

Received  
 Planning Division  
 05/30/2024

WASHINGTON COUNTY, OREGON  
 DEPARTMENT OF LAND USE AND TRANSPORTATION

PLANS FOR PROPOSED PROJECT



ROW CENTERLINE  
 ROW Centerline Stationing Documented In  
 Pre-Construction Record of Survey Prepared For  
 Washington County and Recorded as SN30861

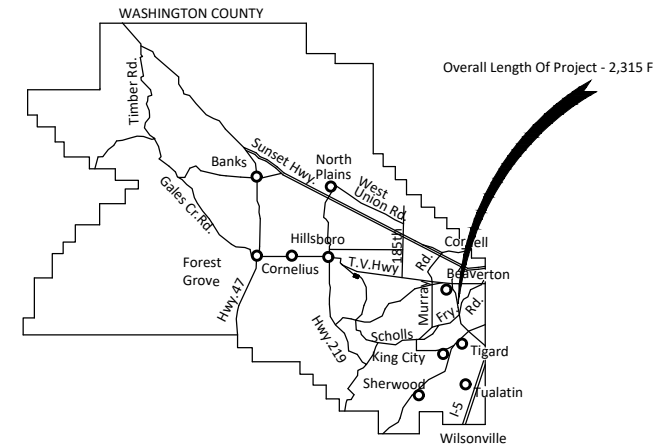
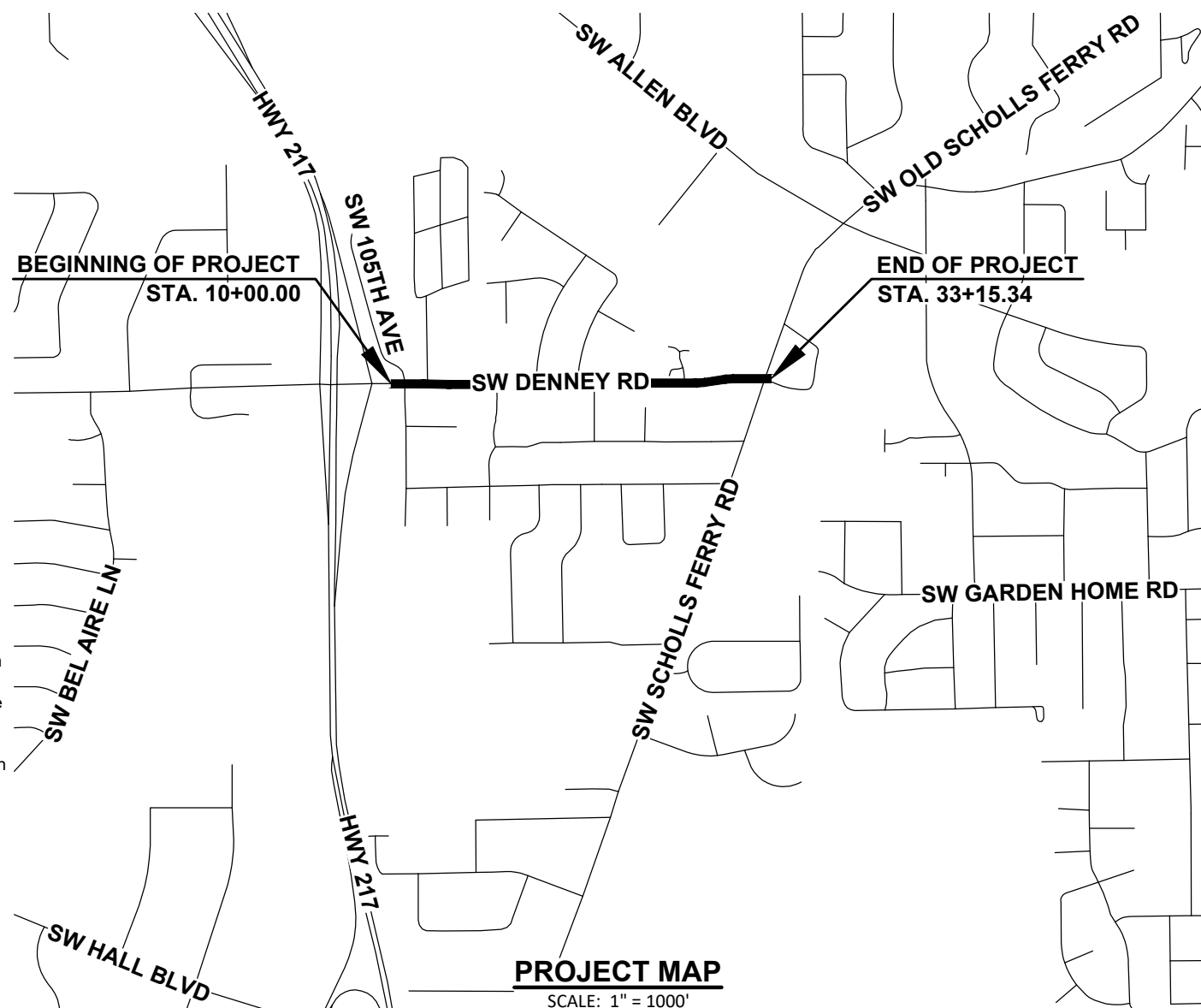
INDEX OF SHEETS		
NO.	SHT. TITLE	DESCRIPTION
1	1	COVER SHEET
2	1A	SHEET INDEX
3	1B	PROJECT SHEET LAYOUT

GRADING, DRAINAGE, PAVING, ROADSIDE DEVELOPMENT,  
 ILLUMINATION, SIGNALS, SIGNING, & STRIPING

**S.W. DENNEY ROAD**  
 S.W. 105TH AVE TO S.W. SCHOLLS FERRY RD

WASHINGTON COUNTY  
 FEBRUARY 2024

"This Design Complies with ORS 92.044(7), In That  
 No Utility Infrastructure is Designed to be Within 1 Ft.  
 of a Survey Monument Location Shown on a  
 Subdivision or Partition Plat. No Design Exception  
 Nor Final Field Location Change Shall be Permitted  
 If It Would Cause Any Utility Infrastructure To  
 Be Placed Within the Prohibited Area."



**VERTICAL DATUM:**  
 ELEVATION DATUM: NGVD 29  
 BENCHMARK: WASHINGTON COUNTY BENCHMARK 950  
 DESCRIPTION: 2" BRASS DISK SET IN CONCRETE WALL  
 LOCATION: SET IN THE WALL ON THE NORTHWEST  
 CORNER OF THE BRIDGE OVER FANNO CREEK ON SW  
 ROAD, ±500 SOUTH OF SW ALLEN BLVD.  
 ELEVATION: 201.044'

**HORIZONTAL DATUM:**  
 HORIZONTAL COORDINATES ARE LOCAL DATUM PLANE  
 GROUND COORDINATES BASED UPON THE OREGON  
 STATE PLANE COORDINATE SYSTEM  
 NAD83(2011)(EPOCH 2010.0000) NORTH ZONE.



**ATTENTION:** Oregon law requires you to  
 follow rules adopted by the Oregon Utility  
 Notification Center. Those rules are set forth  
 in OAR 952-001-0001 through  
 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.

**ATTENTION:**  
 Oregon Law Requires You To Follow Rules  
 Adopted By The Oregon Utility Notification Center. (503)-232-1987  
 Those Rules Are Set Forth In OAR 952-001-0010 Through  
 OAR 952-001-0090. You May Obtain Copies Of The Rules From The Center.

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

PROJECT NUMBER  
**100666**  
 SHEET NO.  
 1 OF 84  
 SHEET TITLE  
**1**

**LAND USE SUBMITTAL**

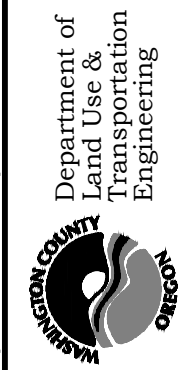
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EXPIRES: 12/31/25

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 LANDSCAPE ARCHITECTS \* SURVEYORS  
 205 SE Spokane Street, Suite 300, Portland, OR 97202  
 Phone: 503.221.1131 www.hhrp.com Fax: 503.221.1171



NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**SHEET INDEX**

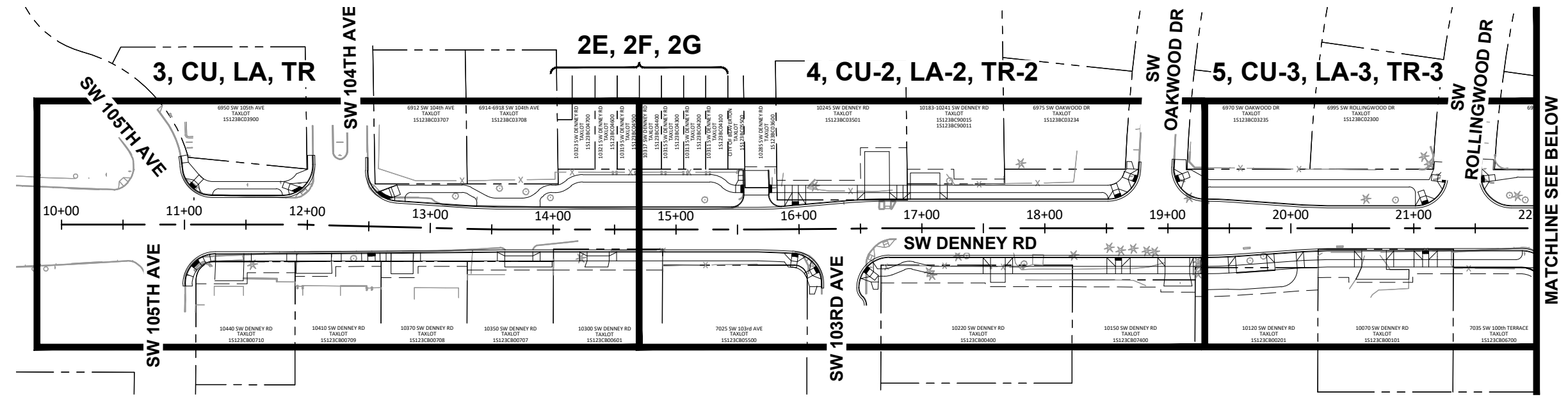
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**100666**  
 SHEET NO.  
 2 OF 84  
 SHEET TITLE  
**1A**



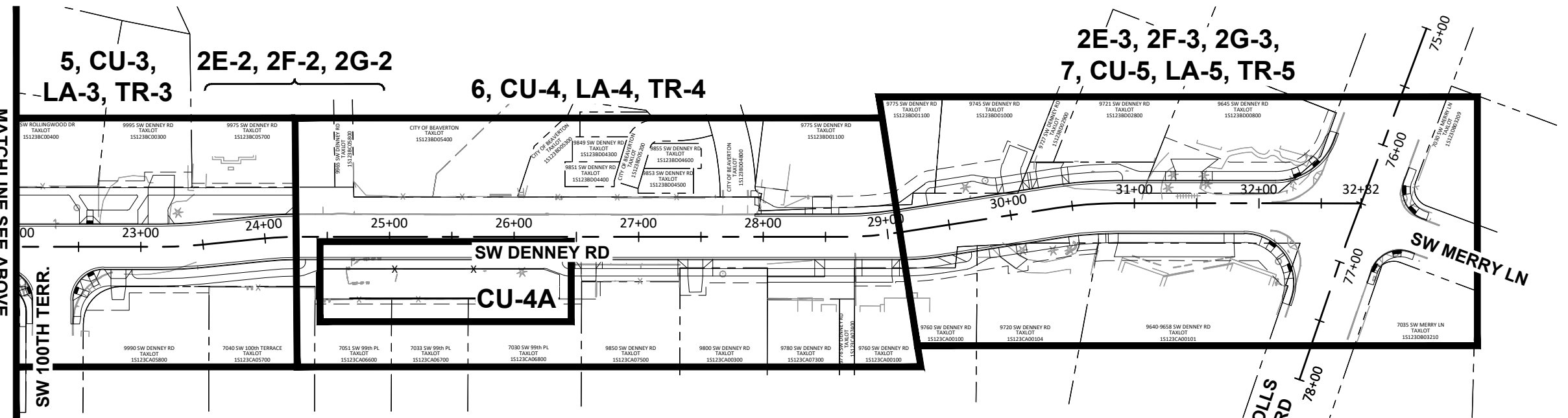
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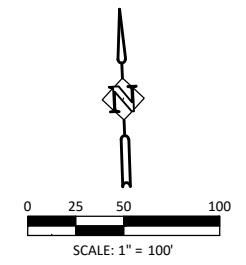
Department of Land Use & Transportation Engineering



**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 100' (HORZ.)



**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 100' (HORZ.)



MATCHLINE SEE ABOVE

MATCHLINE SEE BELOW

NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY  
 PROJECT SHEET LAYOUT

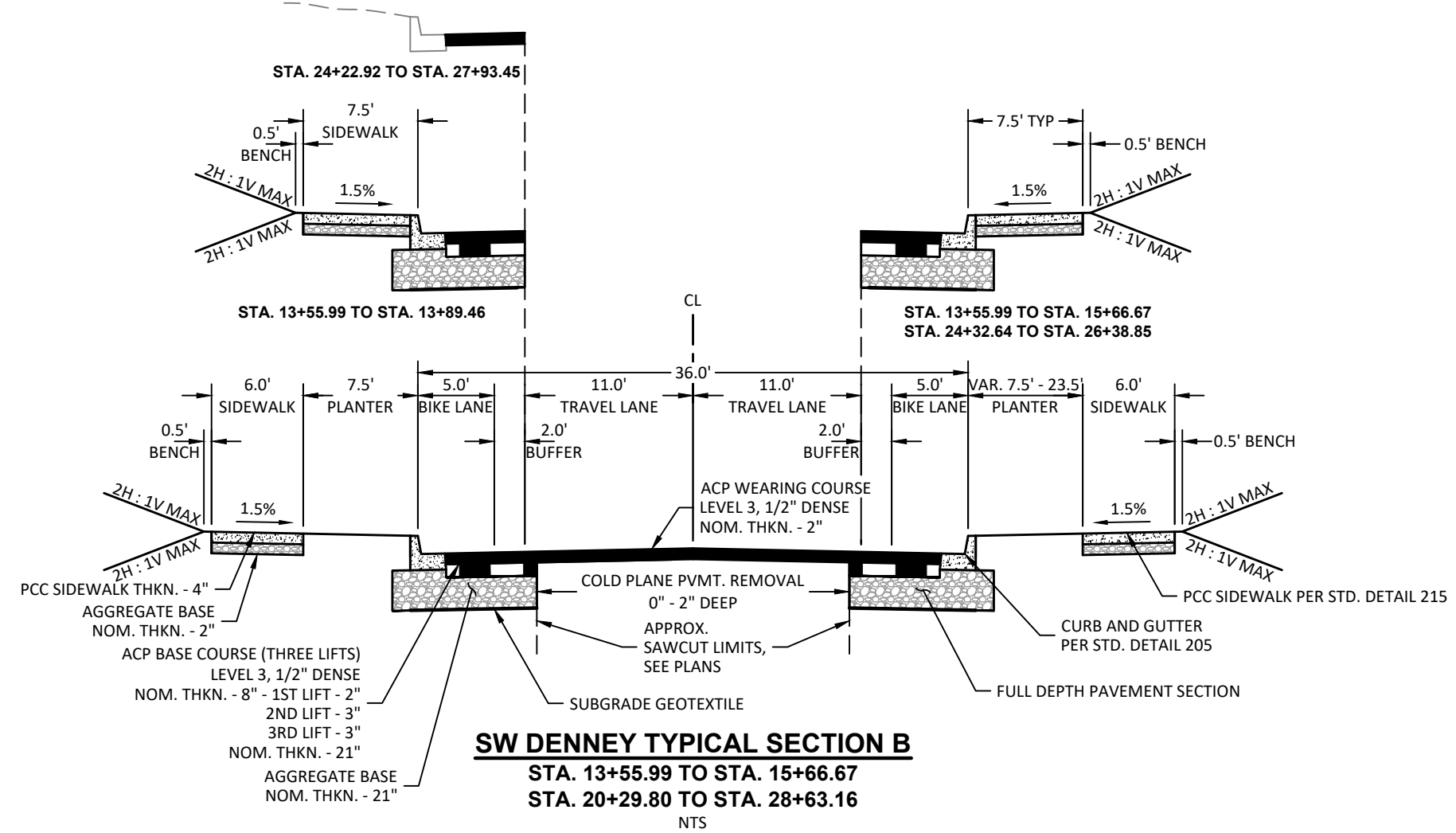
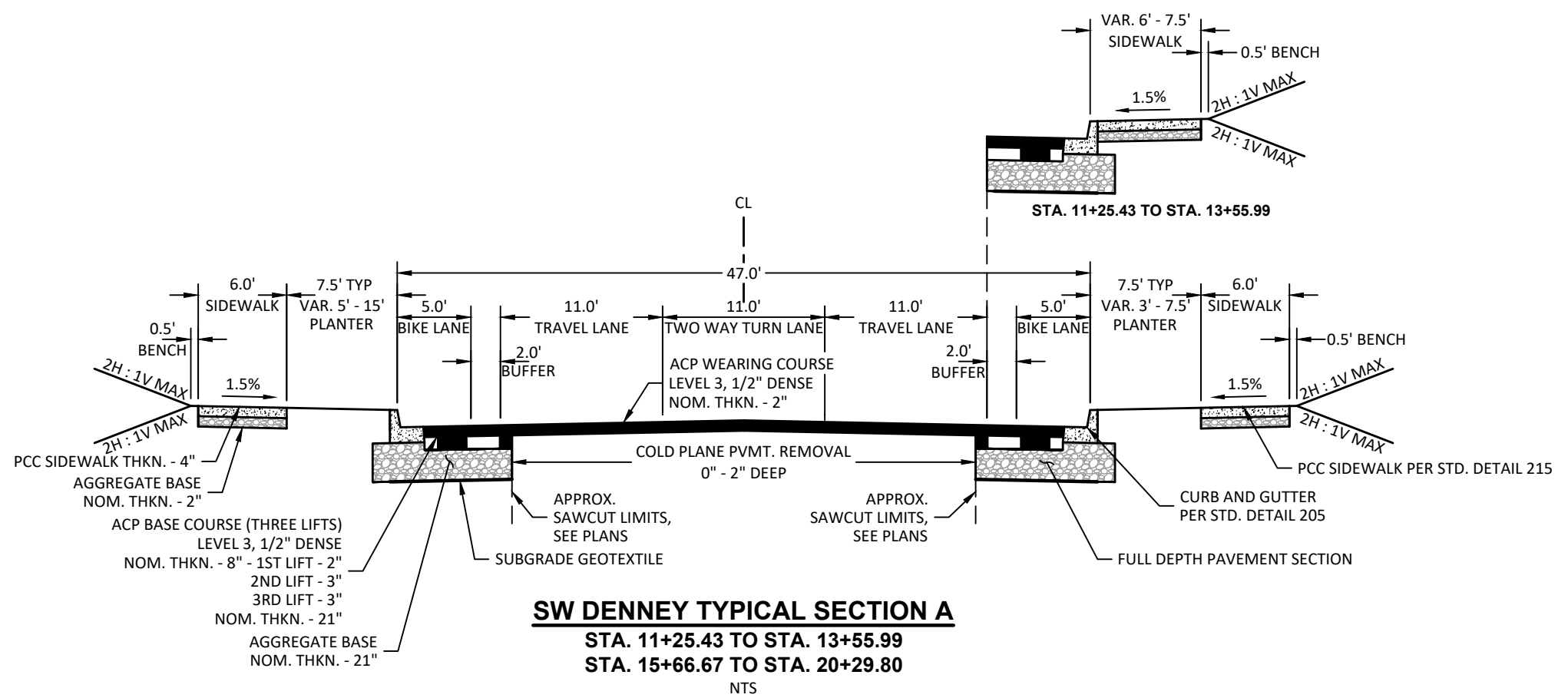
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**1B**



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NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

TYPICAL SECTIONS

PROJECT NUMBER  
**100666**

SHEET NO.  
 4 OF 84

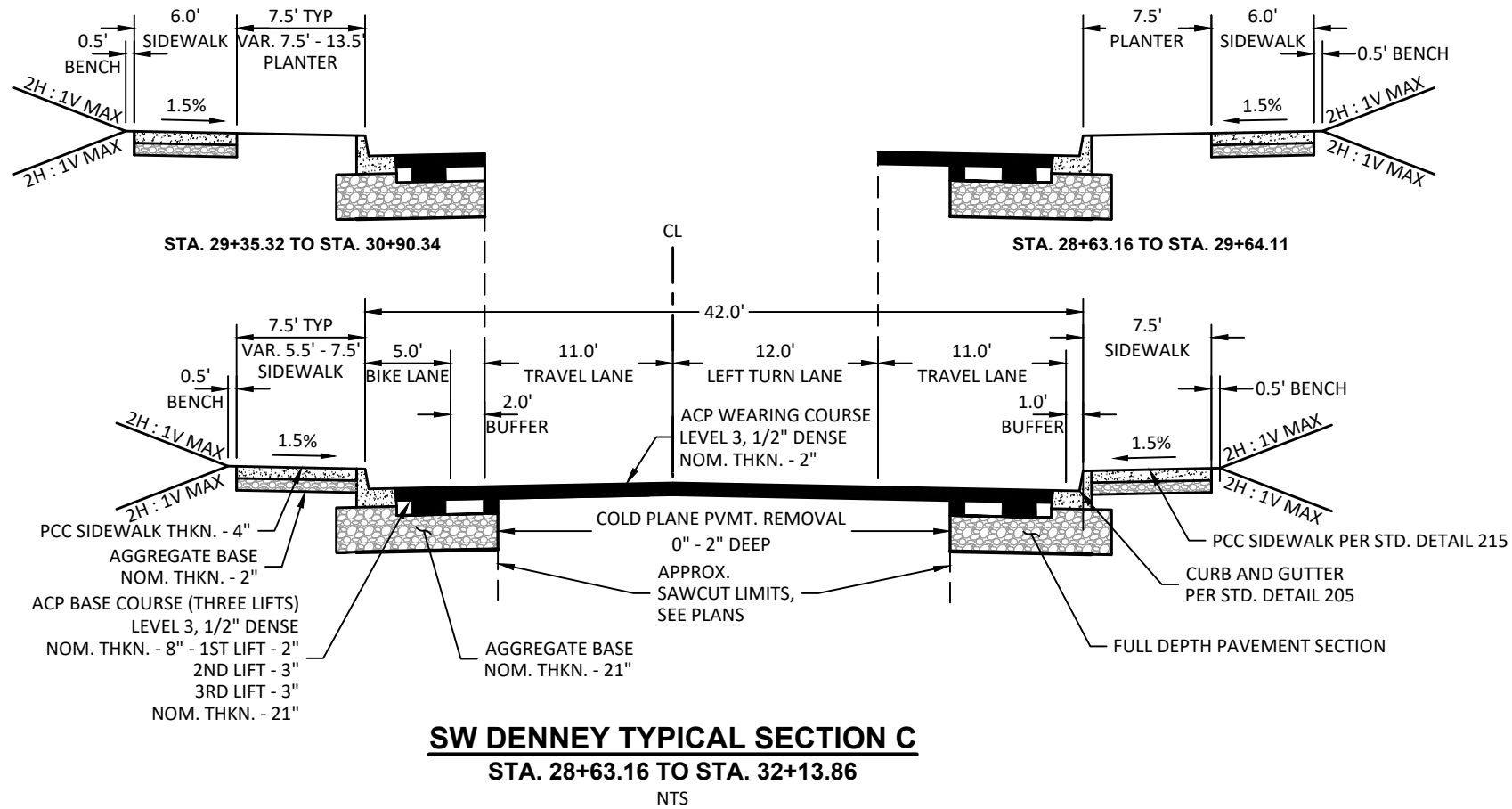
SHEET TITLE  
**2A**



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NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

TYPICAL SECTIONS

PROJECT NUMBER  
**100666**

SHEET NO.  
**5 OF 84**

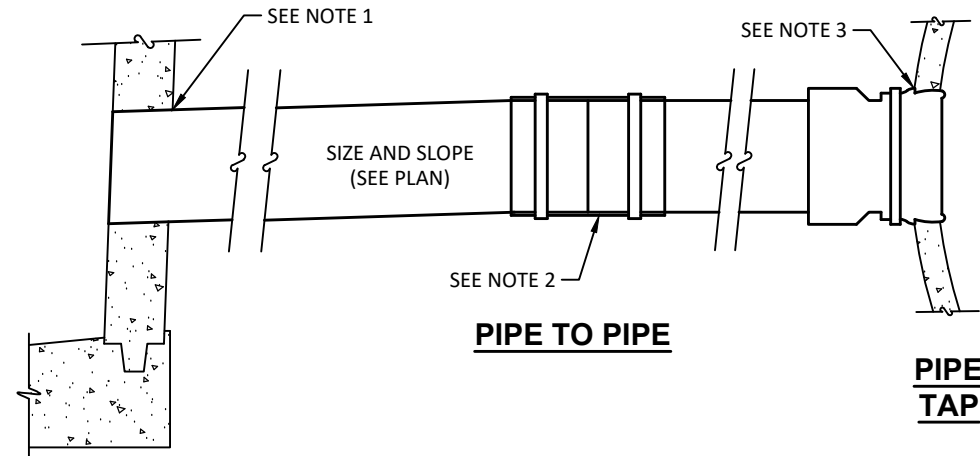
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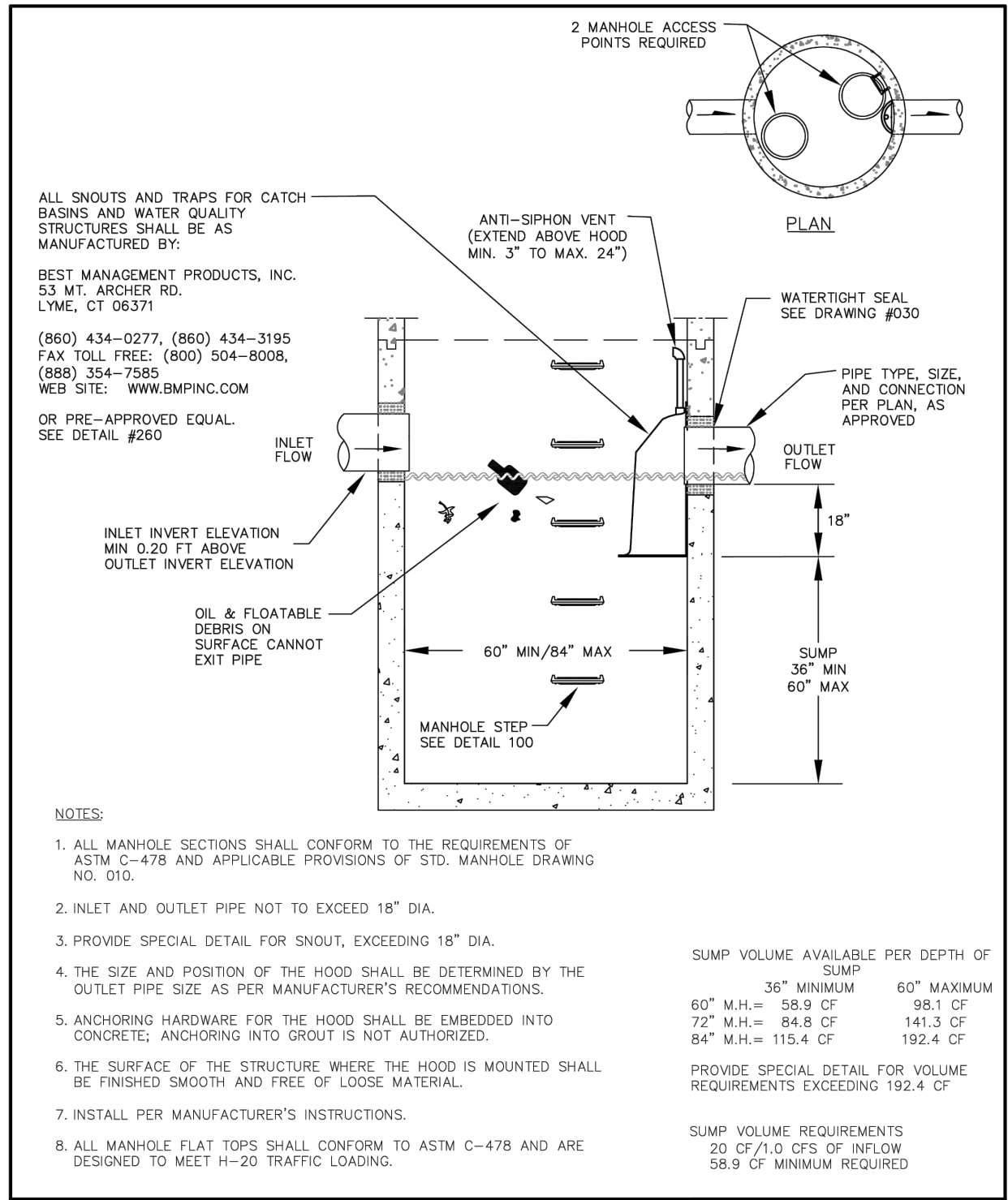


**MANHOLE OR CATCH BASIN**

**NOTES:**

- BREAK OUT WALL 2" MIN., 4" MAX. CLEAR OF PIPE WALL. GROUT SPACE WITH NON-SHRINK GROUT. FOR SANITARY CONNECTION INSTALL SAND COLLAR AS DIRECTED BY WATER ENVIRONMENT SERVICES (WES).
- USE "FERNCO" FLEXIBLE COUPLING WITH STAINLESS STEEL CLAMPS OR APPROVED EQUAL AS REQUIRED.
- CUT HOLE INTO PIPE AND INSTALL "FOWLER" SEWER BOOT TAP OR APPROVED EQUAL.

**PIPE CONNECTION**  
NTS



ALL SNOUTS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:  
**BEST MANAGEMENT PRODUCTS, INC.**  
 53 MT. ARCHER RD.  
 LYME, CT 06371  
 (860) 434-0277, (860) 434-3195  
 FAX TOLL FREE: (800) 504-8008,  
 (888) 354-7585  
 WEB SITE: WWW.BMPINC.COM  
 OR PRE-APPROVED EQUAL.  
 SEE DETAIL #260

**NOTES:**

- ALL MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478 AND APPLICABLE PROVISIONS OF STD. MANHOLE DRAWING NO. 010.
- INLET AND OUTLET PIPE NOT TO EXCEED 18" DIA.
- PROVIDE SPECIAL DETAIL FOR SNOUT, EXCEEDING 18" DIA.
- THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY THE OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATIONS.
- ANCHORING HARDWARE FOR THE HOOD SHALL BE EMBEDDED INTO CONCRETE; ANCHORING INTO GROUT IS NOT AUTHORIZED.
- THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
- INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- ALL MANHOLE FLAT TOPS SHALL CONFORM TO ASTM C-478 AND ARE DESIGNED TO MEET H-20 TRAFFIC LOADING.

SUMP VOLUME AVAILABLE PER DEPTH OF SUMP

	36" MINIMUM	60" MAXIMUM
60" M.H.=	58.9 CF	98.1 CF
72" M.H.=	84.8 CF	141.3 CF
84" M.H.=	115.4 CF	192.4 CF

PROVIDE SPECIAL DETAIL FOR VOLUME REQUIREMENTS EXCEEDING 192.4 CF

SUMP VOLUME REQUIREMENTS  
 20 CF/1.0 CFS OF INFLOW  
 58.9 CF MINIMUM REQUIRED

**WATER QUALITY MANHOLE (SNOUT) A**

DRAWING NO. 250 REVISED 10-31-19

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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

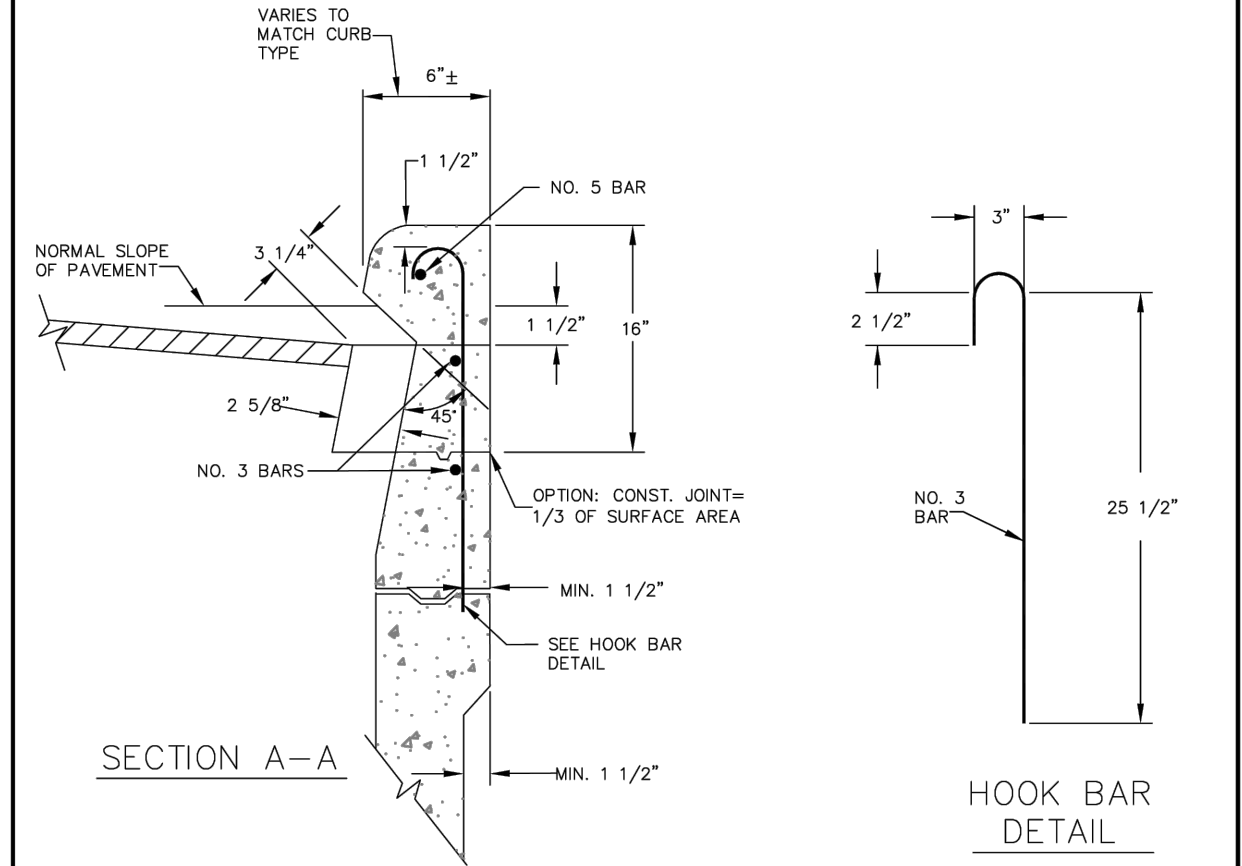
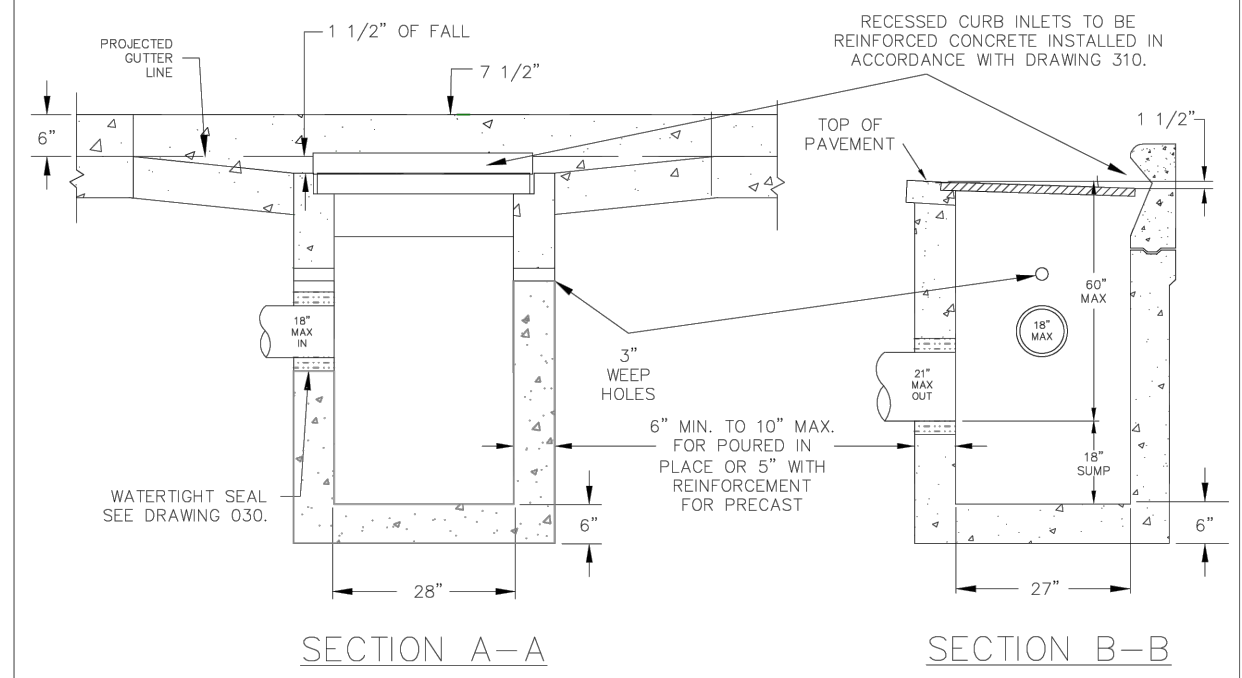
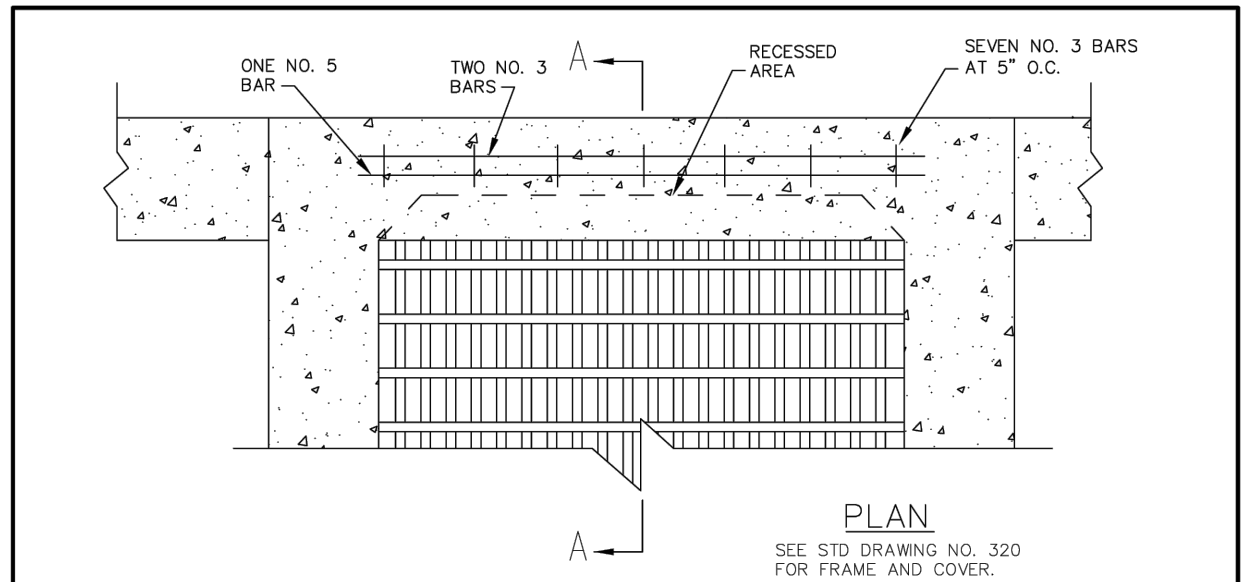
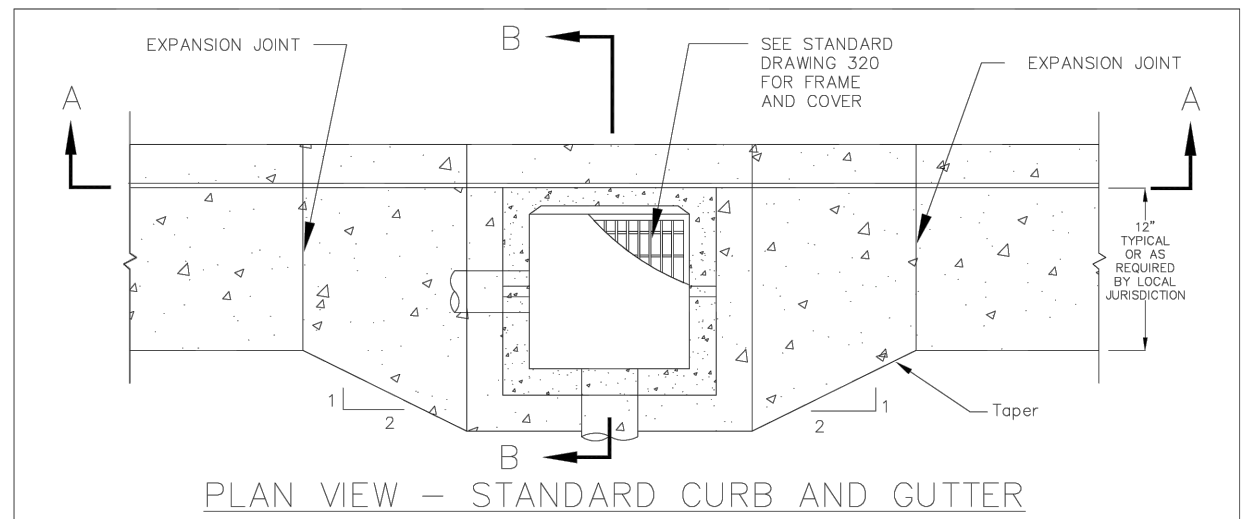
PROJECT NUMBER  
**100666**  
 SHEET NO.  
 6 OF 84  
 SHEET TITLE  
**2B**



EXPIRES: 12/31/25

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**Department of Land Use & Transportation Engineering**



- NOTES:
- CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478.
  - INSTALL STRUCTURE ON MINIMUM OF 8" OF 3/4"-0" COMPACTED BASE MATERIAL.
  - PRECAST STRUCTURE TO BE APPROVED BY DISTRICT OR CITY. REINFORCEMENT FOR PRECAST CATCH BASIN SHALL BE REBAR MEETING ASTM A-615 GRADE 60 OR WELDED WIRE MEETING ASTM A-497.
  - ALL POURED IN-PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI AND A SLUMP OF 2" TO 4".
  - CHANNEL REQUIRED IN FLOW THROUGH APPLICATIONS, AS APPROVED. ALL OTHER APPLICATIONS REQUIRE AN 18" SUMP BELOW LOWEST PIPE INVERT.
  - FULL CURB EXPOSURE REQUIRED CANNOT BE LOCATED IN SIDEWALK RAMPS OR RAMP WINGS.

GUTTER & CURB INLET CATCH BASIN (CG-2)  
 DRAWING NO. 300 REVISED 10-31-19

GUTTER & CURB INLET CATCH BASIN (CG-2) REINFORCEMENT  
 DRAWING NO. 310 REVISED 10-31-19

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

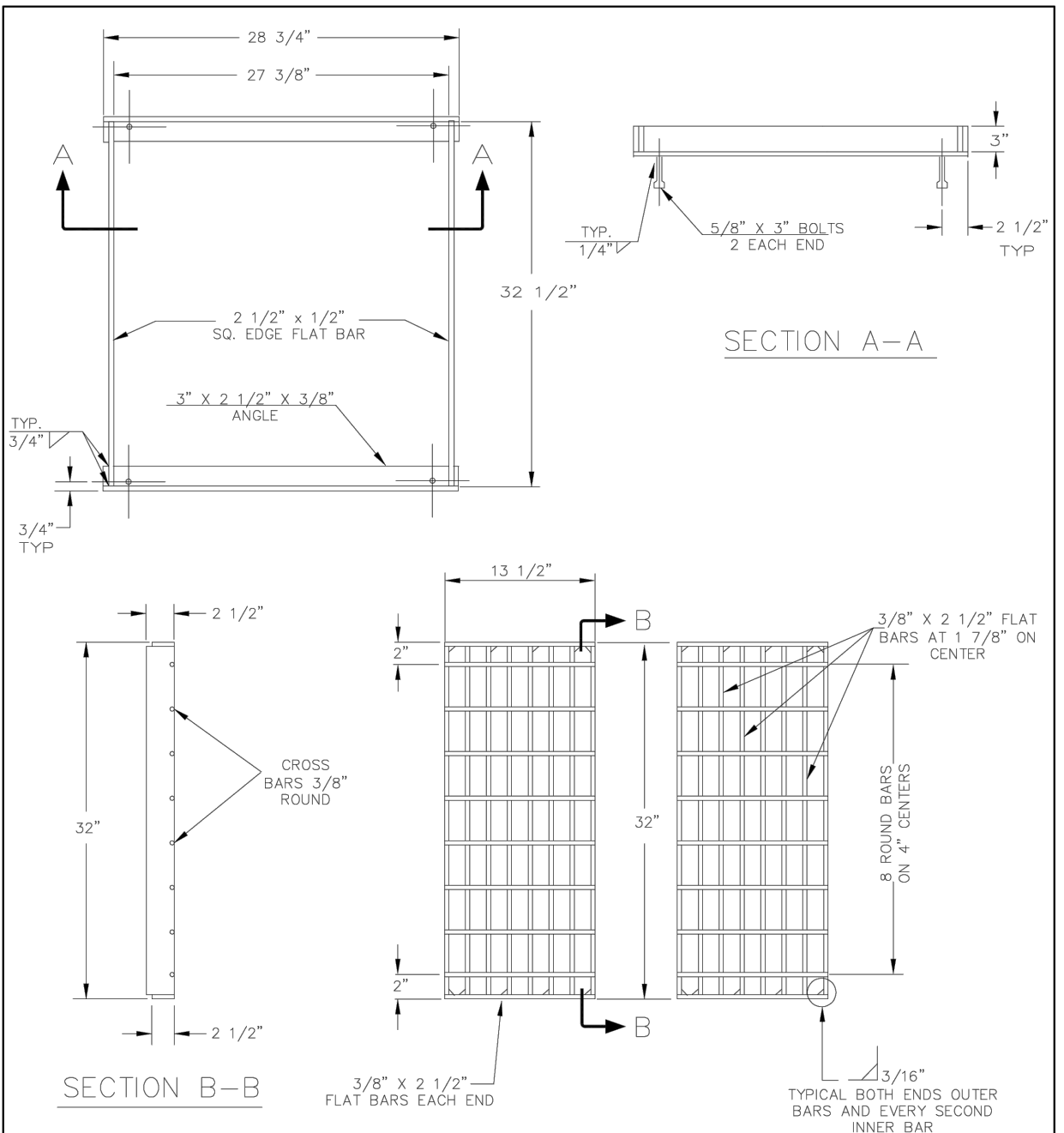
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EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY

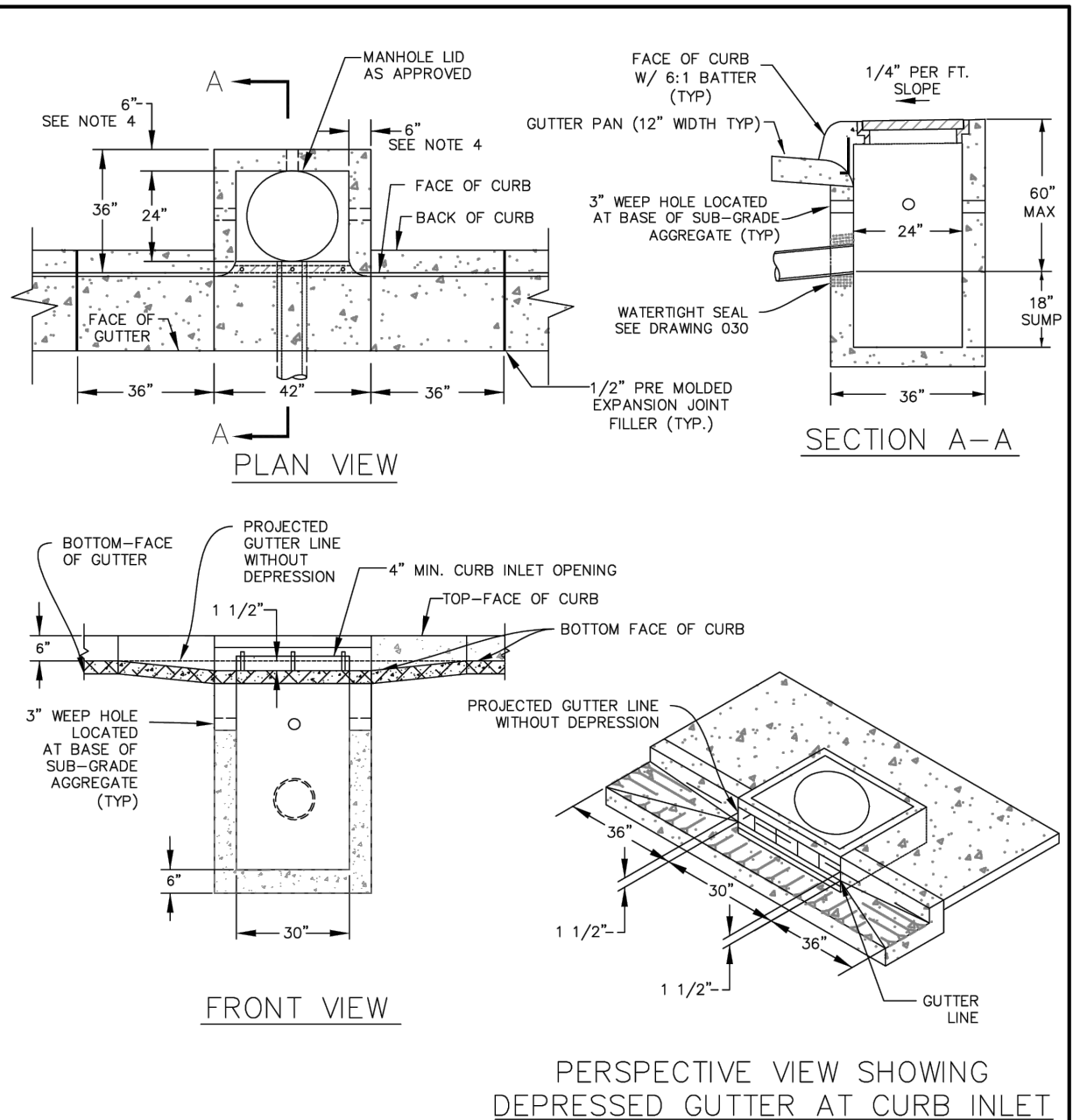


CATCH BASIN FRAME AND GRATE (CG-2)



DRAWING NO. 320

REVISED 10-31-19



INLET CATCH BASIN (CG-30)



DRAWING NO. 330

REVISED 10-31-19

NO.	REVISION
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SW DENNEY ROAD  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

STANDARD DETAILS

PROJECT NUMBER  
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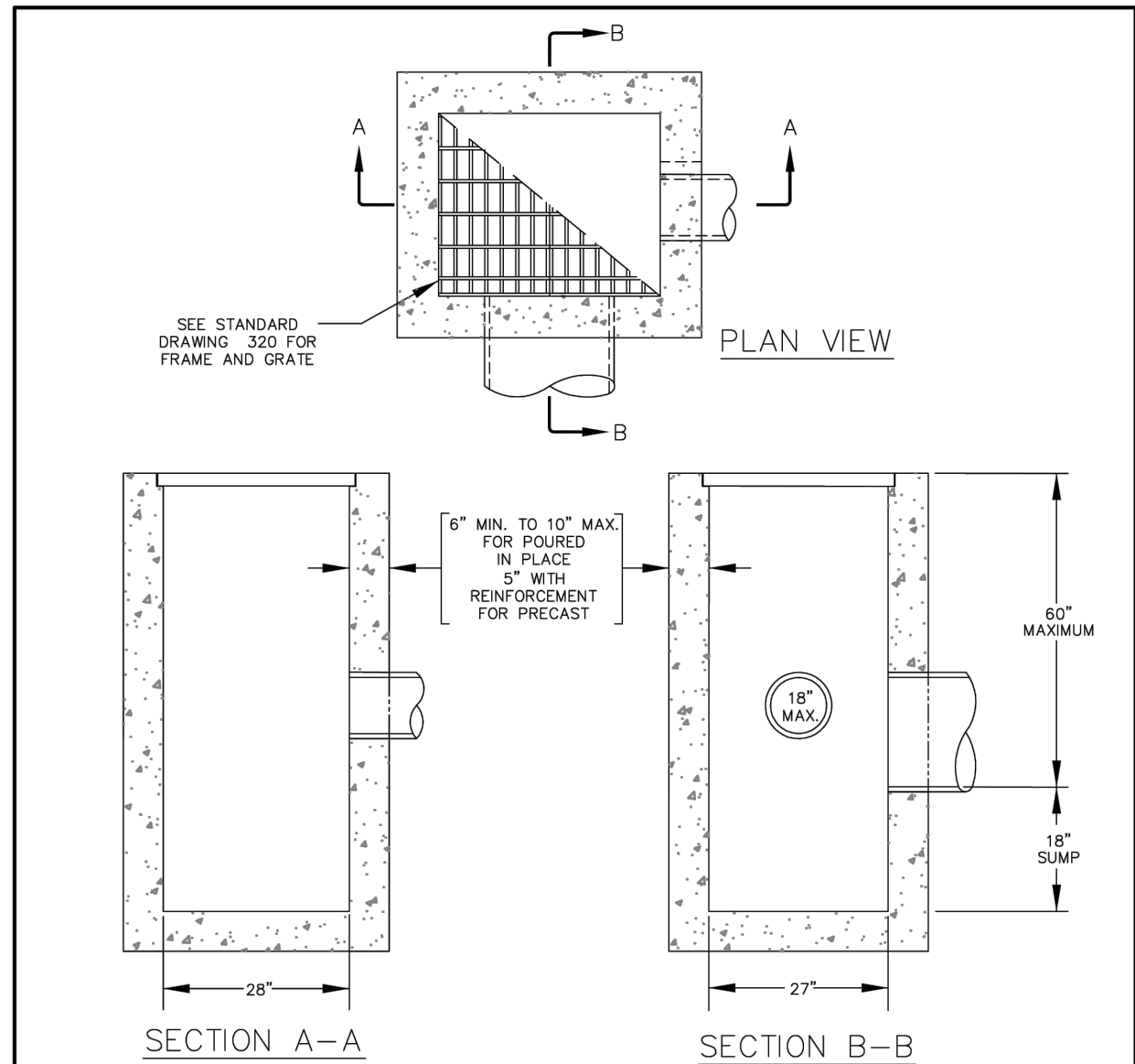




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Department of  
 Land Use &  
 Transportation  
 Engineering



**NOTES:**

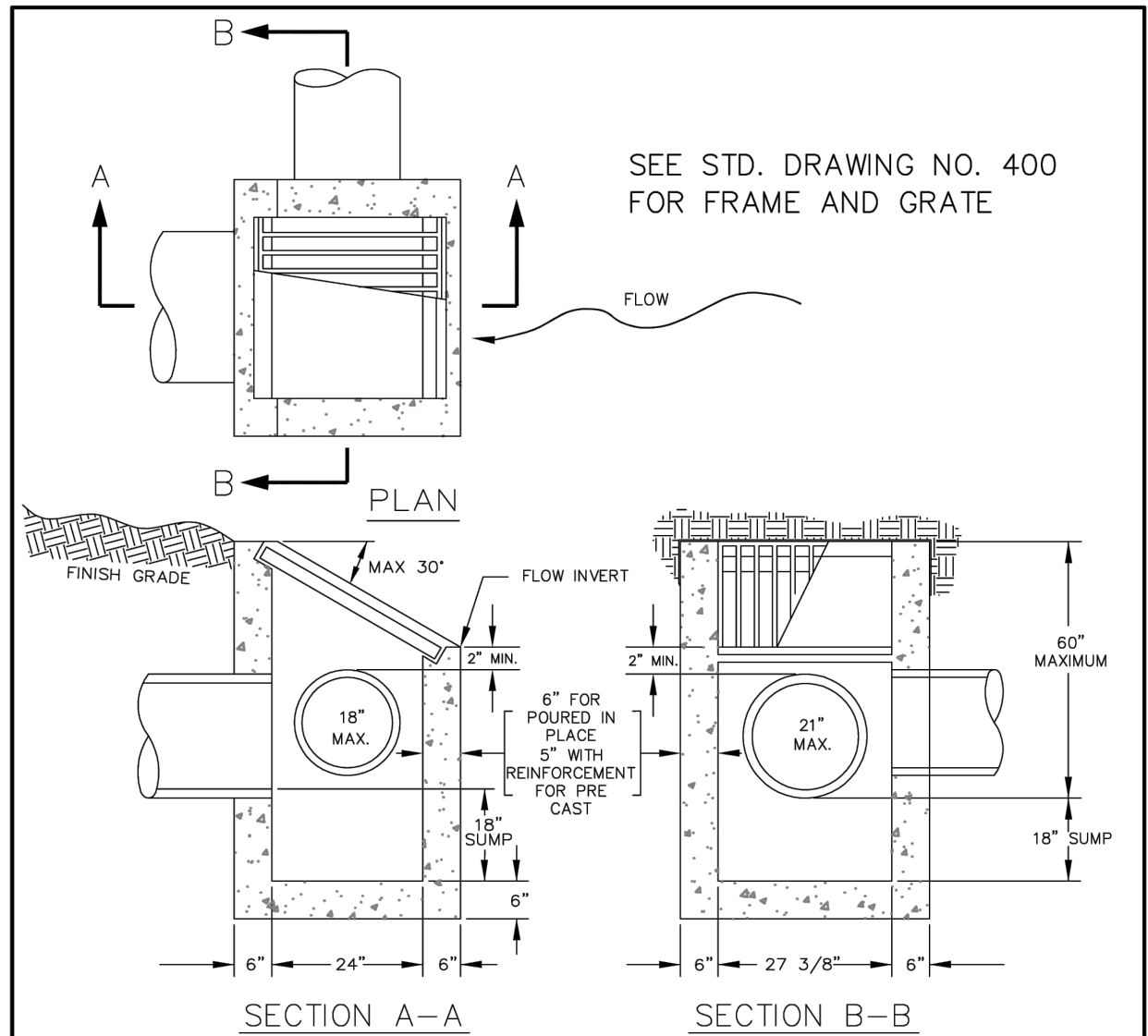
1. ALL PRECAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF ASTM C-478.
2. INSTALL STRUCTURE ON MIN. OF 8" OF 3/4"-0" COMPACTED BASE MATERIAL.
3. PRE CAST REINFORCEMENT SHALL BE REBAR MEETING ASTM A615 GRADE OR WELDED WIRE MEETING ASTM A497.
4. ALL POURED INPLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 P.S.I. AND A SLUMP OF 2" TO 4".
5. AREA DRAINS IN REAR OR SIDE YARDS SHALL NOT BE SUMPED AND SHALL BE PROPERLY CHANNELIZED.
6. PRECAST STRUCTURES CONFORMING TO ODOT TYPE CG-2 CATCH BASIN INLETS ARE AN ACCEPTABLE ALTERNATE. (ALL GRATE MATERIALS AND DIMENSIONS SHALL MEET CWS STANDARDS AS SHOWN ON DRAWING 320).

**AREA DRAIN  
 TYPE II**



DRAWING NO. 380

REVISED 10-31-19



**NOTES:**

1. ALL PRE CAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF ASTM C-478.
2. INSTALL STRUCTURE ON MINIMUM OF 8" OF 3/4" - 0" COMPACTED BASE MATERIAL.
3. PRE CAST REINFORCEMENT SHALL BE REBAR MEETING ASTM A615 GRADE 60 OR WELDED WIRE MEETING ASTM A497
4. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI AND SLUMP OF 2" TO 4".
5. PRE-CAST STRUCTURE'S CONFORMING TO O.D.O.T. TYPE G-2 CATCH BASIN DESIGN/WITH DITCH INLET TOP ARE AN ACCEPTABLE ALTERNATE. ALL GRATE MATERIALS SHALL MEET C.W.S. STANDARDS AS SHOWN ON DETAIL #400

**DITCH INLET**



DRAWING NO. 390

REVISED 10-31-19

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

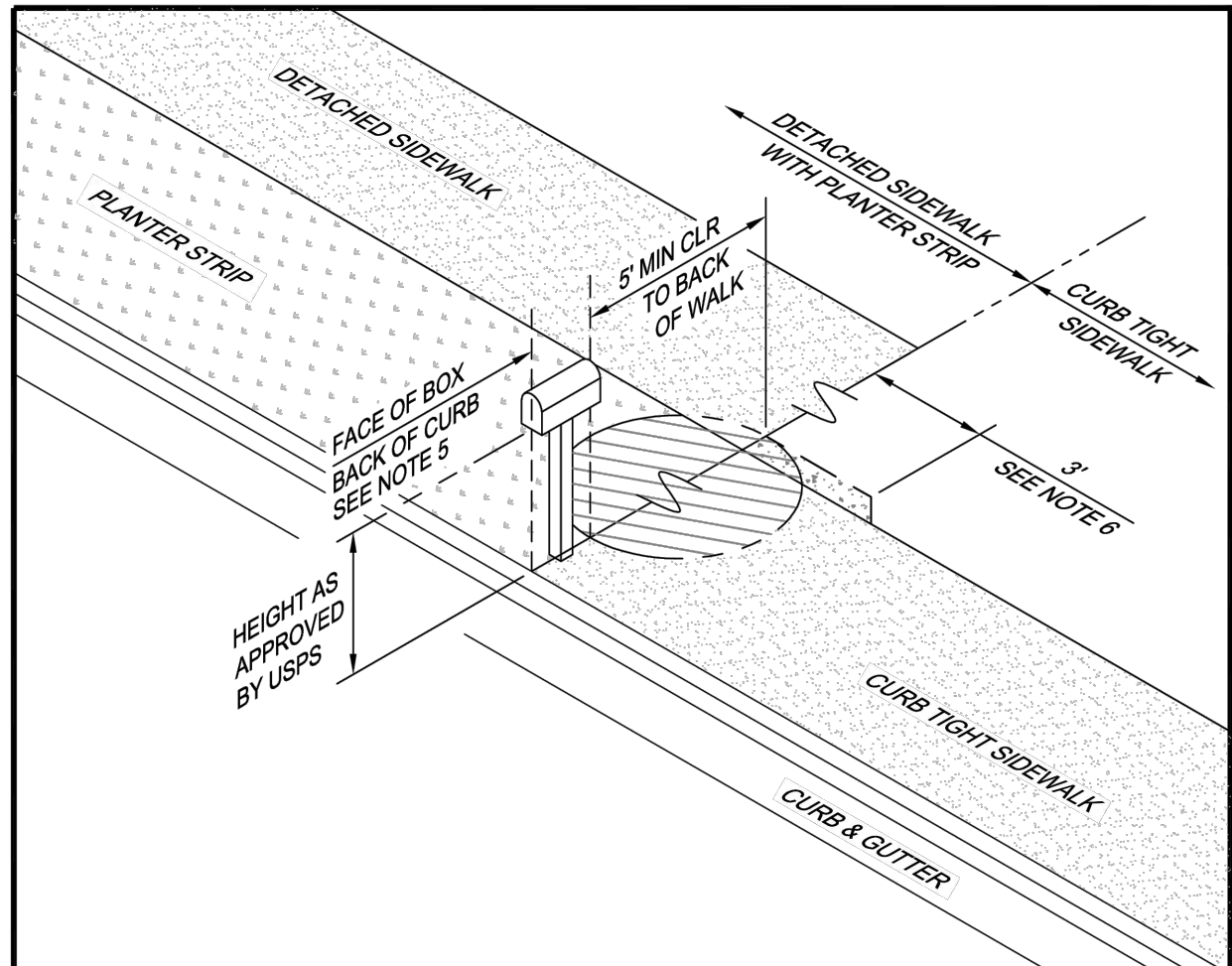
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 SHEET TITLE  
**2B-4**



EXPIRES: 12/31/25

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 WASHINGTON COUNTY OREGON



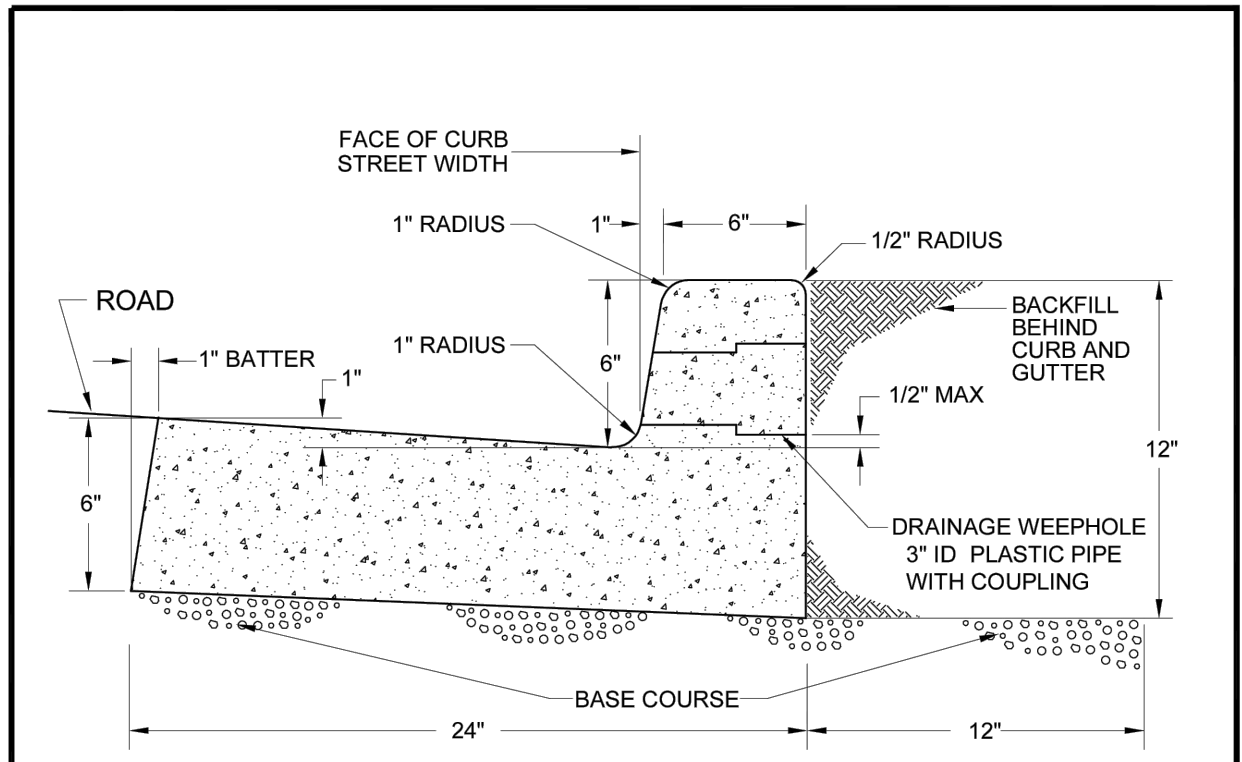
- NOTES:**
1. BOX NUMBERS AND NAMES SHALL NOT BE LESS THAN 1" HIGH
  2. POSTS MUST BE OF ADEQUATE STRENGTH AND SIZE
  3. ALL MAILBOX LOCATIONS AND CLUSTERS MUST CONFORM TO THE REQUIREMENTS OF THE UNITED STATES POSTAL SERVICE (USPS)
  4. INSTALLATION SHALL COMPLY WITH AASHTO - ROADSIDE DESIGN GUIDE (CHAP 11)
  5. FOR STREETS WITH GRAVEL SHOULDERS (NO CURBS), FACE OF MAILBOX SHALL BE SET AT THE BACK OF THE GRAVEL SHOULDER
  6. MAINTAIN 5' MINIMUM CLEAR ZONE AT THE BACK OF THE MAILBOX FOR ADA ACCESS. FOR EXISTING SIDEWALKS WITHOUT THE 5' MIN CLEAR ZONE, CONSTRUCT ADDITIONAL SIDEWALK PANELS AT BACK OF SIDEWALK, MINIMUM 3' EACH SIDE OF MAILBOX OR MATCH EXISTING SIDEWALK PANELS, WHICHEVER IS GREATER. NEW BACK OF SIDEWALK SHALL MEET 5' MIN CLEAR ZONE REQUIREMENTS. TRANSITION NEW PANELS TO EXISTING WALK WITH 45° TRIANGULAR SHAPED PANELS

Beaverton ENGINEERING

**MAILBOX LOCATIONS**

SCALE: NONE  
DATE: JUNE 2018

**140**



- NOTES:**
1. For use along medians, gutters may be reduced when preapproved by City Engineer.
  2. Concrete to have compressive strength of 4,000 psi at 28 days.
  3. Expansion joints to be provided at each:
    - a. Point of tangency.
    - b. Cold joint.
    - c. Side of inlet structures.
    - d. Side of driveways.
  4. Expansion joint material to be pre-molded, asphalt impregnated, non-extruding, with a thickness of 1/2 inch.
  5. Contraction Joints shall have:
    - a. Spacing of not more than 15 feet.
    - b. Depth of joint of at least 1 1/2 inches.
  6. Base rock 1 1/2"-0 or 3/4"-0, 95% (AASHTO T-180) compaction. Base rock shall be to subgrade of street structure or 7.5 inches, whichever is greater, and shall extend 12 inches behind the curb.
  7. Drainage weephole shall be:
    - a. 3-inch diameter I.D. plastic pipe with coupling and beveled outlet end to match face of curb.
    - b. Centered with contraction joints.
    - c. Core-drilled through existing curbs for drainage access.
  8. Proof roll subgrade and base rock section prior to placement of curb.

Beaverton ENGINEERING

**STANDARD MONOLITHIC CURB AND GUTTER**

SCALE: NONE  
DATE: JUNE 2018

**205**

NO.	REVISION
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2	
3	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**10 OF 84**

SHEET TITLE  
**2B-5**

FILENAME: 140.dwg



EXPIRES: 12/31/25

Harper Houf Peterson Righellis Inc.  
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 205 SE Spokane Street, Suite 300, Portland, OR 97202  
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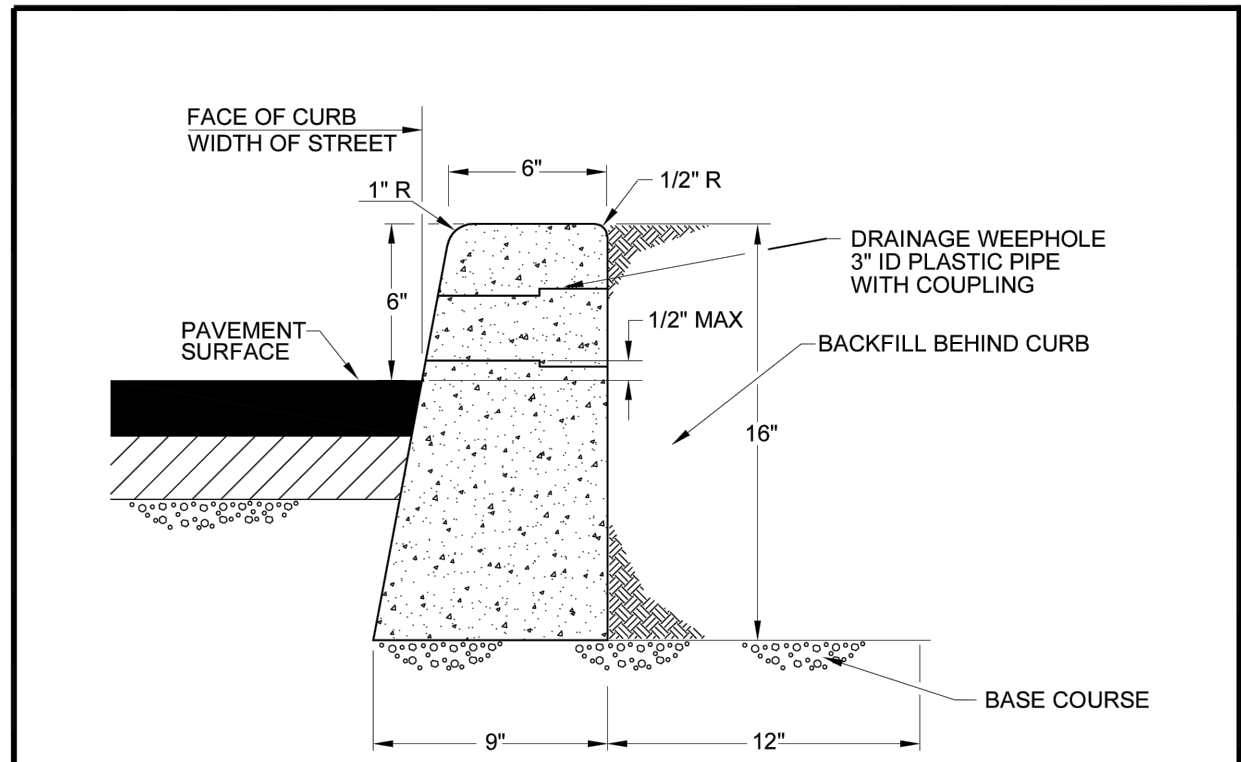
Department of Land Use & Transportation Engineering  
 CLATSOP COUNTY OREGON

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**  
 SHEET NO.  
 11 OF 84  
 SHEET TITLE  
**2B-6**



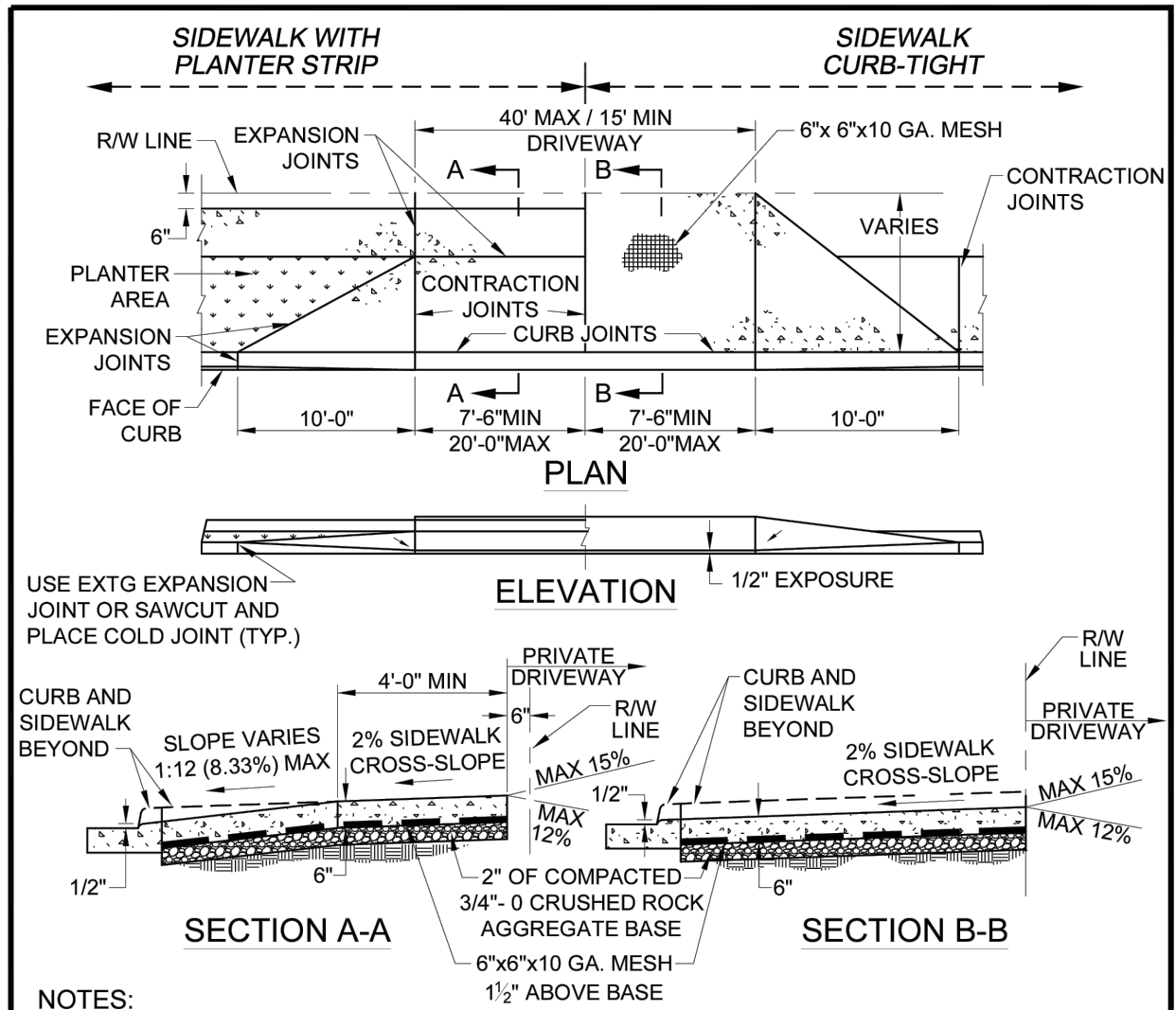
- NOTES:**
- Type 'A' curb **REQUIRES PREAPPROVAL** by the City Engineer. For use **ONLY** when replacing similar curb. This curb is not intended for new construction.
  - Concrete to have compressive strength of 4,000 psi at 28 days.
  - Expansion joints to be provided at each:
    - Point of tangency.
    - Cold joint.
    - Side of inlet structures.
    - Side of driveways.
  - Expansion joint material to be pre-molded, asphalt impregnated, non-extruding, with a thickness of 1/2 inch.
  - Contraction joints shall have:
    - Spacing of not more than 15 feet.
    - Depth of Joint of at least 1 1/2 inches.
  - Base rock 1 1/2"-0 or 3/4"-0, 95% (AASHTO T-180) compaction. Base rock shall be to subgrade of street structure or 7.5 inches, which ever is greater, and shall extend 12 inches behind the curb.
  - Drainage weephole shall be:
    - 3 inch I.D. plastic pipe with coupling and beveled outlet end to match face of curb.
    - Centered with contraction joints.

Beaverton ENGINEERING

**TYPE "A" REPLACEMENT CURB**

SCALE: NONE  
 DATE: JUNE 2018

**208**



- NOTES:**
- Section A-A may be used for curb-tight sidewalk driveway aprons if sidewalk's width is 10' or more.
  - Concrete shall have a minimum breaking strength of 4,000 psi after 28 days.
  - Curb joint shall be a troweled joint with a minimum 1/2 inch radius along back of curb.
  - Expansion joints shall be 1/2 inch pre-molded asphalt impregnated material, cedar or approved equal extending from top of base to finished grade.
  - For driveways 24 feet wide or greater, concrete to be increased to a 7 inch depth.
  - Finish with broom and edge all joints.
  - Weepholes not to be placed in wing.
  - If curbing is being removed to install a driveway and the gutter should become separated from the driving surface in excess of 1/16 inch, then the gutter shall also be removed and replaced.
  - Wings of the commercial driveway which are a portion of the sidewalk shall not exceed 8.333% (1:12).
  - ODOT Standard Drawings for driveways may be used when preapproved by City Engineer.
  - Slope of the driveway may be away from the curb when preapproved by City Engineer.

Beaverton ENGINEERING

**STANDARD COMMERCIAL DRIVEWAY**

SCALE: NONE  
 DATE: JUNE 2018

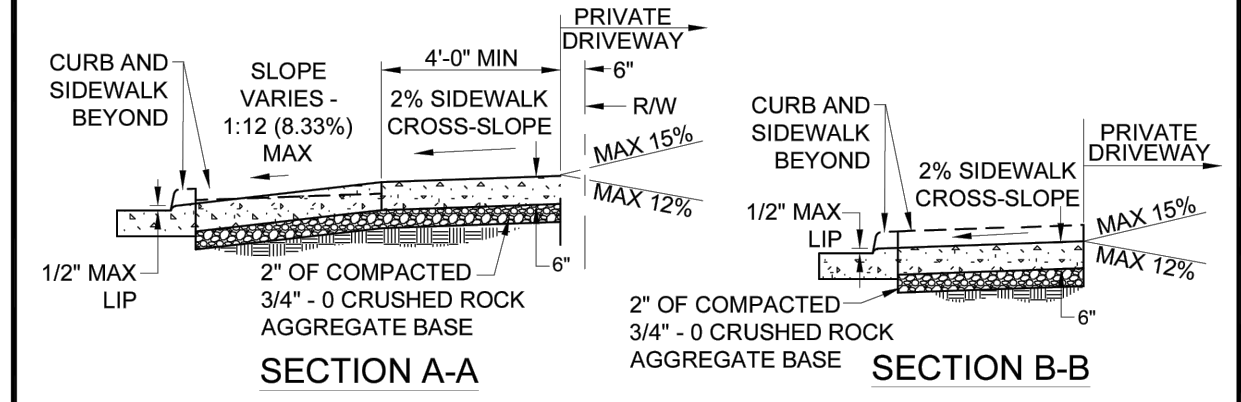
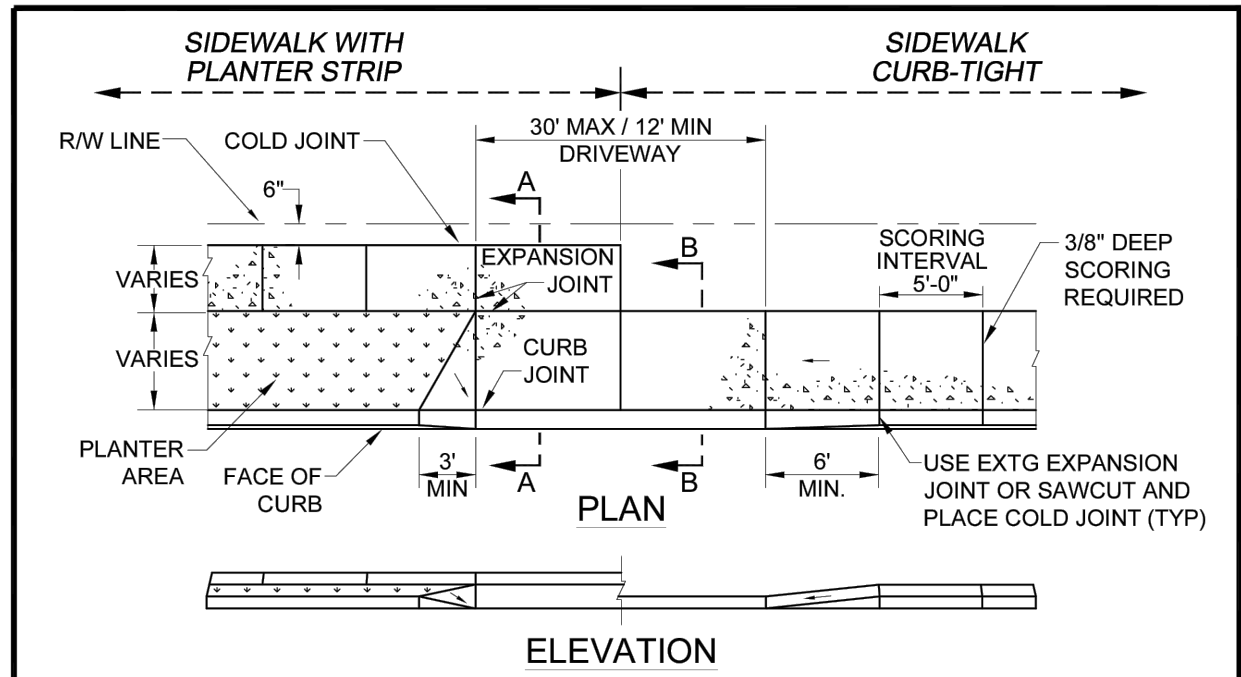
**210**



EXPIRES: 12/31/25

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 WASHINGTON COUNTY



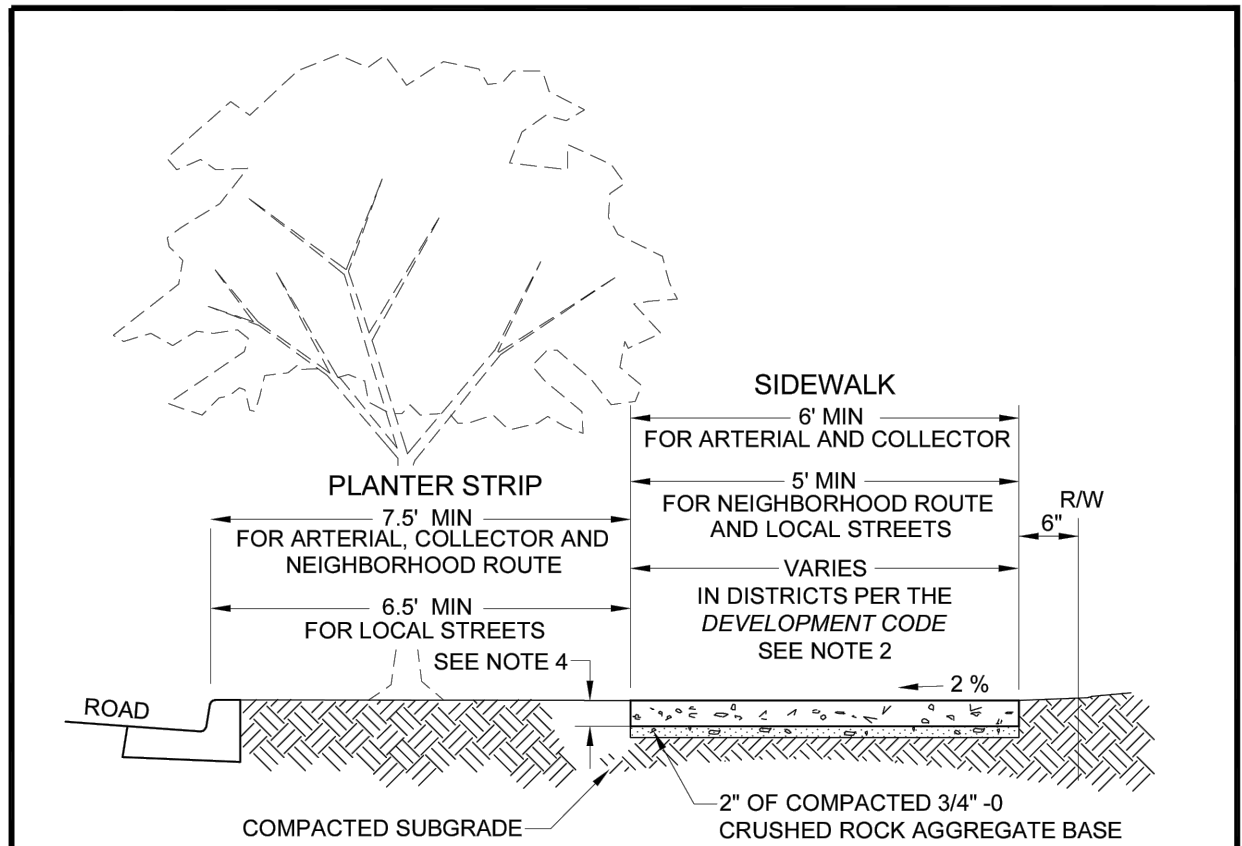
- NOTES:
- Section A-A may be used for curb-tight sidewalk driveway aprons if sidewalks width is 10' or more.
  - Concrete shall have a minimum breaking strength of 4,000 psi after 28 days.
  - Finish with broom and edge all joints.
  - If curbing is being removed to install a driveway and the gutter should become separated from the driving surface in excess of 1/16 inch, then the gutter shall also be removed and replaced.
  - Curb joint shall be a troweled joint with a minimum 1/2 inch radius along back of curb.
  - Expansion joints shall be 1/2 inch pre-molded asphalt impregnated material, cedar or approved equal extending from top of base to finished grade.
  - Weepholes shall not be placed in wing.
  - Slope of the driveway may be away from the curb when preapproved by City Engineer.
  - Refer to *Beaverton Development Code* for additional driveway requirements.

Beaverton ENGINEERING

**STANDARD RESIDENTIAL DRIVEWAY**

SCALE: NONE  
DATE: JUNE 2018

**211**



- NOTES:
- Concrete shall have a minimum compressive strength of 4,000 psi at 28 days. For slump see specifications.
  - Sidewalk panels shall be square with their length equal to the sidewalk's width, except that sidewalks in the Regional Center, Town Center, Station Area and Station Community districts may be wider than 6 feet, in which cases their panels may be 4 to 6 feet square, but all of equal size.
  - Expansion joints to be placed at sides of driveway approaches, utility vaults, sidewalk ramps and/or at points of tangency in curb as shown on the standard drawings for sidewalk ramps and at spacing not to exceed 45 feet.
  - Sidewalk shall have a minimum thickness of 4 inches, except that sidewalk that is intended as a portion of a driveway shall have a minimum thickness of 6 inches. See *Beaverton Standard Dwg*s 210 & 211.
  - Finish with broom and edge all joints.
  - Width of curb is included in planter strip width.
  - Street trees are required except where specifically modified or waived in writing by the City Engineer.
  - For sidewalk repairs, replacements and installations in existing developments, match existing width of sidewalks, and sidewalk panels' widths and lengths.

Beaverton ENGINEERING

**STANDARD SIDEWALK**

SCALE: NONE  
DATE: JUNE 2018

**215**

NO.	REVISION
1	
2	
3	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
 12 OF 84

SHEET TITLE  
**2B-7**



EXPIRES: 12/31/25

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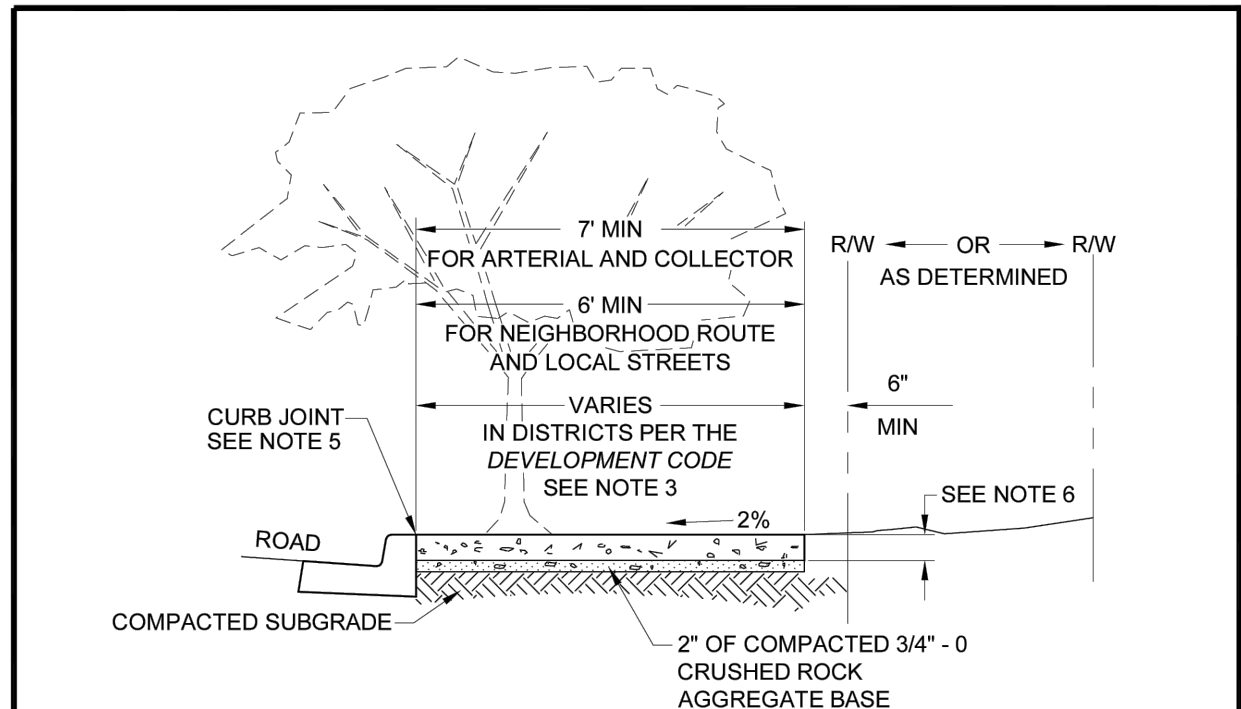
Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY OREGON

NO.	REVISION
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3	
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SW DENNEY ROAD  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

STANDARD DETAILS

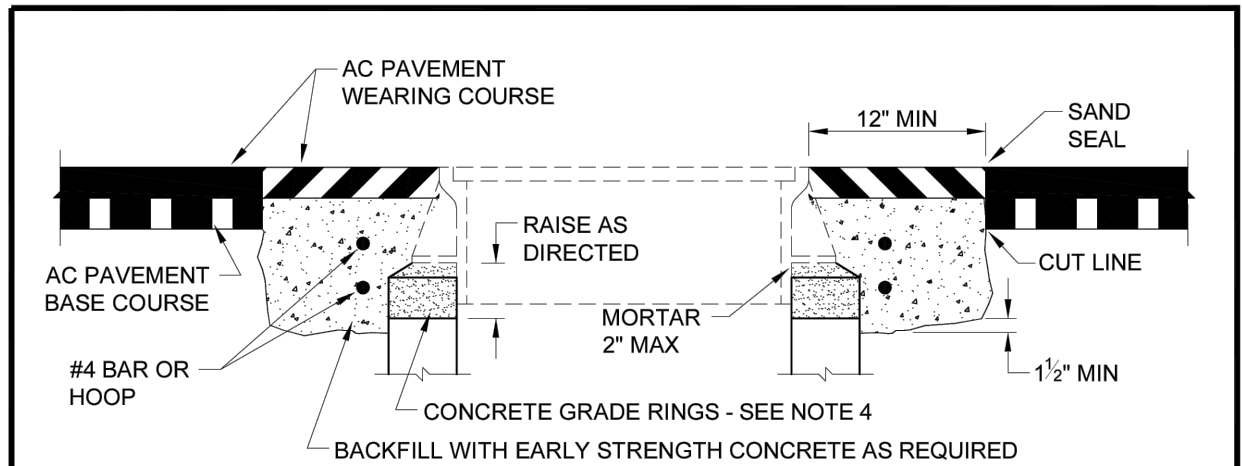
PROJECT NUMBER  
**100666**  
 SHEET NO.  
 13 OF 84  
 SHEET TITLE  
**2B-8**



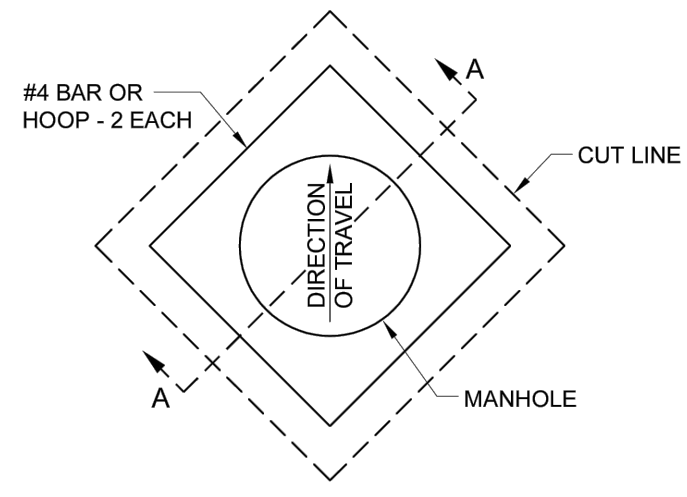
**NOTES:**

- Curb tight sidewalks **REQUIRE PREAPPROVAL** by the City Engineer. They are used for sidewalk repairs, replacements and installations in existing developments. Match width of existing sidewalks, and widths and lengths of existing sidewalk panels.
- Concrete shall have a minimum compressive strength of 4,000 psi at 28 days, For slump see specifications.
- Sidewalk panels shall be square with their length equal to the sidewalk's width, except that sidewalks in the Regional Center, Town Center, Station Area and Station Community districts may be wider than 6 feet, in which cases their panels may be 4 to 6 feet square, but all of equal size.
- Expansion joints to be placed at sides of driveway approaches, utility vaults, sidewalk ramps and/or at points of tangency in curb as shown on the standard drawings for sidewalk ramps and at spacing not to exceed 45 feet.
- For sidewalks adjacent to the curb and poured at the same time as the curb, the joint between them shall be troweled with a minimum 1/2 inch radius.
- Sidewalk shall have a minimum thickness of 4 inches, except that sidewalk that is intended as a portion of a driveway shall have a minimum thickness of 6 inches. See Drawings 210 & 211.
- Where vehicular access across sidewalk is required by City, a 40 foot long section of sidewalk shall be provided in the access area, shall be 6-inches thick and shall be reinforced with 6"x6"x10 ga steel mesh. Location of 40 foot long section to be as directed by City Engineer.
- Finish with broom and edge all joints.
- Street trees, treewells and grates are required except where specifically modified or waived in writing by the City Engineer.
- For sidewalk widths around grated treewells, and tree grate requirements, see *Beaverton Standard Dwg 241*.

	<b>CURB TIGHT SIDEWALK</b>	SCALE: NONE	<b>216</b>
		DATE: JUNE 2018	



**SECTION A-A**



**PLAN**

**NOTES:**

- This manhole adjustment method is to be used for adjusting a new or existing manhole after paving over it with the HMAC base and wearing courses.
- Cover manhole with building paper and construct HMAC base and wearing courses.
- Sawcut square or circular excavation around manhole 12 inches minimum from manhole frame. Orient diagonal of square so that it is parallel to roadway centerline.
- Raise manhole frame and cover to finish grade by installing concrete grade rings and leveling mortar. No more than 10 inches of concrete grade rings shall be used to adjust any manhole to grade. Metal paving rings/risers are not allowed, except as necessary during a pavement overlay project, in which case only one (1) paving ring is allowed. Engineer must design and include calculations in the construction plan set, showing which manhole adjustment option will be used at each location.
- Backfill with early strength PCC and HMAC wearing course.

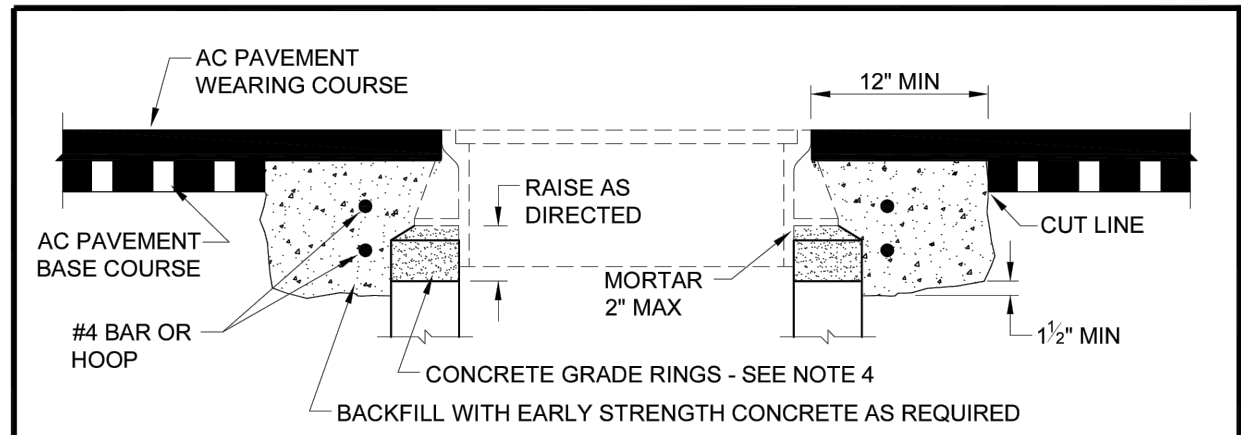
	<b>MANHOLE ADJUSTMENT SEQUENCE OPTION 1</b>	SCALE: NONE	<b>320</b>
		DATE: JUNE 2018	



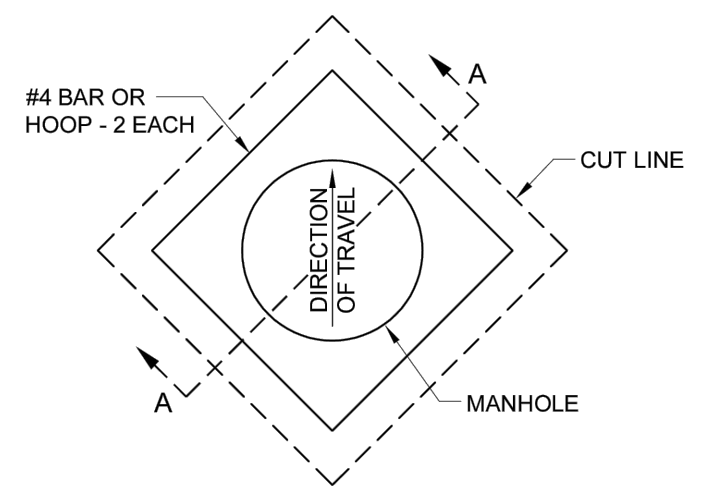
EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY



SECTION A-A



PLAN

**NOTES:**

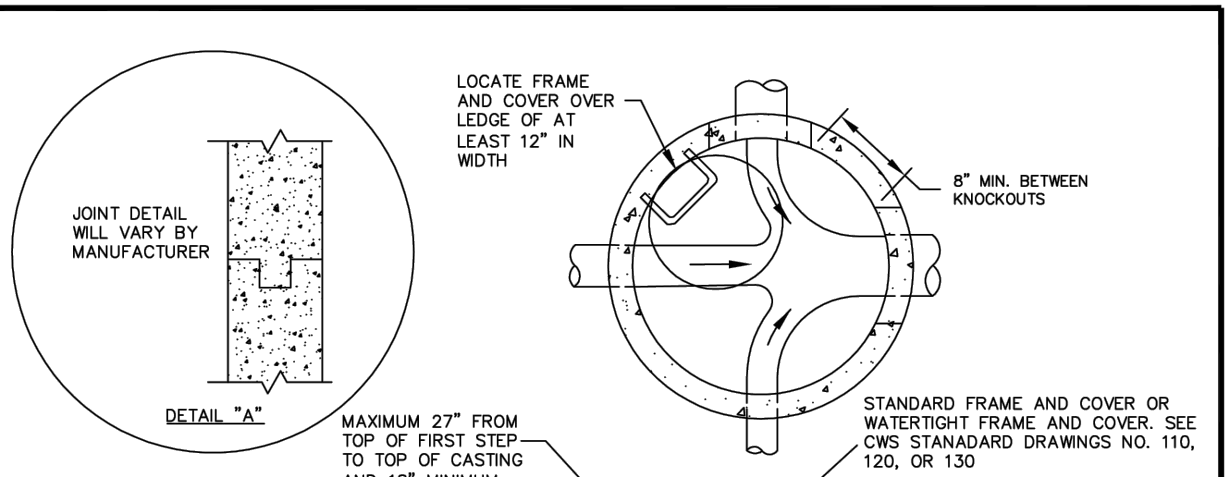
1. This manhole adjustment method is to be used for adjusting a new or existing manhole before paving over it with the HMAC wearing course or a pavement overlay.
2. If manhole is in street to be overlaid, go directly to note 3. If manhole is in a new pavement section, cover manhole with building paper and construct HMAC base course over manhole.
3. Sawcut square or circular excavation around manhole 12 inches minimum from manhole frame. Orient diagonal of square so that it is parallel to roadway centerline.
4. Raise manhole frame and cover to finish grade by installing concrete grade rings and leveling mortar. No more than 10 inches of concrete grade rings shall be used to adjust any manhole to grade. Metal paving rings/risers are not allowed, except as necessary during a pavement overlay project, in which case only one (1) paving ring is allowed. Engineer must design and include calculations in the construction plan set, showing which manhole adjustment option will be used at each location.
5. Backfill with early strength PCC.
6. Construct HMAC wearing course.



**MANHOLE ADJUSTMENT SEQUENCE OPTION 2**

SCALE: NONE  
DATE: JUNE 2018

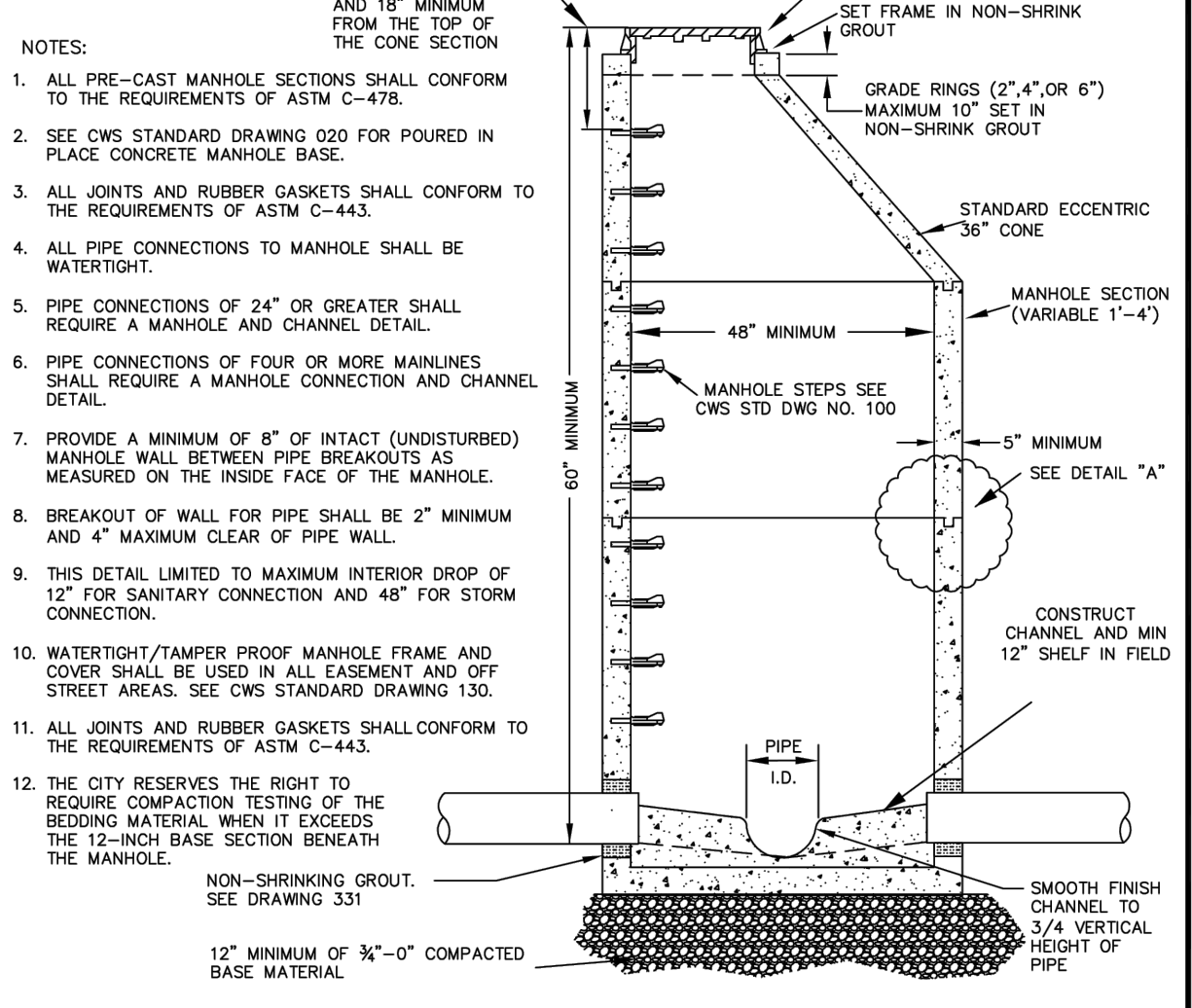
321



DETAIL "A"

**NOTES:**

1. ALL PRE-CAST MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
2. SEE CWS STANDARD DRAWING 020 FOR POURED IN PLACE CONCRETE MANHOLE BASE.
3. ALL JOINTS AND RUBBER GASKETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-443.
4. ALL PIPE CONNECTIONS TO MANHOLE SHALL BE WATERTIGHT.
5. PIPE CONNECTIONS OF 24" OR GREATER SHALL REQUIRE A MANHOLE AND CHANNEL DETAIL.
6. PIPE CONNECTIONS OF FOUR OR MORE MAINLINES SHALL REQUIRE A MANHOLE CONNECTION AND CHANNEL DETAIL.
7. PROVIDE A MINIMUM OF 8" OF INTACT (UNDISTURBED) MANHOLE WALL BETWEEN PIPE BREAKOUTS AS MEASURED ON THE INSIDE FACE OF THE MANHOLE.
8. BREAKOUT OF WALL FOR PIPE SHALL BE 2" MINIMUM AND 4" MAXIMUM CLEAR OF PIPE WALL.
9. THIS DETAIL LIMITED TO MAXIMUM INTERIOR DROP OF 12" FOR SANITARY CONNECTION AND 48" FOR STORM CONNECTION.
10. WATERTIGHT/TAMPER PROOF MANHOLE FRAME AND COVER SHALL BE USED IN ALL EASEMENT AND OFF STREET AREAS. SEE CWS STANDARD DRAWING 130.
11. ALL JOINTS AND RUBBER GASKETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-443.
12. THE CITY RESERVES THE RIGHT TO REQUIRE COMPACTION TESTING OF THE BEDDING MATERIAL WHEN IT EXCEEDS THE 12-INCH BASE SECTION BENEATH THE MANHOLE.



**CWS STANDARD MANHOLE WITH C.O.B. MODIFICATIONS**

SCALE: NONE  
DATE: JUNE 2018

330

NO.	REVISION
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

STANDARD DETAILS

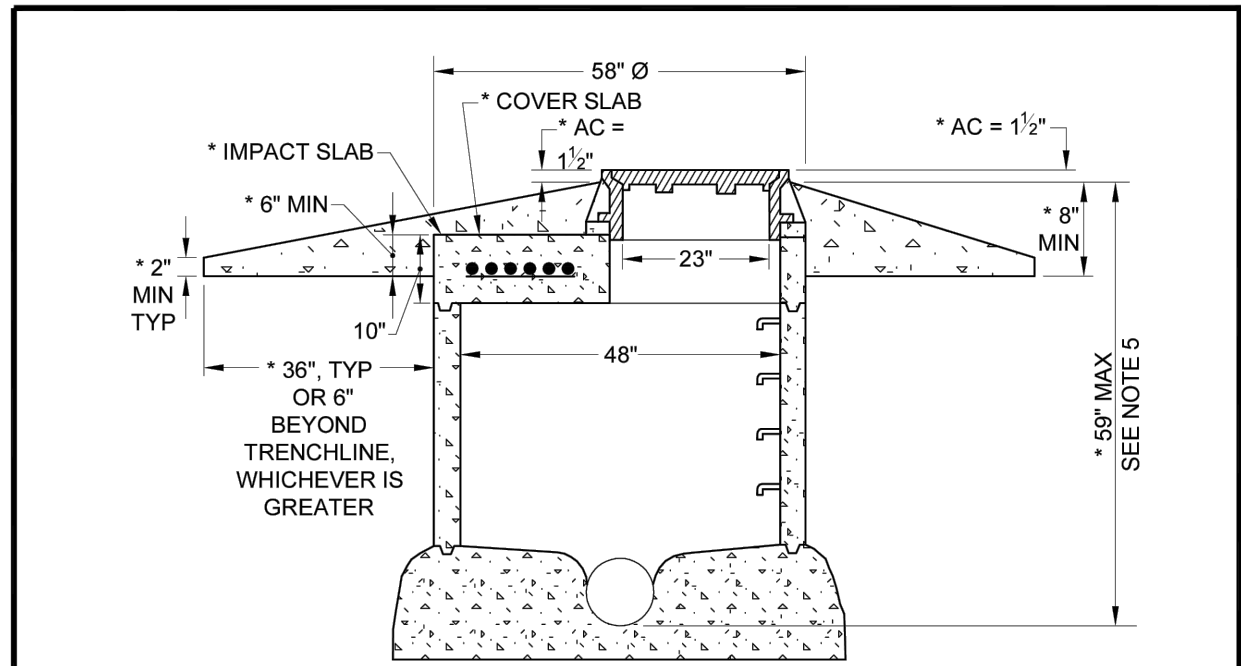
PROJECT NUMBER  
**100666**  
SHEET NO.  
14 OF 84  
SHEET TITLE  
**2B-9**



EXPIRES: 12/31/25

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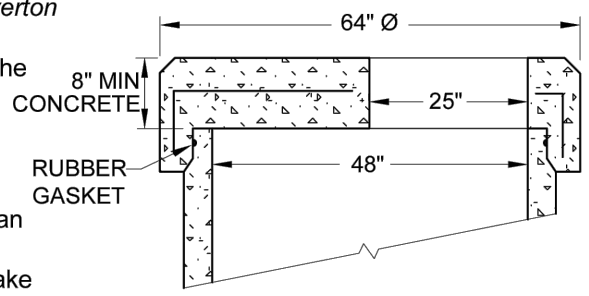
Department of Land Use & Transportation Engineering



**NOTES:**

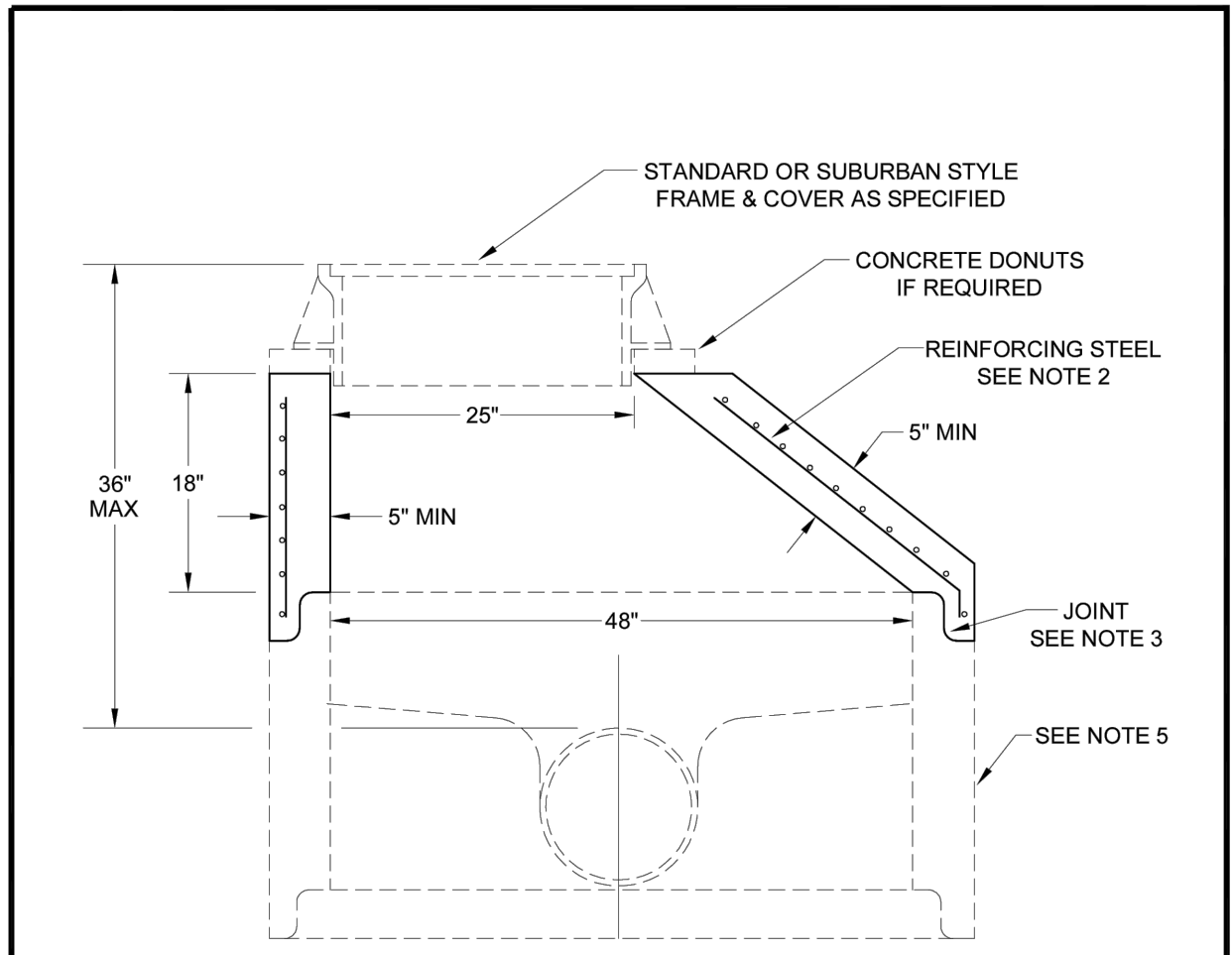
1. This drawing replaces *CWS Standard Dwg 050* and has been modified for use by *City of Beaverton Ordinance #4303*.
2. All joints and rubber gaskets shall conform to the requirements of *ASTM C-433*.
3. All manhole sections shall conform to the requirements of *ASTM C-478* and applicable provisions of drawing 330.
4. Steps required on flat top manholes deeper than 48 inches.
5. \*When depth of manhole is less than 4 feet, make hole for frame and cover in center of cover slab. Provide cover slab reinforcing design for all applications. Submit design to the City for review.
6. \*Impact slab required when cover slab protrudes into road base material. Provide impact slab reinforcing design. Submit design to the City for review.
7. \*Provide cover slab reinforcing design for all applications. Submit design to the City for review.
8. \*The City reserves the right to deviate from this drawing and related requirements in the *Engineering Design Manual* as dictated by project design parameters, and as approved by the City Engineer.

\* INDICATES MODIFICATIONS OF CWS STANDARD DWG 050



**RUBBER GASKET FLAT TOP (OPTIONAL)**

**CWS FLAT TOP MANHOLE WITH C.O.B. MODIFICATIONS** SCALE: NONE DATE: JUNE 2018 **335**



**NOTES:**

1. Manhole cone shall be manufactured by *Cascade Concrete Products Inc* or approved equal and conform to the requirements of *ASTM C-478* and applicable provisions of drawing 330
2. Reinforcing steel is grade 60. Steel area is 0.12 square inch per foot, (D3 on 3 inch spacing), 2" clear of the external surface.
3. All joints and rubber gaskets shall conform to the requirements of *ASTM C-433*.
4. Concrete shall have a 28 day ultimate strength of 4000 psi.
5. Lower section height varies and is to be determined by engineer.

**SHALLOW MANHOLE CONE** SCALE: NONE DATE: JUNE 2018 **336**

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

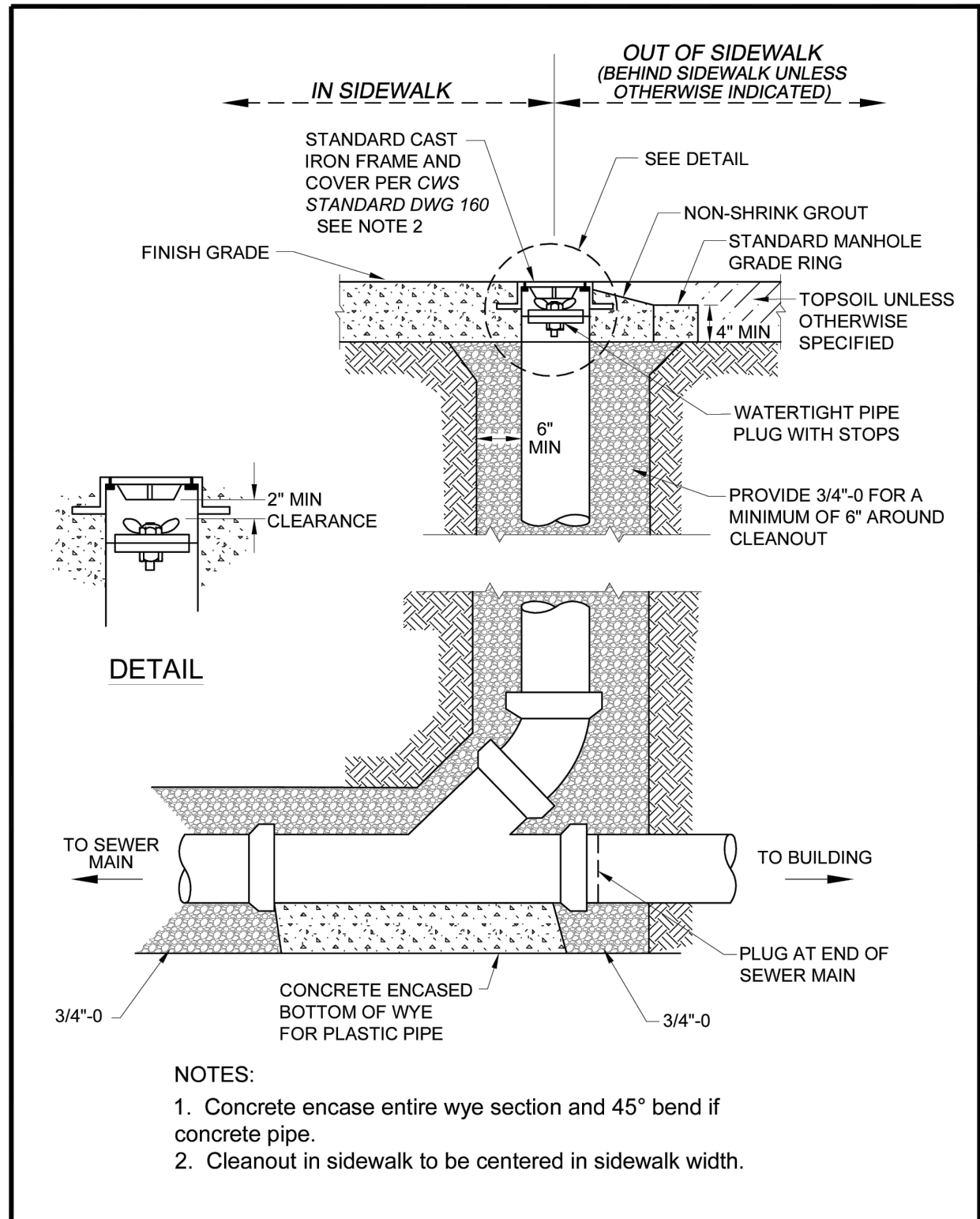
PROJECT NUMBER  
**100666**  
 SHEET NO.  
 15 OF 84  
 SHEET TITLE  
**2B-10**



EXPIRES: 12/31/25

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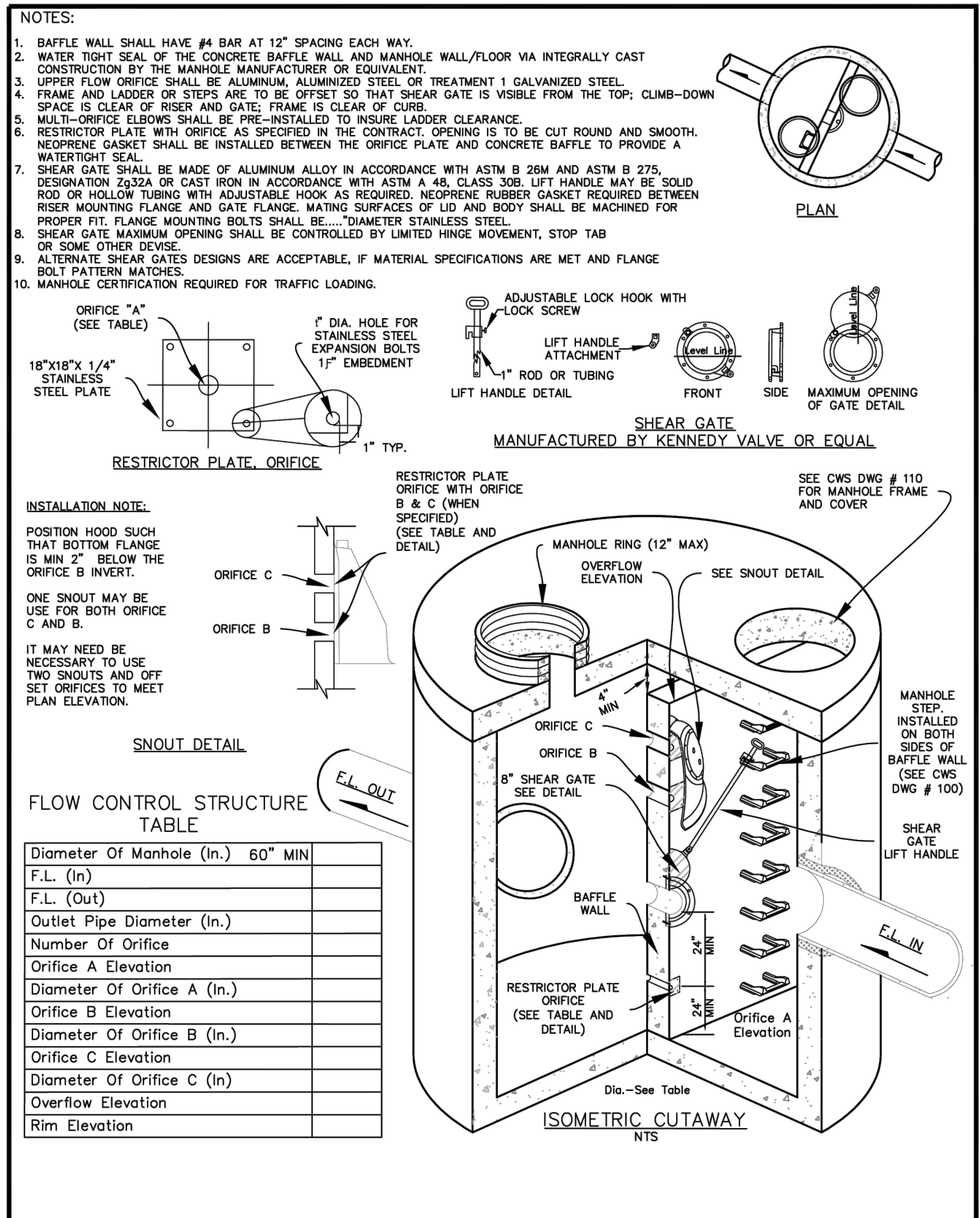
Department of Land Use & Transportation Engineering  
 CLATSOP COUNTY OREGON



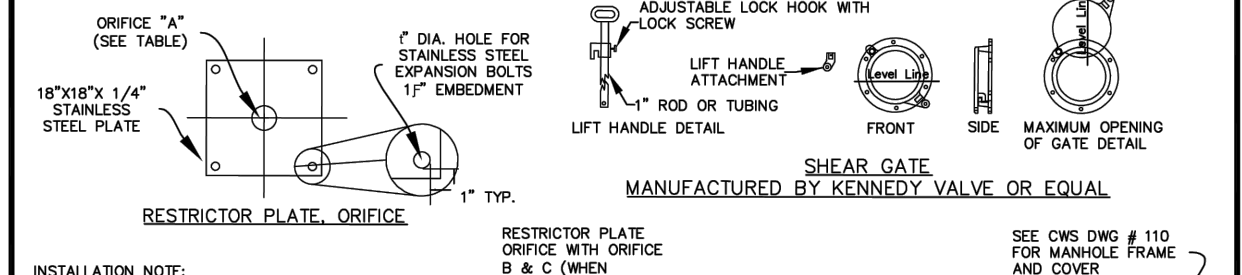
- NOTES:
1. Concrete encase entire wye section and 45° bend if concrete pipe.
  2. Cleanout in sidewalk to be centered in sidewalk width.

	<b>STANDARD CLEANOUT IN EXISTING STREET</b>	SCALE: NONE	<b>340</b>
		DATE: JUNE 2018	

FILENAME: 340.dwg



- NOTES:
1. BAFFLE WALL SHALL HAVE #4 BAR AT 12" SPACING EACH WAY.
  2. WATER TIGHT SEAL OF THE CONCRETE BAFFLE WALL AND MANHOLE WALL/FLOOR VIA INTEGRALLY CAST CONSTRUCTION BY THE MANHOLE MANUFACTURER OR EQUIVALENT.
  3. UPPER FLOW ORIFICE SHALL BE ALUMINUM, ALUMINIZED STEEL OR TREATMENT 1 GALVANIZED STEEL.
  4. FRAME AND LADDER OR STEPS ARE TO BE OFFSET SO THAT SHEAR GATE IS VISIBLE FROM THE TOP; CLIMB-DOWN SPACE IS CLEAR OF RISER AND GATE; FRAME IS CLEAR OF CURB.
  5. MULTI-ORIFICE ELBOWS SHALL BE PRE-INSTALLED TO INSURE LADDER CLEARANCE.
  6. RESTRICTOR PLATE WITH ORIFICE AS SPECIFIED IN THE CONTRACT. OPENING IS TO BE CUT ROUND AND SMOOTH. NEOPRENE GASKET SHALL BE INSTALLED BETWEEN THE ORIFICE PLATE AND CONCRETE BAFFLE TO PROVIDE A WATERTIGHT SEAL.
  7. SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION Zg32A OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B. LIFT HANDLE MAY BE SOLID ROD OR HOLLOW TUBING WITH ADJUSTABLE HOOK AS REQUIRED. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE. MATING SURFACES OF LID AND BODY SHALL BE MACHINED FOR PROPER FIT. FLANGE MOUNTING BOLTS SHALL BE....."DIAMETER STAINLESS STEEL.
  8. SHEAR GATE MAXIMUM OPENING SHALL BE CONTROLLED BY LIMITED HINGE MOVEMENT, STOP TAB OR SOME OTHER DEVICE.
  9. ALTERNATE SHEAR GATE DESIGNS ARE ACCEPTABLE, IF MATERIAL SPECIFICATIONS ARE MET AND FLANGE BOLT PATTERN MATCHES.
  10. MANHOLE CERTIFICATION REQUIRED FOR TRAFFIC LOADING.



INSTALLATION NOTE:

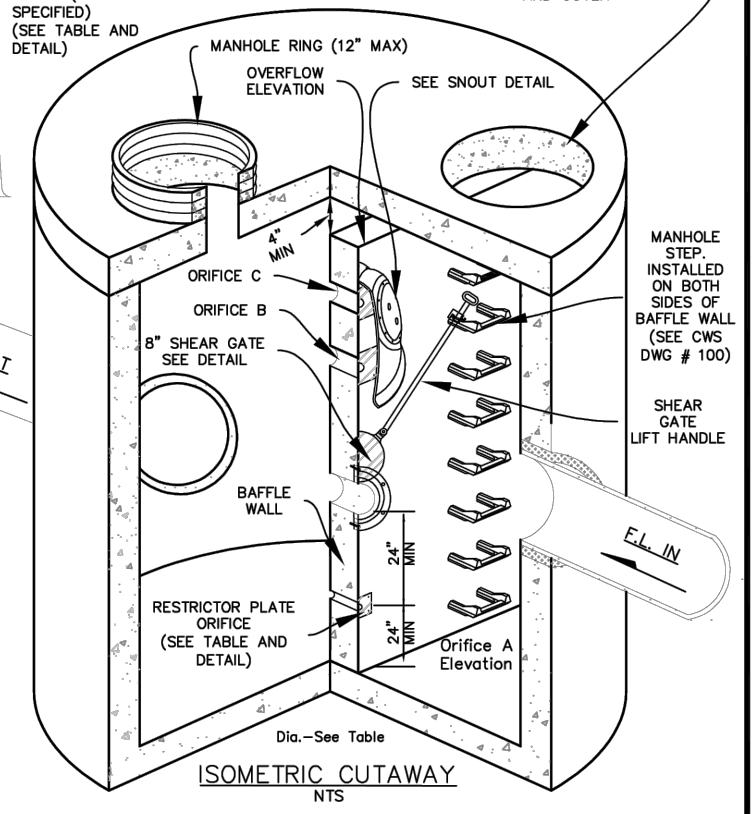
POSITION HOOD SUCH THAT BOTTOM FLANGE IS MIN 2" BELOW THE ORIFICE B INVERT.

ONE SNOOT MAY BE USE FOR BOTH ORIFICE C AND B.

IT MAY NEED BE NECESSARY TO USE TWO SNOOTS AND OFF SET ORIFICES TO MEET PLAN ELEVATION.

FLOW CONTROL STRUCTURE TABLE

Diameter Of Manhole (In.)	60" MIN
F.L. (In)	
F.L. (Out)	
Outlet Pipe Diameter (In.)	
Number Of Orifice	
Orifice A Elevation	
Diameter Of Orifice A (In.)	
Orifice B Elevation	
Diameter Of Orifice B (In.)	
Orifice C Elevation	
Diameter Of Orifice C (In)	
Overflow Elevation	
Rim Elevation	



	<b>CWS FLOW CONTROL STRUCTURE WITH C.O.B. MODIFICATIONS</b>	SCALE: NONE	<b>360</b>
		DATE: JUNE 2018	

FILENAME: 360.dwg

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

STANDARD DETAILS

PROJECT NUMBER  
**100666**

SHEET NO.  
 16 OF 84

SHEET TITLE  
**2B-11**



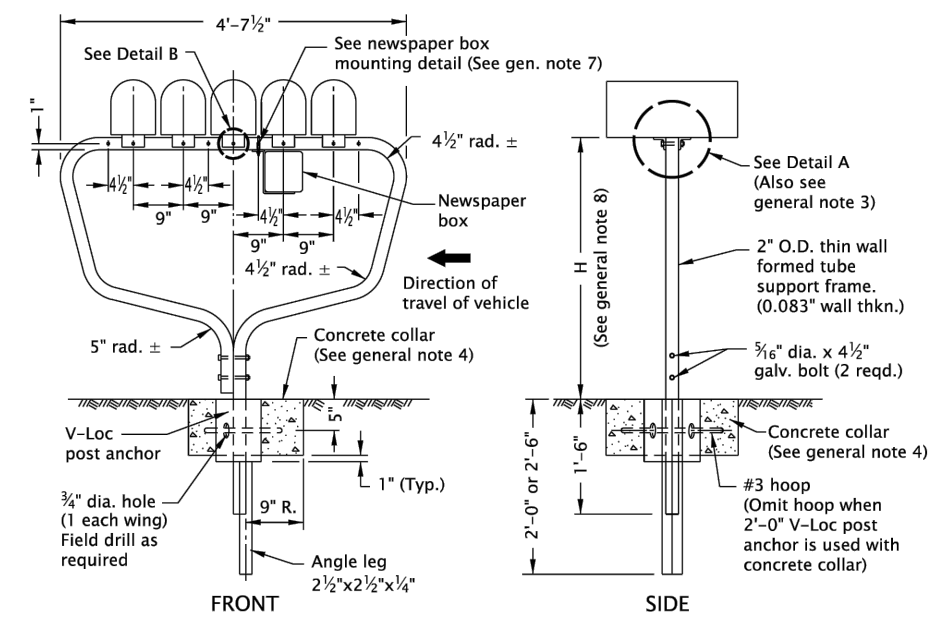


EXPIRES: 12/31/25

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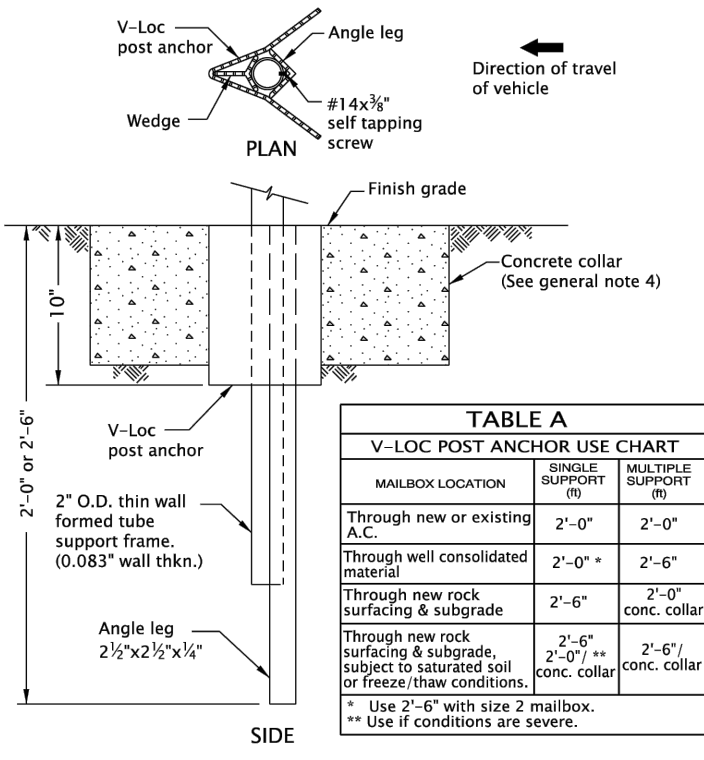
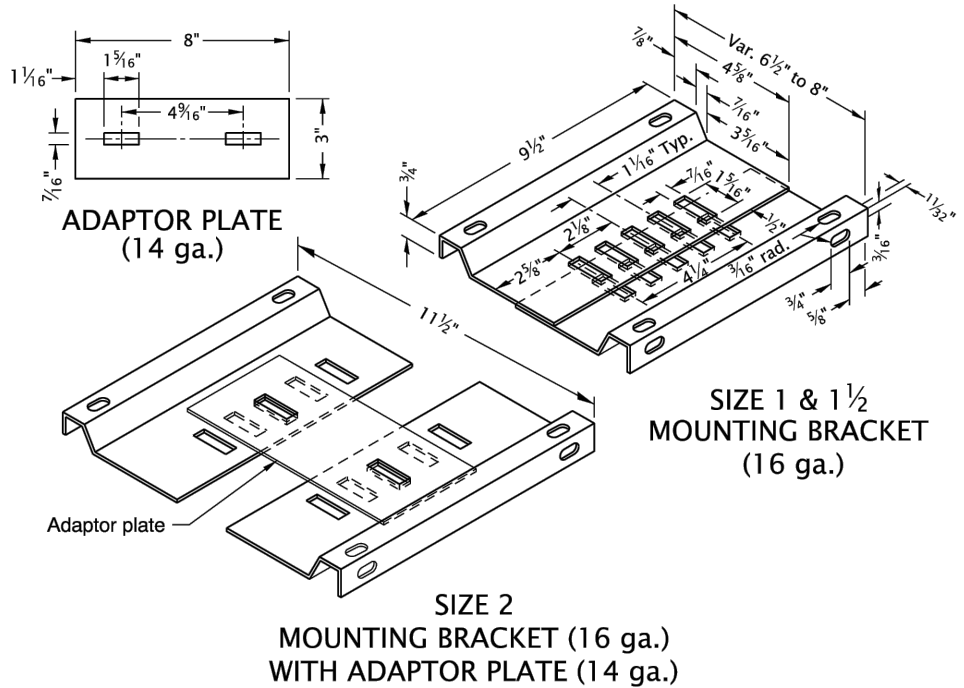
Department of Land Use & Transportation Engineering  
 OREGON

20-JUL-2020 RD100.dgn



**CONCRETE COLLAR**  
(See general note 4)

**MULTIPLE SUPPORT**  
(Supports 5 standard (Sizes 1 & 1 1/2) mailboxes or 4 large (Size 2) mailboxes)

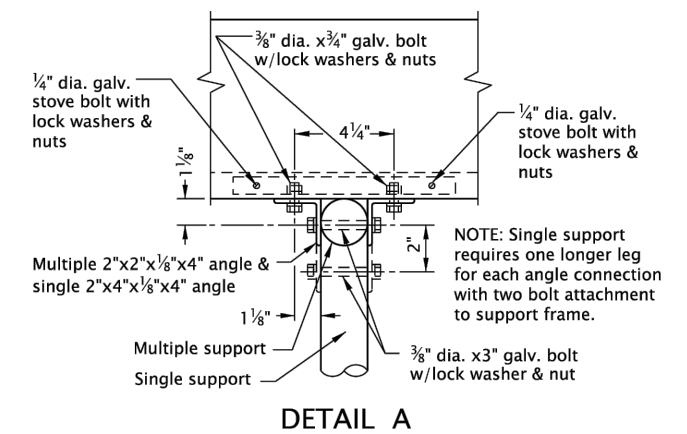


**TABLE A**  
V-LOC POST ANCHOR USE CHART

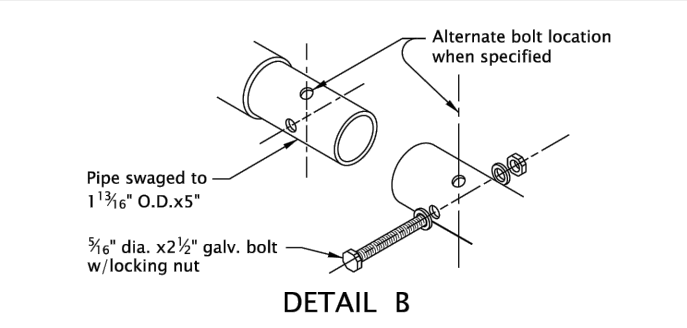
MAILBOX LOCATION	SINGLE SUPPORT (ft)	MULTIPLE SUPPORT (ft)
Through new or existing A.C.	2'-0"	2'-0"
Through well consolidated material	2'-0" *	2'-6"
Through new rock surfacing & subgrade	2'-6"	2'-0" conc. collar
Through new rock surfacing & subgrade, subject to saturated soil or freeze/thaw conditions.	2'-6" conc. collar	2'-6" conc. collar

\* Use 2'-6" with size 2 mailbox.  
 \*\* Use if conditions are severe.

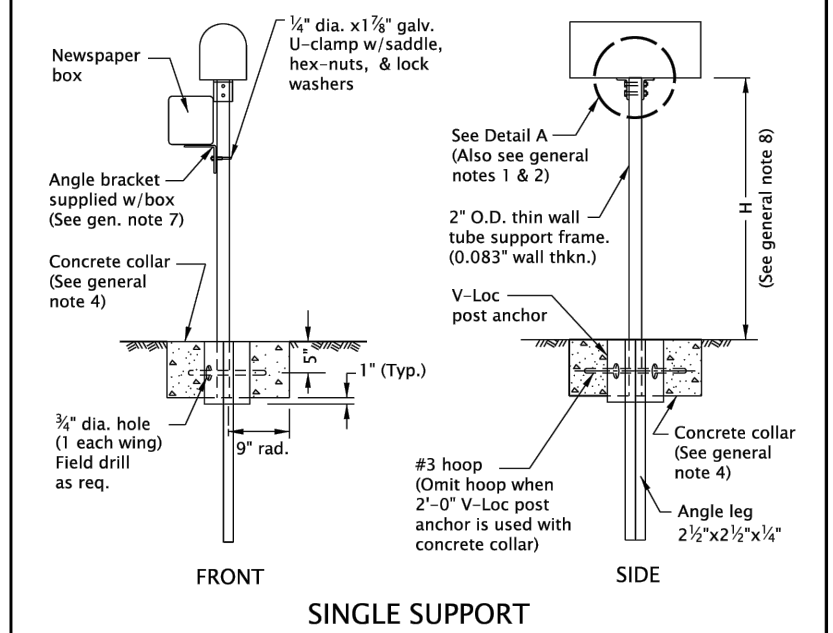
**POST MOUNTING SOCKET**



**DETAIL A**



**DETAIL B**



**SINGLE SUPPORT**

**GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**

- Angle connections to be parallel to traffic flow for Size 2 mailbox mounted on single post.
- All holes in the tube support frame are to be predrilled by the manufacturer.
- Size 2 mailbox mounted on a multiple support requires 2 each 3/8 dia. x 5/8 galv. bolts with lock washers and nuts to attach the adaptor plate to the mounting bracket. The unit will then require 4 angle connections to attach to the formed tube support frame. See Detail A.
- Provide concrete collar when any of the following conditions exist:
  - when required in Table A
  - when required by project plans
  - as directed by the Engineer
 Concrete collar, when required, to be poured in place after V-Loc post anchor has been installed, level and plumb. Do not excavate below bottom of V-Loc post anchor. Care shall be taken that no concrete is placed within anchor.
- Other proprietary products available as listed in ODOT's QPL.
- For mailbox installation locations, see Std. Dwg. RD101 and project plans.
- For Newspaper Box Mounting Detail, see Std. Dwg. RD101.
- Mounting height (H) shall be 42" nominal, measured from vehicle driving surface.
- See project plans for detail not shown.

*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**

**MAILBOX SUPPORT**

2021

DATE	REVISION	DESCRIPTION

CALC. BOOK NO. N/A SDR DATE 25-JUL-2017 **RD100**

Effective Date: June 1, 2023 - November 30, 2023

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
 17 OF 84

SHEET TITLE  
**2B-12**

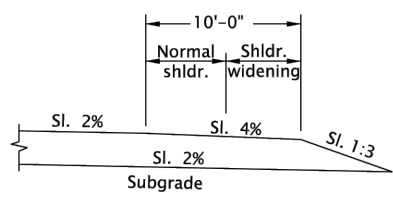


EXPIRES: 12/31/25

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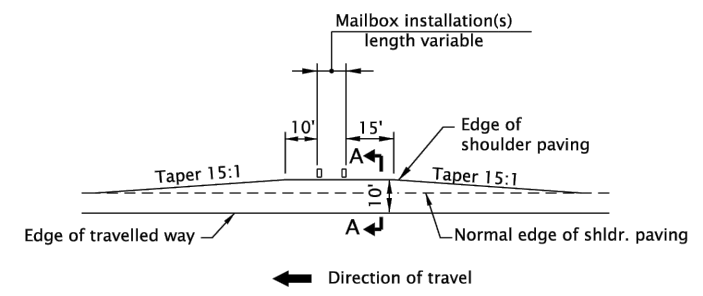
Department of Land Use & Transportation Engineering

RD101.dgn 20-JUL-2020

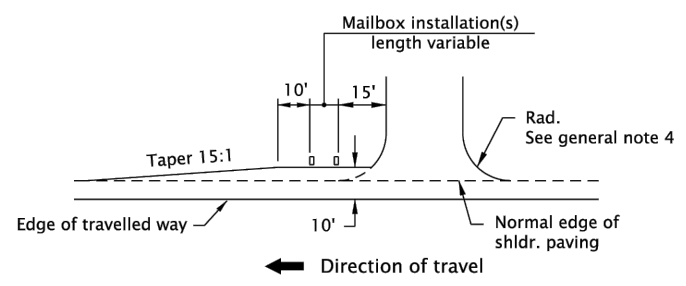


**SECTION A-A**

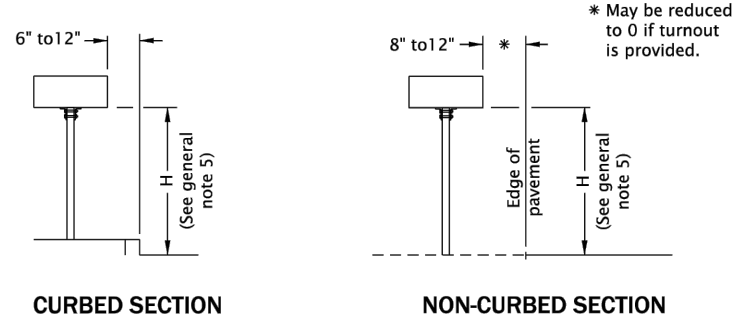
**MAILBOX SERVICE TURNOUT**



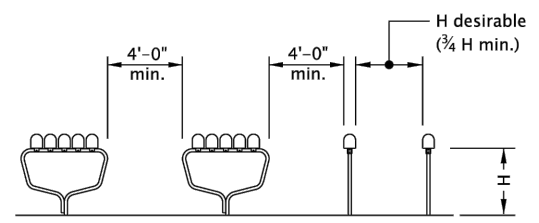
**MAILBOX SERVICE TURNOUT BEFORE APPROACH**



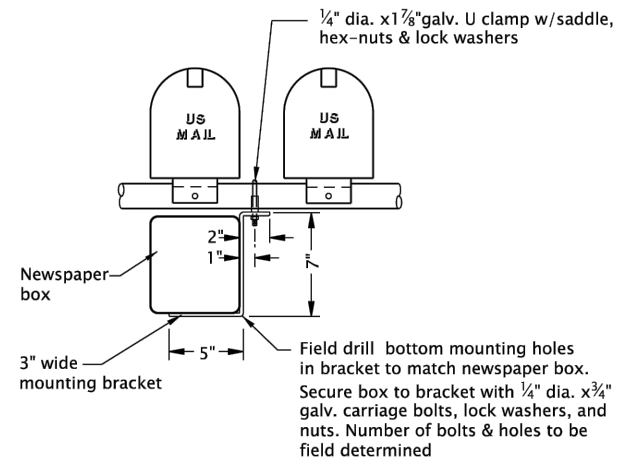
**MAILBOX SERVICE TURNOUT AFTER APPROACH**



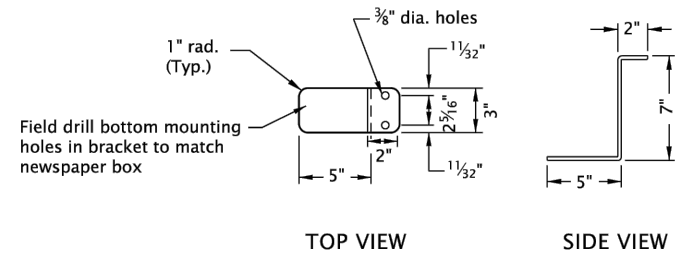
**CURBED SECTION**      **NON-CURBED SECTION**  
**PLACEMENT**



**SUPPORT SPACING**



**NEWSPAPER BOX MOUNTING DETAIL**



**NEWSPAPER BOX MOUNTING BRACKET DETAIL (14 ga.)**

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
- All holes in the tube support frame are to be predrilled by the manufacturer.
  - Other proprietary products available as listed in ODOT's QPL.
  - For mailbox support details, see Std. Dwg. RD100.
  - For approach details, see Std. Dwg. RD715.
  - Mounting height (H) shall be 42" nominal, measured from vehicle driving surface.
  - See project plans for details not shown.

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All materials shall be in accordance with the current Oregon Standard Specifications.

**OREGON STANDARD DRAWINGS**

**MAILBOX INSTALLATION**

2021

DATE	REVISION	DESCRIPTION

CALC. BOOK NO. N/A      SDR DATE: 25-JUL-2017      **RD101**

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**  
 SHEET NO.  
 18 OF 84  
 SHEET TITLE  
**2B-13**

Effective Date: June 1, 2023 – November 30, 2023



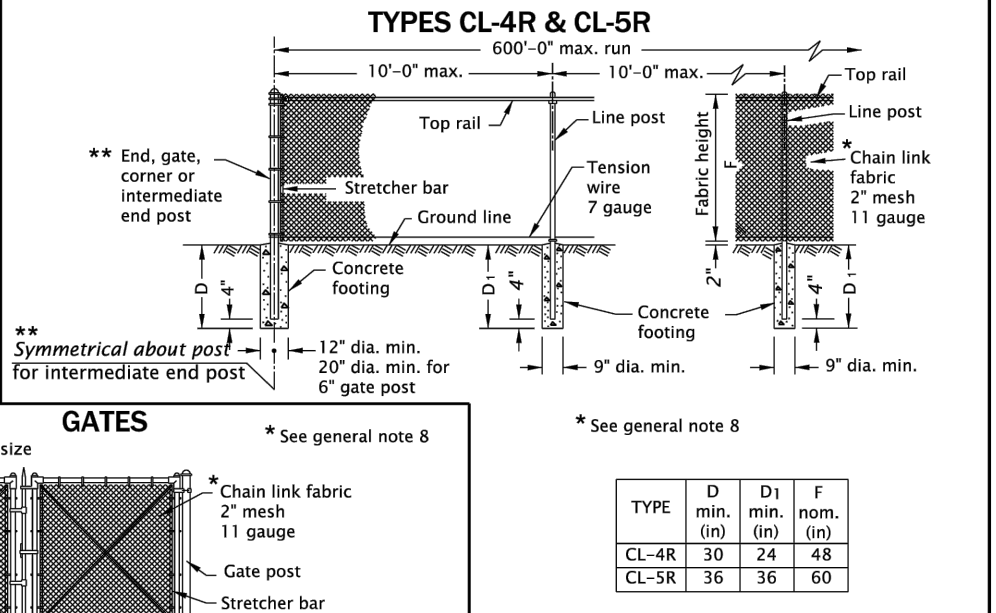
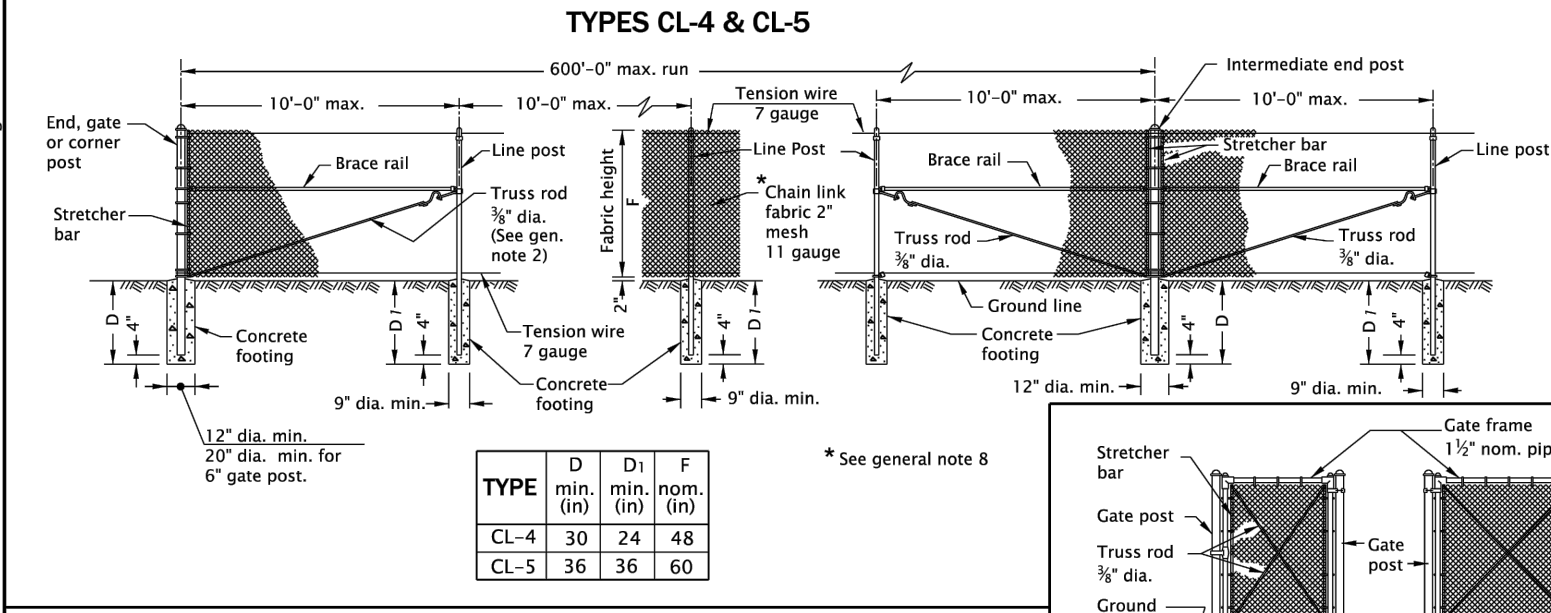
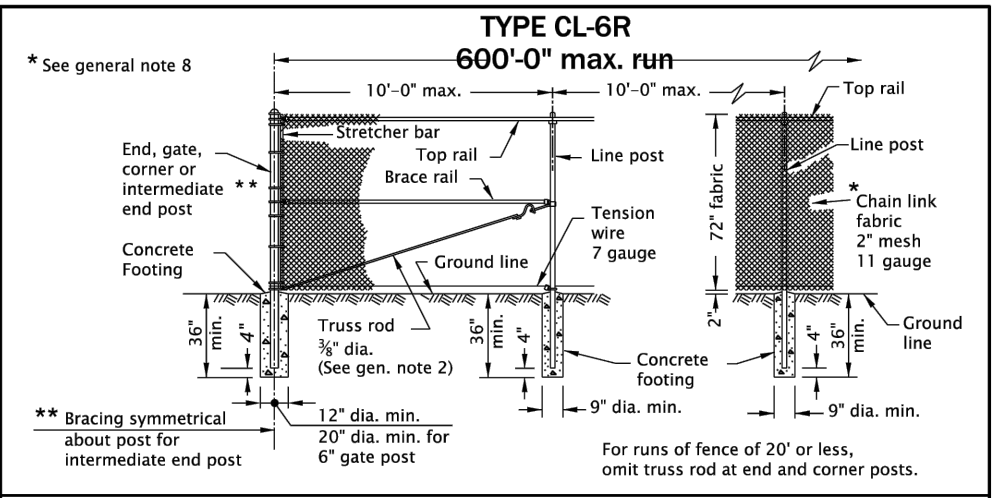
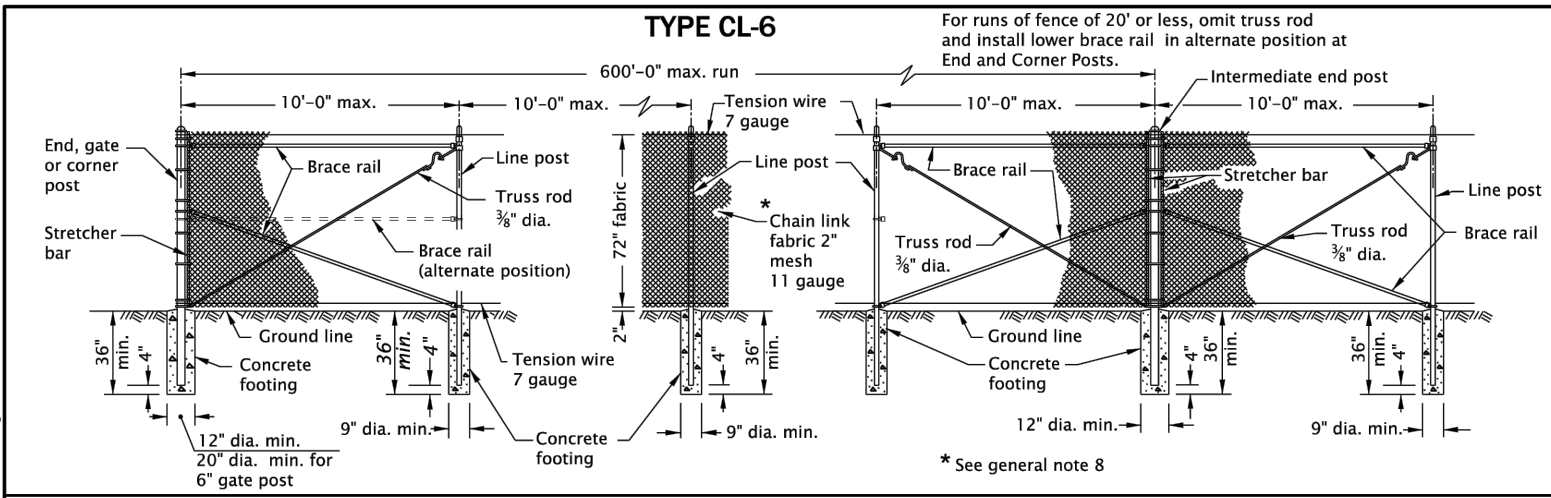
EXPIRES: 12/31/25

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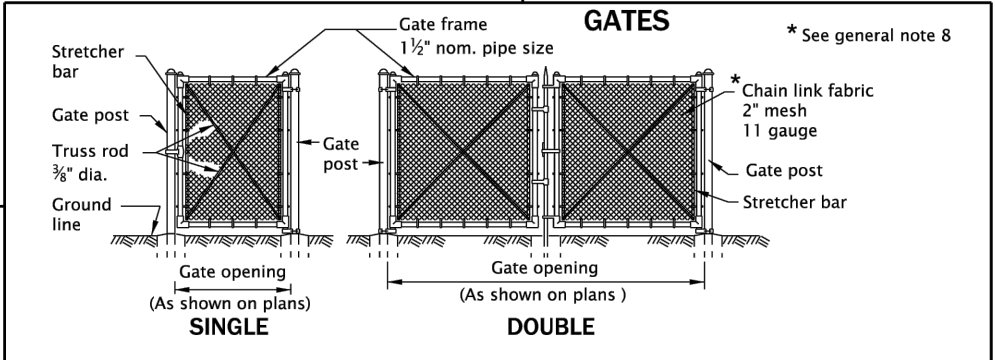
Department of Land Use & Transportation Engineering  
**CLATSOP COUNTY OREGON**

20-JUL-2020

RD815.dgn



TYPE	D min. (in)	D1 min. (in)	F nom. (in)
CL-4	30	24	48
CL-5	36	36	60



TYPE	D min. (in)	D1 min. (in)	F nom. (in)
CL-4R	30	24	48
CL-5R	36	36	60

**TABLE 1**

TYPE	MEMBER								GATE OPENING (ft)		GATE POSTS	
	BRACE AND TOP RAILS		LINE POSTS			END, CORNER & INTERMEDIATE END POST			SINGLE GATE	DOUBLE GATE	TUBULAR	
	TUBULAR		TUBULAR	H-SECTION	TUBULAR			Fence Industry (in)			Norm. Dia. (in)	Fence Industry (in)
CL-4 & CL-4R CL-5 & CL-5R	1 1/8	1 1/4	1 1/8	1 1/2	1 7/8 x 1 5/8	2.72	2 3/8	2	Up thru 6	Up thru 12	2 7/8	2 1/2
CL-6 & CL-6R	1 1/8	1 1/4	2 3/8	2	2 1/4 x 2	4.10	2 7/8	2 1/2	7 thru 13	13 thru 26	4	3 1/2
									14 thru 18	27 thru 36	6 5/8	6

NOTE: For CL-6, CL-6R, CL-8, CL-8R, CL-10 & CL-10R, the hardware is minimum and does not include slat wind loading.

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Do not use top rail where fence can be struck by an errant vehicle.
  - Fittings shown are illustrative of use and not specific as to design.
  - Gate posts on each side of a gate opening to be the same size. At a double gate installation with unequal width gates, size of both posts to be as indicated for a single gate installation of the wider gate width.
  - For cross sectional dimensions of members, see Table 1.
  - Posts and rails with sections not shown that meet the requirements of AASHTO M181 are acceptable alternates. See ODOT's QPL for acceptable alternates.
  - All concrete shall be commercial grade concrete.
  - All chain link fabric top and bottom selvage shall be knuckled finish.
  - Chain link fabric for the fence to be installed with pickets shall be 9 gauge wire woven in 3 1/2" by 5 1/2" diamond mesh.
  - See project plans for details not shown.
  - Add fence grounding as required.

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All materials shall be in accordance with the current Oregon Standard Specifications.

**OREGON STANDARD DRAWINGS**

**CHAIN LINK FENCE**

2021

DATE	REVISION DESCRIPTION

CALC. BOOK NO. N/A SDR DATE 13-JAN-2020 **RD815**

Effective Date: June 1, 2023 - November 30, 2023

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**  
 SHEET NO.  
 19 OF 84  
 SHEET TITLE  
**2B-14**

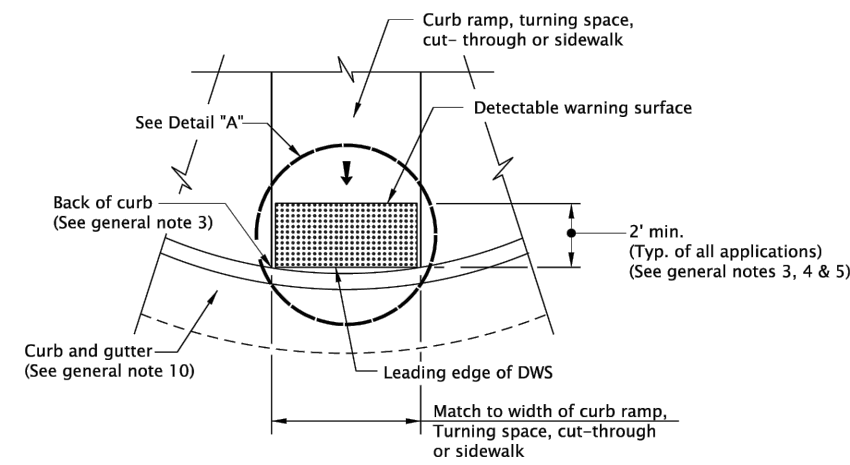


EXPIRES: 12/31/25

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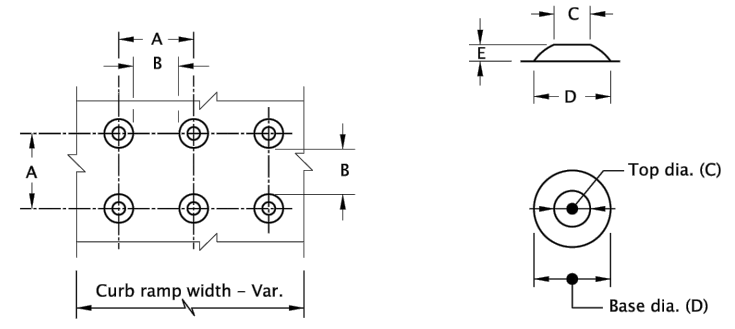
Department of Land Use & Transportation Engineering  
 CLATSOP COUNTY OREGON

19-JUL-2021 RD902.dgn

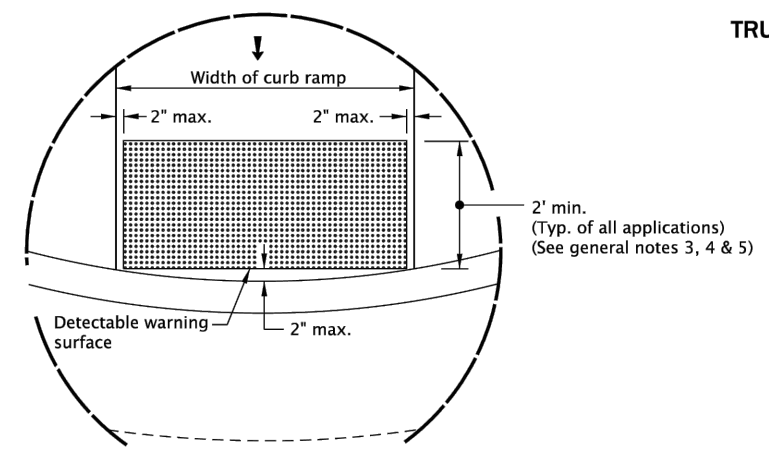


**DETECTABLE WARNING SURFACE DETAIL**

	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:
- Detectable warning surface details & locations are based on applicable ODOT Standards.
  - See project plans for details not shown. See Std. Dwgs. RD700 & RD701 for curbs.
  - 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").
  - 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 may be cut to meet necessary shape as shown in plans. 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.
  - Color to be safety yellow if no color specified in construction note. Alternative colors require a design exception on or along state highways.
  - Detectable warning surface shall be used in the following locations:
    - Curb ramps at street crossings.
    - Crossing islands (Accessible Route Islands).
    - Rail crossings.
  - 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).
  - Detectable warning surface shall not be used on the following locations:
    - End of sidewalk transitions that are not at a crosswalk, (see Std. Dwgs. RD950, RD952 and RD960).
    - Driveways, unless constructed with curb return or are signalized.
    - Parking lots, access aisles and passenger loading zones where curb ramp does not lead to vehicular way.
  - Where no curb is present, the detectable warning surface shall be placed at the edge of the roadway.
  - 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)

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

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**20** OF **84**

SHEET TITLE  
**2B-15**

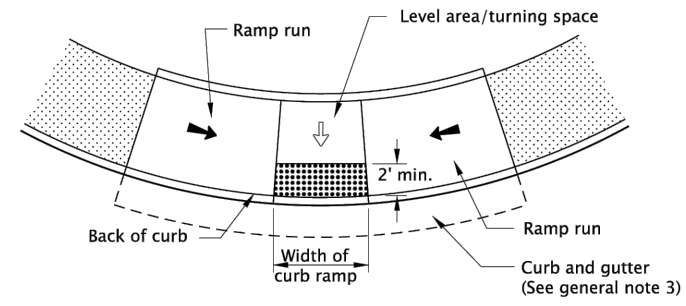


EXPIRES: 12/31/25

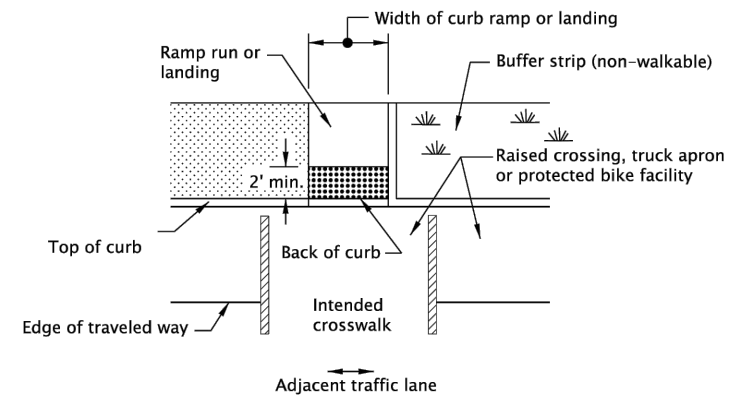
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Department of Land Use & Transportation Engineering

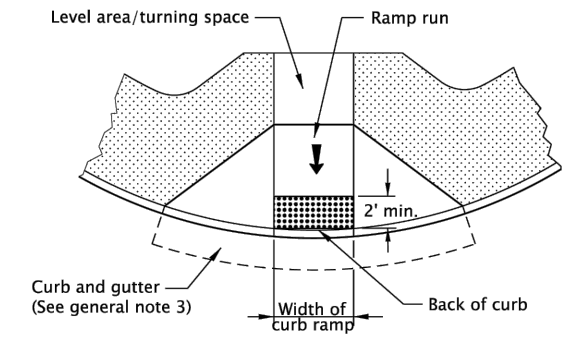
20-JUL-2020  
RD904.dgn



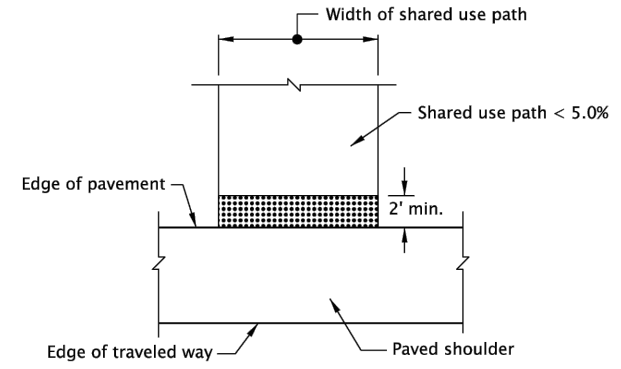
**PARALLEL CURB RAMP**



**RAISED CROSSING, TRUCK APRON OR PROTECTED BIKE FACILITY**



**PERPENDICULAR CURB RAMP  
GRADE BREAK IN FRONT OF CURB**



**SHARED-USE PATH CONNECTION**

**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)

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**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: 20-JUL-2020 **RD904**

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

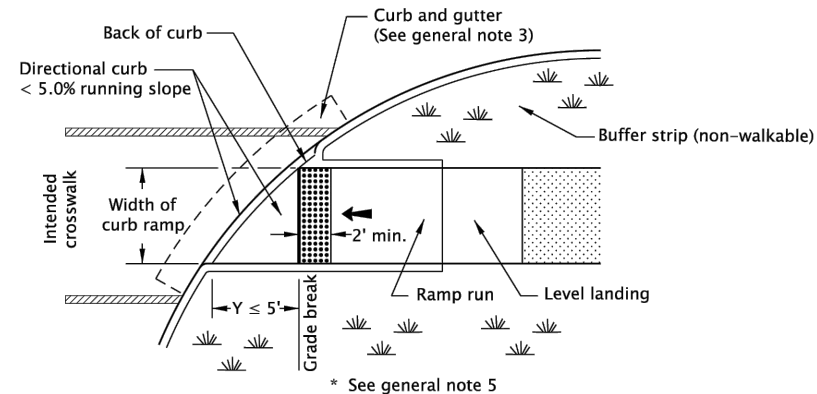
**STANDARD DETAILS**

PROJECT NUMBER  
**100666**  
 SHEET NO.  
 21 OF 84  
 SHEET TITLE  
**2B-16**

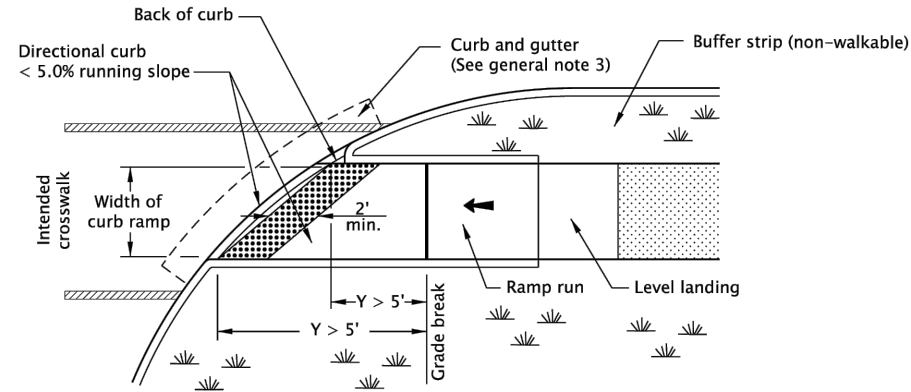
Effective Date: June 1, 2023 - November 30, 2023

14-JAN-2022

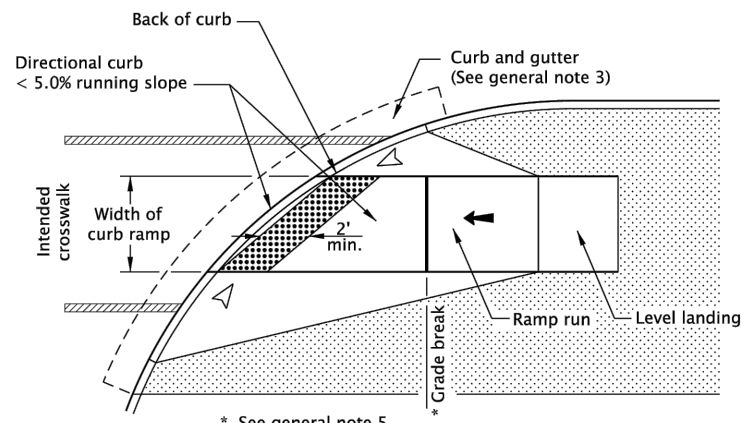
RD905.dgn



**CURB RAMP CROSSING  
GRADE BREAK ≤ 5 FT. FROM BACK OF CURB**



**CURB RAMP CROSSING  
GRADE BREAK > 5 FT. FROM BACK OF CURB**



**CURB RAMP CROSSING  
DIRECTIONAL CURB WITH FLARED CONSTRUCTION**

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.
5. Detectable warning surface placement across the grade break is prohibited.

LEGEND:

- Marked or intended crossing location
- Sidewalk
- Detectable warning surface
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- Flare slope (Max. 10.0% finished surface slope)

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All materials shall be in accordance with the current Oregon Standard Specifications.	
<b>OREGON STANDARD DRAWINGS</b>	
<b>DETECTABLE WARNING SURFACE PLACEMENT FOR DIRECTIONAL CURBS</b>	
2021	
DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
01-2022	REVISED NOTES
CALC. BOOK NO. _ _ _ N/A _ _ _	SDR DATE 14-JAN-2022 <b>RD905</b>

Effective Date: June 1, 2023 – November 30, 2023



EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering  
**WASHINGTON COUNTY**  
OREGON

NO.	REVISION
1	
2	
3	
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

STANDARD DETAILS

PROJECT NUMBER  
**100666**  
SHEET NO.  
22 OF 84  
SHEET TITLE  
**2B-17**

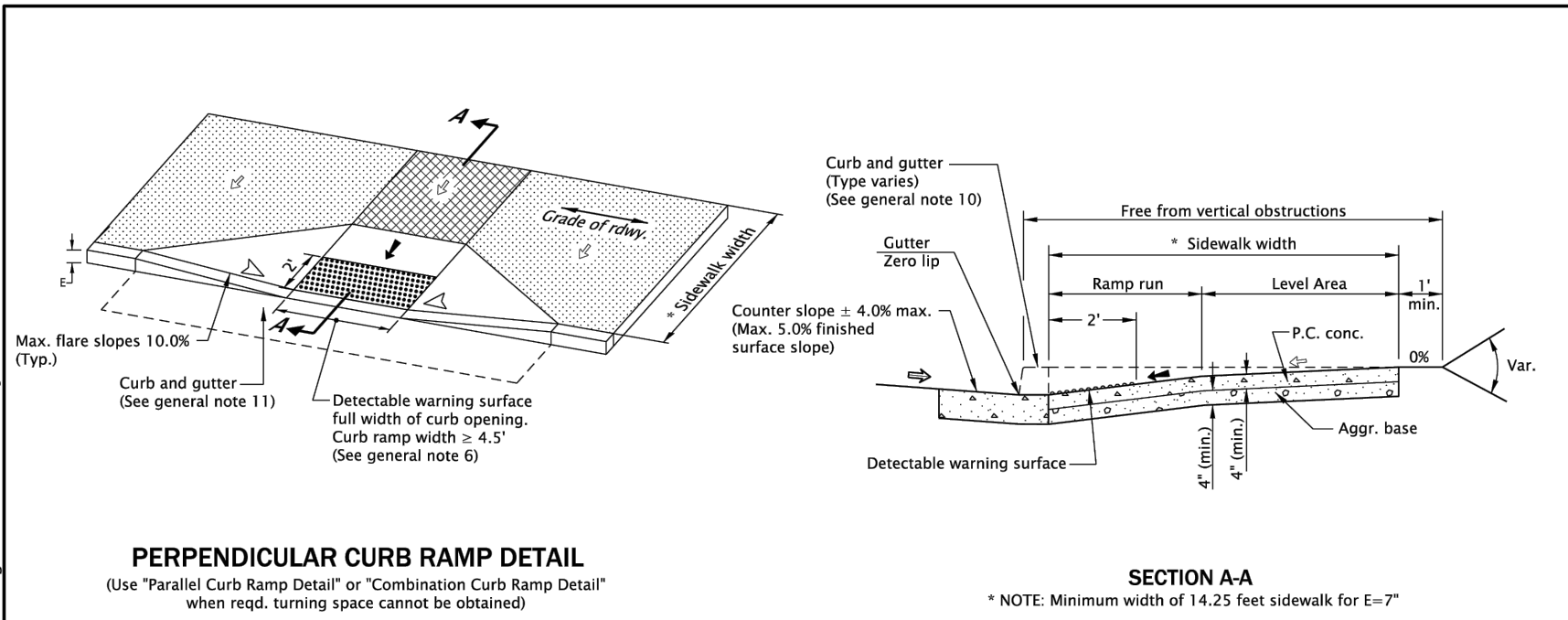


EXPIRES: 12/31/25

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**Department of Land Use & Transportation Engineering**  
 CLATSOP COUNTY OREGON

14-JAN-2022 RD910.dgn



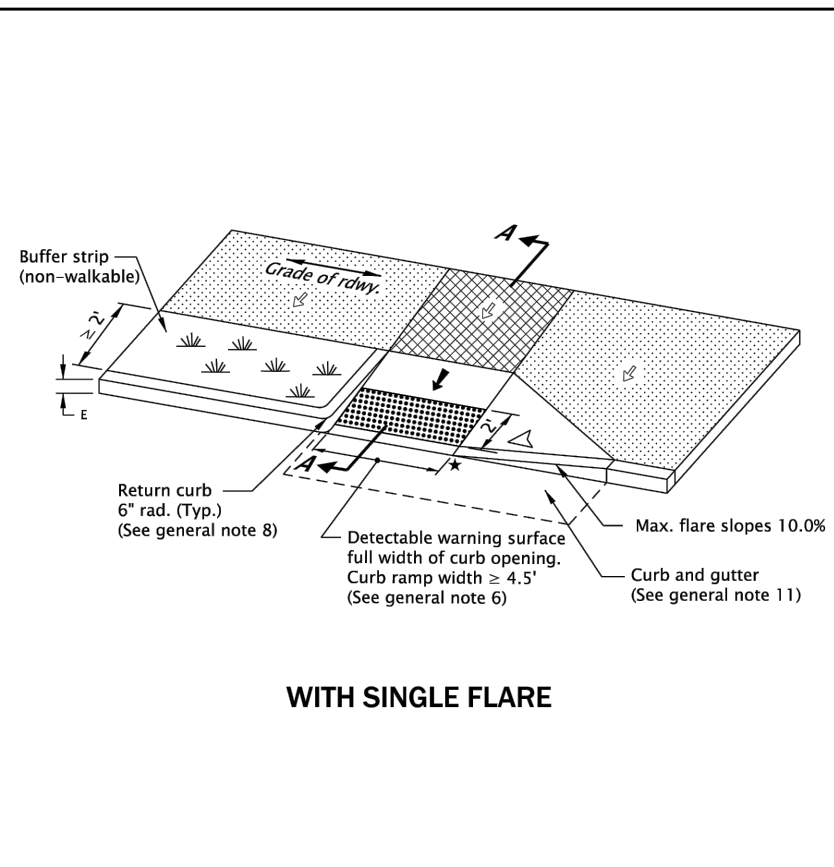
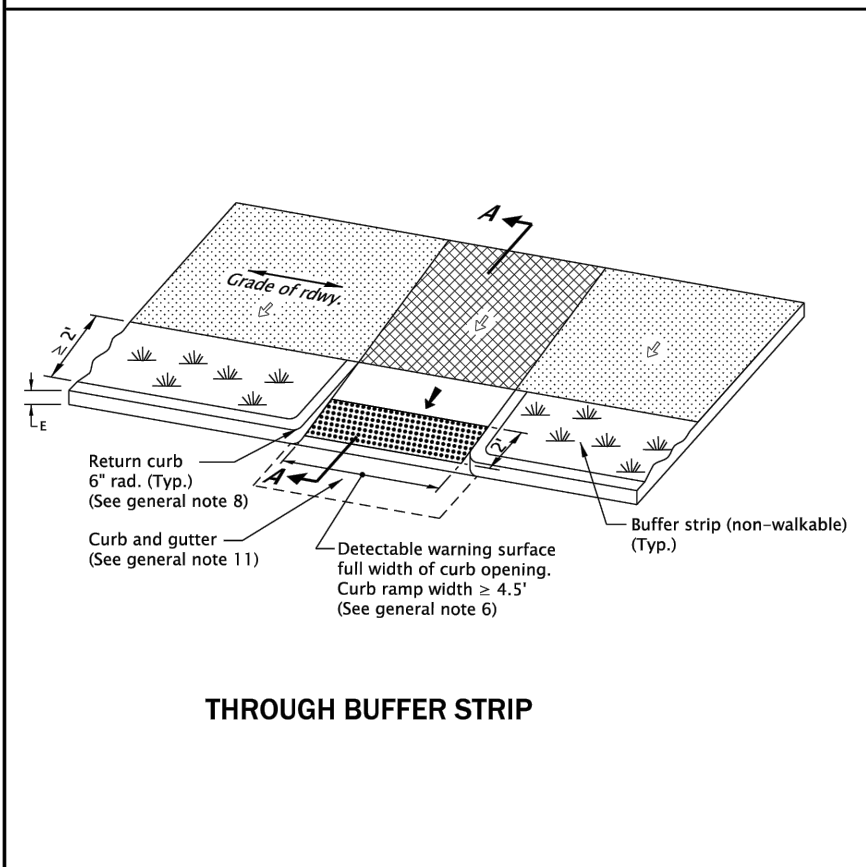
**GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**

- Curb ramp details are based on applicable ODOT Standards.
- 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.
- Site conditions normally require a project specific design. See project plans for details not shown.
- Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
- Curb ramp slopes shown are relative to the true level horizon (zero bubble).
- 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.
- 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.
- 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.
- 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).
- 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.
- 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)

**\* NOTE:** Minimum width of 14.25 feet sidewalk for E=7"



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**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

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**23 OF 84**

SHEET TITLE  
**2B-18**

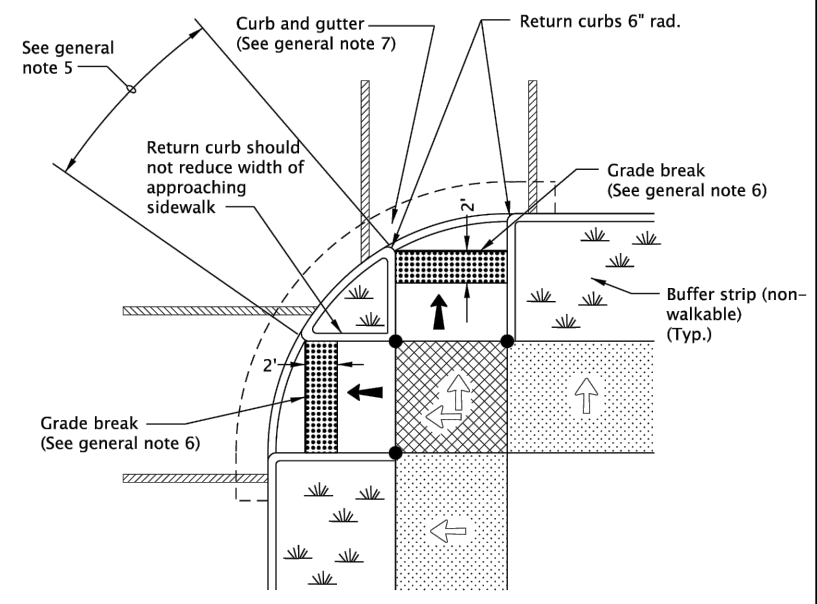


EXPIRES: 12/31/25

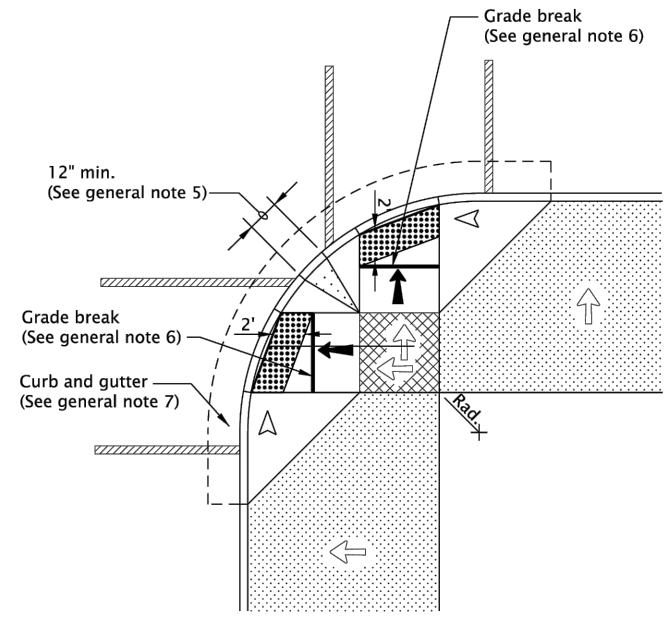
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Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY

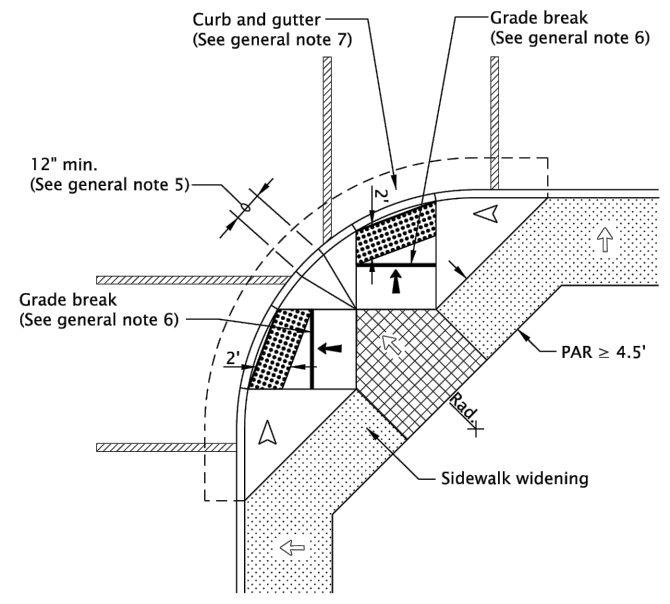
14-JAN-2022 RD912.dgn



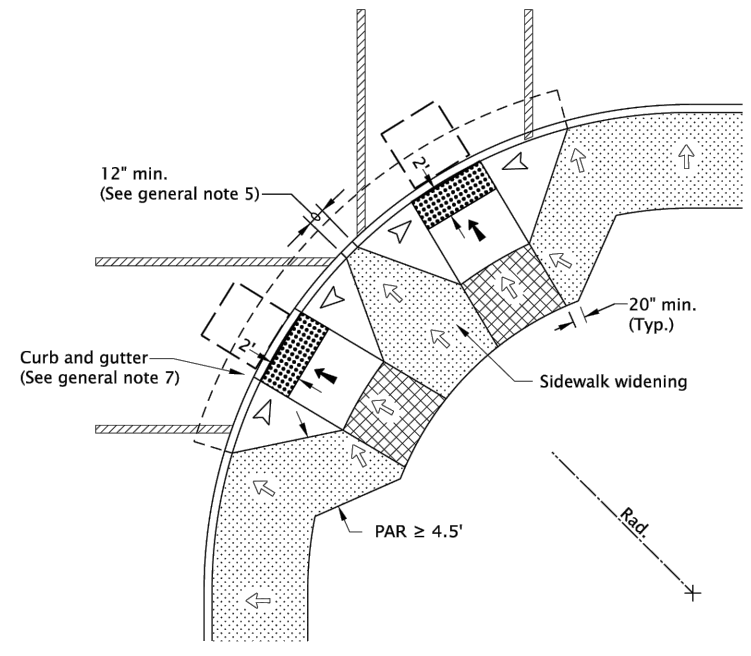
**WITH LANDSCAPED BUFFER STRIP  
OPTION "PR-1"**



**FOR WIDE SIDEWALKS  
OPTION "PR-2"**



**FOR NARROW SIDEWALKS  
OPTION "PR-3"**



**FOR NARROW SIDEWALKS  
OPTION "PR-4"**

**GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**

- Curb ramp details are based on applicable ODOT Standards.
- See project plans for details not shown. See Std. Dwg. RD700 & RD701 for curbs. See Std. Dwg. RD720 & RD721 for sidewalks. See Std. Dwg. RD910 for perpendicular curb ramp details. See Std. Dwg. RD902 through RD908 for detectable warning surface installation details.
- Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
- Curb ramp slopes shown are relative to the true level horizon (zero bubble).
- When 2 curb ramps are immediately adjacent, the curb exposure (E) between the adjacent side flares may range between 3" and full design exposure.
- 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.
- On or along state highways, curb and gutter is required at curb ramps.

**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)
- Flare slope  
(Max. 10% finished surface slope)
- Zero curb exposure
- 4' x 4' clear space
- PAR Pedestrian Access Route

*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
07-2020	NEW DRAWING CREATED
07-2021	REVISED DETAIL AND NOTES
01-2022	REVISED DETAILS AND NOTES NOTES

CALC. BOOK NO. N/A SDR DATE 14-JAN-2022 **RD912**

Effective Date: June 1, 2023 – November 30, 2023

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**  
 SHEET NO.  
 24 OF 84  
 SHEET TITLE  
**2B-19**





EXPIRES: 12/31/25

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS • PLANNERS  
 LANDSCAPE ARCHITECTS • SURVEYORS  
 205 SE Spokane Street, Suite 300, Portland, OR 97202  
 Phone: 503.221.1151 www.hhrp.com Fax: 503.221.1171

Department of Land Use & Transportation Engineering  
 OREGON COUNTY

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

- Curb ramp details are based on applicable ODOT Standards.
- See project plans for details not shown.  
 See Std. Dwg. RD700 & RD701 for curbs.  
 See Std. Dwg. RD720 & RD721 for sidewalks.  
 See Std. Dwg. RD910 for perpendicular curb ramp details.  
 See Std. Dwg. RD902 through RD908 for detectable warning surface installation details.  
 See Std. Dwg. TM240 for crosswalk closure detail.
- Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
- Curb ramp slopes shown are relative to the true level horizon (zero bubble).
- 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.
- On or along state highways, curb and gutter is required at curb ramps.

**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)
- Flare slope  
 (Max. 10% finished surface slope)
- Zero curb exposure
- 4' x 4' clear space
- PAR Pedestrian Access Route

All materials shall be in accordance with the current Oregon Standard Specifications.

**OREGON STANDARD DRAWINGS**

**PERPENDICULAR CURB RAMP WITH CLOSURE**

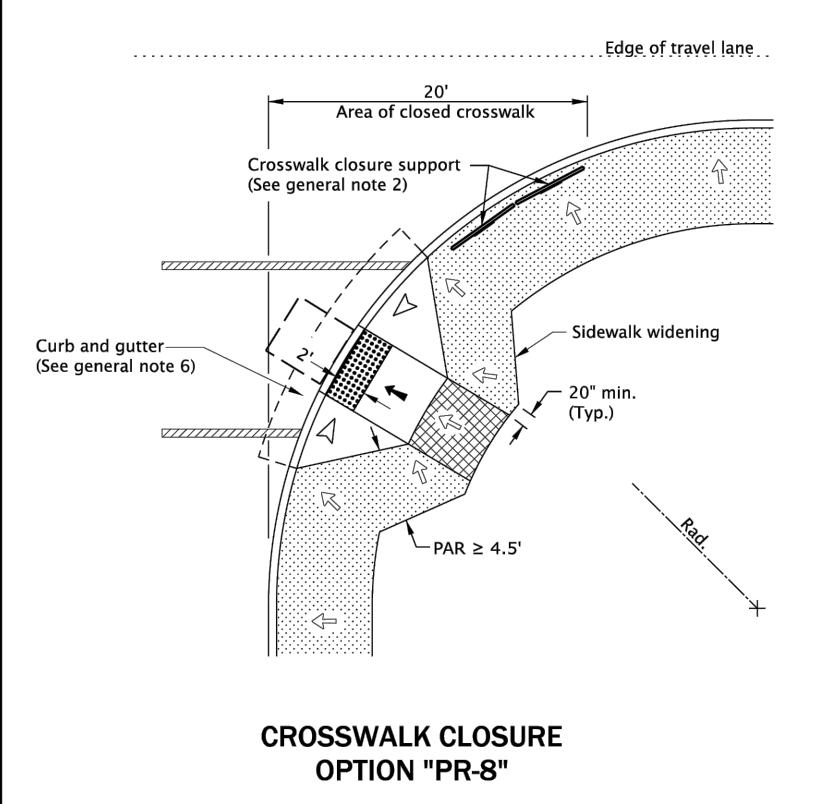
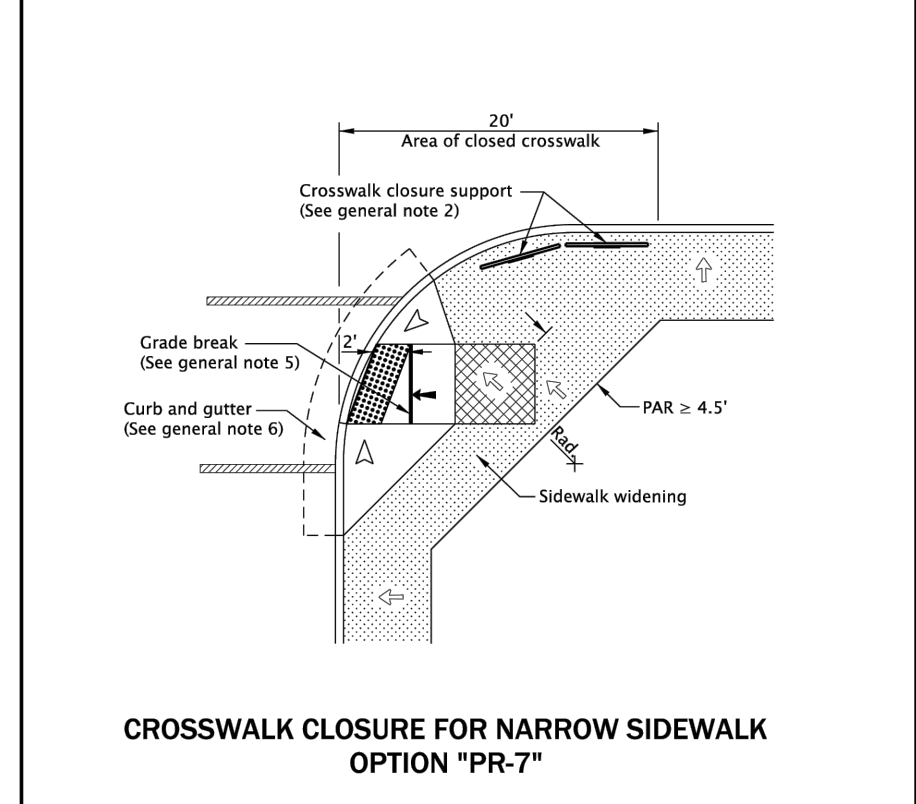
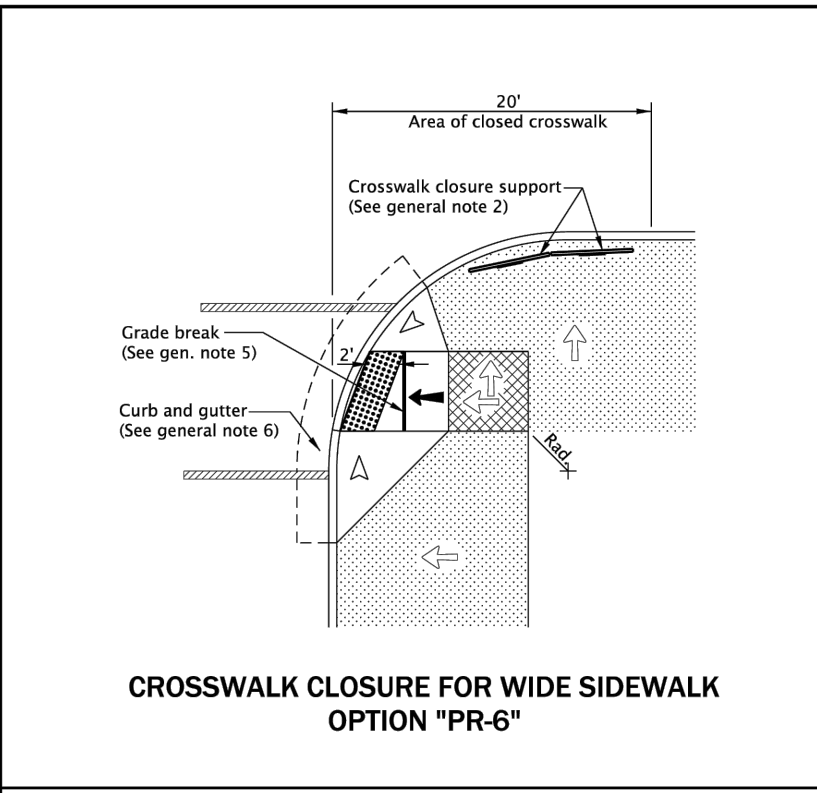
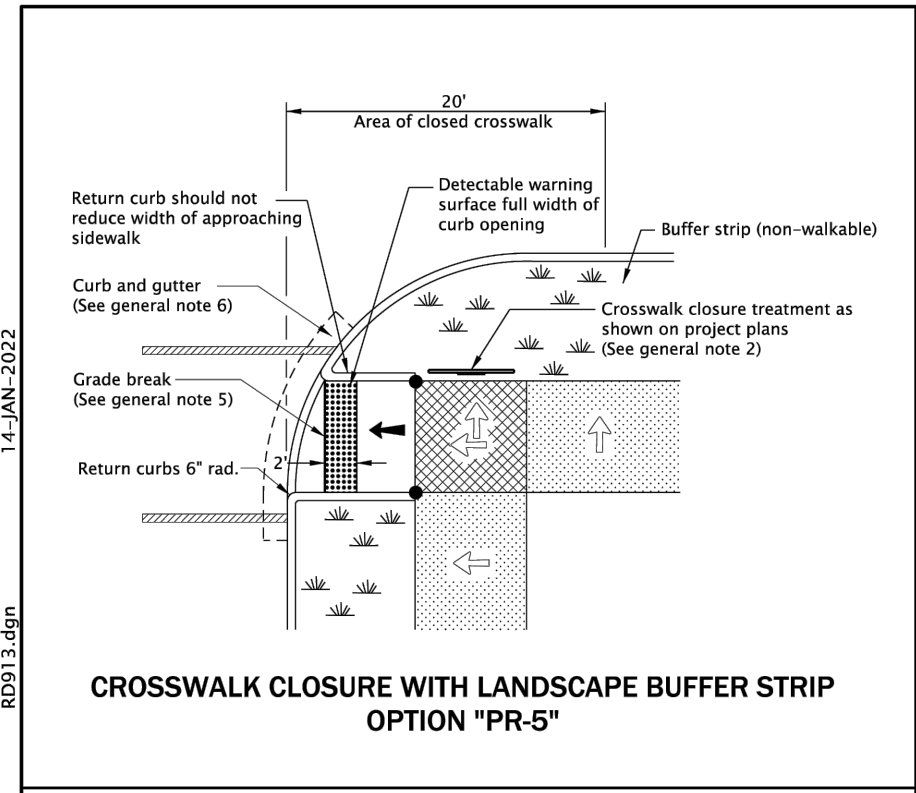
2021

DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED
01-2022	REVISED DETAIL AND NOTES

CALC. BOOK NO. N/A SDR DATE 14-JAN-2022 RD913

Effective Date: June 1, 2023 – November 30, 2023

*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.*



NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**25 OF 84**

SHEET TITLE  
**2B-20**

14-JAN-2022 RD913.dgn

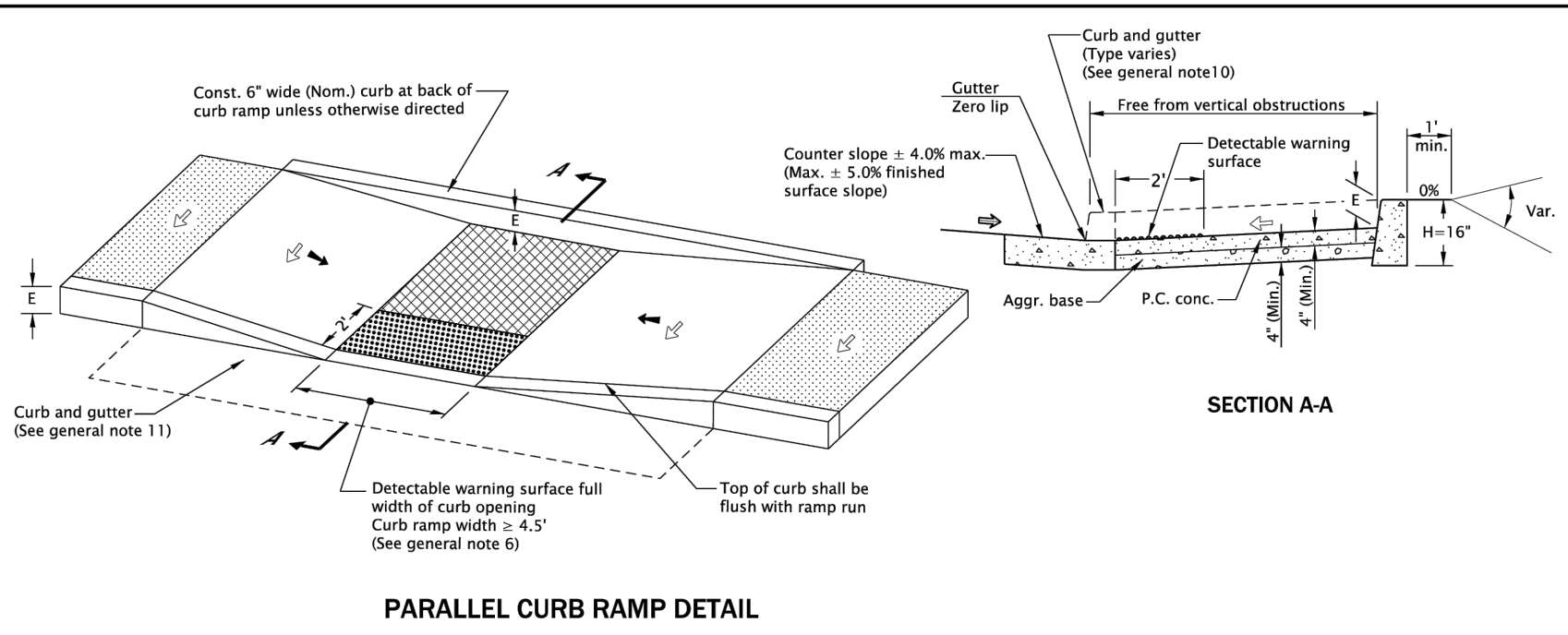


EXPIRES: 12/31/25

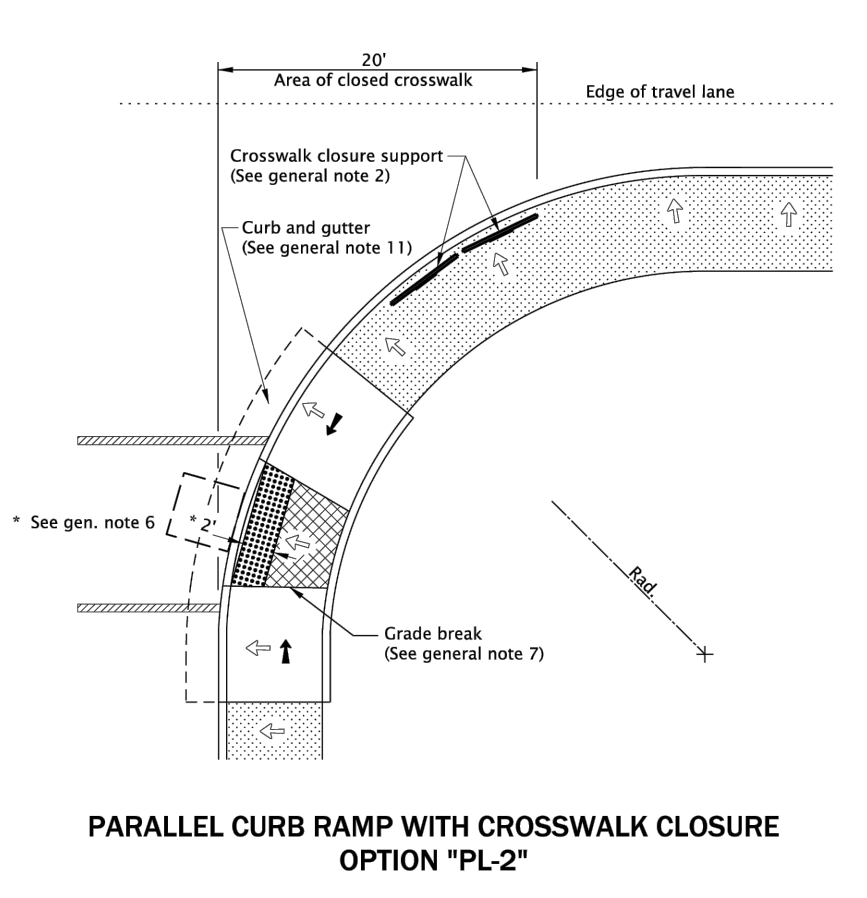
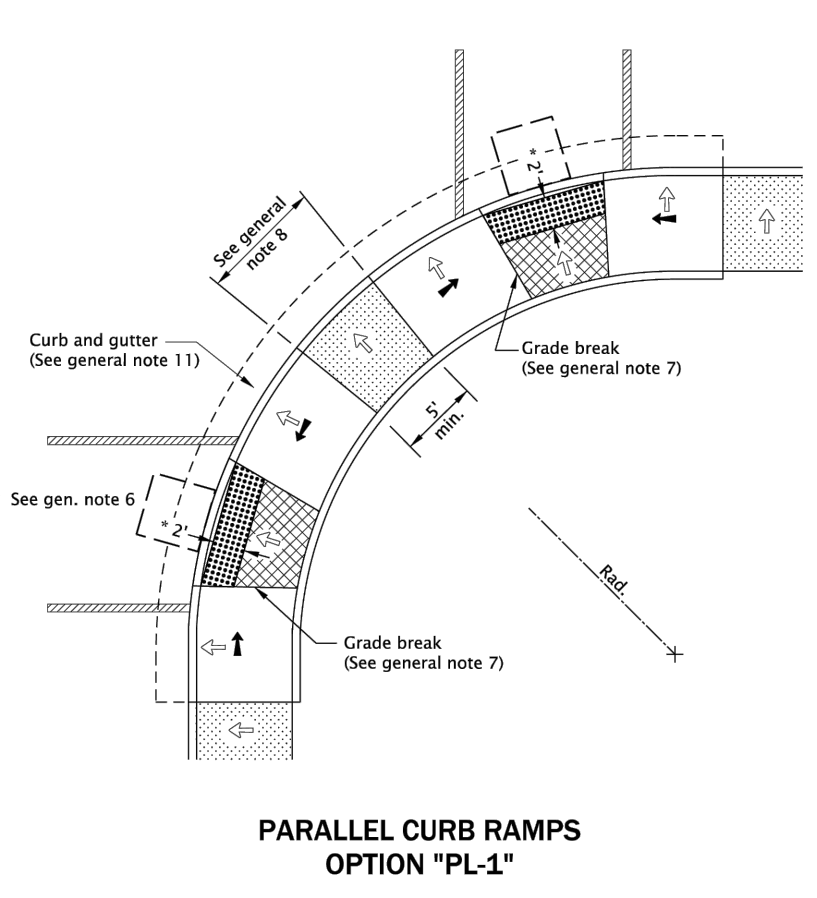
**Harper Houf Peterson Righellis Inc.**  
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 Phone: 503.221.1151 www.hhrp.com Fax: 503.221.1171

Department of Land Use & Transportation Engineering  
 OREGON COUNTY

14-JAN-2022 RD920.dgn



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
- Curb ramp details are based on applicable ODOT Standards.
  - 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.
  - Site conditions normally require a project specific design. See project plans for details not shown.
  - Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
  - Curb ramp slopes shown are relative to the true level horizon (zero bubble).
  - 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.
  - 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.
  - When 2 ramp runs are immediately adjacent, the curb exposure (E) between the adjacent side may range between 3" and full design exposure.
  - 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).
  - 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.
  - 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
  - 4'x4' clear space

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

Effective Date: June 1, 2023 – November 30, 2023

*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.*

NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
 26 OF 84

SHEET TITLE  
**2B-21**

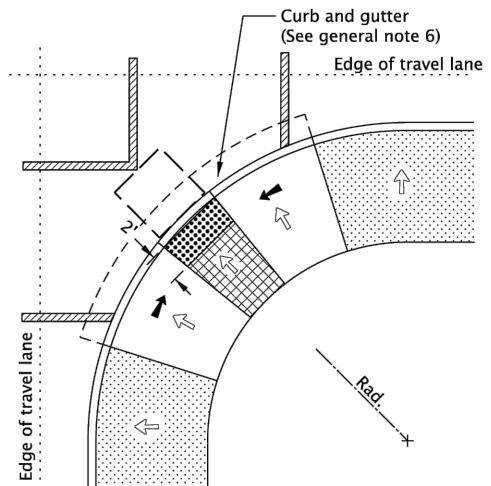


EXPIRES: 12/31/25

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 205 SE Spokane Street, Suite 300, Portland, OR 97202  
 phone: 503.221.1151 www.hhrp.com fax: 503.221.1171

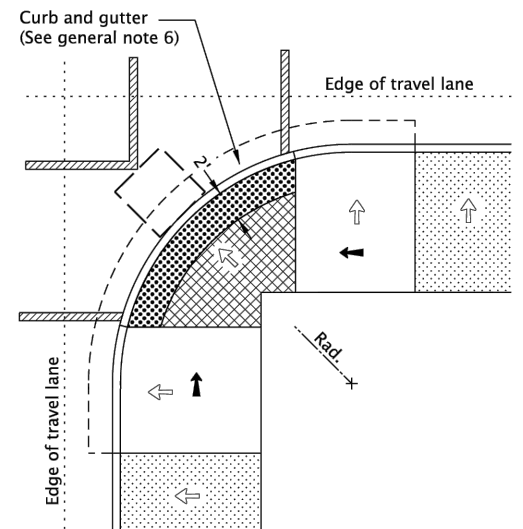
Department of Land Use & Transportation Engineering  
 CLATSOP COUNTY OREGON

20-JUL-2020 RD922.dgn



**DIAGONAL PARALLEL CURB RAMP OPTION "PL-3"**

(Use only when site constraints prohibit installing two curb ramps)



**DEPRESSED CURB RAMP SMALL RADIUS OPTION "PL-4"**

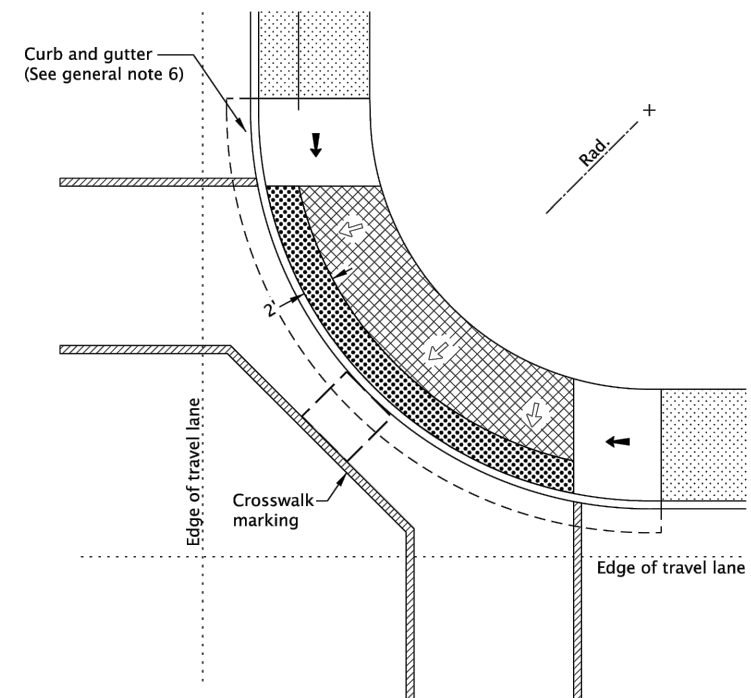
(Use only when site constraints prohibit installing two curb ramps)

**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. See Std. Dwg. RD920 for parallel curb ramp details.
3. Tooled dummy joints are required at all curb ramp slope break lines, (see Std. Dwg. RD722).
4. Curb ramp slopes shown are relative to the true level horizon (zero bubble).
5. 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.
6. On or along state highways, curb and gutter is required at curb ramps.
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. Only use curb ramp options allowed by jurisdiction. Single ramps require design exceptions on or along state highways.

**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)
- 4'x4' clear space



**DEPRESSED CURB RAMP LARGE RADIUS OPTION "PL-5"**

(Use only when site constraints prohibit installing two curb ramps)

*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 SINGLE RAMP**

2021

DATE	REVISION DESCRIPTION
07-2020	NEW DRAWING CREATED

CALC. BOOK NO. \_\_\_ N/A \_\_\_ SDR DATE 20-JUL-2020 **RD922**

Effective Date: June 1, 2023 – November 30, 2023

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

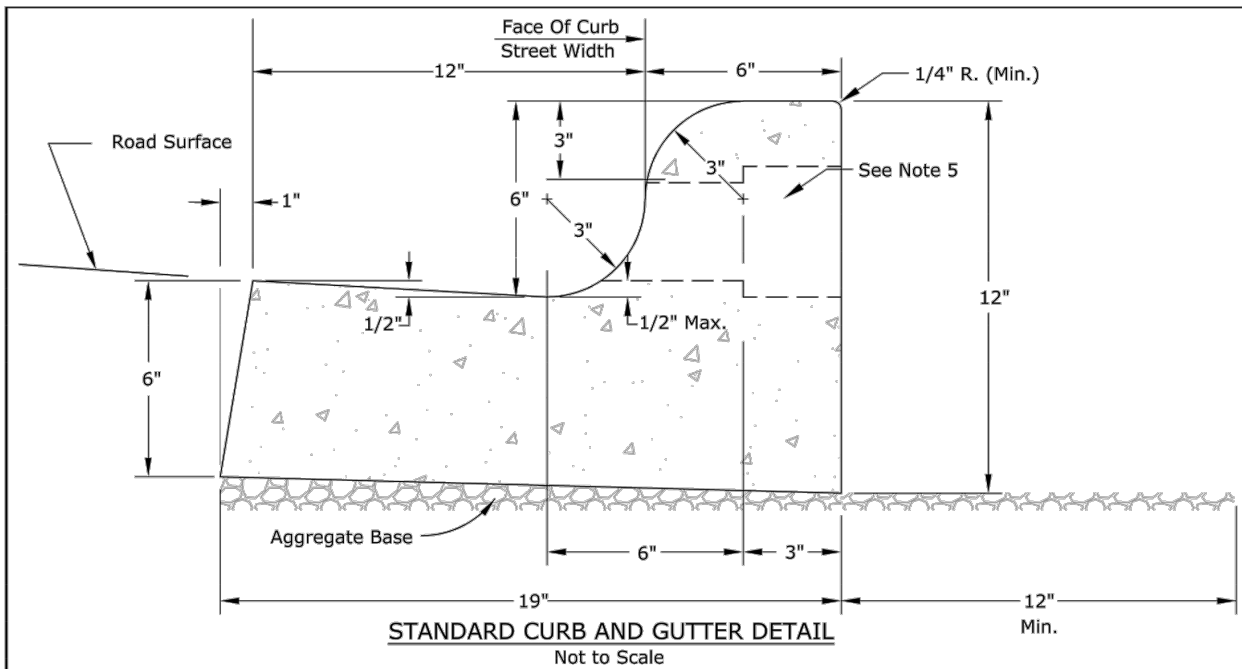
PROJECT NUMBER  
**100666**  
 SHEET NO.  
**27 OF 84**  
 SHEET TITLE  
**2B-22**



EXPIRES: 12/31/25

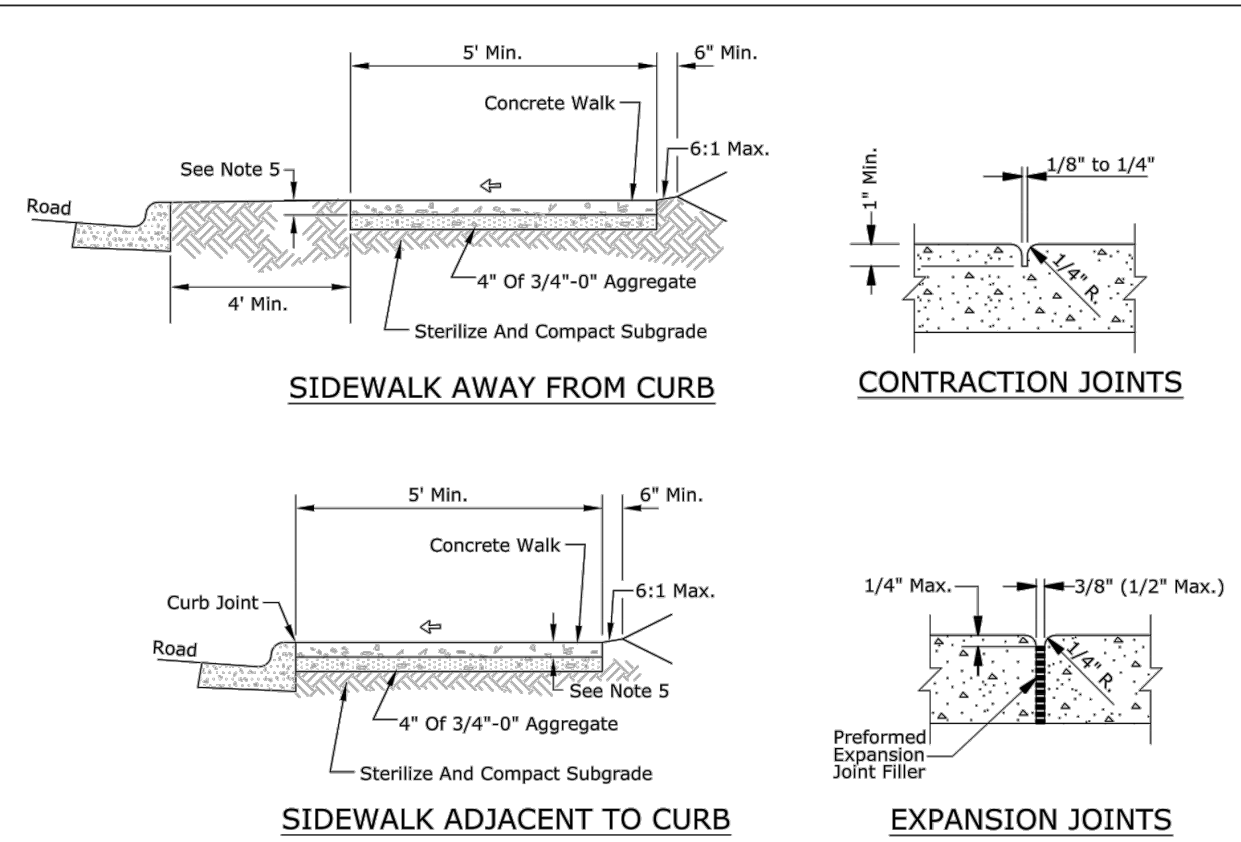
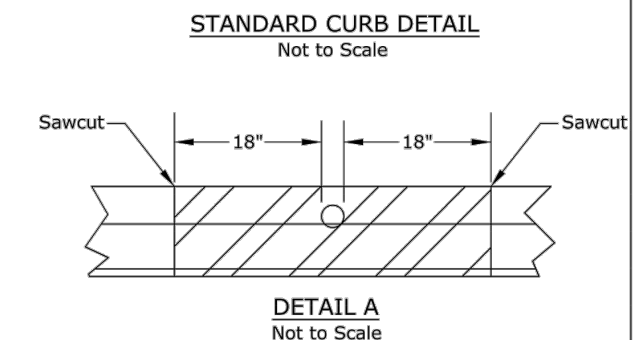
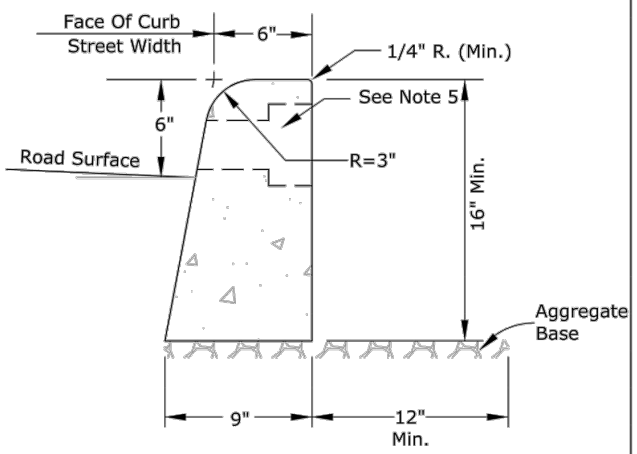
**Harper Houf Peterson Righellis Inc.**  
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Department of Land Use & Transportation Engineering  
**WASHINGTON COUNTY OREGON**



**Notes:**

- Use Oregon Commercial Grade Concrete Per Section 00440.
  - Broom Finish
- Expansion Joints
  - Place 3/8" Pre-Molded, Asphalt Impregnated, Non-Extruding Material At:
    - Cold Joints.
    - Each End Of Driveways.
    - Each Side Of Inlet Structures.
    - Each Point Of Tangency Of The Curb.
  - Locations Necessary To Limit Spacing To 200 Feet.
- Contraction Joints
  - Space Not More Than 10 Feet.
  - The Depth Of The Joint Shall Be At Least 1/3 Depth Of Concrete.
  - Center Weepholes With Contraction Joints.
  - Locate Weepholes As Close As Possible To Property Lines.
- Use 1" - 0" Or 3/4" - 0" Aggregate Base Compacted To 100% Of AASHTO T-99, Method D. Place To Subgrade, Street Structure, Or 4" In Depth, Whichever Is Greater. Extend At Least 12" Behind The Curb.
- Drainage Blockout
  - 3" Dia. Plastic Pipe With Coupling.
  - Core Drill Drainage Access Thru Existing Curb Or Vertically Sawcut Curb And Gutter 18" Each Side Of Drain And Repour To Full Depth Of Curb (See Detail A).
- Standard Curb Detail Shall Only Be Used For Interim Conditions Or When Approved By The County Engineer.



**LEGEND:**  
 ← Slope 1.5% Max Design  
 ⇐ Slope 2% Max Finish Grade

**Notes:**

- Use Oregon Commercial Grade Concrete Per Section 00440.
- Panel Dimensions To Be Nominal 5 Feet Or As Directed By Engineer. Trowel Finish (shined) Perimeters Of Each Panel. Broom Finish All Panels.
- Place Expansion Joints Adjacent To Driveway Approaches, Utility Vaults, Drainage Inlets, Curb Ramps, Curb Joints And At Spacing Not To Exceed 100 Feet.
- Trowel Surfaces At Curb Joints With A Minimum 1/4" Radius.
- Place 4" Thick Sidewalk Unless Noted Otherwise. Place 6" Thick Sidewalk At Driveways, Bus Stops, Emergency Accesses, And Other Locations Directed By The Engineer.
- Extend Drain Blockouts In Curbs To Back Of Sidewalk With 3" Dia. Plastic Pipe At 2% Max. Slope. Install Construction Joint Over Pipe.
- At Each CG-30 And CG-48 Inlet Location, Place A 10 Ft. Long #4 Bar Centered Between Back Of The Inlet Structure And Back Of Walk. Install Joints And Rebar At Direction Of Engineer.
- Design Slopes May Be Exceeded To Fit Existing Conditions, Not To Exceed Finish Grade Slope.

**WASHINGTON COUNTY DEPARTMENT OF LAND USE & TRANSPORTATION ENGINEERING SECTION**

**STANDARD CURB AND GUTTER**

PLOT STAMP: 06/01/22 4:53P ANTHONYD  
 CAD: 2010.DWG

EFFECTIVE DATE: 06/01/2022 WASH. CO. # 2010

**WASHINGTON COUNTY DEPARTMENT OF LAND USE & TRANSPORTATION ENGINEERING SECTION**

**P.C. CONCRETE SIDEWALK DETAIL**

PLOT STAMP: 06/01/22 5:00P ANTHONYD  
 CAD: 2110.DWG

EFFECTIVE DATE: 06/01/2022 WASH. CO. # 2110

NO.	REVISION
1	
2	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
 28 OF 84

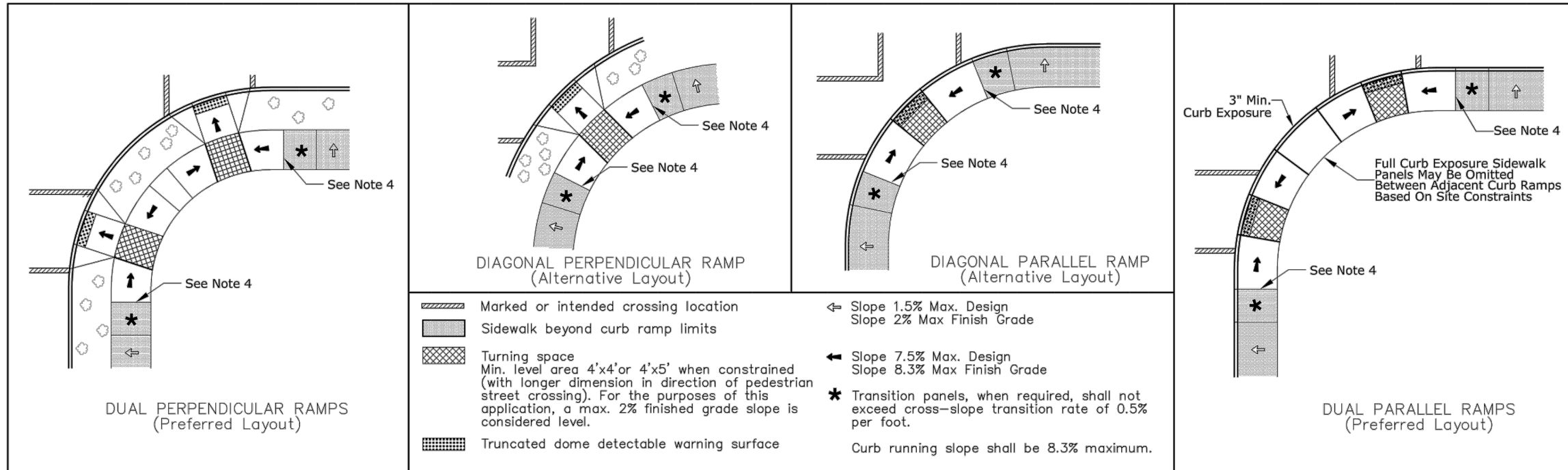
SHEET TITLE  
**2B-23**



EXPIRES: 12/31/25

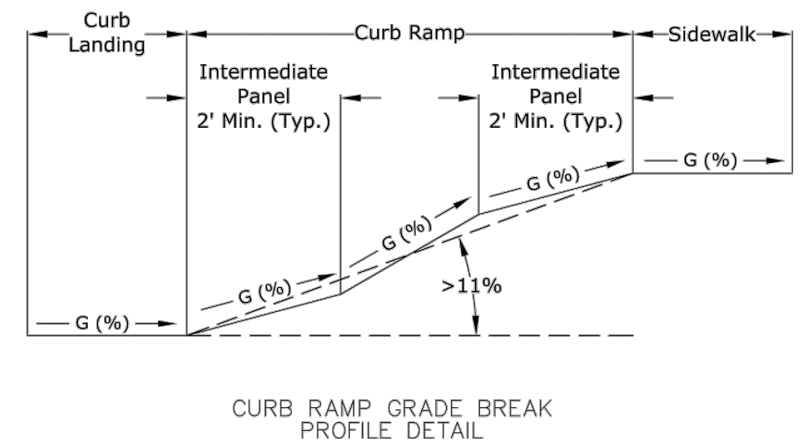
**Harper Houf Peterson Righellis Inc.**  
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 205 SE Spokane Street, Suite 300, Portland, OR 97202  
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Department of Land Use & Transportation Engineering



**NOTES:**

- Curb Ramps Shall Meet Access Board Proposed Public Rights-of-Way Accessibility Guidelines (PROWAG). See <https://www.access-board.gov/prowag/> For Additional Information.
- For Truncated Domes and Ramp Details, See ODOT RD900 Series Standard Details. Use Current Year And Month Details Corresponding To Project Construction Date.
- Furnish "Safety Yellow" Colored Cast-In-Place Truncated Dome Detectable Warning Surfaces For Curb Ramps And Accessible Route Islands. Use Any Product Listed On The ODOT QPL.  
 A Minimum Of 30 Days Prior To Expected Use, Submit Samples Of Alternate Material And The Locations Where They Have Been Used For Review And Approval. Only Use Adhesives Recommended Or Supplied By The Manufacturer.
- Expansion Joints Shall Not Be Installed Within Curb Ramp Limits Shown.
- Dual Ramps Are Required At All Arterial And Collector Road Classification Intersections. Design Exception Must Be Submitted If Site Constraints Require Diagonal Ramps.
- Curb And Gutter Required At All Curb Ramps. 2-ft Gutter Pans Required At All Diagonal Ramp Locations, See Standard Drawing 2020.
- Curb And Sidewalk May Be Poured Monolithically Within Curb Ramp Limits Only, As Elected By The Contractor. Standard Contraction Joint Required Between Curb And Sidewalk, See Standard Drawing 2110.
- The Algebraic Difference In Grade Between Two Adjacent Sidewalk Panels Shall Not Exceed 11% (Design 10%). Intermediate Panels May Be Constructed Such That  $G_1 - G_2 \leq 11\%$ . See Curb Ramp Grade Break Profile Detail.
- Project Specific Design Is Required For All Curb Ramps. See Project Plans For Details Not Shown.



CURB RAMP DETAIL	WASH. CO. #	2130
	EFFECTIVE DATE:	06/01/2022
WASHINGTON COUNTY DEPARTMENT OF LAND USE & TRANSPORTATION ENGINEERING SECTION	PLOT STAMP:	06/01/22 5:06P ANTHONYD CAD: 2130.DWG

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**STANDARD DETAILS**

PROJECT NUMBER  
**100666**

SHEET NO.  
 29 OF 84

SHEET TITLE  
**2B-24**



EXPIRES: 12/31/25

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NO.	REVISION
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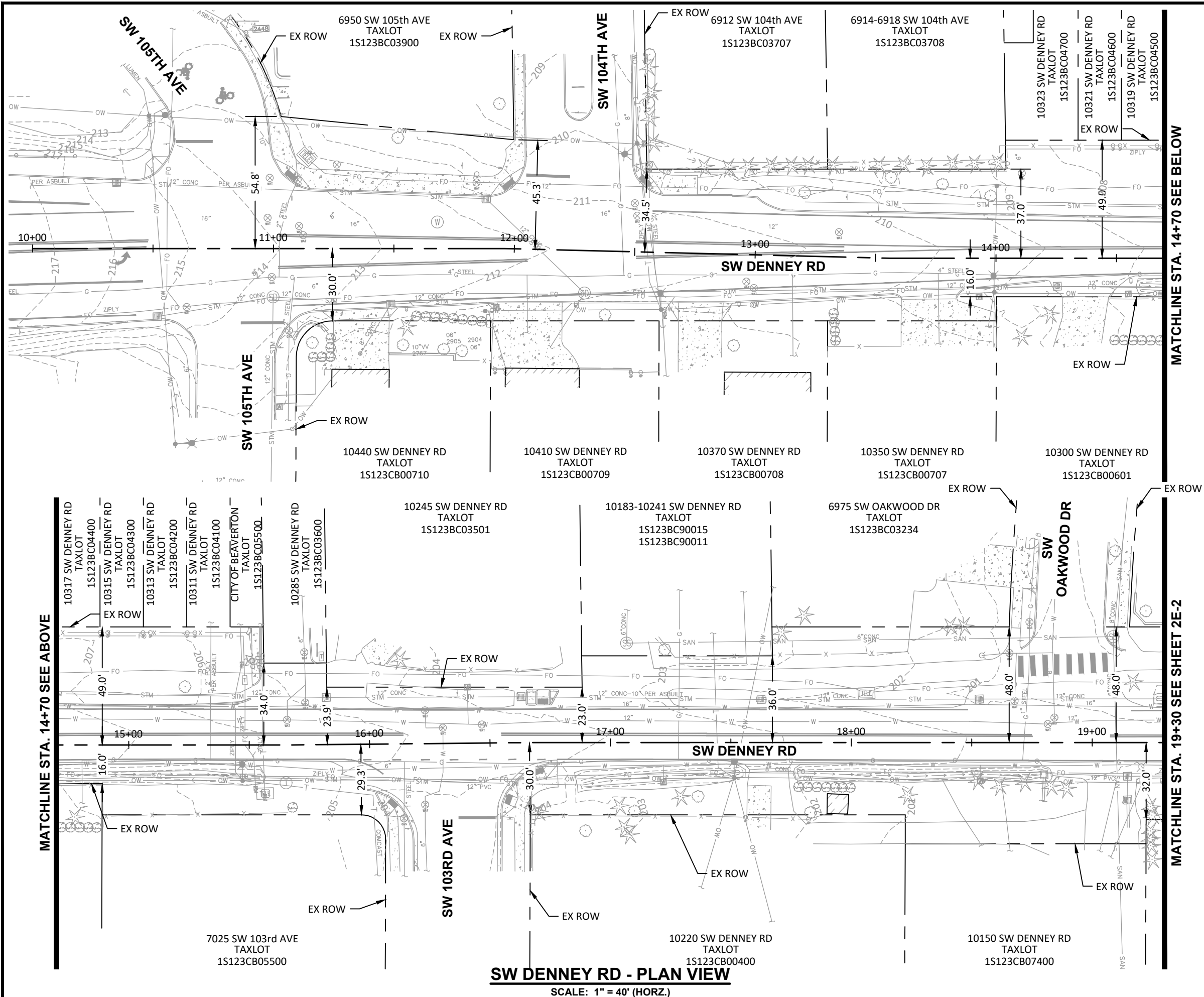
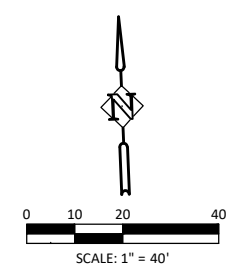
**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA POB TO 19+30  
**EXISTING CONDITIONS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**30** OF **84**  
 SHEET TITLE  
**2E**

**GENERAL NOTES:**  
 SEE TREE REMOVAL - PROTECTION PLAN  
 (TR SERIES) FOR TREE DETAILS



**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)



EXPIRES: 12/31/25

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NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

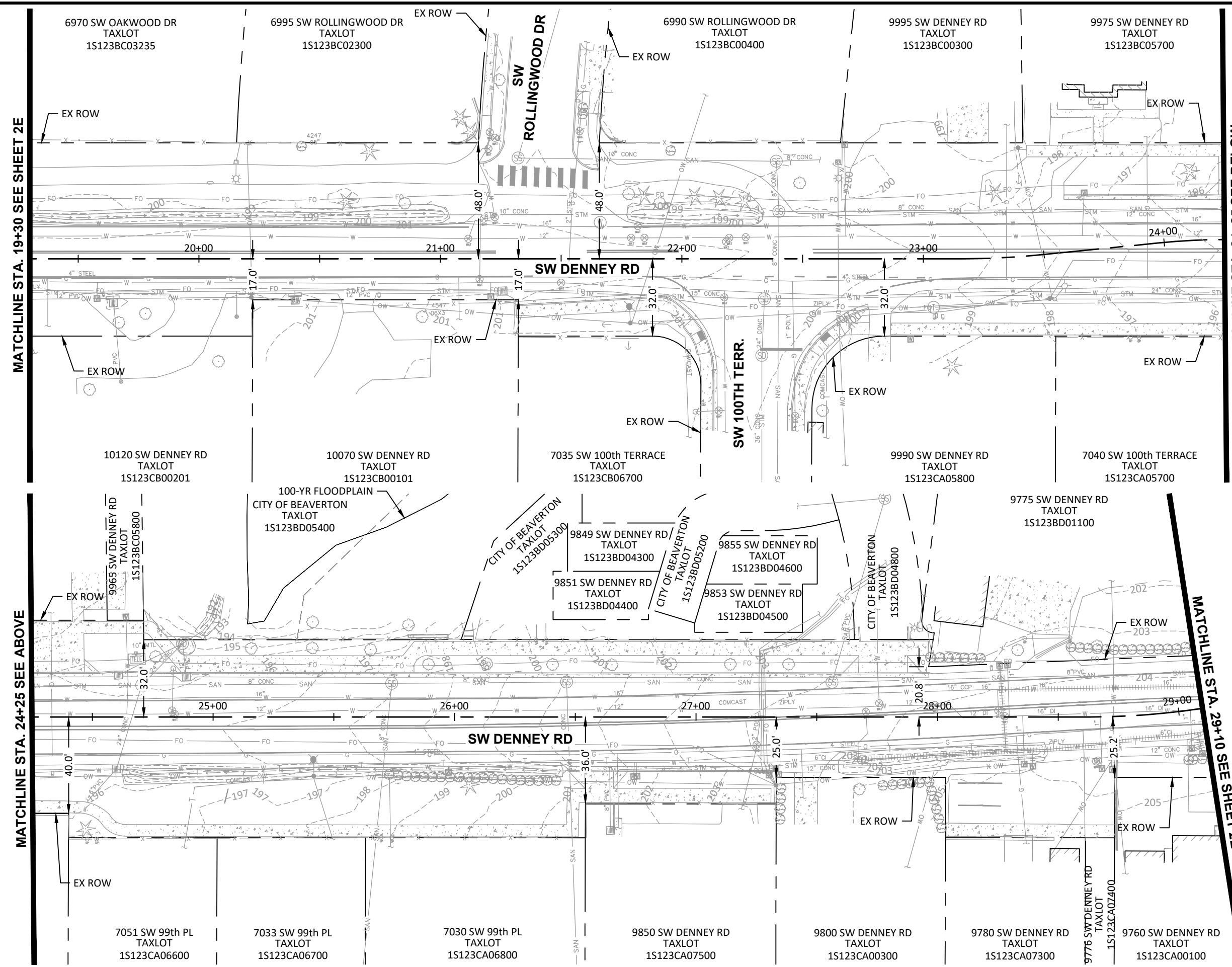
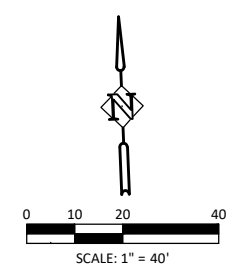
SW DENNEY RD STA 19+30 TO 29+10  
**EXISTING CONDITIONS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**31 OF 84**

SHEET TITLE  
**2E-2**

**GENERAL NOTES:**  
 SEE TREE REMOVAL - PROTECTION PLAN (TR SERIES) FOR TREE DETAILS



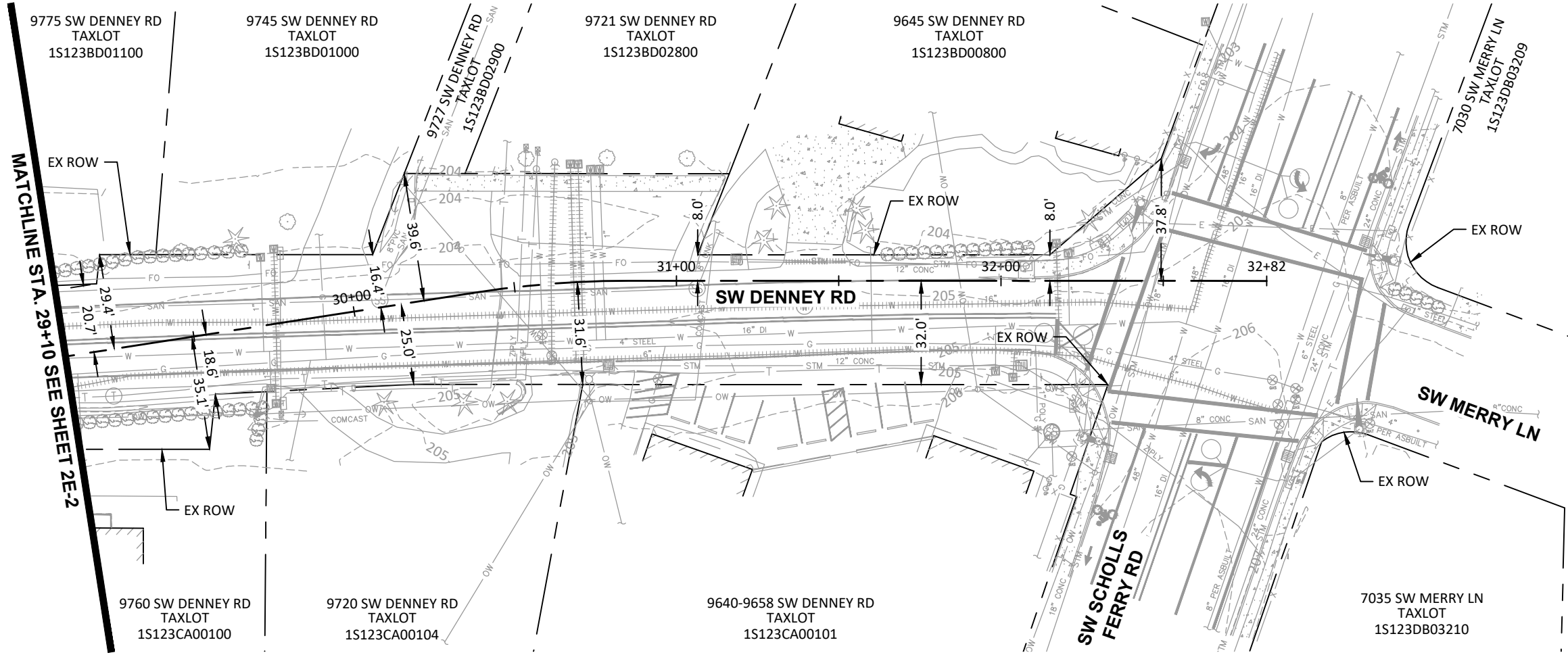
**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)



EXPIRES: 12/31/25

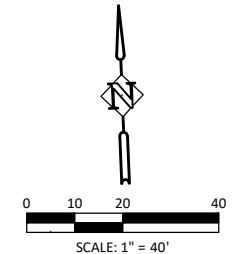
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Houf Peterson  
Righellis Inc.

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LANDSCAPE ARCHITECTS \* SURVEYORS  
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**SW DENNEY RD - PLAN VIEW**  
SCALE: 1" = 40' (HORZ.)

**GENERAL NOTES:**  
SEE TREE REMOVAL - PROTECTION PLAN  
(TR SERIES) FOR TREE DETAILS



NO.	REVISION
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA 29+10 TO EOP  
**EXISTING CONDITIONS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**32 OF 84**

SHEET TITLE  
**2E-3**





EXPIRES: 12/31/25

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MATCHLINE STA. 14+70 SEE BELOW

MATCHLINE STA. 19+30 SEE SHEET 2F-2

**LEGEND**

- FULL DEPTH PAVEMENT SECTION  
SEE TYPICAL SECTION FOR DETAILS
- 0 - 2" GRIND AND 2" INLAY  
SEE TYPICAL SECTION FOR DETAILS

NO.	REVISION
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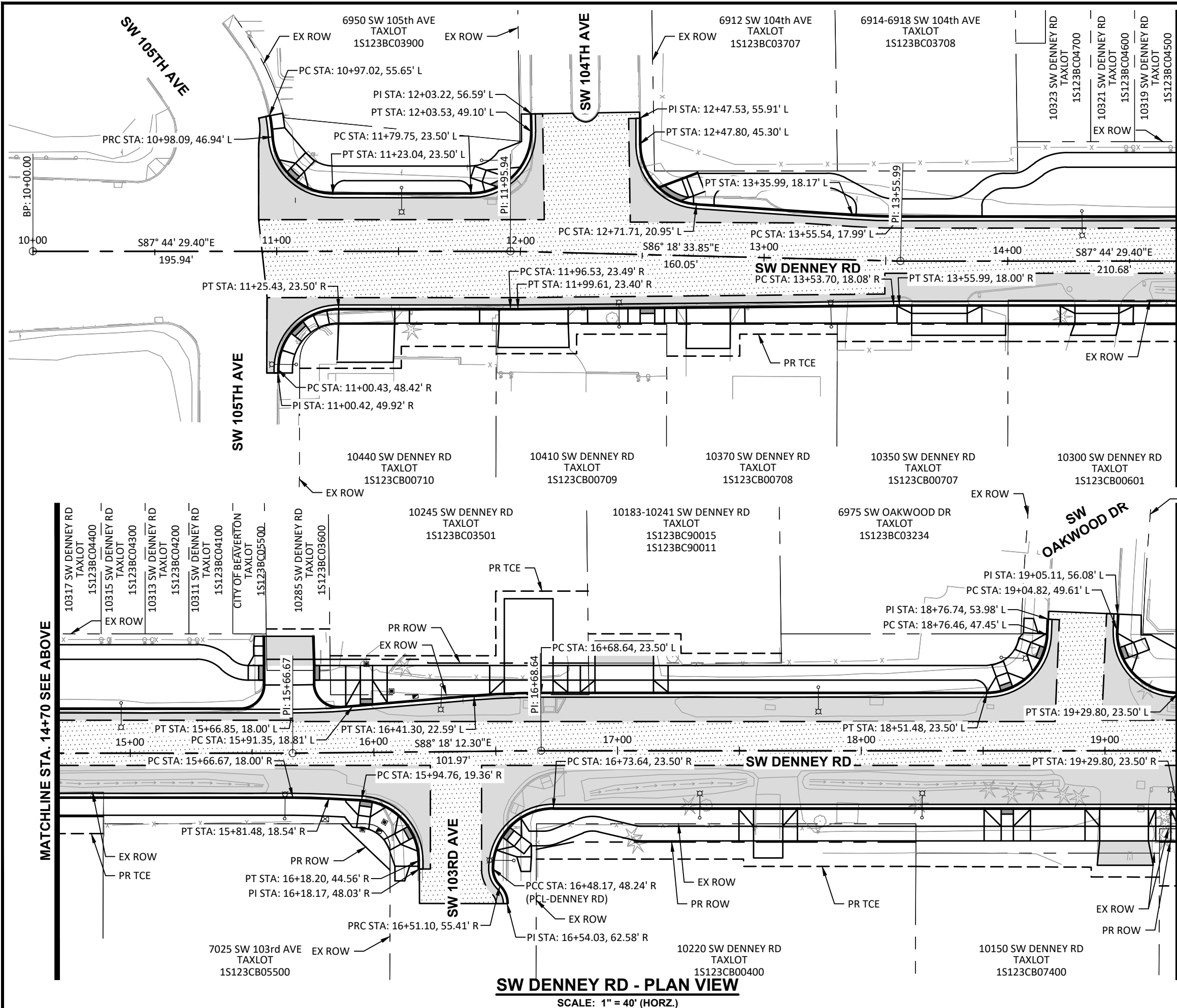
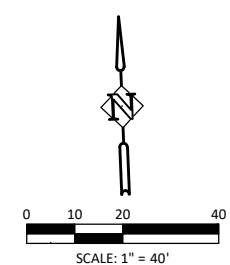
**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA POB TO 19+30  
**GEOMETRY AND PAVING PLANS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**33 OF 84**

SHEET TITLE  
**2F**



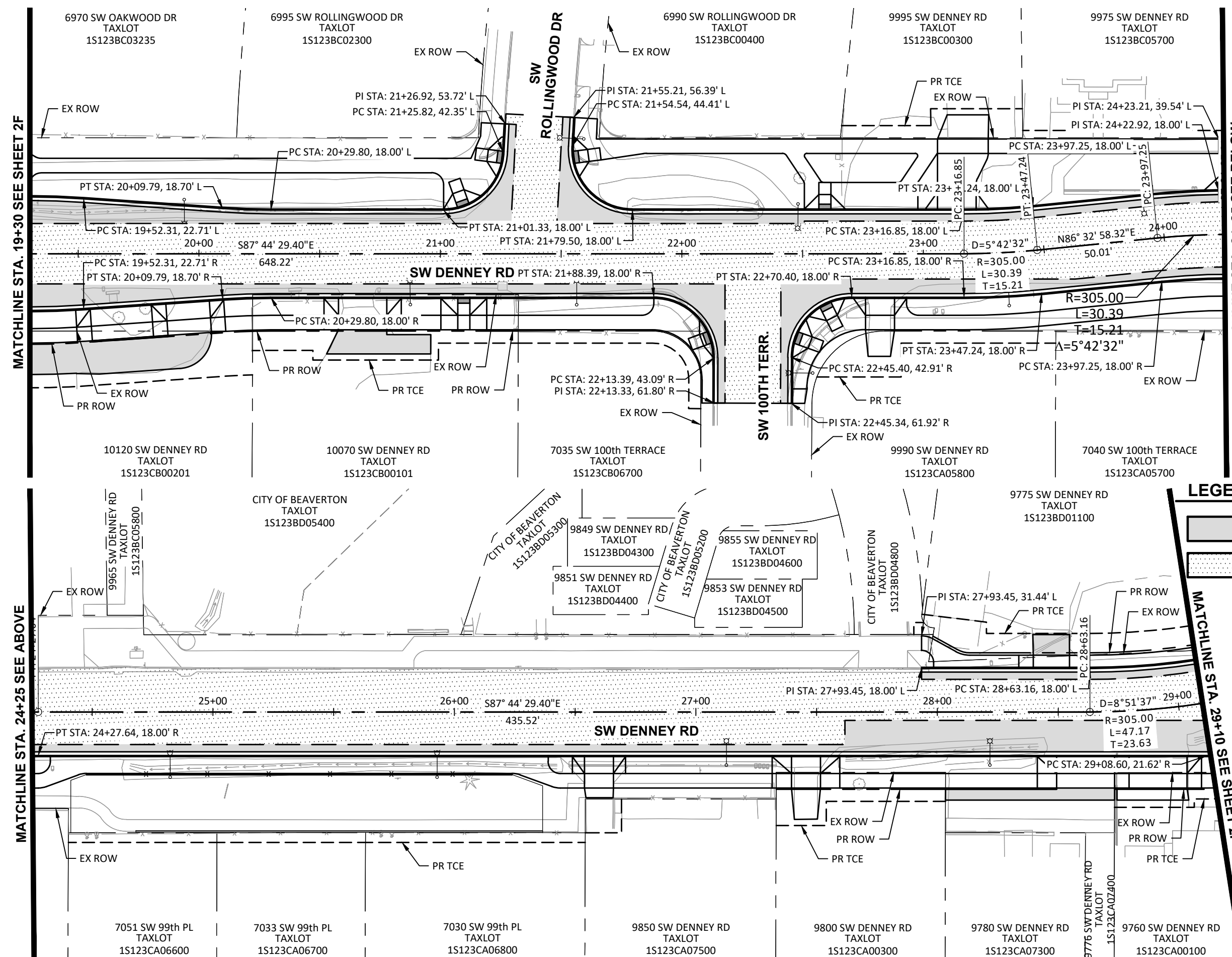
**SW DENNEY RD - PLAN VIEW**  
SCALE: 1" = 40' (HORZ.)



EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering



**LEGEND**

FULL DEPTH PAVEMENT SECTION  
SEE TYPICAL SECTION FOR DETAILS

0 - 2" GRIND AND 2" INLAY  
SEE TYPICAL SECTION FOR DETAILS

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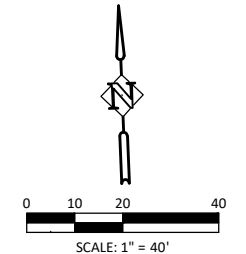
**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA 19+30 TO 29+10  
**GEOMETRY AND PAVING PLANS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**34 OF 84**

SHEET TITLE  
**2F-2**



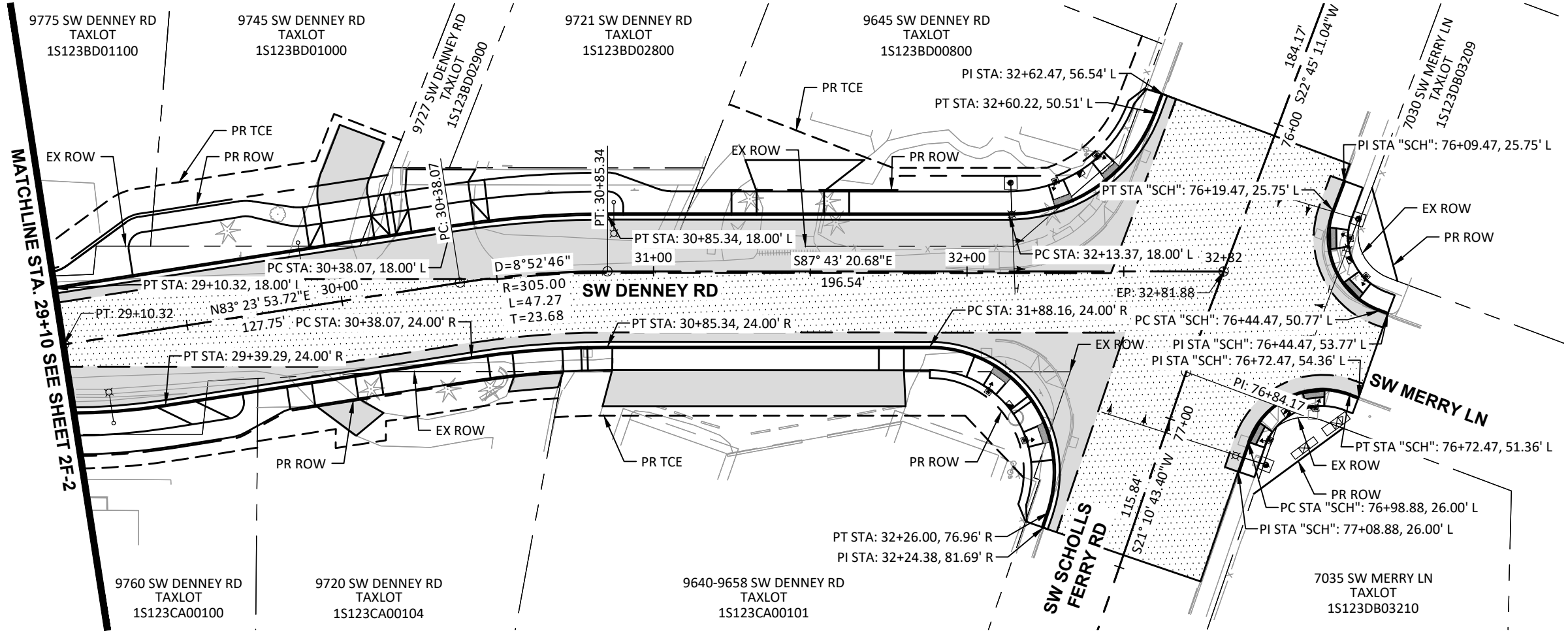
**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)



EXPIRES: 12/31/25

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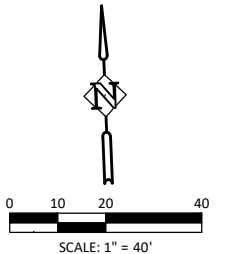
**Department of Land Use & Transportation Engineering**



**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)

**LEGEND**

- FULL DEPTH PAVEMENT SECTION  
SEE TYPICAL SECTION FOR DETAILS
- 0 - 2" GRIND AND 2" INLAY  
SEE TYPICAL SECTION FOR DETAILS



NO.	REVISION
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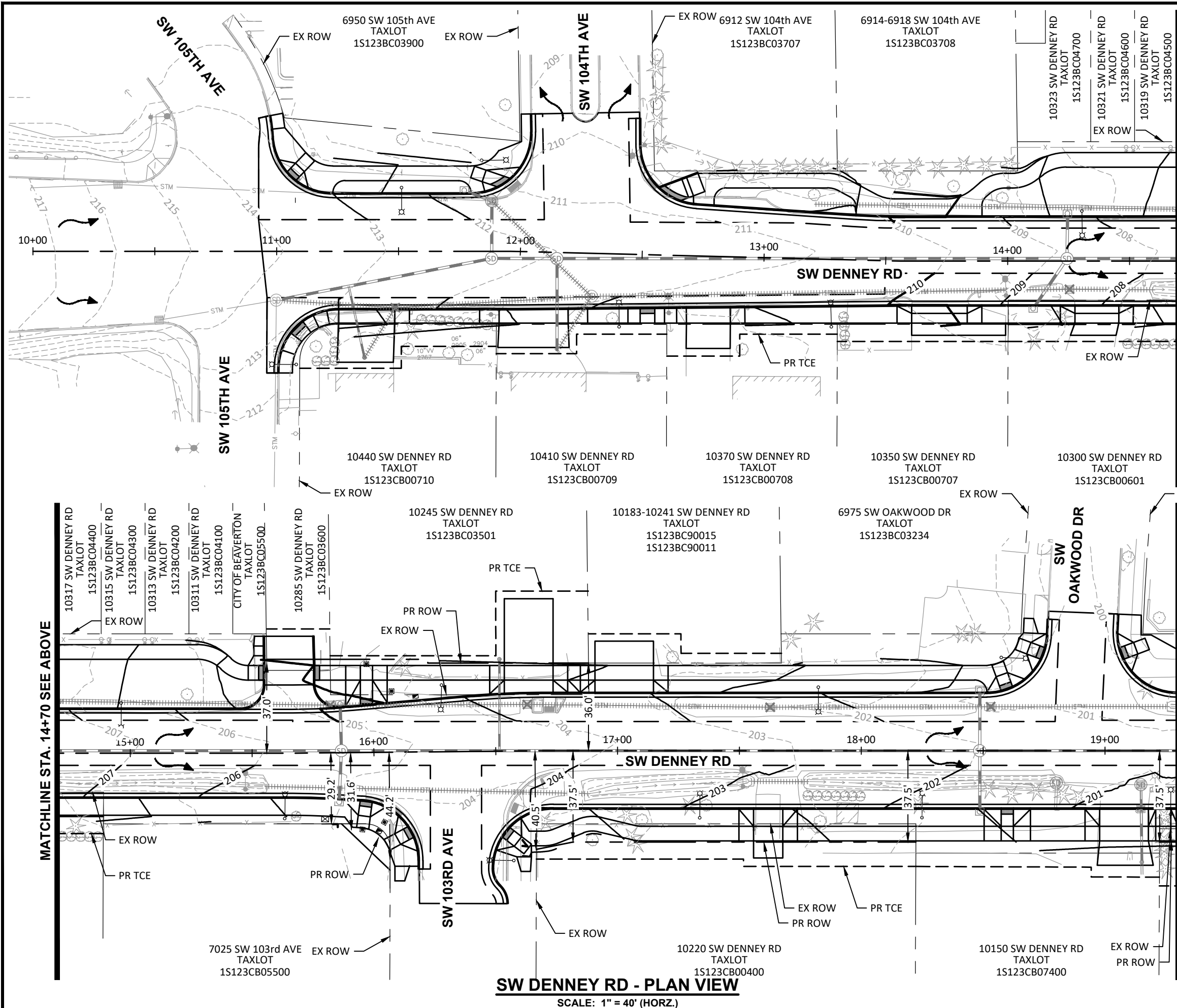
**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA 29+10 TO EOP  
**GEOMETRY AND PAVING PLANS**

PROJECT NUMBER  
**100666**

SHEET NO.  
**35** OF **84**

SHEET TITLE  
**2F-3**



**SW DENNEY RD - PLAN VIEW**  
SCALE: 1" = 40' (HORZ.)

MATCHLINE STA. 14+70 SEE BELOW

MATCHLINE STA. 14+70 SEE ABOVE

MATCHLINE STA. 19+30 SEE SHEET 2G-2



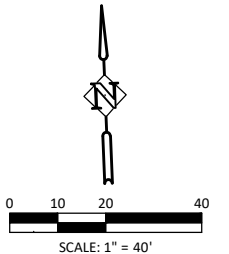
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**GENERAL NOTES:**  
SEE TREE REMOVAL - PROTECTION PLAN (TR SERIES) FOR TREE DETAILS

**LEGEND**

---	SAWCUT
- - - - -	EXISTING CONTOUR
— — — — —	MAJOR CONTOUR
— — — — —	MINOR CONTOUR



NO.	REVISION
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA POB TO 19+30  
**GRADING PLAN**

PROJECT NUMBER  
**100666**

SHEET NO.  
**36** OF **84**  
SHEET TITLE  
**2G**



EXPIRES: 12/31/25

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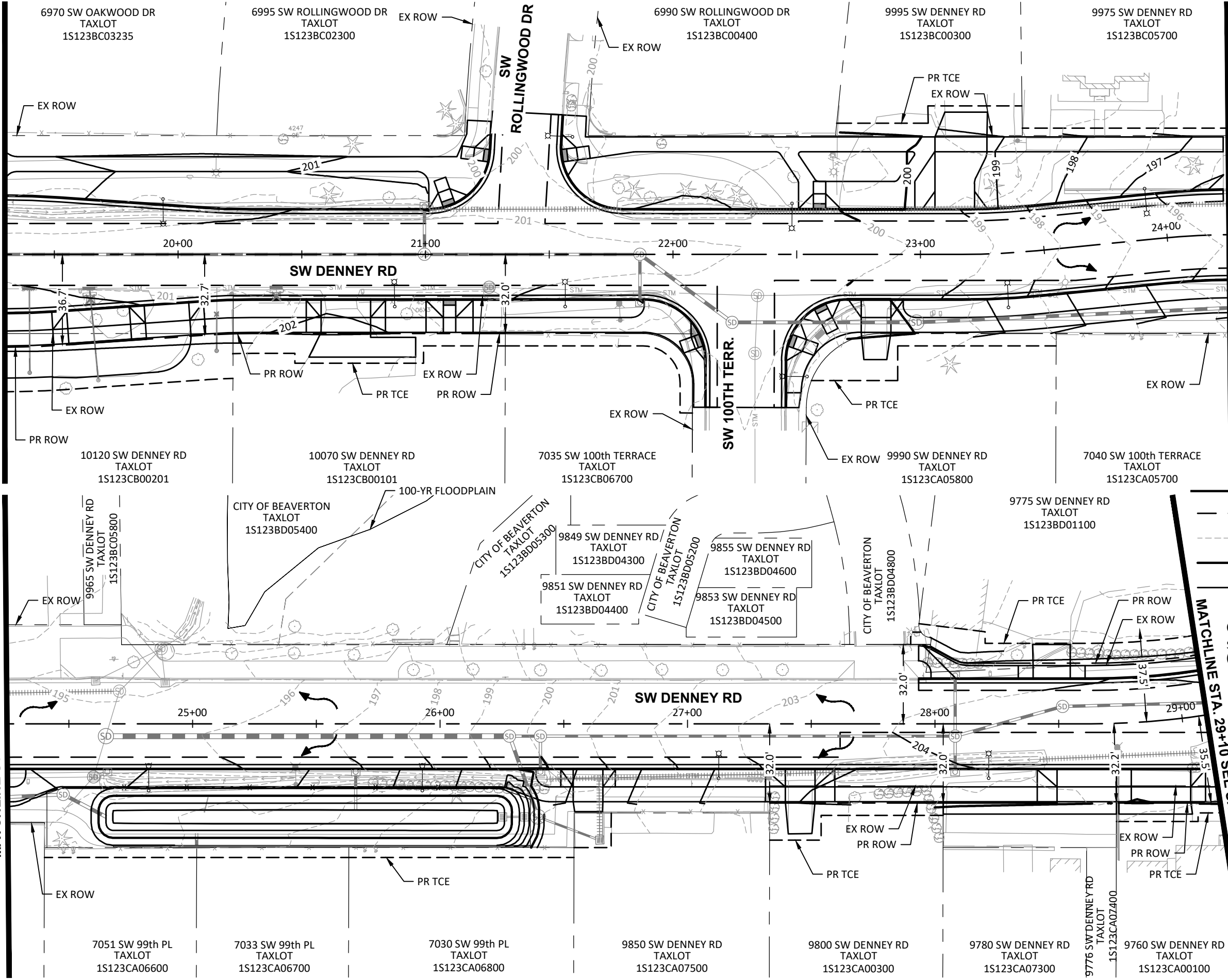
Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY

MATCHLINE STA. 19+30 SEE SHEET 2G

MATCHLINE STA. 24+25 SEE BELOW

MATCHLINE STA. 24+25 SEE ABOVE

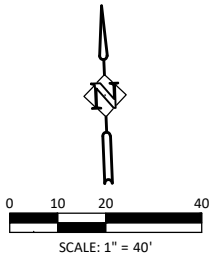
MATCHLINE STA. 29+10 SEE SHEET 2G-3



**LEGEND**

- SAWCUT
- - - - - 100 EXISTING CONTOUR
- - - - - 105 MAJOR CONTOUR
- - - - - 101 MINOR CONTOUR

**GENERAL NOTES:**  
 SEE TREE REMOVAL - PROTECTION PLAN (TR SERIES) FOR TREE DETAILS



**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)

NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA. 19+30 TO 29+10  
**GRADING PLAN**

PROJECT NUMBER  
**100666**

SHEET NO.  
**37 OF 84**

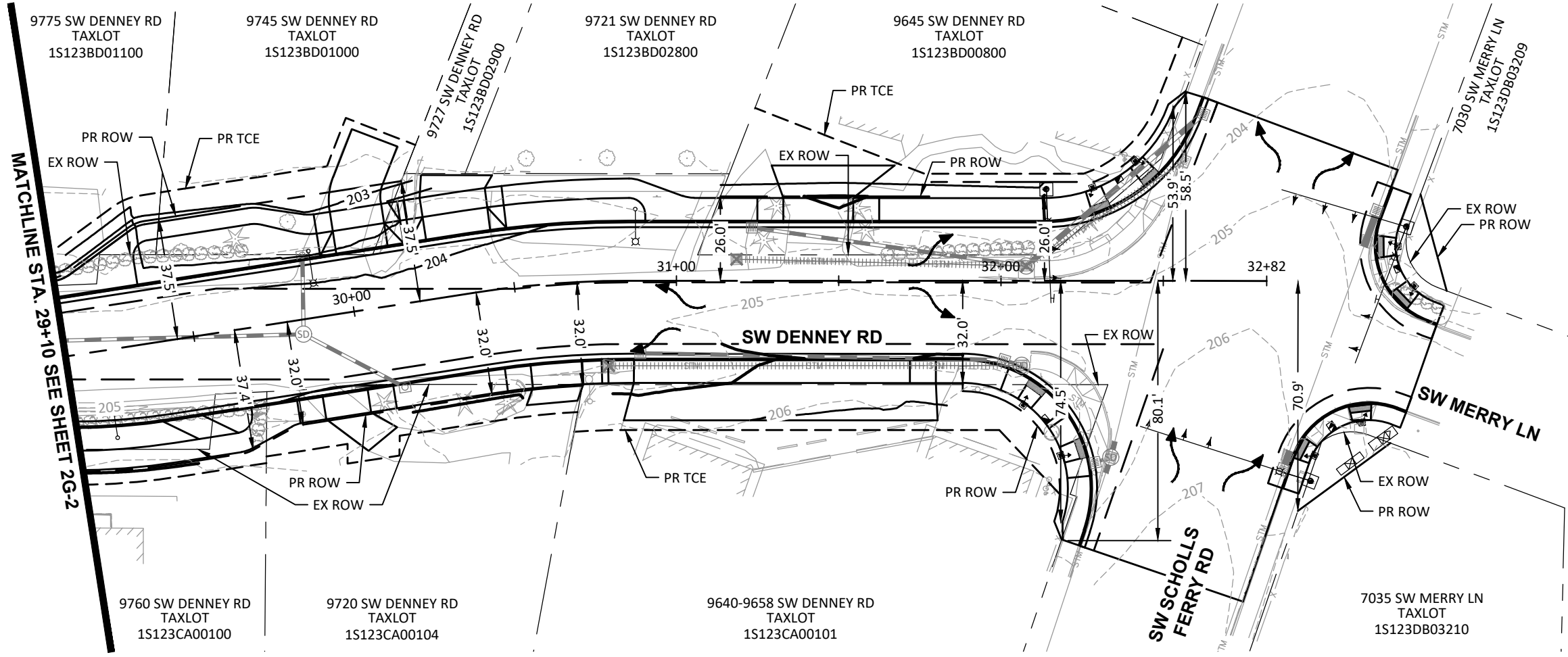
SHEET TITLE  
**2G-2**



EXPIRES: 12/31/25

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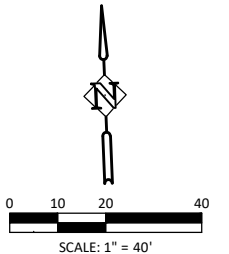


**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)

**GENERAL NOTES:**  
 SEE TREE REMOVAL - PROTECTION PLAN (TR SERIES) FOR TREE DETAILS

**LEGEND**

---	SAWCUT
- - - - 100 - - - -	EXISTING CONTOUR
———— 105 ————	MAJOR CONTOUR
———— 101 ————	MINOR CONTOUR



NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA 29+10 TO EOP  
**GRADING PLAN**

PROJECT NUMBER  
**100666**

SHEET NO.  
**38** OF **84**

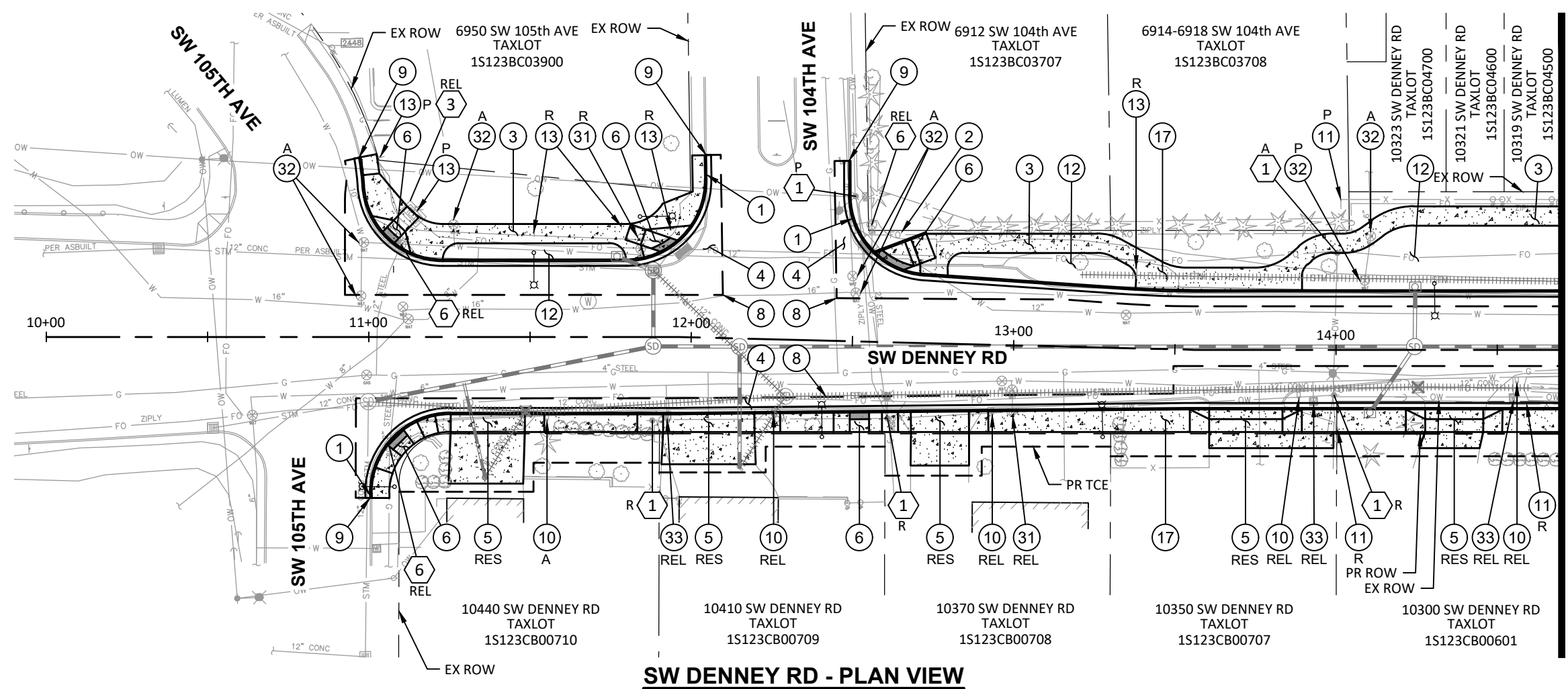
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**2G-3**



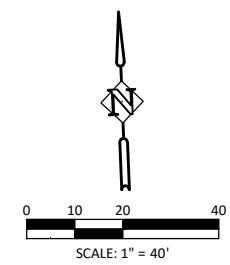
EXPIRES: 12/31/25

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**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)



MATCHLINE STA. 14+70 SEE SHEET 4

**CONSTRUCTION NOTES:**

- 1 CONSTRUCT CURB AND GUTTER PER CITY STANDARD DWG 205 ON SHEET 2B-6.
- 2 CONSTRUCT STANDARD CURB (TYPE A) PER CITY STANDARD DWG 208 ON SHEET 2B-6.
- 3 CONSTRUCT CONCRETE STANDARD SIDEWALK PER CITY STANDARD DWG 215 ON SHEET 2B-8.
- 4 CONSTRUCT FULL DEPTH ROADWAY ASPHALT SECTION PER TYPICAL SECTION ON SHEETS 2A AND 2A-2.
- 5 CONSTRUCT RESIDENTIAL (RES) OR COMMERCIAL (COM) CONCRETE DRIVEWAY APPROACH PER CITY STANDARD DWGS 210 AND 211 ON SHEET 2B-7. MATCH EXISTING WIDTH AND MATERIAL BEHIND APPROACH UNLESS NOTED OTHERWISE. SAWCUT AND REMOVE EXISTING SURFACE AS REQUIRED. MINIMUM STRUCTURAL SECTION BEHIND APPROACH: 4" AC PAVEMENT OVER 8" AGGREGATE BASE OR 6" P.C.C. OVER 6" AGGREGATE BASE. SEE DRIVEWAY GRADE ELEVATIONS ON SHEET SERIES "XX".
- 6 CONSTRUCT SIDEWALK RAMP PER ODOT STANDARD DWGS RD902, RD904, RD905, RD910, RD912, RD913, RD920 AND RD922 ON SHEETS 2B-15 THRU 2B-22. SEE CURB RETURN GRADING ELEVATIONS ON SHEET SERIES "XX".
- 8 SAWCUT AND REMOVE EXISTING SURFACE, AS REQUIRED AND DIRECTED.
- 9 MATCH NEW CURB TO EXISTING CURB AND/OR MATCH NEW SIDEWALK TO EXISTING SIDEWALK, AS REQUIRED AND DIRECTED. PROTECT EXISTING CURB AND/OR CONCRETE SIDEWALK.

- 10 RELOCATE (REL), REMOVE (R), ADJUST (A) OR PROTECT (P) EXISTING MAILBOX(ES). FOR ANY RELOCATION OR ADJUSTMENT, SEE ODOT STANDARD DRAWING RD100 AND RD101 ON SHEETS 2B-12 AND 2B-13. MAILBOX LOCATIONS PER CITY STANDARD DWG 140 ON SHEET 2B-5. COORIDNATE LOCATION WITH ENGINEER.
- 11 REMOVE (R), ADJUST (A), OR PROTECT (P) EXISTING FENCE & GATES. FOR REMOVALS, REMOVE FENCE WITHIN RIGHT-OF-WAY LIMITS.
- 12 CONSTRUCT LANDSCAPE AREA. SEE LANDSCAPING PLANS SHEET SERIES "LA" FOR LIMITS AND DETAILS.
- 13 REMOVE (R), ADJUST (A), OR PROTECT (P) EXISTING SIGN.
- 17 CONSTRUCT CONCRETE CURB TIGHT SIDEWALK PER CITY STANDARD DWG 216 ON SHEET 2B-8.
- 31 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING FIRE HYDRANT. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- 32 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING WATER VALVE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- 33 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING WATER METER, BOX, AND SERVICE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.

**GENERAL INFORMATION NOTES:**

- 1 REMOVE OR RELOCATE (R), OR PROTECT (P) EXISTING UTILITY POLE. REMOVAL OR RELOCATION BY UTILITY. CONTRACTOR TO COORDINATE POLE AND WIRE RELOCATIONS WITH APPROPRIATE UTILITIES.
- 3 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING UTILITY BOX. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.
- 6 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING GAS VALVE. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.

**PROPOSED DESIGN MODIFICATIONS:**

- 6' CURB TIGHT SIDEWALK - 11+25.43 RT. TO 13+55.99 RT. TO AVOID IMPACTS TO ADJACENT PRIVATE IMPROVEMENTS.
- 6' CURB TIGHT SIDEWALK - 13+55.99 LT. TO 13+89.46 LT. TO AVOID TREE IMPACTS.
- 11' TRAVEL LANES - 11+25.43 TO 32+13.86 TO ACCOMMODATE THE NEEDED MULTI-MODAL IMPROVEMENTS WHILE MINIMIZING IMPACT TO TREES AND ADJACENT PROPERTIES.
- NE CORNER OF SE DENNEY RD AND SE 105TH AVE - SINGLE ADA RAMP TO ALIGN WITH ADJACENT CORNERS.
- SE CORNER OF SE DENNEY RD AND SE 105TH AVE - SINGLE ADA RAMP TO ALIGN WITH RECEIVING RAMP AND AVOID PRIVATE PROPERTY IMPACTS.
- NW CORNER OF SE DENNEY RD AND SE 104TH AVE - SINGLE DIRECTIONAL ADA RAMP TO ALIGN WITH RECEIVING RAMP ON EAST SIDE OF INTERSECTION. DRIVEWAYS ON THE SOUTH SIDE PRECLUDE A RAMP AT THIS INTERSECTION.
- NE CORNER OF SE DENNEY RD AND SE 104TH AVE - SINGLE ADA RAMP TO SERVE BOTH CROSSINGS DUE TO LIMITED RIGHT OF WAY AND PLACEMENT OF RAMP ON THE SOUTH SIDE DUE TO DRIVEWAY LOCATIONS.

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA POB TO 14+70  
**ROADWAY PLAN AND NOTES**

PROJECT NUMBER  
**100666**

SHEET NO.  
 39 OF 84  
 SHEET TITLE  
**3**



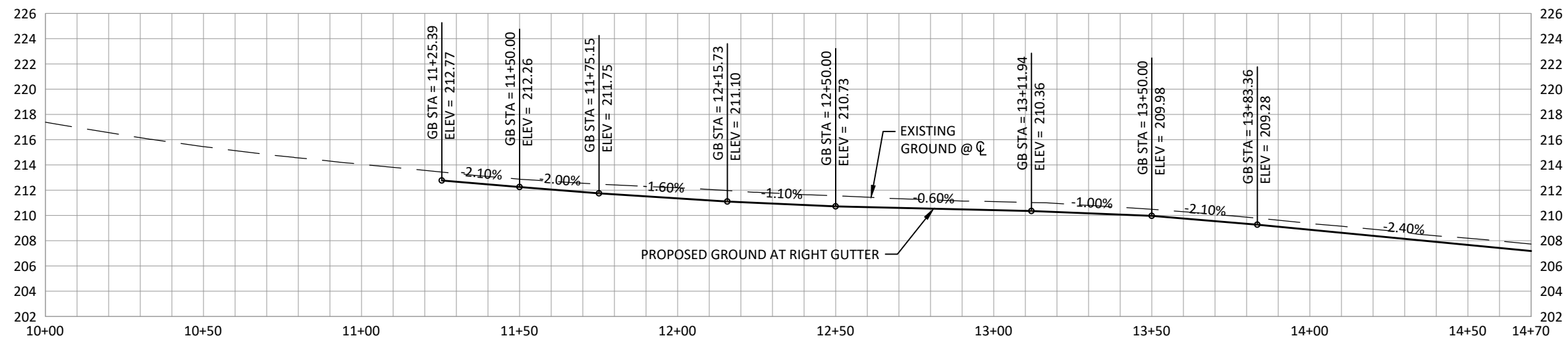
EXPIRES: 12/31/25

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 Phone: 503.221.1131 www.hhpr.com Fax: 503.221.1171

Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY OREGON



**SW DENNEY RD - LEFT PROFILE**  
 SCALE: 1" = 40' (HORZ.)  
 1" = 10' (VERT.)



**SW DENNEY RD - RIGHT PROFILE**  
 SCALE: 1" = 40' (HORZ.)  
 1" = 10' (VERT.)

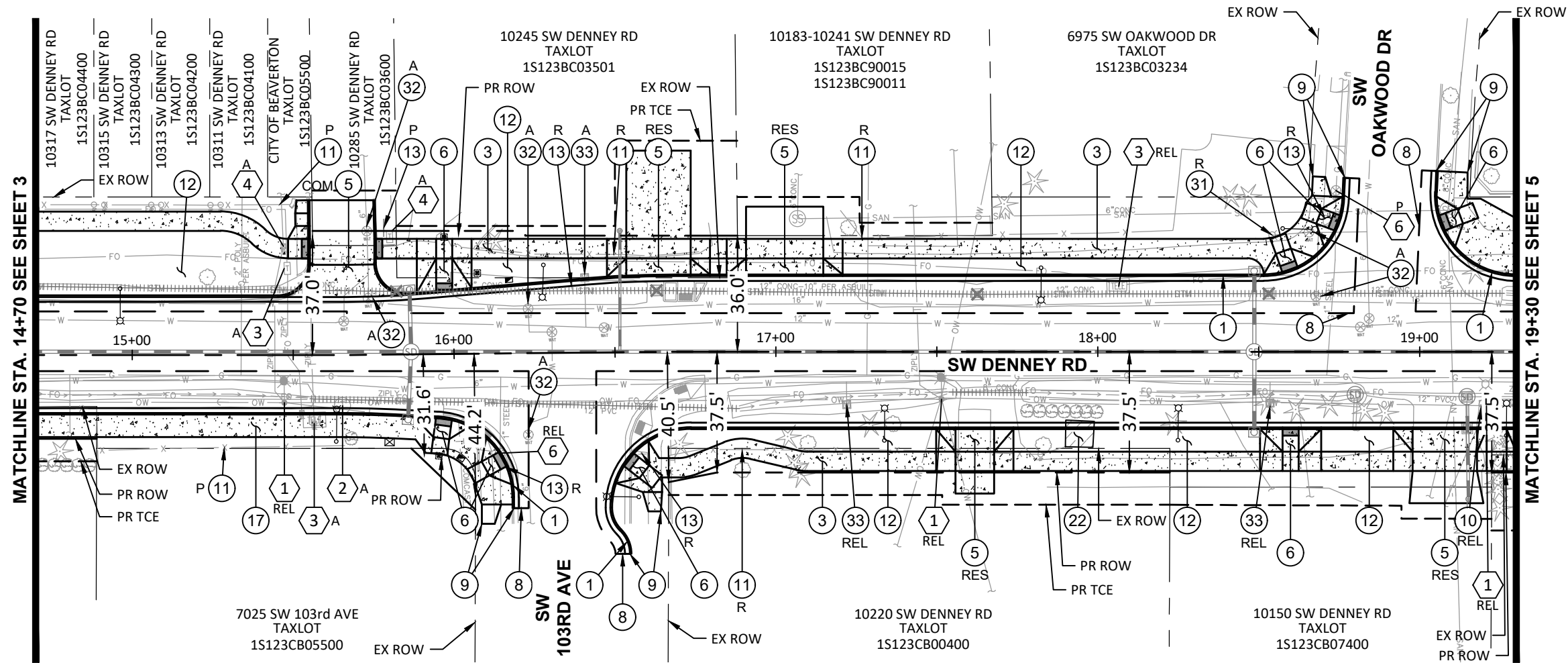
NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**ROADWAY PROFILES**

PROJECT NUMBER  
**100666**  
 SHEET NO.  
 40 OF 84  
 SHEET TITLE  
**3A**





**SW DENNEY RD - PLAN VIEW**

SCALE: 1" = 40' (HORZ.)

**CONSTRUCTION NOTES:**

- ① CONSTRUCT CURB AND GUTTER PER CITY STANDARD DWG 205 ON SHEET 2B-6.
- ③ CONSTRUCT CONCRETE STANDARD SIDEWALK PER CITY STANDARD DWG 215 ON SHEET 2B-8.
- ⑤ CONSTRUCT RESIDENTIAL (RES) OR COMMERCIAL (COM) CONCRETE DRIVEWAY APPROACH PER CITY STANDARD DWGS 210 AND 211 ON SHEET 2B-7. MATCH EXISTING WIDTH AND MATERIAL BEHIND APPROACH UNLESS NOTED OTHERWISE. SAWCUT AND REMOVE EXISTING SURFACE AS REQUIRED. MINIMUM STRUCTURAL SECTION BEHIND APPROACH: 4" AC PAVEMENT OVER 8" AGGREGATE BASE OR 6" P.C.C. OVER 6" AGGREGATE BASE. SEE DRIVEWAY GRADE ELEVATIONS ON SHEET SERIES "XX".
- ⑥ CONSTRUCT SIDEWALK RAMP PER ODOT STANDARD DWGS RD902, RD904, RD905, RD910, RD912, RD913, RD920 AND RD922 ON SHEETS 2B-15 THRU 2B-22. SEE CURB RETURN GRADING ELEVATIONS ON SHEET SERIES "XX".
- ⑧ SAWCUT AND REMOVE EXISTING SURFACE, AS REQUIRED AND DIRECTED.
- ⑨ MATCH NEW CURB TO EXISTING CURB AND/OR MATCH NEW SIDEWALK TO EXISTING SIDEWALK, AS REQUIRED AND DIRECTED. PROTECT EXISTING CURB AND/OR CONCRETE SIDEWALK.
- ⑩ RELOCATE (REL), REMOVE (R), ADJUST (A) OR PROTECT (P) EXISTING MAILBOX(ES). FOR ANY RELOCATION OR ADJUSTMENT, SEE ODOT STANDARD DRAWING RD100 AND RD101 ON SHEETS 2B-12 AND 2B-13. MAILBOX LOCATIONS PER CITY STANDARD DWG 140 ON SHEET 2B-5. COORDINATE LOCATION WITH ENGINEER.

- ⑪ REMOVE (R), ADJUST (A). OR PROTECT (P) EXISTING FENCE & GATES. FOR REMOVALS, REMOVE FENCE WITHIN RIGHT-OF-WAY LIMITS.
- ⑫ CONSTRUCT LANDSCAPE AREA. SEE LANDSCAPING PLANS SHEET SERIES "LA" FOR LIMITS AND DETAILS.
- ⑬ REMOVE (R), ADJUST (A). OR PROTECT (P) EXISTING SIGN.
- ⑰ CONSTRUCT CONCRETE CURB TIGHT SIDEWALK PER CITY STANDARD DWG 216 ON SHEET 2B-8.
- ⑳ REMOVE PRIVATE IMPROVEMENTS.
- ㉑ RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING FIRE HYDRANT. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- ㉒ RELOCATE (REL), ADJUST (A). OR PROTECT (P) EXISTING WATER VALVE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- ㉓ RELOCATE (REL), ADJUST (A). OR PROTECT (P) EXISTING WATER METER, BOX, AND SERVICE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.

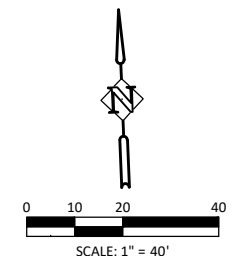
**GENERAL INFORMATION NOTES:**

- ① REMOVE OR RELOCATE (R), OR PROTECT (P) EXISTING UTILITY POLE. REMOVAL OR RELOCATION BY UTILITY. CONTRACTOR TO COORDINATE POLE AND WIRE RELOCATIONS WITH APPROPRIATE UTILITIES.
- ② RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING UTILITY MANHOLE/VAULT. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.
- ③ RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING UTILITY BOX. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.
- ④ RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING UTILITY PEDESTAL. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.
- ⑥ RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING GAS VALVE. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.

**PROPOSED DESIGN MODIFICATIONS:**

WEST SIDE OF SW DENNEY RD AND SW 103RD AVE - NO PEDESTRIAN RAMP ON NORTH SIDE DUE TO CONFLICT WITH DRIVEWAY AND DESIRE TO ENCOURAGE PEDESTRIANS TO USE THE RRFB PEDESTRIAN CROSSING ON THE WEST LEG.

EAST SIDE OF SW DENNEY RD AND SW OAKWOOD DR - NO PEDESTRIAN RAMPS ON EAST SIDE OF INTERSECTION DUE TO CONFLICT WITH DRIVEWAY.



EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA 14+70 TO 19+30  
**ROADWAY PLAN AND NOTES**

PROJECT NUMBER  
**100666**

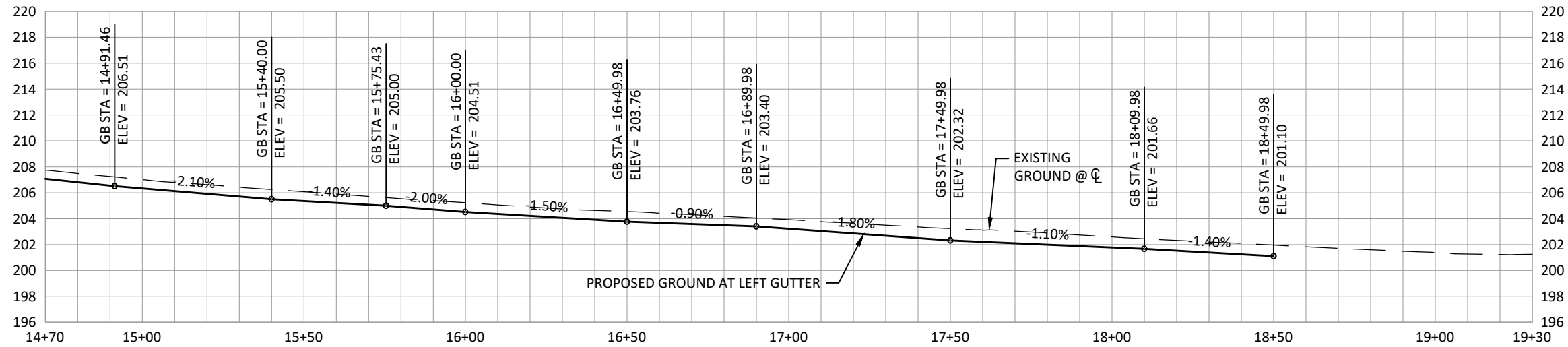
SHEET NO.  
**41** OF **84**  
 SHEET TITLE  
**4**



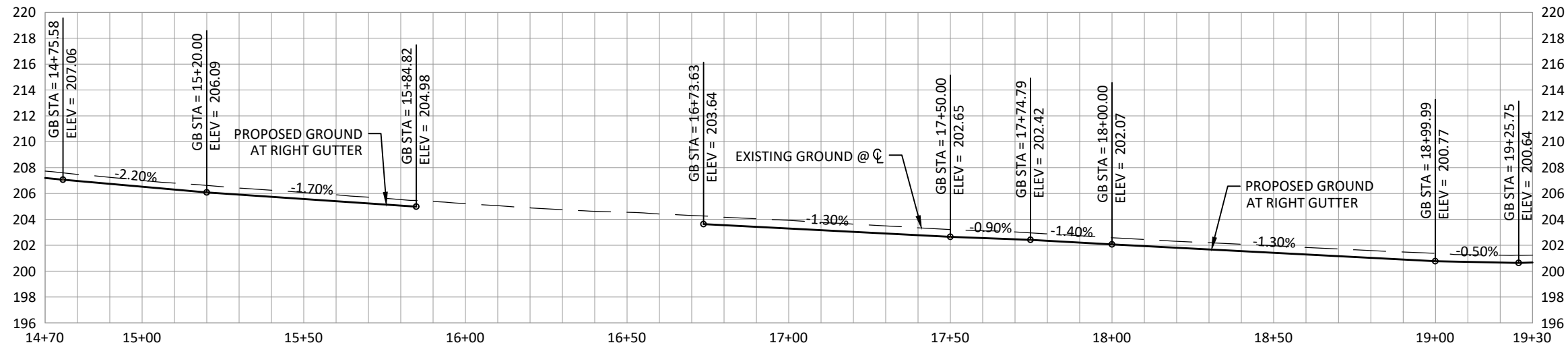
EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY OREGON



**SW DENNEY RD - LEFT PROFILE**  
 SCALE: 1" = 40' (HORZ.)  
 1" = 10' (VERT.)



**SW DENNEY RD - RIGHT PROFILE**  
 SCALE: 1" = 40' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
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2	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**ROADWAY PROFILES**

PROJECT NUMBER  
**100666**

SHEET NO.  
 42 OF 84

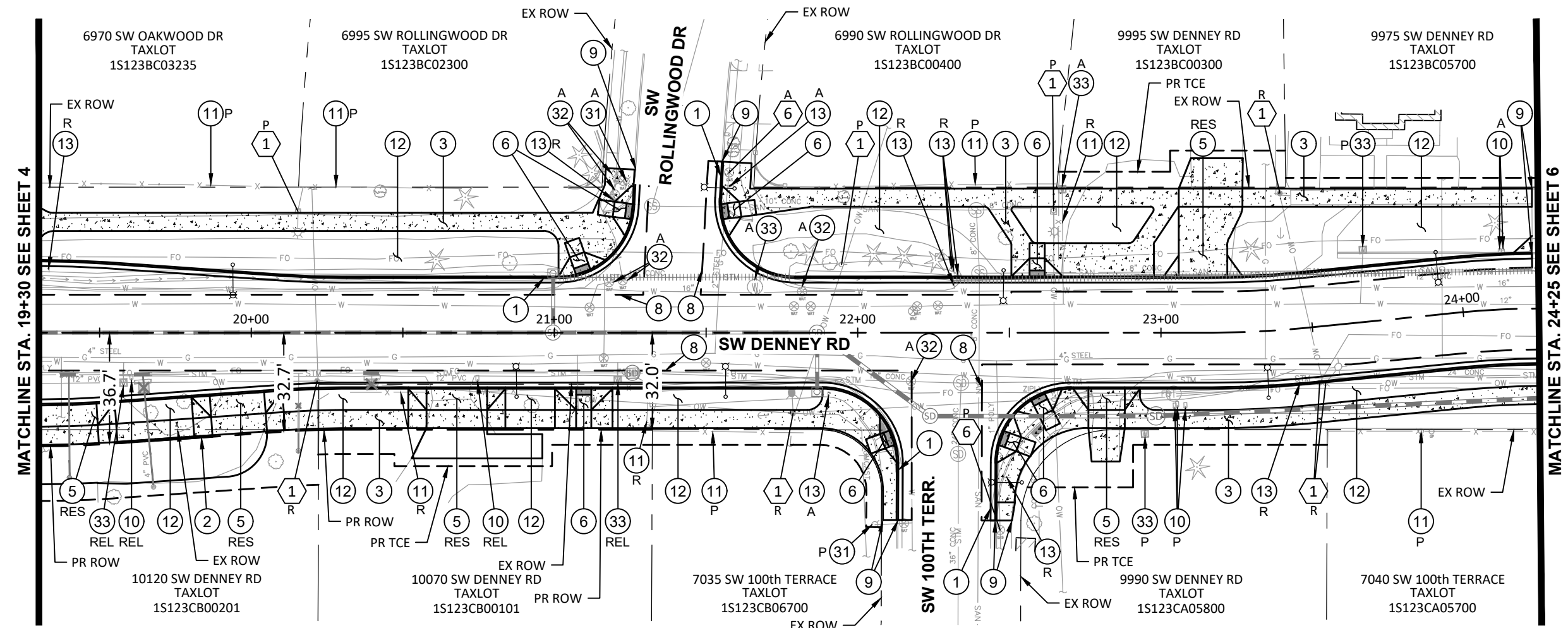
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**4A**



EXPIRES: 12/31/25

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 205 SE Spokane Street, Suite 300, Portland, OR 97202  
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Department of Land Use & Transportation Engineering  
 WASHINGTON COUNTY OREGON



**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)

**CONSTRUCTION NOTES:**

- 1 CONSTRUCT CURB AND GUTTER PER CITY STANDARD DWG 205 ON SHEET 2B-6.
- 2 CONSTRUCT STANDARD CURB (TYPE A) PER CITY STANDARD DWG 208 ON SHEET 2B-6.
- 3 CONSTRUCT CONCRETE STANDARD SIDEWALK PER CITY STANDARD DWG 215 ON SHEET 2B-8.
- 5 CONSTRUCT RESIDENTIAL (RES) OR COMMERCIAL (COM) CONCRETE DRIVEWAY APPROACH PER CITY STANDARD DWGS 210 AND 211 ON SHEET 2B-7. MATCH EXISTING WIDTH AND MATERIAL BEHIND APPROACH UNLESS NOTED OTHERWISE. SAWCUT AND REMOVE EXISTING SURFACE AS REQUIRED. MINIMUM STRUCTURAL SECTION BEHIND APPROACH: 4" AC PAVEMENT OVER 8" AGGREGATE BASE OR 6" P.C.C. OVER 6" AGGREGATE BASE. SEE DRIVEWAY GRADE ELEVATIONS ON SHEET SERIES "XX".
- 6 CONSTRUCT SIDEWALK RAMP PER ODOT STANDARD DWGS RD902, RD904, RD905, RD910, RD912, RD913, RD920 AND RD922 ON SHEETS 2B-15 THRU 2B-22. SEE CURB RETURN GRADING ELEVATIONS ON SHEET SERIES "XX".
- 8 SAWCUT AND REMOVE EXISTING SURFACE, AS REQUIRED AND DIRECTED.
- 9 MATCH NEW CURB TO EXISTING CURB AND/OR MATCH NEW SIDEWALK TO EXISTING SIDEWALK, AS REQUIRED AND DIRECTED. PROTECT EXISTING CURB AND/OR CONCRETE SIDEWALK.

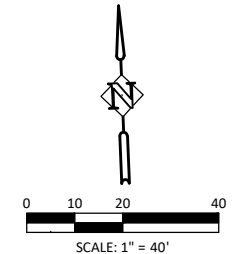
- 10 RELOCATE (REL), REMOVE (R), ADJUST (A) OR PROTECT (P) EXISTING MAILBOX(ES). FOR ANY RELOCATION OR ADJUSTMENT, SEE ODOT STANDARD DRAWING RD100 AND RD101 ON SHEETS 2B-12 AND 2B-13. MAILBOX LOCATIONS PER CITY STANDARD DWG 140 ON SHEET 2B-5. COORDINATE LOCATION WITH ENGINEER.
- 11 REMOVE (R), ADJUST (A), OR PROTECT (P) EXISTING FENCE & GATES. FOR REMOVALS, REMOVE FENCE WITHIN RIGHT-OF-WAY LIMITS.
- 12 CONSTRUCT LANDSCAPE AREA. SEE LANDSCAPING PLANS SHEET SERIES "LA" FOR LIMITS AND DETAILS.
- 13 REMOVE (R), ADJUST (A), OR PROTECT (P) EXISTING SIGN.
- 31 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING FIRE HYDRANT. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- 32 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING WATER VALVE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- 33 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING WATER METER, BOX, AND SERVICE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.

**GENERAL INFORMATION NOTES:**

- 1 REMOVE OR RELOCATE (R), OR PROTECT (P) EXISTING UTILITY POLE. REMOVAL OR RELOCATION BY UTILITY. CONTRACTOR TO COORDINATE POLE AND WIRE RELOCATIONS WITH APPROPRIATE UTILITIES.
- 6 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING GAS VALVE. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.

**PROPOSED DESIGN MODIFICATIONS:**

SW ROLLINGWOOD DR AND SW 100TH TERR AT SW DENNEY RD ACT AS AN OFFSET INTERSECTION. NO ADA RAMPS PROVIDED ON INTERIOR CROSSING DUE TO CONFLICT WITH SIGNIFICANT TREES ON THE NORTH SIDE.



NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA 19+30 TO 24+25  
**ROADWAY PLAN AND NOTES**

PROJECT NUMBER  
**100666**

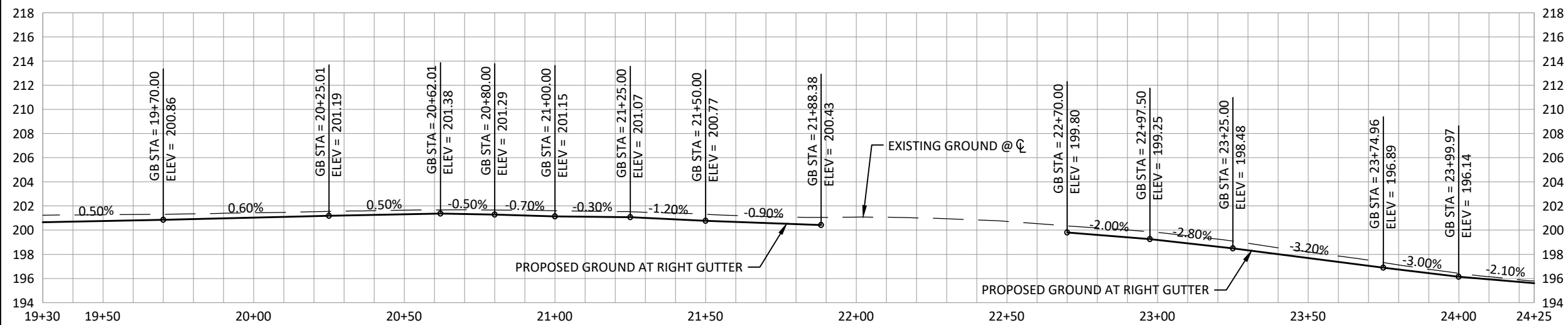
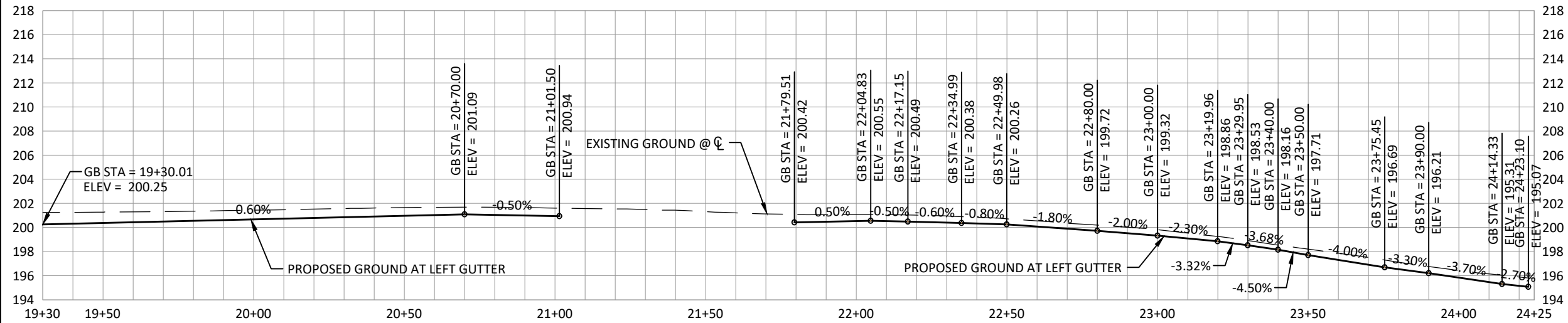
SHEET NO.  
 43 OF 84  
 SHEET TITLE  
**5**



EXPIRES: 12/31/25

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 ENGINEERS \* PLANNERS  
 LANDSCAPE ARCHITECTS \* SURVEYORS  
 205 SE Spokane Street, Suite 300, Portland, OR 97202  
 Phone: 503.221.1151 www.hhpr.com Fax: 503.221.1171

Department of Land Use & Transportation Engineering



NO.	REVISION
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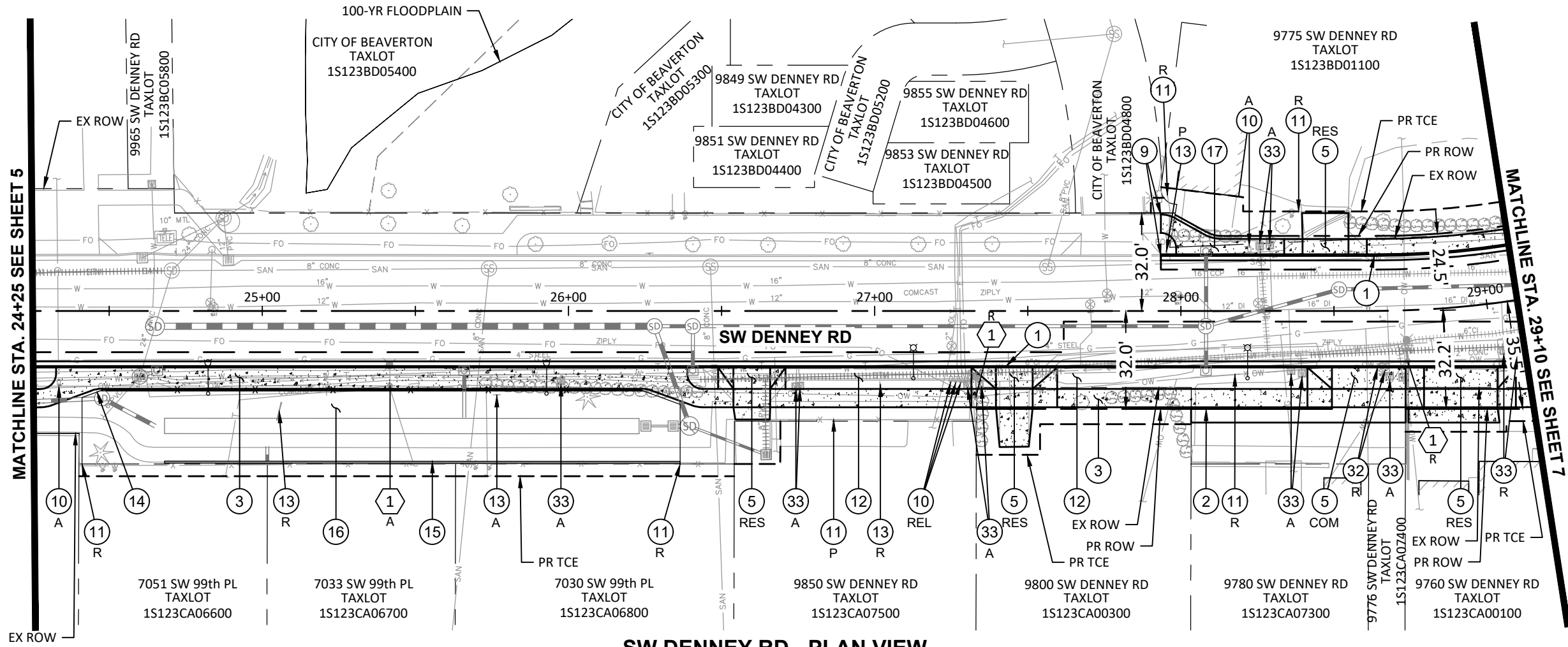
**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**ROADWAY PROFILES**

PROJECT NUMBER  
**100666**

SHEET NO.  
**44 OF 84**

SHEET TITLE  
**5A**



**SW DENNEY RD - PLAN VIEW**  
SCALE: 1" = 40' (HORZ.)

**CONSTRUCTION NOTES:**

- 1 CONSTRUCT CURB AND GUTTER PER CITY STANDARD DWG 205 ON SHEET 2B-6.
- 2 CONSTRUCT STANDARD CURB (TYPE A) PER CITY STANDARD DWG 208 ON SHEET 2B-6.
- 3 CONSTRUCT CONCRETE STANDARD SIDEWALK PER CITY STANDARD DWG 215 ON SHEET 2B-8.
- 5 CONSTRUCT RESIDENTIAL (RES) OR COMMERCIAL (COM) CONCRETE DRIVEWAY APPROACH PER CITY STANDARD DWGS 210 AND 211 ON SHEET 2B-7. MATCH EXISTING WIDTH AND MATERIAL BEHIND APPROACH UNLESS NOTED OTHERWISE. SAWCUT AND REMOVE EXISTING SURFACE AS REQUIRED. MINIMUM STRUCTURAL SECTION BEHIND APPROACH: 4" AC PAVEMENT OVER 8" AGGREGATE BASE OR 6" P.C.C. OVER 6" AGGREGATE BASE. SEE DRIVEWAY GRADE ELEVATIONS ON SHEET SERIES "XX".
- 9 MATCH NEW CURB TO EXISTING CURB AND/OR MATCH NEW SIDEWALK TO EXISTING SIDEWALK, AS REQUIRED AND DIRECTED. PROTECT EXISTING CURB AND/OR CONCRETE SIDEWALK.
- 10 RELOCATE (REL), REMOVE (R), ADJUST (A) OR PROTECT (P) EXISTING MAILBOX(ES). FOR ANY RELOCATION OR ADJUSTMENT, SEE ODOT STANDARD DRAWING RD100 AND RD101 ON SHEETS 2B-12 AND 2B-13. MAILBOX LOCATIONS PER CITY STANDARD DWG 140 ON SHEET 2B-5. COORDINATE LOCATION WITH ENGINEER.
- 11 REMOVE (R), ADJUST (A). OR PROTECT (P) EXISTING FENCE & GATES. FOR REMOVALS, REMOVE FENCE WITHIN RIGHT-OF-WAY LIMITS.

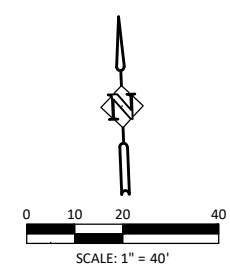
- 12 CONSTRUCT LANDSCAPE AREA. SEE LANDSCAPING PLANS SHEET SERIES "LA" FOR LIMITS AND DETAILS.
- 13 REMOVE (R), ADJUST (A). OR PROTECT (P) EXISTING SIGN.
- 14 INSTALL CL-6R CHAIN LINK FENCE WITH BLACK VINYL COATING PER ODOT STANDARD DWGS RD815 ON SHEET 2B-14.
- 15 CONSTRUCT WALL. SEE SHEET XX FOR WALL PLANS AND SHEET XX FOR DETAILS.
- 16 CONSTRUCT STORMWATER FACILITY PER DETAILS ON SHEET 4A-2.
- 17 CONSTRUCT CONCRETE CURB TIGHT SIDEWALK PER CITY STANDARD DWG 216 ON SHEET 2B-8.
- 32 RELOCATE (REL), ADJUST (A). OR PROTECT (P) EXISTING WATER VALVE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- 33 RELOCATE (REL), ADJUST (A). OR PROTECT (P) EXISTING WATER METER, BOX, AND SERVICE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.

**GENERAL INFORMATION NOTES:**

- 1 REMOVE OR RELOCATE (R), OR PROTECT (P) EXISTING UTILITY POLE. REMOVAL OR RELOCATION BY UTILITY. CONTRACTOR TO COORDINATE POLE AND WIRE RELOCATIONS WITH APPROPRIATE UTILITIES.

**PROPOSED DESIGN MODIFICATIONS:**

- 6' CURB TIGHT SIDEWALK - 24+32.64 RT. TO 26+38.85 RT. TO PROVIDE SPACE FOR AN EXTENDED DRY POND STORMWATER FACILITY.
- 6' CURB TIGHT SIDEWALK - 28+63.16 RT. TO 29+35.32 RT. TO AVOID IMPACTS TO TREES.



EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering  
WASHINGTON COUNTY

NO.	REVISION
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA 24+25 TO 29+10  
**ROADWAY PLAN AND NOTES**

PROJECT NUMBER  
**100666**

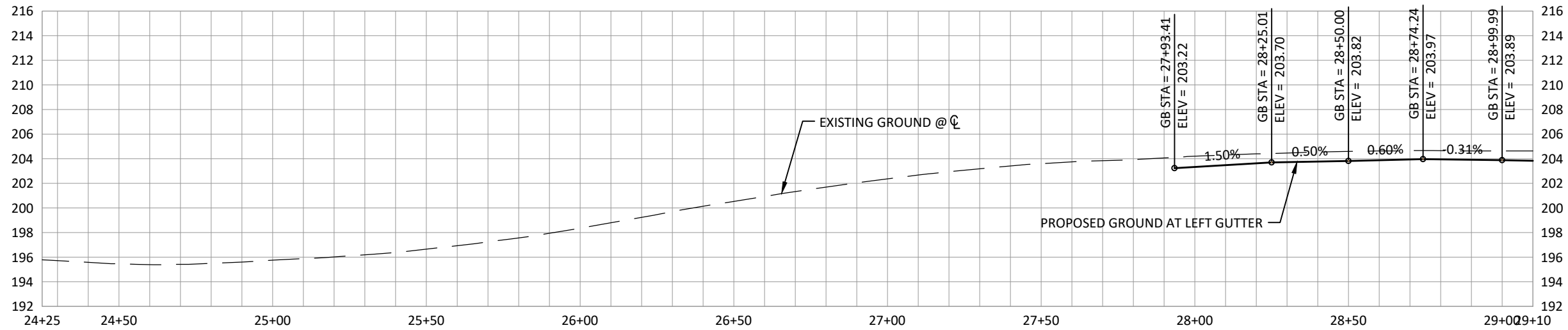
SHEET NO.  
45 OF 84  
SHEET TITLE  
**6**



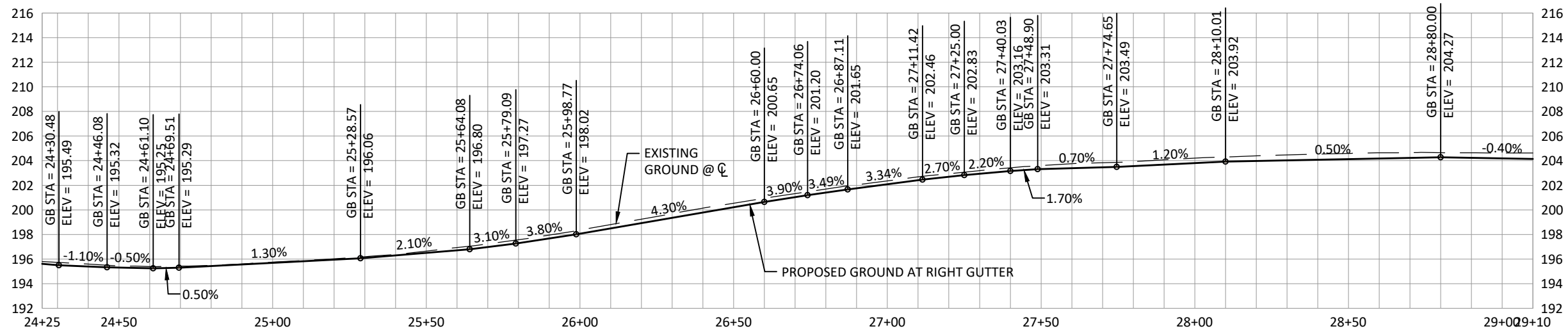
EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering



**SW DENNEY RD - LEFT PROFILE**  
 SCALE: 1" = 40' (HORZ.)  
 1" = 10' (VERT.)



**SW DENNEY RD - RIGHT PROFILE**  
 SCALE: 1" = 40' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**ROADWAY PROFILES**

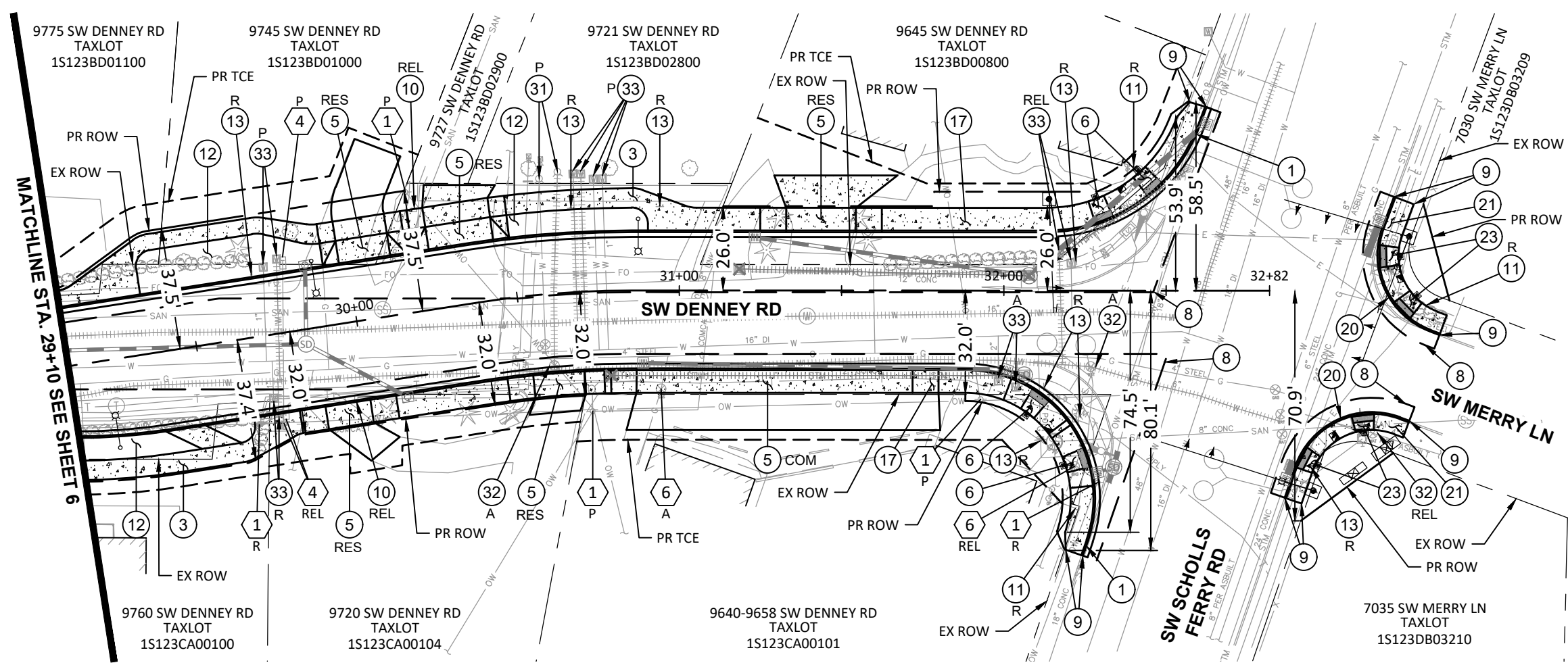
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 SHEET NO.  
 46 OF 84  
 SHEET TITLE  
**6A**



EXPIRES: 12/31/25

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Houf Peterson  
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**SW DENNEY RD - PLAN VIEW**  
SCALE: 1" = 40' (HORZ.)

**CONSTRUCTION NOTES:**

- 1 CONSTRUCT CURB AND GUTTER PER CITY STANDARD DWG 205 ON SHEET 2B-6.
- 3 CONSTRUCT CONCRETE STANDARD SIDEWALK PER CITY STANDARD DWG 215 ON SHEET 2B-8.
- 5 CONSTRUCT RESIDENTIAL (RES) OR COMMERCIAL (COM) CONCRETE DRIVEWAY APPROACH PER CITY STANDARD DWGS 210 AND 211 ON SHEET 2B-7. MATCH EXISTING WIDTH AND MATERIAL BEHIND APPROACH UNLESS NOTED OTHERWISE. SAWCUT AND REMOVE EXISTING SURFACE AS REQUIRED. MINIMUM STRUCTURAL SECTION BEHIND APPROACH: 4" AC PAVEMENT OVER 8" AGGREGATE BASE OR 6" P.C.C. OVER 6" AGGREGATE BASE. SEE DRIVEWAY GRADE ELEVATIONS ON SHEET SERIES "XX".
- 6 CONSTRUCT SIDEWALK RAMP PER ODOT STANDARD DWGS RD902, RD904, RD905, RD910, RD912, RD913, RD920 AND RD922 ON SHEETS 2B-15 THRU 2B-22. SEE CURB RETURN GRADING ELEVATIONS ON SHEET SERIES "XX".
- 8 SAWCUT AND REMOVE EXISTING SURFACE, AS REQUIRED AND DIRECTED.
- 9 MATCH NEW CURB TO EXISTING CURB AND/OR MATCH NEW SIDEWALK TO EXISTING SIDEWALK, AS REQUIRED AND DIRECTED. PROTECT EXISTING CURB AND/OR CONCRETE SIDEWALK.
- 10 RELOCATE (REL), REMOVE (R), ADJUST (A) OR PROTECT (P) EXISTING MAILBOX(ES). FOR ANY RELOCATION OR ADJUSTMENT, SEE ODOT STANDARD DRAWING RD100 AND RD101 ON SHEETS 2B-12 AND 2B-13. MAILBOX LOCATIONS PER CITY STANDARD DWG 140 ON SHEET 2B-5. COORDINATE LOCATION WITH ENGINEER.

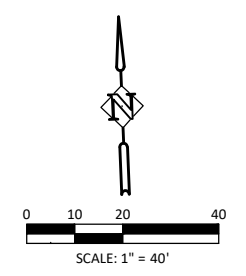
- 11 REMOVE (R), ADJUST (A). OR PROTECT (P) EXISTING FENCE & GATES. FOR REMOVALS, REMOVE FENCE WITHIN RIGHT-OF-WAY LIMITS.
- 12 CONSTRUCT LANDSCAPE AREA. SEE LANDSCAPING PLANS SHEET SERIES "LA" FOR LIMITS AND DETAILS.
- 13 REMOVE (R), ADJUST (A). OR PROTECT (P) EXISTING SIGN.
- 17 CONSTRUCT CONCRETE CURB TIGHT SIDEWALK PER CITY STANDARD DWG 216 ON SHEET 2B-8.
- 20 CONSTRUCT STANDARD CURB PER WASHINGTON COUNTY STANDARD DWG 2010 ON SHEET 2B-23.
- 21 CONSTRUCT CONCRETE STANDARD SIDEWALK PER WASHINGTON COUNTY STANDARD DWG 2110 ON SHEET 2B-23.
- 23 CONSTRUCT SIDEWALK RAMP PER ODOT STANDARD DWGS RD902, RD904, RD905, RD910, RD912, RD913, RD920 AND RD922 SHEETS 2B-15 THRU 2B-22 AND WASHINGTON COUNTY STANDARD DWG 2130 ON SHEET 2B-24. SEE CURB RETURN GRADING ELEVATIONS ON SHEET SERIES "XX".
- 31 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING FIRE HYDRANT. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- 32 RELOCATE (REL), ADJUST (A). OR PROTECT (P) EXISTING WATER VALVE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.
- 33 RELOCATE (REL), ADJUST (A). OR PROTECT (P) EXISTING WATER METER, BOX, AND SERVICE. RELOCATIONS AND ADJUSTMENTS BY OTHERS. CONTRACTOR TO COORDINATE.

**GENERAL INFORMATION NOTES:**

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- 4 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING UTILITY PEDESTAL. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.
- 6 RELOCATE (REL), ADJUST (A), OR PROTECT (P) EXISTING GAS VALVE. RELOCATION OR ADJUSTMENT BY UTILITY. CONTRACTOR TO COORDINATE.

**PROPOSED DESIGN MODIFICATIONS:**

- 6' CURB TIGHT SIDEWALK - 29+64.11 RT. TO 32+13.86 RT. TO AVOID IMPACTS TO TREES AND PRIVATE IMPROVEMENTS.
- 6' CURB TIGHT SIDEWALK - 30+90.34 LT. TO 32+13.86 LT. TO AVOID IMPACTS TO TREES AND PRIVATE IMPROVEMENTS.



NO.	REVISION
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA 29+10 TO EOP  
**ROADWAY PLAN AND NOTES**

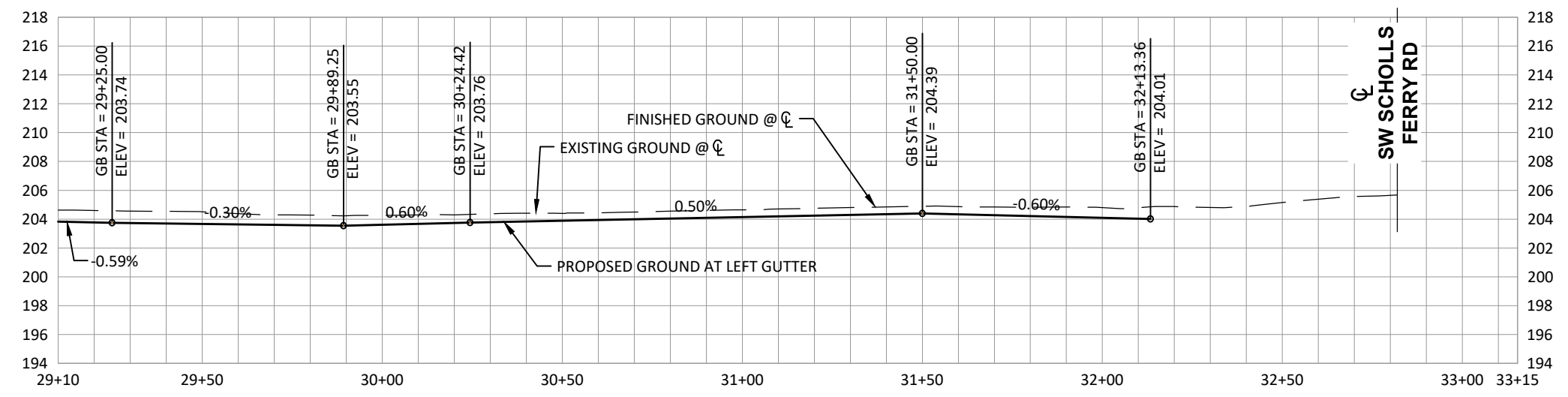
PROJECT NUMBER  
**100666**  
SHEET NO.  
47 OF 84  
SHEET TITLE  
**7**



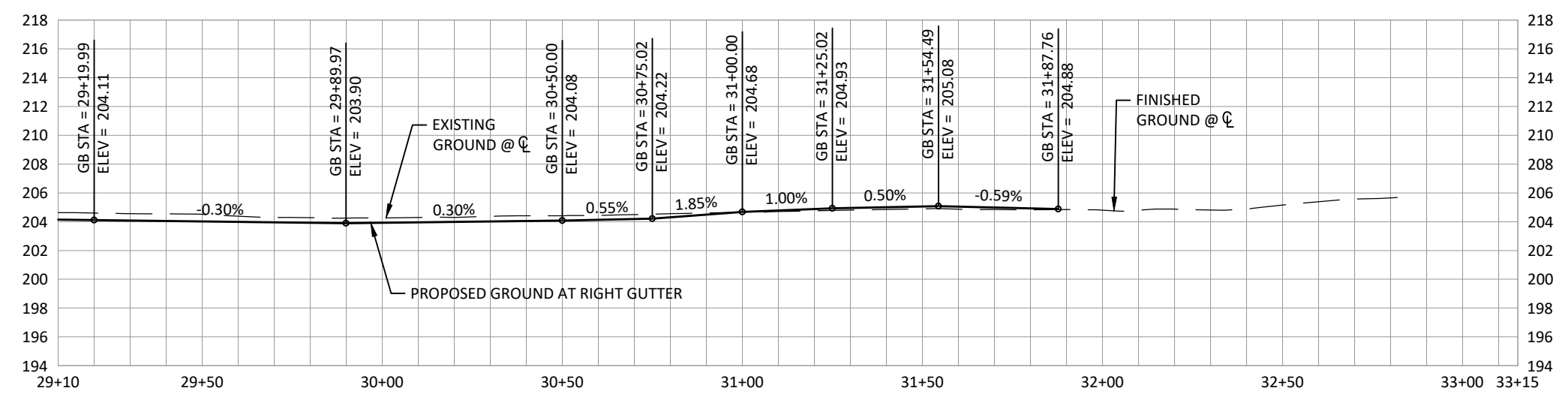
EXPIRES: 12/31/25

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 205 SE Spokane Street, Suite 300, Portland, OR 97202  
 Phone: 503.221.1151 www.hhpri.com Fax: 503.221.1171

**WASHINGTON COUNTY**  
 Department of Land Use & Transportation Engineering



**SW DENNEY RD - LEFT PROFILE**  
 SCALE: 1" = 40' (HORZ.)  
 1" = 10' (VERT.)



**SW DENNEY RD - RIGHT PROFILE**  
 SCALE: 1" = 40' (HORZ.)  
 1" = 10' (VERT.)

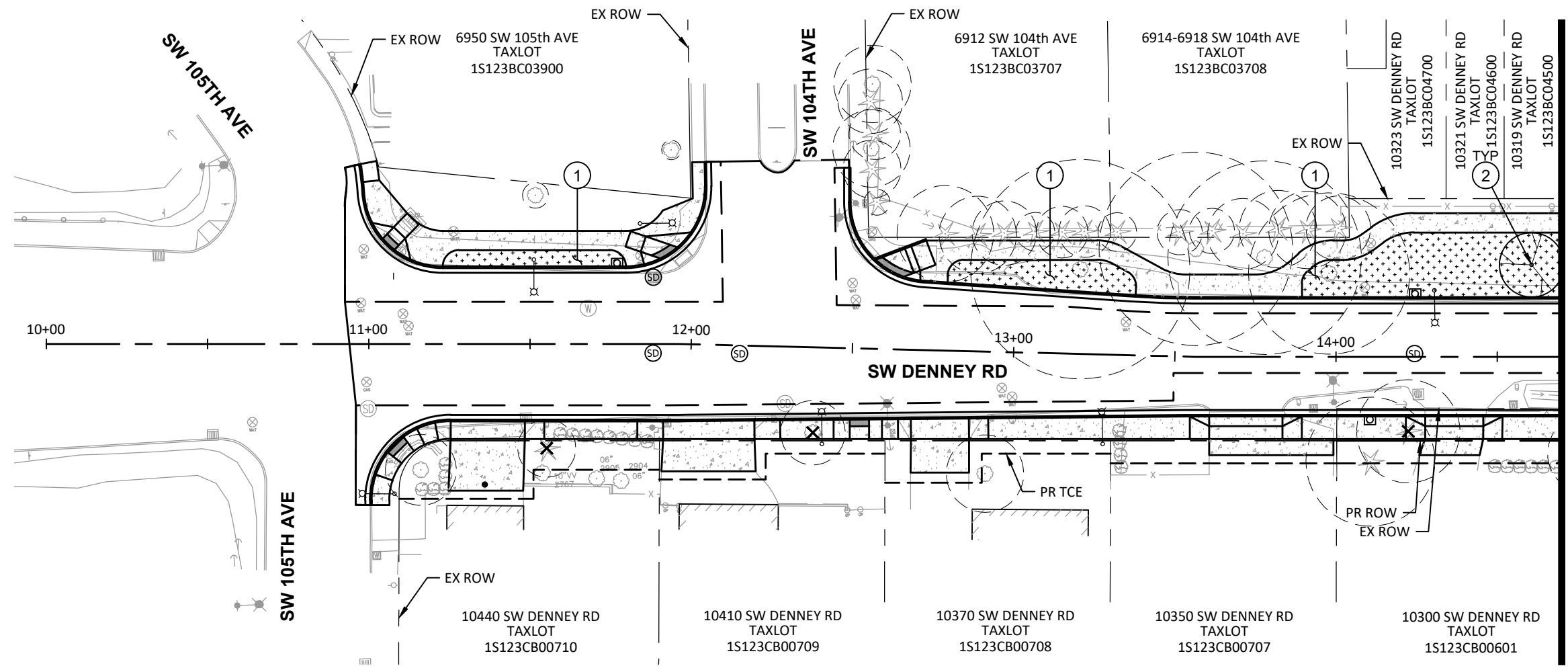
NO.	REVISION
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

**ROADWAY PROFILES**

PROJECT NUMBER  
**100666**  
 SHEET NO.  
 48 OF 84  
 SHEET TITLE  
**7A**



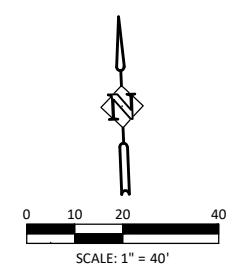
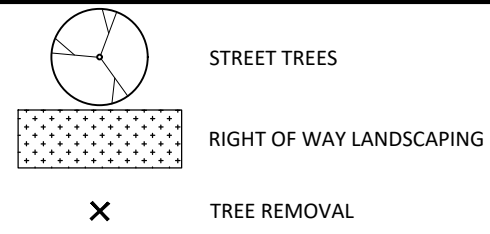


**SW DENNEY RD - PLAN VIEW**  
SCALE: 1" = 40' (HORZ.)

**CONSTRUCTION NOTES:**

- ① RIGHT OF WAY LANDSCAPING
- ② STREET TREE

**PLANT SCHEDULE**



PRELIMINARY

**Harper Houf Peterson Righellis Inc.**  
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Department of Land Use & Transportation Engineering  
**WASHINGTON COUNTY OREGON**

NO.	REVISION
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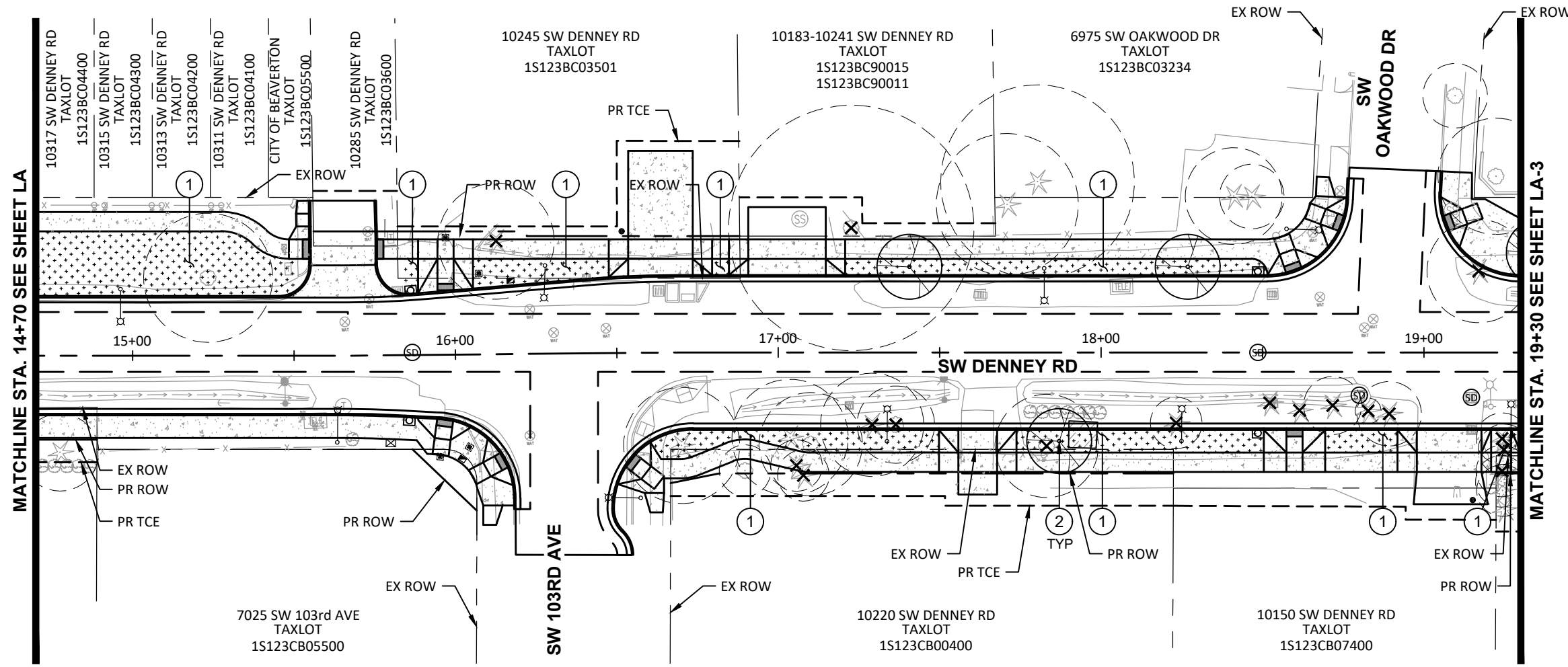
**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA POB TO 14+70  
**LANDSCAPE PLAN**

PROJECT NUMBER  
**100666**

SHEET NO.  
**49 OF 84**

SHEET TITLE  
**LA**



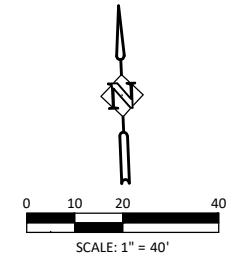
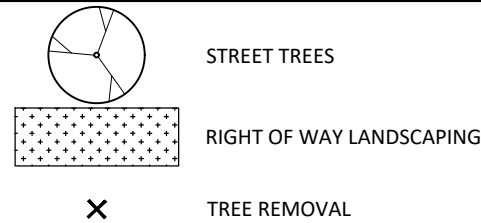
**SW DENNEY RD - PLAN VIEW**

SCALE: 1" = 40' (HORZ.)

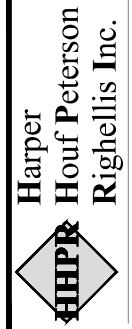
**CONSTRUCTION NOTES:**

- ① RIGHT OF WAY LANDSCAPING
- ② STREET TREE

**PLANT SCHEDULE**



PRELIMINARY



ENGINEERS • PLANNERS  
LANDSCAPE ARCHITECTS • SURVEYORS



NO.	REVISION
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY


SW DENNEY RD STA 14+70 TO 19+30  
**LANDSCAPE PLAN**

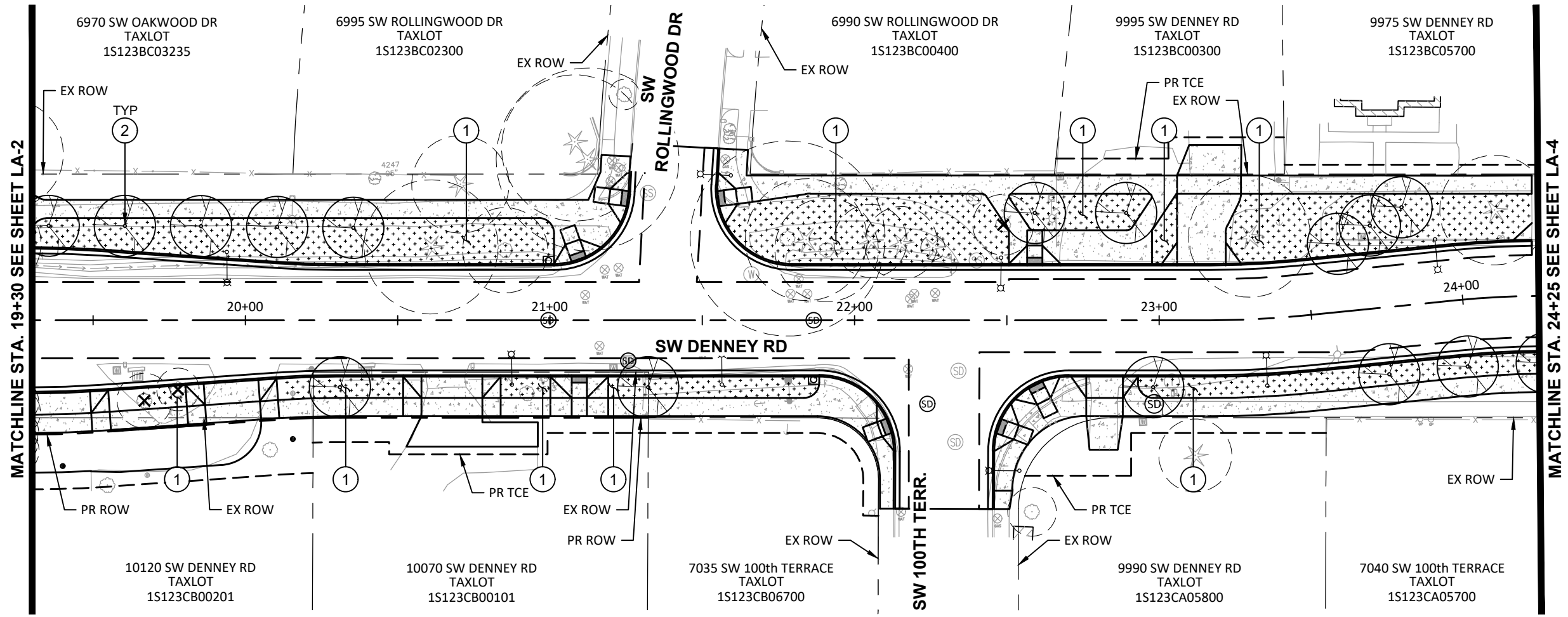
PROJECT NUMBER  
**100666**

SHEET NO.  
**50** OF **84**  
SHEET TITLE  
**LA-2**

PRELIMINARY

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Department of Land Use & Transportation Engineering  


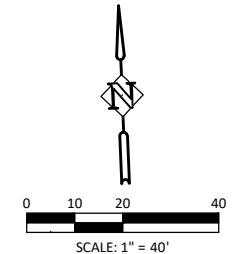
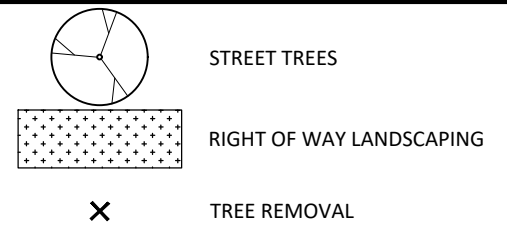


**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)

**CONSTRUCTION NOTES:**

- ① RIGHT OF WAY LANDSCAPING
- ② STREET TREE

**PLANT SCHEDULE**



NO.	REVISION
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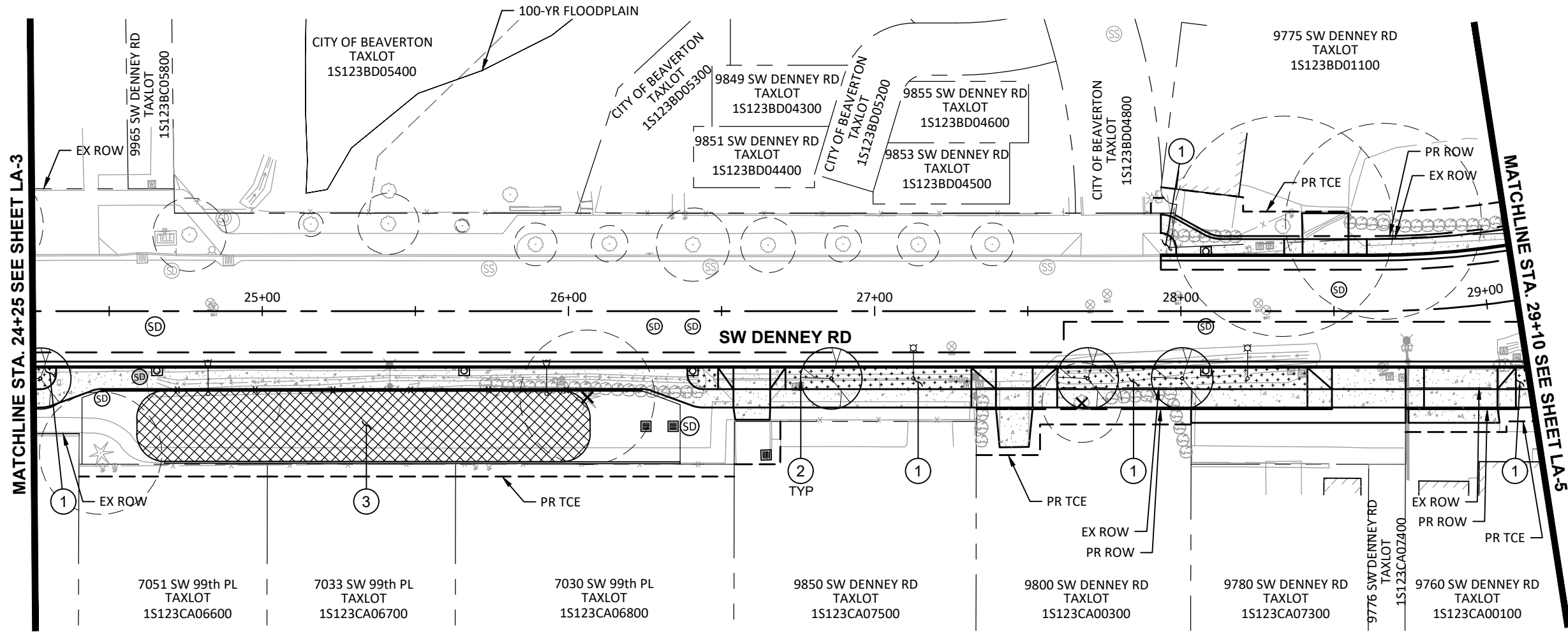
**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA 19+30 TO 24+25  
**LANDSCAPE PLAN**

PROJECT NUMBER  
**100666**

SHEET NO.  
 51 OF 84

SHEET TITLE  
**LA-3**

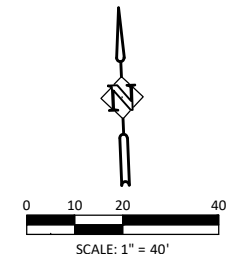
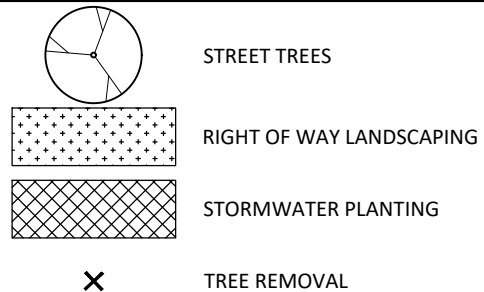


**SW DENNEY RD - PLAN VIEW**  
SCALE: 1" = 40' (HORZ.)

**CONSTRUCTION NOTES:**

- ① RIGHT OF WAY LANDSCAPING
- ② STREET TREE
- ③ STORMWATER FACILITY LANDSCAPING

**PLANT SCHEDULE**



PRELIMINARY

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Department of Land Use & Transportation Engineering  
**WASHINGTON COUNTY OREGON**

NO.	REVISION
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA 24+25 TO 29+10  
**LANDSCAPE PLAN**

PROJECT NUMBER  
**100666**

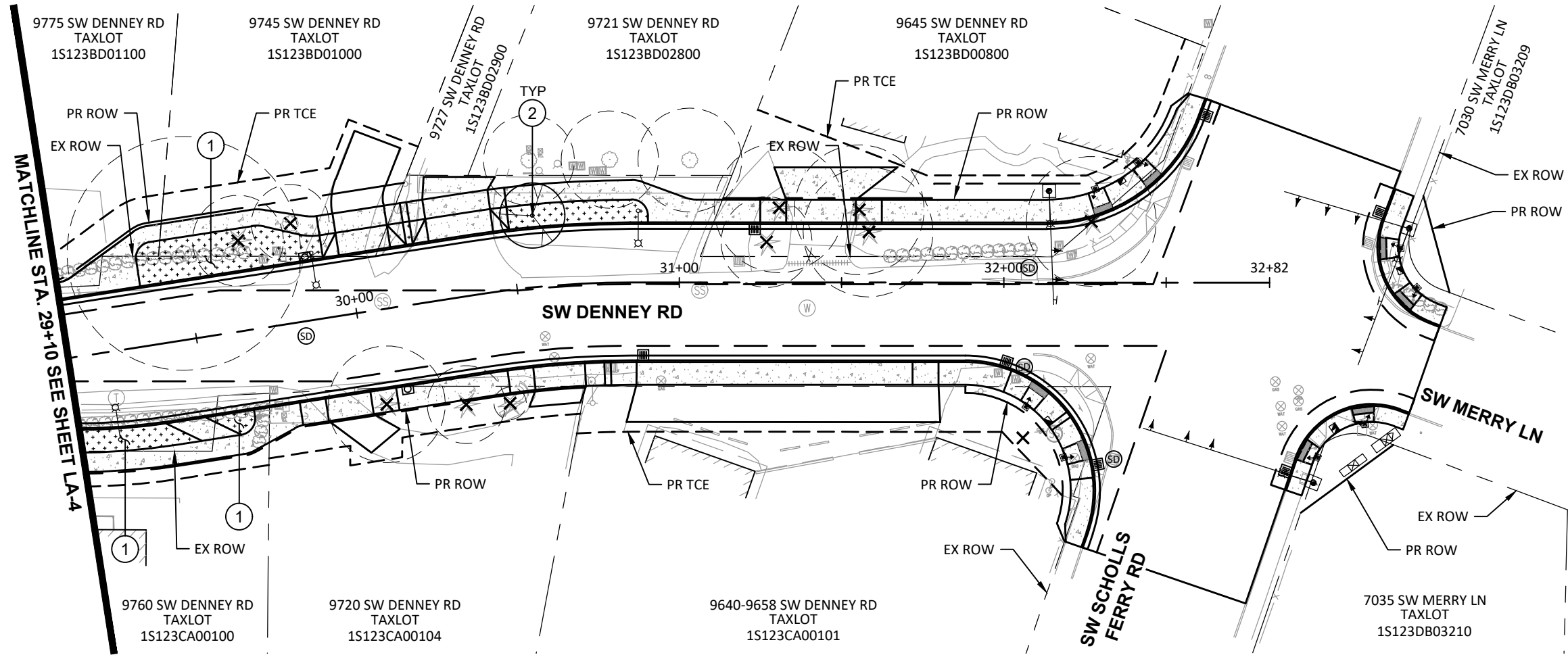
SHEET NO.  
**52 OF 84**

SHEET TITLE  
**LA-4**

PRELIMINARY

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Department of Land Use & Transportation Engineering  

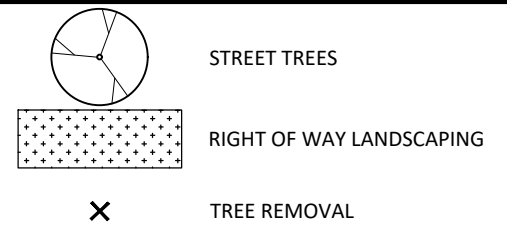



**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 40' (HORZ.)

**CONSTRUCTION NOTES:**

- ① RIGHT OF WAY LANDSCAPING
- ② STREET TREE

**PLANT SCHEDULE**



NO.	REVISION
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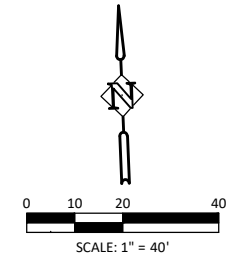
**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD STA 29+10 TO EOP  
 LANDSCAPE PLAN

PROJECT NUMBER  
**100666**

SHEET NO.  
**53** OF **84**

SHEET TITLE  
**LA-5**



# GENERAL PLANTING NOTES

1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT CITY OF BEAVERTON STANDARDS AND OREGON BUILDING AND SPECIALITY CODES.
2. INSTALL EROSION CONTROL SYSTEMS IN ACCORDANCE WITH CITY OF BEAVERTON STANDARDS PRIOR TO SITE WORK AND LANDSCAPE INSTALLATION.
3. CONTRACTOR SHALL MARK AND PROTECT ALL UTILITIES, SITE FEATURES, AND VEGETATION TO REMAIN IN PLACE.
4. CONTRACTOR SHALL REMOVE ALL WEEDS AND INVASIVE SPECIES PRIOR TO PLANTING OR SEEDING.
5. ALL DISTURBED AREAS SHALL BE SEEDED.
6. PRIOR TO PLANTING, CONTRACTOR SHALL TEST ON-SITE SOILS FOR SOIL FERTILITY BY CERTIFIED TESTING LAB. IF NECESSARY, BACKFILL SOILS FOR TREE PITS, SHRUB AND GROUND COVER AREAS SHALL BE AMENDED AS RECOMMENDED BY SOIL ANALYSIS REPORT.
7. ALL SEEDED AREAS SHALL BE STRIPPED OF VEGETATION, SCARIFIED AND RECEIVE 4" OF TOPSOIL PRIOR TO APPLICATION OF SEED.
8. ALL PLANTER BEDS SHALL BE SCARIFIED 12" BELOW FINISHED GRADE AND HAVE 12" OF TOPSOIL ADDED TO BRING BACK TO FINISHED GRADE PRIOR TO PLANTING.
9. CONTRACTOR TO INSTALL 3" LAYER OF COMPOST MULCH AT ALL TREE, SHRUB AND GROUND COVER AREAS.
10. LANDSCAPE INSTALLATION SHALL INCLUDE PROVISION OF AN AUTOMATIC IRRIGATION SYSTEM TO SUSTAIN LANDSCAPE PLANTINGS, MEETING LOCAL AND STATE BUILDING CODES.
11. PLANT MATERIAL INSTALLED SHALL CONFORM IN SIZE AND GRADE TO THE "AMERICAN STANDARD FOR NURSERY STOCK" CURRENT EDITION.
12. QUANTITIES OF PLANT MATERIALS SHALL BE AS DETERMINED BY CONTRACTOR IN ACCORDANCE WITH SPECIFIED SPACING OR LOCATION ON PLAN. MATERIAL QUANTITIES SHOWN ON PLAN ARE FOR CONTRACTOR CONVENIENCE ONLY AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO INSTALLATION. SURPLUS OR SHORTAGES OF PLANT QUANTITIES SHALL BE RESPONSIBILITY OF CONTRACTOR.
13. LANDSCAPE CONTRACTOR SHALL WATER PLANTINGS FOR DURATION OF TWO-YEAR ESTABLISHMENT PERIOD AFTER INSTALLATION AND GUARANTEE ALL PLANTINGS TO BE IN SATISFACTORY HEALTH. LANDSCAPE CONTRACTOR SHALL REPLACE ALL DAMAGED, DEAD, OR DYING PLANTS COVERED BY WARRANTY WITHIN 30 DAYS OF INITIAL IDENTIFICATION OF CONDITION.

PRELIMINARY



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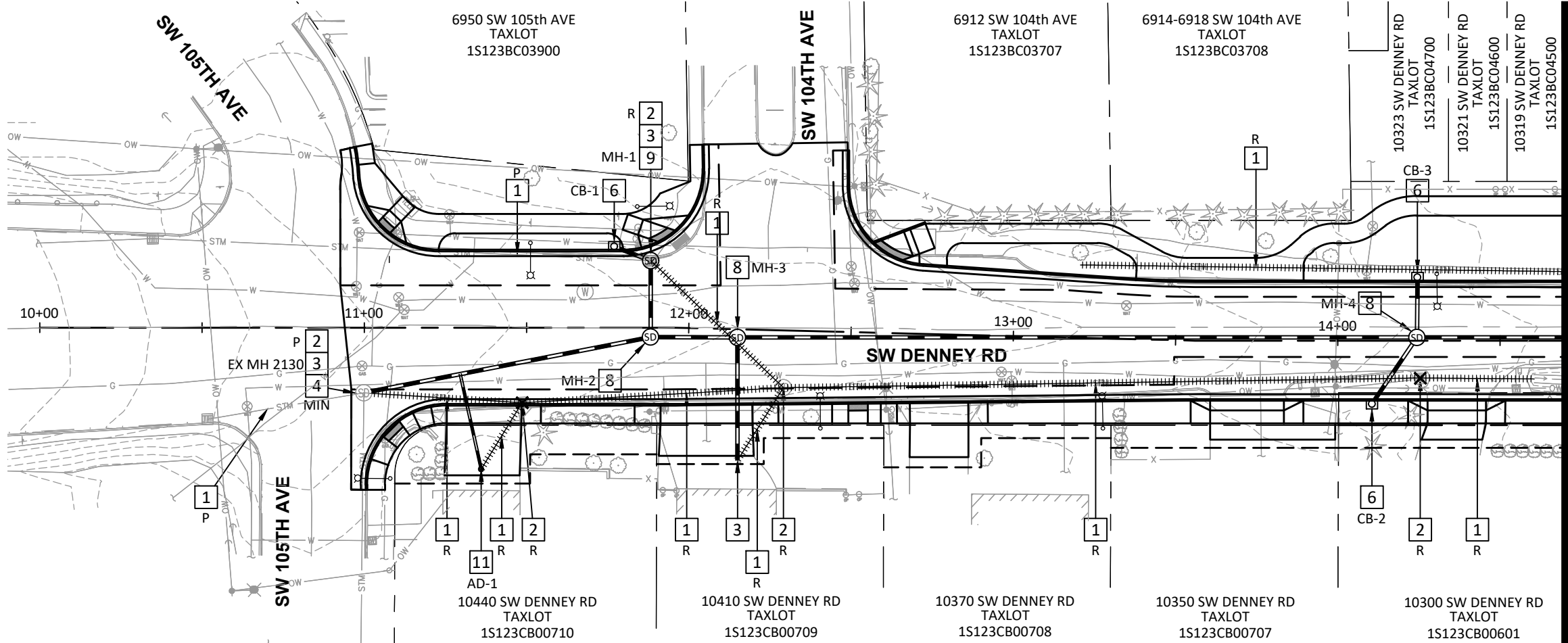
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

LANDSCAPE DETAILS

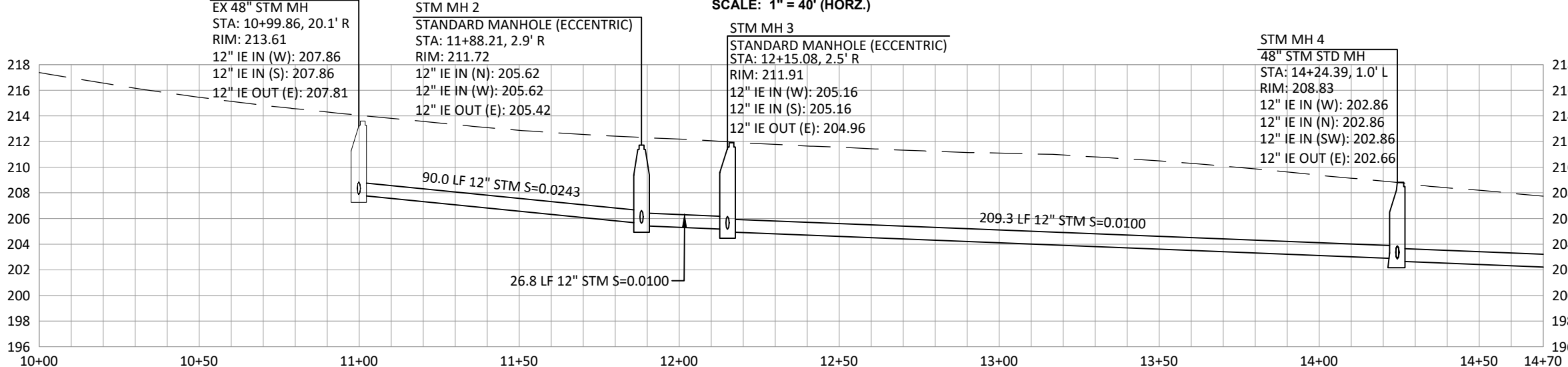
PROJECT NUMBER  
**100666**

SHEET NO.  
**54** OF **84**  
SHEET TITLE  
**LA-6**



**SW DENNEY RD - STORM PLAN**

SCALE: 1" = 40' (HORZ.)



**SW DENNEY RD - STORM PROFILE**

SCALE: 1" = 40' (HORZ.)  
1" = 10' (VERT.)

**DRAINAGE DATA**

AD-1  
INLET TYPE (AREA)  
STA: 11+36.04, 43.59' R  
RIM ELEV = 211.42  
6" IE OUT (NW) = 208.64  
30.0 LF 6" PVC  
S = 0.0450

MH-1  
FLAT TOP MANHOLE  
STA: 11+88.28, 20.62' L  
RIM ELEV = 211.33  
12" IE IN (N) = XXX.XX  
12" IE OUT (S) = 207.86  
23.5 LF 12" PVC  
S = 0.0951

CB-1  
INLET TYPE (CG-30)  
GUT STA: 11+77.01, 25.00' L  
RIM ELEV = 212.09  
12" IE OUT (SW) = 210.09  
12.1 LF 12" PVC  
S = 0.0050

CB-2  
INLET TYPE (CG-30)  
GUT STA: 14+10.49, 19.50' R  
RIM ELEV = 212.09  
12" IE OUT (NE) = 210.09  
24.8 LF 12" PVC  
S = 0.0756

CB-3  
INLET TYPE (CG-30)  
GUT STA: 14+24.54, 19.50' L  
RIM ELEV = 208.27  
12" IE OUT (S) = 204.27  
12.1 LF 12" PVC  
S = 0.0829

MATCHLINE STA. 14+70 SEE SHEET CU-2



EXPIRES: 12/31/25



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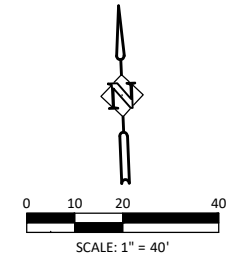
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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA POB TO 14+70  
**COMPOSITE UTILITY PLAN**

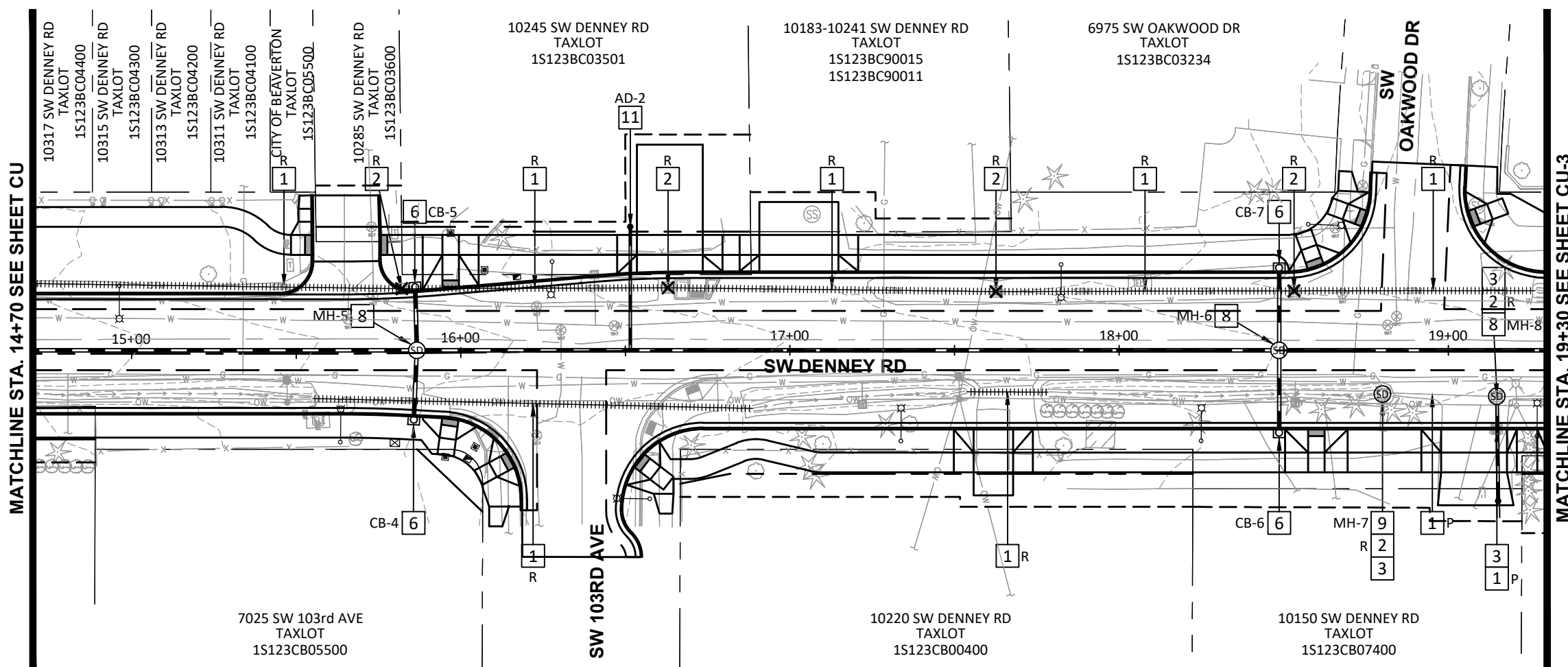
PROJECT NUMBER  
**100666**

SHEET NO.  
**55** OF **84**  
SHEET TITLE  
**CU**



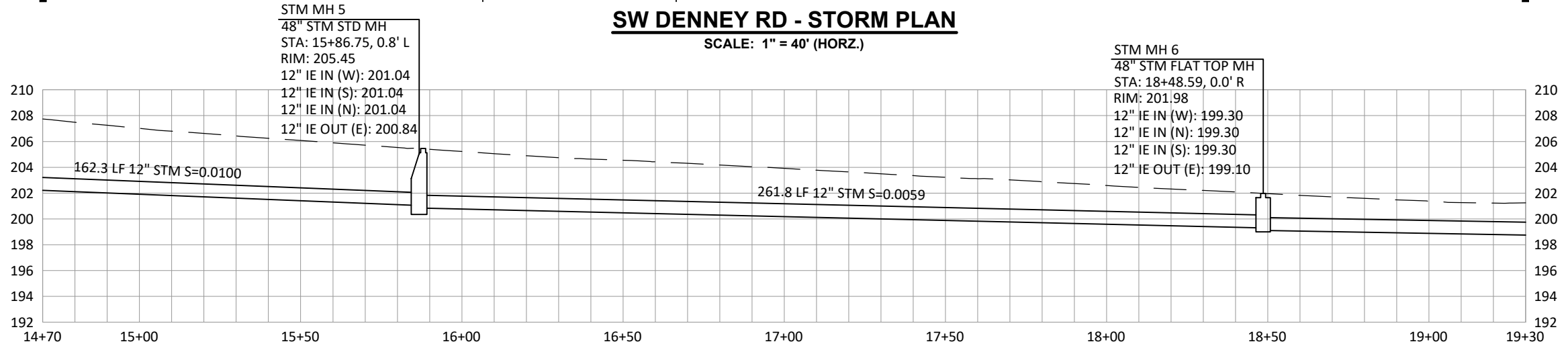
**CONSTRUCTION NOTES:**

- 1 PROTECT (P), REMOVE (R), OR PLUG AND ABANDON IN-PLACE (A) EXISTING STORM PIPE IN-PLACE AS REQUIRED AND DIRECTED. UPON ABANDON IN-PLACE, FILL PIPE WITH CONTROLLED DENSITY FILL (CDF).
- 2 PROTECT (P), REMOVE (R), OR PLUG AND ABANDON (A) EXISTING STORM STRUCTURE. UPON REMOVAL, FILL ANY VOID WITH GRANULAR BACKFILL.
- 3 CONNECT TO EXISTING PIPE OR STRUCTURE PER DETAIL ON SHEET 2B.
- 4 ADJUST STRUCTURE RIM, COVER, OR FRAME TO FINISH GRADE PER PER CITY DRAWING NO. 320 AND 321 ON SHEET 2B-9. MAJ = MAJOR ADJUSTMENT, MIN = MINOR ADJUSTMENT.
- 6 CONSTRUCT CG-30 CURB INLET AND LATERALS. SEE CWS DRAWING NO. 330 ON SHEET 2B-3. SEE PLAN FOR INVERTS AND DATA.
- 8 CONSTRUCT STORM SEWER STANDARD MANHOLE PER CITY DRAWING NO. 330. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.
- 9 CONSTRUCT STORM SEWER FLAT TOP MANHOLE PER CITY DRAWING NO. 335. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.
- 11 CONSTRUCT AREA DRAIN PER DETAIL ON SHEET XX. SEE PLAN FOR INVERTS AND DATA.



**SW DENNEY RD - STORM PLAN**

SCALE: 1" = 40' (HORZ.)



**SW DENNEY RD - STORM PROFILE**

SCALE: 1" = 40' (HORZ.)  
1" = 10' (VERT.)

**CONSTRUCTION NOTES:**

- 1 PROTECT (P), REMOVE (R), OR PLUG AND ABANDON IN-PLACE (A) EXISTING STORM PIPE IN-PLACE AS REQUIRED AND DIRECTED. UPON ABANDON IN-PLACE, FILL PIPE WITH CONTROLLED DENSITY FILL (CDF).
- 2 PROTECT (P), REMOVE (R), OR PLUG AND ABANDON (A) EXISTING STORM STRUCTURE. UPON REMOVAL, FILL ANY VOID WITH GRANULAR BACKFILL.
- 3 CONNECT TO EXISTING PIPE OR STRUCTURE PER DETAIL ON SHEET 2B.
- 6 CONSTRUCT CG-30 CURB INLET AND LATERALS. SEE CWS DRAWING NO. 330 ON SHEET 2B-3. SEE PLAN FOR INVERTS AND DATA.
- 8 CONSTRUCT STORM SEWER STANDARD MANHOLE PER CITY DRAWING NO. 330. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.
- 9 CONSTRUCT STORM SEWER FLAT TOP MANHOLE PER CITY DRAWING NO. 335. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.
- 11 CONSTRUCT AREA DRAIN PER DETAIL ON SHEET XX. SEE PLAN FOR INVERTS AND DATA.

**DRAINAGE DATA**

AD-2  
INLET TYPE (AREA)  
STA: 16+51.88, 37.67' L  
RIM ELEV = XXX.XX  
4" IE OUT (S) = XXX.XX  
37.0 LF 4" PVC  
S = 0.0XXXX

MH-7  
FLAT TOP MANHOLE  
STA: 18+79.95, 13.26' R  
RIM ELEV = 201.34  
EX. 4" IE IN (S) = 194.48  
EX. 12" IE IN (E) = 198.15

MH-8  
FLAT TOP MANHOLE  
STA: 19+14.72, 13.93' R  
RIM ELEV = 200.86  
EX. 10" IE IN (S) = 197.32  
EX. 12" IE IN (W) = 197.94  
EX. 12" IE OUT (E) = 196.59

CB-4  
INLET TYPE (CG-30)  
GUT STA: 15+85.54, 20.29' R  
RIM ELEV = 205.30  
12" IE OUT (N) = 201.30  
21.1 LF 12" PVC  
S = 0.0132

CB-5  
INLET TYPE (CG-30)  
GUT STA: 15+86.35, 19.97' L  
RIM ELEV = 204.80  
12" IE OUT (S) = 201.30  
19.1 LF 12" PVC  
S = 0.0147

CB-6  
INLET TYPE (CG-30)  
GUT STA: 18+48.59, 25.00' R  
RIM ELEV = 201.49  
12" IE OUT (N) = 199.42  
25.0 LF 12" PVC  
S = 0.0050

CB-7  
INLET TYPE (CG-30)  
GUT STA: 18+48.59, 25.01' L  
RIM ELEV = 201.15  
12" IE OUT (S) = 199.43  
25.0 LF 12" PVC  
S = 0.0050



EXPIRES: 12/31/25

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CLATSOP COUNTY OREGON

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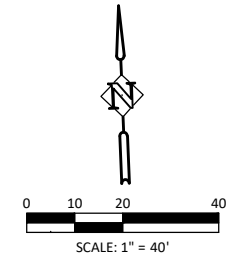
**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA 14+70 TO 19+30  
**COMPOSITE UTILITY PLAN**

PROJECT NUMBER  
**100666**

SHEET NO.  
**56 OF 84**

SHEET TITLE  
**CU-2**







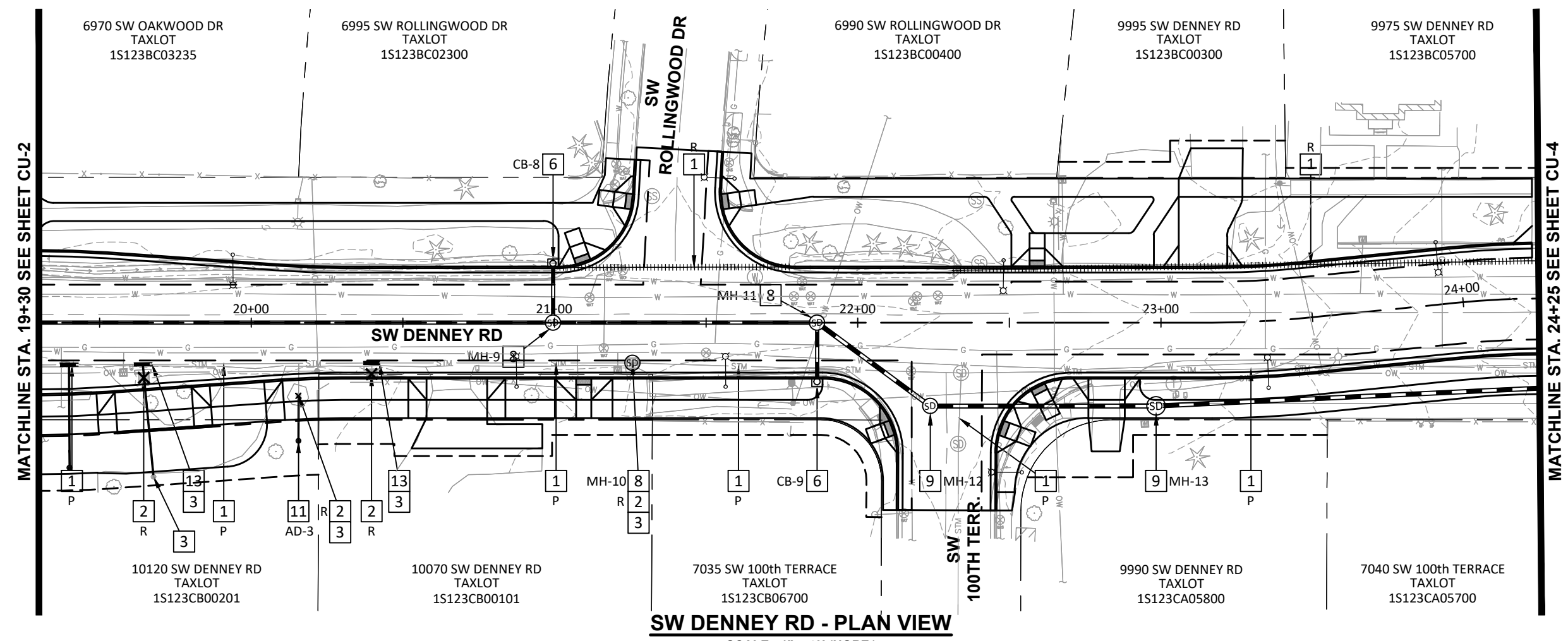
EXPIRES: 12/31/25

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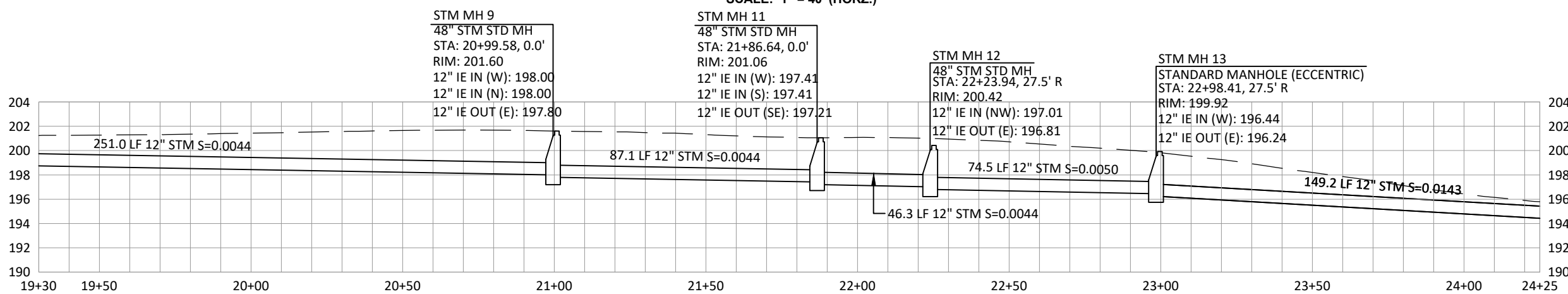
MATCHLINE STA. 19+30 SEE SHEET CU-2

MATCHLINE STA. 24+25 SEE SHEET CU-4



**SW DENNEY RD - PLAN VIEW**

SCALE: 1" = 40' (HORZ.)



**SW DENNEY RD - STORM PROFILE**

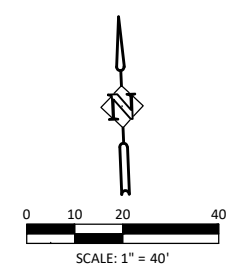
SCALE: 1" = 40' (HORZ.)  
1" = 10' (VERT.)

**DRAINAGE DATA**

<p>AD-3 INLET TYPE (AREA) STA: 20+15.60, 39.02' R RIM ELEV = 200.80 4" IE OUT (N) = 197.80 15.0 LF 4" PVC S = 0.0727</p>	<p>CB-8 INLET TYPE (CG-30) GUT STA: 20+99.58, 19.50' L RIM ELEV = 201.00 12" IE OUT (S) = 198.09 19.5 LF 12" PVC S = 0.0050</p>
<p>MH-10 FLAT TOP MANHOLE STA: 21+25.75, 13.29' R ELEV = 201.29 EX. 12" IE IN (W) = 195.61 EX. 15" IE OUT (E) = 195.40</p>	<p>CB-9 INLET TYPE (CG-30) GUT STA: 21+86.64, 19.50' R RIM ELEV = 200.49 12" IE OUT (N) = 197.50 19.5 LF 12" PVC S = 0.0050</p>

**CONSTRUCTION NOTES:**

- 1** PROTECT (P), REMOVE (R), OR PLUG AND ABANDON IN-PLACE (A) EXISTING STORM PIPE IN-PLACE AS REQUIRED AND DIRECTED. UPON ABANDON IN-PLACE, FILL PIPE WITH CONTROLLED DENSITY FILL (CDF).
- 2** PROTECT (P), REMOVE (R), OR PLUG AND ABANDON (A) EXISTING STORM STRUCTURE. UPON REMOVAL, FILL ANY VOID WITH GRANULAR BACKFILL.
- 3** CONNECT TO EXISTING PIPE OR STRUCTURE PER DETAIL ON SHEET 2B.
- 6** CONSTRUCT CG-30 CURB INLET AND LATERALS. SEE CWS DRAWING NO. 330 ON SHEET 2B-3. SEE PLAN FOR INVERTS AND DATA.
- 8** CONSTRUCT STORM SEWER STANDARD MANHOLE PER CITY DRAWING NO. 330. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.
- 9** CONSTRUCT STORM SEWER FLAT TOP MANHOLE PER CITY DRAWING NO. 335. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.
- 11** CONSTRUCT AREA DRAIN PER DETAIL ON SHEET XX. SEE PLAN FOR INVERTS AND DATA.
- 13** INSTALL STORM PIPE. MATCH SIZE AND TYPE TO EXISTING.



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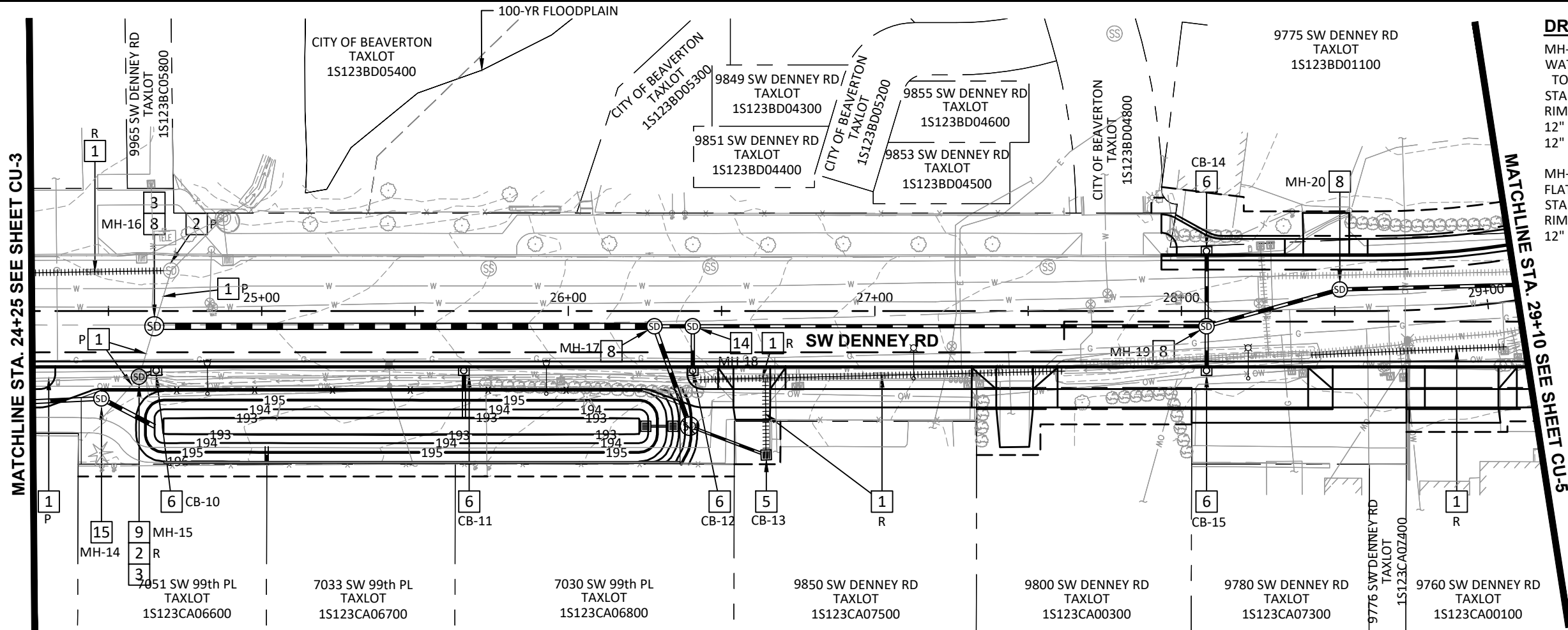
**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA 19+30 TO 24+25  
**COMPOSITE UTILITY PLAN**

PROJECT NUMBER  
**100666**

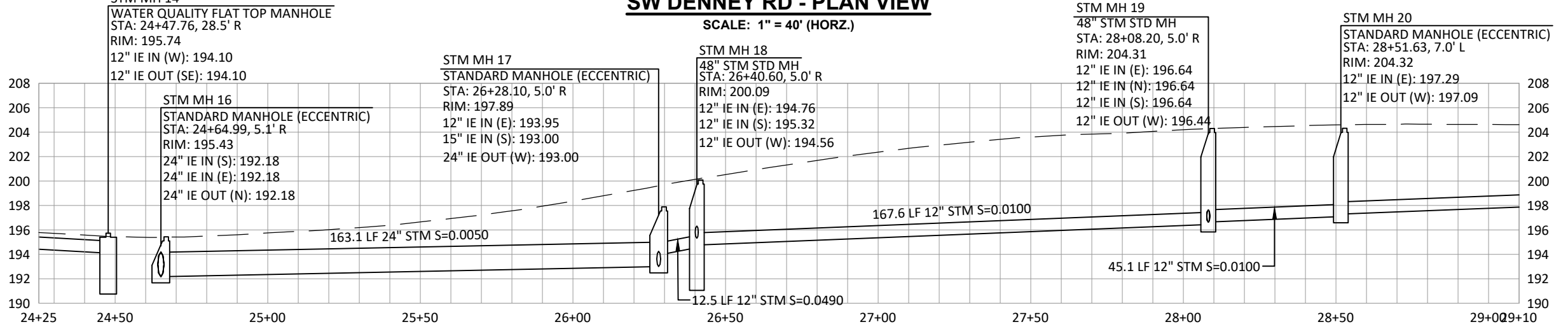
SHEET NO.  
**57 OF 84**

SHEET TITLE  
**CU-3**



**SW DENNEY RD - PLAN VIEW**

SCALE: 1" = 40' (HORZ.)



**SW DENNEY RD - STORM PROFILE**

SCALE: 1" = 40' (HORZ.)  
1" = 10' (VERT.)

**DRAINAGE DATA**

MH-14  
WATER QUALITY FLAT TOP MANHOLE  
STA: 24+47.76, 25.50' R  
RIM ELEV = 195.74  
12" IE IN (W) = 194.10  
12" IE OUT (SE) = 194.10

MH-15  
FLAT TOP MANHOLE  
STA: 24+60.03, 21.50' R  
RIM ELEV = XXX.XX  
12" IE IN (NE) = XXX.XX

CB-10  
INLET TYPE (CG-30)  
GUT STA: 24+65.64, 19.50' R  
GUT ELEV = 195.31  
12" IE OUT (SW) = 192.81  
4.0 LF 12" PVC  
S = 0.0100

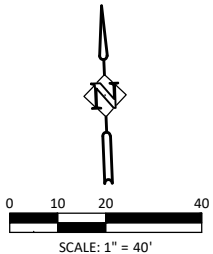
CB-11  
INLET TYPE (CG-30)  
GUT STA: 25+65.94, 19.50' R  
GUT ELEV = 197.00  
12" IE OUT (S) = 192.81  
12.1 LF 12" PVC  
S = 0.0050

CB-12  
INLET TYPE (CG-30)  
STA: 26+40.60, 19.52' R  
GUT ELEV = 199.87  
8" IE IN (SE) = 196.51  
12" IE OUT (N) = 195.80  
14.5 LF 12" PVC  
S = 0.0369

CB-13  
INLET TYPE (CG-30)  
GUT STA: 26+64.55, 46.97' R  
RIM ELEV = 201.50  
8" IE OUT (W) = 199.80  
26.6 LF 8" PVC  
S = 0.1141

CB-14  
INLET TYPE (CG-30)  
STA: 28+08.20, 19.50' L  
GUT ELEV = 203.47  
12" IE OUT (S) = 199.47  
23.0 LF 12" PVC  
S = 0.1230

CB-15  
INLET TYPE (CG-30)  
GUT STA: 28+08.20, 19.50' R  
GUT ELEV = 203.95  
12" IE OUT (N) = 198.95  
13.0 LF 12" PVC  
S = 0.1777



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CLATSOP COUNTY OREGON

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**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA 24+25 TO 29+10  
**COMPOSITE UTILITY PLAN**

PROJECT NUMBER  
**100666**

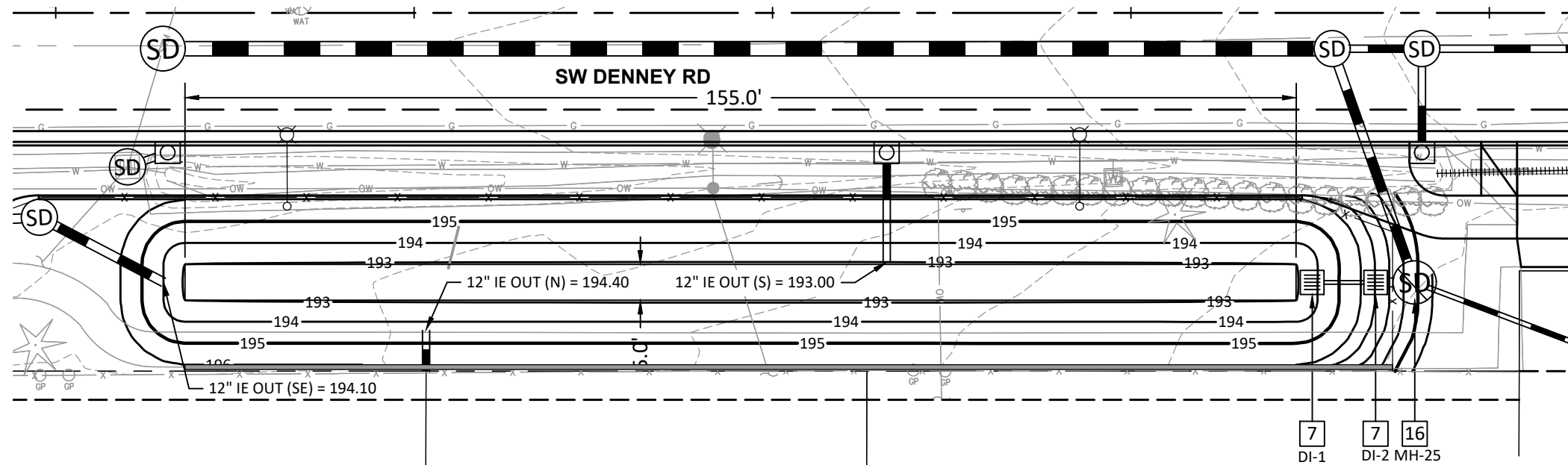
SHEET NO.  
**58 OF 84**

SHEET TITLE  
**CU-4**

- CONSTRUCTION NOTES:**
- 1 PROTECT (P), REMOVE (R), OR PLUG AND ABANDON IN-PLACE (A) EXISTING STORM PIPE IN-PLACE AS REQUIRED AND DIRECTED. UPON ABANDON IN-PLACE, FILL PIPE WITH CONTROLLED DENSITY FILL (CDF).
  - 2 PROTECT (P), REMOVE (R), OR PLUG AND ABANDON (A) EXISTING STORM STRUCTURE. UPON REMOVAL, FILL ANY VOID WITH GRANULAR BACKFILL.
  - 3 CONNECT TO EXISTING PIPE OR STRUCTURE PER DETAIL ON SHEET 2B.
  - 5 CONSTRUCT CG-2 INLET CATCH BASIN AND LATERALS. SEE CWS DRAWING NO. 300, 310, AND 320 ON SHEETS 2B-2 AND 2B-3. SEE PLAN FOR INVERTS AND DATA.

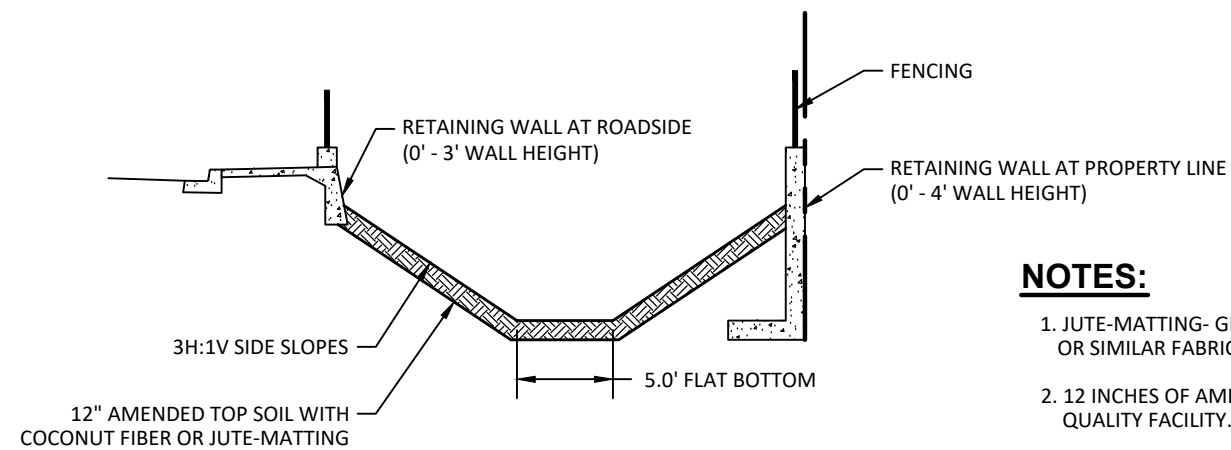
- 6 CONSTRUCT CG-30 CURB INLET AND LATERALS. SEE CWS DRAWING NO. 330 ON SHEET 2B-3. SEE PLAN FOR INVERTS AND DATA.
- 8 CONSTRUCT STORM SEWER STANDARD MANHOLE PER CITY DRAWING NO. 330. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.
- 9 CONSTRUCT STORM SEWER FLAT TOP MANHOLE PER CITY DRAWING NO. 335. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.
- 14 CONSTRUCT 60" WATER QUALITY MANHOLE WITH 3 FOOT SUMP PER CITY DRAWING NO. 330 ON SHEET 2B-10 AND CWS DRAWING NO. 250 ON SHEET 2B. SEE PROFILE AND PLAN INVERTS AND LOCATION.

- 15 CONSTRUCT 60" FLAT TOP WATER QUALITY MANHOLE WITH 3 FOOT SUMP PER CITY DRAWING NOS. 335, 336 ON SHEET 2B-10, 2B-11 AND CWS DRAWING NO. 250 ON SHEET 2B. SEE PLAN FOR INVERTS AND LOCATION.



**SW DENNEY RD - EXTENDED DRY POND**

SCALE: 1" = 20' (HORZ.)



**SW DENNEY RD EXTENDED DRY POND - SECTION VIEW**

NTS

**CONSTRUCTION NOTES:**

- 7 CONSTRUCT OUTFLOW CONTROL STRUCTURE. SEE CWS DRAWING NOS. 390, 710 AND 730 ON SHEETS 2B-4 AND 2B-5. SEE PLAN FOR INVERTS LOCATION AND DATA.
- 16 INSTALL FLOW CONTROL STRUCTURE PER CITY DETAIL 360.

**NOTES:**

- 1. JUTE-MATTING- GEOJUTE PLUS IN DETENTION AREA, ECONOJUTE FOR ALL OTHER AREAS, OR SIMILAR FABRICS. COCONUT FIBER IS ALSO ACCEPTABLE.
- 2. 12 INCHES OF AMENDED TOPSOIL SHALL BE PLACED THROUGHOUT THE WATER QUALITY FACILITY.
- 3. SIDE SLOPE AREA SEED MIX, DWARF TALL FESCUE 40%, DWARF PERENNIAL RYE 30%, CREEPING RED FESCUE 25%, COLONIAL BENT GRASS 5%. APPLY AT A RATE OF 120# / ACRE.

**DRAINAGE DATA**

DI-1  
 INLET TYPE (DITCH)  
 STA: 26+25.29, 37.61' R  
 RIM ELEV = 193.20  
 6" IE OUT (E) = 193.17

DI-2  
 INLET TYPE (DITCH)  
 STA: 26+34.14, 37.62' R  
 RIM ELEV = 196.15  
 6" IE IN (W) = 193.17  
 15" IE OUT (E) = 193.17

MH-25  
 FLOW CONTROL STRUCTURE  
 STA: 26+39.60, 37.63' R  
 RIM ELEV = 199.77  
 8" IE IN (SE) = 196.76  
 15" IE IN (W) = 193.17  
 15" IE OUT (N) = 193.17



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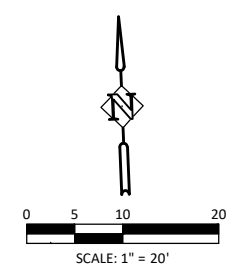
**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

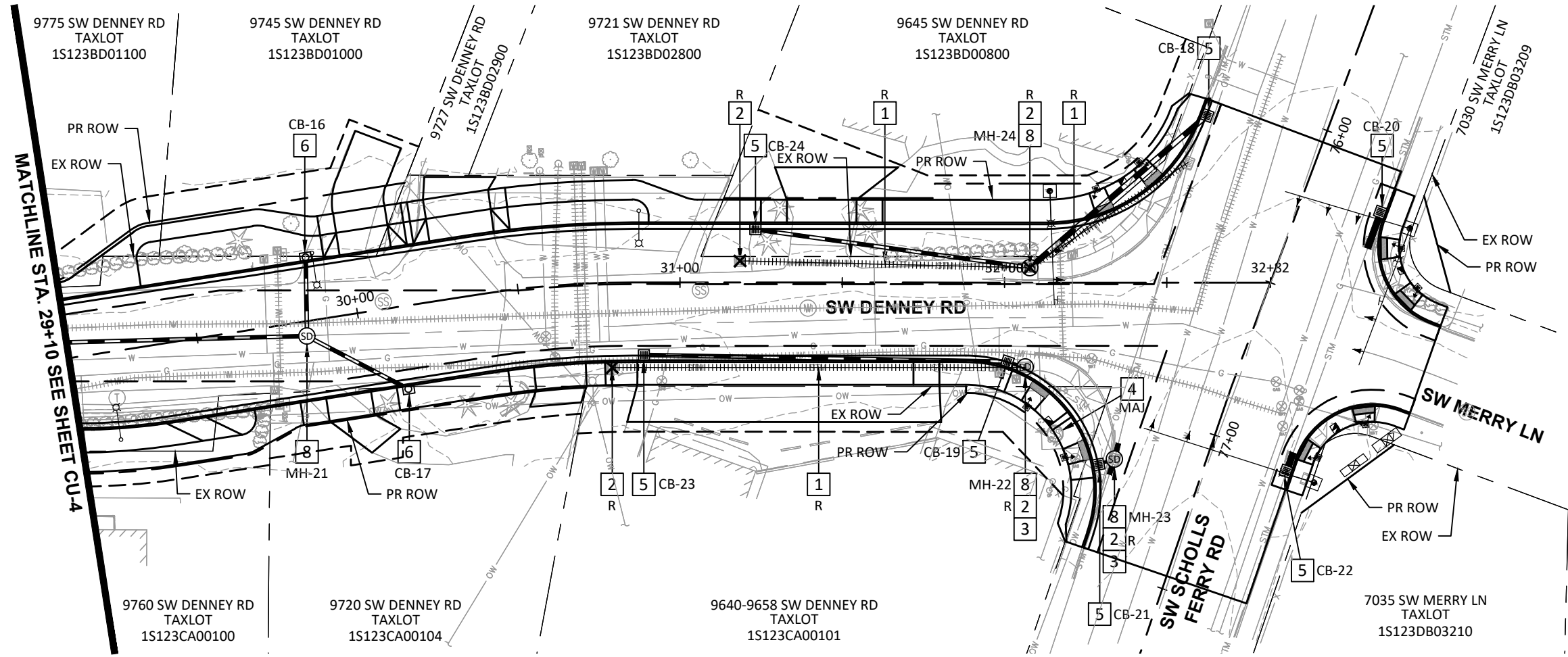
SW DENNEY RD STA 24+47.76 TO 26+07.64  
**EXTENDED DRY POND**

PROJECT NUMBER  
**100666**

SHEET NO.  
**59 OF 84**

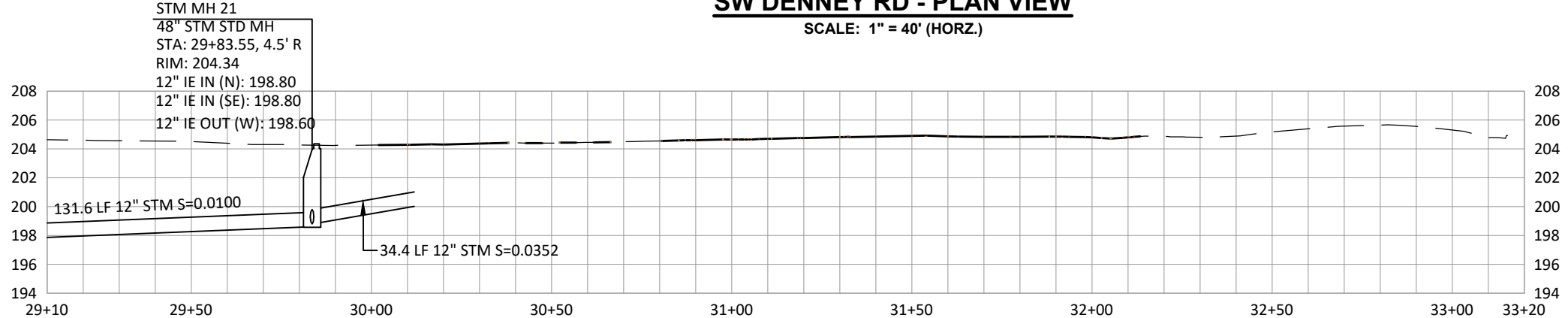
SHEET TITLE  
**CU-4A**





**SW DENNEY RD - PLAN VIEW**

SCALE: 1" = 40' (HORZ.)



**SW DENNEY RD - STORM PROFILE**

SCALE: 1" = 40' (HORZ.)  
1" = 10' (VERT.)

**CONSTRUCTION NOTES:**

- 1 PROTECT (P), REMOVE (R), OR PLUG AND ABANDON IN-PLACE (A) EXISTING STORM PIPE IN-PLACE AS REQUIRED AND DIRECTED. UPON ABANDON IN-PLACE, FILL PIPE WITH CONTROLLED DENSITY FILL (CDF).
- 2 PROTECT (P), REMOVE (R), OR PLUG AND ABANDON (A) EXISTING STORM STRUCTURE. UPON REMOVAL, FILL ANY VOID WITH GRANULAR BACKFILL.
- 3 CONNECT TO EXISTING PIPE OR STRUCTURE PER DETAIL ON SHEET 2B.
- 4 ADJUST STRUCTURE RIM, COVER, OR FRAME TO FINISH GRADE PER PER CITY DRAWING NO. 320 AND 321 ON SHEET 2B-9. MAJ = MAJOR ADJUSTMENT, MIN = MINOR ADJUSTMENT.
- 5 CONSTRUCT CG-2 INLET CATCH BASIN AND LATERALS. SEE CWS DRAWING NO. 300, 310, AND 320 ON SHEETS 2B-2 AND 2B-3. SEE PLAN FOR INVERTS AND DATA.
- 6 CONSTRUCT CG-30 CURB INLET AND LATERALS. SEE CWS DRAWING NO. 330 ON SHEET 2B-3. SEE PLAN FOR INVERTS AND DATA.
- 8 CONSTRUCT STORM SEWER STANDARD MANHOLE PER CITY DRAWING NO. 330. SEE DETAIL ON SHEET 2B-10. SEE PROFILE AND PLAN INVERTS AND LOCATION.

- CB-23  
INLET TYPE (CG-30)  
GUT STA: 30+88.87, 22.36' R  
GUT ELEV = XXX.XX  
12" IE OUT (E) = XXX.XX  
112.0 LF 12" PVC  
S = 0.XXXX
- CB-24  
INLET TYPE (CG-30)  
GUT STA: 31+23.23, 16.36' L  
GUT ELEV = XXX.XX  
12" IE OUT (E) = XXX.XX  
85.4 LF 12" PVC  
S = 0.XXXX

**DRAINAGE DATA**

- MH-22  
FLAT TOP MANHOLE  
STA: 32+06.37, 26.04' R  
RIM ELEV = XXX.XX  
12" IE IN (NW) = XXX.XX
- MH-23  
FLAT TOP MANHOLE  
STA: 32+33.86, 54.39' R  
RIM ELEV = XXX.XX  
12" IE IN (W) = XXX.XX  
12" IE IN (S) = XXX.XX  
12" IE OUT (N) = XXX.XX
- MH-24  
FLAT TOP MANHOLE  
STA: 32+07.80, 4.58' L  
RIM ELEV = XXX.XX  
12" IE IN (NW) = XXX.XX  
18" IE OUT (NE) = XXX.XX
- CB-16  
INLET TYPE (CG-30)  
GUT STA: 29+86.88, 19.50' L  
GUT ELEV = 203.61  
12" IE OUT (S) = 199.61  
22.8 LF 12" PVC  
S = 0.0356
- CB-17  
INLET TYPE (CG-30)  
GUT STA: 30+11.93, 25.50' R  
GUT ELEV = 204.01  
12" IE OUT (NW) = 200.01  
34.5 LF 12" PVC  
S = 0.0352
- CB-18  
INLET TYPE (CG-2)  
GUT STA: 32+62.34, 51.51' L  
GUT ELEV = XXX.XX  
12" IE OUT (SW) = XXX.XX  
X LF 12" PVC  
S = 0.0050
- CB-19  
INLET TYPE (CG-2)  
GUT STA: 32+00.86, 24.38' R  
GUT ELEV = XXX.XX  
12" IE OUT (NE) = XXX.XX  
X LF 12" PVC  
S = 0.0050
- CB-20  
INLET TYPE (CG-2)  
GUT STA "SCH": 76+17.79, 24.11' L  
GUT ELEV = XXX.XX  
12" IE OUT (SW) = XXX.XX  
X LF 12" PVC  
S = 0.0050
- CB-21  
INLET TYPE (CG-2)  
GUT STA: 32+28.99, 56.01' R  
GUT ELEV = XXX.XX  
12" IE OUT (NE) = XXX.XX  
X LF 12" PVC  
S = 0.0050
- CB-22  
INLET TYPE (CG-2)  
GUT STA "SCH": 77+03.39, 24.34' L  
GUT ELEV = XXX.XX  
12" IE OUT (NE) = XXX.XX  
X LF 12" PVC  
S = 0.0050



EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering  
WASHINGTON COUNTY

NO.	REVISION
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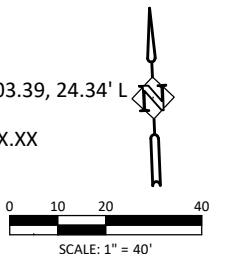
**SW DENNEY ROAD**  
SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
WASHINGTON COUNTY

SW DENNEY RD STA 29+10 TO EOP  
**COMPOSITE UTILITY PLAN**

PROJECT NUMBER  
**100666**

SHEET NO.  
**60 OF 84**

SHEET TITLE  
**CU-5**



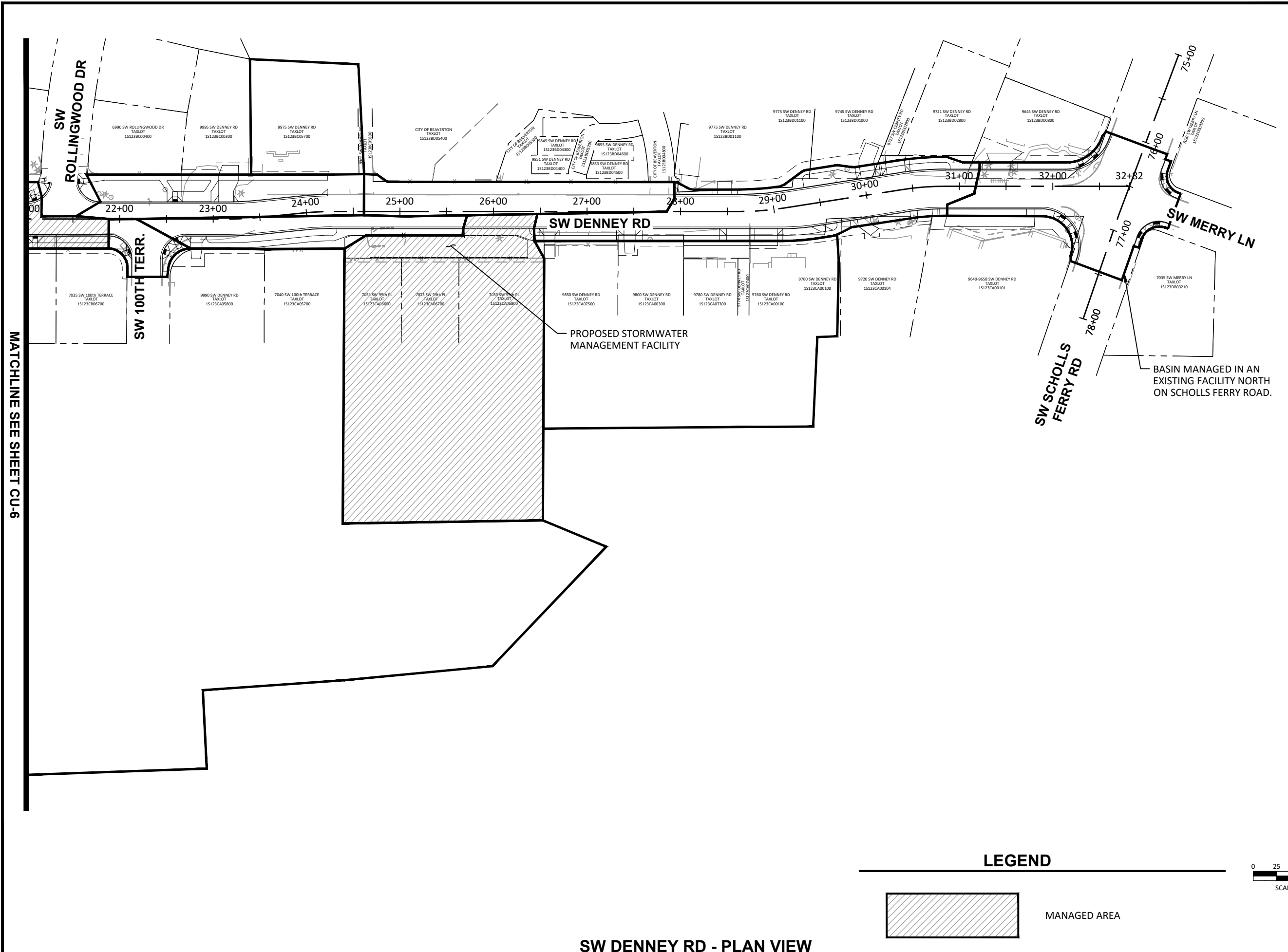




EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering



MATCHLINE SEE SHEET CU-6

NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

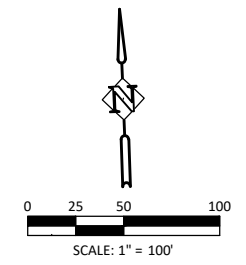
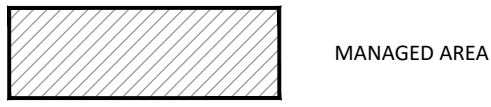
**TRIBUTARY AREA PLAN**  
 SW DENNEY RD

PROJECT NUMBER  
**100666**

SHEET NO.  
**62** OF **84**

SHEET TITLE  
**CU-7**

**LEGEND**



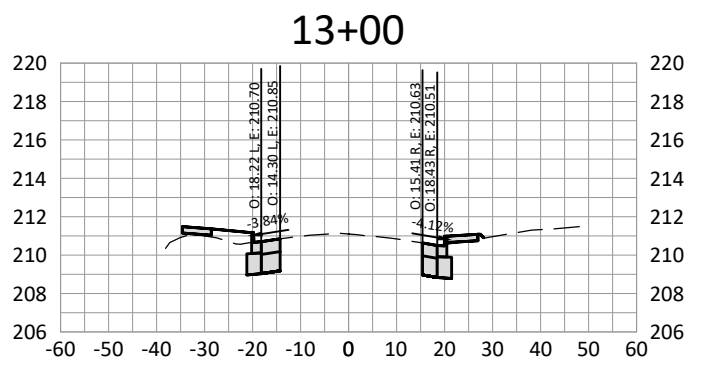
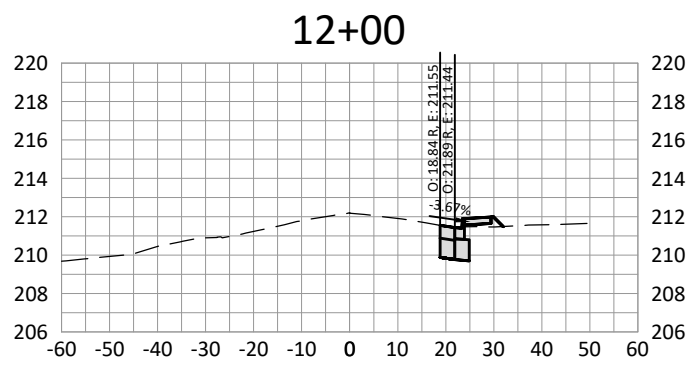
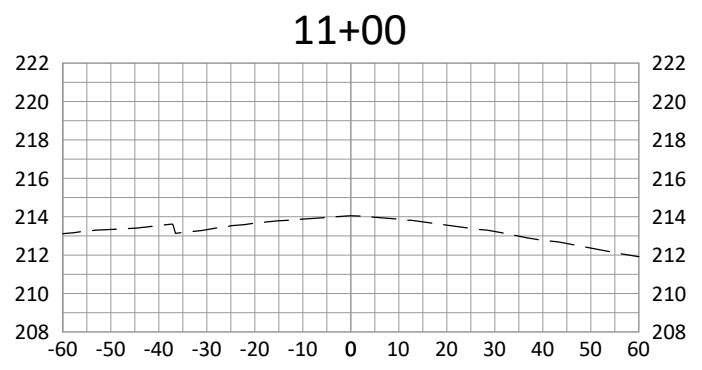
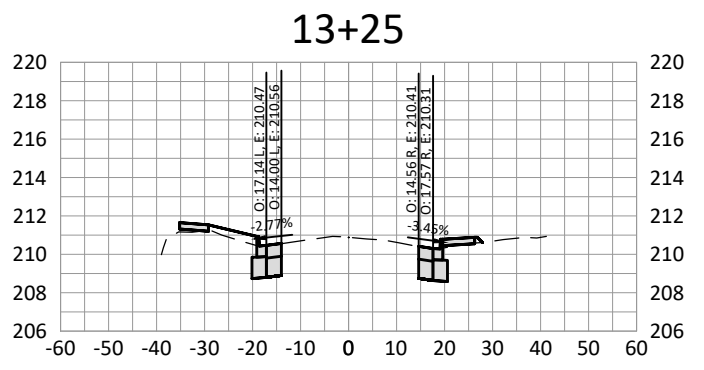
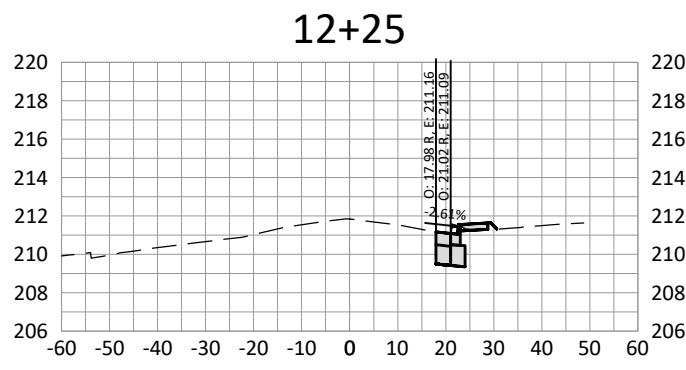
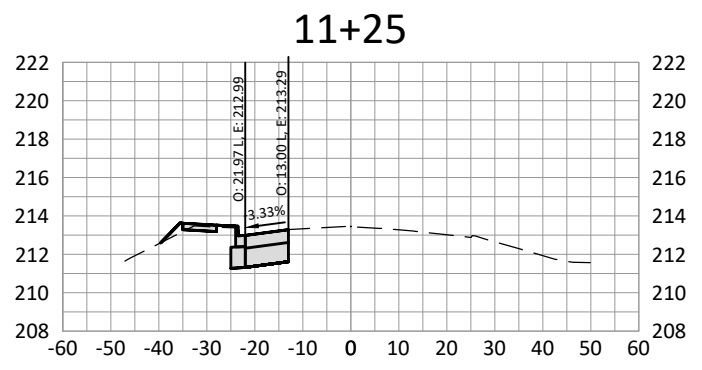
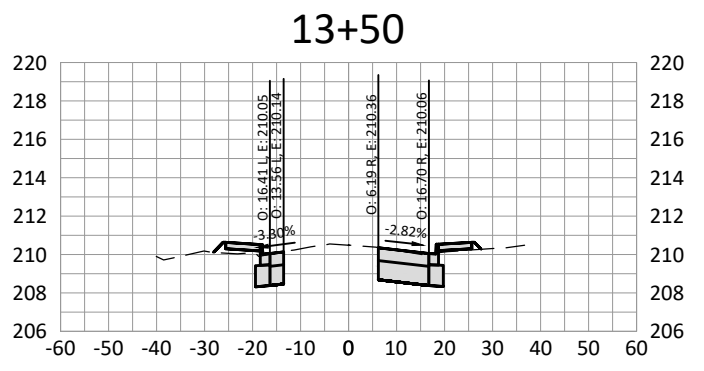
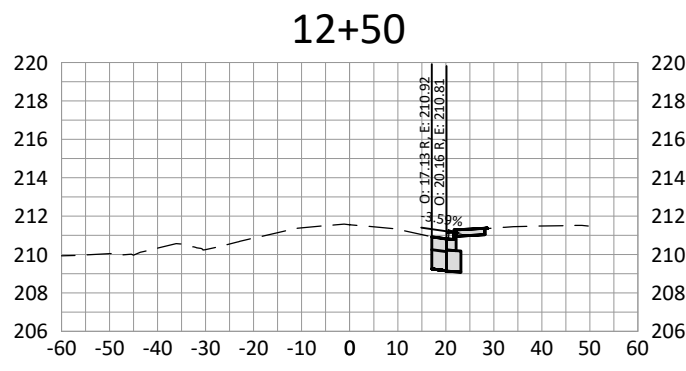
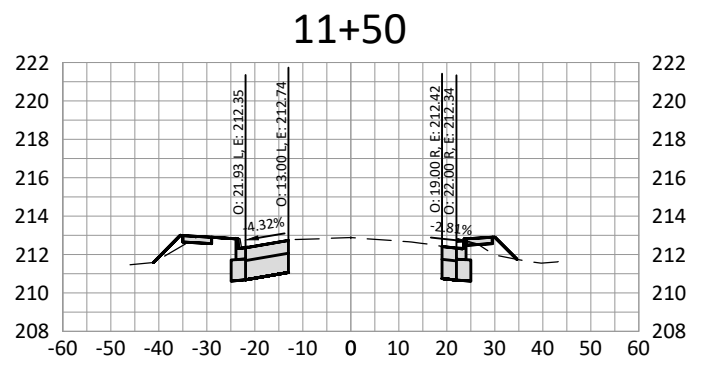
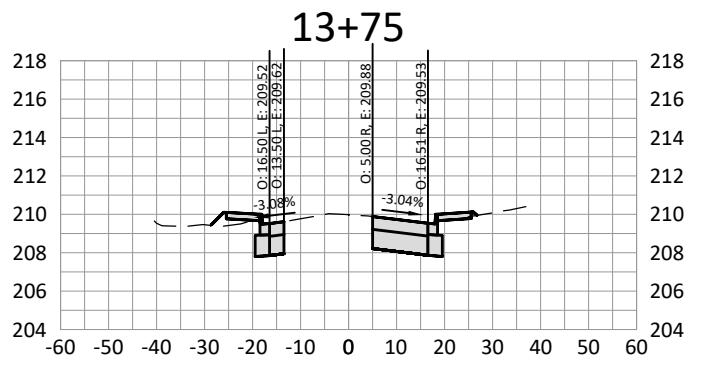
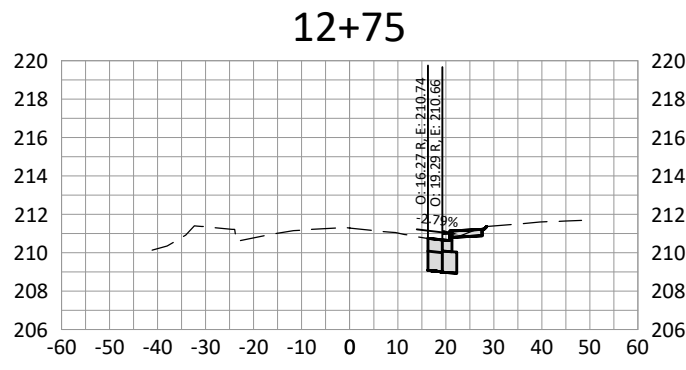
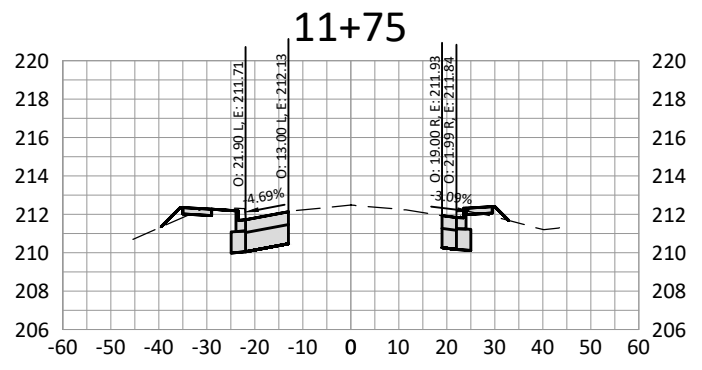
**SW DENNEY RD - PLAN VIEW**  
 SCALE: 1" = 100' (HORZ.)



EXPIRES: 12/31/25

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 Phone: 503.221.1151 www.hhrp.com Fax: 503.221.1171

Department of  
 Land Use &  
 Transportation  
 Engineering

**SW DENNEY RD - CROSS SECTIONS**  
 SCALE: 1" = 20' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY  
 SW DENNEY RD  
 CROSS SECTIONS

PROJECT NUMBER  
**100666**

SHEET NO.  
**63** OF **84**  
 SHEET TITLE  
**XS**



EXPIRES: 12/31/25

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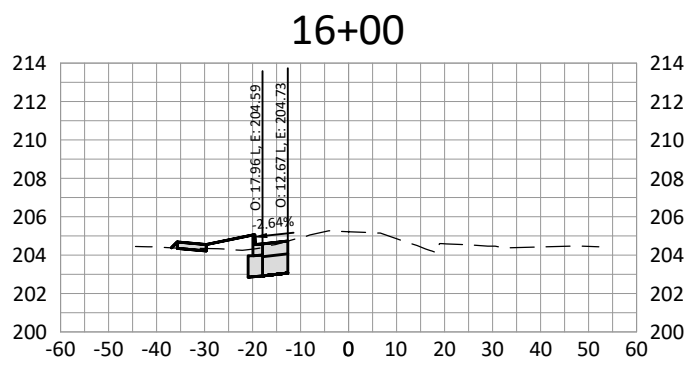
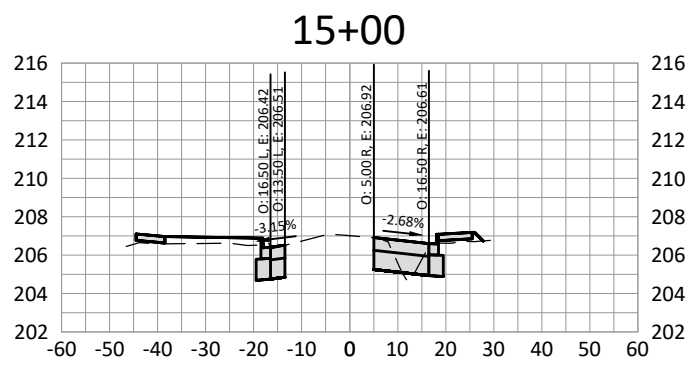
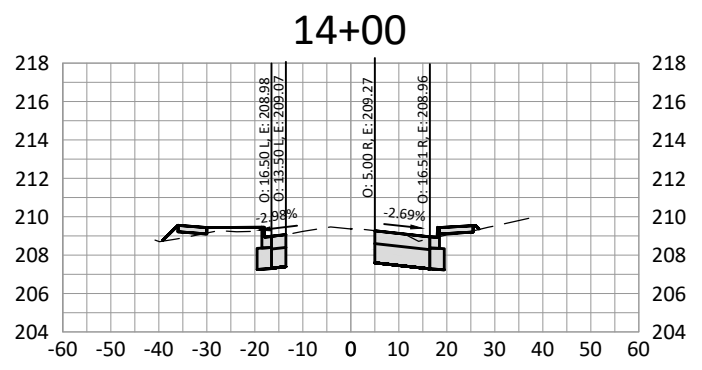
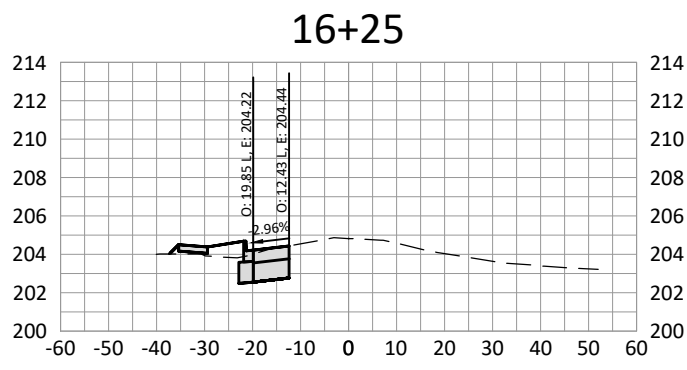
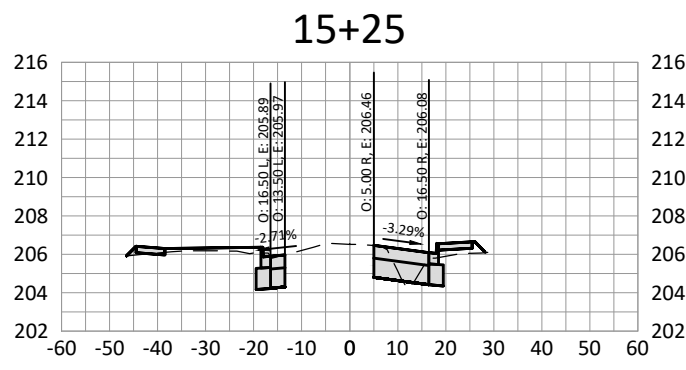
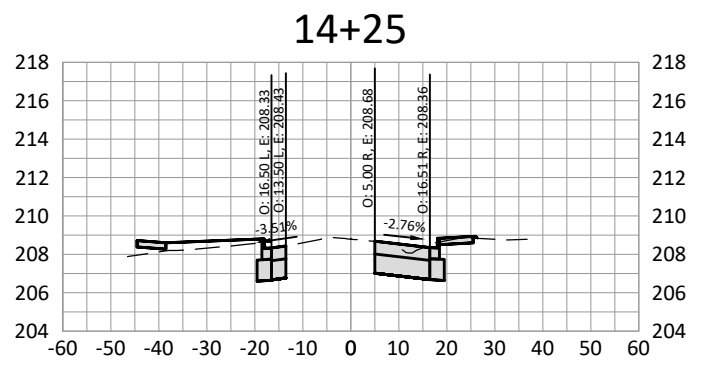
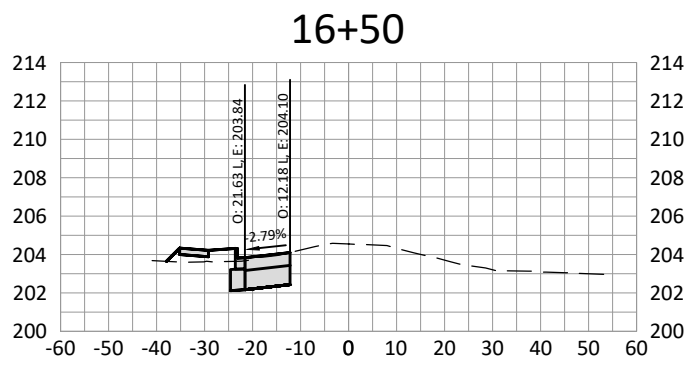
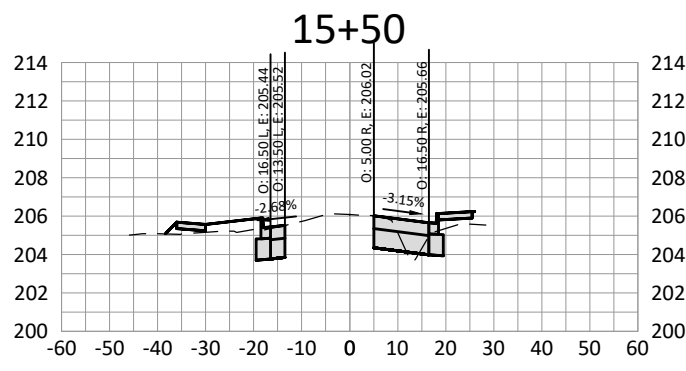
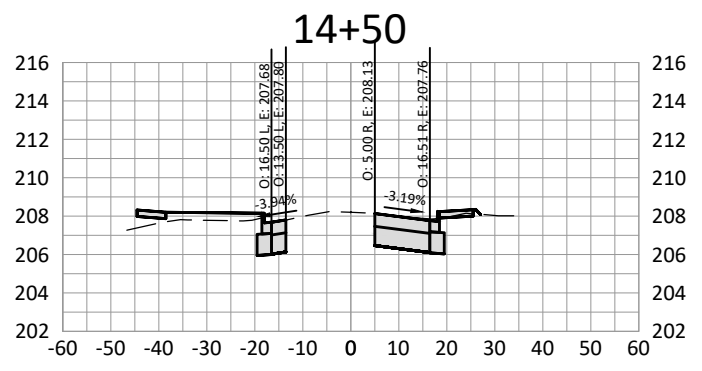
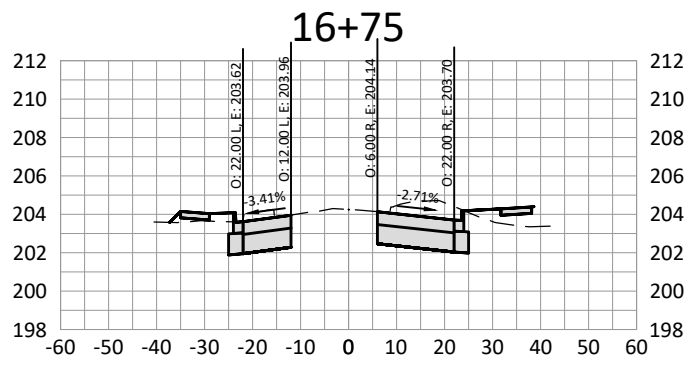
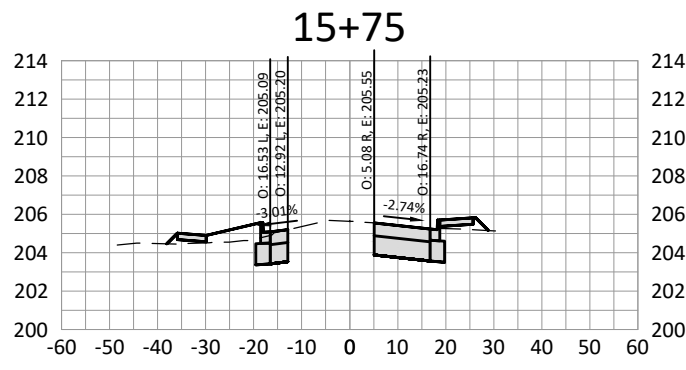
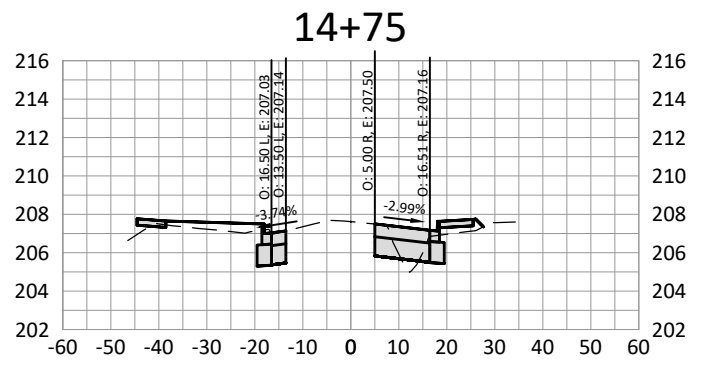


NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD  
 CROSS SECTIONS

PROJECT NUMBER  
**100666**  
 SHEET NO.  
**64 OF 84**  
 SHEET TITLE  
**XS-2**



**SW DENNEY RD - CROSS SECTIONS**  
 SCALE: 1" = 20' (HORZ.)  
 1" = 10' (VERT.)

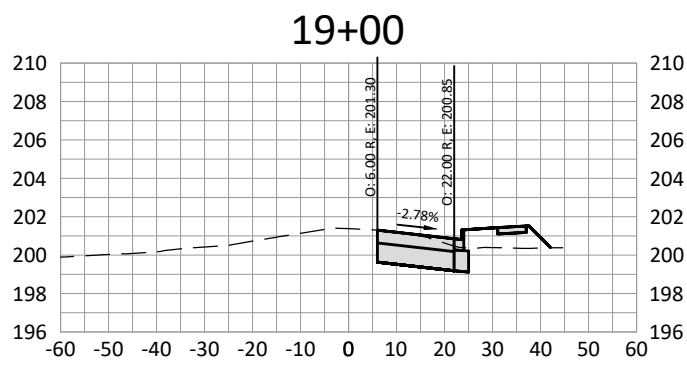
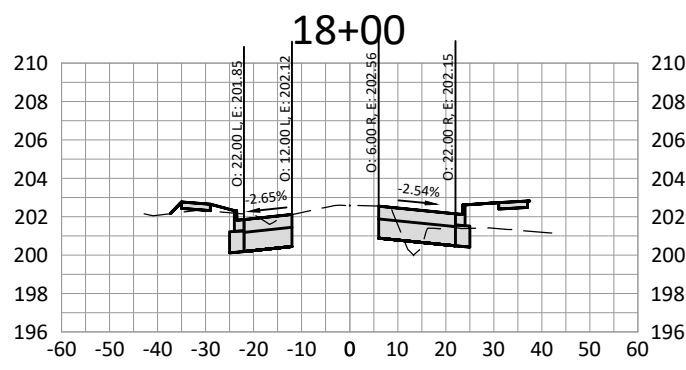
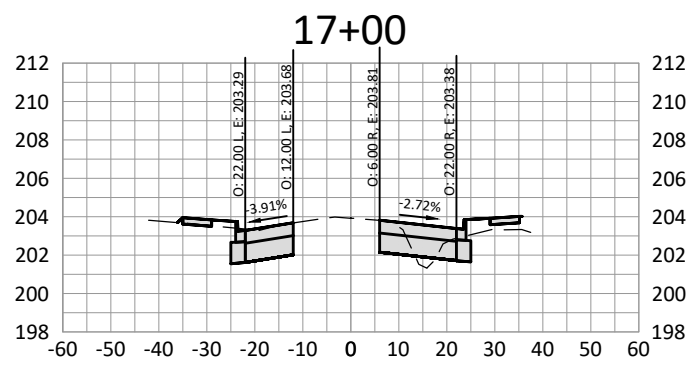
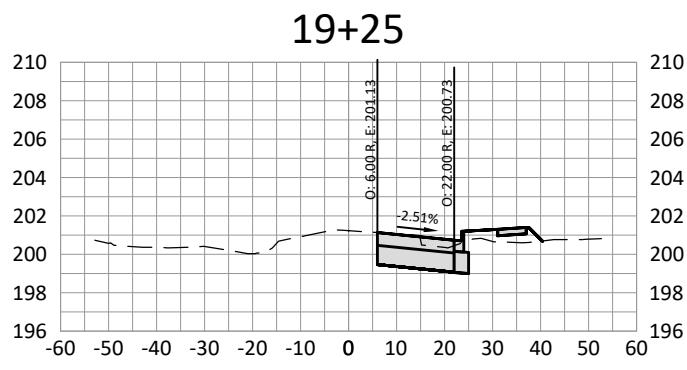
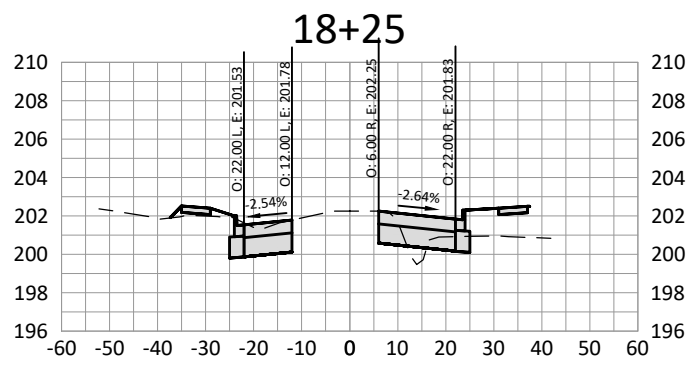
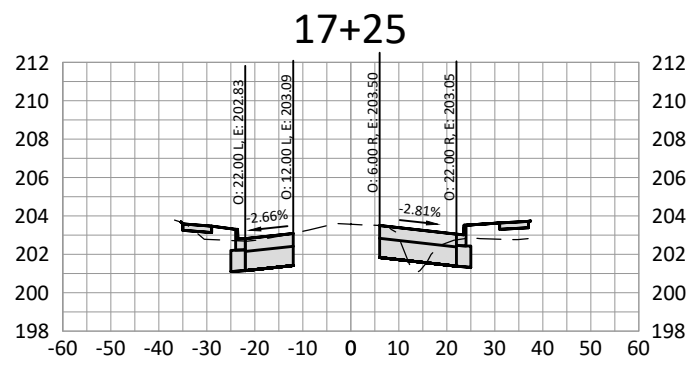
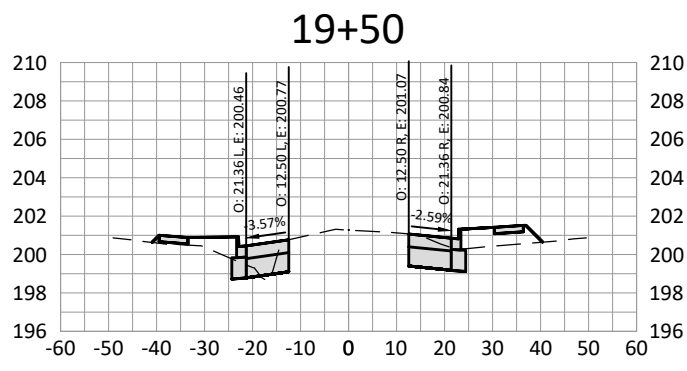
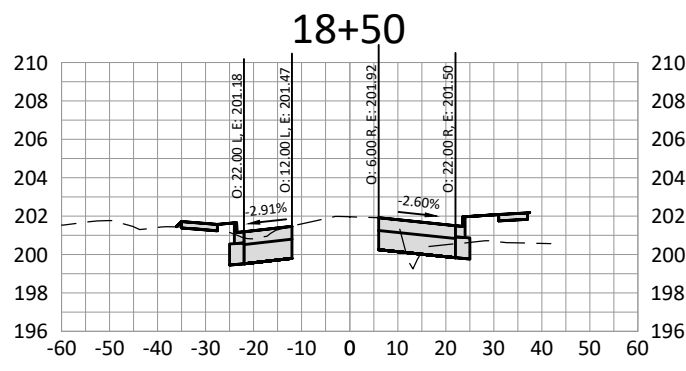
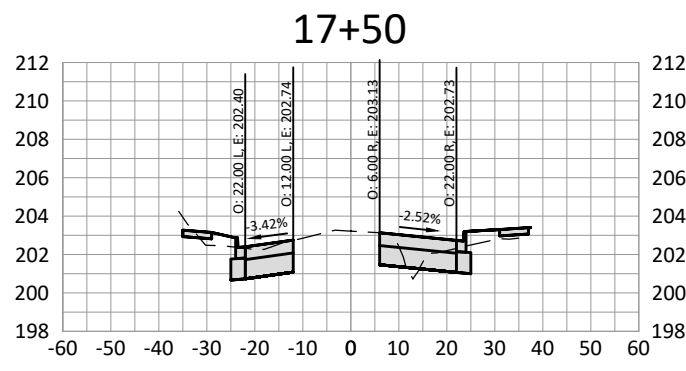
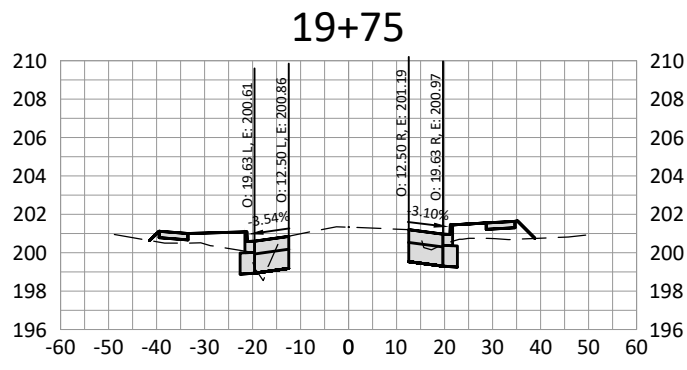
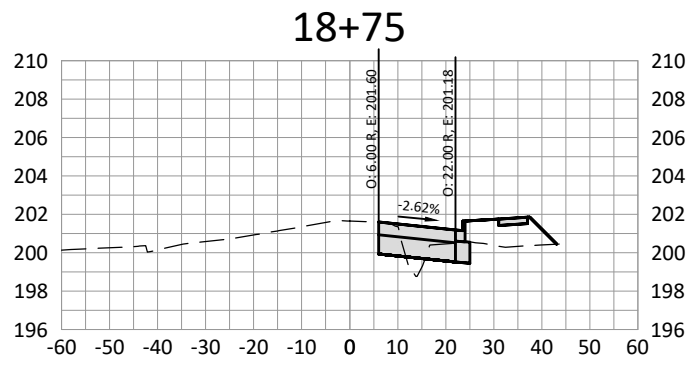
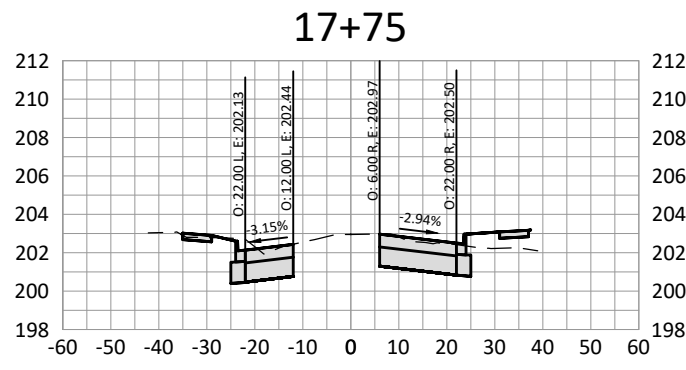




EXPIRES: 12/31/25

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**WASHINGTON COUNTY**  
 Department of Land Use & Transportation Engineering



**SW DENNEY RD - CROSS SECTIONS**

SCALE: 1" = 20' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD  
 CROSS SECTIONS

PROJECT NUMBER  
**100666**

SHEET NO.  
**65** OF **84**

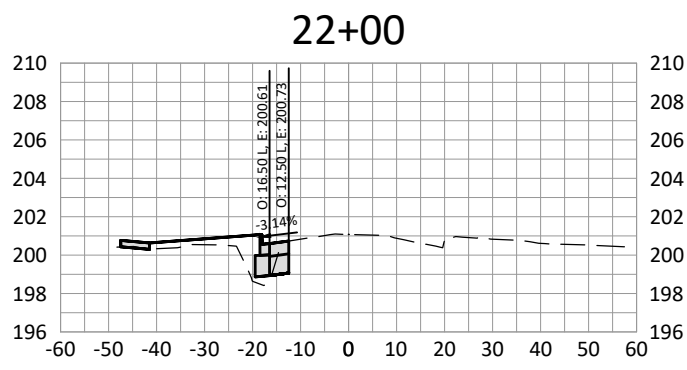
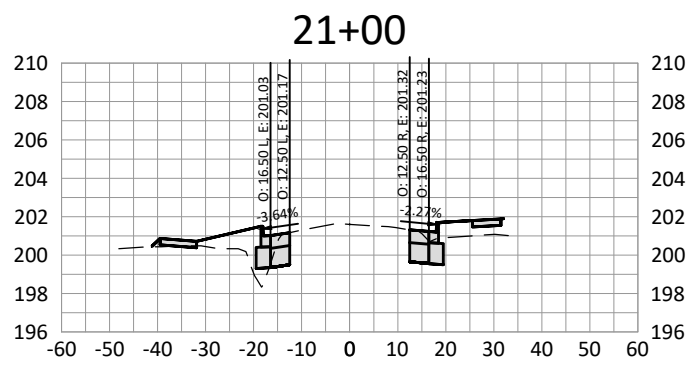
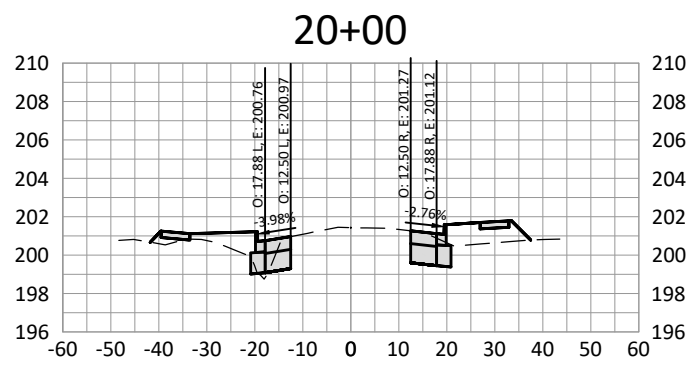
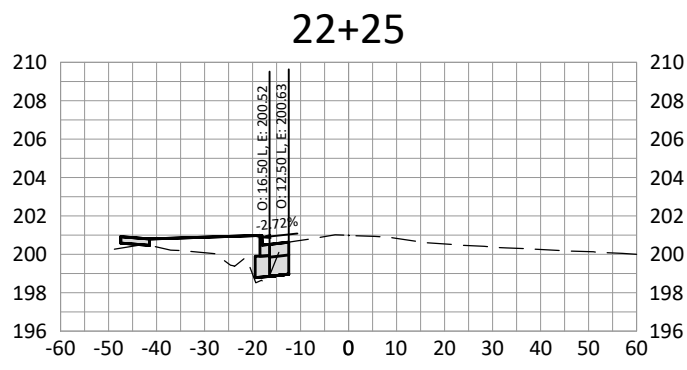
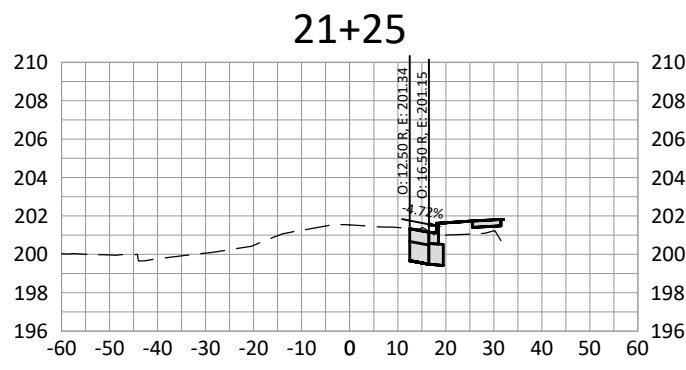
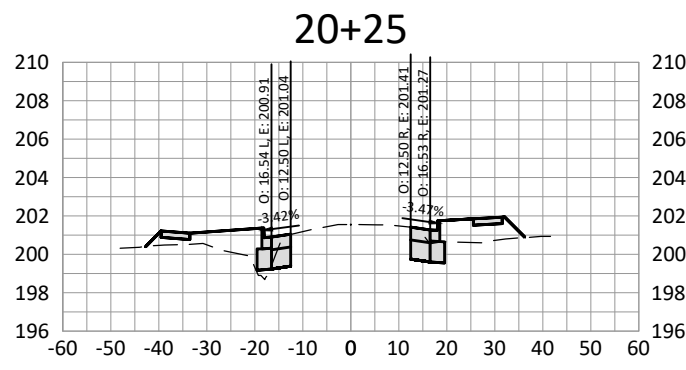
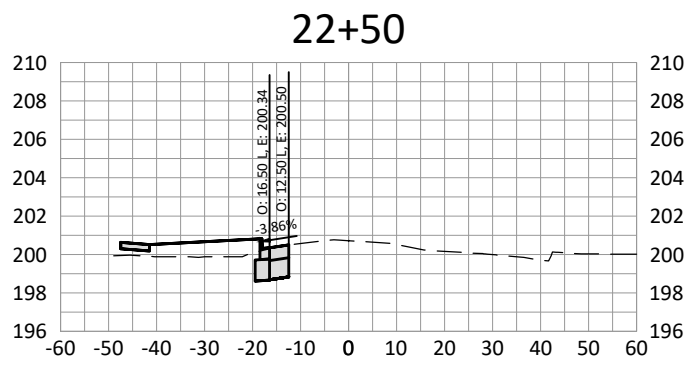
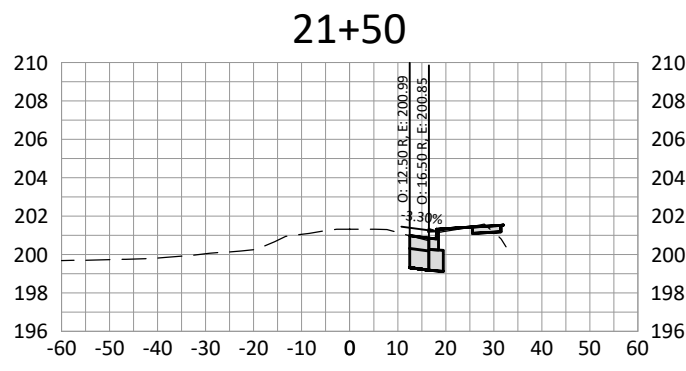
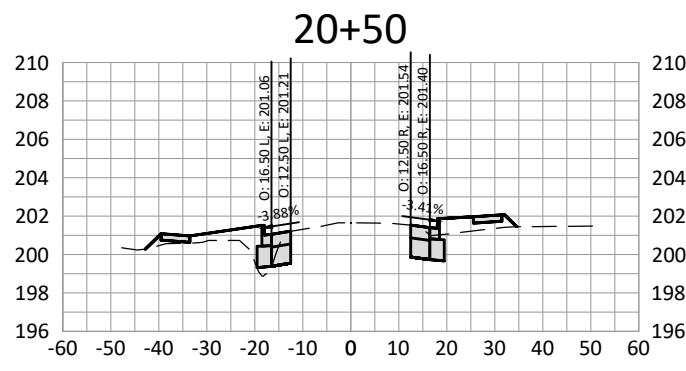
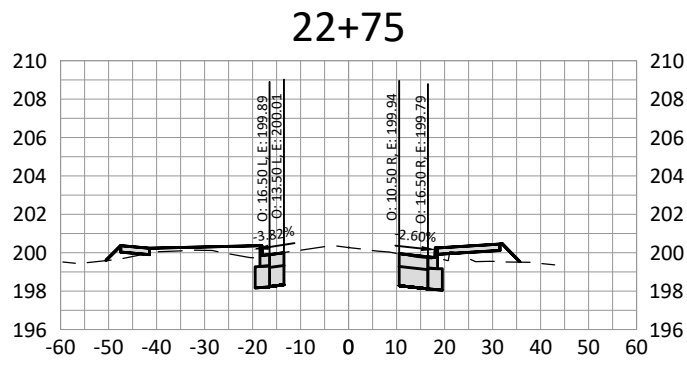
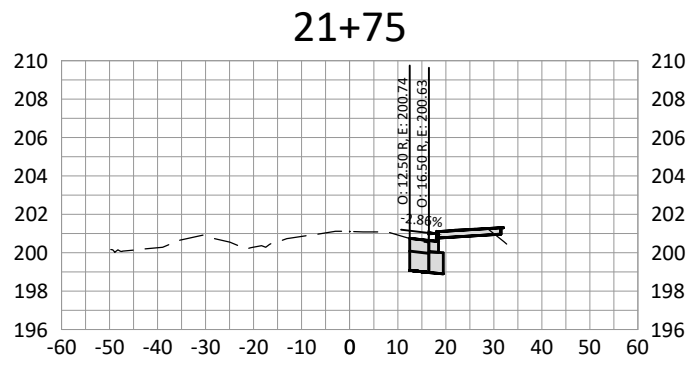
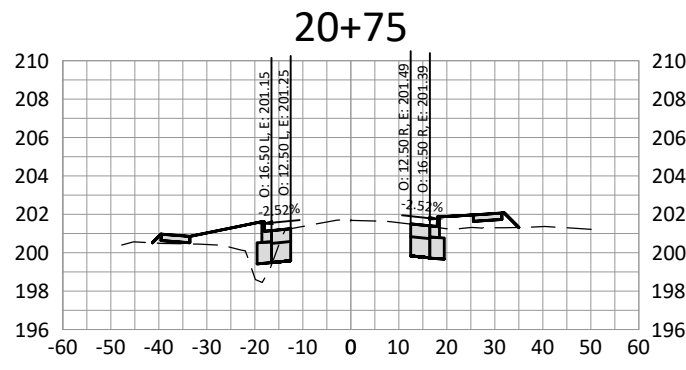
SHEET TITLE  
**XS-3**



EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering



**SW DENNEY RD - CROSS SECTIONS**  
 SCALE: 1" = 20' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
1	
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**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD  
 CROSS SECTIONS

PROJECT NUMBER  
**100666**

SHEET NO.  
**66** OF **84**

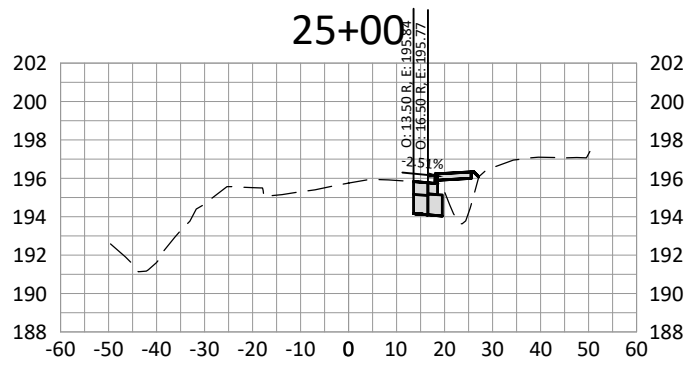
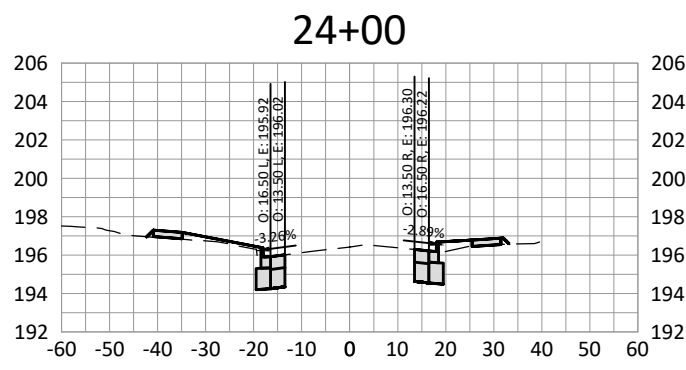
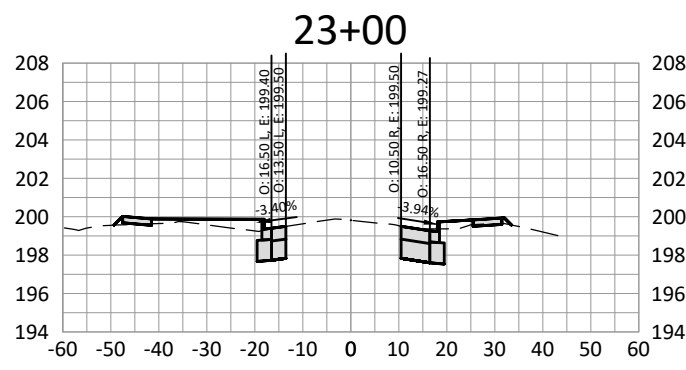
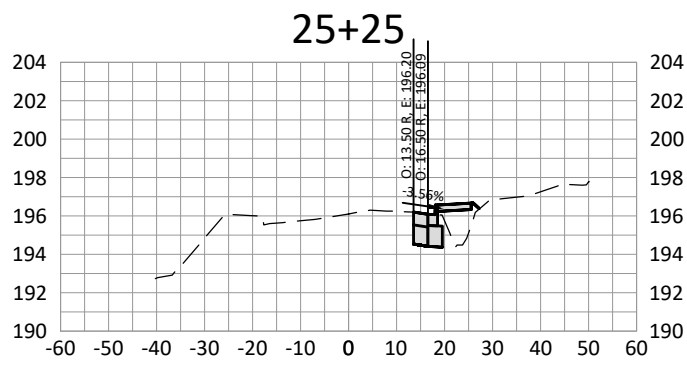
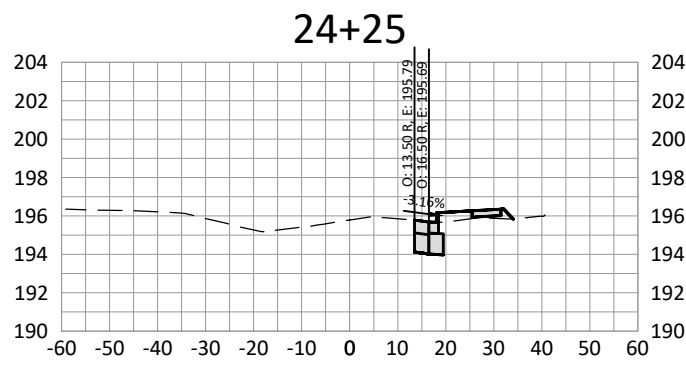
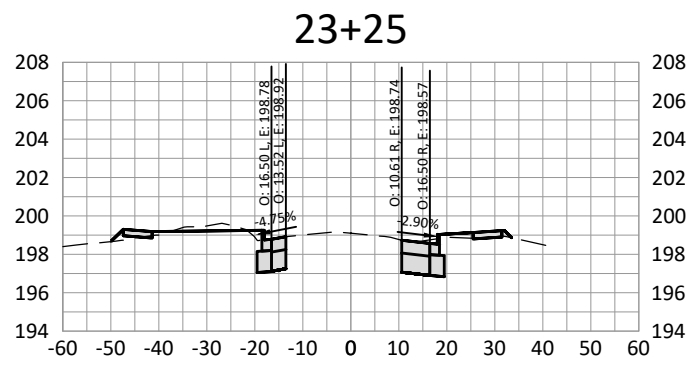
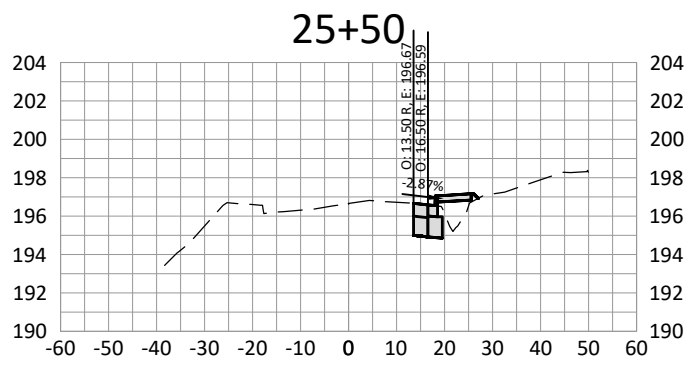
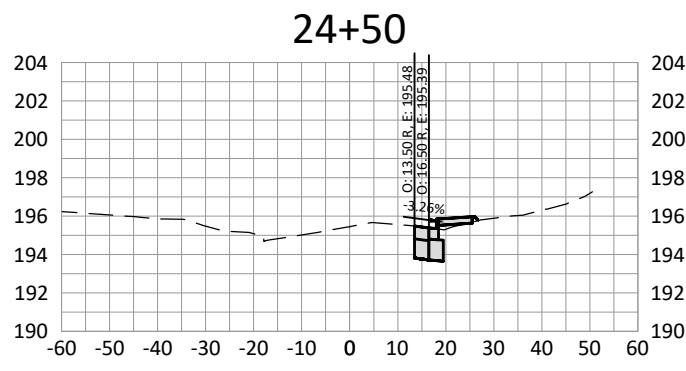
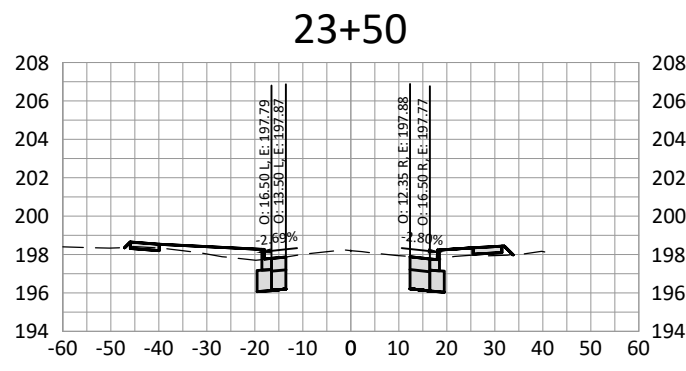
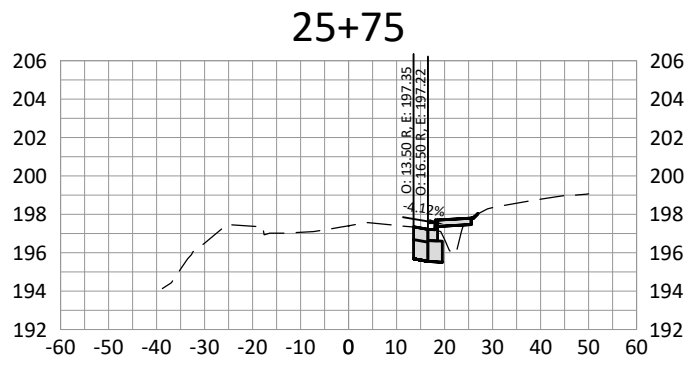
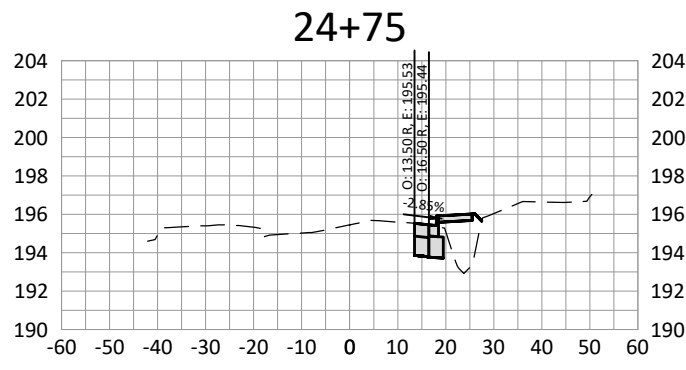
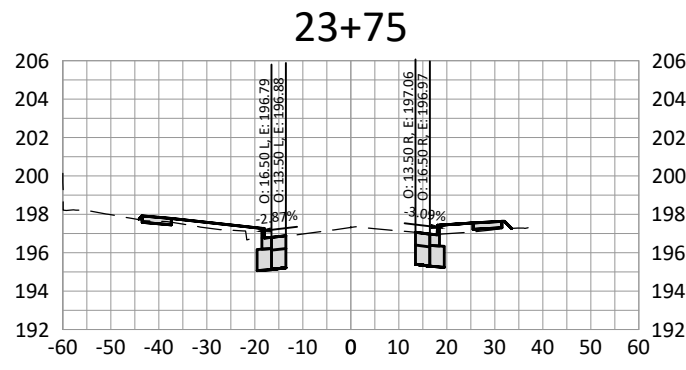
SHEET TITLE  
**XS-4**



EXPIRES: 12/31/25

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**Department of Land Use & Transportation Engineering**



**SW DENNEY RD - CROSS SECTIONS**  
 SCALE: 1" = 20' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD  
 CROSS SECTIONS

PROJECT NUMBER  
**100666**


SHEET NO.  
**67 OF 84**

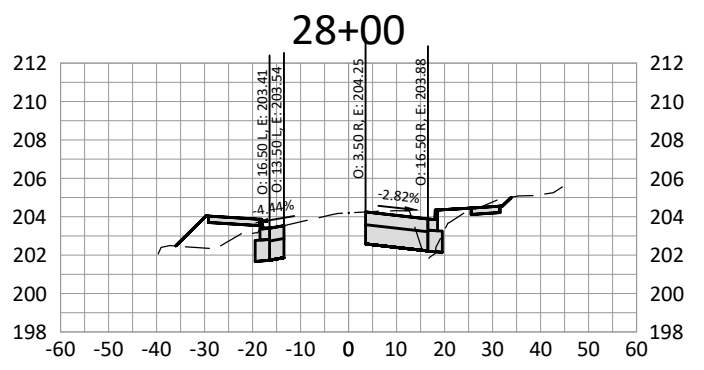
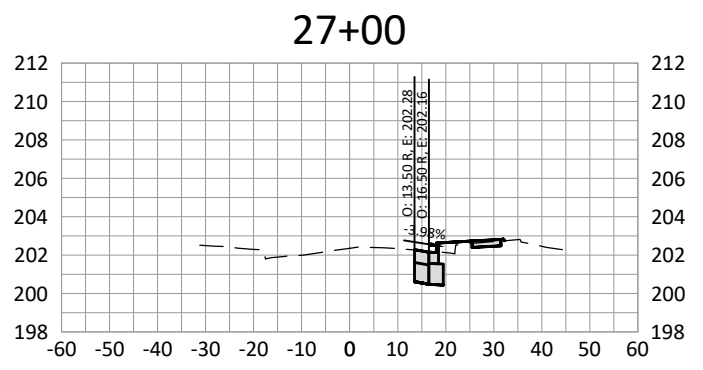
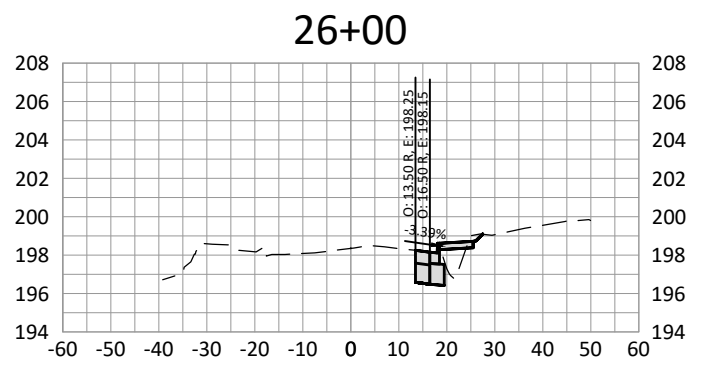
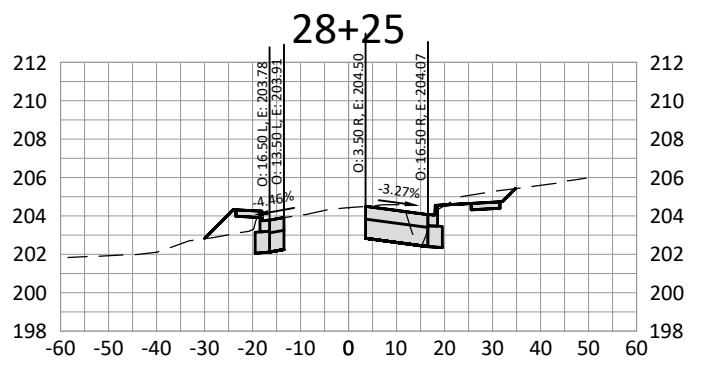
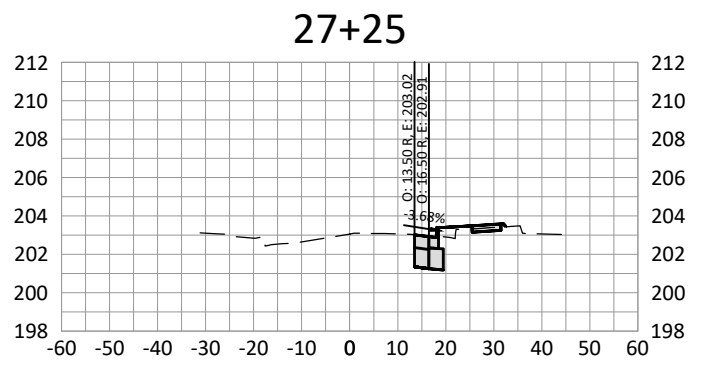
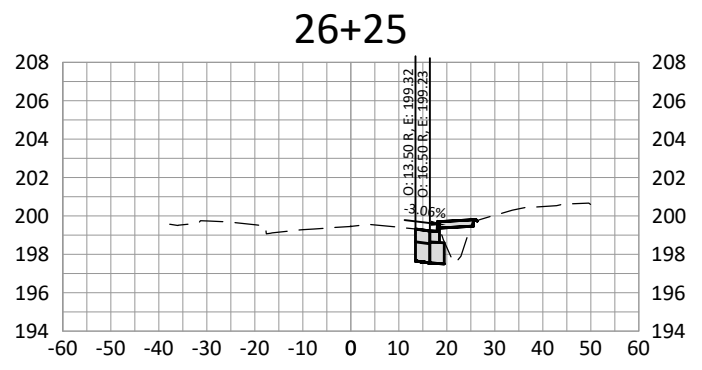
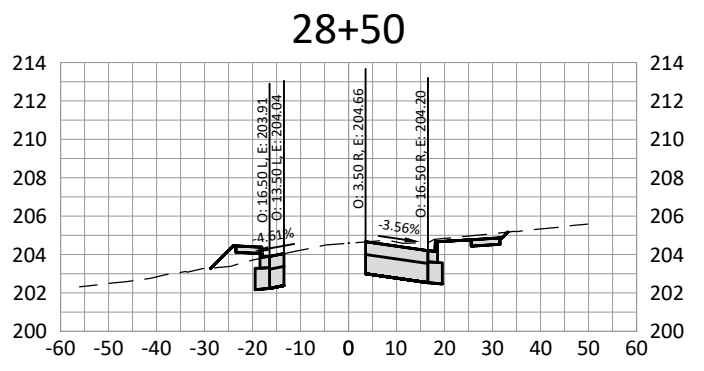
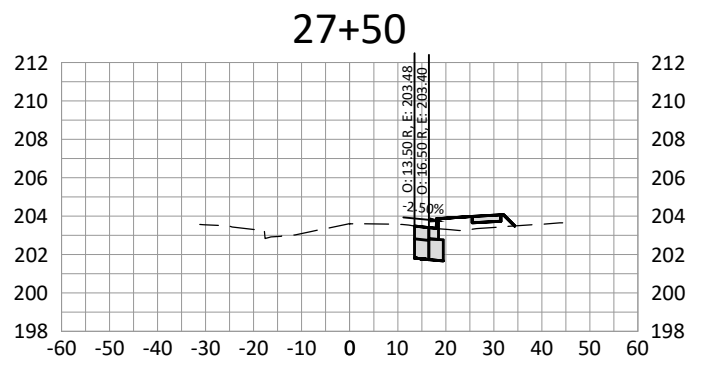
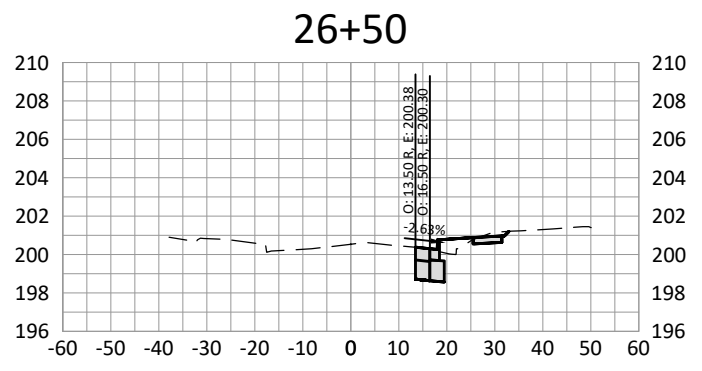
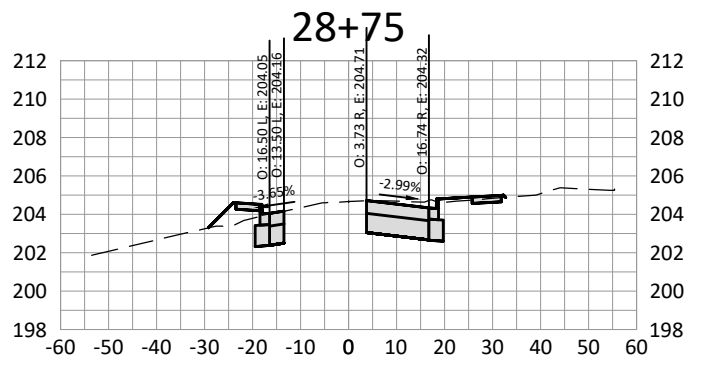
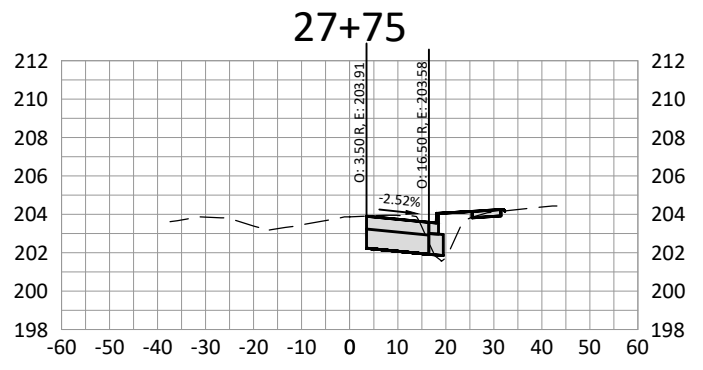
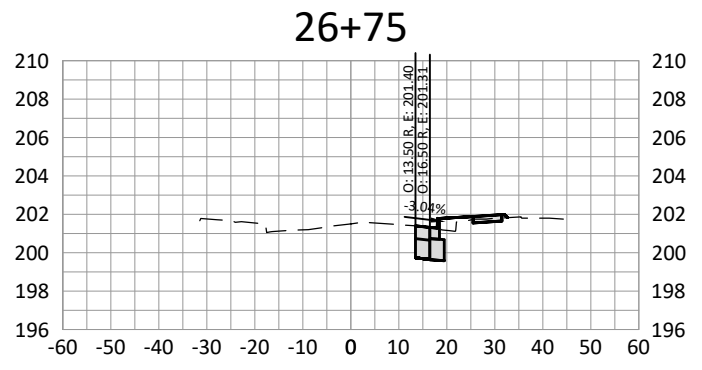
SHEET TITLE  
**XS-5**



EXPIRES: 12/31/25

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**SW DENNEY RD - CROSS SECTIONS**

SCALE: 1" = 20' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD  
 CROSS SECTIONS

PROJECT NUMBER  
**100666**

SHEET NO.  
**68** OF **84**

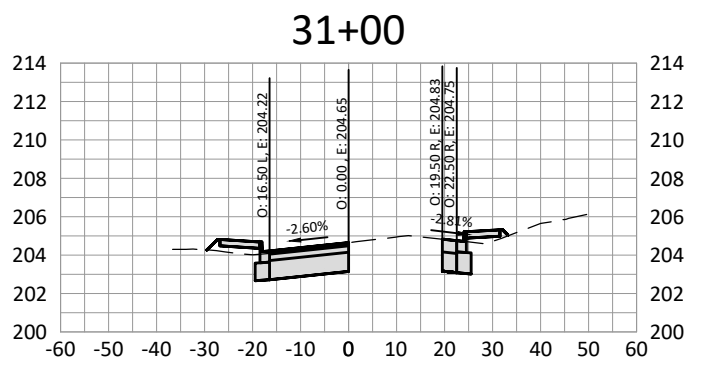
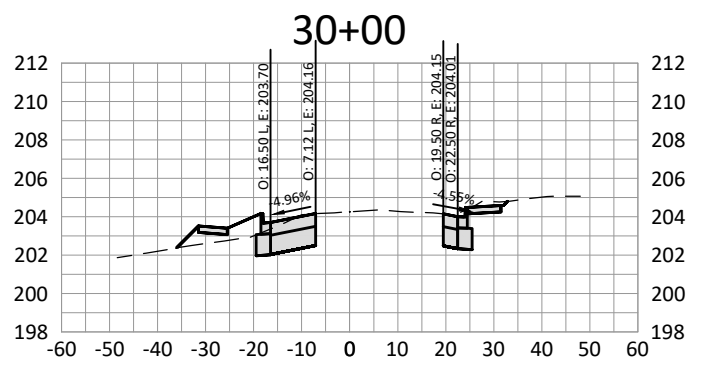
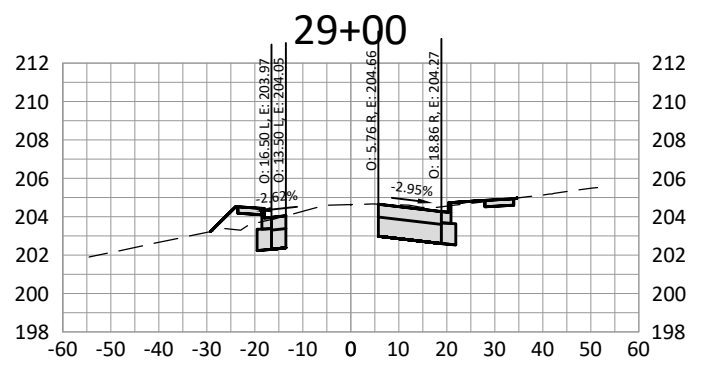
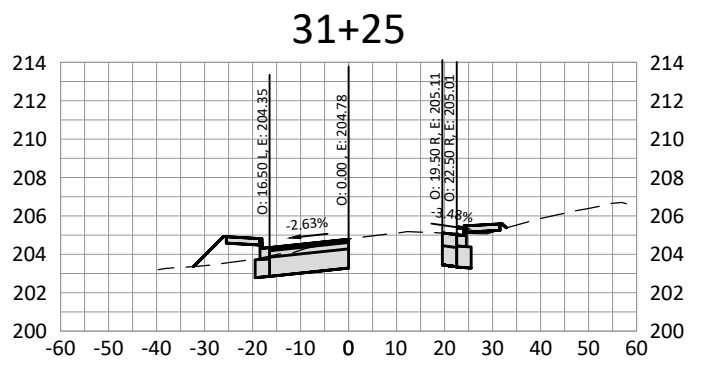
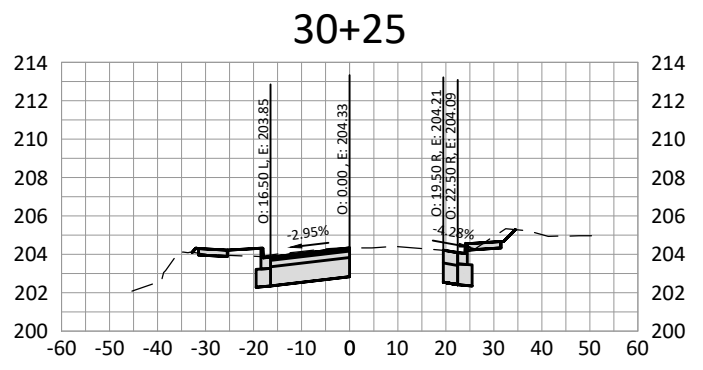
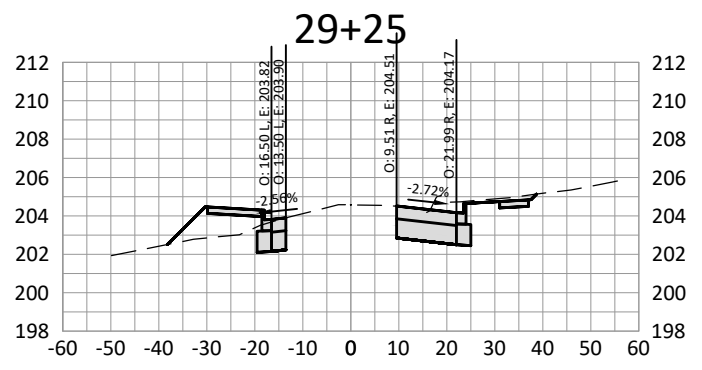
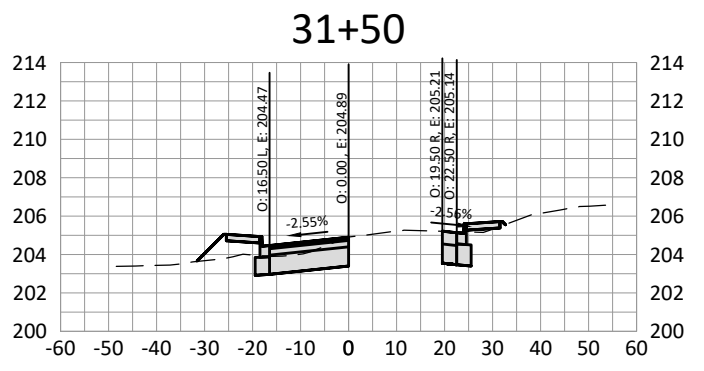
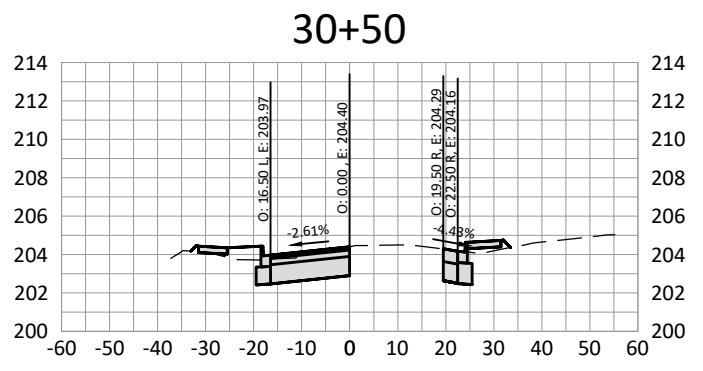
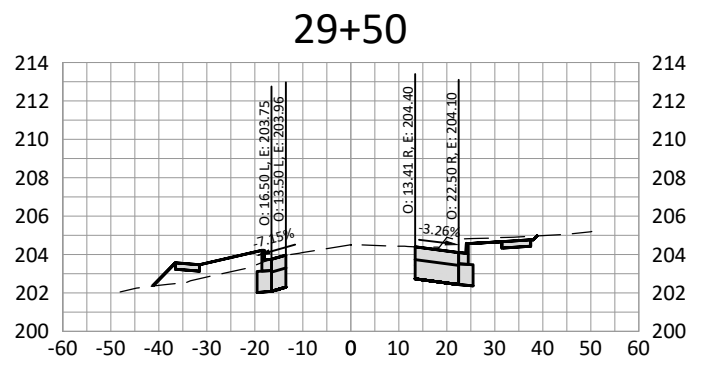
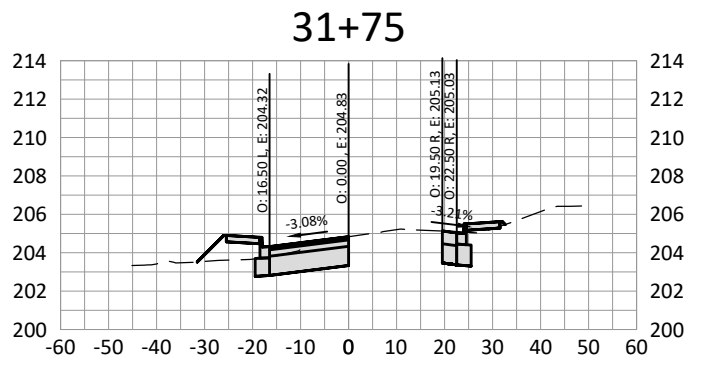
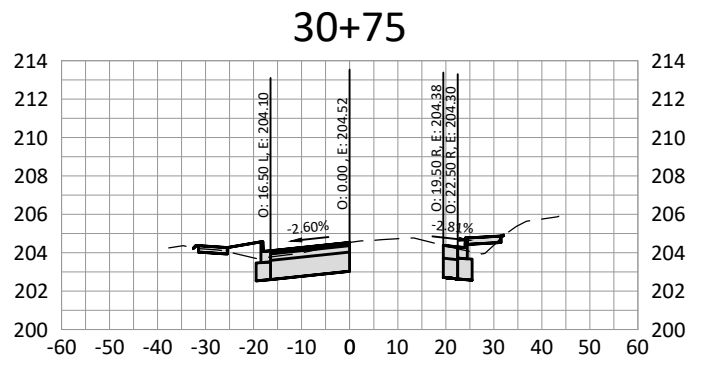
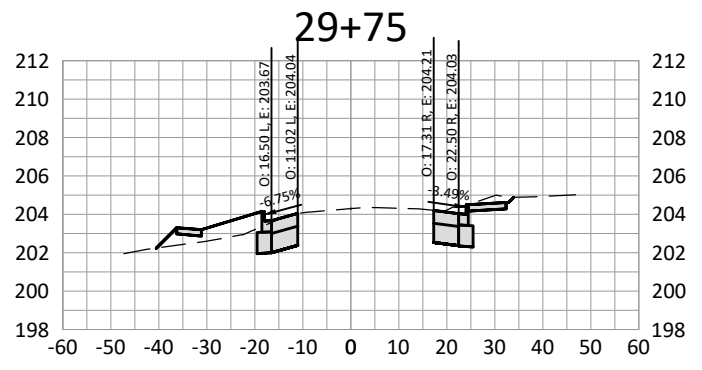
SHEET TITLE  
**XS-6**



EXPIRES: 12/31/25

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Department of Land Use & Transportation Engineering  

**SW DENNEY RD - CROSS SECTIONS**  
 SCALE: 1" = 20' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD  
 CROSS SECTIONS

PROJECT NUMBER  
**100666**

SHEET NO.  
**69** OF **84**

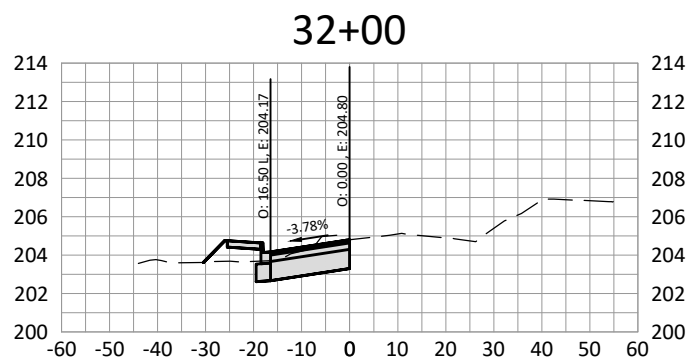
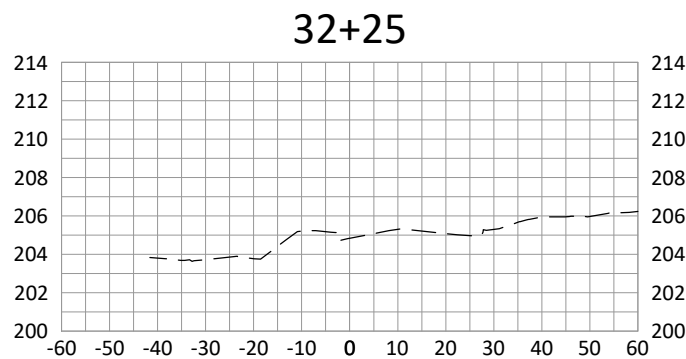
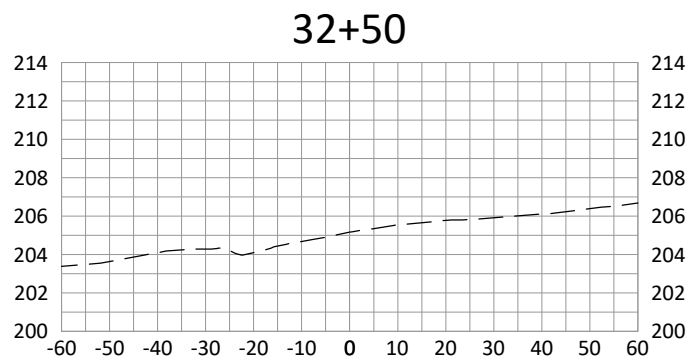
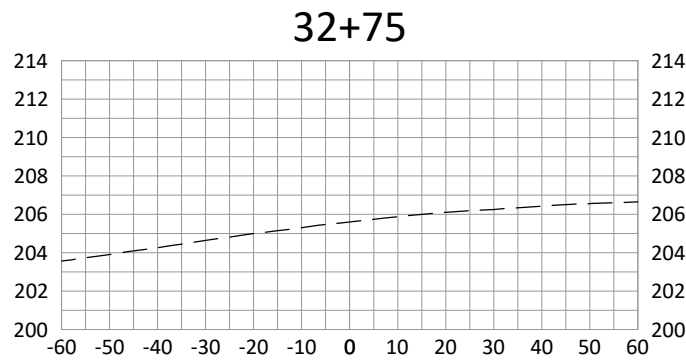
SHEET TITLE  
**XS-7**



EXPIRES: 12/31/25

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**WASHINGTON COUNTY**  
 Department of Land Use & Transportation Engineering



**SW DENNEY RD - CROSS SECTIONS**  
 SCALE: 1" = 20' (HORZ.)  
 1" = 10' (VERT.)

NO.	REVISION
1	
2	
3	
4	

**SW DENNEY ROAD**  
 SW 105TH AVE TO SW SCHOLLS FERRY ROAD  
 WASHINGTON COUNTY

SW DENNEY RD  
 CROSS SECTIONS

PROJECT NUMBER  
**100666**

SHEET NO.  
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SHEET TITLE  
**XS-8**