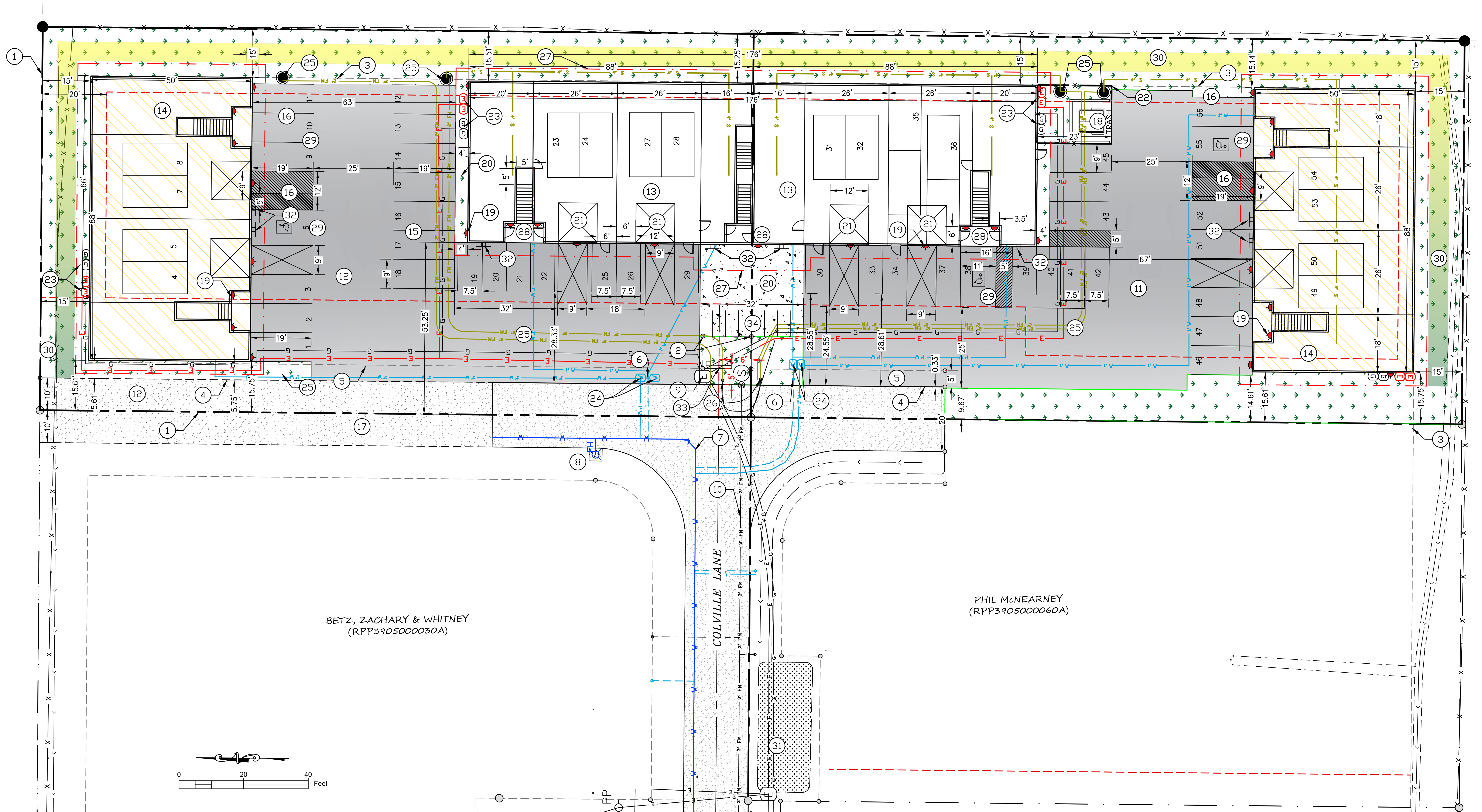
INDUSTRIAL & COMMERICAL SITE PLAN FOR

LAWSON TATE

A DEVELOPMENT PERMIT FOR CONSTRUCTION FOR
RPP39050000040A & RPP39050000040A AKA McNEARNEY MILL, LOTS 4 & 5
PONDERAY, BONNER COUNTY, IDAHO 83852

VICINITY MAP
N.T.S



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GENERAL NOTES

1. THESE PLANS ARE FOR THE CONSTRUCTION OF A SHOP WITH ONE OR TWO BEDROOM UPSTAIRS LOFT IN THE COMMERCIAL ZONE OF PONDERAY, IDAHO.
2. THE BUILDING OUTLINE AS SHOWN HEREON IS TO BE LOCATED IN THE FIELD BY A LICENSED PROFESSIONAL LAND SURVEYOR.
3. THESE PLANS ARE FOR SITE GRADING, STORMWATER AND EROSION CONTROL AS SHOWN.
4. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF PONDERAY, AND ANY OTHER DEVELOPMENT STANDARDS.
5. ALL WORK SHALL CONFORM TO THE "IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION," 2020 OR MOST RECENT EDITION. IN CASE OF CONFLICT, CITY OF PONDERAY STANDARDS SHALL PREVAIL.
6. 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.
7. 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.
8. THE CONTRACTOR SHALL HAVE AN APPROVED SET OF IMPROVEMENT PLANS AND APPROVAL LETTER ON THE JOB SITE AT ALL TIMES.
9. 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 REQUIREMENTS.
10. ALL TESTING REQUIRED WILL BE AT THE EXPENSE OF THE CONTRACTOR.
11. EXISTING DRAINAGE FEATURES WILL BE PRESERVED OR RESTORED SUCH THAT NO BLOCKAGE OF EXISTING RUNOFF WATER WILL PERMANENTLY OCCUR.
12. ALL GREEN/LANDSCAPE SPACE TO BE GRASS, BUSHES AND TREES.
13. CONTRACTOR SHALL PROVIDE DUST CONTROL OR ABATEMENT MEASURES SUCH AS WATER SUPPRESSION, SCREENING & ENCLOSURE AND GENERAL SITE HOUSE KEEPING DURING CONSTRUCTION OF PROJECT.
14. EXISTING UTILITIES SHALL BE LOCATED, MARKED, AND PROTECTED DURING COURSE OF CONSTRUCTION. IF ANY DAMAGE TAKES PLACE, THE CONTRACTOR SHALL NOTIFY UTILITY COMPANY
15. NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT THE APPROVAL OF THE ENGINEER.

SURVEY NOTES

1. THIS PLAN WAS PREPARED BY FROM A BOUNDARY DONE BY GLAHE & ASSOCIATES AS WELL AS INFORMATION TAKEN FROM THE BONNER COUNTY GIS WEBSITE.
2. THIS MAP DOES NOT REPRESENT AN ACTUAL SURVEY BUT WAS ASSEMBLED FROM INFORMATION GATHERED FROM GLAHE & ASSOCIATES AND COLLECTED TOPOGRAPHY. REFER TO THE RECORDS OF SURVEY BY GLAHE & ASSOCIATES FOR MORE DETAILED PROPERTY BOUNDARY, ELEVATION MONUMENTATION, AND ADDITIONAL INFORMATION.
3. ELEVATIONS SHOWN ARE BASED ON THE GLAHE SURVEY USING THE NAVD88 DATUM AS RECEIVED AND IS INTENDED TO SERVE AS A GRADING, STORMWATER, AND EROSION PLAN FOR A DEVELOPMENT PERMIT.
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.

SITE PLANNING DATA (2)

TOTAL LOT AREA: 52,250 SF
LOT 4 = 0.6 ACRES = 26,125 SF
LOT 5 = 0.6 ACRES = 26,125 SF

LOT COVERAGE:
AFTER PHASE 1 CONTSTRUCTION:
10,816 SF (20.7%)
AFTER PHASE II CONSTRUCTION:
21,952 SF (42%)

OPEN SPACE:
AFTER PHASE I CONSTRUCTION:
52,250 SF- 10,816 SF = 41,434 SF (79%)
AFTER PHASE II CONSTRUCTION:
52,250 SF -21,952 SF = 30,298 SF (58 %)

GREEN SPACE **13,070 SF (25%)**
PARKING LOT AREA: **17,692 SF**

PARKING SPOTS PROPOSED
56 TOTAL
22 STANDARD SPOTS
3 ACCESSIBLE SPOTS (VAN)
15 COMPACT SPOTS
16 GARAGE SPOTS
(NOTE EACH BUILDING CAN HOUSE 4 VEHICLES)

TOTAL FLOOR SPACE: 12,400 SF + 12,400 SF = 24,800 SF

PHASE I FLOOR SPACE: 12,400 SF

LOT 5 FLOOR SPACE: **6,200 SF**
GROUND FLOOR (50 FT X 88 FT = 4,400 SF)
COMMERCIAL -BATH/OFFICE/STORAGE AREA:
(16' X50') + (20' X 50') = 1,800 SF
INDUSTRIAL- (SHOP AREA):
(26'X50') + (26'X50') = 2,600
SECOND FLOOR (36 FT X 50 FT = 1,800 SF)
LIVE/WORK RESIDENTAL - LOFT AREA:
(16' X50') + (20' X 50') = 1,800 SF

LOT 4 FLOOR SPACE: **6,200 SF**
GROUND FLOOR (50 FT X 88 FT = 4,400 SF)
COMMERCIAL -BATH/OFFICE/AREA:
(16' X50') + (20' X 50') = 1,800 SF
INDUSTRIAL- (BAY/ SHOP AREA) :
(26'X50') + (26'X50') = 2,600
SECOND FLOOR (36 FT X 50 FT = 1,800 SF)
LIVE/WORK RESIDENTAL - LOFT AREA:
(16' X50') + (20' X 50') = 1,800 SF

PHASE 2 ADDITIONAL FLOOR SPACE: 12,400 SF
ASSUMED SIMILAR FLOOR PLAN
LOT 5 ADDITIONAL FLOOR SPACE: **6,200 SF**
LOT 4 ADDITION FLOOR SPACE: **6,200 SF**

SITE SPECIFIC NOTES

1. 16' (SIXTEEN FOOT) REDUCED SETBACK REQUESTED FOR APPROVAL ON LOT 4 OFF WESTERN PROPERTY. NORTHERNMOST BUILDING WILL HAVE A 5.6' SETBACK OFF THE STREET EASEMENT FOR COLVILLE LANE.
2. 5' (FIVE FOOT) REDUCED SETBACK IS REQUESTED FROM REAR AND SIDE PROOPERTY LINES FOR BOTH LOT 4 AND 5. BOTH BUILDINGS WILL BE SETBACK 15' FROM REAR AND SIDE PROPERTY LINES.
3. ALL ADDITIONAL STORMWATER RUNOFF IS ACCOUNTED FOR IN STORMWATER PLAN.
4. ANY ADDITIONAL OR LOST PARKING WOULD BE ACCOUNTED FOR IN LOCATIONS SPECIFIED BY THE ENGINEER AND CITY AT THE TIME OF BUILDING PERMITS. EACH SHOP COULD HOUSE 4 VEHICLES (2 VEHICLES ARE ACCOUNTED FOR IN EACH SHOP).
5. ALL STORMWATER RUNOFF AND SNOW SHED WILL DIRECTED TO STORMWATER TREATED AREAS WITHIN THE PROPERTY BOUNDARIES. STORMWATER RUNOFF AND SNOW SHED GENERATED BY COLVILLE LANE'S INGRESS & EGRESS AND UTILITY EASEMENTS WILL BE EXCLUDED.
6. EACH BUILDING SHALL HAVE AN EXTERIOR BUSINESS IDENTIFICATION (WALL MOUNT SIGNAGE)

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LEGEND

- PROPERTY PARCEL
- PROPOSED BUILDING
- SETBACK LINE
- EASEMENT LINE
- EXISTING 8" WATER MAIN
- EXISTING WATER SERVICE STUB
- PROPOSED WATER CONNECTION
- UNDERGROUND POWER LINES
- OVERHEAD POWER LINES
- GAS LINE
- EXISTING 3" FORCE MAIN
- PROPOSED PRESSURE SEWER CONNECTION
- PROPOSED SEWER COLLECTION
- DRAINAGE DITCH/FLOW LINE
- EXISTING FENCE
- PROPOSED SITE OBSCURING FENCE
- PROPOSED ROOF OULINE
- BOTTOM OF STORMWATER FACILITY
- PROPOSED STORMWATER FACILITY (GREEN SPACE) (GRASS & NATIVE VEGETATION)
- PROPOSED ADDITIONAL GREEN SPACE (GRASS & NATIVE VEGETATION)
- PROPERTY CORNER, CALCULATED POINT (EASEMENT)
- SIDEWALK OR WALKWAY
- GRAVEL PARKING SURFACE
- FUTURE PHASE OF CONSTRUCTION

KEYNOTES

1. PROPERTY BOUNDARY
2. RETAIN & PROTECT EXISTING SURVEY MONUMENTS
3. EXISTING STORMWATER EASEMENT
4. EXISTING 20' WIDE INGRESS, EGRESS & UTILITY EASEMENT
5. 5' WIDE UTILITY EASEMENT
6. EXISTING 1" WATER (STUB)
7. EXISTING 8" C900 WATER MAIN
8. EXISTING FIRE HYDRANT LOCATION (SANDPOINT WATER)
9. EXISTING DRY UTILITIES (ELECTRICAL & GAS (AVISTA)
10. EXISTING 3" FORCE MAIN (KPSD) & PRESSURE CLEANOUT MANHOLE
11. PROPOSED PARKING LOT 1 (GRAVEL)
12. PROPOSED PARKING LOT 2 (GRAVEL)
13. PROPOSED PHASE I BUILDINGS (SEE SHEET 3)
14. PROPOSED PHASE II BUILDINGS (SAME AS PHASE 1)
15. PROPOSED PARKING AREAS (NOT TO BE STRIPED)
16. PROPOSED LOADING ZONE
17. FUTURE ROAD BUILD
18. PROPOSED TRASH ENCLOSURE
19. PROPOSED LIGHTING
20. PROPOSED PATIO OR WALKWAY
21. PROPOSED GARAGE BAYS (NO PARKING IN FRONT ~ 9' WIDE LOADING ZONES)
22. SITE OBSCURING FENCE (UTILITY AREA - TRASH ENCLOSURE WITHIN)
23. PROPOSED DRY UTILITIES ELECTRICAL & GAS CONNECTIONS (AVISTA)
24. PROPOSED 1" WATER SERVICE CONNECTIONS TO SANDPOINT WATER
(4) SERVICES PROPOSED) (2 SERVICES FOR PHASE 1)
(4) NEW METERS (TO BE ADDED)
(2) EXISTING WATER STUBS TO BE USED (PHASE 1)
(2) PROPOSED WATER STUB (PHASE II)
(SEE DETAIL B/4) (IF LOCATED IN TRAVELWAY, METER MUST BE TRAFFIC RATED)
25. PROPOSED PRESSURE SEWER CONNECTIONS TO KPSD
(TO BE DESIGNED BY PLUMBER)
(4) DUPLEX PUMP BASIN (30" ADS OR APPROVED EQUAL)
(2) PHASE 1 (2) PHASE II
4-4" GRAVITY CONNECTIONS (CONNECTS BUILDING TO BASINS)
(NOTE WITHIN STORMWATER EASEMENT FOR PHASE 1 BUILDINGS)
1-2" FM (FROM BASINS TO MAIN)
(SEE DETAIL D/4)
*IF LOCATED IN TRAFFIC AREA. TRAFFIC RATED BASINS MUST BE USED.
26. EXISTING PRESSURE SEWER BROOKS BOX CONNECTED TO EXISTING 3" FORCE MAIN (KPSD)
27. PROPOSED ROOF OUTLINE
28. PROPOSED BUILDING ENTRY (BREEZEWAY AND STAIRS)
29. ACCESSIBLE PARKING SPOT
30. PROPOSED STORMWATER TREATMENT & RETENTION AREA (MODIFIED STORMWATER CHANNEL/GIA) (SEE DETAIL A/2)
31. EXISTING STORMWATER FACILITY (COLVILLE LANE TREATMENT AREA)
32. PROPOSED WALL MOUNT SIGNAGE (8 TOTAL-EACH UNIT WILL HAVE ITS OWN BUSINESS IDENTIFICATION). (2)
33. PROPOSED MONUMENT SIGN (8' WIDE 6' TALL WITH AN ILLUMINATION LIGHT). (SETBACK 5' OFF TRAVEL SURFACE OF COLVILLE LANE AND 6' OFF PROPERTY LINE) (2)
34. PROPOSED MOTOR BIKE AND BIKE PARKING AREA (14 SPOTS ~48" AVG SPACING - 96" DEPTH) (2)

REVISION #	DATE	DESCRIPTION
1	03/14/22	REPLACES SHEET 1 WITH CHANGES
2	03/22/22	REPLACES SHEET 1A WITH CHANGES

SHEET TITLE: TITLE SHEET - SITE PLAN
OWNER: LAWSON TATE
PROJECT: TATE SHOPS
PONDERAY, IDAHO

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

7B ENGINEERING
414 CHURCH STREET, SUITE 205 I
SANDPOINT, IDAHO 83864
(208)263-0623
info@7BEngineering.com

PROFESSIONAL ENGINEER REGISTERED 10086 03/22/22 STATE OF IDAHO DANIEL W. LARSON

PROJECT NO: 21105
DRAWN BY: ICE/DWL
CHECKED BY: DWL
SCALE: 1"=20'
(VALID FOR 24"x36" OR 22"x34")

SHEET 1B OF 4

STORM WATER & SNOW MANAGEMENT CALCULATIONS

IMPERVIOUS AREA

PROPOSED ROOF AREA: 10,816 SF + 5,568 SF + 5,568 SF = 21,952 SF
PROPOSED PARKING AREA: 17,692 SF
MISC. PATIO AREA/WALKWAY: 912 SF
TOTAL PROPOSED IMPERVIOUS AREA (AIMP): 40,556 SF

STORMWATER MANAGEMENT

PREDEVELOPED FLOW: 0.07 CFS (LIGHT INDUSTRIAL ~72 % IMP)
ODENSON SILT LOAMS (HYDROLOGIC SOILS B/D)
(AVG INFILTRATION RATE 0.125 IN/HR) (OUTFLOW 0.002 CFS)
REQ'D STORMWATER TREATMENT VOLUME: 40,556 SF X 0.5"= 1,691 CF
REQ'D DETENTION/RETENTION VOLUME: 6,316 CF (SEE STORMWATER CALCULATIONS/MEMO)
POSTDEVELOPED FLOW BEFORE TREATMENT: 0.10 CFS
POSTDEVELOPED FLOW AFTER TREATMENT: 0.02 CFS (INFILTRATION)
STORMWATER TREATMENT AREA: 7,710 SF (15 FT X 514 LF)
STORMWATER TREATMENT VOLUME PROVIDED: 3,598 CF @ 8" (1/2 (6'+15') X (8") X 514 LF)
TREATMENT/DETENTION VOLUME PROVIDED: 8,095.5 CF @ 18" (1/2 (6'+15') X 18" X 514 LF)

SNOW MANAGEMENT

AVERAGE ANNUAL SNOWFALL: 4.8 FT (58 INCHES)
PROPOSED COMPACTED TO FRESH SNOW RATIO: 5:1
AVERAGE FRESH SNOW TREATMENT VOLUME (FSV): 40,556 SF (AIMP) X 4.8 FT = 194,669 CF
REQ/COMPACTED SNOW TREATMENT VOLUME: FSV/5 =38,933 CF
ASSUMED MAX STORAGE HEIGHT: 6 FT
REQUIRED SNOW TREATMENT AREA: 6,489 SF (16% AIMP)
PROPOSED SNOW STORAGE AREA: 7,710 SF (STORMWATER AREA)
AVERAGE SNOW HEIGHT IN TREATMENT AREA: 5.05 FT (38,933 CF/7,710 SF)

GENERAL STORMWATER NOTES

1. EXISTING DRAINAGE FEATURES WILL BE PRESERVED OR RESTORED SUCH THAT NO BLOCKAGE OF EXISTING RUNOFF WATER WILL PERMANENTLY OCCUR.
2. RUNOFF FROM IMPERVIOUS SURFACES SHALL BE COLLECTED AND CONVEYED TO TREATMENT AREAS.
3. CONVEYANCE FACILITIES SHALL CONSIST OF ROCK LINED FLOWLINE, AND SWALES AS NOTED ON THESE PLANS.
4. STORMWATER TREATMENT FACILITIES SHALL CONSIST OF A INFILTRATION AREAS AS NOTED ON THE PLANS. THE TREATMENT FACILITIES ARE SIZED TO TREAT THE FIRST ½" AND THE 25-YEAR 24-HOUR EVENT.
5. THERE ARE TWO (2) OUTFALL LOCATIONS THAT DISCHARGE FROM THE TREATMENT AND CONVEYANCE FACILITIES.
   - 5.1. EXISTING SOUTH COLLECTION DITCH – FLOWS EAST/ CONNECTS TO EXISTING DRAINAGE ALONG MCGHEE'S PROEPERTY LINE.
   - 5.2. EXISTING NORTH COLLECTION DITCH – FLOWS WEST/ CONNECTS TO DRAINAGE ALONG McNEARNEY ROAD.
6. PROTECT THE OUTLETS WITH ROCK, VEGETATION, SLASH, OR A COMBINATION THEREOF, TO REDUCE OUTLET VELOCITIES AND POTENTIAL FOR EROSION.

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. GRASSED INFILTRATION AREA (GIA):
   - INSPECT FOR DEAD VEGETATION. REMOVE DEAD ZONE, RE-VEGETATE, AND DETERMINE CAUSE OF DEAD VEGETATION. CHOKING ON SEDIMENT, LACK OF NUTRIENTS, OR INADEQUATE WATERING OR 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.
   - MOW GRASS AND CONTROL WEEDS AS NEEDED.
   - IRRIGATE IF NECESSARY. DO NOT OVER-IRRIGATE.
   - CHECK THAT OUTLETS AND OUTLET PROTECTION ARE WORKING AND ARE NOT DAMAGED. REPLACE AS NECESSARY.

EROSION CONTROL MANAGEMENT

——•——•—— RECOMMENDED EROSION CONTROL ~ 600 LF
(COMPOST BERMS OR FIBER ROLLS IF NEEDDD. SEE DETAILS C/2, D/2)

** CONTRACTOR TO VERIFY EROSION CONTROL LOCATIONS WITH OWNER AND ENGINEER.*

EROSION CONSTRUCTION SCHEDULE	
STAKE FOUNDATION	MAY-22
PLACEMENT OF TEMPORARY EROSION CONTROLS	MAY-22
ROUGH GRADING (SWALES/GIAs)	JUNE-22
PHASE 1 BUILDING CONSTRUCTION AND GRADING	JUNE-22
RESEED SLOPES & DISTURBED AREAS	OCT-22

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. 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.
5. LEAVE TEMPORARY STORMWATER AND EROSION CONTROL MEASURES IN PLACE UNTIL VEGETATION HAS BEEN RE-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 BONNER COUNTY CODE, TITLE 12, APPENDIX B (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.

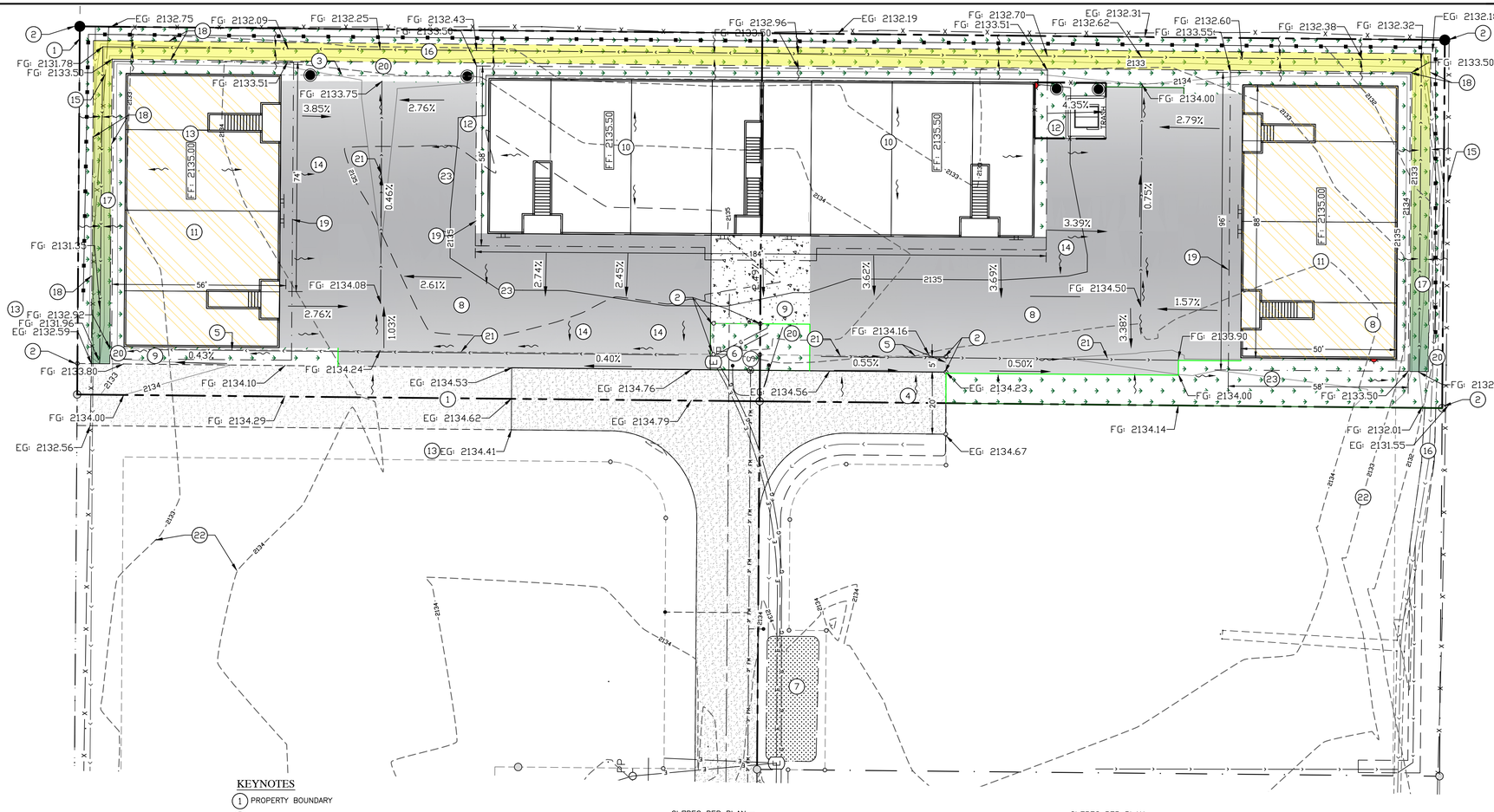
GRADING NOTES

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. PROPOSED (CUT/FILL ZONES) ARE RECOMMENDED TO HAVE A 2:1 SLOPE OR FLATTER TO MEET CITY REQUIREMENTS AND TO AID WITH RE-ESTABLISHING NATIVE VEGETION.
4. AREAS TO RECEIVE FILL SHALL BE CLEARED, GRUBBED, AND SCARIFIED PRIOR TO PLACING FILL.
5. ROADWAY AND BUILDING PAD FILLS SHALL BE PLACED IN LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY

ESTIMATED GRADING QUANTITIES

TOTAL ESTIMATED DISTURBED VOLUME ONSITE
* GRADING QUANTITIES ARE ESTIMATED BY AUTOCAD 2021 SOFTWARE
* STRIPPINGS ASSUMED 8"~0.66'
* ESTIMATED MATERIAL IMPORT 1.5' ~18" (0.5' TOP COARSE + 1' BASE COARSE)

GRADING AREA (SF)	VOLUME CUT (CY)	VOLUME FILL (CY)	GROSS GRADING VOLUME (CY)	ESTIMATED STRIPPINGS (CY)	ESTIMATED MATERIAL IMPORT (CY)	NET GRADING VOLUME (CY)
49,792	116	1,573	1,457 (FILL)	1,217	2,800	92.25 (CUT)

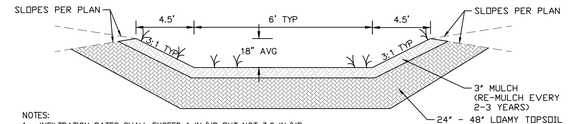


KEYNOTES

1. PROPERTY BOUNDARY
2. RETAIN & PROTECT EXISTING SURVEY MONUMENTS
3. EXISTING STORMWATER EASEMENT
4. EXISTING 20' WIDE INGRESS, EGRESS & UTILITY EASEMENT
5. 5' WIDE UTILITY EASEMENT
6. RETAIN & PROTECT EXISTING DRY UTILITIES (ELECTRICAL & GAS (AVISTA))
7. EXISTING STORMWATER FACILITY (COLVILLE LANE TREATMENT AREA)
8. PROPOSED PARKING LOT (GRAVEL) (SEE DETAIL F/4)
9. MISCELLANEOUS PARKING AREA (BIKE) & WALKWAY
10. PROPOSED PHASE I BUILDINGS (SEE SHEET 3)
11. PROPOSED PHASE II BUILDINGS
12. SITE OBSCURING FENCE (UTILITY AREA-TRASH ENCLOSURE WITHIN)
13. SURFACE SPOT ELEVATIONS (TYPICAL)
    FG = FINISHED GROUND
    EG = EXISTING GROUND
    FF = FINISHED FLOOR
14. PROPOSED STORMWATER FLOW
15. EXISTING FENCE (RELOCATE OR REMOVE AS NEEDED)
16. EXISTING STORMWATER DITCHES
17. PROPOSED STORMWATER TREATMENT & RETENTION AREA (MODIFIED STORMWATER CHANNEL/GIA) (SEE DETAIL A/2)
    LENGTH: 514 FT — OUTFLOW(1) NW: 2132.0±
    TOP WIDTH: 15 FT — OUTFLOW(2) SW: 2132.3±
    BOTTOM WIDTH: 6 FT — AREA: 7,710 SF
    DEPTH: 15" AVG — VOLUME:6,168 SF
18. PROPOSED STORMWATER FACILITY BED OUTLINE
19. PROPOSED ROOF OUTLINE (GUTTER AND SNOWSTOPS ON ALONG FRONT OF BUILDING)
20. REPLANT DISTURBED AREAS WITH APPROVED GRASS MIXTURE (SEE DETAIL B/2)
21. PROPOSED DRAINAGE FLOW LINE OR VALLEY GUTTER
22. EXISTING GROUND CONTOURS (TYP) (5' MAJORS, 1' MINORS)
23. FINISHED GROUND CONTOURS (TYP) (5' MAJORS, 1' MINORS)

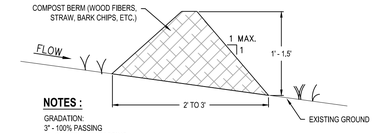
LEGEND

- PROPERTY PARCEL
- PROPOSED BUILDING
- SETBACK LINE
- EASEMENT LINE
- W — EXISTING 8" WATER MAIN
- EXISTING WATER SERVICE
- PROPOSED WATER CONNECTION
- E — UNDERGROUND POWER LINES
- OHP — OVERHEAD POWER LINES
- G — GAS LINE
- EXISTING 3" FORCE MAIN
- PROPOSED SEWER CONNECTION
- DRAINAGE DITCH/FLOW LINE
- EXISTING FENCE
- PROPOSED SITE OBSCURING FENCE
- PROPOSED ROOF OULINE
- FINISHED GRADE 5' CONTOUR
- FINISHED GRADE 1' CONTOUR
- EXISTING GRADE 5' CONTOUR
- EXISTING GRADE 1' CONTOUR
- BOTTOM OF STORMWATER FACILITY
- PROPOSED STORMWATER FACILITY
- PROPOSED ADDITIONAL GREEN SPACE
- PROPERTY CORNER, CALCULATED POINT (EASEMENT)
- SIDEWALK OR WALKWAY
- GRAVEL PARKING SURFACE
- FUTURE PHASE OF CONSTRUCTION



NOTES:
1. INFILTRATION RATES SHALL EXCEED 1 IN/HR BUT NOT 3.0 IN/HR.
2. DO NOT COMPACT TOPSOIL LAYER.
3. DITCH SHALL BE HYDROSEEDED WITH APPROPRIATE GRASS MIXTURE OR;
4. LANDSCAPE AS RAINGARDEN (SEE BMP DETAILS).
5. KEEP GRASS WITHIN GIA 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.

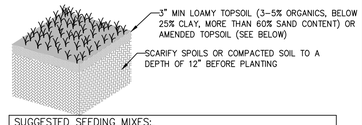
A/2 **TYPICAL GRASSY INFILTRATION AREA** N.T.S.
BIOFILTRATION/BIORETENTION AREAS



NOTES :
GRADATION:
3" - 100% PASSING
1" - 90% TO 100% PASSING
3/4" - 70% TO 100% PASSING
1/4" - 30% TO 75% PASSING

NOTHING LONGER THAN 6" SHALL BE USED.
CONSTRUCT WITH 25% TO 100% ORGANIC MATTER (WOOD FIBER, STRAW, COMPOST, ETC.)

C/2 **TEMPORARY BERM (COMPOST)** N.T.S.

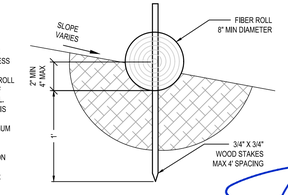


SUGGESTED SEEDING MIXES:

GRASSED INFILTRATION AREA:	PERMANENT EROSION CONTROL SEED MIX:
IDAHO FESCUE (60#/AC)	SPRING WHEAT (60#/AC)
BEAKED SEDGE (60#/AC),	BARLEY (80#/AC)
SMOOTH BROME (80#/AC).	OATS (60#/AC).

B/2 **STORMWATER & EROSION CONTROL PLANTINGS** N.T.S. DISTURBED AREA REPLANTING

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.



D/2 **FIBER ROLLS** N.T.S.

REVISION	DATE	DESCRIPTION
1	03/14/22	REPLACES SHEET 2 WITH CHANGES
2	03/22/22	REPLACES SHEET 2 WITH CHANGES

SHEET TITLE: STORMWATER AND GRADING PLAN
OWNER: LAWSON TATE
PROJECT: TATE SHOPS, PONDERAY, IDAHO

Know what's below. Call before you dig.

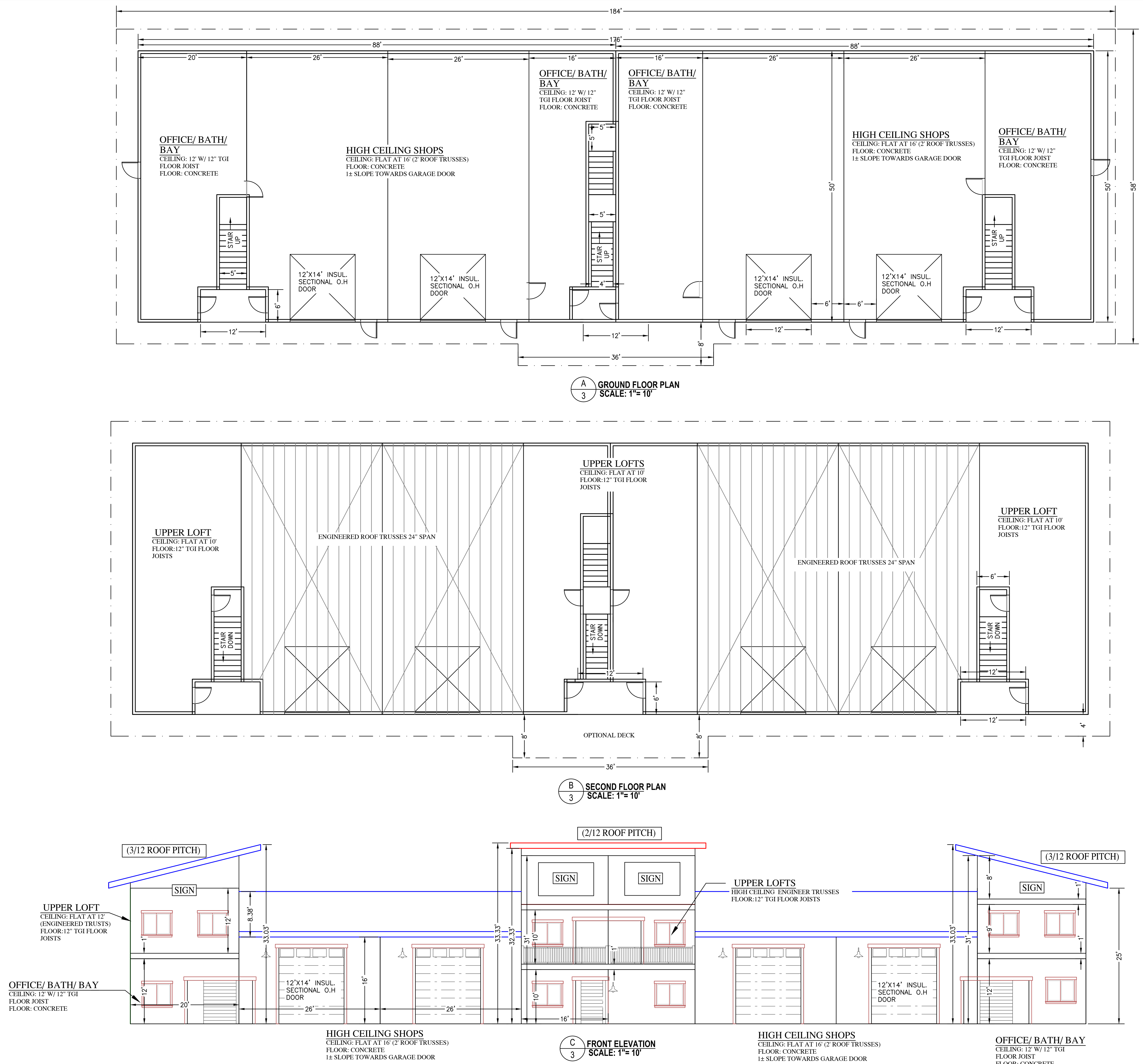
7B ENGINEERING
414 CHURCH STREET, SUITE 205 I
SANDPOINT, IDAHO 83864
info@7Bengineering.com

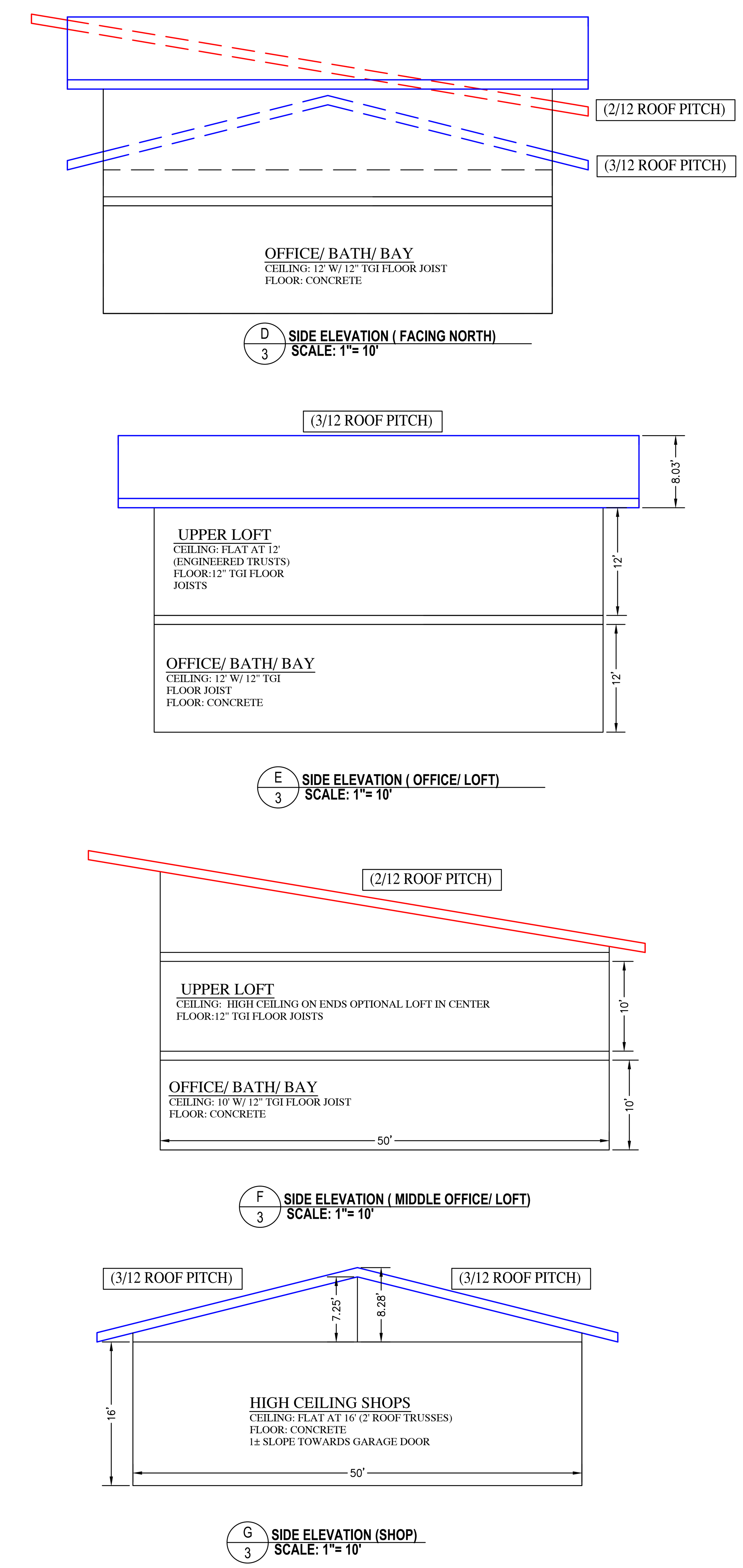
PROFESSIONAL ENGINEER REGISTERED 10086 3/22/22 STATE OF IDAHO DANIEL W. LARSON

PROJECT NO: 21105
DRAWN BY: TCE/DWL
CHECKED BY: DWL
SCALE: 1:20
(VALID FOR 24"x36" OR 22"x34")

SHEET 2A OF 4

Z:\engineering\2021\21105 tate properties\dwg\c-base 21105.dwg





G 3 SIDE ELEVATION (SHOP)
SCALE: 1"= 10'

EXTERIOR ELEVATION MATERIALS:

1. EXTERIOR WALL TO BE 2X6 OR 2X8 STUDS @16" O.C. (TO BE DETERMINED BY STRUCTURAL ENGINEER OR APPROVED EQUAL.
2. SIDING SHALL BE (METAL) OR SPECIFIED BY OWNER TYVEK BUILDING WRAP OVER 7/16" SHEATHING NAILED SHEARWALL W/ 8D @ 6" O.C.. EDGES AND 10" O.C FIELD TYP.
3. ALL EXTERIOR WINDOWS, DOORS,AND CORNER TRIM TO BE C- METAL OR OTHER MATERIAL SPECIFIED BY OWNER .
4. ALL ROOF SLOPE ARE 2"12" PITCH WITH OVERHANGS AS SPECIFIED .
5. SOFFIT AND SOFFIT VENTING AND ATTIC VENTILATION SHALL BE SPECIFIED BY BUILDER.
6. BUILDER SHALL PERFORM FLASHING AS REQUIRED FOR ALL VALLEYS, GABLE ENDS, SOFFIT FACES. UNDERLAYMENT FOR THE ENTIRE ROOF SHALL BE CLASS A FIRE RESISTIVE.
7. ATTIC AND EXTERIOR WALL INSULATION TO BE SPECIFIED BY BUILDER.
8. ALL WINDOWS TO BE VINYL DUAL GLAZED, VERFITY ,MAKE & GRADE WITH BUILDER.
9. AT PERMIMETER OF STRUCTURE ALL EARTH SHALL SLOPE AWAY FORM STRUCTURE AT RATE 1/4" PER FOOT FOR THE FIRST 10'-0" MINIMUM FOR PROPER DRAINAGE.

SPECIAL NOTE:
7B ENGINEERING IS AN ENVIRONMENTAL & CIVIL ENGINEERING FIRM NOT AN ARCHITECTURAL OR STRUCTURAL ENGINEERING FIRM. 7B SHALL NOT BE LIABLE FOR STRUCTURAL OR ARCHITECTURAL DESIGN INTEGRITY. IF ANY ERROR OR OMISSION DOES OCCUR, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER.

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REVISION #	DATE	DESCRIPTION
1	03/23/22	REPLACES SHEET 3 WITH CHANGES

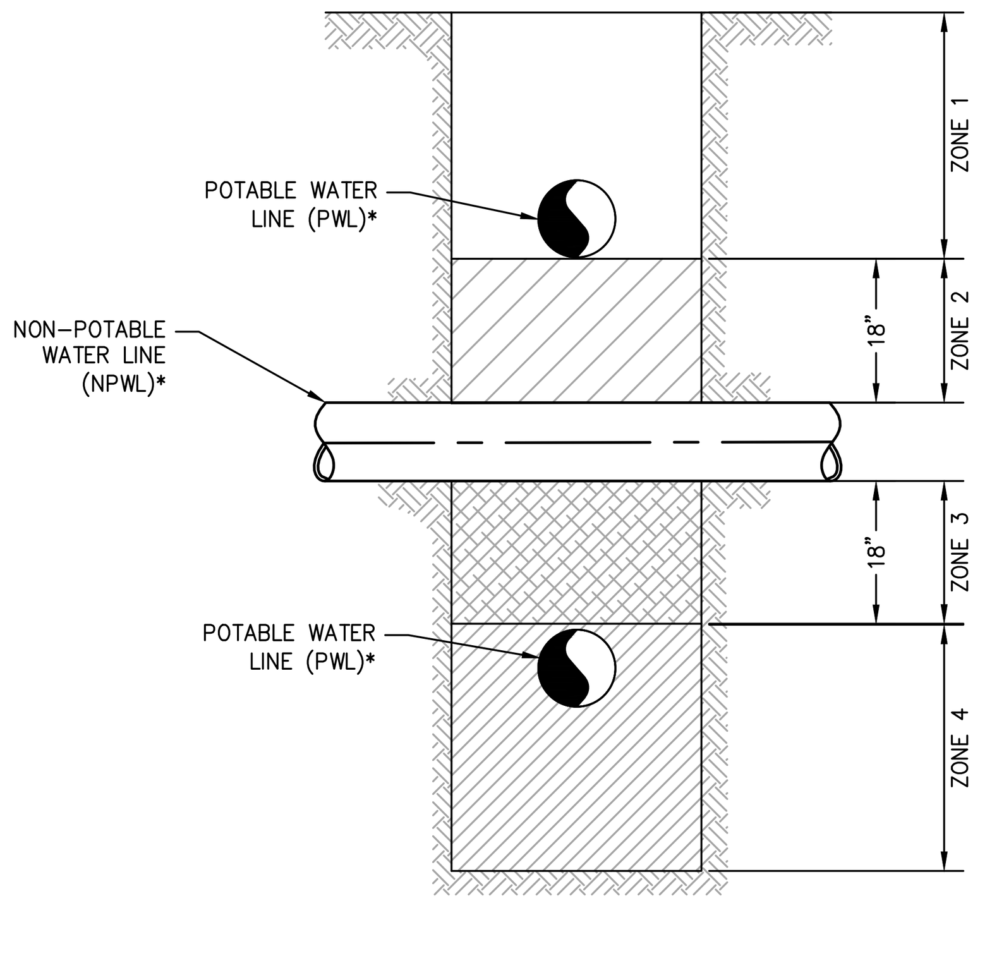
SHEET TITLE: PRELIMINARY BUILDING FLOOR AND ELEVATION PLANS
OWNER: LAWSON TATE
PROJECT: TATE SHOPS
PONDERAY, IDAHO

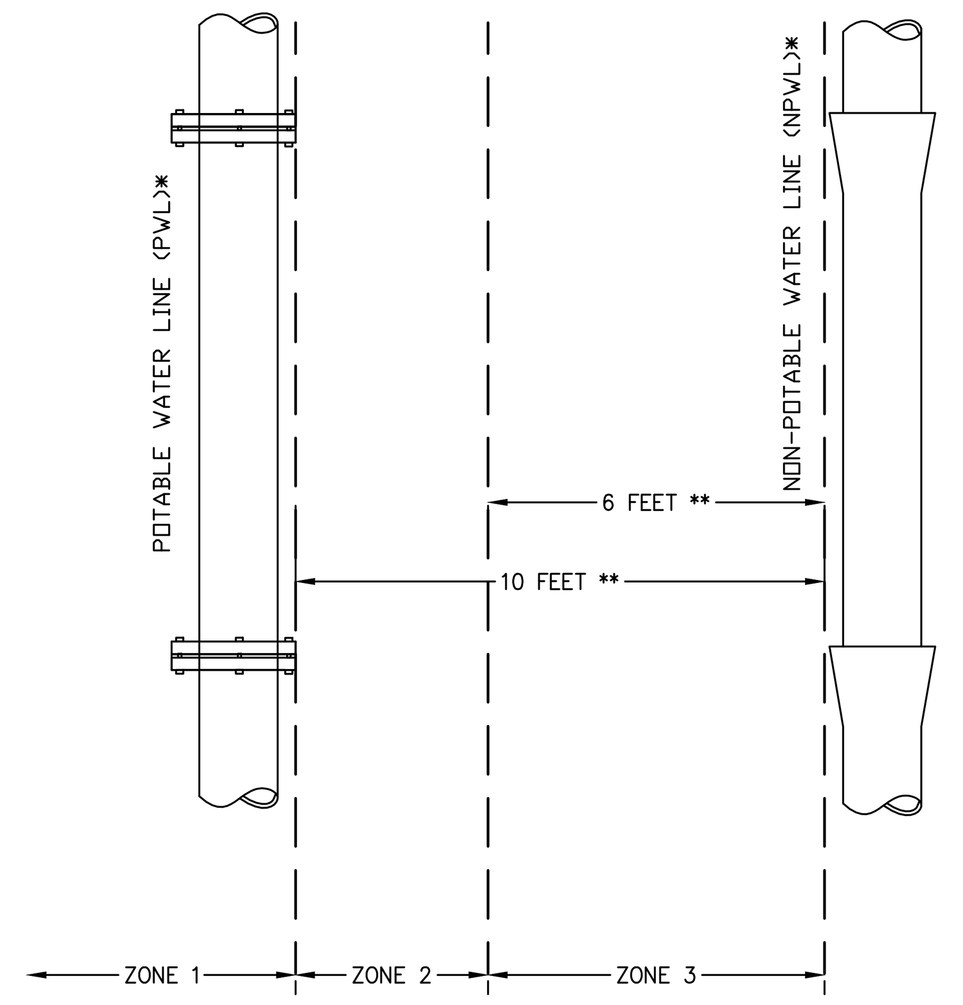
811 Know what's below. Call before you dig.

7B ENGINEERING
414 CHURCH STREET, SUITE 205 I
SANDPOINT, IDAHO 83864
(208)263-0623
info@7BEngineering.com

PROFESSIONAL REGISTERED ENGINEER 10586 03/23/2022 STATE OF IDAHO DANIEL W. LARSON
PRELIMINARY — NOT FOR CONSTRUCTION

PROJECT NO: 21105
DRAWN BY: ICE
CHECKED BY: DWL
SCALE: 1"=20'
(VALID FOR 24"x36" OR 22"x34")
SHEET 3A OF 4





VERTICAL SEPARATION REQUIREMENTS

ZONE 1: A) WATER AND NPWL MUST BE SEPARATED BY AT LEAST 18"

AND B) ONE FULL, UNCUT 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, UNCUT 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 SLEEVE 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.

HORIZONTAL SEPARATION REQUIREMENTS

ZONE 1: A) IF CONSTRUCTING BOTH PWL AND NPWL, PIPELINES MUST BE IN SEPARATE TRENCHES.

ZONE 2: A) PWL AMD 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.

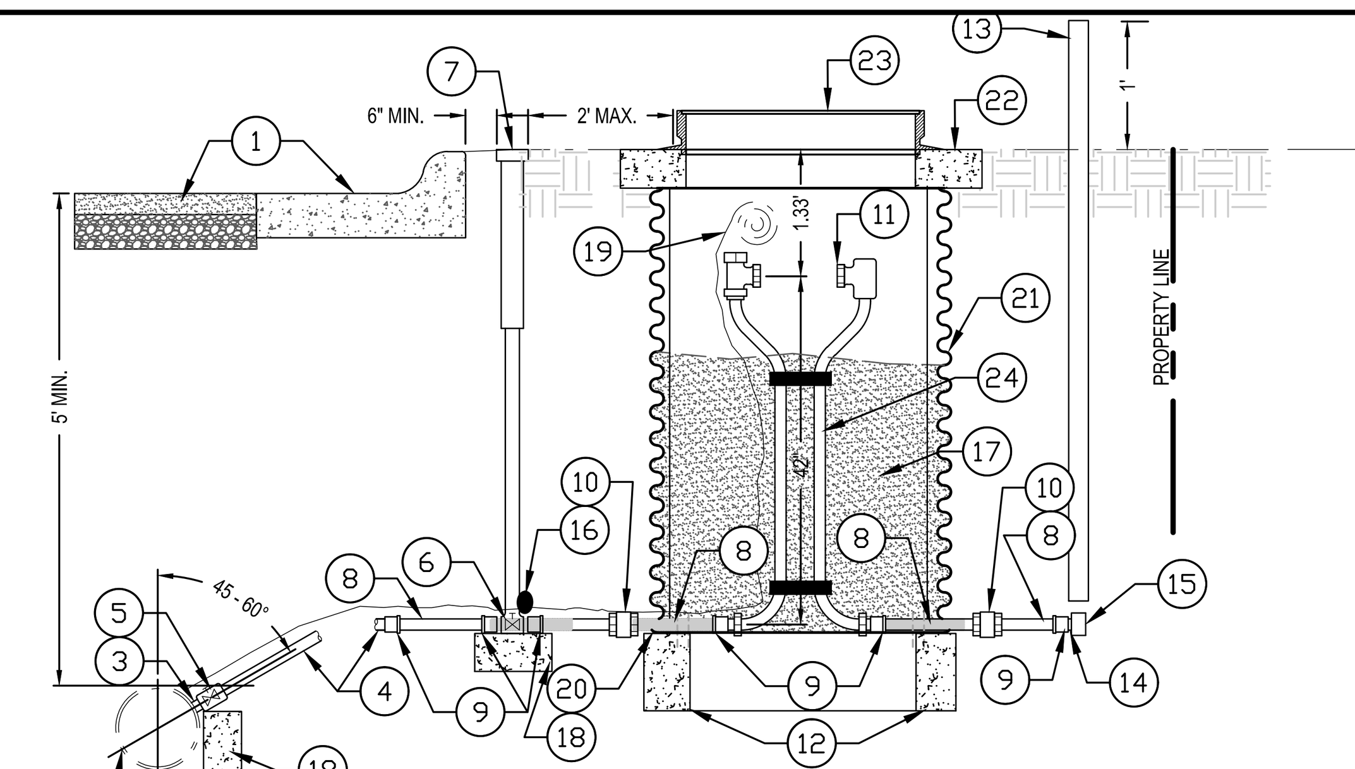
NOTE: SANITARY SEWER FORCE MAINS MUST HAVE MIN. 10' HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION. ZONE 2 AND ZONE 3 PLACEMENTS ARE NOT ALLOWED WITHOUT A WAIVER GRANTED BY DEQ.

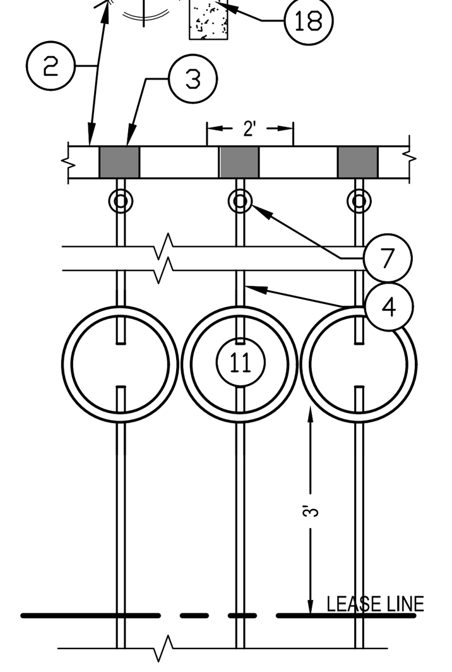
* THE TERM "LINE" APPLIES TO BOTH MAIN LINES AND SERVICE LINES. FOR SPECIAL CIRCUMSTANCES REGARDING EXISTING POTABLE OR NON-POTABLE SERVICE LINES, REFER TO IDAPA 58.01.08.542.07.C AND 58.01.16.430.02.0.iii, RESPECTIVELY.

** DISTANCES ARE HORIZONTAL

*** JOINT PLACEMENT APPLIES ONLY TO FACILITY BEING CONSTRUCTED: POTABLE WATER, NON-POTABLE WATER, OR BOTH.

A/4 POTABLE AND NON-POTABLE WATER LINE SEPARATION
N.T.S.





METER SETTING PLAN

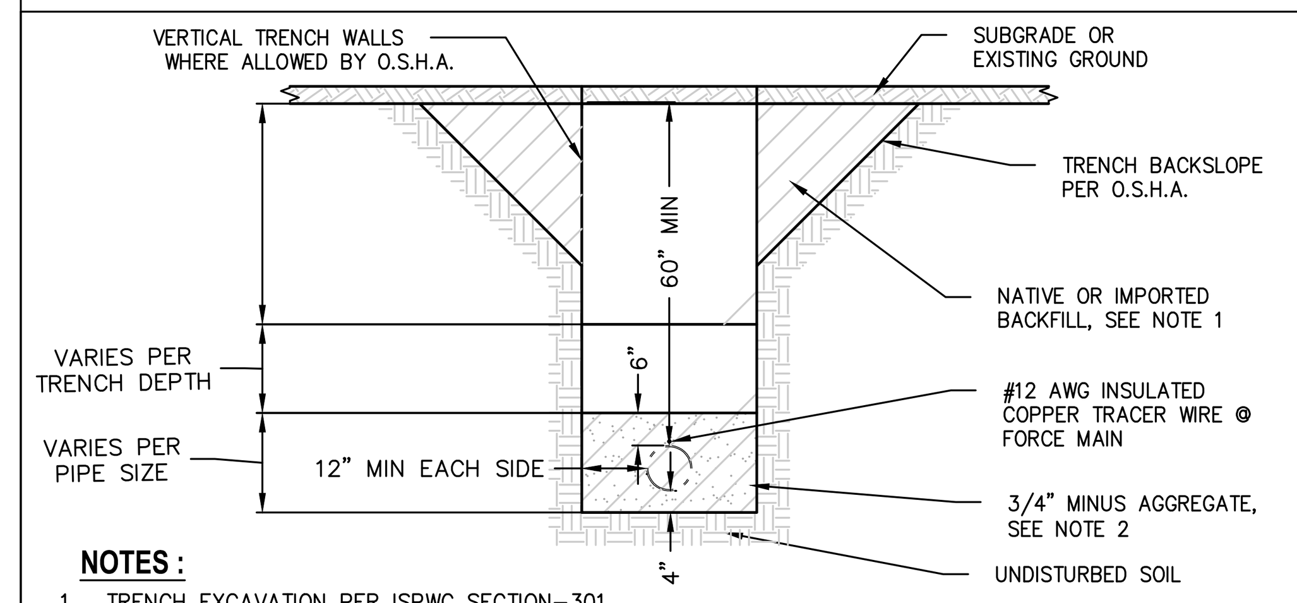
GENERAL CONSTRUCTION NOTES:

1. ALL MATERIALS SHALL CONFORM TO NSF 61 STANDARDS.
2. NO LEAD, GALVANIZED, OR YELLOW BRASS ALLOWED IN ANY PIPE OR FITTINGS. STAINLESS STEEL PREFERRED.
3. WATER BOXEX ARE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC. TRAFFIC RATED MATERIALS TO BE USED.
4. ALL METER BOXES AND LIDS SHALL BE APPROVED BY THE DISTRICT.
5. ALL SERVICE LINES, VALVES AND FITTINGS SHALL COMPLY WITH AWWA C800.
6. METER BOX SHALL BE CARSON 1220 ASSEMBLY SET WITH METER BLANK. DISTRICT FORCES TO INSTALL METER. (AY MCDONALD COIL PIS ASSEMBLY WITH AY MCDONALD COIL BOX ARE ACCEPTABLE ALTERNATIVES)
7. ALL BRASS COMPONENTS SHALL BE 'NO LEAD' BRASS MEETING UNS C89833 AS PER ASTM B584.
8. ONE 2" OR 6" 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.
9. 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.
10. ALL SERVICES SHALL EXTEND BEYOND UTILITY EASEMENTS AND UTILITIES INSTALLED WITH THIS PROJECT.
11. 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.

KEYNOTES:

1. ROADWAY AS DETAILED IN THESE PLANS. CURB & GUTTER, SIDEWALK, OR ROADSIDE DITCH AS REQUIRED.
2. WATER MAIN SIZE, MATERIAL, AND CONSTRUCTION DETAILS AS REQUIRED WITH THESE PLANS.
3. DOUBLE BAND STAINLESS STEEL TAPPING SADDLE W/ 1" MIPT X 1" IPS COMPRESSION CORP. STOP & POLY ADAPTER.
4. POLYETHYLENE (200 PSI) SERVICE LINE: 1" IRON PIPE SIZE (SIDR 7) WITH PACK JOINT BRASS FITTINGS AND STAINLESS STEEL INSERTS. NO SPLICING IS ALLOWED.
5. 1" BALLCORP TYPE FB400 INLET AWWA TAPER-CC X PACK JOINT W/ S.S. INSERT (FORD OR EQUAL)
6. 1" BALL CURB STOP
7. 3" PVC SCH. 40 RISER WITH TRUMBULL T-374 LID MARKED "WATER"
8. 12" STAINLESS STEEL OR BRASS PIPE EACH SIDE OF METER SET AND CURB BOX
9. BRASS OR STAINLESS STEEL COMPRESSION POLY ADAPTER (1").
10. RED BRASS OR STAINLESS STEEL UNION.
11. BADGER WATER METER TO BE SET BY CITY FORCES.
12. 2" x 24" O.D. CONCRETE GRADE RING (UNDER YOKE)
13. 2" X 4" MARKER BOARD PAINTED BLUE
14. 1" POLY SERVICE LINE PER PLUMBING CODE STUBBED PAST DRY UTILITIES.
15. 1" POLY CAP (TO BE REMOVED WHEN SERVICE IS EXTENDED TO FINAL USE).
16. 3M MID-RANGE MARKER #1257 TO BE PLACED AT CURB STOP.
17. BED METER SETTER IN SAND OR COMPACTED GRANULAR FILL TO WITHIN 6" OF METER
18. BRICK OR PRECAST CONCRETE BLOCK.
19. 12 GA. BLUE TONING WIRE. SPLICE WITH WATER-TIGHT HEAT SHRINK CONNECTORS OR EQUAL.
20. NOTCH CMP OR CORRUGATED POLY FOR OFFSET ON GRADE RING.
21. 18" DIA. x 44" MIN. LENGTH CMP OR CORRUGATED DOUBLE-WALL POLY
22. 4" x 24" O.D. CONCRETE GRADE RING.
23. SPECIAL 20-1/2" WATER LID RING & CITY OF SANDPOINT SPECIAL "WATER" COVER.
24. METER SETTER W/ THE FOLLOWING FACTORY ASSEMBLED ITEMS:
    A. ANGLE BALL VALVE WITH PADLOCK WING.
    B. BRACE PIPE EYELETS STANDARD.
    C. BALL VALVE WITH PADLOCK WING ON BY-PASS.
    D. BY-PASS PACK JOINT.
    E. ANGLE CHECK VALVE.
    F. RED BRASS BY-PASS.

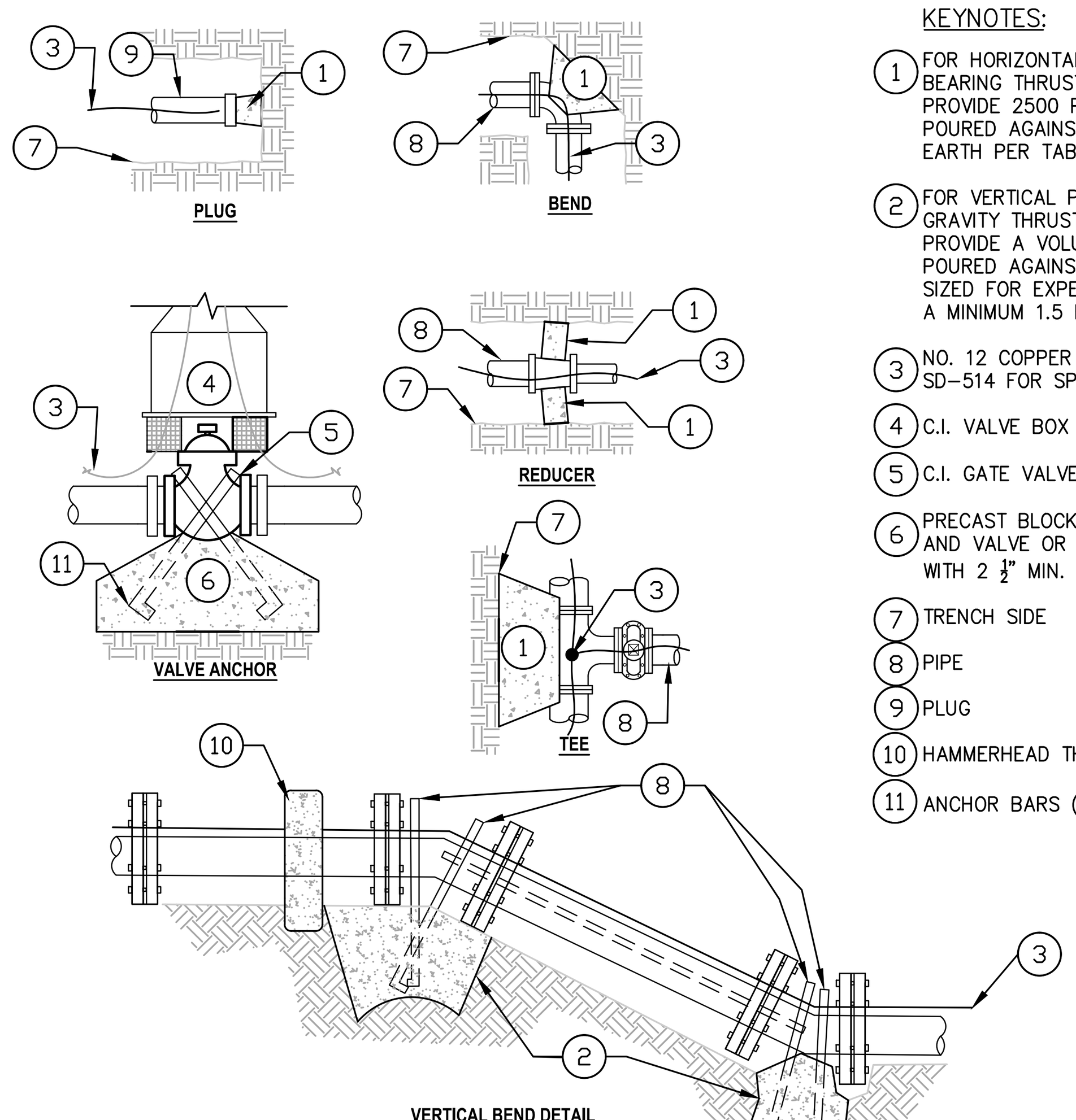
B/4 3/4" - 1" WATER SERVICE CONNECTION
N.T.S.



NOTES :

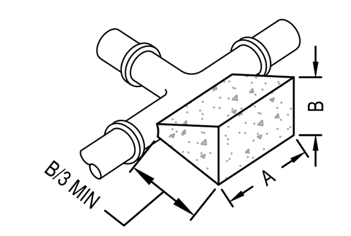
1. TRENCH EXCAVATION PER ISPWC SECTION–301.
2. OVEREXCAVATION OF UNSUITABLE SOILS TO BE APPROVED BY ENGINEER OF RECORD.
3. TRENCH COMPACTION TO BE PER ISPWC SECTION 306, PIPE BEDDING PER ISPWC SECTION–305
4. PROVIDE 48 HOURS NOTICE FOR SURVEY LINE AND GRADE STAKING PER ISPWC SECTION–301.
5. IF MORE THAN 50 LF OF TRENCH IS OPEN DURING CONSTRUCTION, CONTRACTOR TO SECURE TRENCH WITH BARRICADES OR "CAUTION OPEN TRENCH" TAPE TO WARD OFF LOCAL TRAFFIC.
6. EXCAVATE 24" MINIMUM CLEARANCE FROM TRENCH WALLS TO APPURTENANCES (VALVES, TEES, BENDS, ETC)
7. TRENCH DEPTH TO BE AS NEEDED TO MAINTAIN PIPE GRADE AS SHOWN.
8. REPLACE OVER–EXCAVATED TRENCH FOUNDATION MATERIAL IN ACCORDANCE WITH ISPWC SECTION–304–TRENCH FOUNDATION STABILIZATION, AT NO ADDITIONAL COST TO THE OWNER.
9. AVOID OVERLOADING TRENCH BANKS WITH NATIVE MATERIALS SUITABLE FOR BACKFILL.
10. 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
11. CONTRACTOR TO COMPLY WITH ISPWC DIVISION 1000–CONSTRUCTION STORMWATER (BMPS) AND THE DEQ MANUAL OF CONSTRUCTION STORMWATER BEST MANAGEMENT PRACTICES.

C/4 TYPICAL TRENCH (ISPWC)
N.T.S.



KEYNOTES:

1. FOR HORIZONTAL PIPE BENDS, BEARING THRUST BLOCKS MUST PROVIDE 2500 PSI CONCRETE POURED AGAINST UNDISTURBED EARTH PER TABLE 1
2. 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
3. NO. 12 COPPER TRACER WIRE. SEE SD–514 FOR SPLICING
4. C.I. VALVE BOX WITH COVER
5. C.I. GATE VALVE (M.J.)
6. PRECAST BLOCK FOR CUT IN TEE AND VALVE OR CAST IN PLACE WITH 2 ½" MIN. REBAR
7. TRENCH SIDE
8. PIPE
9. PLUG
10. HAMMERHEAD THRUST BLOCKING
11. ANCHOR BARS (½" MIN.)



BLOCKING DIMENSIONS

DIMENSIONS FOR THRUST BLOCKING*

FITTING SIZES	TEE & PLUG A	TEE & PLUG B	90° BEND A	90° BEND B
3"	2'-0"	1'-6"	2'-0"	1'-6"
4"	2'-0"	1'-6"	2'-0"	1'-6"
6"	2'-0"	2'-0"	2'-6"	2'-6"
8"	3'-0"	2'-6"	3'-6"	3'-0"
10"	3'-6"	3'-6"	4'-0"	4'-0"
12"	4'-0"	4'-0"	5'-0"	5'-0"
14"	5'-6"	4'-0"	6'-6"	5'-0"
FITTING SIZES	45° BEND & WYE A	45° BEND & WYE B	REDUCER & 22½° BEND A	REDUCER & 22½° BEND B
3"	2'-0"	1'-0"	2'-0"	0'-6"
4"	2'-0"	1'-0"	2'-0"	0'-6"
6"	2'-0"	2'-0"	2'-0"	1'-0"
8"	2'-6"	2'-6"	2'-0"	1'-6"
10"	3'-0"	3'-0"	2'-6"	2'-0"
12"	4'-0"	3'-6"	3'-0"	2'-6"
14"	5'-0"	3'-6"	3'-6"	2'-6"

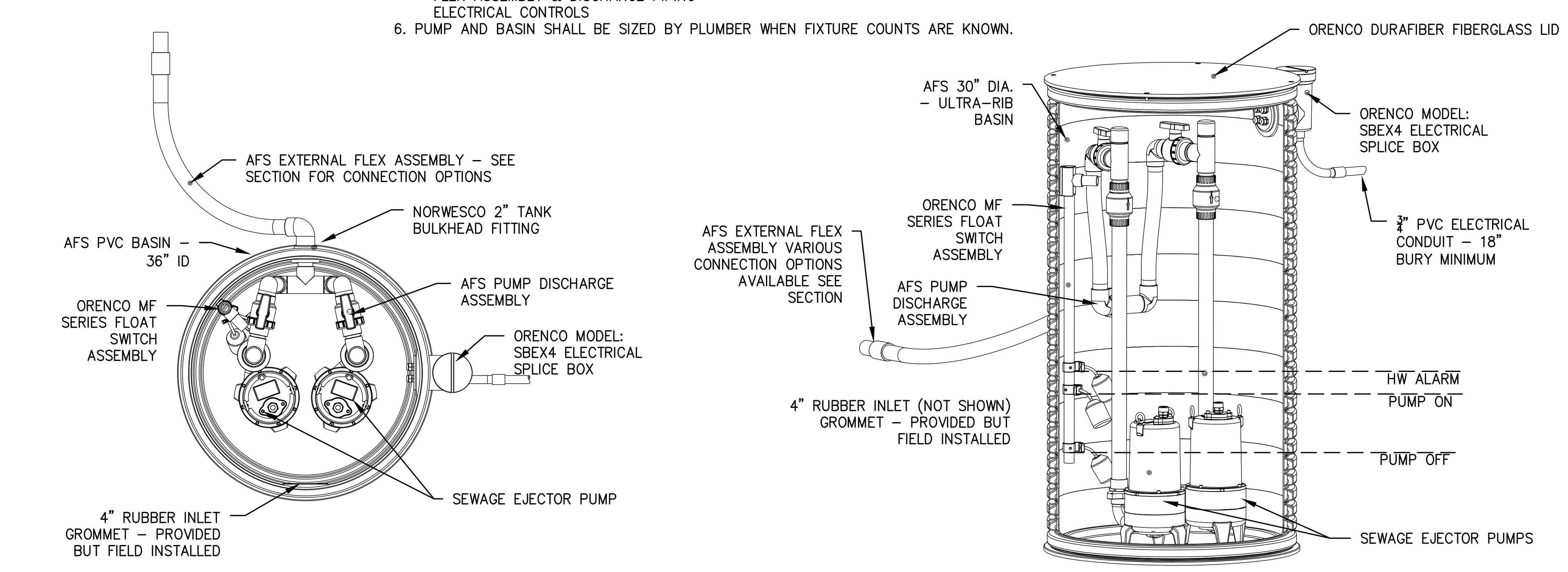
*BASED ON 150 PSI MAIN PRESSURE & 2000 PSF SOIL BEARING PRESSURE

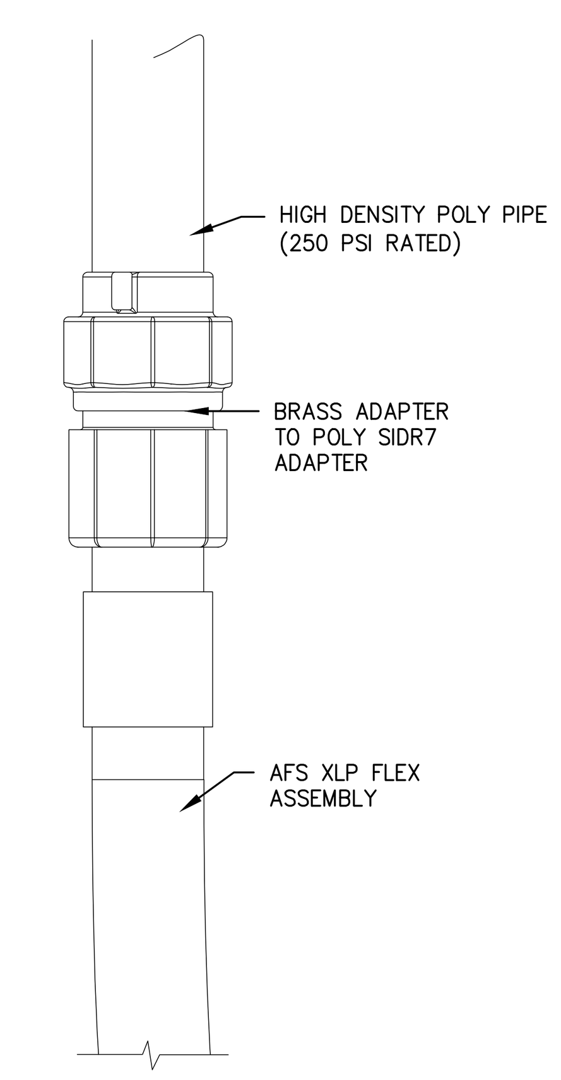
NOTES:

1. THRUST BLOCK SHALL BE CAST IN PLACE AGAINST UNDISTURBED OR COMPACTED SOIL.
2. ALL CONCRETE TO BE MINIMUM 2500 PSI.
3. ALL BOLTS SHALL BE LEFT FREE OF CONCRETE AND ACCESSIBLE BY WRENCH.
4. MINIMUM 4 MIL PLASTIC SHALL BE PLACED BETWEEN FITTING AND THRUST BLOCK.
5. 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.

E/4 THRUST BLOCKING
N.T.S.

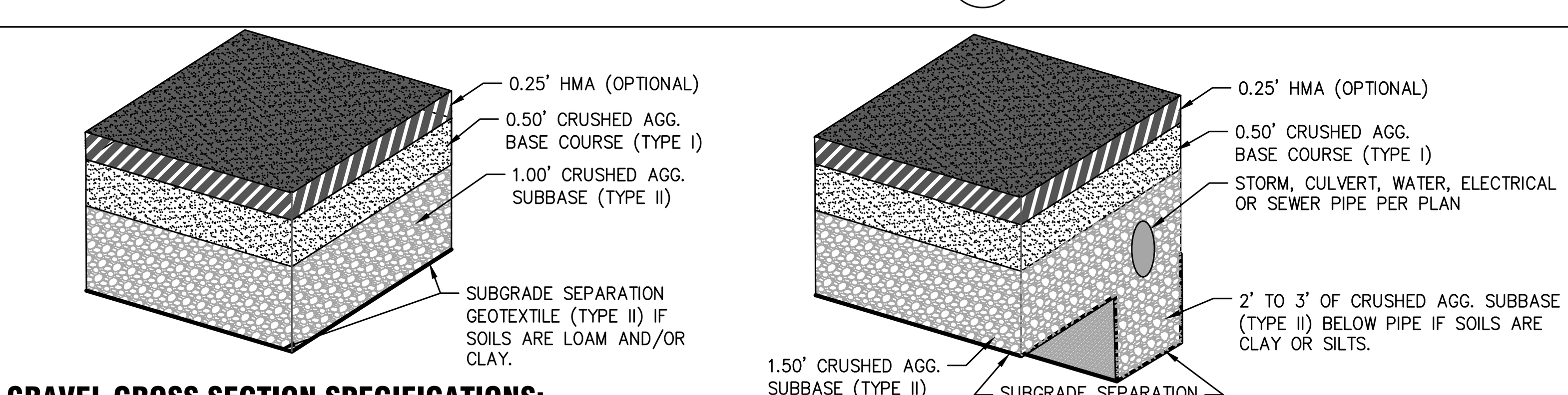
GENERAL NOTES:
1. PUMP BASIN TYPE: 30" ID PVC ULTRARIB WITH FIBERGLASS LID & EPOXY BONDED BOTTOM.
2. TANK SIZE: 30" INTERIOR DIAMETER – HEIGHTS VARY DEPENDING ON APPLICATION
3. TANK APPLICATION: EXTERIOR SOLID SEWAGE PUMPING SYSTEM
4. PUMPING SYSTEM TYPE: LOW HEAD SEWAGE
5. BASIN ASSEMBLY DOES NOT INCLUDE:
   - PUMP
   - FLOATS
   - SPLICE BOX & CONDUIT
   - FLEX ASSEMBLY & DISCHARGE PIPING
   - ELECTRICAL CONTROLS
6. PUMP AND BASIN SHALL BE SIZED BY PLUMBER WHEN FIXTURE COUNTS ARE KNOWN.





FLEX ASSEMBLY- CONNECTION

D/4 TYPICAL DUPLEX PUMP BASIN (AFS OR APPROVED EQUAL)
N.T.S.



GRAVEL CROSS SECTION SPECIFICATIONS:

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

APPROACH CONSTRUCTION SPECIFICATIONS:

1. EXCAVATE TO SUBGRADE: 1.5' MINIMUM
2. INSTALL SUBGRADE SEPARATION GEOTEXTILE (ISPWC TYPE II)
3. CULVERT 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 (ISPWC TYPE II)
5. BASE COURSE: 0.50' CRUSHED AGGREGATE BASE (ISPWC TYPE I)
6. PAVEMENT: 0.25' OF HMA (OPTIONAL)
7. CULVERT 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).

F/4 PARKING LOT CROSS SECTIONS
N.T.S.

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REVISION # | DATE | DESCRIPTION

SHEET TITLE: WATER , SEWER AND STREET DETAILS
OWNER: LAWSON TATE
PROJECT: TATE SHOPS, PONDERAY, IDAHO

Know what's below. Call before you dig.

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414 CHURCH STREET, SUITE 205 I
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PROFESSIONAL ENGINEER, REGISTERED 10086, 03/23/2022, STATE OF IDAHO, DANIEL W. LARSON

PROJECT NO: 21105
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