



DAN JOHNSON
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD OREGON CITY, OR 97045

May 16, 2024

BCC Agenda Date/Item: _____

Board of County Commissioners
Clackamas County

Approval of Public Improvement Contract #9478 with Eagle-Elsner, Inc. for the South Ivy Street Pedestrian Intersection Improvements Project. Total value is \$3,658,000.00 through December 31, 2026. Funding through the State Funded Local Project Program, City of Canby, and County Road Fund. No County General Funds are involved.

Previous Board Action/Review	<p>05/14/24: Request for Consent. 12/07/23: BCC Approval of Amendment #1 to the Intergovernmental Agreement between Clackamas County and the City of Canby related to the South Ivy Street Sidewalk Improvement Project. 09/07/23: BCC Approval of Amendment #3 with Kittelson & Associates, Inc. for the South Ivy Street Pedestrian Intersection Improvements. 11/04/23: BCC Approval of Amendment #2 with Kittelson & Associates, Inc. for the Design Services for South Ivy Street Pedestrian Intersection Improvements. 9/26/19: BCC Approval of a Contract with Kittelson & Associates, Inc. for the Design Services for South Ivy Street Pedestrian Intersection Improvements. 01/24/19: BCC Approval of Supplemental Project Agreement 32756 with Oregon Department of Transportation for the S. Ivy Street (Canby) Project. 01/24/19: BCC Approval of Intergovernmental Agreement 1308 with City of Canby for the South Ivy Street Sidewalk Improvement Project. 07/13/17: BCC Approval of Supplemental Project Agreement 31172 with Oregon Department of Transportation for the S. Ivy Street (Canby) Project.</p>		
Performance Clackamas	The project will build a strong infrastructure and ensure safe, healthy and secure communities.		
Counsel Review	Yes, Andrew Naylor	Procurement Review	Yes
Contact Person	Jordan Cools, Civil Engineer	Contact Phone	503-742-4654

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EXECUTIVE SUMMARY: The City of Canby obtained State Funded Local Projects funds through an Intergovernmental Agreement with the Oregon Department of Transportation to provide bicycle lanes and sidewalk improvements on Ivy Street. The existing street lacks these facilities that are needed to connect local residents to nearby businesses and transportation options. These bicycle and pedestrian improvements will also provide safe routes and important connections to schools in the immediate area. The project will provide enhanced bicycle and pedestrian connectivity and include constructing bike lanes and sidewalks on both sides of the road, ADA improvements, and installing a signal at the intersection of South Ivy Street and Township Road. Additionally, Ivy Street will be transferred to the City upon project completion. The total length of project is approximately $\frac{3}{4}$ of a mile.

Funding for this contract is from the State Funded Local Project Program (\$1,751,053), City of Canby (\$1,500,029), and County Road Fund (\$406,918). Construction is expected to take eighteen months with the project being completed by October 31, 2025 with the contract ending December 31, 2026 to allow for planting establishment.

PROCUREMENT PROCESS: This project was advertised in accordance with ORS and LCRB Rules on February 14, 2024, Invitation to Bid #2024-12. Bids were publicly opened on March 26, 2024. The County received thirteen (13) bids in response to the Invitation to Bid. The lowest bidder was from Eagle-Elsner, Inc. for a total value of \$3,658,000.00. A review of the Bid Proposals, contracting with Eagle-Elsner, Inc. was determined to be in the best interest of the County based upon the evaluations of the bids.

RECOMMENDATION: Staff respectfully recommends that the Board of County Commissioners approve and sign this public improvement contract with Eagle-Elsner, Inc. for the South Ivy Street Sidewalk Improvement Project.

Respectfully submitted,

Dan Johnson

Dan Johnson
Director of Transportation & Development



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT
Contract #9478

This Public Improvement Contract (the "Contract"), is made by and between the Clackamas County, a political subdivision of the State of Oregon, hereinafter called "Owner," and **Eagle-Elsner Inc.**, hereinafter called the "Contractor" (collectively the "Parties"), shall become effective on the date this Contract has been signed by all the Parties and all County approvals have been obtained, whichever is later.

Project Name: # BID# 2024-12 S Ivy Street Pedestrian Intersection Improvements Project

1. Contract Price, Contract Documents and Work.

The Contractor, in consideration of the sum of **Three Million Six Hundred Fifty- Eight Thousand Dollars (\$3,658,000.00)** (the "Contract Price"), to be paid to the Contractor by Owner in the manner and at the time hereinafter provided, and subject to the terms and conditions provided for in the Instructions to Bidders and other Contract Documents (as defined in the project specifications) referenced within the Instructions to Bidders), all of which are incorporated herein by reference, hereby agrees to perform all Work described and reasonably inferred from the Contract Documents. The Contract Price is the amount contemplated by the Base Bid, as indicated in the accepted Bid.

The following documents are incorporated by reference in this Contract and made a part hereof:

- Notice of Contract Opportunity
- Supplemental Instructions to Bidders
- Bid Form
- Prevailing Wage Rates
- Plans, Specifications and Drawings
- Instructions to Bidders
- Bid Bond
- Performance Bond and Payment Bond
- Payroll and Certified Statement Form
- Addenda 1, 2

The Plans, Specifications and Drawings expressly incorporated by reference into this Contract includes, but is not limited to, the Special Provisions for Highway Construction S. Ivy Street Pedestrian Intersection Improvements Construction (the "Specifications"), together with the provisions of the Oregon Standard Specifications for Construction (2021) referenced therein.

The Contractor shall comply with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract and failure to comply is a material breach that entitles County to exercise any rights and remedies available under this Contract including, but not limited to, termination for default.

2. Representatives.

Contractor has named Dave Elsner as its Authorized Representative to act on its behalf. Owner designates, or shall designate, its Authorized Representative as indicted below (check one):

Unless otherwise specified in the Contract Documents, the Owner designates Jordan Cools as its Authorized Representative in the administration of this Contract. The above-named individual shall be the initial point of contact for matters related to Contract performance, payment, authorization, and to carry out the responsibilities of the Owner.

Name of Owner's Authorized Representative shall be submitted by Owner in a separate writing.

3. Key Persons.

The Contractor's personnel identified below shall be considered Key Persons and shall not be replaced during the project without the written permission of Owner, which shall not be unreasonably withheld. If the Contractor intends to substitute personnel, a request must be given to Owner at least 30 days prior to the intended time of substitution. When replacements have been approved by Owner, the Contractor shall provide a transition period of at least 10 working days during which the original and replacement personnel shall be working on the project concurrently. Once a replacement for any of these staff members is authorized, further replacement shall not occur without the written permission of Owner. The Contractor's project staff shall consist of the following personnel:

Project Executive: Dave Elsner shall be the Contractor's project executive, and will provide oversight and guidance throughout the project term.

Project Manager: Brent Williams shall be the Contractor's project manager and will participate in all meetings throughout the project term.

Job Superintendent: Mike Greenleaf shall be the Contractor's on-site job superintendent throughout the project term.

Project Engineer: Dave Elsner shall be the Contractor's project engineer, providing assistance to the project manager, and subcontractor and supplier coordination throughout the project term.

4. Contract Dates.

COMMENCEMENT DATE: Upon Issuance of Notice to Proceed ("NTP")

SUBSTANTIAL COMPLETION DATE: October 31, 2025

FINAL COMPLETION DATE: December 31, 2026

Time is of the essence for this Contract. It is imperative that the Work in this Contract reach Substantial Completion and Final Completion by the above specified dates.

5. Insurance Certificates and Required Performance and Payment Bonds.

5.1 In accordance with Section 00170.70 of the Specifications, Contractor shall furnish proof of the required insurance naming Clackamas County as an additional insured. Insurance certificates may be returned with the signed Contract or may be emailed to the County Contract Analyst.

5.2 Primary Coverage: Insurance carried by Contractor under the Contract shall be the primary coverage. The coverages indicated are minimums unless otherwise specified in the Contract Documents.

5.2.1 Workers' Compensation: All employers, including Contractor, that employ subject workers who work under the Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. This shall include Employer's Liability Insurance with coverage limits of not less than the minimum amount required by statute for each accident. Contractors who perform the Work without the assistance or labor of any employee need not obtain such coverage if the Contractor certifies so in writing. Contractor shall ensure that each of its Subcontractors complies with these requirements. The Contractor shall require proof of such Workers' Compensation coverage by receiving and keeping on file a certificate of insurance from each Subcontractor or anyone else directly employed by either the Contractor or its Subcontractors.

5.3 "Tail" Coverage: If any of the required liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of the Contract for a duration of 36 months or the maximum time period available in the marketplace if less than 36 months. Contractor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 36 months following Final Completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of the Contract. Owner's receipt of the policy endorsement evidencing such coverage shall be a condition precedent to Owner's obligation to make final payment and to Owner's final acceptance of Work or services and related warranty (if any).

5.4 Notice of Cancellation or Change: If the Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify Owner by fax within five (5) business days with a copy of the non-renewal or cancellation notice, or written specifics as to which coverage is no longer in compliance. When notified by Owner, the Contractor agrees to stop Work pursuant to the Contract at Contractor's expense, unless all required insurance remain in effect. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverages provided to the Owner and its institutions, divisions, officers, and employees.

Owner shall have the right, but not the obligation, of prohibiting Contractor from entering the Project Site until a new certificate(s) of insurance is provided to Owner evidencing the replacement coverage. The Contractor agrees that Owner reserves the right to withhold payment to Contractor until evidence of reinstated or replacement coverage is provided to Owner.

5.5 Before execution of the Contract, the Contractor shall file with the Construction Contractors Board, and maintain in full force and effect, the separate public works bond required by Oregon Revised Statutes, Chapter 279C.830 and 279C.836, unless otherwise exempt under those provisions. The Contractor shall also include in every subcontract a provision requiring the Subcontractor to have a public works bond filed with the Construction Contractors Board before starting Work, unless otherwise exempt, and shall verify that the Subcontractor has filed a public works bond before permitting any Subcontractor to start Work.

5.6 When the Contract Price is \$50,000 or more, the Contractor shall furnish and maintain in effect at all times during the Contract Period a performance bond in a sum equal to the Contract Price and a separate payment bond also in a sum equal to the Contract Price. Contractor shall furnish such bonds even if the Contract Price is less than the above thresholds if otherwise required by the Contract Documents.

5.7 Bond forms furnished by the Owner and notarized by Contractor's surety company authorized to do business in Oregon are the only acceptable forms of performance and payment security, unless otherwise specified in the Contract Documents.

6. Responsibility for Damages/Indemnity.

6.1 Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by, or result from, the carrying out of the Work to be done under the Contract, or from any act, omission or neglect of the Contractor, its Subcontractors, employees, guests, visitors, invitees and agents.

6.2 To the fullest extent permitted by law, Contractor shall indemnify, defend (with counsel approved by Owner) and hold harmless the Owner and its elected officials, officers, directors, agents, and employees (collectively "Indemnitees") from and against all liabilities, damages, losses, claims, expenses, demands and

actions of any nature whatsoever which arise out of, result from or are related to: (a) any damage, injury, loss, expense, inconvenience or delay described in this Section 6.1; (b) any accident or occurrence which happens or is alleged to have happened in or about the Project Site or any place where the Work is being performed, or in the vicinity of either, at any time prior to the time the Work is fully completed in all respects; (c) any failure of the Contractor to observe or perform any duty or obligation under the Contract Documents which is to be observed or performed by the Contractor, or any breach of any agreement, representation or warranty of the Contractor contained in the Contract Documents or in any subcontract; (d) the negligent acts or omissions of the Contractor, a Subcontractor or anyone directly or indirectly employed by them or any one of them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder (except to the extent otherwise void under ORS 30.140); and (e) any lien filed upon the Project or bond claim in connection with the Work. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 6.2.

6.3 In claims against any person or entity indemnified under Section 6.2 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 6.2 shall not be limited on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

7. Tax Compliance.

Contractor must, throughout the duration of this Contract and any extensions, comply with all tax laws of this state and all applicable tax laws of any political subdivision of this state. Any violation of this section shall constitute a material breach of this Contract. Further, any violation of Contractor's warranty in this Contract that Contractor has complied with the tax laws of this state and the applicable tax laws of any political subdivision of this state also shall constitute a material breach of this Contract. Any violation shall entitle County to terminate this Contract, to pursue and recover any and all damages that arise from the breach and the termination of this Contract, and to pursue any or all of the remedies available under this Contract, at law, or in equity, including but not limited to: (A) Termination of this Contract, in whole or in part; (B) Exercise of the right of setoff, and withholding of amounts otherwise due and owing to Contractor, in an amount equal to County's setoff right, without penalty; and (C) Initiation of an action or proceeding for damages, specific performance, declaratory or injunctive relief. County shall be entitled to recover any and all damages suffered as the result of Contractor's breach of this Contract, including but not limited to direct, indirect, incidental and consequential damages, costs of cure, and costs incurred in securing replacement performance. These remedies are cumulative to the extent the remedies are not inconsistent, and County may pursue any remedy or remedies singly, collectively, successively, or in any order whatsoever.

The Contractor represents and warrants that, for a period of no fewer than six calendar years preceding the effective date of this Contract, has faithfully complied with: (A) All tax laws of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318; (B) Any tax provisions imposed by a political subdivision of this state that applied to Contractor, to Contractor's property, operations, receipts, or income, or to Contractor's performance of or compensation for any work performed by Contractor; (C) Any tax provisions imposed by a political subdivision of this state that applied to Contractor, or to goods, services, or property, whether tangible or intangible, provided by Contractor; and (D) Any rules, regulations, charter provisions, or ordinances that implemented or enforced any of the foregoing tax laws or provisions.

8. Confidential Information.

Contractor acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Contract, be exposed to or acquire information that is confidential to Owner. Any and all information of any form obtained by Contractor or its employees or agents in the performance of this Contract shall be deemed confidential information of Owner ("Confidential Information"). Contractor agrees

to hold Confidential Information in strict confidence, using at least the same degree of care that Contractor uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purpose unless specifically authorized in writing under this Contract.

9. Counterparts.

This Contract may be executed in several counterparts, all of which when taken together shall constitute an agreement binding on all Parties, notwithstanding that all Parties are not signatories to the same counterpart. Each copy of the Contract so executed shall constitute an original.

10. Integration.

All provisions of state law required to be part of this Contract, whether listed in the General or Special Conditions or otherwise, are hereby integrated and adopted herein. Contractor acknowledges the obligations thereunder and that failure to comply with such terms is a material breach of this Contract.

The Contract Documents constitute the entire agreement between the parties. There are no other understandings, agreements or representations, oral or written, not specified herein regarding this Contract. Contractor, by the signature below of its authorized representative, hereby acknowledges that it has read this Contract, understands it, and agrees to be bound by its terms and conditions.

11. Liquidated Damages

The Contractor acknowledges that the Owner will sustain damages as a result of the Contractor's failure to substantially complete the Project in accordance with the Contract Documents. These damages may include, but are not limited to delays in completion, use of the Project, and costs associated with Contract administration and use of temporary facilities. Liquidated damages are set forth in the Contract Documents and may include the following:

11.1 \$1,100.00 per Calendar Day past the Substantial Completion date, as set forth in section 00180.85 (b).

11.2 \$500.00 per 15 minutes, or for a portion of 15 minutes, per lane, for any lane closure beyond the limits listed in 00220.40(e), as set forth in 00180.85. (c).

12. Compliance with Applicable Law. Contractor shall comply with all federal, state, county, and local laws, ordinances, and regulations applicable to the Work to be done under this Contract including, but not limited to, compliance with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract and failure to comply is a material breach that entitles County to exercise any rights and remedies available under this Contract including, but not limited to, termination for default.

13. Responsibility for Taxes. Contractor is solely responsible for payment of any federal, state, or local taxes required as a result of the Contract or the Work including, but not limited, to payment of the corporate activity tax imposed under enrolled HB 3427 (2019 Oregon regular legislative session). Contractor may not include its federal, state, or local tax obligations as part of the cost to perform the Work.

15. No Attorney Fees. In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Contract, each party shall be responsible for its own attorneys' fees and expenses.

In witness whereof, Clackamas County executes this Contract and the Contractor does execute the same as of the day and year first above written.

Contractor DATA:
Eagle-Elsner Inc.
P.O. Box 23294
Tigard, Oregon 97281

Contractor CCB # 27112 Expiration Date: 04/02/2026
Oregon Business Registry # 135009-13 Entity Type: DBC State of Formation: Oregon

Payment information will be reported to the IRS under the name and taxpayer ID# provided by the Contractor. Information must be provided prior to contract approval. Information not matching IRS records could subject Contractor to 28 percent backup withholding.

Eagle-Elsner Inc.

Clackamas County

Richard Eagle 07-31-24
Authorized Signature Date

Chair Date

Richard Eagle, President
Name / Title Printed

Recording Secretary

APPROVED AS TO FORM

 ly 05/01/2024
County Counsel Date



**CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT OPPORTUNITY**

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CLACKAMAS COUNTY
NOTICE OF PUBLIC IMPROVEMENT CONTRACT OPPORTUNITY

INVITATION TO BID #2024-12
S Ivy Street Pedestrian Intersection Improvements Project
February 14, 2024

Clackamas County (“County”) through its Board of County Commissioners is accepting sealed bids for the **S Ivy Street Pedestrian Intersection Improvements Project** until **March 14, 2024, 2:00 PM**, Pacific Time, (“Bid Closing”) at the following location:

Bidding Documents can be downloaded from the state of Oregon procurement website (“OregonBuys”) at the following address: <https://oregonbuys.gov/bsa/view/login/login.xhtml>, Document No.S-C01010-00009498.

Prospective Bidders will need to sign in to download the information and that information will be accumulated for a Plan Holder's List. Prospective Bidders are responsible for obtaining any Addenda from Website listed above.

Submitting Proposals: Bid Locker

Proposals will only be accepted electronically thru a secure online bid submission service, **Bid Locker**. *Email submissions to Clackamas County email addresses will no longer be accepted.*

- A. Completed proposal documents must arrive electronically via Bid Locker located at <https://bidlocker.us/a/clackamascountry/BidLocker>.
- B. Bid Locker will electronically document the date and time of all submissions. Completed documents must arrive by the deadline indicated in Section 1 or as modified by Addendum. **LATE PROPOSALS WILL NOT BE ACCEPTED.**
- C. Proposers must register and create a profile for their business with Bid Locker in order to submit for this project. It is free to register for Bid Locker.
- D. Proposers with further questions concerning Bid Locker may review the Vendor’s Guide located at <https://www.clackamas.us/how-to-bid-on-county-projects>.

Engineers Estimate: \$4,640,500.00

Contact Information

Procurement Process and Technical Questions: Tralee Whitley at TWhitley@clackamas.us.

To be eligible for award under this Invitation to Bid, bidders (prime contractors) must submit a prequalification application (either ODOT or County) to the County at least two business days prior to the Bid Closing. County will reject bids from bidders who are not prequalified for the class of work indicated prior to the Bid Closing. **Bidders must be prequalified in Earthwork and Drainage (EART)**

Prevailing Wage Rates requirements apply to this Project because the maximum compensation for all Owner-contracted Work is more than \$50,000. Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates. The Bureau of Labor and Industries (BOLI) wage rates and requirements set forth in the following BOLI booklet (and any listed amendments to that booklet), which are incorporated herein by reference, apply to the Work authorized under this Agreement:

PREVAILING WAGE RATES for Public Works Contracts in Oregon, January 5, 2024, which can be downloaded at the following web address: http://www.oregon.gov/boli/WHD/PWR/Pages/pwr_state.aspx
The Work will take place in Clackamas County, Oregon.

Clackamas County encourages bids from Minority, Women, and Emerging Small Businesses.



CLACKAMAS COUNTY PUBLIC IMPROVEMENT CONTRACT

INSTRUCTIONS TO BIDDERS

Clackamas County Local Contract Review Board Rules (“LCRB Rules”) govern this procurement process. LCRB Rules may be found at: <http://www.clackamas.us/code/documents/appendixc.pdf>. The Instructions to Bidders is applicable to the procurement process for Clackamas County, or any component unit thereof identified on the Notice of Public Improvement Contract Opportunity, herein after referred to as the “Owner.”

Article 1. Scope of Work

The work contemplated under this contract with the Owner, includes all labor, materials, transportation, equipment and services necessary for, and reasonably incidental to, the completion of all construction work in connection with the project described in the Project Manual which includes, but is not necessarily limited to, the Notice of Public Improvement Contract Opportunity, Instructions to Bidders, Supplemental Instructions to Bidders, Bid Form, Bid Bond, Public Improvement Contract Form, Performance Bond, Payment Bond, and Plans, Specifications and Drawings.

Article 2. Examination of Site and Conditions

Before making a Bid, the Bidder shall examine the site of the work and ascertain all the physical conditions in relation thereto. The Bidder shall also make a careful examination of the Project Manual including the plans, specifications, and drawings and other contract documents, and shall be fully informed as to the quality and quantity of materials and the sources of supply of the materials. Failure to take these steps will not release the successful Bidder from entering into the contract nor excuse the Bidder from performing the work in strict accordance with the terms of the contract at the price established by the Bid.

The Owner will not be responsible for any loss or for any unanticipated costs, which may be suffered by the successful Bidder, as a result of such

Bidder's failure to be fully informed in advance with regard to all conditions pertaining to the work and the character of the work required, including site conditions. No statement made by an elected official, officer, agent, or employee of the Owner in relation to the physical or other conditions pertaining to the site of the work will be binding on the Owner, unless covered by the Project Manual or an Addendum.

Article 3. Interpretation of Project Manual and Approval of Materials Equal to Those Provided in the Specifications

If any Bidder contemplating submitting a Bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications or forms of contract documents, or detects discrepancies or omissions, such Bidder may submit to the Architect (read "Engineer" throughout in lieu of Architect as appropriate) a written request for an interpretation thereof at least ten (10) calendar days prior to the date set for the Bid Closing.

When a prospective Bidder seeks approval of a particular manufacturer's material, process or item of equal value, utility or merit other than that designated by the Architect in the Project Manual, the Bidder may submit to the Architect a written request for approval of such substitute at least ten (10) calendar days prior to the date set for the Bid Closing. The prospective Bidder submitting the request will be responsible for its prompt delivery.

Requests of approval for a substitution from that specified shall be accompanied by samples, records of performance, certified copies of tests by impartial and recognized laboratories, and such other information as the Architect may request.

To establish a basis of quality, certain processes, types of machinery and equipment or kinds of materials may be specified in the Project Manual either by description of process or by designating a

manufacturer by name and referring to a brand or product designation or by specifying a kind of material. Whenever a process is designated or a manufacturer's name, brand or item designation is given, or whenever a process or material covered by patent is designated or described, it shall be understood that the words "or approved equal" follow such name, designation or description, whether in fact they do so or not.

Any interpretation of the Project Manual or approval of manufacturer's material will be made only by an Addendum duly issued. All Addenda will be posted to the OregonBuys listing and will become a part of the Project Manual. The Owner will not be responsible for any other explanation or interpretation of the Project Manual nor for any other approval of a particular manufacturer's process or item for any Bidder.

When the Architect approves a substitution by Addendum, it is with the understanding that the Contractor guarantees the substituted article or material to be equal or better than the one specified.

Article 4. Security to Be Furnished by Each Bidder

Each Bid must be accompanied by either 1) a cashier's check or a certified check drawn on a bank authorized to do business in the State of Oregon, or 2) a Bid bond described hereinafter, executed in favor of the Owner, for an amount equal to ten percent (10%) of the total amount Bid as a guarantee that, if awarded the contract, the Bidder will execute the contract and provide a performance bond and payment bond as required. The successful Bidder's check or Bid bond will be retained until the Bidder has entered into a contract satisfactory to Owner and furnished a one hundred percent (100%) performance bond and one hundred percent (100%) payment bond. The Owner reserves the right to hold the Bid security as described in Article 10 hereof. Should the successful Bidder fail to execute and deliver the contract as provided for in Article 12 hereof, including a satisfactory performance bond and payment bond within twenty (20) calendar days after the Bid has been accepted by the Owner, then the contract award made to such Bidder may be considered canceled and the Bid security may be

forfeited as liquidated damages at the option of the Owner. The date of the acceptance of the Bid and the award of the contract as contemplated by the Project Manual shall mean the date of acceptance specified in the Notice of Intent to Award.

Article 5. Execution of Bid Bond

Should the Bidder elect to utilize a Bid bond as described in Article 4 in order to satisfy the Bid security requirements, such form must be completed in the following manner:

- A. Bid bonds must be executed on the County forms, which will be provided to all prospective Bidders by the Owner.
- B. The Bid bond shall be executed on behalf of a bonding company licensed to do business in the State of Oregon.
- C. In the case of a sole individual, the bond need only be executed as principal by the sole individual. In the case of a partnership, the bond must be executed by at least one of the partners. In the case of a corporation, the bond must be executed by stating the official name of the corporation under which is placed the signature of an officer authorized to sign on behalf of the corporation followed by such person's official capacity, such as president, etc. The corporation seal should then be affixed to the bond.
- D. The name of the surety must be stated in the execution over the signature of its duly authorized attorney-in-fact and accompanied by the seal of the surety corporation.

Article 6. Execution of the Bid Form

Each Bid shall be made in accordance with: (i) the sample Bid Form accompanying these instructions; (ii) the appropriate signatures for a sole individual, partnership, corporation or limited liability corporation shall be added as noted in Article 5C above; (iii) numbers pertaining to base Bids shall be stated both in writing and in figures; and (iv) the Bidder's address shall be typed or printed.

The Bid Form relates to Bids on a specific Project

Manual. Only the amounts and information asked for on the Bid Form furnished will be considered as the Bid. Each Bidder shall Bid upon the work exactly as specified and provided in the Bid Form. The Bidder shall include in the Bid a sum to cover the cost of all items contemplated by the Contract. The Bidder shall Bid upon all alternates that may be indicated on the Bid Form. When Bidding on an alternate for which there is no charge, the Bidder shall write the words "No Charge" in the space provided on the Bid Form. If one or more alternates are shown on the Bid Form, the Bidder shall indicate whether each is "add" or "deduct."

Article 7. Prohibition of Alterations to Bid

Bids that are incomplete, or contain ambiguities or have differing conditions required by the Bidder, including requested changes or exceptions to the Public Improvement Contract form or other portions of the Project Manual, may be rejected in Owner's sole and absolute discretion.

Article 8. Submission of Bid

Each Bid shall be sealed in an envelope, properly addressed to the Owner, showing on the outside of the envelope the name of the Bidder and the name of the project. Bids will be received at the time and place stated in the Notice of Public Improvement Contract Opportunity.

Article 9. Bid Closing and Opening of Bids

All Bids must be received by the Owner at the place and time set for the Bid Closing. Any Bids received after the scheduled Bid Closing time for receipt of Bids will be rejected.

At the time of opening and reading of Bids, each Bid received will be publicly opened and read aloud, irrespective of any irregularities or informalities in such Bids.

Generally, Bid results will be posted to the Oregonbuys Website within a couple hours of the opening.

Article 10. Acceptance or Rejection of Bids by Owner

Unless all Bids are rejected, the Owner will award a contract based on the lowest responsive Bid from a responsible Bidder. If that Bidder does not execute the contract, it will be awarded to the next lowest responsible Bidder or Bidders in succession.

The Owner reserves the right to reject all Bids and to waive minor informalities. The procedures for contract awards shall be in compliance with the provisions of the LCRB Rules in effect at that time.

The Owner reserves the right to hold the Bid and Bid security of the three lowest Bidders for a period of thirty (30) calendar days from and after the time of Bid opening pending award of the contract. Following award of the contract the Bid security of the three lowest Bidders may be held twenty (20) calendar days pending execution of the contract. All other Bids will be rejected and Bid security will be returned.

In determining the lowest Bidder, the Owner reserves the right to take into consideration any or all authorized base Bids as well as alternates or combinations indicated in the Bid Form.

If no Bid has been accepted within thirty (30) calendar days after the opening of the Bids, each of the three lowest Bidders may withdraw the Bid submitted and request the return of the Bid security.

Article 11. Withdrawal of Bid

At any time prior to the Bid Closing, a Bidder may withdraw its Bid. This will not preclude the submission of another Bid by such Bidder prior to the time set for the Bid Closing.

After the time set for the Bid Closing, no Bidder will be permitted to withdraw its Bid within the time frames specified in Article 10 for award and execution, except as provided for in that Article.

Article 12. Execution of Contract, Performance Bond and Payment Bond

The Owner will provide the successful Bidder with contract forms within seven (7) calendar days after

the completion of the award protest period. The Bidder is required to execute the contract forms as provided, including a performance bond and a payment bond from a surety company licensed to do surety business in the State of Oregon, within seven (7) calendar days after receipt of the contract forms. The contract forms shall be delivered to the Owner in the number called for and to the location as instructed by the Owner.

Article 13. Recyclable Products

Contractors will use recyclable products to the maximum extent economically feasible in the performance of the Contract.

Article 14. Clarification or Protest of the Solicitation Document or Specifications

Any request for clarification or protest of the solicitation document or specifications must be submitted in the manner provided for in the applicable section of the LCRB Rules to the Procurement Representative referenced in the Notice of Public Improvement Contract Opportunity.

A protest of the Solicitation Document must be received within seven (7) business days of the issuance of the Bid or within three (3) business days of issuance of an addendum.

Requests for clarification may be submitted no less than five (5) business days prior to the Bid Closing Date.

Article 15. Protest of Intent to Award

Owner will name the apparent successful Bidder in a "Notice of Intent to Award" letter. Identification of the apparent successful Bidder is procedural only and creates no right in the named Bidder to the award of the contract. Competing Bidders will be notified by publication of the Notice of Intent to Award on the OregonBuys Website of the selection of the apparent successful Bidder(s) and Bidders shall be given seven (7) calendar days from the date on the "Notice of Intent to Award" letter to review the file at the Procurement Division office and file a written protest of award, pursuant to C-049-0450. Any

award protest must be in writing and must be delivered by email, hand delivery, or mail to the Procurement Division Director at: Procurement Division, 2051 Kaen Road, Oregon City, OR 97045.

Article 16. Disclosure of First-Tier Subcontractors

Within two (2) working hours after the Bid Closing, all Bidders shall submit to the County a disclosure form identifying any first-tier subcontractors (those entities that would be contracting directly with the prime contractor) that will be furnishing labor and materials on the contract, if awarded, whose subcontract value would be equal to or greater than: (a) Five percent (5%) of the total contract price, but at least \$15,000; or (b) \$350,000, regardless of the percentage of the total contract price.

Disclosures may be submitted with the Bid or may be hand delivered to the Bid Closing address or emailed to the Contract Information Analyst listed on the Notice of Contract Opportunity.



**CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT**

SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

**Project Name BID# 2024-12 S Ivy Street Pedestrian Intersection Improvements
Project**

The following modify the Clackamas County “Instructions to Bidders” for this Project. Where a portion of the Instructions to Bidders has been modified by these Supplemental Instructions to Bidders, the unaltered portions shall remain in effect.

- 1. Prequalification:** To be eligible for award under this Invitation to Bid, bidders (prime contractors) must submit a prequalification application (either ODOT or County) to the County at least two business days prior to the Bid Closing. County will reject bids from bidders who are not prequalified for the class of work indicated prior to the Bid Closing. **Bidders must be prequalified in Earthwork and Drainage (EART).**
- 2. Electronic Submissions:** The County is requiring all bids for this project be electronically submitted. Complete Bids (including all attachments) will only be accepted electronically thru a secure online bid submission service, Bid Locker. Email submissions to Clackamas County email addresses will no longer be accepted.
<https://bidlocker.us/a/clackamascounty/BidLocker>.

Bids will be publicly read aloud via the computer application, Zoom. Bidders will be allowed to video conference or listen by phone to the bid results. The projects Zoom meeting can be accessed via the information below:

ZOOM LINKS

Join Zoom Meeting

<https://clackamascounty.zoom.us/j/89771154924>

Meeting ID: 897 7115 4924

One tap mobile

+16694449171,,89771154924# US

+16699006833,,89771154924# US (San Jose)

Dial by your location

- +1 669 444 9171 US
- +1 669 900 6833 US (San Jose)
- +1 719 359 4580 US
- +1 253 205 0468 US
- +1 253 215 8782 US (Tacoma)
- +1 346 248 7799 US (Houston)
- +1 408 638 0968 US (San Jose)
- +1 301 715 8592 US (Washington DC)

- +1 305 224 1968 US
- +1 309 205 3325 US
- +1 312 626 6799 US (Chicago)
- +1 360 209 5623 US
- +1 386 347 5053 US
- +1 507 473 4847 US
- +1 564 217 2000 US
- +1 646 876 9923 US (New York)
- +1 646 931 3860 US
- +1 689 278 1000 US

Meeting ID: 897 7115 4924

Find your local number: <https://clackamascounty.zoom.us/j/89771154924>

**The Apparent Low bid results will be posted to the projects OregonBuys listing as soon as possible following the bid opening.

3. **Good Faith Effort:** Clackamas County encourages participation in contracts by Historically Underrepresented Businesses. “Historically Underrepresented Businesses” are State of Oregon-certified and self-identified minority, women and emerging small business as well as firms that are certified federally or by another state or entity with substantially similar requirements as the State of Oregon.

Bidders must perform Good Faith Effort (defined below) and submit **Form 1 and Form 2** for the Bidders Bid to be considered responsive. **Form 1 and Form 2** must be submitted within **two (2) hours** after the Closing Date and Time. Form 1 and Form 2 may be submitted to either the Contact Information Analyst listed on Notice of Contract Opportunity or via the <https://bidlocker.us/a/clackamascounty/BidLocker> listing.

“Good Faith Effort” is a requirement of a prime contractor to reach out to at least three Historically Underrepresented Business Subcontractors for each division of work that will be subcontracted out and to complete the required forms. If fewer than three Historically Underrepresented Business Subcontractors are reasonably available for a particular division of work, the Bidder must specifically note the reason for there being fewer than three contacts. The outreach should be performed with sufficient time to give the subcontractors at least 5 calendar days to respond to the opportunity. Form 3, which documents the actual amount of subcontractors on the project, must be submitted with the project final pay application. Compliance with the Good Faith Effort and submission of Forms 1, 2 and 3 is a contractual requirement for final payment.

The sufficiency of the documentation or the performance of Good Faith Effort shall be in the sole and absolute determination of Clackamas County. Only those Bidders that Clackamas County has determined have not sufficiently performed Good Faith Effort shall have protest rights of the determination for such Bidder. No Bidder shall have protest rights of the sufficiency of any other Bidder completing Good Faith Effort.

**CLACKAMAS COUNTY
GOOD FAITH EFFORT
M/W/ESB CONTACT / BIDS RECEIVED LOG
(FORM 2)**

Prime Contractor: **EAGLE-ELSNER, INC.**

Project: **BID# 2024-12 S Ivy Street Pedestrian Intersection Improvements Project**

Prime Contractor must contact or endeavor to contact at least 3 M/W/ESB Subcontractors for each Division of Work. Prime Contractor shall record its contacts with M/W/ESB Subcontractors through use of this log (or equivalent) entering all required information. All columns shall be completed where applicable. Additional forms may be copied if needed.

NAME OF M/W/ESB SUBCONTRACTOR	Divisions of Work (Painting, electrical, landscaping, etc.)	Date Solicitation Letter / Fax Sent	PHONE CONTACT		BID ACTIVITY Check Yes or No			REJECTED BIDS (if bid received & not used)		Notes
			Date of Call	Person Receiving Call	Will Bid	Bid Received	Bid Used	Bid Amount	Reason Not Used (Price, Scope or Other. If Other, explain in Notes>>)	
A+ FLAGGING INC	TRAFFIC CONTROL	3/6/24	3/6/24	JESSICA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			EMAILED SARAH TO EXPENSIVE BID DETAILS 3/6/24
ALL ABOUT FLAGGING, LLC	TRAFFIC CONTROL	3/6/24	3/6/24	SHAWNITA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			EMAILED SHAWNITA BID DETAILS 3/6/24
A&D FLAGGING, LLC	TRAFFIC CONTROL	3/6/24	3/6/24	LEFT VM FOR ASHLEY	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			EMAILED A&D BID DETAILS 3/6/24
BENCHMARK CONCRETE CUTTING	CONCRETE CUTTING	3/6/24	3/6/24	ANDY	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			EMAILED ANDY BID DETAILS 3/6/24
MONTALONGO SET 2 FINISH CONCRETE	CONCRETE FLATWORK	3/6/24	3/6/24	FRANK	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			EMAILED FRANK BID DETAILS 3/6/24
ADVANCED CONCRETE TECHNOLOGIES	CONCRETE FLATWORK	3/6/24	3/6/24	MATTHEW	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			EMAILED MATTHEW BID DETAILS 3/6/24
BERRIAN CONCRETE, LLC	CONCRETE FLATWORK	3/6/24	3/6/24	LILLIAN	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			EMAILED LILLIAN BID DETAILS 3/6/24

**CLACKAMAS COUNTY
GOOD FAITH EFFORT
M/W/ESB CONTACT / BIDS RECEIVED LOG
(FORM 2)**

Prime Contractor: **EAGLE - ELSNER, INC**
Project: BID# 2024-12 S Ivy Street Pedestrian Intersection Improvements Project

Prime Contractor must contact or endeavor to contact at least 3 M/W/ESB Subcontractors for each Division of Work. Prime Contractor shall record its contacts with M/W/ESB Subcontractors through use of this log (or equivalent) entering all required information. All columns shall be completed where applicable. Additional forms may be copied if needed.

NAME OF M/W/ESB SUBCONTRACTOR	Divisions of Work (Painting, electrical, landscaping, etc.)	Date Solicitation Letter / Fax Sent	PHONE CONTACT		BID ACTIVITY Check Yes or No			REJECTED BIDS (if bid received & not used)		Notes
			Date of Call	Person Receiving Call	Will Bid	Bid Received	Bid Used	Bid Amount	Reason Not Used (Price, Scope or Other. If Other, explain in Notes>>)	
NEXUS ELECTRICAL GROUP, LLC	ELECTRICAL	3/6/24	3/6/24	LEFT VM FOR ERIC	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			EMAILED ERIC BID DETAILS 3/6/24
AFFORDABLE ELECTRIC, INC	ELECTRICAL WORK		3/6/24	JEAN	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		BUSY	SCHEDULE IS CURRENTLY FULL DO NOT HAVE RESOURCES FOR JOB
NW ELECTRICAL SOLUTIONS	ELECTRICAL	3/6/24	3/7/24	DAWN	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			NOT ENOUGH HELP CURRENTLY
CHAMPION PARKING LOT MAINT. DT STRIPING, LLC	STRIPING		3/6/24	KIDANE	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			EMAILED DONNIE BID DETAILS 3/6/24
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			

**GOOD FAITH EFFORT
SUBCONTRACTOR AND SELF-PERFORMED WORK LIST
(FORM 1)**

Prime Contractor Name: **EAGLE - ELSNER, INC.**

Total Contract Amount: **3,658,000-**

Project Name: **BID# 2024-12 S Ivy Street Pedestrian Intersection Improvements Project**

PRIME SELF-PERFORMING: Identify below ALL GFE Divisions of Work (DOW) to be self-performed. Good Faith Efforts are otherwise required.

DOW BIDDER WILL SELF-PERFORM (GFE not required)	
<u>UNDERGROUND UTILITIES</u>	
<u>GRADING</u>	
<u>PAVING</u>	
<u>EXCAVATION</u>	

PRIME CONTRACTOR SHALL DISCLOSE AND LIST ALL SUBCONTRACTORS, including those Minority-owned, Woman-owned, and Emerging Small Businesses ("M/W/ESB") that you intend to use on the project. Delivery via bid locker <https://bidlocker.us/a/clackamascounty/BidLocker> within 2 hours of the BID/Quote Closing Date/Time.

LIST ALL SUBCONTRACTORS BELOW Use correct legal name of Subcontractor (No Assumed Business Names)	Division of Work (Painting, electrical, landscaping, etc.) List ALL DOW performed by Subcontractors	DOLLAR AMOUNT OF SUBCONTRACT	If Certified or self-reporting MBE/WBE/ESB Subcontractor Check box <input checked="" type="checkbox"/>		
			MBE	WBE	ESB
Name HIGH QUALITY TRAFFIC CONTROL Address 15400 LIBBY LN. SE City/St/Zip JEFFERSON, OR 97352 Phone# (503) 949-8656 OCCB# 233615	FLAGGING	60,000-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Name D+D CONCRETE & UTILITIES Address 8319 S. GRIBBLE RD. City/St/Zip CANBY, OR 97013 Phone# (503) 266-5229 OCCB# 219262	CONCRETE	715,997	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name PRAIRIE ELECTRIC Address 27050 NE 10TH AVE City/St/Zip RIDGEFIELD, WA Phone# (360) 573-2750 OCCB# 60178	ELECTRICAL	430,500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name TFT CONSTRUCTION INC Address 53990 WEST LANE RD City/St/Zip SCAPPOOSE, OR 97056 Phone# (503) 543-7979 OCCB# 104648	GRADING	22,346	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GFE SUBCONTRACTOR AND SELF-PERFORMED WORK LIST (FORM 1) cont'd

**GOOD FAITH EFFORT
SUBCONTRACTOR AND SELF-PERFORMED WORK LIST
(FORM 1)**

Prime Contractor Name: **EAGLE - ELSNER, INC.**

Total Contract Amount: **3,658,000-**

Project Name: **BID# 2024-12 S Ivy Street Pedestrian Intersection Improvements Project**

PRIME SELF-PERFORMING: Identify below ALL GFE Divisions of Work (DOW) to be self-performed. Good Faith Efforts are otherwise required.

DOW BIDDER WILL SELF-PERFORM (GFE not required)	
<u>UNDERGROUND UTILITIES</u>	
<u>GRADING</u>	
<u>PAVING</u>	
<u>EXCAVATION</u>	

PRIME CONTRACTOR SHALL DISCLOSE AND LIST ALL SUBCONTRACTORS, including those Minority-owned, Woman-owned, and Emerging Small Businesses ("M/W/ESB") that you intend to use on the project. Delivery via bid locker <https://bidlocker.us/a/clackamascounty/BidLocker> within 2 hours of the BID/Quote Closing Date/Time.

LIST ALL SUBCONTRACTORS BELOW Use correct legal name of Subcontractor (No Assumed Business Names)	Division of Work (Painting, electrical, landscaping, etc.) List ALL DOW performed by Subcontractors	DOLLAR AMOUNT OF SUBCONTRACT	If Certified or self-reporting MBE/WBE/ESB Subcontractor Check box <input checked="" type="checkbox"/>		
			MBE	WBE	ESB
Name HICKS STRIPING Address PO BOX 9127 City/St/Zip BROOKS, OR 97305 Phone# (503) 364-4577 OCCB# 240463	STRIPING	60,900	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name ROBOTICS INC Address 4931 SE SUNDAB LN City/St/Zip DAYTON, OR 97114 Phone# (360) 507-3549 OCCB# 202786	SURVEY	54,760	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name Address City/St/Zip Phone# OCCB#			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name Address City/St/Zip Phone# OCCB#			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GFE SUBCONTRACTOR AND SELF-PERFORMED WORK LIST (FORM 1) cont'd



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

BID BOND

Project Name: # 2024-12 S Ivy Street Pedestrian Intersection Improvements Project

We, Eagle Elsner, Inc., as "Principal,"
(Name of Principal)

and Western Surety Company, an South Dakota Corporation,
(Name of Surety)

authorized to transact Surety business in Oregon, as "Surety," hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns to pay unto Clackamas County ("Obligee") the sum of (\$ 10% of Bid--)

Ten Percent of Total Amount Bid-- dollars.

WHEREAS, the condition of the obligation of this bond is that Principal has submitted its proposal or bid to an agency of the Obligee in response to Obligee's procurement document (No. 2024-12) for the project identified above which proposal or bid is made a part of this bond by reference, and Principal is required to furnish bid security in an amount equal to ten (10%) percent of the total amount of the bid pursuant to the procurement document.

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, we have caused this instrument to be executed and sealed by our duly authorized legal representatives this 27th day of February, 2024.

Principal: Eagle Elsner, Inc.

Surety: Western Surety Company

By: Richard Eagle, Pres
Signature

By: Attorney-In-Fact
Signature

PRESIDENT
Official Capacity

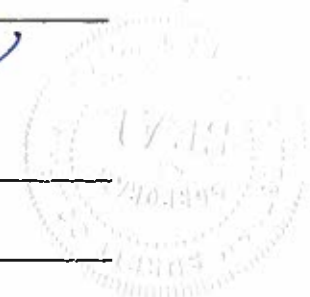
Gloria Bruning
Name

Attest: Mary Neuron
Corporation Secretary

PO Box 2808
Address

Portland, OR 97208
City State Zip

503-224-2500 503-224-9830
Phone Fax



Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Philip O Forker, Vicki Mather, Gloria Bruning, J Patrick Dooney, Richard W Kowalski, Brent Olson, Leticia Romano, Joel Dietzman, Christopher A Reburn, Gail A Price, Justin Cumnock, Andrew Choruby, Chloe Lyons, Casey J Geske, Sterling Drew Roddan, Individually

of Lake Oswego, OR, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the Authorizing By-Laws and Resolutions printed at the bottom of this page, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 6th day of November, 2023.



WESTERN SURETY COMPANY

Larry Kasten, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 6th day of November, 2023, before me personally came Larry Kasten, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
March 2, 2026



M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed below this certificate are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 27th day of February, 2024.



WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety Company.

This Power of Attorney may be signed by digital signature and sealed by a digital or otherwise electronic-formatted corporate seal under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 27th day of April, 2022:

"RESOLVED: That it is in the best interest of the Company to periodically ratify and confirm any corporate documents signed by digital signatures and to ratify and confirm the use of a digital or otherwise electronic-formatted corporate seal, each to be considered the act and deed of the Company."

Go to www.cnasurety.com > Owner / Oblige Services > Validate Bond Coverage, if you want to verify bond authenticity.



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

BID FORM

PROJECT: BID# 2024-12 S Ivy Street Pedestrian Intersection Improvements Project
BID CLOSING: March 14, 2024, 2:00 PM, Pacific Time
BID OPENING: March 14, 2024, 2:05 PM, Pacific Time

FROM: EAGLE-ELSNER, INC.
Bidder's Name (must be full legal name, not ABN/DBA)

TO: https://bidlocker.us/a/clackamascounty/BidLocker

1. Bidder is (check one of the following and insert information requested):

- a. An individual; or
- b. A partnership registered under the laws of the State of _____; or
- c. A corporation organized under the laws of the State of OREGON; or
- d. A limited liability corporation organized under the laws of the State of _____;

and authorized to do business in the State of Oregon hereby proposes to furnish all material and labor and perform all work hereinafter indicated for the above project in strict accordance with the Contract Documents for the Basic Bid as follows:

_____ Dollars (\$ _____)

and the Undersigned agrees to be bound by the following documents:

- Notice of Public Improvement Contract Opportunity
- Instructions to Bidders
- Bid Bond
- Public Improvement Contract Form
- Clackamas County General Conditions
- Prevailing Wage Rates
- Plans, Specifications and Drawings
- ADDENDA numbered 1 through 2, inclusive (fill in blanks)
- Supplemental Instructions to Bidders
- Bid Form
- Performance Bond and Payment Bond
- Supplemental General Conditions
- Payroll and Certified Statement Form

2. The Undersigned proposes to add to or deduct from the Base Bid indicated above the items of work relating to the following Alternate(s) as designated in the Specifications: N/A.
3. The Undersigned proposes to add to or deduct from the Base Bid indicated above the items or work relating to the following Unit Price(s) as designated in the Specifications, for which any adjustments in the Contract amount will be made in accordance with Section D of the Clackamas County General Conditions: **Provide attached bid schedule with Bid.**
4. The work shall be completed within the time stipulated and specified in the Contract Documents.
5. Accompanying herewith is Bid Security which is equal to ten percent (10%) of the total amount of the Basic Bid, plus the total sum of all Alternatives (if any).
6. The Undersigned agrees, if awarded the Contract, to execute and deliver to Clackamas County, within twenty (20) calendar days after receiving the Contract forms, a Contract Form, and a satisfactory Performance Bond and Payment Bond each in an amount equal to one hundred percent (100%) of the Contract sum, using forms provided by the Owner. The surety requested to issue the Performance Bond and Payment Bond will be:

WESTERN SURETY CO.
(name of surety company - not insurance agency)

The Undersigned hereby authorizes said surety company to disclose any information to the Owner concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the Contract.

7. The Undersigned further agrees that the Bid Security accompanying the Bid is left in escrow with Clackamas County; that the amount thereof is the measure of liquidated damages which the Owner will sustain by the failure of the Undersigned to execute and deliver the above-named Contract Form, Performance Bond and Payment Bond, each as published, and that if the Undersigned defaults in either executing the Contract Form or providing the Performance Bond and Payment Bond within twenty (20) calendar days after receiving the Contract forms, then the Bid Security shall become the property of the Owner at the Owner's option; but if the Bid is not accepted within thirty (30) calendar days of the time set for the opening of the Bids, or if the Undersigned executes and timely delivers said Contract Form, Performance Bond and Payment Bond, the Bid Security shall be returned.

8. The Undersigned certifies that: (i) This Bid has been arrived at independently and is being submitted without collusion with and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit independent bidding or competition; and (ii) the contents of the Bid have not been communicated by the Undersigned or its employees or agents to any person not an employee or agent of the Undersigned or its surety on any Bond furnished with the Bid and will not be communicated to such person prior to the official opening of the Bid.

9. The undersigned HAS, HAS NOT (check one) paid unemployment or income taxes in Oregon within the past 12 months and DOES, DOES NOT (check one) a business address in Oregon. The undersigned acknowledges that, if the selected bidder, that the undersigned will have to pay all applicable taxes and register to do business in the State of Oregon before executing the Contract Form.

10. The Undersigned agrees, if awarded a contract, to comply with the provisions of ORS 279C.800 through 279C.870 pertaining to the payment of the prevailing rates of wage.

11. Contractor's CCB registration number is 27112. As a condition to submitting a bid, a Contractor must be registered with the Oregon Construction Contractors Board in accordance with ORS 701.035 to 701.055, and disclose the registration number. Failure to register and disclose the number will make the bid unresponsive and it will be rejected, unless contrary to federal law.

12. The successful Bidder hereby certifies that all subcontractors who will perform construction work as described in ORS 701.005(2) were registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time the subcontractor(s) made a bid to work under the contract.

13. The successful Bidder hereby certifies that, in compliance with the Worker's Compensation Law of the State of Oregon, its Worker's Compensation Insurance provider is SAIF CORP., Policy No. 810540, and that Contractor shall submit Certificates of Insurance as required.

14. Contractor's Key Individuals for this project (supply information as applicable):
Project Executive: DAVE ELSNER, Cell Phone: (971) 235-4571
Project Manager: BRENT WILLIAMS, Cell Phone: (971) 235-7189
Job Superintendent: MIKE GREENLEAF, Cell Phone: (971) 235-4583
Project Engineer: DAVE ELSNER, Cell Phone: (971) 235-4571

15. The Undersigned certifies that it has not discriminated against minority, women, or emerging small businesses in obtaining any subcontracts for this project.

16. The Undersigned certifies that it has a drug testing program in accordance with ORS 279C.505.

REMINDER: Bidder must submit the below First-Tier Subcontractor Disclosure Form.

By signature below, Contractor agrees to be bound by this Bid.

NAME OF FIRM EAGLE - ELSNER, INC.
ADDRESS P.O. BOX 23294
TIGARD, OR 97281
TELEPHONE NO (503) 628-1137
EMAIL DICK@EAGLE-ELSNER.COM
SIGNATURE 1) _____
Sole Individual
or 2) _____
Partner
or 3) Richard Eagle, Pres
Authorized Officer or Employee of Corporation

***** END OF BID *****

BID SCHEDULE

S Ivy Street Pedestrian Intersection Improvements Construction

3/18/2024

ITEM	SPEC	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE
HARASSMENT PREVENTION, MOBILIZATION AND EXTRA WORK AS AUTHORIZED						
1	00180	Workplace Harassment Prevention Plan	LS	ALL	1000-	1000.00
2	00196	Extra Work As Authorized	AA	AA	\$150,000.00	\$150,000.00
3	00210	Mobilization	LS	ALL	250,000	250,000.00
TEMPORARY FEATURES AND APPURTENANCES						
4	00221	Temporary Work Zone Traffic Control, Complete	LS	ALL	232,670.35	232,670.35
5	00225	Stripe Removal	LF	15,000	0.40	6,000.00
6	00225	Temporary Striping	LF	13,755	0.35	4,814.25
7	00280	Erosion Control	LS	ALL	22,000-	22,000.00
8	00280	Sediment Fence	LF	4,344	4.35	18,896.40
9	00280	Inlet Protection, Type 3	EA	52	90.00	4,680.00
10	00280	Construction Entrance, Type 1	EA	1	1000-	1,000.00
11	00280	Concrete Washout Facility	EA	1	1500-	1,500.00
12	00290	Pollution Control Plan	LS	ALL	1000-	1,000.00
ROADWORK						
13	00305	Construction Survey Work	LS	ALL	60,000-	60,000.00
14	00310	Removal of Structures and Obstructions	LS	ALL	45,000-	45,000.00
15	00310	Removal of Inlets	EA	13	500-	6,500.00
16	00310	Removal of Pipes	LF	150	40.00	6,000.00
17	00310	Abandon Pipes In Place	LF	2,200	15.00	33,000.00
18	00320	Clearing and Grubbing	LS	ALL	50,000-	50,000.00
19	00330	General Excavation	CY	3,084	36.00	111,024.00
20	00331	18 Inch Subgrade Stabilization	SY	250	48.00	12,000.00
21	00332	Vault Modification	LS	ALL	11,000.00	11,000.00
22	00350	Subgrade Geotextile	SY	4,103	1.50	6,154.50
DRAINAGE AND SEWERS						
23	00405	Concrete Excavation	CY	150	125.00	18,750.00
24	00445	12" HDPE Drain Pipe	LF	2,200	140.00	308,000.00
25	00470	Precast 48" Standard Manhole Installation	EA	9	9,000-	81,000.00
26	00470	Precast 60" Sumped Sedimentation Manhole Installation	EA	6	17,000-	102,000.00
27	00470	Precast 72" Sumped Sedimentation Manhole Installation	EA	1	20,000-	20,000.00
28	00470	CG-48 Sumped Sedimentation Manhole Over Existing Line Installation	EA	1	9,000-	9,000.00
29	00470	Precast 60" Flattop Sumped Sedimentation Manhole Over Existing Line Installation	EA	1	17,000-	17,000.00
30	00470	Concrete Inlet, Type G-2	EA	11	3500-	38,500.00
31	00470	Concrete Inlet, WES Modified Type CG-1	EA	21	5000-	105,000.00
32	00470	Trapped Concrete Inlet, WES Modified Type CG-1	EA	2	6500-	13,000.00
33	00490	Filling Abandoned Structures	EA	1	3500-	3,500.00
34	00490	Adjusting Boxes	EA	70	175.00	12,250.00
35	00490	Minor Adjustment of Manhole	EA	17	2000.00	34,000.00
36	00490	Connection to Existing Structures	EA	8	1000-	8,000.00
37	00490	Connection New Structure to Existing Storm Line	EA	3	1000-	3,000.00
BASES						
38	00620	Cold Plane Pavement Removal, 0 - 2 1/2 Inches Deep	SY	13,715	2.85	39,087.75
39	00641	Aggregate Base	TON	4,073	43.00	175,139.00
WEARING SURFACES						
40	00744	Level 3, 1/2" ACP Mixture	TON	2,823	98.00	276,654.00
41	00749	Extra for Asphalt Approaches	SF	7,302	2.25	16,429.50
42	00759	Concrete Curbs - Standard Curb	LF	1,048	39.00	40,872.00
43	00759	Concrete Curbs - Standard Curb & Gutter	LF	5,633	25.00	140,825.00
44	00759	Concrete Islands	SF	251	32.00	8,032.00
45	00759	Concrete Driveways	SF	9,520	14.00	133,280.00
46	00759	Concrete Driveways, Reinforced	SF	3,223	16.00	51,568.00
47	00759	Concrete Walks	SF	22,275	10.00	222,750.00
48	00759	Extra For Thickened Edge Sidewalk	SF	360	11.00	3,960.00
49	00759	Extra for New Curb Ramps	EA	47	2000.00	94,000.00
50	00759	Extra for Exposed Aggregate Concrete	SF	150	17.00	2,550.00
51	00759	Tall Curb	LF	58	85.00	4,930.00
52	00759	Truncated Domes on New Surfaces	SF	517	50.00	25,850.00
PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES						
53	00855	Bi-Directional Yellow Type I Markers	EA	6	18.00	108.00
54	00865	Thermoplastic, Extruded or Sprayed, Surface, Non-profiled	LF	19,905	125	2,488,125
55	00867	Pavement Legend, Type AB: Arrows	EA	22	320.00	7,040.00
56	00867	Pavement Legend, Type B-HS: Bike Lane Stencil	EA	22	315.00	6,930.00
57	00867	Pavement Legend, Type AB: "SCHOOL" Large	EA	1	750.00	750.00
58	00867	Pavement Legend, Type AB: "CROSSING" Large	EA	1	950.00	950.00
59	00867	Pavement Bar, Type B-HS	SF	748	12.00	8,976.00
60	00869	Curb Marking, Paint	LF	50	5.00	250.00
PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS						
61	00902	Crosswalk Closed Support	EA	12	850.00	10,200.00
62	00905	Remove Existing Signs	LS	ALL	650.00	650.00
63	00920	Sign Support Footings	LS	ALL	10,000.00	10,000.00
64	00930	Perforated Steel Square Tube Anchor Sign Supports	LS	ALL	13,000.00	13,000.00
65	00940	Signs, Standard Sheeting, Extruded Aluminum	SF	314	25.00	7,850.00
66	00963	36 Inch Diameter Signal Support Drilled Shaft	LF	45	5.00	22,500.00
67	00990	Traffic Signal Installation, Complete (S Ivy St & S Township Rd)	LS	ALL	320,000.00	320,000.00
68	00990	Rectangular Rapid Flashing Beacon Installation, 11th St	LS	ALL	90,000.00	90,000.00
RIGHT-OF-WAY DEVELOPMENT AND CONTROL						
69	01030	Permanent Seeding	ACRE	0.147	2,000.00	294.00
70	01040	Topsoil	CY	119	95.00	11,305.00
71	01040	Bark Mulch	CY	292	90.00	26,280.00
72	01070	Single Mailbox Supports	EA	7	450.00	3,150.00
73	01070	Multiple Mailbox Supports	EA	6	500.00	3,000.00
74	01070	Mailbox Concrete Collars	EA	13	85.00	1,105.00
ADDED BID ITEMS						
75	00495	Trench Resurfacing	SY	612	60.00	36,720.00

PROPOSED COST BID SCHEDULE 3,658,000.00

(Numerically)
 PROPOSED COST BID SCHEDULE Three Million Six Hundred Fifty-Eight Thousand Dollars even
 (Written in Words)

COMPANY NAME Eagle-Elster Inc.

AUTHORIZED SIGNATURE [Signature]

**FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM
PROJECT: 2024-12**

BID OPENING: March 14, 2024, 2:00 PM, Pacific Time

Failure to submit this Form by the disclosure deadline will result in a nonresponsive bid.

INSTRUCTIONS:

This First-Tier Subcontractor Disclosure Form ("Form") must be submitted and received at the location specified in the Notice of Public Improvement Contract Opportunity on the advertised Bid Closing, and within two working hours after the advertised Bid Closing Time.

Proposals will only be accepted electronically thru a secure online bid submission service, **Bid Locker**. *Email submissions to Clackamas County email addresses will no longer be accepted.*

- A. Completed proposal documents must arrive electronically via Bid Locker located at <https://bidlocker.us/a/clackamascounty/BidLocker>.
- B. Bid Locker will electronically document the date and time of all submissions. Completed documents must arrive by the deadline indicated in Section 1 or as modified by Addendum. **LATE PROPOSALS WILL NOT BE ACCEPTED.**
- C. Proposers must register and create a profile for their business with Bid Locker in order to submit for this project. It is free to register for Bid Locker.
- D. Proposers with further questions concerning Bid Locker may review the Vendor's Guide located at <https://www.clackamas.us/how-to-bid-on-county-projects>.

Subcontractor lists may be submitted with the bid in the same envelope or email at the Bid Closing date and time. Subcontractor lists **MUST** be submitted within **two (2) hours** of the Bid Closing date and time.

List below the name of each subcontractor that will be furnishing labor, or labor and materials, for which disclosure is required, the category of work that the subcontractor will be performing, and the dollar value of the subcontract. Enter **"NONE"** if the value of the project bid is less than \$100,000 or there are no subcontractors that need to be disclosed. **ATTACH ADDITIONAL SHEETS IF NECESSARY.**

	SUBCONTRACTOR NAME	DOLLAR VALUE	CATEGORY OF WORK
1.	<u>D&D Concrete</u>	<u>\$ 716,000⁰⁰</u>	<u>Concrete</u>
2.	<u>Prairie Electric</u>	<u>\$ 430,560⁰⁰</u>	<u>Electrical</u>
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

The above listed first-tier subcontractor(s) are providing labor, or labor and material, with a Dollar Value equal to or greater than:

- a) 5% of the total Contract Price, but at least \$15,000. If the Dollar Value is less than \$15,000 do not list the subcontractor above; or
- b) \$350,000 regardless of the percentage of the total Contract Price.

Firm Name: EAGLE-ELSNER, INC.

Bidder Signature: Richard Eagle, Pres Phone # (503) 628-1137



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

PERFORMANCE BOND

Bond No.: 30216434
Solicitation: 2024-12
Project Name: S Ivy Street Pedestrian Intersection Improvements Project

Western Surety Company (Surety #1) Bond Amount No. 1: \$ 3,658,000.00
(Surety #2)* Bond Amount No. 2:* \$
* If using multiple sureties Total Penal Sum of Bond: \$ 3,658,000.00

We, Eagle Elsner, Inc. as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Clackamas County, the sum of (Total Penal Sum of Bond) Three Million Six Hundred Fifty Eight Thousand & No/100--(\$3,658,000.00) (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety); and

WHEREAS, the Principal has entered into a contract with Clackamas County, along with the plans, specifications, terms and conditions of which are contained in the above-referenced Solicitation; and

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Performance Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and all authorized modifications of the Contract which increase the amount of the work, the amount of the Contract, or constitute an authorized extension of the time for performance, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal herein shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things undertaken by Contractor to be performed under the Contract, upon the terms set forth therein, and within the time prescribed therein, or as extended as provided in the Contract, with or without notice to the Sureties, and shall defend, indemnify, and save harmless Clackamas County and its elected officials, officers, employees and agents, against any direct or indirect damages or claim of every kind and description that shall be suffered or claimed to be suffered in connection with or

arising out of the performance of the Contract by the Principal or its subcontractors, and shall in all respects perform said contract according to law, then this obligation is to be void; otherwise, it shall remain in full force and effect for so long as any term of the Contract remains in effect.

Nonpayment of the bond premium will not invalidate this bond nor shall Clackamas County, be obligated for the payment of any premiums.

This bond is given and received under authority of Oregon Revised Statutes Chapter 279C and the Clackamas County Local Contractor Review Board Rules, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this _____ day of April, 20 24 .

PRINCIPAL: Eagle Elsner, Inc.

By: Richard Eagle, Pres
Signature

President
Official Capacity

Attest: Nancy Newton
Corporation Secretary

SURETY: Western Surety Company

[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:

[Power-of-Attorney must accompany each bond]

Gloria Bruning
Name

Frank Bruning
Signature

PO Box 2808
Address

Portland, OR 97208
City State Zip

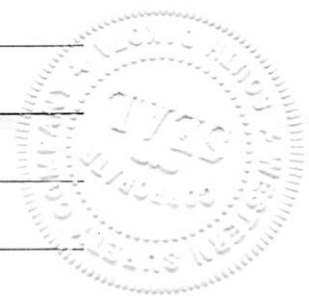
503-224-2500 503-224-9830
Phone Fax

503-224-2500 503-224-9830
Phone Fax

503-224-2500 503-224-9830
Phone Fax

503-224-2500 503-224-9830
Phone Fax

503-224-2500 503-224-9830
Phone Fax



Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Philip O Forker, Vicki Mather, Gloria Bruning, J Patrick Dooney, Richard W Kowalski, Brent Olson, Leticia Romano, Joel Dietzman, Christopher A Reburn, Gail A Price, Justin Cumnock, Andrew Choruby, Chloe Lyons, Casey J Geske, Sterling Drew Roddan, Individually

of Lake Oswego, OR, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the Authorizing By-Laws and Resolutions printed at the bottom of this page, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 6th day of November, 2023.



WESTERN SURETY COMPANY

Larry Kasten

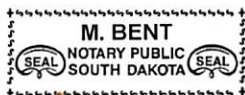
Larry Kasten, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 6th day of November, 2023, before me personally came Larry Kasten, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026



M. Bent

M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed below this certificate are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this day of April, 2024.



WESTERN SURETY COMPANY

L. Nelson

L. Nelson, Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety Company.

This Power of Attorney may be signed by digital signature and sealed by a digital or otherwise electronic-formatted corporate seal under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 27th day of April, 2022:

“RESOLVED: That it is in the best interest of the Company to periodically ratify and confirm any corporate documents signed by digital signatures and to ratify and confirm the use of a digital or otherwise electronic-formatted corporate seal, each to be considered the act and deed of the Company.”

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

PAYMENT BOND

Bond No.: 30216434
Solicitation: 2024-12
Project Name: S Ivy Street Pedestrian Intersection Improvements Project

Table with 3 columns: Surety Name, Bond Amount No., and Total Penal Sum of Bond. Includes entries for Western Surety Company and a total of \$3,658,000.00.

We, Eagle Elsner, Inc., as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Clackamas County, the sum of (Total Penal Sum of Bond) Three Million Six Hundred Fifty Eight Thousand & No/100---(\$3,658,000.00) (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety); and

WHEREAS, the Principal has entered into a contract with Clackamas County, along with the plans, specifications, terms and conditions of which are contained in above-referenced Solicitation; and

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Payment Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and schedule of contract prices which are set forth in the Contract and any attachments, and all authorized modifications of the Contract which increase the amount of the work, or the cost of the Contract, or constitute authorized extensions of time for performance of the Contract, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things by it undertaken to be performed under said Contract and any duly authorized modifications that are made, upon the terms set forth therein, and within the time prescribed therein, or as extended therein as provided in the Contract, with or without notice to the Sureties, and shall defend, indemnify, and save harmless Clackamas County and its elected officials, officers, employees and agents, against any claim for direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Contractor or its subcontractors, and shall promptly pay all persons supplying labor, materials or both to the Principal or its subcontractors for prosecution of the work provided in the Contract; and shall promptly pay all contributions due the State Industrial Accident Fund and the State Unemployment Compensation Fund from the Principal or its subcontractors in connection with the performance of the Contract; and shall pay over to the Oregon Department of Revenue all sums required to be deducted and retained from the wages of employees of the Principal and its subcontractors pursuant to ORS 316.167, and

shall permit no lien nor claim to be filed or prosecuted against Clackamas County on account of any labor or materials furnished; and shall do all things required of the Principal by the laws of this State, then this obligation shall be void; otherwise, it shall remain in full force and effect for so long as any term of the Contract remains in effect.

Nonpayment of the bond premium will not invalidate this bond nor shall Clackamas County be obligated for the payment of any premiums.

This bond is given and received under authority of Oregon Revised Statutes Chapter 279C and the Clackamas County Local Contractor Review Board Rules, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES:

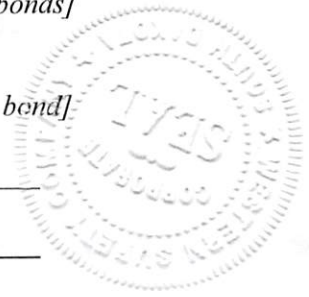
Dated this _____ day of April, 20 24.

PRINCIPAL: Eagle Elsner, Inc.
By: *Richard Eagle, Pres*
Signature
President
Official Capacity
Attest: *Mary Nelson*
Corporation Secretary

SURETY: Western Surety Company
[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:
[Power-of-Attorney must accompany each bond]

Gloria Bruning
Name
Gloria Bruning
Signature
PO Box 2808
Address
Portland, OR 97208
City State Zip
503-224-2500 503-224-9830
Phone Fax



Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Philip O Forker, Vicki Mather, Gloria Bruning, J Patrick Dooney, Richard W Kowalski, Brent Olson, Leticia Romano, Joel Dietzman, Christopher A Reburn, Gail A Price, Justin Cumnock, Andrew Choruby, Chloe Lyons, Casey J Geske, Sterling Drew Roddan, Individually

of Lake Oswego, OR, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the Authorizing By-Laws and Resolutions printed at the bottom of this page, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 6th day of November, 2023.



WESTERN SURETY COMPANY

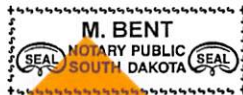
Larry Kasten, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 6th day of November, 2023, before me personally came Larry Kasten, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026



M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed below this certificate are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this day of April, 2024.



WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety Company.

This Power of Attorney may be signed by digital signature and sealed by a digital or otherwise electronic-formatted corporate seal under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 27th day of April, 2022:

“RESOLVED: That it is in the best interest of the Company to periodically ratify and confirm any corporate documents signed by digital signatures and to ratify and confirm the use of a digital or otherwise electronic-formatted corporate seal, each to be considered the act and deed of the Company.”

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT
PROJECT INFORMATION, PLANS, SPECIFICATIONS AND DRAWINGS

PROJECT: 2024-12 S Ivy Street Pedestrian Intersection Improvements Project

Background

The City of Canby obtained State Funded Local Projects (SFLP) funds through an IGA with ODOT to provide bicycle lanes and sidewalk improvements on Ivy Street. The existing street lacks the facilities that are needed to connect residents to nearby businesses and transportation options. These bicycle and pedestrian improvements will also provide safe routes and important connections to schools in the immediate area. Additional improvements will include upgraded stormwater conveyance and management facilities, ADA curb ramps, and a traffic signal at the intersection of Township Rd.

Road improvements will also include mobilization, temporary traffic control, construction survey, base work, grading, and asphalt wearing surfaces.

Project Scope:

Road improvements include widening to a consistent three lanes and adding bike lanes and sidewalks on both sides of S Ivy Street from 99E to Lee Elementary School. A yellow and red flashing signal will be installed at the intersection of Ivy St and Township Road. Fully accessible curb ramps will be constructed at intersection corners, as well as stormwater upgrades that will provide improved drainage for the roadway and treatment of stormwater runoff.

Engineers Estimate: \$4,640,500.00

Key Dates:

All Basic Bid Work may begin as soon as the Notice to Proceed (“NTP”) is issued

Substantial Completion: October 31, 2025

Final Completion: December 31, 2026

The Scope further includes the following Plans, Specifications and Drawings:

- Report of Geotechnical Engineering Services, South Ivy Street Pedestrian Intersection Improvements- GeoDesign (38 Pages)
- SPECIAL PROVISIONS FOR HIGHWAY CONSTRUCTION, DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT-S IVY STREET PEDESTRIAN INTERSECTION IMPROVEMENTS CONSTRUCTION- January 2023 (55 pages)
- S. Ivy Street Pedestrian Intersection Improvements Drawing Set (151 Pages)



REPORT OF GEOTECHNICAL ENGINEERING SERVICES

South Ivy Street Pedestrian Intersection Improvements
South Ivy Street
Clackamas County, Oregon

For
Kittelson & Associates, Inc.
February 14, 2020

GeoDesign Project: ClackCo-105-01



February 14, 2020

Kittelson & Associates, Inc.
851 SW 6th Avenue, Suite 600
Portland, OR 97204

Attention: Tony Roos, P.E.

Report of Geotechnical Engineering Services
South Ivy Street Pedestrian Intersection Improvements
South Ivy Street
Clackamas County, Oregon
GeoDesign Project: ClackCo-105-01

GeoDesign, Inc. is pleased to submit this report of geotechnical engineering services for the proposed improvements associated with South Ivy Street between OR 99E and Lee Elementary School in Clackamas County, Oregon. This report provides geotechnical design recommendations and construction guidelines for the proposed improvements.

We appreciate the opportunity to be of service to both Kittelson & Associates, Inc. and Clackamas County. Please call if you have questions regarding this report.

Sincerely,

GeoDesign, Inc.

Krey D. Younger, P.E., G.E.
Senior Associate Engineer

George Saunders, P.E., G.E.
Principal Engineer

cc: Cedomir Jestic, Cardno (via email only)

JLM:KDY:GPS:kt

Attachments

One copy submitted (via email only)

Document ID: ClackCo-105-01-021420-geor.docx

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EXECUTIVE SUMMARY

Based on our review of the proposed preliminary development plan and the results of our explorations, laboratory testing, field testing, and analysis, it is our opinion that the proposed improvements can be constructed at the site. The main report should be referenced for a detailed description of the subsurface conditions and a full understanding of our geotechnical recommendations. A summary of the primary geotechnical considerations for the project is provided below.

- We measured highly variable infiltration rates in the underlying gravel in the exploration locations. Accordingly, we recommend all locations of future on-site stormwater disposal systems be tested during construction to confirm the design rate is appropriate.
- Cobbles and boulders are present in the underlying gravel. Excavations in oversize material will be difficult and may require larger equipment or possibly special rock excavation methods. Removal of oversize material will result in caving, excavations larger than anticipated, and increased backfill volumes.

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ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
AC	asphalt concrete
ASTM	American Society for Testing and Materials
BGS	below ground surface
GPS	global positioning system
H:V	horizontal to vertical
ODOT	Oregon Department of Transportation
OSHA	Occupational Safety and Health Administration
OSSC	Oregon Standard Specifications for Construction (2018)
PCC	portland cement concrete
pcf	pounds per cubic foot
pci	pounds per cubic inch
psf	pounds per square foot
SPT	standard penetration test
UIC	underground injection control

1.0 INTRODUCTION

This report presents the results of GeoDesign's geotechnical engineering evaluation for the proposed improvements associated with South Ivy Street in Clackamas County, Oregon. Figure 1 shows the site relative to existing topographic and physical features. Existing conditions and the exploration locations are shown on Figure 2. Acronyms and abbreviations used herein are defined above, immediately following the Table of Contents.

2.0 PROJECT UNDERSTANDING

We understand that the City of Canby plans to provide new bicycle lanes and sidewalk improvements on South Ivy Street between Pacific Highway E (OR 99E) and Lee Elementary School in Clackamas County, Oregon. As part of the project, new signal pole construction at the intersection of South Ivy Street and SE Township Road is being considered. At the request of the City of Canby, Clackamas County is managing the improvement project through its certification agreement with ODOT.

Part of the project includes modifying the existing cross section of South Ivy Street to include new bicycle lanes and sidewalks, which will require new stormwater collection and conveyance systems. Based on discussion with Cardno, we understand that stormwater will be routed to existing and new UIC drywell systems.

We understand the new signal pole construction may include installation of three mast-arm signal poles at the intersection of South Ivy Street and SE Township Road. The new signal poles will be designed and constructed in accordance with the applicable ODOT standards.

3.0 SCOPE OF SERVICES

The purpose of our geotechnical engineering services was to characterize site subsurface conditions and provide geotechnical engineering recommendations for use in design and construction of the proposed improvements. Our scope of services included the following:

- Reviewed available information from previous geological and geotechnical studies conducted in the vicinity of the project.
- Obtained one-call utility locates for explorations and obtained necessary permits through Clackamas County.
- Provided traffic control during field explorations through our subcontractor.
- Explored subsurface conditions along the project alignment by completing the following:
 - Two borings were completed to depths of between 14 and 16.5 feet BGS using hollow-stem auger techniques. Both borings were used to facilitate infiltration testing.
 - One boring was completed to a depth of 31.5 feet BGS using both hollow-stem auger and mud rotary drilling techniques. Hollow-stem augers were used to drill the upper 10 feet of the boring to facilitate infiltration testing. Mud rotary drilling techniques were used to complete the exploration.

- One boring was completed to a depth of 31.5 feet BGS using mud rotary drilling techniques.
- Collected soil samples at 2.5- and 5-foot intervals from the explorations for soil classification and laboratory testing.
- Performed infiltration tests between depths of 10 and 15 feet BGS in three of the borings.
- Measured the infiltration capacity of existing drywells A-52 and A-59, west of South Ivy Street, using a water level logger and varying flow rates fed from a hydrant connected to the City of Canby water system.
- Conducted the following laboratory tests on soil samples collected from the explorations:
 - Sixteen moisture content determinations in general accordance with ASTM D2216
 - Six particle-size analyses for material passing the U.S. Standard No. 200 sieve in general accordance with ASTM C117
- Provided the results of our infiltration testing.
- Provided soil parameters to be used for signal pole foundation design.
- Provided construction recommendations for site preparation, structural fill compaction criteria, and wet/dry weather earthwork procedures.
- Provided this draft geotechnical report summarizing the results of our subsurface investigation and recommendations.

4.0 SITE CONDITIONS

4.1 GEOLOGIC SETTING

The site is located within the Willamette Valley physiographic province (Orr and Orr, 1999). Bedrock in this region consists of basalt flows emplaced approximately 15 million years ago as part of the Columbia River Basalt Group (Gannett and Caldwell, 1998; Burns et al., 1997).

During and after the Miocene Age, uplift and rotation of the Coast Range to the east created a number of closed basins within the Willamette Valley, which filled with silt, sand, and gravel of Miocene to Pleistocene Age (14.5 million to 1 million years old) (Orr and Orr, 1999). These deposits form the majority of basin fill sediments in the Willamette Valley. This sedimentary package is generally mapped as the Sandy River Mudstone toward the lower portion of the assemblage (mostly fine-grained sandstone and mudstone) overlain by the Troutdale Formation, a series of gravel, sand, and silt, with both units deposited by the ancestral Columbia River and smaller rivers running out of the Cascade Mountains (Tolan and Beeson, 1984; Everts et al., 2013).

The basin fill sediments are overlain by late Pleistocene Age catastrophic flood deposits. Approximately 15,000 to 12,000 years ago floods caused by the sudden drainage of large glacial lakes in western Montana swept down the Columbia River and over the lowlands of the Portland area (Allen et al., 1986), leaving behind thick accumulations of silt, sand, and gravel. These Missoula flood deposits can be divided into a fine-grained facies consisting of silt and fine sand and a coarse-grained facies with gravel- to boulder-sized material deposited in a matrix of sand and silt. In Canby, a thick (110 to 130 feet) delta of gravel and boulders was deposited as a result of the Missoula Floods being channeled through the topographic gap along the Columbia River at Oregon City. These deposits are generally overlain by 10 to 30 feet of silt and sand in

the project area (O'Connor et al., 2001; Burns and Coe, 2012). The total thickness of the basin fill and flood deposits in the vicinity of the site is thought to be approximately 600 to 700 feet (Gannett and Caldwell, 1998; Burns et al., 1997).

4.2 SURFACE CONDITIONS

South Ivy Street is an AC-surfaced major collector with intermittent sidewalks, curbs, and bike lanes. Mixed residential and commercial developments are situated adjacent to the project alignment. The proposed improvement zone of South Ivy Street is generally oriented in a northwest/southeast direction with generally two lanes; however, a center turn lane is present between OR 99E and SE 6th Place. Vegetation along the roadway consists of grass, shrubs, and trees.

4.3 SUBSURFACE CONDITIONS

4.3.1 General

Our subsurface exploration program consisted of drilling four borings (C-1 through C-4) to depths of between 14 and 31.5 feet BGS. The approximate locations of the explorations are shown on Figure 2. A description of our exploration and laboratory testing programs, logs of the explorations, and results of laboratory testing are presented in Appendix A.

Subsurface conditions generally consist of fill, sandy clay, and sand with vary proportions of silt and gravel over a dense gravel unit. The following sections provide a detailed description of the units encountered.

4.3.2 Pavement

AC was encountered at the ground surface in all borings completed for this study. Below the AC we encountered either PCC pavement slab or aggregate base in each boring location. Table 1 presents the thicknesses of AC, PCC, and aggregate base encountered at the boring locations.

Table 1. Existing Pavement Thickness

Boring Number	Lane	Thickness of AC (inches)	Thickness of PCC (inches)	Thickness of Aggregate Base (inches)
C-1	Center	3.0	10.0	Not encountered
C-2	Center	4.0	6.0	Not encountered
C-3	Center	8.0	Not encountered	4.0
C-4	Center	8.0	Not encountered	6.0

4.3.3 Fill

We encountered fill beneath the pavement sections to depths up to 4.5 feet BGS in borings C-1 and C-2. The fill consists of silt with minor gravel, sand, and clay and clayey sand with trace silt in borings C-1 and C-2, respectively. Based on SPT blow counts, the silt and clayey sand fill are very soft to soft and very loose, respectively. Our laboratory testing program indicates the moisture content of the fill varied from 21 to 27 percent at the time of our explorations.

4.3.4 Sandy Clay

We encountered sandy clay in boring C-3 beneath the pavement section to a depth of approximately 4.5 feet BGS. A sample of the clay appeared to demonstrate medium plasticity. Based on SPT blow counts, the sandy clay is soft to medium stiff. Based on laboratory testing, a sample of the clay had a moisture content of 21 percent at the time of our explorations.

4.3.5 Sand

We encountered sand with varying proportions of silt and gravel in borings C-2 and C-3 beneath the fill and clay to depths of approximately 7 feet BGS. The sand layer appears to be a transition zone between the overlying fine-grained material and the underlying dense gravel. Based on laboratory testing, the moisture content of the sand layer varied from 12 and 25 percent at the time of our explorations.

4.3.6 Gravel

Gravel was observed below the fill, sandy clay, and sand layers to the maximum depth explored of 31.5 feet BGS. The gravel is generally medium dense to very dense with cobbles and variable amounts of clay, sand, and silt. Based on explorations completed in the project vicinity, boulders are anticipated in the gravel unit. The moisture content of the gravel varied between 6 and 18 percent at the time of our explorations.

4.3.7 Groundwater

Groundwater was not encountered in our hollow-stem auger borings to a maximum depth explored of 16.5 feet BGS. Groundwater could not be measured directly at greater depths due to the presence of drilling fluid in the mud rotary borings. Groundwater mapping completed by GSI Water Solutions for the Canby area is presented in Appendix B. The mapping indicates groundwater depths of approximately 20 to 50 feet BGS are expected along the project alignment.

The depth to groundwater may fluctuate in response to seasonal changes, prolonged rainfall, changes in surface topography, and other factors not observed in this study. Shallow perched groundwater is likely during extended periods of wet weather.

5.0 INFILTRATION TESTING

We conducted infiltration testing in the borings and in existing drywells A-52 and A-59 to evaluate stormwater infiltration for the project. The following sections provide descriptions of the test procedures, results, and our recommendations for design.

5.1 INFILTRATION TESTING IN BORINGS

We conducted infiltration testing in borings C-1 through C-3 at depths between 10 and 15 feet BGS. Prior to performing the tests, the exposed soil was saturated. The infiltration tests were performed using the encased falling-head method. Deep infiltration tests were performed with up to 6 feet of water head in order to simulate drywell conditions during a large storm event.

Laboratory testing was performed on select soil samples to determine the percent fines content at infiltration test depths. Table 2 summarizes the unfactored infiltration test results and the fines content of the soil present at the infiltration test depths.

Table 2. Exploration Infiltration Test Results

Exploration	Depth (feet BGS)	Material	Observed Infiltration Rate ¹ (inches per hour)	Water Head (feet)	Percent Fines ²
C-1	10.0	Silty GRAVEL with cobbles (GM)	50	6	13
C-2	15.0	GRAVEL (GP)	100+	1	4
C-3	10.0	Silty GRAVEL with cobbles (GM)	Negligible	5	14

1. Infiltration rates are measured rates with no factor of safety.
2. Fines content: material passing the U.S. Standard No. 200 sieve

5.2 INFILTRATION TESTING IN DRYWELLS A-52 AND A-59

We conducted infiltration testing in drywells A-52 and A-59 by inflowing water at varying rates into the drywells and measuring the resulting sustained water head using a water level logger. Drywells A-52 and A-59 were selected for testing due to their proximity to available fire hydrants. Table 3 summarizes the measured sustained water head at each inflow rate.

Table 3. Drywell Infiltration Test Results

Drywell	Depth of Drywell (feet BGS)	Test Inflow Rate (gpm)	Measured Sustained Water Head (feet)
A-52	29	50	0.6
		150	0.9
		190	1.3
A-59	25.5	50	2.7
		150	4.7
		225	5.2

5.3 STORMWATER DISPOSAL DESIGN

Based on the results of infiltration testing, it is our opinion that infiltration can be achieved in the gravel unit underlying the project alignment; however, infiltration rates will be variable due to the varying amounts of silt, sand, and cobbles. Correction factors should be applied to the measured infiltration rates to account for soil variations and the potential for long-term clogging due to siltation and buildup of organic material. The infiltration rates shown in Tables 2 and 3 are short-term field rates and factors of safety have not been applied. Given the variability, we recommend a minimum factor of safety of at least 3 with the exploration results and 2 with the drywell results be applied to the field infiltration values presented above. We recommend that we be allowed to review the final design and provide comments as necessary.

We recommend the installation of stormwater facilities be observed by a qualified geotechnical engineer or representative under their supervision to evaluate if soil conditions are consistent with subsurface conditions encountered during our explorations. Following installation, we recommend confirmation testing of infiltration facilities.

6.0 SIGNAL POLE FOUNDATION DESIGN

We understand that three mast-arm signal poles are being considered for new signaling at the intersection of South Ivy Street and SE Township Road. The signal poles will be constructed in accordance with ODOT standards. The design of traffic control structures is subject to the requirements of Chapter 16 to the ODOT *Geotechnical Design Manual* (November 2017) and Section 13 of AASHTO’s *Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 1st Edition* (AASHTO, 2015).

We anticipate the foundations for the signal poles will consist of 36- to 48-inch-diameter drilled shafts. We anticipate that the axial loads of the signal poles will be negligible and the overturning and torsional forces will control design.

If the Brom’s design method is used to evaluate the pole foundations, the soil should be considered cohesionless and the soil reaction distribution should be modelled after the distribution shown on Figure 13-2 (AASHTO, 2015). We recommend that lateral resistance from soil within a distance of 1.5D of the ground surface be ignored in design when using Brom’s method, where D is the diameter of the shaft. Appropriate soil parameters for the Brom’s design method are presented in Table 4.

Table 4. Input Parameters for Brom’s Design Method of Laterally Loaded Piles

Soil	Effective Unit Weight, g' (pcf)	Cohesion, C (psf)	Friction Angle, (ϕ')	Passive Earth Pressure Coefficient K_p
Loose, Silty Sand and Medium Dense to Dense Gravel (4.5 to 31.5 feet BGS)	120 (58) ^{1,2}	Not applicable	35	3.6

1. Values in parentheses are buoyant unit weights for soil below the groundwater table.
2. Groundwater level should be assumed at a depth of 30 feet BGS for the intersection.

If LPILE p-y curves are used to evaluate the pole foundations, deflection of the foundations should be limited to ½ inch at the shaft head. Appropriate soil parameters for the LPILE design method are presented in Table 5.

Table 5. LPILE Input Parameters

Soil	LPILE Soil Type	Effective Unit Weight, g' (pcf)	Friction Angle, f'	Soil Modulus, k (pci)
Loose, Silty Sand (4.5 to 7 feet BGS)	Sand	115 (53) ^{1,2}	30	40 (30) ³
Medium Dense to Dense Gravel (7 to 31.5 feet BGS)	Sand	125 (63) ^{1,2}	38	160 (100) ³

1. Values in parentheses are buoyant unit weights for soil below the groundwater table.
2. Groundwater level should be assumed at a depth of 30 feet BGS for the intersection.
3. Values in parentheses are submerged soil modulus, k, values for soil below the groundwater table.

7.0 CONSTRUCTION CONSIDERATIONS

The following sections provide general recommendations for construction of the proposed improvements related to this study.

7.1 SITE PREPARATION

We understand that existing underground utilities and other subsurface structures within the project area will need to be removed or rerouted. Soil disturbed during the removal of these items should be removed and replaced with structural fill in areas located in the influence zone of pavement or other structures. Voids resulting from the removal process should be backfilled with compacted structural fill. Material generated during demolition should be transported off site for disposal.

7.2 WET WEATHER CONSIDERATIONS

The on-site soil will provide poor support for construction traffic during periods of extended wet weather or when the moisture content of the surficial soil is more than a few percentage points above optimum. If not carefully executed, site preparation, utility trench work, and excavation can create extensive soft areas and will result in significant subgrade repair costs where the native soil is exposed. If construction is planned when the surficial soil is wet of optimum moisture content or during wet weather, the construction methods and schedule should be carefully considered with respect to protecting the subgrade to reduce the need to over-excavate disturbed or softened soil. When possible, construction equipment should work off existing AC surfacing and before the existing AC pavement is replaced or rehabilitated. The project budget should include a contingency reflecting the following recommendations if construction is planned during wet weather or when the surficial soil is wet.

Generally, a 12- to 18-inch-thick granular pad is sufficient for light staging areas but is not expected to be adequate to support heavy equipment or truck traffic for haul roads and areas with repeated heavy construction. In our experience, an 18- to 24-inch section should be adequate. The actual thickness of haul roads and staging areas should be based on the contractor's approach to site development and the amount and type of construction traffic. Consequently, the contractor should be responsible for selecting the locations of staging areas and haul roads and selecting the appropriate thickness of granular material for these areas.

7.3 EXCAVATION

7.3.1 General

The clay and sand layers near the ground surface should be excavatable with conventional earthwork equipment. The site is underlain by medium dense to dense gravel with cobbles and boulders. The gravel, cobbles, and boulders will lead to difficult excavation conditions, including the following:

- Excavation volumes may be greater than anticipated due to sloughing, caving, and the need to remove oversized material.
- Boulders will likely be encountered during excavations, and we recommend that project bid documents include a contingency for boulder removal, as well as the associated increased volumes for backfilling.
- Specialized excavation equipment may be required to remove cobbles and boulders.

7.3.2 Trench Cuts

Trench cuts should stand near vertical to a depth of at least 4 feet. Open excavation techniques may be used to excavate trenches with depths between 4 and 8 feet, provided the walls of the excavation are cut at a slope of 1H:1V, groundwater seepage is not present, and with the understanding that some sloughing may occur. Excavations should be flattened to 1½H:1V if excessive sloughing occurs. Excavations that extend into the dense gravel unit will likely encounter difficult excavation conditions as well as cobbles and boulders.

7.3.3 Shoring

If box shoring is used, it should be understood that box shoring is a safety feature used to protect workers and does not prevent caving. If the excavations are left open for extended periods of time, caving of the sidewalls may occur. The presence of caved material will limit the ability to properly place and compact backfill material. The contractor should be prepared to fill voids between the box shoring and the sidewalls of excavations with sand or gravel before caving occurs.

If shoring is used, we recommend that the type and design of the shoring system be the responsibility of the contractor, who is in the best position to choose a system that fits the overall plan of operation. All excavations should be made in accordance with applicable OSHA and state regulations.

7.3.4 Safety

All excavations should be made in accordance with applicable OSHA requirements and regulations of the state, county, and local jurisdiction. While this report describes certain approaches to excavation and dewatering, the contract documents should specify that the contractor is responsible for selecting excavation and dewatering methods, monitoring the excavations for safety, and providing shoring (as required) to protect personnel and adjacent structural elements.

7.3.5 Dewatering

Excavations likely will not encounter static groundwater and significant dewatering operations will not be necessary. If storm runoff seeps into trenches, it should be removed by pumping from a sump. Water should be routed to a suitable discharge point.

7.4 MATERIALS

7.4.1 Structural Fill

7.4.1.1 General

A variety of granular material may be used as structural fill at the site; however, all material used as structural fill should be free of organic material or other unsuitable material. A brief characterization of some of the acceptable materials and our recommendations for their use as structural fill are provided below.

7.4.1.2 Imported Granular Material

Imported granular material used as structural fill should be pit- or quarry-run rock, crushed rock, or crushed gravel and sand. The imported granular material should also be angular, should be fairly well graded between coarse and fine material, should have less than 5 percent fines (material passing the U.S. Standard No. 200 sieve) by dry weight, and should have at least two mechanically fractured faces.

Imported granular material should be placed in lifts with a maximum uncompacted thickness of 12 inches and compacted to not less than 95 percent of the maximum dry density, as determined by AASHTO T 99. During the wet season or when wet subgrade conditions exists, the initial lift should be approximately 18 inches in uncompacted thickness and should be compacted by rolling with a smooth-drum roller without using vibratory action.

7.4.1.3 Stabilization Material

Stabilization material used in staging or haul road areas or in trenches should consist of 4- or 6-inch-minus pit- or quarry-run rock, crushed rock, or crushed gravel and sand. The material should have a maximum particle size of 6 inches, should have less than 5 percent by dry weight passing the U.S. Standard No. 4 sieve (washed analysis), and should have at least two mechanically fractured faces. The material should be free of organic material and other deleterious material. Stabilization material should be placed in lifts between 12 and 24 inches thick and compacted to a firm and well-keyed condition.

7.4.1.4 Trench Backfill

Trench backfill for utility pipe bases and pipe zones should consist of well-graded, granular material with a maximum particle size of 1 inch, should have less than 7 percent by dry weight passing the U.S. Standard No. 200 sieve, and should meet OSSC 00405.12 (Bedding) and OSSC 00405.13 (Pipe Zone). The material should be free of roots, organic material, and other unsuitable material and should have at least two mechanically fractured faces. The pipe zone backfill should be compacted to at least 90 percent of the maximum dry density, as determined by AASHTO T 99, or as required by the pipe manufacturer.

Within roadway alignments, the remainder of the trench backfill up to the subgrade elevation should consist of granular material meeting the requirements above and with a maximum

particle size of 2½ inches. This material should be compacted to at least 95 percent of the maximum dry density, as determined by AASHTO T 99, or as required by the pipe manufacturer. The upper 3 feet of the trench backfill should be compacted to at least 95 percent of the maximum dry density, as determined by AASHTO T 99.

Outside of structural improvement areas (e.g., roadway alignments and other structures) trench backfill placed above the pipe zone may consist of general fill material that is free of organic material and material over 6 inches in diameter. This general trench backfill should be compacted to at least 90 percent of the maximum dry density, as determined by AASHTO T 99, or as required by the pipe manufacturer.

7.4.1.5 Pavement Aggregate Base

Imported granular material used as base rock for pavement should consist of ¾- or 1½-inch-minus material (depending on the application). In addition, the aggregate should have less than 5 percent fines by dry weight (washed analysis) and at least two fractured faces. The aggregate base should be compacted to not less than 95 percent of the maximum dry density, as determined by AASHTO T 99.

7.4.1.6 Drain Rock Material

Drain rock should consist of angular, granular material with a maximum particle size of 2 inches. The material should be free of roots, organic material, and other unsuitable material; should have less than 2 percent by dry weight passing the U.S. Standard No. 200 sieve (washed analysis); and should have at least at least two mechanically fractured faces.

We recommend drain rock be separated from general fill, native soil, and/or topsoil using a geotextile fabric that meets the specifications provided below for drainage geotextiles.

7.4.2 Drainage Geotextile Fabric

Drainage geotextile fabric should meet the specifications provided in OSSC Table 02320-1 - Geotextile Property Values for Drainage Geotextile. The geotextile should be installed in conformance with OSSC 00350 (Geosynthetic Installation). A minimum initial aggregate base lift of 6 inches is required over geotextiles.

7.5 EROSION CONTROL

The site soil is susceptible to erosion; therefore, erosion control measures should be carefully planned and in place before construction begins. Surface water runoff should be collected and directed away from slopes to prevent water from running down the slope face. Erosion control measures (such as straw bales, sediment fences, and temporary detention and settling basins) should be used in accordance with local and state ordinances.

8.0 OBSERVATION OF CONSTRUCTION

Satisfactory earthwork performance depends to a large degree on quality of construction. Sufficient observation of the contractor's activities is a key part of determining that the work is completed in accordance with the construction drawings and specifications. Subsurface conditions observed during construction should be compared with those encountered during the

subsurface explorations. Recognition of changed conditions often requires experience; therefore, qualified personnel should visit the site with sufficient frequency to detect if subsurface conditions change significantly from those anticipated.

9.0 LIMITATIONS

We have prepared this report for use by Kittelson & Associates, Inc., Clackamas County, and members of the design and construction teams for the proposed project. The data and report can be used for bidding or estimating purposes, but our report, conclusions, and interpretations should not be construed as warranty of the subsurface conditions and are not applicable to other nearby building sites.

Exploration observations indicate soil conditions only at specific locations and only to the depths penetrated. They do not necessarily reflect soil strata or water level variations that may exist between exploration locations. If subsurface conditions differing from those described are noted during the course of excavation and construction, re-evaluation will be necessary.

The site development plans and design details were preliminary at the time this report was prepared. When the design has been finalized and if there are changes in the site grades or location, configuration, design loads, or type of construction, the conclusions and recommendations presented may not be applicable. If design changes are made, we request that we be retained to review our conclusions and recommendations and to provide a written modification or verification.

The scope does not include services related to construction safety precautions, and our recommendations are not intended to direct the contractor's methods, techniques, sequences, or procedures, except as specifically described in this report for consideration in design.

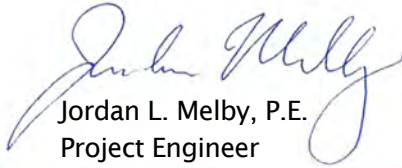
Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted practices in this area at the time this report was prepared. No warranty, express or implied, should be understood.

◆ ◆ ◆

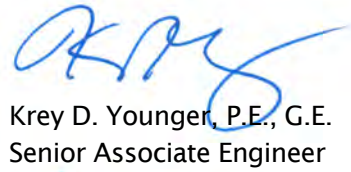
We appreciate the opportunity to be of service to you. Please call if you have questions concerning this report or if we can provide additional services.

Sincerely,

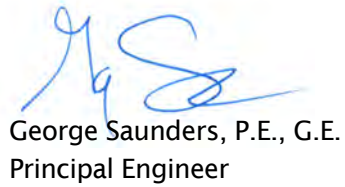
GeoDesign, Inc.



Jordan L. Melby, P.E.
Project Engineer



Krey D. Younger, P.E., G.E.
Senior Associate Engineer



George Saunders, P.E., G.E.
Principal Engineer

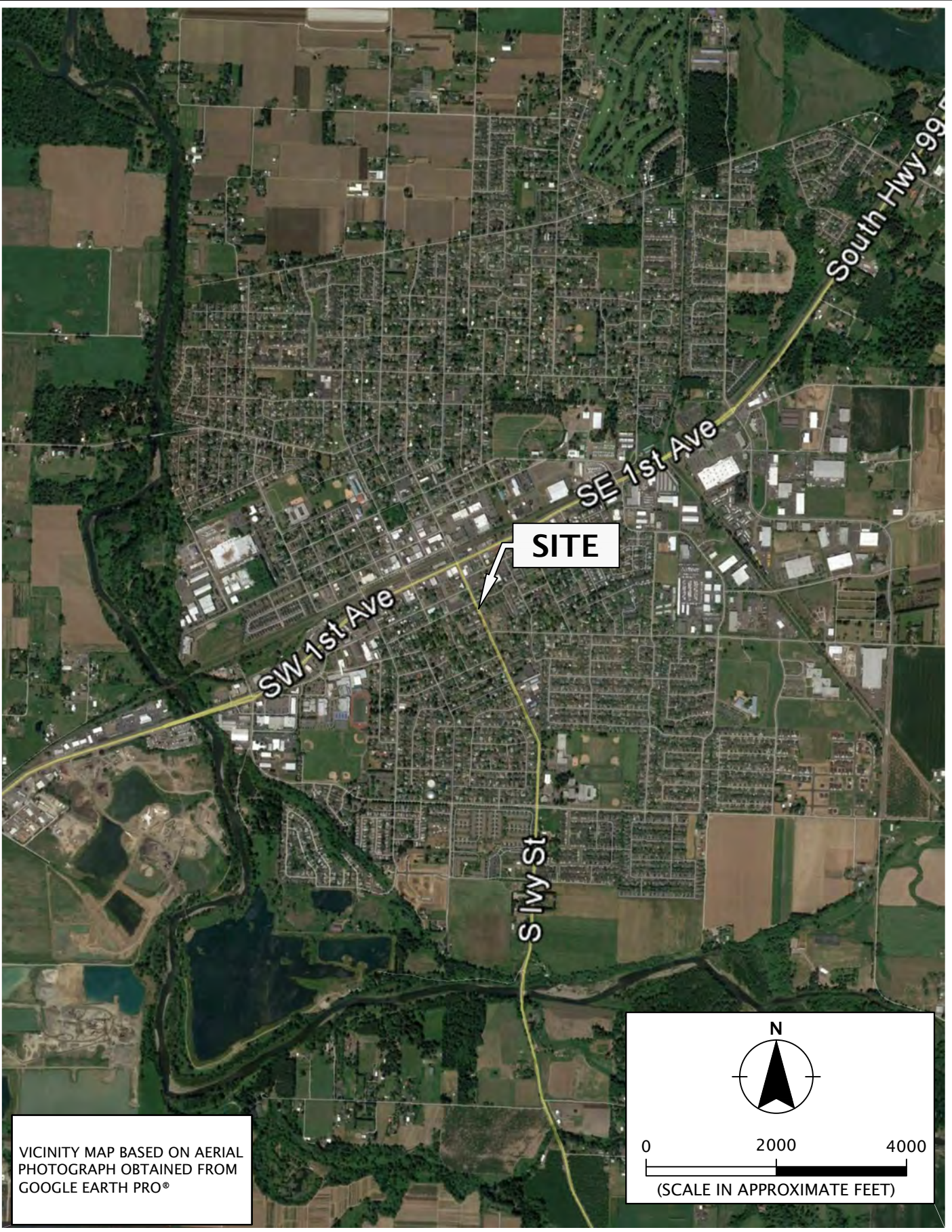


REFERENCES

- Allen, J.E., Burns, M., and Sargent, S.C., 1986, Cataclysms on the Columbia. Timber Press, Portland, Oregon: 211 p.
- Burns, W.J., and Coe, D.E., 2012, Missoula Floods – Inundation Extent and Primary Flood Features in the Portland Metro Area. Oregon Department of Geology and Mineral Industries, IMS-36.
- Burns, S., Growney, L., Broderson, B., Yeats, R.S., and Popowski, T.A., 1997, Map showing faults, bedrock geology, and sediment thickness of the western half of the Oregon City 1:100,000 quadrangle, Washington, Multnomah, Clackamas, and Marion Counties, Oregon. Oregon Department of Geology and Mineral Industries, IMS-4, scale 1:100,000.
- Evarts, R.C., O'Connor, J.E., and Tolan, T.L., 2013, Geologic Map of the Washougal Quadrangle, Clark County, Washington and Multnomah County, Oregon. U.S. Geological Survey Scientific Investigations Map 3257.
- Gannett, M.W. and Caldwell, R.R., 1998, Geologic Framework of the Willamette Lowland Aquifer System, Oregon and Washington. U.S. Geological Survey Professional Paper 1424-A, 32p, 8 plates.
- O'Connor, J.E., Sarna-Wojcicki, A., Wozniak, K.C., Polette, D.J., and Fleck, R.J., 2001, Origin, Extent and Thickness of Quaternary Geologic Units in the Willamette Valley, Oregon. U.S. Geological Survey Professional Paper 1620, 62 p.
- ODOT, 2018. *Oregon Standard Specifications for Construction*, Oregon Department of Transportation, 2018 Edition.
- Orr, E.L. and Orr, W.N., 1999, Geology of Oregon. Kendall/Hunt Publishing Company, Iowa: 254p.
- Tolan, T.L., and Beeson, M.H., 1984, Intracanyon Flows of the Columbia River Basalt Group in the Lower Columbia Gorge and Their Relationship to the Troutdale Formation. GSA Bulletin 95 (4), pp. 463 to 477.

FIGURES

Printed By: aday | Print Date: 2/13/2020 3:44:43 PM
File Name: J:\A-D\ClackCo\clackco-105\clackco-105-01\Figures\CAD\ClackCo-105-01-VM01.dwg | Layout: FIGURE 1



VICINITY MAP BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®





CLACKCO-105-01
FEBRUARY 2020

VICINITY MAP
SOUTH IVY STREET PEDESTRIAN INTERSECTION
CLACKCAMAS COUNTY, OR

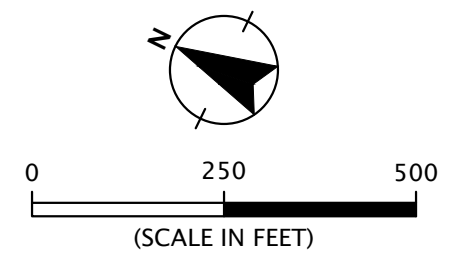
FIGURE 1



LEGEND:

-  BORING
-  TESTED DRYWELL

SITE PLAN BASED ON AERIAL PHOTOGRAPH
OBTAINED FROM GOOGLE EARTH PRO®,
DECEMBER 23, 2019



APPENDIX A

APPENDIX A

FIELD EXPLORATIONS

GENERAL

We explored subsurface conditions at the site by drilling four borings (C-1 through C-4) to depths of between 14 and 31.5 feet BGS. The explorations were completed by Western States Soil Conservation, Inc. of Hubbard, Oregon, on December 11 and 12, 2019. Borings C-1, C-2, and the top 10 feet of boring C-3 were drilled using an 8-inch-diameter hollow-stem auger to facilitate infiltration testing. Boring C-4 and the lower portion of boring C-3 were drilled using mud rotary methods.

The locations of the explorations are shown on Figure 2. The locations of the explorations are based on coordinates collected from a hand-held GPS unit and should be considered accurate to the degree in which they were measured.

SOIL SAMPLING

Samples were collected from the borings using 1½-inch-inner diameter SPT split-barrel sampler in general accordance with ASTM D1586. The sampler was driven into the soil with a 140-pound hammer free-falling 30 inches. The sampler was driven a total distance of 18 inches. The number of blows required to drive the sampler the final 12 inches is recorded on the exploration logs, unless otherwise noted. Samples were generally collected at 2.5- to 5-foot intervals throughout the depth of the borings. Sampling methods and intervals are shown on the exploration logs.

The average efficiency of the automatic SPT hammer used by Western States Soil Conservation, Inc. was 86 percent. The calibration testing results are presented at the end of this appendix.

SOIL CLASSIFICATION

The soil samples were classified in accordance with the “Explorations Key” (Table A-1) and “Soil Classification System” (Table A-2), which are presented in this appendix. The exploration logs indicate the depths at which the soils or their characteristics change, although the change actually could be gradual. If the change occurred between sample locations, the depth was interpreted. Classifications are shown on the exploration logs.

LABORATORY TESTING










We visually examined soil samples collected from the explorations to confirm field classifications. We also performed the following laboratory testing.

MOISTURE CONTENT

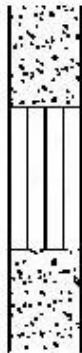
We tested the natural moisture content of select soil samples in general accordance with ASTM D2216. The natural moisture content is a ratio of the weight of the water to soil in a test sample and is expressed as a percentage. The test results are presented in this appendix.

PARTICLE-SIZE ANALYSIS

We completed particle-size analysis on select soil samples in general accordance with ASTM C117. The tests determined the percent fines (passing the U.S. Standard No. 200 sieve) only. The test results are presented in this appendix.

SYMBOL	SAMPLING DESCRIPTION
	Location of sample collected in general accordance with ASTM D1586 using Standard Penetration Test with recovery
	Location of sample collected using thin-wall Shelby tube or Geoprobe® sampler in general accordance with ASTM D1587 with recovery
	Location of sample collected using Dames & Moore sampler and 300-pound hammer or pushed with recovery
	Location of sample collected using Dames & Moore sampler and 140-pound hammer or pushed with recovery
	Location of sample collected using 3-inch-O.D. California split-spoon sampler and 140-pound hammer with recovery
	Location of grab sample
	Rock coring interval
	Water level during drilling
	Water level taken on date shown

Graphic Log of Soil and Rock Types



Observed contact between soil or rock units (at depth indicated)


Inferred contact between soil or rock units (at approximate depths indicated)

GEOTECHNICAL TESTING EXPLANATIONS

ATT	Atterberg Limits	P	Pushed Sample
CBR	California Bearing Ratio	PP	Pocket Penetrometer
CON	Consolidation	P200	Percent Passing U.S. Standard No. 200 Sieve
DD	Dry Density	RES	Resilient Modulus
DS	Direct Shear	SIEV	Sieve Gradation
HYD	Hydrometer Gradation	TOR	Torvane
MC	Moisture Content	UC	Unconfined Compressive Strength
MD	Moisture-Density Relationship	VS	Vane Shear
NP	Non-Plastic	kPa	Kilopascal
OC	Organic Content		

ENVIRONMENTAL TESTING EXPLANATIONS

CA	Sample Submitted for Chemical Analysis	ND	Not Detected
P	Pushed Sample	NS	No Visible Sheen
PID	Photoionization Detector Headspace Analysis	SS	Slight Sheen
ppm	Parts per Million	MS	Moderate Sheen
		HS	Heavy Sheen

RELATIVE DENSITY - COARSE-GRAINED SOIL									
Relative Density		Standard Penetration Resistance		Dames & Moore Sampler (140-pound hammer)		Dames & Moore Sampler (300-pound hammer)			
Very Loose		0 - 4		0 - 11		0 - 4			
Loose		4 - 10		11 - 26		4 - 10			
Medium Dense		10 - 30		26 - 74		10 - 30			
Dense		30 - 50		74 - 120		30 - 47			
Very Dense		More than 50		More than 120		More than 47			
CONSISTENCY - FINE-GRAINED SOIL									
Consistency		Standard Penetration Resistance		Dames & Moore Sampler (140-pound hammer)		Dames & Moore Sampler (300-pound hammer)		Unconfined Compressive Strength (tsf)	
Very Soft		Less than 2		Less than 3		Less than 2		Less than 0.25	
Soft		2 - 4		3 - 6		2 - 5		0.25 - 0.50	
Medium Stiff		4 - 8		6 - 12		5 - 9		0.50 - 1.0	
Stiff		8 - 15		12 - 25		9 - 19		1.0 - 2.0	
Very Stiff		15 - 30		25 - 65		19 - 31		2.0 - 4.0	
Hard		More than 30		More than 65		More than 31		More than 4.0	
PRIMARY SOIL DIVISIONS					GROUP SYMBOL		GROUP NAME		
COARSE-GRAINED SOIL (more than 50% retained on No. 200 sieve)	GRAVEL (more than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (< 5% fines)			GW or GP		GRAVEL		
		GRAVEL WITH FINES (≥ 5% and ≤ 12% fines)			GW-GM or GP-GM		GRAVEL with silt		
					GW-GC or GP-GC		GRAVEL with clay		
		GRAVEL WITH FINES (> 12% fines)			GM		silty GRAVEL		
					GC		clayey GRAVEL		
					GC-GM		silty, clayey GRAVEL		
	SAND (50% or more of coarse fraction passing No. 4 sieve)	CLEAN SAND (<5% fines)			SW or SP		SAND		
		SAND WITH FINES (≥ 5% and ≤ 12% fines)			SW-SM or SP-SM		SAND with silt		
					SW-SC or SP-SC		SAND with clay		
		SAND WITH FINES (> 12% fines)			SM		silty SAND		
SC					clayey SAND				
SC-SM					silty, clayey SAND				
FINE-GRAINED SOIL (50% or more passing No. 200 sieve)	SILT AND CLAY	Liquid limit less than 50			ML		SILT		
					CL		CLAY		
					CL-ML		silty CLAY		
		Liquid limit 50 or greater			OL		ORGANIC SILT or ORGANIC CLAY		
					MH		SILT		
					CH		CLAY		
	OH			ORGANIC SILT or ORGANIC CLAY					
	HIGHLY ORGANIC SOIL					PT		PEAT	
MOISTURE CLASSIFICATION			ADDITIONAL CONSTITUENTS						
Term	Field Test	Secondary granular components or other materials such as organics, man-made debris, etc.							
		Percent	Silt and Clay In:		Percent	Sand and Gravel In:			
	Fine-Grained Soil		Coarse-Grained Soil			Fine-Grained Soil	Coarse-Grained Soil		
dry	very low moisture, dry to touch	< 5	trace	trace	< 5	trace	trace		
moist	damp, without visible moisture	5 - 12	minor	with	5 - 15	minor	minor		
wet	visible free water, usually saturated	> 12	some	silty/clayey	15 - 30	with	with		
					> 30	sandy/gravelly	Indicate %		
			SOIL CLASSIFICATION SYSTEM				TABLE A-2		

BORING LOG - GDI-NV5 - 1 PER PAGE CLACKCO-105-01-C1 - 4.GPJ GDI_NV5.GDT PRINT DATE: 2/13/20-KM

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % ▨ RQD% ▩ CORE REC%	INSTALLATION AND COMMENTS
0.0		ASPHALT CONCRETE (3.0 inches).					
0.3		PORTLAND CEMENT CONCRETE (10.0 inches).	0.3				
1.1		Very soft to soft, dark brown SILT (ML), minor gravel, sand, and clay; moist, silt has low plasticity - FILL.	1.1				
2.5							
4.5		Very dense, orange-brown GRAVEL with silt and cobbles (GP-GM), minor sand, trace clay; moist, gravel is subrounded.	4.5				
5.0							
7.5							
10.0		Dense, light gray-brown, silty GRAVEL with cobbles (GM), minor sand, trace clay; moist, gravel is subrounded.	10.0	P200			Infiltration test at 10 feet. P200 = 13%
12.0		Medium dense, brown with gray mottled GRAVEL with clay (GP-GC), minor sand; moist, gravel is subrounded.	12.0	P200			P200 = 18%
14.0		Exploration completed at a depth of 14.0 feet.	14.0				Surface elevation was not measured at the time of exploration.
15.0		Hammer efficiency factor is 86.0 percent.					
17.5							
20.0							

DRILLED BY: Western States Soil Conservation, Inc.

LOGGED BY: J. Hook

COMPLETED: 12/11/19

BORING METHOD: hollow-stem auger (see document text)

BORING BIT DIAMETER: 8 inches



CLACKCO-105-01

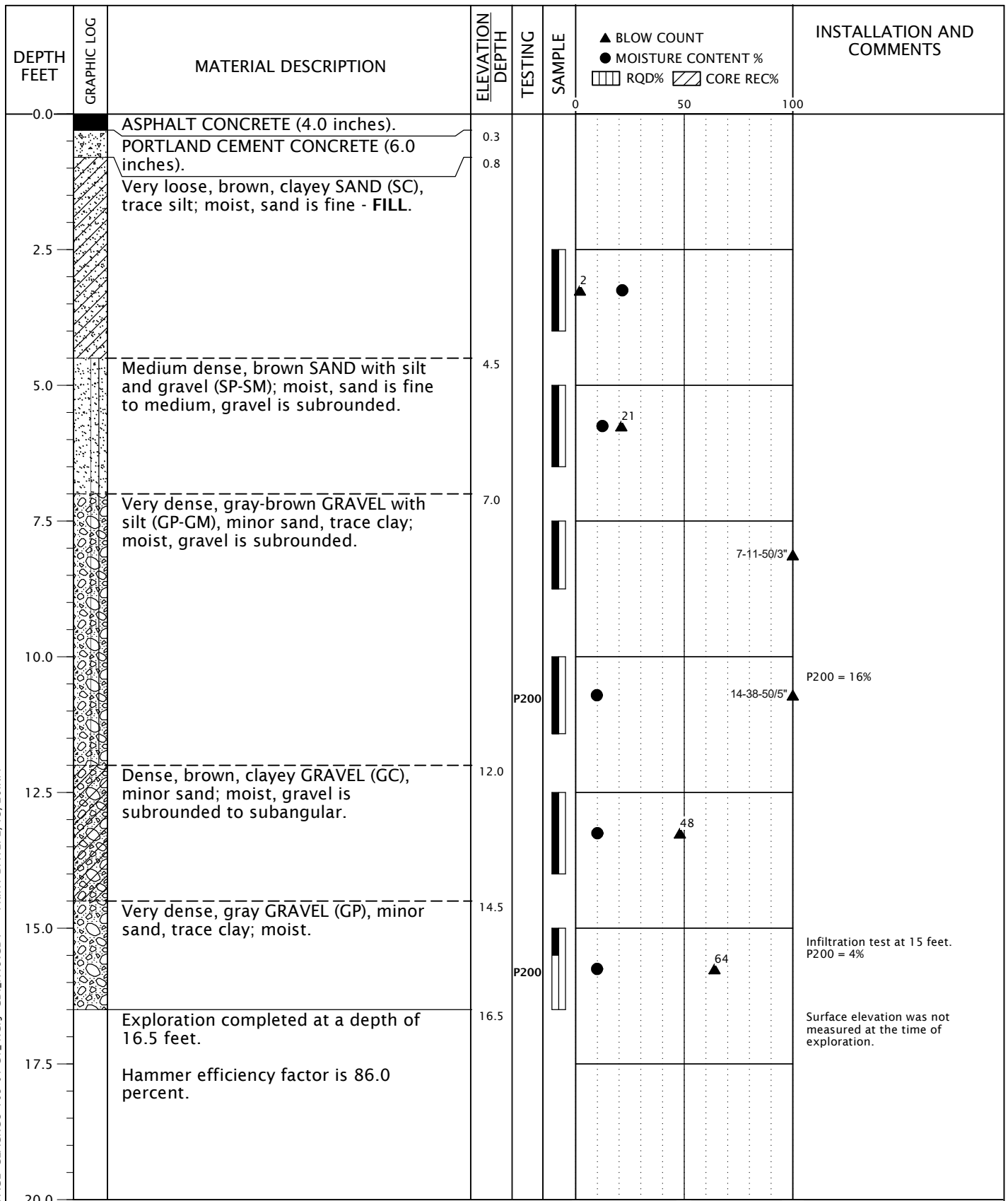
BORING C-1

FEBRUARY 2020

SOUTH IVY STREET PEDESTRIAN INTERSECTION
CLACKAMAS COUNTY, OR

FIGURE A-1

BORING LOG - GDI-NV5 - 1 PER PAGE CLACKCO-105-01-C1-4.GPJ GDI_NV5.GDT PRINT DATE: 2/13/20-KM



DRILLED BY: Western States Soil Conservation, Inc.

LOGGED BY: J. Hook

COMPLETED: 12/11/19

BORING METHOD: hollow-stem auger (see document text)

BORING BIT DIAMETER: 8 inches



CLACKCO-105-01

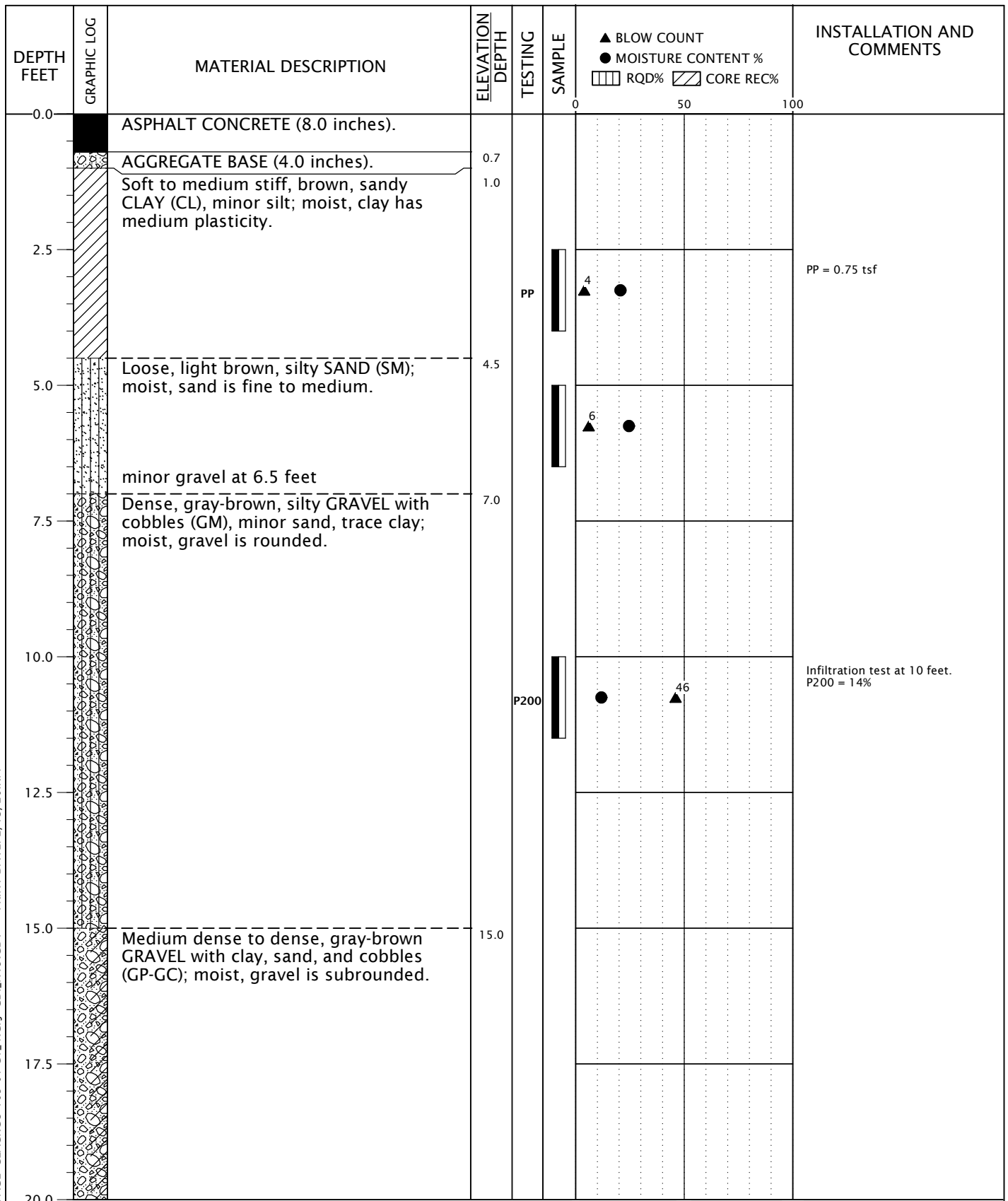
BORING C-2

FEBRUARY 2020

SOUTH IVY STREET PEDESTRIAN INTERSECTION
CLACKAMAS COUNTY, OR

FIGURE A-2

BORING LOG - GDI-NV5 - 1 PER PAGE CLACKCO-105-01-C1_4.GPJ GDI_NV5.GDT PRINT DATE: 2/13/20-KM



DRILLED BY: Western States Soil Conservation, Inc.

LOGGED BY: J. Hook

COMPLETED: 12/12/19

BORING METHOD: hollow-stem auger and mud rotary (see document text)

BORING BIT DIAMETER: 8 inches and 4 7/8 inches



CLACKCO-105-01

BORING C-3

FEBRUARY 2020

SOUTH IVY STREET PEDESTRIAN INTERSECTION
CLACKAMAS COUNTY, OR

FIGURE A-3

BORING LOG - GDI-NV5 - 1 PER PAGE CLACKCO-105-01-C1_4.GPJ GDI_NV5.GDT PRINT DATE: 2/13/20-KM

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % ▨ RQD% ▩ CORE REC%	INSTALLATION AND COMMENTS
20.0		(continued from previous page)				0 50 100 ● 30 ▲ 30	
22.5							
25.0							
27.5							
30.0		light gray-brown at 30.0 feet					
31.5		Exploration completed at a depth of 31.5 feet.	31.5			▲ 21	Surface elevation was not measured at the time of exploration.
32.5		Hammer efficiency factor is 86.0 percent.					
35.0							
37.5							
40.0							

DRILLED BY: Western States Soil Conservation, Inc.

LOGGED BY: J. Hook

COMPLETED: 12/12/19

BORING METHOD: hollow-stem auger and mud rotary (see document text)

BORING BIT DIAMETER: 8 inches and 4 7/8 inches



CLACKCO-105-01

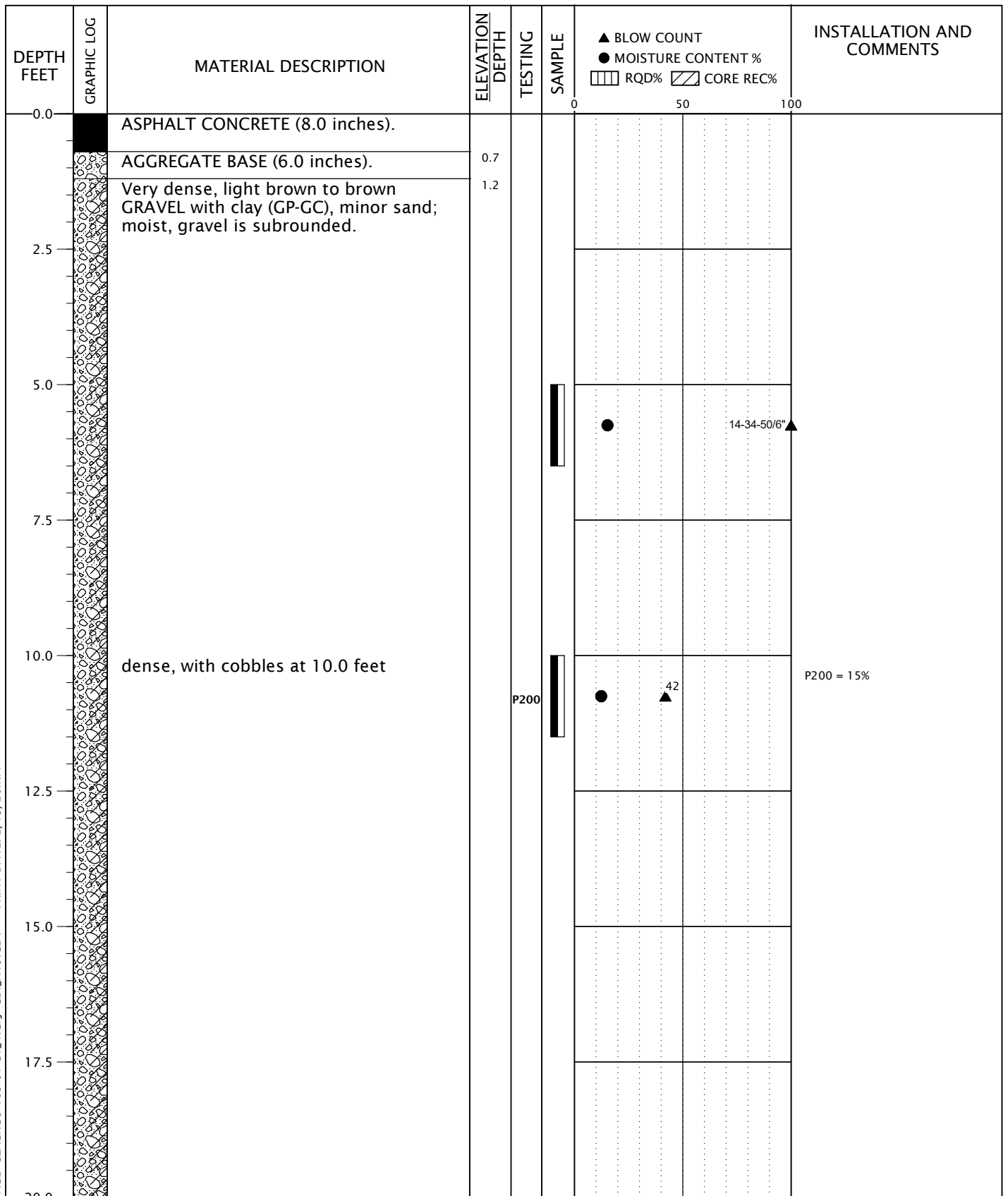
FEBRUARY 2020

BORING C-3
(continued)

SOUTH IVY STREET PEDESTRIAN INTERSECTION
CLACKAMAS COUNTY, OR

FIGURE A-3

BORING LOG - GDI-NV5 - 1 PER PAGE CLACKCO-105-01-C1_4.GPJ GDI_NV5.GDT PRINT DATE: 2/13/20-KM



DRILLED BY: Western States Soil Conservation, Inc.

LOGGED BY: J. Hook

COMPLETED: 12/12/19

BORING METHOD: mud rotary (see document text)

BORING BIT DIAMETER: 4 7/8 inches



CLACKCO-105-01

BORING C-4

FEBRUARY 2020

SOUTH IVY STREET PEDESTRIAN INTERSECTION
CLACKAMAS COUNTY, OR

FIGURE A-4

BORING LOG - GDI-NV5 - 1 PER PAGE CLACKCO-105-01-C1_4.GPJ GDI_NV5.GDT PRINT DATE: 2/13/20-KM

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % ▨ RQD% ▩ CORE REC%	INSTALLATION AND COMMENTS
20.0		light gray-brown at 20.0 feet				44 	
22.5							
25.0							
27.5							
30.0		medium dense at 30.0 feet				20	
31.5		Exploration completed at a depth of 31.5 feet. Hammer efficiency factor is 86.0 percent.	31.5				Surface elevation was not measured at the time of exploration.
32.5							
35.0							
37.5							
40.0							

DRILLED BY: Western States Soil Conservation, Inc.

LOGGED BY: J. Hook

COMPLETED: 12/12/19

BORING METHOD: mud rotary (see document text)

BORING BIT DIAMETER: 4 7/8 inches



CLACKCO-105-01

FEBRUARY 2020


BORING C-4
(continued)

SOUTH IVY STREET PEDESTRIAN INTERSECTION
CLACKAMAS COUNTY, OR

FIGURE A-4

SAMPLE INFORMATION			MOISTURE CONTENT (PERCENT)	DRY DENSITY (PCF)	SIEVE			ATTERBERG LIMITS		
EXPLORATION NUMBER	SAMPLE DEPTH (FEET)	ELEVATION (FEET)			GRAVEL (PERCENT)	SAND (PERCENT)	P200 (PERCENT)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
C-1	2.5		27							
C-1	5.0		6							
C-1	10.0		9				13			
C-1	12.5		16				18			
C-2	2.5		21							
C-2	5.0		12							
C-2	10.0		10				16			
C-2	12.5		10							
C-2	15.0		10				4			
C-3	2.5		21							
C-3	5.0		25							
C-3	10.0		12				14			
C-3	20.0		18							
C-4	5.0		15							
C-4	10.0		12				15			
C-4	20.0		15							

LAB SUMMARY - GDI-NV5 CLACKCO-105-01-C1_4.CPJ GDI-NV5.GDT PRINT DATE: 2/13/20:KM

	CLACKCO-105-01	SUMMARY OF LABORATORY DATA	
	FEBRUARY 2020	SOUTH IVY STREET PEDESTRIAN INTERSECTION CLACKAMAS COUNTY, OR	FIGURE A-5

Summary of SPT Test Results

Project: WSSC-8-04, Test Date: 12/27/2018

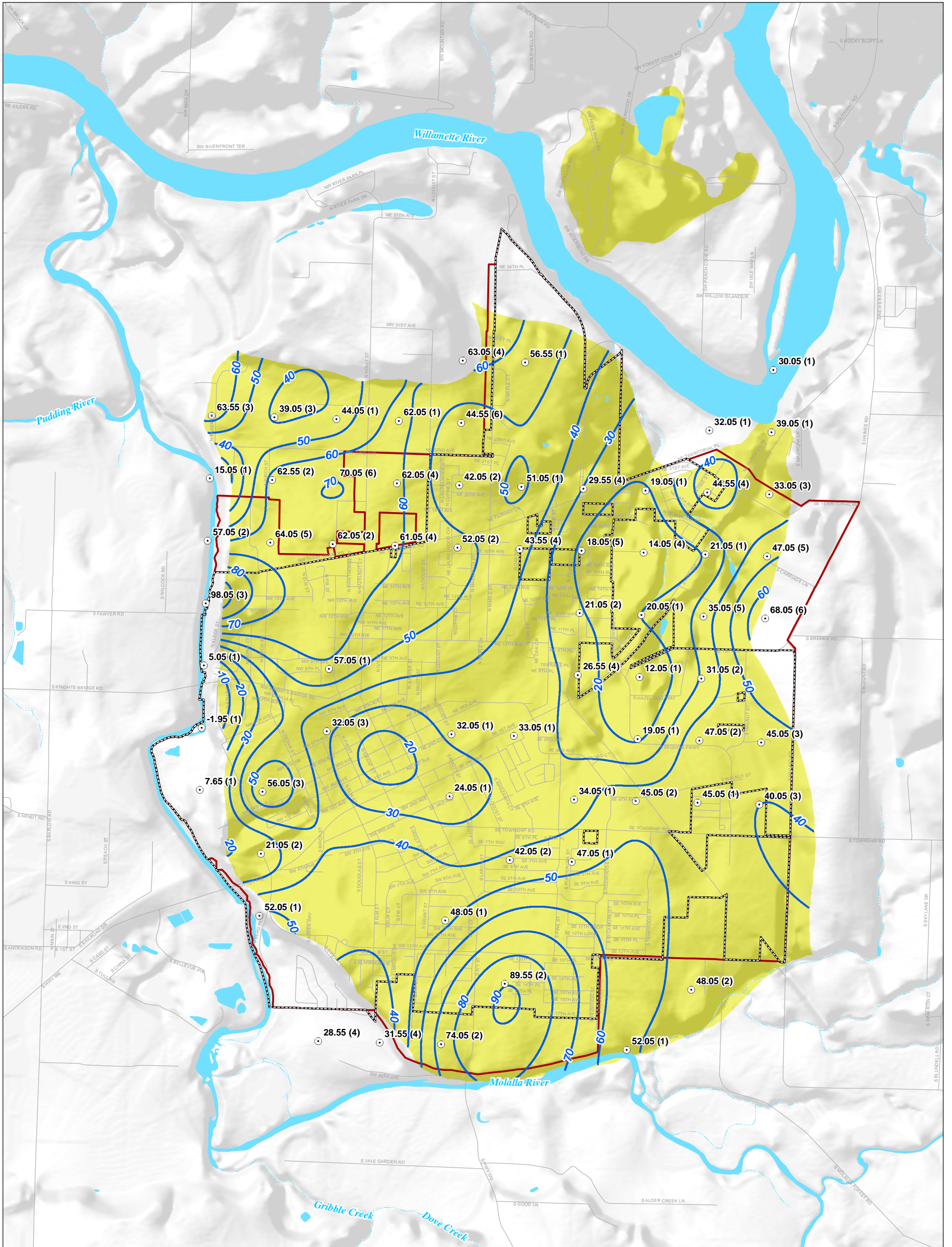
EMX: Maximum Energy				ETR: Energy Transfer Ratio - Rated	
Start Depth ft	Final Depth ft	N Value	N60 Value	Average EMX ft-lb	Average ETR %
25.00	26.50	20	28	300.86	86.0
30.00	31.50	0	0	0.00	0.0
35.00	36.50	0	0	0.00	0.0
40.00	41.50	0	0	0.00	0.0
Overall Average Values:				300.86	86.0
Standard Deviation:				20.24	5.8
Overall Maximum Value:				342.80	97.9
Overall Minimum Value:				276.33	79.0

APPENDIX B

APPENDIX B

GROUNDWATER MAP

Groundwater mapping of the Canby area completed by GSI Water Solutions, Inc. is presented in this appendix.

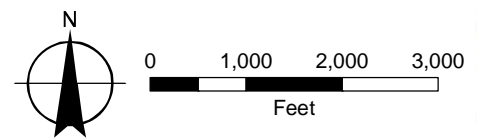


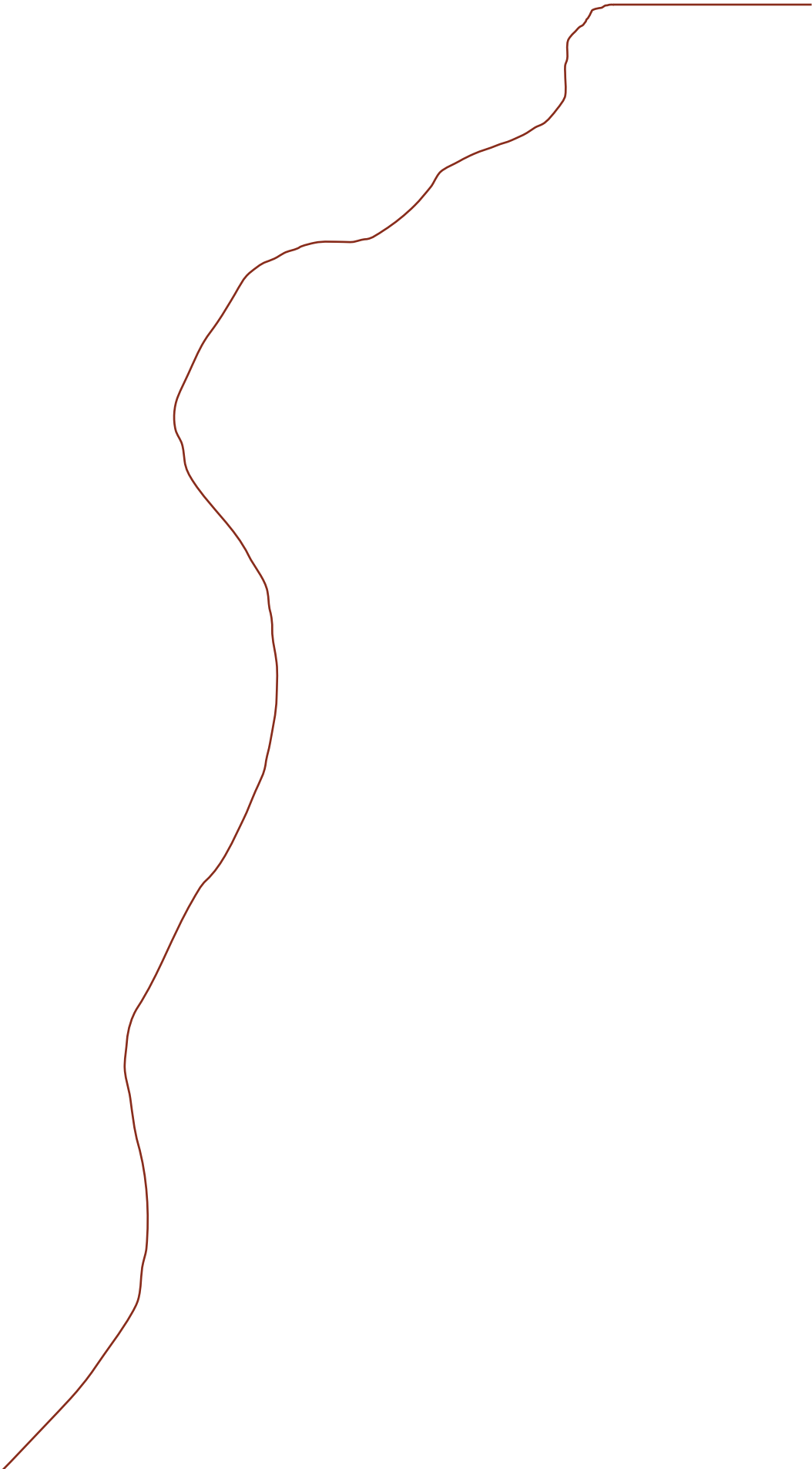
LEGEND

- Well Location (centroid of 1/4 1/4 section)
 - Number represents depth to groundwater
 - Number in parenthesis represents number of observations
- Static Depth to Water Contours
- All Other Features**
 - Qfc - Catastrophic flood deposits, coarse grained facies
 - Canby City Limits
 - Canby Urban Growth Boundary
 - Streets
 - Watercourses
 - Waterbodies

MAP NOTES:
 Date: August 28, 2013
 Data Sources: OWRD, USGS, METRO RLIS, OGIC,
 Elevation data based on NGVD 1927 vertical datum

FIGURE 4
 Depth to Seasonal High Groundwater
 City of Canby
 Groundwater Protectiveness Demonstration





**SPECIAL PROVISIONS
FOR HIGHWAY CONSTRUCTION**

**DEPARTMENT OF TRANSPORTATION
AND DEVELOPMENT
CLACKAMAS COUNTY, OREGON**

**S IVY STREET PEDESTRIAN
INTERSECTION IMPROVEMENTS
CONSTRUCTION**

**GRADING, PAVING, DRAINAGE, ROADSIDE DEVELOPMENT,
SIGNING, PAVEMENT MARKINGS, AND SIGNALS**

JANUARY 2024

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

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S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

CLACKAMAS COUNTY DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

SPECIAL PROVISIONS


FOR

Grading, Paving, Drainage, Roadside Development, Signing, Pavement Markings, & Signals

S Ivy Street Pedestrian Intersection Improvements

S Ivy Street
Clackamas County

PROFESSIONAL OF RECORD CERTIFICATION:

<p>Seal w/signature</p>  <p>REGISTERED PROFESSIONAL ENGINEER 60404PE</p> <p>OREGON JUL. 15, 2003 ANTHONY M. ROOS</p> <p>EXPIRES: <u>12/31/2024</u></p>	<p>I certify the Special Provision Section(s) listed below are applicable to the design for the subject project for S Ivy Street Pedestrian Intersection Improvements. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Section(s) 00110, 00120, 00130, 00140, 00150, 00160, 00165, 00170, 00180, 00190, 00195, 00196, 00197, 00199, 00210, 00220, 00221, 00222, 00223, 00224, 00225, 00228, 00280, 00290, 00305, 00310, 00320, 00330, 00331, 00332, 00350, 00405, 00415, 00440, 00445, 00470, 00490, 00620, 00640, 00744, 00749, 00759, 00850, 00865, 00867, 00869, 00902, 00905, 00930, 00940, 00960, 00962, 00963, 00990, 01030, 01070, 02001, 02690</p>
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FINAL ELECTRONIC DOCUMENT AVAILABLE UPON REQUEST

SECTION 00110 – ORGANIZATION, CONVENTIONS, ABBREVIATIONS AND DEFINITIONS

Comply with Section 00110 of the Standard Specifications supplemented and/or modified as follows:

00110.05(d) References to Laws, Acts, Regulations, Rules, Ordinances, Statutes, Orders, and Permits

Add the following to the first bullet (Statutes and Rules):

- Clackamas County’s Local Contract Review Board (LCRB) Rules are accessible online on the County’s website
<https://dochub.clackamas.us/documents/drupal/ef976bc9-14f4-495b-9bd8-c69ee7334685>

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

00110.10 Abbreviations

Add the following:

CCDA - Clackamas County Development Agency
DTD - Clackamas County Department of Transportation and Development
LCRB - Local Contract Review Board

UNS - Utility Notification System

00110.20 Definitions

Add or modify definitions as follows:

Agreement Form – The written agreement between the Owner and Contractor covering the work to be performed under the contract.

Amendment – A contract modification for Additional Work, Changed Work, Extra Work, Field Directives, or other changes. An Amendment changes the contract value, scope, and/or time. Amendments require formal approval by the Board of County Commissioners, pursuant to LCRB Rule Division C-049-160, prior to approval of such work.

Approved Equal - Materials or services proposed by the contractor and approved by the County as equal substitutes for those materials or services specified.

Award – Same as “Notice to Intent to Award”.

BCC – The Clackamas County Board of County Commissioners

Bid - A written offer by a bidder on forms furnished by the County to do work stated in the bid documents at the prices quoted. "Bid" is synonymous with "proposal" in these bid documents.

Bid Closing - The date and time for Bid Closing is the same as the date and time for Bid Opening.

Bid Documents- The following documents together comprise the Bid Documents:

- Invitation to Bid, Instructions to Bidders, Bid Form, Bid Proposal, Schedule of Prices, Bid
- Bond, Performance Bond
- Certificate of Insurance, Prevailing Wage Rates
- The "Oregon Standard Specifications for Construction" by ODOT and APWA, 2021 edition.

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

- Plans and drawings
- Other bid documents included or referenced in the bid documents
- Addenda, if any
- The Agreement Form and Special Provisions

Bonds - The bond or surety bond is a written document given by the surety and principal to the obligee to guarantee a specific obligation.

Change Order - A price agreement for Extra Work, Changed Work, field directives, or other changes. A Change Order does not change the contract value, scope, or time until it is incorporated into an Amendment. Change Orders will be agreed upon, in writing, by the County Project Manager and the Contractor's designated representative.

Contract - The written contract agreement, including amendments, signed by the Contractor and Clackamas County, which describes the work to be done, the contract amount, and defines the relationships and obligations of the Contractor and the County.

Contract Documents - The Invitation to Bid, the Instructions to Bidders, the accepted Bid Proposal and Schedule of Prices, the Subcontractor List, the Bid Bond, the Performance and Payment Bond, the Certificate of Insurance, the Prevailing Wage Rates, the Standard Specifications and Special Provisions, Amendments, the Plans and Drawings, the Agreement, as well as all documents incorporated by reference therein, and any and all addenda prepared by or at the direction of and adopted by the County and further identified by the signature of the parties and all modifications thereof incorporated in the documents before their execution.

County - The term "County" shall mean Clackamas County, including the Board of County Commissioners, employees and agents of the County authorized to administer the conditions of these contract documents.

Department – A subdivision of the Agency.

Engineer - The County's Project Manager either acting directly or through an authorized representative(s). When referring to approval of extra work or other Contract modifications, "Engineer" also refers to the County's legal authority according to the LCRB rules.

Invitation to Bid - The public announcement (Notice to Contractors) inviting bids for work to be performed or materials to be furnished.

Legal Holiday - As defined in ORS 279C.540.

Lump Sum - A method of payment providing for one all-inclusive cost for the work or for a particular portion of the work.

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

Notice of Intent to Award - A written notice from the County notifying bidders that the County intends to award to the responsible bidder submitting lowest responsive bid.

ODOT Procurement Office – Clackamas County Purchasing Department.

Owner – Synonymous with Agency.

Plan Holder's List – A list of contractor's names, contact names, phone and fax numbers that the County's Purchasing Department creates during bidding of the Project.

Project Manager – The Owner's representative who directly supervises the engineering and administration of the contract.

Shop Drawings – Synonymous with Working Drawings.

Solicitation Document – Synonymous with Bid Documents.

Standard Drawings – The Agency-prepared detailed drawings for Work or methods of construction that normally do not change from project to project. The Standard Drawings include the ODOT Standard Drawings.

Standard Specifications - "Oregon Standard Specifications for Construction", current edition, published by the Oregon Department of Transportation and as amended by **the Agency**.

State - Where the term "State" or "State of Oregon" or "ODOT" appears in the contract documents it shall mean "Clackamas County", "State of Oregon", or "ODOT" as applicable because of context.

Work Day - Any and every calendar day from January 1 to December 31 of every year, excluding Saturdays, Sundays and Legal Holidays.

END OF SECTION

SECTION 00120 – BIDDING REQUIREMENTS AND PROCEDURES

Comply with Section 00120 of the Standard Specifications supplemented and/or modified as follows:

00120.00 Prequalification of Bidders - Delete and replace with the following:

See Instructions to Bidders.

00120.01 General Bidding Requirements – Delete and replace with the following:

See Instructions to Bidders.

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

00120.05 Request for Plans, Special Provisions, and Bid Booklets: – Delete and replace with the following:

See Notice of Public Improvement Contract and Instructions to Bidders.

Copies of the 2021 Oregon Standard Specifications for Construction and Supplements might be found on the Oregon Department of Transportation website at:

http://www.oregon.gov/ODOT/Business/Pages/Standard_Specifications.aspx

00120.15 Examination of Work Site and Solicitation Documents; Consideration of Conditions to be Encountered – Delete the third paragraph.

00120.25 Subsurface Investigations - Replace the first two sentences of the first paragraph with the following:

The Agency or its consultant has conducted subsurface or geologic investigations of the Project Site, and the results of these investigations are included in the Bid Documents and available at the Engineer's office.

00120.30 Changes to Plans, Specifications, or Quantities before Opening of Bids - Delete and replace with the following:

See Instructions to Bidders.

00120.40 Preparation of Bids – Delete and replace this section with the following:

See Instructions to Bidders.

00120.45 Submittal of Bids - Delete and replace with:

See Instructions to Bidders.

00120.50 Submitting Bids for More than One Contract – Delete this subsection.

00120.60 Revision or Withdrawal of Bids - Delete and replace with the following:

See Instructions to Bidders.

00120.70 Rejection of Nonresponsive Bids – Delete and replace with the following:

See Instructions to Bidders.

00120.95 Opportunity for Cooperative Arrangement – Delete this section.

END OF SECTION

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

SECTION 00130 – AWARD AND EXECUTION OF CONTRACT

Comply with Section 00130 of the Standard Specifications supplemented and/or modified as follows:

00130.00 Consideration of Bids - Delete third paragraph.

00130.10 Award of Contract - Delete and replace with the following:

See Instructions to Bidders.

00130.15 Right to Protest Award – Delete and replace with the following:

See Instructions to Bidders.

00130.30 Contract Booklet – Add the following:

Other documents are part of the contract documents by reference. These include, but are not limited to:

- The "Oregon Standard Specifications for Construction", 2021 Edition, as published by the Oregon Department of Transportation (ODOT).
- "Oregon Standard Drawings" latest edition, as published by ODOT.
- Clackamas County Service District No. 1 "Surface Water Standard Specifications", latest edition.

00130.40 Contract Submittals - Delete and replace with the following:

See Instructions to Bidders.

00130.70 Release of Bid Guaranties – Delete and replace with the following:

See Instructions to Bidders.

END OF SECTION

SECTION 00140 – SCOPE OF WORK

Comply with Section 00140 of the Standard Specifications supplemented and/or modified as follows:

00140.30 Agency-Required Changes in the Work – Replace the last paragraph with the following:

Upon receipt of an Engineer's written order modifying the Work, the Contractor shall perform the Work as modified via Change Order, which may be subject to approval as an Amendment.

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

If an Amendment incorporating changes to the Work increases the Contract amount, the Contractor shall notify its Surety of the increase and shall provide the Agency with a copy of any resulting modification to bond documents. The Contractor's performance of Work pursuant to Amendments shall neither invalidate the Contract nor release the Surety. Payment for changes in the Work shall be made in accordance with 00195.20. Contract Time adjustments shall be made in accordance with 00180.80.

00140.31 "As-Built" Records - Add the following section:

Maintain a current and accurate record of the work completed during the course of this contract. This may be in the form of "as-built" drawings kept by accurately marking a designated set of the contract plans with the specified information as the Work proceeds. Accurate, complete and current "as-built" drawings are a specified requirement for full partial payment of the work completed. At project completion and as a condition of final payment, the Contractor shall deliver to the Project Manager a complete and legible set of "as-built" drawings.

The "as-built" drawings must show the information listed below. Where the term "locate" or "location" is used, it shall mean record of position with respect to both the construction vertical datum and either construction horizontal datum or a nearby permanent improvement.

- 1) Record location of underground services and utilities as installed.
- 2) Record location of existing underground utilities and services that are to remain and that are encountered during the course of the work.
- 3) Record changes in dimension, location, grade or detail to that shown on the plans.
- 4) Record changes made by change order.
- 5) Record details not in the original plans.
- 6) Provide fully completed shop drawings reflecting all revisions.

END OF SECTION

SECTION 00150 – CONTROL OF WORK

Comply with Section 00150 of the Standard Specifications modified as follows:

00150.00 Authority of the Engineer – Delete and replace the first sentence with the following:

Except as indicated elsewhere in the Contract (e.g. Amendment approval by the BCC), the Engineer has full authority over the Work and its suspension.

00150.05 Cooperative Arrangements – Delete this section.

00150.10 Coordination of Contract Documents

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

(a) Order of Precedence – Delete this section and replace with the following:

The Engineer will resolve any discrepancies between these documents in the following order of precedence:

- Approved Amendments;
- Approved Change Orders
- Bid Schedule with Schedule of Prices;
- Permits from governmental agencies
- Special Provisions;
- Agency-prepared drawings specifically applicable to the Project and bearing the Project title;
- Reviewed and accepted, stamped Working Drawings;
- Agreement Form;
- Standard Drawings;
- Approved Unstamped Working Drawings;
- Standard Specifications;
- All other Contract Documents not listed above.

Notes on a drawing shall take precedence over drawing details.

Dimensions shown on the drawings, or that can be computed, shall take precedence over scaled dimensions.

00150.15(b) Agency Responsibilities - Replace this subsection, except for the subsection number and title, with the following:

The Engineer will perform the Agency responsibilities described in the ODOT Construction Surveying Manual for Contractors, Chapter 1.5 (see Section 00305) and the following:

00150.15(c) Contractor Responsibilities - Replace this subsection, except for the subsection number and title, with the following:

The Contractor shall perform the Contractor responsibilities described in the ODOT Construction Surveying Manual for Contractors, Chapter 1.6 (see Section 00305) and the following:

- Perform earthwork slope staking including intersections and matchlines and set stakes defining limits for clearing which approximate right-of-way and easements.
- Inform the Engineer of any property corners monuments and/or survey markers that are not shown on the plans and are found during construction activities prior to disturbing the monuments. Allow the Agency 2 Work days for referencing all found markers before they are removed. Monuments that are noted on the plans to be protected and are disturbed by the Contractor's activities shall be replaced by the Contractor's surveyor at the Contractor's expense.

00150.50 Cooperation with Utilities: Add the following to the end of Paragraph (a):

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

There may be other utility servers who are not specifically listed in these Special Provisions or on the Plans that may be adjusting or inspecting their facilities within the project limits.

00150.50(c) Contractor Responsibilities – Add the following to the bulleted list:

- Hold a utility scheduling meeting and monthly utility coordination meetings (see also 00180.42);
- Maintain and re-establish utility location marks according to OAR 952-001-0090(3)(a). Coordinate re-establishment of the location marks with the associated Utility;
- Determine the exact location before excavating within the tolerance zone according to OAR 952-001-0090(3)(c);
- Backfill any exposed utilities as recommended and approved by the Utility representative. Obtain utility locate warning tape from the Utility and replace damaged or removed warning tape. Utility locate warning tape may not be present at all existing utilities;
- Stake, place warning tape, and maintain no work limits around critical Utility facilities as shown or directed by the Engineer and the Utility; and
- In addition to the notification required in OAR 952-001-0090(6), notify the Engineer and the Utility as soon as the Contractor discovers any previously unknown Utility conflicts or issues. Contrary to the OAR, stop excavating until directed by the Engineer and allow the Utility a minimum of two weeks to relocate or resolve the previously unknown utility issues.

The existing underground utilities shown on the Plans have been determined by as-built records and field surveys, but are not guaranteed to be complete or accurate. The Contractor shall be responsible for contacting the individual utility companies to mark locations, and arranging with them for any relocation work that should be required.

The Contractor shall make excavations and borings ahead of the work where necessary to determine the exact location of underground pipes or other features, which might interfere with construction. The Contractor shall support and protect pipes or other services where they cross the trench and shall be responsible for all damages incidental in interruptions of service that may be caused by Contractor operations. Where a new utility line crosses an existing pipeline or other conduit, the trench backfill shall be well compacted in a manner that provides for the required backfill and compaction standards while protecting the utility in question.

Add the following subsection:

00150.50(f) Utility Information (No Anticipated Relocations) - Within the Project limits, there are no anticipated relocations with the Utilities listed in Table 00150-1. Minor grade adjustments by Canby Utility may be required for vaults. The Contractor shall contact those Utilities having buried facilities and request that they locate and mark them for their protection prior to construction.

Table 00150-1

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

Utility	Contact Person's Name, Address, Email, and Phone Number
Canby Utility (Utility poles)	Jason Berning PO Box 1070 Canby, OR 97013 503-263-4322 jberning@canbyutility.org
Canby Utility (Water Main, and Hydrants)	Joseph Brennan PO Box 1070 Canby, OR 97013 jbrennan@canbyutility.org
Direct Link (Communications)	Eric Kehler 190 SE 2 nd Ave, Canby, OR 97013 503-266-8223 Eric.kehler@cbsoregon.com
NW Natural (Gas)	Blake Johnson 220 NW Second Ave, Portland, OR 97209 503-833-2519 Blake.johnson@nwnatural.com
City of Canby (Sewer)	Jerry Nelzen 1470 NE Territorial Rd, PO Box 930, Canby, OR 97013 503-266-0759 nelzeni@canbyoregon.gov
Astound(Broadband) (Formerly Wave)	Robert Lee 669 Glatt Circle, Woodburn, OR 97071 503-707-1076 rlee@wavebroadband.com

The Contractor shall notify, in writing, the Utilities listed above, with a copy to the Engineer, at least 14 Calendar Days before beginning Work on the Project.

Canby Utility Board - Power Suppliers -

Energized power lines overhang portions of the Work with a minimum vertical clearance of 18 feet. The Contractor shall maintain at least 10 feet of safety clearance. Exceptions require written approval from the Power Supplier(s) and may require an on-site safety watcher, at no cost to the Contractor. The Contractor shall provide the Engineer a copy of the written approval of exception before beginning Work.

Direct Link - Telecommunication Utilities - The Contractor shall obtain written approval from Telecommunication Utilities that have fiber optic communication cable facilities, for excavating within 10 feet of a buried fiber optic communications cable. Telecommunication Utilities may require an on-site safety representative at no cost to the Contractor for monitoring purposes. The Contractor shall provide the Engineer a copy of the written approval before beginning Work.

Add the following subsection:

00150.50(g) Utility Information (Anticipated Relocations):

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

The organizations list in Table 00150-2 may be adjusting Utilities within the limits of the Project during the period of the Contract with relocation Work estimated to be completed by the following dates and times:

Table 00150-2

Utility	Contact Person's Name, Address, Email, and Phone Number	Estimated Completion Date
Canby Utility (Electrical vault adjustments)	Jason Berning PO Box 1070 Canby, OR 97013 503-263-4322 jberning@canbyutility.org	August 30, 2024
Canby Utility (Water meters)	Joseph Brennan PO Box 1070 Canby, OR 97013 jbrennan@canbyutility.org	Concurrent with roadway construction
Direct Link (Communications pedestals)	Eric Kehler 190 SE 2 nd Ave, Canby, OR 97013 503-266-8223 Eric.kehler@cbsoregon.com	August 30, 2024

The Contractor shall contact the Engineer to view the approved utility relocation Plans.

The Contractor shall notify, in writing, the Utilities listed above, with a copy to the Engineer, at least 14 Calendar Days before beginning Work on the Project.

00150.55 Cooperation with Other Contractors - Add the following:

The following contractors will be working on or near the project site:

- 1) K&E Excavating Inc.
Brandon Young, Project Manager
Office 971.707.2219
Cell 503.949.0219

00150.70 Detrimental Operations – Add the following:

Portions of this project might be constructed in close proximity to existing private improvements. All private improvements disturbed by the Contractor’s operations shall be repaired or replaced to equal or better condition at the Contractor’s expense. The Engineer may withhold from future payments to the Contractor, an amount equal to the costs reasonably estimated by the Engineer to repair or replace, as the case may be, those private improvements disturbed by the Contractor’s operations. Engineer shall release the retained amount once Engineer has determined that the Contractor has completed the repair consistent with the requirements of this provision. In addition, prior to construction, the Contractor shall provide to the Engineer videotape showing private property, if any, which may be disturbed during construction.

END OF SECTION

SECTION 00160 – SOURCE OF MATERIALS

Comply with Section 00160 of the Standard Specifications supplemented and/or modified as follows:

00160.20(a) Buy America – Delete this section and replace with the following: Federal highway funds are NOT involved on this Project.

END OF SECTION

SECTION 00165 – QUALITY OF MATERIALS

Comply with Section 00165 of the Standard Specifications modified as follows:

00165.04 Costs of Testing – Replace this section with the following sentence: All testing required to be performed by the Contractor will be at the Contractor's expense.

00165.10(a) Field-Tested Materials – Add the following sentence: The County follows the MFTP on its projects:

00165.10(b) Nonfield-Tested Materials - Add the following sentence:

The County follows the NTMAG on its projects.

END OF SECTION

SECTION 00170 – LEGAL RELATIONS AND RESPONSIBILITIES

Comply with Section 00170 of the Standard Specifications supplemented and/or modified as follows:

00170.00 General - Replace the first sentence of the first paragraph in this section with the following:

The Contractor shall comply with all laws, ordinances, codes, regulations, executive orders, and administrative rules (collectively referred to as "Laws" in this Section) that relate to the Work or to those engaged in the Work.

00170.02 Permits, Licenses, and Taxes – Add the following:

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

This project is to be constructed in Clackamas County road right of way and streets. There are no separate road opening permits required from Clackamas County to perform the work required under this contract.

00170.61(a) Workers' Compensation - In the paragraph, replace "00170.70(d)" with "the Agreement".

Add the following subsection:

00170.67 Fees - The fee required by ORS 279C.825(1) will be paid by the Agency to the Commissioner of the Oregon Bureau of Labor and Industries under the administrative rules of the Commissioner.

00170.70(a) Insurance Coverages - Add the following to the end of this subsection:

The following insurance coverages and dollar amounts are required pursuant to this subsection:

Insurance Coverages	Combined Single Limit per Occurrence	Annual Aggregate Limit
Commercial General Liability	\$1,000,000	\$2,000,000
Commercial Automobile Liability	\$1,000,000	(aggregate limit not required)

00170.70(d) Additional Insured - Add the following paragraph at the beginning of the section and add the bullets to the end of this subsection:

The liability insurance coverages of 00170.70(a) shall include the Agency, the Agency's governing body, board, or Commission and its members, and their respective officers, agents, and employees as Additional Insureds, but only with respect to the Contractor's activities to be performed under the Contract.

- Clackamas County and its officers, agents, and employees
- Clackamas County Board of Commissioners
- City of Canby and its officers, agents, and employees

00170.70(h) Agency Acceptance – Delete the paragraph in this section and replace with the following:

All insurance and insurance providers are subject to Agency acceptance. In addition, all of the following are subject to Agency acceptance and, if requested by Agency, the Contractor shall provide complete copies of the following to Agency's representatives responsible for verification of the insurance coverages required by the Contract: insurance policies, endorsements, self-insurance documents and related insurance documents.

00170.70(k) Builder's Risk Installation Floater – Delete the paragraph in this section and replace with the following:

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

If specified by Special Provision, the Contractor shall obtain, at its expense, and keep in effect during the term of the Contract, Builder's Risk Installation Floater Insurance covering the Contractor's Materials and Equipment to be used for completion of the Work performed under the Contract. The minimum amount of coverage to be carried shall be equal to the full amount of the Contractor's Equipment, Materials, or fixtures to be installed, in-transit, or stored off-site during the performance of the Contract. This insurance shall include as loss payees the Agency, State of Oregon, the building or structure owner, the Contractor and Subcontractors as their interests may appear.

00170.72 Indemnity/Hold Harmless – Delete and replace with the following:

Clackamas County Public Improvement Contract.

Extend indemnity and hold harmless to the Agency and the following:

- Clackamas County and its officers, agents, and employees
- Clackamas County Board of Commissioners
- City of Canby and its officers, agents, and employees

00170.85(b-1) Contractor Warranty for Specific Items – This subsection does not apply:

END OF SECTION

SECTION 00180 – PROSECUTION AND PROGRESS

Comply with Section 00180 of the Standard Specifications supplemented and/or modified as follows:

00180.06 Assignment of Funds Due Under the Contract - Delete first bulleted item.

00180.21 Subcontracting - Add the following to subsection (a):

All contracts with subcontractors or suppliers shall have provisions making the contract assignable to the County, at the option of the County, if the Contractor terminates, goes out of business, declares bankruptcy, or otherwise is unable to perform provided that the County gives the subcontractor notice of assignment within fourteen (14) days of learning of the inability of the Contractor to perform.

The Engineer may revoke consent to subcontract. If the Engineer revokes consent to subcontract, the subcontractor shall be immediately removed from the Project Site.

00180.40 Limitation of Operations - Add the following to subsection (a):

The Contractor must provide, at a minimum, a 48-hour notice to the Clackamas County Project Manager in order to perform any work on Saturdays.

Add the following subsection:

00180.40(c) Specific Limitations - Limitations of operations specified in these Special Provisions include, but are not limited to, the following:

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Limitations	Subsection
Cooperation with Utilities	00150.50
Cooperation with Other Contractors	00150.55
Contract Completion Time	00180.50(h)
Traffic Lane Restrictions	00220.40(e)
Noise Control	00290.32
Maintenance Under Traffic	00620.43
Opening Sections to Traffic.....	00744.51

Be aware of and subject to schedule limitations in the Standard Specifications that are not listed in this Subsection.

00180.41 Project Work Schedules – Add the following:

A Type “A” schedule as detailed in the Supplemental Specifications is required on this Contract. In addition, a three-week look ahead schedule shall be prepared by the Contractor on a weekly basis and submitted to the Engineer. It shall include all construction activities planned for the following three-week period. The three-week look ahead schedule can be hand-written and shall be in a format agreed upon by the Contractor and the Engineer.

00180.42 Preconstruction Conference - Add the following:

Before beginning On-Site Work and before meeting with the Engineer for the preconstruction conference, hold a group utilities scheduling meeting with representatives from the utility companies involved with this project. Incorporate the utilities time needs into the Contractor's schedule submitted prior to the preconstruction conference.

Submit the following during the preconstruction conference unless otherwise directed:

- The names, addresses, and telephone numbers of two or more persons employed by the Contractor who can be reached day or night to handle emergency matters.
- Subcontractor's list including contact list for each subcontractor with phone numbers and addresses and work to be performed.
- List of personnel authorized to sign change orders and receive progress payment warrants.
- Video recording of private properties affected by construction per 00150.70.

A representative of each subcontractor shall be required to attend the pre-construction conference.

The Contractor shall plan and schedule all Utility adjustment operations well in advance of On-Site Work. When the Contractor becomes aware of Utility conflicts not previously identified, the Contractor shall notify the applicable Utilities in writing the same Calendar Day. The Contractor shall allow Utilities at least 2 weeks (14 Calendar Days) to relocate (adjust) the Utility conflicts not previously identified.

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00180.43 Commencement and Performance of Work - Add the following bullet item:

- Conduct the work at all times in a manner and sequence that will insure minimal interference with traffic. The Contractor shall not begin work that will interfere with work already started. If it is in the County's best interest to do so, the County may require the Contractor to finish a portion or unit of the project on which work is in progress or to finish a construction operation before work is started on an additional portion or unit of the project.

00180.50(h) Contract Time - Complete all Work to be done under the Contract, except for seeding establishment not later than October 31, 2025.

00180.70 Suspension of Work - Add the following to the first bullet item:

If the Inspector has reason to believe that any safety provisions are not being adhered to, the Inspector will immediately notify the Contractor's site foreman and/or the appropriate person and the County Project Manager. The purpose of this discussion is to determine the validity of the alleged violation. This will also allow the Contractor a reasonable amount of time to correct or improve any of the provisions for the safety on this project. If the County Project Manager finds the problem still unresolved or uncorrected, they will notify the Contractor's Project Manager and the County's Risk Management Safety Analyst. If the County's Risk Management Safety Analyst finds that the job site contains any unresolved safety issues they will take appropriate action up to and including suspension of the Contractor's operations on all or part of the Work.

00180.85(b) Liquidated Damages - Add the following paragraph:

The liquidated damages for failure to complete the Work on time required by 00180.50(h) will be \$1,100 per Calendar Day *.

- * Calendar Day amounts are applicable when the Contract time is expressed on the Calendar Day or fixed date basis.

Add the following subsection:

00180.85(c) Lane Closures and Road Closures - Lane closures and road closures beyond the limits specified will inconvenience the traveling public and will be a cost to the Agency.

(1) Lane Closures - It is impractical to determine the actual damages the Agency will sustain in the event traffic lanes are closed beyond the limits listed in 00220.40(e). Therefore, the Contractor shall pay to the Agency, not as a penalty, but as liquidated damages, \$500 per 15 minutes, or for a portion of 15 minutes, per lane, for any lane closure beyond the limits listed in 00220.40(e). In addition to the liquidated damages, all added cost for traffic control measures, including flagging, required to maintain the lane closures beyond the allowed time limits, will be at no additional cost to the Agency. The required traffic control measures will be as determined by the Engineer.

The Engineer will determine when it is safe to reopen lanes to traffic. Assessment of liquidated damages will stop when all lanes have been safely reopened. Any liquidated

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damages assessed under these provisions will be in addition to those listed in 00180.85(b).

00180.88 Workplace Harassment Prevention Plan – Submit a workplace harassment prevention plan for review 10 days before the preconstruction conference. The plan shall ensure all workers are guaranteed a safe and respectful work environment regardless of their identity or status. The plan applies to, but is not limited to, a worker's race, gender, creed, or any protected characteristic under state or federal law. At a minimum, the plan shall include:

- A Statement that the Contractor shall provide a safe and respectful workplace on the jobsite for all workers, subcontractors, suppliers, and other persons performing work.
- A description of how the plan will be implemented and monitored during the project duration.
- A list of the in-person trainings that will be conducted for workers of all ranks working on the project to support, promote, and grow a positive jobsite culture.
- A list of meaningful policies including procedures for aggrieved workers in need of recourse.
- How incidents involving bullying or harassment will be investigated and resolved in a prompt, thorough, and impartial manner.

Contractor shall post on the jobsite and make available copies of policies about hate, intimidation, or harassment including how to report incidents and how to receive support. Materials will be provided in all languages necessary to be inclusive of the workforce.

00180.89 Measurement – No measurement of quantities will be made for workplace harassment prevention plan.

00180.95 Payment – Payment for workplace harassment prevention plan will be for developing and implementing the plan during construction of the project, in-person training, developing meaningful policies, and investigating incidents.

END OF SECTION

SECTION 00190 – MEASUREMENT OF PAY QUANTITIES

Comply with Section 00190 of the Standard Specifications supplemented and/or modified as follows:

00190.20(a) Contractor to Provide Vehicle Weigh Scales: Delete and replace the last paragraph in this section with the following:

Unless otherwise provided in the Contract, Pay Items to be measured by weight shall include all Contractor costs for providing, maintaining, inspecting, and testing scales; for furnishing appropriate weigh tickets; for self-printing scales; for electronic weigh memo system(s); and for transporting Materials to the scales or to check weighing.

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00190.20(f)(1) Scale with Automatic Printer: Delete and replace the first sentence in this section with the following:

If the scales have an automatic weigh memo printer or an approved electronic weigh memo system that does not require manual entry of gross weight information, the Agency may periodically have a representative at the scales to observe the weighing procedures.

00190.20(f)(1) Scale with Automatic Printer: Delete and replace the last bullet in this section with the following:

- Furnish a legible, serially numbered weigh memo for each load of Materials to the Agency's Materials receiver at the point of delivery, or as directed by the Engineer. The memo shall identify the Project, the Materials, the date, net weight (gross and tare as appropriate), and identification of the vehicle and weigh technician. If approved by the Engineer an electronic weigh memo system may be used. Requests to use an electronic weigh memo system shall be submitted to the Engineer according to 00150.37, providing sufficient detail for the Engineer to perform an evaluation. If approved, the Contractor shall provide training, technical support, reports, and weigh memo information to the Engineer at no additional cost to the Agency. The electronic weigh memo system shall be:
- Capable of recording and securely retaining the same required "weigh memo" information identified above. For retention see 00170.07(c).
- Fully integrated with the provided weigh scale system.
- Designed in such a way that the data electronically read from scales cannot be altered by the Contractor, Subcontractor, Supplier, Engineer, or other system users.
- Designed to allow the Engineer remote access to all the weigh memo data in real-time and allow the Engineer to add comments to the individual weigh memo regarding waste, temperature, stations, yield or other information. The system shall identify the system user or individual that adds comments to the electronic weigh memo or otherwise access the system. The Contractor shall provide the Engineer a means to access the data if the Engineer cannot use an Agency provided hand held device for access.
- Capable of providing all the weigh memo information, including any added comments, in an electronic data file the Engineer can easily access without proprietary software.

00190.20(g) Agency-Provided Weigh Technician: Delete and replace subsection (g) with the following:

The Contractor must provide a weigh technician. The Agency will not provide one for the Contractor.

00190.30 Plant Scales: Add the following sentence after the bulleted list:

If approved by the Engineer an electronic weigh memo system may be used in place of a printer system. See 00190.20(f)(3).

END OF SECTION

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SECTION 00195 – PAYMENT

Comply with Section 00195 of the Standard Specifications supplemented and/or modified as follows:

00195.10 Payment For Changes in Materials Costs - Replace this subsection with the following subsection:

00195.10 Asphalt Cement Material Price Escalation/De-escalation - An asphalt cement escalation/de-escalation clause will be in effect during the life of the Contract.

The Agency reserves all of its rights under the Contract, including, but not limited to, its rights for suspension of the Work under 00180.70 and its rights for termination of the Contract under 00180.90, and this escalation/de-escalation provision shall not limit those rights.

(a) Monthly Asphalt Cement Material Price (MACMP) - The Monthly Asphalt Cement Material Price (MACMP) is established by the Agency each month. For the actual MACMP, go to the Agency website at:

<https://www.oregon.gov/ODOT/Business/Pages/Asphalt-Fuel-Price.aspx>

The MACMP is based on selling prices of asphalt cement published by Poten & Partners, Inc. for primarily PG 64-22 paving grades in the Portland, Oregon area and typical non-modified paving grades in the Boise, Idaho area. The MACMP for a given month is the average of the weekly published prices for each area reported each Friday in that month. If any portion of the Project Site is located within the boundaries of ODOT Maintenance District 13 or 14, the MACMP will be based on the prices for the Boise, Idaho area. If no portion of the Project Site is within the boundaries of ODOT Maintenance District 13 or 14, the Contractor may elect to have the MACMP based on the prices of either the Portland, Oregon area or the Boise, Idaho area. If electing to use Boise, Idaho area prices for determination of the MACMP, the Contractor shall notify the Engineer in writing of the Contractor's election before or within 7 Calendar Days after the date of the preconstruction conference. This election, once acknowledged by the Engineer, will be binding for the entire duration of the Contract. If no such written notification is made, the Portland, Oregon area prices will be used as the basis of the MACMP. The area selected as the basis of the MACMP, once chosen, will become the sole area to be used as the basis for all asphalt cement used on the Project.

If the weekly prices cease to be available from Poten & Partners, Inc. for any reason, the Agency, in its discretion will select and begin using a substitute price source or index to establish the MACMP each month. The Agency does not guarantee that asphalt cement will be available at the MACMP.

(b) Base Asphalt Cement Material Price (Base) - The base asphalt cement material price for this Project is the MACMP published on the Agency website for the month immediately preceding the Bid Opening date.

(c) Monthly Asphalt Cement Adjustment Factor - The monthly asphalt cement adjustment factor will be determined each month as follows:

- If the MACMP is within $\pm 5\%$ of the Base, there will be no adjustment.

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- If the MACMP is more than 105% of the Base, then:

$$\text{Adjustment Factor} = (\text{MACMP}) - (1.05 \times \text{Base})$$

- If the MACMP is less than 95% of the Base, then:

$$\text{Adjustment Factor} = (\text{MACMP}) - (0.95 \times \text{Base})$$

(d) Asphalt Cement Price Adjustment - A price adjustment will be made for the items containing asphalt cement listed below. The price adjustment as calculated in (c) above will use the MACMP for the month the asphalt is incorporated into the Project. The price adjustment will be determined by multiplying the asphalt incorporated during the month for subject Pay Items by the Adjustment Factor.

The Pay Items for which price adjustments will be made are:

Pay Item(s)

Level 3, 1/2" ACP (assuming 5% Binder per Ton of ACP)

00195.20(b) Significant Changed Work – Add the following:

Significant is defined as:

- a) An increase or decrease of more than 25 percent of the total cost of the Work calculated from the original proposal quantities and the unit contract prices; or,
- b) An increase or decrease of more than 25 percent in the quantity of any one major contract item.

For condition b) above, a major item is defined as any item that amounts to 10 percent or more of the original total contract price.

00195.50(a) Progress Payments - Delete and replace the last sentence in the second paragraph as follows:

All estimated quantities are subject to correction in the final estimate. If the Contractor uses these estimates as a basis for making payments to Subcontractors and Suppliers, the Contractor assumes all risk and bears any losses that result.

00195.50(a)(1) Progress Estimates - Delete the first sentence and replace with the following:

At a regular period each month to be determined at the Preconstruction Conference, the Contractor will make an estimate of the amount and value of pay item work completed and in place. This estimate will be submitted to the Project Manager for review and approval.

(2) Value of Material on Hand - Delete the section and replace with the following:

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(2) Value of Material on Hand - The Contractor will make an estimate of the amount and value of acceptable material to be incorporated in the completed work which has been delivered and stored as given in 00195.60(a) for review and approval.

(4) Limitations on Value of Work Accomplished - In the first sentence, change "Engineer's estimate" to "Contractor's reviewed estimate".

00195.50 (b) Retainage - Delete the first paragraph and replace with:

The amount to be retained from progress payments will be 5.0% of the value of payments made, and will be retained in one of the forms specified in Subsection (c) below. The County will withhold Retainage from all force account and change order work.

00195.50(c) Forms of Retainage – Delete first paragraph and replace with:

Forms of acceptable retainage are set forth below in Subsections (1) through (3). "Cash, Alternate A" or "Cash, Alternate B" (Retainage Surety Bond) are the Agency-preferred forms of retainage. Unless the Contractor notifies the County otherwise in writing, the County will automatically hold retainage per paragraph (2) "Cash, Alternate B (No Interest Earned)". If the Agency incurs additional costs as a result of the Contractor's election to use "Bonds and Securities", the Agency may recover such costs from the Contractor by a reduction of the final payment.

Delete and replace paragraph (2) with the following:

(2) Cash, Alternate B (No Interest Earned) – Retainage will be deducted from progress payments and held by the Agency until final payment is made in accordance with 00195.90, unless otherwise specified in the Contract.

00195.50(d) Release of Retainage – Delete this section and replace with the following:

(d) Release of Retainage - As the Work progresses, release of the amounts to be retained under (b) of this Subsection will only be considered for Pay Items that have been satisfactorily completed. For purposes of this Subsection, a Pay Item will be considered satisfactorily completed only if all of the Work for the Pay Item is complete and all contractual requirements pertaining to the Pay Item and Work have been satisfied. Work not included in a Pay Item, or which constitutes part of an uncompleted Pay Item, will not be regarded as satisfactorily completed Work for the purposes of this Subsection.

When the Work is 50% completed and upon written application of the Contractor and written approval of the Surety, the Engineer or Project Manager may reduce or eliminate retainage on remaining progress payments if the Work is progressing satisfactorily.

A determination of satisfactory completion of Pay Items or Work or release of retainage shall not be construed as acceptance or approval of the Work and shall not relieve the Contractor of responsibility for defective Materials or workmanship or for latent defects and warranty obligations.

END OF SECTION

SECTION 00196 – PAYMENT FOR EXTRA WORK

Comply with Section 00196 of the Standard

00196.91 Extra Work Allowance – Add the following new section:

The Bid schedule of prices contains a bid item for a pre-determined amount of Engineer ordered extra work. All Bidders shall reflect this same amount in their total Bid. No Bidder shall presume in the preparation of the bid or in the course of contract work that there will be a certain payment under that item or a certain order for extra work.

END OF SECTION

SECTION 00197 – PAYMENT FOR FORCE ACCOUNT WORK

Comply with Section 00197 of the Standard Specifications.

END OF SECTION

SECTION 00199 – DISAGREEMENTS, PROTESTS AND CLAIMS

Comply with Section 00199 of the Standard Specifications supplemented and/or modified as follows:

00199.40 Claim Decision; Review; Exhaustion of Administrative Remedies - Delete the entire section and replace with the following:

The Contractor must properly submit a claim as detailed in 00199.30.

(a) Engineer Claim Review - The Engineer or Project Manager will, as soon as practicable, consider and investigate a Contractor's properly submitted claim for additional compensation, Contract Time, or for a combination of additional compensation and Contract Time. Once the Engineer or Project Manager determines the Agency is in receipt of a properly submitted claim, the Engineer or Project Manager will arrange a meeting, within 28 Calendar Days, or as otherwise agreed by the parties, with the Contractor in order to present the claim for formal review and discussion. A person authorized by the Contractor to execute Change Orders on behalf of the Contractor must be present and attend all claim meetings.

If the Engineer or Project Manager determines that the Contractor must furnish additional information, records, or documentation to allow proper evaluation of the claim, the Engineer will schedule a second meeting, to be held within 14 calendar days, or as otherwise agreed by the parties, at which the Contractor shall present the requested information, records and documentation.

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The Engineer or Project Manager will advise the Contractor of the decision to accept or reject the claim. If the Engineer or Project Manager finds the claim has merit, an equitable adjustment will be offered. If the Engineer or Project Manager finds the claim has no merit, no offer of adjustment will be made and the claim will be denied. The County intends to resolve claims at the lowest possible level.

If, at any step in the claim decision or review process, the Contractor fails to promptly submit requested information or documentation that the Agency deems necessary to analyze the claim, the Contractor is deemed to have waived its right to further review, and the claim will not be considered properly filed and preserved.

If the Engineer or Project Manager has denied a claim, in full or in part, for Contract Time only according to 00180.80, or has denied a claim, in full or in part, for correction of final compensation according to 00195.95, those disputed claims may then be resolved, in full or in part, at either of the two progressive steps of claim review procedure as specified in this Subsection. For all claims, all of the actions and review under each step of the review process shall occur before the review can be advanced to the next higher step.

(b) Director Claim Review - Upon request by the Contractor, the Department Director will review the Engineer or Project Manager's decision on the claim and advise the Contractor of the decision in writing. If the Director finds the claim has merit, and equitable adjustment will be offered. If the Director finds the claim has no merit, no offer of adjustment will be made and the claim will be denied.

Once the Engineer determines the Agency is in receipt of a properly submitted claim, the Engineer will arrange a meeting, within 21 Calendar Days or as otherwise agreed by the parties, with the Contractor in order to present the claim for formal review and discussion.

If the Engineer determines that the Contractor must furnish additional information, records or documentation to allow proper evaluation of the claim, the Engineer will schedule a second meeting, to be held within 14 Calendar Days or as otherwise agreed by the parties, at which the Contractor shall present the requested information, records and documentation.

The Director shall evaluate the claim based on the information provided by the Contractor to the Engineer or Project Manager. However, if the Department Director (or designee) determines that the Contractor must furnish additional information, records or documentation to allow proper evaluation of the claim, the Department Director (or designee) will schedule a meeting, to be held within 14 Calendar Days, or as otherwise agreed by the parties, at which the Contractor shall present the requested information, records and documentation.

The claim is subject to records review, if not all of the records requested by the Department Director (or designee) were furnished. If applicable, advancement of the claim is subject to the provisions regarding waiver and dismissal of the claim or portions of the claim.

The decision of the Department Director shall be the final decision of the Agency.

(c) Commencement of Litigation - If the Contractor does not accept the Director's decision, then the Contractor shall commence any suit or action to collect or enforce any claim filed in accordance with 00199.30 within a period of one (1) year following the mailing of the decision or within one (1) year following the date of "Second Notification", whichever

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is later. If said suit or action is not commenced in said one (1) year period, the Contractor expressly waives any **and** all claims for additional compensation and any and all causes of suit or action for the enforcement thereof that he might have had.

The Contractor must follow each step in order, and exhaust all available administrative remedies before resorting to litigation. Litigation of a claim that cannot be resolved through the process described above shall be initiated by filing a complaint in the Clackamas County Circuit Court for the State of Oregon.

In any litigation, the entire text of any order or permit issued by the County or any other governmental or regulatory authority, as well as any documents referenced or incorporated therein by reference, shall be admissible for purposes of Contract interpretation.

The Contract shall not be construed against either party regardless of which party drafted it. Other than as modified by the Contract, the applicable rules of contract construction and evidence shall apply. This Contract shall be governed by and construed according to the laws of the State of Oregon without regard to principles of conflict of laws.

The Contractor shall comply with 00170.00.

00199.50 Mediation - Delete the entire section.

00199.60 Review of Determination Regarding Records - Delete the entire section.

END OF SECTION

SECTION 00210 - MOBILIZATION

Comply with Section 00210 of the Standard Specifications.

END OF SECTION

SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC

Comply with Section 00220 of the Standard Specifications modified as follows:

00220.02(a) General Requirements - Add the following bullets to the end of the bullet list:

- Before activating a modified traffic signal, revising lane usage, implementing new roadway geometry, or removing a "STOP" sign, protect traffic by installing "NEW TRAFFIC PATTERN AHEAD" (W23-2) signing according to 00222.40. Keep the signs in place for 30 Calendar Days after completing the modifications.
- When an abrupt edge is created by excavation, protect traffic according to the "Excavation Abrupt Edge" and the "Typical Abrupt Edge Delineation" configurations shown on the Standard Drawings.

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- When flagging operations may extend traffic queues onto the railroad crossing, protect traffic at the intersection of Ivy Street and Hwy 99E by providing an additional flagger on the north side of the railroad crossing. Position additional flagger signs according to the "Advance Flagger for Extended Traffic Queues" configuration shown on the Standard Drawings. Do not allow traffic to stop on the railroad crossing.

00220.40(e)(1) Closed Lanes - Replace this subsection, except for the subsection number and title, with the following:

One Traffic Lane may be closed on S Ivy Street and S Township Road when allowed, shown, or directed except as specified in 00220.40(e)(2).

- Daily, Monday through Thursday, between 9:00 a.m. and 4:00 p.m.
- Friday, between 9:00 a.m. and 3:00 p.m.
- Nightly, Sunday night through Friday morning, between 6:00 p.m. and 7:00 a.m.

No travel lanes or pedestrian routes may be closed on Ivy Street south of 8th Street between September 1 and June 15.

One Traffic Lane may be closed on the following side streets within the Project Site not listed above, when allowed, shown, or directed::

- SE 2nd St Ave
- SW 2nd Ave
- SW 3rd Ave
- SW 6th Ave
- SW 6th Place
- SW 7th Ave
- SW 8th Ave

Full closure, not to exceed 14 days, of each of the above side streets will be allowed to construct improvements. Side street closures shall be done individually and not overlap.

Any full road closure requests for Ivy Street or side streets shall be permitted by the City of Canby:

Ronda Rozzell
Office Specialist
Public Works Department
1470 NE Territorial Road
Canby, Oregon 97013
M-Th, 6am to 4:30 pm
Ph: 503-266-0798
Fax: 503-266-7238
Email: rozzellr@canbyoregon.gov

END OF SECTION

SECTION 00221 - COMMON PROVISIONS FOR WORK ZONE TRAFFIC CONTROL

Comply with Section 00221 of the Standard Specifications modified as follows:

00221.90(b) Temporary Protection and Direction of Traffic - Delete the bullet that begins "Moving temporary barrier to and from Contractor's stockpile areas".

00221.90 Payment, Method B – Replace the 2nd paragraph with the following:

Payment will be payment in full for furnishing, installing, moving, operating, maintaining, inspecting, and removing Materials, TCD, TPAR, and Pedestrian Channelizing Devices and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

END OF SECTION

SECTION 00222 – TEMPORARY TRAFFIC CONTROL SIGNS

Comply with Section 00222 of the Standard Specifications modified as follows:

00222.40(e) Temporary Sign Placement - Add the following to the end of the bullet list:

- At least ten Calendar Days before closing a sidewalk, place a "SIDEWALK CLOSED, Full Time" (CW11-4) sign in advance of each future closure point. Locate the sign so it is legible from the nearest alternate pedestrian pathway facing incoming pedestrian traffic. The sign may be mounted between the panels of a Type II barricade or on a single-post TSS. Do not place the sign or sign support such that it narrows the pedestrian pathway to a width of less than 4 feet.
- Before opening the TPAR, place TPAR signing and other TCM as shown, or as directed. Maintain the "SIDEWALK CLOSED, Full Time" (CW11-4) signs while the TPAR is open to pedestrian traffic.
- At least ten Calendar Days prior to the start of work, place a "SIDEWALK OPEN" (CW11-3) sign in advance of each end of the Work Area. Locate the sign so it is legible from the nearest alternate pedestrian pathway facing incoming pedestrian traffic. The sign may be mounted between the panels of a Type II barricade, or on a single-post TSS. Do not place the sign or support such that it narrows the pedestrian pathway to a width less than 4 feet.
- Before starting work, place pedestrian-specific TCM as shown in the TCP, or as directed. Maintain "SIDEWALK OPEN" (CW11-3) signs while work is affecting the pedestrian pathway.
- Place a "PEDESTRIANS ON ROADWAY" (CW11-2) sign at the beginning of each end of the Work Area, facing incoming traffic as shown, or as directed.

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- Install "ROAD WORK AHEAD" (W20-1-48) signs with a 36 by 24-inch "FINES DOUBLE" (R2-6aP) rider on Ivy Street, according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans except do not install the "FINES DOUBLE" rider on concrete barrier mounted signs.
- Install beyond each end of the Project, facing outgoing traffic, an "END ROAD WORK" (CG20-2A-24) sign a distance of $(A \div 2)$ according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans.

END OF SECTION

SECTION 00223 - WORK ZONE TRAFFIC CONTROL LABOR AND VEHICLES

Comply with Section 00223 of the Standard Specifications modified as follows:

00223.31(b) Traffic Control Inspection Without TCS - Replace the bullet that begins "Prepares and signs a daily "Traffic Control Inspection Report"..." with the following bullet:

- Prepares and signs a "Traffic Control Inspection Report" (Form No. 734-2474) upon the initial installation of TCM and each working day when any modification, removal, or reinstallation of TCM are made, or as directed by the Engineer. Submit completed reports to the Engineer no later than the end of the next working day.

END OF SECTION

SECTION 00224 - TEMPORARY TRAFFIC CHANNELIZING DEVICES

Comply with Section 00224 of the Standard Specifications.

END OF SECTION

SECTION 00225 - TEMPORARY PAVEMENT MARKINGS

Comply with Section 00225 of the Standard Specifications modified as follows:

00225.40 Temporary Pavement Markers - Replace the paragraph that begins "Unless otherwise shown..." and the three bullets with the following paragraphs and bullets:

Install temporary flexible oiling pavement markers for temporary centerline marking as follows:

- Place and maintain two temporary flexible oiling pavement marker on 40-foot spacing in tangent and curve sections except as below.
- Place and maintain two temporary flexible oiling pavement marker on 20-foot spacing in curved alignment sections identified by a speed rider displaying less than the posted speed and channelization areas.

Establish alignment for placing the temporary flexible oiling pavement markers as follows:

- Control markers at:

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- 200-foot intervals on tangents
- 50-foot intervals on curves
- 40-foot intervals on curves with speed rider
- Use string line or other appropriate means to maintain proper alignment of the markers. Adjust placement to avoid straddling a longitudinal joint, while maintaining a suitable alignment of markers.
- Remove and replace misaligned markers at no additional cost to the Agency.

END OF SECTION

SECTION 00228 - TEMPORARY PEDESTRIAN AND BICYCLIST ROUTING

Comply with Section 00228 of the Standard Specifications modified as follows:

00228.00 Scope - Replace this subsection, except subsection number and title, with the following:

In addition to the requirements of Section 00221, this Work consists of furnishing, installing, operating, maintaining, inspecting, and removing temporary devices for accommodating pedestrians and bicyclists through a work zone.

00228.80(a) Length Basis - Replace this subsection, except subsection number and title, with the following:

Pedestrian channelizing devices and bicycle channelizing devices will be measured on the length basis upon delivery to the Project. The quantities will be limited to those in the approved TCP.

END OF SECTION

SECTION 00280 - EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications modified as follows:

00280.00 Scope - Add the following paragraph to the end of this subsection:

The Agency's NPDES 1200-CA Permit is applicable to the Project.

00280.06 Erosion and Sediment Control Manager - Delete this subsection.

00280.62 Inspection and Monitoring - Replace this subsection, except for the subsection number and title, with the following:

Inspect the Project Site and all ESC devices for potential erosion or sediment movement as follows:

- On initial date of construction activity
- Within 24 hours of any storm event, including runoff from snow melt, that results in discharge from the site.

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- At least once every 7 days for active sites.
- Every 2 weeks for inactive sites

If a significant noncompliance or serious water quality issue occurs that could endanger health or the environment, verbally report it to the Engineer within 24 hours.

00280.90 Payment - Add the following to the end of this subsection:

In the paragraph that begins "Item (a) includes..." delete the bullet that specifies "providing the Erosion and Sediment Control Manager".

Replace the paragraph that begins "When only Item (a) is..." with the following paragraph:

When only item (a) is listed in the Contract Schedule of Items, additional ESC devices required for permit compliance will be paid for as Extra Work according to Section 00196.

END OF SECTION

SECTION 00290 - ENVIRONMENTAL PROTECTION

Comply with Section 00290 of the Standard Specifications modified as follows:

00290.32 Noise Control - Add the following paragraphs to the end of this subsection:

Review City of Canby Municipal Code Section 9.48 which describes noise control regulations. Comply with the applicable noise control requirements of the permit for Project Work.

00290.36(a) Migratory Birds - Add the following to the end of this subsection:

Do not disturb migratory bird nesting habitat (shrubs, trees, and structures), or clear vegetation from March 1 to September 1 of each year without prior written approval from the Engineer. Notify the Engineer, in writing, a minimum of 10 calendar days prior to starting activities that could harm nesting birds.

(1) Bird Management - Bird management activities to comply with the Migratory Bird Treaty Act (16 U.S.C. 703 712) will be performed by the Agency. Ensure that the Agency and its permitted agents have access to the project area, as needed to prevent migratory bird nesting. Nesting prevention may include daily bird harassment and the installation and maintenance of devices that exclude birds.

Do not disturb migratory bird nesting habitats (shrubs, trees, and structures), or clear vegetation from March 1 to September 1 of each calendar year without prior written approval from the Engineer. Notify the Engineer, in writing, a minimum of 10 Calendar Days prior to starting activities that could harm nesting birds.

END OF SECTION

SECTION 00305 - CONSTRUCTION SURVEY WORK

Comply with Section 00305 of the Standard Specifications modified as follows:

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00305.00 Scope – Add the following to the end of this subsection:

In addition to the requirements of the ODOT *Construction Surveying Manual for Contractors*, establish Engineering Stationing at 50-ft intervals for the length of the project along the centerline of the highway. Maintain the stationing so it is visible throughout construction of the project.

File Format for Digital exchange shall be:

- Alignments (Horizontal and Vertical) – LandXML alignments.
- CAD (graphics) – AutoCAD (.dwg).
- Coordinates (1D, 2D, and 3D) – LandXML coordinates.
- Digital Terrain Model (DTM) – LandXML surface.

END OF SECTION

SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Comply with Section 00310 of the Standard Specifications modified as follows:

00310.90 Payment - Add the following to the end of this subsection:

No separate or additional payment will be made for removal or disposal Work included in Section 00330 according to 00310.02.

END OF SECTION

SECTION 00320 - CLEARING AND GRUBBING

Comply with Section 00320 of the Standard Specifications.

00320.41 Grubbing Operations - Add the following to the end of this subsection:

Tree of Heaven Removal: Prior to removal of the invasive Tree of Heaven, STA 120+10, apply a Foliar Herbicide Application between July and September. Herbicide to be a combination of glyphosate plus triclopyr applied at the rate recommended per manufacturer. Tree can be removed 6-weeks after herbicide application. Remove entire tree, root ball, and roots greater than 1" diameter. All removed invasive material to be disposed of with construction debris and not ground-up as mulch.

END OF SECTION

SECTION 00330 - EARTHWORK

Comply with Section 00330 of the Standard Specifications modified as follows:

00330.03 Basis of Performance - Add the following paragraph to the end of this subsection:

Perform all earthwork under this Section on the excavation basis.

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00330.14 Selected Granular Backfill - Delete the sentence that begins "Reclaimed glass meeting the requirements of Section 02695..."

00330.15 Selected Stone Backfill - Delete the sentence that begins "Reclaimed glass meeting the requirements of Section 02695..."

00330.41(a)(9) Excavation Below Grade - Delete subsection 00330.41(a)(9)(c).

00330.92 Kinds of Incidental Earthwork - Add the following bullets to the end of the bullet list:

- Excess material used to widen embankments or flatten slopes according to 00330.41(a)(4).
- Earthwork required for driveways and road approaches. Earthwork for driveways and road approaches will be that which is outside the Neat Line limits shown on the typical sections.

00330.94 Embankment Basis Payment - Delete the paragraph that begins "Excavation of unstable..."

END OF SECTION

SECTION 00331 - SUBGRADE STABILIZATION

Comply with Section 00331 of the Standard Specifications.

END OF SECTION

SECTION 00332 - VAULT MODIFICATIONS

Section 00332, which is not a Standard Specification, is included in this Project by Special Provision.

Description

00332.00 Scope - This work consists of modifying existing below sidewalk vaults as shown, specified and directed, including filling vaults to take them out of service.

00332.01 Easements and Access to Buildings – Notify all property owners a minimum of 4 weeks prior to performing work on a vault that adjoins their property.

Coordinate methods of construction, timing and temporary protection measures that will provide for public access into each of the buildings adjacent to the vaults.

Perform all work within the Right-of-Way with the exception of a temporary protection wall and/or the permanent masonry wall which will be in the plane of the existing basement wall. Access for construction through the building is not allowed.

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Temporary access will be granted through the buildings for final inspection only. Coordinate the temporary access for inspection with each property owner and the Engineer.

Provide a submittal to the Engineer showing the construction sequence, staging, access and protection for each of the vaults.

00332.02 Structure Excavation and Backfill – Perform excavation and backfill according to 00510.

Materials

00332.10 Materials - Furnish materials meeting the following:

Granular Structure Backfill.....	00510
Concrete Masonry.....	00597
Commercial Grade Concrete.....	00440
Precast concrete block.....	00596B.12

Concrete masonry blocks shall have a standard block finish on all surfaces.

00332.11 Impermeable Liner:

- (a) **Impermeable Liner** - Furnish 40 mil HDPE impermeable liner according to 02320.
- (b) **HDPE Plastic Anchor Strips and Wedges** – Furnish virgin HDPE plastic anchor strips and wedge strips as shown, black in color.
- (c) **Adhesive Caulk** – Furnish an adhesive caulk for anchoring and sealing of the impermeable liner as recommended by the impermeable liner manufacturer.

00332.12 Concrete Waterproofing Coating - Provide one of the following concrete coatings, or approved equal, as a liquid-applied, single-component, moisture-cured, elastomeric, coal-tar free, bitumen modified polyurethane that cures to form a flexible, monolithic, waterproof membrane on vertical and horizontal surfaces with primer when recommended by the manufacturer for project conditions:

- (a) **Carlisle Coating and Waterproofing** – CCW-525.
- (b) **MasterBuilders MasterSeal** – HLM 5000.
- (c) **Tremco Commercial Sealants, Waterproofing** – TREMproof 201/60 or 250GC.

Construction

00332.40 Securing Vaults – After removing any portion of existing vault doors or sidewalk slab and before CMU form wall is in place or vault replacement sidewalk slab and doors are functional, secure building basements from unauthorized access whenever contractor's personnel do not have line-of-site observation of vault openings into building basements.

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In vaults shown with CMU form walls, install the form walls prior to or on the same day the existing vault doors or sidewalk slab are disabled or removed. Final lift grouting of cells may occur the following workday.

Protect the existing openings into the basements from water, moisture or other debris from entering into the existing basements at all times.

Provide protective fencing and/or barriers from the vault areas during construction.

00332.41 Installation Maintenance and Removal of Shoring and Bracing – Install, maintain and remove shoring and bracing in conformance with the design and as directed.

00332.42 Excavation and Foundation Preparation - Perform excavation and prepare and backfill according to Section 00510 and the following:

- Grade the foundation level or up to 4H:1V slope along the exterior of vault walls.
- Place backfill material in nearly horizontal layers not more than 8 inches thick. Compact the entire surface of each layer with at least three coverages, using equipment made specifically for hand compaction. Do not apply excessive pressure on the exterior of vault walls.
- Do not construct backfill when the backfill, the foundation, or the embankment on which it would be placed is frozen, or unstable.

00332.43 Concrete Masonry – Construct concrete masonry according to the provisions of 00597 applicable to concrete masonry construction.

00332.44 Removal of Existing Reinforced Concrete:

(a) Cutting – Remove concrete by saw cutting through the full thickness of all components. Impact hammer demolition will not be allowed.

(b) Drilling – Use core drilling methods for creation of holes for drainage or reinforcing dowel installation. Impact hammer drilling will not be allowed.

00332.45 Preparation of Concrete Surfaces:

(a) Sawcut Existing Concrete to be Covered with Impermeable Liner - Remove sharp fins, protrusion or edges potentially damaging to the impermeable liner. Coat ends of exposed reinforcing with a trowelable grade of epoxy concrete patching compound to a minimum thickness of 1/8".

(b) Existing Concrete Bonding with Cast-in-Place Concrete:

(1) Sawcut Surfaces – Clean and roughen to an amplitude of 1/8" or clean and apply a concrete bonding agent selected from the QPL.

(2) Existing Concrete Surfaces – Clean concrete surface of all dirt and other substances and grind concrete to remove surface layer of cement paste.

(3) As-Cast Surfaces – Prepare as a construction joint according to 00540.43.

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(c) Concrete to Receive Concrete Waterproofing:

(1) **Existing Concrete Surfaces** – Clean concrete surface of all dirt and other substances and grind concrete to remove surface layer of cement paste. Further prepare and/or prime as recommended by the waterproofing manufacturer.

(2) **Cast-in-Place Surfaces** – Prepare and/or prime as recommended by the waterproofing manufacturer.

00332.46 Concrete Waterproofing Coating – Install liquid applied concrete waterproofing to a minimum dry film thickness of 60 mils, according to the manufacturer’s recommendations and as shown.

00332.47 Impermeable Liner – Install according to 00350, the manufacturer’s recommendations and as shown.

Maintenance

00332.60 Protecting Work - Protect and repair work as follows:

- Do not allow runoff from adjacent areas to enter the vault construction area during construction operations.
- At the end of each day's operation, direct potential runoff away from the vault opening and provide all means necessary to prevent water from entering the building basement or collecting in the vault.

Measurement

00332.80 Measurement - No measurement of quantities will be made for vault modification.

The estimated quantities of listed materials are:

Vault 1	Material	Estimated Quantities
	Structure Excavation	2 Cubic Yard
	Granular Structure Backfill	5 Cubic Yard
	Sawcut Extg Reinforced Concrete	12 Foot
	Concrete Removal	36 Cubic Foot
	CMU Form Wall	32 Square Foot
	Class 4000 Concrete	0.7 Cubic Yard
	Impermeable Liner	1.3 Square Yard
	Concrete Waterproofing	32 Square Foot

Payment

00332.90 Payment - The accepted quantities of work performed under this Section will be paid for at the Contract lump sum amount for the item “Vault Modification”.

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Payment will be payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

Excavation below elevations shown will be paid for according to 00510.90(c).

Payment includes, but is not limited to, the following:

- excavation, shoring, bracing and specified backfill
- concrete preparation
- waterproofing coating
- impermeable liner
- core drilling drain holes in vault floor or walls
- securing building openings against unauthorized access
- temporary protection measures around each of the vault areas

END OF SECTION

SECTION 00350 - GEOSYNTHETIC INSTALLATION

Comply with Section 00350 of the Standard Specifications.

END OF SECTION

SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL

Comply with Section 00405 of the Standard Specifications modified as follows:

00405.02 Definitions: Add the following:

Concrete Excavation - Excavation of existing concrete pavement below asphalt that, in the opinion of the Engineer, requires sledging, barring, or breaking up with power-operated tools. The term "Concrete Excavation" indicates a method of removal and not a geological formation. This term only applies to trench excavation and is not applicable to curb and sidewalk removal.

00405.42 Rock Excavation – Replace entire section with the following:

00405.42 Rock or Concrete Excavation - Where Rock or Concrete excavation as defined in this Section is required, remove the Rock or Concrete to provide the minimum clearances shown on the Standard Drawings. Excavate and remove the overburden and expose the Rock or Concrete to allow the Engineer to measure the Rock or Concrete prior to removal. Use of explosives is not permitted.

00405.81 Rock Excavation and Boulder Excavation – Replace in entirety with the following:

00405.81 Rock Excavation, Concrete Excavation, and Boulder Excavation - The quantities of Rock excavation, Concrete excavation and Boulder excavation will be measured as follows:

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(a) Rock or Concrete Excavation - Excavation will be measured on the volume basis. Measurement will be of the actual dimensions of Rock or Concrete removed within the following limits:

- Length - Length will be the horizontal distance measured along the centerline of the trench excluding manholes, inlets, and other Structures.
- Width - Width will be the width of the Rock removed but will not be greater than the outside diameter of the pipe bell plus 12 inches.
- Depth - Depth will be measured at 30-foot intervals, or as specified, along the centerline of the trench. The depth will not be greater than 6 inches below the outside bell of the pipe.

Rock excavation for manholes, inlets, and other Structures will be computed from the Rock excavated to a depth 6 inches below the bottom of the Structure and an area within a line parallel with, and 12 inches outside of, the actual dimensions of the manhole, inlet, or Structure. Concrete will be measured to the actual depth.

No separate measurement will be made for the following:

- Soft or disintegrated Rock.
- Hardpan or cemented gravel that can be removed with a hand pick or power-operated excavator or shovel.
- Loose, shaken, or previously blasted Rock or broken stone in Rock fillings or elsewhere.
- Rock outside of the minimum limits of measurement allowed, which may fall into the excavation.

(b) Boulder Excavation - Boulder excavation will be measured on the volume basis. Measurement will be made in the field by the Engineer after removal of each boulder from the excavation but prior to removal from the site. Each boulder removed will be measured for length, width, and height. The volume of each boulder will be determined as the product of 85 percent of each of the three measured dimensions.

00405.90 Payment: Add the following Pay Item:

Pay Item	Unit of Measurement
(d) Concrete Excavation	Cubic Yard

END OF SECTION

SECTION 00415 - VIDEO PIPE INSPECTION

00415.42(a) Remote Video Inspection with Laser Profiler - Replace the paragraph that begins "Use video inspection equipment meeting..." with the following paragraph:

Use video inspection equipment meeting the requirements of 00415.22. Calibrate the laser profiler according to the manufacturer's specifications and ASTM F3080 Section 9.

00415.80 Measurement - Replace this subsection, except for the subsection number and title, with the following:

No measurement of quantities will be made for Work performed under this Section.

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00415.90 Payment - Replace this subsection, except for the subsection number and title, with the following:

No separate or additional payment will be made for Work performed under this Section. Payment will be included in payment made for the appropriate items under which this Work is required.

END OF SECTION

SECTION 00440 - COMMERCIAL GRADE CONCRETE

Comply with Section 00440 of the Standard Specifications.

END OF SECTION

SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE

Comply with Section 00445 of the Standard Specifications.

END OF SECTION

SECTION 00470 - MANHOLES, CATCH BASINS, AND INLETS

Comply with Section 00470 of the Standard Specifications modified as follows:

00470.41(c) Grates, Frames, Covers and Fittings - Replace this subsection, except for the subsection number and title, with the following:

Set metal frames for manholes on full non-shrink grout beds to prevent infiltration of surface water or groundwater between the frame and the concrete of the manhole section. If concrete is to be poured around the frames, coat the portion of the frame that will contact the concrete with hot asphalt before placing the concrete. Set frames, covers and grates true to the locations and grades established. Clean bearing surfaces and provide uniform contact. The use of a bolt adjustment system for frames from the QPL is allowed. Secure all fastenings. Construct all mortared, sanitary sewer manhole necks and all riser ring joints made with non-shrink grout using an approved commercial concrete bonding agent applied to all cured concrete surfaces being grouted.

Add the following subsection(s):

00470.41(d) Concrete Manholes, ____ diameter Water Quality (with Snout) - Construct ____ diameter water quality manhole with snout as shown. Furnish and install Snout Hood Device manufactured by BMP, Inc. or an approved equal.

00470.42 Precast Concrete Catch Basins and Inlets - Add the following sentence to the end of this subsection:

Grade adjustments using a bolt system from the QPL is allowed.

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00470.90 Payment - Add the following pay items:

Pay Item	Unit of Measure
(m) Concrete Manholes _____ Dia. Water Quality (with Snout)	Each

END OF SECTION

SECTION 00490 - WORK ON EXISTING SEWERS AND STRUCTURES

Comply with Section 00490 of the Standard Specifications.

END OF SECTION

SECTION 00620 - COLD PLANE PAVEMENT REMOVAL

Comply with Section 00620 of the Standard Specifications modified as follows:

END OF SECTION

SECTION 00640 - AGGREGATE BASE AND SHOULDERS

Comply with Section 00640 of the Standard Specifications.

END OF SECTION

SECTION 00744 - ASPHALT CONCRETE PAVEMENT

Comply with Section 00744 of the Standard Specifications modified as follows:

00744.11(a) Asphalt Cement - Add the following to the end of this subsection:

Provide PG64-22 grade asphalt cement for this Project.

00744.41 Mixing Temperature - Replace the table with the following:

Type	Temperature, °F	
	Maximum at Mixer	Minimum Behind Paver
HMAC	350	240
WMAC	350	215

Add the following subsection:

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00744.51 Opening Sections to Traffic - Schedule work so that, during the same shift, the surfaces being paved are paved full width and length through the top Base Course before opening to traffic. Traffic will be allowed on the top Base Course up to 90 Calendar Days.

Before beginning wearing Course paving operations, make repairs to the existing surface as directed. Payment for the repairs will be made according to 00195.20.

END OF SECTION

SECTION 00749 - MISCELLANEOUS ASPHALT CONCRETE STRUCTURES

Comply with Section 00749 of the Standard Specifications modified as follows:

00749.91 Method A – Weight and Extras Basis – replace the unit of measurement for Item A Extra for Asphalt approach from Each to Square Foot.

END OF SECTION

SECTION 00759 - MISCELLANEOUS PORTLAND CEMENT CONCRETE STRUCTURES

Comply with Section 00759 of the Standard Specifications modified as follows:

00759.03(b) Curb Ramp Plan - Replace the bullet that begins “Compliance with Working Drawings and details...” with the following bullet:

- Comply with Working Drawings and details submitted under 00759.03(a)

Add the following subsection

00759.13 Exposed Aggregate - Exposed hard, sound, durable, and free of all deleterious materials and staining qualities. Provide aggregates from a single source. Aggregate shall match color, size, and gradation of the aggregate used in the exposed aggregate sidewalks and pavement existing in the immediate vicinity of the Project.

Add the following subsection:

00759.50(f) Exposed Aggregate Driveway Surfacing - After concrete surface has been leveled to meet the standards herein, and immediately after the bleed water sheen has disappeared, spread fine aggregate uniformly over the surface. Provide complete coverage to a depth of one stone. Lightly tamp the aggregate to embed it into the surface. Float the surface until the embedded stone is fully coated with mortar and the surface has been finished to meet the tolerances for a conventional surface. After the matrix has hardened sufficiently to prevent dislodgment of coarse aggregate particles, use a stiff bristled brush to apply the minimum water necessary to allow aggregate exposure. When approved, a surface retarder may be sprayed on the freshly floated concrete surface to extend the working time for exposure of the aggregate. Submit for Engineer approval the surface retarder specification, manufacturer's data, and proposed method of application.

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Prevent contamination of planting areas during washing of exposed aggregate finish.

00759.81 Area Basis Plus Extras Basis - The quantity of concrete driveways with exposed aggregate surfacing will be measured on the area basis according to 00759.80. Measurement will additionally be made on the area basis for the extra costs of placing and exposing the aggregate in the driveway.

00759.82 Extra Area for Thickened Edge – The quantity for thickened edge will be measured at the surface where the thickness of the sidewalk exceeds the standard detail for sidewalk.

00759.90 Payment - Add the following pay items:

Pay Item	Unit of Measurement
(o) Extra for Exposed Aggregate Driveway	Square Foot
(p) Tall Curb.....	LF
(q) Extra For Thickened Edge Sidewalk	Square Foot

00759.90 Payment - Replace the paragraph that begins " Item (k) includes the additional Work required ..." with the following paragraph:

Item (k) includes the additional Work required to construct a curb ramp or replace an existing curb ramp. Payment for the area of the curb ramp will be made under the concrete walks Pay item.

Add the following to the end of this section:

Item (e) includes all labor, materials, and equipment to remove, relocate, and reinstall the existing fabricated ADA ramp on ROW File 5. Ramp shall not be out-of-service for more than 4 consecutive days.

END OF SECTION

SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS

Comply with Section 00850 of the Standard Specifications modified as follows:

00850.30 Manufacturer's Representative - Replace this subsection, except for the subsection number and title, with the following:

For Sections referencing 00850.30, the services of a manufacturer's representative are not required. Place pavement markings only when the pavement is ready for the pavement marking material according to the manufacturer's installation instructions.

END OF SECTION

SECTION 00865 - LONGITUDINAL PAVEMENT MARKINGS - DURABLE

Comply with Section 0865 of the Standard Specifications.

SECTION 00867 - TRANSVERSE PAVEMENT MARKINGS - LEGENDS AND BARS

Comply with Section 00867 of the Standard Specifications.

END OF SECTION

SECTION 00869 - CURB AND NON-TRAVERSABLE MEDIAN MARKINGS

Section 00869, which is not a Standard Specification, is included in this Project by Special Provision.

Description

00869.00 Scope - In addition to the requirements of Section 00850, 00860, and 00865, install curb markings and non-traversable median markings according to the following Specifications.

Labor

00869.31 Manufacturer-Certified Installers - Provide certified installers according to 00850.31 for thermoplastic applications.

Construction

00869.45 Installation - Apply curb markings and non-traversable median markings only when the following conditions are met:

- The ambient temperature is at least 50 °F and rising
- The pavement has been dry for at least 48 hours
- 30 Calendar Days of cure time for new concrete curb or median.

Apply the Material to the pavement according to the manufacturer's installation instructions to the full height and width of curb or median as shown in the Plans.

Apply one or more of the following marking material types:

- **Paint** - Apply according to 00860.45 along full height of curb face and along full width of top of curb or non-traversable median.
- **Thermoplastic, Sprayed** - Apply according to 00865.45, using Method B Spray Markings to the full height of curb face and along full width of top of curb or non-traversable median.
 - Apply each application of painted thermoplastic marking at a thickness of 60 mils.

Measurement

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00869.80 Measurement - The quantities of non-traversable median markings will be measured on the area basis. The quantities of curb markings will be measured on the length basis.

Payment

00869.90 Payment - The accepted quantities of Work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
(a) Curb Marking, Thermoplastic.....	Foot
(b) Curb Marking, Paint.....	Foot
(c) Non-Traversable Median Markings, Thermoplastic.	Square Foot
(d) Non-Traversable Median Markings Paint.....	Square Foot

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

END OF SECTION

SECTION 00902 - CROSSWALK CLOSURE SUPPORTS

Section 00902, which is not a Standard Specification, is included in this Project by Special Provision.

Description

00902.00 Scope - This Work consists of constructing crosswalk closure supports and associated signs as shown.

Materials

00902.10 Materials - Furnish Materials meeting the following requirements:

Commercial Grade Concrete	00440
Steel	01070.10 and 01070.12
Signs.....	00940

Construction

00902.40 General - Install crosswalk closure supports and associated signs as shown or directed.

Measurement

00902.80 Measurement - The quantities of crosswalk closure supports will be measured on the unit basis. No separate measurement will be made for signs attached to crosswalk closure supports or the anchor base.

Payment

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00902.90 Payment - The accepted quantities of Work done under this Section will be paid for at the Contract unit price, per each, for the item "Crosswalk Closure Supports".

Payment will be payment in full for furnishing and placing all Materials, including signs, anchors, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified. No separate payment will be made for modifications of the support frames to meet current ADA crossing closure requirements as shown in the details.

END OF SECTION

SECTION 00905 - REMOVAL AND REINSTALLATION OF EXISTING SIGNS

Comply with Section 00905 of the Standard Specifications modified as follows:

Add the following subsection:

00905.41 Existing RRFB – Protect existing RRFB from damage during removal; deliver to City of Canby Public Works: 1470 NE Territorial Rd, Canby, OR 97013. Contact Jerry Nelzen to coordinate delivery: (503)266-2573.

00905.90 Payment - Add the following to the end of this section:

No additional payment will be made for salvage and delivery of RRFB to City Public Works.

END OF SECTION

SECTION 00930 - METAL SIGN SUPPORTS

Comply with Section 00930 of the Standard Specifications modified as follows:

00930.80 Measurement - Add the following to the end of this subsection:

The estimated quantities of structural steel are as follows:

Item	Estimated Quantity (Pound)
Minor Sign Supports	
Perforated Steel Square Tube Anchor Sign Supports	866

END OF SECTION

SECTION 00940 - SIGNS

Comply with Section 00940 of the Standard Specifications.

END OF SECTION

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SECTION 00960 - COMMON PROVISIONS FOR ELECTRICAL SYSTEMS

Comply with Section 00960 of the Standard Specifications modified as follows:

Add the following subsection:

00960.30 Licensed Electricians - Replace the paragraph that begins " According to the Oregon Administrative Rule ..." with the following paragraph:

According to the Oregon Administrative Rule 918-282-0120(1), no person or entity shall allow any individual to perform electrical work for which the individual is not properly registered or licensed. Every person who installs electrical systems on the Project shall submit a copy of their electrical license or apprentice registration to the Engineer prior to performing any Work. They must be licensed as an S or a J under Oregon Administrative Rule 918-282.

Add the following subsection:

00960.42(c) Metallic Conduit – Paint the following with rust-preventative coating:

- Threads on all metal conduit.
- Areas where the coating has been damaged so underlying metal is exposed.
- Exposed, ungalvanized threads resulting from field cuts.

If corrosive Soil conditions exist, coat metallic conduit with a nonmetallic coating or wrap with corrosion protection tape at least 10 mils thick.

00960.46 Service Cabinet and Electrical Energy - Replace this subsection, except for the subsection number and title, with the following:

Install service cabinet and associated equipment, then arrange for the Utility providing power to have the service cabinet inspected and make the electrical hook-up prior to field testing. Field test according to 00990.70(g) for traffic signals, or according to 00970.70 for illumination.

Table 00960-1 contains Utility contact information to arrange for the Utility to make electrical hookups:

Table 00960-1

Location	Utility	Utility Contact Person's Name, Email and Phone Number	Utility Job Number
Ivy Street	Canby Utility Board	Jason Berning jberning@canbyutility.com (971)563-6307	

Furnish and install a meter base approved by the serving Utility (with cover by the Utility), where shown.

Electrical energy costs will be billed to the Agency for permanent installations.

END OF SECTION

SECTION 00962 - METAL ILLUMINATION AND TRAFFIC SIGNAL SUPPORTS

Comply with Section 00962 of the Standard Specifications modified as follows:

00962.05(a) Traffic Signal Mast Arm Supports - Add the following to the end of this subsection:

The following standard signal mast arm pole drawings are prequalified for use on the Project:

Valmont Industries Inc.	Drg. DB00719 page 1, Rev. P, 6/8/18
	Drg. DB00719 page 2, Rev. P, 6/8/18
	Drg. DB00719 page 3, Rev. P, 6/8/18
	Drg. DB00719 page 4, Rev. P, 6/8/18
	Drg. DB00719 page 5, Rev. P, 6/8/18
	Drg. DB01290 page 1, Rev. D, 9/22/20
	Drg. DB01290 page 2, Rev. D, 9/22/20
	Drg. DB01290 page 3, Rev. D, 9/22/20
	Drg. DB01290 page 4, Rev. D, 9/22/20
Ameron Pole Products Division	Drg. OR13TR10, Rev. E, 8/27/18
	Drg. OR13TR11, Rev. F, 8/27/18
	Drg. OR13TR12, Rev. G, 8/27/18
	Drg. OR13TR13, Rev. C, 8/27/18

00962.05(c) Illumination Supports - Add the following to the end of this subsection:

The following standard illumination pole drawings are prequalified for use on the Project:

Ameron Pole Products Division	Drg. OR7, Rev. C, 1/02
	Drg. OR8, Rev. C, 1/02
	Drg. OR9, Rev. E, 2/02
Union Metal Corp.	Drg. 71049-B18 sh 1, R3, 2/99
	Drg. 71049-B18 sh 2, R3, 2/99
	Drg. 71049-B19 sh 1, R3, 2/99
	Drg. 71049-B19 sh 2, R3, 2/99
Valmont Industries Inc.	Drg. DB00386 page 1, Rev. D, 1/23/15
	Drg. DB00386 page 2, Rev. D, 1/23/15
	Drg. DB00386 page 3, Rev. D, 1/23/15
	Drg. DB00386 page 4, Rev. D, 1/23/15
	Drg. DB00387 page 1, Rev. D, 1/16/15
	Drg. DB00387 page 2, Rev. D, 1/16/15
	Drg. DB00387 page 3, Rev. D, 1/16/15

END OF SECTION

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

SECTION 00963 - SIGNAL SUPPORT DRILLED SHAFTS

Comply with Section 00963 of the Standard Specifications.

END OF SECTION

SECTION 00990 - TRAFFIC SIGNALS

Comply with Section 00990 of the Standard Specifications modified as follows:

Add the following subsections:

00990.13 Power Service Cabinet - Service cabinets shall be the following or an approved equal:

Fouch Drwg #0600-0074-00 (NEMA 3-R Metered Base Mount Service Cabinet Clackamas County).

00990.14 Fire Preemption Equipment – Fire Preemption systems for installation at traffic signals shall be as follows:

Fire Preemption system shall be GTT Opticom. See plan set for additional details. The following components make up the fire preemption system.

(a) **Fire Preemption Phase Selector (P/N: Opticom 762)** - Interface device for installation in the cabinet.

(b) **Fire Preemption Detector Unit (P/N: Opticom 721)** - Field detector for fire preemption system.

(b) **Fire Preemption Detector Feeder Cable (P/N: Opticom 138)** – For installation between the cabinet and the field detector at the location shown in the plan set.

00990.15 Pedestrian Push Buttons and Mount - Pedestrian pushbuttons for installation at traffic signals shall be as follows:

Pedestrian push button system shall be a Polara iNavigator 2-Wire (iNS2) Push Button Station (P/N: iNS2-3-T-N-0-B) or approved equal. See the Contract Plans for additional details. The following components make up the push button system:

(a) **Push Button Station (P/N: iNS2 PBS)** - The main body with pushbutton for installation on the signal or pedestrian pole using 2-Wire push button wired as a 3-Wire system.

(b) **Ped Head Control Unit (P/N: iPHCU3W)** - Interface device for installation in pedestrian signal head. One per Push Button Station.

(c) **Pedestrian Push Button Decal** - The pedestrian push button sign shall be a Polara option T (Hi-Intensity Retroreflective MUTCD R10-3e) 9"x15" sign.

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

(d) **Interconnect Cables (iN3-CABLE-X)** - Pre-cut lengths (12', 25', or 50') of interconnect cable from Push Button Station to Ped Head Control Unit.

(e) **iNav Bluetooth Dongle (iN-DGL)** - Bluetooth dongle to communicate from personal computer with Polar iN3 Push Button Station.

00990.16 Rectangular Rapid Flashing Beacons – The installation of rectangular rapid flashing beacons (RRFB) shall be as follows:

(a) **RRFB Assembly Unit** – The RRFB shall be a Carmanah (P/N: SC315-G) with AC Power Kit and uni- or bi-directional light bar configurations as shown on the Contract Plans or approved equal.

(b) **Push Button System** – RRFB push button system shall be a Polara Crosswalk Button Station (P/N: iNX9WN0-Y) or approved equal.

00990.17 Traffic Signal Circuits

All high-voltage wiring smaller than #10 AWG shall be IMSA 19-1 cable.

The #14 AWG, multi-conductor cables ran for traffic signal circuits will conform to IMSA Specification 19-1. Color coding of the conductors will be as follows:

Traffic Signal Color Code
Clackamas County, Oregon
#14 AWG IMSA 19-1 Traffic Signal Cable
Mast Arms Only

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

	Function (Phase)	20 Conductor [Feed]	10 Conductor [Branch]	7 Conductor [Branch]	5 Conductor [Branch]	4 Conductor [Branch]
Main Street	Phase Red	Red	Red	Red	Red	Red
	Phase Yellow	Orange	Orange	Orange	Orange	Orange
	Phase Green	Green	Green	Green	Green	Green
Side Street	Phase Red	Red/Black	Red/Black	Red	Red	Red
	Phase Yellow	Orange/Black	Orange	Orange	Orange	Black
	Phase Green	Green/Black	Green/Black	Green	Green	Green
Left Turn	Phase Red	Red/Black	White/Black	White/Black	Red	Red
	Phase Yellow	White/Red	Black	Black	Orange	Black
	Phase Green	Black/White	Blue	Green	Green	Green
Overlap	Phase Red	Red/Green	White/Black	White/Black	Red	Red
	Yellow/Flashing Yellow Arrow	Orange/Red	Black	Black	Orange	Black
	Phase Green	Blue/Red	Blue	Blue	Green	Green
Main Street	Phase Don't Walk	Red/White	Red	Red	Red	-
	Phase Walk	Green/White	Green	Green	Green	
Side Street	Phase Don't Walk	Black	Red/Black	Red	Red	-
	Phase Walk	Blue/White	Green/Black	Green	Green	-
Push-Button	Common	White/Black	White/Black	White/Black	Orange	-
	Main Street Phase	Blue	Blue	Blue	Black	-
	Side Street Phase	Blue/Black	Black	Black	Black	-
	Spare	White	-	-	-	-
	AC Common (Branch Only)	-	Spare	White		

Add the following subsection:

00990.70(i) Interconnect System Testing for Copper Twisted Pair:

Test each new interconnect cable circuit installed in the system. Test the complete system only when all terminations for each cable circuit are completed from the interconnect or controller cabinet at the beginning of the new cable run to the controller or interconnect cabinet at the end of the new cable run. If any test is failed, repair the circuit and repeat the entire test series for that cable circuit.

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

Perform all tests in the presence of the Engineer. Document the test results. When the tests are completed, furnish the test results and the test data to the Engineer. Conduct tests, as described below, for all cable conductors, including spares, the cable shield, and all field terminations.

In addition to testing the complete system, perform the following tests for each cable circuit:

(1) Continuity - Perform a continuity measurement for each conductor and the cable shield in the system. Conductor resistance shall not be more than 10 Ω per 1,000 feet for each cable pair and shield of the communications cable. Measure the resistance with an ohmmeter having a minimum input impedance of 10 M Ω /V. Record the resistance of each pair and furnish to the Engineer as described above.

(2) Isolation - Perform an isolation measurement for each conductor and cable shield in the system. Measure the insulation resistance with all connections to the conductor or shield under test removed and all other conductors in the cable grounded. Make the measurement with a DC potential of not less than 360 V nor more than 550 V, continuously applied for 1 minute. Insulation resistance of each cable conductor and the shield shall exceed 1,000 M Ω per mile. Use an insulation resistance (Megger) tester with a meter scale for measurements, marked with a range from 100 K Ω to 100 G Ω , and with zero and infinity also marked.

00990.90 Payment - Delete Pay Item (c) from the pay item list,

Add the following after the sentence that reads "Item (f) includes furnishing and installing all items of the flashing beacon system.

This item also includes furnishing and installing all items of the school zone flasher system including but not limited to conduit, trenching, junction boxes, directional drilling, wiring, school speed signs, power, control cabinets, foundations, stainless steel clamps for sign attachment, flashing beacons (LED), housing, lens, modems, vehicle signal pedestals and other necessary items to facilitate a complete system. Contractor will be responsible for all wiring necessary for each school flasher assembly installation including the modem for school flasher activation.

For each school zone flasher assembly, provide flasher timer switch with cellular modem from Applied Information (AI) Park# AI-500-070. Includes Glance (Cloud Based) Perpetual License & Configuration and 5 years Cellular Data (10MB/month) with access to Clackamas County. Refer to project plan sheets for school zone flashers, signs, poles, and foundation details.

Replace the paragraph that begins "In Items (a), (b), (c), (d), (f) ..." with the following paragraph:

In Items (a), (b), (d), (f) and (g), the intersection location will be inserted in the blank.

Replace the paragraph that begins "Item (b) includes furnishing and replacing..." with the following paragraph:

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

Item (b) includes furnishing and replacing or installing items for an existing traffic signal installation and the detection system.

Replace the paragraph that begins "Item (e) includes furnishing and replacing..." with the following paragraph:

Item (e) includes furnishing and installing conduit, junction boxes, and pull string for future interconnect system. Includes connecting to existing junction boxes. No separate payment will be made for trenchless installation. Concrete repair for damage caused by conduit install is incidental to this pay item.

Replace the paragraph that begins "Mast arm pole and strain pole foundations ..." with the following paragraph:

Drilled shaft foundations for traffic signal 15 foot through 55 foot mast arm supports will be paid for according to 00963.90. Drilled shaft foundations for traffic signal 60 foot through 75 foot mast arm supports will be paid for according to 00921.90.

Crosswalk closure supports will be paid for according to 00902.90.

END OF SECTION

SECTION 01030 - SEEDING

Comply with Section 01030 of the Standard Specifications modified as follows:

01030.13(c) Pure Live Seed - Replace this subsection, except subsection number and title, with the following subsection:

Use the PLS specified rate listed in 01030.13(f) for determining PLS application rates. Ensure the PLS application rate meets the PLS specified rate. Apply pre blended seed mixes, with multiple species, at a PLS application rate ensuring all species meet or exceed the PLS specified rate for each species in the seed mix.

PLS application rate for an individual seed species is determined as follows:

- PLS specified rate is listed in 01030.13(f)
- PLS factor is obtained by multiplying the seed label germination percentage times the seed label purity percentage. Use the purity and germination percentages from the label on actual bags of seed to be used on the Project.
- PLS application rate is obtained by dividing the PLS specified rate by the PLS factor.

For a seed mix, make this calculation for each seed species in the mix and then adjust as follows:

- Using the seed tag, determine the weight of each seed species in the bag and use this information to find the percentage, by weight, of each seed species is in 1 pound for the pre-blended mix.
- Divide the percentage by weight of each seed species, per pound, for the pre-blended mix, by the PLS application rate for that specific seed species.

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

Determine the highest application rate in the seed mix and apply the seed mix at that application rate.

01030.13(f) Types of Seed Mixes - Add the following to the end of this subsection:

Provide the following seed mix formulas:

- **Permanent Seeding:** Protime 310 (or approved equal)

01030.13(g) Availability - Add the following sentence to the end of this subsection:

Submit the seed and seed mixes to be used on the project according to 00150.37.

01030.40 General - Add the following sentence after the sentence beginning "Notify the Agency...":

Notify the Agency of the acreage to be seeded at least 7 Days before seeding begins.

Add the following subsection:

01030.43(c) Seed Application Rates - Determine the seeding application rate according to 01030.13(c). Apply seed mixes at the highest application rate calculated to provide not less than the specified application rate for each individual seed species in the mix.

01030.60 General - Add the following sentences after the last bullet:

The minimum living plant coverage for permanent plant seeding is 95% percent of ground surface.

END OF SECTION

SECTION 01070 - MAILBOX SUPPORTS

Comply with Section 01070 of the Standard Specifications.

END OF SECTION

SECTION 02001 - CONCRETE

Comply with Section 02001 of the Standard Specifications modified as follows:

END OF SECTION

SECTION 02690 - PCC AGGREGATES

Comply with Section 02690 of the Standard Specifications modified as follows:

02690.20(e) Grading and Separation by Sizes for Prestressed Concrete - Replace this subsection with the following subsection:

S Ivy Street Pedestrian Intersection Improvements, Canby, Oregon

02690.20(e) Grading and Separation by Sizes - Sampling shall be according to AASHTO R 90. Sieve analysis shall be according to AASHTO T 27 and AASHTO T 11. Provide aggregates meeting the gradation requirements of Table 02690-1 for structural concrete. Provide a CAgT to perform sampling and testing when required.

Table 02690-1
Gradation of Coarse Aggregates
Percent passing (by Weight)

Size Number	Nominal Size Square Openings	Sieve Size											
		(2½ in.)	(2 in.)	(1½ in.)	(1 in.)	(¾ in.)	(½ in.)	(¾ in.)	(No. 4)	(No. 8)	(No. 16)	(No. 50)	(No. 200)
3	(2 to 1 in.)	100	90 to 100	35 to 70	0 to 15	—	0 to 5	—	—	—	—	—	**
357*	(2 in. to No. 4)	100	95 to 100	—	35 to 70	—	10 to 30	—	0 to 5	—	—	—	**
4	(1½ to ¾ in.)	—	100	90 to 100	20 to 55	0 to 15	—	0 to 5	—	—	—	—	**
467*	(1½ to No. 4)	—	100	95 to 100	—	35 to 70	—	10 to 30	0 to 5	—	—	—	**
5	(1 to ½ in.)	—	—	100	90 to 100	20 to 55	0 to 10	0 to 5	—	—	—	—	**
56	(1 to ¾ in.)	—	—	100	90 to 100	40 to 85	10 to 40	0 to 15	0 to 5	—	—	—	**
57	(1 to No. 4)	—	—	100	95 to 100	—	25 to 60	—	0 to 10	0 to 5	—	—	**
6	(¾ to ½ in.)	—	—	—	100	90 to 100	20 to 55	0 to 15	0 to 5	—	—	—	**
67	(¾ to No. 4)	—	—	—	100	90 to 100	—	20 to 55	0 to 10	0 to 5	—	—	**
68	(¾ to No. 8)	—	—	—	100	90 to 100	—	30 to 65	5 to 25	0 to 10	0 to 5	—	**
7	(½ to No. 4)	—	—	—	—	100	90 to 100	40 to 70	0 to 15	0 to 5	—	—	**
78	(½ to No. 8)	—	—	—	—	100	90 to 100	40 to 75	5 to 25	0 to 10	0 to 5	—	**
8	(¾ to No. 8)	—	—	—	—	—	100	85 to 100	10 to 30	0 to 10	0 to 5	—	**
89	(¾ to No. 16)	—	—	—	—	—	100	90 to 100	20 to 55	5 to 30	0 to 10	0 to 5	**

* Use two or more separated sizes which when combined meet these gradation limits.

** See 02690.20(a). Do Not evaluate material passing the No. 200 sieve according to 00165.40.

02690.20(f) Grading and Separation by Sizes for Other Concrete - Delete this subsection.

02690.30(g) Grading - In the paragraph that begins "Sampling shall be according to...", replace the words "AASHTO T 2" with the words "AASHTO R 90".

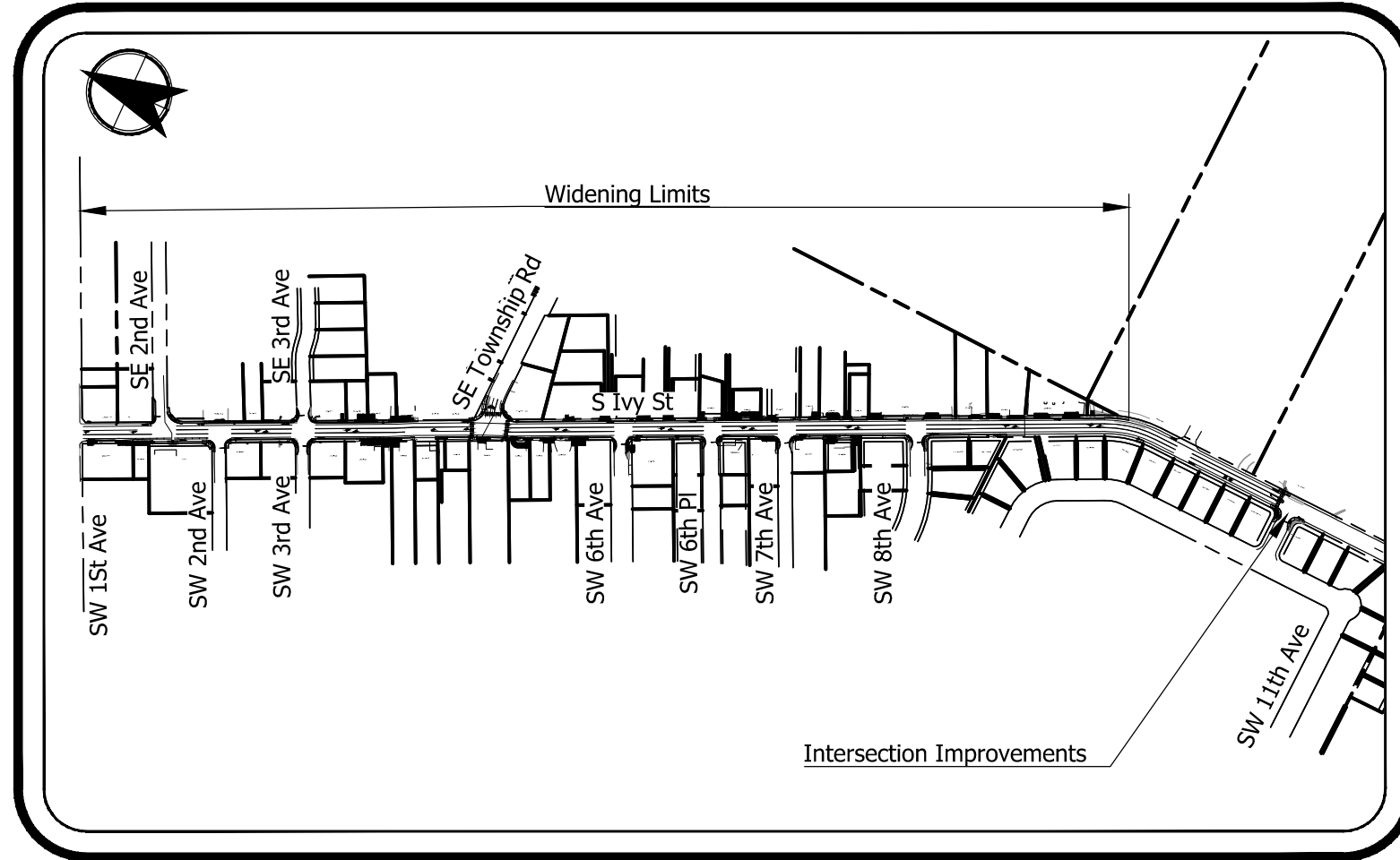
END OF SECTION

S Ivy Street Pedestrian Improvements

GRADING, PAVING, DRAINAGE, ROADSIDE DEVELOPMENT, SIGNING, PAVEMENT MARKINGS, SIGNALS

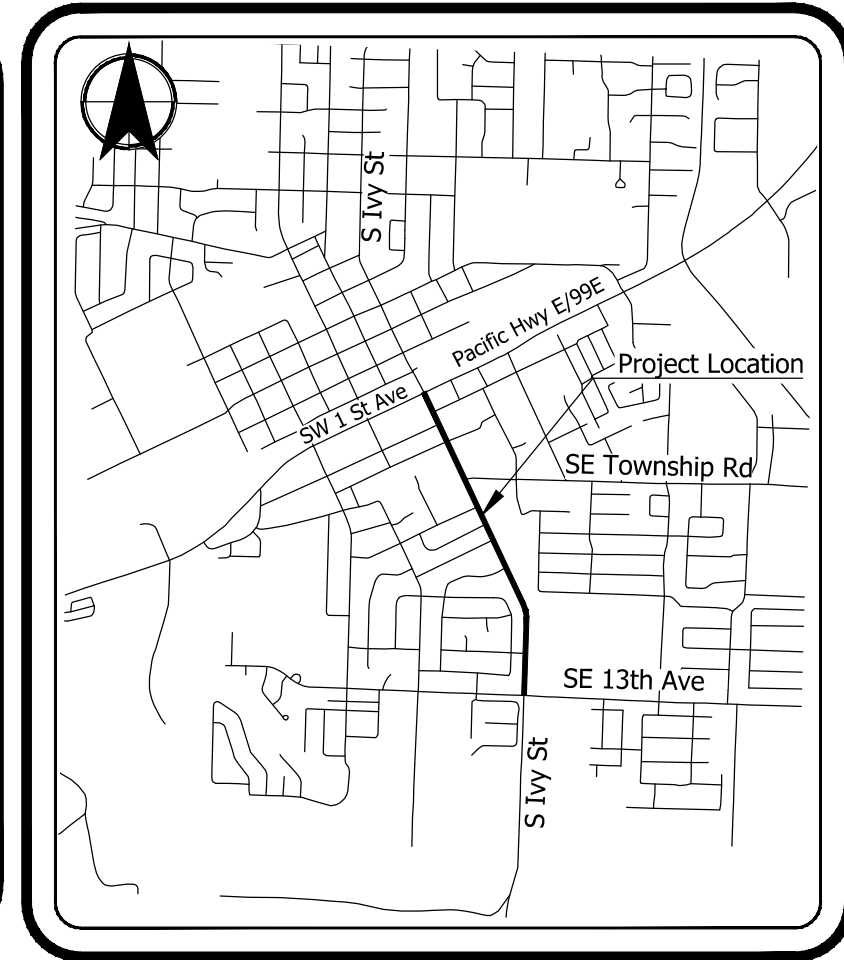
PREPARED FOR:
CLACKAMAS COUNTY, OR

Project Number: CI-300317309
January 2024



SITE MAP

SCALE: NTS



VICINITY MAP

SCALE: NTS

BASIS OF BEARING:

BASIS OF BEARING WAS DERIVED FROM THE OREGON COORDINATE REFERENCE SYSTEM (OCRS), PORTLAND ZONE, LAMBERT CONFORMAL CONIC PROJECTION, NAD 83.

DATUM:

ELEVATION DATUM: NAVD 88, NGS RD0255
BENCHMARK ID: A14
DESCRIPTION: 3-1/2" BRASS DISK IN CONC. AT NW CORNER OF INTERSECTION OF NW 1ST AND NW GRANT STREET.
ELEVATION: 156.53 FEET

PROJECT CONTACTS

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Oregon City, OR, 97045
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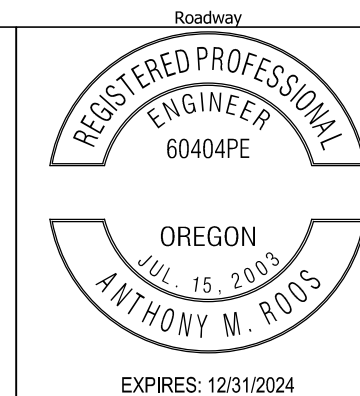
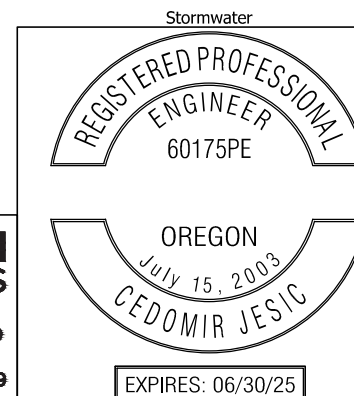
SURVEYOR
S&F LAND SURVEY
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KITTELSON & ASSOCIATES, INC.
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DRAINAGE
KITTELSON & ASSOCIATES
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UTILITY NOTIFICATION:

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 952-001-0090. You May Obtain Copies Of The Rules By Calling The Center. (Note: The Telephone Number For The Oregon Utility Notification Center Is (503) 232-1987.)

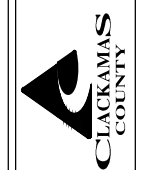


TITLE SHEET

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045



DIRECTOR
DAN JOHNSON

DESIGNED BY: C. COX
DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS

REVISIONS

NO. DATE:

Sheet No. A01

Plot Stamp: 1/16/2024 11:03:23 AM - Caleb Cox
File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\A-COVER & INDEX.dwg

ABBREVIATIONS

Δ	Delta Angle	MJ	Mechanical Joint	W	Water
AC	Asphalt Concrete	NO.	Number	WQ	Water Quality
ACP	Asphalt Concrete Pavement	NOM.	Nominal	WQMH	Water Quality Manhole
AD	Area Drain	N.T.S./NTS	Not to Scale		
ADA	American Disabilities Act	ODOT	Oregon Department of Transportation		
BC	Bottom of Curb	OSSC	Oregon Standard Specifications for Construction		
BVC	Begin Vertical Curve	PC	Point of Curvature		
BW	Back of Sidewalk	PCC	Point of Compound Curvature		
CB	Catch Basin	PE	Plain End		
CI	Curb Inlet	CUB	Canby Utility Board		
COMP.	Composite	PI	Point of Inflection		
DI	Ductile Iron	PSUE	Public Slope & Utility Easement		
DWG.	Drawing	PRC	Point of Reverse Curvature		
Elec	Electrical	PSDUE	Public Slope, Drainage, & Utility Easement		
EA	Each	PSE	Public Slope Easement		
EAC	Edge of Asphalt Concrete	PT	Point of Tangency		
ELEV	Elevation	PUE	Public Utility Easement		
EVC	End Vertical Curve	PVC	Poly Vinyl Chloride		
Extg.	Existing	PVI	Point of Vertical Inflection		
F.L./FL	Flow Line	R	Radius		
FLG	Flange	RCP	Reinforced Concrete Pipe		
FT	Feet	R/W	Right-of-Way		
F.T.	Flat Top	Rt.	Right		
G	Gas	S	Slope		
GV	Gas Valve	Sta.	Station		
IE	Invert Elevation	SD	Storm Drain		
Len	Length	Sht.	Sheet		
LF	Linear Feet	T	Telecom		
Lt.	Left	TC	Top of Curb at Face		
LVC	Length of Vertical Curve	THKN.	Thickness		
Max.	Maximum	TRK	Truck		
MH	Manhole	VC	Vertical Curve		
Min.	Minimum	TCE	Temporary Construction Easement		

Index of Sheets			
Sheet Number	Sheet Title	Sheet Number	Sheet Title
A01	Title Sheet	EB10 Thru EB17	Traffic Control Plan - Phase III
A02	Title Sheet	FB01Thru FB08	Grading and Erosion Control
A03	Plan Sheet Layout	LA01 Thru LA04	Sign Installation Plan
A04	Survey Control Data	LB01 Thru LB05	Sign Details
BA01 Thru BA05	Typical Sections	MA01	Signal Legend
BB01 Thru BB04	Details	MB01-A Thru MB02	Signal Plan
BC01Thru BC30	Curb Ramp Details	MC01 Thru MC05	Signal Details
BD01 Thru BD06	Drive Way Grading Details	QA01 Thru QA05	Pavement Marking Plans
BE01Thru BE08	Intersection Grading Details	QB01Thru QB03	Pavement Marking Details
C01Thru C10	General Construction		
EA01Thru EB01	Traffic Control Plan - Details		
EB02Thru EB09	Traffic Control Plan - Phase II		

UTILITY CONTACTS

<p>WATER/ELECTRICAL CANBY UTILITY CONTACT: Jason Berning ADDRESS: 1265 SE 3rd Ave, Canby, OR 97013 PHONE: 503.263.4307 EMAIL: JBerning@canbyutility.org</p>	<p>COMMUNICATIONS DIRECT LINK CONTACT: Eric Kehler ADDRESS: 190 SE 2nd Ave Canby OR 97013 PHONE: 503.266.8223 EMAIL: eric.kehler@cbsoregon.com</p>
<p>GAS NW NATURAL CONTACT: Darrell Hammond ADDRESS: 220 NW Second Ave Portland, OR 97209 PHONE: 503.610.7746 EMAIL: darrell.hammond@nwnatural.com</p>	<p>Sanitary Sewer City of Canby CONTACT: Jerry Nelzen ADDRESS: 1470 NE Territorial Rd, PO Box 930 Canby, OR 97013 PHONE: 503.266.0759 EMAIL: nelzenj@canbyoregon.gov</p>

BROADBAND
WAVE
 CONTACT: Robert Lee
 ADDRESS: 669 Glatt Circle
 Woodburn, OR 97071
 PHONE: 503.707.1076
 EMAIL: rlee@wavebroadband.com

LEGEND

----- 251 -----	Existing Minor Contour	(S)	Existing Sanitary Manhole	----- PUE -----	Proposed Public Utility Easement		Proposed Sidewalk
- - - - - 250 - - - - -	Existing Major Contour	(D)	Existing Storm Manhole	----- PSUE -----	Proposed Public Utility and Slope Easement		Variable Depth Grind and 2" Inlay
----- T -----	Existing Telephone Line		Existing Storm Curb Inlet	----- PSE -----	Proposed Slope Easement		Full Depth ACP Repair
----- CTV -----	Existing Cable TV Line		Existing Water Valve	----- TCE -----	Temporary Construction Easement		Bark Mulch Installation
----- SS -----	Existing Sanitary Line		Existing Fire Hydrant	----- 251 -----	Proposed Right Of Way		Concrete Driveway Repair
----- (SSFM) -----	Existing Sanitary Forced Main Line		Existing Street Light	----- 250 -----	Proposed Minor Contour		ACP Driveway Repair
----- W -----	Existing Waterline		Existing Utility Pole	----- F -----	Proposed Curby/Gutter		
----- OHW -----	Existing Overhead Wires		Existing Guy To Utility Pole	----- C -----	Proposed Lighting Conduit		
----- E -----	Existing Underground Power Lines		Existing Gas Meter		Proposed Storm Sewer Pipe		
----- TS -----	Existing Underground Traffic Signal Lines		Existing Gas Valve		Proposed Storm Sewer Pipe		
----- FO -----	Existing Fiber Optic Line		Existing Sign		Proposed Grading Daylight - Fill		
----- X ----- X -----	Existing Wire Fence Line		Existing Telephone Junction Box (Riser)		Proposed Grading Daylight - Cut		
----- SD -----	Existing Storm Sewer Line		Existing Telephone Manhole		Proposed Storm Manhole / Drywell		
----- G -----	Existing NW Natural Gas Line		Existing Signal		Proposed Storm Inlet		
-----	Existing Public Easement		Existing Mail Box		Proposed Signal Pole		
-----	Existing Berm Top of Bank		Existing Telephone Manhole		Proposed Utility Pole Mounted Street Light		
	Remove/Abandon Existing Pipe		Existing Telephone Manhole		Proposed Pedestrian Signal Pole		
	Existing Deciduous/Coniferous Tree		Existing Signal Controller Cabinet		Proposed Junction Box		

TITLE SHEET
S IVY ST PEDESTRIAN
INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DESIGNED BY:
C. COX
 DRAFTED BY:
D. SHADRIN
 CHECKED BY:
T. ROOS

NO. DATE:	
REVISIONS	

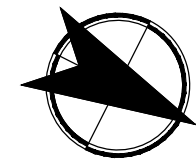
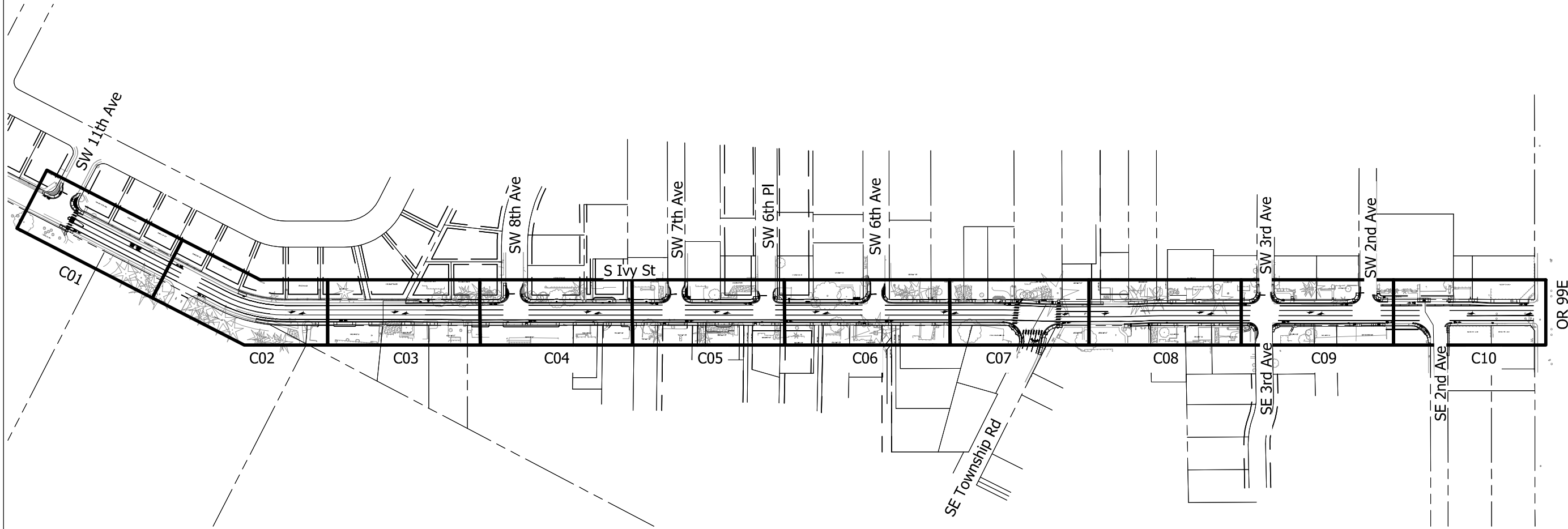
Sheet No. **A02**

KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169



Plot Stamp: 1/15/2024 11:35:23 AM - Caleb Cox
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Scale: 1" = 250'



KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

REVISIONS

NO. DATE:

Sheet No. A03

DESIGNED BY:
C. COX
 DRAFTED BY:
D. SHADRIN
 CHECKED BY:
T. ROOS



CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON

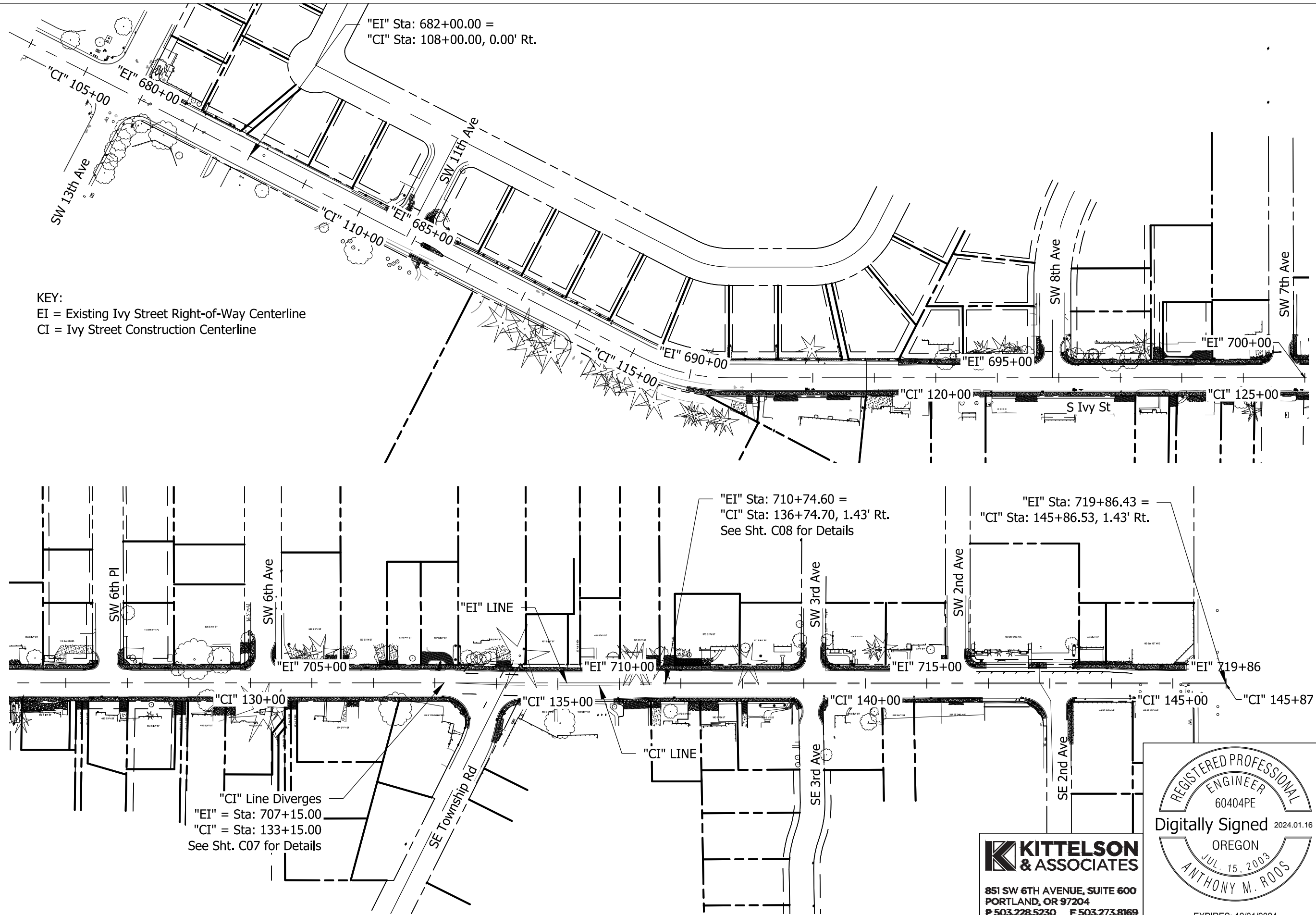
DIRECTOR

PLAN SHEET LAYOUT

S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

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KEY:
 EI = Existing Ivy Street Right-of-Way Centerline
 CI = Ivy Street Construction Centerline

"EI" Sta: 682+00.00 =
 "CI" Sta: 108+00.00, 0.00' Rt.

"EI" Sta: 710+74.60 =
 "CI" Sta: 136+74.70, 1.43' Rt.
 See Sht. C08 for Details

"EI" Sta: 719+86.43 =
 "CI" Sta: 145+86.53, 1.43' Rt.

"CI" Line Diverges
 "EI" = Sta: 707+15.00
 "CI" = Sta: 133+15.00
 See Sht. C07 for Details

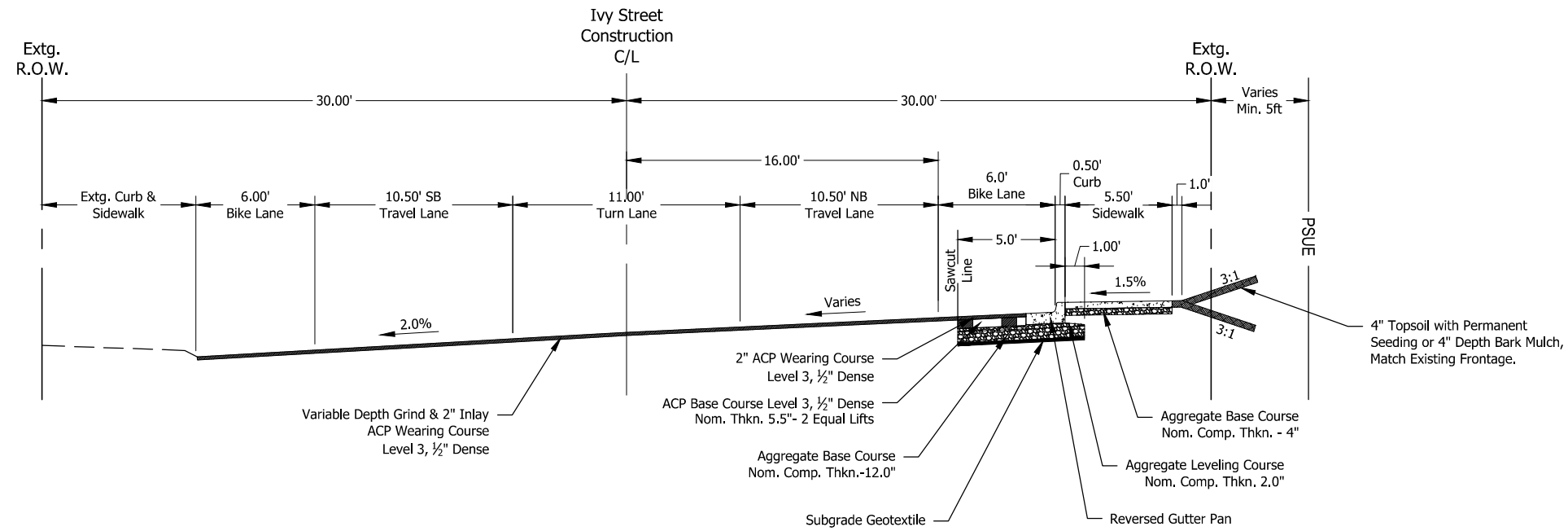
KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
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REGISTERED PROFESSIONAL
 ENGINEER
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 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS

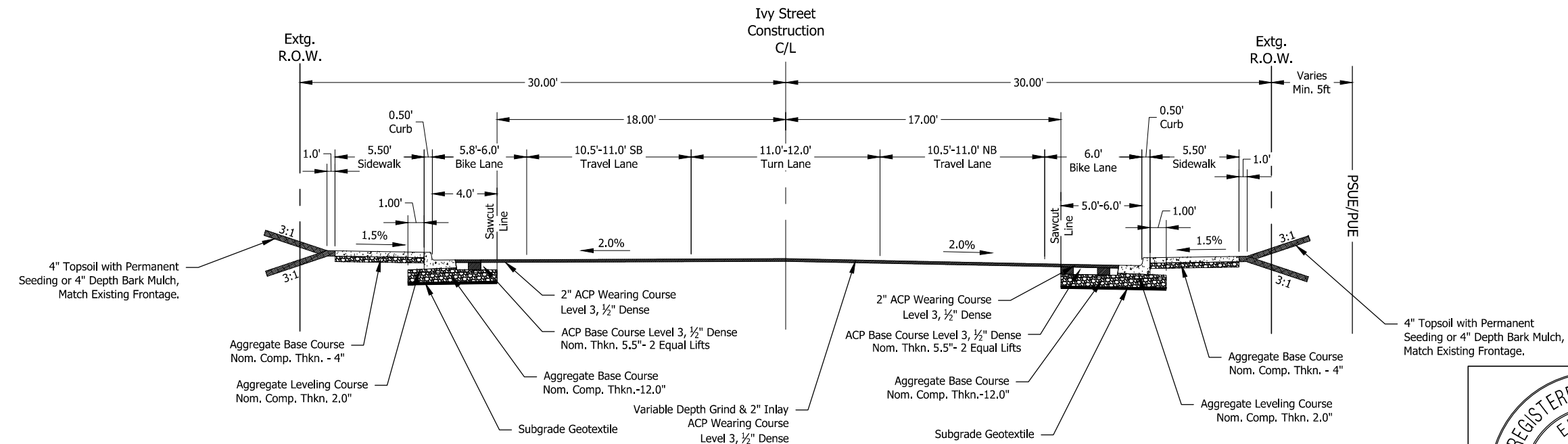
EXPIRES: 12/31/2024

SURVEY CONTROL DATA	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	PROJECT NO.: CI-300317309
NO. DATE:	REVISIONS
Sheet No.	A04

Plot Stamp: 1/15/2024 11:37:14 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BA-TYPICAL SECTIONS.dwg



Ivy Street
 STA. 115+99 To STA. 119+39
 Superelevation Transition
 STA. 116+29 To STA. 117+77



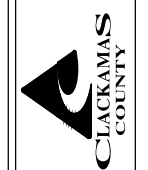
Ivy Street
 STA. 119+39 To STA. 121+89

TYPICAL SECTIONS

**S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS**

DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045



DIRECTOR
 DAN JOHNSON

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

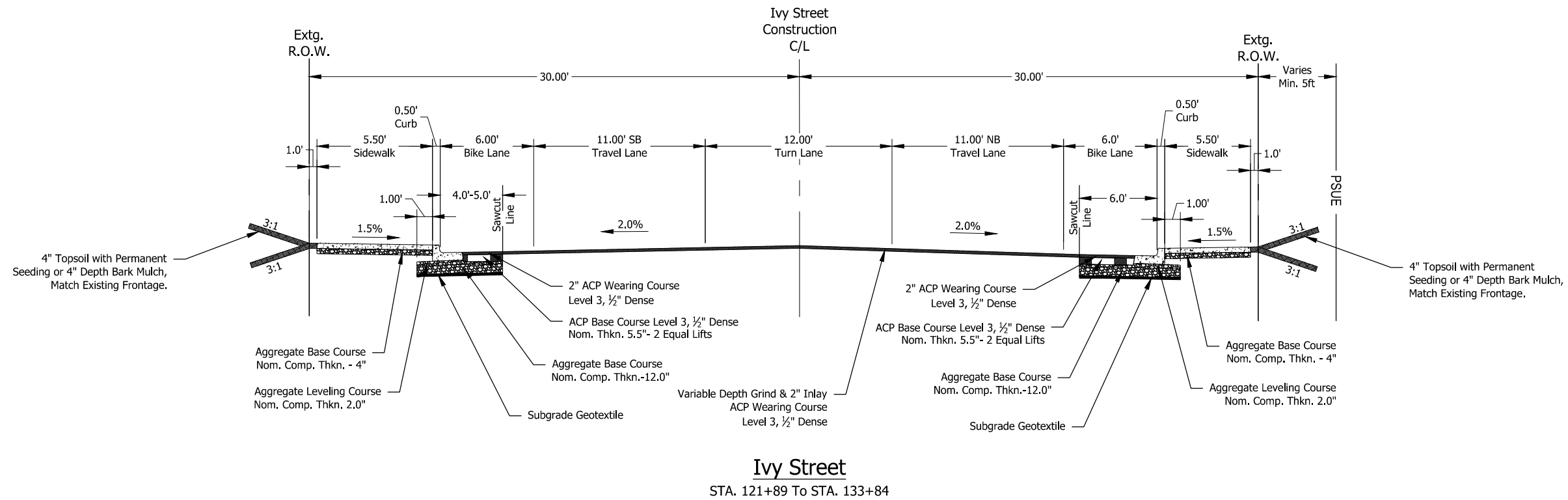
NO.	DATE:

Sheet No.
 BA01

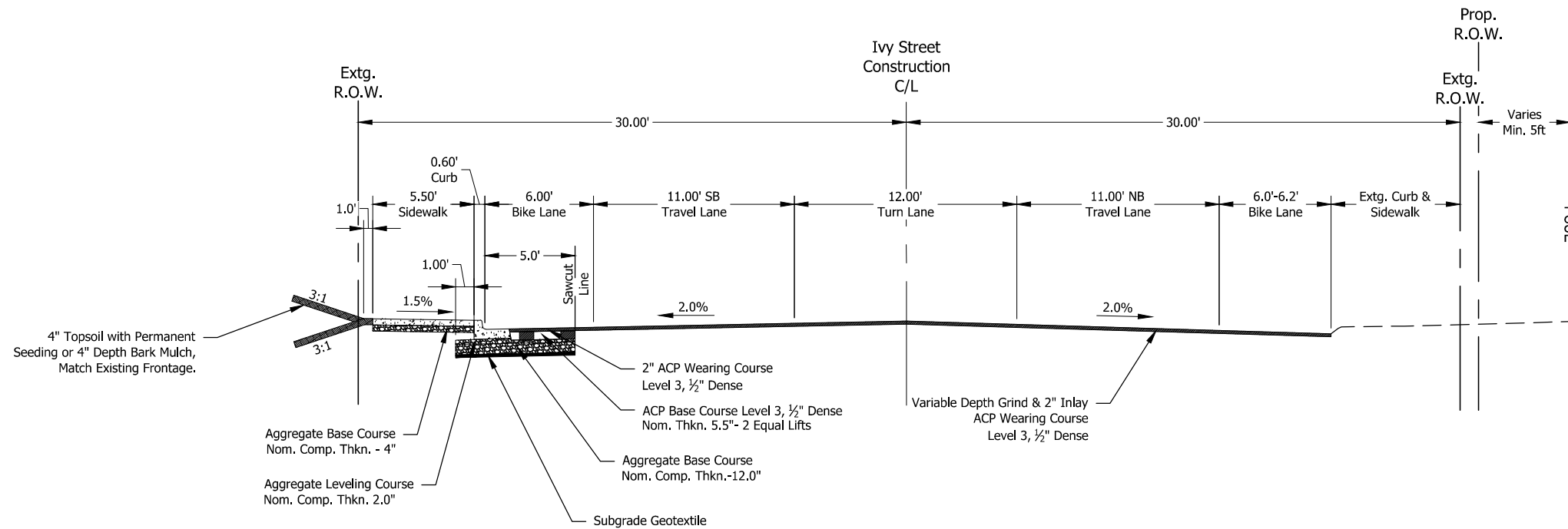
**KITTELSON
 & ASSOCIATES**
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 PORTLAND, OR 97204
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Plot Stamp: 1/15/2024 11:37:36 AM - Caleb Cox
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Ivy Street
 STA. 121+89 To STA. 133+84



Ivy Street
 STA. 133+84 To STA. 135+43

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 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

TYPICAL SECTIONS
**S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS**
 DATE: December 2023 PROJECT NO.: CI-300317309

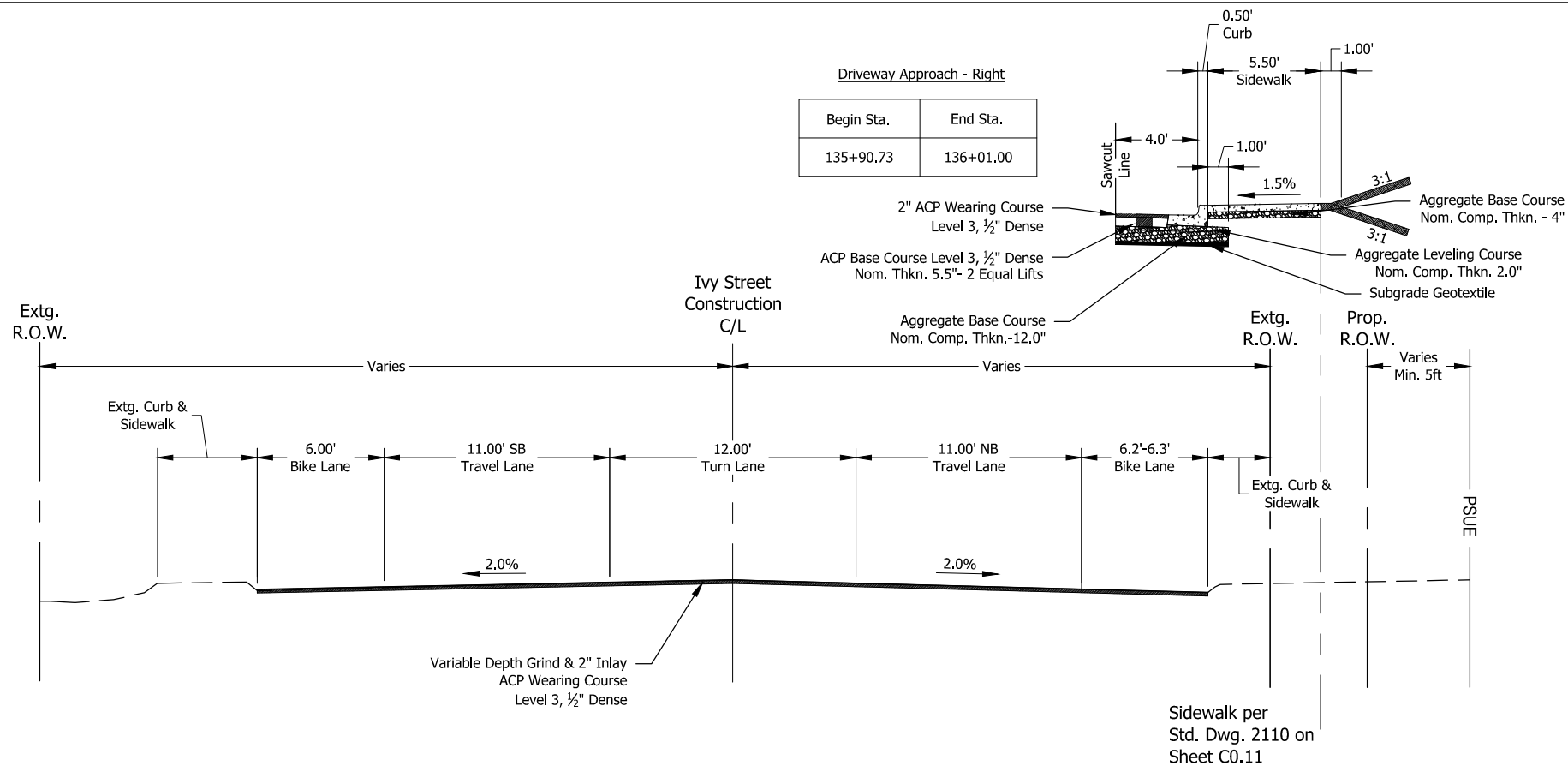
CLACKAMAS COUNTY
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 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
DAN JOHNSON
 DIRECTOR

DESIGNED BY:
 C. COX
 DRAFTED BY:
 D. SHADRIN
 CHECKED BY:
 T. ROOS

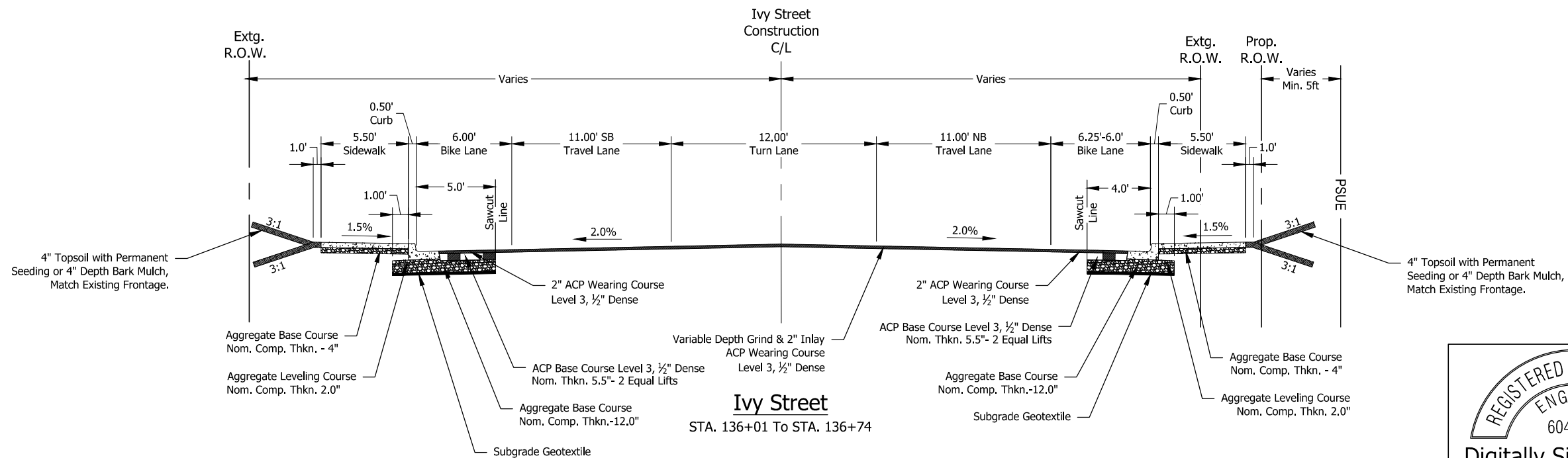
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Sheet No.
BA02

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 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BA-TYPICAL SECTIONS.dwg



Ivy Street
 STA. 135+43 To STA. 136+01



Ivy Street
 STA. 136+01 To STA. 136+74

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TYPICAL SECTIONS

**S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS**

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CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045



DAN JOHNSON
 DIRECTOR

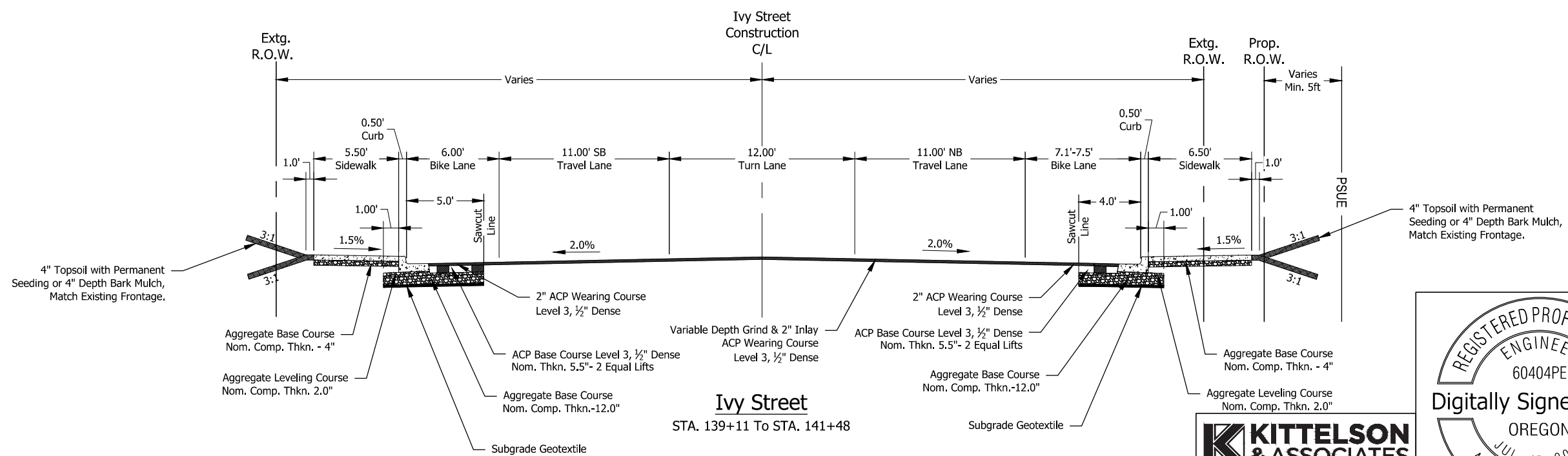
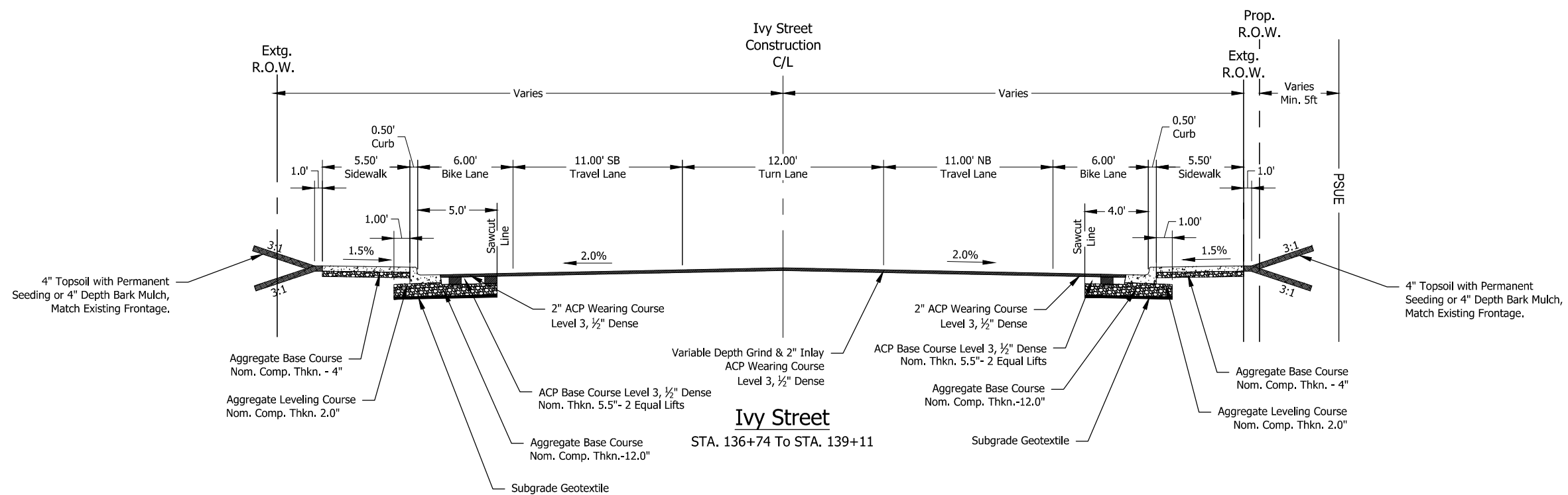
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

NO.	DATE:	DESCRIPTION:

Sheet No.
BA03

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 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BA-TYPICAL SECTIONS.dwg



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 EXPIRES: 12/31/2024

TYPICAL SECTIONS
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

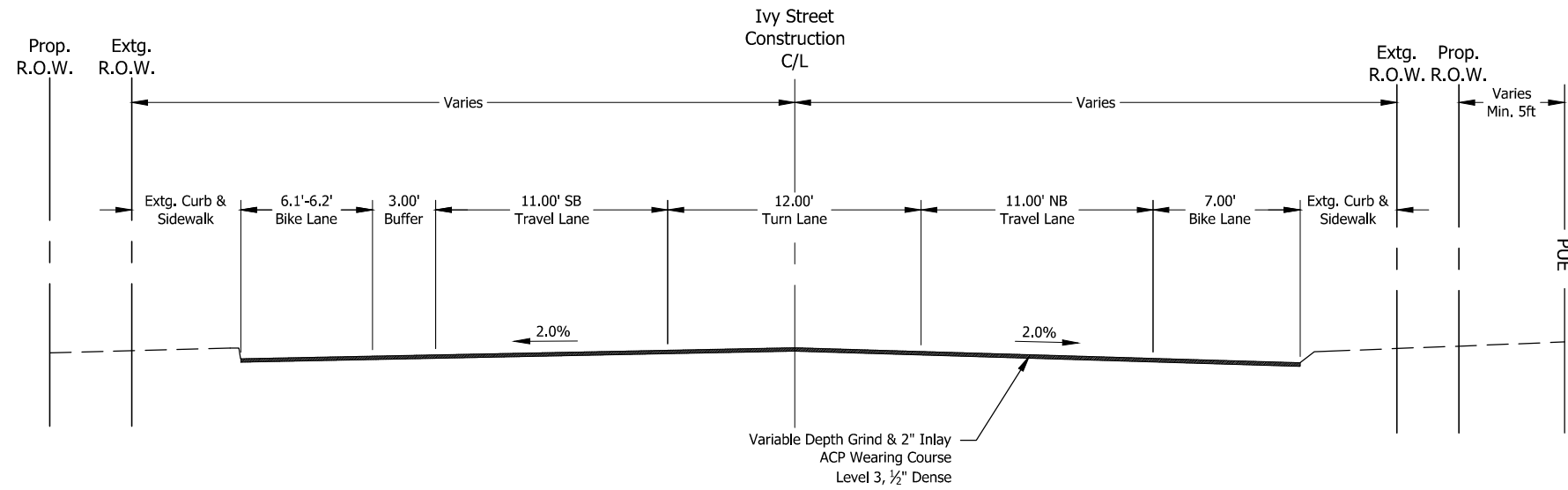
CLACKAMAS COUNTY
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 DIRECTOR

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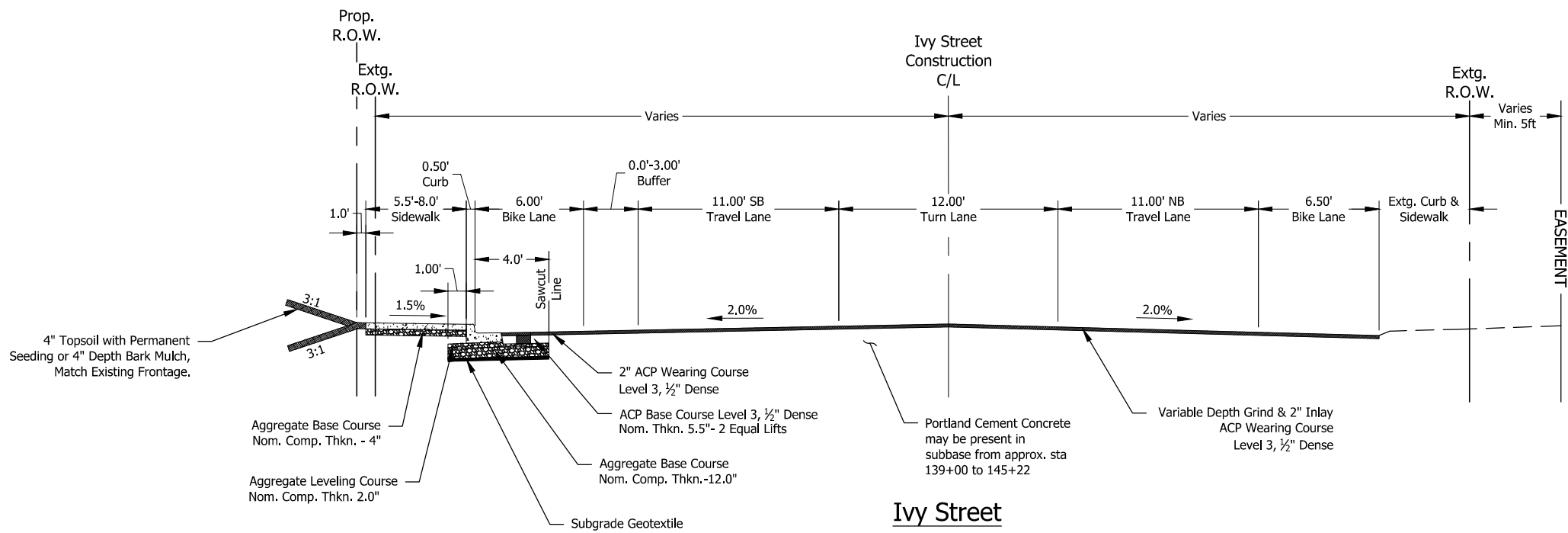
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Sheet No. BA04

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 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BA-TYPICAL SECTIONS.dwg



Ivy Street
 STA. 141+48 To STA. 143+36



Ivy Street
 STA. 143+36 To STA. 145+22

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TYPICAL SECTIONS
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

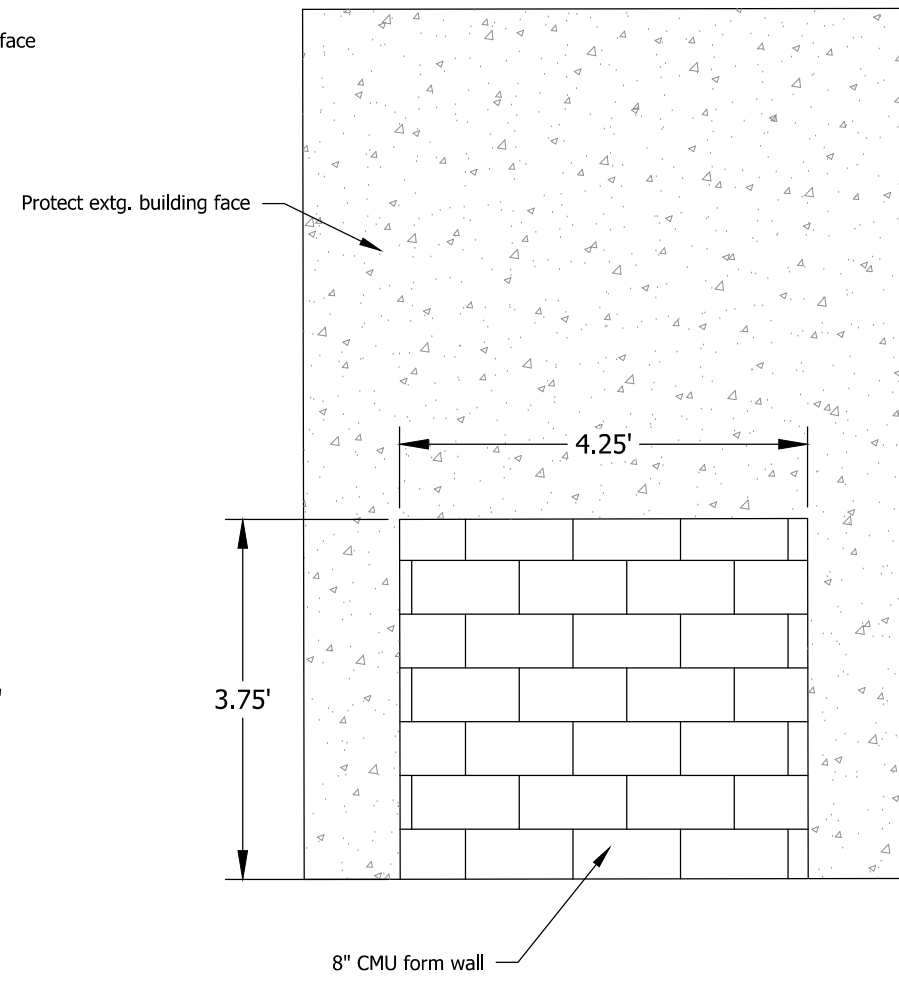
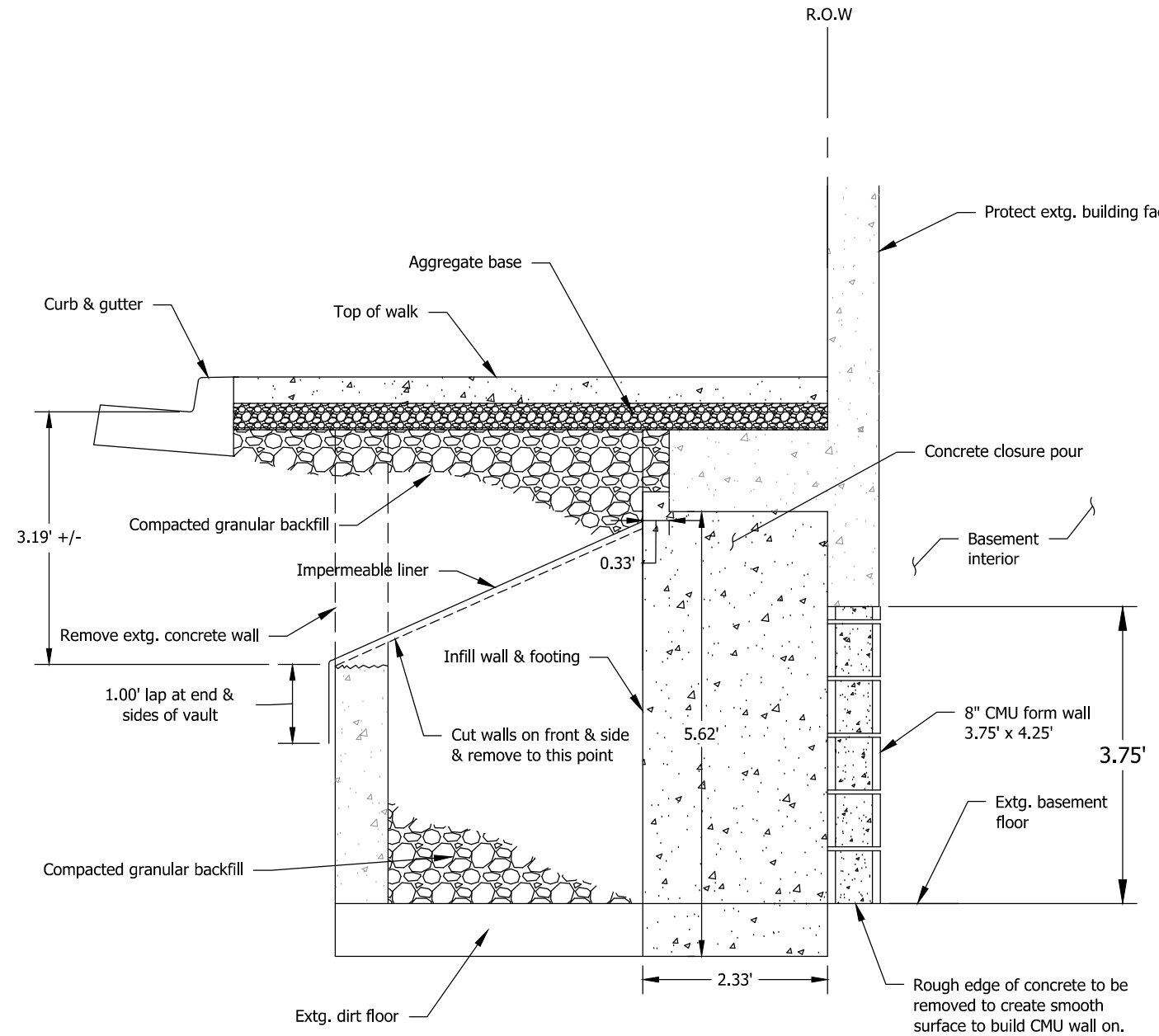
CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
DAN JOHNSON
 DIRECTOR

DESIGNED BY: C. COX
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NO.	DATE	REVISIONS

Sheet No. BA05

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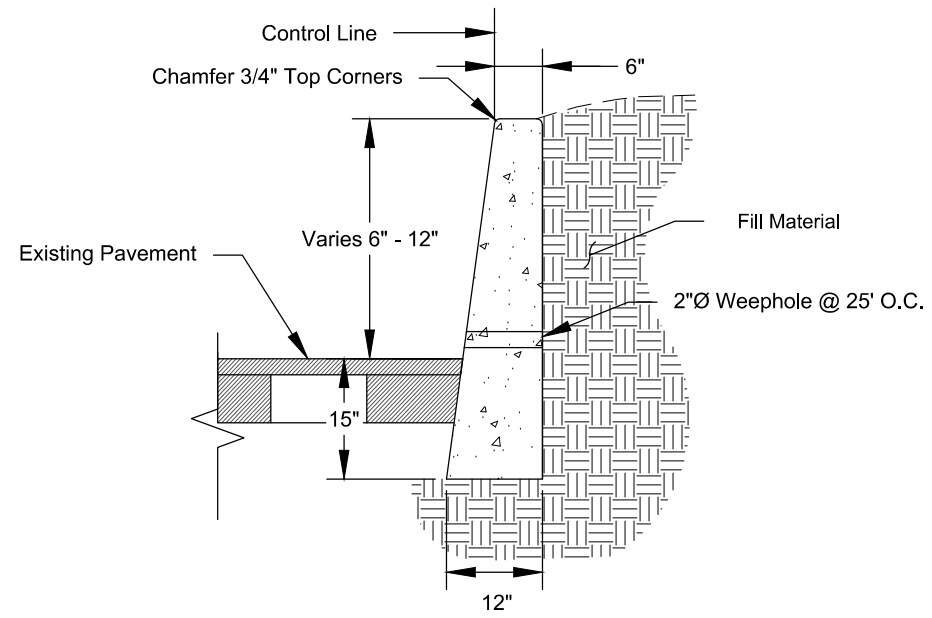


COAL CHUTE INFILL (VAULT MODIFICATION)

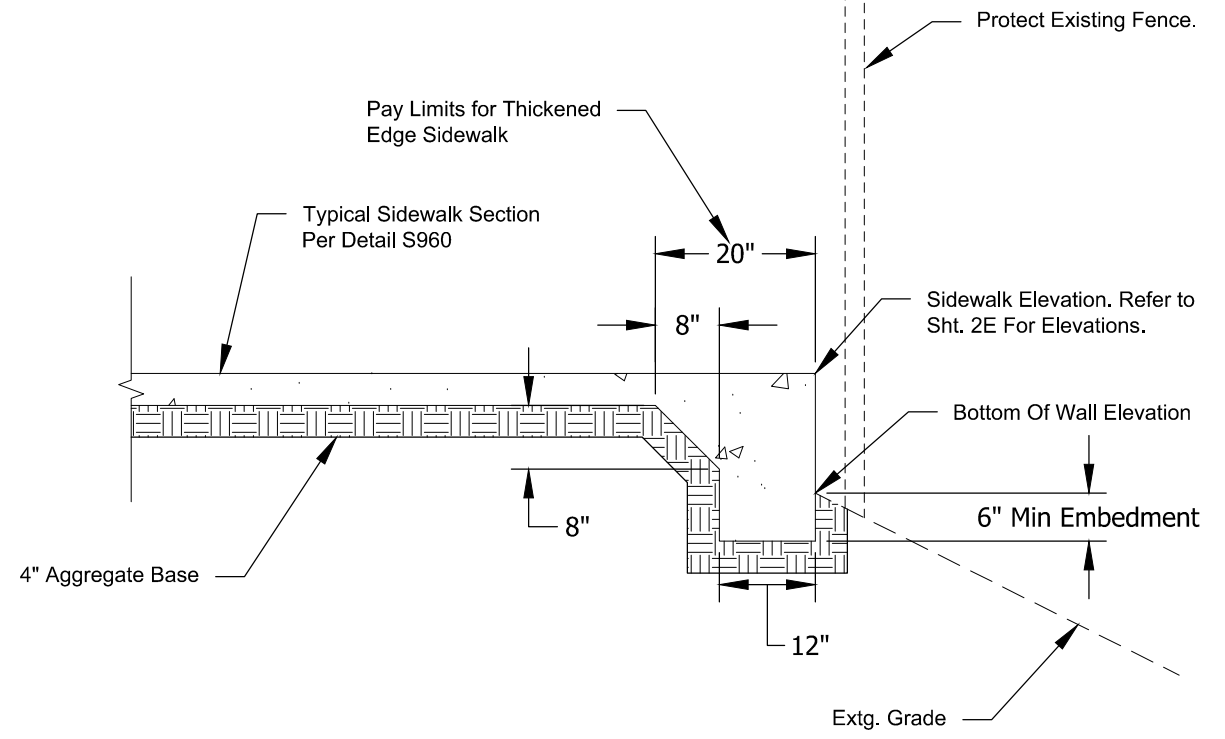
KITTELSON & ASSOCIATES
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 PORTLAND, OR 97204
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REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
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 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

DETAILS		S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		DIRECTOR	
DAN JOHNSON		DAN JOHNSON	
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN	CHECKED BY: T. ROOS	PROJECT NO.: CI-300317309
NO. DATE:	REVISIONS	SHEET NO.	DATE: December 2023
		BB01	



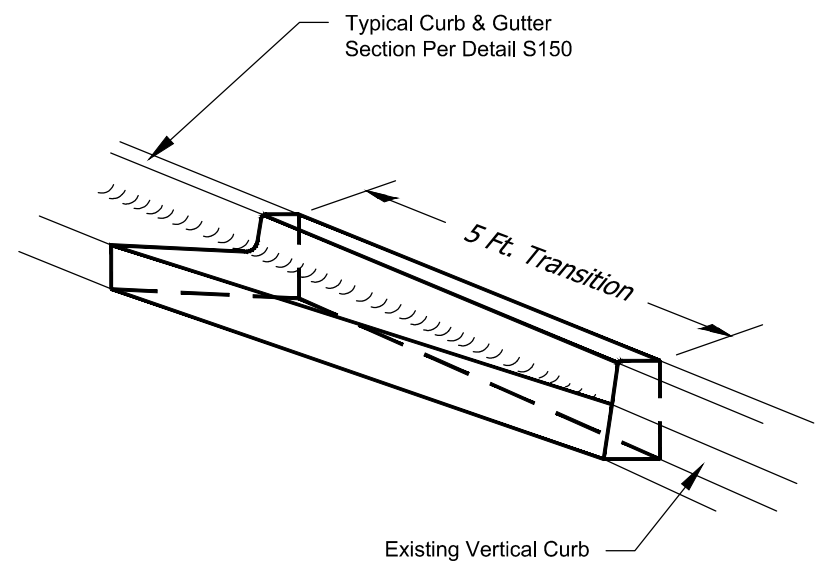
TALL CURB DETAIL
Scale: NTS



NOTES

1. Refer To Clackamas County Standard Detail S960 For All Construction Notes.
2. Exposed Thickened Edge To Be Smooth Finish.
3. Maximum Allowed Drop-off Without Railing To Be 30" Per Oregon Structural Speciality Code Section 1013.1.

SIDEWALK THICKENED EDGE DETAIL
Scale: NTS



GUTTER TRANSITION DETAIL
Scale: NTS

DETAILS
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045
DAN JOHNSON
DIRECTOR

DESIGNED BY: C. COX
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CHECKED BY: T. ROOS

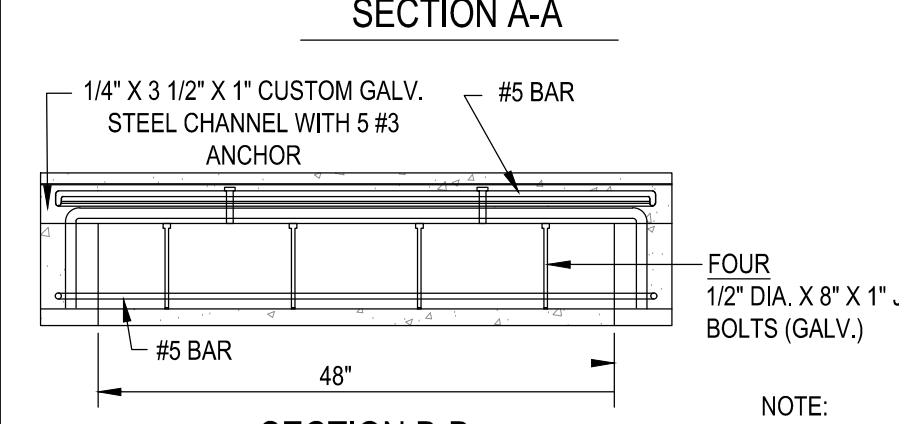
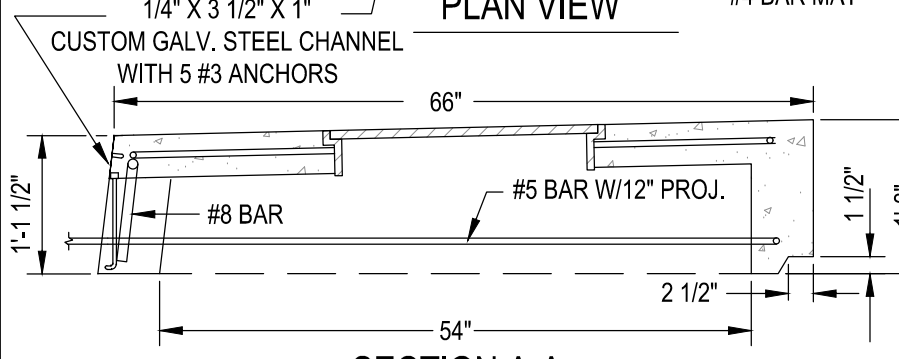
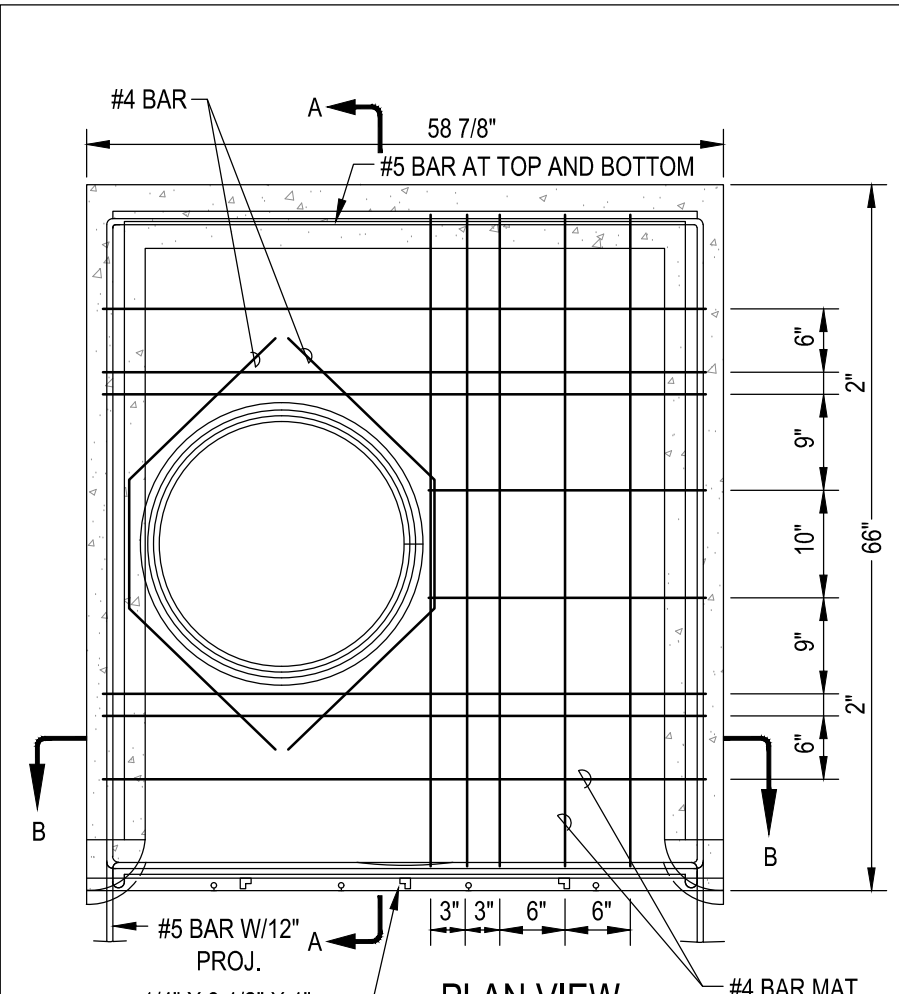
NO.	DATE	REVISIONS

Sheet No. BB02

KITTELSON & ASSOCIATES
851 SW 6TH AVENUE, SUITE 600
PORTLAND, OR 97204
P 503.228.5230 F 503.273.8169

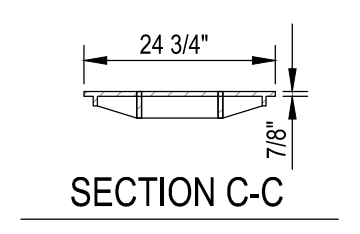
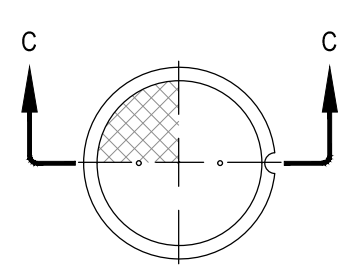
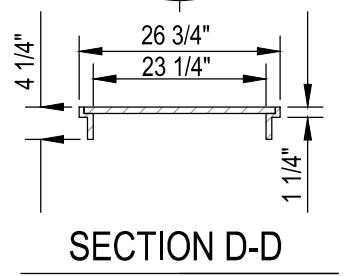
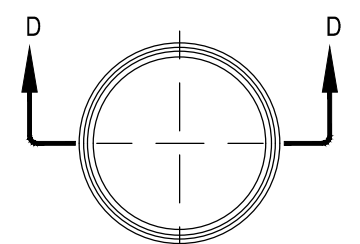
REGISTERED PROFESSIONAL ENGINEER
60404PE
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OREGON
JUL 15 2003
ANTHONY M. ROOS
EXPIRES: 12/31/2024

Plot Stamp: 1/15/2024 12:56:23 PM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\1490-CD-DETAILS.dwg

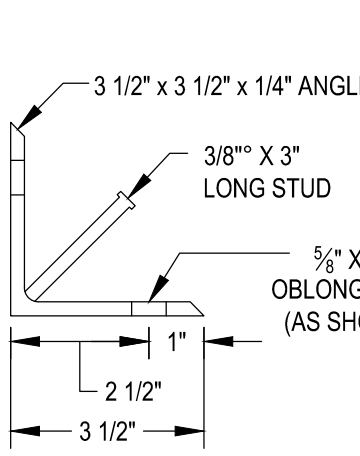


2 CURB INLET MH TOP
 SCALE: NOT TO SCALE

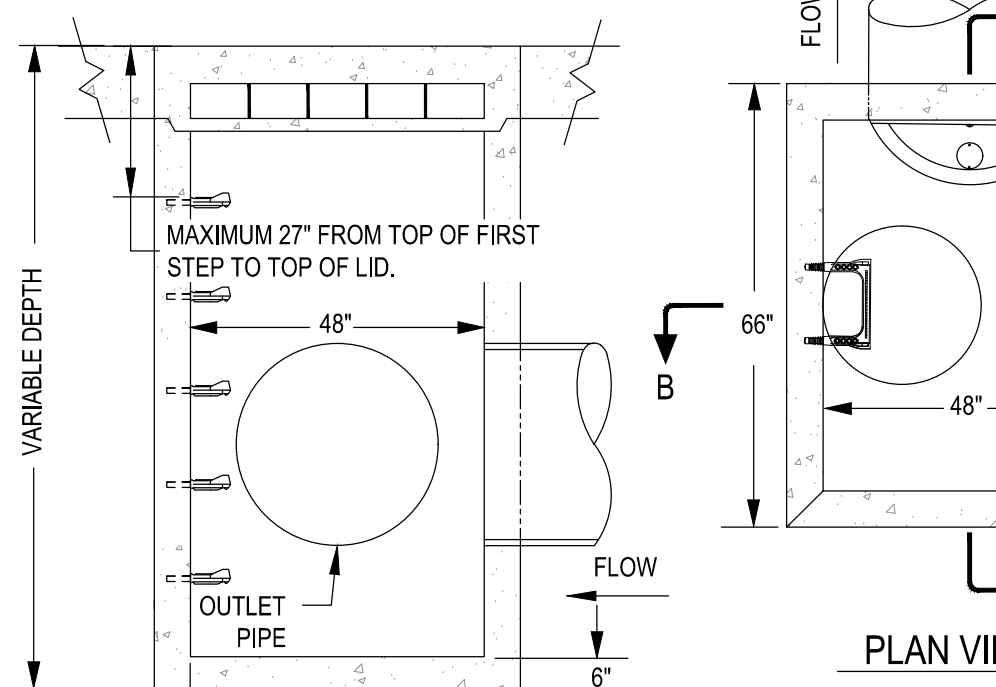
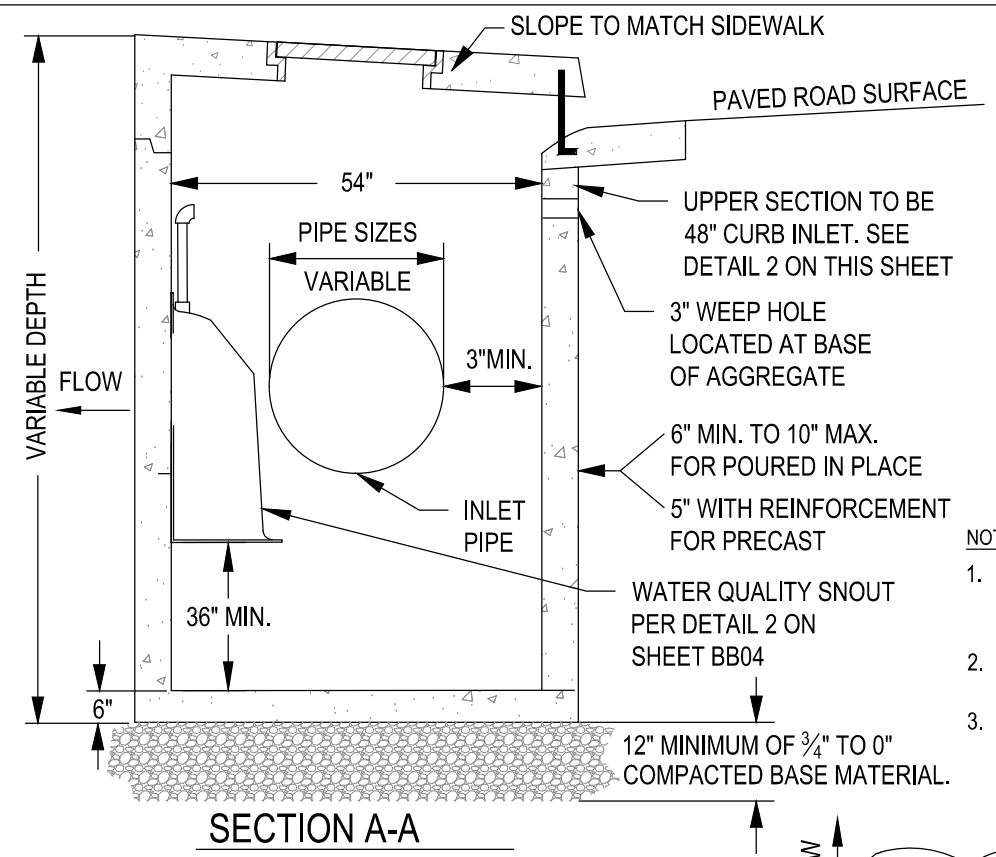
NOTE: MATERIAL SHALL BE NEW STRUCTURAL ASTM A-36 STEEL



MANHOLE FRAME AND COVER (LIGHT DUTY)



STEEL CHANNEL DETAIL



1 CG-48 CURB INLET MH
 SCALE: NOT TO SCALE

- NOTES:
1. PRECAST CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478.
 2. NON-SUMP INLET MANHOLE SHALL BE CHanneled.
 3. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI. AND A SLUMP OF 2" TO 4".

KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

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 100% SUBMITTAL NOT FOR CONSTRUCTION
 EXPIRES: 06/30/25

STORMWATER DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

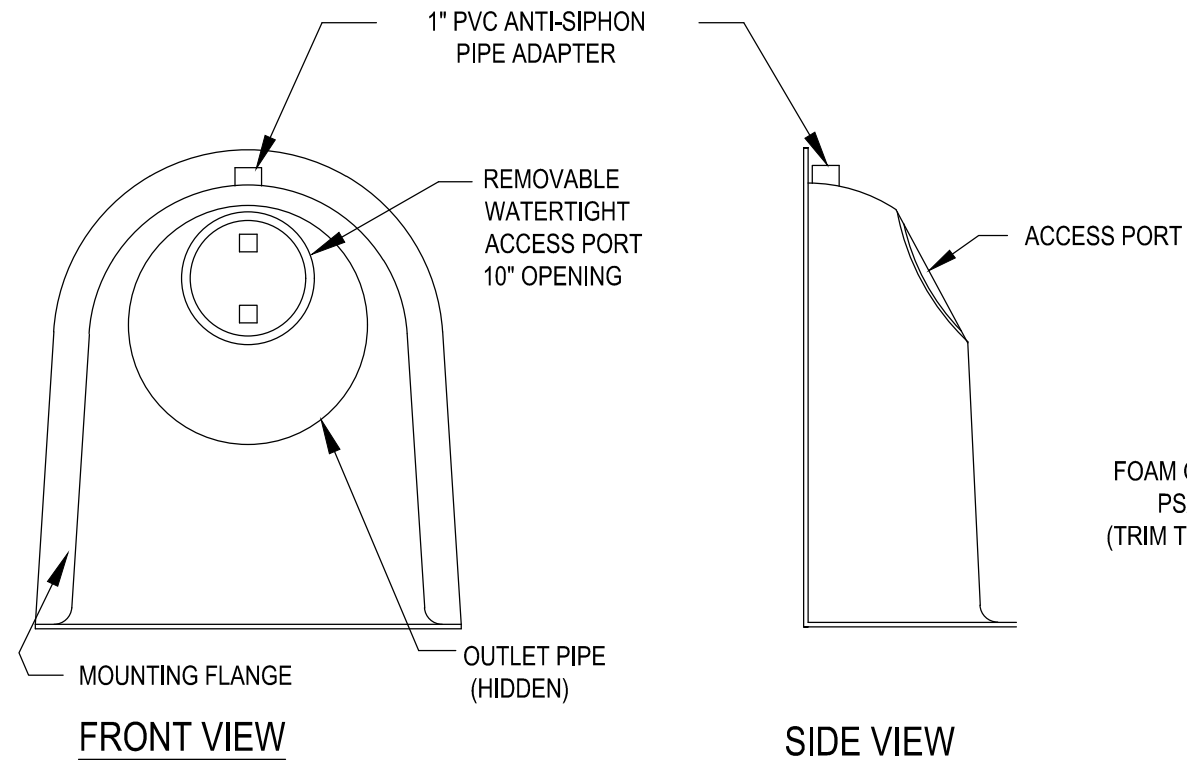
DAN JOHNSON
 DIRECTOR

DESIGNED BY: R. MONTGOMERY
 DRAFTED BY: R. MONTGOMERY
 CHECKED BY: C. JESIC

NO. DATE: [] [] [] []

Sheet No. BB03

CONFIGURATION DETAIL



SNOUT OIL-WATER-DEBRIS SEPARATOR

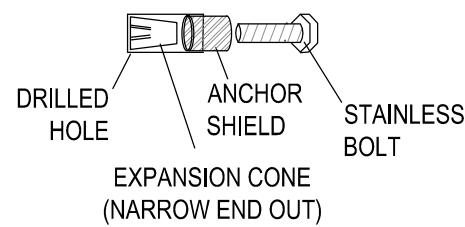
NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY BEST MANAGEMENT PRODUCTS, INC. OR PRE-APPROVED EQUAL.
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A MINIMUM 10", WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE OF 18" FROM I.E. OUT.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET.
9. ANCHOR BOLTS SHALL BE INSTALLED INTO THE CONCRETE OF THE STRUCTURE'S WALL. ANCHORING INTO GROUT IS NOT AUTHORIZED.
10. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. KIT SHALL INCLUDE:
 - 10.1. INSTALLATION INSTRUCTIONS
 - 10.2. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
 - 10.3. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
 - 10.4. 3/8" STAINLESS STEEL BOLTS
 - 10.5. ANCHOR SHIELDS

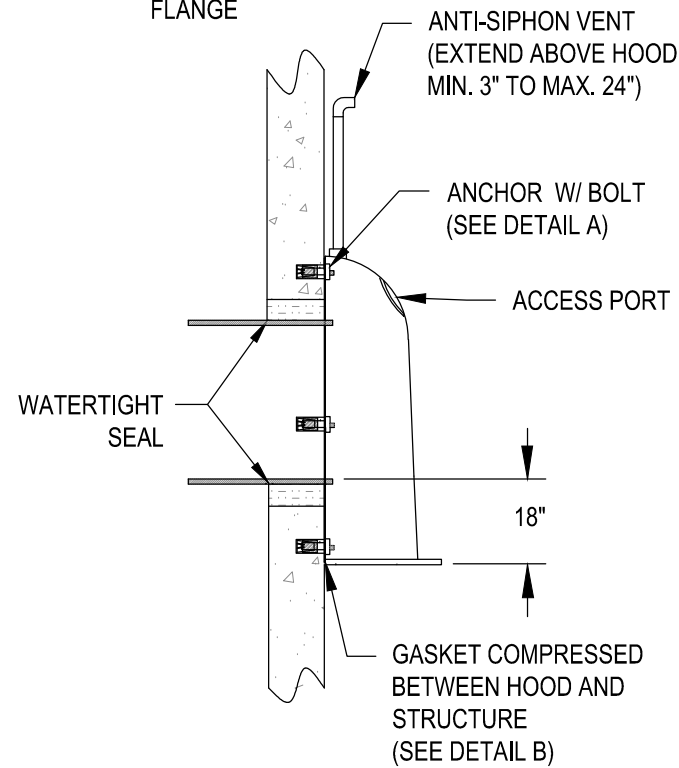
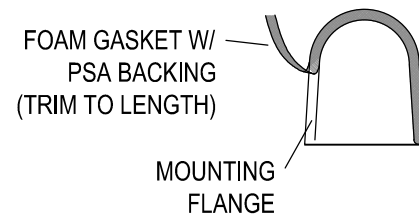
2 WATER QUALITY SNOOT
SCALE: NOT TO SCALE

INSTALLATION DETAIL

DETAIL A

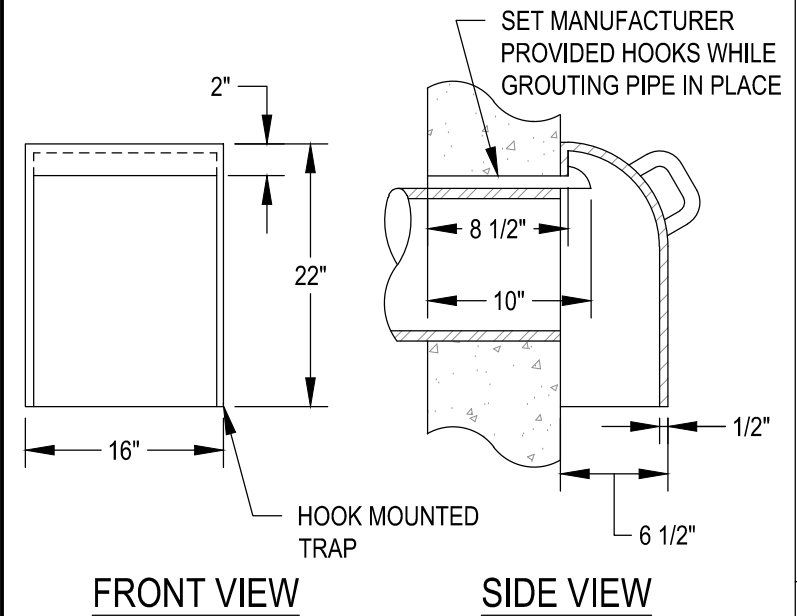


DETAIL B



BEST MANAGEMENT PRODUCTS, INC.
53 MT. ARCHER RD.
LYME, CT 06371
TOLL FREE: (800) 504-8008 (888) 354-7585
WEB SITE: WWW.BMPINC.COM

WHEN ORDERING, SPECIFY IF THE STRUCTURE IN WHICH THE HOOD WILL BE ATTACHED IS FLAT OR ROUND.



NOTES:

1. CAST IRON HANDLE.
2. LOCATE BOTTOM OF TRAP MINIMUM 6" BELOW FLOW LINE.
3. INSTALL ON FLAT WALL ONLY.

1 HOOK MOUNTED TRAP
SCALE: NOT TO SCALE

KITTELSON & ASSOCIATES
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PORTLAND, OR 97204
P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL ENGINEER
C. JESIC
Digital Signature
100% SUBMITTAL NOT FOR CONSTRUCTION
EXPIRES: 06/30/25

STORMWATER DETAILS
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
DATE: XXXX 2020 PROJECT NO.: CI-22239

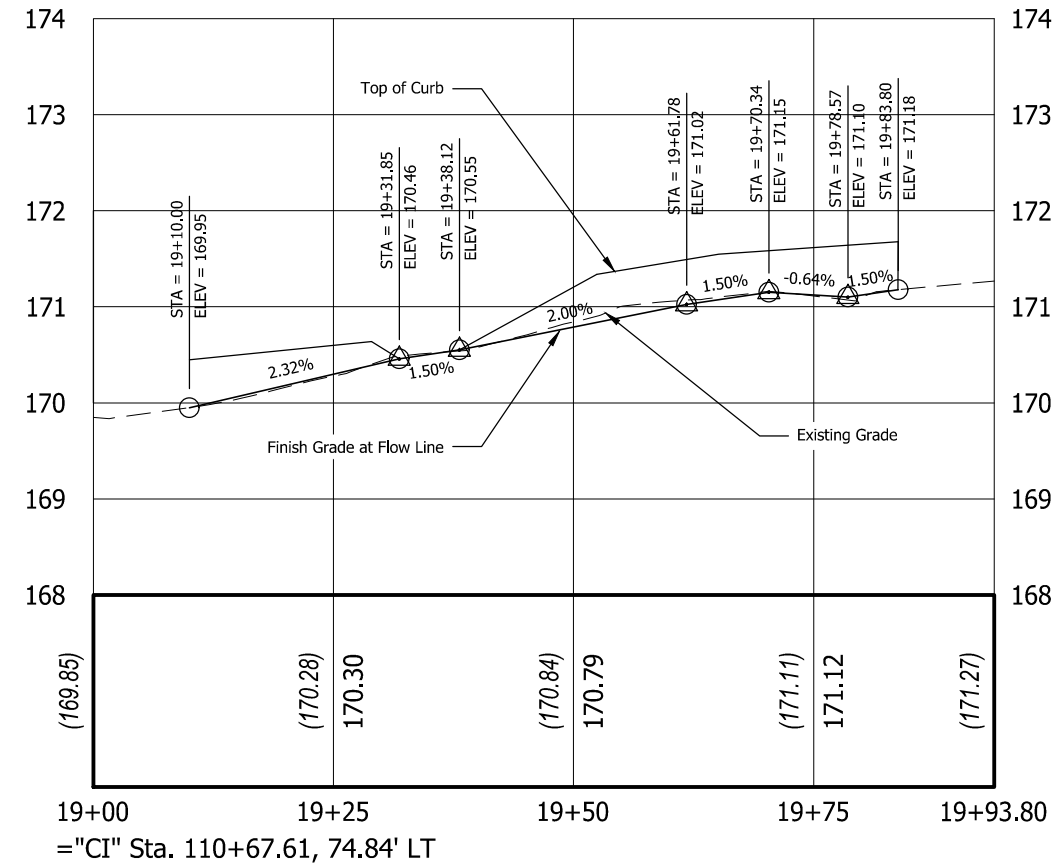
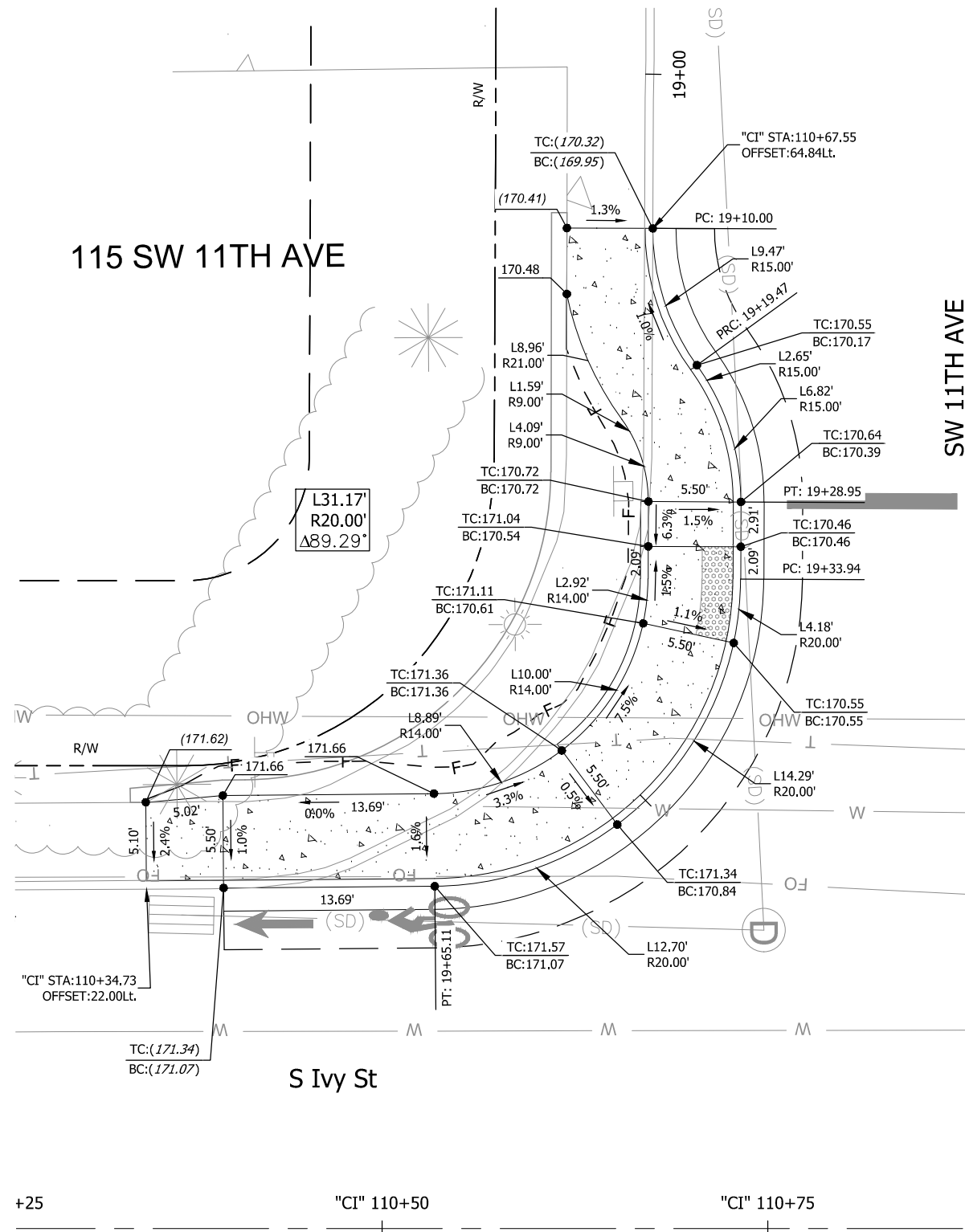
CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045
DAN JOHNSON
DIRECTOR

DESIGNED BY: R. MONTGOMERY
DRAFTED BY: R. MONTGOMERY
CHECKED BY: C. JESIC

NO.	DATE	REVISIONS

Sheet No. BB04

Plot Stamp: 1/15/2024 11:40:03 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BC-SOUTH CURB RAMP DETAILS.dwg

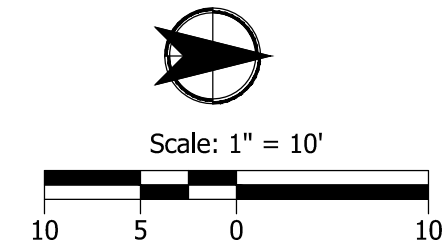


CURB RETURN PROFILE

Horizontal Scale: 1"=20'
 Vertical Scale: 1"=2'

GENERAL NOTES

1. Slopes hold over elevations. Contractor shall take all necessary field measurements to verify plan design meets ADA compliance and notify the engineer if the ramps cannot be constructed as shown. Refer to specification section 00759 for full requirements.
2. See ODOT std. Dwgs. RD 902, RD904, &RD920 for curb ramp construction.
3. Contractor shall keep the concrete structure free from contact, strain, and public traffic for at least 7 calendar days or longer as directed according to standard specification 00759.51.
4. Contractor shall notify Clackamas County once ramps are completed for a post ramp construction inspection.



KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
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ABBREVIATION

- TC = Top of Curb Elevation
- BC = Bottom of Curb Elevation
- FL = Flow Line Elevation
- (XXX.XX) = Match Extg. Grade

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

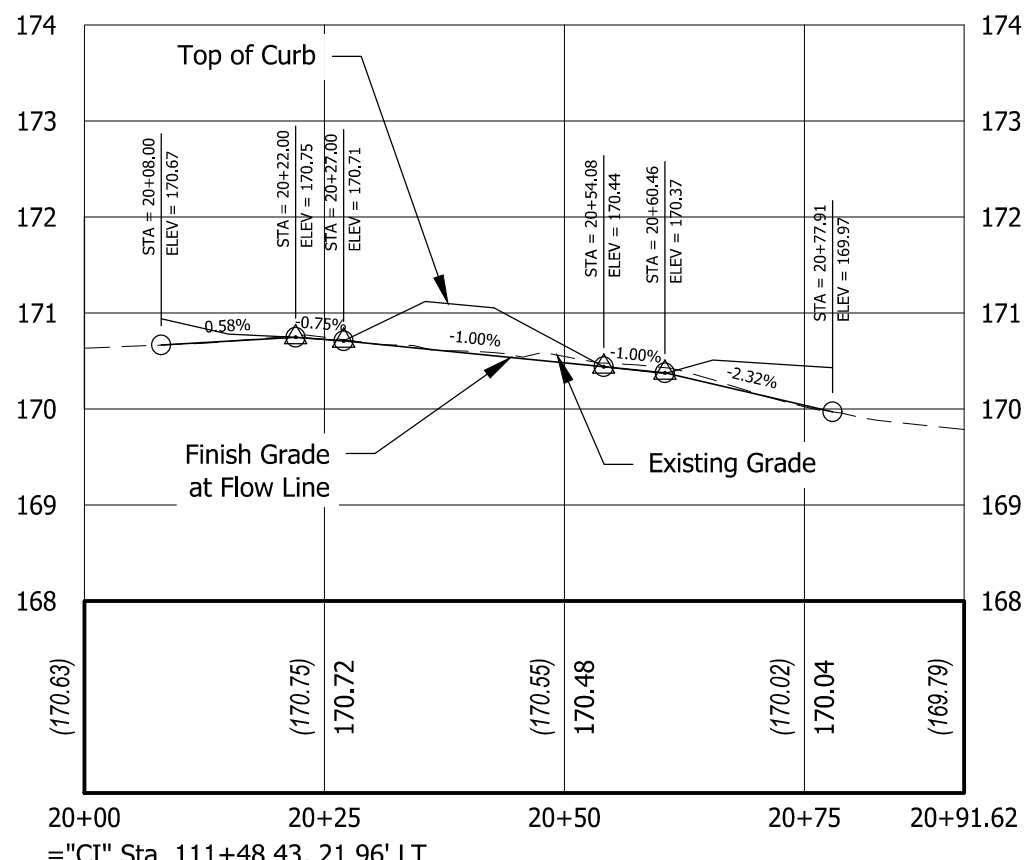
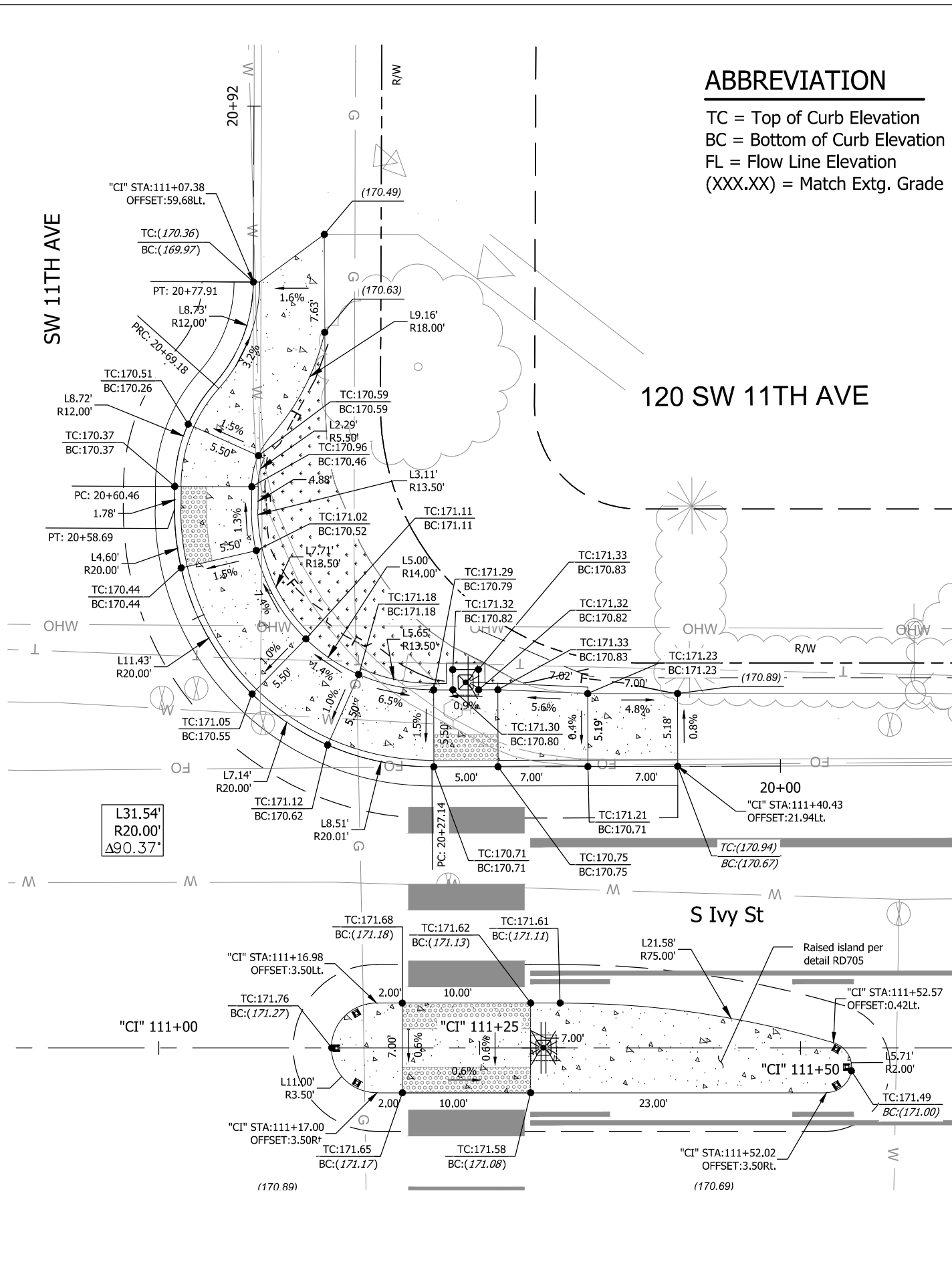
NO.	DATE	REVISIONS

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

Sheet No. **BC01**

ABBREVIATION

TC = Top of Curb Elevation
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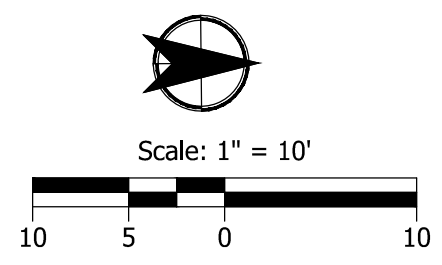


CURB RETURN PROFILE

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 Vertical Scale: 1"=2'

GENERAL NOTES

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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
 DAN JOHNSON

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

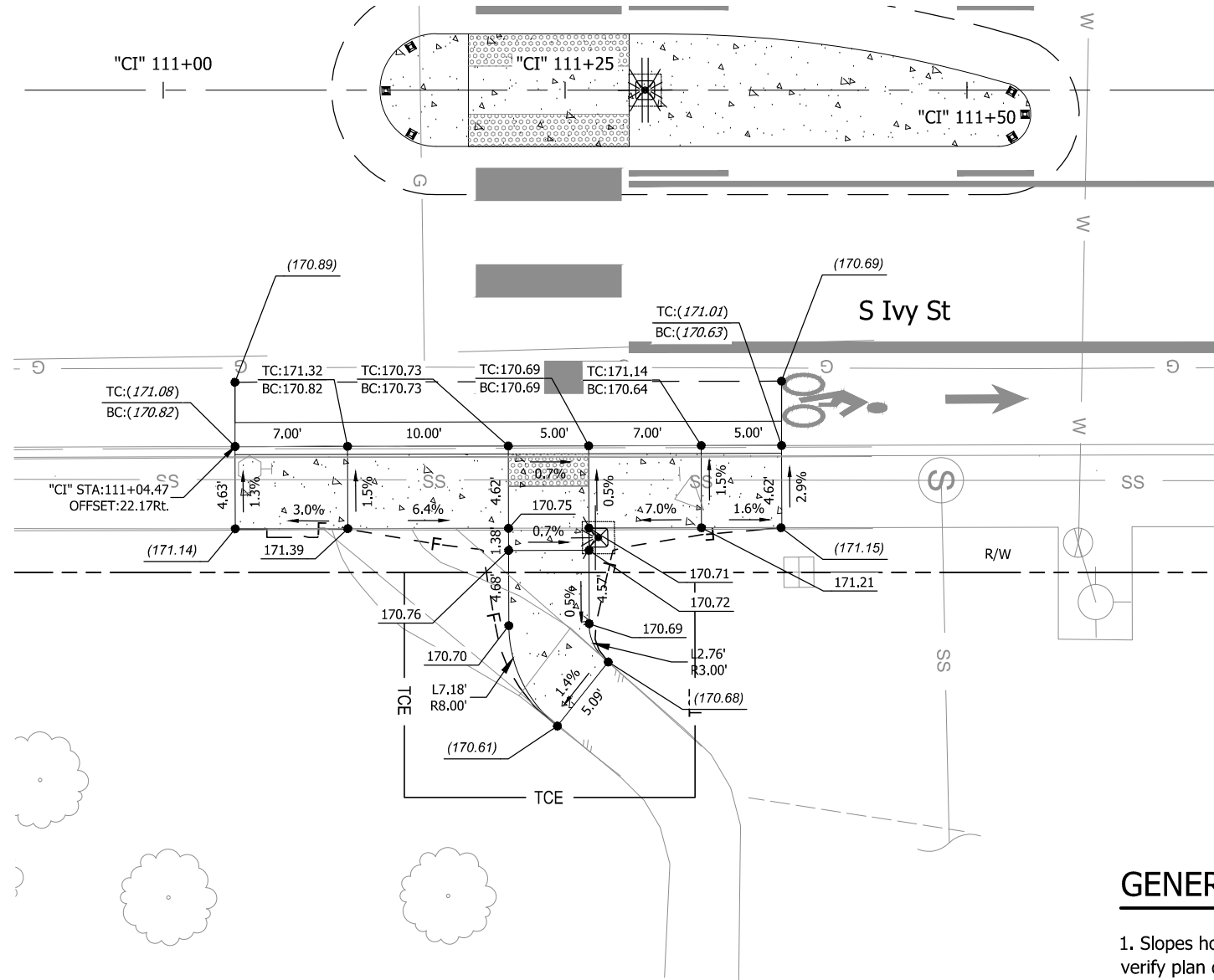
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Sheet No. BC02

DATE: December 2023 PROJECT NO.: CI-300317309

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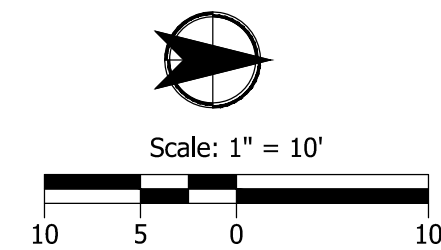
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CURB RAMP DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
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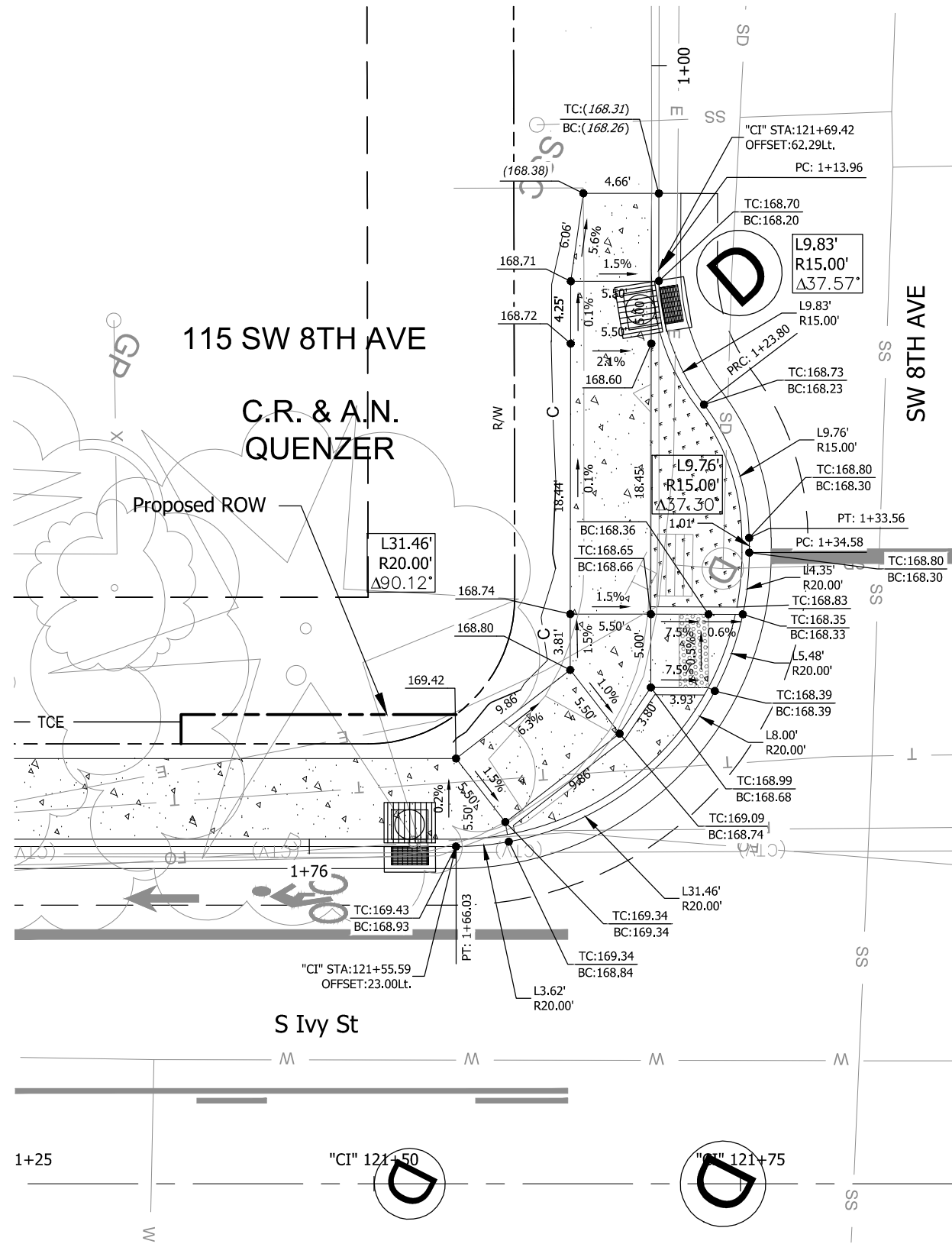
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO.	DATE	REVISIONS

Sheet No. BC03

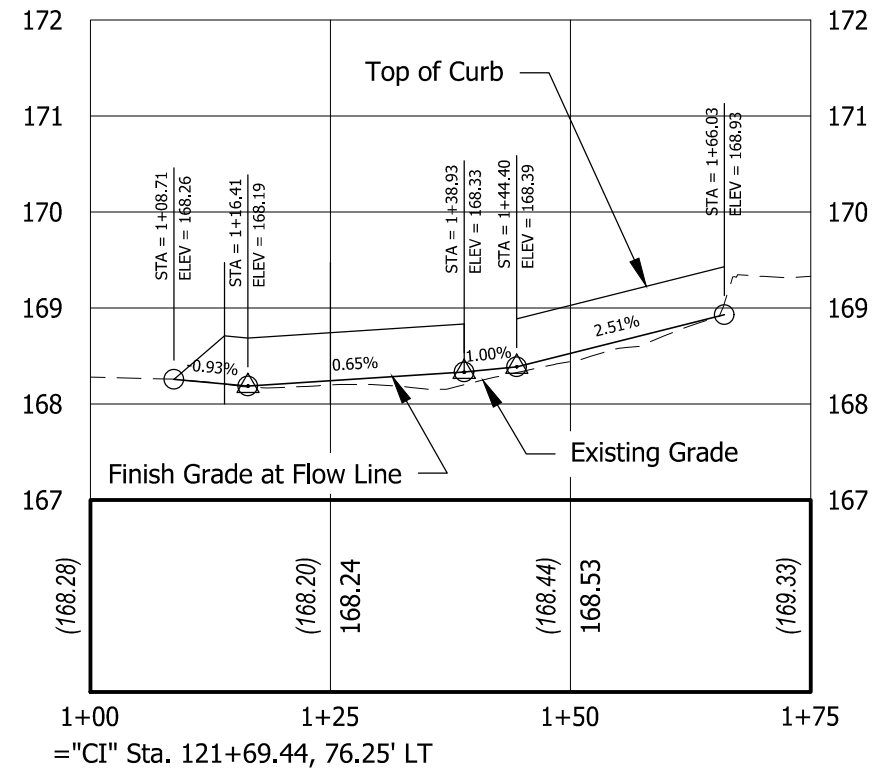
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ABBREVIATION

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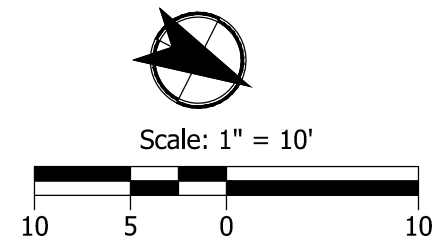


CURB RETURN PROFILE

Horizontal Scale: 1"=20'
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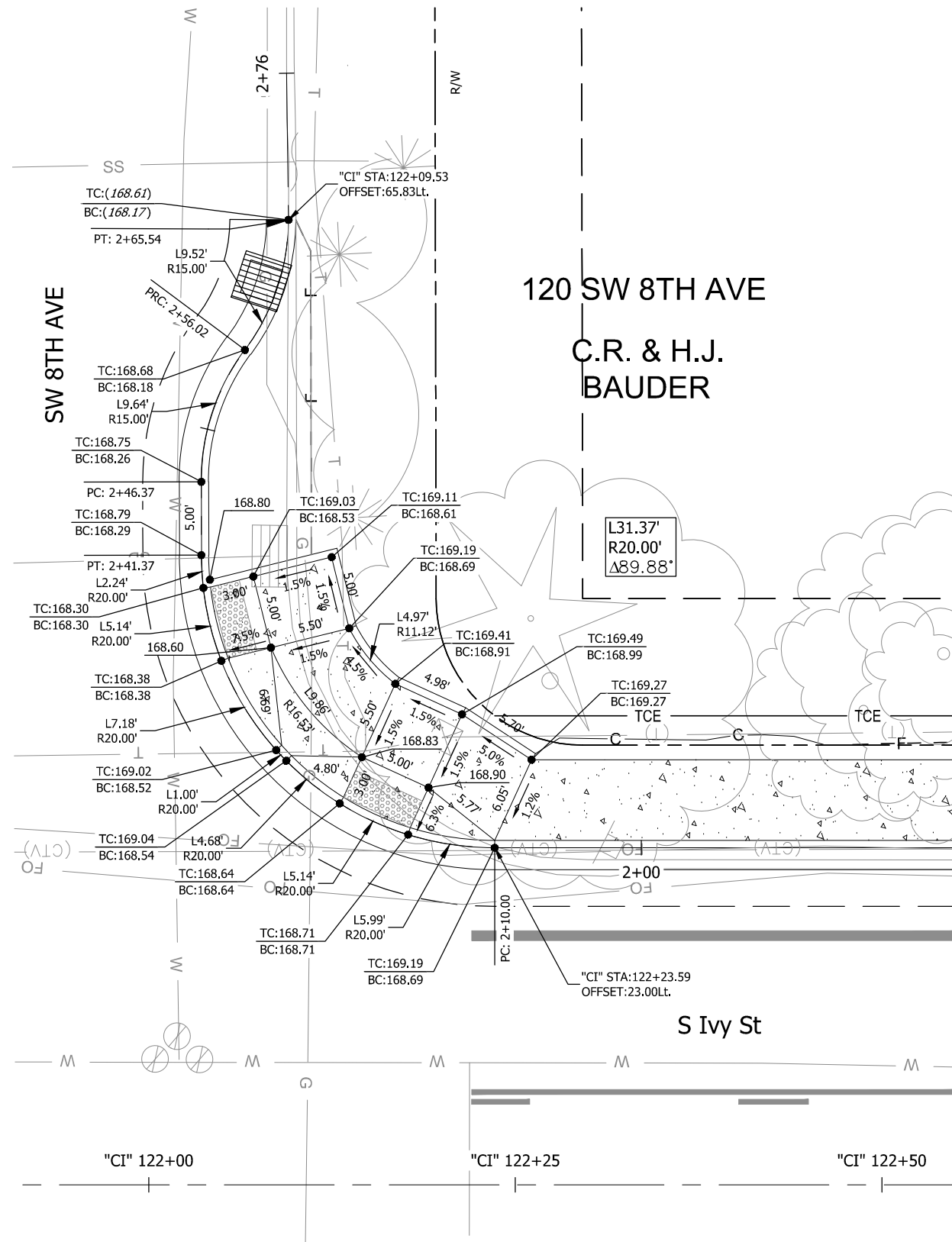


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 EXPIRES: 12/31/2024

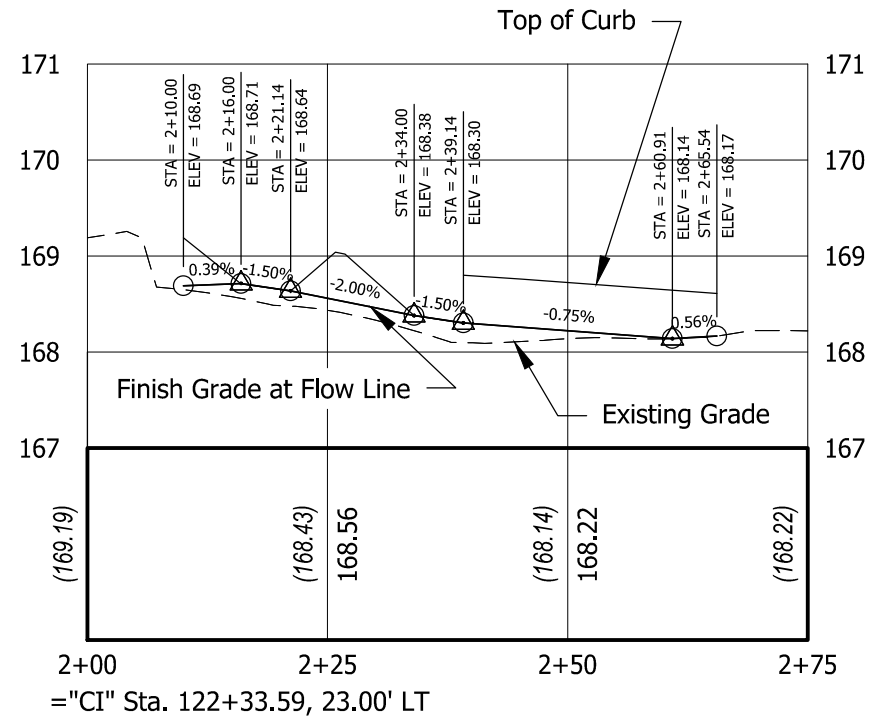
CURB RAMP DETAILS	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
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REVISIONS	PROJECT NO.: CI-300317309
Sheet No. BC04	DATE: December 2023

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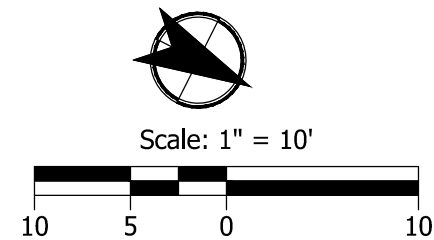


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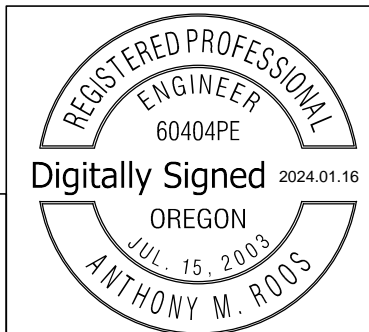
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CLACKAMAS COUNTY
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DAN JOHNSON
 DIRECTOR

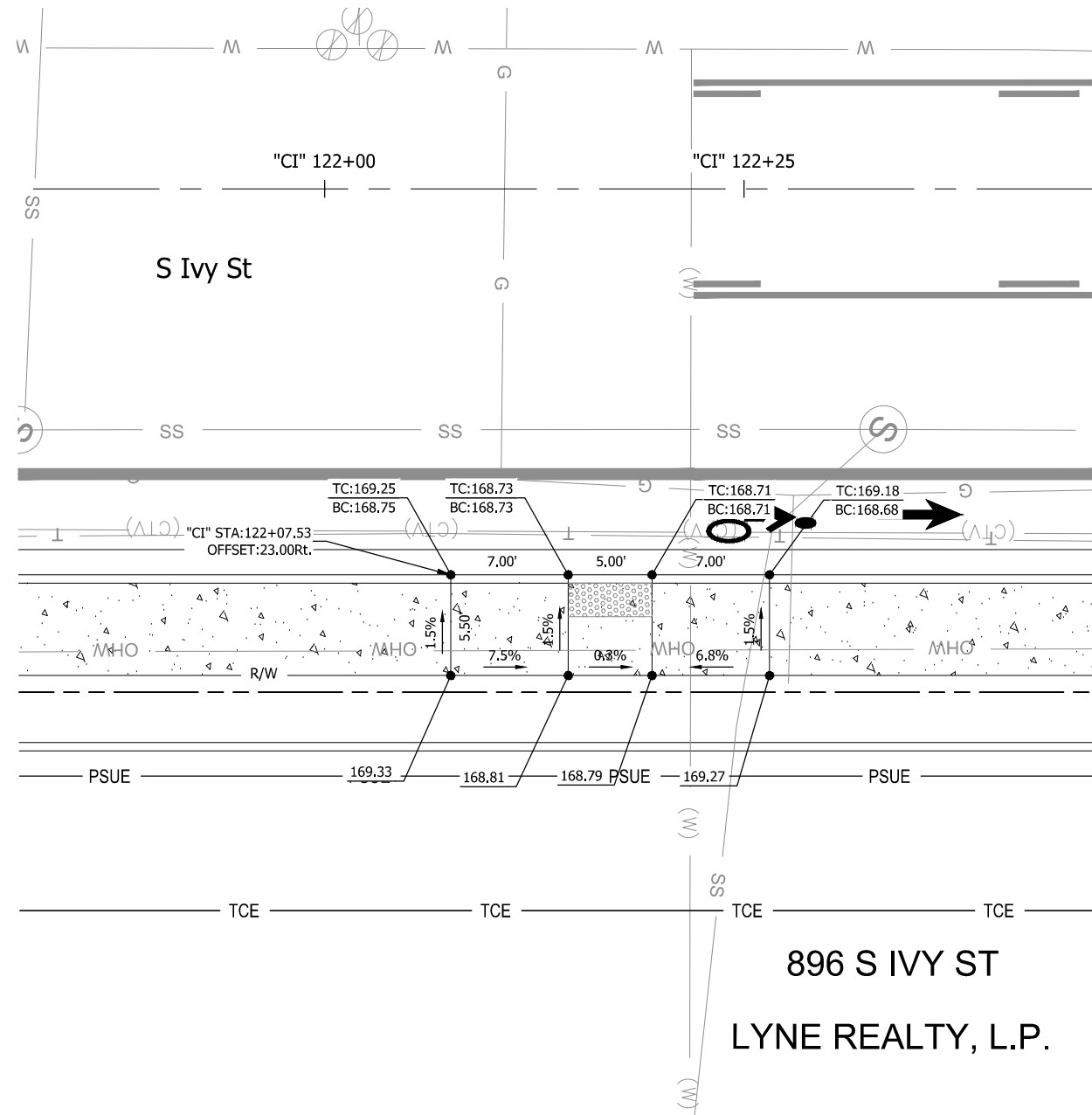
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NO. DATE:		
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Sheet No.	BC05	

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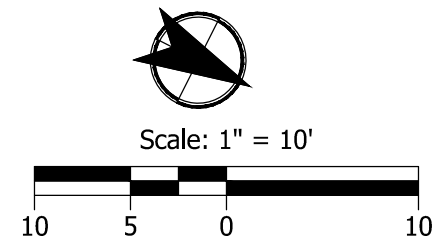


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CURB RAMP DETAILS

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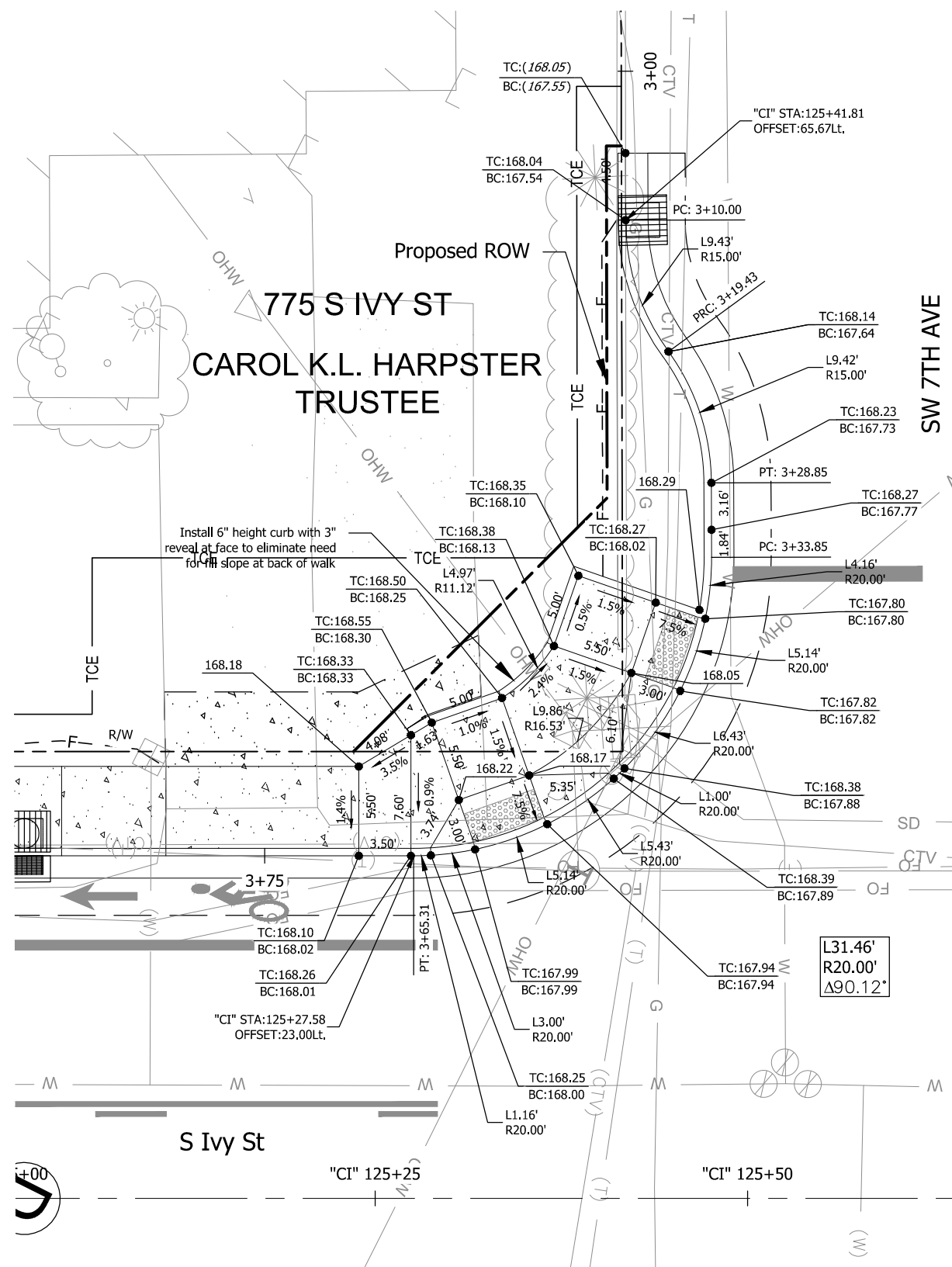
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DAN JOHNSON
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DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN	CHECKED BY: T. ROOS	
NO. DATE:			

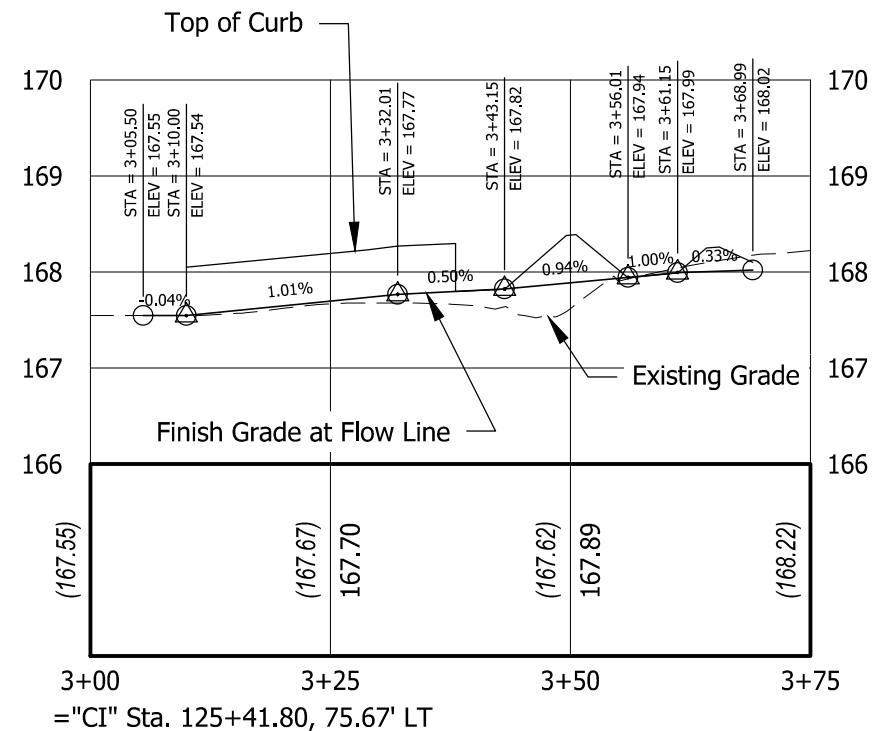
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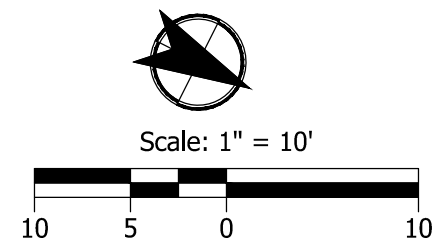


CURB RETURN PROFILE

Horizontal Scale: 1"=20'
 Vertical Scale: 1"=2'

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S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CURB RAMP DETAILS

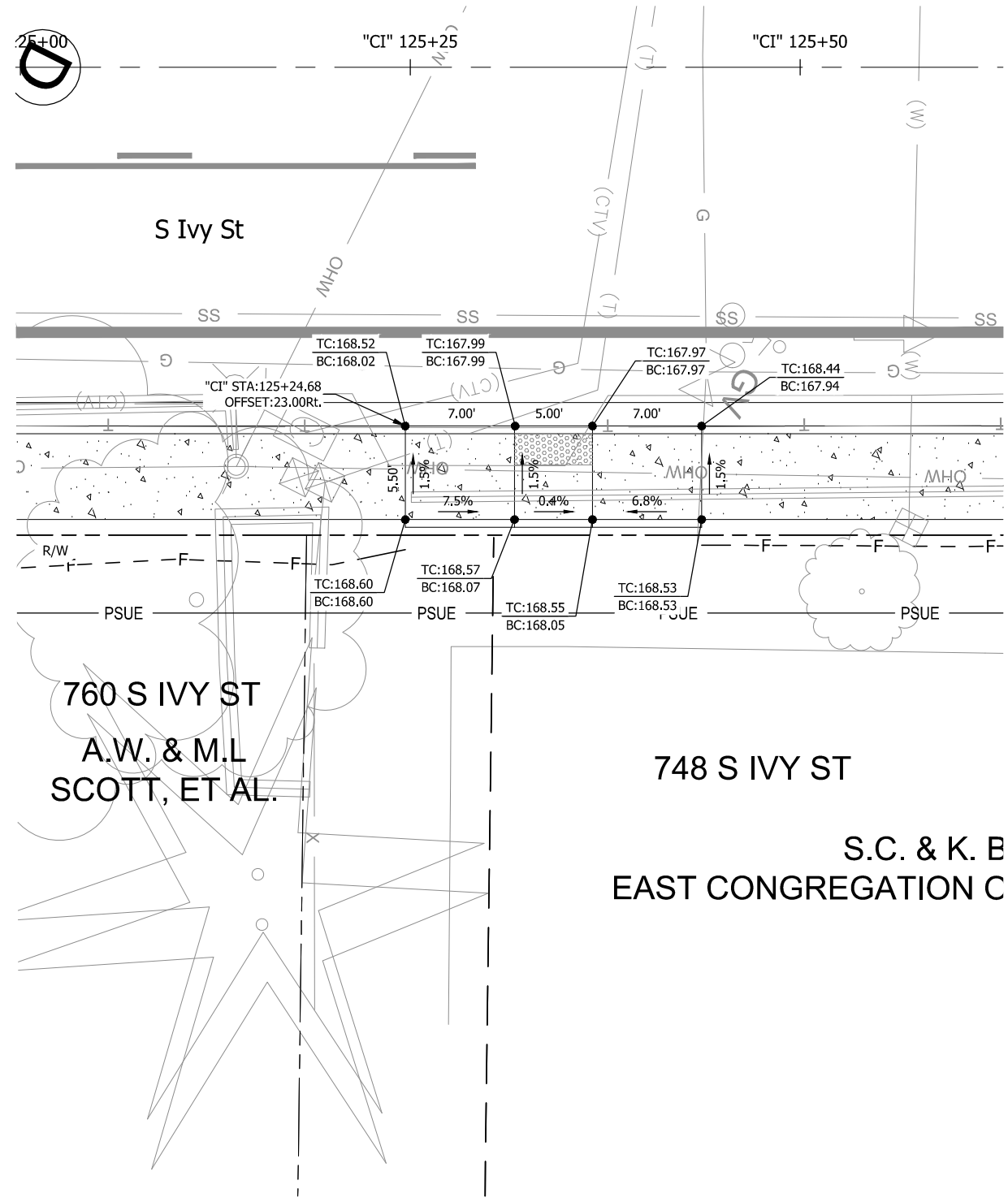
DATE: December 2023 PROJECT NO.: CI-300317309

NO.	DATE	REVISIONS

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

Sheet No. BC07

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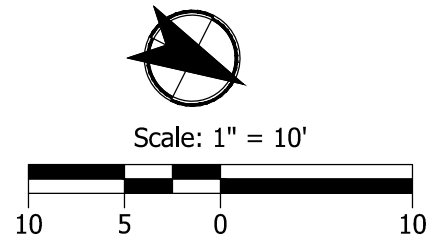


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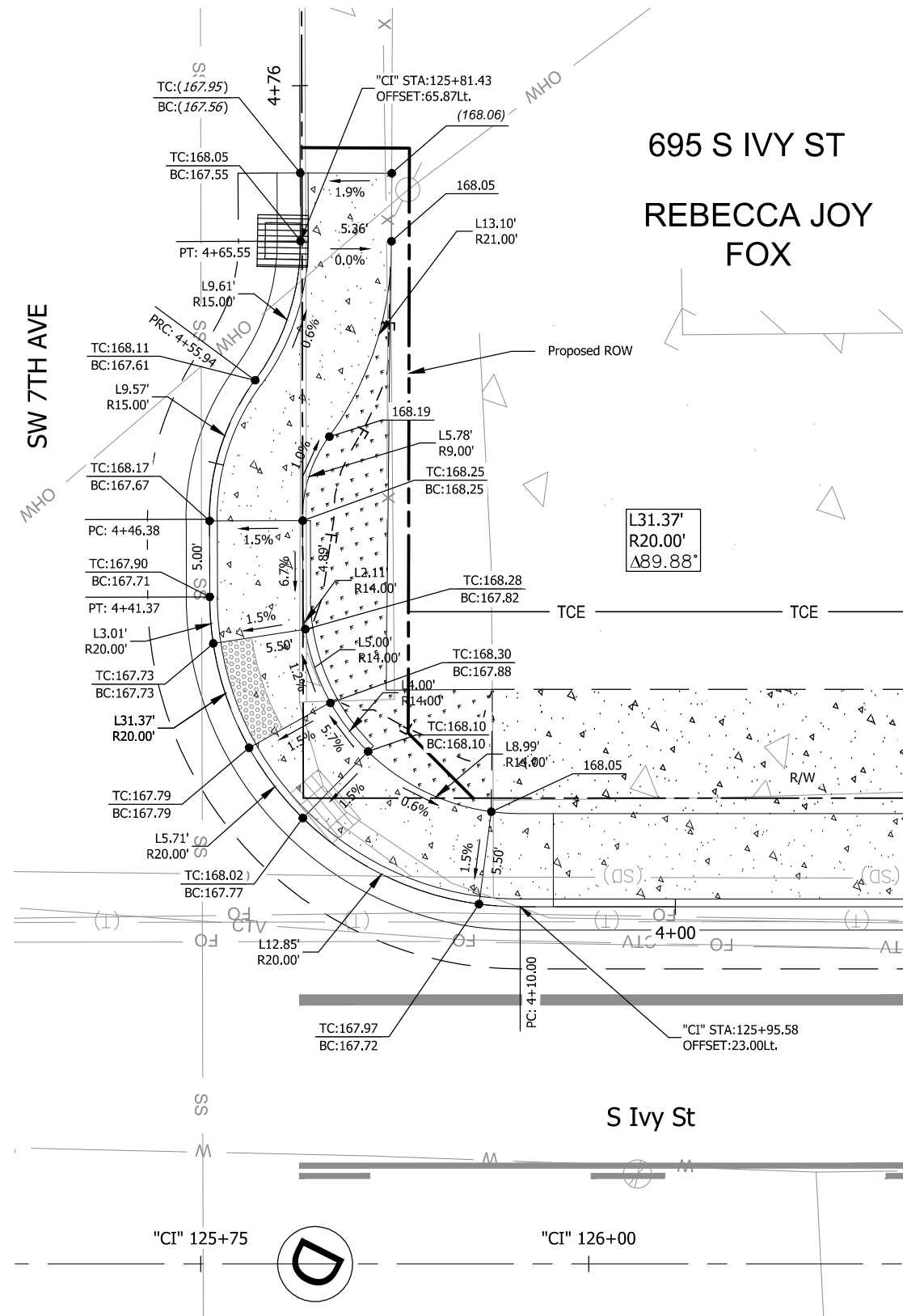


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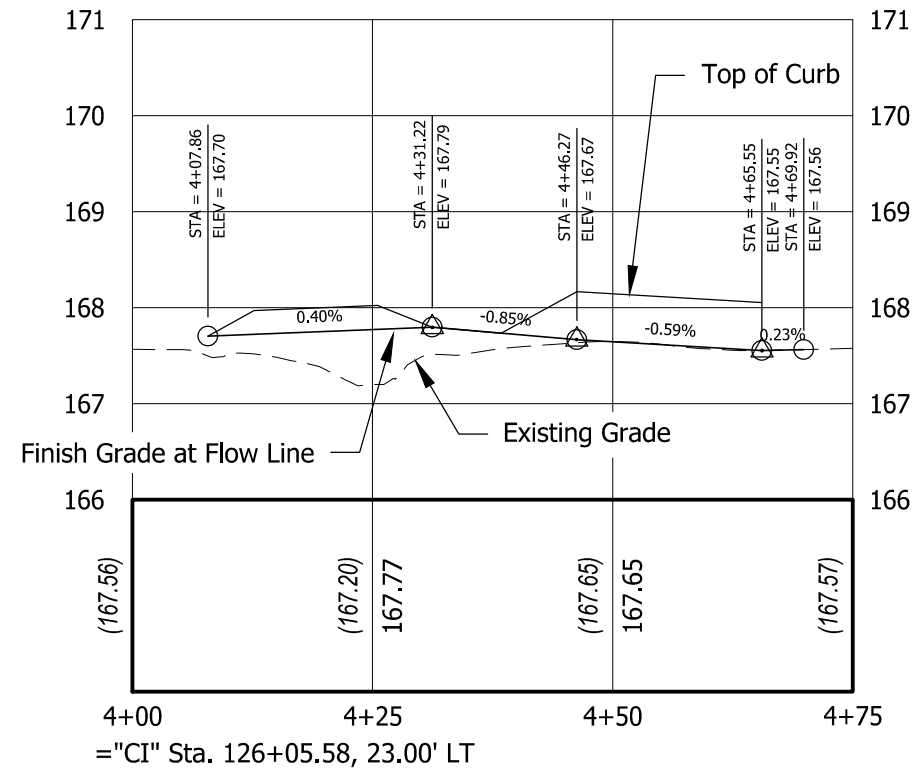
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CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	PROJECT NO.: CI-300317309
DRAFTED BY: D. SHADRIN	DATE: December 2023
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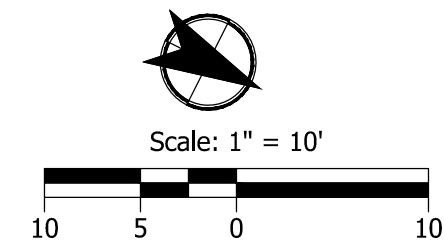


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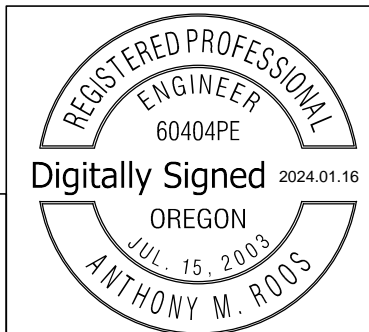
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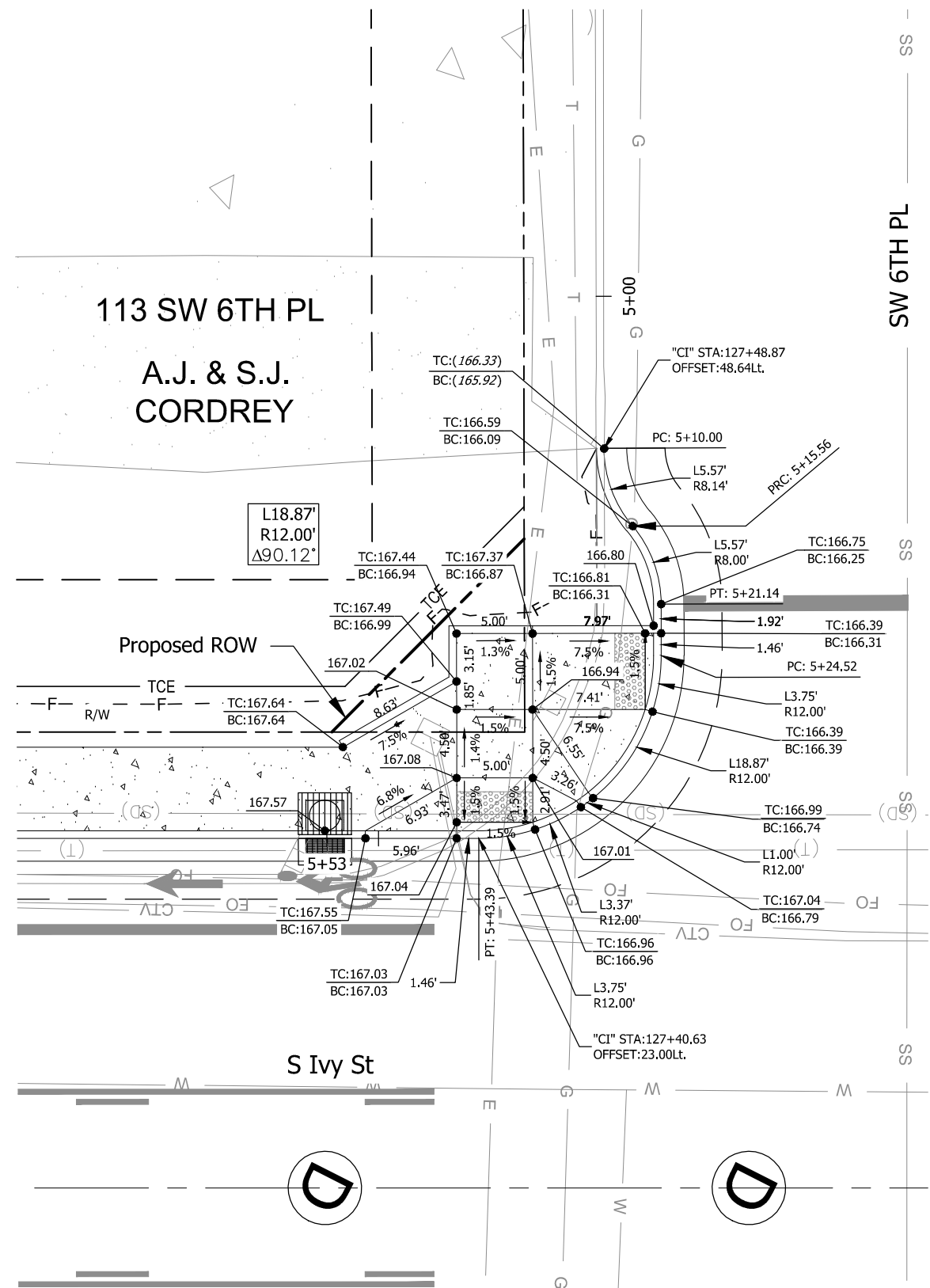


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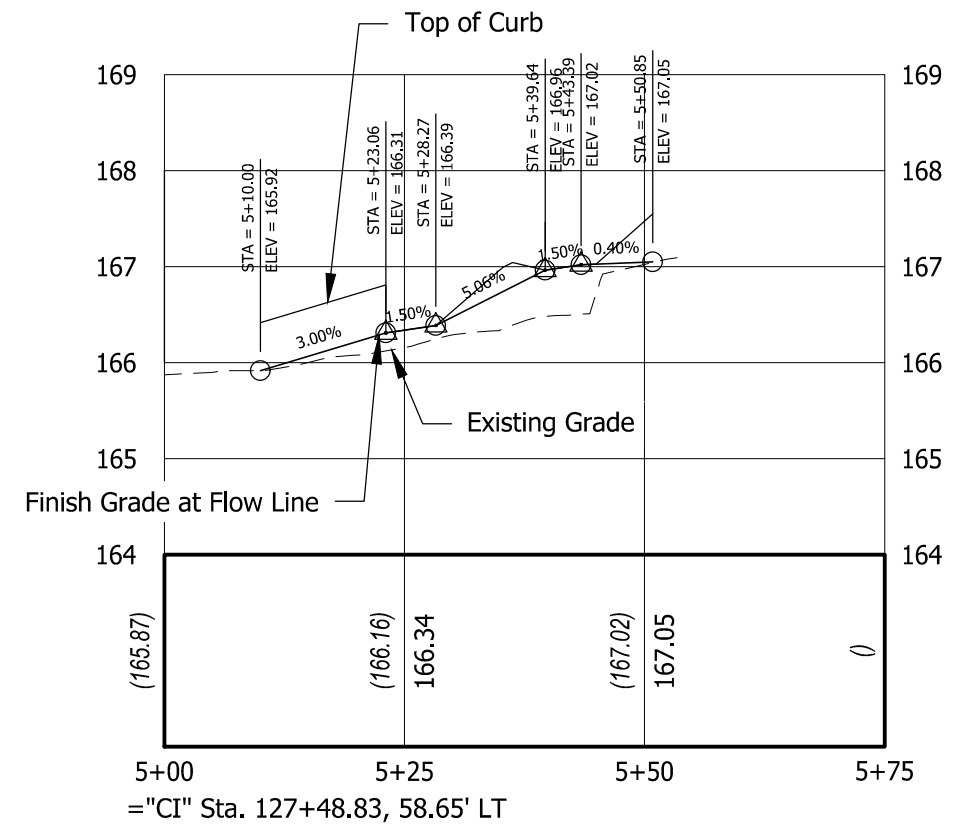


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DATE: December 2023 PROJECT NO.: CI-300317309	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	CHECKED BY: T. ROOS
DRAFTED BY: D. SHADRIN	NO. DATE:
REVISIONS	Sheet No. BC09

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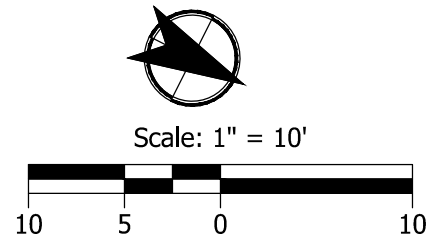
ABBREVIATION
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CURB RETURN PROFILE
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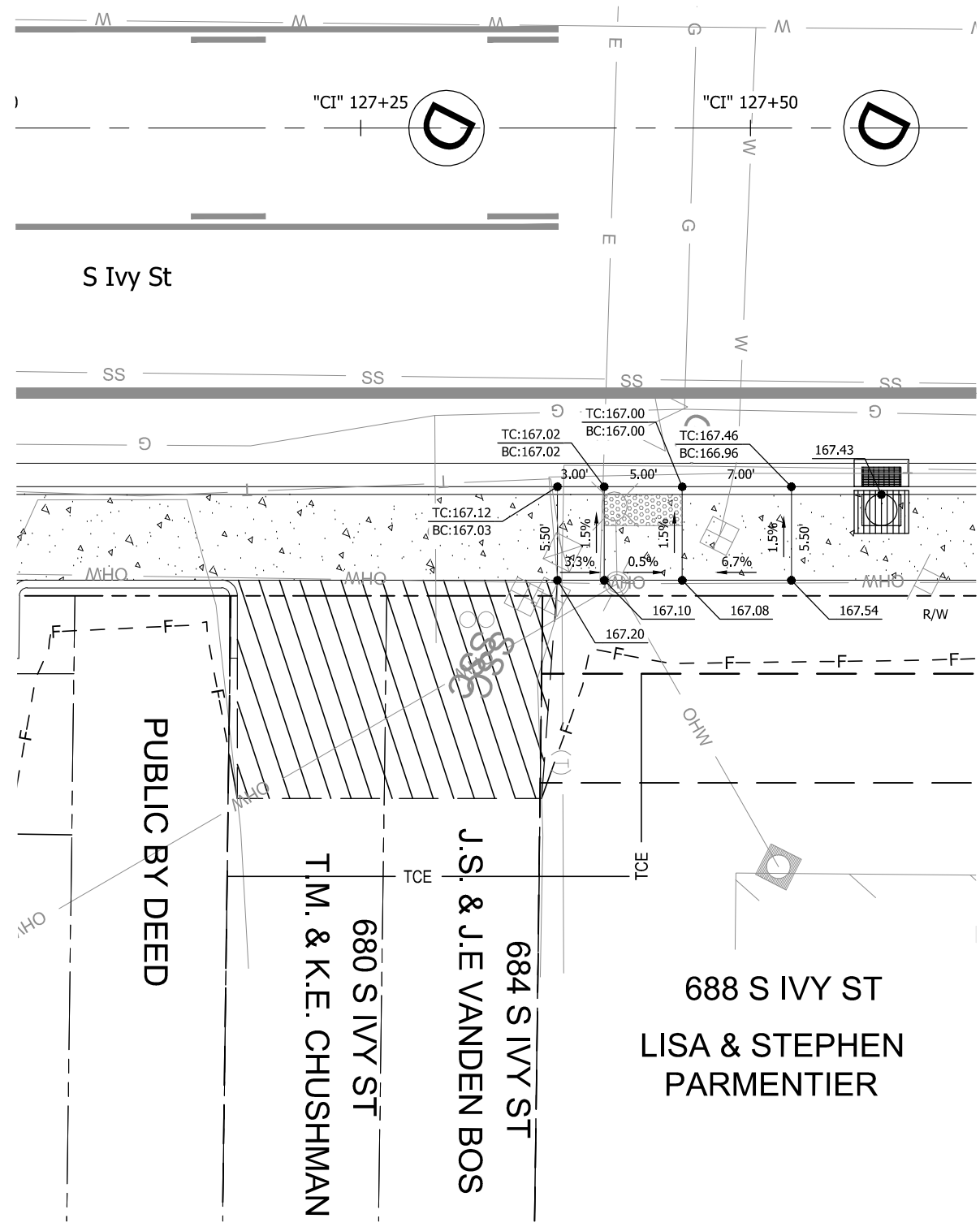
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 EXPIRES: 12/31/2024

CURB RAMP DETAILS	
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CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	
NO. DATE:	REVISIONS:
Sheet No. BC10	

DATE: December 2023 PROJECT NO.: CI-300317309

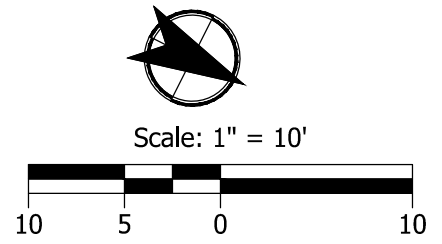
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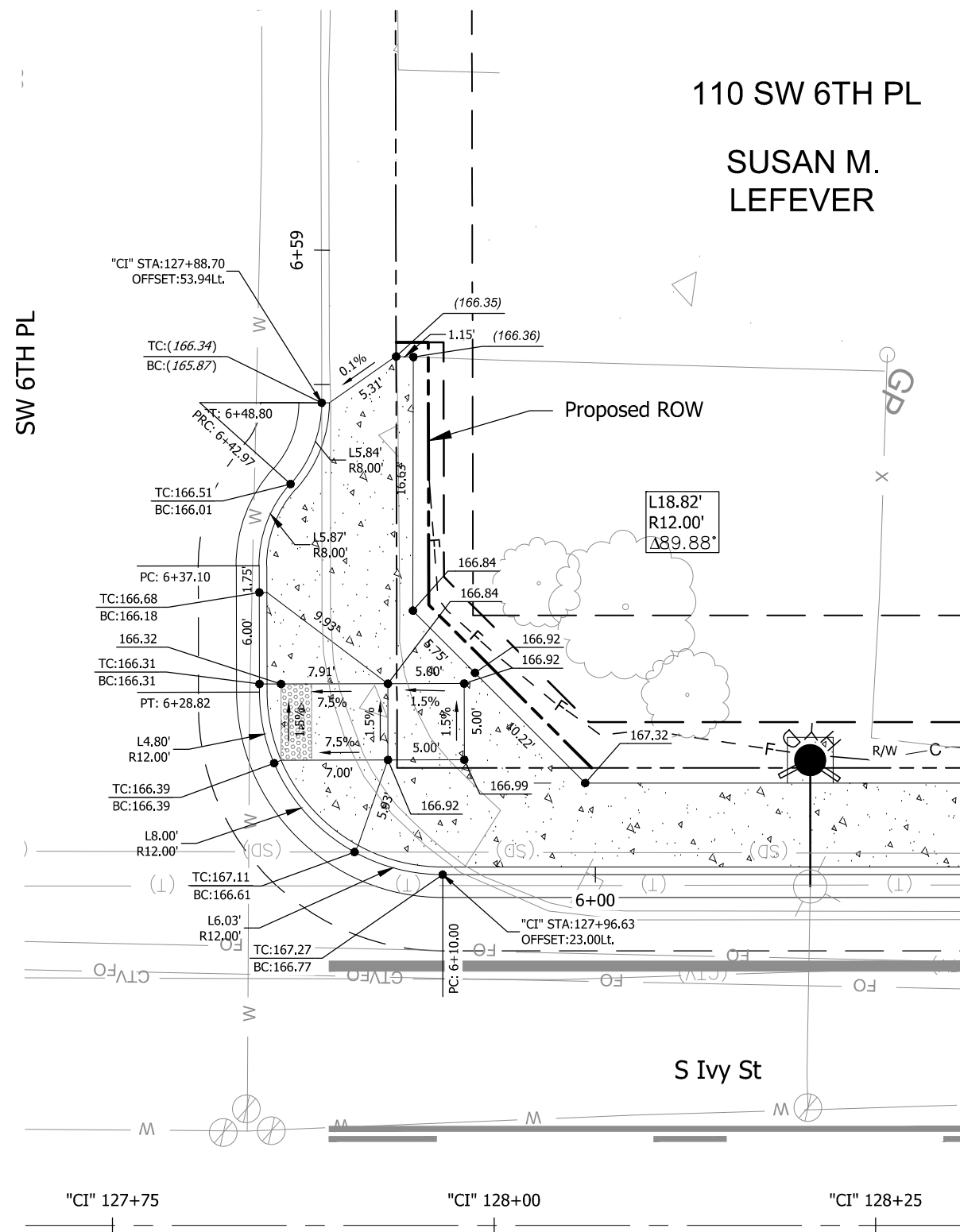
KITTELSON & ASSOCIATES
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CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	
NO. DATE:	REVISIONS:
Sheet No. BC11	

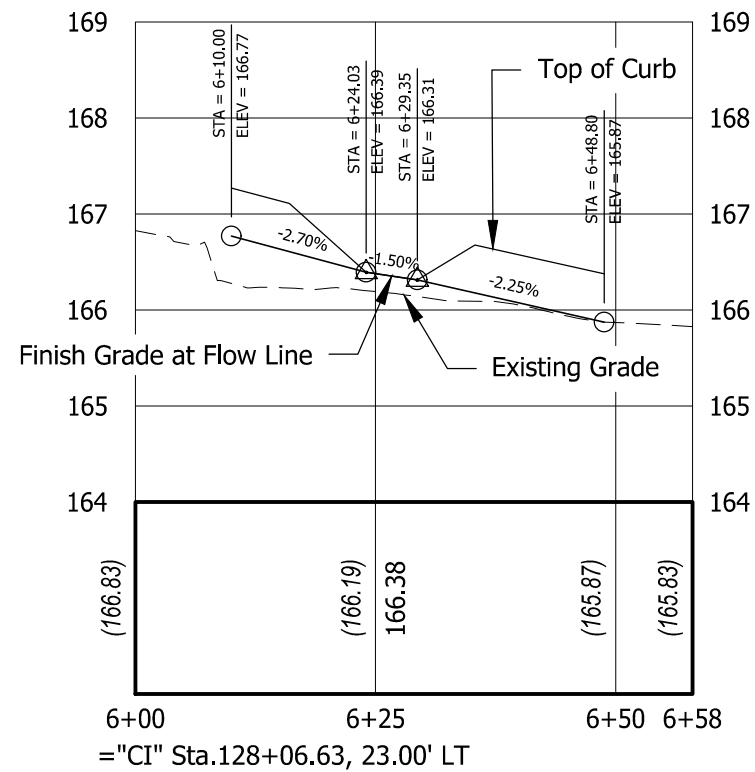
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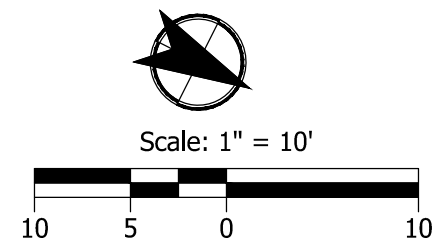


CURB RETURN PROFILE

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KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

CLACKAMAS COUNTY

DAN JOHNSON
 DIRECTOR

CI-300317309

DATE: December 2023

PROJECT NO.: CI-300317309

INTERSECTION IMPROVEMENTS
 S IVY ST PEDESTRIAN

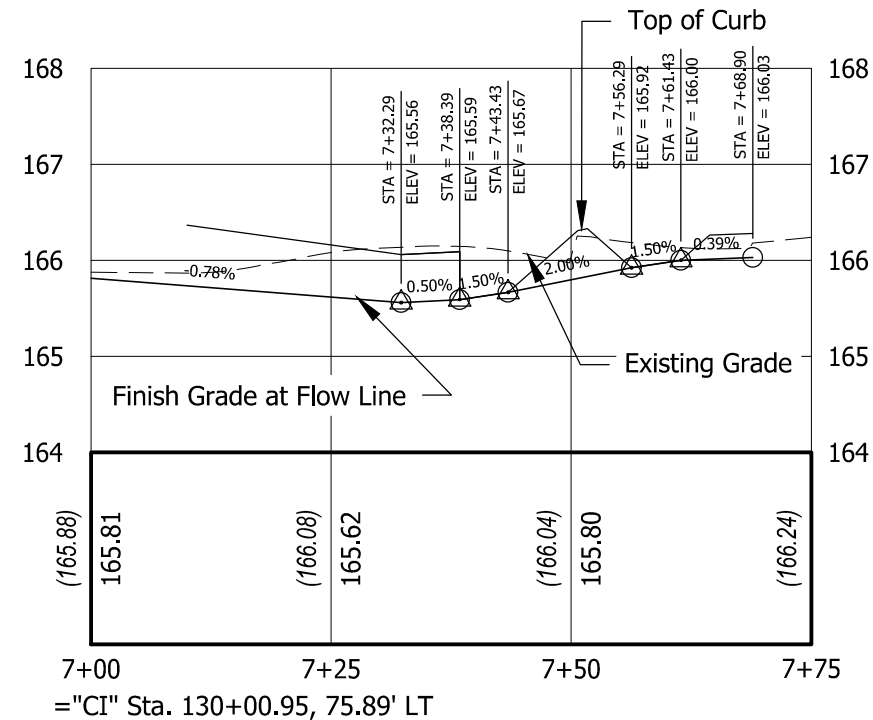
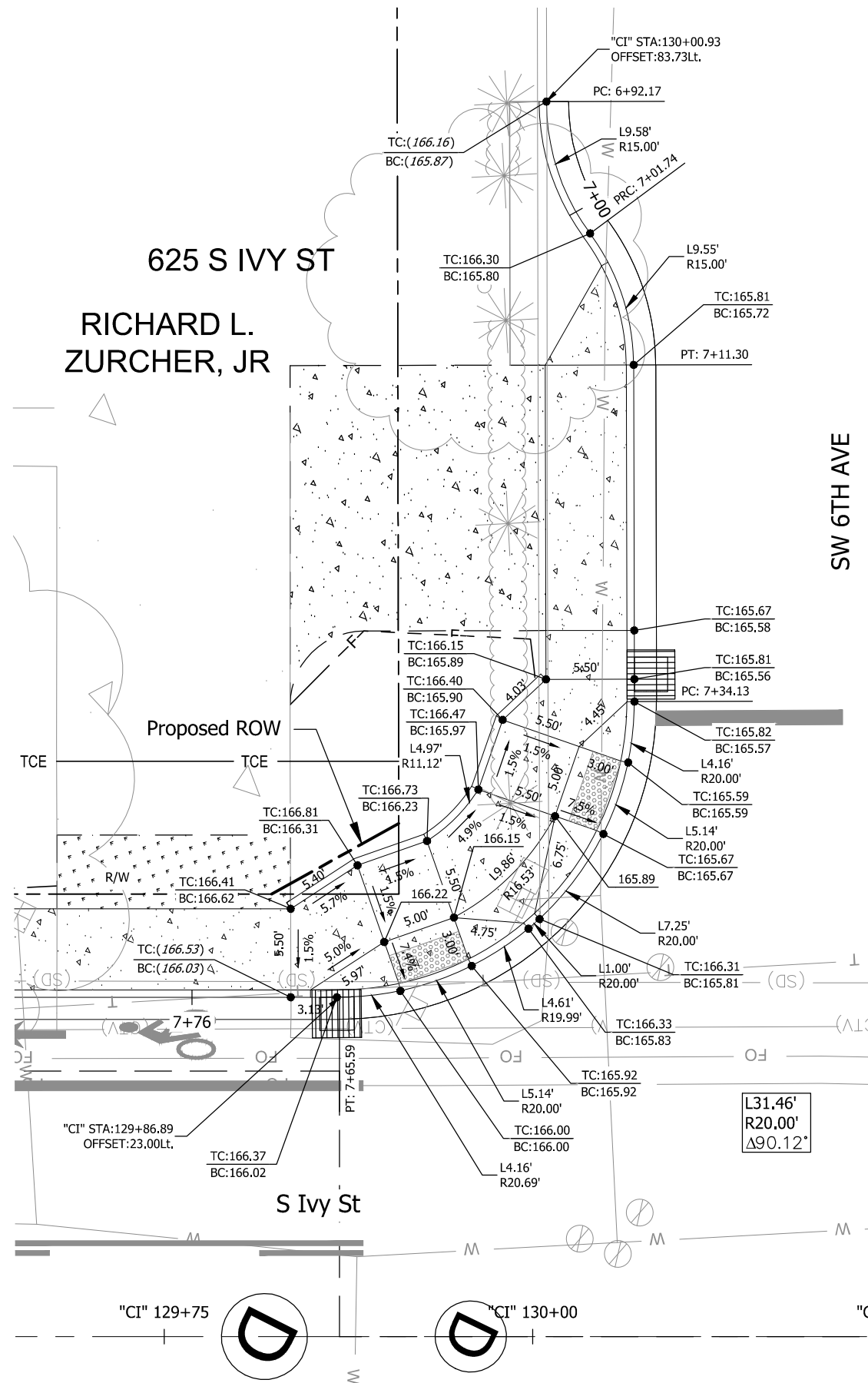
CURB RAMP DETAILS

NO.	DATE:	REVISIONS

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

Sheet No. BC12

Plot Stamp: 1/15/2024 11:42:10 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BC-SOUTH CURB RAMP DETAILS.dwg



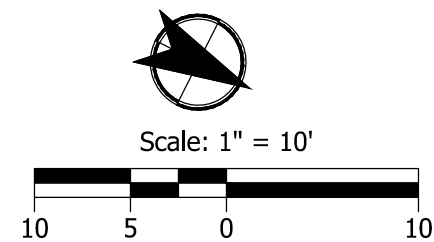
CURB RETURN PROFILE
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 Vertical Scale: 1"=2'

GENERAL NOTES

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ABBREVIATION

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 BC = Bottom of Curb Elevation
 FL = Flow Line Elevation
 (XXX.XX) = Match Extg. Grade



KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

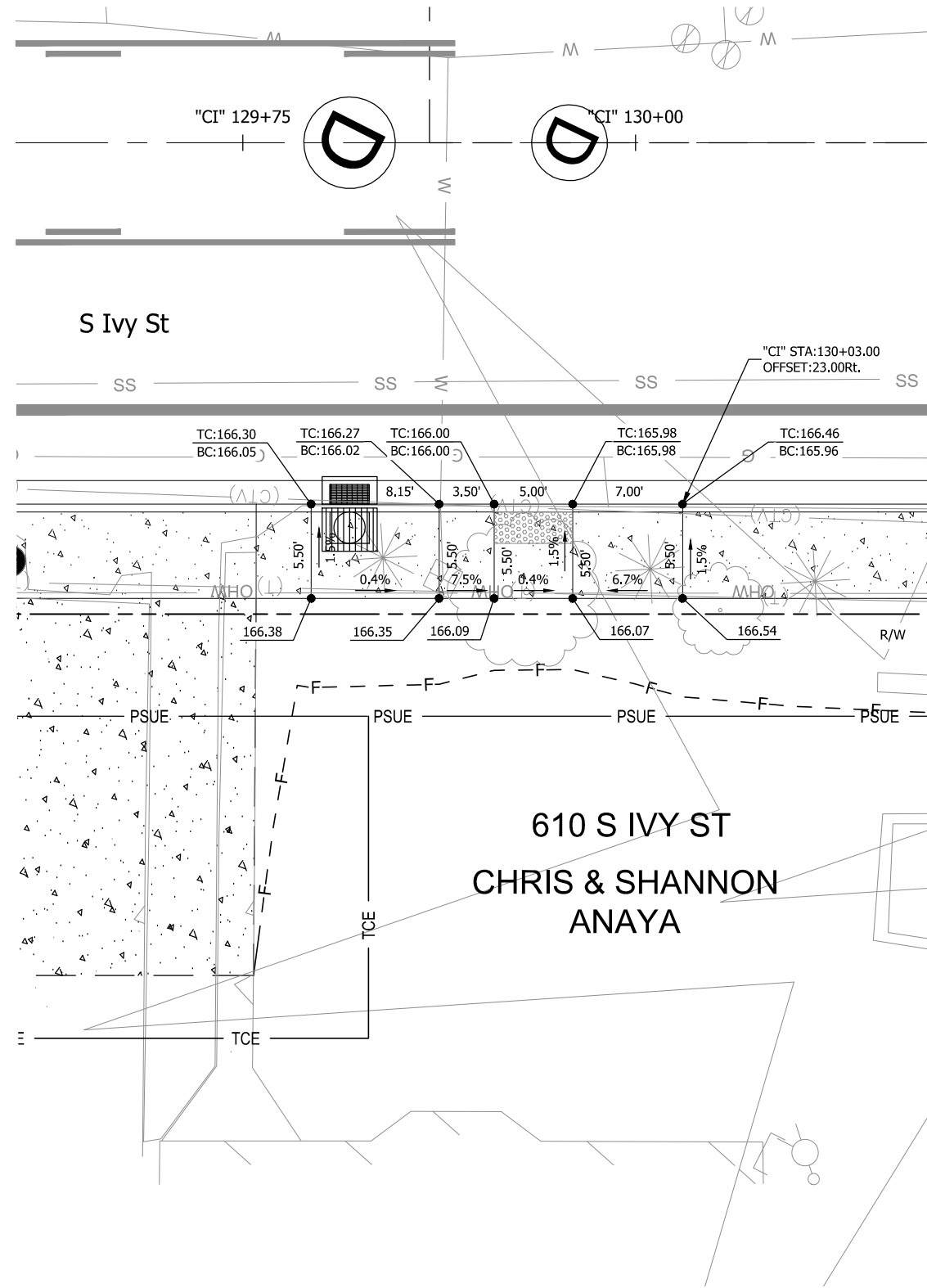


EXPIRES: 12/31/2024

CURB RAMP DETAILS	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
NO. DATE:	CHECKED BY: T. ROOS
REVISIONS	
Sheet No. BC13	

DATE: December 2023 PROJECT NO.: CI-300317309

Plot Stamp: 1/15/2024 11:42:19 AM - Caleb Cox
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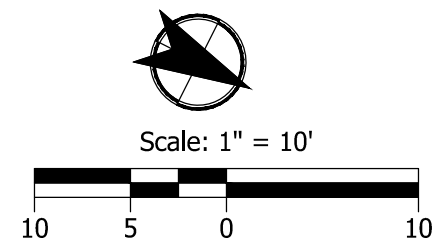


ABBREVIATION

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GENERAL NOTES

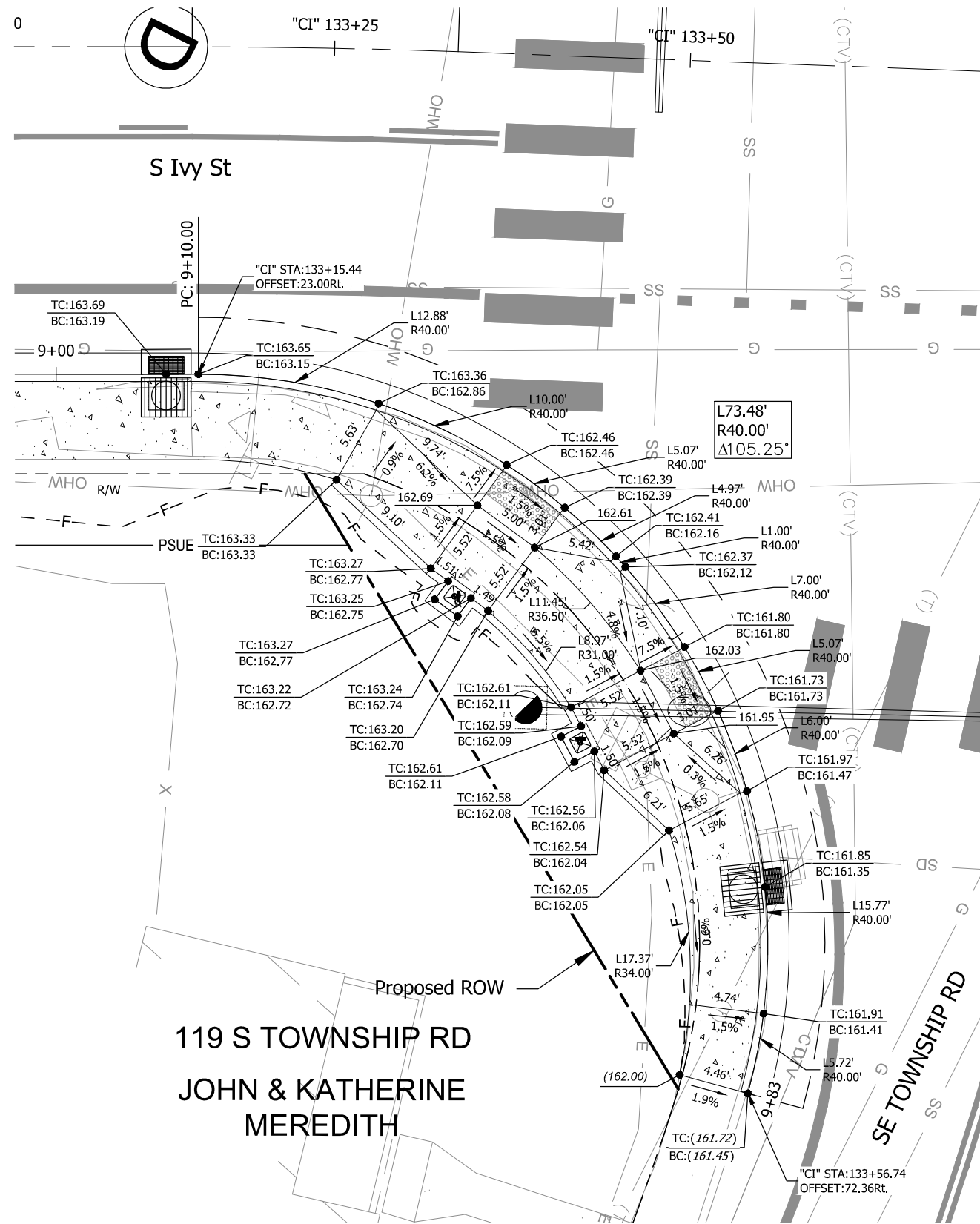
1. Slopes hold over elevations. Contractor shall take all necessary field measurements to verify plan design meets ADA compliance and notify the engineer if the ramps cannot be constructed as shown. Refer to specification section 00759 for full requirements.
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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

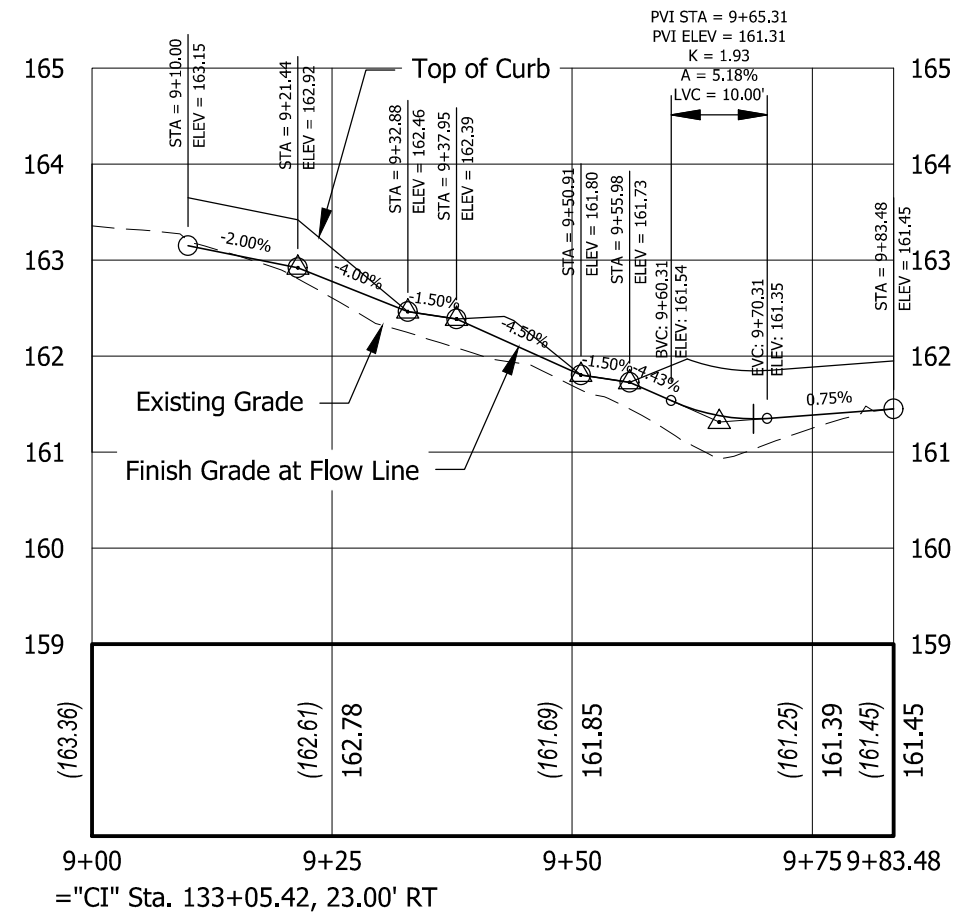
CURB RAMP DETAILS	S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	PROJECT NO.: CI-300317309
DRAFTED BY: D. SHADRIN	DATE: December 2023
CHECKED BY: T. ROOS	
REVISIONS	
NO. DATE:	
Sheet No.	BC14



119 S TOWNSHIP RD
JOHN & KATHERINE
MEREDITH

ABBREVIATION

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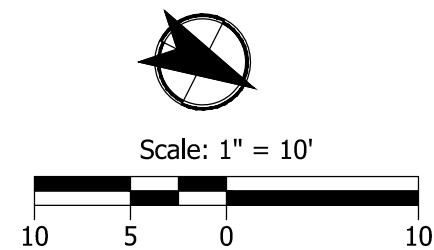


CURB RETURN PROFILE

Horizontal Scale: 1"=20'
Vertical Scale: 1"=2'

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KITTELSON & ASSOCIATES
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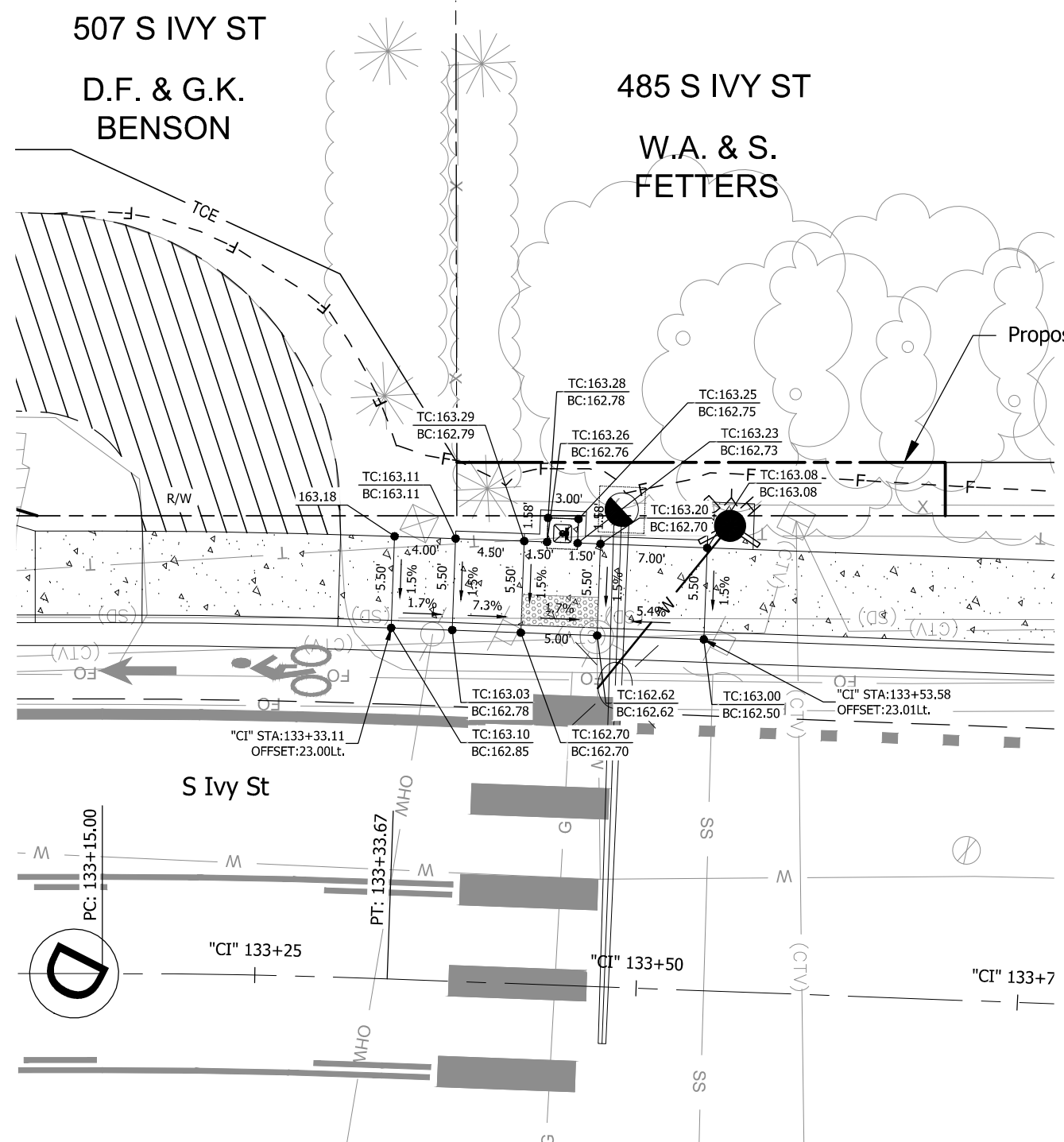


CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION
AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045

DAN JOHNSON
DIRECTOR

DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN	CHECKED BY: T. ROOS
NO. DATE:		
REVISIONS		
Sheet No.	BC16	

Plot Stamp: 1/15/2024 11:43:43 AM - Caleb Cox
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ABBREVIATION

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GENERAL NOTES

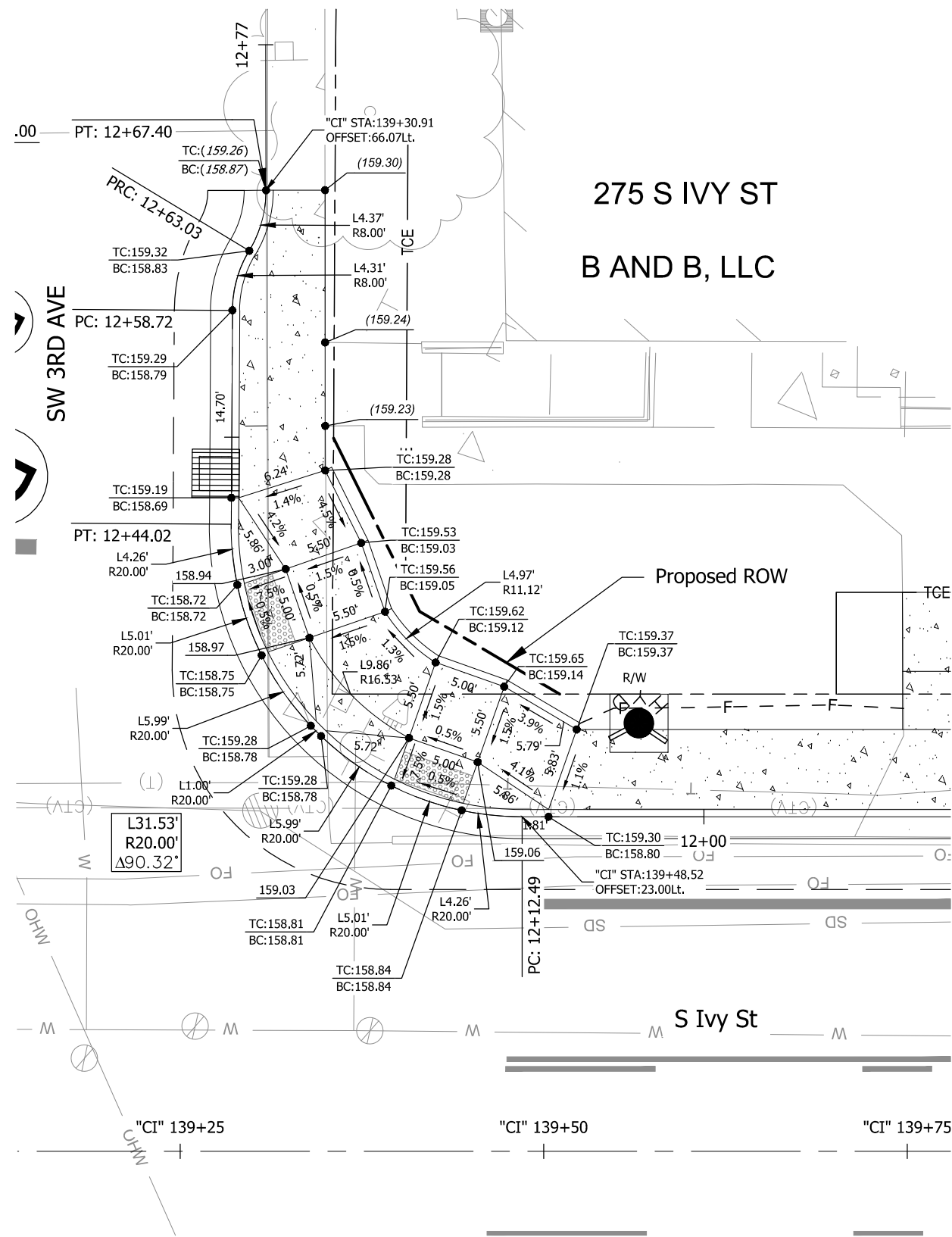
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 ENGINEER
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 JUL. 15, 2003
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 EXPIRES: 12/31/2024

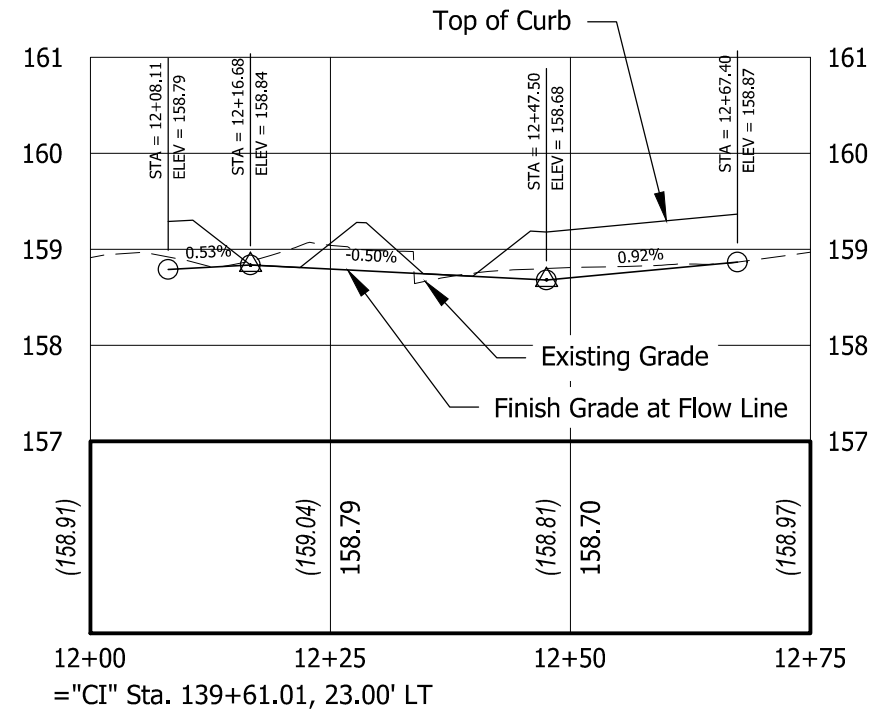
CURB RAMP DETAILS S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	DATE: December 2023 PROJECT NO.: CI-300317309
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
NO. DATE:	CHECKED BY: T. ROOS
REVISIONS:	Sheet No. BC17

Plot Stamp: 1/15/2024 11:44:48 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BC-NORTH CURB RAMP DETAILS.dwg



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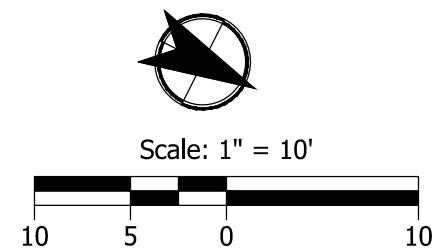


CURB RETURN PROFILE

Horizontal Scale: 1"=20'
 Vertical Scale: 1"=2'

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 JUL. 15, 2003
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 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

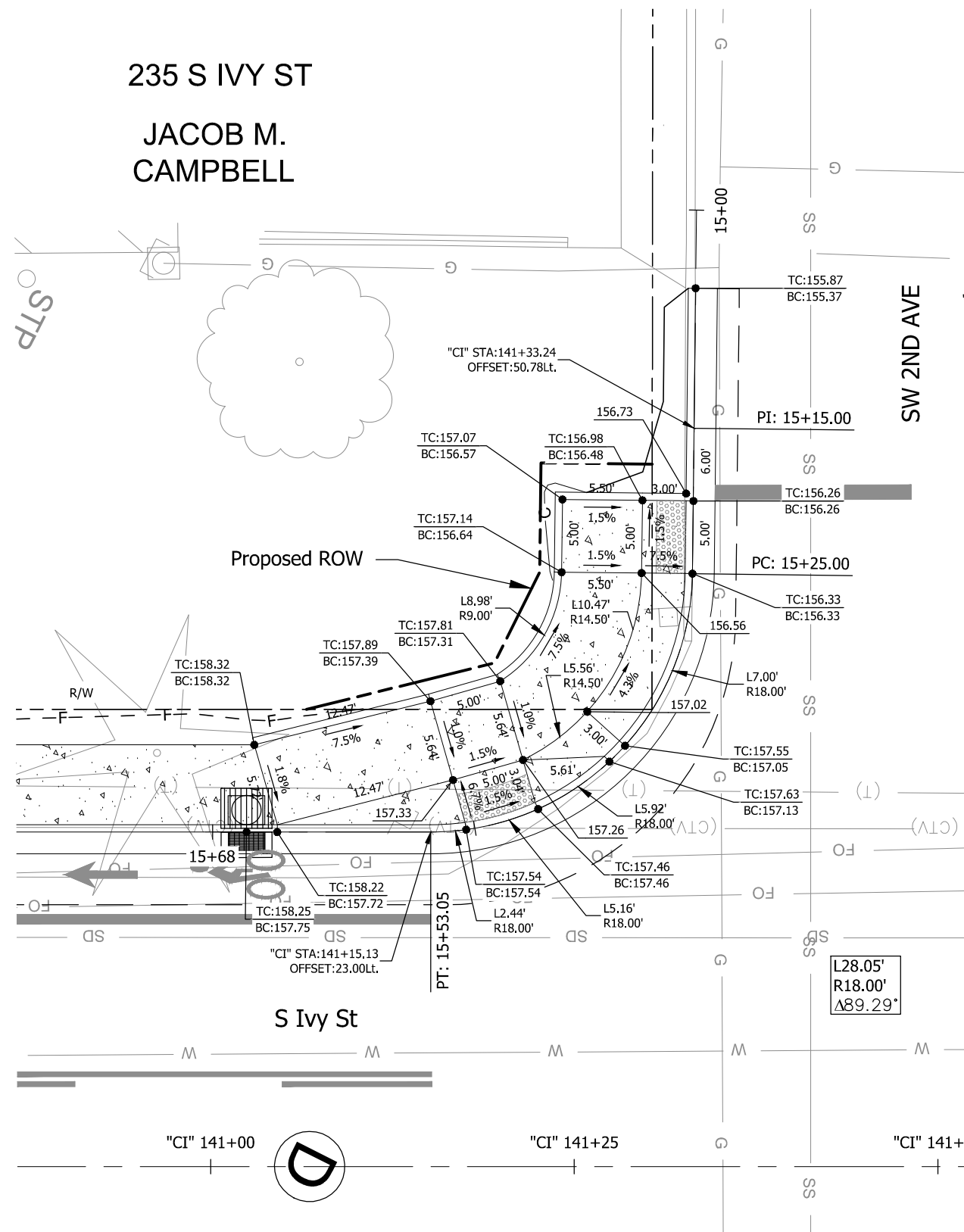
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DATE: December 2023 PROJECT NO.: CI-300317309

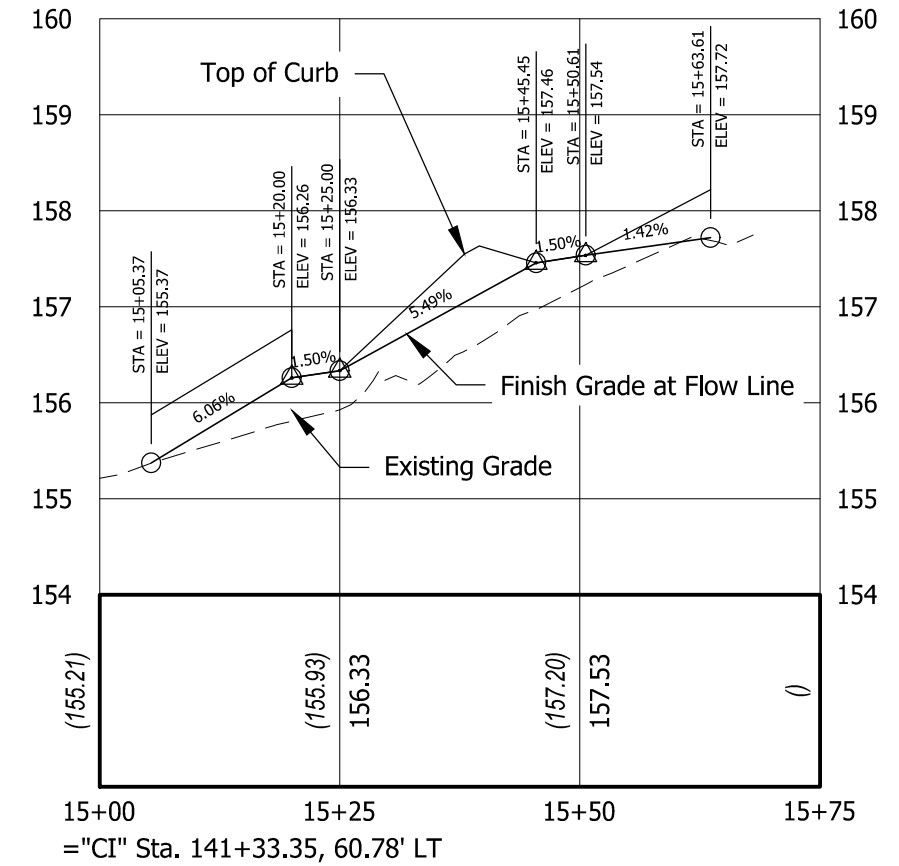
NO.	DATE	REVISIONS

Sheet No. BC22

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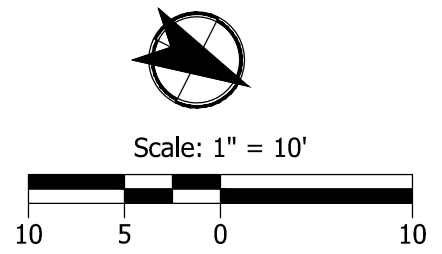
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 Horizontal Scale: 1"=20'
 Vertical Scale: 1"=2'

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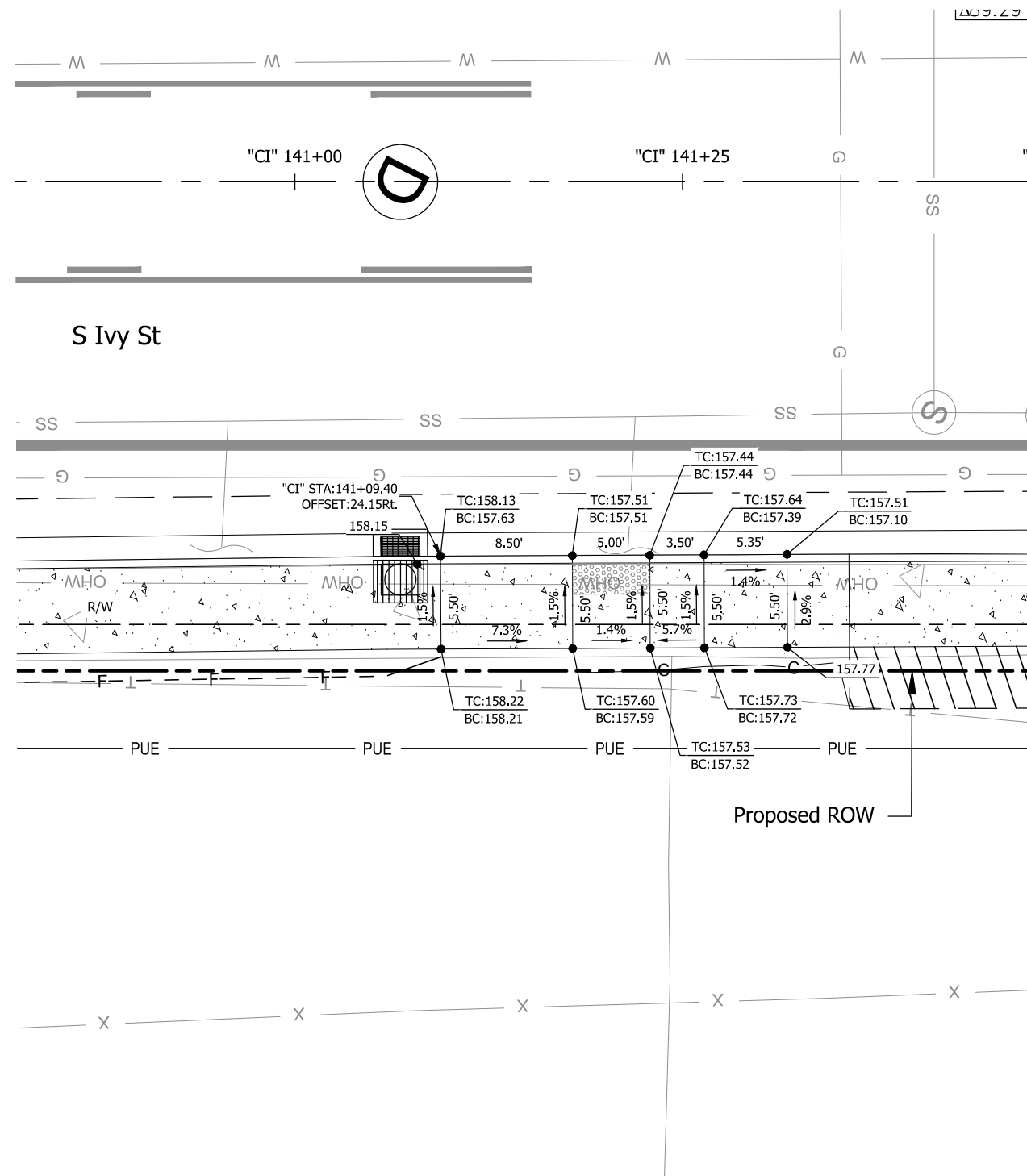
KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL ENGINEER
 60404PE
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 OREGON
 JUL. 15, 2003
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 EXPIRES: 12/31/2024

CURB RAMP DETAILS	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	
NO. DATE:	
Sheet No. BC24	

DATE: December 2023 PROJECT NO.: CI-300317309

Plot Stamp: 1/15/2024 11:45:24 AM - Caleb Cox
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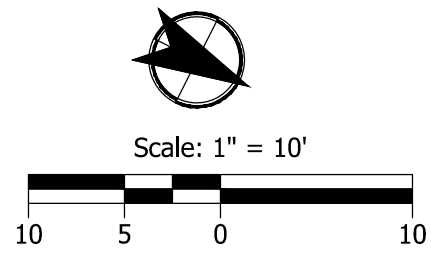


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 PORTLAND, OR 97204
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 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

CURB RAMP DETAILS
 S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

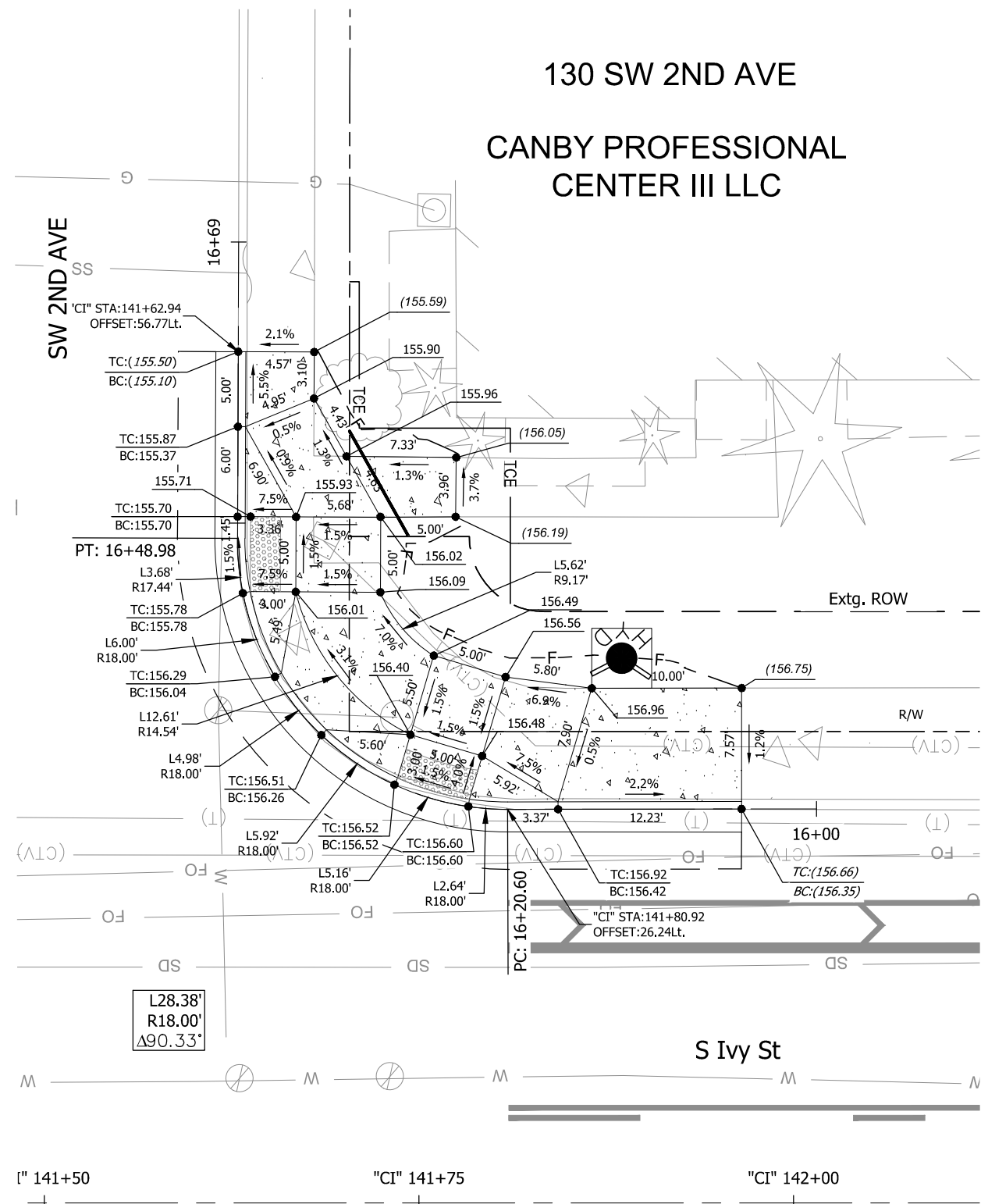
CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
 DAN JOHNSON
 DIRECTOR

DESIGNED BY:
 C. COX
 DRAFTED BY:
 D. SHADRIN
 CHECKED BY:
 T. ROOS

NO.	DATE	REVISIONS

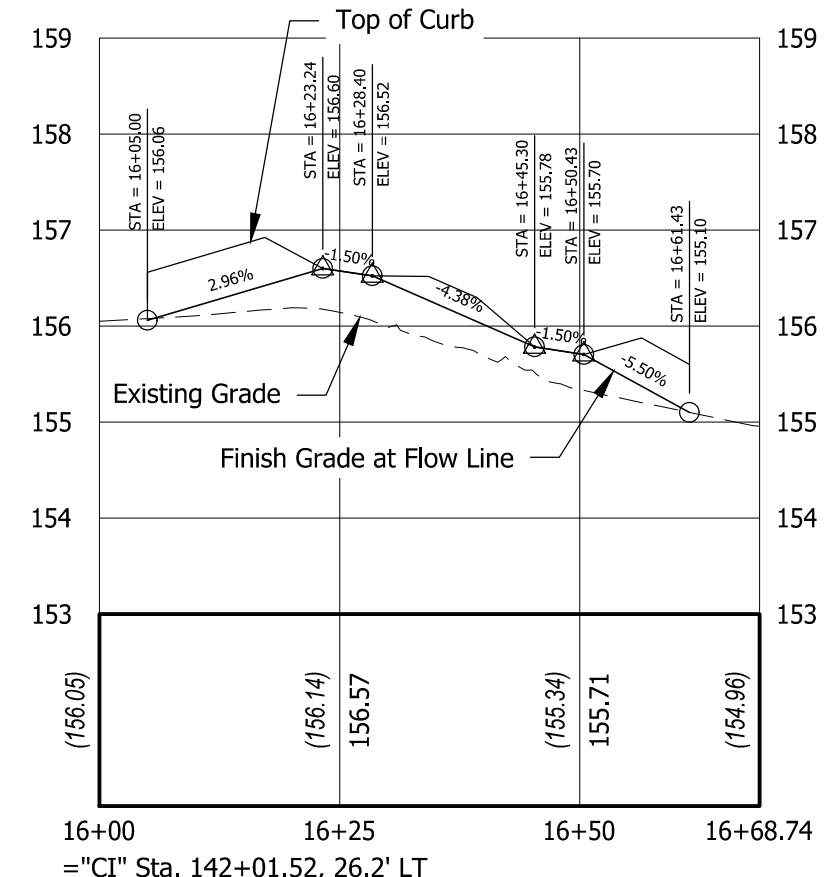
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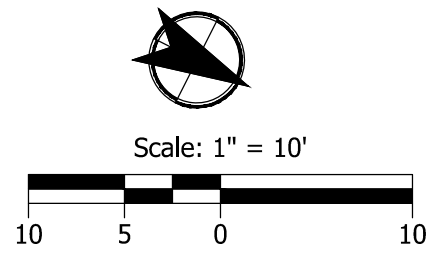
130 SW 2ND AVE
 CANBY PROFESSIONAL
 CENTER III LLC



CURB RETURN PROFILE
 Horizontal Scale: 1"=20'
 Vertical Scale: 1"=2'

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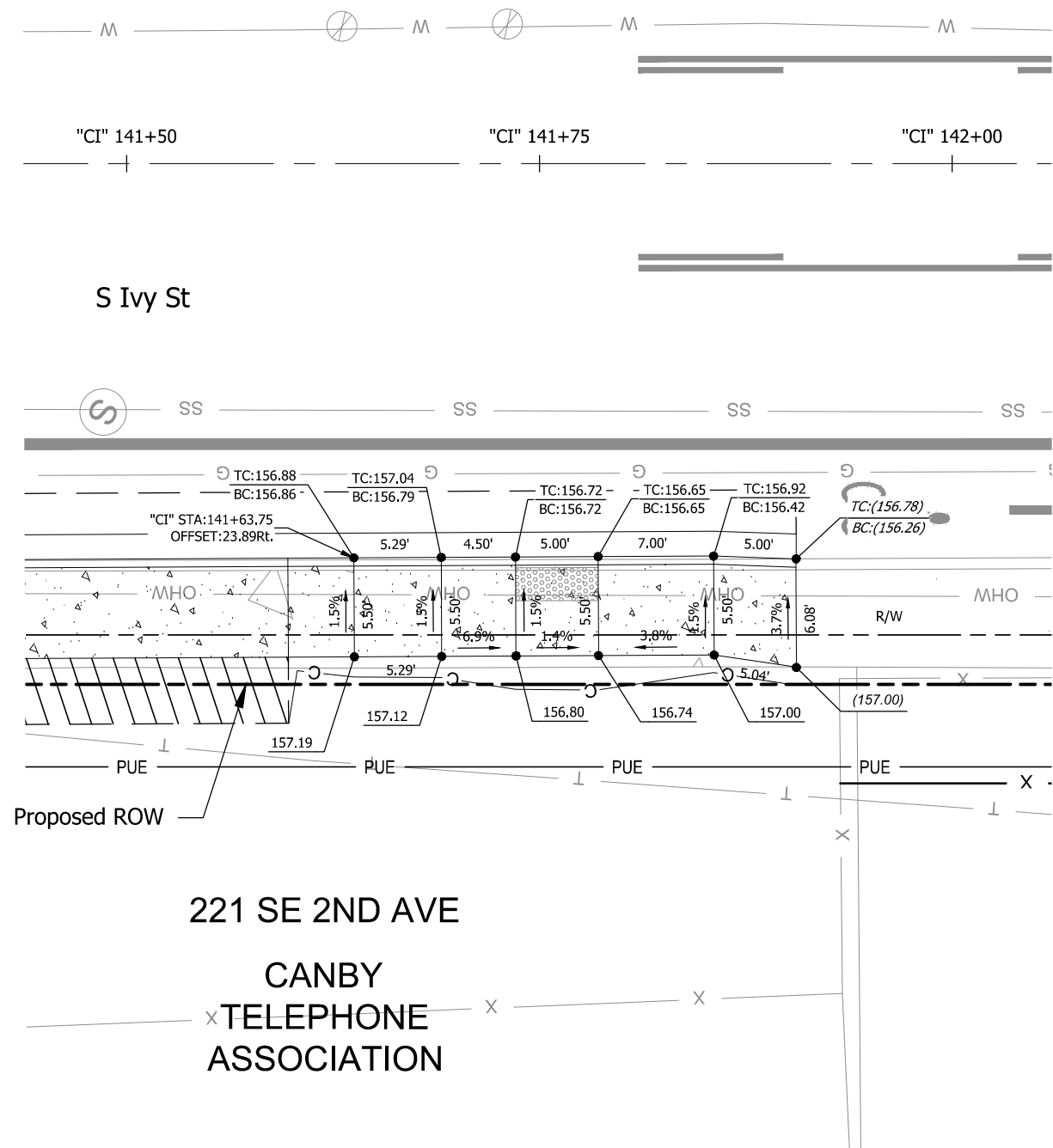
KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

CURB RAMP DETAILS	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	
NO. DATE:	
REVISIONS	
Sheet No. BC26	

DATE: December 2023 PROJECT NO.: CI-300317309

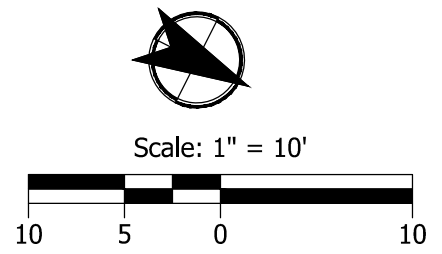
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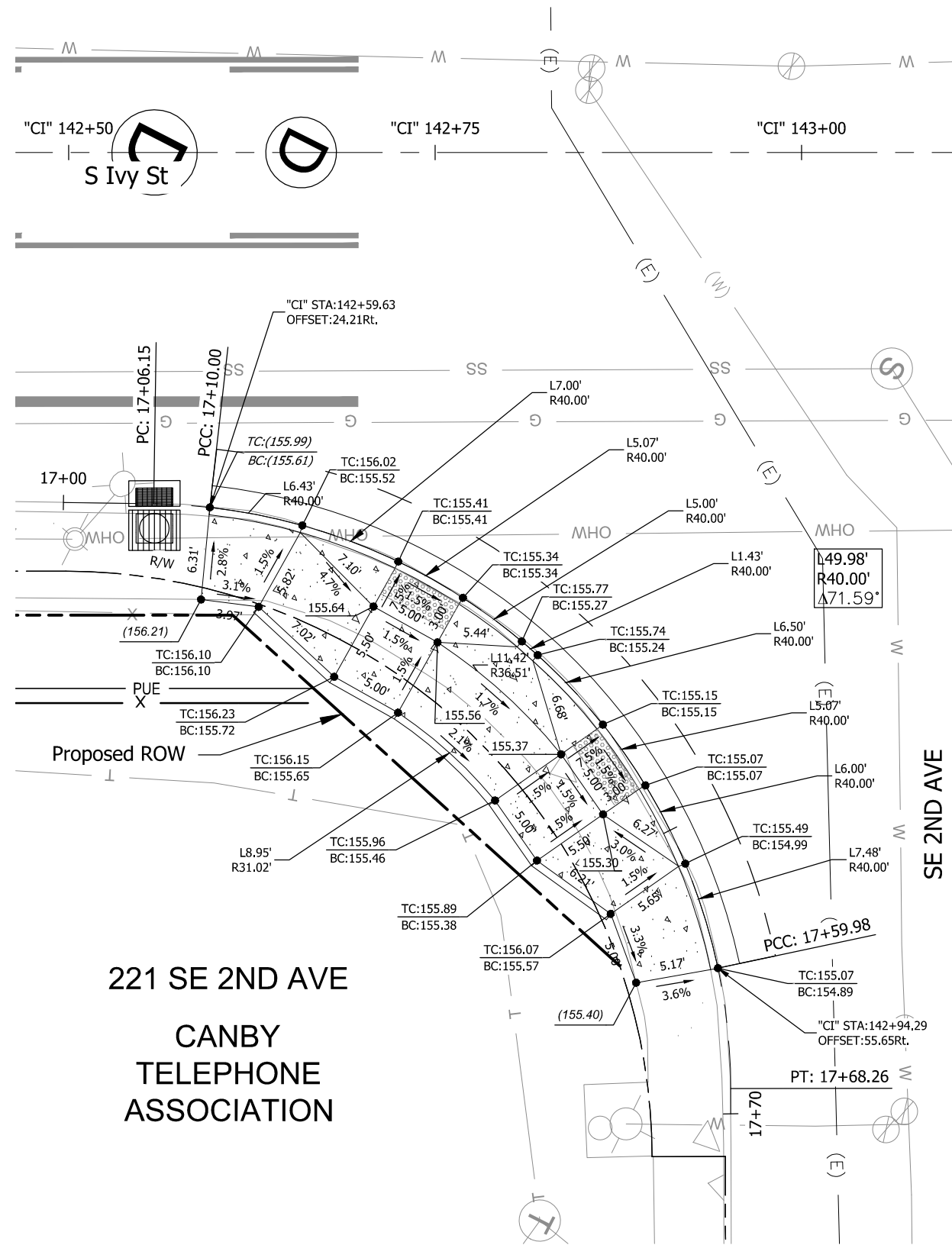


KITTELSON & ASSOCIATES
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 PORTLAND, OR 97204
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REGISTERED PROFESSIONAL ENGINEER
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 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

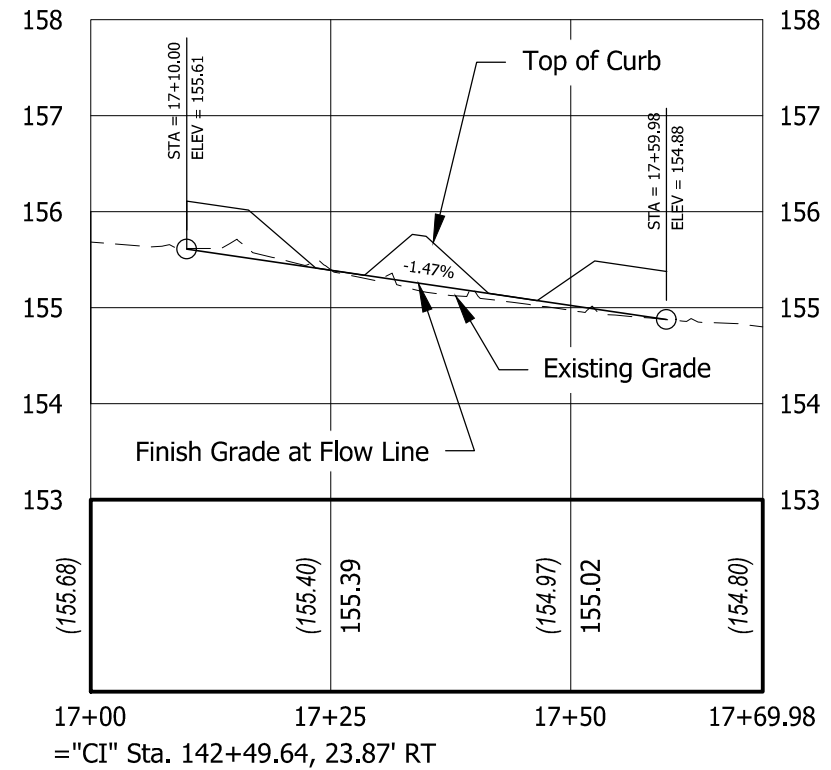
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S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
DATE: December 2023 PROJECT NO.: CI-300317309	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	
NO. DATE:	REVISIONS
Sheet No. BC27	

Plot Stamp: 1/15/2024 11:45:58 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BC-NORTH CURB RAMP DETAILS.dwg



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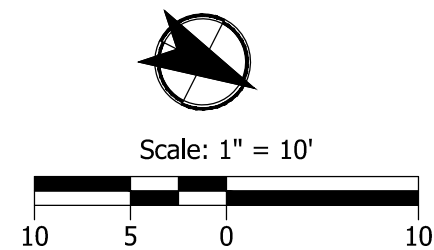


CURB RETURN PROFILE

Horizontal Scale: 1"=20'
 Vertical Scale: 1"=2'

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CLACKAMAS COUNTY
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 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CURB RAMP DETAILS

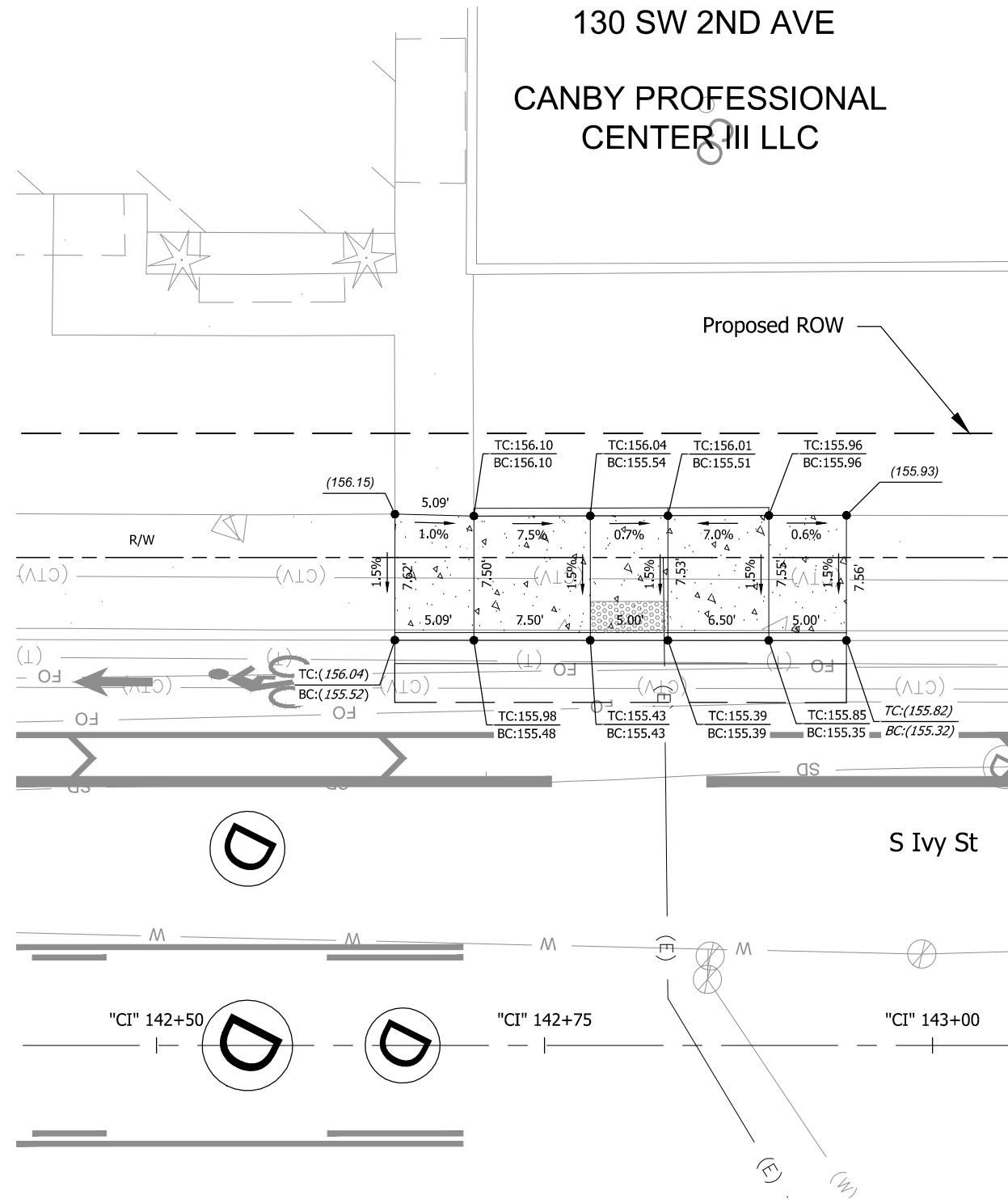
DATE: December 2023 PROJECT NO.: CI-300317309

NO.	DATE:	REVISIONS

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

Sheet No. BC28

Plot Stamp: 1/15/2024 11:46:07 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BC-NORTH CURB RAMP DETAILS.dwg



130 SW 2ND AVE
 CANBY PROFESSIONAL
 CENTER III LLC

Proposed ROW

S Ivy St

"CI" 142+50

"CI" 142+75

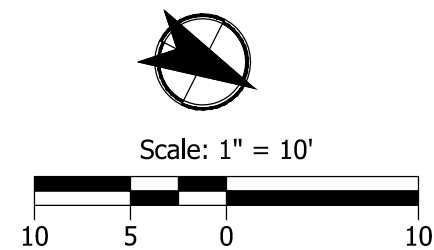
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 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

CURB RAMP DETAILS

S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045



DIRECTOR

DAN JOHNSON

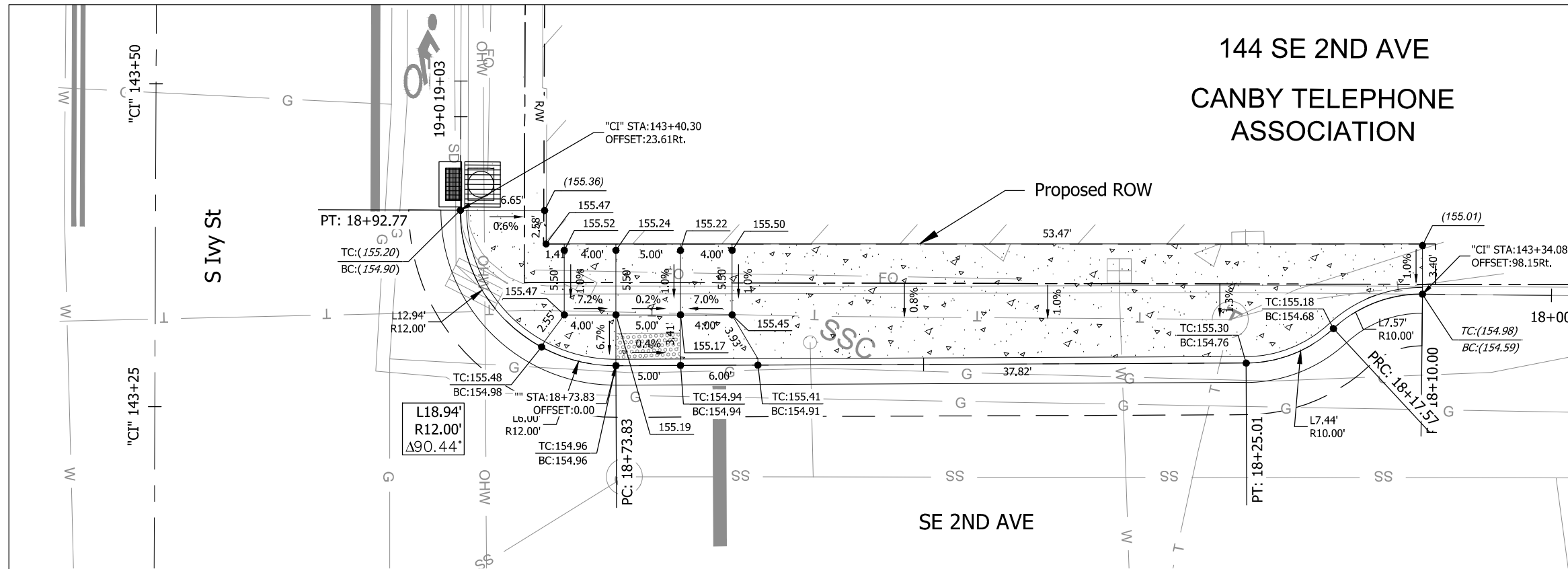
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

NO. DATE:

Sheet No.
 BC29

Plot Stamp: 1/15/2024 11:46:22 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BC-NORTH CURB RAMP DETAILS.dwg



ABBREVIATION
 TC = Top of Curb Elevation
 BC = Bottom of Curb Elevation
 FL = Flow Line Elevation
 (XXX.XX) = Match Extg. Grade

CURB RAMP DETAILS
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

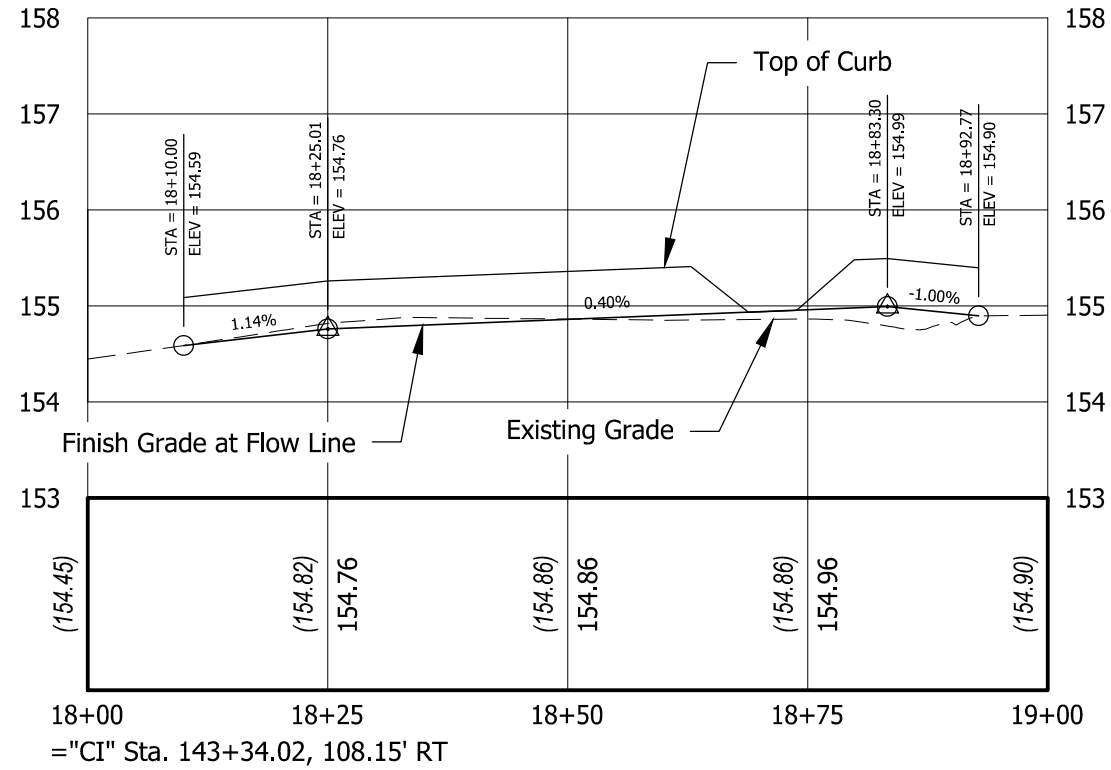
CLACKAMAS COUNTY
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REVISIONS		
Sheet No.	BC30	

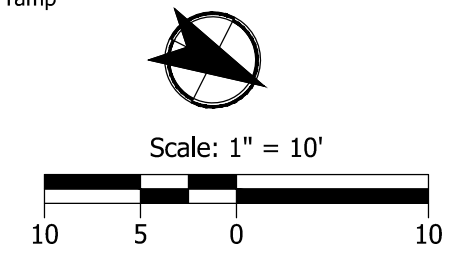
SE 2ND AVE

GENERAL NOTES

- Slopes hold over elevations. Contractor shall take all necessary field measurements to verify plan design meets ADA compliance and notify the engineer if the ramps cannot be constructed as shown. Refer to specification section 00759 for full requirements.
- See ODOT std. Dwg. RD 902, RD904, &RD920 for curb ramp construction.
- Contractor shall keep the concrete structure free from contact, strain, and public traffic for at least 7 calendar days or longer as directed according to standard specification 00759.51.
- Contractor shall notify Clackamas County once ramps are completed for a post ramp construction inspection.



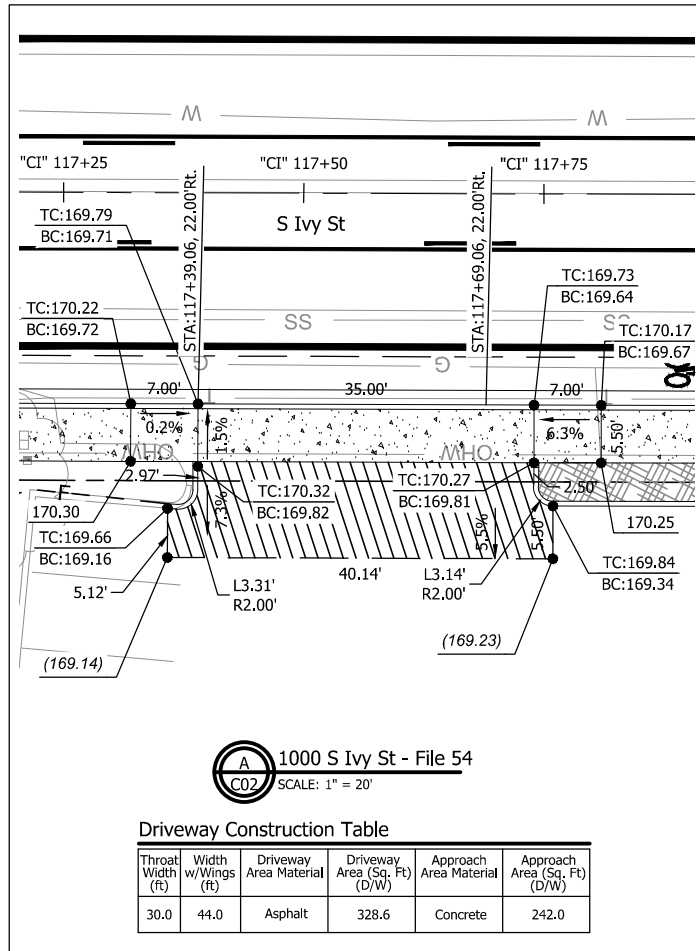
CURB RETURN PROFILE
 Horizontal Scale: 1"=20'
 Vertical Scale: 1"=2'



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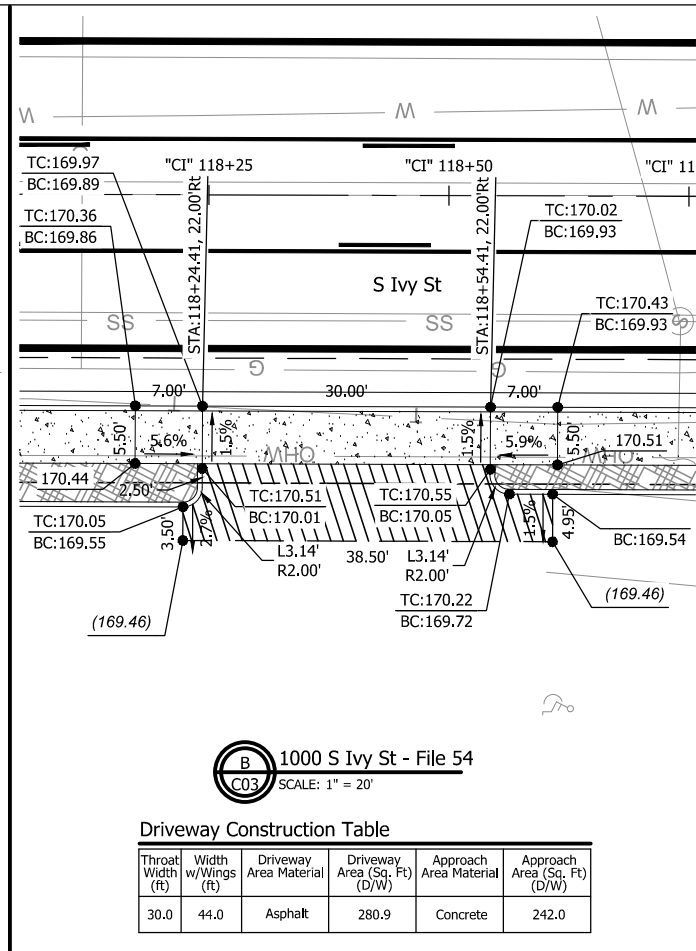
REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

Plot Stamp: 1/15/2024 11:47:11 AM - Caleb Cox
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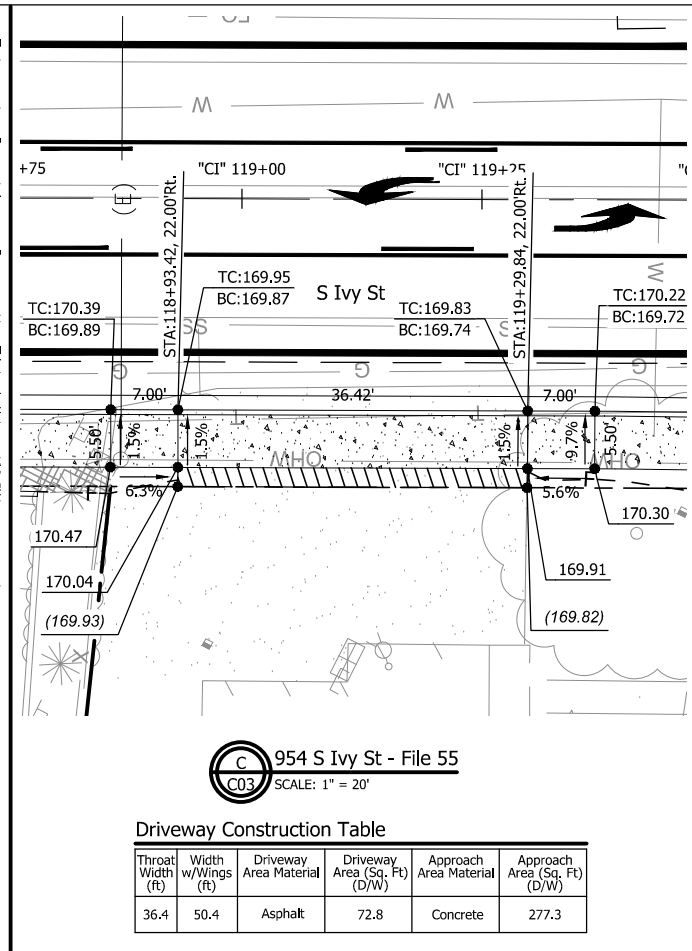
Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
30.0	44.0	Asphalt	328.6	Concrete	242.0



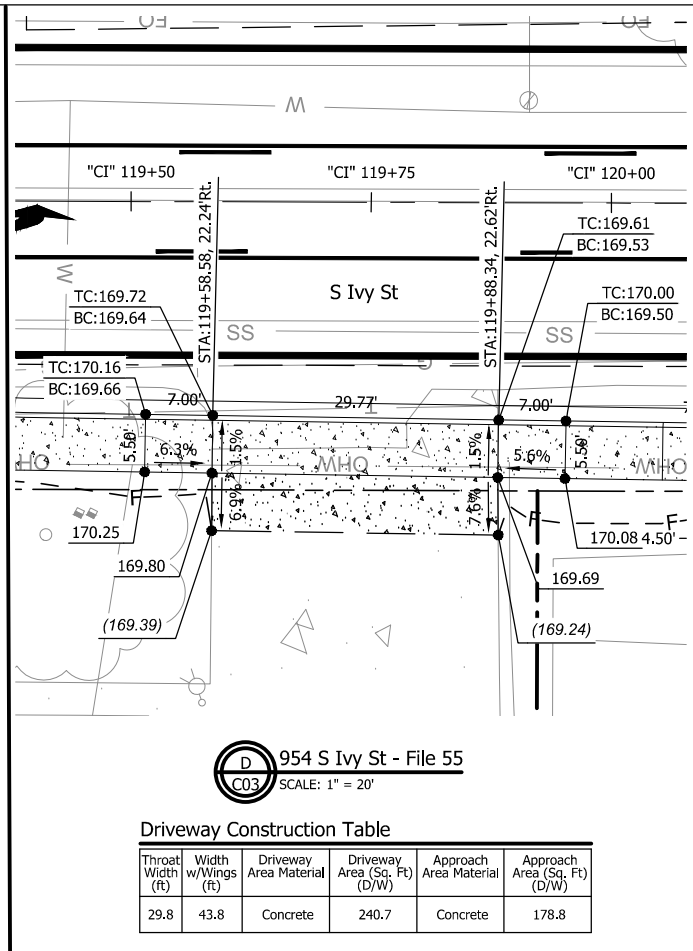
Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
30.0	44.0	Asphalt	280.9	Concrete	242.0



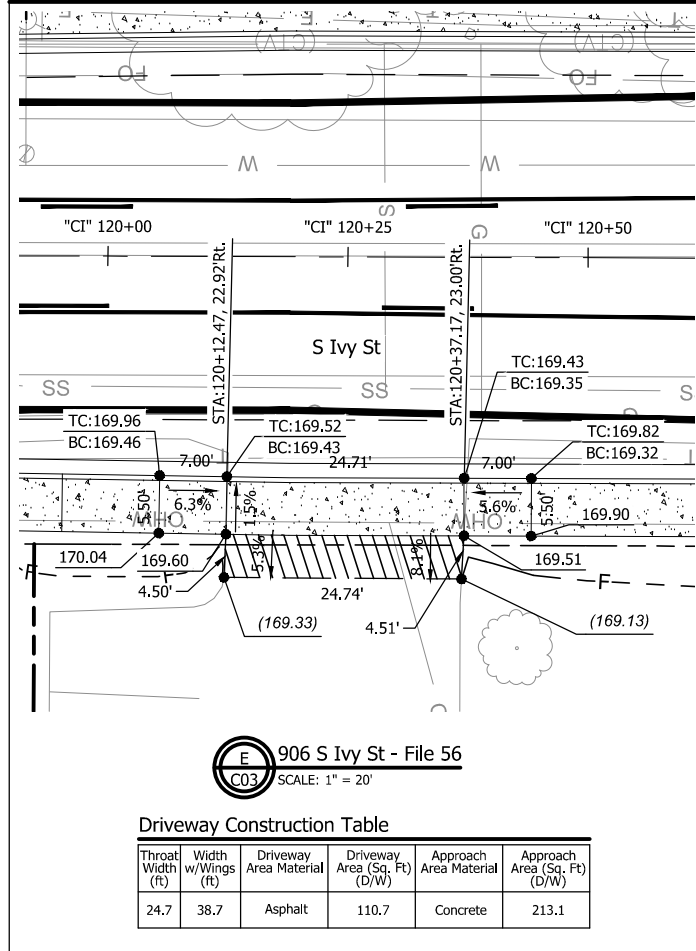
Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
36.4	50.4	Asphalt	72.8	Concrete	277.3



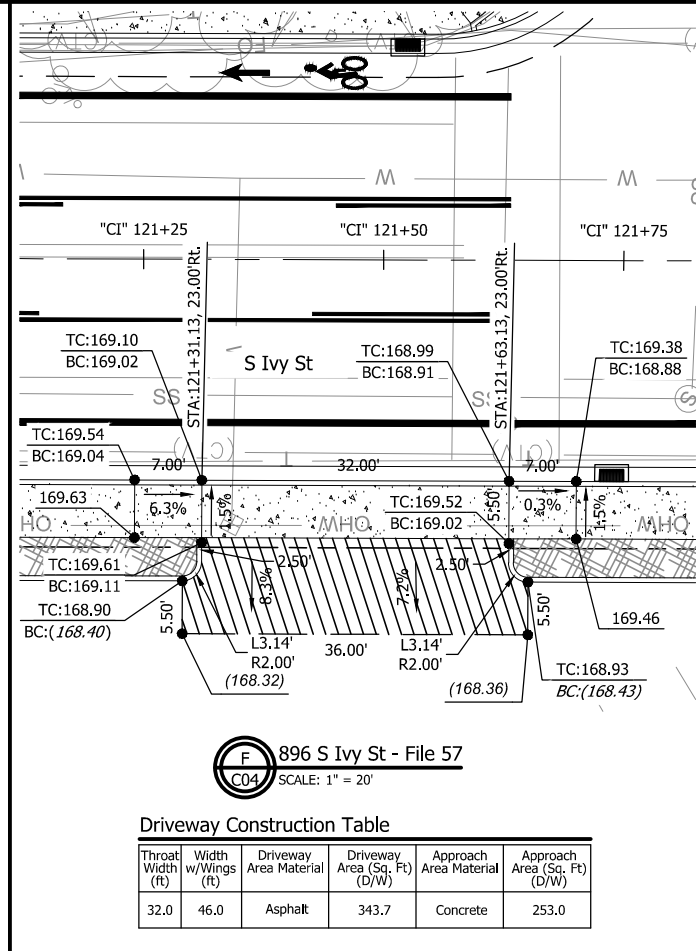
Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
29.8	43.8	Concrete	240.7	Concrete	178.8



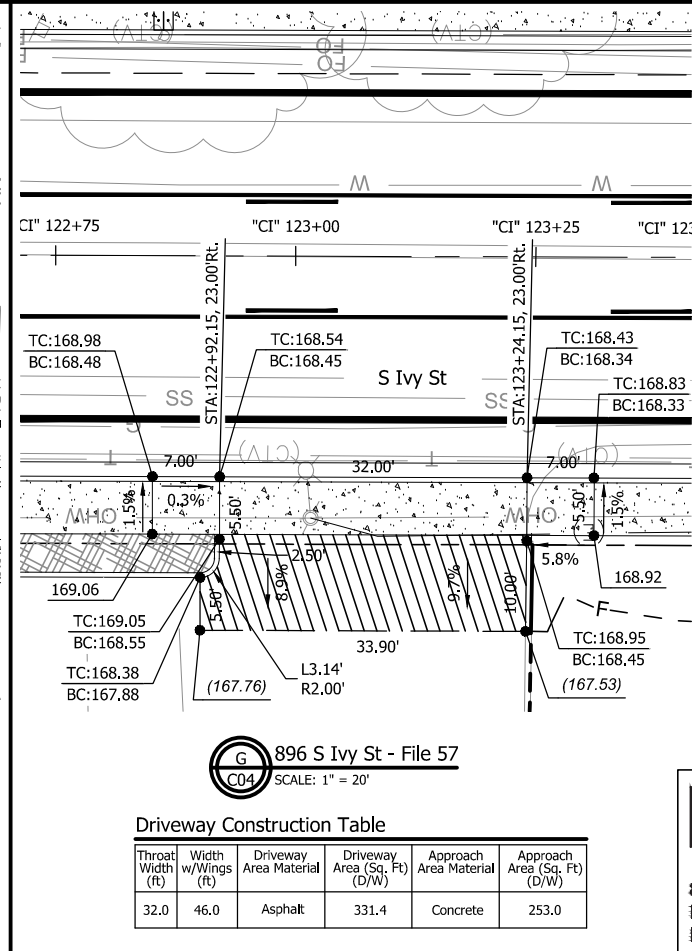
Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
24.7	38.7	Asphalt	110.7	Concrete	213.1



Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
32.0	46.0	Asphalt	343.7	Concrete	253.0

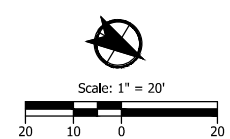


Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
32.0	46.0	Asphalt	331.4	Concrete	253.0

- Asphalt
- Concrete
- Gravel
- Sawcut Line
- Std. Curb

ABBREVIATION
 BC = Bottom of Curb Elevation
 TC = Top of Curb Elevation
 (XXX.XX) = Match Extg. Grade
 XXX.XX = Finish Grade
 LXX'X" = Line Length
 CX'XX" = Curve Length



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DRIVEWAY GRADING DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

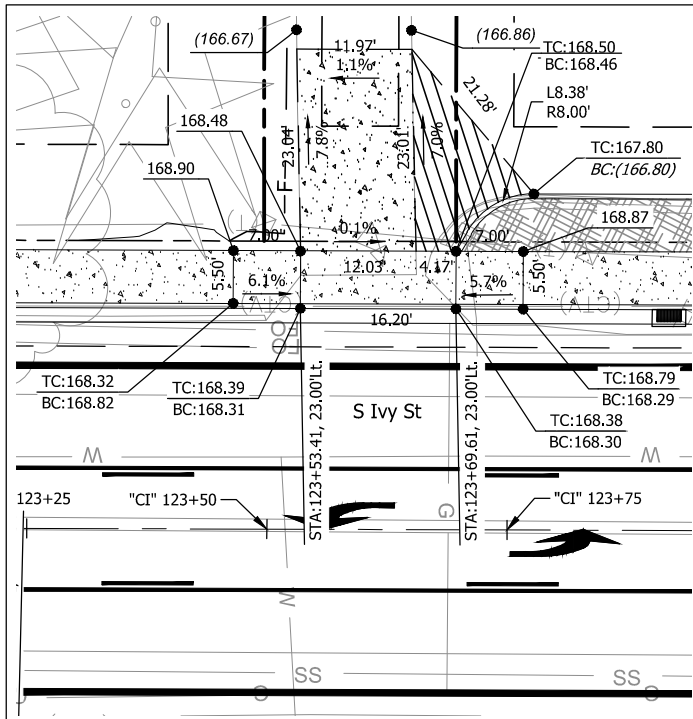
DESIGNED BY: C. COX
DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS

REVISIONS

NO.	DATE:	DESCRIPTION:

Sheet No. **BD01**

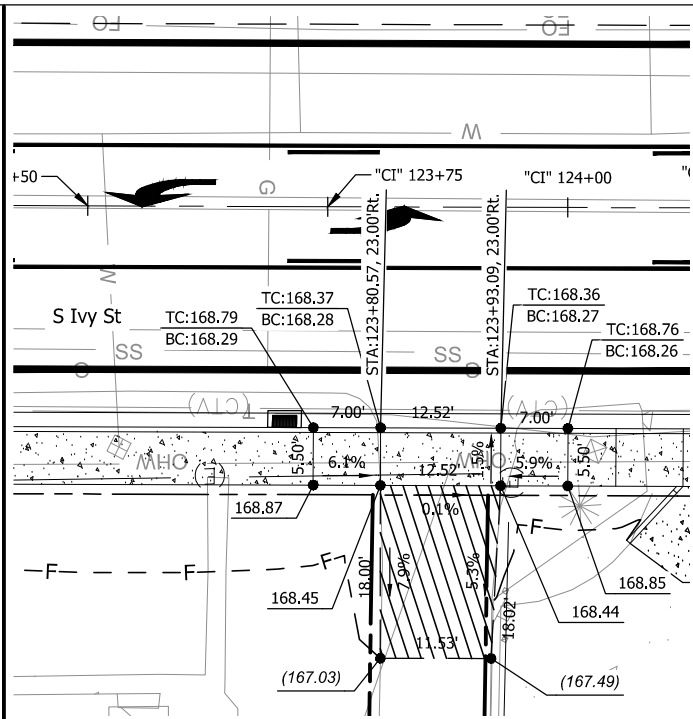
Plot Stamp: 1/15/2024 11:47:32 AM - Caleb Cox
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H 797 S Ivy St - File 33
 C04 SCALE: 1" = 20'

Driveway Construction Table

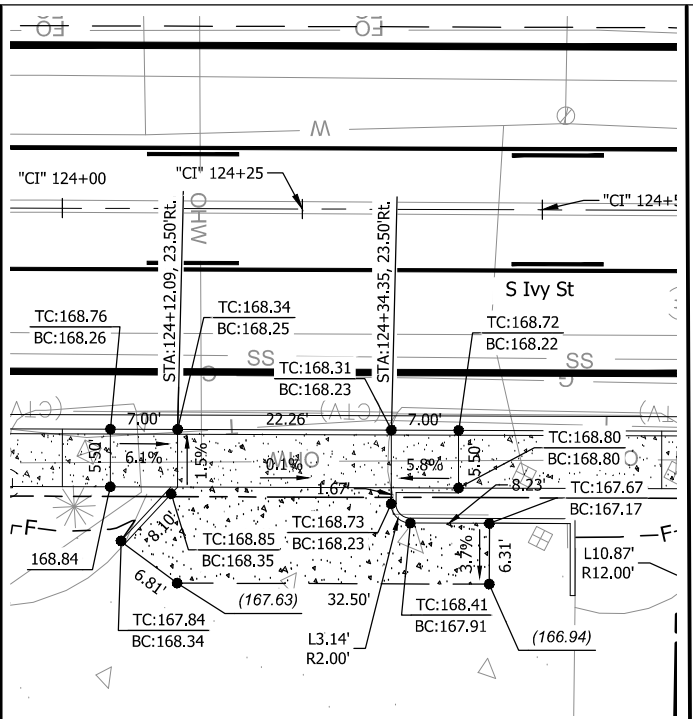
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
16.2	30.2	Concrete	275.9	Concrete	166.1
		Asphalt	144.7		



I 804 S Ivy St - File 59
 C04 SCALE: 1" = 20'

Driveway Construction Table

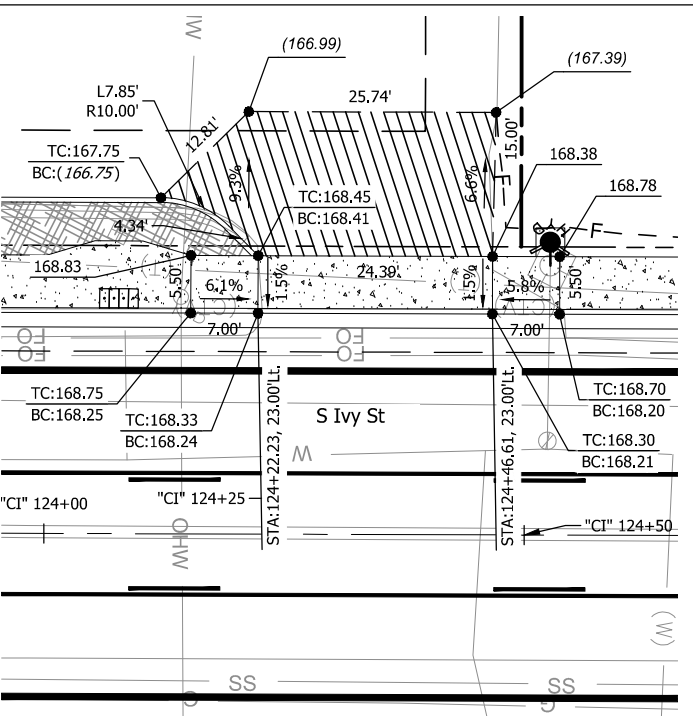
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
12.5	26.5	Asphalt	216.5	Concrete	145.9



J 790 S Ivy St - File 60
 C04 SCALE: 1" = 20'

Driveway Construction Table

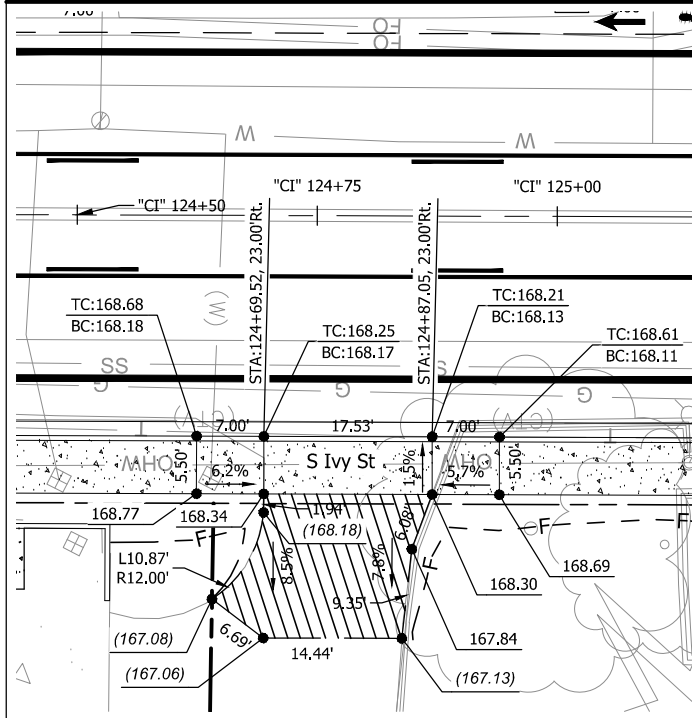
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
22.3	36.3	Concrete	315.7	Concrete	203.0



K 793 S Ivy St - File 32
 C04 SCALE: 1" = 20'

Driveway Construction Table

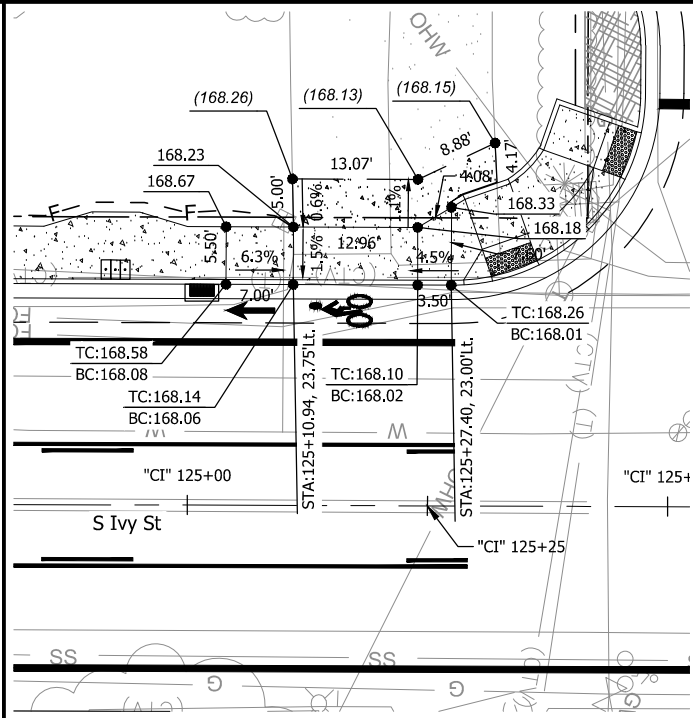
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
24.4	38.4	Asphalt	438.7	Concrete	211.1



L 780 S Ivy St - File 61
 C05 SCALE: 1" = 20'

Driveway Construction Table

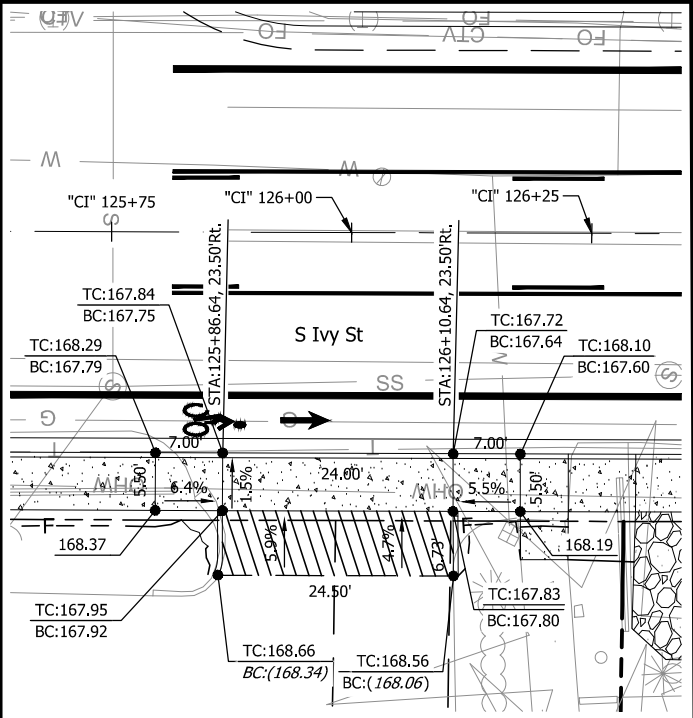
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
17.5	31.5	Asphalt	259.3	Concrete	173.4



M 775 S Ivy St - File 31
 C05 SCALE: 1" = 20'

Driveway Construction Table

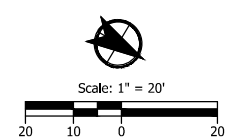
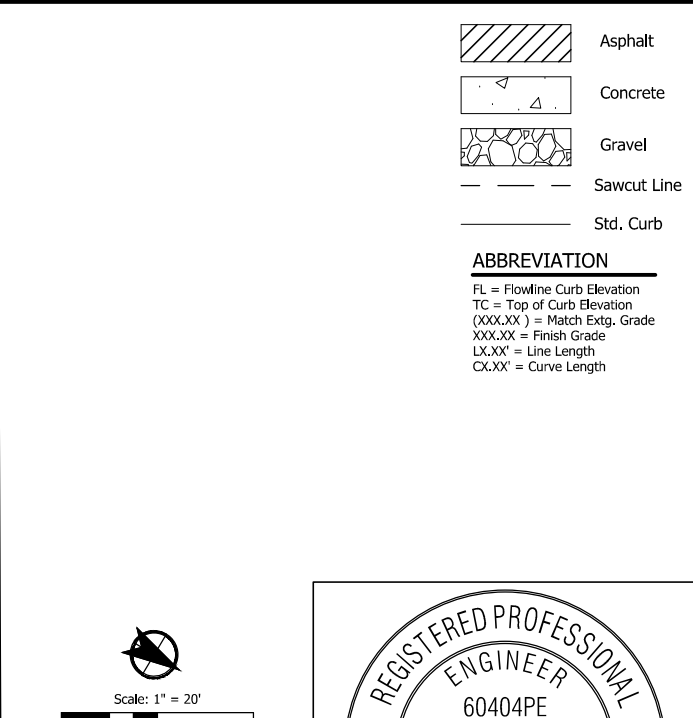
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
13.0	23.5	Concrete	100.2	Concrete	132.2



N 748 S Ivy St - File 62
 C05 SCALE: 1" = 20'

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
24.5	38.5	Asphalt	162.1	Concrete	209.0



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DRIVEWAY GRADING DETAILS
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
DAN JOHNSON
 DIRECTOR

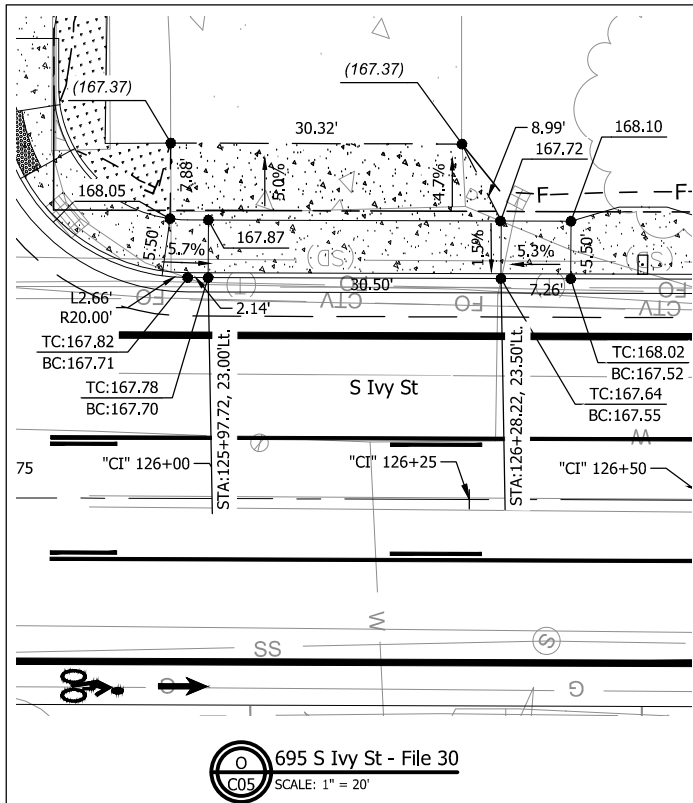
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

NO.	DATE	DESCRIPTION

Sheet No. **BD02**

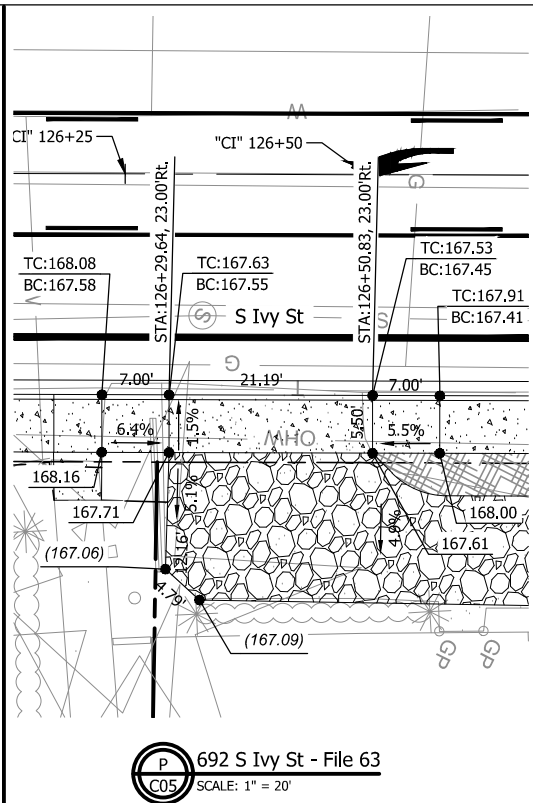
Plot Stamp: 1/15/2024 11:47:52 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BD-DRIVEWAY GRADING DETAILS.dwg



695 S Ivy St - File 30
 SCALE: 1" = 20'

Driveway Construction Table

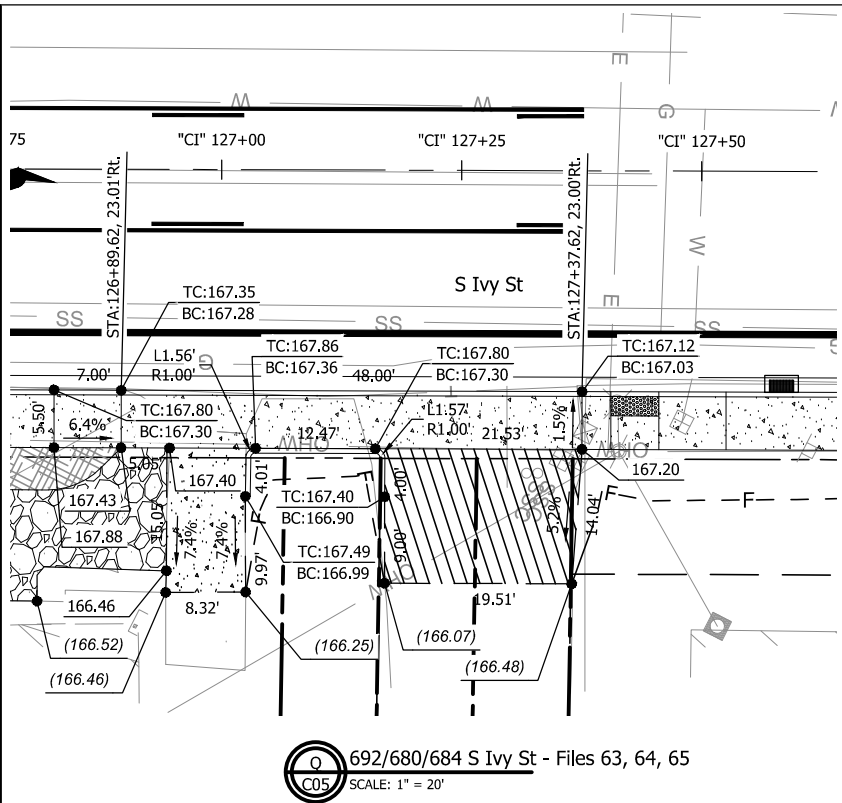
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
26.8	38.6	Concrete	209.7	Concrete	244.3



692 S Ivy St - File 63
 SCALE: 1" = 20'

Driveway Construction Table

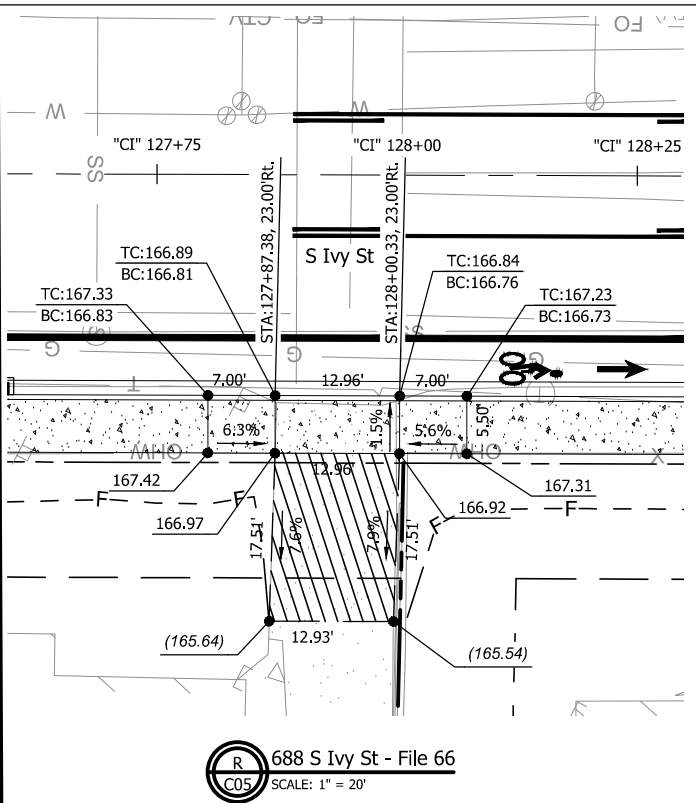
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
21.2	35.2	Gravel	820.8	Concrete	193.5



692/680/684 S Ivy St - Files 63, 64, 65
 SCALE: 1" = 20'

Driveway Construction Table

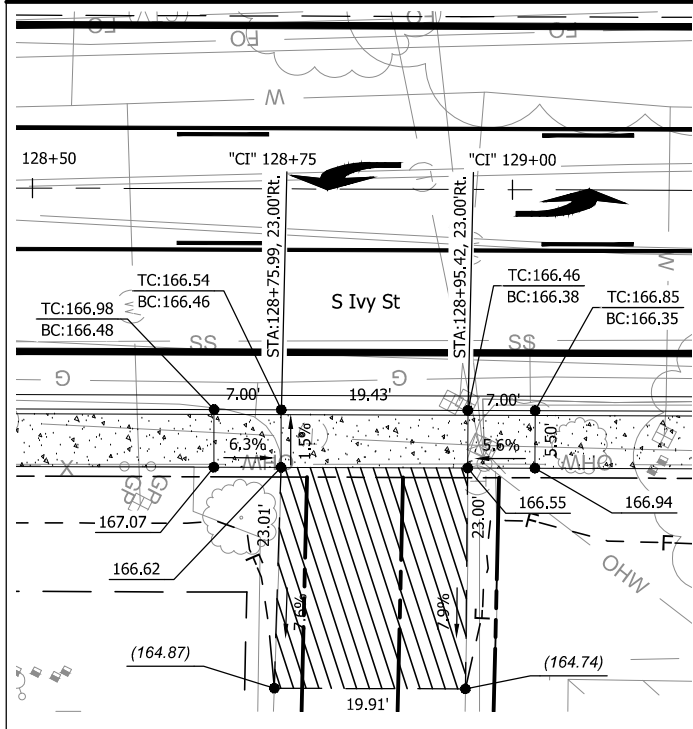
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
48.0	58.0	Asphalt	280.5	Concrete	319.0
		Concrete	124.1		



688 S Ivy St - File 66
 SCALE: 1" = 20'

Driveway Construction Table

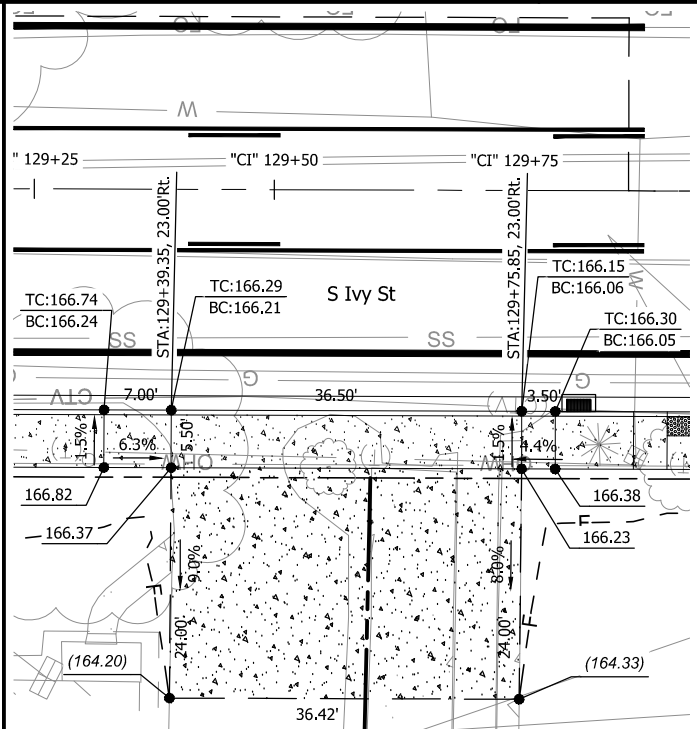
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
13.0	27.0	Asphalt	226.5	Concrete	148.3



662/638 S Ivy St - Files 68, 69
 SCALE: 1" = 20'

Driveway Construction Table

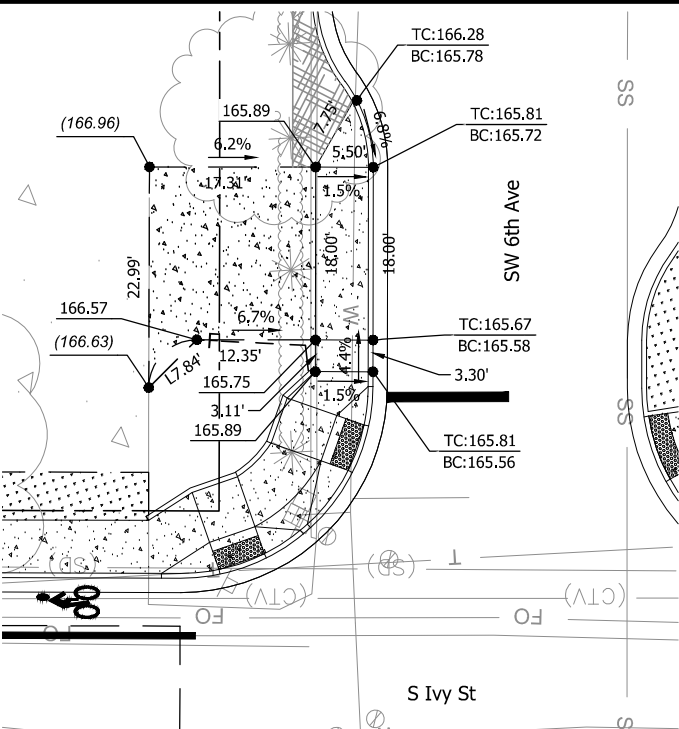
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
19.4	33.4	Asphalt	452.4	Concrete	183.9



630/610 S Ivy St - File 70, 71
 SCALE: 1" = 20'

Driveway Construction Table

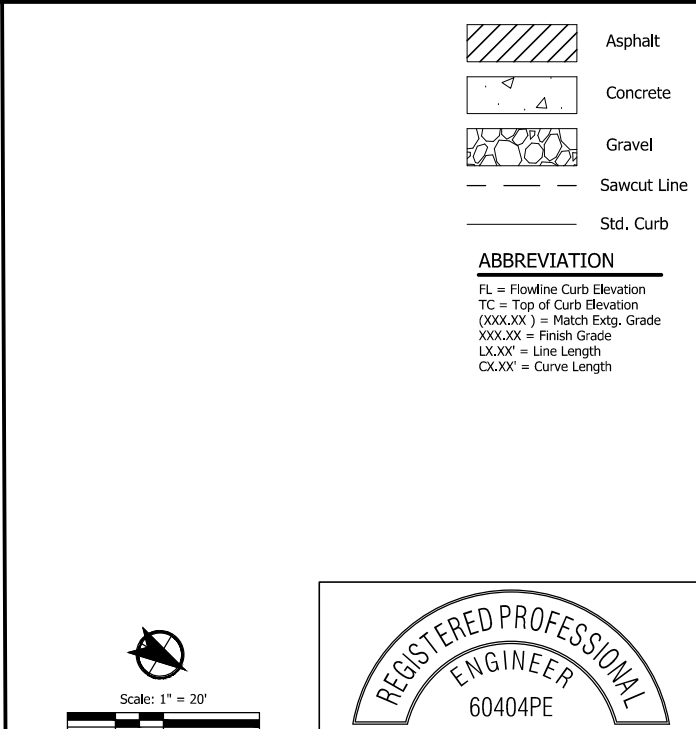
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
36.5	47.0	Concrete	875.1	Concrete	258.5



625 S Ivy St - File 27
 SCALE: 1" = 20'

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
18.0	28.6	Concrete	317.2	Concrete	137.6



Scale: 1" = 20'

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- Asphalt
- Concrete
- Gravel
- Sawcut Line
- Std. Curb

ABBREVIATION
 FL = Flowline Curb Elevation
 TC = Top of Curb Elevation
 (XXX.XX) = Match Extg. Grade
 XXX.XX = Finish Grade
 LXX'X' = Line Length
 CX'X' = Curve Length

DRIVEWAY GRADING DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
 DAN JOHNSON

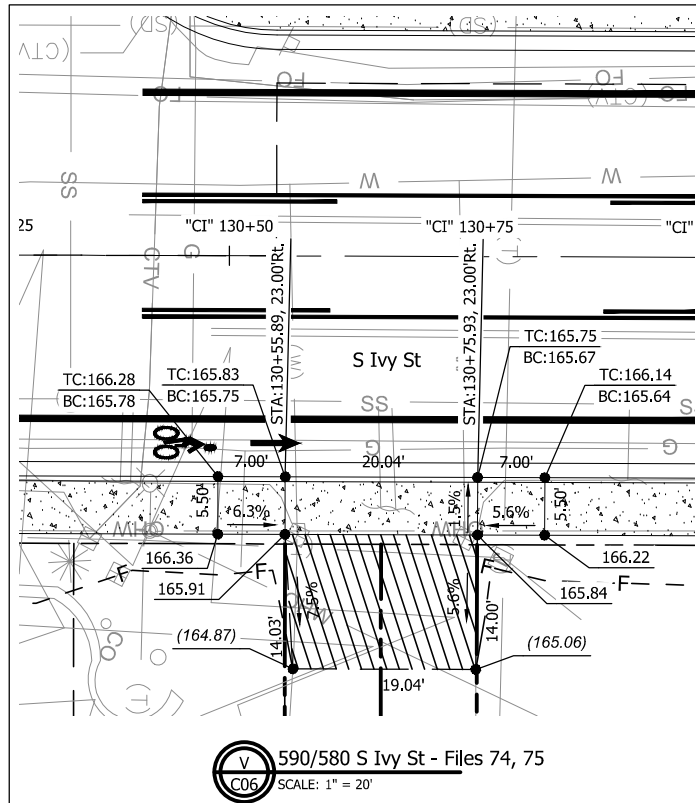
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

NO.	DATE:	DESCRIPTION:

Sheet No. **BD03**

Plot Stamp: 1/15/2024 11:48:10 AM - Caleb Cox
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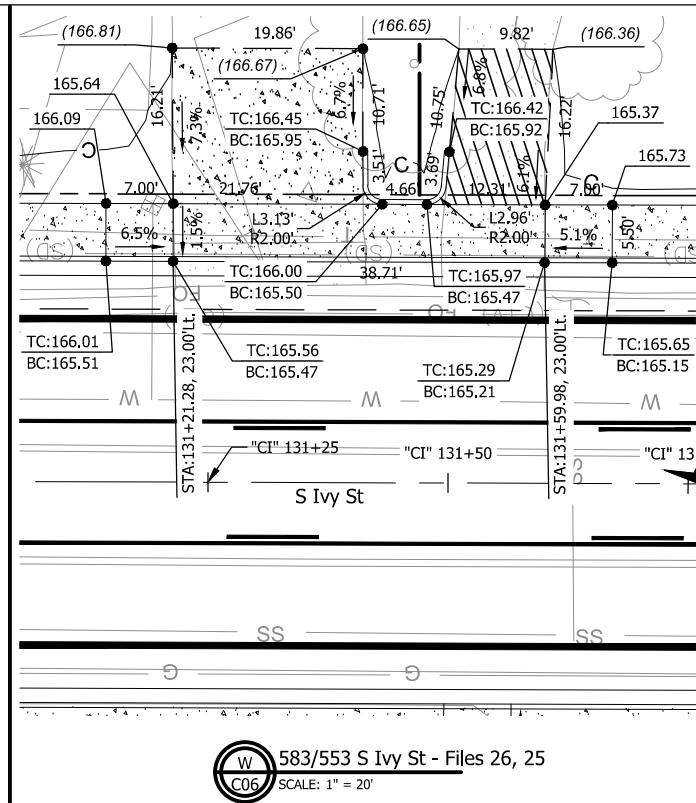


590/580 S Ivy St - Files 74, 75
 SCALE: 1" = 20'

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
20.0	34.0	Asphalt	273.6	Concrete W/ Rebar*	187.2

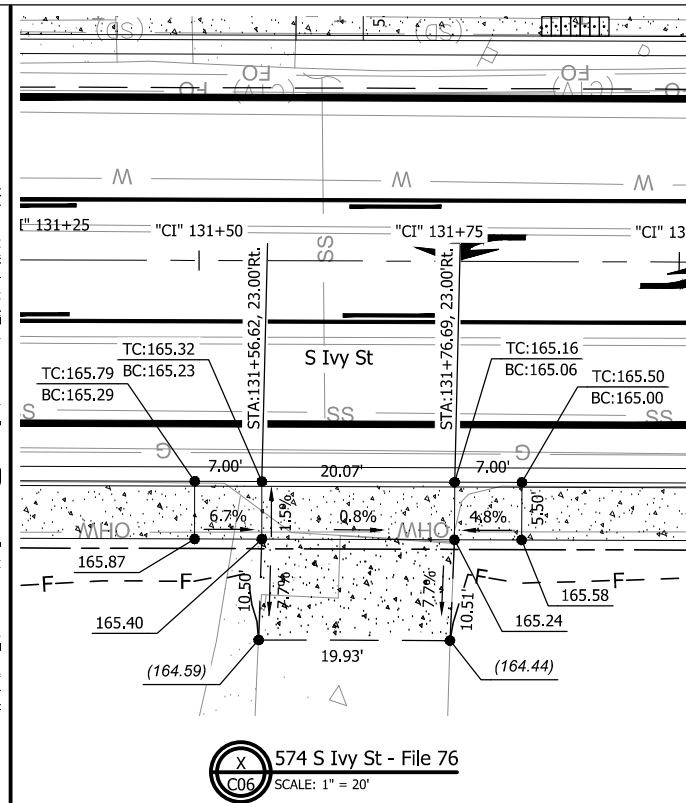
*Const. Commercial Driveway Per Clack. Co. Std. Dwg. D600 Note 8



583/553 S Ivy St - Files 26, 25
 SCALE: 1" = 20'

Driveway Construction Table

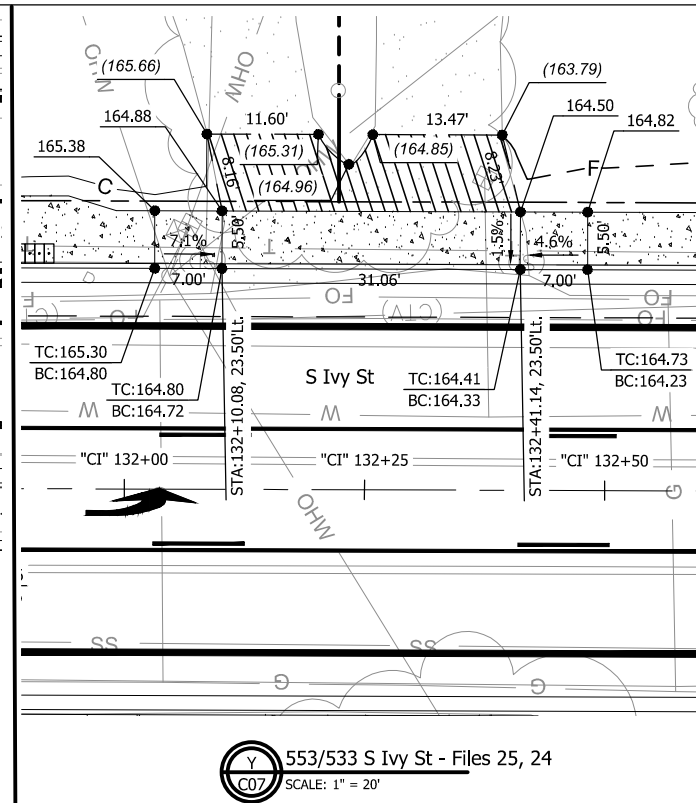
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
38.7	52.7	Concrete	322.0	Concrete	290.0
		Asphalt	165.2		



574 S Ivy St - File 76
 SCALE: 1" = 20'

Driveway Construction Table

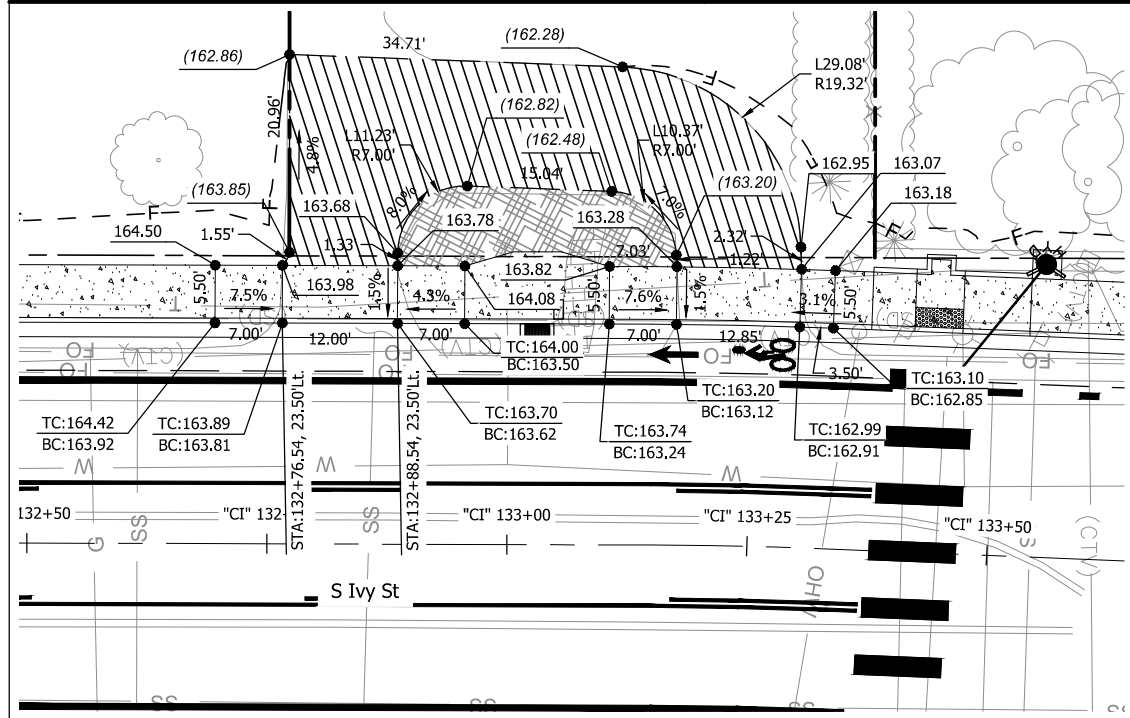
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
20.1	34.1	Concrete	209.9	Concrete	187.4



553/533 S Ivy St - Files 25, 24
 SCALE: 1" = 20'

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
38.0	45.0	Asphalt	235.8	Concrete	247.8



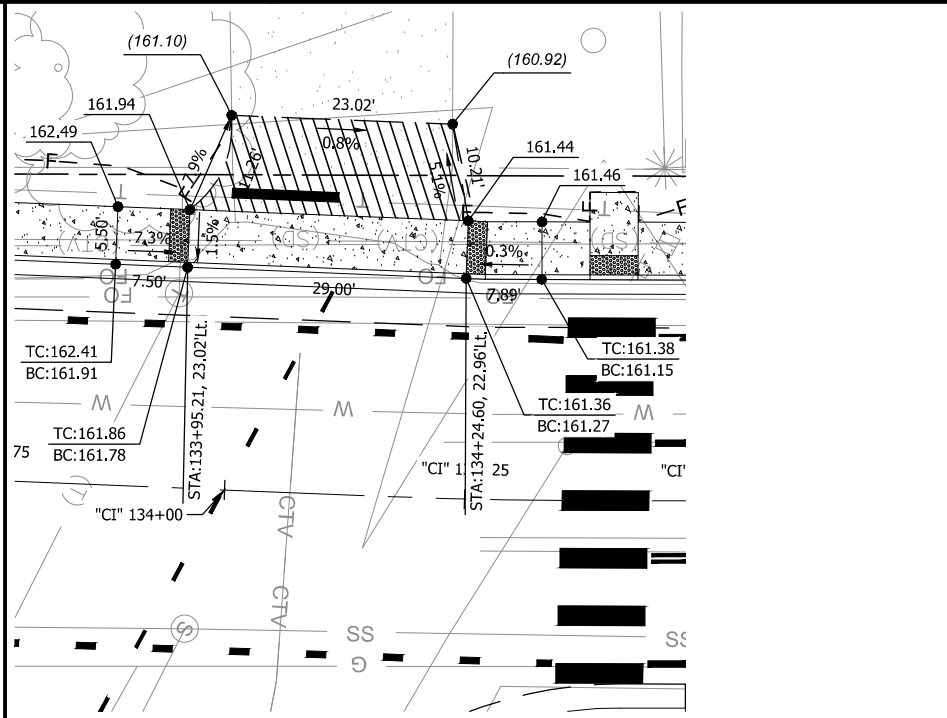
507 S Ivy St - File 23
 SCALE: 1" = 20'

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
12.0	26.0	Asphalt	837.6	Concrete	143.02

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
12.9	23.4	Concrete	129.0



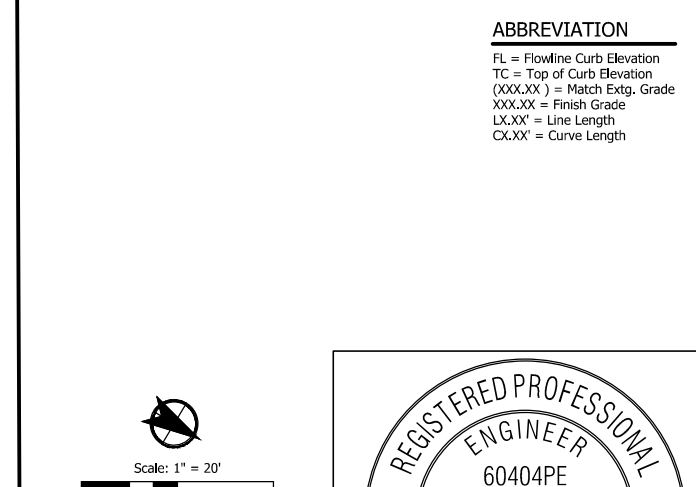
485 S Ivy St - File 22
 SCALE: 1" = 20'

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
29.0	44.4	Asphalt	249.6	Concrete	243.5



ABBREVIATION
 FL = Flowline Curb Elevation
 TC = Top of Curb Elevation
 (XXX.XX) = Match Extg. Grade
 XXX.XX = Finish Grade
 Lx.XX = Line Length
 Cx.XX = Curve Length



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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

DRIVEWAY GRADING DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
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 150 BEAVERCREEK ROAD
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DIRECTOR
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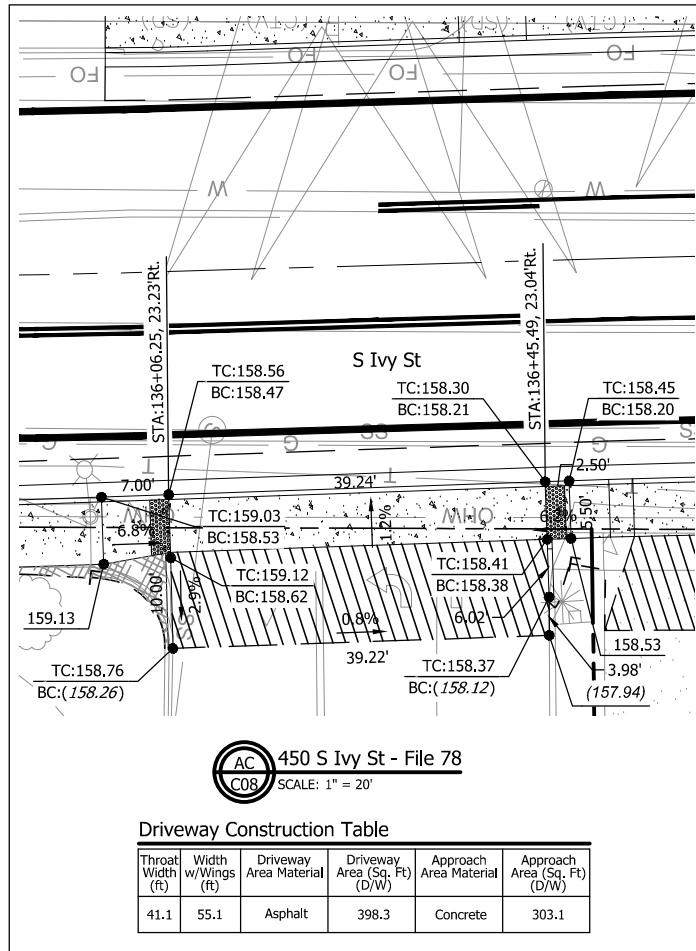
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

NO.	DATE	DESCRIPTION

Sheet No. **BD04**

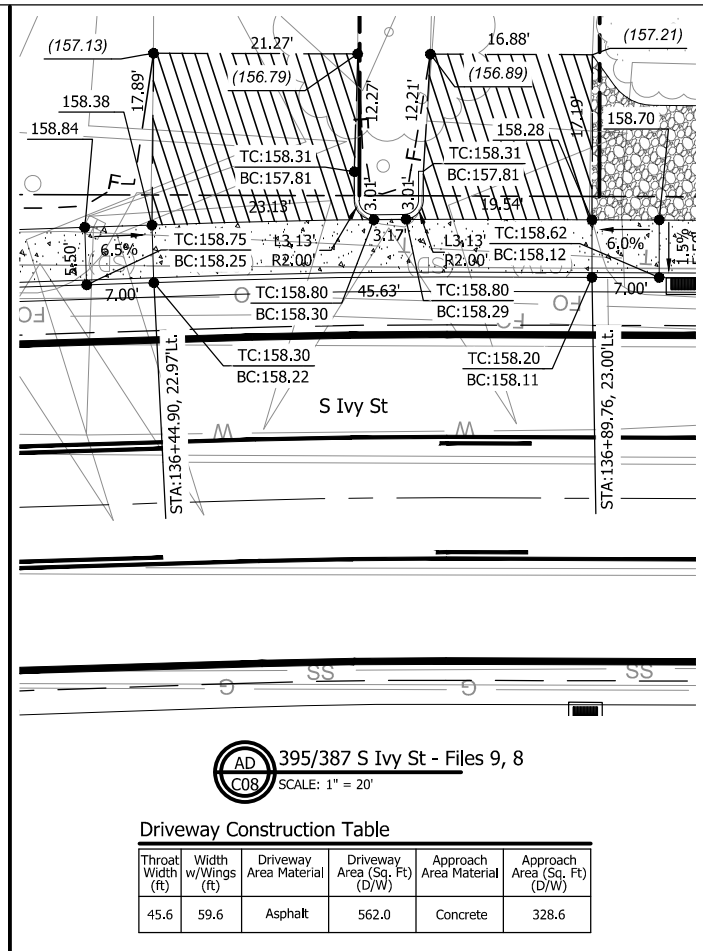
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 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BD-DRIVEWAY GRADING DETAILS.dwg



AC
C08 450 S Ivy St - File 78
 SCALE: 1" = 20'

Driveway Construction Table

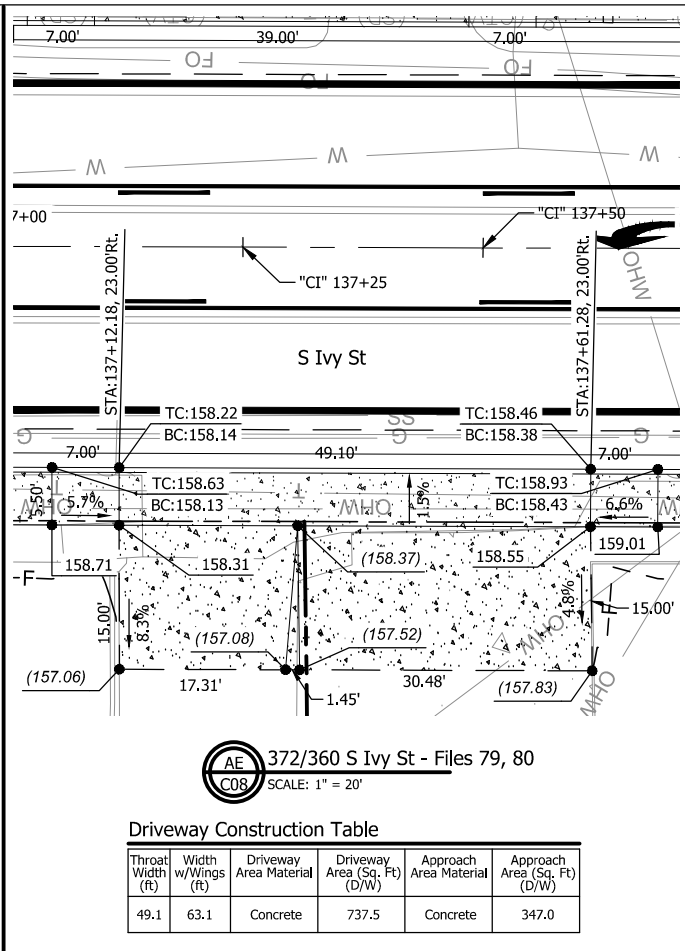
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
41.1	55.1	Asphalt	398.3	Concrete	303.1



AD
C08 395/387 S Ivy St - Files 9, 8
 SCALE: 1" = 20'

Driveway Construction Table

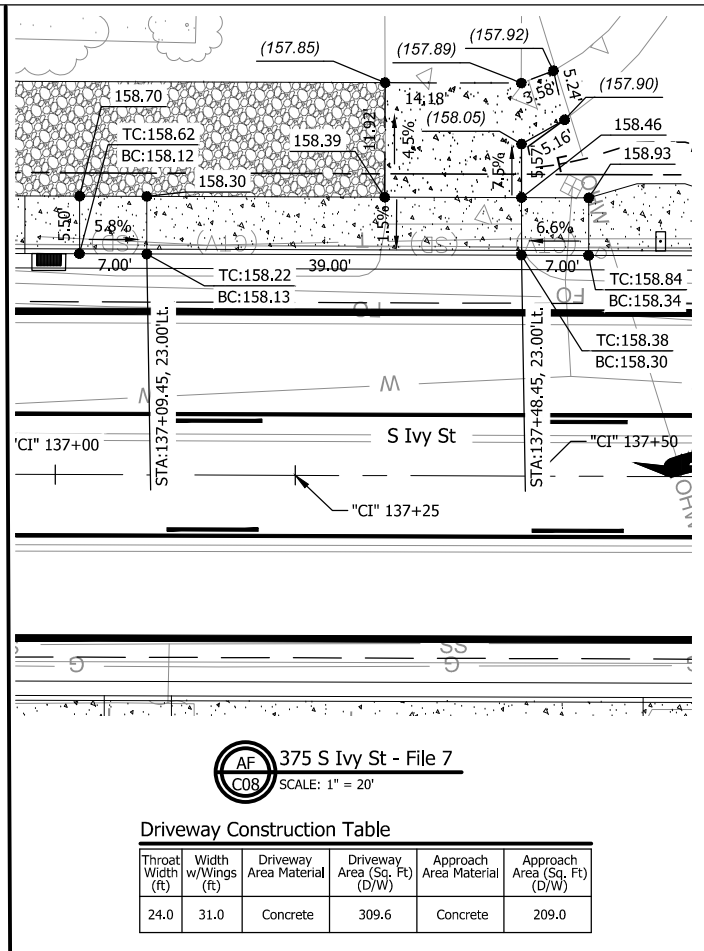
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
45.6	59.6	Asphalt	562.0	Concrete	328.6



AE
C08 372/360 S Ivy St - Files 79, 80
 SCALE: 1" = 20'

Driveway Construction Table

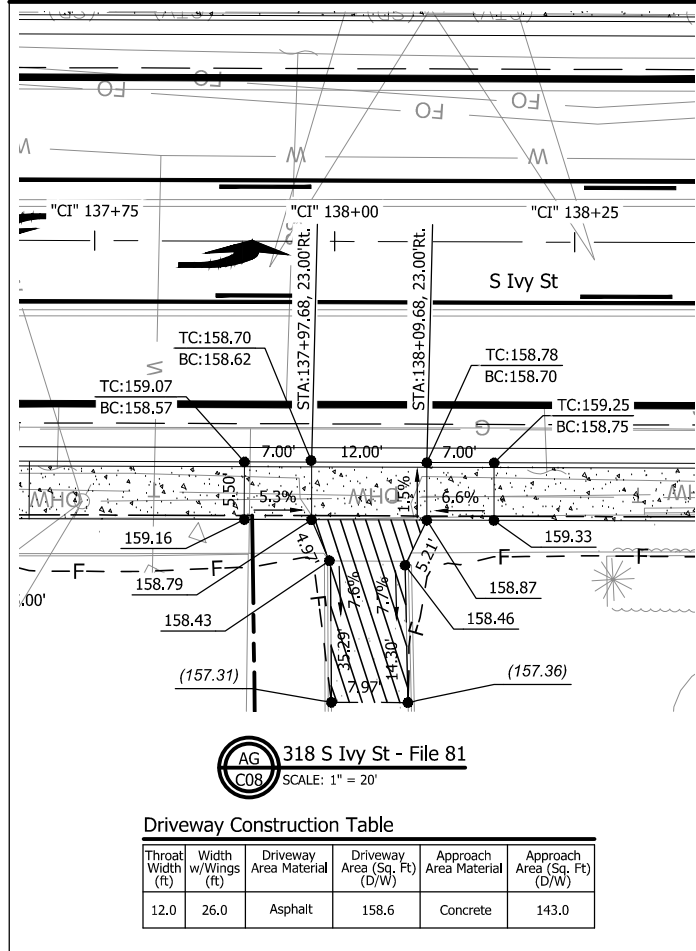
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
49.1	63.1	Concrete	737.5	Concrete	347.0



AF
C08 375 S Ivy St - File 7
 SCALE: 1" = 20'

Driveway Construction Table

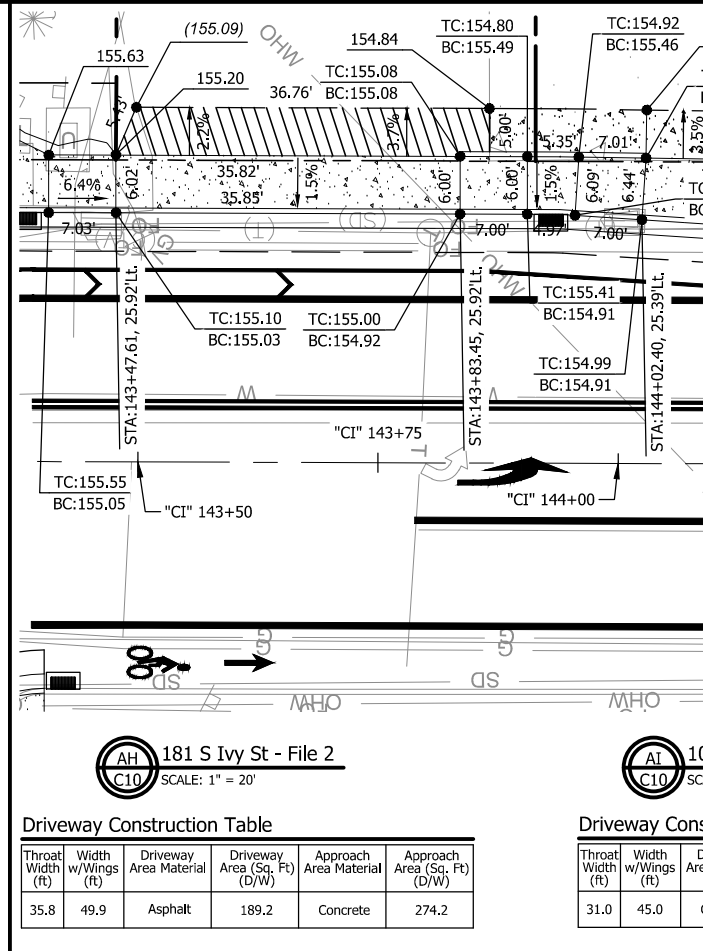
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
24.0	31.0	Concrete	309.6	Concrete	209.0



AG
C08 318 S Ivy St - File 81
 SCALE: 1" = 20'

Driveway Construction Table

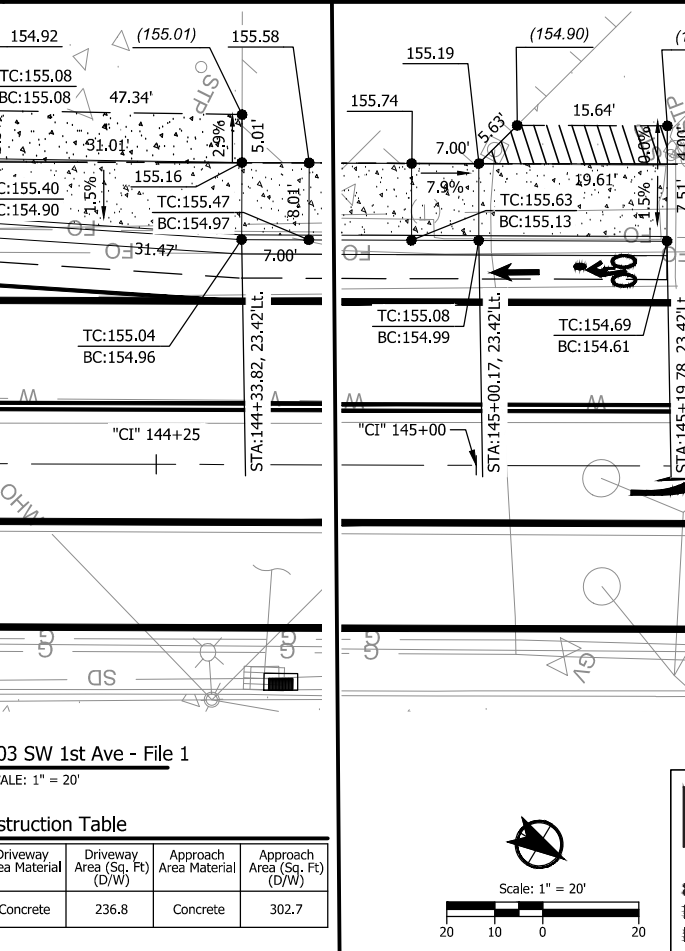
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
12.0	26.0	Asphalt	158.6	Concrete	143.0



AH
C10 181 S Ivy St - File 2
 SCALE: 1" = 20'

Driveway Construction Table

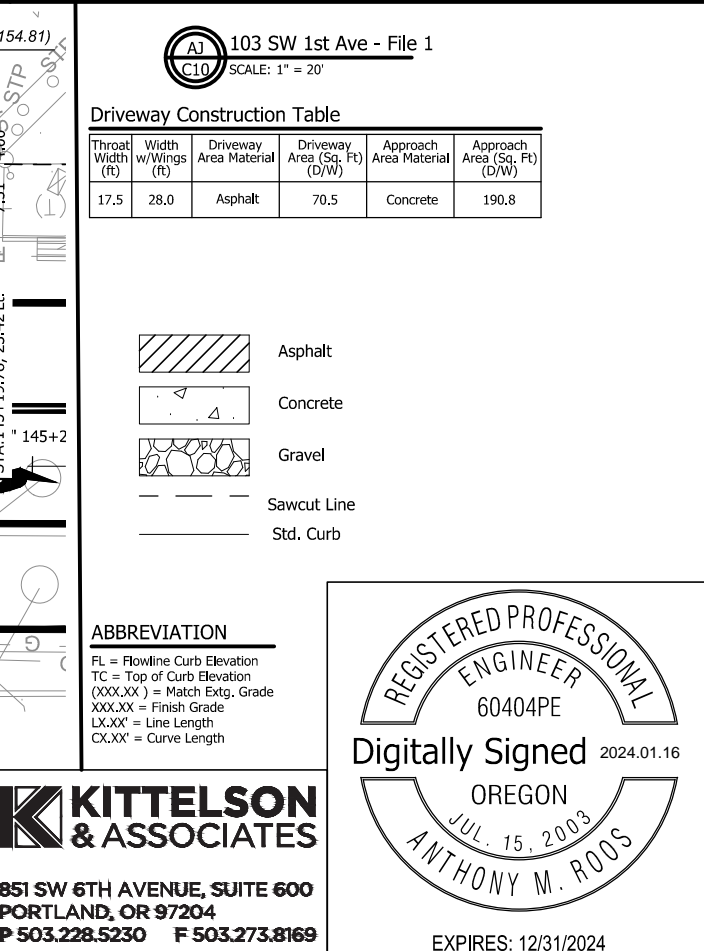
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
35.8	49.9	Asphalt	189.2	Concrete	274.2



AI
C10 103 SW 1st Ave - File 1
 SCALE: 1" = 20'

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
31.0	45.0	Concrete	236.8	Concrete	302.7



AJ
C10 103 SW 1st Ave - File 1
 SCALE: 1" = 20'

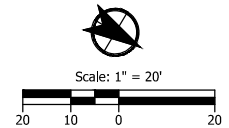
Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
17.5	28.0	Asphalt	70.5	Concrete	190.8

- Asphalt
- Concrete
- Gravel
- Sawcut Line
- Std. Curb

ABBREVIATION

- FL = Flowline Curb Elevation
- TC = Top of Curb Elevation
- (XXX.XX) = Match Extg. Grade
- XXX.XX = Finish Grade
- LX.XX' = Line Length
- CX.XX' = Curve Length



KITTELSON & ASSOCIATES
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DRIVEWAY GRADING DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

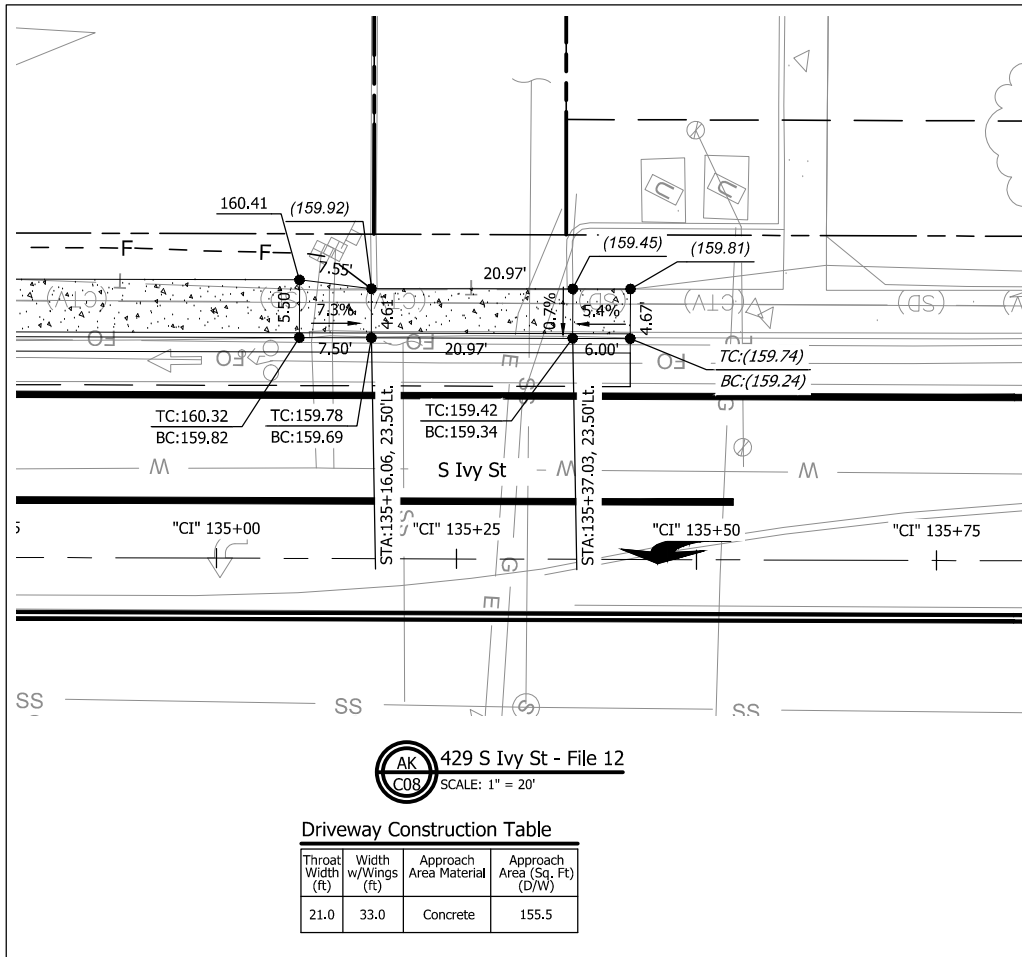
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

NO.	DATE	DESCRIPTION

NO. DATE: Sheet No. **BD05**

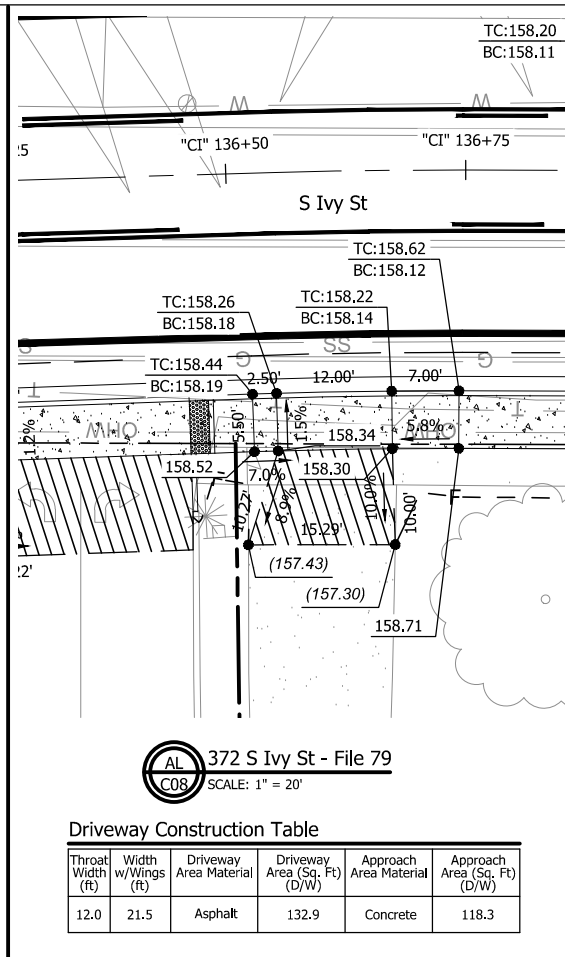
DATE: December 2023 PROJECT NO.: CI-300317309



AK
C08 429 S Ivy St - File 12
 SCALE: 1" = 20'

Driveway Construction Table

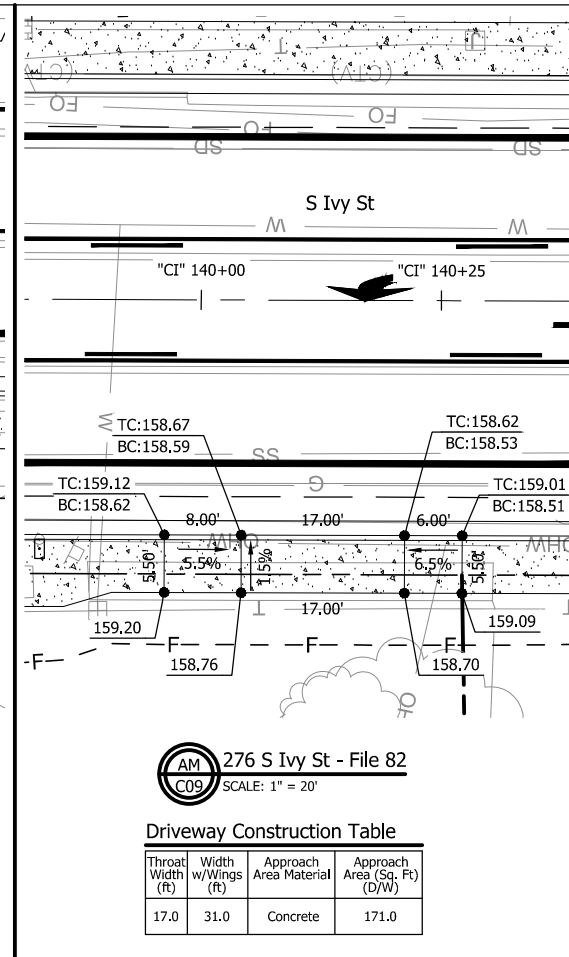
Throat Width (ft)	Width w/Wings (ft)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
21.0	33.0	Concrete	155.5



AL
C08 372 S Ivy St - File 79
 SCALE: 1" = 20'

Driveway Construction Table

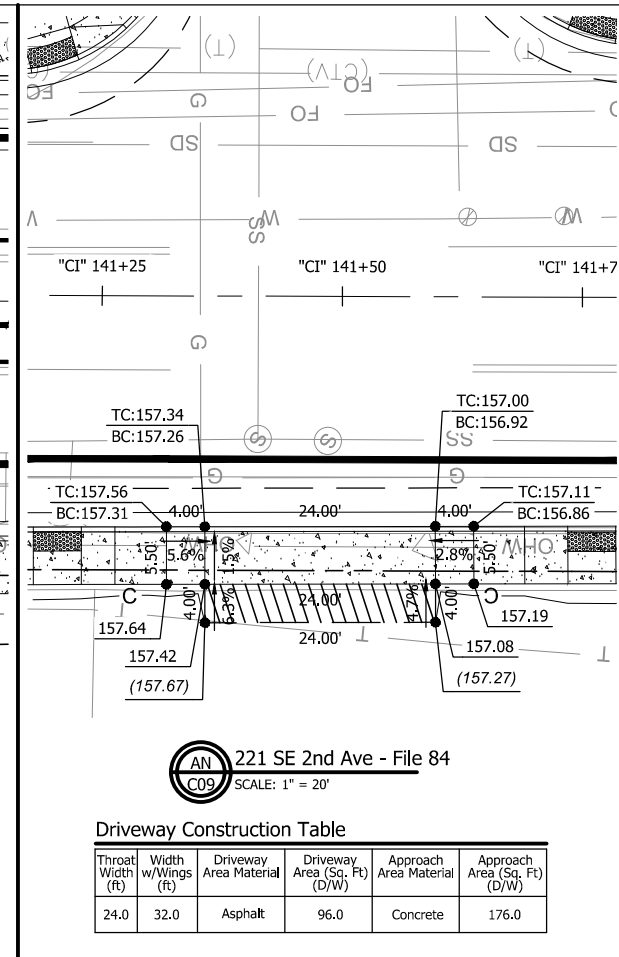
Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
12.0	21.5	Asphalt	132.9	Concrete	118.3



AM
C09 276 S Ivy St - File 82
 SCALE: 1" = 20'

Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
17.0	31.0	Concrete	171.0



AN
C09 221 SE 2nd Ave - File 84
 SCALE: 1" = 20'

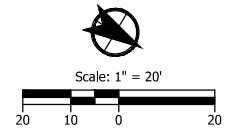
Driveway Construction Table

Throat Width (ft)	Width w/Wings (ft)	Driveway Area Material	Driveway Area (Sq. Ft) (D/W)	Approach Area Material	Approach Area (Sq. Ft) (D/W)
24.0	32.0	Asphalt	96.0	Concrete	176.0

- Asphalt
- Concrete
- Gravel
- Sawcut Line
- Std. Curb

ABBREVIATION

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- (XXX.XX) = Match Extg. Grade
- XXX.XX = Finish Grade
- LX.XX' = Line Length
- CX.XX' = Curve Length



KITTELSON & ASSOCIATES
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 PORTLAND, OR 97204
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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

DRIVENWAY GRADING DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

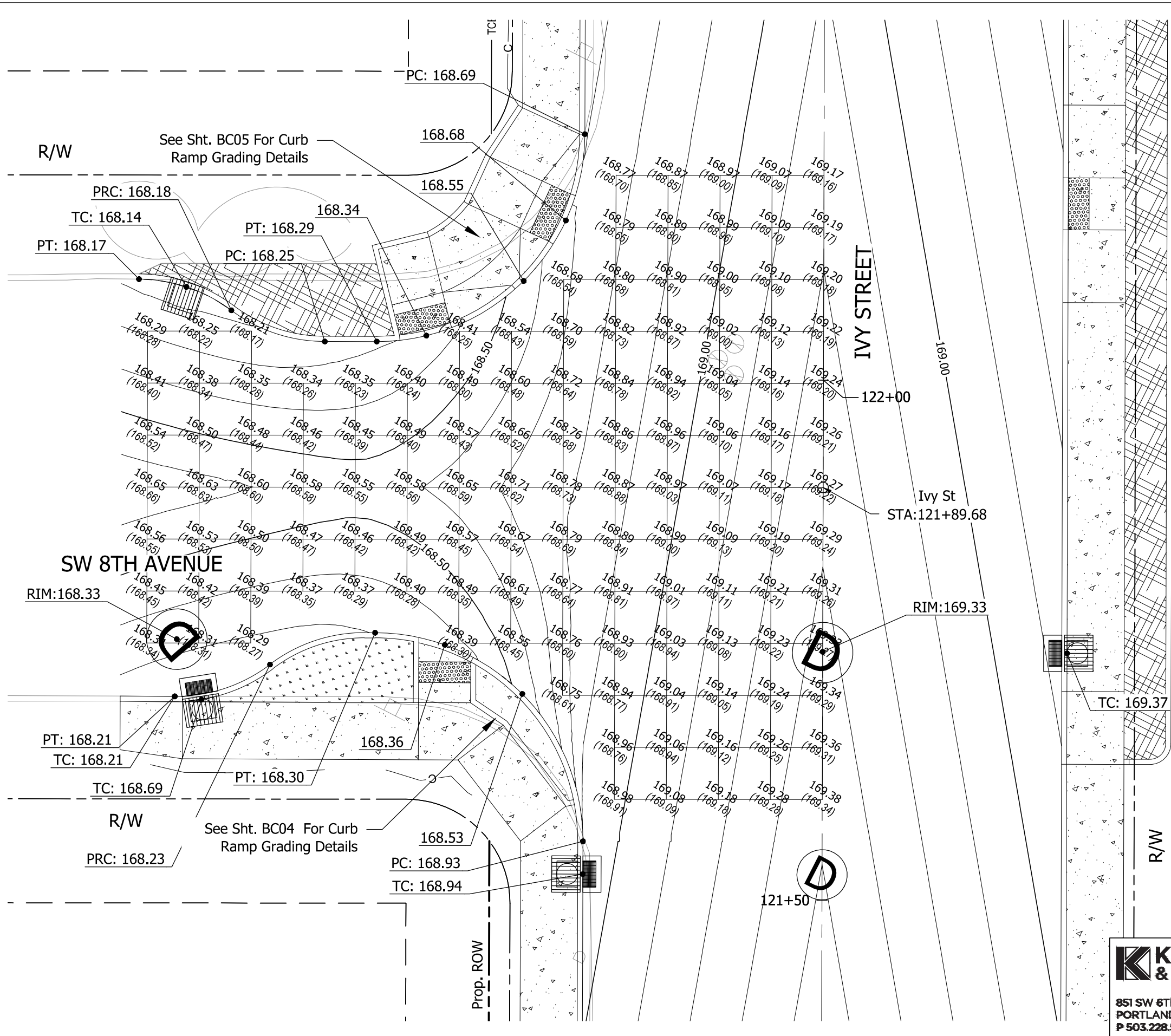
DAN JOHNSON
 DIRECTOR

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

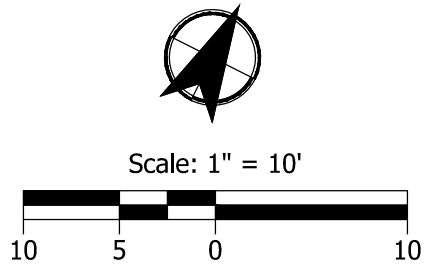
NO.	DATE:	REVISIONS

Sheet No. **BD06**

Plot Stamp: 1/15/2024 11:49:39 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BE-INTERSECTION GRADING DETAILS.dwg



- ### GENERAL NOTES
- Elevations Are Top Of Pavement Finished Grade Unless Otherwise Noted
 - Contours Are Top Of Pavement Finished Grade
 - Grids Are 5' Spacing
 - Extg. Grade Elevations = (XXX.XX)
Prop. Grade Elevations = XXX.XX



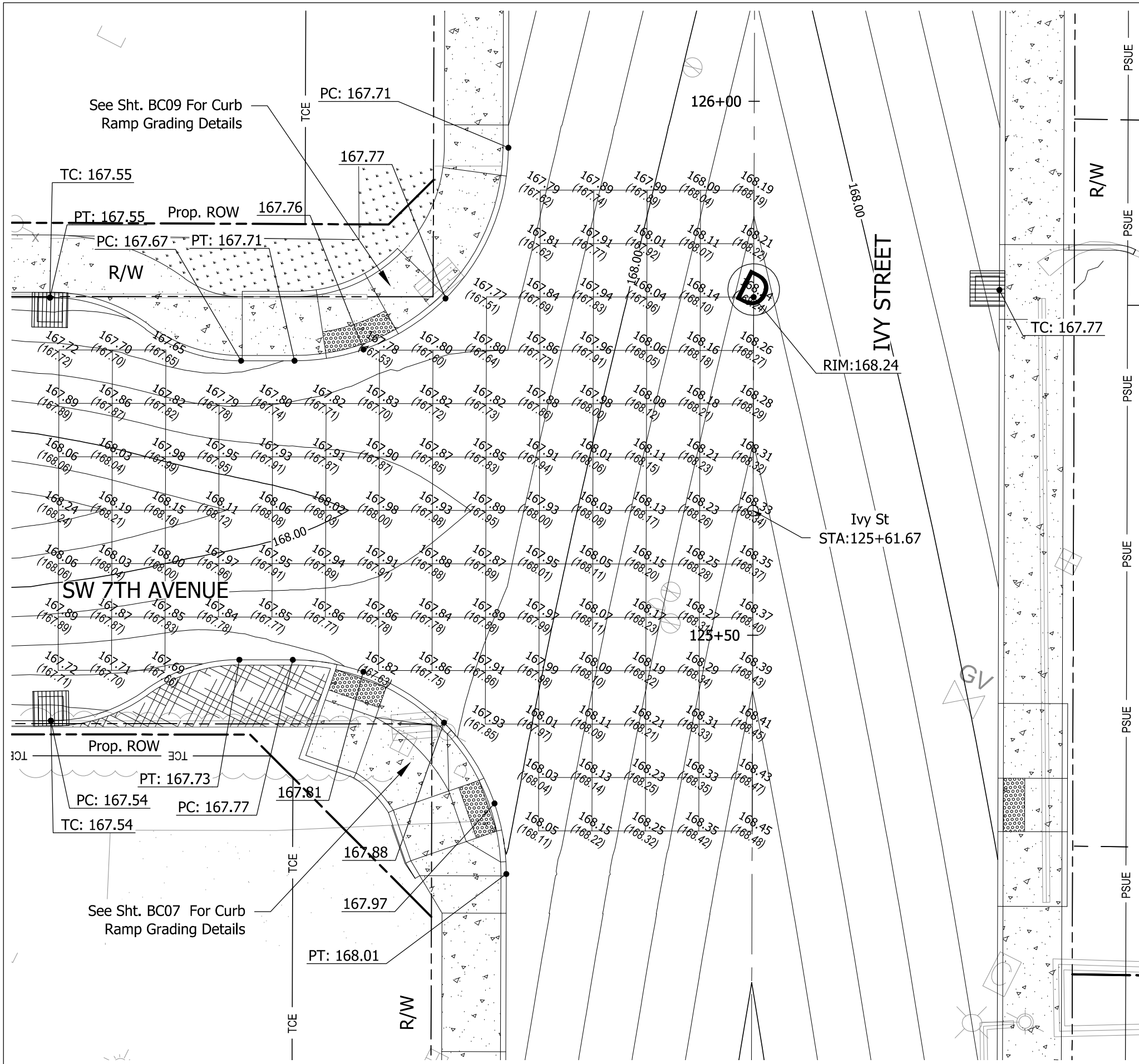
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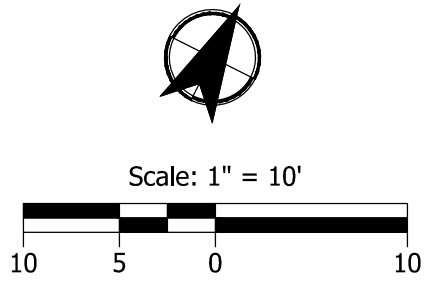
EXPIRES: 12/31/2024

INTERSECTION GRADING DETAILS		S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		DIRECTOR DAN JOHNSON	
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN	CHECKED BY: T. ROOS	PROJECT NO.: CI-300317309
NO. DATE:	REVISIONS	SHEET NO.	BE01

Plot Stamp: 1/15/2024 11:49:52 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BE-INTERSECTION GRADING DETAILS.dwg



- ### GENERAL NOTES
- Elevations Are Top Of Pavement Finished Grade Unless Otherwise Noted
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 - Extg. Grade Elevations = (XXX.XX)
Prop. Grade Elevations = XXX.XX

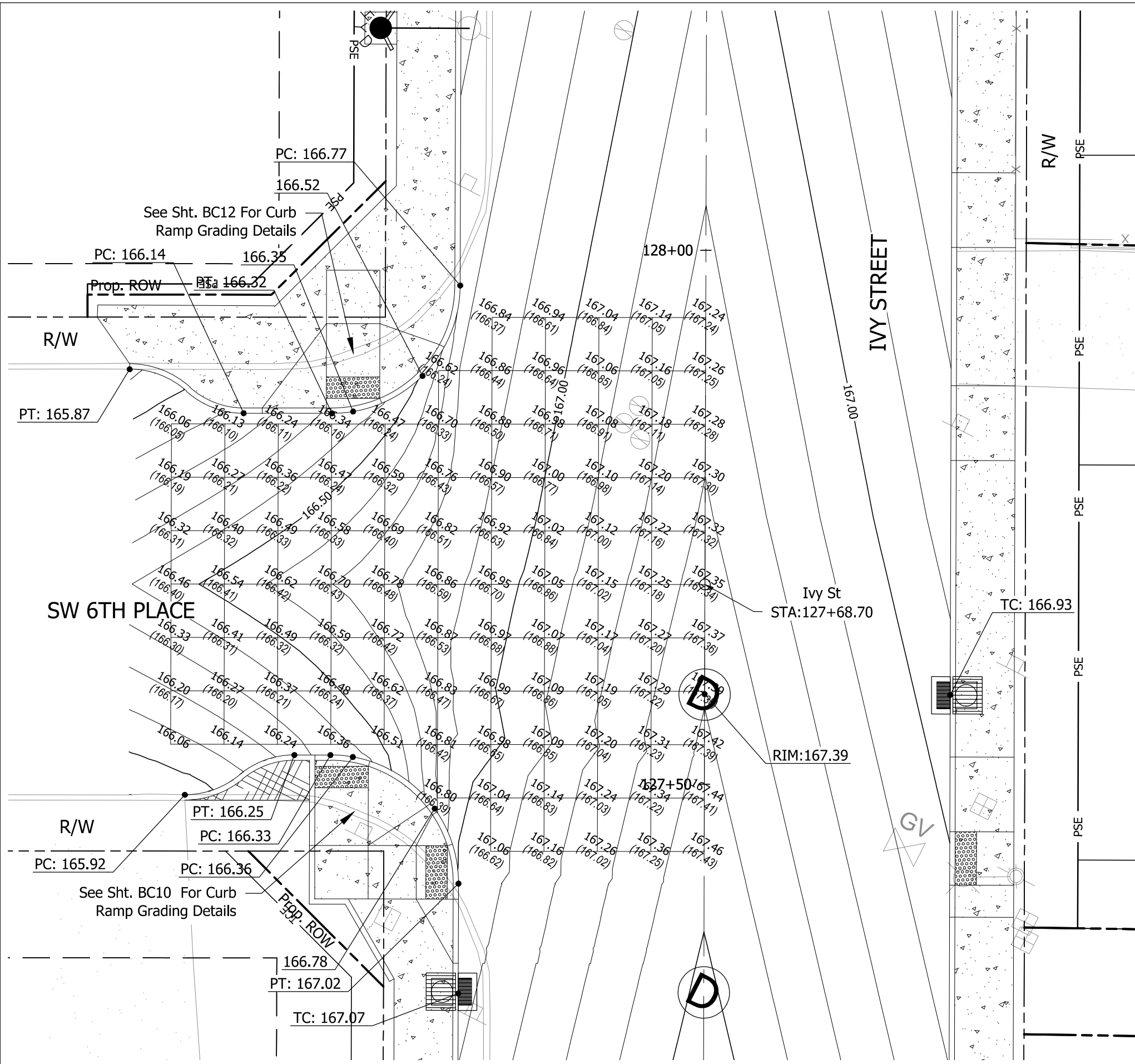


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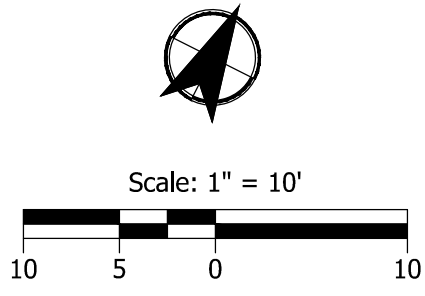
REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

INTERSECTION GRADING DETAILS		S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		DIRECTOR DAN JOHNSON	
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN	CHECKED BY: T. ROOS	PROJECT NO.: CI-300317309
NO. DATE:	REVISIONS	SHEET NO. BE02	DATE: December 2023

Plot Stamp: 1/15/2024 11:50:03 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BE-INTERSECTION GRADING DETAILS.dwg



- ### GENERAL NOTES
- Elevations Are Top Of Pavement Finished Grade Unless Otherwise Noted
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Prop. Grade Elevations = XXX.XX



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 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

INTERSECTION GRADING DETAILS	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
NO. DATE:	CHECKED BY: T. ROOS
REVISIONS	SHEET NO. BE03
DATE: December 2023 PROJECT NO.: CI-300317309	

GENERAL NOTES

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- Extg. Grade Elevations = (XXX.XX)
Prop. Grade Elevations = XXX.XX

See Sht. BC15 For Curb Ramp Grading Details

R/W

PT: 165.89

165.60

165.66

PC: 165.75

PT: 165.56

TC: 165.56

PC: 165.56

IVY STREET

Ivy St
STA:130+20.98

SW 6TH AVENUE

PT: 165.59

TC: 165.56

PC: 165.89

PC: 165.57

165.63

R/W

See Sht. BC13 For Curb Ramp Grading Details

165.80

165.96

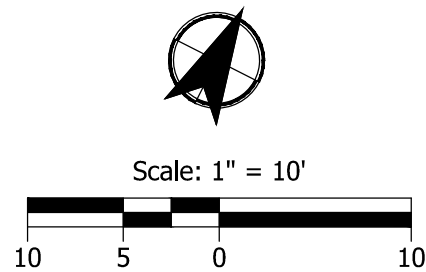
Prop. ROW

PT: 166.02

TC: 166.02

RIM:166.44

TC: 166.04



KITTELSON & ASSOCIATES

851 SW 6TH AVENUE, SUITE 600
PORTLAND, OR 97204
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EXPIRES: 12/31/2024

INTERSECTION GRADING DETAILS

S IVY ST PEDESTRIAN
INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION
AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045

DAN JOHNSON
DIRECTOR

DESIGNED BY:
C. COX

DRAFTED BY:
D. SHADRIN

CHECKED BY:
T. ROOS

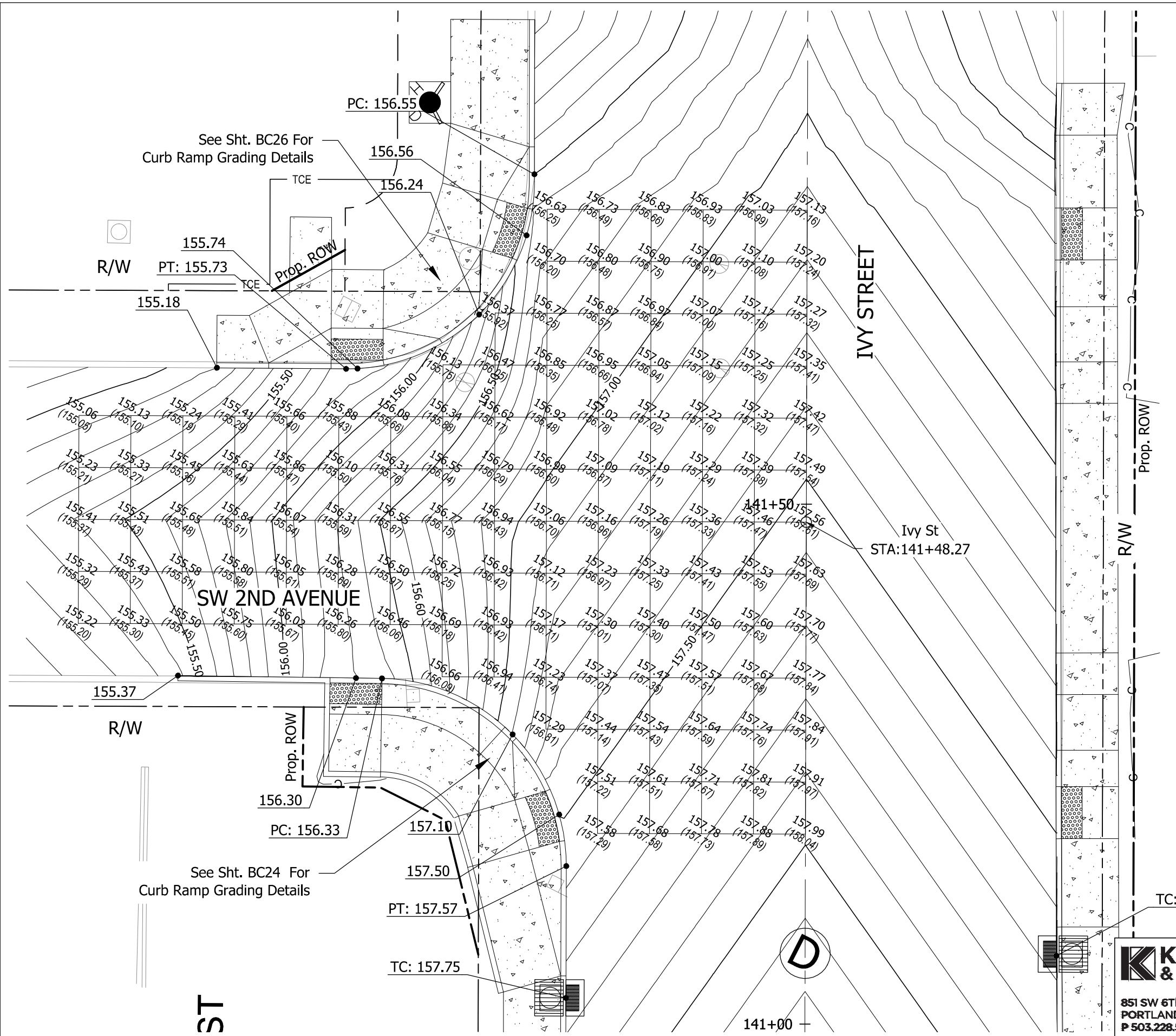
REVISIONS

NO. DATE:

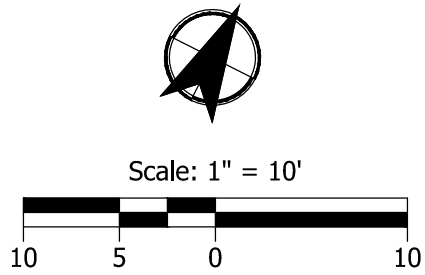
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BE04

DATE: December 2023 PROJECT NO.: CI-300317309

Plot Stamp: 1/15/2024 11:50:52 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BE-INTERSECTION GRADING DETAILS.dwg



- ### GENERAL NOTES
- Elevations Are Top Of Pavement Finished Grade Unless Otherwise Noted
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Prop. Grade Elevations = XXX.XX



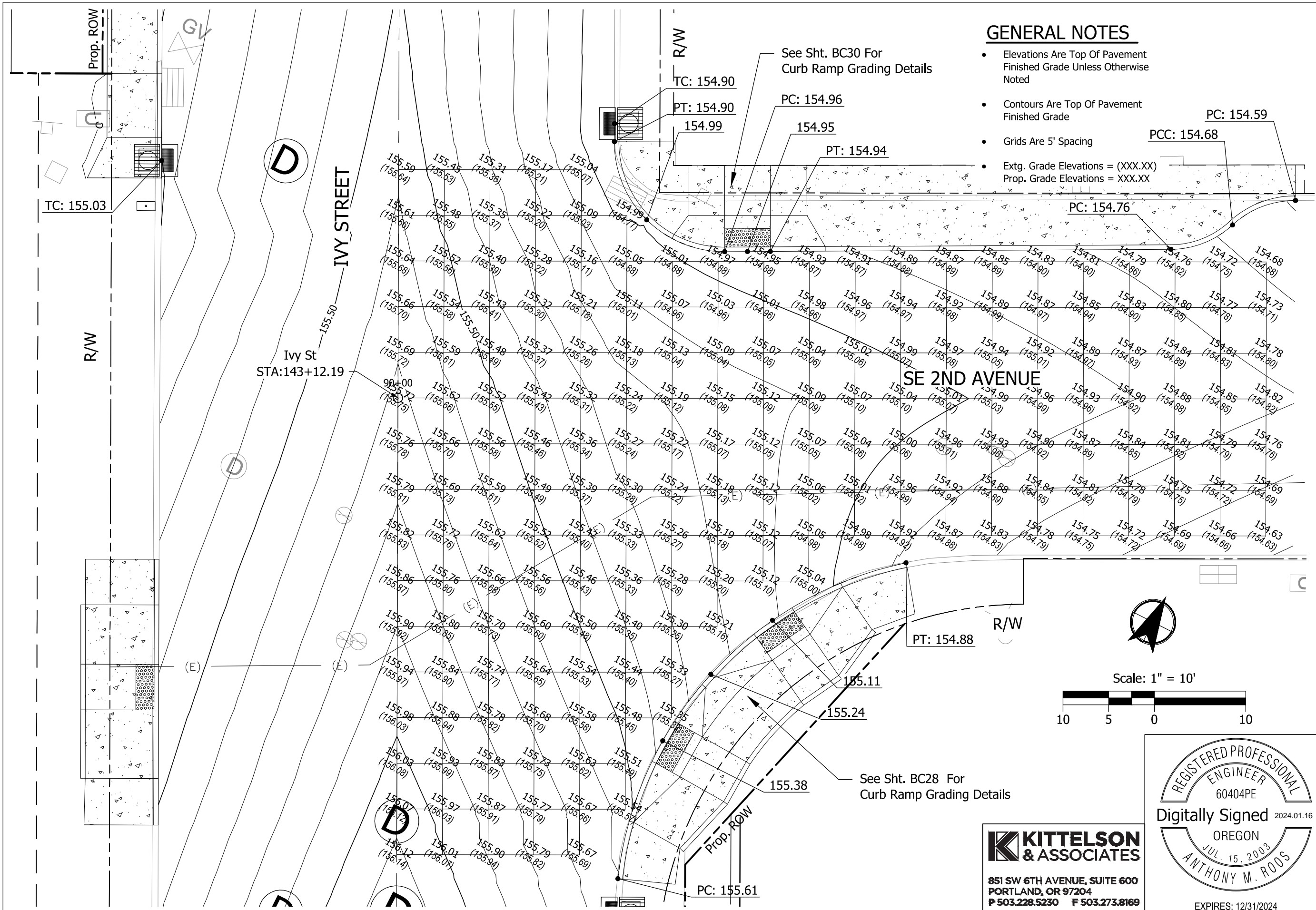
KITTELSON & ASSOCIATES
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INTERSECTION GRADING DETAILS	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	
DIRECTOR DAN JOHNSON	
DESIGNED BY: C. COX	NO. DATE:
DRAFTED BY: D. SHADRIN	
CHECKED BY: T. ROOS	
REVISIONS	Sheet No. BE07

DATE: December 2023 PROJECT NO.: CI-300317309

EXPIRES: 12/31/2024

Plot Stamp: 1/15/2024 11:51:01 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\BE-INTERSECTION GRADING DETAILS.dwg



GENERAL NOTES

- Elevations Are Top Of Pavement Finished Grade Unless Otherwise Noted
- Contours Are Top Of Pavement Finished Grade
- Grids Are 5' Spacing
- Extg. Grade Elevations = (XXX.XX)
Prop. Grade Elevations = XXX.XX

INTERSECTION GRADING DETAILS
**S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS**

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

DESIGNED BY:
C. COX
 DRAFTED BY:
D. SHADRIN
 CHECKED BY:
T. ROOS

REVISIONS

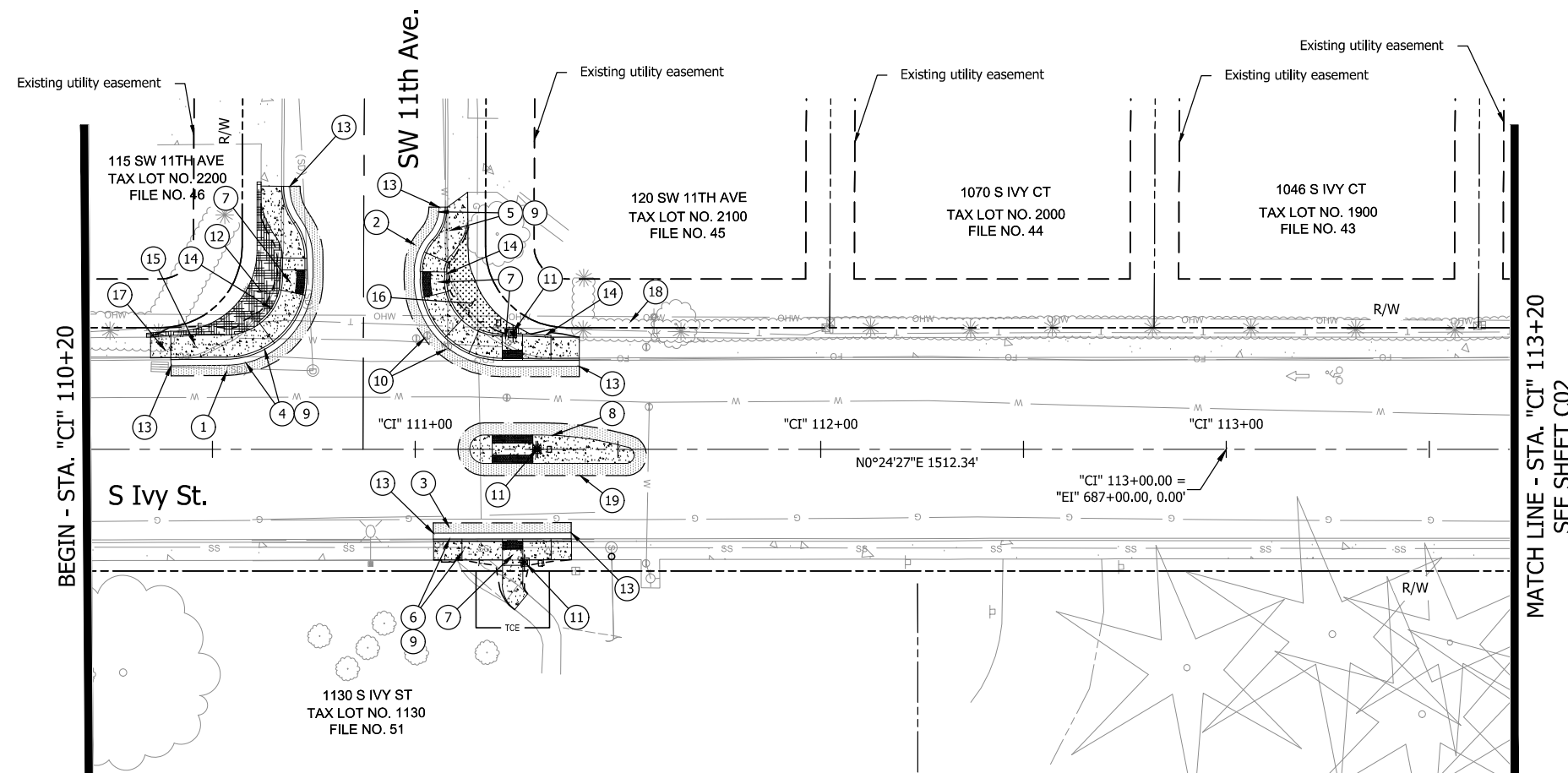
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 Sheet No.
BE08

**KITTELSON
 & ASSOCIATES**
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 PORTLAND, OR 97204
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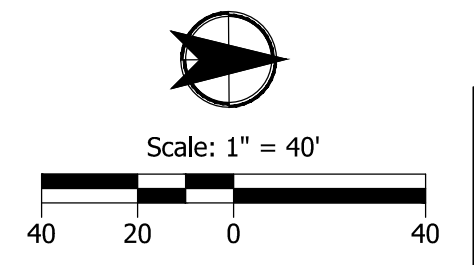
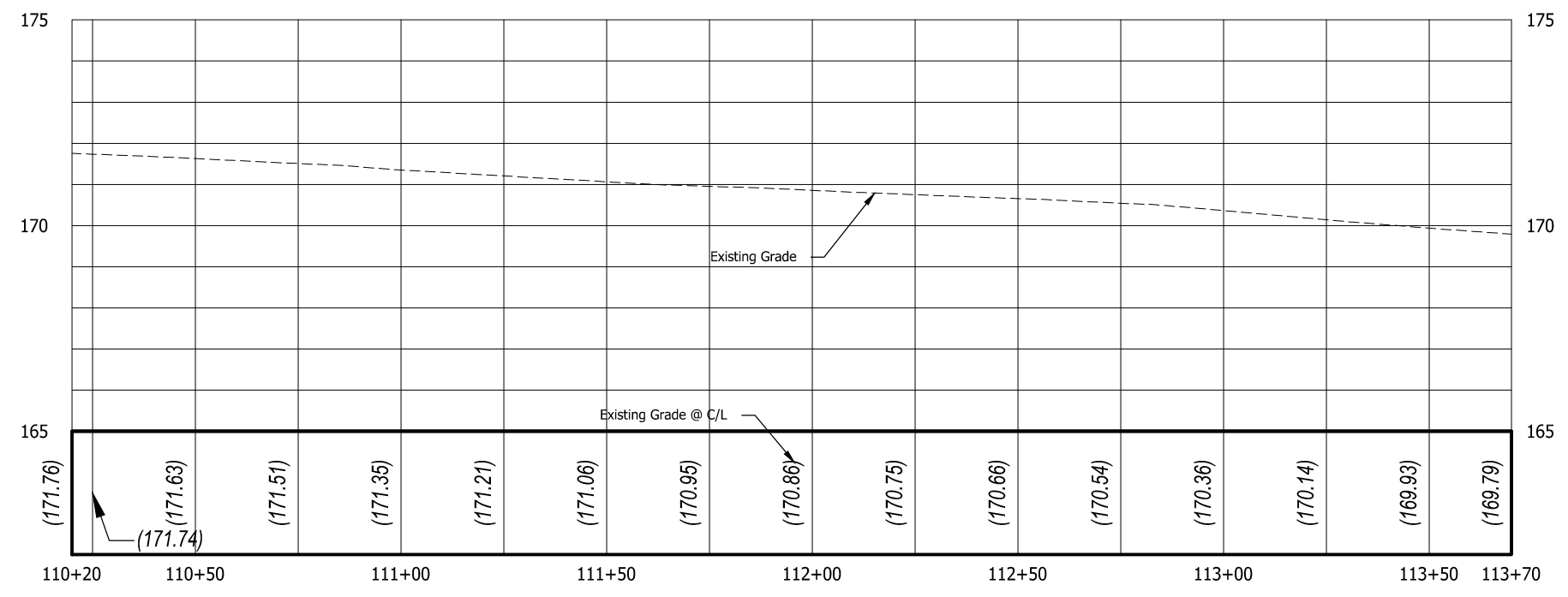


DATE: December 2023 PROJECT NO.: CI-300317309



CONSTRUCTION NOTES

- ① Sta. "CI" 110+39.72, 22.03' LT to Sta. "CI" 110+67.55, 64.84' LT
Sawcut & remove extg. pvmt., curb, & sidewalk
- ② Sta. "CI" 111+07.36, 59.68' LT to Sta. "CI" 111+40.43, 21.94' LT
Sawcut & remove extg. pvmt., curb, & sidewalk
- ③ Sta. "CI" 111+04.47, 22.17' RT to Sta. "CI" 111+38.47, 22.10' RT
Sawcut & remove extg. pvmt., curb, & sidewalk
- ④ Sta. "CI" 110+39.72, 22.03' LT to Sta. "CI" 110+67.55, 64.84' LT
Const. curb & gutter - 68.8 ft. (See Clack. Co. dwg. no. S150)
Match existing.
- ⑤ Sta. "CI" 111+07.36, 59.68' LT to Sta. "CI" 111+40.43, 21.94' LT
Const. curb & gutter - 69.9 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 361.36 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing
- ⑥ Sta. "CI" 111+04.47, 22.17' RT to Sta. "CI" 111+38.47, 22.10' RT
Const. curb & gutter - 34.0 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 210.7 sq. ft. (see Clack. Co. dwg. no. S960)
match existing.
- ⑦ Const. curb ramp, parallel - 4 ea.
(For details, see shts. BC01, BC02 and BC03)
(See ODOT dwg. nos. RD755, RD758, & RD759)
- ⑧ Const. Type "A" non-mountable conc. island with median island crossing. (For details, see sht. BC02 (See ODOT dwg. nos. RD705 & RD710)
- ⑨ Const. full depth ACP
- ⑩ Adjust water valve box to grade - 2 ea.
- ⑪ Inst. RRFB (see sht no. MC02). Salvage existing RRFB to City
- ⑫ Inst. bark mulch, 4" depth
- ⑬ Const. gutter transition
(For details, see sht. BB02)
- ⑭ Const. standard curb
(For details, see shts. BC01 & BC02)
(See Clack. Co. dwg. no. S100)
- ⑮ Sta. "CI" 110+34.73, 22.03' LT to Sta. "CI" 110+67.55, 64.84' LT
Const. P.C. conc. sidewalk - 375.8 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- ⑯ Inst. permanent seeding over 4" topsoil
- ⑰ Trim hedge to back of walk
- ⑱ Protect shrub
- ⑲ Sawcut and remove extg. pavement

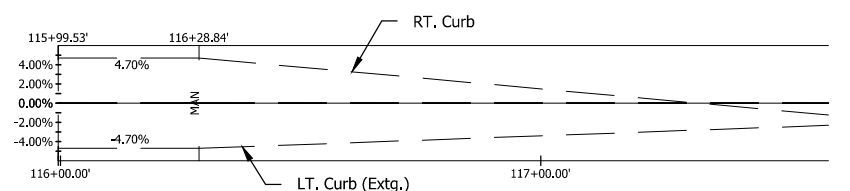
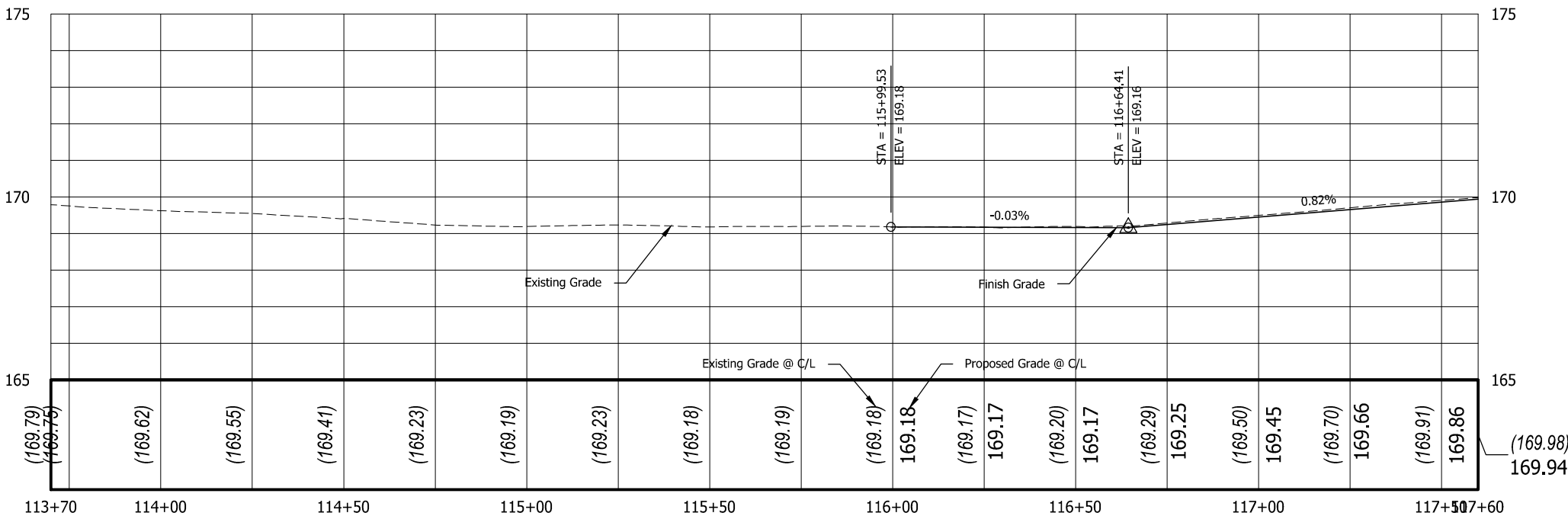
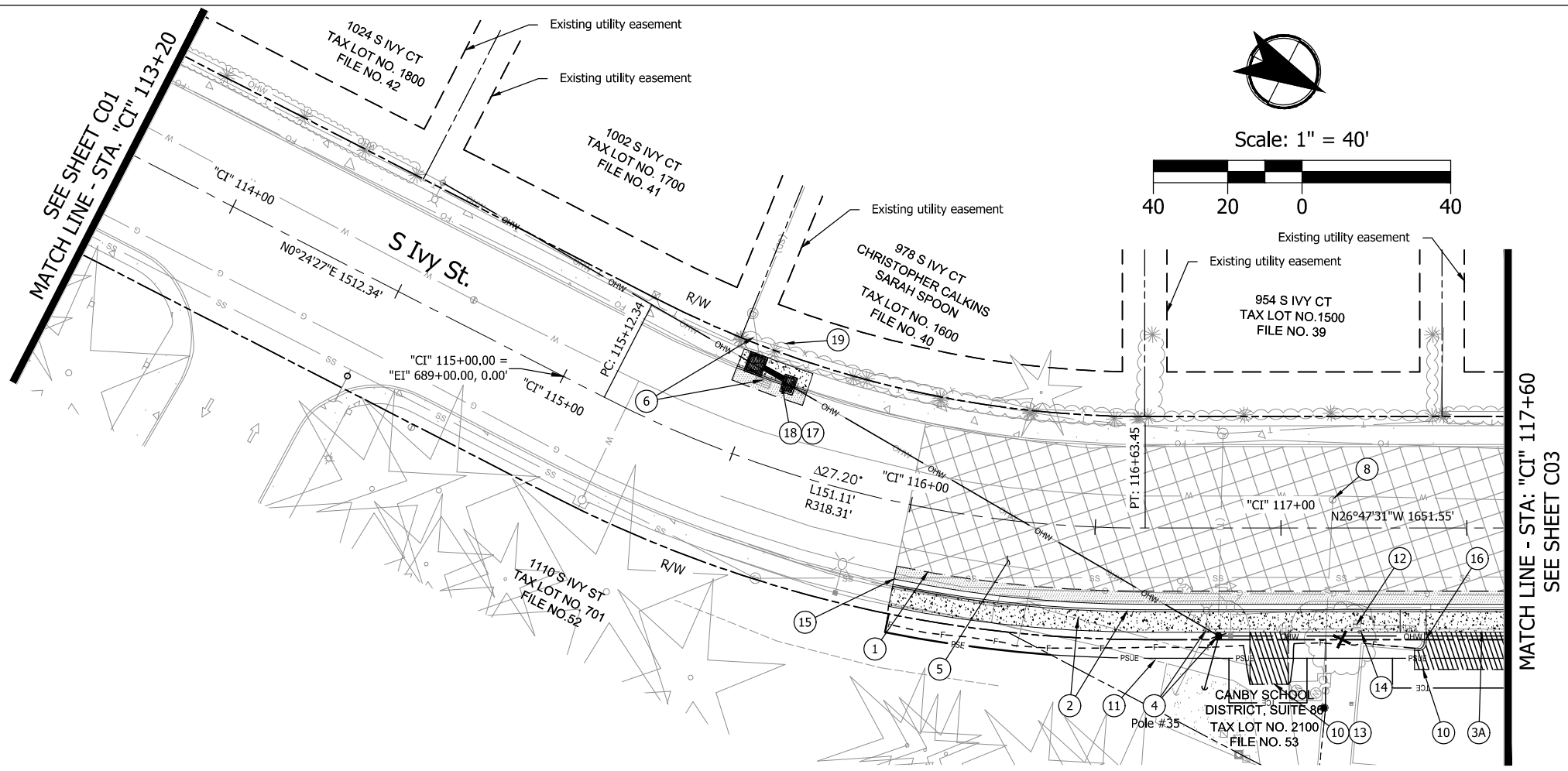


KITTELSON & ASSOCIATES
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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

GENERAL CONSTRUCTION S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS		PROJECT NO.: CI-300317309 DATE: December 2023
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN	CHECKED BY: T. ROOS
REVISIONS		
NO. DATE:		
Sheet No. C01		

Plot Stamp: 1/15/2024 11:52:31 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\C-PLAN & PROFILE.dwg



CONSTRUCTION NOTES

- ① Sta. "CI" 115+99.54, 22.00' RT to Sta. "CI" 133+56.74, 72.36' RT Sawcut & remove extg. pvmt., curb, & sidewalk. Begin road improvements.
- ② Sta. "CI" 115+99.54, 22.00' RT to Sta. "CI" 133+56.74, 72.36' RT Const. curb and gutter - 1793.8 ft. (See Clack. Co. dwg. no. S150) Const. P.C. conc. sidewalk - 6009.4 sq. ft. (see Clack. Co. dwg. no. S960) Match existing.
- ③ Const. P.C. conc. dwy apron. A - Sta. 117+32.06, 22' Rt. - Sta. 117+76.06, 22' Rt. (For details, see sht. BD01) (See Clack. Co. dwg. no. D600)
- ④ Utility to be relocated by Utility Owner
- ⑤ Const. variable depth grind & 2" inlay
- ⑥ Stormwater infrastructure (see shts. C02A - C10A)
- ⑧ Adjust water valve box to grade - 1 ea.
- ⑩ Sawcut and remove extg. pvmt (For details, see sht. BD01)
- ⑪ Remove extg. asphalt walkway
- ⑫ Water meter to be relocated by utility
- ⑬ Const. AC driveway approach for pedestrian walkway - 144 sq. ft.
- ⑭ Private Irrigation box to be relocated by owner
- ⑮ Const. gutter transition (For details, see sht. BB02)
- ⑯ Const. standard curb - 7.5 Ft. (For details, see sht. BD01) (See Clack. Co. dwg. no. S100)
- ⑰ Sta. "CI" 115+42.50, 22.00 Lt. to Sta. "CI" 115.63.99, 22.00 Lt. Const. standard curb - 20.0 Ft. (See Clack. Co. dwg. no. S100) Const. P.C. conc. sidewalk - 99.0 sq. ft. (See Clack. Co. dwg. no. S960)
- ⑱ Sta. "CI" 115+42.50, 22.00 Lt. to Sta. "CI" 115.63.99, 22.00 Lt. Sawcut and remove extg. curb & sidewalk
- ⑲ Protect shrubs, trim to back of walk

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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

GENERAL CONSTRUCTION

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

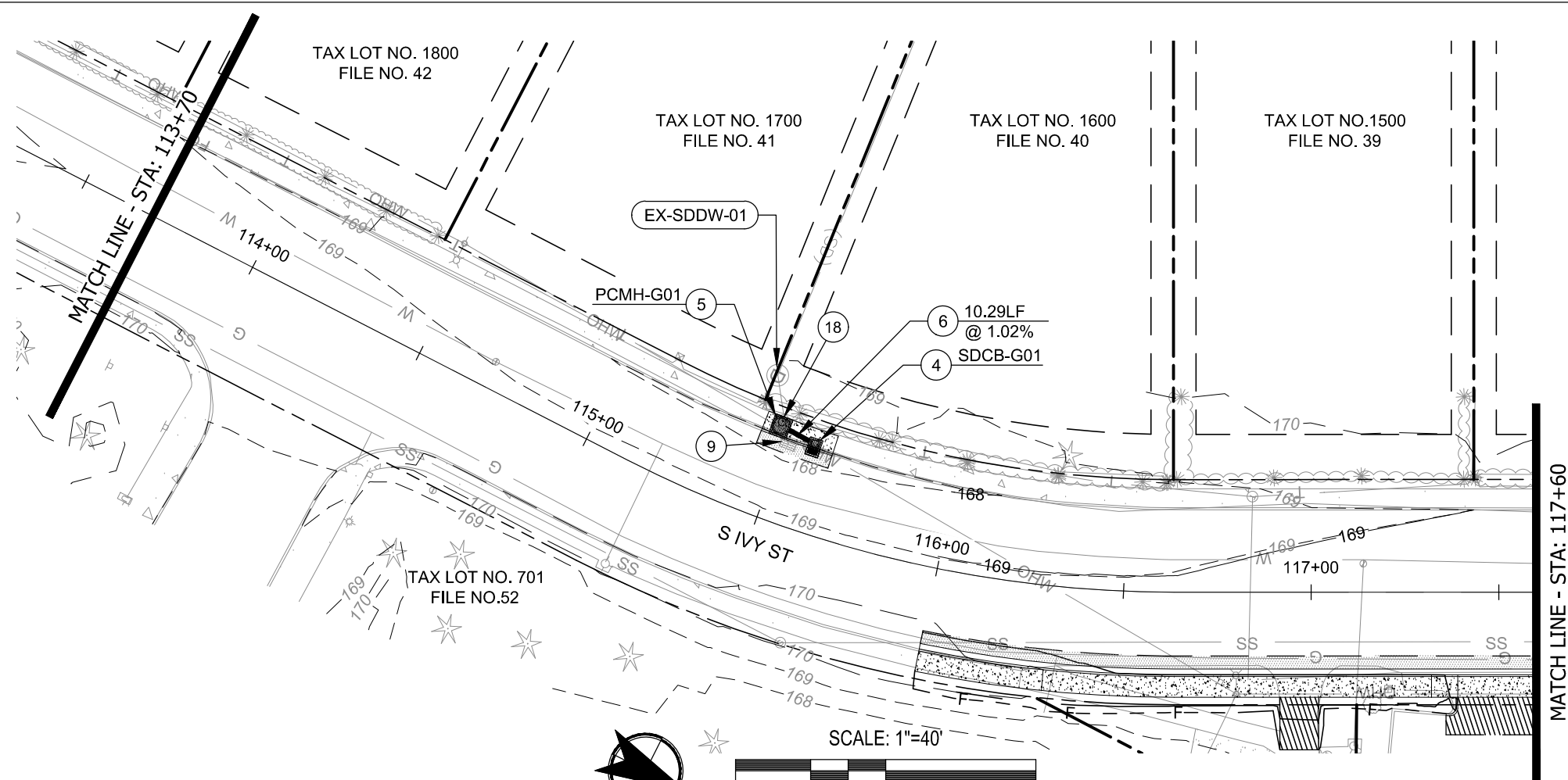
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO. DATE:

REVISIONS

Sheet No. C02

Plot Stamp: 1/16/2024 10:53:39 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\1490-CD-STORM.dwg

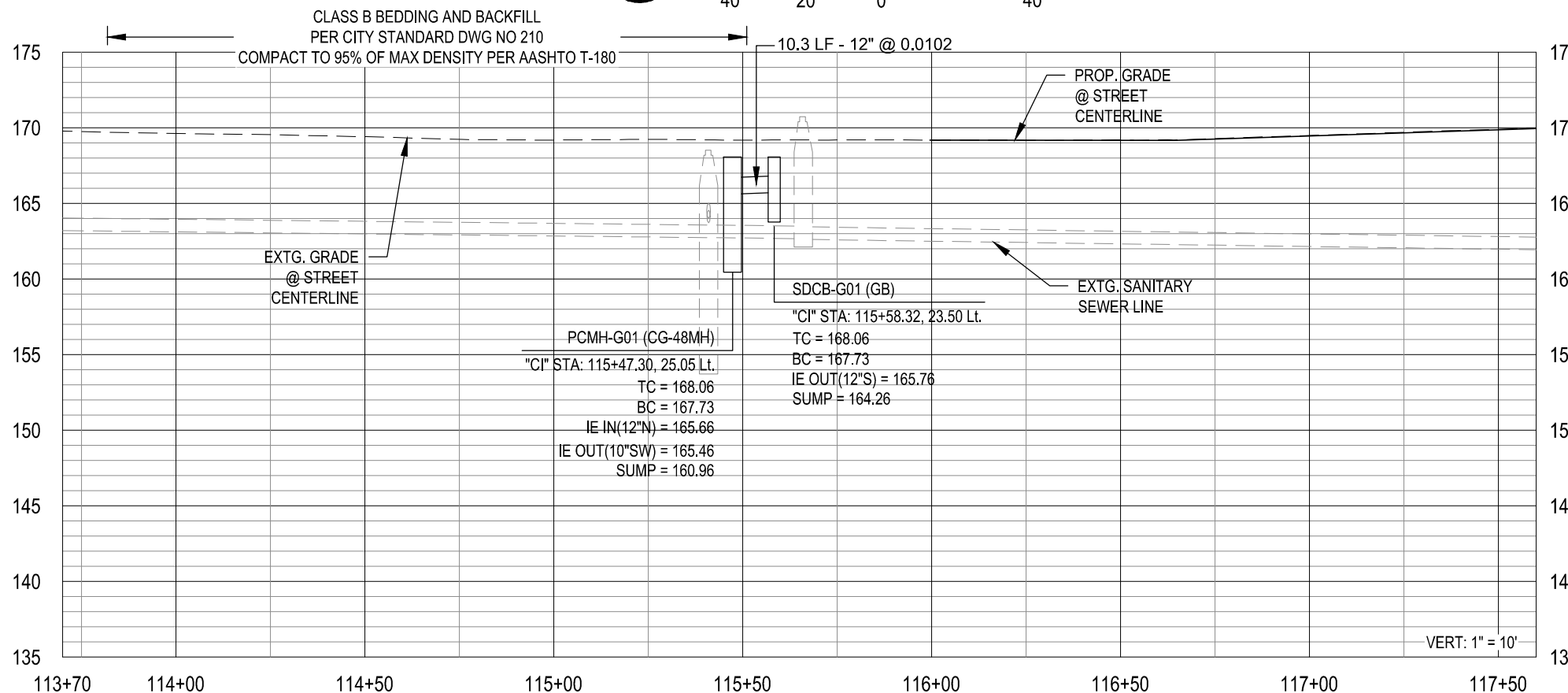


STORM CONSTRUCTION NOTES

- ④ Install curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. See catch basin data table and profile on this sheet for rim, invert and sump elevations.
- ⑤ Install CG-48 curb inlet manhole with BMP snout or approved equal. See details 1 & 2 on sheet BB03 and 2 on sheet BB04. See profile on this sheet for rim and invert elevations.
- ⑥ Install 12" HDPE N-12 pipe using open trench method. See profile on this sheet for pipe length and slope. Bedding and backfill per City Standard Drawing 210.
- ⑨ Remove existing storm drain inlet.
- ⑱ Connect new storm drain structure to existing 10" storm drain pipe.

STORM MANHOLE DATA

EX-SDDW-01 (48")
"CI" STA: 115+40.97, 37.23 Lt.
RIM: 168.52
IE IN (10"NE) = 163.72
IE IN (12"W) = 164.02
SUMP = 154.22



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 OREGON
 July 15, 2003
 CEDOMIR JESIC
 EXPIRES: 06/30/25

STORMWATER

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
DAN JOHNSON

DESIGNED BY: R. MONTGOMERY
 DRAFTED BY: R. MONTGOMERY
 CHECKED BY: C. JESIC

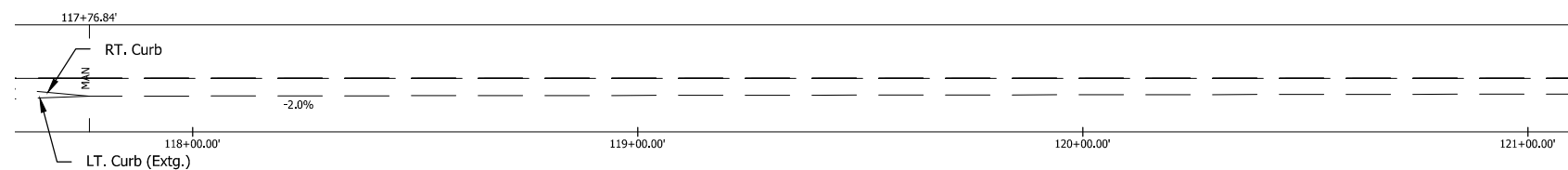
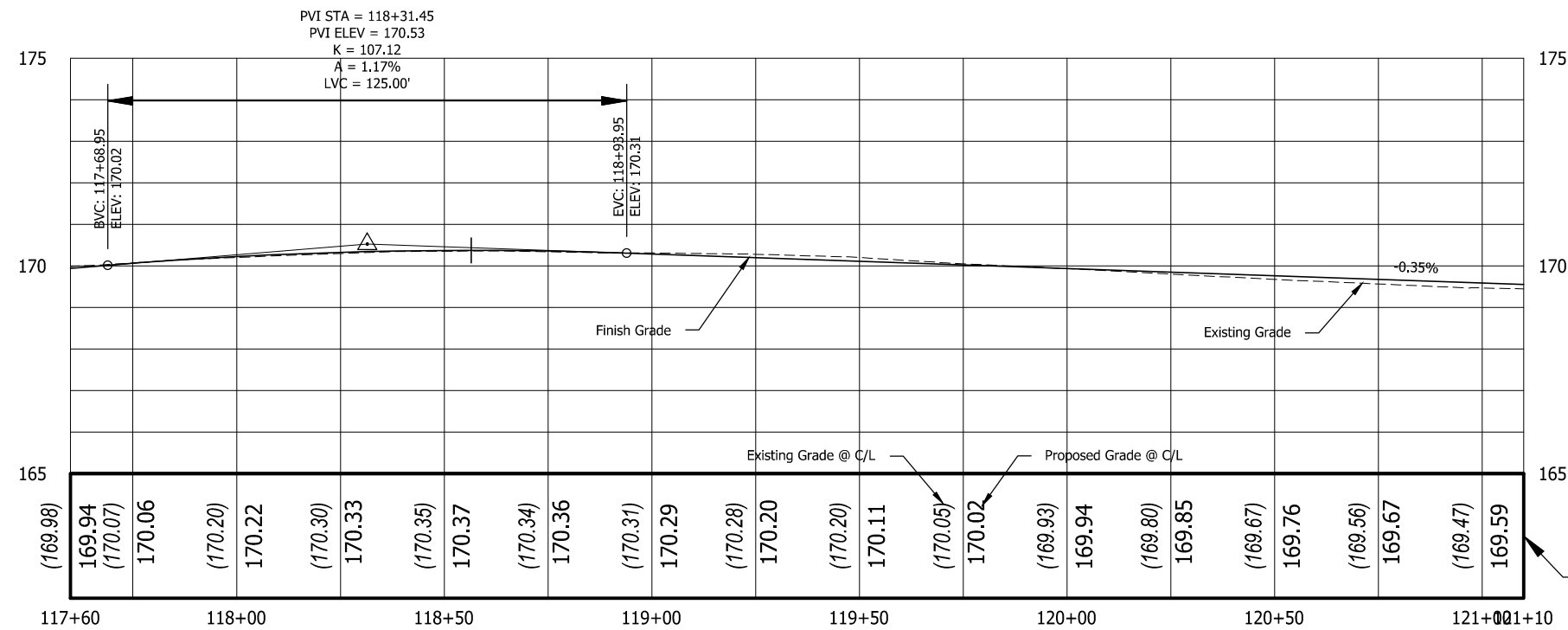
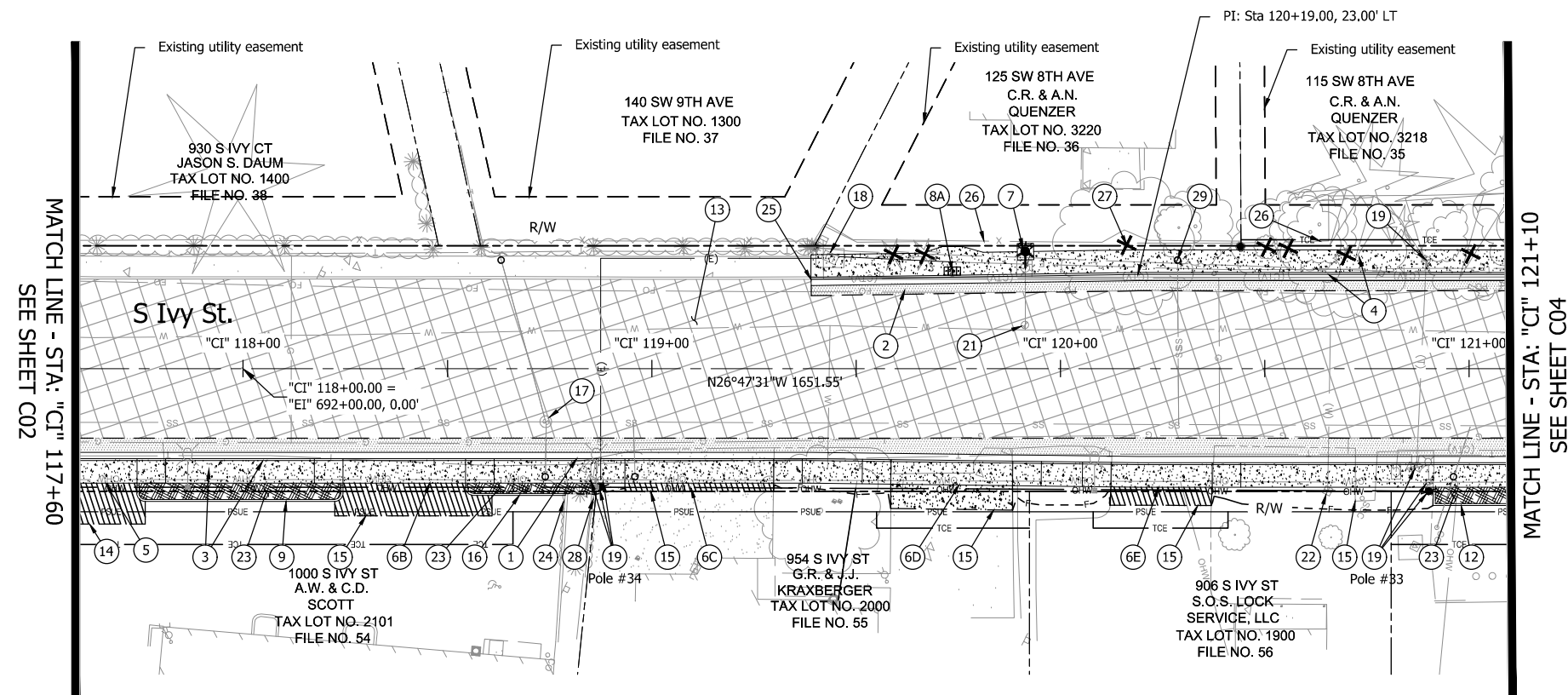
NO. DATE:

REVISIONS

Sheet No.
C02A

DATE: XXXX 2020 PROJECT NO.: CI-22239

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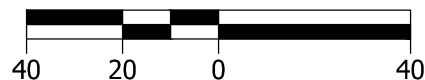


CONSTRUCTION NOTES

- 1 See Sht. C02, Note 1
Sawcut & remove extg. pvmt., curb, & sidewalk
- 2 Sta. "CI" 119+39.00, 21.83' LT to Sta. "CI" 121+69.42, 62.29' LT
Sawcut & remove extg. pvmt. & curb.
- 3 See Sht. C02, Note 2
Const. curb and gutter
Const. P.C. conc. sidewalk
- 4 Sta. "CI" 119+39.00, 21.83' LT to Sta. "CI" 121+55.60, 23.00' LT
Const. curb and gutter - 216.60 ft. (See Clack. Co. dwg. no. S150)
Const. Thickened Edge P.C. conc. sidewalk (see sht. BB02 for detail) Match existing.
- 5 See Sht. C02, Note 3
Const. P.C. conc. dwy.
- 6 Const. P.C. conc. dwy. apron
B - Sta. "CI" 118+17.41, 22.00' Rt. - Sta. "CI" 118+61.41, 22.00' Rt.
C - Sta. "CI" 118+86.42, 22.00' Rt. - Sta. "CI" 119+36.84, 22.00' Rt.
D - Sta. "CI" 119+51.58, 22.24' Rt. - Sta. "CI" 119+95.34, 22.62' Rt.
E - Sta. "CI" 120+05.47, 22.92' Rt. - Sta. "CI" 120+44.17, 23.00' Rt. (For details, see sht. BD01) (See Clack. Co. dwg. no. D600)
- 7 Sta. "CI" 119+91.44, 28.63' LT
Fire hydrant to be relocated by utility, back of sidewalk elev. =170.01' (See Canby Utility dwg. no. 001)
- 8 Const. conc. collar & install multiple mailbox support - 1 ea.
A - Sta. "CI" 119+73.58, 23.83' LT (See ODOT dwg. nos. RD100 & RD101)
- 9 Sta. "CI" 117+69.06, 28.00' RT to Sta. "CI" 118+24.41, 28.00' RT
Const. standard curb - 62.6 ft. (See Clack. Co. dwg. no. S100)
- 10 Sta. "CI" 120+91.24, 29' RT to Sta. "CI" 121+31.13, 29.00' RT
Const. standard curb - 48.0 ft. (See Clack. Co. dwg. no. S100)
- 11 Const. variable depth grind & 2" inlay
See Sht. C02, Note 11
- 12 Sawcut & remove extg. pvmt.
- 13 Sawcut and remove extg. pvmt
- 14 Sta. "CI" 118+54.41, 28.00' RT to Sta. "CI" 118+78.82, 30.55' RT
Const. standard curb - 26.6 ft. (See Clack. Co. dwg. no. S100)
- 15 Adjust rim to grade (minor) - 1 ea.
- 16 Protect Electrical Vault.
- 17 Utility to be relocated by Utility Owner.
- 18 Adjust water valve to grade - 1 ea.
- 19 Adjust water meter to grade - 1 ea.
- 20 Install Bark Mulch, 4" depth
- 21 Protect shrub
- 22 Const. gutter transition (For details, see sht. BB02)
- 23 Protect fence
- 24 Remove invasive tree, apply foliar herbicide per specification 00320.41
- 25 Remove fence to perm. easement, reinstall extg. post at back of easement and reattach remaining fence
- 26 Adjust cleanout lid to grade.



Scale: 1" = 40'



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 JUL. 15, 2003
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 EXPIRES: 12/31/2024

GENERAL CONSTRUCTION

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
DAN JOHNSON

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

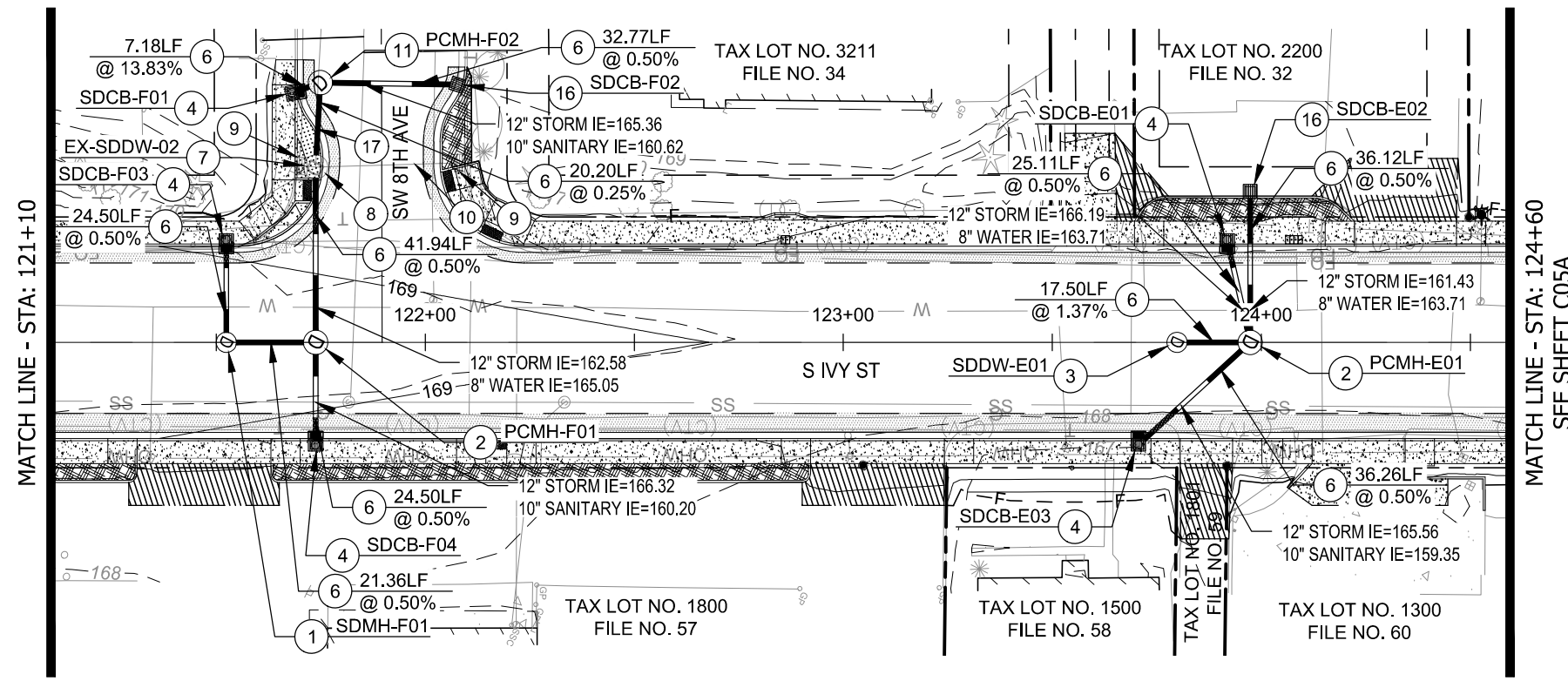
NO. DATE:

REVISIONS

Sheet No. C03

DATE: December 2023 PROJECT NO.: CI-300317309

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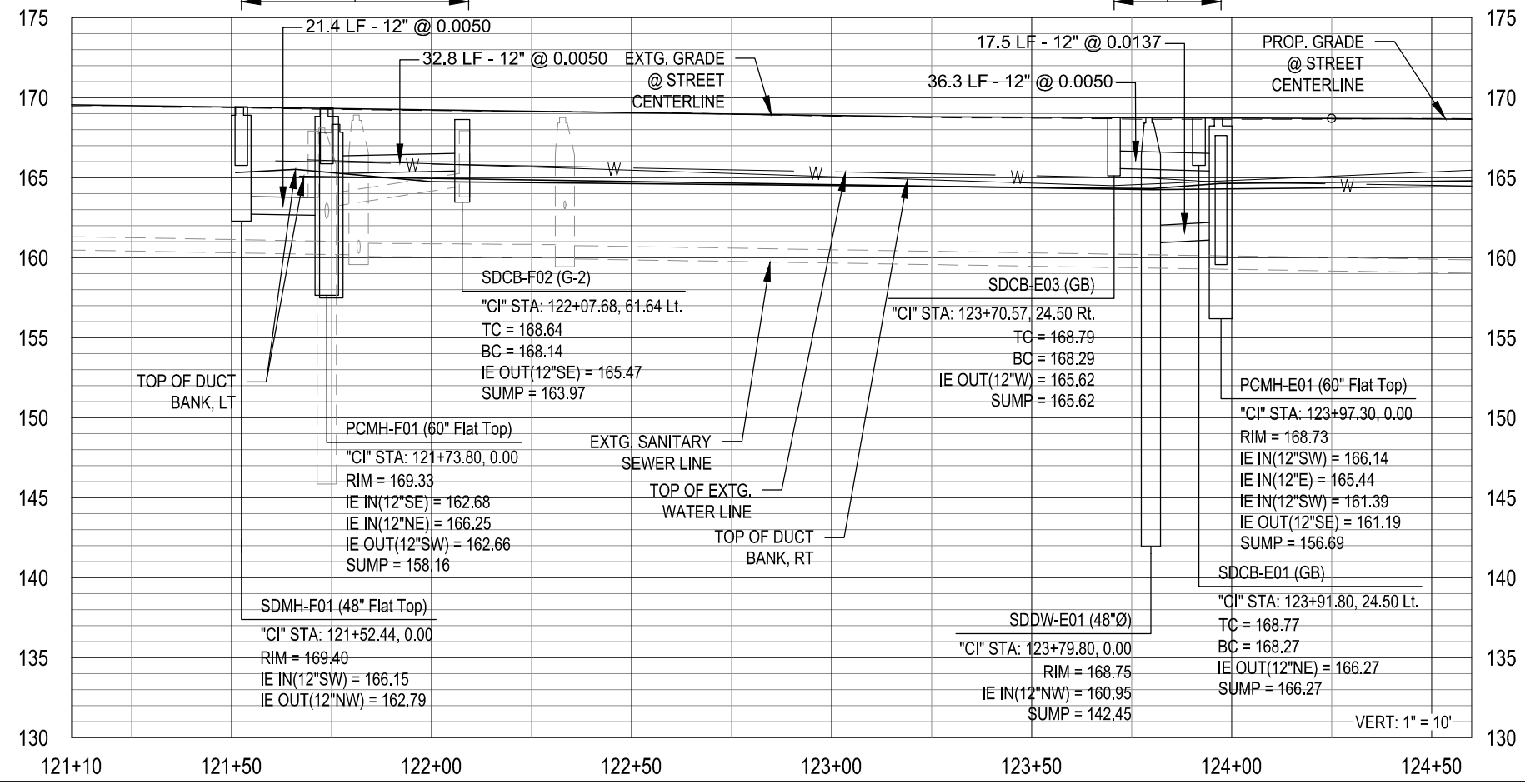
STORM CONSTRUCTION NOTES

- ① Install 48" flat top concrete manhole per City Standard Drawing 203 & 208. See profile on this sheet for rim and invert elevations.
- ② Install 60" concrete sumped sedimentation manhole per City Standard Drawing 201. See profile on this sheet for rim and invert elevations.
- ③ Connect to existing 48" concrete drywell previously installed. See City Standard Drawing 204 for reference. See profile on this sheet for invert elevations.
- ④ Install curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. See catch basin data table and profile on this sheet for rim, invert and sump elevations.
- ⑥ Install 12" HDPE N-12 pipe using open trench method. See profile on this sheet for pipe length and slope. Bedding and backfill per City Standard Drawing 210.
- ⑦ Connect to existing storm structure with flexible connection.
- ⑧ Adjust existing manhole rim to grade per City Standard Drawing 206. Rotate cone to locate cover within landscape area if eccentric.
- ⑨ Remove existing storm drain inlet.
- ⑩ Abandon existing storm line after construction and acceptance of new storm sewer. Fill existing storm line with grout and abandon in place.
- ⑪ Install 60" flat top concrete sumped sedimentation manhole over existing 12" storm line per City Standard Drawing 201 & 203. See table on this sheet for rim and invert elevations.
- ⑯ Install G-2 catch basin per City Standard Drawing 207. See catch basin data table and profile on this sheet for rim, invert, and sump elevations.
- ⑰ Remove existing storm pipe.

CLASS B BEDDING AND BACKFILL PER CITY STANDARD DWG NO 210 COMPACT TO 95% OF MAX DENSITY PER AASHTO T-180

SCALE: 1"=40'

CLASS B BEDDING AND BACKFILL PER CITY STANDARD DWG NO 210 COMPACT TO 95% OF MAX DENSITY PER AASHTO T-180



CATCH BASIN DATA

SDCB-E02 (G-2) "CI" STA: 123+97.30, 36.12 Lt. TC: 167.63, BC: 166.63 IE OUT (12"NE) = 161.57 SUMP = 160.07	SDCB-F03 (GB) "CI" STA: 121+52.44, 24.50 Lt. TC: 169.44, BC: 168.94 IE OUT (12"NE) = 166.27 SUMP = 166.27
SDCB-F01 (GB) "CI" STA: 121+68.18, 59.62 Lt. TC: 168.71, BC: 168.21 IE OUT (12"NW) = 165.48 SUMP = 163.98	SDCB-F04 (GB) "CI" STA: 121+73.79, 24.50 Rt. TC: 169.37, BC: 168.87 IE OUT (12"SW) = 166.37 SUMP = 166.37

STORM MANHOLE DATA

EX-SDDW-02 (60") "CI" STA: 121+73.80, 41.94 Lt. RIM: 168.10 IE IN (12"NE) = 162.45 IE IN (12"SW) = 162.44 SUMP = 146.35	PCMH-E01 (60" Flat Top) "CI" STA: 123+97.30, 0.00 RIM = 168.73 IE IN(12"SW) = 166.14 IE IN(12"E) = 165.44 IE IN(12"SW) = 161.39 IE OUT(12"SE) = 161.19 SUMP = 156.69
PCMH-F02 (60" Flat Top) "CI" STA: 121+74.92, 62.11 Lt. RIM: 168.33 IE IN (12"SE) = 164.49 IE IN (12"NW) = 165.31 IE IN (12"SW) = 162.49 IE OUT (12"NE) = 162.49 SUMP = 157.99	SDCB-E01 (GB) "CI" STA: 123+91.80, 24.50 Lt. TC = 168.77 BC = 168.27 IE OUT(12"NE) = 166.27 SUMP = 166.27

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 OREGON
 July 15, 2003
 CEDOMIR JESIC
 EXPIRES: 06/30/25

STORMWATER

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

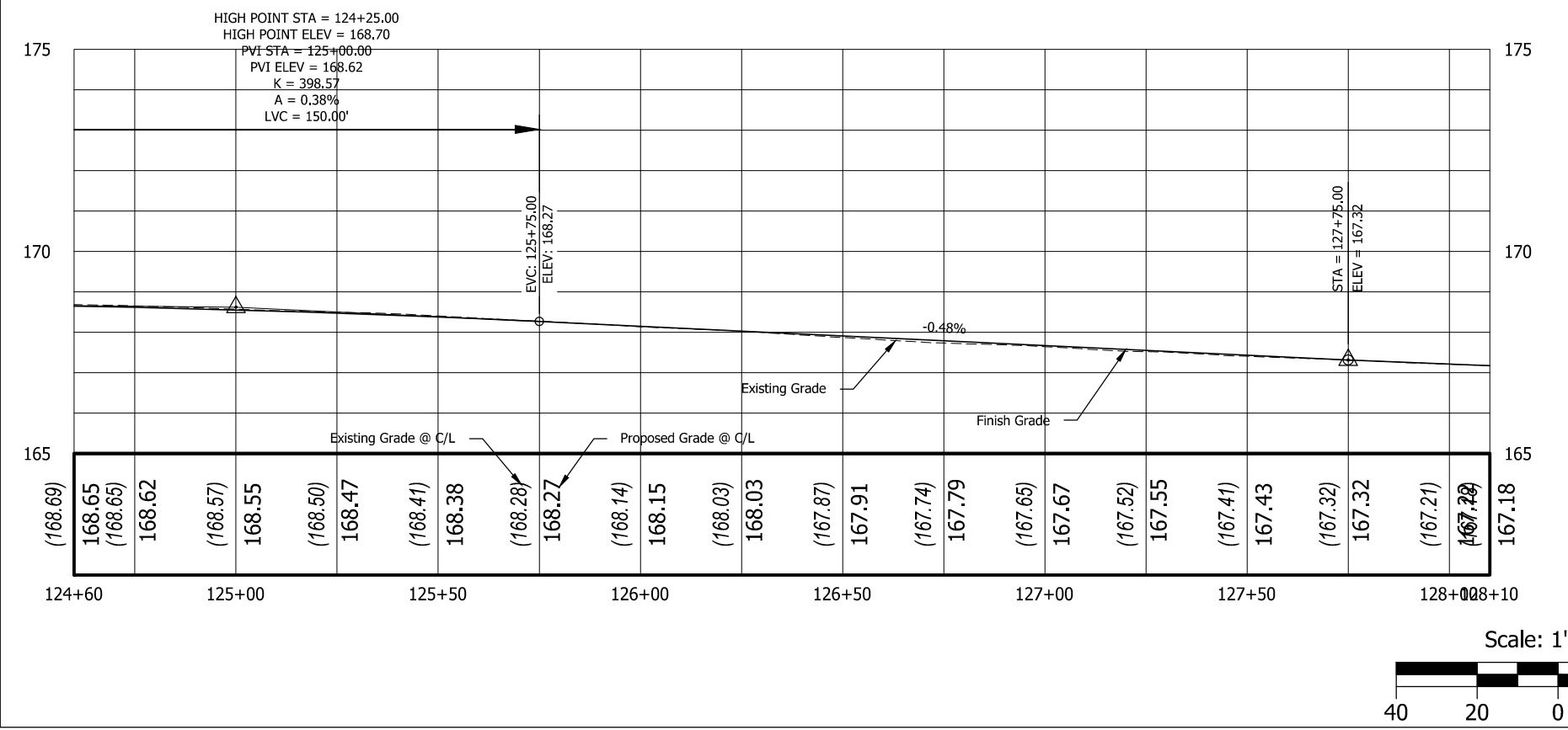
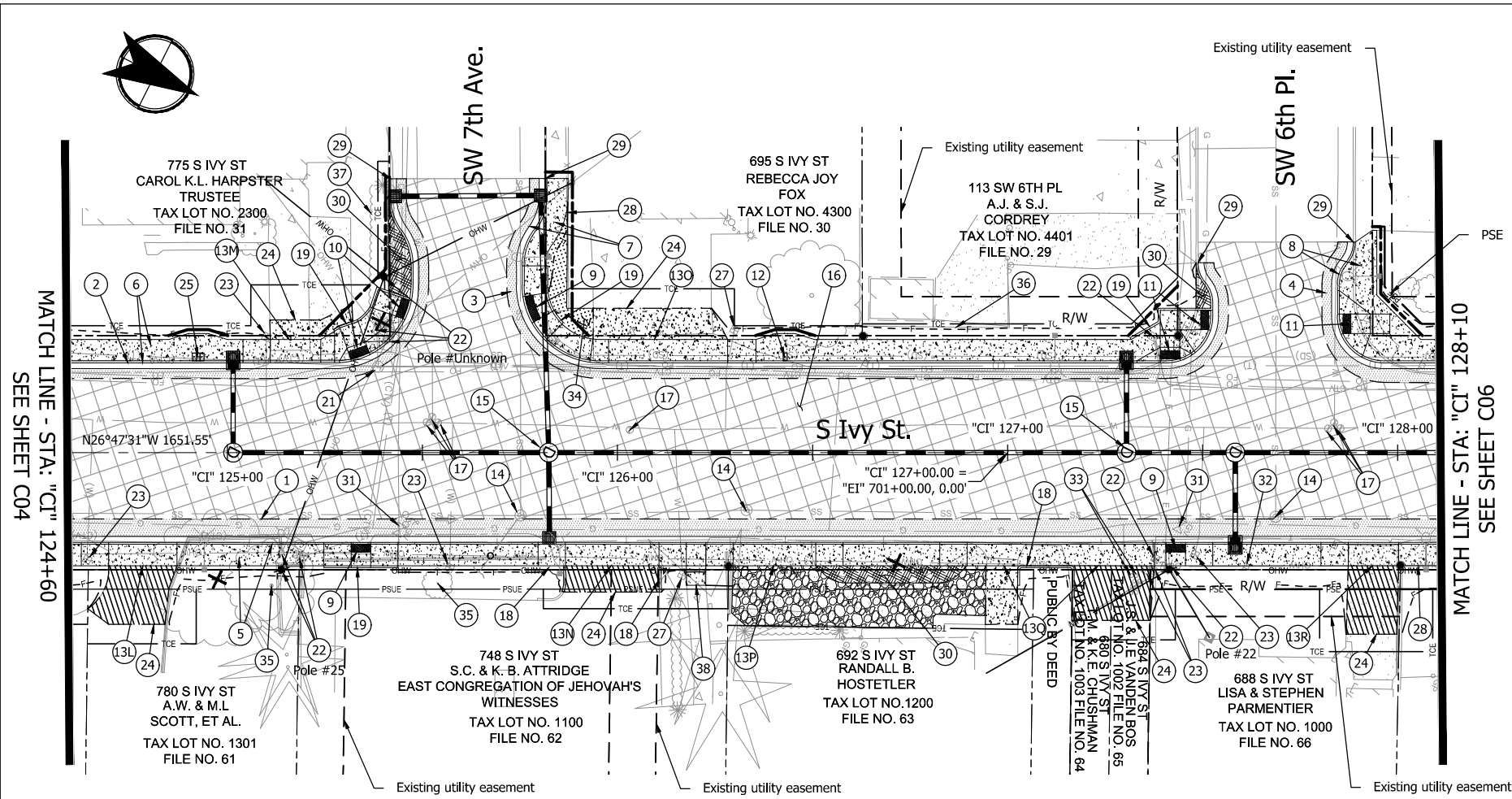
DAN JOHNSON
 DIRECTOR

DESIGNED BY: R. MONTGOMERY
 DRAFTED BY: R. MONTGOMERY
 CHECKED BY: C. JESIC

NO. DATE: [] [] [] [] [] []

Sheet No. C04A

PROJECT NO.: CI-22239
 DATE: XXXX 2020



CONSTRUCTION NOTES

- ① See Sht. C02, Note 1
Sawcut & remove extg. pvmt., curb, & sidewalk
- ② See Sht. C04, Note 3
Sawcut & remove extg. pvmt. & curb
- ③ Sta. "CI" 125+81.43, 65.87' LT to Sta. "CI" 127+48.87, 48.65' LT
Sawcut & remove extg. pvmt. & curb
- ④ Sta. "CI" 127+88.70, 53.94' LT to Sta. "CI" 130+00.96, 65.89' LT
Sawcut & remove extg. pvmt., curb, & sidewalk
- ⑤ See Sht. C02, Note 2
Const. curb and gutter
Const. P.C. conc. sidewalk
- ⑥ See Sht. C04, Note 6
Const. curb and gutter
Const. P.C. conc. sidewalk
- ⑦ Sta. "CI" 125+81.41, 70.25' LT to Sta. "CI" 127+48.87, 48.65' LT
Const. curb and gutter - 238.4 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk -1063.1 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- ⑧ Sta. "CI" 127+88.70, 53.94' LT to Sta. "CI" 130+00.93, 83.73' LT
Const. curb and gutter - 284.7 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 1455.7 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- ⑨ Const. curb ramp, parallel - 3 EA. (For details, see shts. BC07 thru BC12) (See ODOT dwg. nos. RD755, RD758, & RD759)
- ⑩ Const. curb ramp, combination - 2 EA. (For details, see sht. BC07 thru BC12) (See ODOT dwg. nos. RD755, RD758, & RD759)
- ⑪ Const. curb ramp, perpendicular - 3 EA. (For details, see shts. BC07 thru BC12) (See ODOT dwg. nos. RD755, RD758, & RD759)
- ⑫ Const. conc. collar & install single mailbox support - 1 ea.
Sta. "CI" 126+42.98, 24.50' LT (See ODOT dwg. nos. RD100 & RD101)
- ⑬ Const. P.C. conc. dwy. apron
L - Sta. "CI" 124+62.52, 23.00' Rt. - Sta. "CI" 124+94.05, 23.00' Rt.
M - Sta. "CI" 125+03.94, 23.00' Lt. - Sta. "CI" 125+27.40, 23.00' Lt.
N - Sta. "CI" 125+79.64, 23.00' Lt. - Sta. "CI" 126+17.64, 23.00' Rt.
O - "CI" Sta. 125+95.58, 23.00' Rt. - Sta. "CI" 126+31.48, 23.00' Lt.
P - Sta. "CI" 126+22.64, 23.00' Rt. - Sta. "CI" 126+57.83, 23.00' Rt.
Q - Sta. "CI" 126+82.62, 23.00' Rt. - Sta. "CI" 127+40.62, 23.00' Rt.
R - Sta. "CI" 127+80.38, 23.00' Rt. - Sta. "CI" 128+07.33, 23.00' Rt. (For details, see shts. BD02 thru BD03) (See Clack. Co. dwg. no. D600)
- ⑭ Adjust rim to grade (minor) - 3 ea.
- ⑮ Stormwater infrastructure (see shts. C01A - C10A)
- ⑯ Const. variable depth grind & 2" inlay
- ⑰ Adjust water valve box to grade - 7 ea.
- ⑱ Const. standard curb (For details, see sht. BD03) (See Clack. Co. dwg. no. S100)
- ⑲ Const. standard curb (For details, see shts. BC07 thru BC10) (See Clack. Co. dwg. no. S100)
- ⑳ Adjust fiber vault to grade - 1 ea.
- ㉑ Utility to be relocated by Utility Owner.
- ㉒ Water meter to be relocated by utility
Sawcut and remove extg. pvmt (For details, see shts. #### thru ####)
- ㉓ Const. conc. collar & install multiple mailbox support - 1 ea.
Sta. "CI" 124+92.45, 24.50' LT (See ODOT dwg. nos. RD100 & RD101)
- ㉔ Adjust water meter to grade - 2 ea.
- ㉕ Remove fence
- ㉖ Const. gutter transition (For details, see sht. BB02)
- ㉗ Inst. bark mulch - 4" depth
- ㉘ Adjust gas valve to grade - 2 ea.
- ㉙ Sign to be relocated by owner
- ㉚ Adjust sanitary sewer cleanout to grade - 2 EA.
- ㉛ Inst. permanent seeding over 4" topsoil
- ㉜ Protect tree, contractor to notify engineer prior to cutting roots larger than 1" diameter.
- ㉝ Protect fence
- ㉞ Protect hedge in TCE
- ㉟ Const. exposed aggregate conc. path connection, match existing finish

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 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

GENERAL CONSTRUCTION

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

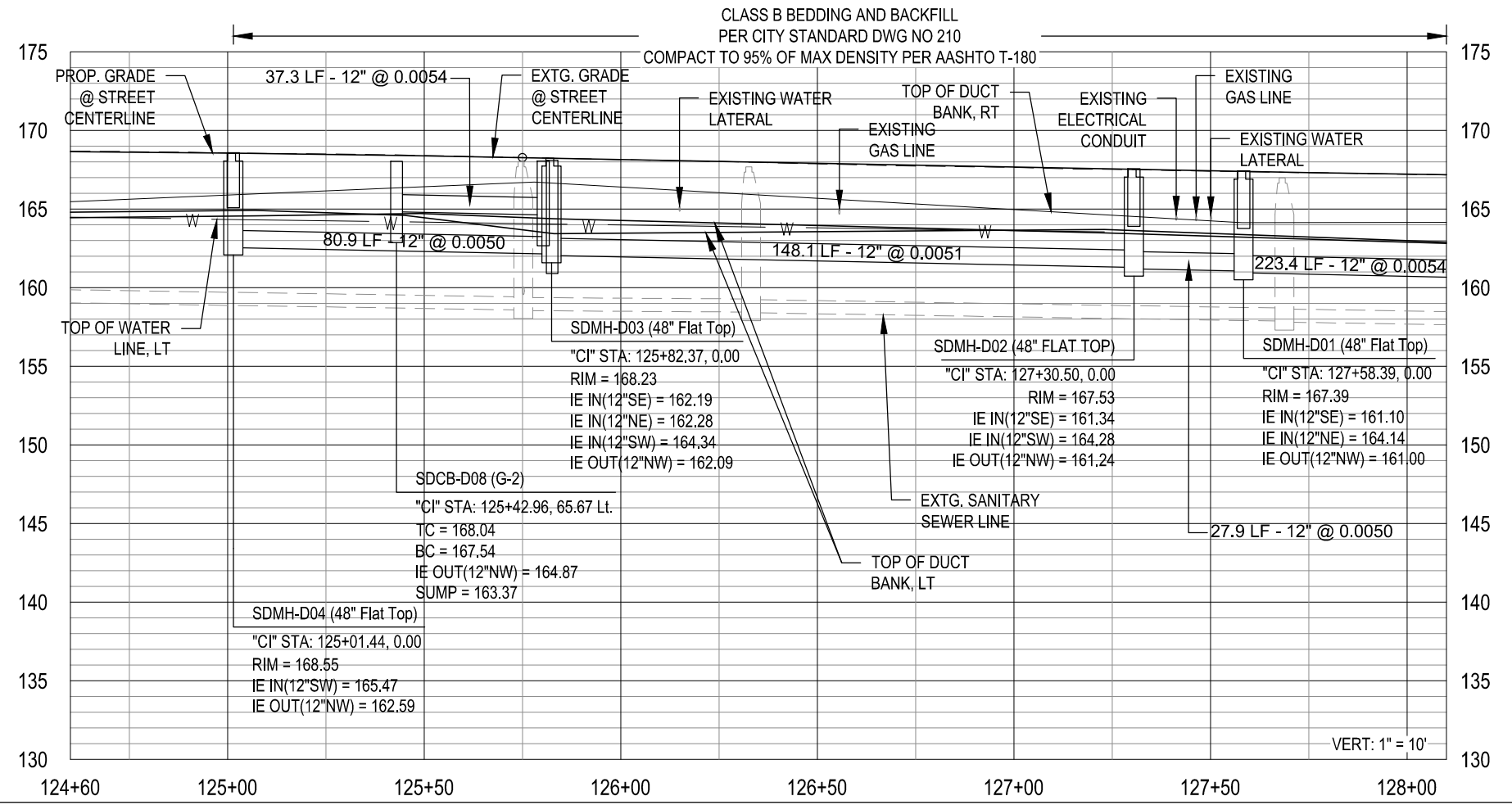
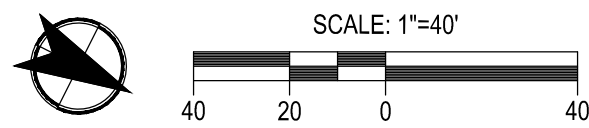
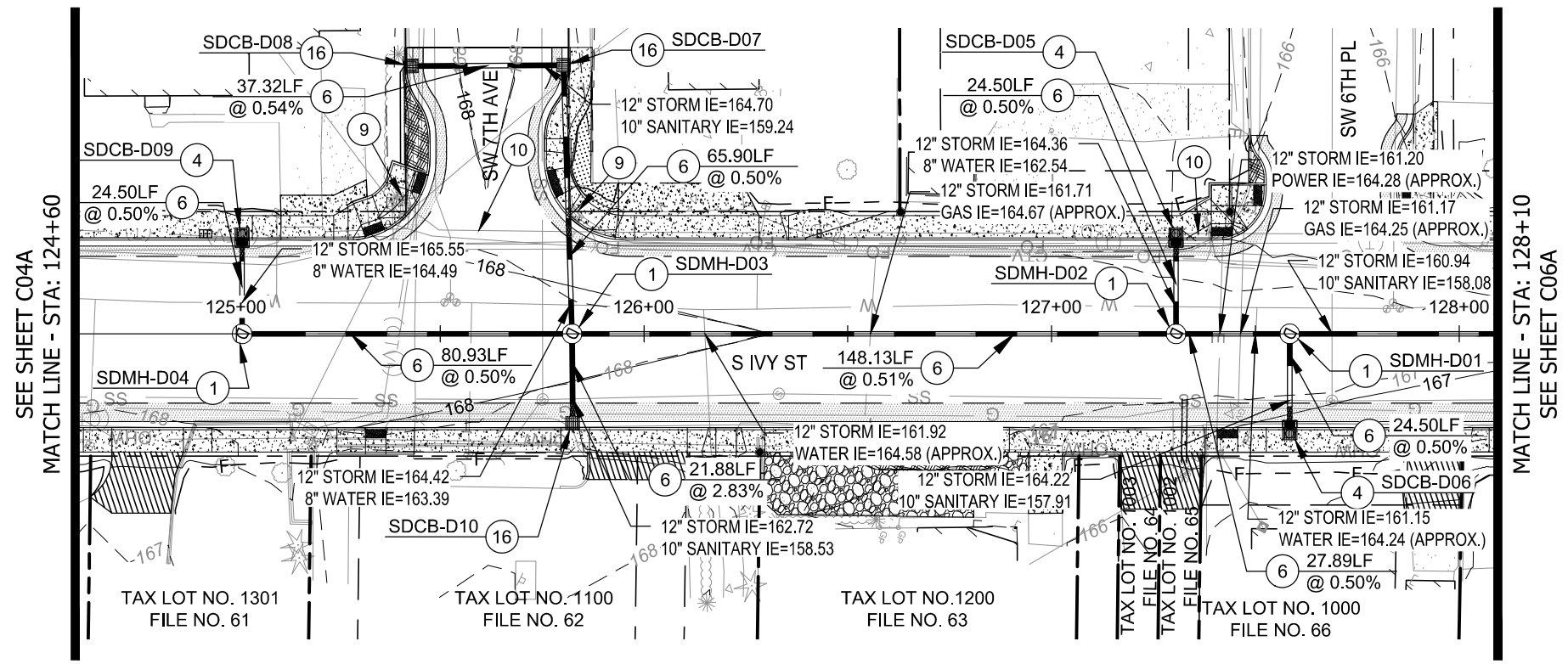
REVISIONS

NO.	DATE:	

Sheet No. C05

DATE: December 2023 PROJECT NO.: CI-300317309

Plot Stamp: 1/15/2024 11:53:13 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\C-PLAN & PROFILE.dwg



STORM CONSTRUCTION NOTES

- 1 Install 48" flat top concrete manhole per City Standard Drawing 203 & 208. See profile on this sheet for rim and invert elevations.
- 4 Install curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. See catch basin data table on this sheet for rim, invert and sump elevations.
- 6 Install 12" HDPE N-12 pipe using open trench method. See profile on this sheet for pipe length and slope. Bedding and backfill per City Standard Drawing 210.
- 9 Remove existing storm drain inlet.
- 10 Abandon existing storm line after construction and acceptance of new storm sewer. Fill existing storm line with grout and abandon in place.
- 16 Install G-2 catch basin per City Standard Drawing 207. See catch basin data table and profile on this sheet for rim, invert, and sump elevations.

CATCH BASIN DATA

SDCB-D05 (GB) "CI" STA: 127+30.50, 24.50 Lt. TC: 167.57, BC: 167.07 IE OUT (12"NE) = 164.40 SUMP = 164.40	SDCB-D10 (G-2) "CI" STA: 125+82.53, 21.88 Rt. TC: 168.10, BC: 167.77 IE OUT (12"SW) = 162.90 SUMP = 161.40
SDCB-D06 (GB) "CI" STA: 127+58.39, 24.50 Rt. TC: 167.43, BC: 166.93 IE OUT (12"SW) = 164.26 SUMP = 164.26	SDCB-D07 (G-2) "CI" STA: 125+80.28, 65.87 Lt. TC: 168.05, BC: 167.55 IE IN (12"SE) = 164.67 IE OUT (12"NE) = 164.67 SUMP = 163.17
SDCB-D09 (GB) "CI" STA: 125+01.44, 24.50 Lt. TC: 168.59, BC: 168.09 IE OUT (12"NE) = 165.59 SUMP = 165.59	

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 EXPIRES: 06/30/25

STORMWATER

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

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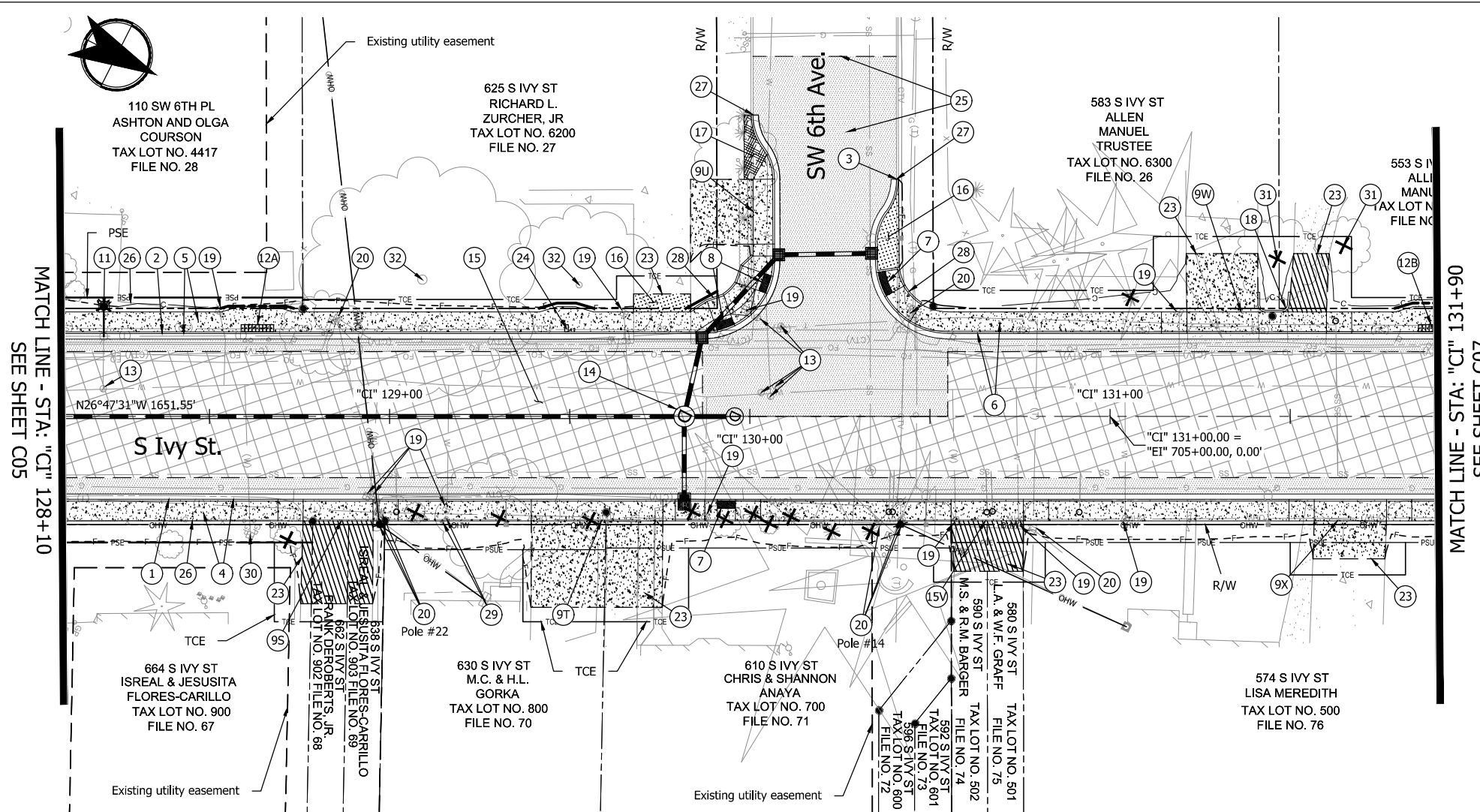
DAN JOHNSON
 DIRECTOR

DESIGNED BY: R. MONTGOMERY
 DRAFTED BY: R. MONTGOMERY
 CHECKED BY: C. JESIC

NO. DATE: [] [] [] []

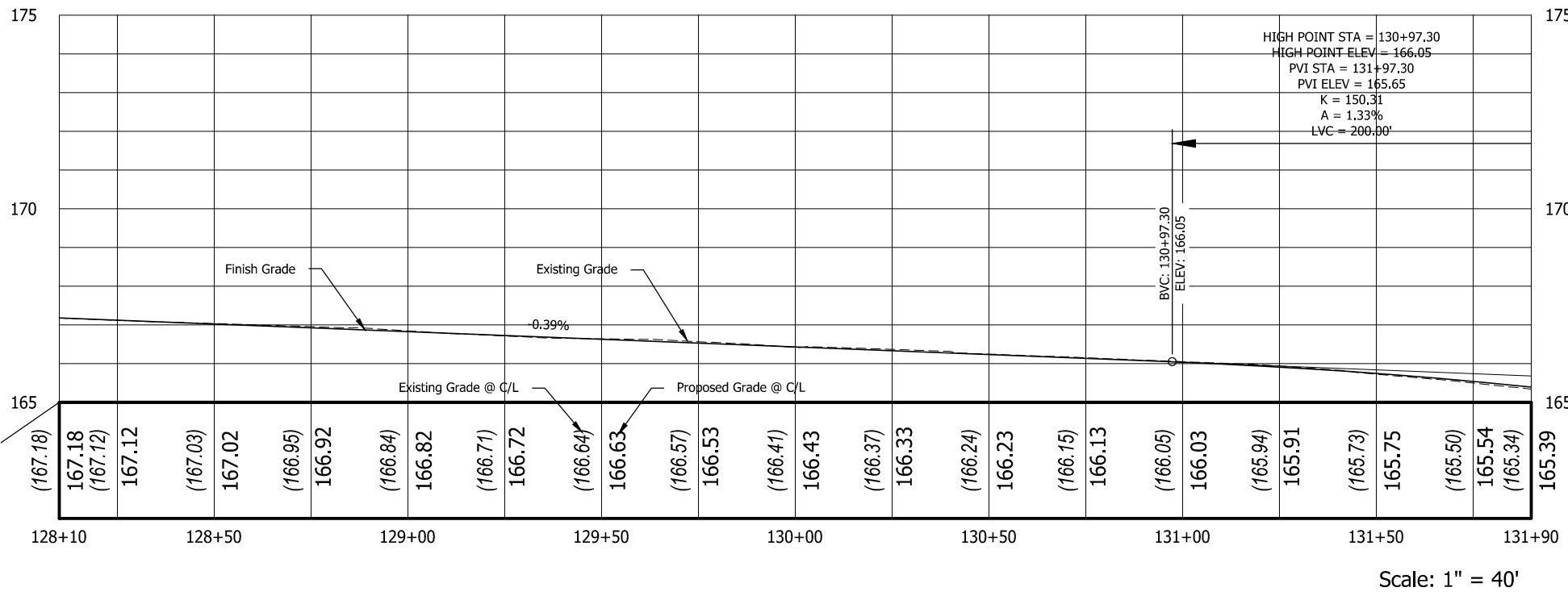
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Plot Stamp: 1/16/2024 10:54:05 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\1490-CD-STORM.dwg



CONSTRUCTION NOTES

- 1 See Sht. C02, Note 1
Sawcut & remove extg. pvmt., curb, & sidewalk
- 2 See Sht. C05, Note 4
Sawcut & remove extg. pvmt., curb, & sidewalk
- 3 Sta. "CI" 130+40.74, 65.87' LT to Sta. "CI" 135+43.03, 23.00' LT
Sawcut & remove extg. pvmt. & curb
- 4 See Sht. C02, Note 2
Const. curb and gutter
Const. P.C. conc. sidewalk
- 5 See Sht. C05, Note 8
Const. curb and gutter
Const. P.C. conc. sidewalk
- 6 Sta. "CI" 130+40.74, 65.87' LT to Sta. "CI" 135+43.03, 23.00' LT
Const. curb and gutter - 543.7 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 1719.6 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- 7 Const. curb ramp, parallel - 2 EA.
(For details, see shts. BC14 & BC15) (See ODOT dwg. nos. RD755, RD758, & RD759)
- 8 Const. curb ramp, combination - 2 EA. (For details, see shts. BCXX thru BC13) (See ODOT dwg. nos. RD755, RD758, & RD759)
- 9 Const. P.C. conc. dwy. apron
S - Sta. "CI" 128+68.99, 23.00' Rt. - Sta. "CI" 128+02.42, 23.00' Rt.
T - Sta. "CI" 129+32.35, 23.00' Rt. - Sta. "CI" 129+79.35, 23.00' Rt.
U - Sta. "CI" 130+06.89, 44.57' Lt. - Sta. "CI" 130+05.12, 72.83' Lt.
W - Sta. "CI" 131+14.28, 23.00' Lt. - Sta. "CI" 131+67.01, 23.00' Lt.
X - Sta. "CI" 131+49.62, 23.00' Rt. - Sta. "CI" 131+83.49, 23.00' Rt.
(For details, see shts. BD03 thru BD04) (See Clack. Co. dwg. no. D600)
- 10 2" grind & inlay per typical sections (see sht. no. BA01)
- 11 Sta. "CI" 128+20.71, 30.50' LT.
Fire hydrant to be relocated by utility, back of walk elev. =167.17'
(See Canby Utility dwg. no. 001)
- 12 Const. conc. collar & install multiple mailbox support - 2 ea.
A - Sta. "CI" 128+63.30, 24.50' LT
B - Sta. "CI" 131+89.09, 24.50' LT
- 13 Adjust water valve box to grade - 5 ea.
- 14 Stormwater infrastructure (see shts. C01A - C10A)
- 15 Const. commercial P.C. conc. dwy. apron
V - Sta. "CI" 130+48.89, 23.00' Rt. - Sta. "CI" 130+82.93, 23.00' Rt.
(For details, see shts. BD03 thru BD04) (See Clack. Co. dwg. no. D600)
- 16 Inst. permanent seeding over 4" topsoil
- 17 Inst. bark mulch, 4" depth
- 18 Const. standard curb
(For details, see sht. BD04)
(See Clack. Co. dwg. no. S100)
- 19 Water meter to be relocated by utility
- 20 Utility to be relocated by Utility Owner.
- 23 Sawcut and remove extg. pvmt
(For details, see shts. BD03 thru BD04)
- 24 Const. conc. collar & install single mailbox support - 1 ea.
Sta. "CI" 129+49.09, 24.50' LT
(See ODOT dwg. nos. RD100 & RD101)
- 25 Sawcut and remove extg. pvmt.,
Const. full depth ACP repair
(For details, see sht. BE04)
- 26 Remove fence
- 27 Const. gutter transition
(For details, see sht. BB02)
- 28 Const. standard curb
(For details, see sht. BC13)
(See Clack. Co. dwg. no. S100)
- 29 Private irrigation box to be relocated by owner
- 30 Adjust water meter to grade 1 ea.
- 31 Remove tree
- 32 Protect tree, contractor to notify engineer prior to cutting roots larger than 1" diameter.



KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

GENERAL CONSTRUCTION

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
DAN JOHNSON

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

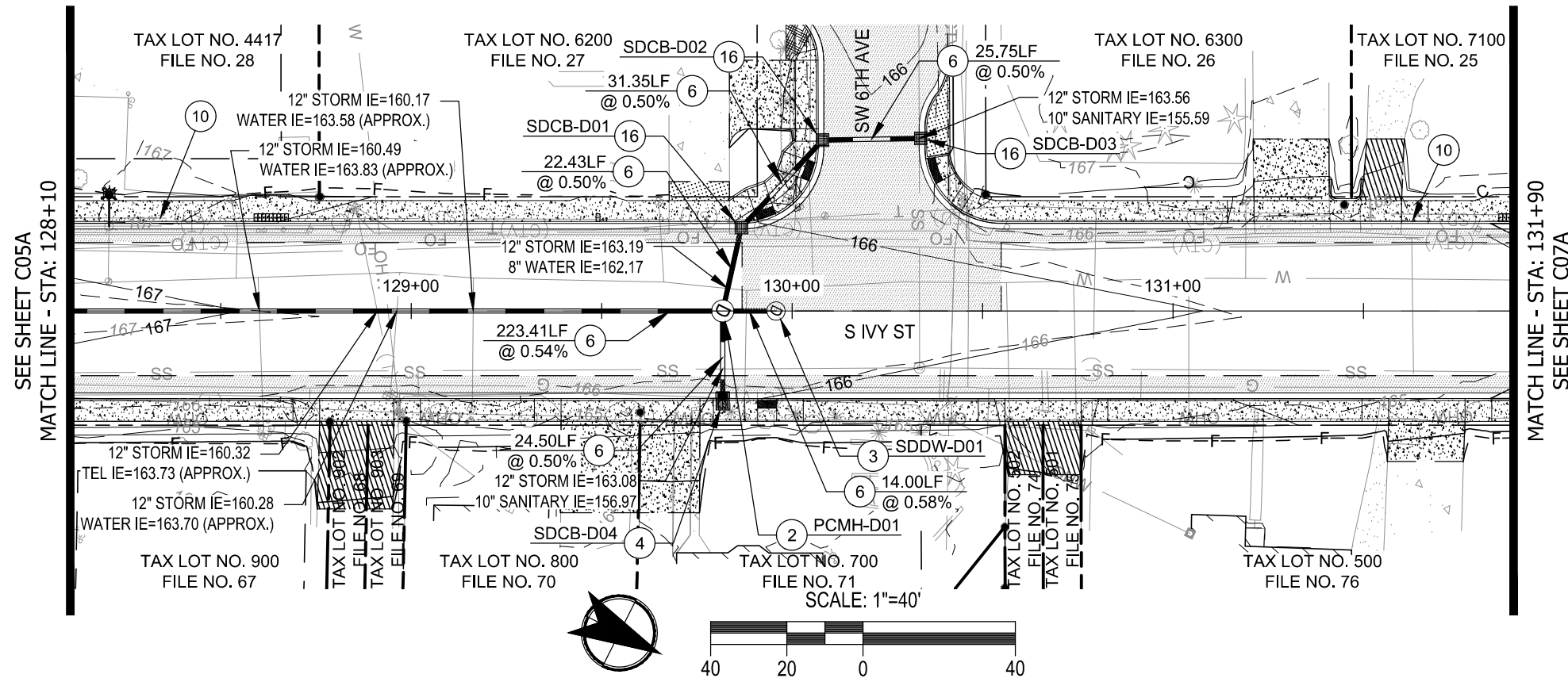
NO. DATE: _____

Sheet No. C06

REVISIONS

DATE: December 2023 PROJECT NO.: CI-300317309

Plot Stamp: 1/16/2024 10:54:18 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\1490-CD-STORM.dwg

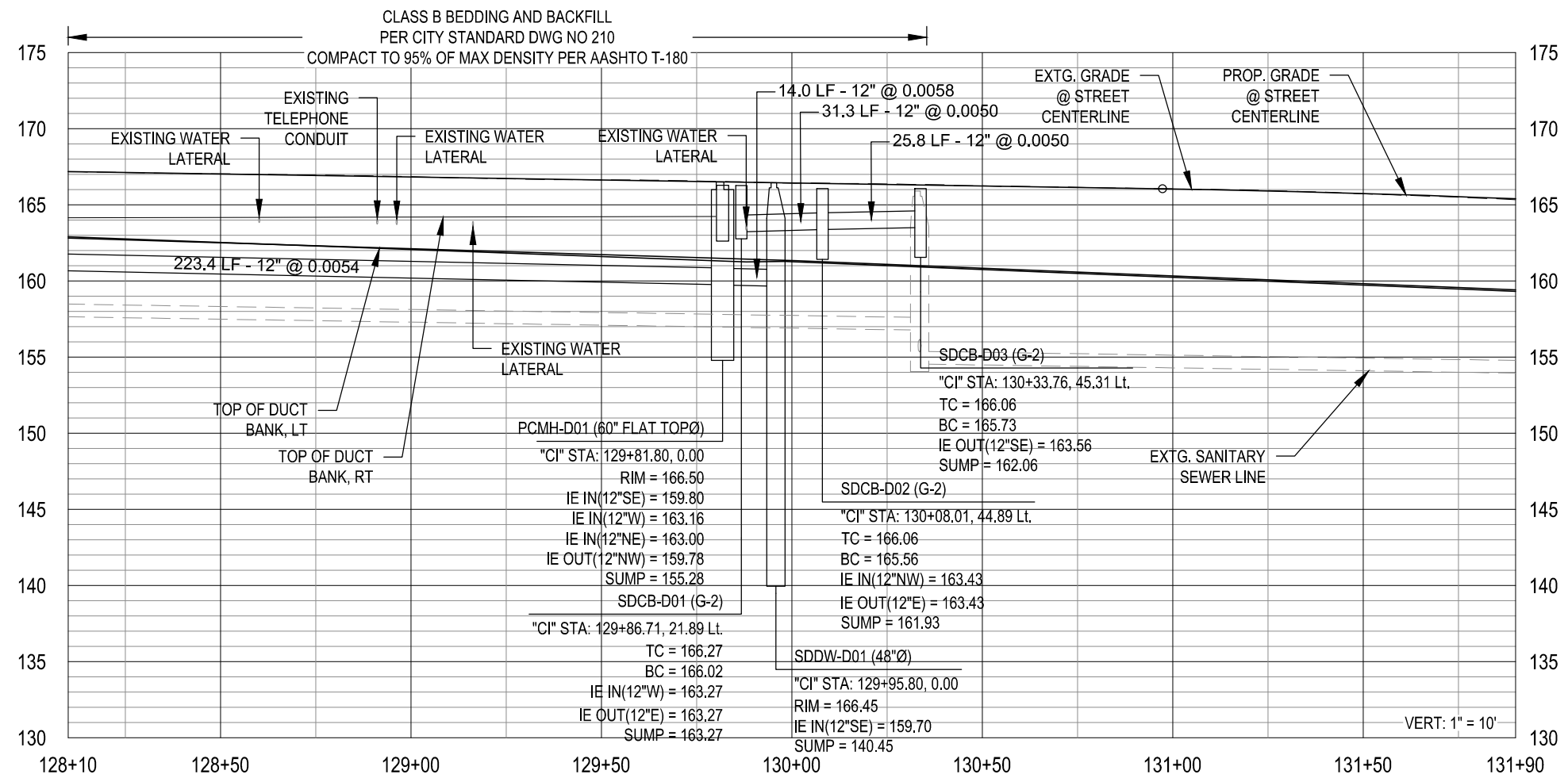


STORM CONSTRUCTION NOTES

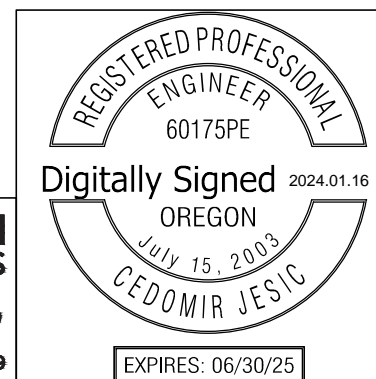
- ② Install 60" concrete sumped sedimentation manhole per City Standard Drawing 201. See profile on this sheet for rim and invert elevations.
- ③ Connect to existing 48" concrete drywell previously installed. See City Standard Drawing 204 for reference. See profile on this sheet for invert elevations.
- ④ Install curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. See catch basin data table on this sheet for rim, invert, and sump elevations.
- ⑥ Install 12" HDPE N-12 pipe using open trench method. See profile on this sheet for pipe length and slope. Bedding and backfill per City Standard Drawing 210.
- ⑩ Abandon existing storm line after construction and acceptance of new storm sewer. Fill existing storm line with grout and abandon in place.
- ⑯ Install G-2 catch basin per City Standard Drawing 207. See profile on this sheet for rim, invert and sump elevations.

CATCH BASIN DATA

SDCB-D04 (GB)
 "CI" STA: 129+81.80, 24.50 Rt.
 TC: 166.29, BC: 165.79
 IE OUT (12"SW) = 163.12
 SUMP = 163.12



KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169



STORMWATER

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: XXXX 2020 PROJECT NO.: CI-22239

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

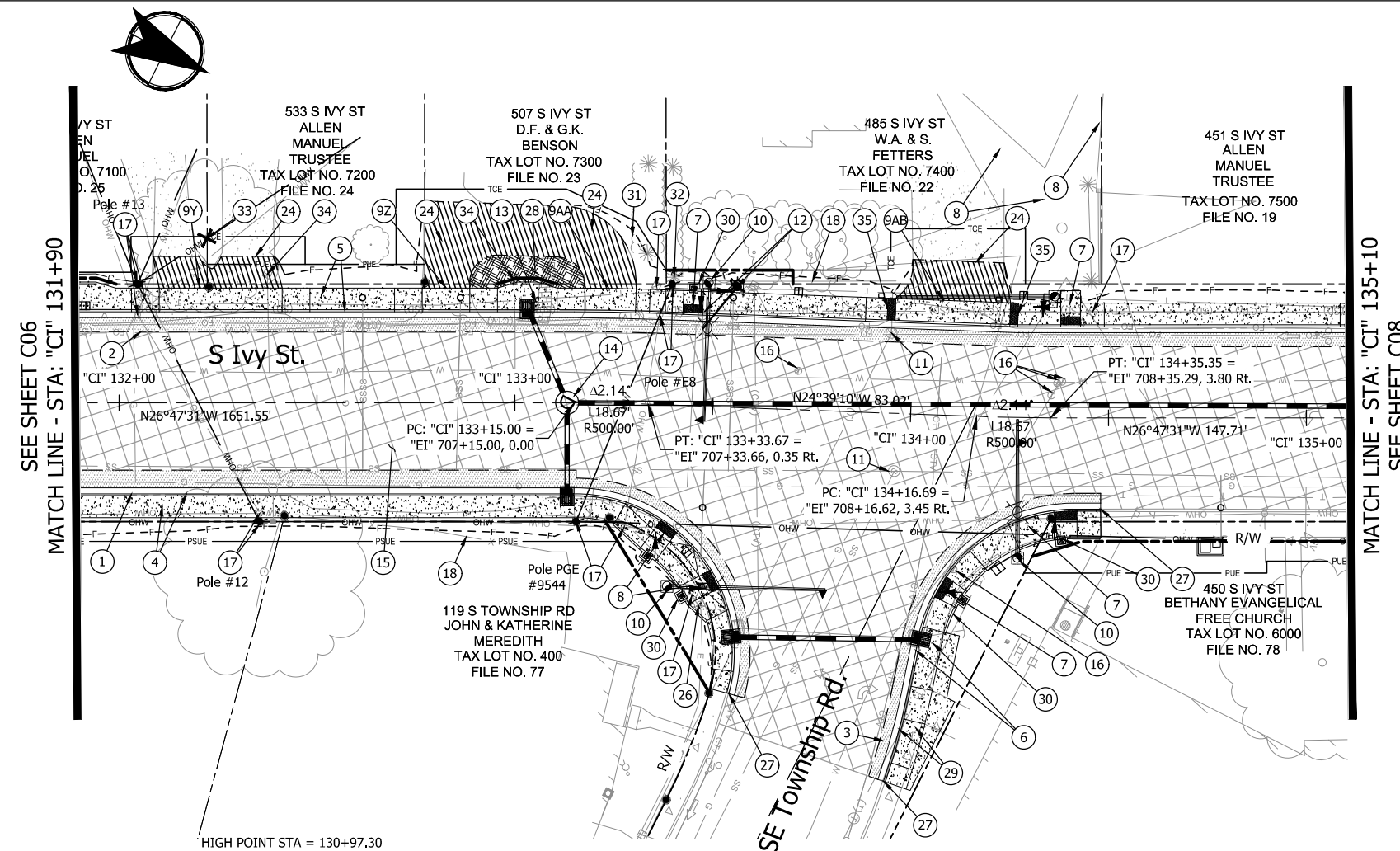
DAN JOHNSON
 DIRECTOR

DESIGNED BY: R. MONTGOMERY
 DRAFTED BY: R. MONTGOMERY
 CHECKED BY: C. JESIC

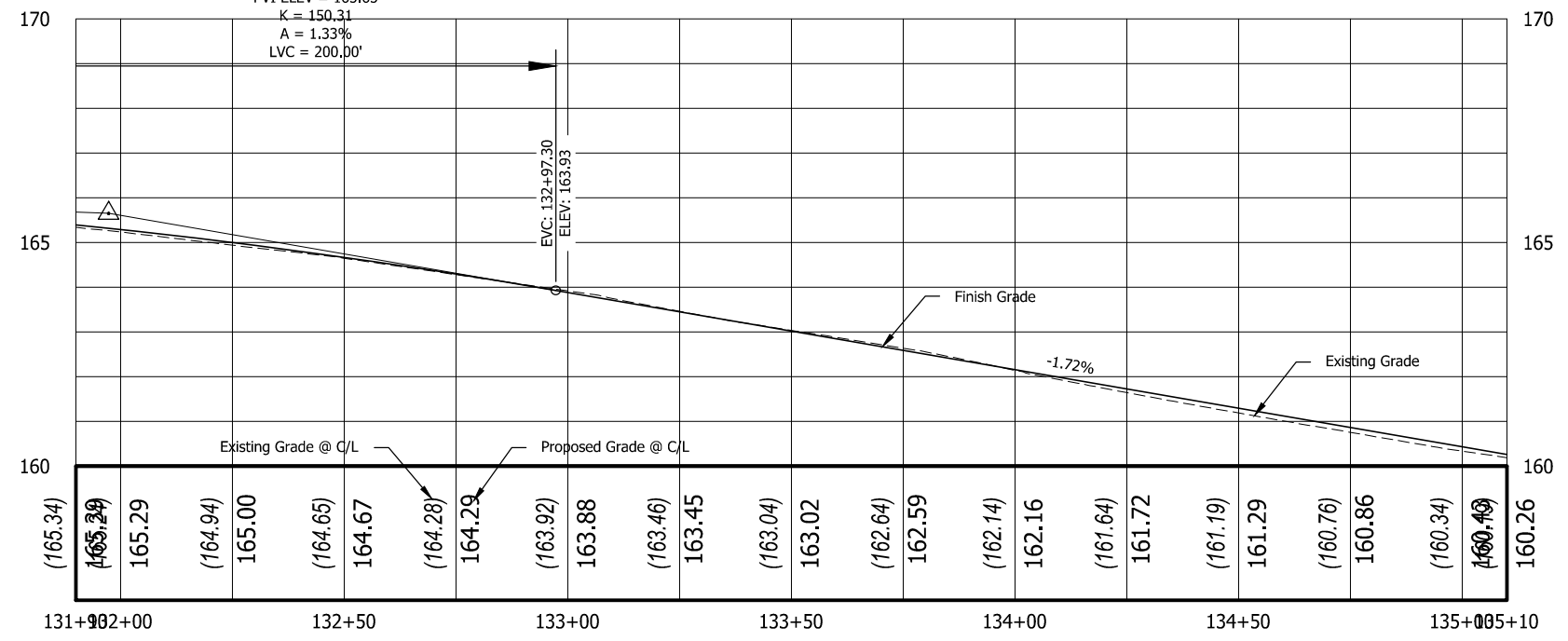
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Sheet No. **C06A**

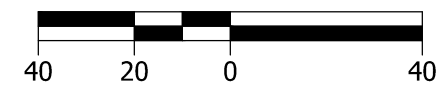
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HIGH POINT STA = 130+97.30
 HIGH POINT ELEV = 166.05
 PVI STA = 131+97.30
 PVI ELEV = 165.65
 K = 150.31
 A = 1.33%
 LVC = 200.00'



Scale: 1" = 40'



CONSTRUCTION NOTES

- 1 See Sht. C02, Note 1
Sawcut & remove extg. pvmt., curb, & sidewalk
- 2 See Sht. C06, Note 3
Sawcut & remove extg. pvmt. & curb
- 3 Sta. "CI" 133+96.65, 93.02' RT to Sta. "CI" 134+48.06, 23.08' RT
Sawcut & remove extg. pvmt., curb, & sidewalk
- 4 See Sht. C02, Note 2
Const. curb and gutter
Const. P.C. conc. sidewalk
- 5 See Sht. C06, Note 6
Const. curb and gutter
Const. P.C. conc. sidewalk
- 6 Sta. "CI" 134+02.95, 63.72' RT to Sta. "CI" 134+48.06, 23.08' RT
Const. standard curb - 69.4 ft. (See Clack. Co. dwg. no. S100)
Const. P.C. conc. sidewalk - 430.0 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- 7 Const. curb ramp, parallel - 4 EA.
(For details, see sht. BC16 thru BC19) (See ODOT dwg. nos. RD755, RD758, & RD759)
- 8 Const. curb ramp, combination - 2 EA. (For details, see shts. BC16 thru BC19) (See ODOT dwg. nos. RD755, RD758, & RD759)
- 9 Const. P.C. conc. dwy. apron
Y - Sta. "CI" 132+03.08, 23.00' Lt. - Sta. "CI" 132+48.14, 23.00' Lt.
Z - Sta. "CI" 132+69.54, 23.00' Lt. - Sta. "CI" 132+95.54, 23.00' Lt.
AA - Sta. "CI" 133+10.60, 23.00' Lt. - Sta. "CI" 133+33.11, 23.00' Lt.
AB - Sta. "CI" 133+87.71, 23.00' Lt. - Sta. "CI" 134+32.85, 23.00' Lt.
(For details, see sht. BD04) (See Clack. Co. dwg. no. D600)
- 10 Inst. traffic signal (see shts. MA01-MC05)
- 11 Adjust rim to grade (minor) - 2 ea.
- 12 Sta. "CI" 133+65.03, 30.50 LT.
Fire hydrant to be relocated by utility, top curb elev. =162.80'
- 13 Const. conc. collar & install single mailbox support - 1 ea.
Sta. "CI" 133+05.32, 24.50' LT
(See ODOT dwg. nos. RD100 & RD101)
- 14 Stormwater infrastructure (see shts. C01A - C10A)
- 15 Const. variable depth grind & 2" inlay
- 16 Adjust water valve to grade - 5 ea.
- 17 Utility to be relocated by Utility Owner.
- 18 Remove fence
- 24 Sawcut and remove extg. pvmt
(For details, see sht. BD04)
- 26 Remove and salvage cobrahead light pole
- 27 Const. gutter transition
(For details, see sht. BB02)
- 28 Inst. bark mulch, 4" depth
- 29 Sta. "CI" 133+96.65, 93.02' RT to Sta. "CI" 134+02.95, 63.72' RT
Const. mountable curb & gutter - 30.0 ft. (See ODOT dwg. RD700)
Const. conc. maintenance pad - 276.2 (For details, see sht. BC18)
- 30 Const. standard curb
(For details, see shts. BC16 thru BC19)
(See Clack. Co. dwg. no. S100)
- 31 Protect shrub
- 32 Remove shrub back to proposed R/W line
- 33 Protect tree, contractor to notify engineer prior to cutting roots larger than 1" diameter.
- 34 Relocate water meter
- 35 Install truncated domes

KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

GENERAL CONSTRUCTION

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
DAN JOHNSON

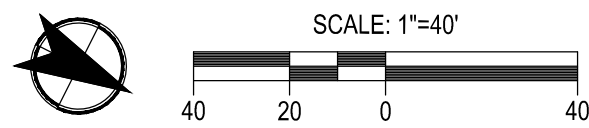
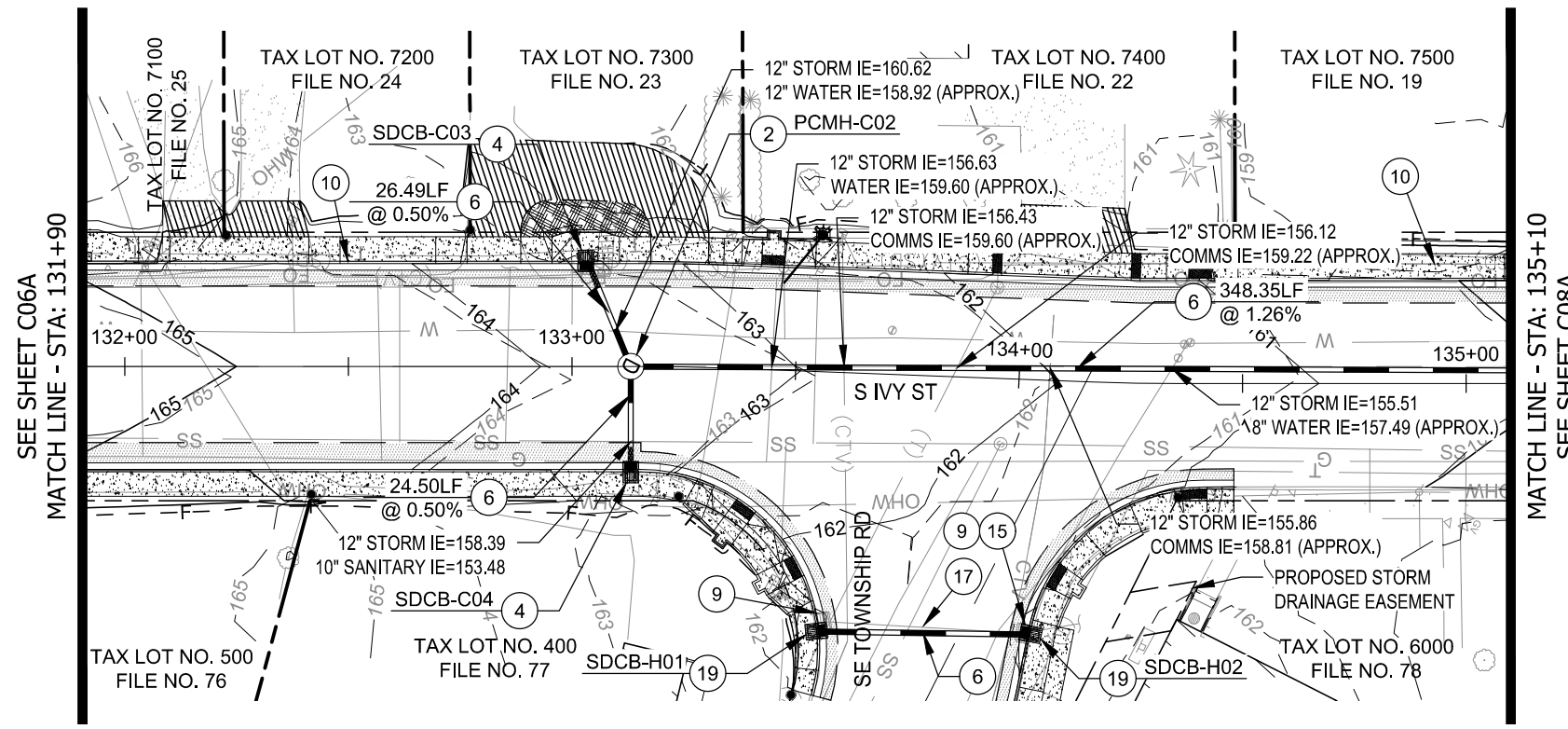
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO. DATE: _____

REVISIONS

Sheet No. **C07**

DATE: December 2023 PROJECT NO.: CI-300317309

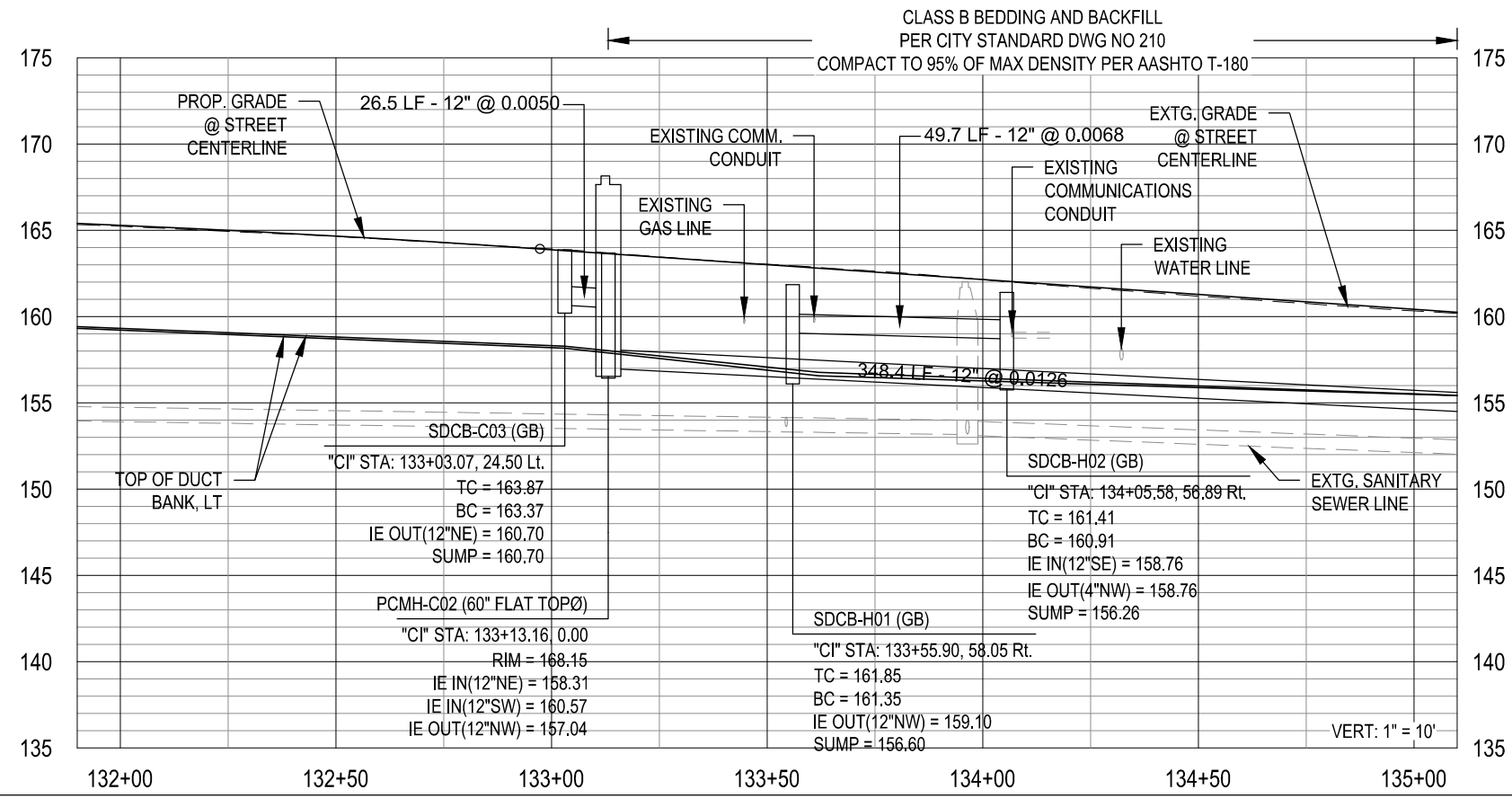


STORM CONSTRUCTION NOTES

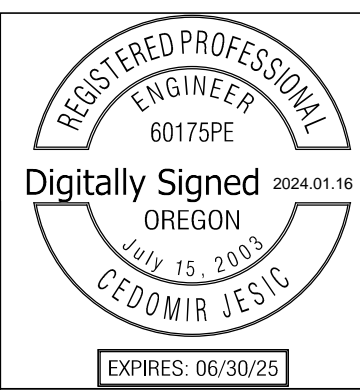
- 2 Install 60" concrete sumped sedimentation manhole per City Standard Drawing 201. See profile on this sheet for rim and invert elevations.
- 4 Install curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. See catch basin data table and profile on this sheet for rim, invert and sump elevations.
- 6 Install 12" HDPE N-12 pipe using open trench method. See profile on this sheet for pipe length and slope. Bedding and backfill per City Standard Drawing 210.
- 9 Remove existing storm drain inlet.
- 10 Abandon existing storm line after construction and acceptance of new storm sewer. Fill existing storm line with grout and abandon in place.
- 15 Reconnect new catch basin to outlet pipe to existing dry well.
- 17 Remove existing storm pipe.
- 19 Install trapped curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. Hook mounted catch basin trap from Neenah Foundry, model R-3701-12 or approved equal per detail 1 on sheet BB04. See profile on this sheet for rim, invert and sump elevations.

CATCH BASIN DATA

SDCB-C04 (GB)
 "CI" STA: 133+13.16, 24.50 Rt.
 TC: 163.69, BC: 163.19
 IE OUT (12"SW) = 158.43
 SUMP = 156.93



KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
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STORMWATER

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
DAN JOHNSON

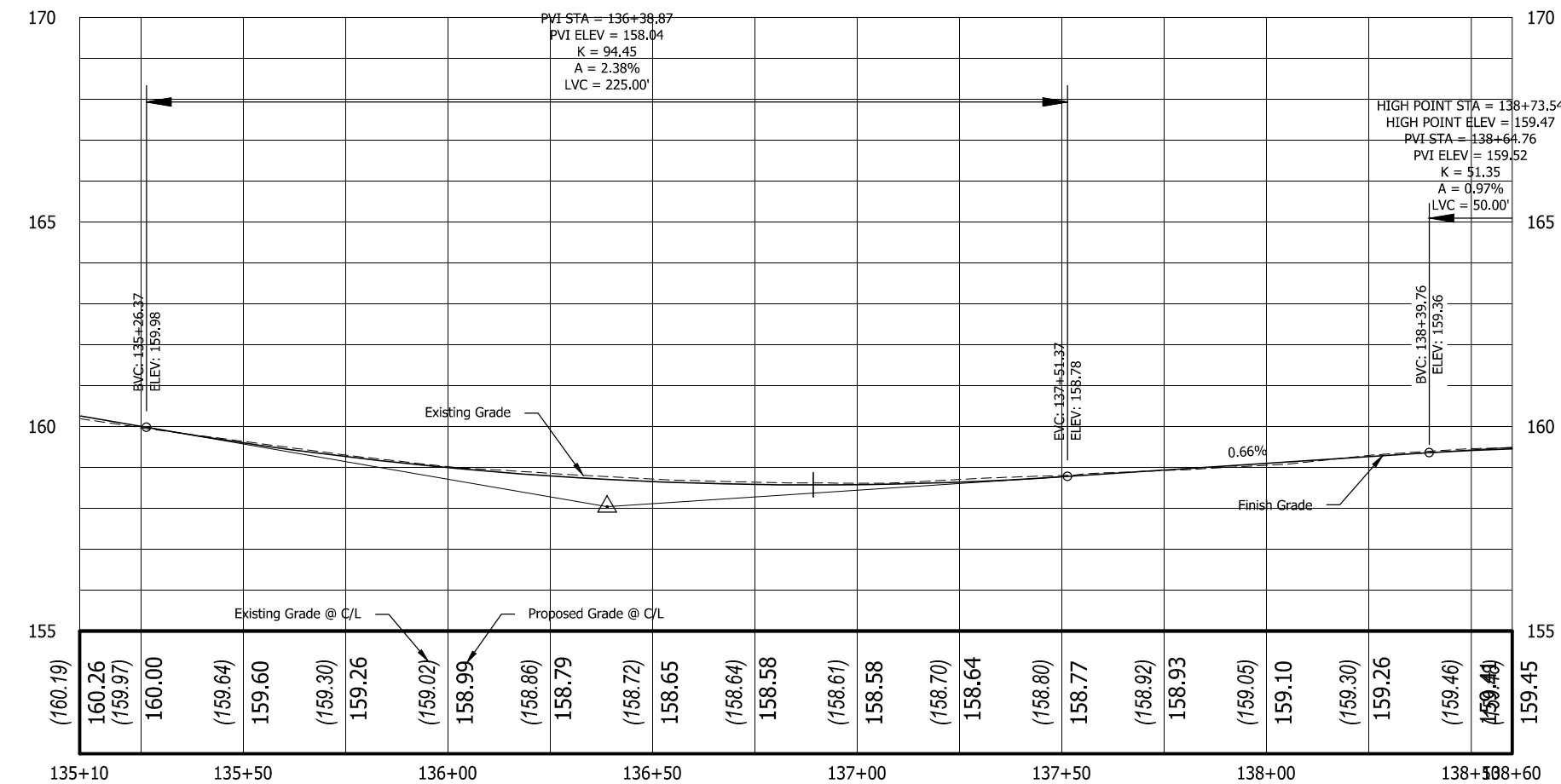
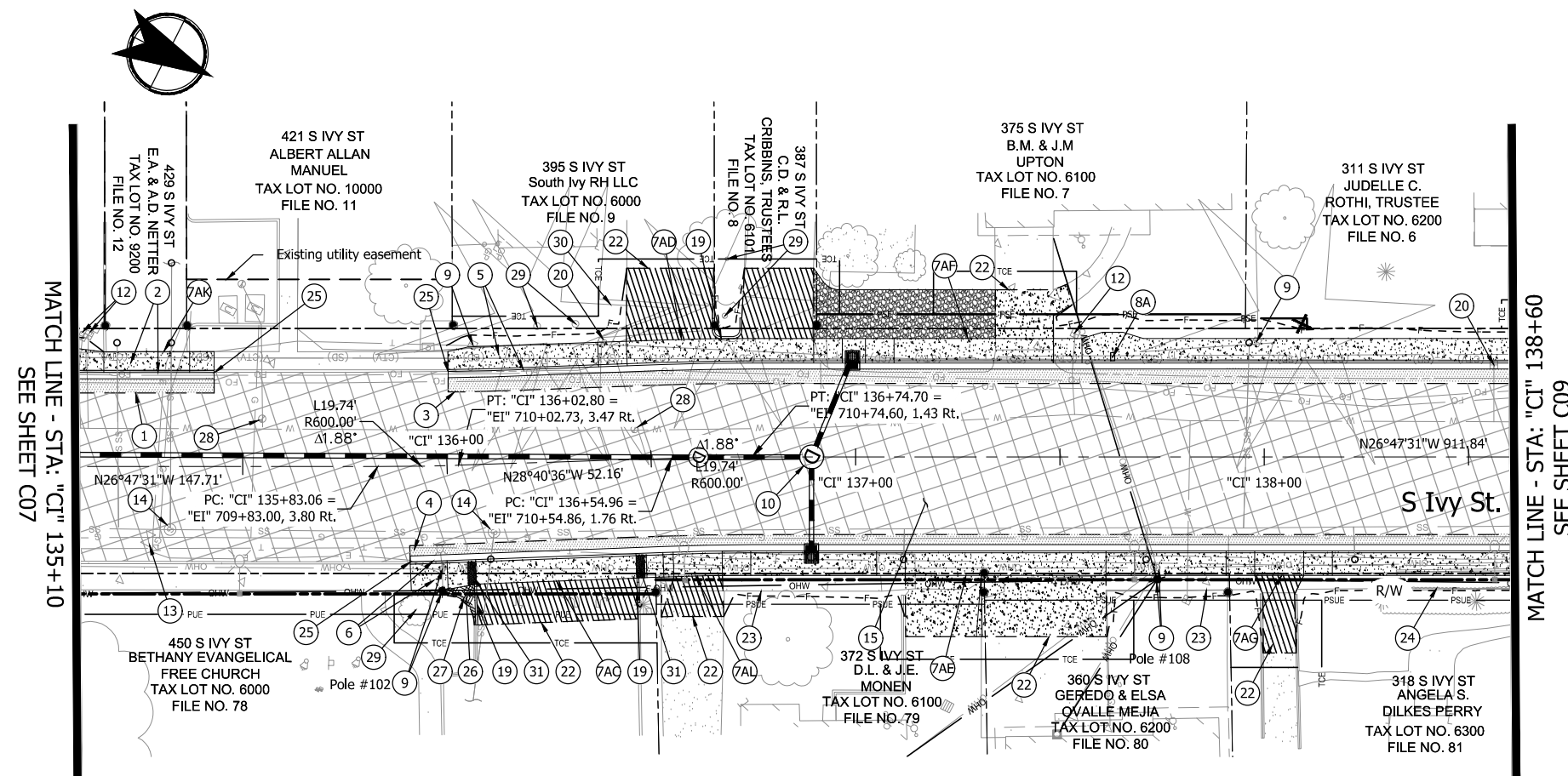
DESIGNED BY: R. MONTGOMERY
 DRAFTED BY: R. MONTGOMERY
 CHECKED BY: C. JESIC

REVISIONS

NO.	DATE	DESCRIPTION

Sheet No. **C07A**

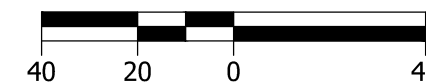
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CONSTRUCTION NOTES

- 1 See Sht. C06, Note 3
Sawcut & remove extg. pvmt. & curb
- 2 See Sht. C06, Note 6
Const. curb and gutter
Const. P.C. conc. sidewalk
- 3 Sta. "CI" 136+00.94, 23.01' LT to
Sta. "CI" 139+00.25, 52.77' LT
Sawcut & remove extg. pvmt. & curb
- 4 Sta. "CI" 135+90.73, 23.46' RT to
Sta. "CI" 138+92.43, 65.08' RT
Sawcut & remove extg. pvmt. & curb
- 5 Sta. "CI" 136+00.94, 23.01' LT to
Sta. "CI" 139+00.21, 66.21' LT
Const. curb and gutter - 337.3 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 1360.06 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- 6 Sta. "CI" 135+90.73, 23.46' RT to
Sta. "CI" 138+92.43, 65.08' RT
Const. curb and gutter - 341.0 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 1017.4 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- 7 Const. P.C. conc. dwy. apron
AC - Sta. "CI" 135+99.25, 23.28' Rt. - Sta. "CI" 136+54.36, 23.00' Rt.
AD - Sta. "CI" 136+37.90, 22.95' Lt. - Sta. "CI" 136+96.76, 23.00' Lt.
AE - Sta. "CI" 137+05.18, 23.00' Rt. - Sta. "CI" 137+68.28, 23.00' Rt.
AF - Sta. "CI" 137+02.45, 23.00' Lt. - Sta. "CI" 137+55.45, 23.00' Lt.
AG - Sta. "CI" 137+90.68, 23.00' Rt. - Sta. "CI" 138+16.68, 23.00' Rt.
AK - Sta. "CI" 135+10.06, 23.00' Lt. - Sta. "CI" 135+43.03, 23.00' Lt.
AL - Sta. "CI" 136+52.11, 23.00' Lt. - Sta. "CI" 136+74.35, 23.00' Lt.
(For details, see sht. BD05) (See Clack. Co. dwg. no. D600)
- 8 Const. conc. collar & install single mailbox support - 2 ea.
A - Sta. "CI" 137+62.950, 24.50' LT
(See ODOT dwg. nos. RD100 & RD101)
- 9 Utility to be relocated by Utility Owner.
- 10 Stormwater infrastructure (see shts. C01A - C10A)
- 12 Adjust water meter to grade - 3 ea.
- 13 Adjust gas valve to grade - 1 ea.
- 14 Adjust rim to grade (minor) - 2 ea.
- 15 Const. variable depth grind & 2" inlay
- 19 Const. standard curb
(For details, see sht. BD05
(See Clack. Co. dwg. no. S100)
- 20 Water meter to be relocated by utility
- 22 Sawcut and remove extg. pvmt
(For details, see sht. BD05)
- 23 Remove sidewalk
- 24 Remove fence and shrubs
- 25 Const. gutter transition
(For details, see sht. BB02)
- 26 Inst. bark mulch, 4" depth
- 27 Remove block wall within construction limits
- 28 Adjust water valve box to grade - 2 ea.
- 29 Protect tree, contractor to notify engineer
prior to cutting roots larger than 1" diameter.
- 30 Extg. boulders to remain in place
- 31 Install truncated domes.

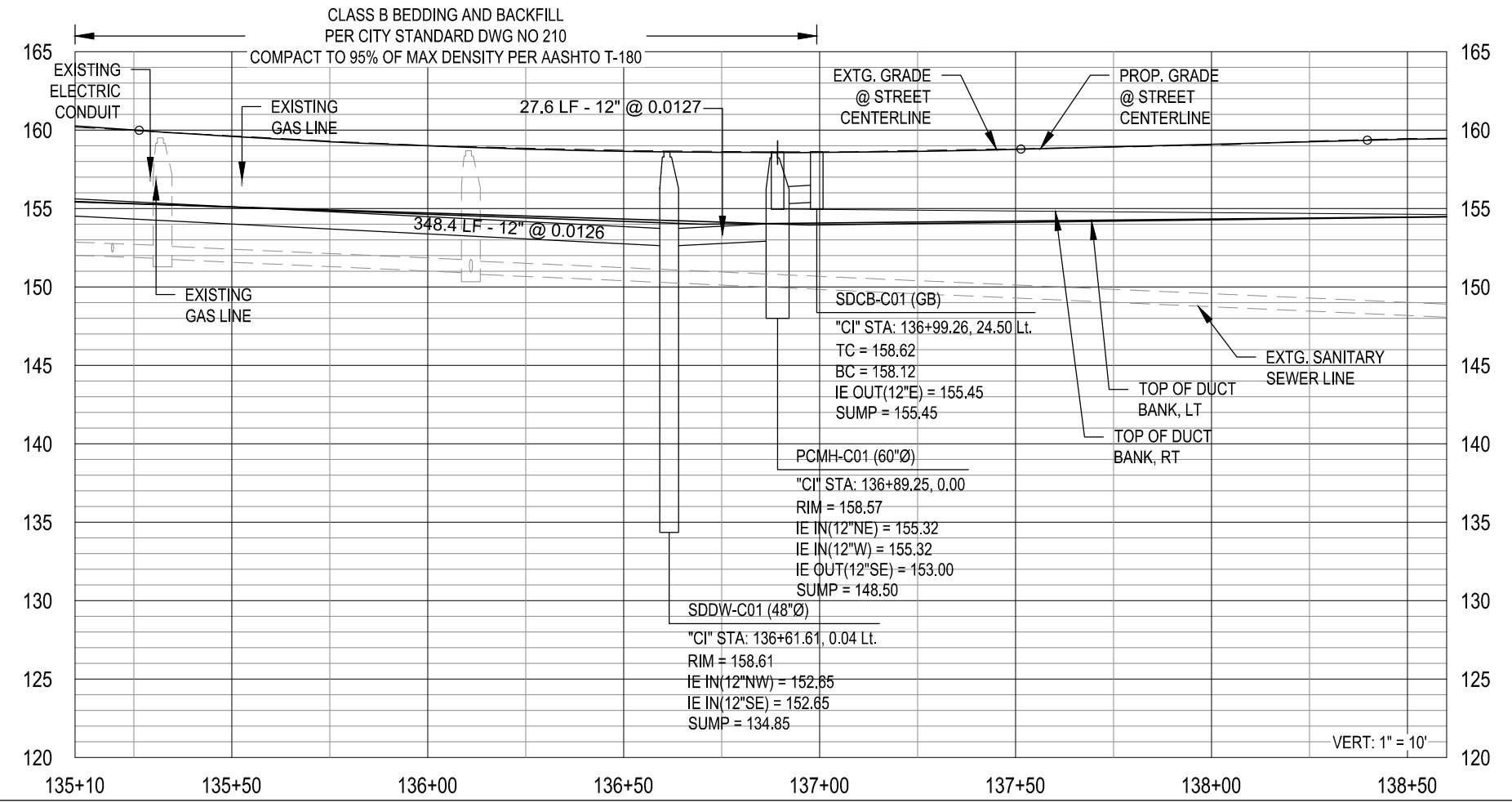
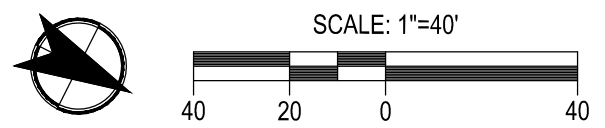
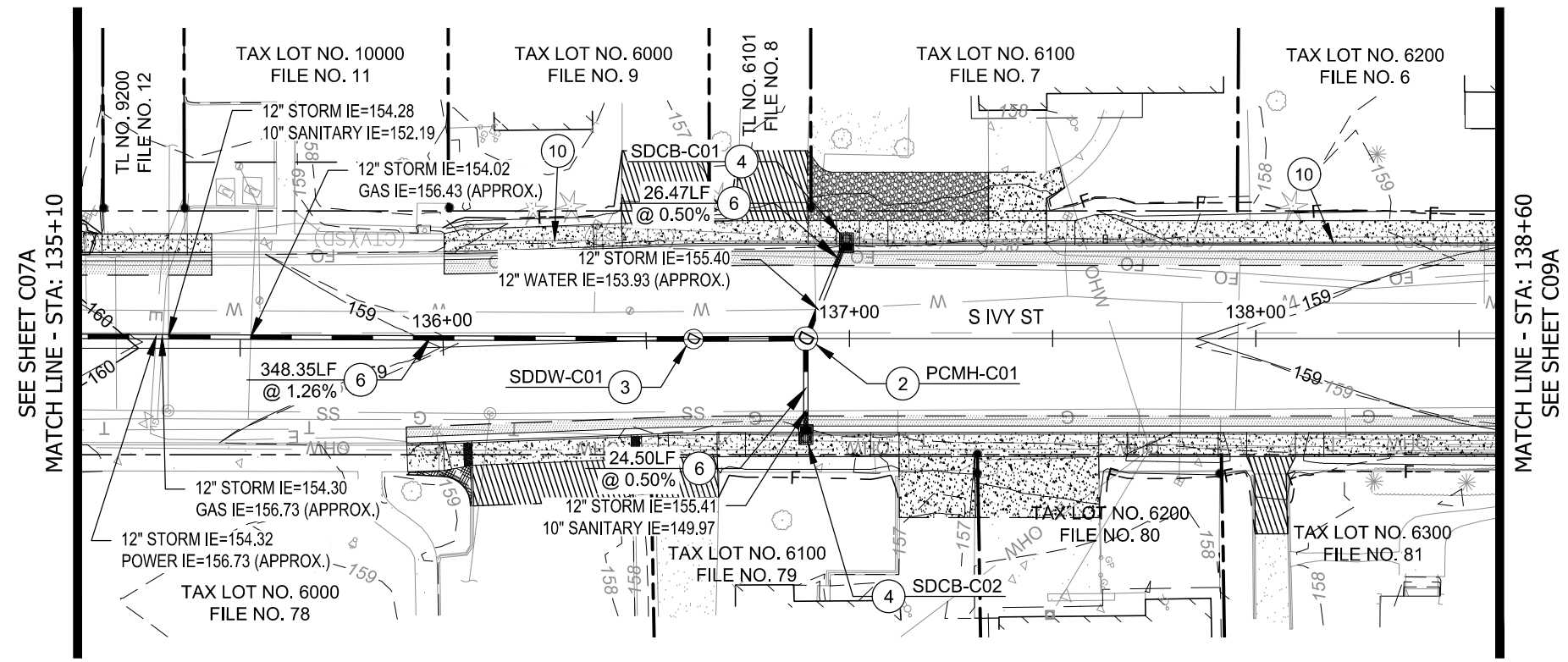
Scale: 1" = 40'



851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169



GENERAL CONSTRUCTION S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS		PROJECT NO.: CI-300317309 DATE: December 2023												
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		DIRECTOR DAN JOHNSON												
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN	REVISIONS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE:</th> <th>DESCRIPTION:</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE:	DESCRIPTION:									
NO.	DATE:		DESCRIPTION:											
CHECKED BY: T. ROOS		Sheet No. C08												



STORM CONSTRUCTION NOTES

- ② Install 60" concrete sumped sedimentation manhole per City Standard Drawing 201. See profile on this sheet for rim and invert elevations.
- ③ Connect to existing 48" concrete drywell previously installed. See City Standard Drawing 204 for reference. See profile on this sheet for invert elevations.
- ④ Install curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. See catch basin data table and profile on this sheet for rim, invert and sump elevations.
- ⑥ Install 12" HDPE N-12 pipe using open trench method. See profile on this sheet for pipe length and slope. Bedding and backfill per City Standard Drawing 210.
- ⑩ Abandon existing storm line after construction and acceptance of new storm sewer. Fill existing storm line with grout and abandon in place.

CATCH BASIN DATA

SDCB-C02 (GB)
 "CI" STA: 136+89.25, 24.50 Rt.
 TC: 158.61, BC: 158.11
 IE OUT (12"SW) = 155.44
 SUMP = 155.44

KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL
 ENGINEER
 60175PE
 Digitally Signed 2024.01.16
 OREGON
 July 15, 2003
 CEDOMIR JESIC
 EXPIRES: 06/30/25

STORMWATER

SIVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
DAN JOHNSON

DESIGNED BY: R. MONTGOMERY
 DRAFTED BY: R. MONTGOMERY
 CHECKED BY: C. JESIC

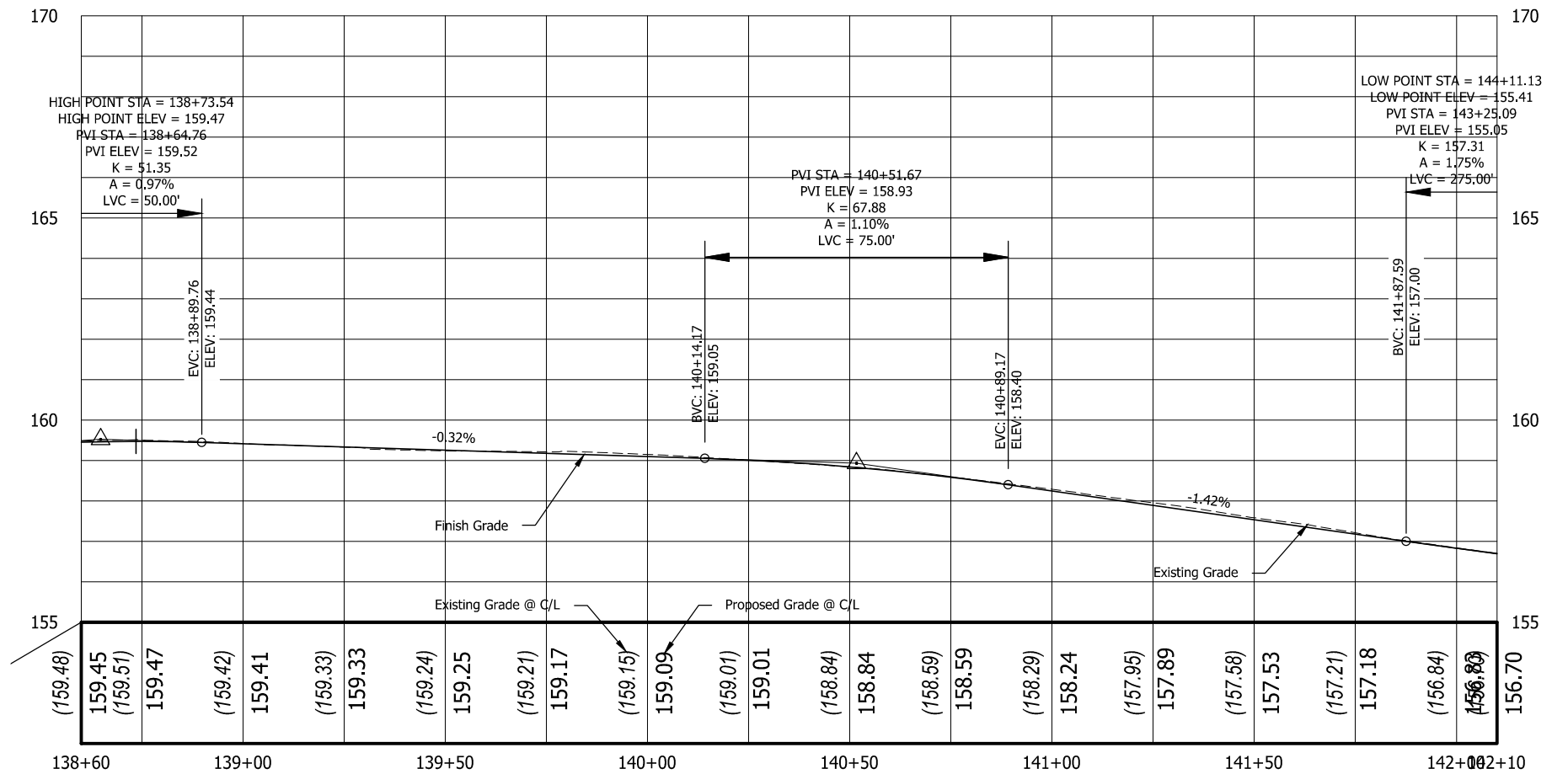
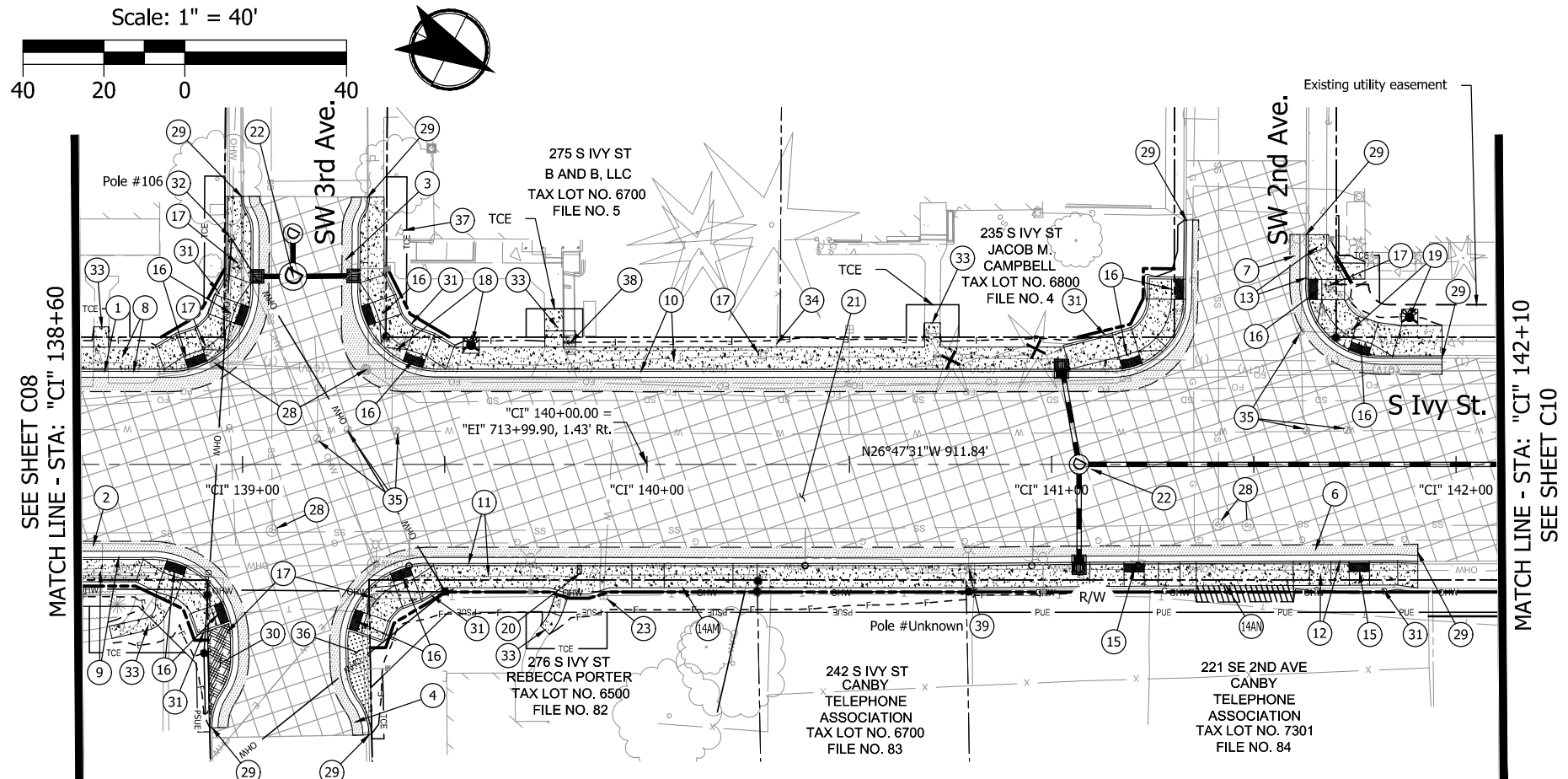
REVISIONS

NO.	DATE:	DESCRIPTION:

Sheet No. **C08A**

DATE: XXXX 2020 PROJECT NO.: CI-22239

Plot Stamp: 1/16/2024 10:54:43 AM - Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\1490-CD-STORM.dwg



CONSTRUCTION NOTES

- ① See Sht. C08, Note 2
Sawcut & remove extg. pvmt. & curb
- ② See Sht. C08, Note 3
Sawcut & remove extg. pvmt. & curb
- ③ Sta. "CI" 139+30.91, 66.07' LT to Sta. "CI" 141+33.32, 60.35' LT
Sawcut & remove extg. pvmt., curb, & sidewalk
- ④ Sta. "CI" 139+31.27, 66.83' RT to Sta. "CI" 141+34.90, 24.76' RT
Sawcut & remove extg. pvmt., curb, & sidewalk
- ⑥ Sta. "CI" 141+60.05, 24.02' RT to Sta. "CI" 141+90.55, 23.95' RT
Sawcut & remove extg. pvmt., curb, & sidewalk
- ⑦ Sta. "CI" 141+62.94, 56.77' LT to Sta. "CI" 141+96.52, 26.52' LT
Sawcut & remove extg. pvmt., curb, & sidewalk
- ⑧ See Sht. C08, Note 5
Const. curb and gutter
Const. P.C. conc. sidewalk
- ⑨ See Sht. C08, Note 6
Const. curb and gutter
Const. P.C. conc. sidewalk
- ⑩ Sta. "CI" 139+30.91, 66.07' LT to Sta. "CI" 141+33.32, 60.35' LT
Const. curb and gutter - 269.2 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 1513.55 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- ⑪ Sta. "CI" 139+31.27, 66.83' RT to Sta. "CI" 141+34.90, 24.76' RT
Const. curb and gutter - 244.3 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 1275.9 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- ⑫ Sta. "CI" 141+60.05, 24.02' RT to Sta. "CI" 141+90.55, 23.95' RT
Const. curb & gutter - 30.5 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 185.04 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- ⑬ Sta. "CI" 141+62.94, 56.77' LT to Sta. "CI" 141+96.52, 26.52' LT
Const. curb & gutter - 56.4 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 404.0 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- ⑭ Const. P.C. conc. dwy. apron
AM - Sta. "CI" 139+96.23, 24.49' Rt. - Sta. "CI" 140+27.23, 24.49' Rt.
AN - Sta. "CI" 141+31.75, 24.05' Rt. - Sta. "CI" 141+63.75, 23.89' Rt.
(For details, see sht. BD05) (See Clack. Co. dwg. no. D600)
- ⑮ Const. curb ramp, parallel - 2 EA.
(For details, see sht. BC20 thru BC26)
(See ODOT dwg. nos. RD755, RD758, & RD759)
- ⑯ Const. curb ramp, combination - 12 EA. (For details, see shts. BC20 thru BC26) (See ODOT dwg. nos. RD755, RD758, & RD759)
- ⑰ Utility to be relocated by Utility Owner.
Sta. "CI" 139+56.55, 29.43 LT.
Fire hydrant to be relocated by utility, top curb elev. = 159.27'
(See Canby Utility dwg. no. 001)
- ⑱ Sta. "CI" 141+88.53, 36.32 LT.
Fire hydrant to be relocated by utility, top curb elev. = 156.80'
(See Canby Utility dwg. no. 001)
- ⑳ Const. conc. collar & install single mailbox support - 1 ea.
Sta. "CI" 139+83.26, 25.01' RT
(See ODOT dwg. nos. RD100 & RD101)
- ㉑ Const. variable depth grind & 2" inlay
- ㉒ Stormwater infrastructure (see shts. C01A - C10A)
- ㉓ Adjust water meter to grade - 1 ea.
- ㉔ Adjust rim to grade (minor) - 5 ea.
- ㉕ Const. gutter transition
(For details, see sht. BB02)
- ㉖ Inst. bark mulch, 4" depth
Const. standard curb
(For details, see shts. BC20 thru BC26)
(See Clack. Co. dwg. no. S100)
- ㉗ Protect extg. utility pole
- ㉘ Const. exposed aggregate conc. path connection, match existing finish
- ㉙ Utility to be relocated by others

KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
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 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

GENERAL CONSTRUCTION

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

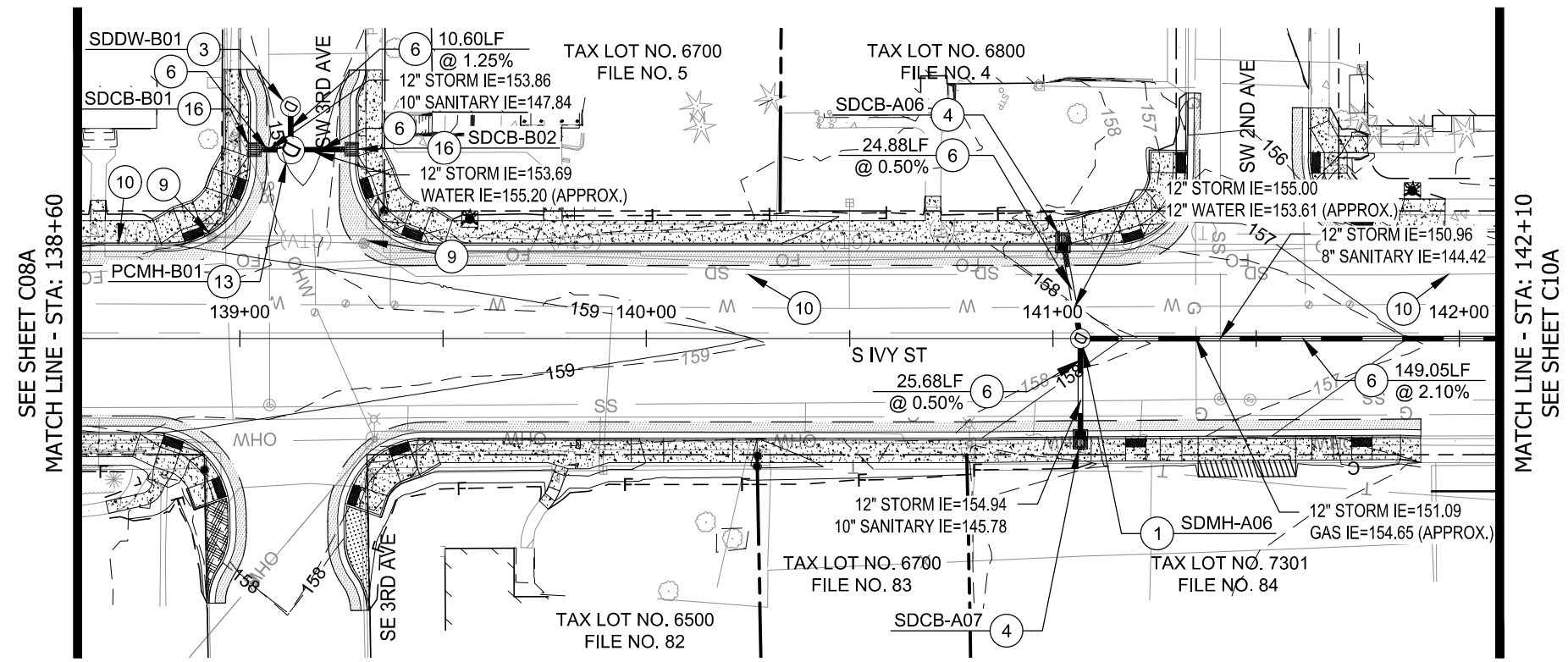
DIRECTOR
DAN JOHNSON

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO. DATE: _____

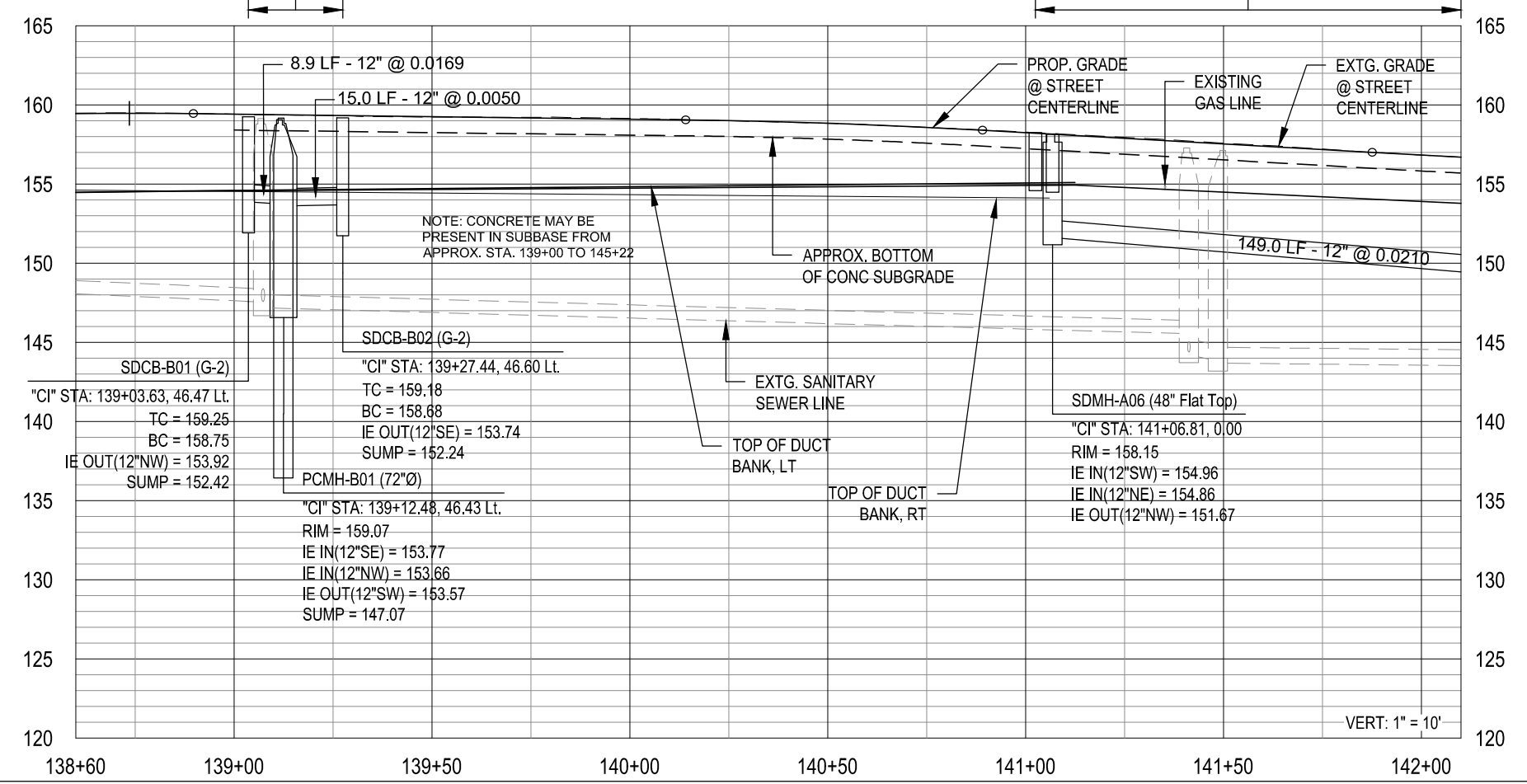
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CLASS B BEDDING AND BACKFILL
PER CITY STANDARD DWG NO 210
COMPACT TO 95% OF MAX DENSITY
PER AASHTO T-180

CLASS B BEDDING AND BACKFILL
PER CITY STANDARD DWG NO 210
COMPACT TO 95% OF MAX DENSITY
PER AASHTO T-180



STORM CONSTRUCTION NOTES

- 1 Install 48" flat top concrete manhole per City Standard Drawing 203 & 208. See profile on this sheet for rim and invert elevations.
- 3 Connect to existing 48" concrete drywell previously installed. See City Standard Drawing 204 for reference. See profile on this sheet for invert elevations.
- 4 Install curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. See catch basin data table on this sheet for rim, invert and sump elevations.
- 6 Install 12" HDPE N-12 pipe using open trench method. See profile on this sheet for pipe length and slope. Bedding and backfill per City Standard Drawing 210.
- 9 Remove existing storm drain inlet.
- 10 Abandon existing storm line after construction and acceptance of new storm sewer. Fill existing storm line with grout and abandon in place.
- 13 Install 72" concrete sumped sedimentation manhole per City Standard Drawing 201. See profile on this sheet for rim and invert elevations.
- 16 Install G-2 catch basin per City Standard Drawing 207. See profile on this sheet for rim, invert and sump elevations.

CATCH BASIN DATA

SDCB-A06 (GB)
"CI" STA: 141+02.46, 24.50 Lt.
TC: 158.25, BC: 157.75
IE OUT (12"NE) = 155.08
SUMP = 155.08

SDCB-A07 (GB)
"CI" STA: 141+06.81, 25.68 Rt.
TC: 158.16, BC: 157.66
IE OUT (12"SW) = 154.99
SUMP = 154.99

STORM MANHOLE DATA

SDDW-B01 (48")
"CI" STA: 139+12.45, 57.02 Lt.
RIM: 159.17
IE IN (12"NE) = 153.44
SUMP = 136.94

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REGISTERED PROFESSIONAL
ENGINEER
60175PE
Digitally Signed 2024.01.16
OREGON
July 15, 2003
CEDOMIR JESIC
EXPIRES: 06/30/25

STORMWATER

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045

DAN JOHNSON
DIRECTOR

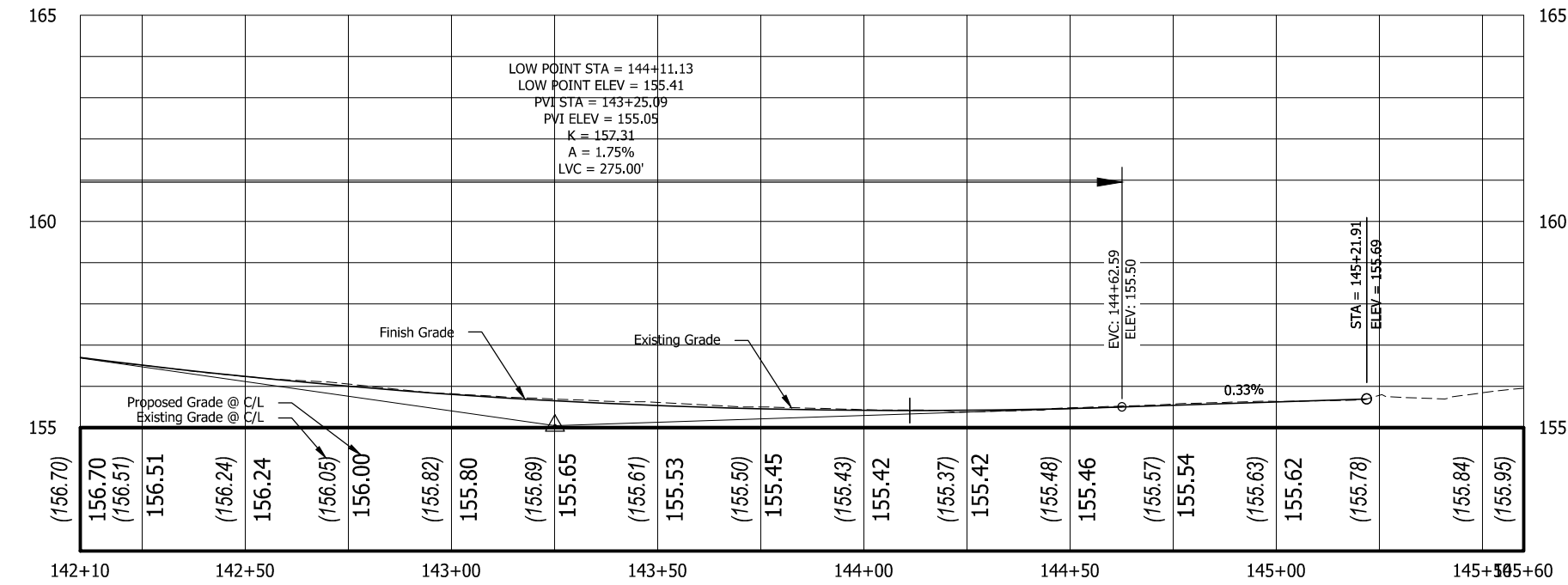
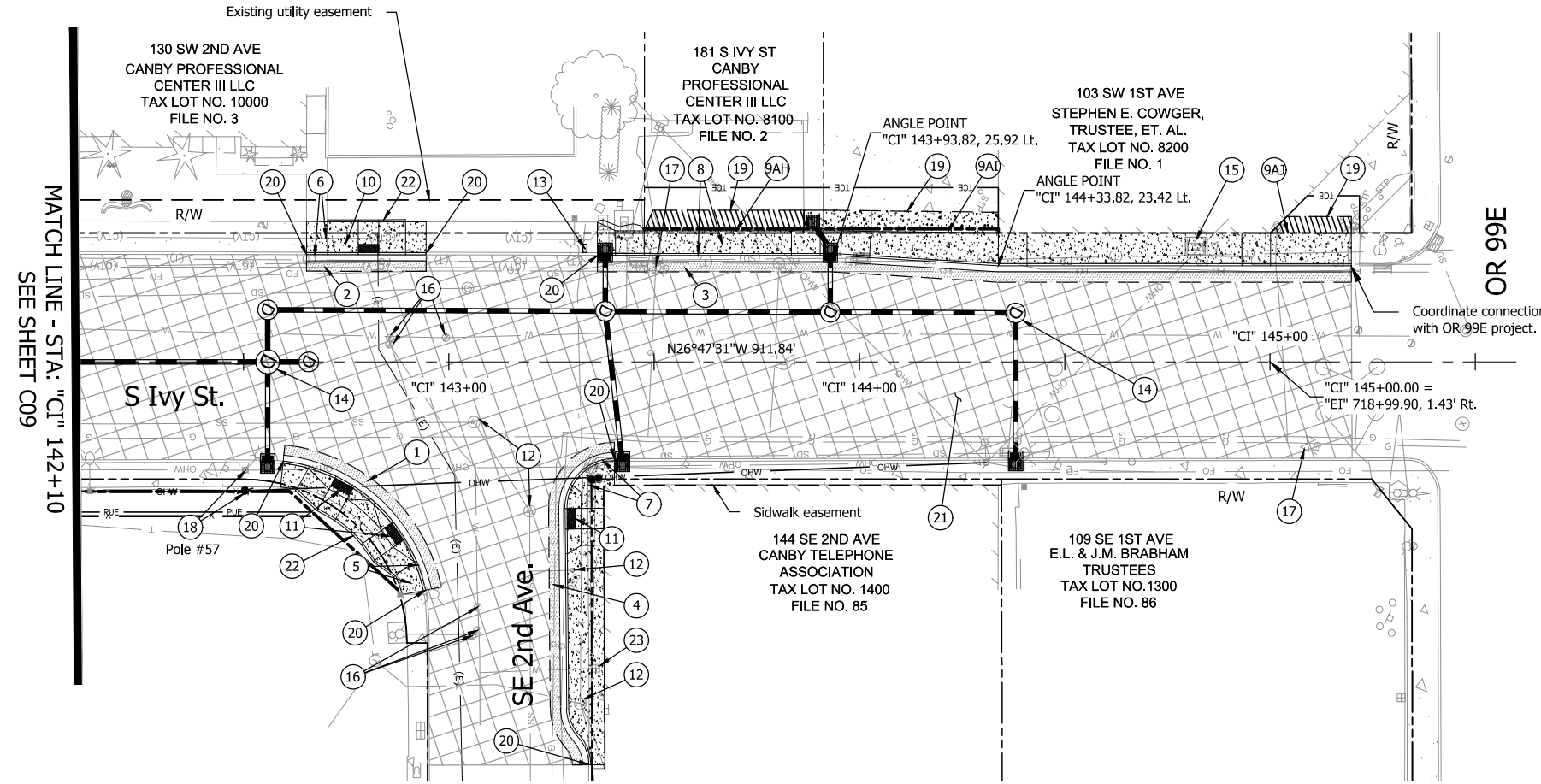
DESIGNED BY: R. MONTGOMERY
DRAFTED BY: R. MONTGOMERY
CHECKED BY: C. JESIC

NO. DATE: [] [] [] [] [] []

Sheet No. C09A

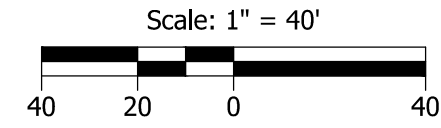
DATE: XXXX 2020 PROJECT NO.: CI-22239

Plot Stamp: 1/16/2024 10:54:56 AM - Caleb Cox
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CONSTRUCTION NOTES

- 1 Sta. "CI" 142+59.63, 24.17' RT to Sta. "CI" 142+94.29, 55.65 RT
Sawcut & remove extg. pvmt., curb, & sidewalk
- 2 Sta. "CI" 142+65.35, 26.10' LT to Sta. "CI" 142+94.37, 26.09' LT
Sawcut & remove extg. pvmt., curb, & sidewalk
- 3 Sta. "CI" 143+36.19, 25.94' LT to Sta. "CI" 145+19.78, 23.42' LT
Sawcut & remove extg. pvmt., curb, & sidewalk
- 4 Sta. "CI" 143+34.08, 98.15' RT to Sta. "CI" 143+40.30, 23.61' RT
Sawcut & remove extg. pvmt., curb, & sidewalk
- 5 Sta. "CI" 142+59.63, 24.17' RT to Sta. "CI" 142+94.29, 55.65 RT
Const. curb & gutter - 50.0 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 331.9 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
- 6 Sta. "CI" 142+65.35, 26.10' LT to Sta. "CI" 142+94.37, 26.09' LT
Const. curb & gutter - 29.1 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 219.3 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing
- 7 Sta. "CI" 143+34.08, 98.15' RT to Sta. "CI" 143+40.30, 23.61' RT
Const. curb & gutter - 82.8 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 603.6 sq. ft. (see Clack. Co. dwg. no. S960)
match existing.
- 8 Sta. "CI" 143+36.19, 25.94' LT to Sta. "CI" 145+19.78, 23.42' LT
Const. curb and gutter - 183.7 ft. (See Clack. Co. dwg. no. S150)
Const. P.C. conc. sidewalk - 450.6 sq. ft. (see Clack. Co. dwg. no. S960)
Match existing.
Const. P.C. conc. dwy. apron
AH - Sta. "CI" 143+40.61, 25.94 Lt. - Sta. "CI" 143+90.45, 25.92' LT.
AI - Sta. "CI" 143+95.40, 25.42' Lt. - Sta. "CI" 144+40.82, 23.42' LT.
AJ - Sta. "CI" 144+93.17, 23.42' Lt. - Sta. "CI" 145+19.78, 23.42' LT.
(For details, see sht. BD05) (See Clack. Co. dwg. no. D600)
- 9 Const. curb ramp, parallel - 1 EA.
(For details, see sht. BC29) (See ODOT dwg. nos. RD755, RD758, & RD759)
- 10 Const. curb ramp, combination - 3 EA. (For details, see shts. BC28 & BC30) (See ODOT dwg. nos. RD755, RD758, & RD759)
- 11 Adjust rim to grade (minor) - 4 ea.
- 12 Const. conc. collar & install single mailbox support - 1 ea.
Sta. "CI" 143+33.12, 27.64' LT
(See ODOT dwg. nos. RD100 & RD101)
- 13 Stormwater infrastructure (see shts. C01A - C10A)
- 14 Vault Modification, fill and abandon coal chute.
(For details, see sht. no. BB01)
- 15 Adjust water valve box to grade - 6 ea.
- 16 Adjust gas valve to grade - 1 ea.
- 17 Utility to be relocated by Utility Owner.
- 18 Sawcut and remove extg. pvmt
(For details, see sht. BD05)
- 19 Const. gutter transition
(For details, see sht. BB02)
- 20 Const. variable depth grind & 2" inlay
- 21 Const. standard curb
(For details, see shts. BC20 thru BC26)
(See Clack. Co. dwg. no. S100)
- 22 Adjust water meter to grade - 1 ea.

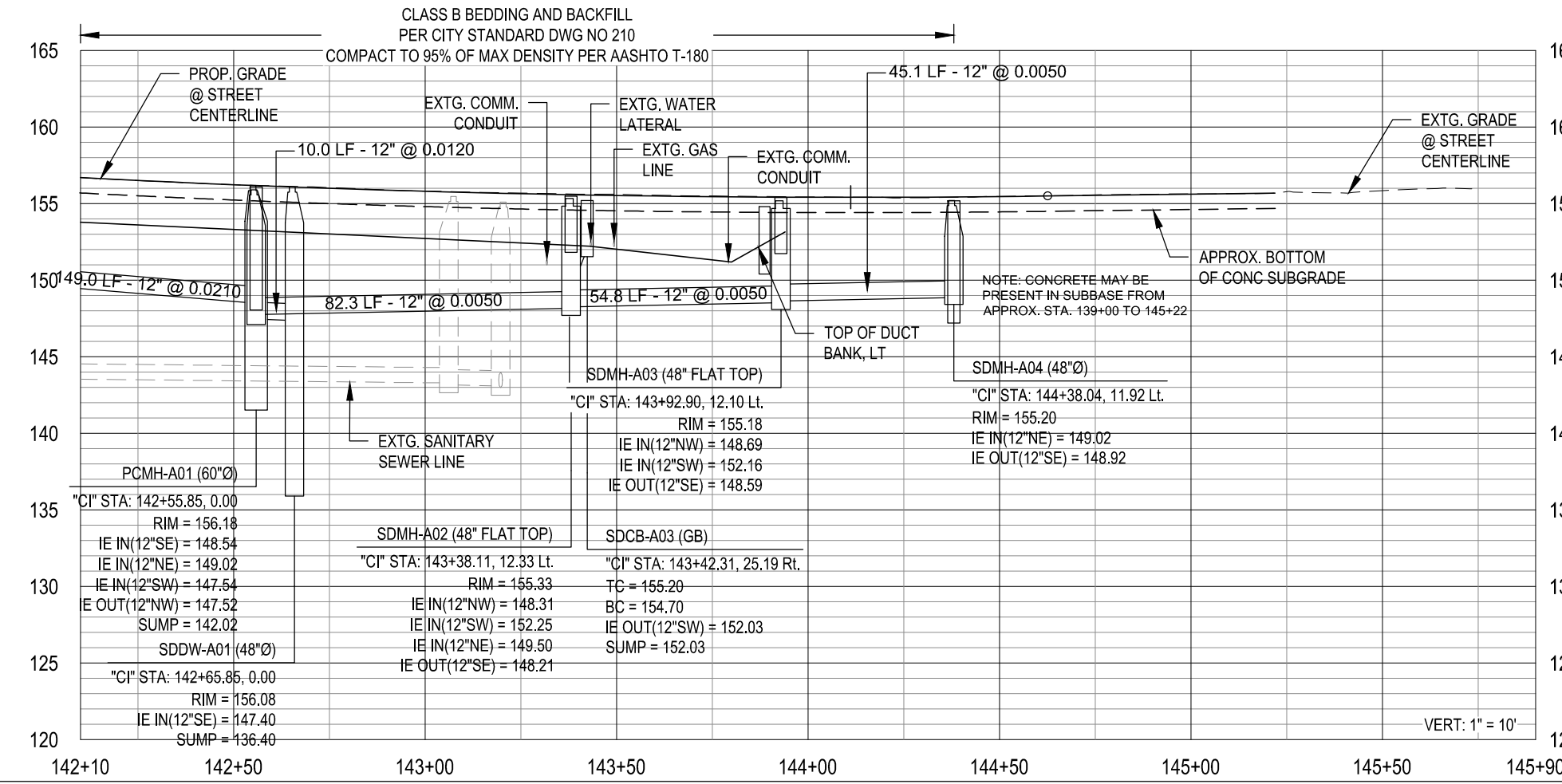
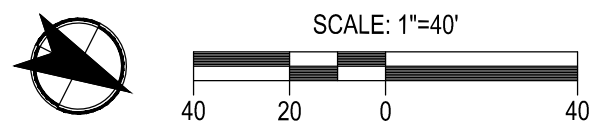
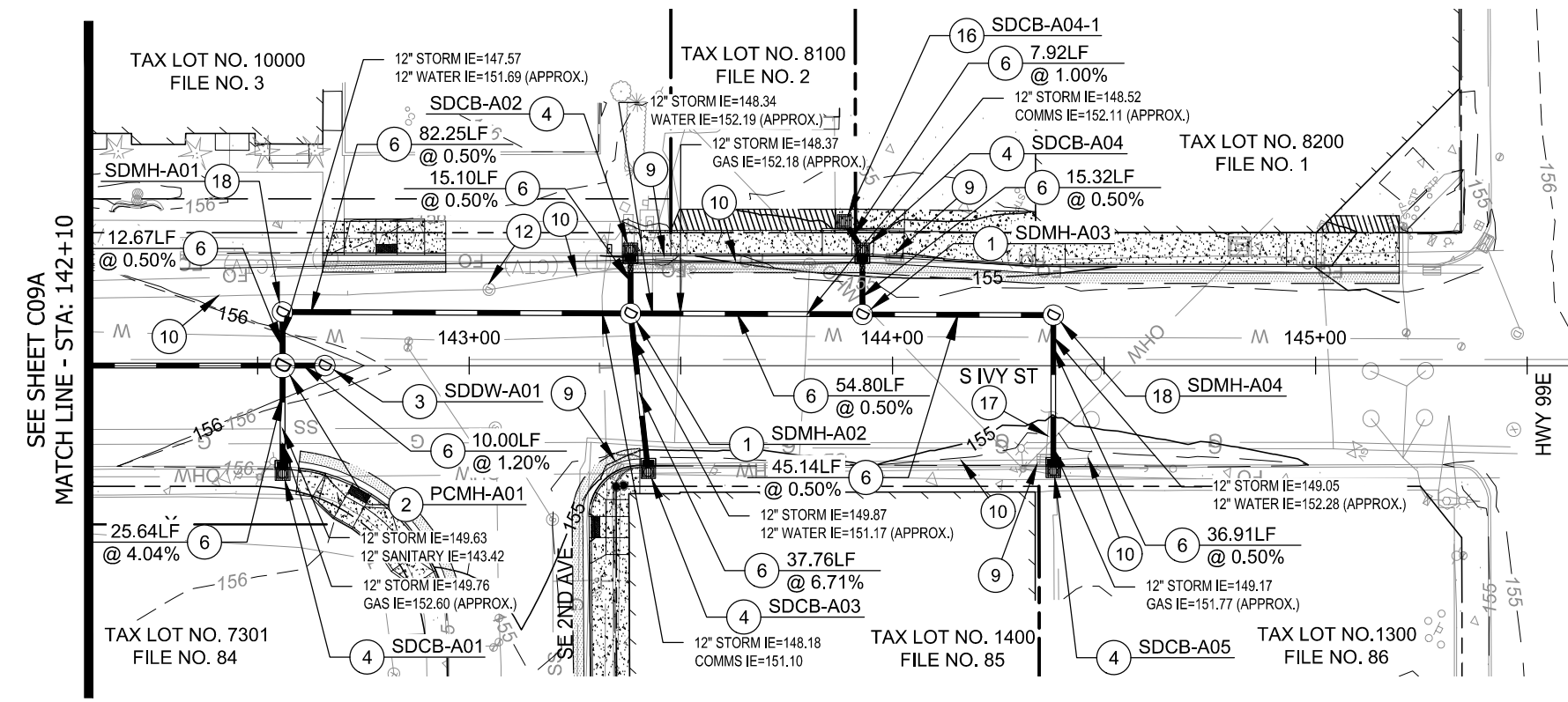


KITTELSON & ASSOCIATES
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 PORTLAND, OR 97204
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GENERAL CONSTRUCTION	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
NO. DATE:	CHECKED BY: T. ROOS
REVISIONS	
Sheet No. C10	

Plot Stamp: 1/15/2024 11:54:43 AM - Caleb Cox
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STORM CONSTRUCTION NOTES

- ① Install 48" flat top concrete manhole per City Standard Drawing 203 & 208. See profile on this sheet for rim and invert elevations.
- ② Install 60" concrete sumped sedimentation manhole per City Standard Drawing 201. See profile on this sheet for rim and invert elevations.
- ③ Connect to existing 48" concrete drywell previously installed. See City Standard Drawing 204 for reference. See profile on this sheet for invert elevations.
- ④ Install curb inlet with GB catch basin per WES Standard Drawing SWM CB-2.0 and SWM CB-4.0. See catch basin data table on this sheet for rim and invert elevations.
- ⑥ Install 12" HDPE N-12 pipe using open trench method. See profile on this sheet for pipe length and slope. Bedding and backfill per City Standard Drawing 210.
- ⑨ Remove existing storm drain inlet.
- ⑩ Abandon existing storm line after construction and acceptance of new storm sewer. Fill existing storm line with grout and abandon in place.
- ⑫ Abandon existing manhole after construction and acceptance of new storm sewer. Remove existing manhole frame and cone (or flat top & barrel section) to approximately 3-feet below grade. Drill 1-inch holes within 1-foot of manhole bottom and fill structure. Backfill and compaction per City Standard Drawing 210.
- ⑯ Install G-2 catch basin per City Standard Drawing 207. See catch basin data table on this sheet for rim, invert, and sump elevations.
- ⑰ Remove existing storm pipe.
- ⑱ Install 48" standard concrete manhole per City Standard Drawing 208 & 300. See profile on this sheet for rim and invert elevations.

CATCH BASIN DATA

SDCB-A01 (GB) "CI" STA: 142+55.85, 25.64 Rt. TC: 156.08, BC: 155.58 IE OUT (12"SW) = 150.05 SUMP = 148.55	SDCB-A02 (GB) "CI" STA: 143+38.11, 27.42 Lt. TC: 155.49, BC: 154.99 IE OUT (12"NE) = 152.32 SUMP = 152.32	SDCB-A04-1 (CG-2) "CI" STA: 143+88.62, 34.09 Lt. TC: 155.38, BC: 154.80 IE OUT (12"NE) = 152.41 SUMP = 150.91	SDCB-A04 (GB) "CI" STA: 143+92.90, 27.42 Lt. TC: 155.40, BC: 154.90 IE IN (12"SW) = 152.33 IE OUT (12"NE) = 152.23 SUMP = 152.23	SDCB-A05 (GB) "CI" STA: 144+38.04, 25.00 Rt. TC: 155.18, BC: 154.68 IE OUT (12"SW) = 149.20 SUMP = 147.70
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STORM MANHOLE DATA

SDMH-A01 (48") "CI" STA: 142+55.85, 12.67 Lt. RIM: 155.90 IE IN (12"NW) = 147.80 IE OUT (12"NE) = 147.60	SDMH-A02 (48" FLAT TOP) "CI" STA: 143+92.90, 12.10 Lt. RIM = 155.18 IE IN (12"NW) = 148.69 IE IN (12"SW) = 152.16 IE OUT (12"SE) = 148.59	SDMH-A03 (48" FLAT TOP) "CI" STA: 143+42.31, 25.19 Rt. RIM = 155.20 TC = 155.20 BC = 154.70 IE IN (12"NW) = 148.31 IE IN (12"SW) = 152.25 IE IN (12"NE) = 149.50 IE OUT (12"SE) = 148.21	SDMH-A04 (48"Ø) "CI" STA: 144+38.04, 11.92 Lt. RIM = 155.20 IE IN (12"NE) = 149.02 IE OUT (12"SE) = 148.92
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KITTELSON & ASSOCIATES
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REGISTERED PROFESSIONAL ENGINEER
 60175PE
 Digitally Signed 2024.01.16
 OREGON
 July 15, 2003
 CEDOMIR JESIC
 EXPIRES: 06/30/25

STORMWATER
 SIVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
 DIRECTOR
 DAN JOHNSON
 DESIGNED BY: R. MONTGOMERY
 DRAFTED BY: R. MONTGOMERY
 CHECKED BY: C. JESIC
 NO. DATE:

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 Sheet No. C10A
 DATE: XXXX 2020 PROJECT NO.: CI-22239

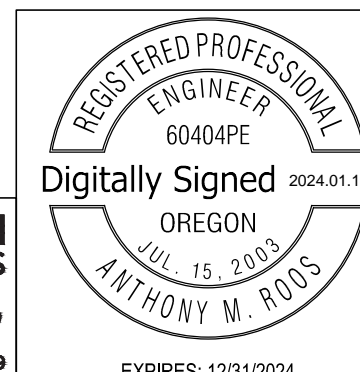
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Plot Stamp: 1/15/2024 11:55:57 AM - Caleb Cox
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Phase	Work to be completed	Proposed Traffic Control for Vehicles*	Bicycles	Pedestrians	Large Freight**
1	Storm Mainline installed	<ul style="list-style-type: none"> SW 2nd, 3rd, 6th Ave, 6th Pl, 7th, & 8th 1-way traffic only exiting Ivy St. One lane on Ivy St. to remain open with flaggers through work zone. Township and SE 2nd remain open. 	<ul style="list-style-type: none"> Follow vehicles through work zone. Temporary bikes on roadway signs will be required. 	<ul style="list-style-type: none"> Wherever existing crossings are blocked, temporary pedestrian detour routes shall be provided. Route may include temporary ramps, signage, etc... 	<ul style="list-style-type: none"> Trucks can use existing freight route
2	West side of Ivy St. including inlets, road widening, sidewalks, driveways, curb ramps, etc...	<ul style="list-style-type: none"> SW 2nd, 3rd, 6th Ave, 6th Pl, 7th, & 8th 1-way traffic only exiting Ivy St. Ivy/Township and Ivy/SE 2nd to remain open and be constructed under flaggers. 2 lanes of traffic on Ivy St. shifted east and to remain open for the duration. 	<ul style="list-style-type: none"> Reduced speed limit through work zone, bikes to share vehicle lanes. Temporary bikes on roadway signs will be required. 	<ul style="list-style-type: none"> At each intersection, only 1 curb return may be constructed at a time. Pedestrian detour routes shall be provided utilizing the other 3 open corners and a combination of signage and temporary ramps. 	<ul style="list-style-type: none"> Trucks to use intersections at Hwy 99E/SW Berg Pkwy and Hwy 99E/Sequoia Pkwy and SW 13th Ave. to detour around Ivy St.
3	East side of Ivy St. including inlets, road widening, sidewalks, driveways, curb ramps, etc...	<ul style="list-style-type: none"> SW 2nd, 3rd, 6th Ave, 6th Pl, 7th, & 8th 1-way traffic only exiting Ivy St Ivy/Township and Ivy/SE 2nd to remain open and be constructed under flaggers. 2 lanes of traffic on Ivy St. shifted west and to remain open for the duration. 	<ul style="list-style-type: none"> Reduced speed limit through work zone, bikes to share vehicle lanes. Temporary bikes on roadway signs will be required. 	<ul style="list-style-type: none"> All pedestrians routed to west side of Ivy St. At each intersection, only 1 curb return may be constructed at a time. Pedestrian detour routes shall be provided utilizing the other 3 open corners and a combination of signage and temporary ramps. 	<ul style="list-style-type: none"> Trucks to use intersections at Hwy 99E/SW Berg Pkwy and Hwy 99E/Sequoia Pkwy and SW 13th Ave. to detour around Ivy St.
4	Project-wide variable depth grind and 2" inlay.	<ul style="list-style-type: none"> Work to be complete under flaggers One lane to remain open on Ivy St. at all times 	<ul style="list-style-type: none"> Follow vehicles through work zone. Temporary bikes on roadway signs will be required. 	<ul style="list-style-type: none"> Where existing crossings are blocked, temporary pedestrian detour routes shall be provided. Route may include temporary ramps, signage, etc... 	<ul style="list-style-type: none"> Trucks can use existing freight route

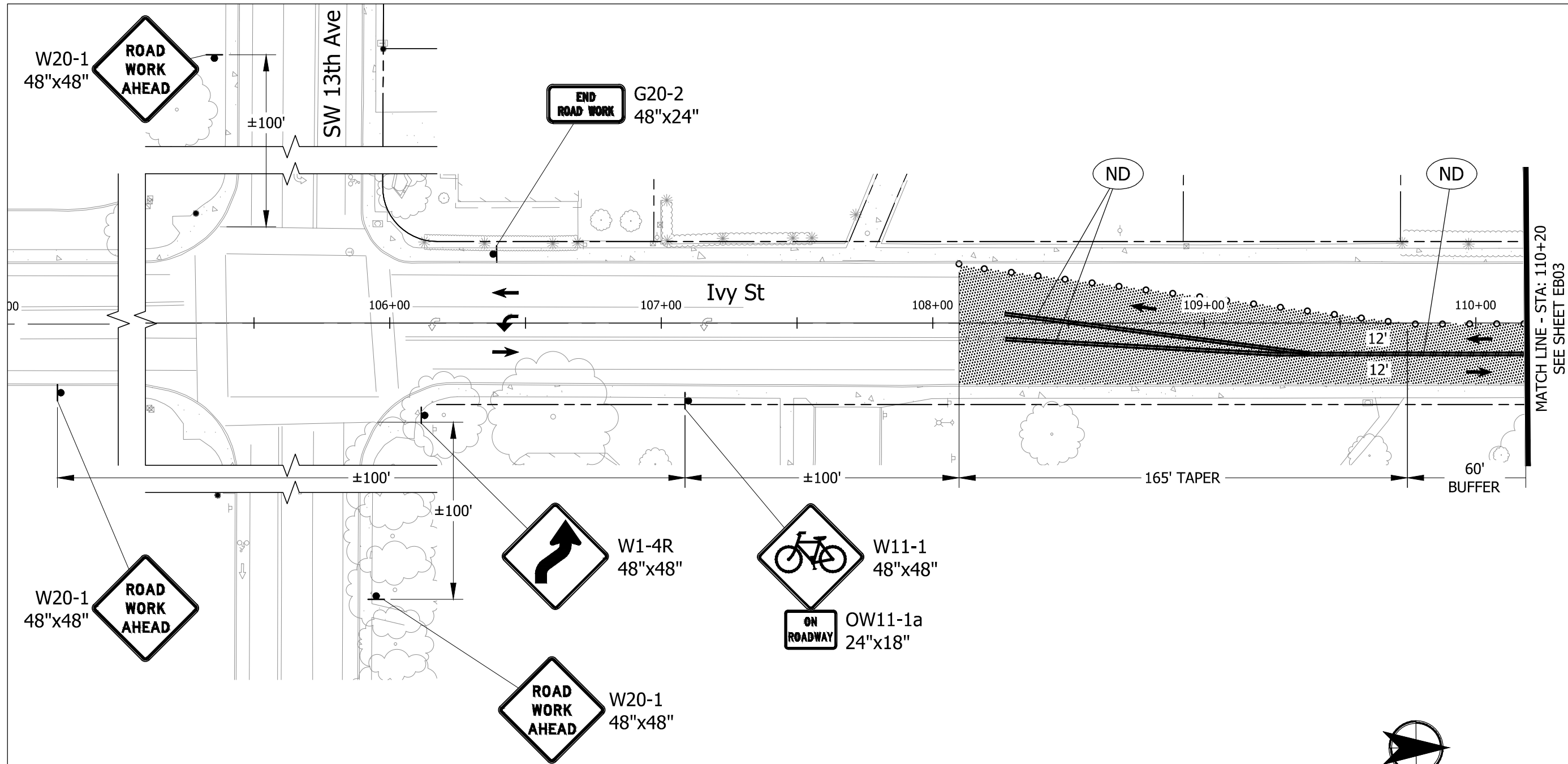
2A - Work South of 8th to be completed while school is not in session (June 15-August 30).

- * Concurrent construction of OR99E by ODOT will require coordination between contractors so that intersection closures do not overlap. Refer to special provisions sections 150.55.
- **Emergency access to be maintained at all times.
- ***If paving near HWY 99E requires a signal shutdown, coordinate with ODOT in advance



TRAFFIC CONTROL DETAILS	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
 CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	CHECKED BY: T. ROOS
DRAFTED BY: D. SHADRIN	
NO. DATE:	
Sheet No.	EA01

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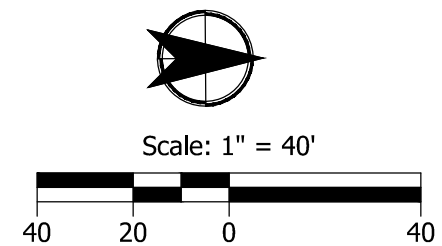


GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
2. ALL TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE CURRENT MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND OREGON SUPPLEMENT.
3. NIGHT WORK NOT ALLOWED.
4. REMOVE EXISTING CONFLICTING STRIPING AND MARKERS.
5. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESSES.
6. CONTRACTOR TO USE ABRUPT EDGE DETAIL ODOT STANDARD DRAWING TM800 FOR SHOULDER DROP OFF.
7. CONTRACTOR TO CONSTRUCT ONE CURB RAMP PER INTERSECTION AT A TIME. TEMPORARY PEDESTRIAN DETOUR ROUTES MUST BE PROVIDED USING THE 3 OPEN CORNERS PER ODOT STANDARD DRAWING TM844. CONSTRUCT IN SEQUENCE TO MAXIMIZE PEDESTRIAN ACCESS AND CROSSINGS.
8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- TEMP. PED ACCESS ROUTE
- UNDER TRAFFIC
- UNDER CONSTRUCTION
- 28" TUBULAR MARKERS WITH 20' ON TANGENT SPACING & 10' SPACING ON TAPERS AND RADII
- TRAFFIC DRUM WITH 20' SPACING & 10' SPACING ON TANGENTS, TAPERS AND RADII
- ND
- TYPE III BARRICADE
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)

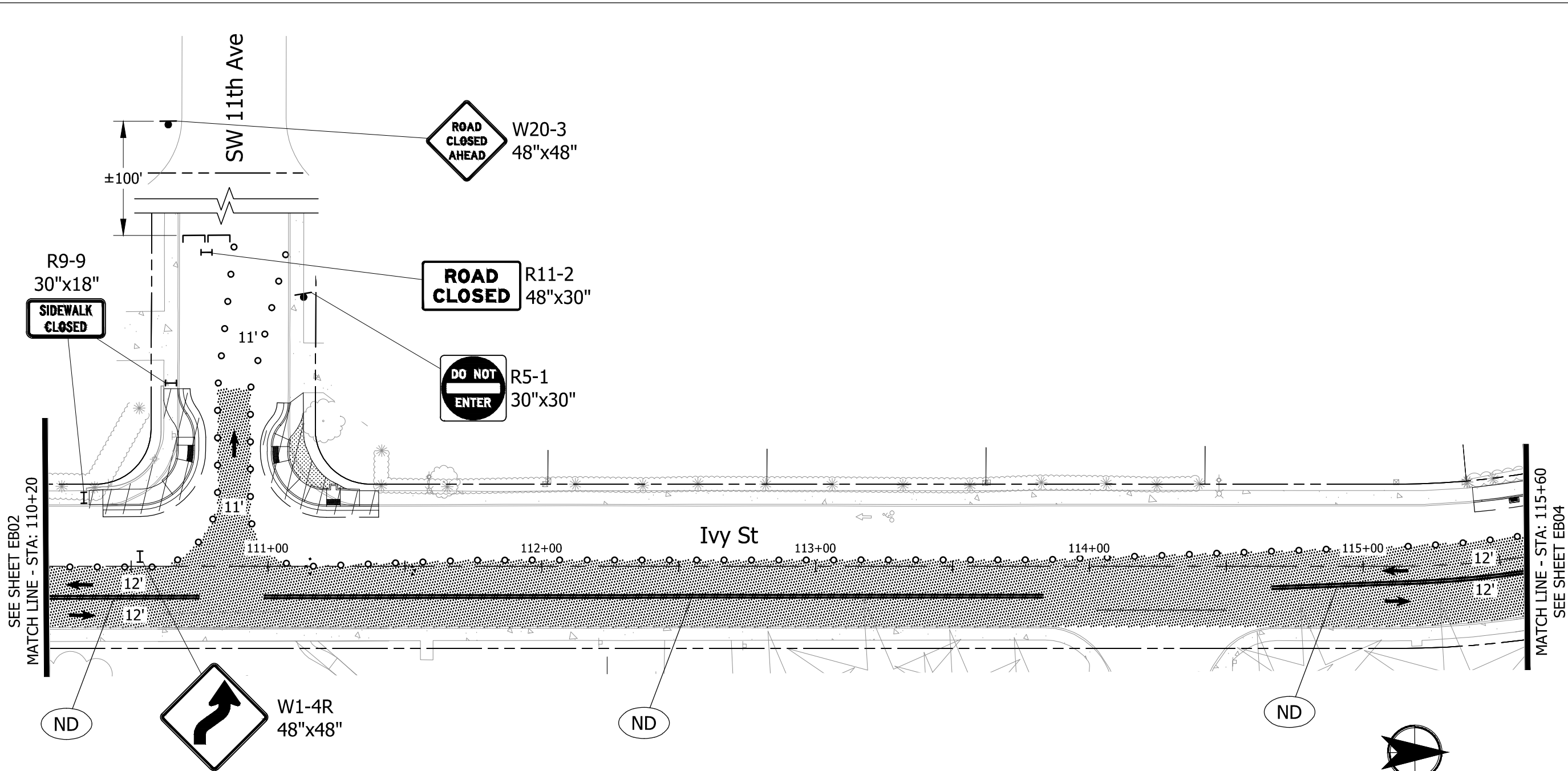


KITTELSON & ASSOCIATES
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 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

<p>CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045</p> <p>DAN JOHNSON DIRECTOR</p>	<p>TRAFFIC CONTROL PLAN - PHASE II S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS</p>
<p>DESIGNED BY: C. COX</p> <p>DRAFTED BY: D. SHADRIN</p> <p>CHECKED BY: T. ROOS</p>	<p>DATE: December 2023 PROJECT NO.: CI-300317309</p>
<p>NO. DATE:</p>	<p>REVISIONS</p>
<p>Sheet No. EB02</p>	

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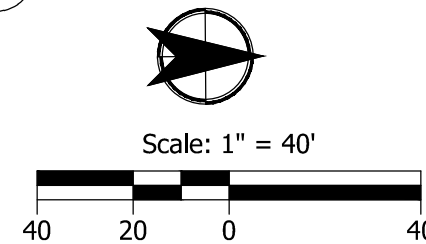
GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
2. ALL TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE CURRENT MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND OREGON SUPPLEMENT.
3. NIGHT WORK NOT ALLOWED.
4. REMOVE EXISTING CONFLICTING STRIPING AND MARKERS.
5. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESSSES.
6. CONTRACTOR TO USE ABRUPT EDGE DETAIL ODOT STANDARD DRAWING TM800 FOR SHOULDER DROP OFF.
7. CONTRACTOR TO CONSTRUCT ONE CURB RAMP PER INTERSECTION AT A TIME. TEMPORARY PEDESTRIAN DETOUR ROUTES MUST BE PROVIDED USING THE 3 OPEN CORNERS PER ODOT STANDARD DRAWING TM844. CONSTRUCT IN SEQUENCE TO MAXIMIZE PEDESTRIAN ACCESS AND CROSSINGS.
8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- TEMP. PED ACCESS ROUTE
- UNDER TRAFFIC
- UNDER CONSTRUCTION
- 28" TUBULAR MARKERS WITH 20' ON TANGENT SPACING & 10' SPACING ON TAPERS AND RADII
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII

- ND INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
- TYPE III BARRICADE
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)

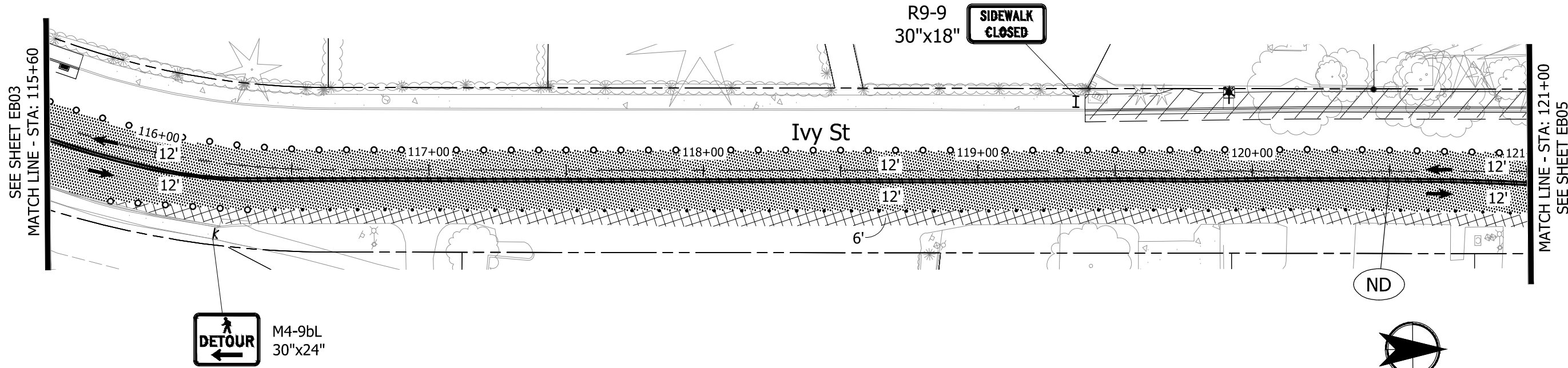


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CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		DIRECTOR DAN JOHNSON
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX DRAFTED BY: D. SHADRIN CHECKED BY: T. ROOS	REVISIONS NO. DATE:	TRAFFIC CONTROL PLAN - PHASE II S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS PROJECT NO.: CI-300317309 DATE: December 2023
Sheet No. EB03		

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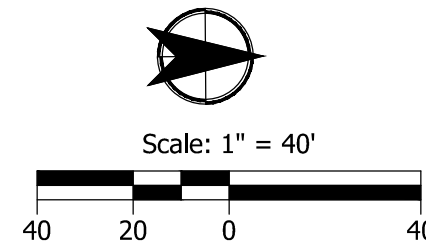
GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
2. ALL TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE CURRENT MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND OREGON SUPPLEMENT.
3. NIGHT WORK NOT ALLOWED.
4. REMOVE EXISTING CONFLICTING STRIPING AND MARKERS.
5. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESSES.
6. CONTRACTOR TO USE ABRUPT EDGE DETAIL ODOT STANDARD DRAWING TM800 FOR SHOULDER DROP OFF.
7. CONTRACTOR TO CONSTRUCT ONE CURB RAMP PER INTERSECTION AT A TIME. TEMPORARY PEDESTRIAN DETOUR ROUTES MUST BE PROVIDED USING THE 3 OPEN CORNERS PER ODOT STANDARD DRAWING TM844. CONSTRUCT IN SEQUENCE TO MAXIMIZE PEDESTRIAN ACCESS AND CROSSINGS.
8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- TEMP. PED ACCESS ROUTE
- UNDER TRAFFIC
- UNDER CONSTRUCTION
- 28" TUBULAR MARKERS WITH 20' ON TANGENT SPACING & 10' SPACING ON TAPERS AND RADII
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII

- INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
- TYPE III BARRICADE
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)

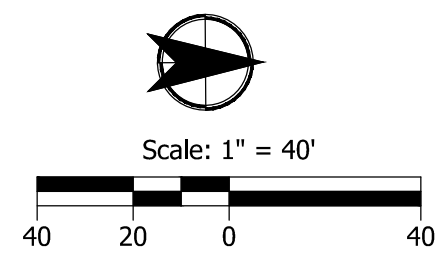
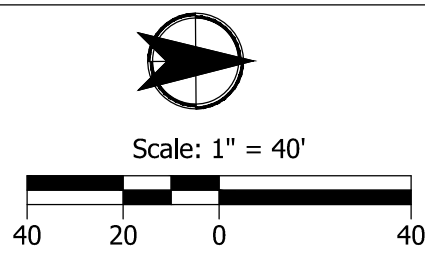
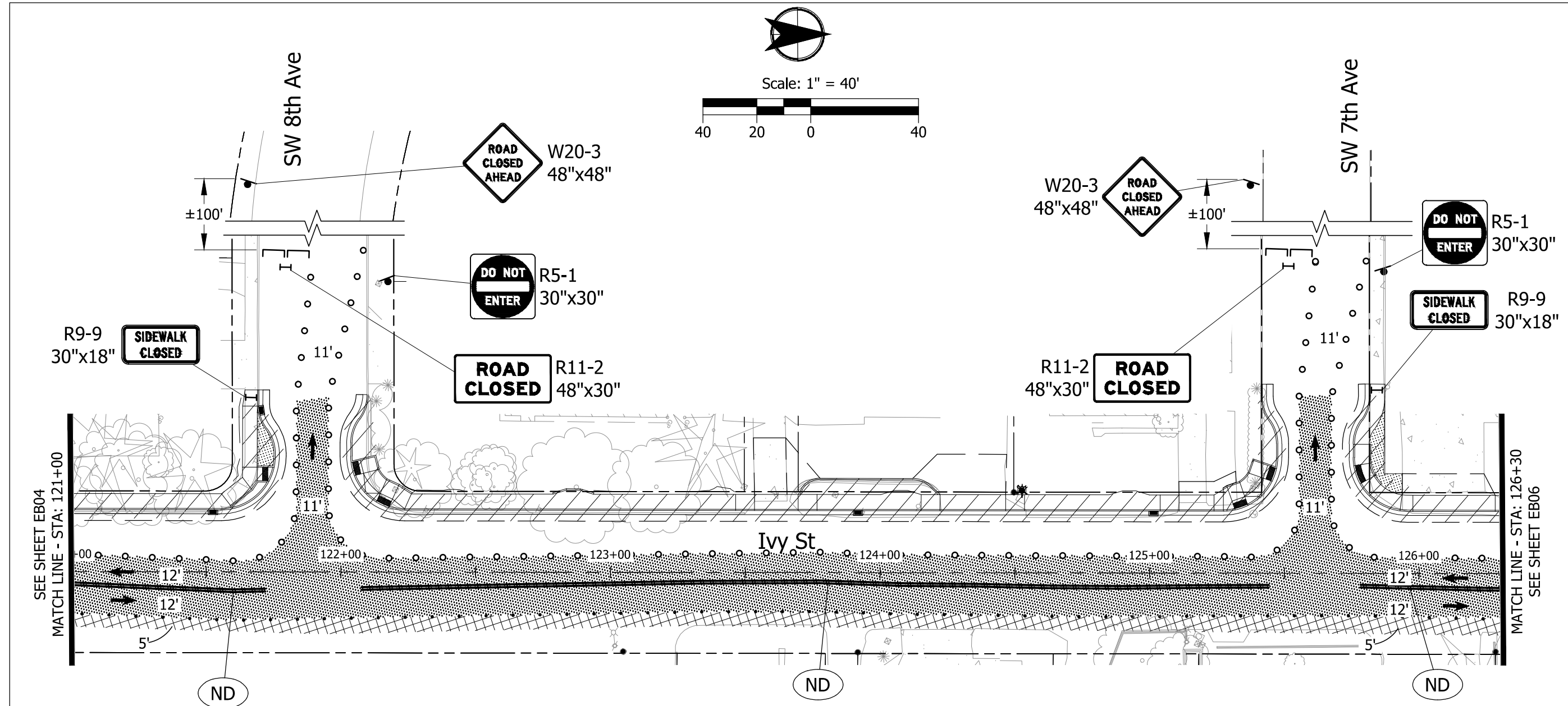


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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045 	DIRECTOR DAN JOHNSON
TRAFFIC CONTROL PLAN - PHASE II S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
DATE: December 2023 PROJECT NO.: CI-300317309	
DESIGNED BY: C. COX	CHECKED BY: T. ROOS
DRAFTED BY: D. SHADRIN	NO. DATE:
REVISIONS	
Sheet No. EB04	

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GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
2. ALL TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE CURRENT MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND OREGON SUPPLEMENT.
3. NIGHT WORK NOT ALLOWED.
4. REMOVE EXISTING CONFLICTING STRIPING AND MARKERS.
5. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESSSES.
6. CONTRACTOR TO USE ABRUPT EDGE DETAIL ODOT STANDARD DRAWING TM800 FOR SHOULDER DROP OFF.
7. CONTRACTOR TO CONSTRUCT ONE CURB RAMP PER INTERSECTION AT A TIME. TEMPORARY PEDESTRIAN DETOUR ROUTES MUST BE PROVIDED USING THE 3 OPEN CORNERS PER ODOT STANDARD DRAWING TM844. CONSTRUCT IN SEQUENCE TO MAXIMIZE PEDESTRIAN ACCESS AND CROSSINGS.
8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- TEMP. PED ACCESS ROUTE
- UNDER TRAFFIC
- UNDER CONSTRUCTION
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- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
- INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
- TYPE III BARRICADE
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)

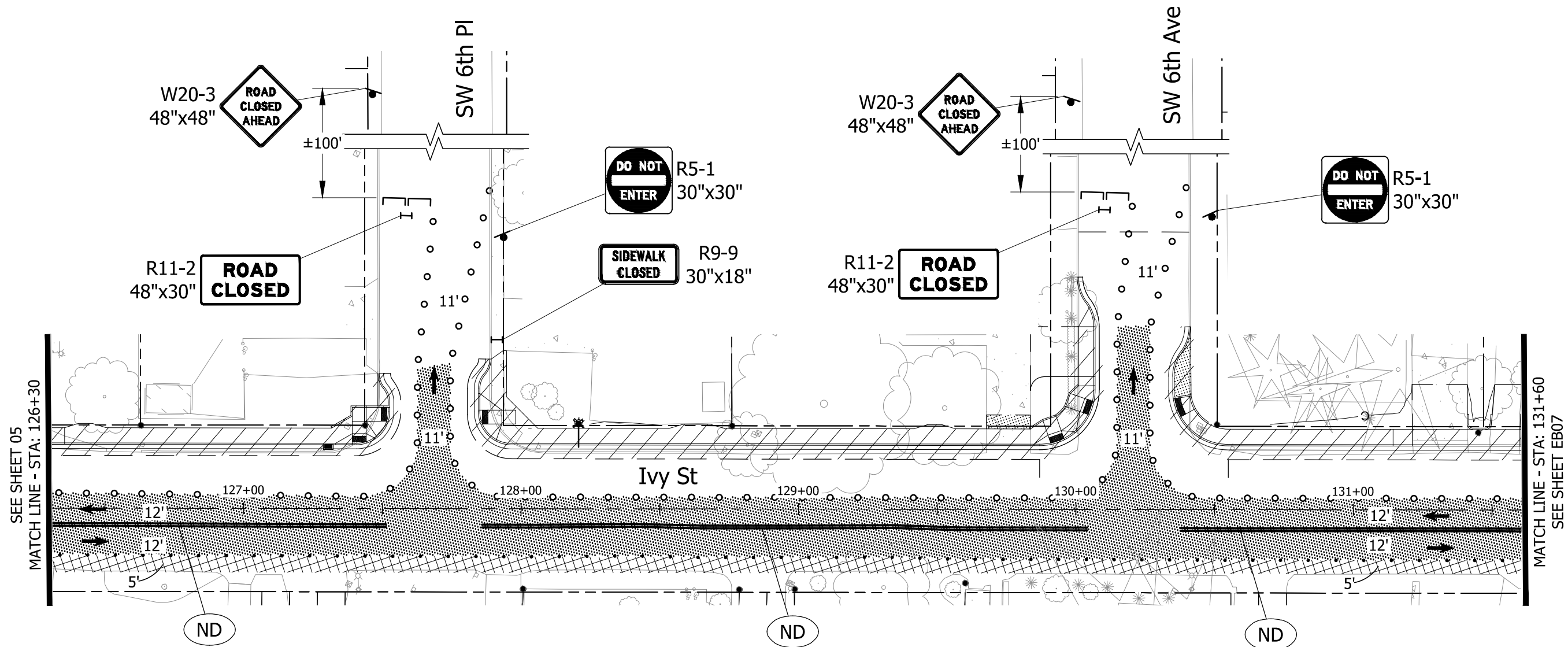
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 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

TRAFFIC CONTROL PLAN - PHASE II
 S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
 DIRECTOR
 DAN JOHNSON
 DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS
 REVISIONS
 NO. DATE:

 Sheet No. EB05
 DATE: December 2023 PROJECT NO.: CI-300317309

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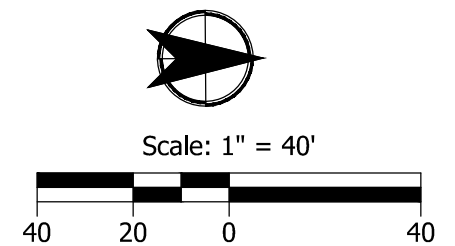


GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
2. ALL TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE CURRENT MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND OREGON SUPPLEMENT.
3. NIGHT WORK NOT ALLOWED.
4. REMOVE EXISTING CONFLICTING STRIPING AND MARKERS.
5. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESSES.
6. CONTRACTOR TO USE ABRUPT EDGE DETAIL ODOT STANDARD DRAWING TM800 FOR SHOULDER DROP OFF.
7. CONTRACTOR TO CONSTRUCT ONE CURB RAMP PER INTERSECTION AT A TIME. TEMPORARY PEDESTRIAN DETOUR ROUTES MUST BE PROVIDED USING THE 3 OPEN CORNERS PER ODOT STANDARD DRAWING TM844. CONSTRUCT IN SEQUENCE TO MAXIMIZE PEDESTRIAN ACCESS AND CROSSINGS.
8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- TEMP. PED ACCESS ROUTE
- UNDER TRAFFIC
- UNDER CONSTRUCTION
- 28" TUBULAR MARKERS WITH 20' ON TANGENT SPACING & 10' SPACING ON TAPERS AND RADII
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
- ND INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
- TYPE III BARRICADE
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)

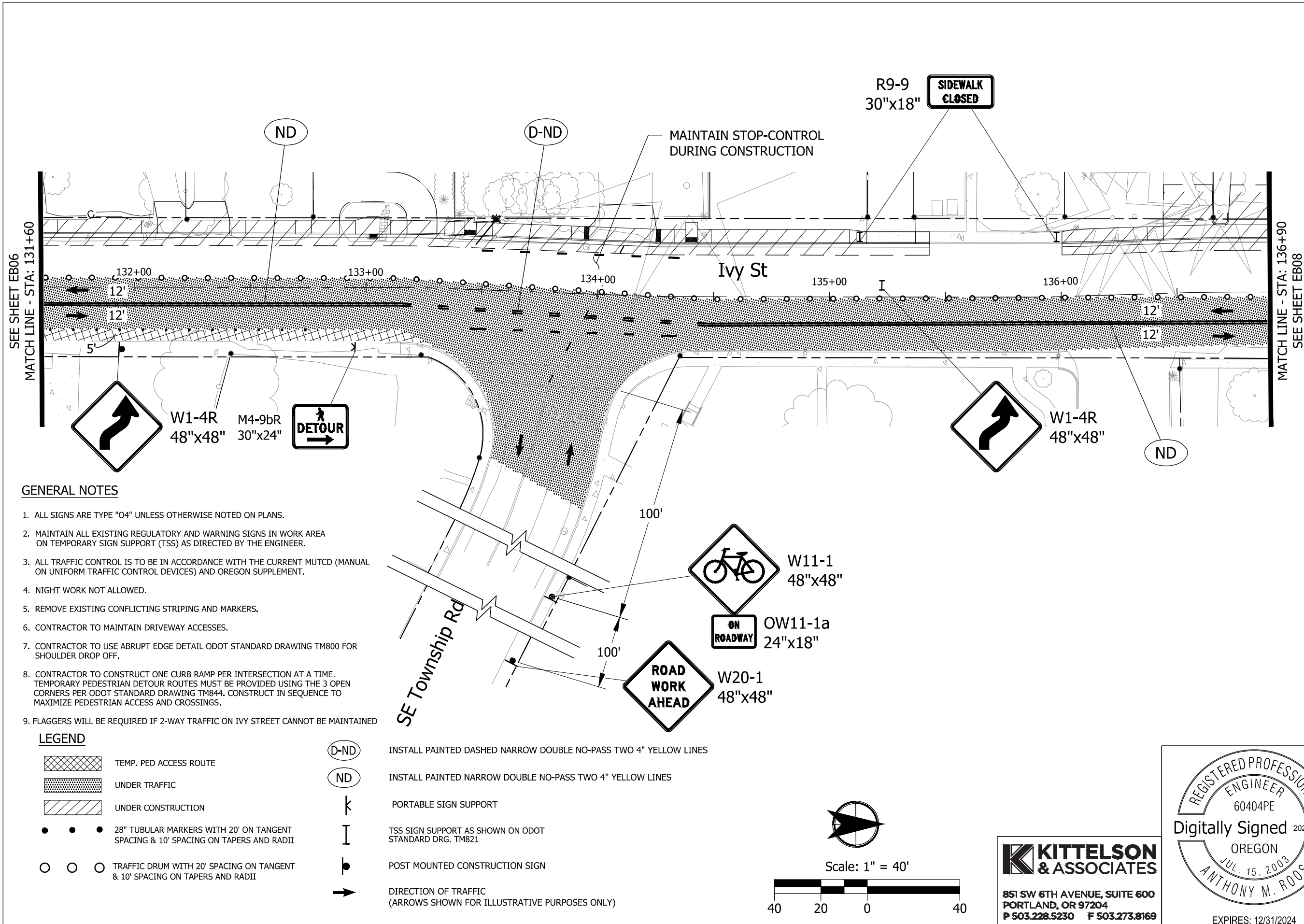


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REGISTERED PROFESSIONAL ENGINEER
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 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

TRAFFIC CONTROL PLAN - PHASE II	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	PROJECT NO.: CI-300317309
DRAFTED BY: D. SHADRIN	DATE: December 2023
CHECKED BY: T. ROOS	
REVISIONS	
NO. DATE:	
Sheet No. EB06	

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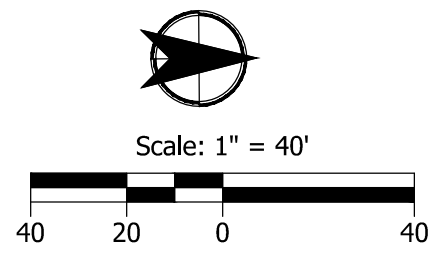


GENERAL NOTES

1. ALL SIGNS ARE TYPE "O4" UNLESS OTHERWISE NOTED ON PLANS.
2. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
3. ALL TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE CURRENT MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND OREGON SUPPLEMENT.
4. NIGHT WORK NOT ALLOWED.
5. REMOVE EXISTING CONFLICTING STRIPING AND MARKERS.
6. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESSES.
7. CONTRACTOR TO USE ABRUPT EDGE DETAIL ODOT STANDARD DRAWING TM800 FOR SHOULDER DROP OFF.
8. CONTRACTOR TO CONSTRUCT ONE CURB RAMP PER INTERSECTION AT A TIME. TEMPORARY PEDESTRIAN DETOUR ROUTES MUST BE PROVIDED USING THE 3 OPEN CORNERS PER ODOT STANDARD DRAWING TM844. CONSTRUCT IN SEQUENCE TO MAXIMIZE PEDESTRIAN ACCESS AND CROSSINGS.
9. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- | | | | |
|--|---|--|--|
| | TEMP. PED ACCESS ROUTE | | INSTALL PAINTED DASHED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES |
| | UNDER TRAFFIC | | INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES |
| | UNDER CONSTRUCTION | | PORTABLE SIGN SUPPORT |
| | 28" TUBULAR MARKERS WITH 20' ON TANGENT SPACING & 10' SPACING ON TAPERS AND RADII | | TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821 |
| | TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII | | POST MOUNTED CONSTRUCTION SIGN |
| | DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY) | | |



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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

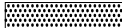







TRAFFIC CONTROL PLAN - PHASE II	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	CHECKED BY: T. ROOS
DRAFTED BY: D. SHADRIN	PROJECT NO.: CI-300317309
NO. DATE:	DATE: December 2023
REVISIONS	SHEET NO. EB07

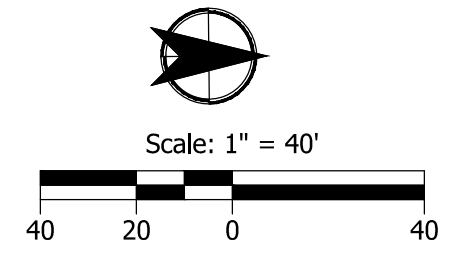
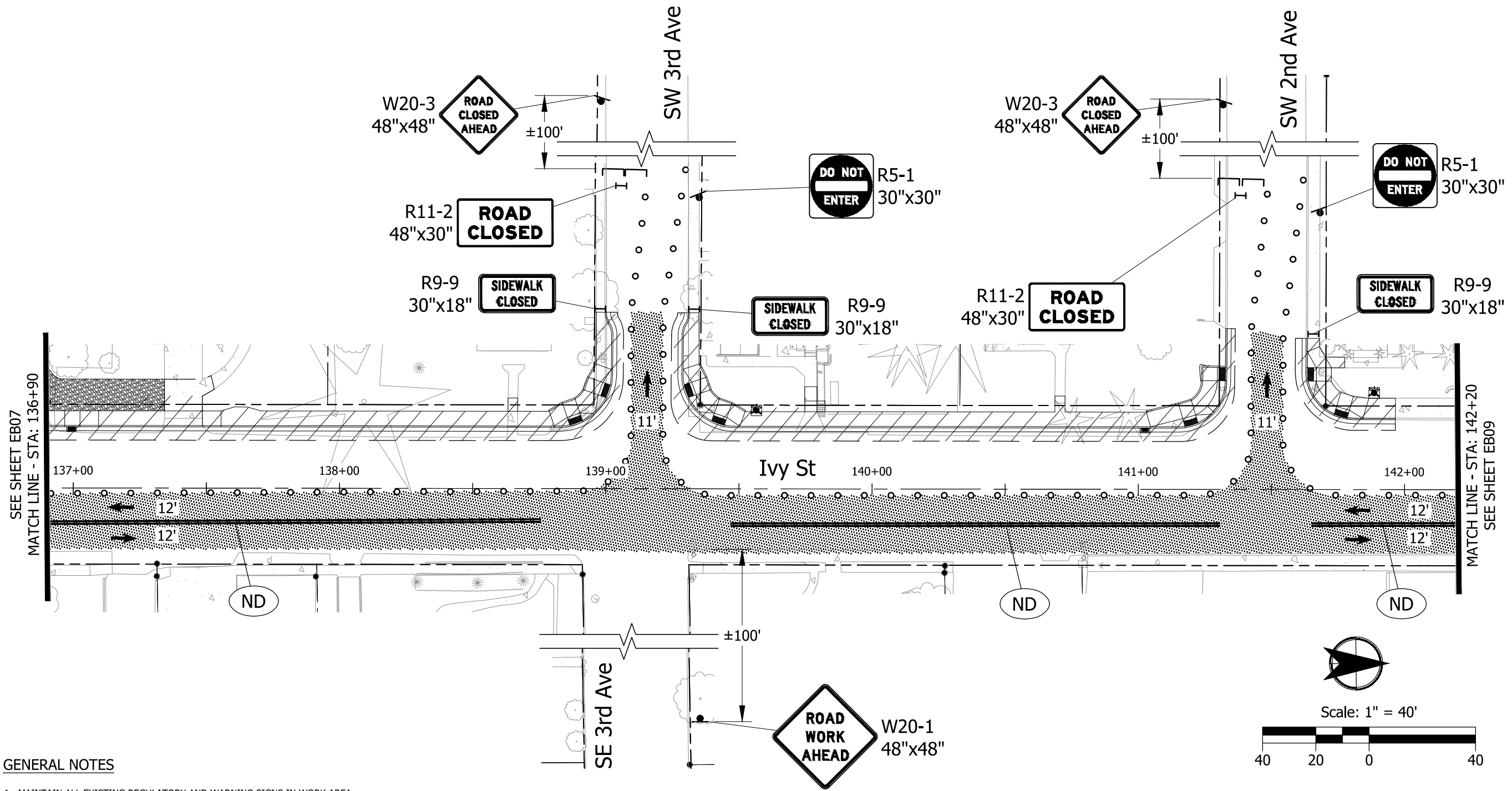
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GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
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8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

-  UNDER TRAFFIC
-  UNDER CONSTRUCTION
-  TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
-  TYPE III BARRICADE
-  TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
-  POST MOUNTED CONSTRUCTION SIGN
-  INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
-  DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)



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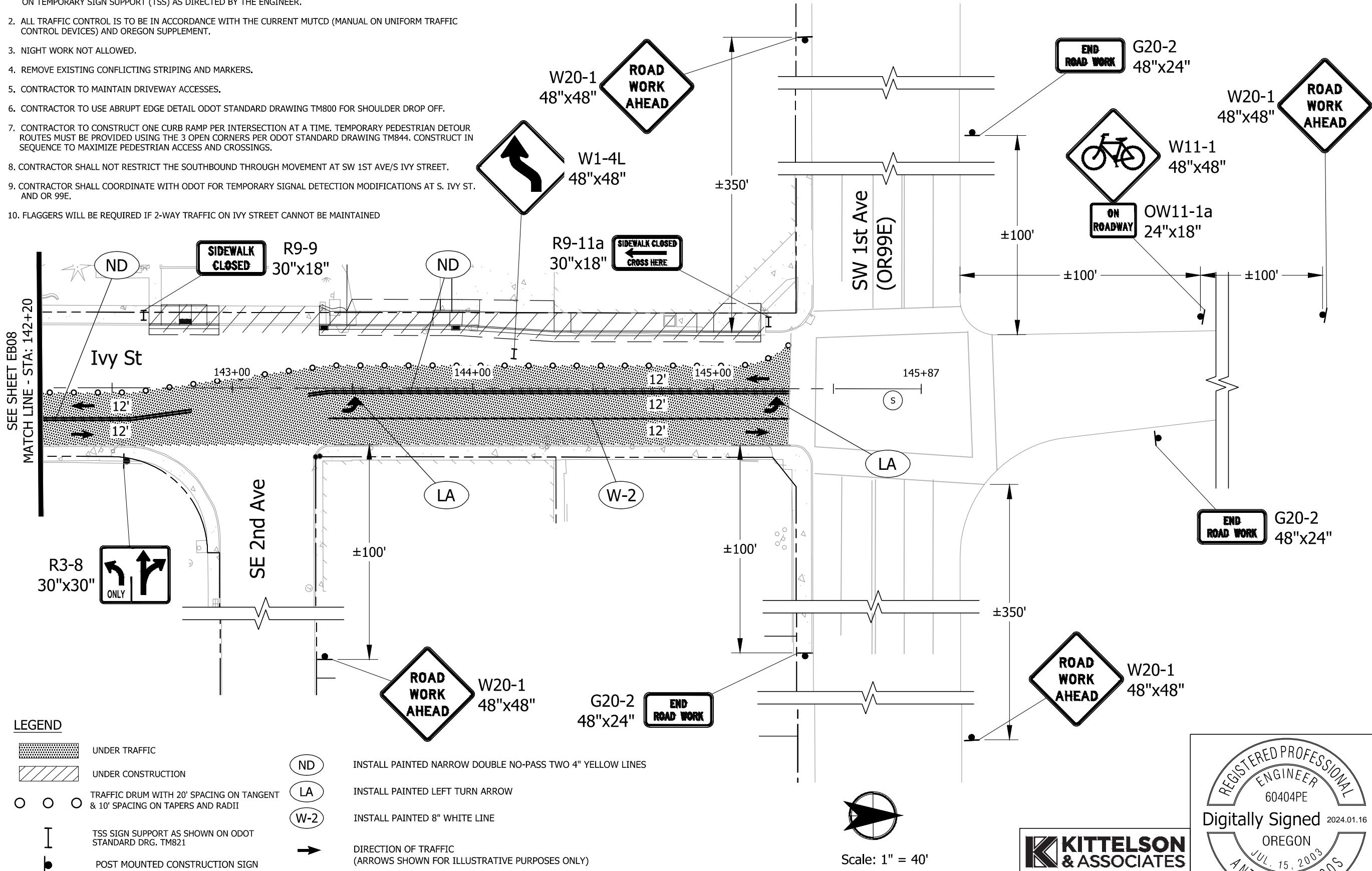
REGISTERED PROFESSIONAL ENGINEER
 60404PE
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 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

TRAFFIC CONTROL PLAN - PHASE II
 S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
 DIRECTOR
 DAN JOHNSON
 DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS
 REVISIONS
 NO. DATE:

 Sheet No. EB08
 DATE: December 2023 PROJECT NO.: CI-300317309

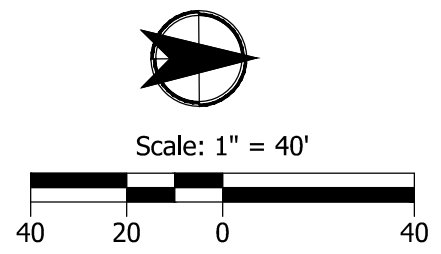
GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
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8. CONTRACTOR SHALL NOT RESTRICT THE SOUTHBOUND THROUGH MOVEMENT AT SW 1ST AVE/S IVY STREET.
9. CONTRACTOR SHALL COORDINATE WITH ODOT FOR TEMPORARY SIGNAL DETECTION MODIFICATIONS AT S. IVY ST. AND OR 99E.
10. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED



LEGEND

- UNDER TRAFFIC
- UNDER CONSTRUCTION
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN
- INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
- INSTALL PAINTED LEFT TURN ARROW
- INSTALL PAINTED 8" WHITE LINE
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)



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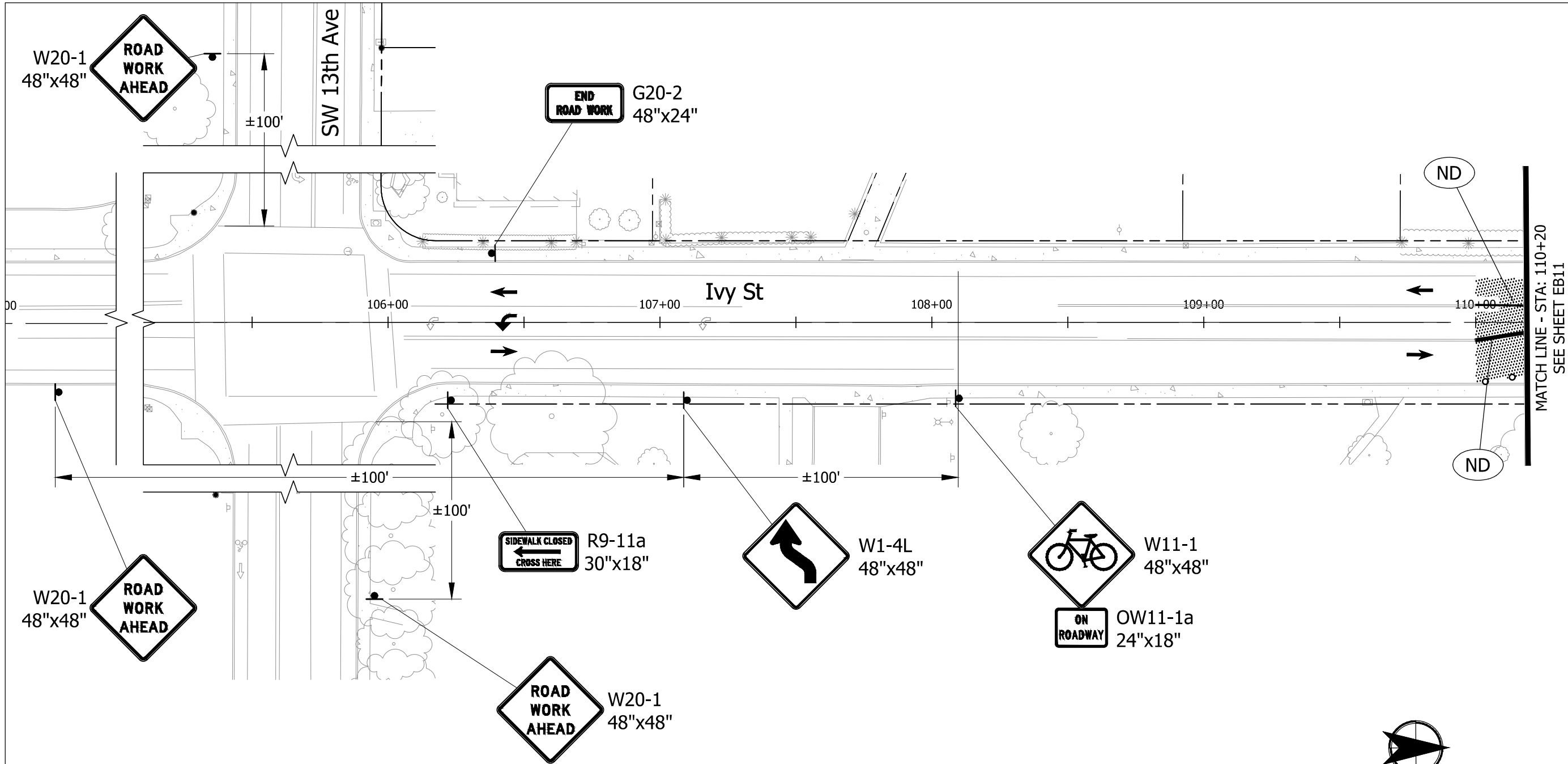
REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

TRAFFIC CONTROL PLAN - PHASE II
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
 DIRECTOR
 DAN JOHNSON
 DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS
 REVISIONS
 NO. DATE:

 Sheet No. EB09
 DATE: December 2023 PROJECT NO.: CI-300317309

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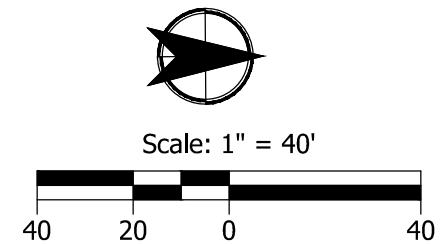


GENERAL NOTES

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7. CONTRACTOR TO CONSTRUCT ONE CURB RAMP PER INTERSECTION AT A TIME. TEMPORARY PEDESTRIAN DETOUR ROUTES MUST BE PROVIDED USING THE 3 OPEN CORNERS PER ODOT STANDARD DRAWING TM844. CONSTRUCT IN SEQUENCE TO MAXIMIZE PEDESTRIAN ACCESS AND CROSSINGS.
8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- UNDER TRAFFIC
- UNDER CONSTRUCTION
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
- POST MOUNTED CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)
- INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES



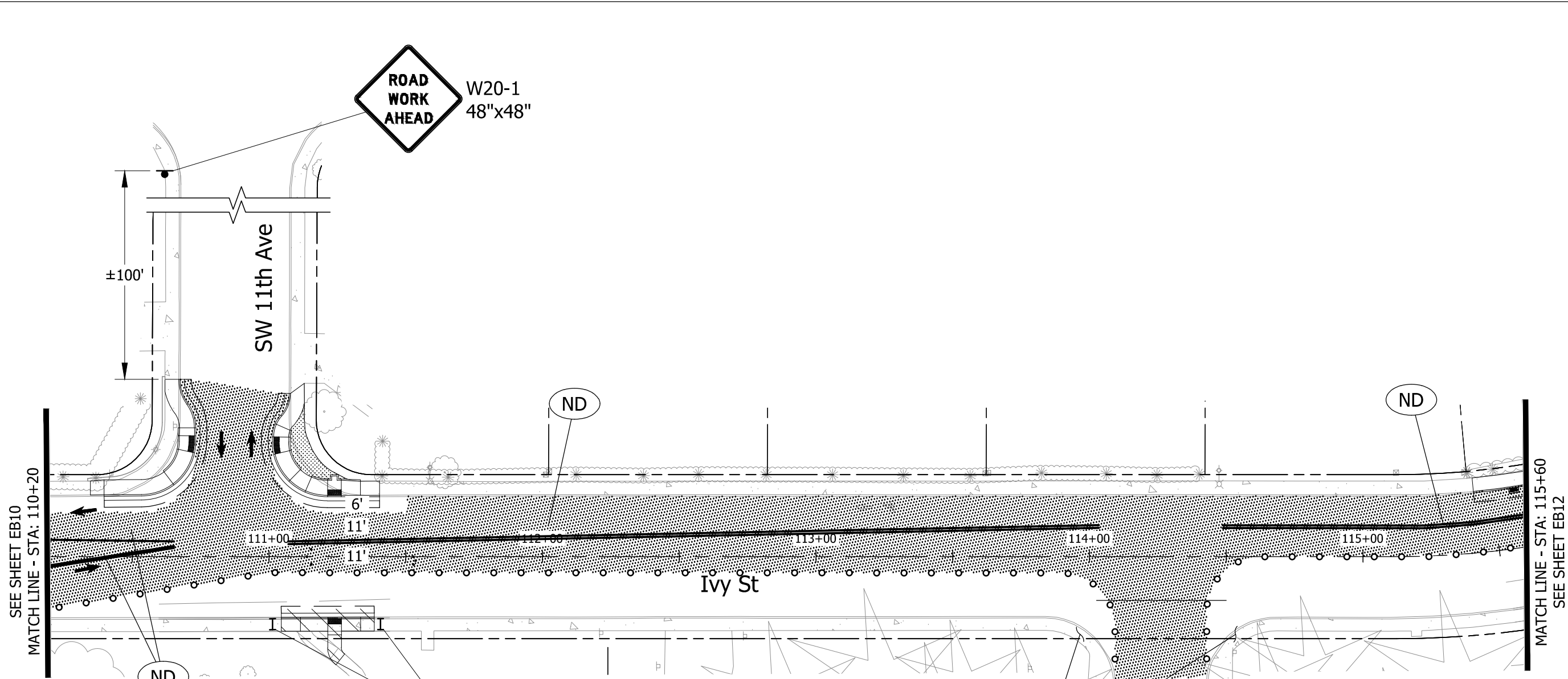
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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045 	TRAFFIC CONTROL PLAN - PHASE III S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX DRAFTED BY: D. SHADRIN CHECKED BY: T. ROOS		
NO. DATE:	REVISIONS	
Sheet No. EB10		

DATE: December 2023 PROJECT NO.: CI-300317309

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GENERAL NOTES

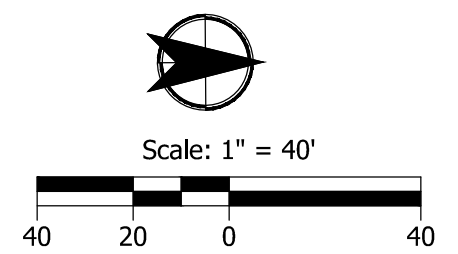
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8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- UNDER TRAFFIC
- UNDER CONSTRUCTION
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- PORTABLE SIGN SUPPORT
- POST MOUNTED CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)

ND INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES

MAINTAIN EXTG. PEDESTRIAN CROSSING AT SCHOOL DRIVEWAY



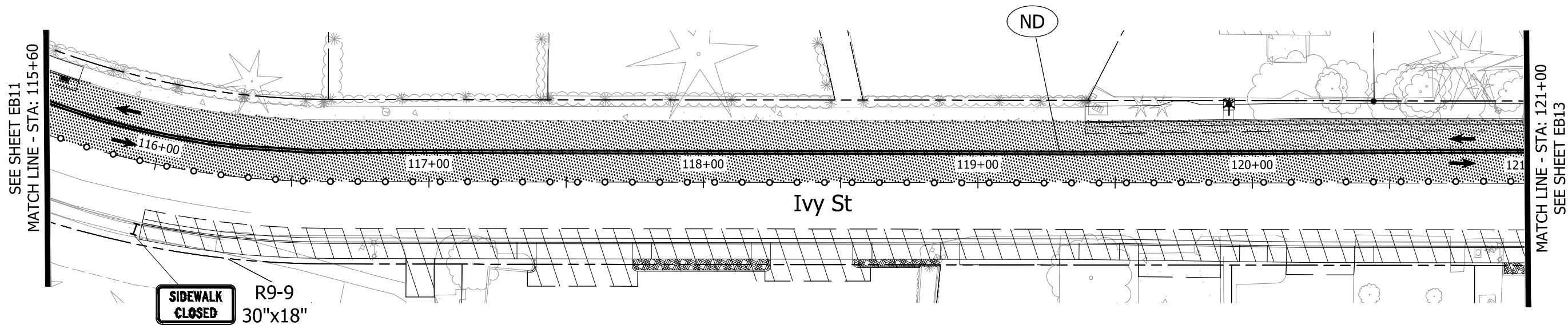
KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

TRAFFIC CONTROL PLAN - PHASE III	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR
DAN JOHNSON	DIRECTOR
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	
NO. DATE:	REVISIONS
Sheet No.	EB11

DATE: December 2023 PROJECT NO.: CI-300317309


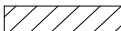




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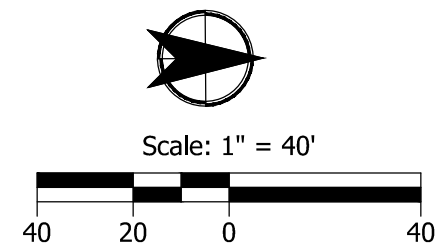


GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
2. ALL TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE CURRENT MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND OREGON SUPPLEMENT.
3. NIGHT WORK NOT ALLOWED.
4. REMOVE EXISTING CONFLICTING STRIPING AND MARKERS.
5. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESSSES.
6. CONTRACTOR TO USE ABRUPT EDGE DETAIL ODOT STANDARD DRAWING TM800 FOR SHOULDER DROP OFF.
7. CONTRACTOR TO CONSTRUCT ONE CURB RAMP PER INTERSECTION AT A TIME. TEMPORARY PEDESTRIAN DETOUR ROUTES MUST BE PROVIDED USING THE 3 OPEN CORNERS PER ODOT STANDARD DRAWING TM844. CONSTRUCT IN SEQUENCE TO MAXIMIZE PEDESTRIAN ACCESS AND CROSSINGS.
8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

-  UNDER TRAFFIC
-  UNDER CONSTRUCTION
-  TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
-  TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
-  DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)
-  INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES



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TRAFFIC CONTROL PLAN - PHASE III
 S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

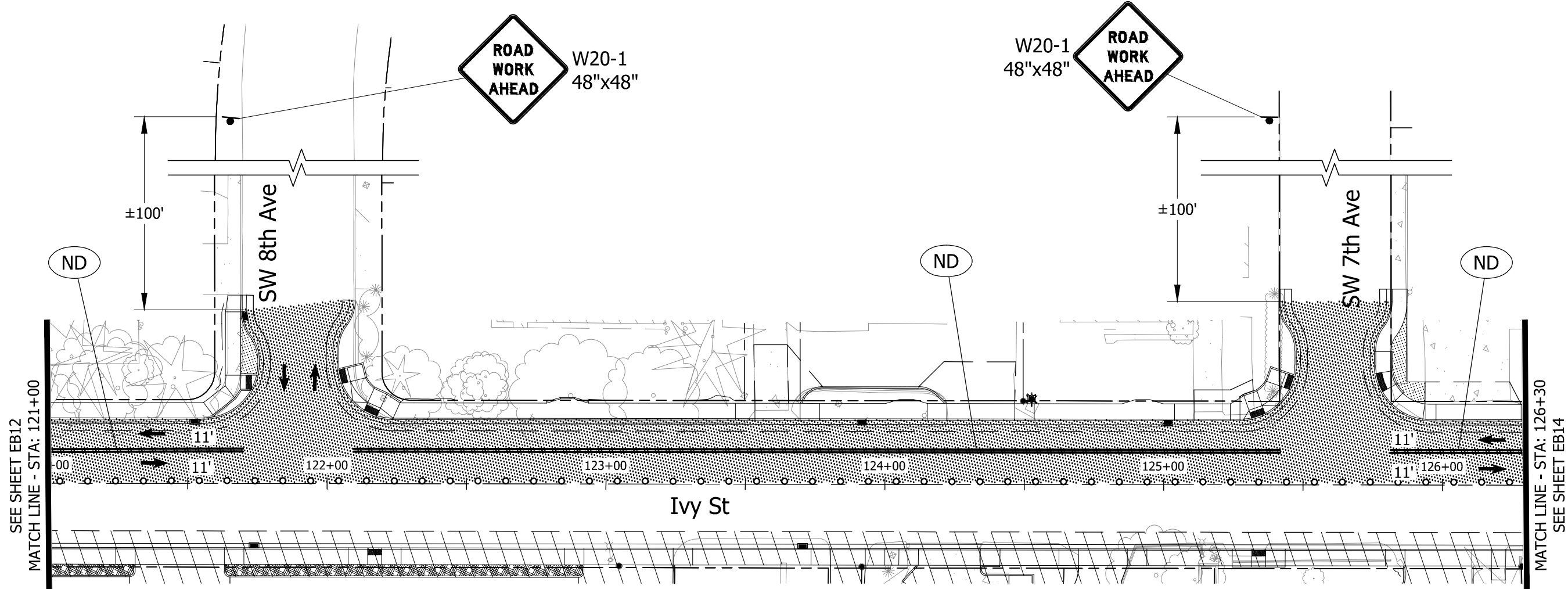
CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
 DIRECTOR
 DAN JOHNSON

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO.	DATE	REVISIONS

Sheet No. EB12


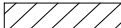




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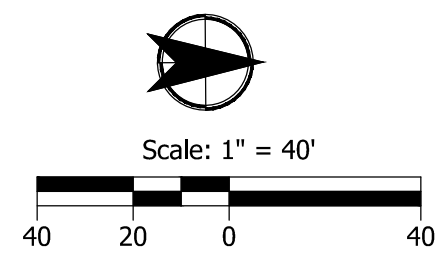


GENERAL NOTES

1. MAINTAIN ALL EXISTING REGULATORY AND WARNING SIGNS IN WORK AREA ON TEMPORARY SIGN SUPPORT (TSS) AS DIRECTED BY THE ENGINEER.
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4. REMOVE EXISTING CONFLICTING STRIPING AND MARKERS.
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8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

-  UNDER TRAFFIC
-  UNDER CONSTRUCTION
-  TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
-  POST MOUNTED CONSTRUCTION SIGN
-  DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)
-  INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES



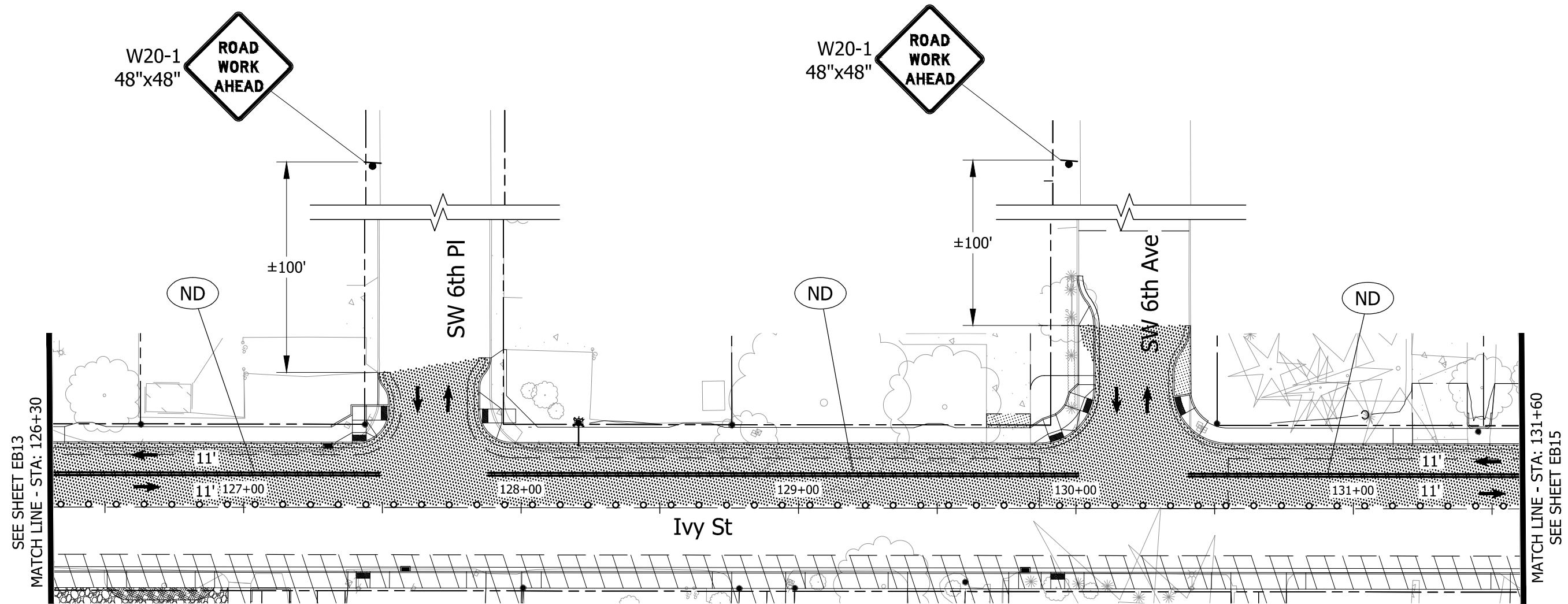
KITTELSON & ASSOCIATES
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 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

TRAFFIC CONTROL PLAN - PHASE III	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	
NO. DATE:	REVISIONS
Sheet No. EB13	

DATE: December 2023 PROJECT NO.: CI-300317309


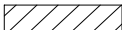




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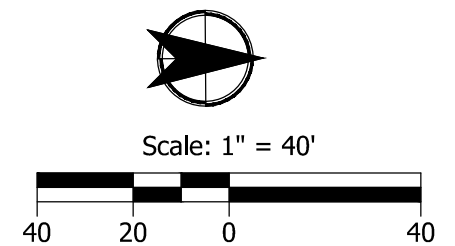


GENERAL NOTES

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LEGEND

-  UNDER TRAFFIC
-  UNDER CONSTRUCTION
-  TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
-  POST MOUNTED CONSTRUCTION SIGN
-  DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)
-  INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES

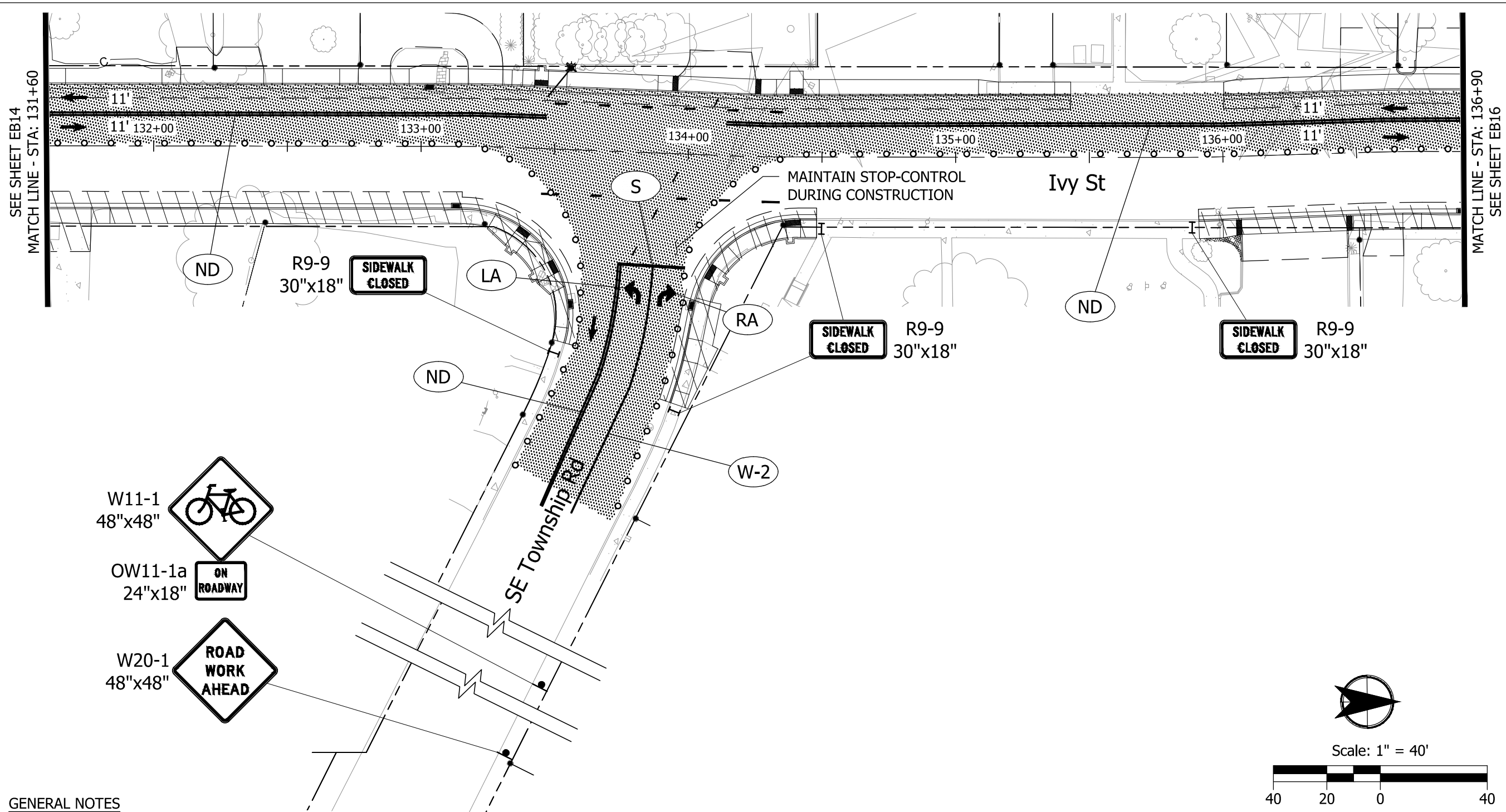


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 EXPIRES: 12/31/2024

TRAFFIC CONTROL PLAN - PHASE III							
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS							
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON						
DESIGNED BY: C. COX	PROJECT NO.: CI-300317309 DATE: December 2023						
DRAFTED BY: D. SHADRIN							
CHECKED BY: T. ROOS							
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NO.	DATE	REVISIONS					

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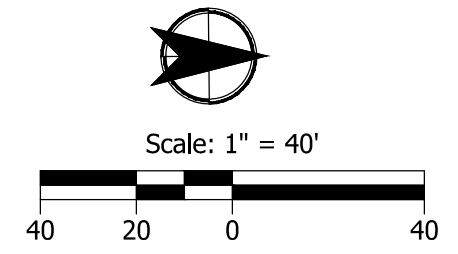
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LEGEND

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- UNDER CONSTRUCTION
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN

- INSTALL PAINTED STOP BAR LINE
- INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
- INSTALL PAINTED LEFT TURN ARROW
- INSTALL PAINTED RIGHT TURN ARROW
- INSTALL PAINTED 8" WHITE LINE
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)

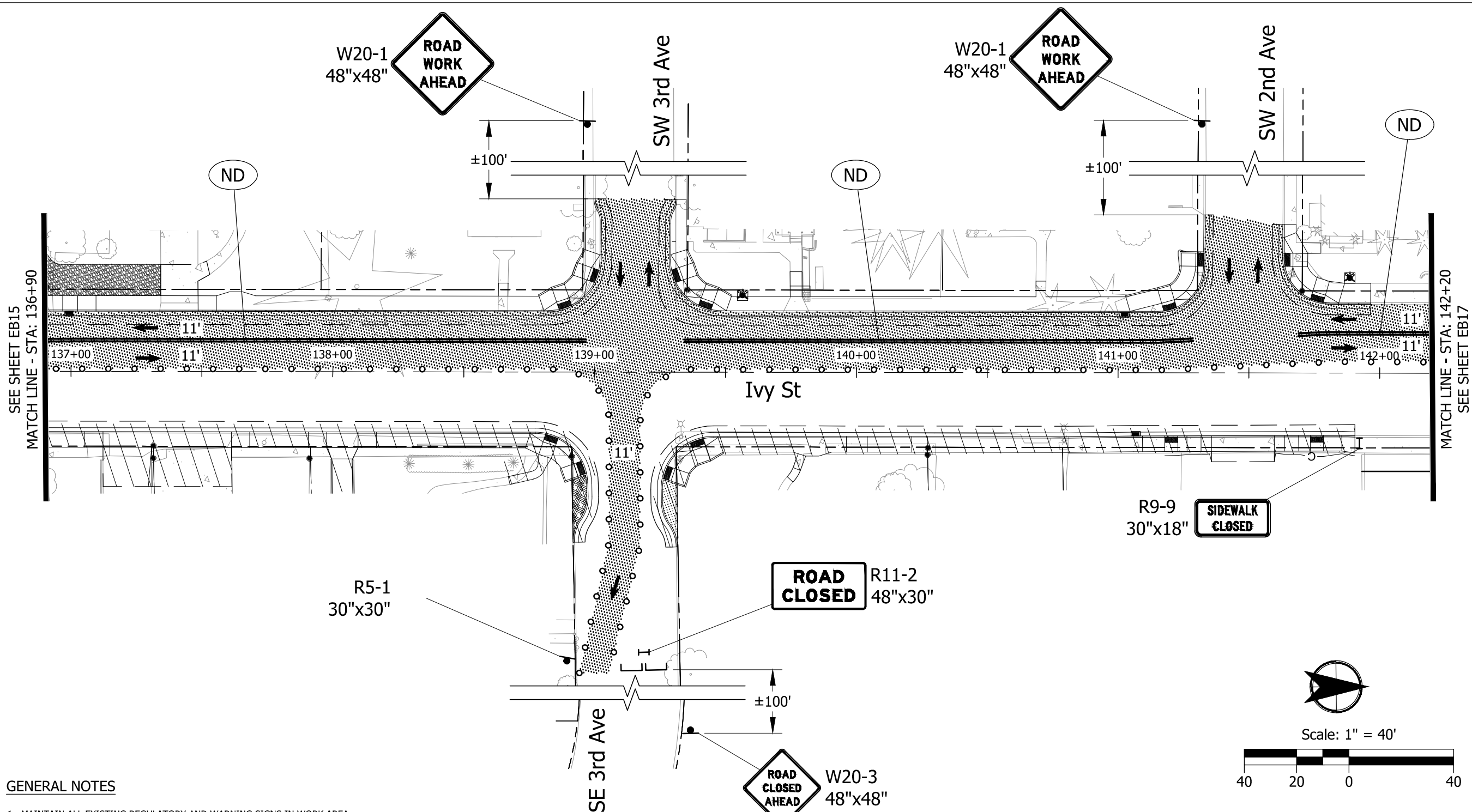


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 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

TRAFFIC CONTROL PLAN - PHASE III	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	CHECKED BY: T. ROOS
DRAFTED BY: D. SHADRIN	PROJECT NO.: CI-300317309
NO. DATE:	DATE: December 2023
REVISIONS	DATE: December 2023
Sheet No. EB15	EXPIRES: 12/31/2024

Plot Stamp: 1/15/2024 11:59:04 AM - Caleb Cox
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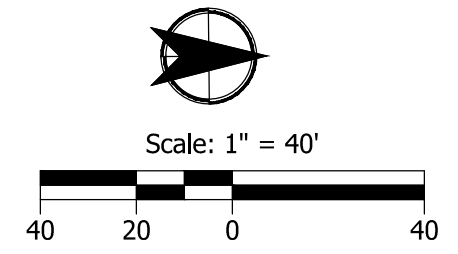


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8. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED

LEGEND

- UNDER TRAFFIC
- UNDER CONSTRUCTION
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
- TYPE III BARRICADE
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN
- INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)



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TRAFFIC CONTROL PLAN - PHASE III
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CLACKAMAS COUNTY
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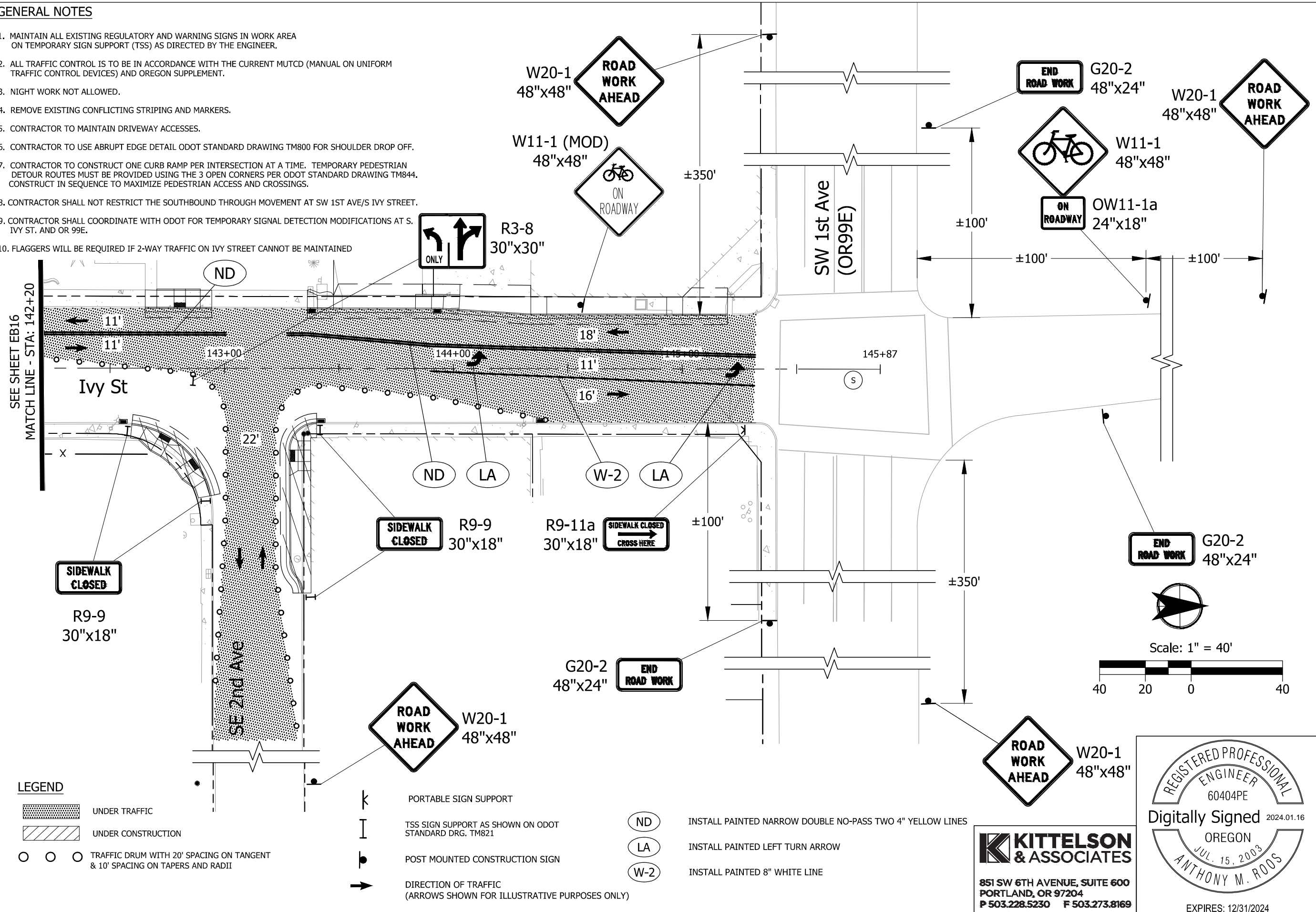
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO.	DATE	REVISIONS

Sheet No. EB16

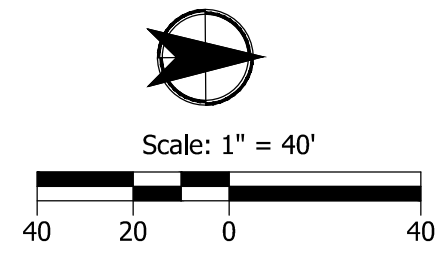
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8. CONTRACTOR SHALL NOT RESTRICT THE SOUTHBOUND THROUGH MOVEMENT AT SW 1ST AVE/S IVY STREET.
9. CONTRACTOR SHALL COORDINATE WITH ODOT FOR TEMPORARY SIGNAL DETECTION MODIFICATIONS AT S. IVY ST. AND OR 99E.
10. FLAGGERS WILL BE REQUIRED IF 2-WAY TRAFFIC ON IVY STREET CANNOT BE MAINTAINED



LEGEND

- UNDER TRAFFIC
- UNDER CONSTRUCTION
- TRAFFIC DRUM WITH 20' SPACING ON TANGENT & 10' SPACING ON TAPERS AND RADII
- PORTABLE SIGN SUPPORT
- TSS SIGN SUPPORT AS SHOWN ON ODOT STANDARD DRG. TM821
- POST MOUNTED CONSTRUCTION SIGN
- DIRECTION OF TRAFFIC (ARROWS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY)
- INSTALL PAINTED NARROW DOUBLE NO-PASS TWO 4" YELLOW LINES
- INSTALL PAINTED LEFT TURN ARROW
- INSTALL PAINTED 8" WHITE LINE



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TRAFFIC CONTROL PLAN - PHASE III
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
 DAN JOHNSON

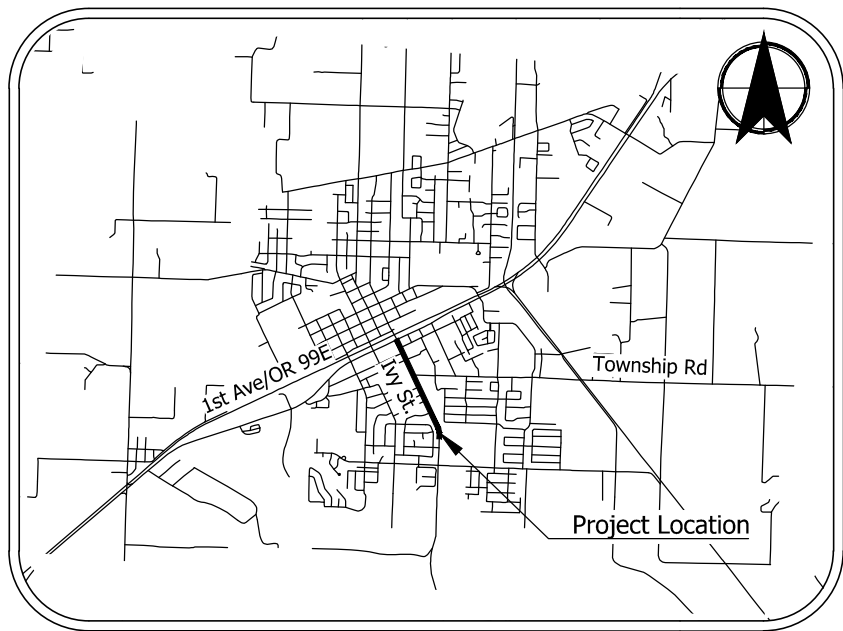
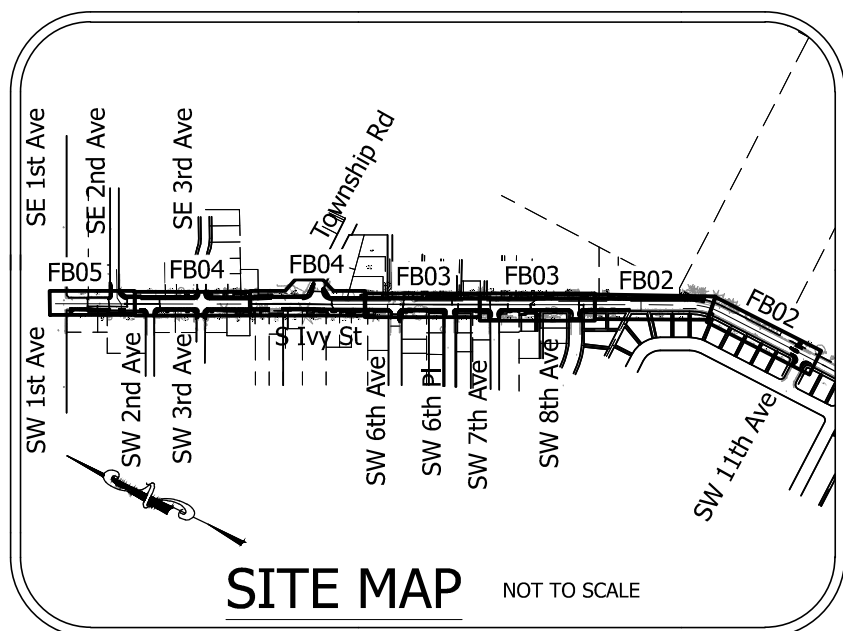
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO. DATE: _____

Sheet No. EB17

Plot Stamp: 1/15/2024 11:59:23 AM - Caleb Cox
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S IVY STREET IMPROVEMENTS GRADING & EROSION CONTROL



Owner/Developer

Clackamas County
 Contact: Jordan Cools, PE
 150 Beaver Creek Rd
 Oregon City, OR 97045
 Phone: 503-742-4654
 Email: JCools@clackamas.us

Surveyor

S&F Land Survey
 Contact: Jered McGrath, PLS
 4905 SW Scholls Ferry Road Suite A;
 Portland, OR 97225
 Phone: 503-758-6415
 Email: jered.mcgrath@sflands.com

General Contractor

TBD

The Permittee is required to meet all the conditions of the 1200CN Permit. This ESCP and General Conditions have been developed to facilitate compliance with the 1200CN Permit requirements. In cases of discrepancies or omissions, the 1200CN Permit Requirements supercede requirements of this plan. Contractor is responsible for staging area & associated ESC measures.

Design Engineer/ESCP Preparer

Kittelson and Associates, Inc.
 Contact: Tony Roos, PE
 851 SW 6th Ave., Suite 600
 Portland, OR 97204
 Phone: 503-535-7444
 Email: troos@kittelson.com

BMP Installer/Maintainer

TBD

Business Days/Hours

Monday - Friday 7:00-7:00
 Saturday -No Work-
 Sunday -No Work-

CESCL

Clackamas County
 Contact: Jonathan Hangartner, PE
 150 Beaver Creek Rd
 Oregon City, OR 97045
 Phone: 503-742-4649
 Email: JHangartner@clackamas.us

Site Information

- Type of Development:** Public Roadway Improvements
- Construction Activity will Consist of:**
 - Curb, Asphalt Paving, & Sidewalk Construction
 - Stormwater Drainage System (Piping & Treatment Facilities)
 - Utility Relocations
- Project Timeline:**
 Beginning Date: Spring 2024
 Completion Date: Fall 2024
- Project Offsite Areas:**
 Total Area: 218,577 (5 Acres)
 Disturbed Area: 218,577 (5 Acres)
 Percent of Area Disturbed: 100%
 Extg. Impervious Area: 166,496 SF (3.822 Acres)
 Prop. Impervious Area: 208,819 SF (4.794 Acres)
- Soil Types:**
 On-Site Soils are Silt Loam as Described by the Websoil Online Survey
- Receiving Water Bodies**
 None - Infiltrated in Drywells
- Cut and Fill Data:**
 Cut: 3,084 CY
 Fill: 114 CY

Sheet Index

FB01	GRADING & EROSION CONTROL COVER
FB02	GRADING & EROSION CONTROL NOTES
FB03 THRU FB08	GRADING & EROSION CONTROL

Inspection Frequency

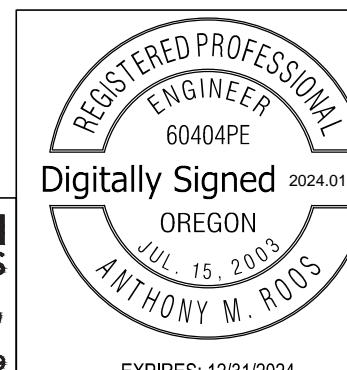
Site Condition	Minimum Frequency
1. Active Period	On the initial date; Within 24 hours of any storm event, including runoff from snow melt, that results in discharge from the site. At least once every 14 days, regardless of whether stormwater runoff is occurring.
2. Inactive periods greater than fourteen (14) consecutive calendar days.	The Inspector may reduce the frequency of inspections in any area of the site where the stabilization steps in Section 2.2.20 have been completed to twice per month for the first month, no less than 14 calendar days apart, then once per month.
3. Periods during which the site is inaccessible due to inclement weather.	If safe, accessible and practical, inspections must occur daily at a relevant discharge point or downstream location of the receiving waterbody.
4. Periods during which construction activities are suspended and runoff is unlikely due to frozen conditions.	Visual monitoring inspections may be temporarily suspended. Immediately resume monitoring upon thawing, or when weather conditions make discharges likely.
5. Periods during which construction activities are conducted and runoff is unlikely during frozen conditions.	Visual monitoring inspections may be reduced to once a month. Immediately resume monitoring upon thawing, or when weather conditions make discharges likely.

Project Location

S Ivy St between SW 1st Ave and SW 11th Ave, Canby, OR

Rain Gauge

Clackamas River at Estacada
 Hyperlink:
https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=14210000



GRADING & EROSION CONTROL COVER S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045 DAN JOHNSON DIRECTOR
DESIGNED BY: C. COX DRAFTED BY: D. SHADRIN CHECKED BY: T. ROOS	REVISIONS NO. DATE:
Sheet No. FB01	

DEQ Erosion and Sediment Control Plan Drawing Notes:

- Once known, include a list of all contractors that will engage in construction activities on site, and the areas of the site where the contractor(s) will engage in construction activities. Revise the list as appropriate until permit coverage is terminated (Section 4.4.c.i). In addition, include a list of all personnel (by name and position) that are responsible for the design, installation and maintenance of stormwater control measures (e.g. ESCP developer, BMP installer (see Section 4.10), as well as their individual responsibilities. (Section 4.4.c.ii)
- Visual monitoring inspection reports must be made in accordance with DEQ 1200-C permit requirements. (Section 6.5)
- Inspection logs must be kept in accordance with DEQ's 1200-C permit requirements. (Section 6.5.g)
- Retain a copy of the ESCP and all revisions on site and make it available on request to DEQ, Agent, or the local municipality. (Section 4.7)
- The permit registrant must implement the ESCP. Failure to implement any of the control measures or practices described in the ESCP is a violation of the permit. (Sections 4 and 4.11)
- The ESCP must be accurate and reflect site conditions. (Section 4.8)
- Submission of all ESCP revisions is not required. Submittal of the ESCP revisions is only under specific conditions. Submit all necessary revision to DEQ or Agent within 10 days. (Section 4.9)
- Sequence clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming a source of erosion. (Section 2.2.2)
- Create smooth surfaces between soil surface and erosion and sediment controls to prevent stormwater from bypassing controls and ponding. (section 2.2.3)
- Identify, mark, and protect (by construction fencing or other means) critical riparian areas and vegetation including important trees and associated rooting zones, and vegetation areas to be preserved. Identify vegetative buffer zones between the site and sensitive areas (e.g., wetlands), and other areas to be preserved, especially in perimeter areas. (Section 2.2.1)
- Preserve existing vegetation when practical and re-vegetate open areas. Re-vegetate open areas when practicable before and after grading or construction. Identify the type of vegetative seed mix used. (Section 2.2.5)
- Maintain and delineate any existing natural buffer within the 50-feet of waters of the state. (Section 2.2.4)
- Install perimeter sediment control, including storm drain inlet protection as well as all sediment basins, traps, and barriers prior to land disturbance. (Sections 2.1.3)
- Control both peak flow rates and total stormwater volume, to minimize erosion at outlets and downstream channels and streambanks. (Sections 2.1.1. and 2.2.16)
- Control sediment as needed along the site perimeter and at all operational internal storm drain inlets at all times during construction, both internally and at the site boundary. (Sections 2.2.6 and 2.2.13)
- Establish concrete truck and other concrete equipment washout areas before beginning concrete work. (Section 2.2.14)
- Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as grading progresses. Temporary or permanent stabilizations measures are not required for areas that are intended to be left unvegetated, such as dirt access roads or utility pole pads.(Sections 2.2.20 and 2.2.21)
- Establish material and waste storage areas, and other non-stormwater controls. (Section 2.3.7)
- Keep waste container lids closed when not in use and close lids at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either (1) cover (e.g., a tarp, plastic sheeting, temporary roof) to prevent exposure of wastes to precipitation, or (2) a similarly effective means designed to prevent the discharge of pollutants (e.g., secondary containment). (Section 2.3.7)
- Prevent tracking of sediment onto public or private roads using BMPs such as: construction entrance, graveled (or paved) exits and parking areas, gravel all unpaved roads located onsite, or use an exit tire wash. These BMPs must be in place prior to land- disturbing activities. (Section 2.2.7)
- When trucking saturated soils from the site, either use water-tight trucks or drain loads on site. (Section 2.2.7.f)
- Control prohibited discharges from leaving the construction site, i.e., concrete wash-out, wastewater from cleanout of stucco, paint and curing compounds. (Sections 1.5 and 2.3.9)
- Ensure that steep slope areas where construction activities are not occurring are not disturbed. (Section 2.2.10)
- Prevent soil compaction in areas where post-construction infiltration facilities are to be installed. (Section 2.2.12)
- Use BMPs to prevent or minimize stormwater exposure to pollutants from spills; vehicle and equipment fueling, maintenance, and storage; other cleaning and maintenance activities; and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, fertilizer, pesticides and herbicides, paints, solvents, curing compounds and adhesives from construction operations. (Sections 2.2.15 and 2.3)
- Provide plans for sedimentation basins that have been designed per Section 2.2.17 and stamped by an Oregon Professional Engineer. (See Section 2.2.17.a)
- If engineered soils are used on site, a sedimentation basin/impoundment must be installed. (See Sections 2.2.17 and 2.2.18)
- Provide a dewatering plan for accumulated water from precipitation and uncontaminated groundwater seepage due to shallow excavation activities. (See Section 2.4)
- Implement the following BMPs when applicable: written spill prevention and response procedures, employee training on spill prevention and proper disposal procedures, spill kits in all vehicles, regular maintenance schedule for vehicles and machinery, material delivery and storage controls, training and signage, and covered storage areas for waste and supplies. (Section 2.3)
- Use water, soil-binding agent or other dust control technique as needed to avoid wind-blown soil. (Section 2.2.9)
- The application rate of fertilizers used to reestablish vegetation must follow manufacturer's recommendations to minimize nutrient releases to surface waters. Exercise caution when using time-release fertilizers within any waterway riparian zone. (Section 2.3.5)
- If an active treatment system (for example, electro-coagulation, flocculation, filtration, etc.) for sediment or other pollutant removal is employed, submit an operation and maintenance plan (including system schematic, location of system, location of inlet, location of discharge, discharge dispersion device design, and a sampling plan and frequency) before operating the treatment system. Obtain Environmental Management Plan approval from DEQ before operating the treatment system. Operate and maintain the treatment system according to manufacturer's specifications. (Section 1.2.9)
- Temporarily stabilize soils at the end of the shift before holidays and weekends, if needed. The registrant is responsible for ensuring that soils are stable during rain events at all times of the year. (Section 2.2)
- As needed based on weather conditions, at the end of each workday soil stockpiles must be stabilized or covered, or other BMPs must be implemented to prevent discharges to surface waters or conveyance systems leading to surface waters. (Section 2.2.8)
- Sediment fence: remove trapped sediment before it reaches one third of the above ground fence height and before fence removal. (Section 2.1.5.b)
- Other sediment barriers (such as biobags): remove sediment before it reaches two inches depth above ground height and before BMP removal. (Section 2.1.5.c)
- Catch basins: clean before retention capacity has been reduced by fifty percent. Sediment basins and sediment traps: remove trapped sediments before design capacity has been reduced by fifty percent and at completion of project. (Section 2.1.5.d)
- Within 24 hours, significant sediment that has left the construction site, must be remediated. Investigate the cause of the sediment release and implement steps to prevent a recurrence of the discharge within the same 24 hours. Any in-stream clean-up of sediment shall be performed according to the Oregon Department of State Lands required timeframe. (Section 2.2.19.a)
- The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments. (Section 2.2.19)
- Document any portion(s) of the site where land disturbing activities have permanently ceased or will be temporarily inactive for 14 or more calendar days. (Section 6.5.f.)
- Provide temporary stabilization for that portion of the site where construction activities cease for 14 days or more with a covering of blown straw and a tackifier, loose straw, or an adequate covering of compost mulch until work resumes on that portion of the site. (Section 2.2.20)
- Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. Once construction is complete and the site is stabilized, all temporary erosion controls and retained soils must be removed and disposed of properly, unless needed for long term use following termination of permit coverage. (Section 2.2.21)

Erosion and Sediment Control BMP Implementation:

- All base Erosion & Sediment Control (ESC) measures (inlet protection, perimeter sediment control, gravel construction entrances, etc.) must be in place, functional, and approved in an initial inspection, prior to commencement of construction activities.
- All "sediment barriers (to be installed after grading)" shall be installed immediately following establishment of finished grade as shown on these plans.
- Long term slope stabilization measures "including matting" shall be in place over all exposed soils by October 1.
- Inlet protection shall be in-place immediately following paving activities.

Pre-Construction, Clearing, and Demolition Notes:

- All base Erosion & Sediment Control (ESC) measures (inlet structures, perimeter sediment control, gravel construction entrances, etc.) must be in place, functional, and approved in an initial inspection, prior to commencement of construction activities.
- Sediment barriers approved for use includes sediment fence, berms constructed out of mulch, chippings, or other suitable material, straw wattles, or other approved materials.
- Sensitive resources including, but not limited to, trees, wetlands, and riparian protection areas shall be clearly delineated with orange construction fencing or chain link fencing in a manner that is clearly visible to anyone in the area. No activities are permitted to occur beyond the construction barrier. Orange fence may be used in sensitive areas only.
- Construction entrances shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures including, but not limited to, tire washes, street sweeping, and vacuuming, may be required to insure that all paved areas are kept clean for the duration of the project.
- Run-on and run-off controls shall be in place and functioning prior to beginning substantial construction activities. Run-on and run-off control measures include: slope drains (with outlet protection), check dams, surface roughening, and bank stabilization.

Runoff Control Note:

A phased mass grading and runoff control plan is required for projects where clearing and mass grading activities are proposed during the wet weather period, October 1 through May 31. The runoff control plan shall identify BMPs from CWS Design and Constructions Standards Chapter 6 Table 6-2, or approved alternatives, and be submitted with, or as a revision to, the ESCP plan. All BMPs specified on the runoff control plan shall be in place and functional prior to commencement of mass grading.

BMP Matrix for Construction Phase

Year	2024						
	Phase/BMP	CLEARING	MASS GRADING	UTILITY CONSTRUCTION	STREET CONSTRUCTION	FINAL STABILIZATION	WET WEATHER (Oct. 1 - May 31)
EROSION PREVENTION							
PRESERVE NATURAL VEGETATION	** X	X	X	X	X	X	X
GROUND COVER					X		X
HYDRAULIC APPLICATIONS							
PLASTIC SHEETING							
MATTING					X		X
DUST CONTROL	X	X	X	X	X	X	X
TEMPORARY/PERMANENT SEEDING**		X	X	X	X	X	X
BUFFER ZONE							
OTHER:							
SEDIMENT CONTROL							
SEDIMENT FENCE (PERIMETER)	** X	X	X	X	X	X	X
SEDIMENT FENCE (INTERIOR)							
STRAW WATTLES							
FILTER BERM							
INLET PROTECTION	X	X	X	X	X	X	X
DEWATERING							
SEDIMENT TRAP							
NATURAL BUFFER ENCROACHMENT							
OTHER:							
RUN OFF CONTROL							
CONSTRUCTION ENTRANCE							
PIPE SLOPE DRAIN							
OUTLET PROTECTION							
SURFACE ROUGHENING							
CHECK DAMS							
OTHER:							
POLLUTION PREVENTION							
PROPER SIGNAGE	X	X	X	X	X	X	X
HAZ WASTE MGMT	X	X	X	X	X	X	X
SPILL KIT ON-SITE	X	X	X	X	X	X	X
CONCRETE WASHOUT AREA							
OTHER:							

* Signifies additional BMP's required for work within 50' of water of the state.
 ** Signifies BMP that will be installed prior to any ground disturbing activity.

Dewatering Notes:

- To the extent possible, use vegetated, upland areas of the site to infiltrate dewatering water before discharge. The registrant is prohibited from using water of the state as part of the treatment area.
- Implement the appropriate control measures for dewatering discharges to prevent the discharge of pollutants.
- Do not discharge visible floating solids or foam.
- Use an oil-water separator or suitable filtration devices (such as a cartridge filter) that is designed to remove oil, grease, or other products if dewatering water is found to contain these materials.
- At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Section 2.2.16.
- With backwater water, either haul it away for disposal or return it to the beginning of the treatment process.
- Replace and clean the filter material in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.
- If there is no alternative option, the use of a sanitary or combined sewer discharge is authorized with local sewer district approval.
- Active treatment systems for turbidity or any other pollutants must be designed and stamped by an Oregon Registered Professional Engineer.

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REGISTERED PROFESSIONAL ENGINEER
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 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

GRADING & EROSION CONTROL NOTES

CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

DIRECTOR DAN JOHNSON

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

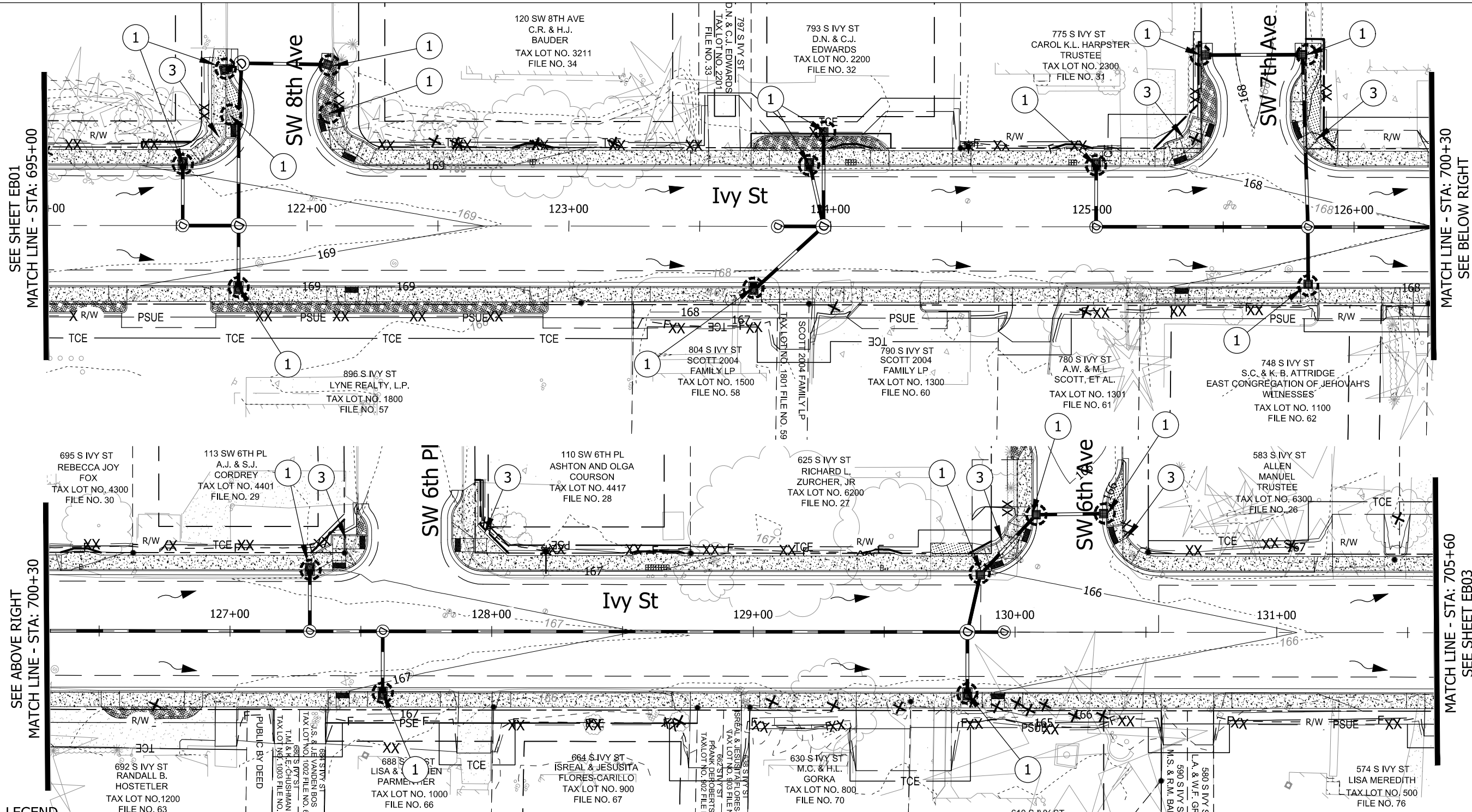
REVISIONS

NO.	DATE:		

Sheet No. FB02

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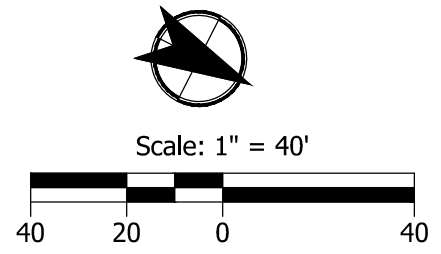


LEGEND

XX	XX	Sediment Fence		Inlet Protection
---	---	Existing ROW Line		Concrete Washout Facility
---	---	Proposed ROW Line		Trees to Remain
-250-	-249-	Existing Major Contours		Trees to Removed
-250-	-249-	Existing Minor Contours		
-250-	-249-	Proposed Major Contours		
-249-	-249-	Proposed Minor Contours		
		Flow Arrow		
		Extg./Proposed MH		
		Extg./Proposed CB		

CONSTRUCTION NOTES

- 1 Install Inlet Protection. (For Details, See Sht. FB07)
- 2 Install Sediment Fence. (For Details, See Sht. FB08)
- 3 Area of Seed Restoration



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GRADING & EROSION CONTROL
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

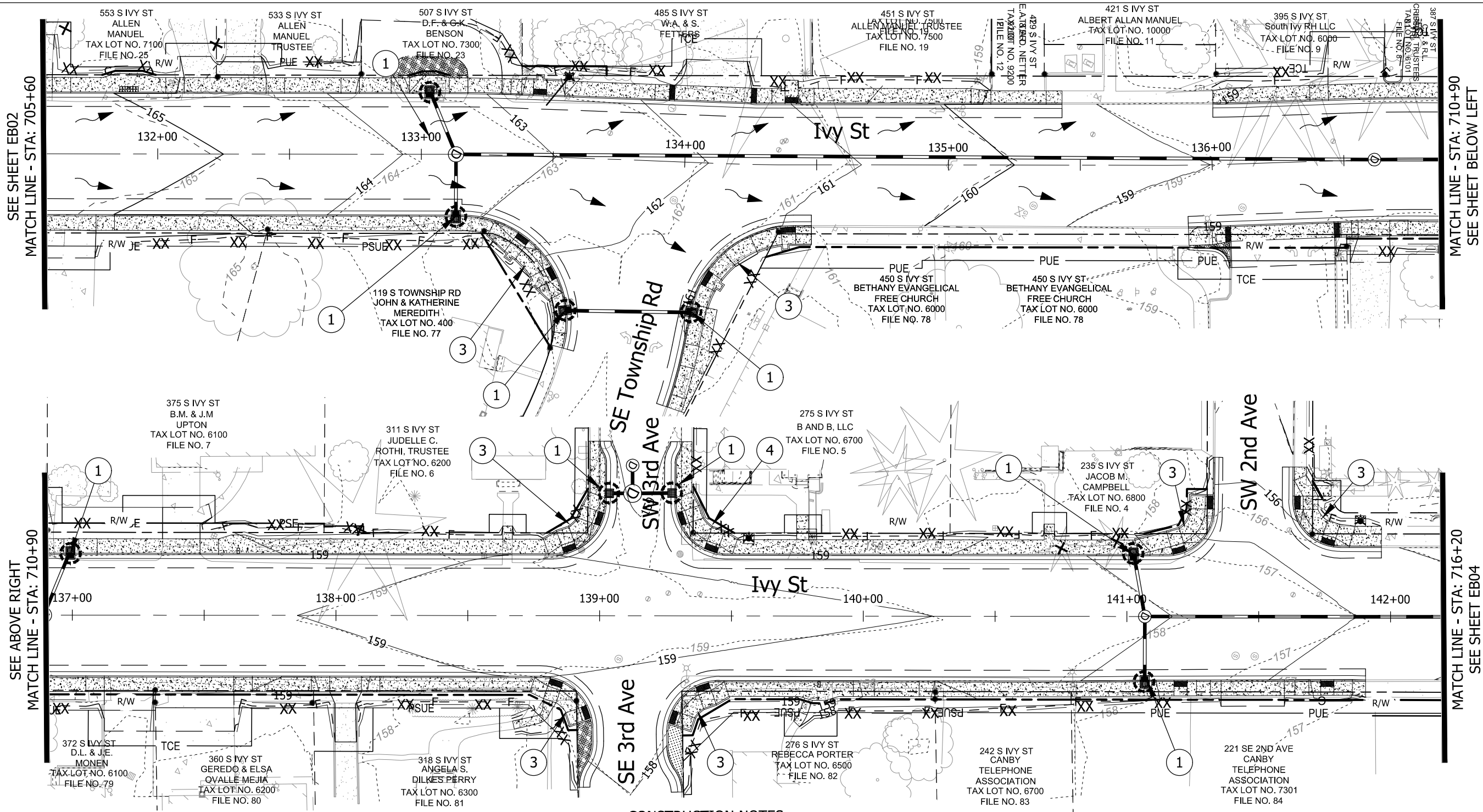
DESIGNED BY: C. COX
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 CHECKED BY: T. ROOS

REVISIONS

NO.	DATE:	DESCRIPTION:

Sheet No. **FB04**

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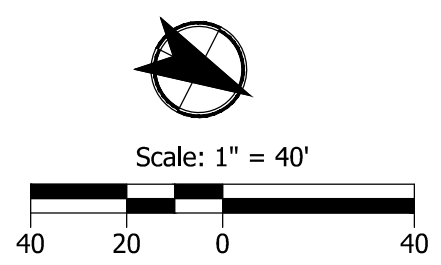


LEGEND

XX	XX	Sediment Fence		Inlet Protection
---	---	Existing ROW Line		Concrete Washout Facility
---	---	Proposed ROW Line		Trees to Remain
- - - 250	- - - 249	Existing Major Contours		Trees to Removed
- - - 249	- - - 250	Existing Minor Contours		
- - - 250	- - - 249	Proposed Major Contours		
- - - 249	- - - 250	Proposed Minor Contours		
		Flow Arrow		
		Extg./Proposed MH		
		Extg./Proposed CB		

CONSTRUCTION NOTES

- 1 Install Inlet Protection. (For Details, See Sht. FB07)
- 2 Install Sediment Fence. (For Details, See Sht. FB08)
- 3 Area of Seed Restoration



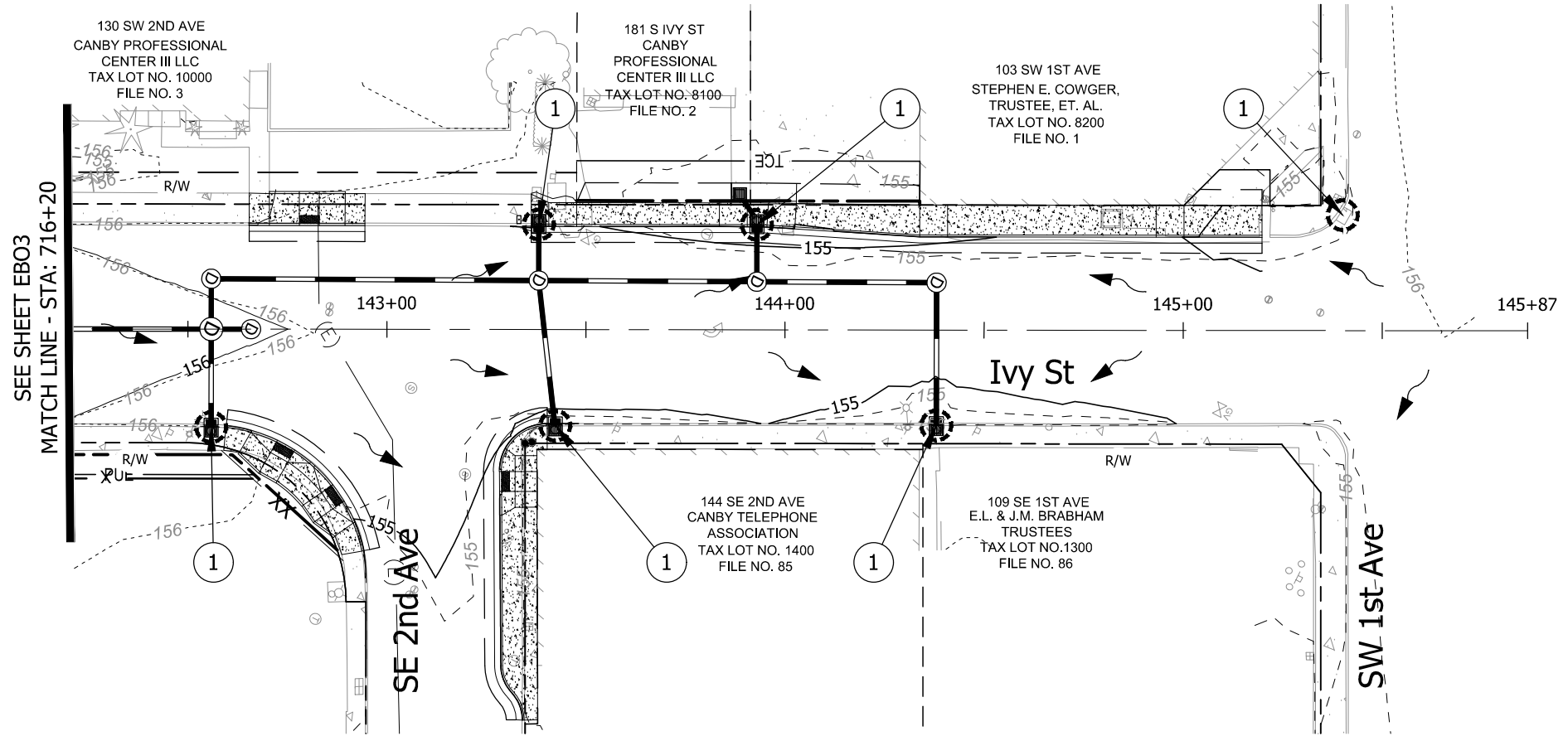
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 EXPIRES: 12/31/2024

GRADING & EROSION CONTROL	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	
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DRAFTED BY: D. SHADRIN	
CHECKED BY: T. ROOS	
NO. DATE:	REVISIONS
Sheet No. FB05	

DATE: December 2023 PROJECT NO.: CI-300317309

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LEGEND

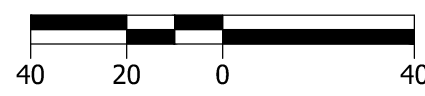
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---	Existing ROW Line		Concrete Washout Facility
---	Proposed ROW Line		Trees to Remain
- - - 250 - - -	Existing Major Contours		Trees to Removed
- - - 249 - - -	Existing Minor Contours		
- - - 250 - - -	Proposed Major Contours		
- - - 249 - - -	Proposed Minor Contours		
	Flow Arrow		
	Extg./Proposed MH		
	Extg./Proposed CB		

CONSTRUCTION NOTES

- ① Install Inlet Protection.
(For Details, See Sht. FB07)
- ② Install Sediment Fence.
(For Details, See Sht. FB08)
- ③ Area of Seed Restoration



Scale: 1" = 40'



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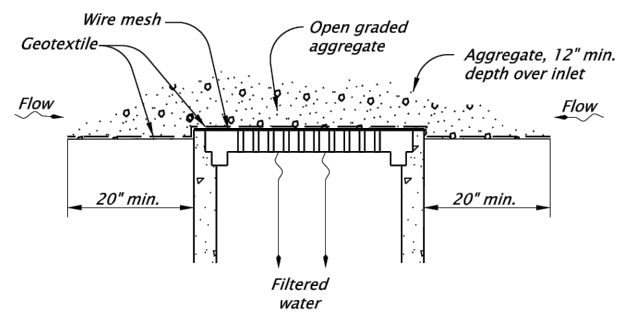
CLACKAMAS COUNTY
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DAN JOHNSON
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DESIGNED BY: C. COX
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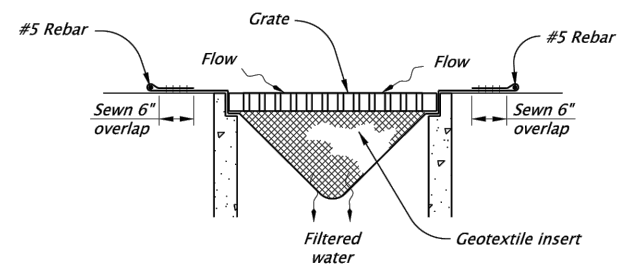
NO.	DATE	REVISIONS

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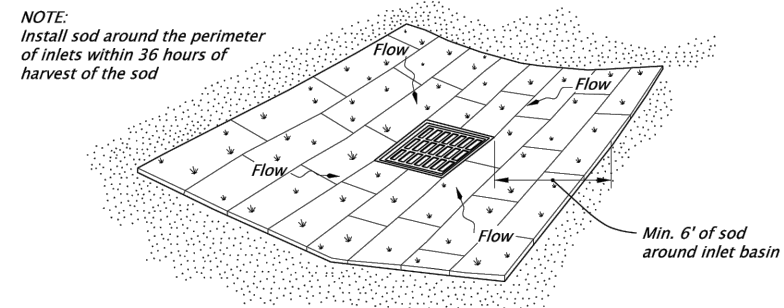
RD1010.dgn 20-JAN-2021



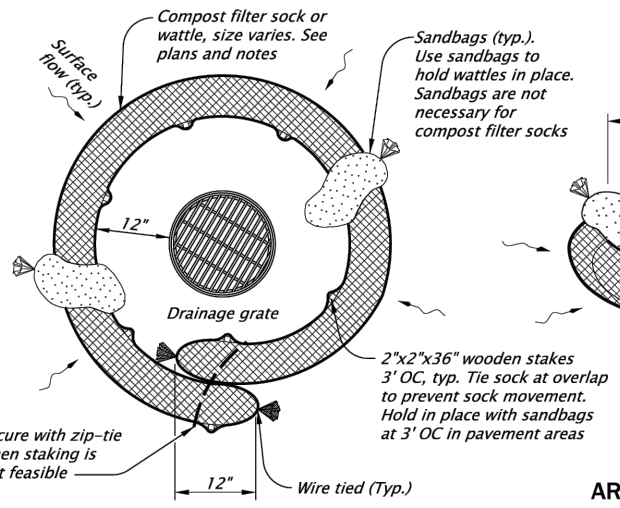
GEOTEXTILE/WIRE MESH/AGGREGATE - TYPE 2
NOT TO SCALE



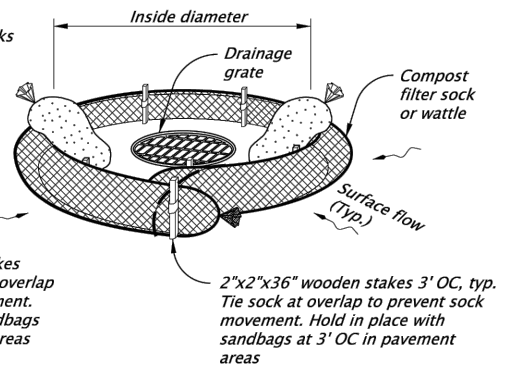
PREFABRICATED FILTER INSERT - TYPE 3
NOT TO SCALE



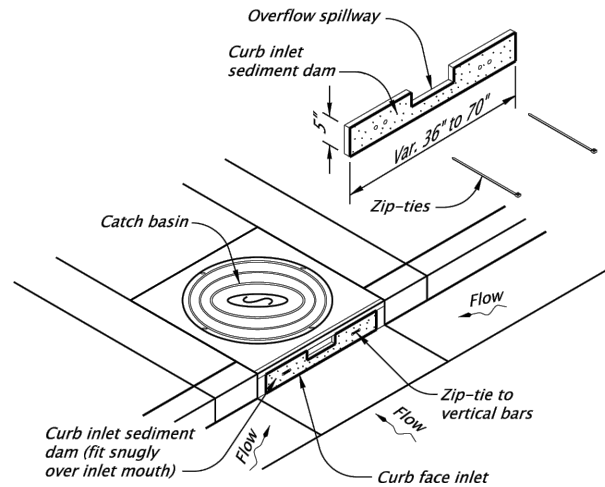
SOD PROTECTION - TYPE 6
NOT TO SCALE



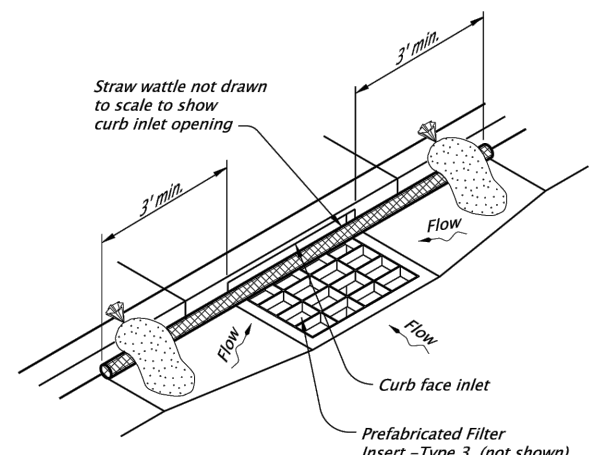
AREA DRAIN PLAN



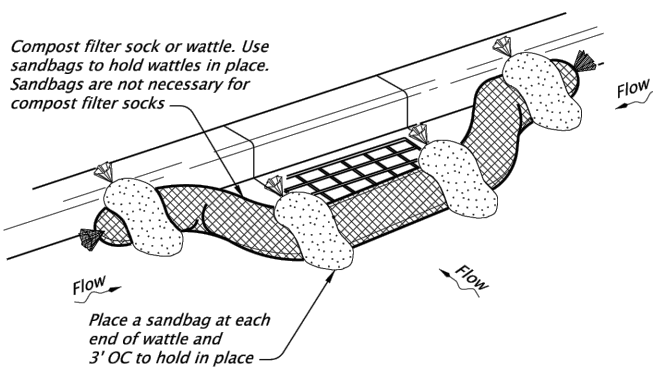
AREA DRAIN PERSPECTIVE VIEW



CURB INLET SEDIMENT DAM - TYPE 10
NOT TO SCALE



WATTLE BARRIER WITH FILTER INSERT - TYPE 11
NOT TO SCALE



COMPOST FILTER SOCK OR WATTLE - TYPE 7
NOT TO SCALE

NOTES:
 Type 2 - Geotextile/wire mesh/aggregate
 Place the wire mesh over the grate.
 Place sediment fence geotextile over the wire mesh and perimeter area around structure.
 Install aggregate over the geotextile fabric.
 Type 3 - Prefabricated filter inserts
 Install prefabricated filter inserts according to the plans, special provisions, and manufacturer recommendations.
 Prefabricated inserts with provisions for overflow are allowed only when accompanied by additional BMP's to prevent the potential of sediments entering project storm systems.
 Field fabricated inserts are not allowed.
 Type 7 - Compost filter sock
 Drive 2"x2" wood stakes a minimum of 6" into ground and flush with the top of the sock.
 Overlap ends of sock per manufacturers recommendations (12" min., 36" max.).
 Use 8" to 12" dia sock on curbside in traffic areas.

(Type 7 cont.)
 Use 12" to 18" dia sock in non-traffic areas or areas where the larger socks can be used safely.
 Use synthetic mesh socks for temporary installations.
 Type 10 - Curb inlet sediment dam
 Fit curb inlet sediment dam snugly into inlet mouth. Curb inlet sediment dam is required for use with inlet filter insert where at-grade inlet grate and curb inlet are combined at a catch basin.
 Type 11 - Wattle barrier with filter insert
 Install prefabricated filter insert per Type 3 detail.
 Install wattles over opening and 36" to each side of opening tight against curb. Adjust wattle to force storm water to flow through filter insert or wattle prior to leaving the site.
 Adjust, replace or modify the inlet protection as needed to prevent sediment laden water from entering the catch basin.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.	
OREGON STANDARD DRAWINGS	
INLET PROTECTION	
TYPE 2, 3, 6, 7, 10 AND 11	
2024	
DATE	REVISION DESCRIPTION
01-2021	REMOVED CALC BOOK NUMBERS
01-2021	MOVED NOTES UP FROM OVERLAPPING THE SHEET BORDER
CALC. BOOK NO.	N/A
SDR DATE	20-JAN-2021
RD1010	

Effective Date: December 1, 2023 - May 31, 2024

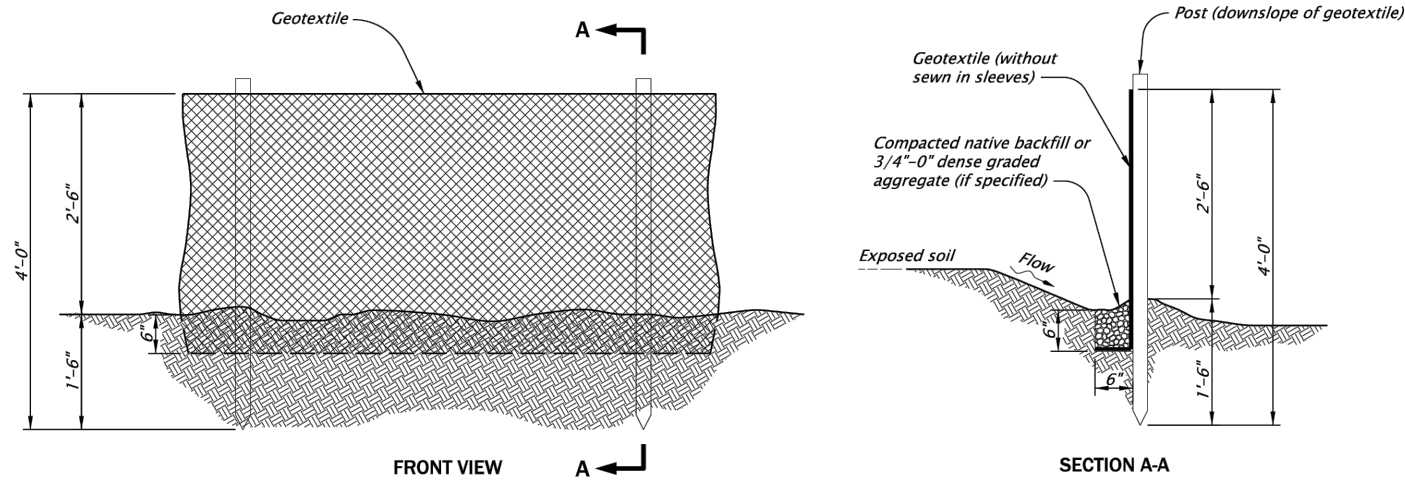
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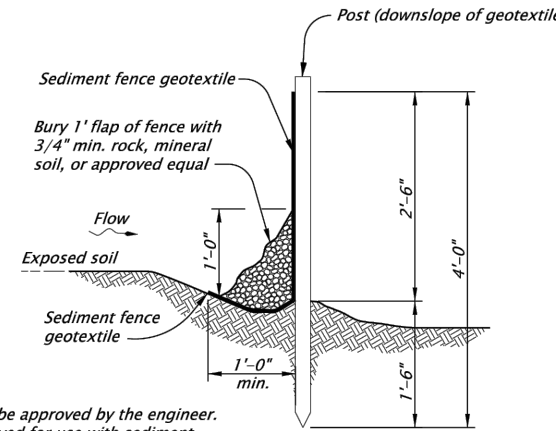
GRADING & EROSION CONTROL
 S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
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 DIRECTOR
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NO. DATE:	
Sheet No.	FB07

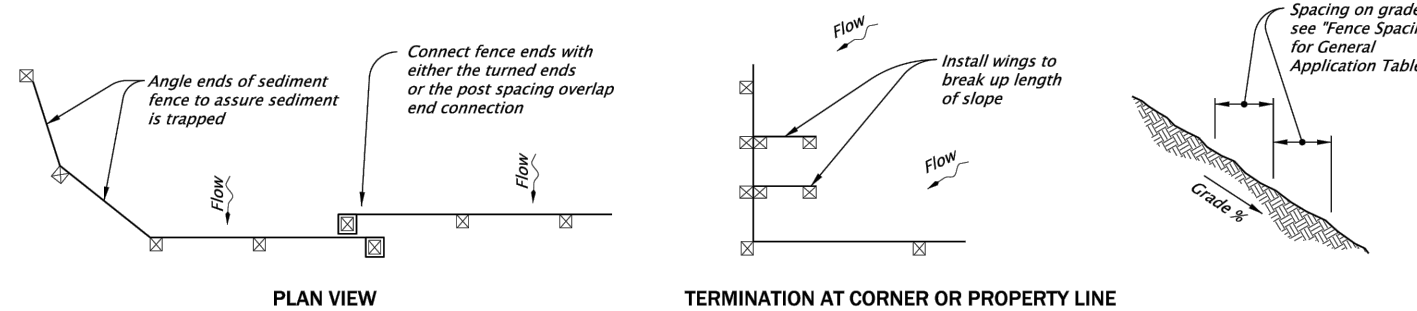


SEDIMENT FENCE AND GEOTEXTILE BURY DETAIL - TYPE 1
 NOT TO SCALE



NOTES:
 1. Use must be approved by the engineer.
 2. Not approved for use with sediment fencing with sewn-in post sleeves.

ALTERNATE SEDIMENT FENCE WITHOUT TRENCHING - TYPE 2
 NOT TO SCALE



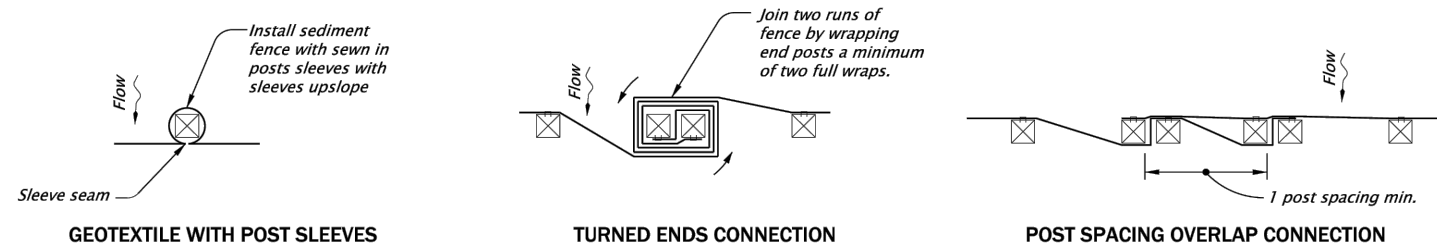
PLAN VIEW

TERMINATION AT CORNER OR PROPERTY LINE

- GENERAL NOTES:**
- Use 2"x2" wood fence posts.
 - Posts to be installed on downhill side of sediment fence geotextile. Position posts to prevent separation from geotextile.
 - Compact filter fabric trench backfill and soil on uphill side of fence.
 - Locate fence no closer than three feet to the toe of a slope.
 - Wing spacing shall comply with "Fence Spacing for General Application Table".

FENCE SPACING FOR GENERAL APPLICATION TABLE	
INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS	
GRADE	MAXIMUM SPACING ON GRADE
Grade < 10%	300'
10% ≤ Grade < 15%	150'
15% ≤ Grade < 20%	100'
20% ≤ Grade < 30%	50'
30% ≤ Grade	25'

POST SPACING TABLE	
6'	Sediment Fence with Geotextile elongation less than 50%
4'	Sediment Fence with Geotextile elongation 50% or more



GEOTEXTILE WITH POST SLEEVES

TURNED ENDS CONNECTION

POST SPACING OVERLAP CONNECTION

GEOTEXTILE END CONNECTIONS
 NOT TO SCALE

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

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

OREGON STANDARD DRAWINGS

SEDIMENT FENCE

2024

DATE	REVISION	DESCRIPTION
01-2021	REMOVED	CALC BOOK NUMBERS

CALC. BOOK NO. --- N/A --- SDR DATE 20-JAN-2021 **RD1040**

Effective Date: December 1, 2023 – May 31, 2024

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REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

NO. DATE:

Sheet No. FB08

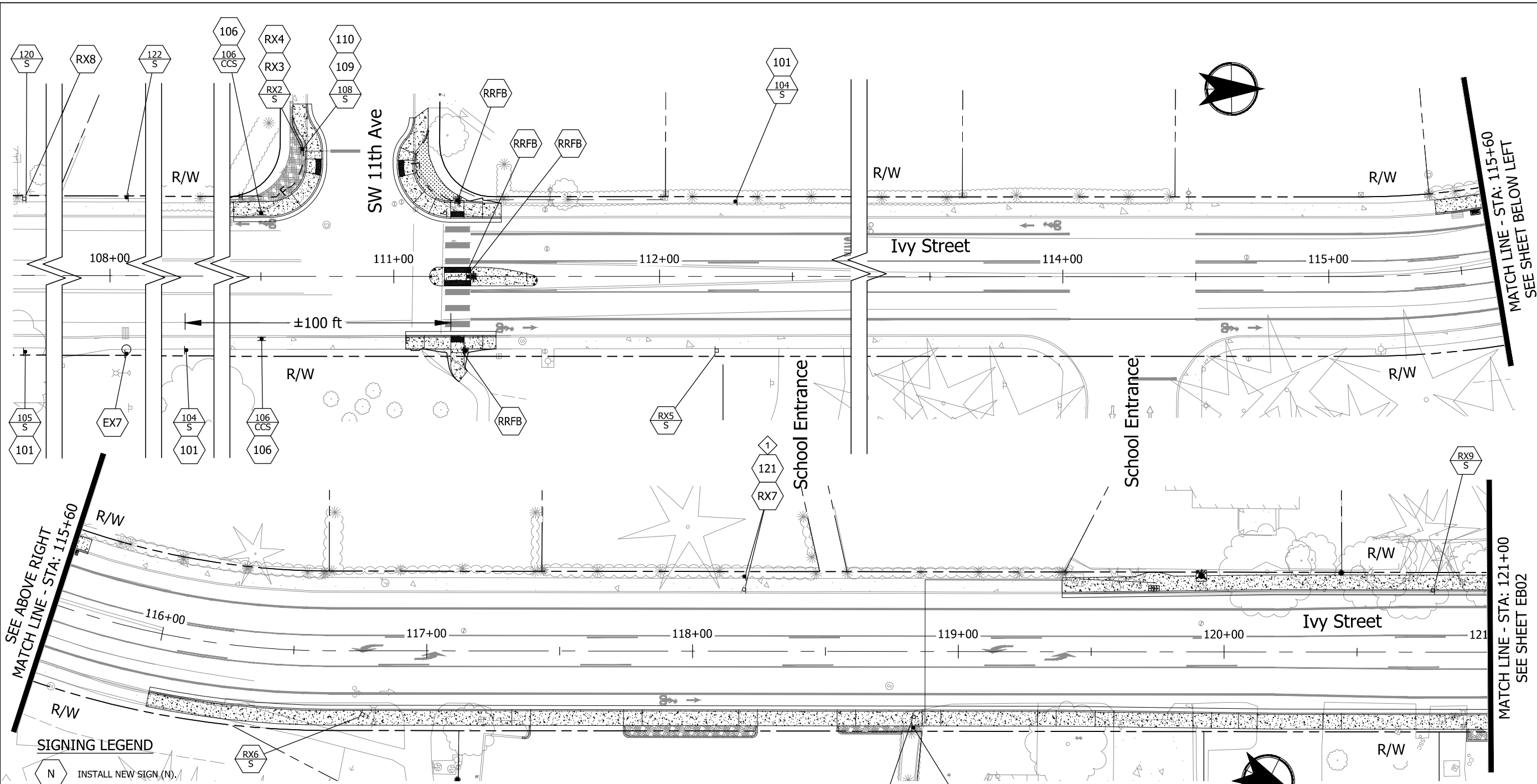
CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

GRADING & EROSION CONTROL
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

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SIGNING LEGEND

- INSTALL NEW SIGN (N).
- INSTALL NEW SIGN (N) ON NEW (M) SIGN SUPPORT.
- RETAIN AND PROTECT EXISTING SIGN (N) AND SUPPORT.
- REMOVE EXISTING SIGN (N) AND (M) SIGN SUPPORT.
- REMOVE EXISTING SIGN (N) FROM EXISTING SIGN SUPPORT.
- REINSTALL EXISTING SIGN (N) ON NEW (M) SIGN SUPPORT.
- REMOVE AND SALVAGE EXISTING SIGN (N) AND REMOVE (M) SIGN SUPPORT.
- INSTALL RRFB (SEE SIGNAL PLAN).

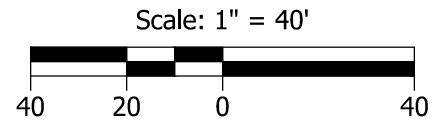
N = SIGN NUMBER
 M = MATERIAL OPTIONS ARE:
 S = PERFORATED STEEL SQUARE TUBE SIGN SUPPORT (SEE ODOT STD. DWG. TM687, 2" OPTIONAL ANCHOR DETAIL)
 CCS = CROSSWALK CLOSURE SUPPORT (SEE DETAIL ON SHT. LB05)

SIGNING GENERAL NOTES

1. ALL SIGNING SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D) 2009 EDITION, AND THE OREGON SUPPLEMENT TO THE M.U.T.C.D.
2. THE LOCATIONS OF SIGN INSTALLATIONS SHOWN ARE APPROXIMATE WITH THE EXACT LOCATIONS TO BE DETERMINED IN THE FIELD.
3. EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE UNLESS OTHERWISE DIRECTED.
4. REFER TO CITY OF CANBY STD. DWG. NO.111 FOR LETTER HEIGHT ON STREET NAME SIGNS.
5. SIGNS LOCATED ON TRAFFIC SIGNAL POLES REFERENCE THE SIGNAL DESIGN PLANS.
6. TRAFFIC SIGN LEGEND AND MOUNTING DETAILS ARE SHOWN ON SHEETS LB01 THRU LB03.

CONSTRUCTION NOTES

- SALVAGE EXISTING SIGN POST, BEACON, AND SOLAR PANEL. REINSTALL IN PROPOSED LOCATION WITH NEW SIGN.



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 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

SIGN INSTALLATION PLAN

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

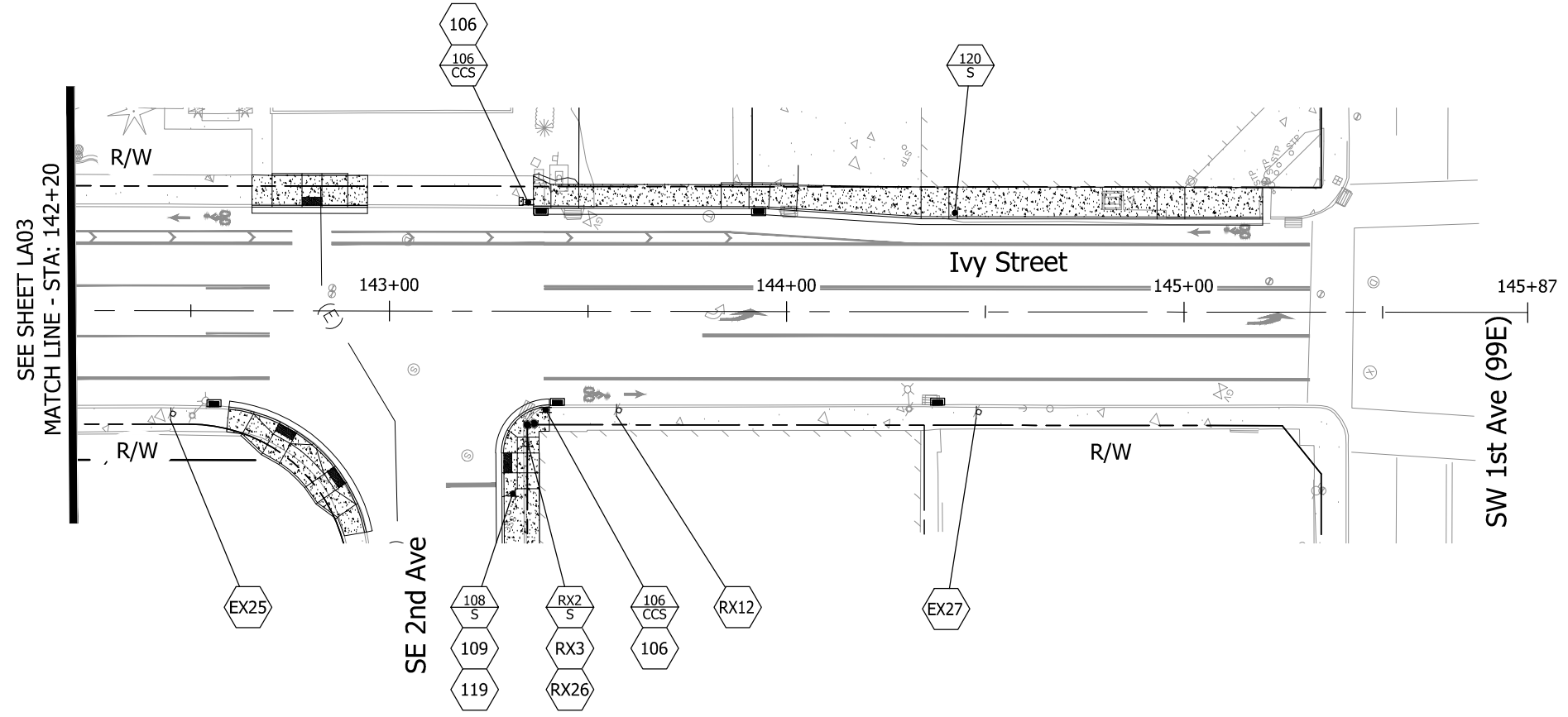
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO. DATE: _____






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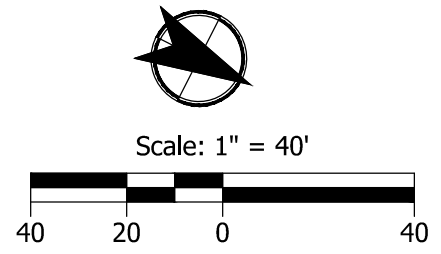
SIGNING LEGEND

-  INSTALL NEW SIGN (N).
-  INSTALL NEW SIGN (N) ON NEW (M) SIGN SUPPORT.
-  RETAIN AND PROTECT EXISTING SIGN (N) AND SUPPORT.
-  REMOVE EXISTING SIGN (N) AND (M) SIGN SUPPORT
-  REMOVE EXISTING SIGN (N) FROM EXISTING SIGN SUPPORT.

N = SIGN NUMBER
 M = MATERIAL OPTIONS ARE:
 S = PERFORATED STEEL SQUARE TUBE SIGN SUPPORT (SEE ODOT STD. DWG. TM687, 2" OPTIONAL ANCHOR DETAIL)
 CCS = CROSSWALK CLOSURE SUPPORT (SEE DETAIL ON SHT. LB05)

SIGNING GENERAL NOTES

1. ALL SIGNING SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) 2009 EDITION, AND THE OREGON SUPPLEMENT TO THE M.U.T.C.D.
2. THE LOCATIONS OF SIGN INSTALLATIONS SHOWN ARE APPROXIMATE WITH THE EXACT LOCATIONS TO BE DETERMINED IN THE FIELD.
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4. REFER TO CITY OF CANBY STD. DWG. NO.111 FOR LETTER HEIGHT ON STREET NAME SIGNS.
5. SIGNS LOCATED ON TRAFFIC SIGNAL POLES REFERENCE THE SIGNAL DESIGN PLANS.
6. TRAFFIC SIGN LEGEND AND MOUNTING DETAILS ARE SHOWN ON SHEETS LB01 THRU LB03.



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 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

DESIGNED BY:	C. COX
DRAFTED BY:	D. SHADRIN
CHECKED BY:	T. ROOS

NO.	DATE:	REVISIONS

Sheet No. LA04

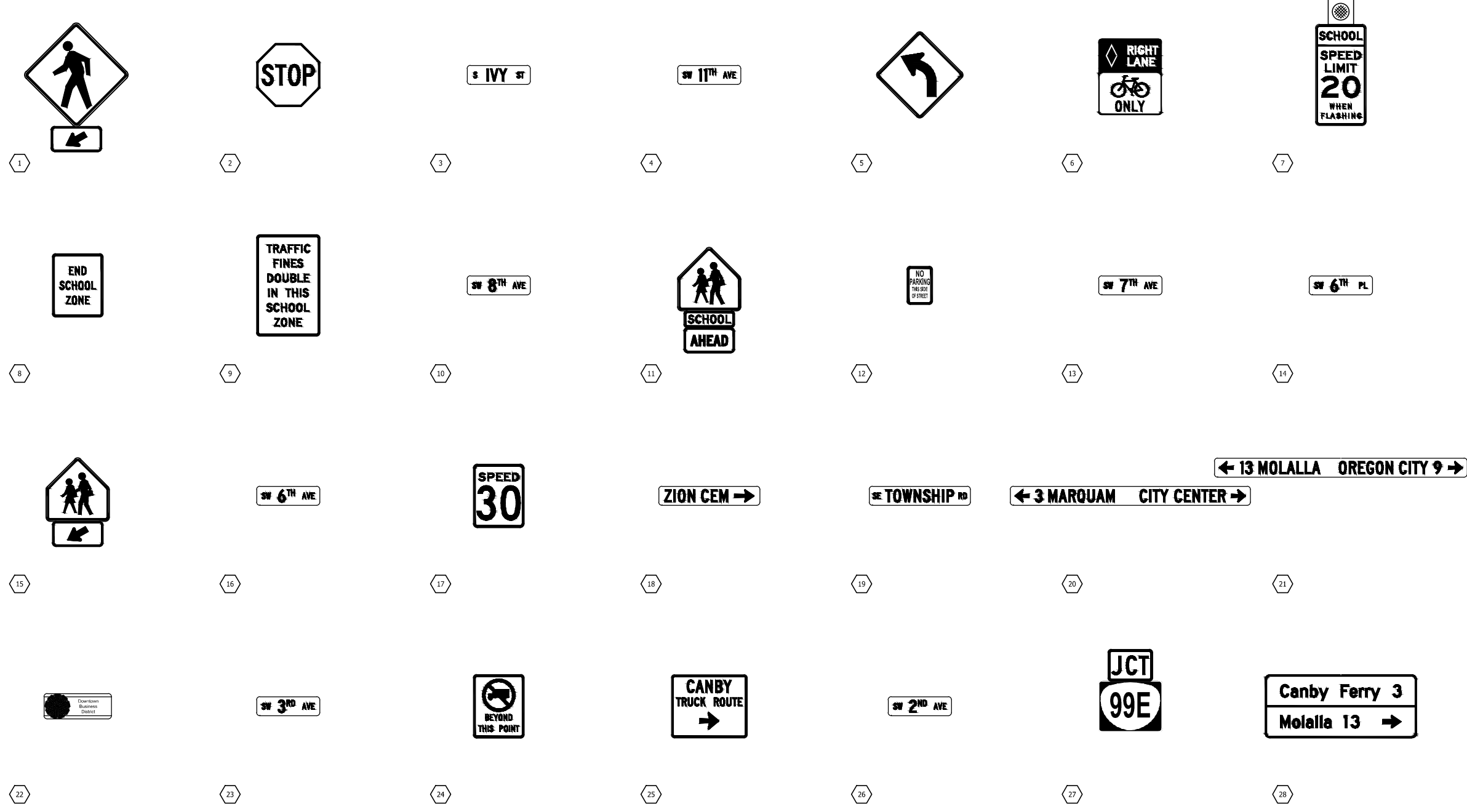
CLACKAMAS COUNTY
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 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

SIGN INSTALLATION PLAN
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

EXISTING SIGNS

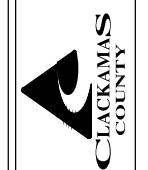


SIGN DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY

DEPT. OF TRANSPORTATION AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045



DIRECTOR

DAN JOHNSON

DESIGNED BY:
C. COX

DRAFTED BY:
D. SHADRIN

CHECKED BY:
T. ROOS

REVISIONS

NO. DATE:























Sheet No.
LB01

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JUL. 15, 2003
ANTHONY M. ROOS
EXPIRES: 12/31/2024

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PROPOSED SIGNS

							
S1-1 30"x30" 4 Required	W16-7pR 24"x12" 2 Required	W16-7pL 24"x12" 2 Required	W16-9P 24"x12" 2 Required	S4-3P 24"x8" 2 Required	OR22-7 30"x18" 24 Required	W11-2 36"x36" 4 Required	R1-1 36"x36" 10 Required
							
D3-1 30"x12" 9 Required	D3-1 30"x12" 1 Required	D3-1 30"x12" 1 Required	D3-1 30"x12" 1 Required	D3-1 30"x12" 1 Required	D3-1 30"x12" 1 Required	W4-4P 24"x12" 1 Required	D3-1 30"x12" 1 Required
							
D3-1 30"x12" 1 Required	D3-1 30"x12" 1 Required	D3-1 30"x12" 1 Required	R2-1-30 30"x36" 5 Required	S5-1 24"x48" 1 Required	S5-3 24"x30" 2 Required		

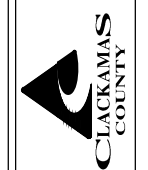
SIGN DETAILS

S IVY ST PEDESTRIAN
INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
DEPT. OF TRANSPORTATION
AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045

DIRECTOR



DAN JOHNSON

DESIGNED BY:
C. COX
DRAFTED BY:
D. SHADRIN
CHECKED BY:
T. ROOS

REVISIONS

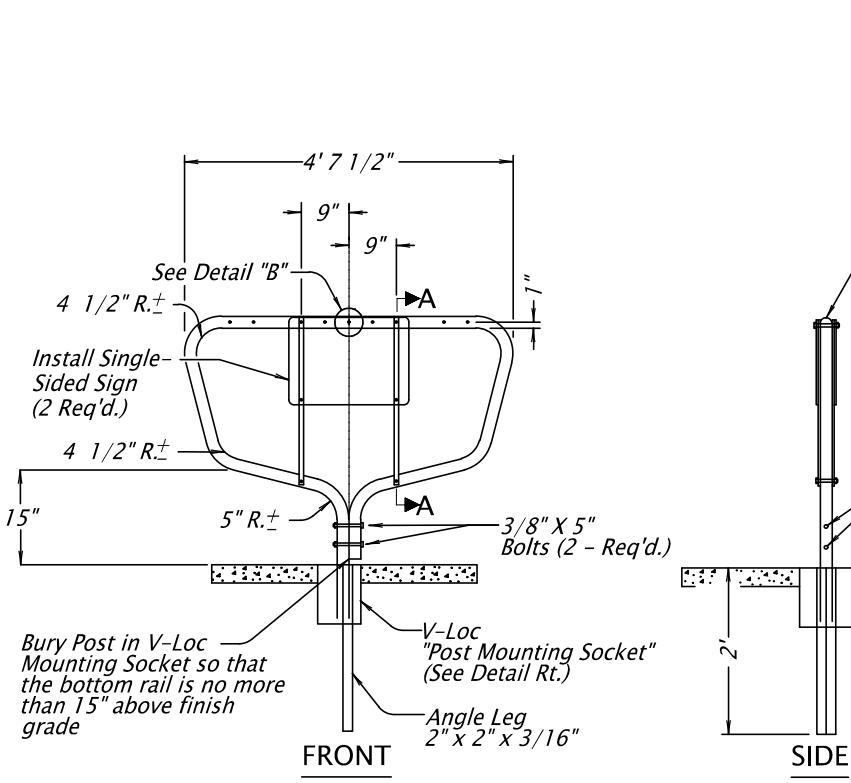
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Sheet No.
LB02

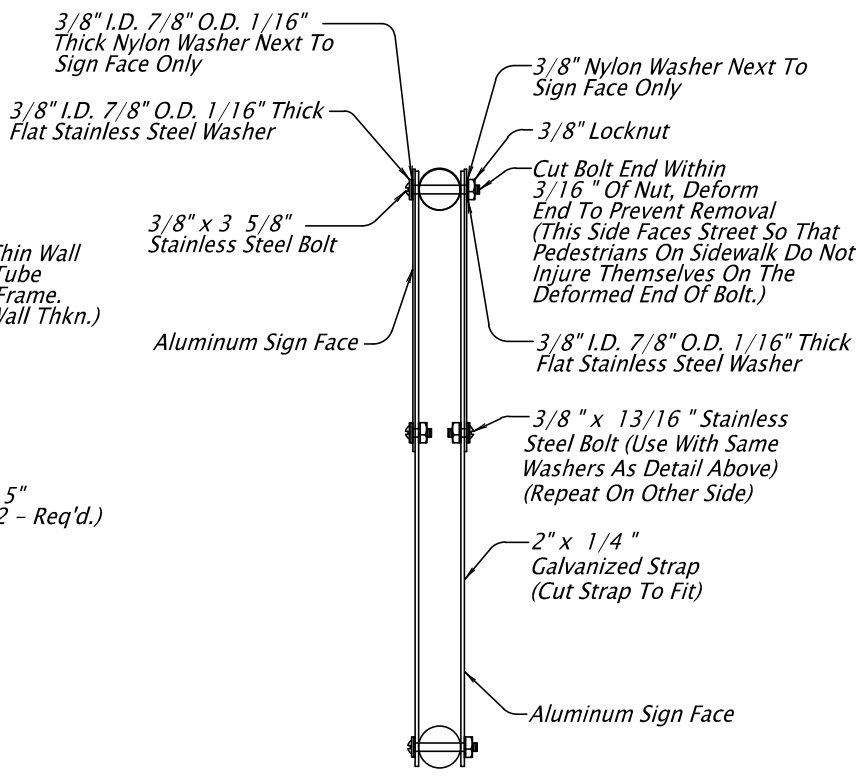
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JUL 15, 2003
ANTHONY M. ROOS
EXPIRES: 12/31/2024

Crosswalk Closure Support



CROSSWALK CLOSURE SUPPORT DETAIL

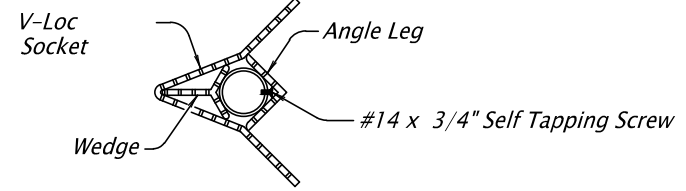


SECTION A-A



SIGN DETAIL
OR22-7
24" x 18"

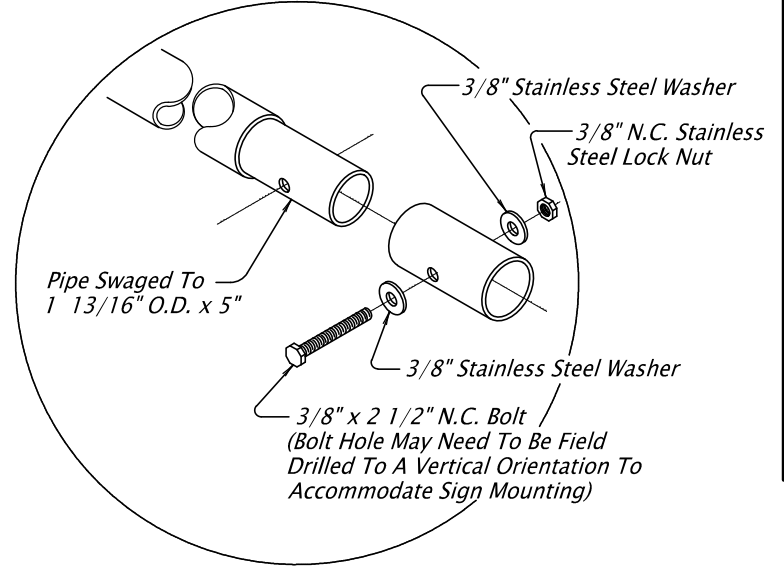
Drill 3/8" Dia. Bolt Hole At Each Corner Where Needed.



POST MOUNTING SOCKET

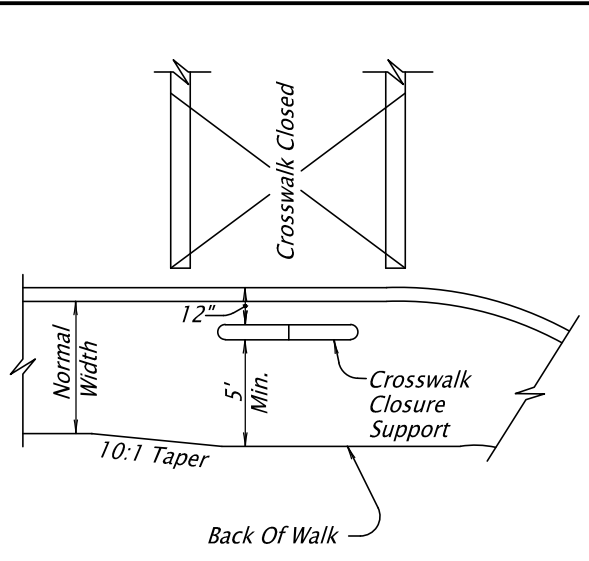
For Additional Details See Standard Drg. No. RD100

NOTE:
Care Shall Be Taken That No Concrete Is Placed Within Mounting Socket.



DETAIL "B"

GENERAL NOTES:
1. All Holes In The Tube Support Frame To Be Predrilled By The Manufacturer. (1/32" Larger Than Mounting Bolt)
2. Pipe Swaged By The Manufacturer.



PLAN VIEW

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 JUL. 15, 2003
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 EXPIRES: 12/31/2024

SIGN DETAILS	
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX	DRAFTED BY: D. SHADRIN
CHECKED BY: T. ROOS	
NO. DATE:	
REVISIONS	
Sheet No.	LB05

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PROJECT NO.: CI-300317309
 DATE: December 2023

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Signal, Detector, and Interconnect Conduit Legend

CONTROLLERS / CABINETS

- Install model ATC controller (Intelight part number YCT-2070LDX-7A) in model 332S cabinet with MaxView ATMS software (single license).
- Install model 332 stretch cabinet (with C11 harness wired for 40 detector inputs) and controller equipment with riser frame, orient louvered door as shown (see Oregon Std Dwg TM482).
- Install base mounted service cabinet 100A, 120/240 volt, metered, for signal and illumination systems. (See service cabinet details, MC05).
- Install base mounted service cabinet, 120/240 volt metered, for RRFB system. (See Oregon Std Dwg TM485 and service cabinet detail, MB02).
- Install recessed terminal cabinet in traffic signal pole per Clackamas County standards with copper neutral bar and Marathon 1112 or equivalent terminal blocks as connectors
- Install actuated beacon system controller cabinet.
- Power source. Coordinate with Canby Utility. See Franchise Utility Plans.

POLES

- Install (T=type) Clackamas County standard traffic signal mast arm pole with luminaire pole extension (35 ft mounting height) per Clackamas County Std. Dwg. NWS4700 and NWS4710.
- Install (T=type) Clackamas County standard traffic signal mast arm pole per Clackamas County Std. Dwg. NWS4700 and NWS4710.
- Install (L=Length) foot traffic signal mast arm.
- Install (L=Length) foot luminaire arm.
- Install pedestal with frangible base on number (N=number) foundation. (See TM457 for details)
- Remove & salvage existing rapid flashing beacon assembly, including pole, foundation, beacon signs, and solar panels to the City of Canby.
- Install (X=Number) sided rectangular rapid flashing beacon system, (pedestrian pedestal) (see sheet MC02 for details)
- Street light pole. See illumination plans

SIGNALS

- Install 12 inch flashing red beacon.
- Install 12 inch flashing yellow beacon.

JUNCTION BOXES

- Install 17"x10"x12" (min. dimension) precast concrete junction box with concrete apron.
- Install 22"x12"x12" (min. dimension) precast concrete junction box.
- Install 22"x12"x12" (min. dimension) precast concrete junction box with concrete apron.
- Install 30"x17"x12" (min. dimension) precast concrete junction box.
- Install tandem 30"x17"x12" (min dimension) precast concrete junction box (see Oregon Std. Dwg. TM472 for details) with concrete apron.

CONDUITS

- Install (S=Size) inch conduit.
- Install conduit by horizontal directional drilling, open trench not allowed.
- Install 2" conduit stub (for future use, cap ends)
- Contractor to install (S=Size) conduit and wiring to connect to power source as required by Canby Utility.

WIRES

- Install (X=number of cables) control cables with (N=number) AWG No. (G=AWG wire size) conductors. See Special Provisions.
- Install (N=Number) No. (G=AWG wire size) XHHW wires.
- Install poly pull line
- Install one No.16 AWG. THWN (locate wire) per Oregon Standard Specifications Section 00960.
- Install (N=number) No. 8 AWG THWN (signal system common).

LUMINAIRES

- Install Leotek Green Cobra LED luminaire. (Catalog No. GC1-60F-MV-NW-2-GY-530)
- Install Leotek snap-on house side shields (luminaire on Pole No. 2 needs 2).
- Install photoelectric control relay inside the BMCL, see detail MC05.
- Existing utility pole mounted luminaire.

SIGNS

- Install new aluminum street name sign (N = number), see details on MC01. (See Oregon Std. Dwg. TM679 for mounting details).

SIGN MOUNTING OPTIONS

AB = Adjustable skybracket (no tenon)

SIGNAL MOUNTING OPTIONS

B = Adjustable signal bracket assembly w/ rain cap(s)
 (Install 1 inch metallic chase nipple)
 S = Side pole mount (on vehicle pedestal)
 P = Pole shaft installation (on signal pole)

SIGNAL HEAD TYPES

2 = 12" R, 12" Y, 12" G
 4 = 12" R, 12" Y, 12" G, 12" GLTA
 6L = 12" RLTA, 12" YLTA, 12" FYLTA, 12" GLTA

RADAR MOUNTING OPTIONS

MA = Mast arm mount
 SP = Signal pole
 LA = Luminaire arm

GENERAL NOTES

1. All materials and workmanship shall conform to City of Canby ordinances and special provisions, the 2021 Oregon Standard Specifications for Construction, and the Oregon Standard Drawings listed below.
2. The contractor shall supply all equipment, materials, and labor required for the signal operations shown on this plan. All signal control equipment shall be tested at the ODOT signal lab in Salem at the contractors expense per specification.
3. The contractor shall verify the locations of existing utilities and coordinate this work with the utility companies/agencies to eliminate any conflicts.
4. The engineer shall field verify the location of all signal equipment before installation.
5. Clackamas County will provide signal timing.
6. All junction boxes shall be placed in sidewalk or concrete apron.
7. Install #12 stranded copper (orange) tracer wire in all conduits. Ground all tracer wires.
8. Conduit shall be placed in the same trench with other conduits when possible.
9. Top of signal and pedestrian pole foundations shall match top of finished grade of sidewalk.
10. All conduit runs shall be placed within the right-of-way.
11. Install poly pull tape (1200 lbf min. Strength, non-conductive) in all conduits.
12. All underground conduits and fittings shall be schedule 80 PVC.
13. All un-used tenons shall be capped.

ACCOMPANIED BY DWGS:
 TM457, TM460, TM462, TM466,
 TM467, TM470, TM471, TM472,
 TM482, TM485, TM679, TM680

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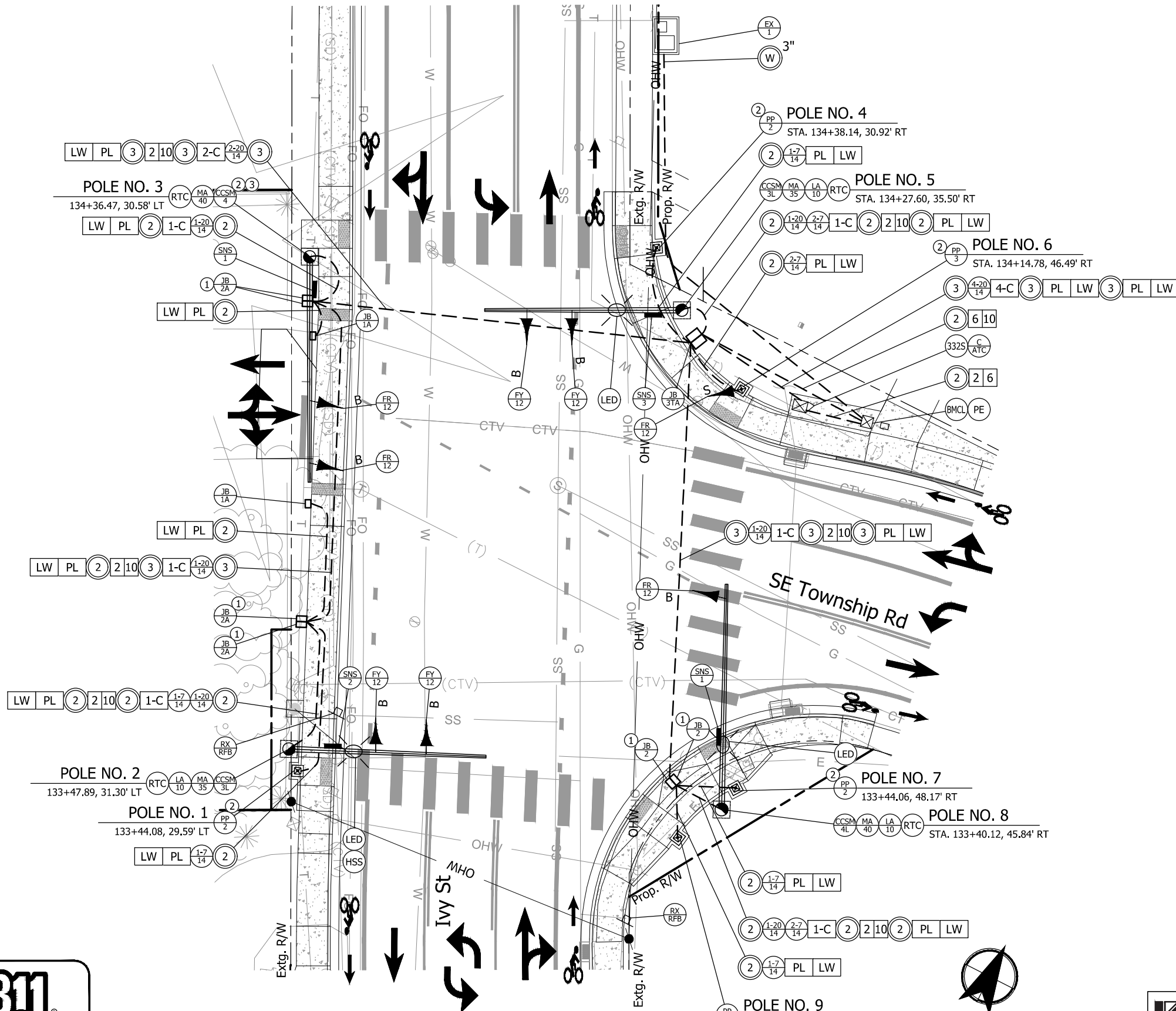
TRAFFIC SIGNAL LEGEND S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045 DAN JOHNSON DIRECTOR	PROJECT NO.: CI-300317309 DATE: December 2023	DESIGNED BY: S.PARKS DRAFTED BY: S.PARKS CHECKED BY: W.SCARBROUGH	REVISIONS NO. DATE:
Sheet No. MA01				

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GENERAL NOTES:

1. See Sheet MA01 for legend.
2. Field verify all measurement.



- CONSTRUCTION NOTE**
- ① Use one junction box for detection system and one junction box for signal system.
 - ② Coil sufficient wiring in frangible base for future pushbutton and pedestrian signal head installation.
 - ③ Construct top of pole footing flat and even with sidewalk landing and with no lips to ensure adequate 10" reach for future pushbutton.

SIGNAL PLAN
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

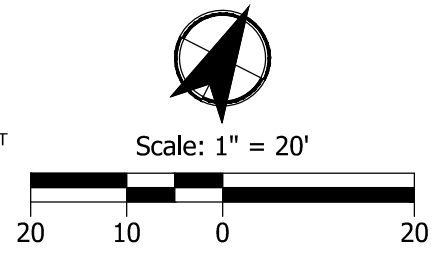
CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

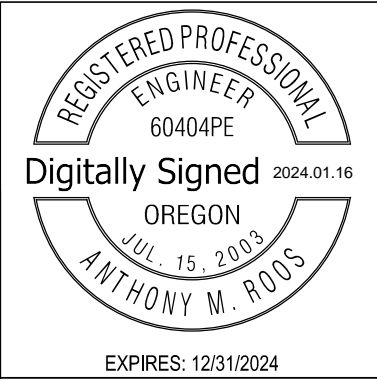
DESIGNED BY: S.PARKS
 DRAFTED BY: S.PARKS
 CHECKED BY: W.SCARBROUGH

NO.	DATE:	REVISIONS

Sheet No. MB01



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NOTE:
 Radar cables and fire preemption feeder cables not shown.

CONSTRUCTION NOTES

- Remove existing flashing red beacon and furnish to Clackamas County.

EX. POLE NO. 3
 134+36.47, 30.58' LT



EX. POLE NO. 4
 STA. 134+38.14, 30.92' RT



EX. POLE NO. 5
 STA. 134+27.60, 35.50' RT



EX. POLE NO. 6
 STA. 134+14.78, 46.49' RT



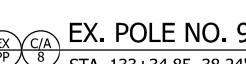
EX. POLE NO. 2
 133+47.89, 31.30' LT



EX. POLE NO. 1
 133+44.08, 29.59' LT



EX. POLE NO. 8
 STA. 133+40.12, 45.84' RT

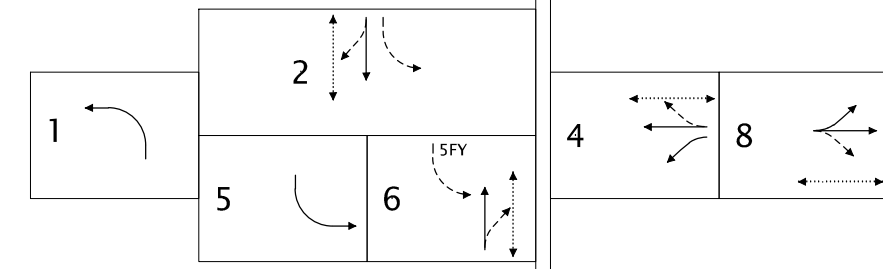


EX. POLE NO. 9
 STA. 133+34.85, 38.24' RT

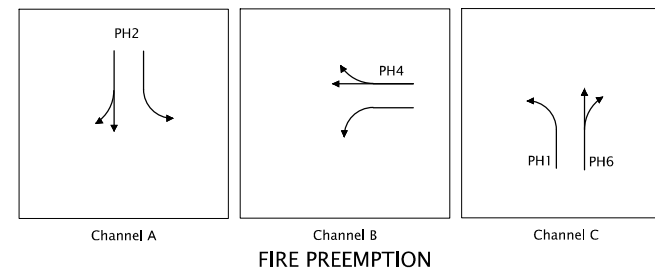


LEGEND

- Install synchronous data link control (SDLC) cable. See Special Provisions Section 00990.
- Existing traffic signal controller. See MB01 for installation details.
- Install channel (Ch=Channel), (N=Number) barrel fire preemption detector unit. Install Opticom 762 two channel phase selector detector cards in controller cabinet.
- Install far range, Wavetronix SmartSensor Advance Extended Range radar unit (T=Radar). (See Oregon Std. Dwg. TM466 for mounting details).
- Install near range, Wavetronix SmartSensor Matrix radar unit (T=Radar). (See Oregon Std. Dwg. TM466 for mounting details).
- Radar unit (T=Radar). See Signal Plan for installation.
- Install Phase (Ph) detection zone on radar unit (U=Radar Unit ID) on MaxTime channel (Ch=channel).
- Install Wavetronix Click 656 with shelf mount in cabinet (see Special Provisions Section 00990).
- Install phase (Ph=Phase) countdown pedestrian signal with clamshell mount and pushbutton with mount. Include phase (Ph=Phase) audible pedestrian signal (Polaris iNS2 with 9"x15" sign and pedestrian head control unit iPHCU3W).
- Install phase (Ph=Phase) countdown pedestrian signal with clamshell mount.
- Install phase (Ph=Phase) vehicle signal.
- Existing mast arm pole.
- Existing pedestrian signal pedestal.
- Existing vehicle signal pedestal.



NORMAL PHASE ROTATION



FIRE PREEMPTION

Future signal plan not for construction

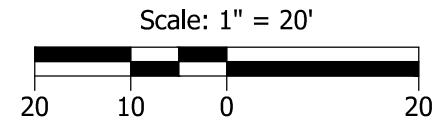
Digital Signature
 INFORMATION ONLY
 2024.01.16

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 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169



GENERAL NOTES:

- See Sheet MA01 for legend.
- See Sheet MB01 for signal installation plan



FUTURE SIGNAL PLAN

SE IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

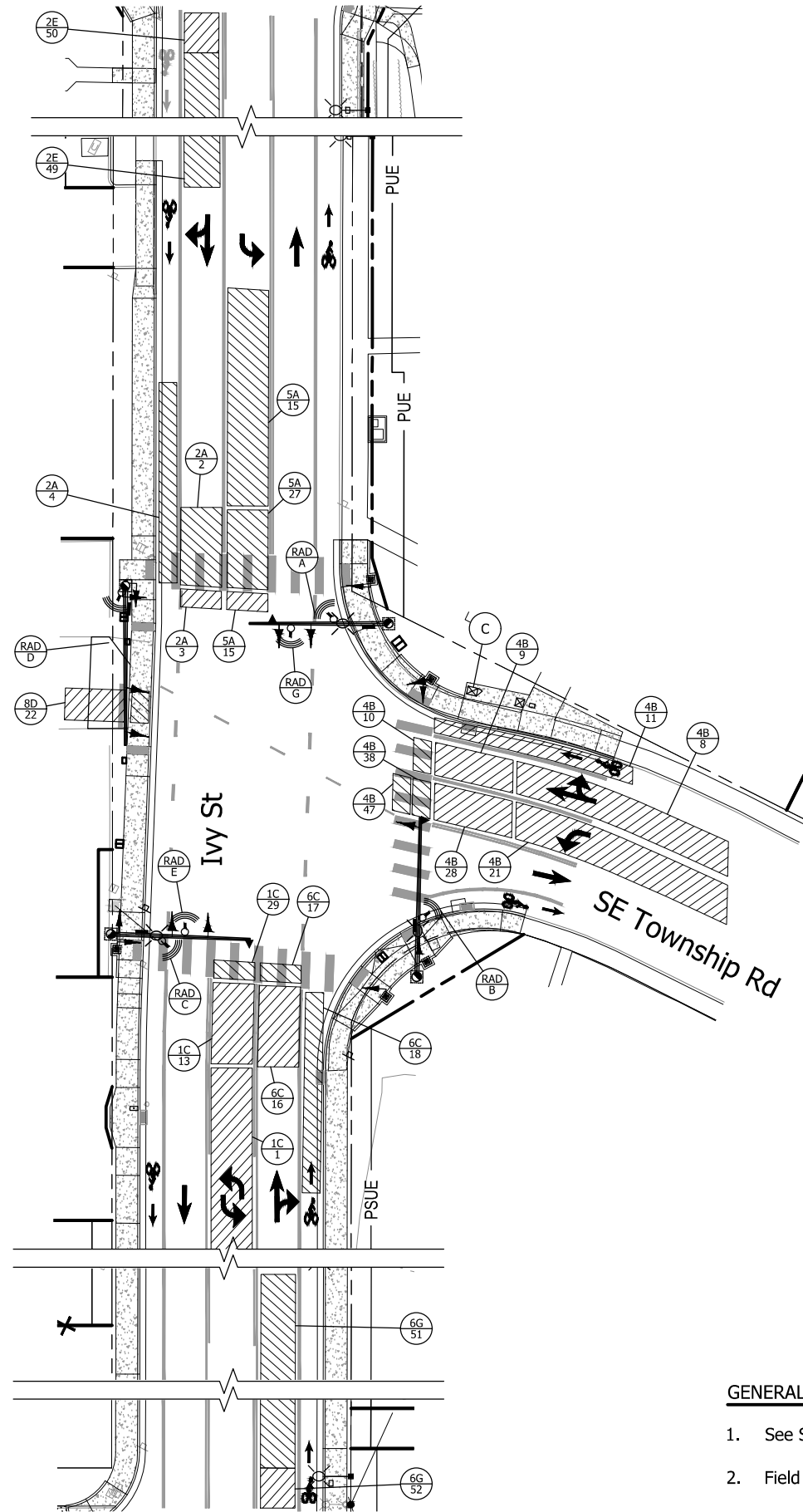
CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
 DAN JOHNSON

DESIGNED BY: S.PARKS
 DRAFTED BY: S.PARKS
 CHECKED BY: W.SCARBROUGH

NO. DATE: _____

Sheet No. MB01-A



Radar Unit	Phase	Zone Size (Feet)	Type	MaxTime #	BIU #
A	2	0-50	BIKE	4	9
A	2	(-5)	COUNT	3	9
A	5	(-5)	COUNT	35	9
A	5	0-20	PRESENCE	27	10
A	5	20-75	PRESENCE	15	11
A	2	0-20	PRESENCE	2	10
A	2	(-5)	YR	42	11
B	4	0-20	PRESENCE	28	9
B	4	20-75	PRESENCE	21	9
B	4	0-20	PRESENCE	9	9
B	4	20-75	PRESENCE	8	9
B	4	(-5)	COUNT	10	10
B	4	0-50	BIKE	11	10
B	4	(-5)	COUNT	38	11
B	4	(-5)	YR	47	11
C	1	(-5)	COUNT	29	9
C	1	0-20	PRESENCE	13	9
C	6	(-5)	COUNT	17	9
C	6	0-50	BIKE	18	9
C	6	0-20	PRESENCE	16	10
C	1	20-75	PRESENCE	1	10
C	1	(-5)	YR	41	11
D	8	0-20	PRESENCE	22	10
E	2	450-460	COUNT	50	12
E	2	100-460	CO	49	12
G	6	290-300	COUNT	52	12
G	6	100-300	CO	41	12

SDLC DETECTOR LANDING

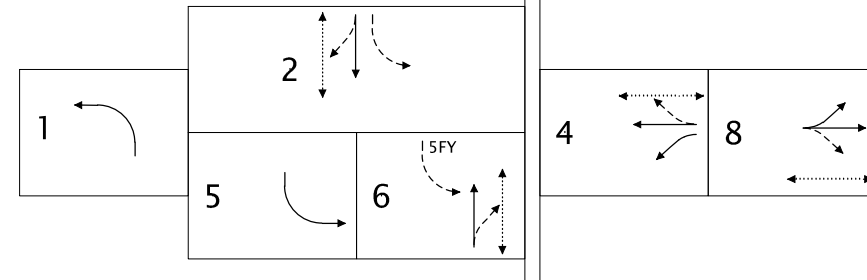
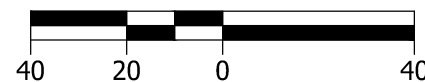
Measurement from the stop bar. Zones with a single number are count zones or yellow-red extension zones at the distance shown. Zone width should be the lane width. Zone width and length are approximate and subject to agency modifications.

GENERAL NOTES:

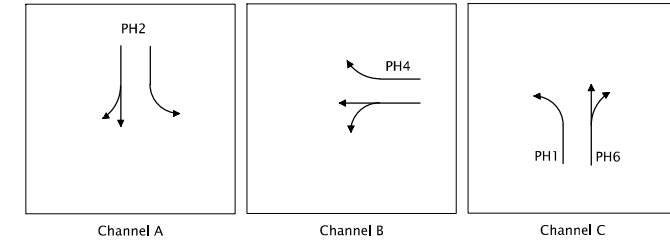
- See Sheet MA01 for legend.
- Field verify all measurement.



Scale: 1" = 40'



NORMAL PHASE ROTATION



FIRE PREEMPTION

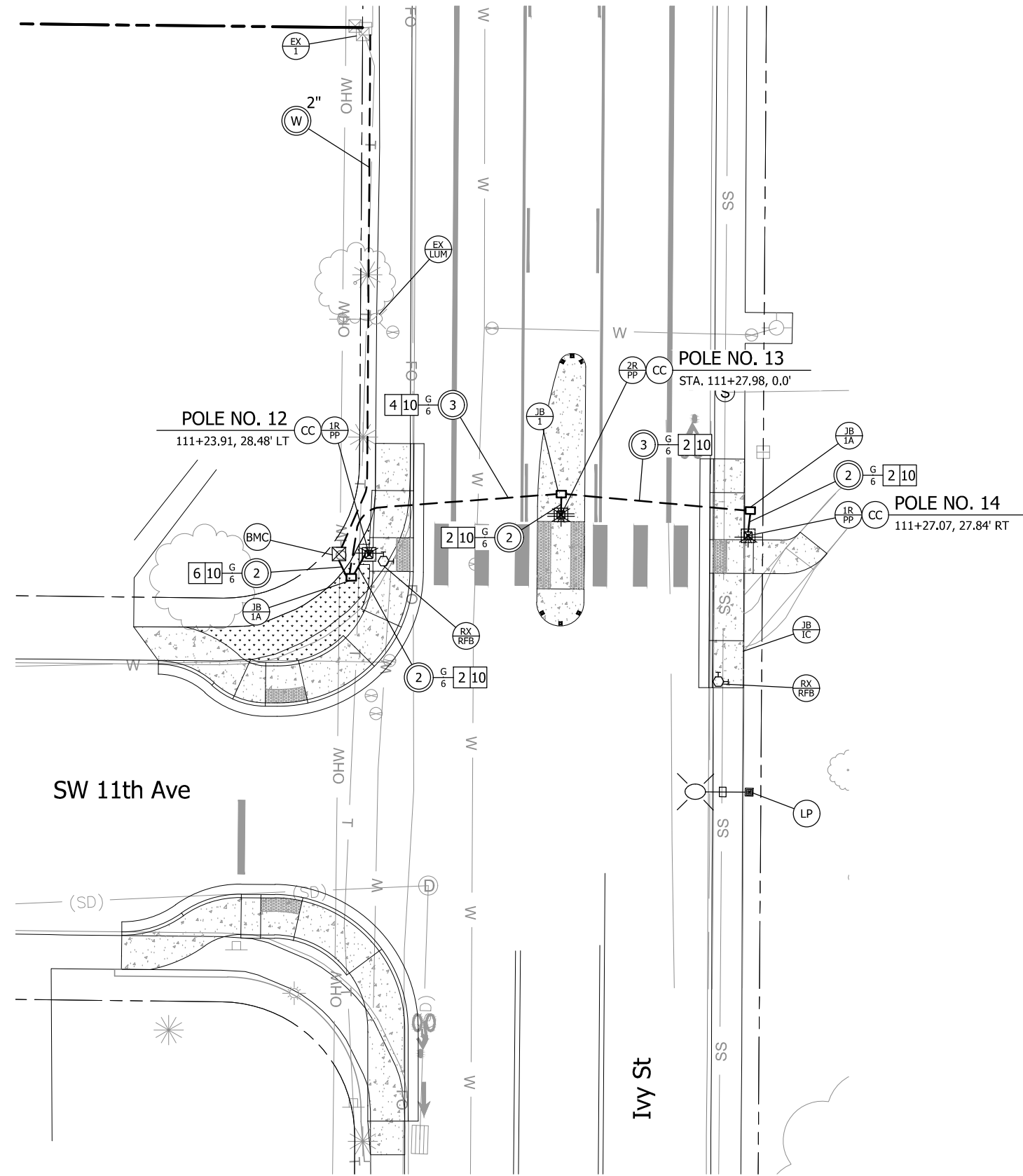
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 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

Future detector plan not included in bid documents.

Digital Signature
 INFORMATION ONLY
 Signed: 2024.01.16

FUTURE DETECTOR PLAN
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
 DIRECTOR
 DAN JOHNSON
 DESIGNED BY: S.PARKS
 DRAFTED BY: S.PARKS
 CHECKED BY: W.SCARBROUGH
 NO. DATE:
 REVISIONS
 Sheet No. MB01-B
 DATE: December 2023 PROJECT NO.: CI-300317309

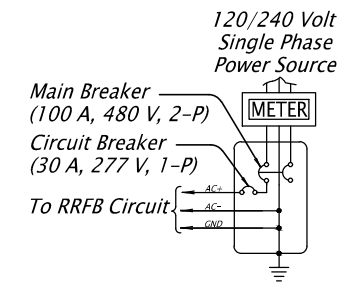
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POLE ENTRANCE CHART

POLE NO.	TYPE	EQUIPMENT ON POLE*		
		RECT. FLASH BEACON DEG.	PED. PUSHBUTTON DEG.	SIGN DEG.
1-2	PP/3	0	0	0
1-3	PP/3	0/180	180	0/180
1-4	PP/3	180	180	180

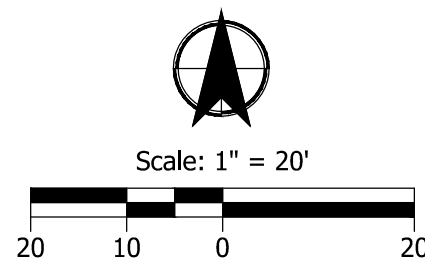
* Angles for equipment on pole are in reference to clockwise from north.



SERVICE CABINET WIRING FOR
 120/240 VOLT SIGNAL SERVICE
 BMC

GENERAL NOTES:

- See Sheet MA01 for legend.
- Field verify all measurement.



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REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

DESIGNED BY: S.PARKS
 DRAFTED BY: S.PARKS
 CHECKED BY: W.SCARBROUGH

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NO. DATE:

Sheet No.
 MB02

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045



DAN JOHNSON
 DIRECTOR

RRFB PLAN

S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS

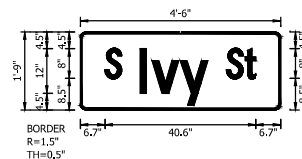
DATE: December 2023 PROJECT NO.: CI-300317309

POLE ENTRANCE CHART

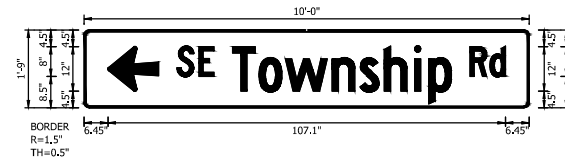
See TM650 thru TM653			EQUIPMENT ON POLE					EQUIPMENT ON MAST ARM (Length in Feet and Equipment Type)								FOUNDATION INFORMATION (See Clackamas County Std. Dwg. NWS4710)			LUMINAIRES							
POLE NO.	SHEET NO.	TYPE	PED. SIGNAL DEG.	PED. PUSHBUTTON DEG.	TERM. CABINET DEG.	RADAR DEG.	TRAFFIC SIGNAL DEG.	PHOTO ELECTRIC CELL	ARM LENGTH	D 1	D 2	D 3	D 4	D 5	D 6	D 7	D 8	REQUIRED FOUNDATION DEPTH	FOUNDATION CONTROL POINT ELEVATION	TOP OF ANCHOR ROD ELEVATION	ARM LENGTH	ARM DEG.	MOUNTING HEIGHT	FIXTURE TYPE	WATTAGE	COLOR TEMP.
1	MB01	PP/2	SEE TM457	162.93'	
2	MB01	CCSM3L	.	.	225	.	.	.	35	10.5 VIY	19.5 VIY	27.0 SNS	.	.	.	.	11'	163.18'		10.0	0	35.0	LED-III	88	3000K
3	MB01	CCSM4	.	.	135	.	.	.	40	3.5 VIR	14.5 VIR	34.0 SNS	.	.	.	.	11.5'	161.29'		.	.	.	.	.	.
4	MB01	PP/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	SEE TM457	161.00'		.	.	.	.	.	.
5	MB01	CCSM3L	.	.	180	.	.	.	35	7.5 VIY	15.5 VIY	30.0 SNS	.	.	.	.	11'	161.68'		10.0	0	35.0	LED-III	88	3000K
6	MB01	PP/3	.	.	.	.	255	.	.	.	.	.	.	.	.	.	SEE TM457	161.06'		.	.	.	.	.	.
7	MB01	PP/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	SEE TM457	162.07'		.	.	.	.	.	.
8	MB01	CCSM4L	.	.	180	.	.	.	40	2.5 VIR	27.0 SNS	.	.	.	.	.	11.5'	162.54'		10.0	0	35.0	LED-III	88	3000K
9	MB01	PP/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	SEE TM457	162.73'		.	.	.	.	.	.

BRACKET MOUNT

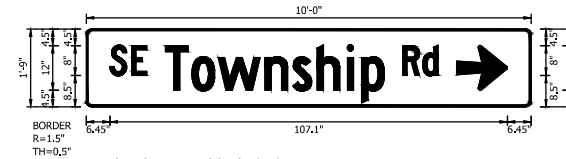
V1 = Traffic Signal Type 1, Adjustable Bracket Mount (See Std. Dwg. TM462)
 SNS = Street Name Sign, Aluminum



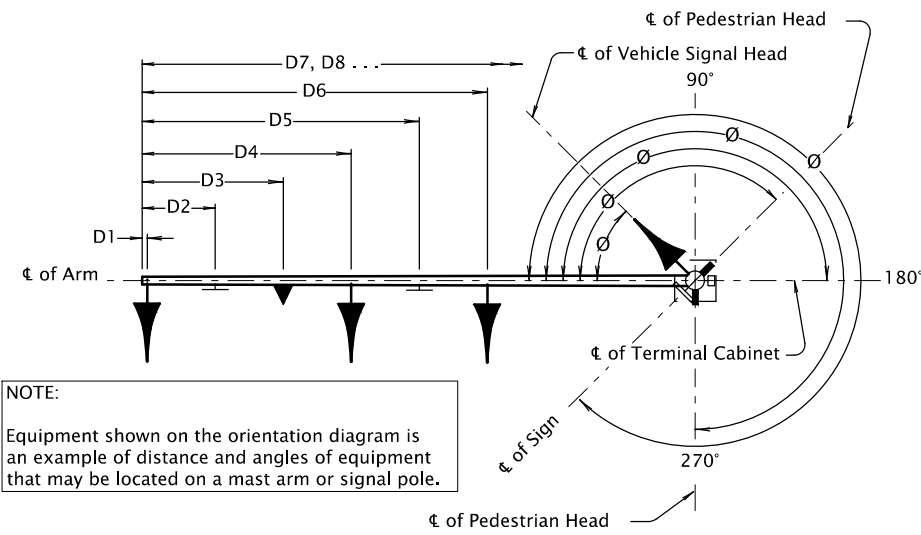
Sign No. 1



Sign No. 2

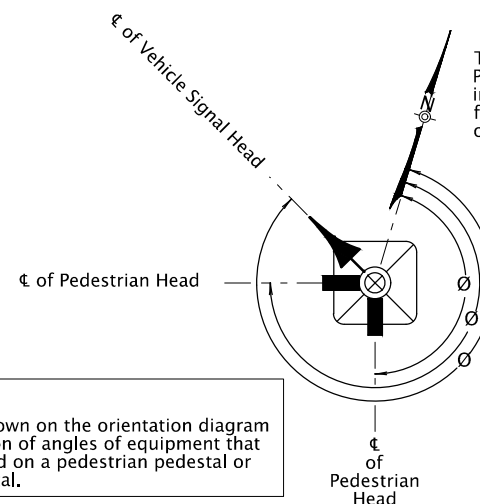


Sign No. 3



NOTE:
 Equipment shown on the orientation diagram is an example of distance and angles of equipment that may be located on a mast arm or signal pole.

MAST ARM POLE ORIENTATION DIAGRAM



NOTE:
 Equipment shown on the orientation diagram is a clarification of angles of equipment that may be located on a pedestrian pedestal or vehicle pedestal.

PEDESTRIAN PEDESTAL / VEHICLE PEDESTAL ORIENTATION DIAGRAM

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REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

Plot Stamp: 1/15/2024 12:03:27 PM - Caleb Cox
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SIGNAL DETAILS
**S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS**

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

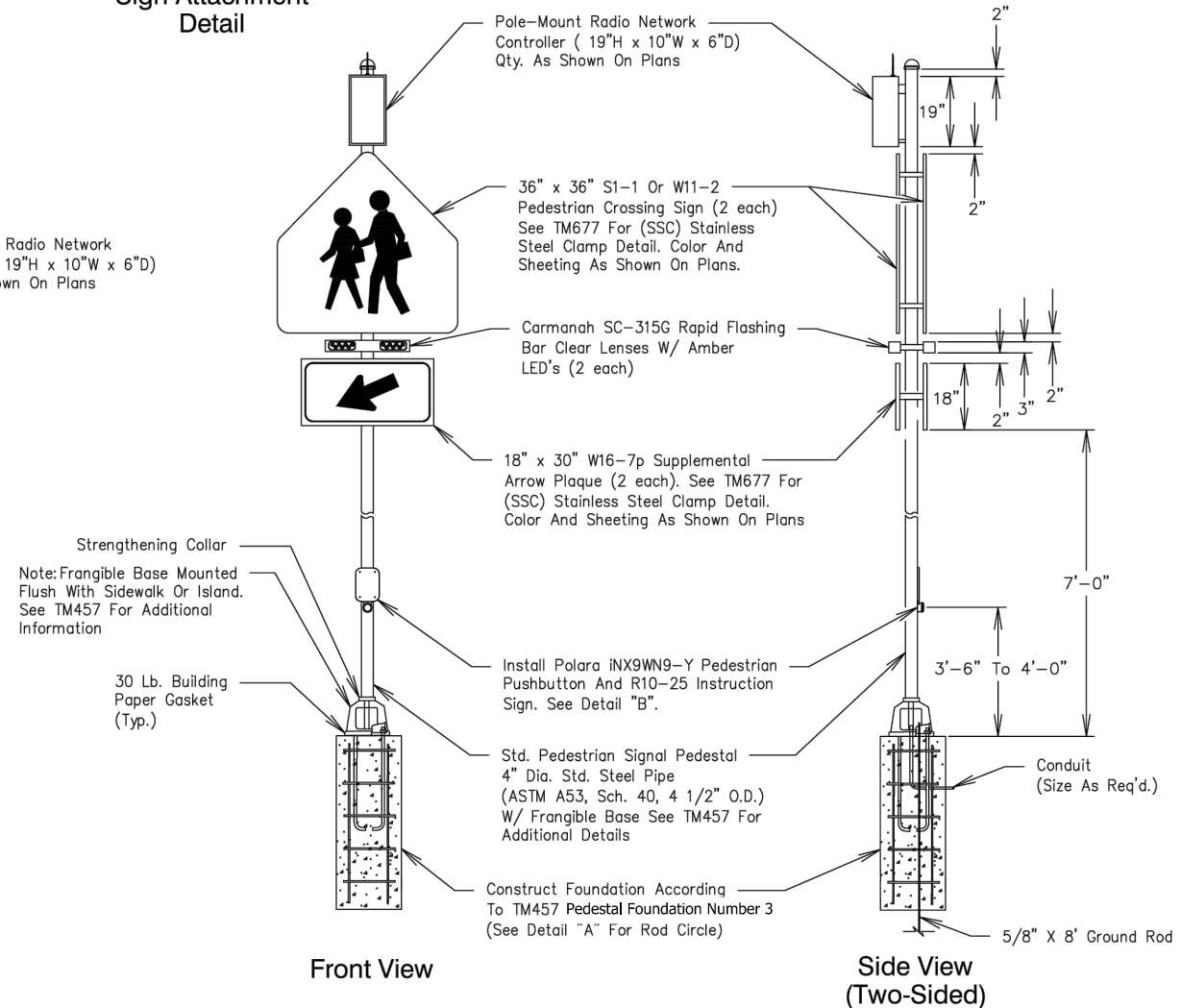
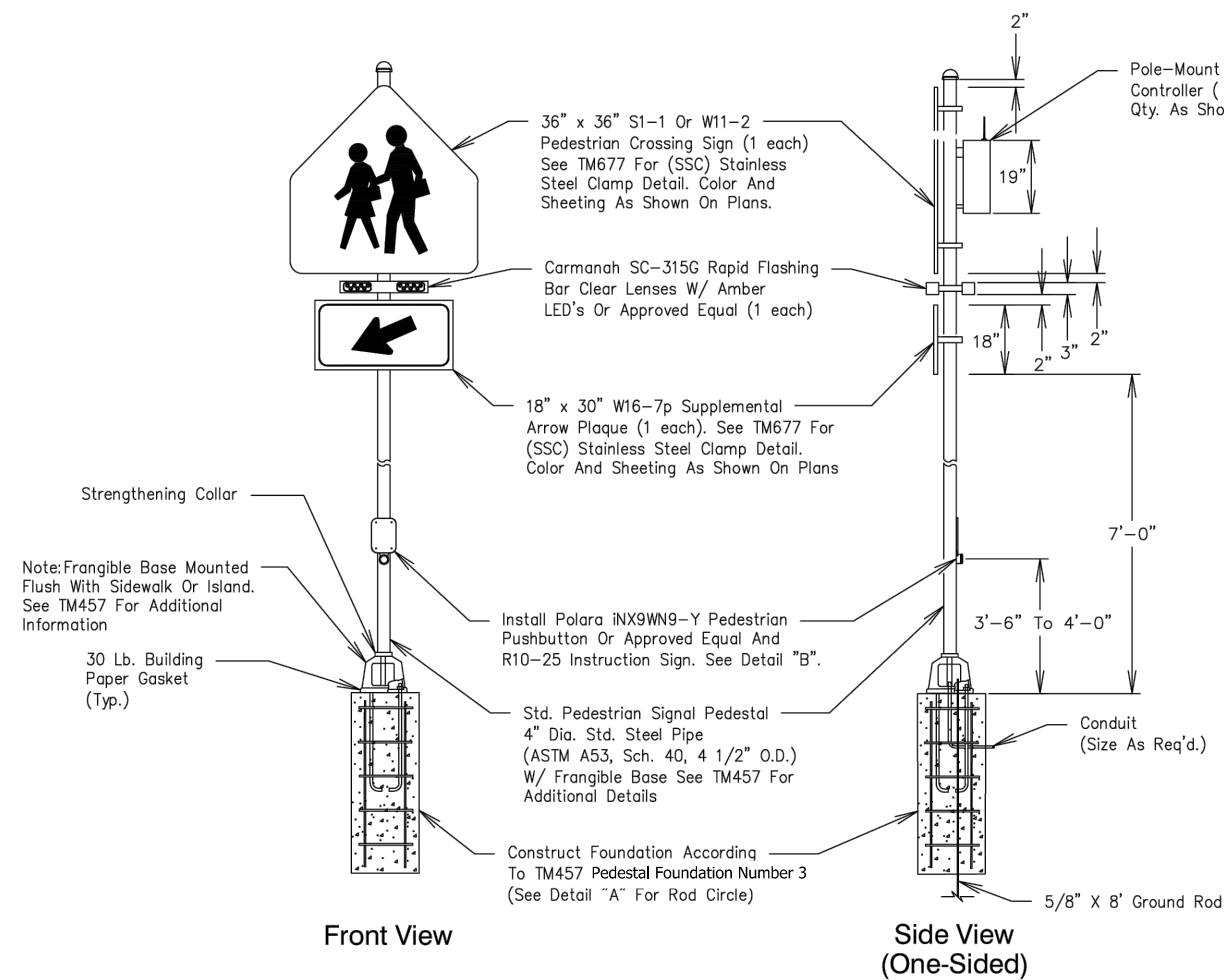
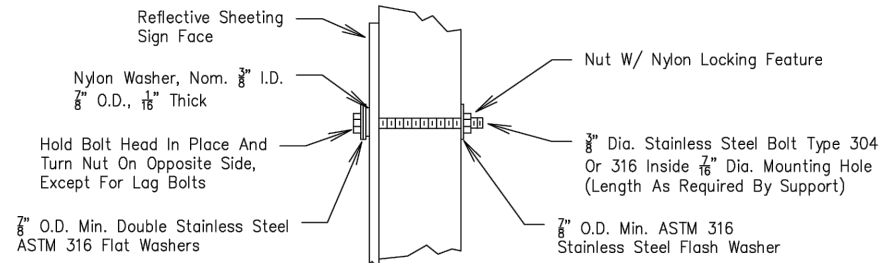
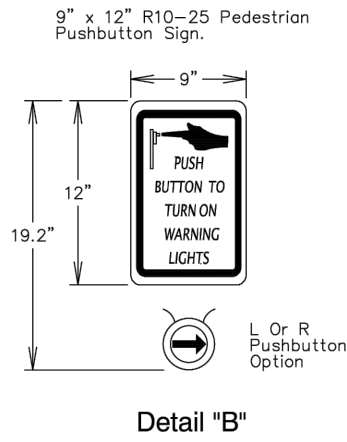
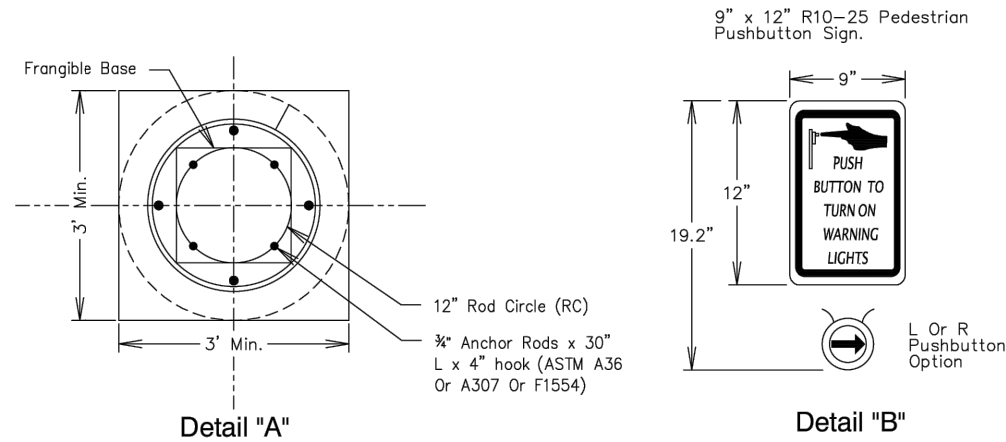
DAN JOHNSON
 DIRECTOR

DESIGNED BY: S.PARKS
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 CHECKED BY: W.SCARBROUGH

REVISIONS

NO. DATE: Sheet No. MC01

DATE: December 2023 PROJECT NO.: CI-300317309



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SIGNAL DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

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 CHECKED BY: W.SCARBROUGH

NO. DATE:

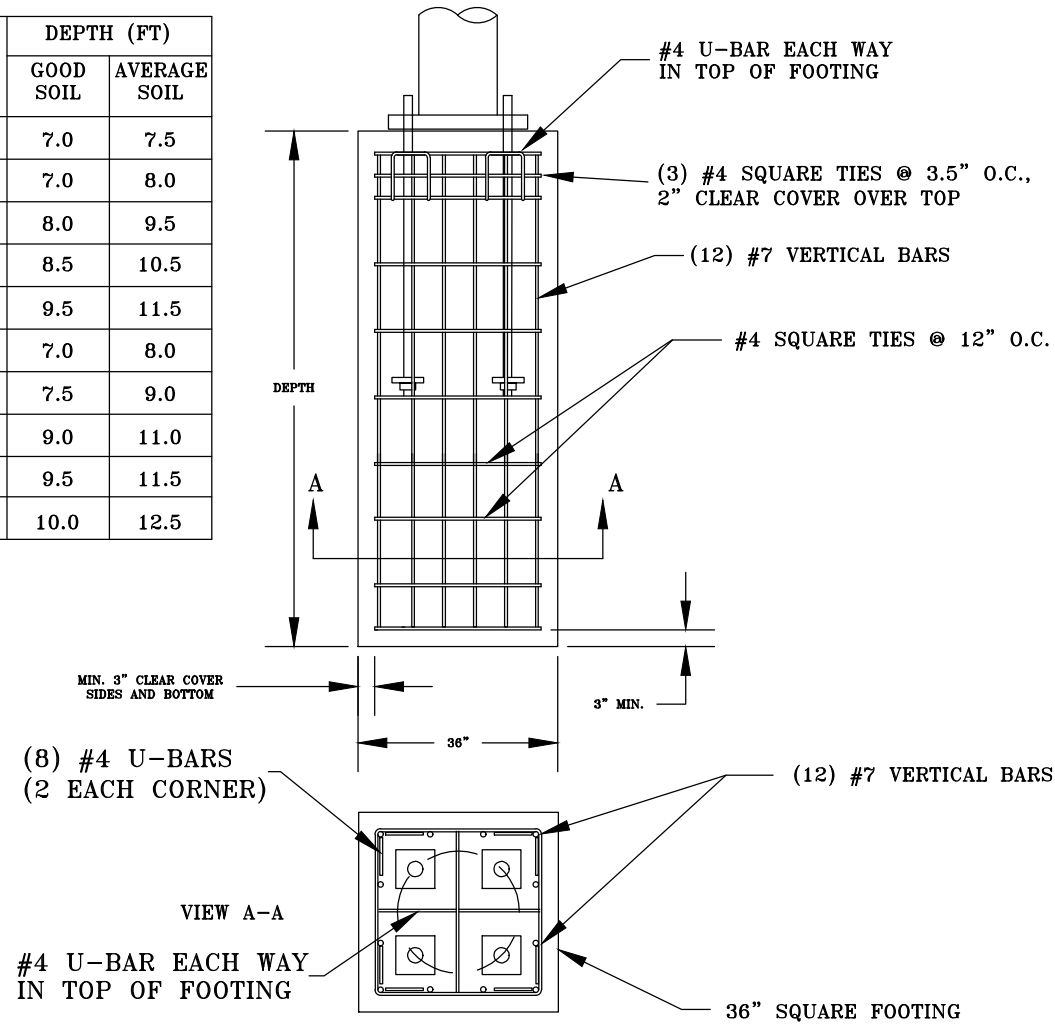
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Sheet No. MC02

DATE: December 2023 PROJECT NO.: CI-300317309

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 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\MA-SIGNAL PLANS.dwg


POLE DESIGNATION	DEPTH (FT)	
	GOOD SOIL	AVERAGE SOIL
CCSM1	7.0	7.5
CCSM2	7.0	8.0
CCSM3	8.0	9.5
CCSM4	8.5	10.5
CCSM5	9.5	11.5
CCSM1L	7.0	8.0
CCSM2L	7.5	9.0
CCSM3L	9.0	11.0
CCSM4L	9.5	11.5
CCSM5L	10.0	12.5



NOTES:

- Vertical steel bars should be equally spaced around the perimeter of the footing allowing for a minimum of 3" of concrete cover over the ties.
- Vertical steel shall be ASTM A615 Gr 60 (rebar).
- Minimum concrete strength, $f'c = 3,000$ psi
- Concrete shall be poured against undisturbed soil. If the top layer of the soil is disturbed it shall be discounted and the footing depth shall be increased accordingly.
- The top 4" shall be placed (using concrete or a non-shrinking grout) after installing the pole and appurtenances.

NO.	REVISION	DATE	DRAWING NUMBER
1	FOUNDATION DEPTH UPDATED	11/19/07	NWS4710
			SHEET 1 OF 1



CLACKAMAS COUNTY
 DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD OREGON CITY, OREGON

CLACKAMAS COUNTY MAST ARM FOUNDATION STANDARD

DESIGNED BY	DATE	DRAWN BY	DATE
D. EMSLIE	3/21/07	D. EMSLIE	3/21/07



851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
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REVISIONS

NO.	DATE:

Sheet No.
 MC04

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 S.PARKS
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 S.PARKS
 CHECKED BY:
 W.SCARBROUGH



CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON

DIRECTOR

SIGNAL DETAILS

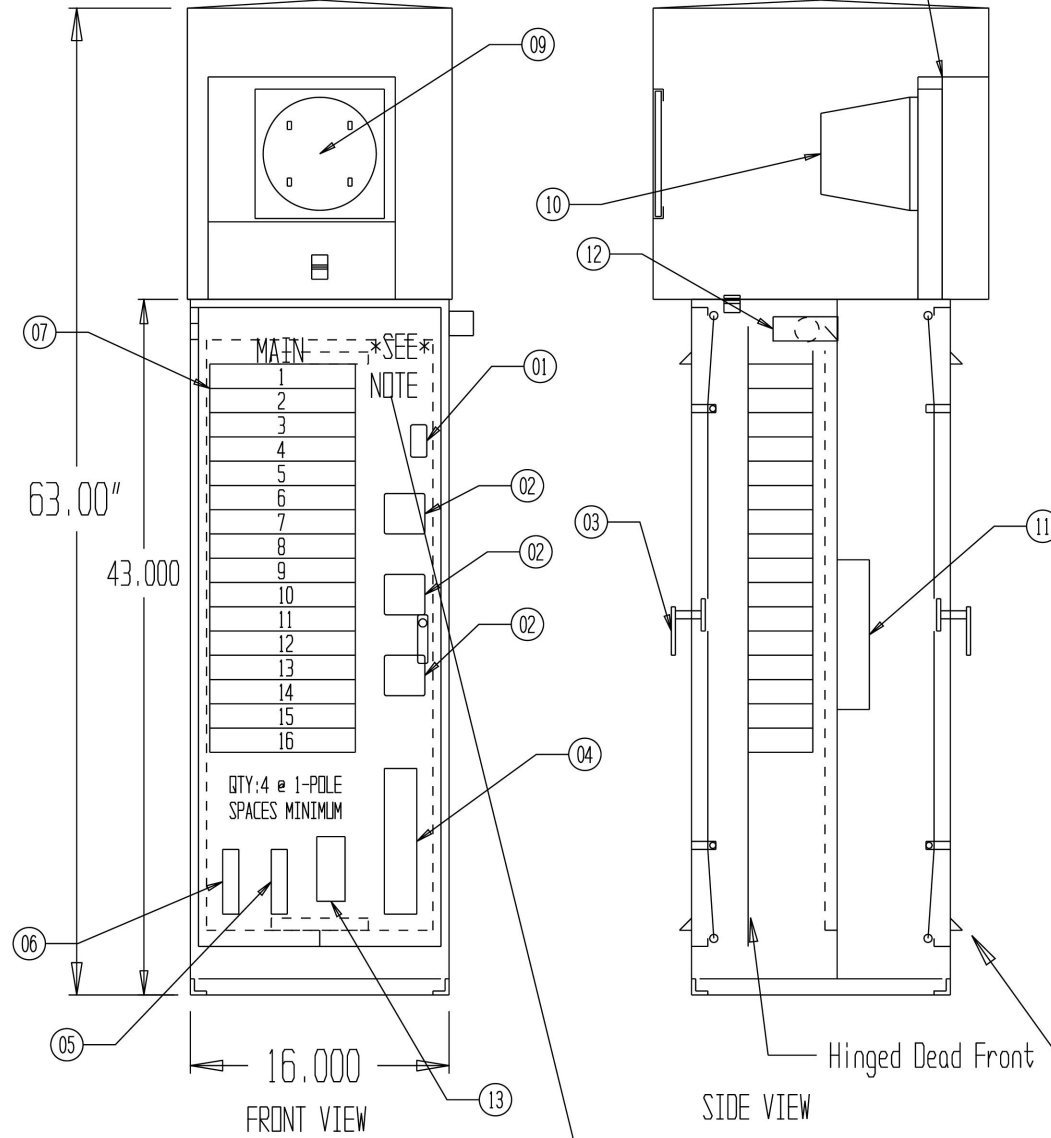
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

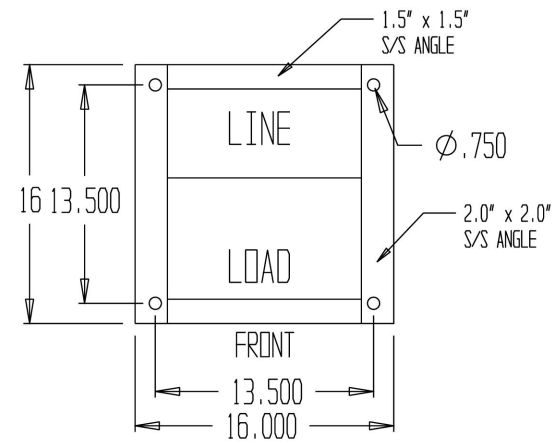
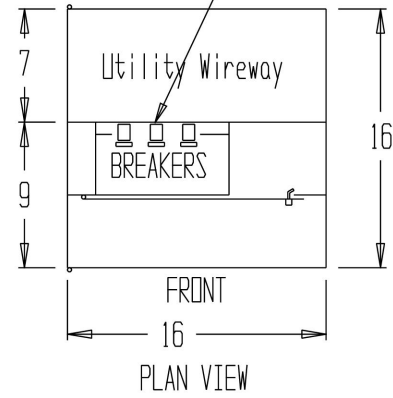
FILE LOC. / CAD FILES / DATA / F / FOUCH / TEMPORARY / 0600-0074-00 rev 01.dwg KITTELSON

NEMA 3-R METERED BASE MOUNT SERVICE CABINET CLACKAMAS COUNTY

4 @ 1-POLE SPACES MINIMUM



NOTE: CONTRACTOR TO VERIFY UTILITY METERING REQUIREMENTS!
OMIT CENTER BUS FOR SINGLE PHASE



1. CABINET CONSTRUCTED OF 14-GA TYPE-304 SS (GALVANIZED, PAINTED, MILD STEEL OPTIONAL)
2. DEADFRONT CONSTRUCTED OF 14 GA TYPE 304 #4 SS BACKPAN 12GA TYPE 304 SS
3. IUL 50 LISTED AS SERVICE ENTRANCE EQUIPMENT LABELED CUTOUT BOX NEMA 3R
4. IUL 67 LABELED PANELBOARD

NOTE: IF PE CELL IS REQUIRED, LOWER TEST SWITCH APP 6" AND INSTALL A GLASTIC BARRIER BETWEEN PANEL AND PE CELL

NOTE: MARATHON 1206 TERMINAL BLOCKS PROVIDED. WIRE RANGE IS #18 - #4 CU. CUSTOMER MUST NOTIFY IF OTHER SIZES ARE REQUIRED.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	first drawing	07/02/2003	P.D.W.

POLE#	DESCRIPTION
1	1-100-2 "MAIN"
2	" " "
3	1-30-2 "SIGNAL ILLUMINATION"
4	
5	
6	
7	
8	
9	1-60-1 "TRAFFIC SIGNAL CONTROLLER CAB"
10	1-20-1 "INTERNALLY MOUNTED GFCI RECPTACLE"
11	1-15-1 "PHOTOELECTRIC CONTROL"
12	1 - POLE SPACE
13	1 - POLE SPACE
14	1 - POLE SPACE
15	1 - POLE SPACE
16	1 - POLE SPACE

Item	Qty	UOM	Description
14	1	EA	INFO
13	1	EA	INTERNALLY MOUNTED 20-AMP GFCI DUPLEX RECEPTACLE
12	1	EA	PE CELL BEHIND POLYCARBONITE WINDOW WITH LIGHT DEFLECTING COVER
11	1	EA	POWER COMPANY TERMINAL BLOCK
10	1	EA	METER: SUPPLIED BY OTHER
9	1	EA	WINDOW: POLY CARBONATE ONE SIDE SCRATCH RESISTANT
8	1	EA	METERBASE: CIRCLE AW, 20324L, 1-P, 4-JAW, 600-VOLT, 200-AMP.
7	6	EA	BREAKERS: G.E. TYPE T.E.D., 18K, AIC @ 240-VOLT.
6	1	EA	COPPER GROUND BAR
5	1	EA	100% RATED COPPER NEUTRAL.
4	1	EA	TERMINAL BLOCK
3	1	EA	HANDLE: PAD LOCKABLE SS 73-NS
2	3	EA	CONTACTOR: G.E. CR360L, 600V, 30A, 120V COIL
1	1	EA	TEST SWITCH: HUBBEL 1221 20A 1P 120V277V

BILL OF MATERIALS

FOUCH ELECTRIC MFG. CO. INC.

2138 N INTERSTATE AVE. EMAIL: sales@fouch.com
 PORTLAND, OREGON. 97227 WEB: www.Fouch.com

JOB NAME: CLACKAMAS COUNTY SERVICE CABINET DETAIL

CONTRACTOR: CLACKAMAS COUNTY

FOUCH JOB #: TBA

DWG: 0600-0074-00 REV: 01 QTY: 1

Digitally Signed 2024.01.16

KITTELSON & ASSOCIATES

851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

SIGNAL DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

DESIGNED BY: S.PARKS
 DRAFTED BY: S.PARKS
 CHECKED BY: W.SCARBROUGH

REVISIONS

NO	DATE	DESCRIPTION

Sheet No. MC05

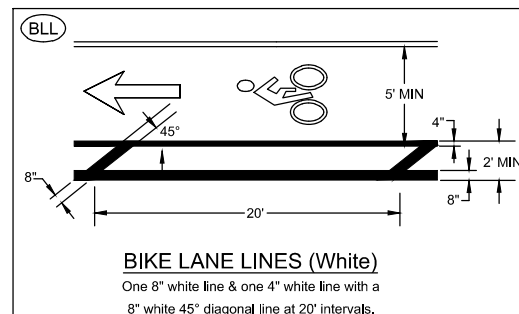
PROJECT NO.: CI-300317309
 DATE: December 2023

Plot Stamp: 1/15/2024 12:04:03 PM - Caleb Cox
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Plot Stamp: 1/15/2024 12:04:51 PM • Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\Q-PAVEMENT MARKINGS.dwg

STRIPING LEGEND

- S INSTALL STOP BAR
- CW-SC INSTALL STAGGARD CONTINENTAL CROSSWALK
- BS INSTALL BIKE LANE STANDARD STENCIL
- ND INSTALL NARROW DOUBLE NO-PASS
- W-2 INSTALL 8" WHITE LINE
- TWL INSTALL TWO-WAY LEFT TURN
- E-LA INSTALL ELONGATED LEFT TURN ARROW
- BLL INSTALL BIKE LANE LINE (SEE DETAIL BELOW)
- LA INSTALL LEFT TURN ARROW
- RA INSTALL RIGHT TURN ARROW
- RC PAINT CURB RED
- EX CW MAINTAIN AND PROTECT EXISTING STANDARD CROSSWALK
- EX ND EXISTING NARROW DOUBLE NO PASS LINE
- EX W-2 EXISTING 8" WHITE LINE
- RX ND REMOVE EXISTING NARROW DOUBLE NO PASS LINE
- RX W-2 REMOVE EXISTING 8" WHITE LINE
- RX BS REMOVE EXISTING BIKE LANE STANDARD STENCIL
- RX CW REMOVE EXISTING STANDARD CROSSWALK
- RX RA REMOVE EXISTING RIGHT TURN ARROW
- RX LA REMOVE EXISTING LEFT TURN ARROW



STRIPING GENERAL NOTES

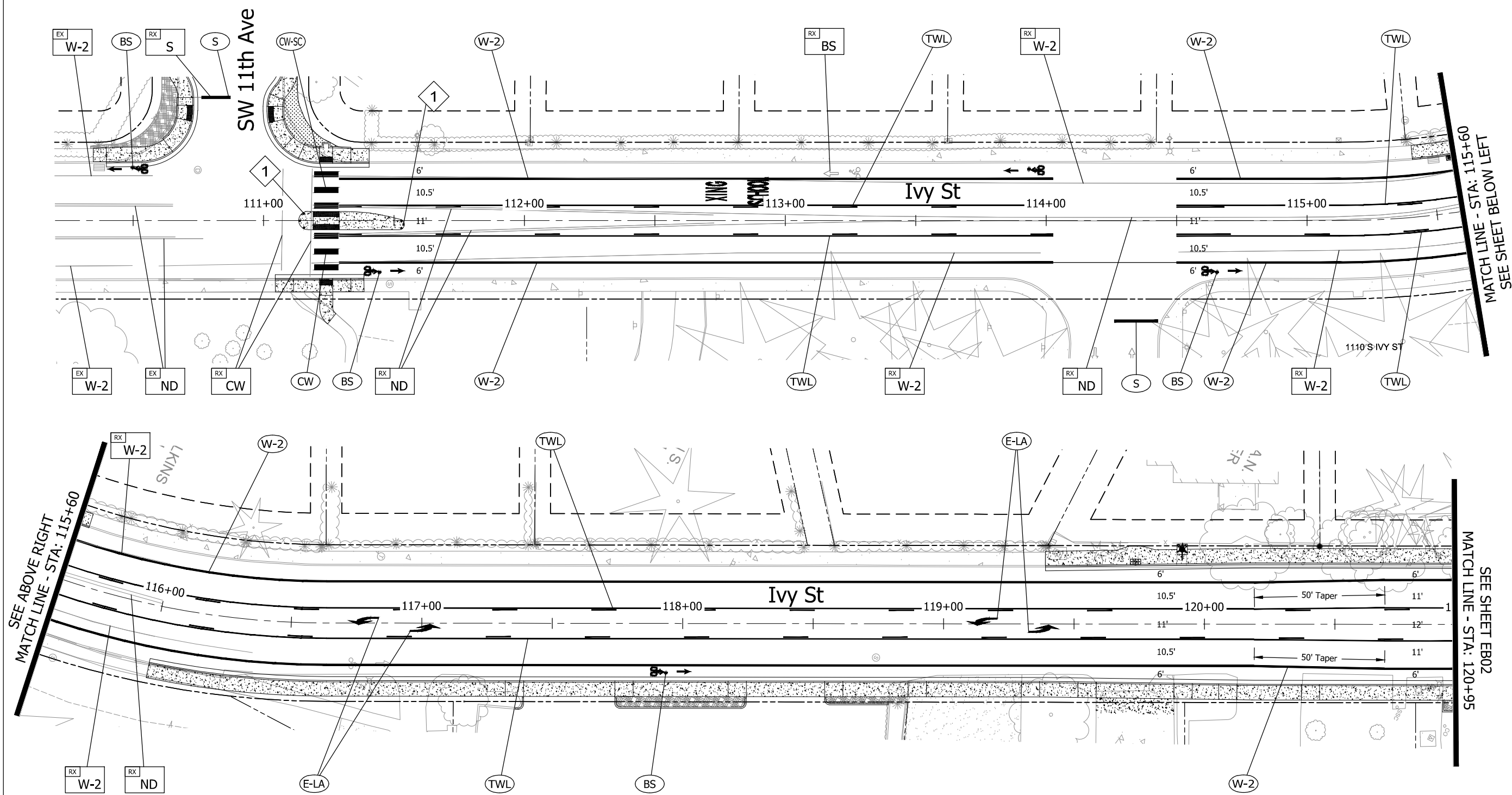
1. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) 2009 EDITION, AND THE OREGON SUPPLEMENT TO THE M.U.T.C.D. 2009 EDITION, AND THE 2018 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.
2. ALL PRE-MARKERS FOR PAVEMENT MARKINGS AND STRIPING LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO FINAL PLACEMENT.
3. PERMANENT STRIPING SHALL BE THERMOPLASTIC MATERIAL UNLESS OTHERWISE NOTED. LONGITUDINAL LINES SHALL BE METHOD "A" THERMOPLASTIC, EXTRUDED, SURFACE, NON-PROFILED.
4. EXISTING MARKINGS NOT SHOWN ARE TO REMAIN IN PLACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. EXISTING STRIPING REMOVED DURING SCORING AND REPAVING TO BE INSTALLED AS SHOWN.
6. REFER TO ODOT STANDARD DRAWINGS TM500, TM501, AND TM503 FOR ALL PAVEMENT MARKING DETAILS ON SHEET QA01-QA03.

KITTELSON & ASSOCIATES
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 PORTLAND, OR 97204
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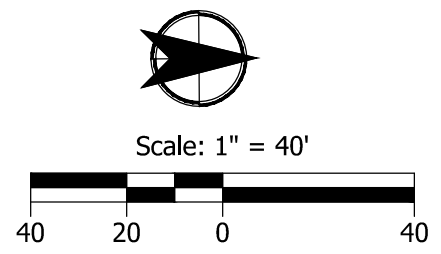
REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

PAVEMENT MARKING LEGEND S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS	DATE: December 2023 PROJECT NO.: CI-300317309
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
DESIGNED BY: C. COX DRAFTED BY: D. SHADRIN CHECKED BY: T. ROOS	
REVISIONS NO. DATE:	
	Sheet No. QA01

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1 INSTALL RAISED YELLOW PAVEMENT MARKERS ON ISLAND NOSE AT 1 FOOT SPACING.



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REGISTERED PROFESSIONAL
 ENGINEER
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 OREGON
 JUL 15, 2003
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PAVEMENT MARKINGS
IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS
 DATE: December 2023 PROJECT NO.: CI-300317309

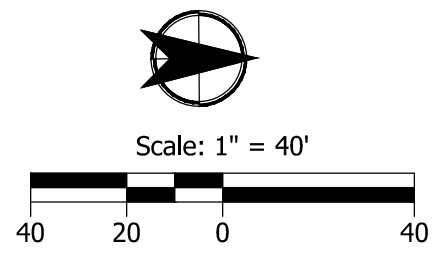
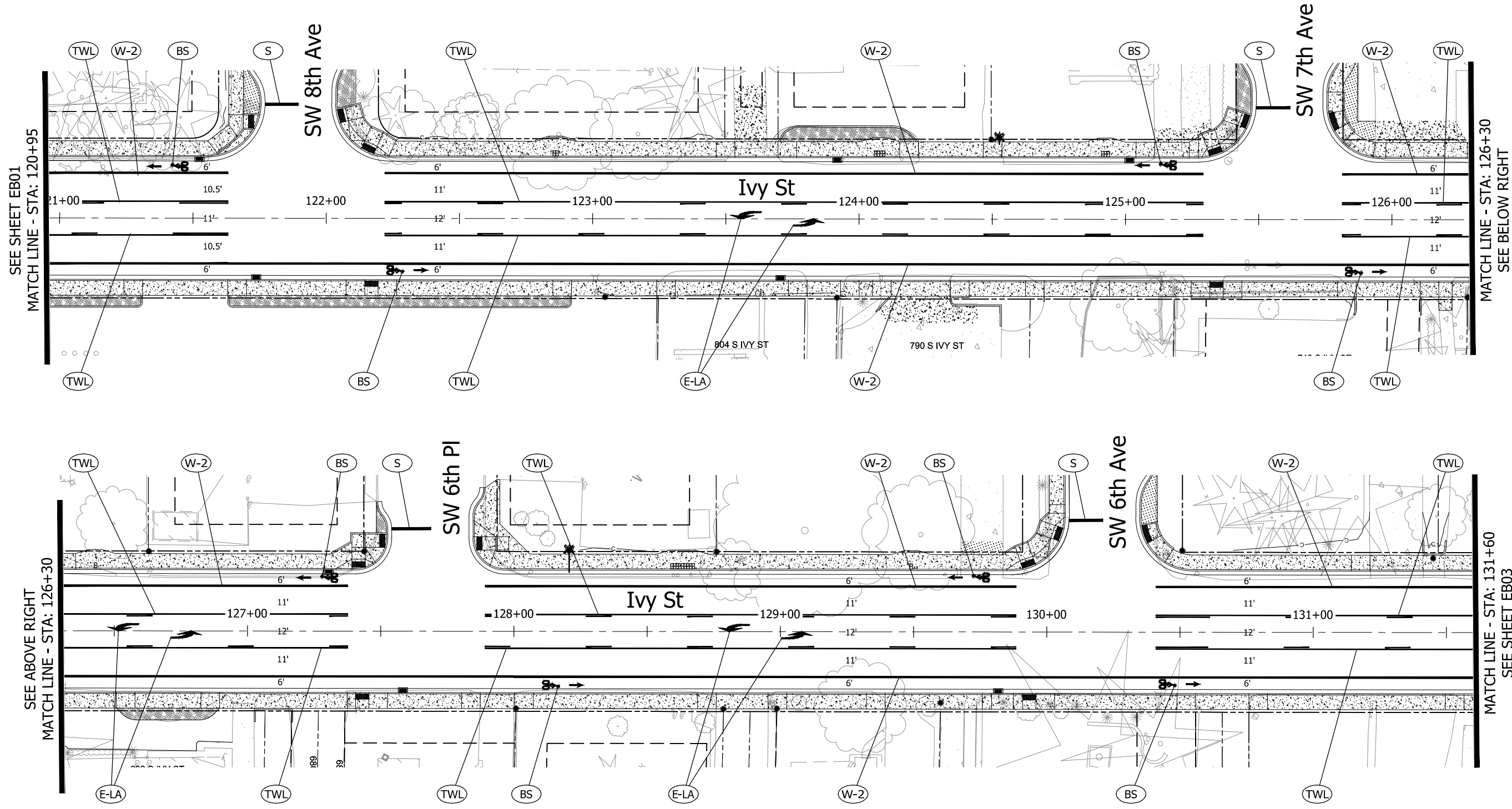
CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045
DAN JOHNSON
 DIRECTOR

DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO.	DATE:	REVISIONS

Sheet No. QA02

Plot Stamp: 1/15/2024 12:05:09 PM • Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\Q-PAVEMENT MARKINGS.dwg



KITTELSON & ASSOCIATES
 851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

SEE SHEET EB01
 MATCH LINE - STA: 120+95

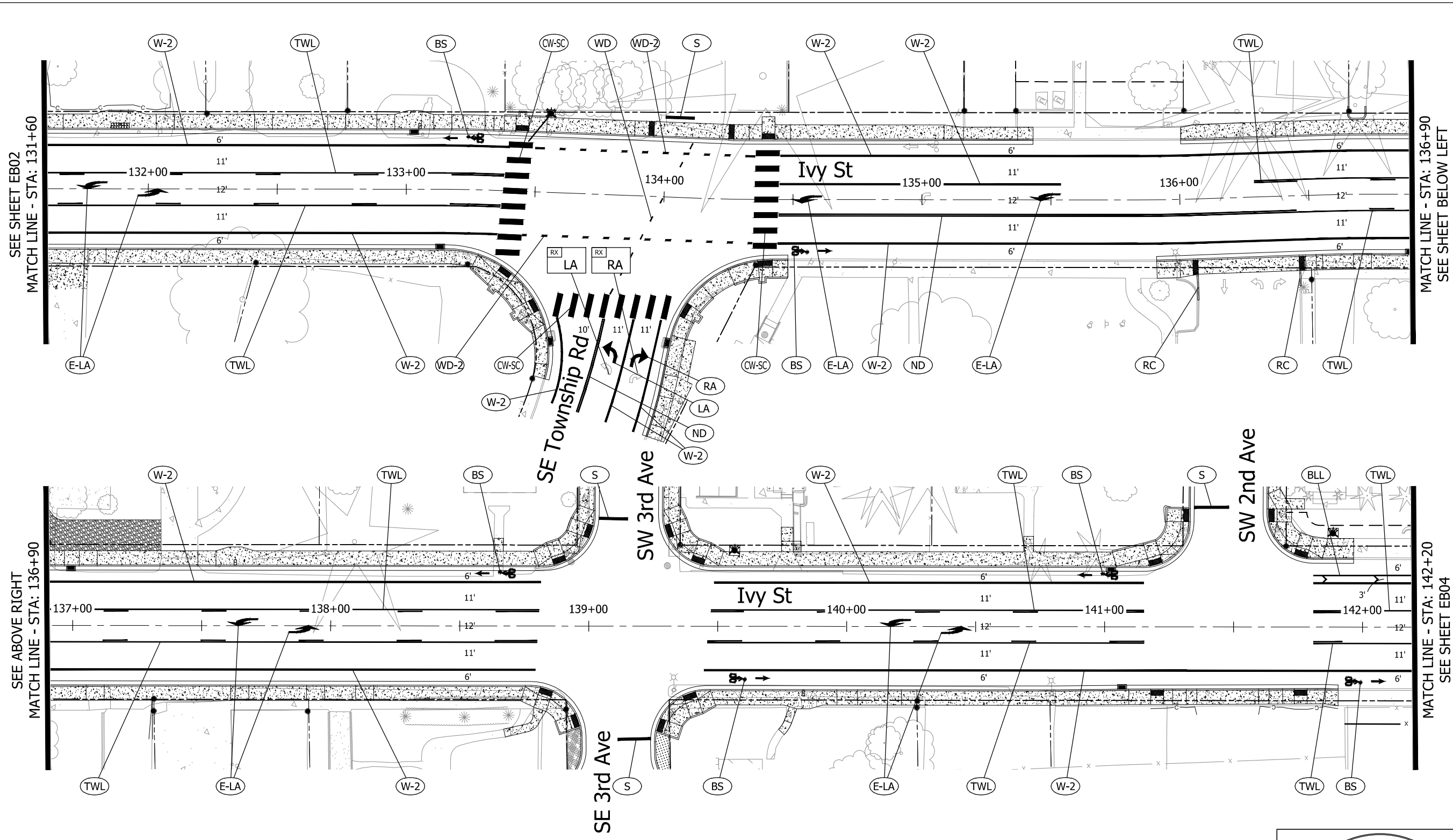
MATCH LINE - STA: 126+30
 SEE BELOW RIGHT

SEE ABOVE RIGHT
 MATCH LINE - STA: 126+30

MATCH LINE - STA: 131+60
 SEE SHEET EB03

CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045		DIRECTOR DAN JOHNSON	
DESIGNED BY: C. COX		DRAFTED BY: D. SHADRIN	
CHECKED BY: T. ROOS		PROJECT NO.: CI-300317309 DATE: December 2023	
REVISIONS		PAVEMENT MARKINGS	
NO. DATE:		INTERSECTION IMPROVEMENTS S IVY ST PEDESTRIAN	
Sheet No. QA03		CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	

Plot Stamp: 1/15/2024 12:05:17 PM • Caleb Cox
 File: H:\23\23982 - Ivy Street Pedestrian Improvements\design\CD\Q-PAVEMENT MARKINGS.dwg

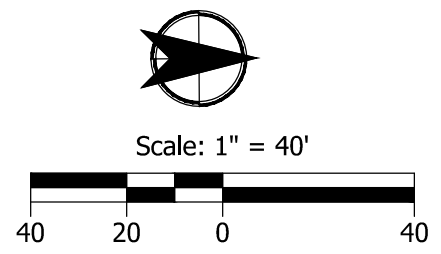


SEE SHEET EB02
 MATCH LINE - STA: 131+60

MATCH LINE - STA: 136+90
 SEE SHEET BELOW LEFT

SEE ABOVE RIGHT
 MATCH LINE - STA: 136+90

MATCH LINE - STA: 142+20
 SEE SHEET EB04



KITTELSON & ASSOCIATES
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REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
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 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

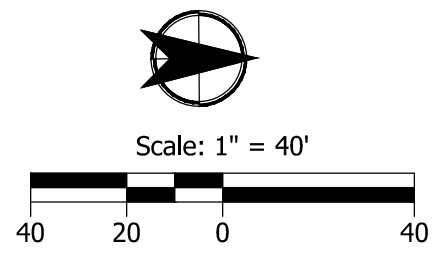
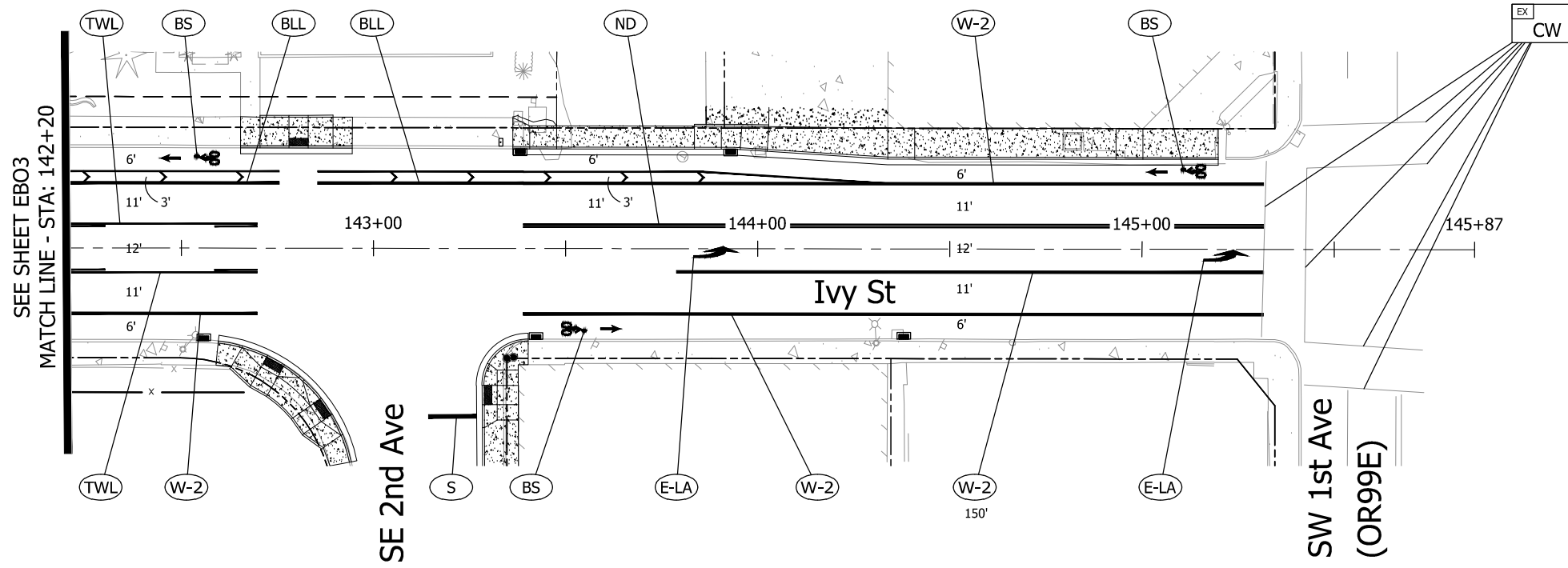
PAVEMENT MARKINGS
**IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS**
 DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

DESIGNED BY: C. COX	NO. DATE:
DRAFTED BY: D. SHADRIN	
CHECKED BY: T. ROOS	
REVISIONS	
Sheet No. QA04	

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 851 SW 6TH AVENUE, SUITE 600
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REGISTERED PROFESSIONAL
 ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL. 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

DESIGNED BY:
 C. COX
 DRAFTED BY:
 D. SHADRIN
 CHECKED BY:
 T. ROOS

NO.	DATE	REVISIONS

Sheet No.
 QA05



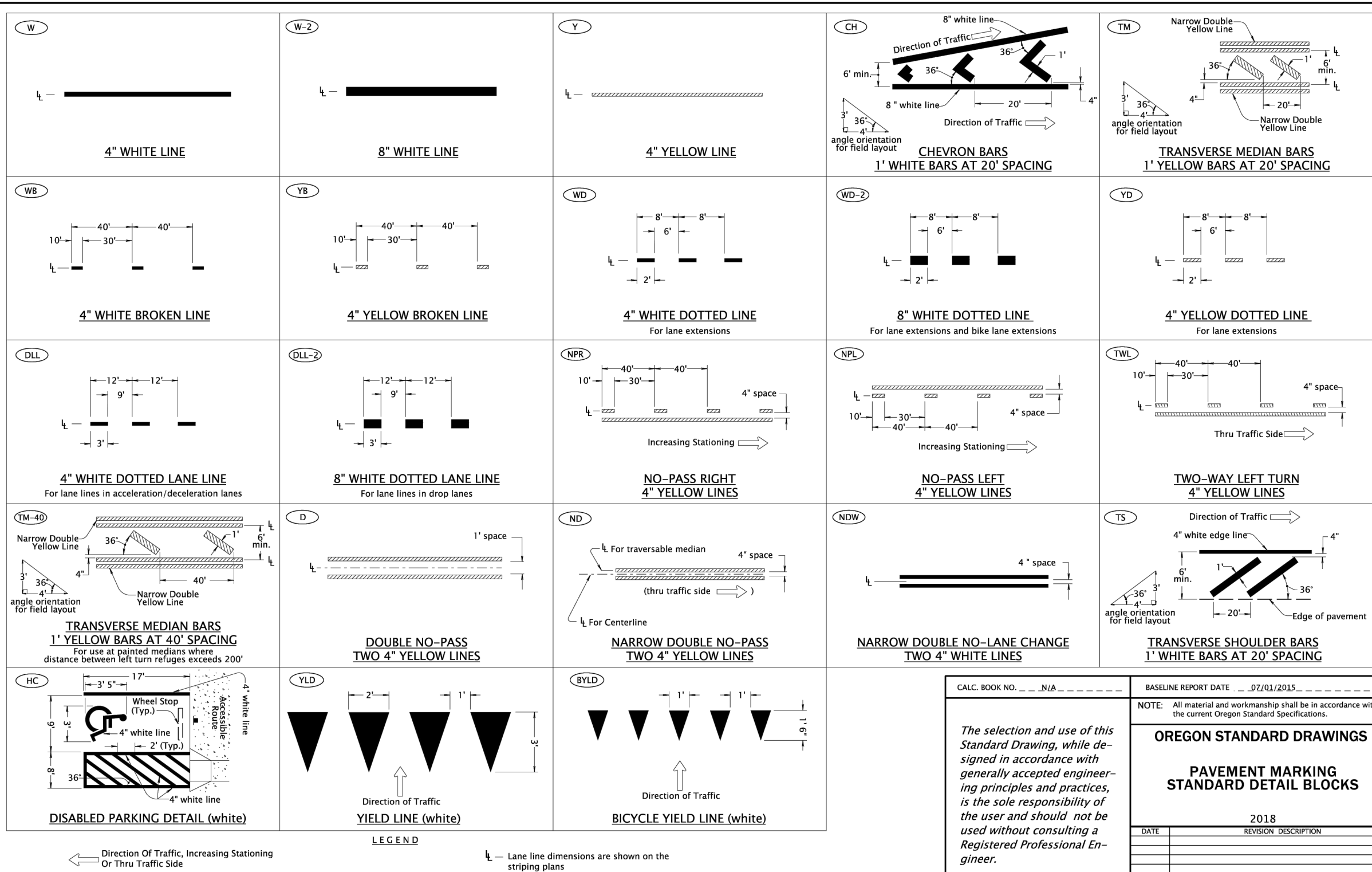
CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DAN JOHNSON
 DIRECTOR

PAVEMENT MARKINGS

**S IVY ST PEDESTRIAN
 INTERSECTION IMPROVEMENTS**

DATE: December 2023 PROJECT NO.: CI-300317309



Effective Date: June 01, 2020 - November 30, 2020

TM500

CALC. BOOK NO. ___ N/A ___

BASELINE REPORT DATE ___ 07/01/2015 ___

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

PAVEMENT MARKING STANDARD DETAIL BLOCKS

2018

DATE	REVISION DESCRIPTION

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

KITTELSON & ASSOCIATES

851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

REGISTERED PROFESSIONAL ENGINEER
 60404PE
 Digitally Signed 2024.01.16
 OREGON
 JUL 15, 2003
 ANTHONY M. ROOS
 EXPIRES: 12/31/2024

DESIGNED BY:	DRAFTED BY:	CHECKED BY:
C. COX	D. SHADRIN	T. ROOS

NO.	DATE:	REVISIONS

Sheet No. QB01

PAVEMENT MARKINGS DETAILS

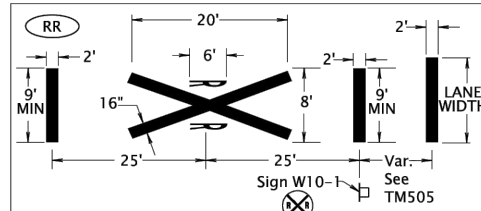
S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
 DAN JOHNSON

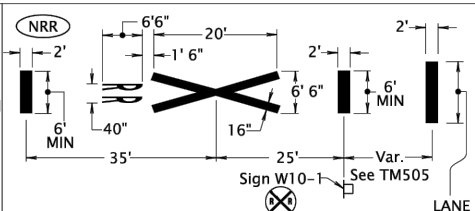
PROJECT NO.: CI-300317309
 DATE: December 2023

TM501



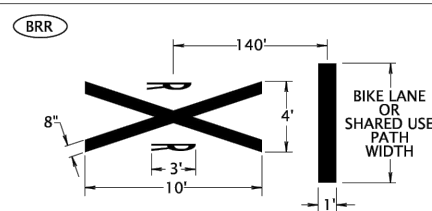
RR RAILROAD CROSSING (white)

Install per ODOT Rail Crossing Order or as shown.
 For letter proportion details, see current version of Standard Highway Signs



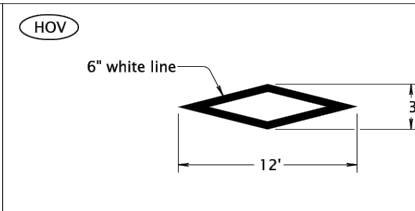
NRR NARROW RAILROAD CROSSING (white)

Install per ODOT Rail Crossing Order or as shown.
 For letter proportion details, see current version of Standard Highway Signs

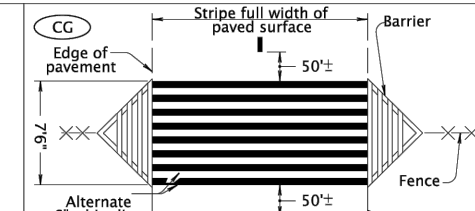


BRR BICYCLE RAILROAD CROSSING (white)

Install per ODOT Rail Crossing Order or as shown.
 For letter proportion details, see current version of Standard Highway Signs

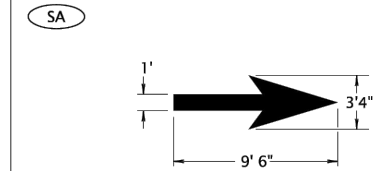


HOV HIGH-OCCUPANCY VEHICLE DIAMOND DETAIL (white)



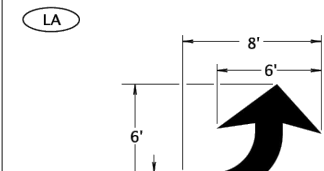
CG CATTLE GUARD (white)

For barrier and fence details, see Std. Dwg. RD110



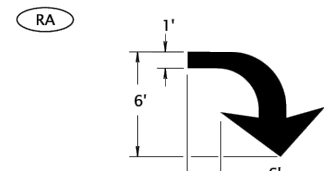
SA STRAIGHT ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



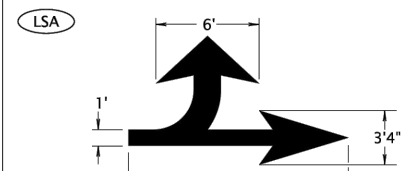
LA LEFT TURN ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



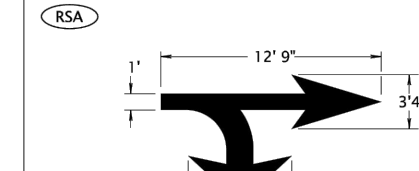
RA RIGHT TURN ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



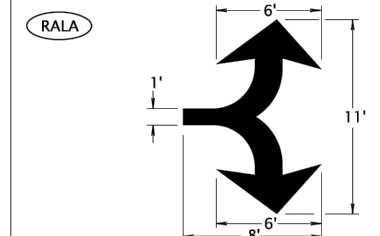
LSA LEFT TURN STRAIGHT ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



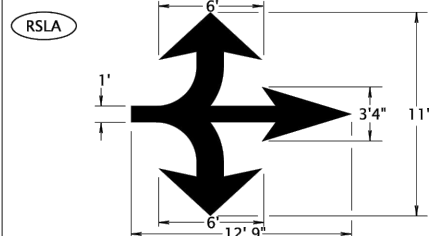
RSA RIGHT TURN STRAIGHT ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



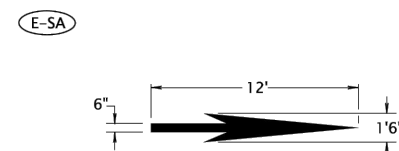
RALA RIGHT TURN LEFT TURN ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



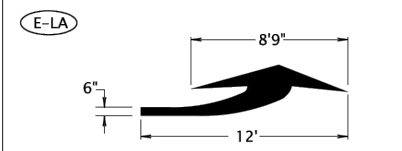
RSLA RIGHT TURN STRAIGHT LEFT TURN ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



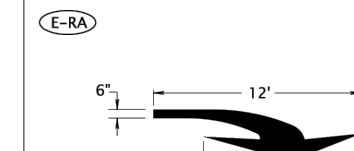
E-SA ELONGATED STRAIGHT ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



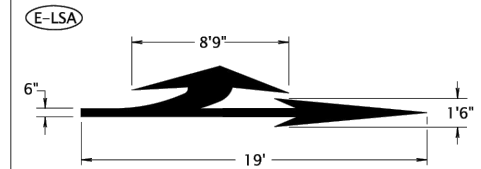
E-LA ELONGATED LEFT TURN ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



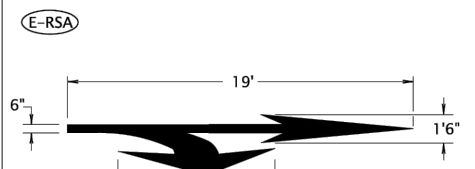
E-RSA ELONGATED RIGHT TURN ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



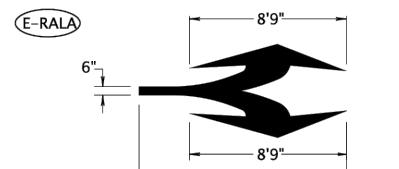
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For arrow proportion details, see current version of Standard Highway Signs



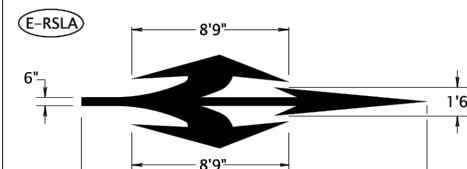
E-RSA ELONGATED RIGHT TURN STRAIGHT ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



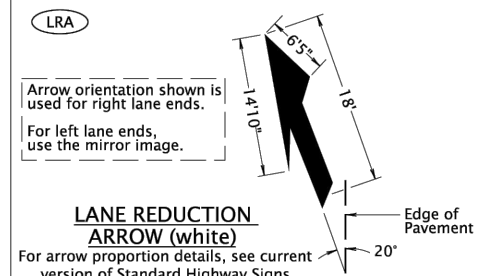
E-RALA ELONGATED RIGHT TURN LEFT TURN ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



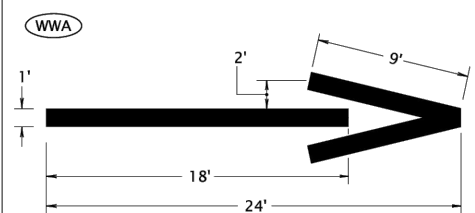
E-RSLA ELONGATED RIGHT TURN STRAIGHT LEFT TURN ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



LRA LANE REDUCTION ARROW (white)

For arrow proportion details, see current version of Standard Highway Signs



WWA WRONG-WAY ARROW (white)

- General Note:
- Center pavement markings within the lane width.
 - Arrow and letter dimensions nominal, excluding WWA.

CALC. BOOK NO. ___ N/A ___

BASELINE REPORT DATE ___ 07/01/2015 ___

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

PAVEMENT MARKING STANDARD DETAIL BLOCKS

2018

DATE	REVISION	DESCRIPTION

Effective Date: June 01, 2020 - November 30, 2020



851 SW 6TH AVENUE, SUITE 600
 PORTLAND, OR 97204
 P 503.228.5230 F 503.273.8169

EXPIRES: 12/31/2024

PAVEMENT MARKINGS DETAILS

S IVY ST PEDESTRIAN INTERSECTION IMPROVEMENTS

DATE: December 2023 PROJECT NO.: CI-300317309

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR

DAN JOHNSON

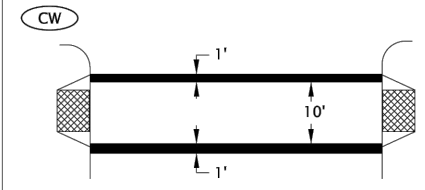
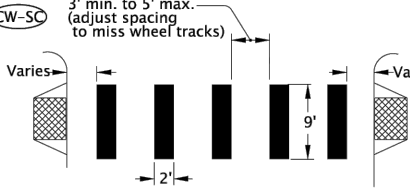
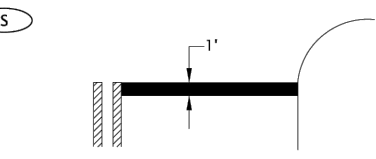
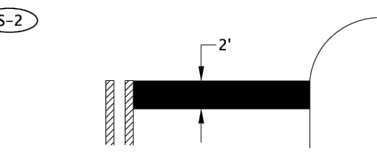
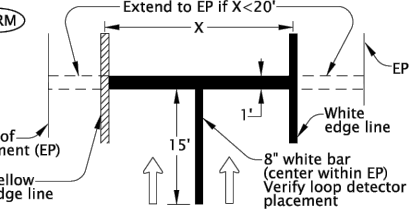
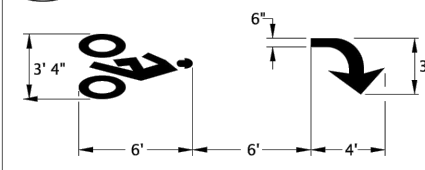
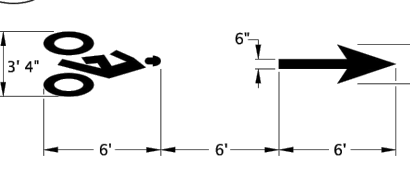
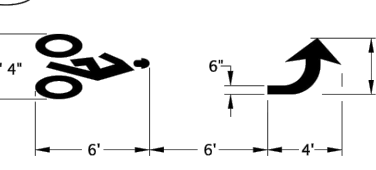
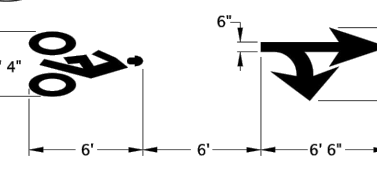
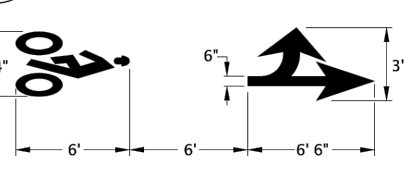
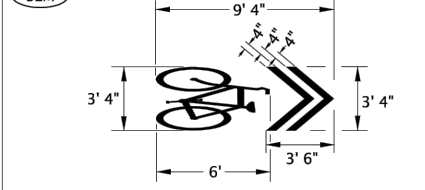
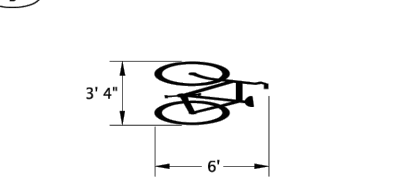
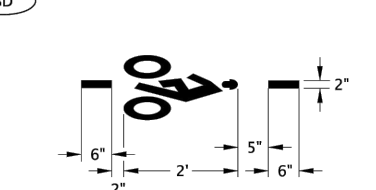
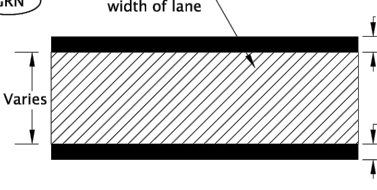
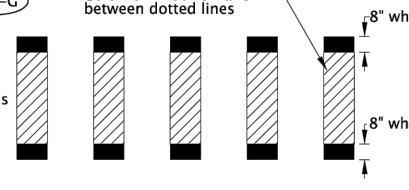
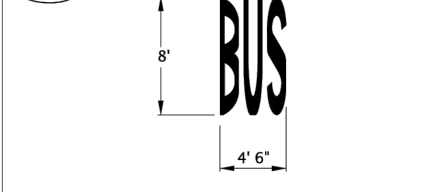
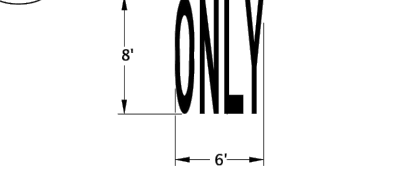
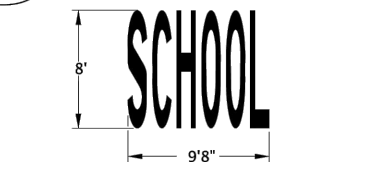

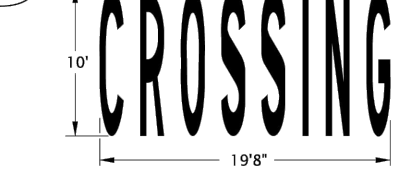
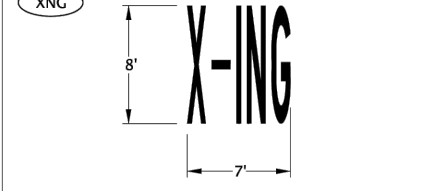
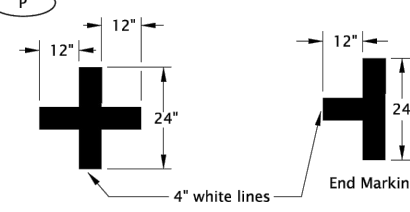
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

REVISIONS

NO. DATE:

Sheet No. QB02

TM503

 <p>STANDARD CROSSWALK TWO 1' WHITE BARS Install per Standard Drawing TM530</p>	 <p>STAGGERED CONTINENTAL CROSSWALK 2' WHITE BARS Install per Standard Drawing TM530</p>	 <p>STOP BAR 1' WHITE BAR Install per Standard Drawing TM530</p>	 <p>STOP BAR - LARGE 2' WHITE BAR Install per Standard Drawing TM530</p>	 <p>RAMP METER STOP BAR 1' & 8" WHITE BARS For multi-lane ramp meter applications</p>
 <p>BIKE RIGHT TURN STENCIL (white) Center marking within lane width For proportion details, see current version of Standard Highway Signs</p>	 <p>BIKE LANE STANDARD STENCIL (white) Center marking within lane width For proportion details, see current version of Standard Highway Signs</p>	 <p>BIKE LEFT TURN STENCIL (white) Center marking within lane width For proportion details, see current version of Standard Highway Signs</p>	 <p>BIKE RIGHT TURN STRAIGHT STENCIL (white) Center marking within lane width For proportion details, see current version of Standard Highway Signs</p>	 <p>BIKE LEFT TURN STRAIGHT STENCIL (white) Center marking within lane width For proportion details, see current version of Standard Highway Signs</p>
 <p>SHARED LANE MARKING (white) Center marking within lane width or as shown For proportion details, see current version of Standard Highway Signs</p>	 <p>BIKE STENCIL (white) Used for Intersection Bicycle Box applications Place marking within bicycle box, centered with motor vehicle lane width</p>	 <p>BICYCLE DETECTOR MARKING (white) Place Bicycle Detector Pavement Marking in optimum location where bicycle actuates the traffic signal</p>	 <p>GREEN SUPPLEMENTAL BICYCLE LANE SOLID LINE (green)</p>	 <p>GREEN SUPPLEMENTAL BICYCLE LANE DOTTED LINE EXTENSION (green)</p>
 <p>BUS (white) Center marking within lane width For letter proportion details, see current version of Standard Highway Signs</p>	 <p>ONLY (white) Center marking within lane width For letter proportion details, see current version of Standard Highway Signs</p>	 <p>SCHOOL (white) Center marking within lane width For letter proportion details, see current version of Standard Highway Signs</p>	 <p>SCHOOL - LARGE (white) Center marking within width of two lanes For letter proportion details, see current version of Standard Highway Signs</p>	 <p>CROSSING - LARGE (white) Center marking within width of two lanes For letter proportion details, see current version of Standard Highway Signs</p>
 <p>X-ING (white) Center marking within lane width For letter proportion details, see current version of Standard Highway Signs</p>	 <p>ON-STREET PARKING DETAIL (white)</p>	<p>General Note: 1. Arrow, letter, and bike symbol dimensions nominal.</p> <p>LEGEND ← Direction of Travel</p>		

Effective Date: June 01, 2020 - November 30, 2020

CALC. BOOK NO. ___ N/A ___

BASELINE REPORT DATE ___ 01/03/2020 ___

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

**PAVEMENT MARKING
STANDARD DETAIL BLOCKS**

2018

DATE	REVISION	DESCRIPTION
07/18	Added B, BD, GRN, BLE-G details	
01/20	Added BRS and BLS. Rearranged layout and updated BS	
	Modified GRN and BLE-G dimension notation	
	Changed notes for B and BD	

KITTELSON & ASSOCIATES

851 SW 6TH AVENUE, SUITE 600
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 P 503.228.5230 F 503.273.8169

TM503

REGISTERED PROFESSIONAL
 ENGINEER
 60404PE

Digitally Signed 2024.01.16

OREGON
 JUL 15, 2003
 ANTHONY M. ROOS

EXPIRES: 12/31/2024

PAVEMENT MARKINGS DETAILS

**S IVY ST PEDESTRIAN
INTERSECTION IMPROVEMENTS**

CLACKAMAS COUNTY
 DEPT. OF TRANSPORTATION
 AND DEVELOPMENT
 150 BEAVERCREEK ROAD
 OREGON CITY, OR 97045

DIRECTOR
 DAN JOHNSON

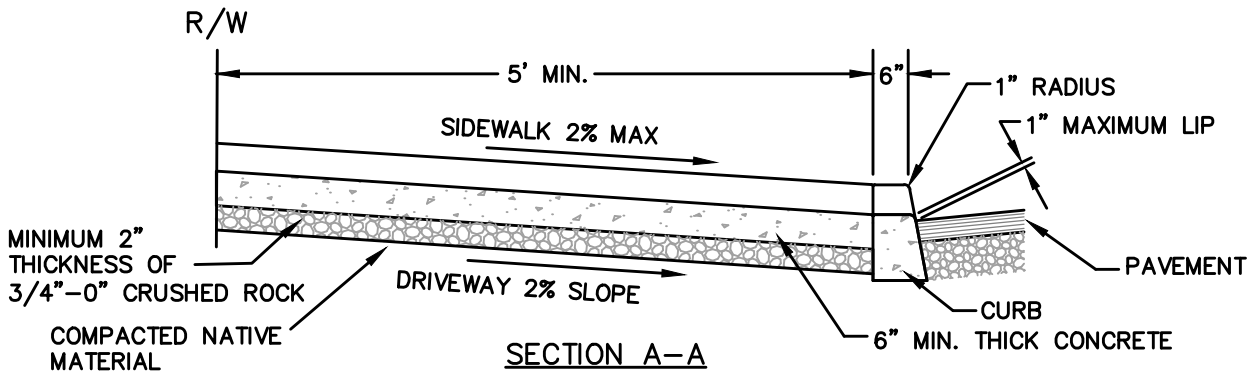
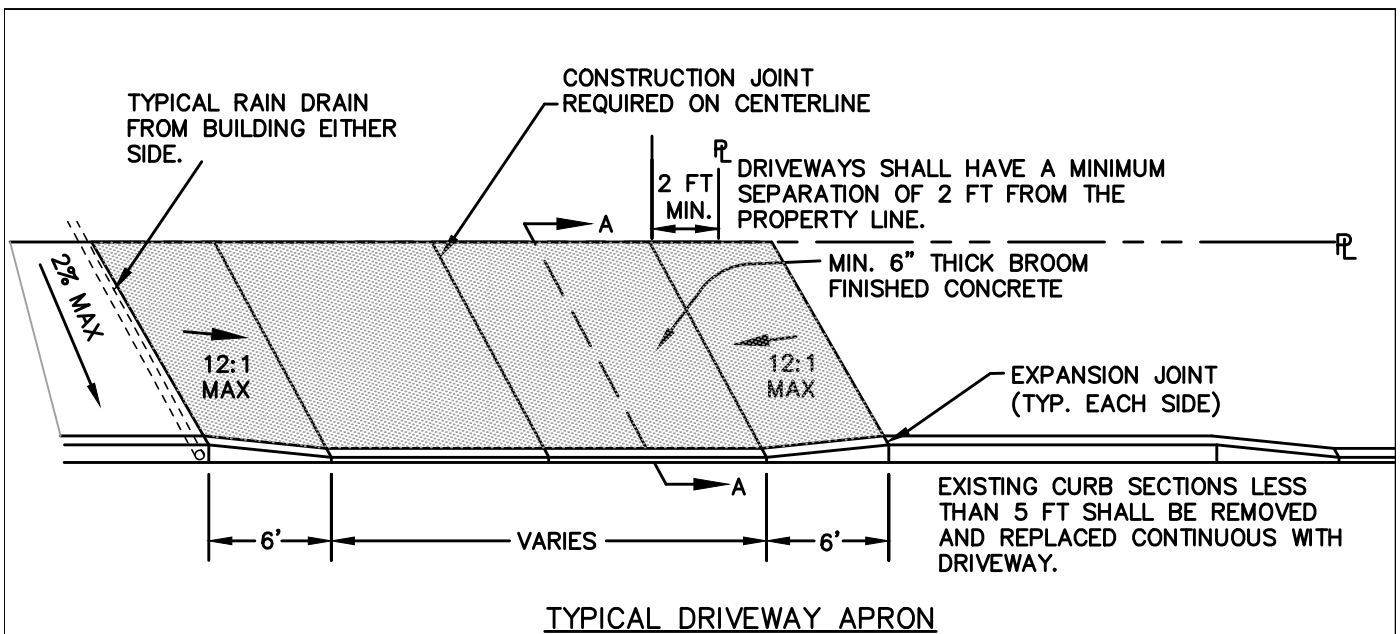
DESIGNED BY: C. COX
 DRAFTED BY: D. SHADRIN
 CHECKED BY: T. ROOS

NO. DATE: _____

REVISIONS

Sheet No. QB03

DATE: December 2023 PROJECT NO.: CI-300317309

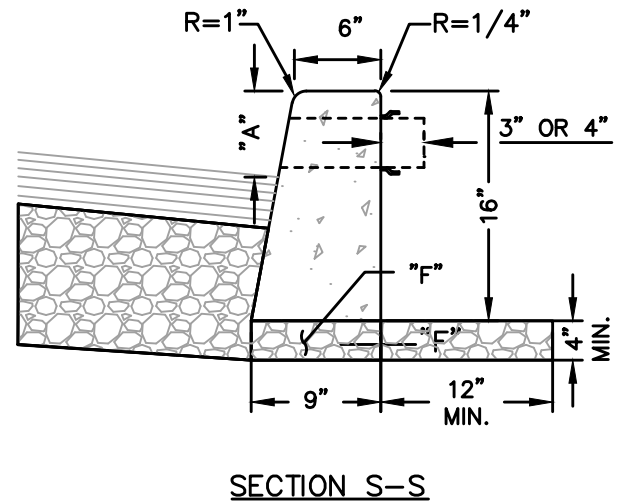
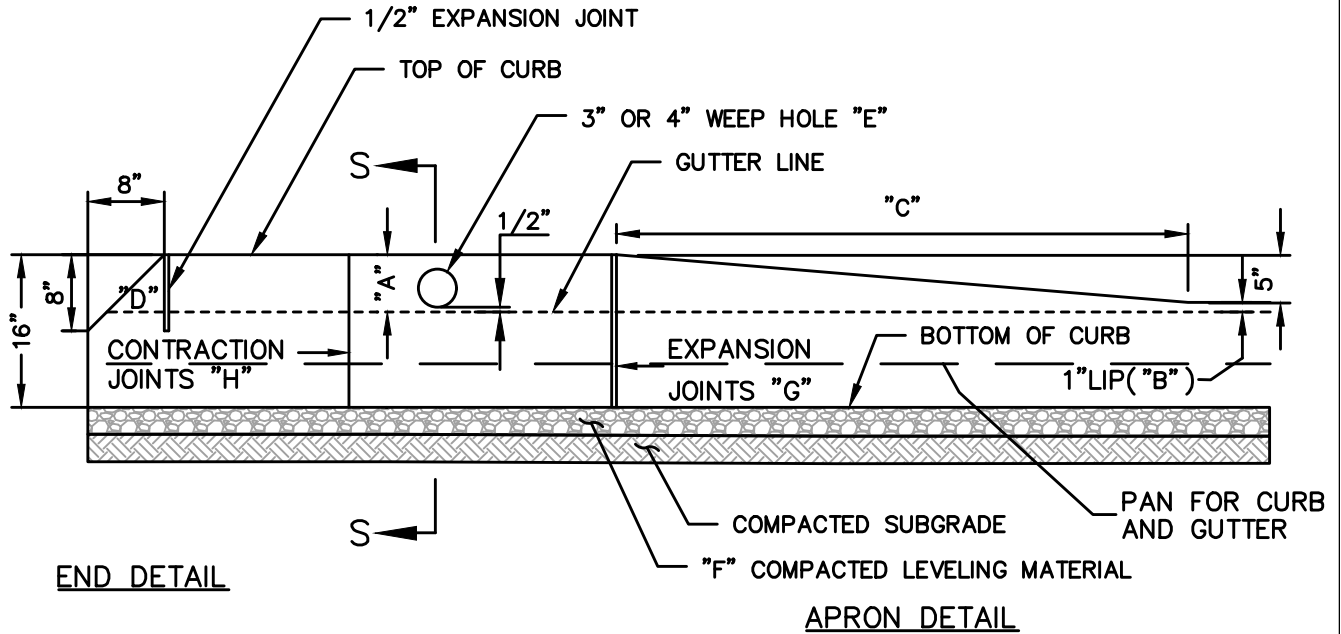


NOTES

1. LOCATION AND WIDTH TO BE APPROVED BY THE COUNTY ON A SITE SPECIFIC BASIS. PLACE A MARKER, AS INDICATED, AT THE CENTER OF THE PROPOSED DRIVEWAY FOR INITIAL INSPECTION BY THE COUNTY.
2. RESIDENTIAL DRIVEWAY WIDTH SHALL BE MIN. 12' TO 35' MAX.
3. COMMERCIAL DRIVEWAY WIDTH SHALL BE MINIMUM 28' FOR TWO LANES AND 42' FOR THREE LANES. THIS DETAIL CAN BE USED FOR COMMERCIAL ACCESS WHETHER OR NOT THE SIDEWALK IS CURB TIGHT. JUST BE SURE TO LOWER THE SIDEWALK PANELS TO THE DRIVEWAY TO MEET ADA STANDARDS.
4. MATERIALS USED IN CONSTRUCTION SHALL CONFORM TO CURRENT ODOT/APWA STANDARD SPECIFICATIONS.
5. AT CORNER LOTS, DRIVEWAY ENTRANCE SHALL BE PLACED ON THE SECONDARY ROADWAY AND NO PORTION OF THE DRIVEWAY SHALL BE PERMITTED WITHIN 25 FEET OF THE PROPERTY CORNER OR INTERSECTION OF RIGHT-OF-WAY LINES.
6. SEE SECTION 220 FOR ACCESS SPACING BETWEEN DRIVEWAYS, TO AN INTERSECTION AND TO A PROPERTY LINE ALSO FOR MULTIPLE ACCESSES TO ON PROPERTY.
7. SPECIFICATIONS FOR CONCRETE AND MISC. MATERIALS USED IN CONSTRUCTION SHALL CONFORM TO CURRENT ODOT/APWA STANDARD SPECIFICATIONS. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3300 P.S.I. IN 28 DAYS.
8. COMMERCIAL DRIVEWAYS SHALL HAVE 6" MINIMUM THICKNESS CONCRETE WITH #4 REBAR @ 12" O.C., ALL BARS TIED.
9. PROVIDE SIGHT DISTANCE PER SECTION 240.

REVISION	DATE	BY	DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	APPROVAL DATE: 6/1/2020	SCALE: N.T.S.	STANDARD DRAWING
REVISED	11/19	AAR	150 BEAVERCREEK ROAD OREGON CITY, OR 97045	STANDARD DRIVEWAY TO CURBED COUNTY ROADS WITH NO LANDSCAPE STRIP		D600





NOTES

1. "A" CURB EXPOSURE, STANDARD 6", VARY AS SHOWN ON TYPICAL SECTION, OR AS DIRECTED.
 - "B" CURB EXPOSURE ADJACENT TO DRIVEWAY, STANDARD 1", OR AS DIRECTED.
 - "C" DRIVEWAY APRON WING, STANDARD RESIDENTIAL & COMMERCIAL 5' MIN, OR AS DIRECTED.
 - "D" END CURB SECTION, TOP TO BE REMOVED UPON EXTENSION OF CURB.
 - "E" WEEP HOLE, 4" PLASTIC DRAIN PIPE OR APPROVED EQUIVALENT, LOCATED AS INDICATED ON THE PLANS OR AS DIRECTED. DRAIN PIPE SHALL HAVE A BELL OR A 3" EXTENSION, FOR FUTURE HOOK-UP.
 - "F" AGGREGATE BASE, 3/4"-0" OR 1/2"-0", 4" MINIMUM
 - "G" EXPANSION JOINTS, MAX. 45' SPACING AND AT BEGINNING AND END OF CURVES OR AS DIRECTED.
 - "H" CONTRACTION JOINTS, MAX. 15' SPACING AND AT LOCATIONS AS DIRECTED.
2. CURB TO BE CLASS 3300 PORTLAND CEMENT CONCRETE.
 3. CONCRETE AND MISC. MATERIALS USED IN CURB CONSTRUCTION SHALL CONFORM TO CURRENT OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 4. FROM PC TO PT INSIDE THE UGB AND UNINCORPORATED COMMUNITIES, AND WHEN THE GUTTER SLOPE OR CURB LINE IS LESS THAN 1% STANDARD DWG. S150 SHALL BE USED, AT PUBLIC INTERSECTIONS.

REVISION	DATE	BY
EDIT NOTE 3	12/12	RN
REVISED	11/19	AAR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045



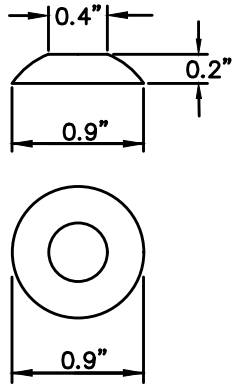
APPROVAL DATE: 6/1/2020

SCALE: N.T.S.

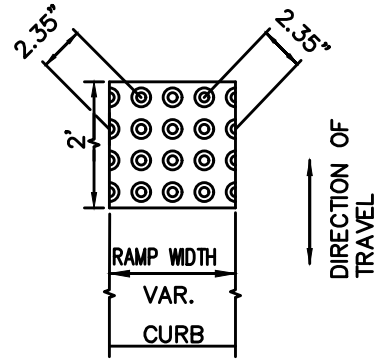
STANDARD DRAWING

STANDARD TYPE 'C' VERTICAL CURB AND CURB DETAILS

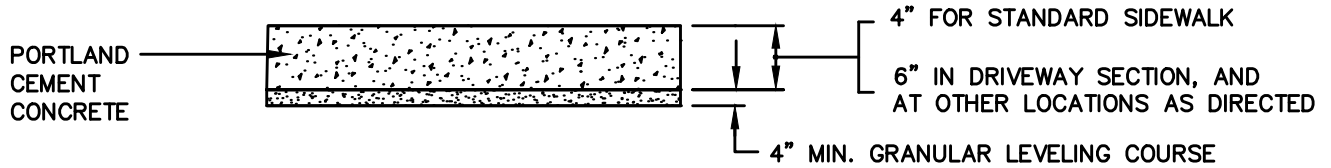
S100



TRUNCATED DOME DETAIL




RAMP TEXTURE PATTERN
(TRUNCATED DOMES)
DETAIL



SIDEWALK SURFACING DETAIL

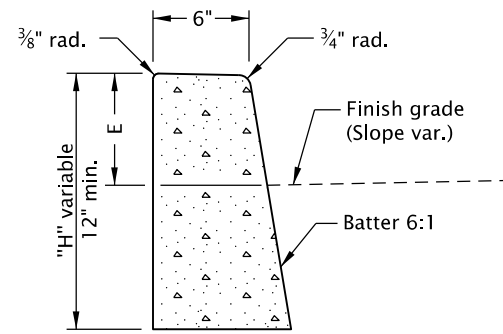
NOTES

1. CONCRETE AND MISC. MATERIALS USED IN CONSTRUCTION SHALL CONFORM TO CURRENT OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION. DETECTABLE WARNINGS ON WALKING SURFACES AS PER ADA REQUIREMENTS.
2. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 in (23 mm) A HEIGHT OF NOMINAL 0.2 in (5 mm) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35in (60mm) AND YELLOW IN COLOR. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.
3. EXPANSION JOINT SPACING EVERY 45' MIN. OR AT EQUAL INTERVALS CORRESPONDING TO CURB LINE. JOINTS SHALL BE PROVIDED PER ODOT STD. DWG. RD722.
4. THE SURFACE FINISH SHALL BE CROSS BROOMED.
5. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI IN 28 DAYS.

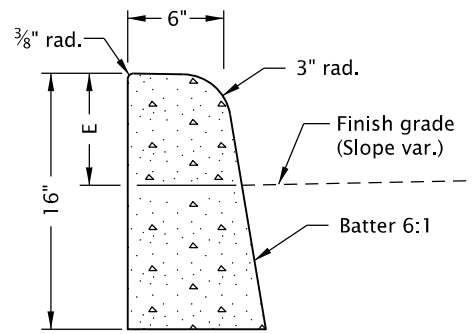
<i>REVISION</i>	<i>DATE</i>	<i>BY</i>	DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT		<i>APPROVAL DATE:</i> 6/1/2020	<i>SCALE:</i> N.T.S.	STANDARD DRAWING S960
EDIT NOTE 1	12/12	RN			150 BEAVERCREEK ROAD OREGON CITY, OR 97045	STANDARD SIDEWALK & CURB RAMP NOTES & DETAILS	
EDIT NOTE 6	12/12	RN					
REVISION	11/19	BP					
REVISION	3/20	RM					

20-JUL-2020

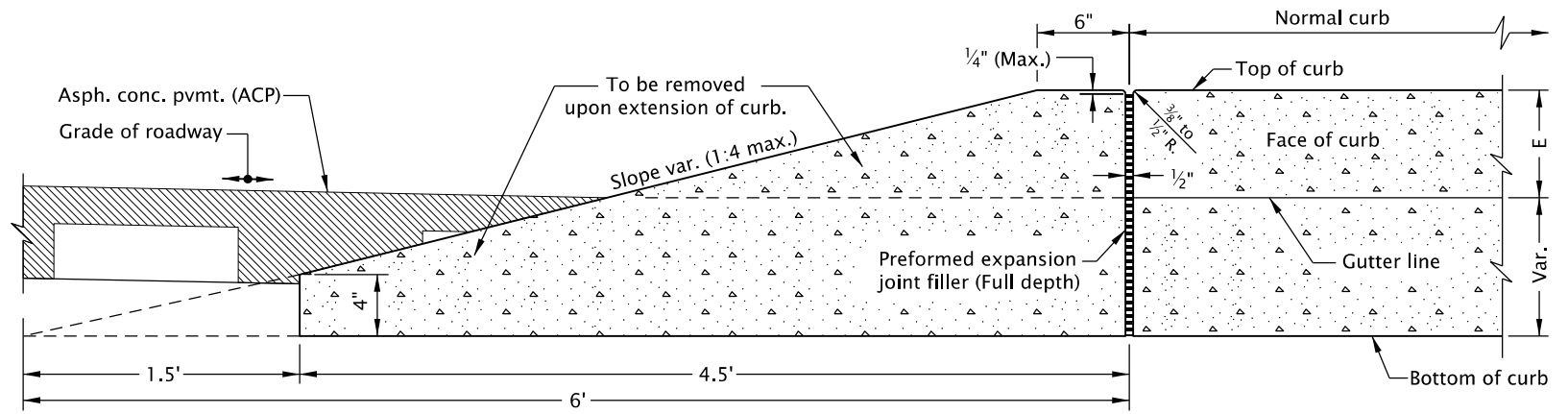
RD700.dgn



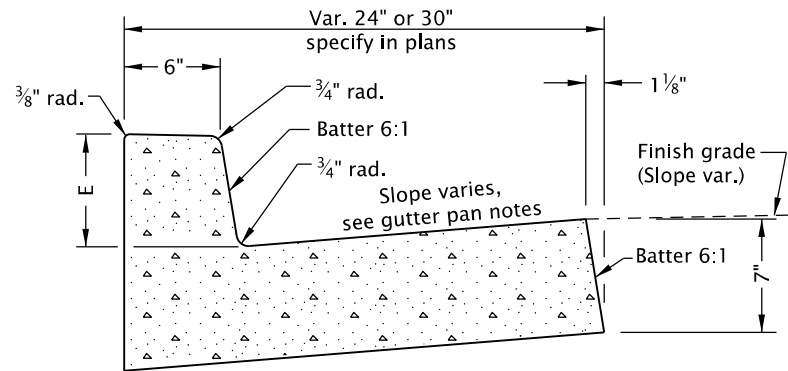
O.D.O.T. & City of Portland Standard "H"=16" STANDARD CURB
(See general note 11)



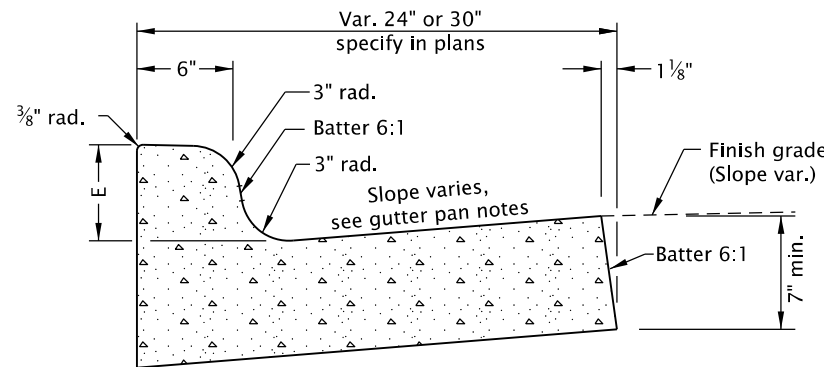
MOUNTABLE CURB
(See general note 11)



CURB ENDING DETAIL

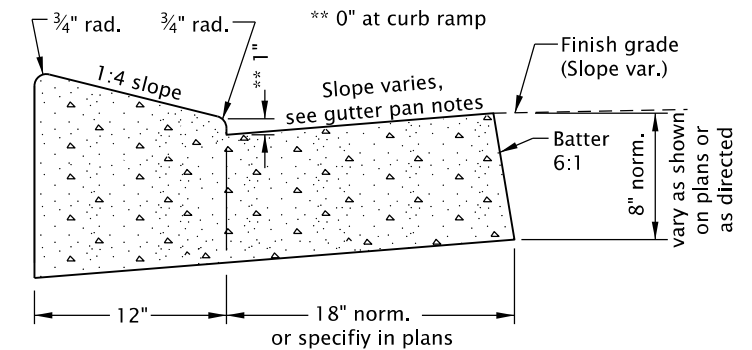


CURB AND GUTTER

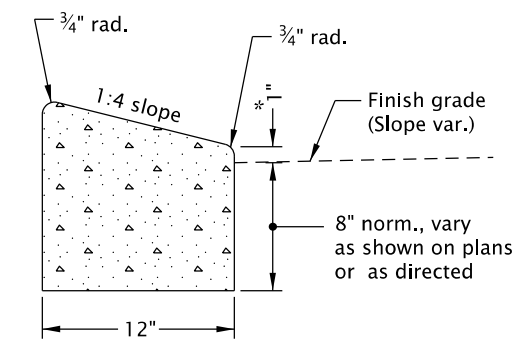


MOUNTABLE CURB AND GUTTER

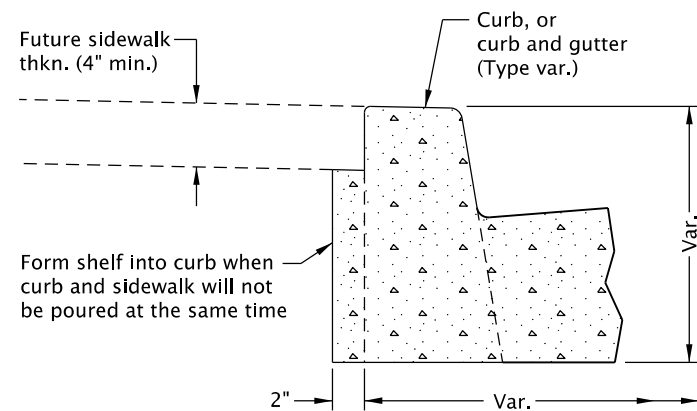
GUTTER PAN NOTES:
Slope 5.0% normal.
Slope 4.0% max. at curb ramps.
Vary slope as reqd. for drainage. Vary where shown on plans, and allowed by jurisdiction.



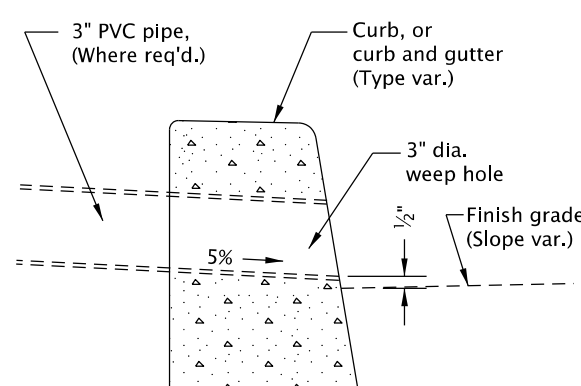
LOW PROFILE MOUNTABLE CURB AND GUTTER
(Where shown on plans)



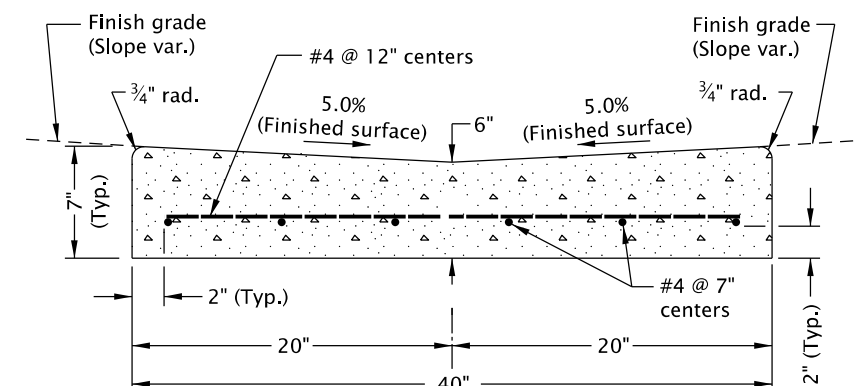
LOW PROFILE MOUNTABLE CURB
(See general note 11)



MODIFICATION FOR KEYWAY
(Where shown on plans)



WEEP HOLE DETAIL
(Where shown on plans, and allowed by jurisdiction)



VALLEY GUTTER

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Curb exposure "E" = 6" to 9", as measured vertically from flowline to highest point on curb. Vary as shown on plans or as directed. O.D.O.T standard "E"=7".
2. Const. curb expansion joints at 200' maximum spacing, and at points of tangency, and at ends of each driveways.
3. Const. curb contraction joints at 15' maximum spacing, and at ends of each inlet and curb ramp.
4. Transitions shall be used to connect curbs of different exposures "E". ("E" Is the total vertical dimension of those curb surfaces having a slope of 1:1 or steeper). Minimum desirable transition length shall be 20' for each 1" difference in "E".

5. Tops of all curbs shall slope toward the roadway at 1.5% max. (Max. 2.0% finished surface slope), unless otherwise shown, or as directed.
6. Dimensions are nominal, vary to conform with curb machine approved by the engineer.
7. Dimensions adjacent to radii are measured to the point of intersection of curb surfaces.
8. For sidewalk details, and monolithic curb & sidewalk, see Std. Dwgs. RD720 & RD721.
9. For drainage curbs, see Std. Dwg. RD701.
10. For curb ramp details, see Std. Dwgs. RD900 series.
11. On or along state highways, curb and gutter is required at curb ramp.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

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

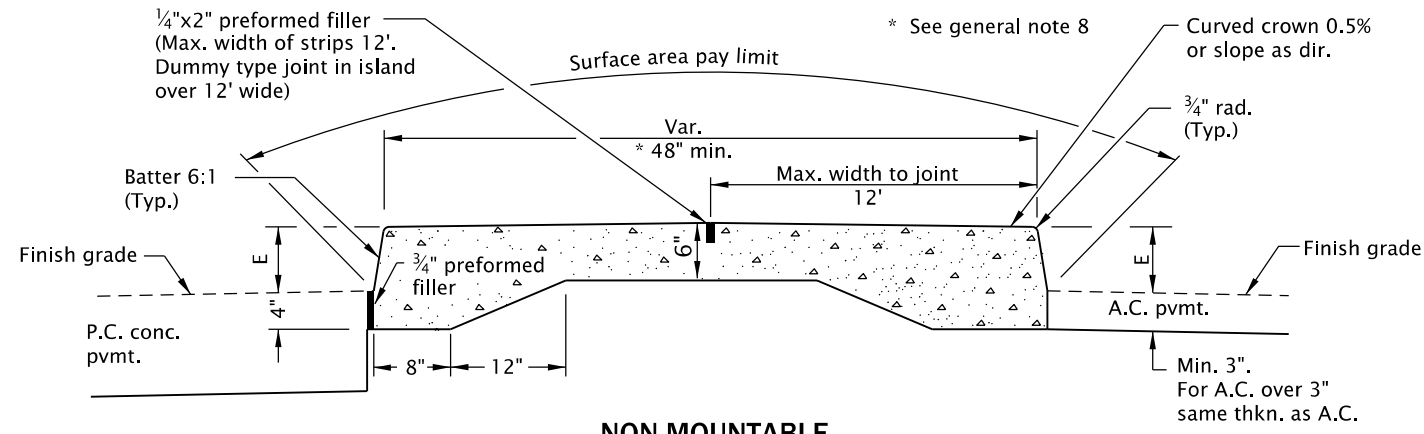
OREGON STANDARD DRAWINGS

CURBS

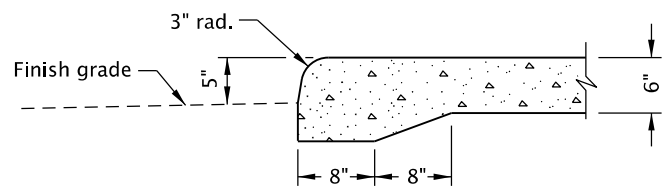
2021

DATE	REVISION	DESCRIPTION

CALC. BOOK NO. --- N/A --- SDR DATE: 20-JUL-2020 **RD700**



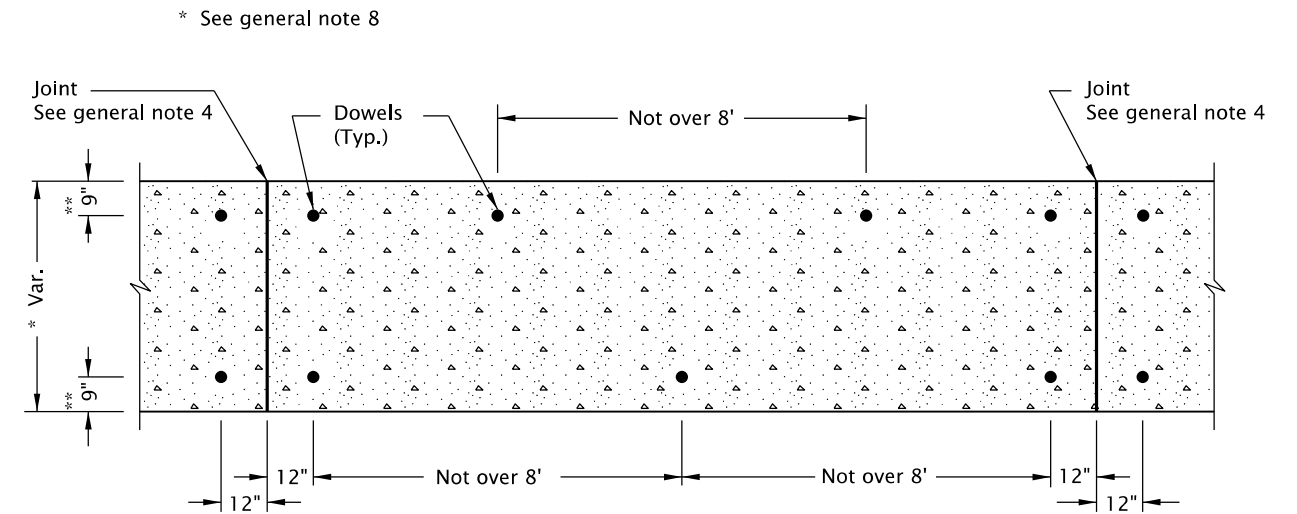
NON-MOUNTABLE



MOUNTABLE

(For surfacing details not shown, see above)

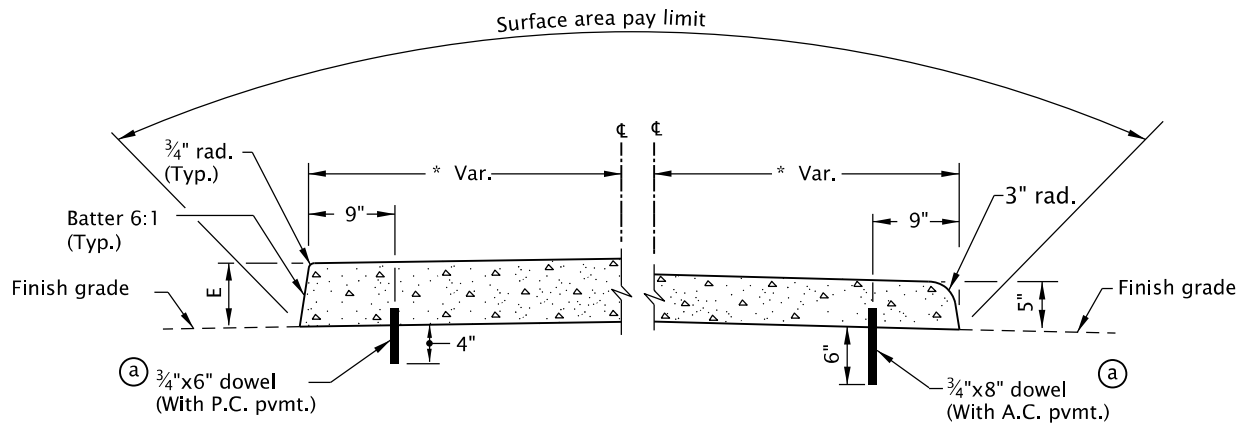
TYPE A



**DOWEL PLAN
FOR TYPE C OR TYPE CA ISLANDS & TRANSITIONS
(ON SURFACE OF NEW OR EXISTING PAVEMENT)**

** Also see below for type CA island requirement.

* See general note 8

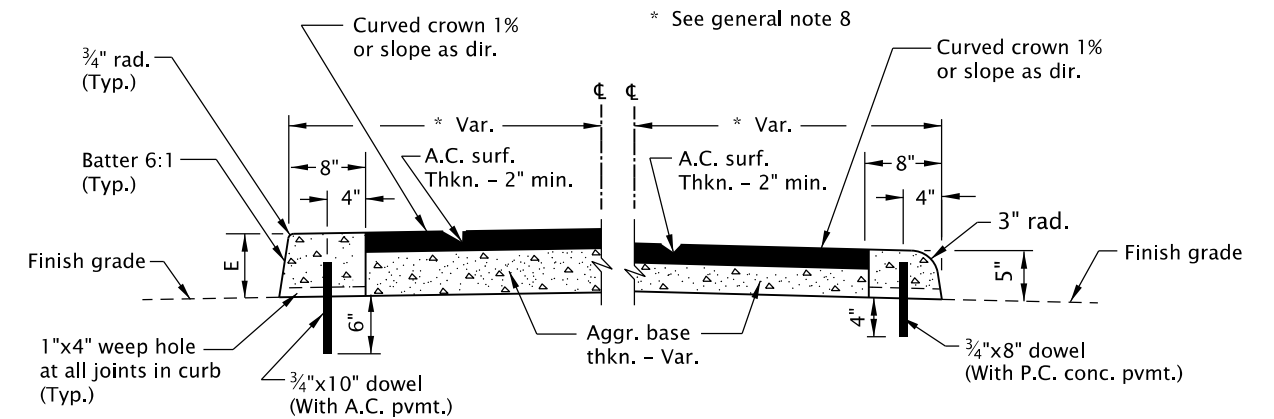


NON-MOUNTABLE

MOUNTABLE

TYPE C

(a) No dowels reqd. for Type C islands 5' wide or wider



NON-MOUNTABLE

MOUNTABLE

TYPE CA

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Curb exposure "E" = 7" normal. Vary as shown on plans or as directed.
2. Standard batter is shown. Vary as shown on typical section or as directed.
3. Transverse joints in conc. islands to match joints in conc. pvmt. and to be of same type (Omit dowels in expansion joints).
4. Set joint spacing 200' max. for expansion and 15' max. for contraction.
5. Place preformed filler along one side of conc. islands in conc. pvmt. and around all curved ends.

6. Dowels shall be 3/4" dia. with length as shown. In new conc. pvmt. set dowels before conc. hardens. In extg. conc. pvmt. drill holes 1 1/2" dia. and grout dowels in. In A.C. pvmt. drive dowels.
7. For transitions to traffic separators, see Std. Dwg. RD706.
8. Minimum island width is 48". For accessible route islands, see Std. Dwg. RD710.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

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

OREGON STANDARD DRAWINGS

ISLANDS

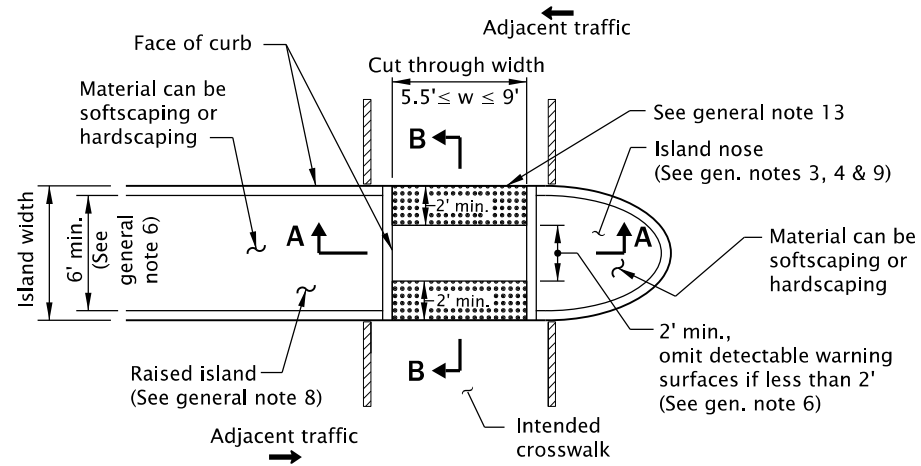
2021

DATE	REVISION	DESCRIPTION

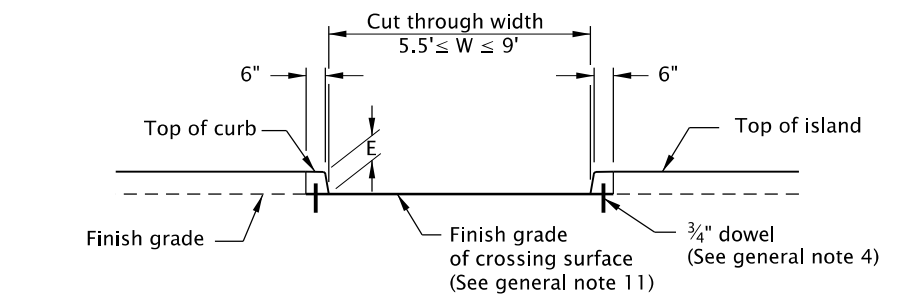
CALC. BOOK NO. - - -	N/A - - -	SDR DATE - 16-JUL-2018	RD705
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14-JAN-2022

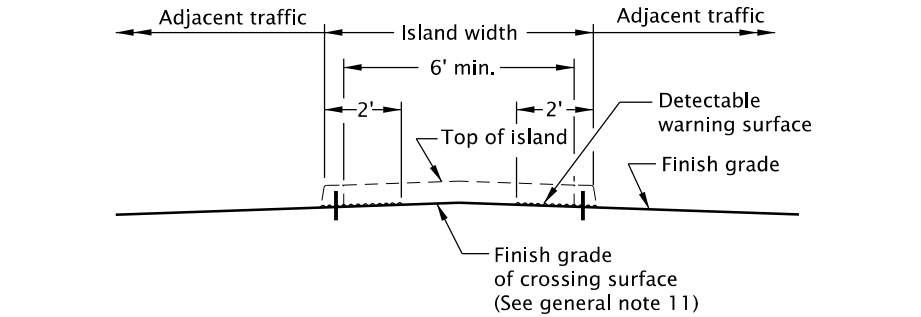
RD710.dgn



PLAN



SECTION A-A

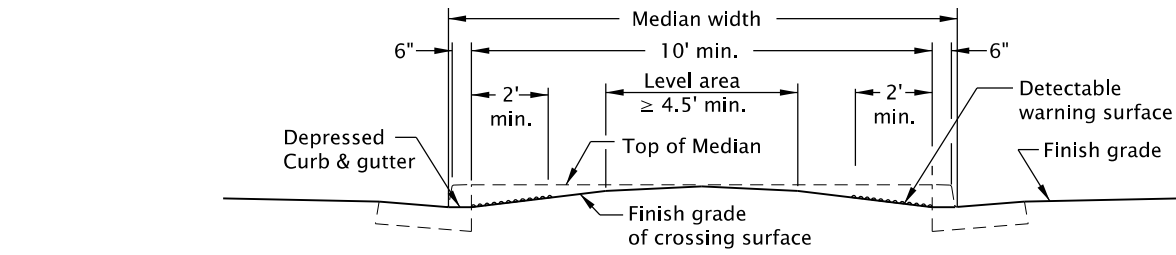


SECTION B-B
MEDIAN ISLAND CROSSING
(CUT THROUGH)
(A.C. pavement shown)

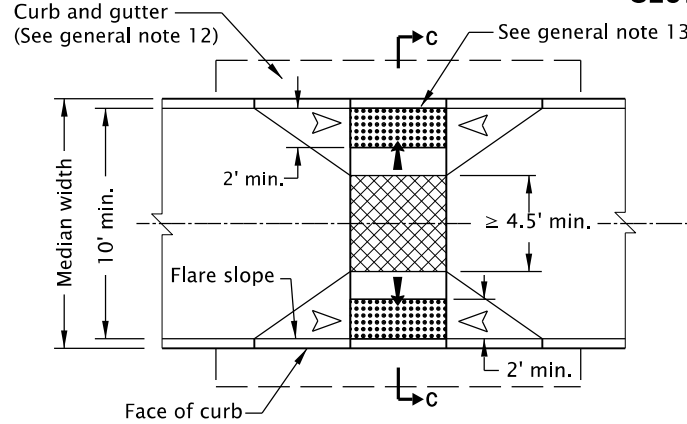
GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Accessible route islands are based on applicable ODOT Standards.
2. Place detectable warning surface at the back of curb for a minimum depth of 2 feet at curb ramp that is adjacent to traffic. For details not shown, see Std. Dwgs. RD902 through RD908.
3. The minimum area of islands that contain signal poles, pedestals, etc., shall be 75 square feet. Square feet to be measured to outer perimeter of entire island.
4. For cut through islands, dowel each island segment to the pavement with a minimum of two 3/4" diameter dowels. Dowel the nose section of the raised median island with a minimum of two 3/4" diameter dowels. Place dowels as directed. See Std. Dwg RD705.
5. Align curb ramps for lowered or partially lowered island and cut through island with the crosswalk.
6. Detectable warning surfaces shall be separated by a 2-foot minimum length of walkway without detectable warnings. Where no curb, the detectable warning surface shall be placed at the edge of roadway.

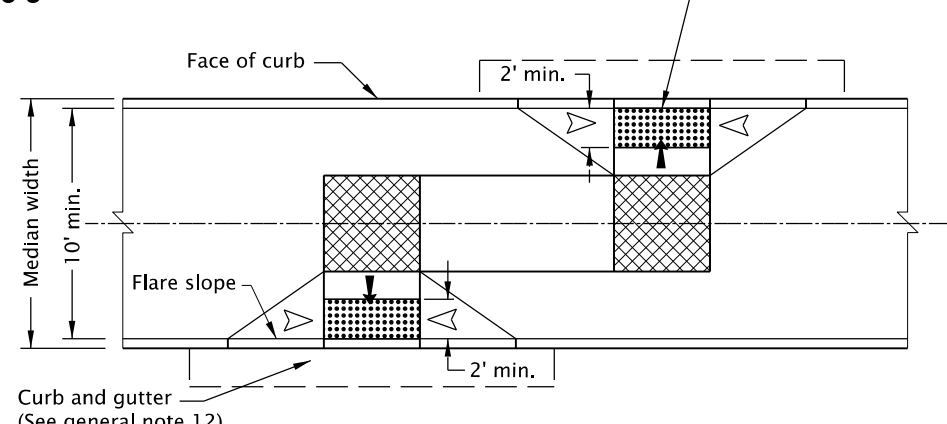
7. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.
8. Curb type and island width as shown on plans or as directed. Type A or Type CA islands are acceptable alternates, see Std. Dwg. RD705.
9. See project plans for details not shown. See Std. Dwg. RD707 for island nose treatment. See Std. Dwg. RD705 for expansion and contraction joint spacing. See Std. Dwgs. RD700, RD701, RD705 & RD706 for additional details. See TM Standard Drawings for signal pole, pedestrian pedestal, crosswalk markings, and related details.
10. Details intended for pedestrian route only. For multi-use path, see project plans for specific details.
11. When crossing surface grade is ≤ 5%, a level area is not required.
12. On or along state highways, curb and gutter is required at curb ramps.
13. Raised islands in crossings shall have accessible curb ramps at all crossings or all crossings shall be cut through with the street.



SECTION C-C

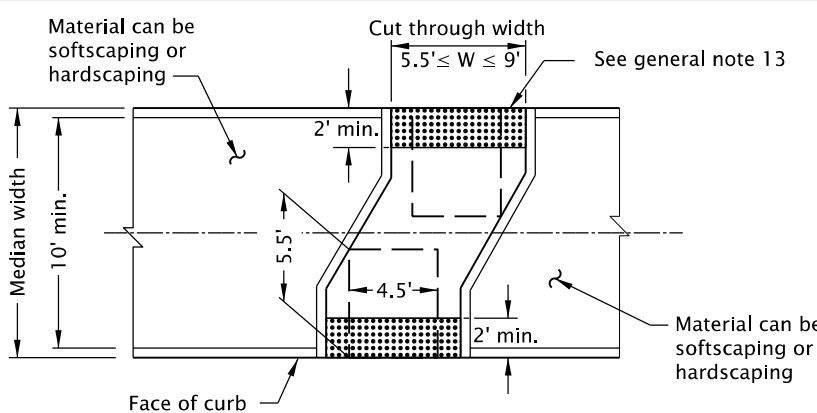


TYPE "A"



TYPE "B"

MEDIAN RAISED CROSSING
(P.C. conc. surface shown)



MEDIAN CUT-THROUGH CROSSING
(Asph. conc. surface shown)

LEGEND:

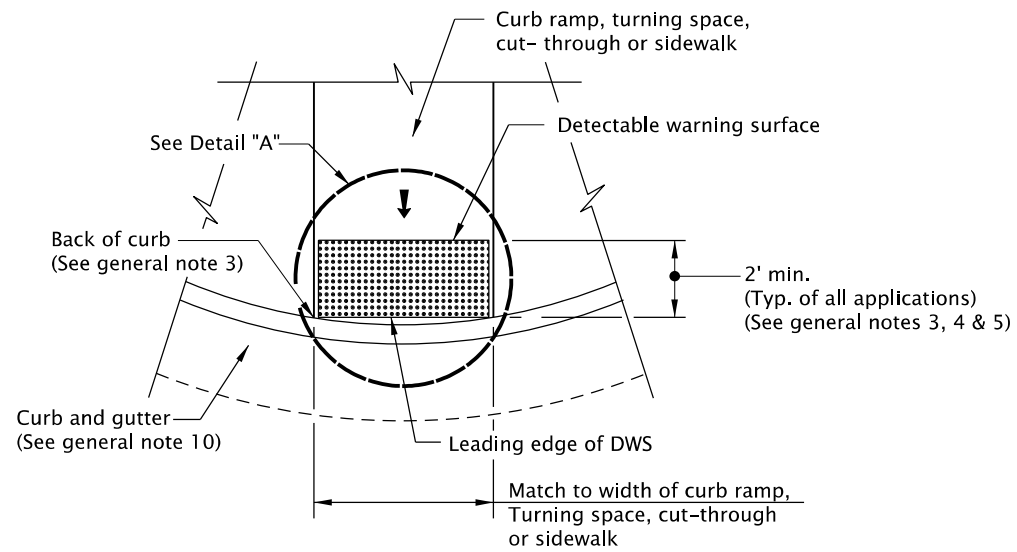
- Marked or intended crossing location
- Level area (Turning space/landing)
Unobstructed 4.5' x 4.5'
With obstruction 4.5' x 5.5' (Longer dimension in direction of pedestrian street crossing). For the purposes of this application, a max. 2.0% finished surface slope (for drainage) is considered level.
- Detectable warning surface
- Cross slope 1.5% max.
(Max. 2.0% finished surface slope)
- Running slope 7.5% max.
(Max. 8.3% finished surface slope)
- Flare slope
(Max. 10.0% finished surface slope)
- Zero curb exposure
- Clear space 4.5' x 5.5'
(Longer dimension in direction of pedestrian street crossing)

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.			
OREGON STANDARD DRAWINGS			
ACCESSIBLE ROUTE ISLANDS			
2021			
DATE	REVISION	DESCRIPTION	
07-2021		REVISED DETAILS AND NOTES	
11-2021		REVISED NOTES	
CALC.	N/A	SDR DATE	RD710
BOOK NO.		14-JAN-2022	

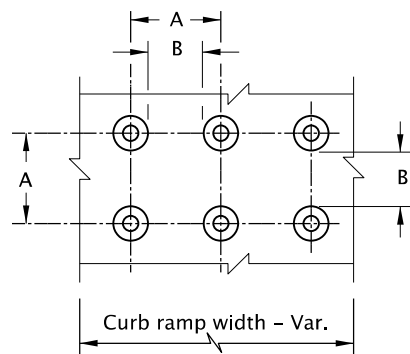
19-JUL-2021

RD902.dgn

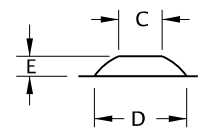


DETECTABLE WARNING SURFACE DETAIL

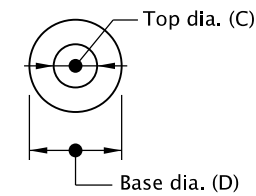
	A	B	C	D	E
MIN.	1.60"	0.65"	0.45"	0.90"	0.20"
MAX.	2.40"	--	0.91"	1.40"	0.20"



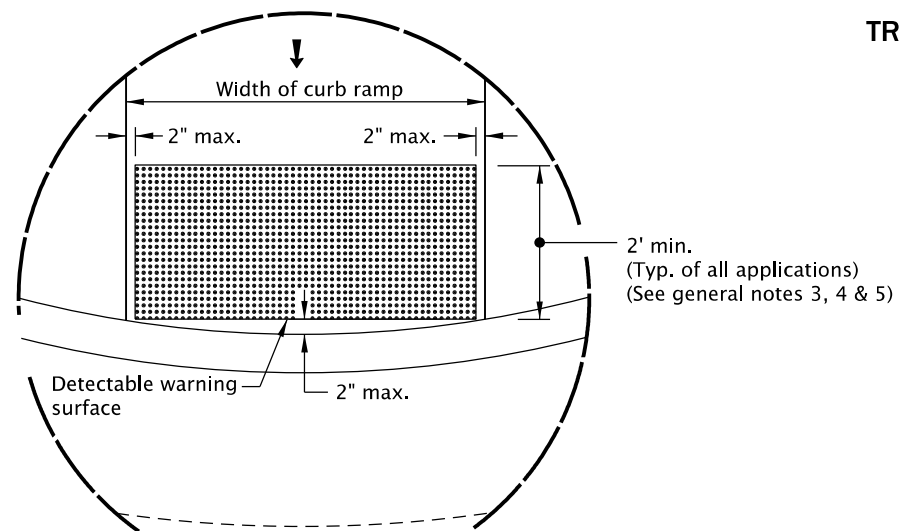
TRUNCATED DOME SPACING



TRUNCATED DOME



TRUNCATED DOME DETAILS






DETAIL "A"

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Detectable warning surface details & locations are based on applicable ODOT Standards.
2. See project plans for details not shown. See Std. Dwgs. RD700 & RD701 for curbs.
3. The detectable warning surface shall extend the full width of the curb ramp opening, shared use path, blended transition, turning space, or other roadway entrance as applicable. A gap of up to 2 inches on each side of the detectable warning surface is permitted (measured at the leading edge of the detectable warning surface panel as shown in Detail "A").
4. Detectable warning surface shall be placed at the back of curb for a minimum depth of 2 ft. in the direction of pedestrian travel at curb ramps that are adjacent to traffic. Detectable warning surface may be radial or rectangular, but must comply with the truncated dome size and spacing standards. Detectable warning surface across a grade break is prohibited. Place abutting panels within 1/4 inch of each other and install anchors, as specified by manufacturers, along cut edge.
5. Color to be safety yellow if no color specified in construction note. Alternative colors require a design exception on or along state highways.
6. Detectable warning surface shall be used in the following locations:
 - a) Curb ramps at street crossings.
 - b) Crossing islands (Accessible Route Islands).
 - c) Rail crossings.
7. Where public transportation stations (rail, bus, etc.) use platform boarding, detectable warning surface shall be placed along the full edge length of the station, when not protected by platform screens or guards, (see Std. Dwg. RD908).
8. Detectable warning surface shall not be used on the following locations:
 - a) End of sidewalk transitions that are not at a crosswalk, (see Std. Dwgs. RD950, RD952 and RD960).
 - b) Driveways, unless constructed with curb return or are signalized.
 - c) Parking lots, access aisles and passenger loading zones where curb ramp does not lead to vehicular way.
9. Where no curb is present, the detectable warning surface shall be placed at the edge of the roadway.
10. On or along state highways, curb and gutter is required at curb ramps.

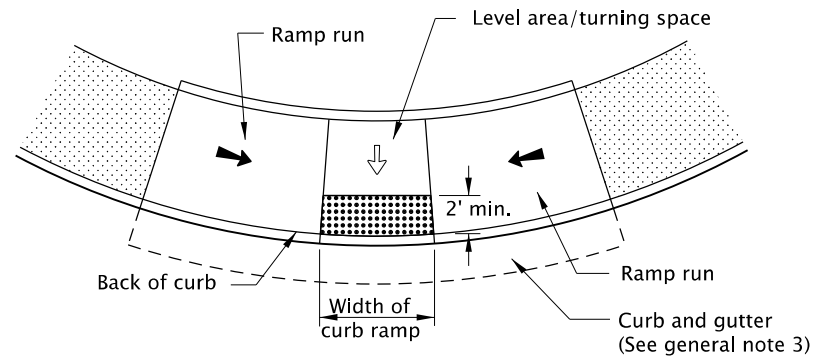
LEGEND:

-  Detectable warning surface
-  Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
-  Running slope 7.5% max. (Max. 8.3% finished surface slope)

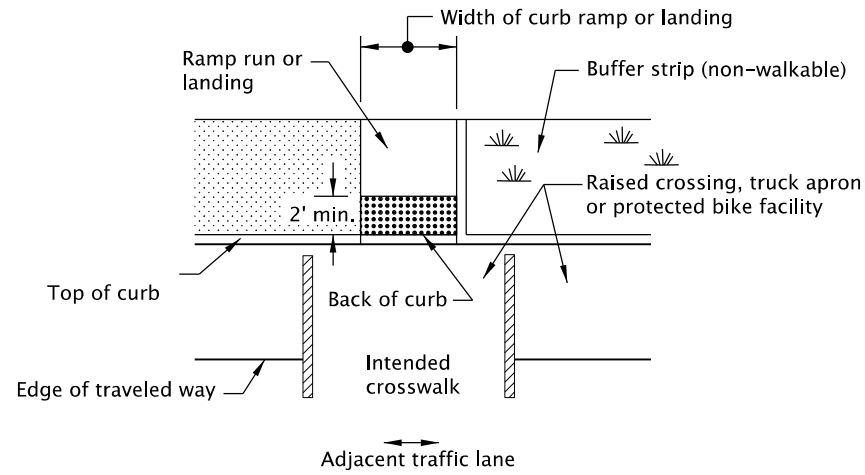
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.		
OREGON STANDARD DRAWINGS		
DETECTABLE WARNING SURFACE DETAILS		
2021		
DATE	REVISION	DESCRIPTION
07-2020	NEW DRAWING CREATED	
07-2021	REVISED DETAILS AND NOTES	
CALC. BOOK NO.	N/A	SDR DATE: 19-JUL-2021
		RD902

Effective Date: June 1, 2023 – November 30, 2023



PARALLEL CURB RAMP








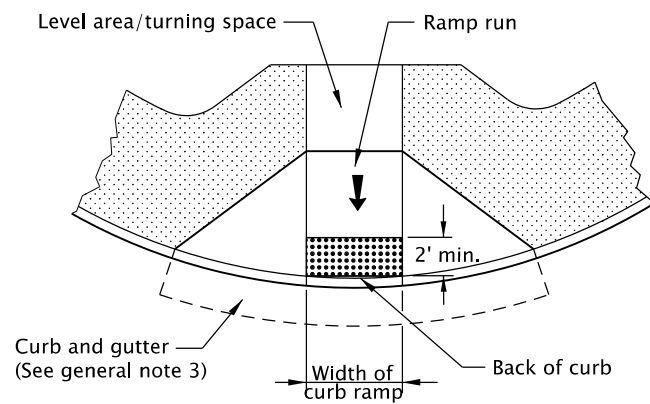
RAISED CROSSING, TRUCK APRON OR PROTECTED BIKE FACILITY

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

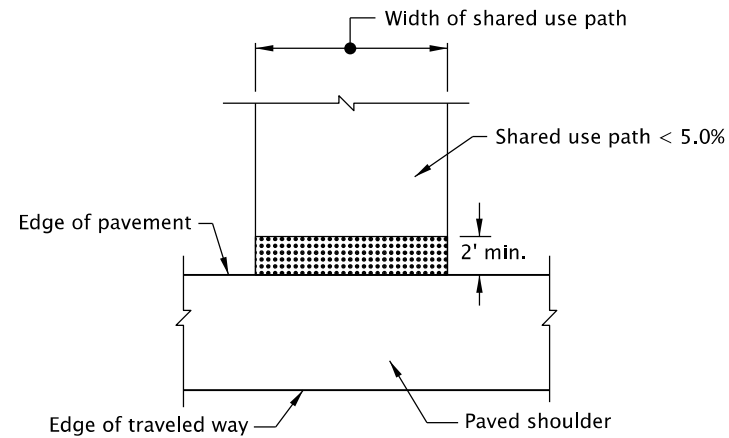
1. Detectable warning surface details & locations are based on applicable ODOT Standards.
2. See project plans for details not shown.
See Std. Dwgs. RD700 & RD701 for curbs.
See Std. Dwg. RD902 for detectable warning surface installation details.
3. On or along state highways, curb and gutter is required at curb ramps.
4. Detectable warning surface placement for perpendicular ramps vary as shown.

LEGEND:

-  Marked or intended crossing location
-  Sidewalk
-  Detectable warning surface
-  Cross slope 1.5% max.
(Max. 2.0% finished surface slope)
(Normal sidewalk cross slope)
-  Running slope 7.5% max.
(Max. 8.3% finished surface slope)



**PERPENDICULAR CURB RAMP
GRADE BREAK IN FRONT OF CURB**



SHARED-USE PATH CONNECTION

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

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

OREGON STANDARD DRAWINGS

DETECTABLE WARNING SURFACE PLACEMENT FOR CURB RAMPS

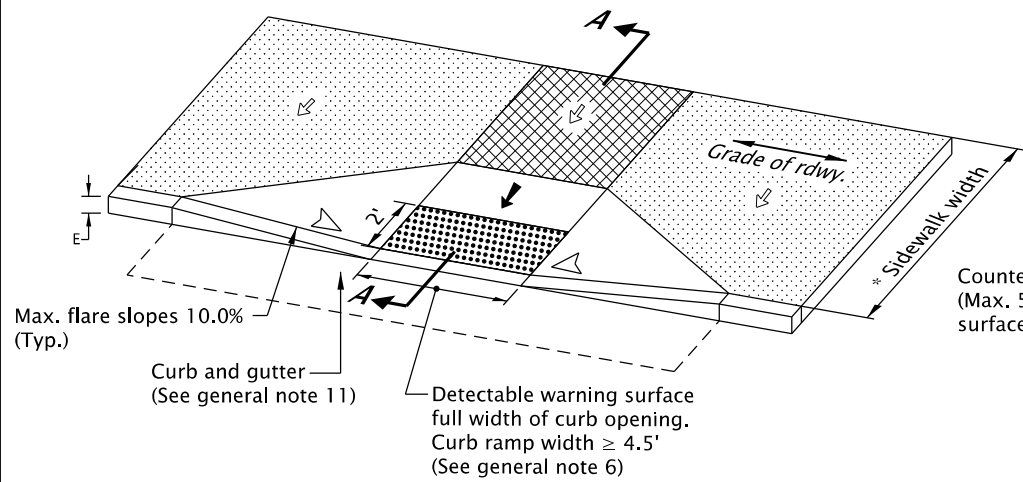
2021

DATE	REVISION	DESCRIPTION
07-2020	NEW DRAWING CREATED	
CALC. BOOK NO.	N/A	SDR DATE

RD904

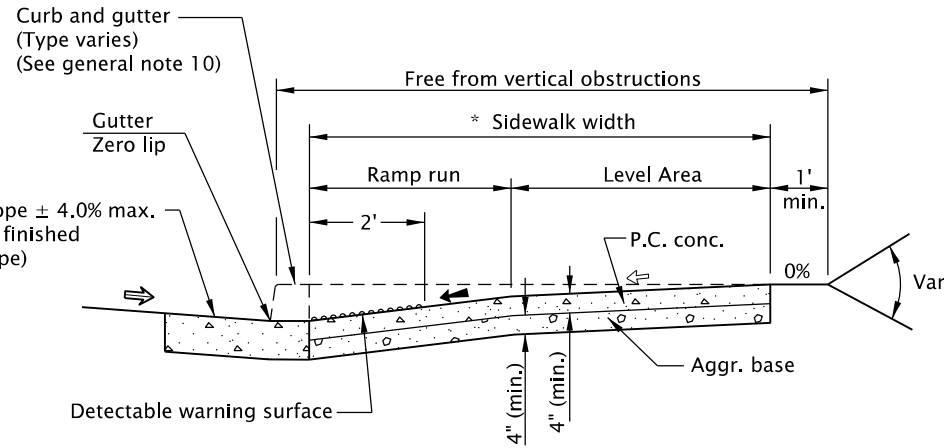
14-JAN-2022

RD910.dgn



PERPENDICULAR CURB RAMP DETAIL

(Use "Parallel Curb Ramp Detail" or "Combination Curb Ramp Detail" when reqd. turning space cannot be obtained)



SECTION A-A

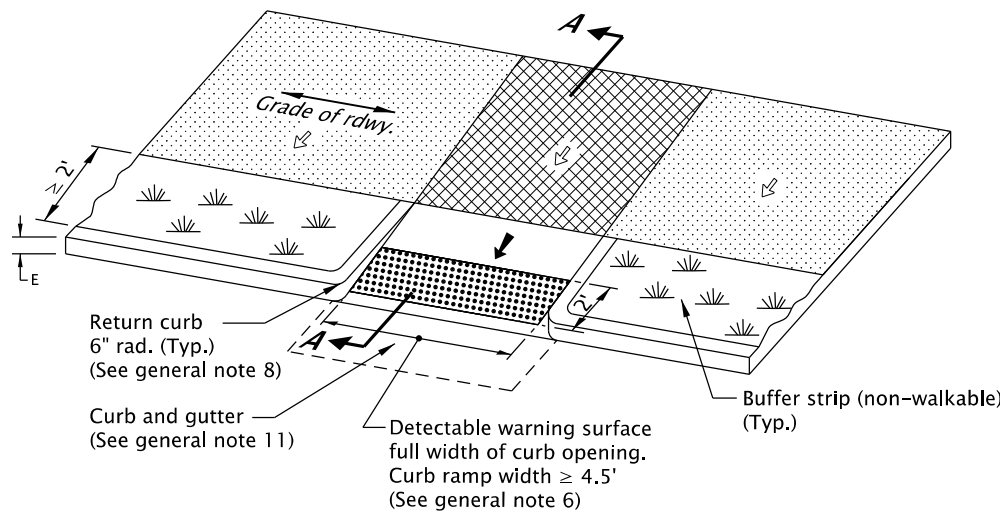
* NOTE: Minimum width of 14.25 feet sidewalk for E=7"

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

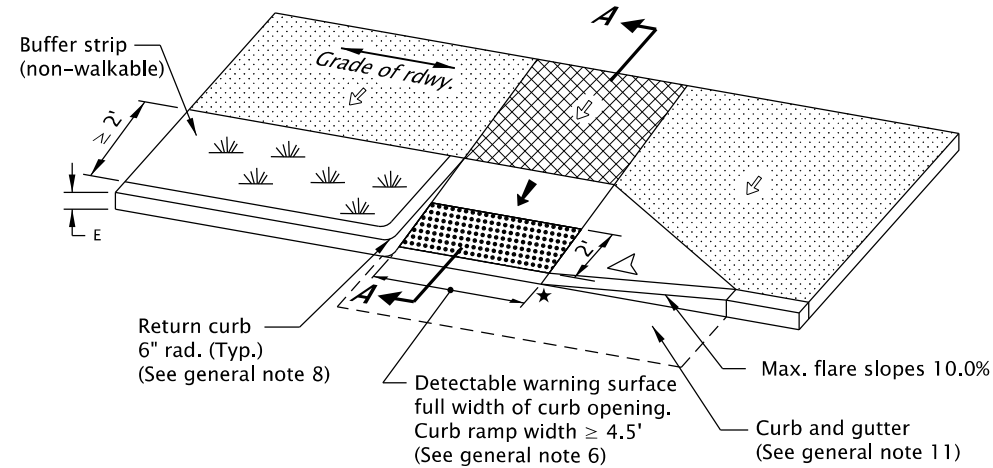
1. Curb ramp details are based on applicable ODOT Standards.
2. See Std. Dwgs. RD700 & RD701 for curbs. See Std. Dwgs. RD720 & RD721 for sidewalks. See Std. Dwgs. RD902 through RD908 for detectable warning surface installation details. See Std. Dwgs. RD912 through RD916 for curb ramp placement options.
3. Site conditions normally require a project specific design. See project plans for details not shown.
4. Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
5. Curb ramp slopes shown are relative to the true level horizon (zero bubble).
6. Place detectable warning surface at the back of curb for a minimum depth of 2' in the direction of pedestrian travel full width of curb ramp opening that is adjacent to traffic.
7. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.
8. Return curb may be provided in lieu of flared slope only if protected from traverse travel by landscaping, see Std. Dwg. RD721. Return curb shall not reduce width of approaching sidewalk.
9. Curb ramps for shared use paths intersecting a roadway shall be full width of path, excluding flares. When a curb ramp is used to provide bicycle access from a roadway to a sidewalk, the curb ramp opening will be ≥ 8' wide, (see Std. Dwg. RD909 for additional details).
10. Place an inlet at upstream side of curb ramp or perform other approved design mitigation. Check the gutter flow depth at curb ramp locations to assure that the design flood does not overtop the back of sidewalk.
11. On or along state highways, curb and gutter is required at curb ramps.

LEGEND:

- Sidewalk
- Detectable warning surface
- Level area (Turning space/landing)
Unobstructed 4.5' x 4.5'
With obstruction 4.5' x 5.5' (Longer dimension in direction of pedestrian street crossing).
For the purposes of this application, a max. 2.0% finished surface slope (for drainage) measured perpendicular in two directions is considered level.
- Cross slope 1.5% max.
(Max. 2.0% finished surface slope)
(Normal sidewalk cross slope)
- Running slope 7.5% max.
(Max. 8.3% finished surface slope)
- Counter slope 4.0% max. ascending or descending,
(Max. 5.0% finished surface slope)
Slope as required for drainage
- Flare slope
(Max. 10% finished surface slope)



THROUGH BUFFER STRIP



WITH SINGLE FLARE

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

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

OREGON STANDARD DRAWINGS

PERPENDICULAR CURB RAMP

2021

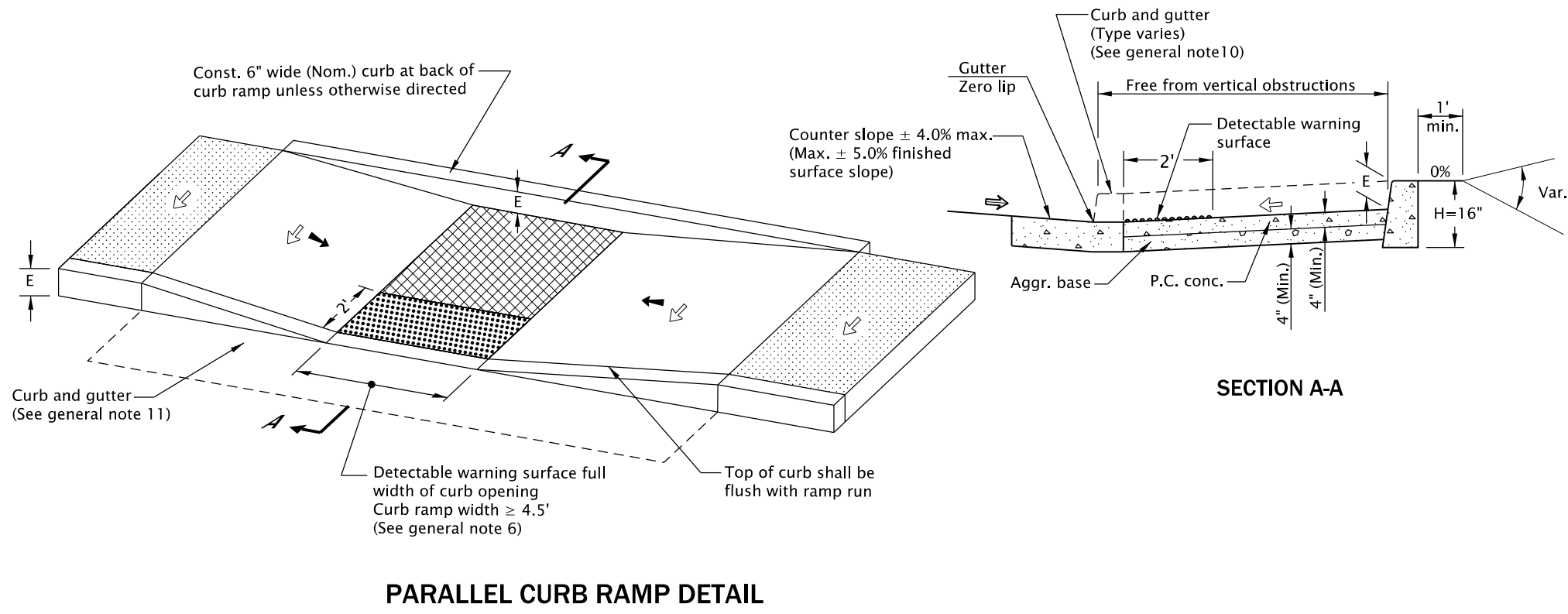
DATE	REVISION	DESCRIPTION
12-2021	NEW DRAWING CREATED	
01-2022	REVISED NOTES	
CALC. BOOK NO. ---	N/A ---	SDR DATE: 14-JAN-2022

RD910

Effective Date: June 1, 2023 – November 30, 2023

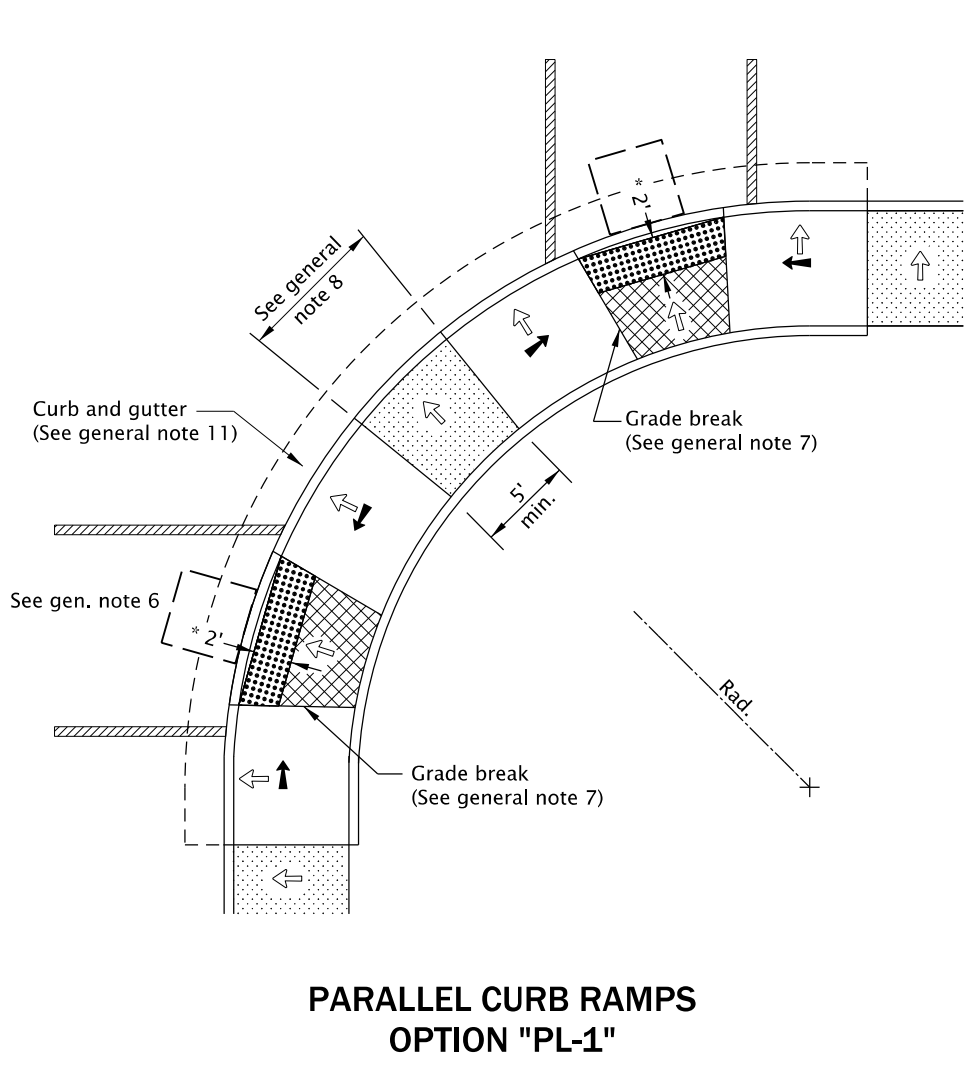
14-JAN-2022

RD920.dgn

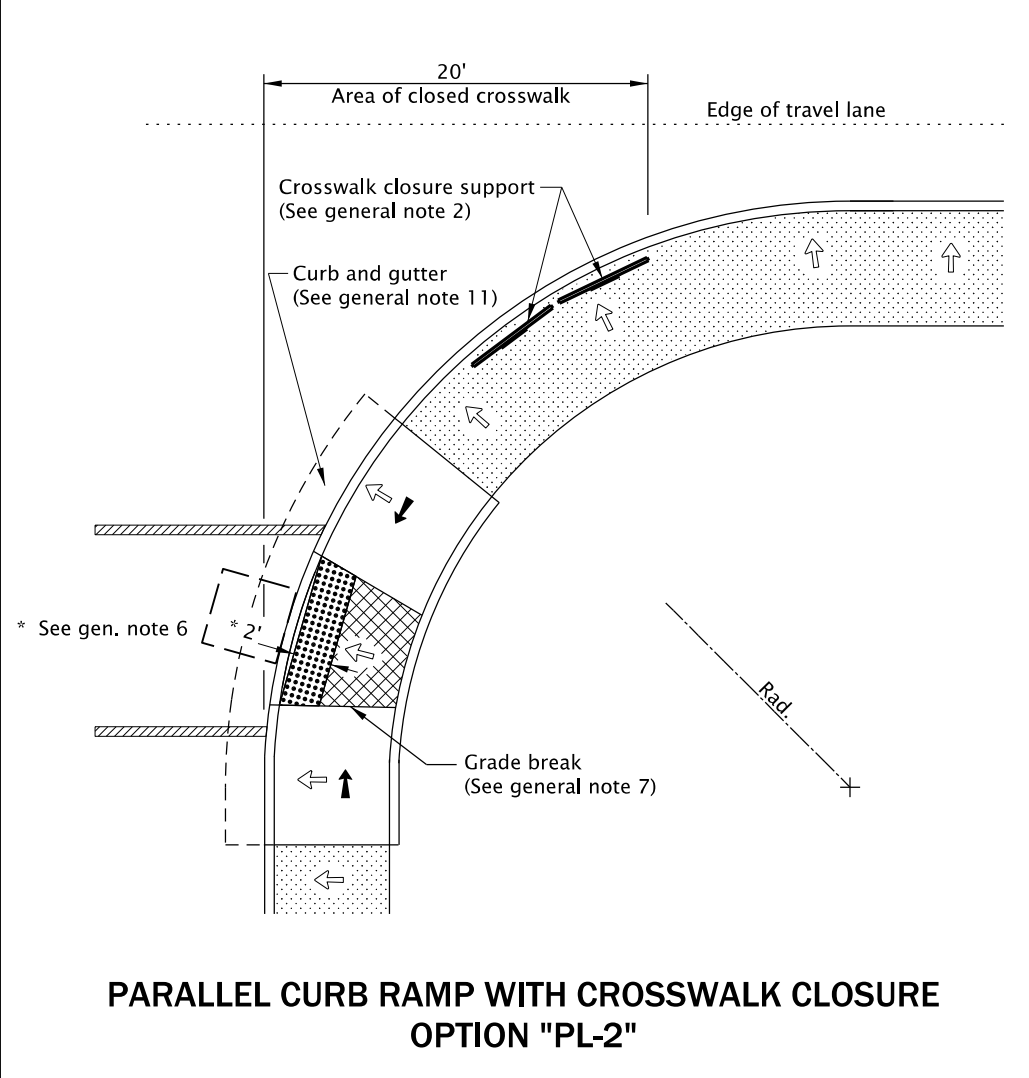


- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
1. Curb ramp details are based on applicable ODOT Standards.
 2. See Std. Dwgs. RD700 & RD701 for curbs. See Std. Dwgs. RD720 & RD721 for sidewalks. See Std. Dwgs. RD902 through RD908 for detectable warning surface installation details. See Std. Dwg. TM240 for crosswalk closure detail.
 3. Site conditions normally require a project specific design. See project plans for details not shown.
 4. Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
 5. Curb ramp slopes shown are relative to the true level horizon (zero bubble).
 6. Place detectable warning surface at the back of curb for a minimum depth of 2' in the direction of pedestrian travel full width of curb ramp opening that is adjacent to traffic.
 7. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.
 8. When 2 ramp runs are immediately adjacent, the curb exposure (E) between the adjacent side may range between 3" and full design exposure.
 9. Curb ramps for shared use paths intersecting a roadway shall be full width of path, excluding flares. When a curb ramp is used to provide bicycle access from a roadway to a sidewalk, the curb ramp opening will be ≥ 8' wide, (see Std. Dwg. RD909 for additional details).
 10. Place an inlet at upstream side of curb ramp or perform other approved design mitigation. Check the gutter flow depth at curb ramp locations to assure that the design flood does not overtop the back of sidewalk.
 11. On or along state highways, curb and gutter is required at curb ramps.

PARALLEL CURB RAMP DETAIL



PARALLEL CURB RAMPS OPTION "PL-1"



PARALLEL CURB RAMP WITH CROSSWALK CLOSURE OPTION "PL-2"

LEGEND:

- Sidewalk
- Detectable warning surface
- Level area (Turning space/landing)
Unobstructed 4.5' x 4.5'
With obstruction 4.5' x 5.5' (Longer dimension in direction of pedestrian street crossing).
For the purposes of this application, a max. 2.0% finished surface slope (for drainage) measured perpendicular in two directions is considered level.
- Cross slope 1.5% max.
(Max. 2.0% finished surface slope)
(Normal sidewalk cross slope)
- Running slope 7.5% max.
(Max. 8.3% finished surface slope)
- Counter slope 4.0% max. ascending or descending,
(Max. 5.0% finished surface slope)
Slope as required for drainage
- 4'x4' clear space

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

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

OREGON STANDARD DRAWINGS

PARALLEL CURB RAMP

2021

DATE	REVISION	DESCRIPTION
07-2020	NEW DRAWING CREATED	
07-2021	REVISED DETAIL AND NOTES	
01-2022	REVISED NOTES	

CALC. BOOK NO. ---	N/A ---	SDR DATE: 14-JAN-2022	RD920
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







14-JAN-2022

RD930.dgn

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

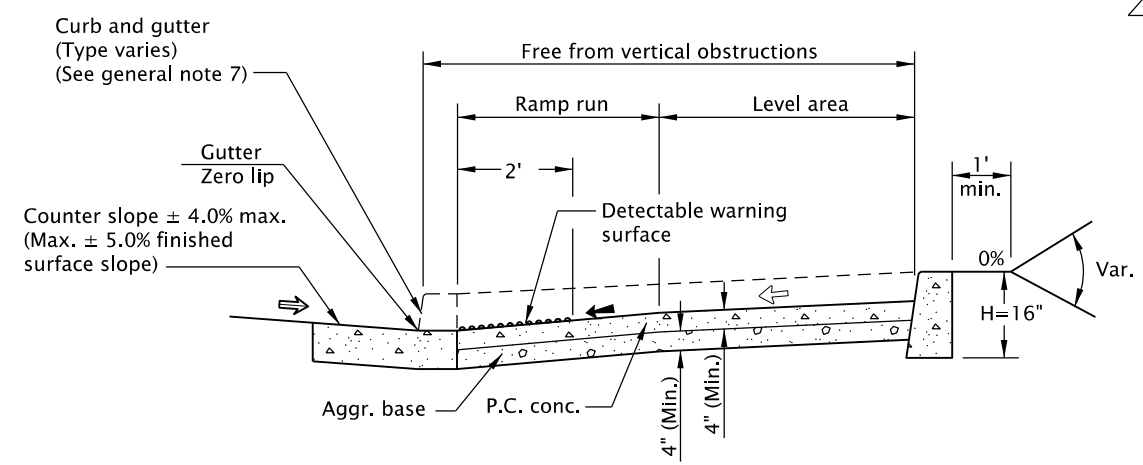
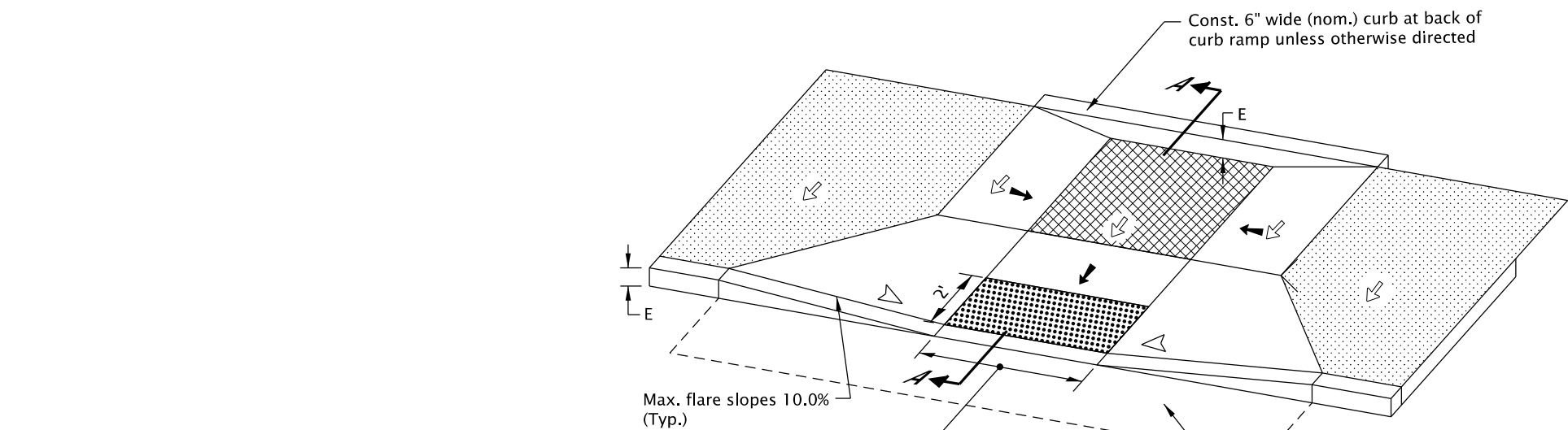
1. Curb ramp details are based on applicable ODOT Standards.
2. See project plans for details not shown.
See Std. Dwgs. RD700 & RD701 for curbs.
See Std. Dwgs. RD720 & RD721 for sidewalks.
See Std. Dwgs. RD902 through RD908 for detectable warning surface installation details.
3. Site conditions normally require a project specific design. See project plans for details not shown.
4. Tooled dummy joints are required at all curb ramp slope break lines, (see Std. Dwg. RD722).
5. Curb ramp slopes shown are relative to the true level horizon (zero bubble).
6. Place detectable warning surface at the back of curb for a minimum depth of 2' in the direction of pedestrian travel full width of curb ramp opening that is adjacent to traffic.
7. Place an inlet at upstream side of curb ramp or perform other approved design mitigation. Check the gutter flow depth at curb ramp locations to assure that the design flood does not overtop the back of sidewalk.
8. Return curb may be provided in lieu of flared slope only if protected from traverse travel by landscaping, see Std. Dwg. RD721. Return curb shall not reduce width of approaching sidewalk.
9. Curb ramps for shared use paths intersecting a roadway shall be full width of path, excluding flares. When a curb ramp is used to provide bicycle access from a roadway to a sidewalk, the curb ramp opening will be $\geq 8'$ wide, (see Std. Dwg. RD909 for additional details).
10. On or along state highways, curb and gutter is required at curb ramps.
11. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.

LEGEND:

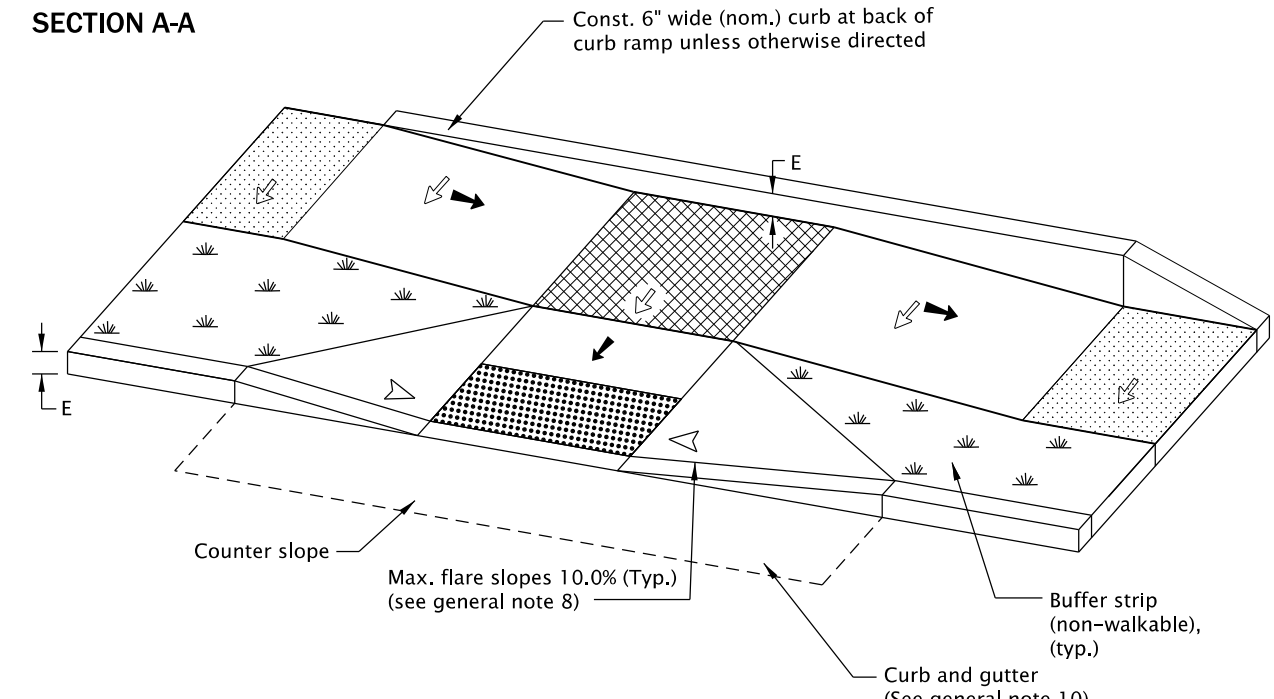
-  Marked or intended crossing location
-  Sidewalk
-  Detectable warning surface
-  Level area (Turning space/landing)
Unobstructed 4.5' x 4.5'
With obstruction 4.5' x 5.5' (Longer dimension in direction of pedestrian street crossing).
For the purposes of this application, a max. 2.0% finished surface slope (for drainage) measured perpendicular in two directions is considered level.
-  Cross slope 1.5% max.
(Max. 2.0% finished surface slope)
(Normal sidewalk cross slope)
-  Running slope 7.5% max.
(Max. 8.3% finished surface slope)
-  Counter slope 4.0% max. ascending or descending,
(Max. 5.0% finished surface slope)
Slope as required for drainage
-  Flare slope
(Max. 10% finished surface slope)

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

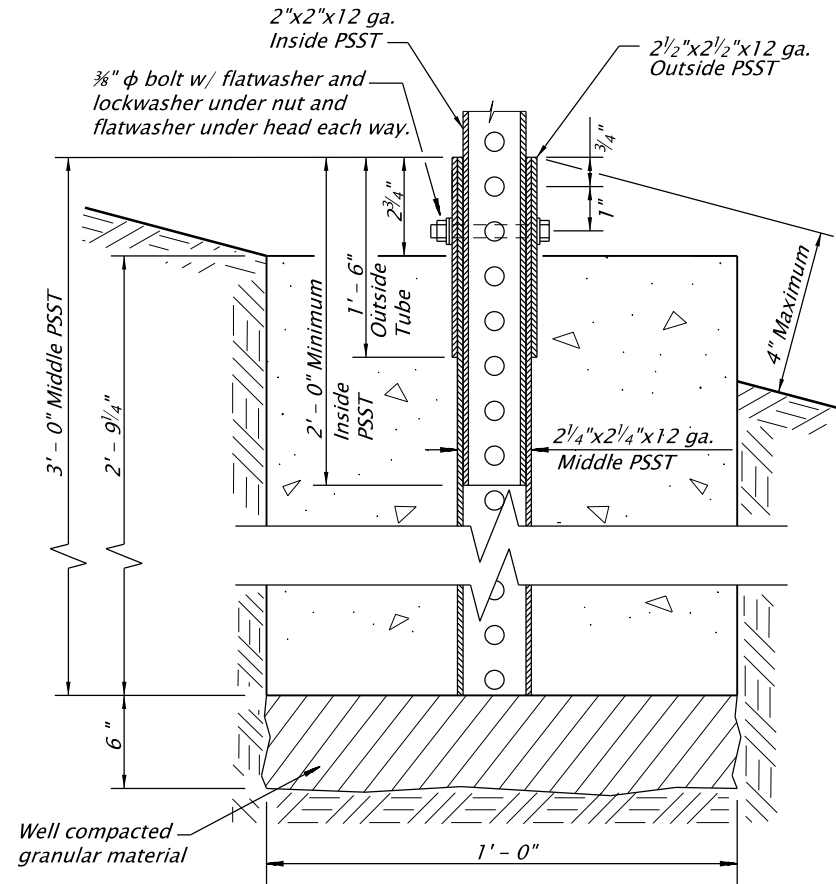
All materials shall be in accordance with the current Oregon Standard Specifications.	
OREGON STANDARD DRAWINGS	
COMBINATION CURB RAMP	
2021	
DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
07-2021	REVISED DETAIL AND NOTES
01-2022	REVISED NOTES
CALC. BOOK NO.	SDR DATE
N/A	14-JAN-2022
RD930	



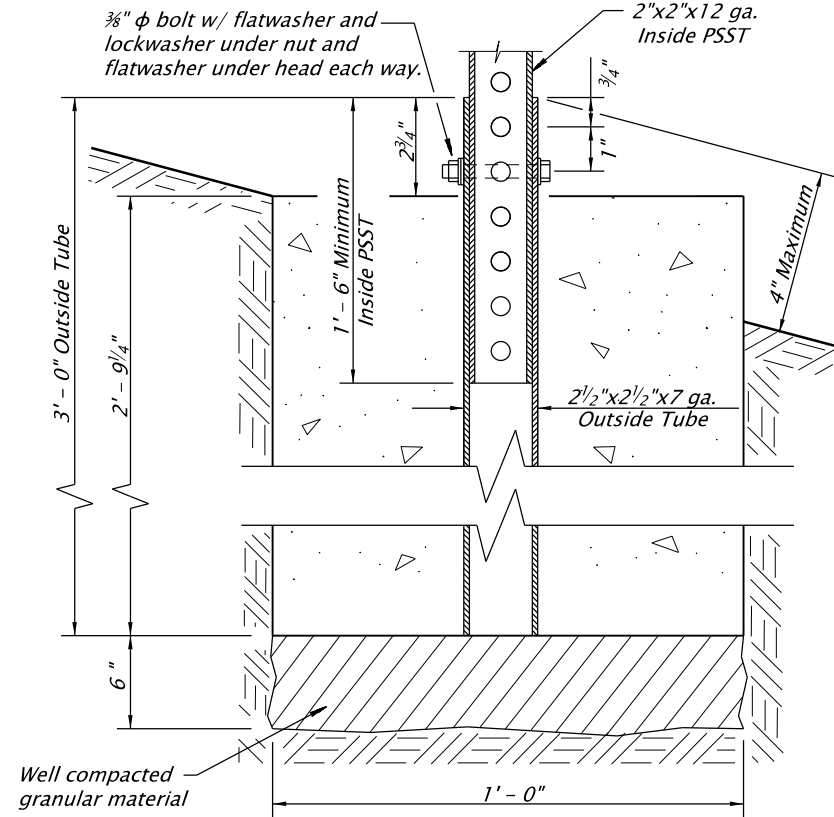
SECTION A-A



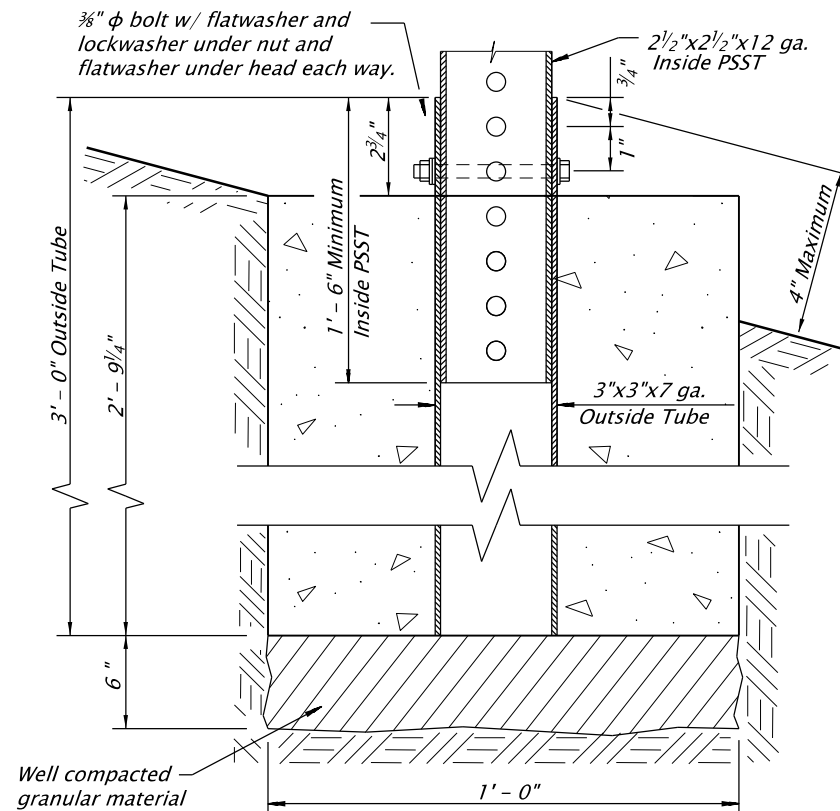
COMBINATION CURB RAMP DETAIL



2" ANCHOR DETAIL
No scale



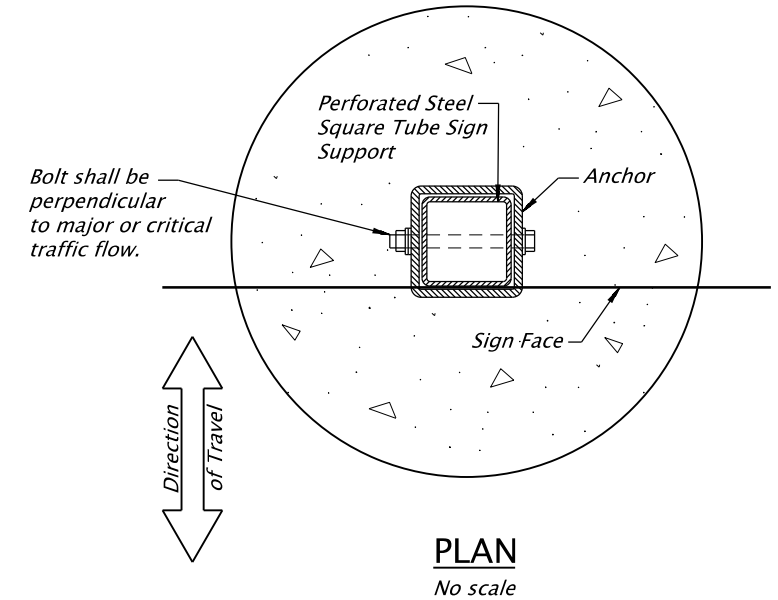
2" OPTIONAL ANCHOR DETAIL
No scale



2 1/2" ANCHOR DETAIL
No scale

General Notes:

1. Material grade for base hardware connection shall be according to the manufacturer's recommendation and based on crash testing.
2. Anchor steel shall be hot dipped galvanized or approved equal.
3. Footing concrete shall be Commercial Grade Concrete ($f_c = 3000$ psi) per Specification 00440. The CGC mixture may be accepted at the site of placement according to 00440.14.
4. The estimated concrete volume is .09 cubic yards.



PLAN
No scale

Accompanied by dwgs. TM681, TM688

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

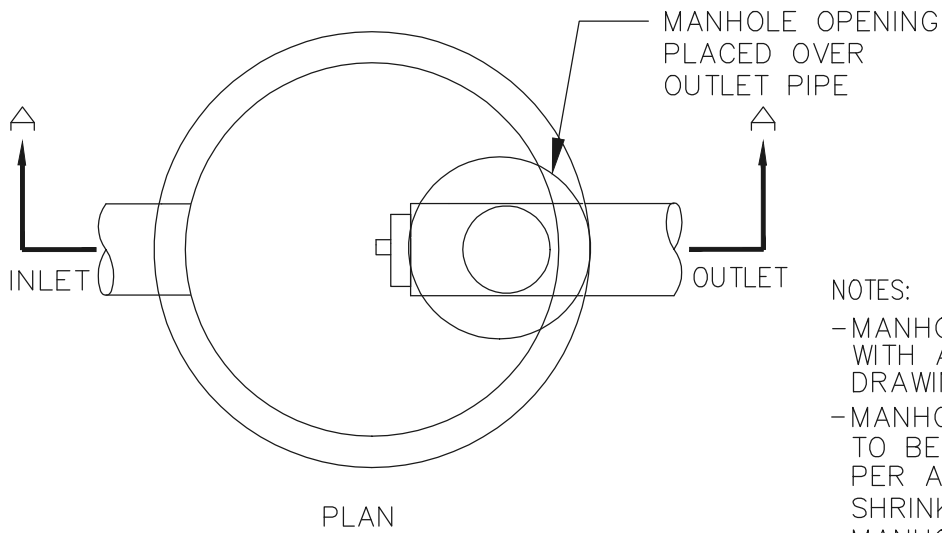
All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS
PERFORATED STEEL SQUARE TUBE (PSST) ANCHOR FOUNDATION

2021

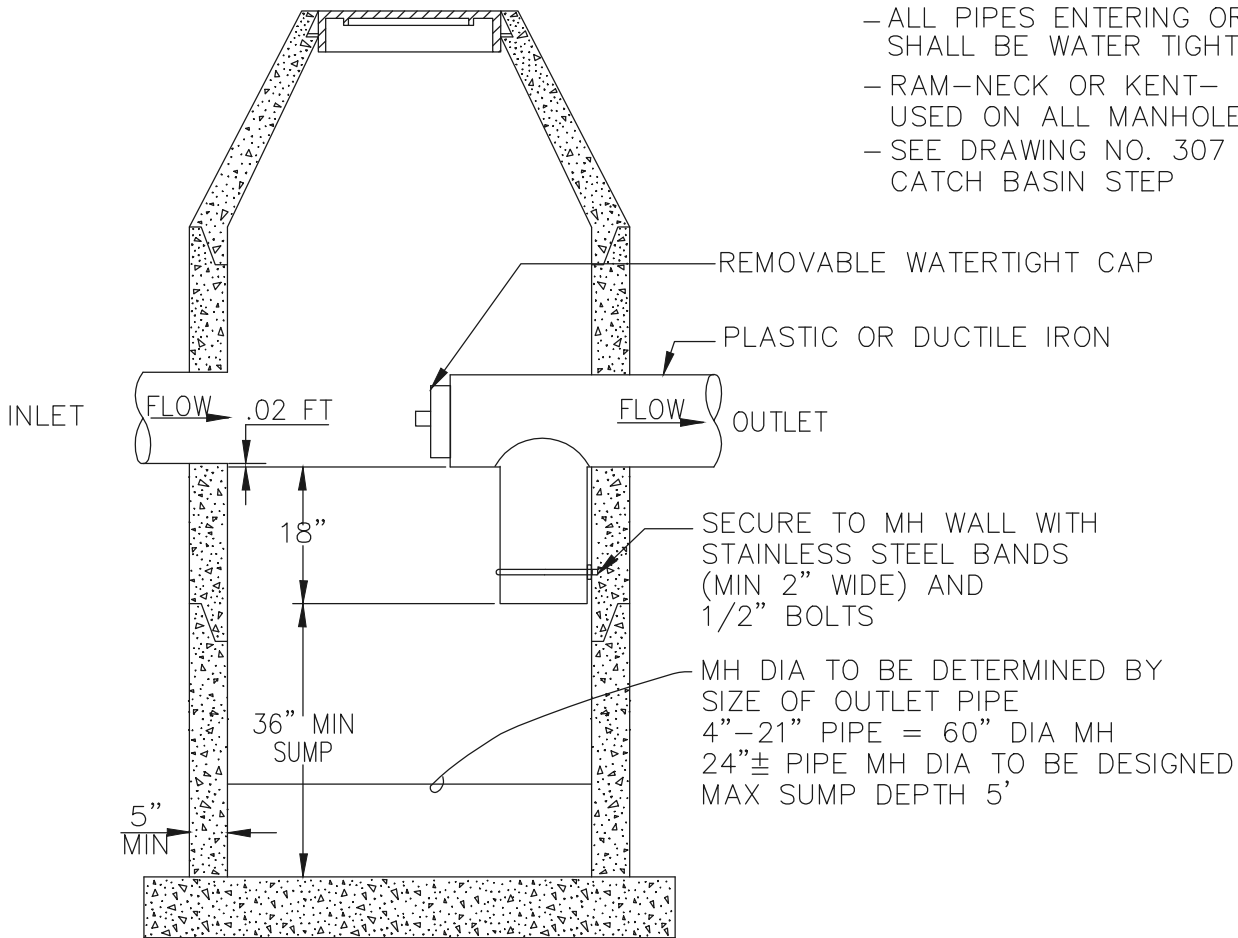
DATE	REVISION	DESCRIPTION

CALC. BOOK NO. 5752 SDR DATE 06-JAN-2012 **TM687**



NOTES:

- MANHOLE DESIGN TO CONFORM WITH ASTM C-478 AND DRAWING NO. 301.
- MANHOLE PIPE CONNECTION TO BE A LOK TYPE OR EQUAL PER ASTM C-923 OR NON-SHRINKING GROUT
- MANHOLE FRAME AND COVER AS SPECIFIED SEE DRAWING 305
- ALL PIPES ENTERING OR EXITING SHALL BE WATER TIGHT
- RAM-NECK OR KENT- SEAL TO BE USED ON ALL MANHOLE SECTIONS
- SEE DRAWING NO. 307 MANHOLE/ CATCH BASIN STEP



SECTION A-A

SUMP VOLUME REQUIREMENTS

SINGLE FAMILY RESIDENTIAL	3.5 CF/ACRE
MULTI FAMILY RESIDENTIAL	22.0 CF/ACRE
COMMERCIAL/INDUSTRIAL	94.0 CF/ACRE

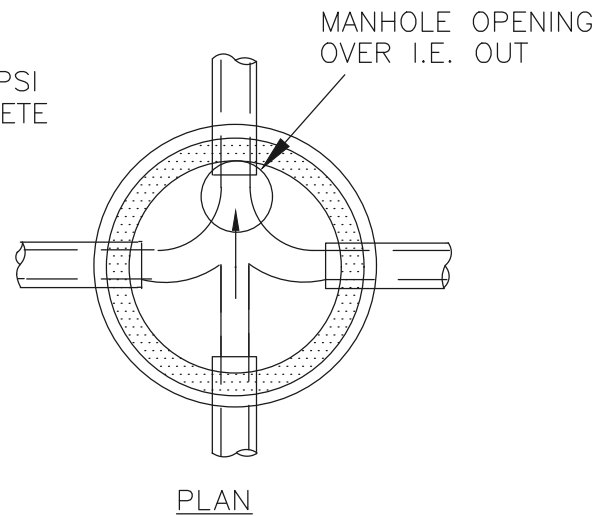
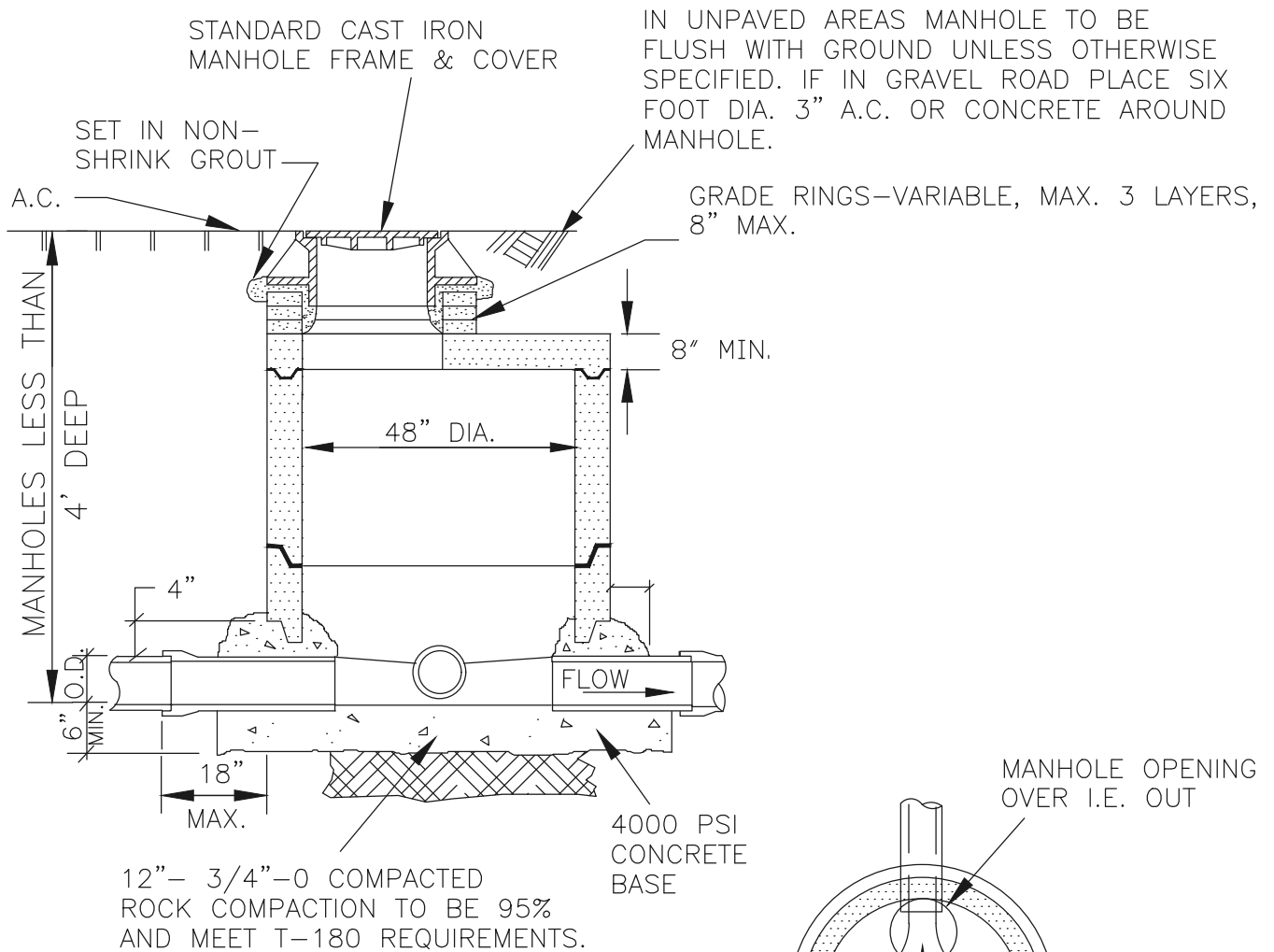
CITY OF CANBY

POLLUTION CONTROL MANHOLE

BY: JT

DATE: 12-06-19

DWG NO: 201



ALL JOINTS SHALL BE SEALED WITH PREFORMED PLASTIC OR RUBBER RING TO FORM A WATERTIGHT SEAL. GROUTED JOINTS MAY BE USED FOR STORM DRAIN SYSTEMS.

ALL PRECAST SECTIONS AND POURED CONCRETE BASES SHALL CONFORM TO CITY STANDARD SPECIFICATIONS.

ALL MANHOLES SHALL HAVE A 12" MIN. 24" MAX. BOTTOM RISER, TO BE BEDDED AS THE CONCRETE IN THE BASE TAKES ITS INITIAL SET.

USE PRECAST BASE IN TRAVELED STREETS, UNLESS OVER EXISTING LINE. USE STANDARD MANHOLE FOR DEPTHS GREATER THAN 5 FT.

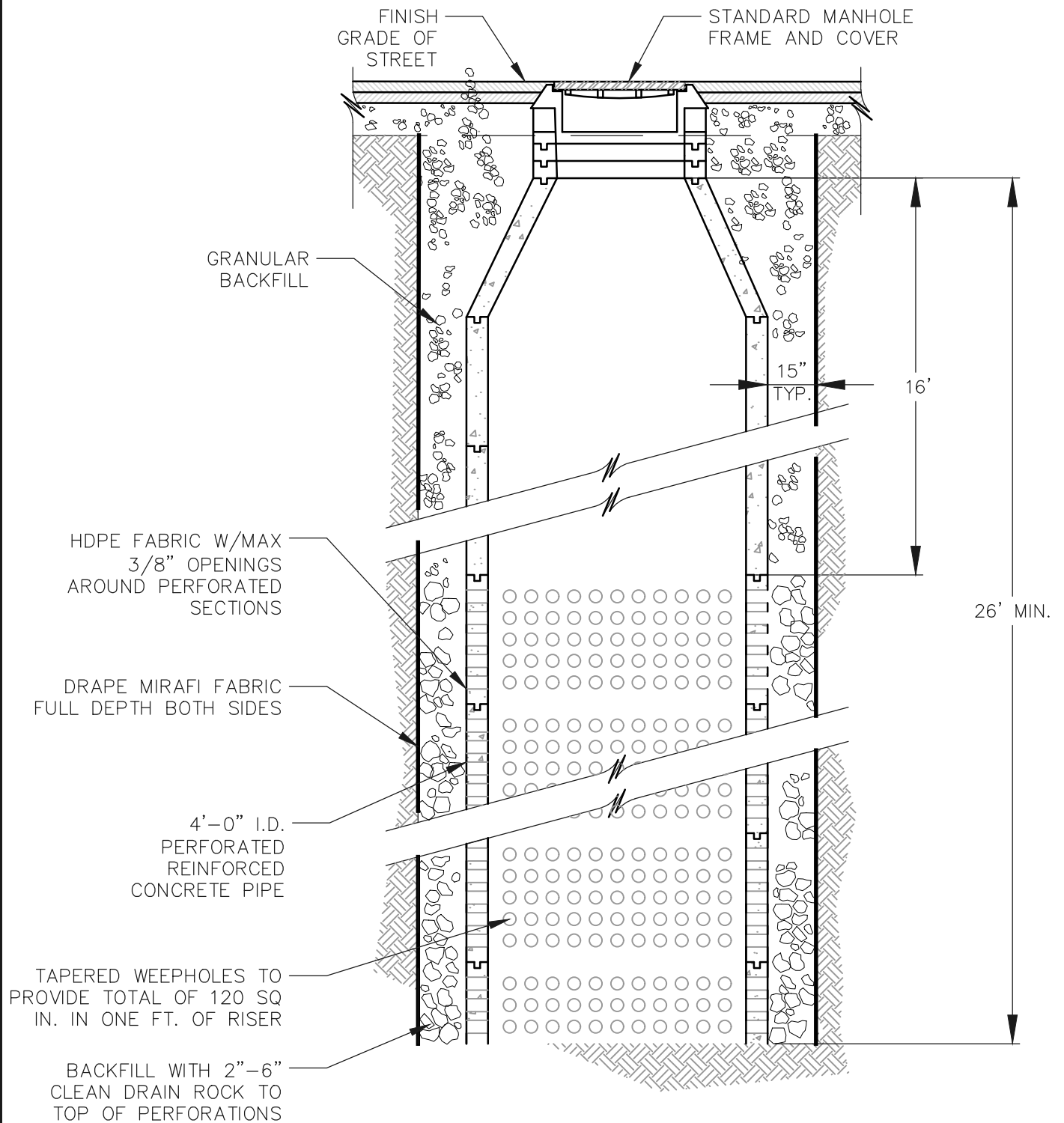
CITY OF CANBY

**SHALLOW MANHOLE -
STORM AND SANITARY SEWER**

BY: JT

DATE: 12-06-19

DWG NO: 203



NOTE:

AFTER COMPLETION, CONTRACTOR SHALL POUR 3,000 GALLONS OF WATER INTO THE DRYWELL, AS WELL AS AN ADDITIONAL 3,000 GALLONS OUTSIDE OF THE WELL WITHIN 5 MINUTE INTERVAL. THIS SIMULATES A TYPICAL STORM.

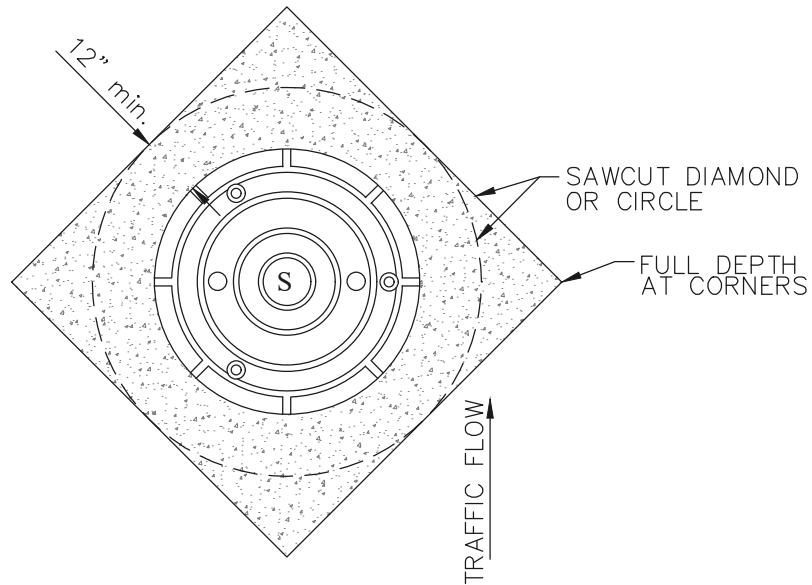
48" DIAMETER DRYWELL

CITY OF CANBY

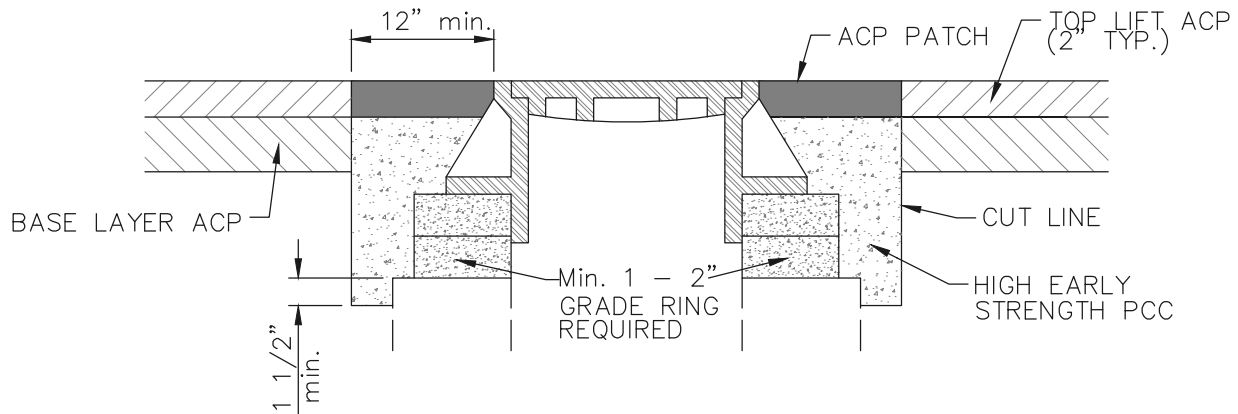
BY: JT

DATE: 12-06-19

DWG NO: 204



PLAN VIEW



SECTION VIEW

STEP 1: SAWCUT AND REMOVE PAVEMENT AROUND MANHOLE 12" MINIMUM FROM MANHOLE

STEP 2: RAISE MANHOLE FRAME AND COVER USING CONCRETE RINGS AND APPROVED MECHANICAL ADJUSTMENT DEVICES TO FINISH GRADE MATCHING PROFILE AND CROSS SLOPE

STEP 3: BACKFILL WITH HIGH EARLY STRENGTH PCC AND ACP TO DEPTHS AS DIRECTED

STEP 4: APPLY SAND SEAL ON SURFACE AND SURFACE JOINT.

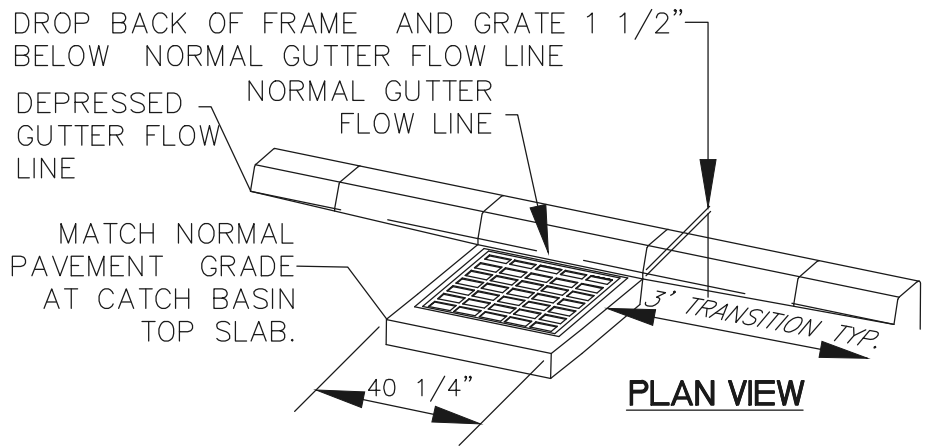
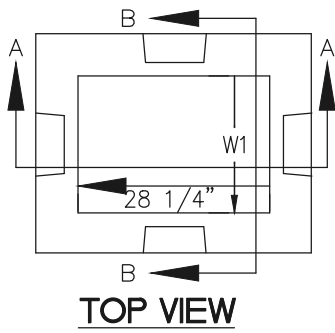
CITY OF CANBY

**MANHOLE ADJUSTMENT
IN ASPHALT ROADWAY**

BY: JT

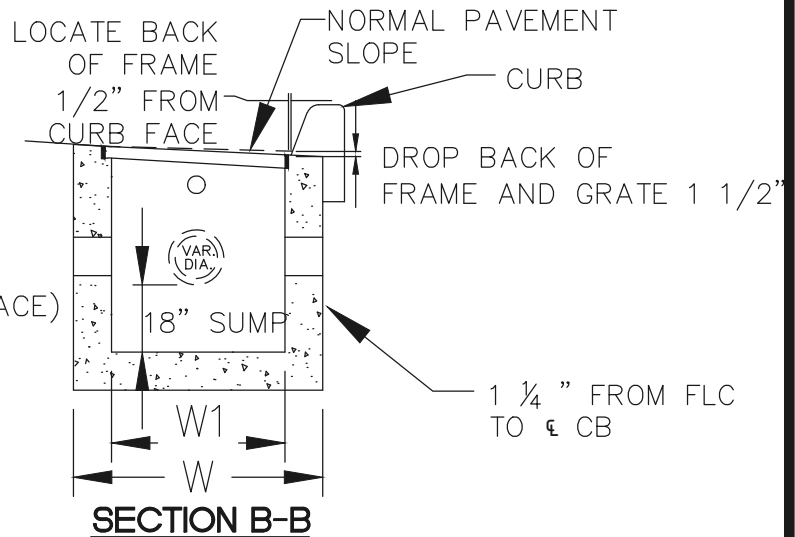
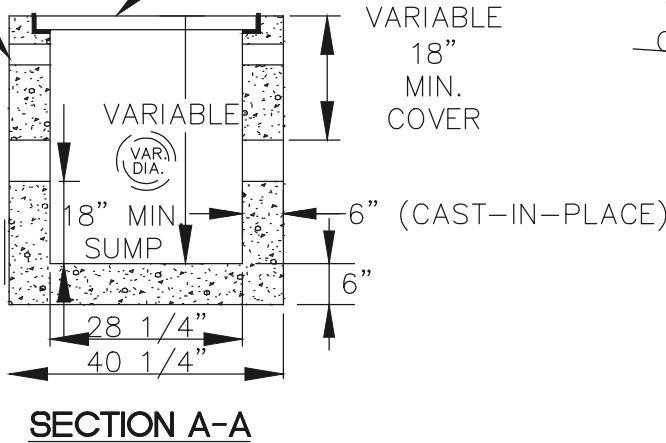
DATE: 12-06-19

DWG NO: 206



OPTIONAL:
INSTALL 3" WEEP
HOLES WITH FIELD
INSTALLED MESH
SCREEN FOR SUB-
GRADE DRAINAGE

STEEL FRAME CAST IN
TOP SLAB OR BASIN (IF
TOP SLAB IS
CAST-IN-PLACE)



INLET TYPE	W	W	X
G-2	3'-3 3/8"	2' 3 3/8"	16 9/16"

CATCH BASIN NOTES:

1. CONCRETE STRENGTH SHALL BE 3000 PSI.
2. PRECAST BASE WALLS SHALL BE A MINIMUM 4" THICK. CAST-IN-PLACE BASE WALLS SHALL BE 6" THICK.
3. THIS OPTION IS APPROVAL BASED BY THE CITY'S PUBLIC WORKS DEPARTMENT.

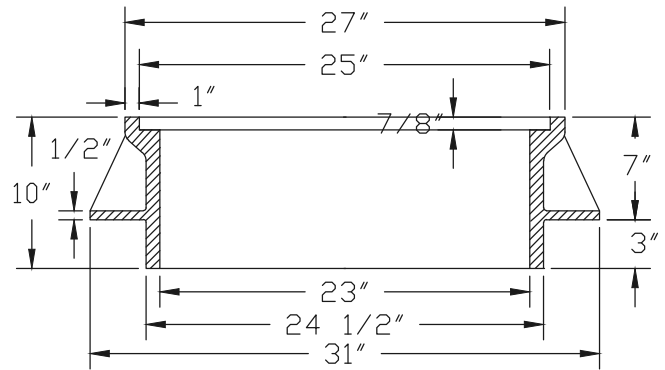
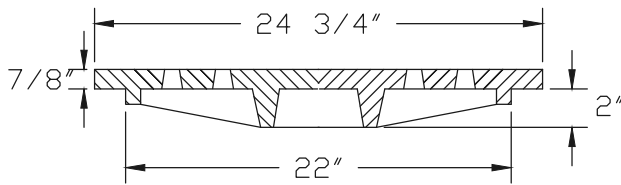
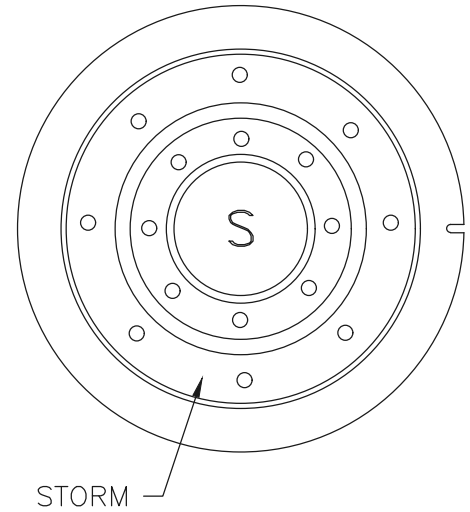
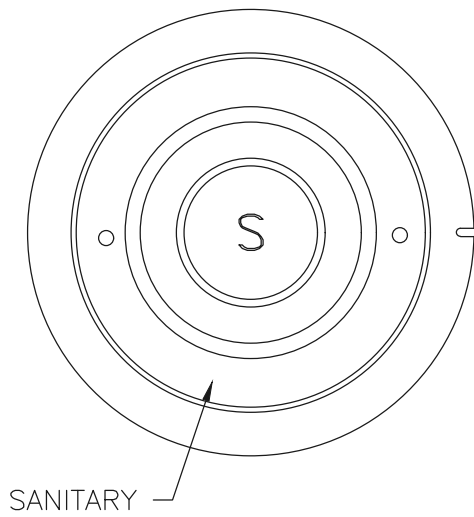
CITY OF CANBY

TYPE G-2 CATCH BASIN

BY: JT

DATE: 12-06-19

DWG NO: 207



CAST IRON STANDARD
APPROX. WT. - 387 LBS.

NOTES:

1. COVER AND FRAME TO BE MACHINED FOR TRUE BEARING.
2. MATERIAL SHALL BE GREY CAST IRON A.S.T.M. A-48 CLASS 30.
3. SUBURBAN FRAMES ARE ONLY AUTHORIZED TO BE USED IN NON-VEHICULAR AREAS.

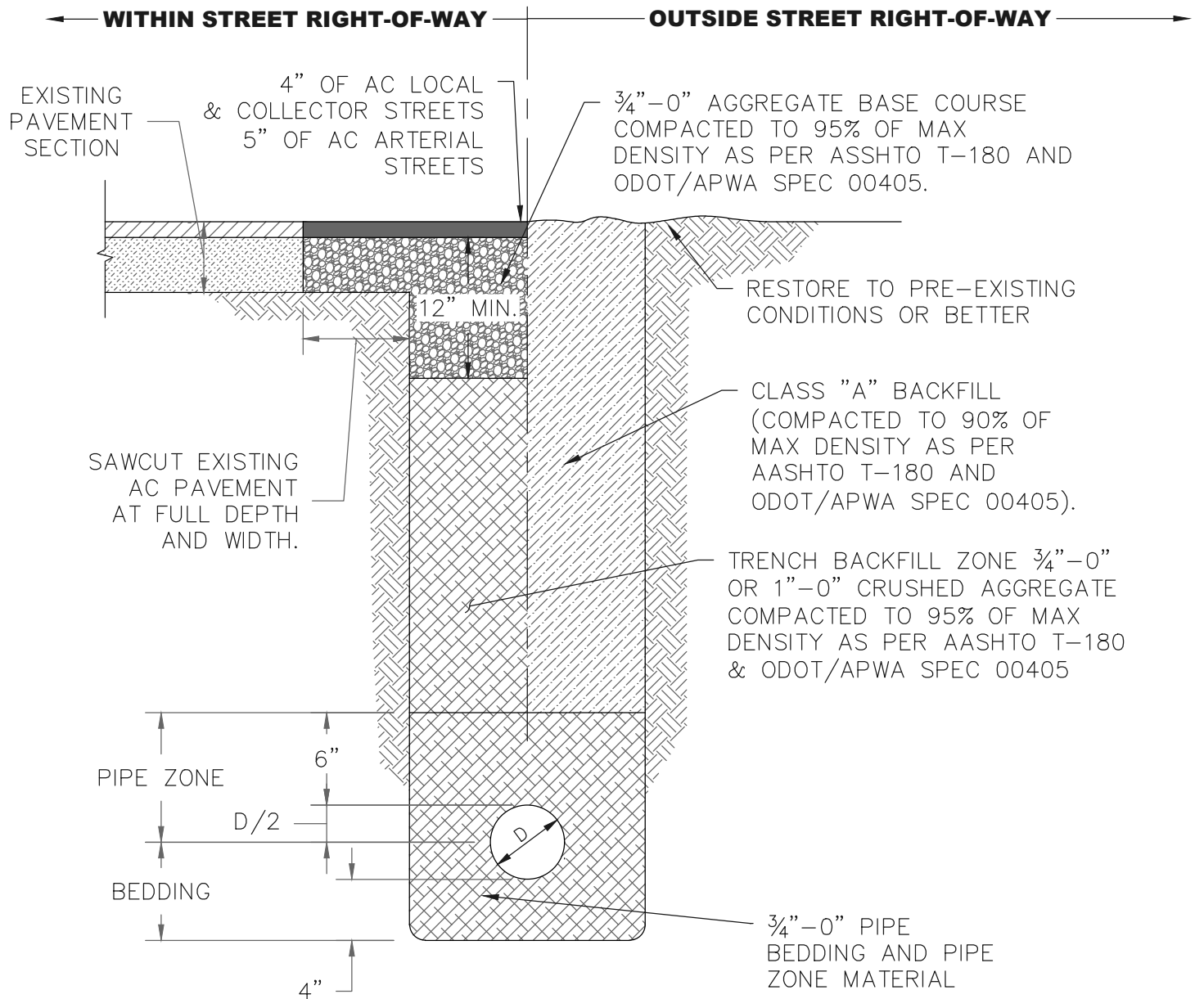
CITY OF CANBY

**MANHOLE FRAMES & COVERS -
STORM & SANITARY SEWER**

BY: JT

DATE: 12-06-19

DWG NO: 208



NOTES:

1. SAWCUT EDGES TO BE TACKED WITH EMULSIFIED ASPHALT.
2. ASPHALT JOINTS SHALL BE SAND SEALED WITH CRS-1 OR CRS-2 EMULSIFIED ASPHALT OR EQUIVALENT.

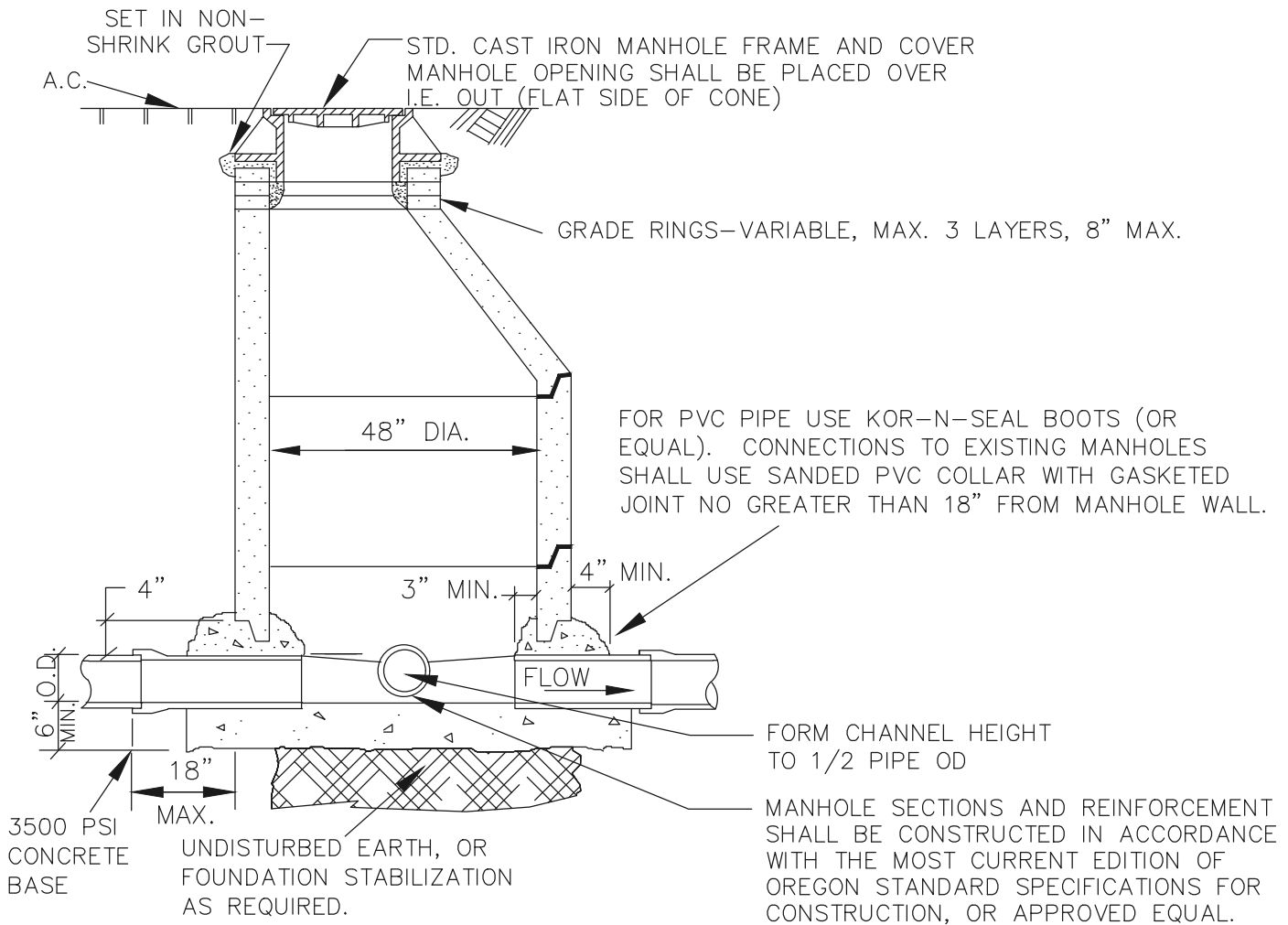
CITY OF CANBY

TRENCH DETAIL

BY: JT

DATE: 12-06-19

DWG NO: 210

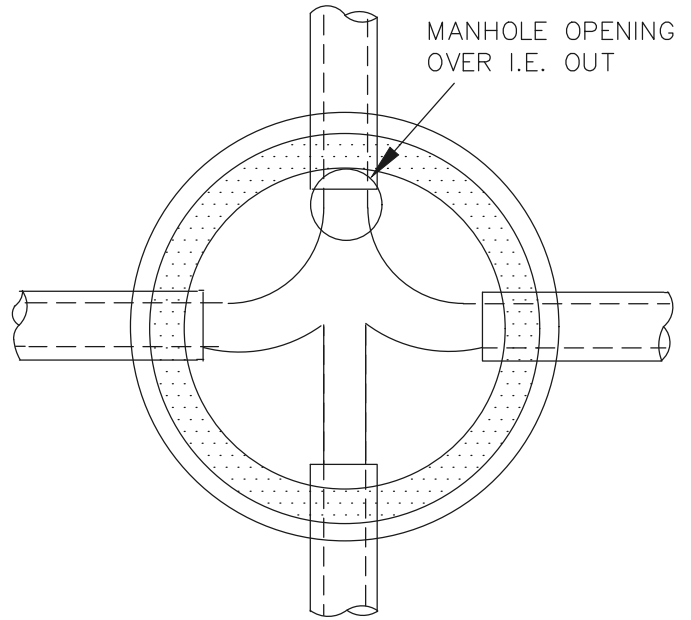


ALL MANHOLES SHALL HAVE A 12” MIN. 24” MAX. BOTTOM RISER, TO BE BEDDED IN THE CONCRETE AS THE BASE TAKES ITS INITIAL SET.

ALL PRECAST SECTIONS AND POURED CONCRETE BASES SHALL CONFORM TO CITY STANDARD SPECIFICATIONS.

ALL JOINTS SHALL BE SEALED WITH PREFORMED PLASTIC OR RUBBER RING TO FORM A WATERTIGHT SEAL. GROUTED JOINTS MAY BE USED FOR STORM MANHOLES.

USE PRECAST BASE IN TRAVELED STREETS UNLESS OVER EXISTING LINE. USE SHALLOW MANHOLE DETAIL FOR LESS THAN 5 FT. DEPTH



PLAN

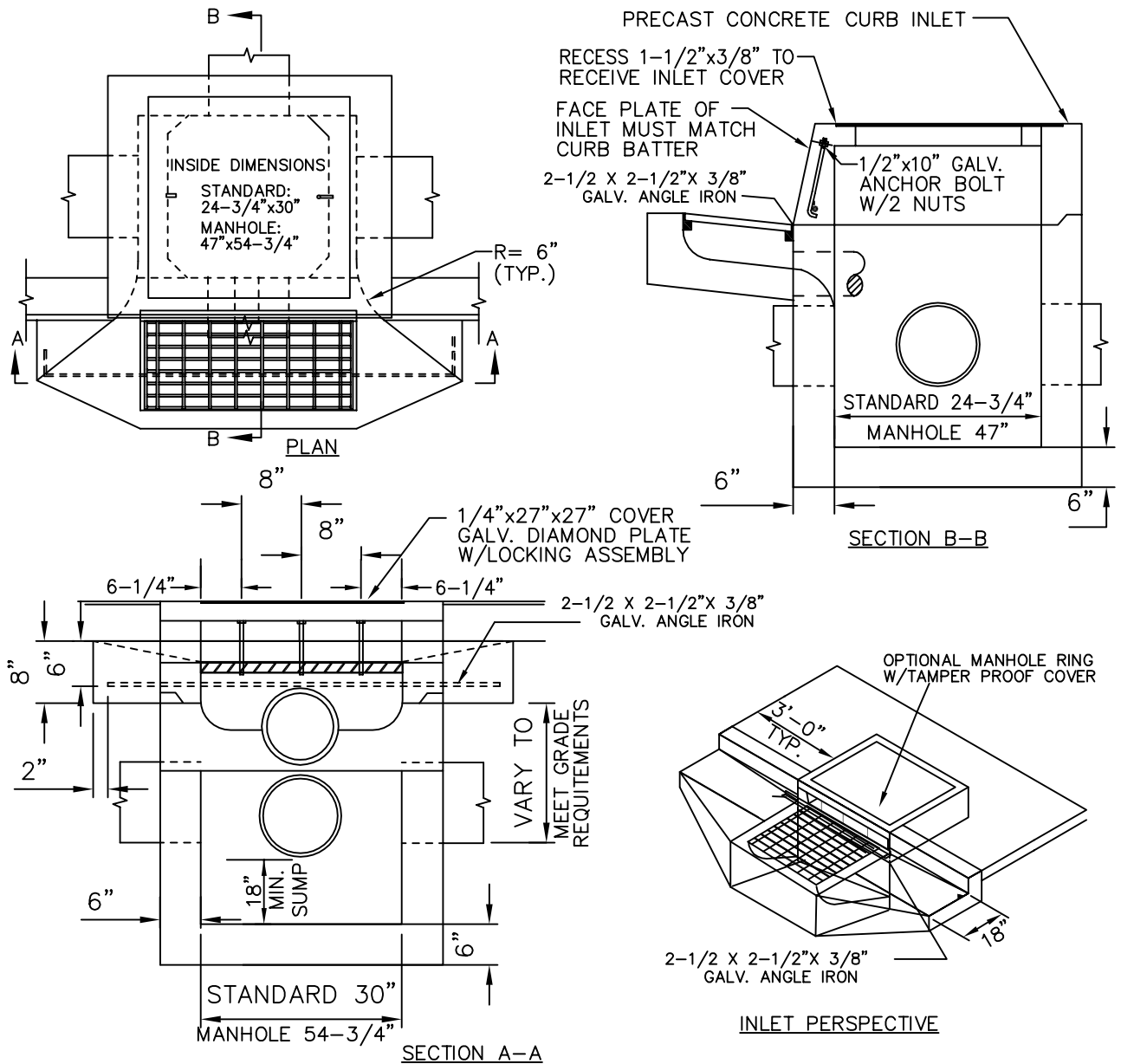
CITY OF CANBY

**MANHOLE -
STORM & SANITARY SEWER**

BY: JT

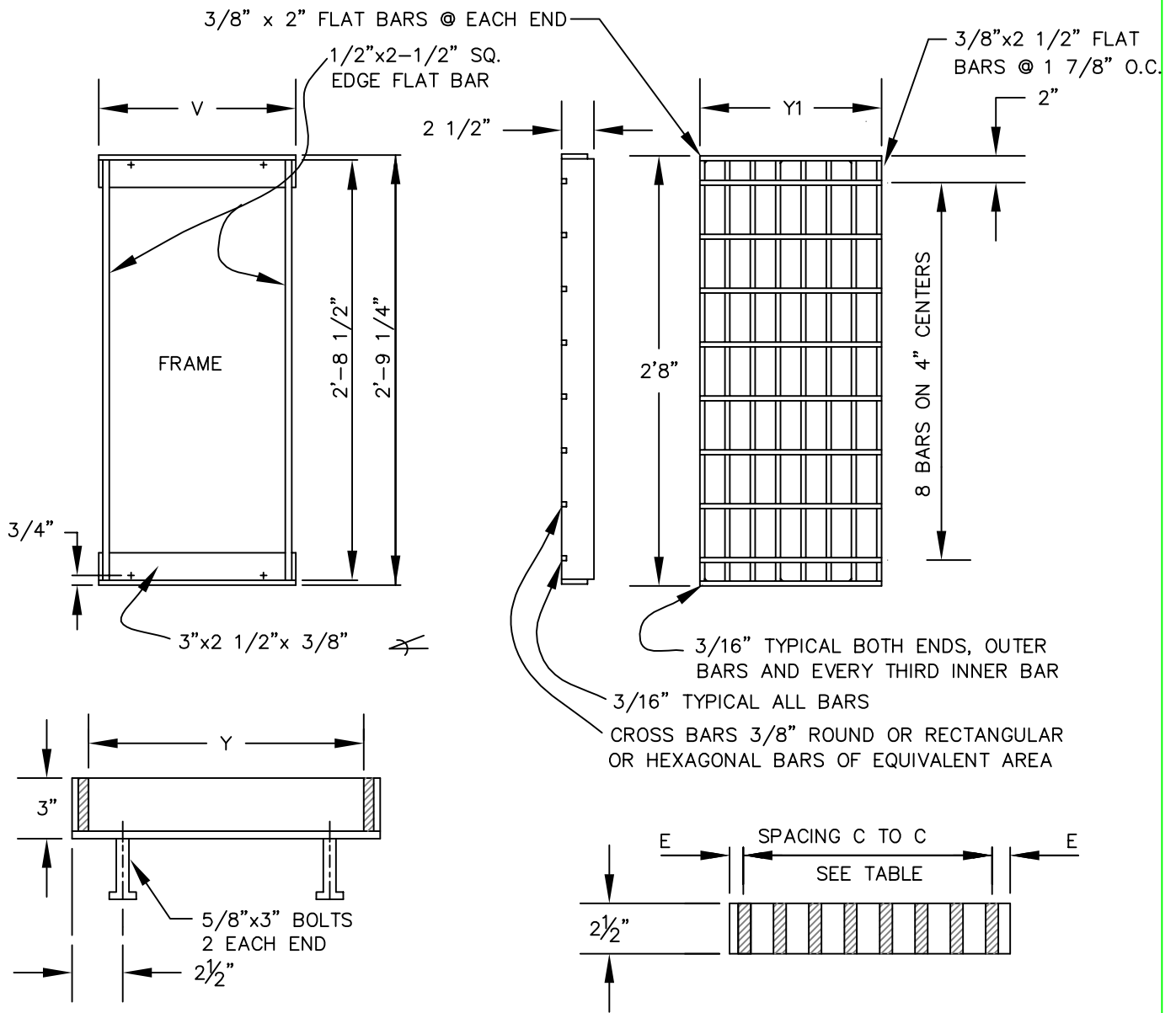
DATE: 12-06-19

DWG NO: 300



NOTES

1. CURB INLET CATCH BASIN SHALL CONFORM TO CURRENT ODOT/APWA SPECIFICATION. THE INLET SHALL HAVE AN 8" CURB EXPOSURE AT THE GRATE.
2. GRATED INLET SHALL BE POURED IN PLACE, A SHALLOW PRECAST INLET, OR A COMBINATION INLET GUTTER PLATE WITH LID (NEENAH R-3335-B CURB PIECE OR APPROVED EQUAL.)
3. CONNECT THE GRATED INLET TO THE CATCH BASIN BY A MINIMUM 12" DIAMETER CONCRETE PIPE GROUTED INTO BOTH SECTIONS. A SLOT MAY BE USED IF THE CURB INLET SECTION IS PRECAST AND DESIGNED TO CARRY THE LOADING. A METAL CURB PIECE MAY BE USED.
4. THE CURB INLET CATCH BASIN MAY USE A GB INLET WITH A SINGLE GRATE.
5. AN 18" SUMP IS REQUIRED.
6. ALL METAL PARTS MUST BE HOT DIPPED GALVANIZED AFTER FABRICATION.
7. THE LATCH SPRING MUST HAVE 50 LB. OF COMPRESSIVE STRENGTH.
8. SPECIFICATIONS FOR CONCRETE AND MISC. MATERIALS USED IN CONSTRUCTION SHALL CONFORM TO THE CURRENT ODOT/APWA STANDARD SPECIFICATIONS.
9. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI IN 28 DAYS.



CATCH BASIN TYPE	V	Y	Y1	E	SPACING C TO C	NO. OF BARS PER GRATE	REMARKS
GB-2	2'-4 3/4"	2'-3 3/8"	1'-1 1/2"	5/8"	1 3/4"	8	2-GRATES
D	2'-4 3/4"	2'-3 3/8"	2'-3"	1 1/2"	3"	9	
GB	1'-3 1/4"	1'-1 7/8"	1'-1 1/2"	5/8"	1 3/4"	8	1-GRATE

NOTES

- MATERIALS AND FABRICATION SHALL CONFORM TO THE CURRENT APWA STANDARD SPECIFICATIONS.
- 3/8" CROSS BARS SHALL BE FLUSH WITH THE GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.
- GB CATCH BASIN FOR USE WITH CURB INLET CATCH BASIN WITH GRATE ONLY.



CLACKAMAS COUNTY
150 BEAVERCREEK ROAD
OREGON CITY, OR 97045

APPROVAL DATE: 2013 SCALE: N.T.S.

**CATCH BASIN-FRAME
AND GRATE**

STANDARD
DRAWING
**SWM
CB-4.0**



INVITATION TO BID #2024-12
S Ivy Street Pedestrian Intersection Improvements Project
ADDENDUM NUMBER #1
March 13, 2024

On February 14, 2024, Clackamas County (“County”) published Invitation to Bid #2024-12 (“BID”). The County has found that it is in its interest to amend the BID through the issuance of this Addendum #1. Except as expressly amended below, all other terms and conditions of the original BID and subsequent Addenda shall remain unchanged.

1. The Bid Due Date is hereby changed from March 14, 2024 at 2:00PM to **March 19, 2024 at 2:00PM.**

End of Addendum #1



INVITATION TO BID #2024-12
S Ivy Street Pedestrian Intersection Improvements Project
ADDENDUM NUMBER #2
March 18, 2024

On February 14, 2024, Clackamas County (“County”) published Invitation to Bid #2024-12 (“BID”) and Addendum 1 on March 13, 2024. The County has found that it is in its interest to amend the BID through the issuance of this Addendum #2. Except as expressly amended below, all other terms and conditions of the original BID and subsequent Addenda shall remain unchanged.

1. The Bid Due Date is hereby changed from March 19, 2024 at 2:00PM to **March 26, 2024 at 2:00PM.**

2. The following bid item is added to the Project Bid Schedule:

<u>Number</u>	<u>Item</u>	<u>Original</u>	Quantity <u>New</u>
75	Trench Resurfacing	N/A	612 SY

These changes will be included in the Contract for this Project. It is understood that your Bid will be submitted accordingly.

Attachments: New Bid Schedule, 00495 Special Provision

BID SCHEDULE

S Ivy Street Pedestrian Intersection Improvements Construction

3/18/2024

ITEM	SPEC	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE
HARASSMENT PREVENTION, MOBILIZATION AND EXTRA WORK AS AUTHORIZED						
1	00180	Workplace Harassment Prevention Plan	LS	ALL		
2	00196	Extra Work As Authorized	AA	AA	\$150,000.00	\$150,000.00
3	00210	Mobilization	LS	ALL		
TEMPORARY FEATURES AND APPURTENANCES						
4	00221	Temporary Work Zone Traffic Control, Complete	LS	ALL		
5	00225	Stripe Removal	LF	15,000		
6	00225	Temporary Striping	LF	13,755		
7	00280	Erosion Control	LS	ALL		
8	00280	Sediment Fence	LF	4,344		
9	00280	Inlet Protection, Type 3	EA	52		
10	00280	Construction Entrance, Type 1	EA	1		
11	00280	Concrete Washout Facility	EA	1		
12	00290	Pollution Control Plan	LS	ALL		
ROADWORK						
13	00305	Construction Survey Work	LS	ALL		
14	00310	Removal of Structures and Obstructions	LS	ALL		
15	00310	Removal of Inlets	EA	13		
16	00310	Removal of Pipes	LF	150		
17	00310	Abandon Pipes In Place	LF	2,200		
18	00320	Clearing and Grubbing	LS	ALL		
19	00330	General Excavation	CY	3,084		
20	00331	18 Inch Subgrade Stabilization	SY	250		
21	00332	Vault Modification	LS	ALL		
22	00350	Subgrade Geotextile	SY	4,103		
DRAINAGE AND SEWERS						
23	00405	Concrete Excavation	CY	150		
24	00445	12" HDPE Drain Pipe	LF	2,200		
25	00470	Precast 48" Standard Manhole Installation	EA	9		
26	00470	Precast 60" Sumped Sedimentation Manhole Installation	EA	6		
27	00470	Precast 72" Sumped Sedimentation Manhole Installation	EA	1		
28	00470	CG-48 Sumped Sedimentation Manhole Over Existing Line Installation	EA	1		
29	00470	Precast 60" Flattop Sumped Sedimentation Manhole Over Existing Line Installation	EA	1		
30	00470	Concrete Inlet, Type G-2	EA	11		
31	00470	Concrete Inlet, WES Modified Type CG-1	EA	21		
32	00470	Trapped Concrete Inlet, WES Modified Type CG-1	EA	2		
33	00490	Filling Abandoned Structures	EA	1		
34	00490	Adjusting Boxes	EA	70		
35	00490	Minor Adjustment of Manhole	EA	17		
36	00490	Connection to Existing Structures	EA	8		
37	00490	Connection New Structure to Existing Storm Line	EA	3		
BASES						
38	00620	Cold Plane Pavement Removal, 0 - 2 1/2 Inches Deep	SY	13,715		
39	00641	Aggregate Base	TON	4,073		
WEARING SURFACES						
40	00744	Level 3, 1/2" ACP Mixture	TON	2,823		
41	00749	Extra for Asphalt Approaches	SF	7,302		
42	00759	Concrete Curbs - Standard Curb	LF	1,048		
43	00759	Concrete Curbs - Standard Curb & Gutter	LF	5,633		
44	00759	Concrete Islands	SF	251		
45	00759	Concrete Driveways	SF	9,520		
46	00759	Concrete Driveways, Reinforced	SF	3,223		
47	00759	Concrete Walks	SF	22,275		
48	00759	Extra For Thickened Edge Sidewalk	SF	360		
49	00759	Extra for New Curb Ramps	EA	47		
50	00759	Extra for Exposed Aggregate Concrete	SF	150		
51	00759	Tall Curb	LF	58		
52	00759	Truncated Domes on New Surfaces	SF	517		
PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES						
53	00855	Bi-Directional Yellow Type I Markers	EA	6		
54	00865	Thermoplastic, Extruded or Sprayed, Surface, Non-profiled	LF	19,905		
55	00867	Pavement Legend, Type AB: Arrows	EA	22		
56	00867	Pavement Legend, Type B-HS: Bike Lane Stencil	EA	22		
57	00867	Pavement Legend, Type AB: "SCHOOL" Large	EA	1		
58	00867	Pavement Legend, Type AB: "CROSSING" Large	EA	1		
59	00867	Pavement Bar, Type B-HS	SF	748		
60	00869	Curb Marking, Paint	LF	50		
PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS						
61	00902	Crosswalk Closed Support	EA	12		
62	00905	Remove Existing Signs	LS	ALL		
63	00920	Sign Support Footings	LS	ALL		
64	00930	Perforated Steel Square Tube Anchor Sign Supports	LS	ALL		
65	00940	Signs, Standard Sheeting, Extruded Aluminum	SF	314		
66	00963	36 Inch Diameter Signal Support Drilled Shaft	LF	45		
67	00990	Traffic Signal Installation, Complete (S Ivy St & S Township Rd)	LS	ALL		
68	00990	Rectangular Rapid Flashing Beacon Installation, 11th St	LS	ALL		
RIGHT-OF-WAY DEVELOPMENT AND CONTROL						
69	01030	Permanent Seeding	ACRE	0.147		
70	01040	Topsoil	CY	119		
71	01040	Bark Mulch	CY	292		
72	01070	Single Mailbox Supports	EA	7		
73	01070	Multiple Mailbox Supports	EA	6		
74	01070	Mailbox Concrete Collars	EA	13		
ADDED BID ITEMS						
75	00495	Trench Resurfacing	SY	612		

PROPOSED COST BID SCHEDULE _____
 (Numerically)

PROPOSED COST BID SCHEDULE _____
 (Written in Words)

COMPANY NAME _____

AUTHORIZED SIGNATURE _____

SECTION 00495 - TRENCH RESURFACING

Comply with Section 00495 of the Standard Specifications.