

WESTWOOD LIFT STATION IMPROVEMENTS

SHEET INDEX:

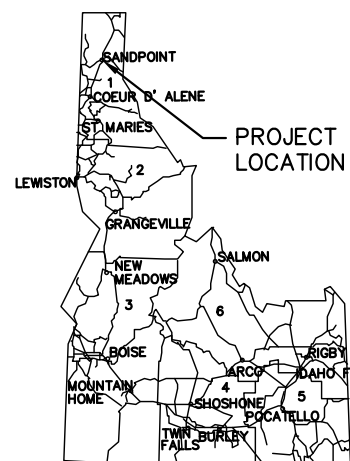
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ELEVATION DATUM:

THE ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 USING GEOID 09 AND GPS STATIC OBSERVATIONS PROCESSED THROUGH THE ONLINE POSITIONING USER SERVICE (OPUS).

BASIS OF BEARING:

THE BEARINGS SHOWN ON THIS PLAN ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83), IDAHO STATE PLANE COORDINATE SYSTEM, WEST ZONE. GPS AND STATIC OBSERVATIONS PROCESSED THROUGH THE ONLINE POSITIONING USER SERVICE (OPUS) WERE USED TO DETERMINE STATE PLANE COORDINATE VALUES. STATE PLANE GRID DISTANCES WERE CONVERTED TO GROUND DISTANCES USING A COMBINED ADJUSTMENT FACTOR OF 1.000120371 AND APPLIED AT THE 0,0 ORIGIN.



LOCATED WITHIN:

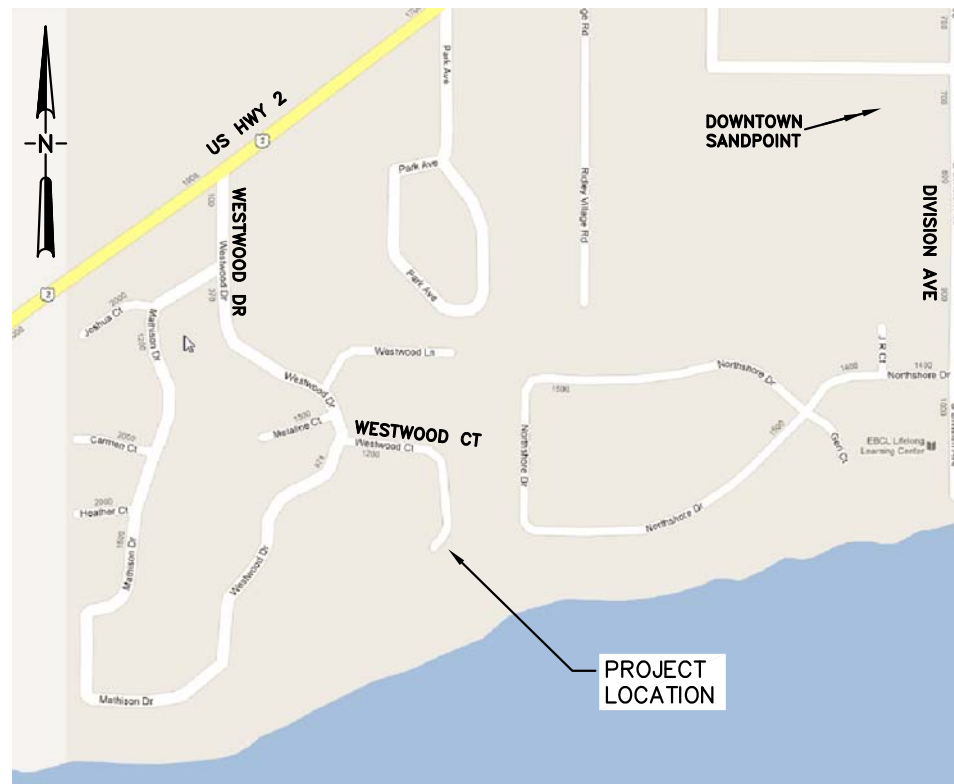
WESTWOOD CONDOMINIUMS
S28, T57N, R2W, B.M., BONNER COUNTY, ID
CITY OF SANDPOINT

OWNER:

CITY OF SANDPOINT
1123 LAKE STREET
SANDPOINT, ID 83864
(208) 263-3407

LEGEND OF EXISTING FEATURES:

- | | | |
|--------------|------------------------|----------------------------------|
| --- 2083 --- | GARAGE STRUCTURE | SMALL TEXT FOR EXISTING FEATURES |
| - EP - | GROUND CONTOURS | EDGE OF PAVEMENT |
| — GSS — | GRAVITY SANITARY SEWER | PRESSURE SANITARY SEWER |
| — SS — | STORM DRAIN | WATER LINE |
| — SD — | UNDERGROUND POWER | FENCE |
| — W — | WATER METER | WATER VALVE |
| — POW — | WATER VALVE | FIRE HYDRANT |
| X | CATCH BASIN | TREE W/ DIAMETER |
| WM | BOLLARD | |



VICINITY MAP

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MONUMENT FIELD SEARCH CERTIFICATION:

I, DUSTY B. OBERMAYER, IDAHO PLS NUMBER 11119, CERTIFY THAT ALL PROPERTY CORNER MONUMENTS AND ACCESSORIES, IF APPLICABLE, WERE FOUND, OR SEARCHED FOR AND NOT FOUND AT THE TIME OF THE FIELD SURVEY AND AS SHOWN ON THESE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH IDAHO CODE SECTION 55-1613.



**Know what's below.
Call before you dig.**

NO.	REVISION	BY	DATE	DESIGN BY:
0	ISSUED FOR AGENCY REVIEW	EKO	7/20/12	DESIGN BY: EKO
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				SCALE:

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CONSULTING ENGINEERS - LAND SURVEYORS - PLANNERS

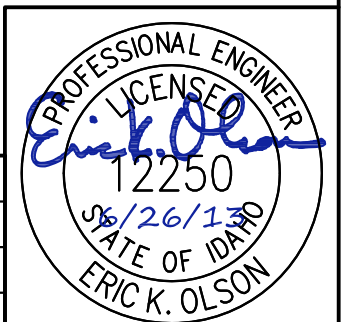


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219 PINE ST. SANDPOINT, IDAHO 83864 (208)265-4629

WESTWOOD LIFT STATION IMPROVEMENTS
CITY OF SANDPOINT, IDAHO

COVER SHEET

PROJECT:	S123005
FILE NAME:	AB-COVER.DWG
PLOT DATE:	6/26/13
SHEET NUMBER:	C1



CONSTRUCTION NOTES:


1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPMC) CURRENT EDITION. IN CASE OF A CONFLICT WITH THESE CONSTRUCTION DRAWINGS, THE DRAWINGS SHALL GOVERN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THE ISPMC.
2. THE CITY OF SANDPOINT PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED AT (208) 263-3407 48 HOURS PRIOR TO COMMENCING WORK.
3. EXISTING UTILITIES SHALL BE LOCATED BY CONTACTING CALL BEFORE YOU DIG (811), AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES PRIOR TO STARTING WORK NEAR ANY FACILITIES, AND SHALL COORDINATE THEIR WORK WITH COMPANY REPRESENTATIVES.
4. AN APPROVED SET OF CONSTRUCTION PLANS AND SPECIFICATIONS SHALL BE KEPT ON THE JOB SITE AT ALL TIMES. NO REVISIONS SHALL BE MADE TO THE PLANS WITHOUT THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL KEEP RECORD OF PLAN DEVIATIONS AND DELIVER A COPY TO THE ENGINEER AT THE END OF CONSTRUCTION SO THAT THE ENGINEER MAY PREPARE AS-BUILT DRAWINGS.
5. THE CONTRACTOR SHALL MAINTAIN PUBLIC AND PRIVATE PROPERTY IN A CLEAN, SAFE, AND USABLE CONDITION.
6. EXISTING PROPERTY CORNERS AND OTHER SURVEY MONUMENTS SHALL BE PROTECTED DURING THE COURSE OF CONSTRUCTION. IF MONUMENTS MUST BE DISTURBED, NOTIFY ENGINEER/SURVEYOR PRIOR TO DISTURBANCE TO COORDINATE REESTABLISHMENT AFTER CONSTRUCTION IN ACCORDANCE WITH IDAHO CODE 55-1613.
7. ALL MANHOLES (INCLUDING LIFT STATION VAULTS) SHALL BE VACUUM TESTED IN ACCORDANCE W/ SECTION 502 OF THE ISPMC. ——— **MANHOLES WERE HYDROSTATICALLY TESTED**
8. SUBMITTALS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL FOR ALL MATERIALS TO BE INCORPORATED INTO THE PROJECT.
9. GRAVITY SEWER MAINS SHALL BE PVC, ASTM D3034, SDR 35. GRAVITY MAINS SHALL BE AIR TESTED IN ACCORDANCE W/ ISPMC SECTION 501, WASHED, AND VIDEO TAPED BY THE CONTRACTOR. A COPY OF THE VIDEO TAPE SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PAVING AND ACCEPTANCE.
10. PRESSURE SEWER MAINS SHALL BE PVC, ASTM D2241, CLASS 160. PRESSURE MAINS SHALL BE INSTALLED WITH 12 GAUGE TRACING WIRE AND PLASTIC MARKING TAPE. PRESSURE MAINS SHALL BE HYDROSTATICALLY TESTED PER ISPMC SECTION 401.
11. THRUST BLOCKS SHALL BE PROVIDED FOR ALL PRESSURE SEWER BENDS. ALL THRUST BLOCKING SHALL BE FORMED IN PLACE AGAINST UNDISTURBED OR COMPACTED SOIL, AND CONFORM TO THE MINIMUM DIMENSIONS SHOWN ON ISPMC SD-403. ALL BOLTS AND NUTS SHALL BE FREE OF CONCRETE AND ACCESSIBLE BY WRENCH.
12. ALL TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ISPMC, CLASS A-1 BEDDING SYSTEM (3/4" CRUSHED AGGREGATE).
13. TRENCH BACKFILL AND BACKFILL AROUND MANHOLES & LIFT STATION VAULTS SHALL BE NATIVE BACKFILL MEETING THE REQUIREMENTS OF ISPMC SECTION 306, TYPE A-1 COMPACTION UNDER PAVEMENT AND IN LIFT STATION YARD AREA, TYPE C COMPACTION ELSEWHERE.
14. CRUSHED AGGREGATE FOR ROAD BASE SHALL CONFORM TO ISPMC SECTION 802, 3/4" TYPE I. COMPACT TO 95% OF THE MAXIMUM LABORATORY DENSITY AS DETERMINED BY AASHTO T-99.
15. ASPHALT PAVEMENT SURFACE COURSE SHALL CONFORM TO THE REQUIREMENTS OF ITD SP1 OR HIGHER WITH 1/2" NOMINAL MAXIMUM SIZE AGGREGATE. ASPHALT BINDER SHALL BE PG58-28 OR HIGHER.
16. COMPACTION TESTING SHALL BE PROVIDED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AT THE FOLLOWING DURATIONS:
 - 16.1. 2 TESTS IN THE PAVEMENT PATCH AREA FOR EACH LIFT OF MATERIAL.
 - 16.2. 1 TEST FOR EACH LIFT OF MATERIAL AT EACH MANHOLE & LIFT STATION VAULT.
 - 16.3. 1 TEST FOR EACH LIFT OF MATERIAL FOR EACH TRENCH AT 100 FOOT SPACING.
17. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF ISPMC SECTION 703. ——— **PEA GRAVEL WAS USED AS FLOWABLE FILL**
18. SUBMIT AN APPROPRIATE HYDROSEED MIX FOR APPROVAL. MIX SHALL BE SELECTED TO MATCH EXISTING LAWN AREAS.
19. SALVAGED MATERIALS SHALL BE RETURNED TO THE CITY OF SANDPOINT OR DISPOSED OF AT THE CITY'S OPTION.
20. ALL INFRASTRUCTURE WORK SHALL BE WARRANTED FOR TWO YEARS FROM THE TIME OF WRITTEN ACCEPTANCE BY THE CITY.

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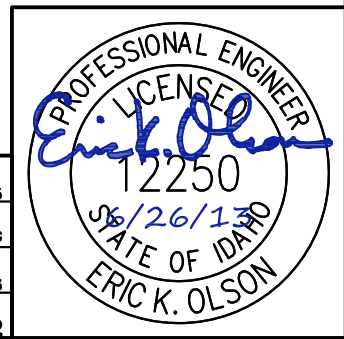
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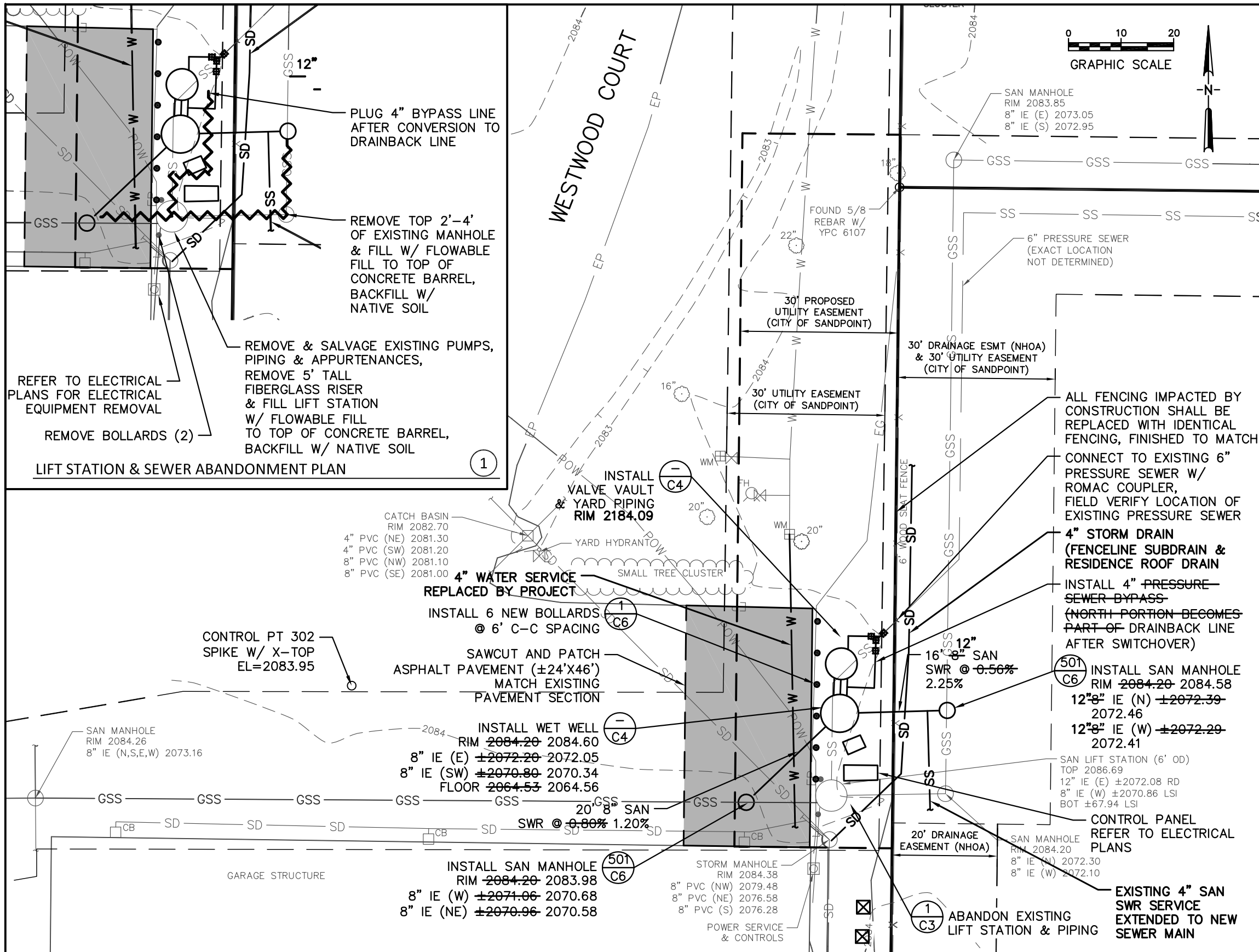


WESTWOOD LIFT STATION IMPROVEMENTS
 CITY OF SANDPOINT, IDAHO

CONSTRUCTION NOTES

PROJECT: S123005
 FILE NAME: AB-DETAILS.DWG
 PLOT DATE: 6/26/13
 SHEET NUMBER: C2





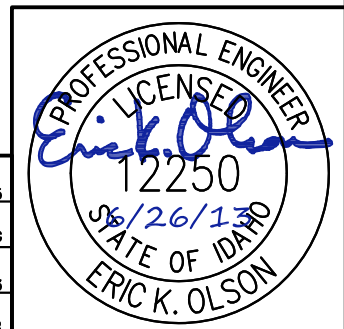
LIFT STATION SWITCHOVER PLAN:

1. POUR BASES AND SET NEW "DOGHOUSE" STYLE MANHOLES. VERIFY SIZE AND DEPTH OF EXISTING GRAVITY SEWERS. INSTALL NEW GRAVITY SEWER LINES. DO NOT CUT EXISTING GRAVITY SEWERS AT THIS TIME.
 2. INSTALL 4" PRESSURE SEWER BYPASS & NEW 6" PRESSURE SEWER CONNECTION.
 3. INSTALL LIFT STATION AND TEST USING GENERATOR PROVIDED BY CITY.
 4. SWITCHOVER:
 - 4.1. PLUG EXISTING SEWERS AT UPSTREAM MANHOLES.
 - 4.2. CUT EXISTING PIPING AT NEW MANHOLES.
 - 4.3. CONSTRUCT QUICK-SET GROUT CHANNELS IN NEW MANHOLES, ENSURING ABANDONED LINES ARE COMPLETELY PLUGGED.
 - 4.4. SWITCH POWER TO NEW CONTROL PANEL.
 - 4.5. REMOVE PLUGS AND BEGIN OPERATION OF NEW LIFT STATION.
 5. ABANDON LIFT STATION AND PORTIONS OF EXISTING SEWER INDICATED ON PLANS. CONVERT PORTION OF PRESSURE SEWER BYPASS TO DRAIN LINE.
- ALTERNATIVE PLANS MAY BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL PROVIDED THAT NO SERVICE INTERRUPTION AND NO UNNECESSARY INCONVENIENCE IS CAUSED TO PROPERTY OWNERS AND THE CITY OF SANDPOINT.

LANDSCAPE RESTORATION NOTES:

1. CONTRACTOR SHALL TAKE CARE TO MINIMIZE DISTURBANCE TO EXISTING LANDSCAPING AND VEGETATION.
2. AROUND THE LIFT STATION, BETWEEN FENCE AND PAVEMENT PATCH, FINISHED SURFACE SHALL BE ROUND ROCK TO MATCH EXISTING.
3. EAST OF FENCE, FINISHED SURFACE SHALL BE 4" OF TOPSOIL IN DISTURBED AREAS. THE CITY WILL COORDINATE WITH THE PROPERTY OWNER TO PROVIDE MATERIALS TO RESTORE LANDSCAPING.
4. FOR ELECTRICAL TRENCHING SOUTH AND WEST OF THE MAIN LIFT STATION AREA, TRENCH SHALL BE COMPLETED W/ 4" OF TOPSOIL. DISTURBED AREA SHALL BE HYDROSEEDDED.

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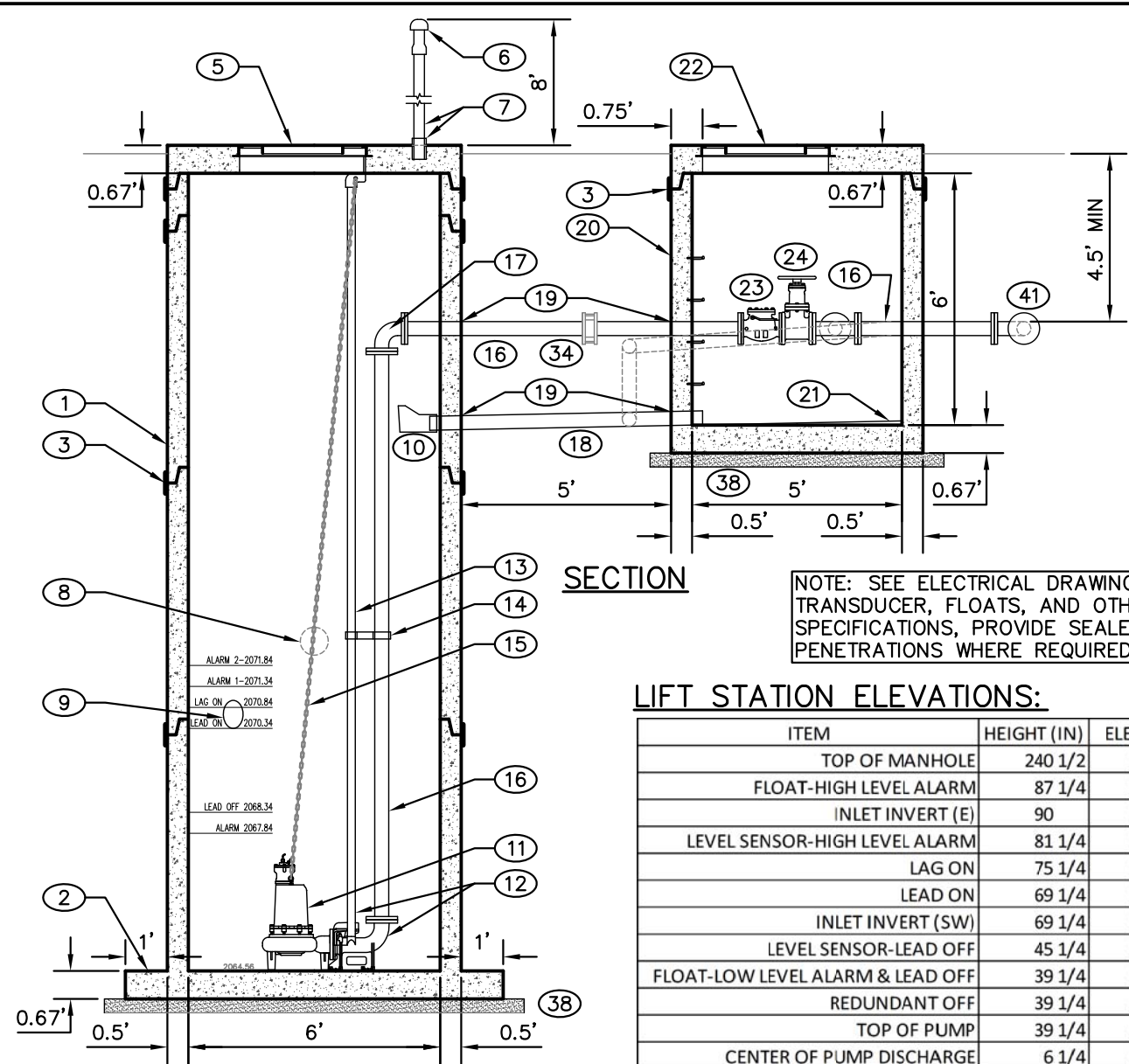
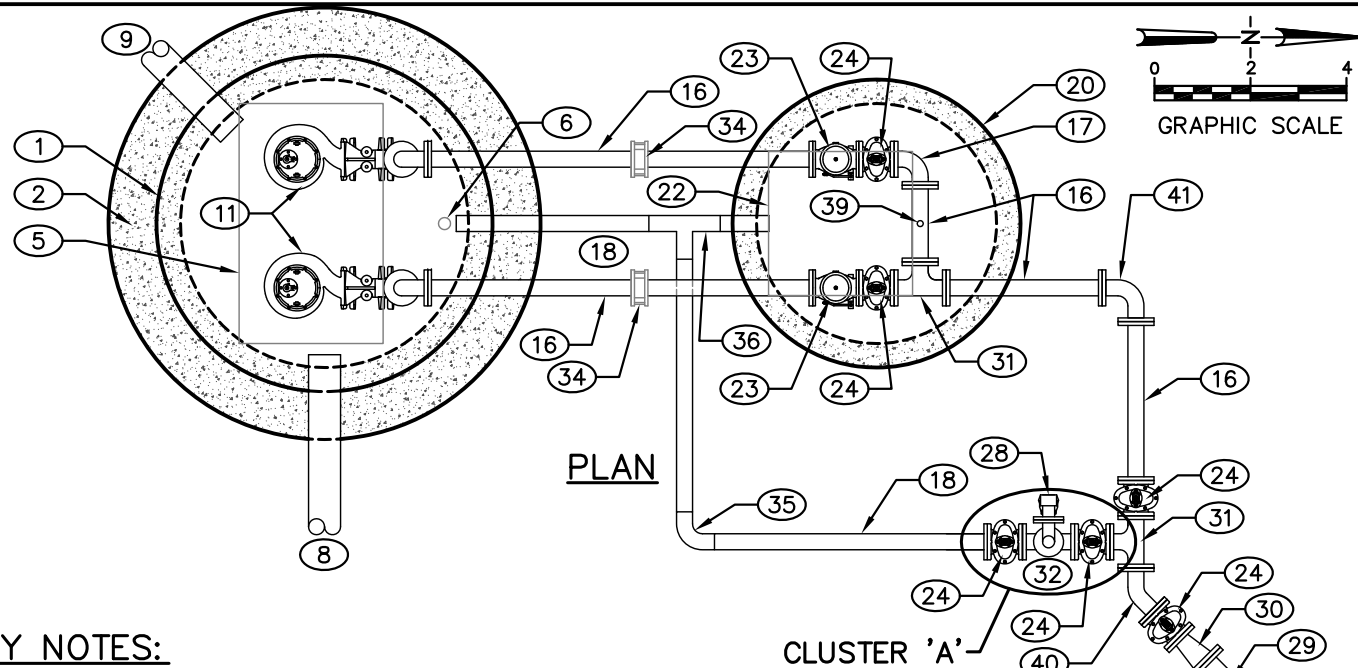
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WESTWOOD LIFT STATION IMPROVEMENTS
 CITY OF SANDPOINT, IDAHO

SITE PLAN

PROJECT:	S123005
FILE NAME:	AB-PLAN.DWG
PLOT DATE:	6/26/13
SHEET NUMBER:	C3



NOTE: SEE ELECTRICAL DRAWINGS FOR TRANSDUCER, FLOATS, AND OTHER ELECTRICAL SPECIFICATIONS, PROVIDE SEALED MANHOLE PENETRATIONS WHERE REQUIRED FOR CONDUIT

KEY NOTES:

1. PRECAST CONCRETE MANHOLE
2. 12" SLAB EXTENSION MAY BE DOWELED INTO BASE W/ (8) #5 X 24" 60 KSI REBAR DOWELS
3. THE OUTSIDE OF THE MANHOLE SHALL BE COATED WITH AN APPROVED WATERPROOFING MATERIAL AND THE JOINTS WRAPPED WITH WRAPID SEAL
4. ~~GROUT 60 DEGREE BEVEL TO MATCH PUMP INSTALLATION~~
5. HALLIDAY SERIES S1S ACCESS HATCH - 36"X60", OR APPROVED EQUAL
6. ORENCO CARBON FILTER W/ WEATHER CAP #CF3, OR APPROVED EQUAL
7. 3" GALVANIZED STEEL PIPE & SLEEVE, EMBEDDED INTO MANHOLE TOP
8. 8" SEWER INLET FROM NORTHSORE SUBDIVISION (E), CORE DRILL & SEAL W/ LINK SEAL OR EQUIVALENT
9. 8" SEWER INLET FROM WESTWOOD VILLAGE (SW), CORE DRILL & SEAL W/ LINK SEAL OR EQUIVALENT
10. DUCKBILL TYPE CHECK VALVE, TIDEFLEX TF-1 OR APPROVED EQUAL
11. HYDRAMATIC H4HX1500 15-HP SUBMERSIBLE SOLIDS-HANDLING DUPLEX PUMPS, 9.625" DIA. IMPELLER TRIM, OR APPROVED EQUAL. DESIGN POINT: 200 GPM @ 85' TDH.
12. HYDRAMATIC METAL-TO-METAL RAIL SYSTEM W/ 4" DISCHARGE ELBOW, OR APPROVED EQUAL
13. 2" GUIDE RAILS FOR EACH PUMP
14. INTERMEDIATE GUIDE RAIL SUPPORTS AT EACH PUMP
15. STAINLESS STEEL PUMP LIFT CHAIN FOR EACH PUMP
16. 4" FLANGED DUCTILE IRON PIPE, CONTRACTOR TO VERIFY LENGTH
17. 4"x90 DEGREE BEND, FLxFL
18. 4" D2241 CL 160 PVC PIPE
19. CORE DRILL & SEAL ALL PIPE PENETRATIONS W/ LINK SEAL OR EQUIVALENT
20. PRECAST CONCRETE MANHOLE BASE SECTION W/ STEPS
21. GROUT BASE FOR DRAINAGE
22. HALLIDAY SERIES S1S ACCESS HATCH - 36"X36", OR APPROVED EQUAL
23. 4" FLxFL SWING CHECK VALVE W/ EXTERIOR LEVER & SPRING & REMOVABLE TOP PLATE, 2 EACH
24. 4" FLxFL RESILIENT WEDGE GATE VALVE
25. CAST IRON VALVE BOX TO GRADE, W/ "SEWER" LID
26. 3" FLANGED DUCTILE IRON PIPE, CONTRACTOR TO VERIFY LENGTH
27. 3"x90 DEGREE BEND, FLxFL
28. 3" FLANGED FEMALE CAM-LOCK W/ CAP
29. 6" D2241 CL 160 PVC PIPE
30. 6"x4" FLxMJ REDUCER
31. 4"x4" TEE, FLxFL
32. 4"x3" TEE, FLxFL (BELOW RISER)
33. ~~6" ROMAC COUPLER~~
34. 4" ROMAC COUPLER
35. 4"x90 DEGREE PVC BEND
36. 4"x4" PVC TEE
37. ~~PLUG & ABANDON PRESSURE SEWER BYPASS AFTER LIFT STATION SWITCHOVER~~

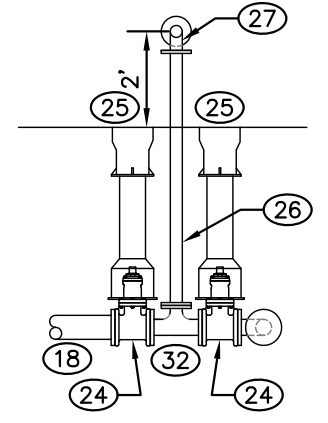
KEY NOTES: (cont.)

38. 4" THICK BASE - 3/4" CRUSHED AGGREGATE - OVEREXCAVATED ±1', PLACED SUBGRADE FABRIC & ROCK CAP
39. PRESSURE GAUGE
40. 4"x45 DEGREE BEND, FLxFL
41. 4"x90 DEGREE BEND, MJxMJ

LIFT STATION ELEVATIONS:

ITEM	HEIGHT (IN)	ELEV (FT)	DEPTH (FT)
TOP OF MANHOLE	240 1/2	2084.60	0.00
FLOAT-HIGH LEVEL ALARM	87 1/4	2071.84	12.76
INLET INVERT (E)	90	2072.05	12.55
LEVEL SENSOR-HIGH LEVEL ALARM	81 1/4	2071.34	13.26
LAG ON	75 1/4	2070.84	13.76
LEAD ON	69 1/4	2070.34	14.26
INLET INVERT (SW)	69 1/4	2070.34	14.26
LEVEL SENSOR-LEAD OFF	45 1/4	2068.34	16.26
FLOAT-LOW LEVEL ALARM & LEAD OFF	39 1/4	2067.84	16.76
REDUNDANT OFF	39 1/4	2067.84	16.76
TOP OF PUMP	39 1/4	2067.83	16.77
CENTER OF PUMP DISCHARGE	6 1/4	2065.08	19.52
LIFT STATION FLOOR	0	2064.56	20.04
BOTTOM OF LIFT STATION BASE	-8	2063.89	20.71

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CLUSTER 'A' SECTION

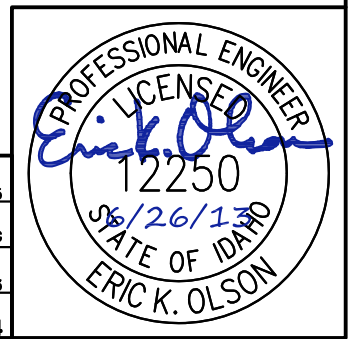
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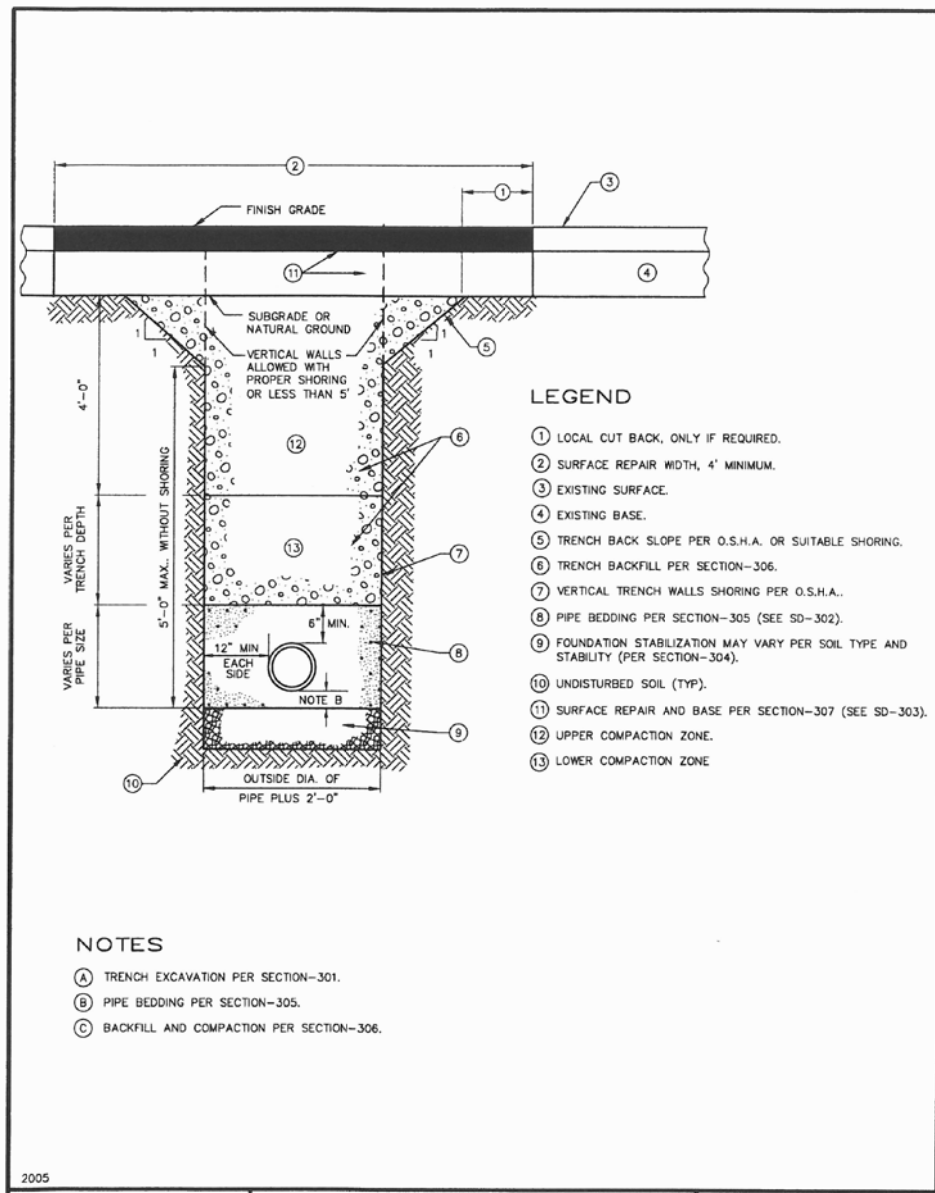
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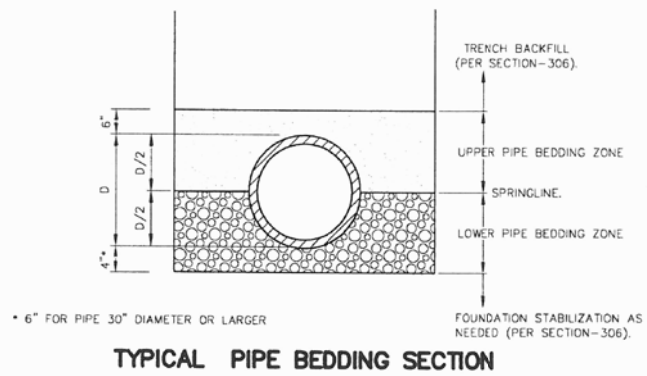
WESTWOOD LIFT STATION IMPROVEMENTS
 CITY OF SANDPOINT, IDAHO
 LIFT STATION DETAIL

PROJECT:	S123005
FILE NAME:	AB-LS DET.DWG
PLOT DATE:	6/26/13
SHEET NUMBER:	C4





2005
 IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION
TYPICAL TRENCH
 STANDARD DRAWING NO. **SD-301**



BEDDING SYSTEM	BEDDING MATERIAL	
	LOWER BEDDING ZONE	UPPER BEDDING ZONE
CLASS A-1	TYPE I	TYPE I
CLASS A-2	TYPE I	TYPE II OR TYPE III
CLASS B-1	TYPE II	TYPE II
CLASS B-2	TYPE III	TYPE III
CLASS C-1 (CONCRETE CAP)	TYPE I	TYPE IV
CLASS C-2 (CONCRETE CRADLE)	TYPE IV	TYPE I
CLASS C-3 (CONCRETE ENCASEMENT)	TYPE IV	TYPE IV

NOTE
 A REFER TO SECTION-305 FOR MATERIAL AND COMPACTION REQUIREMENTS.

2005
 IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION
TYPICAL PIPE BEDDING SECTION
 STANDARD DRAWING NO. **SD-302**

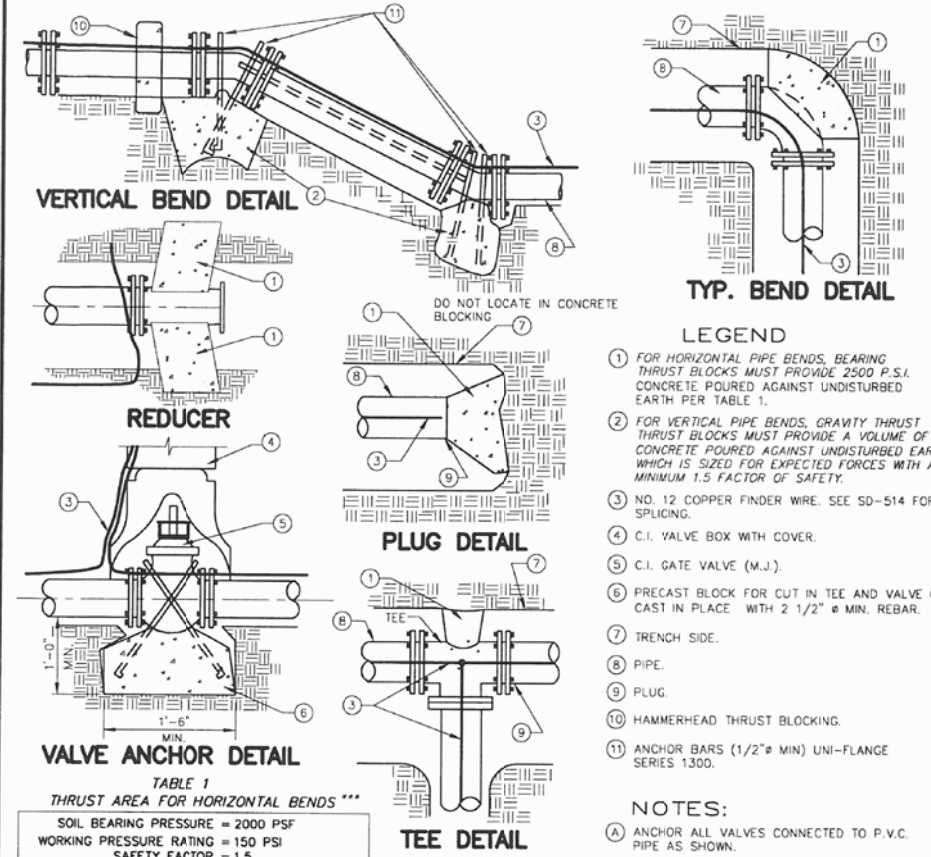


TABLE 1
THRUST AREA FOR HORIZONTAL BENDS ***

SOIL BEARING PRESSURE = 2000 PSF
 WORKING PRESSURE RATING = 150 PSI
 SAFETY FACTOR = 1.5

MINIMUM SQUARE FEET OF THRUST AREA ONTO UNDISTURBED EARTH**

PIPE SIZE	TEE, PLUG OR VALVE	90° BEND**	45° BEND	22.5°, 11.25° BENDS OR REDUCER
3	0.8	1.1	0.6	0.3
4	1.4	2.0	1.1	0.6
6	3.2	4.5	2.4	1.2
8	5.7	8.0	4.3	2.2
10	8.8	12.5	6.8	3.4
12	12.7	18.0	9.7	5.0
14	17.3	24.5	13.3	6.8
16	22.6	32.0	17.3	8.8
18	28.6	40.5	21.9	11.2

* MUST BE INCREASED BASED ON DIFFERENT CONDITIONS (HIGHER WORKING PRESSURE OR LOWER SOIL BEARING STRENGTH).
 ** OR TEE ACTING AS A 90° BEND.
 *** THRUST BLOCK DEPTH TO BE A MINIMUM OF 12" FOR PIPE SIZES 3"-8" AND 18" FOR PIPE SIZES 10"-18" OR THE SQUARE ROOT OF THE REQUIRED BEARING AREA, WHICHEVER IS GREATER.

2007 REVISIONS
 IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION
THRUST BLOCK AND ANCHOR DETAILS
 STANDARD DRAWING NO. **SD-403**

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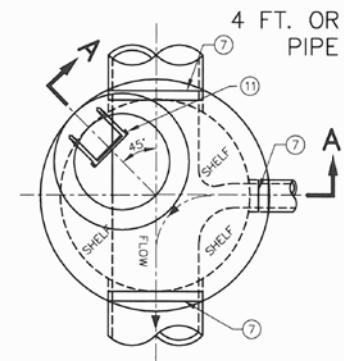
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CITY OF SANDPOINT, IDAHO

DETAILS

PROJECT: S123005
 FILE NAME: AB-DETAILS.DWG
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4 FT. OR GREATER DEPTH,
PIPE DIA. ≤ 24"

PLAN
N.T.S.

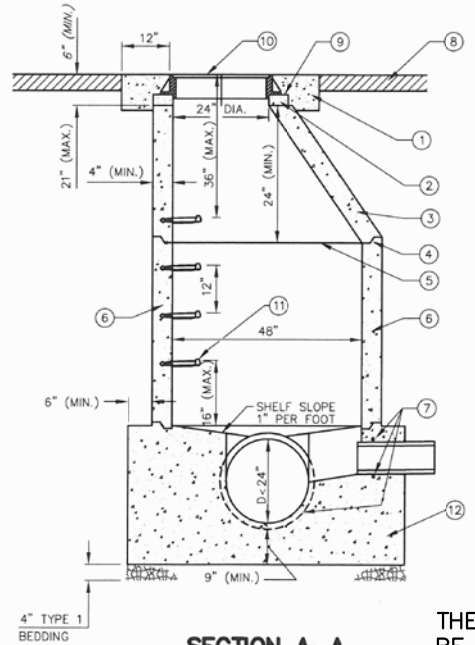
LEGEND

- ① CONCRETE COLLAR IN PAVED STREET SECTIONS PER SD-508.
- ② GRADE RINGS GROUTED WATERTIGHT IN PLACE. NOT TO EXCEED 21" FROM FINISHED SURFACE TO TOP OF CONE.
- ③ PRECAST MONOLITHIC CONCENTRIC CONE SECTION. (REBAR NOT SHOWN).
- ④ RAMNEK OR APPROVED GASKETS ALL JOINTS.
- ⑤ PROPERLY ALIGN ALL INTERIOR JOINTS.
- ⑥ PRECAST CONCRETE MANHOLE-BARREL SECTION (REBAR NOT SHOWN).
- ⑦ PRECAST GASKETED HUB RING OR RUBBER GASKETED COLLAR-FLEXIBLE AND WATER TIGHT.
- ⑧ REPLACEMENT SURFACING TO MATCH FLUSH WITH EXISTING SURFACING (AC SHOWN).
- ⑨ FRAME TO BE GROUTED TO GRADE RINGS.
- ⑩ FRAME AND COVER.
- ⑪ MANHOLE STEPS.
- ⑫ CAST IN PLACE MANHOLE BASE. SEE SD-501A FOR PREFABRICATED BASE.

NOTES:

- A OPTIONAL PREFABRICATED MANHOLE BASE WITH APPROVED PIPE CONNECTIONS MAY BE USED WITH ENGINEER'S APPROVAL. SEE SD-501A.
- B PLACE VERTICAL WALL ON UPSTREAM SIDE OF MANHOLE, ROTATED 45 DEGREES.
- C FOR DIAMETER, D, GREATER THAN 24", SEE SD-502 OR SD-503.
- D MANHOLE FRAME AND COVER: REFER TO DRAWING NO. SD-507. B. FRAME AND COVER SHALL BE FLUSH WITH SLOPE OF PAVEMENT.
- E WHERE PVC PIPE IS UTILIZED, INSTALL A RUBBER RING OR GASKET COLLAR WHERE THE PIPE IS IN CONTACT WITH MANHOLE BASE AND/OR MANHOLE CHANNEL, IN ORDER TO INSURE A WATERTIGHT SEAL.
- F EITHER BASE ON SD-501 OR SD-501A MAY BE USED WITH ANY MANHOLE DESIGN.
- G PROVIDE MANHOLE CONCRETE REINFORCING TO ACCOMMODATE TRAFFIC LOADINGS.

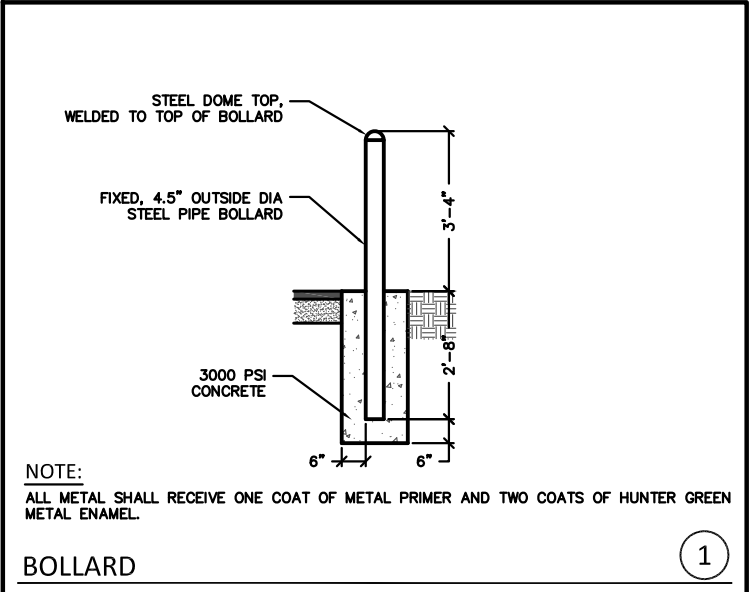
THE OUTSIDE OF THE MANHOLE SHALL BE COATED WITH AN APPROVED WATERPROOFING MATERIAL AND THE JOINTS WRAPPED WITH WRAPID SEAL



SECTION A-A
N.T.S.

2008 REVISIONS

IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION	STANDARD MANHOLE TYPE A	STANDARD DRAWING NO. SD-501
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NOTE:
ALL METAL SHALL RECEIVE ONE COAT OF METAL PRIMER AND TWO COATS OF HUNTER GREEN METAL ENAMEL.

BOLLARD

1

RECORD DRAWING
INFORMATION HAS, IN PART, BEEN FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS RECORD DRAWING OR FOR ANY ERRORS OR OMISSIONS THAT MAY HAVE BEEN INCORPORATED INTO IT. THOSE RELYING ON THIS RECORD DRAWING ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY.

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0	ISSUED FOR AGENCY REVIEW	EKO	7/20/12	EKO
1	RECORD DRAWINGS	EKO	6/26/13	EKO
				CHECKED BY: JJK
				SCALE:

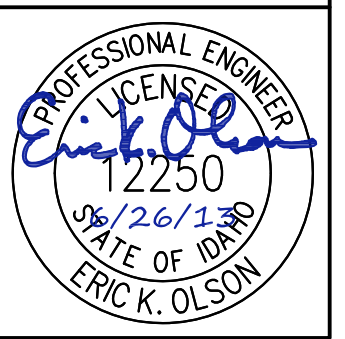
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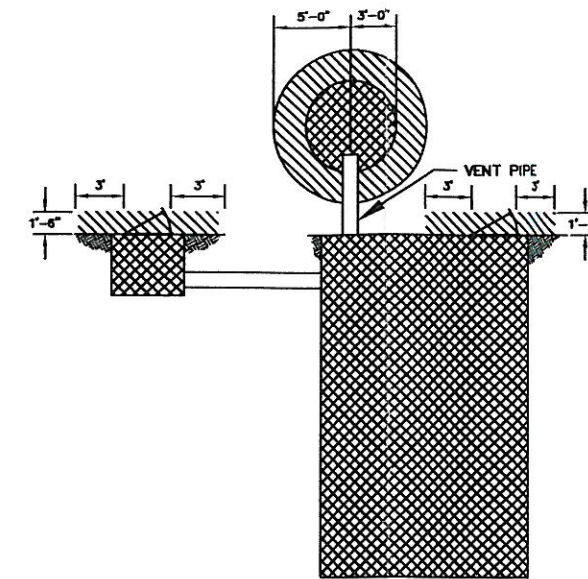
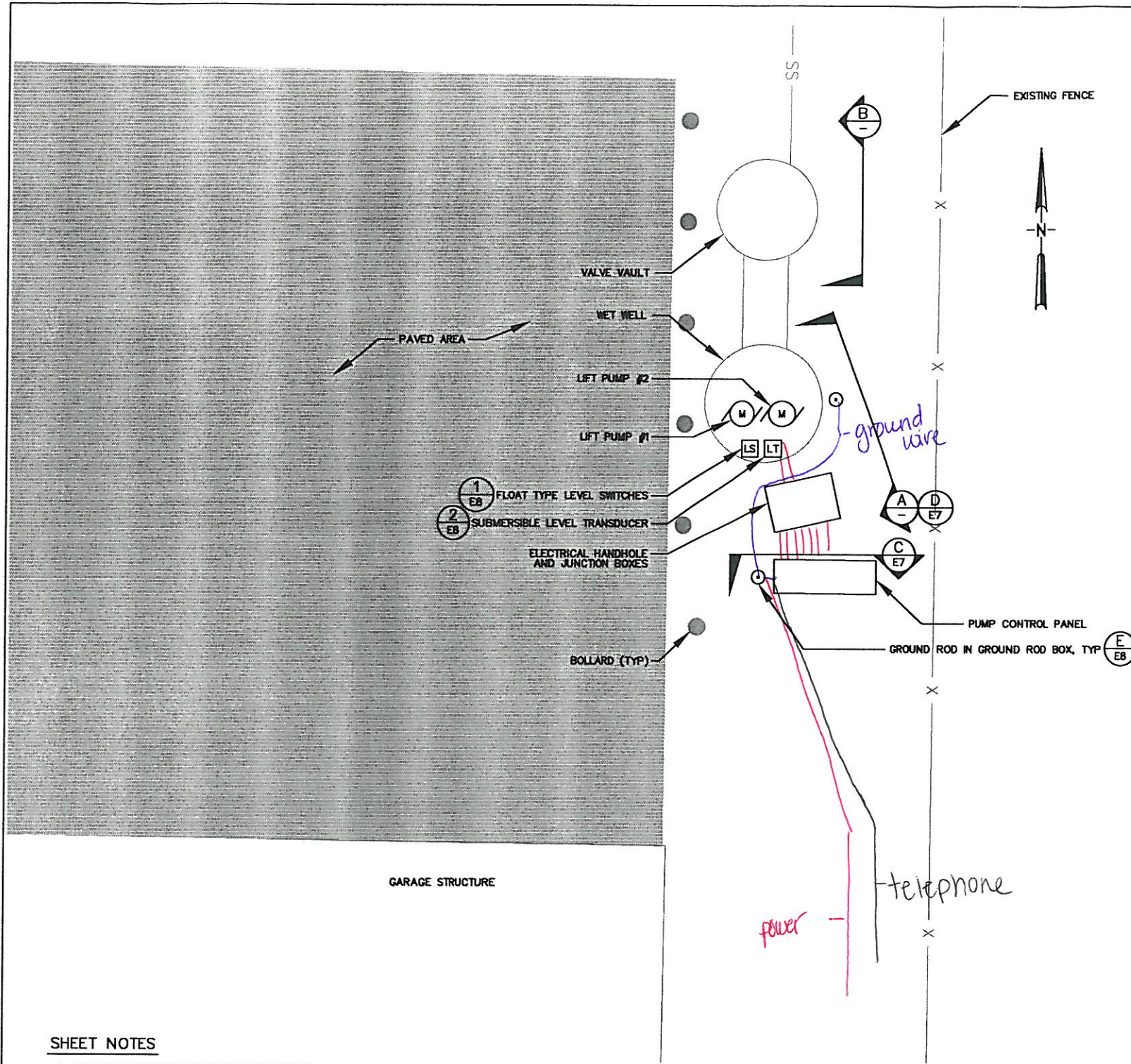
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WESTWOOD LIFT STATION IMPROVEMENTS
CITY OF SANDPOINT, IDAHO

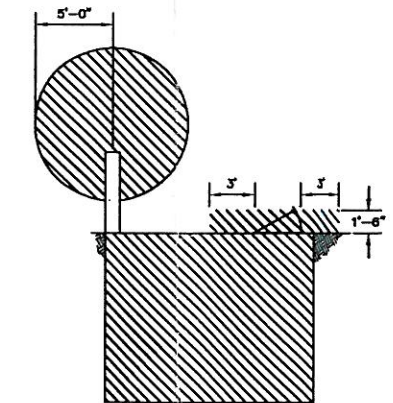
DETAILS

PROJECT:	S123005
FILE NAME:	AB-DETAILS.DWG
PLOT DATE:	7/20/12
SHEET NUMBER:	C6





WET WELL & HANDHOLE AREA CLASSIFICATION (A)



VALVE VAULT AREA CLASSIFICATION (B)

NFPA 820 HAZARDOUS AREA CLASSIFICATION LEGEND

- CLASS I, DIVISION 1
- CLASS I, DIVISION 2

SHEET NOTES

1. REFER TO CONDUIT AND WIRE SCHEDULE ON SHEET E4 FOR CONDUIT ROUTING. CONTRACTOR AS-BUILT RED LINE DRAWINGS SHALL INCLUDE AS INSTALLED CONDUIT PLACEMENT BETWEEN EQUIPMENT.

(2) SITE PLAN
E1 SCALE: 1/8" = 1'



Trindera ENGINEERING
1875 N. LAKEWOOD DRIVE, SUITE #201
COEUR D'ALENE, IDAHO 83814
(208) 676-8001 (208) 676-0100

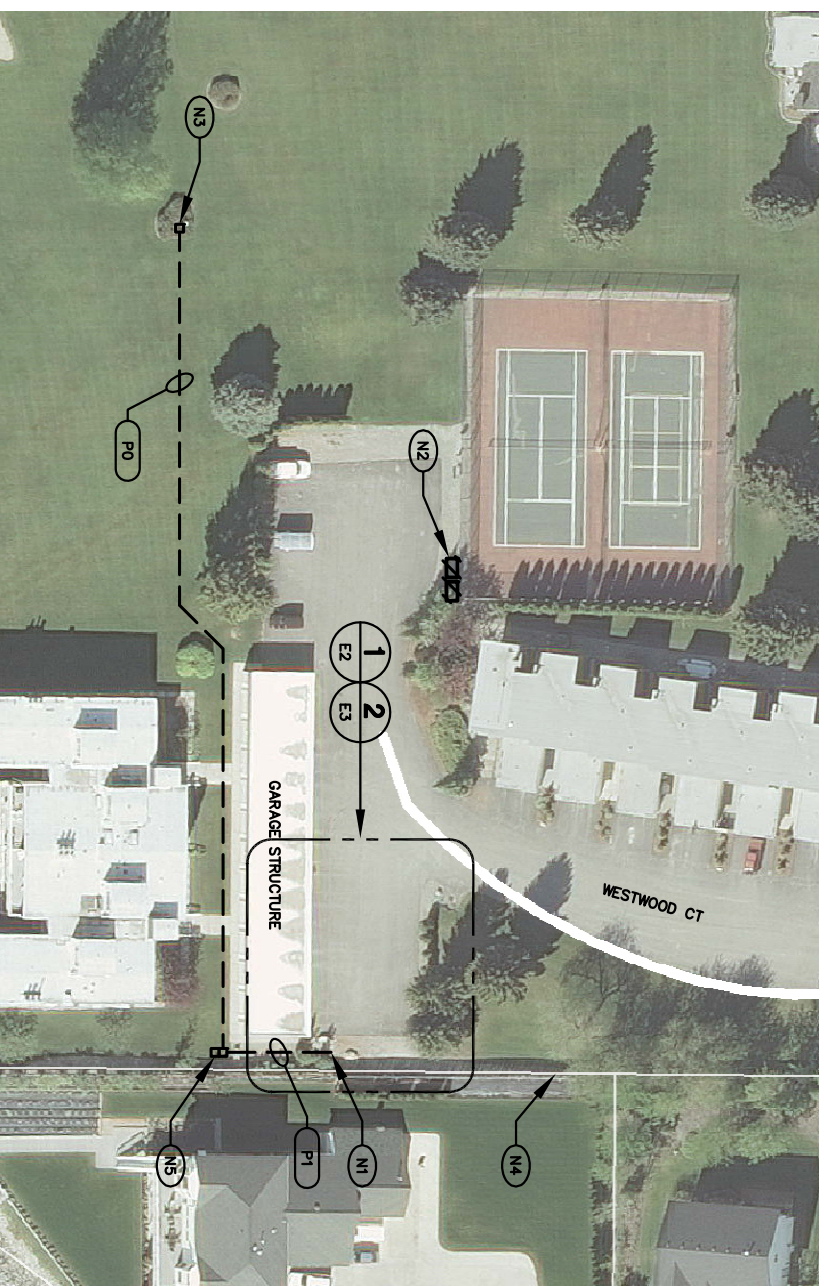
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				DRAWN BY: J.D.
				CHECKED BY: T.M.S.
				SCALE: 11x17

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WESTWOOD LIFT STATION IMPROVEMENTS
CITY OF SANDPOINT, IDAHO
ELECTRICAL SITE AND
AREA CLASSIFICATION PLAN

PROJECT:	S123005
FILE NAME:	12159.DWG
PLOT DATE:	6/29/12
SHEET NUMBER:	E3



ELECTRICAL AREA PLAN

NOTES

- (N1) LIFT STATION AREA
- (N2) LIFT STATION UTILITY TRANSFORMERS (EXISTING)
- (N3) AREA UTILITY PRIMARY TAP BOXES
- (N4) FENCE
- (N5) LIFT STATION UTILITY TRANSFORMERS (NEW)

RECORD DRAWING:
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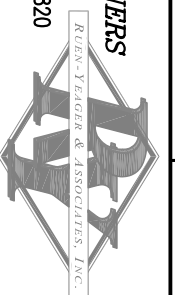


1879 N. LAKEWOOD DRIVE, SUITE #201
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0	ISSUED FOR BID	GMW	9/5/12	GMW
1	AS-BUILT	TSS	12/9/13	JJD
				SCALE: 11x17

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WESTWOOD LIFT STATION IMPROVEMENTS
CITY OF SANDPOINT, IDAHO
ELECTRICAL LEGEND AND
AREA PLAN

SYMBOL	DESCRIPTION
	H.L.D. LIGHTING FIXTURE, POLE MOUNTED.
	SPECIAL PURPOSE RECEPTACLE
	SOLID STATE OVERLOAD
	CONDUIT CONCEALED IN WALL, CEILING, UNDER FLOOR, IN FLOOR SLAB, OR ROUTED UNDERGROUND.
	CONDUIT EXPOSED.
	EXISTING CONDUIT ROUTED UNDERGROUND.
	EXTRA-HARD USAGE FLEXIBLE CORD
	CONDUIT FLEXIBLE.
	CONDUIT TURNED UP OR TOWARD.
	CONDUIT TURNED DOWN OR AWAY.
	CONDUIT CAPPED.
	CONDUIT HOME RUN - SEE CONDUIT AND WIRE SCHEDULE.
	HANDHOLE WITH DESIGNATION
	OKT, BKR, RATING/NO. OF POLES WITH THERMAL MAGNETIC CIRCUIT BREAKER TRIP.
	MANUAL OR AUTOMATIC TRANSFER SWITCH.

SYMBOL	DESCRIPTION
	GROUND ROD IN GROUND ROD BOX
	TRANSFORMER, PLAN VIEW SHOWN TO SCALE
	MOTOR, NUMBER INDICATES HORSEPOWER
	FULL VOLTAGE STARTER / NEMA SIZE
	MS-MOTOR STARTER CONTACTOR
	BP-BYPASS CONTACTOR
	IC-INSULATION CONTACTOR
	DISCONNECT SWITCH, NON FUSED
	DISCONNECT SWITCH, FUSED
	200=SWITCH RATING, 100=FUSE RATING
	UTILITY WATT HOUR METER
	INDICATING LIGHT:
	A = AMBER
	B = BLUE
	G = GREEN
	R = RED
	W = WHITE
	SELECTOR SWITCH:
	HOR = HAND/OFF/REMOTE
	HOA = HAND/OFF/AUTO
	RO = RUN/OFF
	PUSHBUTTON SWITCH, MOMENTARY ON.
	LEVEL SWITCH, CLOSES ON RISING LEVEL.
	LEVEL SWITCH, OPENS ON RISING LEVEL.
	TS, TEMP. SWITCH, CLOSES ON FALLING TEMP.
	T, THERMOSTAT
	DOOR SWITCH
	OVERTEMPERATURE CUTOUT
	LEVEL TRANSDUCER
	HORN

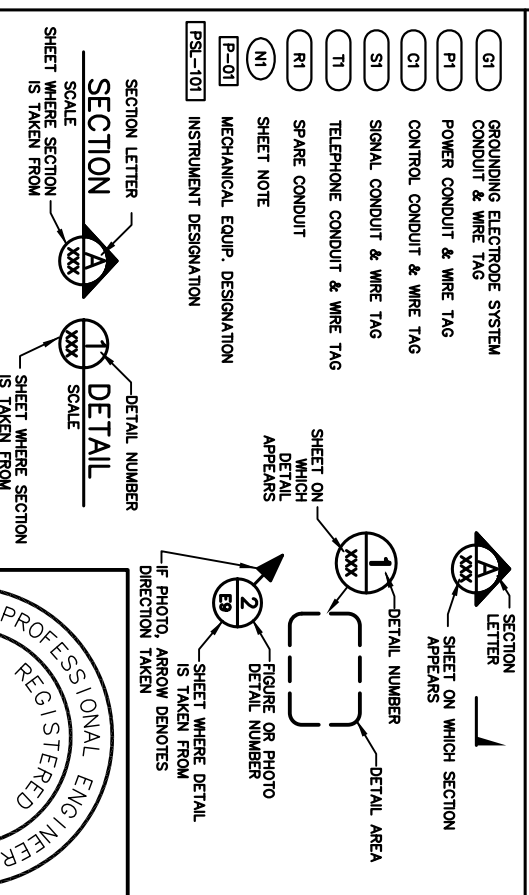
SYMBOL	DESCRIPTION
	JUNCTION BOX
	POWER CAPACITOR.
	FUSE
	ELECTRIC HEATER WINDING, WATTAGE INDICATED
	DIGITAL METERING SYSTEM
	CONTROL RELAY
	PHOTO ELECTRIC CELL.
	CONDUCTORS NOT CONNECTED.
	CONDUCTORS CONNECTED.
	PULL OUT SWITCH/PLUG-RECEPTACLE CONNECTION
	BLOWN FUSE INDICATOR
	NORMALLY OPEN CONTACT. (WHEN DE-ENERGIZED)
	NORMALLY CLOSED CONTACT. (WHEN DE-ENERGIZED)
	EQUIPMENT TO BE REMOVED (AND SALVAGED TO OWNER WHERE NOTED/SPECIFIED)

GENERAL NOTE:
THIS IS A STANDARD LEGEND SHEET. THEREFORE SOME ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT BE USED ON THIS PROJECT.

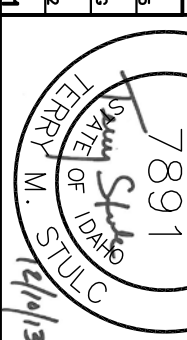
ABBREVIATIONS

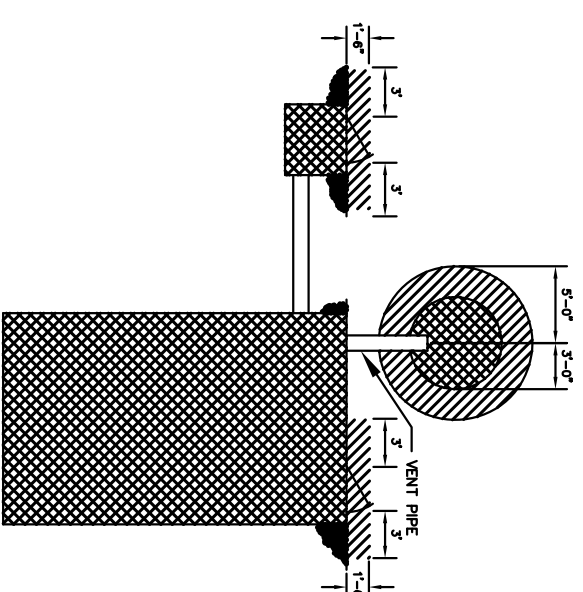
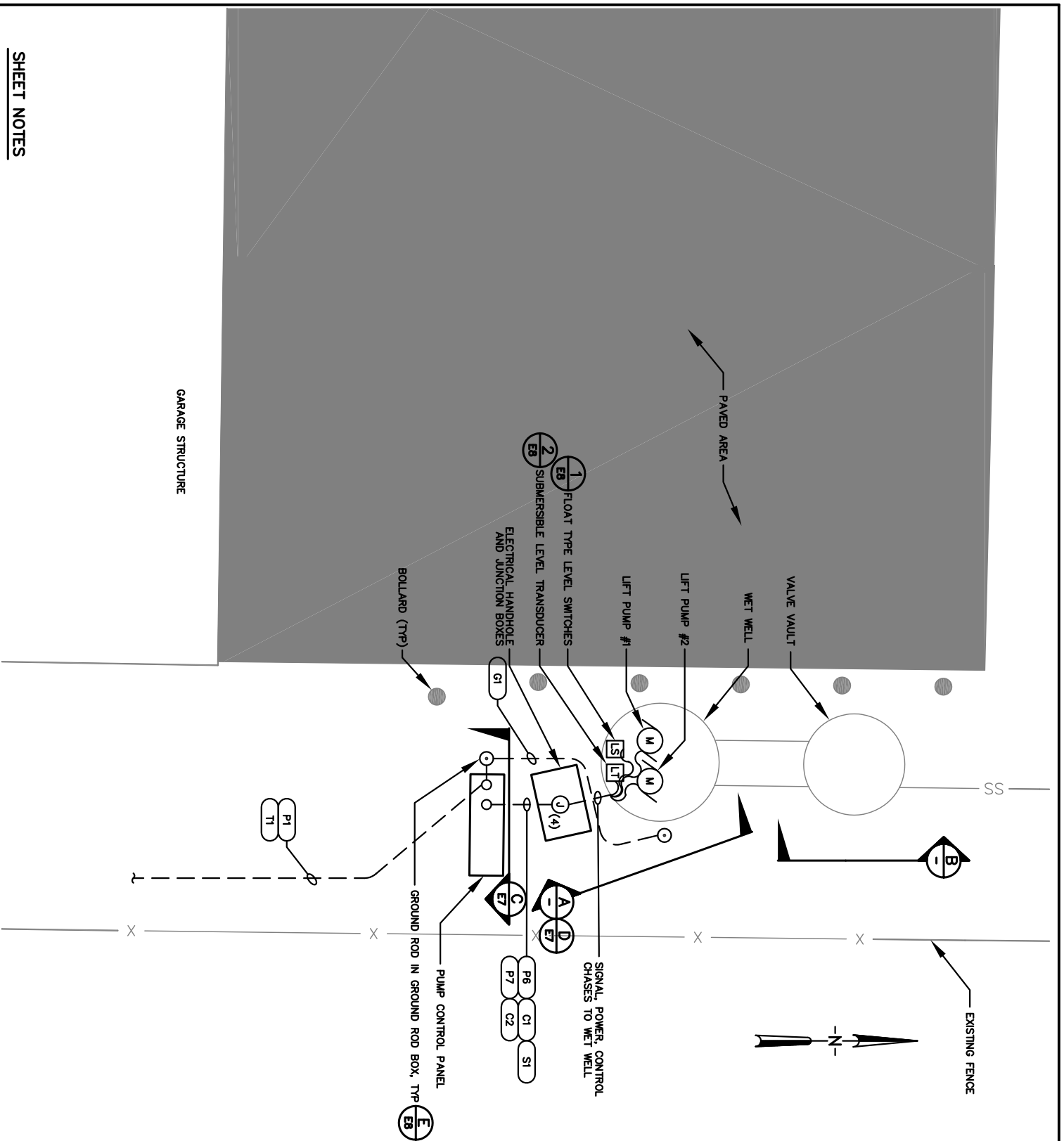
AAMP - AMPERE	KWH - KILOWATT HOUR
AL - ALARM	L - LOW
AF - AMPERE FRAME	LS - LIMIT SWITCH
AF3 - AMPERE FUSE	N - NEUTRAL
A1 - ANALOG INPUT POINT	MFR - MANUFACTURER
A2 - ANALOG OUTPUT POINT	OIT - OPERATOR INTERFACE TERMINAL
AT - AMPERE TRIP	PBL - PUSH BUTTON - LIGHTED
ATS - AUTOMATIC TRANSFER SWITCH	PB - PUSH BUTTON
BL - BLUE INDICATING LIGHT	PRC - PHASE FAILURE RELAY
BL - BLUE INDICATING LIGHT	PLC - PROGRAMMABLE LOGIC CONTROLLER
C - CONDUIT	PVC - POLY VINYL CHLORIDE CONDUIT
CB - CIRCUIT BREAKER	R1M - RUN TIME METER
CP - CONTROL PANEL	RS - SOLID STATE RELAY
CP7 - CONTROL POWER TRANSFORMER	SSOL - SOLID STATE OVERLOAD
CT - CURRENT TRANSFORMER	SS - STAINLESS STEEL
DB - DIRECT BURIED	ST - SHUNT TRIP BREAKER
DB - DEMAND FACTOR	T - THERMOSTAT
DI - AC DIGITAL INPUT POINT	TC - TIME CLOCK
DO - AC DIGITAL OUTPUT POINT	TDCE - TIME DELAY ON ENERGIZATION
EXST - EXISTING	TDOD - TIME DELAY ON DE-ENERGIZATION
EXST - EXISTING	INI - TELEPHONE NETWORK INTERFACE
GRD - GROUND	TRSP - TWISTED SHIELDED PAIR
GRD - GREEN INDICATING LIGHT	W - WHITE INDICATING LIGHT
GR3 - GALVANIZED ROD STEEL CONDUIT	WH - WEATHER PROOF
HH - HOV, HIGH	XPR - TRANSFORMER
HH - HAND-OFF-AUTO	
HOA - HAND-OFF-AUTO	
HW - HAND-OFF-AUTO	
KWH - KILOWATT HOUR	

REFERENCE SYMBOLS

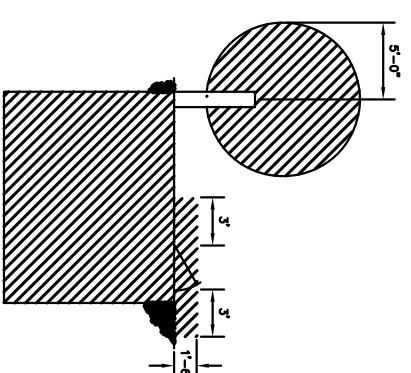


PROJECT:	S123005
FILE NAME:	12159.DWG
PLOT DATE:	6/29/12
SHEET NUMBERS:	6/29/12





WET WELL & HANDHOLE AREA CLASSIFICATION (A)



VALVE VAULT AREA CLASSIFICATION (B)

NFPA 820 HAZARDOUS AREA CLASSIFICATION LEGEND

- CLASS 1, DIVISION 1
- CLASS 1, DIVISION 2

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SHEET NOTES

1. REFER TO CONDUIT AND WIRE SCHEDULE ON SHEET E4 FOR CONDUIT ROUTING. CONTRACTOR AS-BUILT RED LINE DRAWINGS SHALL INCLUDE AS INSTALLED CONDUIT PLACEMENT BETWEEN EQUIPMENT.



NO.	REVISION	BY	DATE	DESIGN BY:
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1	AS-BUILT	TSS	12/9/13	JJD
				SCALE:
				11x17



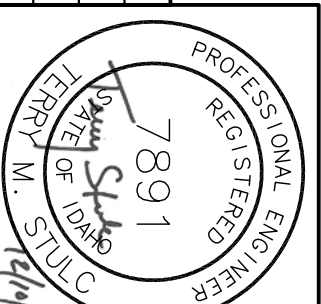
(2) SITE PLAN SCALE: 1/8" = 1'

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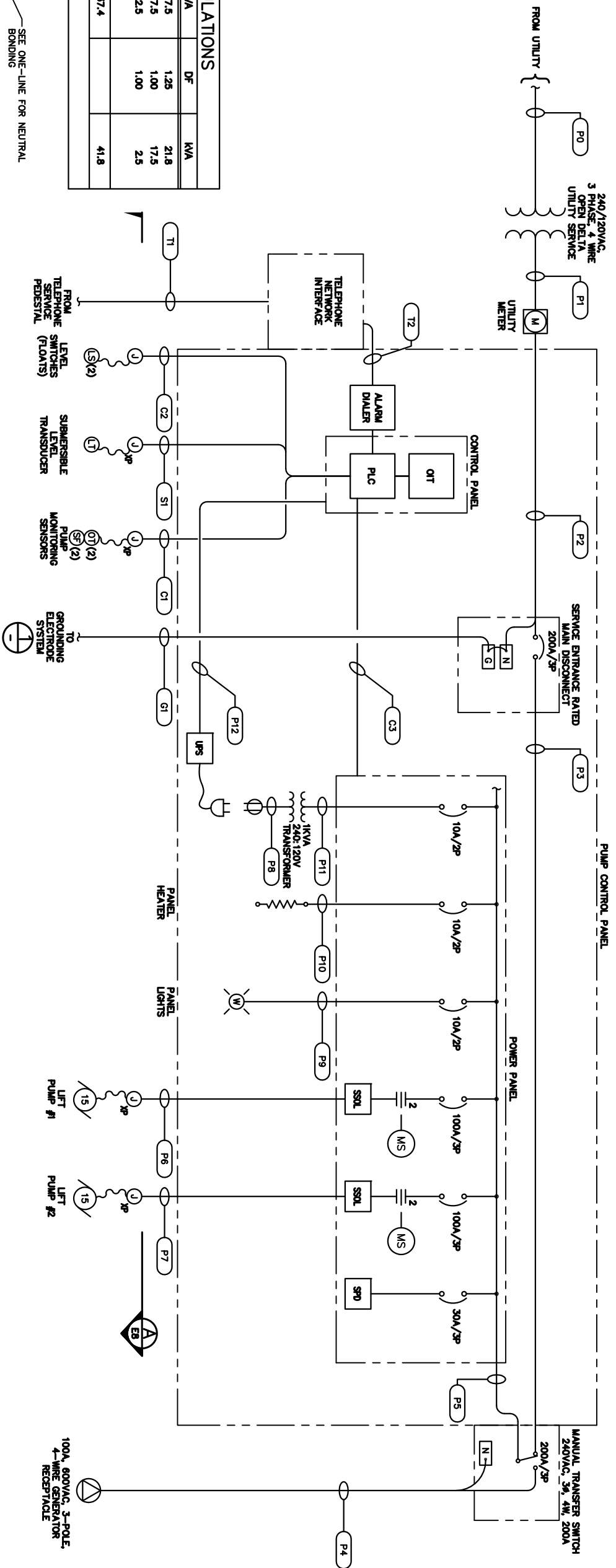
WESTWOOD LIFT STATION IMPROVEMENTS
CITY OF SANDPOINT, IDAHO
ELECTRICAL SITE AND AREA CLASSIFICATION PLAN

PROJECT: S123005
 FILE NAME: 12189.DWG
 PLOT DATE: 6/29/12
 SHEET NUMBER: E2



LOAD CALCULATIONS				
LOAD	HP	KVA	DF	KVA
PUMP #1	15	17.5	1.25	21.8
PUMP #2	15	17.5	1.00	17.5
MISCELLANEOUS	-	2.5	1.00	2.5
TOTAL		37.4		41.8

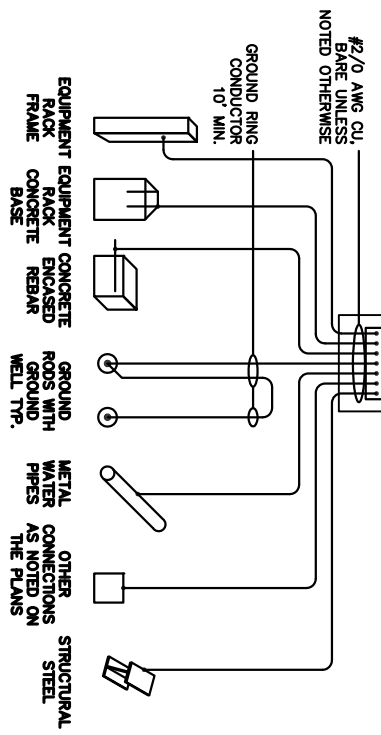
41.8 kVA @ 240V, 3φ = 100.5 AMP-S



LIFT STATION ONE-LINE DIAGRAM

CONDUIT AND WIRE SCHEDULE

TAG	CONDUIT SIZE	WIRE SIZE	FROM	TO
P0	BY UTILITY	BY UTILITY	AREA UTILITY PRIMARY TAP BOXES	(NEW) UTILITY TRANSFORMERS
P1	3"	BY UTILITY	(NEW) UTILITY TRANSFORMERS	UTILITY METER
P2	2"	(4) 3/0 AWG	UTILITY METER	SERVICE ENTRANCE RATED MAIN DISCONNECT
P3	2"	(3) 3/0 AWG, (1) 6 AWG EGC	SERVICE ENTRANCE RATED MAIN DISCONNECT	MANUAL TRANSFER SWITCH
P4	1-1/4"	(3) 3 AWG, (1) 8 AWG EGC	MANUAL TRANSFER SWITCH	GENERATOR RECEPTACLE
P5	2"	(3) 3/0 AWG, (1) 6 AWG EGC	MANUAL TRANSFER SWITCH	POWER PANEL
P6	1"	(3) 6 AWG, (1) 8 AWG EGC	POWER PANEL	LIFT PUMP #1 (PUMP #1 JUNCTION BOX)
P7	1"	(3) 6 AWG, (1) 8 AWG EGC	POWER PANEL	LIFT PUMP #2 (PUMP #2 JUNCTION BOX)
P8	1/2"	(2) 12 AWG, (1) 12 AWG EGC	TRANSFORMER	UPS RECEPTACLE
P9	1/2"	(2) 12 AWG, (1) 12 AWG EGC	POWER PANEL	PANEL LIGHT
P10	1/2"	(2) 12 AWG, (1) 12 AWG EGC	POWER PANEL	PANEL HEATER
P11	1/2"	(2) 12 AWG, (1) 12 AWG EGC	POWER PANEL	TRANSFORMER
P12	1/2"	(2) 12 AWG, (1) 12 AWG EGC	POWER PANEL	CONTROL PANEL
P13	1/2"	(2) 12 AWG, (1) 12 AWG EGC	CONTROL PANEL	ALARM HORN
P14	1/2"	(2) 12 AWG, (1) 12 AWG EGC	CONTROL PANEL	ALARM LIGHT
C1	3/4"	(10) 14 AWG, (1) 12 AWG EGC	CONTROL PANEL	PUMP #1 AND #2 SEAL-FAIL AND OVERTEMP SENSORS
C2	3/4"	(4) 14 AWG, (1) 12 AWG EGC	CONTROL PANEL	FLOAT TYPE LEVEL SWITCHES
C3	3/4"	(10) 14 AWG, (1) 12 AWG EGC	CONTROL PANEL	POWER PANEL
S1	1"	(1) 16 AWG STR, (1) 12 AWG EGC	CONTROL PANEL	SUBMERSIBLE LEVEL TRANSDUCER
T1	1"	BY UTILITY	TELEPHONE SERVICE PEDIESTAL	TELEPHONE NETWORK INTERFACE
T2	1"	6 PR UTP	TELEPHONE NETWORK INTERFACE	ALARM DIALER
G1	1"	4 AWG BARE CU	SERVICE ENTRANCE RATED MAIN DISCONNECT	GROUNDING ELECTRODE SYSTEM
G2	1"	4 AWG BARE CU	SERVICE ENTRANCE RATED MAIN DISCONNECT	METAL WATER PIPING



DETAIL NOTES
 1. MAKE CONNECTION TO ALL AVAILABLE ELECTRODES.
GROUNDING ELECTRODE SYSTEM
 SCALE: NOT TO SCALE



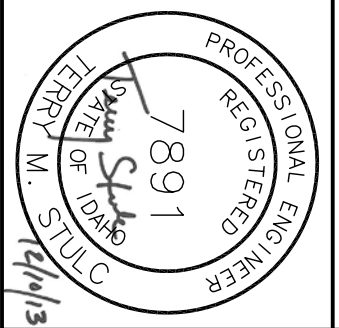
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WESTWOOD LIFT STATION IMPROVEMENTS
 CITY OF SANDPOINT, IDAHO
 ONE LINE DIAGRAM
 AND SCHEDULES

PROJECT: S123005
 FILE NAME: 12159.DWG
 PLOT DATE: 6/29/12
 SHEET NUMBER: E3



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