

ENGINEERING PLAN

FOR CAMELOT LOSS REPLACEMENT

386 CAMELOT DRIVE, CASTLE ROCK, WA 98611
COUNTY PROJECT # 93031

PREPARED FOR:



COWLITZ COUNTY - DEPARTMENT OF PUBLIC WORKS

1600 - 13TH AVENUE SOUTH
KELSO, WA 98626
CONTACT: SUSAN EUGENIS
PHONE: (360) 577-3030
EMAIL: EUGENISS@COWLITZWA.GOV

PREPARED BY:



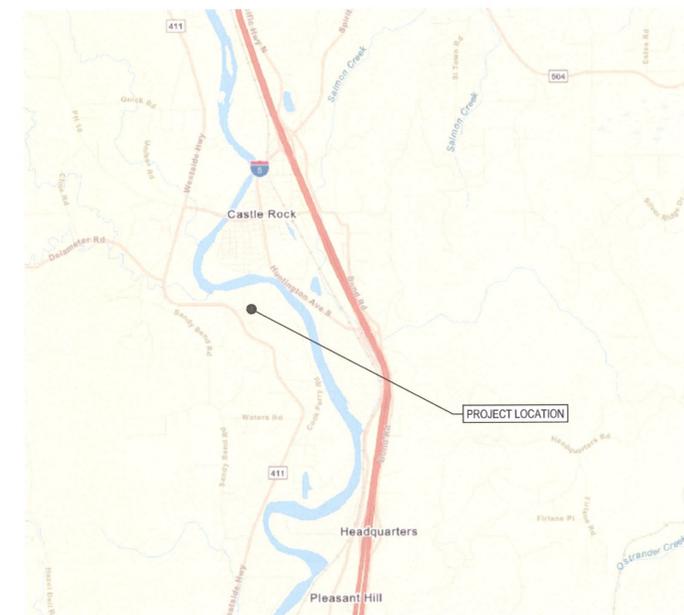
Ridgefield, WA
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PROJECT NUMBER: 22081



CONTACT: TRAVIS TORMANEN
PHONE: 360-903-9281
EMAIL: TTORMANEN@WINDSORENGINEERS.COM



VICINITY MAP
NOT TO SCALE

PROJECT INFO: 22081 - CAMELOT LOSS REPLACEMENT

COUNTY COMMISSION

STEVE RADER - DISTRICT 1
STEVEN FERRELL - DISTRICT 2
RICHARD DAHL - DISTRICT 3

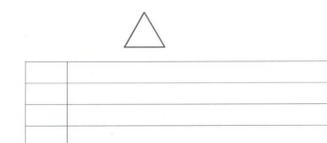
APPROVED BY:

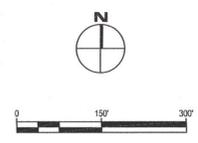
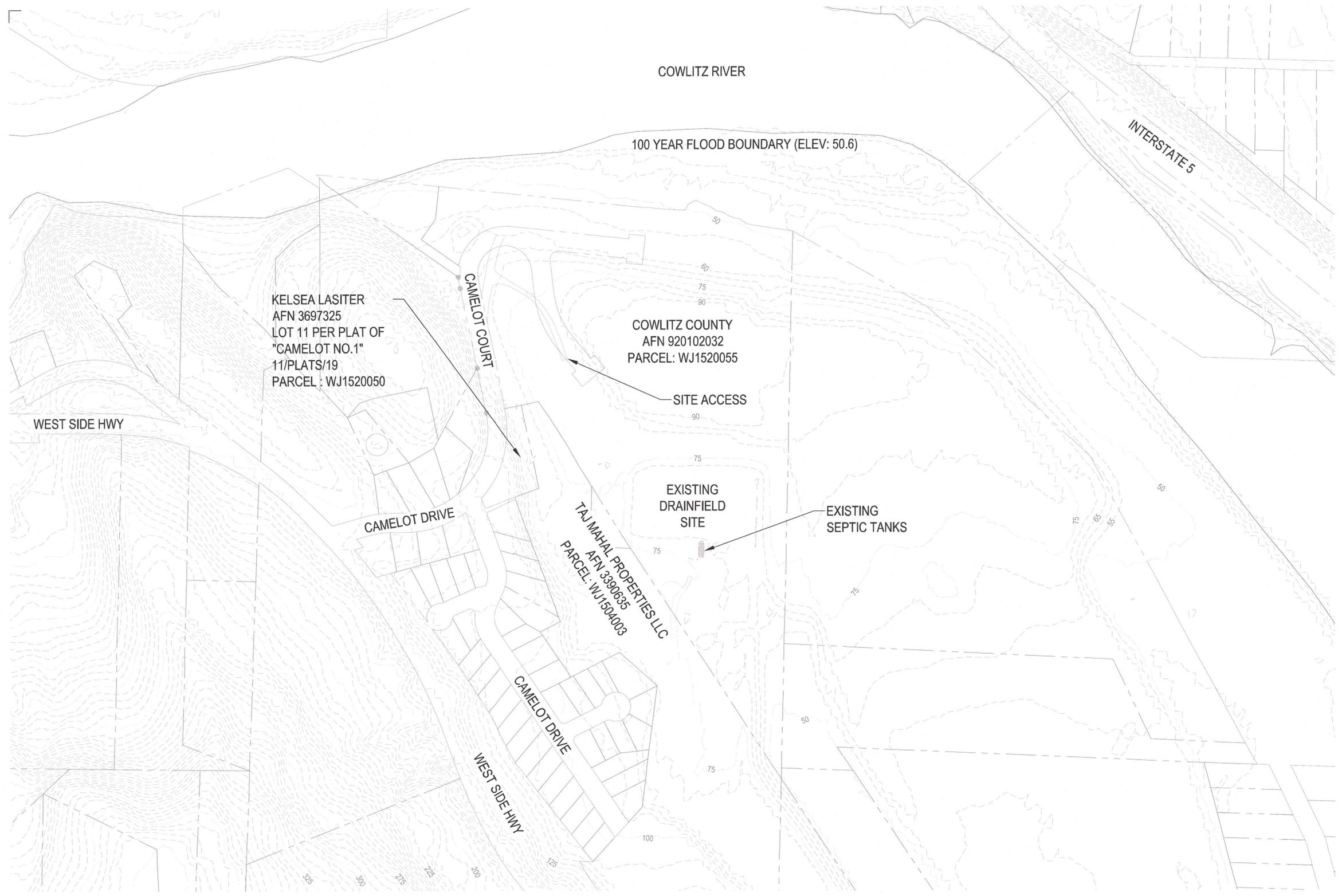
Susan Eugenis
COUNTY ENGINEER

DATE: 10/8/25

SHEET INDEX

- G001 COVER SHEET
- G100 EXISTING CONDITIONS
- G101 PROCESS FLOW & HYDRAULIC DIAGRAM
- C100 OVERALL PLAN
- C101 SITE PLAN
- C102 ENLARGED DRAINFIELD PLAN
- C103 DETAILS - PRESSURE BEDS
- C104 DETAILS - TANK
- C105 DETAILS - TANK
- C106 DETAILS - FENCING, TANK COVER AND PUMP CURVE
- C107 DETAILS - FENCING
- C108 ACCESS ROAD PLAN & PROFILE
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- S2 TANK SECTION
- S3 TANK DETAILS
- S4 TANK SIDEWALL SECTION
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- E102 SITE PLAN - ELECTRICAL
- E201 DETAILS - ELECTRICAL





Revisions:

LINE IS 1" ON FULL SCALE DRAWING

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ENGINEERING PLANS
Issue Date: 2025/08/29

Project Manager CTM
Drawn by TAW
Checked by CTM

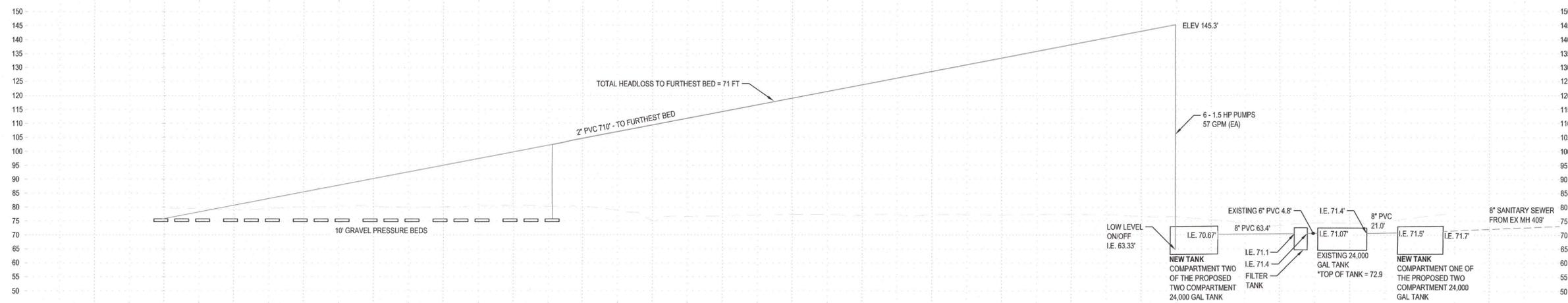
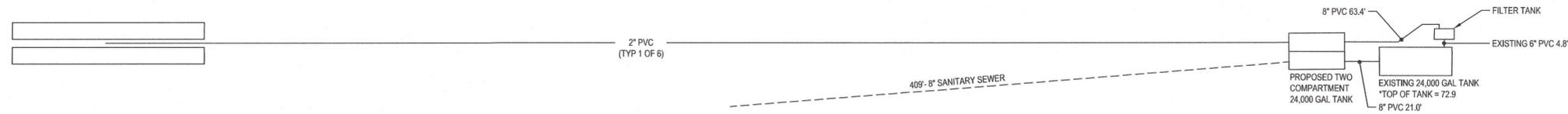
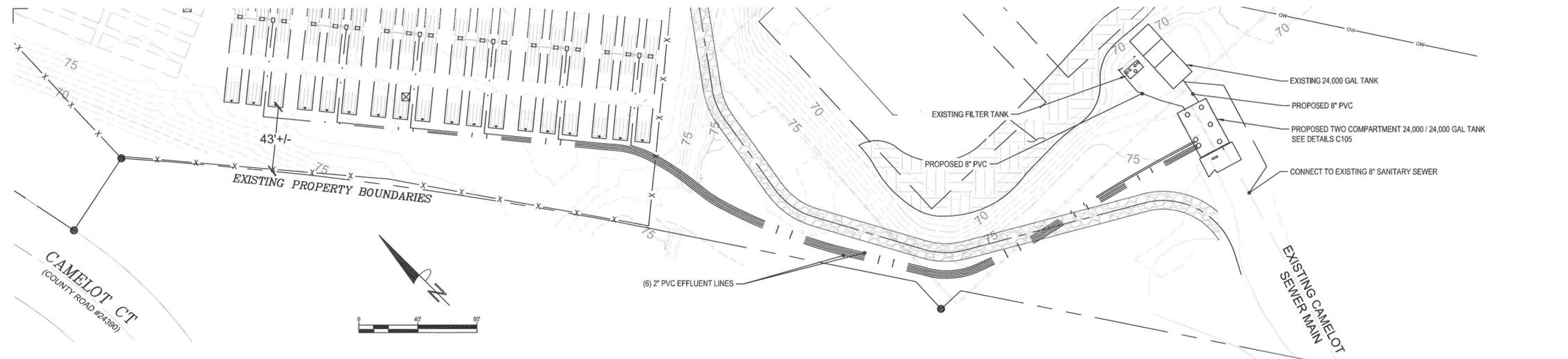
EXISTING CONDITIONS

G100

CALL 2 BUSINESS DAYS BEFORE YOU DIG.
CAUTION: UTILITY INFORMATION IS APPROXIMATE.
VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

GENERAL NOTES

*THE EXISTING 24,000 GAL TANK AND ELEVATIONS WERE SURVEYED BY COWLITZ COUNTY PUBLIC WORKS SURVEYOR ON JAN 23, 2023



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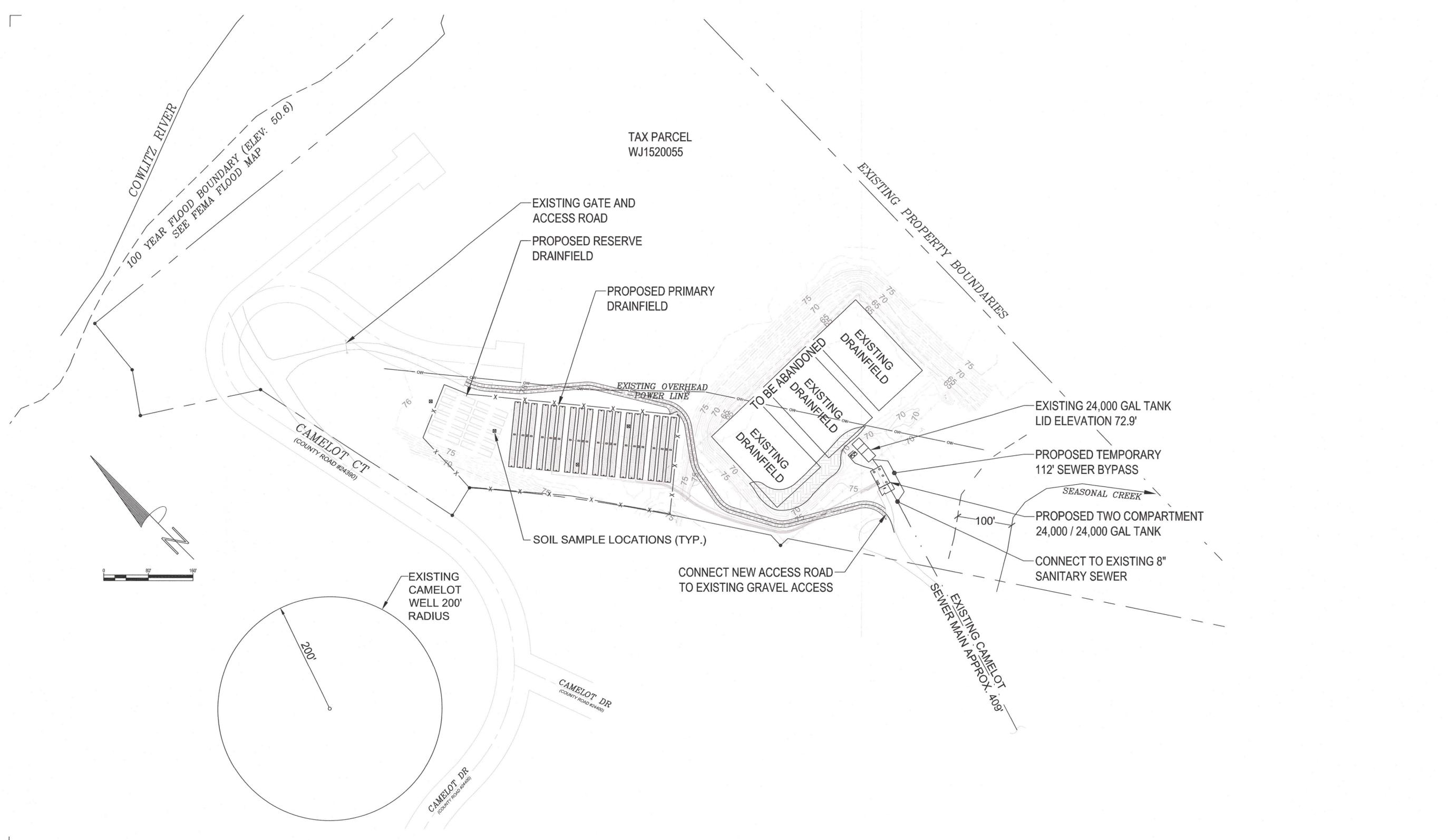
ENGINEERING PLANS
Issue Date: 2025/08/29

PROCESS FLOW & HYDRAULIC DIAGRAM

Project Manager: CTM
Drawn by: TAW
Checked by: CTM

G101

CALL 4 BUSINESS DAYS BEFORE YOU DIG.
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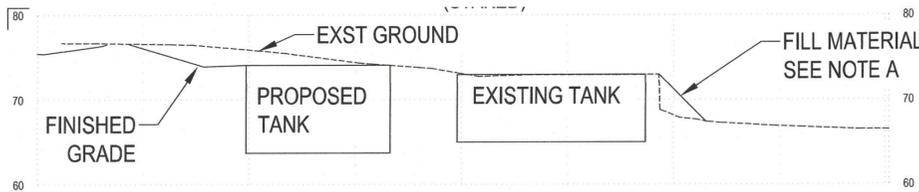
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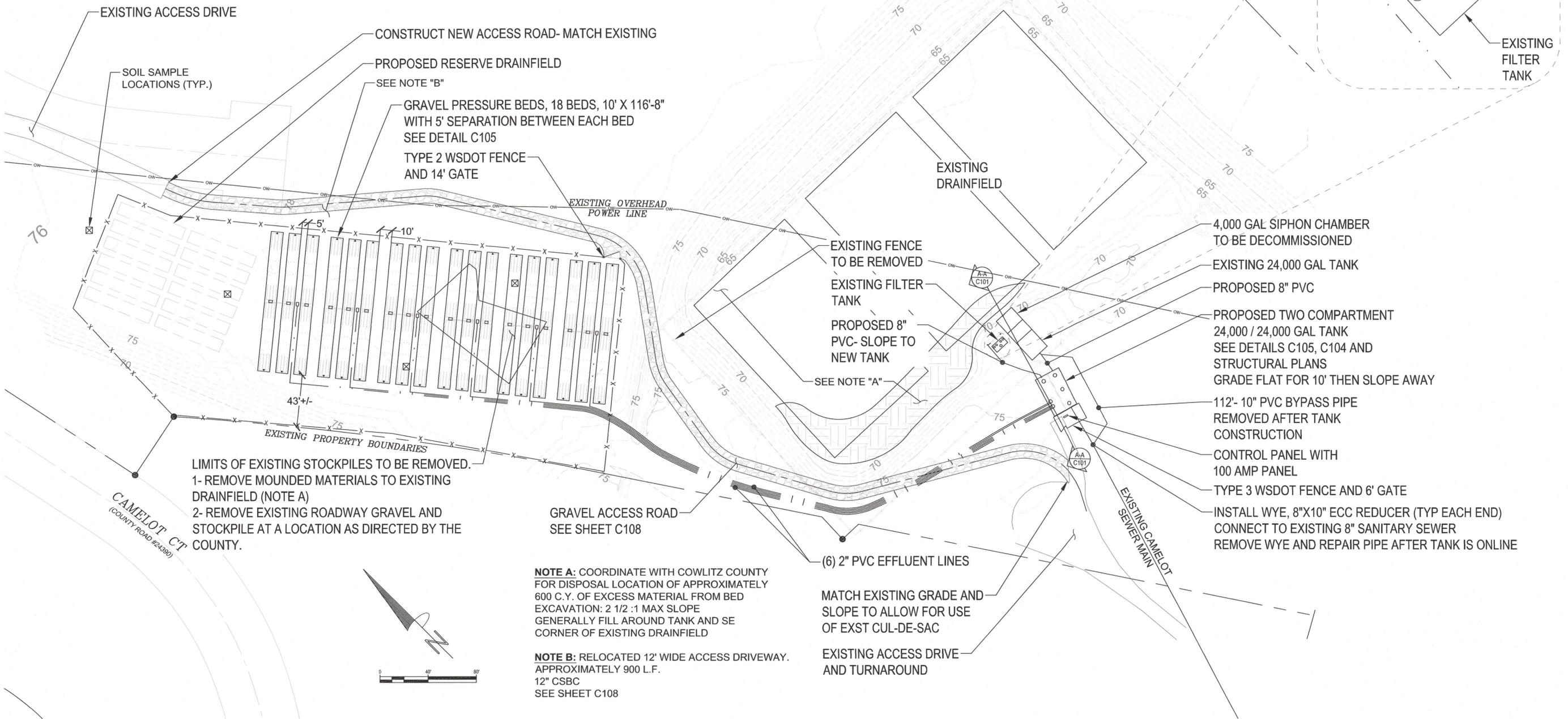
OVERALL PLAN

C100



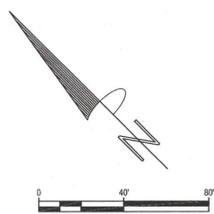
SITE SECTION A-A
SCALE: NTS

TAX PARCEL
WJ1520055



NOTE A: COORDINATE WITH COWLITZ COUNTY FOR DISPOSAL LOCATION OF APPROXIMATELY 600 C.Y. OF EXCESS MATERIAL FROM BED EXCAVATION: 2 1/2 :1 MAX SLOPE GENERALLY FILL AROUND TANK AND SE CORNER OF EXISTING DRAINFIELD

NOTE B: RELOCATED 12' WIDE ACCESS DRIVEWAY. APPROXIMATELY 900 L.F. 12" CSBC SEE SHEET C108



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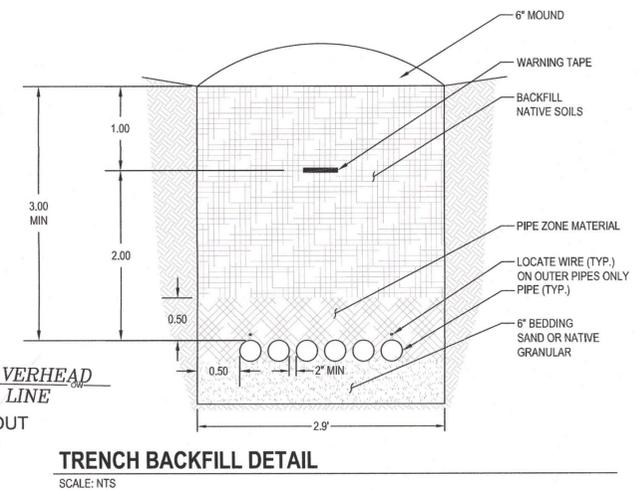
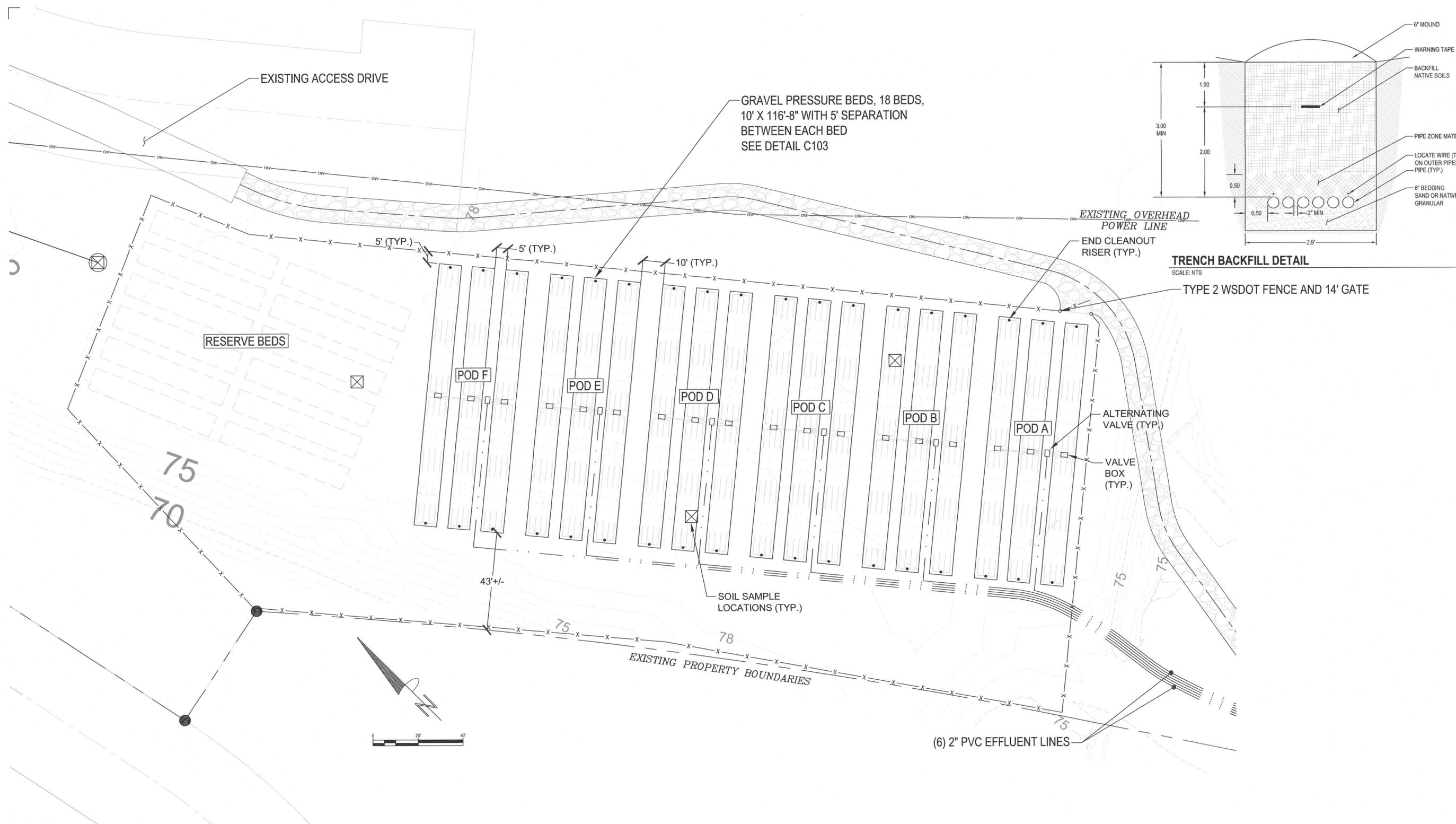
ENGINEERING PLANS
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SITE PLAN

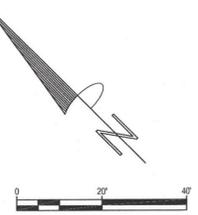
Project Manager: CTM
Drawn by: TAW
Checked by: CTM

C101

CALL 3 BUSINESS DAYS BEFORE YOU DIG.
CAUTION: UTILITY INFORMATION IS APPROXIMATE.
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TYPE 2 WSDOT FENCE AND 14' GATE



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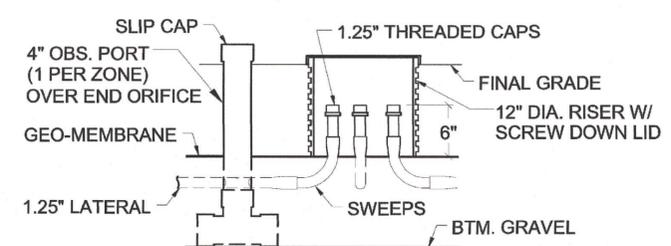
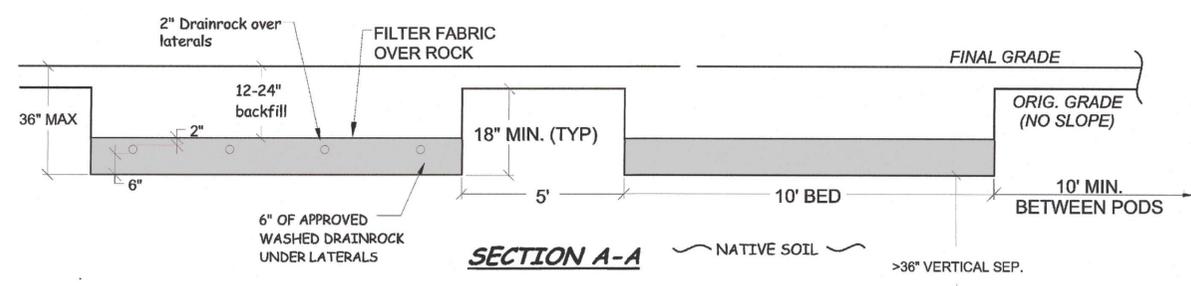
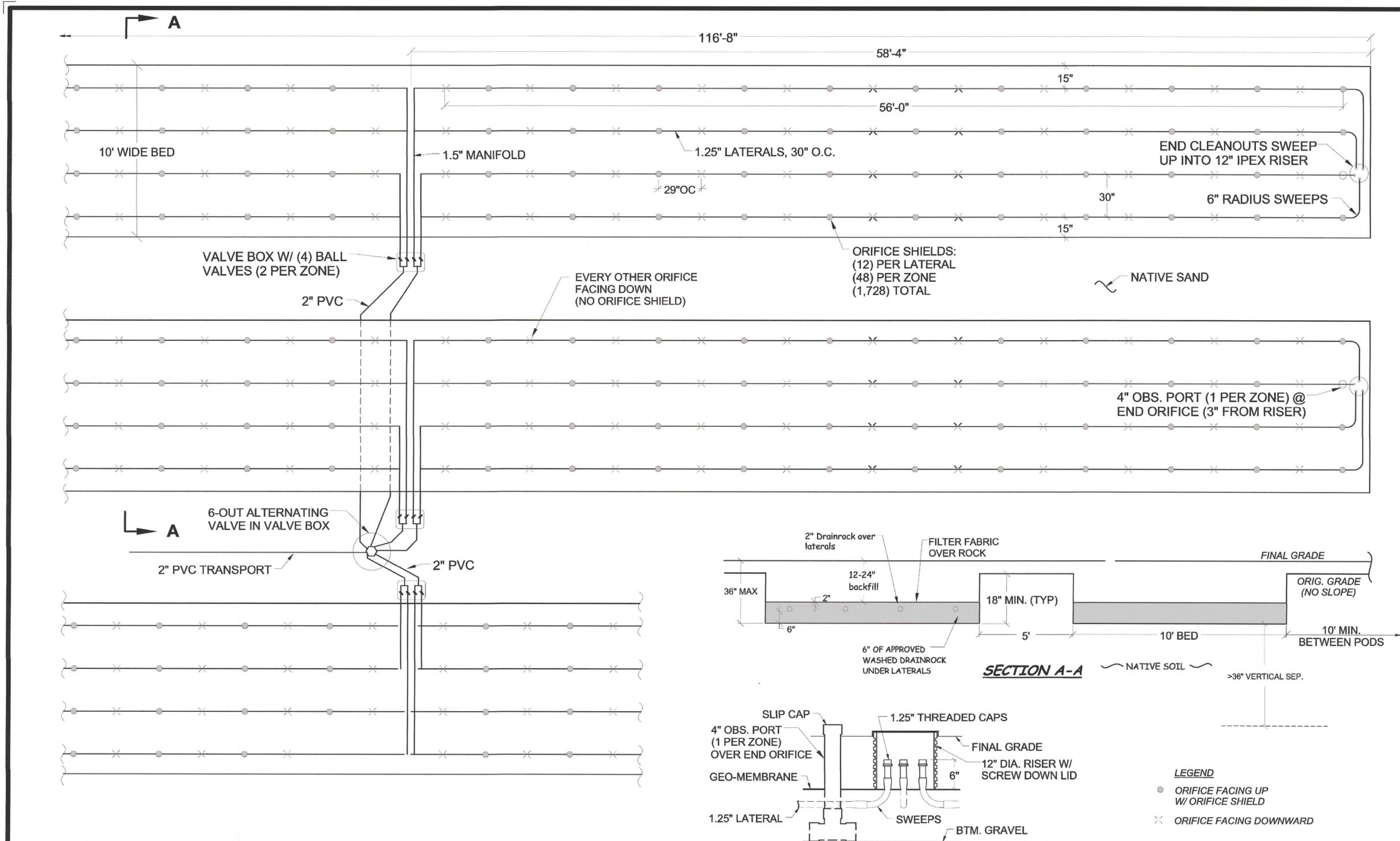
ENGINEERING PLANS
Issue Date: 2025/08/29

Project Manager CTM
Drawn by TAW
Checked by CTM

ENLARGED DRAINFIELD PLAN

C102

CALL 2 BUSINESS DAYS BEFORE YOU DIG.
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LEGEND
 ● ORIFICE FACING UP W/ ORIFICE SHIELD
 × ORIFICE FACING DOWNWARD

scale: None	GRAVEL PRESSURE BED DETAILS CAMELOT LOSS REPLACEMENT	revised: 12/18/23 8/11/25
dm. by: NCE		dwg #: 230653



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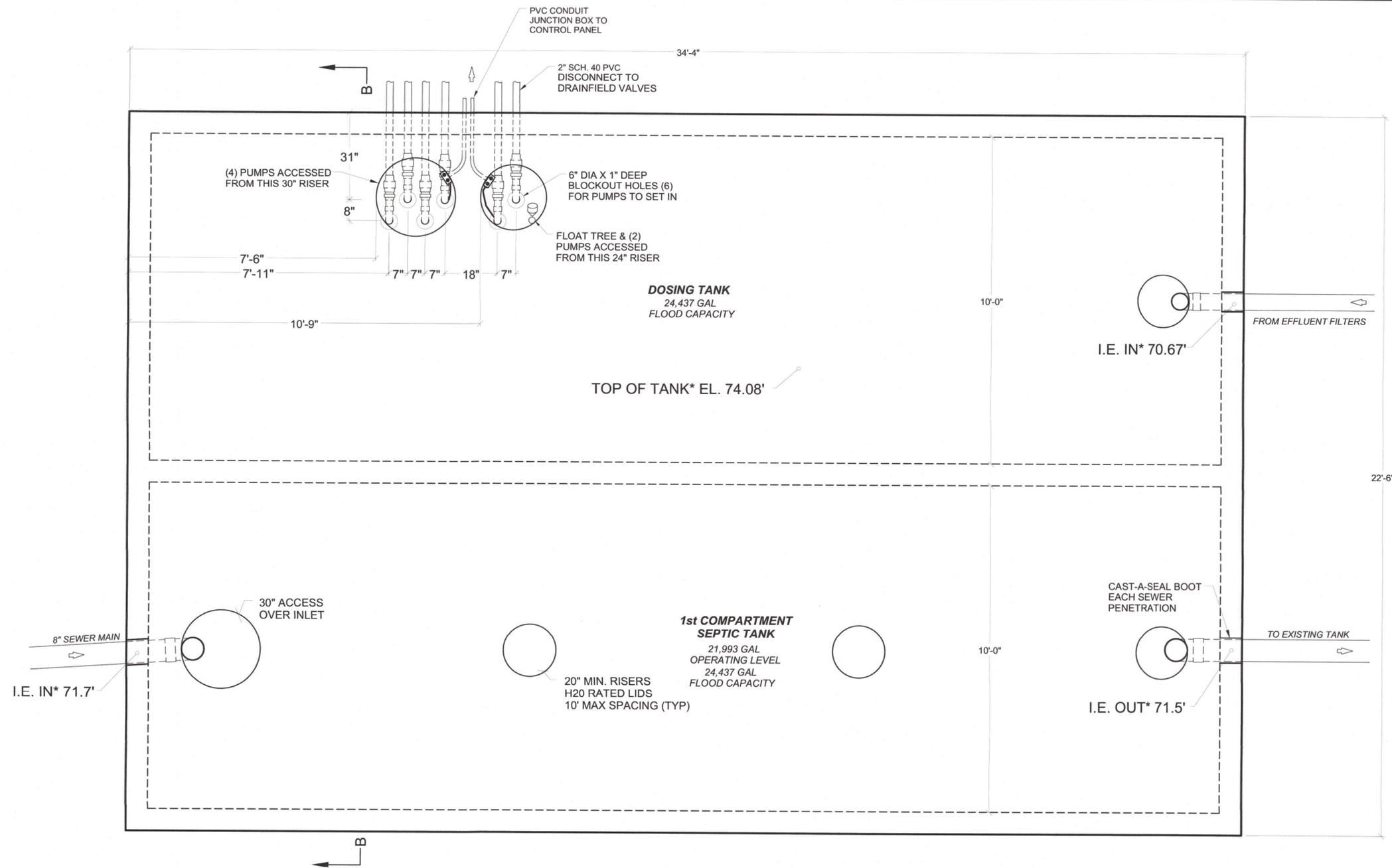
ENGINEERING PLANS
 Issue Date: 2025/08/29

Project Manager: CTM
 Drawn by: TAW
 Checked by: CTM

DETAILS - PRESSURE BEDS

C103

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 CAUTION UTILITY INFORMATION IS APPROXIMATE.
 VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.



NOTE: SEE SHEET C105 FOR SECTION B-B

*Elevation notes: Datum at top of existing tank is El=72.9'
Contractor to confirm flow lines prior to tank construction.

Lid notes: all access openings to meet H20 traffic rating.

Baffle notes: all baffles to extend 12" below operating liquid level.

**CAST IN PLACE TANK DETAILS
CAMELOT LOSS SYSTEM**

UPDATED:
12/19/23 8/10/25
SCALE: NONE



Revisions:

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SCALE DRAWING



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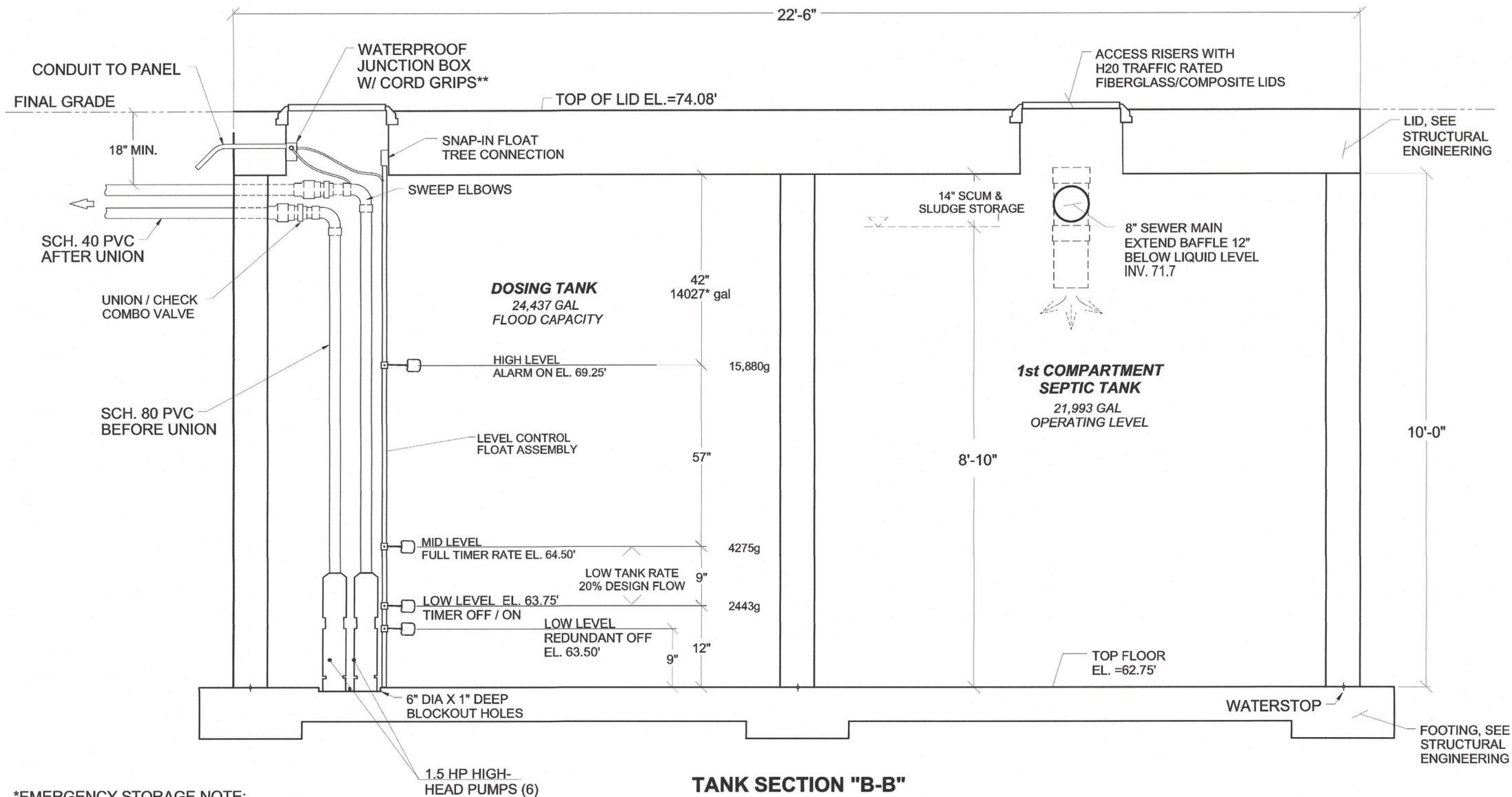
ENGINEERING PLANS
Issue Date: 2025/08/29

Project Manager: CTM
Drawn by: TAW
Checked by: CTM

DETAILS - TANK

C104

CALL 2 BUSINESS DAYS BEFORE YOU DIG.
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***EMERGENCY STORAGE NOTE:**
 TOTAL EMERGENCY STORAGE OF 14,027 GAL.
 INCLUDES 2442 GAL ABOVE BAFFLES OF NEW
 SEPTIC TANK AND 3120 GAL ABOVE BAFFLES OF
 OLD SEPTIC TANK.

TANK SECTION "B-B"
 SEE SHEET C104 FOR PLAN

****JUNCTION BOX NOTES:** WATERPROOF JUNCTION BOXES REQUIRED
 AT ALL ELECTRICAL CONNECTIONS WITH CONTINUOUS CONDUIT THRU
 CONCRETE LID TO CONTROL PANEL.

**CAST IN PLACE TANK SECTION
 CAMELOT LOSS SYSTEM**

UPDATED:	12/19/23 8/11/25
SCALE:	1"=2 FT



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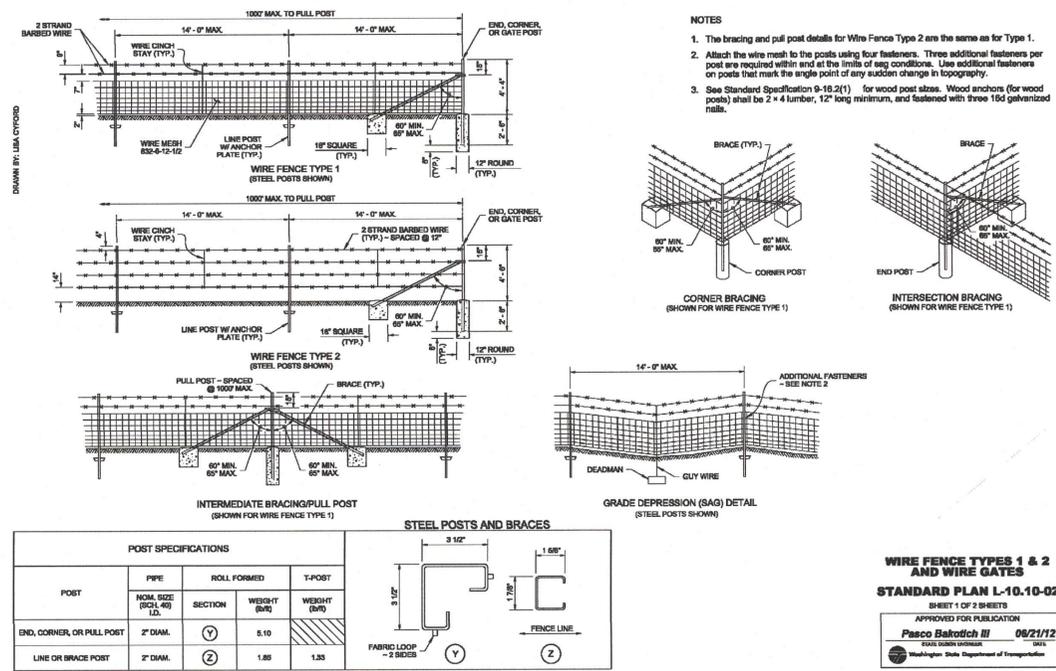
ENGINEERING PLANS
 Issue Date: 2025/08/29

DETAILS - TANK

Project Manager: CTM
 Drawn by: TAW
 Checked by: CTM

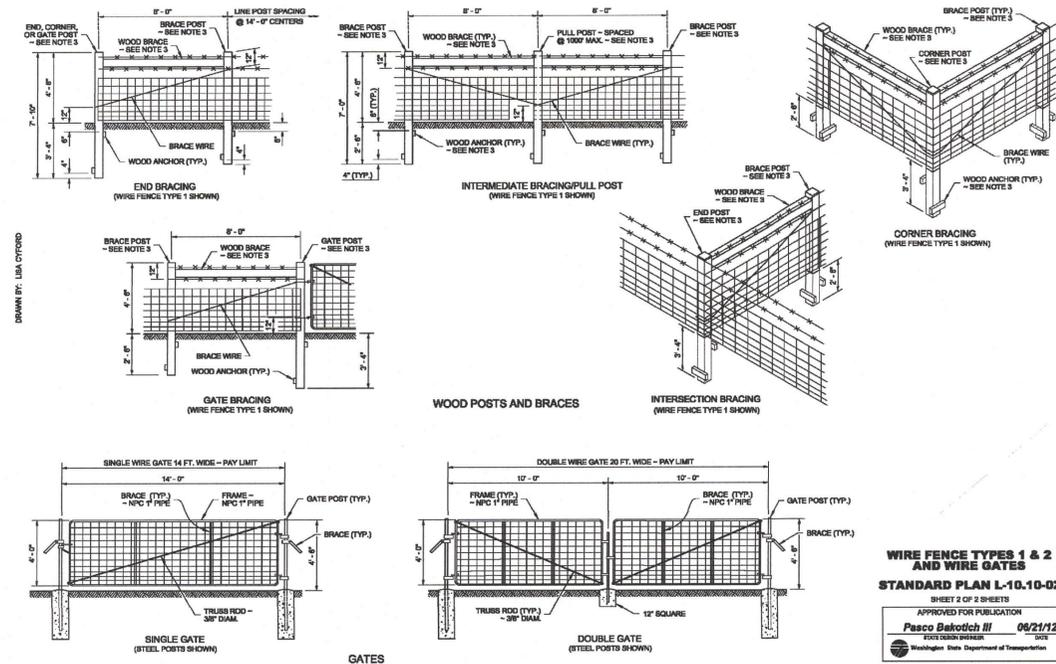
C105

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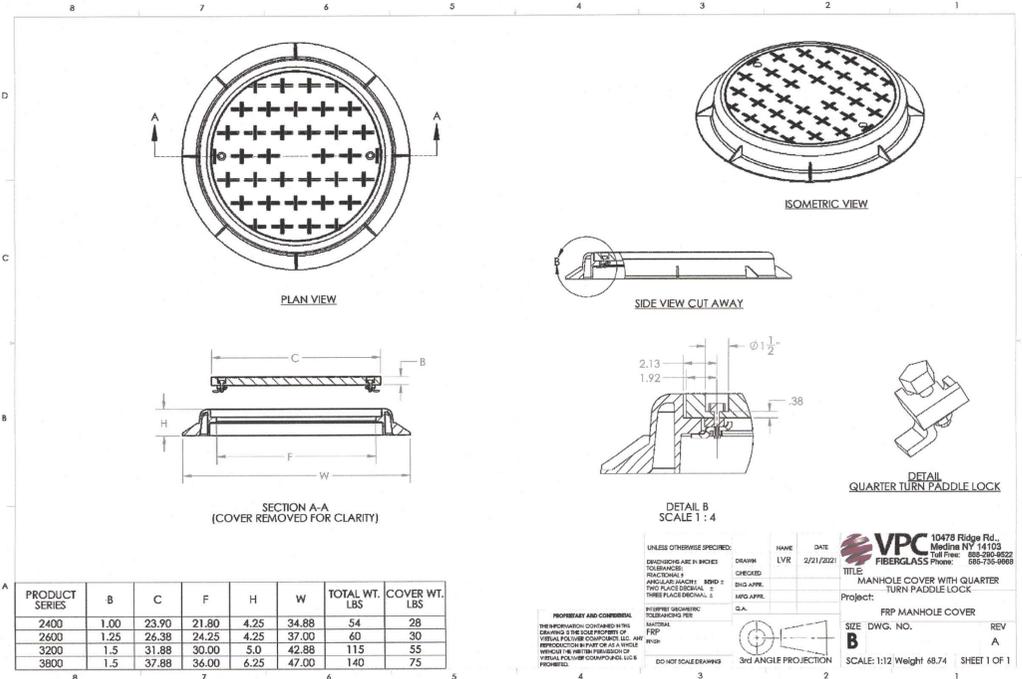
FENCE DETAILS

SCALE: NTS



FENCE AND GATE DETAILS

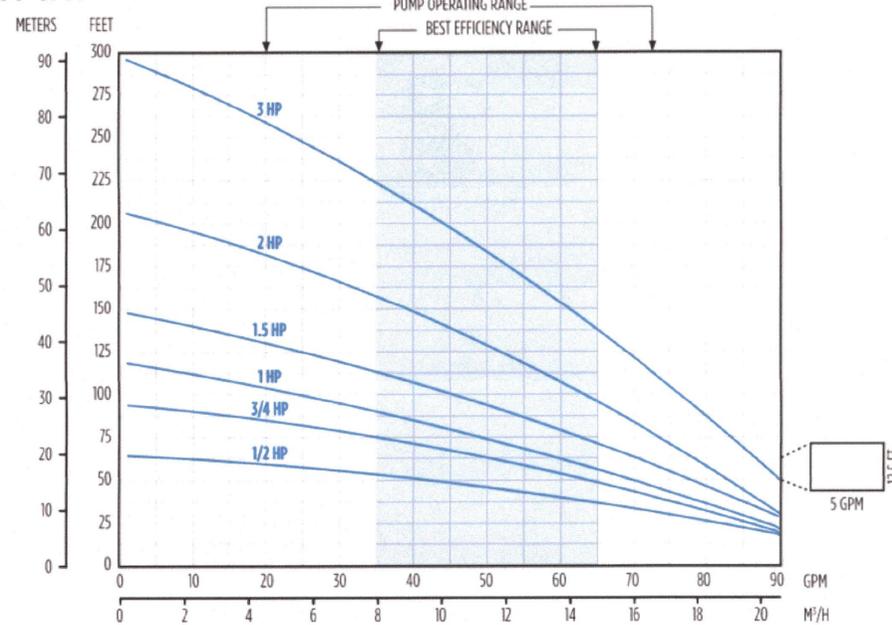
SCALE: NTS



FRP MANHOLE COVER

SCALE: NTS

60 GPM



60 GPM SS PUMP

SCALE: NTS



Revisions:

NO.	DATE	DESCRIPTION

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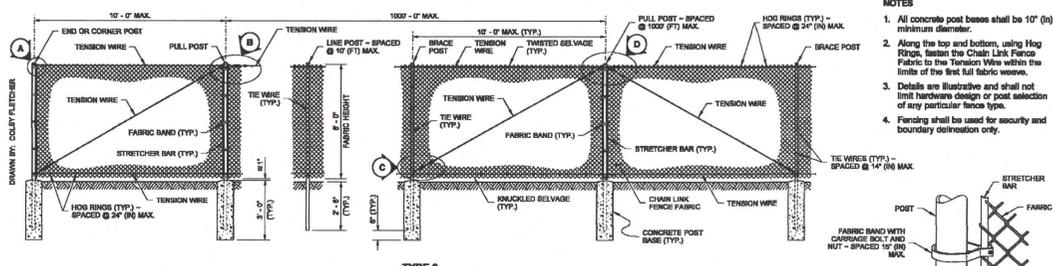
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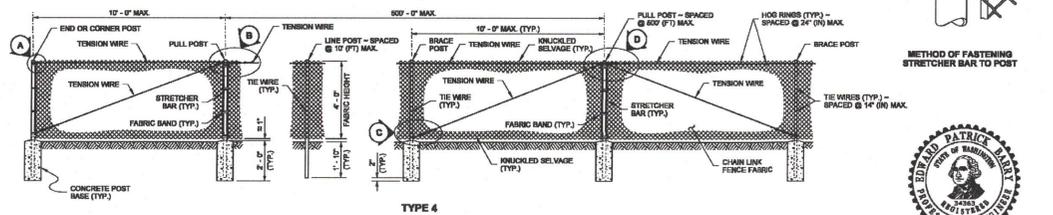
DETAILS - FENCING, TANK COVER AND PUMP CURVE

C106

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- NOTES**
- All concrete post bases shall be 10" (in) minimum diameter.
 - Along the top and bottom, using Hog Rings, fasten the Chain Link Fence Fabric to the Tension Wire within the limits of the first full fabric weave.
 - Details are illustrative and shall not limit hardware design or post selection of any particular fence type.
 - Fencing shall be used for security and boundary delineation only.

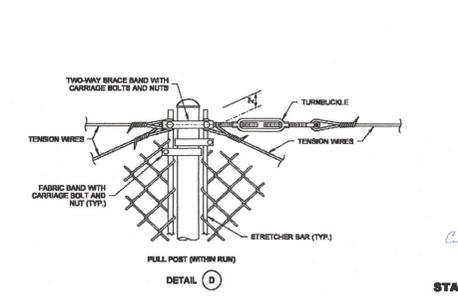
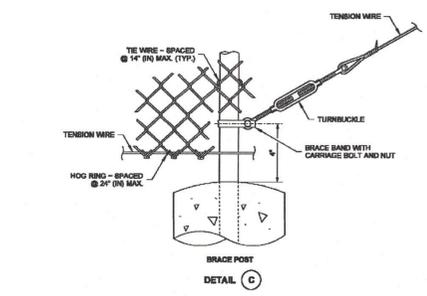
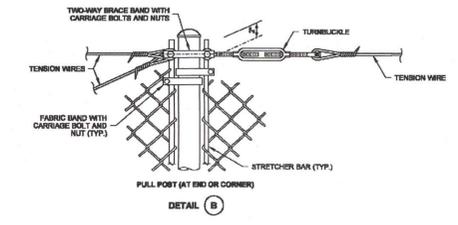
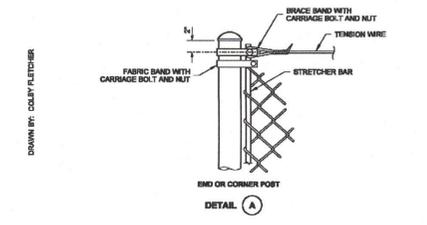


METHOD OF FASTENING STRETCHER BAR TO POST

Barry, Ed
Jul 14 2015 11:14 AM
CHAIN LINK FENCE TYPES 3 AND 4
STANDARD PLAN L-20.10-03
SHEET 1 OF 2 SHEETS
APPROVED FOR PUBLICATION
Carpenter, Jeff
Jul 14 2015 11:24 AM
Washington State Department of Transportation

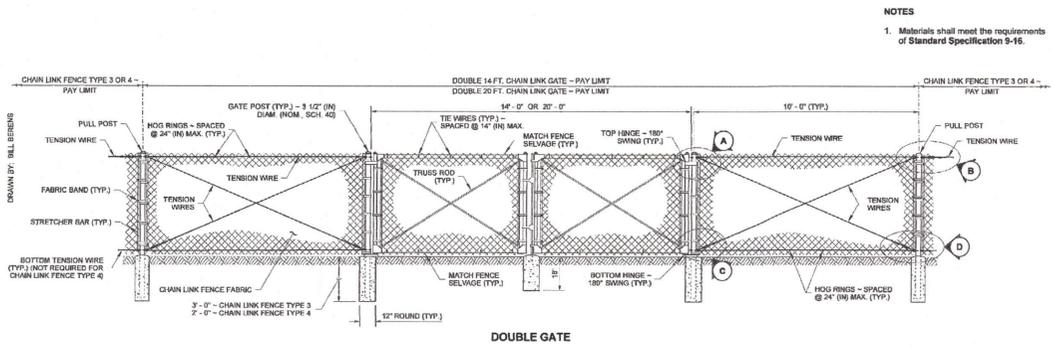
POST AND RAIL SPECIFICATIONS			
POST	PIPE NOM. SIZE (SCH. 40)	SECTION	WEIGHT (LBS)
END, CORNER, OR PULL POST	2 1/2" DIAM.	1	8.10
LINE OR BRACE POST	2" DIAM.	2	1.85

FENCE DETAILS
SCALE: NTS

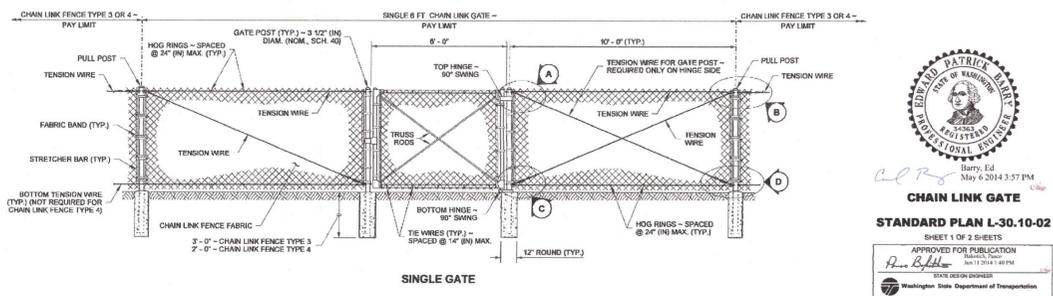


Barry, Ed
Jul 14 2015 11:14 AM
CHAIN LINK FENCE TYPES 3 AND 4
STANDARD PLAN L-20.10-03
SHEET 2 OF 2 SHEETS
APPROVED FOR PUBLICATION
Carpenter, Jeff
Jul 14 2015 11:25 AM
Washington State Department of Transportation

FENCE DETAILS
SCALE: NTS

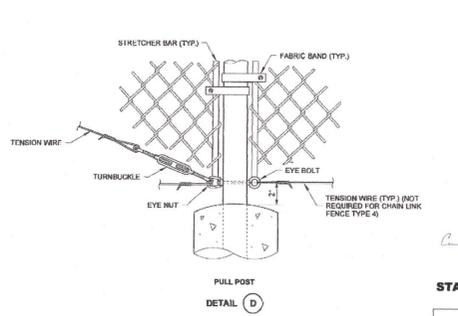
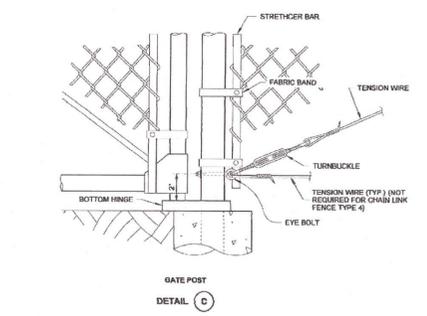
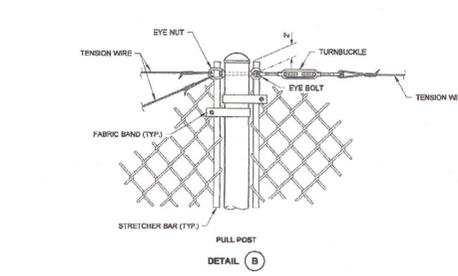
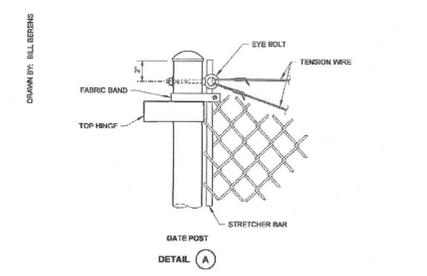


- NOTES**
- Materials shall meet the requirements of Standard Specification 9-16.



Barry, Ed
May 6 2014 3:57 PM
CHAIN LINK GATE
STANDARD PLAN L-30.10-02
SHEET 1 OF 2 SHEETS
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Barry, Ed
May 6 2014 3:58 PM
Washington State Department of Transportation

FENCE AND GATE DETAILS
SCALE: NTS



Barry, Ed
May 6 2014 3:58 PM
CHAIN LINK GATE
STANDARD PLAN L-30.10-02
SHEET 2 OF 2 SHEETS
APPROVED FOR PUBLICATION
Barry, Ed
May 6 2014 3:58 PM
Washington State Department of Transportation

FENCE AND GATE DETAILS
SCALE: NTS



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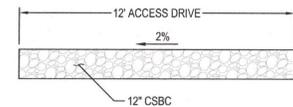
DETAILS - FENCING

C107

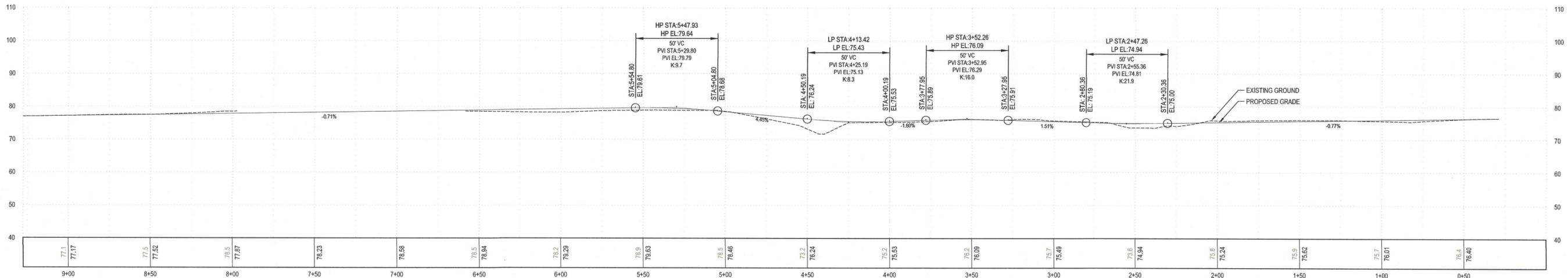
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PLAN
SCALE: 1" = 30'



ACCESS DRIVE
SCALE: NTS



PROFILE
SCALE: 1" = 30' HORIZONTALLY; 1" = 15' VERTICALLY



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ACCESS ROAD PLAN & PROFILE

Project Manager: CTM
Drawn by: TAW
Checked by: CTM

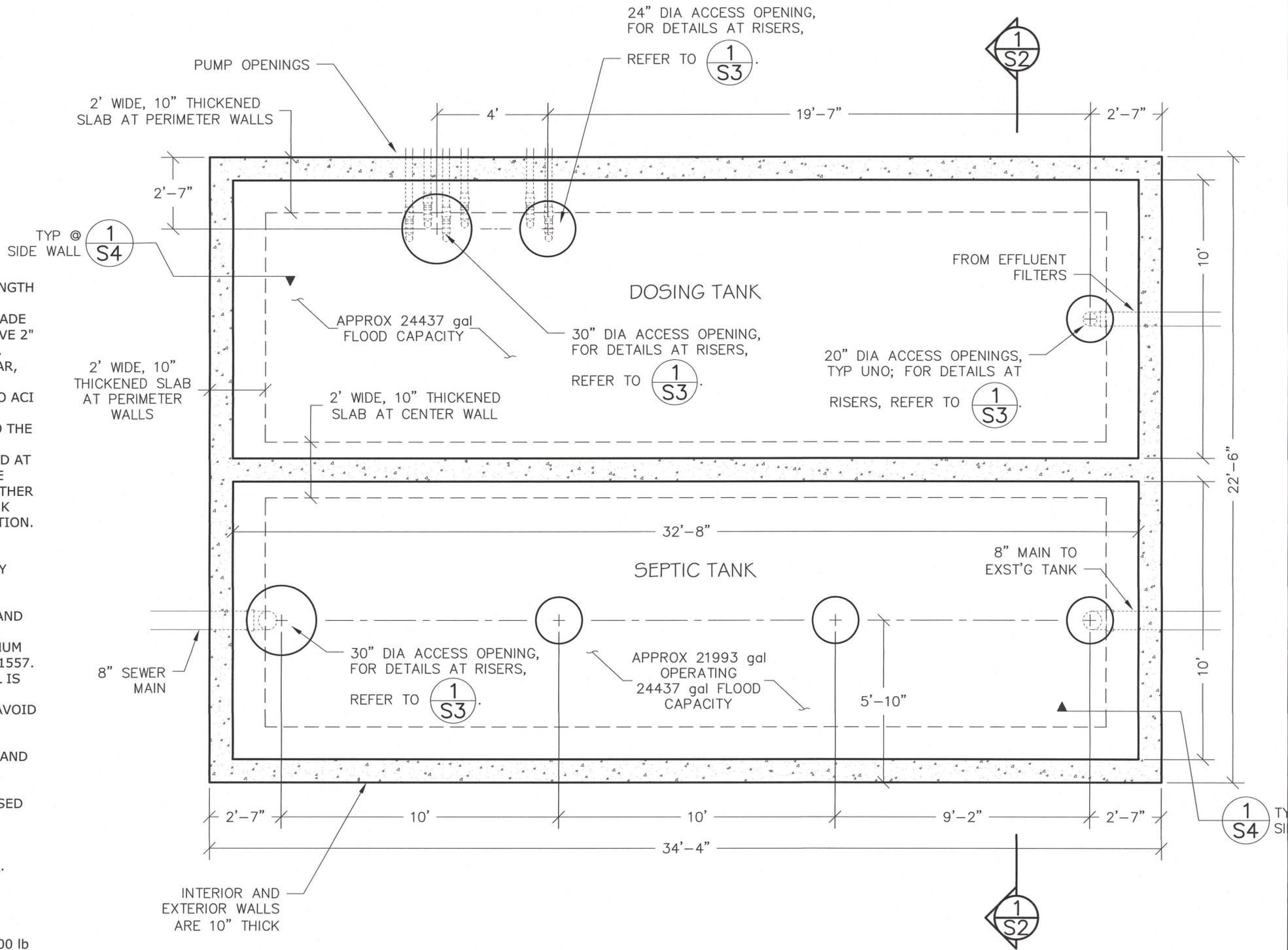
C108

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GENERAL NOTES (TYPICAL UNLESS NOTED OTHERWISE)

1. ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4000 psi MINIMUM.
2. ALL REBAR SHALL CONFORM TO ASTM A 615, SHALL BE GRADE 60 MINIMUM (#3 BARS MAY BE GRADE 40), AND SHALL HAVE 2" OF CONCRETE COVER, EXCEPT WHERE NOTED OTHERWISE. ALSO, LAP SPLICES SHALL BE AS FOLLOWS: 18" FOR #4 BAR, 20" FOR #5 BAR, 24" FOR #6 BAR, AND 30" FOR #7 BAR.
3. HOOKS, HOOPS, AND BENDS IN REBAR SHALL CONFORM TO ACI SECTION 25.3.
4. INSTALLATION OF WATER STOPS SHALL BE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
5. A MINIMUM OF ONE 20" DIA ACCESS OPENING IS REQUIRED AT 10' INTERVALS IN THE SEPTIC TANK. THERE SHALL BE ONE ACCESS OPENING OVER EACH INLET, OUTLET, PUMP, OR OTHER FIXTURE IN EITHER TANK. ONE ACCESS OPENING PER TANK SHALL BE MIN 30" DIA TO ALLOW ACCESS FOR CONSTRUCTION. MIN RISER DIAMETER = 23".
6. ACCESS OR RISER OPENINGS SHALL BE COVERED WITH A LOCKABLE, WATERTIGHT LID AND SHALL BE STRUCTURALLY SOUND TO RESIST TRAFFIC LOADS PER 14.1.
7. STRUCTURAL FILL MATERIAL SHALL BE SAND AND GRAVEL MIXTURE OR CRUSHED ROCK WITH LESS THAN 5% FINES AND FREE OF ORGANICS, RUBBISH, CLAY BALLS, AND ROCKS LARGER THAN 4". COMPACT STRUCTURAL FILL TO A MINIMUM DENSITY OF 95% OF MAXIMUM DRY DENSITY PER ASTM D 1557.
8. PLACE BACKFILL EVENLY IN MAXIMUM 12" LIFTS. NO SOIL IS TO BE ADDED ON TOP OF THE TANK.
9. SURFACE GRADE SHALL SLOPE AWAY FROM THE TANK TO AVOID CHANNELING WATER TOWARD THE TANK.
10. SEALS AND GASKETS FOR INLETS, OUTLETS, INTERCOMPARTMENTAL FITTINGS, ELECTRICAL CONDUITS AND PUMPING EQUIPMENT MUST BE RESILIENT, WATERTIGHT, FLEXIBLE, AND CORROSION-RESISTANT.
11. SEALS MEETING ASTM C-1644 OR EQUIVALENT MUST BE USED AT THE TANK WALL TO PVC PIPING INTERFACE.
12. PVC PIPING SHALL CONFORM TO ASTM D 3034; ABS SHALL CONFORM TO ASTM D 2680.
13. TANK WATERPROOFING TO BE CERTIFIED BY CONTRACTOR. COATING AND/OR OTHER METHODS TO BE APPROVED BY ENGINEER. EK ENGINEERING IS NOT RESPONSIBLE FOR ENSURING WATER TIGHTNESS OF TANK.
14. STRUCTURAL DESIGN CRITERIA:
 - 14.1. TRAFFIC LOADING: HS20-44 WHEEL LOADING OF 16,000 lb WITH AXLE SPACING OF 14 ft
 - 14.2. SOIL LOADING: SOIL UNIT WEIGHT = 110 pcf, LATERAL SOIL PRESSURE = 30 psf/ft CONCRETE DENSITY = 150 pcf
 - 14.3. WATER TABLE DEPTH ASSUMED AT TOP OF TANK; HYDROSTATIC PRESSURE = 62.4 pcf
 - 14.4. CODE: ACI 318-14, ASCE 7-16, WAC 246-272C-0125 (2) AND WAC 246-272C-0200 THRU WAC 246-272C-0250



**STRUCTURAL LAYOUT
PLAN VIEW**

1/4" = 1'-0"

SHEET	S1
DATE	12/18/23
DRAWN	DTT
CHECKED	DRN
REVISION	NA

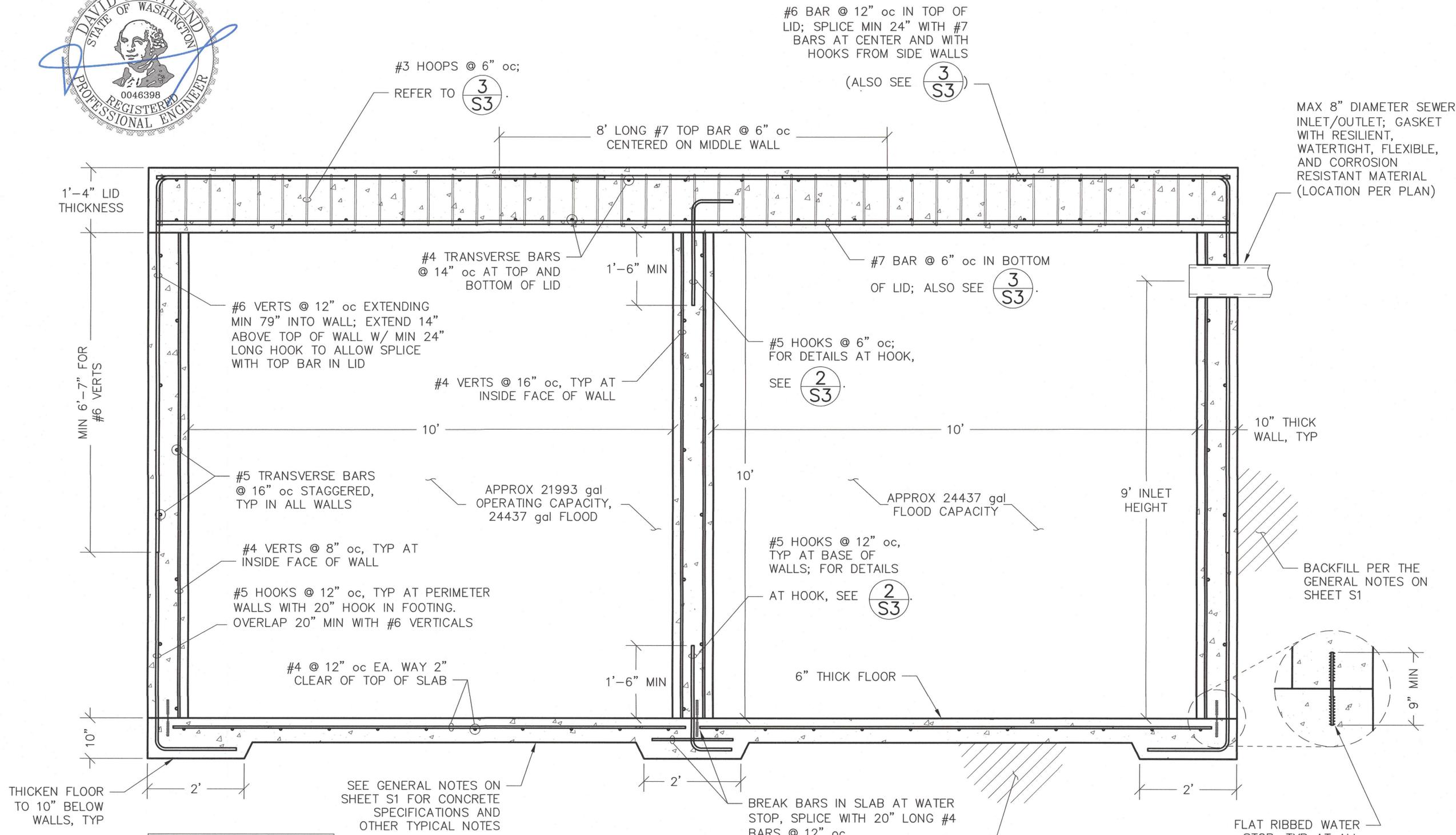
PROJECT LOCATION:
386 CAMELOT DRIVE
CASTLE ROCK, WA

STRUCTURAL ENGINEERING FOR THE
CAMELOT SEWAGE TANK
FOR: COWLITZ COUNTY PUBLIC WORKS

EK ENGINEERING, INC.
105 W MAIN ST, SUITE 101
BATTLE GROUND, WA 98604
PHONE: (360) 687-7668
EMAIL: David@ekEngineering.net



SHEET
S2
DATE
12/18/23
DRAWN
DTT
CHECKED
DRN
REVISION
NA



(1/S2) TANK SECTION

1/2"=1'-0"

PROJECT LOCATION:
386 CAMELOT DRIVE
CASTLE ROCK, WA

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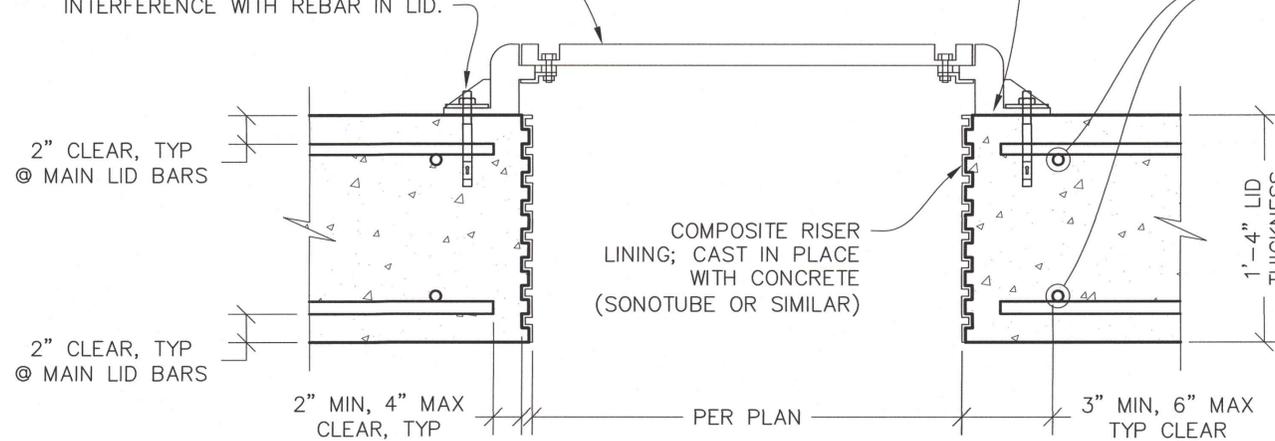
NOTE: ALL CONNECTORS TO BE STAINLESS STEEL OR GALVANIZED

MIN (4) 5/8" DIA WEDGE ANCHORS PER RISER. EMBED ABOUT 4" IN 5/8" DIA HOLE DRILLED TO A DEPTH OF ABOUT 4 1/2"; USE 3" X 3" X 0.25" PLATE WASHER OR SIMILAR AT EACH ANCHOR. LOCATE TO ALLOW USAGE OF SLOTTED HOLES IN COVER RIM AND TO AVOID INTERFERENCE WITH REBAR IN LID.

COMPOSITE VPC-MC-3200 (FOR 20" OPENINGS, USE VPC-MC-2600) TRAFFIC-RATED LOCKABLE MANHOLE COVER OR SIMILAR; MIN RISER OPENING SHALL BE 22"

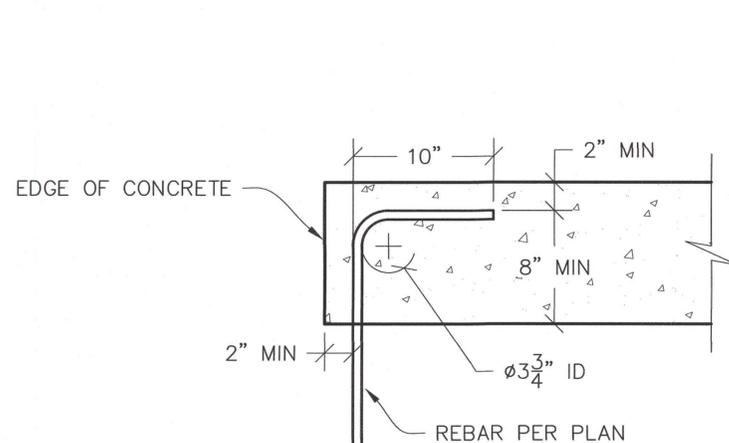
APPLY BUTYL-CAULK SEALANT AT CONCRETE-RISER INTERFACE

54" LONG #6 BAR EACH SIDE OF OPENING; CENTER BARS ON OPENING. IF BARS EXTEND TO EDGE OF LID, STOP 2" CLEAR OF EDGE OF CONCRETE AND EXTEND EXCESS LENGTH TOWARD INSIDE OF LID.



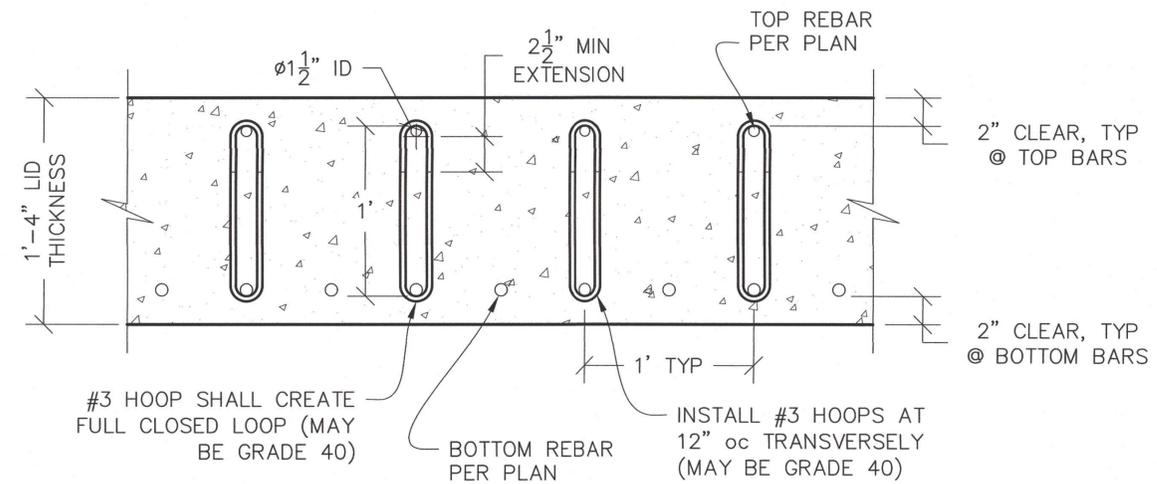
1 TYP RISER DETAIL
S3

1"=1'-0"



2 TYP #5 REBAR BENDS
S3

1"=1'-0"



3 TYP HOOPS
S3

1"=1'-0"

SHEET	S3
DATE	11/27/23
DRAWN	DTT
CHECKED	DRN
REVISION	NA

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#6 BAR @ 12" oc IN TOP OF LID; SPLICE MIN 24" WITH #7 BARS AT CENTER AND WITH HOOKS FROM SIDE WALLS

(ALSO SEE $\frac{3}{S3}$)

#3 HOOPS @ 6" oc;

REFER TO $\frac{3}{S3}$.

#4 TRANSVERSE BARS @ 14" oc AT TOP AND BOTTOM OF LID

1'-4" LID THICKNESS

1'-6" MIN (HOOK EXTENSION)

#7 BAR @ 6" oc IN BOTTOM OF LID; ALSO SEE $\frac{3}{S3}$.

#5 HOOKS @ 6" oc; FOR DETAILS AT HOOK, SEE $\frac{2}{S3}$.

SEE $\frac{2}{S3}$.

#5 TRANSVERSE BARS @ 16" oc STAGGERED, TYP IN ALL WALLS

NOTE: VERTICAL REBAR IN LONGITUDINAL (LONGER) PERIMETER WALLS OF TANK ARE NOT THE SAME AS THE VERTICAL REBAR IN THE SIDE (SHORTER) PERIMETER WALLS OF TANK.

UNLESS NOTED OTHERWISE, PROVIDE 2" CLEARANCE BETWEEN REBAR AND EDGE OF CONCRETE

#4 VERTS @ 12" oc, TYP AT INSIDE AND OUTSIDE FACE OF WALL

#5 HOOKS @ 12" oc, TYP AT PERIMETER WALLS WITH 20" HOOK IN FOOTING

1'-6" MIN (#5 HOOK EXTENSION)

THICKEN FLOOR TO 10" BELOW WALLS, TYP

#4 @ 12" oc EA. WAY 2" CLEAR OF TOP OF SLAB

$\frac{1}{S4}$ SIDE WALL SECTION

1/2" = 1'-0"

SHEET	S4
DATE	12/18/23
DRAWN	DTT
CHECKED	DRN
REVISION	NA

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CASTLE ROCK, WA

STRUCTURAL ENGINEERING FOR THE
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- ### WIRING METHODS
- WHERE USED, THE WORD "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR ITS INTENDED USE.
 - PROVIDE COPPER WIRING IN CONDUIT UNO. ALUMINUM WIRING IS ALLOWED FOR FEEDERS OVER 100A RATING. REFER TO FEEDER SCHEDULE. CONDUCTOR MINIMUM SIZE IS 12 AWG UNO.
 - PROVIDE EMT CONDUIT ABOVEGROUND. PROVIDE RIGID PVC CONDUIT BELOW GRADE OR WHERE ENCASED IN CONCRETE.
 - PROVIDE WEATHERPROOF RACEWAY AND FITTINGS IN EXTERIOR LOCATIONS.
 - PROVIDE FLEXIBLE CONDUIT WHIPS FOR CONNECTIONS TO MOTORIZED EQUIPMENT.
 - PROVIDE SEISMIC RESTRAINT COMPONENT DESIGN AND INSTALLATION FOR THE ELECTRICAL SYSTEM, AS REQUIRED BY THE AHJ.
 - PROVIDE PERMANENT IDENTIFICATION NAMEPLATE LABELS FOR ALL ELECTRICAL SWITCHBOARDS, PANELBOARDS, AND ENCLOSED SWITCHES TO IDENTIFY ITS DESIGNATION OR THE EQUIPMENT SERVED. PROVIDE ALL LABELS AND PLACARDS AS REQUIRED BY NEC AND THE SERVING UTILITY.
 - WIRING DEVICE COLOR: PROVIDE WHITE DEVICES UNO.

- ### GENERAL SYMBOLS LEGEND
- XX-XX MECHANICAL EQUIPMENT TAG
 - XX-XX KITCHEN EQUIPMENT TAG
 - XXX DWELLING UNIT CIRCUIT TAG
 - X KEYNOTE
 - REVISION TAG
 - REVISION CLOUD
 - X XXX DETAIL/PLAN CALLOUT
 - N NORTH ARROW
 - MATCHLINE
 - UNIT XX DWELLING UNIT CALLOUT TAG
 - DP12-XX W/ UNIT TYPE AND CIRCUIT NUMBER

- ### RECEPTACLE SYMBOLS LEGEND
- SINGLE RECEPTACLE
 - DOUBLE RECEPTACLE
 - DOUBLE DUPLEX RECEPTACLE
 - DOUBLE DUPLEX RECEPTACLE ABOVE COUNTER
 - DOUBLE DUPLEX RECEPTACLE ABOVE COUNTER
 - DOUBLE DUPLEX RECEPTACLE W/ GFCI
 - DOUBLE DUPLEX RECEPTACLE W/ GFCI
 - DOUBLE DUPLEX RECEPTACLE W/ GFCI ABOVE COUNTER
 - DOUBLE DUPLEX RECEPTACLE W/ GFCI ABOVE COUNTER
 - DOUBLE DUPLEX RECEPTACLE ON CEILING
 - DOUBLE DUPLEX RECEPTACLE ON CEILING
 - DUPLEX RECEPTACLE, HALF SWITCHED
 - DUPLEX RECEPTACLE, FULL SWITCHED
 - SPECIAL PURPOSE RECEPTACLE, VERIFY NEMA CONFIGURATION
 - SPECIAL PURPOSE RECEPTACLE ON CEILING, VERIFY NEMA CONFIGURATION
 - RECEPTACLE W/ CEILING CORD DROP
 - FLOORBOX W/ DUPLEX RECEPTACLE
 - FLOORBOX W/ DOUBLE DUPLEX RECEPTACLE
 - COMBINATION FLOORBOX W/ POWER AND LOW VOLTAGE

- ### LIGHTING SYMBOLS LEGEND
- NOTE: SHADY LUMINAIRE INDICATES EMERGENCY POWER
- RECESSED DOWNLIGHT - ROUND/SQUARE
 - SURFACE DOWNLIGHT - ROUND/SQUARE
 - PENDANT OR FLUSH MOUNT LUMINAIRE
 - LINEAR RECESSED LUMINAIRE
 - LINEAR SURFACE LUMINAIRE
 - LINEAR PENDANT LUMINAIRE
 - LINEAR WALL LUMINAIRE
 - LINEAR STRIP LUMINAIRE
 - CONTINUOUS TAPE OR UNDERCABINET LUMINAIRE
 - RECESSED HEAT LAMP
 - RECESSED 2x2 LUMINAIRE
 - RECESSED 2x4 LUMINAIRE
 - SURFACE OR PENDANT 2x2 LUMINAIRE
 - SURFACE OR PENDANT 2x4 LUMINAIRE
 - WALL MOUNTED LUMINAIRE
 - RECESSED STEP LIGHT
 - GROUND MOUNT FLOOD
 - POLE MOUNTED AREA LUMINAIRE
 - BOLLARD OR POST TOP LUMINAIRE
 - EMERGENCY BUGEYE
 - EXIT SIGN, SHADING INDICATES FACES, ARROWS PER PLAN
- TYPICAL LUMINAIRE LABELING
- LUMINAIRE TYPE
 - PANEL/CIRCUIT
 - SWITCH INDICATOR

- ### ABBREVIATIONS
- AMPERES
 - AFCI ARC FAULT CIRCUIT INTERRUPTER
 - AFF ABOVE FINISHED FLOOR
 - AIC AMPERE INTERRUPTING CAPACITY
 - AL ALUMINUM
 - ATS AUTOMATIC TRANSFER SWITCH
 - AWG AMERICAN WIRE GAUGE
 - AV AUDIO VISUAL
 - BKR BREAKER
 - C CONDUIT
 - CO CONDUIT ONLY
 - CU COPPER
 - CLG CEILING
 - CT CURRENT TRANSFORMER
 - DAS DISTRIBUTED ANTENNA SYSTEM
 - DIA DIAMETER
 - EXIST EXISTING
 - EGC EQUIPMENT GROUNDING CONDUCTOR
 - ERRCS EMERGENCY RESPONDER RADIO COVERAGE
 - F FUSE
 - FACP FIRE ALARM CONTROL PANEL
 - FC FOOT CANDLE
 - FLA FULL LOAD AMPERES
 - FSD FIRE SMOKE DAMPER
 - GEC GROUNDING ELECTRODE CONDUCTOR
 - GFCI GROUND FAULT CIRCUIT INTERRUPTER
 - GFFE GROUND FAULT PROTECTION OF EQUIPMENT
 - HP HORSEPOWER
 - IDF INTERMEDIATE DISTRIBUTION FRAME
 - IG ISOLATED GROUND
 - KCMIL THOUSAND CIRCULAR MIL
 - KVA KILOVOLT-AMP
 - KW KILOWATT
 - LTG LIGHTING
 - MCA MINIMUM CIRCUIT AMPERES
 - MCB MAIN CIRCUIT BREAKER
 - MCC MOTOR CONTROL CENTER
 - MDF MAIN DISTRIBUTION FRAME
 - MDP MAIN DISTRIBUTION PANEL
 - MDU MEDIA DISTRIBUTION UNIT
 - MIN MINIMUM
 - MLO MAIN LUG ONLY
 - MOCPP MAXIMUM OVERCURRENT PROTECTION
 - MNTS MANUAL TRANSFER SWITCH
 - NAC NEW NOTIFICATION APPLIANCE CIRCUIT
 - OC ON CENTER
 - PH POLE
 - PNL PANEL
 - PWR POWER
 - R RELOCATE
 - ROW RIGHT-OF-WAY
 - S SWITCH
 - SDP SUB-DISTRIBUTION PANEL
 - SIM SIMILAR
 - SPD SURGE PROTECTIVE DEVICE
 - TR TAMPER RESISTANT
 - TYP TYPICAL
 - UNO UNLESS NOTED OTHERWISE
 - UPS UNINTERRUPTIBLE POWER SUPPLY
 - V VOLTS
 - VA VOLT-AMPERES
 - VFD VARIABLE FREQUENCY DRIVE
 - W WIRE
 - WP WEATHERPROOF
 - X DEMOLISH
 - XFMR TRANSFORMER

- ### GENERAL PROJECT NOTES
- COMPLETED INSTALLATION SHALL COMPLY WITH NEC AND ALL LOCAL LAWS, ORDINANCES, AND REGULATIONS.
 - CODE BASIS OF DESIGN: 2020 NATIONAL ELECTRICAL CODE WITH WASHINGTON STATE MODIFICATIONS (NEPA 70), 2018 INTERNATIONAL BUILDING CODE, 2018 WASHINGTON STATE ENERGY CODE.
 - PLANS ARE DIAGRAMMATIC IN NATURE TO COMMUNICATE SCOPE OF WORK AND GENERAL INTENT. CONTRACTOR SHALL PROVIDE ALL FITTINGS, BOXES, AND APPURTENANCES NECESSARY FOR A COMPLETE AND OPERABLE ELECTRICAL SYSTEM.
 - DEVICE LOCATIONS ON PLANS MAY NOT BE EXACT. REFER TO CIVIL/MECHANICAL PLANS FOR MORE DETAILED INFORMATION REGARDING DIMENSIONS AND LAYOUTS. COORDINATE ALL DEVICE AND EQUIPMENT LOCATIONS WITH CIVIL/MECHANICAL AND OTHER TRADES.
 - EQUIPMENT FOR OTHER DISCIPLINES MAY BE SHOWN FOR REFERENCE ONLY. REFER TO OTHER DISCIPLINES DRAWINGS FOR MORE DETAIL REGARDING EQUIPMENT SPECIFICATIONS AND INFORMATION.
 - PLANS SHALL GOVERN IN MATTERS OF QUANTITY. SPECIFICATIONS SHALL GOVERN IN MATTERS OF QUALITY. IN CASE OF DISCREPANCY BETWEEN DRAWINGS AND SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN. PLANS ARE TO BE TIED TO SPECIFICATIONS FOR A COMPLETE DESIGN PACKAGE.
 - ANYTHING MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH.
 - WIRE SIZE AND QUANTITIES ARE NOT GENERALLY INDICATED ON PLANS. FOR A TYPICAL 20A/1P CIRCUIT BREAKER, PROVIDE (3) #12 CU CONDUCTORS (PHASE, NEUTRAL, GROUND). FOR A TYPICAL 20A/2P CIRCUIT BREAKER, PROVIDE (3) #12 CU CONDUCTORS (PHASE, GROUND). FOR A TYPICAL 20A/3P CIRCUIT BREAKER, PROVIDE (4) #12 CU CONDUCTORS (THREE PHASES PLUS GROUND).
 - TO COMPENSATE FOR VOLTAGE DROP, ON 20A, 120V CIRCUITS: OVER 100 FEET, PROVIDE #10 AWG. OVER 150 FEET, PROVIDE #8 AWG. ON 20A, 277V CIRCUITS: OVER 250 FEET, PROVIDE #10 AWG.
 - CIRCUIT NUMBERS ARE GENERALLY INDICATED AS XX-#. WHERE (XX) INDICATES PANEL NAME AND (##) INDICATES THE CIRCUIT NUMBER. IN SOME CASES THE PANEL MAY BE COMMON TO A LARGE AREA, AND THE CIRCUIT NUMBER ONLY MAY BE CALLED OUT ON THE PLANS.
 - MAINTAIN AT LEAST 12" SEPARATION BETWEEN POWER AND COMMUNICATIONS WIRING ROUTED PARALLEL. SMALLER SEPARATION MAY BE ALLOWED WHEN CROSSING.
 - ELECTRICAL EQUIPMENT IS DESIGNED BASED ON A SPECIFIC MANUFACTURER. VERIFY FINAL CLEARANCES AND SPACE REQUIREMENTS WITH EQUIPMENT SUBMITTALS. THE CONTRACTOR IS RESPONSIBLE FOR ANY REDESIGN OR RELOCATION OF EQUIPMENT IF APPROVED EQUIPMENT DOES NOT MATCH BASIS OF DESIGN.
 - COORDINATE UNDERGROUND CONDUIT ROUTING WITH CIVIL AND STRUCTURAL PLANS.
 - CONSULT STRUCTURAL ENGINEER OF RECORD FOR ALL STRUCTURAL PENETRATIONS.
 - CONTRACTOR SHALL APPLY FOR AND OBTAIN REQUIRED PERMITS FOR THE WORK SHOWN AND SHALL HAVE THE WORK INSPECTED AND APPROVED BY AUTHORIZED AGENTS OF THE AFFECTED UTILITIES AND CITY/COUNTY PRIOR TO ENERGIZING THE INSTALLATION.

- ### KEYNOTES
- CONTROL PANEL DRAWING SHOWN FOR REFERENCE ONLY. REFER TO LOSS VENDOR SUBMITTAL DRAWINGS FOR MORE INFORMATION.
 - PROVIDE STAINLESS STEEL METER MAIN COMBO, 120V/240V, 1PH, 3W, MIN. 100A RATED, 22KAC, NEMA 3R. PROVIDE 100A/2P MAIN BREAKER, (3) 20A/1P AND (1) 80A/2P OUTPUT BREAKERS. ACCEPTABLE METER SOCKETS SHALL BE PER COWLITZ PUD REQUIREMENTS AND APPROVED BY ENGINEER.
 - PROVIDE 120V, 20A/1P CIRCUIT TO CONVENIENCE RECEPTACLE AND SITE LIGHT.
 - PROVIDE (2) DRIVEN GROUND RODS, MIN. 8-FT SEPARATION PER NEC 250.52(A)(5). PROVIDE #8 CU GROUND WIRE FROM GROUND LUG TO GROUND RODS.

Load Summary: Cowlit Camelot LOSS					
		Connected Load	Demand Factor	Demand Load	Units
Pump #1	1 @ 1.5 HP	1.5	1.00	1.5	KVA
Pump #2	1 @ 1.5 HP	1.5	1.00	1.5	KVA
Pump #3	1 @ 1.5 HP	1.5	1.00	1.5	KVA
Pump #4	1 @ 1.5 HP	1.5	1.00	1.5	KVA
Ancillary Load	1 @ 10 KVA	10.0	1.00	10.0	KVA
Total Demand Load				16.0 KVA	
Total Demand Amperes at 240 V, 1 PH				67 AMP	

- ### CONNECTIONS/EQUIPMENT SYMBOLS LEGEND
- EQUIPMENT ELECTRICAL CONNECTION
 - MOTOR CONNECTION
 - MOTOR RATED SWITCH W/ THERMAL OVERLOAD
 - DISCONNECT SWITCH
 - FUSED DISCONNECT SWITCH
 - JUNCTION BOX
 - LINE VOLTAGE THERMOSTAT
 - UTILITY METER
 - EQUIPMENT CABINET AS NOTED
 - ELECTRIC WALL HEATER
 - BRANCH PANEL RECESSED
 - BRANCH PANEL SURFACE
 - TRANSFORMER
 - SWITCHBOARD

- ### LIGHTING CONTROLS SYMBOLS LEGEND
- NOTE: ANY COMBINATION OF LETTERS MAY APPLY TO A SWITCH FOR MULTIPLE FUNCTIONS
- STANDARD SWITCH
 - STANDARD SWITCH W/ SWITCHING SUBSCRIPT
 - 3-WAY SWITCH
 - 4-WAY SWITCH
 - LOW VOLTAGE SWITCH
 - LOW VOLTAGE SWITCH PER SCHEDULE
 - OCCUPANCY SENSOR SWITCH
 - KEYED SWITCH
 - DIMMER SWITCH
 - TIMER SWITCH
 - OCCUPANCY SENSOR CEILING MOUNT
 - OCCUPANCY SENSOR WALL MOUNT
 - PHOTOCELL WALL MOUNT

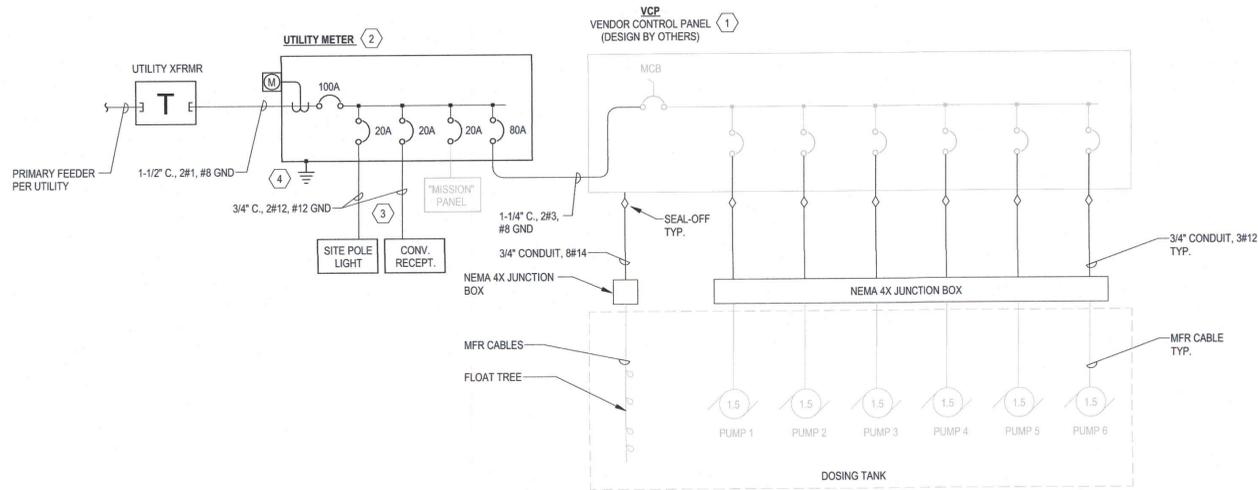
TYPICAL DEVICE MOUNTING HEIGHTS

RECEPTACLES	+18" AFF
RECEPTACLES, ABOVE COUNTER	+6" ABOVE COUNTER, +46" AFF MAX. COORDINATE WITH CASEWORK
PHONE/DATA/CATV OUTLET	+18" AFF
SWITCHES	+46" AFF
THERMOSTATS	+46" AFF
CARD READERS	+46" AFF
PANELBOARDS	+72" TO TOP OR PER NEC 404.8
RESIDENTIAL PANEL	+48" TO HIGHEST OPERABLE CONTROL
CONTROL PANELS	+72" TO TOP

NOTES:

- MEASUREMENTS ARE TYPICAL UNO ON PLANS
- MEASUREMENTS ARE TO CENTER OF BOX UNO
- COMPLY WITH ALL ADA ACCESSIBILITY GUIDELINES

- ### ONE-LINE SYMBOLS LEGEND
- CIRCUIT BREAKER
 - BUS DUCT PLUG-IN CIRCUIT BREAKER
 - FUSED SWITCH
 - CURRENT TRANSFORMERS
 - GROUND CONNECTION
 - CONDUIT CONTINUATION
 - CONDUIT CAP
 - FEEDER CALLOUT
 - SURGE PROTECTIVE DEVICE
 - AUTOMATIC TRANSFER SWITCH
 - TRANSFORMER
 - ELECTRICITY METER
 - GENERATOR



1 ONE-LINE DIAGRAM NOT TO SCALE

8
Know what's below.
Call before you dig.
CALL 2 BUSINESS DAYS BEFORE YOU DIG.
CAUTION: UTILITY INFORMATION IS APPROXIMATE.
VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

Revisions: #

NO.	DATE	DESCRIPTION

LINE IS 1" ON FULL SCALE DRAWING

WINDSOR ENGINEERS
Ridgefield, WA.
Duluth + Minneapolis, MN.
www.windsorengineers.com
Project No: #####
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CAMELOT LOSS REPLACEMENT
386 CAMELOT DRIVE, CASTLE ROCK, WA 98611

Project No: 22081

Drawn by: JB
Checked by: SW

COVER SHEET - ELECTRICAL

E001

ELECTRICAL SHEET INDEX

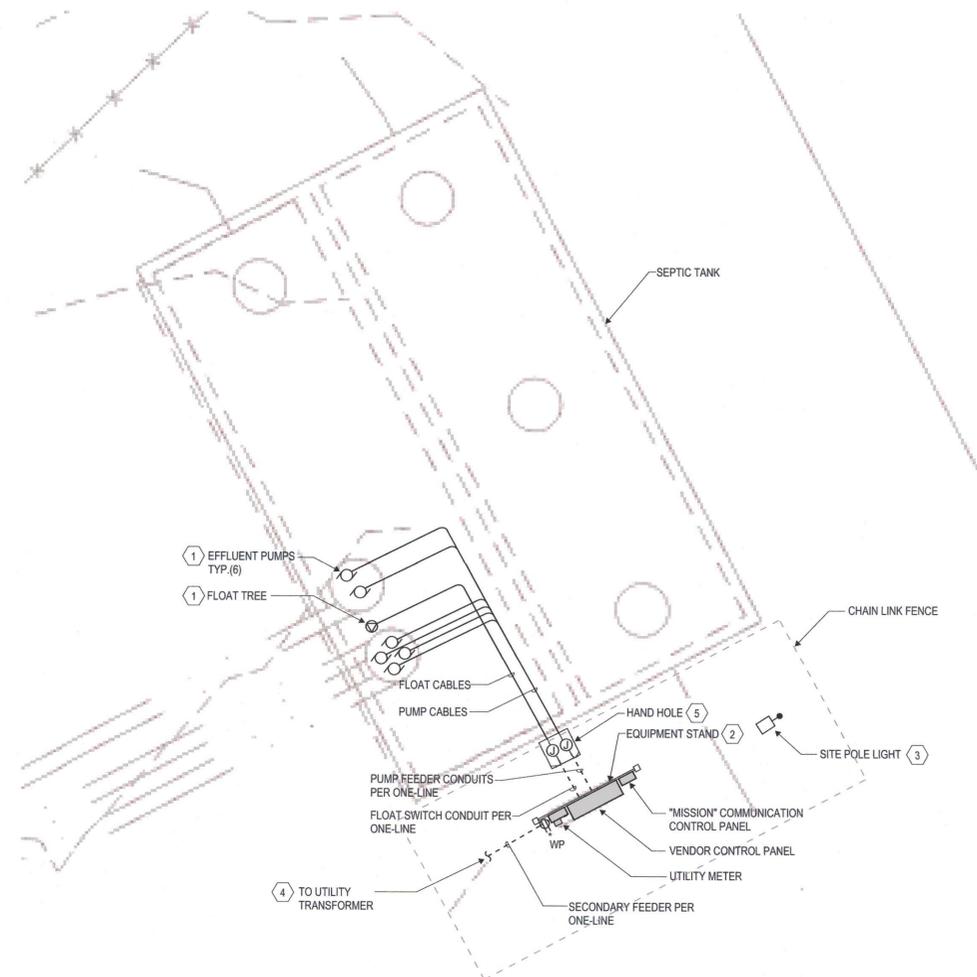
E001	COVER SHEET - ELECTRICAL
E102	SITE PLAN - ELECTRICAL
E201	DETAILS - ELECTRICAL

GENERAL SHEET NOTES

- A. ALL ELECTRICAL WORK PERFORMED SHALL BE IN ACCORDANCE WITH CURRENT ELECTRICAL STANDARDS AS SPECIFIED BY THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) AND THE AUTHORITY HAVING JURISDICTION (AHJ). IN ADDITION, THE CONTRACTOR SHALL APPLY FOR AND OBTAIN REQUIRED PERMITS FOR THE WORK SHOWN AND SHALL HAVE THE WORK INSPECTED BY AUTHORIZED AGENTS OF THE AFFECTED UTILITIES AND CITY/COUNTY PRIOR TO ENERGIZING THE INSTALLATION.
- B. NOTE REQUIREMENTS FOR CLASS 1 DIV 1 WIRING AREAS. COMPLIANCE TO NEC ARTICLES 500, 501, & 504 METHODS. SPECIAL ATTENTION TO CABLE ADAPTERS LISTED FOR INSTALLATION LOCATION. SEAL OFF ALL CONDUIT LEAVING JUNCTION BOXES.

KEYNOTES

- 1. SEE SHEET E201 FOR INSTALLATION DETAIL TYPICAL OF FLOAT CABLE AND PUMP CABLE. REFER TO TANK MANUFACTURER DRAWINGS FOR ADDITIONAL DETAILS.
- 2. SEE DETAIL ON SHEET E201.
- 3. PROVIDE LED POLE MOUNT AREA LIGHT, 10,000 LUMEN, 4000K, BLACK WITH TYPE 3 DISTRIBUTION, INTEGRAL PHOTOCELL, MOUNTED AT 20' LITHONIA DSX0 SERIES OR APPROVED. SEE POLE BASE DETAIL SHEET E201.
- 4. VERIFY LOCATION OF TRANSFORMER WITH FINAL UTILITY DESIGN. COORDINATE ALL UTILITY REQUIREMENTS AND DIVISION OF RESPONSIBILITY INCLUDING APPROVED MATERIALS AND REQUIRED INSPECTIONS WITH COWLITZ PUBLIC UTILITIES.
- 5. SEE DETAIL ON SHEET E201.



1 SITE PLAN - ELECTRICAL
SCALE: 3/16" = 1'-0"



Know what's **below.**
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Revisions: #

NO.	DATE	DESCRIPTION

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05/07/2025

CAMELOT LOSS REPLACEMENT
386 CAMELOT DRIVE, CASTLE ROCK, WA 98611

Project No: 22081

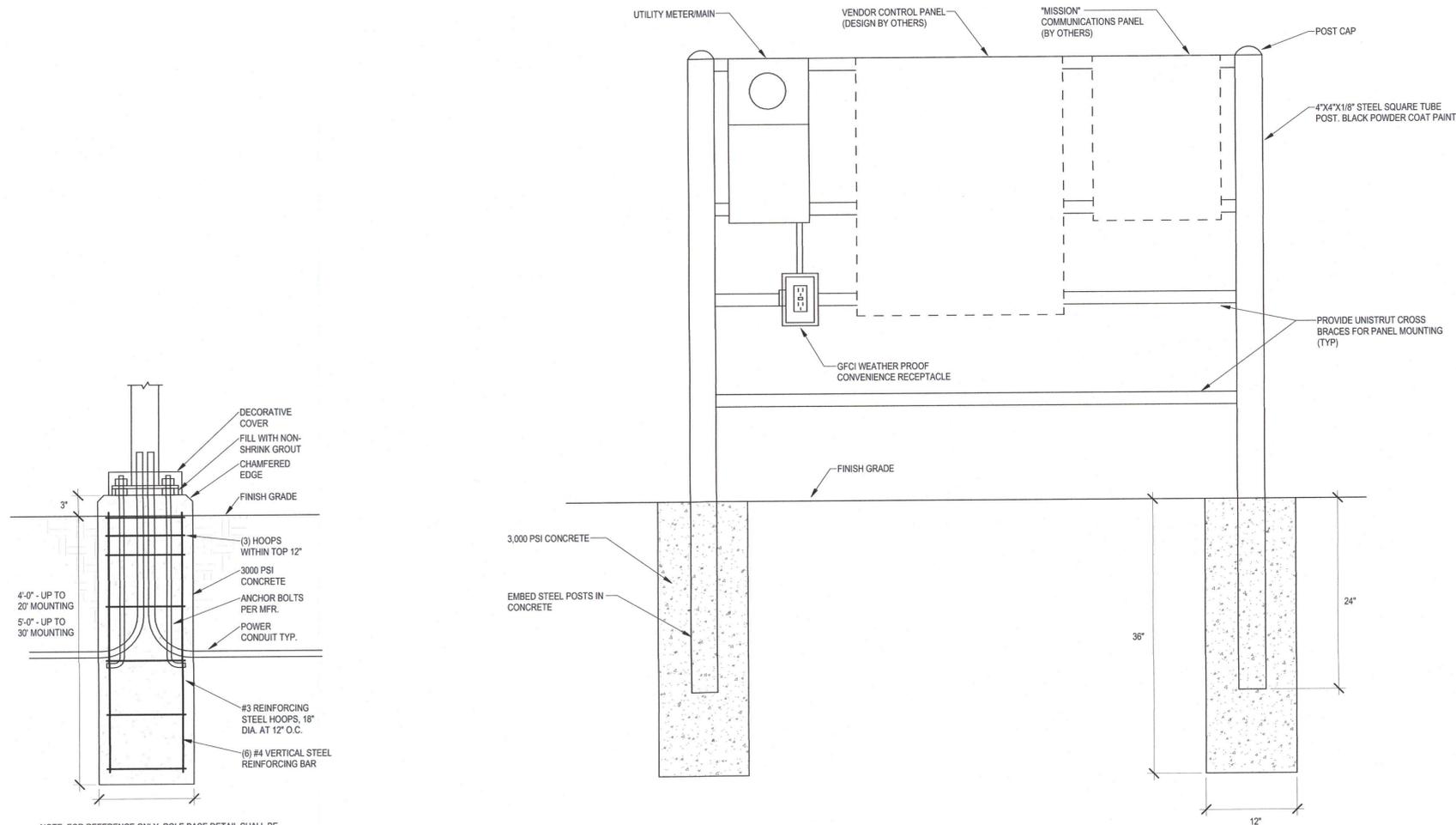
SITE PLAN - ELECTRICAL

Drawn by: JB
Checked by: SW

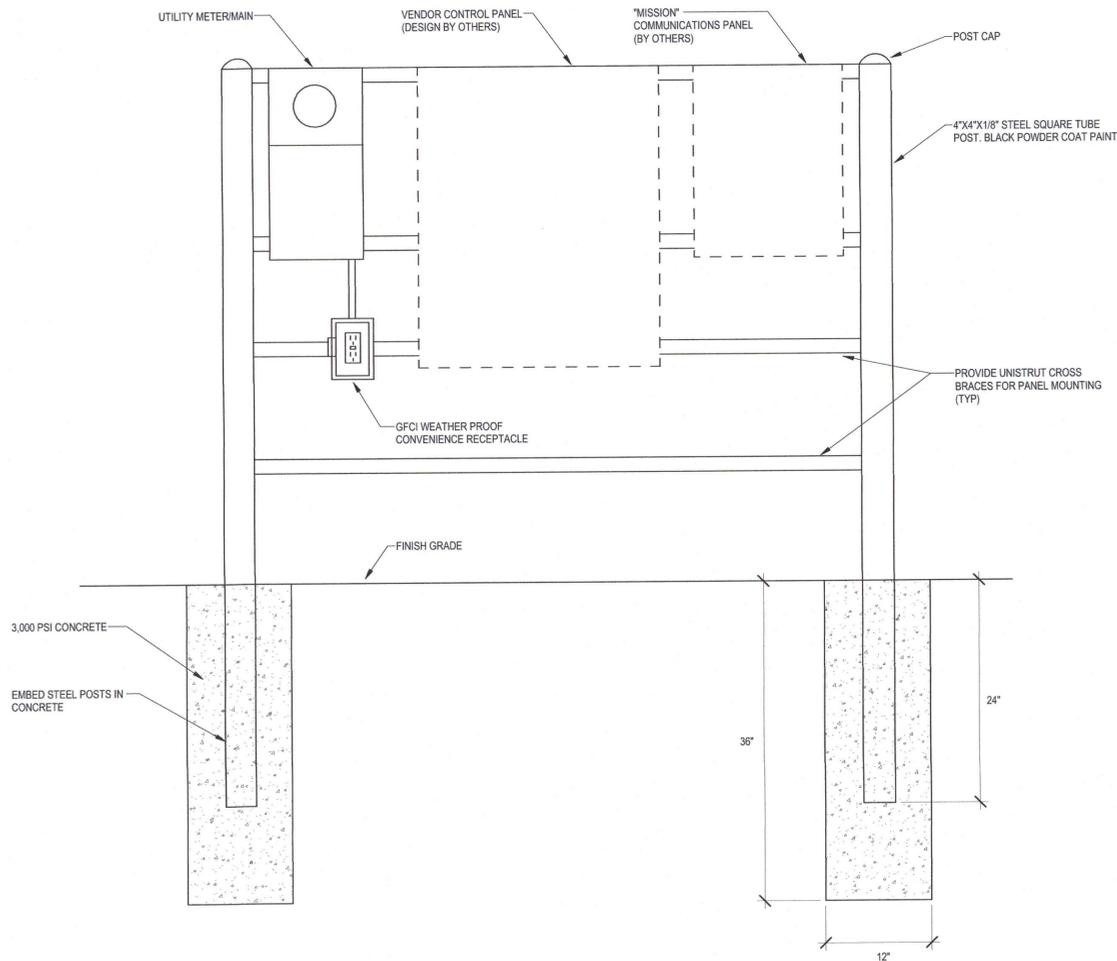
E102

NOTES:

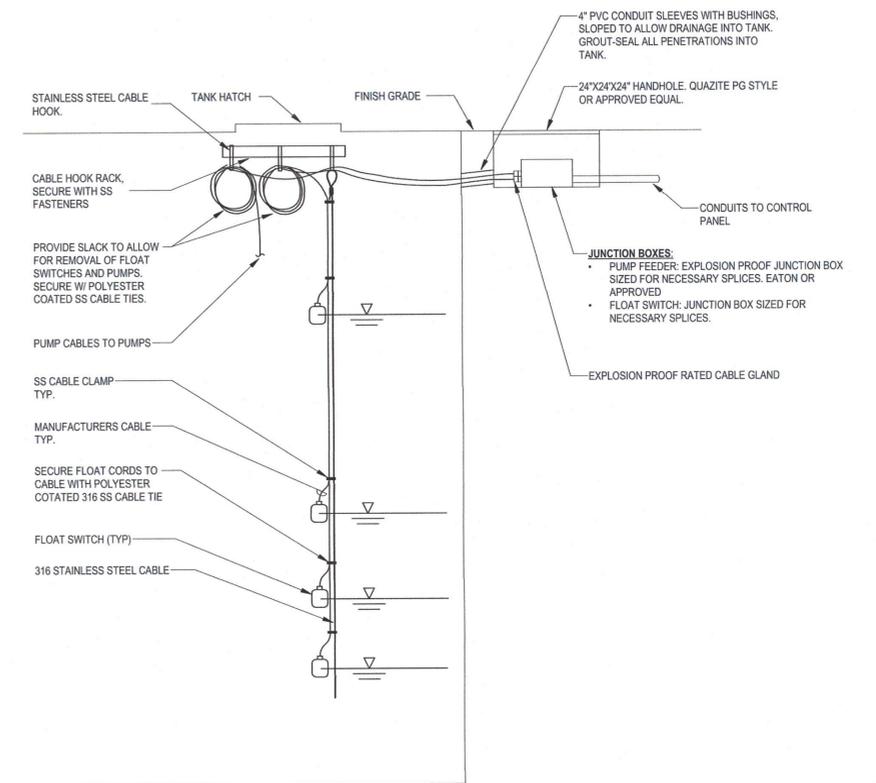
1. SIZE EQUIPMENT STAND AS REQUIRED TO PROVIDE SPACE FOR VENDOR CONTROL PANEL. VERIFY CONTROL PANEL SIZE PRIOR TO START OF EQUIPMENT RACK FABRICATION.
2. SEE SPECIFICATIONS FOR "MISSION" COMMUNICATIONS PANEL REQUIREMENTS.



1 POLE BASE DETAIL - FLUSH
SCALE: 12" = 1'-0"



2 EQUIPMENT STAND GENERAL ARRANGEMENT
NOT TO SCALE



3 TANK ELECTRICAL DETAIL
NOT TO SCALE



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05/07/2025

CAMELOT LOSS REPLACEMENT
386 CAMELOT DRIVE, CASTLE ROCK, WA 98611

Project No: 22081

Drawn by: JB
Checked by: SW

DETAILS - ELECTRICAL

E201

SITE PHOTOS:

PHOTOS WERE TAKEN ON 8/25/2022, AND REFLECT SITE CONDITIONS AT THE TIME OF SURVEY - MORE PHOTOS AVAILABLE UPON REQUEST



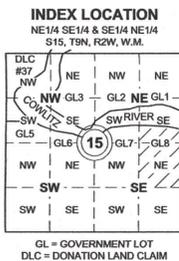
TAKEN ON SOUTH SIDE OF SEPTIC TANK, LOOKING NORTH AT SEPTIC TANK AND DRAIN FIELD



TAKEN JUST WEST OF SOUTH END OF THE SEPTIC TANK, LOOKING NORTH TOWARDS SEPTIC LIDS AND DRAIN FIELD



TAKEN FROM GRAVEL ENTRANCE ROAD SOUTH OF SEPTIC TANK, LOOKING NORTH TOWARDS TANK, GATE, AND SEPTIC DRAIN FIELD.



SYMBOL LEGEND, LINETYPE LEGEND, HATCH LEGEND tables defining symbols for fences, utilities, trees, and surfaces.

* NOTE THAT APPROXIMATE TREE DIAMETERS (6" AND LARGER) WERE COLLECTED, BUT NOT SHOWN HEREON DUE TO CLARITY ISSUES. PLEASE REQUEST THIS INFORMATION IF NECESSARY.

PURPOSE OF SURVEY: THE PURPOSE OF THIS SURVEY WAS TO PROVIDE TOPOGRAPHIC SURVEY FOR THE CAMELOT LARGE SEPTIC SYSTEM AND ADDITIONAL AREAS, FOR PURPOSES OF DESIGN.

COUNTY PROJECT NUMBER: CAMELOT SEWER SYSTEM

BASIS OF BEARINGS / HORIZONTAL COORDINATES / CONTROL SCHEME: WASHINGTON STATE PLANE, SOUTH ZONE (SPC 4602 WA S) - SEE BELOW:

HORIZONTAL COORDINATES AND BASIS OF BEARINGS ARE WASHINGTON STATE PLANE (SOUTH ZONE) - REFERENCE FRAME: NAD83 (2011) (EPOCH:2010.0000), US SURVEY FEET. ALL DISTANCES ARE GRID, AND WERE DETERMINED FROM NGS OPUS SOLUTIONS...

Table with columns: PID, DESIGNATION, LATITUDE, LONGITUDE. Lists control points 3, 8, and 517.

SAID CONTROL POINTS 3, 8, AND 517 WERE THEN TIED TOGETHER USING STANDARD TRAVERSE AND RTK TECHNIQUES, THE RESULTS OF WHICH WERE ADJUSTED TOGETHER IN A WEIGHTED LEAST SQUARES ADJUSTMENT...

AN AVERAGE PROJECT COMBINED SCALE FACTOR (0.9999270950) WAS CALCULATED IN ORDER TO COMPARE MEASURED DISTANCES (GRID) TO RECORD DISTANCES (GROUND).

THE CONVERGENCE ANGLE IS -1.75110556" AT CONTROL POINT NUMBER 3.

RELATIVE VERTICAL POSITIONAL ACCURACY

THE CONTOURS SHOWN HEREON ARE FROM DIRECT FIELD OBSERVATIONS. THE RELATIVE VERTICAL POSITIONAL ACCURACY OF THE CONTOURS AND SPOT ELEVATIONS SHOWN HEREON MEETS THOSE STANDARDS DEFINED BY THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS)...

CONTOUR LINES AT 1' INTERVALS: ±0.65' VERTICAL POSITIONAL ACCURACY. SPOT ELEVATIONS FOR WELL DEFINED PLANIMETRIC FEATURES: ±0.10' VERTICAL POSITIONAL ACCURACY.

METHOD OF SURVEY

FIELD SURVEYS WERE ACCOMPLISHED UTILIZING STANDARD CLOSED TRAVERSE AND RADIAL SURVEY METHODS, AS WELL AS STANDARD GLOBAL POSITIONING SYSTEM (GPS) NETWORK RTK GPS METHODS (80 SECOND OBSERVATIONS, MINIMUM). MEASUREMENTS WERE PERFORMED USING A TOPCON 3-SECOND TOTAL STATION AND TRIMBLE R12i SURVEY GRADE GPS UNITS...

NOTES

- 1) UNDERGROUND UTILITY LOCATE MARKINGS WERE NOT PROVIDED BY OTHERS. UTILITIES ARE SHOWN FROM ABOVE GROUND, VISIBLE FEATURES ONLY.
2) SEE MY RECORD OF SURVEY FOR ALL BOUNDARY RESOLUTION NARRATIVE, NOTES, WAC/ROW REQUIRED INFORMATION, ETC. REGARDING THE BOUNDARY, A COPY OF WHICH IS AVAILABLE IN THE OFFICE OF THE COWLITZ COUNTY ROAD ENGINEER.

MONUMENT LEGEND:

- FOUND MONUMENT AS NOTED. PROTECT / PRESERVE WHERE POSSIBLE. - IF TO BE DESTROYED, A PERMIT TO REMOVE A MONUMENT MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES PRIOR TO REMOVAL, THEN THE MONUMENT REPLACED AND A SURVEY RECORDED AFTER CONSTRUCTION.
TEMPORARY CONTROL POINT.
SEE DESCRIPTIONS IN MONUMENT TABLE ON SHEET 2.

- NOTES:
1. ALL PIPE DIAMETERS ARE INSIDE DIMENSIONS, UNLESS NOTED OTHERWISE.
2. ALL FOUND MONUMENTS WERE VISITED AND TIED DURING THIS SURVEY (8/15/2022 - 12/01/2022).

TAL MAHAL PROPERTIES, LLC
PARCEL: WJ1504005

COWLITZ COUNTY
AFN 920102032
PARCEL: WJ1520055

COWLITZ COUNTY
AFN 910115032
PARCEL: WJ1504006

ABBREVIATIONS:

- ABS = PLASTIC ABS PIPE
AFN = AUDITOR'S FILE NUMBER
ALC = ALUMINUM CAP
CCPWFB = COWLITZ COUNTY PUBLIC WORKS FIELD BOOK
CMP = CORRUGATED METAL PIPE
CONC = CONCRETE PIPE
CPP = CORRUGATED PLASTIC PIPE
DI = DUCTILE IRON PIPE
IE = INVERT ELEVATION
PG = PAGE
POST = POINT ON SEMI TANGENT
PVC = PLASTIC PIPE
REBAR = REINFORCING BAR
WRPC = WITH RED PLASTIC CAP
WYPC = WITH YELLOW PLASTIC CAP

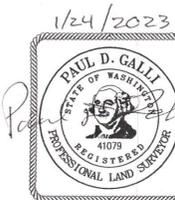
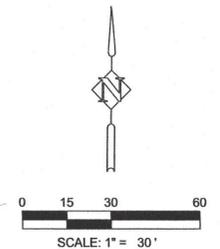


Table with columns: PH, PROJECT MANAGER, PDG, DRAWN BY, CWB, BH, CHECKED BY. Lists project personnel and dates.

Table with columns: HORIZ. SCALE, VERT. SCALE, PROJECT ID, ROAD NO., COMPUTER FILE, FIELD BOOK(S), PAGES. Lists technical specifications.

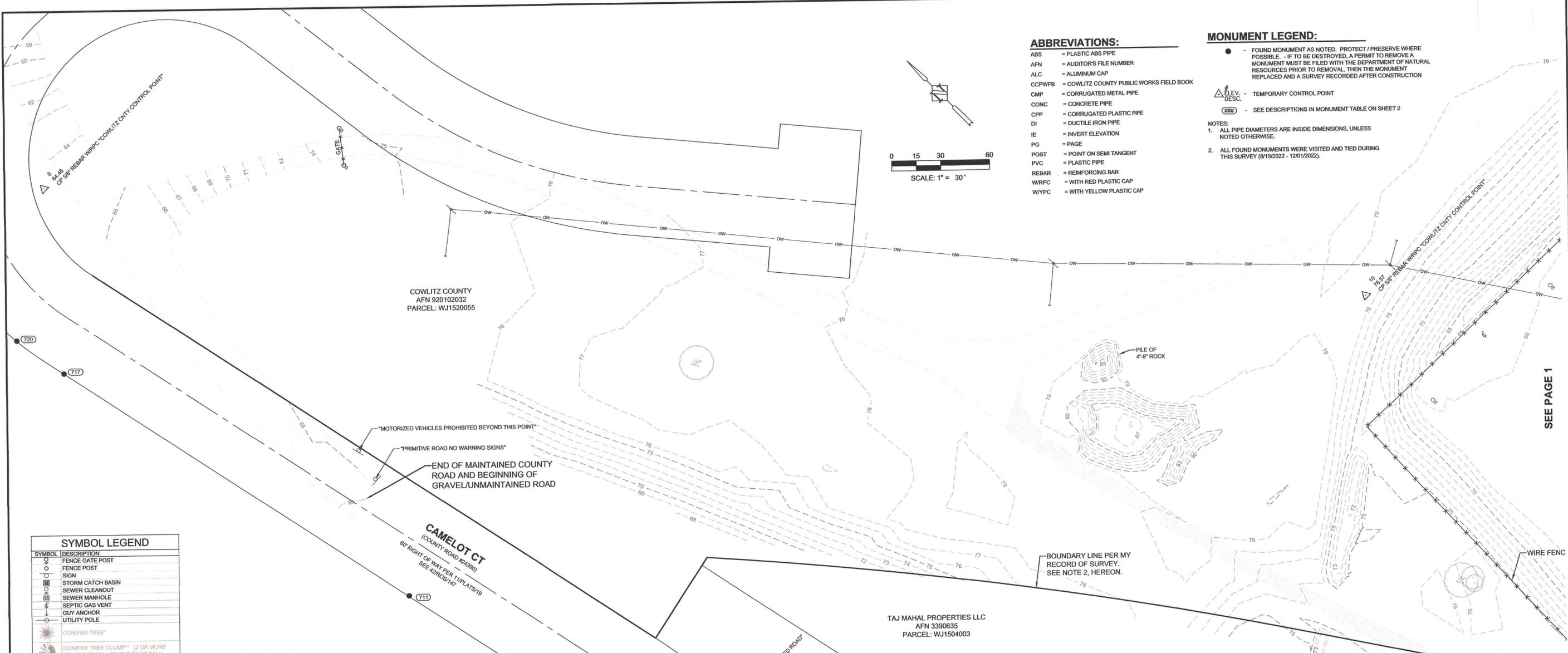


DEPARTMENT OF PUBLIC WORKS
1600 13TH AVENUE SOUTH
KELSO, WASHINGTON 98626

LOCATED IN GOVERNMENT LOT 8 IN THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 AND THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 9 NORTH, RANGE 2 WEST, WILLAMETTE MERIDIAN, COWLITZ COUNTY, WASHINGTON
FIELD WORK DATE: 8/15/2022 - 12/01/2022

CAMELOT SEPTIC SEWER SYSTEM
COOK FERRY SAND PIT
TOPOGRAPHIC SURVEY
JANUARY 23, 2023

SHEET 1 OF 2



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 - POST = POINT ON SEMI TANGENT
 - PVC = PLASTIC PIPE
 - REBAR = REINFORCING BAR
 - WRPC = WITH RED PLASTIC CAP
 - WYPC = WITH YELLOW PLASTIC CAP

- MONUMENT LEGEND:**
- - FOUND MONUMENT AS NOTED. PROTECT / PRESERVE WHERE POSSIBLE. - IF TO BE DESTROYED, A PERMIT TO REMOVE A MONUMENT MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES PRIOR TO REMOVAL, THEN THE MONUMENT REPLACED AND A SURVEY RECORDED AFTER CONSTRUCTION
 - △ ELEV. - TEMPORARY CONTROL POINT
 - DESC. - SEE DESCRIPTIONS IN MONUMENT TABLE ON SHEET 2
- NOTES:
- ALL PIPE DIAMETERS ARE INSIDE DIMENSIONS, UNLESS NOTED OTHERWISE.
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SYMBOL LEGEND

SYMBOL	DESCRIPTION
○	FENCE GATE POST
○	FENCE POST
○	SIGN
■	STORM CATCH BASIN
○	SEWER CLEANOUT
○	SEWER MANHOLE
○	SEPTIC GAS VENT
○	GUY ANCHOR
○	UTILITY POLE
○	CONIFER TREE*
○	CONIFER TREE CLUMP** (2 OR MORE TRUNKS FROM 1 SINGLE ROOT BALL)
○	DECIDUOUS TREE*
○	DECIDUOUS TREE CLUMP** (2 OR MORE TRUNKS FROM 1 SINGLE ROOT BALL)

LINETYPE LEGEND

LINETYPE	DESCRIPTION
---	DRAINAGE CULVERT
---	DRAINAGE / ROAD DITCH
---	FENCE, TYPE AS NOTED
---	OVERHEAD WIRE
---	SANITARY SEWER LINE
---	MAJOR CONTOUR - SPACED AT 5' INTERVALS
---	MINOR CONTOUR - SPACED AT 1' INTERVALS

HATCH LEGEND

HATCH	DESCRIPTION
▨	EXISTING ASPHALT SURFACE
▩	EXISTING CONCRETE SURFACE
▧	EXISTING GRAVEL SURFACE

* NOTE THAT APPROXIMATE TREE DIAMETERS (6" AND LARGER) WERE COLLECTED, BUT NOT SHOWN HEREON DUE TO CLARITY ISSUES. PLEASE REQUEST THIS INFORMATION IF NECESSARY.
 ** NOTE: A CLUMP WAS CONSIDERED TO BE WHERE 2 OR MORE TRUNKS SPLIT AT APPROXIMATELY CHEST HEIGHT AND SHARE A SINGLE ROOT BALL. THE QUANTITY AND SIZES OF THE TRUNKS ARE NOT SHOWN HEREON. PLEASE REQUEST THIS INFORMATION IF NECESSARY.

* NOTE THAT NOT ALL MONUMENTS LISTED IN THE MONUMENT TABLES ARE SHOWN GRAPHICALLY HEREON.

MONUMENT TABLE

POINT	NORTHING	EASTING	DESCRIPTION	ORIGIN
1	347929.692	1032747.843	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
2	348059.764	1033318.083	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
3	348773.018	1033501.086	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
4	348408.029	1032947.199	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
5	348963.306	1032407.318	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
6	349119.754	1031645.822	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
7	349243.674	1031037.027	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
8	349078.030	1030826.958	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
9	348514.479	1030859.616	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
10	348451.963	1031346.003	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
11	348167.586	1031506.159	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
12	347983.518	1031398.380	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
13	347596.067	1031470.259	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
14	347618.636	1031658.838	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
15	347643.540	1031976.039	5/8" REBAR WRPC "COWLITZ CNTY CONTROL POINT"	THIS SURVEY
103	348551.758	1031580.586	5/8" REBAR WYPC "COWLITZ COUNTY"	COUNTY
104	347480.827	1031747.477	5/8" REBAR WYPC "GERMUNSON LS 10997"	1/ROS/372
105	348167.692	1031505.198	1" BRONZE DISK "COWLITZ CONTROL"	THIS SURVEY
108	346406.873	1032458.843	1/2" REBAR WYPC "MINISTER 12563"	9/ROS/134
109	346709.466	1032257.688	1/2" REBAR WYPC "MINISTER 12563"	9/ROS/134

* NOTE THAT NOT ALL MONUMENTS LISTED IN THE MONUMENT TABLES ARE SHOWN GRAPHICALLY HEREON.

MONUMENT TABLE

POINT	NORTHING	EASTING	DESCRIPTION	ORIGIN
150	345386.330	1033138.666	1/2" REBAR WYPC "MINISTER 12563" DN3	9/ROS/134
153	351550.036	1026298.487	NAIL IN TOP OF RRR TIE W/FLAGGING	UNKNOWN
154	352074.319	1031711.002	2" BRASS DISK IN MON BOX AT INT OF FRONT AVE AND C ST	40/ROS/108
155	352332.818	1031682.397	2" BRASS DISK IN MON BOX AT INT OF FRONT AVE AND B ST	40/ROS/108
156	354140.237	1031956.816	AXLE W/BOLT "X" SCRIBED IN CONCRETE	28/ROS/138
157	352806.288	1031918.366	2" BRASS DISK IN MON BOX IN CL OF COWLITZ ST 1/16TH COR	28/ROS/138
158	351477.977	1031242.034	5/8" REBAR, NO CAP	UNKNOWN
159	350962.204	1031833.973	2" BRASS DISK IN MON BOX AT INT OF ADEN ST AND FRONT AVE	40/ROS/108
160	350930.537	1031555.851	5/8" REBAR, NO CAP AT INT OF 1ST AVE AND ADEN ST	40/ROS/108
161	351784.880	1031742.942	2" BRASS DISK IN MON BOX AT INT OF FRONT AVE AND D ST	40/ROS/108
700	346670.020	1033541.548	1/2" REBAR NO CAP	9/ROS/134
701	346371.439	1033623.052	1/2" REBAR WYPC "MINISTER 12563"	9/ROS/134
702	344861.683	1033186.954	1/2" REBAR BENT NO CAP - TIED SPIN HOLE	9/ROS/134
703	346682.385	1033137.094	1/2" REBAR WYPC "MINISTER 12563"	9/ROS/134
704	346423.537	1033138.709	1/2" REBAR WYPC "MINISTER 12563"	9/ROS/134
705	346694.888	1032722.741	1/2" REBAR WYPC "MINISTER 12563"	9/ROS/134
706	346436.120	1032725.087	1/2" REBAR WYPC "MINISTER 12563"	9/ROS/134
707	346121.084	1032649.346	1/2" REBAR WYPC "MINISTER 12563"	9/ROS/134
708	346150.082	1031699.775	3" BRASS DISK IN 4" CONCRETE BASE "WASHINGTON DEPT. NATURAL RESOURCES..."	DNR FB608.05 P.48
709	346327.507	1032747.795	2" ALUMINUM DISK "USCE 88-54-05 1988"	USCE



PH PROJECT MANAGER: N/A
 PDG DRAWN BY: 1/23/2023
 CWB, BH CHECKED BY: 1/19/2023

HORIZ. SCALE: 1" = 30'
 VERT. SCALE: 1" = 30'
 PROJECT ID: CAMELOT SEPTIC SYSTEM
 ROAD NO.: N/A
 COMPUTER FILE: Camelot-LOSS-TOPO-2022.dwg
 FIELD BOOK(S): 2022-02
 PAGES 32, 33, 36, 37, 88-95, 98-101



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**CAMELOT SEPTIC SEWER SYSTEM
 COOK FERRY SAND PIT
 TOPOGRAPHIC SURVEY
 JANUARY 23, 2023**

SHEET 2 OF 2