### Summary of Standard Drawing Changes
#### January 2021

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<thead>
<tr>
<th>Std Dwg No.</th>
<th>Summary of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC.J1.2</td>
<td>Minor changes</td>
</tr>
<tr>
<td>PC.J1.3</td>
<td>Minor changes</td>
</tr>
<tr>
<td>PC.J1.4</td>
<td>Minor changes</td>
</tr>
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<td>PC.J1.8</td>
<td>Minor changes</td>
</tr>
<tr>
<td>PC.J1.9</td>
<td><strong>NEW:</strong> Pierce County Pedestrian Push Button (PC PPB) Post and Foundation</td>
</tr>
<tr>
<td>PC.J2.3</td>
<td>Minor changes</td>
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<tr>
<td>PC.J4.1</td>
<td>Minor changes, re-numbered from PC.J4</td>
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<td>PC.J4.2</td>
<td><strong>NEW:</strong> Rectangular Rapid Flashing Beacon (RRFB) Details – Sheet 1 of 6</td>
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<td>PC.J4.3</td>
<td><strong>NEW:</strong> Rectangular Rapid Flashing Beacon (RRFB) Details – Sheet 2 of 6</td>
</tr>
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<td><strong>NEW:</strong> Rectangular Rapid Flashing Beacon (RRFB) Details – Sheet 3 of 6</td>
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<td><strong>NEW:</strong> Rectangular Rapid Flashing Beacon (RRFB) Details – Sheet 4 of 6</td>
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<td><strong>NEW:</strong> Rectangular Rapid Flashing Beacon (RRFB) Details – Sheet 5 of 6</td>
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<td>PC.J4.7</td>
<td><strong>NEW:</strong> Rectangular Rapid Flashing Beacon (RRFB) Details – Sheet 6 of 6</td>
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<td>PC.J5.1</td>
<td>Re-numbered from PC.J1.10</td>
</tr>
<tr>
<td>PC.J5.2</td>
<td>Minor changes, re-numbered from PC.J1.11</td>
</tr>
<tr>
<td>PC.J5.3</td>
<td>Minor changes, re-numbered from PC.J1.12</td>
</tr>
<tr>
<td>PC.J5.4</td>
<td>Re-numbered from PC.J1.13</td>
</tr>
<tr>
<td>PC.J6.1</td>
<td>Minor changes, re-numbered from PC.J1.9</td>
</tr>
<tr>
<td>PC.J6.2</td>
<td><strong>NEW:</strong> Junction Box Installation and Tack Welding Details</td>
</tr>
</tbody>
</table>
NOTES:
1) RAMPS TO BE DESIGNED IN ACCORDANCE WITH STANDARD DRAWING PC.F8.4 AND PC.F8.5.
2) NO PORTION OF FOUNDATION SHALL BE LOCATED WITHIN THE LANDING OR "WINGS" OF THE CURB RAMP.
3) FOR TYPE 2 CURB RAMPS, PLACE FOUNDATION AS CLOSE AS POSSIBLE TO THE BACK OF SIDEWALK.

SEE STANDARD DRAWING PC.J6.1 FOR JUNCTION BOX, UTILITY VAULT, UTILITY VALVE AND CONDUIT DETAILS
GROUT HEIGHT (FOR CONTROL ANCHOR BOLT) = NUT HEIGHT + 1 IN. MAX. NUT HEIGHT + 2 THREADS MIN.

SIDEWALK, IF APPLICABLE (SEE PLANS AND PC.F8.4)

SIGNAL STANDARD FOUNDATION ELEVATION

ANCHOR BOLT, TYP.

IF FOUNDATION RING IS USED, ENSURE ADEQUATE THREADS ON ANCHOR BOLTS TO ALLOW 3 IN. CLEAR ABOVE ASSEMBLY

CLAMP CONDUCTOR TO STEEL REINFORCING WITH CONNECTOR

RMC CONDUITS (IN ACCORDANCE WITH SIGNAL DESIGN)

REBAR FOUNDATION DETAIL IN ACCORDANCE WITH CURRENT WSDOT STANDARD PLAN J-26.10-XX

NOTES:

* WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.

** CONTRACTOR IS RESPONSIBLE FOR VERIFYING DIMENSIONS, AFTER PIERCE COUNTY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.

INSTALLED IN SIDEWALK AREA**

<table>
<thead>
<tr>
<th>ANCHOR BOLT Ø</th>
<th>ASSUMPTIONS</th>
<th>1.5 IN. Ø BOLT</th>
<th>1.75 IN. Ø BOLT</th>
<th>2.0 IN. Ø BOLT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP THREADS</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td></td>
</tr>
<tr>
<td>NUT HEIGHT X 2</td>
<td>3.0 IN.</td>
<td>3.5 IN.</td>
<td>4.0 IN.</td>
<td></td>
</tr>
<tr>
<td>WASHER X 2</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td></td>
</tr>
<tr>
<td>BASE PLATE</td>
<td>1.5 IN.</td>
<td>1.75 IN.</td>
<td>2.0 IN.</td>
<td></td>
</tr>
<tr>
<td>LEVELING THREADS</td>
<td>1.0 IN.</td>
<td>1.0 IN.</td>
<td>1.0 IN.</td>
<td></td>
</tr>
<tr>
<td>SIDEWALK DEPTH (PC TO PT)</td>
<td>6.0 IN.</td>
<td>6.0 IN.</td>
<td>6.0 IN.</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>12.5 IN.</td>
<td>13.25 IN.</td>
<td>14.0 IN.</td>
<td></td>
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</tbody>
</table>

INSTALLED IN AREA WITH NO SIDEWALK**

<table>
<thead>
<tr>
<th>ANCHOR BOLT Ø</th>
<th>ASSUMPTIONS</th>
<th>1.5 IN. Ø BOLT</th>
<th>1.75 IN. Ø BOLT</th>
<th>2.0 IN. Ø BOLT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP THREADS</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td></td>
</tr>
<tr>
<td>NUT HEIGHT X 2</td>
<td>3.0 IN.</td>
<td>3.5 IN.</td>
<td>4.0 IN.</td>
<td></td>
</tr>
<tr>
<td>WASHER X 2</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td></td>
</tr>
<tr>
<td>BASE PLATE</td>
<td>1.5 IN.</td>
<td>1.75 IN.</td>
<td>2.0 IN.</td>
<td></td>
</tr>
<tr>
<td>LEVELING THREADS</td>
<td>1.0 IN.</td>
<td>1.0 IN.</td>
<td>1.0 IN.</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>6.5 IN.</td>
<td>7.25 IN.</td>
<td>8.0 IN.</td>
<td></td>
</tr>
</tbody>
</table>

NOT TO SCALE
NOTES:

1) ANCHOR BOLTS SHALL NOT BE LOCATED WITHIN THE SIDEWALK.

2) UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER, ALL AREAS WITH ILLUMINATION SHALL ALSO REQUIRE A SPARE 2-INCH SCHEDULE 80 PVC CONDUIT, WITH SEPARATE TYPE B JUNCTION BOXES, AND UNDERGROUND DETECTABLE WARNING TAPE.

3) WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.

* CONTRACTOR IS RESPONSIBLE FOR VERIFYING DIMENSIONS, AFTER PIERCE COUNTY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.

INSTALLED IN SIDEWALK AREA*

<table>
<thead>
<tr>
<th>ANCHOR BOLT Ø</th>
<th>ASSUMPTIONS</th>
<th>TOP THREADS</th>
<th>NUT HEIGHT X 2</th>
<th>WASHER X 2</th>
<th>BASE PLATE</th>
<th>LEVELING THREADS</th>
<th>SIDEWALK DEPTH (PC TO PT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 IN. Ø BOLT</td>
<td>0.5 - 1.0 IN.</td>
<td>2.0 IN.</td>
<td>0.25 IN.</td>
<td>0.75 IN.</td>
<td>1.0 IN.</td>
<td>4.0 IN.</td>
<td>8.5 - 9.0 IN.</td>
</tr>
</tbody>
</table>

INSTALLED IN AREA WITH NO SIDEWALK*

<table>
<thead>
<tr>
<th>ANCHOR BOLT Ø</th>
<th>ASSUMPTIONS</th>
<th>TOP THREADS</th>
<th>NUT HEIGHT X 2</th>
<th>WASHER X 2</th>
<th>BASE PLATE</th>
<th>LEVELING THREADS</th>
<th>GROUT PAD HEIGHT SHALL BE 1.0 - 1.5 IN.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 IN. Ø BOLT</td>
<td>0.5 - 1.0 IN.</td>
<td>2.0 IN.</td>
<td>0.25 IN.</td>
<td>0.75 IN.</td>
<td>1.0 IN.</td>
<td>4.5 - 5.0 IN.</td>
<td>(NOT TO SCALE)</td>
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</tbody>
</table>

SEE STANDARD DRAWING PC.J6.1 FOR JUNCTION BOX, UTILITY VAULT, UTILITY VALVE, AND CONDUIT DETAILS

(SEE "LIGHT STANDARD AT BACK OF SIDEWALK" DETAIL THIS SHEET FOR FOUNDATION CONSTRUCTION INFORMATION)
NOTES:
1) CLAMPING BOLTS SHALL BE TIGHTENED TO 50 FT-LBS MAX TORQUE. DO NOT OVER TIGHTEN.
2) SUPPLEMENTAL GROUNDING CONDUCTOR SHALL BE NON-INSULATED #4 AWG STRANDED COPPER, PROVIDE 3 FT. MINIMUM SLACK. CLAMP TO VERTICAL STEEL REINFORCING BAR WITH LISTED CONNECTOR SUITABLE FOR USE EMBEDDED IN CONCRETE.
3) JUNCTION BOX SERVING THE STANDARD SHALL PREFERABLY BE LOCATED 5 FT. FROM THE STANDARD (10 FT. MAXIMUM).
4) EQUIPMENT GROUNDING CONDUCTOR SHALL ATTACH TO GROUNDING LUG WITH A FULL CIRCLE CRIMP-ON CONNECTOR (CRIMPED WITH A MANUFACTURER-RECOMMENDED CRIMPER).
5) HAND HOLE/DOOR LOCATED AT 180 DEGREES FROM MAJOR ROADWAY.
6) FOUNDATION MAY BE CONSTRUCTED USING METHOD 1 OR METHOD 2, UNLESS OTHERWISE SHOWN IN THE PLANS. FULL-DEPTH PAPERBOARD FORM IS NOT ALLOWED. SEE CURRENT WSDOT STANDARD PLAN J-28.30-XX.
7) WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.

* CONTRACTOR IS RESPONSIBLE FOR VERIFYING BELOW DIMENSIONS, AFTER PIERCE COUNTY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.

INSTALLMENT IN SIDEWALK AREA*

<table>
<thead>
<tr>
<th>ASSUMPTIONS</th>
<th>ANCHOR BOLT Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP THREADS</td>
<td>0.5 - 1.0 IN.</td>
</tr>
<tr>
<td>NUT HEIGHT X 2</td>
<td>1.5 IN.</td>
</tr>
<tr>
<td>WASHER X 2</td>
<td>0.5 IN.</td>
</tr>
<tr>
<td>BASE</td>
<td>0.5 IN.</td>
</tr>
<tr>
<td>LEVELING THREADS</td>
<td>1.0 IN.</td>
</tr>
<tr>
<td>SIDEWALK DEPTH</td>
<td>6.0 IN.</td>
</tr>
<tr>
<td>Y</td>
<td>10 - 11.5 IN.</td>
</tr>
</tbody>
</table>

GROUT PAD HEIGHT SHALL BE 1.0 - 2.5 IN.

NOT TO SCALE
NOTES:

1) PC PPB TO BE INSTALLED ONLY WHEN REQUESTED BY THE COUNTY ENGINEER.

2) SUPPLEMENTAL GROUNDING CONDUCTOR SHALL BE NON-INSULATED #4 AWG STRANDED COPPER, PROVIDE 3 FT. MINIMUM SLACK. CLAMP TO VERTICAL STEEL REINFORCING BAR WITH LISTED CONNECTOR SUITABLE FOR USE EMBEDDED IN CONCRETE.

3) JUNCTION BOX SERVING THE STANDARD SHALL PREFERABLY BE LOCATED 5 FT. FROM THE STANDARD (10 FT. MAXIMUM).

4) EQUIPMENT GROUNDING CONDUCTOR AND BONDING CONDUCTOR SHALL ATTACH TO GROUNDING LUG WITH A FULL CIRCLE CRIMP-ON CONNECTOR (CRIMPED WITH A MANUFACTURER-RECOMMENDED CRIMPER).

5) HAND HOLE/DOOR LOCATED AT 180 DEGREES FROM MAJOR ROADWAY.

6) FOUNDATION MAY BE CONSTRUCTED USING METHOD 1 OR METHOD 2, UNLESS OTHERWISE SHOWN IN THE PLANS. FULL-DEPTH PAPERBOARD FORM IS NOT ALLOWED. SEE CURRENT WSDOT STANDARD PLAN J-28.30-XX.

7) WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.

8) TO INSTALL PEDESTRIAN PUSH BUTTON STATION, DRILL AND TAP POLE.

* CONTRACTOR IS RESPONSIBLE FOR VERIFYING BELOW DIMENSIONS, AFTER PIERCE COUNTY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.

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**INSTALLATION IN SIDEWALK AREA**

<table>
<thead>
<tr>
<th>ANCHOR BOLT Ø</th>
<th>ASSUMPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8 IN. Ø</td>
<td>BOLT</td>
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<tr>
<td>TOP THREADS</td>
<td>0.5 - 1.0 IN.</td>
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<tr>
<td>NUT HEIGHT X 2</td>
<td>1.25 IN.</td>
</tr>
<tr>
<td>WASHER X 2</td>
<td>0.5 IN.</td>
</tr>
<tr>
<td>BASE</td>
<td>0.5 IN.</td>
</tr>
<tr>
<td>LEVELING THREADS</td>
<td>0.75 IN.</td>
</tr>
<tr>
<td>SIDEWALK DEPTH</td>
<td>6.0 IN.</td>
</tr>
<tr>
<td>GROUT PAD HEIGHT</td>
<td>9.5 - 10.5 IN.</td>
</tr>
</tbody>
</table>

*GROUT PAD HEIGHT SHALL BE 1.0 - 2.0 IN.*

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(Not to Scale)
CONTRACTOR TO VERIFY REQUIREMENTS AND ACCEPTABILITY WITH SERVING UTILITY

COMPONENT SCHEDULE

METER BASE: (UP TO) 200 AMP, 4 JAW, SAFETY SOCKET TYPE, WITH BYPASS BLOCKS, LEVERS, AND/OR SHUNTS PER UTILITY COMPANY. METER BASE SHALL BE ADJUSTABLE TO ACCOMMODATE 2 IN. TO 8 IN. METER.

PANEL BOARD: 120/240 VAC, 200 AMP COPPER BUS, 1 PHASE, 3 WIRE, 18 CKT

- MAIN BREAKER: 125 AMP FRAME, 125 AMP TRIP, EATON BAB 2125 OR EQUIVALENT (BACK FED)
- BOLT-ON-BREAKERS: EATON TYPE BAB OR EQUIVALENT

CONTRACTORS: 30 A, 2-POLE OR 4-POLE, 600 VOLT, 120 VAC COIL, NEMA LIGHTING RATED

GROUND FAULT RECEPTACLE: 120 VAC, 20 A, DUPLEX

PHOTOCCELL BYPASS SWITCH: 15 A, SPDT, 277 VAC

TERMINAL BLOCK: THREE POINT FOR REMOTE-MOUNTED PHOTOCELL

CABINET

- NEMA 3R, PADMOUNT, 1/8 IN. MILL FINISH ALUMINUM CONSTRUCTION, REMOVEABLE EQUIPMENT MOUNTING PAN, 2 SCREENED & GASKETED VENTS, HINGED DEADFRONT.

HOUSE SIDE DOOR: HEAVY DUTY CONCEALED HINGE, LIFT-OFF TYPE, STAINLESS STEEL VAULT HANDLES, BEST CX LOCK WITH BLUE CONSTRUCTION CORE, CLOSED CELL NEOPRENE GASKET. HINGES ON LEFT SIDE OF DOOR.

STREET SIDE DOOR: HEAVY DUTY CONCEALED HINGE, 3-SIDED TO FULLY EXPOSE METER WHEN OPENED, PADLOCKABLE, POLISHED WIRE 4 IN. X 4 IN. GLASS WINDOW. HINGES ON RIGHT SIDE OF DOOR.

FINISH: BARE, MILL FINISH ALUMINUM.

WIRED AND LABELED IN ACCORDANCE WITH UL STANDARD #508A, SUITABLE FOR USE AS SERVICE ENTRANCE.
PEDESTRIAN PUSH BUTTON STATION
FOR TRAFFIC SIGNALS

R10-2 SIGN, 9 IN. X 12 IN.,
WITH SIGN ADAPTER, GREEN

ALUMINUM SIGN WITH TYPE IV SHEETING
(SEE PC.G1.5 - POST MOUNTED SIGNS -
FOR SIGN MATERIAL)

ACCESSIBLE PEDESTRIAN SIGNAL
PUSH BUTTON STATION WITH LED INDICATION, VIBRATING ARROW,
AND AUDIBLE SOUNDS; GREEN, WITH LATCHING FEATURE

DATE
APPROVED BY:
COUNTY ENGINEER

01/21/2021

Pierce County
Planning & Public Works
Office of the County Engineer

PEDESTRIAN PUSH BUTTON
FOR TRAFFIC SIGNAL SYSTEMS
STANDARD DRAWING PC.J4.1
NOTES:

1) THIS IS A DETAIL FOR RRFB STANDARD PLACEMENT. THIS SHEET IS NOT INTENDED TO BE USED AS A ROADWAY DESIGN.

2) ILLUMINATION IS REQUIRED AT ALL RRFB LOCATIONS.

3) SEE PC.J4.6 AND PC.J4.7 FOR ADDITIONAL DETAILS.

4) DEPENDING ON RAMP DESIGN, PUSH BUTTON EXTENDERS MAY BE REQUIRED. ACCESSIBILITY GUIDELINES FOR REACH SHALL BE MET.

5) ROADWAY STRIPING MAY REQUIRE MODIFICATION WHEN THE RRFB SYSTEM IS INSTALLED. COORDINATE WITH TRAFFIC ENGINEERING.

RRFB STANDARD PLACEMENT FOR ROADWAYS WITHOUT A TWO-WAY LEFT-TURN LANE OR MEDIAN

(NOT TO SCALE)
NOTES:

1) THIS IS A DETAIL FOR RRFB STANDARD PLACEMENT. THIS SHEET IS NOT INTENDED TO BE USED AS A ROADWAY DESIGN.

2) ILLUMINATION IS REQUIRED AT ALL RRFB LOCATIONS.

3) SEE PC.J4.6 AND PC.J4.7 FOR ADDITIONAL DETAILS.

4) DEPENDING ON RAMP DESIGN, PUSH BUTTON EXTENDERS MAY BE REQUIRED. ACCESSIBILITY GUIDELINES FOR REACH SHALL BE MET.

5) ROADWAY STRIPING MAY REQUIRE MODIFICATION WHEN THE RRFB SYSTEM IS INSTALLED. COORDINATE WITH TRAFFIC ENGINEERING.
NOTES:
1) THIS IS A DETAIL FOR RRFB STANDARD PLACEMENT. THIS SHEET IS NOT INTENDED TO BE USED AS A ROUNDABOUT DESIGN GUIDELINE.
2) RRFB AND ILLUMINATION ARE REQUIRED TO BE INSTALLED FOR ALL ROUNDABOUTS.
3) SEE PC.J4.6 AND PC.J4.7 FOR ADDITIONAL DETAILS.
4) DEPENDING ON RAMP DESIGN, PUSH BUTTON EXTENDERS MAY BE REQUIRED. ACCESSIBILITY GUIDELINES FOR REACH SHALL BE MET.
5) WHEN THE CROSSING THROUGH THE SPLITTER ISLAND EXCEEDS 18 FEET AT THE WIDEST POINT OF THE CROSSING, INSTALL TWO RRFB STANDARDS ON THE SPLITTER ISLAND, SEE PC.J4.5.
6) RRFB DESIGN FOR A MULTI-LANE ROUNDABOUT SHALL USE THE SAME CONFIGURATION.
7) THERE SHALL BE A MINIMUM OF 6 FEET BETWEEN THE TRUNCATED DOME PANELS ON THE SPLITTER ISLAND.
8) ROTATE SIGNS AND LIGHT BARS TO FACE TRAFFIC.
NOTES:

1) THIS IS A DETAIL FOR RRFB STANDARD PLACEMENT. THIS SHEET IS NOT INTENDED TO BE USED AS A ROADWAY DESIGN.

2) RRFB AND ILLUMINATION ARE REQUIRED TO BE INSTALLED FOR ALL ROUNDABOUTS.

3) SEE PC.J4.6 AND PC.J4.7 FOR ADDITIONAL DETAILS.

4) DEPENDING ON RAMP DESIGN, PUSH BUTTON EXTENDERS MAY BE REQUIRED. ACCESSIBILITY GUIDELINES FOR REACH SHALL BE MET.

5) WHEN THE CROSSING THROUGH THE SPLITTER ISLAND EXCEEDS 18 FEET AT THE WIDEST POINT OF THE CROSSING, INSTALL TWO RRFB STANDARDS ON THE SPLITTER ISLAND, AS SHOWN.

6) RRFB DESIGN FOR A SINGLE-LANE ROUNDABOUT SHALL USE THE SAME CONFIGURATION.

7) THERE SHALL BE A MINIMUM OF 6 FEET BETWEEN THE TRUNCATED DOME PANELS ON THE SPLITTER ISLAND.

8) ROTATE SIGNS AND LIGHT BARS TO FACE TRAFFIC.
NOTES:

1) RRFB SHALL BE AC-POWERED.

2) SEE PC.J1.8 FOR POLE, BASE, FOUNDATION, AND ANCHOR BOLT DETAILS.

3) THIS IS A GENERAL DETAIL. SEE PC.J4.2, PC.J4.3, PC.J4.4, AND PC.J4.5 FOR RRFB STANDARD LAYOUT, ORIENTATION, AND EQUIPMENT REQUIRED TO BE MOUNTED ON EACH STANDARD.

4) SEE PC.J4.7 FOR CROSSWALK PUSH BUTTON DETAILS.

5) MOUNT CONTROLLER CABINET(S) AT 180 DEGREES FROM THE ROADWAY. IF THE RRFB STANDARD IS ADJACENT TO A SIDEWALK (i.e., THERE IS A BUFFER PRESENT) OR IF RIGHT OF WAY IS CONSTRAINED ON THAT SIDE, MOUNT THE CONTROLLER CABINET(S) AT 180 DEGREES FROM THE CROSSWALK PUSH BUTTON.

6) USE STAINLESS STEEL MOUNTING CLAMPS AND BRACKETS TO MOUNT SIGNS, RRFB, LIGHT BARS, AND CONTROLLER CABINET TO STANDARD.
ALUMINUM SIGN WITH TYPE IV SHEETING
(SEE PC.G1.5 - POST MOUNTED SIGNS - FOR SIGN MATERIAL)

R10-25 SIGN, 9 IN. X 12 IN.,
WITH SIGN ADAPTER, GREEN

ACCESSIBLE PEDESTRIAN SIGNAL
CROSSWALK PUSH BUTTON STATION WITH LED INDICATION,
LOCATING TONE, AND VOICE MESSAGE; YELLOW

PUSH BUTTON TO TURN ON WARNING LIGHTS

PEDESTRIAN PUSH BUTTON STATION
FOR RRFB

42 IN. TO WALKWAY GRADE
(± 1 IN.)

5.1 IN.

14 IN.
NOTES:
1) INSTALL END OF MOUNTING BRACKET APPROXIMATELY 6 INCHES FROM THE LUMINAIRE. SHORT SIDE OF THE BRACKET SHALL BE CLOSEST TO THE LUMINAIRE. THE CAMERA MOUNTING BRACKET SHALL BE ON THE HORIZONTAL PORTION OF THE LUMINAIRE ARM.

2) ADJUSTABLE WORM DRIVE HOSE CLAMPS SHALL BE STAINLESS STEEL WITH STAINLESS STEEL HARDWARE, 0.5-INCH WIDE, AND OF AN APPROPRIATE LENGTH FOR THE LUMINAIRE ARM DIAMETER. TUCK EXCESS HOSE CLAMP (TAIL) BACK INTO THE SLOT ON THE CAMERA MOUNT. EACH SLOT IN THE MOUNTING BRACKET SHALL HAVE ONE HOSE CLAMP. USE ALL SLOTS.

3) USE THREADED BUSHING (GALVANIZED STEEL) FOR POLE ENTRY. BUSHING SIZE TO BE DETERMINED BY THE CABLE SIZE. POLE ENTRY SHALL BE ON THE BOTTOM SIDE OF THE LUMINAIRE ARM.

4) PROVIDE A SERVICE LOOP 6-8 INCHES IN DIAMETER, WITH ONE WRAP. FOR CAMERAS WITH SHIELDED COAX CABLE, ENSURE THE SHIELDING IS UNDER THE SHIELD GROUNDING CLAMP WHERE IT CONNECTS TO THE BACK OF THE CAMERA. IT MAY BE NECESSARY TO REMOVE THE OUTER JACKET FROM THE CAMERA TO THE BUSHING - FOLLOW THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

5) SUPPORT AND TIE WRAP VIDEO CABLE TO THE C-HOOK AT THE TOP OF THE SIGNAL STANDARD. TIE WRAP SERVICE LOOP TO MAST ARM. THERE SHOULD BE NO TENSION ON THE VIDEO CABLE BETWEEN THE C-HOOK AND THE CAMERA.
ILLUMINATION WIRING DETAILS

NOTES:

1) ONE FULL WRAP OF ALL ILLUMINATION CONDUCTOR IS REQUIRED, BOTH BEFORE AND AFTER THE SPLICE ENCLOSURES. THIS WILL BE APPROXIMATELY 4-10 FEET PER WRAP, DEPENDING ON JUNCTION BOX SIZE.

2) UFER GROUND SHALL PASS THROUGH THE GROUND BUSHING AND TERMINATE AT THE GROUND LUG.

3) ILLUMINATION CONDUCTOR SHALL BE #8 AWG, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.

4) PROVIDE ENOUGH CONDUCTOR SLACK SO THAT FUSED QUICK-DISCONNECT KITS CAN BE COMPLETELY REMOVED FROM HAND HOLE FOR INSPECTION AND MAINTENANCE (APPROXIMATELY 24 INCHES BOTH BEFORE AND AFTER THE QUICK-DISCONNECT KIT)

5) MULTIPLE SPLICE KITS ARE NOT ALLOWED IN LIEU OF PROVIDING THE CORRECT NUMBER OF CONDUCTORS.

6) LOAD SIDE TOWARD LUMINAIRE; LINE SIDE TOWARD FOUNDATIONS.

FOR GROUNDING DETAILS, SEE PC.J5.3

CONDUIT, IN ACCORDANCE WITH PLANS

GROUND BUSHING

GROUND LUG

FOR GROUNDING DETAILS, SEE PC.J5.3

MOLDED SPLICE ENCLOSURE, WYE-TYPE, TYPICAL (NOTE 5)

CONDUCTOR SLACK (NOTE 1)

CONDUCTOR SLACK (NOTE 4)

EQUIPMENT GROUNDING CONDUCTOR - SEE PC.J5.3

ILLUMINATION CONDUCTOR (NOTE 3)

UFER GROUND - FROM FOUNDATION (NOTE 2)

CONDUCTOR SLACK (NOTE 1)

POLE AND BRACKET CABLE - TO LUMINAIRE

CONCRETE FOUNDATION - SEE PC.J1.4 FOR ALUMINUM LIGHT STANDARD; SEE PC.J1.3 AND PLANS FOR SIGNAL STANDARD

PHOTOCCELL - WHEN USED, ATTACH WITH CRIMPED, INSULATED BUTT SPLICE

LUMINAIRE

INSTALL 1.5 IN. REDUCING WASHER AND 0.75 IN. BOX CONNECTOR TO SECURE CONDUCTORS AT END OF MAST ARM

TIE WRAP CONDUCTORS ON HOOK AT TOP OF POLE (WHEN PRESENT)

LIGHT OR SIGNAL STANDARD

SEE BASE WIRING DETAIL, THIS SHEET

SEE JUNCTION BOX WIRING DETAIL, THIS SHEET - FOR PLACEMENT DETAILS, SEE PC.J6.1

BASE WIRING DETAIL

(SHOWS ILLUMINATION CONDUCTOR/CONDUIT ONLY)

FOR GROUNDING DETAILS, SEE PC.J5.3

JUNCTION BOX WIRING DETAIL

FOR GROUNDING DETAILS, SEE PC.J5.3

NOTE 1, TYPICAL

RMC CONDUIT TO FOUNDATION

GRAVEL PAD

POLE AND BRACKET CABLE - TO LUMINAIRE

CONDUCTOR SLACK (NOTE 4)

FUSED QUICK-DISCONNECT KIT, TYPICAL (NOTE 6)

FOR GROUNDING DETAILS, SEE PC.J5.3

EQUIPMENT GROUNDING CONDUCTOR - SEE PC.J5.3

MOLDED SPLICE ENCLOSURE, WYE-TYPE, TYPICAL (NOTE 5)

CONDUCTOR SLACK (NOTE 1)

GROUND BUSHING

GROUND LUG

FOR GROUNDING DETAILS, SEE PC.J5.3

CONDUIT, IN ACCORDANCE WITH PLANS

GROUND BUSHING

GROUND LUG

FOR GROUNDING DETAILS, SEE PC.J5.3

MOLDED SPLICE ENCLOSURE, WYE-TYPE, TYPICAL (NOTE 5)

CONDUCTOR SLACK (NOTE 1)

CONDUCTOR SLACK (NOTE 4)

EQUIPMENT GROUNDING CONDUCTOR - SEE PC.J5.3

ILLUMINATION CONDUCTOR (NOTE 3)

UFER GROUND - FROM FOUNDATION (NOTE 2)

CONDUCTOR SLACK (NOTE 1)

POLE AND BRACKET CABLE - TO LUMINAIRE

CONCRETE FOUNDATION - SEE PC.J1.4 FOR ALUMINUM LIGHT STANDARD; SEE PC.J1.3 AND PLANS FOR SIGNAL STANDARD

PHOTOCCELL - WHEN USED, ATTACH WITH CRIMPED, INSULATED BUTT SPLICE

LUMINAIRE

INSTALL 1.5 IN. REDUCING WASHER AND 0.75 IN. BOX CONNECTOR TO SECURE CONDUCTORS AT END OF MAST ARM

TIE WRAP CONDUCTORS ON HOOK AT TOP OF POLE (WHEN PRESENT)

LIGHT OR SIGNAL STANDARD

SEE BASE WIRING DETAIL, THIS SHEET

SEE JUNCTION BOX WIRING DETAIL, THIS SHEET - FOR PLACEMENT DETAILS, SEE PC.J6.1

BASE WIRING DETAIL

(SHOWS ILLUMINATION CONDUCTOR/CONDUIT ONLY)

FOR GROUNDING DETAILS, SEE PC.J5.3

JUNCTION BOX WIRING DETAIL

FOR GROUNDING DETAILS, SEE PC.J5.3

NOTE 1, TYPICAL

RMC CONDUIT TO FOUNDATION

GRAVEL PAD

POLE AND BRACKET CABLE - TO LUMINAIRE

CONDUCTOR SLACK (NOTE 4)

FUSED QUICK-DISCONNECT KIT, TYPICAL (NOTE 6)

FOR GROUNDING DETAILS, SEE PC.J5.3

EQUIPMENT GROUNDING CONDUCTOR - SEE PC.J5.3

MOLDED SPLICE ENCLOSURE, WYE-TYPE, TYPICAL (NOTE 5)

CONDUCTOR SLACK (NOTE 1)

GROUND BUSHING

GROUND LUG

FOR GROUNDING DETAILS, SEE PC.J5.3

CONDUIT, IN ACCORDANCE WITH PLANS

GROUND BUSHING

GROUND LUG

FOR GROUNDING DETAILS, SEE PC.J5.3

MOLDED SPLICE ENCLOSURE, WYE-TYPE, TYPICAL (NOTE 5)

CONDUCTOR SLACK (NOTE 1)
TYPICAL GROUNDING DETAILS

NOTES:

1) THERE SHALL BE NO MORE THAN FOUR SPLICES BETWEEN THE SERVICE CABINET AND THE EQUIPMENT. EQUIPMENT ADDED TO AN EXISTING SERVICE SHALL ADD NO MORE THAN TWO SPLICES. NO MORE THAN TWO CONDUCTORS SHALL BE CONTAINED IN A CRIMP CONNECTION. IF GROUND CONDUCTORS ARE TO BE THROUGH-SPLICED, A STANDARD NON-INSULATED BUTT SPLICE SHALL BE USED.

2) UFER GROUND IS CONTINUOUS FROM FOUNDATION REBAR TO GROUND LUG.

3) BONDING JUMPERS SHALL BE BARE. EQUIPMENT GROUNDING CONDUCTOR SHALL BE GREEN INSULATED. ALL GROUNDING AND BONDING CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (#8 AWG MINIMUM).

4) FOR A BRANCH EQUIPMENT GROUNDING CONDUCTOR SERVING MORE THAN ONE PIECE OF EQUIPMENT, INSTALL WITH TWO CRIMPS WHEN CONNECTING TO THE MAIN EQUIPMENT GROUNDING CONDUCTOR.

5) NOTHING SHALL BE CRIMPED TO THE BONDING STRAP.

6) INSTALL EQUIPMENT BOND CONDUCTOR DIRECTLY TO THE SERVICE CABINET GROUND BUS BAR. DO NOT ATTACH TO THE SUPPLEMENTARY BUS BAR/NEUTRAL BUS BAR.

LEGEND

- JUNCTION BOX FRAME BONDING STRAP ATTACHMENT POINT
- JUNCTION BOX GROUND STUD (ON LID)
- COPPER SOLDERLESS CRIMP CONNECTOR
- GROUNDING BUSHING (TYPICAL FOR RMC CONDUIT)
- CONDUIT WITH EQUIPMENT GROUND CONDUCTOR, RMC UNLESS OTHERWISE NOTED IN THE PLANS
- RMC CONDUIT WITH GROUNDING ELECTRODE CONDUCTOR

Pierce County Planning & Public Works
Office of the County Engineer

APPROVED BY: COUNTY ENGINEER

01/21/2021

TYPICAL GROUNDING DETAILS

SHEET 1 OF 2

STANDARD DRAWING PC.J5.3

(01/21/2021)
NOTES:

1) SERVICE GROUND IS REQUIRED AT ALL ELECTRICAL SERVICE CABINETS.

2) GROUNDING ELECTRODE CONDUCTORS AND BONDING JUMPERS SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (#8 AWG MINIMUM).

3) GROUND ROD CLAMPS SHALL BE ACORN STYLE AND ON THE WSDOT QUALIFIED PRODUCT LIST.

4) GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS - NO SPLICES ARE ALLOWED.
NOTES:

1) NO JUNCTION OR UTILITY BOXES, VAULTS, UTILITY APPURTEINANCES, VALVES, LIDS OR COVERS SHALL BE INSTALLED IN THE LANDINGS OR RAMPS AS DESIGNATED BY CROSS HATCH.

2) FOR TRAFFIC SIGNAL SYSTEMS, THE JUNCTION BOXES MAY BE PLACED AT THE BACK OF SIDEWALK, AS SHOWN ABOVE.

3) USE 3/8 IN. PREMOLDED JOINT FILLER BETWEEN CONCRETE AND JUNCTION BOXES.
NOTES:

1) PROVIDE TACK WELD ON TWO OPPOSITE CORNERS OF THE JUNCTION BOX, BETWEEN THE LID AND FRAME.

2) AFTER WELDING, COLD GALVANIZE THE AREA TO PROTECT AGAINST CORROSION.

3) ONLY JUNCTION BOXES MARKED "LT" SHALL BE WELDED. DO NOT WELD "TS" BOXES UNLESS SPECIFICALLY REQUIRED IN THE CONTRACT DOCUMENTS.