



## STAFF REPORT

Meeting Date: May 7, 2025  
Author: Sharon Darroux, Engineering Manager  
Department: Public Works  
Division: Engineering  
Subject: Gable Rd Rectangular Rapid Flashing Beacon  
Type of Item: Project Award  
CC: Mouhamad Zaher, Public Works Director  
John Walsh, City Administrator

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### Introduction:

This project proposes the installation of a Rectangular Rapid Flashing Beacon (RRFB) at the mid-block pedestrian crossing on Gable Rd between US Hwy 30 and McNulty Way. The crossing is located in a high-traffic area and is used by pedestrians, many of whom are residents with limited transportation options, to access shopping and other amenities. Engineering staff have worked with ODOT over the past year to lower the vehicle speed limit in this area from 40 mph to 30 mph. However, because of the heavy volume of vehicular traffic, the current enhanced crossing still poses significant safety risks, evidenced by a recent pedestrian injury and numerous community complaints. The RRFB installation aims to enhance visibility, improve driver compliance, and provide a safer, more accessible crossing for all users.



### Background:

In recent months, the City's Engineering Division have received multiple requests from residents and community stakeholders to improve pedestrian safety at the mid-block crossing located along Gable Rd between US Hwy 30 and McNulty Way. This location has seen a marked increase in foot traffic following the completion of the 239-unit Broadleaf Arbor apartment complex directly adjacent to the crossing. The new residential complex houses a diverse population, including families with young children, seniors, and individuals with limited mobility — many of whom rely on walking or public transportation for their daily needs.

The mid-block crossing is currently enhanced with visibility features to alert drivers of pedestrians, however, despite marked crosswalk lines, the speed and volume of vehicular traffic create a hazardous environment for pedestrians attempting to cross. Tragically, this danger was realized when a Broadleaf resident was struck and injured while using the crosswalk several months ago. This incident, combined with multiple complaints by residents, have raised significant safety concerns about this crossing.

The City’s engineering staff confirms that this location meets the criteria for additional pedestrian safety enhancements. The recommended solution is the installation of a Rectangular Rapid Flashing Beacon (RRFB), a proven and cost-effective measure to increase driver awareness and reduce pedestrian crash risk at uncontrolled crossings. RRFBs use high-intensity LED lights that flash in a distinct pattern, capturing drivers’ attention and prompting them to yield to crossing pedestrians.

Given the clear need, community support, history of incidents, and increased pedestrian demand due to the nearby residential development, the proposed RRFB installation is a critical safety improvement. This project aligns with the City’s goals of promoting walkability, equity in infrastructure investment, and proactive traffic safety measures.

**Project Goals:**

- ✓ Increase visibility of pedestrians
- ✓ Reduce pedestrian-vehicle collisions
- ✓ Increase driver compliance with yield laws
- ✓ Encourage walking and improve accessibility for a safe and timely crossing opportunity
- ✓ Reduce speeding on Gable Rd between US Hwy 30 and McNulty Way
- ✓ Assist vulnerable road users like children, seniors, and people with disabilities who may have more difficulty crossing high-speed or high-volume roads

Bright, rapid-flashing amber lights command attention — even in low light or poor weather — making them more noticeable than static signage



The City solicited quotes from four contractors to install the RRFB, which will be supplied by the City, and on Friday, April 11, 2025, the City received quotes from the following two firms,

FIRM	LOCATION	QUOTE
TFT Construction	Scappoose, OR	\$42,190.00
NorthStar Electrical Contractors	Sherwood OR	\$72,750.00

**Staff Analysis:**

After reviewing the quotes, TFT Construction is determined to be the lowest responsive bidder to provide the services as outlined in the RFQ which the City desires.

**Budget Impact:**

The project will be funded by City street funds.

**Requested Action:**

City Council is requested to award the project and to authorize the Mayor to execute a Small Construction Contract for the project at the City Council Regular Session this evening, May 7, 2025. The contract will be for the amount specified in the firm's bid, plus standard contingency.

**Attachment:**

TFT Construction quote

NorthStar Electrical Contractors quote

Requests For Quotes

## **ATTACHMENTS**



DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION  
285 Strand Street, St. Helens, OR 97051  
Phone: 503.377.4272 Web: www.ci.sthelens.or.us

## T.F.T CONSTRUCTION

# REQUEST FOR QUOTATION

DATE: 3/27/2025

OWNER: City of St. Helens

CONTRACTOR:

PROJECT/CONTRACT NO: N/A

PROJECT NAME: Gable Road Rapid Rotating Flashing Beacon Installation

### PLEASE PROVIDE A QUOTE FOR:

Installing Rapid Rectangular Flashing Beacons supplied by the City. Work includes pouring the concrete footings for the beacons, installing the beacons with required signage, pouring a 6'x10' landing pad on the south side of the crosswalk at Gable Road, installing truncated domes for the landing, paving approximately 40 SF of roadway pavement at the throat of the ADA Ramp, and installing approximately 15 feet of curb. The contractor shall provide all materials (except as provided by the City as stated in this RFQ), labor, supervision, and equipment required to complete this work in its entirety. No additional compensation shall be made.

### ATTACHMENTS:

Gable Road As-Built Markup and RRFB Details

Item#	Description	Unit	Est. Qty	Unit Price	Est. Total Price
1	Concrete Walks	SF	60	\$140.00	\$8,400.00
2	Extra for ADA Ramp Installation	LS	1	\$2,400.00	\$2,400.00
3	Truncated Domes	SF	20	\$42.00	\$840.00
4	Construct Foundation and install City Supplied Rapid Rotating Flashing Beacon	LS	1	\$18,500.00	\$18,500.00
5	Install Standard Curb	LF	15	\$550.00	\$8,250.00
6	Level 2 1/2" Dense ACP	TON	2	\$1,900.00	\$3,800.00

**TOTAL COST: \$42,190.00**

SUBMITTED BY:

  
CONTRACTOR (Authorized Signature)

4/11/25  
Date

- >Price excludes solid rock excavation. Rock excavation to be charged at \$350/hour.
- >Price excludes survey.
- >Price excludes Prevailing Wage Rates



DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION  
215 Strand Street, St. Helens, OR 97151  
Phone: 603.397.6272 Web: www.ci.sthelens.or.us

## NORTHSTAR ELECTRICAL CONTRACTORS

### REQUEST FOR QUOTATION

DATE: 3/27/2025

OWNER: City of St. Helens

CONTRACTOR: NorthStar Electrical Contractors, Inc.

PROJECT/CONTRACT NO: N/A

PROJECT NAME: Gable Road Rapid Rotating Flashing Beacon Installation

**PLEASE PROVIDE A QUOTE FOR:**

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**ATTACHMENTS:**

Gable Road As-Built Markup and RRFB Details

Item#	Description	Unit	Est. Qty	Unit Price	Est. Total Price
1	Concrete Walks	SF	60	50.00	3,000.00
2	Extra for ADA Ramp Installation	LS	1	3,500.00	3,500.00
3	Truncated Domes	SF	20	100.00	2,000.00
4	Construct Foundation and install City Supplied Rapid Rotating Flashing Beacon	LS	1	60,000.00	60,000.00
5	Install Standard Curb	LF	15	150.00	2250.00
6	Level 2 1/2" Dense ACP	TON	2	1000.00	2000.00

**TOTAL COST: 72,750.00**

SUBMITTED BY:

CONTRACTOR (Authorized Signature)

4/11/2025

Date



DEPARTMENT OF PUBLIC WORKS – ENGINEERING DIVISION  
265 Strand Street, St. Helens, OR 97051  
Phone: 503.397.6272 Web: www.sthelensoregon.gov

## REQUEST FOR QUOTATION

DATE: 3/27/2025

OWNER: City of St. Helens

CONTRACTOR:

PROJECT/CONTRACT NO: N/A

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### ATTACHMENTS:

Gable Road As-Built Markup and RRFB Details

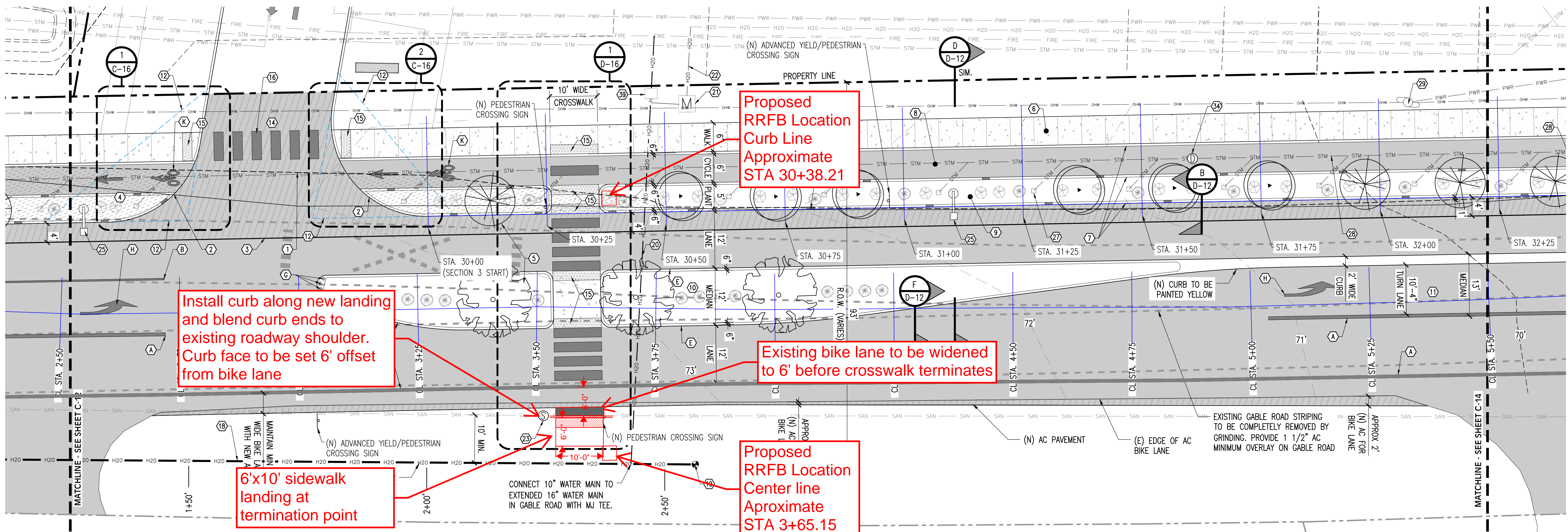
Item#	Description	Unit	Est. Qty	Unit Price	Est. Total Price
1	Concrete Walks	SF	60		
2	Extra for ADA Ramp Installation	LS	1		
3	Truncated Domes	SF	20		
4	Construct Foundation and install City Supplied Rapid Rotating Flashing Beacon	LS	1		
5	Install Standard Curb	LF	15		
6	Level 2 1/2" Dense ACP	TON	2		

**TOTAL COST:**

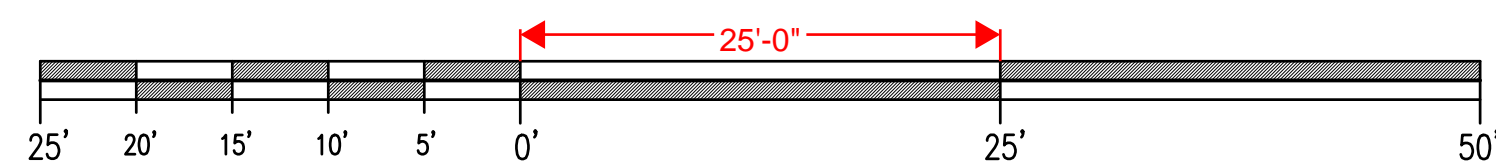
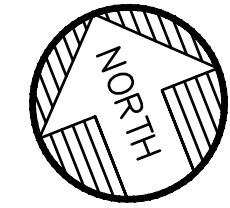
SUBMITTED BY:

CONTRACTOR (Authorized Signature)

Date



1 ROAD IMPROVEMENT PLAN  
C-13 SCALE: 1" = 10'-0"



LEGEND

(E)	EXISTING
ROW	RIGHT OF WAY
EOP	EDGE OF PAVEMENT
T/CRB	TOP OF CURB
FL	FLOW LINE / GUTTER
MH	MANHOLE (RIM/LID)
CB	CATCH BASIN
IE	INVERT ELEVATION
Ⓢ	SANITARY SEWER MANHOLE
Ⓣ	STORM SEWER MANHOLE
Ⓜ	CATCH BASIN
---	PROPERTY LINE
---	EXISTING CONTOUR
---	NEW CONTOUR
---	BURIED POWER LINE
---	EXISTING WATER MAIN
---	WATER MAIN EXTENSION
---	NEW WATER LINE
---	EXISTING SANITARY SEWER
---	NEW SANITARY SEWER
---	STORM SEWER
---	EXISTING STRIPING
---	EXISTING STRIPING TO REMAIN
---	NEW STRIPING
---	EASEMENT
---	NEW AC PAVEMENT
---	FINAL OF EXTENT OF AC PAVED ROADWAY (APPROXIMATED ON SOUTH SIDE OF GABLE ROAD)
---	CONCRETE SIDEWALK
---	PAVING TO BE REMOVED

KEYNOTES

- EXISTING EDGE OF PAVEMENT.
- WIDEN AC PAVING TO MEET NEW CURB (CURB RADIUS = 20').
- SAWCUT (E) PAVEMENT ALONG THIS LINE TO CREATE CLEAN EDGE FOR (N) PAVEMENT TO MATCH.
- SAWCUT AND REMOVE EXISTING ASPHALT PAVING AS REQUIRED FOR INSTALLATION OF NEW CURB/SIDEWALK.
- NEW STREET TREES AT 20' MAXIMUM ON CENTER IN 5' PLANTING STRIP AS REQUIRED PER SHMC SECTIONS 17.72.030 AND 17.72.035. SEE TREE LEGEND ON THIS SHEET FOR SPECIES.
- NEW 6' WIDE SIDEWALK PER CITY DETAIL 220 ON D-11.
- NEW 6" CURB PER CITY DETAIL 210 ON SHEET D-11.
- NEW 6' WIDE PAVED CYCLETRACK PER RIVERFRONT CONNECTOR PLAN PREFERRED OPTION.
- NEW 5' WIDE PLANTING STRIP PER RIVERFRONT CONNECTOR PLAN PREFERRED OPTION.
- NEW TURN LANE.
- 30-FOOT VISION TRIANGLE PER SHMC SECTION 17.76.
- "EMERGENCY ACCESS ONLY" SIGN.
- NEW 26' WIDE COMMERCIAL DRIVEWAY.
- NEW ACCESSIBLE RAMP WITH TRUNCATED DOME TACTILE WARNING PADS IN BRICK RED COLOR AS REQUIRED PER ICC SECTION 705.
- NEW 6' WIDE CROSSWALK WITH 2' WIDE STRIPES.
- EXISTING 16" WATER MAIN IN GABLE ROAD.
- NEW EXTENSION OF 16" D.I. CITY WATER MAIN. TOTAL LENGTH OF EXTENSION: 255 FEET.
- NEW TEMPORARY BLOW-OFF PER CITY STANDARD DETAIL 422 ON SHEET D-11.
- NEW 10" D.I. WATER LINE TO CONNECT TO EXTENDED 16" WATER MAIN IN GABLE ROAD. SEE SHEET D-13 FOR WATER LINE PROFILE.
- NEW 3" WATER SERVICE METER & VAULT/BOX (SIZED BY OTHERS) TO BE APPROVED BY LCE AND PUBLIC WORKS PRIOR TO INSTALLATION. SEE DETAIL 405 ON SHEET D-11.
- NEW 6" C-900 PRIVATE WATER LINE (TO BE VERIFIED BY OTHERS).
- EXISTING 48" SANITARY SEWER MANHOLE IN GABLE ROAD.
- NEW PRIVATE 10" PVC SANITARY SEWER LATERAL.
- PROVIDE NEW LED STREET ILLUMINATION LIGHT WITH 8' LUMINAIRE ARM MOUNTED ON STEEL POLE AT ±18' (VERIFY) ABOVE ROADWAY. POLE FACE TO BE A MINIMUM OF 3' FROM FACE OF NEW CURB. SEE DETAILS 3 AND 4 ON SHEET D-12 FOR LIGHT POLE FOOTING DETAILS.
- 18" CURB CUTS EVERY 25' O.G. TO DRAIN STORMWATER INTO PLANTING STRIP. SEE DETAIL E/D-12 FOR PROFILE.
- NEW BEEHIVE-STYLE DRAINAGE INLET IN PLANTING STRIP PER DETAIL 1 ON SHEET D-12. MAXIMUM SPACING = 30'.
- NEW 10" HDPE STORM PIPE.
- EXISTING POWER POLE ON GABLE ROAD TO REMAIN.
- BOLLARDS PER PRIVATE IMPROVEMENT PLANS (SHOW FOR REFERENCE).
- NEW ASPHALT PER B/D-12. EXTEND ASPHALT 5' BEHIND OUTSIDE OF CYCLETRACK.
- TAPER NEW ASPHALT CYCLETRACK AT 1:10 TO MEET EXISTING EDGE OF ROAD PAVEMENT FOR CONNECTION TO EXISTING GABLE ROAD BIKE LANE.
- STORMWATER LINE TO DISCHARGE INTO EXISTING DITCH ALONG GABLE NEAR EXISTING CULVERTS DRAINING TO MCNULTY CREEK. SEE SHEET C-18 FOR STORMWATER PLAN.
- NEW 48" STORM SEWER MANHOLE. SEE DETAIL 350 ON SHEET D-10 FOR CITY STANDARD MANHOLE DETAIL.
- NEW STRIPING FOR ADA RAMP TRANSITION.
- ASPHALT TRANSITION RAMP PER ADA STANDARDS.
- CONTINUE CYCLETRACK STRIPING TO MEET EXISTING BIKE LANE STRIPING.
- ASPHALT TRANSITION TO ADA STANDARDS, MAINTAIN 5' MINIMUM OF ASPHALT WIDTH BETWEEN EDGE OF ASPHALT AND CYCLETRACK/BIKE LANE.
- DOUBLE DETECTOR CHECK ASSEMBLY TO BE INSTALLED IN RIGHT-OF-WAY AT PROPERTY LINE. SEE DETAIL 3/C-15.

STRIPING KEYED NOTES

- W-2 STRIPING: SEE SECTION 120, FIGURE 120 IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- W STRIPING: SEE SECTION 120, FIGURE 120 IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- ND STRIPING: SEE SECTION 120, FIGURE 120 IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- Y STRIPING: SEE SECTION 120, FIGURE 120 IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- Y/R-20 STRIPING: SEE SECTION 132, FIGURE 132 IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- TM STRIPING: SEE SECTION 260, FIGURE 260-B IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- YELLOW TUBULAR MARKER: SEE SECTION 140, FIGURE 140-A IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- E-LA ARROW: SEE SECTION 160, FIGURE 160-C IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- TYPICAL RAILROAD CROSSING: SEE SECTION 510, FIGURE 510-A IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.
- BS BIKE LANE STENCIL: SEE SECTION 410, FIGURE 410-A IN THE OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC LINE MANUAL.

NOTE: ALL LEGENDS SHALL BE TORCH DOWN THERMOPLASTIC.

CONTRACTOR TO GRIND AND PROVIDE PAVING OVERLAY ON ALL LANES, BIKE LANES, AND MEDIAN OF GABLE ROAD AS A PART OF THE CDP ST HELENS HOUSING PROJECT. DEPTH OF GRIND "TO BE DETERMINED IN THE FIELD" DUE TO EXISTING CHIP SEAL SURFACING. INTENT IS TO PROVIDE A MINIMUM 1-1/2" INLAY GRIND AND OVERLAY PAVING FOR THESE AREAS. SOME AREAS MAY REQUIRE A DEEPER GRIND AND LEVELING TO ENSURE THAT THE CHIP SEAL SURFACING HAS BEEN FULLY REMOVED. SEE ROADWAY IMPROVEMENT PLANS FOR WHERE OVERLAY STARTS AND ENDS ON GABLE ROAD.

CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE UTILITY OWNERS WITH OVERHEAD LINES ON THE EXISTING UTILITY POLES ALONG THE PROPERTY FRONTAGE AND VERIFYING WHETHER OR NOT MODIFICATIONS WILL BE REQUIRED IN ORDER TO MEET THE APPLICABLE CLEARANCE REQUIREMENTS. ANY NECESSARY MODIFICATIONS SHALL BE COORDINATED WITH THE INDIVIDUAL UTILITY OWNER BY THE CONTRACTOR. ANY ASSOCIATED DESIGN WORK, AND RELATED EXPENSES ARE THE RESPONSIBILITY OF THE UTILITY OWNER.

TREE SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME
	QUERCUS LOBATA	VALLEY OAK
	RHAMNUS PURSHIANA	CASCARA
	LAGERSTROEMIA 'NATCHEZ'	NATCHEZ CRAPE MYRTLE

SHRUB SCHEDULE

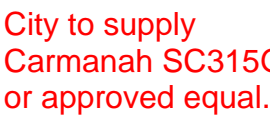
SYMBOL	BOTANICAL NAME	COMMON NAME
	ARCTOSTAPHYLOS 'MED.' (NO SPECIES OVER 5')	MEDIUM MANZANITA
	BACCHARIS PILULARIS 'PISTOL PANCAKE'	COYOTE BRUSH

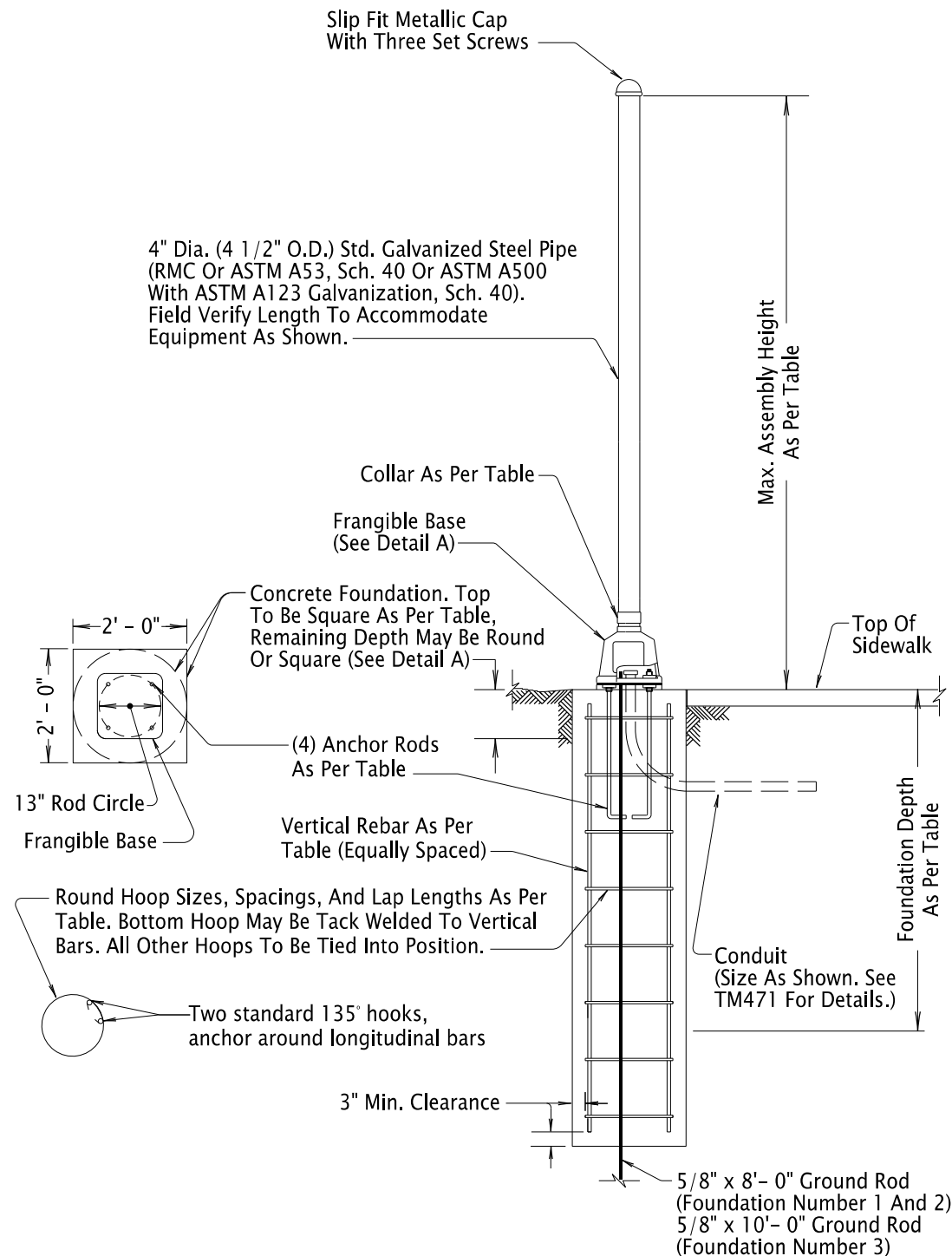
GROUND COVER TO BE JUNCUS SPP. (RUSH) IN 5' PLANTING STRIP AND CLEANTHUS GLORIOSUS SPP. (CALIFORNIA LILAC) IN 14' WIDE LANDSCAPED MEDIAN.

RECORD DRAWINGS  
THESE RECORD DRAWINGS (ALSO REFERENCED AS "AS BUILT") DEPICT PROJECT IMPROVEMENTS INCLUDING CONSTRUCTION CHANGES MADE KNOWN TO ENGINEER THROUGH INFORMATION PROVIDED BY BOTH CONTRACTOR OBSERVATION AND/OR SURVEYOR DATA COLLECTION, DEC 2023. ALL INFORMATION HEREON SHALL BE FIELD OR SURVEY VERIFIED PRIOR TO ANY FUTURE USE IN DESIGN AND/OR CONSTRUCTION.

DATE: 01/30/2024  
AS BUILT

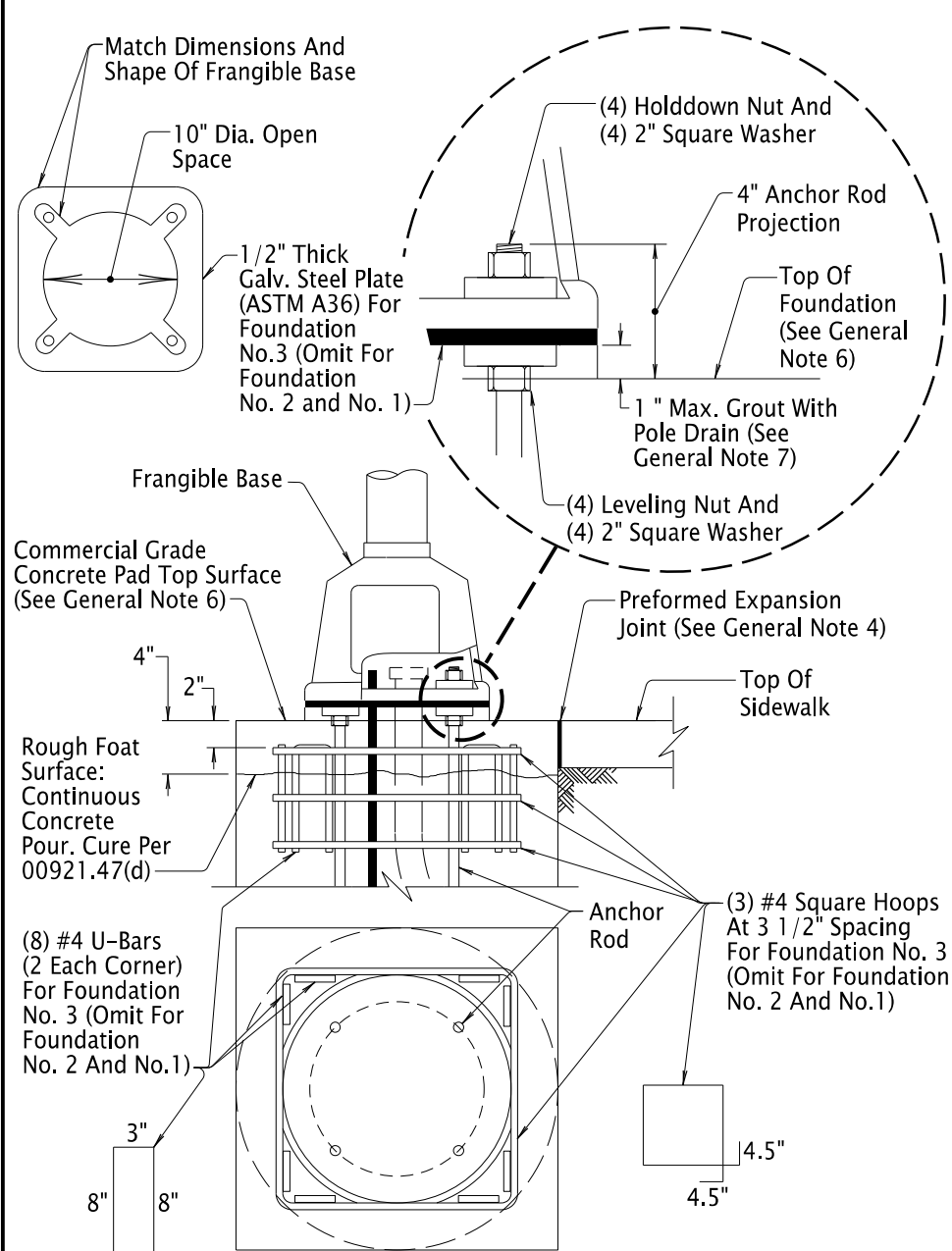
PROJ. NO.		SHEET <b>C-13</b>
DWG. BY		
APPR. BY		
FILE		
DATE		





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"					
3	20' - 6"	8' - 0"	12"	1" x 36" x 4" (6" Thread)	8-#6	#4-12"	6" with 2 hooks	Req'd

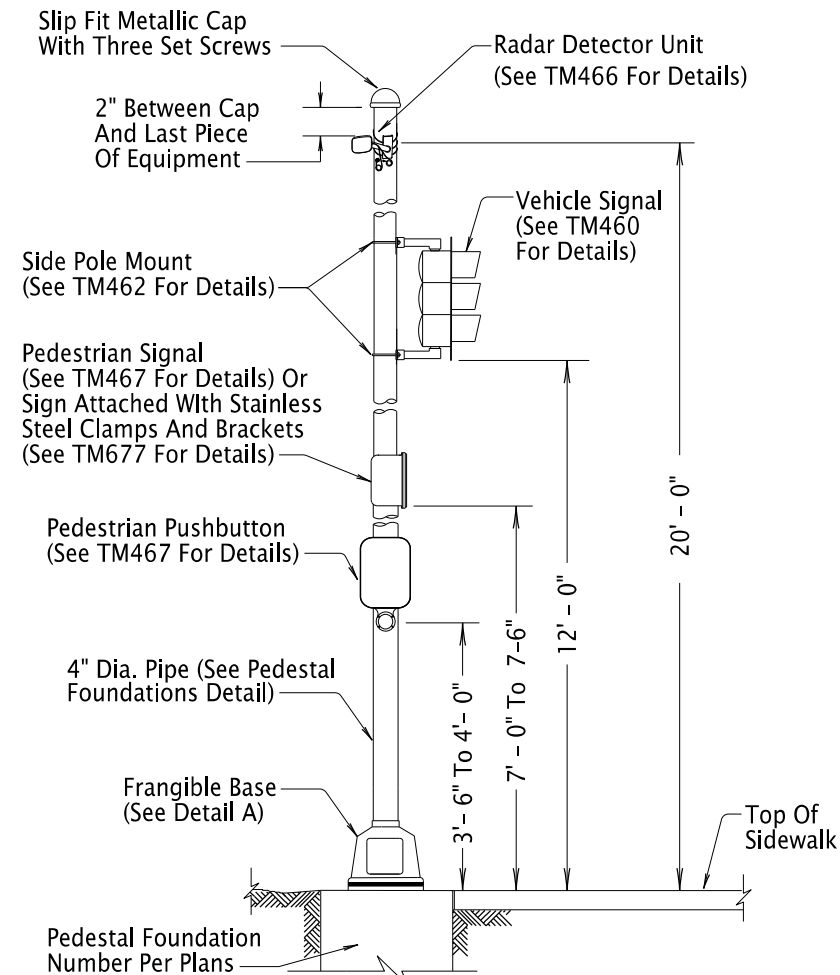
**PEDESTAL FOUNDATIONS**



**DETAIL A - FRANGIBLE BASE**

**General Notes:**

1. All Bolts, Nuts And Washers To Conform To 02560.20 And Be Galvanized Steel According To 02560.40 Unless Noted Otherwise.
2. All Anchor Rods To Be Galvanized Steel Conforming To 02560.30.
3. All Pole Entrances Containing Wiring To Be Smooth.
4. Install 1/4" Thick Preformed Expansion Joint Filler Around Footing In Sidewalk Areas.
5. 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.
6. 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.
7. 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:**

1. Equipment Shown In The Assembly Detail Is An Example Of The Equipment That May Be Mounted. Install Equipment As Shown.
2. See TM492 For Ramp Meter Pedestal Mounting Details.
3. See TM493 For RRFB Pedestal Mounting Details.

**TRAFFIC SIGNAL PEDESTAL ASSEMBLY**

*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**

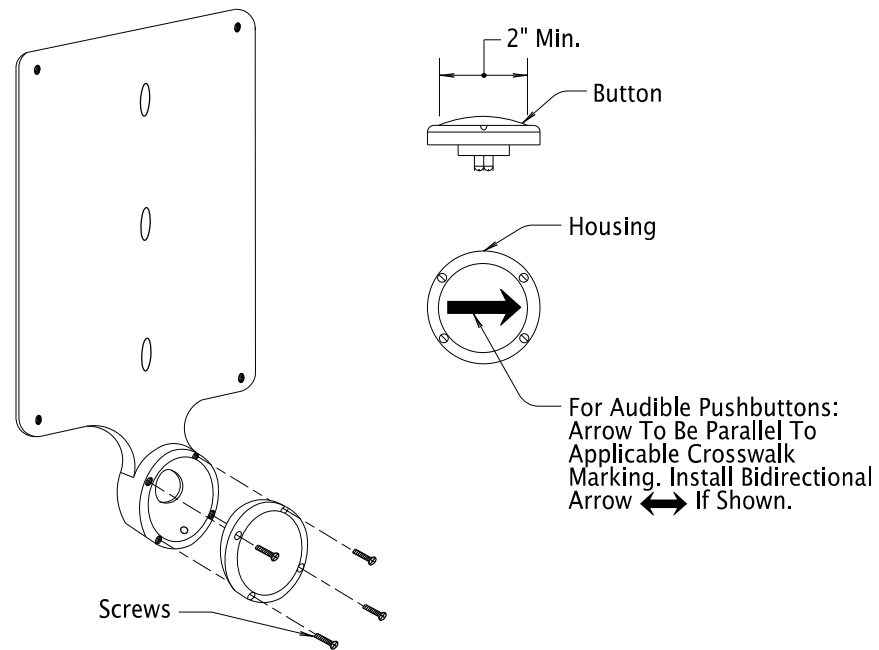
**PEDESTAL FOUNDATION AND TRAFFIC SIGNAL ASSEMBLY**

2024

DATE	REVISION	DESCRIPTION
01-2021	1	UPDATED ALL ANCHOR ROD DETAILS, CORRECTED STD. DWG. REFERENCE
07-2022	2	COMPLETE REDESIGN OF FOUNDATION AND INSTALLATION PROCEDURE
07-2023	3	NOTE 5 - CHANGED TO 2% SLOPE, ADDED RMC AS PIPE OPTION, MINOR TEXT CHANGES FOR CLARITY.

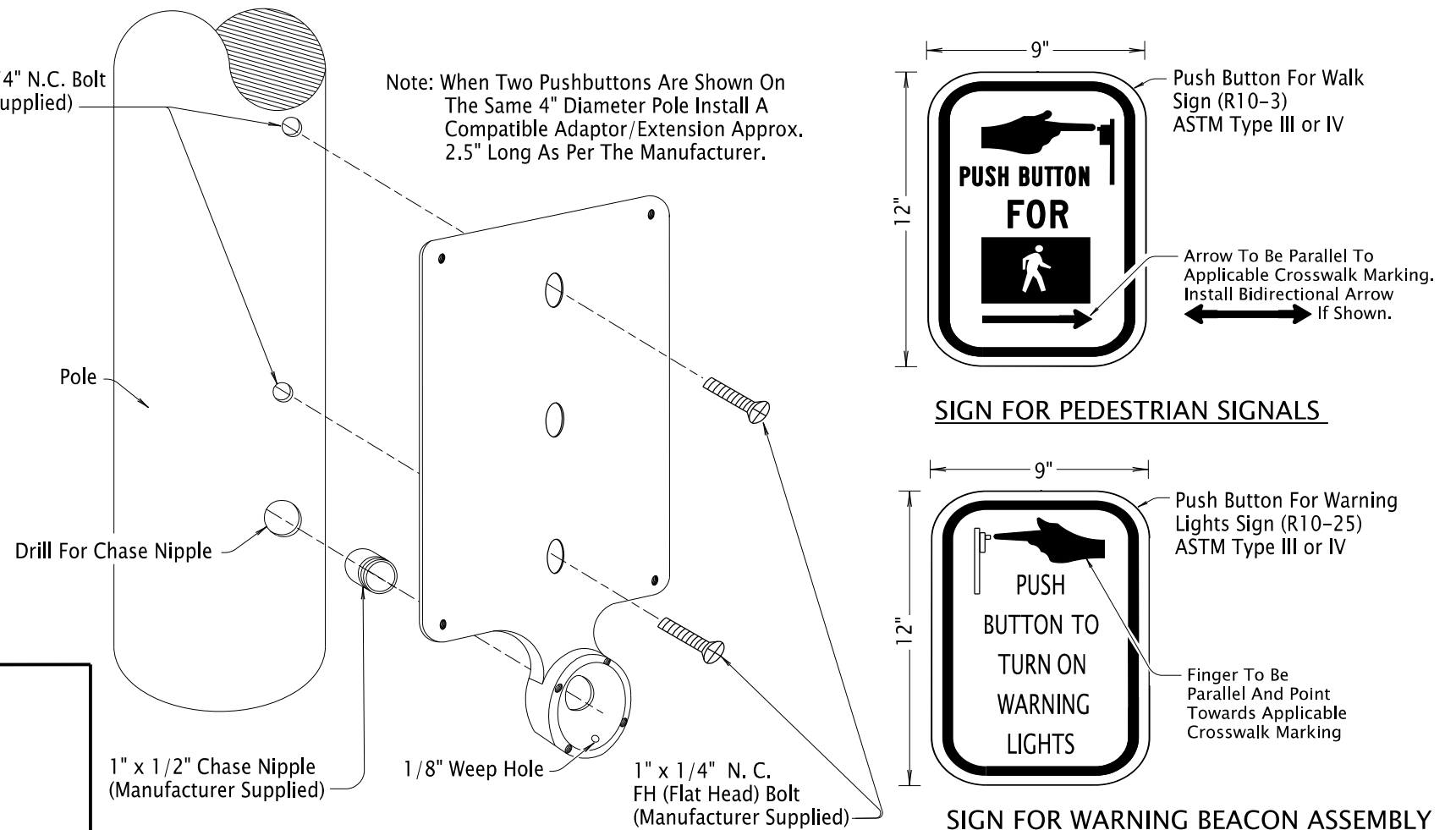
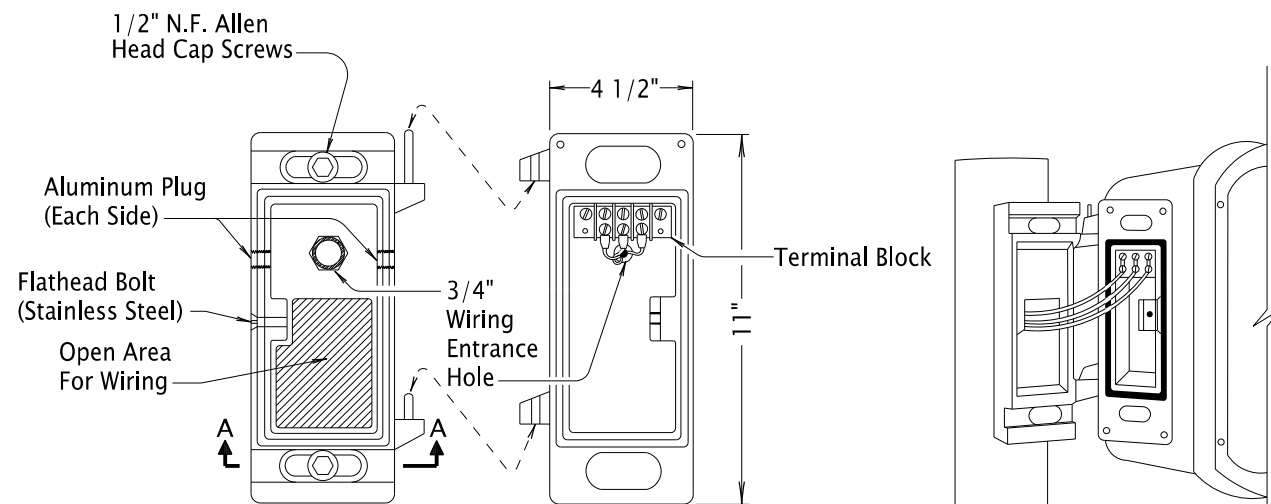
CALC. BOOK NO.	N/A	SDR DATE	14-JUL-2023	<b>TM457</b>
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Effective Date: December 1, 2024 – May 31, 2025

**STANDARD PUSHBUTTON**

Drill, Tap For 1/4" N.C. Bolt  
(Manufacturer Supplied)

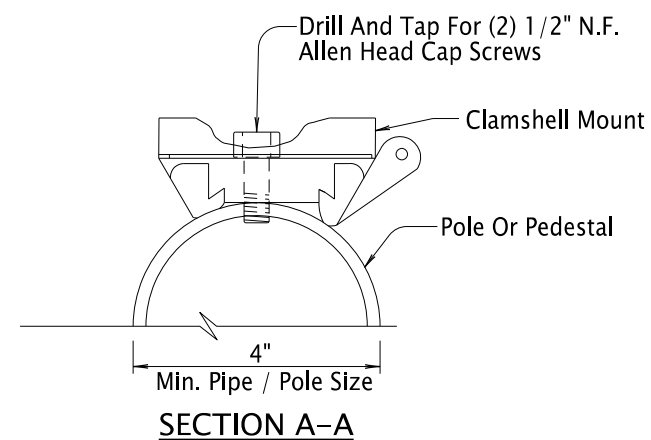
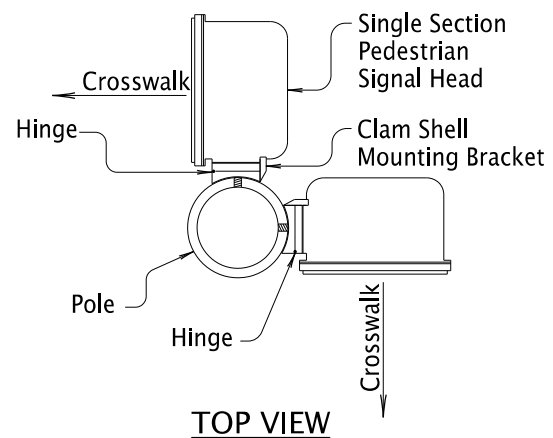
Note: When Two Pushbuttons Are Shown On  
The Same 4" Diameter Pole Install A  
Compatible Adaptor/Extension Approx.  
2.5" Long As Per The Manufacturer.

**SIGN FOR PEDESTRIAN SIGNALS****SIGN FOR WARNING BEACON ASSEMBLY****STANDARD PUSHBUTTON STATION  
AND INSTRUCTION SIGN****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" 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).

**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.*

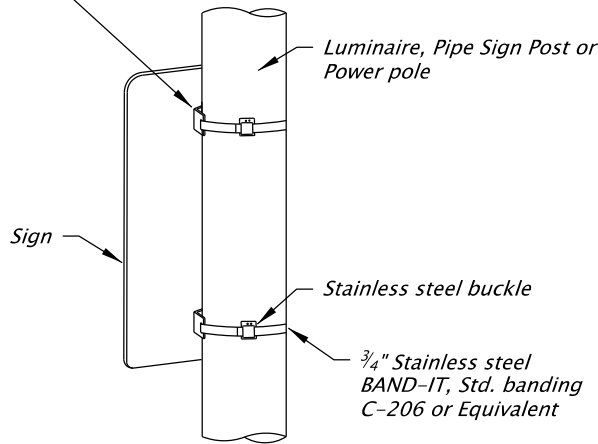
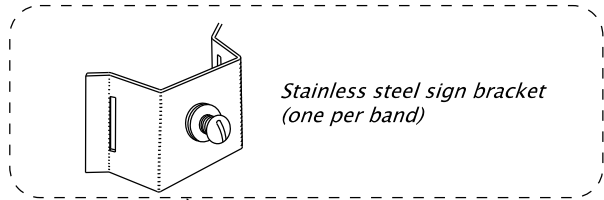
All materials shall be in accordance with the current Oregon Standard Specifications.

**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**

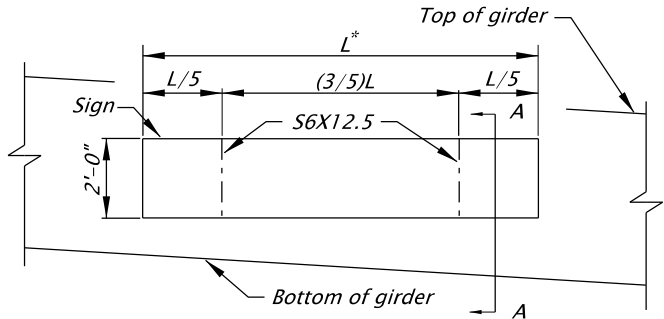
Effective Date: December 1, 2024 – May 31, 2025



Signs mounted to vertical posts that use stainless steel clamps shall not be wider than 36". Use 2 clamps for all signs less than 48" in height and 3 clamps for signs 48" to 60" in height.

STAINLESS STEEL CLAMP (SSC) DETAIL

No Scale

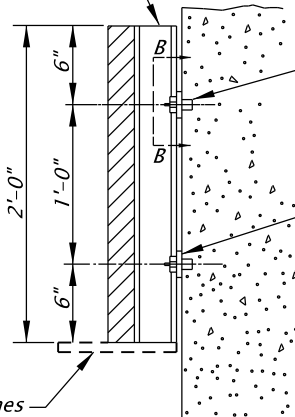


\* - L maximum is 14'-0".

SIGN ELEVATION

No Scale

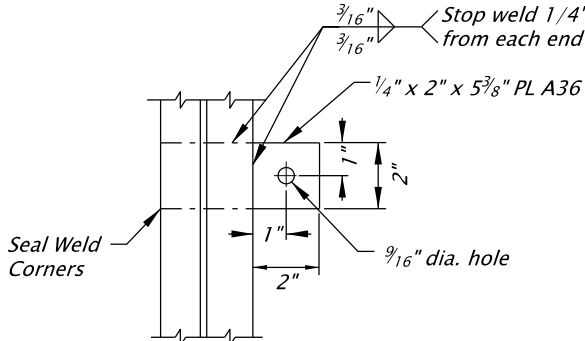
S6X12.5 - A36  
Hot Dipped Galvanized



SECTION A-A

No Scale

Signs mounted over travel lanes shall use the SIGN SUPPORT BRACKET DETAIL shown on TM618



SECTION B-B

No Scale

Notes:

1. Install resin bonded anchors according to Section 00535.
2. Resin bonded anchors shall conform to ASTM A307.
3. The hole depths shall develop the pullout strength specified in Table 00535-1.
4. Tighten 1/2" dia. anchors using 16 ft-lb of torque for waxed galvanized and 40 ft-lb of torque for galvanized only connections.

ROAD NAME SIGN STRUCTURE MOUNT DETAIL

GENERAL NOTES

1. For Secondary Sign Mounts See TM678.

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

SIGN MOUNTS

2024

DATE	REVISION	DESCRIPTION

CALC. BOOK NO. N/A SDR DATE 06-JUL-2015 TM677