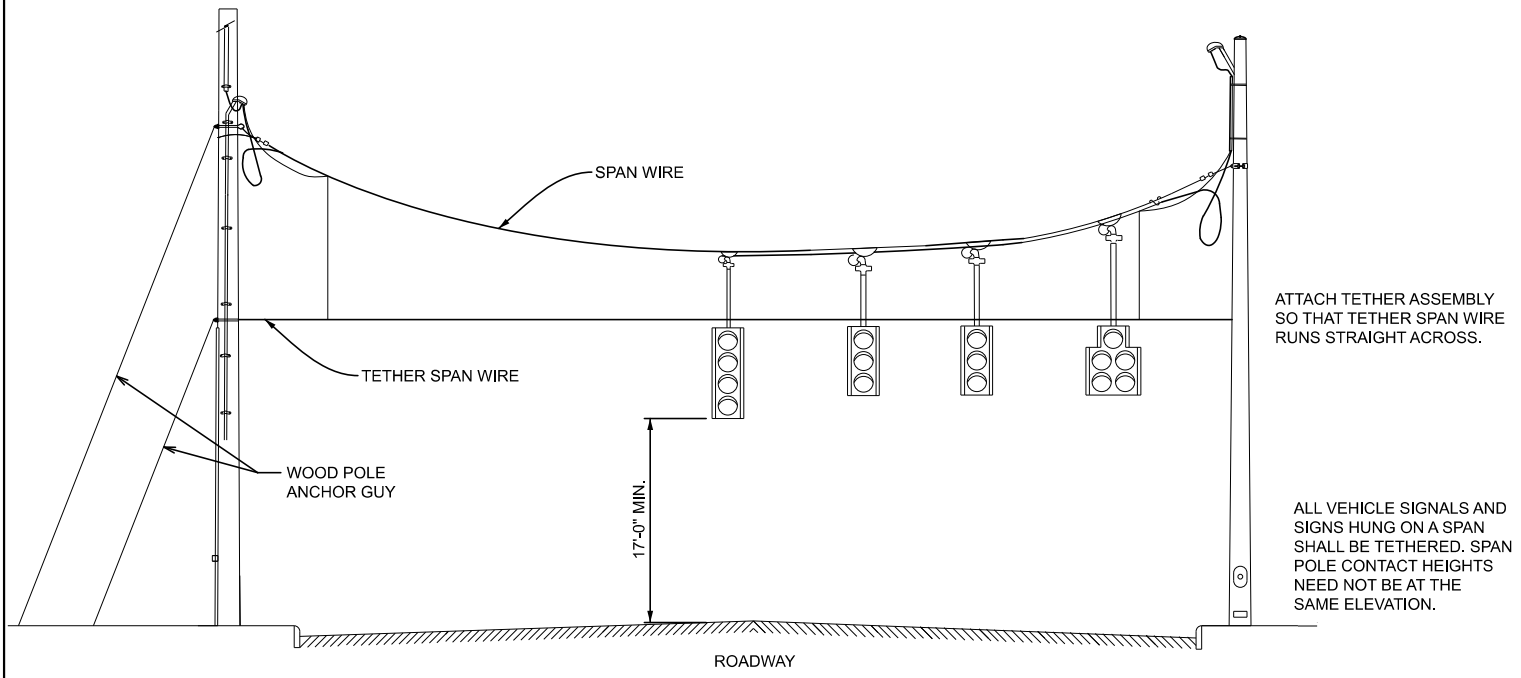
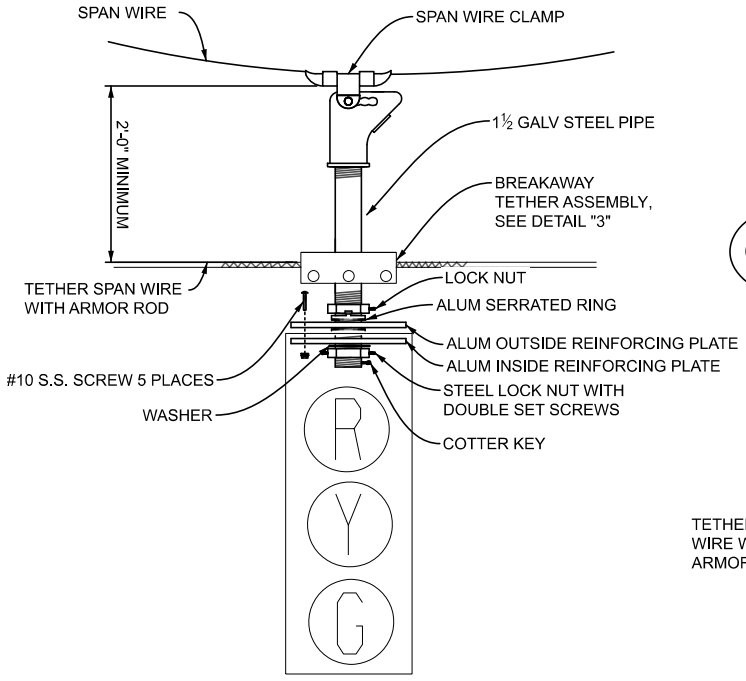
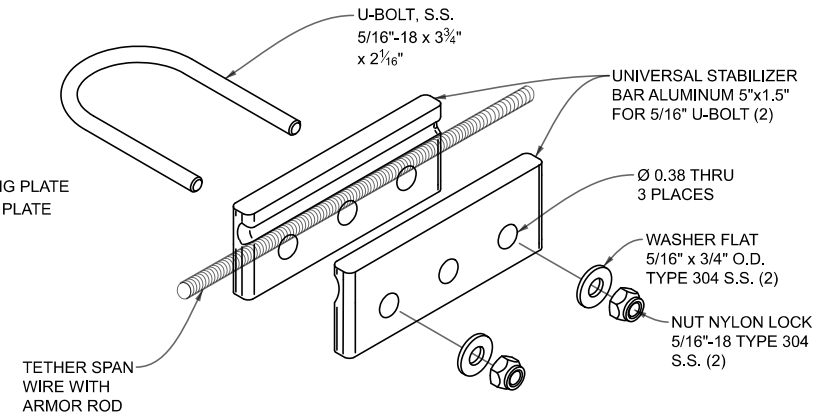


1 DETAIL - TOP TETHER



2 DETAIL - SPAN WIRE INSTALLATION



3 DETAIL - BREAKAWAY TETHER ASSEMBLY FOR TOP OF SIGNAL HEAD

APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

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STANDARD PLAN FOR
SPAN WIRE TOP TETHER DETAILS

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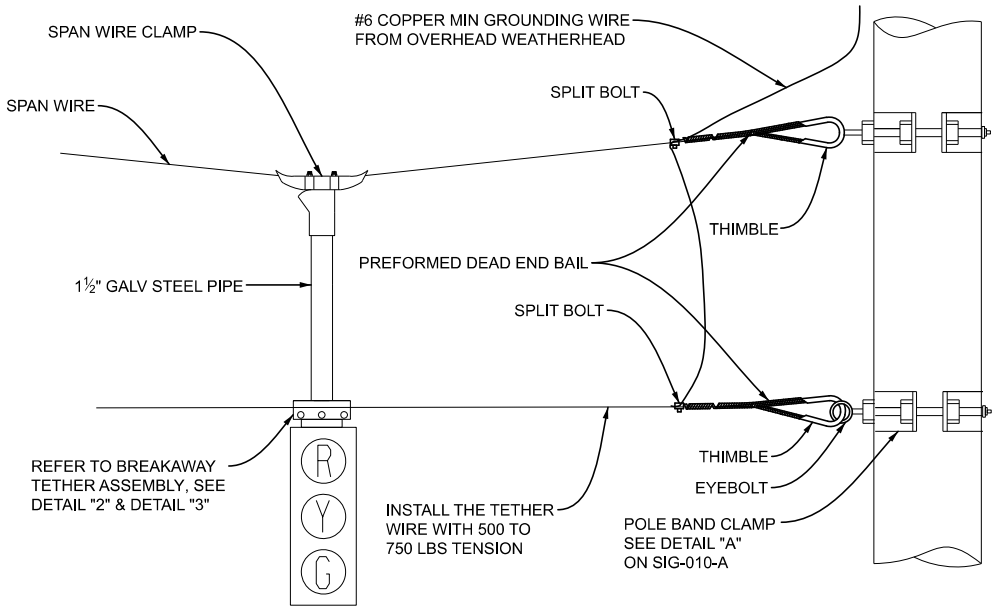
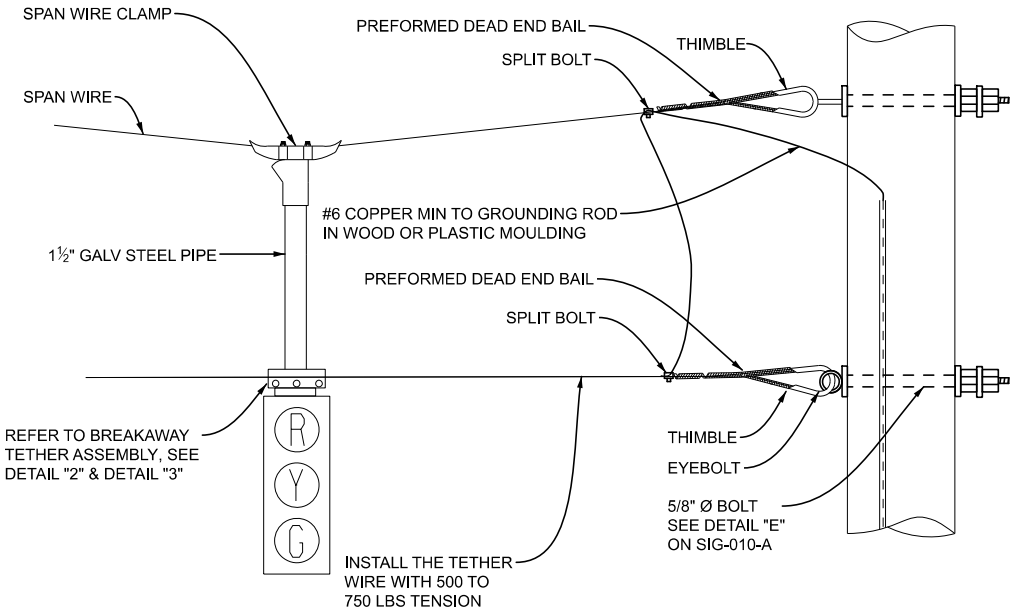


4 TOP TETHER SPAN WIRE STEEL POLE CONNECTION



5 TOP TETHER SPAN WIRE WOOD POLE CONNECTION

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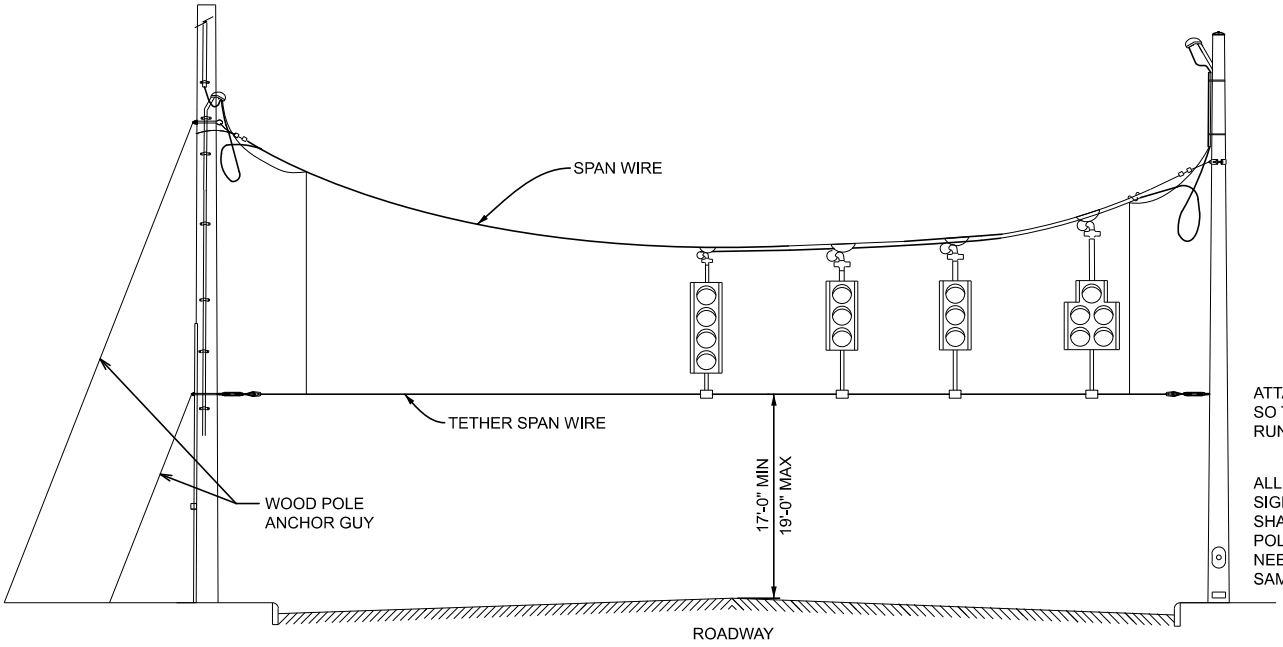
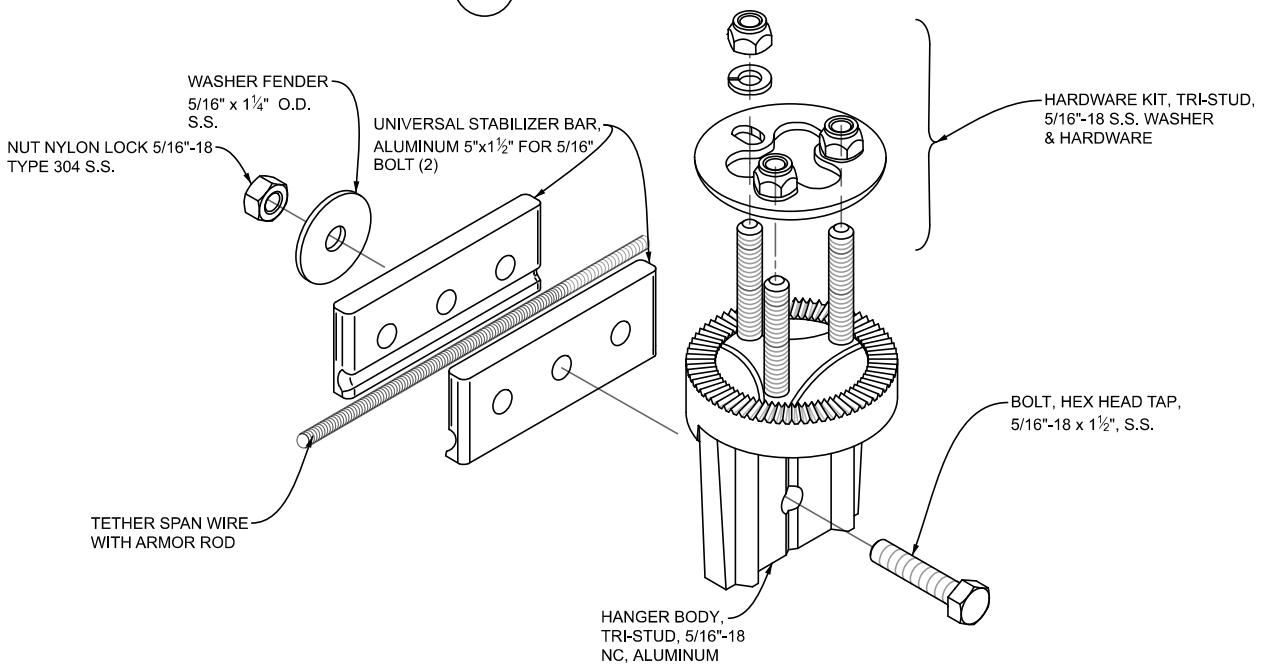
STANDARD PLAN FOR
TOP TETHER CONNECTION DETAILS

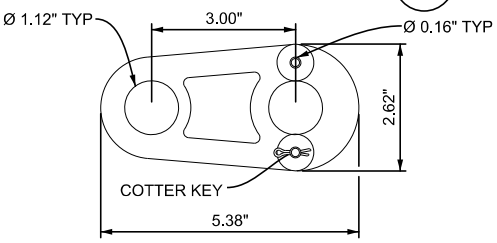
(SPECIAL DETAIL)	07/27/23	SIG-305-D	SHEET
FHWA APPROVAL	PLAN DATE		2 OF 5
			SECT



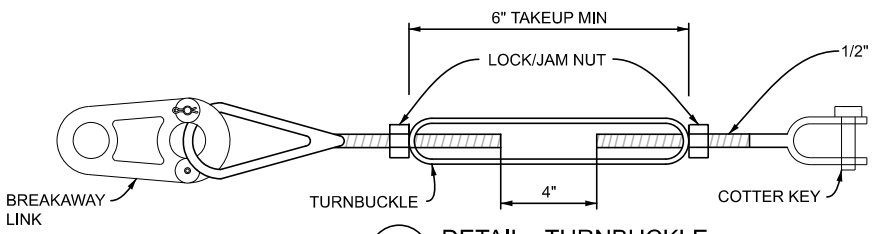
6 BOTTOM TETHER INSTALLATION



7 DETAIL - TETHER ASSEMBLY TRI-STUD BREAKAWAY



8 DETAIL - BREAKAWAY TETHER ASSEMBLY FOR BOTTOM OF SIGNAL HEAD



9 DETAIL - TURNBUCKLE

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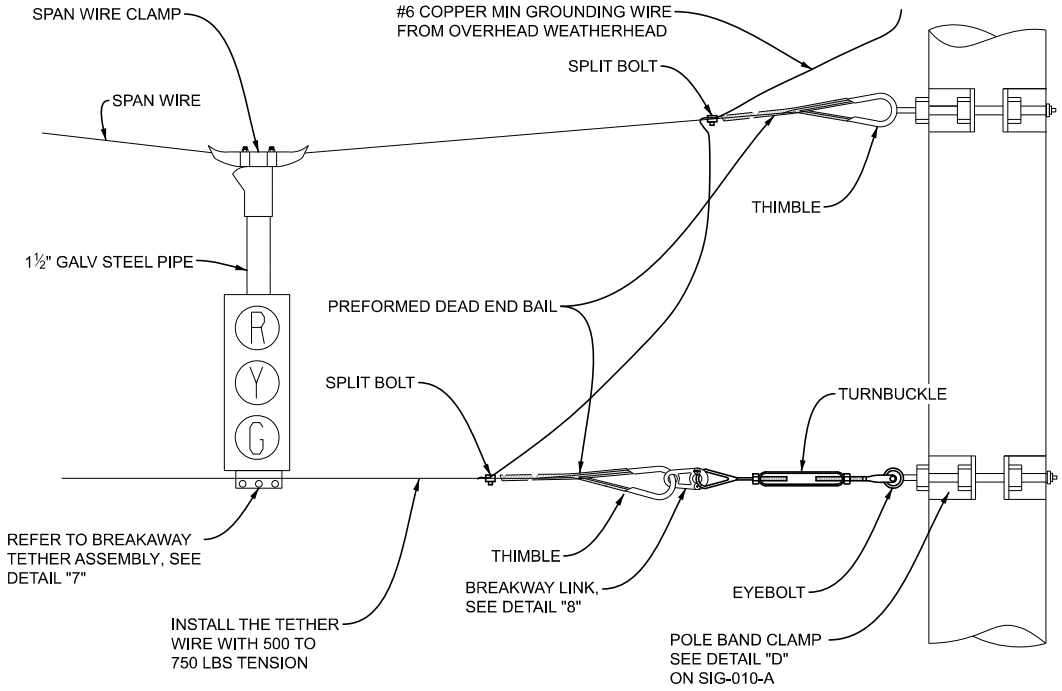
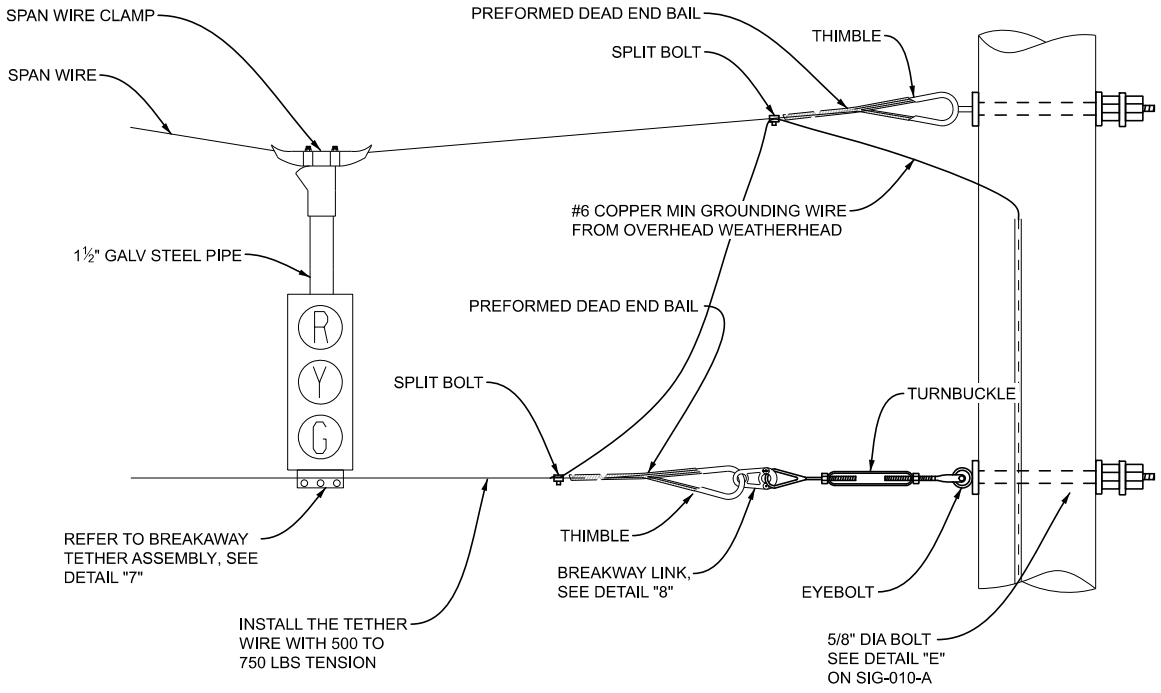
(SPECIAL DETAIL) FHWA APPROVAL	07/27/23 PLAN DATE	SIG-305-D	SHEET 3 OF 5



10 BOTTOM TETHER SPAN WIRE STEEL POLE CONNECTION



11 BOTTOM TETHER SPAN WIRE WOOD POLE CONNECTION

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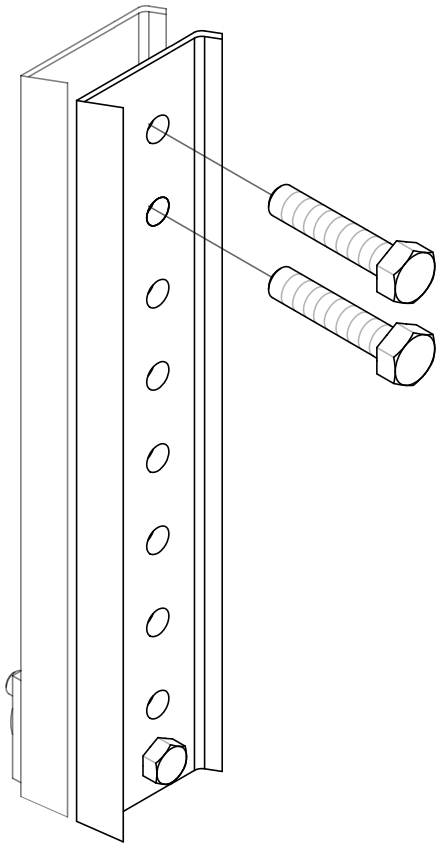
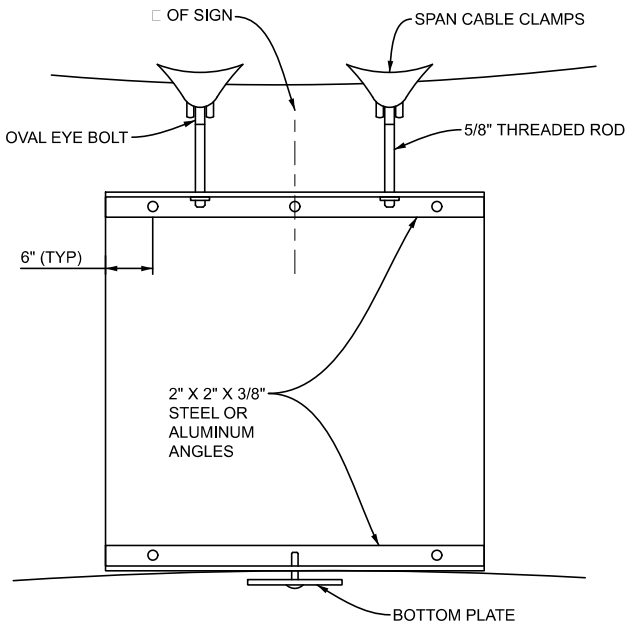
STANDARD PLAN FOR
BOTTOM TETHER CONNECTION DETAILS

(SPECIAL DETAIL) FHWA APPROVAL	07/27/23 PLAN DATE	SIG-305-D	SHEET 4 OF 5
			SECT



12 EXTENDER OPTION 8", 11", 19", 24", & 72 (CUT TO LENGTH)



13 DETAIL - OVERHEAD LANE ASSIGNMENT SIGN CONNECTION

NOTES:

1. BREAKAWAY LINK AND TURNBUCKLE ARE REQUIRED AT BOTH ENDS OF ALL BOTTOM TETHER SPANS. IF BREAKAWAY LINK BEGINS TO YIELD DURING INSTALLATION, IT SHALL BE REMOVED AND REPLACED. THE WIRE TENSION SHALL BE ADJUSTED TO MINIMIZE MOVEMENT OF SIGNAL HEADS IN HIGH WINDS. TYPICAL TENSION IS 500 TO 750 LBS.
2. INSTALL GROUND WIRE AT BOTH ENDS OF TOP AND BOTTOM TETHERING.
3. IF SIGNAL ORIENTATION IS NOT PERPENDICULAR TO SPAN AND TETHER WIRE, THEN USE AN ANCHOR EXTENSION. CLAMP ASSEMBLY MUST BE ATTACHED TO THE FLAT SIDE OF THE EXTENDER BAR.
4. GROUNDING WIRE ANCHOR HEIGHT TO THE SPAN WIRE IS ADJUSTED IN THE FIELD BEFORE BREAKAWAY LINK IS INSTALLED. GROUNDING WIRE LENGTH SHALL BE ADJUSTED SO THAT THE MINIMUM VERTICAL CLEARANCE OF THE SAGGING TETHER WIRE ABOVE THE PAVEMENT WITHOUT THE BREAKAWAY LINK INSTALLED IS AT LEAST 14'. GROUNDING WIRE SHALL CONTAIN ENOUGH SLACK FOR HEAD TO SWAY IN HIGH WINDS. GROUNDING WIRE SHALL BE ATTACHED TO THE SPAN WIRE USING A TINNED COPPER SPLIT BOLT.
5. TRAFFIC SIGNAL HOUSING REINFORCEMENT PLATES ARE REQUIRED WHEN TETHERING.
   A. TOP TETHERING REQUIRES REINFORCEMENT PLATES AT THE TOP OF THE POLYCARBONATE HOUSING. (2 PLATES TOTAL)
   B. BOTTOM TETHERING REQUIRES REINFORCEMENT PLATES AT THE TOP AND BOTTOM OF POLYCARBONATE HOUSING. (4 PLATES TOTAL)
   C. BOTTOM TETHERING 5-SECTION HEADS REQUIRES REINFORCEMENT PLATES ON THE TOP AND BOTTOM OF THE POLYCARBONATE HOUSING (12 TOTAL) AND AN ALUMINUM TRI-STUD UPPER ARM ASSEMBLY IN PLACE OF THE BOTTOM BRACKET.
   D. IF POLYCARBONATE HOUSING CONNECTS TO AN ALUMINUM CASE SIGN, REINFORCEMENT PLATES MUST BE USED AT THE CONNECTION.

NOTES:

1. ALUMINUM ANGLES SHALL BE USED FOR ALUMINUM SIGNS (TYPE III).
2. STEEL OR ALUMINUM ANGLES MAY BE USED ON PLYWOOD SIGNS (TYPE II).

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STANDARD PLAN FOR
EXTENDER OPTION AND OVERHEAD LANE ASSIGNMENT SIGN CONNECTION DETAILS

(SPECIAL DETAIL) FHWA APPROVAL	07/27/23 PLAN DATE	SIG-305-D	SHEET 5 OF 5