

SECTION 8-T57N-R1W TAX 26, 32, 48
PARCEL RP57N01W083101A
BONNER COUNTY, IDAHO

GENERAL

1. THE EXISTENCE AND LOCATION OF WATER FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE PUBLIC RECORDS. LOCATION AND ELEVATION OF EXISTING WATER FACILITIES TO BE CONFIRMED BY FIELD MEASUREMENTS AND EXCAVATION EXPLORATION BY THE CONTRACTOR PRIOR TO BEGINNING OF NEW WORK. THIS WILL BE NECESSARY TO DETERMINE IF ANY CHANGES TO THE EXISTING WATER FACILITIES ARE NECESSARY. THE OPEN WATER ASSOCIATION AND 76 ENGINEERING SHALL NOT BE HELD RESPONSIBLE FOR ANY ERROR IN THE LOCATION AND ELEVATION OF THE EXISTING WATER FACILITIES.
2. THE OPEN WATER ASSOCIATION AND THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHT-OF-WAY AFTER A PERMIT HAS BEEN OBTAINED FROM THE IDAHO DEPARTMENT OF TRANSPORTATION.
3. WATER SYSTEM INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST CURRENT IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, PANHANDLE HEALTH DEPARTMENT, AWWA, AND THE IDAHO DIVISION OF BUILDING SAFETY.
4. COORDINATE SETTING OF METER, AND WATER SERVICES WITH THE OPEN WATER ASSOCIATION AND THE ENGINEER. INFORM THE ASSOCIATION 48 HOURS IN ADVANCE OF SETTING. THE CONTRACTOR SHALL REMAIN UNCOVERED AND APPROVED BY THE ENGINEER OR HIS REPRESENTATIVE.
5. WATER SYSTEM DETAILS ISFWC STANDARD DRAWINGS SD-401, SD-402, SD-403, SD-404, SD-406, SD-407, AND SD-408A SHALL BE INCORPORATED AS PART OF THESE PLANS AND SPECIFICATIONS UNLESS OTHERWISE MODIFIED HEREIN.
6. CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR ALL TESTING PRIOR TO ACCEPTANCE BY THE OPEN WATER ASSOCIATION. TESTING SHALL INCLUDE CHLORINATION, BACTERIA, AND PHYLIT PROTECTANT.
7. TRACING WIRE (12 AWG) SHALL BE PLACED ATOP ALL WATER MAINS AND SHALL BE BROUGHT TO THE SURFACE AT EACH MAINLINE AND FIRE HYDRANT VALVE. TRACING WIRE SHALL BE PLACED ATOP ALL WATER MAINS AND WATER SERVICE LINES. THE WIRE SHALL BE BROUGHT TO THE SURFACE ON THE OUTSIDE OF EACH WATER SERVICE CURB BOX AND FIRE HYDRANT AND INSIDE EACH VALVE BOX.
11. ALL AREAS ACQUIRED WITHIN THE RIGHT-OF-WAY OR WITHIN EASEMENTS SHALL BE RESTORED TO AS-FOUND OR BETTER CONDITION TO THE SATISFACTION OF THE PROPERTY OWNER OR THE AUTHORITY HAVING JURISDICTION.

WATER MAINS

12. WATER MAIN LINE SHALL BE C-900 PVC OR APPROVED EQUAL CONFORMING TO AWWA STANDARDS AND BE CERTIFIED BY AN ACCREDITED ANSI CERTIFICATION BODY TO MEET APPLICABLE ANSI/NSF STANDARDS.
13. WATER INSTALLATION SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATIONS, ISPCW SECTION 400, AND TO THE DEPTHS SHOWN IN THESE DRAWINGS.
14. TRENCH EXCAVATION SHALL COMPLY WITH ISPCW SECTION 301 AND FOUNDATION STABILIZED PER ISPCW SECTION 304 AND SD-301.
15. PIPE BEDDING SHALL COMPLY WITH ISPCW SECTION 305 AND SD-302. CLASS A BEDDING TO BE USED FOR TYPICAL BEDDING OF PIPES. CLASS B2 SHALL BE USED ON ALL NON-POTABLE CROSSINGS.
16. TRENCH BACKFILL SHALL COMPLY WITH ISPCW SECTION 306. TYPE A TRENCH BACKFILL SHALL BE USED IN ALL DEVELOPED AREAS. TYPE C TRENCH IN ALL LANDSCAPE & UNDEVELOPED AREAS.
17. STREET CUTS SHALL COMPLY WITH ISPCW SECTION 307 AND SD-303.
18. SEWER AND WATER CONFLICTS SHALL COMPLY WITH SEPARATION REQUIREMENTS OF ISPCW SECTION 405 AND STANDARD DRAWING SD-407.
19. ATTACH LOCATE WIRE TO CROWN OF PIPE USING ELECTRICAL TAPE AND PROVIDE 12 INCHES OF SLACK WIRE ABOVE GROUND AT EACH LOCATION OF WIRE BOX. TEST FOR CONTINUITY AND REPAIR ANY DAMAGE TO WIRE.
20. INSTALL LOCATING (MARKER) TAPE DURING BACKFILLING AT 18 TO 24 INCHES ABOVE THE CROWN OF THE PIPE.
21. TRENCHES SHALL BE FULLY DETERMINED PRIOR TO PLACEMENT OF PIPE PROPERLY BEDDED TO THE LINE AND GRADE SHOWN IN THESE PLANS.
22. CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR ALL TESTING OF WATER MAINS PRIOR TO ACCEPTANCE BY DEQ PER ISPCW SECTION 401 (3.6) 150 LBS. FOR 2 HOUR HOLDING TIME.
23. CONTRACTOR/DEVELOPER TO DISINFECT, AND WASH WATER MAINS AFTER INSTALLATION PER ISPCW SECTION 401 (3.9). METHOD TO BE USED SHALL BE CHLORINE TABLETS OR POWDER.
24. 3M MID-RANGE MARKERS #1257 SHALL BE PLACED AT EACH VALVE.
25. WHERE MJ FITTINGS ARE USED ROMAC GRIP RING ASSEMBLY KITS SHALL BE USED.
26. THRUST BLOCKS SHALL BE PLACED AT CHANGE OF DIRECTION OF ALL WATER MAINS AND SERVICES LARGER THAN 2", SEE ISPCW SD-403 FOR THRUST BLOCK STANDARDS.
27. NEW CONNECTION CAN BE COMPLETED BY THE CONTRACTOR UNDER THE OBSERVATION OF THE OPEN WATER ASSOCIATION. (72 HRS NOTICE REQUIRED)

WATER SERVICES

27. WHEN TWO WATER SERVICES ARE INSTALLED BESIDE EACH OTHER AND ARE LAID IN A COMMON TRENCH, THE CURB STOPS AND SERVICE LINES SHALL NOT BE MORE THAN TWO FEET APART. THE WATER SERVICES SHALL BE INSTALLED ON PROPERTY CORNERS THAT DO NOT CONTAIN OTHER UTILITIES.
28. CURB TOTAL DIRECTION SHALL BE DETERMINED BY THE WATER OPERATOR.
29. ALL BUSHINGS, NUTS AND WELDS SHALL BE CERTIFIED TO MEET NSF 61 CERTIFICATION - GALVANIZED WILL NOT BE ACCEPTED.
30. ALL SERVICE SADDLES SHALL BE DOUBLE STRAP WITH STAINLESS STEEL STRAPS.

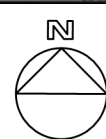
FIRE HYDRANTS

31. DEAD END MAINS SHALL HAVE A STANDARD FIRE HYDRANT FOR FLUSHING PURPOSES.
32. FOLLOWING SETTING, FIRE HYDRANT MUST BE PAINTED WITH HYDRANT YELLOW ENAMEL.
33. FIRE HYDRANT VALVES SHALL BE ATTACHED TO TEE AT MAIN.
34. FIRE HYDRANT REQUIRES A STORZ ADAPTER.
35. SNOW FLAG MARKER REQUIRED PRIOR TO ACCEPTANCE BY COUNTY OR NORTHSIDE FIRE. SPRING STEEL MARKER FLAG 75193 (RED/WHITE/REFLECTIVE)
36. KING LOCK K-3 FIRE HYDRANT LOCK IS REQUIRED WITH EACH FIRE HYDRANT ASSEMBLY.

KEYNOTES

- (1) BONNER COUNTY PUBLIC RIGHT-OF-WAY (TYPICAL)
- (2) APPROXIMATE PROPERTY BOUNDARIES
- (3) ODEN WATER RESERVOIR SITE
- (4) NEW WATER SYSTEM IMPROVEMENTS
12" C900 DR 18 PVC WATERMAIN (~2,255 LF)
- (5) EXISTING 10" C900 DR18 PVC WATERMAIN (CONSTRUCTED IN 2005)
CONNECTS TREATMENT PLANT TO RESERVOIRS & DISTRIBUTION SYSTEM
- (6) EXISTING 6" CLASS 100 ASBESTOS CEMENT WATERLINE. (APPROXIMATE LOCATION CONTRACTOR TO POT HOLE VERIFY). RETAIN AND PROTECT WATERLINE - WILL BE USED TO SUPPLY ADDITIONAL WATER UNTIL PIPELINE FAILS.
- (7) EXISTING 6" CLASS 100 ASBESTOS CEMENT WATERLINE (APPROXIMATE LOCATION). RETAIN AND PROTECT EXISTING WATER LINE. WATER LINE WILL BE UTILIZED TO SERVE LOWER W ODEN BAY ROAD.
- (8) ASSEMBLY 1 - PHASE I EXTENSION CONNECTION (SEE DETAIL I/W2)
CONNECTION BETWEEN NEW 12" PVC MAIN TO EXISTING 10" PVC C900 MAIN, EXISTING 6" CLASS AC MAIN, AND FUTURE TANK CONNECTION.
ALL PARTS ARE CONNECTED TO TEE FITTINGS E-0, F-2, F-3, & F-5 "SEE FITTING TABLE"
(8A) CONNECTION TO EXISTING 10" WATER MAIN (FUTURE TANK BYPASS)
1 - 10" D.I. GATE VALVE (EG-3, 10" EXISTING VALVE IN)
1 - 10" 45° D.I. ELBOW (F-0)
1 - 10" 22.5 D.I. ELBOW (F-1)
1 - 12" TO 10" D.I. REDUCING TEE (F-2)
~ 10 LF OF 10" C900 PVC (A-1)
(8B) CONNECTION BETWEEN NEW 12" C900 MAIN & EXISTING 6" AC WATER MAIN
1 - 12" TO 6" D.I. REDUCING TEE
1 - 6" D.I. GATE VALVE (G-2)
1 - 6" 90° D.I. ELBOW (F-0)
~ 20 LF OF 6" C900 PVC (A-2 & A-3)
- (8C) ISOLATION VALVE - START OF ODEN REPLACEMENT PIPE RUN
1 - 12" D.I. GATE VALVE (G-1)
- (8D) FUTURE 12" STUB CONNECTION TO STORAGE TANKS
1 - 12" D.I. GATE VALVE (G-2)
1 - 12" D.I. BLIND FLANGE CAP
- (8E) EXISTING CONNECTION BETWEEN 8" AC & EXISTING 6" WATER MAIN
1 - 8" D.I. GATE VALVE (EG-4)
1 - 6" TO 6" REDUCING TEE (EF-1)
- (9) ASSEMBLY 2 - LOW POINT - FIRE HYDRANT (SEE DETAIL II/W2)
ALL PARTS ARE CONNECTED TO F-10 "SEE TABLES ON SHEET W2")
(9A) INSTALL FIRE HYDRANT (SEE DETAIL C/W4) RESTRAIN & THRUST BLOCK ASSEMBLY
1 - 12" TO 6" D.I. REDUCING TEE
1 - 6" ALPHA GATE VALVE (FLGXJ)
1 - WATEROUS HYDRANT OR EQUAL (60" MIN BURY DEPTH)
- (10) NEW D.I. 12" VERTICAL OR HORIZONTAL BENDS (SEE FITTING TABLES ON SHEET W2 & W3)
- (11) PIPE DEFLECTION (< 1" MAX DEFLECTION ~ 0.48" FOR 20 LF PIPE SECTIONS)
- (12) RAISE GROUND IN AREA (REFER TO FIELD ORDER 1)
COVER PIPE WITH 4" MIN OF COVER
EXISTING CULVERT BELOW SECTION (PIPE HAS MORE THAN 18" OF SEPARATION, SEE DETAIL A/4)
- (13) NEW WATER SERVICES (DETAIL E/W4) (3 EXISTING CONNECTIONS).
AFTER TESTING AND APPROVAL OF NEW WATER MAIN RECONNECT
- (14) EXISTING 8" AC WATER MAIN CROSSING (SEE DETAIL A/4)
* NEW WATER MAIN WAS PLACED OVER EXISTING MAIN AND BACKFILLED WITH CLASS III BEDDING MATERIAL. P-13 HAS LOW COVER ~42". 4" OF FOAM BOARD R303 PLACED OVER PIPE BEDDING WHICH GIVES THE PIPE A EQUIVALENT TO 5" OF COVER.
- (15) APPROXIMATE CENTER OF MONTANA RAIL LINK OWNED BY BNSF
- (16) BNSF RAILROAD RIGHT-OF-WAY

W1 COVER SHEET, SITE OVERVIEW
W2 SITE PLAN AND PROFILES: SECTION A
W3 SITE PLAN AND PROFILES: SECTION B
W4 WATER SYSTEM DETAILS
F1 FIELD ORDER 1: EROSION AND GRADING PLAN



VICINITY MAPS

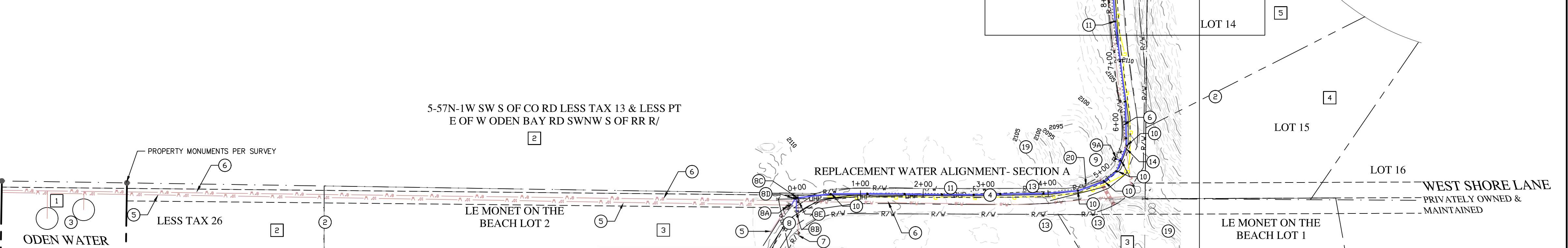
OWNER AN ADJACENT PROPERTY PARCEL NUMBERS




- | | |
|----|---|
| 1 | ODEN WATER ASSOCIATION, (RP57N01W083101A) |
| 2 | Thunder Ranch Land & Cattle Co (RP57N01W083004A, RP57N01W054002A) |
| 3 | Viper Rental Ltd (RP034230000010A, RP034230000020A) |
| 4 | Kallis, Dean R & Ester (RP002980000150A) |
| 5 | Finnerty Trust (RP002980000140A) |
| 6 | Buday, Richard A & Andrea J (RP002980000130A) |
| 7 | Lewis, William E (RP002980000120A) |
| 8 | Cosgrove, Susan Ford (RP002980000110A) |
| 9 | Schillinger, Dean Erich (RP00298000010A0A) |
| 10 | Larry & Denise Walker Living Trust (RP57N01W056600A, RP00298000009BA) |

LEGEND

- | | |
|-----------|--|
| — R/W — | RIGHT-OF-WAY |
| — — — — — | PROPERTY PARCEL |
| — — — — — | EASEMENT LINE |
| — — — — — | NEW WATER MAIN |
| — — — — — | NEW WATER SERVICE STUB |
| — — — — — | EXISTING WATER MAIN |
| — — — — — | EXISTING FIBER COMMUNICATIONS |
| — — — — — | OVERHEAD POWER LINES |
| — — — — — | GAS LINE |
| — — — — — | EXISTING SEWER CONNECTION |
| — — — — — | EXISTING SEWER MAIN |
| — — — — — | EXISTING CULVERT / STORM PIPE |
| — — — — — | EXISTING GRADE 5' CONTOUR |
| — — — — — | EXISTING GRADE 1' CONTOUR |
| ⊙ ⊙ | PROPERTY CORNER, CALCULATED POINT (EASEMENT) |

- (17) ASSEMBLY 3 - HIGH POINT - AIR RELEASE/VACUUM VALVE
(REFER TO DETAIL 11/W3 & G/W4)
1 - 48" PRECAST MANHOLE TYPE A
1 - AIR RELEASE/VACUUM VALVE
- (18) ASSEMBLY 4-TEMPORARY RECONNECTION TO 8" CLASS 100 ASBESTOS
CEMENT & PHASE II FUTURE CONNECTION POINT.
(SEE DETAIL 11/V4)
EXISTING WATERLINE WHICH WILL BE UTILIZED UNTIL FAILURE.
ALL PARTS ARE CONNECTED TO F-16 "SEE TABLES ON SHEET W3"
- (19a) CONNECTION TO EXISTING DISTRIBUTION--END OF PROPOSED REPLACEMENT.
1 - 12" TO 8" D.I. REDUCER
1 - 8" D.I. GATE VALVE
1 - 12" D.I. GATE VALVE
2 - 12" 6000 P.V.C DR 18 STUB W/ COUPLER TO EXISTING AC 100 WATER MAIN
1 - 45° D.I. BEND
1 - 22.5 D.I. BEND
RESTRAIN AND THRUST LOCK CONNECTION.
- (19) EXISTING GROUND CONTOURS (5' MAJOR, 1' MINORS)
- (20) FINISHED GROUND CONTOURS (5' MAJOR, 1' MINORS)



REVISION	DATE	DESCRIPTION
	8/08/23	REPLACES SHEET W/1 WITH CHANGES, REMOVED OPEN BAY DRIVE CONNECTION.
	12/01/23	REPLACES SHEET W/1A WITH CHANGES, RELOCATED PIPE OUT OF PAVEMENT, SEE FIELD ORDER 1
	12/20/24	RECORD PLANS, ALIGNMENT & CONNECTION ADJUSTED ON SITE

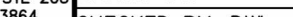
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2024-12-20
DANIEL LARSON

7B ENGR
P. E

AS-BUILT



SHEET TITLE		PROJECT #:		21100	
OWNER		ORIGINAL STORED AT:		DRAWN BY:	
		78 ENGINEERING 414 CHURCH ST STE 203 SANDPOINT, ID 83864		ICE	
PROJECT		CHECKED BY:		DWL	
				<div>Professional Engineer Seal for Daniel W. Larson, State of Idaho, No. 10086</div> <div>10086</div>	
DRAWING DATE:					
ODEN WATER SYSTEM IMPROVEMENTS BONNER COUNTY, ID		12/20/2024		1"=100'	
		(VALID FOR 24"x36" OR 22"x34") SHEET W1B OF 5			

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