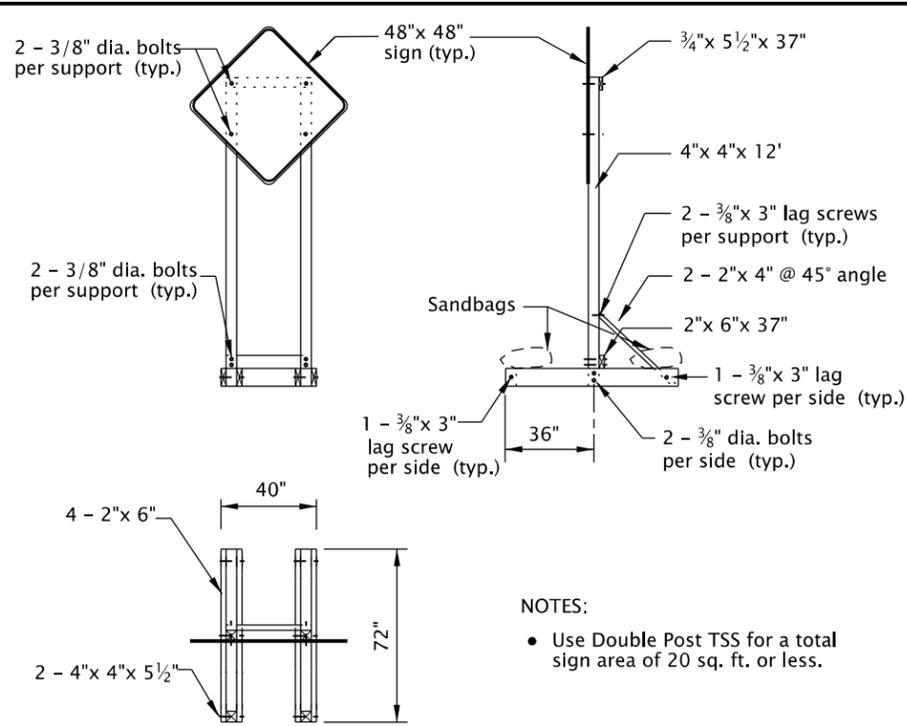
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.			
OREGON STANDARD DRAWINGS			
TEMPORARY BARRICADES			
2024			
DATE	REVISION DESCRIPTION		
CALC. BOOK NO.	N/A	SDR DATE	01-JUL-2020
			TM820

Effective Date: June 1, 2025 – November 30, 2025

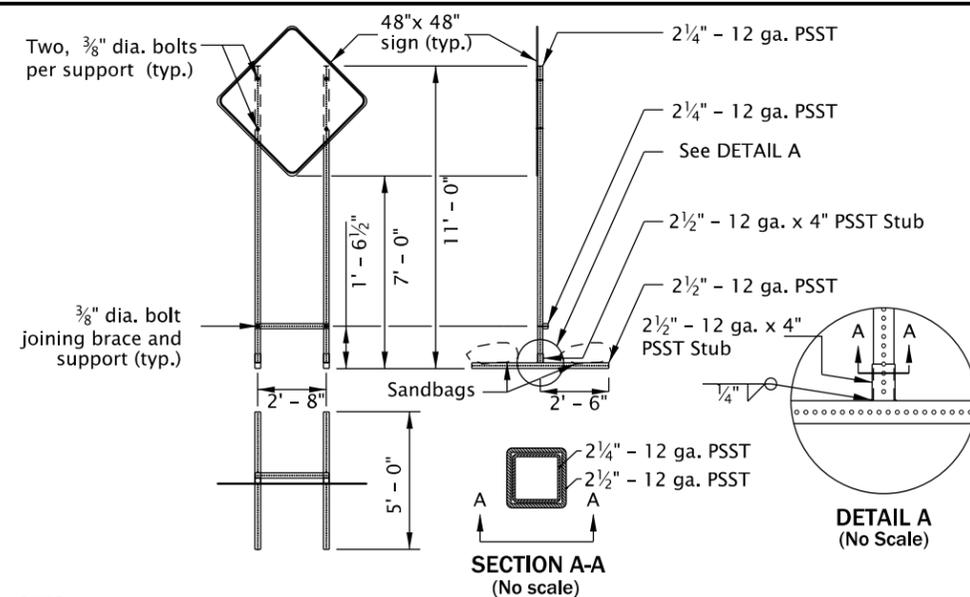
14-JUL-2023

TM821.dgn



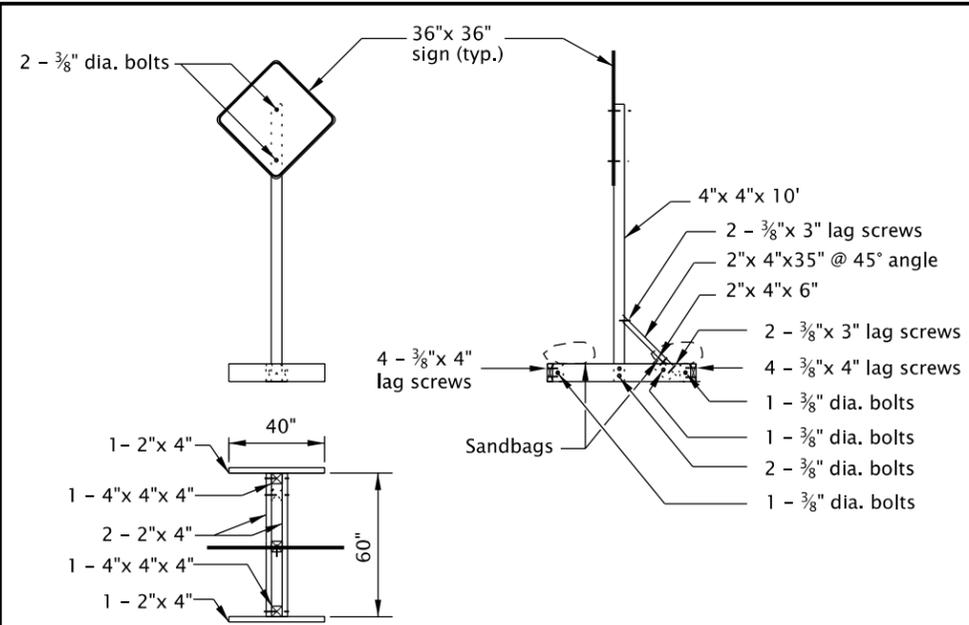
- NOTES:
- Use Double Post TSS for a total sign area of 20 sq. ft. or less.

DOUBLE POST DETAIL



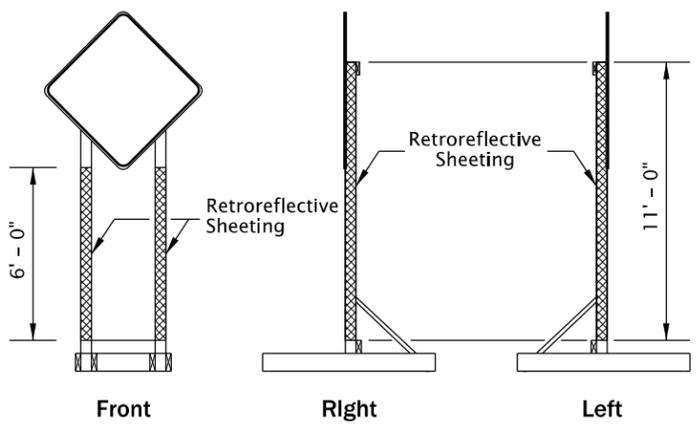
- NOTES:
- Use PSST TSS's for a total sign area of 16 sq. ft. or less.
 - All members shall have a minimum yield stress of 50 ksi.
 - Galvanize steel according to ASTM A653 with coating designation G90. Remove Galvanizing from steel before welding. Repair Galvanizing according to ASTM A780.
 - Use A325 Bolts or equivalent.
 - 2 1/4 - 12 ga. PSST to extend entire length inside of the 2 1/2 - 12 ga. x 4 inch PSST Stub.
 - Do not use bolt to secure 2 1/4 PSST inside of the 2 1/2 - 12 ga. x 4 inch PSST Stub.
 - Weld steel according to American Welding Society (AWS) D.1.1.

PERFORATED STEEL SQUARE TUBE (PSST) DETAIL

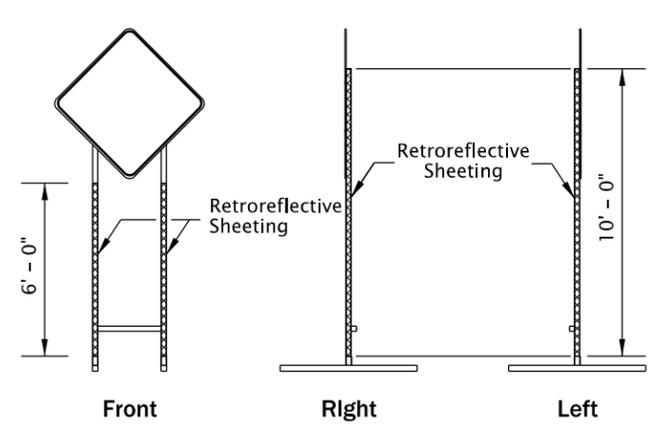


- NOTES:
- Use Single Post TSS for a total sign area of 12 sq. ft. or less.
 - Use Single Post TSS for mounting "Business Access" (CG20-11) signs. Do not mount signs on Type II or III Barricades.

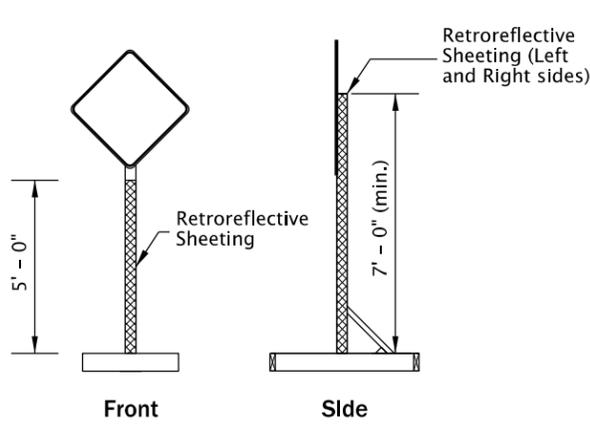
SINGLE POST DETAIL



Double Post



Perforated Steel Square Tube (PSST)



Single Post

- NOTES:
- Apply fluorescent orange, ANSI Type VIII or IX retroreflective sheeting to TSS posts, as shown, for all temporary signs, except "STOP" and "DO NOT ENTER". For "STOP" and "DO NOT ENTER" signs, used red ANSI Type III or IV retroreflective sheeting on the TSS posts.
 - Apply sign post retroreflectivity to each TSS post facing front; and to the left and right sides of the TSS, as shown. Use 3" wide sheeting for wood post TSS's. Use 2" wide sheeting for PSST TSS's.
 - Sheeting may be applied directly to post material; or applied to a rigid, lightweight substrate, then securely attached to the posts.

SIGN POST REFLECTIVE SHEETING PLACEMENT

- TEMPORARY SIGN SUPPORT GENERAL NOTES:
- Do not tip over TSS at any time.
 - Do not locate TSS's in locations that block pedestrian or bicycle traffic.
 - For wooden TSS's, use either Douglas Fir or Hem Fir, which is surfaced four sides (S4S) and free of heart center (FOHC).
 - See "Temporary Sign Placement" detail on TM822 for sign installation heights.
 - Do not place or stack ballast more than 24" above the ground.
 - When not in use, locate TSS as far from Public Traffic as practicable and turn away from traffic, or cover the sign. Do not cover reflective sheeting on the TSS posts.
 - Place a minimum of 50 lbs of sandbags on each of the four TSS supports legs. (25 lb. max per bag) (min. 100 lbs per side of each TSS).
 - See Dwg. No. TM204 for flag board mounting detail.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

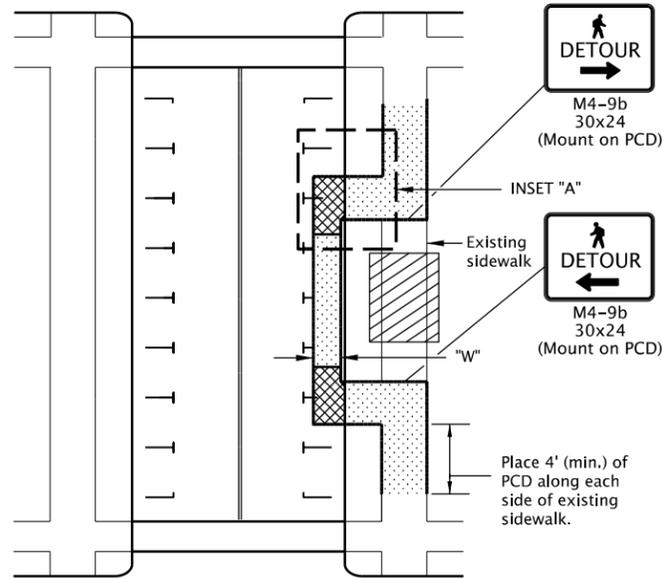
TEMPORARY SIGN SUPPORTS

2024

DATE	REVISION	DESCRIPTION

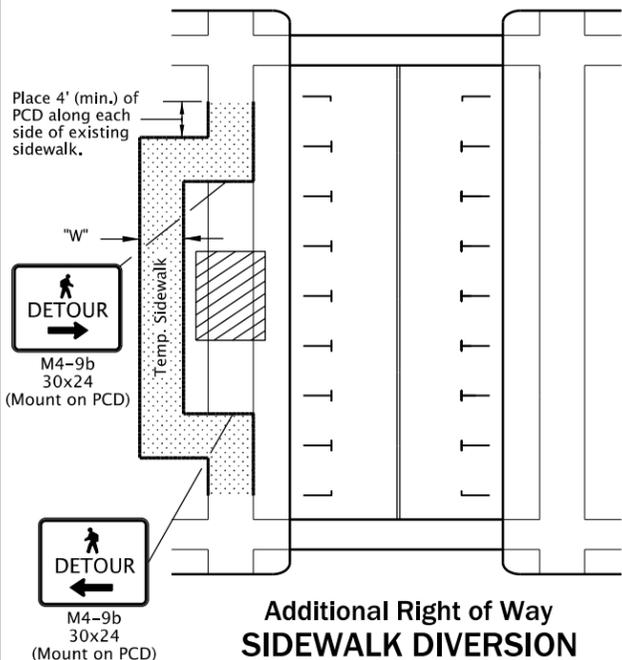
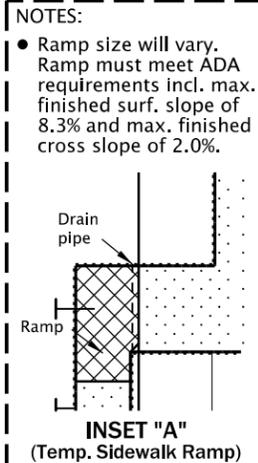
CALC. BOOK NO. - - - N/A - - - SDR DATE - 14-JUL-2023 - **TM821**

Effective Date: June 1, 2025 – November 30, 2025

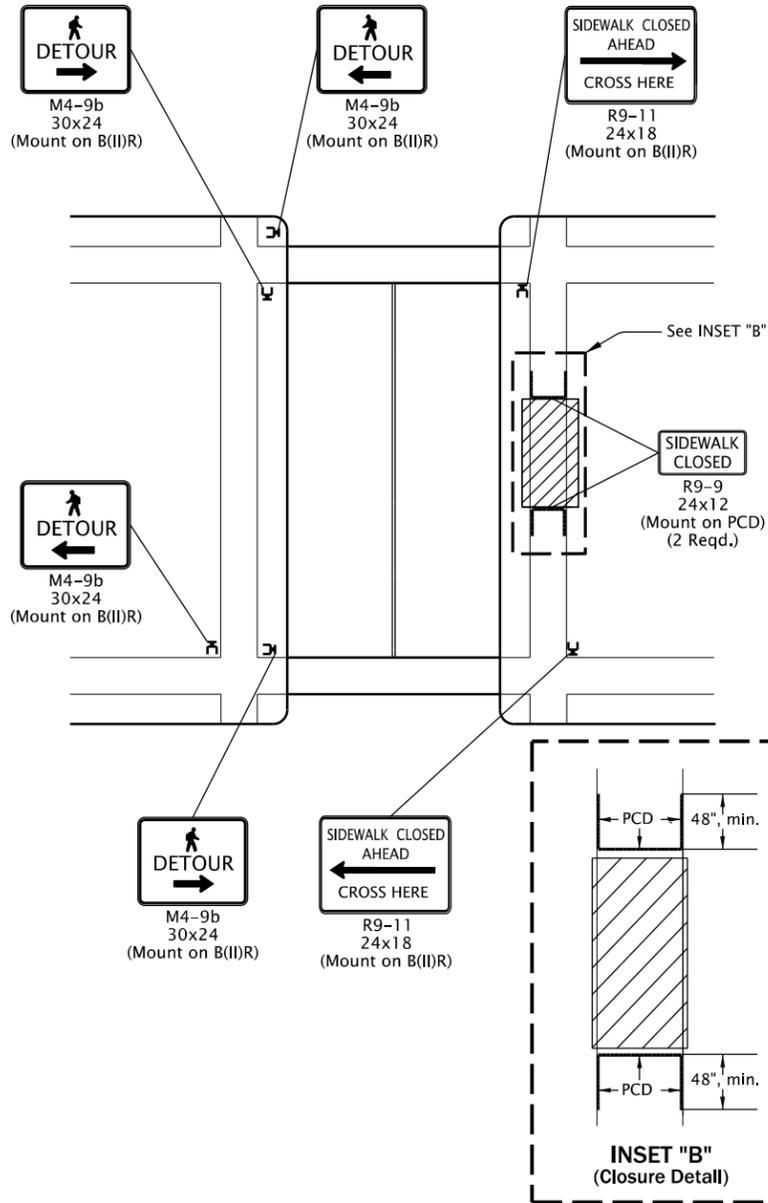


Within Roadway SIDEWALK DIVERSION

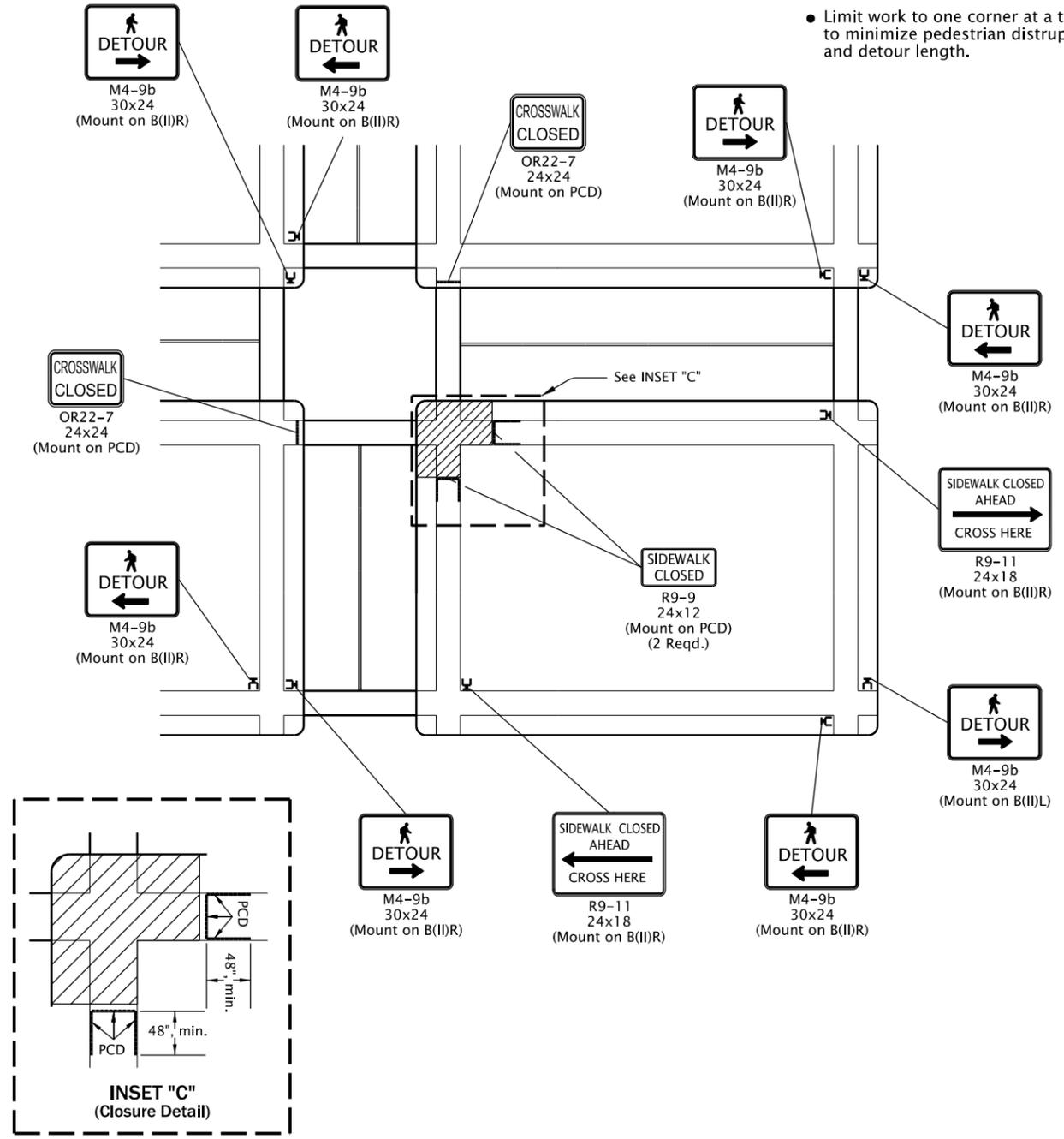
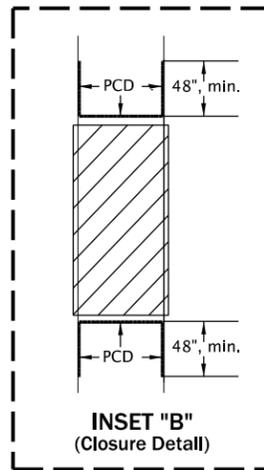
- NOTES:
- Place or construct temp. sidewalk ramp, as needed.
 - For roadways with a pre-construction posted speed of 40 mph or less.
 - See inset "A" for Temp. Sidewalk Ramp details.
 - "W" = 60", or, where 60" width cannot be maintained through the entire route, provide 48" min. width with 60" x 60" passing spaces every 200 ft.
 - Use temporary ADA compliant surfaces to cross planter strips or other non-traversable surfaces.



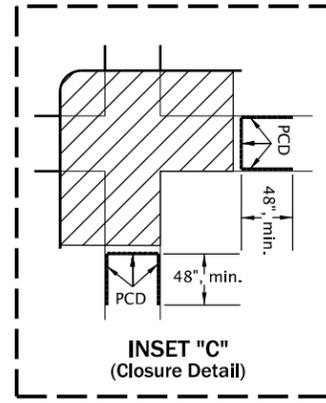
Additional Right of Way SIDEWALK DIVERSION



SIDEWALK CLOSURE, MIDBLOCK



SIDEWALK CLOSURE, CORNER



GENERAL NOTES FOR ALL DETAILS:

- When closing or relocating crosswalks or other pedestrian facilities provide ADA compliant facilities. Include accessibility features consistent with existing pedestrian facilities by providing adequate slope transitions and surfacing.
- Provide non-slip, 60 inch minimum wide surface through entire pedestrian route. If not possible, provide 48" min. width with 60" x 60" passing spaces every 200 feet along the route.
- Only TCD for pedestrians are shown. Other devices may be necessary to control vehicular traffic.
- Stage work, as necessary, to provide a temporary pedestrian access route at all times. For roadways with no available detours, maintain one open sidewalk at all times.
- Minimize pedestrian out-of-direction travel.
- To be accompanied by Dwg. Nos. TM820 & TM821.

- UNDER PEDESTRIAN TRAFFIC
- UNDER CONSTRUCTION
- PEDESTRIAN CHANNELIZING DEVICE (PCD)

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

NOTE:
• Limit work to one corner at a time to minimize pedestrian disruption and detour length.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

TEMPORARY PEDESTRIAN ACCESSIBLE ROUTES

2024

DATE	REVISION DESCRIPTION
01-2022	Revised notes for temporary sidewalk ramp.
07-2023	OR22-8 signs were replaced with OR22-7 signs.

CALC. BOOK NO.	N/A	SDR DATE	14-JUL-2023	TM844
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