

SHEET LEGEND

GRADING, EROSION CONTROL, & STORMWATER
MANAGEMENT PLANS

- C-1: TITLE SHEET
- C-2: EXISTING CONDITIONS
- C-3: SITE PLAN - PARKING & LIGHTING
- C-4: GRADING & EROSION CONTROL PLAN
- C-5: STORMWATER PLAN
- C-6: STORMWATER BASIN MAP
- C-7: STORMWATER DETAILS & SECTIONS
- C-8: SUBSURFACE DRAINAGE DETAIL
- C-9: EROSION CONTROL & SITE DETAILS
- C-10: MISCELLANEOUS SITE DETAILS
- C-11: MISCELLANEOUS SITE DETAILS (2)
- C-12: CONSTRUCTION NOTES

IN & OUT PAINTING
OVERFLOW PARKING
PLANS AND SPECIFICATIONS FOR
GRADING, EROSION
CONTROL, & STORMWATER
MANAGEMENT

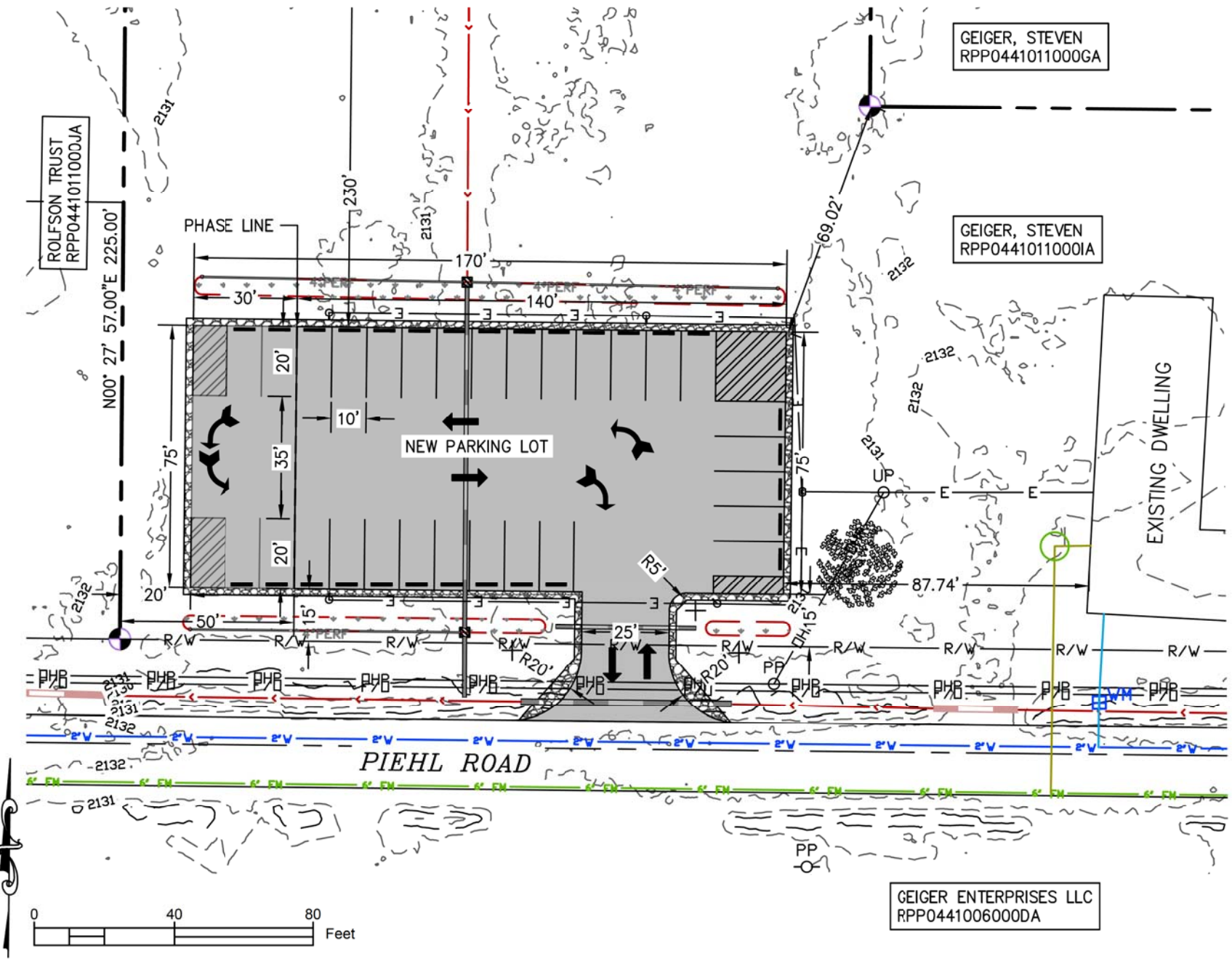
ON
RPP0441011000IA
401 PIEHL ROAD,
PONDERAY, IDAHO 83852

ENGINEER OF RECORD
COMPANY: 7B ENGINEERING
ENGINEER: DANIEL W LARSON, PE
ADDRESS: 414 CHURCH STREET, SUITE 203
SANDPOINT, ID 83864
PHONE: (208) 263-0623



VICINITY MAP
NTS

SITE OVERVIEW



LEGEND

- PROPERTY LINE
- SETBACK LINE
- ROAD CENTER LINE
- EASEMENT LINE
- EXISTING CONTOUR (5')
- EXISTING CONTOUR (1')
- FINISHED GRADE CONTOUR (5')
- FINISHED GRADE CONTOUR (1')
- EXISTING FORCE MAIN (SEWER)
- EXISTING WATER MAIN
- UNDERGROUND POWER LINE
- OVERHEAD POWER LINE
- EXISTING COMMUNICATIONS
- EXISTING WATER SERVICE
- EXISTING SEWER SERVICE
- NEW FIBER ROLLS
- NEW SILT FENCE
- SHEET-FLOW DIRECTION
- TRAVEL/ TRAFFIC DIRECTION
- STORMWATER TREATMENT AREA
- PARKING LOT
- NO PARKING AREA
- NEW STORM PIPE/CULVERT
- EXISTING STORM PIPE/CULVERT
- GREEN SPACE (GRASS & NATIVE VEGETATION)
- GRAVEL SHOULDER OR RIP RAP

- WM WATER METER
- PUMP STATION (SEWER)



PROJECT #: 25029
DRAWN BY: ICE
CHECKED BY: DWL

SCALE: 1"=40'
(VALID FOR 11"x17" PRINTS ONLY)

SHEET C-1 OF C-12

REVISION	DATE	DESCRIPTION
1	09/03/25	CHANGES PER CITY COMMENTS

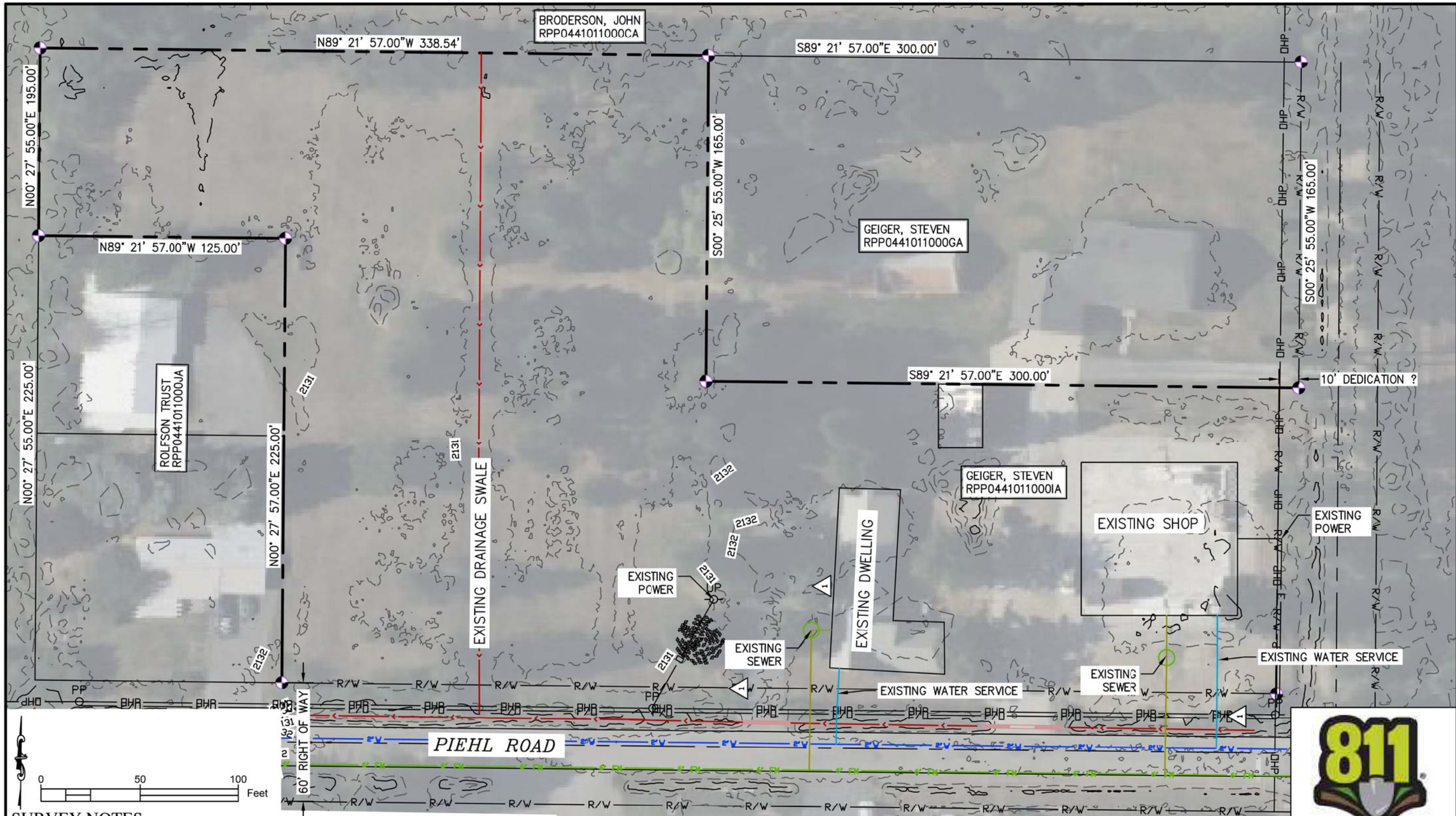
SHEET TITLE	TITLE SHEET
OWNER	GEIGER, STEVEN R
PROJECT	IN & OUT PARKING PONDERAY, IDAHO

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414 CHURCH ST STE 203
SANDPOINT, ID 83864
DRAWING DATE:
9/4/2025



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SURVEY NOTES.

1. THESE PLANS DO NOT REPRESENT AN ACTUAL SURVEY BUT WERE ASSEMBLED FROM INFORMATION GATHERED AS NOTED FROM BONNER COUNTY, LANCE MILLER PLS, QUICK DEED INFORMATION INSTRUMENT #1042714, AND RECORD OF SURVEY BY DAVID P EVANS AND ASSOCIATES INSTRUMENT # 539508
2. TOPO WAS PREPARED FROM A USGS LIDAR PREFORMED IN 2018. THE LIDAR WAS UNADJUSTED TO THE HORIZONTAL DATUM NAD83 IDAHO WEST FEET (GRID).
3. ELEVATION CONTOUR DATA IS INTENDED TO BE USED IN ESTABLISHING SLOPES AND ELEVATIONS FOR THE GRADING STORMWATER, AND EROSION CONTROL PLAN.
4. EXISTING PROPERTY CORNERS AND SURVEY MONUMENTS SHALL BE LOCATED, MARKED, AND PROTECTED DURING THE COURSE OF CONSTRUCTION. ANY DAMAGE OR OBLITERATED CORNERS, OR MONUMENTS, SHALL BE RE-ESTABLISHED AT THE CONTRACTORS EXPENSE BY A PROFESSIONAL LAND SURVEYOR, LICENSED IN THE STATE OF IDAHO, PRIOR TO FINAL ACCEPTANCE.
5. UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS WITH UTILITY COMPANIES PRIOR TO EARTHWORK.

GVD COMMERCIAL PROPERTIES INC
RPP0441005000YA

GEIGER ENTERPRISES LLC
RPP0441006000DA

EXISTING PARKING LOT

IN & OUT PAINTING

PROJECT #: 25029
DRAWN BY: ICE
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SCALE: 1"=50'
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SHEET C-2 OF C-12



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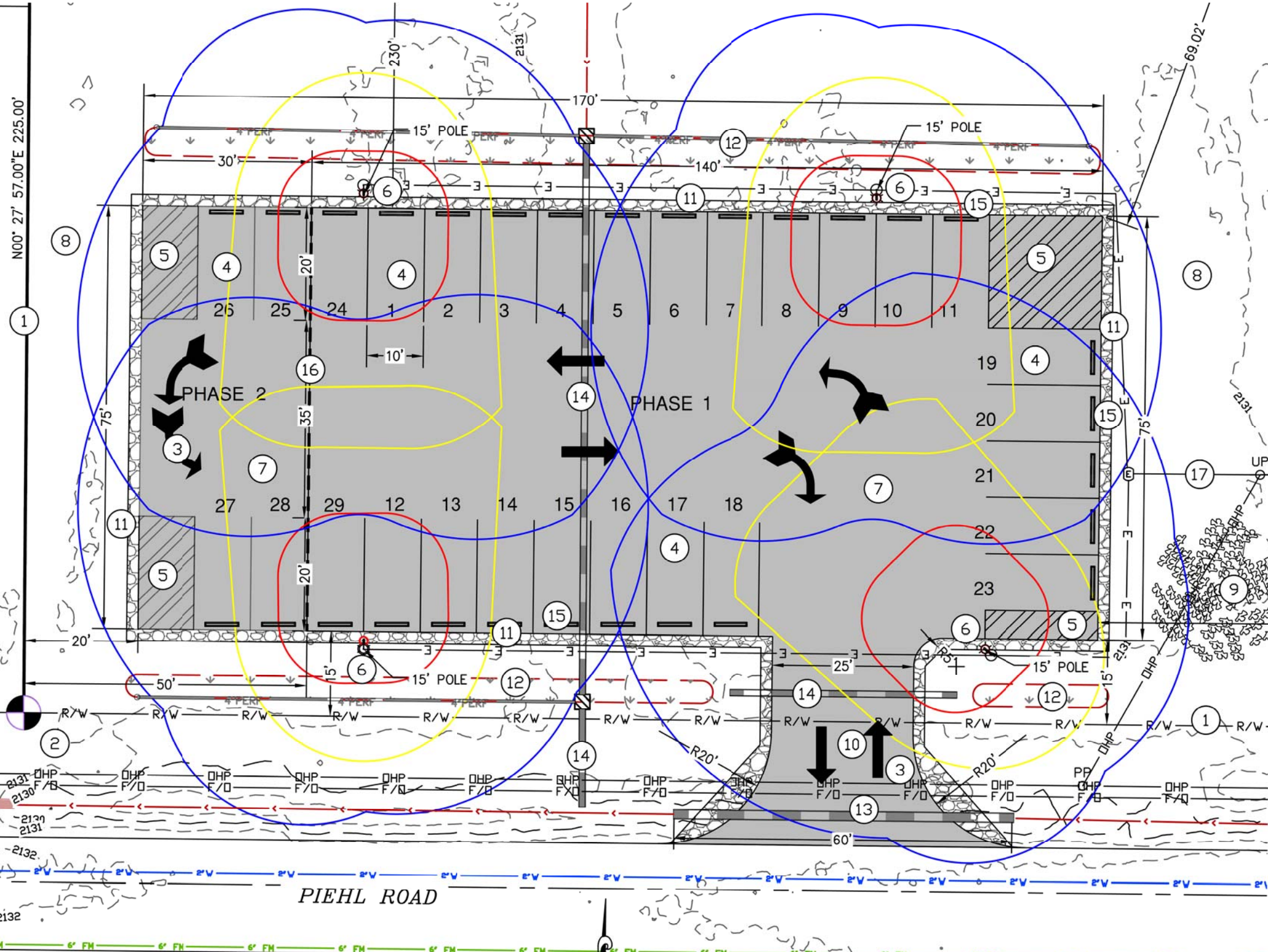
EXISTING CONDITIONS

OWNER
GEIGER, STEVEN R
PROJECT
IN & OUT PARKING
PONDERAY, IDAHO

REVISION #1

DATE
09/03/25
DESCRIPTION
09/02/25 CITY ITEM #3

DISCLAIMER: OVERFLOW/BACKUP PARKING AREA IS NOT CONNECTED TO THE FACILITY BY AN ACCESSIBLE PEDESTRIAN ROUTE. PER 2010 ADA STANDARDS § 206.2.1, NO ACCESSIBLE SPACES ARE REQUIRED OR PROVIDED IN THIS LOT. ACCESSIBLE PARKING IS LOCATED IN THE PRIMARY LOT.



KEYNOTES

- 1 PROPERTY BOUNDARY
- 2 RETAIN & PROTECT EXISTING SURVEY MONUMENTS
- 3 TRAFFIC FLOW DIRECTION (TYP)
- 4 PARKING AREAS (NOT TO BE STRIPED UNLESS PAVED)
PHASE 1: 23 SPOTS (10' W X 20' L' EACH)
PHASE 2: 6 SPOTS (10' W X 20' L' EACH)
TOTAL PROPOSED: 29 SPOTS
- 5 NON-PARKING AREAS (ACCESS OR MANEUVER SPACE)
- 6 RECOMMENDED LIGHT LOCATION ☆
SEE DETAIL A/C-10
15 FT POLES
TYPE IV DIRECTED TO PARKING LOT
120 W SHOE BOX LIGHT FIXTURES OR
EQUAL (LIGHTS SPACED 60-70' APART)
ISO-ILLUMINANCE CONTOURS
FOOT-CANDLE (FC) LEVELS
— INNER-HIGHEST (2.0 FC)
— MID-LEVEL (1.0 FC)
— LOWEST- (LEVEL 0.3-0.5 FC)
- 7 ASPHALT OPTIONAL
REFER TO DETAIL D/C-9 FOR PARKING LOT CROSS SECTION
- 8 GREENSPACE - LANDSCAPE
ANY DISTURBED AREA SHALL BE PLANTED WITH GRASS OR NATIVE VEGETATION
- 9 PROTECT EXISTING TREES
- 10 25' WIDE COMMERCIAL APPROACH
- 11 1-2' WIDE GRAVEL SHOULDER ALONG PERIMETER OF PARKING LOT
- 12 STORMWATER FACILITIES REFER TO SHEET C-5
- 13 NEW 18" CPP CULVERT REFER TO SHEET C-5
- 14 NEW 12" STORMWATER PIPES REFER TO SHEET C-5
- 15 6' CONCRETE WHEEL STOPS (OPTIONAL)
SEE DETAIL A/C-11
- 16 PHASE LINE
PHASE 1: EAST
PHASE 2: WEST
- 17 POWER BY OTHERS

SITE PLANNING TABLE						
LOT SIZE	EXISTING BLDG AREA	EXISTING DRIVEWAY AREA	NEW PARKING AREA	IMPERVIOUS SURFACES	GREEN SPACE	OPEN SPACE
116,262 SF 2.669 AC	10,750 SF 9.2%	13,950 SF	14,187 SF	38,887 SF 33.4%	77,375 SF 66.6%	105,512 SF 90.8%

EXISTING DRIVEWAYS:
EXISTING HOME AREA: 4,100± SF
EXISTING SHOP AREA: 9,850± SF

BUILDING COVERAGE:
EXISTING HOME: 3,200± SF
EXISTING SHOP: 6,850± SF
MISC. SHED: 700± SF

NEW PARKING:
PHASE 1: 11,787± SF
PHASE 2: 2,250± SF
APPROACH: 150 SF



PROJECT #: 25029
DRAWN BY: ICE
CHECKED BY: DWL

Dan Larson

Digitally signed by Daniel W. Larson,
DN: cn=Dan, o=7B Engineering, c=US, email=Dan@7BEngineering.com, c=D2G, cn=Daniel W. Larson, P.E.,
Location: Sandpoint, ID
Reason: I am approving this document
Contact Info: Dan@7BEngineering.com
Date: 2025.09.04 18:54:53-0700

SCALE: 1"=20'
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SHEET C-3 OF C-12

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SANDPOINT, ID 83864
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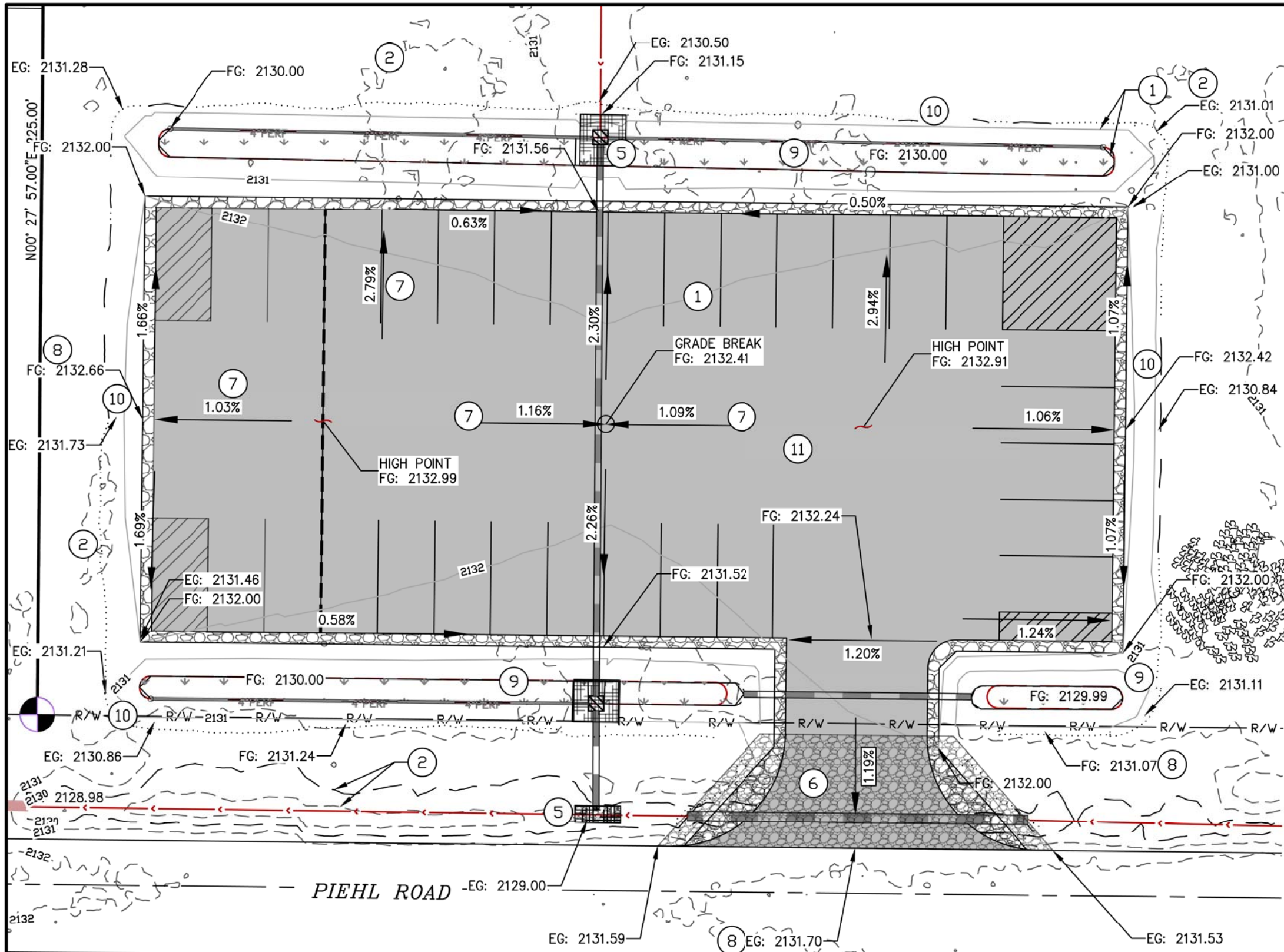
PROFESSIONAL ENGINEER
REGISTERED
10086
STATE OF IDAHO
DANIEL W. LARSON

SHEET TITLE SITE PLAN - PARKING & LIGHTING

OWNER GEIGER, STEVEN R
PROJECT IN & OUT PARKING
PONDERAY, IDAHO

REVISION 1
DATE 09/03/25
DESCRIPTION CHANGES PER COMMENTS

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KEYNOTES

- 1 FINISHED GRADE CONTOURS
MINORS (1' INTERVAL)
MAJORS (5' INTERVAL)
- 2 EXISTING GRADE CONTOURS
MINORS (1' INTERVAL)
MAJORS (5' INTERVAL)
- 3 EXISTING STORMWATER CONVEYANCE DITCH
- 4 FIBER ROLLS ALONG EXISTING DITCH. SEE
DETAIL A/C-9
- 5 SOIL RIP-RAP (REFER TO DETAIL B/C-9)
PIPE OUTLET AND AROUND CATCH BASIN
- 6 CONSTRUCTION ENTRANCE AND EXIT
SEE DETAIL C/C-9
- 7 SLOPE ARROWS (ARROW POINTS
IN DOWNGRADE DIRECTION)
- 8 SURFACE SPOT ELEVATIONS
EG = EXISTING GRADE
FG = FINISHED GRADE
- 9 GROUND COVER-NATIVE GRASS SEED MIX:
REFER TO DETAIL B/C-8
- 10 SLOPE TO EXISTING GROUND
3:1 TYP, 2:1 MAX
- 11 PARKING LOT REFER TO CROSS SECTION
DETAIL D/C-9

EROSION CONTROL MANAGEMENT

-  FIBER ROLLS
(IF NEEDED, SEE DETAIL A/C-9)
-  SOIL RIP-RAP (SEE DETAIL B/C-9)
-  CONSTRUCTION ENTRANCE AND EXIT
(SEE DETAIL C/C-9)
-  STORMWATER FACILITIES WILL ACT AS
SEDIMENTATION PONDS.

GRADING

TOTAL ESTIMATED DISTURBED VOLUME

- * GRADING QUANTITIES ARE ESTIMATED BY AUTOCAD SOFTWARE
- * CLEARING & GRUBBING VOLUME IS BASED ON ASPHALT SURFACE
- ** ASSUMES A 9" STRIPING DEPTH

DISTURBED AREA (SF)	VOLUME CUT (CY)	VOLUME FILL (CY)	GRUBBING VOLUME (CY)	GROSS GRADING VOLUME (CY)
21,070	108	758	390	1,040 (FILL)



Know what's below.
Call before you dig.

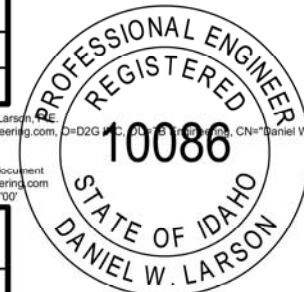
PROJECT #: 25029
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Dan Larson

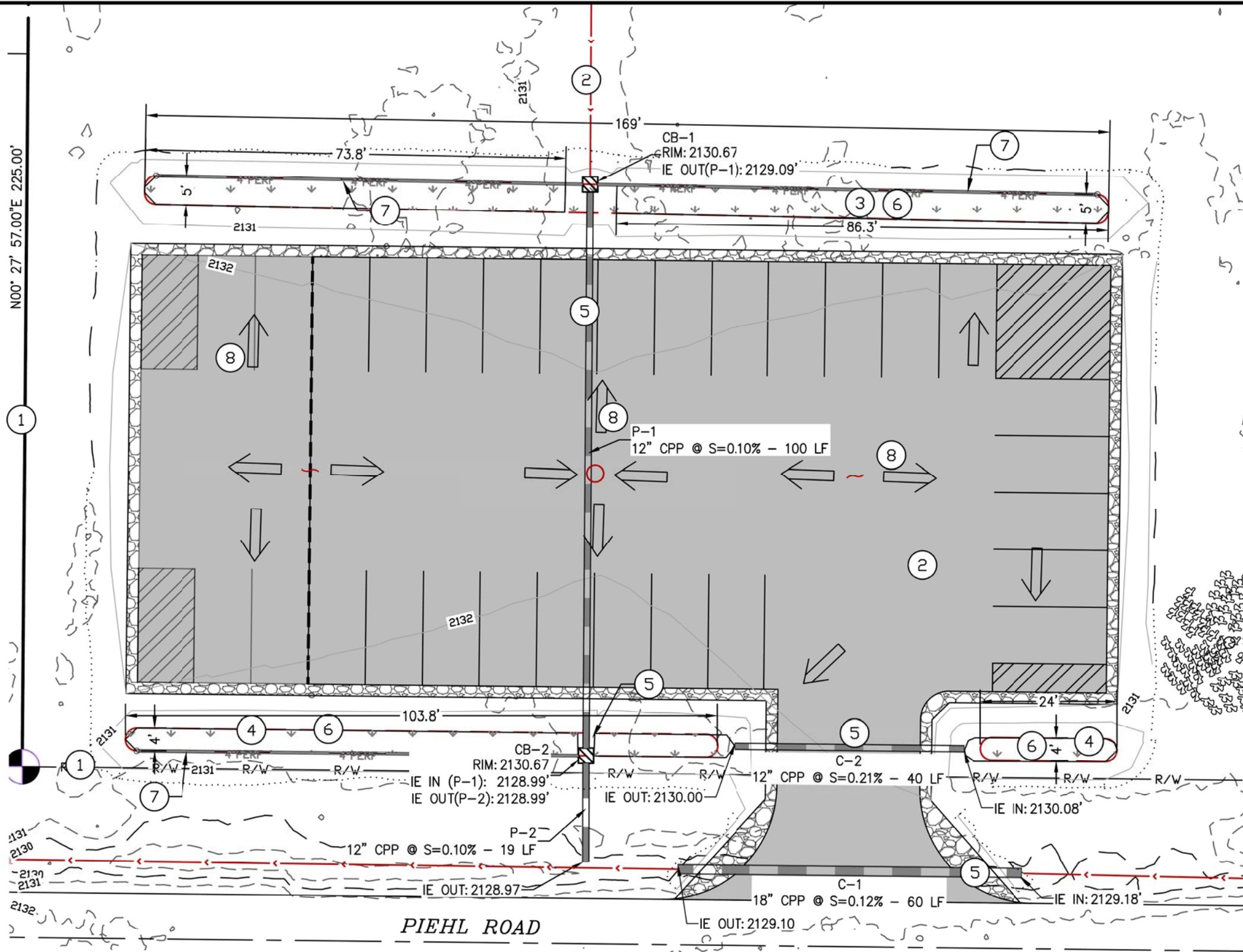
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(VALID FOR 11"x17" PRINTS ONLY)

SHEET C-4 OF C-12

SHEET TITLE	DESCRIPTION	DATE	REVISION
GRADING & EROSION CONTROL			
OWNER	GEIGER, STEVEN R		
PROJECT	IN & OUT PARKING PONDERAY, IDAHO		
ENGINEERING	7B ENGINEERING 414 CHURCH STREET, SUITE 203 SANDPOINT, IDAHO 83864 (208) 263-0623 info@7BEngineering.com		
ORIGINAL STORED AT:	7B ENGINEERING 414 CHURCH ST STE 203 SANDPOINT, ID 83864		
DRAWING DATE:	9/4/2025		



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KEYNOTES

- 1 PROPERTY BOUNDARY
- 2 EXISTING DRAINAGE (REFER TO SHEET C-6)
- 3 POND A: NORTH STORMWATER TREATMENT & DETENTION AREA (REFER TO SHEET C-7, DETAIL A)

BOTTOM AREA: 800 SF (FG 2130') ~ 5'W X 160'L
TREATMENT VOLUME: 732 CF (2130.67')
TREATMENT REQUIRED: 287 CF (IMP 6,872 SF)
25 YR-24 HR STORM: 946 CF (FG: 2130.79)
TOTAL POND VOLUME: 1,797 CF (FG 2131.25')

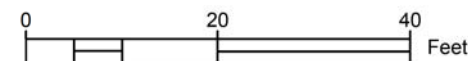
PROVIDES TREATMENT FOR NORTH SIDE OF PARKING LOT. TRANSPORTS AND DISCHARGES BASINS A, AND C INTO EXISTING DRAINAGE ALONG PIEHL ROAD (REFER TO STORMWATER REPORT).
- 4 POND B: SOUTH STORMWATER TREATMENT & DETENTION AREA (REFER TO SHEET C-7, DETAIL A)

BOTTOM AREA: 511.2 SF (FG 2130')
TREATMENT VOLUME: 513 CF (2130.67')
TREATMENT REQUIRED: 305 CF (IMP 7,315 SF)
25 YR-24 HR STORM: 596 CF (FG: 2130.74)
TOTAL POND VOLUME: 919 CF (FG 2131.00')

PROVIDES TREATMENT & DETENTION FOR SOUTH SIDE OF PARKING LOT. TRANSPORTS BASIN B INTO EXISTING DRAINAGE ALONG PIEHL ROAD (REFER TO STORMWATER REPORT).
- 5 STORMWATER COLLECTION NETWORK
COLLECTS DRAINAGE FROM POND A AND B
SEE STRUCTURE AND PIPE TABLE FOR MORE INFORMATION.
SEE SHEET C-8, DETAIL A FOR PIPE INSTALLATION
SEE SHEET C-7, DETAIL C FOR CATCH BASIN RECOMMENDATION
- 6 PLANT STORMWATER AREA WITH APPROVED SEED MIX.
REFER TO DETAIL B, SHEET C-7 FOR STORMWATER PLANTINGS
- 7 RECOMMENDED UNDERDRAINS (4" PERF) SLOPE INTO CATCH BASINS. ~ 241 LF. START ALL LINES WITH A 4" CLEANOUT (SEE DETAIL B/C-11).
- 8 SHEET - FLOW DIRECTION

STRUCTURE TABLE	
STRUCTURE NAME	STRUCTURE DETAILS
CB-2	24" CATCH BASIN (4 OPENINGS) RIM: 2130.67
	P-1 INV IN: 2128.99 (N)
	P-2 INV OUT: 2128.99 (S)
CB-1	24" CATCH BASIN (4 OPENINGS) RIM: 2130.67
	P-1 INV OUT: 2129.09 (S)

PIPE TABLE					
NAME	DETAILS	LENGTH	SLOPE	I.E IN	I.E OUT
P-1	12" CPP	100'	0.10%	2129.09	2128.99
P-2	12" CPP	19'	0.10%	2128.99	2128.97
C-1	18" CPP	60'	0.12%	2129.18	2129.10
C-2	12" CPP	40'	0.21%	2130.08	2130.00



PROJECT #: 25029
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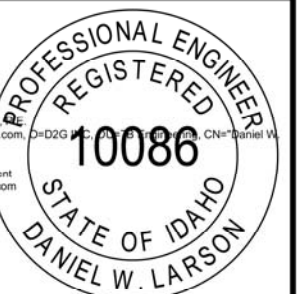
Digitally signed by Daniel W. Larson,
DN: cn=Dan W. Larson, o=7B Engineering, c=US, e=Dan@7BEngineering.com, c=D2G Inc., o=2025, cn=Daniel W. Larson, P, E
Location: Sandpoint, ID
Reason: I am approving this document
Contact Info: Dan@7BEngineering.com
Date: 2025.09.04 18:54:36-0700

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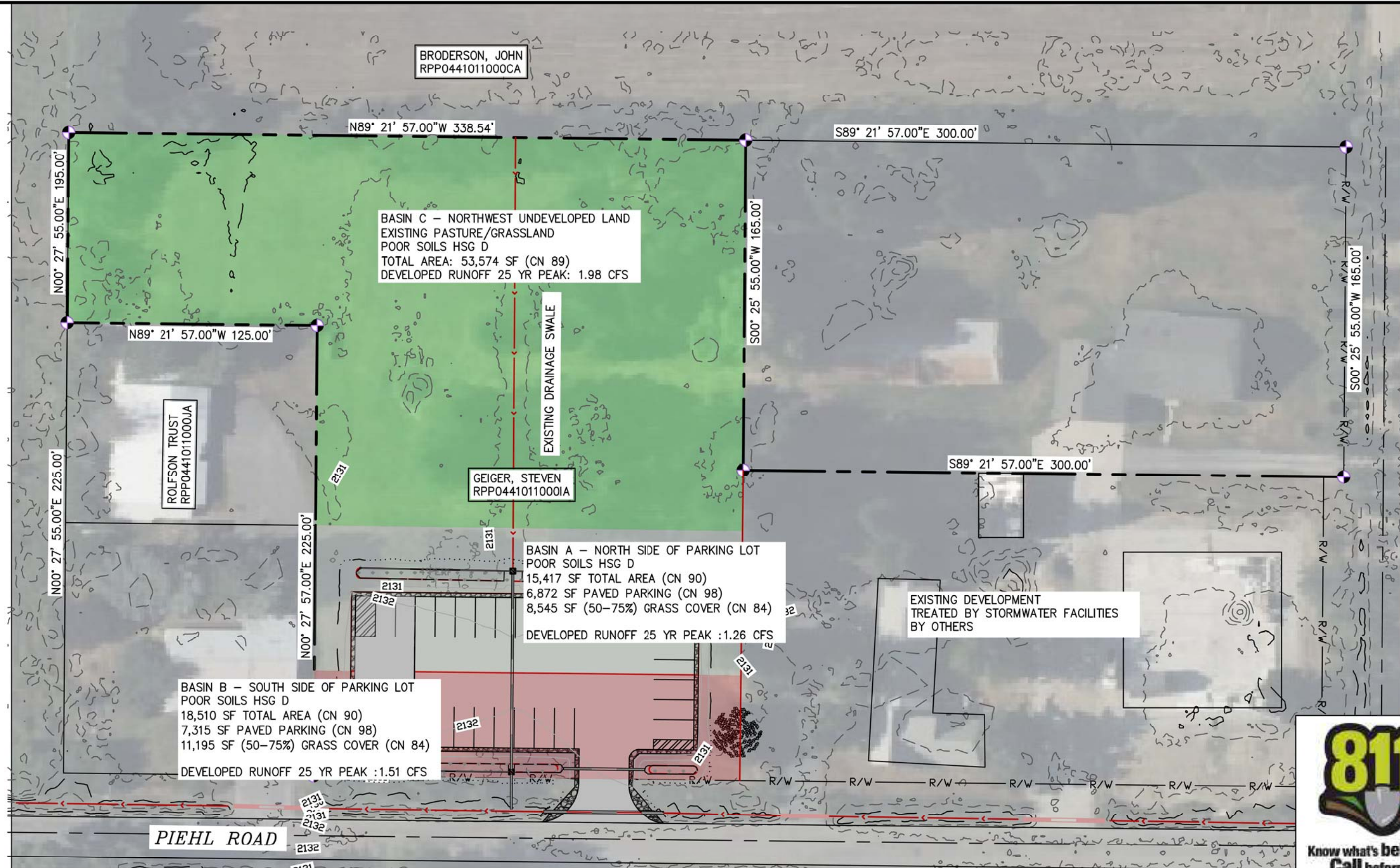
SHEET C-5 OF C-12

STORMWATER PLAN		OWNER		PROJECT	
GEIGER, STEVEN R		IN & OUT PARKING		PONDERAY, IDAHO	
SHEET TITLE		OWNER		PROJECT	
DESCRIPTION		DATE		REVISION	
ORIGINAL STORED AT: 7B ENGINEERING 414 CHURCH ST STE 203 SANDPOINT, ID 83864		DRAWING DATE: 9/4/2025			

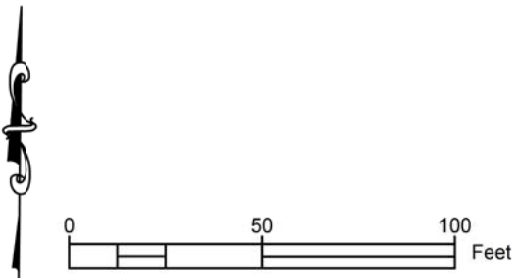
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PIEHL ROAD



BRODERSON, JOHN
RPP0441011000CA

BASIN C - NORTHWEST UNDEVELOPED LAND
EXISTING PASTURE/GRASSLAND
POOR SOILS HSG D
TOTAL AREA: 53,574 SF (CN 89)
DEVELOPED RUNOFF 25 YR PEAK: 1.98 CFS

EXISTING DRAINAGE SWALE

GEIGER, STEVEN
RPP0441011000IA

BASIN A - NORTH SIDE OF PARKING LOT
POOR SOILS HSG D
15,417 SF TOTAL AREA (CN 90)
6,872 SF PAVED PARKING (CN 98)
8,545 SF (50-75%) GRASS COVER (CN 84)
DEVELOPED RUNOFF 25 YR PEAK :1.26 CFS

BASIN B - SOUTH SIDE OF PARKING LOT
POOR SOILS HSG D
18,510 SF TOTAL AREA (CN 90)
7,315 SF PAVED PARKING (CN 98)
11,195 SF (50-75%) GRASS COVER (CN 84)
DEVELOPED RUNOFF 25 YR PEAK :1.51 CFS

EXISTING DEVELOPMENT
TREATED BY STORMWATER FACILITIES
BY OTHERS

PREDEVELOPED RUNOFF 25 YR - 24 HR PEAK: 3.07 CFS

POST DEVELOPED RUNOFF 25 YR - 24 HR PEAK: 4.75 CFS
POST DEVELOPED RUNOFF AFTER TREATMENT: 2.50 CFS
REFER TO SITE REPORT.

PROJECT #: 25029
DRAWN BY: ICE
CHECKED BY: DWL

Dan Larson

Digitally signed by Daniel W. Larson,
DN: cn=Dan, o=7B Engineering, c=US, email=Dan@7BEngineering.com, serial=10086
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SHEET C-6 OF C-12



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SHEET TITLE STORMWATER BASIN MAP

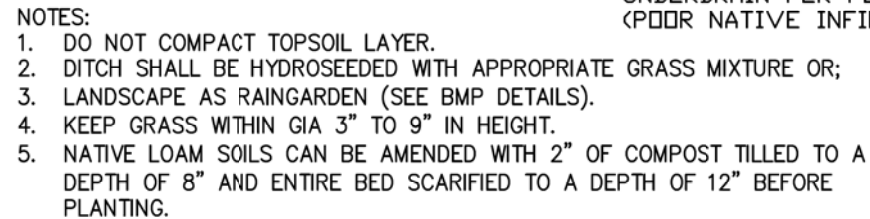
OWNER GEIGER, STEVEN R

PROJECT IN & OUT PARKING
PONDERAY, IDAHO

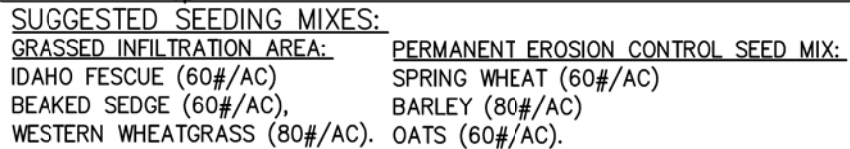
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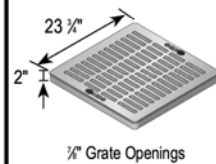
BIORENTENTION AREAS
N.T.S.



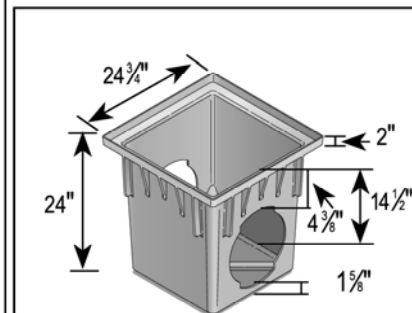
STORMWATER & EROSION CONTROL PLANTINGS
N.T.S. DISTURBED AREA REPLANTING



- NOTES:**
1. GRATE TO BE ATTACHED TO CATCH BASIN WITH SCREW PROVIDED AT TIME OF INSTALLATION.
 2. RISER CAN BE CUT TO ACHIEVE EXACT ELEVATION.
 3. EXISTING SOILS SHOULD BE EVALUATED TO ENSURE PROPER STRUCTURAL AND PERMEABILITY PROPERTIES.
 4. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 5. RECESS CHANNEL AND GRATE 1/8" FOR PEDESTRIAN TRAFFIC
 6. DO NOT SCALE DRAWING.
 7. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
 8. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.



2418	24" x 24" Catch Basin Extension (No Bottom)	Black	1	14.60	10ND	8" Extension for 24" x 24" Catch Basin. HDPE with Structural Foam.
	Use with 24" x 24" Catch Basin Series.					
2411	24" x 24" Square Grate	Black	1	19.75	10ND	24" Square HDPE with Structural Foam Grate with UV inhibitor. Open surface area 231.69 square inches. 708.77 GPM.
2412	24" x 24" Square Grate	Green	1	19.75	10ND	
	No screws required. Use with 24" x 24" Catch Basin Series. See page 71.					



NOTE: ALL CATCH BASINS SHOULD HAVE 4 OPENINGS. ALLOWS FOR FUTURE CONNECTIONS & PROVIDES INLETS FOR UNDERDRAINS WHICH ARE RECOMMENDED.



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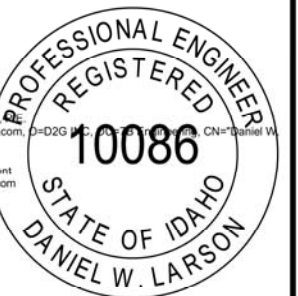
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Dan Linn

SCALE: NTS
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SHEET C-7 OF C-12



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TABLE 1: RECOMMENDED MINIMUM TRENCH WIDTHS:

PIPE DIAMETER (INCHES)	MINIMUM TRENCH WIDTH (INCHES)
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
60"	96"

TABLE 2: CONSTRUCTION GEOTEXTILES NOTES:

GEOTEXTILE PROPERTY	TEST METHOD	MINIMUM AVERAGE ROLL VALUES (IN EITHER PRINCIPAL DIRECTION)	
		TYPE I*	TYPE II*
GRAB TENSILE STRENGTH-lb	ASTM D 4632	80	180
GRAB ELONGATION (%)	ASTM D 4632	NA	NA
PUNCTURE STRENGTH -lb	ASTM D 4833	35	80
APPARENT OPENING SIZE (AOS) (Std. Sieve)	ASTM D 4751	#70 OR FINER	
PERMITTIVITY (sec-1)	ASTM D 4491	0.7	0.7

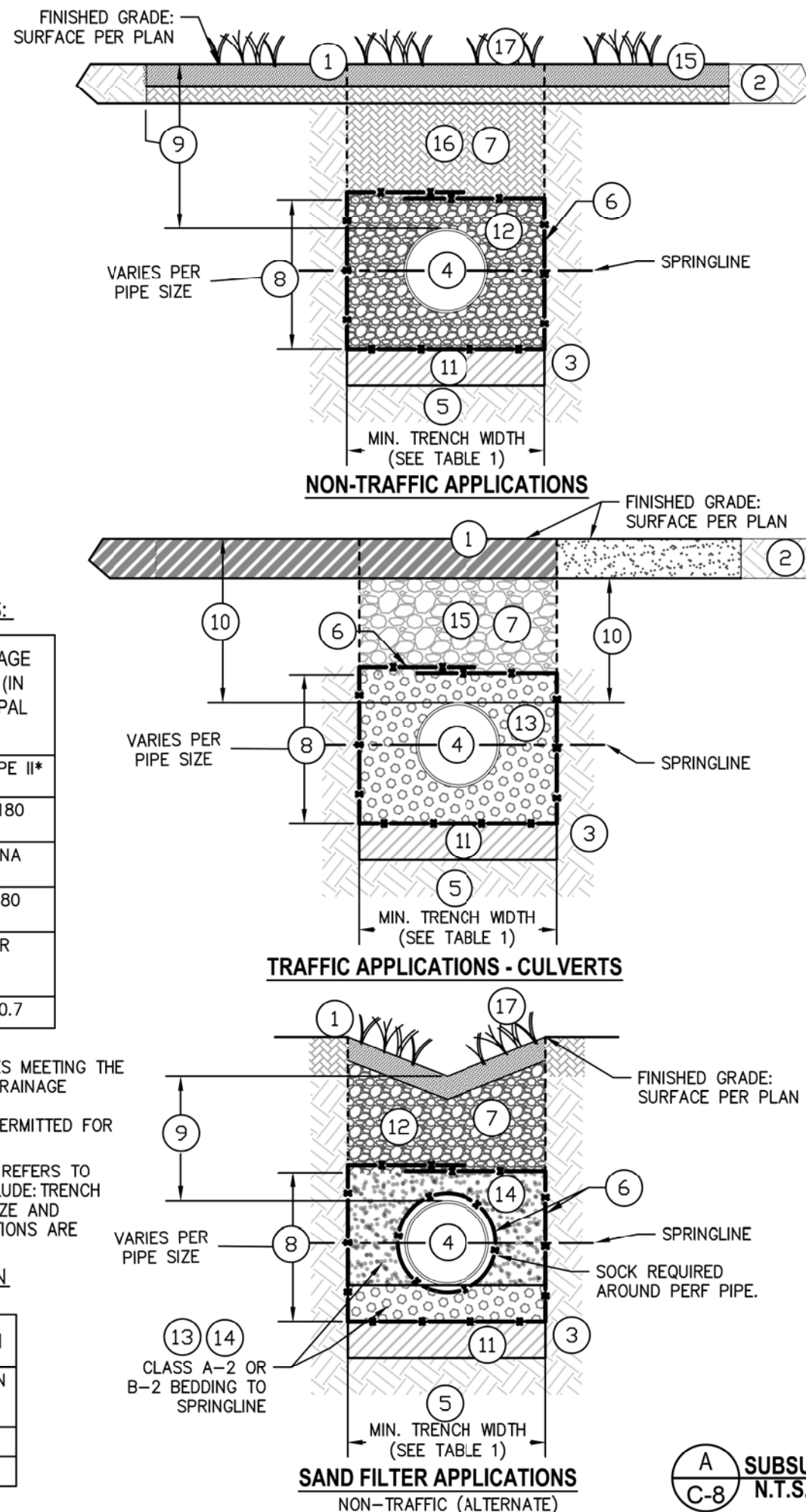
1. DRAINAGE GEOTEXTILES

- 1.A. NONWOVEN OR MONOFILAMENT WOVEN GEOTEXTILES MEETING THE TABLE ABOVE ARE ACCEPTABLE BY ISPMC FOR DRAINAGE APPLICATIONS.
- 1.B. SLIT FILM OR SLIT TAPE GEOTEXTILES ARE NOT PERMITTED FOR DRAINAGE APPLICATIONS.

(*) TYPE I REFERS TO PROTECTED CONDITIONS. TYPE II REFERS TO UNPROTECTED CONDITIONS, PROTECTED CONDITIONS INCLUDE: TRENCH DEPTH 10FT: ROUNDED AGGREGATE LESS THAN 4 IN. SIZE AND RELATIVELY SMOOTH TRENCH WALLS. ALL OTHER CONDITIONS ARE UNPROTECTED.

TABLE 3: MINIMUM RECOMMENDED COVER ON VEHICLE LOADING APPLICATIONS:

PIPE DIAMETER	SURFACE LIVE LOADING CONDITION	
INCHES	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD)
< 48"	12"	48"
> 60"	24"	60"



KEYNOTES:

- NEW SURFACE PER PLAN.
- EXISTING SURFACE.
- UNDISTURBED SOIL (TYP).
- PROPOSED PERF PIPE (HDPE OR CPP PER PLAN).
- MINIMUM TRENCH WIDTH DEPENDS ON PIPE DIAMETER (SEE TABLE 1).
- DRAINAGE GEOTEXTILE OR FILTER FABRIC (SEE TABLE 2).
- BACKFILL TRENCH PER ISPMC SECTION-306. (SEE BEDDING NOTES).
- PIPE BEDDING (SEE BEDDING NOTES). MINIMUM BEDDING SHALL BE 4" FOR 4"-24" PIPE, 6" FOR 30"- 60" PIPE (ISPMC SECTION 305).
- MINIMUM COVER IN NON TRAFFIC APPLICATIONS VARIES IN DEPTH FROM THE TOP/CROWN OF THE PIPE TO THE GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION.
- FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" FROM THE TOP/CROWN OF THE PIPE WITH DIAMETERS UP TO 48". 24" IS THE MINIMUM COVER FOR 60" DIAMETER PIPES. MEASURED FROM THE BOTTOM OF FLEXIBLE PAVEMENT (ROCK) OR TO THE TOP OF RIGID PAVEMENT (ASPHALT OR CONCRETE).
- FOUNDATION STABILIZATION MAY VARY PER SOIL TYPE AND STABILITY. (REFER TO ISPMC SECTION 304).
- CLASS II DRAIN ROCK. CLEAN ROUND RIVER ROCK OR PEA GRAVEL (FREE OF FINES, SAND, CHIPS).
- CLASS I DRAIN ROCK. WASHED CRUSHED ANGULAR ROCK OR CAP ROCK (FREE OF FINES, SAND, CHIPS).
- CLASS III SAND. CLEAN WELL GRADED SAND (FILTER SAND MEDIUM ASTM C-33).
- 3" MULCH (RE-MULCH EVERY 2-3 YEARS).
- AMENDED TOPSOIL (3-5% ORGANICS, BELOW 25% CLAY, MORE THAN 60% SAND CONTENT). INFILTRATION RATES SHALL EXCEED 1.0 IN/HR BUT NOT 3.0 IN/HR. TESTING MAY BE REQUIRED CONTACT ENGINEER.
- VEGETATION PER PLAN.

SUGGESTED SEEDING MIXES:
GRASSED INFILTRATION AREA:
IDAHO FESCUE (60#/AC)
BEAKED SEDGE (60#/AC),
COLUMBIA BROME (80#/AC).

- ROAD BASE PER PLAN.

GENERAL NOTES:

- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, ISPMC, AND THE IDAHO BMP MANUAL, LATEST EDITIONS.

TYPES OF BACKFILL:

TYPE I BEDDING MATERIAL: 3/4" 60% CRUSHED OR FRACTURED (AT LEAST ON ONE SIDE) GRAVEL AND SAND MEETING THE ISPMC GRADATION (SUBSECTION 305.2.2.A).

TYPE II BEDDING MATERIAL: UNCRUSHED AGGREGATES NORMALLY USED FOR FOUNDATION STABILIZATION. SEE ISPMC SECTION 801.

TYPE III BEDDING MATERIAL: SAND WITH 100% PASSING NO. 4 SIEVE AND LESS THAN 3% PASSING NO. 200 SIEVE.

SELECTED PIPE BEDDING SYSTEMS:

CLASS A-1: UNDER TRAFFIC AREAS-CULVERTS

PLACE TYPE I BEDDING 4" BELOW THE BOTTOM OF PIPE, 6" FOR PIPES 30" AND LARGER. THEN PLACE TYPE I BEDDING TO 6" ABOVE THE PIPE.

CLASS A-2: ALTERNATE APPLICATION (NON-TRAFFIC)

PLACE TYPE I BEDDING 4" BELOW THE BOTTOM OF PIPE, 6" FOR PIPES 30" AND LARGER. THEN PLACE TYPE II OR III BEDDING TO 6" ABOVE THE PIPE.

CLASS B-1: NON-TRAFFIC APPLICATION

PLACE TYPE II BEDDING 4" BELOW THE BOTTOM OF PIPE, 6" FOR PIPES 30" AND LARGER. THEN PLACE TYPE II BEDDING TO 6" ABOVE THE PIPE.

CLASS B-2: WATER CROSSINGS OR SANDFILTERS

PLACE TYPE III BEDDING 4" BELOW THE BOTTOM OF PIPE, 6" FOR PIPES 30" AND LARGER. THEN PLACE TYPE III BEDDING TO 6" ABOVE THE PIPE.



PROJECT #: 25029

DRAWN BY: ICE

CHECKED BY: DWL

Dan Larson

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SCALE: NTS
(VALID FOR 11"x17" PRINTS ONLY)

SHEET C-8 OF C-12

A
C-8

SUBSURFACE DRAINAGE INSTALLATION DETAIL
N.T.S.



SHEET TITLE SUBSURFACE DRAINAGE DETAIL

OWNER
GEIGER, STEVEN R

PROJECT
IN & OUT PARKING
PONDERAY, IDAHO

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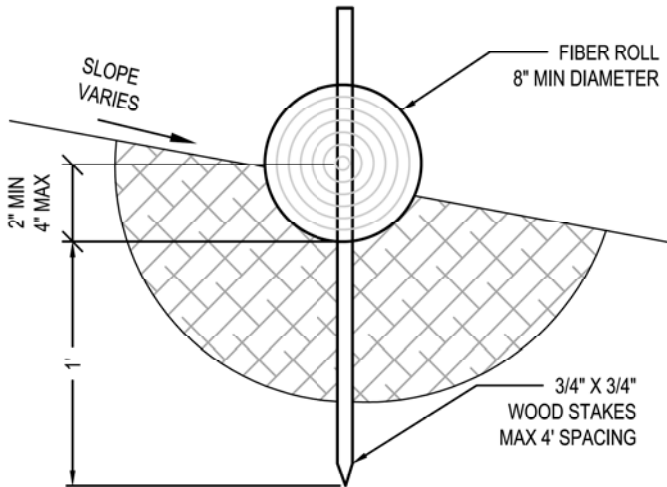
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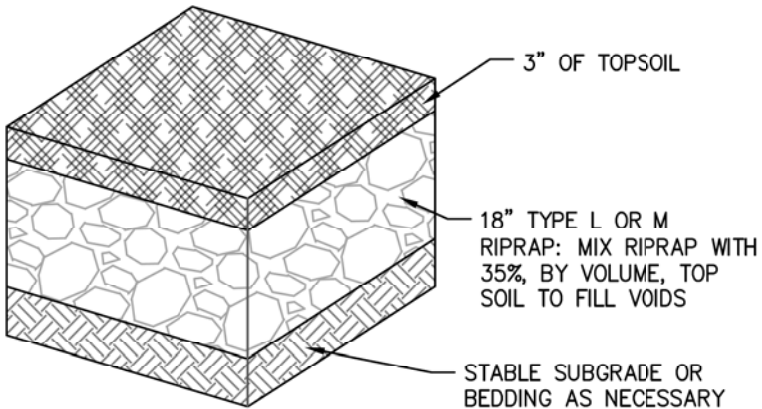
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NOTES:

1. FIBER ROLLS SHALL BE PLACED ALONG A LEVEL CONTOUR UNLESS OTHERWISE SHOWN.
2. TURN THE ENDS OF THE FIBER ROLL UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL.
3. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHALL BE OVERLAPPED A MINIMUM OF 12".
4. SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-HALF OF THE EXPOSED HEIGHT OF THE FIBER ROLL.



A
C-9 FIBER ROLLS
N.T.S.



SOIL RIPRAP:

1. THE RIPRAP SHALL BE PRE-MIXED WITH THE NATIVE SOIL AT THE FOLLOWING PROPORTIONS BY VOLUME: 65% RIPRAP AND 35% SOIL.
2. THE SOIL RIPRAP SHALL BE INSTALLED IN A MANNER THAT RESULTS IN A DENSE, INTERLOCKED LAYER OF RIPRAP WITH RIPRAP VOIDS FILLED COMPLETELY WITH NATIVE SOIL.
3. SEGREGATION OF MATERIALS SHALL BE AVOIDED AND IN NO CASE SHALL THE COMBINED MATERIAL CONSIST PRIMARILY OF SOIL; THE DENSITY AND INTERLOCKING NATURE OF RIPRAP IN THE MIXED MATERIAL SHALL ESSENTIALLY BE THE SAME AS IF THE RIPRAP WAS PLACED WITHOUT SOIL.
4. A SURFACE LAYER OF TOPSOIL SHALL BE PLACED OVER THE SOIL RIPRAP.
5. SOIL RIPRAP SHALL BE COMPACTED TO APPROX. 85% OF MAXIMUM DENSITY.

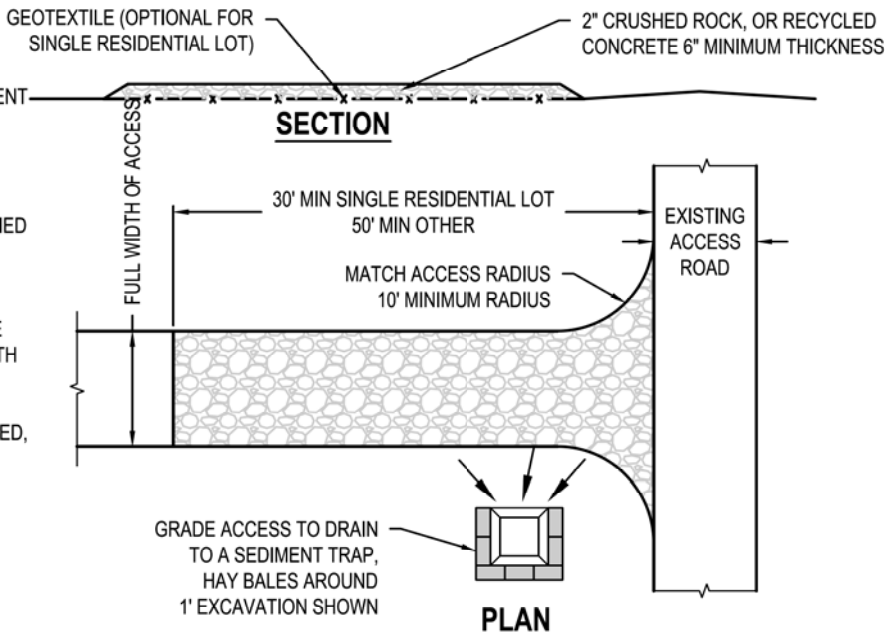
TABLE 1: RIPRAP GRADATION

RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	D ₅₀ * (INCHES)
TYPE VL	70-100 50-70 35-50 2-10	12 9 6 2	6**
*D ₅₀ (INCHES)			
**MIX VL, L AND M RIPRAP WITH 35% TOPSOIL (BY VOLUME) AND BURY IT WITH 4 TO 6 INCHES OF TOPSOIL, ALL VIBRATION COMPACTED, AND REVEGETATE.			

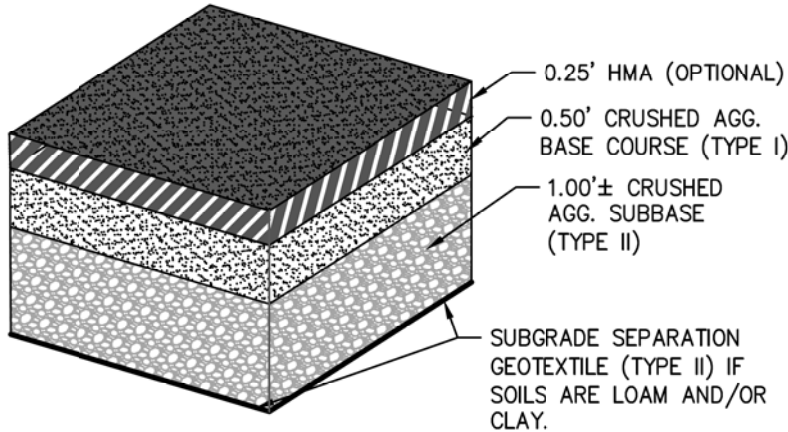
B
C-9 SOIL RIPRAP TYPICAL SECTION
N.T.S.

NOTES:

1. GEOTEXTILE MAY BE NONWOVEN OR MONOFILAMENT WOVEN AND SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 200 LBS IN EITHER DIRECTION.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT OFFSITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL ROCK AND/OR CLEANOUT OF SEDIMENT TRAPS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED OFFSITE MUST BE CLEANED UP IMMEDIATELY.



C
C-9 STABILIZED CONSTRUCTION ENTRY/ STAGING
N.T.S.



GEOTEXTILE NOT REQUIRED IF 18" AGG SUBBASE IS USED

GRAVEL CROSS SECTION SPECIFICATIONS:

1. EXCAVATE TO SUBGRADE: 8" MINIMUM
2. INSTALL SUBGRADE SEPARATION GEOTEXTILE (ISPCW TYPE II) ON LOAM AND/OR CLAY SOILS.
3. SUBBASE: 1.00' MINIMUM OF CRUSHED AGGREGATE (ISPCW TYPE II)
4. BASE COURSE: 0.50' CRUSHED AGGREGATE BASE (ISPCW TYPE I)

D
C-9 PARKING LOT CROSS SECTION
N.T.S.



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CHECKED BY: DWL

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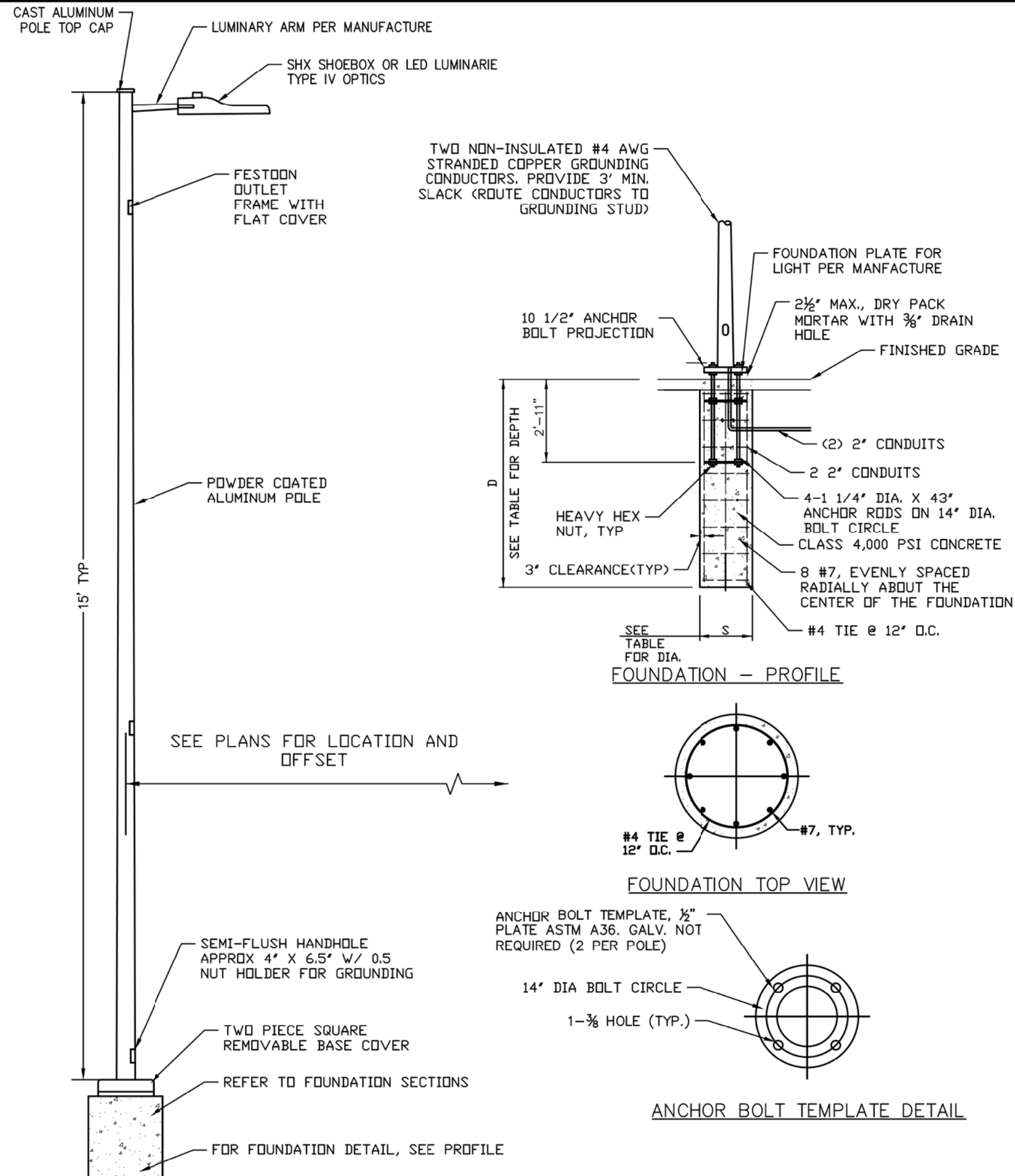
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SHEET C-9 OF C-12



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NOTES:

THE FOUNDATION HAS BEEN DESIGNED ACCORDING TO THE AASHTO SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, FIRST EDITION, 2015.

1. THE FOUNDATION HAS BEEN DESIGNED FOR THE FOLLOWING POLE BASE FORCES:

BENDING MOMENT:	1,672.5 FT-LB
TORSION:	150 FT-LB
SHEAR FORCE:	111 LB
AXIAL FORCE:	20 LB
ULTIMATE WIND SPEED:	120 MPH

2. FOUNDATIONS FOR POLES WITH FORCES GREATER THAN ONE OR MORE OF THE FORCES LISTED ABOVE SHALL REQUIRE SPECIAL DESIGN.

3. ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANIZED FULL LENGTH PER ASTM A153 OR F2329. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 55, WITH 19" OF THREADS AT TOP AND 6" OF THREADS AT BOTTOM. HEAVY HEX NUTS SHALL CONFORM TO ASTM A563, GRADE A. WASHERS SHALL CONFORM TO ASTM F436.

4. CLAMP CONDUCTORS TO STEEL REINFORCING WITH LISTED CONNECTOR SUITABLE FOR USE EMBEDDED IN CONCRETE.

5. REINFORCING STEEL SHALL CONFORM TO ASTM A706, GRADE 60.

FOUNDATION DESIGN		
ALLOWABLE LATERAL BEARING PRESSURE	DIA. S	HEIGHT D
GREATER THAN 1500 PSF	24"	4'-0"
	16"	4'-6"

A
C-10
PARKING LIGHT DETAIL
N.T.S.



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SHEET C-10 OF C-12



SHEET TITLE
MISCELLANEOUS SITE DETAILS

OWNER
GEIGER, STEVEN R

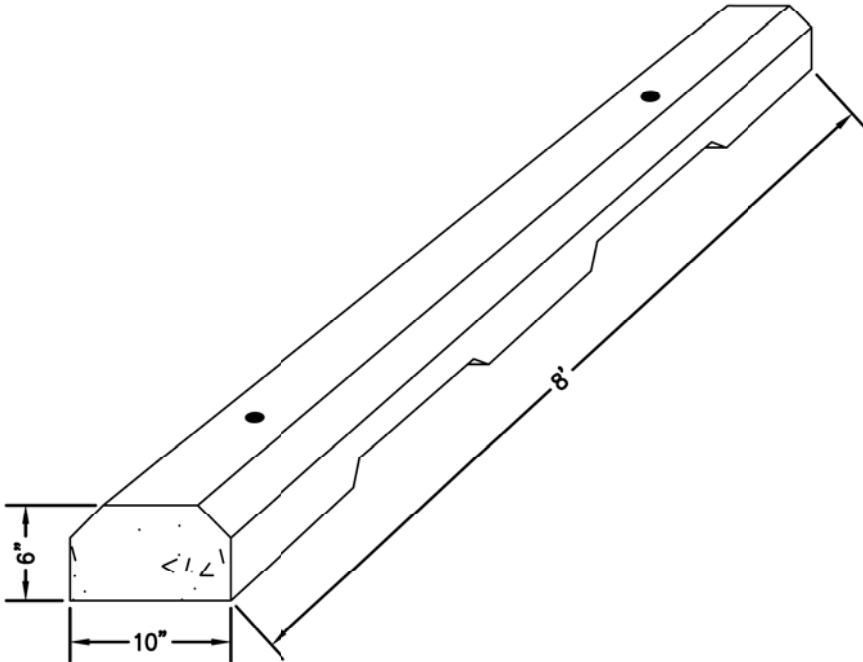
PROJECT
IN & OUT PARKING
PONDERAY, IDAHO

REVISION
#

DATE

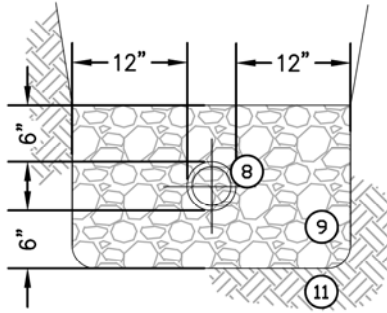
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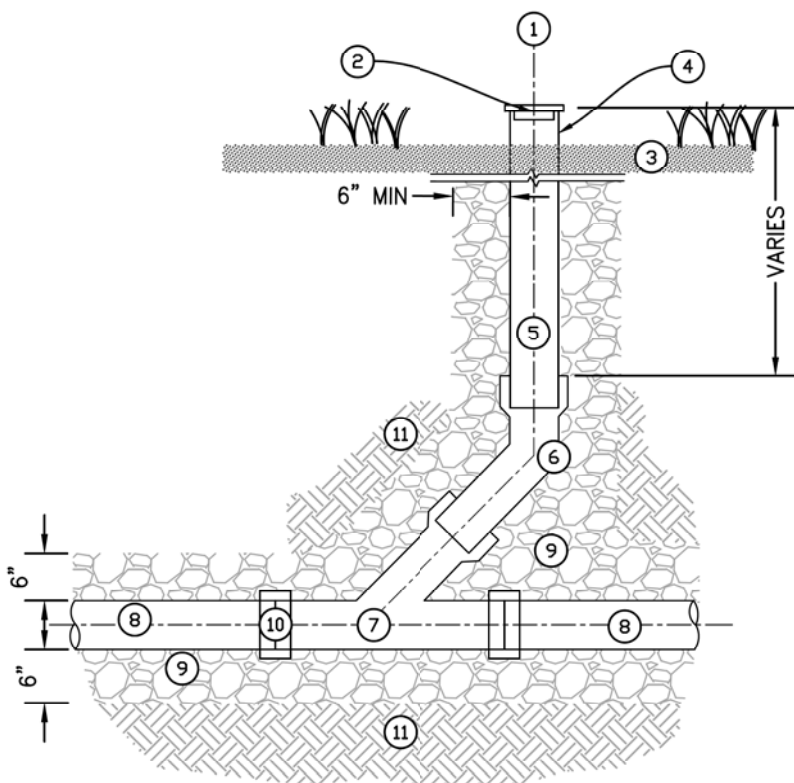


- NOTES:
1. AMERICAN EAGLE PRECAST OR APPROVED EQUAL.
 2. 8' x 10" WIDE x 6" HIGH OR SIMILAR.
 3. MINIMUM 4,000 PSI AIR ENTRAINED CONCRETE REINFORCED BY (2) #3 BAR
 4. PIN TO CONCRETE VALLEY GUTTER WITH (2) 3/16" STEEL ANCHOR PINS
 5. WEIGHT: 325 LBS

A
C-11 6" WHEEL STOP W/ DRAIN OPENINGS
N.T.S.



SECTION



PROFILE

KEYNOTES:

- | | |
|--|--|
| ① CENTER OF PIPE LINE | ⑦ 45° WYE TEE/ FITTING |
| ② MECHANICAL PLUG | ⑧ EXISTING OR NEW PIPE |
| ③ STORM WATER FACILITY | ⑨ ISPPC TYPE 1 BEDDING MATERIAL |
| ④ RAISE TOP OF CLEANOUT TO TREATMENT ELEVATION | ⑩ MISSION COUPLER OR APPROVED ALTERNATIVE |
| ⑤ PVC ASTM D 3034 | ⑪ UNDISTURBED MATERIAL OR AMENDED SOIL MIX |
| ⑥ 45° BENDS. | |

B
C-11 STORM CLEANOUT
N.T.S.



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Dan Larson

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SHEET C-11 OF C-12



SHEET TITLE: MISCELLANEOUS SITE DETAILS (2)

OWNER
GEIGER, STEVEN R

PROJECT
IN & OUT PARKING
PONDERAY, IDAHO

REVISION #

DATE

DESCRIPTION

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GENERAL NOTES

1. THESE PLANS ARE FOR A STORMWATER MANAGEMENT, GRADING, AND EROSION CONTROL FOR THE GRADING AND INSTALLATION OF A PARKING LOT IN PONDERAY, IDAHO.

2. THE PARKING LOT AND STORM FACILITY AS SHOWN HEREON ARE TO BE LOCATED IN THE FIELD BY A LICENSED PROFESSIONAL LAND SURVEYOR.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE REQUIREMENTS OF CITY, AND ANY OTHER DEVELOPMENT STANDARDS.

4. ALL WORK SHALL CONFORM TO THE "IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION," 2025 OR MOST RECENT EDITION. IN CASE OF CONFLICT, CITY STANDARDS SHALL PREVAIL.

5. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES PRIOR TO STARTING WORK NEAR ANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. ALL UTILITY SERVICES SHALL BE INSTALLED UNDERGROUND. FOR EXISTING UTILITY LOCATIONS, CONTACT "CALL BEFORE YOU DIG" AT 1-800-626-4950 AT LEAST 48 HOURS PRIOR TO STARTING ANY EXCAVATIONS.

5.1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE ALL ONSITE UTILITIES AND RELOCATE OR ABANDON AS NECESSARY. .

6. AN APPROVED PERMIT SHALL BE OBTAINED FROM THE CITY'S PLANNING DEPARTMENT AND WORK SHALL NOT BEGIN UNTIL A NOTICE TO PROCEED IS RECEIVED. THE CONTRACTOR SHALL NOTIFY THE PONDERAY CITY PLANNING DEPARTMENT 48 HOURS PRIOR TO STARTING WORK.

7. THE CONTRACTOR SHALL HAVE AN APPROVED SET OF IMPROVEMENT PLANS AND APPROVAL LETTER ON THE JOB SITE AT ALL TIMES.

8. WHERE TRENCHES ARE WITHIN PUBLIC EASEMENTS, COMPACTION TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD BY A QUALIFIED LABORATORY AND PROPERLY CERTIFIED TECHNICIAN WHO WILL CERTIFY THAT TRENCH BACKFILL WAS COMPACTED AS REQUIRED IN ACCORDANCE WITH THE ISPWC OR PONDERAY, & THE HIGHWAY DISTRICT REQUIREMENTS.

9. ALL TESTING REQUIRED WILL BE AT THE EXPENSE OF THE CONTRACTOR.

10. ALL EXISTING IMPROVEMENTS INCLUDING CURB AND GUTTERS, SIDEWALKS, ASPHALT, CONCRETE OR P.C.C. PAVING, WHICH ARE BEING JOINED OR MATCHED IN CONNECTION WITH THIS PROJECT, SHALL BE JOINED OR MATCHED IN A MANNER SATISFACTORY TO THE OWNER, INCLUDING NECESSARY SAWCUTTING, REMOVAL, REPLACEMENT AND CAPPING.

11. EXISTING DRAINAGE FEATURES WILL BE PRESERVED OR RESTORED SUCH THAT NO BLOCKAGE OF EXISTING RUNOFF WATER WILL PERMANENTLY OCCUR.

12. NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT THE APPROVAL OF THE ENGINEER.

SURVEY NOTES

1. THESE PLANS WERE ASSEMBLED FROM INFORMATION GATHERED FROM LANCE MILLER PLS, DAVID EVANS PLS, BONNER COUNTY AND THE CITY OF PONDERAY.

2. UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS WITH UTILITY COMPANIES PRIOR TO EARTHWORK.

3. LIDAR DATA IS INTENDED TO BE USED IN ESTABLISHING SLOPES AND ELEVATIONS FOR THE GRADING, STORMWATER, AND EROSION CONTROL PLAN ALL WAS ADJUSTED TO THE NAVD 88 DATUM. 7B AND THE OWNER SHALL NOT BE LIABLE FOR ANY DISCREPANCIES, AS THE DATA IS SUBJECT TO VARIATION.

4. EXISTING PROPERTY CORNERS AND SURVEY MONUMENTS SHALL BE LOCATED, MARKED, AND PROTECTED DURING THE COURSE OF CONSTRUCTION. ANY DAMAGE OR OBLITERATED CORNERS, OR MONUMENTS, SHALL BE RE-ESTABLISHED AT THE CONTRACTORS EXPENSE BY A PROFESSIONAL LAND SURVEYOR, LICENSED IN THE STATE OF IDAHO, PRIOR TO FINAL ACCEPTANCE.

SOILS

PRELIMINARY SOIL DATA WAS GATHERED FROM USDA'S NRCS WEB SOIL SURVEY. SITE SOIL'S LISTED AS BEING 34 - ODENSON SILT LOAMS. THE SOIL IS CLASSIFIED AS BEING IN THE TYPE D HYDROLOGIC SOIL GROUP WITH SATURATED CONDUCTIVITY (Ksat) RANGING FROM 0.06 TO 0.57 IN/HR. THE TYPICAL PROFILE SHOWS SILTY CLAY LOAMS. SILT LOAMS ARE SUSCEPTIBLE TO FROST ACTION WHICH CAN AFFECT BUILDINGS, ROADS, & UTILITIES. MITIGATION MAY CONSIST OF DEEPER BUILDING FOUNDATIONS BELOW THE FROST LINE AND OVER-EXCAVATION IN THE ROAD SECTIONS TO REMOVE UNSUITABLE MATERIAL.

SLOPES

SLOPES ON SITE RANGE FROM 0-2%

WETLANDS

NO MAPPED WETLANDS PRESENT ON SITE.

ZONING

ZONE: INDUSTRIAL

UTILITIES

THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES PRIOR TO STARTING WORK NEAR ANY FACILITIES AND SHALL COORDINATE WORK WITH UTILITY COMPANY REPRESENTATIVES. ALL UTILITY SERVICES SHALL BE INSTALLED UNDERGROUND. FOR EXISTING UTILITY LOCATIONS, CONTACT CALL BEFORE YOU DIG AT 1-800-626-4950 AT LEAST 48 HOURS PRIOR TO STARTING ANY EXCAVATIONS.

GRADING NOTES

1. LOCATIONS, TOPOGRAPHY AND ELEVATIONS SHOWN ARE APPROXIMATE AND SERVE TO ESTABLISH GRADES AND AN ESTIMATE OF GRADING QUANTITIES. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT ALL UTILITIES ONSITE PRIOR TO COMMENCING GRADING WORK.

2. PRIOR TO ROUGH GRADING, THE CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION STORMWATER CONTROL MEASURES (BMPs) TO PREVENT DAMAGE TO ADJACENT PROPERTIES.

3. AREAS TO RECEIVE FILL SHALL BE CLEARED, GRUBBED, AND SCARIFIED PRIOR TO PLACING FILL.

4. ROADWAY FILLS SHALL BE PLACED IN LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY

5. CONTRACTOR SHALL PROVIDE DUST CONTROL OR ABATEMENT MEASURES SUCH AS WATER SUPPRESSION, SCREENING & ENCLOSURE AND GENERAL SITE HOUSE KEEPING DURING CONSTRUCTION OF PROJECT.

STORMWATER AND DRAINAGE NOTES

1. RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONVEYED TO THE STORMWATER TREATMENT AREA.

2. THE FACILITY IS SIZED TO TREAT THE 1/2-INCH RUNOFF FROM IMPERVIOUS SURFACES AND PROVIDE DETENTION FOR THE 25 YEAR-24 HR EVENT AND PASS THE 50 YEAR-24 HR EVENT.

3. PROTECT THE VEGETATED DETENTION AREAS OVERFLOW WEIRS WITH VEGETATION OR ROCK.

4. THE OWNER, OR CONTRACTOR, SHALL REVEGETATE DISTURBED AREAS, POST CONSTRUCTION, WITH NATIVE VEGETATION PER BONNER COUNTY'S APPENDIX B OF TITLE 12.

STORMWATER FACILITY O&M REQUIREMENTS

1. GENERAL REQUIREMENTS:
INSPECT CONSTRUCTED FACILITIES MONTHLY AND BETWEEN LARGE STORM EVENTS FOR THE FIRST YEAR. AFTER IT IS ESTABLISHED AND WORKING AS INTENDED, INSPECT ONCE IN THE SPRING AND FALL. INSPECT FOR FAILURES, EROSION, DISPLACED ROCK PROTECTION, DEAD VEGETATION, AND SEDIMENT BUILDUP. REPAIR AND/OR REPLACE AS NECESSARY.

2. VEGETATED STORMWATER TREATMENT AND DETENTION AREA:
 - INSPECT AFTER LARGE RAINFALL EVENTS.
 - INSPECT FOR EROSION, CRACKS, DISPLACED ROCKS, AND SIGNS OF FAILURE. REPAIR IMMEDIATELY.
 - INSPECT FOR DEAD VEGETATION. REMOVE DEAD ZONE, RE-VEGETATE, AND DETERMINE CAUSE OF DEAD VEGETATION. CHOKING ON SEDIMENT, LACK OF NUTRIENTS, OR INADEQUATE WATERING AND SUNLIGHT.
 - INSPECT FOR EXCESSIVE SEDIMENTATION. DETERMINE SOURCE OF SEDIMENTATION, MITIGATE, OR INSTALL SEDIMENT TRAP.
 - DRAINING TOO SLOW. CHECK FOR SEDIMENT PLUGGING-REPLACE GIA AND CONTROL SOURCE OF SEDIMENT. IF DEEPER SOIL DRAINS TOO SLOW, INSTALL AN UNDER DRAIN SYSTEM OR SLOTTED RISER OUTLET.
 - MOW GRASS AND CONTROL WEEDS AS NEEDED.
 - IRRIGATE IF NECESSARY. DO NOT OVER-IRRIGATE.

TEMPORARY STORMWATER EROSION CONTROL NOTES

1. PRIOR TO CONSTRUCTING THE STORMWATER COLLECTION, CONVEYANCE, DETENTION, AND TREATMENT FACILITIES; ALL TEMPORARY EROSION CONTROL FEATURES SHALL BE INSTALLED AND MAINTAINED, DURING CONSTRUCTION, TO PREVENT CONSTRUCTION RELATED RUNOFF AND SEDIMENT MIGRATION OFF-SITE.

2. BARRIERS SHALL BE PLACED PERPENDICULAR TO THE DIRECTION OF FLOW.

3. CONSTRUCT SILT FENCES, COMPOST BERMS, OR FIBER ROLLS WHERE OVERLAND RUNOFF MAY LEAVE THE CONSTRUCTION AREA OR ENTER NEIGHBORING PROPERTIES.

4. POTENTIAL RAIN EVENTS SHALL BE MONITORED AND EXPOSED GROUND AND SLOPES SHALL BE PROTECTED WITH MULCHING OR GEOTEXTILES TO PREVENT RAINFALL RELATED EROSION.

5. MULCHING OF DISTURBED AREAS CAN BE DONE WITH HAY, STRAW, WOOD CHIPS, GRASS CLIPPINGS, OR ROCK. SLOPES STEEPER THAN 2:1 MAY REQUIRE TACKING AGENTS TO HOLD MULCH IN PLACE.

6. LEAVE TEMPORARY STORMWATER AND EROSION CONTROL MEASURES IN PLACE UNTIL VEGETATION HAS BEEN RE-ESTABLISHED. MULCHING PROTECTS THE SLOPE AND SEEDS UNTIL VEGETATION BECOMES ESTABLISHED.

PERMANENT EROSION CONTROL NOTES

1. INSTALL STORMWATER COLLECTION, CONVEYANCE, DETENTION, AND TREATMENT FACILITIES AS SHOWN ON THESE PLANS.

2. IF TREATMENT FACILITIES SHOW SIGNS OF EXCESSIVE SEDIMENTATION DETERMINE THE SOURCE OF EROSION.

3. RE-VEGETATE DISTURBED AREAS, OUTSIDE OF THE STORMWATER TREATMENT AND CONVEYANCE AREA, WITH PLANTS LISTED IN NORTH IDAHO NATIVE AND BENEFICIAL PLANT LIST.

4. IF SLOPES ARE TOO STEEP TO RE-VEGETATE, APPLY ROCK MULCH OR RIPRAP FOR SLOPE PROTECTION.

5. ADDITIONAL BMPs FOR EROSION CONTROL AND APPLICATION RATES CAN BE FOUND IN THE 2020 VERSION OF IDAHO'S CATALOG OF STORM WATER BEST MANAGEMENT PRACTICES. THE DOCUMENT CAN BE FOUND ON THE IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY'S "STORM WATER" WEB PAGE.

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SHEET C-12 OF C-12





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