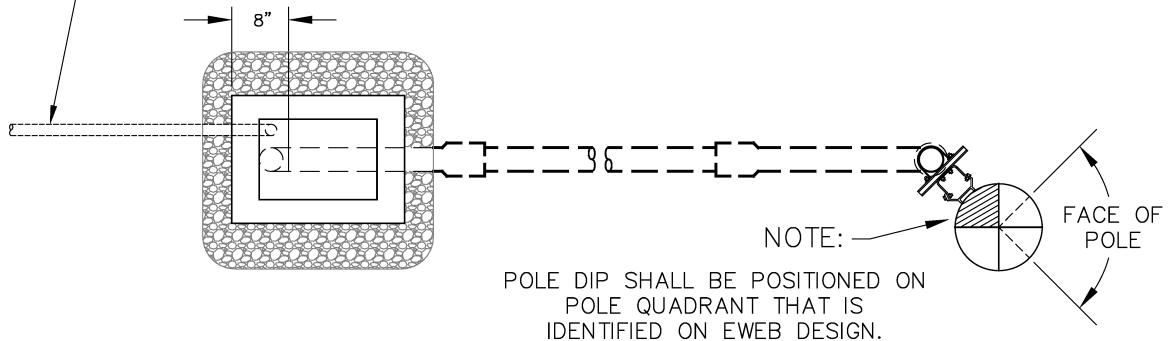


SECTION VIEW



PLAN VIEW

EC5-1.2301 - EC5-1.2317

DISTRIBUTION CONSTRUCTION STANDARD  
EUGENE WATER & ELECTRIC BOARD - EUGENE, OREGON

SCHEDULE 80 PVC SECONDARY POLE DIP SUBSTRUCTURE 2", 3" & 5"

Approved Jul 03, 2024

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**ASSEMBLY EC5-1.2301**

POLE DIP 2" SCHEDULE 80 PVC SECONDARY POLE DIP SUBSTRUCTURE WITH 12" BRACKETS FOR MAINTENANCE ONLY

1.	428-0000814	2 EA	CLPCNDSTRAP2"
2.	416-0000773	2 EA	BRKTCND12"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0000990	10 FT	CND 2" X 10' SCH80 BE
5.	438-0001036	1 EA	ELL2"SCH8036"RAD
6.	438-0001032	1 EA	ELL2"SCH4090<24"RAD

**ASSEMBLY NOTES:**

1. See design note 6.

**ASSEMBLY EC5-1.2302**

3" SCHEDULE 80 PVC SECONDARY POLE DIP SUBSTRUCTURE WITH 12" BRACKETS

1.	428-0000815	2 EA	CLPCNDSTRAP3"
2.	416-0000773	2 EA	BRKTCND12"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0000993	10 FT	CND3"x10'SCH.80BELLEND
5.	438-0001047	1 EA	ELL3"SCH8036"RAD.
6.	438-0001044	1 EA	ELL3"90< SCH4024"RAD

**ASSEMBLY NOTES:**

1. See design note 6.

**ASSEMBLY EC5-1.2303**

5" SCHEDULE 80 PVC SECONDARY POLE DIP SUBSTRUCTURE WITH 12" BRACKETS

1.	428-0000817	2 EA	CLPCND STRAP 5"
2.	416-0000773	2 EA	BRKTCND12"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0001080	10 FT	CND5"SCH.8010"GRAY
5.	438-0001066	1 EA	ELL5"SCH.8048"RAD.
6.	438-0001065	1 EA	ELL5"SCH4048"RAD

**ASSEMBLY EC5-1.2304**

2" SCHEDULE 80 PVC SECONDARY CUSTOMER SUBSTRUCTURE WITH 12" BRACKETS - FOR MAINTENANCE ONLY

1.	428-0000814	2 EA	CLPCNDSTRAP2"
2.	416-0000773	2 EA	BRKTCND12"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0000990	10 FT	CND 2" X 10' SCH80 BE

**ASSEMBLY NOTES:**

1. See design note 6 &amp; 7.

2. Refer to assembly EC5-1.2321 for 2" conduit straps for use on existing pole dip brackets.

**ASSEMBLY EC5-1.2305**

2" SCHEDULE 80 PVC SECONDARY CUSTOMER SUBSTRUCTURE WITH 18" BRACKETS - FOR MAINTENANCE ONLY

1.	428-0000814	2 EA	CLPCNDSTRAP2"
2.	416-0000774	2 EA	BRKTCND18"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0000990	10 FT	CND 2" X 10' SCH80 BE

**ASSEMBLY NOTES:**

1. See design note 6 &amp; 7.

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**ASSEMBLY EC5-1.2306**

3" SCHEDULE 80 PVC SECONDARY CUSTOMER SUBSTRUCTURE WITH 12" BRACKETS

1.	428-0000815	2 EA	CLPCNDSTRAP3"
2.	416-0000773	2 EA	BRKTCND12"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0000993	10 FT	CND3"x10'SCH.80BELLEND

**ASSEMBLY NOTES:**

1. See design note 6 & 7.
2. Refer to assembly EC5-1.2322 for 3" conduit straps for use on existing pole dip brackets.

**ASSEMBLY EC5-1.2307**

3" SCHEDULE 80 PVC SECONDARY CUSTOMER SUBSTRUCTURE WITH 18" BRACKETS

1.	428-0000815	2 EA	CLPCNDSTRAP3"
2.	416-0000774	2 EA	BRKTCND18"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0000993	10 FT	CND3"x10'SCH.80BELLEND

**ASSEMBLY NOTES:**

1. See design note 6 & 7.

**ASSEMBLY EC5-1.2308**

5" SCHEDULE 80 PVC SECONDARY CUSTOMER SUBSTRUCTURE WITH 12" BRACKETS

1.	428-0000817	2 EA	CLPCND STRAP 5"
2.	416-0000773	2 EA	BRKTCND12"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0001080	10 FT	CND5"SCH.8010'GRAY

**ASSEMBLY NOTES:**

1. Refer to assembly EC5-1.2323 for 5" conduit straps for use on existing pole dip brackets.
2. See design note 7.

**ASSEMBLY EC5-1.2309**

5" SCHEDULE 80 PVC SECONDARY CUSTOMER SUBSTRUCTURE WITH 18" BRACKETS

1.	428-0000817	2 EA	CLPCND STRAP 5"
2.	416-0000774	2 EA	BRKTCND18"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0001080	10 FT	CND5"SCH.8010'GRAY

**ASSEMBLY NOTES:**

1. See design note 7.

**ASSEMBLY EC5-1.2310**

2" SCHEDULE 80 PVC SECONDARY POLE DIP SUBSTRUCTURE WITH 18" BRACKETS - FOR MAINTENANCE ONLY

1.	428-0000814	2 EA	CLPCNDSTRAP2"
2.	416-0000774	2 EA	BRKTCND18"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0000990	10 FT	CND 2" X 10' SCH80 BE
5.	438-0001036	1 EA	ELL2"SCH8036"RAD
6.	438-0001032	1 EA	ELL2"SCH4090<24"RAD

**ASSEMBLY NOTES:**

1. See design note 6.

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**ASSEMBLY EC5-1.2311**

3" SCHEDULE 80 PVC SECONDARY POLE DIP SUBSTRUCTURE WITH 18" BRACKETS

1.	428-0000815	2 EA	CLPCNDSTRAP3"
2.	416-0000774	2 EA	BRKTCNDT18"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0000993	10 FT	CND3"x10'SCH.80BELLEND
5.	438-0001047	1 EA	ELL3"SCH8036"RAD.
6.	438-0001044	1 EA	ELL3"90< SCH4024"RAD

**ASSEMBLY NOTES:**

1. See design note 6.

**ASSEMBLY EC5-1.2312**

5" SCHEDULE 80 PVC SECONDARY POLE DIP SUBSTRUCTURE WITH 18" BRACKETS

1.	428-0000817	2 EA	CLPCND STRAP 5"
2.	416-0000774	2 EA	BRKTCNDT18"STANDOFF
3.	388-0000677	4 EA	SCRLAG 1/2 X 4
4.	438-0001080	10 FT	CND5"SCH.8010'GRAY
5.	438-0001066	1 EA	ELL5"SCH.8048"RAD.
6.	438-0001065	1 EA	ELL5"SCH4048"RAD

**ASSEMBLY EC5-1.2315**

2" SCHEDULE 80 PVC SECONDARY SUBSTRUCTURE ON EXISTING BRACKETS - FOR MAINTENANCE ONLY

1.	428-0000814	2 EA	CLPCNDSTRAP2"
4.	438-0000990	10 FT	CND 2" X 10' SCH80 BE
5.	438-0001036	1 EA	ELL2"SCH8036"RAD
6.	438-0001032	1 EA	ELL2"SCH4090<24"RAD

**ASSEMBLY NOTES:**

1. See design note 6.
2. Refer to assembly EC5-1.2321 for 2" conduit straps for use on existing pole dip brackets.

**ASSEMBLY EC5-1.2316**

3" SCHEDULE 80 PVC SECONDARY SUBSTRUCTURE ON EXISTING BRACKETS

1.	428-0000815	2 EA	CLPCNDSTRAP3"
4.	438-0000993	10 FT	CND3"x10'SCH.80BELLEND
5.	438-0001047	1 EA	ELL3"SCH8036"RAD.
6.	438-0001044	1 EA	ELL3"90< SCH4024"RAD

**ASSEMBLY NOTES:**

1. See design note 6.
2. Refer to assembly EC5-1.2322 for 3" conduit straps for use on existing pole dip brackets.

**ASSEMBLY EC5-1.2317**

5" SCHEDULE 80 PVC SECONDARY SUBSTRUCTURE ON EXISTING BRACKETS

1.	428-0000817	2 EA	CLPCND STRAP 5"
4.	438-0001080	10 FT	CND5"SCH.8010'GRAY
5.	438-0001066	1 EA	ELL5"SCH.8048"RAD.
6.	438-0001065	1 EA	ELL5"SCH4048"RAD

**ASSEMBLY NOTES:**

1. Refer to assembly EC5-1.2323 for 5" conduit straps for use on existing pole dip brackets.

**ASSEMBLY EC5-1.2321**

2" CONDUIT STRAP - FOR USE ON EXISTING POLE DIP BRACKETS - FOR MAINTENANCE ONLY

1.	428-0000814	2 EA	CLPCNDSTRAP2"
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**ASSEMBLY NOTES:**

1. See design note 6.

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**ASSEMBLY EC5-1.2322**

3" CONDUIT STRAP - FOR USE ON EXISTING POLE DIP BRACKETS

- 1. 428-0000815                      2 EA    CLPCNDSTRAP3"

**ASSEMBLY NOTES:**

- 1. See design note 6.

**ASSEMBLY EC5-1.2323**

5" CONDUIT STRAP - FOR USE ON EXISTING POLE DIP BRACKETS

- 1. 428-0000817                      2 EA    CLPCND STRAP 5"

**CONSTRUCTION NOTES:**

- 1. All conduits shall enter the same end of the secondary box a maximum of 8" from the bottom inside edge of the secondary box.
- 2. Conduits shall not extend more than shown above the crushed rock base.
- 3. Base for secondary box shall allow drainage.
- 4. The exposed ends of all conduits shall be cut off square, free of any sharp edges, and temporarily sealed to prevent rocks or other materials from entering them after mandreling.
- 5. Field bending of PVC conduits is not allowed. All sweeps shall be made with manufactured elbows.
- 6. Provide compacted backfill as shown in excavated area around all vaults and boxes.
- 7. Top of secondary box base shall be set 2" above the surrounding final grade. If depth of landscaping material is not known at time of secondary box installation, top of box base shall be 4" above surrounding dirt to allow for landscaping material.
- 8. For customer service conduit entering a secondary box, a 90 degree elbow with a 24" radius for conduits smaller than 5" and 48" radius for 5" conduit is required.
- 9. The final height of the top of the 10' section of conduit will vary depending on the depth of the duct run.
- 10. Conduit shall be cut off and capped 18" +/- 6" above first bracket when substructure is installed by customer. EWEB Electric Operations crew will install (1) 10 ft. stick of sch 80 pvc and all remaining brackets when installing top portion of pole dip.
- 11. Fiberglass conduit elbows are acceptable to use instead of PVC conduit elbows.

**DESIGN NOTES:**

- 1. Location of pole dip to be identified and located to allow for climbing space clearances.
- 2. Using the 12" pole dip brackets is the preferred assembly.
- 3. 18" brackets shall be used for joint use applications when the total number of conduits exceeds (3) on the EWEB pole dip bracket.
- 4. Secondary box SHALL NOT be installed closer than 5 ft. to a pole to maintain a clear area around the base of pole for climbing safety.
- 5. For new construction, the preferred location for a secondary box is within 10 ft of the pole dip with the maximum of 125 ft. Distances greater than 125 ft requires electric operations approval. For distances over 10 ft from a pole dip, a three person crew will be required to pull secondary conductor in.
- 6. For new construction, a minimum 3" conduit is required for a primary or secondary pole dip.
- 7. Only release (1) bracket, (1) conduit strap, and (2) lag screws to customer. Remaining materials will be used by EWEB Electric Operations crew when they build the top portion of the pole dip.

**REFERENCE STANDARDS:**

- A) Refer to EC5-2.0400, EC5-2.1100 and EC5-2.2700 for Secondary box assemblies.
- B) Refer to EC4-0.3800 for Climbing space reference.
- C) Refer to EC5-6.3400 for 350 & 500 KCM urd secondary moles.
- D) Refer to EC5-6.3500 for 750 KCM urd secondary moles.
- E) Refer to EC5-2.0100 for Required minimum feeder, primary and secondary/service conductor makeup length for vaults and secondary boxes.
- F) Refer to ED5-1.0100 for Electrical Equipment placement clearances at a street corner, maximum size & setback requirements.
- G) Refer to ED5-1.6000 for Low voltage design tool.
- H) Refer to EC5-9.0500 for Conductor support brackets, secondary mole support.
- I) Refer to EC5-9.0200 for Conduit elbow radius requirements.
- J) Refer to EC5-B.1000 for Underground service conduit and conductor requirements.
- K) Refer to EC5-B.3000 for Temporary service requirements.