

BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON

PCN 6

Petition for a Certificate of Public  
Convenience and Necessity

PORTLAND GENERAL ELECTRIC COMPANY

Direct Testimony of

*Meredith Armstrong*

*April 17, 2024*

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**I. Introduction**

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**Q. Please state your name, business address, and present position with Portland General Electric (PGE or the Company).**

A. My name is Meredith Armstrong. My business address is 121 SW Salmon Street, Portland, OR 97204. My current position at PGE is Manager, Property Rights Organization.

**Q. Briefly describe your educational background and relevant licenses or certificates.**

A. I have a Bachelor of Arts (BA) degree in Political Science and Government from California State University, Long Beach, and a Juris Doctor (JD) in Environmental and Natural Resources from Lewis & Clark Law School. I am a licensed attorney in Oregon.

**Q. Please describe your work experience.**

A. Prior to my career at PGE, I owned my own private practice with a focus on property transactions, landlord/tenant, and land use from 2012 to 2018. I then worked as an Easement Acquisition Specialist for Clean Water Services from 2018 to 2022. Beginning in April 2022, I began working at PGE in my current role where I am responsible for managing a team of professionals that work to acquire necessary easements and specialty permits for projects at PGE.

**Q. What is the purpose of your testimony in this proceeding?**

A. The purpose of my testimony is to explain the status of all land use permits and approvals necessary for construction of PGE’s proposed overhead, 115-kilovolt (kV) transmission line totaling 7.4 miles in length and located in Clackamas and Washington Counties, between the existing Rosemont and Wilsonville Substations (the Rosemont-

1 Wilsonville Line). While the Company has been working with all regulatory authorities  
2 to obtain required land use permits and approvals for the Rosemont-Wilsonville Line,  
3 special circumstances have delayed the Company's efforts in Clackamas County. The  
4 Company still needs the following permits from Clackamas County: (1) an Alteration  
5 of Non-Conforming Use Permit; and (2) a Right-of-Way Permit. While PGE believes  
6 that these permits will be issued after the County review is complete, the Company  
7 does not expect the permits to be issued until mid-November 2024.

## 8 **II. Required Permits for the Rosemont-Wilsonville Line**

9 **Q. What is the status of all permits and approvals necessary for construction of the**  
10 **Rosemont-Wilsonville Line?**

11 A. PGE needs four permits and approvals for the Rosemont-Wilsonville Line, some of  
12 which have already been issued:

- 13 1. A crossing permit from the Oregon Department of Transportation (ODOT),  
14 which was issued on May 30, 2023 (Exhibit PGE/501);
- 15 2. A Right-of-Way Permit from Washington County, which was issued on  
16 March 14, 2024 (Exhibit PGE/502);
- 17 3. A Type II Alteration of Non-Conforming Use Permit from Clackamas  
18 County, which is the only land use permit required for the line and has not  
19 yet been issued; and
- 20 4. A Right-of-Way Permit from Clackamas County, which was filed in May  
21 of 2023, but was placed on hold pending the land use permit approval  
22 process.

23 Please see Exhibit PGE/503 for a detailed list of the required permits.

1 **Q. Why has the Company not yet received the necessary permits from Clackamas**  
2 **County?**

3 A. The Company has been diligently working with all regulatory authorities to obtain  
4 required land use permits and approvals for the Rosemont-Wilsonville Line; however,  
5 special circumstances have delayed the Company's efforts in Clackamas County. In  
6 particular, PGE initiated preliminary discussions with Clackamas County Development  
7 Engineering Department staff in December 2021. Per the County's standard and  
8 traditional practice (and as is typical with neighboring jurisdictions for the siting of  
9 utilities in the right-of-way), PGE understood that no land use permits would be  
10 required by Clackamas County. Accordingly, the Company submitted only a Right-of-  
11 Way Permit application in May of 2023—a permit that is typically issued within one  
12 to two weeks upon receipt of application and without any land use review required.  
13 However, in late Fall 2023, the County's counsel reviewed the Clackamas County  
14 Zoning and Development Ordinance (ZDO) and determined that County staff's past  
15 application of the ZDO was not correct per the current ZDO. County staff subsequently  
16 informed PGE that the ZDO did require a land use permit for the Rosemont-Wilsonville  
17 Line.

18 In November 2023, County staff indicated that the ZDO should allow  
19 construction of utility power lines both inside and outside the right-of-way of roads as  
20 an outright permitted use (i.e., without the need for a land use permit) and initiated a  
21 process to update the ZDO through amendment. If this amendment is adopted and the  
22 project no longer requires land use review, the Right-of-Way Permit will be issued, and  
23 the Company will require no additional approvals for the Rosemont-Wilsonville Line.

1           However, the timing and outcome of the effort to amend the ZDO is uncertain.  
2           Therefore, to ensure timely completion of the project, the Company decided to move  
3           ahead with the land use permit application process while the County considers potential  
4           changes to its ZDO.

5           **Q.    Please describe PGE’s progress on its Clackamas County land use permit to date.**

6           A.    PGE submitted its pre-application for the land use permit on February 15, 2024. After  
7           the pre-application meeting on April 2, 2024, County staff confirmed that the only land  
8           use permit required for the Rosemont-Wilsonville Line was an Alteration of Non-  
9           Conforming Use Permit. PGE is now working on its land use permit application, which  
10          it expects to file by mid-May 2024.

11          **Q.    When does PGE expect that the land use permit will be issued?**

12          A.    PGE has discussed the timing of the land use review with Clackamas County staff and  
13          anticipates that the Clackamas County review process will be complete, and its land  
14          use permit issued, by mid-November 2024.

15          **Q.    When does PGE expect the Right-of-Way Permit to be issued?**

16          A.    Based on past project experience, the Right-of-Way Permit should be issued within one  
17          or two weeks after the land use permit is issued.

18          **Q.    Have you prepared a table showing the County’s expected process for the land  
19          use review and ZDO amendment processes with corresponding dates?**

20          A.    Yes. Please see Exhibit PGE/504.

21          **Q.    What happens if Clackamas County revises its ZDO to allow utility power lines  
22          both inside and outside the right-of-way of roads as an outright permitted use?**

1 A. If, in the interim, the County revises its ZDO to eliminate the need for land use review  
2 for the project, PGE will have all the required land use approvals and permits for the  
3 Rosemont-Wilsonville Line and will inform the Commission, Staff, and interested  
4 parties to the proceeding of the change in status.

5 **Q. Does this conclude your testimony?**

6 A. Yes.

**List of Exhibits**

<b><u>PGE Exhibit</u></b>	<b><u>Description</u></b>
PGE/501	ODOT Permit
PGE/502	Washington County Right-of-Way Permit
PGE/503	List of Required Permits
PGE/504	Clackamas County Land Use Review and ZDO Amendment Timeline Table



**PGE/501**

**ODOT Permit**



APPLICATION AND PERMIT TO OCCUPY OR  
PERFORM OPERATIONS UPON A STATE HIGHWAY

See Oregon Administrative Rule, Chapter 734, Division 55

PERMIT NUMBER

2BM47424

CLASS : KEY#

GENERAL LOCATION			PURPOSE OF APPLICATION (TO CONSTRUCT/OPERATE/MAINTAIN)		
HIGHWAY NAME AND ROUTE NUMBER I-205 / 64 / East Portland Freeway			<input checked="" type="checkbox"/> POLE LINE	TYPE Electrical	MIN. VERT. CLEARANCE
HIGHWAY NUMBER 64	COUNTY Clackamas		<input type="checkbox"/> BURIED CABLE	TYPE	
BETWEEN OR NEAR LANDMARKS Stafford Road - I-205			<input type="checkbox"/> PIPE LINE	TYPE	
HWY. REFERENCE MAP Straightline	DESIGNATED FREEWAY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	IN U.S. FOREST <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> NON-COMMERCIAL SIGN AS DESCRIBED BELOW		
APPLICANT NAME AND ADDRESS Portland General Electric Company, ATTN: Tina Tippin 121 SW Salmon St., 1WTC1302 Portland, OR 97204 M2764884 Eng: Andy Brewer D21-29A			<input type="checkbox"/> MISCELLANEOUS OPERATIONS AND/OR FACILITIES AS DESCRIBED BELOW		
			FOR ODOT USE ONLY		
			BOND REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	REFERENCE: OAR 734-055-0035(2)	AMOUNT OF BOND
			INSURANCE REQUIRED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	REFERENCE: OAR 734-055-0035(1)	SPECIFIED COMP. DATE 5/30/2025

DETAIL LOCATION OF FACILITY (For more space attach additional sheets)

MILE POINT TO	MILE POINT	ENGINEERS STATION TO	ENGINEERS STATION	SIDE OF HWY OR ANGLE OF CROSSING	DISTANCE FROM CENTER OF PVMT	R/W LINE	DEPTH/VERT.	BURIED CABLE OR PIPE SIZE AND KIND	SPAN LENGTH
3.17(P37)	3.37(P38)			180	71' (PL37)				362'
3.37(P38)	3.27(P40)			180	86' (PL38)				597'
3.27(P40)	3.19(P43)			180	35' (PL 40) 67'(PL 43)				263'

DESCRIPTION OF DESIRED USE

New 115kV crossing at SW Stafford Road, plan and profile and traffic control are attached. 14 day notice required for the use of the approved traffic control plan. Mark Rahman will make signal timing adjustments (allow more green) to allow the mainline I-205 traffic to use the Stafford on and off ramps NB and SB as an up and over detour allowing PGE to work across I-205 without any traffic issues.

SPECIAL PROVISIONS (FOR ODOT USE ONLY)

- TRAFFIC CONTROL REQUIRED  YES [OAR 734-055-0025(6)]  NO
- OPEN CUTTING OF PAVED OR SURFACED AREAS ALLOWED  YES [OAR 734-055-0100(2)]  NO [OAR 734-055-0100(1)]
- ◆ AT LEAST 48 HOURS BEFORE BEGINNING WORK, THE APPLICANT OR HIS CONTRACTOR SHALL NOTIFY THE DISTRICT REPRESENTATIVE Jim Bailey AT PHONE NO.: D2Bup@odot.oregon.gov OR EMAIL OR FAX THIS PAGE TO THE DISTRICT OFFICE AT: D2Bup@odot.oregon.gov. SPECIFY TIME AND DATE WORK IS TO OCCUR.
  - ◆ A COPY OF THIS PERMIT AND ALL ATTACHMENTS SHALL BE AVAILABLE AT THE WORK AREA DURING CONSTRUCTION.
  - ◆ ATTENTION: Oregon Law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0001 through OAR 952-001-0090. You may obtain copies of the rules by calling the center at (503) 232-1987. **CALL BEFORE YOU DIG 1-800-332-2344**

COMMENTS (FOR ODOT USE ONLY)

At the time of lane and/or complete roadway closure and again when the lane and/or complete roadway is opened on a state highway the Applicant or their Contractor is required to notify ODOT Traffic Management Operations Center (TMOC) 503-283-5859. If during the course of their permitted work the Applicant or their Contractor come across personal property in their work zone they need to contact their permit specialist. The personal property may not be removed by the Applicant or their Contractor. ODOT is not responsible to collect and/or dispose of sharps or biohazard material found within project limits.

IF THE PROPOSED APPLICATION WILL AFFECT THE LOCAL GOVERNMENT, THE APPLICANT SHALL ACQUIRE THE LOCAL GOVERNMENT OFFICIAL'S SIGNATURE BEFORE ACQUIRING THE DISTRICT MANAGER'S SIGNATURE.

LOCAL GOVERNMENT OFFICIAL SIGNATURE	TITLE	DATE
<b>X</b>		
APPLICANT SIGNATURE <b>X</b> <i>Amudapan</i>	APPLICATION DATE 5/15/23	TITLE Property Specialist
When this application is approved by the Department, the applicant is subject to, accepts and approves the terms and provisions contained and attached: and the terms of Oregon Administrative Rules, Chapter 734, Division 55, which is by this reference made a part of this permit.		TELEPHONE NO. 503.464.7672
DISTRICT MANAGER OR REPRESENTATIVE <b>X</b> <i>[Signature]</i>		APPROVAL DATE 5-30-23



**GENERAL PROVISIONS  
 FOR POLELINE, PIPELINE, BURIED CABLE,  
 AND MISCELLANEOUS PERMITS**

Revised April 2022

<b>APPLICANT: PORTLAND GENERAL ELECTRIC COMPANY</b>	<b>PERMIT NO.: 2 B M 4 7 4 2 4</b>
<b>HIGHWAY: I-205/84/East Portland Freeway</b>	<b>MP: 3.17-3.44</b>

These permit provisions are in addition to the requirements described in Oregon Administrative Rule, Chapter 734, Division 55 and may be supplemented by permit special provisions. In the event of a conflict, the Administrative Rule will apply then these provisions followed by any permit special provisions. Unless otherwise specified, all documents referenced are references to the current version, with any revisions or supplements, in place when the work is conducted.

All checked (☒) provisions apply.

**WORKSITE**

- 1. Access control fence must be maintained during permitted work and restored to its original or better condition after permitted work is complete.
- 2. The Applicant shall not use state highway right of way to display advertising signs or to display or sell merchandise of any kind.
- 3. The stopping and parking of vehicles upon state highway right of way for the maintenance of adjoining property or in furtherance of any business transaction or commercial establishment is prohibited.
- 4. All grass and small brush within the work area shall be rotary or flail mowed to ground level prior to the beginning of work to facilitate clean up.
- 5. Disturbed areas shall be reseeded with grass native to the area in an appropriate seeding time.
- 6. The spreading of mud or debris upon any state highway is prohibited and violation shall be cause for immediate cancellation of the permit. Clean up shall be at the Applicant's expense. The highway shall be cleaned of all dirt and debris at the end of each work day, or more frequently as directed by the District Manager or representative.
- 7. Applicant shall replace any landscape vegetation or fences that are damaged or destroyed. Any damage that is not fully restored within 30 days may be replaced by ODOT at the expense of the Applicant. A "plant establishment" shall be understood to be part of the planting work to assure satisfactory growth of planted materials. The plant establishment period will begin when the original planting has been completed and approved. The length of the establishment period will be one calendar year or as defined in the permit Special Provisions.
- 8. Applicant shall install and maintain the landscaped area as shown on the attached drawings. Plantings shall be limited to non-invasive, low-growing shrubs, grass or flowers that do not attain sufficient height to obstruct clear vision in any direction. ODOT may remove plantings without liability or loss, injury, or damage of any nature whatsoever if in the future it is determined to be in the public interest to do so.

**TRAFFIC**

- 9. The work area shall be protected in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and the Oregon Temporary Traffic Control Handbook as supplemented or amended by ODOT.
- 10. For work requiring traffic control devices to be in place continuously for longer than three days, Applicant shall provide a site specific traffic control plan developed based on the principles of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and ODOT Standards. The traffic control plan may be reviewed by ODOT before work begins. The ODOT review does not relieve the Applicant of responsibility for the accuracy of the traffic control plan.
- 11. For permitted utility work, the Applicant shall take measures necessary to maintain the accessibility of the state highway including sidewalks and pedestrian areas by individuals with disabilities to the ODOT

2 B M 4 7 4 2 4

Americans with Disability Act (ADA) standard during the course of the work by following the Oregon Temporary Traffic Control Handbook, Section 1.6.

- 12. When constructing a new utility service line, Applicant shall ensure that advance notice of any temporary pedestrian route is provided in an accessible format to the public, people with disabilities, and disability organizations to the greatest extent possible. The Notice is to be sent to the organizations on the contact list of Centers for Independent Living at [https://www.oregon.gov/odot/Engineering/DOCS\\_ADA/AOCIL-Contacts.pdf](https://www.oregon.gov/odot/Engineering/DOCS_ADA/AOCIL-Contacts.pdf)
- 13. All damaged or removed highway signs shall be replaced by the Applicant. Installation shall be according to MUTCD and ODOT standards, and shall be completed as soon as possible but no later than the end of the work shift.
- 14. No lane restrictions are permitted on the roadway during the hours of darkness, on weekends, or between 6:00 AM and 9:00 AM, or 3:00 PM and 6:00 PM (Monday through Friday) without prior approval by ODOT.
- 15. Hours of work shall be 9:00am to 3:00pm work off of roadway  
11:00pm to 5:00am work in roadway.

#### DRAINAGE

- 16. On-site storm drainage shall be controlled within the permitted property. No blind connections to existing state facilities are allowed.
- 17. Excavation shall not be done on ditch slopes. Trench excavation shall either be at ditch bottom or outside ditch area. (Minimum depth at bottom of ditch shall be 36 inches; minimum depth outside of ditch shall be 42 inches).
- 18. Only earth or rock shall be used as fill material and shall slope so as not to change or adversely affect existing drainage. Fine grade and seed the finished fill with native grasses to prevent erosion.
- 19. A storm drainage study stamped by an Oregon Registered Professional Engineer (PE) is required. The study must meet standards of the National Pollution Discharge Elimination Systems (NPDES) when any of the following conditions apply:
  - whenever a four inch pipe is inadequate to serve the developed area,
  - development site is one acre or larger in size and directly or indirectly affects state facilities, or
  - as directed by the District Manager or representative.
- 20. Applicant shall provide on-site retention for storm water runoff that exceeds that of the undeveloped site.
- 21. All water discharged to an ODOT drainage system must be treated prior to discharge. All requests for connection to an ODOT storm system must meet any requirements of the National Pollutant Discharge Elimination System (NPDES). This may include local jurisdiction approval of on-site water quality treatment facilities and/or development of an operation and maintenance plan for any on-site water quality treatment facility, as determined by local jurisdiction.

#### EXCAVATION / CONSTRUCTION

- 22. "Oregon Standard Specifications for Construction" and ODOT "Standard Drawings" where applicable and not otherwise superseded by the permit, shall be incorporated for use in the permit; <https://www.oregon.gov/odot/engineering/pages/index.aspx>. These documents apply only to the extent they provide standards and performance requirements for work to be performed under the permit. In the event of a conflict, the permit provisions will take precedent.
- 23. Trench backfill shall be according to the attached typical drawing, marked as Exhibit A.
- 24. When open cutting of the highway is allowed, all excavation in paved areas shall be backfilled and the roadway surface patched before the end of each shift.
- 25. Steel plates shall be pinned and a temporary cold patch applied to the edges. The Applicant shall be responsible for monitoring and maintenance of temporary patching and steel plating.
- 26. Compaction tests shall be required for each open cut per Oregon Standard Specifications for Construction. Compaction tests shall be conducted once for every 300 lineal feet per lift of continuous trench according to the Manual of Field Test Procedures (MFTP), published by ODOT. Percent Compaction shall be at least 95%. Results of compaction test shall be provided upon request of the District Manager or representative at Applicants' expense.

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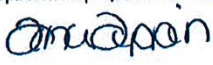
- 27. Control Density Fill (CDF) shall be used as surface backfill material in place of crushed rock in open trenches that impact the travel portions of the highway. A ¾"-0, or 1"-0 rock will be used for the aggregate. The amount of cement used shall not exceed 3.0% of the total mixture's weight. Maximum compressed strengths must not exceed 250 pounds per square inch (psi).
- 28. Surface restoration shall be a minimum of four inches of hot asphalt-concrete (AC), compacted in two inch lifts, or to match existing pavement depth, whichever is greater. Sand-seal all edges and joints.
- 29. Any area of cut or damaged asphalt shall be restored in accordance with the attached "T-Cut Typical Section" drawing. For a period of two years following the patching of the paved surface, Applicant shall be responsible for the condition of the pavement patches, and during that two year period shall repair to District Manager or representative's satisfaction any of the patches which become settled, cracked, broken, or otherwise faulty.
- 30. An overlay to seal an open-cut area shall be completed prior to the end of the construction season, or when minimum temperature allows per the Oregon Standard Specification for Construction. The overlay shall be 1.5 inches deep and cover the affected area from edge of pavement to edge of pavement, and taper longitudinally at a fifty feet to one inch (50':1") ratio. Taper may be adjusted by the District Manager as required. For a period of two years following this patching of the paved surface, the Applicant shall be responsible for the condition of said pavement patches, and during that time shall repair to the District Manager or representative's satisfaction any of the patches which become settled, cracked, broken or otherwise faulty.
- 31. Highway crossings of utility lines shall be bored, or jacked. Bore pits shall be located behind the ditch line unless otherwise specified in the permit. Unattended pits shall either be protected by a six-foot fence, backfilled, or steel plated and pinned.
- 32. Any non-conductive, un-locatable, underground facility shall have a tracer wire or other similar conductive marking tape or device placed the full length of the installed underground facility in compliance with the Oregon Utilities Notification Center rules, OAR Chapter 952.
- 33. Trench backfill outside of ditch line may be native soil compacted at optimum moisture in twelve inch layers to not less than 95% relative maximum density.
- 34. Native material that is unsatisfactory for compaction shall be disposed of off the work site and granular backfill used.
- 35. Trench backfill in rock slope or shoulder shall be crushed 1"-0 or ¾"-0 size rock compacted at optimum moisture in eight-inch layers. Compaction tests shall be conducted according to the Manual of Field Test Procedures (MFTP), published by ODOT. Percent compaction shall be at least 95% maximum density. At the request of the District Manager or representative, results of compaction tests shall be provided to District Manager or representative at Applicant's expense.
- 36. Where excavation is on fill slope steeper than a two to one (2:1) ratio, slope protection shall be provided using four-inch size rock laid evenly to a minimum depth of twelve inches.
- 37. No more than 300 feet of trench longitudinally along the highway shall be left open at any one time and no trench shall be left in an open condition overnight.
- 38. Areas of disturbed cut and fill slopes shall be restored to a condition suitable to the District Manager or representative. Areas of erosion to be inlaid with an acceptable riprap material.
- 39. All underground utilities shall be installed with three-foot or more of horizontal clearance from existing or contract plans guardrail posts and attachments.
- 40. Any area of cut or damaged concrete shall be restored in accordance with the attached Typical Section-Pipe Section under sidewalk.
- 41. Utility markers, pedestals, and vaults shall be placed as near the highway right-of-way line as practical. In no case shall pedestals, vaults, and line markers be located within the area where highway maintenance activities regularly occur including mowing operations, or nearer the pavement edge than any official highway sign in the same general location.
- 42. No cable plowing is allowed within the lateral support of the highway asphalt (e.g. at six feet lower than the edge of the asphalt, no plowing within nine feet of the edge of the asphalt).
- 43. Review by the ODOT Bridge Engineer is required for all proposed bridge and structure attachments and for any facilities to be installed within sixteen feet of bridge foundations, supports, walls or related elements, or within the influence zone of bridge facilities.

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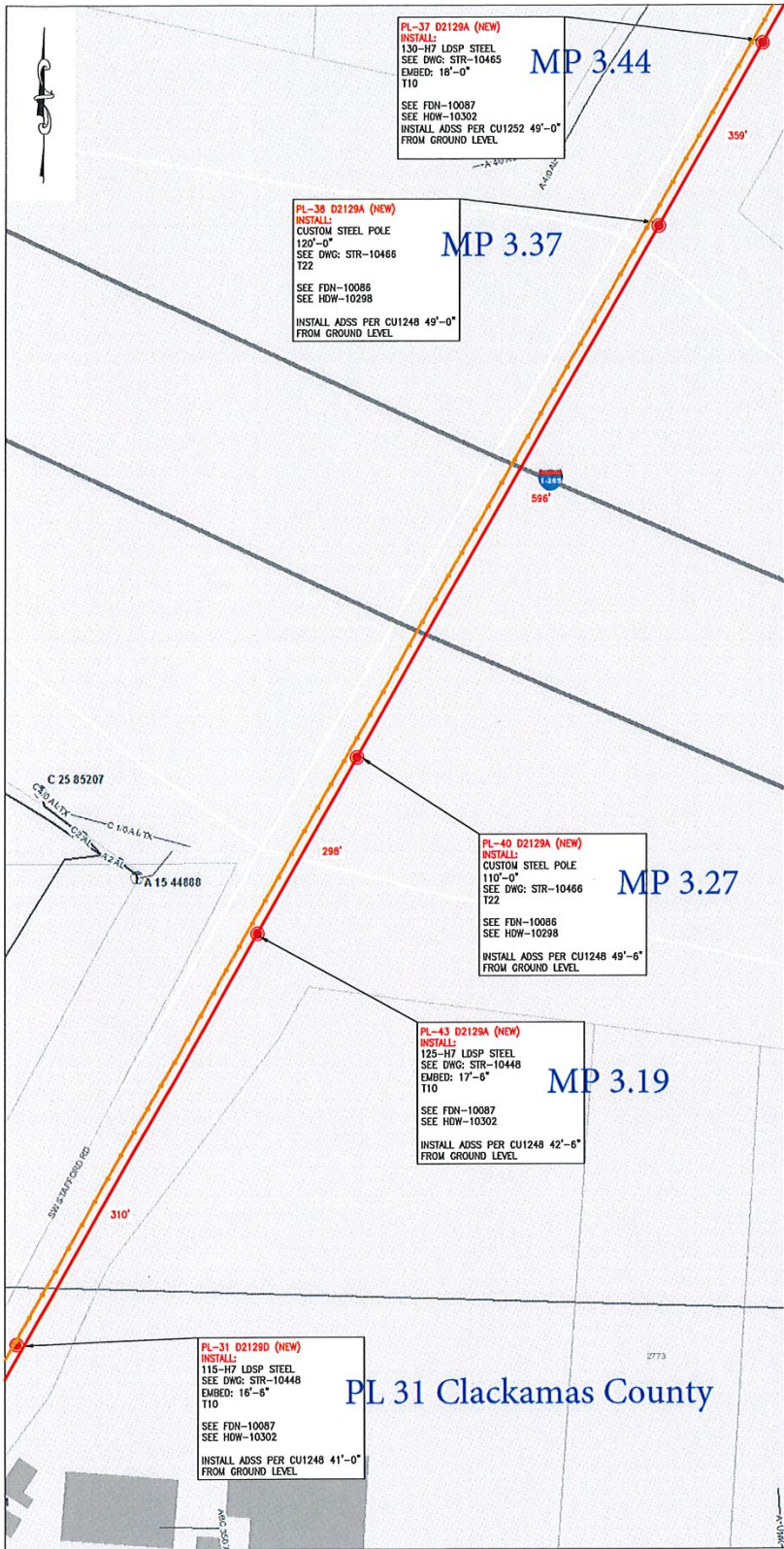
MISCELLANEOUS

- 44. Applicant shall be responsible and liable for (1) investigating presence/absence of any legally protected or regulated environmental resource(s) in the action area; (2) determining any and all restrictions or requirements that relate to the proposed actions, and complying with such, including but not limited to those relating to hazardous material(s), water quality constraints, wetlands, archeological or historic resources(s) state and federal threatened or endangered species, etc., (3) complying with all federal, state, and local laws, and obtaining all required and necessary permits and approvals.
- 45. If the Applicant impacts a legally protected/regulated resource, Applicant shall be responsible for all costs associated with such impact, including, but not limited to all costs of mitigation and rehabilitation, and shall indemnify, and hold ODOT harmless for such impacts and be responsible and liable to ODOT for any associated costs or claims that ODOT may have.
- 46. Plans are reviewed by ODOT in general only and do not relieve the Applicant from completing roadway improvements in a manner satisfactory to ODOT. The District Manager or representative may require field changes. When revisions are made in the field, Applicant is responsible to provide "as built" drawings, within 60 days from completion of roadway improvements, and shall submit them to the District Office issuing the permit.
- 47. Applicant shall be responsible for locating and preserving all existing survey monumentation within the work area in accordance with ORS 209.150 and/or 209.155. If monumentation or its accessories are inadvertently or otherwise disturbed or destroyed, Applicant shall be responsible for all costs and coordination associated with its reestablishment by a professional licensed surveyor.
- 48. Applicant shall be responsible to restore or replace any curbs or curb ramps damaged by the permitted activity according to ODOT's ADA Standards available at <https://www.oregon.gov/ODOT/Engineering/Pages/Accessibility.aspx>. Any review or inspection of the curbs or curb ramps conducted by ODOT does not relieve the Applicant of the responsibility to comply with any other aspect of federal, state, and local laws, rules and regulations applicable to the work allowed under the permit including but not limited to the Americans with Disabilities Act of 1990.
- 49. When constructing a minor roadway improvement, Applicant shall comply with all federal, state, and local laws, regulations, executive orders and ordinances applicable to the work under this permit, including, without limitation, the provisions of ORS 276.071. If Applicant chooses to assign their permitted responsibilities to a consultant or contractor, Applicant shall inform the consultant or contractor of the requirements of ORS 276.071.
- 50. Upon completion of the permitted minor roadway improvement, Applicant shall notify ODOT and request final inspection. If all structures and appurtenances constructed under this permit are found to be in compliance with permit provisions and state standards, ODOT will accept ownership of the permitted structures and appurtenances by written notice to the Applicant.

By this signature Applicant acknowledges that the Applicant is subject to and accepts all checked (☑) provisions (4 pages).

Applicant Representative's Signature: 	Applicant Representative's Title: Senior Property Specialist	Date: 5/15/2023
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2BM47424



**OVERHEAD LEGEND:**

- INSTALL FACILITIES
- REMOVE FACILITIES
- TRANSFER / MODIFY FACILITIES

- POLES:**
- HT-CL — POLE CLASS (1, 2, 3, 4, H1, H2, S)  
— POLE HEIGHT (FEET)

**ANCHORS:**

A (LEAD) (LBS)	10" SCL HELIX	10" TRIPLE HELIX	14" SCL H/T	10" EXPANDING	28" PLATE
ANCHOR CODE	A11	A31	A51	A71	A8

**GUYING:**

G (POS.-LBS.)	1"	3/4"	5/8"	3/4"	5/8"	3/4"	5/8"	3/4"	5/8"	3/4"	5/8"
1 GUY	G1	G4	G7	G10	G16	G19	G22				
2 GUYS	G2	G5	G6	G11	G17	G20	G23				
3 GUYS	G3	G6	G9	G12	G18	G21	G24				

**FRAMING: TRANSMISSION & DISTRIBUTION (SEE COMMENTS BELOW)**

- T10** — FRAME TRANSMISSION — STD LC10754 APS  
FRAMING POLY INSULATORS  
WMS MU 1013
- T22** — FRAME TRANSMISSION — STD LC10755 DVS  
FRAMING WITH POLYMER INSULATORS WMS MU 1016
- CU1248** — FRAME COMMUNICATION — ADSS FIBER OPTIC CABLE — LC11410; ANGLE SUSPENSION UNIT
- CU1252** — FRAME COMMUNICATION — ADSS FIBER OPTIC CABLE — LC11410; DOUBLE DEAD END

- NOTES:**
- IT IS ASSUMED THE UNDERGROUND SERVICE DROPS ARE DIRECT BURIED CABLE. THERE IS A POSSIBILITY OF CABLE REPLACEMENT, OR AN IN GROUND SPlice WILL NEED TO BE INSTALLED. THESE ISSUES WILL BE DEALT WITH ON A CASE BY CASE BASIS ON THE RECOMMENDATION OF PGE ENGINEERING.
  - THE FIRST STRUCTURE ADJACENT TO THE MANLINE ON ALL OVERHEAD TAPS MAY REQUIRE ADDITIONAL WORK. THESE ISSUES WILL BE DEALT WITH ON A CASE BY CASE BASIS ON THE RECOMMENDATION OF PGE ENGINEERING.
  - CONTRACTOR SHALL PERFORM FULL UTILITY LOCATES PRIOR TO ANY EXCAVATION WORK, IN ACCORDANCE TO OREGON STATUTE.

- ADA NOTES:**
- A THRU-WAY CLEARANCE OF 48.0" IS TO BE MAINTAINED WITHIN SIDEWALKS FOR ALL NEW/REPLACEMENT POLES. IF 48.0" IS NOT OBTAINABLE THE SIDEWALK MUST BE EXTENDED TO ABIDE ALL ADA REGULATIONS.
  - WHEN REPLACING AND INSTALLING STRUCTURES WITHIN A PEDESTRIAN SIDEWALK RAMP, THE RAMP MUST BE REPLACED/REPAIRED AND ABIDE BY ALL ADA REGULATIONS.
  - WHEN REPLACING AND INSTALLING STRUCTURES WITHIN A PEDESTRIAN DRIVEWAY, THE DRIVEWAY MUST BE REPLACED/REPAIRED AND ABIDE BY ALL ADA REGULATIONS.
  - WHEN REPLACING AND INSTALLING STRUCTURES CONTAINING A CONDUIT RISER, THE CONDUIT MUST BE REPLACED/RECONFIGURED AND ABIDE BY ALL ADA REGULATIONS.

- CONDUCTORS:**
- INSTALL 795 KCMIL ACSS "DRAKE" (TRANSMISSION)
  - INSTALL OFS-AT-38E270T-144-TPDE ACSS FIBER OPTIC CABLE (COMMUNICATION)

**811**  
Call before you dig.  
ATTENTION: CALL 811 BEFORE YOU DIG. DESIGN AND CONSTRUCTION OF UNDERGROUND UTILITIES ARE GOVERNED BY THE OREGON UTILITY NOTIFICATION CENTER. THESE RULES ARE SET FORTH IN OUR 950200001 THROUGH 950200020. YOU MAY OBTAIN COPIES OF THESE RULES BY CALLING THE OREGON UTILITY NOTIFICATION CENTER ADMINISTRATION @ (503) 239-1891. TO REQUEST UTILITY LOCATES CALL THE OREGON UTILITY NOTIFICATION CENTER @ 811 AT LEAST 2 BUSINESS DAYS PRIOR TO EXCAVATION.

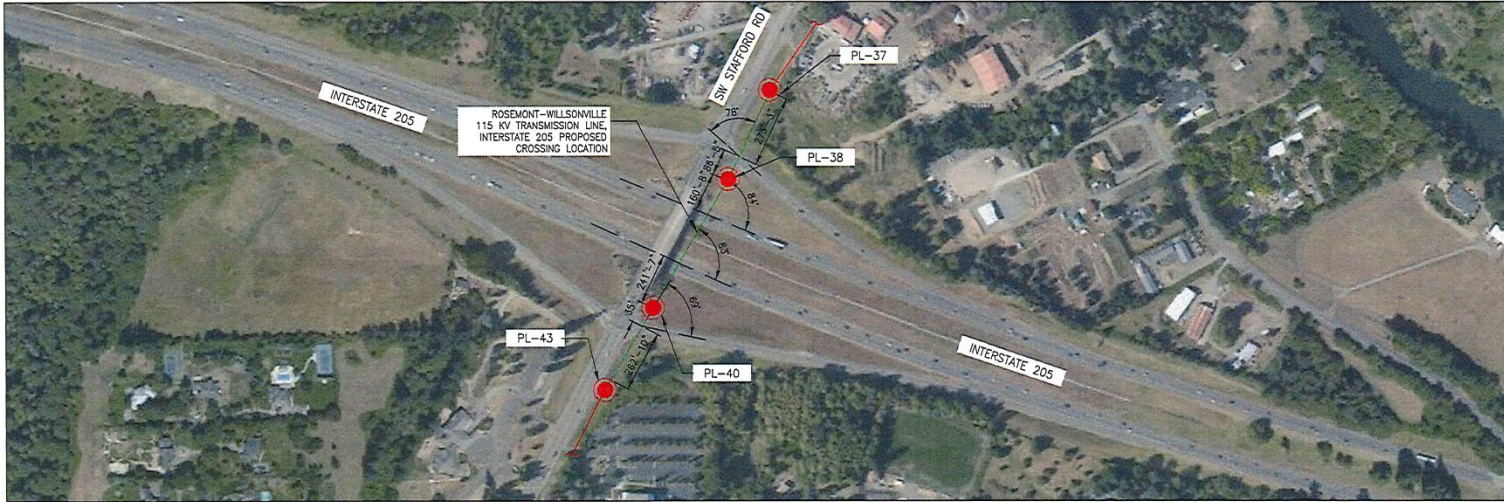
**BLACK & VEATCH**  
ANY DEVIATION FROM THIS DESIGN MUST BE APPROVED BY PGE PROJECT MANAGER

NO.	DATE	REVISION AND RECORD OF IS&E	DESIGNER	DRAWN	CHECKED	OK
0	04/04/23	IS&E FOR CONSTRUCTION	DW	DP	SH	

**THINK SAFETY FIRST!** **P1**

**REGISTERED PROFESSIONAL ENGINEER**  
76307PE  
Clayton A. ...  
REGISTERED 31 ...  
SAUNYA NAO  
EXPIRATION DATE 12-31-2024

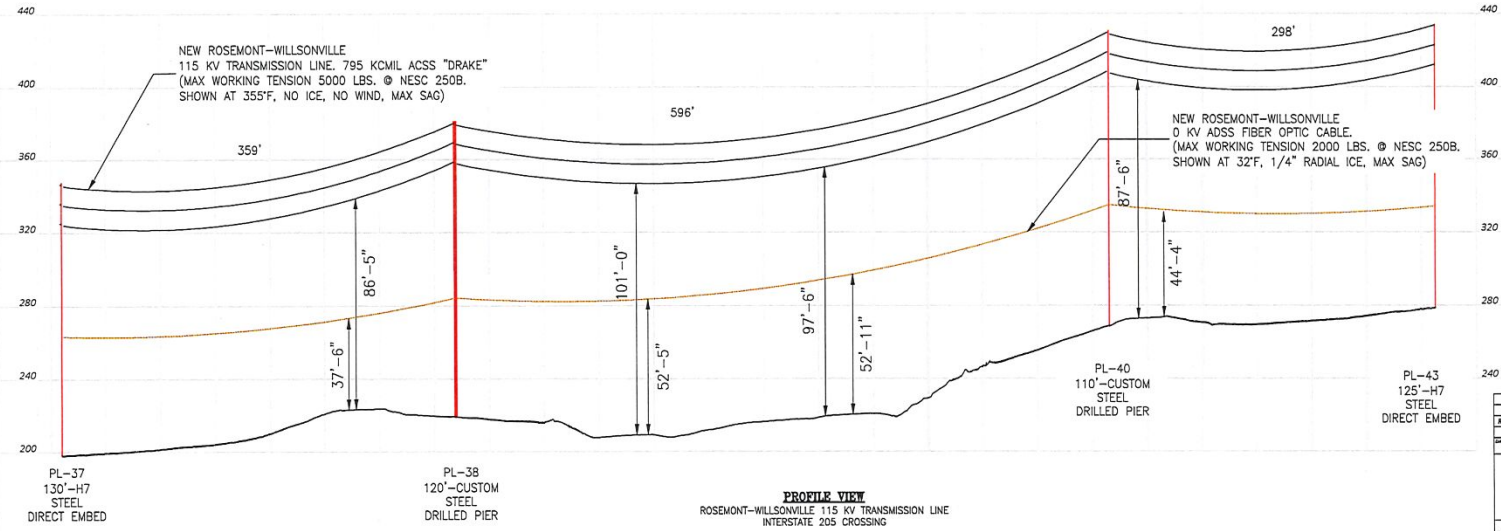
**PGE CONSTRUCTION DRAWING**  
**AS-BUILT VERIFICATION & NESC VIOLATIONS CORRECTED**  
This document accurately represents FIELD Conditions.  
Foreman: \_\_\_\_\_ Date: \_\_\_\_\_  
General Foreman: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature only required for field construction changes)  
SUPERVISING REVIEWER: \_\_\_\_\_ AS-BUILT BY CHECKER: \_\_\_\_\_  
DATE: 04/04/23 TIME: N/A REVISION: N/A IWB: 1000010192 PGE NO: U2764844  
PROJECT: OVERHEAD JOB SKETCH EXH-10242  
JOB: ROSENWALT-WILSONVILLE 115 KV TRANSMISSION LINE SITE: 22334  
WORK: WIPES  
REVISION: 115 KV TRANSMISSION LINE WITH 12.5 KV UNDERBUILD JOB SKETCH  
DRAWN BY: WIPES  
CHECKED BY: WIPES  
DATE: 04/04/23  
DESIGNED BY: ERIN BONSALL  
DATE: 04/04/23  
PROJECT: PORTLAND GENERAL ELECTRIC CO. ALL RIGHTS RESERVED



- LEGEND:**
- ROSEMONT-WILSONVILLE 115 KV TRANSMISSION LINE
  - ROSEMONT-WILSONVILLE 115 KV TRANSMISSION LINE, I-205 PROPOSED CROSSING LOCATION
  - PROPOSED STEEL POLE

- NOTES:**
- BACKGROUND IMAGE EXTRACTED FROM DIGITAL GLOBE FOR REFERENCE ONLY.

**PLAN VIEW**  
ROSEMONT-WILSONVILLE 115 KV TRANSMISSION LINE  
INTERSTATE 205 CROSSING



**PROFILE VIEW**  
ROSEMONT-WILSONVILLE 115 KV TRANSMISSION LINE  
INTERSTATE 205 CROSSING

BLACK & VEATCH

ISSUE FOR PERMITTING	DATE	EDB	APP	CHK	APPD
REV 1	05/05/23				

PROJECT: ROSEMONT-WILSONVILLE ODOT CROSSING EXHIBIT OPTION 1  
 LOCATION: CLACKAMAS COUNTY, OREGON  
 DRAWING NO: ODOT X-ING 402748464  
 DATE: 05/05/23  
 SCALE: 22 X 34  
 SHEET: 1 OF 1  
 DESIGNED BY: SEN BOWALL (BAV)  
 CHECKED BY: SEN BOWALL (BAV)  
 PROJECT NO: 5528-443-4-02  
 BLACK & VEATCH  
 PORTLAND GENERAL ELECTRIC CO. - ALL RIGHTS RESERVED

PCN 6 / PGE / 501  
 Armstrong / 7  
 22BMA7424



2BM47424

**Work on Shoulder** **Diagram 210**

Diagram 210 covers stationary work with work or parked equipment on the shoulder. This diagram does not cover work on a freeway shoulder. See Diagram 710 for Freeway Shoulder work.

1. Vehicles should be parked as far off the roadway as practical.
2. Use truck-mounted flashing warning lights on work and protection vehicles. See Section 4.3 – Lights and Lighted Signs for exceptions.
3. For added visibility, truck-mounted arrow boards or PCMS in caution mode may be used.
4. Arrow panels in caution mode are recommended for work on roads with posted speeds of 45 mph or greater and high traffic volumes, greater than 2000 average daily traffic (ADT).
5. Requirements for signing and devices are shown in Table 5-2, below.

**Table 5-2: Device and Signage Guidelines**

	Proximity to Edge of Traveled Way	
	More than 15 feet or behind Barrier or Guardrail	Less than 15 feet
<b>Work in Place More than 1 Hour</b>	Advance warning signs, devices, and flashing warning lights are optional.	One advance warning sign is required and two signs are recommended.  Cone taper is required. Cones along the edge of traveled way are optional.
<b>Work in Place Less than 1 Hour</b>	Advance warning signs and devices are optional.	

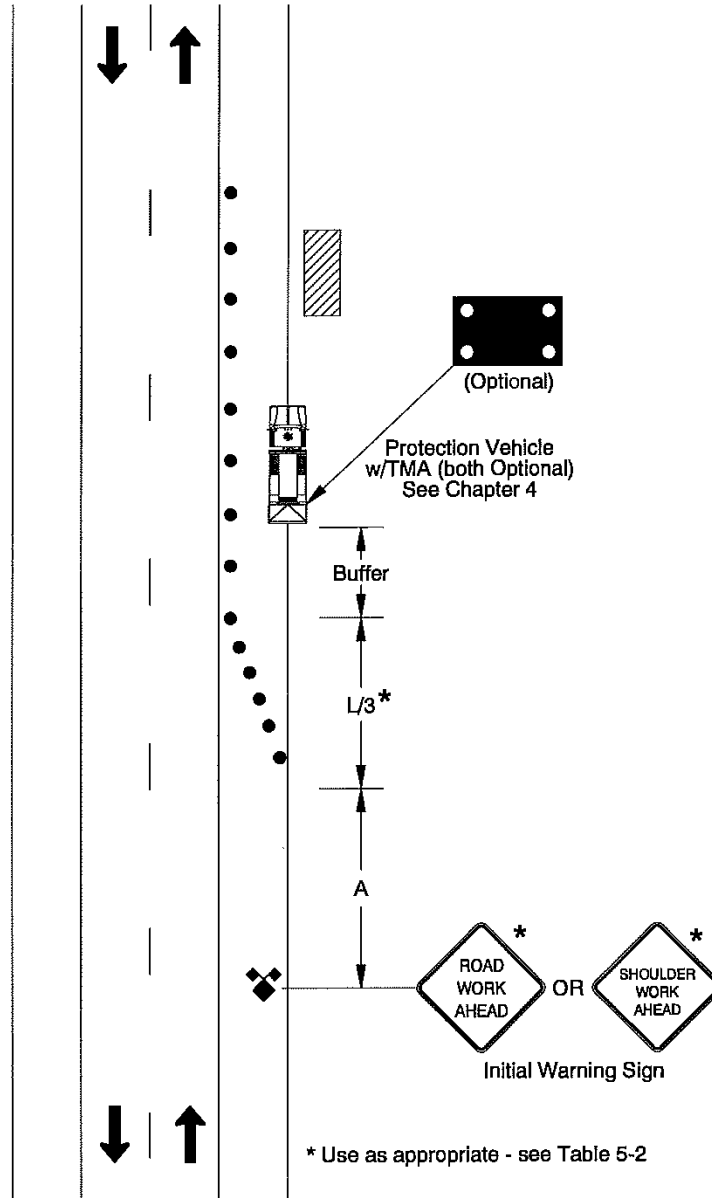
**Sign Spacing and Buffer Lengths (feet)**

Posted Speed	Spacing Between Signs			Buffer Space
	A	B	C	
20	100	100	100	50
25				75
30				100
35	350	350	350	125
40				150
45				180
50	500	500	500	210
55				250

Shoulder Work

2BM47424

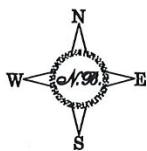
**Work on Shoulder** **Diagram 210**



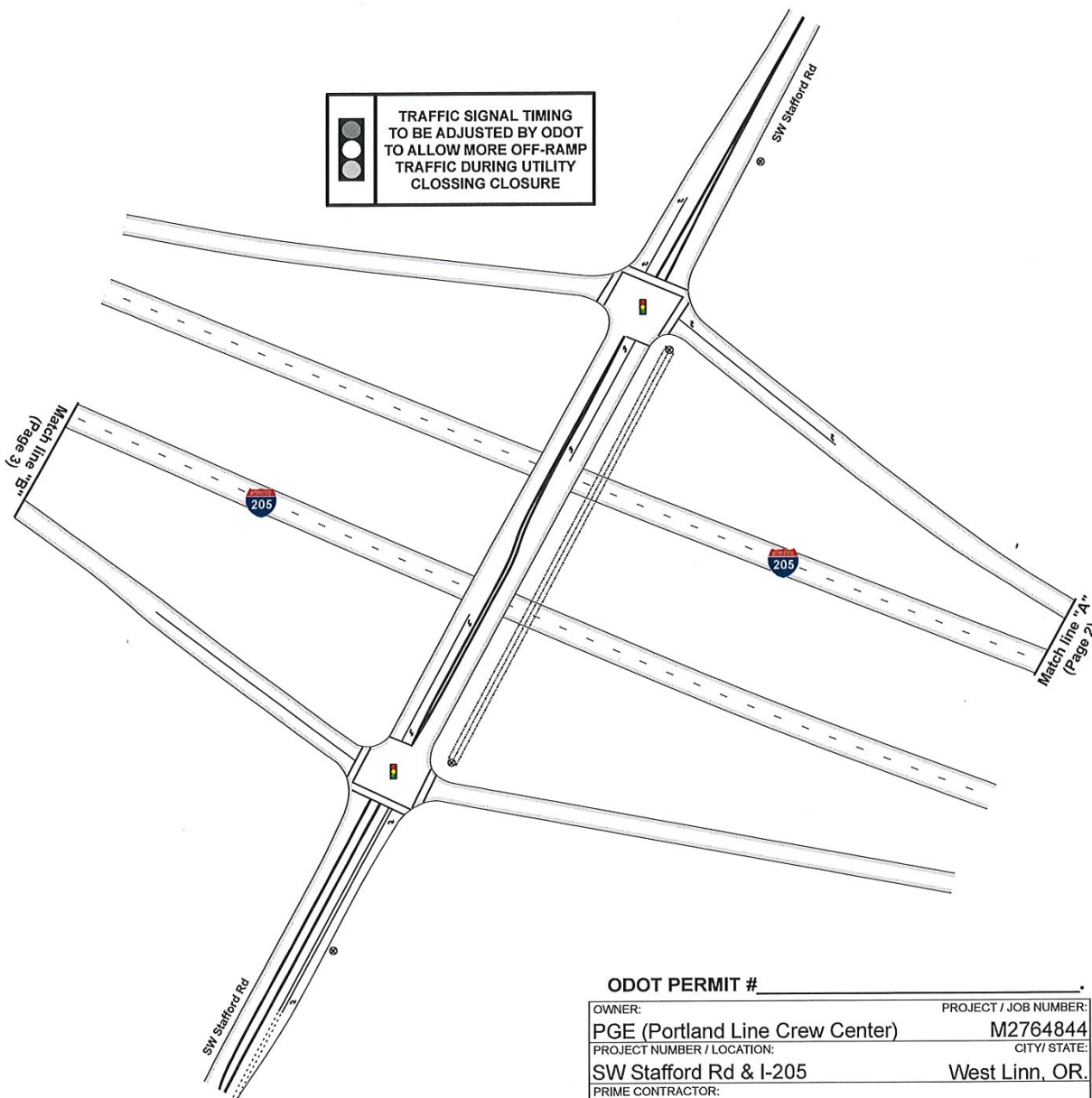
2BM47424



**Northwest Traffic Control**  
 Portland (503) 262-6500  
 Vancouver (360) 604-5655  
 Fax (503) 262-0357  
 Toll Free (800) 783-9733



I-205 Closure  
 (Page #1)



**ODOT PERMIT #**

OWNER:	PGE (Portland Line Crew Center)	PROJECT / JOB NUMBER:	M2764844
PROJECT NUMBER / LOCATION:	SW Stafford Rd & I-205	CITY / STATE:	West Linn, OR.
PRIME CONTRACTOR:	PGE		
CONTACT NAME / NUMBER:	Andrew / 503-915-9441	E-MAIL:	andy.brewer@pgn.com
PREPARED BY:	Nathan Burris 503-262-6500	TRAFFIC CONTROL CONTRACTOR:	Northwest Traffic Control Inc.
OR Cert #	Exp: 11/30/2022	WA Cert #	Exp: 04/30/2025
07634		012780	Nathan@nwtci.com

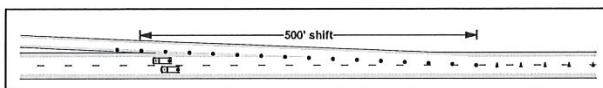
All signs and devices SHALL conform to the MUTCD / OTTCH.  
 Will adjust to fit field conditions.  
 Plan NOT to scale.

FILE DATE: 12/29/2022      EDITED: 05/23/2023

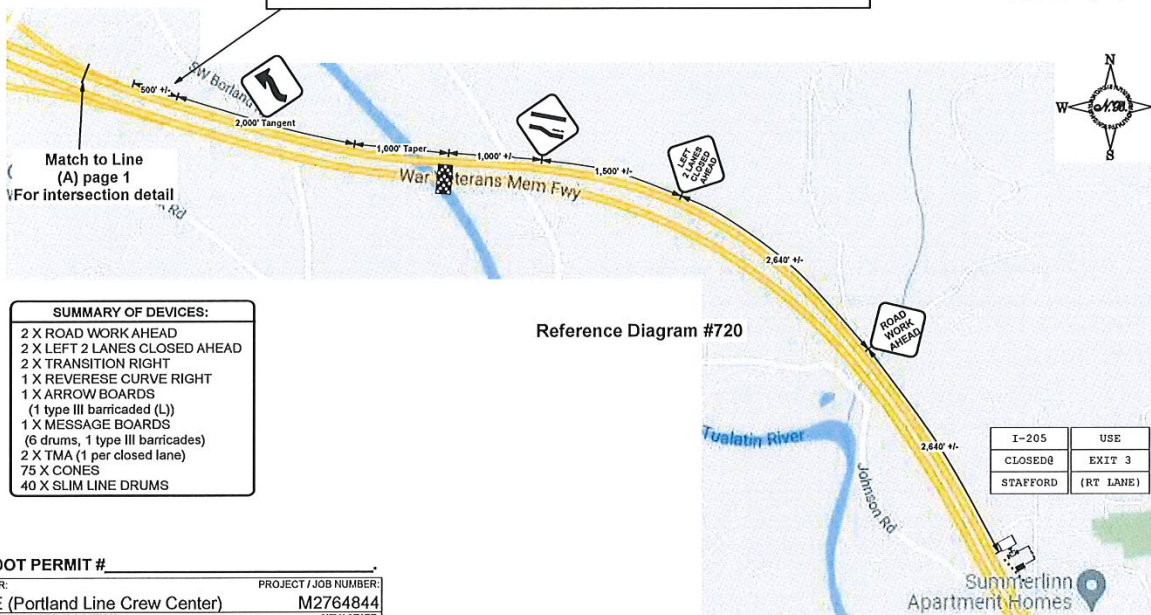
2BM47424

**DEVICE SPACING:**

TAPER: 40' Maximum  
 TANGENT: 40' Maximum



Portland (503) 262-6500  
 Vancouver (360) 604-5655  
 Fax (503) 262-0357  
 Toll Free (800) 783-9733



**SUMMARY OF DEVICES:**

- 2 X ROAD WORK AHEAD
- 2 X LEFT 2 LANES CLOSED AHEAD
- 2 X TRANSITION RIGHT
- 1 X REVERSE CURVE RIGHT
- 1 X ARROW BOARDS
- (1 type III barricaded (L))
- 1 X MESSAGE BOARDS
- (6 drums, 1 type III barricades)
- 2 X TMA (1 per closed lane)
- 75 X CONES
- 40 X SLIM LINE DRUMS

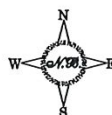
**ODOT PERMIT #**

OWNER:	PROJECT / JOB NUMBER:
PGE (Portland Line Crew Center)	M2764844
PROJECT NUMBER / LOCATION:	CITY / STATE:
SW Stafford Rd & I-205	West Linn, OR.
PRIME CONTRACTOR:	
PGE	
CONTACT NAME / NUMBER:	E-MAIL:
Andrew / 503-915-9441	andy.brewer@pgn.com
PREPARED BY:	TRAFFIC CONTROL CONTRACTOR:
Nathan Burris 503-262-6500	Northwest Traffic Control Inc.
OR Cert # Exp: 11/30/2022 WA Cert # Exp: 04/30/2025	E-MAIL:
07634 012780	Nathan@nwtci.com
FILE DATE: 01/03/2023	EDITED: 05/23/2023

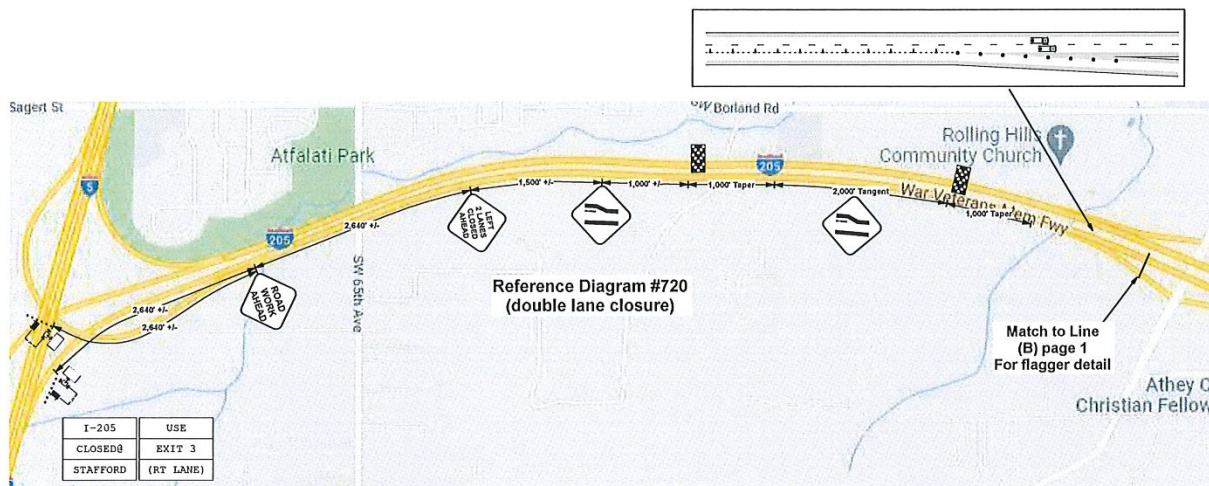
All signs and devices SHALL conform to the MUTCD / OTTCH.  
 Will adjust to fit field conditions.  
 Plan NOT to scale.

2BM47424

**DEVICE SPACING:**  
 TAPER: 40' Maximum  
 TANGENT: 40' Maximum



**Northwest Traffic Control**  
 Portland (503) 262-6500  
 Vancouver (360) 604-5655  
 Fax (503) 262-0357  
 Toll Free (800) 783-9733



I-205	USE
CLOSED	EXIT 3
STAFFORD	(RT LANE)

- SUMMARY OF DEVICES:**
- 2 X ROAD WORK AHEAD
  - 2 X LEFT 2 LANES CLOSED AHEAD
  - 4 X TRANSITION RIGHT
  - 2 X ARROW BOARDS
  - (2 type III barricaded (L))
  - 2 X MESSAGE BOARDS
  - (12 drums, 2 type III barricades)
  - 2 X TMA (1 per closed lane)
  - 100 X CONES
  - 60 X SLIM LINE DRUMS

All signs and devices SHALL conform to the MUTCD / OTTC.  
 Will adjust to fit field conditions.  
 Plan NOT to scale.

**ODOT PERMIT #**

OWNER:	PROJECT / JOB NUMBER:
PGE (Portland Line Crew Center)	M2764844
PROJECT NUMBER / LOCATION:	CITY / STATE:
SW Stafford Rd & I-205	West Linn, OR.
PRIME CONTRACTOR:	
PGE	
CONTACT NAME / NUMBER:	E-MAIL:
Andrew / 503-915-9441	andy.brewer@pgn.com
PREPARED BY:	TRAFFIC CONTROL CONTRACTOR:
Nathan Burris 503-262-6500	Northwest Traffic Control Inc.
OR Cert # Exp: 11/30/2022 WA Cert # Exp: 04/30/2025	E-MAIL:
07634 012780	Nathan@nwtci.com
FILE DATE: 01/04/2023	EDITED: 05/23/2023

# Oregon Department of Transportation 48HR. Work Notice

## District 2B Permit Work Information

Permit #: **2BM47424**

Please return this form via email to address shown at right:  
Or Fax to 503.653.5655

[d2bup@odot.oregon.gov](mailto:d2bup@odot.oregon.gov) (District 2B Permitting)

Applicant Name: \_\_\_\_\_

Received Info From: \_\_\_\_\_

Phone: \_\_\_\_\_

Contractor: \_\_\_\_\_

Contractor Contact: \_\_\_\_\_

Contractor Phone: \_\_\_\_\_

24-Hr Emergency#: \_\_\_\_\_

Highway Name & Route #: \_\_\_\_\_ #: \_\_\_\_\_

Mile points: \_\_\_\_\_ -- \_\_\_\_\_ (On Permit)

Direction of Travel: \_\_\_\_\_

Nature of work being done: \_\_\_\_\_

Is a Traffic Signal shut off required (Yes  / No )?

Signal shut off 72 hour Notice submitted?  Yes  No

Type of traffic control / restriction / lane closures: \_\_\_\_\_

Work Duration (Start/Finish Dates and Work Hours): Dates: Start: \_\_\_\_\_ Finish: \_\_\_\_\_

Hours: Start: \_\_\_\_\_ Finish: \_\_\_\_\_

Will Traffic impacts remain in place after work hours (i.e. steel plates, cones, etc.)?

No?

Yes?  If "yes" please explain: \_\_\_\_\_

**NOTICE:**  
All sections must be completed.  
Forms with incomplete or inaccurate  
information will be returned for correction.  
Strikethrough or "N/A" sections which do not apply.

**PGE/502**

**Washington County Right of Way Permit**



Department of Land Use and Transportation  
 Operations and Maintenance Division  
 1400 SW Walnut Street, MS 51  
 Hillsboro, OR 97123  
 Phone: 503-846-7623 / Fax: 503-846-7620

**Inspection Request Line (IVR)**  
**Codes:** 950 Operations Interim, 951 Operations Final  
**IVR:** 503-846-3699  
**Online:** <http://washcooraca.com>

## Permit 240405

<b>Right-of-Way Utility</b>	<b>Issued</b>
-----------------------------	---------------

**Description:**  
 Stafford Rd - Utility M2764844 - KEM  
 This project is relating to the Rosemont-Wilsonville 115 kV transmission line reconductor, and is associated with the larger Tonquin reliability project. The six poles in question will be replaced and reconducted to support the updated conductor. We will be replacing poles, installing a pole and aerial work. Construction slated to begin 05/2025 and end 12/2025. We will be Replacing 11 poles, installing 1 new pole and aerial work. Repair/Replace/Modify

Street/Road Information	Key Dates
<b>Site Address:</b> 25935 SW STAFFORD RD	<b>Accepted Date:</b> 03/11/2024
<b>Location:</b> Stafford Rd - Utility	<b>Issued Date:</b> 03/14/2024
<b>Nearest Cross Street:</b>	<b>Proposed Start:</b> 05/01/2025
<b>Parcel:</b>	<b>Estimated Completion:</b> 12/31/2025
<b>Subdivision:</b>	<b>Expiration Date:</b> 03/14/2025

<p><b>Applicant:</b> Contractor Coordination                  10800 SW Avery st                  Tualatin OR 97062                  5037365515                  Contractorcoord@pgn.com</p>	<p><b>Contractor:</b> Henkels &amp; McCoy West, LLC                  2840 FISCUS STREET                  Pomona CA 91766</p>
---	--

**Special Conditions**

1. Please call the inspection request line for start work, sidewalk and curb form inspection, and any other questions you might have regarding this permit. If work is interrupted and restarted call the inspection request line for start.
2. The authorized lane restrictions under this permit are from 9:00AM to 3:30PM.
3. Any damage to the asphalt road surface is to be repaired with an approved asphaltic material. If steel plates are needed, please apply for a steel plate permit at washcooraca.com.
4. This permit is for Washington County Right-of-Way only, other permits may be required.
5. No cuts in roadway without prior approval.
6. Traffic control must address bike lane if affected.
7. Traffic control must be adjusted to meet conditions in field.
8. ALL VEHICLES, MATERIALS, AND EQUIPMENT MUST BE REMOVED FROM RIGHT OF WAY AT END OF EACH DAY
9. Pole (s) must be a minimum of 2' from F.O.C / EOP
10. Pole (s) must be a minimum of 6" from edge of sidewalk



11. Sidewalks must maintain 5' in width
12. Bonding straps to steel poles shall not be placed sidewalk side of pole
13. New Pole (S) cannot be closer to edge of road than existing

**Important Notice**

- A) This permit is only valid when issued with the approved plans, the attached General Conditions, the above Special Conditions, and any other specified attachments or requirements.
- B) Additional fees may be required if there is a substantial change in the scope of work requiring further review by Washington County or if more than three site visits are needed for inspection purposes.
- C) If this permit expires without an approved final inspection or if the requirements of this permit have not been met to the satisfaction of Washington County, a notice may be placed in the property record related to the permit status which could delay the issuance or closure of other permits.
- D) Failure to comply with the terms and conditions of this permit may result in a code violation citation or other legal action necessary to enforce the terms of the permit.



**GENERAL CONDITIONS**  
**For Permits To Work in Washington County Right-of-Way**

1. Comply with these General Conditions unless otherwise allowed, in writing, or modified by the Special Conditions or Special Provisions contained within this permit.
2. This permit does not authorize any activity on privately owned property or public rights-of-way not under the control and jurisdiction of Washington County.
3. Failure to comply with any term or condition of this permit shall be cause for the County to revoke, annul, terminate, suspend, revise or amend this permit or issue code violation citation or take any legal action necessary to correct the violation. All costs associated with work stoppage or revocation as provided herein are the responsibility of the Permittee.
4. Follow the direction of Washington County if actual site conditions warrant the need to modify any previously approved construction, traffic control, or erosion control plan. Washington County reserves the right to make changes to the permit and approved supplementary documents including any and all plans at any given time. If submitted plans were prepared by an engineer, submit as built plans to Washington County at project completion.
5. Obtain County approval prior to modifying the scope of the permitted work.
6. Communicate and coordinate, as needed, with adjacent residents, businesses, and other service providers (i.e. utilities, transit providers, garbage haulers, etc.) that may be impacted by the work associated with this permit.
7. Comply with all applicable city, county, state and federal laws and regulations associated with the performance of the work authorized by this permit. Laws and regulations listed in these General Conditions or the Special Provisions are for courtesy purposes only. These listings are not intended to be comprehensive. It is the responsibility of the Permittee and those performing the work to be knowledgeable about all applicable laws and regulations.
8. Washington County has the authority to designate the location where lines, fixtures and facilities may be located, and subject to ORS 758.025 may order the location of any such line, fixture or facility to be changed when deemed expedient by the County. Any line, fixture or facility erected or remaining in a different location upon such road than that designated in any order of the County is a public nuisance and may be abated accordingly.
9. Obtain any other permits, licenses, or authorizations required by other utilities, public agencies, or organizations for performing work authorized under this permit.
10. ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0100. You may obtain copies of the rules by calling the center. The telephone number for the Oregon Utility Notification Center is (503) 232-1987, (800) 332-2344, or 811. You can also visit [www.digsafelyoregon.com](http://www.digsafelyoregon.com) for more information. The Oregon Utility Notification Center One Call locates telephone number in the greater Portland Metropolitan area is (503) 246-6699.
11. Permittee shall contact the County, using one of the *Contact Options* below, at least one (1) business day prior to the following milestones:
  - a) Start of construction – For notification purposes only. Formal inspection not required to commence construction. Indicate that inspection request is for start of construction.
  - b) Concrete form inspection – Concrete shall not be placed until forms have passed formal inspection.
  - c) Pre-paving inspection – Paving shall not be performed until site has passed formal inspection.
  - d) A break in construction greater than three (3) days (excluding holidays and weekend) – For notification purposes only.
  - e) Completion of construction – Use "Final" inspection code to request inspection after all permitted work is complete.

**Contact Options:**

- 1) Phone: (503) 846-3699
- 2) Online: <http://washcooraca.com>

Be prepared to have your permit number and inspection code available for entry into the automated system(s).

12. Thirty (30) days prior to the expiration of the permit the Permittee shall contact the County at 503-846-7623 and provide an update and status of the permitted work, if the work has not been completed. If the work will not be completed prior to permit expiration, the Permittee shall request an extension for the permit or risk having to re-apply for a new permit with new fees and requirements associated with the work.
13. Construct the permitted activity with materials, equipment, labor, and workmanship to meet or exceed the relevant specifications established in the Washington County *Road Design and Construction Standards* (Ordinance #738 as adopted January 27, 2011), the 2018 Oregon Standard Specifications for Construction, and any special conditions or provisions established by this permit. Ensure quality control is maintained for all work performed and correct any work that does not meet the minimum standards and specifications.



**GENERAL CONDITIONS**  
**For Permits To Work in Washington County Right-of-Way**

14. Establish and maintain work zone traffic control in compliance with the *Oregon Temporary Traffic Control Handbook for Operations of Three Days or Less* (December 2011) any time vehicle or pedestrian traffic is influenced by the work. For work requiring devices in place longer than three (3) days, a site specific traffic control plan based on the principles in Part 6 of the MUTCD, the Oregon Supplement and ODOT's 2015 Standard Drawings TM800 – TM871, is required. All traffic control devices shall meet or exceed the NCHRP 350 requirements for crashworthiness. Completed signal shut down requests must be received by the County a minimum of 3 working days prior to any proposed signal shut down.
15. Accommodate all road users at all times including motorists, bicyclists, pedestrians, and those with disabilities or impairments. Install and maintain additional temporary signing and traffic control devices for the control of non-motorized vehicles and pedestrians where a reasonable volume of these users are expected and where work is expected to last longer than one hour. Maintain safe accessibility or provide suitable alternate routes in, through, or around work areas.
16. Limit work & activity (construction, restoration, erosion control, etc) to no more than 1,000 lineal feet at any one time.
17. Impact no more than one consecutive intersection at a time.
18. Do not store or park any equipment, vehicles, or materials in the right-of-way overnight unless approved by Washington County.
19. Utilize construction materials and methods to maintain at least one travel lane at all times. Adjust work zone to ensure no vehicles are stopped, held or restricted for more than fifteen (15) minutes. Lane restrictions may be allowed in accordance with an approved traffic control plan and according to the following table:

Functional Classification	Monday – Friday (weekend work requires prior approval) No lane restriction allowed during the times below		Weekday preceding a holiday Latest End Time
	AM	PM	
Arterial	6:30 – 9:00	3:30 – 6:30	12:00 p.m.
Collector/Neighborhood Route	7:00 – 8:30	4:00 – 6:00	
Local	7:00 – 8:00	5:00 – 6:00	

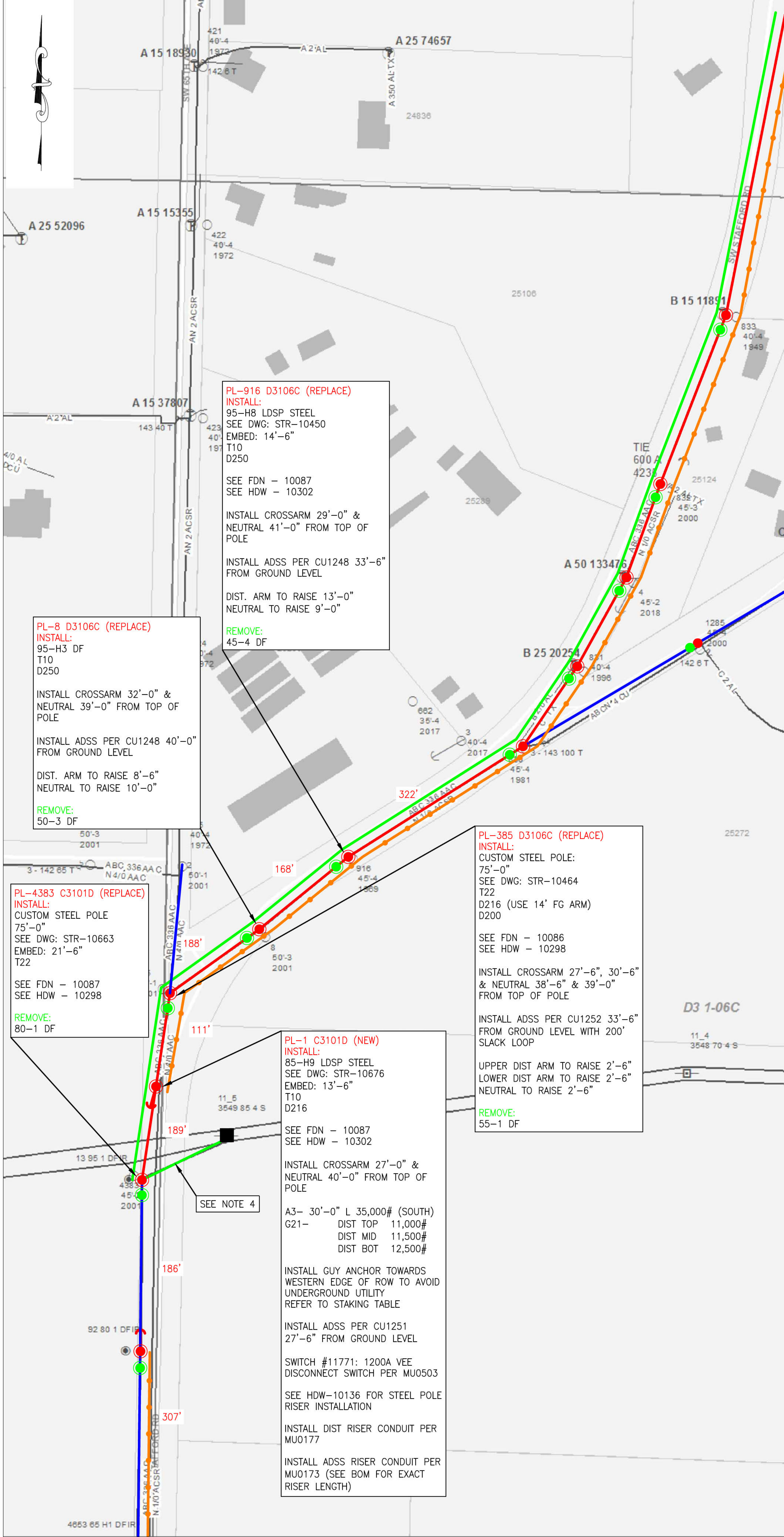
**Night work is allowed if a noise variance is obtained per general condition 28**

20. Suspend work on the following holidays: **New Year's Day** (Jan 1), **Martin Luther King Day** (3rd Mon in Jan), **President's Day** (3rd Mon in Feb), **Memorial Day** (last Monday in May), **Independence Day** (Jul 4), **Juneteenth Day** (June 19th), **Labor Day** (1st Monday in Sept), **Veteran's Day** (Nov 11) **Thanksgiving** (4th Thursday & 4th Friday in Nov), **Christmas Day** (Dec 25).  
 When a holiday falls on a Saturday, the observed holiday is the preceding Friday.  
 When a holiday falls on a Sunday, the observed holiday is the following Monday.
21. Comply with Washington County's *Best Management Practices for Routine Road Maintenance* (December 2010) as well as Clean Water Services' *Erosion Prevention and Sediment Control Standards* and the appropriate best management practices outlined in Clean Water Services' *Design and Construction Standards*.  
  
 Ensure all equipment is clean and leak free with sufficient and appropriate spill prevention and clean up materials on site and the personnel involved with the permitted activity are familiar with and proficient in the use of these materials. When not being actively used for the permitted activity, remove construction equipment from the right-of-way. Do not park, re-fuel, or service equipment or store hazardous materials directly over or uphill from catch basins, drainage inlets, or manholes or within 150 feet of any wetland, waterway, or resource water. When reasonably available, re-fuel over an impervious surface and use absorbent pads to collect spilled fuel.  
  
 Install and maintain appropriate erosion and sediment control devices, in accordance with an approved Erosion and Sediment Control Plan (ESCP) to ensure that all catch basins, drainage inlets, manholes, wetlands, waterways, and resource waters are sufficiently protected from erosion and sediment. In the absence of a formal ESCP, comply with Clean Water Services' *Erosion Prevention and Sediment Control Standards*.
22. Preserve and protect all public and private infrastructure ensuring that these facilities continue to properly function during the course of the permitted activity, including, but not limited to, underground storm drainage systems, open drainage systems, culverts, roof drains, field inlets and drains, irrigation systems, traffic control devices, and illumination.
23. Restore all existing public infrastructure, affected by the permit activity, to original or better condition. Restoration includes, but is not limited to, the road surface, base and subgrade, pavement markings, drainage facilities, signs, safety appurtenances, bicycle and pedestrian facilities, vegetation or landscaping and any other feature affected by the activity. Restoration of the right-of-way shall be completed in a timely manner and to the County's satisfaction.
24. Re-establish surfaces to their pre-existing grade at the end of each work day. For Asphaltic surfaces or Portland cement concrete, interim re-establishment shall be with either hot mix or cold mix asphaltic concrete and shall be in place for no longer than fourteen (14) calendar days. Beyond fourteen (14) calendar days, permanent right-of-way restoration shall be used unless



**GENERAL CONDITIONS**  
**For Permits To Work in Washington County Right-of-Way**

25. Installation of underground utilities or any other buried appurtenance shall be at least thirty (30) inches below grade. All mechanically extracted, cylindrical cores, up to 8" diameter, taken from the paved section of roadway shall be restored according to the County's "Core Hole" Detail.
26. Concrete panels shall not be cut without express written permission from Washington County. If concrete panels, curbs, sidewalks or driveways are disturbed or damaged, replacement of full panels, to the nearest cold joint, shall be required. Prior to pouring concrete. Permittee shall submit concrete mix design for review and approval by Washington County and arrange for a form inspection.
27. Preserve and protect survey monuments, public land corners and any accessory associated with these features. If interference, removal, or destruction is necessary, comply with ORS 209.140 through ORS 209.155. Additionally, utility infrastructure may not be placed within one foot of a survey monument location noted on a subdivision or partition plat, in accordance with ORS 92.044. The Washington County Surveyor can be reached at (503) 846-8723.
28. Comply with Washington County's Noise Control Ordinance established in Chapter 8.24 of the County's *Code of Ordinances*. Acquire a variance to the noise ordinance, when needed.
29. Interaction with the County, other agencies, service providers and the public shall be in a professional, courteous and timely manner.
30. Maintain a complete set of the permit, approved plans, traffic control plans, erosion control plans, and any conditions or special provisions at the job site and have them available for review, upon request.
31. Grant the County immediate access to the permitted work area. The Permittee shall appoint and assign a foreman or competent person that shall be available as the County's point of contact while work is being performed. If this foreman or competent person is unavailable while work is being performed, the Permittee shall provide the County with an alternate. The County reserves the right to enter the work area covered under this permit for any reason.
32. Permits are valid for one year from date of issuance and all work must be completed in that time period. Expired permits, without an approved final inspection, may have a notice placed in their property record related to the permit status.
33. If the requirements for this permit have not been met, there may be a denial or delay with the issuance of other permits.
34. Guarantee all permitted work for a minimum of one year from date of completion. County may require a cash deposit during the guarantee period depending on the type of work. In the event that the Permittee fails to perform warranty work in a timely manner to the satisfaction of Washington County, the deficient work may be corrected, mitigated, or abated by the County. Permittee shall be responsible for all expenses associated with work done by the County to correct, mitigate, or abate a deficiency.
35. Additional fees may be required if there is a substantial change in the scope of work which requires further review by Washington County or if more than three site visits are needed for inspection purposes. Additional inspection fees will be charged in accordance with the adopted fee schedule.
36. Include the permit number in all written and verbal correspondence with the County.
37. Comply with the Right-of-Way Permit Insurance Requirements (i.e. Tier 1, Tier 2, or Tier 3) determined for this permit.
38. Utility owned assets placed in the right-of-way shall be kept clear of vegetation by the utility owner in such a manner that the asset is clearly visible year around. This does not apply to aerial or subsurface assets.



**OVERHEAD LEGEND:**

- INSTALL FACILITIES
- REMOVE FACILITIES
- TRANSFER / MODIFY FACILITIES

**POLES:**

- HT-CL — POLE CLASS (1, 2, 3, 4, H1, H2, S)
- POLE HEIGHT (FEET)

**ANCHORS:**

A (LEAD) (LBS)	10" SGL HELIX	10" TRIPLE HELIX	14" SGL H/T	10" EXPANDING	28" PLATE
ANCHOR CODE	A1	A3	A5	A7	A8

**GUYING:**

G (POS.-LBS.)	5/8" O.H.	3/8" O.H.	7/8" O.H.	1/2" O.H.	3/8" D.G.	7/8" D.G.	1/2" D.G.
1 GUY	G1	G4	G7	G10	G16	G19	G22
2 GUYS	G2	G5	G8	G11	G17	G20	G23
3 GUYS	G3	G6	G9	G12	G18	G21	G24

**FRAMING: TRANSMISSION & DISTRIBUTION (SEE COMMENTS BELOW)**

- T10** — FRAME TRANSMISSION — STD LC10754 APS FRAMING POLY INSULATORS WMS MU 1013
- T22** — FRAME TRANSMISSION — STD LC10755 DVS FRAMING WITH POLYMER INSULATORS WMS MU 1016
- D216** — FRAME DISTRIBUTION — LC10722 WMS MU 0216, (3PH 10FT UNDERBUILD SGL. DE. FIBERGLASS)
- D200** — FRAME DISTRIBUTION — LC10727, WMS MU 0200 (3PH 10FT UNDERBUILD SGL. FIBERGLASS, TANG, POST)
- D250** — FRAME DISTRIBUTION — LC10711, MU 0250 (3PH 8FT FG, ALLEY, TANG)
- CU1248** — FRAME COMMUNICATION — ADSS FIBER OPTIC CABLE — LC11410; ANGLE SUSPENSION UNIT
- CU1251** — FRAME COMMUNICATION — ADSS FIBER OPTIC CABLE — LC11410; SINGLE DEAD END
- CU1252** — FRAME COMMUNICATION — ADSS FIBER OPTIC CABLE — LC11410; DOUBLE DEAD END
- MU0177** — DUCT ASSEMBLY — LC20010; 4"X50' ABOVEGROUND DUCT RISER ASSEMBLY
- MU0173** — DUCT ASSEMBLY — LC20010; 4"X30' ABOVEGROUND DUCT RISER ASSEMBLY

**NOTES:**

- IT IS ASSUMED THE UNDERGROUND SERVICE DROPS ARE DIRECT BURIED CABLE. THERE IS A POSSIBILITY OF CABLE REPLACEMENT, OR AN IN GROUND SPLICE WILL NEED TO BE INSTALLED. THESE ISSUES WILL BE DEALT WITH ON A CASE BY CASE BASIS ON THE RECOMMENDATION OF PGE ENGINEERING.
- THE FIRST STRUCTURE ADJACENT TO THE MAINLINE ON ALL OVERHEAD TAPS MAY REQUIRE ADDITIONAL WORK. THESE ISSUES WILL BE DEALT WITH ON A CASE BY CASE BASIS ON THE RECOMMENDATION OF PGE ENGINEERING.
- CONTRACTOR SHALL PERFORM FULL UTILITY LOCATES PRIOR TO ANY EXCAVATION WORK, IN ACCORDANCE TO OREGON STATUTE.
- CONTRACTOR TO REMOVE SPAN FROM PL-4383 TO LATTICE TOWER 11\_5.

**ADA NOTES:**

- A THRU-WAY CLEARANCE OF 48.0" IS TO BE MAINTAINED WITHIN SIDEWALKS FOR ALL NEW/REPLACEMENT POLES. IF 48.0" IS NOT OBTAINABLE THE SIDEWALK MUST BE EXTENDED TO ABIDE ALL ADA REGULATIONS.
- WHEN REPLACING AND INSTALLING STRUCTURES WITHIN A PEDESTRIAN SIDEWALK RAMP, THE RAMP MUST BE REPLACED/REPAIRED AND ABIDE BY ALL ADA REGULATIONS.
- WHEN REPLACING AND INSTALLING STRUCTURES WITHIN A PEDESTRIAN DRIVEWAY, THE DRIVEWAY MUST BE REPLACED/REPAIRED AND ABIDE BY ALL ADA REGULATIONS.
- WHEN REPLACING AND INSTALLING STRUCTURES CONTAINING A CONDUIT RISER, THE CONDUIT MUST BE REPLACED/RECONFIGURED AND ABIDE BY ALL ADA REGULATIONS.

**PL-916 D3106C (REPLACE)**  
**INSTALL:**  
 95-H8 LDSP STEEL  
 SEE DWG: STR-10450  
 EMBED: 14'-6"  
 T10  
 D250  
  
 SEE FDN — 10087  
 SEE HDW — 10302  
  
 INSTALL CROSSARM 29'-0" &  
 NEUTRAL 41'-0" FROM TOP OF  
 POLE  
  
 INSTALL ADSS PER CU1248 33'-6"  
 FROM GROUND LEVEL  
  
 DIST. ARM TO RAISE 13'-0"  
 NEUTRAL TO RAISE 9'-0"  
  
**REMOVE:**  
 45-4 DF

**PL-8 D3106C (REPLACE)**  
**INSTALL:**  
 95-H3 DF  
 T10  
 D250  
  
 INSTALL CROSSARM 32'-0" &  
 NEUTRAL 39'-0" FROM TOP OF  
 POLE  
  
 INSTALL ADSS PER CU1248 40'-0"  
 FROM GROUND LEVEL  
  
 DIST. ARM TO RAISE 8'-6"  
 NEUTRAL TO RAISE 10'-0"  
  
**REMOVE:**  
 50-3 DF

**PL-385 D3106C (REPLACE)**  
**INSTALL:**  
 CUSTOM STEEL POLE:  
 75'-0"  
 SEE DWG: STR-10464  
 T22  
 D216 (USE 14' FG ARM)  
 D200  
  
 SEE FDN — 10086  
 SEE HDW — 10298  
  
 INSTALL CROSSARM 27'-6" &  
 NEUTRAL 38'-6" & 39'-0"  
 FROM TOP OF POLE  
  
 INSTALL ADSS PER CU1252 33'-6"  
 FROM GROUND LEVEL WITH 200'  
 SLACK LOOP  
  
 UPPER DIST ARM TO RAISE 2'-6"  
 LOWER DIST ARM TO RAISE 2'-6"  
 NEUTRAL TO RAISE 2'-6"  
  
**REMOVE:**  
 55-1 DF

**PL-1 C3101D (NEW)**  
**INSTALL:**  
 85-H9 LDSP STEEL  
 SEE DWG: STR-10676  
 EMBED: 13'-6"  
 T10  
 D216  
  
 SEE FDN — 10087  
 SEE HDW — 10302  
  
 INSTALL CROSSARM 27'-0" &  
 NEUTRAL 40'-0" FROM TOP OF  
 POLE  
  
 A3- 30'-0" L 35,000# (SOUTH)  
 G21- DIST TOP 11,000#  
 DIST MID 11,500#  
 DIST BOT 12,500#  
  
 INSTALL GUY ANCHOR TOWARDS  
 WESTERN EDGE OF ROW TO AVOID  
 UNDERGROUND UTILITY  
 REFER TO STAKING TABLE  
  
 INSTALL ADSS PER CU1251  
 27'-6" FROM GROUND LEVEL  
  
 SWITCH #11771: 1200A VEE  
 DISCONNECT SWITCH PER MU0503  
  
 SEE HDW-10136 FOR STEEL POLE  
 RISER INSTALLATION  
  
 INSTALL DIST RISER CONDUIT PER  
 MU0177  
  
 INSTALL ADSS RISER CONDUIT PER  
 MU0173 (SEE BOM FOR EXACT  
 RISER LENGTH)

**PL-4383 C3101D (REPLACE)**  
**INSTALL:**  
 CUSTOM STEEL POLE  
 75'-0"  
 SEE DWG: STR-10663  
 EMBED: 21'-6"  
 T22  
  
 SEE FDN — 10087  
 SEE HDW — 10298  
  
**REMOVE:**  
 80-1 DF

**CONDUCTORS:**

- INSTALL 795 KCMIL ACSS "DRAKE" (TRANSMISSION)
- INSTALL 795 KCMIL AAC "ARBUTUS" (DISTRIBUTION)
- INSTALL 4/0 AAC "OXLIP" (NEUTRAL)
- INSTALL OFS-AT-3BE17DT-144-TPDE ACSS FIBER OPTIC CABLE (COMMUNICATION)
- TRANSFER DISTRIBUTION & NEUTRAL CONDUCTOR (VARIOUS SIZES)
- REMOVE 795 KCMIL AAC "ARBUTUS" (TRANSMISSION)
- REMOVE 336.4 KCMIL AAC "TULIP" (DISTRIBUTION)
- REMOVE 1/0 ACSR "RAVEN" (NEUTRAL)

**CALL 811 BEFORE YOU DIG**  
 ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0050. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE OREGON UTILITY NOTIFICATION CENTER ADMINISTRATION @ (503-232-1987).  
 TO REQUEST UTILITY LOCATES CALL THE OREGON UTILITY NOTIFICATION CENTER, 811 AT LEAST 2 BUSINESS DAYS PRIOR TO EXCAVATION.

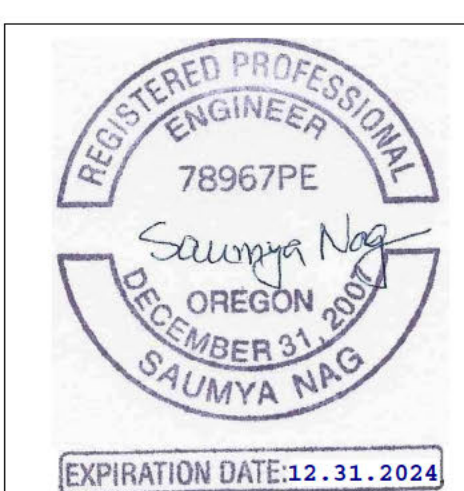


ANY DEVIATION FROM THIS DESIGN MUST BE APPROVED BY PGE PROJECT MANAGER

NO.	DATE	REVISION AND RECORD OF ISSUE	LSH	EKB	SN
2	06/16/23	UPDATED FRAMING	LSH	EKB	SN
1	05/05/23	UPDATED STRUCTURE COMMENTS	LSH	EKB	SN
0	04/04/23	ISSUE FOR CONSTRUCTION	LSH	EKB	SN



**P1**



PGE CONSTRUCTION DRAWING  
**AS-BUILT VERIFICATION & NESC VIOLATIONS CORRECTED**  
 This document accurately represents FIELD Construction.  
 Foreman: \_\_\_\_\_ Date: \_\_\_\_\_  
 General Foreman: \_\_\_\_\_ Date: \_\_\_\_\_  
 (Signature only required for field construction changes.)  
 SDPM/ENG REVIEW: \_\_\_\_\_ ASBUILT BY DESIGNER: \_\_\_\_\_  
 DATE: 04/04/23 SCALE: NTS ACCOUNT: N/A AWO: 1000010702 JOB NO: M2764844  
 TITLE: OVERHEAD JOB SKETCH DRAWING NO: EXH-10242  
 PROJECT: ROSEMONT-WILSONVILLE 115 KV TRANSMISSION LINE SIZE: 22X34  
 LOCATION: VARIES  
 DESCRIPTION: 115 KV TRANSMISSION LINE WITH 12.5 KV UNDERBUILD JOB SKETCH  
 COUNTY: CLACKAMAS SECTION(S): VARIES WORK WITH SHEET: M2764844 21 OF 31  
 DESIGN BY: ERIN BONSAALL PHONE: (503)443-4482 BLACK & VEATCH DRAWN BY: M2764844  
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**PL-92 C3101D (REPLACE)**  
**INSTALL:**  
 80-H3 DF  
 T5  
 D216  
 INSTALL CROSSARM 26'-0" &  
 29'-0" NEUTRAL AT 37'-6" FROM  
 TOP OF POLE  
 A3- 35'-0" L 36,000# (NORTH)  
 G24- DIST 17,000#  
 NEUT 10,500#  
 COMM 8,500#  
 INSTALL ADSS PER CU1251 29'-0"  
 FROM GROUND LEVEL  
 DIST. ARM TO RAISE 11'-6"  
 NEUTRAL TO RAISE 3'-6"  
 SWITCH #11742: 900A GANG  
 OPERATED SWITCH PER CU248  
 INSTALL DIST RISER CONDUIT PER  
 MU0153  
 INSTALL ADSS RISER CONDUIT PER  
 MU0149  
**REMOVE:**  
 80-H1 DF

**PL-2352 C3101D (REPLACE)**  
**INSTALL:**  
 85-H7 LDSP STEEL  
 SEE DWG: STR-10674  
 EMBED: 18'-0"  
 T5  
 D8  
 D200  
 SEE FDN-10087  
 SEE HDW-10302  
 INSTALL CROSSARM 20'-0" &  
 NEUTRAL 28'-6", 30'-0, 30'-6"  
 FROM TOP OF POLE  
 INSTALL ADSS PER CU1252 33'-0"  
 FROM GROUND LEVEL  
 DIST. ARM TO RAISE 12'-6"  
 NEUTRAL TO RAISE 10'-6"  
 TRANSFORMER: A 25  
**REMOVE:**  
 40-4 DF  
 TRANSFORMER: A 15 66857

**PL-2462 C3112A (REPLACE)**  
**INSTALL:**  
 85-H7 LDSP STEEL  
 SEE DWG: STR-10455  
 EMBED: 17'-6"  
 T5  
 D200  
 D8  
 SEE FDN-10087  
 SEE HDW-10302  
 INSTALL CROSSARM 19'-0" &  
 NEUTRAL 28'-6", 29'-0" FROM  
 TOP OF POLE  
 INSTALL ADSS PER CU1248 34'-0"  
 FROM GROUND LEVEL  
 DIST. ARM TO RAISE 11'-0"  
 NEUTRAL TO RAISE 9'-6"  
 SEE HDW-10136 FOR STEEL POLE  
 RISER INSTALLATION  
 DIST. RISER CONDUIT PER MU0177  
 (SEE BOM FOR EXACT RISER  
 LENGTH)  
 FUSE: 142 65 T WITH LIGHTNING  
 ARRESTER  
**REMOVE:**  
 65-H1 DF  
 FUSE: 142 65 T

**PL-2355 C3112A (REPLACE)**  
**INSTALL:**  
 85-H5 LDSP STEEL  
 SEE DWG: STR-10656  
 EMBED: 13'-6"  
 T22  
 D218  
 SEE FDN-10087  
 SEE HDW-10298  
 INSTALL CROSSARM 32'-0" &  
 NEUTRAL 41'-0" FROM TOP OF POLE  
 A1- 15'-0" L 14,000# (SOUTHWEST)  
 G21- TOP 4,000#  
 MID 4,500#  
 BOT 5,500#  
 A1- 15'-0" L 12,000# (NORTHWEST)  
 G21- TOP 4,000#  
 MID 4,000#  
 BOT 4,000#  
 INSTALL ADSS PER CU1248 27'-0"  
 FROM GROUND LEVEL  
 DIST. ARM TO RAISE 6'-6"  
 NEUTRAL TO RAISE 5'-6"  
**REMOVE:**  
 65-1 DF

**PL-4653 C3101D (REPLACE)**  
**INSTALL:**  
 90-H8 LDSP STEEL  
 SEE DWG: STR-10662  
 EMBED: 18'-0"  
 T5  
 D200  
 SEE FDN-10087  
 SEE HDW-10302  
 INSTALL CROSSARM 20'-0" &  
 NEUTRAL 29'-6" FROM TOP OF  
 POLE  
 INSTALL ADSS PER CU1248 38'-0"  
 FROM GROUND LEVEL  
 DIST. ARM TO RAISE 17'-6"  
 NEUTRAL TO RAISE 16'-0"  
**REMOVE:**  
 65-H1 DF

**PL-4546 C3112A (REPLACE)**  
**INSTALL:**  
 90-H11 LDSP STEEL  
 SEE DWG: STR-10685  
 EMBED: 18'-6"  
 T5  
 D58  
 D211  
 INSTALL CROSSARM 20'-0", 23'-0"  
 & NEUTRAL 29'-6", 30'-0" FROM  
 TOP OF POLE  
 INSTALL ADSS PER CU1248 37'-6"  
 FROM GROUND LEVEL  
 UPPER DIST. ARM TO RAISE 12'-6"  
 LOWER DIST. ARM TO RAISE 11'-6"  
 NEUTRAL TO RAISE 12'-0"  
 DIST. RISER CONDUIT PER MU0153  
 TRANSFORMER: C 25  
 FUSE: (2) 142 65 T WITH  
 LIGHTNING ARRESTER  
**REMOVE:**  
 50-4 DF  
 TRANSFORMER: C 15 55428  
 FUSE: (2) 142 65 T

**PL-2354 C3112A (REPLACE)**  
**INSTALL:**  
 75-H3 DF  
 T5  
 D45  
 INSTALL CROSSARM 19'-0" &  
 NEUTRAL 27'-6" FROM TOP OF  
 POLE  
 INSTALL ADSS PER CU1248 34'-6"  
 FROM GROUND LEVEL  
 DIST. ARM TO RAISE 7'-0"  
 NEUTRAL TO RAISE 5'-0"  
 DIST. RISER CONDUIT PER MU0153  
 FUSE: 142 6 T WITH LIGHTNING  
 ARRESTER  
**REMOVE:**  
 65-H1 DF  
 FUSE: 143 6 T

**OVERHEAD LEGEND:**

- INSTALL FACILITIES
- REMOVE FACILITIES
- TRANSFER / MODIFY FACILITIES

**POLES:**

- HT-CL — POLE CLASS (1, 2, 3, 4, H1, H2, S)
- POLE HEIGHT (FEET)

**ANCHORS:**

A (LEAD) (LBS)	10" SGL HELIX	10" TRIPLE HELIX	14" SGL H/T	10" EXPANDING	28" PLATE
ANCHOR CODE	A1	A3	A5	A7	A8

**GUYING:**

G (POS.-LBS.)	5/8" O.H.	3/8" O.H.	7/16" O.H.	1/2" O.H.	3/8" D.G.	7/16" D.G.	1/2" D.G.
1 GUY	G1	G4	G7	G10	G16	G19	G22
2 GUYS	G2	G5	G8	G11	G17	G20	G23
3 GUYS	G3	G6	G9	G12	G18	G21	G24

**FRAMING: TRANSMISSION & DISTRIBUTION (SEE COMMENTS BELOW)**

- T5** — FRAME TRANSMISSION — STD LC10754 THS  
FRAMING POLY INSULATOR WMS MU 1013
- T22** — FRAME TRANSMISSION — STD LC10755 DVS FRAMING POLY  
INSULATORS WMS MU 1016
- D8** — FRAME DISTRIBUTION — LC10710, WMS MU 0008, (1 PH SGL  
DE, POLY.)
- D45** — FRAMING DISTRIBUTION — LC10727, WMS MU 0045  
(3PH 8FT UNDERBUILD SGL HVY, TANG, POST)
- D58** — FRAME DISTRIBUTION — LC10727, MU 0058  
(3PH 10FT UNDERBUILD SGL LT, TANG, POST)
- D200** — FRAME DISTRIBUTION — LC10727, WMS MU 0200  
(3PH 10FT UNDERBUILD SGL. FIBERGLASS, TANG, POST)
- D211** — FRAME DISTRIBUTION — LC10721, MU 0211  
(2PH 8FT UNDERBUILD SGL DE FIBERGLASS)
- D216** — FRAME DISTRIBUTION — LC10722 WMS MU 0216,  
(3PH 10FT UNDERBUILD SGL. DE. FIBERGLASS)
- D218** — FRAME DISTRIBUTION — LC10722 MU 0217,  
(3PH 10FT UNDERBUILD SGL. DBL. DE. FIBERGLASS)
- CU1248** — FRAME COMMUNICATION — ADSS FIBER OPTIC  
CABLE — LC11410; ANGLE SUSPENSION UNIT
- CU1251** — FRAME COMMUNICATION — ADSS FIBER OPTIC CABLE —  
LC11410; SINGLE DEAD END
- CU1252** — ADSS FIBER OPTIC CABLE — LC11410; DOUBLE DEAD END
- MU0153** — DUCT ASSEMBLY — LC20010; 4"X50' ABOVEGROUND DUCT  
RISER ASSEMBLY WITH STANDOFF BRACKETS
- MU0177** — DUCT ASSEMBLY — LC20010; 4"X50' ABOVEGROUND DUCT  
RISER ASSEMBLY
- MU0149** — DUCT ASSEMBLY — LC20010; 4"X30' ABOVEGROUND DUCT  
RISER ASSEMBLY WITH STANDOFF BRACKETS
- CU248** — FRAME DISTRIBUTION — LC11060 WMS CU 248, 900 A  
PRE-ASSEMBLED GANG-OPERATED SWITCH

**NOTES:**

- IT IS ASSUMED THE UNDERGROUND SERVICE DROPS ARE DIRECT BURIED CABLE. THERE IS A POSSIBILITY OF CABLE REPLACEMENT, OR AN IN GROUND SPLICE WILL NEED TO BE INSTALLED. THESE ISSUES WILL BE DEALT WITH ON A CASE BY CASE BASIS ON THE RECOMMENDATION OF PGE ENGINEERING.
- THE FIRST STRUCTURE ADJACENT TO THE MAINLINE ON ALL OVERHEAD TAPS MAY REQUIRE ADDITIONAL WORK. THESE ISSUES WILL BE DEALT WITH ON A CASE BY CASE BASIS ON THE RECOMMENDATION OF PGE ENGINEERING.
- CONTRACTOR SHALL PERFORM FULL UTILITY LOCATES PRIOR TO ANY EXCAVATION WORK, IN ACCORDANCE TO OREGON STATUTE.

**ADA NOTES:**

- A THRU-WAY CLEARANCE OF 48.0" IS TO BE MAINTAINED WITHIN SIDEWALKS FOR ALL NEW/REPLACEMENT POLES. IF 48.0" IS NOT OBTAINABLE THE SIDEWALK MUST BE EXTENDED TO ABIDE ALL ADA REGULATIONS.
- WHEN REPLACING AND INSTALLING STRUCTURES WITHIN A PEDESTRIAN SIDEWALK RAMP, THE RAMP MUST BE REPLACED/REPAIRED AND ABIDE BY ALL ADA REGULATIONS.
- WHEN REPLACING AND INSTALLING STRUCTURES WITHIN A PEDESTRIAN DRIVEWAY, THE DRIVEWAY MUST BE REPLACED/REPAIRED AND ABIDE BY ALL ADA REGULATIONS.
- WHEN REPLACING AND INSTALLING STRUCTURES CONTAINING A CONDUIT RISER, THE CONDUIT MUST BE REPLACED/RECONFIGURED AND ABIDE BY ALL ADA REGULATIONS.

**CONDUCTORS:**

- TRANSFER 336.4 KCMIL AAC "TULIP" (DISTRIBUTION)
- TRANSFER 1/0 KCMIL ACSR "RAVEN" (NEUTRAL)
- TRANSFER DISTRIBUTION & NEUTRAL CONDUCTOR (VARIOUS SIZES)
- INSTALL OFS-AT-3BE17DT-144-TPDE ACSS FIBER OPTIC CABLE (COMMUNICATION)

**CALL 811 BEFORE YOU DIG**  
 OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0050. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE OREGON UTILITY NOTIFICATION CENTER ADMINISTRATION @ (503-232-1987)  
 TO REQUEST UTILITY LOCATES CALL THE OREGON UTILITY NOTIFICATION CENTER, 811 AT LEAST 2 BUSINESS DAYS PRIOR TO EXCAVATION.

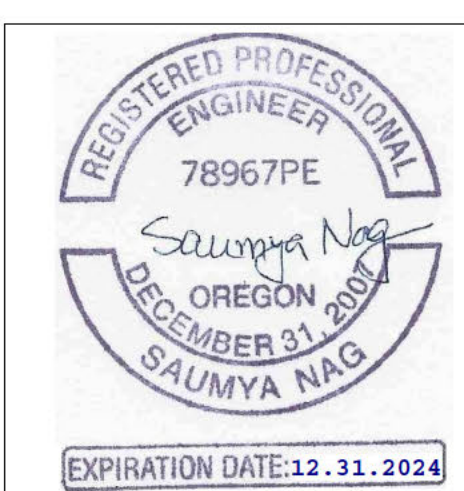


ANY DEVIATION FROM THIS DESIGN MUST BE APPROVED BY PGE PROJECT MANAGER

NO.	DATE	REVISION AND RECORD OF ISSUE	DWN	DES	CHK
2	07/20/23	POLE HEIGHT CHANGE	EDB	EKB	SN
1	05/05/23	UPDATED STRUCTURE COMMENTS	EDB	EKB	SN
0	04/04/23	ISSUE FOR CONSTRUCTION	EDB	EKB	SN



**P1**



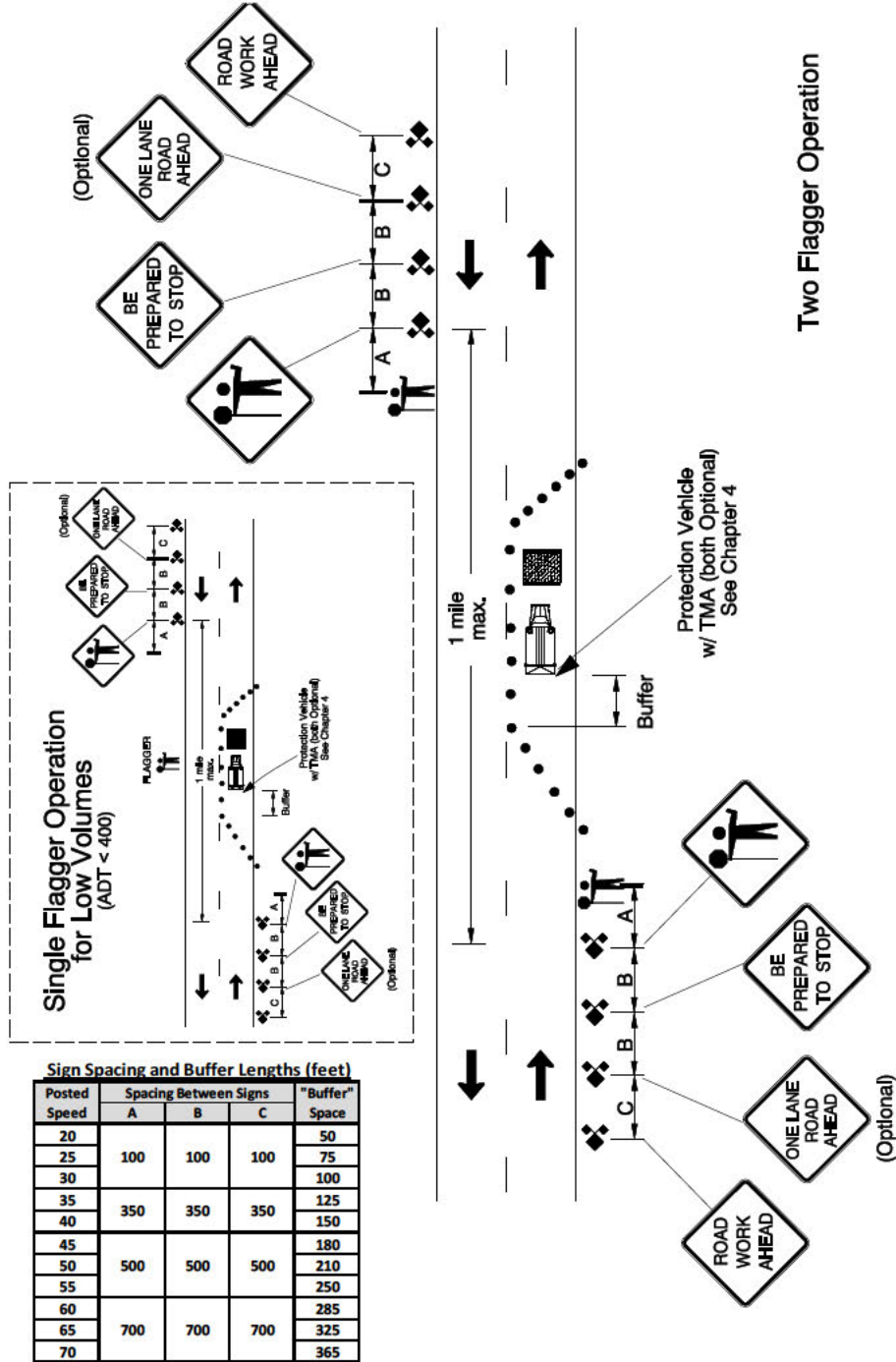
PGE CONSTRUCTION DRAWING  
**AS-BUILT VERIFICATION & NESC VIOLATIONS CORRECTED**  
 This document accurately represents FIELD Construction Date: \_\_\_\_\_  
 Foreman: \_\_\_\_\_ Date: \_\_\_\_\_  
 General Foreman: \_\_\_\_\_ Date: \_\_\_\_\_  
 (Signature only required for field construction changes.)  
 SDPM/ENG REVIEW: \_\_\_\_\_ ASBUILT BY DESIGNER: \_\_\_\_\_  
 DATE: 04/04/23 SCALE: NTS ACCOUNT: N/A AWD: 1000010702 JOB NO: M2764844  
 TITLE: OVERHEAD JOB SKETCH DRAWING NO: EXH-10242  
 COUNTY: CLACKAMAS SECTIONS: VARIES  
 DESIGNER: ROSEMONT-WILSONVILLE 115 KV TRANSMISSION LINE SIZE: 22X34  
 LOCATION: VARIES  
 DESCRIPTION: 115 KV TRANSMISSION LINE WITH 12.5 KV UNDERBUILD JOB SKETCH  
 COUNTY: CLACKAMAS SECTIONS: VARIES WORK WITH SHEET: M2764844 22 OF 31  
 DESIGN BY: ERIN BONSAI PHONE: (503)443-4482 BLACK & VEATCH DRAWN BY: M2764844  
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## Stationary Lane Closure with Flagging Diagram 320

Diagram 320 covers total closure of one lane of a two-lane, two-way roadway. See the detail inset for the layout if using a single flagger to control both directions of traffic on low volume roads (less than 400 ADT) with good sight distance as discussed below.

1. Use truck-mounted flashing warning lights on work and protection vehicles. See Section 4.3 – Lights and Lighted Signs for exceptions.
2. For added visibility, a truck-mounted arrow board or PCMS in caution mode may be used.
3. Flaggers at each approach are required if any of the following conditions exist:
  - a. Night Operations.
  - b. Work space is over 200 feet in length.
  - c. Sight distance is less than 750 feet from each approach through the lane closure.
  - d. Traffic volumes are greater than 400 ADT.
4. The length between the Flagger Ahead signs **shall** not exceed one mile. Use Diagram 340 – Lane Closure with Pilot Car if exceeding one mile.
5. Cones should be used to outline the work space when curves or other roadway alignments prevent clear direction for the motorists to pass the work space safely.
6. Cones along the work space are recommended when posted speeds are 45 mph or greater, when working under heavy traffic or when travel lanes are narrower than 11 feet.
7. Extended queue signing (see Diagram 5-4) should be used when traffic queues extend beyond the initial advance warning sign.
8. When flagging near an intersection, the “Flagger Ahead” (CW23-2) sign should be visible to traffic entering from any side road. Additional advance warning and Flagger Ahead symbol signs may be placed on the side road(s).
9. Sign set-up and flagger placement shown may be used for intermittent full road closures of 20 minutes or less.
10. The “ONE LANE ROAD AHEAD” (W20-4) sign is optional and should be considered on high volume or high speed roads, or when extended queues are expected.

**Stationary Lane Closure with Flagging** **Diagram 320**





**Lane Closure at Intersection with Flagging Diagram 620**

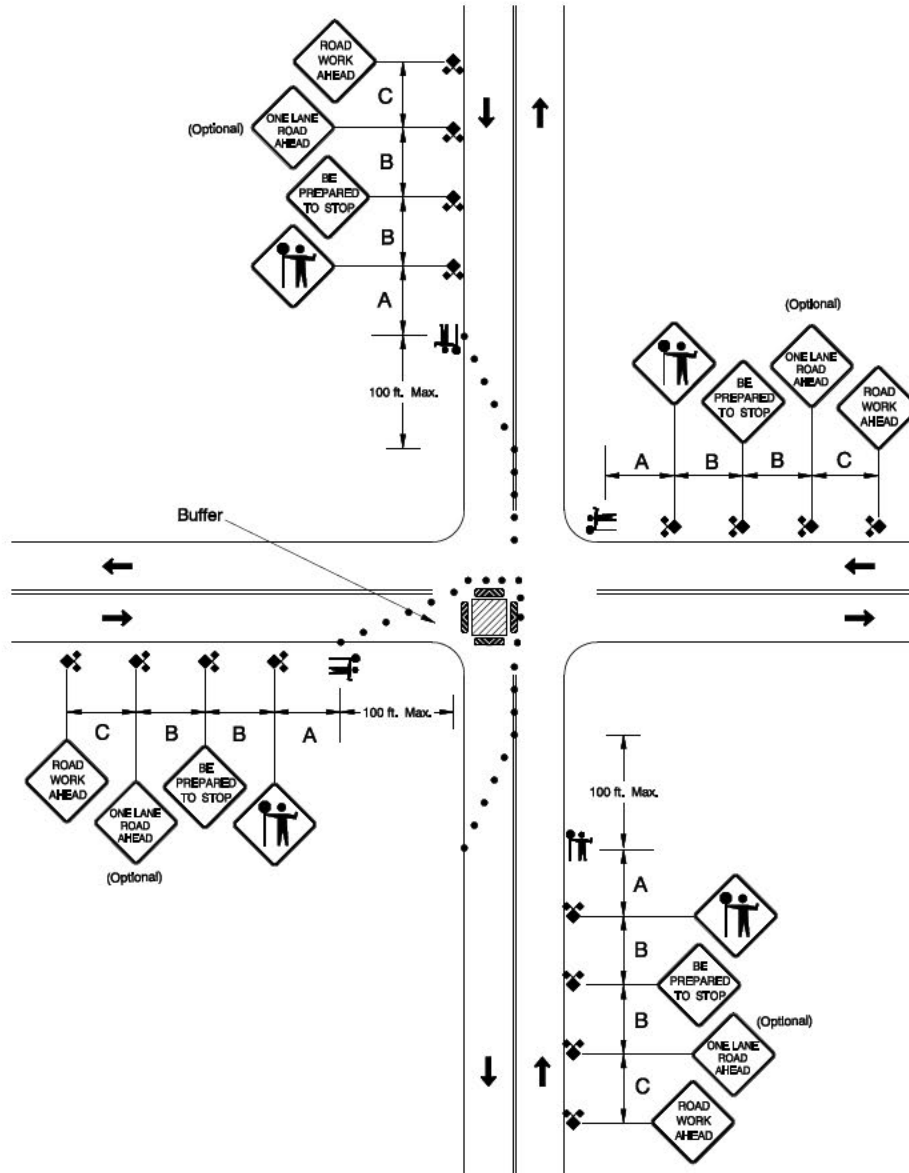
Diagram 620 covers work within an intersection when normal traffic control must be interrupted. Work vehicles may or may not be in the work space.

1. During flagging, traffic signals **shall** be turned off. Contact the road jurisdiction for approval and assistance (see Chapter 3).
2. For multi-lane facilities, traffic approaching the intersection **shall** be reduced to a single lane on each approach. See Chapter 3 for information on flagging through intersections.
3. There should be one flagger for each approach. One flagger may control two adjacent approaches if sight distance, low volumes on side roads, and flagger position allows for safe operation and clear direction to motorists. For low traffic volume intersections (fewer than 400 entering vehicles per day), one flagger may be used.
4. The "ONE LANE ROAD AHEAD" (W20-4) sign is optional and should be considered on high volume or high speed roads, or when extended queues may be expected.

**Sign Spacing and Buffer Lengths (feet)**

Posted Speed	Spacing Between Signs			"Buffer" Space
	A	B	C	
20	100	100	100	50
25				75
30				100
35	350	350	350	125
40				150
45	500	500	500	180
50				210
55				250
60	700	700	700	285
65				325
70				365

Lane Closure at Intersection with Flagging **Diagram 620**



**PGE/503**

**List of Required Permits**

**Required Permits and Land Use Approvals for the Rosemont-Wilsonville Line**

Permit or Approval	Regulatory Authority	State/Local	Date Submitted/Accepted /To be Filed	Status	Date Issued or Expected
Oregon Department of Transportation (ODOT)	ODOT District 2B	State	May 15, 2023	Issued	May 30, 2023
Washington County Right-of-Way Permit	Washington County	Local	March 11, 2024	Issued	March 14, 2024
Clackamas County Right-of-Way Permit	Clackamas County	Local	May 16, 2023	Pending	Prior to Construction
Clackamas County Alteration of Non-Conforming Use Permit	Clackamas County	Local	Mid-May 2024	Pending	Mid-November 2024

**PGE/504**

**Clackamas County Land Use Review and ZDO Amendment**

**Timeline Table**

**Clackamas County Land Use Review and ZDO Amendment Timeline**

<b>Land Use Review Process</b>	<b>Clackamas County ZDO Amendment Process</b>
	<u>March 4, 2024</u> : County Public Notice of Proposed Amendment to ZDO.
<u>April 2, 2024</u> : Pre-application meeting with Clackamas County.	<u>April 8, 2024</u> : Planning Commission Hearing to receive testimony from the public and other interested parties on the proposed amendments to ZDO.
<u>Mid-May 2024</u> : PGE submits land use permit application.	
	<u>June 12, 2024</u> : Board of County Commissioners Hearing to receive testimony from the public and other interested parties on the proposed ZDO amendments and potentially make determination.
<u>Mid-June 2024</u> : Clackamas County deems land use permit application complete.	
	<u>Late June 2024</u> : Board of County Commissioners adoption of Order for Amendment.
<u>Mid-November 2024</u> : Land use approval from Clackamas County is expected to be obtained.	