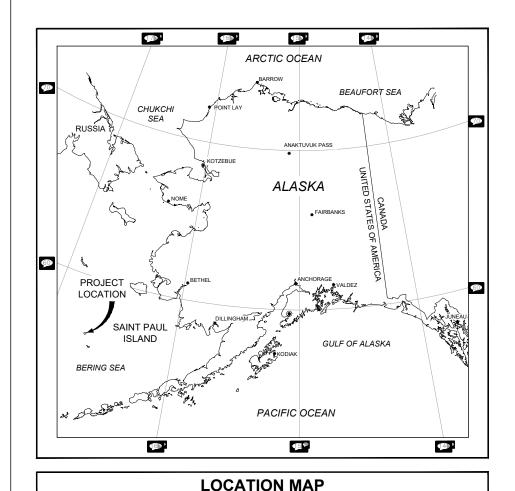
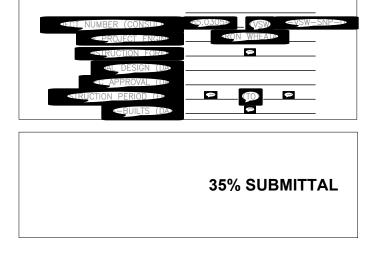
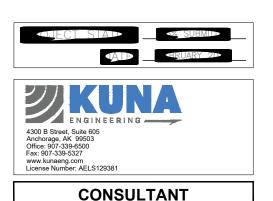
# SAINT PAUL, ALASKA LIFT STATION REPLACEMENTS 35% SUBMITTAL - FEBRUARY 2023



IN COOPERATION WITH THE STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
VILLAGE SAFE WATER PROGRAM
U.S. DEPARTMENT OF AGRICULTURE, RURAL
ECONOMIC AND COMMUNITY DEVELOPMENT

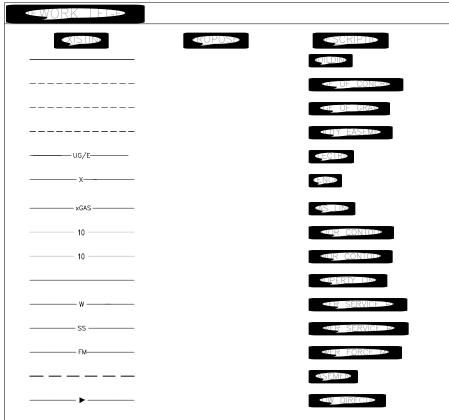




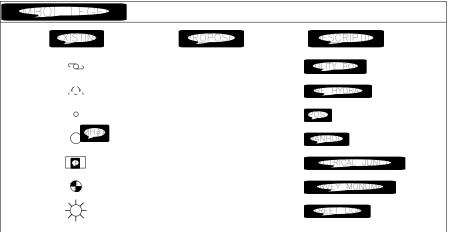


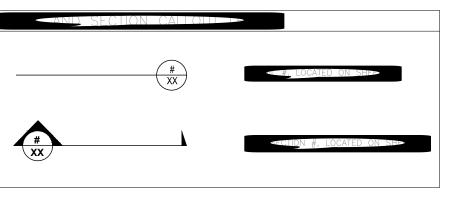


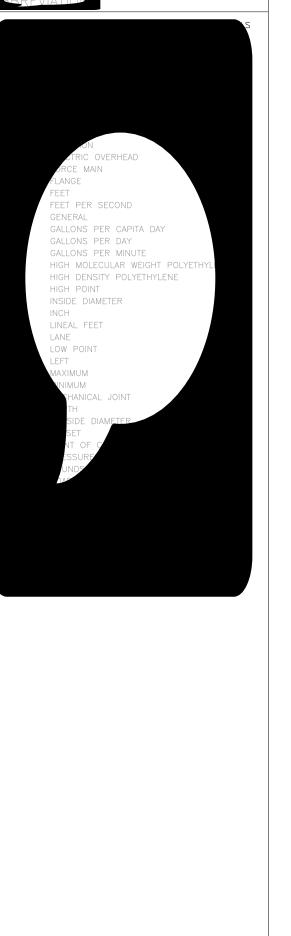












LEGEND, ABBREVIATIONS & VICINITY MAP LIFT STATION REPLACEMENTS SAINT PAUL, ALASKA

35°10 TAL

SHEET NUMBER G-001

<sup>'</sup>35% SUBMITTAL

#### SCOPE OF WORK:

- 1. THIS PROJECT IS INITIATED BY THE CITY OF SAINT PAUL AND VILLAGE SAFE WATER TO IMPROVE THE SAINT PAUL WASTEWATER COLLECTION SYSTEM.
- 2. BASED ON THE 2020 PRELIMINARY ENGINEERING REPORT (PER), THE COMMUNITY OF SAINT PAUL SELECTED OPTION (D) WHICH IS TO REPLACE THE EXISTING LIFT STATIONS AT ELLERMAN HEIGHTS AND SANDY LANE.
- 3. KUNA WILL PRODUCE CONSTRUCTION DOCUMENTS FOR THE REPLACEMENT OF THE EXISTING LIFT STATIONS AT ELLERMAN HEIGHTS AND SANDY LANE.
- 4. BOTH PROPOSED LIFT STATIONS WILL CONTAIN CONCRETE WET WELLS, ADJACENT TO A LIFT STATION FACILITY TO HOUSE PUMPS, INSTRUMENTATION, AND COMPONENTS.

## COMMUNITY DATA:

THE CITY OF SAINT PAUL IS A SECOND CLASS CITY LOCATED ON SAINT PAUL ISLAND IN THE BERING SEA OFF THE WEST COAST OF ALASKA. IT IS APPROXIMATELY 750 MILES WEST OF ANCHORAGE AND IS ONLY ACCESSIBLE BY AIR OR SEA. THE COMMUNITY IS LOCATED ABOUT 3 MILES FROM THE 6500-FOOT LONG STATE-OWNED AIRPORT. THE CITY IS HOME TO APPROXIMATELY 360 RESIDENTS AND HOSTS 145 NON-SEASONAL HOMES. THERE ARE APPROXIMATELY 190 SERVICE CONNECTIONS THAT ARE SERVED BY THE TWO LIFT STATIONS. ACCORDING TO THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION, THE SAINT PAUL WASTEWATER COLLECTION SYSTEM IS CLASSIFIED AS CLASS 1. THE COMMUNITY OF SAINT PAUL OFTEN REFERS TO SANDY LANE AS "OLD TOWN" AS IDENTIFIED IN PREVIOUS REPORTS AND DRAWINGS

THE FIRST SEWER SYSTEM WAS INSTALLED IN THE COMMUNITY OF SAINT PAUL PRIOR TO THE 1950'S. THE SEWER SYSTEM SERVED SANDY LANE. IN 1969, ELLERMAN HEIGHTS SEWER SYSTEM WAS INSTALLED. IN 1978, THE ELLERMAN HEIGHTS COLLECTION SYSTEM WAS EXPANDED, AND AGAIN IN 1985, WHERE THE EXISTING LIFT STATION WAS INSTALLED. THE SANDY LANE LIFT STATION WAS INSTALLED IN 1988.

SINCE THE ORIGINAL CONSTRUCTION, THE LIFT STATIONS HAVE DEGRADED DUE TO CORROSION OF THE STEEL TANKS, PIPING AND OBSOLETE CONTROL SYSTEMS. THE DRY WELLS DO NOT ALLOW EASE OF ACCESS TO THE INDIVIDUAL COMPONENTS AND ARE CONSIDERED CONFINED SPACES.

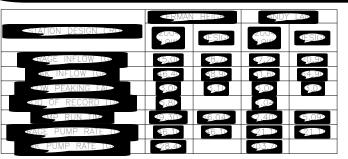
TDX OWNS THE LAND AT THE ELLERMAN AND SANDY LANE LIFT STATION SITES. THE ALEUT CORPORATION (AEC), THE REGIONAL NATIVE CORPORATION, OWNS THE SUBSURFACE RIGHTS TO THE LAND UNDERLYING BOTH THE ELLERMAN AND SANDY LANE LIFT STATION SITES. BOTH EXISTING LIFT STATIONS ARE WITHIN EASEMENTS PROVIDED TO THE CITY OF SAINT PAUL BY TDX.

ALL PROPOSED WORK WILL FIT WITHIN THE EXISTING EASEMENT AREA AND NO ADDITIONAL LAND WOULD BE REQUIRED.

#### **REFERENCES:**

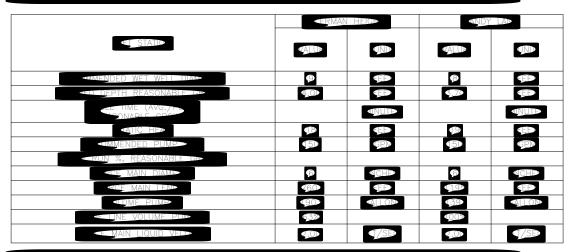
1. 2020 PRELIMINARY ENGINEERING REPORT FOR CITY OF SAINT PAUL WASTEWATER LIFT STATION, POLARCONSULT ALASKA, FEBRUARY 2020.

CONSTRUCTION MUST MEET THE STATE OF ALASKA DOMESTIC WASTEW



RATION, TO FULL DEVELOPMENT UNDER CURRENT ZONING. MES AVERAGE FLOW WAS OBSERVED IN ELLERMAN LIFT STATION







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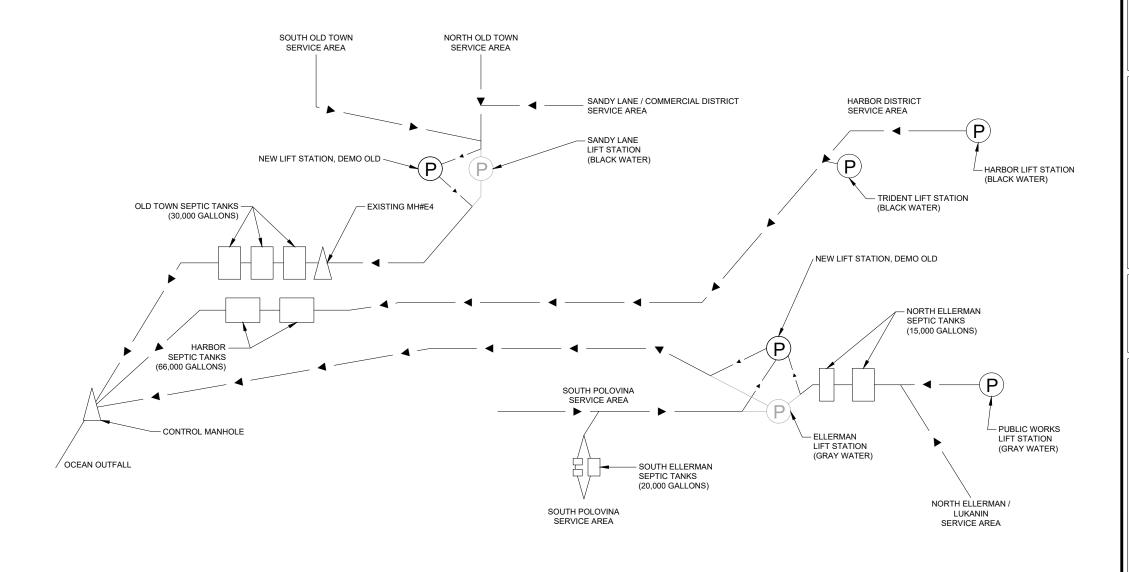
CRITERIA STATION REPLACEMENTS DESIGN ALASKA ∞

OF WORK PAUL, SAINT SCOPE LFT

> SHEET NUMBER G-002

## NOTES:

- SEWER SYSTEM SCHEMATIC CONTAINS BOTH EXISTING AND NEW SEWER SYSTEMS FOR INFORMATIVE PURPOSES ONLY.
- 2. THE EXISTING, DENOTED AS SHADED, ARE TO BE REMOVED. SEE DEMOLITION SHEETS (C02 AND C03).



1 SEWER SYSTEM PROCESS DIAGRAM SCALE: N.T.S.

ENGINEERING
4300 B Street, Suite 605
Anchorage, AK 99503

35% TAL

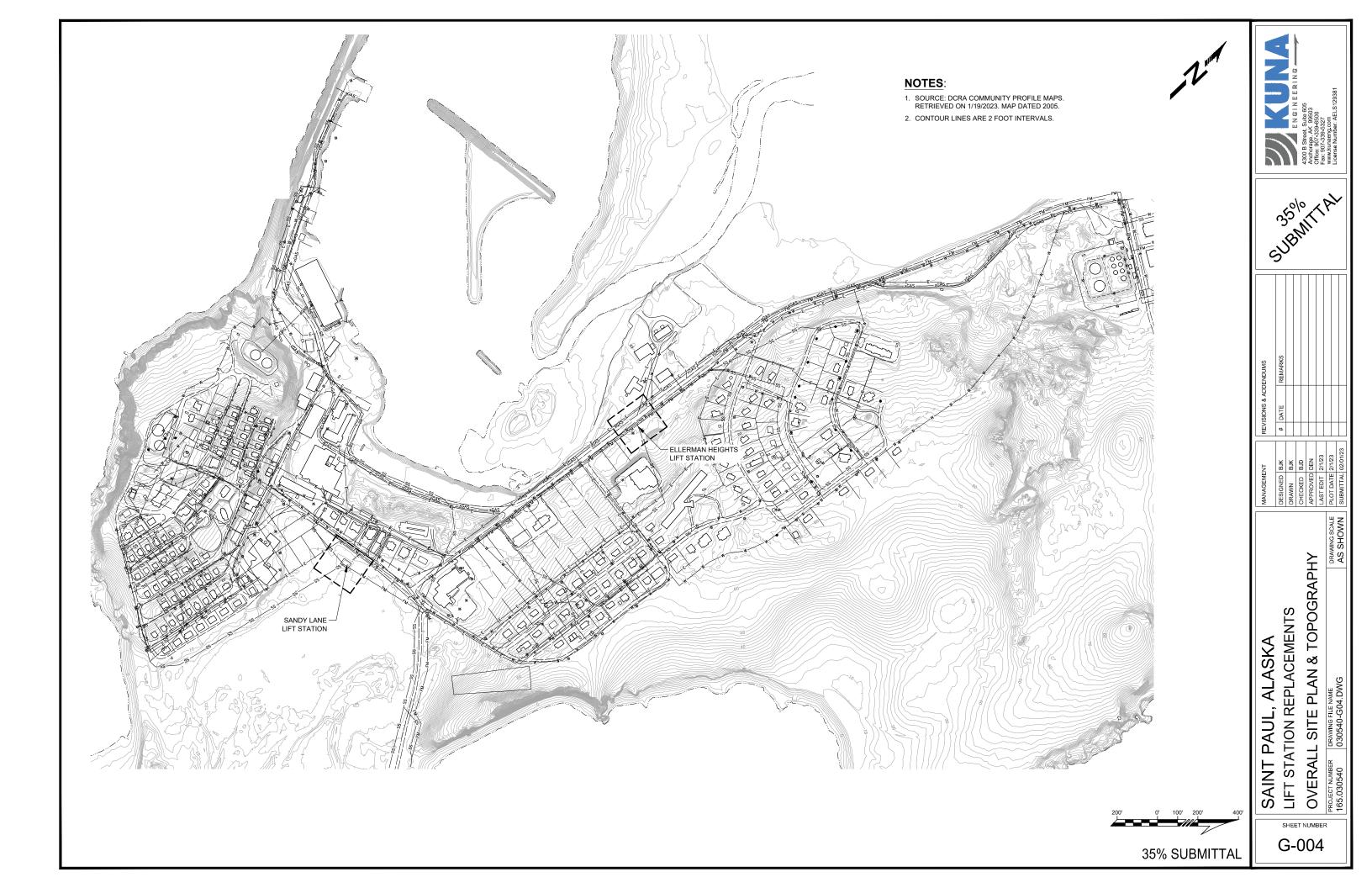
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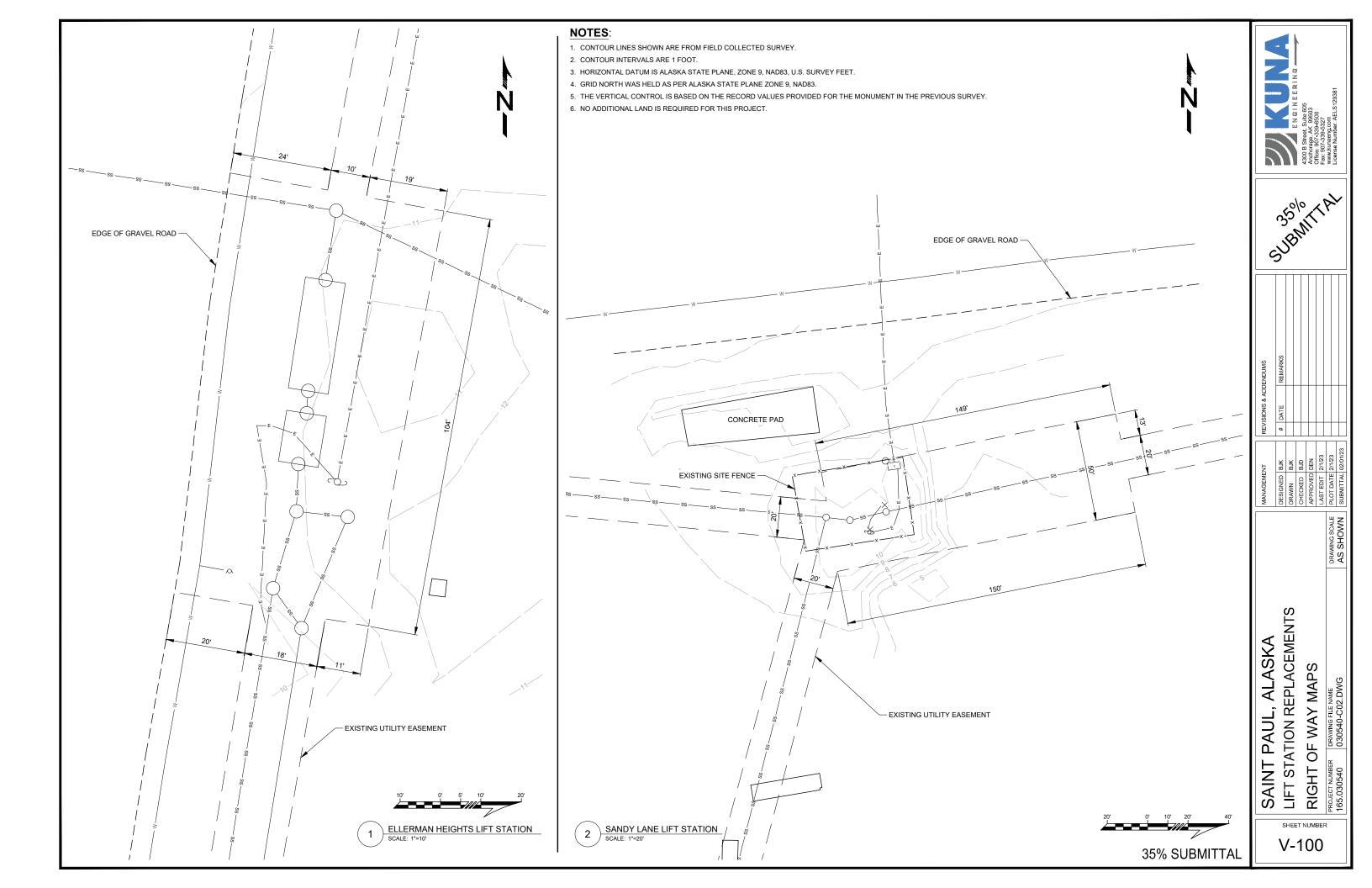
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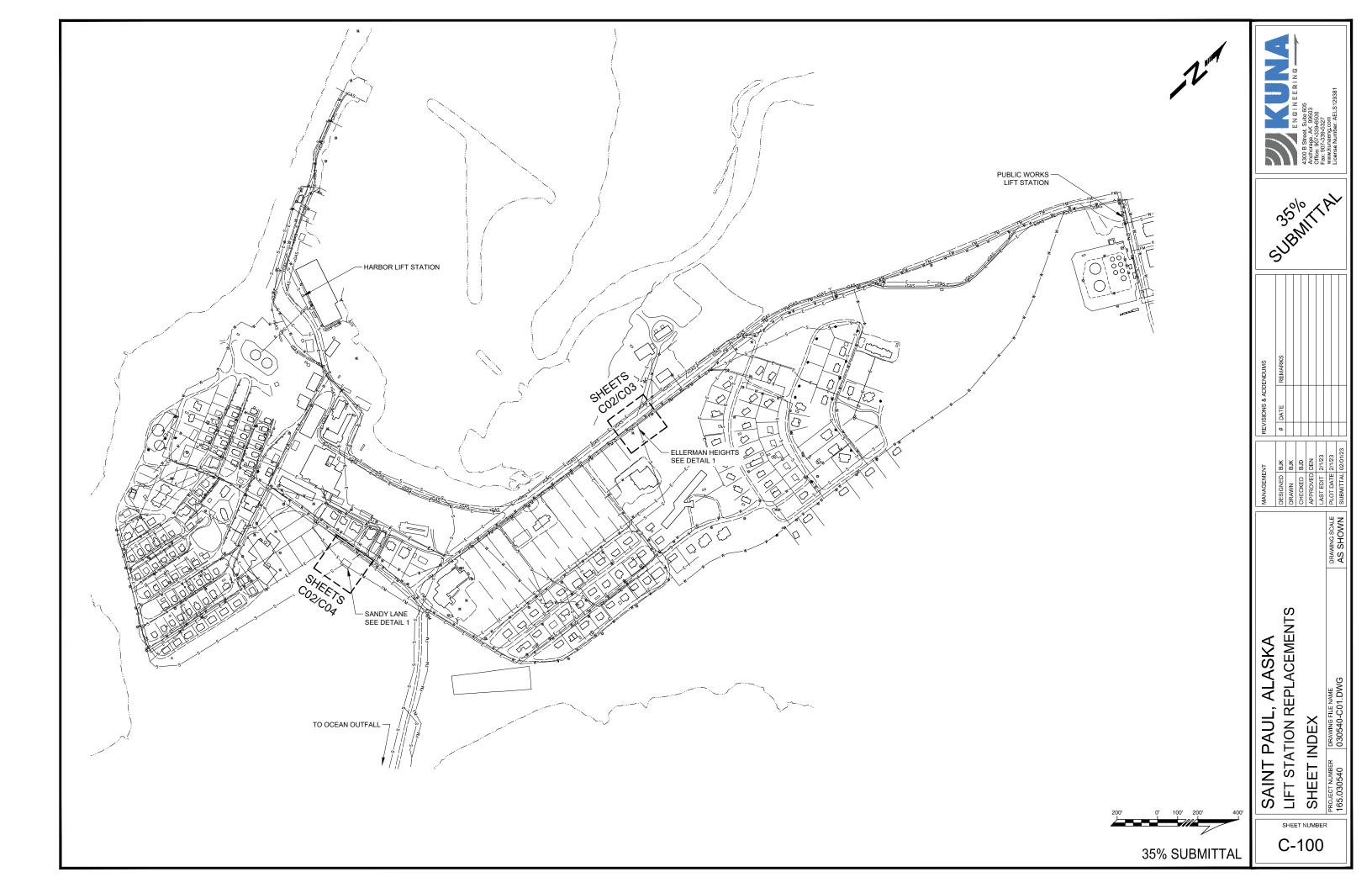
SAINT PAUL, ALASKA LIFT STATION REPLACEMENTS SEWER SYSTEM SCHEMATIC

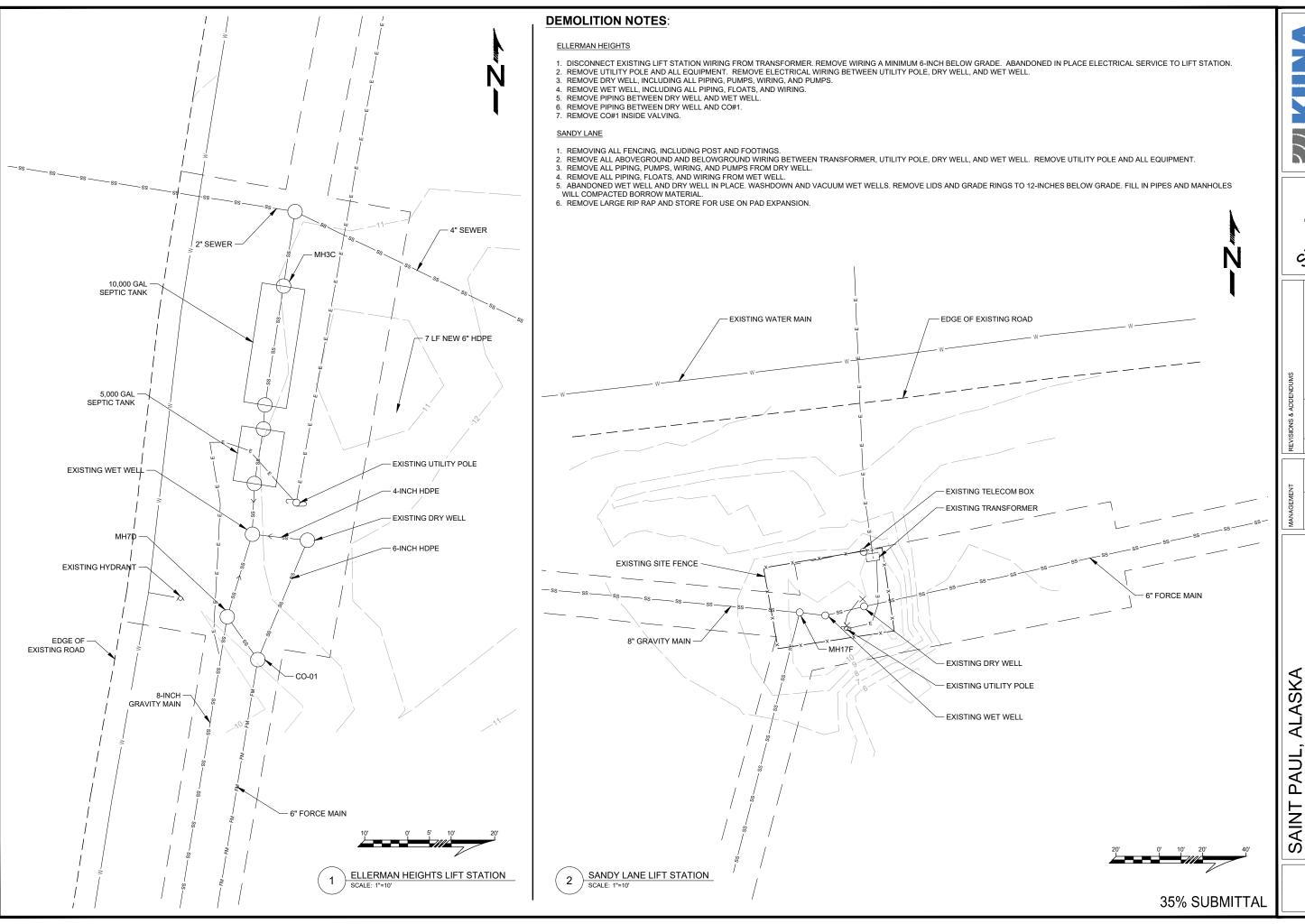
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G-003











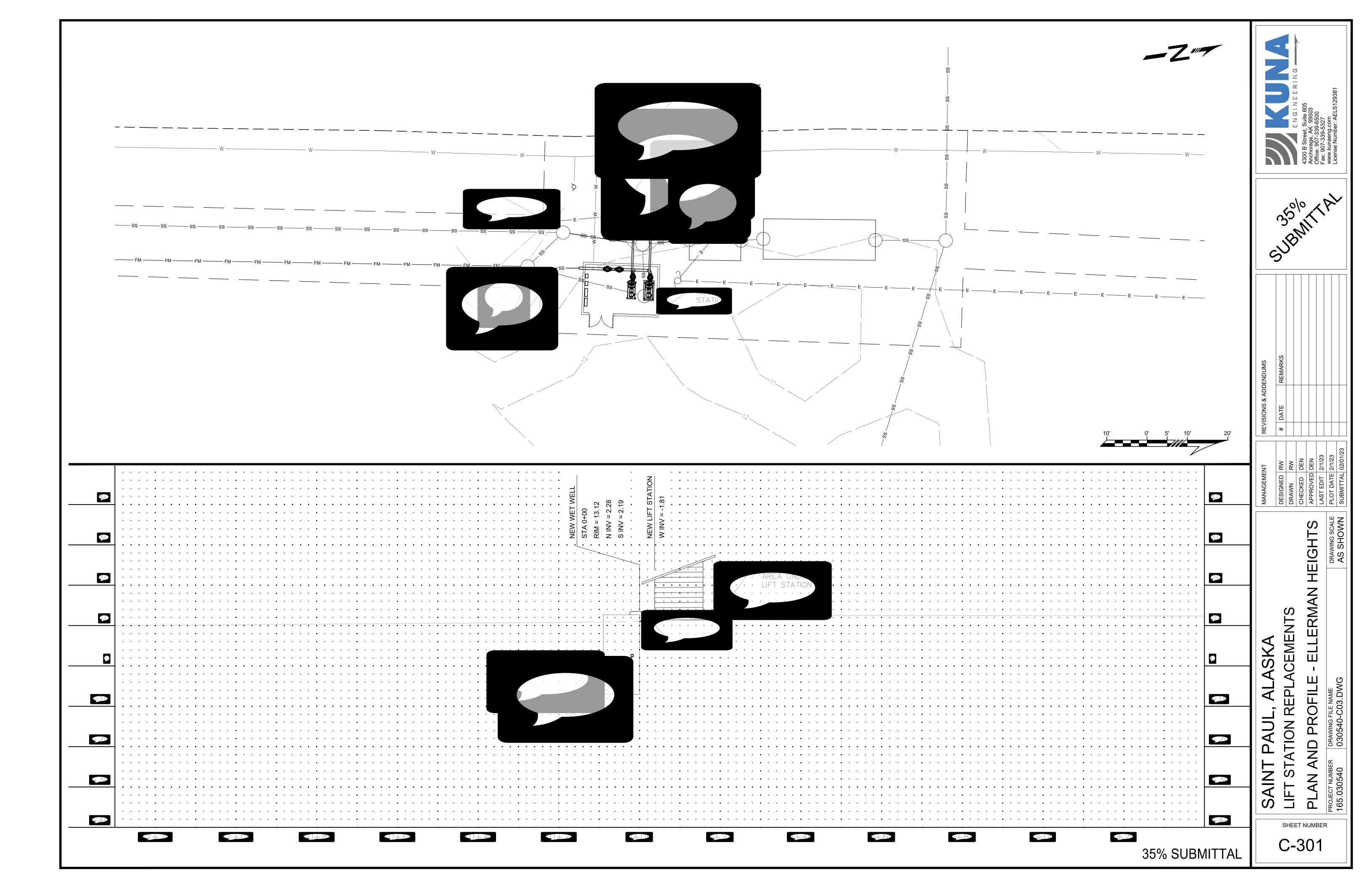
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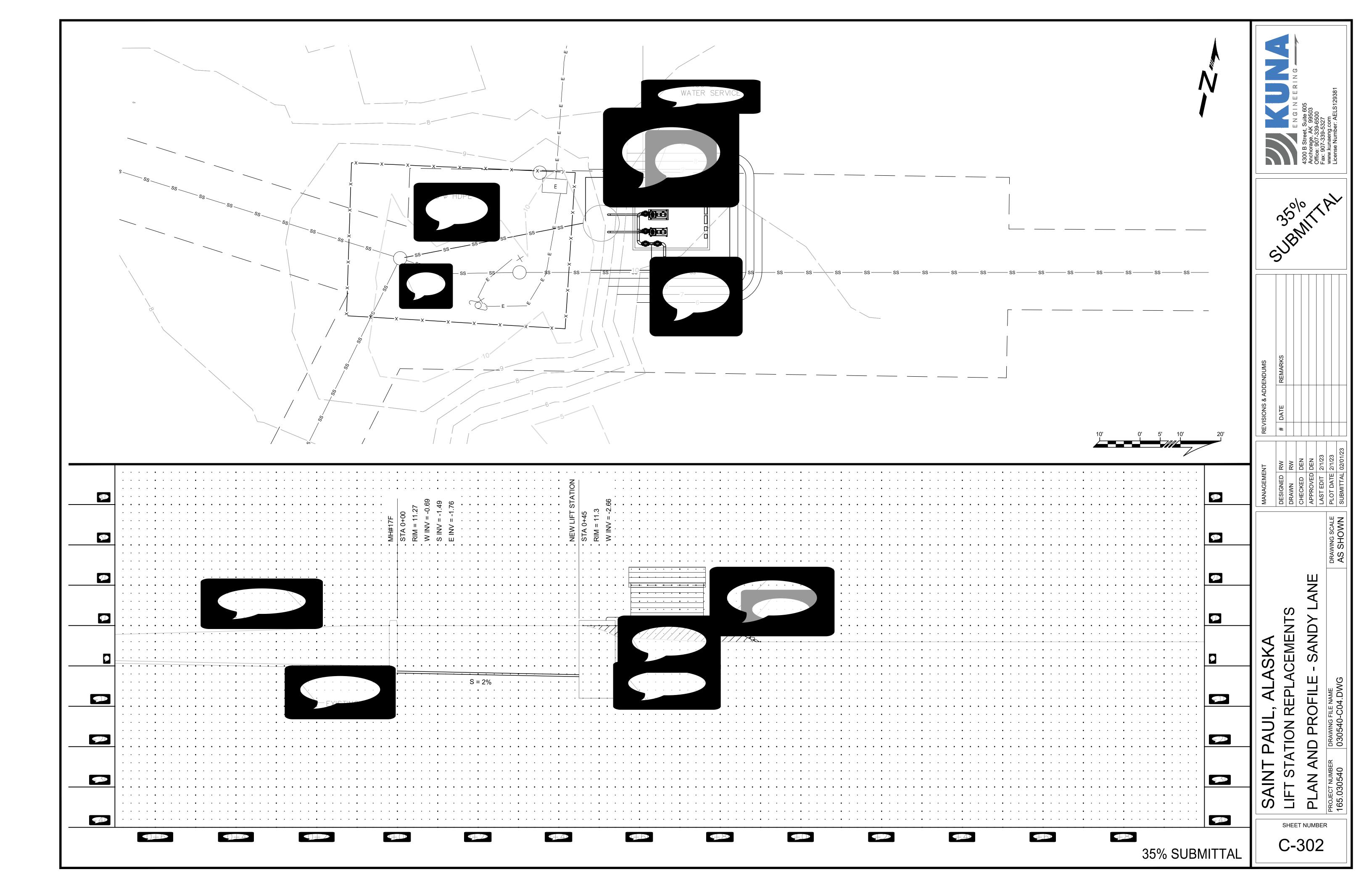
LIFT STATION REPLACEMENTS

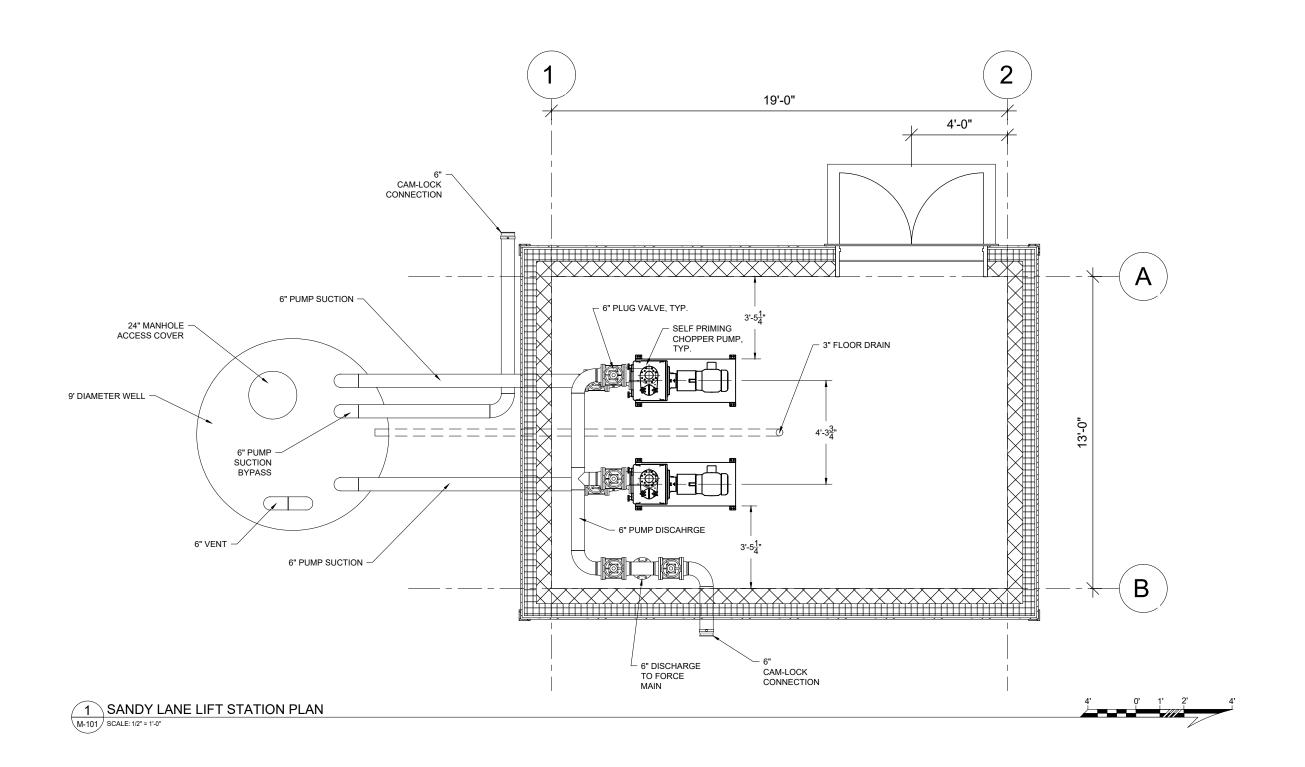
**DEMOLITION SHEET** 

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C-200



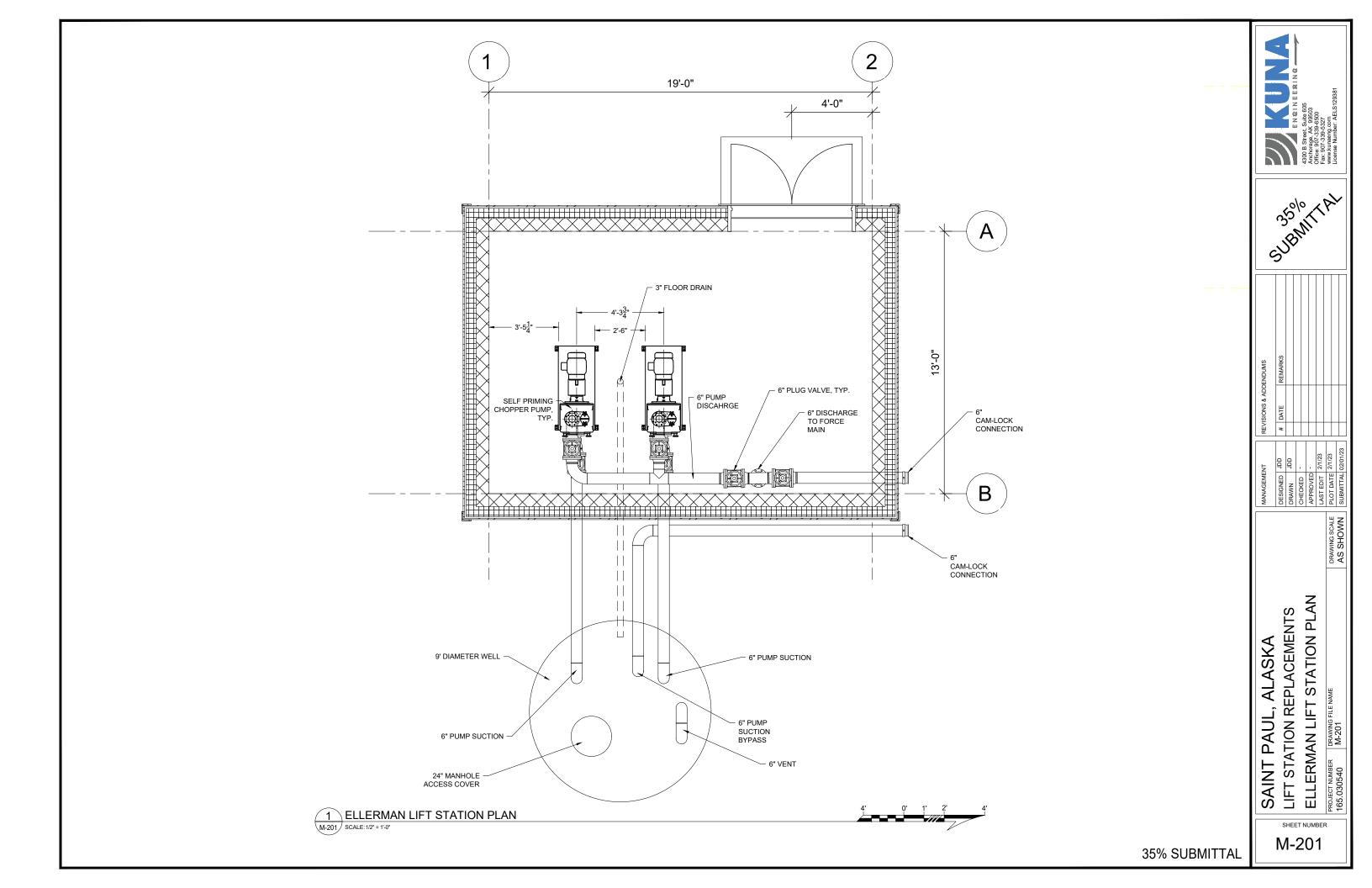


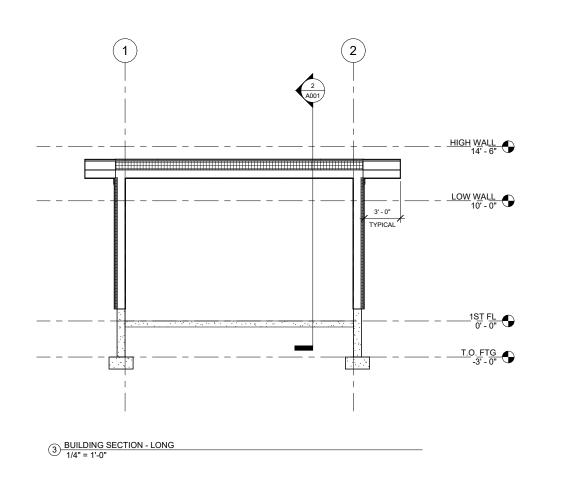


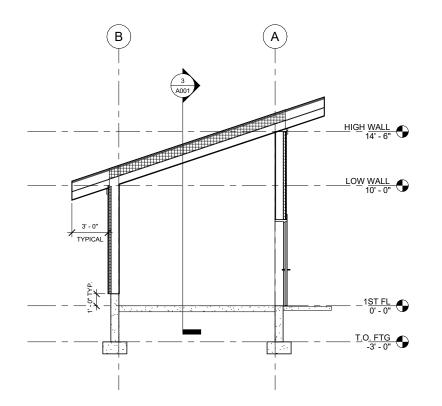
SANDY LANE LIFT STATION PLAN LIFT STATION REPLACEMENTS SAINT PAUL, ALASKA

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M-101

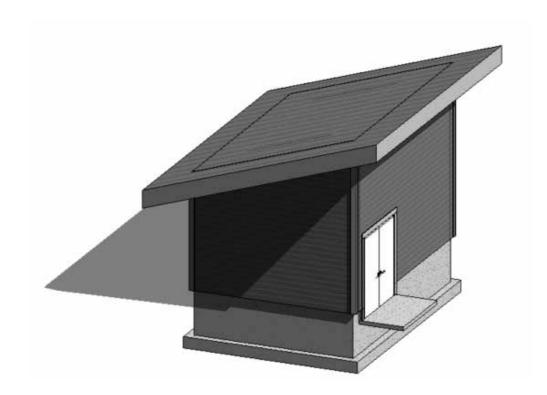
35% SUBMITTAL

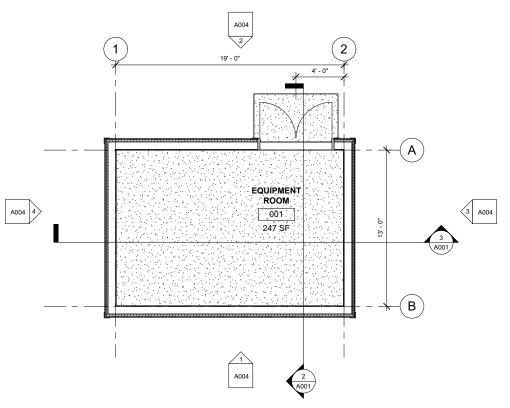






2 BUILDING SECTION - SHORT 1/4" = 1'-0"





1) FLOOR PLAN 1/4" = 1'-0"

\*\*SEE CIVIL FOR SITE LAYOUT 35% SUBMITTAL



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SAINT PAUL, ALASKA LIFT STATION REPLACEMENTS FLOOR PLAN / SECTIONS / PERSPECTIVE PROJECT NUMBER 165.030540

SHEET NUMBER

A-100

	SITE AND BUILDING PARAMETERS:	2.3
	OCCUPANCY CATEGORYIII	
	SITE TERRAIN/EXPOSURE CATEGORYC	
	SITE SOIL CLASSD	
2.	LIVE LOADS:	3. C
	ROOF	
	FLOORNA	3.1
3.	SNOW LOADS:	
	GROUND SNOW LOAD, Pg40 PSF	
	EXPOSURE FACTOR, C <sub>e</sub>	
	THERMAL FACTOR, C <sub>t</sub>	
	SNOW IMPORTANCE FACTOR, I <sub>s</sub> 1.10	3.2
	FLAT ROOF SNOW LOAD, $P_f$	
	SLOPED ROOF SNOW LOAD, P <sub>s</sub> 34 PSF	
	DRIFT SURCHARGE LOAD, P <sub>d</sub> NA	
	DRIFT SURCHARGE WIDTH, WNA	4. D
1	*	4. L
4.	WIND LOADS: BASIC WIND SPEED, V170 MPH	4.1
	BASIC WIND SPEED, V170 MPH  BASIC WIND SPEED ASD, V <sub>ASD</sub> 132 MPH	
	, 102	
	RISK CATEGORY	4
	RISK CATEGORYIII EXPOSURE CLASSIFICATION	4
	EXPOSURE CLASSIFICATION	4
5.	EXPOSURE CLASSIFICATIONC INTERNAL PRESSURE COEFFICIENT	-
5.	EXPOSURE CLASSIFICATION	-
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	EXPOSURE CLASSIFICATION	5. S 5.1
	EXPOSURE CLASSIFICATION	5. S 5.1 6. C 6.1

INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE STATE OF

DRAWINGS WITH THE ARCHITECTURAL SHEETS FOR OPENING SIZES.

PRIOR TO STARTING ANY WORK OR FABRICATION, THE CONTRACTOR

SHALL COORDINATE ALL DIMENSIONS AMONG THE DRAWINGS. ANY

REQUIRED TO PERMIT PROPER INSTALLATION OF MECHANICAL.

ELECTRICAL, AND PLUMBING PENETRATIONS.

ALASKA, LOCAL CODE AMENDMENTS, AND GOOD STANDARD PRACTICE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THESE

PROPER LOCATION OF BEARING WALLS AND BEAMS, AND LOCATION OF MECHANICAL AND ELECTRICAL ITEMS NOT SHOWN ON THE STRUCTURAL THESE NOTES SHALL BE REPORTED TO THE ARCHITECT/ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL OSHA AND DOSH SAFETY STANDARDS. THE CONTRACTOR IS IN CHARGE OF ALL SAFETY MATTERS ON AND AROUND THE JOB SITE. PROVIDE TEMPORARY ERECTION BRACING AND SHORING AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF THE CONSTRUCTION.

## QUALITY ASSURANCE:

- SPECIAL INSPECTION IS REQUIRED IN ACCORDANCE WITH IBC SECTION 1704. THE OWNER SHALL ENGAGE THE SERVICES OF AN INDEPENDENT, QUALIFIED SPECIAL INSPECTOR. THE FOLLOWING ITEMS REQUIRE SPECIAL 7.4. INSPECTION: PERIODIC INSPECTION OF THE LATERAL FORCE RESISTING SYSTEM - WOOD DIAPHRAGM NAILING AND ATTACHMENTS TO PERIMETER SHEAR WALLS. CONTINUOUS INSPECTION OF POST INSTALLED ANCHORS.
- SPECIAL INSPECTION IS IN ADDITION TO THE CONTRACTOR'S REQUIRED QUALITY CONTROL INSPECTIONS AND TESTING. THE CONTRACTOR'S QUALITY CONTROL INSPECTIONS AND TESTING SHALL OCCUR PRIOR TO SPECIAL INSPECTION AND REPORTS SHALL BE AVAILABLE TO THE SPECIAL

## EFERRED SUBMITTALS:

- THE FOLLOWING ITEMS ARE NOT INCLUDED IN THESE DRAWINGS AND REQUIRE STRUCTURAL DESIGN TO BE FURNISHED BY THE CONTRACTOR:
- 4.1.1. ROOFING ATTACHMENT
  - SEISMIC ANCHORAGE OF MECHANICAL AND ELECTRICAL EQUIPMENT DRAWINGS AND CALCULATIONS FOR BUILDER-DESIGNED COMPONENTS, SEALED BY AN ENGINEER REGISTERED IN THE STATE OF ALASKA, SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO SUBMITTING TO BUILDING SAFETY FOR REVIEW. SUBMITTALS OF BUILDER-DESIGNED ITEMS SHALL INCLUDE LOCATIONS, MAGNITUDES, AND DIRECTIONS OF ALL FORCES TRANSFERRED TO THE STRUCTURE. DEFERRED SUBMITTALS MUST BE REVIEWED AND APPROVED PRIOR TO INSTALLATION/CONSTRUCTION.

## SUBMITTALS:

THE CONTRACTOR SHALL REVIEW, STAMP WITH HIS APPROVAL, DATE AND SIGN ALL SHOP DRAWINGS AND SUBMITTALS REQUIRED BY THE CONTRACT DRAWINGS PRIOR TO SUBMITTAL TO THE ENGINEER. AT THE TIME OF SUBMISSION, THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DEVIATION IN THE SHOP DRAWINGS FROM THE 7.9. REQUIREMENTS OF THE CONTRACT DRAWINGS. DIMENSIONS AND QUANTITIES ARE THE CONTRACTOR'S RESPONSIBILITY AND WILL NOT BE REVIEWED.

# CONCRETE WORK:

- STRUCTURAL CONCRETE SHALL HAVE A 28 DAY STRENGTH, F'cOF 4,000 7.11. GLUED-LAMINATED BEAMS (GLB) ARE TO BE 24F-1.8E, BALANCED LAY-UP PSI. MIX SHALL NOT CONTAIN LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD. MAXIMUM WATER TO CEMENT RATIO EQUALS 0.50. MAXIMUM UN-PLASTICIZED SLUMP SHALL BE 5 INCHES. ENTRAIN AIR IN ACCORDANCE WITH ACI 318.
- REINFORCING STEEL: SHALL BE ASTM A615, GRADE 60 DETAILED OR IN ACCORDANCE WITH ACI 318.BAR LAP SHALL BE IN ACCORDANCE WITH ACI 318 (44 BAR DIAMETER MINIMUM), OR AS DETAILED, IF MORE RESTRICTIVE. PROVIDE A 135 DEGREE BEND PLUS 6 BAR DIAMETER TAIL AT ALL TIE STEEL. CONCRETE COVER OVER A REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS AND IN ACCORDANCE WITH ACI 301. WELDING OF REINFORCEMENT IS PROHIBITED.
- SUPPORT ALL REBAR ON CHAIRS, DOBIES, OR OTHER APPROVED MEANS. CONTRACTOR SHALL TAKE SPECIAL CARE TO PREVENT DISTURBANCE DURING CONCRETE PLACEMENT TO ENSURE THAT REINFORCEMENT REMAINS AT ITS PROPER ELEVATION AND POSITION.
- ALL CONCRETE WORK SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE.
- DRAWINGS. PROVIDE ADDITIONAL STUDS, JOISTS, OR OTHER FRAMING AS 6.5. FOUNDATIONS ARE DESIGNED FOR A MAXIMUM SOIL BEARING PRESSURE OF 2000 PSF UNDER SUSTAINED LOADING.
  - FOUNDATION SOILS SHALL BE PREPARED IN ACCORDANCE WITH IBC 2021 AND THE PROJECT GEOTECHNICAL REPORT.

# DISCREPANCIES FOUND AMONG THE DRAWINGS, SITE CONDITIONS, AND 7. WOOD:

7.1. ALL DIMENSIONAL LUMBER SHALL BE HEM FIR #2 OR BETTER FOR ALL 2X JOISTS, STUDS, AND PLATES, AND DOUG FIR #1 FOR ALL 4X OR 6X WOOD POSTS AND BEAMS UNLESS NOTED OTHERWISE. WOOD SHALL BE GRADED IN ACCORDANCE WITH THE WESTERN WOODS PRODUCTS ASSOCIATION (WWPA) OR WEST COAST LUMBER INSPECTION BUREAU (WCLIB) LUMBER GRADING CRITERIA. MAXIMUM MOISTURE CONTENT SHALL BE 15%. MINIMUM HEADER SIZE UNLESS NOTED OTHERWISE SHALL BE (2)2X8 HEM-FIR #2.

FLOORS: 3/4" T&G PLYWOOD SUBFLOOR NOTED ON THE DRAWINGS SHALL BE APA RATED SUBFLOOR AND SHALL HAVE A PANEL SPAN RATING OF 48/24- BLOCKED EDGES, MINIMUM NAILING FOR FLOOR PANELS SHALL EQUAL 10d (0.148) NAILS AT 4" CENTERS ALONG SUPPORT EDGES AND 12"0.C. ALONG INTERMEDIATE FRAMING.

ROOFING: 5/8" PLYWOOD ROOF SHEATHING SHALL BE CDX WITH EXTERIOR GLUE, OR BETTER AND SHALL HAVE A PANEL SPAN RATING OF 32/16 -BLOCKED EDGES, MINIMUM NAILING FOR ROOF PANELS SHALL BE (1.148)10d NAILS AT 6"0.C. ALONG PANEL EDGES AND 12"0.C. IN THE FIELD.

WALLS: PLYWOOD WALL SHEATHING SHALL BE 7/16" MIN CDX OR OSB WITH EXTERIOR GLUE, OR BETTER, AND SHALL HAVE A SPAN RATING OF 32/16 -MINIMUM NAILING FOR WALL PANELS SHALL BE 8d (0.131) NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD. BLOCK ALL PANEL EDGES FOR VERTICAL PLYWOOD DIAPHRAGMS. REFER TO SHEARWALL SCHEDULE FOR ADDITIONAL NAILING REQUIREMENTS.

ALL METAL TO WOOD OR WOOD TO WOOD CONNECTIONS SHALL BE STANDARD OR AS DETAILED ON THE DRAWINGS USING A307 BOLTS. ALL BOLTS AND LAG SCREW HEADS IN CONTACT WITH WOOD SHALL HAVE PLATES OR WASHERS AS DETAILED AND OR SPECIFIED. THE MINIMUM SIZE WASHER EQUALS 2" DIAMETER.

ALL FRAMING ANCHORS AND HANGERS INDICATED ON THE DRAWINGS ARE "SIMPSON STRONG-TIE" OR EQUAL. UNLESS OTHERWISE DETAILED, ALL BEAMS AND JOISTS SHALL RECEIVE HANGERS WITH A NORMAL LOAD CAPACITY EQUAL TO THE SHEAR CAPACITY OF THE SUPPORTED MEMBER. HANGERS LOCATED IN CONTACT WITH TREATED WOOD OR WET CONDITIONS SHALL BE Z-MAX, STAINLESS STEEL OR HOT DIPPED GALVANIZED.

LAG SCREWS SHALL BE PRE-DRILLED WITH LEAD HOLES AS FOLLOWS:

- THE LEAD HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK, AND THE SAME DEPTH AS THE LENGTH OF THE UNTHREADED SHANK.
- THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60% TO 70% OF THE SHANK DIAMETER AND A LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION.

7.7.2.

WOOD SCREWS SHALL BE PRE-DRILLED WITH LEAD HOLES. THE PART OF THE HOLE RECEIVING THE SHANK SHALL BE ABOUT 7/8X THE DIAMETER OF THE SHANK AND THAT FOR THE THREADED PORTION SHALL BE ABOUT 7/8X THE DIAMETER OF THE SCREW AT THE ROOT OF THE THREAD.

MINIMUM NAILING SHALL EQUAL THAT INDICATED IN IBC TABLE 2304.9.1 UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

LAMINATED VENEER LUMBER (LVL) MEMBERS ARE TO BE "VERSA-LAM 2.0E" AS MANUFACTURED BY BOISE CASCADE OR OR APPROVED EQUAL. MINIMUM ALLOWABLE DESIGN STRESSES: Fb=2,800 PSI, E=2,000,000 PSI, Fv=285 PSI.

WITH MINIMUM ALLOWABLE DESIGN STRESSES OF Fb2,400 PSI, E=1,800,000 PSI, Fv=265 PSI. ALL GLUED-LAMINATED LUMBER TO BE FABRICATED IN ACCORDANCE WITH AITC 117 AND PRODUCT STANDARD PS-56.

PRE-ENGINEERED PLYWOOD WEB FLOOR JOISTS ARE TO BE BCI SERIES JOISTS AS MANUFACTURED BY BOISE CASCADE OR APPROVED EQUAL. MINIMUM JOIST SIZES ARE INDICATED ON THE FRAMING PLANS. SUBSTITUTIONS MUST MEET BOTH THE LOAD CAPACITY AND DEFLECTION CRITERIA OF THE INDICATED FLOOR JOISTS PER PLAN. JOISTS SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, E



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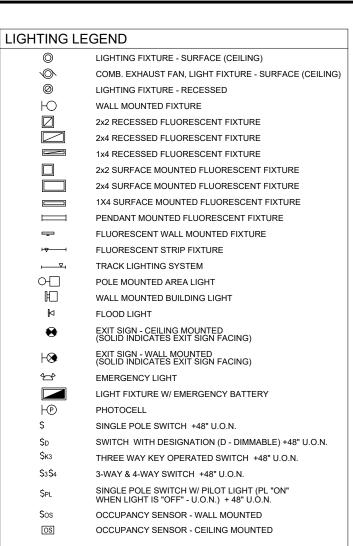
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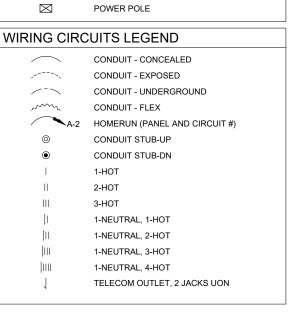
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S-100 35% SUBMITTAL



WIRING DEVI	CES LEGEND
$\ominus$	RECEPTACLE - SINGLE +18" U.O.N.
$\Leftrightarrow$	RECEPTACLE - DUPLEX +18" U.O.N.
<b>+</b>	RECEPTACLE - QUAD +18" U.O.N.
<b>=</b>	RECEPTACLE - SPLIT WIRED +18" U.O.N.
<b>=</b>	RECEPTACLE - GFI OR ON GFI CIRCUIT
<b>⊕</b> WP	RECEPTACLE - WEATHER PROOF
•	RECEPTACLE - SPECIAL +18" U.O.N.
igorphi	RECEPTACLE - FLOOR MOUNTED
<b>(a)</b>	RECEPTACLE - CEILING MOUNTED
<b>①</b>	JUNCTION BOX
•	PUSH BUTTON (DOORBELL, GARAGE)
<b></b> ₩ <b></b> -	PLUG MOLD
$\bowtie$	POWER POLE
WIRING CIRC	UITS LEGEND
	CONDUIT CONCEALED



## **POWER LEGEND** ELECTRIC METER **NEW PANELBOARD - SURFACE MOUNTED EXISTING PANELBOARD - SURFACE MOUNTED** NEW PANELBOARD - FLUSH MOUNTED EXISTING PANELBOARD - FLUSH MOUNTED 9 MOTOR CONNECTION **GENERATOR** FRACTIONAL HP MOTOR DISCONNECT SWITCH \$т W/INTEGRAL THERMAL PROTECTION $\Box$ DISCONNECT SWITCH $\square$ FUSED DISCONNECT SWITCH $\boxtimes$ COMBINATION MOTOR STARTER DISCONNECT Φ **EQUIPMENT CONNECTION** Т TRANSFORMER

COMMUNICA	TIONS LEGEND
<b>I</b>	1-GROUND
	TELECOM OUTLET - FLOOR MOUNTED, 2 JACKS UON
	TELECOM OUTLET - CEILING MOUNTED, 2 JACKS UON
M	EXISTING TELECOM AND/OR DATA OUTLET
TV	TELEVISION OUTLET
H®	SPEAKER - WALL MOUNTED
S	SPEAKER - CEILING MOUNTED
	BELL
	DOOR-BELL W/ ADA COMPLIANT VISUAL
$\odot \oplus$	NOTIFICATION DEVICE SPEAKER / CLOCK
H	CLOCK - WALL MOUNTED
<b>(</b>	CLOCK - CEILING MOUNTED
TTB	TELEPHONE TERMINAL BOARD

QUARTZ RELAY IN BOX

SECTION

WITH

RIGHT OF WAY

SUPPLY SIDE BONDING JUMPER SECURITY SYSTEM PANEL

TIME CLOCK
TELEPHONE TERMINAL BOARD

TELEPHONE TERMINAL CABINET UNLESS OTHERWISE NOTED

THIS IS A STANDARD (TYPICAL) ABBREVIATIONS LIST. NOT ALL

ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT.

ALSO, ADDITIONAL ABBREVIATIONS MAY BE INTRODUCED ON

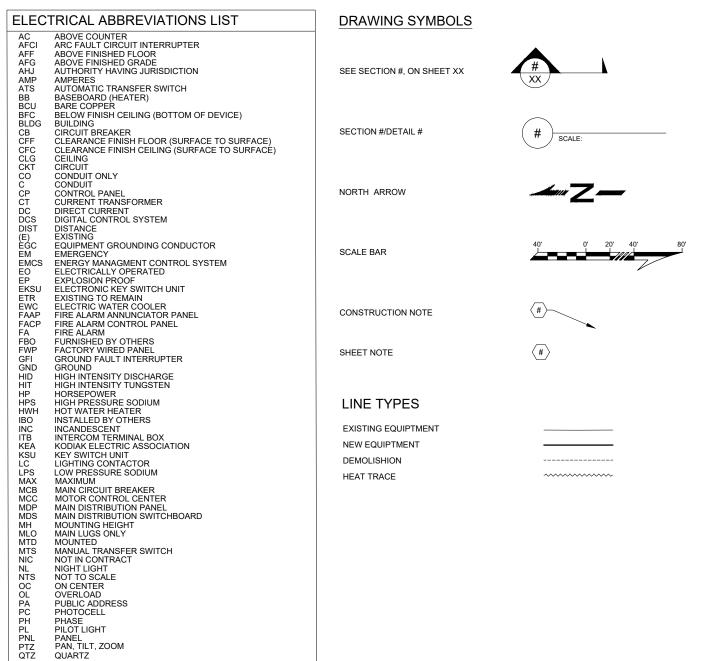
VERIFY EXACT LOCATION VERIFY ON SITE

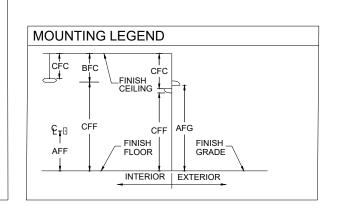
WEATHER PROOF

DRAWINGS AND DEFINED THEREIN.

TRANSFORMER

RIB ROW SEC SSBJ SSP TC TTB TTC UON VEL VOS W/ W/O WP







GNED

**ABBREVIATIONS** REPLACEMENTS AND CTRICAL LEGEND

AS 8

030540-E01.DWG

ALASKA PAUL STATION SAINT LIFT

> SHEET NUMBER E-100

Ш П

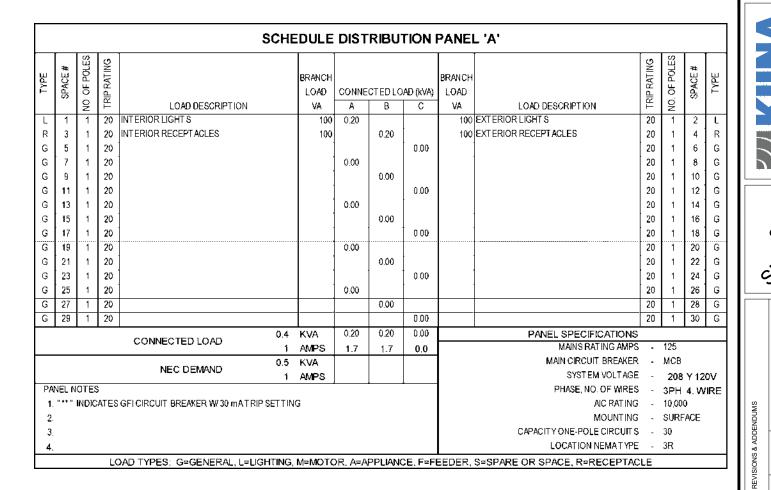
#### EQUIPMENT SCCR SCHEDULE

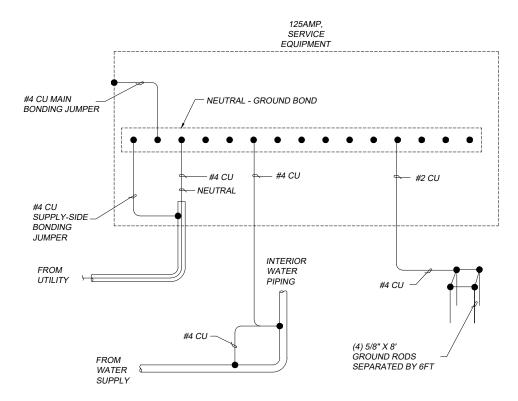
ALL EQUIPMENT TO HAVE SCCR EXCEEDING THE AVAILABLE SCA AT THE CALCULATED X/R RATIO. WHERE X/R RATIO IS GREATER THAN THE INDUSTRY STANDARD TEST X/R RATIOS, THE APPROPRIATE MULTIPLICATION FACTOR SHALLBE APPLIED TO PROPERLY RATE THE EQUIPMENT. DOWNSTREAM EQUIPMENT AND ASSOCIATED CIRCUIT BREAKER RATINGS MAY BE SATISFIED BY USING FULLY RATED EQUIPMENT OR MANUFACTURER TESTED COMBINATIONS FOR BRANCH CIRCUITS RATED 100AMPS OR LESS PER NEC 240.86(B) TO SERIES RATE FOR THE AVAILABLE SCA AT EQUIPMENT ALL SERIES RATED EQUIPMENT TO BE CLEARLY LABBLED & IDENTIFIED PER NEC 110.22(C). SERIES RATED EQUIPMENT MOTOR LOADS CANNOT EXCEED 1% OF AIC RATING PER NEC 240.86(C).

CONTRACTOR TO VERIFY ACTUAL EQUIPMENT TO BE PROVIDED WITH SERVING UTILITY PRIOR TO EQUIPMENT PROCUREMENT. ANY DECREASE OF TRANSFORMER \$\%2\$, CONDUCTOR LENGTH. OR INCREASE IN TRANSFORMER \$\%4\$, CONDUCTOR LENGTH. OR INCREASE IN TRANSFORMER \$\%4\$, CONDUCTOR LENGTH. OR REPORTED TO CONTRACT OFFICER FOR RECALCULATION OF AVAILABLE FAULT CURRENT PRIOR TO PROCUREMENT OF EQUIPMENT. PROVIDE WARNING PLACARD INSTALLED ON SERVICE DISCONNECT PER NEC 110.24 DENOTING ALL PROJECT PARAMETERS REQUIRED BY NEC.

ASSUMED UTILITY SYSTEM CONFIGURATION FOR CALCUALTION PURPOSES							
SERVICE TRANSFORMER							
KVA	% Z	PF	DATE	SCA	(SEC.)		
45	1.6	0.8	1/27/2023	9,	759		
SERVICE	FOR FAULT CURRENT CALCUATIONS ONLY SERVICE LATERAL FT						
AMPS							
125	4#1,1#6EGC, 2"C 50						
EQUIPMENT ID SC AMPS							
SER	6,328						
	PANEL 'A'			6,1	07		

CONNECTION 50A	METER/MAIN DISCONNECT SERVICE ENTRANCE RATED 22kA, 120V/208V, 3Ø, NEMA 3R  2"C, (3)#3/0 AWG, (1)#6AWG EGC  2"C, (3)#3/0 AWG  #2 BCU  #2 BCU BONDED TO (4 EA.) 3/4" X 10' Cu CLAD GROUND RODS (LOCATED AROUND WET WELL PERIMETER CONNECTED BY #2 BCu & BURIED NOT LESS THAN 30") AND TO METER/MAIN	UNDERGROUND 120/208VAC SERVICE TO PAD MOUNTED UTILITY TRANSFORMER	2"C, (3)#3/0AWG, (1)#6AWG EGC  "MTS' 240/120V 200AMP, 1Ø, 2-POLE NEMA 1  (3)#8 AWG, (1)#10AWG EGC  PORTABLE GENERATOR	PANEL "A" 120V/208V 125 AMP, 3Ø, NEMA 1
CONNECTION		MOUNTED UTILITY	PORTABLE	
		TRANSFORMER		







SAINT PAUL, ALASKA
LIFT STATION REPLACEMENTS

LIFT STATION ONE-LINE DIAGRAMS

MANAGEMENT

DESIGNED TO DESIGNED TO

DRAWING FILE NAME
030540-E-501-ONE-LINE-DIAGRAMS

E-201

SHEET NUMBER

35% SUBMITTAL