Application for Waiver from Construction Standards for Public Water Systems

Water System Name USFS Cloud Cap/Cooper Spur PWS ID 92634

Project or Facility Cloud Cap Inn Spring Reconstruction and Waterlines County Hood River

Need for waiver identified: ☐ Water System Survey Date of Survey
☒ Plan Review # 199-2021

Construction standard requested to be waived: OAR 333-061-0050 (2)(b)(A)(ii)

As provided under OAR 333-061-0055, the Department may grant waivers from the construction standards prescribed by these rules:

(a) When it is demonstrated to the satisfaction of the Department that strict compliance with the rule would be highly burdensome or impractical due to special conditions or causes; and

(b) When the public or private interest in the granting of the waiver is found by the Department to clearly outweigh the interest of the application of uniform rules; and

(c) When alternate measures are provided which, in the opinion of the Department, will provide adequate protection to the health and safety of the public including the ability to produce water which does not exceed the maximum contaminant levels listed in rule 333-061-0030.

Describe situation that conflicts with the standard.

The spring and spring box does not include a security fence to prevent access by animals or unauthorized personnel.

Describe why meeting the standard is highly burdensome or impractical.

We have concluded that a security fence would be unnecessary in this particular situation given the spring collection system and spring box will be buried. Additionally, the spring is adjacent to Mt Hood Trail #600 and a fence may draw more attention to the site.

Describe proposed alternate measure that provide adequate protection to public health and safety.

The spring collection system and spring box will be buried with the final grade providing greater than 3-feet of cover/backfill. The spring box design access includes a water tight lockable manhole cover to prevent water intrusion and unauthorize access, see Sheet C-3 in the attached design drawings.

Alex M. Bargmeyer Digitally signed by Alex M. Bargmeyer Contact Info: alex.bargmeyer@murraysmith.us Date: 2022.03.10 09:46:14-08'00'

Signature

3-10-2022
Date

Attach plans of proposed waiver request or additional supporting information and
- Email your regulator; or
- Email dws.planreview@dhsoha.state.or.us; or
- Mail:
  Oregon Health Authority
  Drinking Water Services #640
  PO Box 14450
  Portland, OR 97293-0450

Name Alex M. Bargmeyer
Address 888 SW 5th Avenue, Suite 1170
City/State/Zip Portland OR, 97204
Telephone Number

☐ Comments:

☒ Attachments: 100% Design Drawings

OHA Use Only

Waiver ID 418-2022

Entered into waiver database [x]

[x] Plan Review Coordinator's notes: Installation of a waterproof locked springbox lid is an acceptable mitigation to using a fence in this situation.

After due consideration the above requested waiver from the construction standards of OAR 333-061-0050 is hereby:

[X] Approved Comments: If future inspections show signs of vandalism or contamination, a fence may be required.

[ ] Denied

Kari Sabis

3/18/22

Drinking Water Regional Manager Signature
Oregon Health Authority

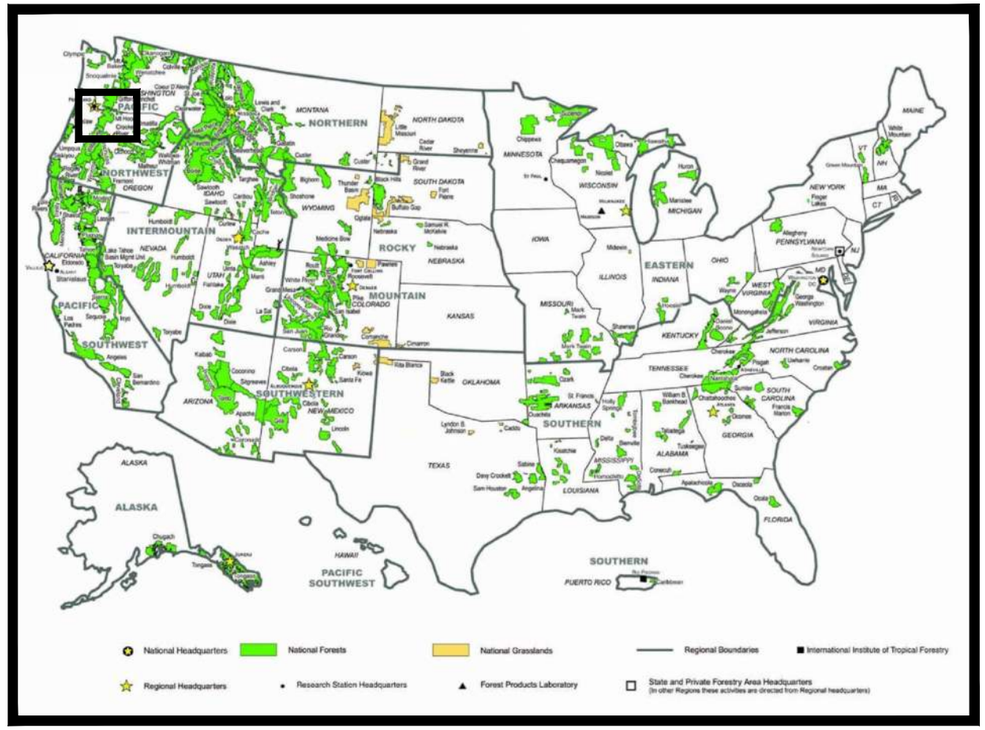
Date

Waiver database updated [x]

United States Department of Agriculture
Forest Service

(R06) PACIFIC NORTHWEST REGION
MOUNT HOOD NATIONAL FOREST
HOOD RIVER COUNTY
OREGON

CLOUD CAP INN
WATER SYSTEM RENOVATION



PROJECT LOCATION

VICINITY MAP

TRAVEL DIRECTIONS:

Hood River Ranger Station
6780 OR-35, Mt Hood, OR 97041

1. Head east toward OR-35 S — 335 ft
2. Turn right onto OR-35 S — 8.8 mi
3. Turn right onto Cooper Spur Rd — 2.4 mi
4. Turn left onto Cloud Cap Rd — 1.0 mi
5. Slight right to stay on Cloud Cap Rd — 9.3 mi
   Destination will be on the left

Cloud Cap Inn
Cloud Cap Rd, Mt Hood, OR 97041 — 45.4042, -121.6543

INDEX OF SHEETS		
SHEET	**SHEET TITLE**	**DATE**
G-1	COVER SHEET, INDEX OF SHEETS, AND VICINITY MAP	
G-2	ABBREVIATIONS, SYMBOLS, AND LEGEND	
G-3	GENERAL NOTES, EROSION CONTROL NOTES, AND KEY MAP	
C-1	SPRING SITE EXISTING CONDITIONS AND TEMPORARY EXCAVATION PLANS	
C-2	SPRING SITE PROPOSED IMPROVEMENTS PLAN	
C-3	SPRING SITE PROPOSED IMPROVEMENTS SECTIONS	
C-4	SPRING MAIN PLAN & PROFILE STA A1+00 TO A5+20	
C-5	SPRING MAIN PLAN & PROFILE STA A5+20 TO A9+40	
C-6	SPRING MAIN PLAN & PROFILE STA A9+40 TO A13+60	
C-7	SPRING MAIN PLAN & PROFILE STA A13+60 TO A17+80	
C-8	SPRING MAIN PLAN & PROFILE STA A17+80 TO A21+45	
C-9	CLOUD CAP MAIN PLAN & PROFILE STA B1+00 TO B2+65	
C-10	CIVIL DETAILS - 1	
C-11	CIVIL DETAILS - 2	
C-12	CIVIL DETAILS - 3	

RECOMMENDED BY:

FOREST ENGINEER _____ DATE _____

DISTRICT RANGER _____ DATE _____

FOREST SUPERVISOR _____ DATE _____

RO FACILITIES PROGRAM MANAGER _____ DATE _____

APPROVED:

DIRECTOR OF ENGINEERING _____ DATE _____

@	AT
ABAN(D)	ABANDON(ED)
ABV	ABOVE
AC	ASPHALTIC CONCRETE
ADJ	ADJUSTABLE
ADJC	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ALIGN	ALIGNMENT
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
APPVD	APPROVED
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ARV	AIR RELEASE VALVE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSN	ASSOCIATION
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AUTO	AUTOMATIC
AVG	AVERAGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BETW	BETWEEN
BFD	BACKFLOW PREVENTION DEVICE
BFILL	BACKFILL
BFV	BUTTERFLY VALVE
BLDG	BUILDING
BM	BENCHMARK / BEAM
BMP	BEST MANAGEMENT PRACTICES
BO	BLOWOFF
BSMT	BASEMENT
BV	BALL VALVE
CARV	COMBINATION AIR RELEASE VALVE
CCI	CLOUD CAP INN
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CG	CAMPGROUND
CHKV	CHECK VALVE
CIPC	CAST IN PLACE CONCRETE
CL	CENTER LINE
CLG	CEILING
CND	CONDUIT
CO	CONTRACTING OFFICER / CLEANOUT
COMB	COMBINATION
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS / CONTINUATION
CONTR	CONTRACT(OR)
COORD	COORDINATE
COP	COPPER
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CP	CONTROL POINT
CR	CRUSHED ROCK
CTR	CENTER
CU	CUBIC
CV	CONTROL VALVE
CW	CLOCKWISE / COLD WATER
CY	CUBIC YARDS
D	DRAIN
DC	DIRECT CURRENT
DEFL	DEFLECTION
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DIST	DISTANCE
DN	DOWN
DR	DRIVE / DRAIN
DWG	DRAWING
EA	EACH
EL	ELEVATION
ELB	ELBOW
ELEC	ELECTRICAL
ENCL	ENCLOSURE
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
ESC	EROSION AND SEDIMENT CONTROL
EXC	EXCAVATE
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR

F	FAHRENHEIT
FDN	FOUNDATION
FIN	FINISH(ED)
FIPT	FEMALE IRON PIPE THREAD
FITG	FITTING
FLEX	FLEXIBLE
FLL	FLOW LINE
FLR	FLOOR
FT	FEET / FOOT
FTG	FOOTING
FUT	FUTURE
FXTR	FIXTURE
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPS	GALLONS PER SECOND
GR	GRADE
GR LN	GRADE LINE
GRTG	GRATING
GV	GATE VALVE
GRVL	GRAVEL
HDPE	HIGH DENSITY POLYETHYLENE
HDR	HEADER
HDWE	HARDWARE
HGR	HANGER
HGT	HEIGHT
HORIZ	HORIZONTAL
HP	HIGH PRESSURE / HORSEPOWER
HPT	HIGH POINT
HR	HOUR
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HWL	HIGH WATER LINE
HWY	HIGHWAY
HYD	HYDRANT
HYDR	HYDRAULIC
I&C	INSTRUMENTATION & CONTROL
IAW	IN ACCORDANCE WITH
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IMPVT	IMPROVEMENT
IN	INCH
INCC	INCLUDE(D)(ING)
INFL	INFLUENT
INJ	INJECTION
INSTL	INSTALLATION / INSTALL
INSUL	INSULATION
INTER	INTERCEPTOR
INTR	INTERIOR
INV	INVERT
IR	IRON ROD
JT	JOINT
JUNC	JUNCTION
KVA	KILOVOLT AMPERE
KW	KILOWATT
LAV	LAVATORY
LB	POUND
LF	LINEAR FOOT
LIN	LINEAL / LINEAR
LOC	LOCATION
LONG	LONGITUDINAL
LP	LOW PRESSURE
LPT	LOW POINT
LRG	LARGE
LS	LONG SLEEVE / LUMP SUM
LT	LEFT
LVL	LEVEL
LWL	LOW WATER LINE
MAN	MANUAL
MAT	MATERIAL
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCP	MASTER CONTROL PANEL
MECH	MECHANICAL
MET	METAL
MFR	MANUFACTURER
MIN	MINIMUM
MIPT	MALE IRON PIPE THREAD
MISC	MISCELLANEOUS
MON	MONUMENT / MONOLITHIC
MOT	MOTOR
MSL	MEAN SEAL LEVEL
MTD	MOUNTED

NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO /NO.	NORMALLY OPEN / NUMBER
NOM	NOMINAL
NORM	NORMAL
NPT	NON-POTABLE
NTS	NOT TO SCALE
O TO O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OVERFLOW / OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
OVHD	OVERHEAD
P&ID	PROCESS & INSTRUMENTATION DIAGRAM
PE	PLAIN END
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PG	PRESSURE GAUGE
PL	PROPERTY LINE / PLATE / PLASTIC
PLBG	PLUMBING
PNL	PANEL
POLY	POLYETHYLENE
PRCST	PRECAST
PREP	PREPARATION
PRESS	PRESSURE
PRKG	PARKING
PROP	PROPERTY / PROPOSED
PRV	PRESSURE REDUCING VALVE
PS	PUMP STATION
PSIG	POUNDS PER SQUARE INCH GAGE
PSL	PIPE SLEEVE
PSPT	PIPE SUPPORT
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PW	POTABLE WATER
PWR	POWER
QTY	QUANTITY
R	RISE
RAD	RADIUS
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD / ROOF DRAIN
RDCR	REDUCER
REF	REFERENCE
REINF	REINFORCE(D)(ING)(MENT)
REP	REPRESENTATIVE
REQ'D	REQUIRED
RESTR	RESTRAINED
RM	ROOM
RND	ROUND
RST	REINFORCED STEEL
RT	RIGHT
SAN	SANITARY
SCHED	SCHEDULE
SD	STORM DRAIN
SDL	SADDLE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SLP	SLOPE
SLV	SLEEVE
SOLN	SOLUTION
SPCL	SPECIAL
SPEC(S)	SPECIFICATION(S)
SPG	SPACING
SPRT	SUPPORT
SQ	SQUARE
SQ FT	SQUARE FOOT
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SS	SANITARY SEWER
SSC	SNOW SHOE CABIN
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORMWATER
STOR	STORAGE
STR	STRAIGHT
STRUCT	STRUCTURE / STRUCTURAL
SUCT	SUCTION
SV	SOLENOID VALVE
SWGR	SWITCH GEAR
SYS	SYSTEM

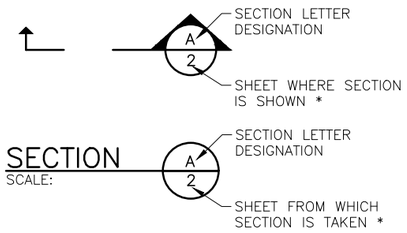
TBM	TEMPORARY BENCH MARK
TC	TOP OF CONCRETE / TOP OF CURB
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE / TEMPORARY
THK	THICKNESS
THRD	THREAD(ED)
THRU	THROUGH
TP	TEST PIT / TOP OF PAVEMENT / TURNING POINT
TRANS	TRANSITION
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UN	UNION
UON	UNLESS OTHERWISE NOTED
USGS	UNITED STATES GEOLOGIC SURVEY
V	VENT / VOLT
VAC	VACUUM
VB	VACUUM BREAKER
VBOX	VALVE BOX
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VLT	VAULT
VOL	VOLUME
W	WATER
W/	WITH
W/O	WITHOUT
WBP	WHITE BARK PINE
WD	WOOD
WH	WATER HEATER
WM	WATER METER
WP	WORKING POINT / WATERPROOFING
WT	WEIGHT
WTRT	WATERTIGHT
X SECT	CROSS SECTION
YR	YEAR
ZN	ZINC

TOPOGRAPHIC LEGEND

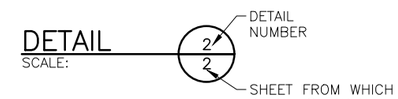
	EXISTING	PROPOSED
WATERLINE	10"W	12"DI W
ELECTRICITY	E	E
SANITARY SEWER LINE	8"SS	8"SS
STORM DRAIN	8"SD	8"SD
CULVERT	18"D	18"D
ABANDON PIPE		
DRAINAGE DITCH		
BARBWIRE FENCE		
CHAIN LINK FENCE		
TEMPORARY SILT FENCE		
EDGE OF PAVEMENT/AC		
EDGE OF GRAVEL		
CURB		
SIDEWALK	S/W	
STRUCTURE OR FACILITY		
CONTOUR MINOR		
CONTOUR MAJOR	665	665
MANHOLE		
CLEAN-OUT		
CATCH BASIN/FIELD INLET		
THRUST BLOCK		
VALVE		
AIR INJECTION ASSEMBLY		
BLOW-OFF ASSEMBLY		
AIR RELEASE ASSEMBLY		
PULL BOX/JUNCTION BOX		
UTILITY POLE		
GUY WIRE		
SIGN		
BENCHMARK		
GEOTECHNICAL BORING		
SURVEY CONTROL POINT		
TREE – WHITE BARK PINE		
TREE TO BE REMOVED		
SURFACE ELEVATION	+ 176.63	+ 176.63

SECTION AND DETAIL DESIGNATIONS

SECTION DESIGNATIONS



DETAIL DESIGNATIONS



* NOTE: IF PLAN AND SECTION FOR DETAIL CALL-OUT AND DETAIL ARE SHOWN ON THE SAME DRAWING, DRAWING NUMBER IS REPLACED WITH A DASH.

USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES AUGSBERGER

RENEWS 12-31-21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

DRAWING TITLE

ABBREVIATIONS, SYMBOLS, AND LEGEND

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. G-2
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 02 OF 15

2/28/23 16:02 ALEX.BARGMEYER G:\PDX_PROJECTS\19\2622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-G.DWG;

GENERAL NOTES

1. UNLESS NOTED ON THE PLANS OR SPECIFIED OTHERWISE, ALL CONSTRUCTION AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE PLANS, PROJECT SPECIFICATIONS, MOST RECENT VERSION OF USDA FOREST SERVICE DESIGN STANDARDS, OREGON APWA STANDARD SPECIFICATIONS, AND OREGON ADMINISTRATION RULES (OAR), CHAPTER 333.

2. CONNECTIONS TO EXISTING WATERLINES MAY REQUIRE TEMPORARY SHUTDOWNS OF EXISTING FACILITIES. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE AFFECTED UTILITY AND REQUEST SHUTDOWNS A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF DESIRED TIMING OF CONNECTION WORK. THE CONTRACTOR SHALL COORDINATE TEMPORARY SHUTDOWNS OF THE EXISTING FACILITIES WITH THE CO A MINIMUM OF 14 DAYS IN ADVANCE.

3. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL, COUNTY, STATE, AND UTILITY CONSTRUCTION PERMITS NOT OBTAINED BY THE OWNER, AND SHALL CONTACT EACH PERMITTING AGENCY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO STARTING WORK. CONTRACTOR SHALL OBTAIN ALL REQUIRED LICENSES BEFORE STARTING CONSTRUCTION.

4. CONTRACTOR SHALL FIELD VERIFY DEPTHS OF EXISTING UTILITIES TO IDENTIFY POTENTIAL CONFLICTS AND AS REQUIRED FOR CONNECTIONS TO EXISTING SYSTEMS.

5. THE CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS, TYPE AND SIZES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTING NEW PIPING/CONDUITS AND SHALL ADJUST NEW PIPING/CONDUITS AS REQUIRED. CONTRACTOR SHALL NOTIFY CO IMMEDIATELY OF ANY CONFLICTS NOT SHOWN ON THE PLANS AND SHALL KEEP EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION. WHERE INTERRUPTION OF EXISTING FACILITIES IS REQUIRED, CONTRACTOR SHALL PROVIDE A MINIMUM 1 WEEK NOTICE TO CO AND THE AFFECTED UTILITY. CONTRACTOR SHALL ARRANGE FOR THE RELOCATION OF ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION.

6. UTILITIES OR INTERFERING PORTIONS OF UTILITIES THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL PLUG THE REMAINING EXPOSED ENDS OF ABANDONED UTILITIES, UNLESS OTHERWISE REQUIRED BY THE CO, OR AS IDENTIFIED ON THE PLANS. SEE SECTION 33 11 50, EXISTING PIPE ABANDONMENT, FOR FURTHER DETAILS.

7. CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION (ANY TIME OF YEAR) PER THE REQUIREMENTS OF THE APPROVED PERMIT AND THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY.

8. CONSTRUCTION SHALL BE CONFINED TO THE RIGHT-OF-WAY, EASEMENTS, OR OTHER AREAS AS SHOWN ON THE PLANS AND APPROVED FOR CONSTRUCTION. WORK SHALL NOT ENCROACH BEYOND THE AREAS SHOWN ON THE PLANS WITHOUT PRIOR APPROVAL BY THE CO.

9. CONTRACTOR SHALL KEEP AND MAINTAIN A CURRENT SET OF DRAWINGS ON SITE. THE CONTRACTOR SHALL PROVIDE COMPLETE "AS CONSTRUCTED" DRAWINGS AFTER FINAL COMPLETION INDICATING ALL CHANGES IN GRADE, ALIGNMENT, FITTINGS AND MATERIALS INSTALLED AND ANY OTHER UTILITIES OR OBSTACLES NOT SO INDICATED ON THESE PLANS.

10. A COPY OF THE CONTRACTOR'S CERTIFICATE OF INSURANCE SHALL BE AVAILABLE AT THE WORK AREA AT ALL TIMES.

11. CONTRACTOR SHALL NOTIFY THE CO 48 HOURS BEFORE STARTING CONSTRUCTION, AND 24 HOURS BEFORE RESUMING WORK AFTER SHUTDOWNS EXCEPT FOR NORMAL RESUMPTION OF WORK FOLLOWING SATURDAYS, SUNDAYS, OR HOLIDAYS. CONTRACTOR SHALL NOTIFY THE CO & OWNER A MINIMUM OF 48 HOURS PRIOR TO ANY TESTING OR REQUIRED INSPECTION.

12. ANY ALTERATION OR VARIANCE FROM THESE PLANS, EXCEPT MINOR FIELD ADJUSTMENT NEEDED TO MEET EXISTING FIELD CONDITIONS, SHALL FIRST BE APPROVED BY THE CO. ANY ALTERATIONS OR VARIANCE FROM THESE PLANS SHALL BE DOCUMENTED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE CO. ANY PROPOSED CHANGES IN CONSTRUCTION PLANS MUST BE SUBMITTED IN WRITING AND APPROVED BY CO PRIOR TO COMMENCING WORK.

13. NO UNDERGROUND WORK SHALL BE "BURIED" UNTIL INSPECTED AND APPROVED BY THE CO.

14. THE CO MAY, AT THEIR DISCRETION, REQUIRE TESTS AND/OR REPORTS FROM THE CONTRACTOR TO VALIDATE CLAIMS OF MATERIAL OR CONSTRUCTION ADEQUACY/COMPLIANCE. SUCH TEST/REPORTS SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.

15. CONTRACTOR SHALL PROTECT ALL PROPERTY CORNERS, SURVEY MONUMENTS AND CONTROL POINTS. SURVEY MONUMENTS OF THIS TYPE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE, WITH APPROPRIATE SURVEYS FILED WITH THE COUNTY SURVEYOR.

16. THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED OR REPLACED MATERIAL AND EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS, EXCEPT THOSE ITEMS DESIGNATED BY THE CO FOR SALVAGING. SALVAGED ITEMS SHALL REMAIN THE PROPERTY OF THE CO, AND SHALL BE CAREFULLY REMOVED AND STORED, BY THE CO, AS DIRECTED.

17. ALL PLANTERS, LANDSCAPING, STRUCTURES, LOTS, SWALES, DITCHES, CURBS, SPEED BUMPS, FENCES, WALLS, MAILBOXES, SIGNS, POLES, GUY WIRES, PIPING, AND UTILITIES DISTURBED DURING CONSTRUCTION TO BE RESTORED TO EXISTING CONDITION UNLESS OTHERWISE SPECIFIED. SUCH REPAIR SHALL BE CONSIDERED INCIDENTAL.

18. ALL CONCRETE SHALL BE A MINIMUM OF 3000 PSI STRENGTH, UNLESS OTHERWISE SPECIFIED.

19. FIELD SURVEYS FOR WESTERN BUMBLE BEES/SUCKLEY CUCKOO BUMBLE BEES WILL BE REQUIRED. SEE SECTION 31 10 00, SITE CLEARING FOR FURTHER DETAILS.

20. IF A RAPTOR NEST IS FOUND, NOTIFY THE CO. SEE SECTION 31 10 00, SITE CLEARING FOR FURTHER DETAILS.

21. WHITE BARK PINES ARE TO BE PROTECTED FROM ALL CONSTRUCTION ACTIVITIES. SEE SECTION 01 56 39, TEMPORARY TREE AND PLANT PROTECTION FOR FURTHER DETAILS.

22. ALL EQUIPMENT SHALL BE FREE OF SOIL, VEGETATIVE MATTER, OR OTHER DEBRIS THAT COULD CONTAIN OR HOLD SEEDS PRIOR TO ENTERING NATIONAL FOREST LANDS. CONTRACTOR SHALL IMPLEMENT CLEANING AND INSPECTION PROCEDURES THAT MINIMIZE THE INTRODUCTION AND SPREAD OF INVASIVE PLANTS.

23. EQUIPMENT INSPECTION MUST BE COORDINATED WITH CO BEFORE ENTRY INTO NATIONAL FOREST LANDS.

EROSION & SEDIMENT CONTROL NOTES

1. PHASE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION.

2. IDENTIFY, MARK, AND PROTECT (BY CONSTRUCTION FENCING OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS.

3. PRESERVE/SALVAGE EXISTING VEGETATION AS MUCH AS POSSIBLE AND REUSE MULCH, TOPSOIL, AND SALVAGED PLANTS TO REVEGETATE DISTURBED AREAS. REFER TO SECTION 32 91 21 FINISH GRADING AND SEEDING FOR DETAILS ON SEEDING AND MULCHING OF DISTURBED AREAS.

4. INSTALL PERIMETER SEDIMENT CONTROL PRIOR TO LAND DISTURBANCE.

5. CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAMBANKS.

6. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS.

7. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPS SUCH AS: CONSTRUCTION ENTRANCE, GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND-DISTURBING ACTIVITIES.

8. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE.

9. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEAN OUT OF STUCCO, PAINT AND CURING COMPOUNDS.

10. USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, FERTILIZER, PESTICIDES AND HERBICIDES, PAINTS, SOLVENTS, CURING COMPOUNDS AND ADHESIVES FROM CONSTRUCTION OPERATIONS.

11. IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES.

12. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL.

13. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR.

14. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS.

15. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND BARE GROUND ACTIVITIES DURING WET WEATHER.

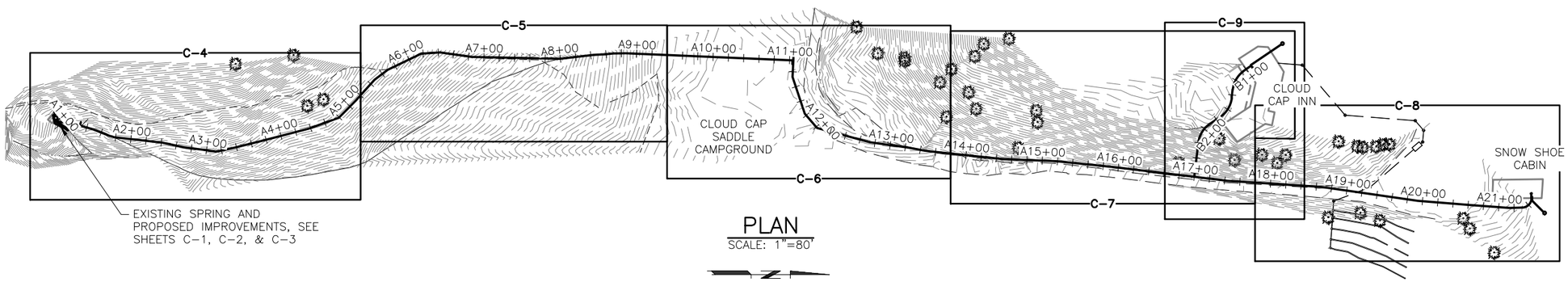
16. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DIVISION OF STATE LANDS REQUIRED TIMEFRAME.

17. THE INTENTIONAL WASHING OF SEDIMENT INTO DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS.

18. THE ENTIRE SITE MUST BE TEMPORARILY STABILIZED USING VEGETATION OR A HEAVY MULCH LAYER, TEMPORARY SEEDING, OR OTHER METHOD SHOULD ALL CONSTRUCTION ACTIVITIES CEASE FOR 30 DAYS OR MORE.

19. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE.

20. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED SOILS MUST BE REMOVED AND DISPOSED OF PROPERLY, UNLESS DOING SO CONFLICTS WITH LOCAL REQUIREMENTS.



PLAN
SCALE: 1"=80'

USDA FOREST SERVICE
United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES AUGSBERGER
RENEWS 12-31-21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

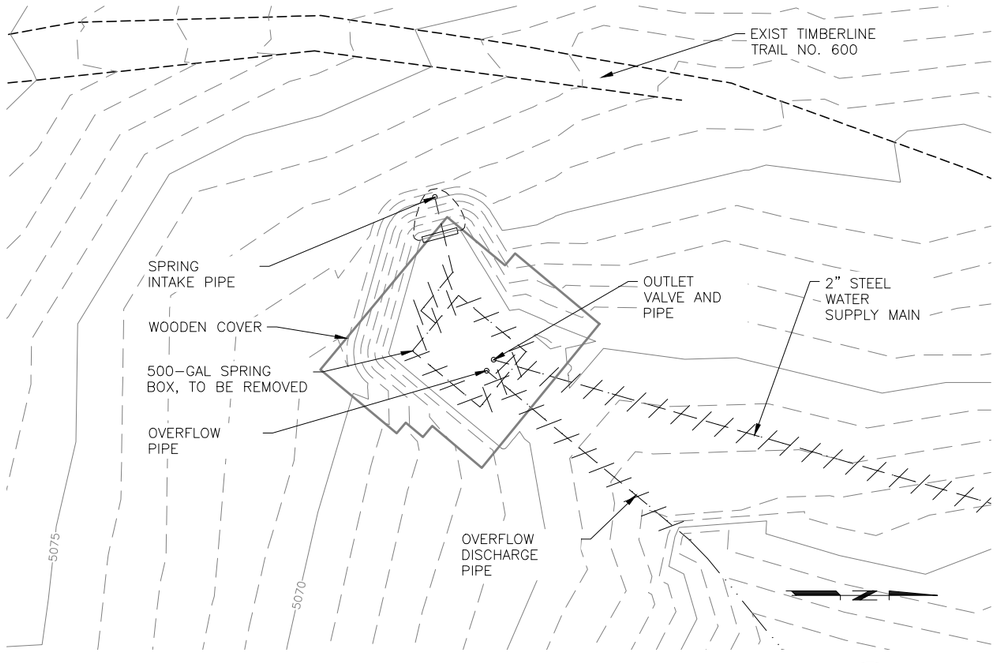
HOOD RIVER RANGER DISTRICT

DRAWING TITLE

GENERAL NOTES, EROSION CONTROL NOTES, AND KEY MAP

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. G-3
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 03 OF 15

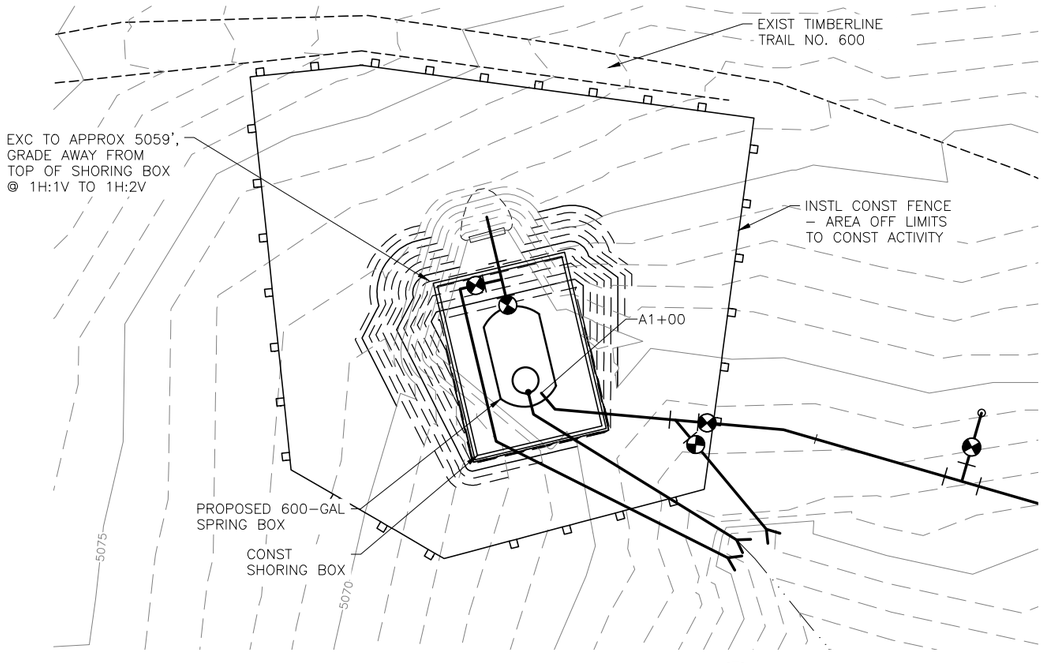
2/28/22 16:02 ALEX.BARGMEYER G:\PDX_PROJECTS\19262\2.01 - 80E - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-G.DWG



EXISTING CONDITIONS AND DEMOLITION PLAN

1

SCALE: 3/16"=1'–0"



TEMPORARY EXCAVATION PLAN

2

SCALE: 3/16"=1'–0"

CONCRETE ANTI–SEEPAGE WALL:

1. ALL CONCRETE SHALL BE HARD ROCK CONCRETE MEETING REQUIREMENTS OF ACI–301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS". MIX PROPORTIONS SHALL BE PER ACI–301.

2. STRUCTURAL CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:

TYPE	f'c	SLUMP	w/c	AIR
WALLS	4,000 psi	1"–5"	0.45	5%

3. COLD WEATHER PLACEMENT SHALL CONFORM TO ACI–306. HOT WEATHER PLACEMENT SHALL CONFORM TO ACI–305. MECHANICALLY VIBRATE ALL FORMED CONCRETE. DO NOT OVER–VIBRATE. PLACE CONCRETE MONOLITHICALLY BETWEEN CONSTRUCTION OR CONTROL JOINTS. PROTECT ALL CONCRETE FROM PREMATURE DRYING.

4. SLUMP LIMITS MAY BE INCREASED BY ADDITION OF ADMIXTURES PROVIDED THAT THE WATER/CEMENT RATIO OF THE ORIGINAL MIX DESIGN IS NOT EXCEEDED. WATER REDUCING ADMIXTURE SHALL BE IN CONFORMANCE WITH ASTM C494, USED IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS. SUBMIT ADMIXTURES TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

5. CEMENT SHALL BE TYPE I OR II IN CONFORMANCE WITH ASTM C150. AGGREGATES SHALL BE IN CONFORMANCE WITH ASTM C33 AND USE CRUSHED (NOT ROUND) GRAVEL OR STONE. COARSE AGGREGATES SHALL NOT EXCEED ¾". WATER SHALL BE CLEAN AND POTABLE.

6. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. GRADE 40 MAY BE USED FOR #3 AND SMALLER TIES AND STIRRUPS. DETAIL AND PLACE ACCORDING TO ACI MANUAL SP–66.

7. UNLESS OTHERWISE NOTED, MINIMUM COVER SHALL BE 1½" FOR #5 AND SMALLER BARS, 2" FOR #6 AND LARGER BARS, AND 3" WHEN POURED AGAINST EARTH. SUPPORT REINFORCEMENT WITH APPROVED CHAIRS, SPACERS, OR TIES.

8. PROVIDE MINIMUM 48 BAR DIAMETERS AT SPLICES. NO MORE THAN 50% OF REINFORCING SHALL BE SPLICED AT ANY LOCATION. UNLESS OTHERWISE NOTED, BEND ALL HORIZONTAL REINFORCING A MINIMUM OF 2'–0" AT CORNERS AND WALL/FOOTING INTERSECTIONS WITH MINIMUM EMBEDMENT BEYOND INTERFACE PER DEVELOPMENT LENGTH SPECIFIED IN ACI–318.

9. FORMWORK SHALL BE IN ACCORDANCE WITH ACI–347 "GUIDE TO FORMWORK FOR CONCRETE". FORMS SHALL BE DESIGNED BY THE CONTRACTOR. BRACING SHALL BE PROVIDED AS REQUIRED OR UNTIL THE CONCRETE HAS REACHED ITS SPECIFIED 28–DAY STRENGTH. ALL SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. FORMWORK, SUPPORTS, AND SHORING SHALL PROVIDE FINISHED CONCRETE SURFACES AT ALL FACES: LEVEL, PLUMB, AND TRUE TO DIMENSIONS AND ELEVATIONS SHOWN IN THE DRAWINGS.

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER
79401
OREGON
JAMES
AUKEMEYER
RENEWS 12–31–21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

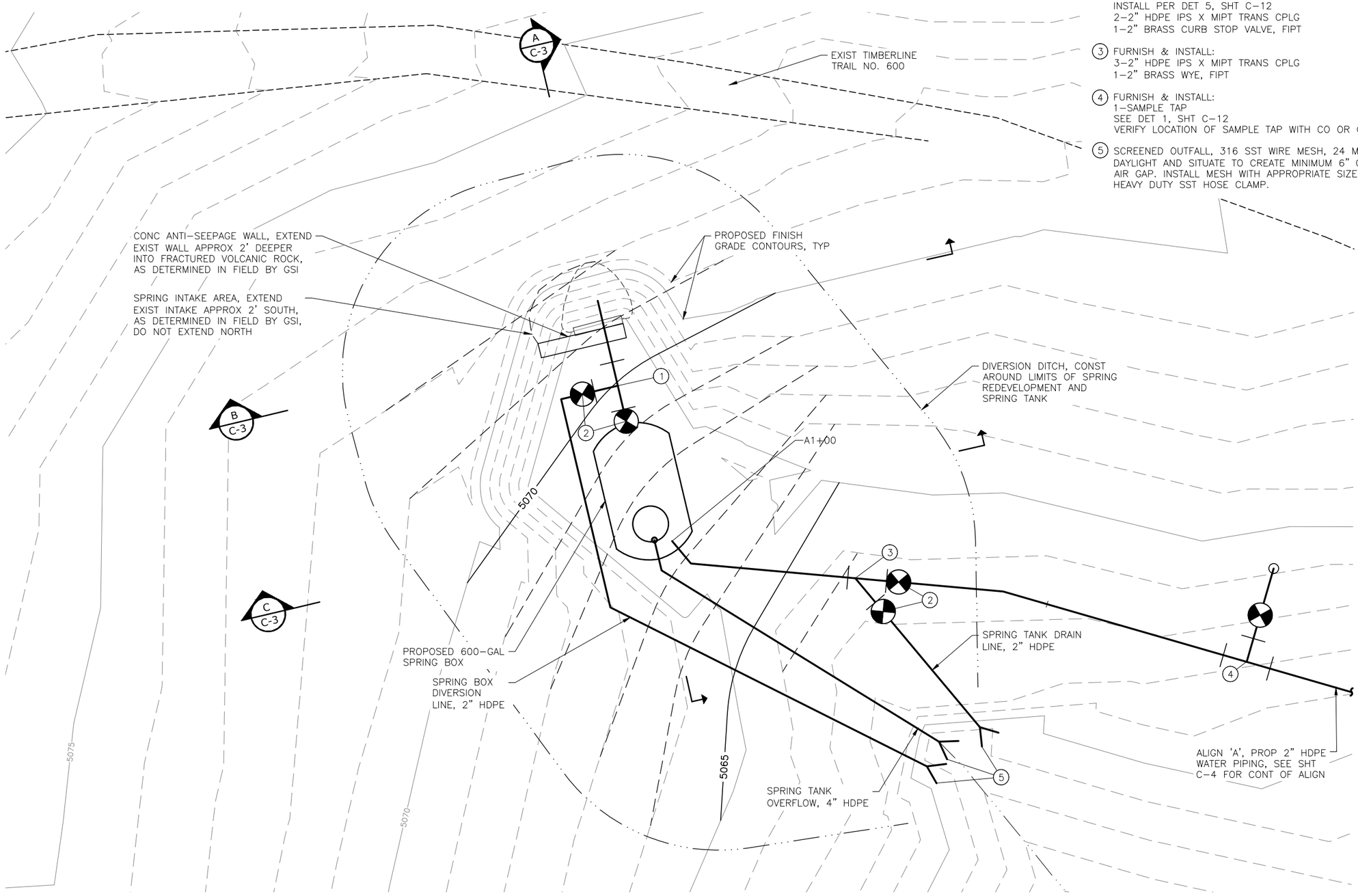
DRAWING TITLE

SPRING SITE EXISTING CONDITIONS AND TEMPORARY EXCAVATION PLANS

DATE: 03/24/2022	ARCHIVE NO.: FS090523_R102013_L1-002.dwg
DESIGNER: TMS	DRAWING SHEET NO.: C-1
DRAWN: TMS	
CHECKED: AMB	SHEET 04 OF 15
PROJECT NO.: 19-2622	

MATERIAL LIST

1. FURNISH & INSTALL:
   1–2" HDPE IPS TEE
2. FURNISH & INSTALL:
   1–OLYMPIC FOUNDRY VBOX W/ "W" LID OR APPVD EQ, INSTALL PER DET 5, SHT C–12
   2–2" HDPE IPS X MIPT TRANS CPLG
   1–2" BRASS CURB STOP VALVE, FIPT
3. FURNISH & INSTALL:
   3–2" HDPE IPS X MIPT TRANS CPLG
   1–2" BRASS WYE, FIPT
4. FURNISH & INSTALL:
   1–SAMPLE TAP
   SEE DET 1, SHT C–12
   VERIFY LOCATION OF SAMPLE TAP WITH CO OR COR
5. SCREENED OUTFALL, 316 SST WIRE MESH, 24 MESH. DAYLIGHT AND SITUATE TO CREATE MINIMUM 6" OUTFALL AIR GAP. INSTALL MESH WITH APPROPRIATE SIZED HEAVY DUTY SST HOSE CLAMP.



PLAN
SCALE: 1/8"=1'–0"

2/23/22 13:42 ALEX.BARGMEYER G:\PDX_PROJECTS\19\2622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-C.DWG;

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES ALEXANDER BARGMEYER
RENEWS 12–31–21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

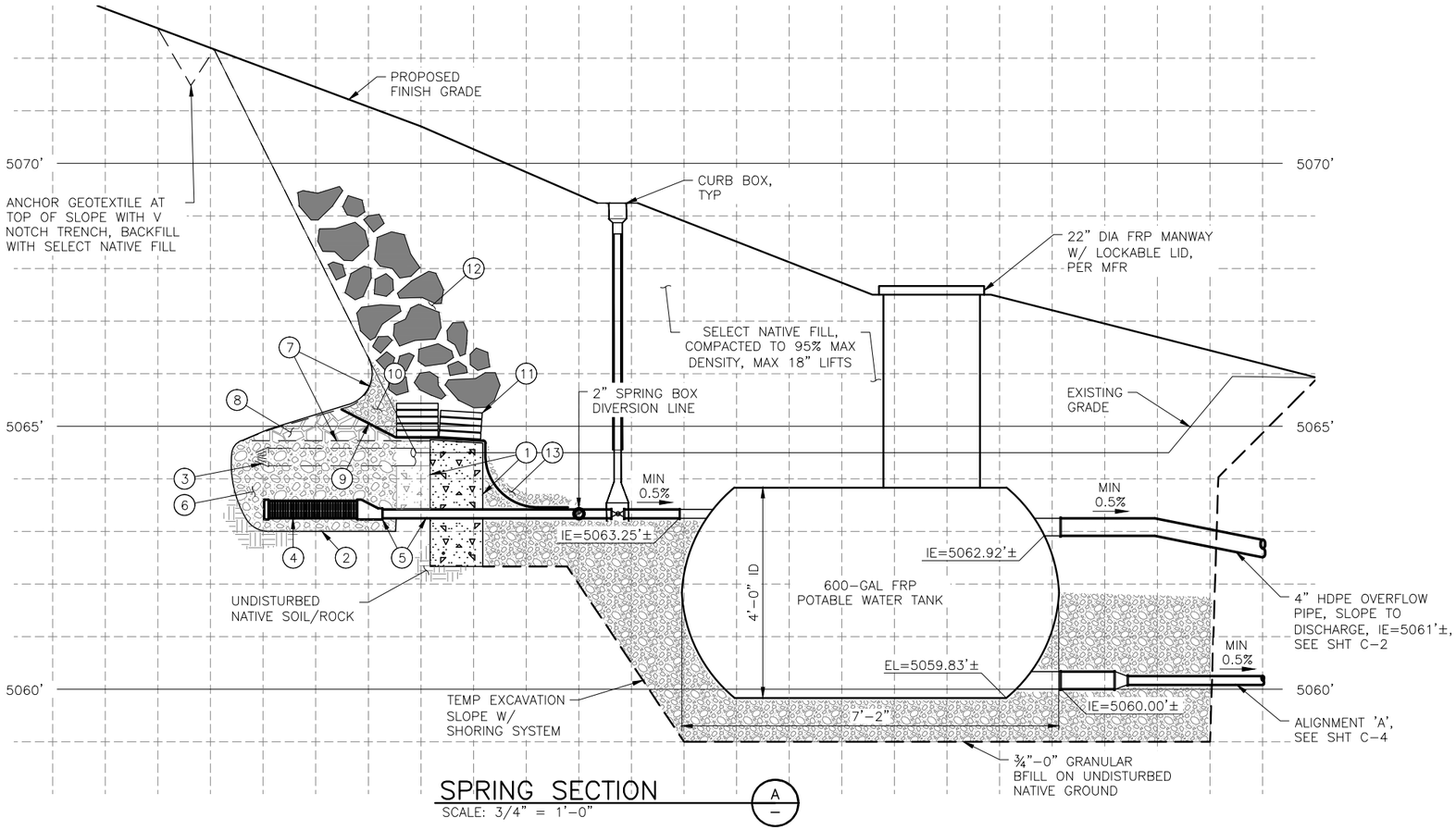
MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

DRAWING TITLE

SPRING SITE PROPOSED IMPROVEMENTS PLAN

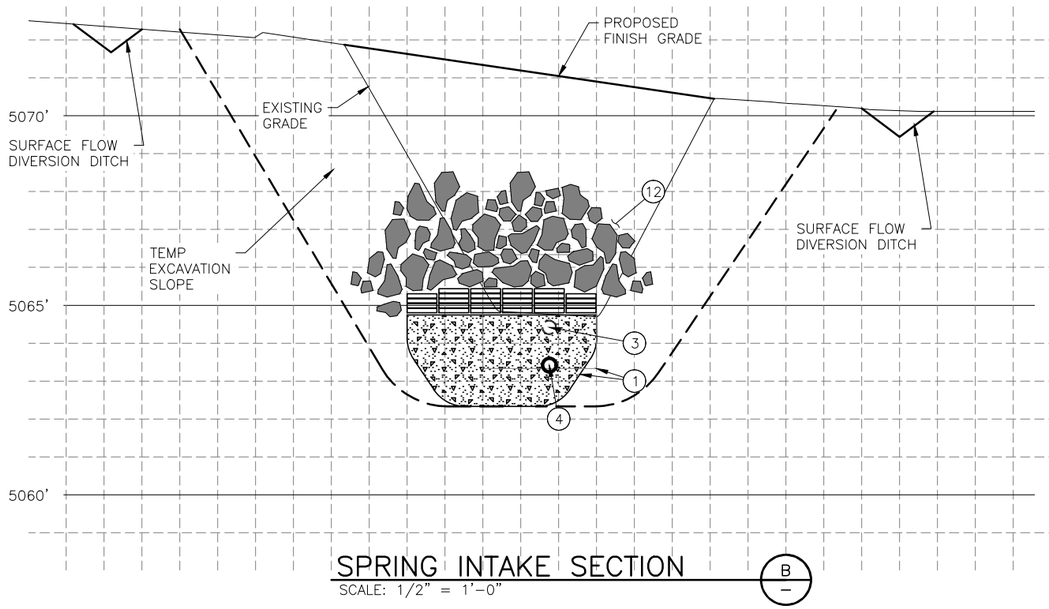
DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-2
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 05 OF 15



SPRING SECTION

SCALE: 3/4" = 1'-0"

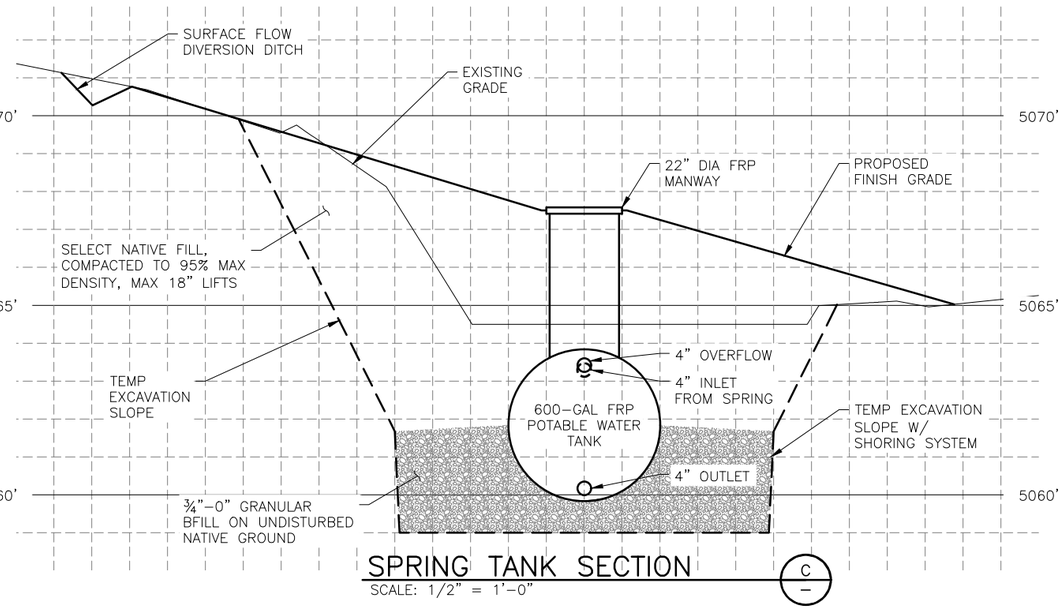
(A)



SPRING INTAKE SECTION

SCALE: 1/2" = 1'-0"

(B)



SPRING TANK SECTION

SCALE: 1/2" = 1'-0"

(C)

DESIGN NOTES:

THE FOLLOWING SPRING IMPROVEMENT RECOMMENDATIONS ARE INTENDED FOR PLANNING AND QUANTITIES ONLY. SPECIFIC LOCATIONS ARE SUBJECT TO CHANGE BASED ON FIELD OBSERVATIONS BY GSI DURING CONSTRUCTION. SEE CLOUD CAP SPRING INVESTIGATION, OCTOBER 2021, BY GSI FOR FURTHER DETAILS.

1. KEEP EXIST ANTI-SEEPAGE WALL INTACT WHILE CONST NEW WALL. EXTEND NEW WALL LATERALLY 2' SOUTH AND MAX 2' DEEPER, AS DETERMINED BY GSI IN FIELD. NEW WALL SHALL BE 12" THK W/ (4) #4 REBAR @ 6" O.C., MAINTAIN MIN 3" CLEARANCE. SEE CONC DESIGN NOTES, SHT C-1.
2. EXC SPRING INTAKE BASIN BEHIND ANTI-SEEPAGE WALL MAX 1' DEEPER THAN EXIST BASIN, AS DETERMINED IN FIELD BY GSI.
3. REMOVE EXIST 4" SPRING COLLECTION PIPE.
4. INSTL NEW 4" SPRING COLLECTION PVC PIPE W/ 4"x2" ECCENTRIC RDCR TO 2" DISCHARGE PIPE. LOWER IE TO DISCHARGE PIPE BY MAX 1', AS DETERMINED IN FIELD BY GSI. DRILL ½" DIA HOLES IN PIPE. CAP END.
5. INSTL NEW 2" SPRING DISCHARGE PIPE TO NEW TANK.
6. FILL SPRING CAVITY 1" DRAIN ROCK BFILL.
7. PLACE GEOTEXTILE BETW DRAIN ROCK AND NATIVE ROCK BFILL. EXTEND TO TOP OF SOIL SURFACE. FASTEN GEOTEXTILE TO SOIL SURFACE W/ 4" STEEL WIRE LANDSCAPE STAPLES, SPACE AS NEEDED TO TEMP SECURE. GEOTEXTILE FABRIC SHALL BE MIRAFI 140N OR APPVD EQ.
8. WASHED NATIVE ROCK, FILL ABOVE SPRING CAVITY WATER LEVEL.
9. IMPERVIOUS MEMBRANE COVER. EXTEND MEMBRANE 12" MIN INSIDE FACE OF CONC WALL. MEMBRANE SHALL BE SINGLE SHEET W/OUT PERVIOUS SEAMS, WELDED TO CONFORM TO SPRING CAVITY AND COVER GAP BETW CONC WALL AND CEILING OF SPRING CAVITY. IMPERVIOUS MEMBRANE SHALL BE VAPOR BLOCK PLUS 20 OR APPVD EQ.
10. PLACE MIN 2" OF ¾"-0" GRANULAR BFILL OVER MEMBRANE COVER, HAND COMPACT.
11. STACK CONC BLOCKS AT SPRING CAVITY OPENING.
12. NATURAL STONE ROCK WALL, HAND PLACE ON CONC BLOCKS.
13. PLACE ¾"-0" GRANULAR BFILL OVER MEMBRANE COVER OUTSIDE SPRING CAVITY.

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES ALEXANDER BARGMEYER
RENEWS 12-31-21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

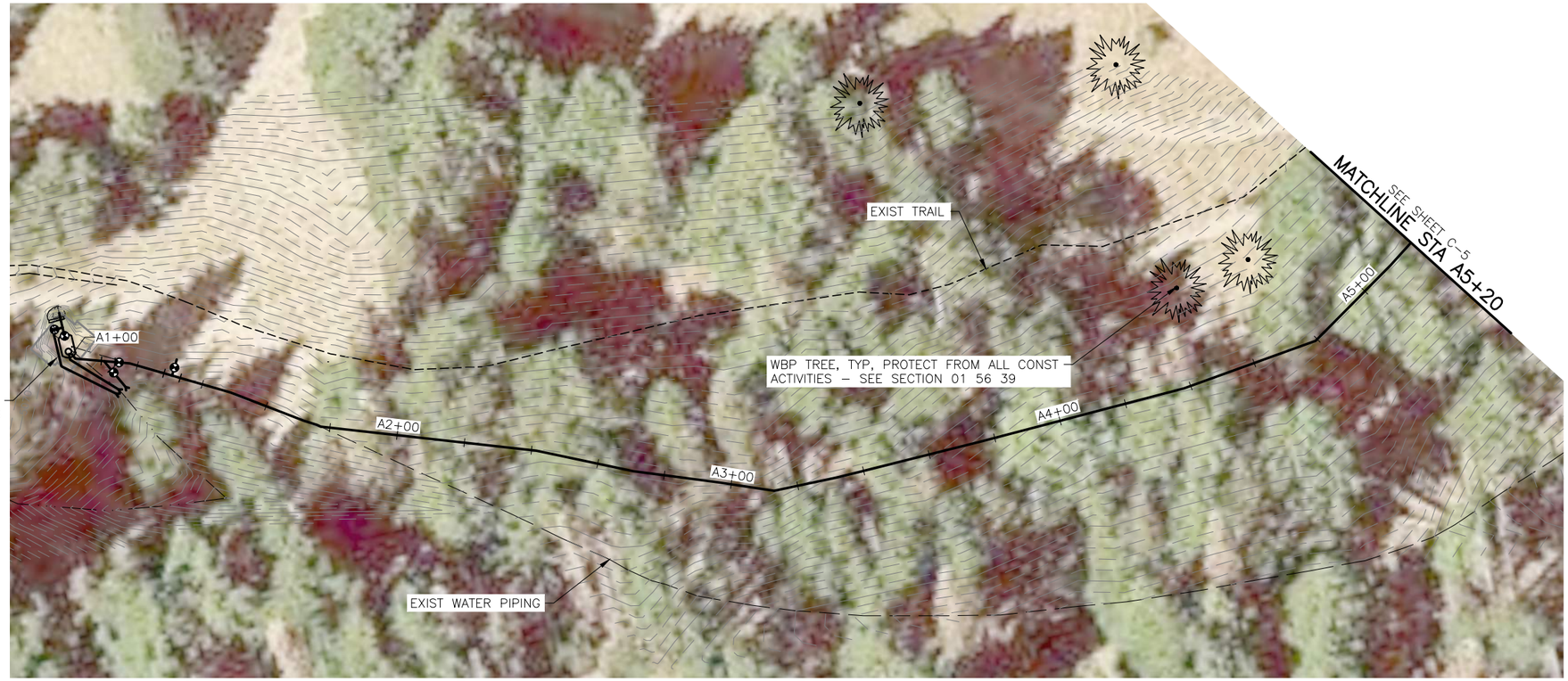
HOOD RIVER RANGER DISTRICT

DRAWING TITLE

SPRING SITE PROPOSED IMPROVEMENTS SECTIONS

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-3
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 06 OF 15

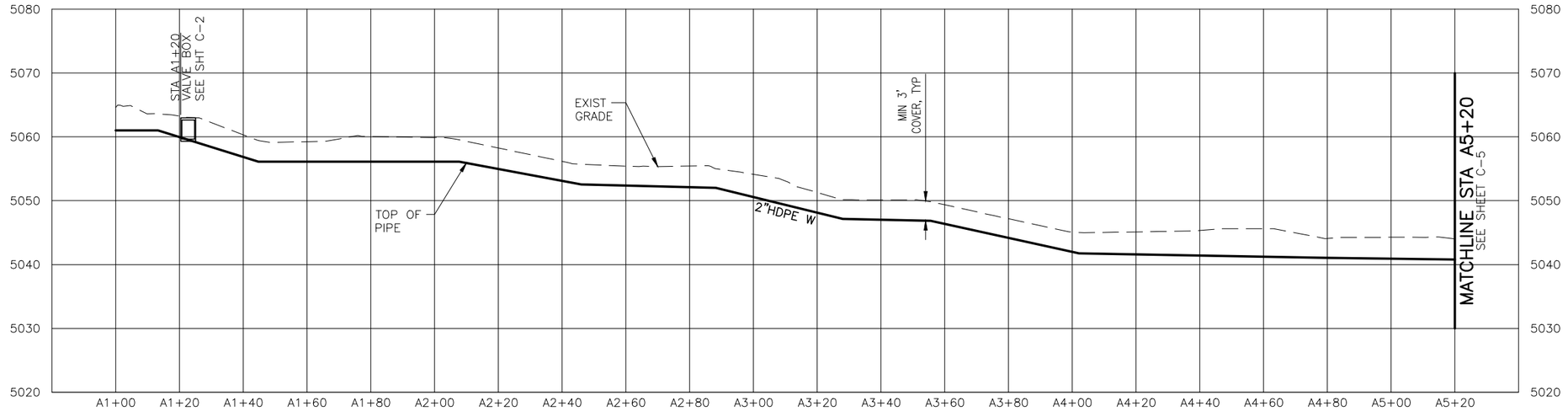
2/23/22 13:42 ALEX.BARGMEYER G:\PDX_PROJECTS\19\2622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-GR-C.DWG;



PLAN
SCALE: 1"=20'

NOTES:

1. PROPOSED WATER PIPING SHALL BE INSTALLED WITH A MINIMUM COVER OF 3'. THE ACTUAL DEPTH SHOULD BE ADJUSTED IN THE FIELD AND APPROVED BY THE CO TO PROVIDE FOR SMOOTH GRADIENTS THROUGHOUT THE PIPELINE AND SUCH THAT NO LOCALIZED LOW POINTS OR HIGH POINTS ARE CREATED.



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

2/23/22 13:42 ALEX.BARGMEYER G:\PDX_PROJECTS\19\2622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-C.DWG;

USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER
79401
OREGON
JAMES
AUSMEYER
RENEWS 12–31–21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

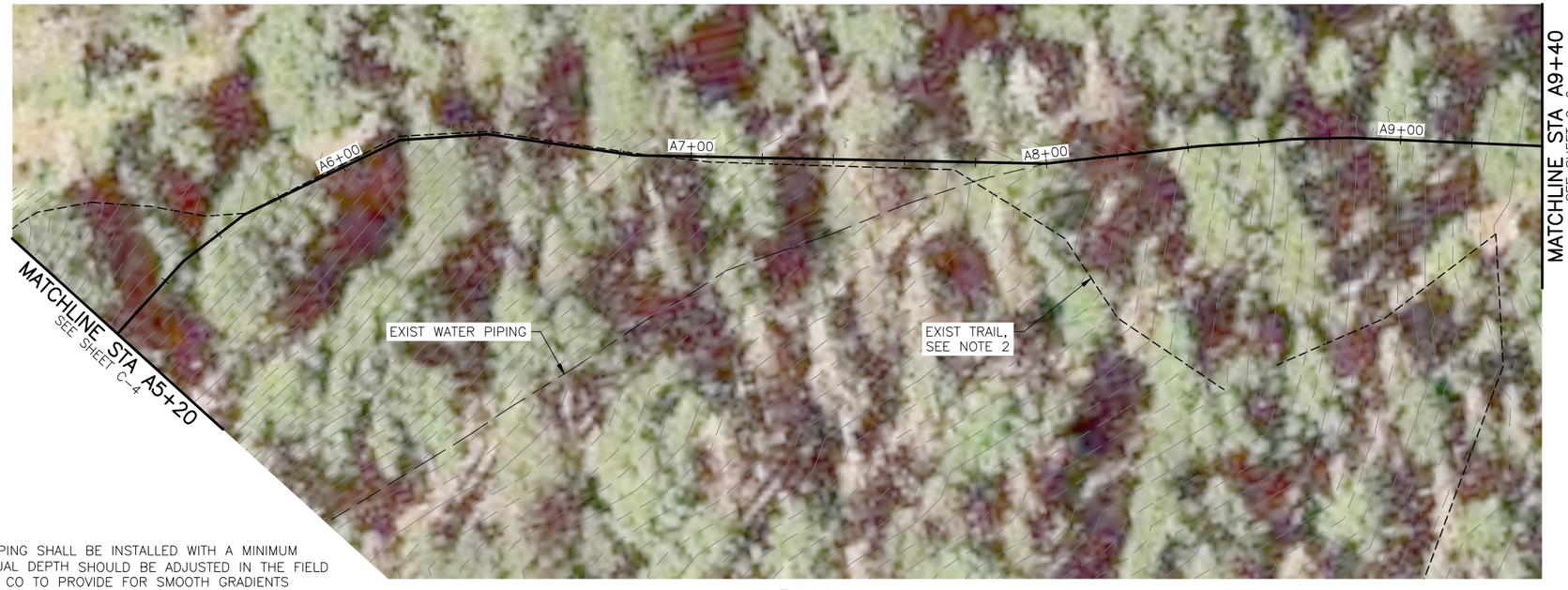
MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

DRAWING TITLE

SPRING MAIN PLAN & PROFILE STA A1+00 TO A5+20

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-4
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 07 OF 15

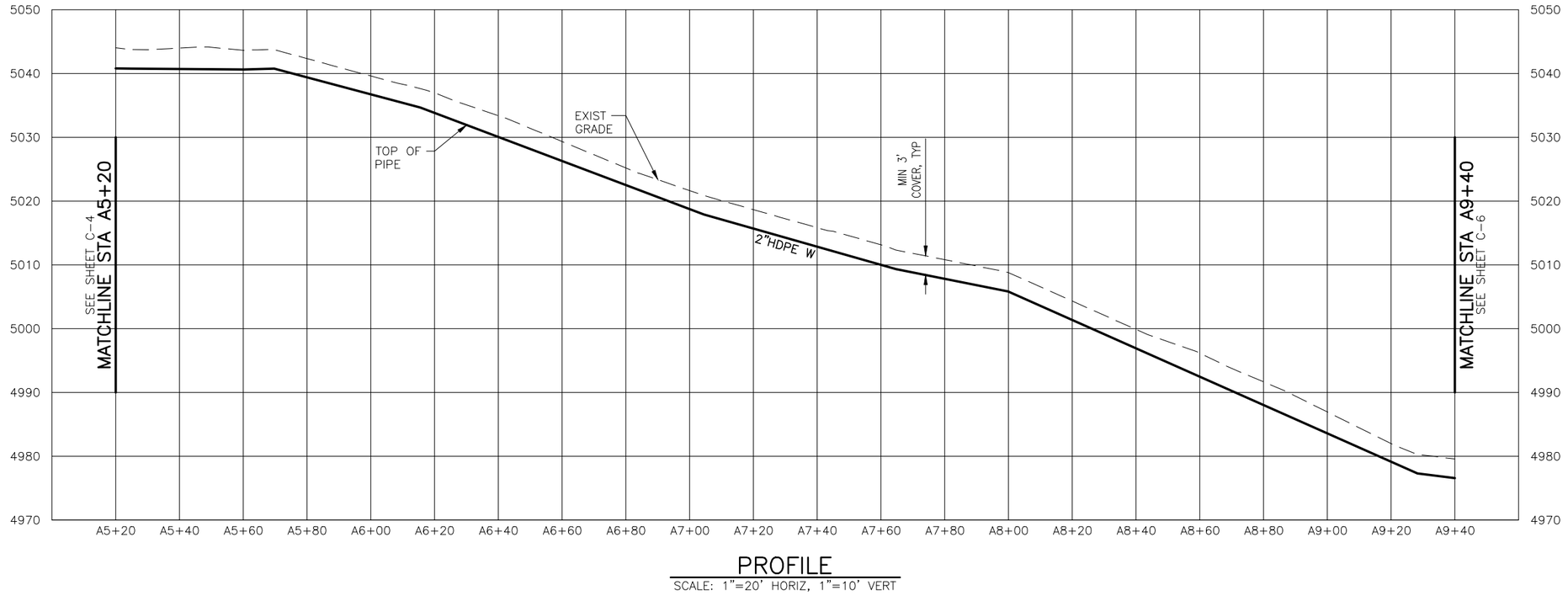


PLAN
SCALE: 1"=20'

NOTES:

1. PROPOSED WATER PIPING SHALL BE INSTALLED WITH A MINIMUM COVER OF 3'. THE ACTUAL DEPTH SHOULD BE ADJUSTED IN THE FIELD AND APPROVED BY THE CO TO PROVIDE FOR SMOOTH GRADIENTS THROUGHOUT THE PIPELINE AND SUCH THAT NO LOCALIZED LOW POINTS OR HIGH POINTS ARE CREATED.

2. RESTORE EXISTING TRAIL TO PRE-EXISTING CONDITIONS AND INSTALL DRAINAGE DIPS AS DIRECTED BY CONTRACTING OFFICER. SEE SECTION 32 91 21 FINISH GRADING AND SEEDING.



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

USDA FOREST SERVICE
United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES ALEXANDER METER
RENEWS 12-31-21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

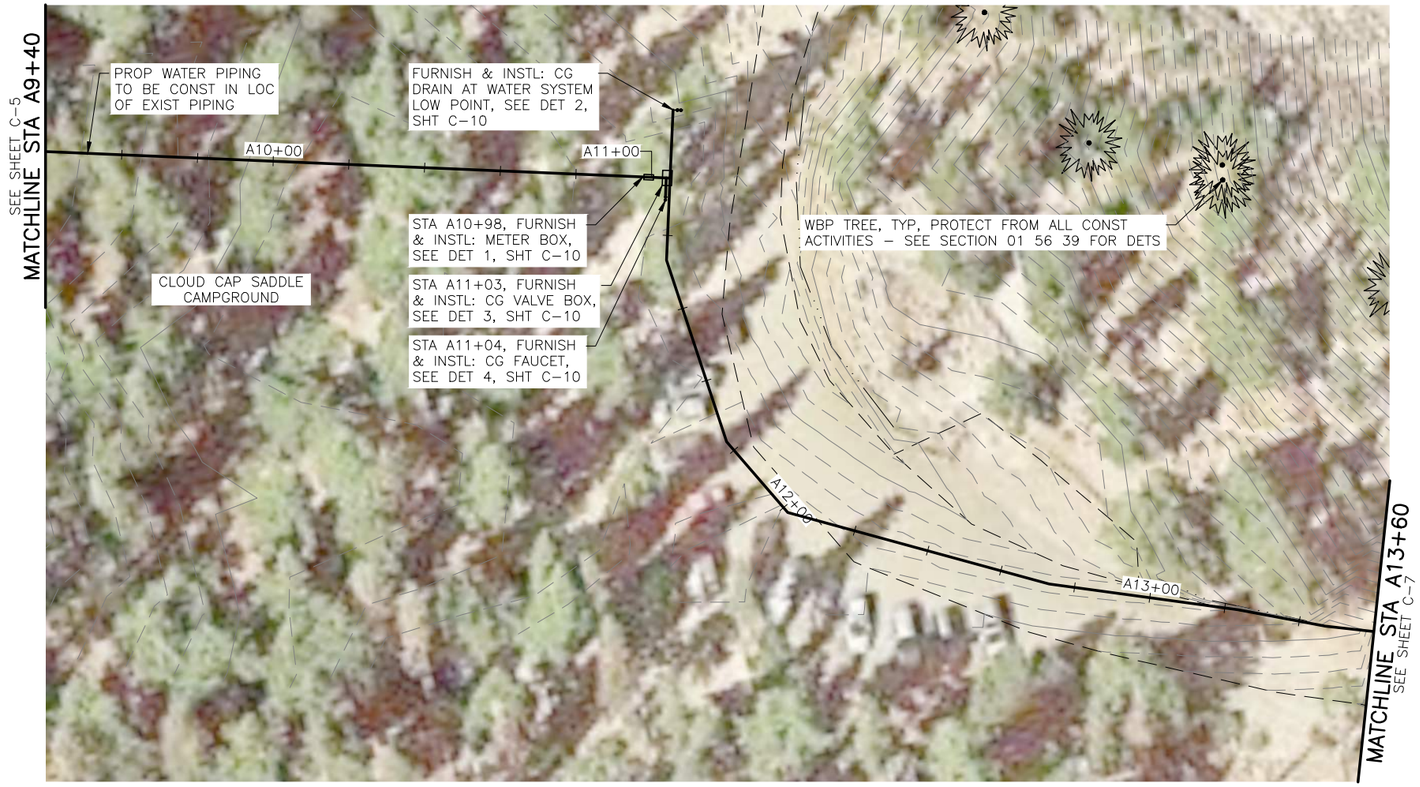
MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

DRAWING TITLE

SPRING MAIN PLAN & PROFILE STA A5+20 TO A9+40

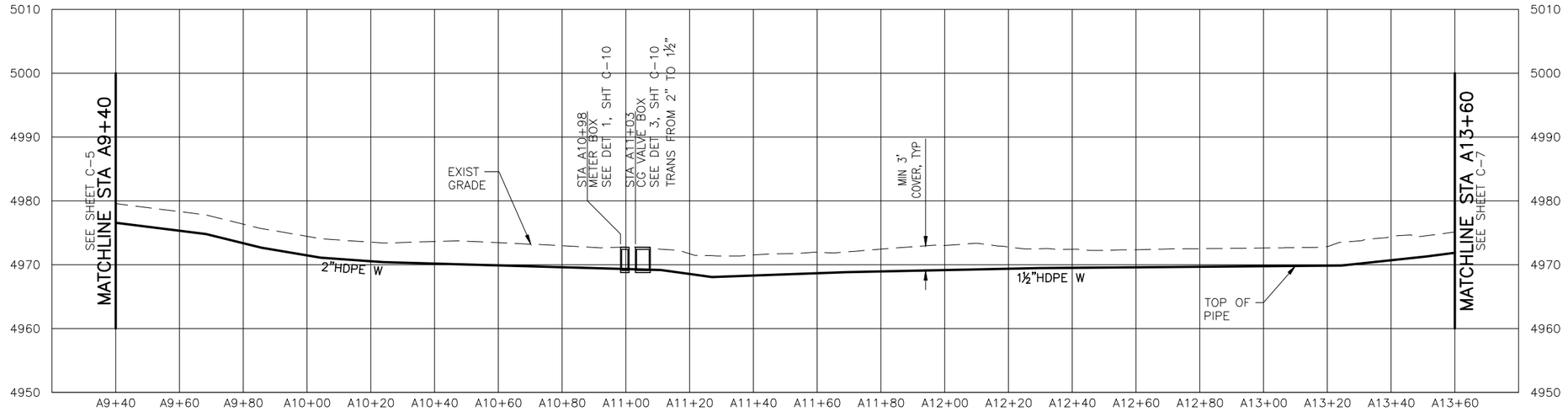
DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-5
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 08 OF 15



PLAN
SCALE: 1"=20'

NOTES:

1. PROPOSED WATER PIPING SHALL BE INSTALLED WITH A MINIMUM COVER OF 3'. THE ACTUAL DEPTH SHOULD BE ADJUSTED IN THE FIELD AND APPROVED BY THE CO TO PROVIDE FOR SMOOTH GRADIENTS THROUGHOUT THE PIPELINE AND SUCH THAT NO LOCALIZED LOW POINTS OR HIGH POINTS ARE CREATED.



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

2/23/22 13:42 ALEX.BARGMEYER G:\PDX_PROJECTS\19\2622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-C.DWG;

USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER
79401
OREGON
JAMES
ALEXANDER METER
RENEWS 12-31-21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

DRAWING TITLE

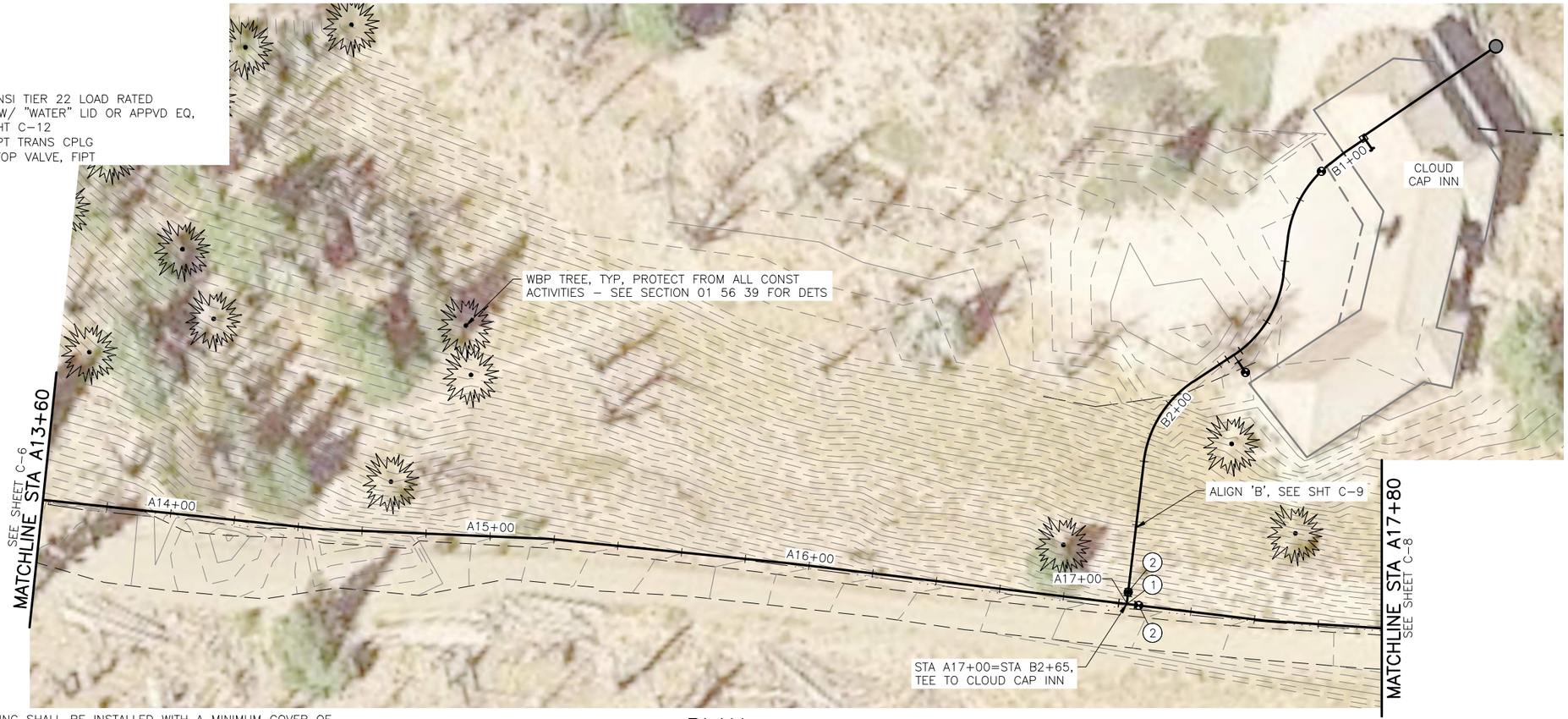
SPRING MAIN PLAN & PROFILE STA A9+40 TO A13+60

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-6
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 09 OF 15

MATERIAL LIST

(1) FURNISH & INSTALL:
1–1½" HDPE IPS TEE

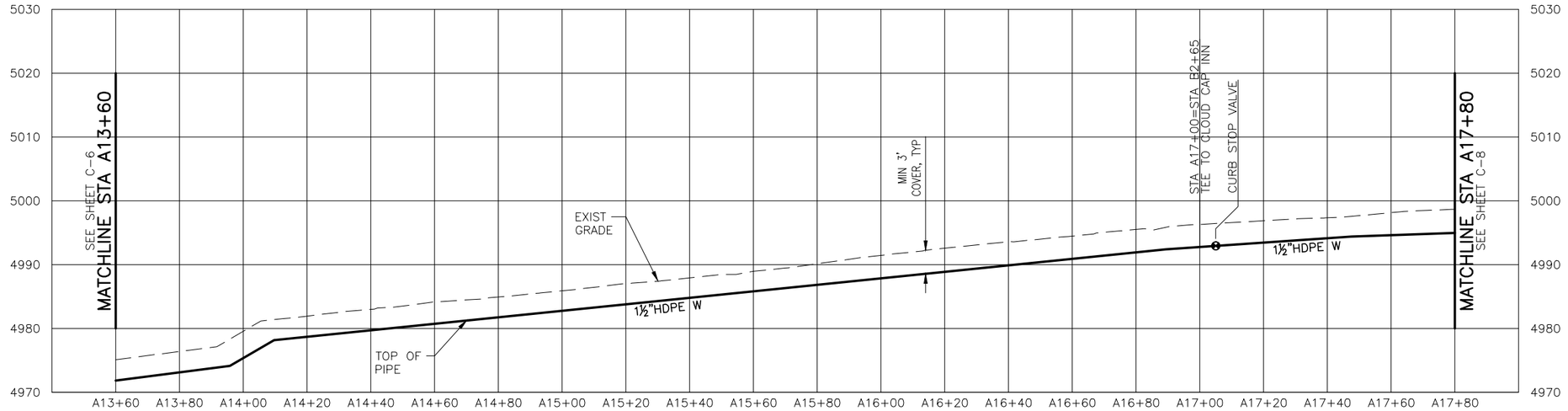
(2) FURNISH & INSTALL:
1–CURB BOX INSIDE ANSI TIER 22 LOAD RATED OLDCASTLE 910 VBOX W/ "WATER" LID OR APPVD EQ, INSTALL PER DET 5, SHT C–12
2–1½" HDPE IPS X MIPT TRANS CPLG
1–1½" BRASS CURB STOP VALVE, FIPT



NOTES:

1. PROPOSED WATER PIPING SHALL BE INSTALLED WITH A MINIMUM COVER OF 3'. THE ACTUAL DEPTH SHOULD BE ADJUSTED IN THE FIELD AND APPROVED BY THE CO TO PROVIDE FOR SMOOTH GRADIENTS THROUGHOUT THE PIPELINE AND SUCH THAT NO LOCALIZED LOW POINTS OR HIGH POINTS ARE CREATED.

PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

2/23/22 13:42 ALEX.BARGMEYER G:\PDX_PROJECTS\19\2622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-C.DWG;

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES ALEXANDER MEYER
RENEWS 12–31–21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

DRAWING TITLE

SPRING MAIN PLAN & PROFILE STA A13+60 TO A17+80

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-7
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 10 OF 15

NOTES:

1. PROPOSED WATER PIPING SHALL BE INSTALLED WITH A MINIMUM COVER OF 3'. THE ACTUAL DEPTH SHOULD BE ADJUSTED IN THE FIELD AND APPROVED BY THE CO TO PROVIDE FOR SMOOTH GRADIENTS THROUGHOUT THE PIPELINE AND SUCH THAT NO LOCALIZED LOW POINTS OR HIGH POINTS ARE CREATED.

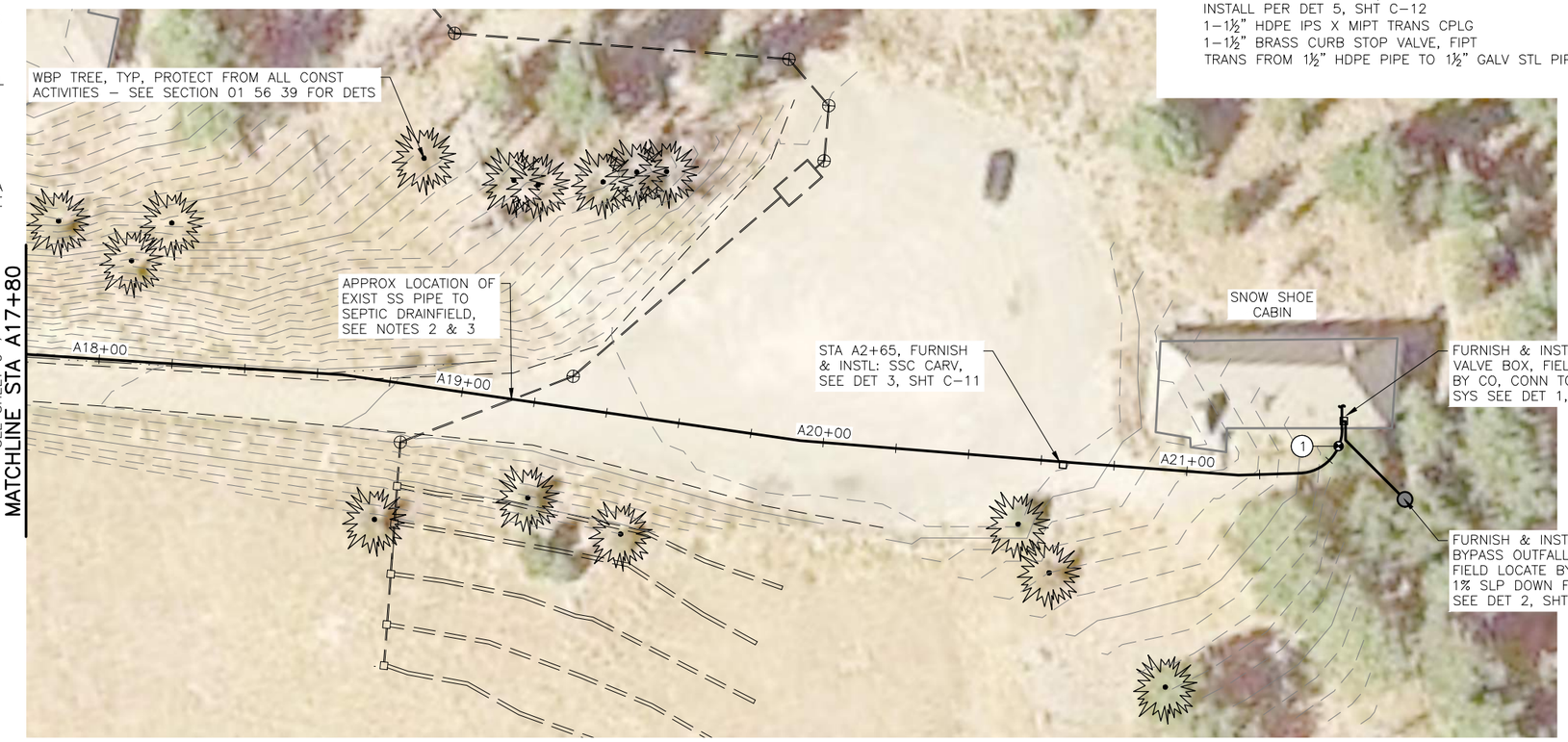
2. THE CONTRACTOR SHALL POTHOLE AND VERIFY LOCATIONS, ELEVATIONS, TYPES, AND SIZES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTING NEW WATER LINE FAR ENOUGH IN ADVANCE TO ALLOW NECESSARY ADJUSTMENTS IN GRADE AND SHALL NOTIFY CO OF NEED TO ADJUST PIPING INSTALLATION ACCORDINGLY.

3. WHERE THE PROPOSED WATER LINE CROSSES A SEWER LINE, THE CONTRACTOR SHALL INSTALL THE WATER LINE IN ACCORDANCE WITH OAR 333-061-0050(9)(c)(C), CROSSINGS – SANITARY SEWERS AND WATER LINES.

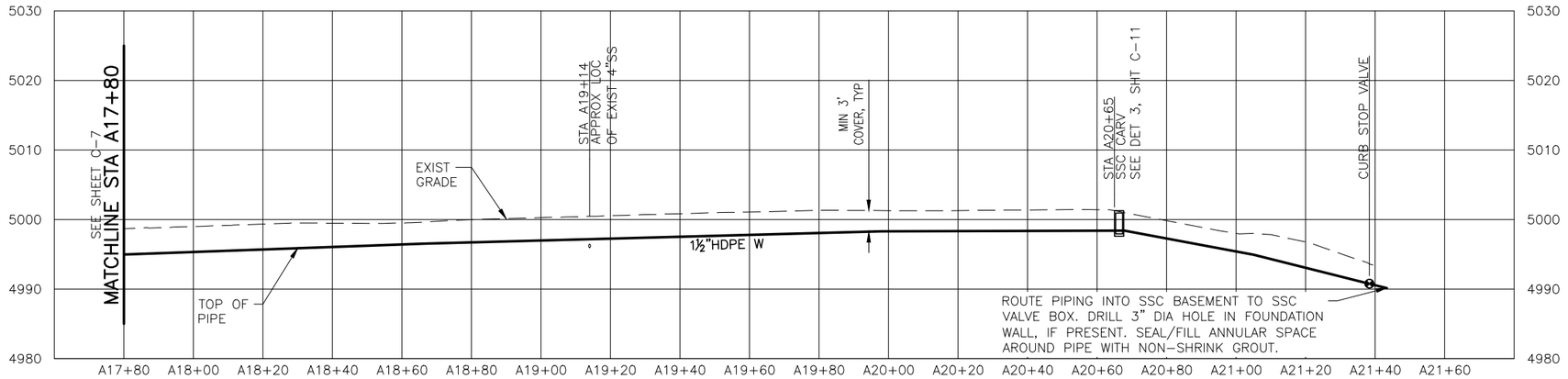
MATERIAL LIST

(1) FURNISH & INSTALL:

1-CURB BOX INSIDE ANSI TIER 22 LOAD RATED OLDCASTLE 910 VBOX W/ "WATER" LID OR APPVD EQ, INSTALL PER DET 5, SHT C-12
1-1½" HDPE IPS X MIPT TRANS CPLG
1-1½" BRASS CURB STOP VALVE, FIPT
TRANS FROM 1½" HDPE PIPE TO 1½" GALV STL PIPE



PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JANUARY 9, 1981 ALEXANDER M. BARGMEYER
RENEWS 12-31-21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

DRAWING TITLE

SPRING MAIN PLAN & PROFILE STA A17+80 TO A21+45

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-8
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 11 OF 15

MATERIAL LIST

(1) FURNISH & INSTALL:
1–CURB BOX INSIDE ANSI TIER 22 LOAD RATED OLDCASTLE 910 VBOX W/ "WATER" LID OR APPVD EQ, INSTALL PER DET 5, SHT C–12
1–1½" HDPE IPS X MIPT TRANS CPLG
1–1½" BRASS CURB STOP VALVE, FIPT TRANS FROM 1½" HDPE PIPE TO 1½" GALV STL PIPE

(2) FURNISH AND INSTALL:
1–CLOUD CAP INN BYPASS OUTFALL STRUCTURE, FIELD LOCATE BY CO, MIN 1% SLP DOWN FROM CCI, SEE DETAIL 2, SHEET C–12
FIELD LOCATE BY CO. MIN 1% SLP DOWN FROM CCI

(3) FURNISH & INSTALL:
1–1½" HDPE IPS TEE

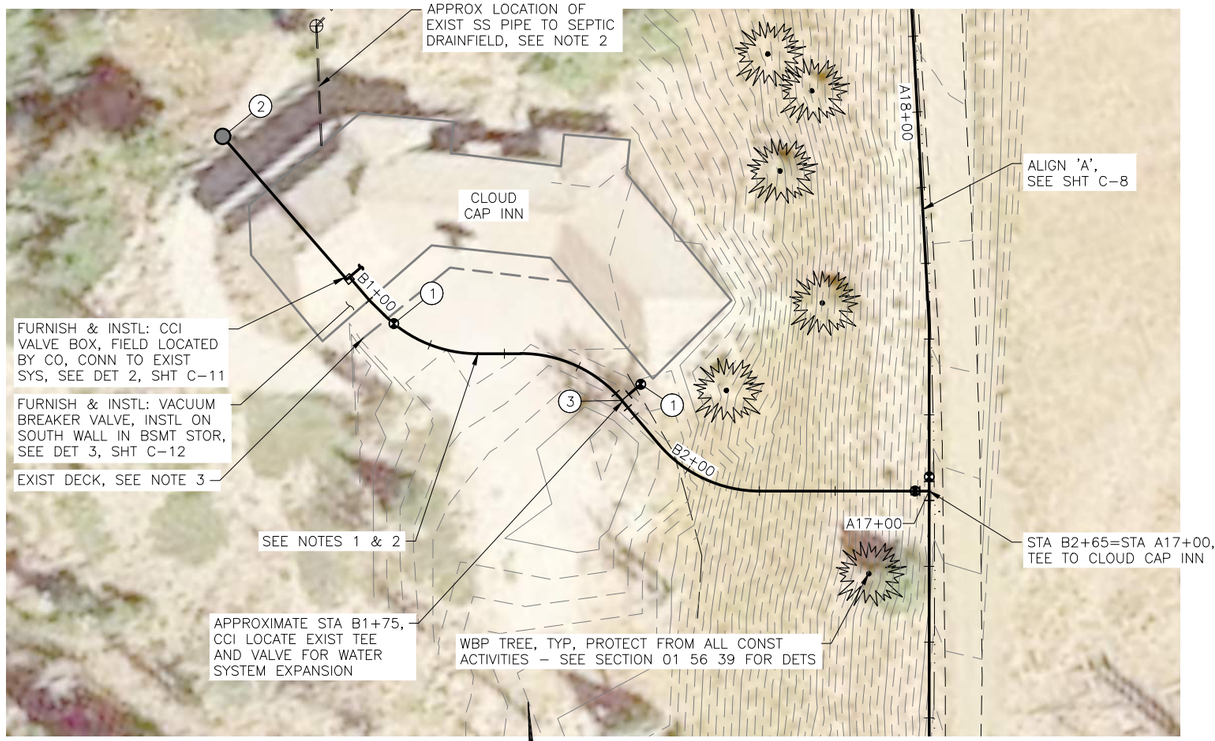
NOTES:

1. PROPOSED WATER PIPING SHALL BE INSTALLED WITH A MINIMUM COVER OF 3'. THE ACTUAL ALIGNMENT SHALL BE ADJUSTED IN THE FIELD AND APPROVED BY THE CO TO AVOID ROCK EXCAVATION AND TREES. THE ACTUAL DEPTH SHALL BE ADJUSTED IN THE FIELD AND APPROVED BY THE CO TO PROVIDE FOR SMOOTH GRADIENTS THROUGHOUT THE PIPELINE AND SUCH THAT NO LOCALIZED LOW POINTS OR HIGH POINTS ARE CREATED.

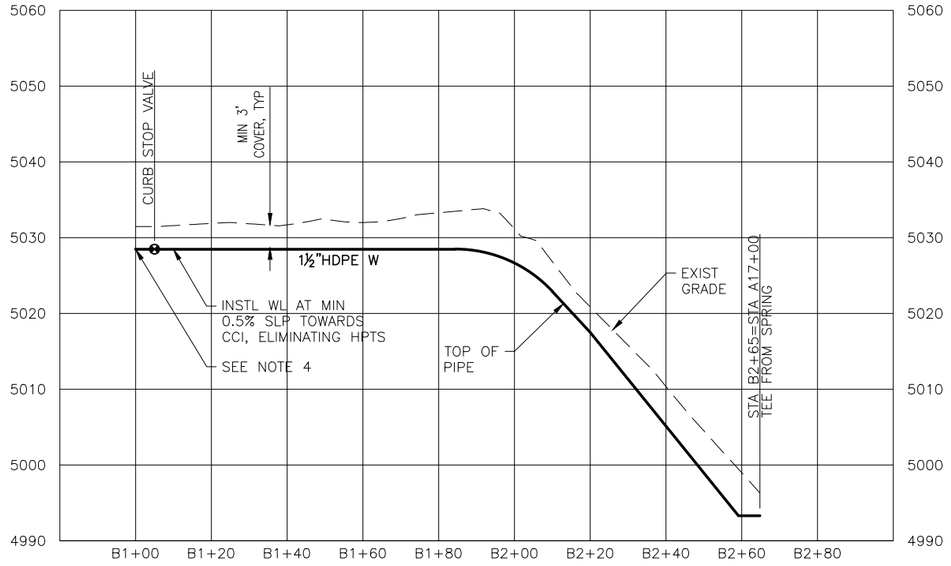
2. THE CONTRACTOR SHALL POTHOLE AND VERIFY LOCATIONS, ELEVATIONS, TYPES, AND SIZES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTING NEW WATER LINE FAR ENOUGH IN ADVANCE TO ALLOW NECESSARY ADJUSTMENTS IN GRADE AND SHALL NOTIFY COR OF NEED TO ADJUST PIPING INSTALLATION ACCORDINGLY.

3. PORTIONS OF THE CLOUD CAP INN DECK WILL NEED TO TEMPORARILY REMOVED FOR THE INSTALLATION OF THE WATER MAIN LINE. WHEN POSSIBLE, MATERIALS SHOULD BE RETAINED AND USED FOR REPAIR OF THE DECK ONCE THE WATER MAIN LINE WORK IS COMPLETE. IN THE EVENT THAT EXISTING MATERIALS CANNOT BE REUSED TO REPAIR THE DECK, REPLACEMENT MATERIALS WILL MATCH THE EXISTING IN TYPE AND DIMENSIONS.

4. ROUTE PIPING INTO CCI BASEMENT TO CCI VALVE BOX. DRILL 3" DIA HOLE IN FOUNDATION WALL, IF PRESENT. SEAL/FILL ANNULAR SPACE AROUND PIPE WITH NON–SHRINK GROUT.



PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

USDA FOREST SERVICE
United States Department of Agriculture
Forest Service
(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES ALBRIGHT MEYER RENEWS 12–31–21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

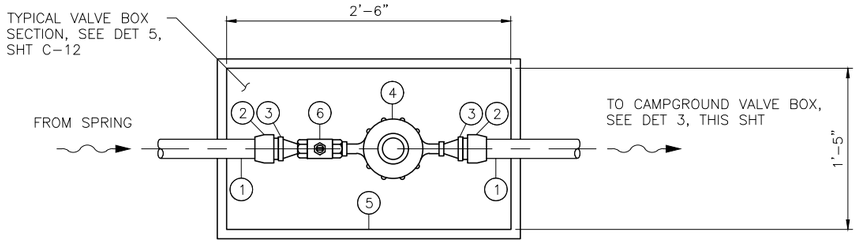
HOOD RIVER RANGER DISTRICT

DRAWING TITLE

CLOUD CAP MAIN PLAN & PROFILE STA B1+00 TO B2+65

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-9
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 12 OF 15

2/23/22 13:42 ALEX.BARGMEYER G:\PDX_PROJECTS\192622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-C.DWG;



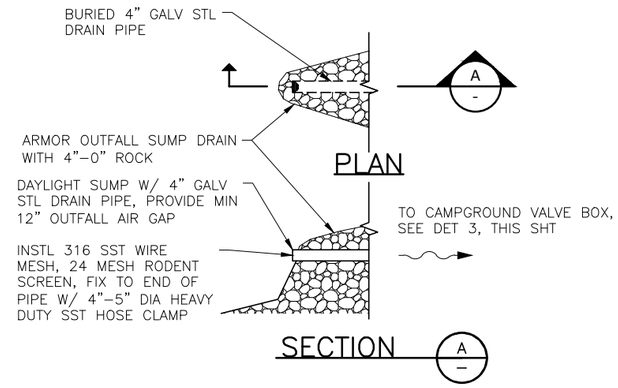
METER BOX DETAIL

SCALE: 1/8" = 1'–0"

1 / C–6

MATERIAL LIST

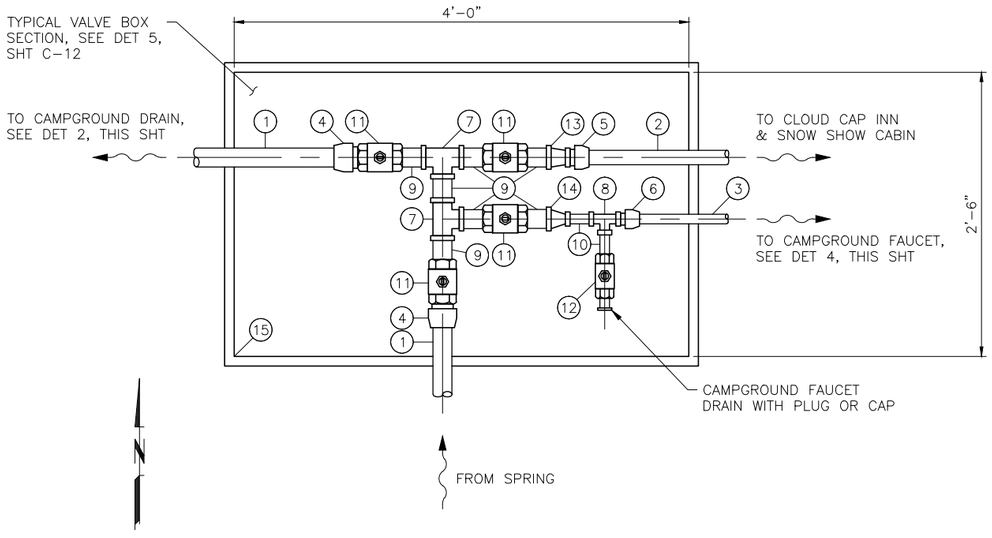
1. 2" HDPE PIPE
2. 2" HDPE IPS X MIPT TRANS CPLG
3. 2" X 1" BRASS RDCR, FIPT
4. 1" METER, MODEL 55 RECORDALL DISC METER AS MFR BY BADGER METER, OR APPVD EQ
5. VALVE VAULT, OLDCASTLE POLYMER 3017, 36" HT, RECTANGULAR POLYMER ENCL
6. 1" BRASS CURB STOP VALVE, FIPT



CAMPGROUND DRAIN DETAIL

SCALE: NTS

2 / C–6



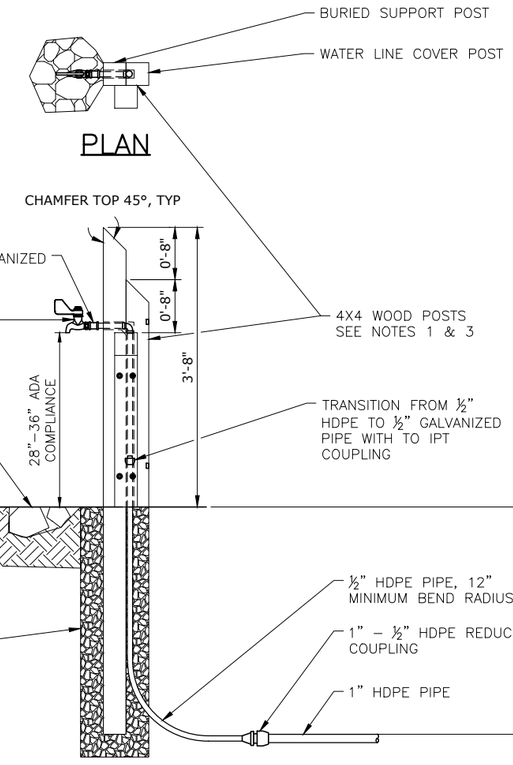
MATERIAL LIST

1. 2" HDPE PIPE
2. 1½" HDPE PIPE
3. 1" HDPE PIPE
4. 2" HDPE IPS X MIPT TRANS CPLG
5. 1½" HDPE IPS X MIPT TRANS CPLG
6. 1" HDPE IPS X MIPT TRANS CPLG
   2" BRASS TEE, FIPT
7. 1" BRASS TEE, FIPT
8. 2" BRASS NIPPLE
9. 1" BRASS NIPPLE
10. 2" BRASS CURB STOP VALVE, FIPT
11. 1" BRASS CURB STOP VALVE, FIPT
12. 2" X 1½" BRASS RDCR, FIPT
13. 1½" X 1" BRASS RDCR, FIPT
14. VALVE VAULT, OLDCASTLE POLYMER 3048, 48" HT, RECTANGULAR
15. POLYMER ENCL

CAMPGROUND VALVE BOX DETAIL

SCALE: 1/8" = 1'–0"

3 / C–6



NOTES:

1. ALL WOOD SHALL BE PRESSURE TREATED RATED FOR BURIAL.
2. FAUCET INSTALLED THROUGH BURIED SUPPORT POST WITH MILLED RELIEF IN THE WATER LINE COVER POST FOR PIPE AND FITTINGS.
3. TERMINATE SHORTER POSTS AT GROUND LEVEL AND FASTEN EACH TO BURIED SUPPORT POST WITH 4–3/8" GALVANIZED LAG SCREWS, LENGTH AS REQUIRED. PROVIDE $\frac{9}{64}$" PILOT DRILL THROUGH SHORTER POSTS AND COUNTERSINK HEADS FLUSH. INSTALLATION OF FASTENERS SHALL AVOID CONFLICT WITH PIPING.

CAMPGROUND FAUCET DETAIL

SCALE: 1" = 1'–0"

4 / C–6

USDA FOREST SERVICE
United States Department of Agriculture
Forest Service
(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES ALEXANDER MEYER
RENEWS 12–31–21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

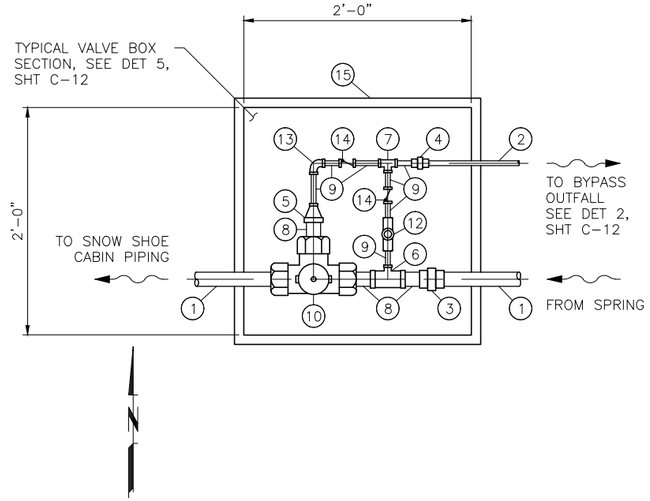
HOOD RIVER RANGER DISTRICT

DRAWING TITLE

CIVIL DETAILS - 1

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-10
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 13 OF 15

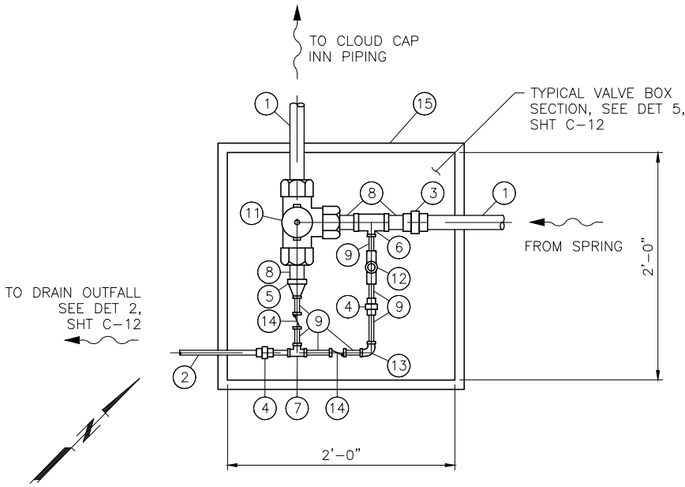
2/23/22 13:42 ALEX.BARGMEYER G:\PDX_PROJECTS\19\2622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-C.DWG;



MATERIAL LIST

1. 1½" GALV STL PIPE
2. ¾" GALV STL PIPE
3. 1½" BRASS UNION, FIPT
4. ¾" BRASS UNION, FIPT
5. 1½" X ¾" BRASS RDCR, FIPT
6. 1½" X ¾" BRASS TEE, FIPT
7. ¾" BRASS TEE, FIPT
8. 1½" BRASS NIPPLE
9. ¾" BRASS NIPPLE
10. 1½" BRASS 3-WAY BALL VALVE W/ MANUAL HANDLE LEVER, FIPT, SEE NOTE 1, ASSURED AUTOMATION 31D SERIES (FLOW PLAN 'F') OR APPVD EQ
11. 1½" BRASS 3-WAY BALL VALVE W/ MANUAL HANDLE LEVER, FIPT, SEE NOTE 2, ASSURED AUTOMATION 31D SERIES (FLOW PLAN 'F') OR APPVD EQ
12. ¾" BRASS NEEDLE VALVE, FIPT
13. ¾" BRASS 90° ELBOW, FIPT
14. ¾" BRASS CHECK VALVE, FIPT
15. VALVE VAULT, OLDCASTLE POLYMER 2424, 48" HT, RECTANGULAR POLYMER ENCL

INSTALLATION NOTES:
1. SNOW SHOE CABIN 3-WAY BALL VALVE:
   1.1. POSITION 1 – BLDG PLUMBING DRAIN
   1.2. POSITION 2 – SYSTEM OPERATION
2. CLOUD CAP INN 3-WAY BALL VALVE:
   2.1. POSITION 1 – SYSTEM OPERATION
   2.2. POSITION 2 – BLDG PLUMBING DRAIN



SNOW SHOE CABIN VALVE BOX DETAIL

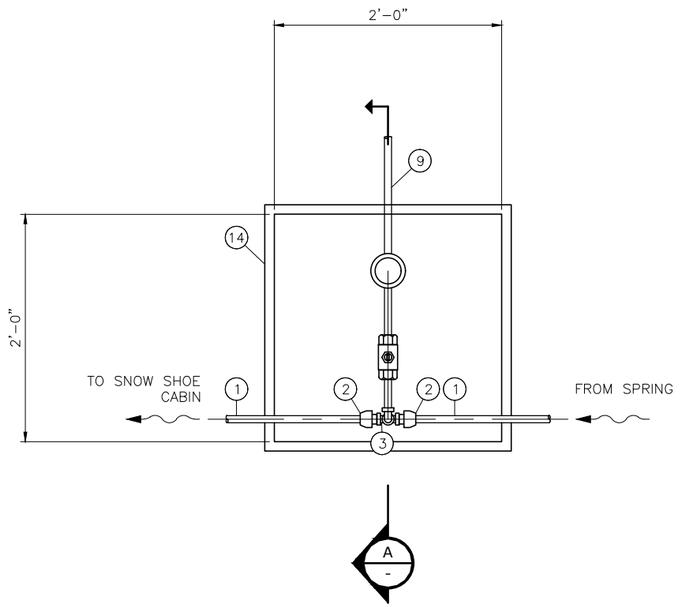
SCALE: 1/8" – 1'-0"

1 / C-8

CLOUD CAP INN VALVE BOX DETAIL

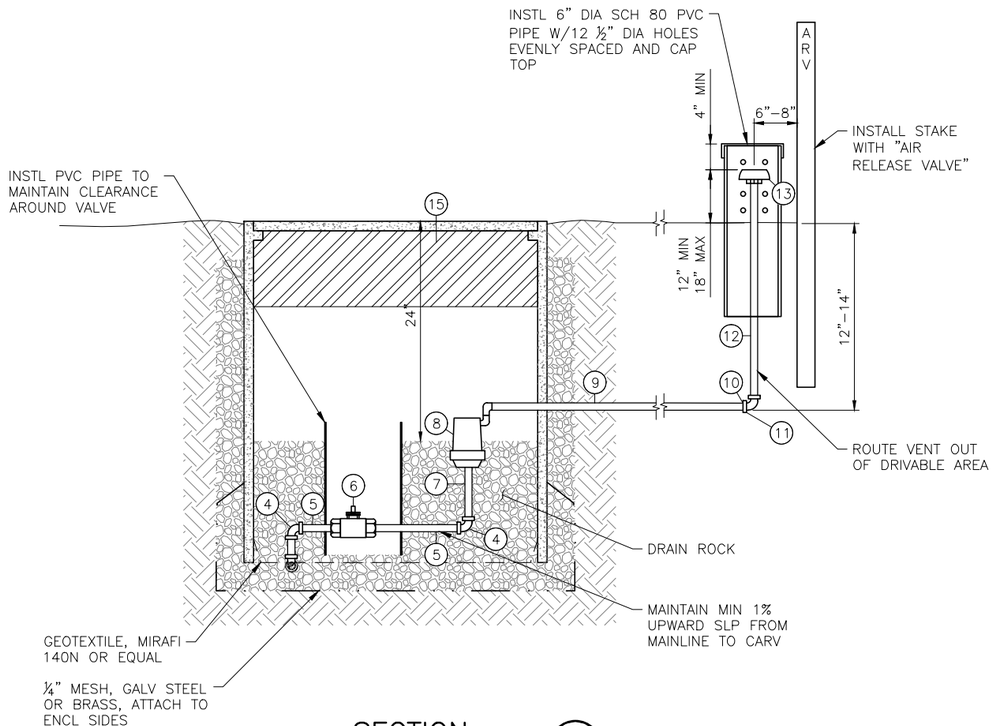
SCALE: 1/8" – 1'-0"

2 / C-9



MATERIAL LIST

1. 1½" HDPE PIPE
2. 1½" HDPE IPS X MIPT TRANS CPLG
3. 1½" BRASS TEE, FIPT, ROTATE UP
4. 1½" BRASS 90° ELBOW, FIPT
5. 1½" BRASS NIPPLE
6. 1½" BRASS CURB STOP VALVE, FIPT
7. 1½" BRASS NIPPLE W/ BRASS COUPLER
8. 1½" COMB AIR RELEASE VALVE
9. ¾" HDPE PIPE
10. ¾" HDPE X MIPT ADAPTOR
11. ¾" GALV 90° ELBOW, FIPT
12. ¾" GALV PIPE
13. ¾" SCREENED TANK VENT
14. FOR SSC CARV – VALVE VAULT, OLDCASTLE POLYMER 2424, 36" HT, TRAFFIC-RATED, RECTANGULAR POLYMER ENCL
15. MIN 12" THK POLYURETHANE FOAM INSUL



TYPICAL COMBINATION AIR RELEASE VALVE DETAIL

SCALE: 1/8" = 1'-0"

3 / –

SECTION

SCALE: 1/8" = 1'-0"

A / –

USDA FOREST SERVICE
United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES ALBRAMEYER
RENEWS 12-31-21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

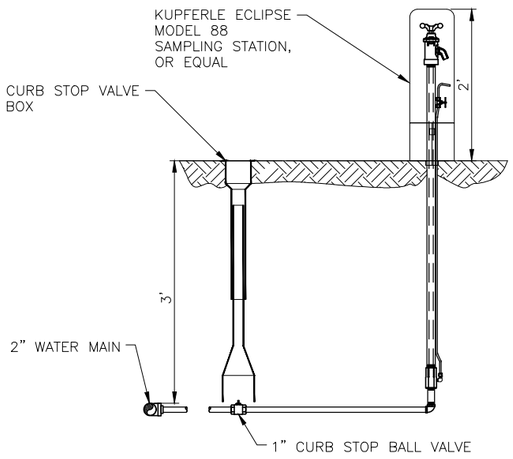
DRAWING TITLE

CIVIL DETAILS - 2

DATE: 03/24/2022	ARCHIVE NO.: FS090523_R102013_L1-002.dwg
DESIGNER: TMS	DRAWING SHEET NO.: C-11
DRAWN: TMS	
CHECKED: AMB	SHEET 14 OF 15
PROJECT NO.: 19-2622	

NOTES:

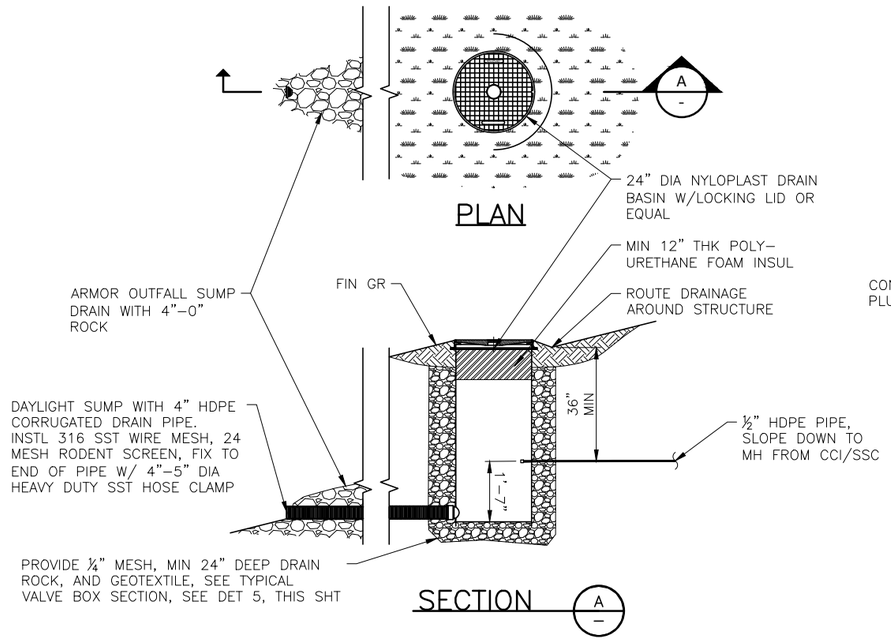
1. EVACUATE OR PUMP WATER FROM VENT TUBE TO PREVENT FREEZING AND MINIMIZE BACTERIAL GROWTH.



SPRING SAMPLE TAP DETAIL

SCALE: NTS

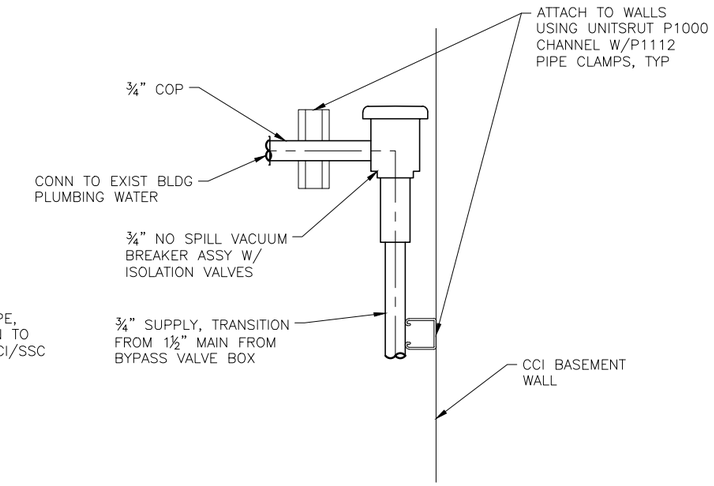
(1 / C-1)



TYPICAL DRAIN/BYPASS OUTFALL STRUCTURE DETAIL

SCALE: NTS

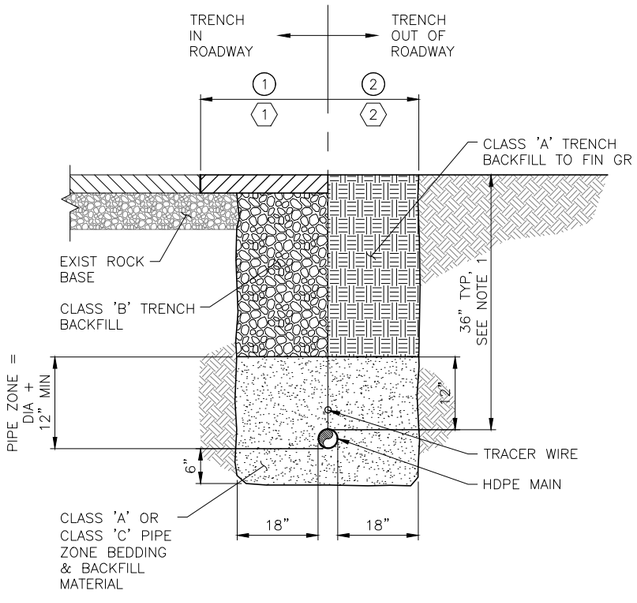
(2 / –)



VACUUM BREAKER VALVE DETAIL

SCALE: NTS

(3 / C-9)



TYPICAL PIPE TRENCH DETAIL

SCALE: NTS

(4 / –)

SYMBOL SURFACE RESTORATION REQUIREMENTS

(1) REPLACE REMOVED GRAVEL ROAD SURFACE WITH MINIMUM DEPTH OF 3" CRUSHED ROCK OR MATCH EXIST DEPTH, WHICHEVER IS GREATER, TO A MAXIMUM DEPTH OF 6".

(2) BACKFILL WITH CLASS 'A' NATIVE MATERIAL. FINISH TRENCH SURFACE TO MATCH ORIGINAL CONTOURS WITH FINAL 6" LIFT OF STOCKPILED TOPSOIL, MULCH, AND/OR SALVAGED NATIVE PLANT MATERIALS.

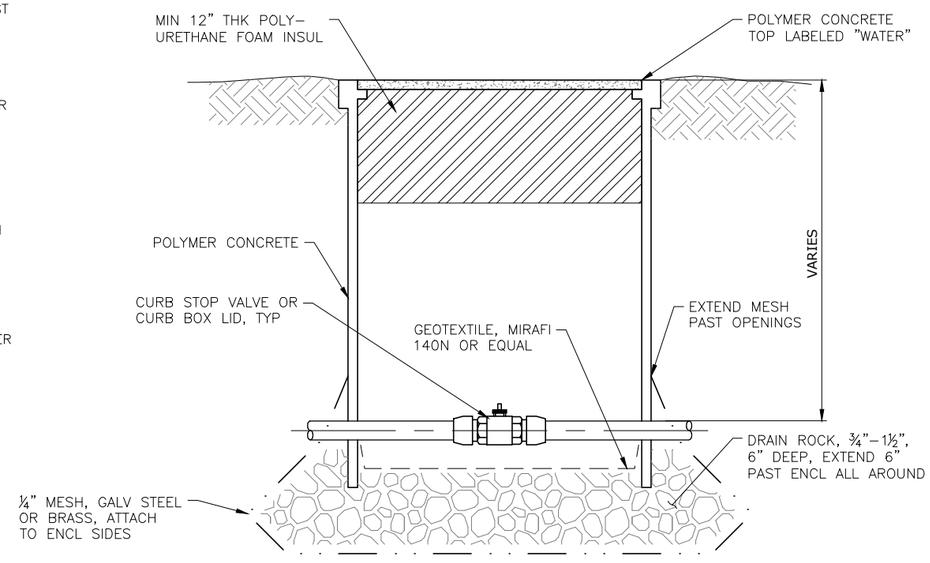
BACKFILL REQUIREMENTS

⟨1⟩ FURNISH AND INSTALL CLASS 'C' SAND BEDDING AND PIPE ZONE BACKFILL MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY PER ASTM D1557. FURNISH AND INSTALL CLASS 'B' ¾"–0" IMPORTED GRANULAR TRENCH BACKFILL MATERIAL TO GRAVEL ROAD SURFACE BASE. COMPACT MATERIAL IN LIFTS TO ACHIEVE 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T–99.

⟨2⟩ FURNISH AND INSTALL CLASS 'A' NATIVE MATERIAL OR CLASS 'C' SAND BEDDING AND PIPE ZONE BACKFILL MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY PER ASTM D1557. FURNISH AND INSTALL CLASS 'A' NATIVE MATERIAL TRENCH BACKFILL TO FINISH GRADE COMPACTED TO 90% MAXIMUM DENSITY PER ASTM D1557.

NOTES:

1. MINIMUM DEPTH OF 36" SHALL BE MAINTAINED AT ALL TIMES, REGARDLESS OF EXISTING FEATURES, SUCH AS DITCHES AND SUDDEN CHANGES IN TOPOGRAPHY. IF PIPE CROSSES OR RUNS PARALLEL ALONG A DITCH, THE PIPE MUST BE LOWERED AS NECESSARY TO MAINTAIN 36" OF CLEARANCE BETWEEN THE BOTTOM OF THE DITCH AND THE TOP OF THE PIPE. CONSULT WITH COR AND CO IF THE MINIMUM DEPTH OF 36" CANNOT BE MAINTAINED FOR SPECIFIC AREAS.



TYPICAL VALVE BOX SECTION

SCALE: NTS

(5 / –)

USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

(R06)
PACIFIC NORTHWEST REGION

STAMPS, LOGOS, AND SEALS

REGISTERED PROFESSIONAL ENGINEER 79401 OREGON JAMES AUSMEYER
RENEWS 12–31–21

NO.	REVISION / ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

CLOUD CAP INN WATER SYSTEM RENOVATION

MOUNT HOOD NATIONAL FOREST

HOOD RIVER RANGER DISTRICT

DRAWING TITLE

CIVIL DETAILS - 3

DATE 03/24/2022	ARCHIVE NO. FS090523_R102013_L1-002.dwg
DESIGNER TMS	DRAWING SHEET NO. C-12
DRAWN TMS	
CHECKED AMB	
PROJECT NO. 19-2622	SHEET 15 OF 15

2/23/22 13:42 ALEX.BARGMEYER G:\PDX_PROJECTS\19\2622.01 - BCE - CLOUD CAP INN\CAD\SHEETS\19-2622-OR-C.DWG;