CITY OF LEWISTON
PUBLIC WORKS
DEPARTMENT
1861

February 8, 2018

Dave Doeringsfeld
Port of Lewiston
1626 6th Avenue N
Lewiston, ID 83501

RE: Colonel Wright Way
Acceptance Letter

Dear Mr. Doeringsfeld,

The above referenced project's public infrastructure and As Recorded Drawings (1/25/18) have been approved and accepted by the City of Lewiston. These completed items initiates the one (1) year warranty period starting from date of this Acceptance Letter.

If you have any questions or need additional information, 208-553-6809 or email PSeverance@cityoflewiston.org.

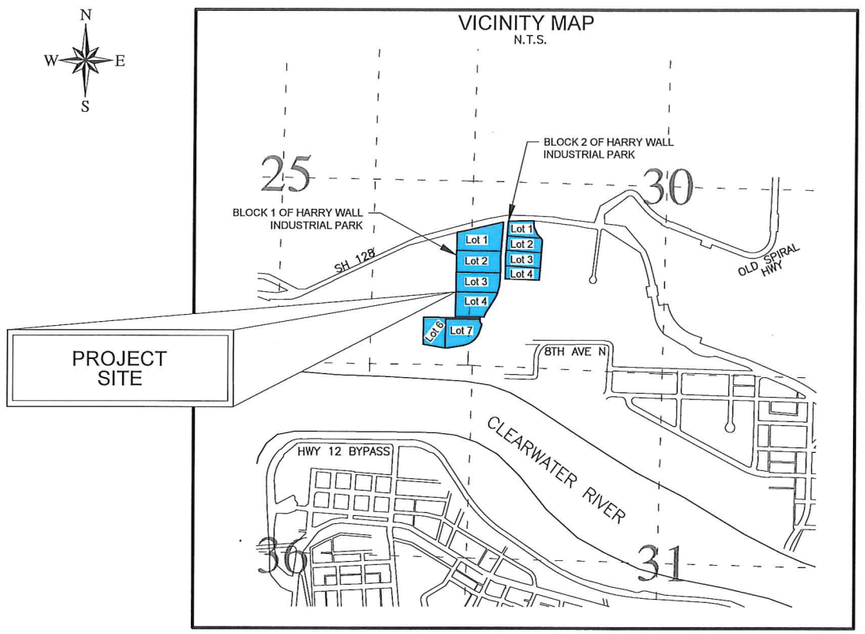
Sincerely,

Pat Severance

CC: Riedesel Engineering

PORT OF LEWISTON
2017 PORT GRADING PROJECT
DRAWINGS OF RECORD
LOTS 1-3,6-7 OF BLOCK 1 & LOTS 1-4 OF BLOCK 2 OF HARRY WALL INDUSTRIAL PARK
December 2017

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		DITCH
		EDGE OF GRAVEL
		EDGE OF PAVEMENT
		GRADE BREAK
		FENCE (BARBED WIRE)
2300	2300	INDEX CONTOUR
		INTERMEDIATE CONTOUR
G	G	GAS LINE
P	P	UNDERGROUND POWER
SS	SS	SANITARY SEWER PIPE
SD	SD	STORM DRAIN PIPE
T	T	TELEPHONE LINE
W	W	WATER PIPE
		PROPERTY BOUNDARY
		EASEMENT
		LOT LINE
		CENTERLINE
		RIGHTS-OF-WAY
		BUILDINGS
		DECIDUOUS TREE
		GATE (SWING)
		ROAD SIGN
1 STA.		TEST PIT
HYD	HYD	FIRE HYDRANT ASSEMBLY
		MANHOLE
		POWER POLE
		POWER POLE ANCHOR
		TELEPHONE RISER
		UTILITY JUNCTION BOX
		VALVE
WELL		WELL
		5/8" IRON PIN
		BRASS CAP
		BENCHMARK
		SPIKE



OWNER:
PORT OF LEWISTON PORT MANAGER: DAVID DOERINGSFELD 1626 6TH AVENUE NORTH LEWISTON, IDAHO 83501 (208)-743-5531

PUBLIC IMPROVEMENT QUANTITIES		
307.4.1.G.1	TYPE P SURFACE RESTORATION	650 SY
401.4.1.A.1	10" WATER PIPE C900	124 LF
401.A.1.A.2	8" WATER PIPE C900	441 LF
401.A.1.B.1	8" 11.25° ELBOW	1 EA
401.A.1.B.1	8" 22.5° ELBOW	1 EA
401.A.1.B.1	8" 45° ELBOW	1 EA
401.A.1.B.2	10" TEE	1 EA
401.A.1.B.3	8" CROSS	1 EA
401.A.1.B.4	10" CROSS	1 EA
401.A.1.B.5	8"x6" REDUCER	1 EA
401.4.1.B.7	10" TO 6" HOT TAP & 6" GATE VALVE	3 EA
402.4.1.A.1	6" GATE VALVE	1 EA
402.4.1.A.2	8" GATE VALVE	1 EA
402.4.1.A.3	10" GATE VALVE	7 EA
403.4.1.A.1	HYDRANT ASSEMBLY W/O GATE VALVE	4 EA
501.4.1.B.1	8" GRAVITY SEWER PIPE	1021 LF
502.4.1.B.1	SANITARY SEWER MANHOLE TYPE 1	6 EA
502.4.1.E.1	SANITARY SEWER MANHOLE TYPE 1A	2 EA
601.4.1.A.5	18" STORM DRAIN PIPE	133 LF
602.4.1.F.1	CATCH BASIN TYPE III	1 EA

DRAWING INDEX	
SHEET	TITLE
1	COVER
2	GENERAL NOTES & CITY CHECK LIST
3	DETAILS
4	DETAILS
5	DETAILS
6	PROJECT LAYOUT PLAN
7	EXISTING SITE PLAN
8	WEST SITE GRADING
9	WEST SITE GRADING
10	EAST SITE GRADING
11	SANITARY SEWER PLAN
12	SANITARY SEWER PROFILE
13	EAST SANITARY SEWER PROFILE
14	SOUTH WATER LINE PLAN
15	WATER LINE PLAN
16	STORM PLAN
17	STORM POND DETAILS
18	TRAFFIC CONTROL PLAN
19	STORM WATER POLLUTION PREVENTION PLAN

ABBREVIATIONS TABLE					
ALC	ALUMINUM CAP	GB	GRADE BREAK	R.	RADIUS
B.C.	BRASS CAP	GND	GROUND	R&P	RETAIN AND PROTECT
BL	BASELINE	HORIZ.	HORIZONTAL	R/W	RIGHT OF WAY
BLDG.	BUILDING	INV.	INVERT ELEVATION	REF.	REFERENCE
B.M.	BENCHMARK	I.H.	INSPECTION HOLE	RP	RADIUS POINT
CB	CATCH BASIN	I.P.	IRON PIN	S	SOUTH
℄	CENTERLINE	LF	LINEAR FEET	SCH	SCHEDULE
CMP	CORRUGATED METAL PIPE	LOG	LIP OF GUTTER	SD	STORM DRAIN
CO	CLEAN OUT	LT.	LEFT	SE	SOUTHEAST
CONC.	CONCRETE	MAX.	MAXIMUM	SEC	SECTION
CY	CUBIC YARD	MH	MANHOLE	SPEC.	SPECIFICATION
DIA.	DIAMETER	MIN.	MINIMUM	SS	SANITARY SEWER
DIST.	DISTANCE	MISC.	MISCELLANEOUS	STA:	STATION
DWG	DRAWING	N	NORTH/NORTHING	SW	SOUTHWEST
E	EAST/EASTING	N/A	NOT APPLICABLE	TA	TOP OF ASPHALTIC CONCRETE
EA	EACH	NE	NORTHEAST	TBC	TOP BACK OF CURB
EG	EXISTING GROUND	N.T.S.	NOT TO SCALE	TC	TOP OF CONCRETE
EL.	ELEVATION	NW	NORTHWEST	TYP.	TYPICAL
EMB.	EMBANKMENT	PC	POINT OF CURVATURE	U.D.	UNDER DRAIN
EXC.	EXCAVATION	PI	POINT OF INTERSECTION	VC	VERTICAL CURVE
EXIST.	EXISTING	PL	PROPERTY LINE	VPC	VERTICAL POINT OF CURVATURE
FOC	FACE OF CURB	POC	POINT ON CURVE	VPI	VERTICAL POINT OF INTERSECTION
FG	FINISHED GRADE	PRC	POINT OF REVERSE CURVE	VPT	VERTICAL POINT OF TANGENCY
FL	FLOW LINE	PT	POINT OF TANGENCY		
GA.	GAUGE	RT.	RIGHT		

Underground Service Alert
CALL BEFORE YOU DIG
CALL:TOLL FREE
811
TWO WORKING DAYS BEFORE YOU DIG

DRAWINGS OF RECORD

These Drawings of Record were prepared from information obtained from field observations and provided by others. Riedesel Engineering, Inc. has not verified the completeness or accuracy of this information and shall not be responsible for any omissions or errors resulting from that information.

If these Drawings of Record are or become public record, Riedesel Engineers, Inc. grants the public entity with jurisdiction over that record the right to copy and distribute hard copies or digital images to entities that provide a legitimate written request for these documents. Riedesel Engineers, Inc. shall incur no liability or legal exposure from any release, use or reuse by the public entity, any individual, or organization. Such release, use or reuse shall be at the public entity's, individual's, and/or organization's sole risk.

A seal and signature on these Drawings of Record represent that the drafting of the was completed by staff under responsible charge of the licensed professional.

RIEDESEL Engineering
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Lewiston, Id. 83501
Phone: (208) 743-3818
Fax: (208) 743-3819

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017
COVER

NO.	DATE	BY	REVISIONS DESCRIPTION
1	12-4	RLH	DRAWINGS OF RECORD
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-COVER.dwg
DRAWING DATE 12/1/17
DRAWING SCALE AS SHOWN
SHEET 1 OF 19

PROFESSIONAL ENGINEER
REGISTERED
7556
12/04/17
STATE OF IDAHO
REX L. HARDING

PLOT DATE: 12/1/2017
Z:\2635 2016 PORT GRADING PROJECT\CAD\DOR\2635-COVER.DWG

GENERAL NOTES

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION 2015 EDITION EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS, AND THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL COMPLETE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND FILE A NOTICE OF INTENT (NOI) A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
3. WASTE AND STOCKPILE AREAS WILL BE AS DIRECTED BY ENGINEER AND/OR AS SHOWN.
4. IN PLACE FIELD DENSITIES FOR CONSTRUCTION SHALL BE DETERMINED IN ACCORDANCE ISPWC 202.3.8.C.
5. PAVEMENT IN AREAS WHERE THE CONTRACTOR MUST CROSS WITH EQUIPMENT SHALL BE PROTECTED. ANY DAMAGED PAVEMENT SECTIONS SHALL BE CUT OUT AND REPAVED IN ACCORDANCE WITH SECTION 810 AT NO ADDITIONAL COST TO THE OWNER.
6. STAGING AREAS AND HAUL ROADS ON NATURAL GROUND, SHALL BE DISKED, GRADED, AND SEEDED IN ACCORDANCE WITH 206 SEEDING, UPON COMPLETION OF THE PROJECT. HAUL ROADS ON EXISTING GRAVEL AND DIRT ROADS SHALL BE GRADED AND ROLLED UPON COMPLETION OF THE PROJECT. THIS COST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. STAGING AREAS WILL BE AS SHOWN OR AS DIRECTED BY ENGINEER.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE QUALITY CONTROL AND QUANTITY OF THE SOURCES OF MATERIAL TO BE USED.
9. WATER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTACT BRYAN LACY, CITY OF LEWISTON WATER SYSTEMS MANAGER, AT (208) 746-1316 FOR PRICING AND CONNECTION OPTIONS.
10. THE CONTRACTOR SHALL HAVE ACCESS THROUGH APPROVED ACCESS POINTS ONLY. ACCESS AND CONSTRUCTION ROUTES WILL BE MAINTAINED AND RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL LOCATE ALL BURIED UTILITIES AND POWER CABLES PRIOR TO EXCAVATION. THE CONTRACTOR SHALL RETAIN AND PROTECT ALL EXISTING UTILITIES AND ELECTRICAL EQUIPMENT, UNLESS NOTED OTHERWISE. CALL 811 TWO WORKING DAYS BEFORE YOU DIG.
12. EXISTING SURVEY MONUMENTS SHALL BE RETAINED AND PROTECTED DURING CONSTRUCTION.
13. STORM DRAIN PIPE SHALL BE DUAL WALL, TYPE S CORRUGATED PLASTIC PIPE (CPP), ASTM C-905 OR ASTM C-906 HDPE.
14. TEMPORARY DRAINAGE CONTROL MUST BE MAINTAINED DURING CONSTRUCTION.
15. ALL BITUMINOUS SURFACE COURSE CONSTRUCTION JOINTS, TRANSVERSE AND LONGITUDINAL, MORE THAN 24 HOURS OLD SHALL BE CUT VERTICALLY 2 TO 3 INCHES BACK FROM THE JOINT AND MATERIAL REMOVED. CUTTING AND MATERIAL REMOVAL SHALL BE INCIDENTAL TO SECTION 810 ITEMS. TACK COAT SHALL BE APPLIED ON ALL COLD JOINTS AND CURBS.
16. MATERIAL FOR SP-2800 TOPSOILING SHALL BE OBTAINED FROM ON SITE STRIPPINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING AND STOCKPILING THE REQUIRED QUANTITIES OF TOPSOIL.
17. CONTRACTOR IS RESPONSIBLE FOR PROTECTING WORK AND PROPERTY FROM STORM WATER DRAINAGE. DAMAGED WORK SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

CITY INSPECTION CHECKLIST

ITEM	MATERIAL	TEST / STANDARD	ACCEPTANCE	TEST FREQUENCY	INSPECTOR/CO.	DATE	INITIAL
1. ALL UTILITY TRENCHES & STRUCTURES							
TRENCH SUBGRADE	Native (6" to 8" Lifts Max.)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	90% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].			
PIPE BEDDING	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOT/M41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive]. Test top 6" of 12" cover.			
1st FOOT [12"] OF FILL OVER PIPE	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOT/M41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].			
TRENCH BACKFILL UNDER PROPOSED ROAD & SIDEWALK	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOT/M41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].			
STRUCTURAL FILLS	As Spec'd by Engineer	As Spec'd by Engineer		As Spec'd by Engineer			
2. STORM DRAIN MAINS							
GASKETED PE Storm Sewer Pipe	Polyethylene, ADS N-12 or Equal		Certified & Visual by City		Certified & Visual by City		
ALIGNMENT AND GRADE	N/A	Per Manufacturer's Instructions		Per Plan			
JOINTS (Deflection/Proper Pipe Embedment)	N/A	Per Manufacturer's Instructions		Each Joint			
PRESSURE TEST	N/A	4 PSI for 15 Minutes, 1/2 PSI Drop	If required by City Engineer	Between Access Holes			
MANHOLES	Concrete	City Standard		N/A	Certified & Visual by City		
VIDEO INSPECTION	N/A		Public Works Policy No 2012-2				
3. WATER MAINS							
DUCTILE IRON or PVC WATER MAIN	AWWA C-151, C-900, C-905 (Class as Req'd)		Certified & Visual by City		Certified & Visual by City		
ALIGNMENT AND GRADE	N/A	AWWA C-600, AWWA C-605		Per Plan			
JOINTS (Deflection/Proper Pipe Embedment)	N/A	AWWA C-600, AWWA C-605		Each Joint			
THRUST BLOCKS	Concrete, 2500 PSI Mix	Per Approved Plans/or City Std Dwg # 4-4		Each Joint	Certified & Visual by City		
HYDROSTATIC PRESSURE	N/A	2 Hrs, NTE Allowable Leakage Per AWWA C-600, AWWA C-605		150% Working Pressure OR 1½ times the Working Pressure in the Water System			
CHLORINATION/BACTERIA	N/A	AWWA C-651		Bacterial Testing: two negative testing samples 24 hours apart	City of Lewiston		
4. WASTEWATER MAINS							
PVC WASTEWATER MAIN	PVC, SDR 35	ASTM 3034		N/A			
ALIGNMENT AND GRADE	N/A	N/A		Per Plan			
JOINTS (Deflection/Proper Pipe Embedment)	N/A	Per Manufacturer's Instructions		Each Joint			
MANHOLES	Concrete	Hydrostatic Test		Each Joint			
PRESSURE TEST	N/A	4 PSI for 15 Minutes, 1/2 PSI Drop		Between Access Holes			
VIDEO INSPECTION	N/A	No Perforations, Dents or Dimples, No Bellies > 0.02'	Public Works Policy No 2012-2	Between Access Holes			
5. CONCRETE CURB, GUTTER & SIDEWALK							
CONCRETE	CLASS 35B - Approved Mix Design Required with Min Cement Content of 560 Lb/CY, Max Water/ Cement Ratio of .44, a WRA, and an AEA	AASHTO T-22 Compressive Strength of Concrete AASHTO T-23 Making Test Specimens AASHTO T-119 Slump of Hydraulic Cement Concrete AASHTO T-152 Air Content of Freshly Mixed Concrete AASHTO T-309 Temperature of Freshly Mixed Concrete WAQTC TM-2 Sampling Freshly Mixed Concrete	Min. 28 day Compressive Strength = 3000 psi; Water/Cement Ratio shall be 0.5 lb/lb Max. Slump = 5 inches Air Content Percent = 6.5% ± 1.5 Temperature = 50°F - 80°F	1 of Each Test Minimum per Day, or 1 of Each Test per 50 CY			
CRUSHED AGGREGATE BASE COURSE	3/4" minus Crushed Aggregate (4" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (4" Max. Lift) (Current WDOT/M41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	1 Tests Per 500 LF-Min 2 Tests			
ALIGNMENT AND GRADE	N/A	Visual	± 0.02' from Design Grade/Alignment	Per 10' Section	City Approval		
JOINTS/FLATNESS/STRAIGHTNESS	N/A	Visual	± 0.02'/10' Segment	Per 10' Section			
FINISH	N/A	Visual	Floated, Uniform, Light Broom Finish	Entire Surface Area			
6. ASPHALTIC CONCRETE PAVING							
SUPERPAVE HOT MIX ASPHALT	ITD 405 Superpave Class SP2, SP3 and SP5 (2012 ITD Spec 405 and 703.05)	**Class SP2:** AASHTO T-308, Asphalt Content AASHTO T-27 & T-11, Sieve Analysis WAQTC TM-8, In-Place Density of Bituminous Mixes AASHTO T-209, Theoretical Maximum Density (RICE) **Class SP3 and SP5:** AASHTO T-308, Asphalt Content AASHTO T-27 & T-11, Sieve Analysis AASHTO T-166 Method A, Air Volds, and Voids in Mineral Aggregates (VMA) WAQTC TM-8, In-Place Density of Bituminous Mixes AASHTO T-209, Theoretical Maximum Density (RICE)	**ITD Section 405.03** Asphalt Content - CJMF Value +/- 0.3% Sieve Analysis - Table 405.03-5 Air Voids - 4.0 +/- 1.0% Volds in Mineral Aggregates, at N design 703.05 Minimum Value 0.05b Voids Filled with Asphalt - Table 703.05-1 +/- 5 In-Place Density - 92-95% of Maximum Theoretical	1Test Per 750 Ton; Minimum of 1 Test per Project. Random Sample Locations Determined by City Engineer.			
CRUSHED AGGREGATE BASE COURSE*	Same test requirement as under **5. Concrete Curb, Gutter & Sidewalk**						
7. EROSION & SEDIMENT CONTROLS	Per Approved Plan	Per Plan and Manufacturers' Instructions		1/Wk or After Every Rainfall			
8. TRAFFIC CONTROL	Per Approved Plan	Current Adopted MUTCD/ATSSA		Continuous			
9. PRIVATE STORMWATER SYSTEM	Per Approved Plan	City Resolution #80-100	Certified & Visual by City		Certified & Visual by City - Underground infrastructure elements must be approved by City prior to backfill.		
10. RECORD DRAWINGS	AutoCAD Elect File, Bond Paper, 22" x 34" Min Size	City Checklist		Before Public Improvements Accepted			
11. ENGINEER'S CERTIFICATION							
Date Last: Revised September 2016							

pection Checklist.A

RIEDESEL Engineering
77 Southway, Suite C
Lewiston, Id. 83501
Phone: (208) 743-3818
Fax: (208) 743-3819

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

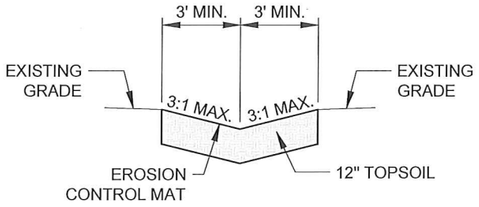
GENERAL NOTES, ABBREVIATIONS & LEGEND

NO.	DATE	BY	REVISIONS DESCRIPTION
1	12-4	RLH	DRAWINGS OF RECORD
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

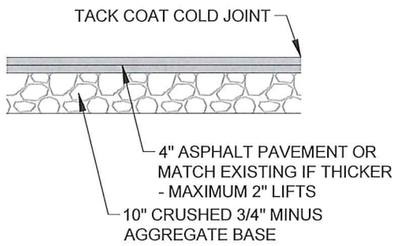
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DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-NOTES.dwg
DRAWING DATE 12/1/17
DRAWING SCALE AS SHOWN
SHEET 2 OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 STATE OF IDAHO 12/04/17 REX L. HARDING

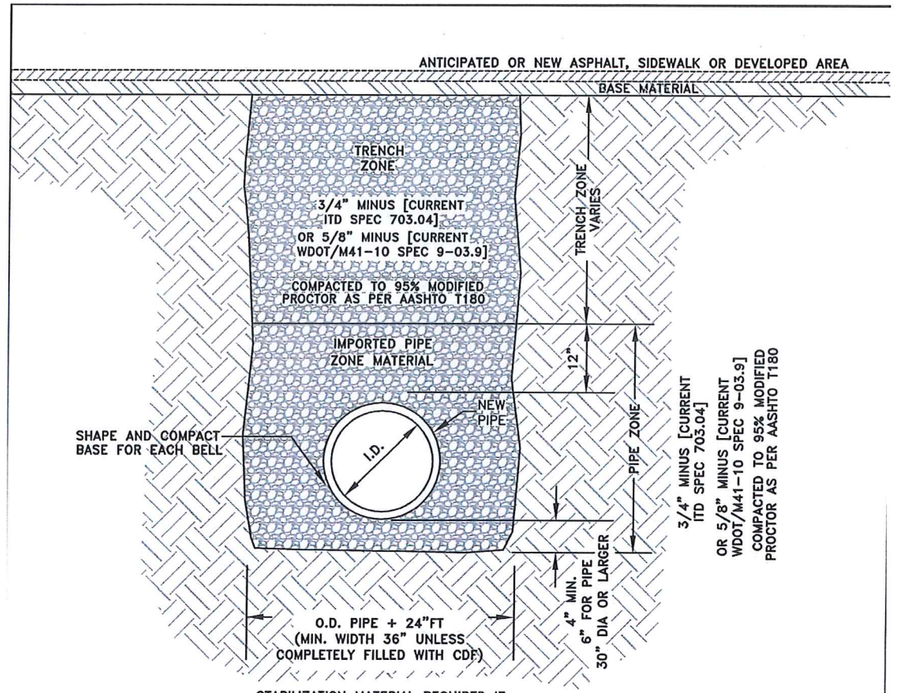
PLOT DATE: 12/1/2017
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A/3 SWALE DETAIL
N.T.S.



B/3 STREET PATCH DETAIL
N.T.S.



CLASS 'D' 'NEW STREET CONSTRUCTION' BACKFILL SHALL BE USED IN AREAS WHERE ASPHALT PAVEMENT, CONCRETE CURB, SIDEWALK, DRIVEWAYS & GRAVEL SURFACING IS ANTICIPATED.

NOTES:

1. CONTRACTOR SHALL COMPLY WITH THE MOST CURRENT OSHA REQUIREMENTS FOR EXCAVATIONS.
2. CLASS 'D' BACKFILL SHALL COMPLY WITH REQUIREMENTS OF THE CITY'S STANDARDS CONSTRUCTION SPECIFICATIONS.
3. TRENCH MATERIAL SHALL BE PLACED IN MAX. OF 6" LIFTS.
4. IN EXISTING RIGHT-OF-WAY TRENCH EXCAVATION SHALL NOT BE MORE THAN 100 FEET AHEAD OF THE PIPE LAYING OPERATION.
5. TRENCHES ARE TO BE BACKFILLED AT THE END OF EACH DAY.
6. ANY ALTERATIONS TO THIS STANDARD MUST HAVE WRITTEN APPROVAL BY CITY ENGINEER.

...\Current Stds\1-General\BackFill__ClassD.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

BACKFILL
CLASS 'D'

APPROVED FOR PUBLICATION
Shawn J. Stubbers 3/5/13
City Engineer Date

DWG. NO. 1-6

RIEDESEL Engineering
77 Southway, Suite C
Lewiston, Id. 83501
Phone: (208) 743-3818
Fax: (208) 743-3819

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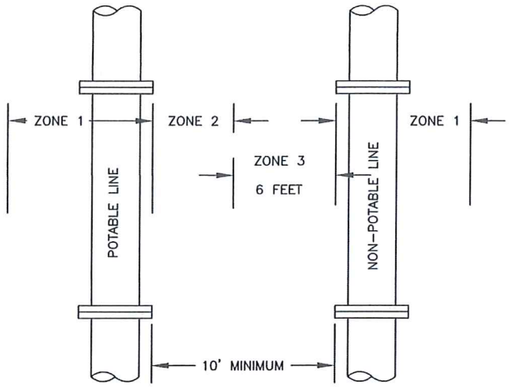
DETAILS

NO.	DATE	BY	DESCRIPTION
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2	- -	- -	- -
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5	- -	- -	- -
6	- -	- -	- -

DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-SECDET.dwg
DRAWING DATE 12/1/17
DRAWING SCALE AS SHOWN
SHEET 3 OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 STATE OF IDAHO 12/04/17 REX L. HARDING

PLOT DATE: 12/1/2017
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635-SECDET.DWG



HORIZONTAL REQUIREMENTS:

ZONE 1: MORE THAN 10 FEET APART

NO SPECIAL REQUIREMENTS

ZONE 2: FROM 6 TO 10 FEET APART

A. No special requirements for service lines.
B. Potable and non-potable mains separated by at least 6 feet at outside walls and
i. Potable mains higher in elevation than the non-potable mains and
ii. Non-potable mains constructed to with potable water class pipe and pressure tested for water tightness.

ZONE 3: CLOSER THAN 6 FEET APART

NOT ALLOWED

VERTICAL REQUIREMENTS:

ZONE 1: POTABLE LINE 18" OVER NON-POTABLE LINE

Potable water and non-potable mains and service lines must be separated by at least 18 inches and
One full, uncut length of non-potable pipe must be centered on the crossing so that the joints are as far as possible from the crossing.

ZONE 2: POTABLE LINE < 18" OVER NON-POTABLE LINE

One full, uncut length of non-potable pipe must be centered on the crossing so that the joints are as far as possible from the non-potable line and either a or b

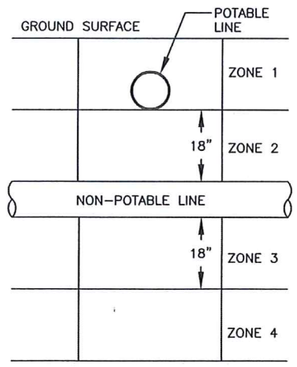
a) Non-potable line must be constructed to potable water pipe standards and pressure tested for water tightness for a horizontal distance of ten feet on both sides of the crossing.
b) Non-potable or potable line must be cased in a larger diameter carrier pipe for a horizontal distance of ten feet on both sides of the crossing, with no joints.

ZONE 3: POTABLE WATER < 18" UNDER NON-POTABLE LINE

Same requirements as Zone 2 except the non-potable line must also be supported above the crossing to prevent settling.

ZONE 4: POTABLE WATER 18" UNDER NON-POTABLE LINE

Same requirements as Zone 1 except the non-potable line must also be supported above the crossing to prevent settling.



GENERAL NOTES:

1. Sewage force mains shall have at least ten feet of horizontal separation and eighteen inches of clearance from potable water mains. Zone 2 and 3 placements are prohibited.
2. Separation requirements also apply to potable and non-potable service lines controlled by the system owner and extending the main line to the property line, service meter, or cleanout.

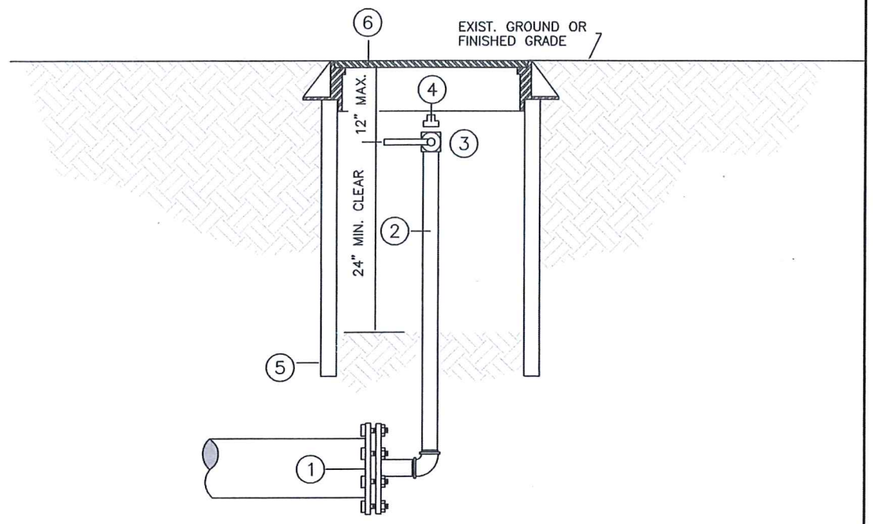
M:\Standards\2010-Standards\4-Water\Potable Nonpotable.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

POTABLE & NON-POTABLE WATERLINE SEPARATION

APPROVED FOR PUBLICATION
City Engineer 11-9-09 Date

DWG. NO. 4-1



REQUIRED COMPONENTS

1. CAP OR PLUG ON WATER MAIN
2. 2" GALVANIZED PIPE
3. 2" BALL VALVE
4. 2" THREADED PLUG
5. 24" HDPE PIPE
6. OLYMPIC FOUNDRY MH-23 MANHOLE & COVER
7. THRUST BLOCK OR RESTRAINTS (NOT SHOWN)

M:\Standards\2010-Standards\4-Water\Blowoff Sample.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

COMBINATION BLOWOFF AND SAMPLING TAP

APPROVED FOR PUBLICATION
City Engineer 11-9-09 Date

DWG. NO. 4-3

*NOTE:
LOCATE WIRE TO RUN TO BLOWOFF W/ MIN. 3' SLACK

RIEDESEL Engineering
77 Southway, Suite C
Lewiston, Id. 83501
Phone: (208) 743-3818
Fax: (208) 743-3819

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

DETAILS

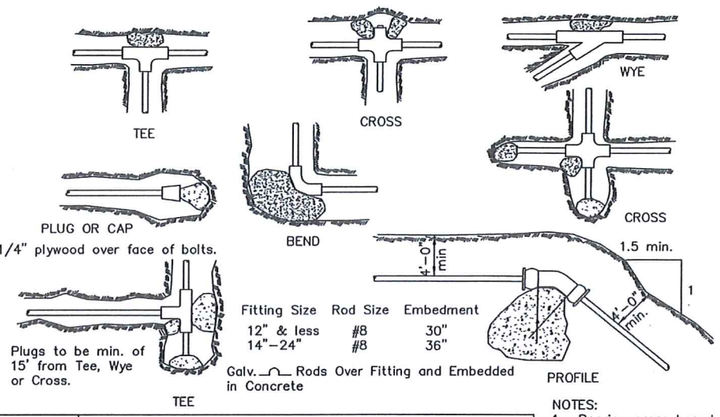
REVISIONS

NO.	DATE	BY	DESCRIPTION
1	12-4	RLH	DRAWING OF RECORD
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-SECDET.dwg
DRAWING DATE 12/1/17
DRAWING SCALE AS SHOWN
SHEET 4 OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 STATE OF IDAHO REX L. HARDING 12/04/17

PLOT DATE: 12/1/2017
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635-SECDET.DWG



Fitting Size	BEARING AREA OF THRUST BLOCKS IN SQ. FT.				
	Tee, Wye, Plub or Cap	90° Bend Plugged Cross; Tee	45° Bend	22 1/2° Bend	11 1/4° Bend
4	1.0	1.4	1.0	--	--
6	2.1	3.0	1.6	1.0	--
8	3.8	5.3	2.9	1.5	1.0
10	5.9	8.4	4.6	2.4	1.2
12	8.5	12.0	6.6	3.4	1.7
14	11.5	16.3	8.9	4.6	2.3
16	15.0	21.3	11.6	6.0	3.0
18	19.0	27.0	14.6	7.6	3.8
20	23.5	33.3	18.1	9.4	4.7
24	34.0	48.0	26.2	13.6	6.8

Fitting Size	VOLUME OF THRUST BLOCK IN CU.YD.			
	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	--	--	--	--
6	1.3	--	--	--
8	2.3	1.1	--	--
10	3.7	1.8	--	--
12	5.5	2.8	1.2	--
14	7.6	3.9	1.7	--
16	9.9	5.1	2.3	0.9
18	--	6.3	3.2	1.4
20	--	7.7	4.0	1.8
24	--	11.1	5.7	2.6

NOTE:
Above volumes based on test pressure of 150 p.s.i. & the weight of concrete = 4050 lbs./cu.yd. To compare volumes for different test pressures use the following equation:

VOLUME = (150 p.s.i. test pressure) x (table value).

Thrust blocks for vertical up-bends shall be the same as for horizontal bends.

M:\Standards\2010-Standards\4-Water\Thrust Blocking.dwg

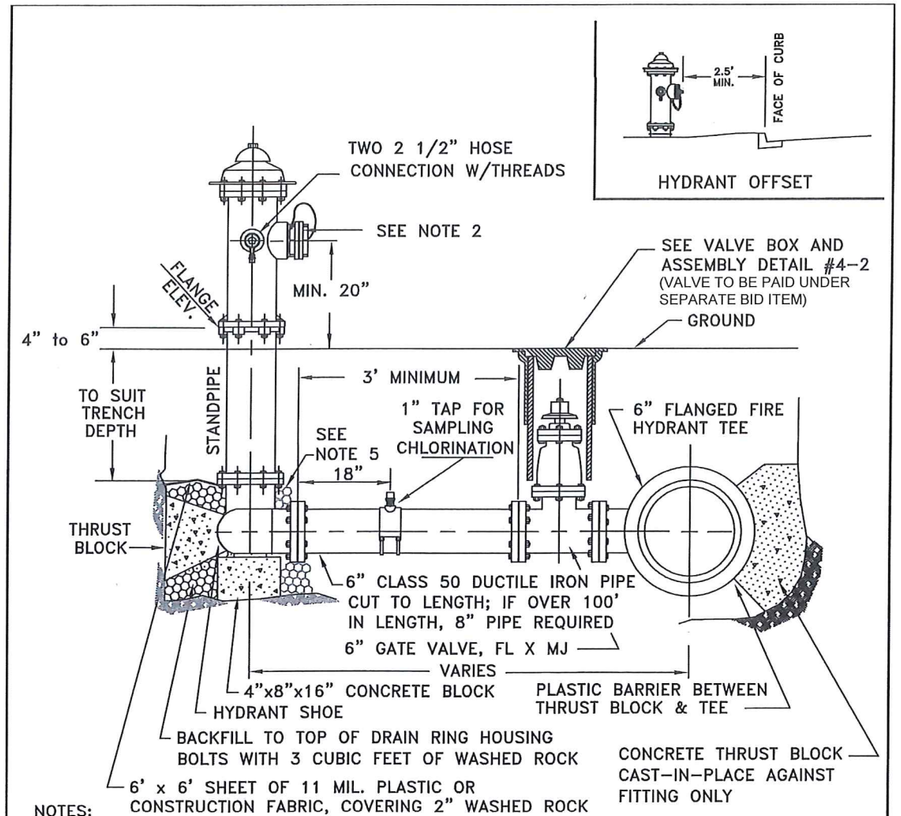
NOTES:
1. Bearing areas based on test pressure of 150 p.s.i. & soil bearing stress of 2,000 lbs. per sq.ft. To areas for different test pressure & soil bearing stresses, following equation: BEARING AREA = (150 p.s.i. test pressure)x(2000 lbs soil bearing stress)x(table value).
2. Concrete thrust blocking to be placed against undisturbed earth.
3. Keep concrete clear of joint and accessories.
4. The required thrust bearing areas for special connections are shown encircled on the plans; e.g. 15 indicates 15 sq. ft. bearing area required.
5. If not shown on plans, required bearing areas at fittings shall be as indicated above, adjusted if necessary, to conform to the test pressure(s) & allowable soil bearing stress(es) stated in the Special Specifications.
6. Bearing areas & special blocking details shown on plans take precedence over bearing areas & blocking details shown on this standard detail.
7. Concrete Compressive Strength shall be 2,500 p.s.i. minimum.
8. Concrete will be allowed 48 hrs. to set if high early yield concrete is used, otherwise, 7 days curing will be required.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

THRUST BLOCKING DETAIL

APPROVED FOR PUBLICATION
City Engineer 11-9-09 Date

DWG. NO. 4-4



NOTES:
1. FIRE HYDRANT SHALL BE MUELLER SUPER CENTURION, WATEROUS PACER WITH 16" UPPER STANDPIPE OR EAST JORDAN IRON WORKS WATERMASTER.
2. HARRINGTON STORZ ADAPTER (4 1/2" NH x 5" STORZ) AND BLIND CAP (5" STORZ) W/ AIRCRAFT CABLE AT THE 4 1/2" PUMPER NOZZLE.
3. FIRE HYDRANT SHALL BE SPACED AT A MAX. OF 500 FEET IN RESIDENTIAL AREAS AND 300 FEET IN COMMERCIAL AREAS.
4. A MINIMUM 3 FOOT RADIUS OF UNOBSTRUCTED WORKING AREA SHALL BE PROVIDED AROUND ALL HYDRANTS.
5. GRIP PACKS OR ALL THREAD REQUIRED WITH THRUST BLOCK.

... Current Stds\4-Water\Fire Hydrant.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

FIRE HYDRANT W/ SHUT-OFF VALVE

APPROVED FOR PUBLICATION
City Engineer 5/16/15 Date

DWG. NO. 4-12

*NOTE:
LOCATE WIRE TO RUN TO HYDRANT & VALVE W/ MIN. 3' SLACK

RIEDESEL Engineering
77 Southway, Suite C
Lewiston, Id. 83501
Phone: (208) 743-3818
Fax: (208) 743-3819

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PORT OF LEWISTON
2017 PORT GRADING PROJECT 2017
DETAILS

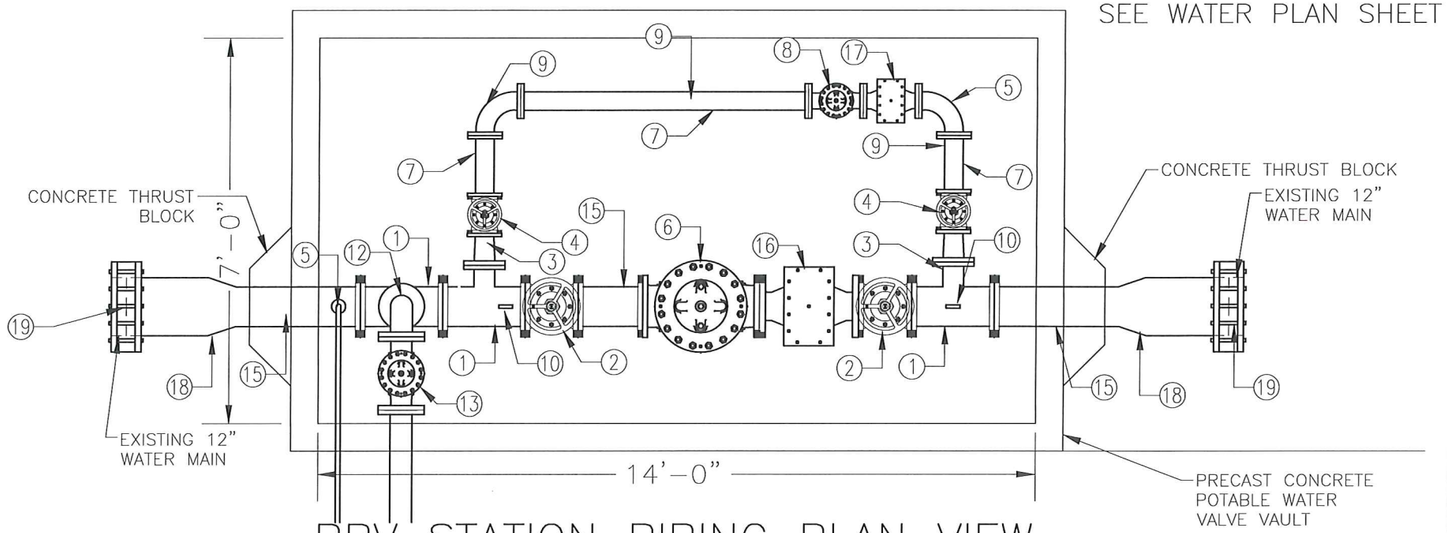
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3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-SECDET.dwg
DRAWING DATE 12/1/17
DRAWING SCALE AS SHOWN
SHEET 5 OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 5/4/17 STATE OF IDAHO REX L. HARDING

PLOT DATE: 12/1/2017
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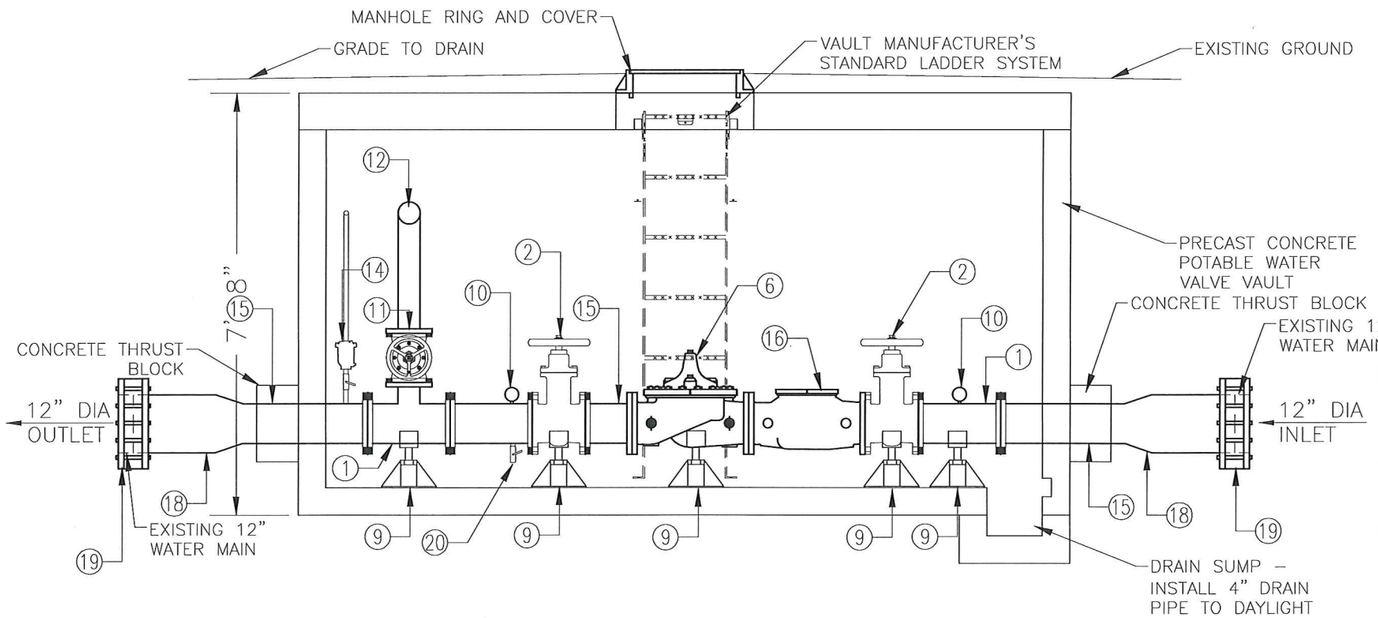
SEE WATER PLAN SHEET FOR PRV STATION LOCATION



PRV STATION PIPING PLAN VIEW

SCALE: 1" = 3/8"

PRV STATION PIPING	
NUM	DESCRIPTION
①	8" X 4" TEE, FLG X FLG X FLG W/ $\frac{3}{4}$" TAPPED HOLE(S)
②	8" GATE VALVE, FLG
③	4" X 3" REDUCER, FLG
④	3" GATE VALVE, FLG
⑤	3" 90° LR ELBOW, FLG
⑥	8" PRV, CLA-VAL 90-01 OR EQUAL
⑦	3" D.I. SPOOL, FLG
⑧	3" PRV, CLA-VAL 90-48 OR EQUAL
⑨	ADJUSTABLE PIPE SUPPORT
⑩	PRESSURE GUAGE
⑪	4" GATE VALVE. FLG
⑫	4" 90° ELBOW
⑬	4" PRESSURE RELIEF VALVE, FLG
⑭	1" COMBINATION AIR VALVE
⑮	8" D.I. SPOOL, FLG
⑯	8" STRAINER, FLG
⑰	3" STRAINER, FLG
⑱	12" X 8" REDUCER, MJ
⑲	12" TRANITION COUPLING
⑳	$\frac{3}{4}$" HOSE BID W/ BALL VALVE



PRV STATION PIPING PROFILE VIEW

SCALE: 1" = 3/8"

NOTES:

ALL 2" AND SMALLER PIPE TO BE THREADED STAINLESS STEEL, COMPLIES WITH LEAD–FREE SPECIFICATIONS.

REINFORCEMENT: #4 BAR @ 12" O.C.E.W. THROUGHOUT
#4 BAR @ 6" O.C.E.W. IN COVER AND FLOOR

LOADING: OFF–ROADWAY – H20 OCCASIONAL LOAD RATED.

RIEDESEL Engineering

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2018

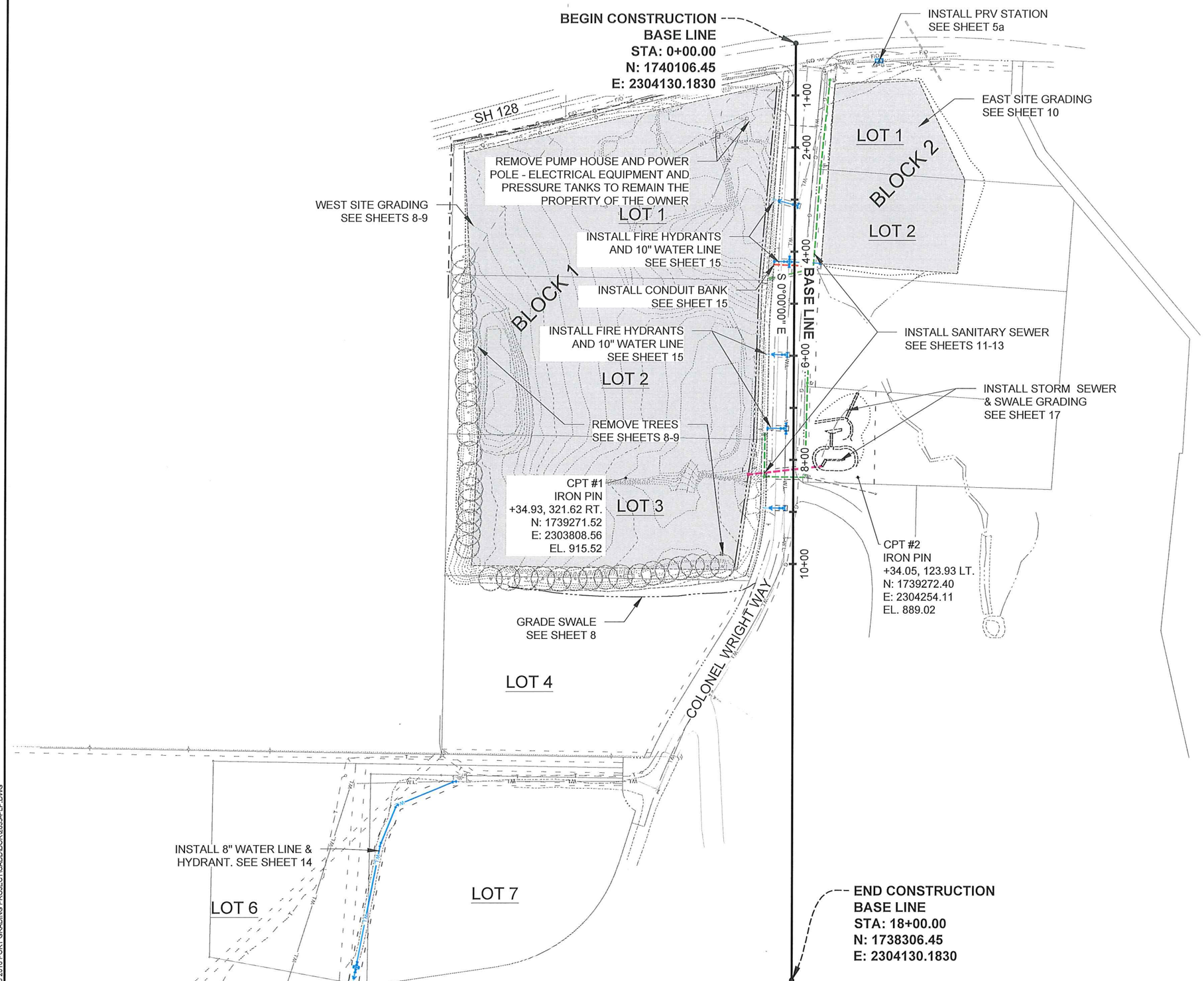
PRESSURE REDUCING STATION DETAILS

NO.	DATE	BY	DESCRIPTION
1	12-4	RLH	DRAWINGS OF RECORD
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3	–	–	–
4	–	–	–
5	–	–	–

DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635–PRV REV.dwg
DRAWING DATE 1/25/18
DRAWING SCALE AS SHOWN
SHEET 5a OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 01/25/18 STATE OF IDAHO REX L. HARDING

PLOT DATE: 1/25/2018
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635–PRV REV.DWG



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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

PROJECT LAYOUT PLAN

NO.	DATE	BY	REVISIONS DESCRIPTION
A	12-4	RLH	DRAWINGS OF RECORD
A	-	-	-
A	-	-	-
A	-	-	-
A	-	-	-
A	-	-	-

DESIGNED	WDR
DESIGN CHECKED	RLH
DETAILED	WDR
DRAWING CHECKED	RLH
FILE NAME	2635-PLP.dwg
DRAWING DATE	12/1/17
DRAWING SCALE	N.T.S.
SHEET	6 OF 19

PROFESSIONAL ENGINEER
REGISTERED
7556
12/04/17
STATE OF IDAHO
REX L. HARDING

PLOT DATE: 12/1/2017
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635-PLP.DWG

EXISTING FIBER OPTIC
EXISTING OVERHEAD POWER
GAS LINE
RELOCATED BY OTHERS
RIGHT-OF-WAY
SH 128
REMOVE GATE
EXISTING WELL
REMOVE PUMP HOUSE & POWER POLE.
REMOVE SEPTIC TANK.
REMOVE WATER LINE & TANK
LOT 1
TELEPHONE LINE RELOCATED BY OTHERS
BLOCK 1
LOT 2
REMOVE TREES
RIGHT-OF-WAY
COLONEL WRIGHT WAY
RIGHT-OF-WAY
LOT 1
RIGHT-OF-WAY
LOT 2
BLOCK 2
LOT 3
EXISTING WATER MAIN
EXISTING GAS LINE
LOT 4
REMOVE GATE
LOT 3
EXISTING SANITARY SEWER
REMOVE CONCRETE PAD
REMOVE TREES
TO CITY TRANSFER STATION
TO LOTS 4, 6 & 7

EXISTING OVERHEAD POWER
LOT 6
EXISTING WATER MAIN
EXISTING TELEPHONE LINE
LOT 7
BLOCK 1

N
W E
S
0 30 60 120
HORIZONTAL (FT)

*NOTE:
SEE GEOTECHNICAL REPORT IN REGARDS TO TOPSOIL REMOVAL AND EMBANKMENT CONSTRUCTION.

TREE AND BRUISH DISPOSAL SHALL BE IN ACCORDANCE WITH LEWISTON CITY CODE SECTION 4-11.

RIEDESEL Engineering
77 Southway, Suite C
Lewiston, Id. 83501
Phone: (208) 743-3818
Fax: (208) 743-3819

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

EXISTING SITE PLAN

REVISIONS

NO.	DATE	BY	DESCRIPTION
A	12-4	RLH	DRAWINGS OF RECORD
A	-	-	-
A	-	-	-
A	-	-	-
A	-	-	-
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DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-ESP.dwg
DRAWING DATE 12/1/17
DRAWING SCALE AS SHOWN
SHEET 7 OF 19

PROFESSIONAL ENGINEER
REGISTERED
7556
12/04/17
STATE OF IDAHO
REX L. HARDING

PLOT DATE: 12/1/2017
Z:\2635 2016 PORT GRADING PROJECT\CAD\DOR\2635-ESP.DWG

N
W E
S
0 15 30 60
HORIZONTAL (FT)

*NOTE:
THE CONTRACTOR IS RESPONSIBLE FOR THEIR OWN TOPSOIL STOCKPILE AREA AND SHALL COORDINATE WITH OWNER PRIOR TO START OF EXCAVATION.

BEGIN CONSTRUCTION BASE LINE
STA: 0+00.00
N: 1740106.45
E: 2304130.18

+75.37, 29.12 RT.
???

CUT LIMITS (SR 128 RIGHT-OF-WAY)

SH 128

GAS LINE TO BE RELOCATED OUTSIDE OF PROPERTY. BY OTHERS

REMOVE EXISTING GATE

REMOVE EXISTING WATER SUPPLY LINE

EXISTING WELL EASEMENT

WELL

REMOVE PUMP HOUSE & POWER POLE. ELECTRICAL EQUIPMENT AND PRESSURE TANKS TO REMAIN THE PROPERTY OF THE OWNER

GRADE BREAK

+10.94, 634.63 RT.
EL.916.26

REMOVE EXISTING WATER SUPPLY LINE

TELEPHONE LINE TO BE RELOCATED OUTSIDE OF PROPERTY BOUNDARY. BY OTHERS

REMOVE EXISTING TANK OWNERSHIP OF CONTRACTOR

LOT 1

REMOVE EXISTING HYDRANT & WATER LINE (VERIFY LOCATION)

RIGHT-OF-WAY

UTILITY EASEMENT

10'

35'

COLONEL WRIGHT WAY

BASE LINE

S 0°00'00" E

1+00

2+00

3+00

4+00

5+00

GRADE SWALE

GRADE BREAK

+45.35, 622.13 RT.
EL. 915.27

REMOVE TREES

BLOCK 1

LOT 2

+54.92, 61.40 RT.
???

PROPOSED UTILITY EASEMENT

FILL LIMITS (COLONEL WRIGHT WAY RIGHT-OF-WAY)

MATCH LINE STA: 5+50.00

PLOT DATE: 12/4/2017
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635-GRADING.DWG

RIEDESEL Engineering
77 Southway, Suite C
Lewiston, Id. 83501
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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

WEST SITE GRADING

REVISIONS

NO.	DATE	BY	DESCRIPTION
A	12/04/17	RLH	DRAWINGS OF RECORD
A	-	-	-
A	-	-	-
A	-	-	-
A	-	-	-
A	-	-	-

DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-GRADING.dwg
DRAWING DATE 12/4/17
DRAWING SCALE AS SHOWN
SHEET 8 OF 19

PROFESSIONAL ENGINEER
REGISTERED
7556
12/04/17
STATE OF IDAHO
REX L. HARDING

MATCH LINE STA: 5+50.00

LOT 2

LOT 3

BLOCK 1

FILL LIMITS

+51.32, 605.81 RT.
913.99

REMOVE TREES

GRADE BREAK

+03.37, 617.39 RT.
EL. 906.50

CUT LIMITS

RE-GRADE EXISTING SWALE
SEE DETAIL A, SHEET 3

GRADE SWALE

+60.46, 70.47 RT.
???

RIGHT-OF-WAY

UTILITY EASEMENT

10'

35'

PROPOSED UTILITY
EASEMENT

REMOVE EXISTING GATE

GRADE SWALE TO DRAIN
TO CATCH BASIN
SEE DETAIL A, SHEET 3

GRADE BREAK

+12.08, 107.28 RT.
EL. 895.00

COLONEL WRIGHT WAY

BASE LINE

S 0°00'00" E

6+00

7+00

8+00

9+00

10+00

FILL LIMITS (COLONEL WRIGHT
WAY RIGHT-OF-WAY)

END CONSTRUCTION
BASE LINE
STA: 11+00.00
N: 1739006.45
E: 2304130.18

*NOTE:
THE CONTRACTOR IS RESPONSIBLE FOR THEIR OWN TOPSOIL STOCKPILE AREA AND SHALL COORDINATE WITH OWNER PRIOR TO START OF EXCAVATION.

N
W E
S

0 15 30 60
HORIZONTAL (FT)

RIEDESEL Engineering
77 Southway, Suite C
Lewiston, Id. 83501
Phone: (208) 743-3818
Fax: (208) 743-3819

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

WEST SITE GRADING

NO.	DATE	BY	DESCRIPTION
1	12/04/17	RLH	DRAWINGS OF RECORD
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

REVISIONS

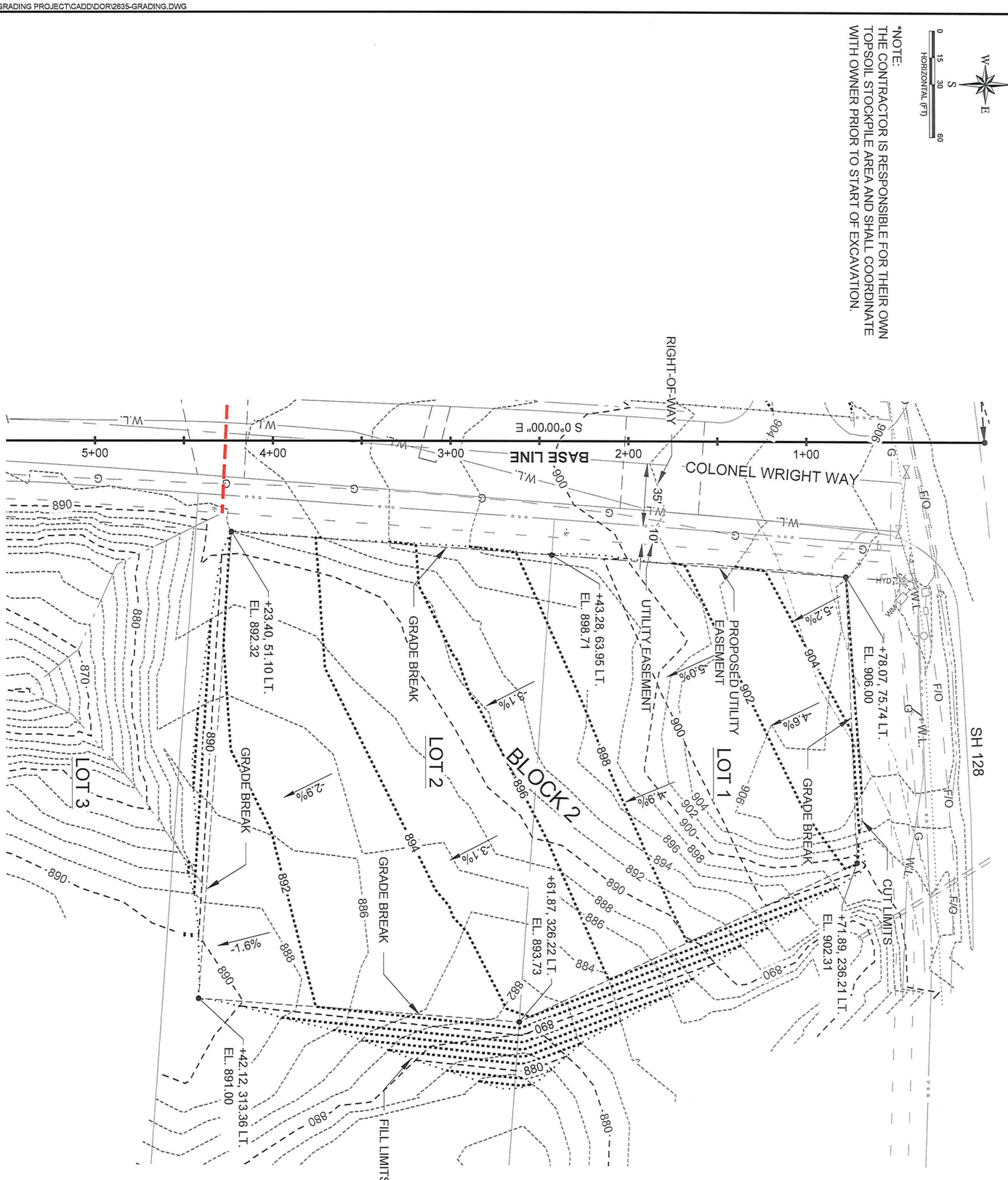
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DETAILED	WDR
DRAWING CHECKED	RLH
FILE NAME	2635-GRADING.dwg
DRAWING DATE	12/4/17
DRAWING SCALE	AS SHOWN
SHEET	9 OF 19

PROFESSIONAL ENGINEER
REGISTERED
17556
12/04/17
STATE OF IDAHO
REX L. HARDING

PLOT DATE: 12/4/2017
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635-GRADING.DWG

PLOT DATE: 12/4/2017
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635-GRADING.DWG

*NOTE:
THE CONTRACTOR IS RESPONSIBLE FOR THEIR OWN TOPSOIL STOCKPILE AREA AND SHALL COORDINATE WITH OWNER PRIOR TO START OF EXCAVATION.



DESIGNED	WDR
DESIGN CHECKED	RLH
DETAILED	WDR
DRAWING CHECKED	RLH
FILE NAME	2635-GRADING.dwg
DRAWING DATE	12/4/17
DRAWING SCALE	AS SHOWN
SHEET	10 OF 19

PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

EAST SITE GRADING

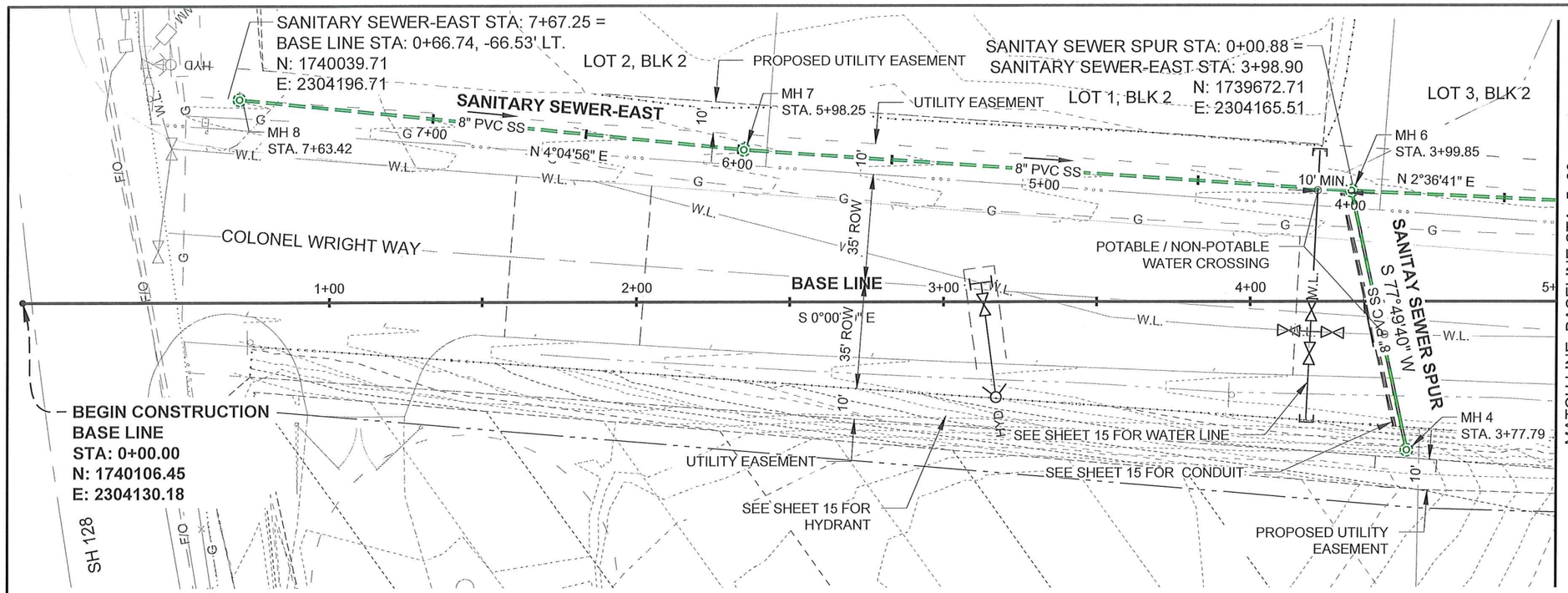
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5	-	-	-

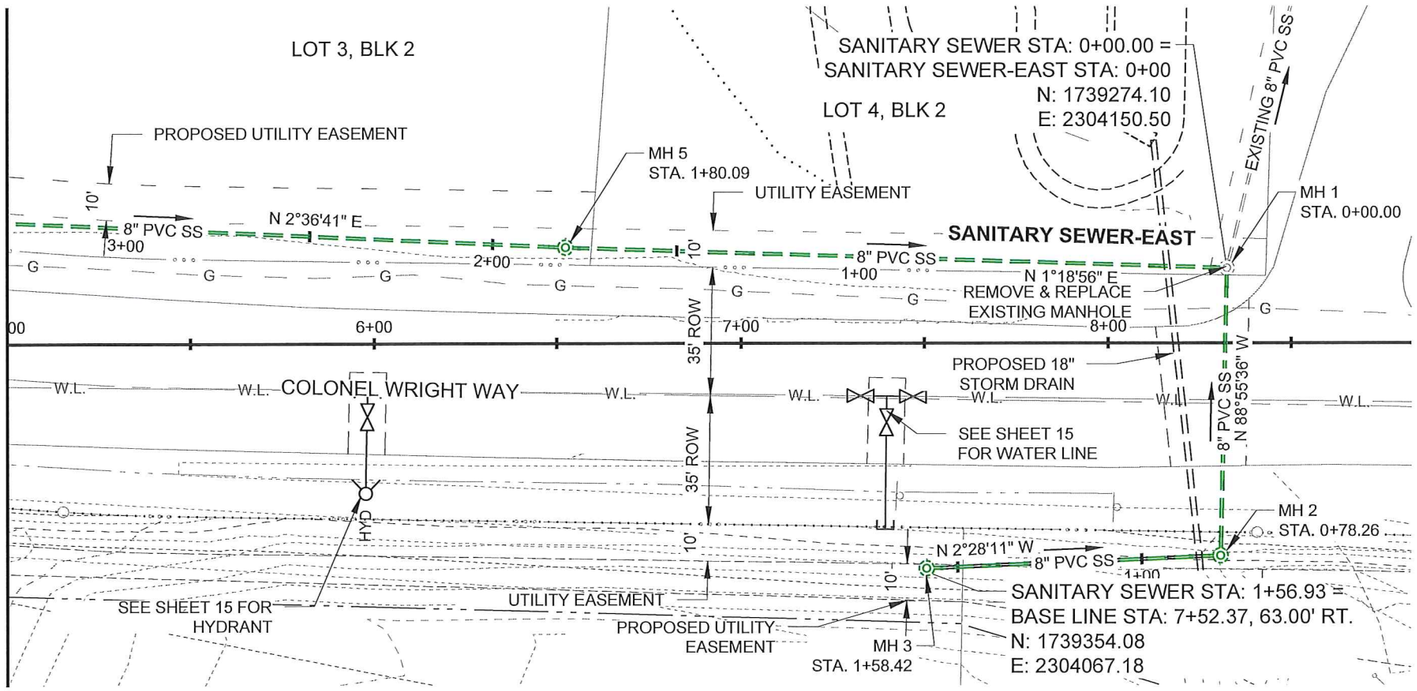
PROFESSIONAL ENGINEER
REGISTERED
REX L. HARDING
STATE OF IDAHO
12/04/17

RIEDESEL Engineering
77 Southway, Suite C
Lewiston, Id. 83501
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NOTE: SEE SHEETS 12-13 FOR SANITARY SEWER PROFILES



SANITARY SEWER NOTES

1. SEWER PIPE BEDDING MATERIALS SHALL BE IN ACCORDANCE WITH THE ISPWC TECHNICAL SPECIFICATIONS AND CITY OF LEWISTON INSPECTION CHECKLIST.
2. THE CONTRACTOR SHALL MAINTAIN A 10' MINIMUM HORIZONTAL AND 18" MINIMUM VERTICAL SEPARATION BETWEEN POTABLE AND NON-POTABLE PIPES, IN ACCORDANCE WITH THE IDAPA 58.01.08.542.07b. NON-POTABLE INCLUDES SEWER, GRAVITY IRRIGATION, PRESSURE IRRIGATION AND REUSED WATER. SEE CITY STD DWG 4-1.
3. SEWER PIPE SHALL BE PVC PIPE MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D3034 SDR 35 SEWER PIPE. ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH ISPWC STANDARDS AND CITY INSPECTION CHECKLIST.
4. INSTALL SEWER SERVICE LINES. A MAXIMUM OF FIVE CONNECTIONS ARE EXPECTED. LOCATED AS DIRECTED BY ENGINEER.
5. FIELD VERIFY EXISTING MANHOLE ELEVATIONS AND INVERTS AND SEWER LINE SLOPE PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL GRADE SLOPES AROUND MANHOLES AT MAXIMUM OF 2% FOR 5' FROM MANHOLE AND THEN MATCH TO EXISTING GROUND OR FINISH GRADE AT A MAXIMUM SLOPE OF 2:1.
7. FIELD VERIFY GAS LINE LOCATION AND SIZE FROM SEWER STATION 7+00 TO 7+78. SHIFT SEWER LINE AND MANHOLE EAST TO AVOID CONFLICT IF NECESSARY.
8. SEE CITY STD DWG 5-8 FOR MANHOLE LID ORIENTATION.

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

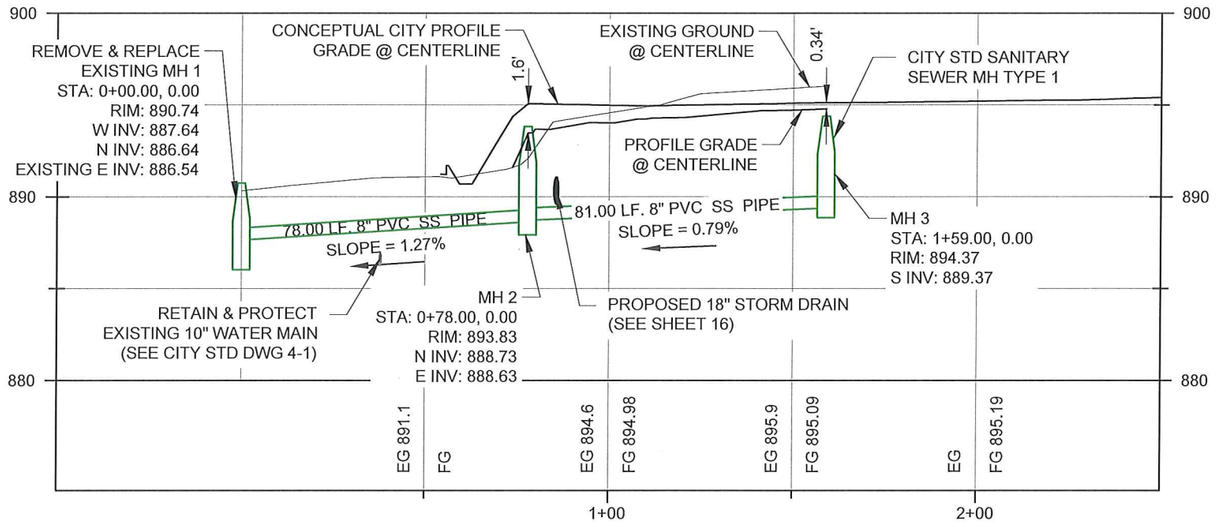
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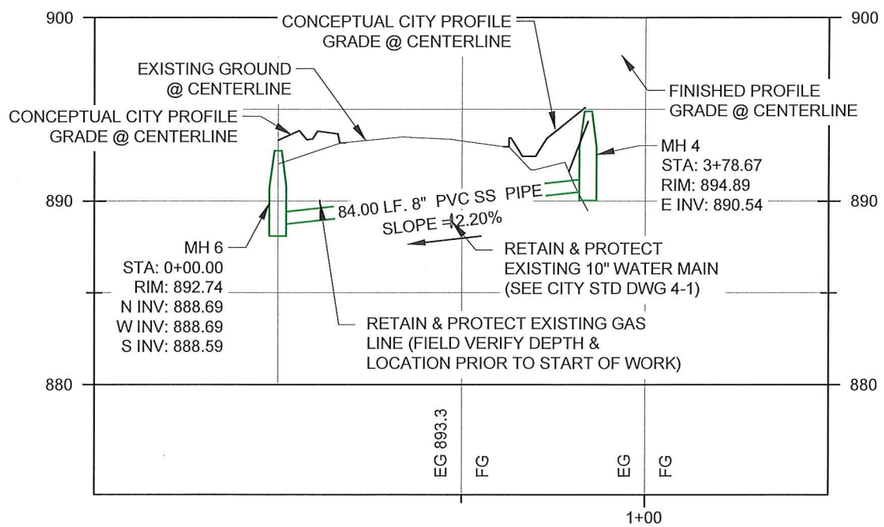
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DRAWING DATE: 12/4/17
DRAWING SCALE: AS SHOWN
SHEET 11 OF 19

PROFESSIONAL ENGINEER
REGISTERED
7556
12/04/17
STATE OF IDAHO
REX L. HARDING

PLOT DATE: 12/4/2017
M:\PROJECTS\2835-2016 PORT GRADING PROJECT\CADD\CIVIL 3D\DRAWINGS\2835-SEWER PLAN-ASBUILT.DWG



SANITARY SEWER CENTERLINE PROFILE STA: -0+50 - 2+50



SANITARY SEWER SPUR CENTERLINE PROFILE STA: -0+50 - 1+50

0 10 20 40
HORIZONTAL (FT)

VERTICAL (FT) 0 2 4

NOTE:
1. USE CITY TYPE 1A MANHOLE (CITY STD DWG 5-4) FOR SHALLOW MANHOLE.
2. IF USING SD-502, ROTATE FLAT LID T POSITION ACCESS HOLE OVER CHANNEL.

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2018

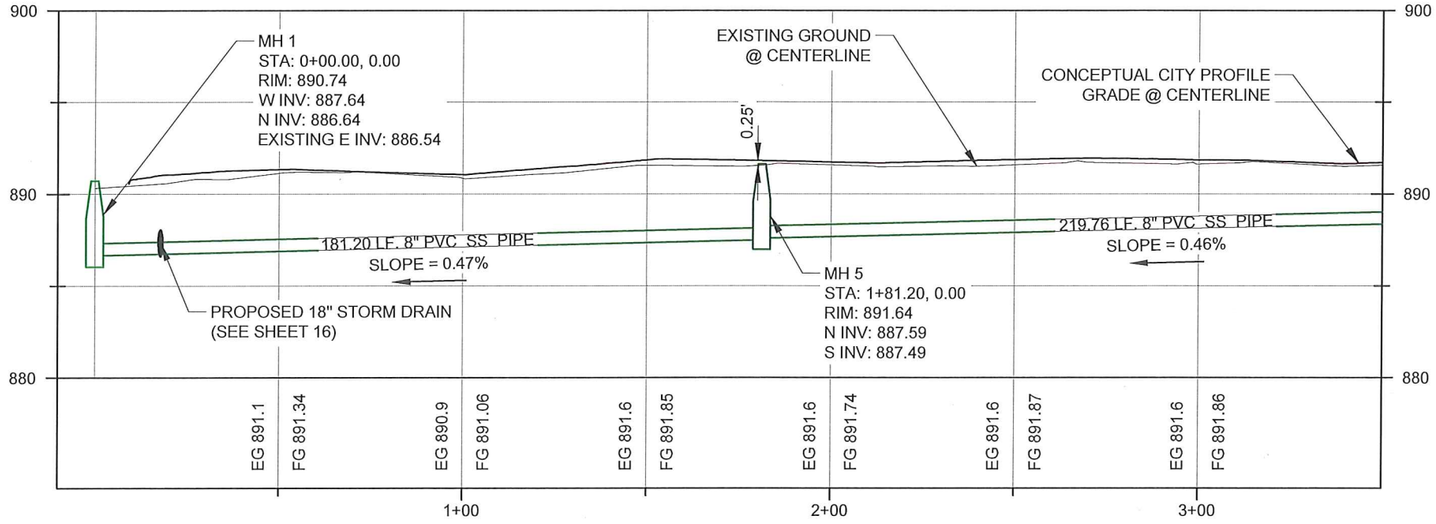
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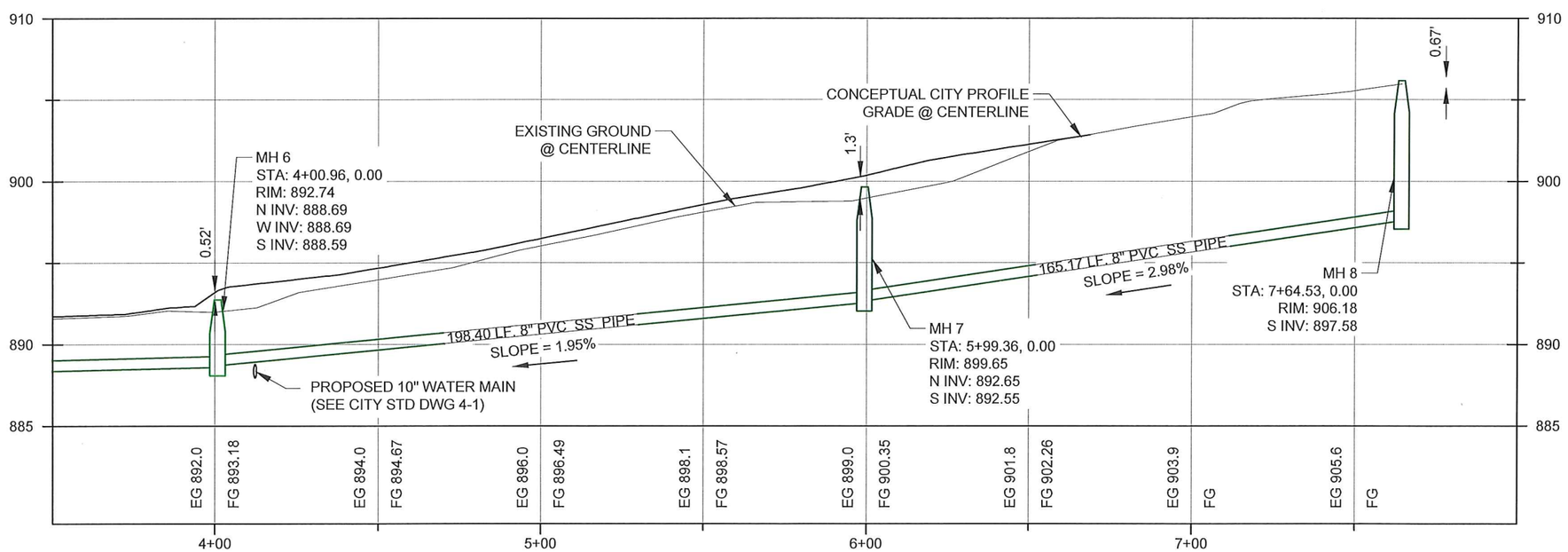
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DRAWING DATE 1/25/18
DRAWING SCALE AS SHOWN
SHEET 12 OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 1/25/18 STATE OF IDAHO REX L. HARDING

PLOT DATE: 1/25/2018
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SANITARY SEWER-EAST CENTERLINE PROFILE STA: -0+10 - 3+50



SANITARY SEWER-EAST CENTERLINE PROFILE STA: 3+50 - 8+00

0 10 20 40
HORIZONTAL (FT)

VERTICAL (FT) 0 2 4

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2018

EAST SANITARY SEWER PROFILE

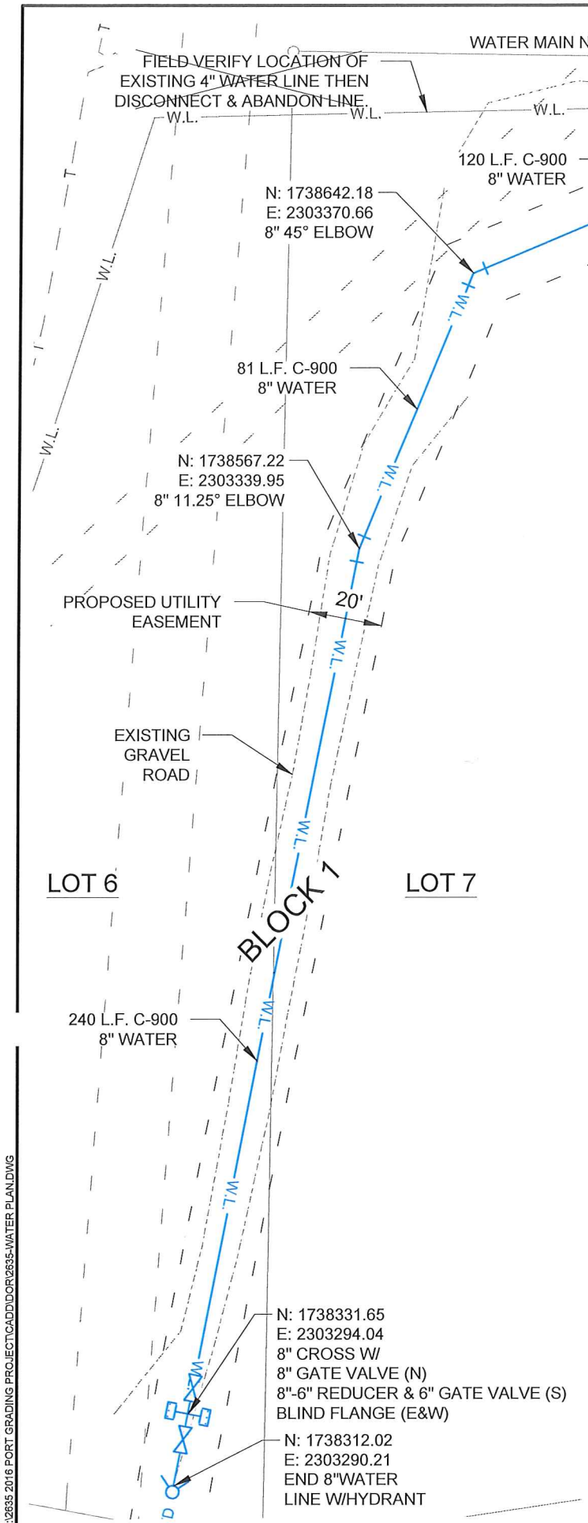
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DRAWING SCALE AS SHOWN
SHEET 13 OF 19

PROFESSIONAL ENGINEER
REGISTERED
7550
1/25/18
STATE OF IDAHO
REX L. HARDING

PLOT DATE: 1/25/2018
Z:\2635 2018 PORT GRADING PROJECT\CADD\DOR\2635-SEWER PLAN.DWG



PIPELINE DISINFECTION AND FLUSHING

1. DISINFECTION PROCEDURES

1.1. THE CITY OF LEWISTON WILL CONDUCT THE DISINFECTON OF THE WATER MAINS FOLLOWING THEIR STANDARD PROCEDURES. THE CONTRACTOR SHALL PAY THE CITY $0.43 PER LINEAR FOOT AND $30.70 FOR BACTERIA TESTING FOR EACH TESTING POINT.

WATER NOTES

1. POTABLE WATER MAINLINE PIPE SHALL MEET OR EXCEED THE REQUIREMENTS OF ANSI/AWWA C 900 DR 18 PVC PRESSURE PIPE.
2. ALL GATE VALVES SHALL BE COMPLIANT WITH AWWA STANDARD C-509-09 RESILIENT SEATED GATE VALVES FOR WATER SUPPLY SERVICE. 16" GATE VALVES SHALL BE SIDE ACTUATED.
3. PIPE FITTINGS SHALL BE DUCTILE IRON WITH CEMENT MORTAR LINING THAT EXCEED THE REQUIRMENTS OF ANSI/AWWA C 151. FLANGE FITTINGS SHALL BE USED WHEREVER POSSIBLE. MECHANICAL JOINT FITTINGS SHALL BE SECURED WITH GRIPRING PIPE RESTRAINT AND THRUST BLOCKS.
4. FIRE HYDRANTS SHALL BE EJ WATERMASTER, WATEROUS PACER WITH 16" TRAFFIC SECTION, OR A MUELLER SUPERCENTURION.
5. A 12-GAUGE SINGLE STRAND COPPER PIPELINE LOCATION WIRE SHALL BE INSTALLED ON ALL MAINLINES AND SERVICE LINES GREATER THAN 1-INCH DIAMETER PER ISPWC. ALL CONNECTIONS SHALL BE WITH DRI-SPLICE WITH 15' CONNECTION LEADS AT EACH VALVE, FIRE HYDRANT, AIR VALVE LOCATIONS AND METER PIT IF APPLICABLE. MARKER TAPE SHALL ALSO BE INSTALLED BETWEEN 12" AND 24" BELOW THE SURFACE. THE TAPE SHALL READ "CAUTION BURIED WATER MAIN BELOW" AND BE 2" WIDE.
6. ALL WATER MAINS AND SERVICE LINES SHALL BE BURIED A MINIMUM OF 48-INCHES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. HYDROSTATIC PRESSURE TESTING OF THE NEW WATER MAINS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER. CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS PRIOR TO TESTING. ALL PIPES SHALL BE TESTED IN ACCORDANCE WITH THE ISPWC (CURRENT EDITION) THE CONTRACTOR SHALL SUCCESSFULLY COMPLETE THE PRESSURE TESTING OF EACH NEW WATER MAIN PRIOR TO THE DISINFECTION OF THE NEW WATER MAIN, THE CONNECTION OF THE NEW WATER MAIN TO SERVICE LINES AND THE FINAL GRADING AND PAVING OF THE TRENCH.
8. THRUST BLOCKS SHALL BE ACCORDING TO CITY STD. DWG 4-4.
9. ALL MATERIALS HAVING POTABLE WATER CONTACT SURFACES MUST BE ANSI/NSF STANDARD 61 AND 372 CERTIFIED AND ALL CHEMICALS USED DURING INSTALLATION AND OPERATION OF POTABLE SYSTEMS, INCLUDING CHLORINE AND LUBRICATION OILS MUST BE ANSI/NSF STANDARD 60 CERTIFIED.
10. CONSTRUCTION OF THE WATER SYSTEM SHALL CONFORM TO THE STANDARDS IN THE "IDAHO RULES FOR PUBLIC DRINKING WATER SYSTEMS (IDAPA 58.01.08)" AS WELL AS THE STANDARDS AND SPECIFICATIONS REFERRED TO IN GENERAL CONSTRUCTION NOTE NO. 1.
11. THE HORIZONTAL SEPARATION OF POTABLE WATER MAINS AND NON-POTABLE WATER MAINS (SANITARY SEWER, STORM DRAIN, AND IRRIGATION) SHALL BE A MINIMUM OF TEN (10) FEET. WHERE IT IS NECESSARY FOR A POTABLE WATER MAIN AND NON-POTABLE WATER MAIN TO CROSS WITH LESS THAN EIGHTEEN (18) INCHES OF VERTICAL SEPARATION, THE CROSSING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 542.07 OF THE IDAHO RULES FOR PUBLIC DRINKING WATER SYSTEMS (IDAPA 58.01.08) AND SECTION 430.02 OF THE WASTEWATER RULES (IDAPA 58.01.16).
12. ANY DEVIATION FROM THE APPROVED PLANS AND SPECIFICATIONS MUST HAVE THE APPLICABLE AGENCY APPROVAL IN WRITING PRIOR TO CONSTRUCTION.
13. INSPECTION, APPROVAL AND FINAL ACCEPTANCE OF ALL WATER CONSTRUCTION SHALL BE BY THE PUBLIC WORKS DEPARTMENT, AND THEIR DECISION SHALL BE FINAL. SUCH INSPECTIONS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER IN ACCORDANCE WITH THE DEQ APPROVED CONSTRUCTION PLANS.
14. IDENTIFIED ABANDONED WATER LINES TO BE DISCONNECTED AND CAP WITH WATER TIGHT FITTING.
15. FIRE HYDRANT HOT TAP CONNECTION TO THE EXISTING WATER MAIN WILL BE COMPLETED BY THE CITY AT A COST OF $1221 PER TAP. CONTRACTOR WILL SUPPLY THE HOT TAP SADDLE AND VALVE.
16. BACKFILL OF WATER MAIN TRENCH BENEATH THE GRAVEL ROAD SHALL BE IN ACCORDANCE WITH THE CITY OF LEWISTON REQUIREMENTS.

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

SOUTH WATER LINE PLAN

NO.	DATE	BY	REVISIONS DESCRIPTION
1	12/04/17	RLH	DRAWING OF RECORD
2	-	-	-
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DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2835-WATER PLAN.dwg
DRAWING DATE 12/4/17
DRAWING SCALE AS SHOWN
SHEET 14 OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 12/04/17 STATE OF IDAHO REX L. HARDING

PLOT DATE: 12/4/2017
Z:\2835 2016 PORT GRADING PROJECT\CADD\DOR\2635-WATER PLAN.DWG

PROPOSED UTILITY EASEMENT
UTILITY EASEMENT
SEE SHEET 11 FOR SANITARY SEWER
+22.38, 49.05 LT.
END PROPOSED 10" WATER LINE
INSTALL BLOWOFF ASSEMBLY
(SEE CITY STD DWG 4-3)
+28.50, 40.71 LT.
END CONDUITS
59 L.F. C-900
10" WATER
+12.01, 6.10 LT.
HOT TAP EXISTING 10"
MAIN AND CONNECT
NEW FIRE HYDRANT
W/ 22.5° ELBOW
POTABLE / NON-POTABLE
WATER CROSSING
INSTALL 80 L.F. OF
3 - 4" & 2 - 2" CONDUIT
FOR FUTURE UTILITIES
COLONEL WRIGHT WAY
EXISTING 10" C-900
WATER MAIN LINE
BASE LINE
S 0°00'00" E
1+00
2+00
3+00
4+00
5+
35' ROW
BEGIN CONSTRUCTION
BASE LINE
STA: 0+00.00
N: 1740106.45
E: 2304130.18
+19.63, 9.88 RT.
CONNECT TO EXISTING
10" WATER MAIN. INSTALL
10" CROSS FITTING W/ GATE
VALVES (4) FOR PROPOSED
10" WATER LINE
29 L.F. C-900
10" WATER
+15.89, 31.29 RT.
INSTALL FIRE HYDRANT
ASSEMBLY PER CITY
STD DWG 4-12
+47.47, 46.54 RT.
END CONDUITS
+18.28, 38.76 RT.
END PROPOSED 10" WATER LINE
INSTALL BLOWOFF ASSEMBLY
(SEE CITY STD DWG 4-3)
MATCH LINE: BASELINE STA. 5+00
SH 128
HORIZONTAL (FT)

PROPOSED UTILITY EASEMENT
SEE SHEET 9 FOR SANITARY SEWER
UTILITY EASEMENT
MATCH LINE: BASELINE STA. 5+00
+98.24, 12.84 RT.
HOT TAP EXISTING
10" MAIN AND CONNECT
NEW FIRE HYDRANT
6+00
7+00
8+00
9+00
10+00
BASE LINE
S 0°00'00" E
35' ROW
COLONEL WRIGHT WAY
+39.74, 14.52 RT.
CONNECT TO EXISTING
10" WATER MAIN. INSTALL
10" TEE FITTING W/ GATE VALVES (3)
FOR PROPOSED 10" WATER LINE
36 L.F. C-900
10" WATER
+49.92, 16.86 RT.
RETAIN & PROTECT
EXISTING VALVE CLUSTER
+92.99, 16.35 RT.
HOT TAP EXISTING 10"
MAIN AND CONNECT
NEW FIRE HYDRANT
+97.87, 39.14 RT.
INSTALL FIRE HYDRANT
ASSEMBLY PER CITY
STD DWG 4-12
+92.67, 42.67 RT.
INSTALL FIRE HYDRANT
ASSEMBLY PER CITY
STD DWG 4-12
+39.31, 50.13 RT.
END PROPOSED 10" WATER LINE
INSTALL BLOWOFF ASSEMBLY
(SEE CITY STD DWG 4-3)
PROPOSED UTILITY EASEMENT
UTILITY EASEMENT

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
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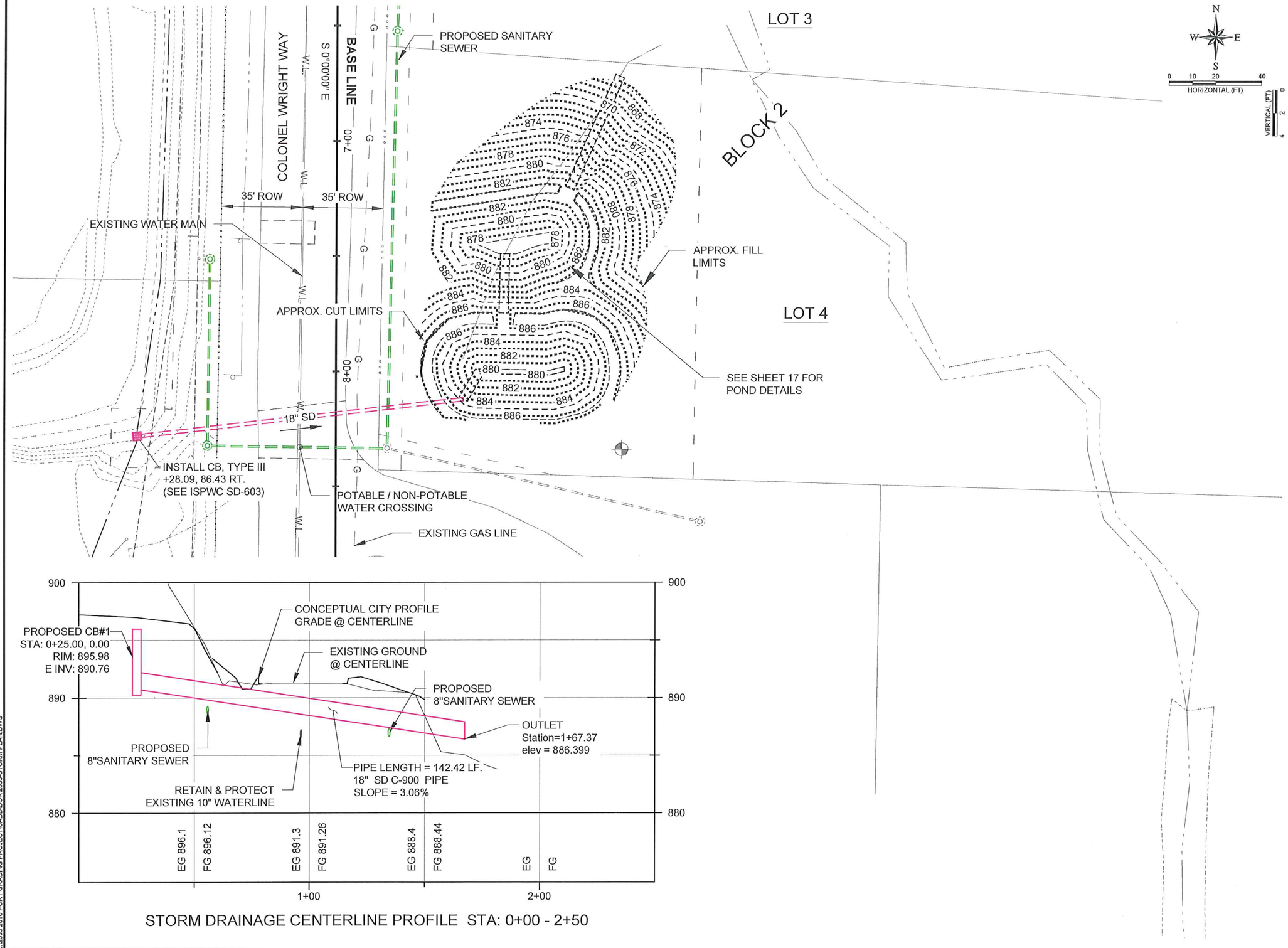
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DRAWING SCALE AS SHOWN
SHEET 15 OF 19

PROFESSIONAL ENGINEER
REGISTERED
7556
12/04/17
STATE OF IDAHO
REX L. HARDING

PLOT DATE: 12/4/2017
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635-WATER PLAN.DWG



STORM DRAINAGE CENTERLINE PROFILE STA: 0+00 - 2+50

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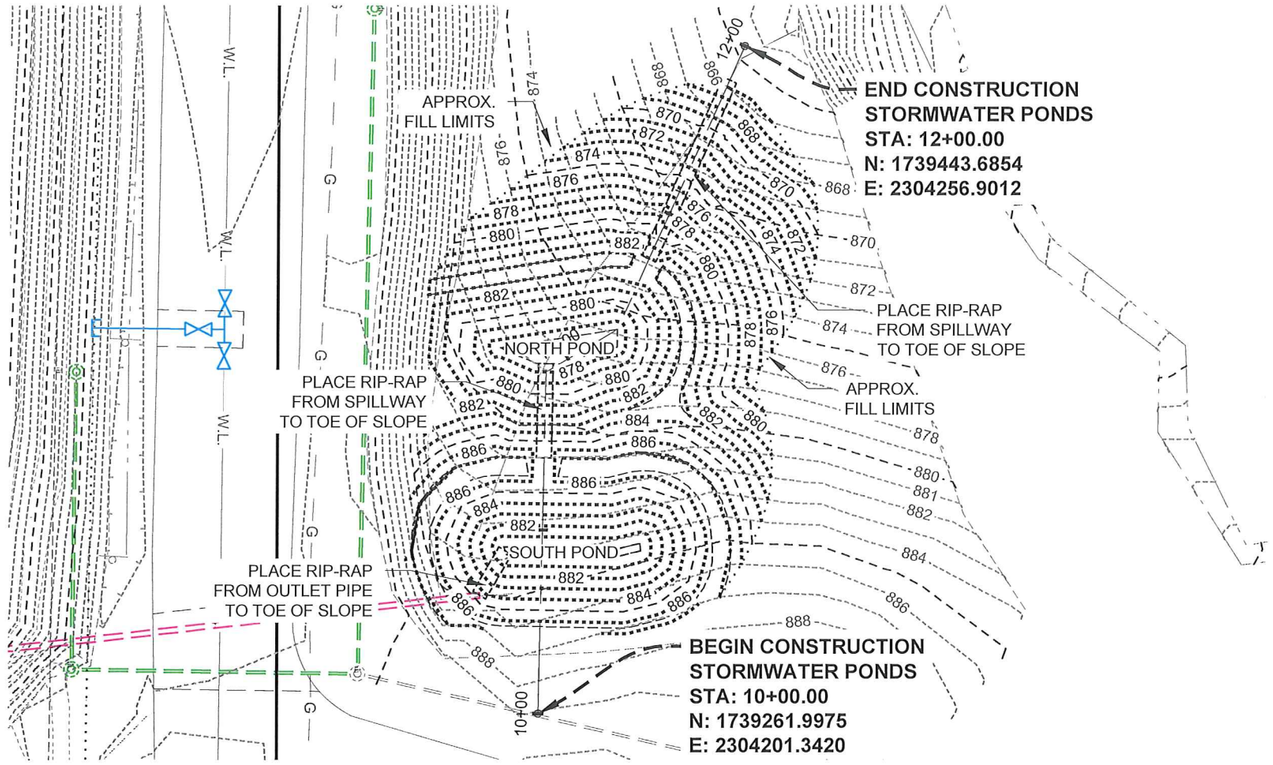
STORM PLAN

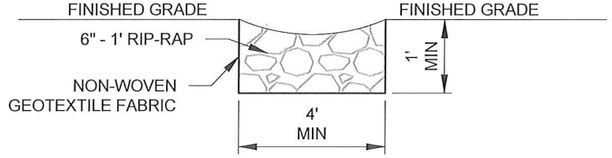
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SHEET 16 OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 STATE OF IDAHO REX L. HARDING 12/04/17

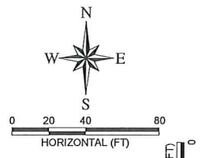
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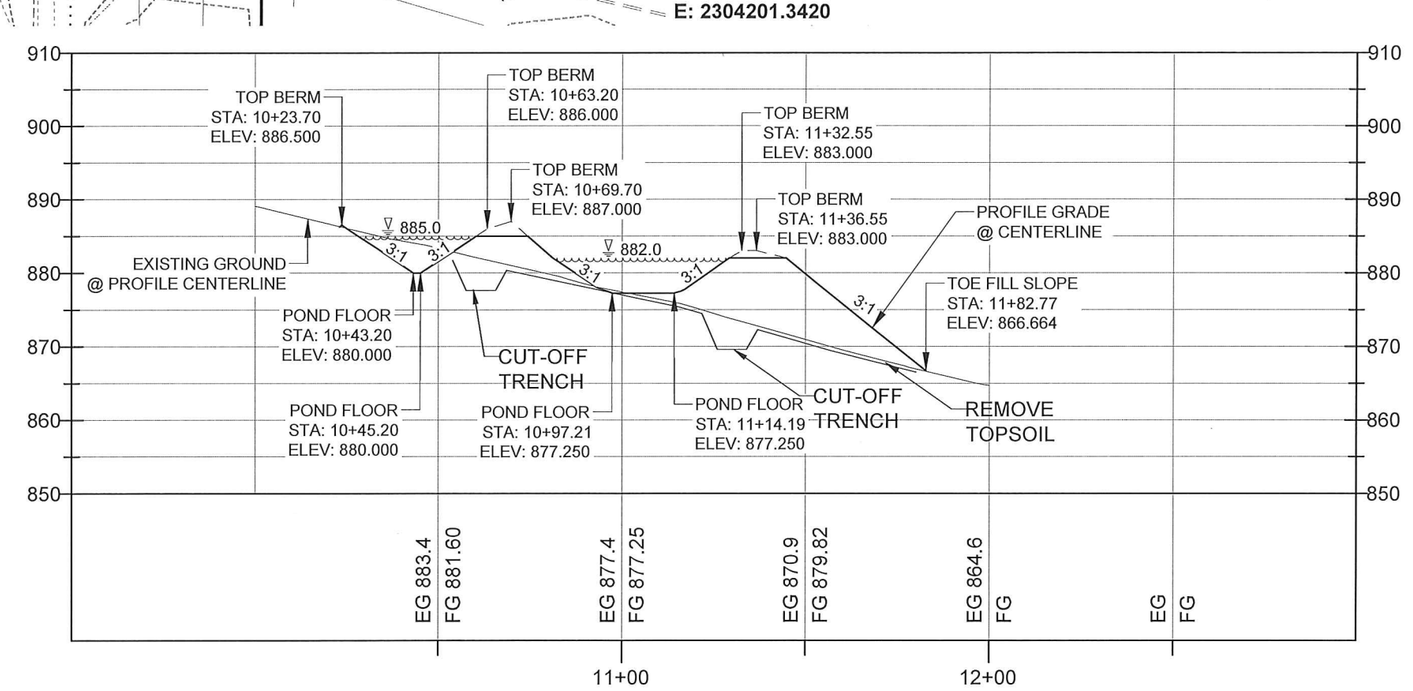




RIP-RAP SPILLWAY DETAIL

N.T.S.





STORMWATER PONDS CENTERLINE PROFILE STA: 9+50 - 13+00

NORTH POND INFORMATION

FLOOR ELEV: 877.75
TOP WATER ELEV: 882.00
TOP BERM ELEV: 883.00
FLOOR AREA: 157.26 SF
WATER SURFACE AREA: 2031.34 SF
POND VOLUME: 4,650.78 CU FT

SOUTH POND INFORMATION

FLOOR ELEV: 880.00
TOP WATER ELEV: 885.00
TOP BERM ELEV: 887.00
FLOOR AREA: 73.86 SF
WATER SURFACE AREA: 1995.12 SF
POND VOLUME: 5,172.45 CU FT

NOTES:

1. EXCAVATION AND EMBANKMENT PER GEOTECHNICAL REPORT
2. APPROX. EARTHWORK QUANTITIES:
   FILL VOLUME: 1363 CY
   CUT VOLUME: 135 CY

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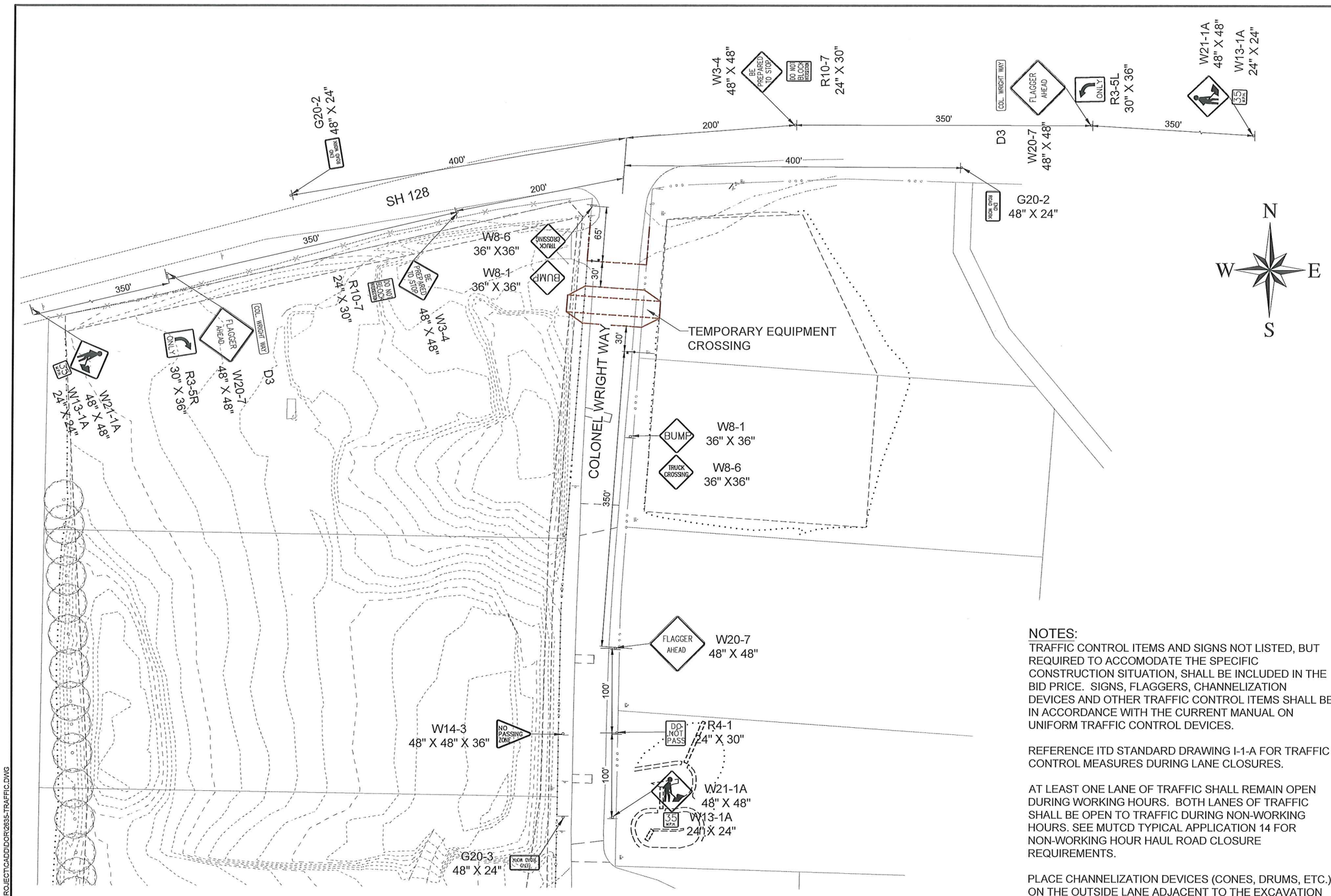
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REX L. HARDING

PLOT DATE: 12/4/2017
Z:\2835 2016 PORT GRADING PROJECT\CAD\DOR\2835-STORM POND.DWG



NOTES:

TRAFFIC CONTROL ITEMS AND SIGNS NOT LISTED, BUT REQUIRED TO ACCOMODATE THE SPECIFIC CONSTRUCTION SITUATION, SHALL BE INCLUDED IN THE BID PRICE. SIGNS, FLAGGERS, CHANNELIZATION DEVICES AND OTHER TRAFFIC CONTROL ITEMS SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

REFERENCE ITD STANDARD DRAWING I-1-A FOR TRAFFIC CONTROL MEASURES DURING LANE CLOSURES.

AT LEAST ONE LANE OF TRAFFIC SHALL REMAIN OPEN DURING WORKING HOURS. BOTH LANES OF TRAFFIC SHALL BE OPEN TO TRAFFIC DURING NON-WORKING HOURS. SEE MUTCD TYPICAL APPLICATION 14 FOR NON-WORKING HOUR HAUL ROAD CLOSURE REQUIREMENTS.

PLACE CHANNELIZATION DEVICES (CONES, DRUMS, ETC.) ON THE OUTSIDE LANE ADJACENT TO THE EXCAVATION AREA IN ACCORDANCE WITH THE MUTCD. PLACE APPLICABLE SIGNS (SHOULDER DROP OFF, ETC.) AND WARNING DEVICES AS CONDITIONS WARRANT DURING CONSTRUCTION.

ALL TRAFFIC CONTROL ITEMS SHALL BE INCLUDED IN ITEM (1103)

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

TRAFFIC CONTROL PLAN

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	12/04/17	RLH	DRAWINGS OF RECORD
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-TRAFFIC.dwg
DRAWING DATE 12/4/17
DRAWING SCALE AS SHOWN
SHEET 18 OF 19

PROFESSIONAL ENGINEER
REGISTERED
7556
12/04/17
STATE OF IDAHO
REX L. HARDING

PLOT DATE: 12/4/2017
Z:\2635 2016 PORT GRADING PROJECT\CADD\DOR\2635-TRAFFIC.DWG

NOTES:

1. THE CONTRACTOR SHALL FILE NOI PERMIT A MIN. OF 14 DAYS PRIOR TO EXCAVATION ACTIVITIES. THE NOI'S AND EPA'S ACKNOWLEDGMENT LETTERS MUST BE POSTED IN A CONSPICUOUS LOCATION AT THE JOB SITE OR AT ANOTHER LOCATION WHERE PUBLIC ACCESS IS ASSURED.

2. BMPs AND STANDARD DRAWINGS ARE TAKEN FROM IDEQ'S CATALOG OF STORM WATER BEST MANAGEMENT PRACTICES FOR IDAHO CITIES AND COUNTIES. COPIES CAN BE OBTAINED FROM THE ENGINEER'S OFFICE. THE FOLLOWING BMPs ARE REFERENCED AND MADE A PART OF THIS PLAN:

BMP #5a - STABILIZATION OF CONSTRUCTION ENTRANCE AND ROADS
BMP #7 - DUST CONTROL
BMP #11 - VEHICLE/EQUIPMENT WASHING AND MAINTENANCE
BMP #15 - MULCHING
BMP #20 - TOPSOILING (ITEM SP-2800.1)
BMP #21 - SEEDING (ITEM 206.4.1.B.1)
BMP #25 - SLOPE ROUGHENING
BMP #28 - CHANNEL LINERS
BMP #31 - INLET PROTECTION
BMP #32 - CHECK DAMS (ITEM 1006.4.I.D.I)
BMP #36 - SILT FENCE (ITEM 1003.4.I.C.I)
BMP #42 - PERIMETER DIKE/SWALE (ITEM 1004.4.I.C.I)

3. BMPs SHALL BE INSPECTED DAILY. ANY DEFICIENT OR DAMAGED BMPs SHALL BE REPAIRED IMMEDIATELY.

4. THE CONTRACTOR SHALL INSTALL NECESSARY BMPs TO PROTECT WORK AREAS AND ADJUST BMPs AS NEW WORK AREAS ARE STARTED.

5. AFTER TOPSOIL HAS BEEN PLACED, THE CONTRACTOR SHALL APPLY SEEDING ON ALL DISTURBED AREAS USING WET OR DRY APPLICATION.

6. SOIL DISTURBANCE AND STABILIZATION AREAS SHALL BE IN COMPLIANCE WITH THE 2017 CONSTRUCTION GENERAL PERMIT PART 2.2.14.

7. STREET SWEEPING IS REQUIRED ON A WEEKLY BASIS OR AS REQUESTED BY THE ENGINEER.

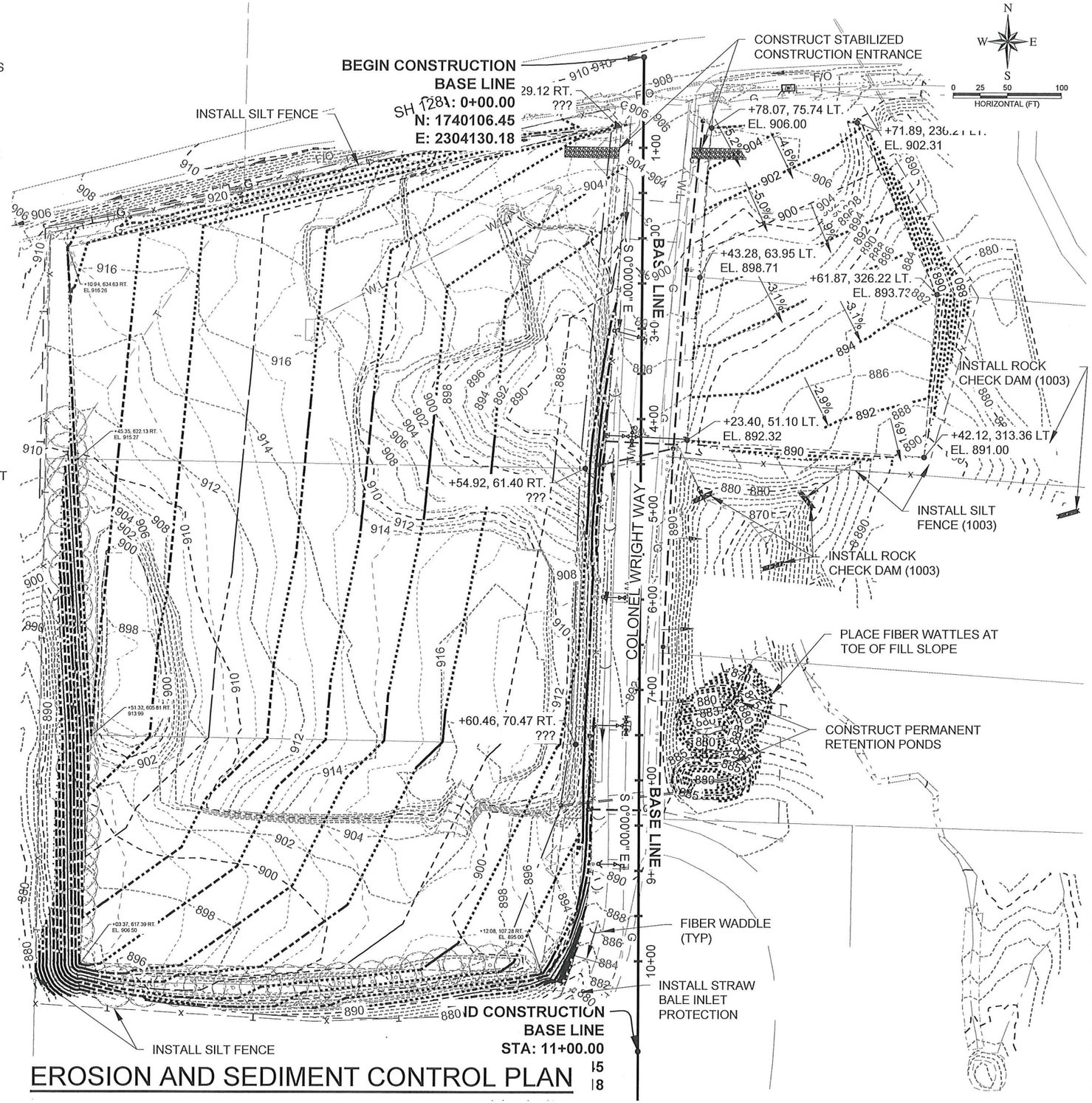
8. SLOPE ROUGHENING (BMP #25) WILL BE REQUIRED ON ALL SLOPES STEEPER THAN 3:1 AND GREATER THAN 5 FEET VERTICAL HEIGHT.

9. DUST CONTROL (BMP #7) WILL BE REQUIRED ON ALL DISTURBED AREAS OF THE SITE AT REGULAR INTERVALS. SPRINKLING WILL BE REQUIRED MORE FREQUENTLY DURING HOT, DRY, AND WINDY CONDITIONS, AND ON HAUL ROADS.

10. CONTRACTOR SHALL NOT DISTURB EXISTING GRASS/VEGETATION LOCATED OUTSIDE THE GRADING SITE CONSTRUCTION.

LEGEND

SILT FENCE
ROCK CHECK DAM
FIBER WADDLE
INLET PROTECTION



EROSION AND SEDIMENT CONTROL PLAN

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PORT OF LEWISTON
2017 PORT GRADING PROJECT
2017

STORM WATER POLLUTION PREVENTION PLAN

NO.	DATE	BY	REVISIONS DESCRIPTION
1	12/04/17	RLH	DRAWINGS OF RECORD
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-

DESIGNED WDR
DESIGN CHECKED RLH
DETAILED WDR
DRAWING CHECKED RLH
FILE NAME 2635-SWPPP.dwg
DRAWING DATE 12/4/17
DRAWING SCALE AS SHOWN
SHEET 19 OF 19

PROFESSIONAL ENGINEER REGISTERED 7556 STATE OF IDAHO 12/04/17 REX L. HARDING

PLOT DATE: 12/4/2017
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