

	UTILIT	Y PROVIDERS	
UTILITY	OWNER	CONTACT	PHONE
WATER	CITY OF WEST LINN	MATT KAATZ	503-656-6081
STORM & SEWER	CITY OF WEST LINN	MIKE CARDWELL	503-656-6081
POWER	PGE	BOBBIE DANIELSON	503-742-8483
STREET LIGHT	PGE	LORI SWANSON	503-742-8322
GAS	NW NATURAL	DAVID BENTON	503-226-4211 X2357
CATV	COMCAST	BOB BOBMILLAR	360-828-3559
PHONE	QWEST	KENNETH SCIULLI	503-242-0304

### **REDLINE NOTES**

1) ALL HYDRANT ASSEMBLIES INCLUDE A GATE VALVE BEFORE THE MAIN, AS DEPICTED ON THE STANDARD DETAIL.
2) ALL HYDRANTS, VALVES, AND METERS WERE GPS-LOCATED BY CITY STAFF AND THEIR LOCATIONS WERE INCLUDED IN THE CITY'S GIS. THEIR LOCATION PROVIDED ON THESE CONSTRUCTION DRAWINGS MAY NOT BE IDENTICAL TO FIELD LOCATIONS.

### - GENERAL NOTE

All work within the public right-of-way shall conform to the current ODOT Oregon Standard Specifications for Construction

### - ATTENTION .

Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 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).

### GIS BASE MAP INFORMATION -

Data Source: West Linn GIS

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CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



EXPIRES: 12/31/2017

CONTRACTOR TRD

PW-16-03 2017 WATERLINE PROJECTS

Cover Sheet

PROJECT DATA

Project No: PW-16-03

Designed By: ELAIS

Drawn By: MPALMER

Checked By: LCALVERT

Date Issued: 1/17/2017

REVISION

Date Description

11/1/17 AS-BUILT

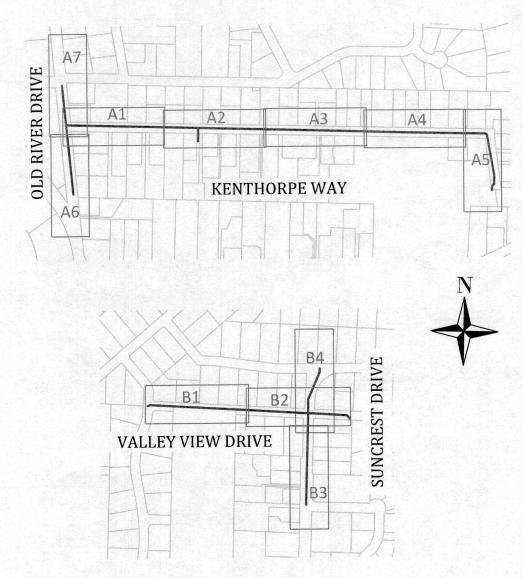
COVER SHEET

CS

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		SHEET INDEX		
SHEET	NO.	NAME	STA. START	STA. END
CS	1	COVER SHEET	-	
IS	2	INDEX SHEET		-
GN	3	GENERAL NOTES	and s	-
QL	4	QUANTITIES SHEET	-	-
A1	5	KENTHORPE WAY	0+00	5+20
A2	6	KENTHORPE WAY	5+20	10+50
A3	7	KENTHORPE WAY	10+50	15+80
A4	8	KENTHORPE WAY	15+80	21+10
<b>A</b> 5	9	KENTHORPE WAY	21+10	END
A6	10	OLD RIVER DRIVE	0+00	3+10
A7	11	OLD RIVER DRIVE	3+10	END
B1	12	VALLEY VIEW DRIVE	0+00	5+30
B2	13	VALLEY VIEW DRIVE	5+30	END
В3	14	SUNCREST DRIVE	0+00	4+00
B4	15	SUNCREST DRIVE	4+00	END
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D2	17	DETAILS SHEET	-	-
D3	18	DETAILS SHEET		
D4	19	DETAILS SHEET		-
D5	20	DETAILS SHEET		•
D6	21	DETAILS SHEET		





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WEST LINN, OREGON 97068
WWW.WESTLINNOREGON.GOV
PHONE: (503) 722-5500
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EXPIRES: 12/31/2017

CONTRACTOR TBD

PW-16-03 2017 WATERLINE PROJECTS

Index Sheet

PROJECT DATA
Project No: PW-16-03
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION
Date Description

INDEX SHEET

IS

SHEET 2 OF 21



### **GENERAL NOTES:**

- All construction shall conform to the latest City of West Linn Public Works Standard Construction Specifications and Standard Drawings. The ODOT Standard Specifications for Construction 2015 will apply for measurement and payment.
- 2. This set of plans has been reviewed for compliance with City of West Linn requirements prior to issuance for construction. However, such review shall not prevent the City Engineer from requiring correction of errors or omissions in plans found to be in violation of any law or ordinance.
- The City Engineer does not warrant any quantities shown on these plans.
- 4. The Engineering Division, Inspection Section shall be notified twenty-four (24) hours prior to any construction work by telephone at 503-722-5501. Any work concealed without inspection shall be subject to removal and replacement at the Contractor's expense.
- Any approved set of plans must be available on the job site at all times. The
  contractor's representative (capable of communicating with the City's
  representatives) shall be on the job at all times the work is being pursued.
- 6. The Contractor is responsible to provide emergency telephone numbers to the City of West Linn at time of receiving Project Notice to Proceed and have personnel available 24-hours a day to respond to emergencies. If the City is required to respond and make emergency repairs on behalf of the Contractor, the Contractor is responsible to reimburse the City for all costs incurred.
- 7. It is understood that there will be interfering utilities, service laterals, and other underground pipes, drains or structures encountered on underground projects that are not shown or are shown incorrectly on the plans and/or have not been previously discovered in the field. Contractor agrees this is a normal and usual occurrence in the construction of underground improvements. Furthermore, bidders understand and agree that work in some cases must be done in close proximity to said utilities and underground pipes, drains, and structures which may require a change in operations and may cause sloughing of the trench, additional traffic control, additional pavement and backfill costs, and time. The contractor agrees that a reasonable number of these occurrences are usual and ordinary on underground projects and are reflected in the bid and plan of operation.
- 8. It is the responsibility of the contractor to obtain any and all other permits and meet any requirements set forth by other agencies or utilities which have jurisdiction at the contractors expense.

### WATER NOTES:

- 9. Water and sanitary sewer line crossings shall conform with the Oregon Administrative Regulation 333-061-0050(9).
- 10. The existing water lines to be taken out of service are marked on the drawings. These lines are to remain in service until the new lines are properly installed and tested, and water services have been connected. Approval from the City Engineer shall be obtained before any line is abandoned. The existing lines shall then be abandoned and their actual location and abandoned designation recorded on all record drawings. Unless called for otherwise, the abandoned lines will remain in the ground. The ends of all pipes which are abandoned shall be plugged with concrete or other methods approved by the City Engineer.
- 11. The contractor shall remove all existing valve boxes, meter boxes, hydrants and other fittings required to properly perform the scope of work, or as shown in the drawings. All such materials shall be transported to an area designated by the City and stockpiled. Materials shall be removed and handled in such a manner which will prevent damage. All other existing valves, meters and hydrants not used in the new system or not specified for removal will be removed by the city after the new system is in operation. Salvaged material shall remain the property of the City.
- 12. The abandoned existing pipe is to remain in the ground, unless otherwise specified.
- 13. The contractor shall apply black bag the same day to all existing hydrants when permanently disconnected from service.
- 14. When working with asbestos cement (AC) pipe, the contractor shall take all precautions necessary to reduce airborne asbestos during construction. See technical provision SP6.
- 15. Pipe bedding, trench backfill, and surfacing are incidental to pipe.
- It is the responsibility of the contractor to schedule water main testing with the City inspector, per West Linn Standards.
- City to provide and install water meter and customer valve once the new water main is in service.
- 18. All work behind the water meter must be performed by a licensed plumber in the City of West Linn and the State of Oregon.
- 19. The plans identify the general location of existing and proposed service lines only, actual locations and types of existing material require field verification and coordination with property owner and the City.
- 20. ALL POTABLE WATER PIPE AND FITTINGS SHALL BE DUCTILE IRON.
- 21. ALL POTABLE WATER PIPE SHALL HAVE V-BIO ENHANCED POLYETHYLENE ENCASEMENT INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS AND THE TECHNICAL PROVISION SP2.

### TRAFFIC CONTROL GENERAL NOTES:

- 22. No road closure shall be allowed without City Engineer's prior approval as delegated by the City Manager.
- 23. Traffic control shall conform to the ODOT Temporary Traffic Control Handbook and MUTCD. The Contractor shall submit a Traffic Control Plan to the City of West Linn Engineering Division for review and acceptance a minimum of 48-hours prior to construction. A copy of the accepted Traffic Control Plan must remain on the job site at all times.
- 24. Maintain vehicular, bicycle, pedestrian and emergency vehicle access to area homes throughout construction.

### **CONSTRUCTION NOTES:**

- 25. Contractor shall provide erosion control best management practices per City of West Linn Standards. Provide catch basin protection and continual sweeping so that no mud, sediment, or rock is left on the streets, with no additional compensation.
- 26. The contractor is responsible for all construction surveying and construction staking for the project with no additional compensation.
- Location of hydrants and water meters shall be determined in the field by City of West Linn prior to construction.
- 28. Drain abandoned pipes and plug watertight. Plug abandoned pipes with gasketed mechanical plugs or grout seals, as directed.
- All new water main and services shall be tested and approved prior to connection. All tests to follow West Linn Standard Construction Specifications, Section 403.
- Water used for construction must be filled at the designated tanker fill sites located next to 1970 8th Avenue and Wilderness Park Parking Lot - No hydrant meters will be provided.
- 31. Contractor shall provide ingress and egress to residential driveways with limited delay.
- 32. Working Hours: 7:00 AM 5:00 PM Monday Friday, 9:00 AM 5:00 PM Saturday Sunday & Holidays

### **ADDITIONAL NOTES:**

- 33. Contractor shall be responsible for all construction surveying and construction staking. Final grades as determined by City Engineer.
- 34. Asphalt concrete pavement repair shall include aggregate base backfill/removal as necessary for meeting final grade.
- 35. All existing asphalt/concrete shall be sawcut for removals with no additional compensation.



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EXPIRES: 12/31/2017

CONTRACTOR TBD

PW-16-03 WATERLINE PROJECTS

General Notes

PROJECT DATA
Project No: PW-16-03
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION
Date Description

NOTES SHEET

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SHEET 3 OF 21



			QL	JANTITIE	S BY SHE	ΞT								
SYMBOL	DESCRIPTION	UNIT	A1	A2	A3	A4	A5	A6	A7	B1	B2	В3	B4	TOTAL
	8 INCH GATE VALVE	EA	1	1	0	1	2	0	0	1	2	0	0	8
8P	8 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	520	532	529	528	421	0	0	527	537	0	0	3595
Н	HYDRANT ASSEMBLY (WL-401)	EA	1	1	2	1	2	0	0	2	0	0	1	10
M	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	10	19	12	7	13	4	2	4	2	12	0	85
12P	12 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	0	0	0	0	0	311	266	0	0	402	322	1300
12C	12 INCH CONNECTION TO 12 INCH EXISTING MAIN	EA	0	0	0	0	0	1	1	0	0	1	0	3
12V	12 INCH BUTTERFLY VALVE	EA	0	0	0	0	0	0	0	0	0	0	2	2
8C	8 INCH CONNECTION TO 8 INCH EXISTING MAIN	EA	0	0	0	0	1	0	0	1	0	0	0	2
10C	12 INCH CONNECTION TO 10 INCH EXISTING MAIN	EA	0	0	0	0	0	0	0	0	0	0	1	1
BV	REMOVE EXISTING BLOWOFF ASSEMBLY	EA	0	0	0	0	3	0	0	0	0	1	0	4
PG	CUT AND PLUG EXISTING ASBESTOS CEMENT PIPE	EA	0	0	0	0	1	1	1	1	1	1	1	7
6C	8 INCH CONNECTION TO 6 INCH EXISTING MAIN	EA	0	0	0	0	0	0	0	0	1	0	0	1
HS	SALVAGE EXISTING HYDRANT	EA	1	0	1	0	0	0	0	1	1	1	0	5
6P	6 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	12	95	36	19	34	0	0	35	0	0	21	254
2B	BLOWOFF ASSEMBLY, 2 INCH (WL-404A)	EA	0	1	0	0	0	0	0	0	0	0	0	1
SS	WATER SAMPLING STATION (DETAIL SS)	EA	0	0	0	1	0	0	0	0	0	0	0	1

### **LEGEND**

### SANITARY SEWER

**MANHOLE** 

—SAN—MAIN AND LATERALS

### STORM DRAIN

MANHOLE

SD CATCH BASIN

-STM-MAIN AND LATERALS

### WATER

MAIN, TO BE ABANDONED

w — MAIN, EXISTING TO REMAIN

HYDRANT, TO BE INSTALLED

SERVICE AND METER, TO BE INSTALLED

SAMPLING STATION, TO BE INSTALLED

### OTHER

- - PROPERTY LINE

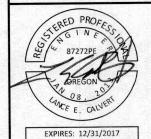
—G — GAS LINE (NW NATURAL)

——P — UNDERGROUND POWER (PGE)

PAVED STREET SURFACE, EXISTING



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PW-16-03 2017 WATERLINE PROJECTS

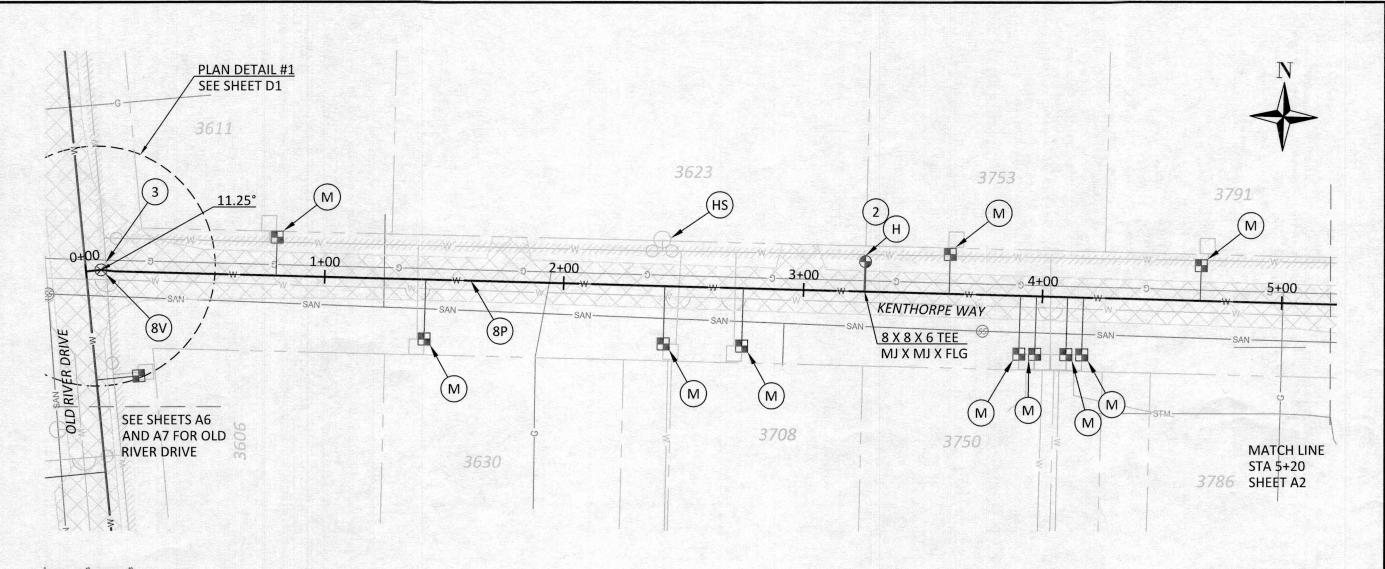
Quantities and Legend

CIDAIA
PW-16-03
ELAIS
MPALMER
LCALVERT
1/17/2017
VISION
Description
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QUANTITIES/LEGEND SHEET



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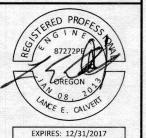


	SHEET A1 QUANTITIES		
SYMBOL	DESCRIPTION	UNIT	QUANTITY
8V	8 INCH GATE VALVE	EA	1
8P	8 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	520
Н	HYDRANT ASSEMBLY (WL-401)	EA	1
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	10
HS	SALVAGE EXISTING HYDRANT	EA	1
6P	6 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	12

- 1. CONNECT NEW 8-INCH MAIN ON KENTHORPE WAY TO NEW 12 X 12 X 8, MJ X MJ X FLG TEE AT INTERSECTION OF OLD RIVER DRIVE. SEE SHEET A7 FOR OLD RIVER DRIVE MAIN.
- 2. HYDRANT ASSEMBLY LOCATION TO BE FIELD VERIFIED DURING CONSTRUCTION.
- 3. WHEN CROSSING EXISTING ASBESTOS CEMENT WATER MAIN, POTHOLE TO DETERMINE DEPTH.



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22500 SALAMO ROAD
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CONTRACTOR TBD

PW-16-03 2017 WATERLINE PROJECTS

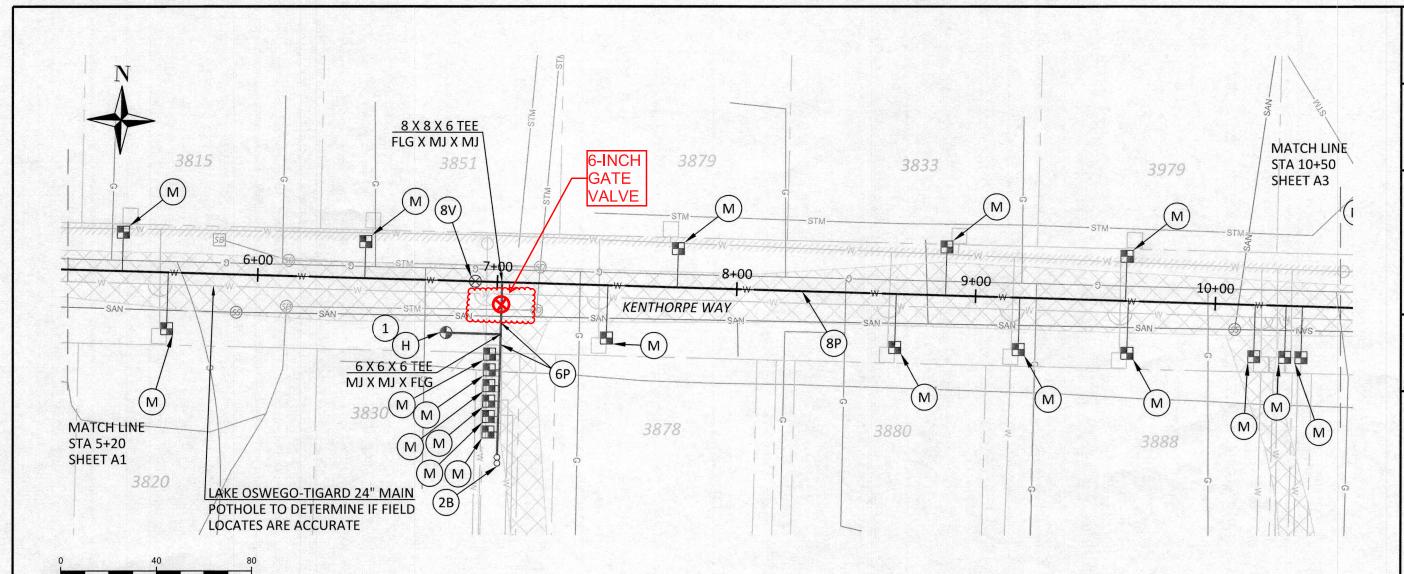
PROJECT DATA
Project No: PW-16-03
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION
Date Description

PLAN SHEET

A1

SHEET 5 OF 21



SHEET A2 QUANTITIES				
SYMBOL	DESCRIPTION	UNIT	QUANTITY	
8V	8 INCH GATE VALVE	EA	1	
8P	8 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	532	
Н	HYDRANT ASSEMBLY (WL-401)	EA	1	
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	19	
6P	6 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	95	
2B	BLOWOFF ASSEMBLY, 2 INCH (WL-404A)	EA	1	

1. HYDRANT ASSEMBLY LOCATION TO BE FIELD VERIFIED DURING CONSTRUCTION.



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2017 WATERLINE PROJECTS

Kenthorpe Way

Station 5+20 to 10+50

PW-16-03

PROJECT DATA
Project No: PW-16-03
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT

Date Issued: 1/17/2017

REVISION

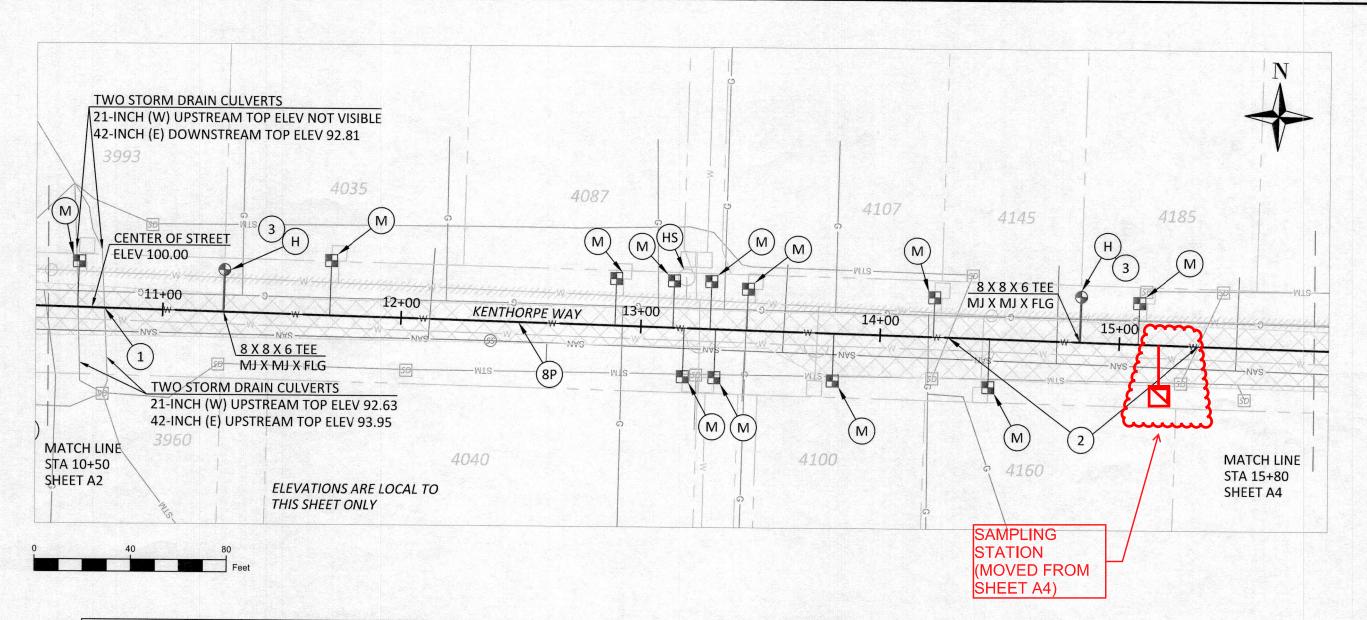
Date Description

11/1/17 AS-BUILT

PLAN SHEET

A2

SHEET 6 OF 21

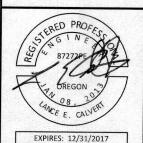


	SHEET A3 QUANTITIES		
SYMBOL	DESCRIPTION	UNIT	QUANTITY
8P	8 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	529
Н	HYDRANT ASSEMBLY (WL-401)	EA	2
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	12
HS	SALVAGE EXISTING HYDRANT	EA	1
6P	6 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	36

- 1. MAINTAIN MINIMUM 36 INCH COVER OVER WATER MAIN AND ADEQUATE SEPARATION WHILE CROSSING OVER TWO STORM CULVERTS ON KENTHORPE WAY. SEE ELEVATIONS ON THIS SHEET.
- 2. MAINTAIN ADEQUATE CLEARANCE ABOVE WATER MAIN WHEN CROSSING BENEATH EXISTING STORM DRAINS.
- 3. HYDRANT ASSEMBLY LOCATION TO BE FIELD VERIFIED DURING CONSTRUCTION.



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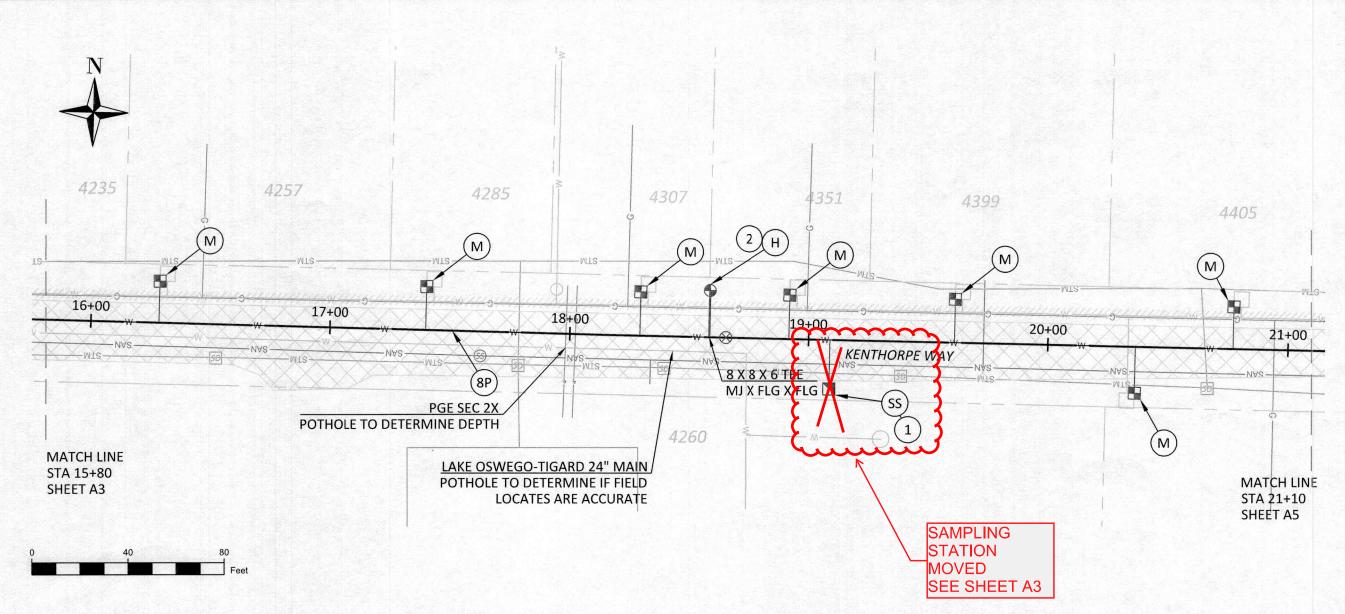


CONTRACTOR TBD

2017 WATERLINE PROJECTS Kenthorpe Way Station 10+50 to 15+80 PW-16-03

COLUMN PORT DELING THE RESERVE THE	JECT DATA
Project No:	PW-16-03
Designed By:	ELAIS
Drawn By:	MPALMER
Checked By:	LCALVERT
Date Issued:	1/17/2017
R	EVISION
Date	Description
11/1/17	AS-BUILT

**A3** SHEET 7 OF 21



SHEET A4 QUANTITIES				
SYMBOL	DESCRIPTION	UNIT	QUANTITY	
8V	8 INCH GATE VALVE	EA	1	
8P	8 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	528	
Н	HYDRANT ASSEMBLY (WL-401)	EA	1	
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	7	
SS	WATER SAMPLING STATION (DETAIL SS)	EA	1	
6P	6 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	19	

- 1. WATER SAMPLING STATION TO BE INSTALLED PER DETAIL SS "WATER SAMPLING STATION" (SEE SHEET D1) ALONG THE FRONTAGE OF THE LAKE-OSWEGO TIGARD WATER TREATMENT PLANT PROPERTY. LOCATION TO BE SET DURING CONSTRUCTION.
- 2. HYDRANT ASSEMBLY LOCATION TO BE FIELD VERIFIED DURING CONSTRUCTION.



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EXPIRES: 12/31/2017

CONTRACTOR TBD

PW-16-03
2017 WATERLINE PROJECTS
Kenthorpe Way
Station 15+80 to 21+10

PROJECT DATA

Project No: PW-16-03

Designed By: ELAIS

Drawn By: MPALMER

Checked By: LCALVERT

Date Issued: 1/17/2017

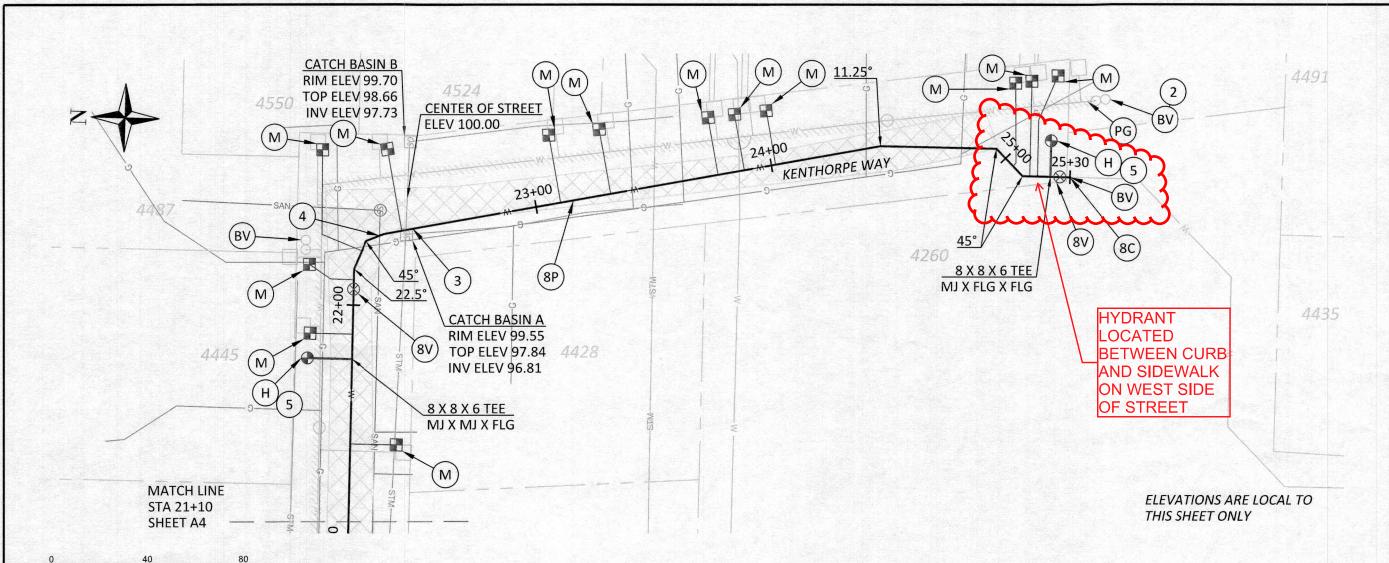
REVISION

Date Description

11/1/17 AS-BUILT

PLAN SHEET

SHEET 8 OF 21



	SHEET A5 QUANTITIES	30	
SYMBOL	DESCRIPTION	UNIT	QUANTITY
8V	8 INCH GATE VALVE	EA	2
8P	8 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	421
Н	HYDRANT ASSEMBLY (WL-401)	EA	2
M	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	13
8C	8 INCH CONNECTION TO 8 INCH EXISTING MAIN	EA	1
BV	REMOVE EXISTING BLOWOFF ASSEMBLY	EA	3
PG	CUT AND PLUG EXISTING ASBESTOS CEMENT PIPE	EA	1
6P	6 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	34

- 1. CONNECT NEW 8 INCH MAIN ON KENTHORPE WAY AT EXISTING 8 INCH MAIN.
- 2. REMOVE EXISTING BLOWOFF ASSEMBLY AND PLUG EXISTING 6-INCH A.C. PLUG ONCE NEW 8-INCH LINE IS LIVE.
- 3. MAINTAIN MINIMUM 36 INCH COVER OVER WATER MAIN AND ADEQUATE SEPARATION WHILE CROSSING UNDER STORM DRAIN AT CORNER OF KENTHORPE WAY. SEE ELEVATIONS ON THIS SHEET.
- 4. MAINTAIN MINIMUM 36 INCH COVER AND ADEQUATE CLEARANCE OF WATER MAIN WHILE CROSSING OVER SANITARY SEWER MAIN. INVERT OF CLOSEST MANHOLE IS 7.7-FEET BELOW RIM.
- 5. HYDRANT ASSEMBLY LOCATION TO BE FIELD VERIFIED DURING CONSTRUCTION.



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EM MEST IL/OI/LOI/

CONTRACTOR TBD

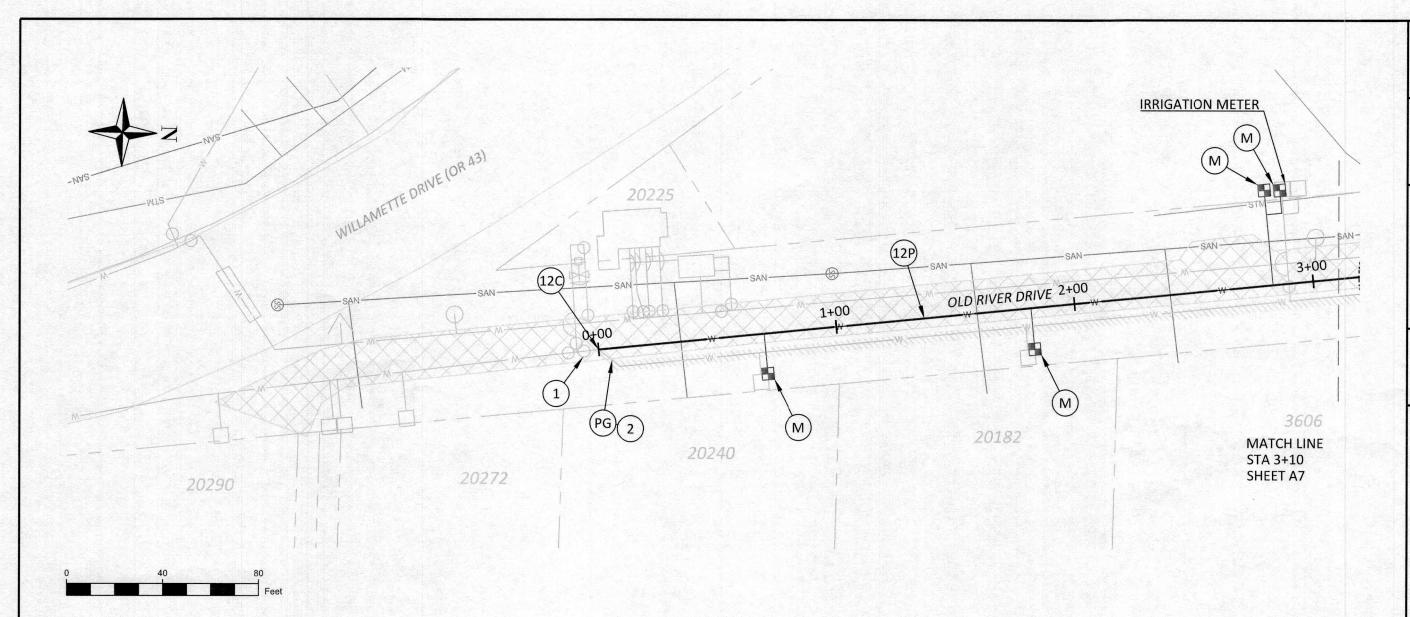
FW-10-03 2017 WATERLINE PROJECTS

PROJECT DATA
Project No: PW-16-03
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Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION
Date Description
11/1/17 AS-BUILT

PLAN SHEET

SHEET 9 OF 21



	SHEET A6 QUANTITIES		
SYMBOL	DESCRIPTION	UNIT	QUANTITY
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	4
12P	12 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	311
12C	12 INCH CONNECTION TO 12 INCH EXISTING MAIN	EA	1
PG	CUT AND PLUG EXISTING ASBESTOS CEMENT PIPE	EA	1

- 1. EXISTING 12 INCH BUTTERFLY VALVE AT LAKE OSWEGO INTERTIE PUMP STATION TO REMAIN CLOSED WHEN CONNECTING NEW 12 INCH MAIN ON OLD RIVER DRIVE.
- 2. CUT AND PLUG EXISTING 10 INCH ASBESTOS CEMENT MAIN IN ORDER TO ABANDON IN PLACE.



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PW-16-03 2017 WATERLINE PROJECTS

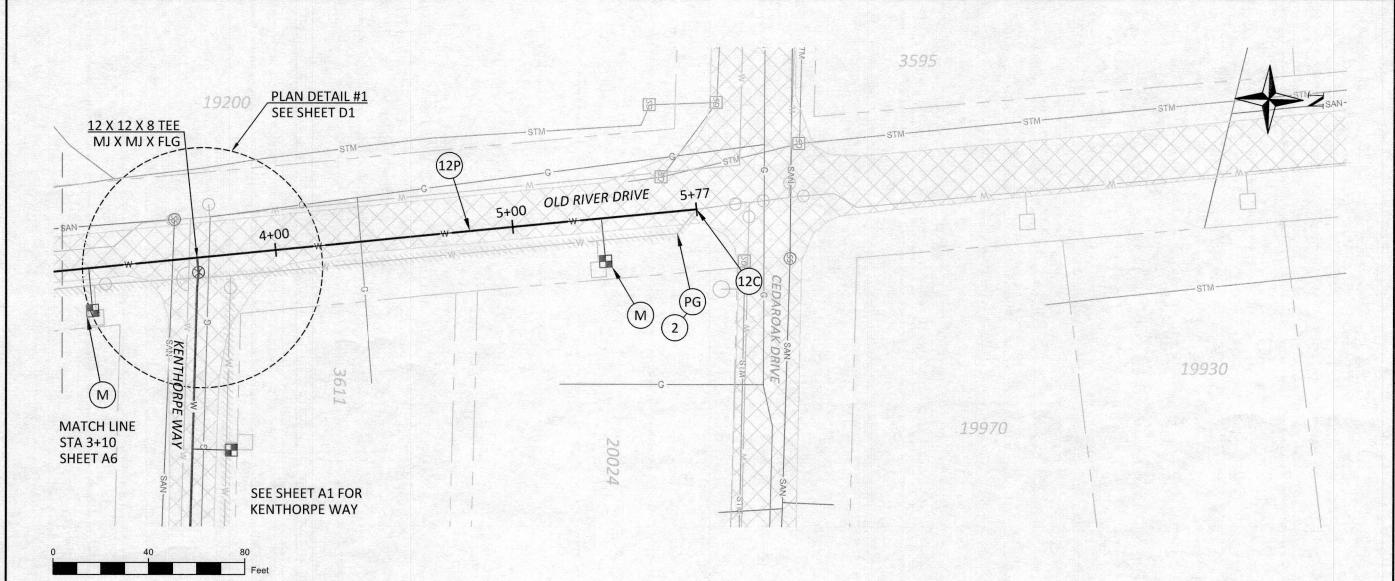
Old River Drive Station 0+00 to 3+10

PROJECT DATA
Project No: PW-16-03
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION
Date Description

PLAN SHEET

SHEET 10 OF 21



	SHEET A7 QUANTITIES		
SYMBOL	DESCRIPTION	UNIT	QUANTITY
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	2
12P	12 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	266
12C	12 INCH CONNECTION TO 12 INCH EXISTING MAIN	EA	1
PG	CUT AND PLUG EXISTING ASBESTOS CEMENT PIPE	EA	1

- 1. CONNECT NEW 12 INCH MAIN ON OLD RIVER DRIVE TO EXISTING 12 INCH MAIN AT THE INTERSECTION WITH CEDAROAK DRIVE.
- 2. CUT AND PLUG EXISTING 10 INCH ASBESTOS CEMENT MAIN IN ORDER TO ABANDON IN PLACE.



CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



CONTRACTOR TBD

PW-16-03 2017 WATERLINE PROJECTS

Old River Drive Station 3+10 to End

PROJECT DATA

Project No: PW-16-03

Designed By: ELAIS

Drawn By: MPALMER

Checked By: LCALVERT

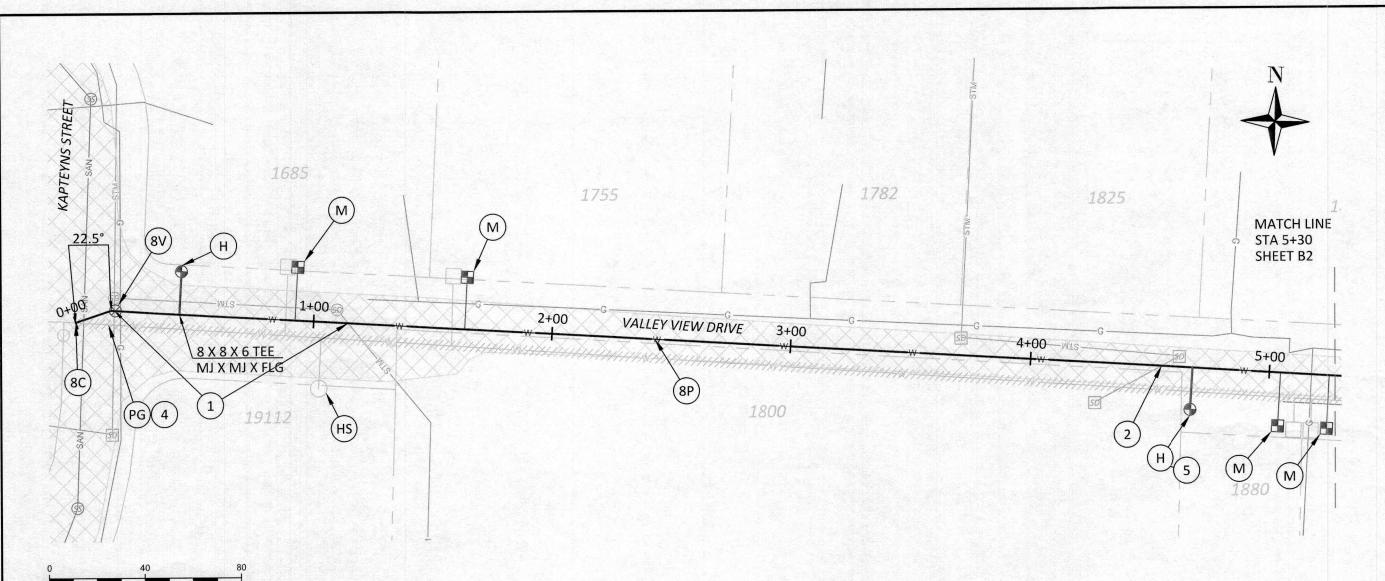
Date Issued: 1/17/2017

REVISION

Date Description

PLAN SHEET

SHEET 11 OF 21



	SHEET B1 QUANTITIES			
SYMBOL	DESCRIPTION		QUANTITY	
8V	8 INCH GATE VALVE	EA	1	
8P	8 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	527	
Н	HYDRANT ASSEMBLY (WL-401)	EA	2	
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	4	
8C	8 INCH CONNECTION TO 8 INCH EXISTING MAIN	EA	1	
PG	CUT AND PLUG EXISTING ASBESTOS CEMENT PIPE EA		1	
HS	SALVAGE EXISTING HYDRANT		1	
6 INCH POTABLE WATER PIPE, FITTINGS AND 6P COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL			35	

- 1. MAINTAIN MINIMUM 36 INCH COVER WHILE CROSSING WATER MAIN OVER EXISTING STORM DRAIN.
- 2. MAINTAIN MINIMUM 36 INCH COVER AND ADEQUATE CLEARANCE ABOVE WATER MAIN WHEN CROSSING UNDER EXISTING STORM DRAIN.
- 3. CONNECT NEW 8 INCH MAIN ON VALLEY VIEW DRIVE TO EXISTING 8 INCH MAIN AT THE INTERSECTION WITH KAPTEYNS STREET.
- 4. CUT AND PLUG EXISTING 8 INCH ASBESTOS CEMENT MAIN ON VALLEY VIEW DRIVE IN ORDER TO ABANDON IN PLACE.
- 5. HYDRANT ASSEMBLY LOCATION TO BE FIELD VERIFIED DURING CONSTRUCTION.



CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



EXPIRES: 12/31/2017

CONTRACTOR TBD

2017 WATERLINE PROJECTS

Valely View Dr

Station 0+00 to 5+30

PROJECT DATA

Project No: PW-16-03

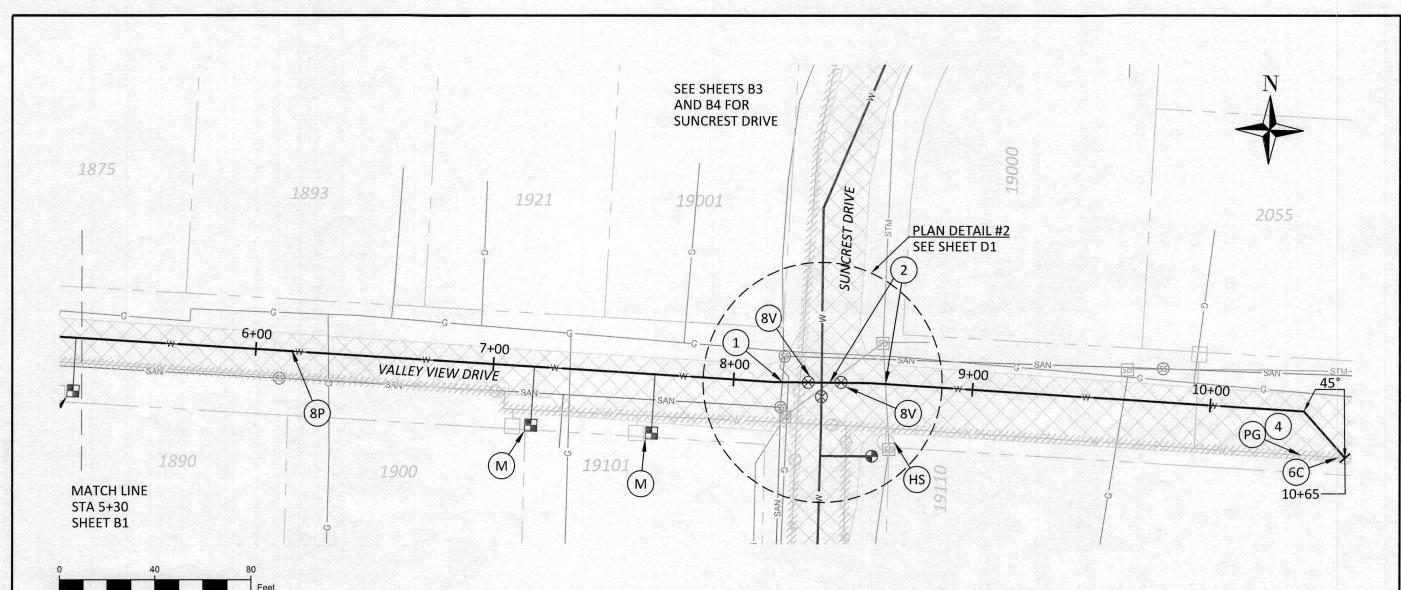
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION
Date Description

PLAN SHEET

B1

SHEET 12 OF 21



	SHEET B2 QUANTITIES			
SYMBOL	DESCRIPTION		QUANTITY	
8V	8 INCH GATE VALVE	EA	2	
8P	8 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	537	
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	2	
6C	8 INCH CONNECTION TO 6 INCH EXISTING MAIN		1	
PG	CUT AND PLUG EXISTING ASBESTOS CEMENT PIPE	1		
HS	SALVAGE EXISTING HYDRANT	EA	1	

- 1. MAINTAIN MINIMUM 36 INCH COVER OVER WATER MAIN WHEN CROSSING OVER THE EXISTING SANITARY SEWER MAIN. SEE DETAIL WL-409 FOR CROSSING.
- 2. DUE TO SHALLOW STORM DRAINS, INSTALL NEW WATER MAIN BENEATH EXISTING STORM DRAIN CROSSING VALLEY VIEW DRIVE. MAINTAIN MINIMUM 36 INCH COVER OVER WATER MAIN AND ADEQUATE SEPARATION FROM STORM DRAIN.
- 3. CONNECT NEW 8 INCH MAIN ON VALLEY VIEW DRIVE TO EXISTING 6 INCH MAIN TO THE EAST OF THE INTERSECTION WITH SUNCREST DRIVE.
- 4. CUT AND PLUG EXISTING 6 INCH CAST IRON MAIN ON VALLEY VIEW DRIVE IN ORDER TO ABANDON IN PLACE.



CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



CONTRACTOR TBD

PW-16-03 2017 WATERLINE PROJECTS

Valely View Dr Station 5+30 to End

PROJECT DATA

Project No: PW-16-03

Designed By: ELAIS

Drawn By: MPALMER

Checked By: LCALVERT

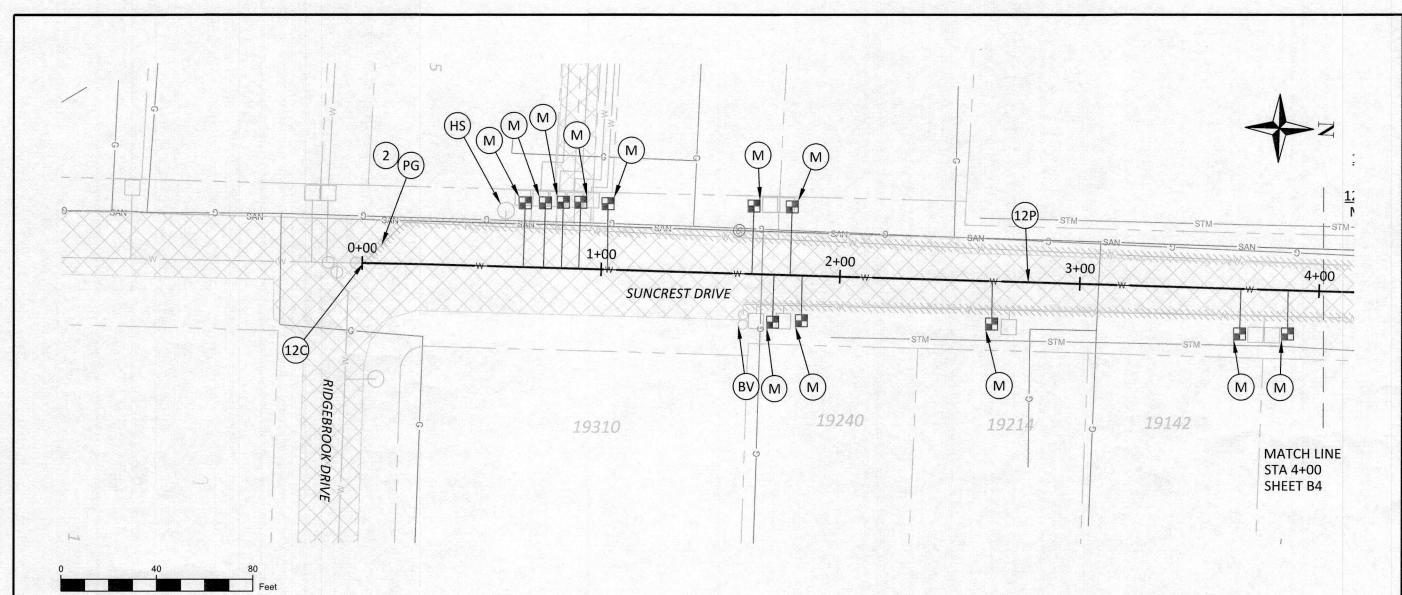
Date Issued: 1/17/2017

REVISION

Date Description

PLAN SHEET

**SHEET 13 OF 21** 



	SHEET B3 QUANTITIES			
SYMBOL	DESCRIPTION		QUANTITY	
М	1 INCH WATER SERVICE CONNECTIONS (WL-402)	EA	12	
12P	12 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	402	
12C	12 INCH CONNECTION TO 12 INCH EXISTING MAIN	EA	1	
HS	SALVAGE EXISTING HYDRANT EA		1	
PG	CUT AND PLUG EXISTING ASBESTOS CEMENT PIPE		1	
BV	BV REMOVE EXISTING BLOWOFF ASSEMBLY		1	

- 1. CONNECT NEW 12 INCH MAIN ON SUNCREST DRIVE TO EXISTING 12 INCH MAIN AT THE INTERSECTION WITH RIDGEBROOK DRIVE.
- 2. CUT AND PLUG EXISTING 8 INCH ASBESTOS CEMENT MAIN ON SUNCREST DRIVE IN ORDER TO ABANDON IN PLACE.



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CONTRACTOR TBD

PW-16-03 2017 WATERLINE PROJECTS

Suncrest Drive Station 0+00 to 4+00

PROJECT DATA

Project No: PW-16-03

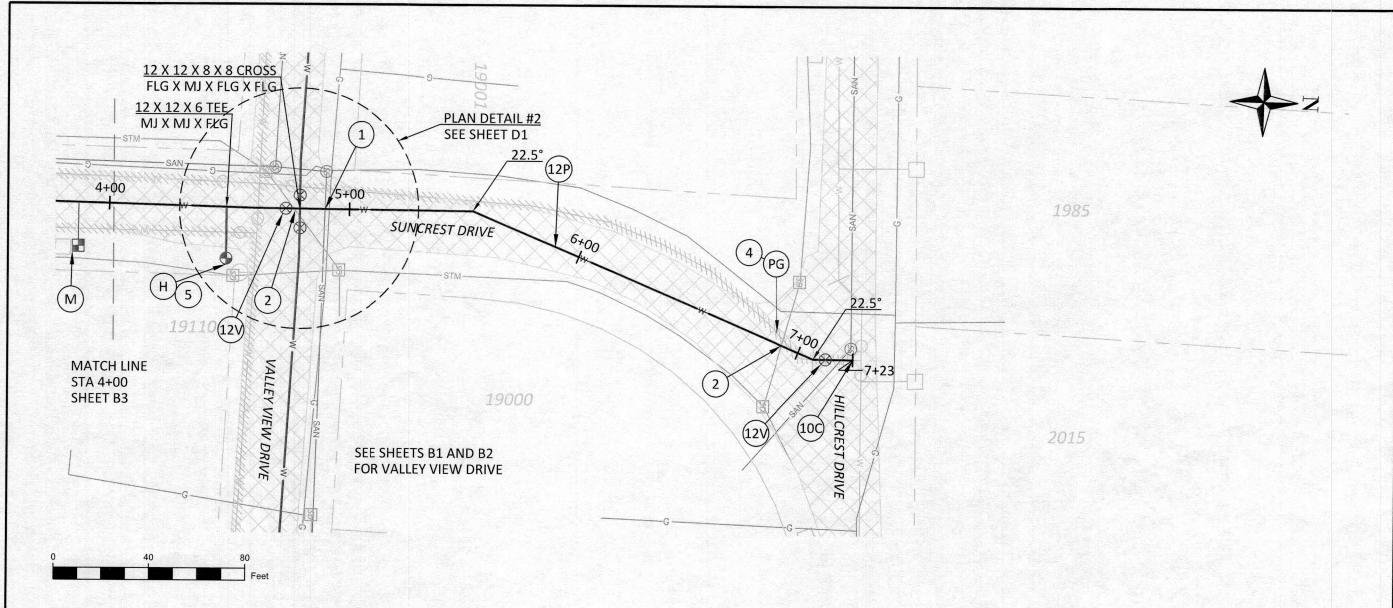
Designed By: ELAIS

Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION
Date Description

PLAN SHEET

**SHEET 14 OF 21** 



SHEET B3 QUANTITIES				
SYMBOL	DESCRIPTION		QUANTITY	
12P	12 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL	LF	322	
10C	12 INCH CONNECTION TO 10 INCH EXISTING MAIN		1	
12V	12 INCH BUTTERFLY VALVE	EA	2	
Н	HYDRANT ASSEMBLY (WL-401)		1	
PG	CUT AND PLUG EXISTING ASBESTOS CEMENT PIPE		1	
6 INCH POTABLE WATER PIPE, FITTINGS AND COUPLINGS WITH RESTRAINED JOINTS AND CLASS B BACKFILL		LF	21	

- 1. MAINTAIN MINIMUM 36 INCH COVER WHEN CROSSING WATER MAIN OVER THE EXISTING SANITARY SEWER MAIN. SEE DETAIL WL-409 FOR CROSSING.
- 2. MAINTAIN ADEQUATE CLEARANCE AND MINIMUM 36 INCH COVER WHEN CROSSING WATER MAIN UNDER EXISTING STORM DRAIN.
- 3. CONNECT NEW 12 INCH MAIN ON SUNCREST DRIVE TO EXISTING 10 INCH MAIN AT THE INTERSECTION WITH HILLCREST DRIVE.
- 4. CUT AND PLUG EXISTING 8 INCH MAIN ON SUNCREST DRIVE IN ORDER TO ABANDON IN PLACE.
- 5. HYDRANT ASSEMBLY LOCATION TO BE FIELD VERIFIED DURING CONSTRUCTION.



CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



CONTRACTOR TBD

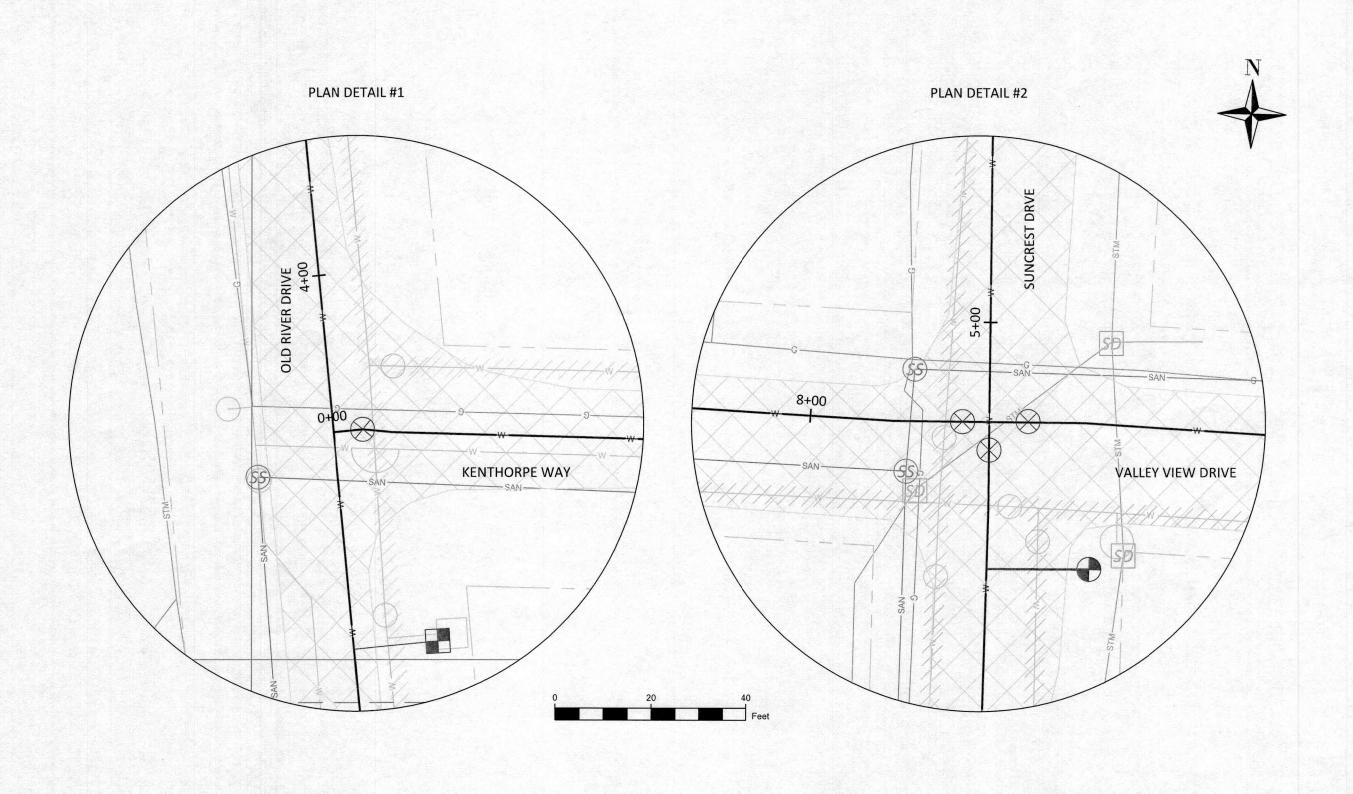
PW-16-03
2017 WATERLINE PROJECTS
Suncrest Drive
Station 4+00 to End

PROJECT DATA
Project No: PW-16-03
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION
Date Description

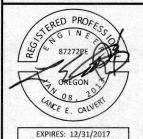
PLAN SHEET

SHEET 15 OF 21





CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



CONTRACTOR TBD

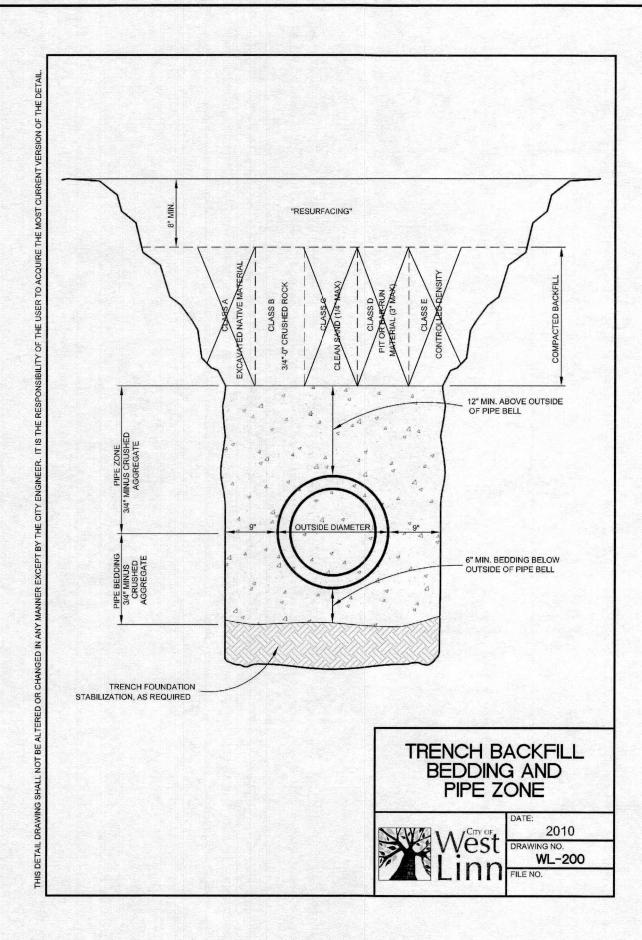
## 2017 WATERLINE PROJECTS PW-16-03

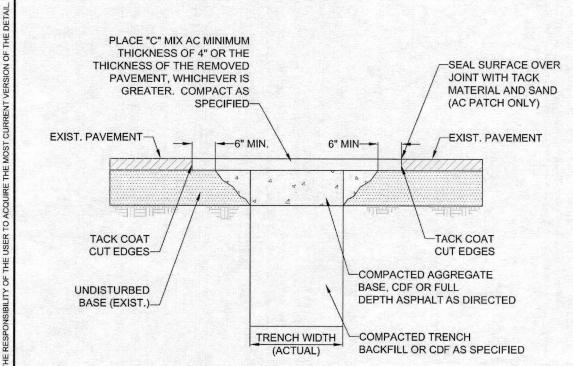
Plan Details # 1 and #2

	ECT DATA	
Project No:	PW-16-03	
Designed By:	ELAIS	
Drawn By:	MPALMER	
Checked By:	LCALVERT	
Date Issued:	1/17/2017	
RE	VISION	
Date	Description	

D1

SHEET 16 OF 21





### NOTE:

- ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT TO NEAT, STRAIGHT LINES PRIOR TO REPAVING.
- CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER.
- IF EXISTING BASE MATERIAL IS CTB OR ATB, THEN REPLACEMENT BASE MATERIAL SHALL MATCH EXISTING.
- 4. ALL UTILITIES SHALL HAVE A MINIMUM COVER OF 36".
- ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY PER AASHTO T-180 OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- ALL TRENCH BACKFILL AND PATCHING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF WEST LINN.
- . APPROVED CDF SHALL BE USED OR 3/4 0" GRAVEL BACKFILL SHALL BE PLACED AND COMPACTED IN 12" MAXIMUM LIFTS. IF 3/4-0" GRAVEL BACKFILL IS USED, COMPACTION TESTING BY A CERTIFIED TESTING COMPANY IS REQUIRED AT DEPTH INTERVALS AS SPECIFIED BY THE CITY ENGINEER.
- T-CUT MAY BE ENLARGED AT THE DISCRETION OF THE CITY ENGINEER OR CITY INSPECTOR DUE TO SITE CONDITIONS OR PROJECT REQUIREMENTS.
- 9. ALL CUT EDGES SHALL BE SAND SEALED.
- 10. COMPACTED BACKFILL OR CDF MUST EXTEND 2 FEET OUTSIDE OF PAVEMENT SURFACE.

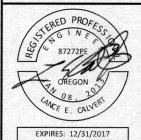




2010
DRAWING NO.
WL-203
FILE NO.

West Linn

CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



CONTRACTOR TBD

PW-16-03 WATERLINE PROJECTS

Standard Details

PROJECT DATA
Project No: PW-16-03
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

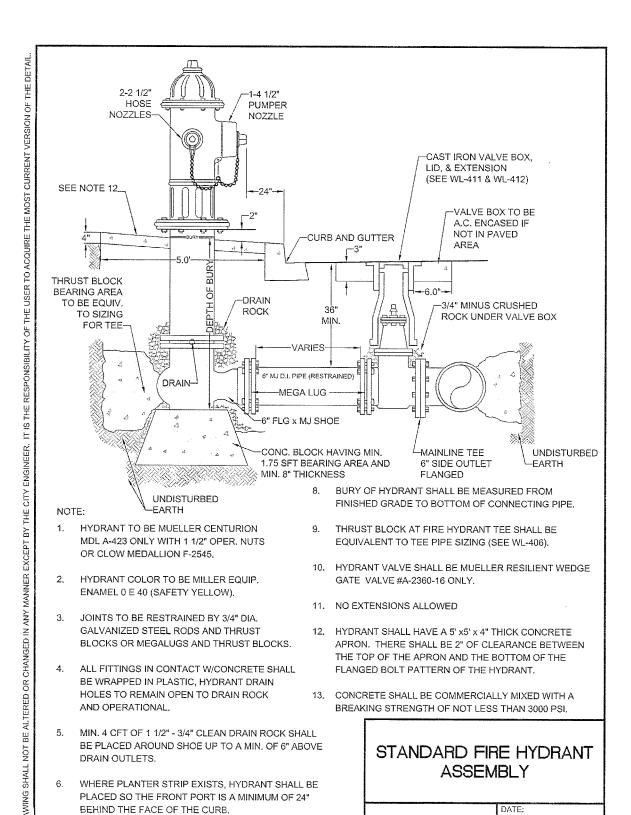
REVISION
Date Description

DETAILS SHEET

01

D2

SHEET 17 OF 21

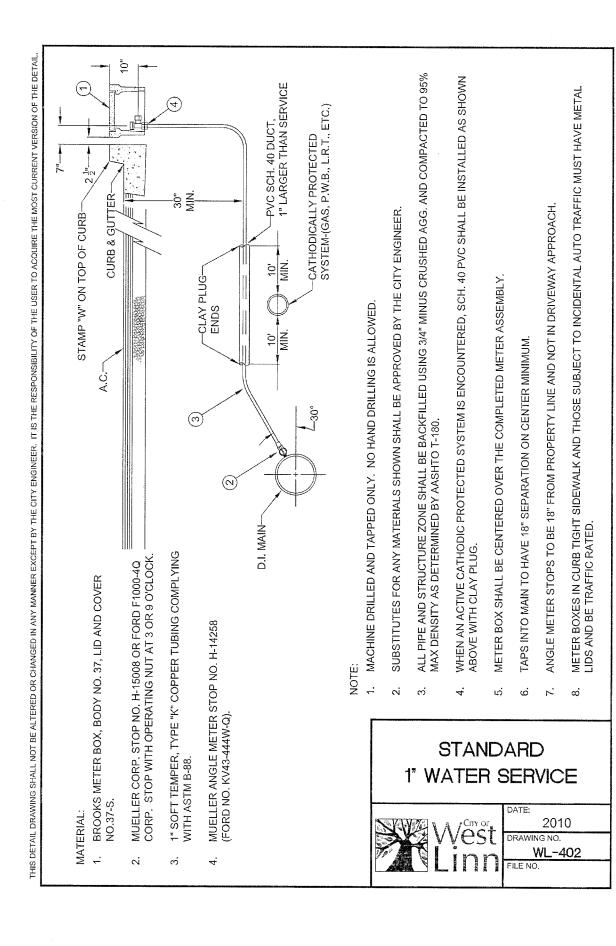


WHERE INTEGRAL S/W & CURB EXISTS, HYDRANT SHALL BE PLACED AT BACK OF THE SIDEWALK, OR

AS DIRECTED BY ENGINEER.

2010

WL-401





CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



CONTRACTOR TBD

Standard Details

WATERLINE PROJECTS

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01

PW-16-03

 $\tilde{\mathsf{Z}}$ PROJECT DATA Project No: PW-16-03 Designed By: FLAIS MPALMER Checked By: LCALVERT Date Issued: REVISION Date Description

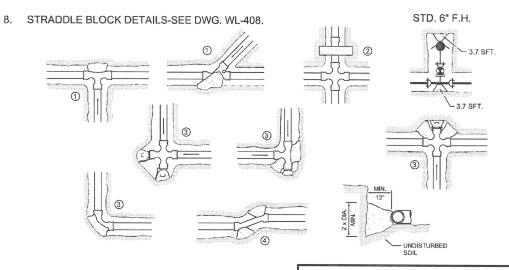
**DETAILS SHEET** 

**D3** 

SHEET 18 OF 21

				,		
FITTING SIZE	TEE, WYE, & ①	STRADDLE BLOCK	90° BEND ③ PLUGGED CROSS	45° BEND	22 1/2° BEND	11 1/2° BEND
(Inches)	HYDRANTS	2	TEE PLUGGED-RUNS	4	4	4
2	*	*	*	*	*	*
4	1.7	2.1	2.4	1.3	*	*
6	3.7	4.9	5.3	2.9	1.5	*
8	6.7	8.7	9.5	5.1	2.7	1.3
10	10.5	13.6	14.8	8	4.1	2
12	15.1	19.6	21.3	11.6	5.9	2.9
14						
16	26.8	34.8	37.9	20.5	10.4	5.2
18	33.9	44	47.9	25.9	12.8	6.7
LARGER	* *	* *	* *	* *	* *	* *
BEARING AREA OF THRUST BLOCKS (sq. ft.)						

- ALL VALUES ARE BASED ON THE FOLLOWING ASSUMPTIONS: AVG. PRESSURE = 100 PSI X 2 (safety factor); 1500 PSF SOIL BEARING CAPACITY; NORMAL DISTRIBUTION DESIGN VELOCITY NOT TO EXCEED 5 F/S.
- 2. ALL FITTINGS SHALL BE WRAPPED IN 8 MM PLASTIC PRIOR TO PLACEMENT OF CONCRETE.
- 3. BEARING SURFACE OF THRUST BLOCKING SHALL BE AGAINST UNDISTURBED SOIL
- 4. ALL CONCRETE MIX SHALL HAVE A MIN. 28 DAY STRENGTH OF 3000 PSI.
- 5. ALL PIPE ZONES SHALL BE GRAVEL FILLED AND COMPACTED.
- THRUST BLOCKS FOR PLUGGED CROSS AND PLUGGED TEE SHALL HAVE #4 REBAR LIFTING LOOPS INSTALLED AS SHOWN.
- 7. VERTICAL THRUST DETAILS-SEE DWG. WL-407.

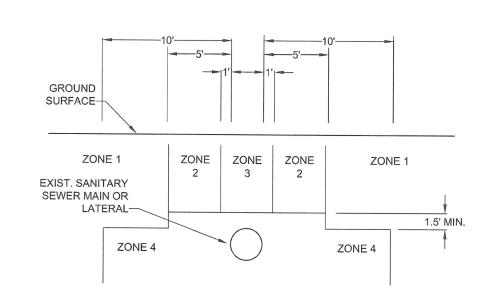


- \* BLOCK TO UNDISTURBED TRENCH WALLS.
- \*\* THRUST BLOCKS FOR PIPES LARGER THAN 18" WILL BE INDIVIDUALLY DESIGNED BY THE ENGINEER.

HORIZONTAL
THRUST BLOCKING



DATE:
2010
DRAWING NO.
WL-406
FILE NO.



ZONE 1: ONLY CROSSING RESTRICTIONS APPLY ZONE 2: CASE-BY-CASE DETERMINATION ZONE 3: PARALLEL WATERLINE PROHIBITED ZONE 4: PARALLEL WATERLINE PROHIBITED

### NOTE:

 WHERE THE PROPOSED WATERLINE WILL BE INSTALLED PARALLEL TO AN EXISTING GRAVITY SANITARY SEWER MAIN OR LATERAL LINE, THE SEPARATION BETWEEN THE TWO SHALL BE AS INDICATED ABOVE.

### CROSSINGS:

A. WHEREVER POSSIBLE, THE BOTTOM OF THE WATERLINE SHALL BE 1.5 FEET ABOVE THE TOP OF THE SEWER LINE, AND ONE FULL LENGTH OF WATERLINE SHALL BE CENTERED AT THE CROSSING.

B. WHERE IT IS NOT POSSIBLE FOR THE WATER LINE TO BE 1.5 FEET ABOVE THE SEWER LINE, OR THE WATERLINE PASSES UNDER THE SEWER LINE, THE EXISTING SEWER LINE SHALL BE EXPOSED FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, AND SHALL BE REPLACED WITH C-900 PVC WITH STRUCTURAL REQUIREMENT OF DR18 OR DR 25 OR CLASS 50 DUCTILE IRON PIPE AS APPROVED BY THE CITY ENGINEER, AND A LENGTH OF WATER PIPE SHALL BE CENTERED AT THE CROSSING, OR AS APPROVED BY THE CITY ENGINEER.

### STANDARD SANITARY SEWER CROSSING



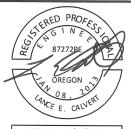
DATE: 2010

DRAWING NO. WL-409

FILE NO.



CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106



EXPIRES: 12/31/2017

CONTRACTOR TBD

### PW-16-03 ATERLINE PROJECTS

Details

Standard

PROJECT DATA

Project No: PW-16-03

Designed By: ELAIS

Drawn By: MPALMER

Checked By: LCALVERT

Date Issued: 1/17/2017

REVISION

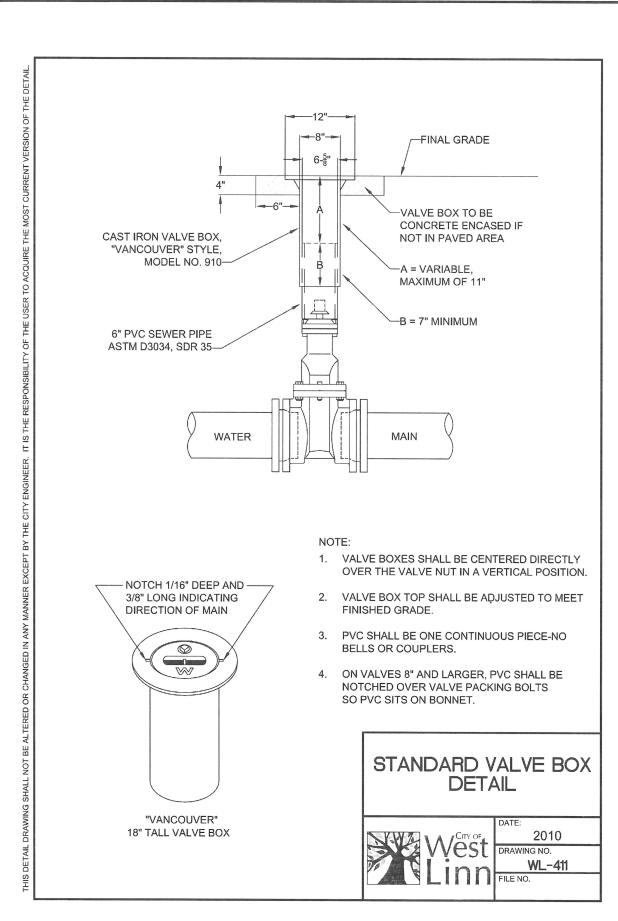
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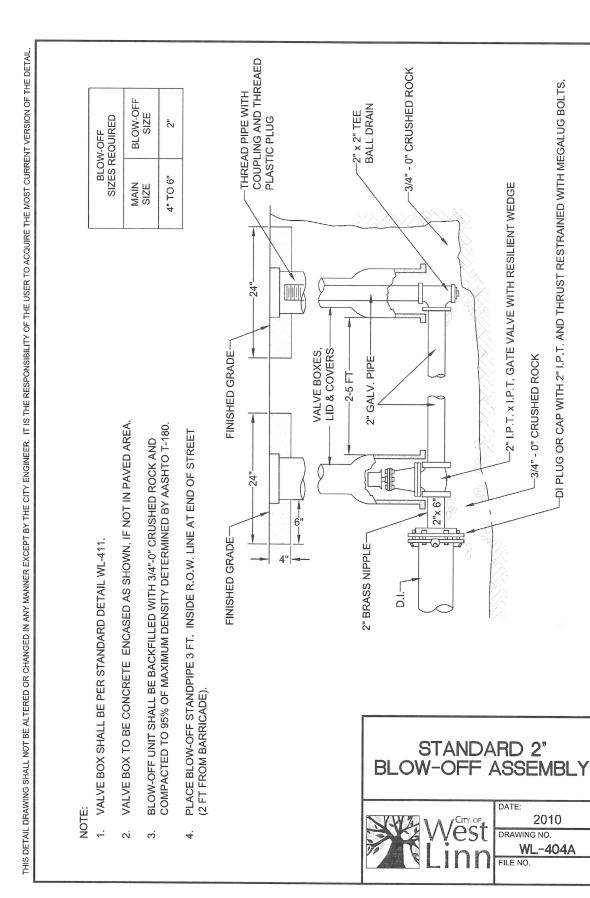
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DETAILS SHEET

D4

SHEET 19 OF 21







CITY OF WEST LINN 22500 SALAMO ROAD WEST LINN, OREGON 97068 WWW.WESTLINNOREGON.GOV PHONE: (503) 722-5500 FAX: (503) 656-4106

MEGALUG

THRUST

AND

CAP WITH 2" I.P.T

OR PLUG

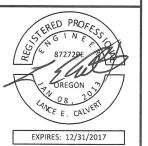
2010

WL-404A

0" CRUSHED

VALVE WITH RESILIENT

x I.P.T. GATE



CONTRACTOR TBD

WATERLINE PROJECT

\_

01

2

PW-16-03

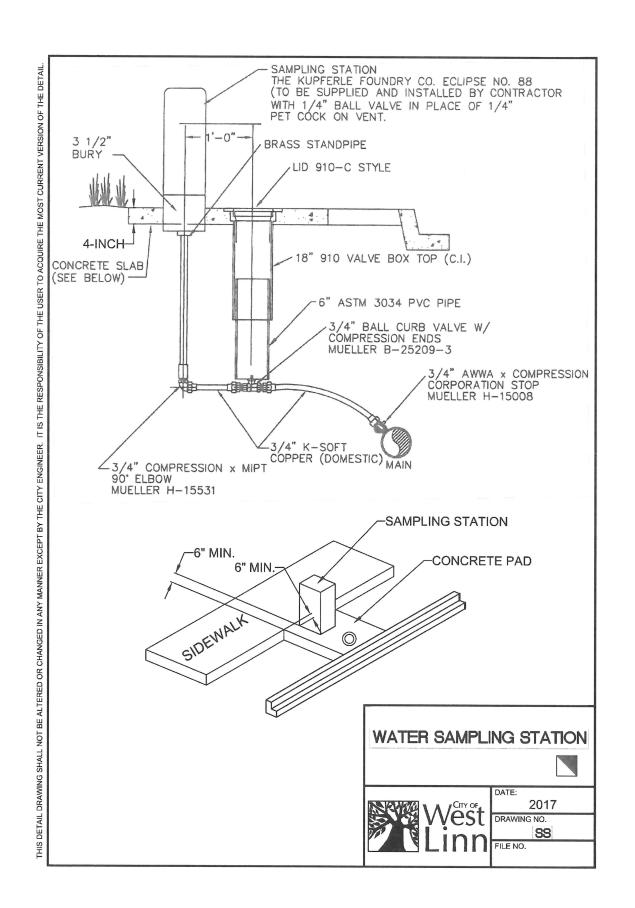
Standard Details

PROJECT DATA Project No: PW-16-03 Drawn By: MPALMER Checked By: LCALVERT Date Issued: 1/17/2017 REVISION Date Description

**DETAILS SHEET** 

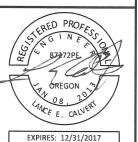
**D5** 

**SHEET 20 OF 21** 





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CONTRACTOR TBD

## PW-16-03 WATERLINE PROJECTS

2017

Standard Details

PROJECT DATA
Project No: PW-16-03
Designed By: ELAIS
Drawn By: MPALMER
Checked By: LCALVERT
Date Issued: 1/17/2017

REVISION

REVISION

Date Description

DETAILS SHEET

D6

SHEET 21 OF 21