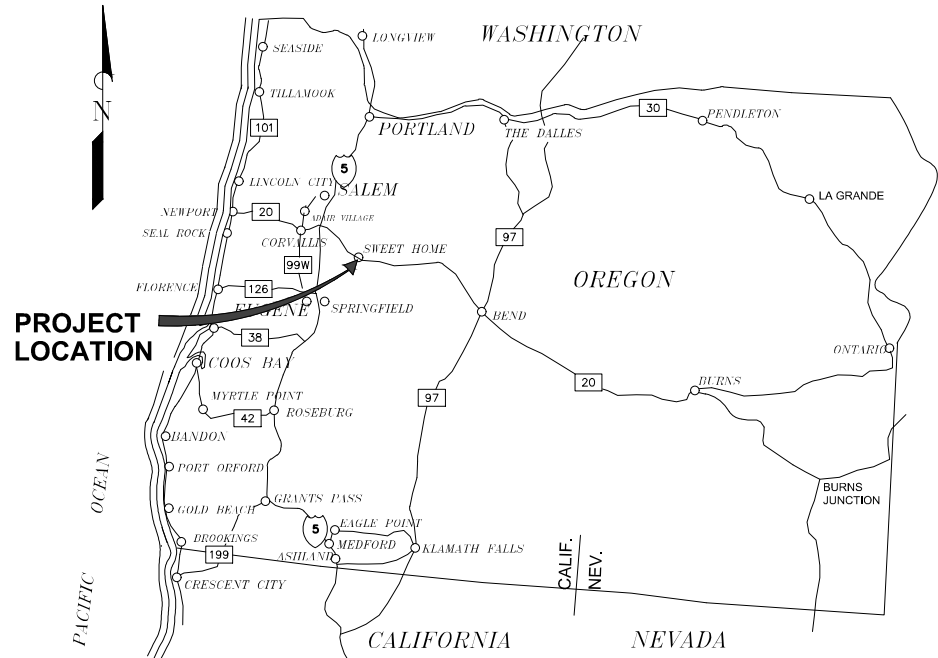
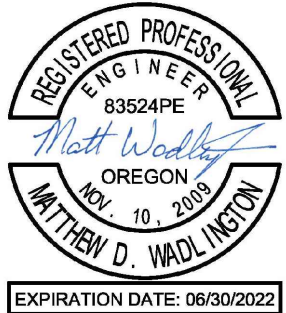


CITY OF SWEET HOME 2022 WATERMAIN REPLACEMENT PROJECT LINN COUNTY, OR

PROJECT NO. 2817-05
APRIL 2022



LOCATION MAP



VICINITY MAP
NOT TO SCALE

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REV.	DATE	DESCRIPTION	BY

DESIGNED BY: ERM	DRAWN BY: FT	CHECKED BY: MDW	PROJECT NO: 2817-05
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CITY OF SWEET HOME
LINN COUNTY OR.

2022 WATERMAIN REPLACEMENT PROJECT

COVER SHEET

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05-General.dwg

EXISTING FEATURE LEGEND

SYMBOL LEGEND

SANITARY SEWER MANHOLE		MAIL BOX	
STORM DRAIN MANHOLE		AIR RELEASE VALVE	
CATCH BASIN		BLOW OFF VALVE	
WATER VALVE		PROFILE SERVICE LATERAL CROSSING	
WATER METER		PROFILE TELEPHONE LINE CROSSING	
FIRE HYDRANT		PROFILE ELECTRICAL LINE CROSSING	
CLEANOUT		PROFILE WATERLINE CROSSING	
POWER POLE		PROFILE SANITARY SEWER CROSSING	
GUY ANCHOR		PROFILE STORM DRAIN CROSSING	
POWER PEDESTAL		TREE/SHRUB	
TELEPHONE PEDESTAL		STREET SIGN	
SURVEY MARKER			

LINETYPE LEGEND

WATER LINE	
STORM DRAIN	
SANITARY SEWER	
ELECTRICAL	
OVER HEAD LINE	
TELEPHONE LINE	
GAS LINE	
TREELINE	
EDGE OF PAVEMENT	
RIGHT OF WAY	
CONTOURS	

HATCH LEGEND

CONCRETE	
PAVEMENT	
GRANULAR MATERIALS SUCH AS CRUSHED ROCK OR GRAVEL	
NATURAL GROUND	
WETLANDS	
BUILDING	

NEW FEATURE LEGEND

SYMBOL LEGEND

SANITARY SEWER MANHOLE		TEE/CROSS FITTING	
STORM DRAIN MANHOLE		ELBOW FITTING	
CATCH BASIN		REDUCER FITTING	
WATER VALVE		MECHANICAL JOINT ADAPTER	
WATER METER		AIR RELEASE VALVE	
FIRE HYDRANT		BLOW OFF VALVE	
CLEANOUT		MAILBOX	

LINETYPE LEGEND

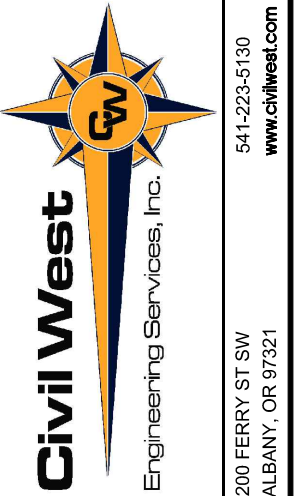
WATER LINE	
STORM DRAIN	
SANITARY SEWER	
ELECTRICAL	
OVER HEAD LINE	
TELEPHONE LINE	
GAS LINE	
CONTOURS	

HATCH LEGEND

CONCRETE	
PAVEMENT	
GRANULAR MATERIALS SUCH AS CRUSHED ROCK OR GRAVEL	
DRIVEWAY	
ADDITIVE ALTERNATE AC OVERLAY	
ADDITIVE ALTERNATE DRIVEWAY	



EXPIRATION DATE: 06/30/2022



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DESIGNED BY: ERM	DRAWN BY: MDW
CHECKED BY: FT	PROJECT NO: 281745

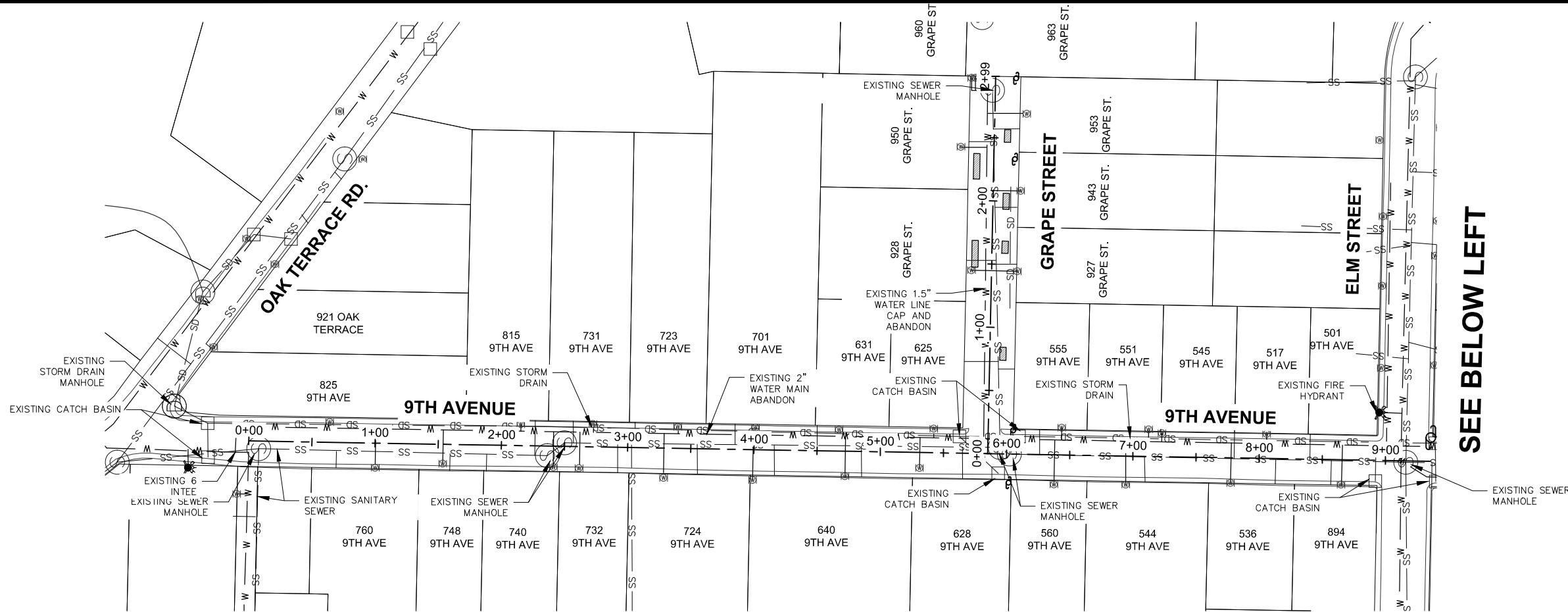
CITY OF SWEET HOME
LINN COUNTY OR.

2022 WATERMAIN REPLACEMENT PROJECT

LEGEND

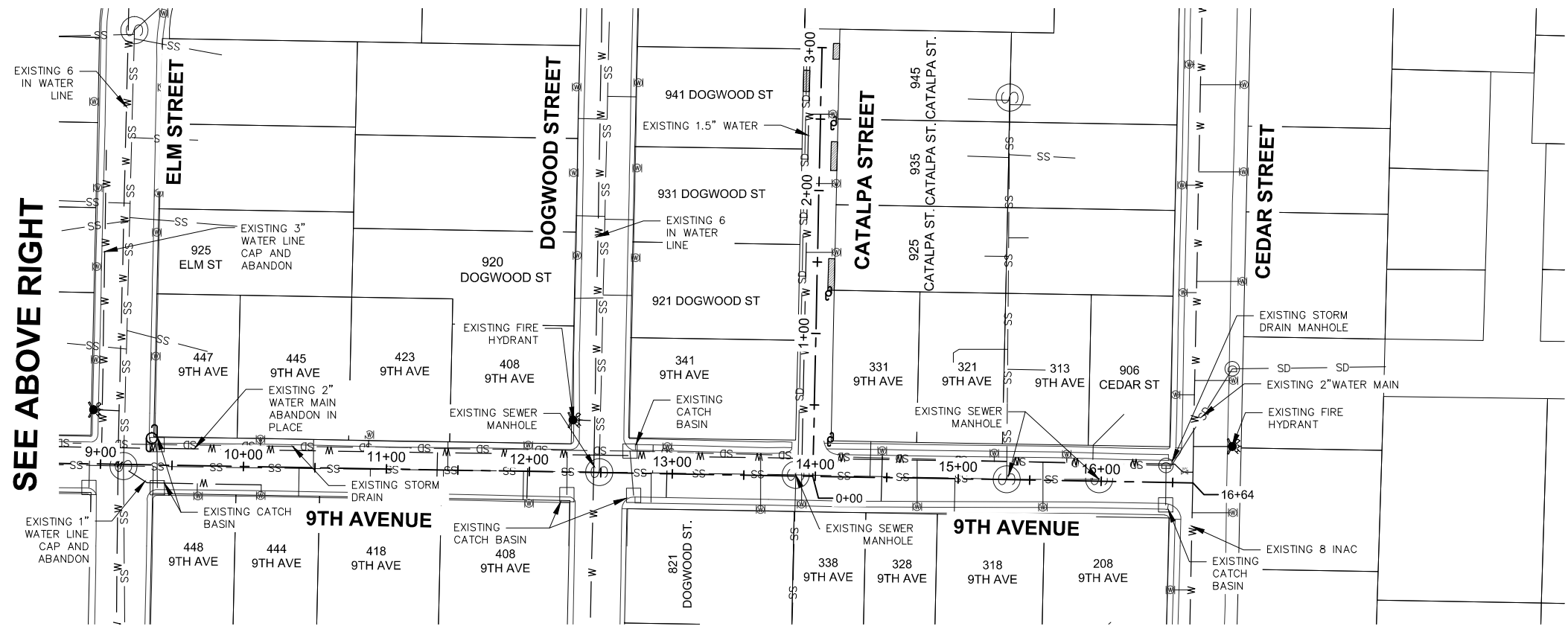
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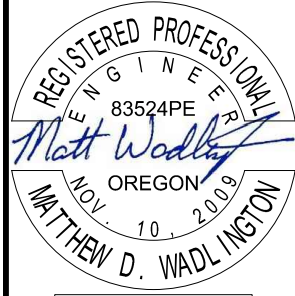
SEE BELOW LEFT

1
C1
9TH AVE EXISTING CONDITIONS
SCALE: 1" = 100'



SEE ABOVE RIGHT

2
C1
9TH AVE EXISTING CONDITIONS
SCALE: 1" = 100'



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REV.	DATE	DESCRIPTION	BY

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PROJECT NO: 2017-05		

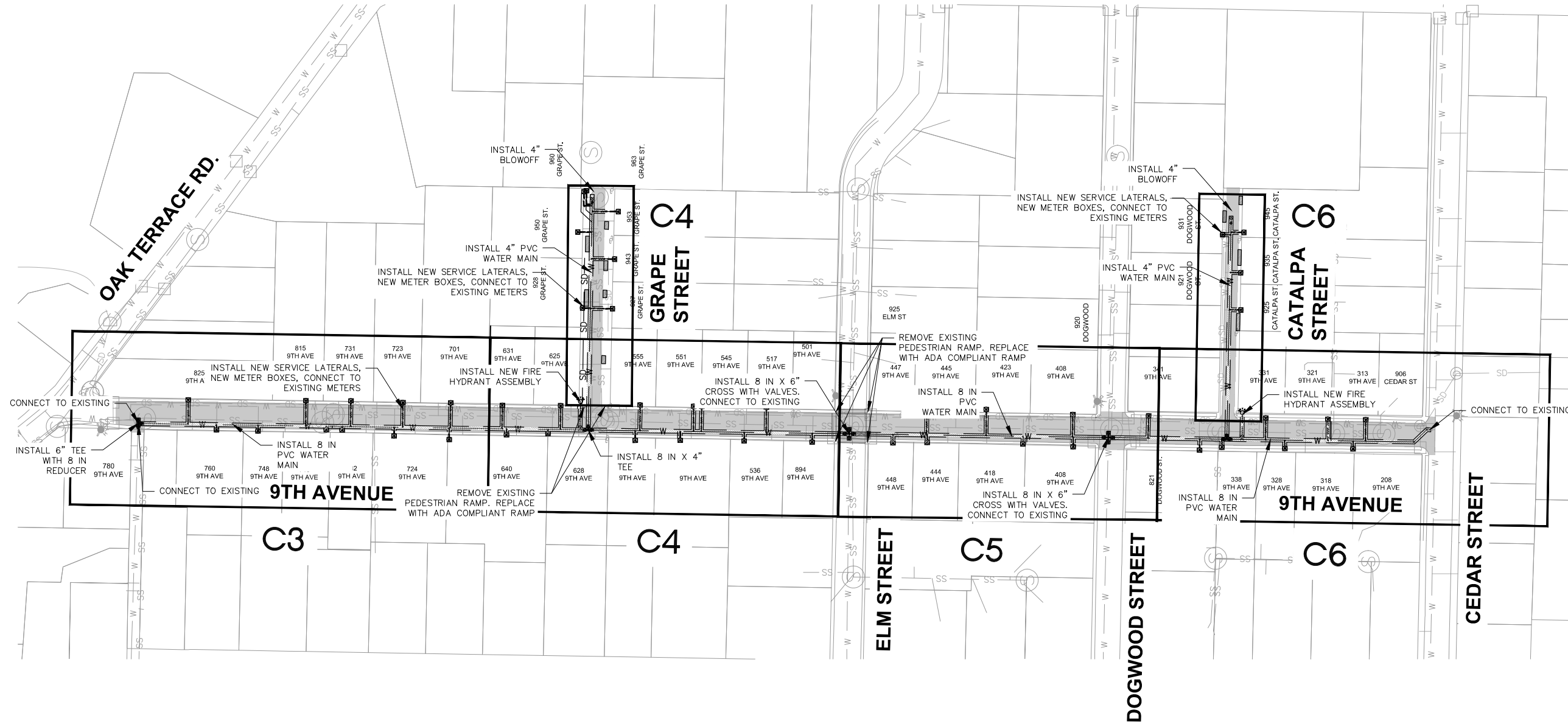
CITY OF SWEET HOME
LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

9TH AVE EXISTING CONDITIONS

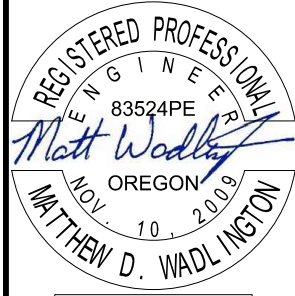
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Date: **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05-DESIGN 9th.dwg



1
C2

IMPROVEMENT OVERVIEW PLAN
SCALE: NTS



RENEWS: 06/30/2022



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DESIGNED BY: ERM	DRAWN BY: FT	CHECKED BY: MDW
PROJECT NO: 2817-05		

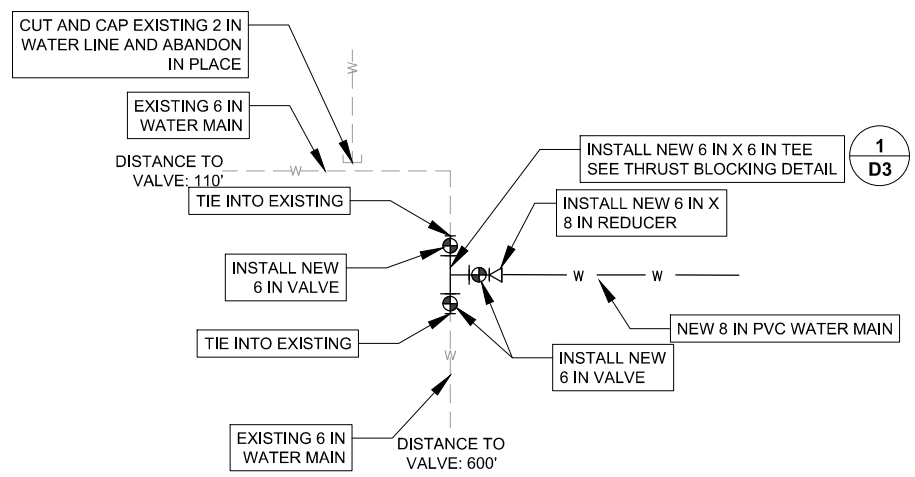
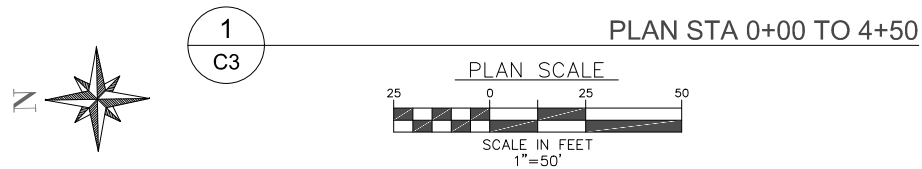
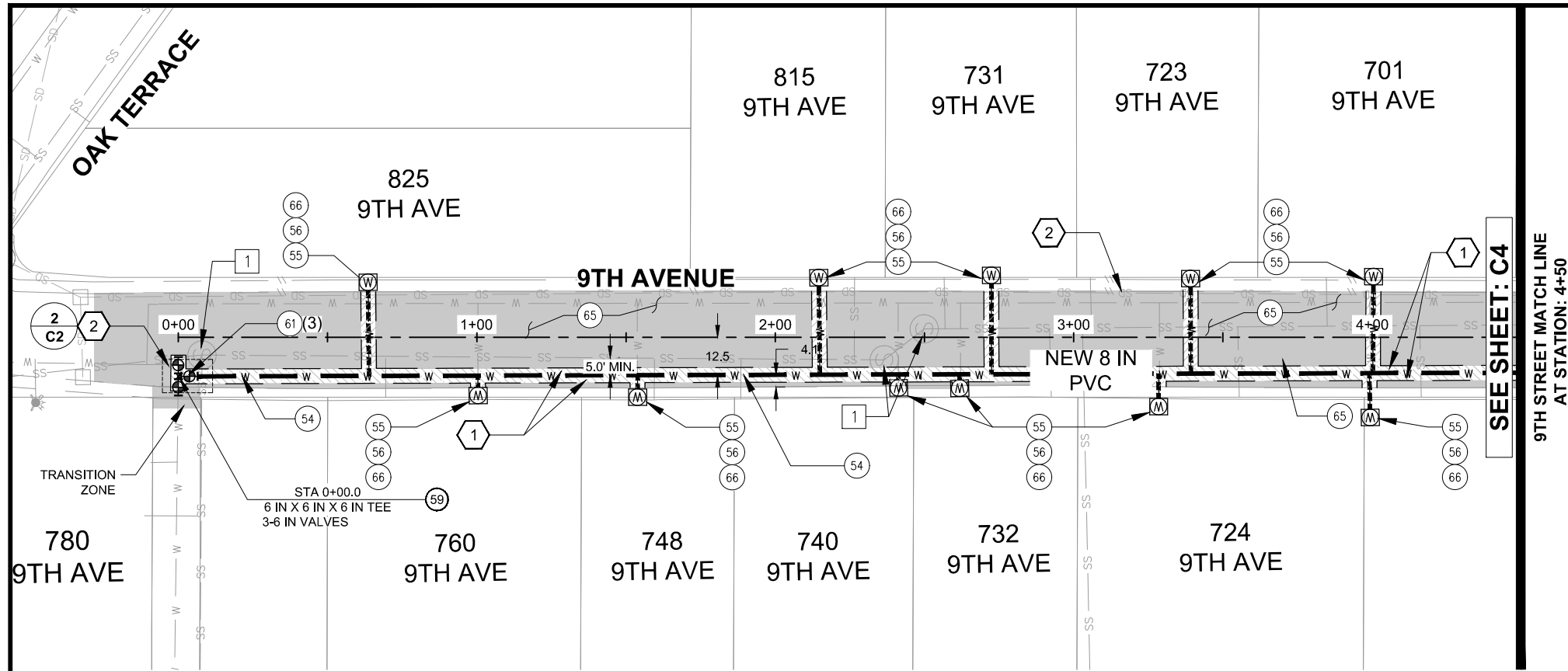
CITY OF SWEET HOME
LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

9TH AVE IMPROVEMENTS OVERVIEW

Sheet No: **C2**
Date: **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\204 Final Design\Drawings\DWG\2817-05-DESIGN 9th.dwg



2
C3
NEW 6 IN X 6 IN X 6 IN TEE CONNECTION
SCALE: NTS

SEE SHEET: C4
9TH STREET MATCH LINE
AT STATION: 4+50

DEMOLITION NOTES:

- 1 SAWCUT AND REMOVE.
- 2 CAP EXISTING AND ABANDON IN PLACE.

IMPROVEMENT NOTES:

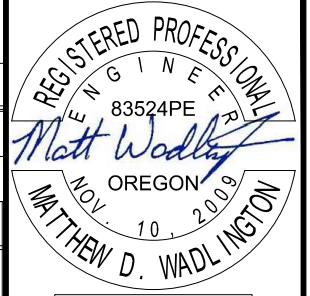
- 54 INSTALL NEW PVC WATER PIPE (C-900) INCLUDING FITTINGS AND FIXTURES WITH 36" COVER MINIMUM. SEE DETAIL. 1 D1
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- 64 INSTALL BLOW OFF VALVE. SEE DETAIL. 1 D6
- 65 OVERLAY ASPHALT, MATCH EXISTING SLOPES, SEE DETAILS. 1 D7, 2 D7
- 66 REPLACE SIDEWALK, CURB AND GUTTER, MATCH EXISTING. SEE DETAIL. 1 D8, 1 D9
- 67 4" PERFORATED PIPE TO BE INSTALLED BY OTHERS
- 68 REMOVE EXISTING PEDESTRIAN RAMP. REPLACE WITH ADA COMPLIANT PEDESTRIAN RAMP

KEYED NOTES:

- 1 PROTECT IN PLACE. RAISE AS NEEDED
- 2 POT HOLE EXISTING PRIOR TO WATERLINE INSTALLATION

SHEET NOTES:

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RENEWALS: 06/30/2022



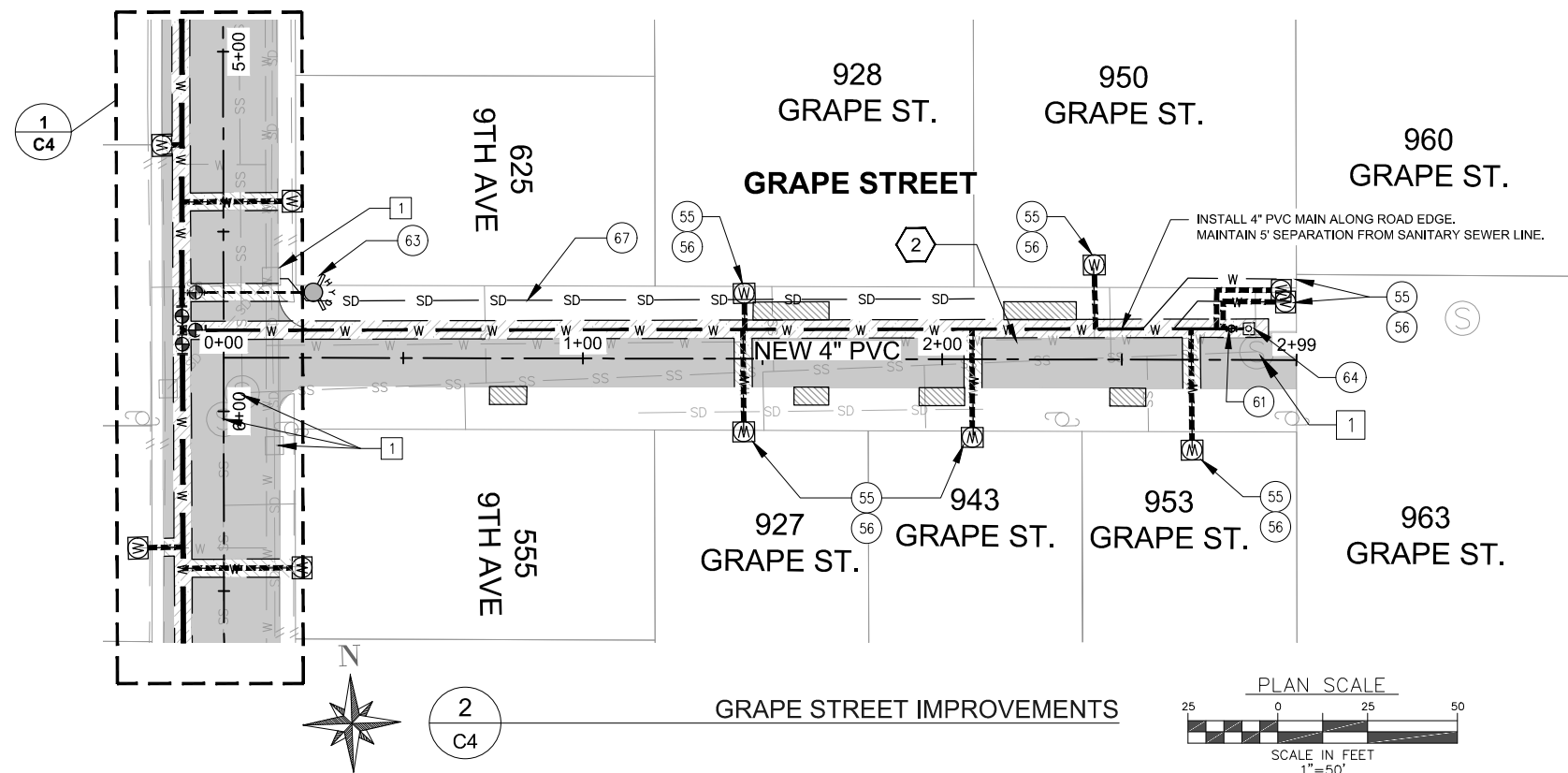
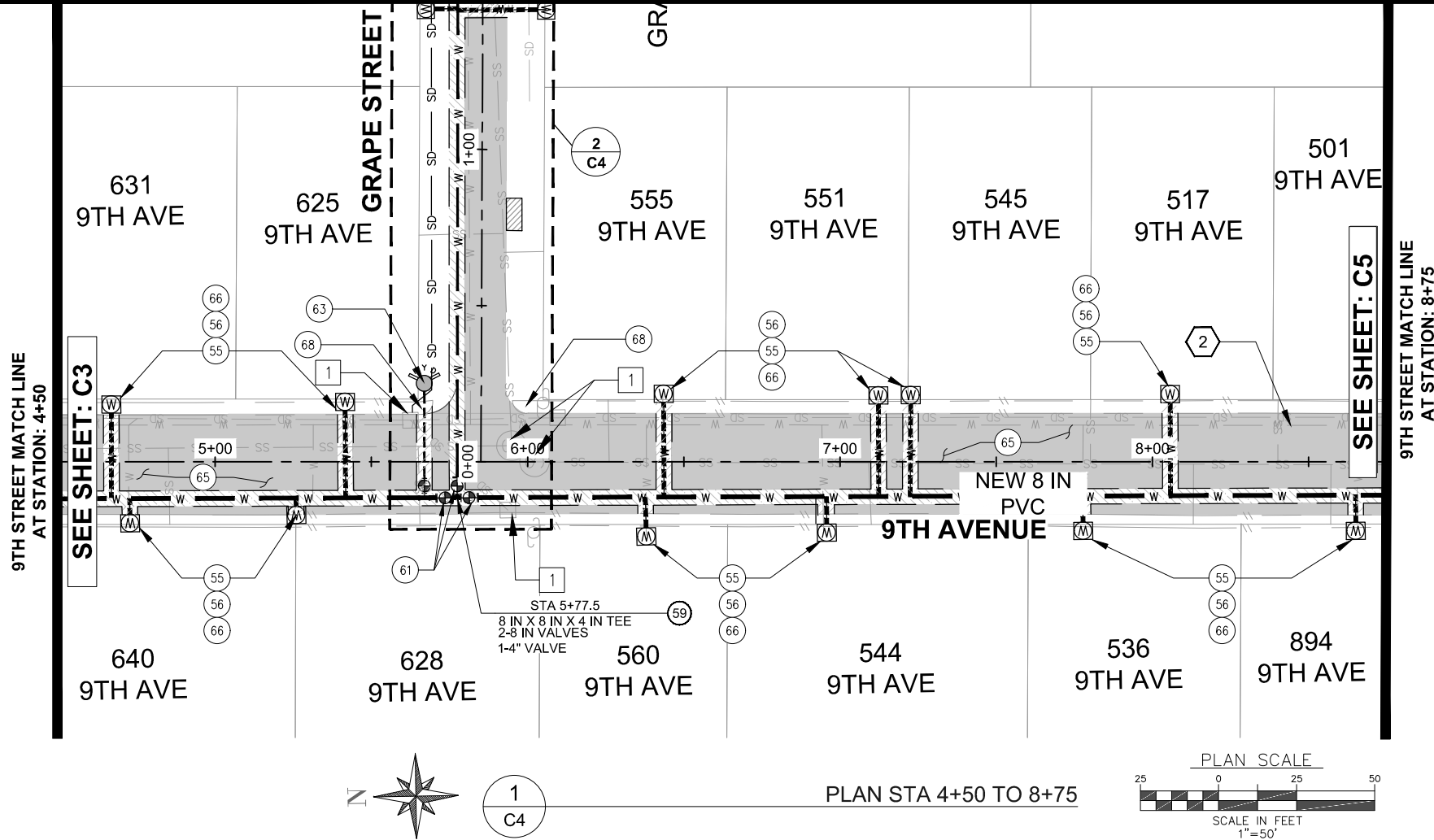
REV.	DATE	DESCRIPTION	BY

DESIGNED BY: ERM
DRAWN BY: MDW
CHECKED BY: MDW
PROJECT NO: 2817-05

CITY OF SWEET HOME
LINN COUNTY, OR
2022 WATERMAIN REPLACEMENT PROGRAM
9TH AVE PLAN STA 0+00 TO 4+50

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DEMOLITION NOTES:

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IMPROVEMENT NOTES:

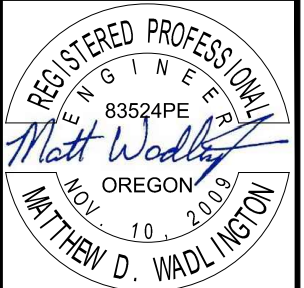
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KEYED NOTES:

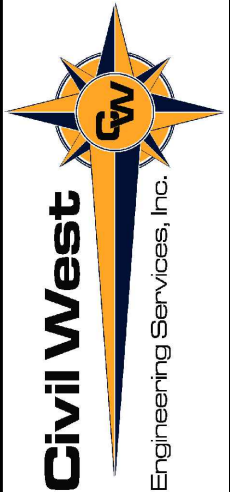
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PROJECT NO: 2017-45		

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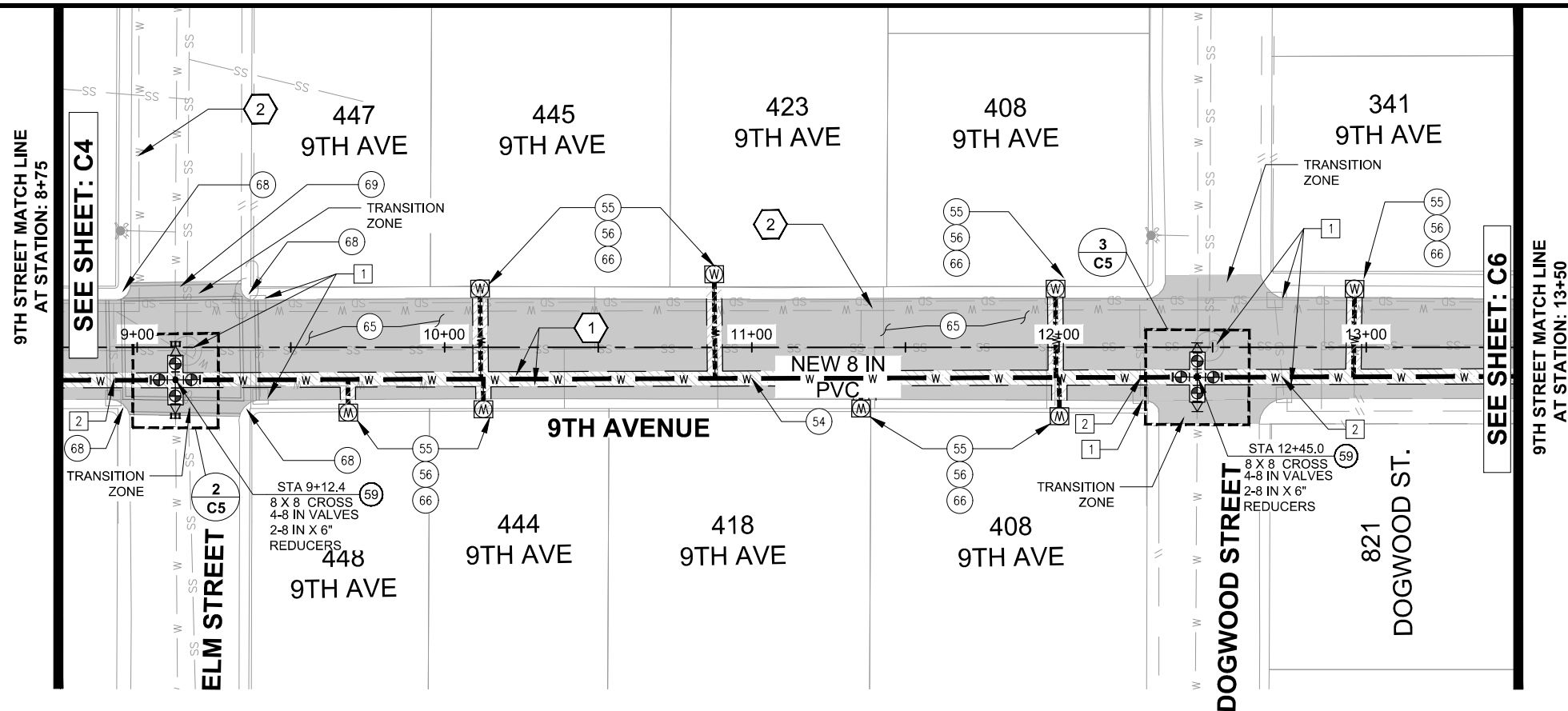
2022 WATERMAIN REPLACEMENT PROGRAM

9TH AVE PLAN STA 4+50 TO 8+75

Sheet No. **C4**

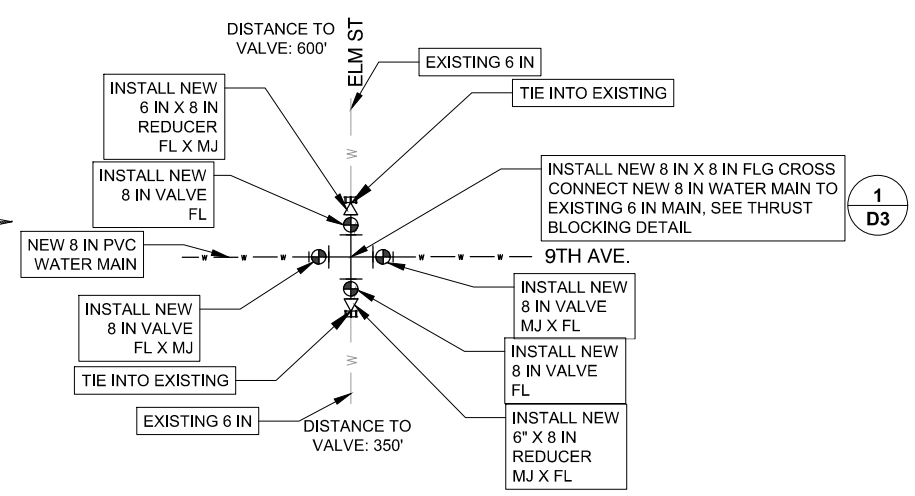
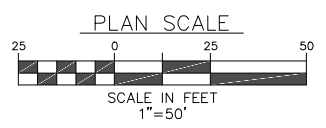
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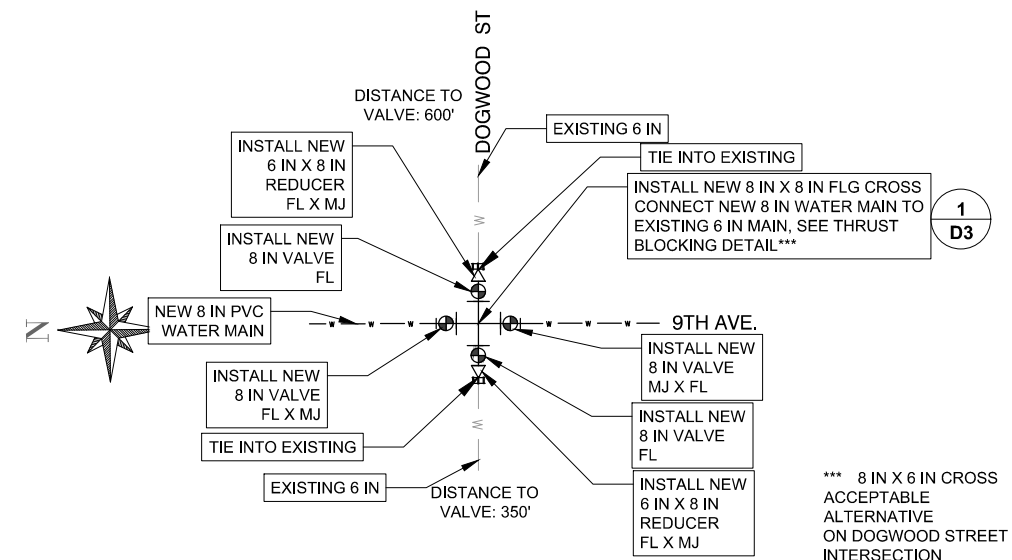


1
C5

PLAN STA 8+75 TO 13+50



2
C5 NEW 6 IN X 8 IN CROSS TEE AT ELM ST
SCALE: NTS



3
C5 NEW 6 IN X 8 IN CROSS TEE AT DOGWOOD ST
SCALE: NTS

DEMOLITION NOTES:

- 1 SAWCUT AND REMOVE.
- 2 CAP EXISTING AND ABANDON IN PLACE.

IMPROVEMENT NOTES:

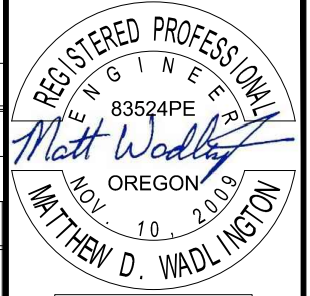
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- 68 REMOVE EXISTING PEDESTRIAN RAMP. REPLACE WITH ADA COMPLIANT PEDESTRIAN RAMP
- 69 REMOVE AND REPLACE CROSSWALK THERMOPLASTIC PER ODOT TM530

KEYED NOTES:

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RENEWS: 06/30/2022



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CHECKED BY: MDW
PROJECT NO: 2817-05

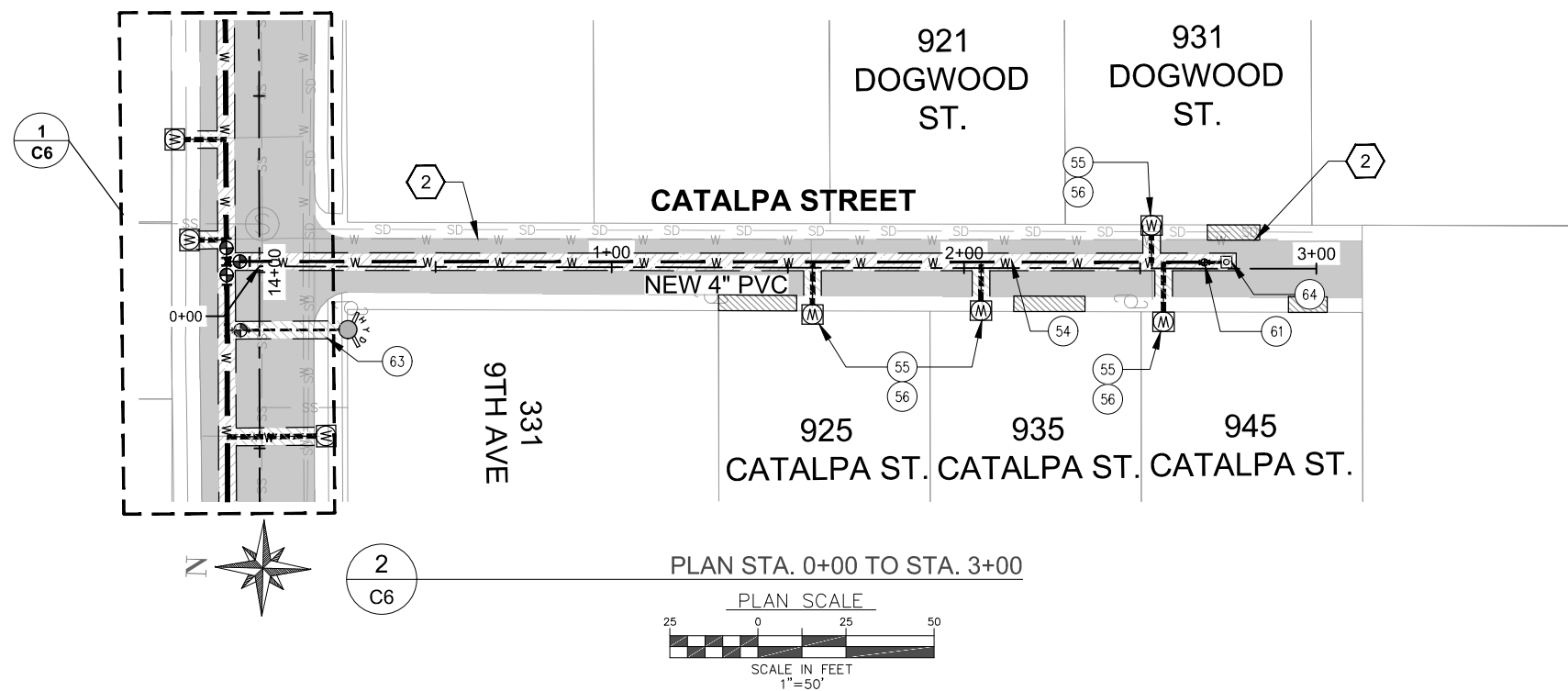
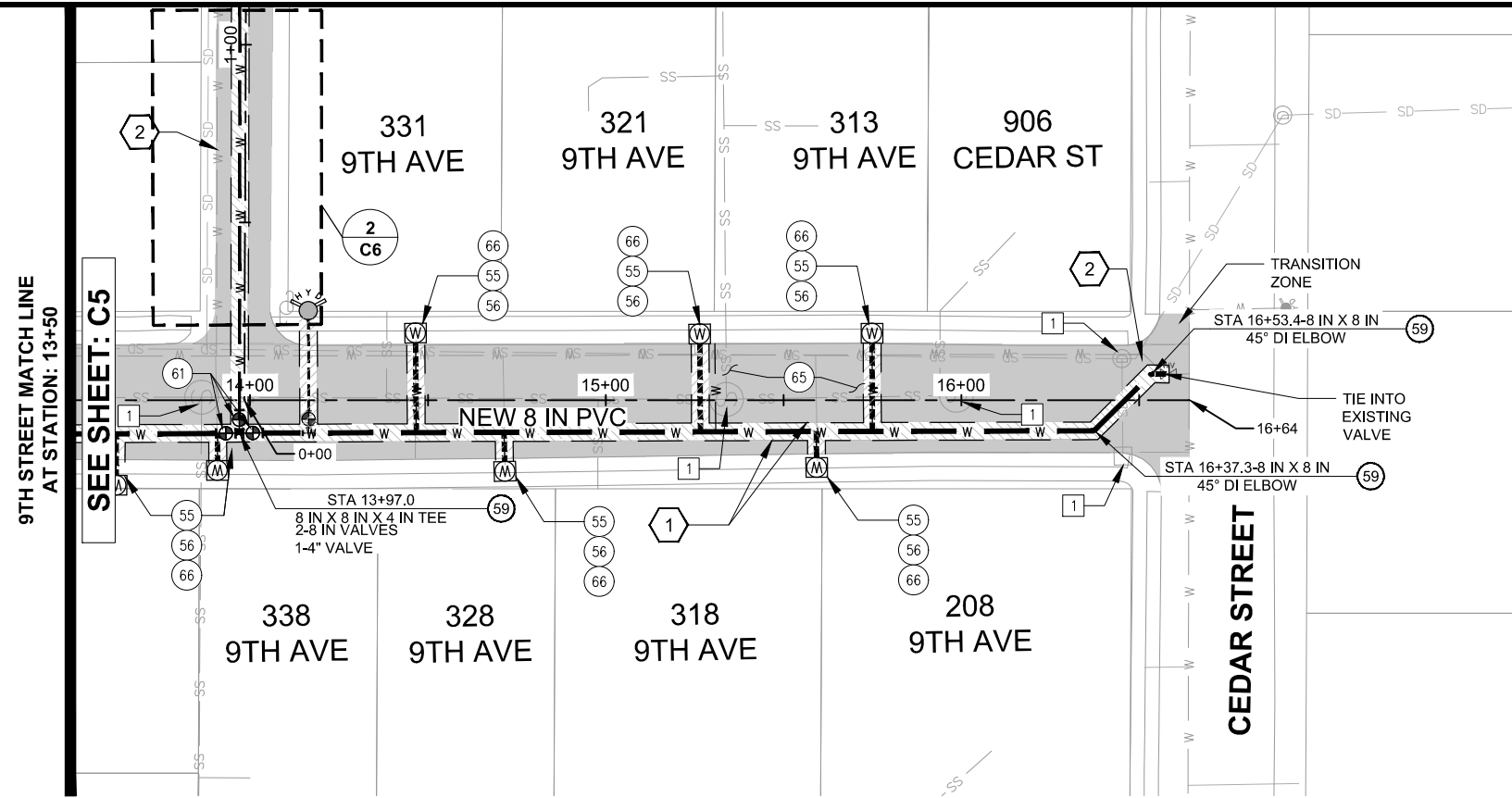
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LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

9TH AVE PLAN STA 8+75 TO 13+50

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IMPROVEMENT NOTES:

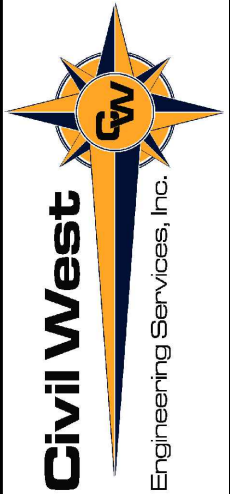
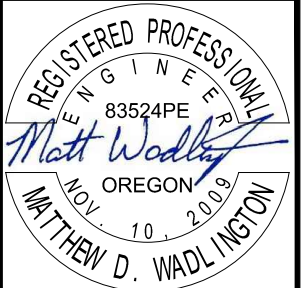
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LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

9TH AVE PLAN STA 13+50 TO 16+64

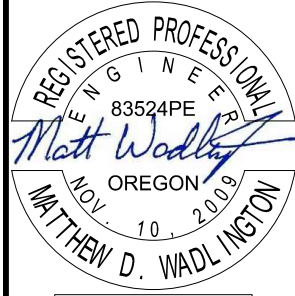
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Date **APRIL 2022**

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1
C7

EXISTING CONDITIONS



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ERM	FT	
PROJECT NO:	2817-05	

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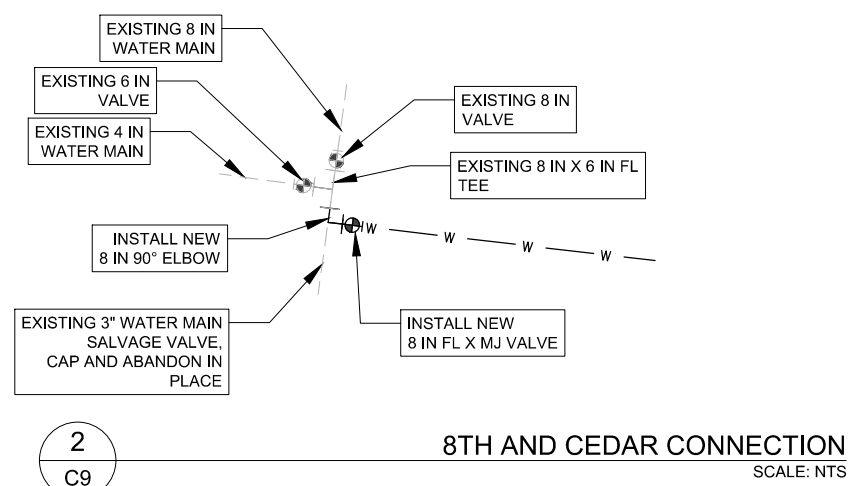
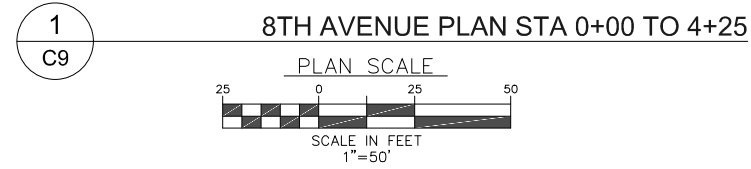
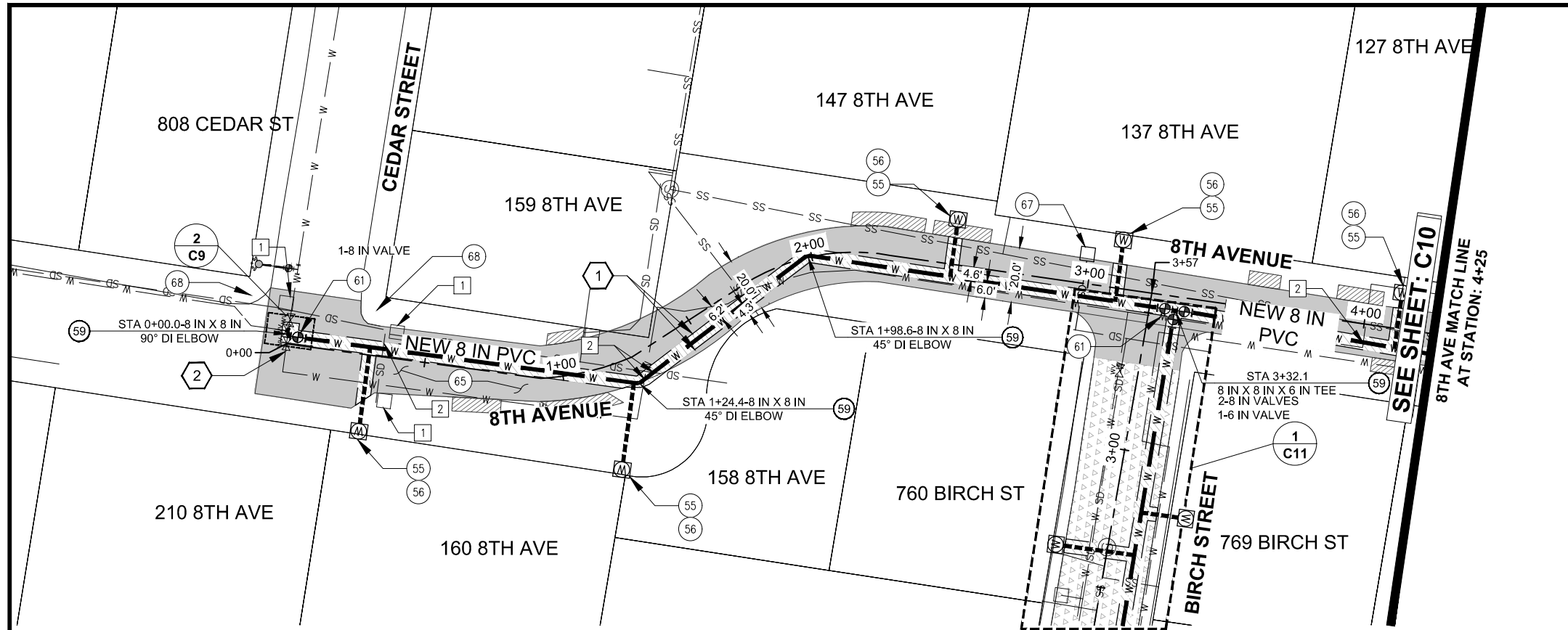
2022 WATERMAIN REPLACEMENT PROGRAM

8TH + ALDER EXISTING CONDITION

Date: **APRIL 2022**

Sheet No: **C7**

DATE: 5/11/22 FILE: C:\CW_Projects\2817_Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05 DESIGN ALDER.dwg



2 C9 8TH AND CEDAR CONNECTION SCALE: NTS

DEMOLITION NOTES:

- 1 SAWCUT AND REMOVE.
- 2 CAP EXISTING AND ABANDON IN PLACE.

IMPROVEMENT NOTES:

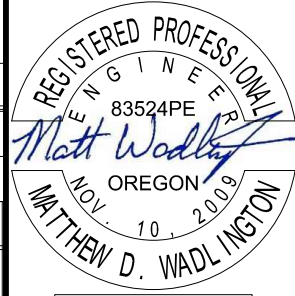
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KEYED NOTES:

- 1 PROTECT IN PLACE. RAISE AS NEEDED.
- 2 POTHOLE EXISTING PRIOR TO WATERLINE INSTALLATION.

SHEET NOTES:

1. CONTRACTOR SHALL CONTACT "ONE CALL" FOR UTILITY LOCATES PRIOR TO THE START OF ANY EXCAVATION.
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RENEWS: 06/30/2022



REV.	DATE	DESCRIPTION	BY	CHECKED BY:
				MDW
				FT
				ERM

DESIGNED BY: ERM
DRAWN BY: FT
CHECKED BY: MDW
PROJECT NO: 2817-05

CITY OF SWEET HOME
LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

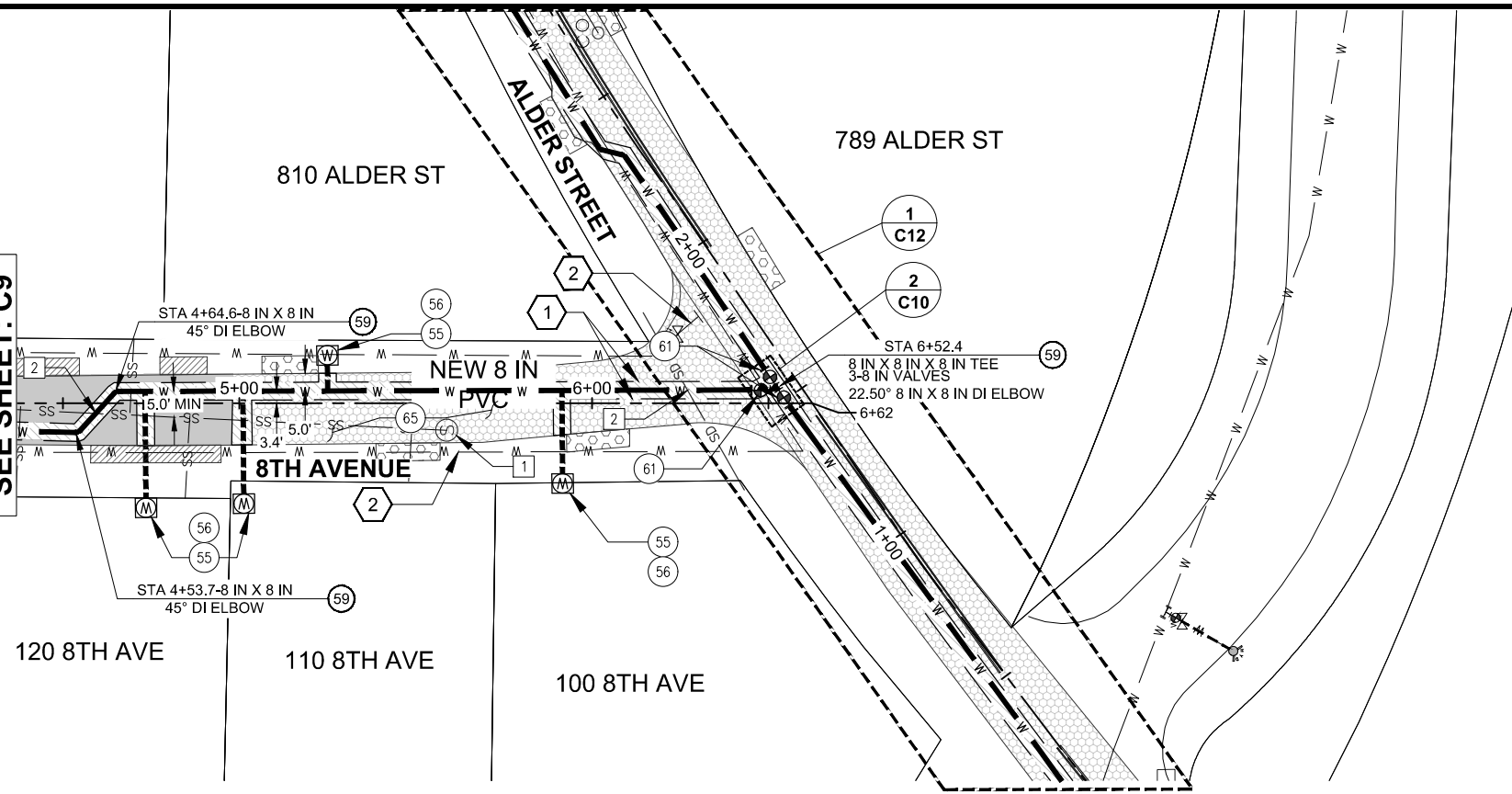
8TH ST PLAN STA 0+00 TO 4+25

Sheet No. **CG9**
Date **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817-005 9th Ave Water Distribution System Improvements Ph2\204 Final Design\Drawings\2817-05 DESIGN ALDER.dwg

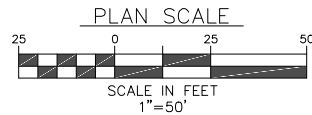
8TH AVE MATCH LINE
AT STATION: 4+25

SEE SHEET: C9

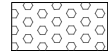


1
C10

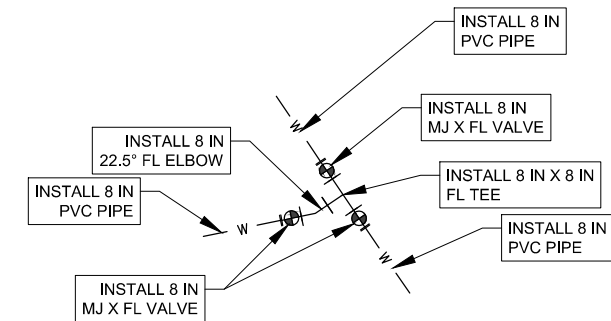
8TH AVENUE PLAN STA 4+25 TO 6+62



ADDITIVE ALTERNATE AC OVERLAY



ADDITIVE ALTERNATE DRIVEWAY



2
C10

8TH AND ALDER CONNECTION

SCALE: NTS

DEMOLITION NOTES:

- 1 SAWCUT AND REMOVE.
- 2 CAP EXISTING AND ABANDON IN PLACE.

IMPROVEMENT NOTES:

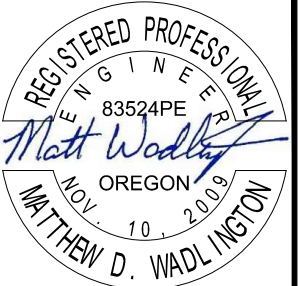
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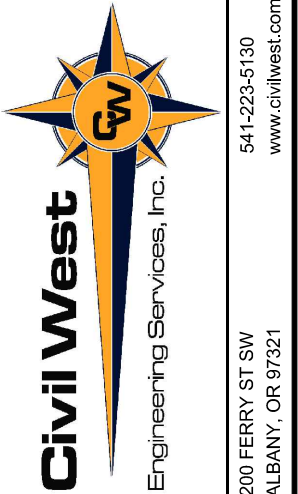
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RENEWS: 06/30/2022



REV.	DATE	DESCRIPTION	BY	CHECKED BY:
				MDW
				FT
				ERM

DESIGNED BY: ERM
DRAWN BY: FT
CHECKED BY: MDW
PROJECT NO: 2817-05

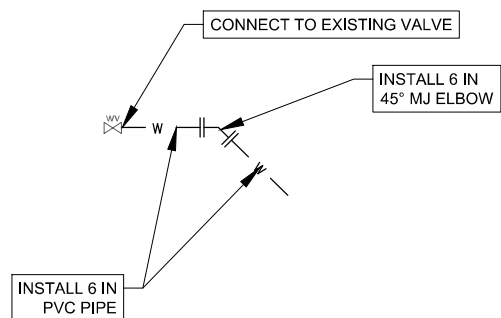
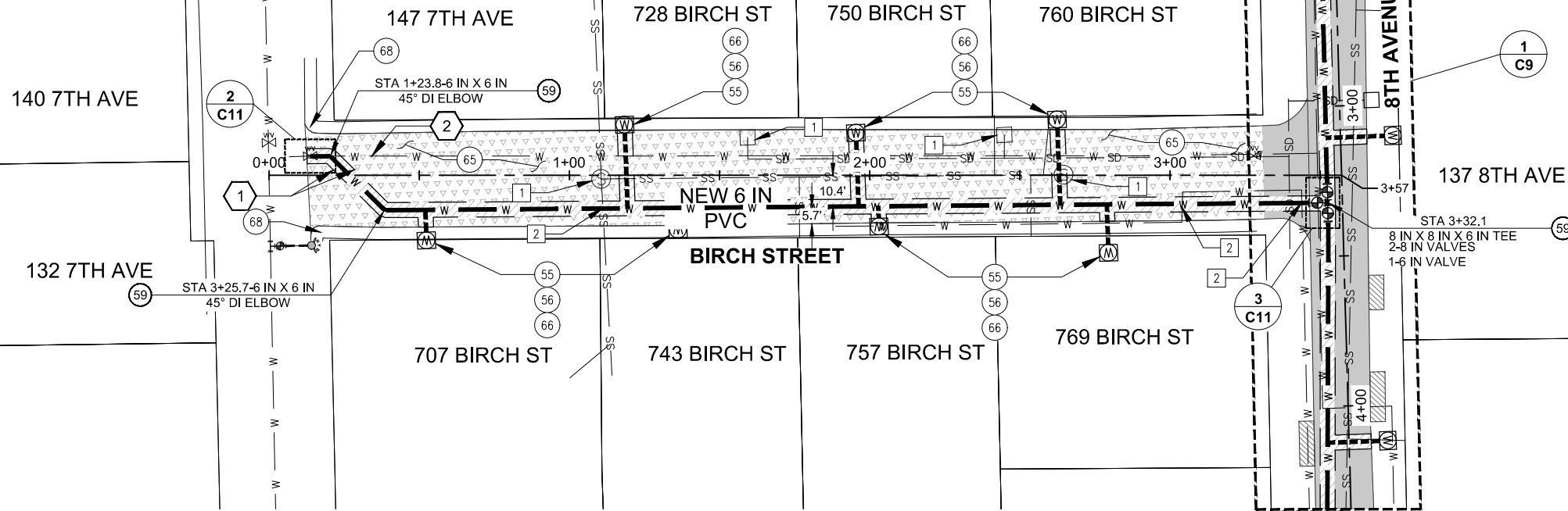
CITY OF SWEET HOME
LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

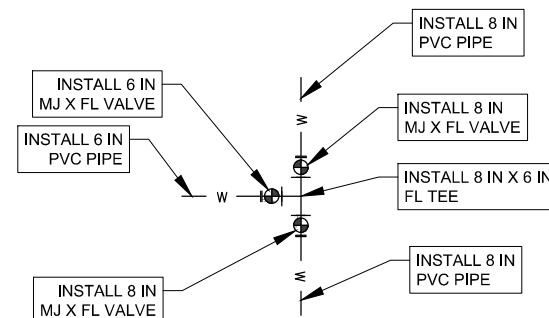
8TH ST PLAN STA 4+25 TO 6+62

Sheet No: **C10**
Date: **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\204 Final Design\Drawings\2817-05 DESIGN ALDER.dwg



2
C11
BIRCH AND 7TH CONNECTION
SCALE: NTS



3
C11
BIRCH AND 8TH CONNECTION
SCALE: NTS

DEMOLITION NOTES:

- 1 SAWCUT AND REMOVE.
- 2 CAP EXISTING AND ABANDON IN PLACE.

IMPROVEMENT NOTES:

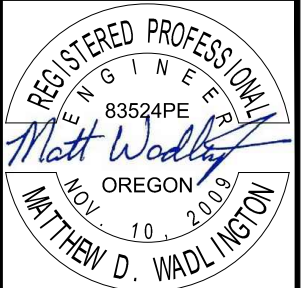
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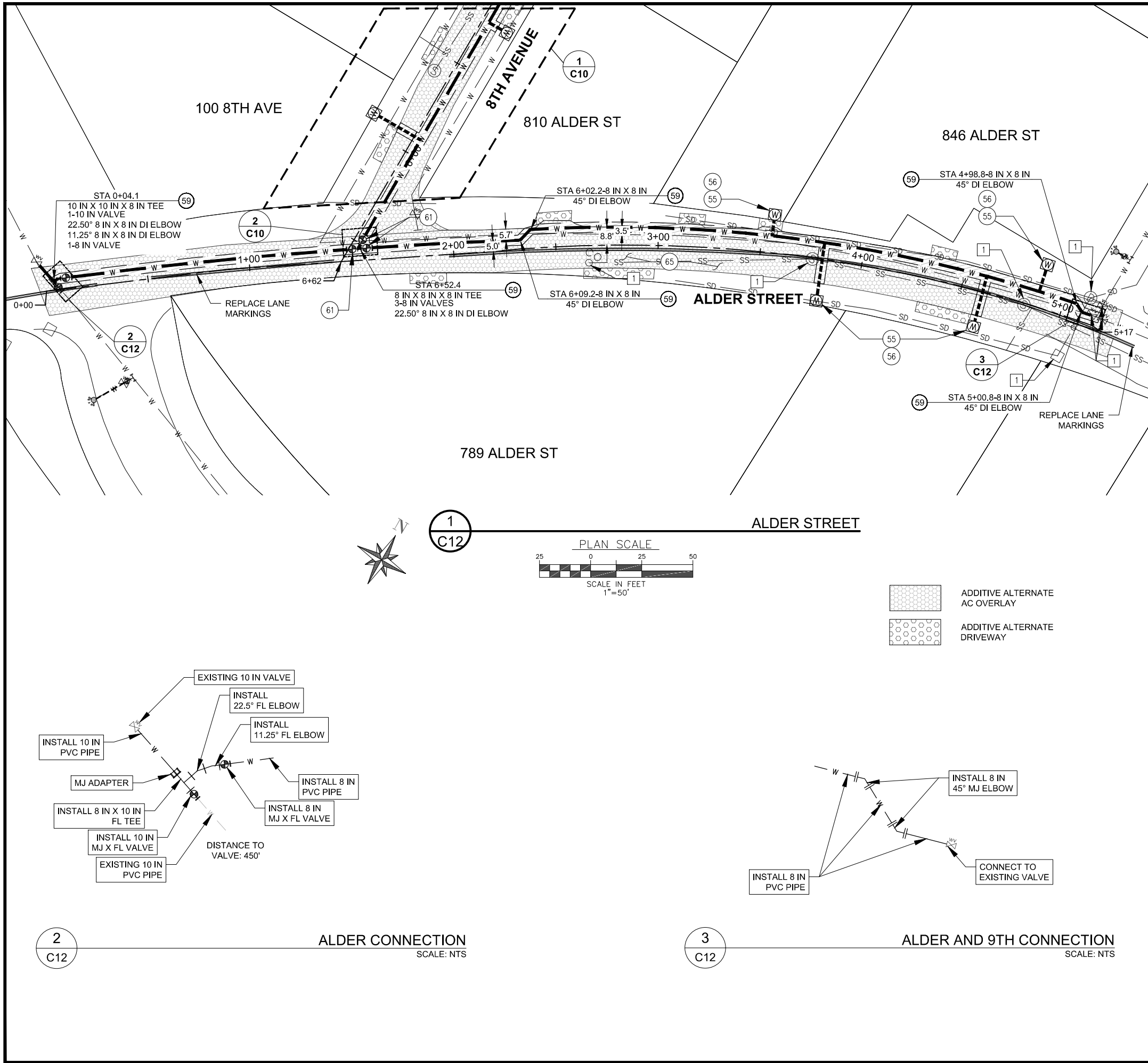
200 FERRY ST SW
ALBANY, OR 97321

REV.	DATE	DESCRIPTION	BY

DESIGNED BY: ERM	DRAWN BY: FT	CHECKED BY: MDW
PROJECT NO: 2817-05		

CITY OF SWEET HOME LINN COUNTY, OR	2022 WATERMAIN REPLACEMENT PROGRAM	BIRCH STREET
Date: Sheet No:	C11	APRIL 2022

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\204 Final Design\Drawings\2817-05 DESIGN ALDER.dwg



DEMOLITION NOTES:

- 1** SAWCUT AND REMOVE.
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IMPROVEMENT NOTES:

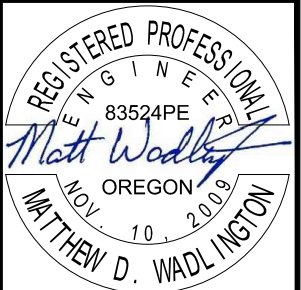
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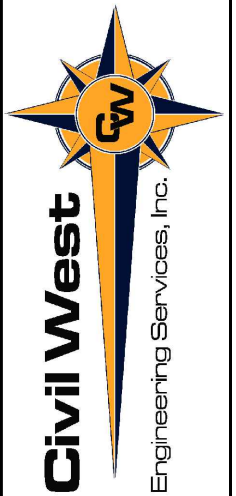
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RENEWS: 06/30/2022



Engineering Services, Inc.
541-223-5130
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ALBANY, OR 97321

REV.	DATE	DESCRIPTION	BY

DESIGNED BY: ERM	DRAWN BY: FT	CHECKED BY: MDW
PROJECT NO: 2817-05		

CITY OF SWEET HOME
LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

ALDER STREET

Sheet No: **C12**
Date: **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05-Details.dwg

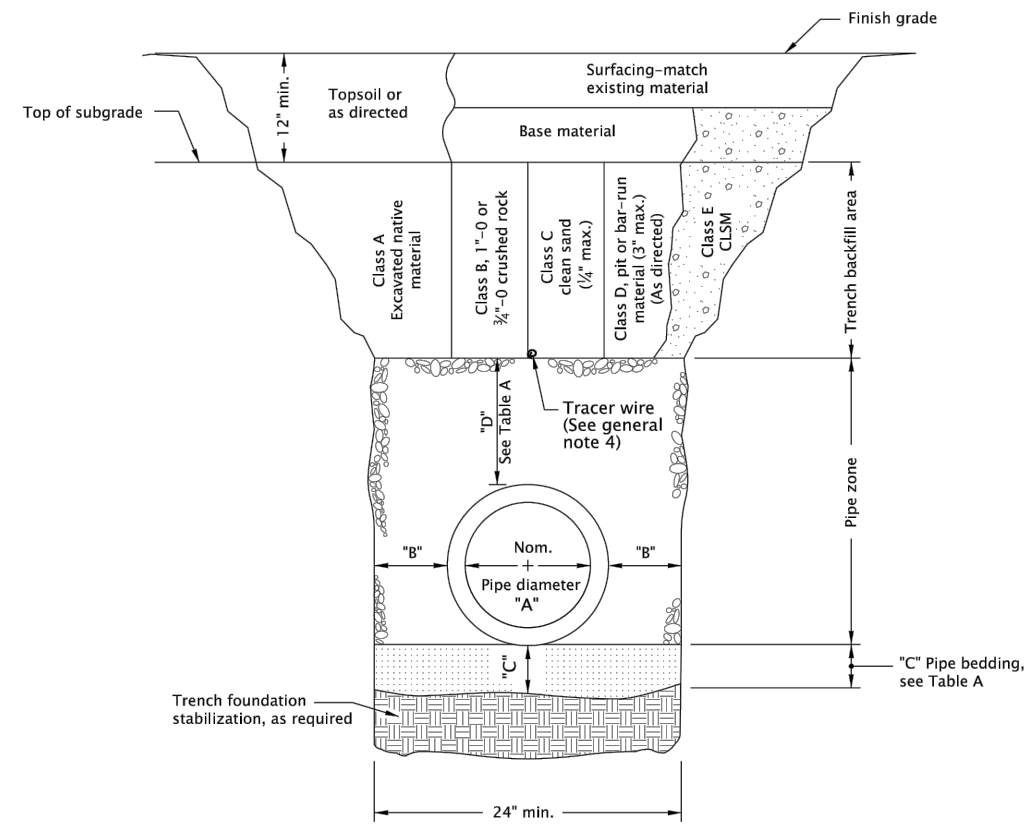
rd300.dgn 20-JUL-2020

RD300

TABLE A

"A" (in)	"B" (in)	"C" (in)	"D" (in)
4	10	4	8
6	10	4	8
8	10	6	10
10	10	6	10
12	12	6	10
15	12	6	10
18	16	6	12
21	16	6	12
24	18	6	12
30	18	6	12
36	24	6	14
42	24	6	14
48	24	6	14
54	24	6	14
60	24	6	14
66	24	6	14
72	24	6	14

For pipes over 72" diameter, see general note 3.



MULTIPLE INSTALLATIONS

DIAMETER	MIN. SPACE BETWEEN PIPES
Up to 48"	24"
48" to 72"	One half (1/2) dia. of pipe

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
- Surfacing of paved areas shall comply with street cut Std. Dwg. RD302.
 - For pipe installation in embankment areas where the trench method will not be used and the pipe is $\geq 36"$ diameter, increase dimension "B" to nominal pipe diameter.
 - Pipes over 72" diameter are structures, and are not applicable to this drawing.
 - See Std. Dwg. RD336 for tracer wire details (When required).

CALC. BOOK NO. N/A SDR DATE 14-JUL-2014

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS
TRENCH BACKFILL, BEDDING,
PIPE ZONE AND MULTIPLE
INSTALLATIONS**

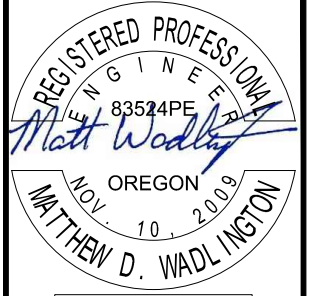
DATE	REVISION DESCRIPTION
2021	

Effective Date: June 1, 2021 - November 30, 2021

RD300

1
D1

WATER MAIN TRENCH AND BACKFILL DETAIL
NOT TO SCALE



RENEWS: 06/30/2022



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REV.	DATE	DESCRIPTION	BY

DESIGNED BY: ERM
DRAWN BY: MDW
CHECKED BY: MDW
PROJECT NO: 2817-405

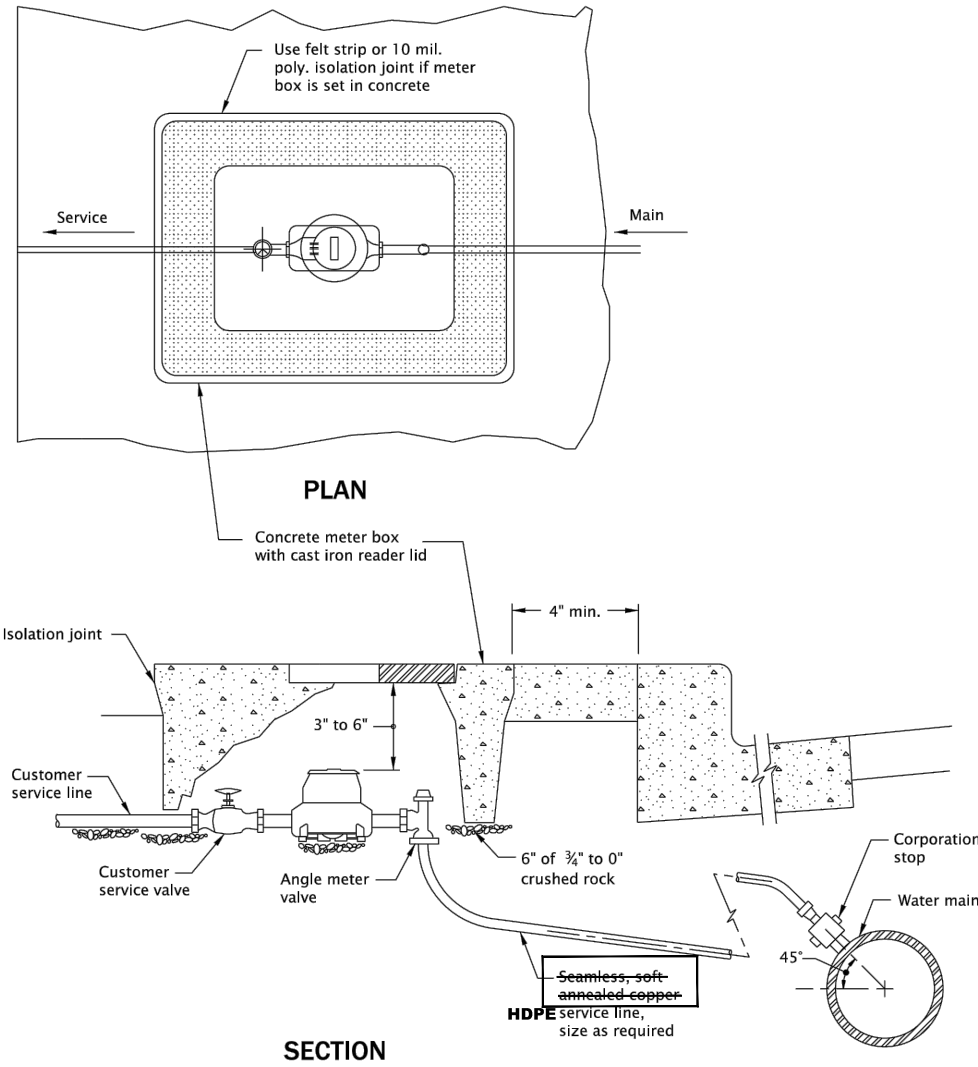
CITY OF SWEET HOME
LINN COUNTY, OR
2022 WATERMAIN REPLACEMENT PROGRAM
WATER MAIN TRENCH AND BACKFILL
DETAIL

Sheet No. **D1**
Date **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05-Details.dwg

rd274.dgn 20-JUL-2020

RD274



NOTES:

1. ONLY NEW METER BOX WILL BE INSTALLED AS PART OF CONSTRUCTION. METER TO BE INSTALLED BY THE CITY OF SWEET HOME.
2. METER BOX PART NO. DFW486WBC4-12-BODY. LID PART NO. DFW486C-4M-NHK-LID

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Meter to be centered and set plumb inside meter box.
2. Manufactured meter setter may be used for 3/4" to 2" services.
3. Set meter box 4" minimum behind curb or sidewalk.
4. Meter boxes set in driveways shall have traffic lids.
5. See project plans for meter box size.
6. See project plans for details not shown.

CALC. BOOK NO. <u>N/A</u>	SDR DATE <u>25-JUL-2017</u>
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
OREGON STANDARD DRAWINGS	
3/4" TO 2"	
WATER SERVICE CONNECTION	
2021	
DATE	REVISION DESCRIPTION

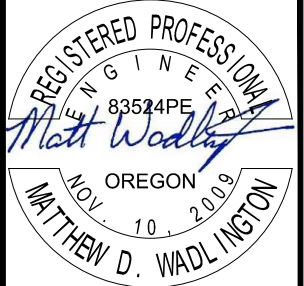
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

Effective Date: June 1, 2021 - November 30, 2021

RD274

1
D2

WATER SERVICE CONNECTION
NOT TO SCALE



RENEWS: 06/30/2022



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REV.	DATE	DESCRIPTION	BY
DESIGNED BY:	ERM	DRAWN BY:	MDW
CHECKED BY:	FT	PROJECT NO.:	2817-005

CITY OF SWEET HOME
LINN COUNTY, OR
2022 WATERMAIN REPLACEMENT PROGRAM
WATER SERVICE CONNECTION DETAIL

Sheet No. **D2**
Date **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05-Details.dwg

rd250.dgn 20-JUL-2020

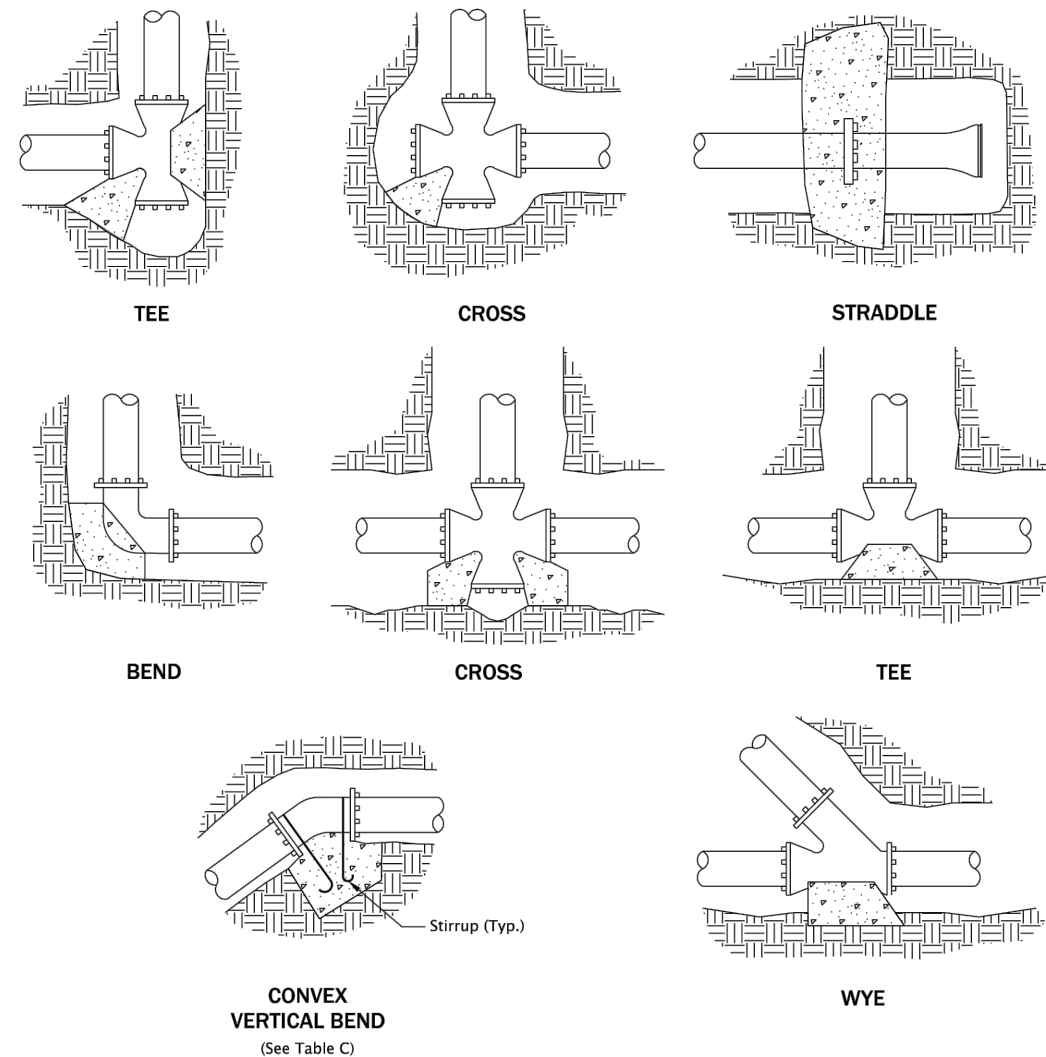
RD250

THRUST BLOCKING

TABLE A CONCRETE THRUST BLOCKING (HORIZONTAL)						
PIPE DIA.	Table Pressure PSI	Thrust (T) at fittings in Pounds				
		Tee & Dead Ends	90 deg Bend	45 deg Bend	22.5 deg Bend	11.25 deg Bend
4"	250	3035	4320	2315	1215	610
6"	250	6860	9735	5215	2720	1375
8"	250	12185	17310	9265	4835	2430
10"	250	19045	27045	14480	7560	3800
12"	250	27405	38940	20840	10880	5465
14"	250	37320	53010	28370	14815	7445
16"	250	48740	69245	37050	19360	9735

TABLE B	
Soil Type	Soil Bearing Capacity (B) in PSF
Muck, peat, etc.	0
Soft Clay	1000
Sand	2000
Sand and gravel	3000
Sand and gravel cemented with clay	4000
Hard shale	10,000

TABLE C CONCRETE BLOCKING FOR CONVEX VERTICAL BENDS							
DIMENSION TABLE							
PIPE DIA. in.	Table Pressure PSI	Bend Angle (deg)	Concrete Volume (cy)	Cube Size (ft)	Stirrup Dia. (in)	Stirrup Embmt. (in)	Stirrup Bar #
4"	250	11.25	0.21	1.8	5/8	17	5
		22.5	0.43	2.3			
6"	250	11.25	0.48	2.4	5/8	17	5
		22.5	0.95	3.0			
8"	250	11.25	0.86	2.9	5/8	17	5
		45	1.79	3.6			
10"	250	11.25	1.39	3.3	5/8	17	5
		22.5	2.62	4.1			
12"	250	11.25	1.94	3.7	5/8	17	5
		45	4.97	4.1			
14"	250	11.25	2.62	4.1	5/8	17	5
		45	6.89	5.7			
16"	250	11.25	3.44	4.5	5/8	17	5
		45	9.70	6.4			
16"	250	11.25	3.44	4.5	5/8	17	5
		22.5	6.89	5.7			
16"	250	45	12.63	7.0	1 1/8	30	9



THRUST BLOCK BEARING AREA EQUATION

NOTE: WHEN THRUST BLOCK BEARING AREA IS NOT SPECIFIED ON THE PLANS OR DETERMINED BY THE ENGINEER, USE THE FOLLOWING PROCEDURE TO DETERMINE REQUIRED BEARING AREA.

- Determine thrust (T) for type of fitting or joint and size of pipe from Table A.
- Determine Design (Test) Pressure from Standard Specifications or Special Provisions.
- Determine Table Pressure from Table A.
- Determine Soil Bearing Capacity (B) of soil from Table B.
- Determine required bearing area (A) in sq. ft. as follows:

$$\text{Thrust Block Bearing Area} = A = \left(\frac{T}{B} \right) \left(\frac{\text{Design (Test) Pressure}}{\text{Table Pressure}} \right)$$

Example: Design (Test) Pressure = 150 PSI From Table A, T = 37320
 Pipe = 14" From Table B, B = 2000
 Fitting = Tee
 Soil = Sand
 $A = \left(\frac{37320}{2000} \right) \left(\frac{150}{250} \right) = 11.2 \text{ sq.ft.}$

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Contractor to provide blocking adequate to withstand full test pressure.
 - Pour concrete blocking against undisturbed earth.
 - All concrete shall be commercial grade concrete.
 - Wrap pipe and/or fittings with 2 layers of polyethylene film where in contact with concrete
 - Keep concrete clear of all joints and accessories.
 - Stirrups shall be deformed galvanized cold rolled steel AASHTO M31 (ASTM A615), Grade 60. Coat with coal tar epoxy after installation.
 - See project plans for details not shown.

CALC. BOOK NO. N/A

SDR DATE 25-JUL-2017

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

THRUST BLOCKING

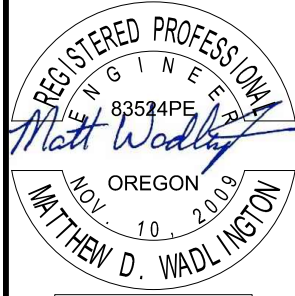
2021

DATE	REVISION DESCRIPTION

Effective Date: June 1, 2021 – November 30, 2021 RD250

1
D3

THRUST BLOCK DETAIL
NOT TO SCALE



REV.	DATE	DESCRIPTION	BY

DESIGNED BY: ERM
 DRAWN BY: FT
 CHECKED BY: MDW
 PROJECT NO: 2817-405

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LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

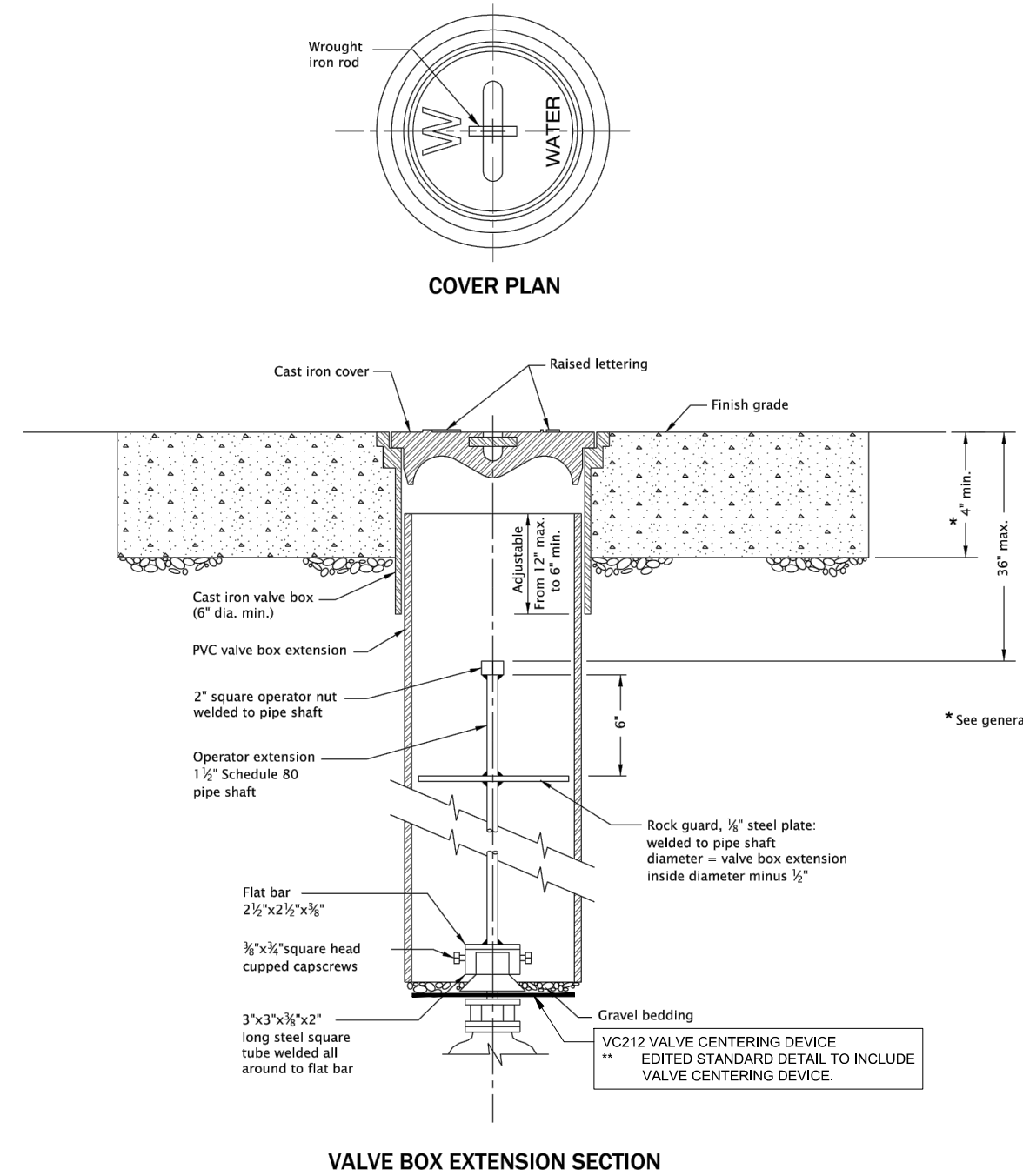
THRUST BLOCK DETAIL

Sheet No. **D3**
Date **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817_Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\Dwg\2817-05-Details.dwg

rd258.dgn 20-JUL-2020

RD258



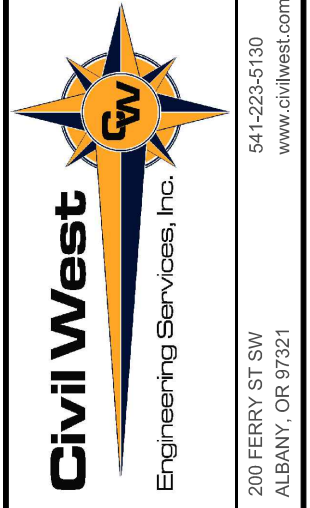
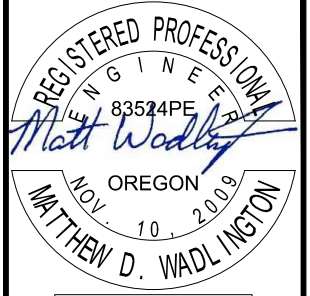
- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
1. Valve box not to rest on operating assembly.
 2. Operator extension required when valve nut is deeper than 4' from finish grade.
 3. Center valve box on axis of operator nut.
 4. Valves 12" and smaller shall be provided with compacted aggr. base on undisturbed ground. Valves greater than 12" shall be installed on precast concrete block, (4" thick).
 5. Welds shall be minimum 1/4" all around.
 6. Hot dip galvanize operator extension after fabrication.
 7. Casting shall meet H20 load requirement.
 8. Provide concrete or asphalt pad (24" square, 4" thick), when required.
 9. See project plans for details not shown.

CALC. BOOK NO. <u>N/A</u>	SDR DATE <u>25-JUL-2017</u>
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
OREGON STANDARD DRAWINGS	
VALVE BOX AND OPERATOR EXTENSION ASSEMBLY	
2021	
DATE	REVISION DESCRIPTION

Effective Date: June 1, 2021 – November 30, 2021 RD258

1
D4

VALVE BOX DETAIL
NOT TO SCALE



REV.	DATE	DESCRIPTION	BY
DESIGNED BY: ERM	DRAWN BY: FT	CHECKED BY: MDW	PROJECT NO: 2817-405

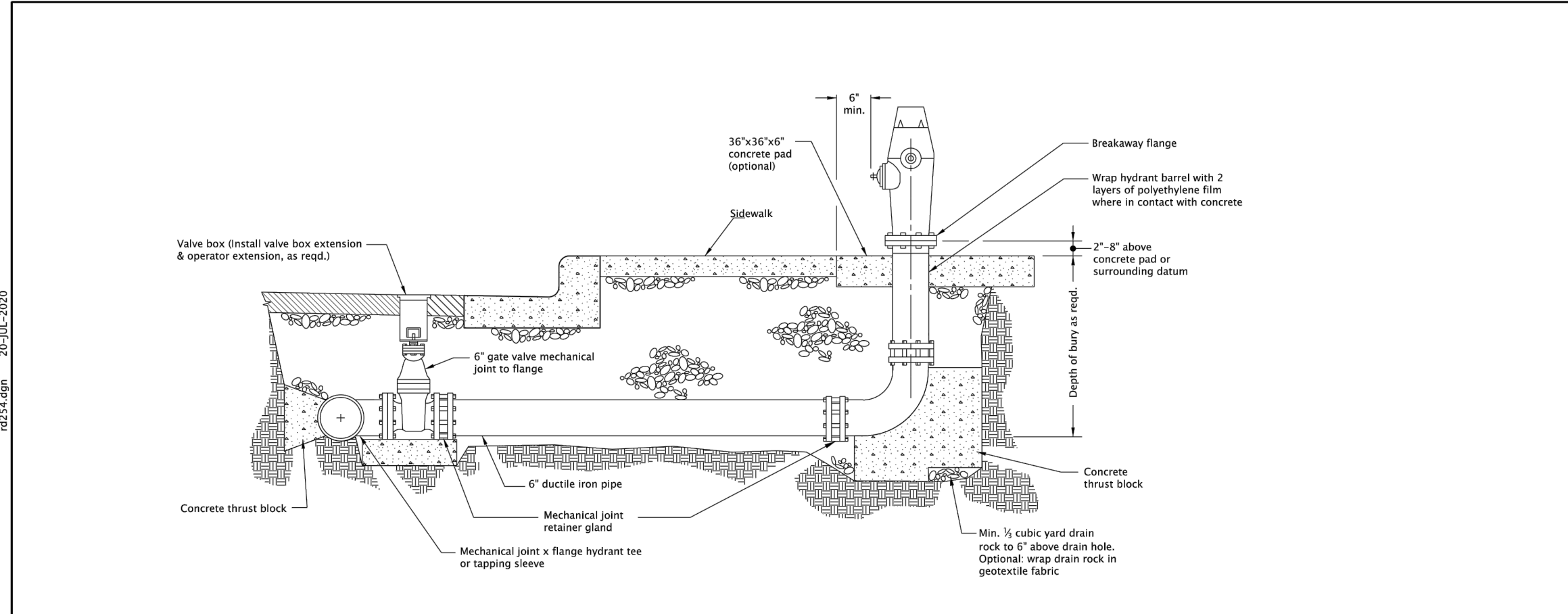
CITY OF SWEET HOME
LINN COUNTY, OR
2022 WATERMAIN REPLACEMENT PROGRAM
VALVE BOX DETAIL

Sheet No. **D4**
Date **APRIL 2022**

DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\Dwg\2817-05-Details.dwg

rd254.dgn 20-JUL-2020

RD254



HYDRANT ASSEMBLY

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. When pipe is shorter than 18', no joints allowed. Use mechanical joint retainers. Two 3/4" galvanized tie rods may be used in lieu of thrust blocks for installations less than 18' long. Coat tie rods with two coats of coal tar epoxy. 2. When pipe is longer than 18' retainers not required. 3. There shall be a minimum of 18" horizontal clearance around hydrant. 4. When placed adjacent to curb, hydrant port shall be 24" from face of curb. 5. Concrete thrust blocks shall be constructed as per thrust blocking Std. Dwg. RD250. Do not block drain holes. | <ol style="list-style-type: none"> 6. Extensions required for hydrant systems shall be installed to the manufacturer's specifications. 7. Hydrants shall be placed to provide a minimum of 5' clearance from driveways, poles, and other obstructions. 8. Hydrant pumper port shall face direction of access. 9. Set hydrant plumb in all directions. 10. See project plans for details not shown. |
|---|---|

CALC. BOOK NO. N/A

SDR DATE 25-JUL-2017

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

HYDRANT INSTALLATION

2021

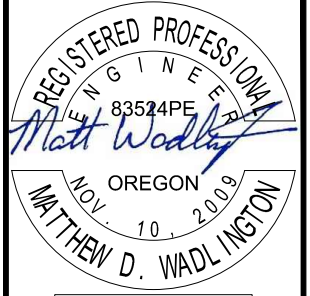
DATE	REVISION	DESCRIPTION

Effective Date: June 1, 2021 - November 30, 2021

RD254

1
D5

FIRE HYDRANT ASSEMBLY DETAIL
NOT TO SCALE



REV.	DATE	DESCRIPTION	BY

DESIGNED BY: ERM
DRAWN BY: FT
CHECKED BY: MDW
PROJECT NO: 2817-405

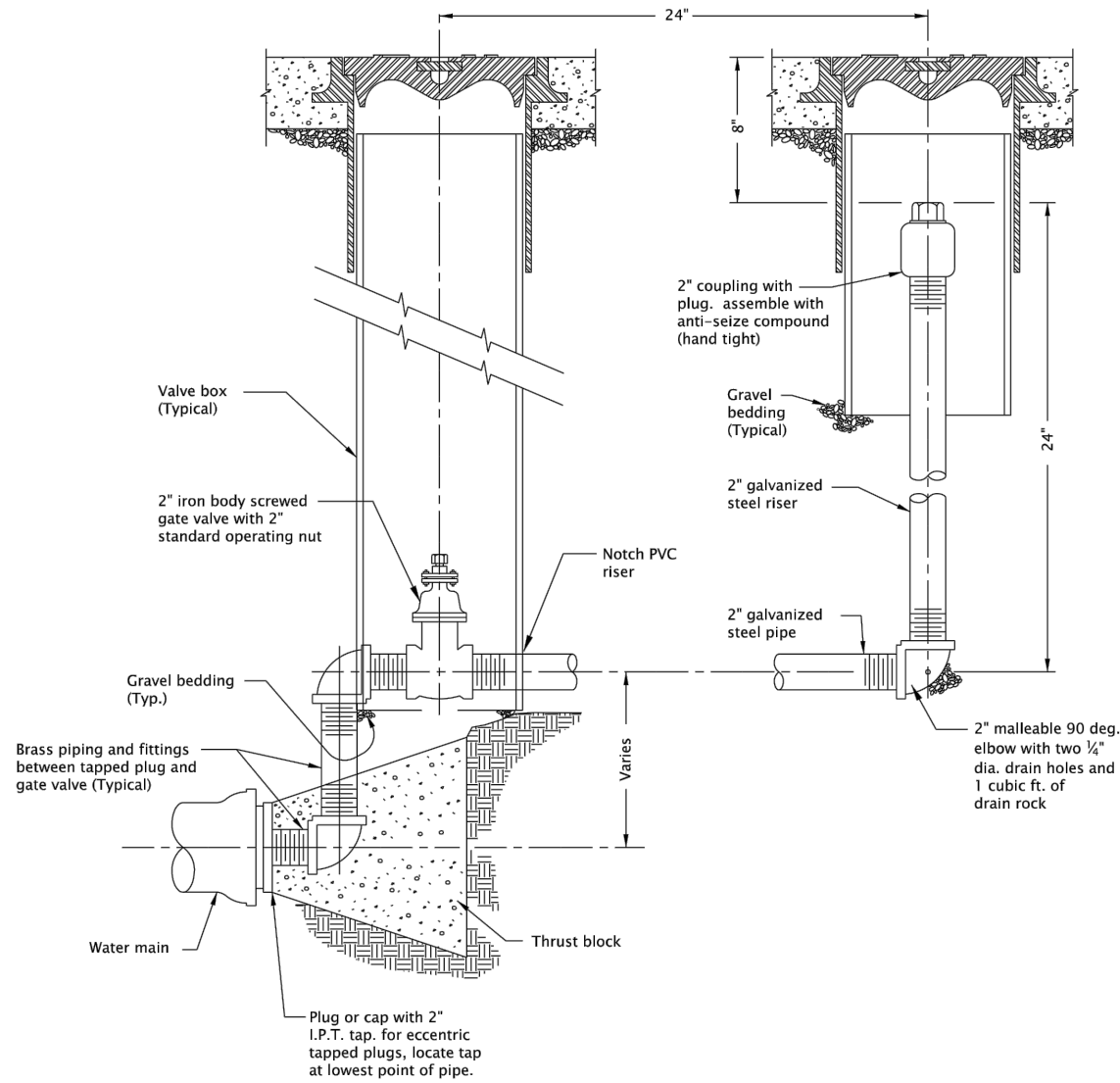
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LINN COUNTY, OR
2022 WATERMAIN REPLACEMENT PROGRAM
FIRE HYDRANT ASSEMBLY DETAIL

Sheet No. **D5**
Date **APRIL 2022**

DATE: s1122 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\2817-05-Details.dwg

rd262.dgn 20-JUL-2020

RD262



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Wrap main and fittings in thrust block zone with two layers of polyethylene film to facilitate future removal.
2. In lieu of concrete thrust block, restrain pipe or pour concrete straddle block.
3. See project plans for details not shown.

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

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

TYPICAL MAIN DEAD-END BLOWOFF ASSEMBLY

2021

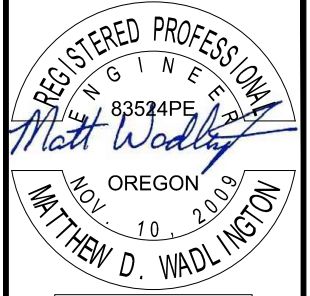
DATE	REVISION DESCRIPTION

Effective Date: June 1, 2021 - November 30, 2021

RD262

1
D6

BLOW-OFF ASSEMBLY DETAIL
NOT TO SCALE



RENEWS: 06/30/2022

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DESIGNED BY: ERM
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CHECKED BY: MDW
PROJECT NO: 2817-405

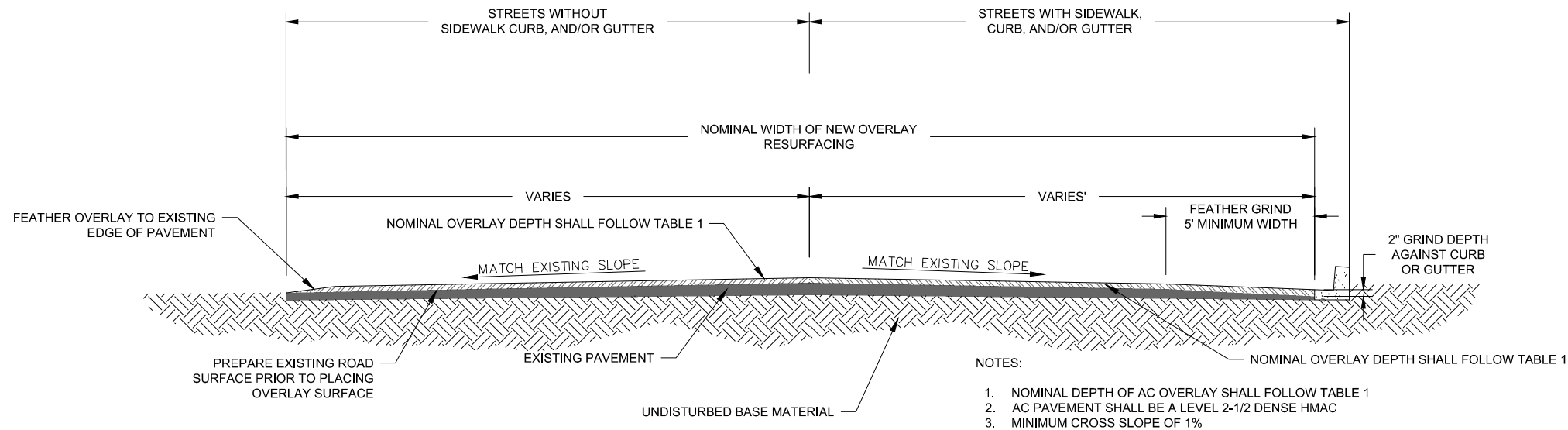
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LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

BLOW-OFF ASSEMBLY DETAIL

Sheet No: **D6**
Date: **APRIL 2022**

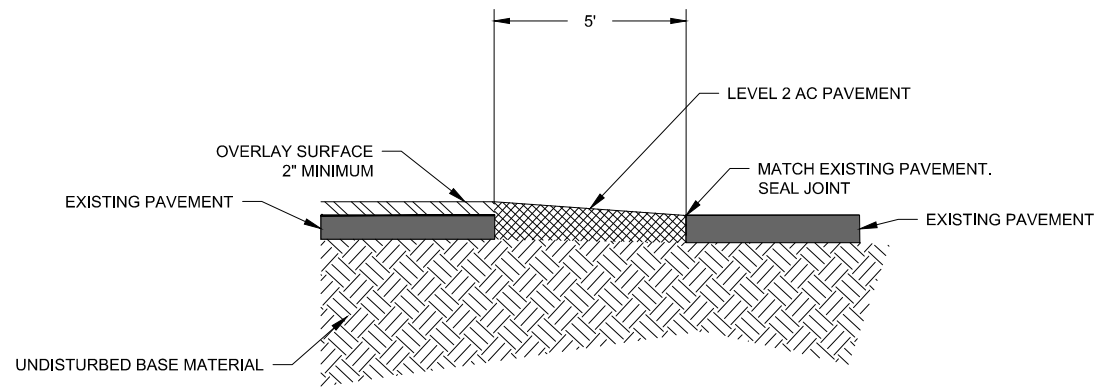
DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05-Details.dwg



STREET NAME	AC OVERLAY DEPTH
9TH AVENUE	2 IN
GRAPE STREET	4 IN
CATALPA STREET	2 IN
8TH AVENUE	2 IN
BIRCH STREET	2 IN
ALDER STREET	2 IN

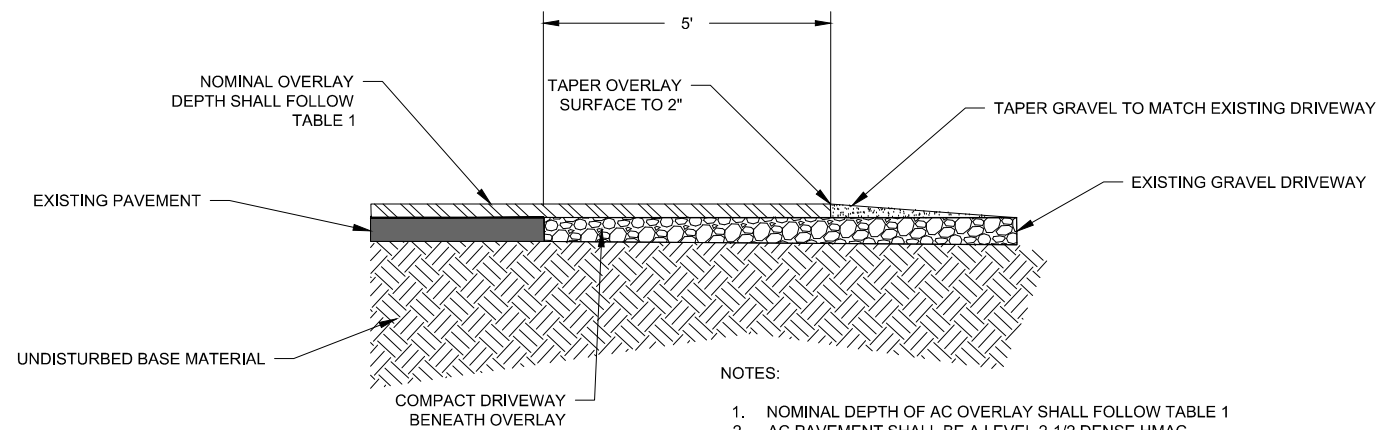
1
D7

ASPHALT CONCRETE PAVEMENT DETAIL
NOT TO SCALE



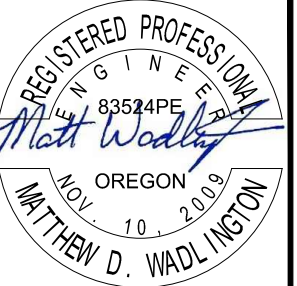
2
D7

OVERLAY TRANSITION DETAIL
NOT TO SCALE



3
D7

GRAVEL DRIVEWAY TRANSITION DETAIL
NOT TO SCALE



RENEWES: 06/30/2022

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CHECKED BY: MDW
PROJECT NO: 2817-005

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LINN COUNTY, OR

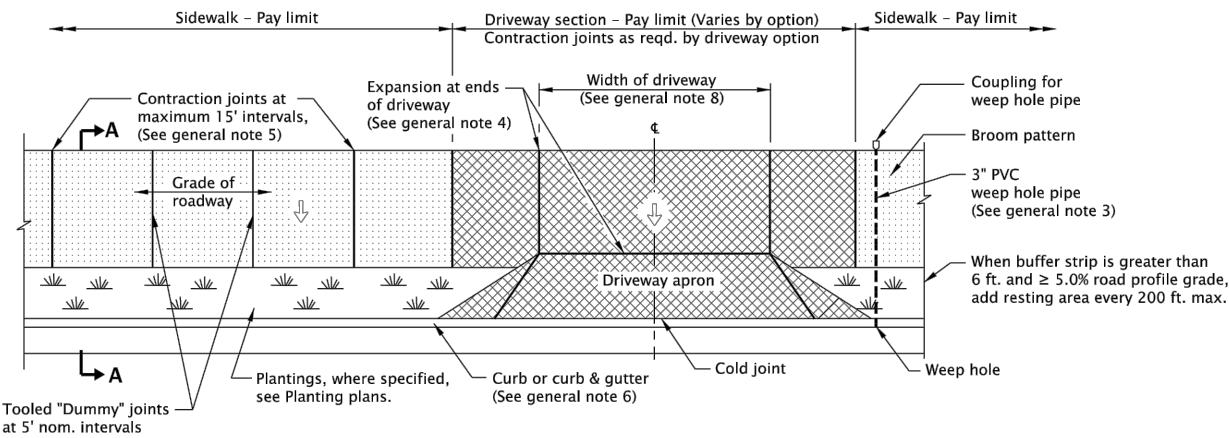
2022 WATERMAIN REPLACEMENT PROGRAM

ASPHALT CONCRETE PAVEMENT
DETAILS

DATE: 5/11/22 FILE: C:\CW_Projects\2817_Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05-Details.dwg

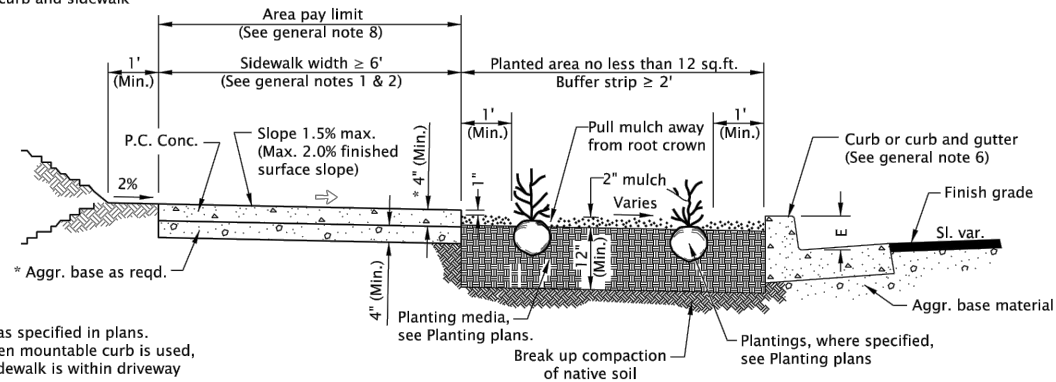
rd721.dgn 20-JUL-2020

RD721



TYPICAL PLAN VIEW - SEPARATED SIDEWALK

Provide compacted backfill adjacent to curb and sidewalk

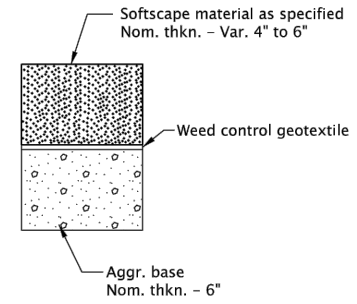


TYPICAL SETBACK SIDEWALK CROSS SECTION

E = curb exposure, see general note 6

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Include additional paved or unpaved 2' shy distance to vertical faces higher than 5' such as retaining walls, sound walls, fences and buildings.
2. Curb type and sidewalk width as shown on plans or as directed. On sidewalks 8' and wider, provide a longitudinal joint at the midpoint.
3. Install 3" pvc weep hole pipes in sidewalks where shown on plans, and allowed by jurisdiction. Place contraction joint over top of pipe. See Std. Dwg. RD700 for weep hole details.
4. Provide expansion joints around poles, posts, boxes, at ends of each driveway, and other fixtures which protrude through or against the structures. For sidewalk, monolithic curb & sidewalk, const. expansion joints at 45' maximum spacing. See Std. Dwg. RD722 for expansion joint details.
5. Const. contraction joints at 15' maximum spacing, and at ends of each curb ramp. See Std. Dwg. RD722 for contraction joint details.
6. Curb and gutter shown; see project plans for the curb design specified. For curb details, see Std. Dwgs. RD700 & RD701. ODOT standard E=7".
7. Sidewalk details are based on ODOT applicable standards.
8. Driveway encroaches into sidewalk shown; see project plans for the driveway design specified. For driveway details not shown, see Std. Dwgs. RD725, RD730, RD735, RD740, RD745 & RD750.
9. See project plans for details not shown.
10. Provide plantings in areas 12 SF or greater, as shown or directed. Treat areas less than 12 SF with mulch surfacing.



NON-PLANTED SOFTSCAPE CROSS SECTION

NOTES:

- 1 Use softscape materials allowed by jurisdiction.
2. Approved softscape materials:
 - a) Loose, durable round rock 2"-4" in diameter
 - b) Lava rock 2"-4" diameter
 - c) Wood chips/bark mulch
 - d) Sand
3. No crushed aggregate or pea gravel allowed.
4. Install softscape material flush with the top of sidewalk.

LEGEND

- Sidewalk pay limit.
- Driveway pay limit, varies by option, (See general note 8).
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)

CALC. BOOK NO. N/A SDR DATE 20-JUL-2020

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

SEPARATED SIDEWALKS

DATE	REVISION DESCRIPTION
2021	

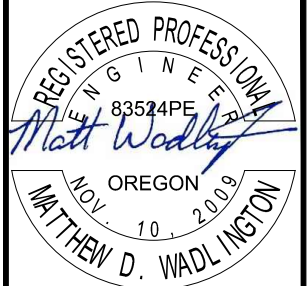
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

Effective Date: June 1, 2021 - November 30, 2021

RD721

1
D8

SIDEWALK WITH LANDSCAPE STRIP
NOT TO SCALE



RENEWS: 06/30/2022



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REV.	DATE	DESCRIPTION	BY

DESIGNED BY: ERM
DRAWN BY: MDW
CHECKED BY: MDW
PROJECT NO: 2817-405

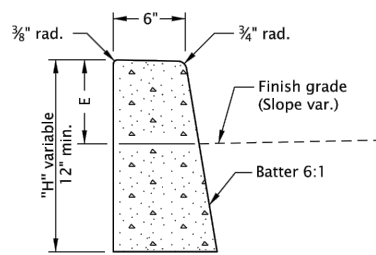
CITY OF SWEET HOME
LINN COUNTY, OR
2022 WATERMAIN REPLACEMENT PROGRAM
SIDEWALK WITH LANDSCAPE STRIP
DETAIL

Sheet No. **D8**
Date **APRIL 2022**

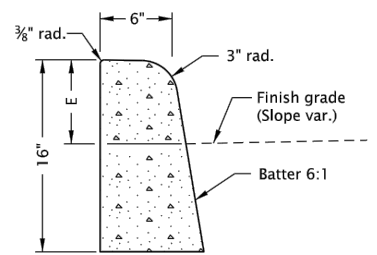
DATE: 5/11/22 FILE: C:\CW_Projects\2817 Sweet Home\2817-005 9th Ave Water Distribution System Improvements Ph2\04 Final Design\Drawings\DWG\2817-05-Details.dwg

rd700.dgn 20-JUL-2020

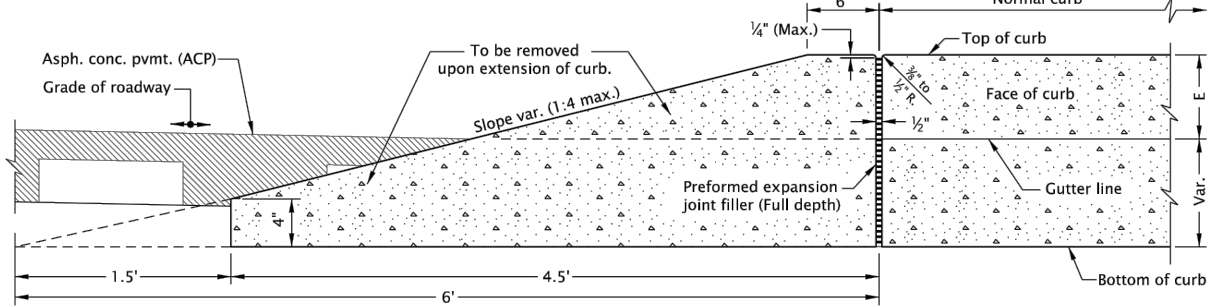
RD700



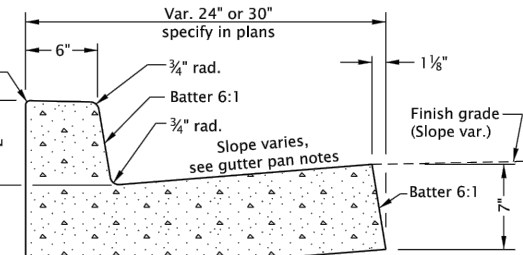
O.D.O.T. & City of Portland Standard "H"=16" STANDARD CURB
(See general note 11)



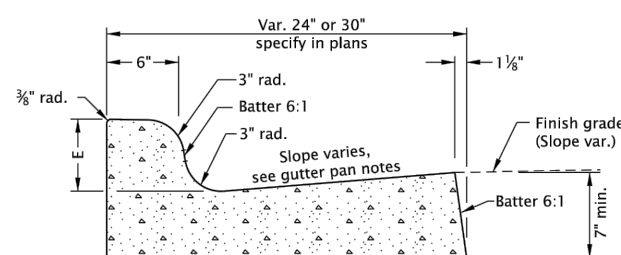
MOUNTABLE CURB
(See general note 11)



CURB ENDING DETAIL

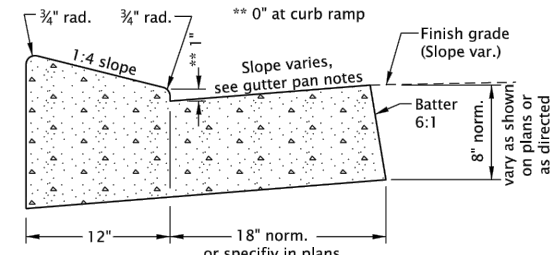


CURB AND GUTTER

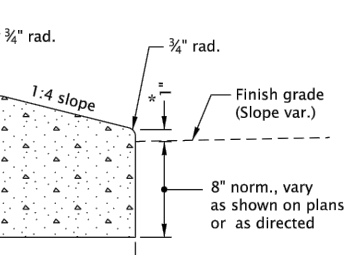


MOUNTABLE CURB AND GUTTER

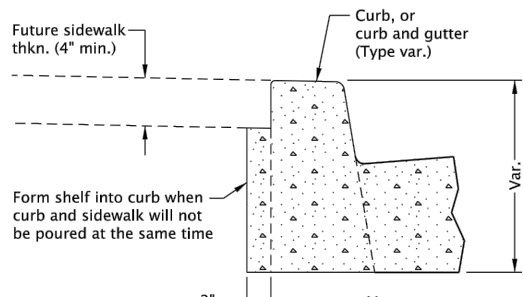
GUTTER PAN NOTES:
Slope 5.0% normal.
Slope 4.0% max. at curb ramps.
Vary slope as reqd. for drainage. Vary where shown on plans, and allowed by jurisdiction.



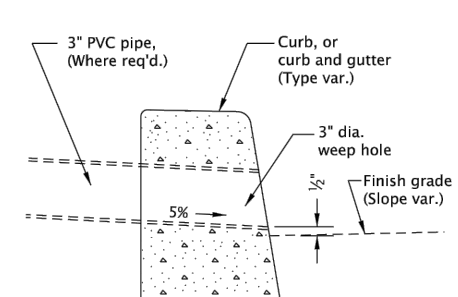
LOW PROFILE MOUNTABLE CURB AND GUTTER
(Where shown on plans)



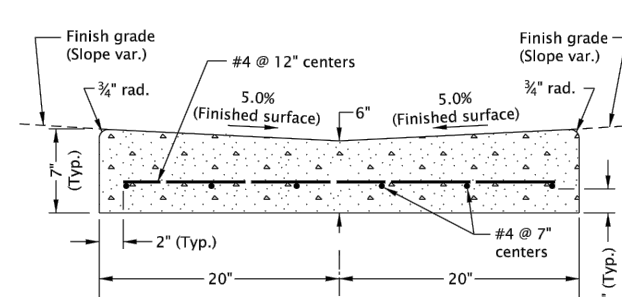
LOW PROFILE MOUNTABLE CURB
(See general note 11)



MODIFICATION FOR KEYWAY
(Where shown on plans)



WEEP HOLE DETAIL
(Where shown on plans, and allowed by jurisdiction)



VALLEY GUTTER

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

- Curb exposure "E" = 6" to 9", as measured vertically from flowline to highest point on curb. Vary as shown on plans or as directed. O.D.O.T standard "E"=7".
- Const. curb expansion joints at 200' maximum spacing, and at points of tangency, and at ends of each driveways.
- Const. curb contraction joints at 15' maximum spacing, and at ends of each inlet and curb ramp.
- Transitions shall be used to connect curbs of different exposures "E". ("E" is the total vertical dimension of those curb surfaces having a slope of 1:1 or steeper). Minimum desirable transition length shall be 20' for each 1" difference in "E".
- Tops of all curbs shall slope toward the roadway at 1.5% max. (Max. 2.0% finished surface slope), unless otherwise shown, or as directed.
- Dimensions are nominal, vary to conform with curb machine approved by the engineer.
- Dimensions adjacent to radii are measured to the point of intersection of curb surfaces.
- For sidewalk details, and monolithic curb & sidewalk, see Std. Dwgs. RD720 & RD721.
- For drainage curbs, see Std. Dwg. RD701.
- For curb ramp details, see Std. Dwgs. RD900 series.
- On or along state highways, curb and gutter is required at curb ramp.

CALC. BOOK NO. N/A

SDR DATE 20-JUL-2020

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

CURBS

2021

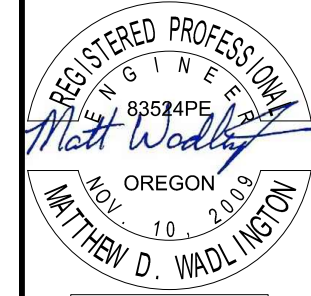
DATE	REVISION DESCRIPTION

Effective Date: June 1, 2021 – November 30, 2021

RD700

1
D9

CURB AND GUTTER DETAIL
NOT TO SCALE





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				MDW	2817-405

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LINN COUNTY, OR

2022 WATERMAIN REPLACEMENT PROGRAM

CURB AND GUTTER DETAIL

Date: APRIL 2022

