

- GENERAL NOTES**
- THESE PLANS ARE FOR THE CONSTRUCTION OF MULTI-FAMILY BUILDINGS IN THE COMMERCIAL ZONE OF PONDERAY.
 - THE BUILDING OUTLINES AS SHOWN HEREON ARE TO BE LOCATED IN THE FIELD BY A LICENSED PROFESSIONAL LAND SURVEYOR.
 - THESE PLANS ARE FOR SITE UTILITY, GRADING, STORMWATER AND EROSION CONTROL AS SHOWN.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF PONDERAY, AND ANY OTHER DEVELOPMENT STANDARDS.
 - ALL WORK SHALL CONFORM TO THE "ROAD STANDARDS FOR PUBLIC WORKS CONSTRUCTION," 2020 OR MOST RECENT EDITION. IN CASE OF CONFLICT, CITY OF PONDERAY STANDARDS SHALL PREVAIL.
 - 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.
 - AN APPROVED PERMIT SHALL BE OBTAINED FROM THE CITY OF PONDERAY 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.
 - THE CONTRACTOR SHALL HAVE AN APPROVED SET OF IMPROVEMENT PLANS AND APPROVAL LETTER ON THE JOB SITE AT ALL TIMES.
 - 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 ISPIC OR PONDERAY REQUIREMENTS.
 - ALL TESTING REQUIRED WILL BE AT THE EXPENSE OF THE CONTRACTOR.
 - 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.
 - EXISTING DRAINAGE FEATURES WILL BE PRESERVED OR RESTORED SUCH THAT NO BLOCKAGE OF EXISTING RUNOFF WATER WILL PERMANENTLY OCCUR.
 - NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT THE APPROVAL OF THE ENGINEER.

- SURVEY NOTES**
- THIS PLAN WAS PREPARED BY FROM A BOUNDARY AND TOPOGRAPHIC SURVEY DONE BY GLAHE & ASSOCIATES AS WELL AS INFORMATION TAKEN FROM THE BONNER COUNTY GIS WEBSITE.
 - THIS MAP DOES NOT REPRESENT AN ACTUAL SURVEY BUT WAS ASSEMBLED FROM INFORMATION GATHERED AS NOTED. REFER TO THE AMENDED RECORD OF SURVEY FOR THE CITY OF PONDERAY BY GLAHE & ASSOCIATES (APRIL 1, 2016 - INSTRUMENT NO. 887225) FOR MORE DETAILED PROPERTY BOUNDARY, ELEVATION MONUMENTATION, AND ADDITIONAL INFORMATION.
 - BEARINGS AND COORDINATES ARE FROM GLAHE & ASSOCIATES AND REFER TO THE IDAHO COORDINATE SYSTEM OF 1983, WEST ZONE, (1103) - U.S. SURVEY FT. THE PROJECT GIS CONTROL COORDINATES ARE DERIVED FROM NGS OPUS SOLUTIONS USING A REFERENCE FRAME OF NAD83 (2011)(EPOCH: 2010.000). DISTANCES SHOWN ARE GROUND WITH A COMBINED ADJUSTMENT FACTOR (CAF) OF 1.0012095.
 - GLAHE & ASSOCIATES DATUM AS RECEIVED BY OPUS SOLUTION IS UNDERSTOOD TO BE NAVD83 AND IS INTENDED TO BE USED AS A BASIS TO PREPARE UTILITY, GRADING, STORMWATER, AND EROSION PLANS FOR A DEVELOPMENT PERMIT. NO FLOODPLAINS ARE NOTED AND NO ELEVATION CERTIFICATES ARE REQUIRED OR WARRANTED.
 - 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 CONTRACTOR'S EXPENSE BY A PROFESSIONAL LAND SURVEYOR, LICENSED IN THE STATE OF IDAHO, PRIOR TO FINAL ACCEPTANCE.

- KEYNOTES**
- RIGHT-OF-WAY/PROPERTY BOUNDARY
 - PROTECT EXISTING SURVEY MONUMENTS AS NOTED
 - EXISTING TELEPHONE SERVICE BOXES
 - EXISTING 8" WATER MAIN
 - EXISTING WATER SERVICE LOCATION
 - EXISTING OVERHEAD POWER LINES
 - EXISTING STRUCTURE TO BE REMOVED
 - RETAIN AND PROTECT EXISTING STORM PIPE AND STORMWATER STRUCTURE
 - EXISTING OVERHEAD POWER POLES
 - EXISTING PRESSURE SEWER MAIN (4" (OWNED BY KPSP))
 - EXISTING SEWER CLEANOUTS
 - CLEANOUT MH #2 PER KOOTENAI-PONDERAY SEWER RECORD DRAWINGS DATED 1-05-87
RIM = 2124.16
INV = 2120.90
 - EXISTING CLEANOUT MANHOLE (RV- PARK CONNECTION)
RIM = 2123.95
 - CLEANOUT MH #3 PER KOOTENAI-PONDERAY SEWER RECORD DRAWINGS DATED 1-05-87
RIM = 2124.16
INV = 2119.12
 - EXISTING CLEANOUT
 - PROPOSED RIGHT-OF-WAY DEDICATIONS FOR CITY OF PONDERAY
 - CITY SETBACK REQUIREMENTS PER CITY CODE
 - PROPOSED PARK LOCATION (TO BE MAINTAINED BY CITY UPON DEDICATION)
 - PROPOSED BUILDINGS (SEE OWNER'S BUILDING PLANS)
 - PROPOSED PARKING LOT (SEE SECTION C, SHEET 5)
 - STANDARD PARKING SPOT 9' X 19'
1 PARKING SPOT/600 SF SEE CITY CODE 9-5E-2-C2
 - HANDICAP PARKING SPOT: 11' X 19' (VAN ACCESSIBLE)
LOADING ZONE: 8' X 19'
 - MAIN BOX PEDESTAL LOCATION
 - PROPOSED EXTERIOR LIGHTING
 - PROPOSED 9'x12' TRASH ENCLOSURE (TOTAL TRASH AREAS = 661 SF)
 - PROPOSED FIRE HYDRANT LOCATIONS (3-TOTAL)
 - PROPOSED 35' MIN COMMERCIAL APPROACH
 - DIRECT STREET DRAINAGE TOWARD STORM FACILITIES
 - PROPOSED STORMWATER TREATMENT & RETENTION AREA
SEE SHEET 2, OR DETAILS D/3 AND F/3
 - PROPOSED 4' SIDEWALK
 - PROPOSED ADA RAMP
 - PROPOSED LANDSCAPE AREA OR GREEN SPACE
 - PROPOSED 8" WATER MAIN (LOOP)
 - PROPOSED 6" WATER MAIN EXTENSION TO HYDRANTS
 - PROPOSED 3 PHASE ELECTRICAL CONNECTIONS (THREE 2" SCH. 80)
 - PROPOSED POWER DROP
 - PROPOSED ELECTRICAL SERVICE TRANSFORMER
 - PROPOSED 8" GRAVITY SEWER MAIN (SEE SHEET 6)
 - PROPOSED STANDARD SEWER MANHOLE
 - PROPOSED WET WELL (SEE SHEET 7)
 - PROPOSED UTILITY- VALVE VAULT
 - PROPOSED CHARCOAL CANISTER/AIR SCRUBBER (ODOR CONTROL)
 - PROPOSED 4" PRESSURE FORCE MAIN
 - PROPOSED 8" CEDER FENCE AREA AROUND SEWER SYSTEM
 - PROPOSED MONUMENT SIGN
 - PROPOSED BREEZE WAY
 - PROPOSED 8" TRAFFIC CLEANOUT
 - PROPOSED EXTENDED PARKING AREA FOR PARK

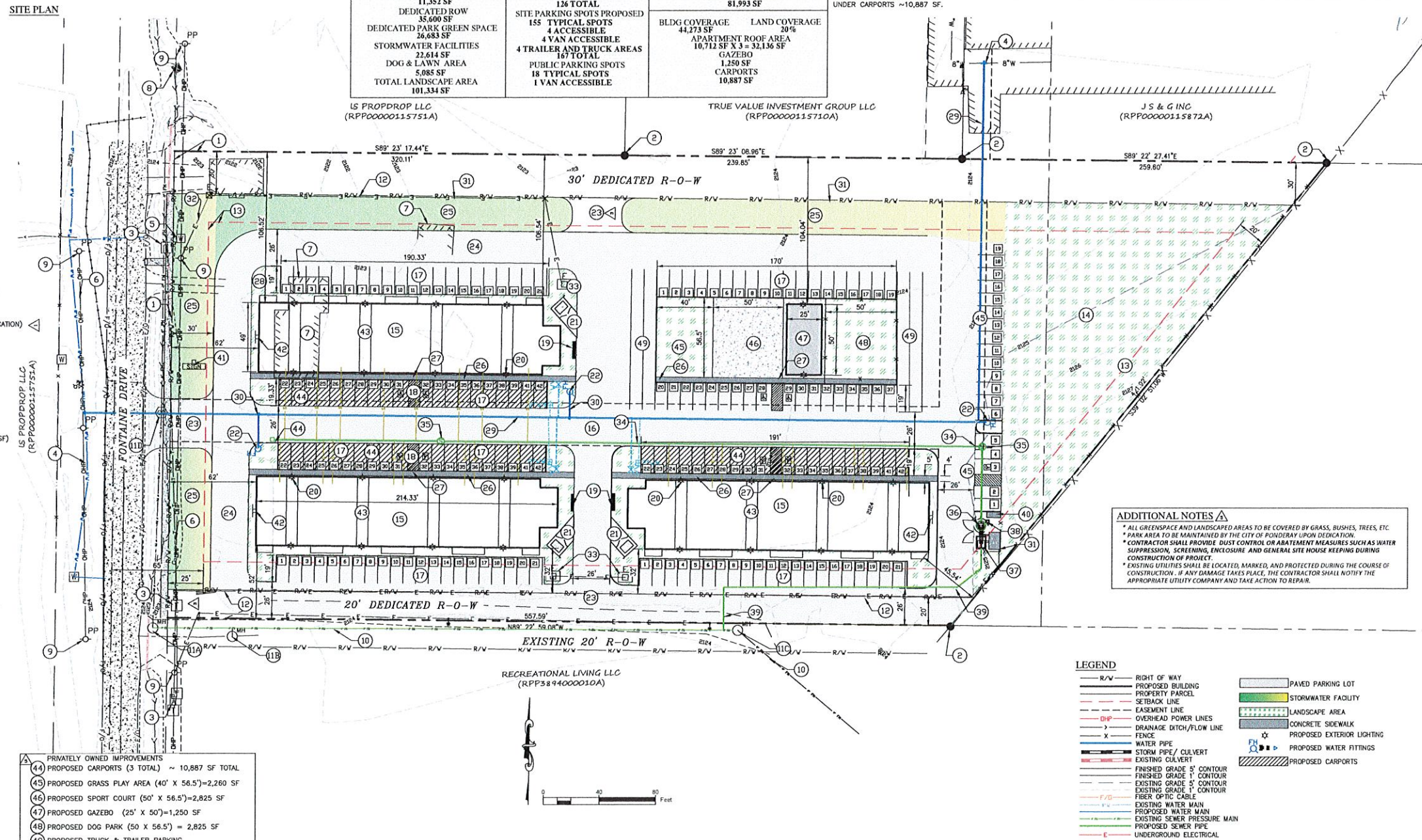
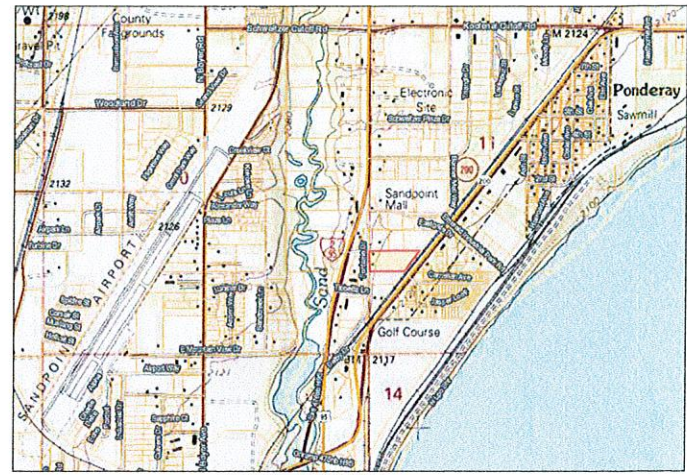
PRELIMINARY SITE, STORMWATER AND EROSION CONTROL PLAN FOR
PONDERAY LODGE
 A DEVELOPMENT PERMIT FOR CONSTRUCTION FOR
 RPP00000115800A AKA 1050 FONTAINE DRIVE
 PONDERAY, BONNER COUNTY, IDAHO 83852

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- COVER SHEET AND SITE PLAN
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- DETAILS AND SECTIONS
- WATER PLAN & PROFILES
- WATER SYSTEM DETAILS
- SEWER PLAN & PROFILES
- LIFT STATION PLAN AND SEWER DETAILS
- LIFT STATION DETAILS
- SEWER SYSTEM AND LIFT STATION DETAILS

SITE PLANNING DATA

TOTAL LOT AREA: 227,600 SF - 5.22 ACRES			
DEDICATED ROW	DEDICATED PARK	NOT DEDICATED	
35,600 SF	30,312 SF	161,688 SF	
BUILDING SPACE (APARTMENTS)	BUILDING LIVING SPACE	TOTAL TRAVEL AREA	TRAVEL SPACE
BREEZEWAY AREA 4 X 4' X 49' = 784 SF PER FLOOR 2,352 SF PER BLDG BUILDING FLOOR SPACE 38,380 SF EACH BLDG 85,140 SF TOTAL CARPORTS 19 X 19'1" = 3,629 SF EACH	UNITS PER BUILDING 2 BEDROOM 3 BEDROOM 21 UNITS 3 UNITS 1,017 SF EACH 1,224 SF EACH 25,029 SF EACH BLDG 75,087 SF TOTAL PARKING SPOTS REQUIRED 1 SPOT PER 600 SF 25,029 SF / 600 SF = 42 SPOTS 42 SPOTS EACH BLDG 136 TOTAL SITE PARKING SPOTS PROPOSED 155 TYPICAL SPOTS 4 ACCESSIBLE 4 VAN ACCESSIBLE 4 TRAILER AND TRUCK AREAS 167 TOTAL PUBLIC PARKING SPOTS 18 TYPICAL SPOTS 1 VAN ACCESSIBLE	92,880 SF	40%
GREEN SPACE 44.5% BUILDING LANDSCAPE 11,453 SF DEDICATED ROW 35,600 SF DEDICATED PARK GREEN SPACE 36,683 SF STORMWATER FACILITIES 22,614 SF DOG & LAWN AREA 5,085 SF TOTAL LANDSCAPE AREA 101,334 SF		PARKING LOT* 80,845 SF MISCELLANEOUS AREA 4,930 SF SIDEWALK AREA 3,476 SF PUBLIC PARKING AREA (PARK) 3,629 SF TOTAL OPEN AREA 183,337 SF TOTAL LANDSCAPE AREA 101,334 SF OPEN TRAVEL AREA* 81,993 SF	DOES NOT INCLUDED AREA WITHIN SOUTH 20' ROW ** PAVEMENT AREA OF SOUTH ROW ~10,456 SF
		BLDG COVERAGE 44,273 SF APARTMENT ROOF AREA 10,712 SF X 3 = 32,136 SF GAZEBO 1,250 SF CARPORTS 10,887 SF	LAND COVERAGE 20% DOES NOT INCLUDED AREA UNDER CARPORTS ~10,887 SF



- ADDITIONAL NOTES**
- ALL GREENSPACE AND LANDSCAPED AREAS TO BE COVERED BY GRASS, BUSHES, TREES, ETC.
 - PARK AREA TO BE MAINTAINED BY THE CITY OF PONDERAY UPON DEDICATION.
 - CONTRACTOR SHALL PROVIDE DUST CONTROL OR ABATEMENT MEASURES SUCH AS WATER SUPPRESSION, SCREENING, ENCLOSURE, AND GENERAL SITE HOUSE KEEPING DURING CONSTRUCTION OF PROJECT.
 - EXISTING UTILITIES SHALL BE LOCATED, MARKED, AND PROTECTED DURING THE COURSE OF CONSTRUCTION. IF ANY DAMAGE TAKES PLACE, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY AND TAKE ACTION TO REPAIR.

- LEGEND**
- R/W RIGHT OF WAY
 - PROPOSED BUILDING
 - PROPERTY PARCEL
 - SETBACK LINE
 - EASEMENT LINE
 - OVERHEAD POWER LINES
 - DRAINAGE DITCH/FLOW LINE
 - FENCE
 - WATER PIPE
 - STORM PIPE/ CULVERT
 - EXISTING CULVERT
 - FINISHED GRADE 5' CONTOUR
 - FINISHED GRADE 1' CONTOUR
 - EXISTING GRADE 5' CONTOUR
 - EXISTING GRADE 1' CONTOUR
 - FIBER OPTIC CABLE
 - EXISTING WATER MAIN
 - PROPOSED WATER MAIN
 - EXISTING SEWER MAIN
 - PROPOSED SEWER PIPE
 - UNDERGROUND ELECTRICAL
 - PAVED PARKING LOT
 - STORMWATER FACILITY
 - LANDSCAPE AREA
 - CONCRETE SIDEWALK
 - PROPOSED EXTERIOR LIGHTING
 - PROPOSED WATER FITTINGS
 - PROPOSED CARPORTS

COVER SHEET AND SITE PLAN

CHUBBS NORTH LLC
 PONDERAY LODGE
 PONDERAY, IDAHO

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 ENGINEERING
 414 S. SANDPOINT
 SANDPOINT, IDAHO 83854
 (208) 263-0623
 info@7BEngineering.com

PROFESSIONAL ENGINEER
 LICENSED IN THE STATE OF IDAHO
 19088
 DANIEL W. LARSEN

PROJECT NO. 2108
 DRAWN BY: DW/JSK
 CHECKED BY: DW/JSK
 SCALE: 1"=40' - PROJECT ONLY

SHEET 1F OF 9

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PLANNING OFFICE
 CITY OF PONDERAY

DRAINAGE NOTES

SITE IMPERVIOUS AREA: 126,267 SF (~3 ACRES DISTURBED)
 CITY IMPERVIOUS (SOUTH ROW DEDICATION): 10,456 SF
 TOTAL IMPERVIOUS: 136,723 SF

TOTAL LOT SIZE: 227,600 SF
 TOTAL GREEN/LANDSCAPE SPACE: 101,334 SF

TOTAL BUILDING AREA/ROOF SHED: 44,273 SF
 BUILDINGS: 10,712 SF X 3 UNITS = 32,136 SF
 CARPORTS: (19FT X 191FT X 3 UNITS) = 10,887 SF
 GAZEBO: 1,250 SF

TOTAL PAVEMENT: 84,475 SF (WITHOUT CARPORT 73,588 SF)
 SITE: 80,846 SF
 PUBLIC PARKING AREA: 3,629 SF

TOTAL MISC. (UNCONNECTED AREAS, SEWER SYSTEM, SPORTS COURT) = 8,406 SF
 SYSTEM LIFT STATION AREA = 532 SF
 SPORTS COURT = 2,829 SF
 SIDEWALKS = 3,479 SF
 TRASH AREAS = 661 SF
 UNCONNECTED AREAS = 912 SF (~ AROUND GAZEBO, ETC)

REQ'D STORMWATER TREATMENT VOLUME: 5,704 CF (136,723 SF X 0.5")
 PROPOSED STORMWATER TREATMENT VOLUME: 10,265.5 CF (20,531 SF @ 6" AVG)
 VOLUME TO DETAIN FOR 24 HOUR 25 YEAR STORM (NRCS TR-20 METHOD): 11,307 CF
 TOTAL DETENTION VOLUME PROVIDED: 17,109 CF (10" AVG DEPTH)

SNOW MANAGEMENT

AVERAGE ANNUAL SNOWFALL: 4.8 FT (58 INCHES)
 PROPOSED COMPACTED TO FRESH SNOW RATIO: 5:1
 AVERAGE FRESH SNOW TREATMENT VOLUME (FSV):
 136,723 SF (ANP) X 4.8 FT = 656,270 CF
 REQ/COMPACTED SNOW TREATMENT VOLUME: FSV/5 = 131,254 CF
 PROPOSED SNOW STORAGE AREA: 20,531 SF (STORMWATER AREA)
 AVERAGE SNOW HEIGHT IN TREATMENT AREA: 6.4 FT (131,254 CF/20,531 SF)

- KEYNOTES**
- 1 RIGHT-OF-WAY/PROPERTY BOUNDARY MAINTAIN DISTURBANCE 2' AWAY
 - 2 RETAIN & PROTECT EXISTING SURVEY MONUMENTS AS NOTED
 - 3 EXISTING TELEPHONE CONNECTION
 - 4 EXISTING WATER MAIN
 - 5 EXISTING WATER SERVICE LOCATION
 - 6 EXISTING OVERHEAD POWER LINES
 - 7 EXISTING STRUCTURE TO BE REMOVED
 - 8 EXISTING TREES TO BE REMOVED
 - 9 PROPOSED CITY STORM PIPE (385 LF OF 12" HDPE)
 - 10 EXISTING SEWER MANHOLES
 - 11 RETAIN AND PROTECT EXISTING SEWER CLEANOUT
 - 12 RETAIN AND PROTECT EXISTING SEWER MAIN
 - 13 DIRECT STREET DRAINAGE TOWARD STORM FACILITIES
 - 14 PROPOSED STORMWATER TREATMENT & RETENTION AREAS
 - 44 PROPOSED STORMWATER FACILITY, SEE DETAIL D/3 FONTAINE FRONTAGE
 - 43 PROPOSED BIOINFILTRATION STORMWATER FACILITY, SEE DETAIL F/3
 - 15 EXISTING GRADE CONTOURS (TYPICAL)
 - 16 SURFACE SPOT ELEVATIONS
 FG = FINISHED GROUND
 EG = EXISTING GROUND
 - 17 FINISHED GRADE CONTOURS (TYPICAL)
 - 18 RETAIN AND PROTECT EXISTING STORM PIPE AND STORMWATER STRUCTURE
 EXISTING R/W EL: 2122.24
 S INV: 2118.76 (NOTE INLET IS AN EXISTING CULVERT)
 - 19 PROPOSED CONSTRUCTION ENTRANCE (TEMPORARY ENCROACHMENT TO FONTAINE DRIVE)
 - 20 12" EXISTING STORM CULVERT (TO BE REPLACED WITH CITY STORM PIPE #9)
 N INV = 2122.38
 S INV = 2122.47
 - 21 12" EXISTING STORM CULVERT
 (TO BE REPLACED WITH CITY STORM PIPE & PROPOSED CULVERT #23)
 N INV = 2119.19
 S INV = 2119.77
 - 22 PROPOSED 12" STORM CULVERT
 N INV = 2120.00
 S INV = 2121.00
 - 23 PROPOSED 18" STORM CULVERT
 N INV = 2119.19
 S INV = 2120.50 (OUTLET FOR FACILITY 31)
 - 24 PROPOSED FLOWLINE OR STORM DITCH
 - 25 PROPOSED STORMWATER COLLECTION SYSTEM (SEE DETAIL G/3)
 DETENTION VOLUME = 1,601 CF
 - 25A 265 LF 10" HDPE, S=0.0048 FT/FT
 CONNECT TO CATCH BASIN (25B)
 - 25B 33 LF 10" HDPE, S=0.0045 FT/FT
 CONNECT TO CATCH BASIN (27) AND OUTFALL (28)
 - 26 PROPOSED CATCH BASIN CONNECT TO 10" HDPE (25A)
 R/W EL: 2123.42
 IE OUT: 2121.42
 - 27 PROPOSED CATCH BASIN CONNECT TO 10" HDPE (25A)
 AND 10" HDPE (25B)
 R/W EL: 2123.32
 IE THRU: 2120.15
 - 28 PROPOSED OUTFALL
 EL: 2120.00
 - 29 785 LF OF 10" CPP PERF, S=0.004 FT/FT
 - 30 PROPOSED CLEANOUT (AT EVERY 100 LF OF PERF)
 - 31 PROPOSED OUTLET STRUCTURE (SEE DETAIL H/3)
 IE THRU: 2120.50
 IE OUT: 2120.50
 - 32 CONNECT STORMWATER TREATMENT AND RETENTION AREAS
 - 33 RAISE EDGE OF ASPHALT TO DIRECT DRAINAGE TO RIGHT-OF-WAY AND STORM FACILITIES
 - 34 NOT USED
 - 35 PROPOSED WATER MAIN AND SERVICES (SEE SHEETS 4-5)
 - 36 PROPOSED SEWER MAINS AND CONNECTIONS (SEE SHEETS 6-8)

GRADING NOTES

ESTIMATED GRADING QUANTITIES

TOTAL ESTIMATED DISTURBED VOLUME ON-SITE
 * GRADING QUANTITIES ARE ESTIMATED BY AUTOCAD 2021 SOFTWARE

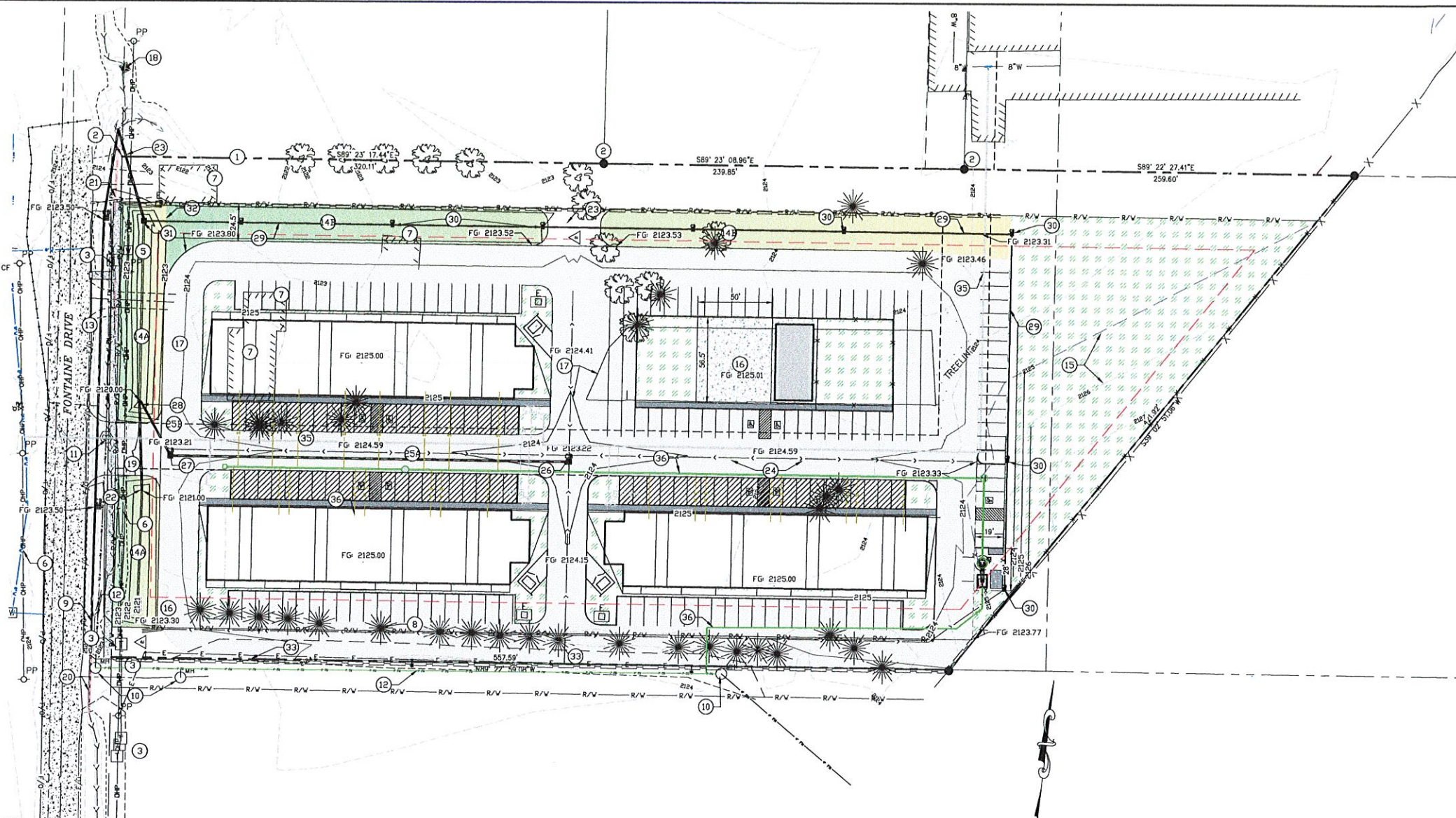
VOLUME OUT (CY)	VOLUME FILL (CY)	NET VOLUME (CY)
1,166	4,768	3,602 (FILL)

EROSION CONTROL NOTES

1220 LF OF FIBER ROLLS, SILT FENCE, OR COMPOST BERMS IF NEEDED, SEE DETAILS I/3 OR J/3, RESPECTIVELY

19 PROPOSED CONSTRUCTION ENTRANCE (FUTURE ENCROACHMENT TO FONTAINE DRIVE) SEE DETAIL K/3

- LEGEND**
- R/W RIGHT OF WAY
 - PROPOSED BUILDING
 - PROPERTY PARCEL
 - SETBACK LINE
 - EASEMENT LINE
 - DHP OVERHEAD POWER LINES
 - DRAINAGE DITCH/FLOW LINE
 - FENCE
 - STORM PIPE/ CULVERT
 - EXISTING CULVERT
 - FINISHED GRADE 5' CONTOUR
 - FINISHED GRADE 1' CONTOUR
 - EXISTING GRADE 5' CONTOUR
 - EXISTING GRADE 1' CONTOUR
 - F/O/FIBER OPTIC CABLE
 - EXISTING WATER MAIN
 - PROPOSED WATER MAIN
 - EXISTING SEWER PRESSURE MAIN
 - PROPOSED SEWER MAIN
 - UNDERGROUND ELECTRICAL
 - PAVED PARKING LOT
 - STORMWATER FACILITY
 - LANDSCAPE AREA
 - CONCRETE SIDEWALK
 - FENCE
 - EXISTING TREES



STORMWATER MANAGEMENT GRADING, AND EROSION CONTROL PLAN

CHUBBS NORTH LLC
 PONDERAY LODGE
 PONDERAY, IDAHO

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 414 CHUBBS NORTH LLC
 SANDPOINT, IDAHO 83864
 (208) 263-0623
 info@7Bengineering.com

PROFESSIONAL ENGINEER
 DANIEL W. LAYMAN
 LICENSE NO. 110086
 EXPIRES 12/31/2024

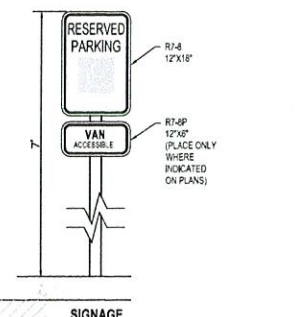
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 CHECKED BY: DWL
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SHEET 2E OF 9

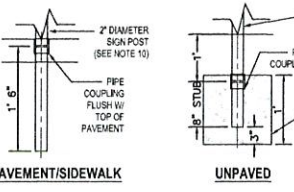
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NOTES:

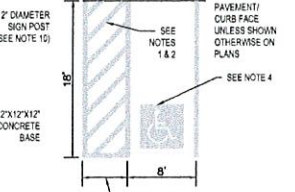
1. ALL STRIPING FOR ACCESSIBLE PARKING SHALL BE BLUE AND 4" IN WIDTH.
2. CROSSHATCH STRIPING FOR ACCESS AISLE SHALL BE ON 24" CENTERS AND AT 45° TO THE CURB AXIS.
3. VAN ACCESSIBLE ACCESS AISLES SHALL BE A MINIMUM OF 8' ALL OTHER ACCESS AISLES SHALL BE A MINIMUM OF 5'.
4. EACH STALL SHALL BE IDENTIFIED WITH AN 12" WIDE X 48" TALL WHITE ACCESSIBILITY SYMBOL WITHIN A 60" X 60" BLUE BOX BACKGROUND (COLUMBIA PAINT 17-213-21 INSTANT DRY ACRYLIC TRAFFIC PAINT "HANDICAP BLUE" OR EQUIVALENT). THE SYMBOL SHALL BE CENTERED WITHIN AND NO MORE THAN 1" FROM THE ENTRANCE OF THE STALL.
5. ALL STRIPING DIMENSIONS PROVIDED ARE MINIMUM AND SHALL BE MEASURED ON CENTERS.
6. EVERY PARKING STALL SHALL BE IDENTIFIED BY A SIGN.
7. THE SIGN SHALL BE CLEARLY VISIBLE AT ALL TIMES, FIXED TO A POST OR PERMANENT STRUCTURE, AND LOCATED AS CLOSE TO EACH STALL AS POSSIBLE BUT SHALL NOT BLOCK ANY OBSTACLED ACCESS ROUTE OR VEHICLE OVERHANG AND IN NO CASE SHALL BE GREATER THAN 8' FROM THE RESPECTIVE STALL.
8. THE SIGN SHALL FACE PERPENDICULAR TO THE LONG AXIS OF THE STALL.
9. ANGLE PARKING SHALL MEET THE INTENT OF THESE STANDARDS. SIGN POSTS SHALL BE SCHEDULE 40 HOT DIP GALVANIZED PIPE MEETING ASTM A53 & THREADED AT BOTH ENDS. POSTS SHALL BE FLARED.
10. SIGN POSTS SHALL BE SCHEDULE 40 HOT DIP GALVANIZED PIPE MEETING ASTM A53 & THREADED AT BOTH ENDS. POSTS SHALL BE FLARED.



SIGNAGE

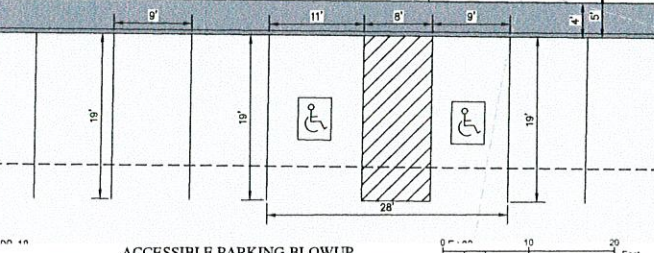


PAVEMENT/SIDEWALK

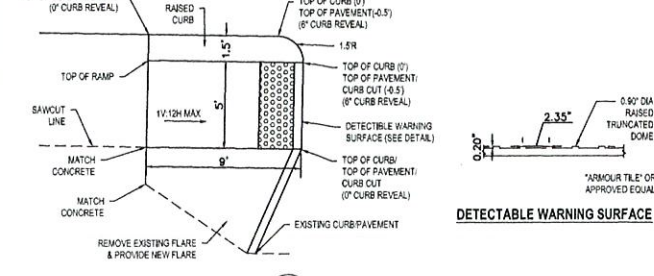


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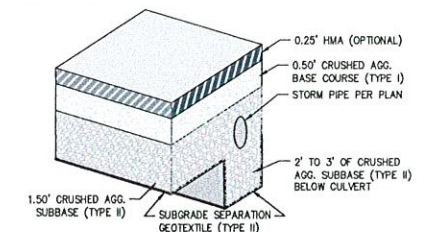
A ACCESSIBLE PARKING N.T.S.



ACCESSIBLE PARKING BLOWUP



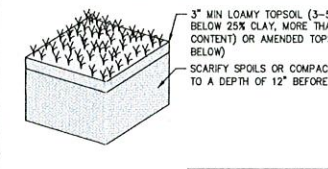
B OPTIONAL ACCESSIBLE RAMP N.T.S.



APPROACH CONSTRUCTION SPECIFICATIONS:

1. EXCAVATE TO SUBGRADE: 1.5" MINIMUM
2. INSTALL SUBGRADE SEPARATION GEOTEXTILE (ISPCW TYPE II)
3. CURB TO BE ADS OR HDPE. USE CMP, DIP, OR CONCRETE FOR SHALLOW INSTALL (LESS THAN 12" COVER).
4. SUBBASE: 1.50" MINIMUM OF CRUSHED AGGREGATE (ISPCW TYPE II)
5. BASE COURSE: 0.50" CRUSHED AGGREGATE BASE (ISPCW TYPE I)
6. PAVEMENT: 0.25" OF HMA (OPTIONAL)
7. CURB ENDS TO BE CLEAR AND PIPE LAID TO GRADE.
8. AGGREGATE SUBBASE (TYPE II) IN TRENCH BENEATH PIPE TO BE USED IN NON-POROUS SOIL CONDITIONS (LOAMS OR CLAYS).

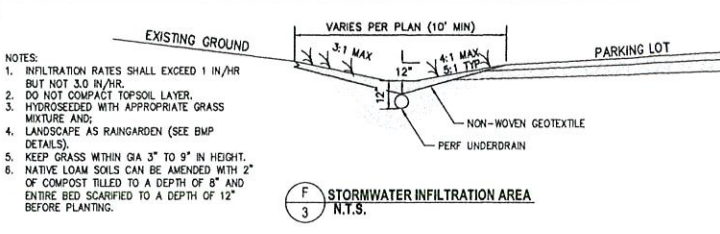
C PAVEMENT SECTION N.T.S.



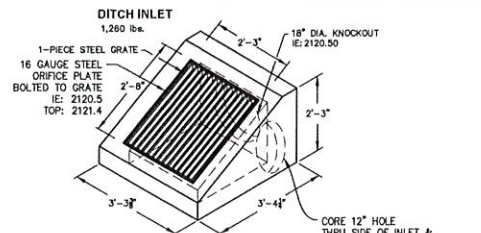
SUGGESTED SEEDING MIXES:

GRASSED INFILTRATION AREA:	PERMANENT EROSION CONTROL SEED MIX:
IDAHO FESCUE (60%/AC)	SPRING WHEAT (60%/AC)
BEARED SEED (60%/AC)	BARLEY (80%/AC)
SMOOTH BROME (80%/AC)	CATS (60%/AC)

E EROSION CONTROL PLANTINGS N.T.S. DISTURBED AREA REPLANTING

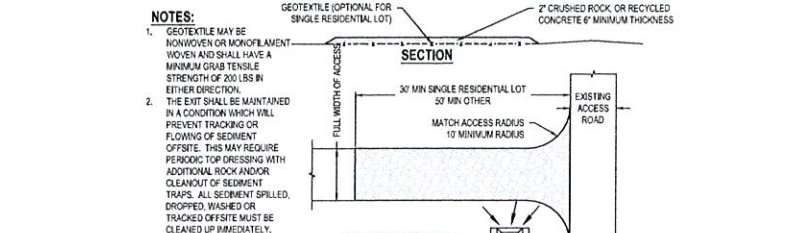


F STORMWATER INFILTRATION AREA N.T.S.

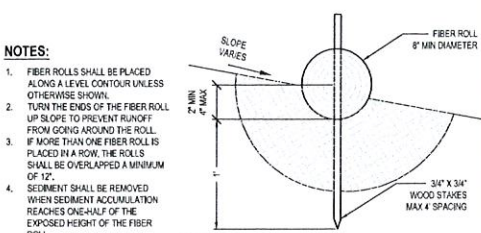


DITCH INLET

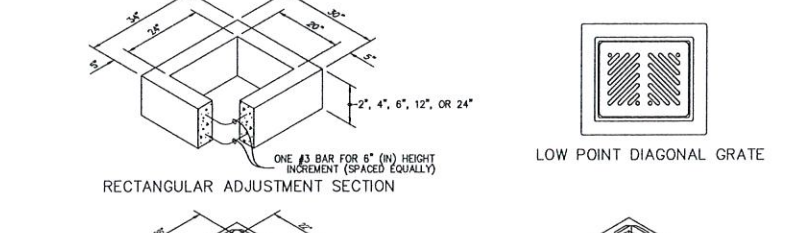
H STORMWATER OUTLET STRUCTURE N.T.S.



K STABILIZED CONSTRUCTION ENTRANCE N.T.S.

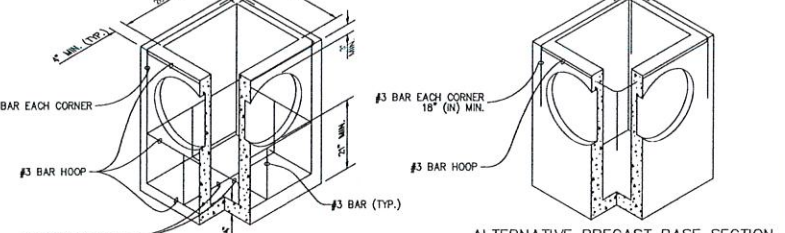


I FIBER ROLLS N.T.S.



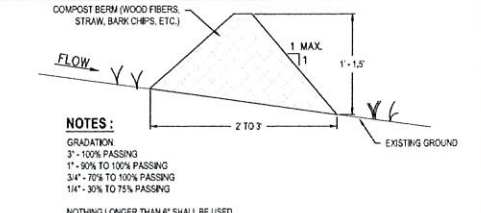
RECTANGULAR ADJUSTMENT SECTION

LOW POINT DIAGONAL GRATE

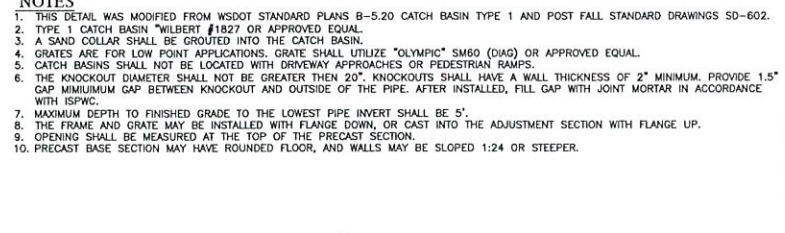


PRECAST BASE SECTION

ALTERNATIVE PRECAST BASE SECTION

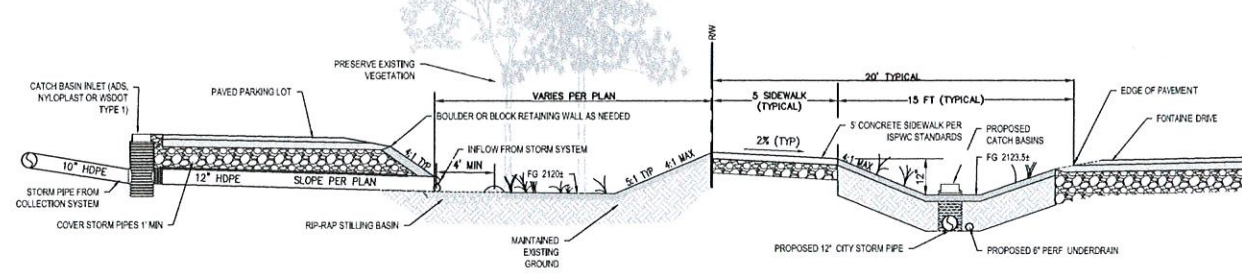


J TEMPORARY BERM (COMPOST) N.T.S.

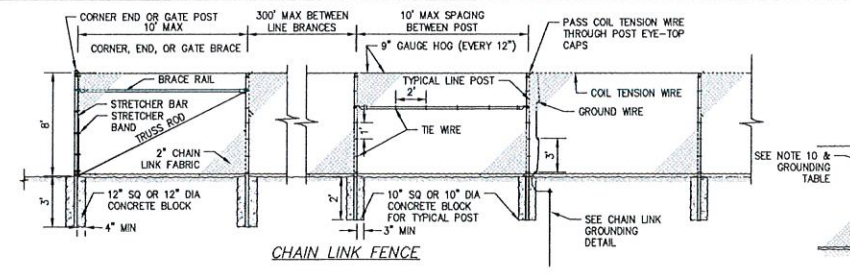


G CATCH BASIN TYPE 1 (WSDOT) N.T.S.

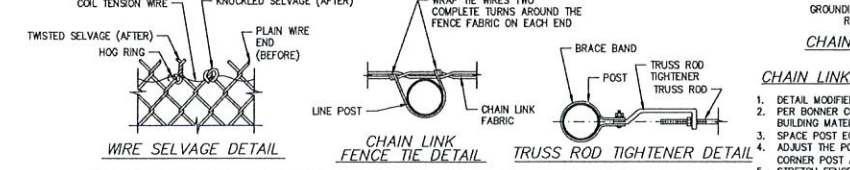
- NOTES:**
1. INFILTRATION RATES SHALL EXCEED 1 IN/HR BUT NOT 3.0 IN/HR.
 2. DO NOT COMPACT TOPSOIL LAYER.
 3. HYDROSEED WITH APPROPRIATE GRASS MIXTURE AND;
 4. LANDSCAPE AS RAINGARDEN (SEE BMP DETAILS).
 5. KEEP GRASS WITHIN 3" TO 9" IN HEIGHT.
 6. NATIVE LOAM SOILS CAN BE AMENDED WITH 2" OF COMPOST TILLED TO A DEPTH OF 8" AND ENTIRE BED SCARIFIED TO A DEPTH OF 12" BEFORE PLANTING.



D FONTAINE FRONTAGE IMPROVEMENTS N.T.S. BIOFILTRATION/BIORETENTION AREAS



CHAIN LINK FENCE



FENCE FABRIC	2" GALVANIZED DIAMOND MESH STEEL FABRIC
TIE WIRES	MIN. 9 GAUGE ALUMINUM WITH ONE HOOKED END
COIL TENSION WIRE	MIN. 7 GAUGE

CHAIN LINK HARDWARE

H CHAIN LINK FENCE DETAIL N.T.S.

CHAIN LINK FENCE GROUNDING TABLE

FENCE DIST. FROM TRANSMISSION LINE	kV	GROUNDING INTERVAL
0' - 100'	500	200'
100' - 200'	500	500'
200' - 300'	345	400'
300' - 400'	345	1,000'
400' - 1,000'	230	500'

CHAIN LINK FENCE NOTES

1. DETAIL MODIFIED FROM ITO STANDARD DRAWING NO. 610-1 CREATED DECEMBER 6, 2016.
2. PER BONNER COUNTY CODE 12-486C, FENCING MATERIAL SHALL COMPLY EXTERIOR BUILDING MATERIALS EXCEPT WHEN OBSOURED FROM PUBLIC VIEW WITH LANDSCAPING.
3. SPACE POST EQUAL DISTANCES APART, 10' MAXIMUM SPACING.
4. STRETCH FENCE SMOOTH SO THAT IT HAS A UNIFORM APPEARANCE.
5. SELVAGE THE PLAIN WIRE ENDS ON TOP AND BOTTOM OF THE CHAIN LINK FABRIC BY TWISTED OR KNUCKLED METHOD. SEE WIRE SELVAGE DETAIL.
6. CHAIN LINK FENCE HARDWARE MAY VARY SOMEWHAT FROM THAT SHOWN IN THE CHAIN LINK FENCE HARDWARE TABLE. ENSURE THAT HARDWARE AND MATERIALS USED ARE UNIFORM AND COMPATIBLE.
7. PRIVACY FENCE SLATS ARE OPTIONAL UNLESS SHOWN ON PROJECT PLANS.
8. GROUND CHAIN LINK FENCES THAT ARE NEAR POWER TRANSMISSION LINES OR THAT INTERSECT TRANSMISSION LINES. SEE THE CHAIN LINK FENCE GROUNDING TABLE AND CHAIN LINK FENCE GROUNDING DETAILS. TO GROUND, CONNECT 6 GAUGE BRAIDED GROUND CABLE TO THE CHAIN LINK FABRIC EVERY 3' IN HEIGHT, GROUND THE FENCE ONCE IF THE FENCE SECTION IS SHORTER THAN THE GROUNDING INTERVAL.



PROJECT NO. 2108
DRAWN BY: DM, JCE
CHECKED BY: DM, JCE
SCALE: 1/8" = 1'-0" (3/16" = 1'-0")
SHEET 3C OF 9

RECEIVED

OCT 25 2022

PLANNING OFFICE
CITY OF PONDERAY

DETAILS AND SECTIONS
CHUBBS NORTH LLC
PONDERAY LODGE
PONDORAY, MI 49759

NO.	DATE	DESCRIPTION
1	11/27/21	REPLACES SHEET 3 WITH CHANGES
2	11/27/21	REPLACES SHEET 3A WITH CHANGES
3	12/01/21	UPDATED PAGE NUMBERS
4	12/01/21	RESUBMITTED TO CITY
5	12/01/21	REPLACES SHEET 3B WITH CHANGES

WATER SYSTEM CONSTRUCTION NOTES

- GENERAL**
- THE EXISTENCE AND LOCATION OF WATER FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE CITY RECORDS. LOCATION AND ELEVATION OF EXISTING WATER FACILITIES TO BE CONFIRMED BY FIELD MEASUREMENTS AND EXCAVATION EXPLORATION BY THE CONTRACTOR PRIOR TO BEGINNING OF NEW WORK. THIS WILL ALLOW TIME TO PERMIT REVISION OF PLANS, AS NECESSARY, THE CITY OF SANDPOINT, CITY OF PONDERAY AND 7B ENGINEERING SHALL NOT BE HELD RESPONSIBLE FOR ANY ERROR IN THE LOCATION AND ELEVATION OF THE EXISTING WATER FACILITIES.
 - THE CITY OF PONDERAY, SANDPOINT PUBLIC WORKS DEPARTMENT AND THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHT-OF-WAY AFTER A RIGHT-OF-WAY PERMIT IS ACQUIRED.
 - WATER SYSTEM INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2020 IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, THE CITY OF SANDPOINT STANDARDS, PANHANDLE HEALTH DEPARTMENT, AWWA, AND THE IDAHO DIVISION OF BUILDING SAFETY.
 - WATER SYSTEM DESIGN CRITERIA PER CITY OF SANDPOINT.
 - COORDINATE SETTING OF WATER SERVICES AND METERS WITH THE CITY OF SANDPOINT AND THE ENGINEER. INFORM THE CITY OF SANDPOINT 48 HOURS IN ADVANCE OF SETTING.
 - ALL COMPONENTS SHALL REMAIN UNCOVERED UNTIL APPROVED BY THE ENGINEER OR HIS REPRESENTATIVE.
 - WATER SYSTEM DETAILS ISPCW STANDARD DRAWINGS SD-401, SD-402, SD-403, SD-404, SD-406, SD-407, AND SD-408A SHALL BE INCORPORATED AS PART OF THESE PLANS AND SPECIFICATIONS UNLESS OTHERWISE MODIFIED HEREIN.
 - CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR ALL TESTING PRIOR TO ACCEPTANCE BY THE CITY OF SANDPOINT. TESTING SHALL INCLUDE CHLORINATION, BACTERIAL PRESSURE, RESULTS PRIOR TO ACCEPTANCE, SHALL BE SUBMITTED AND APPROVED BY CITY OF SANDPOINT, AND ENGINEER.
 - TRACING WIRE (12 AWG) SHALL BE PLACED ATOP ALL WATER MAINS AND SHALL BE BROUGHT TO THE SURFACE AT EACH MAINLINE AND FIRE HYDRANT VALVE. TRACING WIRE SHALL BE PLACED ATOP ALL WATER MAINS AND WATER SERVICE LINES. THE WIRE SHALL BE BROUGHT TO THE SURFACE ON THE OUTSIDE OF EACH WATER SERVICE CURB BOX AND FIRE HYDRANT AND INSIDE EACH VALVE BOX.
 - CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS (2 SETS OF PLANS) IN PAPER AND ELECTRONIC FORMAT PRIOR TO WATER SYSTEM ACCEPTANCE BY THE CITY OF SANDPOINT.
 - ALL AREAS DISTURBED OUTSIDE OF THIS PROPERTY BOUNDARY ALONG FONTAINE DRIVE OR WITHIN EASEMENTS SHALL BE RESTORED TO AS-FOUND OR BETTER CONDITION TO THE SATISFACTION OF THE PROPERTY OWNER OR THE AUTHORITY HAVING JURISDICTION.
- WATER MAINS**
- WATER MAIN LINE SHALL BE C-900 PVC OR APPROVED EQUAL CONFORMING TO AWWA STANDARDS AND BE CERTIFIED BY AN ACCREDITED ANSI CERTIFICATION BODY TO MEET APPLICABLE ANS/NSF STANDARDS.
 - WATER INSTALLATION SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATIONS, ISPCW SECTION 400, AND TO THE DETAILS SHOWN IN THESE DRAWINGS.
 - TRENCH EXCAVATION SHALL COMPLY WITH ISPCW SECTION 301 AND FOUNDATION STABILIZED PER ISPCW SECTION 304 AND SD-301.
 - PIPE BEDDING SHALL COMPLY WITH ISPCW SECTION 305 AND SD-302.
 - TRENCH BACKFILL SHALL COMPLY WITH ISPCW SECTION 306.
 - STREET CUTS SHALL COMPLY WITH ISPCW SECTION 307 AND SD-303.
 - SEWER AND WATER CONFLICTS SHALL COMPLY WITH SEPARATION REQUIREMENTS OF ISPCW SECTION 405 AND STANDARD DRAWING SD-407.
 - ATTACH LOCATE WIRE TO CROWN OF PIPE USING ELECTRICAL TAPE AND PROVIDE 12 INCHES OF SLACK WIRE ABOVE GROUND AT EACH LOCATION OF WIRE BOX. TEST FOR CONTINUITY AND REPAIR ANY DAMAGE TO WIRE.
 - INSTALL LOCATING (MARKERS) TAPE DURING BACKFILLING AT 18 TO 24 INCHES ABOVE THE CROWN OF THE PIPE.
 - TRENCHES SHALL BE FULLY DEWATERED PRIOR TO PLACEMENT OF PIPE PROPERLY BEDDED TO THE LINE AND GRADE SHOWN IN THESE PLANS.
 - CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR ALL TESTING OF WATER MAINS PRIOR TO ACCEPTANCE BY THE CITY OF SANDPOINT PER ISPCW SECTION 401 (3.6) 150 LBS. FOR 2 HOUR HOLDING TIME.
 - CONTRACTOR/DEVELOPER TO DISINFECT, AND WASH WATER MAINS AFTER INSTALLATION PER ISPCW SECTION 401 (3.9). METHOD TO BE USED SHALL BE CHLORINE TABLETS OR POWDER PER CITY OF SANDPOINT.
 - 3M MID-RANGE MARKERS #1257 SHALL BE PLACED AT EACH VALVE PER CITY OF SANDPOINT.
 - WHERE MJ FITTINGS ARE USED ROMAC GRIP RING ASSEMBLY KITS SHALL BE USED.
 - THRUST BLOCKS SHALL BE PLACED AT CHANGE OF DIRECTION OF ALL WATER MAINS AND SERVICES LARGER THAN 2", SEE ISPCW SD-403 FOR THRUST BLOCK STANDARDS.
 - NEW CONNECTION ON FONTAINE DRIVE CAN BE COMPLETED BY THE CONTRACTOR UNDER THE OBSERVATION OF THE CITY OF SANDPOINT. (72 HRS NOTICE REQUIRED)

WATER SERVICES

- EACH BUILDING SHALL HAVE A SEPARATE WATER SERVICE TO THE WATER MAIN LINE. METERS SHALL NOT BE INSTALLED IN DRIVEWAYS OR OTHER AREAS WHERE THEY MAY BE DAMAGED.
- WATER CORP STOPS SHALL BE 2" (BALL TYPE CORP STOP) SEALED UNIT (FB 400 BALL CORP) 2" ANTI-SIPHON MALE IRON THREAD OUTLET. BRASS CONSTRUCTION. (FORD/MUELLER/MCDONALD) PER CITY OF SANDPOINT. TEES MAY BE USED BY SPECIAL PERMISSION OF THE PUBLIC WORKS ENGINEER.
- WHEN TWO WATER SERVICES ARE INSTALLED BESIDE EACH OTHER AND ARE LAD IN A COMMON TRENCH, THE CURB STOPS AND SERVICE LINES SHALL NOT BE MORE THAN TWO FEET APART. THE WATER SERVICES SHALL BE INSTALLED ON PROPERTY CORNERS THAT DO NOT CONTAIN OTHER UTILITIES.
- CURB STOP DIRECTION SHALL BE DETERMINED BY THE PW INSPECTOR.
- WATER SERVICES SHALL BE MARKED WITH 3M MID-RANGE MARKERS #1257 PLACED AT EACH CURB STOP & VALVE.
- BRICKS SHALL BE PLACED BENEATH CORPORATION AND CURB STOP.
- CURB BOXES SHALL BE 3" SCH 40 PVC WITH TRUMBULL T-374 LID, AS DIRECTED BY PUBLIC WORKS INSPECTOR.
- WATER SERVICE PIPING- 3" GASKETED CLASS 200 PVC; MEETING AWWA C901 AND BEARING NSF STAMP FOR POTABLE WATER PIPE. SOLVENT WELDS ARE NOT ACCEPTED BY THE CITY OF SANDPOINT. ALL BUSHINGS, NIPPLES, AND FITTING SHALL BE BRASS TO MEET NSF 61 CERTIFICATION. GALVANIZED WILL NOT BE ACCEPTED.
- ALL SERVICE SADDLES SHALL BE DOUBLE STRAP WITH STAINLESS STEEL STRAPS.
- ONLY BADGER WATER METERS ARE ACCEPTED BY THE CITY OF SANDPOINT.
- WATER METERS SHALL BE LOCATED ADJACENT TO THE CURB STOP (PROVIDED & INSTALLED BY THE CITY OF SANDPOINT).
- DUAL CHECK VALVE ASSEMBLY ARE REQUIRED BY THE CITY OF SANDPOINT ON SYSTEMS WITH IRRIGATION OR FIRE SUPPRESSION TIE-INS.

FIRE HYDRANTS

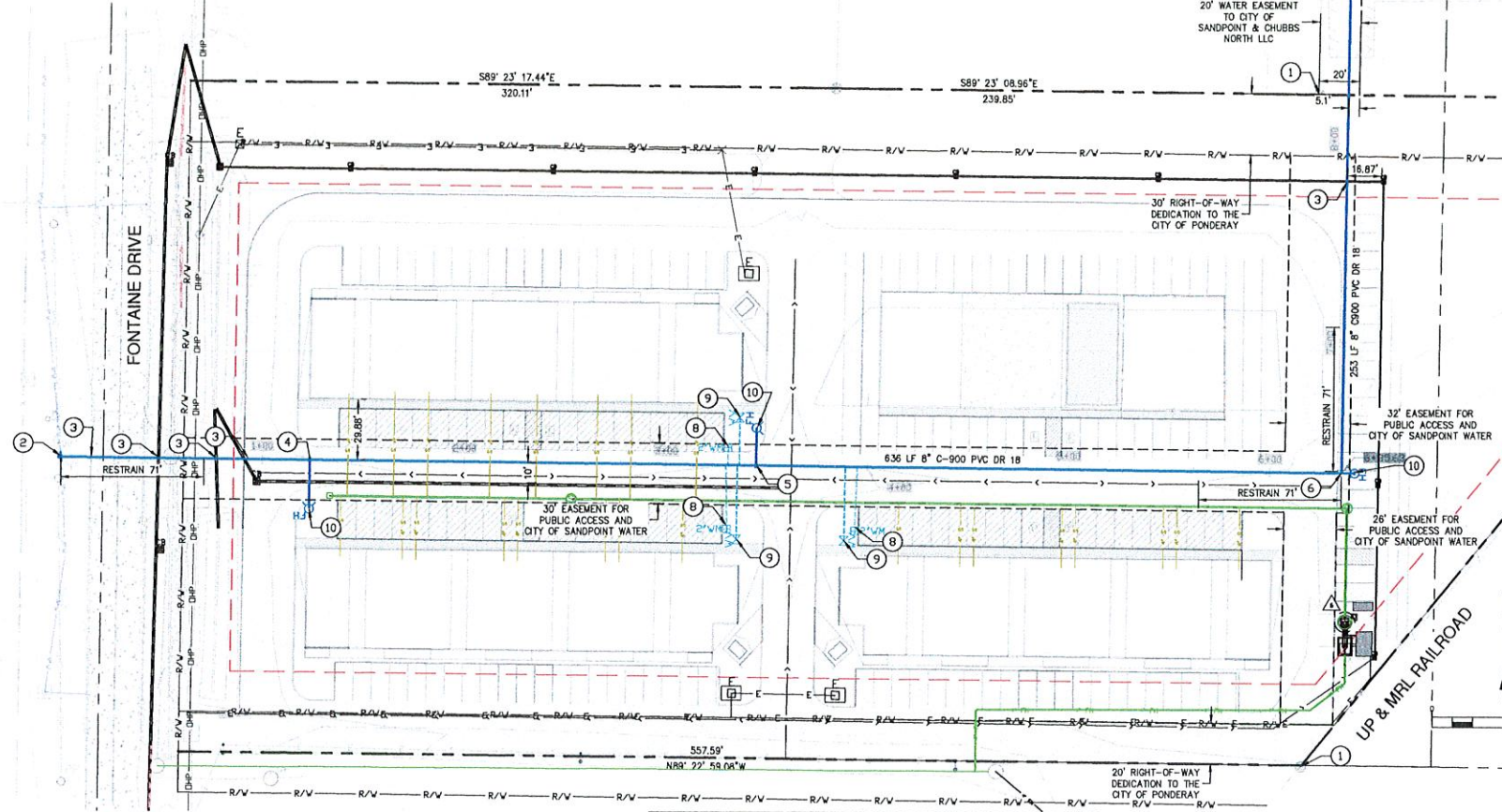
- ONLY WATERBORES ARE ACCEPTED BY CITY OF SANDPOINT.
- DEAD END MAINS SHALL HAVE A STANDARD FIRE HYDRANT FOR FLUSHING PURPOSES.
- FOLLOWING SETTING, FIRE HYDRANT MUST BE PAINTED WITH HYDRANT YELLOW ENAMEL.
- FIRE HYDRANT VALVES SHALL BE ATTACHED TO TEE AT MAIN.
- FIRE HYDRANT REQUIRES A STORZ ADAPTER.
- SNOW FLAG MARKER REQUIRED PRIOR TO ACCEPTANCE BY CITY. SPRING STEEL MARKER FLAG 75193 (RED/WHITE/REFLECTIVE).
- KING LOCK K-3 FIRE HYDRANT LOCK IS REQUIRED WITH EACH FIRE HYDRANT ASSEMBLY.

WATER MAIN DISINFECTION & FLUSHING

SEE DETAIL H/S

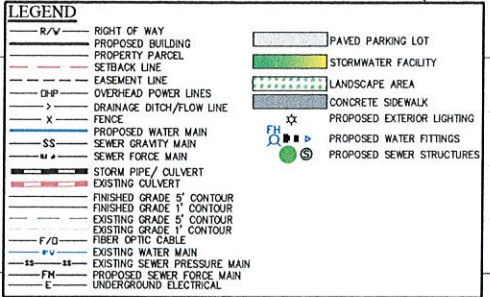
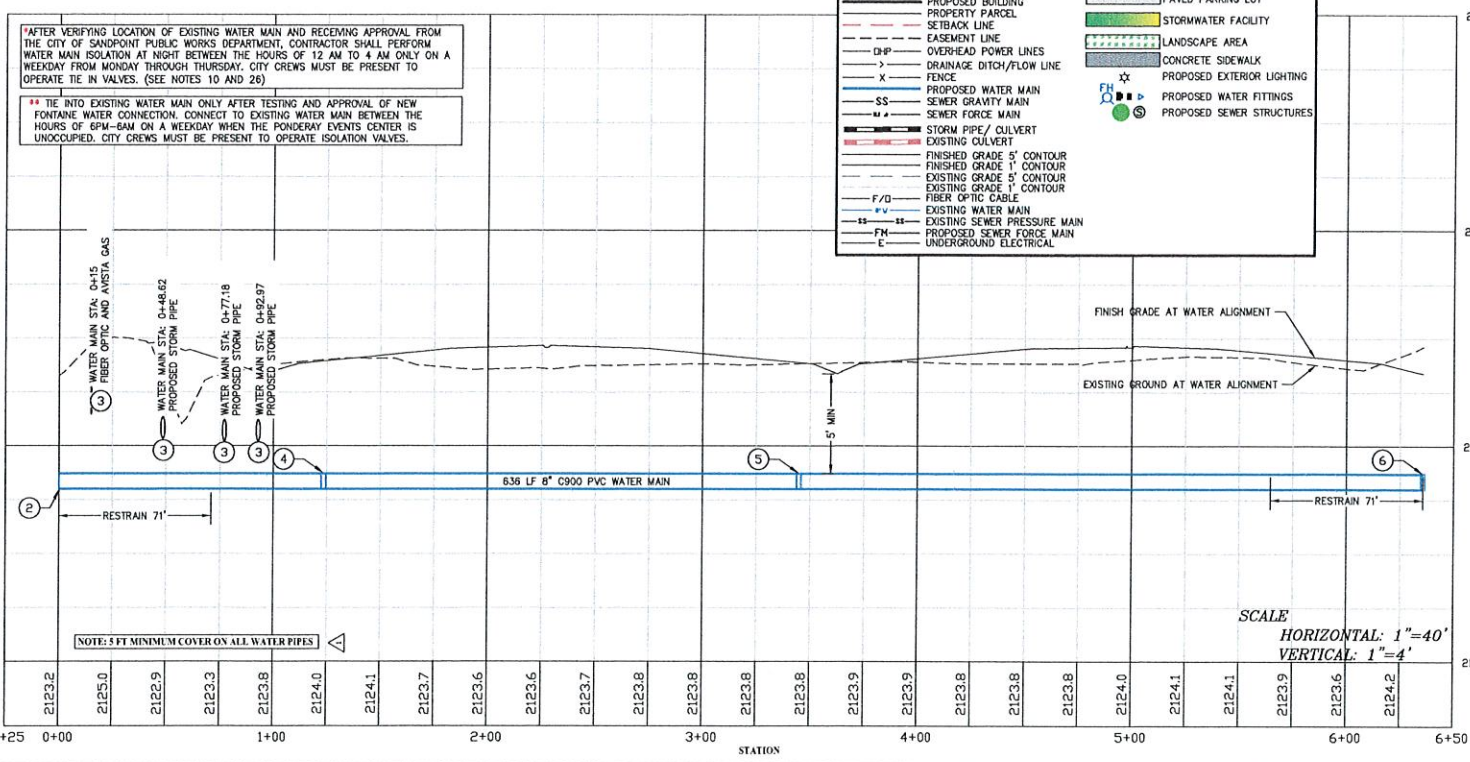
NORTHSIDE FIRE DISTRICT
THE FIRE HYDRANTS LOCATIONS AND SPACING HAS BEEN REVIEWED AND APPROVED BY THE NORTHSIDE FIRE DISTRICT THIS DAY OF _____, 2021.
NORTHSIDE FIRE DISTRICT

FINAL WATER PLAN FOR
CHUBBS NORTH LLC
A DEVELOPMENT PERMIT FOR CONSTRUCTION FOR
RPPO0000115800A AKA 1050 FONTAINE DRIVE
PONDERAY, BONNER COUNTY, IDAHO 83852

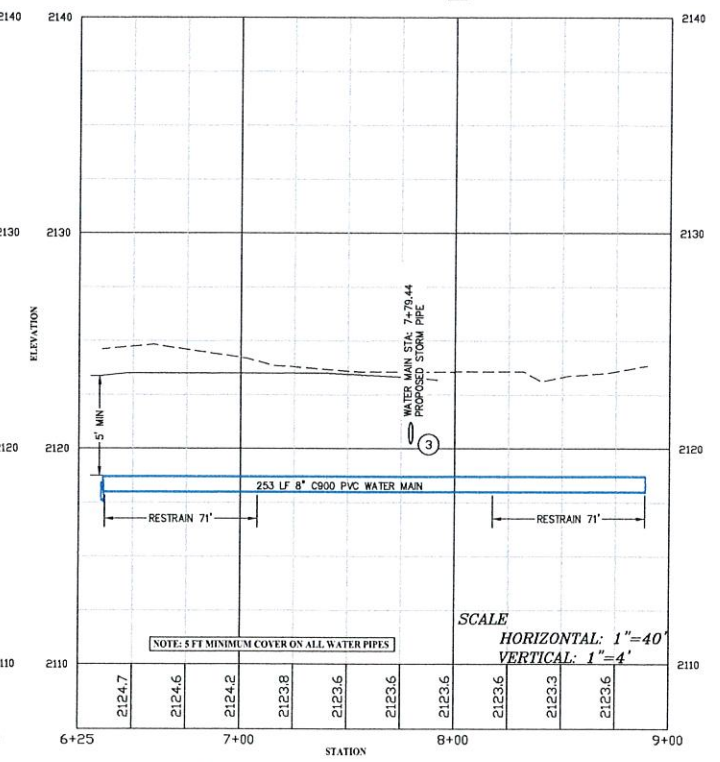


- WATER SYSTEM KEYNOTES**
- RETAIN & PROTECT EXISTING SURVEY MONUMENT
 - WATER MAIN STA: 0+00
CONTRACTOR TO POHOLE AND VERIFY LOCATION OF EXISTING CITY OF SANDPOINT 8" C900 WATER MAIN.
AFTER PUBLIC WORKS APPROVAL, INSTALL:
1 - 8" FLOW/FLG TEE
3 - 8" FLOW/FLG GATE VALVES W/ RISERS
1 - THRUST BLOCK (SEE DETAIL F/5)
RESTRAIN ASSEMBLIES AND 51" ALONG BRANCH
 - CONFLICT (SEE PROFILE INFORMATION & DETAIL E/5)
 - WATER MAIN STA: 1+23.56
1 - 8" FLOW/FLG TEE
1 - 6" FLOW/FLG ALPHA GATE VALVE W/ RISER
THRUST BLOCKS PER DETAILS A/5 & F/5
RESTRAIN HYDRANT ASSEMBLY & 4" EACH WAY
 - WATER MAIN STA: 3+44.86
1 - 8" FLOW/FLG TEE
1 - 6" FLOW/FLG ALPHA GATE VALVE W/ RISER
THRUST BLOCK PER DETAIL A/5 & F/5
RESTRAIN HYDRANT ASSEMBLY & 4" EACH WAY
 - WATER MAIN STA: 6+35.63
WATER MAIN LOOP CONNECTION (SEE DETAIL F/5)
1 - 8" FLOW/FLG TEE
1 - 8" FLOW/FLG REDUCER
1 - 6" FLOW/FLG ALPHA GATE VALVE W/ RISER
2 - 8" FLOW/FLG GATE VALVE W/ RISER
THRUST BLOCKING PER DETAILS A/5 AND F/5
RESTRAIN HYDRANT ASSEMBLY & 51" ALONG RUN (DEAD END)
 - EXISTING 8" WATER MAIN AND LOOP CONNECTION TIE IN LOCATION
WATER MAIN STA: 0+00
IE: 2118+
CONTRACTOR TO POHOLE AND VERIFY LOCATION OF EXISTING CITY OF SANDPOINT 8" C900 WATER MAIN.
AFTER PUBLIC WORKS APPROVAL, INSTALL:
1 - 8" FLOW/FLG TEE
3 - 8" FLOW/FLG GATE VALVES W/ RISERS
1 - THRUST BLOCK (SEE DETAIL F/5)
RESTRAIN ASSEMBLIES AND 51" ALONG BRANCH
 - 2" WATER METER TO 3" BUILDING SERVICE LINE (PLACE METER BEHIND CURB)
 - UNMETERED WATER LINE TO FIRE SUPPRESSION SYSTEM WITH DOWA IN FIRE ROOM.
 - FIRE HYDRANT ASSEMBLY, SEE DETAIL A/5. (PLACE BEHIND CURBS AS SHOWN)

WATER MAIN PROFILE



WATER LOOP CONNECTION PROFILE



7B ENGINEERING
414 CHURCH STREET SUITE 203
SANDPOINT, IDAHO 83864
(208) 265-0923
info@7bengineering.com

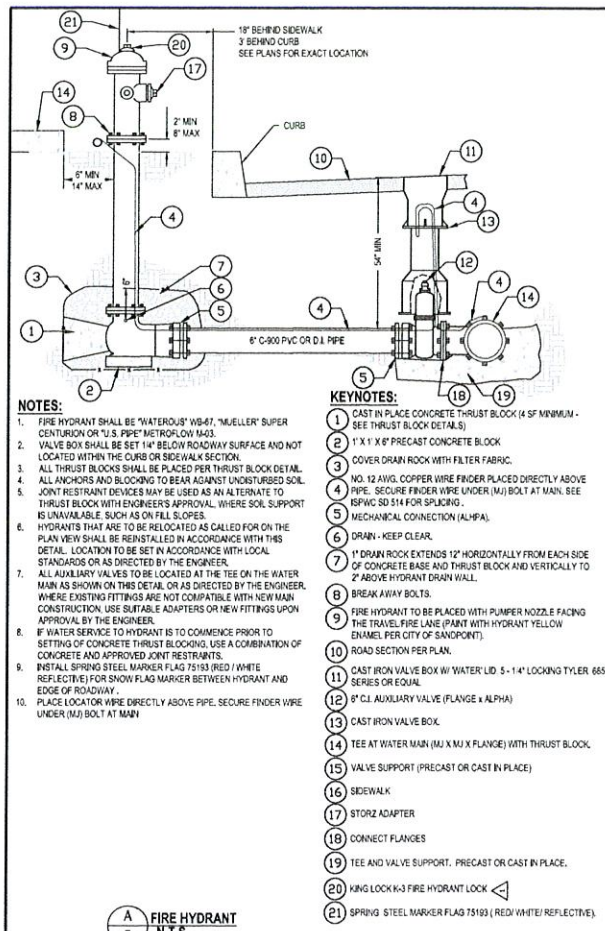
SANDPOINT

811
Call before you dig.

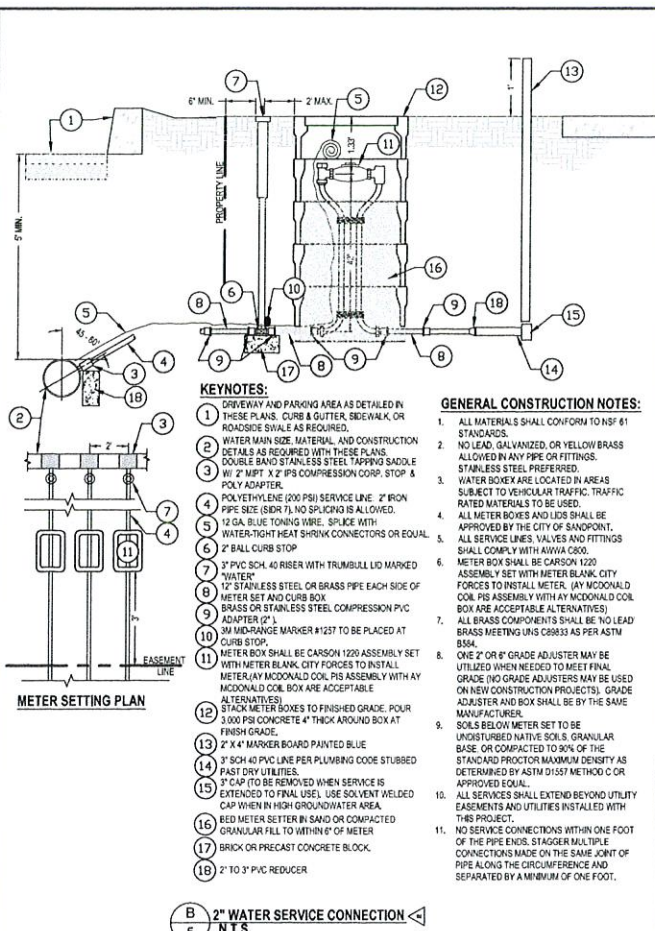
PROFESSIONAL ENGINEER
DANIEL W. LARSEN
LICENSED UNDER THE STATE OF IDAHO
LICENSE NO. 14008

PROJECT NO: 2108
DATE: 10/25/2022
CREATED BY: T.M.
SCALE: 1"=40'
SHEET 4G OF 9

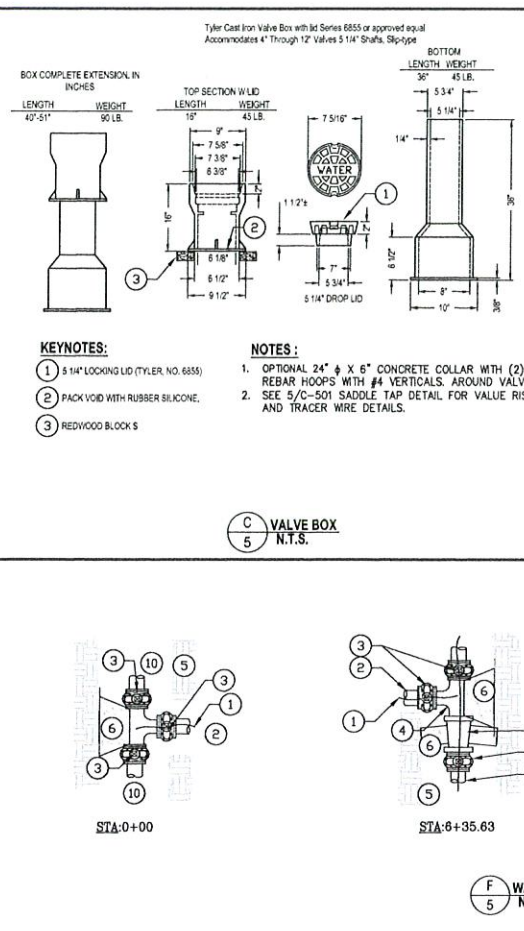
RECEIVED
OCT 25 2022
PLANNING OFFICE
CITY OF PONDERAY



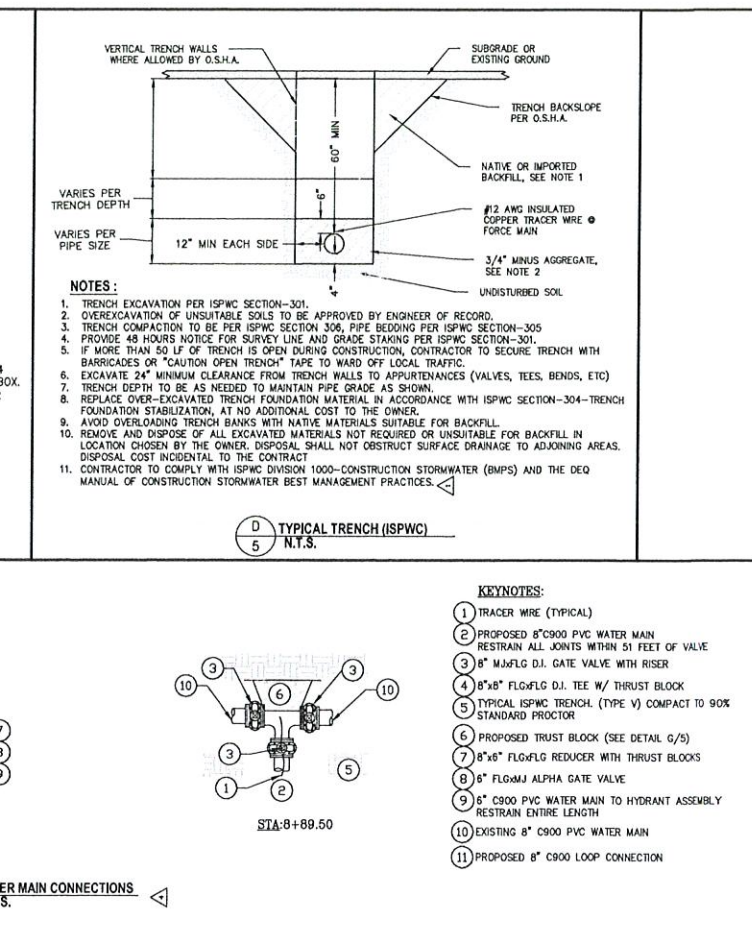
- NOTES:**
- FIRE HYDRANT SHALL BE "WATERUS" WB47, "MULLER" SUPER CENTURION OR "U.S. PIPE" METRO-LW M43.
 - VALVE BOX SHALL BE SET 18" BELOW ROADWAY SURFACE AND NOT LOCATED WITHIN THE CURB OR SIDEWALK SECTION.
 - ALL THRUST BLOCKS SHALL BE PLACED PER THRUST BLOCK DETAIL.
 - ALL ANCHORS AND BLOCKING TO BE AGAINST UNDISTURBED SOIL.
 - JOINT RESTRAINT DEVICES MAY BE USED AS AN ALTERNATE TO THRUST BLOCK WITH ENGINEER'S APPROVAL, WHERE SOIL SUPPORT IS UNAVAILABLE, SUCH AS ON FILL SLOPES.
 - HYDRANTS THAT ARE TO BE RELOCATED AS CALLED FOR ON THE PLAN VIEW SHALL BE REINSTALLED IN ACCORDANCE WITH THIS DETAIL. LOCATION TO BE SET IN ACCORDANCE WITH LOCAL STANDARDS OR AS DIRECTED BY THE ENGINEER.
 - ALL AUXILIARY VALVES TO BE LOCATED AT THE TEE ON THE WATER MAIN AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER. WHERE EXISTING FITTINGS ARE NOT COMPATIBLE WITH NEW MAIN CONSTRUCTION, USE SUITABLE ADAPTERS OR NEW FITTINGS UPON APPROVAL BY THE ENGINEER.
 - IF WATER SERVICE TO HYDRANT IS TO COMMENCE PRIOR TO SETTING OF CONCRETE THRUST BLOCKING, USE A COMBINATION OF CONCRETE AND APPROVED JOINT RESTRAINTS.
 - INSTALL SPRING STEEL MARKER FLAG 75/151 (RED / WHITE REFLECTIVE) FOR SHOW-FLAG MARKER BETWEEN HYDRANT AND EDGE OF ROADWAY.
 - PLACE LOCATOR WIRE DIRECTLY ABOVE PIPE, SECURE FINDER WIRE UNDER (M) BOLT AT MAIN.
- KEYNOTES:**
- CAST IN PLACE CONCRETE THRUST BLOCK (4 SF MINIMUM - SEE THRUST BLOCK DETAILS)
 - 1' X 1' X 8" PRECAST CONCRETE BLOCK
 - COVER DRAIN ROCK WITH FILTER FABRIC
 - NO. 12 AWG COPPER WIRE FINDER PLACED DIRECTLY ABOVE PIPE, SECURE FINDER WIRE UNDER (M) BOLT AT MAIN, SEE ISFWC SD 314 FOR SPLICING.
 - MECHANICAL CONNECTION (M/F/A)
 - DRAIN - KEEP CLEAR
 - 1" DRAIN ROCK EXTENDS 12" HORIZONTALLY FROM EACH SIDE OF CONCRETE BASE AND THRUST BLOCK AND VERTICALLY TO 2" ABOVE HYDRANT DRAIN WALK.
 - BREAK AWAY BOLTS
 - FIRE HYDRANT TO BE PLACED WITH PLUMBER NOZZLE FACING THE TRAVEL FINE LANE (PAINT WITH HYDRANT YELLOW ENAMEL PER CITY OF SANDPOINT).
 - ROAD SECTION PER PLAN
 - CAST IRON VALVE BOX W/ WATER LID 5-1/4" LOCKING TYLER 6655 SERIES OR EQUAL
 - 9" C.I. AUXILIARY VALVE (FLANGE & ALPHA)
 - CAST IRON VALVE BOX
 - TEE AT WATER MAIN (M X M) X FLANGE) WITH THRUST BLOCK
 - VALVE SUPPORT (PRECAST OR CAST IN PLACE)
 - SEWELINK
 - STORE ADAPTER
 - CONNECT FLANGES
 - TEE AND VALVE SUPPORT, PRECAST OR CAST IN PLACE.
 - KING LOCK #3 FIRE HYDRANT LOCK
 - SPRING STEEL MARKER FLAG 75/151 (RED / WHITE / REFLECTIVE)
- (A) FIRE HYDRANT N.T.S.**



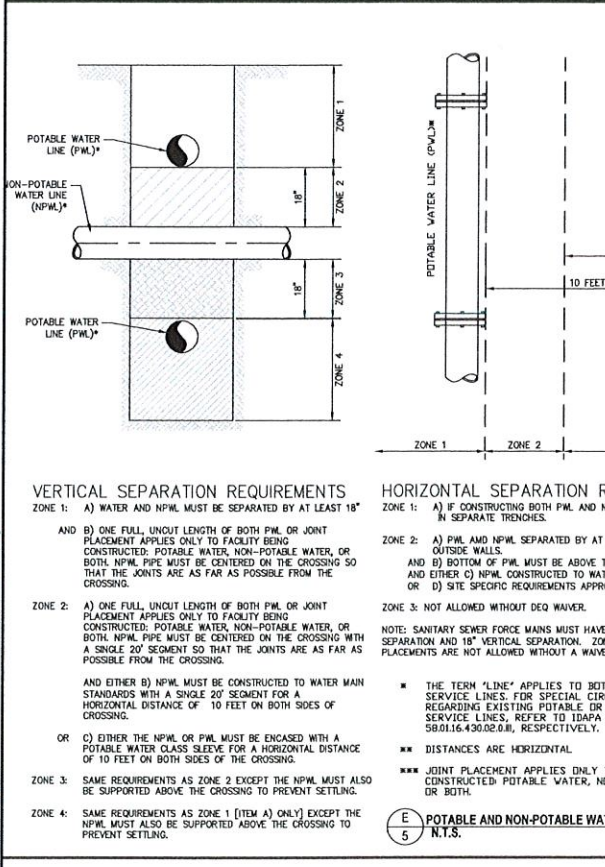
- KEYNOTES:**
- DRIVEWAY AND PARKING AREA AS DETAILED IN THESE PLANS, CURB & GUTTER, SIDEWALK, OR ROADSIDE SHALL BE AS REQUIRED.
 - WATER MAIN SIZE, MATERIAL, AND CONSTRUCTION DETAILS AS REQUIRED WITH THESE PLANS.
 - DOUBLE BAND STAINLESS STEEL TAPPING SADDLE W/ 2" MPT X 2" IPS COMPRESSION CORP. STOP & POLY ADAPTER.
 - POLYETHYLENE (200 PSI) SERVICE LINE, 2" IRON PIPE SIZE (SPW TL) NO SPLICES IS ALLOWED.
 - 12 GA. BLUE TONING WIRE, SPLICE WITH WATER-TIGHT HEAT SHRINK CONNECTORS OR EQUAL.
 - 2" BALL CURB STOP
 - 2" PVC SCH. 40 RISER WITH TRUMBULL LID MARKED "WATER"
 - 12" STAINLESS STEEL OR BRASS PIPE EACH SIDE OF METER SET AND CURB BOX
 - BRASS OR STAINLESS STEEL COMPRESSION PVC ADAPTER (2")
 - 1/4" MCDONALD MANVER #1237 TO BE PLACED AT CURB STOP.
 - METER BOX SHALL BE CARSON 1220 ASSEMBLY SET WITH METER BLANK, CITY FORCES TO INSTALL METER.
 - 12" MCDONALD COOL. RIS ASSEMBLY WITH MCDONALD COOL. BOX ARE ACCEPTABLE ALTERNATIVES.
 - 1/4" X 4" MANAGER BOARD PAINTED BLUE
 - 1/2" SCH 40 PVC LINE PER PLUMBING CODE STUBBED FAST DRY UTILITIES.
 - 1" CAP (TO BE REMOVED WHEN SERVICE IS EXTENDED TO FINAL USE), USE SOLVENT WELDED CAP WHEN IN HIGH GROUND/WATER AREA.
 - RED METER SETTER IN SAND OR COMPACTED GRANULAR FILL TO MINIMUM OF METER.
 - BRICK OR PRECAST CONCRETE BLOCK.
 - 2" TO 3" PVC REDUCER
- GENERAL CONSTRUCTION NOTES:**
- ALL MATERIALS SHALL CONFORM TO NSF #1 STANDARDS.
 - NO LEAD, GALVANIZED, OR YELLOW BRASS ALLOWED IN ANY PIPE OR FITTINGS.
 - WATER BOXES ARE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC. TRAFFIC RATED MATERIALS TO BE USED.
 - ALL METER BOXES AND LIDS SHALL BE APPROVED BY THE CITY OF SANDPOINT.
 - ALL SERVICE LINES, VALVES AND FITTINGS SHALL COMPLY WITH ANWA 0500.
 - METER BOX SHALL BE CARSON 1220 ASSEMBLY SET WITH METER BLANK, CITY FORCES TO INSTALL METER. (AT MCDONALD COOL. RIS ASSEMBLY WITH MCDONALD COOL. BOX ARE ACCEPTABLE ALTERNATIVES).
 - ONE 2" OR 8" GRADE ADJUSTER MAY BE UTILIZED WHEN NEEDED TO MEET FINAL GRADE (NO GRADE ADJUSTERS MAY BE USED ON NEW CONSTRUCTION PROJECTS). GRADE ADJUSTER AND BOX SHALL BE BY THE SAME MANUFACTURER.
 - SOILS BELOW METER SET TO BE UNDISTURBED NATIVE SOILS, GRANULAR BASE OR COMPACTED TO 90% OF THE STANDARD PROCTOR MAXIMUM DENSITY AS DETERMINED BY ASTM D1557 METHOD C OR APPROVED EQUAL.
 - ALL SERVICES SHALL EXTEND BEYOND UTILITY EASEMENTS AND UTILITIES INSTALLED WITH THIS PROJECT.
 - NO SERVICE CONNECTIONS WITHIN ONE FOOT OF THE PIPE ENDS. STAGGER MULTIPLE CONNECTIONS MADE ON THE SAME JOINT OF PIPE ALONG THE CIRCUMFERENCE AND SEPARATED BY A MINIMUM OF ONE FOOT.
- (B) 2" WATER SERVICE CONNECTION N.T.S.**



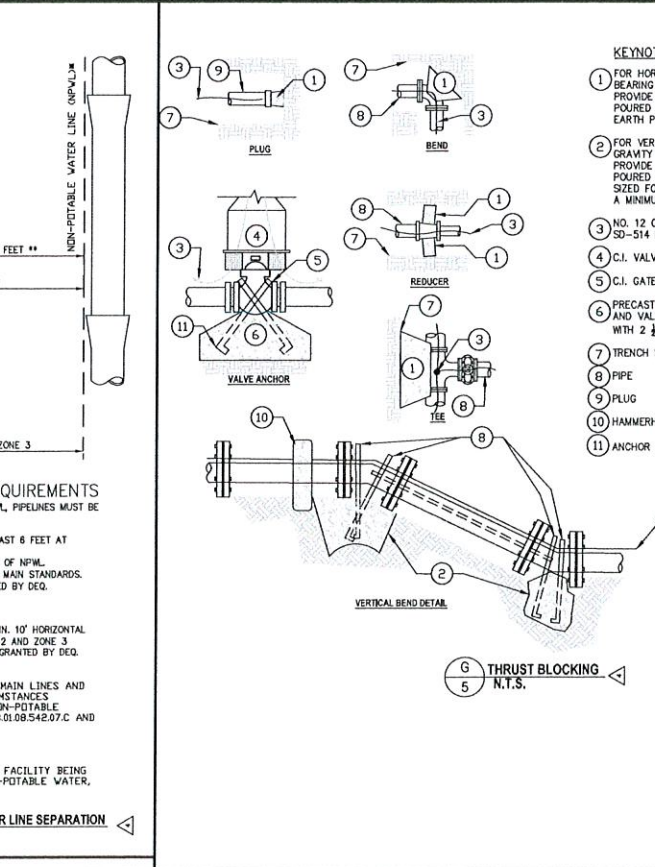
- KEYNOTES:**
- 5 1/4" LOCKING LID (TYLER NO. 6655)
 - PACK VOID WITH RUBBER SILICONE.
 - REDWOOD BLOCK S
- NOTES:**
- OPTIONAL 24" X 6" CONCRETE COLLAR WITH (2) #4 REBAR HOOPS WITH #4 VERTICALS, AROUND VALVE BOX.
 - SEE 5/C-501 SADDLE TAP DETAIL FOR VALVE RISER AND TRACER WIRE DETAILS.
- (C) VALVE BOX N.T.S.**



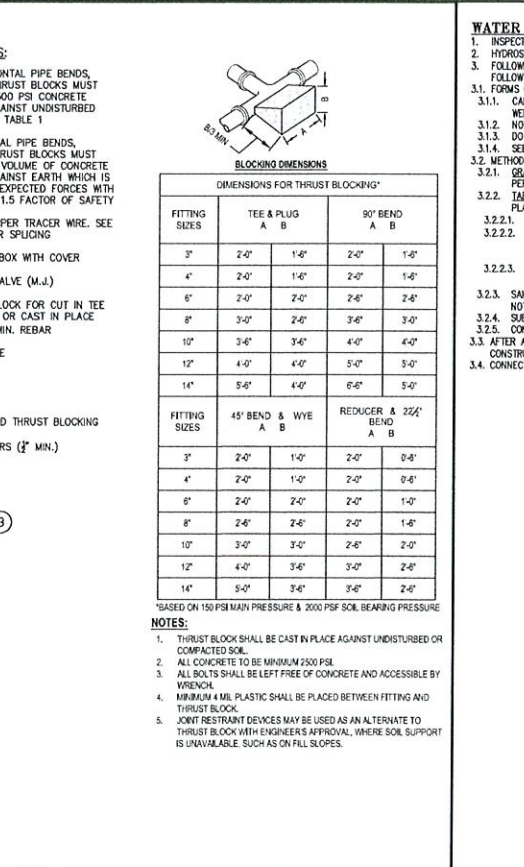
- NOTES:**
- TRENCH EXCAVATION PER ISFWC SECTION-301.
 - OVEREXCAVATION OF UNSUITABLE SOILS TO BE APPROVED BY ENGINEER OF RECORD.
 - TRENCH COMPACT TO BE PER ISFWC SECTION 304, PIPE BEDDING PER ISFWC SECTION-305
 - PROVIDE 48 HOURS NOTICE FOR SURVEY LINE AND GRADE STAKING PER ISFWC SECTION-301.
 - IF MORE THAN 50 LF OF TRENCH IS OPEN DURING CONSTRUCTION, CONTRACTOR TO SECURE TRENCH WITH BARRICADES OR "CAUTION OPEN TRENCH" TAPE TO WARD OFF LOCAL TRAFFIC.
 - EXCAVATE 24" MINIMUM CLEARANCE FROM TRENCH WALLS TO APPURTENANCES (VALVES, TEES, BENDS, ETC)
 - TRENCH DEPTH TO BE AS NEEDED TO MAINTAIN PIPE GRADE AS SHOWN.
 - REPLACE OVER-EXCAVATED TRENCH FOUNDATION MATERIAL IN ACCORDANCE WITH ISFWC SECTION-304-TRENCH FOUNDATION STABILIZATION, AT NO ADDITIONAL COST TO THE OWNER.
 - AVOID OVERLOADING TRENCH BANKS WITH NATIVE MATERIALS SUITABLE FOR BACKFILL.
 - REMOVE AND DISPOSE OF ALL EXCAVATED MATERIALS NOT REQUIRED OR UNSUITABLE FOR BACKFILL IN LOCATION CHOSEN BY THE OWNER. DISPOSAL SHALL NOT OBSTRUCT SURFACE DRAINAGE TO ADJOINING AREAS. DISPOSAL COST INCIDENTAL TO THE CONTRACT
 - CONTRACTOR TO COMPLY WITH ISFWC DIVISION 1000-CONSTRUCTION STORMWATER (BMP'S) AND THE DEQ MANUAL OF CONSTRUCTION STORMWATER BEST MANAGEMENT PRACTICES.
- (D) TYPICAL TRENCH (ISFWC) N.T.S.**



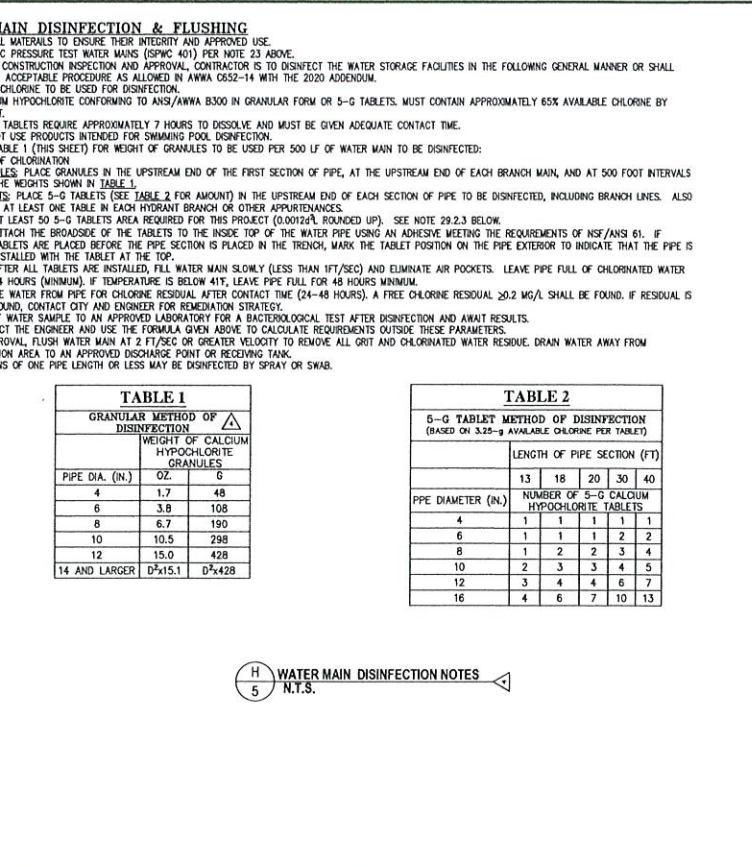
- VERTICAL SEPARATION REQUIREMENTS**
- ZONE 1: A) WATER AND NPWL MUST BE SEPARATED BY AT LEAST 18"
- AND B) ONE FULL UNCLUT LENGTH OF BOTH PWL OR JOINT PLACEMENT APPLIES ONLY TO FACILITY BEING CONSTRUCTED. POTABLE WATER, NON-POTABLE WATER, OR BOTH NPWL PIPE MUST BE CENTERED ON THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE CROSSING.
- ZONE 2: A) ONE FULL UNCLUT LENGTH OF BOTH PWL OR JOINT PLACEMENT APPLIES ONLY TO FACILITY BEING CONSTRUCTED. POTABLE WATER, NON-POTABLE WATER, OR BOTH NPWL PIPE MUST BE CENTERED ON THE CROSSING WITH A SINGLE 20" SEGMENT SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE CROSSING.
- AND EITHER B) NPWL MUST BE CONSTRUCTED TO WATER MAIN STANDARDS WITH A SINGLE 20" SEGMENT FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF CROSSING.
- OR C) EITHER THE NPWL OR PWL MUST BE ENCASED WITH A POTABLE WATER CLASS 35 PIPE FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF THE CROSSING.
- ZONE 3: SAME REQUIREMENTS AS ZONE 2 EXCEPT THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.
- ZONE 4: SAME REQUIREMENTS AS ZONE 1 (ITEM A) ONLY EXCEPT THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.
- (E) POTABLE AND NON-POTABLE WATER LINE SEPARATION N.T.S.**



- HORIZONTAL SEPARATION REQUIREMENTS**
- ZONE 1: A) IF CONSTRUCTING BOTH PWL AND NPWL PIPELINES MUST BE IN SEPARATE TRENCHES.
- ZONE 2: A) PWL AND NPWL SEPARATED BY AT LEAST 6 FEET AT OUTSIDE WALLS.
- AND B) BOTTOM OF PWL MUST BE ABOVE TOP OF NPWL AND EITHER C) NPWL CONSTRUCTED TO WATER MAIN STANDARDS OR D) SITE SPECIFIC REQUIREMENTS APPROVED BY DEQ.
- ZONE 3: NOT ALLOWED WITHOUT DEQ WAIVER.
- NOTE: SANITARY SEWER FORCE MAINS MUST HAVE MIN. 10" HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION. ZONE 2 AND ZONE 3 PLACEMENTS ARE NOT ALLOWED WITHOUT A WAIVER GRANTED BY DEQ.
- * THE TERM "LINE" APPLIES TO BOTH MAIN LINES AND SERVICE LINES. FOR SPECIAL CIRCUMSTANCES REGARDING EXISTING POTABLE OR NON-POTABLE SERVICE LINES, REFER TO IDAPA 58.01.08.54.2.07.C AND 58.01.16.4.30.02.0.8, RESPECTIVELY.
- ** DISTANCES ARE HORIZONTAL.
- *** JOINT PLACEMENT APPLIES ONLY TO FACILITY BEING CONSTRUCTED. POTABLE WATER, NON-POTABLE WATER, OR BOTH.
- (F) THRUST BLOCKING N.T.S.**



- KEYNOTES:**
- FOR HORIZONTAL PIPE BENDS, BEARING THRUST BLOCKS MUST PROVIDE 2500 PSI CONCRETE POURED AGAINST UNDISTURBED EARTH PER TABLE 1
 - FOR VERTICAL PIPE BENDS, GRAVITY THRUST BLOCKS MUST PROVIDE A VOLUME OF CONCRETE POURED AGAINST EARTH WHICH IS SIZED FOR EXPECTED FORCES WITH A MINIMUM 1.5 FACTOR OF SAFETY
 - NO. 12 COPPER TRACER WIRE, SEE SD-514 FOR SPLICING
 - C.I. VALVE BOX WITH COVER
 - C.I. GATE VALVE (M-A)
 - PRECAST BLOCK FOR CUT IN TEE AND VALVE OR CAST IN PLACE WITH 2" MIN. REBAR
 - TRENCH SIDE
 - PIPE
 - PLUG
 - HAMMERHEAD THRUST BLOCKING
 - ANCHOR BARS (2" MIN.)
- TABLE 1: DIMENSIONS FOR THRUST BLOCKING***
- | FITTING SIZES | TEE & PLUG A B | | 90° BEND A B | |
|---------------|----------------|-------|--------------|-------|
| | A | B | A | B |
| 3" | 2'-0" | 1'-0" | 2'-0" | 1'-0" |
| 4" | 2'-0" | 1'-0" | 2'-0" | 1'-0" |
| 6" | 2'-0" | 2'-0" | 2'-0" | 2'-0" |
| 8" | 3'-0" | 2'-0" | 3'-0" | 2'-0" |
| 10" | 3'-0" | 3'-0" | 4'-0" | 4'-0" |
| 12" | 4'-0" | 4'-0" | 5'-0" | 5'-0" |
| 14" | 5'-0" | 4'-0" | 6'-0" | 5'-0" |
- *BASED ON 150 PSI MAIN PRESSURE & 2000 PSF SOIL BEARING PRESSURE
- NOTES:**
- THRUST BLOCK SHALL BE CAST IN PLACE AGAINST UNDISTURBED OR COMPACTED SOIL.
 - ALL CONCRETE TO BE MINIMUM 2500 PSI.
 - ALL BOLTS SHALL BE LEFT FREE OF CONCRETE AND ACCESSIBLE BY WRENCH.
 - MINIMUM 4 MIL PLASTIC SHALL BE PLACED BETWEEN FITTING AND THRUST BLOCK.
 - JOINT RESTRAINT DEVICES MAY BE USED AS AN ALTERNATE TO THRUST BLOCK WITH ENGINEER'S APPROVAL, WHERE SOIL SUPPORT IS UNAVAILABLE, SUCH AS ON FILL SLOPES.
- (G) WATER MAIN DISINFECTION NOTES N.T.S.**



- WATER MAIN DISINFECTION & FLUSHING**
- INSPECT ALL MATERIALS TO ENSURE THEIR INTEGRITY AND APPROVED USE.
 - HYDROSTATIC PRESSURE TEST WATER MAINS (ISFWC 401) PER NOTE 23 ABOVE.
 - FOLLOWING CONSTRUCTION INSPECTION AND APPROVAL, CONTRACTOR IS TO DISINFECT THE WATER STORAGE FACILITIES IN THE FOLLOWING GENERAL MANNER OR SHALL FOLLOW AN ACCEPTABLE PROCEDURE AS ALLOWED IN ANWA 0552-14 WITH THE 2020 ADDENDUM.
 - FORMS OF CHLORINE TO BE USED FOR DISINFECTION.
 - CALCIUM HYPOCHLORITE CONFORMING TO ANS/ANWA B300 IN GRANULAR FORM OR 5-G TABLETS, MUST CONTAIN APPROXIMATELY 65% AVAILABLE CHLORINE BY WEIGHT.
 - NOTE: TABLETS REQUIRE APPROXIMATELY 7 HOURS TO DISSOLVE AND MUST BE GIVEN ADEQUATE CONTACT TIME.
 - DO NOT USE PRODUCTS INTENDED FOR SWIMMING POOL DISINFECTION.
 - SEE TABLE 1 (THIS SHEET) FOR WEIGHT OF GRANULES TO BE USED PER 500 LF OF WATER MAIN TO BE DISINFECTED.
 - METHODS OF CHLORINATION
 - GRANULES PLACE GRANULES IN THE UPSTREAM END OF THE FIRST SECTION OF PIPE, AT THE UPSTREAM END OF EACH BRANCH MAIN, AND AT 500 FOOT INTERVALS PER THE WEIGHTS SHOWN IN TABLE 1.
 - TABLETS PLACE 5-G TABLETS (SEE TABLE 2 FOR AMOUNT) IN THE UPSTREAM END OF EACH SECTION OF PIPE TO BE DISINFECTED, INCLUDING BRANCH LINES. ALSO PLACE AT LEAST ONE TABLET IN EACH HYDRANT BRANCH OR OTHER APPURTENANCES.
 - AT LEAST 50 5-G TABLETS AREA REQUIRED FOR THIS PROJECT (0.00129 Lb. ROUNDED UP). SEE NOTE 29.2.3 BELOW.
 - ATTACH THE BRADSHAW OF THE TABLETS TO THE INSIDE TOP OF THE WATER PIPE USING AN ADHESIVE MEETING THE REQUIREMENTS OF NSF/ANWA 61. IF TABLETS ARE PLACED BEFORE THE PIPE SECTION IS PLACED IN THE TRENCH, MARK THE TABLET POSITION ON THE PIPE EXTERIOR TO INDICATE THAT THE PIPE IS INSTALLED WITH THE TABLET AT THE TOP.
 - AFTER ALL TABLETS ARE INSTALLED, FILL WATER MAIN SLOWLY (LESS THAN 1 FT/SEC) AND ELIMINATE AIR POCKETS. LEAVE PIPE FULL OF CHLORINATED WATER 24 HOURS (MINIMUM). IF TEMPERATURE IS BELOW 41°, LEAVE PIPE FULL FOR 48 HOURS.
 - SAMPLE WATER FROM PIPE FOR CHLORINE RESIDUAL AFTER CONTACT TIME (24-48 HOURS). A FREE CHLORINE RESIDUAL 20.2 MG/L SHALL BE FOUND. IF RESIDUAL IS NOT FOUND, CONTACT CITY AND ENGINEER FOR REMEDIATION STRATEGY.
 - SEND WATER SAMPLE TO AN APPROVED LABORATORY FOR A BACTERIOLOGICAL TEST AFTER DISINFECTION AND AWAIT RESULTS.
 - CONTACT THE ENGINEER AND USE THE FORMULA GIVEN ABOVE TO CALCULATE REQUIREMENTS OUTSIDE THESE PARAMETERS.
 - AFTER APPROVAL, FLUSH WATER MAIN AT 2 FT/SEC OR GREATER VELOCITY TO REMOVE ALL GRIT AND CHLORINATED WATER RESIDUE. DRAIN WATER AWAY FROM CONSTRUCTION AREA TO AN APPROVED DISCHARGE POINT OR RECEIVING TANK.
 - CONNECTIONS OF ONE PIPE LENGTH OR LESS MAY BE DISINFECTED BY SPRAY OR SWAB.
- TABLE 1: GRANULAR METHOD OF DISINFECTION**
- | PIPE DIA. (IN.) | WEIGHT OF CALCIUM HYPOCHLORITE GRANULES | |
|-----------------|---|---------------------|
| | OZ. | LBS. |
| 4 | 1.7 | 48 |
| 6 | 3.8 | 108 |
| 8 | 6.7 | 190 |
| 10 | 10.5 | 298 |
| 12 | 15.0 | 428 |
| 14 AND LARGER | D ² X15.1 | D ² X428 |
- TABLE 2: 5-G TABLET METHOD OF DISINFECTION (BASED ON 3.25-9 AVAILABLE CHLORINE PER TABLET)**
- | PIPE DIAMETER (IN.) | LENGTH OF PIPE SECTION (FT) | | | | |
|---------------------|-----------------------------|----|----|----|----|
| | 13 | 18 | 20 | 30 | 40 |
| 4 | 1 | 1 | 1 | 1 | 1 |
| 6 | 1 | 1 | 1 | 2 | 2 |
| 8 | 1 | 2 | 3 | 3 | 4 |
| 10 | 2 | 3 | 3 | 4 | 5 |
| 12 | 3 | 4 | 4 | 6 | 7 |
| 16 | 4 | 6 | 7 | 10 | 13 |
- (H) WATER MAIN DISINFECTION NOTES N.T.S.**

DATE: 10/27/22
 REVISIONS:
 1. 10/27/22 REPLACES SHEET 54 WITH CHANGES
 2. 10/27/22 REPLACES SHEET 55 WITH CHANGES
 3. 10/27/22 REPLACES SHEET 56 WITH CHANGES
 4. 10/27/22 REPLACES SHEET 57 WITH CHANGES

WATER DETAILS
 CHUBBS NORTH LLC
 PONDERAY LODGE
 PONDERAY, IDAHO

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SHEET 5E OF 9

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OCT 25 2022

PLANNING OFFICE
 CITY OF PONDERAY

WASTEWATER PLANS FOR
PONDERAY LODGE
 A DEVELOPMENT PERMIT FOR CONSTRUCTION FOR
 RP00000115800A AKA 1050 FONTAINE DRIVE
 PONDERAY, BONNER COUNTY, IDAHO 83852

LEGEND

R/W	RIGHT OF WAY	[Symbol]	PAVED PARKING LOT
[Symbol]	PROPOSED BUILDING	[Symbol]	STORMWATER FACILITY
[Symbol]	PROPERTY PARCEL	[Symbol]	LANDSCAPE AREA
[Symbol]	SETBACK LINE	[Symbol]	CONCRETE SIDEWALK
[Symbol]	EASEMENT LINE	[Symbol]	PROPOSED EXTERIOR LIGHTING
DHP	OVERHEAD POWER LINES	[Symbol]	PROPOSED WATER FITTINGS
[Symbol]	DRAINAGE DITCH/FLOW LINE	[Symbol]	PROPOSED SEWER STRUCTURES
X	FENCE	[Symbol]	
SS	PROPOSED WATER MAIN	[Symbol]	
[Symbol]	SEWER GRAVITY MAIN	[Symbol]	
[Symbol]	SEWER FORCE MAIN	[Symbol]	
[Symbol]	STORM PIPE/CULVERT	[Symbol]	
[Symbol]	EXISTING CULVERT	[Symbol]	
[Symbol]	FINISHED GRADE 1' CONTOUR	[Symbol]	
[Symbol]	EXISTING GRADE 1' CONTOUR	[Symbol]	
[Symbol]	EXISTING GRADE 5' CONTOUR	[Symbol]	
[Symbol]	EXISTING GRADE 10' CONTOUR	[Symbol]	
F/O	FIBER OPTIC CABLE	[Symbol]	
[Symbol]	EXISTING WATER MAIN	[Symbol]	
[Symbol]	EXISTING SEWER PRESSURE MAIN	[Symbol]	
[Symbol]	PROPOSED SEWER FORCE MAIN	[Symbol]	
[Symbol]	UNDERGROUND ELECTRICAL	[Symbol]	

SANITARY SEWER CONSTRUCTION NOTES

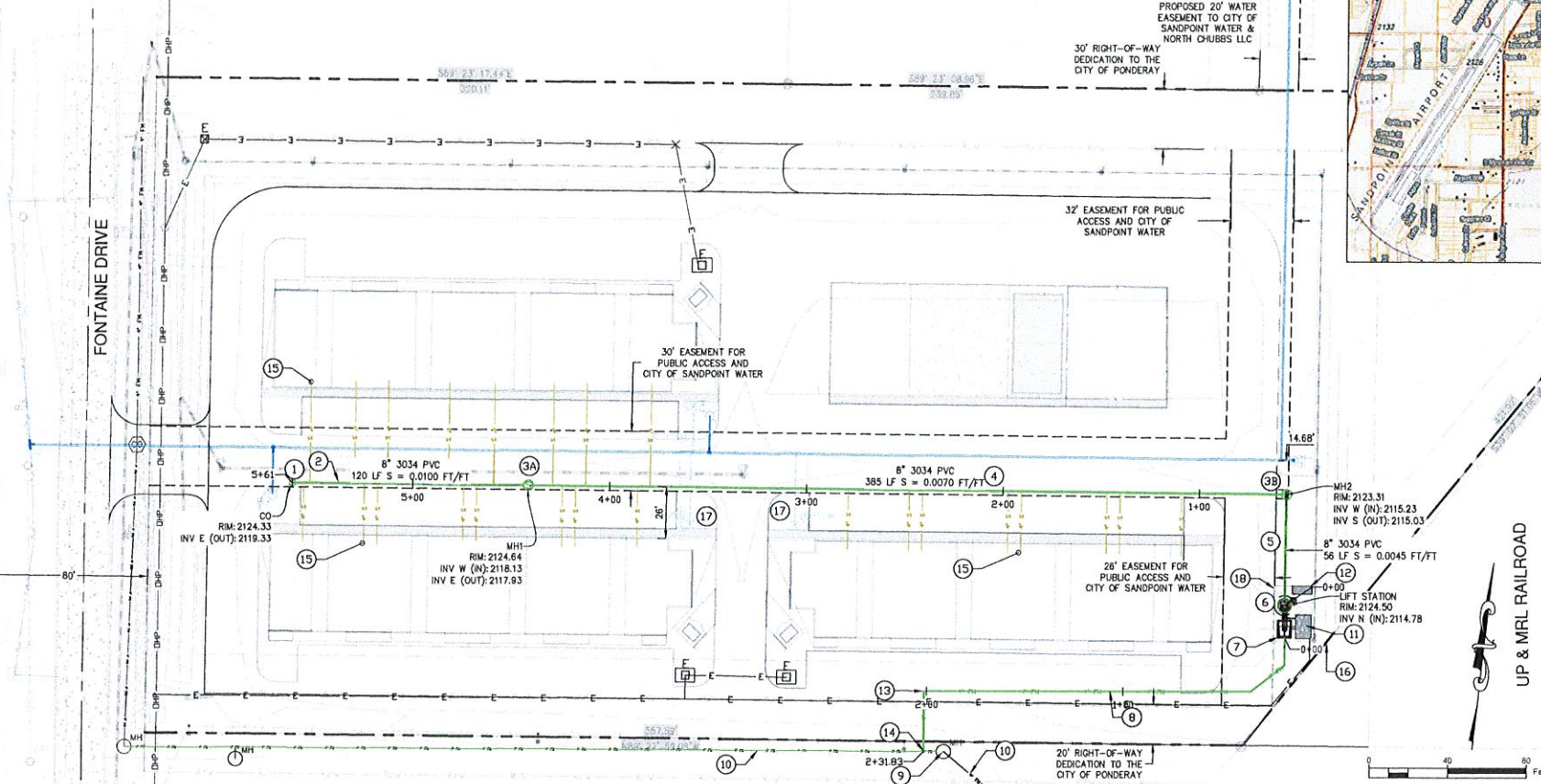
- GENERAL**
- THE EXISTENCE AND LOCATION OF SEWER FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE PUBLIC RECORDS, LOCATION AND ELEVATION OF EXISTING SEWER FACILITIES TO BE CONFIRMED BY FIELD MEASUREMENTS AND EXCAVATION EXPLORATION BY THE CONTRACTOR PRIOR TO BEGINNING OF NEW WORK. THIS WILL ALLOW TIME TO PERMIT REVISION OF PLANS, AS NECESSARY, 7B ENGINEERING SHALL NOT BE HELD RESPONSIBLE FOR ANY ERROR IN THE LOCATION AND ELEVATION OF THE EXISTING SEWER FACILITIES.
 - SANITARY SEWER INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2020 IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, THE IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY, PANHANDLE HEALTH DEPARTMENT, AWWA, AND THE IDAHO DIVISION OF BUILDING SAFETY.
 - SANITARY SEWER SYSTEM DESIGN CRITERIA:
 - NUMBER OF SERVICES: DESIGNED FOR UP TO 96 UNITS; PROPOSED: 72
 - AVERAGE DAILY DESIGN FLOW: 24,000 GPD (250 GPD PER SERVICE-UNIT)
 - PEAK HOUR DESIGN FLOW: 68 GPM
 - PRESSURE SEWER SHOWN HERE TO BE CONSTRUCTED IN COMPLIANCE WITH ISWPC SPECIFICATIONS OF SECTIONS 301 (TRENCH EXCAVATION), 401 (WATER PIPE AND FITTINGS), 402 (HYDRAULIC VALVES), 405 (NONPOTABLE WATER LINE SEPARATION), AND 505 (PRESSURE SEWERS).
 - SEWER STANDARD DETAILS, SD-501, SD-501A, SD-506A, SD-506B, SD-507, SD-507A, SD-508, SD-509, SD-514 AND SD-515, SHALL BE INCORPORATED AS PART OF THESE PLANS AND SPECIFICATIONS.
 - CONSTRUCTION INSPECTION SHALL BE COORDINATED WITH THE ENGINEER AND THE DISTRICT. ALL COMPONENTS SHALL REMAIN UNCOVERED UNTIL APPROVED BY THE ENGINEER OR HIS REPRESENTATIVE.
 - CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS IN PAPER AND/OR ELECTRONIC FORMAT PRIOR TO SEWER SYSTEM ACCEPTANCE BY DISTRICT.
 - SUPPLIER AND CONTRACTOR TO COLLECT AND FURNISH A FINAL OPERATION AND MAINTENANCE MANUAL FOR ALL EQUIPMENT INSTALLED.
 - RECORD PLANS SHALL BE SUBMITTED TO DEQ, KOOTENAI-PONDERAY SEWER DISTRICT, AND THE OWNER.

SEWER SERVICES

- SEWER SERVICE MARKERS PER ISWPC STANDARD DRAWING SD-512 TO BE 2"x4" MARKER BOARDS, 4"-5" DIAMETER PEELER CORE POSTS, OR 2" PVC CONDUIT PAINTED GREEN AS INDICATED.
- SEWER LATERALS SHALL BE MARKED WITH 3M MID-RANGE MARKERS #1258 PLACED AT THE END OF EACH SEWER SERVICE.
- LATERALS SHALL BE PLACED BETWEEN BUILDINGS, BUT NO CLOSER THAN 10- FEET FROM ANY WATER SERVICE.
- 1 SPARE PUMP SHALL BE SUPPLIED AND KEPT IN THE VAULT, BUILDING OR AT THE KIOSK.
- PROPOSED CONNECTIONS TO BUILDING SHALL BE DESIGNED BY THE PLUMBER. CLEANOUTS ARE REQUIRED



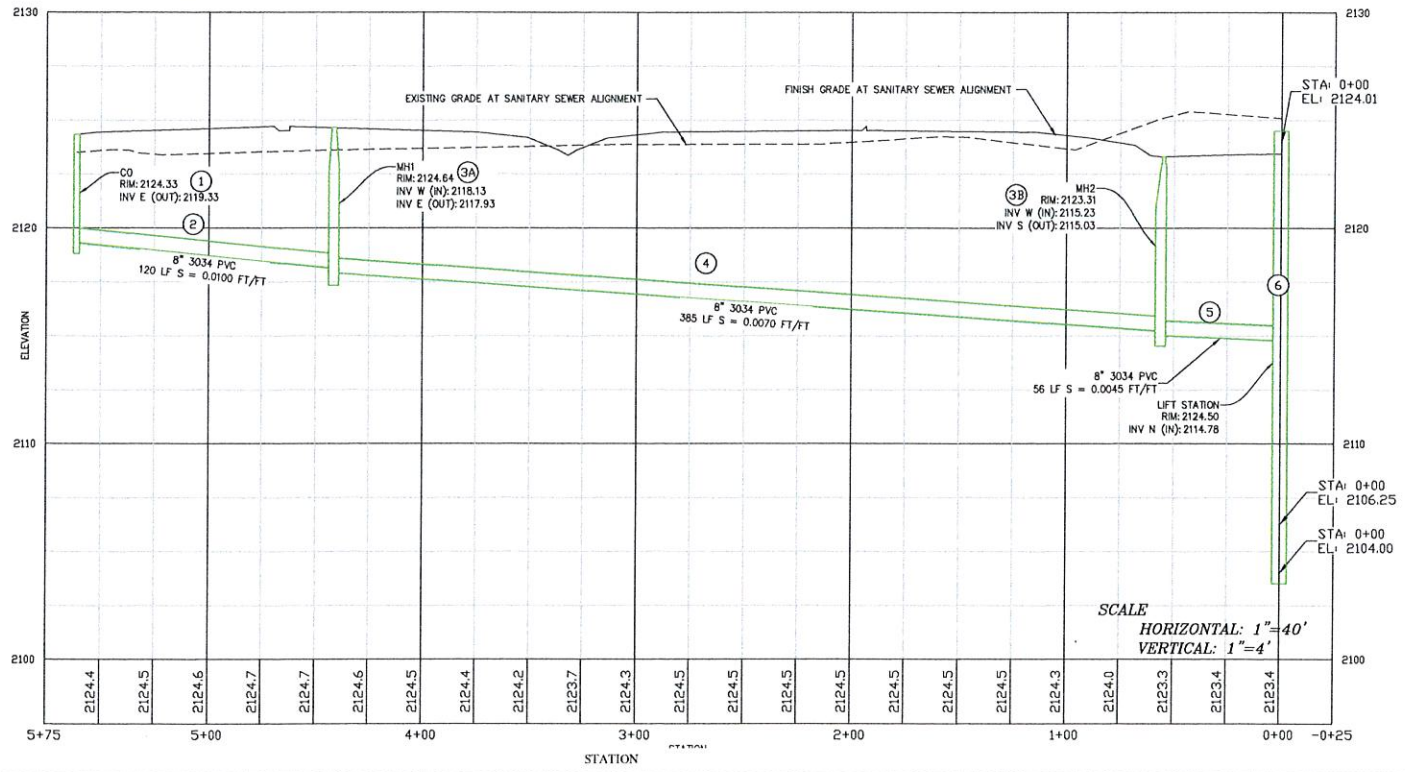
VICINITY MAP
N.T.S.



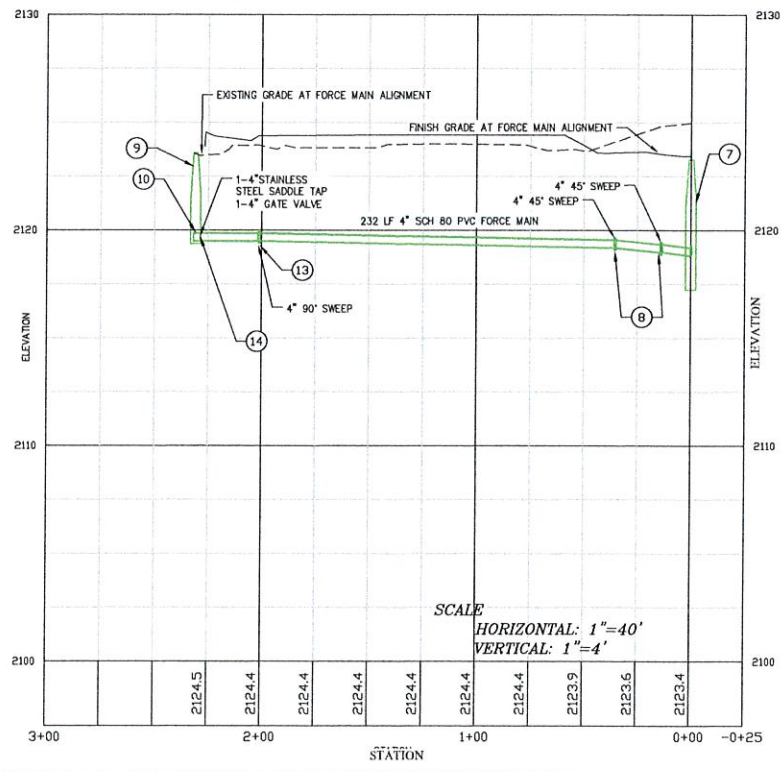
SEWER SYSTEM KEYNOTES

- NEW 8" TRAFFIC RATED CLEAN-OUT (SEE DETAIL A/9)
STA: 5+61 (SAN COLLECTION)
RIM: 2124.52
INV OUT: 2116.15
- 120 LF OF 8" 3034 PVC GRAVITY SANITARY MAIN
SLOPE 0.010 FT/FT
INV IN: 2118.13
INV OUT: 2118.13
- NEW SANITARY GRAVITY MANHOLES (SEE DETAIL B/7)
- SANITARY GRAVITY MANHOLE 1 (SEE DETAIL B/7)
STA: 4+41 (SAN COLLECTION)
RIM: 2124.64
INV IN: 2118.13
INV OUT: 2117.93
- NEW SANITARY GRAVITY MANHOLE 2 (SEE DETAIL B/7)
STA: 0+56 (SAN COLLECTION)
RIM: 2124.64
INV IN: 2115.23
INV OUT: 2115.03
- 385 LF OF 8" 3034 PVC GRAVITY SANITARY MAIN
SLOPE 0.007 FT/FT
INV IN: 2117.93
INV OUT: 2115.23
- 56 LF OF 8" 3034 PVC GRAVITY SANITARY MAIN
SLOPE 0.0045 FT/FT
INV IN: 2115.03
INV OUT: 2114.78
- PROPOSED LIFT STATION (SEE DETAIL A/7)
STA: 0+00 (SAN COLLECTION)
INV IN: 2114.78
(REFER TO DETAIL A/7)
- PROPOSED VALVE VAULT (SEE DETAIL A/7)
STA: 0+00 (FORCE MAIN)
INV OUT: 2119.00
- 232 LF OF 4" SCH. 80 PVC PRESSURE SEWER FORCE MAIN
(1-4" 45' LONG SWEEP @ STA 0+10 (FORCE MAIN))
(1-4" 45' LONG SWEEP @ STA 0+30 (FORCE MAIN))
(1-4" 90' LONG SWEEP @ STA 1+98.75 (FORCE MAIN))
- EXISTING CLEANOUT MH #3 PER KOOTENAI-PONDERAY SEWER RECORD DRAWINGS DATED 1-05-87
STA: 2+29.25 OFF 10'L (FORCE MAIN)
RIM = 2124.16
INV = 2119.50
CONTRACTOR TO VERIFY INVERT ELEVATION (REFER TO DETAIL C/7)
- EXISTING 4" PVC PRESSURE SEWER FORCE MAIN (303 LF TO EXISTING 8" KP50 SANITARY GRAVITY MAIN) CONNECTED TO MH OFF HWY 200 @ MP 30.5.
- PROPRIETY CONTROL PANELS OR CONTROL PANEL KIOSK WITH HIGH ALARM WARNING LIGHT (SEE DETAIL C/8)
- 20 KW GAS/PROPANE BACKUP GENERATOR OR APPROVED EQUAL
- 90' LONG SWEEP W/Locate WIRE BOX
- PROPOSED CONNECTION TO EXISTING KOOTENAI-PONDERAY FORCE MAIN (SEE DETAIL C/7) (CONTRACTOR TO CONFIRM INVERT ELEVATION)
1-4" STAINLESS STEEL SADDLE TAP WITH TRUST BLOCK
1-4" GATE VALVE FLD X MJ W/RESTRAINT & VALVE RISER
- PROPOSED SEWER LATERAL STUBS (24 TOTAL)
SLOPE: 2% (1/4" PER 1 FT) TYPICAL
- POTENTIAL SHORING REQUIRED ALONG EXCAVATION NEAR RAILROAD RIGHT-OF-WAY (REFER TO DETAIL C/7)
- POTENTIAL CONFLICT SAN/WATER SEWER CROSSINGS (2" WATER SERVICES AND 4" FIRE LINES TO BLDG)
- PROPOSED FENCED LIFT STATION AREA (28'x19') WITH 16' WIDE DOUBLE-SWING ACCESS GATE

GRAVITY SEWER COLLECTION MAIN PROFILE



FORCE MAIN PROFILE



REVISIONS

NO.	DATE	DESCRIPTION
1	10/25/22	REPLACES SHEET 6 WITH CHANGES
2	10/25/22	REPLACES SHEET 6A WITH CHANGES (AFTER COMMENTS FROM DEQ)
3	10/25/22	REPLACES SHEET 6B WITH CHANGES (INCORPORATES COMMENTS FROM DEQ & BLDG)
4	10/25/22	REPLACES SHEET 6C WITH CHANGES (INCORPORATES COMMENTS FROM DEQ & BLDG)
5	10/25/22	REPLACES SHEET 6D WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
6	10/25/22	REPLACES SHEET 6E WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
7	10/25/22	REPLACES SHEET 6F WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
8	10/25/22	REPLACES SHEET 6G WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
9	10/25/22	REPLACES SHEET 6H WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
10	10/25/22	REPLACES SHEET 6I WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
11	10/25/22	REPLACES SHEET 6J WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
12	10/25/22	REPLACES SHEET 6K WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
13	10/25/22	REPLACES SHEET 6L WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
14	10/25/22	REPLACES SHEET 6M WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
15	10/25/22	REPLACES SHEET 6N WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
16	10/25/22	REPLACES SHEET 6O WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
17	10/25/22	REPLACES SHEET 6P WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
18	10/25/22	REPLACES SHEET 6Q WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
19	10/25/22	REPLACES SHEET 6R WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
20	10/25/22	REPLACES SHEET 6S WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
21	10/25/22	REPLACES SHEET 6T WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
22	10/25/22	REPLACES SHEET 6U WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
23	10/25/22	REPLACES SHEET 6V WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
24	10/25/22	REPLACES SHEET 6W WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
25	10/25/22	REPLACES SHEET 6X WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
26	10/25/22	REPLACES SHEET 6Y WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)
27	10/25/22	REPLACES SHEET 6Z WITH CHANGES (AFTER COMMENTS FROM DEQ & BLDG)

SEWER PLAN & PROFILES
 CHUBBS NORTH LLC
 PONDERAY LODGE
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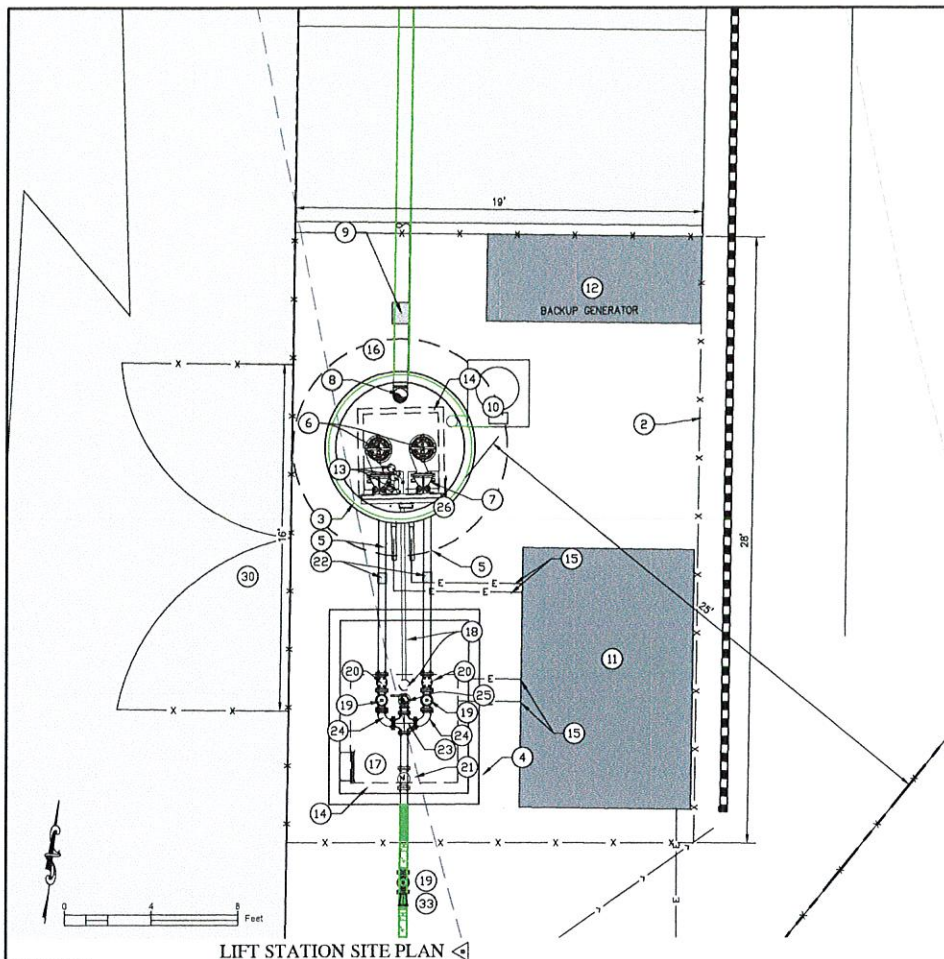
PROJECT NO. 2106
DRAWN BY: J.W.ZOS
SANPOINTE, IDAHO 83854
CHECKED BY: J.W.ZOS
SCALE: 1"=40' (RECORD ONLY)

SHEET 6H OF 9

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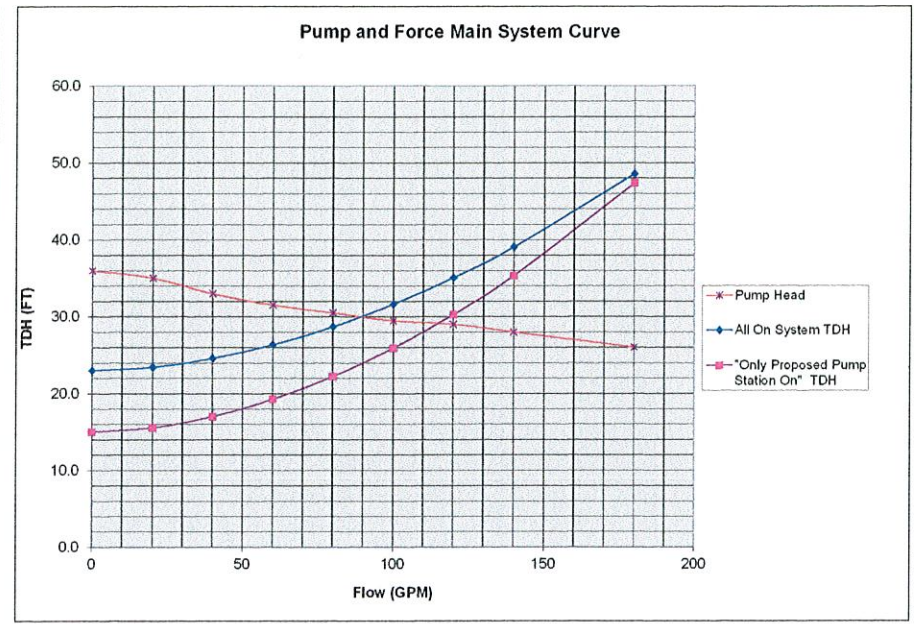
PLANNING OFFICE
CITY OF PONDERAY



LIFT STATION DESIGN CALCULATIONS

DESIGN NOTES	
PUMPING RATE/FLOWS	FORCE MAIN & PIPING
AVERAGE DAILY FLOW 24,000 GPD	FORCE MAIN DIAMETER 4 IN
PEAK FACTOR 4.1	VELOCITY @ DESIGNED RATE 2.94 FT/S
PEAK FLOW 68 GPM	VELOCITY @ MINIMUM RATE 2.3 FT/S
DESIGNED PUMPING RATE 125 GPM	LENGTH FORCE MAIN TO EXISTING KSPD FORCE MAIN 232 FT
MINIMUM PUMPING RATE 100 GPM	ACCOUNT FOR MINOR LOSSES 12%
WET WELL DESIGN	EQUIVALENT LENGTH (FORCE MAIN) 260 FT
TARGET CYCLES PER HOUR 4 = 15 MINS	WET WELL PIPING SIZE 3 IN
WET WELL REQUIRED VOLUME FOR ADF 211 GAL	WET WELL VELOCITY 4.1 FT/S
WET WELL DIAMETER 6.0 FT	EQUIVALENT LENGTH (WET WELL) 550 FT
WET WELL CYCLE 1.25 VERT FT	TOTAL EQUIVALENT LENGTH 550 + 260 = 810 LF
VOLUME IN CYCLE 264 GAL	PUMP CRITERIA & HEADLOSS
CYCLE FILL TIME DURING PDF 3.9 MIN	STATIC HEAD 15.42 FT
CYCLE FILL TIME DURING ADF 15.9 MIN	HAZEN-WILLIAMS C FACTOR 130
WET WELL INVERT & FLOAT ELEVATIONS	DESIGNED PUMPING RATE 115 GPM @ 29 TDH
TOP ELEVATION 2124.50	MINIMUM PUMPING RATE 90 GPM @ 30 TDH
FG ELEVATION 2124.00	KPSD CONNECTION
SS INVERT 2114.78	INVERT ELEVATION OF CONNECTION TO KPSD FORCE MAIN: 2119.50
HIGH ALARM 2111.00	INVERT ELEVATION OF DISCHARGE TO 8" GRAVITY MANHOLE (KSPD): 2119.42
LAG ON 2109.75	LENGTH KSPD FORCE MAIN: 303 LF
LEAD ON 2108.50	DIAMETER OF FORCE MAIN: 4"
PUMP OFF 2107.25	
BOTTOM INVERT ELEVATION 2104.00 ±	
20 FT WET WELL	

PUMP SELECTION AND SYSTEM CURVE



PUMP SELECTION
PUMP MANUFACTURER
FLYGT N TECHNOLOGY
PUMP MODEL NUMBER
NP 3085 MT 3- ADAPTIVE 462
POWER
3 HP, 4 POLE, 60 HZ
DISCHARGE
3 1/8" DIA

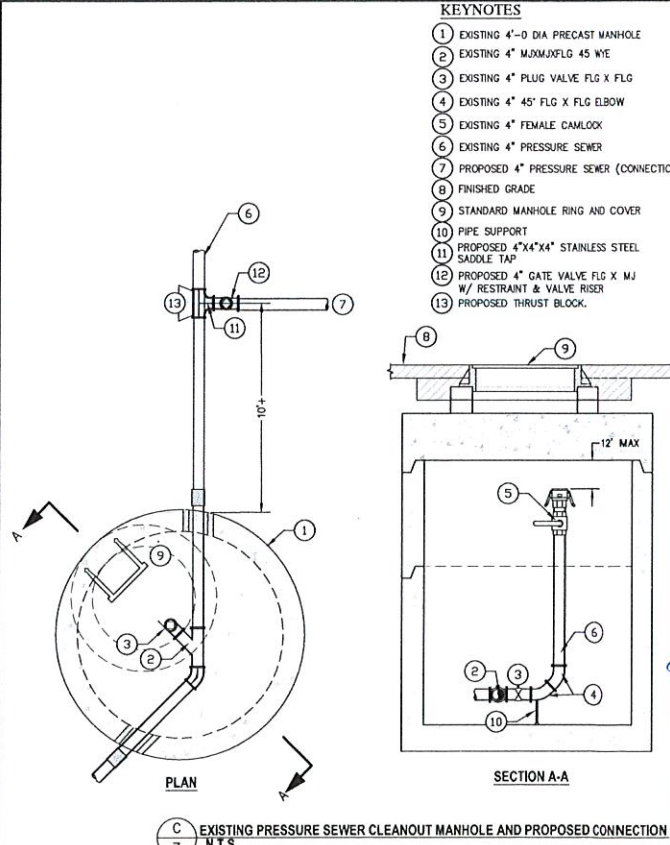
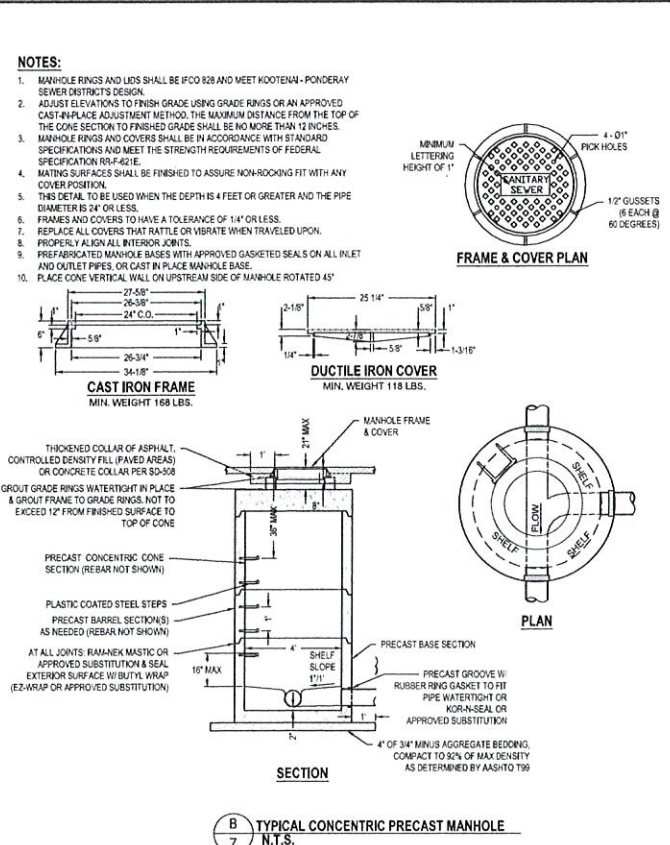
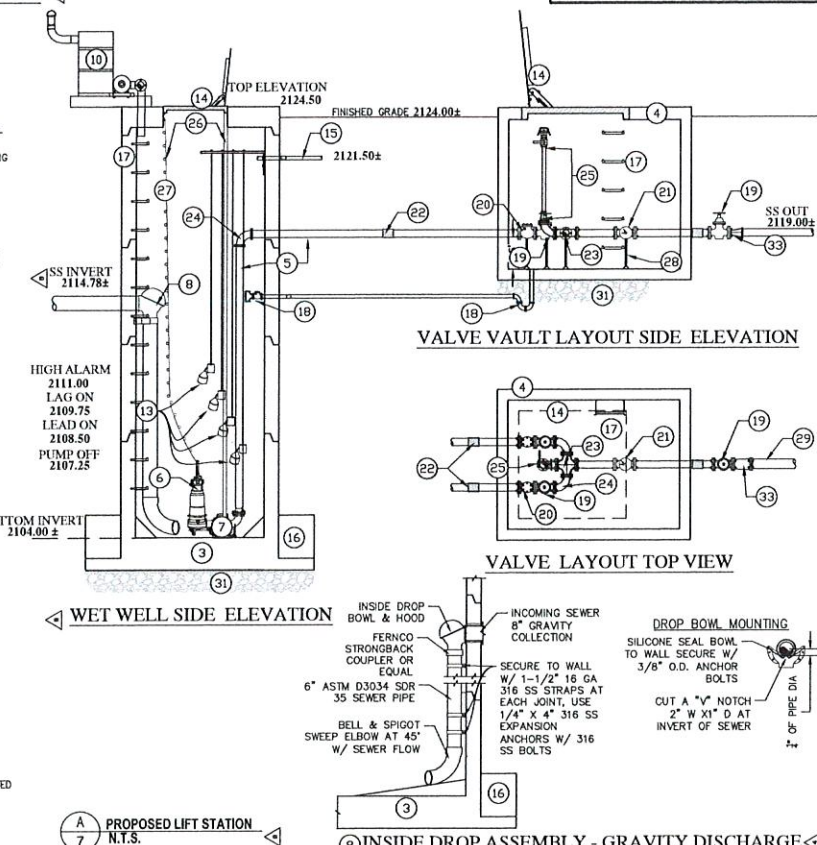
APPARENT OPERATING POINT (PUMP ONLY)

FLOW RATE (APPARENT)
115 GPM
TDH (APPARENT)
29.5 FT
FORCE MAIN VELOCITY
2.9 FPS
PUMP RUN TIME DURING PDF
5.7 MIN
CYCLES PER HOUR AT PDF
6.3
PUMP RUN TIME DURING ADF
2.7 MIN
CYCLES PER HOUR AT ADF
3.2

PEAK OPERATING POINT (ALL PUMPS ON)

FLOW RATE
90 GPM
PUMP TDH
30 FT
FORCE MAIN VELOCITY
2.3 FPS
PUMP RUN TIME DURING PDF
12.2 MIN
CYCLES PER HOUR AT PDF
3.7
PUMP RUN TIME DURING ADF
3.6 MIN
CYCLES PER HOUR AT ADF
3.1

- KEYNOTES**
- RIGHT-OF-WAY/PROPERTY BOUNDARY
 - SECURITY FENCE (CHAIN LINK FENCE DETAIL H/3)
 - 6" DIA WET WELL (SEE DESIGN NOTES FOR FLOAT & INVERT ELEVATIONS)
 - 12" CONCRETE FILLET AROUND ENTIRE BASE, FLAT TOP
 - 6" x 8" x 8" VALVE VAULT
 - 3" PUMP DISCHARGE (SCH 10 STAINLESS STEEL IN WET WELL)
 - SUBMERSIBLE PUMPS FLYGT 3085 (SEE DETAIL A/B) OR APPROVED EQUAL (REFER TO PUMP SELECTION IN DESIGN NOTES)
 - 3" SCH 10 STAINLESS STEEL DISCHARGE MANIFOLD WITH BREAKAWAY FITTING ANCHORED TO WET WELL
 - 8" GRAVITY COLLECTION DISCHARGE (SEE INSIDE DROP ASSEMBLY)
 - 1- INSIDE DROP BOWL & HOOD (MODEL A-6)
 - 1- 6" DROP PIPE (~ 7 LF)
 - 1- 6" BELL & SPIGOT SWEEP ELBOW AT 45° W/ SEWER FLOW
 - 8" NO HUB HARD SLP COUPLER
 - ODOR CONTROL CARBON BARREL SETUP WITH FILTER (SEE DETAIL B/9)
 - PROPRIETARY CONTROL PANELS OR CONTROL PANEL KIOSK WITH HIGH ALARM WARNING LIGHT (SEE DETAIL C/8)
 - 20 KW BACKUP GENERATOR (PROPANE/GAS) OR APPROVED EQUAL
 - LEVEL FLOAT SWITCHES (REFER DESIGN NOTES - FLOAT ELEVATIONS)
 - 300 PSF ALUMINUM HATCH (3.5' X 3.5' ON WET WELL) (5'X5' ON VAULT) (HALLIDAY FIR FLOOD TIGHT HATCH (TFP) OR APPROVED EQUAL)
 - 2" ELECTRICAL/CONTROL CONDUIT TO CONTROL PANELS
 - 17" ANTI-FLOTATION COLLAR (EXTENDED BASE 9.5" DIAMETER) - SEE BUOYANCY CALCULATIONS (DETAIL D/8)
 - PLASTIC COATED STEEL STEPS (PER ISPIC STANDARDS)
 - FLOOR DRAIN W/ 2" PEE TRAP BACK TO WET WELL (2" CHECK VALVE FOR BACKFLOW PREVENTION LOCATED IN WET WELL) (DISCHARGE SHALL BE LOCATED ABOVE INLET ELEVATION IN WET WELL)
 - 3" D.I. GATE VALVE FLG X FLG
 - 3" D.I. SWING CHECK VALVE W/ LEVER FLG X FLG
 - 3" FLOW METER FLG X FLG
 - 3" ROMAC COUPLER OR APPROVED EQUAL
 - 3" x 3" x 3" D.I. CROSS FLG X FLG X FLG
 - 3" LONG SWEEP 90° ELBOW
 - PROPOSED EMERGENCY/BACKUP BYPASS (PER KPSD STANDARDS)
 - 1- 3" FEMALE CAMLOCK WITHIN 12" OF LID
 - 1- 3" MALE DUST CAP
 - 1- 3" BALL/PLUG VALVE FLG X FLG
 - 1- 4" TO 3" SCH. 80 REDUCER FLG X FLG
 - 1- 4" SCH. 80 LONG SWEEP 90° ELBOW FLG X FLG
 - 2" RAIL SYSTEM W/ GUIDE RAILS AND STAINLESS STAIN LIFTING CHAIN
 - ANCHOR STAINLESS STAIN LIFTING CHAIN TO CONCRETE LID
 - PIPE SUPPORTS (TYP)
 - START OF 4" SCH. 40 PVC PRESSURE SEWER FORCE MAIN
 - 16" ACCESS GATE
 - 12" OF 3/4" MINUS CRUSHED AGGREGATE BASE COARSE (TYPE I) COMPACTED TO 95X STANDARD PROCTOR (UNDER WET WELL AND VALVE VAULT).
 - NOT USED
 - 3"x4" D.I. REDUCER FLG X MJ W/ THRUST BLOCKS



LIFT STATION PLAN & SEWER DETAILS

CHUBBS NORTH LLC
PONDERRY LODGE
PONDERRY, MN

811
Know what's below.
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7B ENGINEERING
412 CHURCH STREET, SUITE 203
SANCTUARY, MN 55378
info@7BEngineering.com

PROFESSIONAL ENGINEER
REGISTERED ENGINEER
NO. 10086
DANIEL W. KRASINSKI

PROJECT NO. 2106
DRAWN BY: J. L. JOHNSON
CHECKED BY: T.M.
SCALE: N.T.S. (EXCEPT SHOWN)

SHEET 7H OF 9

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PLANNING OFFICE
CITY OF PONDERRY

NP 3085 MT 3~ Adaptive 462

Technical specification



Motor - General

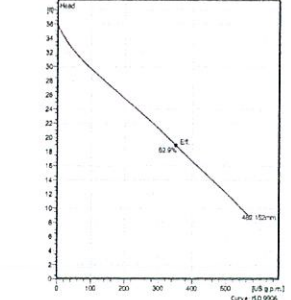
Motor number	Phases	Rated speed	Rated power
NP3085-060-15-10-44L-W-3hp	3 ϕ	1600 rpm	3hp
Approval	Number of poles	Rated current	Motor variant
NP	4	52.8 A	68
Frequency	Rated voltage	Insulation class	Type of Duty
60 Hz	200 V	B	S1
Version code	060		

Motor - Technical

Power factor - 1/1 Load	Motor efficiency - 1/1 Load	Total moment of inertia	Starts per hour max.
0.85	77.1 %	0.475 lb/ft ²	30
Power factor - 3/4 Load	Motor efficiency - 3/4 Load	Starting current, direct starting	
0.80	79.0 %	50 A	
Power factor - 1/2 Load	Motor efficiency - 1/2 Load	Starting current, star delta	
0.70	78.2 %	16.7 A	



Curves according to: Water, pure, Water, pure (100%), 39.2 °F, 42.428 ft/H₂O, 68896.5 (ft)



Configuration

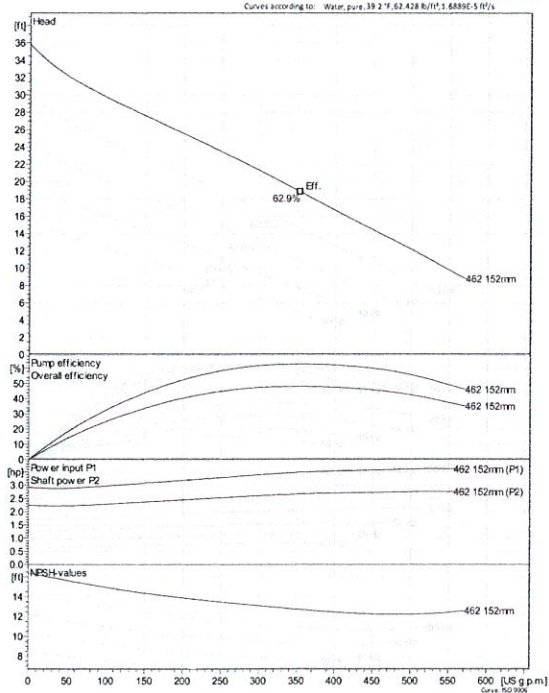
Motor number	Installation type
NP3085-060-15-10-44L-W-3hp	P - Semi-permanent, Wet
Impeller diameter	Discharge diameter
152 mm	1 inch

Pump information

Impeller diameter	Impeller
152 mm	Hard iron
Discharge diameter	Motor housing material
1 inch	Grey cast iron
Inlet diameter	
80 mm	
Maximum operating speed	
1600 rpm	
Number of blades	
2	

NP 3085 MT 3~ Adaptive 462

VFD Curve



A RECOMMENDED PUMP SPECIFICATIONS-FYLG
N.T.S.

Buoyancy Calculations

Wet well Outside Dimension	7.00 Feet
Wet well Inside Dimension	6.00 Feet
Wet well Top Slab Elevation	2124.50 Feet
Wet well Inlet Elevation	2104.00 Feet
Extended Base Slab Diameter	9.50 Feet
Extended Base Slab Thickness	1.42 Feet
Top Slab Thickness	1.00 Feet
Height (5x5')	25.00 SF

Calculate Total Volume of Wet well Structure

Volume of Wet well Riser Section	789	cf
Volume of Wet well Extended Base	100	cf
Total Volume of Wet well Structure	889	cf

Calculate Total Volume of Water Displaced

H ₂ O Displaced = (Volume of Wet well Structure) * (62.4 lb/cf)	
H ₂ O Displaced =	5564 lbs

Calculate Submerged Weight of Wet well Components

Section	Total Ht	Weight
Top Slab Thickness (ft)	1.00	1181
Riser - Total Vertical Ft	20.46	18334
Base Slab Thickness (ft)	1.42	8792
Totals	22.916	28307

Total Weight of Concrete in Wet well = 28307 lbs

Calculate Weight of Soil Above Extended Base/Footing

Total Area of Extended Base	71	sf
Total Area of Wet well Riser	38	sf
Area of Extended Base less Wet well	32	sf
Height of Soil Above Extended Base	20	ft
Volume of Soil Above Extended Base	648	cf
Weight of Soil Above Extended Base (estimated)	50	lbs/cf
Total Weight of Soil Above Extended Base	32396	lbs/cf

Flotation Protection Required?

Weight of Concrete and Weight of Soil Above Extended Base	60707 lbs
Weight of Water Displaced By Wet Well	5564 lbs
Flotation Protection Required?	NO

D BUOYANCY CALCULATIONS
N.T.S.

Vault Buoyancy Calculations

Dry Pit Length	8.00 Feet
Dry Pit Width	6.00 Feet
Dry Pit Depth	8.00 Feet
Wall Thickness	0.33 Feet
Dry Pit Top Elevation	2124.50 Feet
Dry Pit Inlet Elevation	2116.50 Feet
Top Slab Length	8.00 Feet
Top Slab Width	6.00 Feet
Top Slab Thickness	1.00 Feet
Bottom Slab Length	11.00 Feet
Bottom Slab Width	9.00 Feet
Bottom Slab Thickness	1.00 Feet

Calculate Total Volume of Vault Structure

Volume of Dry Pit	384	cf
Volume of Dry Pit Top Slab	48	cf
Volume of Dry Pit Walls	55	cf
Volume of Dry Pit Base	99	cf
Total Volume of Wet well Structure	586	cf

Calculate Total Volume of Water Displaced

H ₂ O Displaced = (Volume of Wet well Structure) * (62.4 lb/cf)	
H ₂ O Displaced =	36581 lbs

Calculate Submerged Weight of Vault Components

Section	Total Ht	Weight
Top Slab	48	4255
Walls	55	4838
Bottom Slab	99	8872
Totals	202	17965

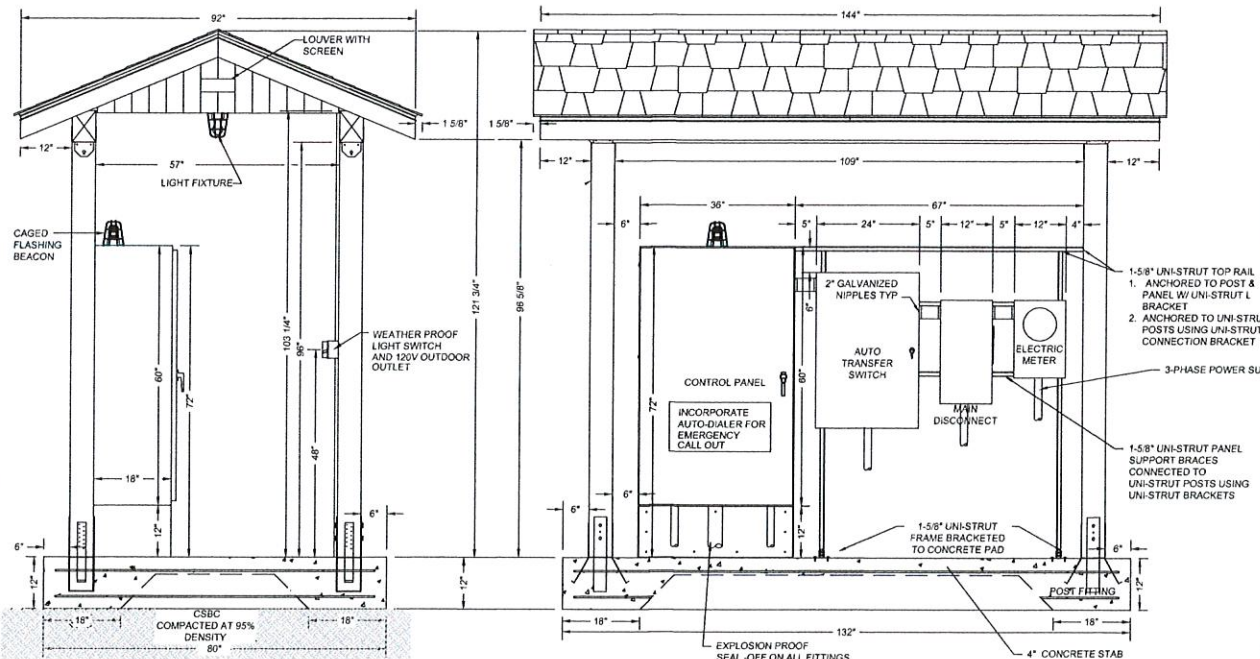
Total Weight of Concrete in Dry Pit = 17965 lbs

Calculate Weight of Soil Above Extended Base/Footing

Total Area of Vault Bottom Slab	99	sf
Total Area of Vault Top Slab	48	sf
Area of Bottom Slab less Top	51	sf
Height of Soil Above Extended Base Slab	8	ft
Volume of Soil Above Top Slab	408	cf
Weight of Soil Above Top Slab (estimated)	50	lbs/cf
Total Weight of Soil Above Top Slab	20400	lbs/cf

Flotation Protection Required?

Weight of Concrete and Weight of Soil Above Slab	38165 lbs
Weight of Water Displaced By Vault	36581 lbs
Flotation Protection Required?	NO



- NOTES:**
- USE OF A PREFABRICATED METAL COVER MAY BE SUBSTITUTED.
 - ALL HARDWARE AND BOLTS SHALL BE GALVANIZED.
 - IF ANTENNA HEIGHT EXCEEDS 8' FROM ROOF PEAK, ANTENNA TOWER IS REQUIRED FOR DISTRICT APPROVAL.

C CONTROL PANEL KIOSK WITH HIGH ALARM WARNING LIGHT
N.T.S.

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7B ENGINEERING
1415 CHURCH ST. SANDPOINT, IDAHO 83864
(208) 263-4623 info@7Bengineering.com

PROFESSIONAL ENGINEER
DANIEL W. LARSEN
10086
DATE: 10/25/2022

PROJECT NO. 2108
DRAWN BY: DM, JZK
CHECKED BY: DM
SCALE: NTS

SHEET 8E OF 9

LIFT STATION DETAILS
CHUBBS NORTH, LLC
PONDERAY LODGE
PONDREY, IDAHO

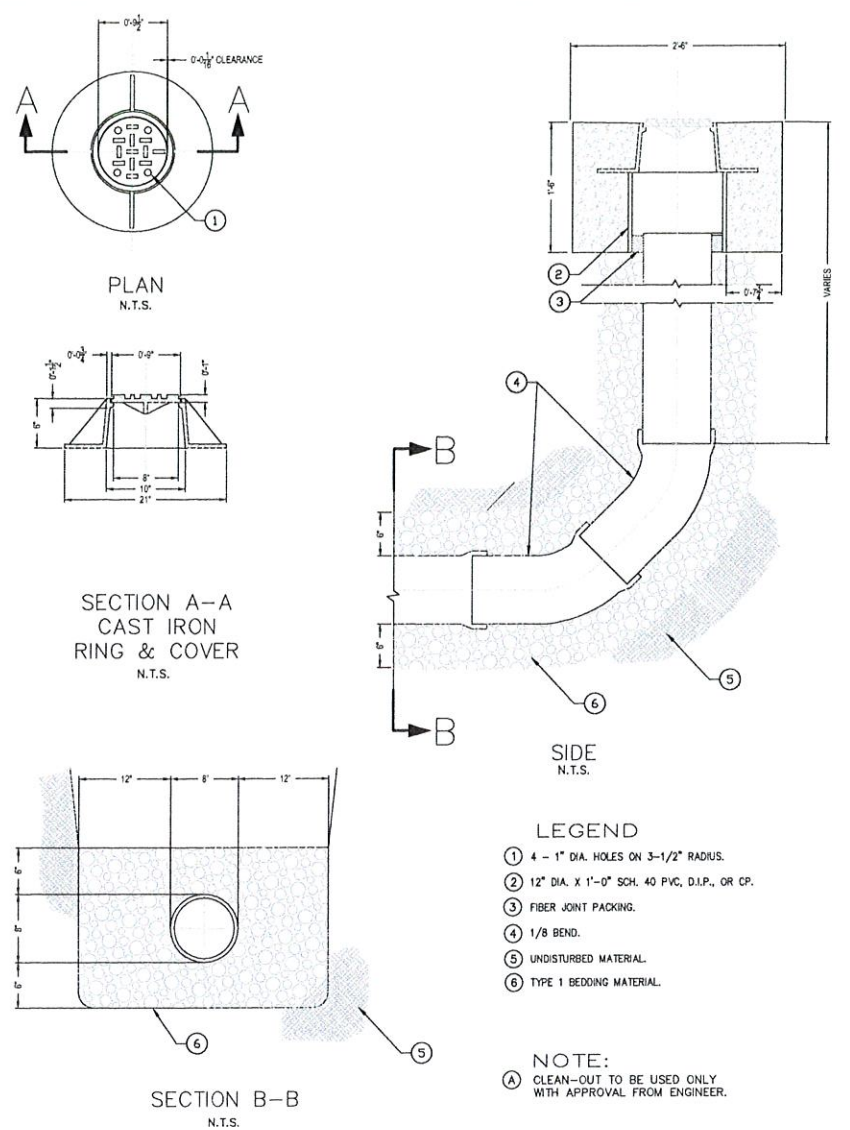
REVISIONS:

NO.	DATE	DESCRIPTION
1	2/27/21	REPLACES SHEET 8 WITH CHANGES
2	2/27/21	REPLACES SHEET 9A WITH CHANGES
3	3/4/21	REPLACES SHEET 9B WITH CHANGES
4	7/26/21	REPLACES SHEET 9C WITH CHANGES
5	7/26/21	SUBMITTED TO BEO
6	10/10/22	CALCULATION UPDATES
7	10/27/22	REPLACES SHEET 8B WITH CHANGES

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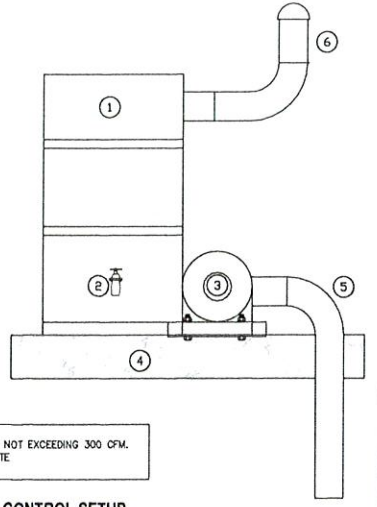
A
9 8" TRAFFIC RATED CLEAN-OUT
SCALE: 1" = 1'

KEYNOTES

- 1) ODOR CONTROL CANISTER (AFS OR APPROVED ALTERNATIVE)
- 2) 3/4" DRAIN W/ BALL VALVE
- 3) OPTIONAL VENTILATION FAN
- 4) 4" CONCRETE PAD
- 5) 4" INTAKE
- 6) 4" DISCHARGE WITH CAP

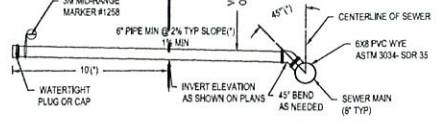
NOTES:
 1) FORCED AIR ODOR CONTROL SYSTEM IS RATED FOR AIR FLOWS NOT EXCEEDING 300 CFM.
 2) ODOR CONTROL CANISTER SHALL BE SECURED TO THE CONCRETE.
 3) SYSTEM IS AVAILABLE AS A PACKAGE FROM RC WORST

B
9 TYPICAL ODOR CONTROL SETUP
N.T.S.



NOTES

- 1) ALL SERVICES SHALL BE SCHEDULE 40 ABS OR D.I.P.
- 2) ALL BENDS SHALL BE NO GREATER THAN 45° (BELL-BY-BELL CONNECTION) WITH A MINIMUM OF 2 FT BETWEEN BENDS.
- 3) INSTALL PIPE IN BEDDING AND BACKFILL PER ISPIVC 50-302'.
- (*) UNLESS OTHERWISE SPECIFIED ON PLANS



C
9 SEWER SERVICE (KPSD RECOMMENDATION)
N.T.S.

REGION	DATE	DESCRIPTION
17/24/22	17/24/22	REPLACES SHEET 8 WITH CHANGES
18/11/22	18/11/22	SUBMITTED TO DEC
19/12/22	19/12/22	REPLACES SHEET 8A WITH CHANGES
SEWER SYSTEM AND LIFT STATION DETAILS		
CHUBBS NORTH LLC		
PONDERAY LODGE LLC PONDERAY, MI 480		
SHEET TITLE		
DRAWN BY		
PROJECT		
PROJECT NO. 2106		
DRAWN BY: DWL		
CHECKED BY: DWL		
SCALE: NTS		
SHEET 08 OF 9		

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