

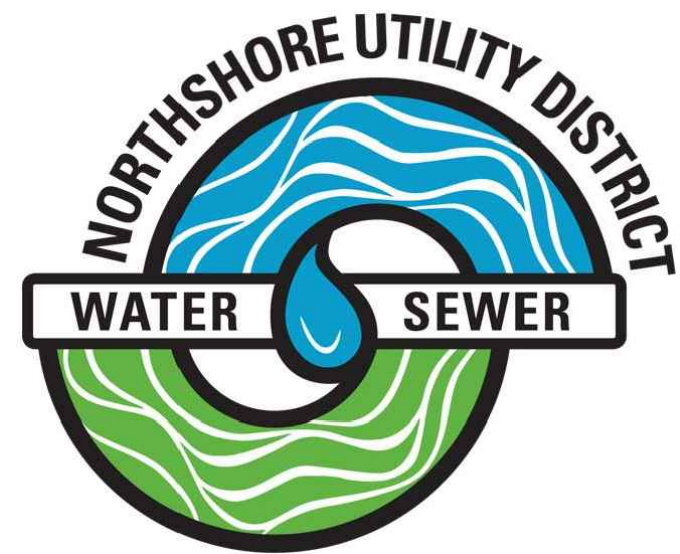
NORTHSHORE UTILITY DISTRICT

King County, Washington

CONTRACT 2022-01

GRINDER PUMP STATIONS 1-4 REPLACEMENT

NOVEMBER 2022

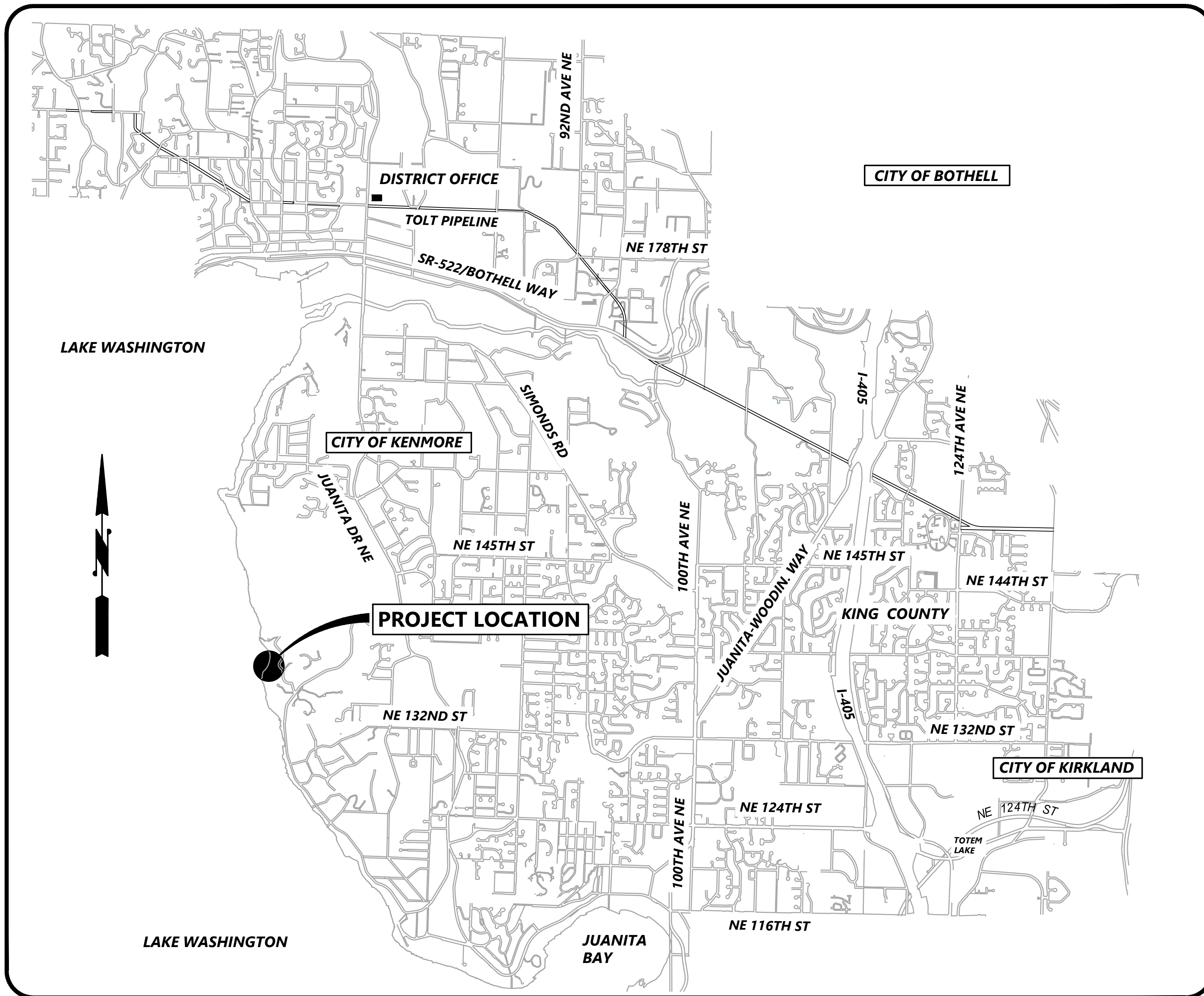


BID SET

D. BRUCE GARDINER	President of the Board
SUZANNE GREATHOUSE	Secretary of the Board
MATT BREYSSE	Commissioner
THOMAS D. MORTIMER	Commissioner
TRUDY C. ROLLA	Commissioner
ALAN G. NELSON	General Manager

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VICINITY MAP
NOT TO SCALE

C2003

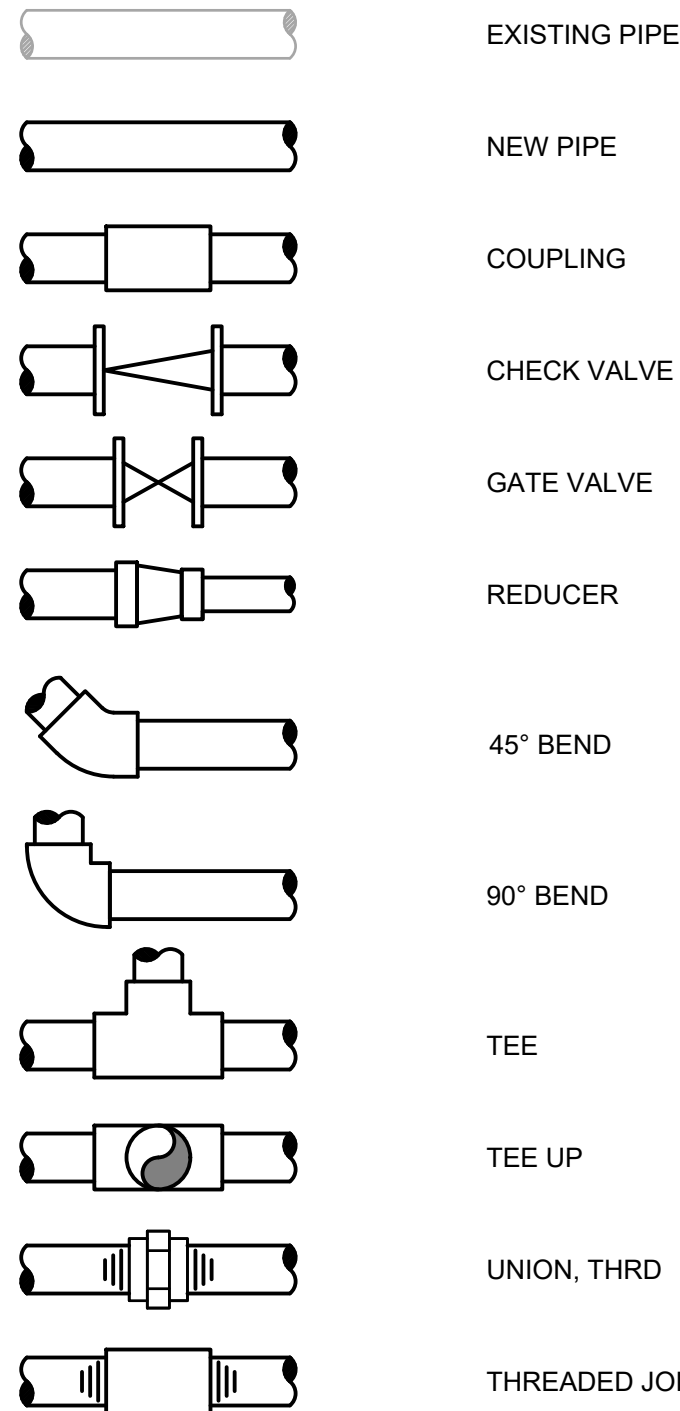
SHEET
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ABBREVIATIONS

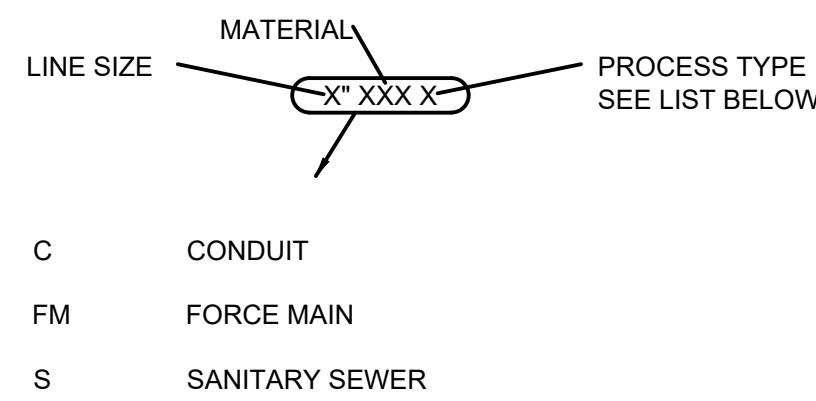
AC	ASBESTOS CEMENT PIPE
ADJ	ADJUST
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ANGLE POINT
APPROX	APPROXIMATE
ASPH	ASPHALT
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AVE	AVENUE
BF	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BO	BLOW OFF
BOP	BEGINNING OF PROJECT
BOT	BOTTOM OF
C	CONDUIT
CB	CATCH BASIN
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CL	CLASS
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUED/CONTINUOUS
CPEP	CORRUGATED POLYETHYLENE PIPE
CPLG	COUPLING
CSBC	CRUSHED SURFACING BASE COURSE
CSTC	CRUSHED SURFACING TOP COURSE
CTR	CENTER
CY	CUBIC YARD
CL	CENTER LINE
D	DRAIN
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DOT	DEPARTMENT OF TRANSPORTATION
DWGS	DRAWING(S)
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
EOA	EDGE OF ASPHALT
EOP	END OF PROJECT
EX	EXISTING
FIG	FIGURE
FIN	FINISHED
FL	FLANGE
FT	FEET
GA	GAUGE
GALV	GALVANIZED
GI	GALVANIZED IRON
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HGB	HOT DIP GALVANIZED
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INV	INVERT
L	LENGTH
LB	POUND
LF	LINEAR FEET
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OHWM	ORDINARY HIGH WATER MARK
PE	PLAIN END
PERF	PERFORATED
PP	POWER POLE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
R	RADIUS
R/W	RIGHT-OF-WAY
RED	REDUCER
REINF	REINFORCE
REQD	REQUIRED
RESTR	RESTRAINTS
RET	RETAINING
RFCA	RESTRAINED FLANGE COUPLING ADAPTER
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
TB	THRUST BLOCK

TEL	TELEPHONE
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THK	THICK
THRD	THREADED
THRU	THROUGH
TOS	TOP OF SLAB
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WEST
W/	WITH
W/O	WITHOUT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

PIPING SYMBOLS



PROCESS PIPING CODES



GENERAL MECHANICAL NOTES

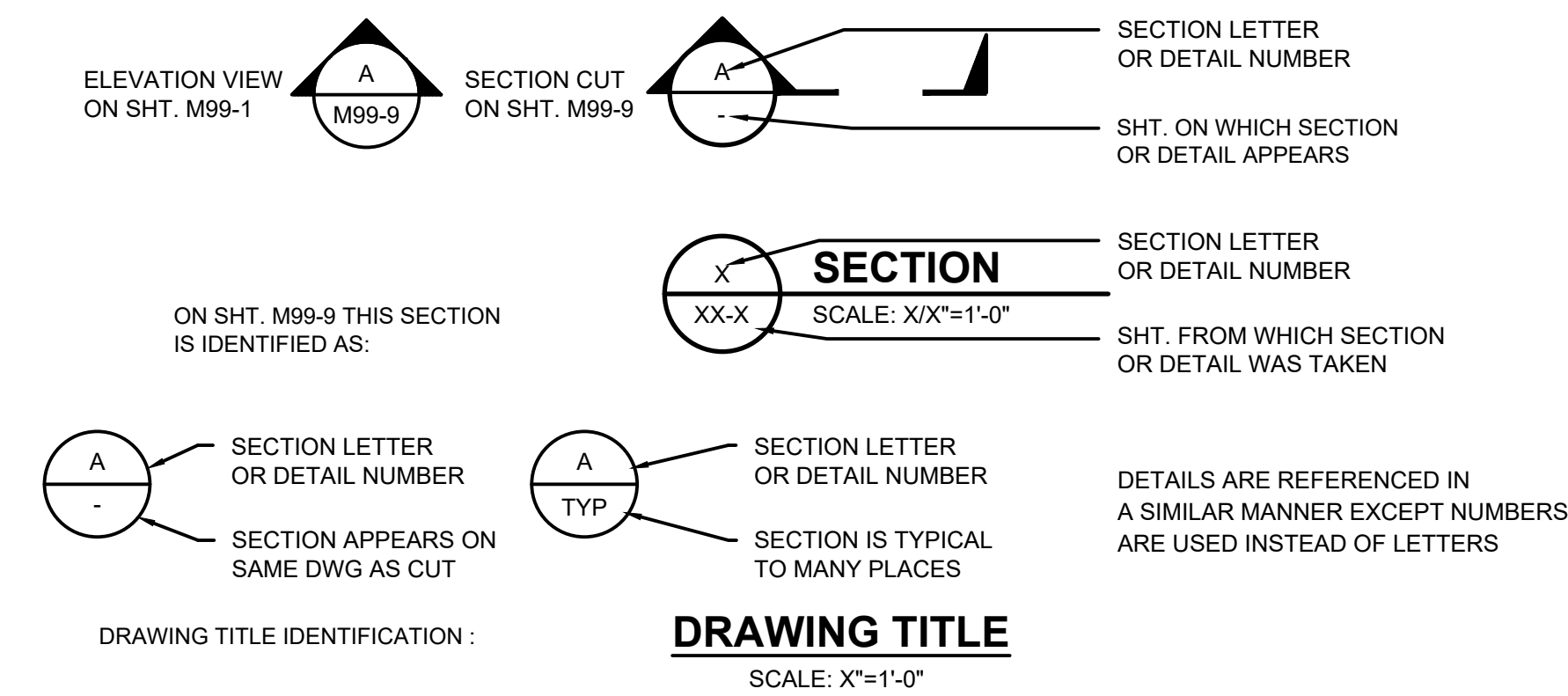
- IN GENERAL, EXISTING STRUCTURES AND FACILITIES ARE NOTED AS "EXISTING" AND ARE SHOWN IN LIGHT LINE WEIGHTS OR AS SCREENED BACKGROUND. NEW CONSTRUCTION, STRUCTURES, FACILITIES, AND FEATURES ARE SHOWN IN DARK LINE WEIGHTS.
- MANY OF THE SYMBOLS SHOWN ON THIS LEGEND ARE USED ONLY WHERE THEY PROVIDE CLARITY AND ARE NOT NECESSARILY USED IN ALL APPLICATIONS. SOME CONTRACT DRAWINGS MAY HAVE ADDITIONAL LEGENDS APPLICABLE FOR THAT SPECIFIC DRAWING. SYMBOLS SHOWN ON SPECIFIC DRAWINGS GOVERN.
- THE CONTRACTOR SHALL VERIFY ALL PLANIMETRIC FEATURES AND DIMENSIONS PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES.
- ALL DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS REFER TO THE HORIZONTAL AND VERTICAL PROJECTED PLANES UNLESS OTHERWISE INDICATED.
- LOCATIONS OF EXISTING UTILITIES ARE BASED ON RECORD DRAWINGS. UTILITY OWNER LOCATES, AND/OR SITE INSPECTION. CONTRACTOR SHALL POTHOLE TO LOCATE BURIED UTILITIES PRIOR TO EXCAVATION.
- INSTALL FORCE MAIN PIPING LEVEL OR AT POSITIVE SLOPE IN DIRECTION OF FLOW UNLESS NOTED OTHERWISE.

PROPOSED ORDER OF WORK

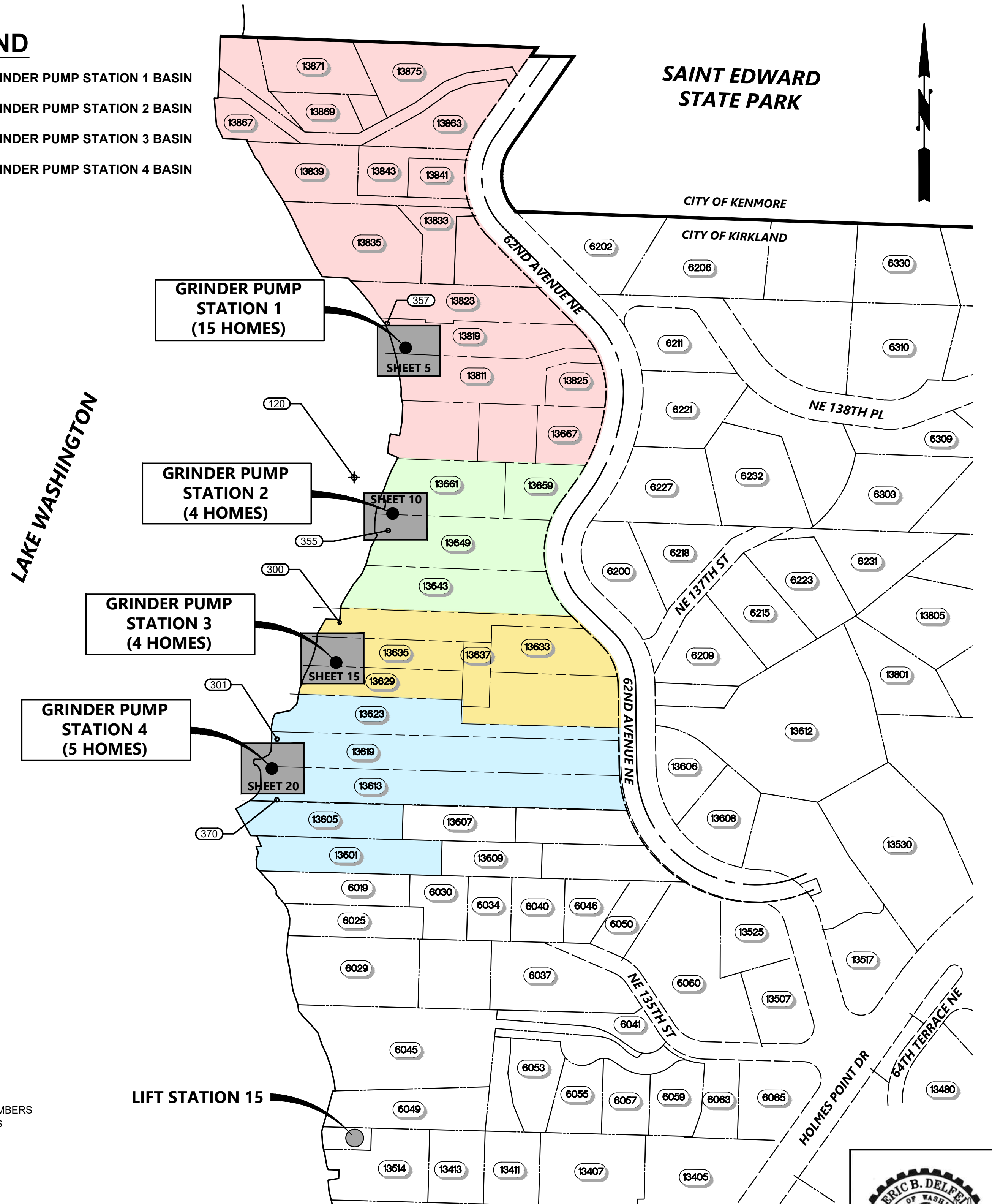
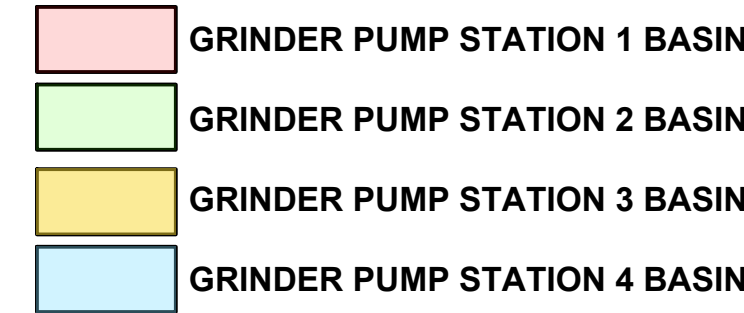
THE FOLLOWING PROPOSED ORDER OF WORK IS TYPICAL TO EACH OF THE GRINDER PUMP STATIONS. ALL MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE THE CONSTRUCTION OF A COMPLETE AND OPERABLE GRINDER PUMP STATION SHALL BE IN HAND PRIOR TO MOBILIZATION TO EACH GRINDER PUMP STATION SITE. WORK ON EACH GRINDER PUMP STATION MUST BE COMPLETE IN ITS ENTIRETY PRIOR TO DEMOBILIZATION AND MOBILIZATION TO ANOTHER GRINDER PUMP STATION SITE. THE INTENTION OF THIS PROPOSED ORDER OF WORK IS TO MINIMIZE THE AMOUNT AND DURATION OF DISRUPTIONS TO SEWER SERVICE AND LAKEFRONT ACCESS. THE CONTRACTOR SHALL SUBMIT ANY PROPOSED DEVIATIONS TO THIS ORDER OF WORK TO THE CONTRACTING AGENCY FOR APPROVAL PRIOR TO CONSTRUCTION.

- INSTALL TESC MEASURES.
- INSTALL NEW CHECK VALVE VAULT AND CONNECT TO EXISTING FORCE MAIN.
- INSTALL TEMPORARY BY-PASS PUMPING PER THE APPROVED BYPASS PUMPING PLAN AND AS DESCRIBED IN THE SPECIFICATIONS.
- INSTALL NEW ELECTRICAL VAULT(S) (REQUIRES SYSTEM SHUT DOWN).
- PERFORM DEMOLITION AS SHOWN ON THE PLANS.
- INSTALL NEW PUMPS, RAILS, DISCHARGE CONNECTIONS, ELECTRICAL AND CONTROL PANEL AS SHOWN ON THE PLANS.
- PERFORM STARTUP TESTING.
- REMOVE BY-PASS PUMPING EQUIPMENT.
- BEGIN COMMISSIONING PHASE.
- RESTORE SITE PER THE PLANS.

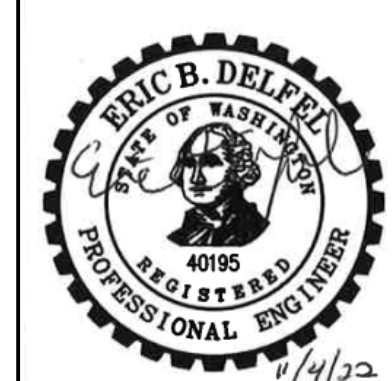
EXAMPLE OF SECTION NUMBERING SYSTEM AND PLAN/DRAWING TITLES



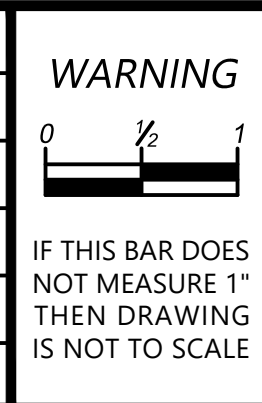
LEGEND



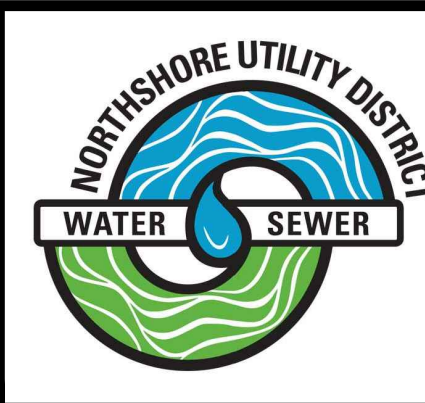
AREA MAP
NOT TO SCALE



NO	BY	APPD	REVISION	DATE
BID SET				



DESIGNED BY	HLT
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CHECKED BY	EBD
APPROVAL	EBD
DATE	NOV 2022



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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT
ABBREVIATIONS & AREA MAP

BASE MAP H4
C2003
SHEET
2 OF 30

LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	PROPERTY LINE
---	---	RIGHT OF WAY LINE
---	---	EASEMENT
---	---	CONSTRUCTION LIMITS
---	---	ROOT BARRIER
---	---	DITCH CENTERLINE
---	---	SIDE SLOPE
---	---	WATER LINE
---	---	SANITARY SEWER LINE
---	---	SEWER FORCE MAIN
---	---	STORM DRAIN LINE
---	---	STORM DRAIN CULVERT
---	---	SWALE OR DITCH
---	---	GAS LINE
---	---	UNDERGROUND POWER LINE
---	---	OVERHEAD POWER LINE
---	---	TELEPHONE LINE
---	---	CABLE LINE
---	---	FIBER OPTIC LINE
---	---	WIRE FENCE
---	---	WOOD FENCE
---	---	CHAIN LINK FENCE
---	---	WATER METER
---	---	FIRE HYDRANT
---	---	WATER VALVE
---	---	BLOW OFF ASSEMBLY
---	---	CLEAN OUT
---	---	SANITARY MANHOLE
---	---	STORM DRAIN MANHOLE
---	---	STORM DRAIN CATCH BASIN
---	---	GAS VALVE
---	---	POWER POLE
---	---	GUY ANCHOR
---	---	LIGHT POLE
---	---	SIGNAL POLE
---	---	ELECTRICAL VAULT
---	---	ELECTRICAL HANDHOLE
---	---	COMMUNICATIONS VAULT
---	---	TELEPHONE HANDHOLE
---	---	SIGN
---	---	MONUMENT
---	---	ROCKERY/ROCK WALL
---	---	MAIL BOX(ES)
---	---	CONIFER TREE
---	---	DECORATIVE TREE
---	---	DECIDUOUS TREE
---	---	SHRUB
---	---	RETAINING WALL
---	---	CEMENT CONCRETE PAVEMENT
---	---	CEMENT CONCRETE CURB, GUTTER
---	---	ASPHALT CONCRETE PAVEMENT
---	---	SAND
---	---	GRAVEL
---	---	GRASS
---	---	FILTER FABRIC FENCE
---	---	PROPERTY ADDRESS

GENERAL NOTES:

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
- THE APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN ON THE PLANS FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF UTILITY LOCATIONS SHOWN, FOR THE PROTECTION AND REPAIR OF DAMAGED UTILITIES AND FOR THE DISCOVERY OF POSSIBLE ADDITIONAL UTILITIES NOT SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE LOCATED, BY THE APPROPRIATE UTILITY DISTRICTS OR COMPANIES, ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. FOR UTILITY LOCATES IN KING COUNTY, CALL 1-800-424-5555 PRIOR TO DIGGING.
- A PRE-CONSTRUCTION CONFERENCE WILL BE HELD AT THE DISTRICT OFFICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY NORTHSORE UTILITY DISTRICT A MINIMUM OF FIVE (5) DAYS IN ADVANCE OF BEGINNING CONSTRUCTION. CONSTRUCTION SHALL NOT BEGIN WITHOUT PRIOR WRITTEN NOTICE TO PROCEED BY THE DISTRICT.
- THE CONTRACTOR SHALL NOT OPERATE ANY VALVES OR MAKE ANY CONNECTIONS TO THE EXISTING SYSTEM WITHOUT PRIOR APPROVAL FROM THE DISTRICT.
- EACH GRINDER PUMP STATION SITE IS WITHIN AN EXISTING EASEMENT ON PRIVATE LAKEFRONT PROPERTY WITH LIMITED ACCESSIBILITY FOR LARGE EQUIPMENT AND MOTOR VEHICLES. THE MEANS AND METHODS FOR MOBILIZATION OF MATERIALS AND EQUIPMENT TO EACH SITE SHALL BE AT THE OPTION OF THE CONTRACTOR. HAND DIGGING AND/OR BARGING IN EQUIPMENT MAY BE NECESSARY FOR COMPLETION OF THE WORK SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS.

SURVEY CONTROL DATA

HORIZONTAL DATUM:
WASHINGTON STATE COORDINATE SYSTEM, NORTH ZONE NAD83(91), US FEET UTILIZING RTK GPS FIELD PROCEDURES

VERTICAL DATUM: NAVD88, US FEET AS PRESCRIBED BY NORTHSORE UTILITY DISTRICT.

TOPOGRAPHIC MAPPING:
THE MAP SHOWN HEREON IS THE RESULT OF A TOPOGRAPHIC SURVEY BY DUANE HARTMAN & ASSOCIATES, INC. (DHA) COMPLETED ON JANUARY 20, 2010 AND SUPPLEMENTED BY SURVEY PERFORMED BY GRAY & OSBORNE INC. (G&O) ON AUGUST 6, 2020. DHA ASSUMES NO LIABILITY, BEYOND SAID DATE, FOR ANY FUTURE SURFACE FEATURE MODIFICATIONS OR CONSTRUCTION ACTIVITIES THAT MAY OCCUR WITHIN OR ADJOINING THE PERIMETER OF THIS SURVEY.

BENCHMARKS:

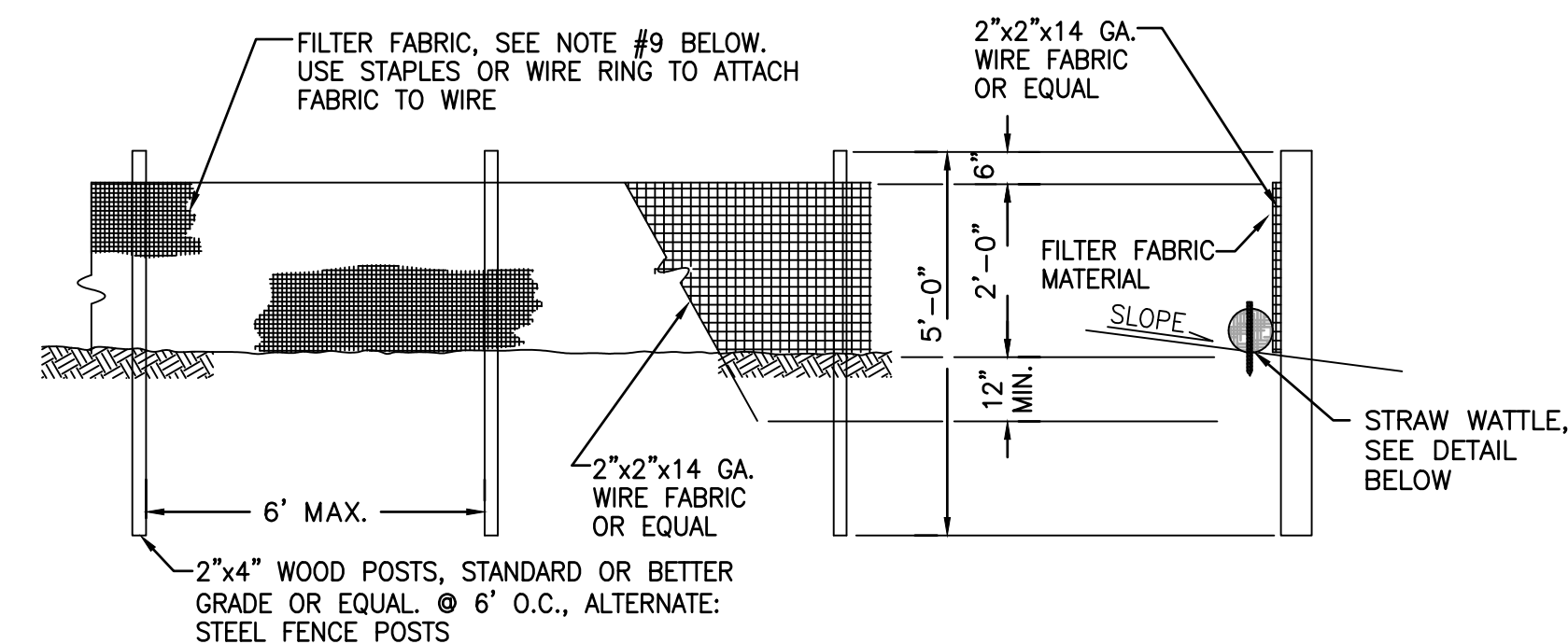
CONTROL POINT TABLE				
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
120	267491.59	1289078.46	20.20	SSLT. "" TALK TO HOMEOWNER BEFORE USING POINT AGAIN"" JUST TACK ON DOCK. 3.4' SE OF WLY DOCK EDGE. 4.7' W-SW OF ONLY LIGHT IN NE-SW MID POINT ON ELY SIDE. 11.3' NELY OF SWLY END CTR DOCK. TACK IS IN THE 6TH PLANK FROM WLY SIDE & ELY SIDE(CTR). 0.03 ELY FROM WLY EDGE OF CTR PLANK.
300	267243.04	1289053.59	19.31	SFR. 5/8" REBAR NO CAP. 0.25' DOWN IN SAND. NELY QUAD BEACH. 3.5' W-NW OF EDGE GRASS. -7.25' S-SW OF ANGLE POINT DOCK AND GRASS. -10' S OF SLIDING SIDE DOOR TO BOAT HOUSE. 10.6' S-SW OF SE BOAT HSE COR.
301	267043.25	1288946.21	19.43	SFR. 5/8" REBAR WIRED CAP "DHA CONT" IN WLY EDGE GRASS PROP. N OF GRINDER #4. 1.2' E OF W EDGE GRASS @ BEACH. -7.3' N-NW OF NLY END BULK HEAD(UNDER GRASS). -19' W-NW OF CENTER FIRE PIT. -28' W OF CL W FACE CABANA.
355	267400.73	1289136.83	21.71	SFR. 5/8" REBAR RED CAP "DHA CONT" 0.2' DOWN. 1.15' W OF W FACE WOOD RET WALL. -3.1' S-SW OF NW COR RET WALL. -15' NE OF NW COR DECK.
357	267755.62	1289135.01	19.53	SFR. 21.2' N15E OF CTR NLY DOCK LIGHT ON E SIDE(SHORE) OF DOCK IN BEACH.
370	266939.29	1288945.82	23.94	SFR. 5/8" REBAR WIRED CAP "DHA CONT" 0.1' DOWN IN GRASS. 1' N OF WOOD FENCE. -4.9' SW OF SWLY BC. -5.4' E-NE OF W END WOOD FENCE.

SURVEY SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
+	+	BENCH MARK
o	o	IRON PIPE/REBAR

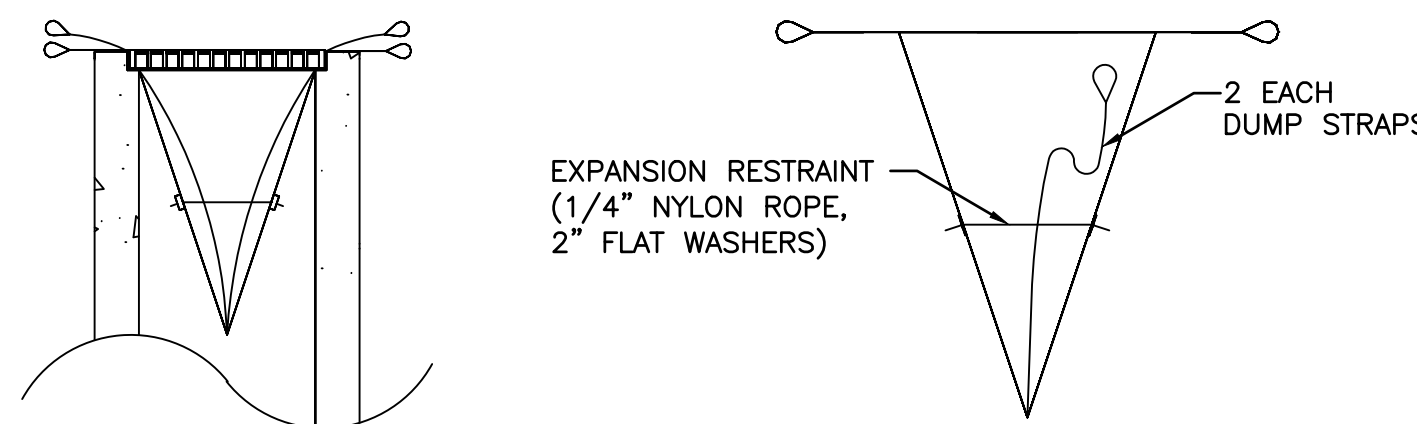
TEMPORARY EROSION AND SEDIMENTATION CONTROL NOTES

- THE TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) FACILITIES SHALL BE IMPLEMENTED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE TESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE STORM DRAIN INLET PROTECTION DEVICE SHALL BE SILT SACK OR EQUAL. ALL CATCH BASINS WITHIN THE VICINITY OF THE CONSTRUCTION SHALL HAVE INLET PROTECTION MEASURES.
- CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE CHANNELS, CULVERTS, SWALES AND STRUCTURES. WHENEVER EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE SUITABLE MEANS FOR DIVERTING AND MAINTAINING ALL FLOWS DURING CONSTRUCTION IN THAT AREA AT ITS EXPENSE. AFTER CONSTRUCTION HAS BEEN COMPLETED, ALL DRAINAGE CHANNELS, CULVERTS, SWALES AND STRUCTURES DISTURBED SHALL BE RETURNED TO THEIR ORIGINAL CONDITIONS.
- THE TESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, TESC FACILITIES SHALL BE MAINTAINED AND UPGRADED AS NECESSARY BY THE CONTRACTOR.
- CONTRACTOR SHALL INSPECT THE TESC FACILITIES AT THE END OF EACH WORKING DAY TO ASSURE ITSELF THAT THEY ARE IN GOOD CONDITIONS. IF TESC FACILITIES REQUIRE REPAIR/MAINTENANCE, IT SHALL BE PERFORMED PRIOR TO THE END OF THE WORKING DAY. ALL DISTURBED AREAS SHALL BE PROMPTLY AND THOROUGHLY STABILIZED AGAINST EROSION DURING PERIODS OF WET WEATHER WHEN WORK IS NOT BEING PERFORMED AT THE SITE.
- ALL UNSUITABLE OR SURPLUS EXCAVATED OR CLEARED MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED, LEGAL FILL SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ACCEPTABLE DISPOSAL SITES AND ASSURE THAT ALL SURPLUS MATERIAL IS DISPOSED OF IN SAME.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL APPROPRIATE MEASURES NEEDED (STREET SWEEPERS, WATER TRUCKS, ETC.) TO KEEP STREETS AND ROADS USED AS HAUL ROUTES FOR EXPORT OR IMPORT OF MATERIAL CLEAN AND FREE FROM DEBRIS, MUD, ETC.. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.



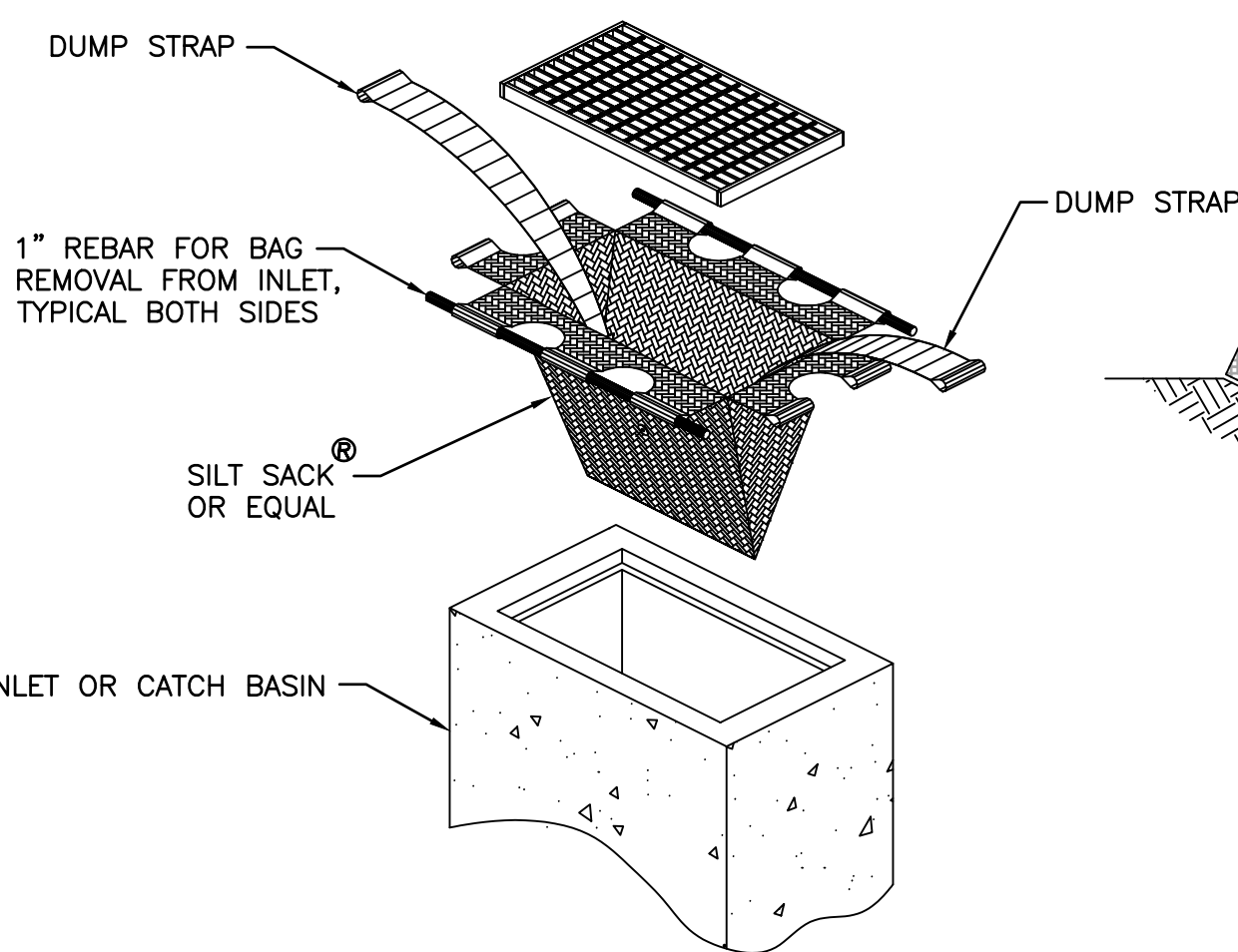
NOTES

- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND BOTH ENDS SECURELY FASTENED TO THE POST.
- THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).
- WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRE OR HOG RINGS.
- THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED ACROSS THE GROUND, UPSLOPE AND ADJACENT TO THE WOOD POST. THE FABRIC SHALL NOT EXTEND MORE THAN 30 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- WHEN EXTRA FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF STANDARD NOTE 3 APPLYING.
- FABRIC SHALL BE SECURED AT THE BASE BY PEA-ROCK FILLED SANDBAGS OR STRAW WATTLES PLACED END TO END.
- FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- FILTER FABRIC SHALL BE PER CURRENT GEOTEXTILE FABRIC STANDARDS FOR SILT FENCE IN THE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON.



INSTALLATION DETAIL

BAG DETAIL

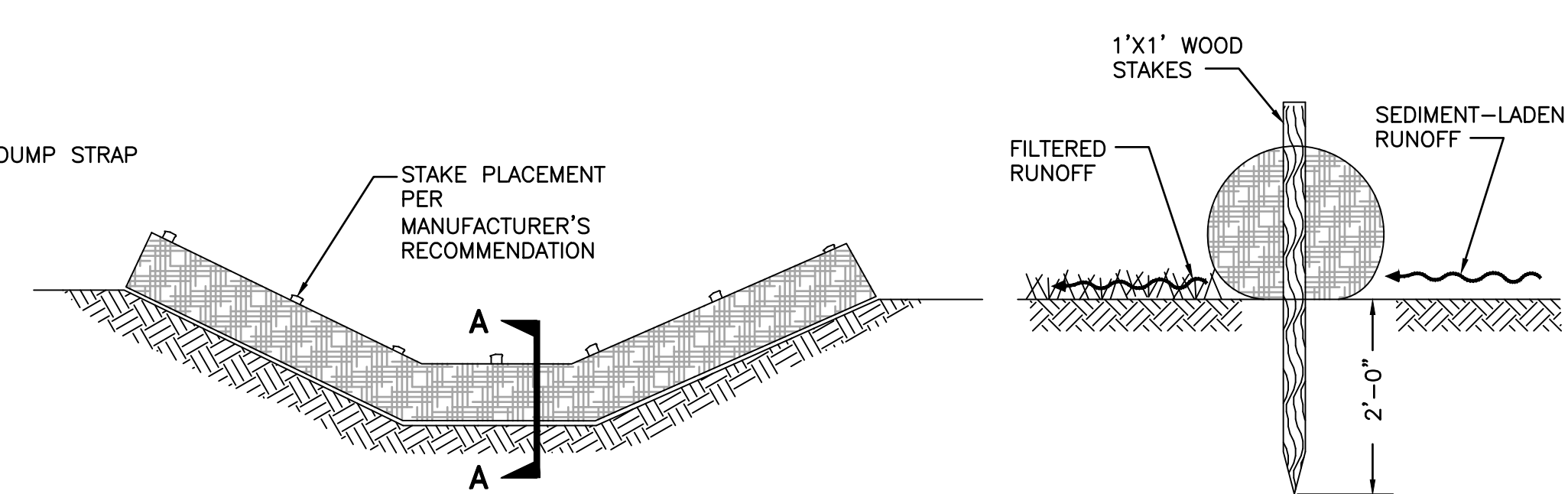


STORM DRAIN INLET PROTECTION

NOT TO SCALE

HIGH VISIBILITY FILTER FABRIC FENCE

NOT TO SCALE

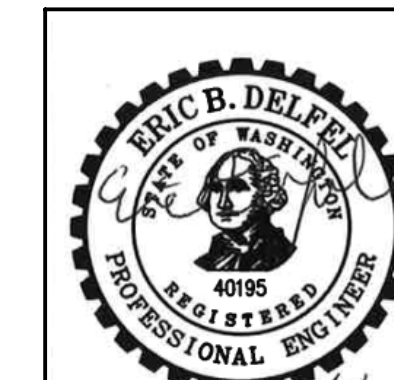


PLACEMENT OF STRAW WATTLE

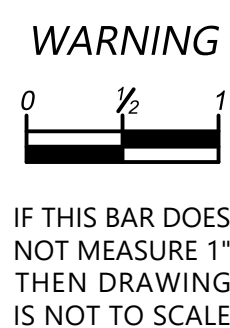
CROSS SECTION A-A

STRAW WATTLE DAM

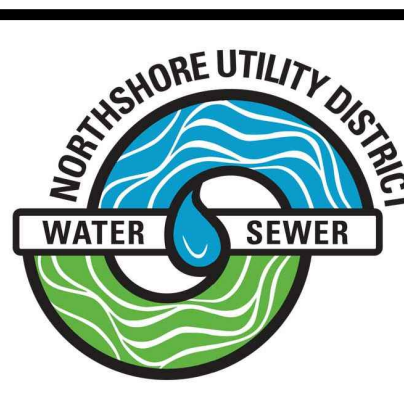
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NO	BY	APPD	REVISION	DATE



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APPROVAL	EBD
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GRINDER PUMP STATIONS 1-4 REPLACEMENT

GENERAL NOTES, LEGEND, & TESC

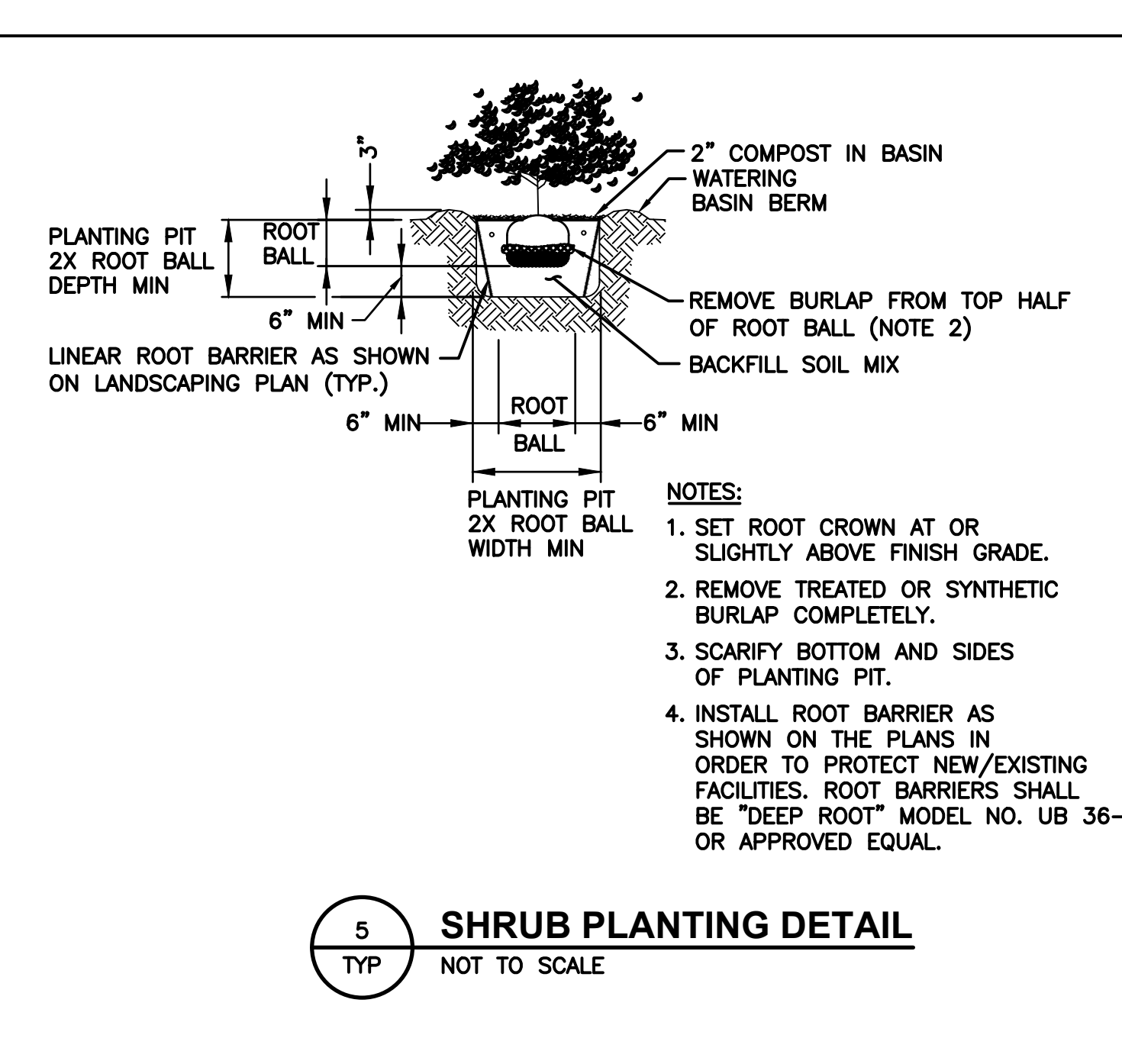
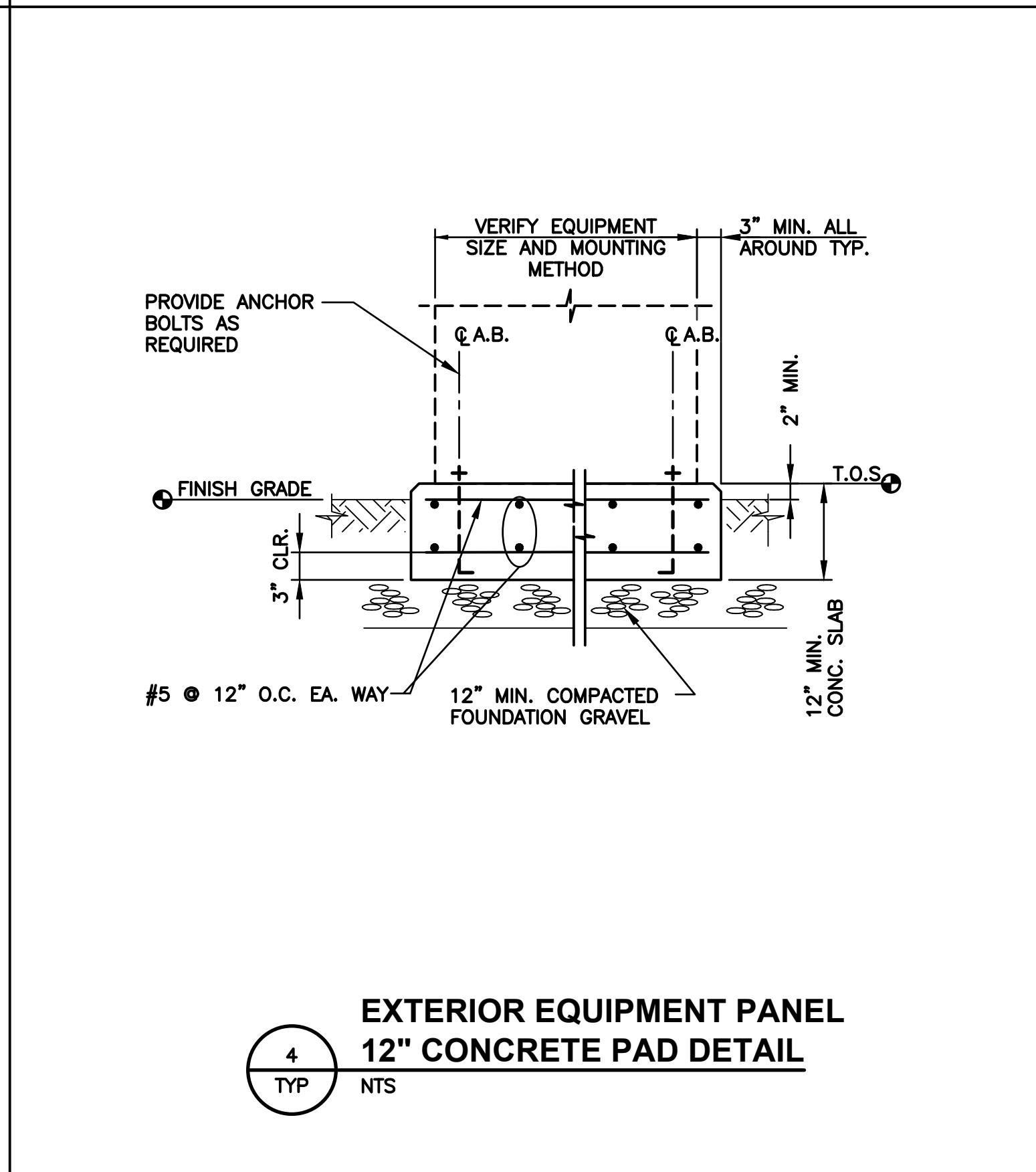
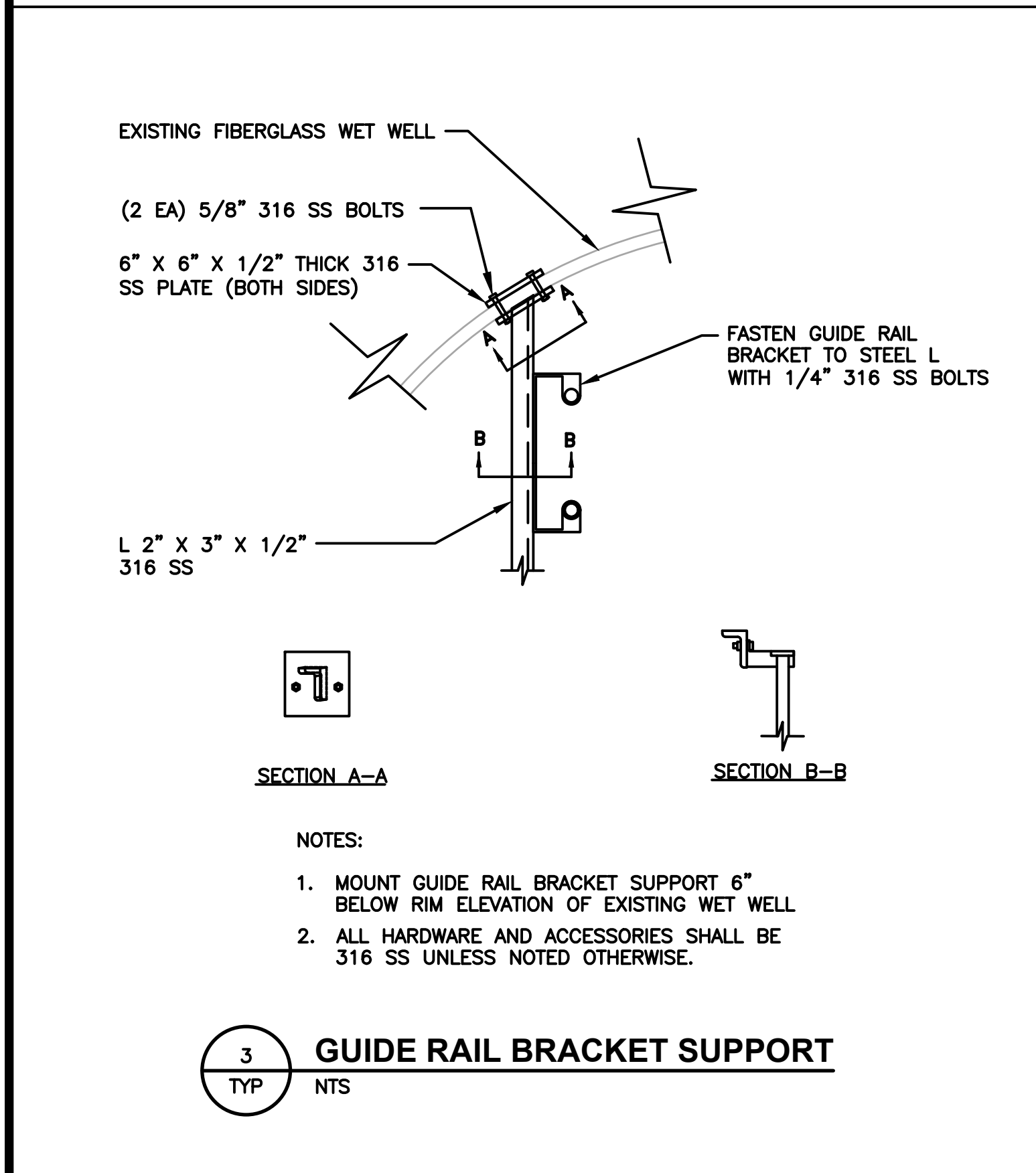
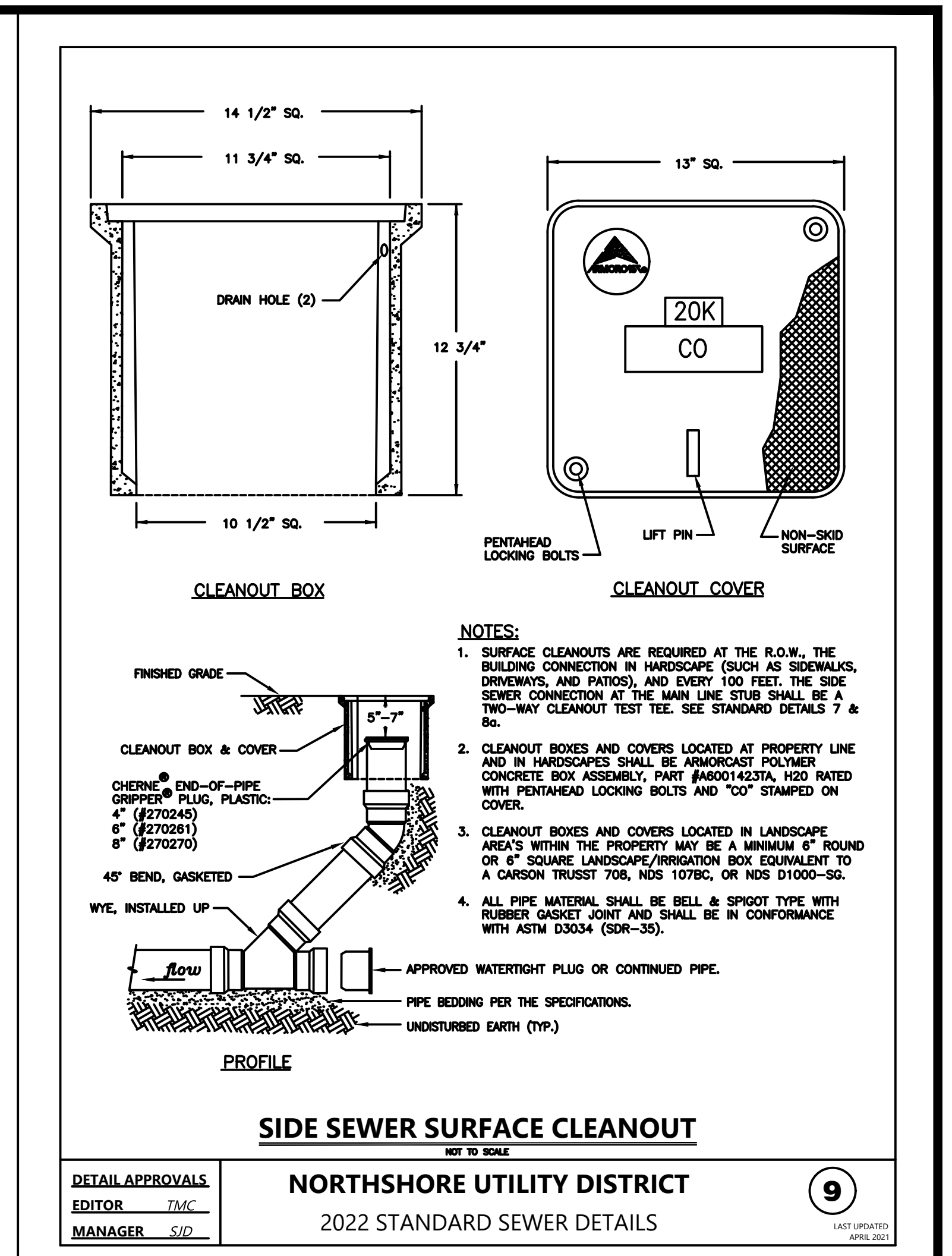
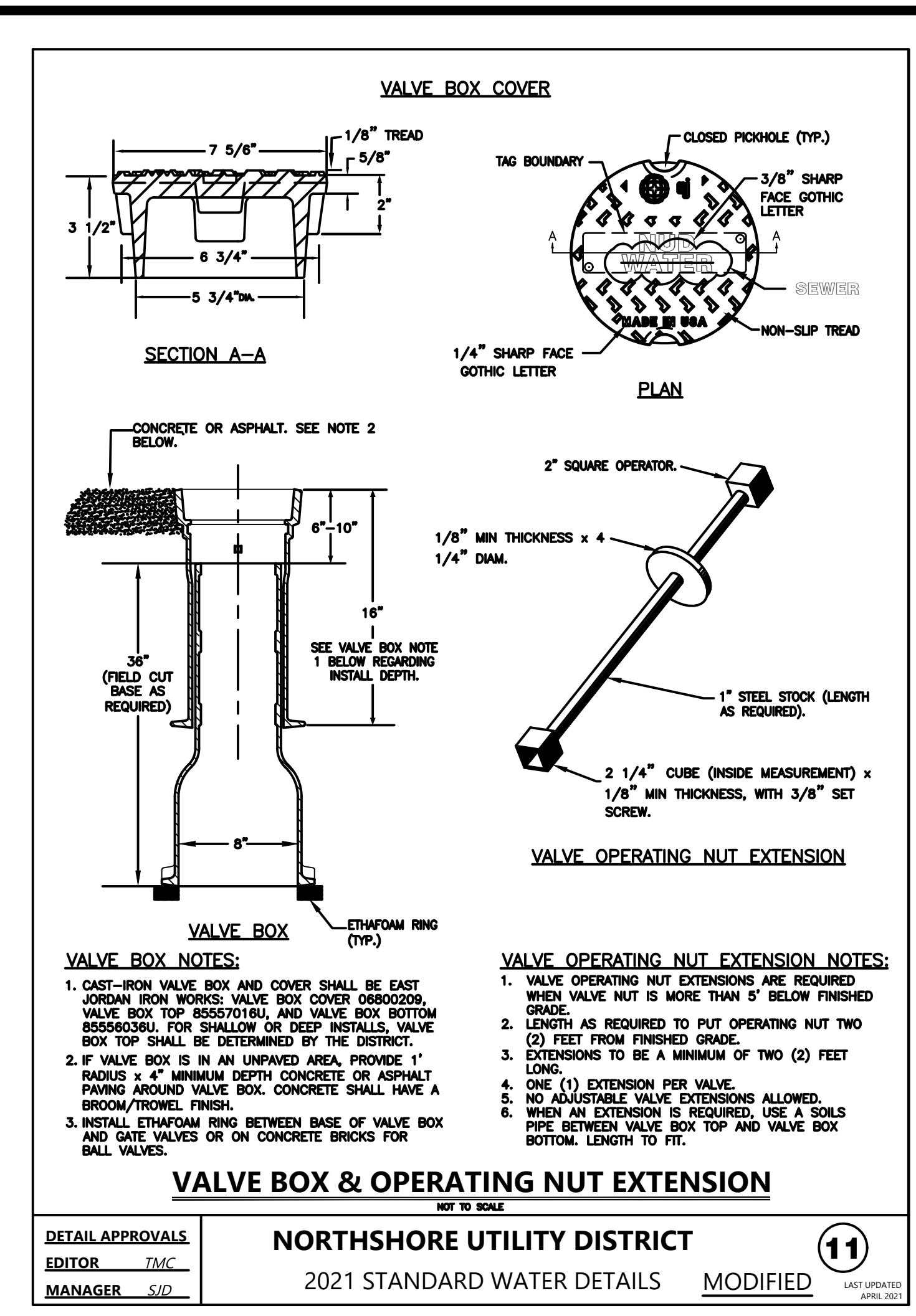
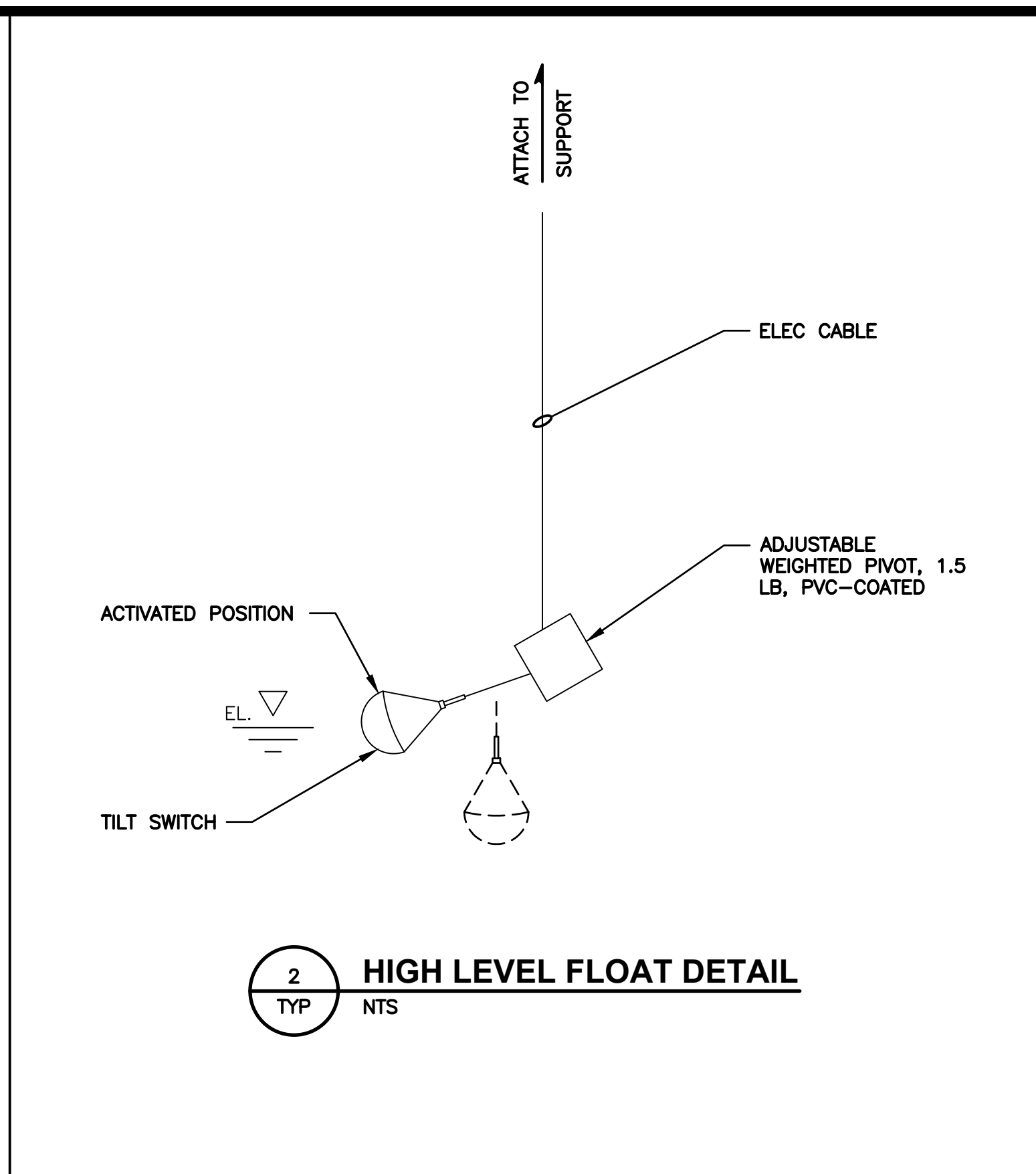
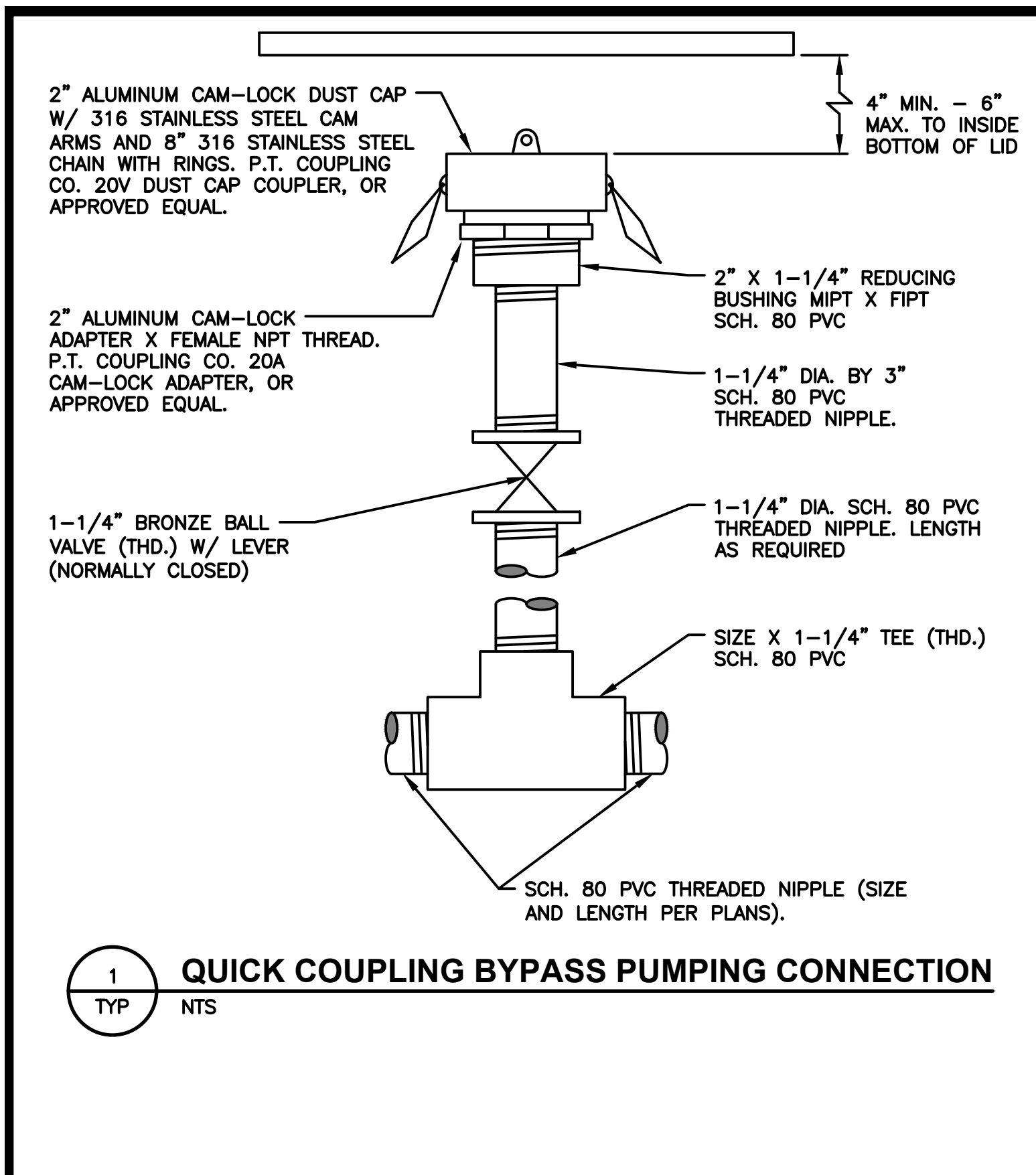
BASE MAP H4

C2003

SHEET

3 OF 30

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Gray & Osborne, Inc.
CONSULTING ENGINEERS

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DRAWN BY: HLT
CHECKED BY: EBD
APPROVAL: EBD
DATE: NOV 2022

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WATER SEWER

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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT

GENERAL DETAILS

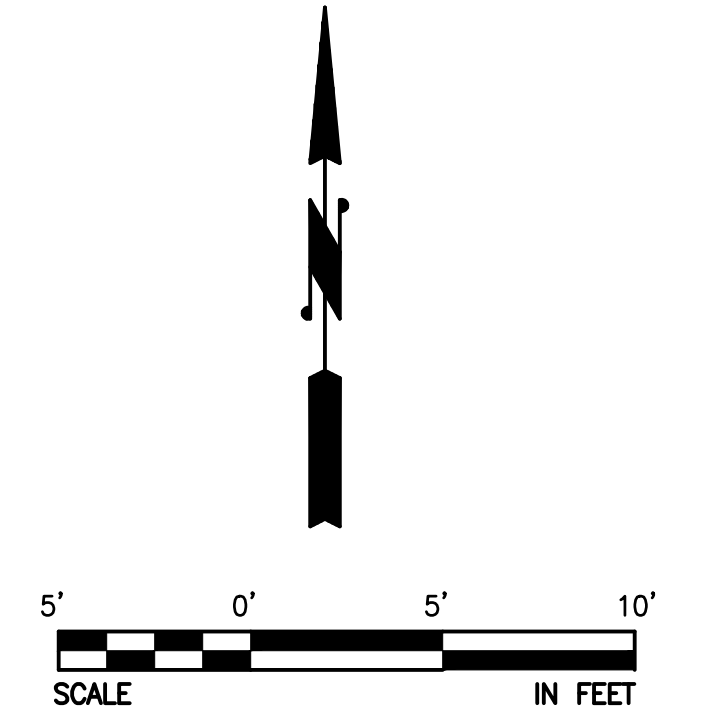
BASE MAP H4
C2003
SHEET
4 OF 30

Eric B. DelFino
REGISTERED PROFESSIONAL ENGINEER
40195
w/4/22

SE 1/4, SEC 23, T26N, R4E, WM



**GRINDER PUMP STATION 1
EXISTING SITE PHOTOGRAPH**

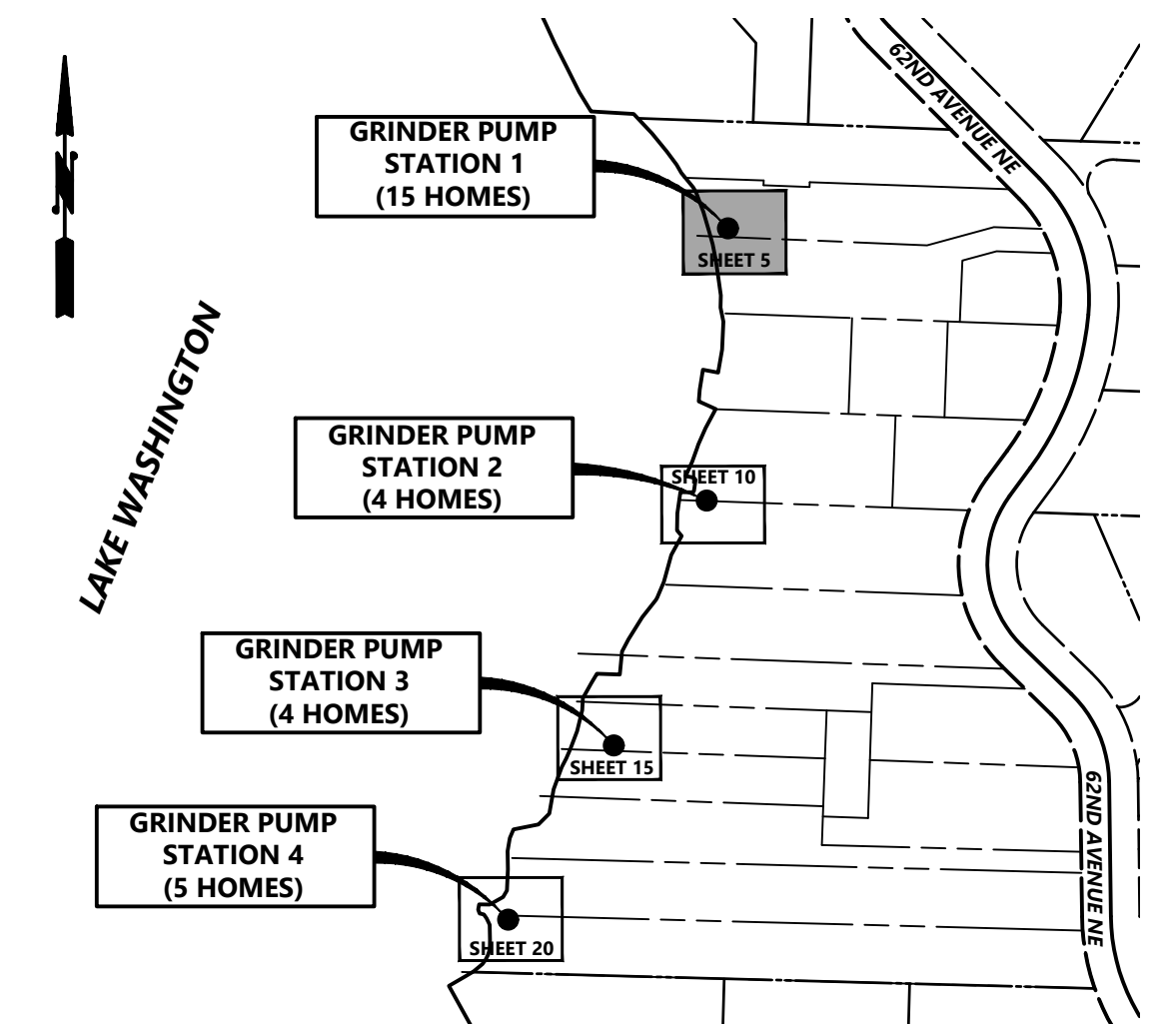


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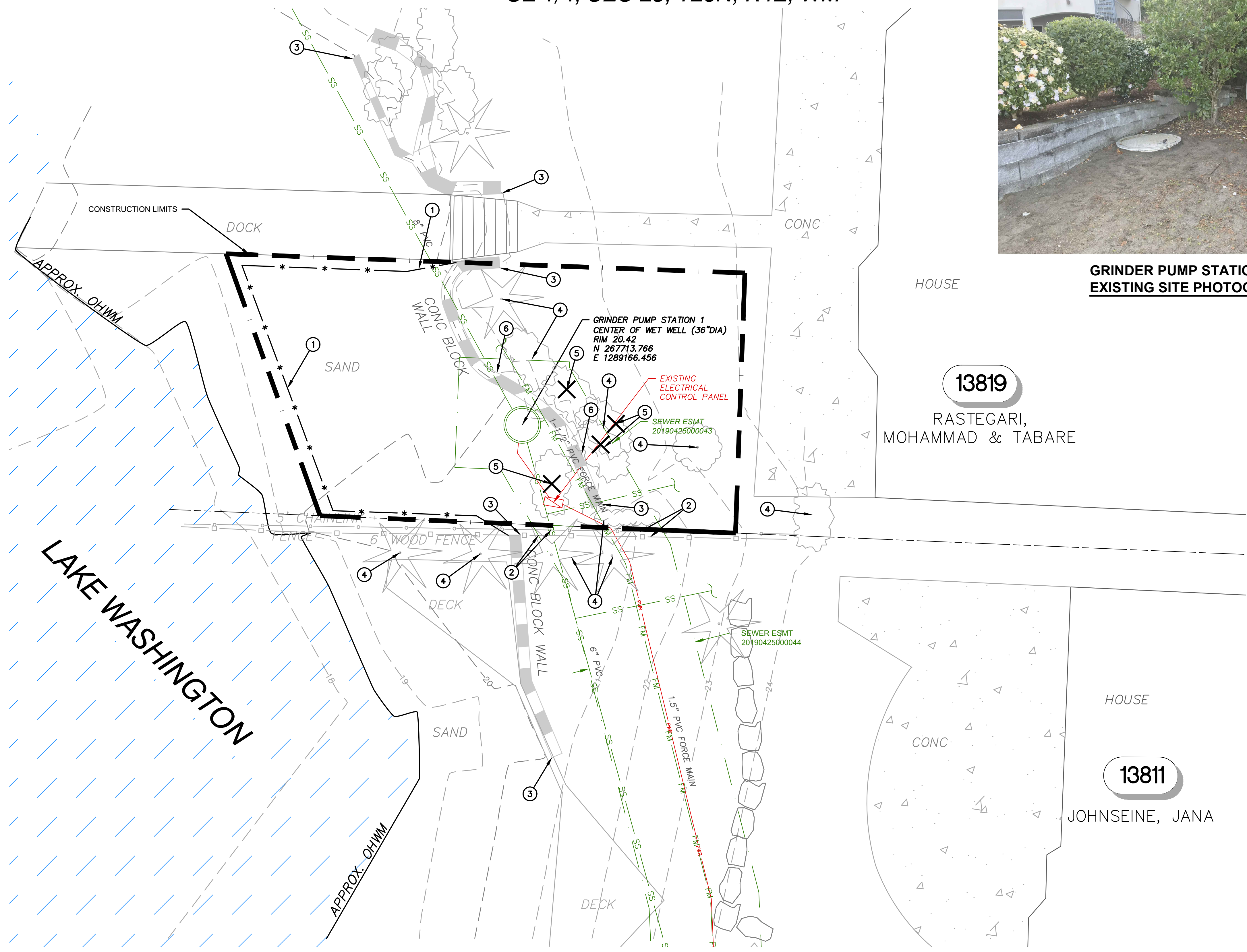
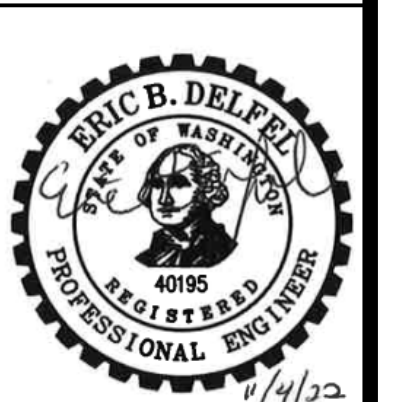
1. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL POthOLE TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.
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3. INSTALL TESC FACILITIES PER SHEET 3.
4. SEE EROSION CONTROL NOTES SHEET 3.
5. PROTECT ALL TREES AND HEDGES, UNLESS OTHERWISE NOTED ON PLANS.
6. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

CONSTRUCTION NOTES

- ① INSTALL FILTER FABRIC FENCE PER DETAIL, SHEET 3.
- ② PROTECT EXISTING FENCE.
- ③ PROTECT EXISTING WALL.
- ④ PROTECT EXISTING TREE/SHRUB.
- ⑤ REMOVE EXISTING TREE/SHRUB.
- ⑥ REMOVE AND REINSTALL EXISTING WALL AS REQUIRED.



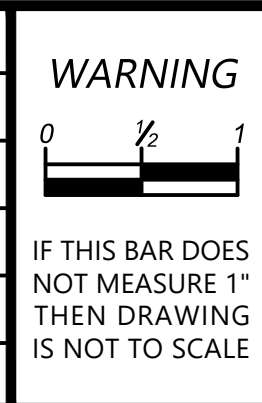
SHEET KEY MAP
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13819
RASTEGARI,
MOHAMMAD & TABARE

HOUSE
13811
JOHNSEINE, JANA

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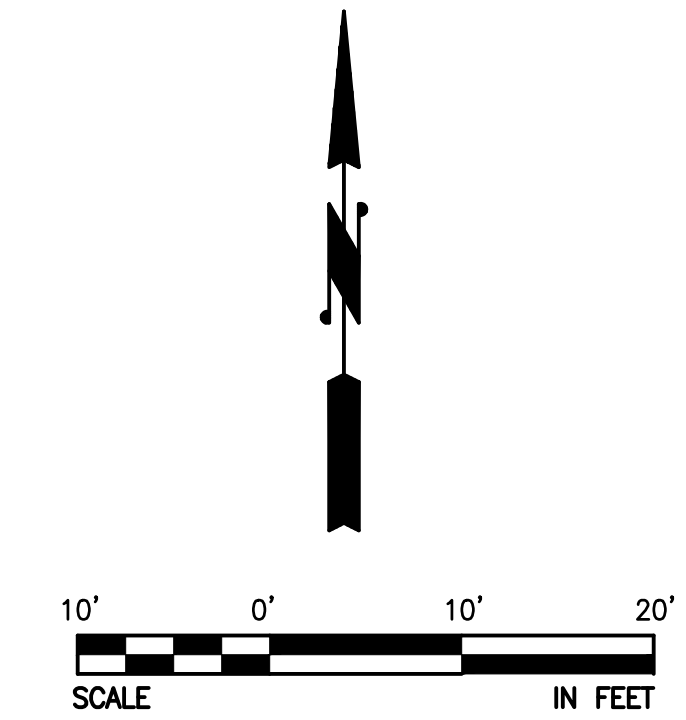
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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT

**GRINDER PUMP STATION 1
EXISTING SITE & TESC PLAN**

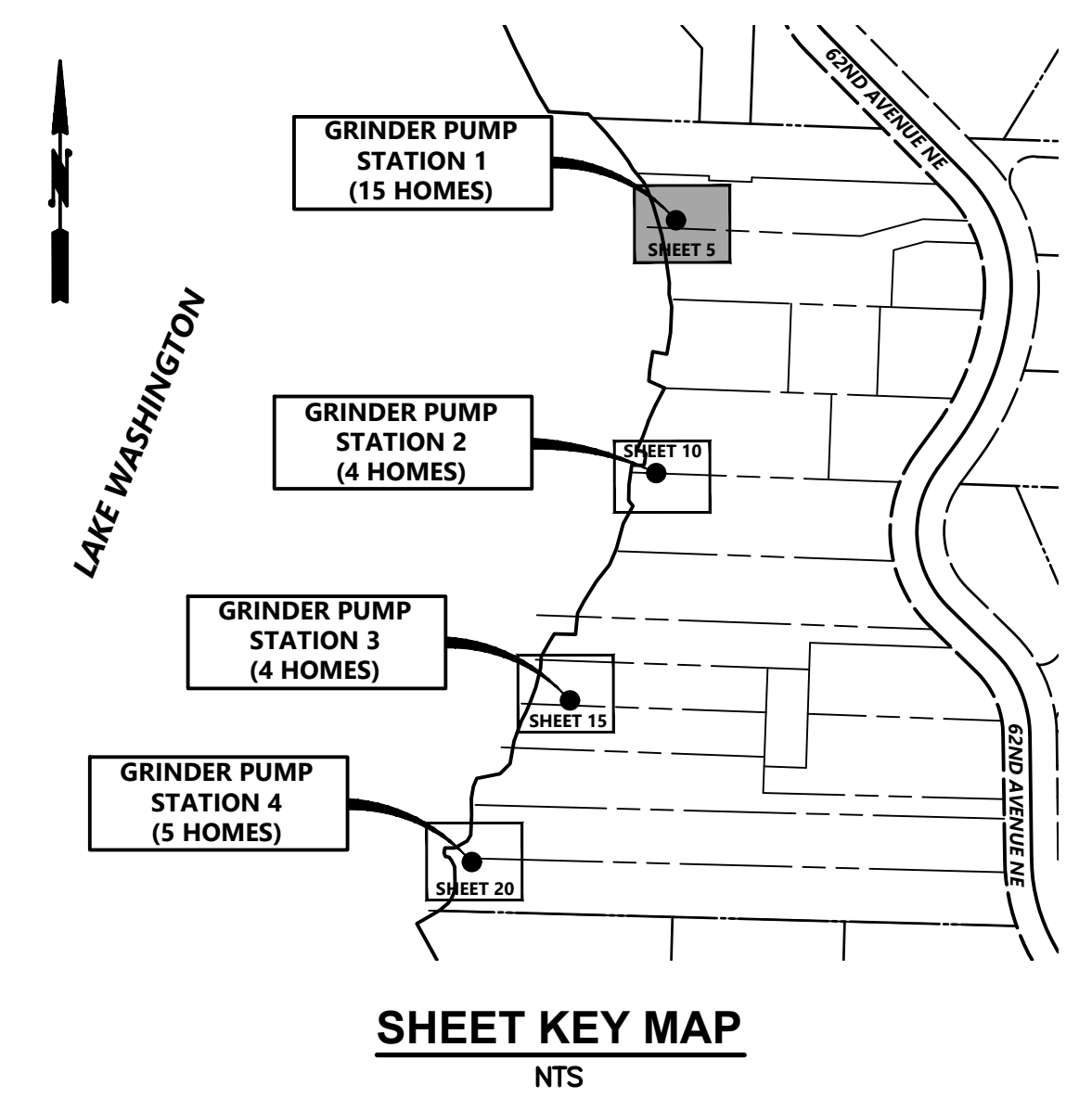
BASE MAP H4
C2003
SHEET
5 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



NOTES

1. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL POT-HOLE TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.
2. BYPASS PUMPING PLAN SHOWN IS A CONCEPTUAL REPRESENTATION OF ONE PUMPING OPTION AVAILABLE TO THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT THEIR PROPOSED BYPASS PUMPING PLAN TO THE DISTRICT FOR APPROVAL PRIOR TO STARTING CONSTRUCTION.
3. WORK ON GRINDER PUMP 1 MUST BE COMPLETE IN ITS ENTIRETY PRIOR TO DEMOBILIZATION AND MOBILIZATION TO ANOTHER GRINDER PUMP SITE.
4. PREVENT DIRT, ROCKS, AND DEBRIS FROM ENTERING ALL PIPES AND MANHOLES.
5. CONTRACTOR SHALL MONITOR ALL GRINDER PUMP STATIONS DURING ANY ELECTRICAL SHUTDOWNS TO THE MAIN CONDUCTOR FEEDING ALL OF THE STATIONS AND BYPASS SEWER FLOWS AS REQUIRED.



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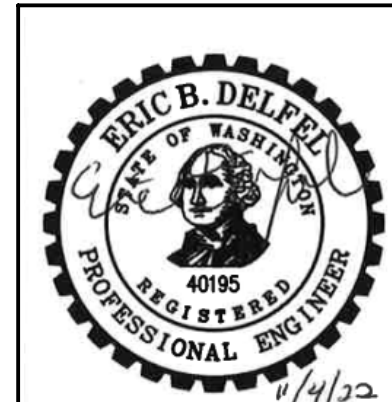
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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT

**GRINDER PUMP STATION 1
 BYPASS PUMPING PLAN**

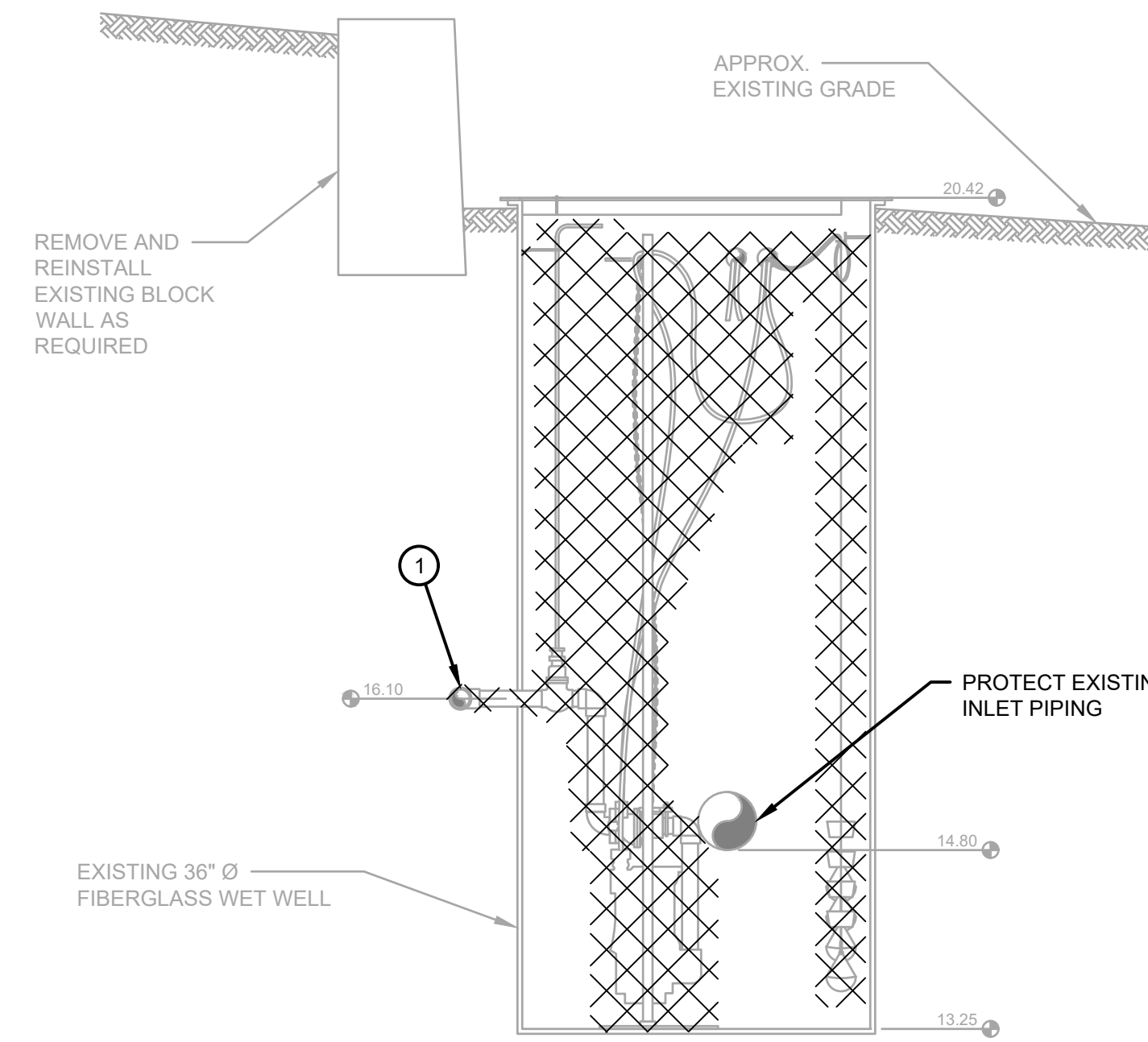
BASE MAP H4
C2003
SHEET
6 OF 30



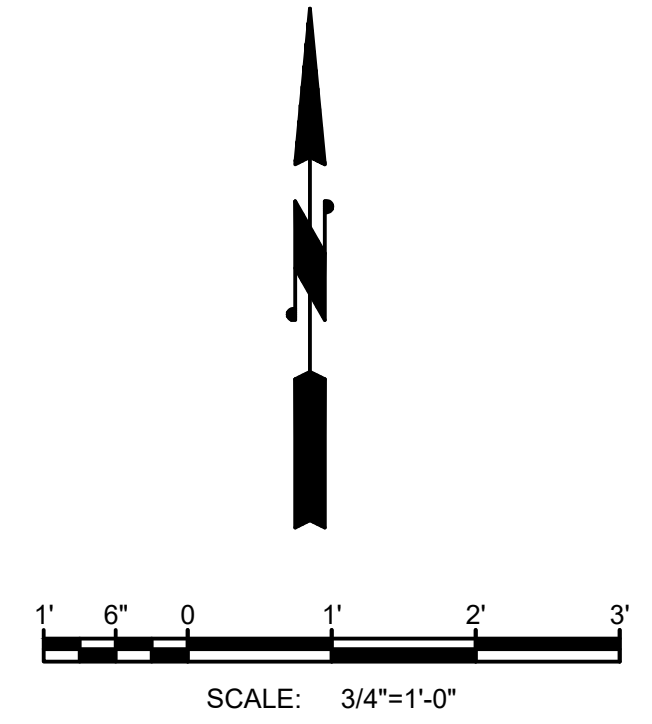
SE 1/4, SEC 23, T26N, R4E, WM



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



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



GENERAL NOTES

1. REMOVE AND WASTEHAUL PUMPS, FLOATS, SUPPORTS, RAILS, BRACKETS, CABLES, PIPING, AND FITTINGS AS REQUIRED TO INSTALL NEW FACILITIES AS SHOWN ON THE PROPOSED SITE PLAN.
2. PATCH HOLES IN WET WELL WITH FIBERGLASS FABRIC AND RESIN LAMINATE OR APPROVED EQUAL. WET WELL REPAIR SHALL RESULT IN A WATERTIGHT WET WELL.
3. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN IS APPROXIMATE. CONTRACTOR SHALL POTHOLE TO LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION.

DEMOLITION NOTES

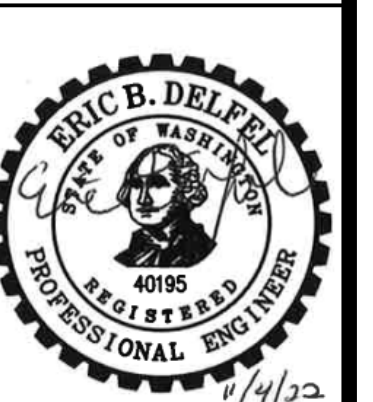
- ① DEMOLISH AND WASTEHAUL FORCE MAIN AS REQUIRED, SEE PROPOSED SITE PLAN SHEET 8.
- ② DEMOLISH AND WASTEHAUL EXISTING CONTROL PANEL, CONDUIT, AND ELECTRICAL EQUIPMENT.
- ③ REMOVE AND REINSTALL EXISTING RETAINING WALL AS REQUIRED, SEE PROPOSED SITE PLAN SHEET 8.

LEGEND

DENOTES ITEMS TO BE REMOVED AND WASTEHAULED BY THE CONTRACTOR



EXISTING WET WELL PHOTOGRAPH



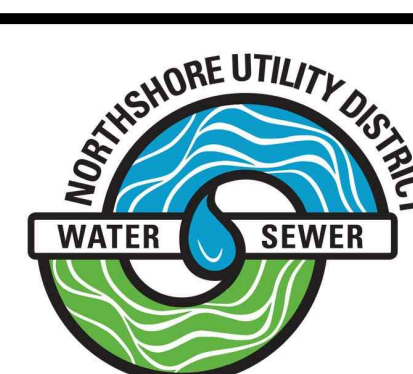
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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT
GRINDER PUMP STATION 1 DEMOLITION

BASE MAP H4
C2003
SHEET
7 OF 30

SE 1/4, SEC 23, T26N, R4E, WM

EXISTING EASEMENT

EXISTING 36" Ø FIBERGLASS WET WELL

REMOVE AND REINSTALL EXISTING WALL AS REQUIRED FOR EXCAVATION

CONTRACTOR TO VERIFY DEPTH OF FM CONNECTION

JUNCTION BOX, SEE ELECTRICAL SHEETS

ROTATE 90° BEND AS REQUIRED FOR VERTICAL DEFLECTION
CONDUIT, SEE ELECTRICAL SHEETS
3' OF CLEAR LEVEL SPACE IN FRONT OF PANEL
CEMENT CONCRETE ELECTRICAL EQUIPMENT PAD PER DETAIL 5, SHEET 4
CONTROL PANEL, SEE ELECTRICAL SHEETS

CONDUIT, SEE ELECTRICAL SHEETS

CHAINLINK FENCE

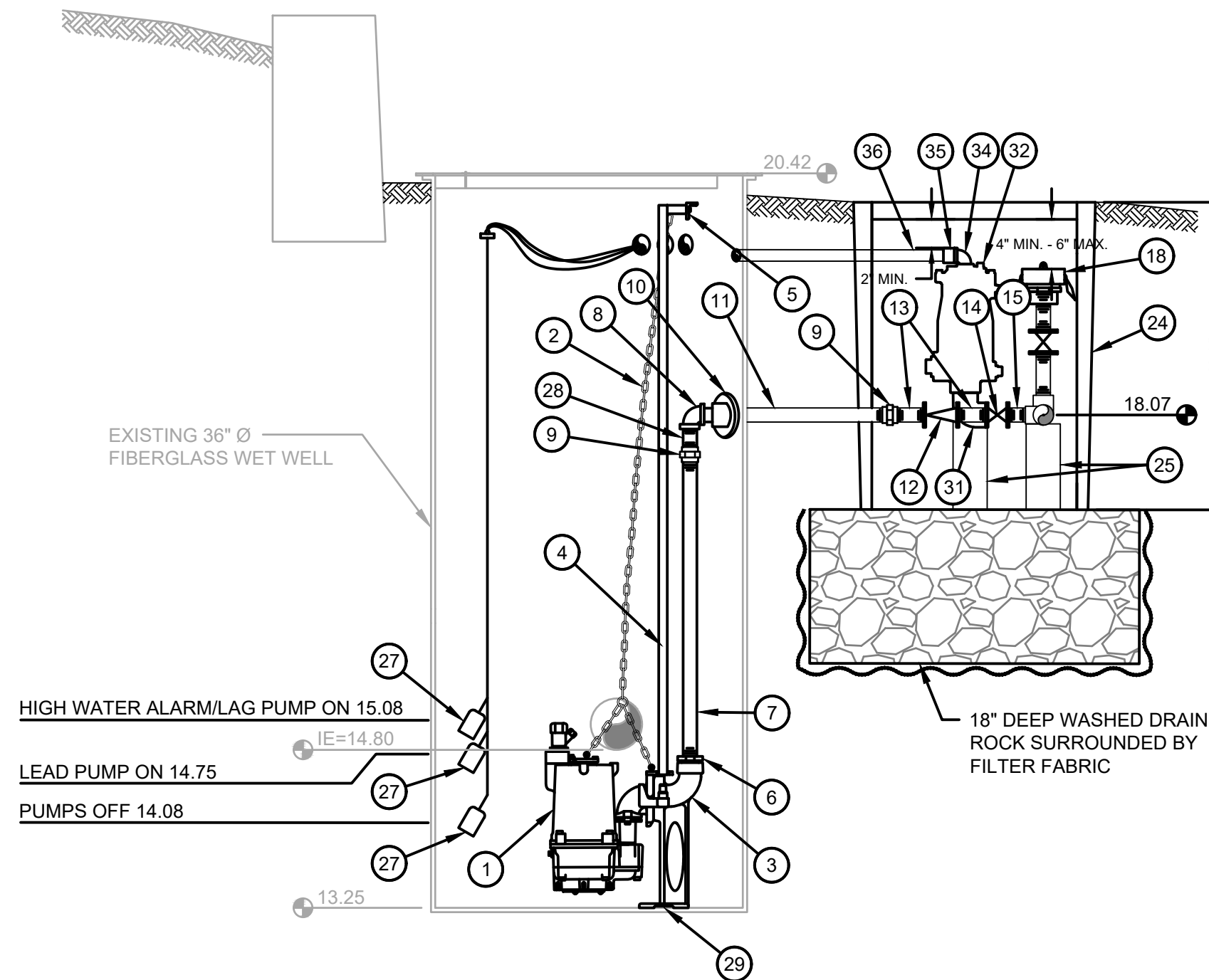
WOOD FENCE

HEDGE

HEDGE

UTILITIES EASEMENT

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



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

LEGEND:

- 1 HYDROMATIC HPGX 200 SUBMERSIBLE SEWAGE GRINDER PUMP TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 2 SS LIFTING CHAIN TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 3 1-1/4" X 2" BERS-0125 CONERY DISCHARGE ELBOW TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 4 1" SS PUMP GUIDE RAIL SYSTEM AND GUIDE BRACKET TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 5 GUIDE BRACKET SUPPORT PER DETAIL 4, SHEET 4.
- 6 2" X 1-1/4" 316 SS REDUCING BUSHING.
- 7 1-1/4" DIA. 316 SS THREADED NIPPLE (LENGTH TO FIT).
- 8 1-1/4" 316 SS 90° ELBOW (FIPT).
- 9 1-1/4" 316 SS UNION, THREADED.
- 10 1-1/4" 316 SS DISCHARGE HUB, SFC 125 BY CONERY OR APPROVED EQUAL.
- 11 1-1/4" DIA. SCH. 80 PVC THREADED NIPPLE (LENGTH TO FIT).
- 12 1-1/4" BRONZE SWING CHECK VALVE.
- 13 1-1/4" DIA. SCH. 80 PVC THREADED 3" NIPPLE.
- 14 1-1/4" BRONZE BALL VALVE, FIPT X FIPT WITH LEVER.
- 15 1-1/4" DIA. SCH. 80 PVC THREADED 2" NIPPLE.
- 16 1-1/4" 90° BEND, SCH. 80 PVC THREADED.
- 17 1-1/4" DIA. SCH. 80 PVC THREADED NIPPLE (LENGTH TO FIT).
- 18 BYPASS-PUMPING CONNECTION PER DETAIL 2, SHEET 4.
- 19 1-1/4" TEE, SCH. 80 PVC THREADED.
- 20 1-1/4" DIA. SCH. 80 PVC CLOSE NIPPLE, THREADED.
- 21 1-1/4" DIA. SCH. 80 PVC PIPE, THREADED X PLAIN END (LENGTH TO FIT).
- 22 1-1/4" 90° BEND, SCH. 80 PVC SOCKET WELDED.
- 23 1-1/2" X 1-1/4" REDUCER, SCH. 80 PVC SOCKET WELDED.
- 24 24" X 36" VALVE BOX, DURALITE 2436 BY OLDCASTLE WITH PENTA HEAD BOLT DOWN SOLID T-COVER, OR APPROVED EQUAL.
- 25 CONCRETE BLOCK FOR PIPE SUPPORT AS REQUIRED (TYP).
- 26 1-1/2" CAP, SCH. 80 PVC SOCKET WELDED.
- 27 FLOAT LEVEL SWITCH TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL FURNISH AND INSTALL 316 SS FLOAT SUPPORT T-TYPE BRACKET, 4FB BY CONERY WITH G1 CORD GRIPS OR APPROVED EQUAL.
- 28 1-1/4" DIA. 316 SS THREADED 2" NIPPLE.
- 29 CONTRACTOR SHALL PROVIDE MIN. 1/4" THICK 316 SS PLATE TO MOUNT BASE ELBOW TO. CONTRACTOR SHALL FIELD LOCATE HOLE FOR NEW BASE PLATE, CUT HOLE TO FIT TIGHT OVER NUT OF EXISTING ANCHOR BOLT, AND WELD EXISTING NUT TO NEW BASEPLATE.
- 30 2" BRONZE BALL VALVE, FIPT X FIPT.
- 31 2" STREET ELBOW, MIPT X FIPT SCH. 80 PVC THREADED.
- 32 1" AIR VAC, VAL-MATIC VMC - 301A OR APPROVED EQUAL.
- 33 2" BRONZE BALL VALVE MIPT X FIPT WITH LEVER INSTALLED IN AIR/VAC CLEANOUT PORT AND PLUGGED WITH A 2" THREADED PLUG.
- 34 1" SCH. 80 PVC STREET ELBOW, MIPT X FIPT.
- 35 1" SCH. 80 PVC ADAPTER MIPT X SOCKET.
- 36 1" DIA. SCH. 80 PVC PIPE (LENGTH TO FIT), ROUTE DISCHARGE PIPING INTO FIBERGLASS WET WELL WITH WATER-TIGHT PENETRATION.
- 37 1-1/4" DIA. SCH. 80 PVC CLOSE NIPPLE.
- 38 2" X 1-1/4" SCH. 80 PVC REDUCING BUSHING.
- 39 2" DIA. SCH. 80 PVC THREADED 2" NIPPLE.
- 40 INSTALL NEW CLEANOUT ON EXISTING INLET PIPING PER DETAIL 9 SHEET, 4.



GENERAL NOTES:

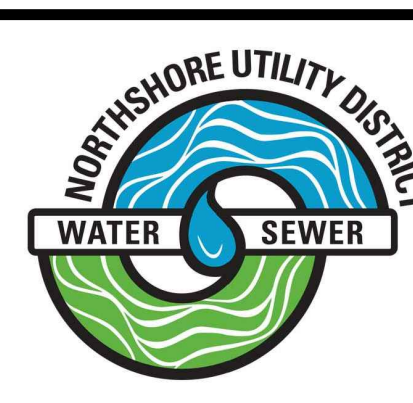
1. PRIOR TO INSTALLATION OF NEW EQUIPMENT, THOROUGHLY CLEAN AND PREP EXISTING FIBERGLASS WET WELL.
2. PRIOR TO INSTALLATION OF NEW EQUIPMENT, REPAIR EXISTING PENETRATIONS TO THE FIBERGLASS WET WELL AS DESCRIBED ON THE DEMOLITION SHEET.
3. ALL STEEL HARDWARE AND ACCESSORIES SHALL BE 316 STAINLESS STEEL U.N.O.
4. NEW ELECTRICAL CONDUIT SHOWN FOR CLARITY ONLY. FOR SIZE AND MATERIAL SEE ELECTRICAL SHEETS. CONDUIT PENETRATIONS TO EXISTING FIBERGLASS WET WELL SHALL BE MADE WITH PFC 200 NYLON COUPLINGS BY CONERY OR APPROVED EQUAL.
5. EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
6. ALL PENETRATIONS TO THE EXISTING WET WELL SHALL BE WATER TIGHT.
7. EACH GRINDER PUMP STATION SITE IS WITHIN AN EXISTING EASEMENT ON PRIVATE LAKEFRONT PROPERTY WITH LIMITED ACCESSIBILITY FOR LARGE EQUIPMENT AND MOTOR VEHICLES. THE MEANS AND METHODS FOR MOBILIZATION OF MATERIALS AND EQUIPMENT TO EACH SITE SHALL BE AT THE OPTION OF THE CONTRACTOR. HAND DIGGING AND/OR BARGING IN EQUIPMENT MAY BE NECESSARY FOR COMPLETION OF THE WORK SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS.

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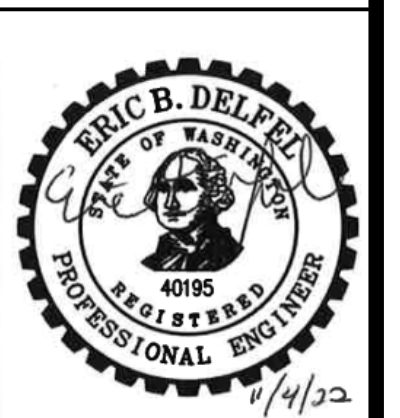


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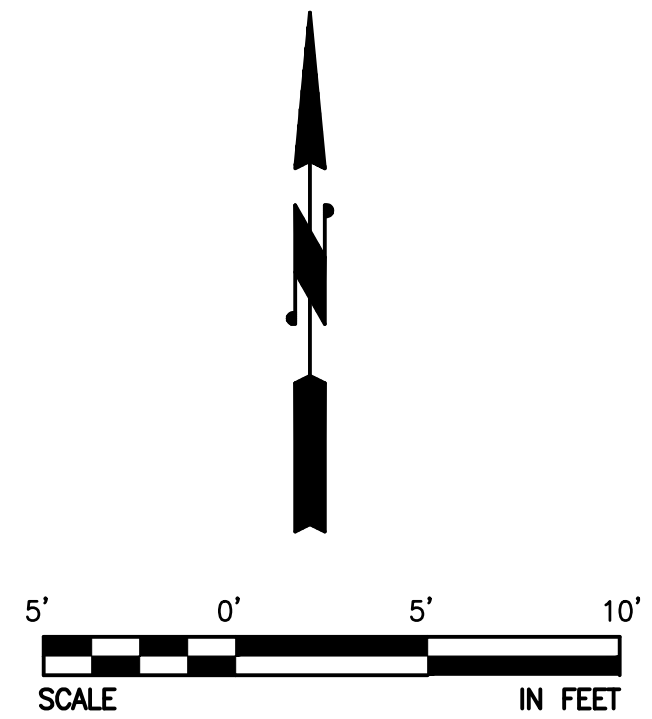
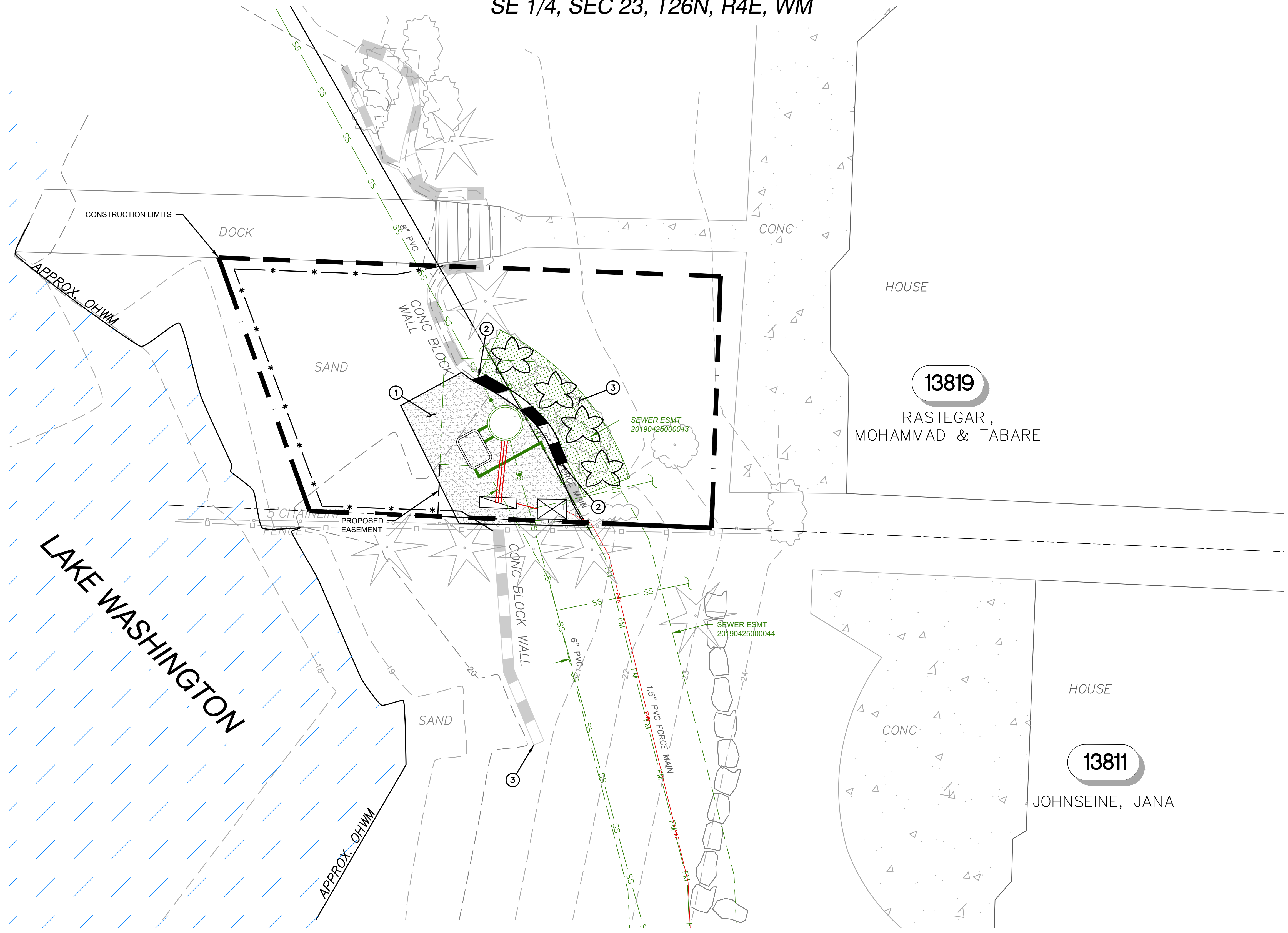
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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT
PROPOSED GRINDER PUMP STATION 1



BASE MAP H4
C2003
SHEET
8 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



LEGEND

- SAND RESTORATION
- RIVER ROCK REPAIR
- LANDSCAPE RESTORATION

GENERAL NOTES

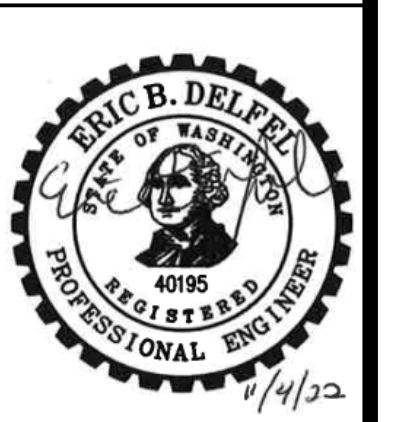
1. SEE SPECIFICATIONS FOR WORK AND PAYMENT INCLUDED IN GENERAL RESTORATION.
2. GRASS AREAS THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE RESTORED WITH 4" OF TOPSOIL AND SOD PER THE SPECIFICATIONS.
3. PROTECT/RESTORE ALL LANDSCAPING AND SURFACE FEATURES TO EXISTING CONDITION OR BETTER.
4. GRADE SITE TO UNIFORM SLOPE AROUND NEW UTILITY BOXES. PROVIDE 30" OF CLEAR LEVEL SPACE IN FRONT OF NEW CONTROL PANNEL(S).
5. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

RESTORATION NOTES

- ① RESTORE BEACH SAND TO EXISTING CONDITION. ANY IMPORTED SAND SHALL MATCH THE COLOR AND GRADATION OF THE EXISTING SAND.
- ② RESTORE WALL TO EXISTING CONDITION.
- ③ RESTORE EXISTING LANDSCAPING, TOPSOIL, AND SOD AS APPLICABLE TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.
- ④ RELOCATE EXISTING ROCKERY AS SHOWN TO ACCOMMODATE NEW FACILITIES.
- ⑤ INSTALL RIVER ROCK TO 3" DEPTH. ANY IMPORTED MATERIAL SHALL MATCH THE EXISTING RIVER ROCK.
- ⑥ INSTALL ROOT BARRIER BETWEEN NEW PLANTS AND ALL UTILITIES AS SHOWN AND AS DIRECTED BY THE CONTRACTING AGENCY. ROOT BARRIERS SHALL BE "DEEP ROOT" MODEL NO. UB 36-2 OR APPROVED EQUAL.

PLANT SCHEDULE

PLANT SYMBOL	COMMON NAME/ BOTANICAL NAME	MINIMUM SIZE	NO. OF PLANTS
	RHODODENDRON / RHODODENDRON MACROPHYLLUM	5 GAL	4



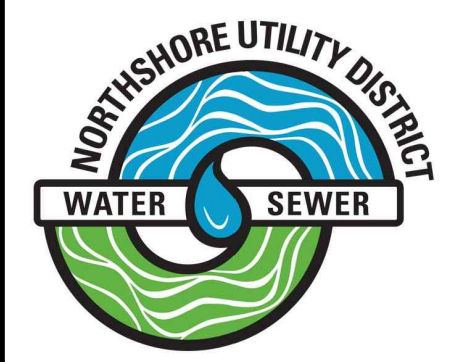
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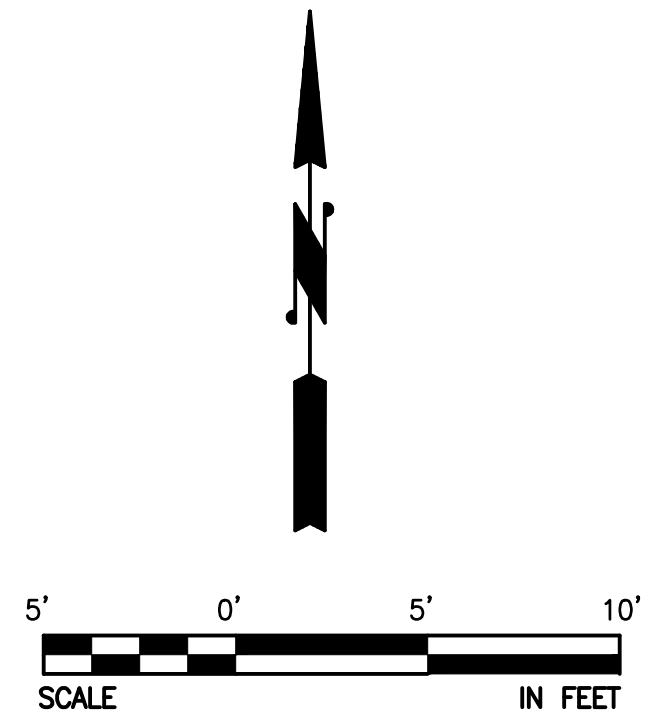


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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT
**GRINDER PUMP STATION 1
 RESTORATION PLAN**

BASE MAP H4
 C2003
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 9 OF 30

SE 1/4, SEC 23, T26N, R4E, WM

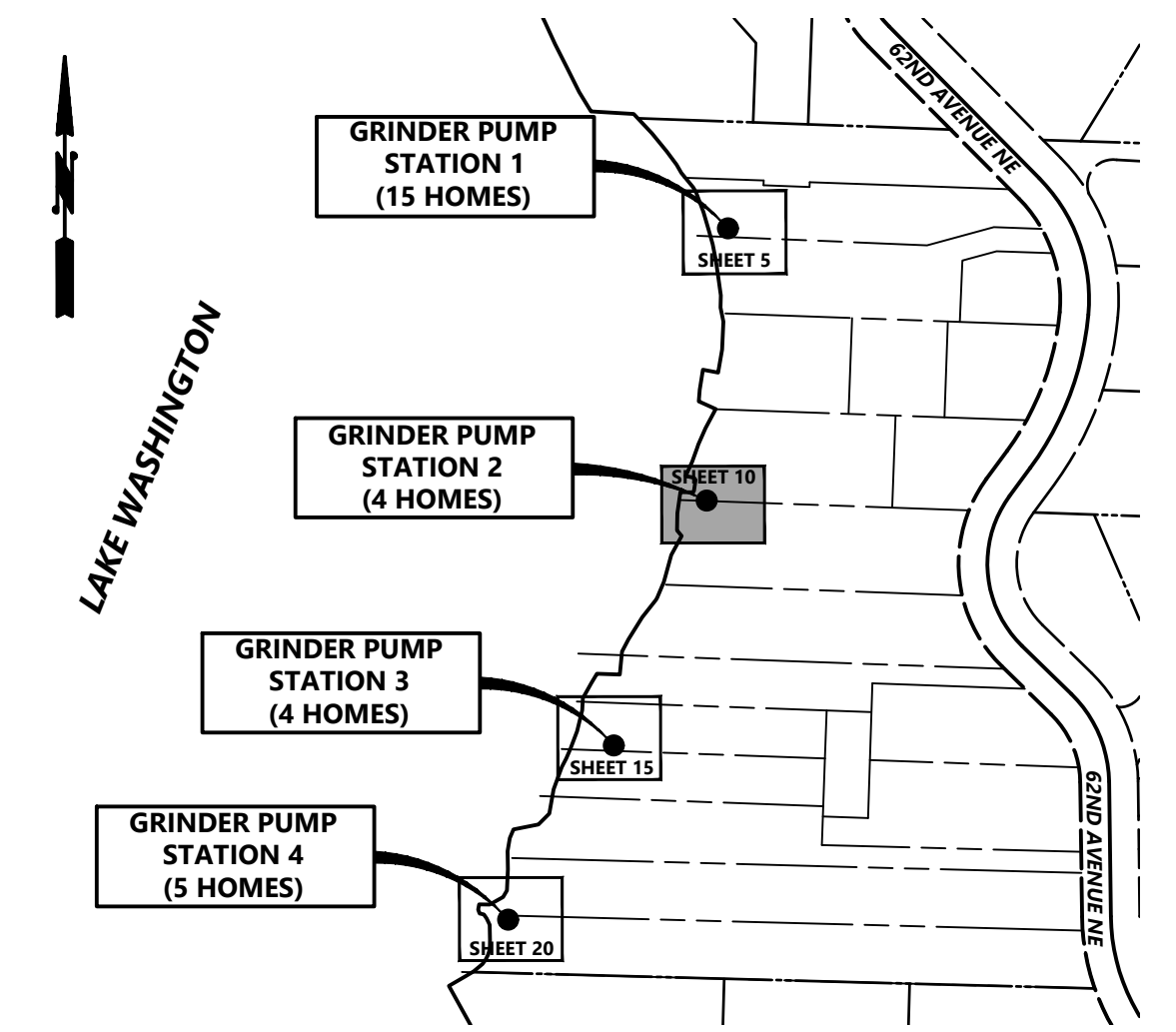


- NOTES**
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 3. INSTALL TESC FACILITIES PER SHEET 3.
 4. SEE EROSION CONTROL NOTES SHEET 3.
 5. PROTECT ALL TREES AND HEDGES, UNLESS OTHERWISE NOTED ON PLANS.
 6. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

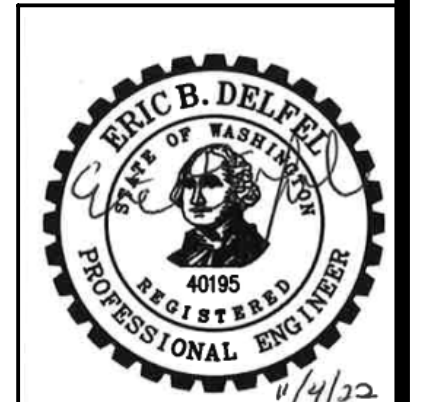
- CONSTRUCTION NOTES**
- 1 INSTALL FILTER FABRIC FENCE PER DETAIL, SHEET 3.
 - 2 PROTECT EXISTING FENCE.
 - 3 PROTECT EXISTING WALL/ROCKERY.
 - 4 PROTECT EXISTING TREE/SHRUB.
 - 5 REMOVE EXISTING TREE/SHRUB.
 - 6 REMOVE EXISTING ROCKERY.



GRINDER PUMP STATION 2 EXISTING SITE PHOTOGRAPH



SHEET KEY MAP
NTS

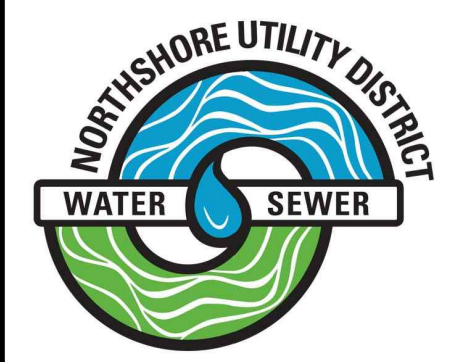


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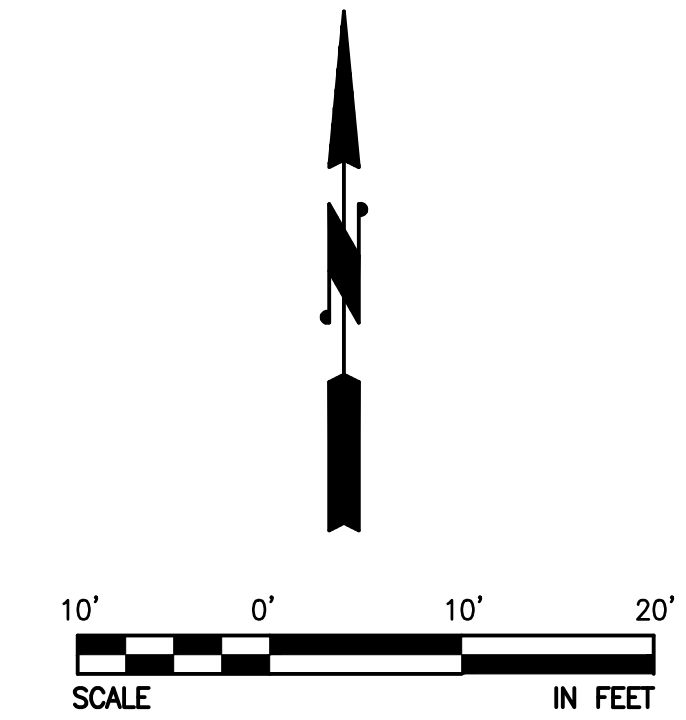
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GRINDER PUMP STATIONS 1-4 REPLACEMENT

GRINDER PUMP STATION 2 EXISTING SITE & TESC PLAN

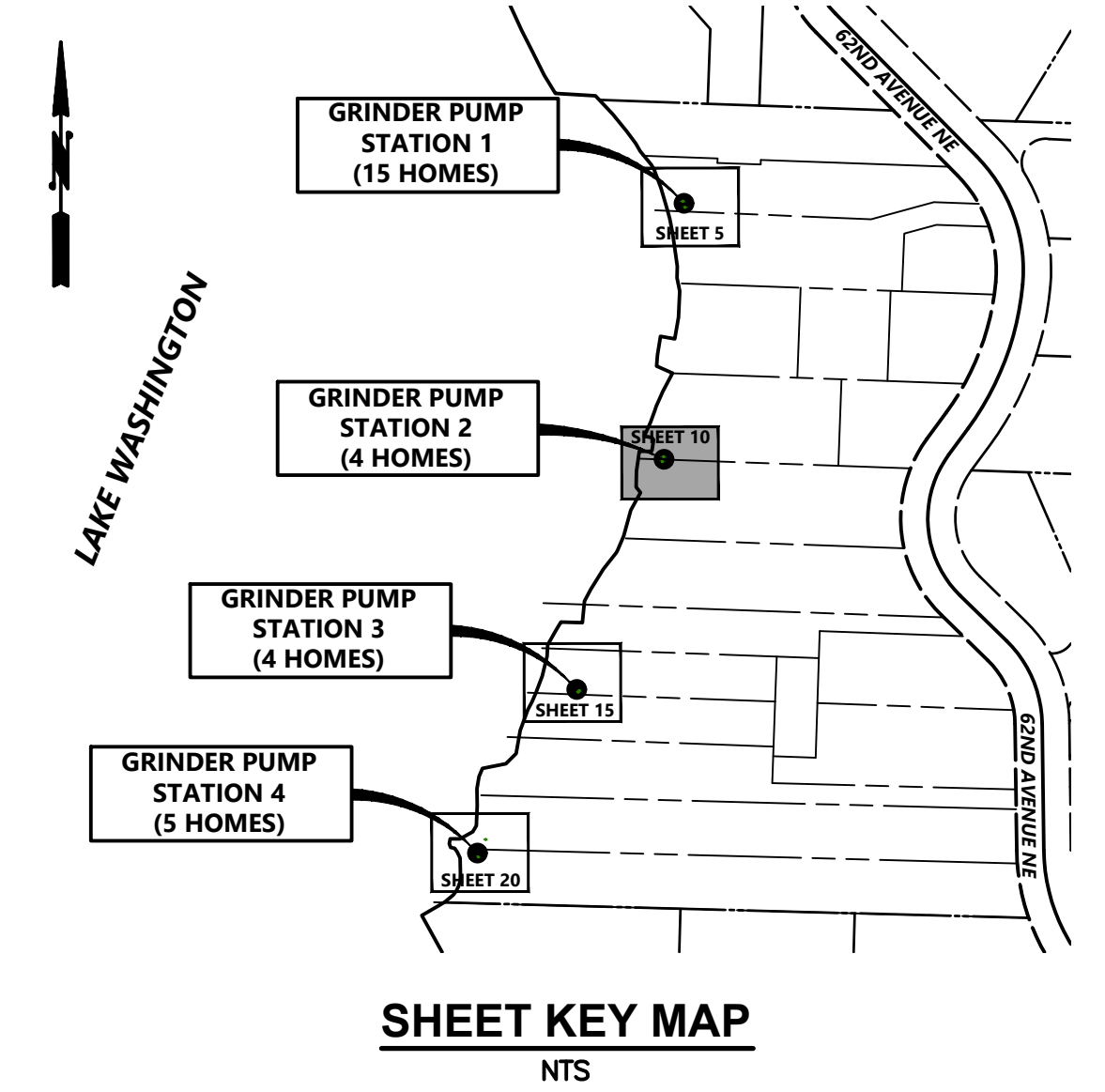
BASE MAP H4
C2003
SHEET
10 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



NOTES

1. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL POT-HOLE TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.
2. BYPASS PUMPING PLAN SHOWN IS A CONCEPTUAL REPRESENTATION OF ONE PUMPING OPTION AVAILABLE TO THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT THEIR PROPOSED BYPASS PUMPING PLAN TO THE DISTRICT FOR APPROVAL PRIOR TO STARTING CONSTRUCTION.
3. WORK ON GRINDER PUMP 2 MUST BE COMPLETE IN ITS ENTIRETY PRIOR TO DEMOBILIZATION AND MOBILIZATION TO ANOTHER GRINDER PUMP SITE.
4. PREVENT DIRT, ROCKS, AND DEBRIS FROM ENTERING ALL PIPES AND MANHOLES.
5. CONTRACTOR SHALL MONITOR ALL GRINDER PUMP STATIONS DURING ANY ELECTRICAL SHUTDOWNS TO THE MAIN CONDUCTOR FEEDING ALL OF THE STATIONS AND BYPASS SEWER FLOWS AS REQUIRED.



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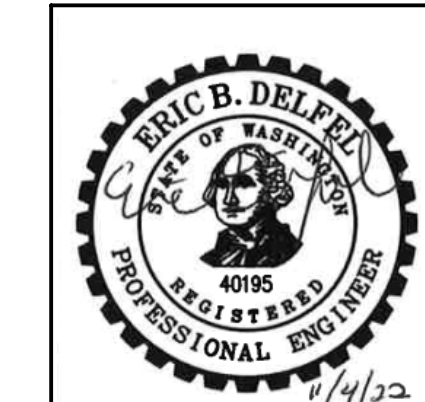
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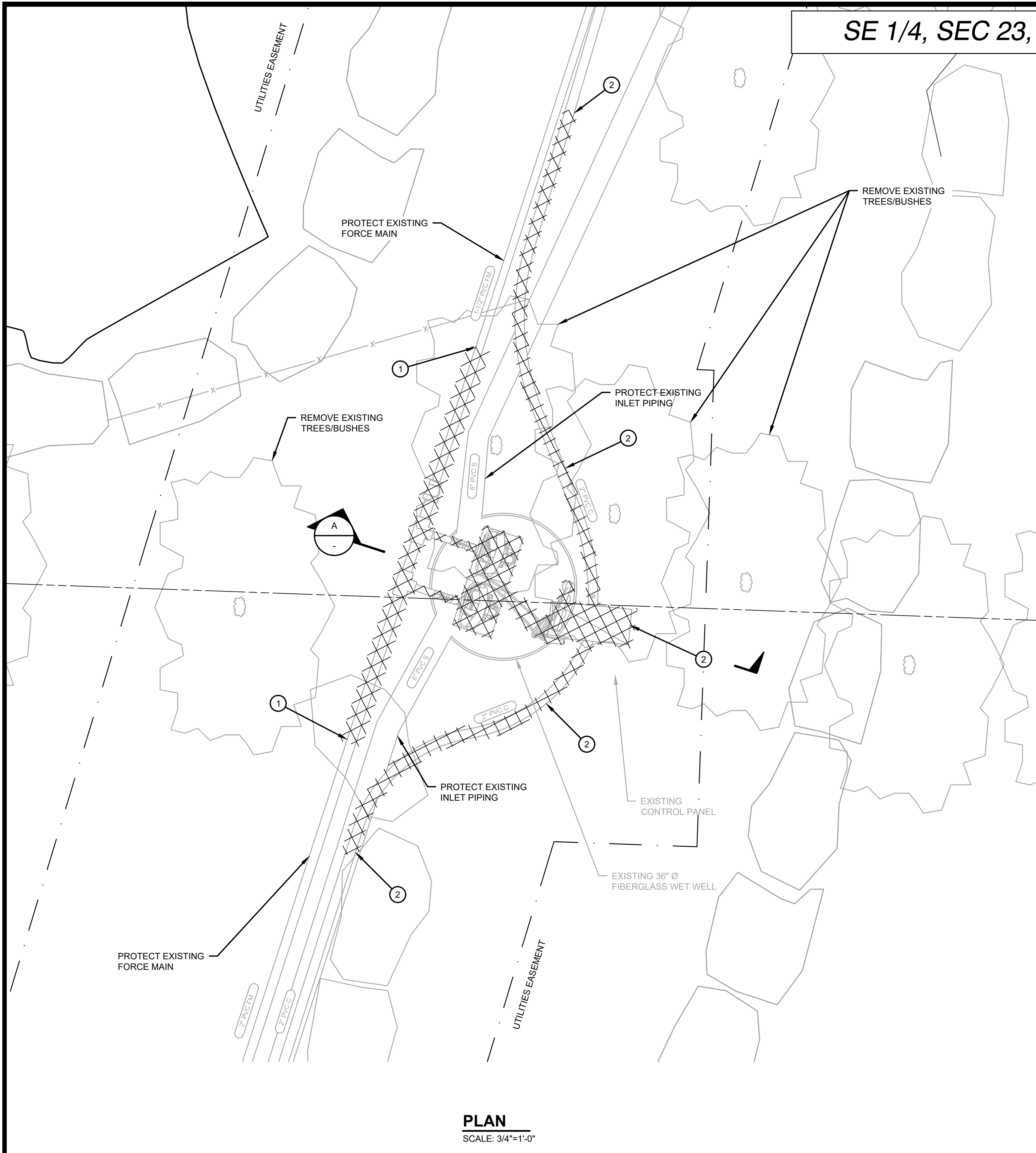
CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT

**GRINDER PUMP STATION 2
 BYPASS PUMPING PLAN**

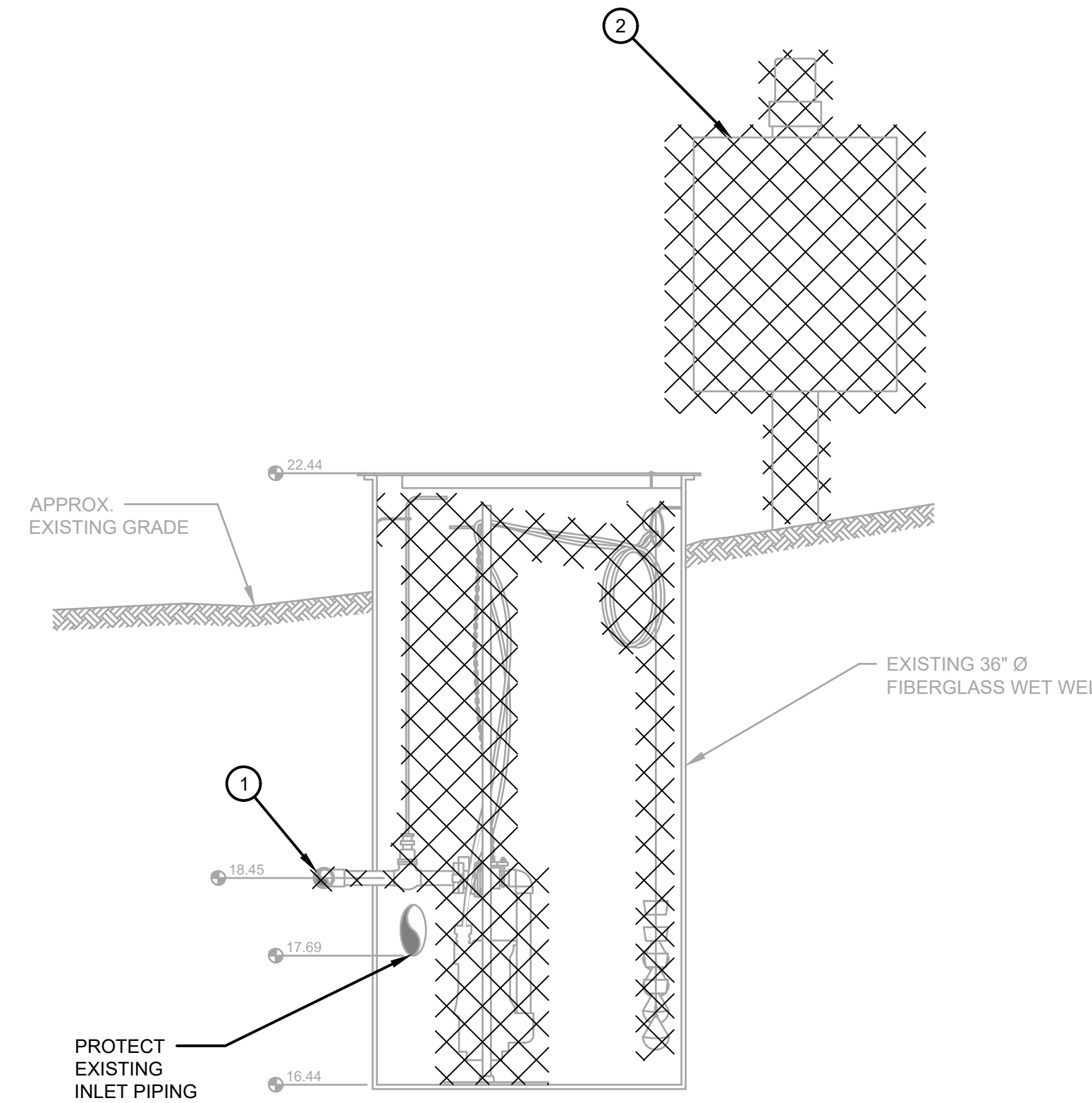


BASE MAP H4
C2003
SHEET
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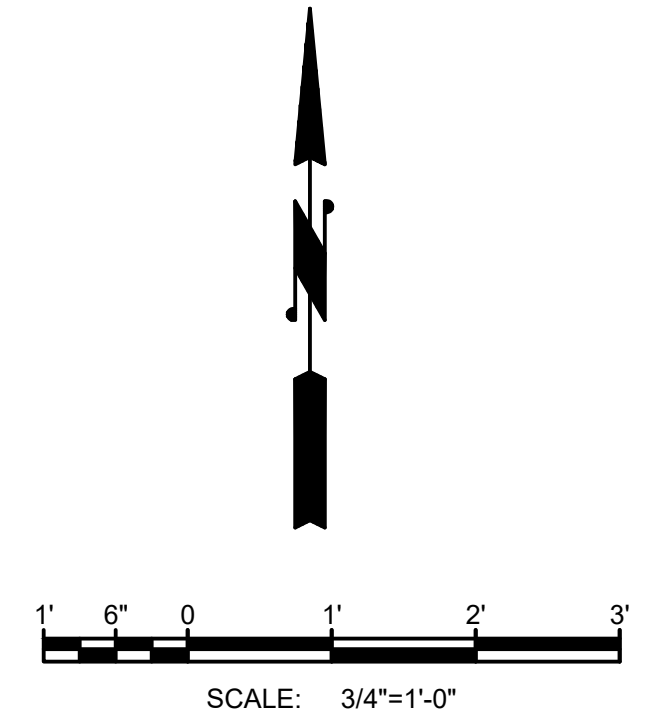
SE 1/4, SEC 23, T26N, R4E, WM



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



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



GENERAL NOTES

1. REMOVE AND WASTEHAUL PUMPS, FLOATS, SUPPORTS, RAILS, BRACKETS, CABLES, PIPING, AND FITTINGS AS REQUIRED TO INSTALL NEW FACILITIES AS SHOWN ON THE PROPOSED SITE PLAN.
2. PATCH HOLES IN WET WELL WITH FIBERGLASS FABRIC AND RESIN LAMINATE OR APPROVED EQUAL. WET WELL REPAIR SHALL RESULT IN A WATERTIGHT WET WELL.
3. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN IS APPROXIMATE. CONTRACTOR SHALL POTHOLE TO LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION.

DEMOLITION NOTES

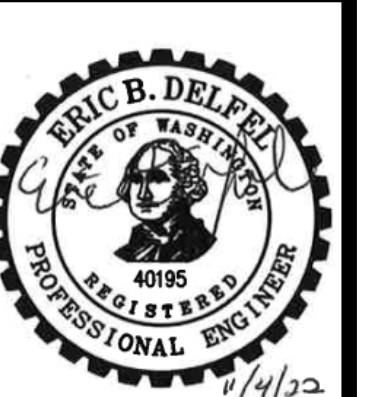
- 1 DEMOLISH AND WASTEHAUL FORCE MAIN AS REQUIRED. SEE PROPOSED SITE PLAN SHEET 13.
- 2 DEMOLISH AND WASTEHAUL EXISTING CONTROL PANEL, CONDUIT, AND ELECTRICAL EQUIPMENT.

LEGEND

DENOTES ITEMS TO BE REMOVED AND WASTEHAULED BY THE CONTRACTOR



EXISTING WET WELL PHOTOGRAPH



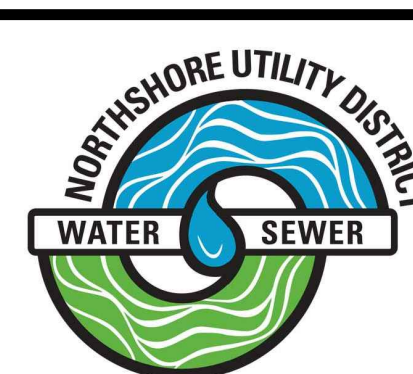
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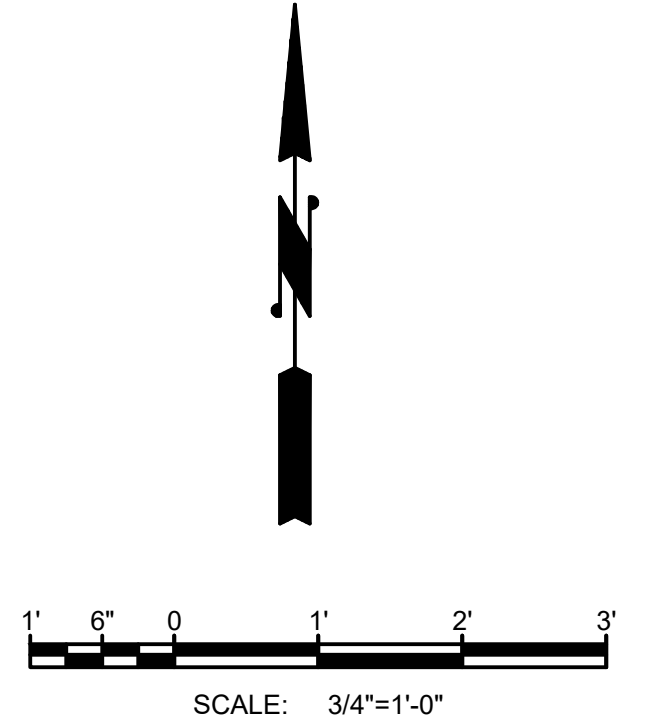


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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT
GRINDER PUMP STATION 2 DEMOLITION

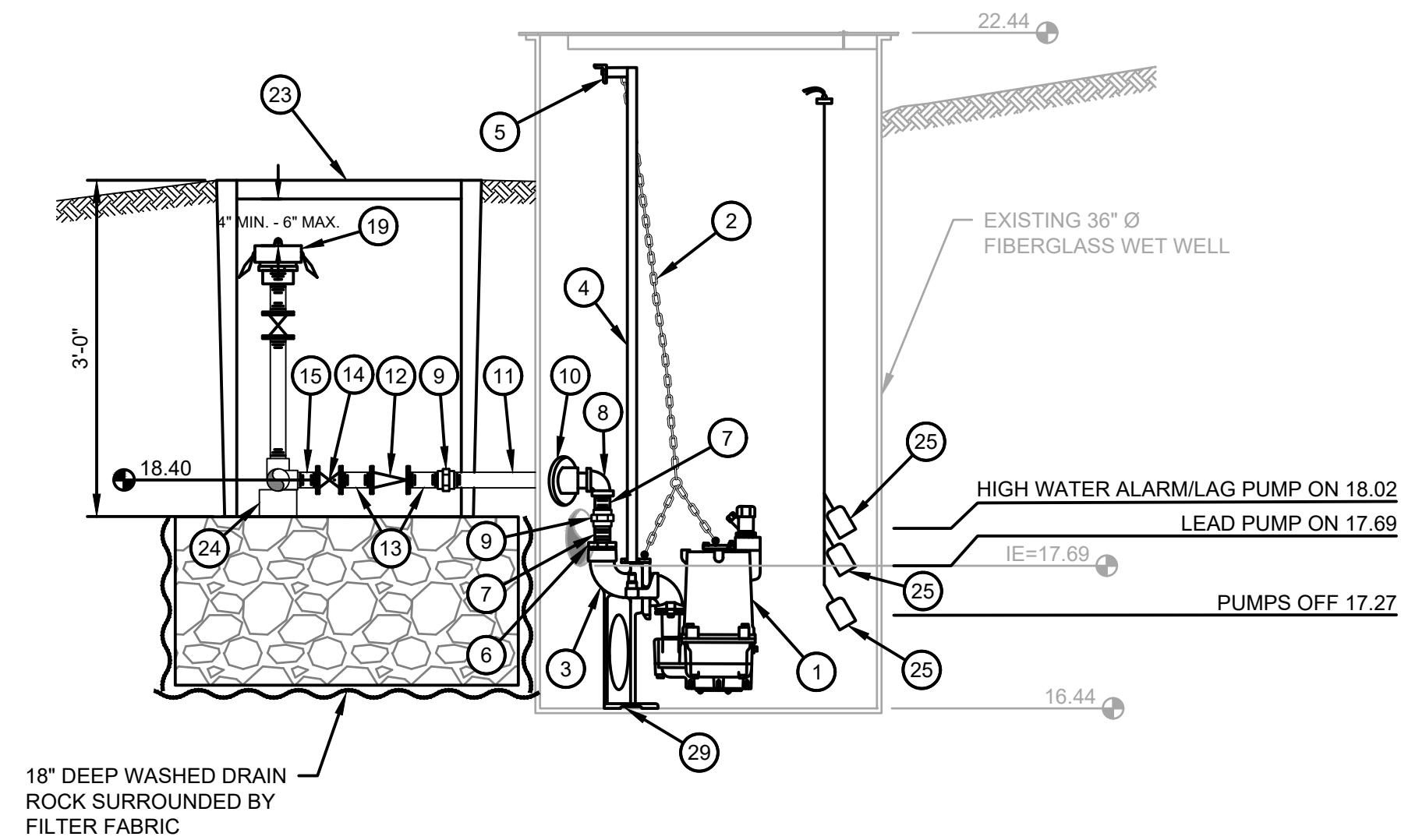
BASE MAP H4
 C2003
 SHEET
 12 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



GENERAL NOTES:

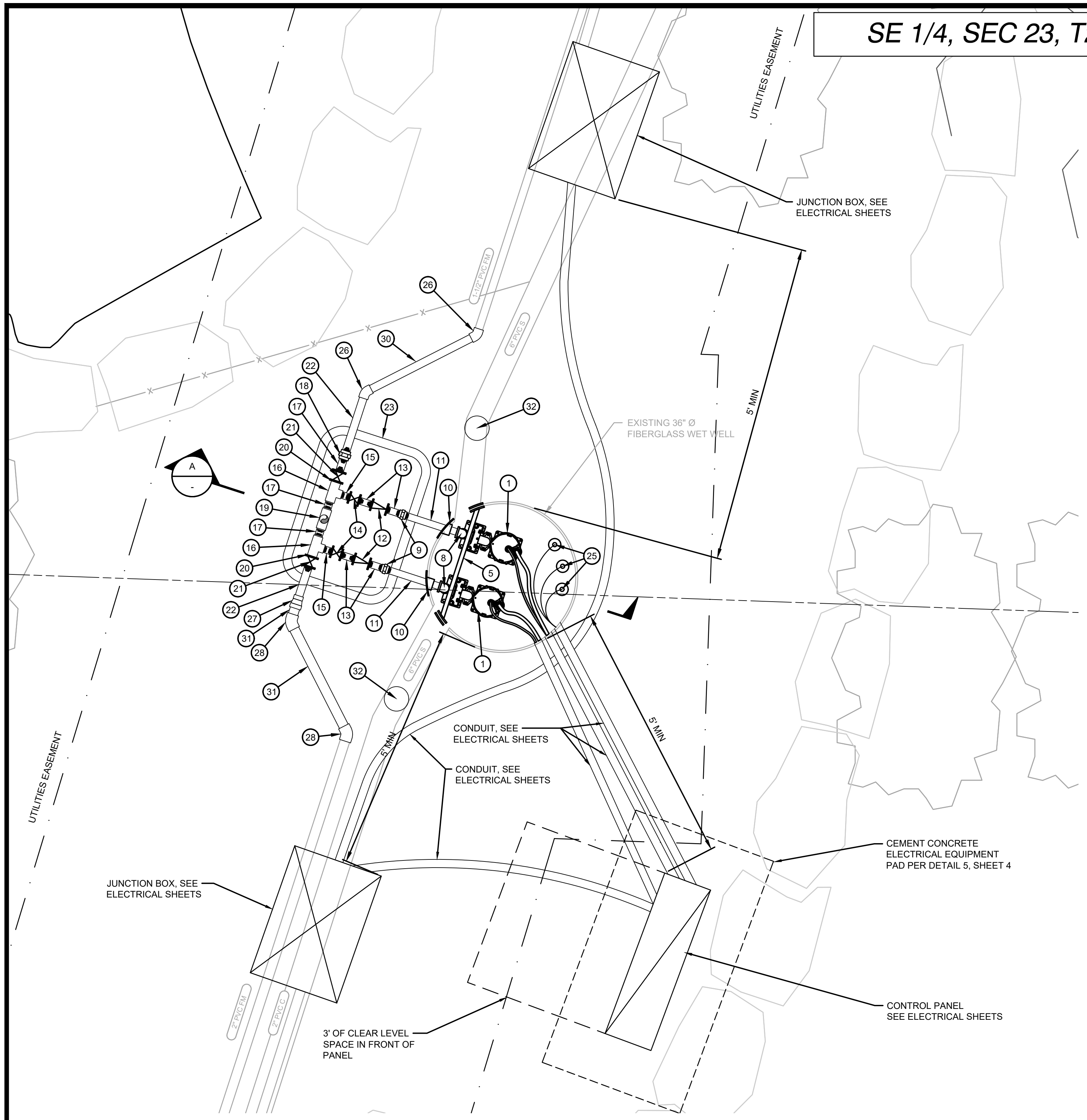
1. PRIOR TO INSTALLATION OF NEW EQUIPMENT, THOROUGHLY CLEAN AND PREP EXISTING FIBERGLASS WET WELL.
2. PRIOR TO INSTALLATION OF NEW EQUIPMENT, REPAIR EXISTING PENETRATIONS TO THE FIBERGLASS WET WELL AS DESCRIBED ON THE DEMOLITION SHEET.
3. ALL STEEL HARDWARE AND ACCESSORIES SHALL BE 316 STAINLESS STEEL U.N.O.
4. NEW ELECTRICAL CONDUIT SHOWN FOR CLARITY ONLY. FOR SIZE AND MATERIAL SEE ELECTRICAL SHEETS. CONDUIT PENETRATIONS TO EXISTING FIBERGLASS WET WELL SHALL BE MADE WITH PFC 200 NYLON COUPLINGS BY CONERY OR APPROVED EQUAL.
5. EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
6. ALL PENETRATIONS TO THE EXISTING WET WELL SHALL BE WATER TIGHT.
7. EACH GRINDER PUMP STATION SITE IS WITHIN AN EXISTING EASEMENT ON PRIVATE LAKEFRONT PROPERTY WITH LIMITED ACCESSIBILITY FOR LARGE EQUIPMENT AND MOTOR VEHICLES. THE MEANS AND METHODS FOR MOBILIZATION OF MATERIALS AND EQUIPMENT TO EACH SITE SHALL BE AT THE OPTION OF THE CONTRACTOR. HAND DIGGING AND/OR BARGING IN EQUIPMENT MAY BE NECESSARY FOR COMPLETION OF THE WORK SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS.



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

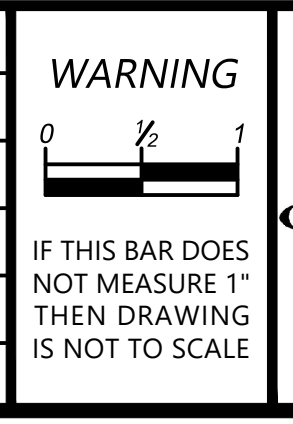
LEGEND:

- | | |
|--|---|
| 1 HYDROMATIC HPGX 200 SUBMERSIBLE SEWAGE GRINDER PUMP TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. | 18 1-1/2" 316 SS UNION, THREADED. |
| 2 SS LIFTING CHAIN TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. | 19 BYPASS-PUMPING CONNECTION PER DETAIL 2, SHEET 4. |
| 3 1-1/4" X 2" BERS-0125 CONERY DISCHARGE ELBOW TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. | 20 1-1/2" DIA. SCH. 80 PVC CLOSE NIPPLE, THREADED. |
| 4 1" SS PUMP GUIDE RAIL SYSTEM AND GUIDE BRACKET TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. | 21 1-1/2" BRONZE BALL VALVE, FIPT X FIPT WITH LEVER. |
| 5 GUIDE BRACKET SUPPORT PER DETAIL 4, SHEET 4. | 22 1-1/2" DIA. SCH. 80 PVC PIPE, THREADED X PLAIN END (LENGTH TO FIT). |
| 6 2" X 1-1/4" 316 SS REDUCING BUSHING. | 23 24" X 36" VALVE BOX, DURALITE 2436 BY OLDCASTLE WITH PENTA HEAD BOLT DOWN SOLID T-COVER, OR APPROVED EQUAL. |
| 7 1-1/4" DIA. 316 SS THREADED NIPPLE (LENGTH TO FIT). | 24 CONCRETE BLOCK FOR PIPE SUPPORT AS REQUIRED (TYP). |
| 8 1-1/4" 316 SS 90° ELBOW (FIPT). | 25 FLOAT LEVEL SWITCH TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL FURNISH AND INSTALL 316 SS FLOAT SUPPORT T-TYPE BRACKET, 4FB BY CONERY WITH G1 CORD GRIPS OR APPROVED EQUAL. |
| 9 1-1/4" 316 SS UNION, THREADED. | 26 1-1/2" 45° BEND, SCH. 80 PVC SOCKET WELDED. |
| 10 1-1/4" 316 SS DISCHARGE HUB, SFC 125 BY CONERY OR APPROVED EQUAL. | 27 2" X 1-1/2" REDUCER, SCH. 80 PVC SOCKET WELDED. |
| 11 1-1/4" DIA. SCH. 80 PVC THREADED NIPPLE (LENGTH TO FIT). | 28 2" 45° BEND, SCH. 80 PVC SOCKET WELDED. |
| 12 1-1/4 BRONZE SWING CHECK VALVE. | 29 CONTRACTOR SHALL PROVIDE MIN. 1/4" THICK 316 SS PLATE TO MOUNT BASE ELBOW TO. CONTRACTOR SHALL FIELD LOCATE HOLE FOR NEW BASE PLATE, CUT HOLE TO FIT TIGHT OVER NUT OF EXISTING ANCHOR BOLT, AND WELD EXISTING NUT TO NEW BASEPLATE. |
| 13 1-1/4" DIA. SCH. 80 PVC THREADED 3" NIPPLE. | 30 1-1/2" DIA. SCH. 80 PVC PIPE (LENGTH TO FIT) |
| 14 1-1/4" BRONZE BALL VALVE, FIPT X FIPT WITH LEVER. | 31 2" DIA. SCH. 80 PVC PIPE (LENGTH TO FIT) |
| 15 1-1/4" DIA. SCH. 80 PVC THREADED 2" NIPPLE. | 32 INSTALL NEW CLEANOUT ON EXISTING INLET PIPING PER DETAIL 9 SHEET, 4. |
| 16 1-1/2" X 1-1/4" TEE, SCH 80 PVC THREADED. | |
| 17 1-1/2" DIA. SCH. 80 PVC THREADED NIPPLE (LENGTH TO FIT). | |



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

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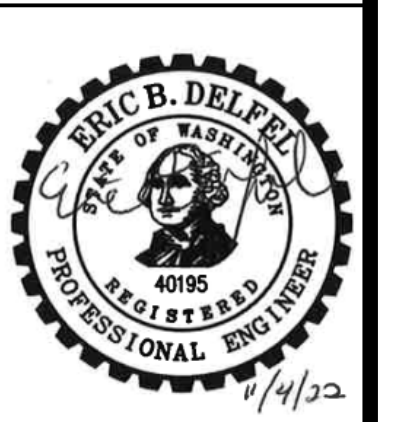
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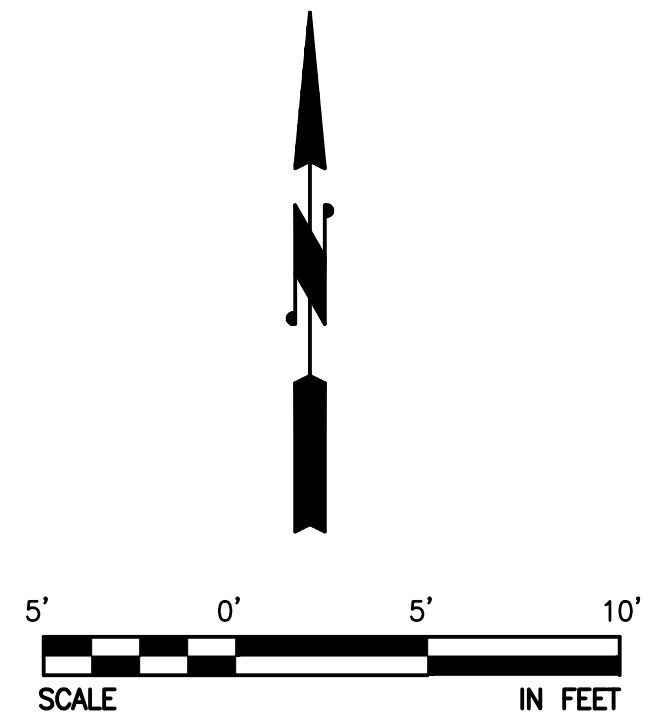
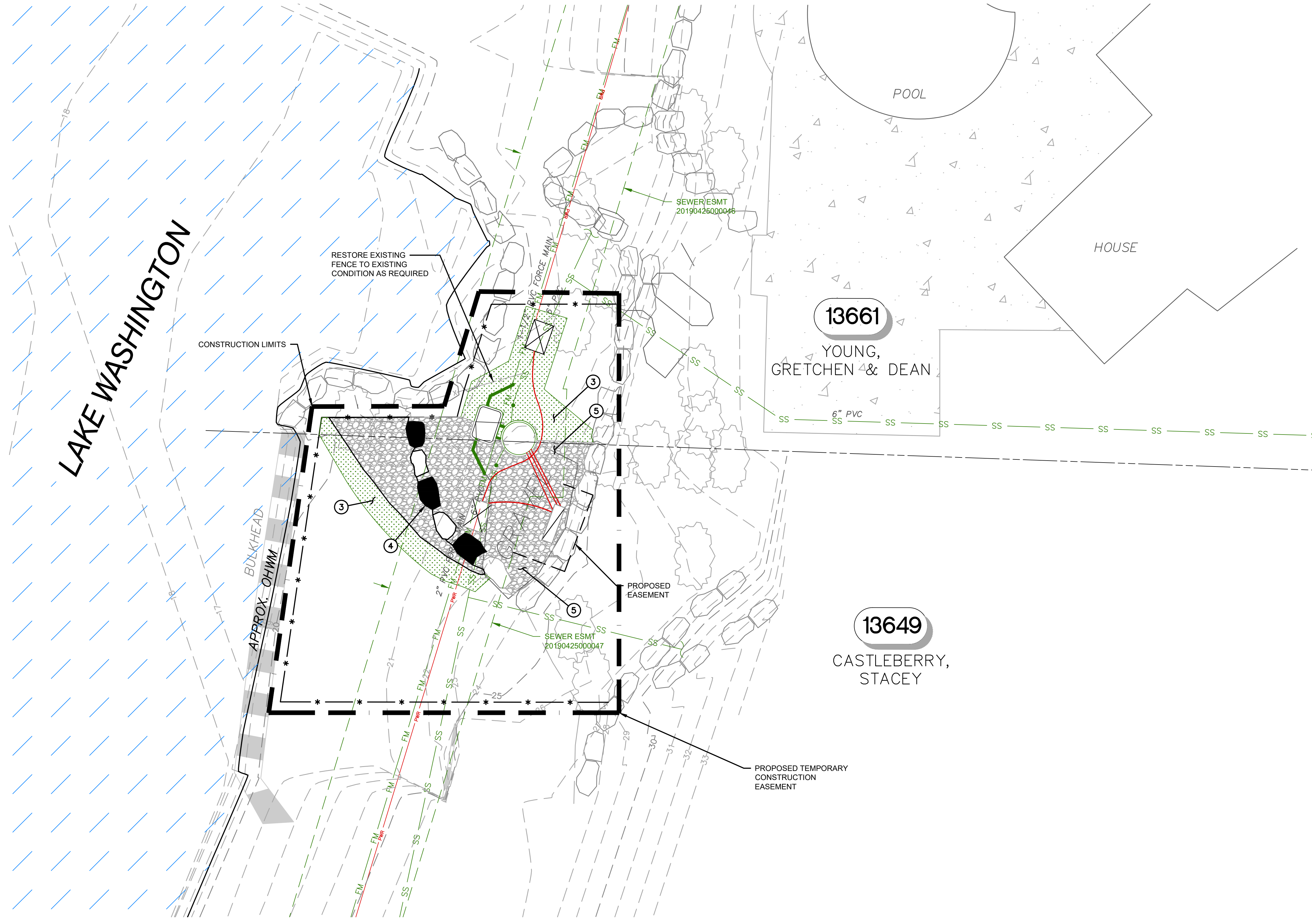
CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT

PROPOSED GRINDER PUMP STATION 2

BASE MAP H4
C2003
SHEET
13 OF 30



SE 1/4, SEC 23, T26N, R4E, WM



LEGEND

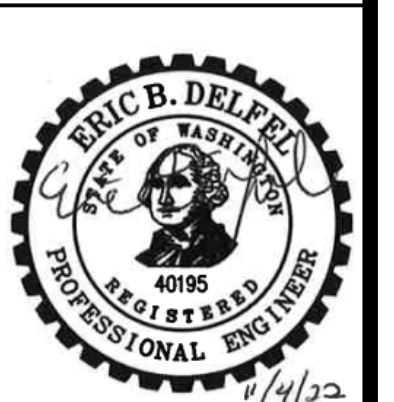
- SAND RESTORATION
- RIVER ROCK REPAIR
- LANDSCAPE RESTORATION

GENERAL NOTES

1. SEE SPECIFICATIONS FOR WORK AND PAYMENT INCLUDED IN GENERAL RESTORATION.
2. GRASS AREAS THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE RESTORED WITH 4" OF TOPSOIL AND SOD PER THE SPECIFICATIONS.
3. PROTECT/RESTORE ALL LANDSCAPING AND SURFACE FEATURES TO EXISTING CONDITION OR BETTER.
4. GRADE SITE TO UNIFORM SLOPE AROUND NEW UTILITY BOXES. PROVIDE 30" OF CLEAR LEVEL SPACE IN FRONT OF NEW CONTROL PANNEL(S).
5. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

RESTORATION NOTES

- 1 RESTORE BEACH SAND TO EXISTING CONDITION. ANY IMPORTED SAND SHALL MATCH THE COLOR AND GRADATION OF THE EXISTING SAND.
- 2 RESTORE WALL TO EXISTING CONDITION.
- 3 RESTORE EXISTING LANDSCAPING, TOPSOIL, AND SOD AS APPLICABLE TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.
- 4 RELOCATE EXISTING ROCKERY AS SHOWN TO ACCOMMODATE NEW FACILITIES.
- 5 INSTALL RIVER ROCK TO 3" DEPTH. ANY IMPORTED MATERIAL SHALL MATCH THE EXISTING RIVER ROCK.
- 6 INSTALL ROOT BARRIER BETWEEN NEW PLANTS AND ALL UTILITIES AS SHOWN AND AS DIRECTED BY THE CONTRACTING AGENCY. ROOT BARRIERS SHALL BE "DEEP ROOT" MODEL NO. UB 36-2 OR APPROVED EQUAL.



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 GRINDER PUMP STATIONS 1-4 REPLACEMENT

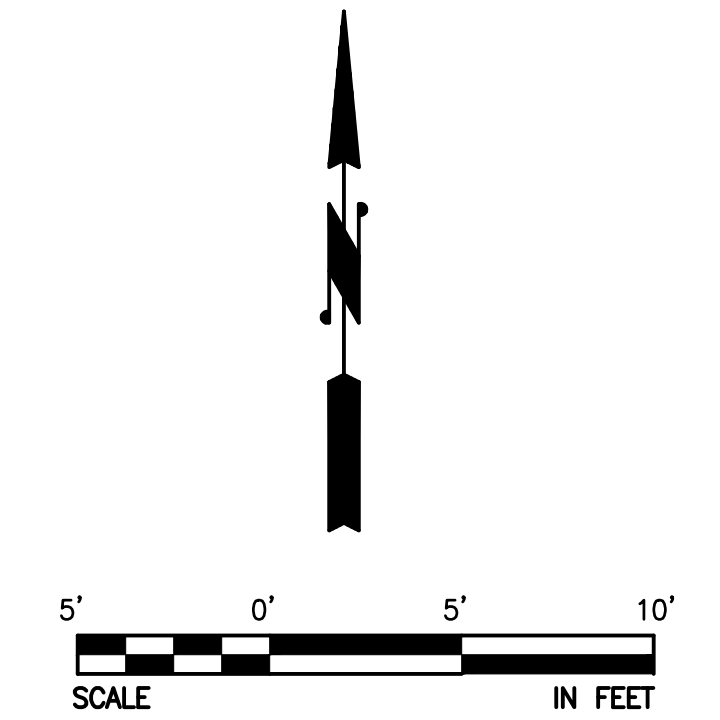
**GRINDER PUMP STATION 2
 RESTORATION PLAN**

BASE MAP H4
C2003
SHEET
14 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



**GRINDER PUMP STATION 3
EXISTING SITE PHOTOGRAPH**

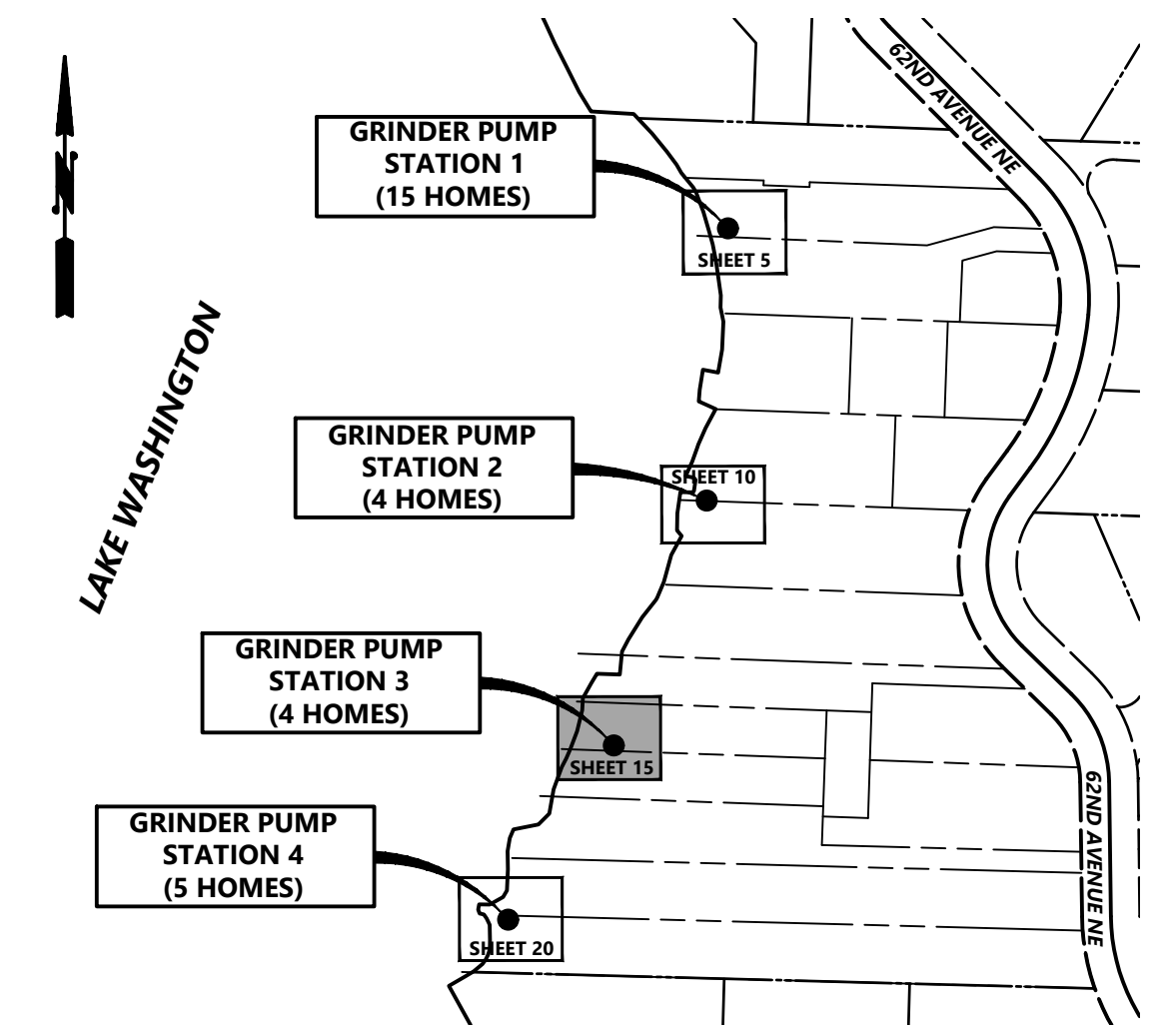


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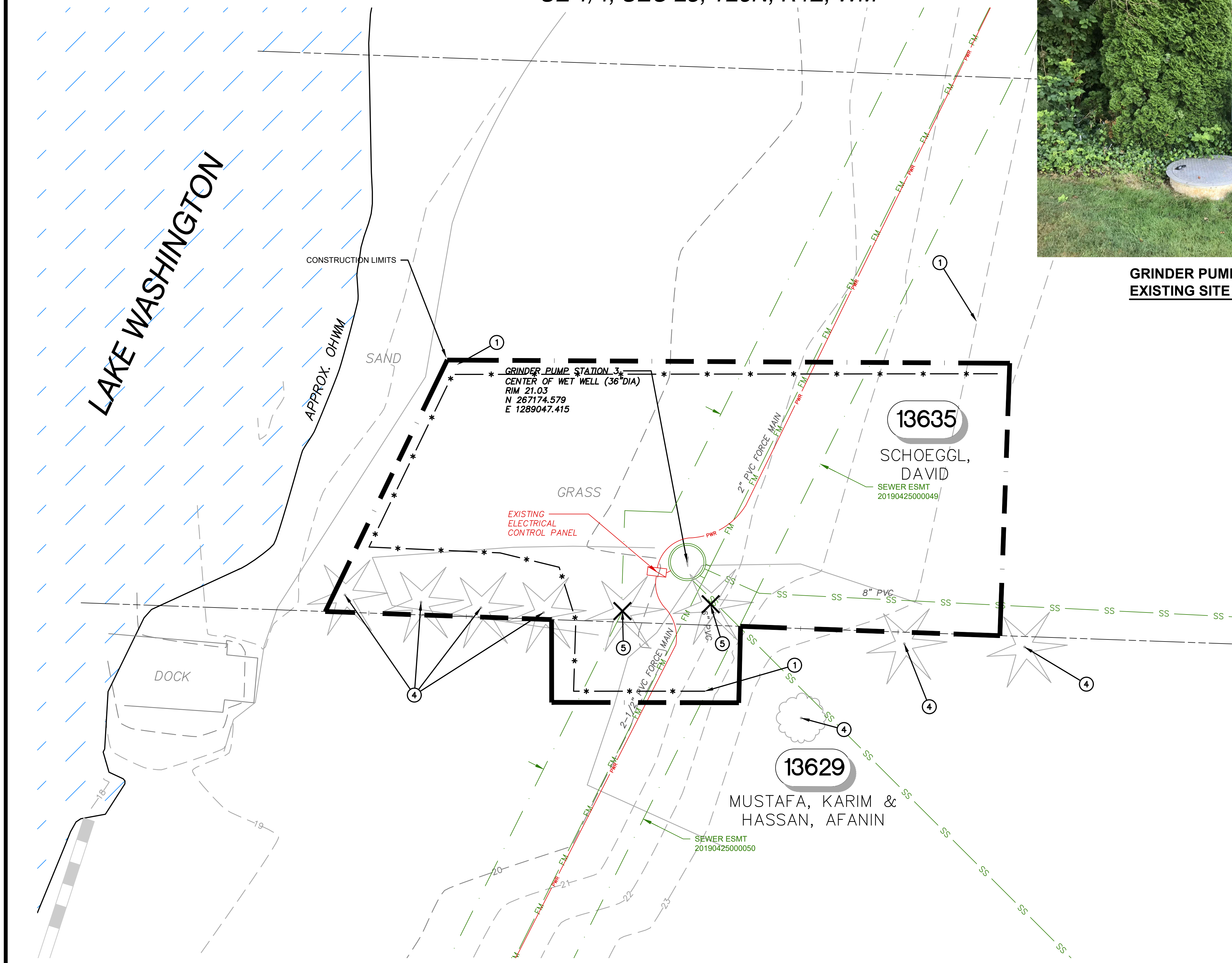
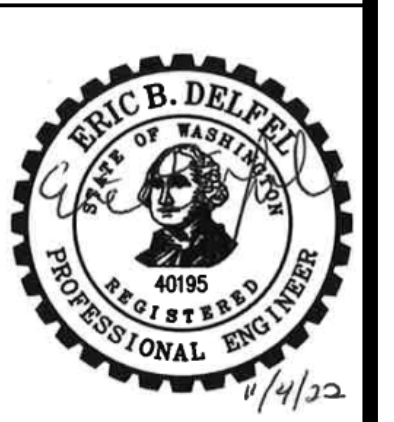
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3. INSTALL TESC FACILITIES PER SHEET 3.
4. SEE EROSION CONTROL NOTES SHEET 3.
5. PROTECT ALL TREES AND HEDGES, UNLESS OTHERWISE NOTED ON PLANS.
6. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

CONSTRUCTION NOTES

- ① INSTALL FILTER FABRIC FENCE PER DETAIL, SHEET 3.
- ② PROTECT EXISTING FENCE.
- ③ PROTECT EXISTING WALL/ROCKERY.
- ④ PROTECT EXISTING TREE/SHRUB.
- ⑤ REMOVE EXISTING TREE/SHRUB.
- ⑥ REMOVE EXISTING ROCKERY.



SHEET KEY MAP
NTS



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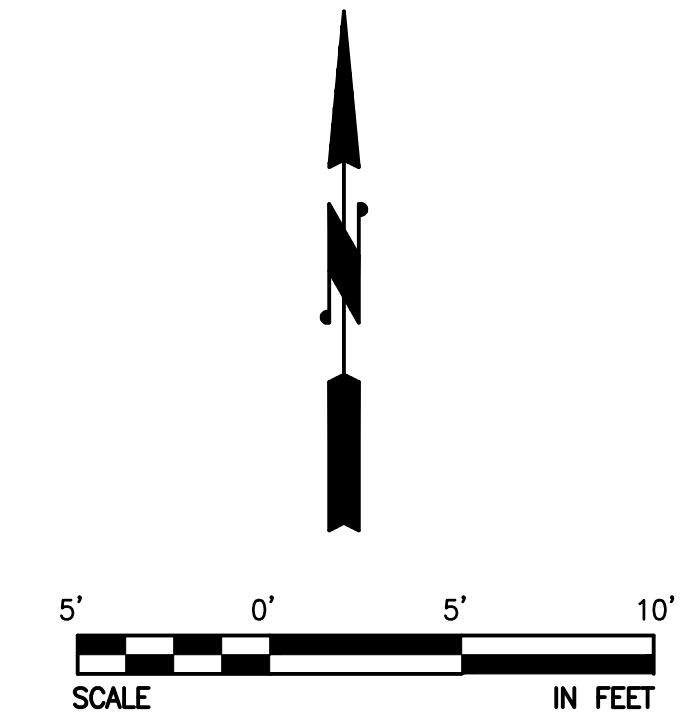
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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT

**GRINDER PUMP STATION 3
 EXISTING SITE & TESC PLAN**

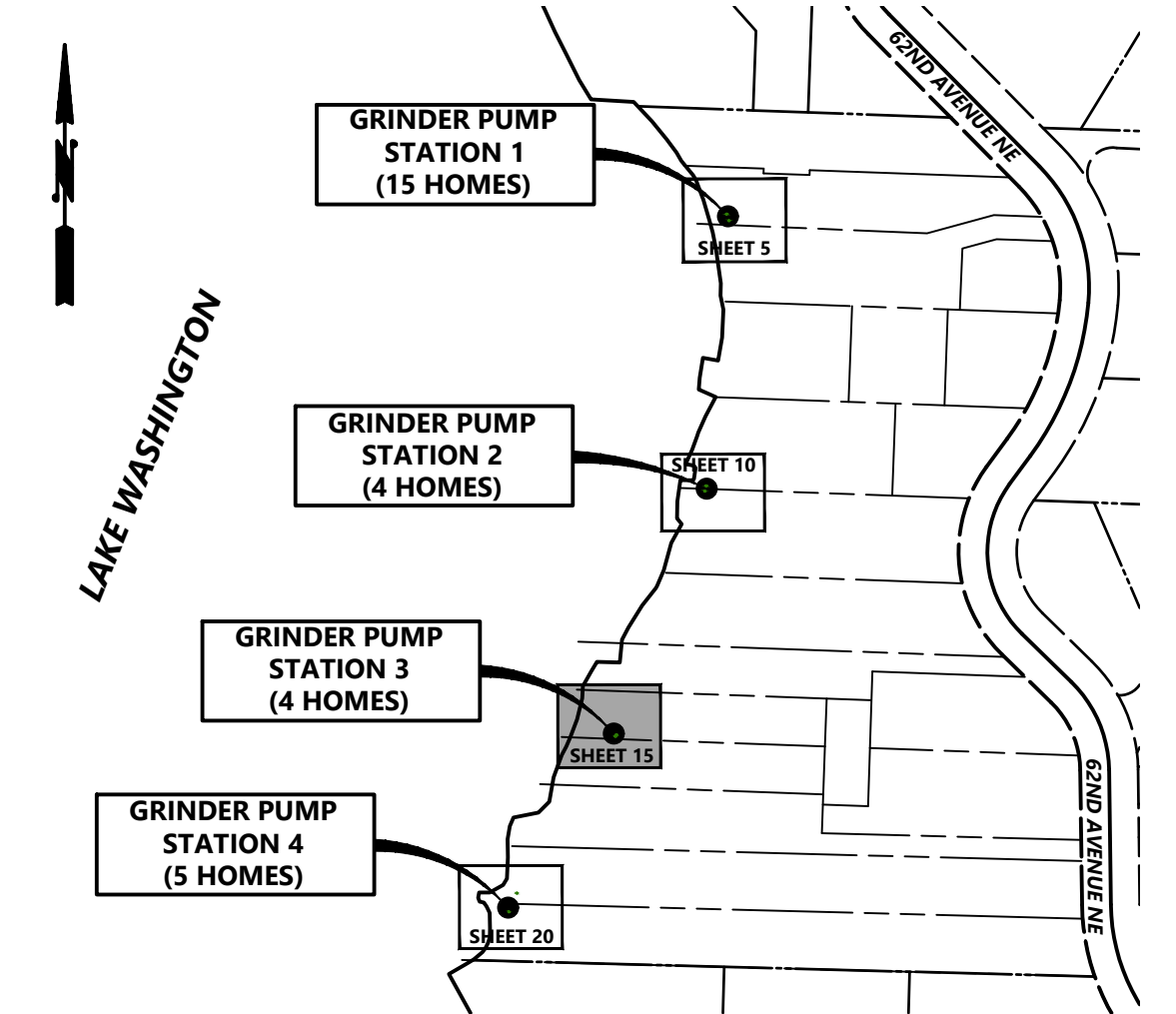
BASE MAP H4
C2003
SHEET
15 OF 30

SE 1/4, SEC 23, T26N, R4E, WM

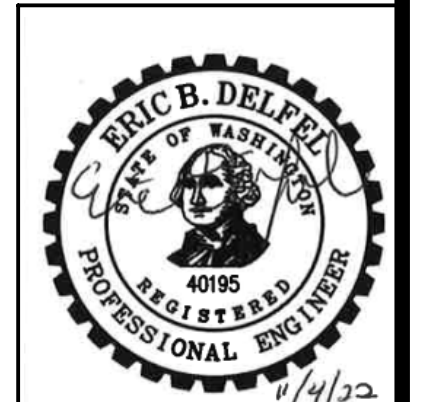


NOTES

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2. BYPASS PUMPING PLAN SHOWN IS A CONCEPTUAL REPRESENTATION OF ONE PUMPING OPTION AVAILABLE TO THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT THEIR PROPOSED BYPASS PUMPING PLAN TO THE DISTRICT FOR APPROVAL PRIOR TO STARTING CONSTRUCTION.
3. WORK ON GRINDER PUMP 3 MUST BE COMPLETE IN ITS ENTIRETY PRIOR TO DEMOBILIZATION AND MOBILIZATION TO ANOTHER GRINDER PUMP SITE.
4. PREVENT DIRT, ROCKS, AND DEBRIS FROM ENTERING ALL PIPES AND MANHOLES.
5. CONTRACTOR SHALL MONITOR ALL GRINDER PUMP STATIONS DURING ANY ELECTRICAL SHUTDOWNS TO THE MAIN CONDUCTOR FEEDING ALL OF THE STATIONS AND BYPASS SEWER FLOWS AS REQUIRED.



SHEET KEY MAP
NTS



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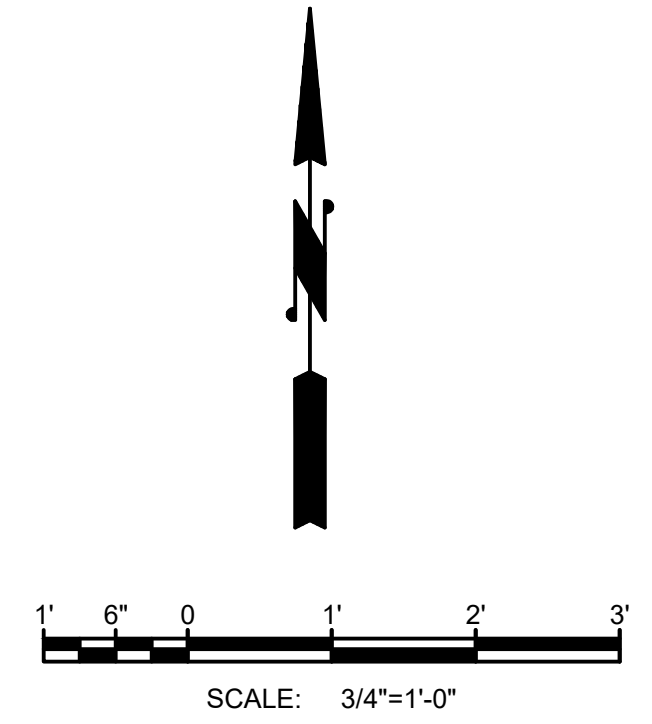
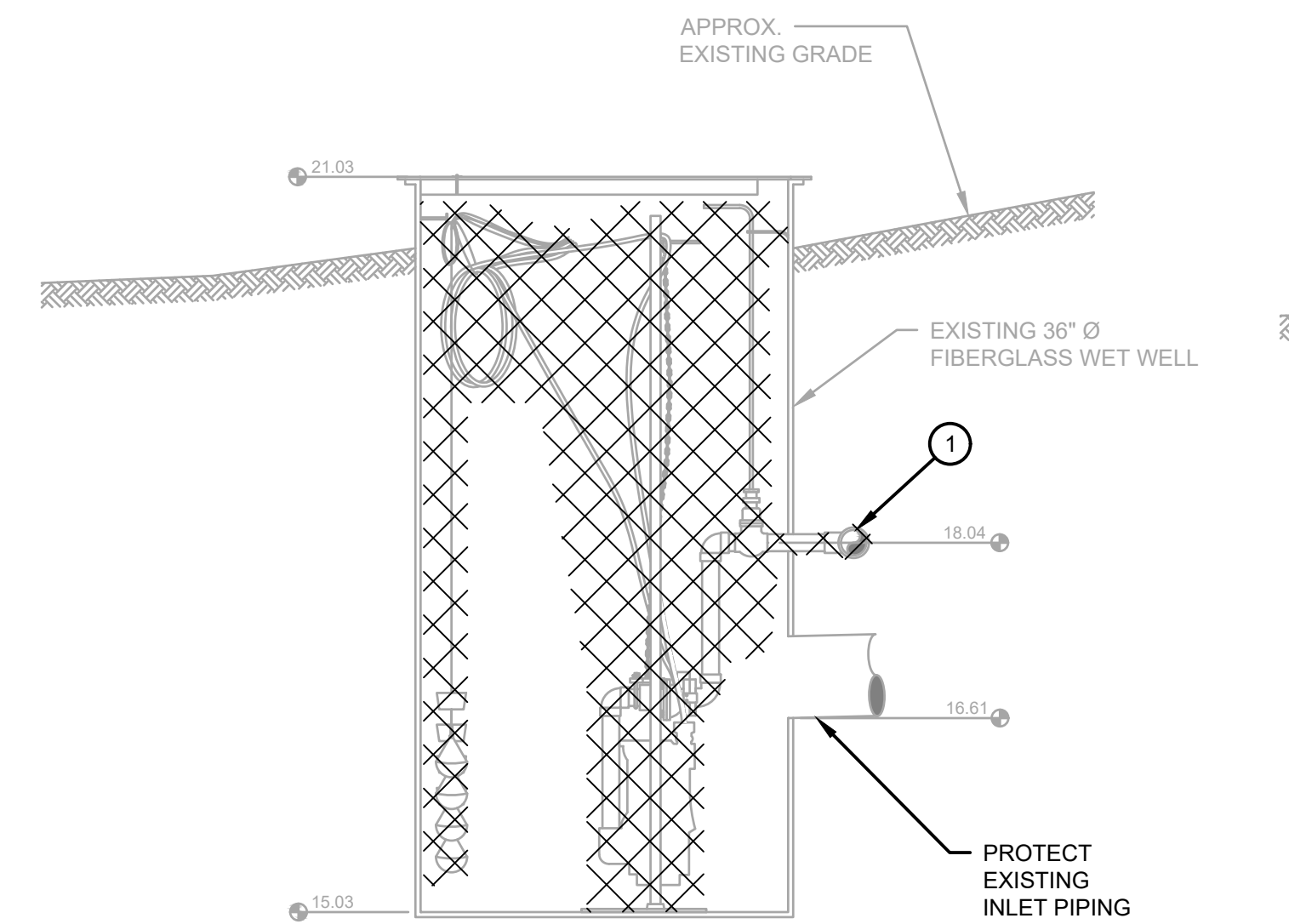
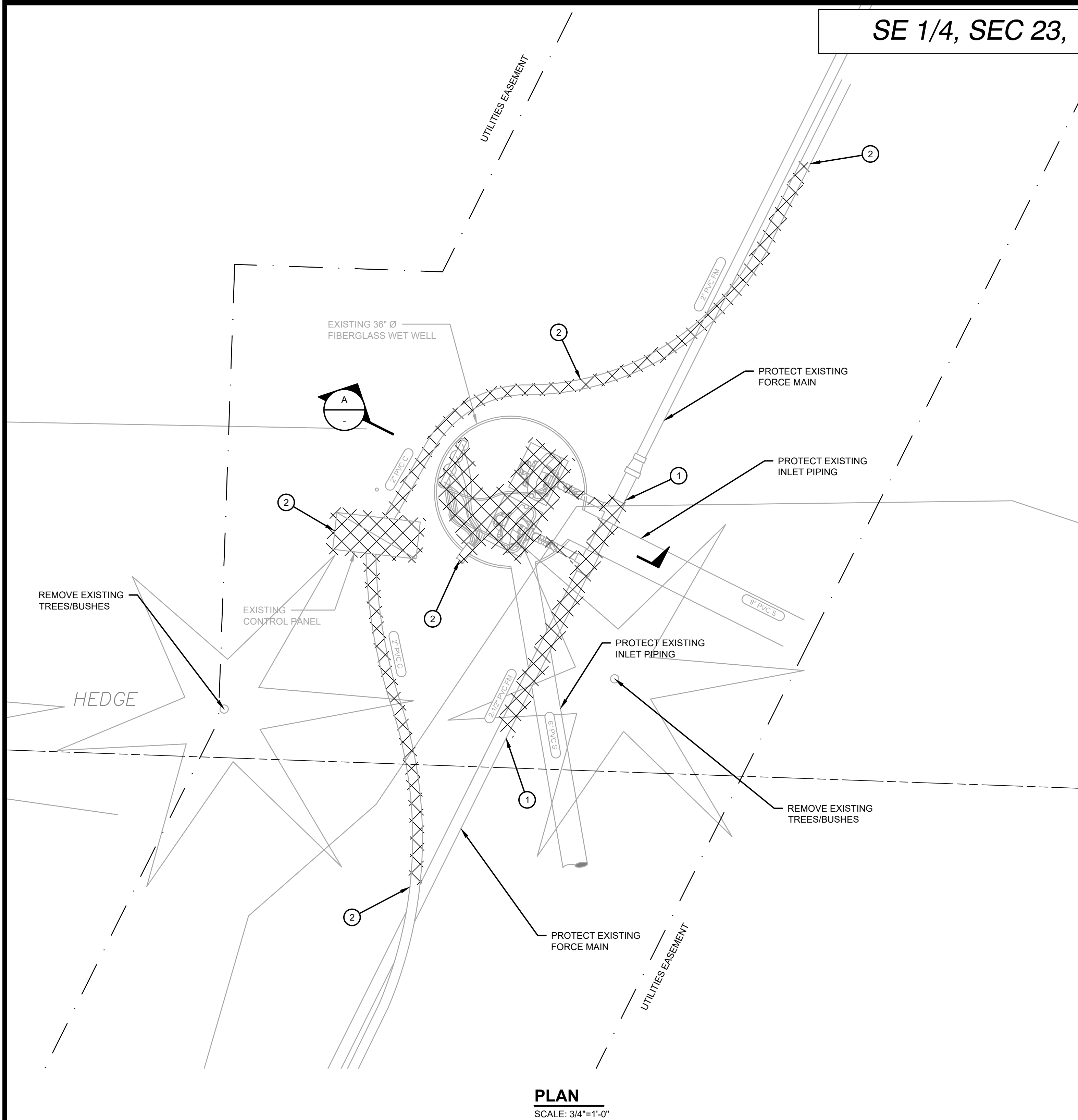
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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT

**GRINDER PUMP STATION 3
 BYPASS PUMPING PLAN**

BASE MAP H4
C2003
SHEET
16 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



GENERAL NOTES

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2. PATCH HOLES IN WET WELL WITH FIBERGLASS FABRIC AND RESIN LAMINATE OR APPROVED EQUAL. WET WELL REPAIR SHALL RESULT IN A WATERTIGHT WET WELL.
3. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN IS APPROXIMATE. CONTRACTOR SHALL POTHOLE TO LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION.

DEMOLITION NOTES

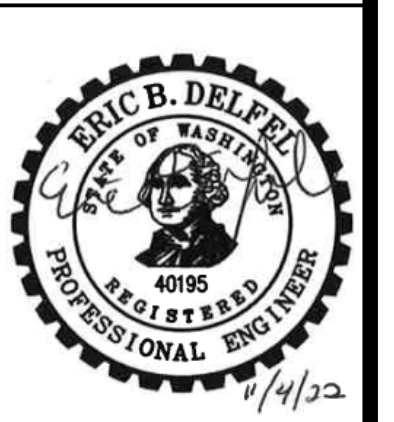
- 1 DEMOLISH AND WASTEHAUL FORCE MAIN AS REQUIRED. SEE PROPOSED SITE PLAN SHEET 18.
- 2 DEMOLISH AND WASTEHAUL EXISTING CONTROL PANEL, CONDUIT, AND ELECTRICAL EQUIPMENT.

LEGEND

DENOTES ITEMS TO BE REMOVED AND WASTEHAULED BY THE CONTRACTOR



EXISTING WET WELL PHOTOGRAPH

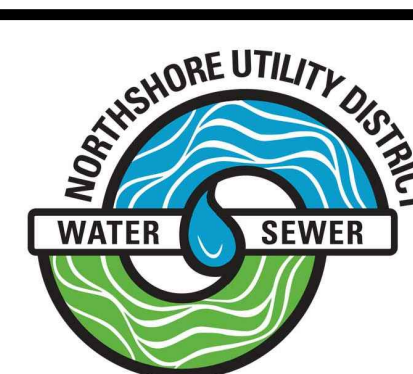


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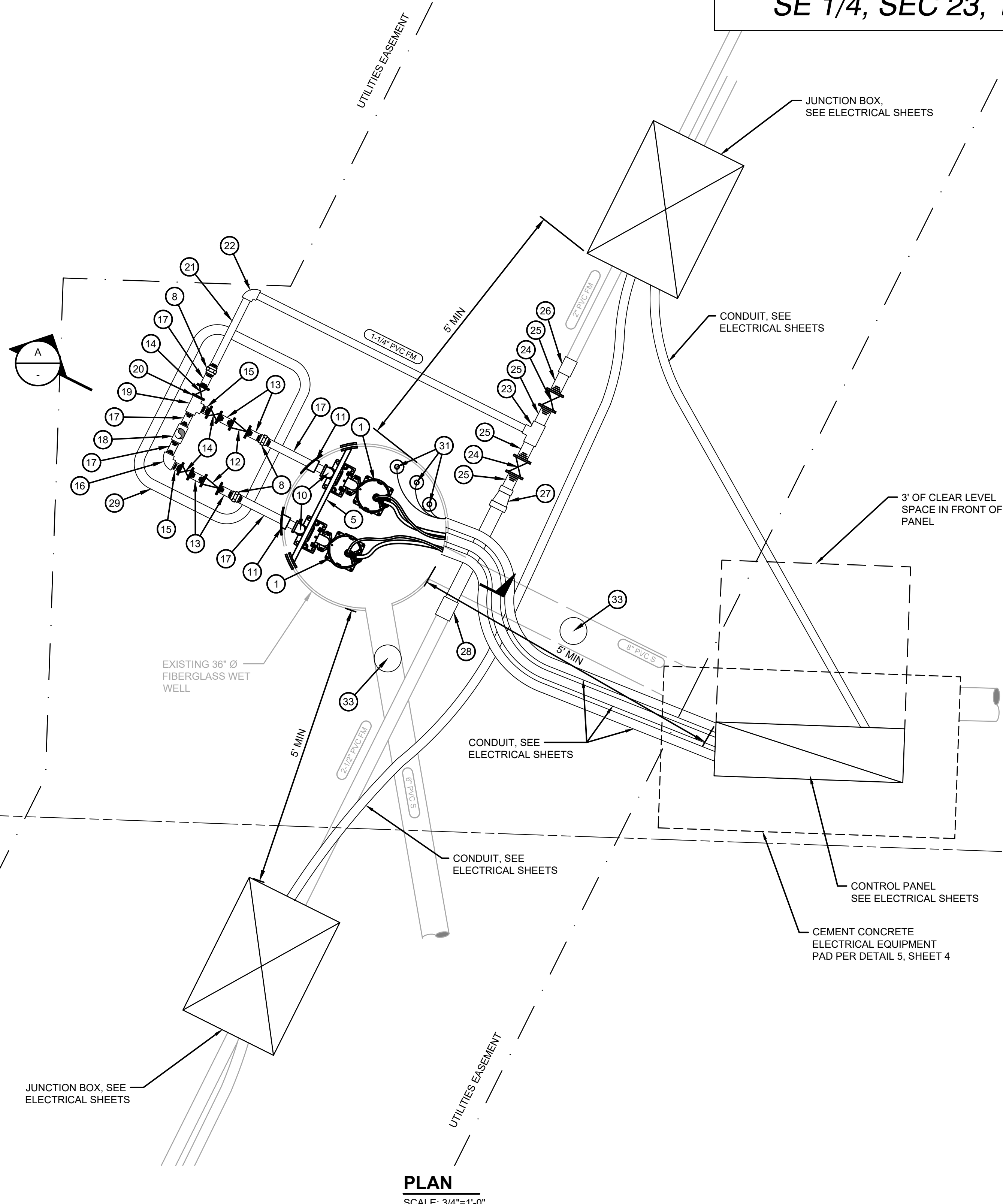


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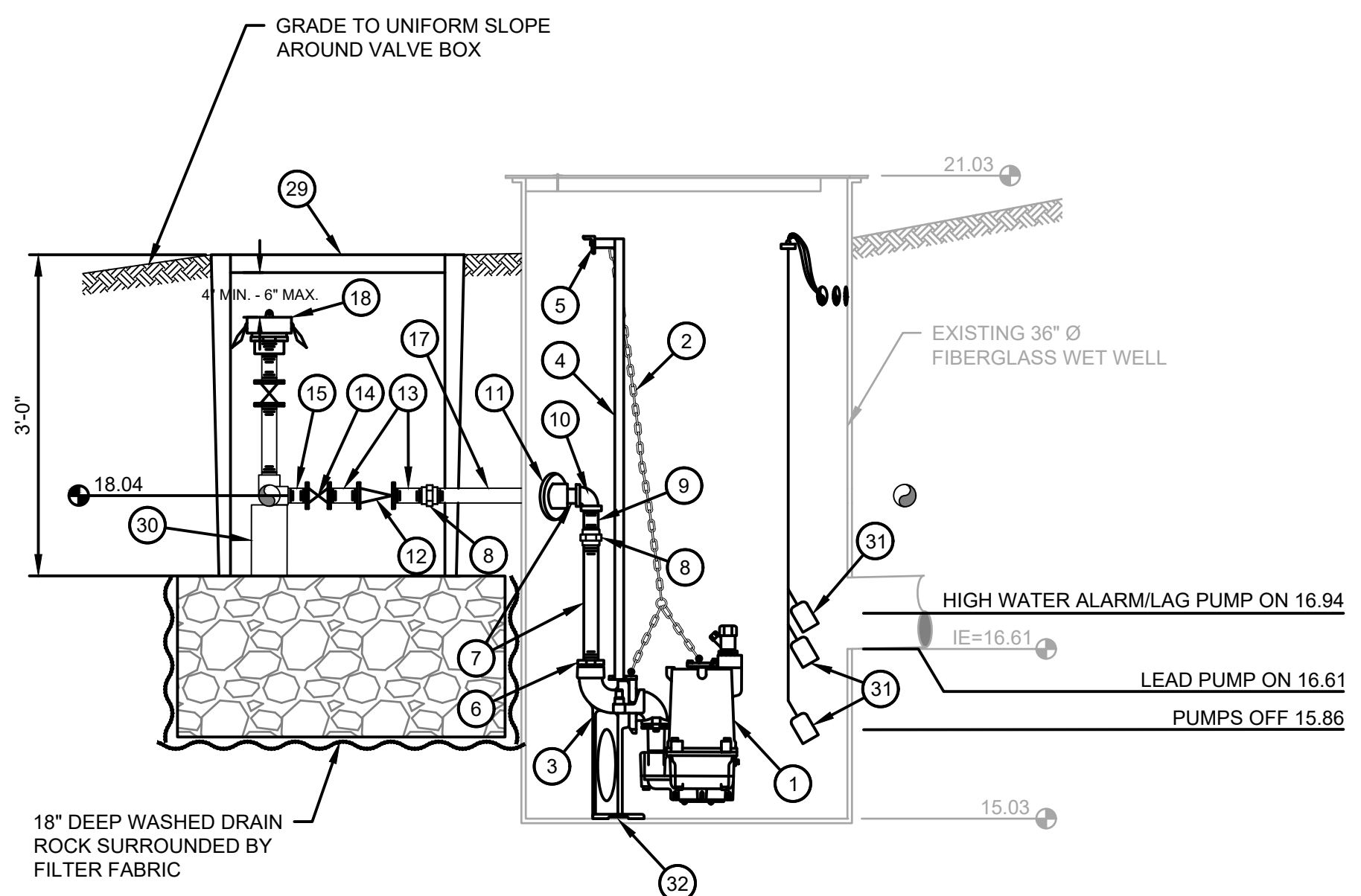
CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT
GRINDER PUMP STATION 3 DEMOLITION

BASE MAP H4
C2003
SHEET
17 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



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



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

- GENERAL NOTES:**
- PRIOR TO INSTALLATION OF NEW EQUIPMENT, THOROUGHLY CLEAN AND PREP EXISTING FIBERGLASS WET WELL.
 - PRIOR TO INSTALLATION OF NEW EQUIPMENT, REPAIR EXISTING PENETRATIONS TO THE FIBERGLASS WET WELL AS DESCRIBED ON THE DEMOLITION SHEET.
 - ALL STEEL HARDWARE AND ACCESSORIES SHALL BE 316 STAINLESS STEEL U.N.O.
 - NEW ELECTRICAL CONDUIT SHOWN FOR CLARITY ONLY. FOR SIZE AND MATERIAL SEE ELECTRICAL SHEETS. CONDUIT PENETRATIONS TO EXISTING FIBERGLASS WET WELL SHALL BE MADE WITH PFC 200 NYLON COUPLINGS BY CONERY OR APPROVED EQUAL.
 - EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - ALL PENETRATIONS TO THE EXISTING WET WELL SHALL BE WATER TIGHT.
 - EACH GRINDER PUMP STATION SITE IS WITHIN AN EXISTING EASEMENT ON PRIVATE LAKEFRONT PROPERTY WITH LIMITED ACCESSIBILITY FOR LARGE EQUIPMENT AND MOTOR VEHICLES. THE MEANS AND METHODS FOR MOBILIZATION OF MATERIALS AND EQUIPMENT TO EACH SITE SHALL BE AT THE OPTION OF THE CONTRACTOR. HAND DIGGING AND/OR BARGING IN EQUIPMENT MAY BE NECESSARY FOR COMPLETION OF THE WORK SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS.

LEGEND:

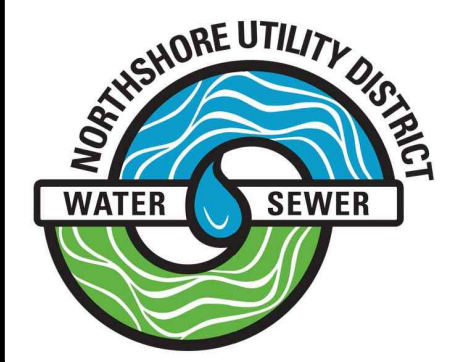
- 1 HYDROMATIC HPGX 200 SUBMERSIBLE SEWAGE GRINDER PUMP TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 2 SS LIFTING CHAIN TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 3 1-1/4" X 2" BERS-0125 CONERY DISCHARGE ELBOW TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 4 1" SS PUMP GUIDE RAIL SYSTEM AND GUIDE BRACKET TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 5 GUIDE BRACKET SUPPORT PER DETAIL 4, SHEET 4.
- 6 2" X 1-1/4" 316 SS REDUCING BUSHING.
- 7 1-1/4" DIA. 316 SS THREADED NIPPLE (LENGTH TO FIT).
- 8 1-1/4" 316 SS UNION, THREADED.
- 9 1-1/4" DIA. 316 SS THREADED 2" NIPPLE.
- 10 1-1/4" SS 90° BEND, THREADED.
- 11 1-1/4" 316 SS DISCHARGE HUB, SFC 125 BY CONERY OR APPROVED EQUAL.
- 12 1-1/4 BRONZE SWING CHECK VALVE.
- 13 1-1/4" DIA. SCH. 80 PVC THREADED 3" NIPPLE.
- 14 1-1/4" BRONZE BALL VALVE, FIPT X FIPT WITH LEVER.
- 15 1-1/4" DIA. SCH. 80 PVC THREADED 2" NIPPLE.
- 16 1-1/4" 90° BEND, SCH. 80 PVC THREADED
- 17 1-1/4" DIA. SCH. 80 PVC THREADED NIPPLE (LENGTH TO FIT).
- 18 BYPASS-PUMPING CONNECTION. SEE DETAIL 2, SHEET 4.
- 19 1-1/4" TEE, SCH 80 PVC THREADED.
- 20 1-1/4" DIA. SCH. 80 PVC CLOSE NIPPLE, THREADED.
- 21 1-1/4" DIA. SCH. 80 PVC NIPPLE, THREADED X PLAIN END (LENGTH TO FIT).
- 22 1-1/4" 90° BEND, SCH. 80 PVC SOCKET WELDED.
- 23 2" X 1-1/4" REDUCING TEE, SCH. 80 PVC SOCKET WELDED.
- 24 2" BRONZE BALL VALVE, FIPT X FIPT WITH 2" OPERATING NUT AND VALVE BOX PER MODIFIED STANDARD DETAIL 11, SHEET 4.
- 25 2" DIA. SCH. 80 PVC NIPPLE THREADED X PLAIN END (LENGTH TO FIT).
- 26 2" COUPLING, SCH. 80 PVC SOCKET WELDED.
- 27 2-1/2" X 2" REDUCER, SCH. 80 PVC SOCKET WELDED.
- 28 2-1/2" COUPLING, SCH. 80 PVC SOCKET WELDED.
- 29 24" X 36" VALVE BOX. DURALITE 2436 BY OLDCASTLE WITH PENTA HEAD BOLT DOWN SOLID T-COVER, OR APPROVED EQUAL.
- 30 CONCRETE BLOCK FOR PIPE SUPPORT AS REQUIRED (TYP).
- 31 FLOAT LEVEL SWITCH TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL FURNISH AND INSTALL 316 SS FLOAT SUPPORT T-TYPE BRACKET, 4FB BY CONERY WITH G1 CORD GRIPS OR APPROVED EQUAL.
- 32 CONTRACTOR SHALL PROVIDE MIN. 1/4" THICK 316 SS PLATE TO MOUNT BASE ELBOW TO. CONTRACTOR SHALL FIELD LOCATE HOLE FOR NEW BASE PLATE. CUT HOLE TO FIT TIGHT OVER NUT OF EXISTING ANCHOR BOLT, AND WELD EXISTING NUT TO NEW BASEPLATE.
- 33 INSTALL NEW CLEANOUT ON EXISTING INLET PIPING PER DETAIL 9 SHEET, 4.

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WARNING
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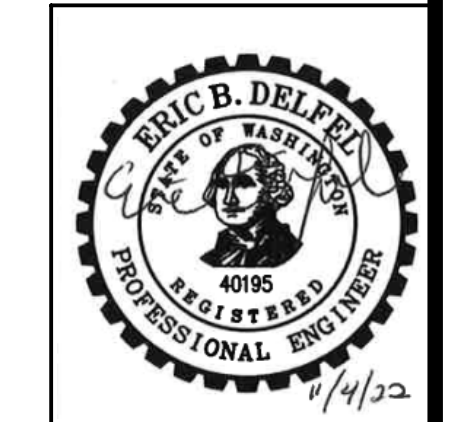


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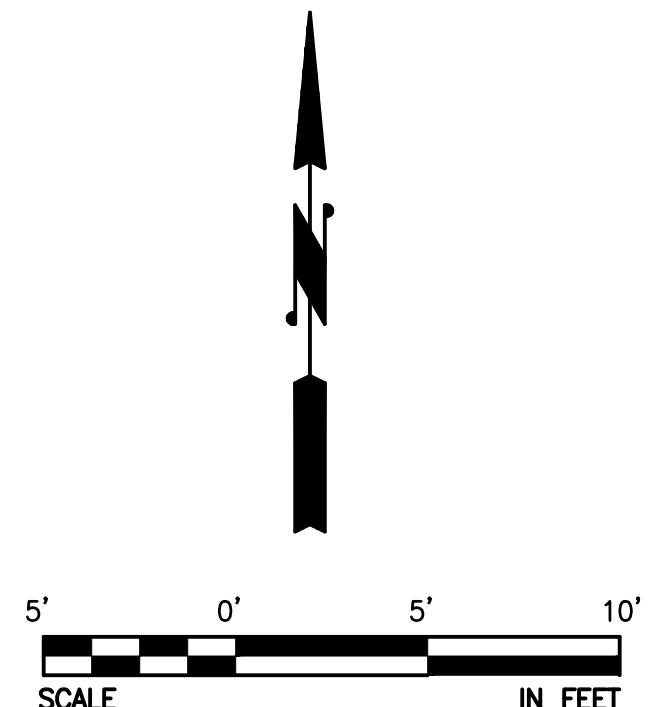
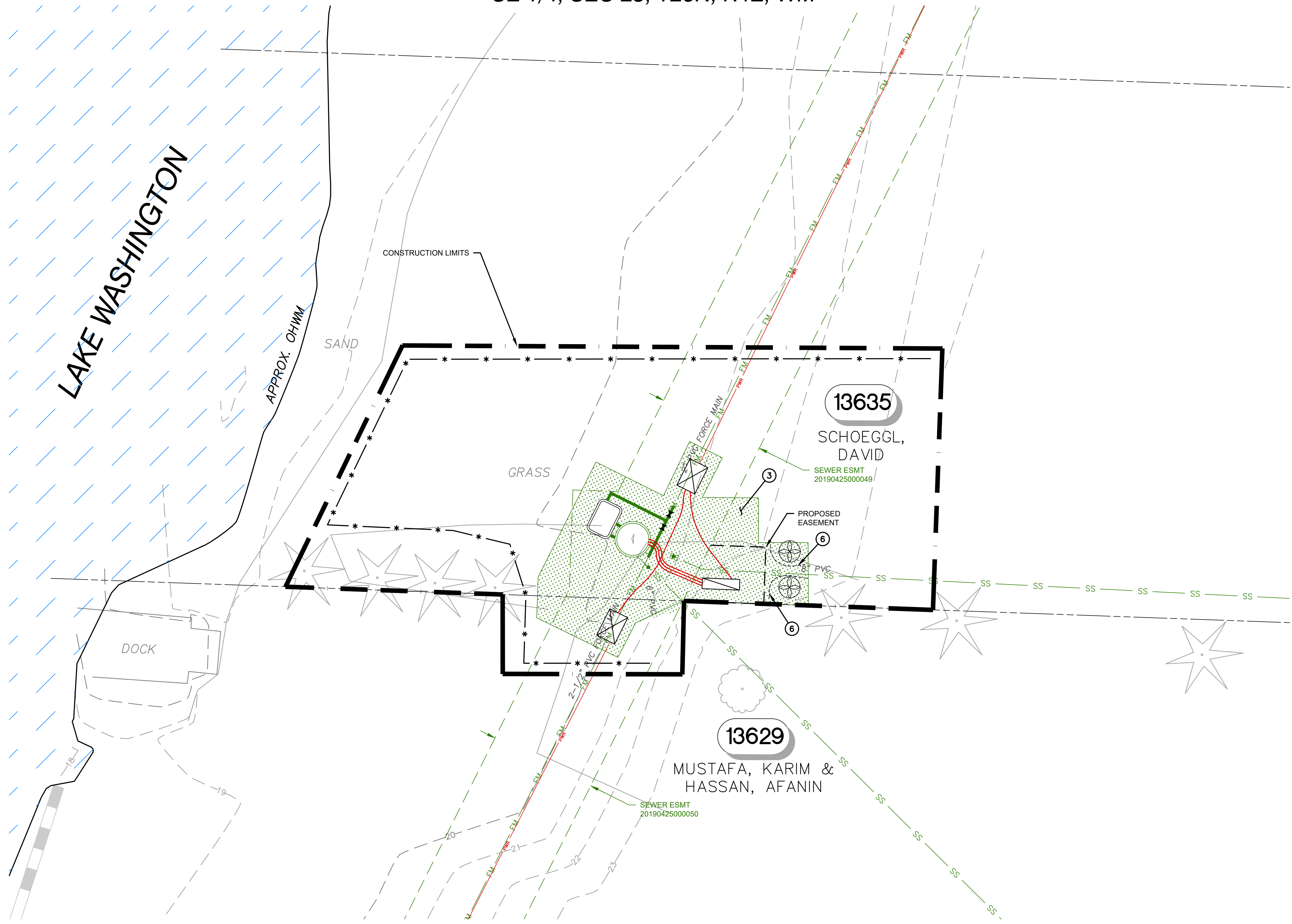
CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT
PROPOSED GRINDER PUMP STATION 3



BASE MAP H4
C2003
SHEET
18 OF 30

SE 1/4, SEC 23, T26N, R4E, WM

LAKE WASHINGTON



LEGEND

- SAND RESTORATION
- RIVER ROCK REPAIR
- LANDSCAPE RESTORATION

GENERAL NOTES

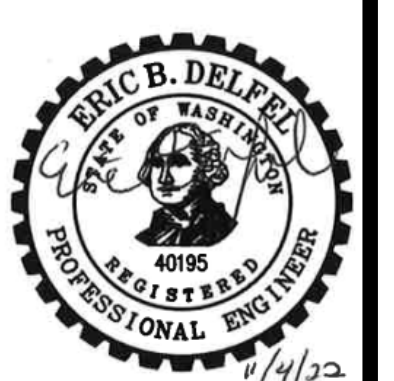
1. SEE SPECIFICATIONS FOR WORK AND PAYMENT INCLUDED IN GENERAL RESTORATION.
2. GRASS AREAS THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE RESTORED WITH 4" OF TOPSOIL AND SOD PER THE SPECIFICATIONS.
3. PROTECT/RESTORE ALL LANDSCAPING AND SURFACE FEATURES TO EXISTING CONDITION OR BETTER.
4. GRADE SITE TO UNIFORM SLOPE AROUND NEW UTILITY BOXES. PROVIDE 30" OF CLEAR LEVEL SPACE IN FRONT OF NEW CONTROL PANNEL(S).
5. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

RESTORATION NOTES

- 1 RESTORE BEACH SAND TO EXISTING CONDITION. ANY IMPORTED SAND SHALL MATCH THE COLOR AND GRADATION OF THE EXISTING SAND.
- 2 RESTORE WALL TO EXISTING CONDITION.
- 3 RESTORE EXISTING LANDSCAPING, TOPSOIL, AND SOD AS APPLICABLE TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.
- 4 RELOCATE EXISTING ROCKERY AS SHOWN TO ACCOMMODATE NEW FACILITIES.
- 5 INSTALL RIVER ROCK TO 3" DEPTH. ANY IMPORTED MATERIAL SHALL MATCH THE EXISTING RIVER ROCK.
- 6 INSTALL ROOT BARRIER BETWEEN NEW PLANTS AND ALL UTILITIES AS SHOWN AND AS DIRECTED BY THE CONTRACTING AGENCY. ROOT BARRIERS SHALL BE "DEEP ROOT" MODEL NO. UB 36-2 OR APPROVED EQUAL.

PLANT SCHEDULE

PLANT SYMBOL	COMMON NAME/ BOTANICAL NAME	MINIMUM SIZE	NO. OF PLANTS
	PORTUGUESE LAUREL/ PRUNUS LUSITANICA	5 GAL	2



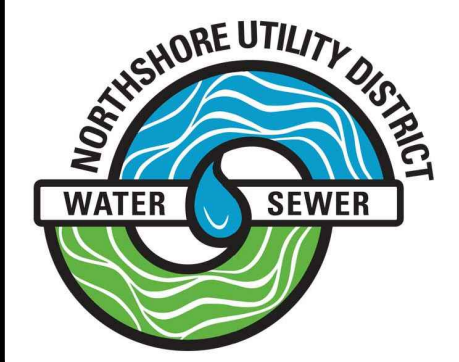
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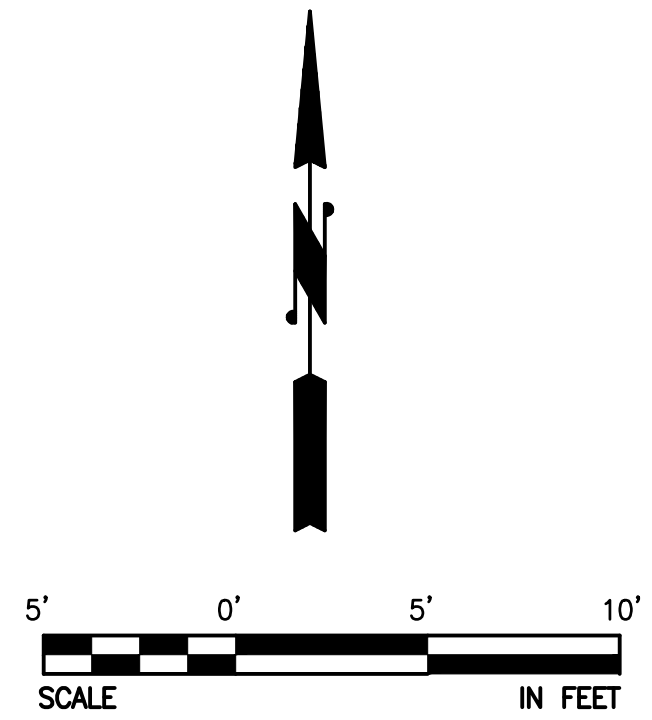
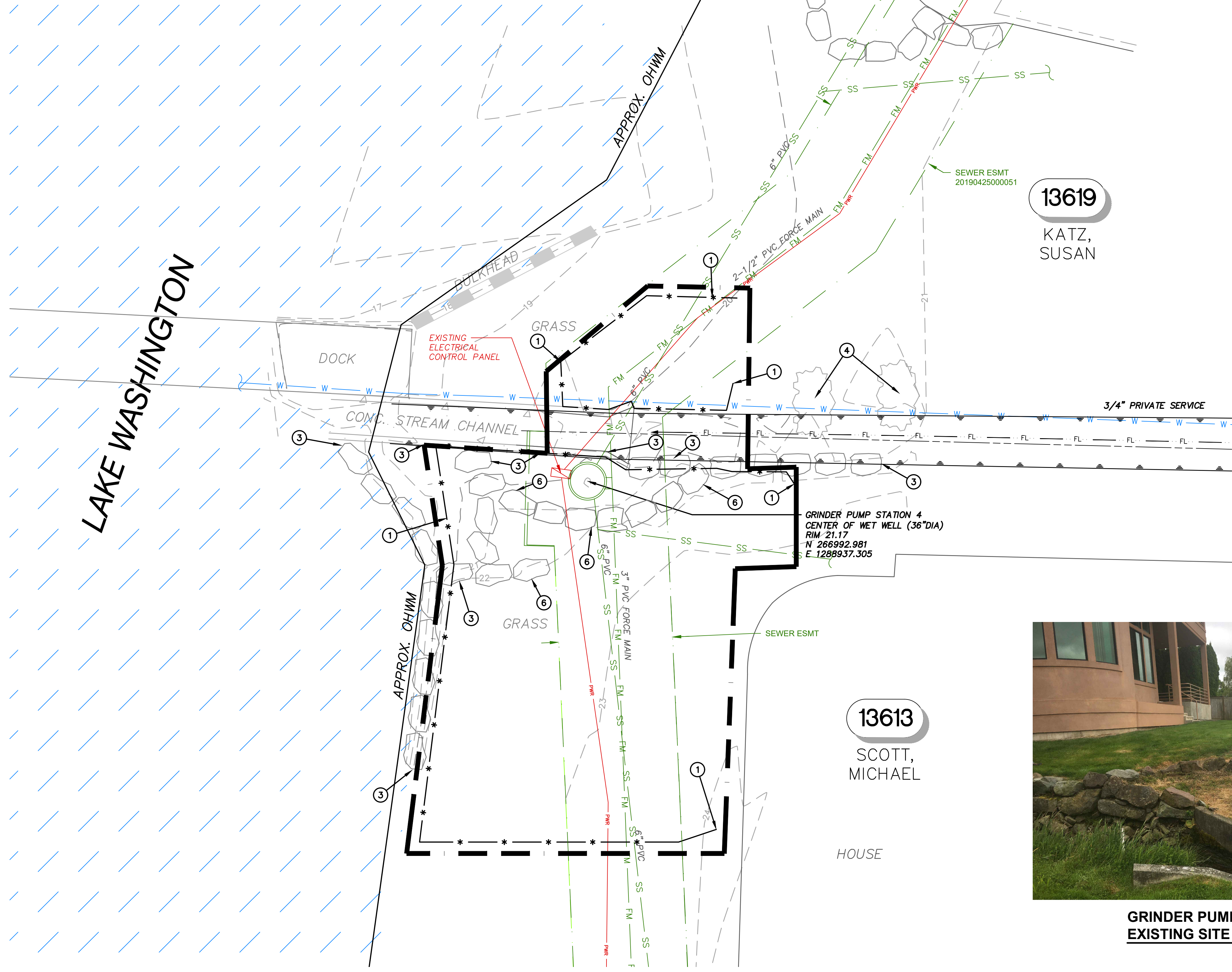


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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT
**GRINDER PUMP STATION 3
 RESTORATION PLAN**

BASE MAP H4
 C2003
 SHEET
 19 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



NOTES

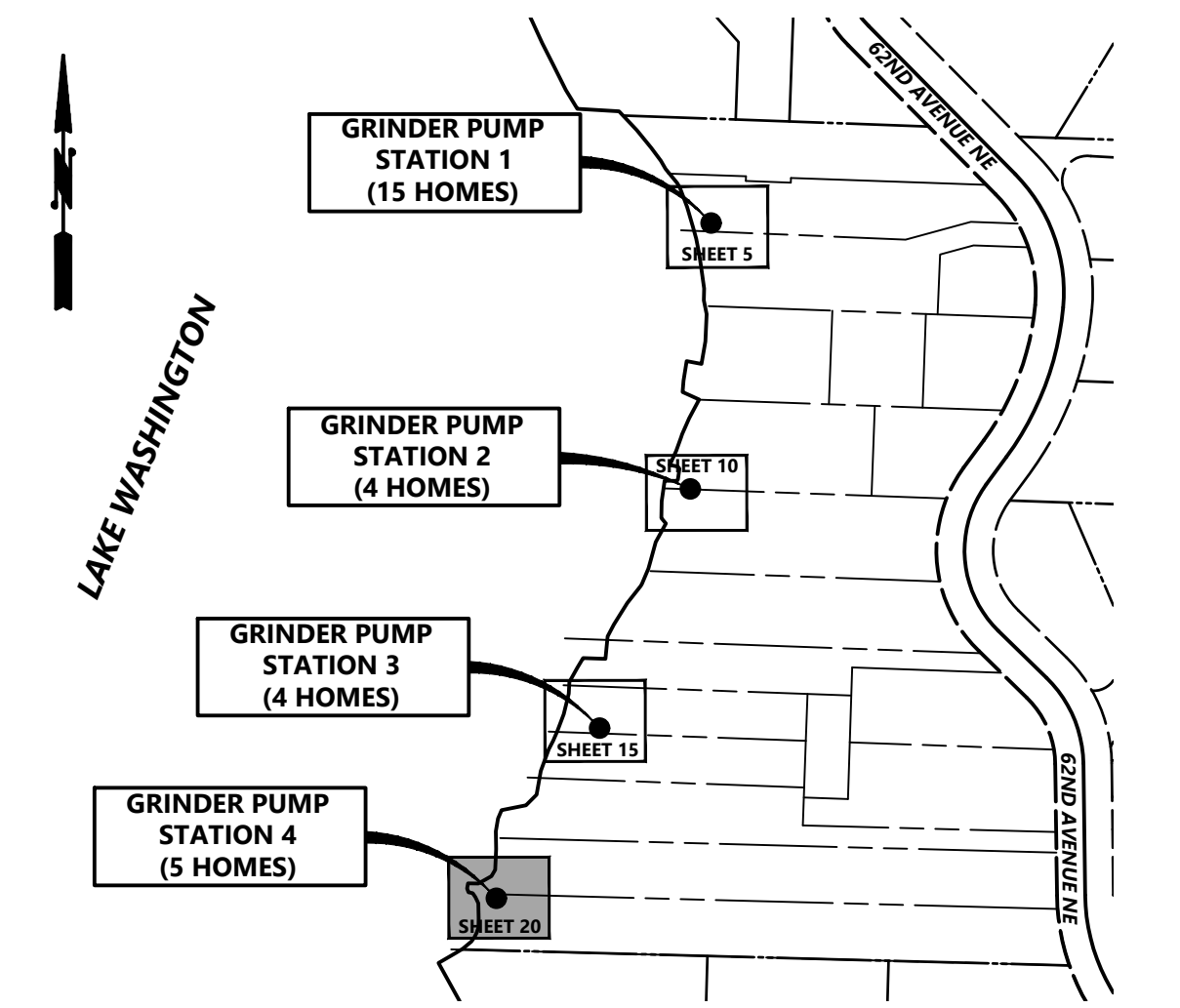
1. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL POthOLE TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.
2. EACH GRINDER PUMP STATION SITE IS WITHIN AN EXISTING EASEMENT ON PRIVATE LAKEFRONT PROPERTY WITH LIMITED ACCESSIBILITY FOR LARGE EQUIPMENT AND MOTOR VEHICLES. THE MEANS AND METHODS FOR MOBILIZATION OF MATERIALS AND EQUIPMENT TO EACH SITE SHALL BE AT THE OPTION OF THE CONTRACTOR. HAND DIGGING AND/OR BARGING IN EQUIPMENT MAY BE NECESSARY FOR COMPLETION OF THE WORK SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS.
3. INSTALL TESC FACILITIES PER SHEET 3.
4. SEE EROSION CONTROL NOTES SHEET 3.
5. PROTECT ALL TREES AND HEDGES, UNLESS OTHERWISE NOTED ON PLANS.
6. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

CONSTRUCTION NOTES

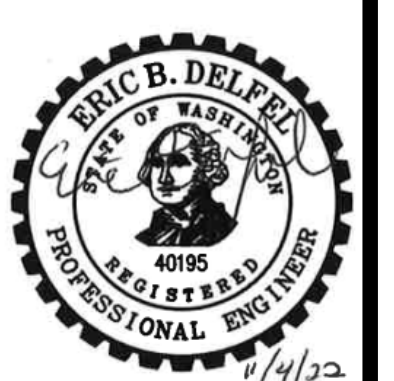
- 1 INSTALL FILTER FABRIC FENCE PER DETAIL, SHEET 3.
- 2 PROTECT EXISTING FENCE.
- 3 PROTECT EXISTING WALL/ROCKERY.
- 4 PROTECT EXISTING TREE/SHRUB.
- 5 REMOVE EXISTING TREE/SHRUB.
- 6 REMOVE EXISTING ROCKERY.



GRINDER PUMP STATION 4 EXISTING SITE PHOTOGRAPH



SHEET KEY MAP
NTS



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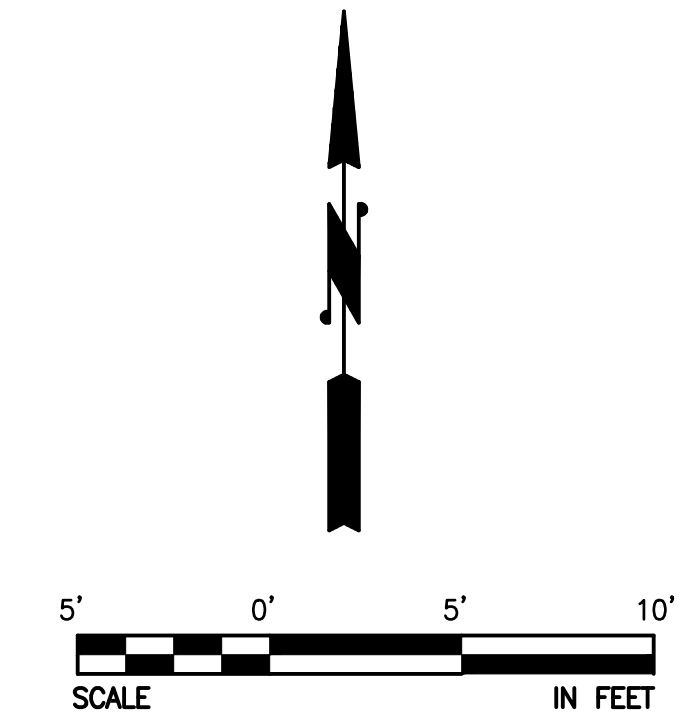
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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT

GRINDER PUMP STATION 4 EXISTING SITE & TESC PLAN

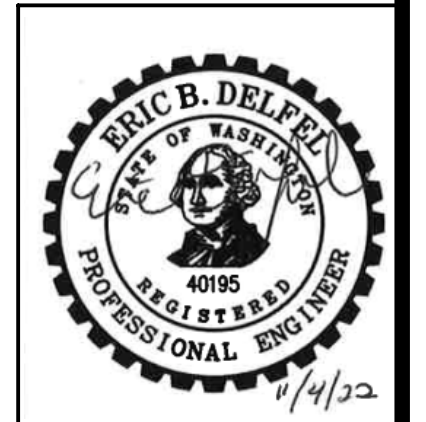
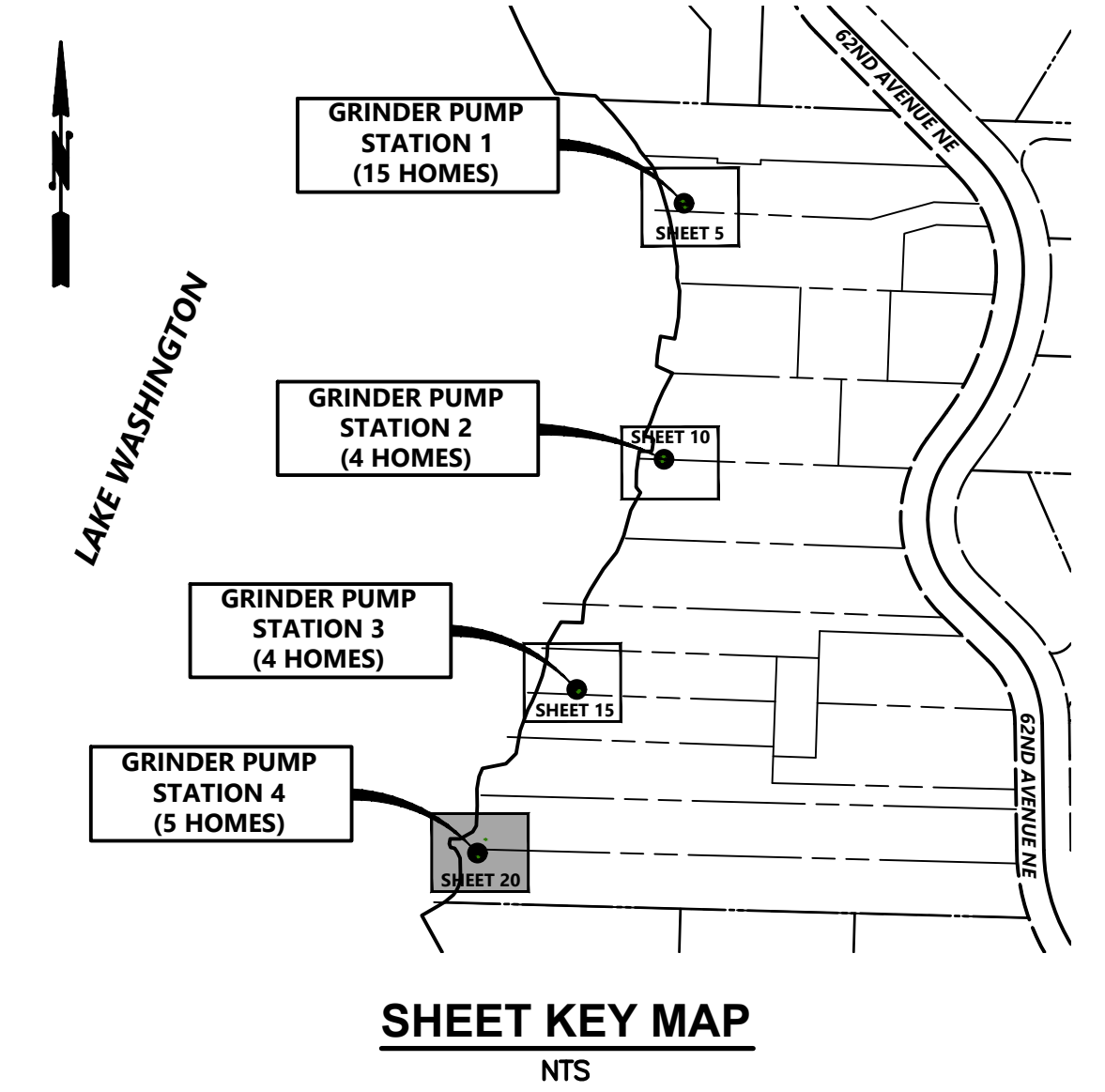
BASE MAP H4
C2003
SHEET
20 OF 30

SE 1/4, SEC 23, T26N, R4E, WM



NOTES

1. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL POthOLE TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.
2. BYPASS PUMPING PLAN SHOWN IS A CONCEPTUAL REPRESENTATION OF ONE PUMPING OPTION AVAILABLE TO THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT THEIR PROPOSED BYPASS PUMPING PLAN TO THE DISTRICT FOR APPROVAL PRIOR TO STARTING CONSTRUCTION.
3. WORK ON GRINDER PUMP 4 MUST BE COMPLETE IN ITS ENTIRETY PRIOR TO DEMOBILIZATION AND MOBILIZATION TO ANOTHER GRINDER PUMP SITE.
4. PREVENT DIRT, ROCKS, AND DEBRIS FROM ENTERING ALL PIPES AND MANHOLES.
5. CONTRACTOR SHALL MONITOR ALL GRINDER PUMP STATIONS DURING ANY ELECTRICAL SHUTDOWNS TO THE MAIN CONDUCTOR FEEDING ALL OF THE STATIONS AND BYPASS SEWER FLOWS AS REQUIRED.



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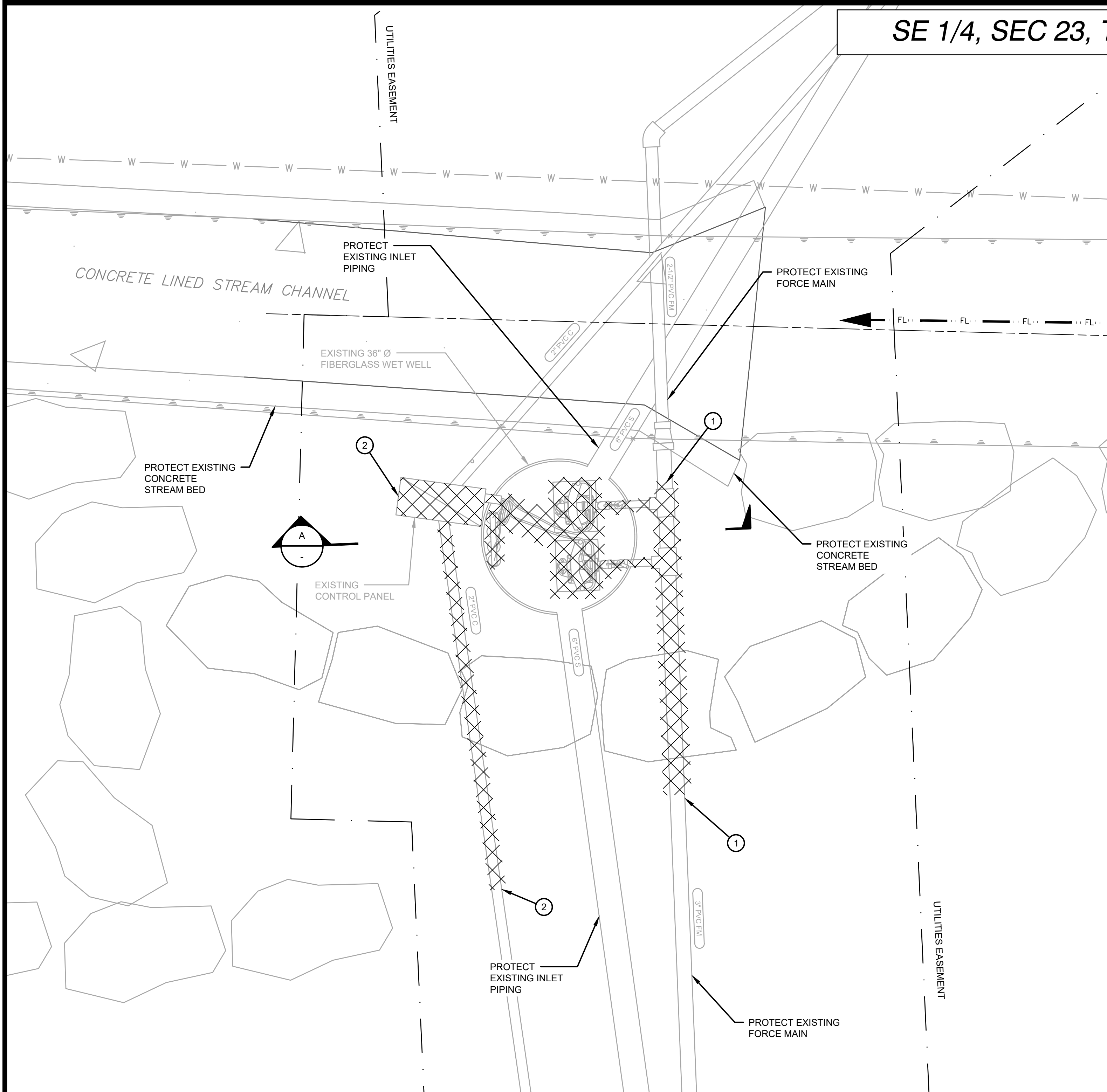
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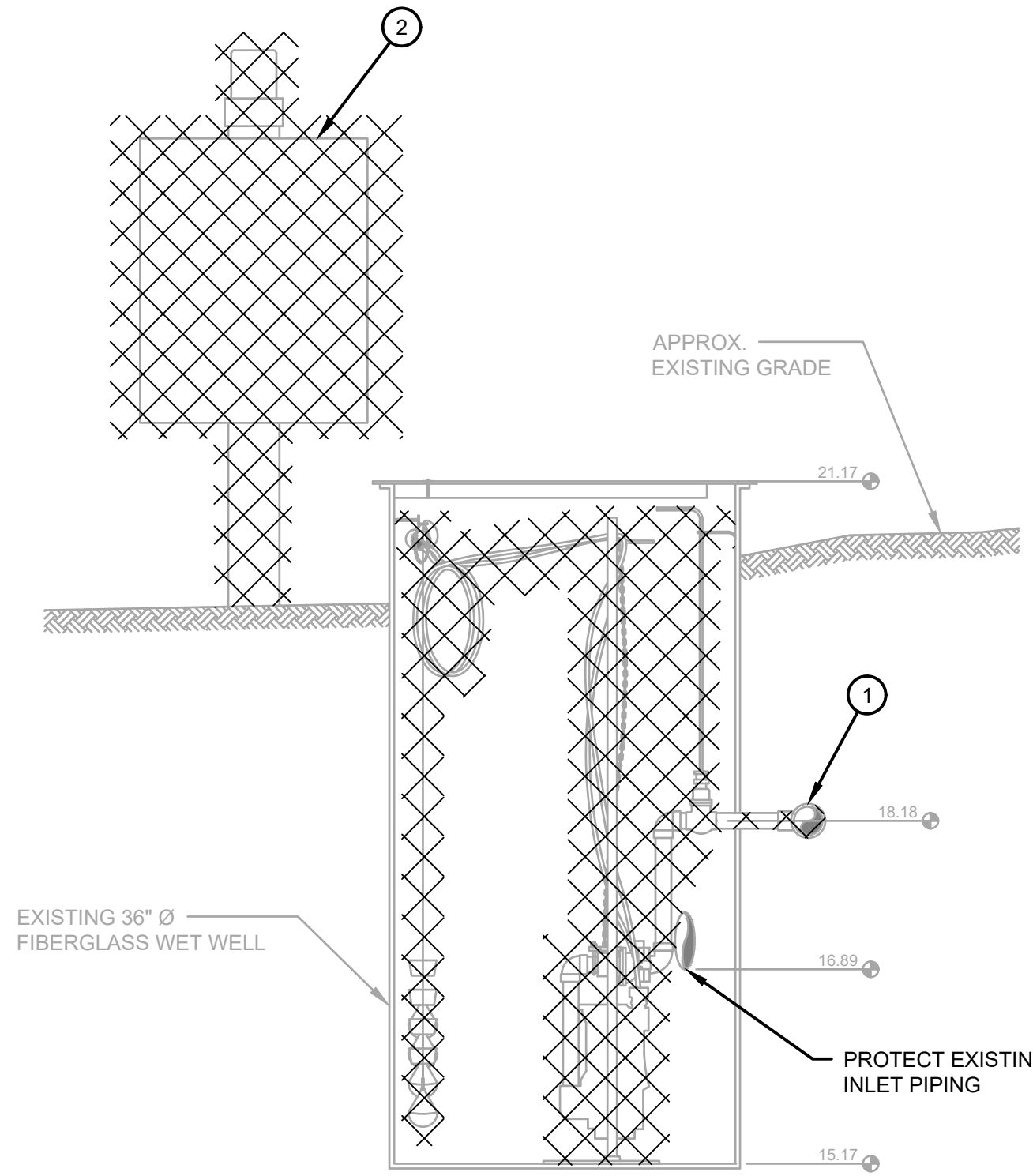
**GRINDER PUMP STATION 4
 BYPASS PUMPING PLAN**

BASE MAP H4
C2003
SHEET
21 OF 30

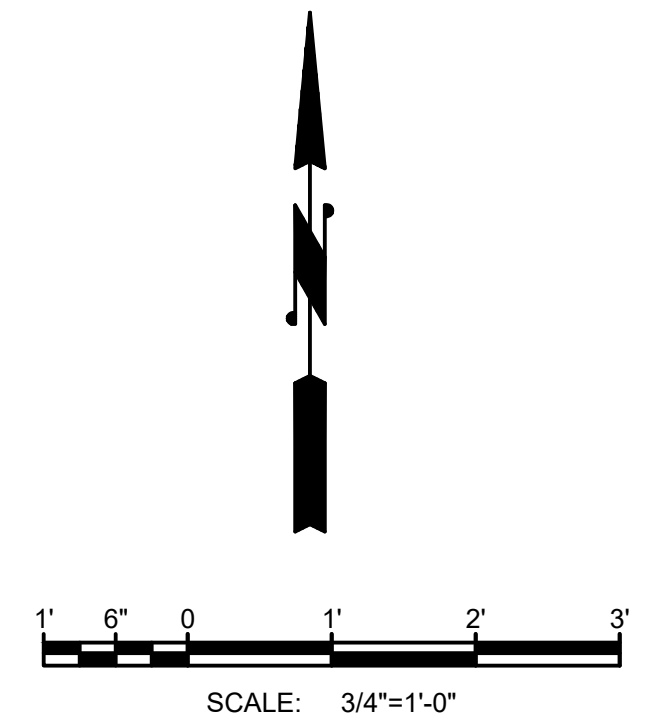
SE 1/4, SEC 23, T26N, R4E, WM



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



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



GENERAL NOTES

1. REMOVE AND WASTEHAUL PUMPS, FLOATS, SUPPORTS, RAILS, BRACKETS, CABLES, PIPING, AND FITTINGS AS REQUIRED TO INSTALL NEW FACILITIES AS SHOWN ON THE PROPOSED SITE PLAN.
2. PATCH HOLES IN WET WELL WITH FIBERGLASS FABRIC AND RESIN LAMINATE OR APPROVED EQUAL. WET WELL REPAIR SHALL RESULT IN A WATERTIGHT WET WELL.
3. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN IS APPROXIMATE. CONTRACTOR SHALL POTHOLE TO LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION.

DEMOLITION NOTES

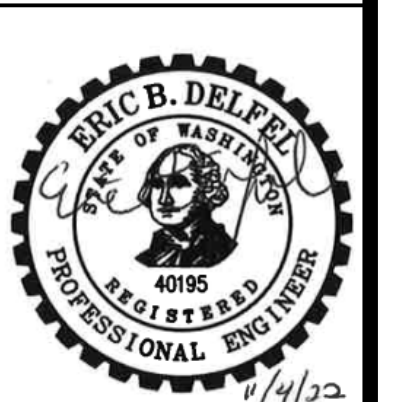
- 1 DEMOLISH AND WASTEHAUL FORCE MAIN AS REQUIRED, SEE PROPOSED SITE PLAN SHEET 23.
- 2 DEMOLISH AND WASTEHAUL EXISTING CONTROL PANEL, CONDUIT, AND ELECTRICAL EQUIPMENT.

LEGEND

DENOTES ITEMS TO BE REMOVED AND WASTEHAULED BY THE CONTRACTOR



EXISTING WET WELL PHOTOGRAPH



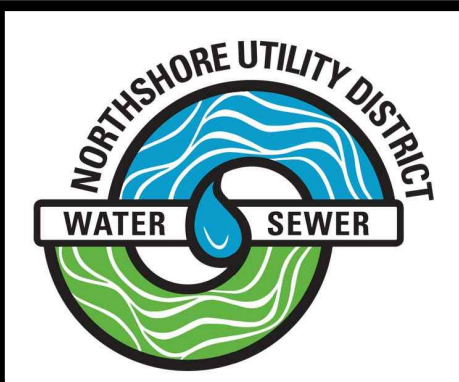
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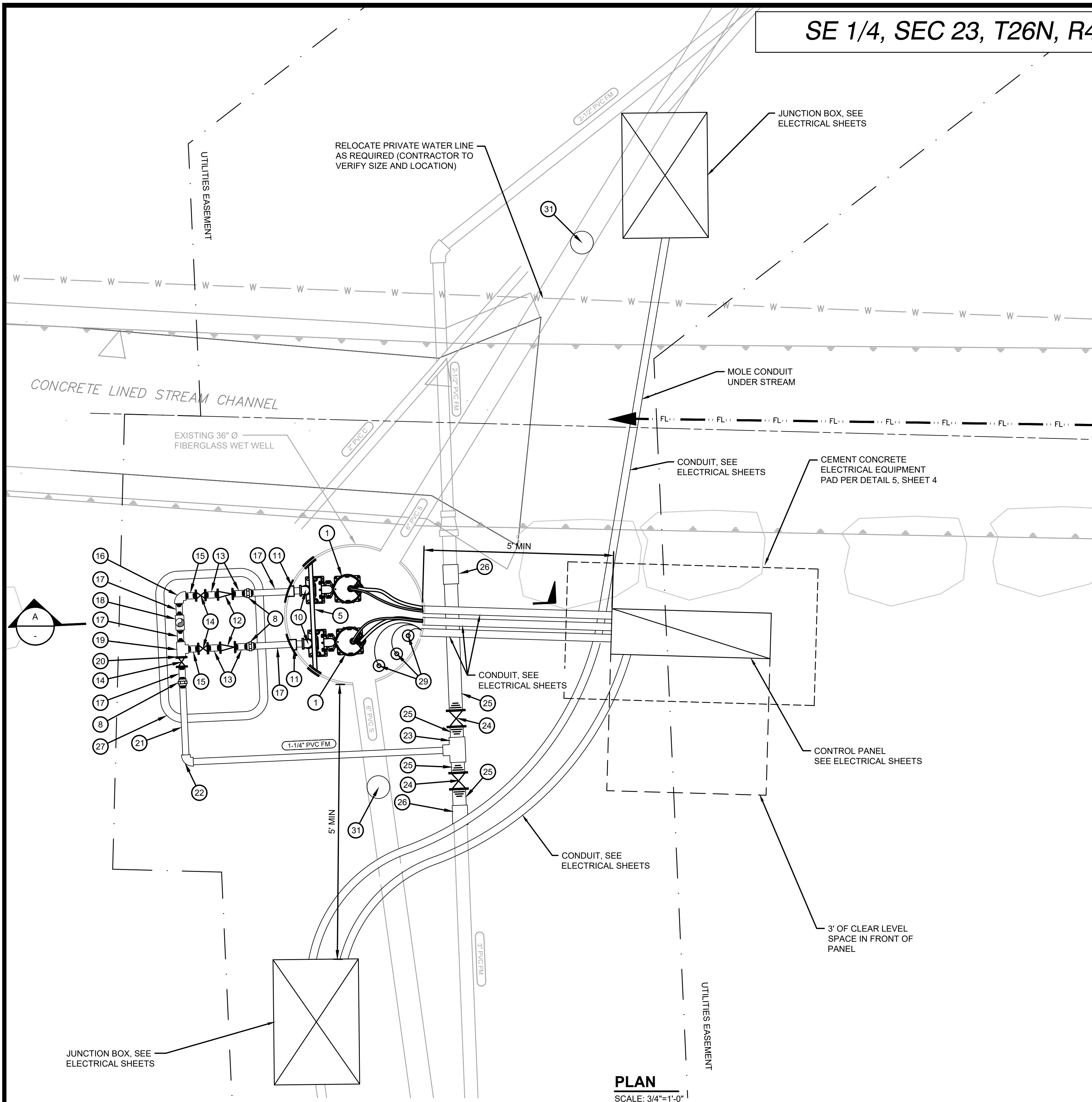


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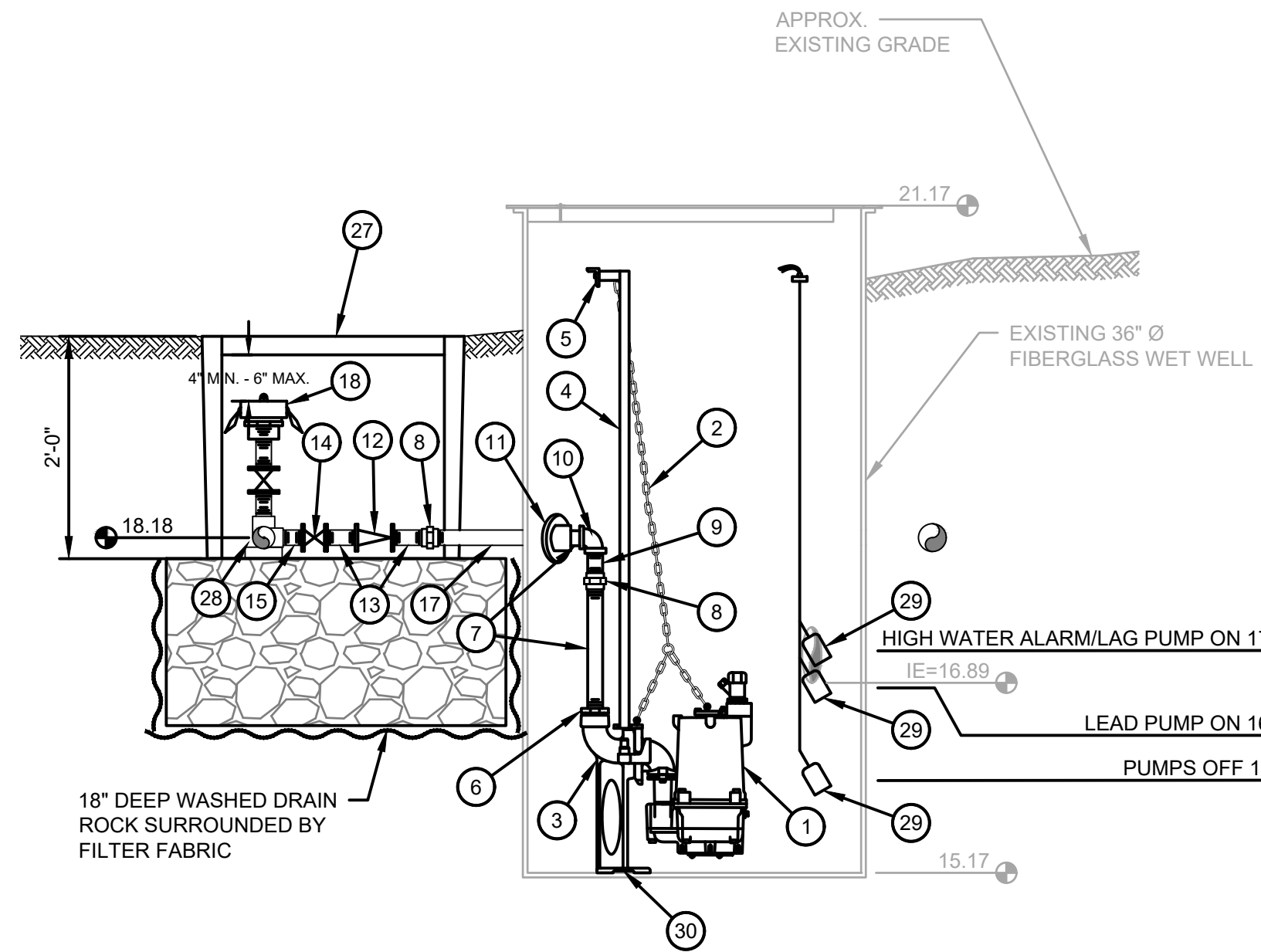
CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT
GRINDER PUMP STATION 4 DEMOLITION

BASE MAP H4
C2003
SHEET
22 OF 30

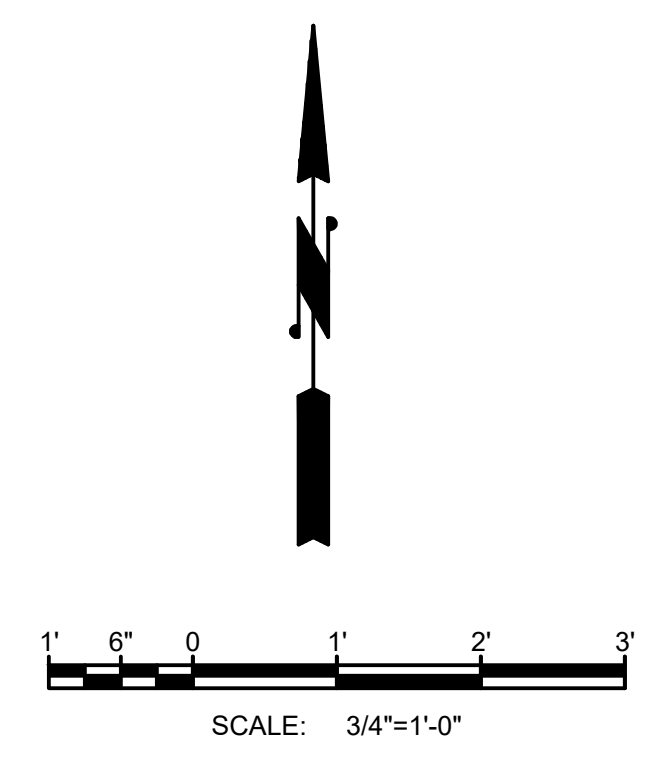
SE 1/4, SEC 23, T26N, R4E, WM



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



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



- GENERAL NOTES:**
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 - 26 3" COUPLING, SCH. 80 PVC SOCKET WELDED.
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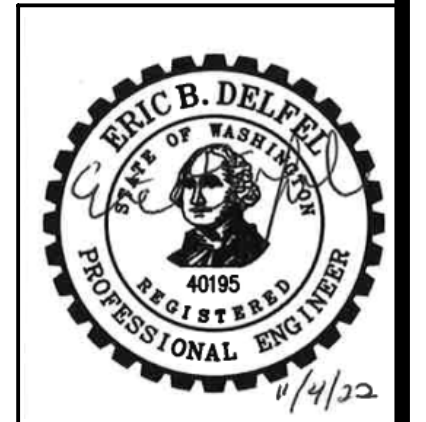
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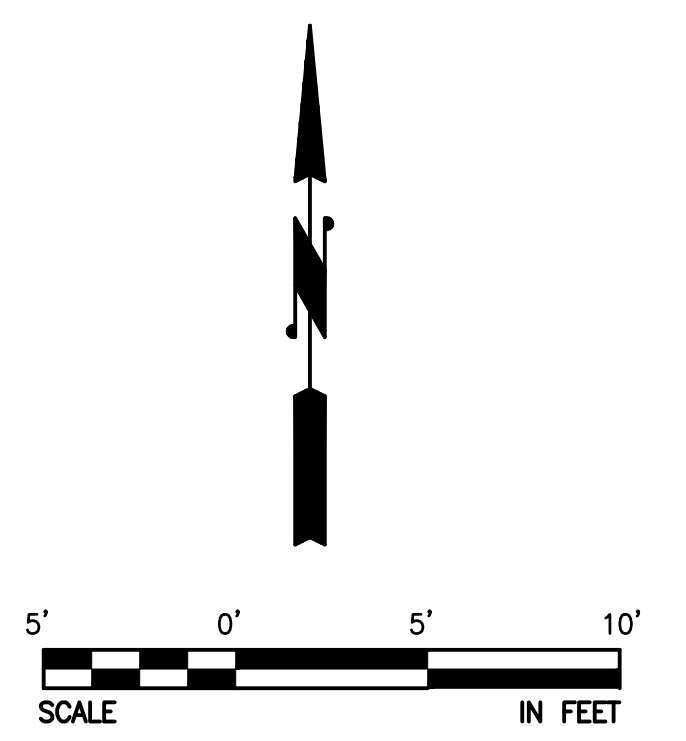
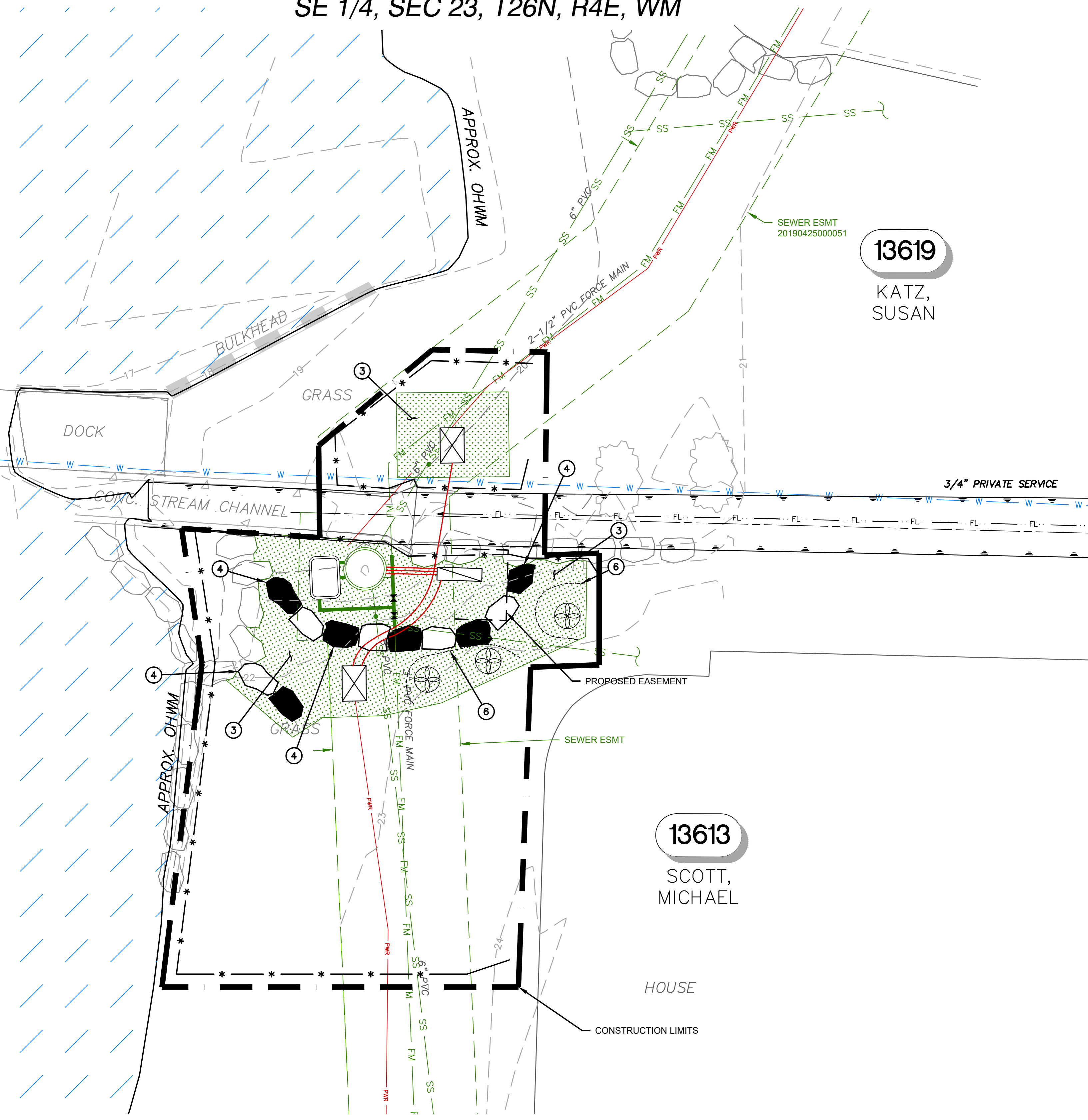
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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT
PROPOSED GRINDER PUMP STATION 4

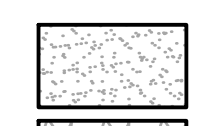
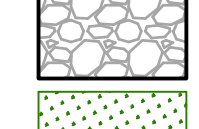



SE 1/4, SEC 23, T26N, R4E, WM

LAKE WASHINGTON



LEGEND

-  SAND RESTORATION
-  RIVER ROCK REPAIR
-  LANDSCAPE RESTORATION

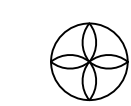
GENERAL NOTES

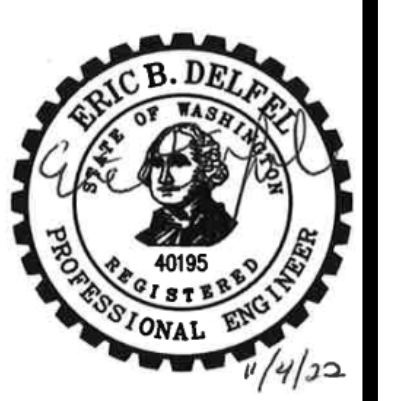
1. SEE SPECIFICATIONS FOR WORK AND PAYMENT INCLUDED IN GENERAL RESTORATION.
2. GRASS AREAS THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE RESTORED WITH 4" OF TOPSOIL AND SOD PER THE SPECIFICATIONS.
3. PROTECT/RESTORE ALL LANDSCAPING AND SURFACE FEATURES TO EXISTING CONDITION OR BETTER.
4. GRADE SITE TO UNIFORM SLOPE AROUND NEW UTILITY BOXES. PROVIDE 30" OF CLEAR LEVEL SPACE IN FRONT OF NEW CONTROL PANNEL(S).
5. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

RESTORATION NOTES

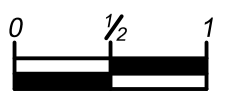
- 1 RESTORE BEACH SAND TO EXISTING CONDITION. ANY IMPORTED SAND SHALL MATCH THE COLOR AND GRADATION OF THE EXISTING SAND.
- 2 RESTORE WALL TO EXISTING CONDITION.
- 3 RESTORE EXISTING LANDSCAPING, TOPSOIL, AND SOD AS APPLICABLE TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.
- 4 RELOCATE EXISTING ROCKERY AS SHOWN TO ACCOMMODATE NEW FACILITIES.
- 5 INSTALL RIVER ROCK TO 3" DEPTH. ANY IMPORTED MATERIAL SHALL MATCH THE EXISTING RIVER ROCK.
- 6 INSTALL ROOT BARRIER BETWEEN NEW PLANTS AND ALL UTILITIES AS SHOWN AND AS DIRECTED BY THE CONTRACTING AGENCY. ROOT BARRIERS SHALL BE "DEEP ROOT" MODEL NO. UB 36-2 OR APPROVED EQUAL.

PLANT SCHEDULE

PLANT SYMBOL	COMMON NAME/ BOTANICAL NAME	MINIMUM SIZE	NO. OF PLANTS
	PORTUGUESE LAUREL/ PRUNUS LUSITANICA	5 GAL	3

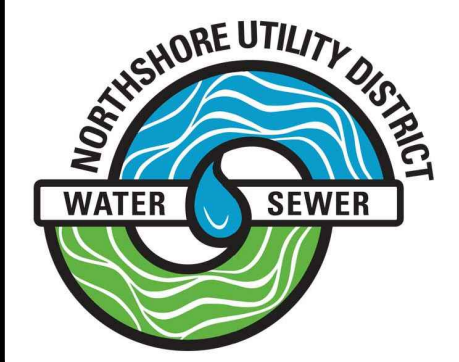


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WARNING

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CHECKED BY	EBD
APPROVAL	EBD
DATE	NOV 2022



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 Kenmore, WA 98028-2684 Kenmore, WA 98028-2684
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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT
**GRINDER PUMP STATION 4
 RESTORATION PLAN**

BASE MAP H4
 C2003
 SHEET
 24 OF 30

ABBREVIATIONS

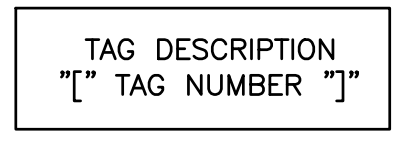
Table with 4 columns of abbreviations and their corresponding full names. Includes terms like AMPERE (AMP), BREAKER FRAME SIZE (IN AMPS), FULL VOLTAGE NON REVERSING, LIQUIDTIGHT FLEXIBLE METAL CONDUIT, POWER MONITOR UNIT, etc.

GENERAL ELECTRICAL NOTES:

- SITE AND BUILDING PLANS: CONDUIT ROUTING IS SHOWN SCHEMATICALLY. ALL TRENCHING SHALL BE PER 1. CONTRACTOR SHALL PROTECT EXISTING UTILITIES. THROUGHOUT THIS DOCUMENT, THE TERM "DEMO", "DEMOLISH", AND "REMOVE" MEANS TO REMOVE, THEN WASTEHAUL OR RETURN TO THE OWNER, PER THE OWNER'S DIRECTION.

GENERAL CONTROL PANEL NOTES:

- UNLESS SPECIFICALLY NOTED OTHERWISE ON THE CONTROL PANEL DETAILS, THE FOLLOWING NOTES APPLY. ALL ENCLOSURES SHALL BE PROVIDED WITH AN ENGRAVED PHENOLIC NAMEPLATE, RED WITH WHITE LETTERING, CORRESPONDING TO THE ASSOCIATED TAG ID NUMBER AND TAG DESCRIPTION.



CABLE AND CONDUIT NOTES:

- REFERENCE SPECIFICATION 16120 FOR CONDUCTORS, INSTRUMENTATION, COMMUNICATION, AND OTHER SPECIAL CABLES AND CONDUCTORS. REFERENCE SPECIFICATION 16130 FOR RACEWAY AND BOXES, JUNCTION BOX TYPES, AND HANDHOLE, PULLBOX, AND VAULT CONDUIT INSTALLATIONS. REFERENCE SPECIFICATIONS AND OUTDOOR INSTALLATION NOTES FOR CONDUIT COMPOSITION AND COATING. CONDUIT TAGS ON PLAN SHEETS WITH A "~" (TILDE) SUFFIX REFER TO SPARE CONDUITS. EXAMPLE: (P0319~)

SYMBOL LEGEND

Large table containing various electrical symbols and their descriptions. Sections include ONE LINE SYMBOLS, PLAN SYMBOLS, ELEMENTARY WIRING DIAGRAM SYMBOLS, GENERAL SYMBOLS, and LINETYPES. Includes symbols for capacitors, fuses, switches, relays, and conduits.

OUTDOOR INSTALLATIONS:

- ALL MOUNTING HARDWARE SHALL BE 316L STAINLESS STEEL. ALL EXPOSED PORTIONS OF CONDUITS SHALL BE PVC-COATED RGS UNLESS SPECIFICALLY NOTED OTHERWISE. ALL CONNECTIONS INTO ENCLOSURES SHALL BE WATERTIGHT, MADE INTO THE BOTTOM OF THE PANELS, USING MYER-TYPE HUBS. PANELS MOUNTED ON EXTERIOR WALLS SHALL BE SUPPORTED TO THE WALL WITH 1/2-INCH (MINIMUM) 316L STAINLESS STEEL UNISTRUT.

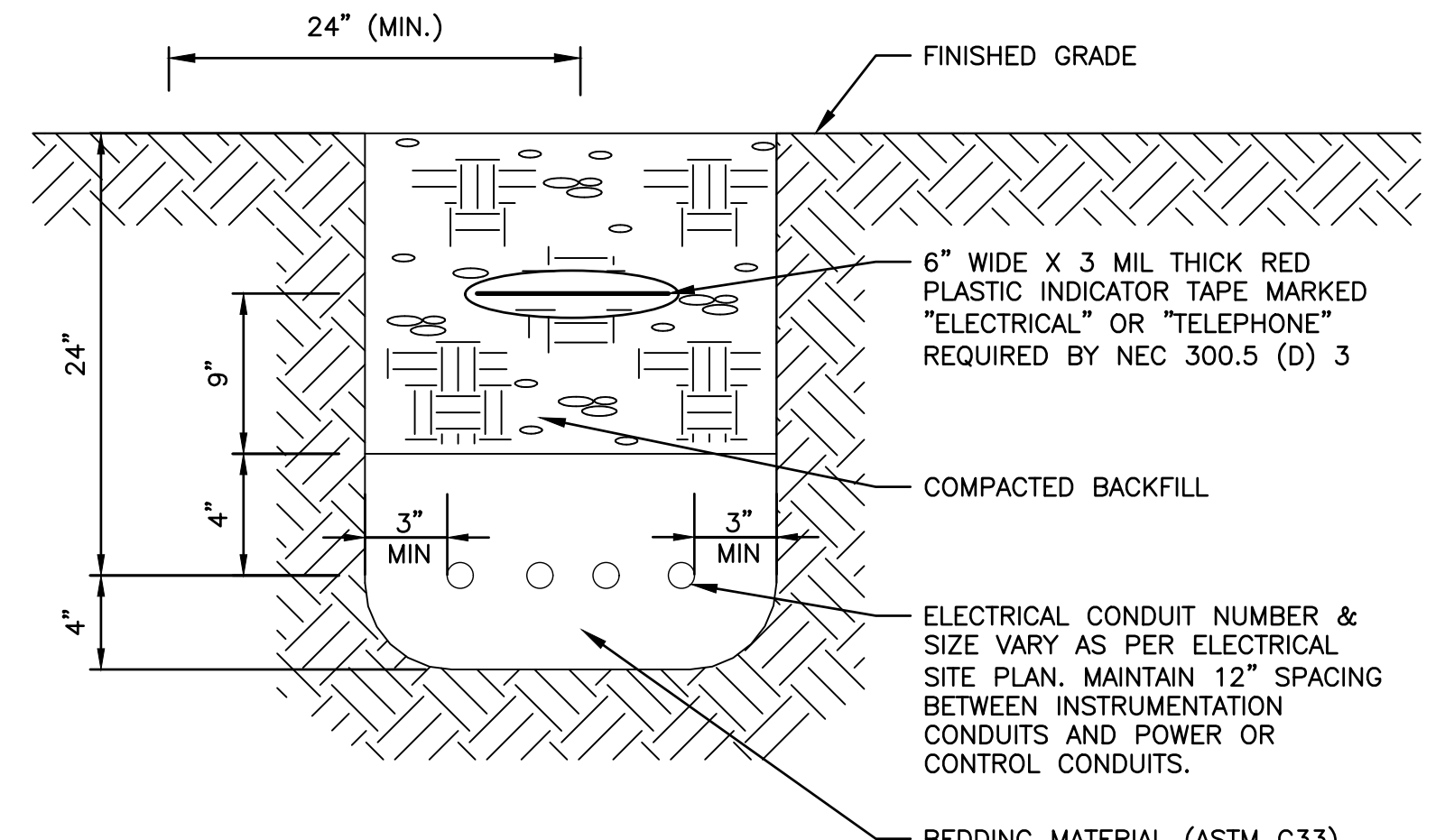
LOAD STUDY:

- A LOAD STUDY IS NOT PROVIDED AS THE FEEDER CIRCUIT ELECTRICAL LOADING IS NOT MODIFIED. A LOAD STUDY IS AVAILABLE UPON REQUEST.

ELECTRICAL WORK SUMMARY:

THIS SUMMARY OF ELECTRICAL WORK IS INCLUDED AS A COURTESY AND IS INTENDED TO PROVIDE A GENERAL UNDERSTANDING OF ELECTRICAL DESIGN INTENT AND MAJOR ELECTRICAL CONSTRUCTION TASKS. IT IS NOT PROVIDED AS A COMPLETE LIST OF WORK AND SHALL NOT BE USED FOR BIDDING PURPOSES. REFER TO ALL PLANS AND SPECIFICATIONS.

- EXISTING GRINDER PUMP STATIONS NO. 1 THROUGH NO. 4 CONTROL PANELS WILL BE REPLACED WITH NEW CONTROL PANELS. THE EXISTING GRINDER PUMP STATIONS POWER FEEDER FROM LIFT STATION NO. 15 WILL BE REUSED. THE GRINDER PUMP STATIONS CONTROL PANELS WILL BE PROVIDED BY THE OWNER. GRINDER PUMP STATION NO. 4 IS LOCATED CLOSEST TO LIFT STATION NO. 15. GRINDER PUMP STATION NO. 1 IS LOCATED FURTHEST FROM LIFT STATION NO. 15. THE DESIGN INTENT IS TO INSTALL TWO PULL BOXES AT GRINDER PUMP STATIONS NO. 2, 3, AND 4 TO FACILITATE TAPPING THE EXISTING FEEDER AND PROVIDE FOR ROUTING MODIFICATION OF THE EXISTING FEEDER TO ACCOMMODATE THE NEW SITE LAYOUT.



- NOTE: SPACING BETWEEN CONDUITS AND OTHER UTILITIES SHALL BE IN COMPLIANCE WITH THE UTILITIES OR 24 INCHES MINIMUM, WHICHEVER IS THE GREATER. SEE CIVIL SHEETS FOR SURFACING RESTORATION.

1 ELECTRICAL TRENCHING DETAIL NOT TO SCALE

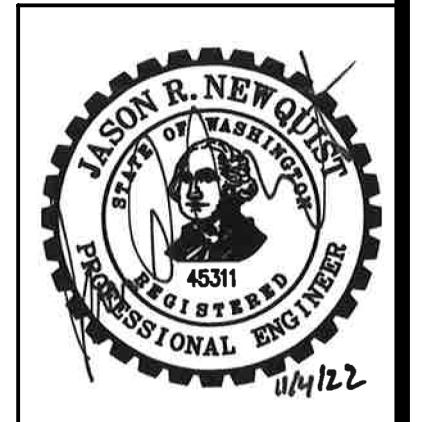
Revision table with columns for NO, BY, APPD, REVISION, and DATE.

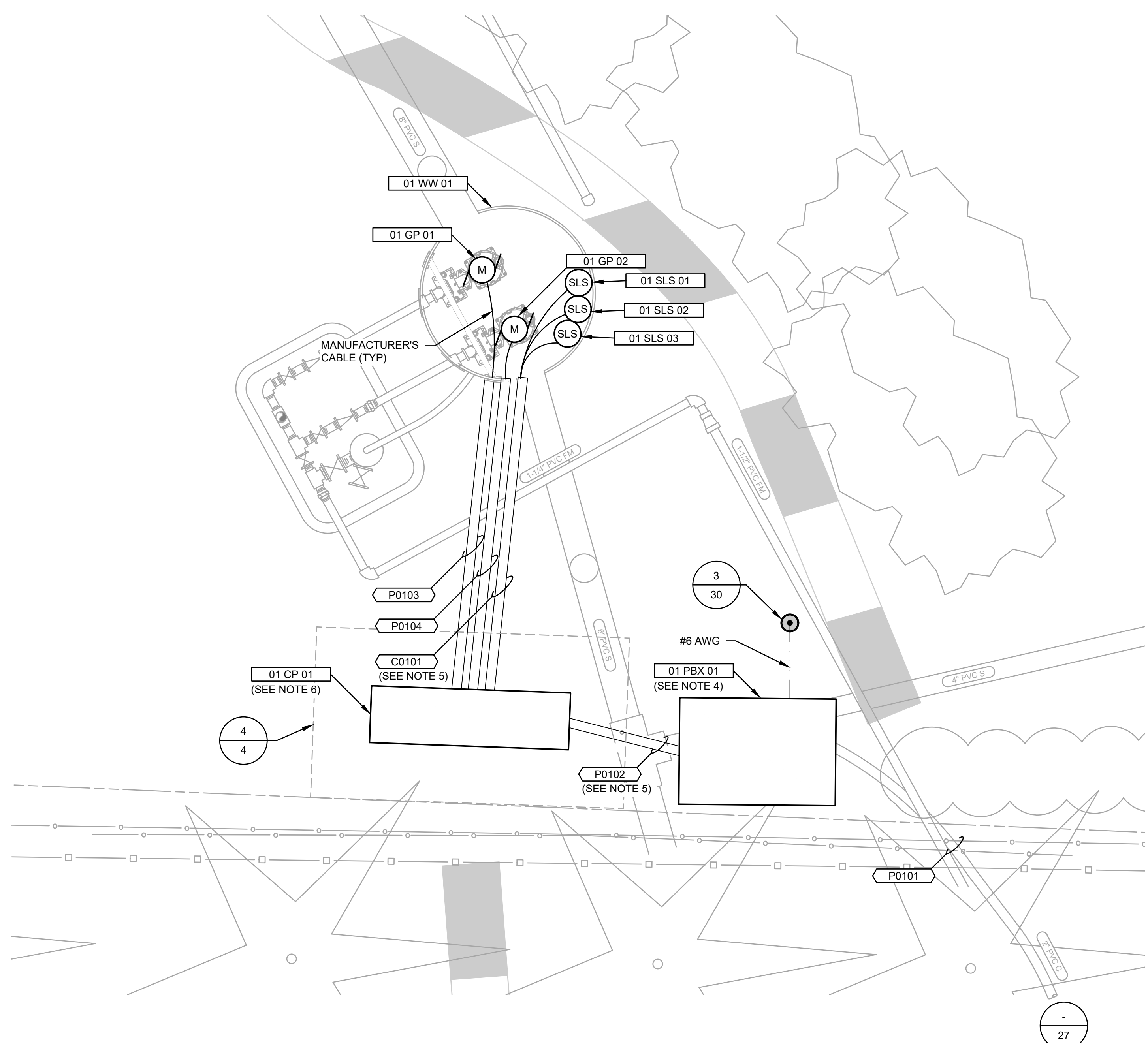
Warning bar with a scale (0 to 1 inch) and the Gray & Osborne, Inc. logo. Text: IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

Northshore Utility District logo and contact information: 6830 NE 185th St. Kenmore, WA 98028-2684. P.O. Box 82489 Kenmore, WA 98028-2684. Phone: (425) 398-4400 | Fax: (425) 398-4430 | www.nud.net

Contract information: CONTRACT 2022-01 GRINDER PUMP STATIONS 1-4 REPLACEMENT. ELECTRICAL SYMBOLS, ABBREVIATIONS, NOTES AND WORK SUMMARY.

Sheet information: BASE MAP H4, C2003, SHEET 25 OF 30.





AREA 01 [01 GPS 01] ELECTRICAL PLAN
SCALE: 3/4"=1'-0"

DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
01 CP 01	CONTROL PANEL, GRINDER PUMP STATION NO. 1	NEW
01 GP 01	GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 1	NEW
01 GP 02	GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 1	NEW
01 GPS 01	GRINDER PUMP STATION NO. 1	EXISTING
01 PBX 01	PULL BOX, SOUTH, GRINDER PUMP STATION NO. 1	NEW
01 SLS 01	LEVEL SWITCH, PUMPS OFF, GRINDER PUMP STATION NO. 1	NEW
01 SLS 02	LEVEL SWITCH, PUMP ON, GRINDER PUMP STATION NO. 1	NEW
01 SLS 03	LEVEL SWITCH, HIGH LEVEL, GRINDER PUMP STATION NO. 1	NEW
01 WW 01	WET WELL, GRINDER PUMP STATION NO. 1	EXISTING

POWER CABLE AND CONDUIT SCHEDULE					
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	NOTES
P0101	[02 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 2	[01 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 1	EXISTING	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	CONDUCTORS ARE EXISTING
P0102	[01 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 1	[01 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 1	3/4"	3X #8 AWG XHHW-2; 1X #10 AWG XHHW-2 G	
P0103	[01 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 1	[01 GP 01], GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 1	2"	MANUFACTURER'S CABLE	
P0104	[01 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 1	[01 GP 02], GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 1	2"	MANUFACTURER'S CABLE	

CONTROL CABLE AND CONDUIT SCHEDULE						
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	E-1 TYPE	NOTES
C0101	[01 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 1	[01 WW 01], WET WELL, GRINDER PUMP STATION NO. 1	2"	MANUFACTURER'S CABLES	* 2	[01 SLS 01], [01 SLS 02], AND [01 SLS 03]

NOTES:

- ELECTRICAL DEMOLITION IS NOT SHOWN ON THE ELECTRICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR DEMOLITION. FOR ALL EQUIPMENT THAT IS DEMOLISHED, REMOVE CABLES AND CONDUCTORS IN THEIR ENTIRETY, AND DEMOLISH CONDUIT TO TWO FEET BELOW GRADE, UNLESS NOTED OTHERWISE. BACKFILL TO MATCH SURROUNDINGS.
- NOT ALL EXISTING CONDUITS ARE SHOWN, CONTRACTOR SHALL VERIFY EXISTING CONDUIT ROUTING AS NEEDED.
- ALL POWER OUTAGES SHALL BE COORDINATED WITH THE OWNER.
- CONTRACTOR SHALL LOCATE THE EXISTING POWER FEEDER AND INSTALL THE PULL BOX TO INTERCEPT. PROTECT THE EXISTING POWER FEEDER AND DEMOLISH THE EXISTING CONDUIT AS NEEDED. ADD CONDUIT ELBOW AND EXTEND CONDUIT INTO THE BOTTOM OF THE PULL BOX. SPLICE THE EXISTING CONDUCTORS TO THE CONDUCTORS IN CONDUIT P0102. USING LUGS THAT ARE RATED FOR DIRECT BURIAL. COORDINATE THE EXACT LOCATION WITH THE OWNER.
- INCLUDE #6 AWG COPPER STRANDED CONDUCTOR IN CONDUIT TRENCH FOR WET WELL GROUNDING.
- INSTALL CONTROL PANEL ON BACKPLATE PER $\frac{1}{30}$.
- PANEL BOARD [15 PB 02] IS LOCATED APPROXIMATELY 1,421 FEET SOUTH INSIDE OF POWER DISTRIBUTION PANEL [15 PDP 01B]. THE GRINDER PUMPS POWER FEEDER IS CONNECTED TO CIRCUITS 8, 10, AND 12. COORDINATE ALL POWER OUTAGES WITH THE OWNER.
- REFERENCE THE SCHEDULE OF CLASSIFIED AREAS ON $\frac{-}{30}$.

NO	BY	APPD	REVISION	DATE

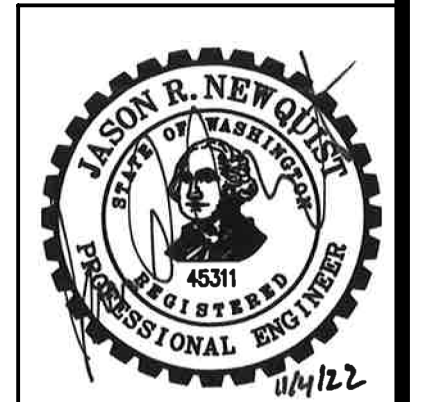
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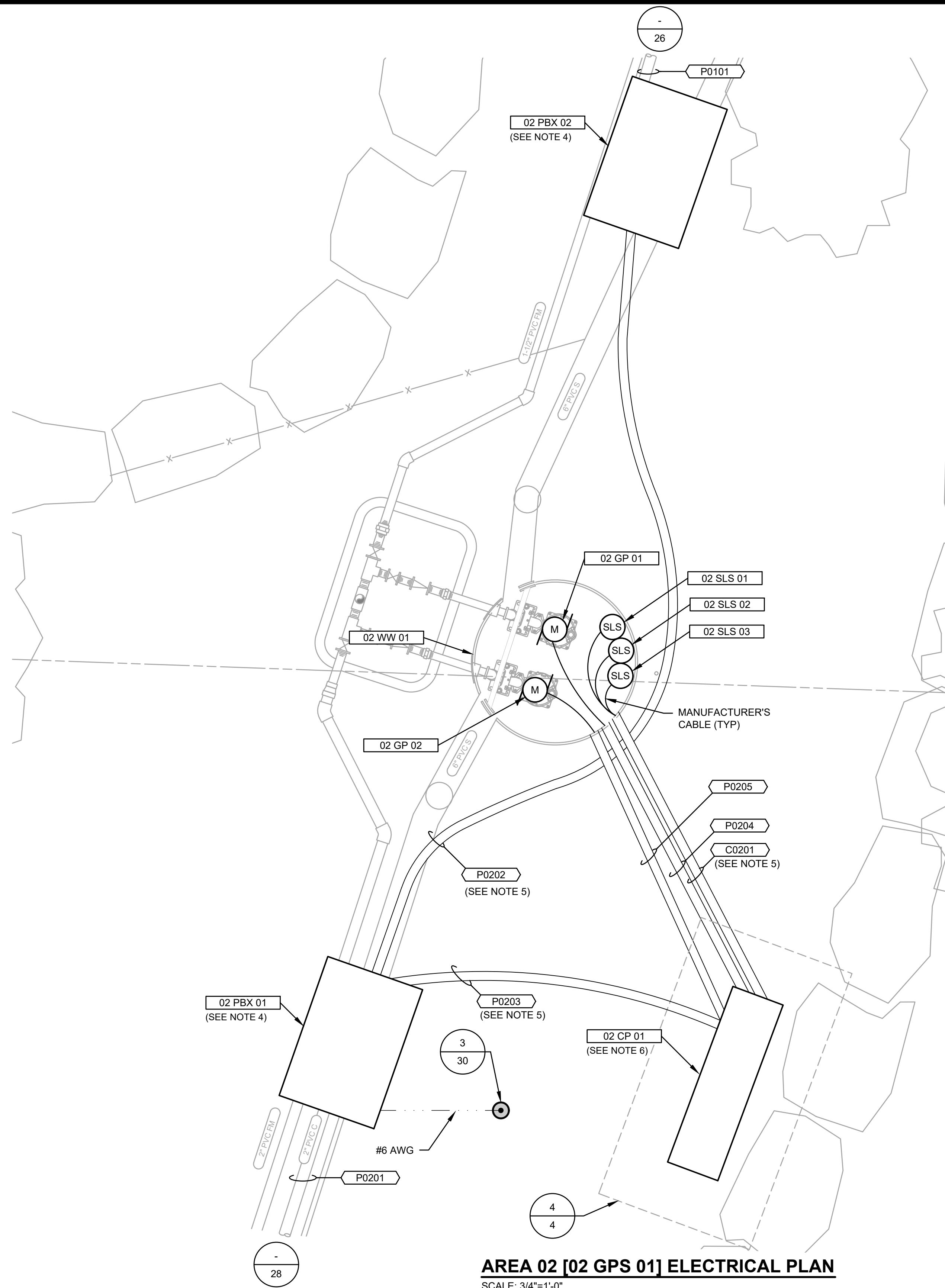
DESIGNED BY: PAM
 DRAWN BY: PEB
 CHECKED BY: JRN
 APPROVAL: JRN
 DATE: NOV 2022

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 6830 NE 185th St. P.O. Box 82489
 Kenmore, WA 98028-2684 Kenmore, WA 98028-2684
 Ph: (425) 398-4400 | Fax: (425) 398-4430 | www.nud.net

CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT
**GRINDER PUMP STATION 1
 ELECTRICAL PLAN**

BASE MAP H4
 C2003
 SHEET
 26 OF 30





DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
02 CP 01	CONTROL PANEL, GRINDER PUMP STATION NO. 2	NEW
02 GP 01	GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 2	NEW
02 GP 02	GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 2	NEW
02 GPS 01	GRINDER PUMP STATION NO. 2	EXISTING
02 PBX 01	PULL BOX, SOUTH, GRINDER PUMP STATION NO. 2	NEW
02 PBX 02	PULL BOX, NORTH, GRINDER PUMP STATION NO. 2	NEW
02 SLS 01	LEVEL SWITCH, PUMPS OFF, GRINDER PUMP STATION NO. 2	NEW
02 SLS 02	LEVEL SWITCH, PUMP ON, GRINDER PUMP STATION NO. 2	NEW
02 SLS 03	LEVEL SWITCH, HIGH LEVEL, GRINDER PUMP STATION NO. 2	NEW
02 WW 01	WET WELL, GRINDER PUMP STATION NO. 2	EXISTING

POWER CABLE AND CONDUIT SCHEDULE					
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	NOTES
P0201	[03 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 3	[02 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 2	EXISTING	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	CONDUCTORS ARE EXISTING
P0202	[02 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 2	[02 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 2	2"	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	
P0203	[02 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 2	[02 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 2	3/4"	3X #8 AWG XHHW-2; 1X #10 AWG XHHW-2 G	
P0204	[02 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 2	[02 GP 01], GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 2	2"	MANUFACTURER'S CABLE	
P0205	[02 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 2	[02 GP 02], GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 2	2"	MANUFACTURER'S CABLE	

CONTROL CABLE AND CONDUIT SCHEDULE						
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	E-1 TYPE	NOTES
C0201	[02 GP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 2	[02 WW 01], WET WELL, GRINDER PUMP STATION NO. 2	2"	MANUFACTURER'S CABLES	* 2	[02 SLS 01], [02 SLS 02], AND [02 SLS 03]

NOTES:

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- CONTRACTOR SHALL LOCATE THE EXISTING POWER FEEDER AND INSTALL THE PULL BOXES TO INTERCEPT. PROTECT THE EXISTING POWER FEEDER AND DEMOLISH THE EXISTING CONDUIT AS NEEDED. ADD CONDUIT ELBOWS AND EXTEND CONDUIT INTO THE BOTTOM OF THE PULL BOXES. SPLICE THE EXISTING CONDUCTORS TO THE CONDUCTORS IN CONDUIT P0202, AND IN [02 PBX 01], TO THE CONDUCTORS IN P0203 ALSO, USING LUGS THAT ARE RATED FOR DIRECT BURIAL. COORDINATE THE EXACT LOCATION WITH THE OWNER.
- INCLUDE #6 AWG COPPER STRANDED CONDUCTOR IN CONDUIT TRENCH FOR WET WELL GROUNDING.
- INSTALL CONTROL PANEL ON BACKPLATE PER $\frac{1}{30}$.
- PANEL BOARD [15 PB 02] IS LOCATED APPROXIMATELY 1,136 FEET SOUTH INSIDE OF POWER DISTRIBUTION PANEL [15 PDP 01B]. THE GRINDER PUMPS POWER FEEDER IS CONNECTED TO CIRCUITS 8, 10, AND 12. COORDINATE ALL POWER OUTAGES WITH THE OWNER.
- REFERENCE THE SCHEDULE OF CLASSIFIED AREAS ON $\frac{4}{30}$.

NO	BY	APPD	REVISION	DATE

WARNING

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DESIGNED BY PAM
DRAWN BY PEB
CHECKED BY JRN
APPROVAL JRN
DATE NOV 2022

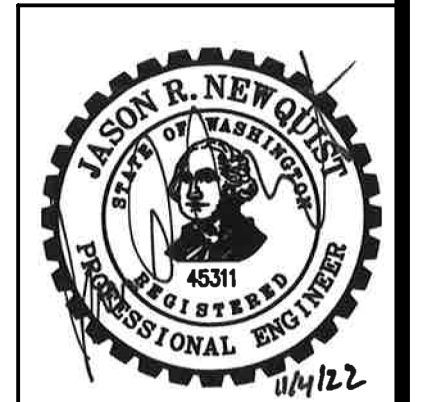
Gray & Osborne, Inc.
 CONSULTING ENGINEERS

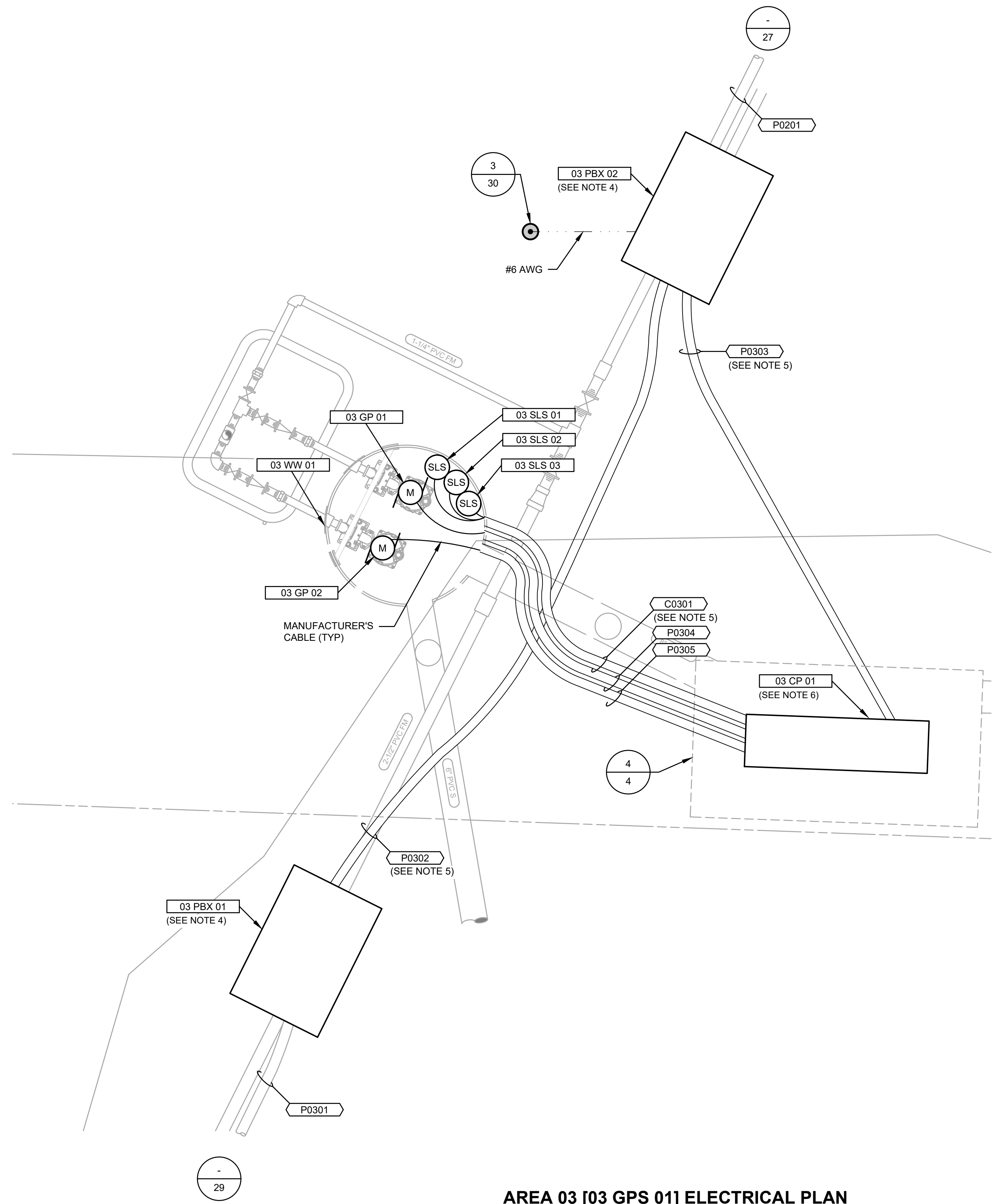
NORTHSHORE UTILITY DISTRICT
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CONTRACT 2022-01
 GRINDER PUMP STATIONS 1-4 REPLACEMENT

**GRINDER PUMP STATION 2
 ELECTRICAL PLAN**

BASE MAP H4
 C2003
 SHEET
 27 OF 30





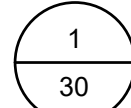
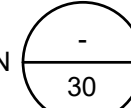
AREA 03 [03 GPS 01] ELECTRICAL PLAN
SCALE: 3/4"=1'-0"

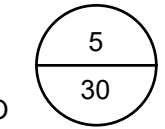
DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
03 CP 01	CONTROL PANEL, GRINDER PUMP STATION NO. 3	NEW
03 GP 01	GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 3	NEW
03 GP 02	GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 3	NEW
03 GPS 01	GRINDER PUMP STATION NO. 3	EXISTING
03 PBX 01	PULL BOX, SOUTH, GRINDER PUMP STATION NO. 3	NEW
03 PBX 02	PULL BOX, NORTH, GRINDER PUMP STATION NO. 3	NEW
03 SLS 01	LEVEL SWITCH, PUMPS OFF, GRINDER PUMP STATION NO. 3	NEW
03 SLS 02	LEVEL SWITCH, PUMP ON, GRINDER PUMP STATION NO. 3	NEW
03 SLS 03	LEVEL SWITCH, HIGH LEVEL, GRINDER PUMP STATION NO. 3	NEW
03 WW 01	WET WELL, GRINDER PUMP STATION NO. 3	EXISTING

POWER CABLE AND CONDUIT SCHEDULE					
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	NOTES
P0301	[04 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 4	[03 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 3	EXISTING	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	CONDUCTORS ARE EXISTING
P0302	[03 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 3	[03 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 3	2"	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	
P0303	[03 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 3	[03 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 3	3/4"	3X #8 AWG XHHW-2; 1X #10 AWG XHHW-2 G	
P0304	[03 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 3	[03 GP 01], GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 3	2"	MANUFACTURER'S CABLE	
P0305	[03 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 3	[03 GP 02], GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 3	2"	MANUFACTURER'S CABLE	

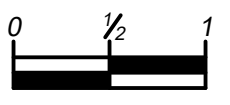
CONTROL CABLE AND CONDUIT SCHEDULE						
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	E-1 TYPE	NOTES
C0301	[03 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 3	[03 WW 01], WET WELL, GRINDER PUMP STATION NO. 3	2"	MANUFACTURER'S CABLES	* 2	[03 SLS 01], [03 SLS 02], AND [03 SLS 03]

NOTES:

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- INCLUDE #6 AWG COPPER STRANDED CONDUCTOR IN CONDUIT TRENCH FOR WET WELL GROUNDING.
- INSTALL CONTROL PANEL ON BACKPLATE PER 
- PANEL BOARD [15 PB 02] IS LOCATED APPROXIMATELY 863 FEET SOUTH INSIDE OF POWER DISTRIBUTION PANEL [15 PDP 01B]. THE GRINDER PUMPS POWER FEEDER IS CONNECTED TO CIRCUITS 8, 10, AND 12. COORDINATE ALL POWER OUTAGES WITH THE OWNER.
- REFERENCE THE SCHEDULE OF CLASSIFIED AREAS ON 

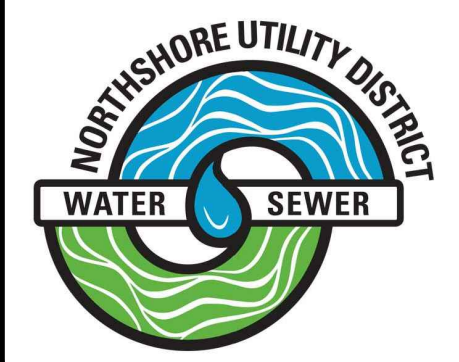


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WARNING

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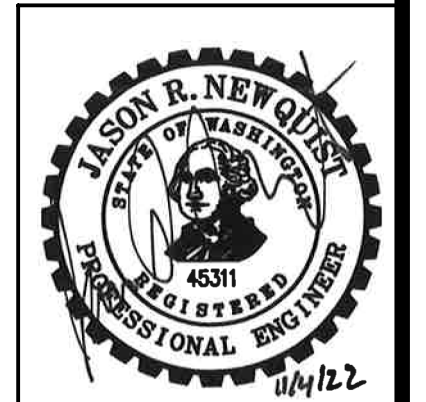


DESIGNED BY	PAM
DRAWN BY	PEB
CHECKED BY	JRN
APPROVAL	JRN
DATE	NOV 2022

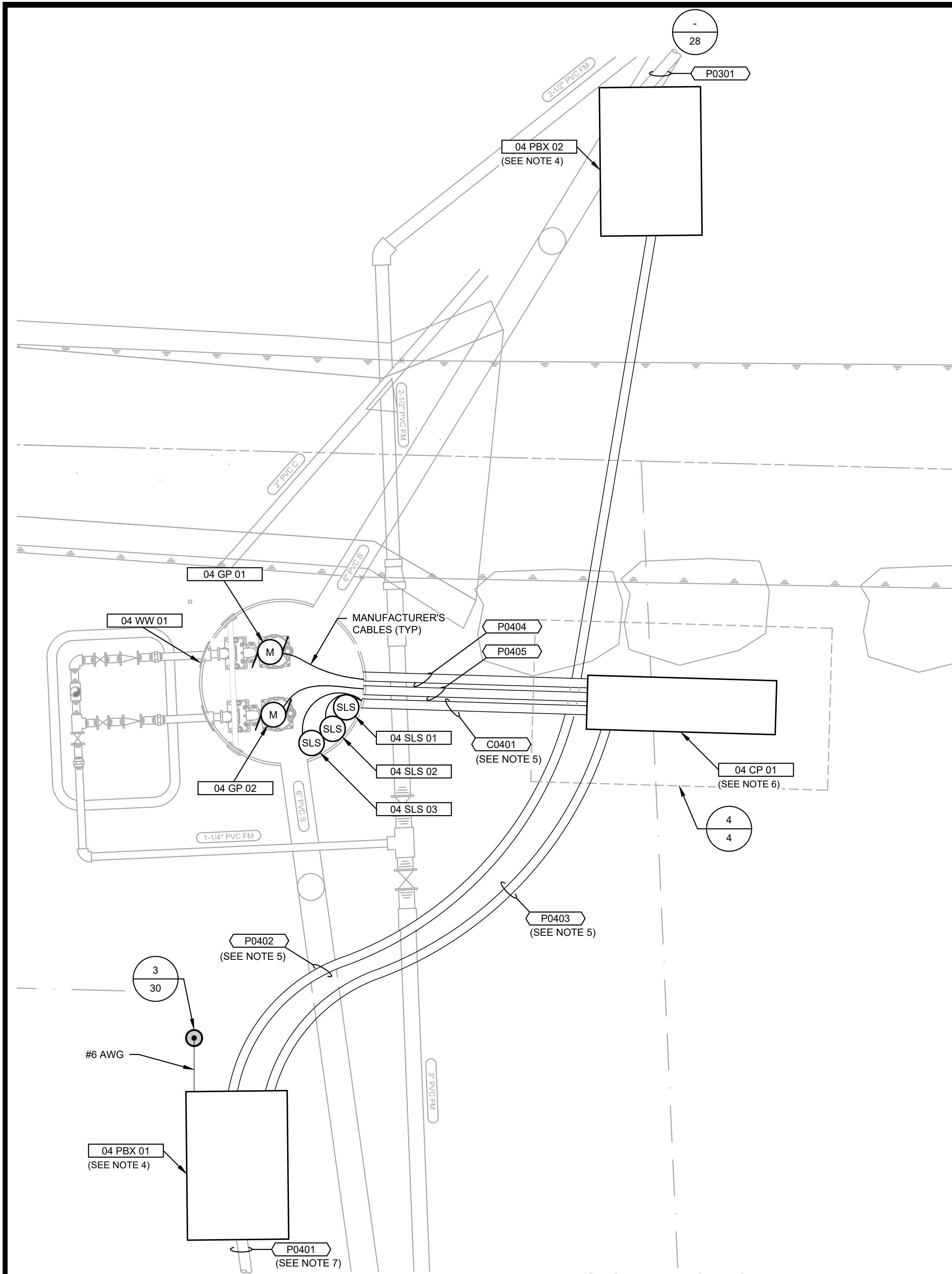


NORTHSHORE UTILITY DISTRICT
6830 NE 185th St. P.O. Box 82489
Kenmore, WA 98028-2684 Kenmore, WA 98028-2684
Ph: (425) 398-4400 | Fax: (425) 398-4430 | www.nud.net

CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT
**GRINDER PUMP STATION 3
ELECTRICAL PLAN**



BASE MAP H4
C2003
SHEET
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AREA 04 [04 GPS 01] ELECTRICAL PLAN
SCALE: 3/4"=1'-0"

DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
04 CP 01	CONTROL PANEL, GRINDER PUMP STATION NO. 4	NEW
04 GP 01	GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 4	NEW
04 GP 02	GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 4	NEW
04 GPS 01	GRINDER PUMP STATION NO. 4	EXISTING
04 PBX 01	PULL BOX, SOUTH, GRINDER PUMP STATION NO. 4	NEW
04 PBX 02	PULL BOX, NORTH, GRINDER PUMP STATION NO. 4	NEW
04 SLS 01	LEVEL SWITCH, PUMPS OFF, GRINDER PUMP STATION NO. 4	NEW
04 SLS 02	LEVEL SWITCH, PUMP ON, GRINDER PUMP STATION NO. 4	NEW
04 SLS 03	LEVEL SWITCH, HIGH LEVEL, GRINDER PUMP STATION NO. 4	NEW
04 WW 01	WET WELL, GRINDER PUMP STATION NO. 4	EXISTING

DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
15 LS 01	LIFT STATION NO. 15	EXISTING
15 PB 02	PANELBOARD, 240/120V, LIFT STATION NO. 15 POWER DISTRIBUTION PANEL	EXISTING
15 PDP 01B	POWER DISTRIBUTION PANEL, LIFT STATION NO. 15	EXISTING

POWER CABLE AND CONDUIT SCHEDULE					
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	NOTES
P0401	[15 PB 02], PANELBOARD, 240/120V, LIFT STATION NO. 15 POWER DISTRIBUTION PANEL	[04 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 4	EXISTING	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	CONDUCTORS ARE EXISTING.
P0402	[04 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 4	[04 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 4	2"	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	
P0403	[04 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 4	[04 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 4	3/4"	3X #8 AWG XHHW-2; 1X #10 AWG XHHW-2 G	
P0404	[04 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 4	[04 GP 01], GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 4	2"	MANUFACTURER'S CABLES	
P0405	[04 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 4	[04 GP 02], GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 4	2"	MANUFACTURER'S CABLES	

CONTROL CABLE AND CONDUIT SCHEDULE						
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	E-1 TYPE	NOTES
C0401	[04 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 4	[04 WW 01], WET WELL, GRINDER PUMP STATION NO. 4	2"	MANUFACTURER'S CABLES	* 2	[04 SLS 01], [04 SLS 02], AND [04 SLS 03]

NOTES:

- ELECTRICAL DEMOLITION IS NOT SHOWN ON THE ELECTRICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR DEMOLITION. FOR ALL EQUIPMENT THAT IS DEMOLISHED, REMOVE CABLES AND CONDUCTORS IN THEIR ENTIRETY, AND DEMOLISH CONDUIT TO TWO FEET BELOW GRADE, UNLESS NOTED OTHERWISE. BACKFILL TO MATCH SURROUNDINGS.
- NOT ALL EXISTING CONDUITS ARE SHOWN, CONTRACTOR SHALL VERIFY EXISTING CONDUIT ROUTING AS NEEDED.
- ALL POWER OUTAGES SHALL BE COORDINATED WITH THE OWNER.
- CONTRACTOR SHALL LOCATE THE EXISTING POWER FEEDER AND INSTALL THE PULL BOXES TO INTERCEPT. PROTECT THE EXISTING POWER FEEDER AND DEMOLISH THE EXISTING CONDUIT AS NEEDED. ADD CONDUIT ELBOWS AND EXTEND CONDUIT INTO THE BOTTOM OF THE PULL BOXES. SPLICE THE EXISTING CONDUCTORS TO THE CONDUCTORS IN CONDUIT P0402 AND, IN [04 PBX 01], TO THE CONDUCTORS IN P0403 ALSO, USING LUGS THAT ARE RATED FOR DIRECT BURIAL. COORDINATE THE EXACT LOCATION WITH THE OWNER.
- INCLUDE #6 AWG COPPER STRANDED CONDUCTOR IN CONDUIT TRENCH FOR WET WELL GROUNDING.
- INSTALL CONTROL PANEL ON BACKPLATE PER $\frac{1}{30}$.
- PANEL BOARD [15 PB 02] IS LOCATED APPROXIMATELY 650 FEET SOUTH INSIDE OF POWER DISTRIBUTION PANEL [15 PDP 01B]. THE GRINDER PUMPS POWER FEEDER IS CONNECTED TO CIRCUITS 8, 10, AND 12. COORDINATE ALL POWER OUTAGES WITH THE OWNER.
- REFERENCE THE SCHEDULE OF CLASSIFIED AREAS ON $\frac{1}{30}$.
- LIFT STATION NO. 15 DEVICE TAGS ARE SHOWN FOR REFERENCE ONLY.

NO	BY	APPD	REVISION	DATE

WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

Gray & Osborne, Inc.
CONSULTING ENGINEERS

DESIGNED BY: PAM
DRAWN BY: PEB
CHECKED BY: JRN
APPROVAL: JRN
DATE: NOV 2022

NORTHSHORE UTILITY DISTRICT
WATER SEWER

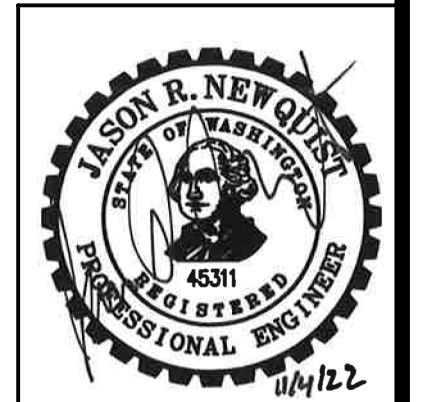
6830 NE 185th St. P.O. Box 82489
Kenmore, WA 98028-2684 Kenmore, WA 98028-2684

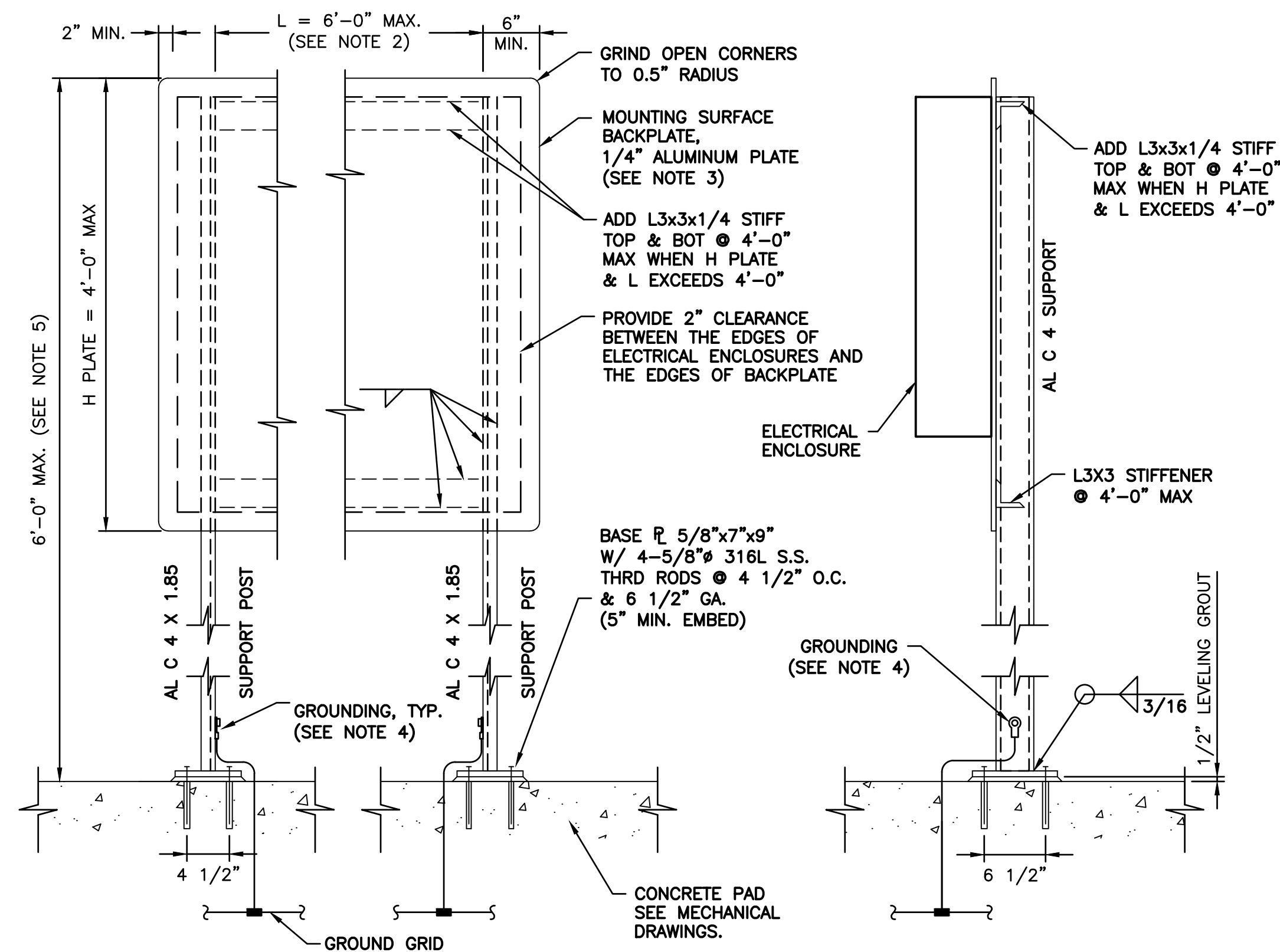
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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT

**GRINDER PUMP STATION 4
ELECTRICAL PLAN**

BASE MAP H4
C2003
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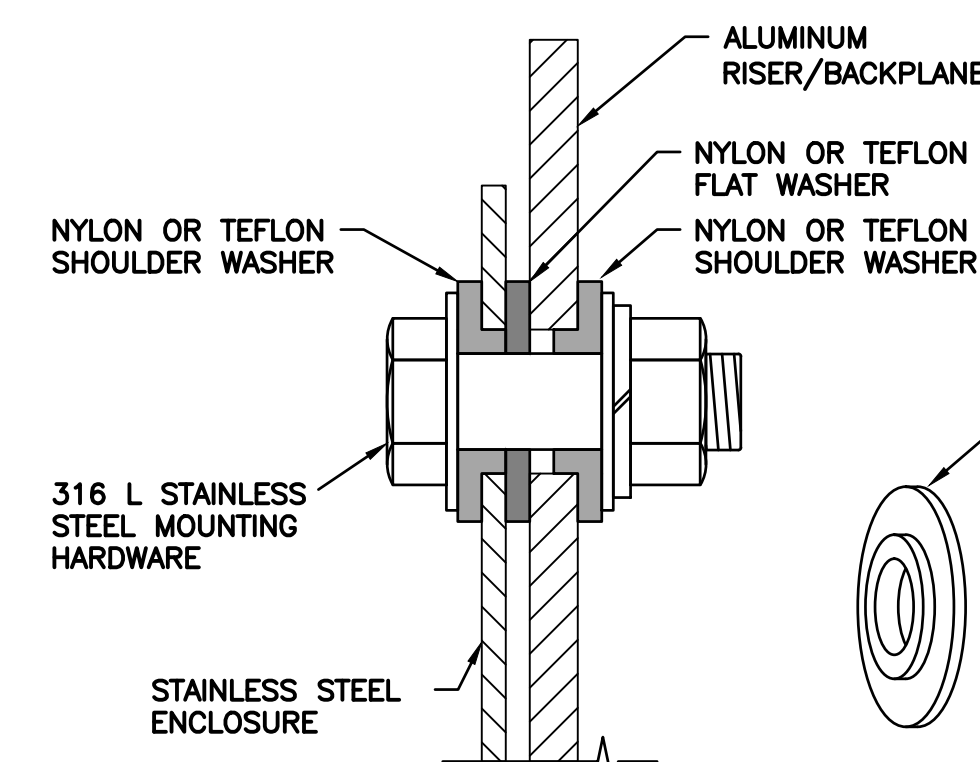
MULTIPLE POST FRONT VIEW

MULTIPLE POST SIDE VIEW

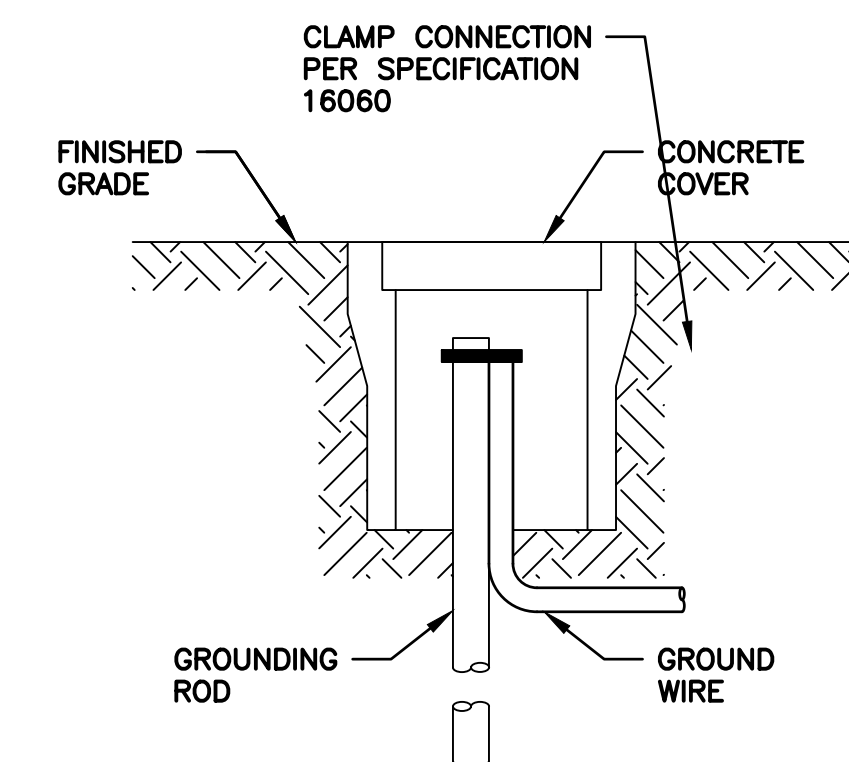
NOTES:

1. MOUNT ELECTRICAL ENCLOSURES TO BACKPLATE MOUNTING SURFACE USING 1/2" 316L STAINLESS STEEL BOLTS. INSULATE BOLTS FROM MOUNTING SURFACE AND ELECTRICAL ENCLOSURES USING SHOULDER AND FLAT WASHERS.
2. WIDTH AND HEIGHT OF THE BACKPLATE AND THE SPACING BETWEEN SUPPORT POSTS ARE DEPENDENT ON THE SPECIFIC APPLICATION. SUPPORT POSTS SHALL NOT EXCEED 6'-0". FOR WIDER BACKPLATES, PROVIDE ADDITIONAL EQUAL SPACED SUPPORT POST.
3. ALUMINUM PLATES SHALL COMPLY WITH ASTM B209, ALLOY 5052. ALUMINUM BARS AND RODS SHALL COMPLY WITH ASTM B221, ALLOY 6061-6.
4. GROUND BACKPLATE SUPPORT STRUCTURE WITH A BARE COPPER GROUNDING ELECTRODE CONDUCTOR THE SAME SIZE AS THE GROUND GRID CONDUCTORS AT THE EQUIPMENT LOCATION. CONNECTION POINT SHALL BE MADE NO MORE THAN 6" ABOVE THE PAD.
5. COORDINATE HEIGHT WITH THE OWNER.

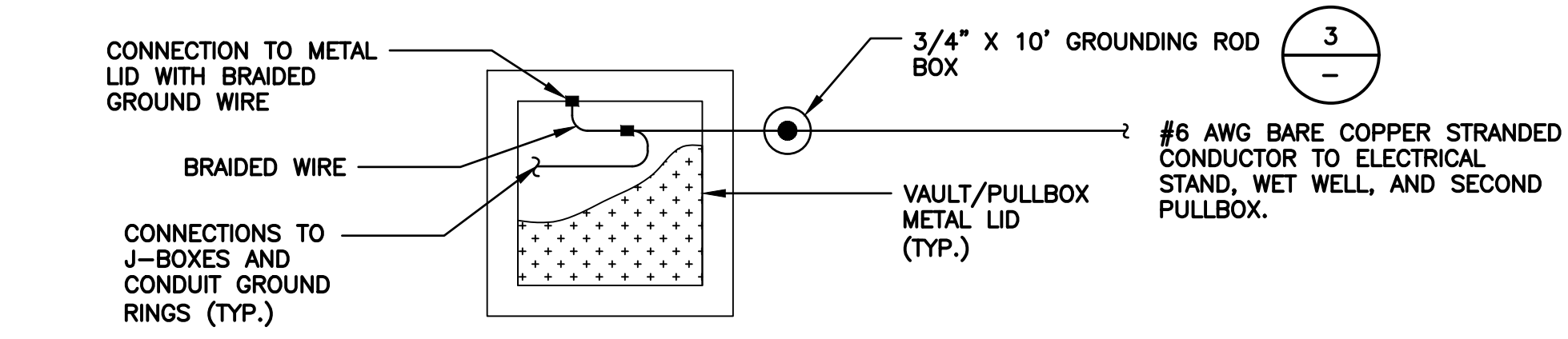
1 FREE-STANDING BACKPLATE MOUNTING DETAIL
TYP NOT TO SCALE



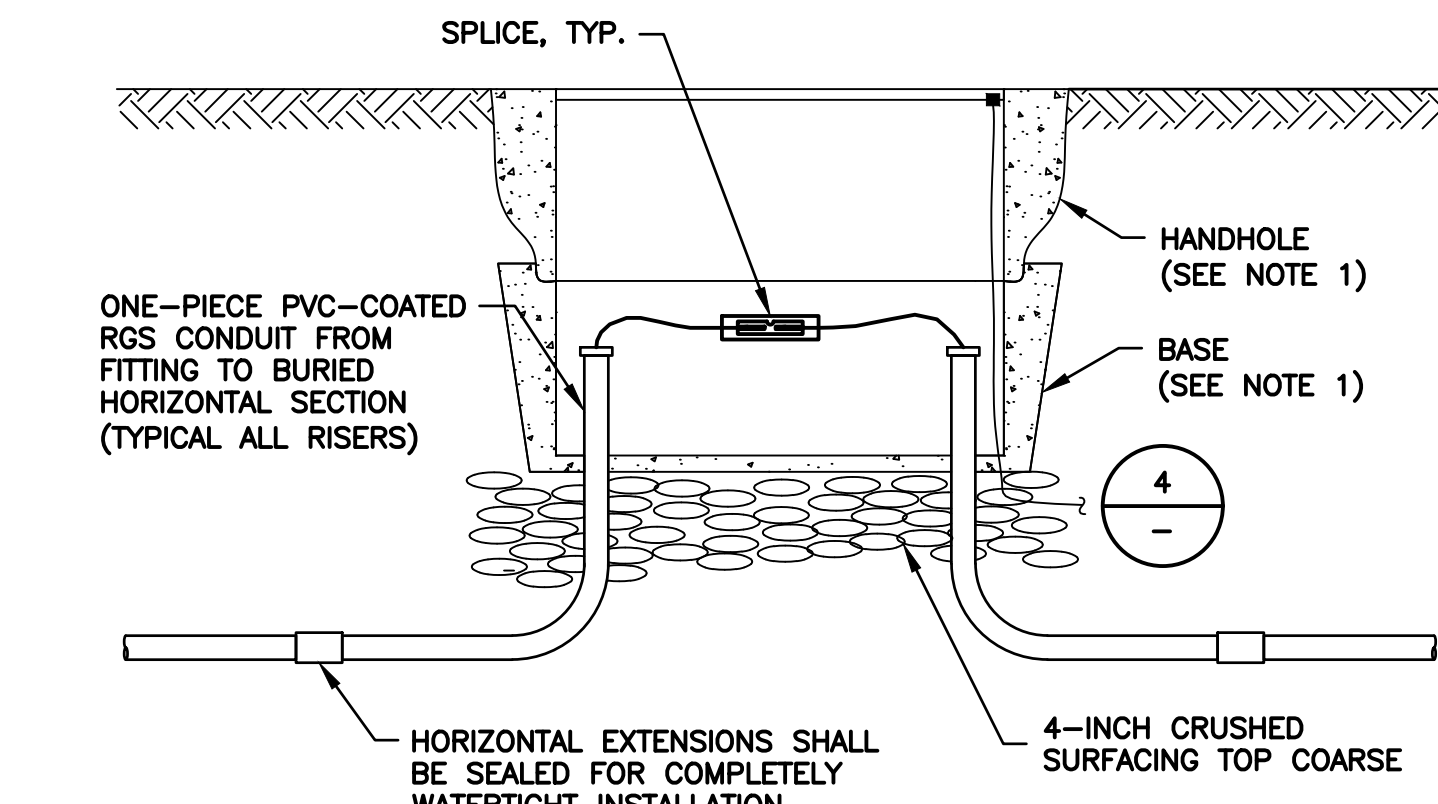
2 SHOULDER WASHER MOUNTING DETAIL
TYP NOT TO SCALE



3 GROUND ROD BOX DETAIL
TYP NOT TO SCALE



4 METAL LID GROUNDING DETAIL
TYP NOT TO SCALE

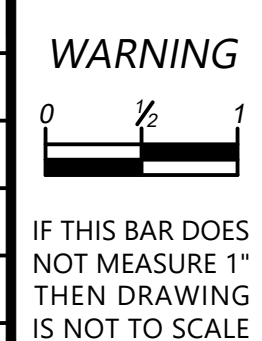


5 PULL BOX DETAIL
TYP NOT TO SCALE

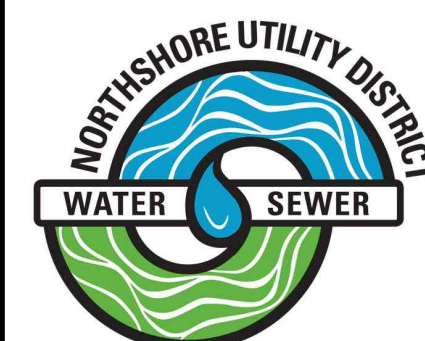
- NOTES:**
1. FOGTITE INC. J-11 TYPE 2 NON-SKID HANDHOLE WITH BONDING STRAP, GALVANIZED STEEL LID, RATED H-20 LOADING, WITH POSITIVE LOCK, AND WITH MATCHING BASE. FURNISH AND INSTALL PULL BOX ASSEMBLY ON TOP OF 4-INCH THICK CRUSHED SURFACING TOP COURSE. PROVIDE LID WITH "POWER" LEGEND.

SCHEDULE OF CLASSIFIED AREAS		
LOCATION	CLASSIFICATION	EXTENT OF ENVELOPE
WET WELL	CLASS I, DIVISION 1	WITHIN THE WET WELL AND WITHIN A 3-FOOT RADIUS FROM THE HATCH OPENING.
WET WELL	CLASS I, DIVISION 2	WITHIN A 5-FOOT RADIUS FROM THE HATCH OPENING.

NO	BY	APPD	REVISION	DATE



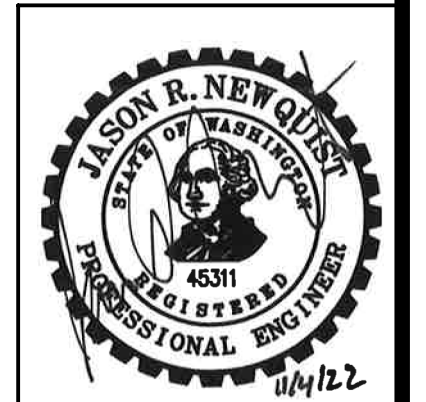
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