



Contract Drawings For

Municipality of Skagway Alaska

Wastewater Treatment Plant

Odor Control Improvements

Project No.
10108243

Skagway, AK
March 2020

INDEX OF DRAWINGS

GENERAL

00G-00	COVER AND INDEX
00G-01	ABBREVIATIONS
00G-02	LEGEND AND CODE ANALYSIS
00G-03	MECHANICAL LEGEND
00G-04	ELECTRICAL LEGEND
00G-05	INSTRUMENTATION LEGEND

CIVIL

00C-01	SITE PLAN AND STAGING AREAS
--------	-----------------------------

STRUCTURAL

00S-01	GENERAL NOTES AND DETAILS
--------	---------------------------

MECHANICAL

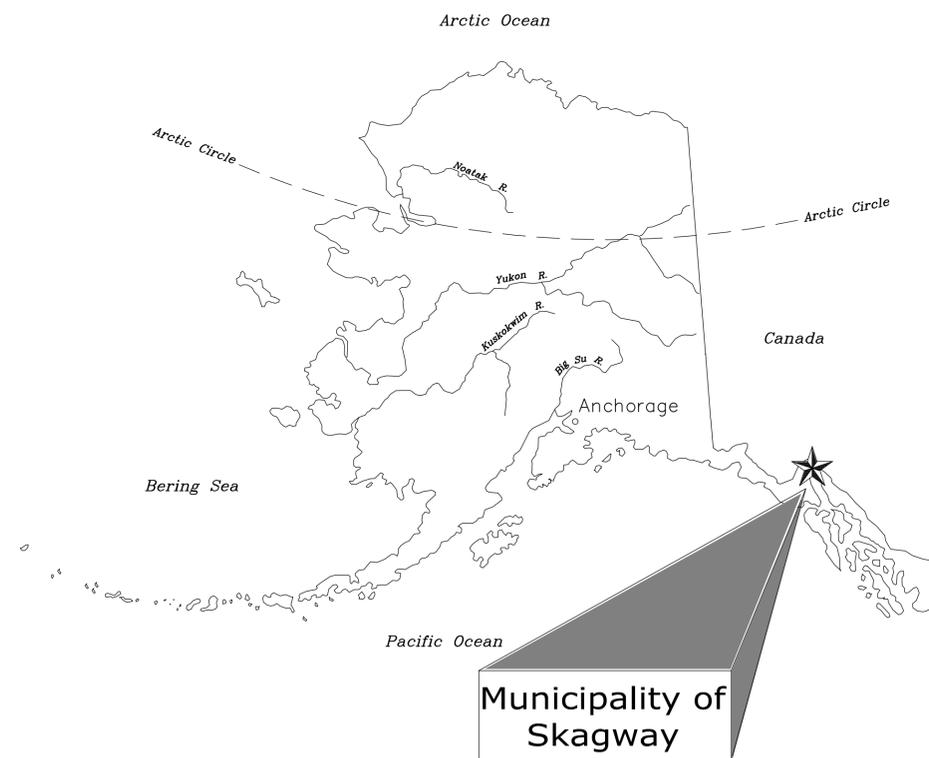
00M-10	BUILDING 1 ODOR CONTROL PLAN
00M-11	BUILDING 1 ODOR CONTROL ENLARGED PLANS
00M-12	BUILDING 1 ODOR CONTROL SECTIONS - 1
00M-13	BUILDING 1 ODOR CONTROL SECTIONS - 2
00M-14	BUILDING 1 ODOR CONTROL DETAILS
00M-15	BUILDING 1 ODOR CONTROL INTERIOR IMAGES

ELECTRICAL

00E-01	ONE-LINE DIAGRAM 1 OF 2
00E-02	ONE-LINE DIAGRAM 2 OF 2
00E-03	EXISTING MCC - 1 ELEVATION
00E-10	BUILDING 1 POWER AND INSTRUMENTATION PLAN
00E-33	UV ODOR CONTROL PACKAGE CONTROL DIAGRAM 1
00E-34	UV ODOR CONTROL PACKAGE CONTROL DIAGRAM 2
00E-40	ELECTRICAL DETAILS
00E-42	PANELBOARD SCHEDULES

INSTRUMENTATION

00Y-10	BUILDING 1 ODOR CONTROL UNIT SYSTEM P&ID
--------	--



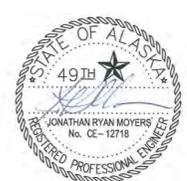
ISSUED FOR BID

A/C	AIR CONDITIONING	CLKG	CAULKING	F TO F	FACE TO FACE	ID	INSIDE DIAMETER, INTERIOR DIMENSION	N	NORTH, NEUTRAL	R&R	REMOVE AND REPLACE	TOB	TOP OF BOLT, TOP OF BANK,
A/E	ARCHITECT/ENGINEER	CLR	CLEAR	F&B	FACE AND BYPASS	IE	INVERT ELEVATION, FOR EXAMPLE	NA	NOT APPLICABLE	R&S	REMOVE AND SALVAGE	TOC	TOP OF BEAM, TOP OF BERM
A	AMPERE	CLS	CHLORINE SOLUTION	FAB	FABRICATE	IF	INSIDE FACE	NAT	NATURAL, NATIONAL	R	RADIUS, REGISTER, RISER	TOD	TOP OF CURB, TOP OF CONCRETE
AB	ANCHOR BOLT	CMH	COMMUNICATION MANHOLE	FB	FLOOR BEAM	IH	INTAKE HOOD	NC	NORMALLY CLOSED	RA	RETURN AIR	TOF	TOP OF DUCT
ABAN	ABANDON	CMP	CORRUGATED METAL PIPE	FBD	FIBERBOARD	IMP	IMPACT	NEG	NEGATIVE	RB	RESILIENT BASE, ROCK BERM	TOG	TOP OF FOOTING
ABC	AGGREGATE BASE COURSE	CMU	CONCRETE MASONRY UNIT	FBM	BOARD FOOT MEASURE	IN	INCH	NF	NEAR FACE, NON-FUSED	RCPT	RECEPTACLE	TOL	TOP OF GRATING
ABT	ABOUT	CO	CLEANOUT, CONCRETE OPENING	FBO	FURNISHED BY OWNER	INC	INCLUDE, INCANDESCENT	NIC	NOT IN CONTRACT	RD	ROOF DRAIN	TOL	TOLERANCE, TOP OF LEDGER
AC	ALTERNATING CURRENT	COL	COLUMN	FC	FLUSHING CONNECTION	INF	INFLUENT	NO	NORMALLY OPEN, NUMBER	REC	RECESS	TOM	TOP OF MASONRY
ACK	ACKNOWLEDGE	COM	COMMON	FCA	FLANGED COUPLING ADAPTER	INSTR	INSTRUMENTATION	NOM	NOMINAL	RECD	RECEIVED	TOP	TOP OF PLATE
ACP	ACOUSTIC CEILING PANEL,	COMB	COMBINATION	FD	FLOOR DRAIN	INSUL	INSULATION	NPS	NOMINAL PIPE SIZE	RECT	RECTANGULAR	TOPO	TOPOGRAPHY
ACST	ASPHALTIC CONCRETE PAVEMENT	COMM	COMMUNICATION	FDC	FLEXIBLE DUCT CONNECTION	INT	INTERIOR, INTERSECTION	NPT	NATIONAL PIPE THREAD	RED	REDUCER	TOS	TOP OF SLAB, TOP OF STEEL,
AD	ADDENDUM, AREA DRAIN	COMP	COMPOSITION, COMPRESSIBLE,	FDR	FEEDER	INTR	INTERMEDIATE, INTERIOR	NS	NEAR SIDE	REF	REFERENCE	TOW	TOP OF SLOPE
ADDL	ADDITIONAL	COMP	COMPOSITE	FDN	FOUNDATION	INV	INVERT	NIS	NOT TO SCALE	REIN	REINFORCING	TP	TOP OF WALL
ADH	ADHESIVE	CON	CONCENTRIC	FE	FLANGED END, FIRE EXTINGUISHER	IPS	IRON PIPE SIZE	NWL	NORMAL WATER LEVEL	REM	REMOVE	TPD	TOILET PARTITION, TELEPHONE POLE,
ADJ	ADJUSTABLE, ADJACENT	CONC	CONCRETE	FEC	FIRE EXTINGUISHER CABINET	IPT	INTERNAL PIPE THREAD			REQD	REQUIRED	TP	TOE PLATE, TRAP PRIMER
AF	AMP FRAME, AMP FUSE	CONN	CONNECTION	FES	FLARED END SECTION	IR	INSIDE RADIUS, IRON ROD			RESIL	RESILIENT	TPD	TOILET PAPER DISPENSER
AFF	ABOVE FINISH FLOOR	CONST	CONSTRUCTION	FEXT	FIRE EXTINGUISHER	IRR	IRRIGATION			RET	RETAINING, RETURN	TPG	TOPPING, THROUGH PLATE GIRDER
AFG	ABOVE FINISH GRADE	CONT	CONTINUOUS	FF	FAR FACE, FACTORY FINISH, FLAT FACE	ISO	ISOMETRIC			REV	REVISION, REVERSE	TR	TRANSOM
AGGR	AGGREGATE	COOR	COORDINATE	FG	FINISHED GRADE					RF	RESILIENT FLOORING	TRANS	TRANSITION
AI	AREA INLET, ANALOG INPUT	CORR	CORROSIVE, CORRUGATED	FH	FIRE HYDRANT	JB	JUNCTION BOX			ODPD	OVER CURRENT PROTECTION DEVICE	TRD	TRENCH DRAIN
AIC	AMPS INTERRUPTING CAPACITY	CP	CHECKER PLATE, CONTROL POINT	FIG	FIGURE	JCT	JUNCTION			OD	OUTSIDE DIAMETER	TYP	TYPICAL
ALIG	ALIGNMENT	CPG	COUPLING	FIN	FINISH	JF	JOINT FILLER			OED	OPEN END DUCT		
ALT	ALTERNATE, ALTITUDE	CRL	CORROSION-RESISTANT LINING	FJT	FLUSH JOINT	JST	JOIST			OF	OUTSIDE FACE, OFFICE FURNISHING		
ALUM	ALUMINUM	CSC	COMPRESSION SLEEVE COUPLING	FL	FLOW, FLOW LINE	JT	JOINT			OFCI	OWNER FURNISHED CONTRACTOR		
AM	ACOUSTICAL MATERIAL	CSK	COUNTERSINK	FLCI	FLOCCULATION INFLUENT						INSTALLED		
AMB	AMBIENT	CSS	CLINIC SERVICE SINK	FLEX	FLEXIBLE	K	KIP			OFOI	OWNER FURNISHED OWNER INSTALLED	U	URINAL
ANC	ANCHOR	CT	CERAMIC TILE	FLG	FLANGE	KB	KNEE BRACE			OG	ORIGINAL GROUND	UG	UNDERGROUND
AO	ANALOG OUTPUT	CTR	CONTRACTION JOINT	FLOR	FLUORESCENT	KCMIL	THOUSAND CIRCULAR MILS			OH	OVERHEAD	ULT	ULTIMATE
AP	ACCESS PANEL	CTRL	CENTER	FLR	FLOOR	KD	KNOCK DOWN			OPNG	OPENING	UNFN	UNFINISHED
APRX	APPROXIMATE	CW	COPPER, CUBIC	FLS	FLASHING, FLUSH	KO	KNOCK OUT			OPP	OPPOSITE	UNO	UNLESS NOTED OTHERWISE
APVD	APPROVED	CY	CUBIC YARD	FN	FENCE	KSI	KIPS PER SQUARE INCH			OPT	OPTIONAL	UTIL	UTILITY
ARCH	ARCHITECTURAL			FO	FINISHED OPENING	KW	KIPS PER SQUARE INCH			OR	OUTSIDE RADIUS	V	VENT, VELOCITY, VOLT
ASSY	ASSEMBLY			FOB	FLAT ON BOTTOM	L	ANGLE, LENGTH, LAVATORY, LINTEL			ORD	OVERFLOW ROOF DRAIN	VA	VOLT AMPERE
AT	ACOUSTICAL TILE, AMP TRIP	d	PENNY (NAIL MEASURE)	FOC	FACE OF CONCRETE, FACE OF CURB	LAD	LADDER			ORIG	ORIGINAL	VAC	VACUUM
ATC	ACOUSTICAL TILE CEILING	DB	DEEP, DIFFUSER, DRAIN	FOM	FACE OF FINISH	LAM	LAMINATE			OVFL	OVERFLOW	VAR	VARNISH, VARIABLE,
ATM	ATMOSPHERE	DD	DUCT BANK, DECIBEL, DRY BULB	FOS	FACE OF MASONRY	LATL	LATERAL			OVBG	OVERHANG	VB	VOLT AMPERES REACTIVE
AUTO	AUTOMATIC	DBA	DEFORMED BAR ANCHOR	FOT	FLAT ON TOP	LB	LAG BOLT, POUND			OS	OUNCE	VBS	VAPOR BARRIER, VINYL BASE,
AUX	AUXILIARY	DBL	DOUBLE	FPT	FEMALE PIPE THREAD	LCTB	LIQUID CHALK AND TACK BOARD			PA	PAINT	VC	VERTICAL CURVE
AVE	AVENUE	DC	DIRECT CURRENT	FR	FRAME	LDG	LANDING			PAR	PUBLIC ADDRESS	VCP	VITRIFIED CLAY PIPE
AVG	AVERAGE	DD	DEWATERING DECANT	FRP	FIBERGLASS REINFORCED PLASTIC	LDR	LEADER			PB	PANIC BAR, PULL BOX	VCT	VINYL COMPOSITION TILE,
AWG	AMERICAN WIRE GAGE	DE	DIGESTER EFFLUENT	FRMT	FIRE RETARDANT TREATED MATERIAL	LE	LIFTING EYE			PBD	PARTICLE BOARD	VEL	VERTICAL CENTERLINE
AWT	ACOUSTICAL WALL TILE	DEG	DEGREE	FS	FLOOR SINK, FAR SIDE	LF	LINEAR FOOT			PC	POINT OF CURVE, PIECE, PRECAST	VENT	VENTILATION
		DEG C	DEGREE CENTIGRADE	FT	FEET, FOOT	LG	LONG			PCF	POINT OF COMPOUND CURVATURE	VERT	VERTICAL
B TO B	BACK TO BACK	DEMO	DEMOLITION	FTG	FOOTING, FITTING	LH	LEFT HAND			PCT	PERCENT	VERTS	VERTICAL REINFORCING
BAL	BALANCE	DEPT	DEPARTMENT	FUR	FURRED, FURRING	LIN	LINEAR			PE	PLAIN END, PRIMARY EFFLUENT	VG	VERTICAL GRAIN
BBD	BULLETIN BOARD	DI	DROP INLET, DUCTILE IRON, DIGITAL INPUT	FURN	FURNITURE, FURNISH	LIQ	LIQUID			PEN	PENETRATION	VIF	VERIFY IN FIELD
BC	BASE CABINET, BOTTOM CHORD, BOLT CENTER, BOLT CIRCLE	DIA	DIAMETER	FUT	FUTURE	LLH	LONG LEG HORIZONTAL			PER	PERFORATED	VIN	VINYL
BD	BOARD	DIAG	DIAGONAL, DIAGRAM	FV	FACE VELOCITY	LLV	LONG LEG VERTICAL			PERM	PERMANENT	VOL	VOLUME
BE	BOTH ENDS, BELL END	DIFF	DIFFERENTIAL, DIFFERENCE	FW	FIELD WELD, FIRE WALL	LMLU	LIQUID MARKER LECTURE UNIT			PERP	PERPENDICULAR	VPC	VERTICAL POINT OF CURVATURE
BF	BOTH FACES, BOTTOM FACE, BLIND FLANGE, BOARD FEET	DIM	DIMENSION	FWD	FORWARD	LNG	LONGITUDINAL			PF	POWER FACTOR	VPI	VERTICAL POINT OF INTERSECTION
BKG	BACKING	DISCH	DISCHARGE	FXTR	FURNISHED WITH EQUIPMENT	LOC	LOCATION			PFM	PREFABRICATED MASONRY UNIT	VPT	VERTICAL POINT OF TANGENCY
BL	BASE LINE	DIST	DISTANCE, DISTRIBUTION			LP	LOW POINT			PI	PHASE	VS	VERSUS, VAPOR SEAL
BLDG	BUILDING	DIV	DIVISION			LPS	LOW-PRESSURE SODIUM			PH	POINT OF INTERSECTION, PRIMARY	VTR	VENT THROUGH ROOF
BLK	BLOCK	DL	DEAD LOAD			LT	LONG RADIUS			PK	PACKAGE	VWC	VINYL WALL COVERING
BLKG	BLOCKING	DMJ	DOUBLE MECHANICAL JOINT			LD	LIMITED			PKG	PACKAGE	W	WITH
BLWR	BLOWER	DMPF	DAMP PROOFING			LTG	LIMITED LIGHTING			PL	PLATE, PROPERTY LINE, PRECAST LINTEL	W/O	WITHOUT
BM	BENCHMARK, BEAM	DN	DOWN			LTL	LINTEL			PLAS	PLASTER	W	WATT, WEST, WIDE, WINDOW, WIRE,
BOC	BACK OF CURB	DO	DISSOLVED OXYGEN, DIGITAL OUTPUT, DITTO			LTNG	LIGHTNING			PLAT	PLATFORM	WB	WOOD BASE
BOD	BOTTOM OF DUCT	DP	DEPTH			LV	LOW VOLTAGE			PLB	PLUMBING	WC	WATER CLOSET, WATER COLUMN
BOG	BOTTOM OF GRILLE	DPDT	DOUBLE POLE, DOUBLE THROW			LVL	LAMINATED VENEER LUMBER			PLG	PLUMBING	WD	WOOD, WIDTH
BOL	BOTTOM OF LOUVER, BOLLARD	DPST	DOUBLE POLE, SINGLE THROW			LVR	LOUVER			PLF	POUNDS PER LINEAR FOOT	WF	WIDE FLANGE, WASH FOUNTAIN
BOP	BOTTOM OF PIPE	DS	DOWN SPOUT, DEWATERED SOLIDS			LW	LIGHTWEIGHT			PLI	PLANT INFLUENT	WG	WIRE GLASS, WATER GAGE
BOR	BOTTOM OF REGISTER	DT	DOUBLE TEE, DRIP TRAP ASSEMBLY			LWC	LIGHTWEIGHT CONCRETE			PNEU	PNEUMATIC	WH	WALL HYDRANT, WEEP HOLE
BOT	BOTTOM	DUP	DUPLICATE			LWL	LOW WATER LEVEL			POL	POLISH, POLYMER	WI	WROUGHT IRON
BOU	BOTTOM OF UNIT	DWG	DRAWING							POS	POSITIVE, POSITION	WL	WATER LEVEL
BP	BASE PLATE	DWL	DOWEL			MA	MIXED AIR			PP	POLYPROPYLENE, POWER POLE	WLD	WELDED
BRG	BEARING	DWR	DRAWER			MACH	MACHINED			PRC	POINT OF REVERSE CURVATURE	WM	WIRE MESH
BRGP	BEARING PLATE					MAINT	MAINTENANCE			PREF	PREFINISHED	WP	WEATHERPROOF
BRKT	BRACKET					MAN	MANUAL			PREFAB	PREFABRICATED	WS	WATERSTOP, WATER SURFACE
BS	BOTH SIDES	E	EAST			MATL	MATERIAL			PRELIM	PRELIMINARY	WSCT	WAINSCOT
BTU	BRITISH THERMAL UNIT	EA	EACH, EXHAUST AIR			MAX	MAXIMUM			PREP	PREPARE	WT	WEIGHT, WATER TIGHT
BTW	BETWEEN	EC	ELECTRICAL CONTRACTOR			MB	MACHINE BOLT			PREP	PREPARE	WTHP	WATERPROOF, WORKING POINT
BTWLD	BUTT WELD	ECC	ECCENTRIC			MBR	MEMBER			PR	PRESSURE	WWF	WELDED WIRE FABRIC
BU	BELL UP, BUILT-UP	ED	EQUIPMENT DRAIN			MC	MECHANICAL CONTRACTOR,			PRI	PRIMARY		
BUR	BUILT-UP ROOFING	EDB	ELECTRICAL DUCT BANK				MECHANICAL COUPLING,			PROP	PROPERTY, PROPOSED		
BW	BOTH WAYS	EE	EACH END				MOMENT CONNECTION			PROT	PROTECTION		
BYP	BYPASS	EF	EACH FACE			MCB	METAL CORNER BEAD			PS	PIPE SUPPORT		
		EFF	EFFLUENT, EFFICIENCY			MCJ	MASONRY CONTROL JOINT			PSF	POUNDS PER SQUARE FOOT		
		EHH	ELECTRICAL HANDHOLE			MDMJ	MODIFIED DOUBLE MECHANICAL JOINT			PSI	POUNDS PER SQUARE INCH		
		EIFS	EXTERIOR INSULATION & FINISH SYSTEM			MECH	MECHANICAL			PSIA	POUNDS PER SQUARE INCH ABSOLUTE		
C TO C	CENTER TO CENTER					MED	MEDIUM			PSIG	POUNDS PER SQUARE INCH GAGE		
C&G	CURB AND GUTTER					MFR	MANUFACTURER			PST	PRESTRESSED		
C	CHANNEL SHAPE, CENTIGRADE, CONDUIT	EJ	EXPANSION JOINT			MH	MANHOLE, METAL HALIDE			PT	POINT, POINT OF TANGENCY		
CAB	CABINET	EL	ELBOW, ELEVATION			MIN	MINIMUM			PTN	PARTITION		
CAP	CAPACITY	ELEC	ELECTRICAL			MIR	MIRROR			PVC	POLYVINYL CHLORIDE, POINT OF VERTICAL CURVE		
CAT	CATALOG, CATALOGIORY	EMBD	EMBEDDED			MISC	MISCELLANEOUS			PVMT	PAVEMENT		
CAV	CAVITY	EMER	EMERGENCY			MJ	MECHANICAL JOINT			PWD	PLYWOOD		
CAT	CATCH BASIN	EMH	ELECTRICAL MANHOLE			ML	MASONRY LINTEL			PWJ	PLYWOOD WEB JOIST		
CCB	CONCRETE BLOCK	ENCL	ENCLOSURE			ML	MASONRY LINTEL			PZ	PIEZOMETER		
CCW	COUNTER CLOCKWISE	ENTR	ENTRANCE			MLO	MAIN LUGS ONLY						
CDF	CONTROLLED-DENSITY FILL	EOP	EDGE OF PAVEMENT			MMB	MEMBRANE						
CE	CONCRETE EDGE	EQ	EQUAL			MO	MASONRY OPENING						
CER	CERAMIC	EQUIP	EQUIPMENT			MOD	MODULAR, MODIFY						
CF	CUBIC FEET (FOOT)	EQUIV	EQUIVALENT			MON	MONUMENT						
CFL	COUNTER FLASHING	ES	EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER			MPT	MALE PIPE THREAD						
CHBD	CHALKBOARD					HPS	HIGH-PRESSURE SODIUM						
CHD	CHORD					HPT	HORIZONTAL POINT OF TANGENCY						
CHFR	CHAMFER	ESEW	EMERGENCY SHOWER AND EYE WASH			HR	HOSE REEL, HOUR						
CHH	COMMUNICATION HANDHOLE	EST	ESTIMATE			HS	HEADED STUD, HIGH STRENGTH						
CI	CURB INLET	EW	EACH WAY, EMERGENCY EYE/FACE WASH			HSS	HOLLOW STRUCTURAL SHAPE						
CIP	CAST-IN-PLACE					HT	HEIGHT						
CIPB	CONCRETE INTERLOCKING PAVER	EWC	ELECTRIC WATER COOLER			HTG	HEATING						
		EWFE	EACH WAY, EACH FACE			HV	HIGH VOLTAGE						
		EWTB	EACH WAY, TOP AND BOTTOM			HVAC	HEATING, VENTILATING AND AIR CONDITIONING						
CIRC	CIRCULATION, CIRCULAR	EXC	EXCAVATION			HWD	HARDWOOD						
CJ	CONSTRUCTION JOINT	EXH	EXHAUST			HWL	HIGH WATER LEVEL						
CKT	CIRCUIT	EXP	EXPANSION, EXPOSED			HYD	HYDRAULIC						
CL	CENTERLINE, CLASS, CLOSE	EXST	EXISTING			HZ	HERTZ, CYCLES PER SECOND						
CLG	CEILING	EXT	EXTERIOR, EXTERNAL, EXTENSION										

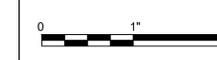
- GENERAL NOTES:**
- THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.
 - LISTING OF ABBREVIATIONS DOES NOT IMPLY THAT ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.
 - ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE VARIATIONS OF A WORD. FOR EXAMPLE, "MOD" MAY MEAN MODIFY OR MODIFICATION. "INC" MAY MEAN INCLUDED OR INCLUDING AND "REIN" MAY MEAN EITHER REINFORCE OR REINFORCING.
 - SEE INSTRUMENTATION LEGEND SHEET FOR PROJECT-SPECIFIC EQUIPMENT SYMBOLS, EQUIPMENT ABBREVIATIONS, AND PIPING SYSTEM ABBREVIATIONS.



PROJECT MANAGER		RYAN MOYERS	
CIVIL		R. MOYERS	
STRUCTURAL		D. PRINDLE	
PROCESS		J. ZAHLER	
MECHANICAL		K. SUTTON	
ELECTRICAL		I. RINCON	
INSTRUMENTATION		I. RINCON	
A	03/2020	ISSUED FOR BID	
ISSUE	DATE	DESCRIPTION	
PROJECT NUMBER		10108243	



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



GENERAL ABBREVIATIONS

FILENAME | 00G-01.dwg
SCALE | NONE

SHEET
00G-01

SITE PLAN SYMBOLOGY

	EMBANKMENT SLOPE
	CONTOUR
	VEGETATION (SIZE)
	CLEANOUT
	MANHOLE
	MONITORING WELL
	PIEZOMETER
	STORM DRAIN CATCH BASIN
	UTILITY VAULT
	POWER POLE
	TELEPHONE POLE
	FIRE HYDRANT
	YARD HYDRANT
	EXISTING SPOT ELEVATION
	FINISHED SPOT ELEVATION
	HORIZONTAL CONTROL POINT
	BENCHMARK
	IDENTIFICATION AND APPROXIMATE LOCATION OF SOIL TEST HOLE
	DOWNGUY
	EXTERIOR PAD MOUNTED TRANSFORMER
	POLE - MOUNTED TRANSFORMER
	ELECTRICAL HANDHOLE OR MANHOLE Y - MHX OR HHX, WHERE X INDICATES SEQUENCE NUMBER

NOTES:
 1. UTILITIES THAT ARE SUSPENDED ABOVE GRADE ARE DESIGNATED BY THE PREFIX "OH" (OVERHEAD).

	TELEPHONE LINE
	ELECTRIC LINE
	FIBER OPTIC
	COMMUNICATION
	HANDRAIL AND GUARDRAIL
	PIPELINE
	LARGE PIPELINE
	UTILITY BENEATH STRUCTURE
	RAILROAD
	DRAINAGE FLOW
	NATURAL WATERWAY
	CHAIN LINK FENCE
	FIELD FENCE
	PROPERTY LINE
	CENTERLINE
	ROCK BERM
	SILT FENCE
	EASEMENT
	LIMITS OF CONSTRUCTION
	ROW

MATERIALS IN PLAN/SECTION

	ASPHALT (PLAN OR SMALL-SCALE SECTION)
	ASPHALT (LARGE-SCALE SECTION)
	BATT INSULATION (SECTION)
	BRICK MASONRY (PLAN AND/OR SECTION)
	CHECKERED PLATE (PLAN)
	CONCRETE (PLAN AND/OR SECTION)
	CONCRETE MASONRY (PLAN AND/OR SECTION)
	DEMOLITION (PLAN AND/OR SECTION)
	EARTH (SECTION)
	FILTER POINT MAT (PLAN)
	GRANULAR FILL (SECTION)
	GRATING (SECTION)
	GRATING (PLAN)
	GROUT (SECTION)
	METAL (SECTION)
	ORIENTED STRAND BOARD (SECTION)
	PLYWOOD (LARGE-SCALE SECTION)
	PLYWOOD (SMALL-SCALE SECTION)
	PRECAST CONCRETE (PLAN AND/OR SECTION)
	RIGID INSULATION (SECTION)
	SAND (SECTION)
	SOD (SECTION)
	WEEP JOINT MORTAR PROTECTION SYSTEM (SECTION)
	WOOD - CONTINUOUS (SECTION)
	WOOD BLOCKING (SECTION)

GENERAL SYMBOLOGY

PLAN

1/4" = 1'-0"

PLAN TITLE

SECTION CUT MARKER

SECTION

3/8" = 1'-0"

SECTION TITLE

SECTION CUT MARKER

DETAIL

3" = 1'-0"

DETAIL TITLE

DETAIL MARKER

FOR REFERENCING DETAILS INCLUDED IN DRAWING SET.

DETAIL MARKER

FOR REFERENCING DETAILS FOUND ON STANDARD DETAIL DRAWING SHEETS.

ELEVATION

3" = 1'-0"

ELEVATION TITLE

SINGLE ELEVATION OR PHOTO MARKER

MULTIPLE ELEVATION OR PHOTO MARKER

ELEVATION

3" = 1'-0"

ELEVATION TITLE

ELEVATION IDENTIFICATION NUMBER

SHEET WHERE POINT OF VIEW MARKER CAN BE FOUND *

* EXCEPTIONS WHERE THE SHEET NUMBER IS REPLACED BY A DASH (-):
 1) FOR COMMON DETAILS, SECTIONS, ELEVATIONS OR DETAILS THAT ARE CUT OR CALLED OUT ON MULTIPLE SHEETS.
 2) SECTIONS, ELEVATIONS OR DETAILS THAT ARE LOCATED ON THE SAME SHEET THEY ARE CUT OR CALLED OUT ON.

GENERAL SYMBOLOGY

ARCHITECTURAL

ROOM NAME

XX-XX ROOM NUMBER

XXX DOOR NUMBER

A COLUMN GRID LINE

X WALL TYPE

X WINDOW TYPE

X LOUVER

X ACCESSORY, FURNITURE, AND MISCELLANEOUS EQUIPMENT IDENTIFIER

KEY NOTE DESIGNATION

KEY NOTE NUMBER

GENERAL LINE SYMBOLOGY

4-HOUR FIRE RATED WALL

3-HOUR FIRE RATED WALL

2-HOUR FIRE RATED WALL

1-HOUR FIRE RATED WALL

COLUMN GRID LINE/CENTERLINE

IDENTIFICATION SYMBOLOGY

PIPING

FIGURE

EXAMPLE

LINE SIZE 36"

SERVICE PLANT EFFLUENT

EQUIPMENT IDENTIFICATION

FIGURE

EXAMPLE

SERVICE ABBREVIATION INDICATES NON-POTABLE WATER

EQUIPMENT ABBREVIATION INDICATES PUMP

BUILDING OR STRUCTURE NUMBER BUILDING 20

EQUIPMENT NUMBER PUMP 23

ALTERNATIVE 2

FIGURE

EXAMPLE

SERVICE ABBREVIATION INDICATES NON-POTABLE WATER

EQUIPMENT ABBREVIATION INDICATES PUMP

EQUIPMENT NUMBER PUMP 23

SHEET NAMING CONVENTION

DISCIPLINE DESIGNATOR & DISCIPLINE ORDER

G	GENERAL
V	SURVEYING/MAPPING
X	DEMOLITION
C	CIVIL
L	LANDSCAPING
U	MULTI-DISCIPLINE
S	STRUCTURAL
A	ARCHITECTURAL
D	PROCESS
M	MECHANICAL (HVAC)
P	PLUMBING
F	FIRE PROTECTION
E	ELECTRICAL
Y	INSTRUMENTATION

EXAMPLE

ARCHITECTURAL, SHEET 01

A	-		
---	---	--	--

DISCIPLINE DESIGNATOR

		0	1
--	--	---	---

SHEET NUMBER

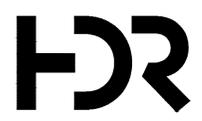
CODE ANALYSIS

CODE ANALYSIS

- APPLICABLE CODES AND STANDARDS:
 - INTERNATIONAL CODE COUNCIL, INTERNATIONAL BUILDING CODE (IBC), 2012
 - INTERNATIONAL CODE COUNCIL, INTERNATIONAL FIRE CODE (IFC), 2012
 - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODES AND STANDARDS AS REFERENCED, SPECIFICALLY NFPA 820
- TYPE OF CONSTRUCTION:
 - EXISTING BUILDING: Type II B
 - NEW BUILDING: TYPE II B (IBC, TABLE 601)
- CLASSIFICATION OF OCCUPANCY:
 - EXISTING BUILDING: Group F
 - NEW BUILDING: GROUP F-1, MODERATE-HAZARD FACTORY
- MAXIMUM ALLOWABLE HEIGHT FOR TYPE II B OCCUPANCY IS 55 FEET; THE ACTUAL MAXIMUM HEIGHT IS 27 FEET.
- THE MAXIMUM ALLOWABLE STORIES FOR AN F-1 OCCUPANCY IS 2; THE ACTUAL NUMBER OF STORIES IS 1. (IBC TABLE 503).
- MAXIMUM ALLOWABLE FLOOR AREA: 15,500 SQ.FT. (IBC SECTION 503.1, AND TABLE 503) THE ACTUAL FLOOR AREA IS 1,600 SQ.FT.
- FIRE RATED SEPARATIONS: NONE
- AUTOMATIC SPRINKLER SYSTEMS WILL NOT BE PROVIDED FOR THE BUILDING.
- FINISHES SHALL CONFORM TO IBC (2012) CHAPTER 8.
- MEANS OF EGRESS SHALL CONFORM TO IBC CHAPTER 10.
- OCCUPANT LOAD:
 - EXISTING BUILDING: 7381 SQ.FT. / 100 = 74 OCCUPANTS
 - NEW BUILDING: 1953 SQ.FT. / 100 = 20 OCCUPANTS
- THE F-1 OCCUPANCY EXITS
 - EXISTING BUILDING: 5 EXIT DOORS, 2 OVERHEAD DOORS
 - NEW BUILDING: 2 EXIT DOORS, 1 OVERHEAD DOOR
- COMMON PATH OF TRAVEL DISTANCE DOES NOT EXCEED 200 FEET. ROOF VENTS PER SECTION 1016.2 INCREASE DISTANCE TO 400 FT.
- NFPA 820: LIQUID STREAM TREATMENT PROCESSES, COARSE AND FINE SCREEN FACILITIES
 - POSSIBLE FIRE & EXPLOSION HAZARD
 - VENTILATION: A
 - NEC-AREA ELECTRICAL CLASSIFICATION: DIVISION 1
 - MATERIAL OF CONSTRUCTION: NONCOMBUSTIBLE MATERIAL
 - FIRE PROTECTION MEASURES
 - FIRE EXTINGUISHER
 - HYDRANT PROTECTION
 - COMBUSTIBLE GAS DETECTION SYSTEM

GENERAL NOTES:

- THIS IS A STANDARD SHEET SHOWING COMMON SYMBOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.



A	03/2020	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZALLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
 Wastewater Treatment Plant
 Odor control



GENERAL LEGEND AND CODE ANALYSIS

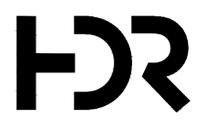
FILENAME | 00G-02.dwg
 SCALE | NONE

SHEET
00G-02

PIPING SYMBOLOGY			HVAC SYMBOLOGY			HVAC CONTROL SYMBOLOGY			AIR FLOW SCHEMATIC AND TEMPERATURE CONTROL DIAGRAM SYMBOLOGY														
VALVES SINGLE LINE DOUBLE LINE ISOLATION BALL VALVE, BUTTERFLY VALVE, GATE VALVE, KNIFE GATE VALVE, PLUG VALVE, THREE-WAY PLUG VALVE			MISCELLANEOUS PIPE JOINT, COMPRESSION SLEEVE TYPE COUPLING, FLANGED COUPLING ADAPTER (FCA), FLEXIBLE CONNECTION, HARNESSSED MECHANICAL COUPLING, PRESSURE GAGE (W/COCK), TRAP, QUICK DISCONNECT CAM & GROOVE COUPLING, CAP OR PLUG, INTERIOR CLEANOUT, HOSE VALVE, HOSE BIBB, OR FLUSHING CONNECTION, HOSE RACK, FLOOR DRAIN, X = TYPE DESIGNATED IN SPECIFICATIONS, PIPE IN SECTION, BELL UP (PLAN), BELL UP (SECTION OR SCHEMATIC), DRAIN (SECTION OR SCHEMATIC), AIR TOOL ASSEMBLY, AUTOMATIC VALVE STATION, PRESSURE-REDUCING STATION			SUPPLY AIR OR OUTSIDE AIR DUCT UP (SECTION CUT, FIRST DIMENSION DUCT WIDTH), SUPPLY AIR OR OUTSIDE AIR DUCT DOWN (NO SECTION CUT), RETURN AIR DUCT UP (SECTION CUT), RETURN AIR DUCT DOWN (NO SECTION CUT), EXHAUST AIR DUCT UP (NO SECTION CUT), EXHAUST AIR DUCT DOWN (NO SECTION CUT), ROUND ELBOW UP, ROUND ELBOW DOWN, TRANSITION - DOUBLE SIDED, TRANSITION - ONE SIDED, TRANSITION - RECTANGULAR TO ROUND DUCT, STANDARD BRANCH - FOR SUPPLY AIR W/EXTRACTOR AND RETURN AIR W/O EXTRACTOR, ELBOW - W/TURNING VANE (RECTANGULAR), ELBOW - W/TURNING VANES (RECTANGULAR), SMOOTH RADIUS, GOOSENECK HOOD (COWL), RECTANGULAR DUCT OR OPENING SIZE - FIRST NUMBER INDICATES SIZE OF SIDE SHOWN, ROUND DUCT SIZE, RECTANGULAR DUCT INCLINE - RISE OR DROP IN RESPECT TO THE AIR FLOW, ROUND DUCT INCLINE - RISE OR DROP IN RESPECT TO THE AIR FLOW, HIDDEN DUCT, DUCT ELEVATION TAG ABOVE FINISH FLOOR, PRESSURE/TEMPERATURE TEST PLUG (PETE PLUG OR EQUAL), SOUND ATTENUATOR, SPLITTER DAMPER, VD = VOLUME DAMPER, BDD = BACKDRAFT DAMPER, MOTOR OPERATED DAMPER, FIRE DAMPER, SMOKE DAMPER, SMOKE AND FIRE DAMPER			FLEXIBLE CONNECTION, FLEXIBLE DUCT, ACOUSTICAL LINING - DUCT DIMENSIONS FOR NET FREE AREA, SUPPLY AIR REGISTER OR GRILLE - W/DUCT-MOUNTED EXTRACTOR, EXHAUST AIR OR RETURN AIR REGISTER OR GRILLE, EXHAUST AIR OR RETURN AIR REGISTER OR GRILLE, SUPPLY AIR ASSEMBLY SQUARE DIFFUSER, SUPPLY AIR ASSEMBLY ROUND DIFFUSER, WALL LOUVER, ACCESS DOOR, UNDERCUT DOOR 3/4", ACCESS DOOR OR ACCESS PANEL IN DUCTWORK, INTAKE OR RELIEF HOOD, DOOR GRILLE, BACKDRAFT DAMPER, EXHAUST ROOF VENTILATOR PROPELLER OR CENTRIFUGAL TYPE, PROPELLER WALL FAN, ROOM AIR CONDITIONING UNIT, INTAKE/EXHAUST LOUVER, SUPPLY, RETURN OR EXHAUST FAN, AIR FILTER			TC: TEMPERATURE CONTROLLER, TT: TEMPERATURE TRANSMITTER, TS: TEMPERATURE SWITCH, T: THERMOSTAT, TI: TEMPERATURE INDICATOR, %: PERCENTAGE TIMER, RC: RECEIVER CONTROLLER, HOA: HAND-OFF-AUTO, MS: MOTOR STARTER, M: DAMPER ACTUATOR, PI: PRESSURE INDICATOR, FRZ: FREEZE STAT, FS: FIRE STAT, DPS: DIFFERENTIAL PRESSURE SWITCH, SD: SMOKE DETECTOR, FS: FLOW SWITCH, PS: PRESSURE SWITCH, D: TIME DELAY, M: MINIMUM POSITION RELAY, S: SIGNAL, AO: ANALOG OUTPUT, AI: ANALOG INPUT, DO: DIGITAL OUTPUT, DI: DIGITAL INPUT, C: COMMON PORT, S: SIGNAL PORT, NO: NORMALLY OPEN, NC: NORMALLY CLOSED, BALANCING VALVE, RHC: RESISTANCE HEATING CONTACTOR, TA: TEST-AUTO, TOA: TEST-OFF-AUTO, ELECTRIC SIGNAL, PIPING, BULB-TYPE THERMOSTAT, PEC: PROGRAMMABLE EQUIPMENT CONTROLLER			MISCELLANEOUS BACKFLOW PREVENTER, WATER METER, VARIABLE AREA METER, UNION, WYE-STRAINER, PENETRATION THROUGH STRUCTURE, FLEXIBLE HOSE OR TUBING, FLEXIBLE PIPING CONNECTION, LINE SIZE CHANGE (CONCENTRIC REDUCER), LINE SIZE CHANGE (ECCENTRIC REDUCER), LINE TURNING DOWN, LINE TURNING UP, BLIND FLANGE, PIPE BREAK			PIPING DESIGNATIONS ALS: ALUM SOLUTION, CLS: CHLORINE SOLUTION, DD: DEWATERING DECANT, DE: DIGESTER EFFLUENT, DRN: DRAIN, EFF: PLANT EFFLUENT, FOD: FOUNDATION DRAIN, FOR: FUEL OIL RETURN, FOS: FUEL OIL SUPPLY, HWR: HOT WATER RETURN, HWRR: HOT WATER REVERSE RETURN, HWS: HOT WATER SUPPLY, HWW: HOT WASHDOWN WATER, IA: INSTRUMENT AIR, IW: IRRIGATION WATER, LPA: LOW PRESSURE PROCESS AIR, OVFL: OVERFLOW, PE: PRIMARY EFFLUENT, PI: PRIMARY INFLUENT, PLI: PLANT INFLUENT, POL: POLYMER, RL: RAIN LEADER, RS: RAW SEPTAGE, SMP: SAMPLE, SP: SUMP, SR: SLUDGE RECYCLE, SS: SCREENED SEWAGE, SWW: SERVICE WATER, SW: SLUDGE WASTE, VT: VENT, VTR: VENT THRU ROOF, WST: WASTE (DRAINS AND SINKS INSIDE BLDG)			MISCELLANEOUS SYMBOLOGY MIST ELIMINATOR, ACTIVATED CARBON OR CHEMICAL FILTER, CENTRIFUGAL PUMP, SPRAY NOZZLE/HUMIDIFIER, REMOVE TO HERE, RECONNECT TO HERE, FIRE EXTINGUISHER		
CONTROL BALL CHECK VALVE, CHECK VALVE, DOUBLE-DISK CHECK VALVE, PRESSURE RELIEF VALVE, PRESSURE-REDUCING VALVE, AIR RELEASE VACUUM VALVE (A = AIR RELEASE, VAC = VACUUM), PRESSURE-REGULATING VALVE									CHILLED WATER COOLING COIL , HOT WATER HEATING COIL , DIRECT EVAPORATIVE COOLER , DIRECT EXPANSION COOLING COIL , ELECTRIC HEATING COIL , VFD (VARIABLE FREQUENCY DRIVE) , CONSTANT AIR VOLUME BOX WITH REHEAT COIL , VARIABLE AIR VOLUME BOX WITH REHEAT COIL														
MISCELLANEOUS BACKFLOW PREVENTER, WATER METER, VARIABLE AREA METER, UNION, WYE-STRAINER, PENETRATION THROUGH STRUCTURE, FLEXIBLE HOSE OR TUBING, FLEXIBLE PIPING CONNECTION, LINE SIZE CHANGE (CONCENTRIC REDUCER), LINE SIZE CHANGE (ECCENTRIC REDUCER), LINE TURNING DOWN, LINE TURNING UP, BLIND FLANGE, PIPE BREAK			PIPING DESIGNATIONS ALS: ALUM SOLUTION, CLS: CHLORINE SOLUTION, DD: DEWATERING DECANT, DE: DIGESTER EFFLUENT, DRN: DRAIN, EFF: PLANT EFFLUENT, FOD: FOUNDATION DRAIN, FOR: FUEL OIL RETURN, FOS: FUEL OIL SUPPLY, HWR: HOT WATER RETURN, HWRR: HOT WATER REVERSE RETURN, HWS: HOT WATER SUPPLY, HWW: HOT WASHDOWN WATER, IA: INSTRUMENT AIR, IW: IRRIGATION WATER, LPA: LOW PRESSURE PROCESS AIR, OVFL: OVERFLOW, PE: PRIMARY EFFLUENT, PI: PRIMARY INFLUENT, PLI: PLANT INFLUENT, POL: POLYMER, RL: RAIN LEADER, RS: RAW SEPTAGE, SMP: SAMPLE, SP: SUMP, SR: SLUDGE RECYCLE, SS: SCREENED SEWAGE, SWW: SERVICE WATER, SW: SLUDGE WASTE, VT: VENT, VTR: VENT THRU ROOF, WST: WASTE (DRAINS AND SINKS INSIDE BLDG)			SUPPLY AIR OR OUTSIDE AIR DUCT UP (SECTION CUT, FIRST DIMENSION DUCT WIDTH), SUPPLY AIR OR OUTSIDE AIR DUCT DOWN (NO SECTION CUT), RETURN AIR DUCT UP (SECTION CUT), RETURN AIR DUCT DOWN (NO SECTION CUT), EXHAUST AIR DUCT UP (NO SECTION CUT), EXHAUST AIR DUCT DOWN (NO SECTION CUT), ROUND ELBOW UP, ROUND ELBOW DOWN, TRANSITION - DOUBLE SIDED, TRANSITION - ONE SIDED, TRANSITION - RECTANGULAR TO ROUND DUCT, STANDARD BRANCH - FOR SUPPLY AIR W/EXTRACTOR AND RETURN AIR W/O EXTRACTOR, ELBOW - W/TURNING VANE (RECTANGULAR), ELBOW - W/TURNING VANES (RECTANGULAR), SMOOTH RADIUS, GOOSENECK HOOD (COWL), RECTANGULAR DUCT OR OPENING SIZE - FIRST NUMBER INDICATES SIZE OF SIDE SHOWN, ROUND DUCT SIZE, RECTANGULAR DUCT INCLINE - RISE OR DROP IN RESPECT TO THE AIR FLOW, ROUND DUCT INCLINE - RISE OR DROP IN RESPECT TO THE AIR FLOW, HIDDEN DUCT, DUCT ELEVATION TAG ABOVE FINISH FLOOR, PRESSURE/TEMPERATURE TEST PLUG (PETE PLUG OR EQUAL), SOUND ATTENUATOR, SPLITTER DAMPER, VD = VOLUME DAMPER, BDD = BACKDRAFT DAMPER, MOTOR OPERATED DAMPER, FIRE DAMPER, SMOKE DAMPER, SMOKE AND FIRE DAMPER			FLEXIBLE CONNECTION, FLEXIBLE DUCT, ACOUSTICAL LINING - DUCT DIMENSIONS FOR NET FREE AREA, SUPPLY AIR REGISTER OR GRILLE - W/DUCT-MOUNTED EXTRACTOR, EXHAUST AIR OR RETURN AIR REGISTER OR GRILLE, EXHAUST AIR OR RETURN AIR REGISTER OR GRILLE, SUPPLY AIR ASSEMBLY SQUARE DIFFUSER, SUPPLY AIR ASSEMBLY ROUND DIFFUSER, WALL LOUVER, ACCESS DOOR, UNDERCUT DOOR 3/4", ACCESS DOOR OR ACCESS PANEL IN DUCTWORK, INTAKE OR RELIEF HOOD, DOOR GRILLE, BACKDRAFT DAMPER, EXHAUST ROOF VENTILATOR PROPELLER OR CENTRIFUGAL TYPE, PROPELLER WALL FAN, ROOM AIR CONDITIONING UNIT, INTAKE/EXHAUST LOUVER, SUPPLY, RETURN OR EXHAUST FAN, AIR FILTER			TC: TEMPERATURE CONTROLLER, TT: TEMPERATURE TRANSMITTER, TS: TEMPERATURE SWITCH, T: THERMOSTAT, TI: TEMPERATURE INDICATOR, %: PERCENTAGE TIMER, RC: RECEIVER CONTROLLER, HOA: HAND-OFF-AUTO, MS: MOTOR STARTER, M: DAMPER ACTUATOR, PI: PRESSURE INDICATOR, FRZ: FREEZE STAT, FS: FIRE STAT, DPS: DIFFERENTIAL PRESSURE SWITCH, SD: SMOKE DETECTOR, FS: FLOW SWITCH, PS: PRESSURE SWITCH, D: TIME DELAY, M: MINIMUM POSITION RELAY, S: SIGNAL, AO: ANALOG OUTPUT, AI: ANALOG INPUT, DO: DIGITAL OUTPUT, DI: DIGITAL INPUT, C: COMMON PORT, S: SIGNAL PORT, NO: NORMALLY OPEN, NC: NORMALLY CLOSED, BALANCING VALVE, RHC: RESISTANCE HEATING CONTACTOR, TA: TEST-AUTO, TOA: TEST-OFF-AUTO, ELECTRIC SIGNAL, PIPING, BULB-TYPE THERMOSTAT, PEC: PROGRAMMABLE EQUIPMENT CONTROLLER			MISCELLANEOUS SYMBOLOGY MIST ELIMINATOR, ACTIVATED CARBON OR CHEMICAL FILTER, CENTRIFUGAL PUMP, SPRAY NOZZLE/HUMIDIFIER, REMOVE TO HERE, RECONNECT TO HERE, FIRE EXTINGUISHER								

NOTE: MISCELLANEOUS SYMBOLOGY SHOWN IS FOR SINGLE-LINE PIPING. DOUBLE-LINE PIPING SYMBOLS ARE SIMILAR.

GENERAL NOTES:
 1. THIS IS A STANDARD PROCESS, MECHANICAL AND PLUMBING SYMBOLOGY SHEET. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
 2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
 3. SEE INSTRUMENTATION LEGEND SHEET FOR PROJECT-SPECIFIC EQUIPMENT SYMBOLS, EQUIPMENT ABBREVIATIONS, AND PIPING SYSTEM ABBREVIATIONS.



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
 Wastewater Treatment Plant
 Odor control



GENERAL MECHANICAL LEGEND

FILENAME | 00G-03.dwg
 SCALE | NONE

SHEET
00G-03

<p>1</p> <p>LOW - VOLTAGE CIRCUIT BREAKER (CB), RATINGS AND NO. OF POLES AS SHOWN. WHEN SPECIFIC TYPE IS REQUIRED, X INDICATES TYPE.</p> <p>TYPES: MCCB - MOLDED CASE ICCB - INSULATED CASE LVP - LOW - VOLTAGE POWER MCP - MOTOR CIRCUIT PROTECTOR (RATING PER CONNECTED LOAD)</p> <p>SEPARATELY MOUNTED CIRCUIT BREAKER; SEE ELECTRICAL ONE - LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION</p> <p>GROUND FAULT PROTECTION</p> <p>MEDIUM - VOLTAGE CIRCUIT BREAKER</p> <p>FUSE, SIZE, AND NUMBER OF FUSES AS NOTED</p> <p>FUSED CUTOFF, CURRENT RATING, FUSE SIZE, AND NUMBER OF POLES AS NOTED</p> <p>FUSIBLE SWITCH, CURRENT RATING, FUSE SIZE, AND QUANTITY AS NOTED</p> <p>NON-FUSED SWITCH, CURRENT RATING, AND NUMBER OF POLES AS NOTED</p> <p>DISCONNECT OR DRAWOUT CONNECTION</p> <p>MAGNETIC MOTOR STARTER AND SEPARATELY MOUNTED COMBINATION MAGNETIC MOTOR STARTER</p> <p>MOTOR CONTROLLER AND SEPARATELY MOUNTED MOTOR CONTROLLER WITH SHORT CIRCUIT PROTECTION AND DISCONNECT</p> <p>MOTOR STARTER AND CONTROLLER SUBSCRIPTS: A - MAGNETIC STARTER NEMA SIZE B - STARTER TYPE NONE - FULL VOLTAGE NON-REVERSING (FVNR) FVR - FULL VOLTAGE REVERSING 2S - TWO SPEED RVAT - REDUCED VOLTAGE AUTO TRANSFORMER</p> <p>C - CONTROL DIAGRAM OR CONTROLS SCHEDULE NUMBER (IF REQUIRED)</p> <p>D - CONTROLLER TYPE VFD - VARIABLE FREQUENCY DRIVE SS - SOLID STATE</p> <p>SEPARATELY MOUNTED COMBINATION MOTOR STARTER OR CONTROLLER; SEE ELECTRICAL ONE - LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION</p> <p>FUSED DISCONNECT X-SIZE (AMPS)</p> <p>DISCONNECT OR SAFETY SWITCH, NON-FUSED UNLESS OTHERWISE NOTED</p> <p>THERMAL OVERLOAD ELEMENT</p> <p>THERMAL OVERLOAD RELAY CONTACT</p> <p>MOTOR WITH DESIGN HORSEPOWER (WHEN INDICATED)</p> <p>GENERATOR</p> <p>TRANSFER SWITCH, CURRENT RATING, AND NUMBER OF POLES AS NOTED</p> <p>ATS - AUTOMATIC MTS - MANUAL</p> <p>TRANSFORMER</p> <p>3-PHASE, 3-WIRE DELTA CONNECTION</p> <p>3-PHASE, 4-WIRE GROUNDED WYE CONNECTION</p> <p>SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED</p> <p>LP100 208/120V 3Ø, 4W</p>	<p>2</p> <p>100 KVA</p> <p>NON-MOTOR LOAD WITH DESIGN KVA, KW, OR AMP</p> <p>CPT</p> <p>CONTROL POWER TRANSFORMER (CPT)</p> <p>VOLTAGE TRANSFORMER (VT OR PT)</p> <p>CURRENT TRANSFORMER (CT)</p> <p>UTILITY WATT-HOUR METER PER UTILITY REQUIREMENTS</p> <p>DMP</p> <p>DIGITAL METERING PACKAGE</p> <p>RTM</p> <p>RUN TIME METER</p> <p>GROUND</p> <p>LIGHTNING ARRESTER</p> <p>SPD</p> <p>LOW VOLTAGE SURGE PROTECTIVE DEVICE</p> <p>ELECTRICAL CONNECTION</p> <p>NO ELECTRICAL CONNECTION</p> <p>SV</p> <p>SOLENOID VALVE</p> <p>X Y</p> <p>CONTROL/RELAY COIL; X INDICATES TYPE, Y INDICATES LOOP NO. WHEN USED</p> <p>TYPES: CR - CONTROL RELAY DP - DEFINITE PURPOSE RELAY LC - LIGHTING CONTACTOR M - MOTOR STARTER PC - PHOTO CELL TC - TIME CLOCK TR - TIMING RELAY</p> <p>NORMALLY OPEN CONTACT (N.O.)</p> <p>NORMALLY CLOSED CONTACT (N.C.)</p> <p>NORMALLY OPEN TIME DELAY RELAY CONTACT WITH TIME DELAY ON CLOSING AFTER COIL IS ENERGIZED</p> <p>NORMALLY CLOSED TIME DELAY RELAY CONTACT WITH TIME DELAY ON OPENING AFTER COIL IS ENERGIZED</p> <p>NORMALLY OPEN TIME DELAY RELAY CONTACT WITH TIME DELAY ON OPENING AFTER COIL IS DE-ENERGIZED</p> <p>NORMALLY CLOSED TIME DELAY RELAY CONTACT WITH TIME DELAY ON CLOSING AFTER COIL IS DE-ENERGIZED</p> <p>NORMALLY OPEN TEMPERATURE SWITCH; CLOSE ON RISING TEMPERATURE</p> <p>NORMALLY CLOSED TEMPERATURE SWITCH; OPEN ON RISING TEMPERATURE</p> <p>NORMALLY OPEN FLOW SWITCH; CLOSE ON INCREASING FLOW</p> <p>NORMALLY CLOSED FLOW SWITCH; OPEN ON INCREASING FLOW</p>	<p>3</p> <p>NORMALLY OPEN LEVEL SWITCH, CLOSE ON RISING LEVEL</p> <p>NORMALLY CLOSED LEVEL SWITCH, OPEN ON RISING LEVEL</p> <p>NORMALLY OPEN PRESSURE SWITCH, CLOSE ON INCREASING PRESSURE</p> <p>NORMALLY CLOSED PRESSURE SWITCH, OPEN ON INCREASING PRESSURE</p> <p>NORMALLY OPEN LIMIT SWITCH, CLOSE ON REACHING LIMIT</p> <p>NORMALLY CLOSED LIMIT SWITCH, OPEN ON REACHING LIMIT</p> <p>FIELD WIRING EXTERNAL TO CONTROL PANEL</p> <p>INTERLOCK; X INDICATES TYPE</p> <p>TYPES: E - ELECTRICAL M - MECHANICAL K - KEY</p> <p>3 POSITION SELECTOR SWITCH, MAINTAINED CONTACTS; UNLESS OTHERWISE NOTED, 2-POSITION SIMILAR</p> <p>NORMALLY OPEN PUSHBUTTON, MOMENTARY CONTACT UNLESS OTHERWISE NOTED</p> <p>NORMALLY CLOSED PUSHBUTTON, MOMENTARY CONTACT UNLESS OTHERWISE NOTED</p> <p>INDICATING LIGHT, X INDICATES LENS COLOR</p> <p>PUSH TO TEST INDICATING LIGHT, X INDICATES LENS COLOR</p> <p>LENS COLORS: R - RED Y - YELLOW W G - GREEN A - WHITE A - B - BLUE AMBER</p> <p>EXTERIOR PAD MOUNTED TRANSFORMER (ARROW POINTS TO FRONT)</p> <p>SELECTOR SWITCH</p> <p>PUSHBUTTON</p> <p>INSTRUMENTATION/CONTROL DEVICE</p> <p>CONTROL PANEL INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT</p> <p>CONTROL PANEL WITH DISCONNECT SWITCH INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT</p> <p>JUNCTION OR PULL BOX</p> <p>PANELBOARD (250V TO 600V)</p> <p>PANELBOARD (LESS THAN 250V)</p> <p>ELECTRICAL EQUIPMENT ENCLOSURE: SWITCHBOARD, MOTOR CONTROL CENTER, CONTROL PANEL, OR OTHER EQUIPMENT AS INDICATED</p> <p>INDOOR OR OUTDOOR PHOTOSENSOR</p> <p>CEILING/PENDANT-MOUNTED LUMINAIRE FIXTURE SOLID HATCH INDICATES WITH EMERGENCY BATTERY PACK</p> <p>WALL-MOUNTED LUMINAIRE FIXTURE SOLID HATCH INDICATES WITH EMERGENCY BATTERY PACK</p> <p>CEILING/PENDANT-MOUNTED LUMINAIRE FIXTURE</p> <p>WALL-MOUNTED LUMINAIRE FIXTURE</p> <p>CEILING/PENDANT-MOUNTED LUMINAIRE FIXTURE NORMAL/EMERGENCY</p> <p>WALL-MOUNTED LUMINAIRE FIXTURE NORMAL/EMERGENCY</p> <p>EMERGENCY LIGHT FIXTURE, 2 ATTACHED HEADS AS SHOWN</p> <p>EMERGENCY LIGHT, REMOTE MOUNTED HEAD</p>	<p>4</p> <p>DOUBLE-FACED CEILING OR WALL-MOUNTED EXIT LIGHT; DIRECTIONAL ARROWS (IF REQUIRED) AS INDICATED ON PLANS</p> <p>SINGLE-FACED CEILING OR WALL-MOUNTED EXIT LIGHT; DIRECTIONAL ARROWS (IF REQUIRED) AS INDICATED ON PLANS</p> <p>AREA OR ROADWAY LIGHT - POLE-MOUNTED</p> <p>LIGHTING FIXTURE SUBSCRIPTS: X - INDICATES FIXTURE TYPE PER LIGHTING FIXTURE SCHEDULE Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD Z - INDICATES CONTROLLING SWITCH (IF REQUIRED)</p> <p>TOGGLE SWITCH</p> <p>SUBSCRIPTS: X - INDICATES TYPE NONE - SINGLE POLE 3 - THREE-WAY 4 - FOUR-WAY HP - TOGGLE SWITCH, HORSEPOWER RATED K - KEY SWITCH P - PILOT LIGHT L - LIGHTED HANDLE Y - SWITCH NAME/DESIGNATION D - MANUAL DIMMING</p> <p>OS OR OS</p> <p>LIGHTING CONTROL OCCUPANCY SENSOR, WALL MOUNTED</p> <p>PP</p> <p>POWER PACK</p> <p>MANUAL MOTOR STARTER</p> <p>MANUAL MOTOR STARTER WITH THERMAL ELEMENT</p> <p>SPECIAL-PURPOSE RECEPTACLE AS DEFINED ON PLANS</p> <p>PLUG-IN RECEPTACLE STRIP, QUANTITY AND SPACING OF RECEPTACLES AS NOTED OR SPECIFIED</p> <p>VOICE AND DATA OUTLET (# PORTS AS PER SPEC)</p> <p>QUAD-DUPLEX RECEPTACLE, TWO NEMA 5-20R UNDER COMMON COVER PLATE</p> <p>DUPLEX RECEPTACLE, NEMA 5-20R</p> <p>SIMPLEX RECEPTACLE, NEMA 5-20R</p> <p>SUBSCRIPTS: X - INDICATES TYPE GFCI - GROUND FAULT CIRCUIT INTERRUPTER Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD</p> <p>SUBMERSIBLE CABLE</p> <p>CONDUIT TURNING UP</p> <p>CONDUIT TURNING DOWN</p> <p>HOME RUN TO PANEL, 2 #12, 1 #12G IN 3/4" UNLESS OTHERWISE NOTED</p> <p>HOME RUN WITH CONDUIT SEAL-OFF</p> <p>CIRCUIT RUN BETWEEN DEVICES EXPOSED IN NON-ARCHITECTURALLY FINISHED AREAS; CONCEALED IN ARCHITECTURALLY FINISHED AREAS. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.</p> <p>CONDUIT RUN BETWEEN DEVICES CONCEALED IN NON-ARCHITECTURALLY FINISHED AREAS, SITE UNDERGROUND ELECTRICAL, OR UNDER FLOOR SLAB. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.</p> <p>CIRCUIT HASH MARKS (WHEN INDICATED); LONG, SHORT, SINGLE DOT, AND DOUBLE DOT REPRESENT PHASE, NEUTRAL, EQUIPMENT GROUND, AND ISOLATED EQUIPMENT GROUND, RESPECTIVELY. #12 IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED.</p> <p>CIRCUIT CONTINUATION</p> <p>CONDUIT STUBBED OUT AND CAPPED</p> <p>CONDUIT TAG OR CIRCUIT NUMBER - WIRE AND CONDUIT SIZE AS SPECIFIED IN CONDUIT AND CABLE SCHEDULES. SEE CONDUIT AND CABLE SHEET.</p> <p>GROUND CABLE</p> <p>GROUND ROD</p>	<p>5</p> <p>FAA</p> <p>FIRE ALARM ANNUNCIATOR</p> <p>FACP</p> <p>FIRE ALARM CONTROL PANEL</p> <p>F</p> <p>FIRE ALARM MANUAL PULL STATION</p> <p>CR</p> <p>FIRE ALARM CONTROL RELAY</p> <p>FS</p> <p>FIRE ALARM CONTACT, FLOW SWITCH</p> <p>TS</p> <p>FIRE ALARM CONTACT, TAMPER SWITCH</p> <p>PS</p> <p>FIRE ALARM CONTACT, PRESSURE SWITCH</p> <p>SMOKE AND DUCT DETECTOR</p> <p>SUBSCRIPT: I - IONIZATION TYPE P - PHOTOELECTRIC TYPE S - SMOKE AND CARBON MONOXIDE</p> <p>HEAT DETECTOR</p> <p>SUBSCRIPT: R/C - RATE COMPENSATION R/F - COMBINATION RATE OF RISE AND FIXED TEMP R - RATE OF RISE F - FIXED</p> <p>ALARM BELL</p> <p>ALARM HORN</p> <p>ALARM FLASHING LIGHT</p> <p>ALARM BELL AND FLASHING LIGHT COMBINATION UNIT</p> <p>ALARM HORN AND FLASHING LIGHT COMBINATION UNIT</p> <p>SUBSCRIPT: NONE - GENERAL ALARM DEVICE F - FIRE ALARM DEVICE</p> <p>XP</p> <p>EXPLOSION-PROOF</p> <p>(E)</p> <p>EXISTING</p> <p>CAMERA</p> <p>CAMERA WITH POLE</p> <p>GENERAL NOTES: 1. THIS IS A STANDARD ELECTRICAL SYMBOLOLOGY SHEET. NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT. 2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE. 3. SEE P&ID LEGEND SHEET FOR PROJECT-SPECIFIC EQUIPMENT SYMBOLS, EQUIPMENT ABBREVIATIONS, AND PIPING SYSTEM ABBREVIATIONS.</p>
--	---	---	--	--



PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243

A	03/2020	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION



03/31/2020



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



**GENERAL
ELECTRICAL LEGEND**

FILENAME | 00G-04.dwg
SCALE | NONE

SHEET
00G-04

1 PRIMARY ELEMENT SYMBOLOGY		2 INSTRUMENT SYMBOLOGY		3 INSTRUMENT IDENTIFICATION LETTERS			4 CONTROL SWITCH NOTATION ABBREVIATIONS		5 MISCELLANEOUS SYMBOLOGY																																																																																																																																																																								
				<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">FIRST LETTER</th> <th colspan="3">SUCCEEDING LETTERS</th> </tr> <tr> <th>MEASURED OR INITIATING VARIABLE</th> <th>MODIFIER</th> <th>READOUT OR PASSIVE FUNCTION</th> <th>OUTPUT FUNCTION</th> <th>MODIFIER</th> </tr> </thead> <tbody> <tr><td>A</td><td>ANALYSIS</td><td></td><td>ALARM</td><td></td><td></td></tr> <tr><td>B</td><td>BURNER, COMBUSTION</td><td></td><td>USER'S CHOICE</td><td>USER'S CHOICE</td><td>USER'S CHOICE</td></tr> <tr><td>C</td><td>USERS CHOICE</td><td></td><td></td><td>CONTROL</td><td>CLOSED</td></tr> <tr><td>D</td><td>USERS CHOICE</td><td>DIFFERENTIAL</td><td></td><td></td><td></td></tr> <tr><td>E</td><td>VOLTAGE</td><td></td><td>SENSOR (PRIMARY ELEMENT)</td><td></td><td></td></tr> <tr><td>F</td><td>FLOW RATE</td><td>RATIO (FRACTION)</td><td></td><td></td><td></td></tr> <tr><td>G</td><td>USERS CHOICE</td><td></td><td>GLASS, VIEWING DEVICE</td><td></td><td></td></tr> <tr><td>H</td><td>HAND</td><td></td><td></td><td></td><td>HIGH</td></tr> <tr><td>I</td><td>CURRENT (ELECTRICAL)</td><td></td><td>INDICATE</td><td></td><td></td></tr> <tr><td>J</td><td>POWER</td><td>SCAN</td><td></td><td></td><td></td></tr> <tr><td>K</td><td>TIME, TIME SCHEDULE</td><td>TIME: RATE OF CHANGE</td><td></td><td>CONTROL STATION</td><td></td></tr> <tr><td>L</td><td>LEVEL</td><td></td><td>LIGHT</td><td></td><td>LOW</td></tr> <tr><td>M</td><td>USERS CHOICE</td><td>MOMENTARY</td><td></td><td></td><td>MIDDLE, INTERMEDIATE</td></tr> <tr><td>N</td><td>USERS CHOICE</td><td></td><td>USER'S CHOICE</td><td>USER'S CHOICE</td><td>USER'S CHOICE</td></tr> <tr><td>O</td><td>USERS CHOICE</td><td></td><td>ORIFICE, RESTRICTION</td><td></td><td></td></tr> <tr><td>P</td><td>PRESSURE, VACUUM</td><td></td><td>POINT (TEST) CONNECTION</td><td></td><td></td></tr> <tr><td>Q</td><td>QUANTITY</td><td>INTEGRATE, TOTALIZE</td><td>INTEGRATE, TOTALIZE</td><td></td><td></td></tr> <tr><td>R</td><td>RADIATION</td><td></td><td>RECORD</td><td></td><td></td></tr> <tr><td>S</td><td>SPEED, FREQUENCY</td><td>SAFETY</td><td></td><td>SWITCH</td><td></td></tr> <tr><td>T</td><td>TEMPERATURE</td><td></td><td></td><td>TRANSMIT</td><td></td></tr> <tr><td>U</td><td>MULTIVARIABLE</td><td></td><td>MULTIFUNCTION</td><td>MULTIFUNCTION</td><td>MULTIFUNCTION</td></tr> <tr><td>V</td><td>VIBRATION, MECH. ANALYSIS</td><td></td><td></td><td>VALVE, DAMPER, LOUVER</td><td></td></tr> <tr><td>W</td><td>WEIGHT, FORCE</td><td></td><td>WELL</td><td></td><td></td></tr> <tr><td>X</td><td>UNCLASSIFIED</td><td>X AXIS</td><td>UNCLASSIFIED</td><td>UNCLASSIFIED</td><td>UNCLASSIFIED</td></tr> <tr><td>Y</td><td>EVENT, STATE OR PRESENCE</td><td>Y AXIS</td><td></td><td>RELAY, COMPUTE, CONVERT</td><td></td></tr> <tr><td>Z</td><td>POSITION, DIMENSION</td><td>Z AXIS</td><td></td><td>DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT</td><td></td></tr> </tbody> </table>				FIRST LETTER		SUCCEEDING LETTERS			MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER	A	ANALYSIS		ALARM			B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE	C	USERS CHOICE			CONTROL	CLOSED	D	USERS CHOICE	DIFFERENTIAL				E	VOLTAGE		SENSOR (PRIMARY ELEMENT)			F	FLOW RATE	RATIO (FRACTION)				G	USERS CHOICE		GLASS, VIEWING DEVICE			H	HAND				HIGH	I	CURRENT (ELECTRICAL)		INDICATE			J	POWER	SCAN				K	TIME, TIME SCHEDULE	TIME: RATE OF CHANGE		CONTROL STATION		L	LEVEL		LIGHT		LOW	M	USERS CHOICE	MOMENTARY			MIDDLE, INTERMEDIATE	N	USERS CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE	O	USERS CHOICE		ORIFICE, RESTRICTION			P	PRESSURE, VACUUM		POINT (TEST) CONNECTION			Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE			R	RADIATION		RECORD			S	SPEED, FREQUENCY	SAFETY		SWITCH		T	TEMPERATURE			TRANSMIT		U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION	V	VIBRATION, MECH. ANALYSIS			VALVE, DAMPER, LOUVER		W	WEIGHT, FORCE		WELL			X	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	Y	EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT		Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT		<p>CONTROL SWITCH NOTATION ABBREVIATIONS</p> <p>XXX XXX XXXX</p> <p>ACK ACKNOWLEDGE ESTOP EMERGENCY STOP FAIL FAILURE FOR FORWARD-OFF-REVERSE FR FORWARD-REVERSE FS FAST-SLOW HA HAND-AUTO HOA HAND-OFF-AUTO HOR HAND-OFF-REMOTE LL LEAD-LAG LLS LEAD-LAG-STANDBY LOR LOCAL-OFF-REMOTE LR LOCAL-REMOTE LS LEAD-STANDBY MA MANUAL-AUTO OAC OPEN-AUTO-CLOSE OC OPEN-CLOSE OO ON-OFF OSC OPEN-STOP-CLOSE RJ RUN-JOG RJR RUN-JOG-REVERSE SIL SILENCE SS START-STOP</p> <p>VALVES</p> <p>—○— BALL VALVE - NORMALLY OPEN —●— BALL VALVE - NORMALLY CLOSED —/— BUTTERFLY VALVE —∇— CHECK VALVE —X— DOUBLE-DISK CHECK VALVE —○— BALL CHECK VALVE —X— GATE VALVE —/— KNIFE GATE VALVE —◇— PLUG VALVE —◇— THREE-WAY PLUG VALVE —/— PRESSURE-REDUCING VALVE —/— PRESSURE-REGULATING VALVE —/— OR —/— PRESSURE-RELIEF VALVE —/— AIR-RELEASE VACUUM VALVE A = AIR RELEASE VAC = VACUUM —/— PINCH VALVE</p>			
	FIRST LETTER		SUCCEEDING LETTERS																																																																																																																																																																														
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER																																																																																																																																																																												
A	ANALYSIS		ALARM																																																																																																																																																																														
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE																																																																																																																																																																												
C	USERS CHOICE			CONTROL	CLOSED																																																																																																																																																																												
D	USERS CHOICE	DIFFERENTIAL																																																																																																																																																																															
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)																																																																																																																																																																														
F	FLOW RATE	RATIO (FRACTION)																																																																																																																																																																															
G	USERS CHOICE		GLASS, VIEWING DEVICE																																																																																																																																																																														
H	HAND				HIGH																																																																																																																																																																												
I	CURRENT (ELECTRICAL)		INDICATE																																																																																																																																																																														
J	POWER	SCAN																																																																																																																																																																															
K	TIME, TIME SCHEDULE	TIME: RATE OF CHANGE		CONTROL STATION																																																																																																																																																																													
L	LEVEL		LIGHT		LOW																																																																																																																																																																												
M	USERS CHOICE	MOMENTARY			MIDDLE, INTERMEDIATE																																																																																																																																																																												
N	USERS CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE																																																																																																																																																																												
O	USERS CHOICE		ORIFICE, RESTRICTION																																																																																																																																																																														
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION																																																																																																																																																																														
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE																																																																																																																																																																														
R	RADIATION		RECORD																																																																																																																																																																														
S	SPEED, FREQUENCY	SAFETY		SWITCH																																																																																																																																																																													
T	TEMPERATURE			TRANSMIT																																																																																																																																																																													
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION																																																																																																																																																																												
V	VIBRATION, MECH. ANALYSIS			VALVE, DAMPER, LOUVER																																																																																																																																																																													
W	WEIGHT, FORCE		WELL																																																																																																																																																																														
X	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED																																																																																																																																																																												
Y	EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT																																																																																																																																																																													
Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT																																																																																																																																																																													
<p>LINE TYPES</p> <p>— MAIN PROCESS LINE — SECONDARY PROCESS LINE — AUXILIARY PROCESS LINE — DIRECTION OF FLOW — CABLE — ELECTRICAL SIGNAL — SIGNAL CONNECTION — CROSSOVER - NO CONNECTION — PACKAGED SYSTEM</p>		<p>ACTUATOR SYMBOLOGY</p> <p>—X— OPERATOR ABBREVIATIONS: M = MOTOR P = PNEUMATIC S = SOLENOID</p> <p>—X— FLOAT OPERATOR</p> <p>—/— SPRING-OPPOSED SINGLE-ACTING PNEUMATIC CYLINDER</p> <p>—/— DOUBLE-ACTING PNEUMATIC CYLINDER</p> <p>—/— PNEUMATIC DIAPHRAGM</p> <p>—/— PNEUMATIC DIAPHRAGM WITH POSITIONER</p>		<p>MISCELLANEOUS INSTRUMENTATION ABBREVIATIONS</p> <p>AI ANALOG INPUT AO ANALOG OUTPUT CL2 CHLORINE (ANALYZER MODIFIER) CO CARBON MONOXIDE (ANALYZER MODIFIER) CO2 CARBON DIOXIDE (ANALYZER MODIFIER) COMB COMBUSTIBLES (ANALYZER MODIFIER) COND CONDUCTIVITY (ANALYZER MODIFIER) DEN DENSITY (ANALYZER MODIFIER) DI DIGITAL INPUT DO DIGITAL OUTPUT DO DISSOLVED OXYGEN (ANALYZER MODIFIER) E/P VOLTAGE TO PNEUMATIC ES VOLTAGE SOURCE (FROM POWER PANEL OR NOTED CONTROL PANEL); VOLTAGE PER THE DRAWINGS H2S HYDROGEN SULFIDE (ANALYZER MODIFIER) HCL HYDROGEN CHLORIDE (ANALYZER MODIFIER) I/O INPUT/OUTPUT I/P CURRENT TO PNEUMATIC NOX NITROGEN OXIDE (ANALYZER MODIFIER) OI OPERATOR INTERFACE O2 OXYGEN (ANALYZER MODIFIER) PCS PLANT CONTROL SYSTEM P&ID PROCESS AND INSTRUMENTATION DIAGRAM SS SUSPENDED SOLIDS (ANALYZER MODIFIER) TURB TURBIDITY (ANALYZER MODIFIER) WAN WIDE AREA NETWORK</p>			<p>GENERAL NOTES:</p> <ol style="list-style-type: none"> THIS IS A STANDARD INSTRUMENTATION SYMBOLOGY AND ABBREVIATIONS SHEET. LISTING OF SYMBOLS AND ABBREVIATIONS DOES NOT IMPLY ALL SYMBOLS AND ABBREVIATIONS HAVE BEEN USED ON THIS PROJECT. SEE PROCESS, MECHANICAL AND PLUMBING LEGEND SHEET FOR MISCELLANEOUS PIPING SYMBOLS. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE. VALVE SYMBOLS SHOWN HERE ARE APPLICABLE ONLY TO INSTRUMENTATION DIAGRAMS. SEE PROCESS, MECHANICAL AND PLUMBING LEGEND SHEET FOR VALVE SYMBOLS USED ELSEWHERE ON THE SHEETS. 																																																																																																																																																																										
<p>CROSS REFERENCE SYMBOLOGY</p> <p>— TO XXXX — FROM XXXX</p>		<p>TYPES OF POWER SUPPLY</p> <p>A PLANT COMPRESSED AIR IA INSTRUMENTATION AIR ES ELECTRIC SUPPLY NG NATURAL GAS HYD HYDRAULIC</p>																																																																																																																																																																															



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



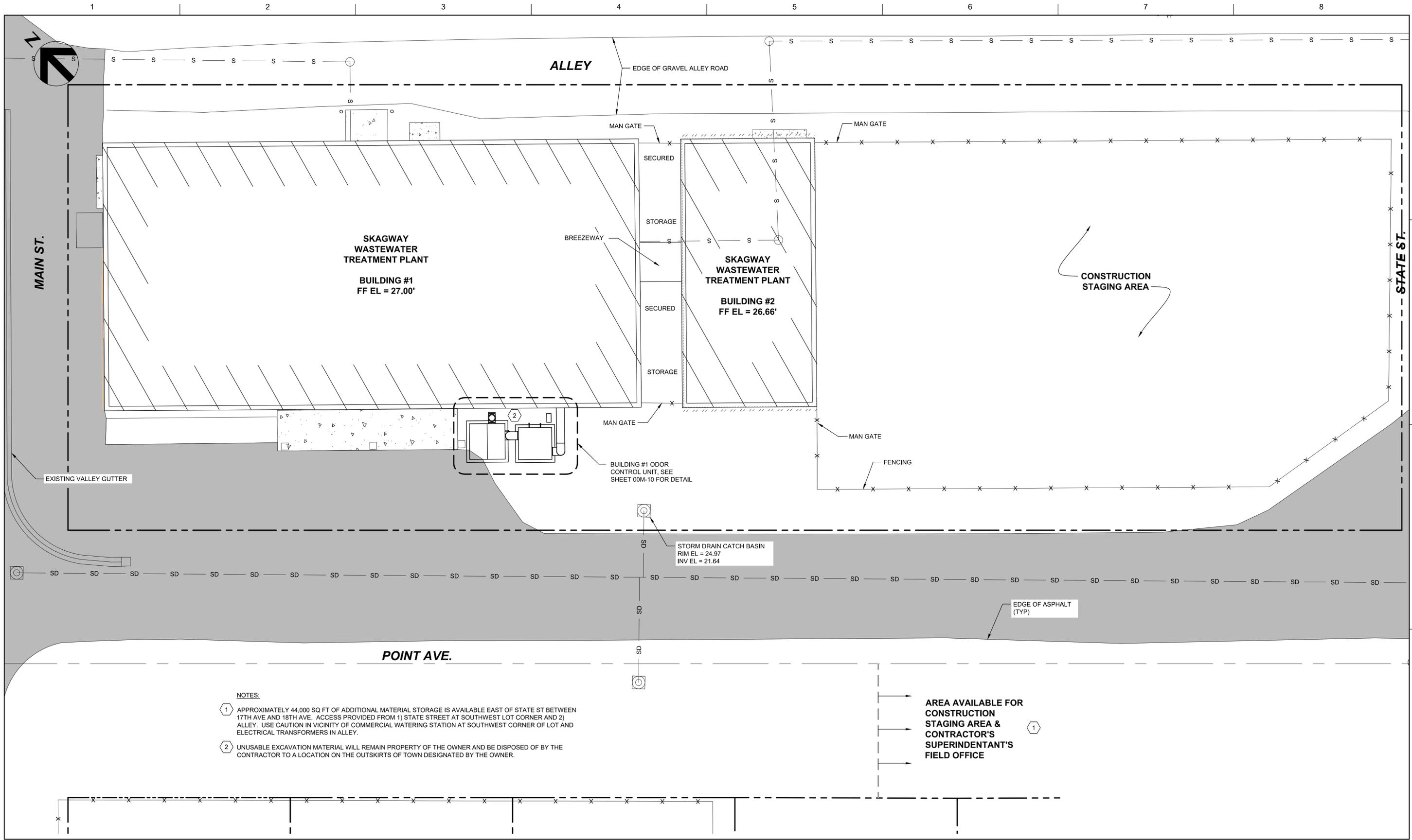
Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



GENERAL
INSTRUMENTATION LEGEND

FILENAME | 00G-05.dwg
SCALE | NONE

SHEET
00G-05



NOTES:

- ① APPROXIMATELY 44,000 SQ FT OF ADDITIONAL MATERIAL STORAGE IS AVAILABLE EAST OF STATE ST BETWEEN 17TH AVE AND 18TH AVE. ACCESS PROVIDED FROM 1) STATE STREET AT SOUTHWEST LOT CORNER AND 2) ALLEY. USE CAUTION IN VICINITY OF COMMERCIAL WATERING STATION AT SOUTHWEST CORNER OF LOT AND ELECTRICAL TRANSFORMERS IN ALLEY.
- ② UNUSABLE EXCAVATION MATERIAL WILL REMAIN PROPERTY OF THE OWNER AND BE DISPOSED OF BY THE CONTRACTOR TO A LOCATION ON THE OUTSKIRTS OF TOWN DESIGNATED BY THE OWNER.

AREA AVAILABLE FOR CONSTRUCTION STAGING AREA & CONTRACTOR'S SUPERINTENDANT'S FIELD OFFICE



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



CIVIL SITE PLAN AND STAGING AREAS

FILENAME | 00C-01.dwg
SCALE | 1"=10'

SHEET
00C-01

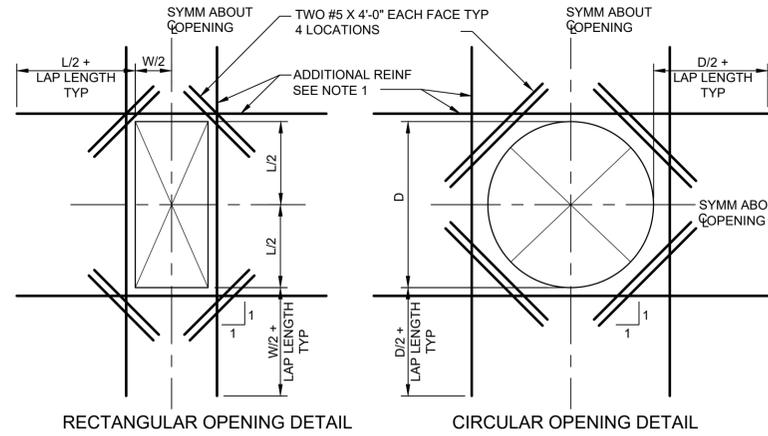
GENERAL STRUCTURAL NOTES (GSN)

GENERAL

- G1. SCOPE
THE NOTES ON THIS SHEET AND THE STANDARD STRUCTURAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT WHETHER SPECIFICALLY CALLED OUT OR NOT. EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY ON STRUCTURAL SHEETS. IF THERE ARE QUESTIONS, THEY SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND ANSWERED IN WRITING PRIOR TO CONSTRUCTION.
- G2. APPLICABLE SPECIFICATIONS AND CODES
A. INTERNATIONAL BUILDING CODE, IBC 2012 APPLICABLE EDITIONS OF THE CODE REFERENCED STANDARDS.
B. LOCAL JURISDICTION AMENDMENTS
- G3. DESIGN CRITERIA
1. APPLIES TO ALL STRUCTURES (UNO)
A. DEAD LOAD:
1. ACTUAL TRIBUTARY STRUCTURE WEIGHT
B. LIVE LOAD:
1. INTERIOR SLAB ON GRADE: 125 PSF
C. WIND:
1. BASIC WIND SPEED: 130 MPH
2. EXPOSURE: C
3. IMPORTANCE FACTOR: DOES NOT APPLY
4. ALL STRUCTURES ARE ENCLOSED:
D. SEISMIC:
1. RISK CATEGORY: III
2. IMPORTANCE FACTOR: 1.25
3. SPECTRAL RESPONSE ACCELERATION, S_s = 0.777
4. SPECTRAL RESPONSE ACCELERATION, S_1 = 0.382
5. SITE CLASS: C
6. SEISMIC DESIGN CATEGORY: D
7. SPECTRAL RESPONSE COEFFICIENT, S_{DS} = 0.564
8. SPECTRAL RESPONSE COEFFICIENT, S_{D1} = 0.361
9. ANALYSIS PROCEDURE: ASCE 7 CH. 13
E. SNOW LOAD:
1. GROUND SNOW LOAD 50 PSF
- G4. THE FOLLOWING NON-CONTRACTUAL GEOTECHNICAL REPORT IS THE BASIS OF THIS STRUCTURAL DESIGN:
GEOTECHNICAL FIRM NAME: R&M ENGINEERING, INC
ADDRESS: 6205 GLACIER HIGHWAY, JUNEAU, AK
ALLOWABLE (NET) SOIL BEARING = 3000 PSF
- G5. SAFETY
SAFETY AND STRUCTURE STABILITY DURING CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURES HAVE BEEN DESIGNED TO RESIST THE DESIGN LIVE LOADS ONLY AS A COMPLETED STRUCTURE.
- G6. OPENINGS
OPENINGS FOR PIPES, DUCTS, CONDUITS, ETC. ARE NOT ALL SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE AND PROVIDE OPENINGS AS REQUIRED TO ACCOMMODATE ALL WORK SHOWN OR SPECIFIED IN THE CONTRACT DOCUMENTS AND OTHERWISE REQUIRED FOR THE FURNISHING OF A FUNCTIONALLY COMPLETE PROJECT. REINFORCE AROUND OPENINGS PER STANDARD STRUCTURAL DETAILS UNLESS OTHERWISE SHOWN.
- G7. SPECIAL INSPECTIONS
SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH CHAPTER 1 AND CHAPTER 17 OF THE IBC. PAYMENT FOR THESE INSPECTIONS IS NOT THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE FOR FULL ACCESS TO THE WORK BY THE SPECIAL INSPECTOR AND SHALL PROVIDE FOR THESE INSPECTIONS IN HIS CONSTRUCTION SCHEDULE IN ACCORDANCE WITH THE SPECIFICATIONS. THE SPECIAL INSPECTION PROGRAM AND STATEMENT OF SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
- G8. STANDARD DETAILS
THE STANDARD DETAILS DEPICT TYPICAL DETAILING TO BE USED ON THIS PROJECT. IF CONDITIONS ARE NOT EXPLICITLY SHOWN ON THE DRAWINGS THEY SHALL BE MADE SIMILAR TO THE STANDARD DETAILS. OBTAIN APPROVAL OF ENGINEER IN WRITING FOR SIMILAR CONDITIONS PRIOR TO CONSTRUCTION.
- G9. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION AS REQUIRED TO COORDINATE NEW CONSTRUCTION. SUBMIT REQUIRED CHANGES FOR APPROVAL.
- G10. CONTRACTOR TO SUBMIT FOR REVIEW ALL EQUIPMENT SIZES, OPERATING WEIGHTS, VIBRATION FORCES, SUPPORT LOCATIONS, ALONG WITH ANY FLOOR OPENINGS, NOTCHES, AND RECESSES REQUIRED BY SUCH EQUIPMENT. CONCRETE SUPPORT PADS AND/OR FRAMING REQUIRED TO SUPPORT SAID EQUIPMENT SHALL NOT BE FABRICATED AND PLACED UNTIL THE CONCRETE SUPPORT PADS AND/OR FRAMING IS APPROVED TO SUPPORT THE EQUIPMENT.

CONCRETE

- C1. DESIGN STRENGTHS:
 $F_c = 4000$ PSI
 $F_y = 60,000$ PSI
- C2. CONCRETE COVER
UNLESS OTHERWISE NOTED, PROVIDE CONCRETE COVER FOR REINFORCING AS FOLLOWS:
CONCRETE DEPOSITED AGAINST EARTH: 3"
ALL OTHER: 2"
SEE DRAWINGS FOR EXCEPTIONS
- C3. SEE SPECIFICATIONS FOR REINFORCING PLACEMENT REQUIREMENTS.
- C4. REFER TO OTHER DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION FOR EMBEDDED ITEMS AND PENETRATIONS NOT SHOWN ON STRUCTURAL DRAWINGS. AS REQUIRED TO ACCOMMODATE ALL WORK SHOWN OR SPECIFIED IN THE CONTRACT DOCUMENTS AND OTHERWISE REQUIRED FOR THE FURNISHING OF A FUNCTIONALLY COMPLETE PROJECT. REINFORCE AROUND OPENINGS PER STANDARD STRUCTURAL DETAILS UNLESS OTHERWISE SHOWN.
- C5. PROVIDE 3/4" CHAMFERS AT ALL EXPOSED EDGES. NOT ALL CHAMFERS MAY BE SHOWN ON DRAWINGS.
- C6. FIELD ADJUST REINFORCING AT OPENINGS AND EMBEDDED ITEMS AS INDICATED.
- C7. ANCHOR BOLTS NOT SPECIFIED BY ENGINEER SHALL BE DESIGNED AND CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER, RETAINED BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE PROJECT AND CODE REQUIREMENTS. SUBMIT AS A SHOP DRAWING FOR REVIEW AND APPROVAL BY THE ENGINEER. COORDINATE LOCATION, SIZE AND EMBEDMENT PRIOR TO CASTING CONCRETE.
- C8. ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT SPECIFIC APPROVAL FROM THE STRUCTURAL ENGINEER.
- C9. ALL CAST IN PLACE AND POST-INSTALLED ANCHORS INDICATED IN THE STRUCTURAL DOCUMENTS SHALL COMPLY WITH APPENDIX D OF ACI 318 AND CHAPTER 19 OF THE IBC. ALL EXPANSION AND ADHESIVE ANCHORS SHALL HAVE THE ICC REPORT SHOWING EQUIVALENT LOAD CAPACITY. SUBMIT AND INSTALL PER THE ICC EVALUATION REPORT.

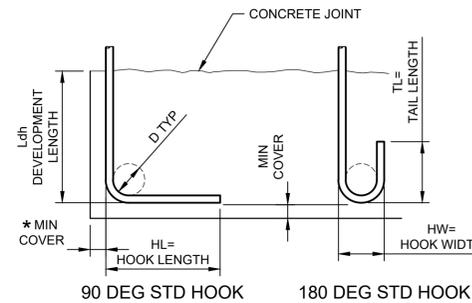


NOTES:

- PROVIDE ADDITIONAL REINFORCING THE SAME SIZE AS DISCONTINUOUS REINFORCEMENT AT OPENING. QUANTITY OF REINFORCING IN EACH DIRECTION SHALL BE EQUAL TO OR ONE GREATER THAN THE NUMBER OF DISCONTINUOUS BARS. PLACE 1/2 OF ADDITIONAL REINFORCING BARS EACH SIDE OF OPENING. PLACE ADDITIONAL REINFORCEMENT AT 3" OC (TYPICAL BOTH DIRECTIONS AND ALL LAYERS OF REINFORCEMENT). START FIRST BAR 2" CLEAR TO OPENING.
- EXTEND ADDITIONAL REINFORCING BEYOND EDGE OF OPENING AS SHOWN ABOVE. ADDITIONAL BARS MAY TERMINATE AT THE END OF THE WALL WITH A STANDARD HOOK WHERE THE LENGTH OF THE WALL WILL NOT PERMIT BARS TO EXTEND AS SHOWN ABOVE.
- TYPICAL WALL OR SLAB REINFORCING NOT SHOWN FOR CLARITY. TERMINATE TYPICAL REINFORCING 2" CLEAR TO OPENING.
- OPENINGS 12" OR LESS IN SLABS AND WALLS, NO EXTRA REBARS ARE REQUIRED UNLESS SHOWN OTHERWISE. TYPICAL REINFORCING SHALL BE RESPACED (NOT CUT) TO ALLOW FOR OPENINGS TO BE MADE.
- UNLESS SHOWN OTHERWISE ON DRAWINGS, PROVIDE EXTRA REINFORCING AROUND OPENINGS AS SHOWN AND INDICATED ABOVE.
- PROVIDE ADDITIONAL DOWELS PER NOTE 1 ABOVE FOR ALL OPENINGS NEAR THE FLOOR SLAB, BASE SLAB, OR CORNERS.

EXTRA REINFORCING AROUND OPENINGS

NTS

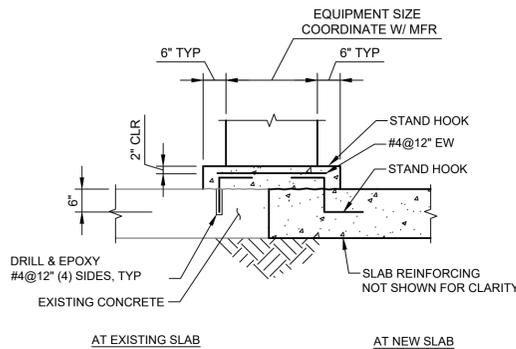


BAR SIZE GRADE 60	HL	HW	TL	D	$f_c=4.0$ OR 4.5 KSI	
					Ldh	*
#3	6"	3"	3"	2 1/4"	6"	
#4	8"	4"	4 1/2"	3"	7"	
#5	10"	5"	5"	3 3/4"	9"	
#6	1'-0"	6"	6"	4 1/2"	10"	
#7	1'-2"	7"	7"	5 1/4"	12"	
#8	1'-4"	8"	8"	6"	14"	
#9	1'-7"	11 3/4"	10 1/2"	9 1/2"	15"	
#10	1'-10"	1'-1 1/4"	11 1/2"	10 3/4"	17"	
#11	2'-0"	1'-2 3/4"	1'-1"	12"	19"	

* COMPLYING WITH MINIMUM COVER REQUIREMENTS OF ACI 318, 12.5.3. OTHERWISE Ldh MUST BE RE-CALCULATED.

REINFORCING HOOK SCHEDULE

NTS



HOUSE KEEPING PAD

NTS

LAP SPLICE AND EMBEDMENT LENGTHS $f_c = 4.0$ ksi $f_y = 60$ ksi		
BAR	BARS SPACED GREATER THAN 4"	BARS SPACED LESS THAN OR EQUAL TO 4"
#3	14"	20"
#4	19"	32"
#5	29"	46"
#6	39"	62"
#7	55"	87"
#8	69"	107"
#9	76"	116"
#10	97"	140"
#11	120"	146"

NOTES:

- PROVIDE MINIMUM LAP SPLICE LENGTHS AND EMBEDMENTS PER TABLE UNLESS NOTED OTHERWISE. EMBEDMENT LENGTH EQUALS THE LAP SPLICE LENGTH UNLESS OTHERWISE NOTED.
- BAR SPACING AT LAP SPLICE IS THE MINIMUM CLEAR DISTANCE BETWEEN LAPPED BARS PLUS ONE BAR DIAMETER.
- ALL SPLICES TO BE CONTACT SPLICES AND WIRED TOGETHER UNLESS OTHERWISE APPROVED BY ENGINEER.

CONCRETE REINFORCING LAP AND EMBEDMENT SCHEDULE

NO SCALE



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZALLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control

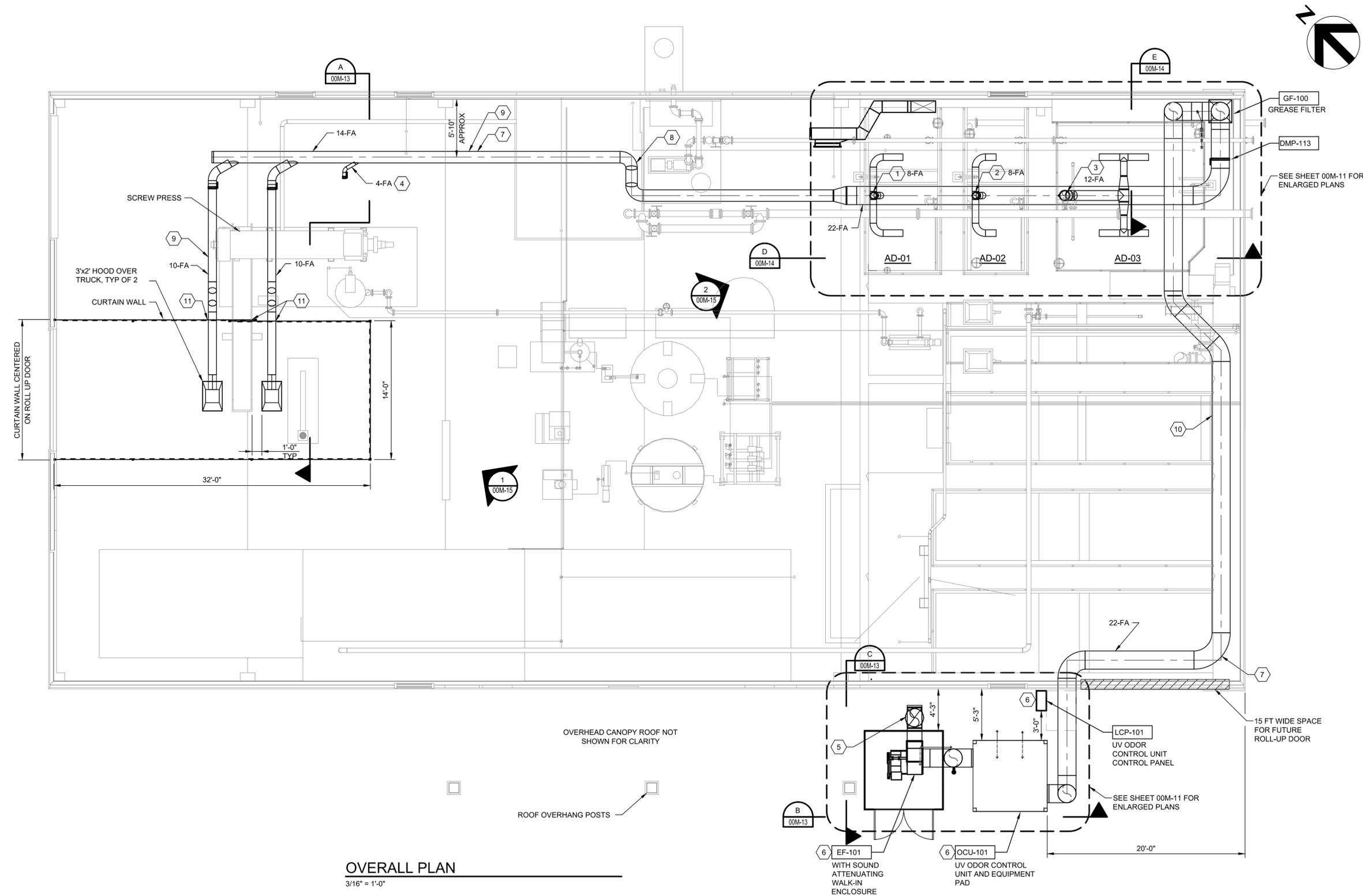
STRUCTURAL GENERAL NOTES AND STANDARD DETAILS



FILENAME | 00S-01.dwg
SCALE | AS NOTED

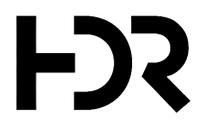
SHEET

00S-01



- KEYNOTES:**
- 1 DROP LEG WITH ISOLATION DAMPER FOR AD-01.
 - 2 DROP LEG WITH ISOLATION DAMPER FOR AD-02.
 - 3 DROP LEG WITH ISOLATION DAMPER FOR AD-03.
 - 4 FUTURE 4" FA CONNECTION FOR SCREW PRESS.
 - 5 DISCHARGE STACK WITH SILENCER.
 - 6 EQUIPMENT PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. WALK-IN ENCLOSURE AND EQUIPMENT PAD FURNISHED AND INSTALLED BY CONTRACTOR.
 - 7 ELEVATION/DIMENSION SHOWN IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING PIPING AND CONFIRM FA DUCT ROUTING WITH ENGINEER PRIOR TO FABRICATION.
 - 8 DUCT ELEVATION TRANSITION POINT, TWO ROTATED 90° ELBOWS. COORDINATE DUCT ROUTING WITH EXISTING CONDUIT.
 - 9 COORDINATE DUCT ROUTING WITH CONDUIT AND LIGHT TO AVOID CONFLICTS TYP.
 - 10 ROUTE DUCT AS CLOSE AS POSSIBLE ALONG EAST WALL WITHOUT CONFLICTING WITH EXISTING PIPING. COORDINATE SUPPORTS TO NOT RESTRICT OPERATOR ACCESS TO EQUIPMENT AND TANKS.
 - 11 STATIC CURTAIN PARTITIONS FOR PENETRATION PER SECTION 10 65 00. NOT ALL SECTIONS ARE SHOWN. FIELD VERIFY PRIOR TO FABRICATION.

OVERALL PLAN
3/16" = 1'-0"



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



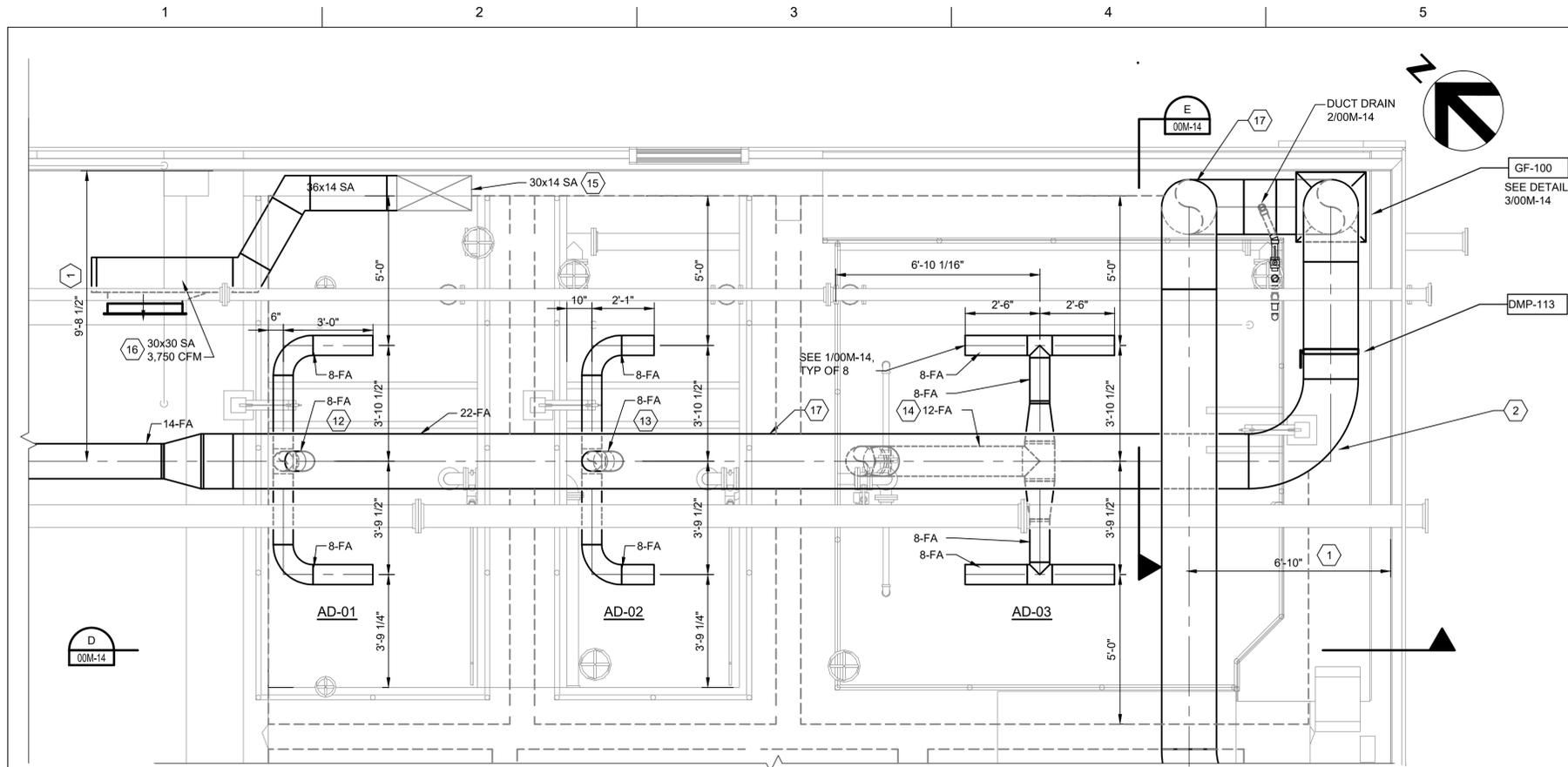
Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



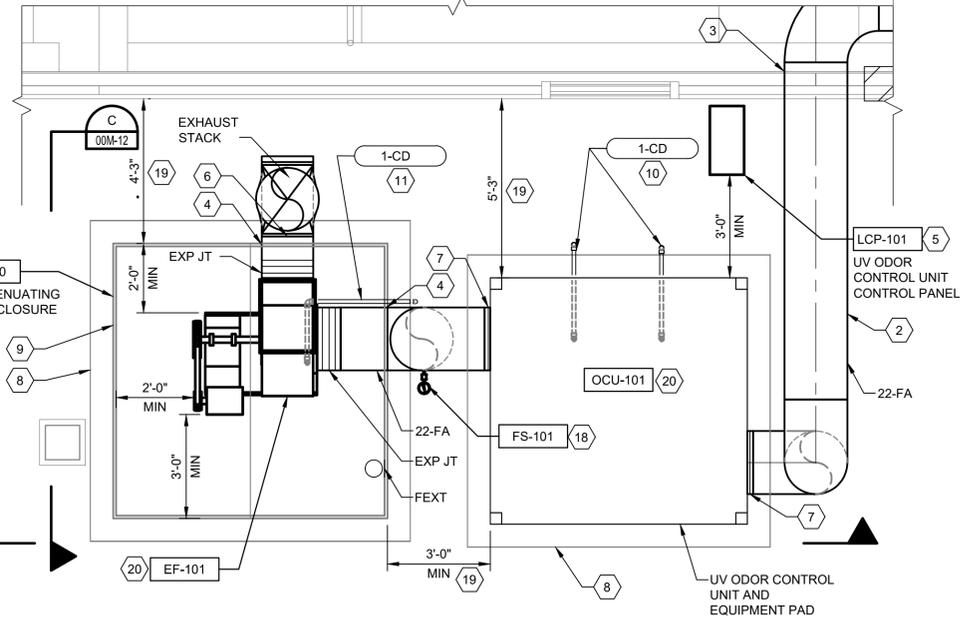
**MECHANICAL BUILDING #1
ODOR CONTROL PLAN**

FILENAME | 00M-10.dwg
SCALE | AS NOTED

SHEET
00M-10



ENLARGED PLAN
3/8" = 1'-0"



ENLARGED PLAN
3/8" = 1'-0"

- KEYNOTES:**
- 1 ELEVATION/DIMENSION SHOWN IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING PIPING AND CONFIRM FA DUCT ROUTING WITH ENGINEER PRIOR TO FABRICATION.
 - 2 SEE SECTION 40 05 07 FOR DUCT AND PIPING SUPPORT DESIGN REQUIREMENTS.
 - 3 SEE SECTION 01 73 20 FOR DUCT PENETRATION REQUIREMENTS.
 - 4 SEE SECTION 44 11 10 FOR DUCT PENETRATIONS THROUGH ENCLOSURE.
 - 5 MOUNT CONTROL PANEL ON UNISTRUT SUPPORT FRAME (DO NOT MOUNT DIRECTLY TO BUILDING). MAINTAIN 3 FT CLEARANCE FROM ANY PENETRATION OR OPENING INTO BUILDING #1. SEE ELECTRICAL DRAWINGS.
 - 6 RECTANGULAR TO ROUND DUCT TRANSITION DIMENSIONS PER FAN MANUFACTURER.
 - 7 CONNECT DUCTWORK TO OCU INLET AND OUTLET WITH REDUCER FITTINGS AS REQUIRED. CONTRACTOR TO COORDINATE ELEVATION WITH MANUFACTURER.
 - 8 SEE 00S-01 FOR STRUCTURAL SLAB DETAILS.
 - 9 FAN ENCLOSURE PER SECTION 44 11 10.
 - 10 PROVIDE TWO DRAINS, P-TRAPS AND ISOLATION VALVES FROM OCU. SIMILAR TO DETAIL 2/00M-14. ROUTE TO NORTH SIDE OF UNIT AND TERMINATE WITH AN ELBOW DOWN AND OPEN DISCHARGE TO GROUND. INSULATE ALL CD PIPE AND VALVES AND PROVIDE WITH HEAT TRACING PER ELECTRICAL DRAWINGS.
 - 11 CD DRAIN FROM FAN HOUSING. PROVIDE ISOLATION VALVES AND INSTALL SIMILAR TO DETAIL 2/00M-14. ROUTE AS SHOWN AND TERMINATE WITH AN ELBOW DOWN AND OPEN DISCHARGE TO GROUND. INSULATE ALL CD PIPE AND VALVES AND PROVIDE WITH HEAT TRACING PER ELECTRICAL DRAWINGS.
 - 12 DROP LEG WITH ISOLATION DAMPER FOR AD-01. NOMINAL BALANCED FLOW FOR DAMPER SHOWN ON DRAWING 00Y-10. SEE SECTION 44 31 83.
 - 13 DROP LEG WITH ISOLATION DAMPER FOR AD-02. NOMINAL BALANCED FLOW FOR DAMPER SHOWN ON DRAWING 00Y-10. SEE SECTION 44 31 83.
 - 14 DROP LEG WITH ISOLATION DAMPER FOR AD-03. NOMINAL BALANCED FLOW FOR DAMPER SHOWN ON DRAWING 00Y-10. SEE SECTION 44 31 83.
 - 15 DEMO EXISTING DUCT UP TO 10' AFF. CONNECT NEW 13x14 SA TO EXISTING AND ROUTE OUTSIDE CURTAIN WALL.
 - 16 NEW SUPPLY REGISTER, BALANCED TO EXISTING AIRFLOW APPROX 3,750 CFM.
 - 17 COORDINATE DUCT ROUTING WITH EXISTING PIPING AND CONDUIT.
 - 18 MOUNT FLOW SWITCH ON VERTICAL DUCT RISER.
 - 19 DIMENSIONS ARE NOMINAL. FIELD VERIFY WHEN ALL EQUIPMENT SUBMITTALS ARE AVAILABLE TO MAINTAIN MINIMUM CLEARANCES.
 - 20 FURNISHED BY OWNER.



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



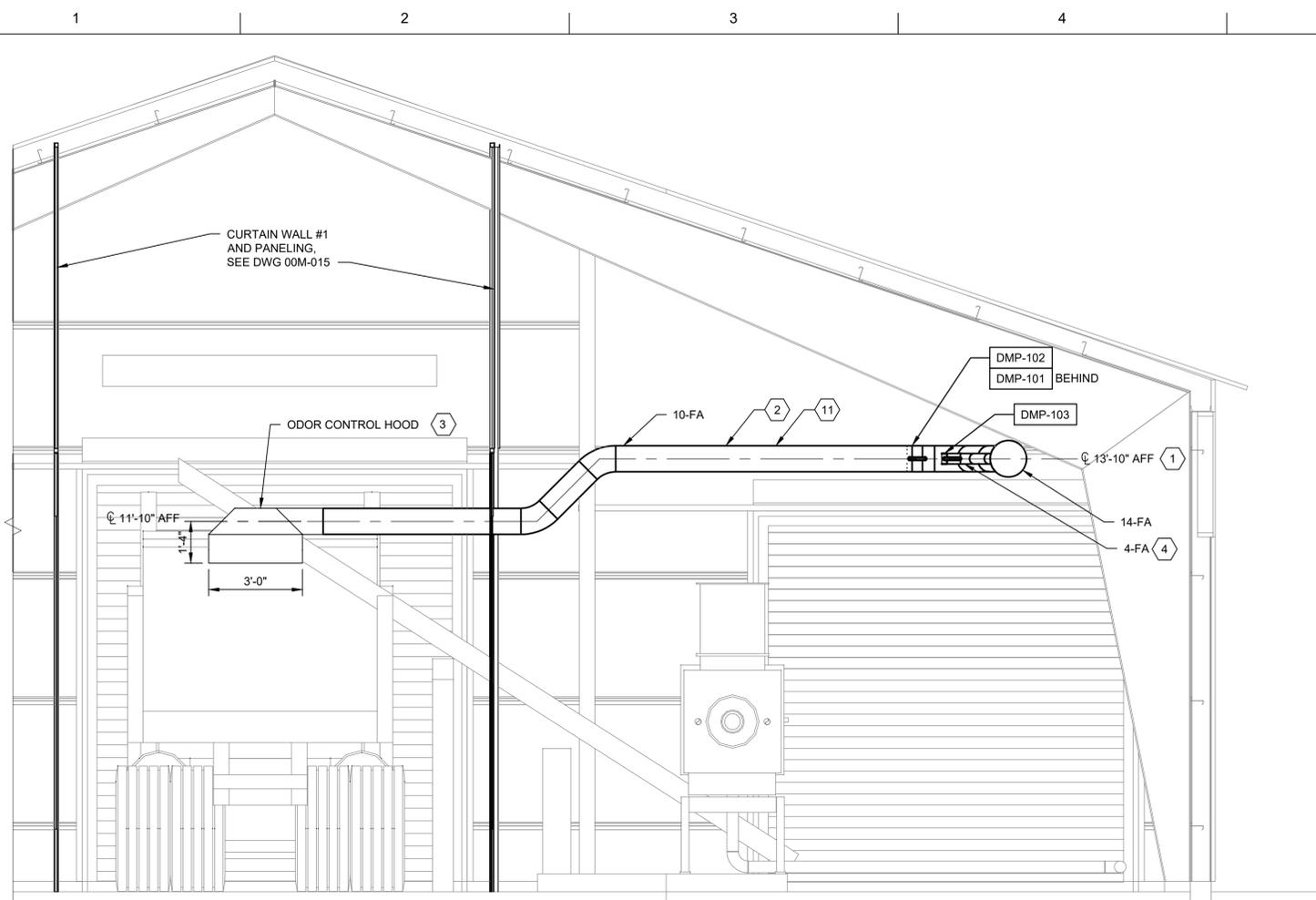
Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



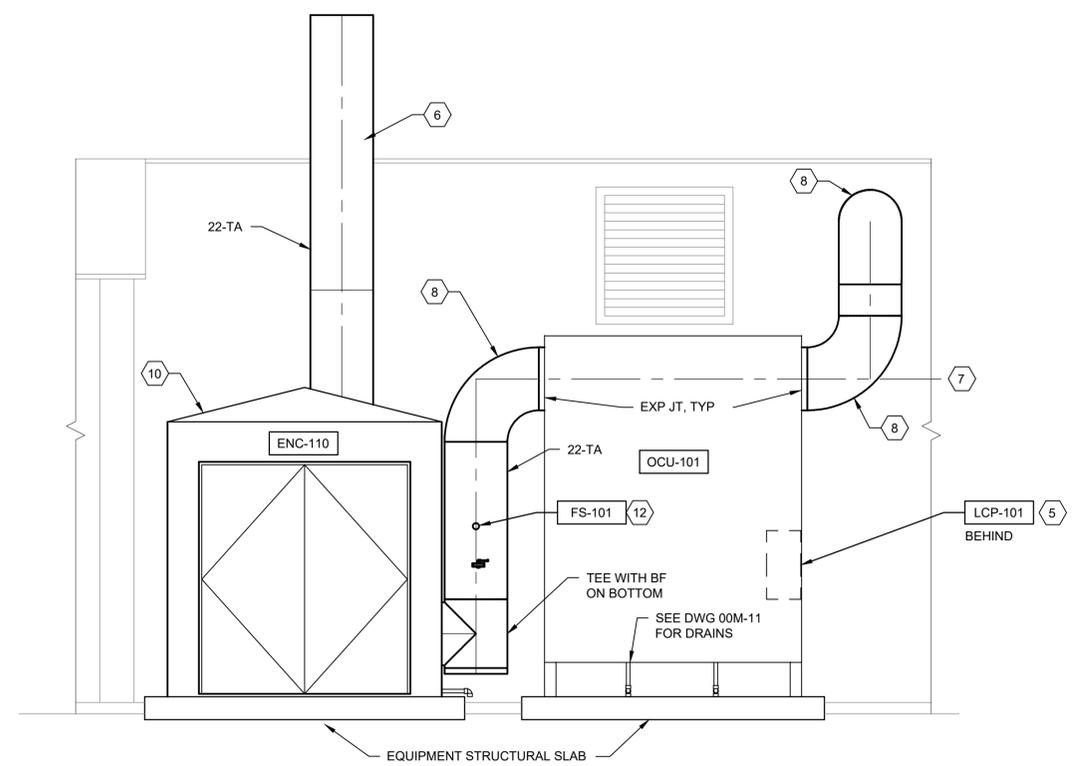
**MECHANICAL
BUILDING #1
ODOR CONTROL
ENLARGED PLANS**

FILENAME 00M-11.dwg
SCALE AS NOTED

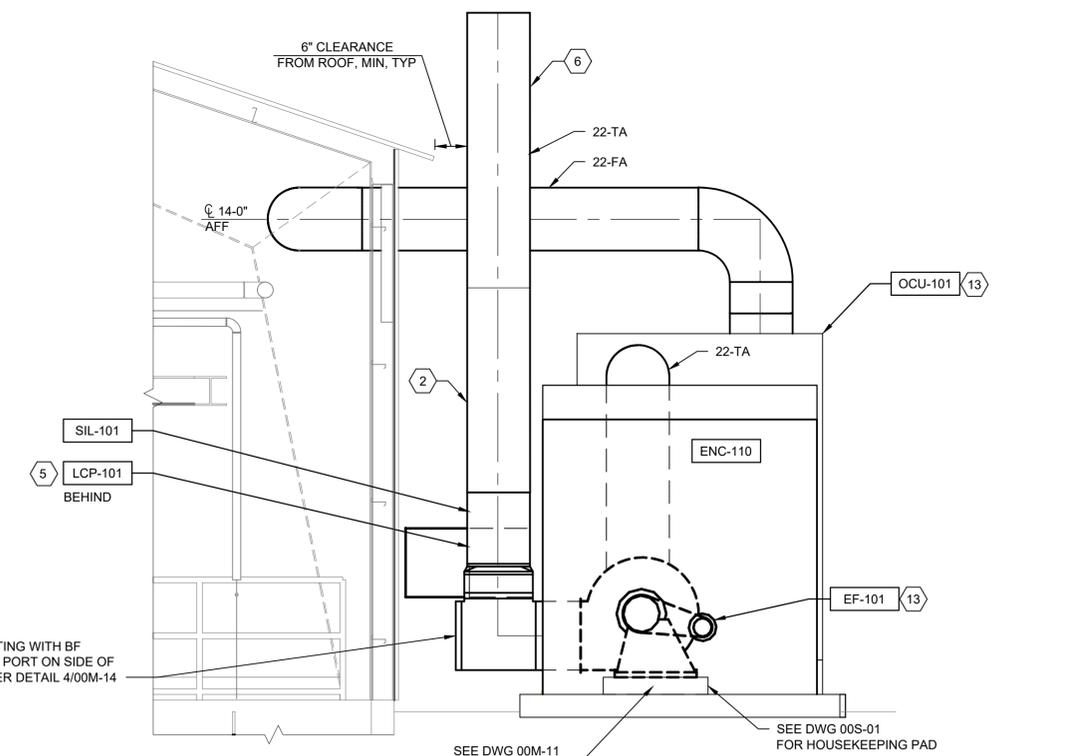
SHEET
00M-11



SECTION
3/8" = 1'-0"
A



SECTION
3/8" = 1'-0"
B



SECTION
3/8" = 1'-0"
C

KEYNOTES:

- 1 ELEVATION/DIMENSION SHOWN IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING PIPING AND CONFIRM FA DUCT ROUTING WITH ENGINEER PRIOR TO FABRICATION. ELEVATION OF DUCT SHALL BE MAINTAINED ABOVE NORTHERN ROLL-UP DOOR.
- 2 SEE SECTION 40 05 07 FOR DUCT AND PIPING SUPPORT DESIGN REQUIREMENTS. EXTERIOR SUPPORTS CONNECTED TO THE GROUND SHALL INCLUDE CONCRETE SUPPORT BASES PER DRAWING 00S-01.
- 3 FABRICATE HOOD PER SECTION 40 10 16.
- 4 CAP END OF 4-FA WITH 6" LONG SPOOL AND BLIND FLANGE ATTACHED TO DAMPER. CONNECT 4" BRANCH AT C/L OF 14-FA DUCT.
- 5 MOUNT CONTROL PANEL ON UNISTRUT SUPPORT FRAME. DO NOT MOUNT DIRECTLY TO BUILDING. MAINTAIN MINIMUM 3 FT CLEARANCE FROM OCU AND ANY OPENING INTO BUILDING #1. SEE ELECTRICAL DRAWINGS.
- 6 TREATED AIR DISCHARGE AT 6 FT ABOVE LOW END OF ROOFLINE AND 10 FT (MIN) CLEAR FROM ANY OTHER HVAC OPENING OR VENT.. PROVIDE RAIN CAP PER DUCT MANUFACTURER.
- 7 CONNECT DUCTWORK TO OCU INLET AND OUTLET WITH REDUCER FITTINGS AS REQUIRED. CONTRACTOR TO COORDINATE ELEVATION WITH MANUFACTURER.
- 8 SUPPORT DUCTWORK INDEPENDENT OF OCU. SEE SECTION 40 05 07.
- 9 SEE 00S-01 FOR STRUCTURAL SLAB DETAILS.
- 10 FAN ENCLOSURE PER SECTION 44 11 10.
- 11 COORDINATE DUCT ROUTING WITH EXISTING PIPING AND CONDUIT.
- 12 MOUNT FS ON SIDE OF DUCT AT LOCATION APPROVED BY ENGINEER.
- 13 FURNISHED BY OWNER.



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



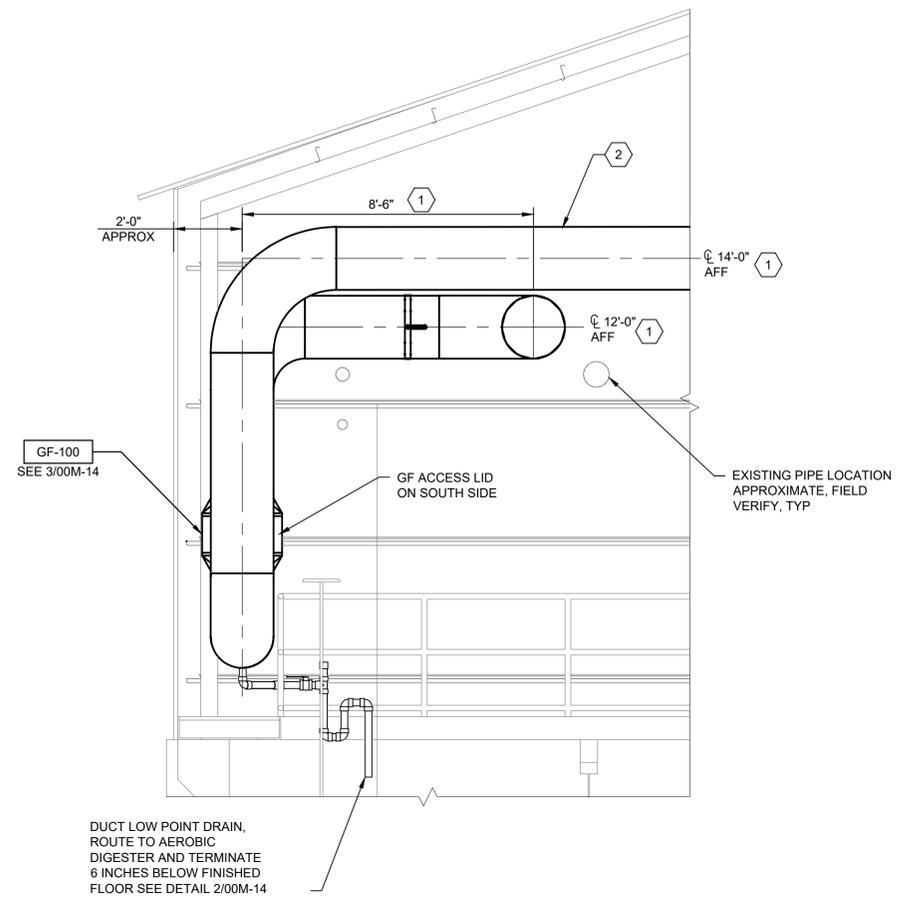
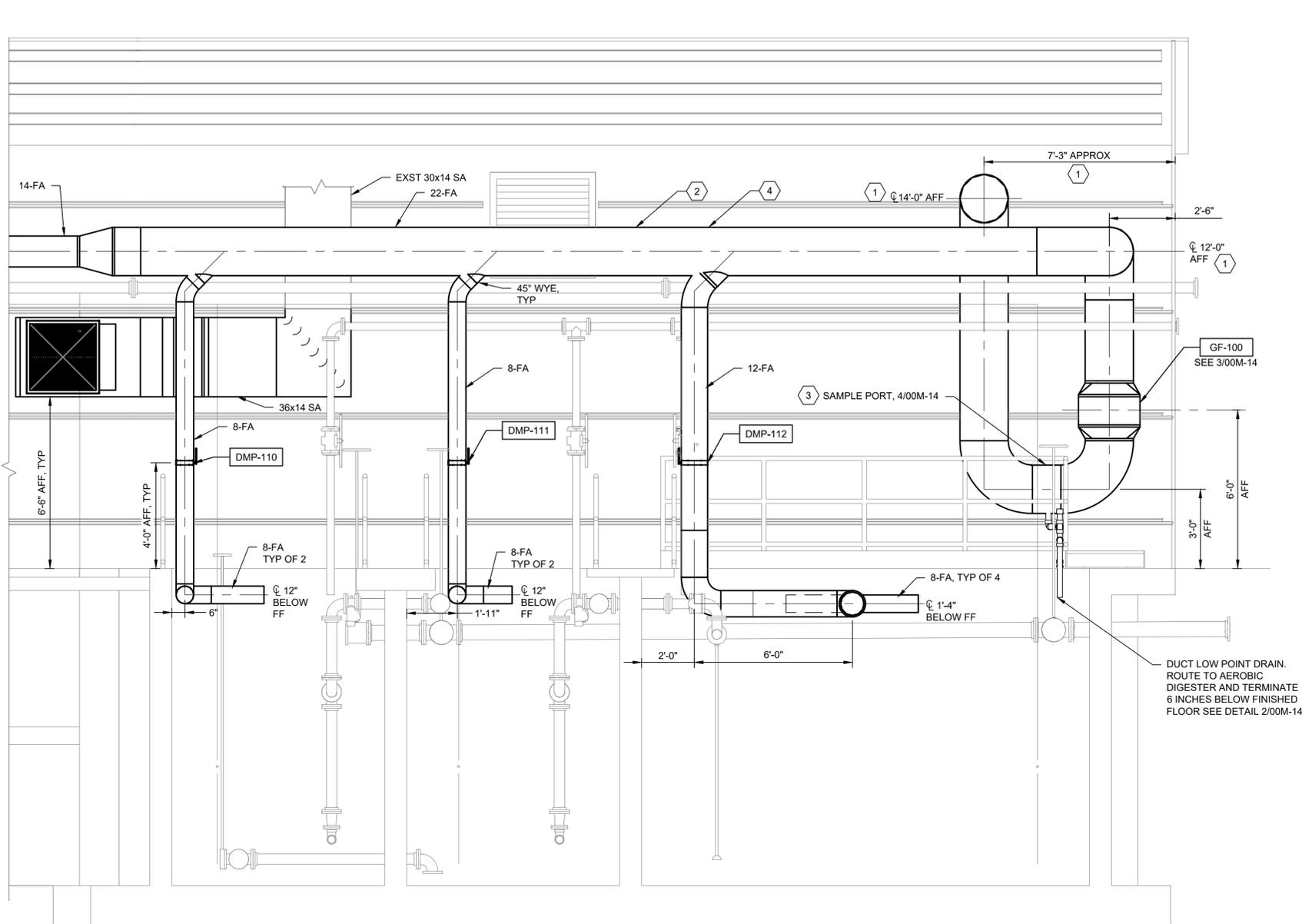
Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



**MECHANICAL BUILDING #1
ODOR CONTROL SECTIONS - 1**

FILENAME | 00M-12.dwg
SCALE | AS NOTED

SHEET
00M-12



SECTION
3/8" = 1'-0"
D

SECTION
3/8" = 1'-0"
E

- KEYNOTES:**
- 1 ELEVATION/DIMENSION SHOWN IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING PIPING AND CONFIRM FA DUCT ROUTING WITH ENGINEER PRIOR TO FABRICATION.
 - 2 SEE SECTION 40 05 07 FOR DUCT AND PIPING SUPPORT DESIGN REQUIREMENTS.
 - 3 MOUNT SAMPLE PORT AT 7 FT AFF.
 - 4 COORDINATE DUCT ROUTING WITH EXISTING PIPING AND CONDUIT.



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



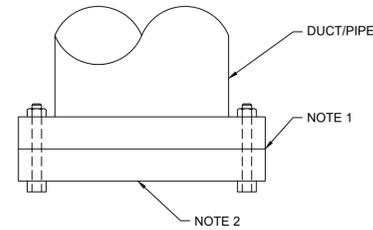
Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



**MECHANICAL BUILDING #1
ODOR CONTROL SECTIONS - 2**

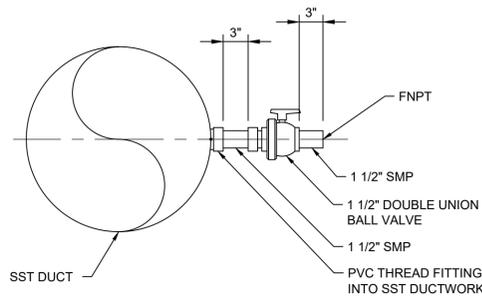
FILENAME | 00M-13.dwg
SCALE | AS NOTED

SHEET
00M-13

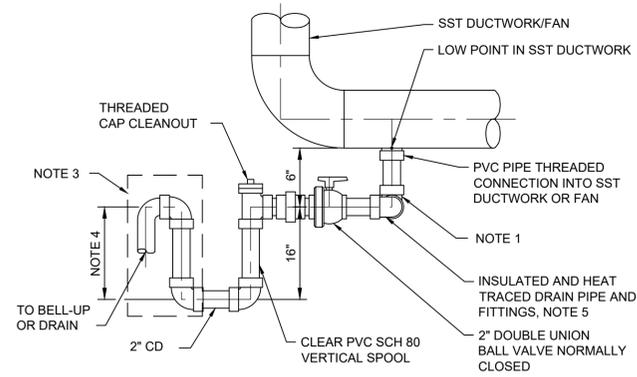


- NOTES:**
1. 316 SST INSECT SCREEN, 18 X 16 MESH, 50% FREE AREA. COMPRESS BETWEEN FLANGES.
 2. BLIND FLANGE: CUT HOLE IN CENTER TO MATCH DUCT/PIPE ID.

INLET SCREEN
NOT TO SCALE

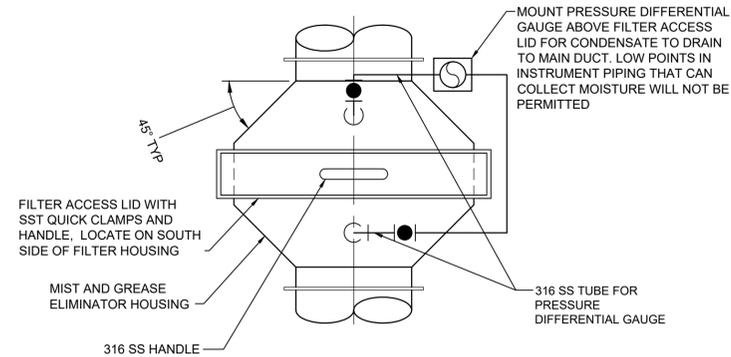


ODOR CONTROL SAMPLE PORT
NOT TO SCALE



- NOTES:**
1. DRAIN PIPING SHALL BE LOCATED TO SIDE OF EQUIPMENT OR DUCT FOR EASE OF ACCESS.
 2. SUPPORT DRAIN PIPE WITH 316 SST PIPE SUPPORTS.
 3. P-TRAP ONLY USED WHERE INDICATED ON DRAWINGS. FOR ALL OTHER LOCATIONS, ROUTE DRAIN DIRECTLY FROM BALL VALVE WITHOUT CLEANOUT.
 4. 12 INCHES.
 5. INSULATION AND HEAT TRACING AT LOCATIONS NOTED ON DRAWINGS.

ODOR CONTROL SYSTEM DRAIN
NOT TO SCALE



MIST AND GREASE ELIMINATOR
NOT TO SCALE



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



MECHANICAL BUILDING #1 ODOR CONTROL DETAILS

FILENAME | 00M-14.dwg
SCALE | AS NOTED

SHEET
00M-14



CLEAR CURTAIN WALL FIXED PANELS
AS SPECIFIED BY 10 65 00

EQUIPMENT SUPPORT SYSTEM
05 45 23 (DELEGATED DESIGN)
FOR CURTAIN WALL SUPPORT

INTERIOR AT SOLIDS LOAD-OUT

NTS



INTERIOR AT AERATION BASINS

NTS



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control

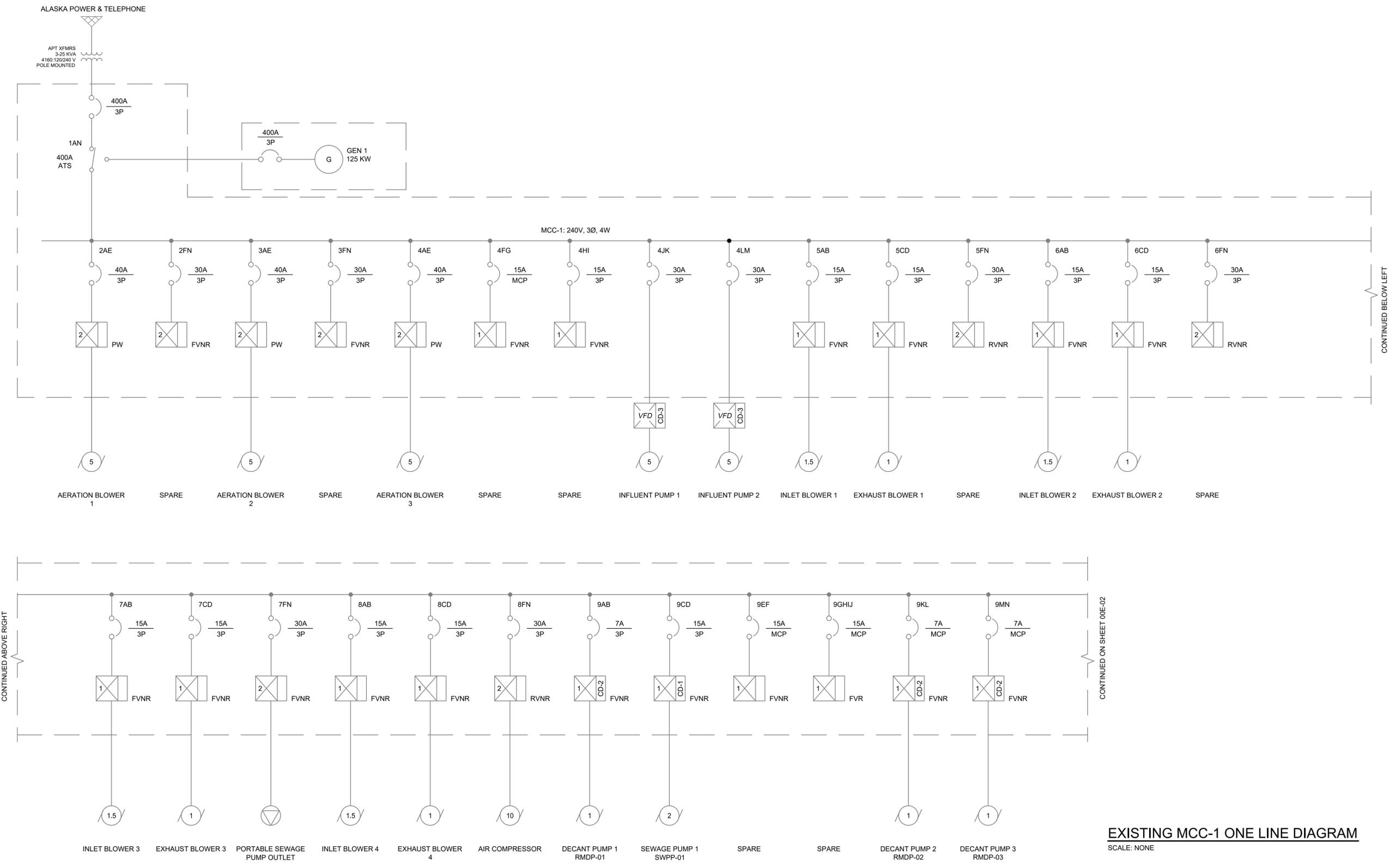


**MECHANICAL
BUILDING #1
INTERIOR IMAGES**

FILENAME | 00M-15.dwg
SCALE | NONE

SHEET
00M-15

LINE WEIGHT LEGEND
 ——— EXISTING
 ——— NEW



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



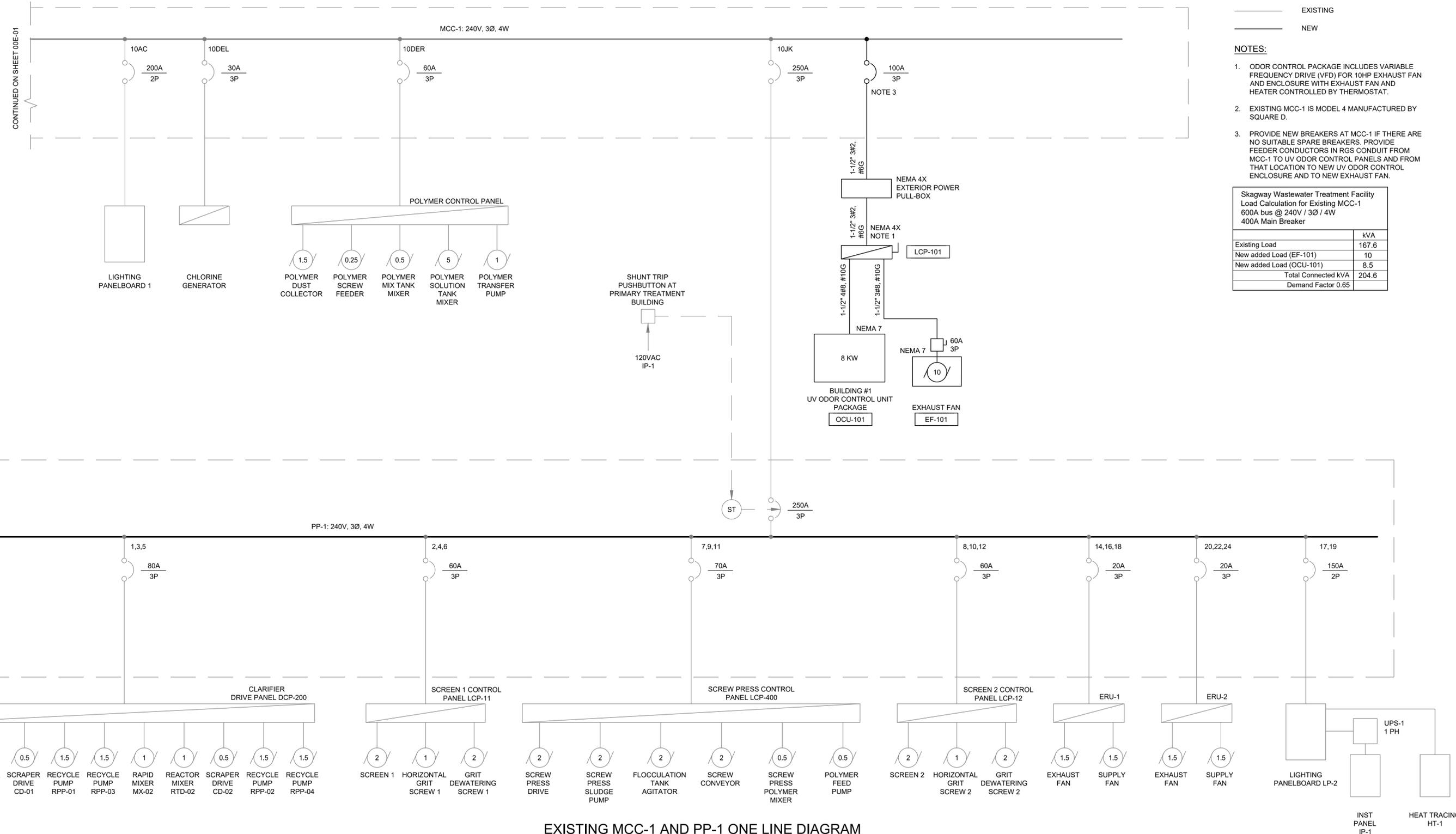
Municipality of Skagway Alaska
 Wastewater Treatment Plant
 Odor control



ELECTRICAL ONE LINE DIAGRAM 1 OF 2

FILENAME | 00E-01.dwg
 SCALE | NONE

SHEET
00E-01



EXISTING MCC-1 AND PP-1 ONE LINE DIAGRAM
 SCALE: NONE



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



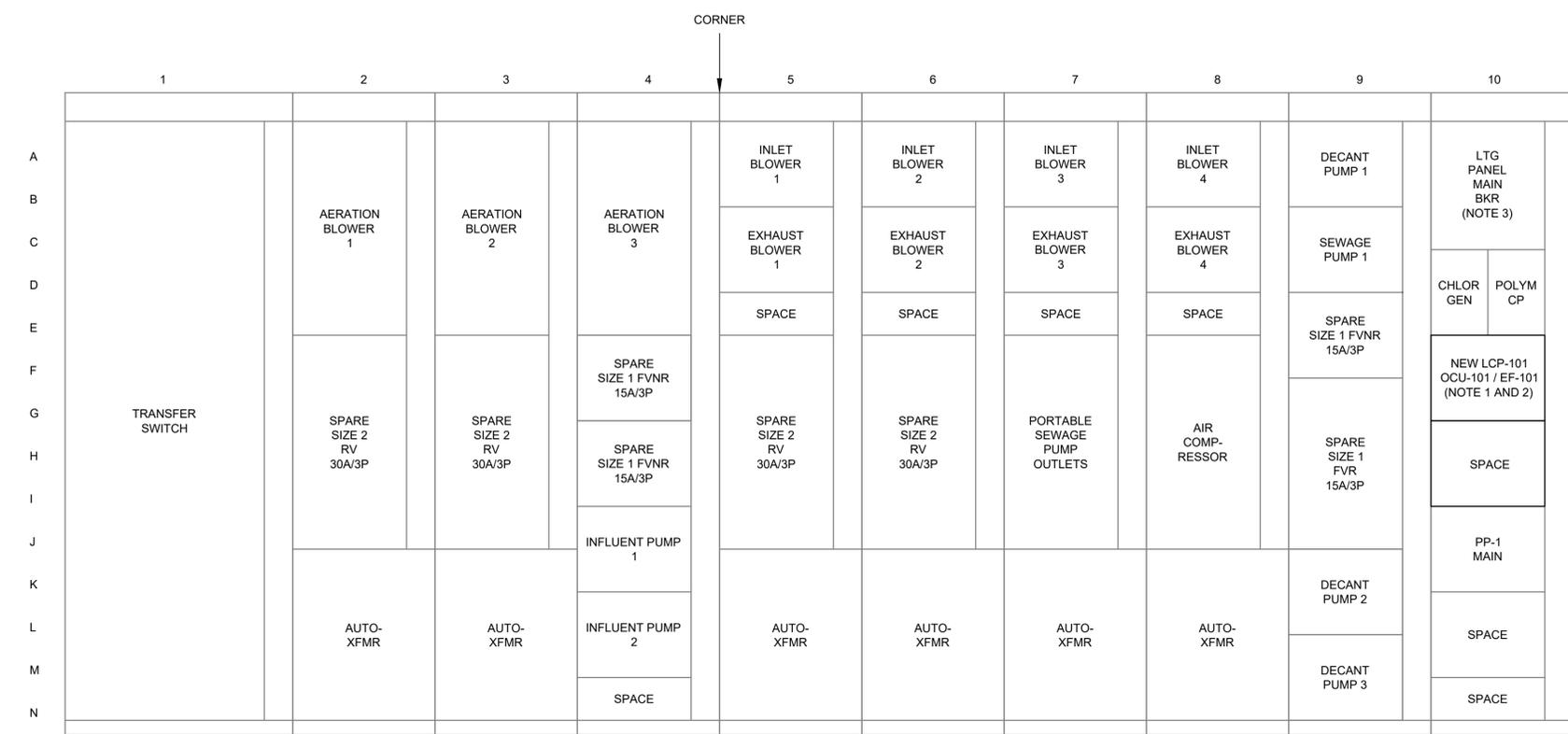
Municipality of Skagway Alaska
 Wastewater Treatment Plant
 Odor control



ELECTRICAL ONE LINE DIAGRAM 2 OF 2

FILENAME | 00E-02.dwg
 SCALE | NONE

SHEET
00E-02



- NOTES:**
1. REFER TO ONE LINE DIAGRAM ON SHEET 00E-02 FOR ADDITIONAL INFORMATION.
 2. PROVIDE NEW BREAKERS AT MCC-1 IF THERE ARE NO SUITABLE SPARE BREAKERS. PROVIDE FEEDER CONDUCTORS IN RGS CONDUIT FROM MCC-1 TO UV ODOR CONTROL PANELS AND FROM THAT LOCATION TO NEW UV ODOR CONTROL ENCLOSURE AND TO NEW EXHAUST FAN.
 3. REFER TO SHEET 00E-42 FOR NEW LOADS ADDED TO LTG PANEL.

EXISTING MCC-1 ELEVATION MODIFICATION
SCALE: 1"=1'-0"



ISSUE	DATE	DESCRIPTION
A	03/31/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



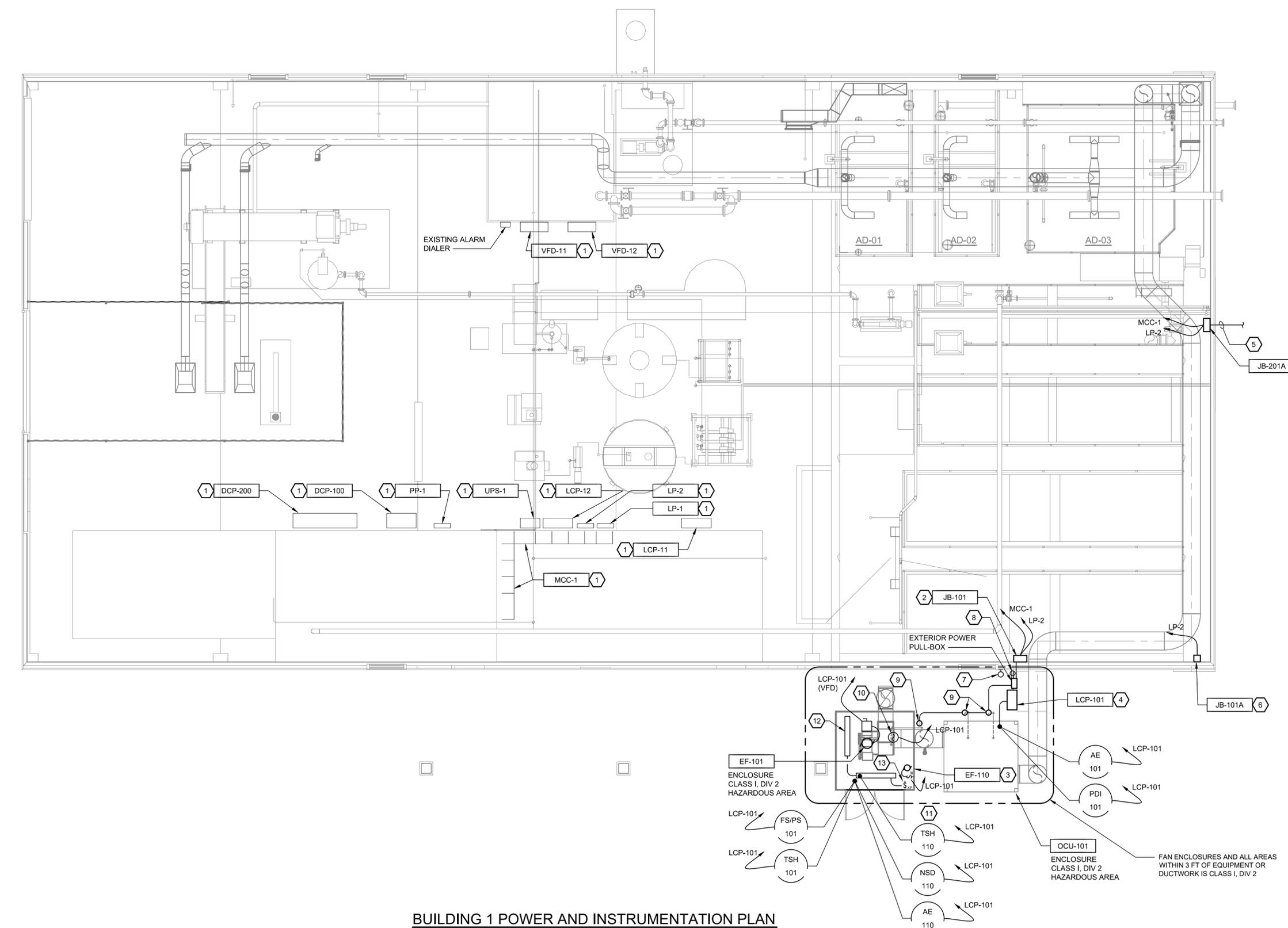
Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



ELECTRICAL
EXISTING MCC-1 ELEVATION

FILENAME | 00E-03.dwg
SCALE | NONE

SHEET
00E-03



- NOTES:**
- EXISTING ELECTRICAL DEVICES/EQUIPMENTS SHOWN ARE BASED ON RECORD DRAWINGS, DATED 12/13/2013 AND DO NOT REPRESENT THE EXACT LOCATION. FIELD VERIFY PRIOR TO START OF ANY WORK.
 - REFER TO VENDOR PROVIDED SHOP DRAWING FOR ALL CONDUIT(S) TERMINATION POINTS TO BOTH EXHAUST FAN AND OCU ENCLOSURES. ALSO FOR TOTAL NUMBER OF CONDUITS AND SIZES REQUIRED.
- KEY NOTES:**
- EXISTING EQUIPMENT TO REMAIN.
 - NEW STAINLESS STEEL 304SS JUNCTION BOX. FIELD LOCATE AND SIZED AS REQUIRED.
 - PROVIDE LOCAL CONTROL ADJACENT TO UNIT. COORDINATE WITH MECHANICAL PRIOR TO START OF ANY WORK.
 - UV ODOR CONTROL UNIT, CONTROL PANEL. MOUNTED ON A INDEPENDENT DOUBLE MODULAR UNISTRUT SUPPORT FRAME. SEE TYPICAL CONTROL PANEL MOUNT DETAIL ON SHEET 00E-40. ALL CONDUIT(S) GOING IN AND OUT OF CONTROL PANEL MUST ENTER EITHER ON THE SIDE OR BOTTOM EXCEPT FOR ALARM DEVICES (BEACON LIGHT AND SPEAKER/HORN) SHOWN IN DETAIL.
 - TO NEW STAINLESS STEEL 304SS JUNCTION BOX "J-201B" AT THE OTHER END OF EXISTING BREEZEWAY INSIDE BUILDING 2. ROUTE CONDUIT(S) ALONG SIDE EXISTING CONDUITS VIA BREEZEWAY. VERIFY AND COORDINATE IN THE FIELD.
 - PROVIDE NEW STAINLESS STEEL 304SS JUNCTION BOX WITH BLANK COVER AND LABEL " FUTURE ROLL-UP DOOR" ROUTE 1" CONDUIT ONLY AND TERMINATE AT PANELBOARD LP-2 WITH PULL-STRING.
 - NEW WALL MOUNTED LIGHT FIXTURE TO MATCH EXISTING. FIELD LOCATE AND MOUNT FROM BUILDING STRUCTURAL MEMBRANE NOT BUILDING WALL. CONNECT TO NEAREST EXISTING EXTERIOR LIGHT CIRCUIT AND CONTROL.
 - PROVIDE 20A RATED GFCI TYPE DUPLEX RECEPTACLE WITH LOCKABLE WP COVER. MOUNT SECURED ON THE SIDE OF POWER PULL-BOX.
 - HEAT TRACE POWER POINT OF CONNECTION FOR I-CD PIPE. REFER TO MECHANICAL DRAWING FOR PIPE LOCATIONS AND TOTAL HEAT TRACE CABLE LENGTH PRIOR TO START OF WORK. PROVIDE HEAT TRACING CABLE AND POINT OF CONNECTION JUNCTION BOX RATED FOR HAZARDOUS LOCATION, CLASS I, DIVISION 2. PROVIDE IN PANEL LP-2 A 30A/1P GROUND FAULT EQUIPMENT PROTECTION CIRCUIT INTERRUPTER (GFPECI).
 - PROVIDE EXPLOSION PROOF RATED SMOKE DETECTOR, CLASS I, DIVISION 2. PROVIDE INTERFACE CONNECTION WITH OCU CONTROL PANEL.
 - PROVIDE EXPLOSION PROOF RATED HEAT DETECTOR, CLASS I, DIVISION 2. PROVIDE INTERFACE CONNECTION WITH OCU CONTROL PANEL.
 - PROVIDE TWO 4' LINEAR LUMINAIRE (EXPLOSION PROOF) INSIDE EXHAUST FAN ENCLOSURE RATED FOR CLASS I, DIVISION 2 AREA.
 - PROVIDE ROOM ILLUMINATION SWITCH (EXPLOSION PROOF) INSIDE EXHAUST FAN ENCLOSURE RATED FOR CLASS I, DIVISION 2 AREA. CONNECT POWER FROM SAME CIRCUIT AS W.P. DUPLEX RECEPTACLE SHOWN ADJACENT TO EXTERIOR POWER PULL-BOX. TO EXHAUST FAN ROOM ILLUMINATION TOGGLE SWITCH.

BUILDING 1 POWER AND INSTRUMENTATION PLAN
SCALE: 3/16"=1'-0"



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



**BUILDING #1
POWER AND INSTRUMENTATION PLAN**

FILENAME | 00E-10.dwg
SCALE | NONE

SHEET
00E-10

CONTINUED ON SHEET E-33

CONTINUED ON SHEET E-33

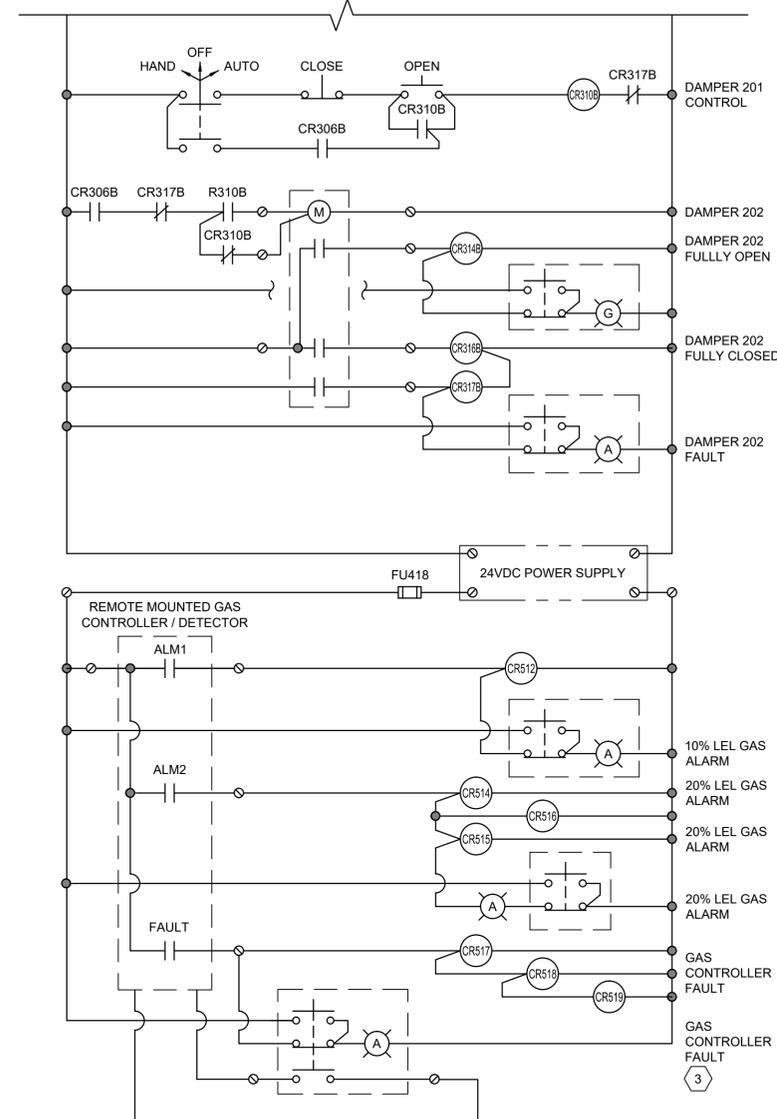
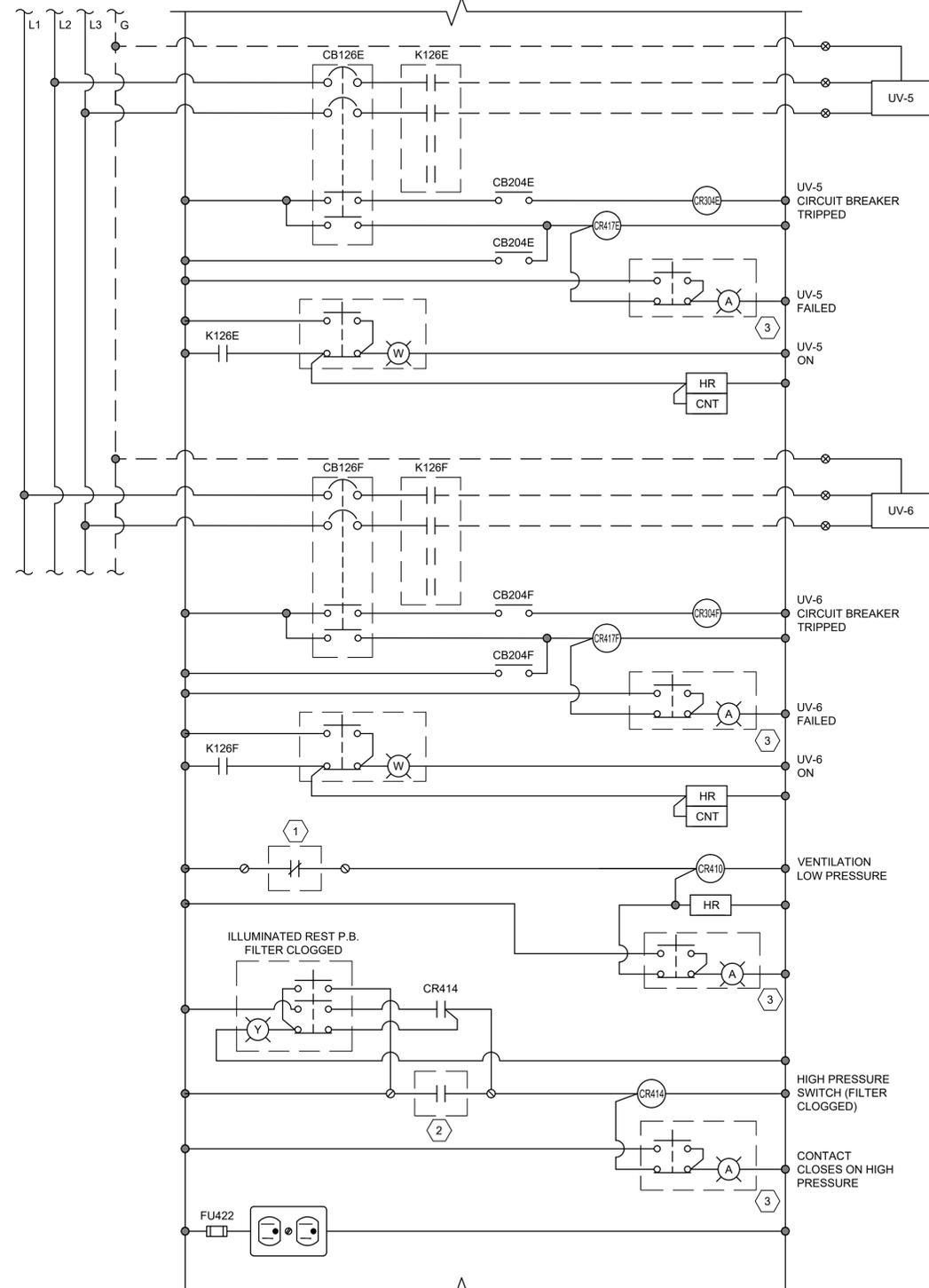
CONTINUED BOTTOM LEFT

GENERAL NOTES:

1. CONCEPTUAL DRAWING, CONTRACTOR TO PROVIDE DETAILED DESIGNED SHOP DRAWINGS FROM UV ODOR CONTROL SYSTEM CONTROL PANEL MANUFACTURER FOR REVIEW AND APPROVAL.

KEY NOTES:

- 1 LOW PRESSURE SWITCH CONTACT CLOSING ON LOW PRESSURE.
- 2 CONTACT CLOSING ON PRESSURE.
- 3 ACTIVATE BEACON (VISUAL ALARM) AND HORN (AUDIBLE ALARM).



CONTINUED TOP RIGHT



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



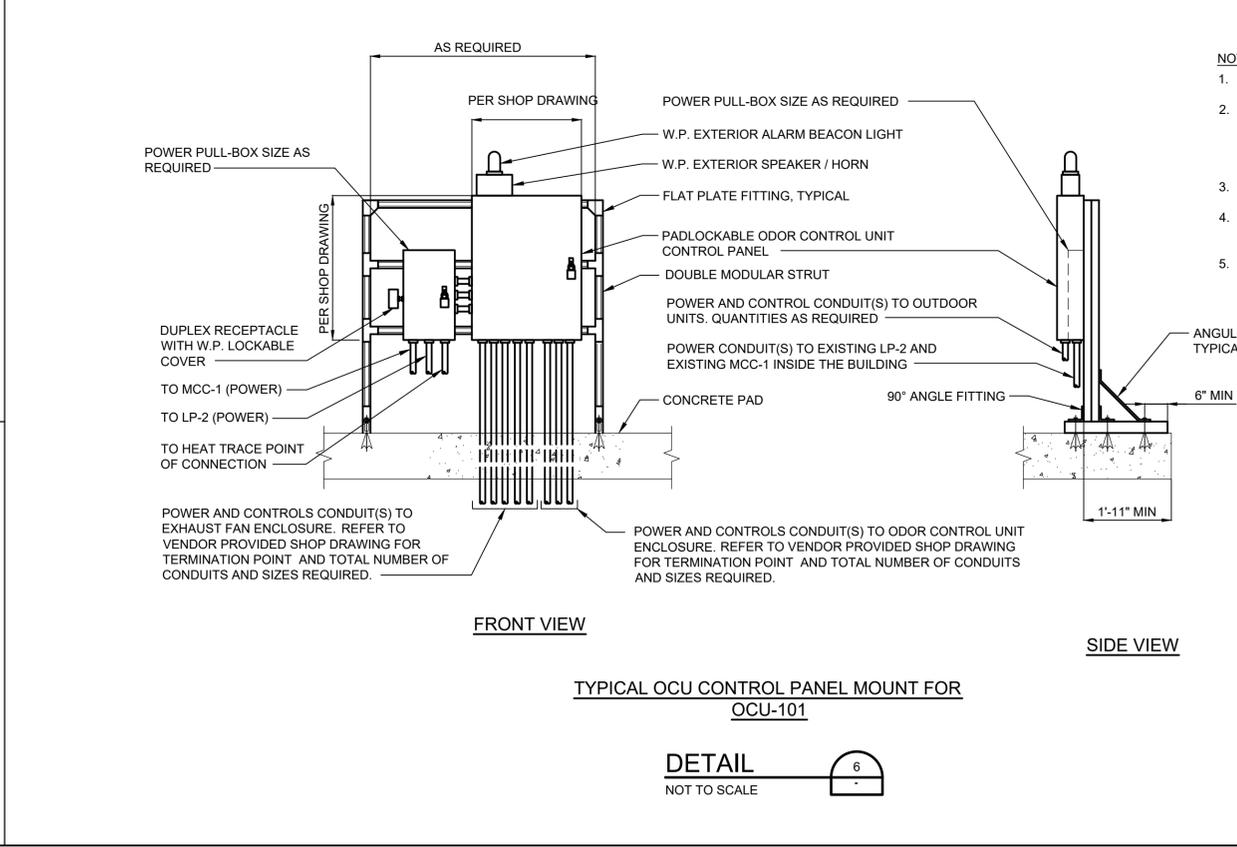
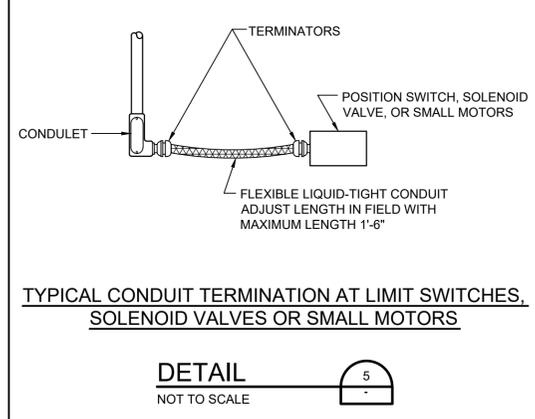
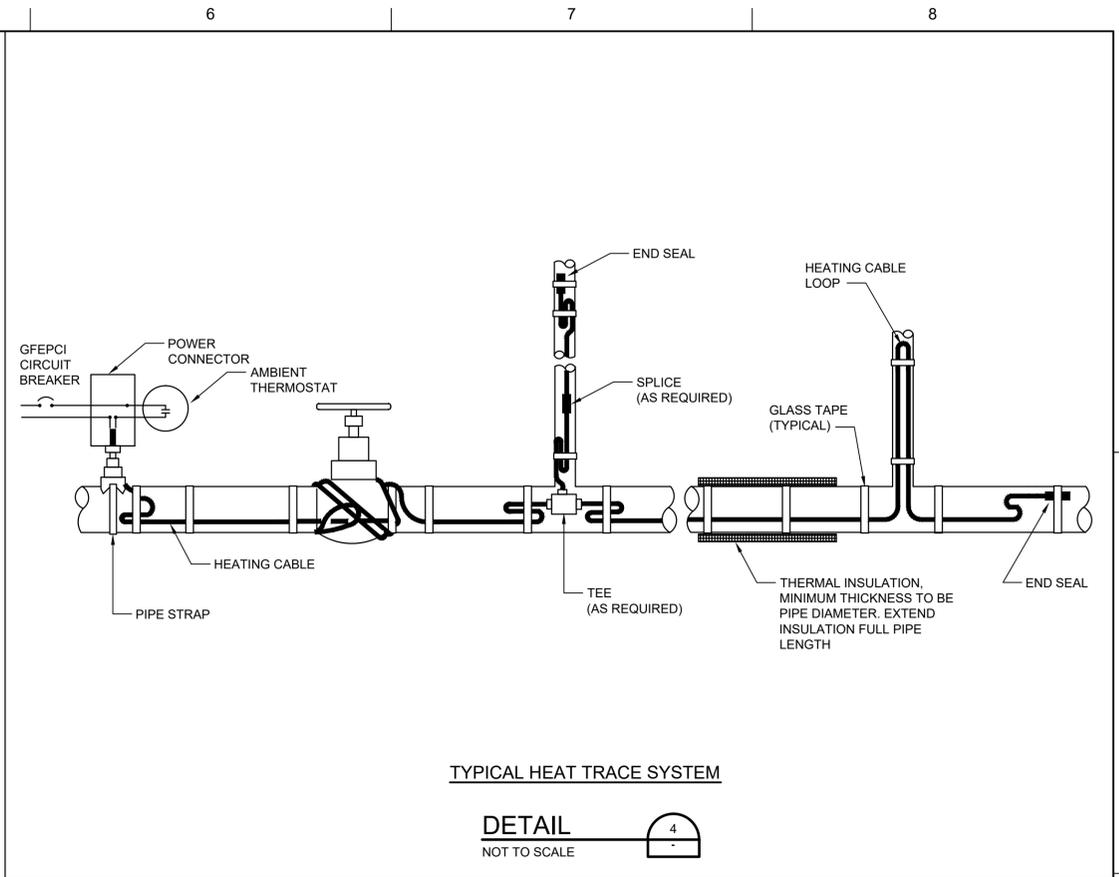
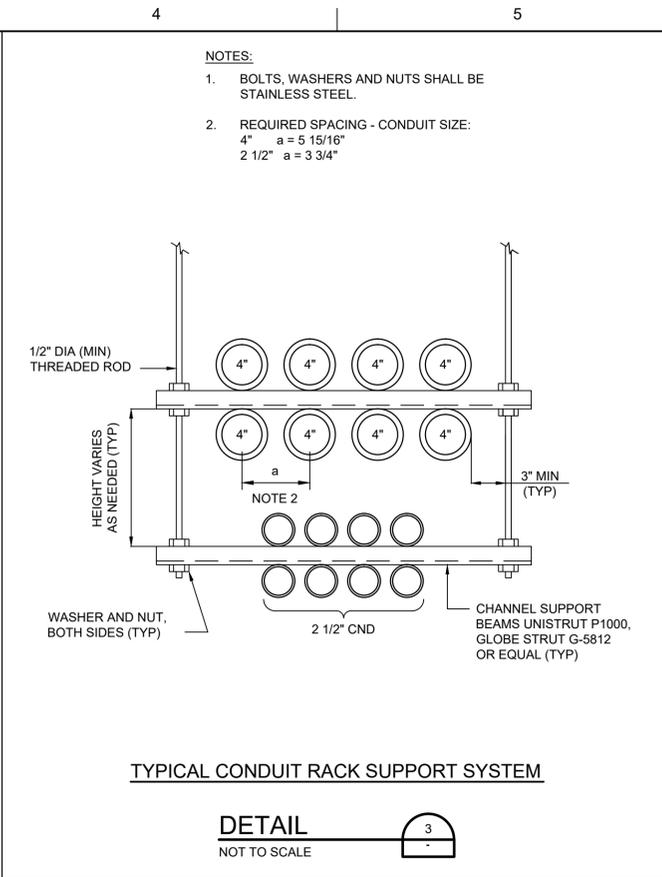
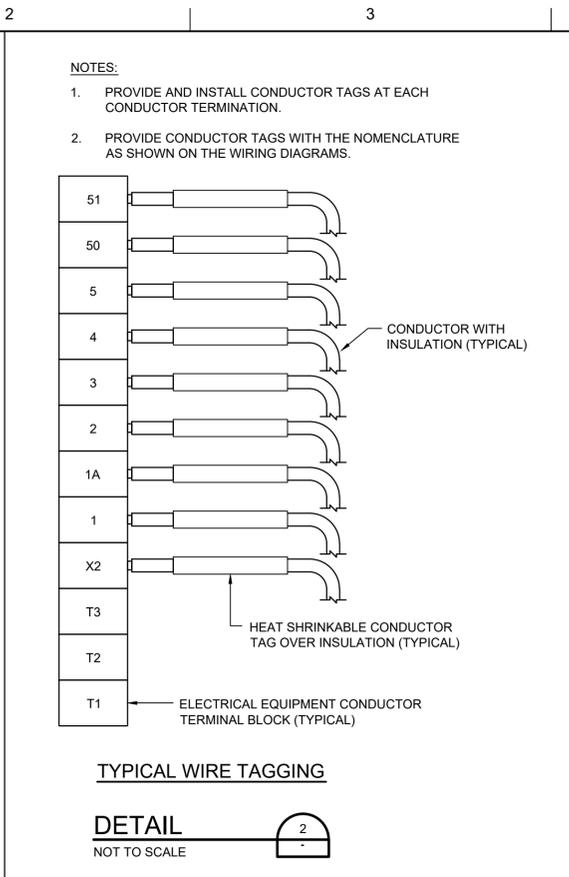
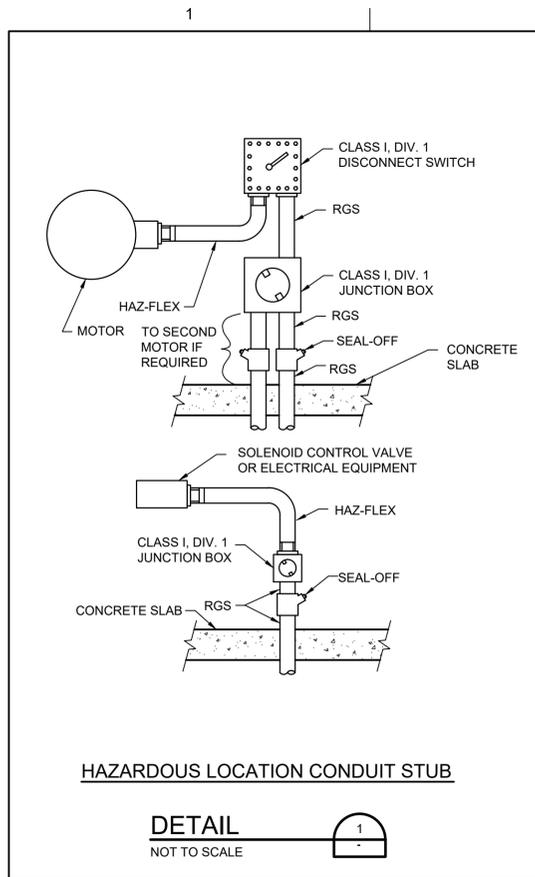
Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



**ELECTRICAL
UV ODOR CONTROL PACKAGE
CONTROL DIAGRAM 2**

FILENAME | 00E-34.dwg
SCALE | NONE

SHEET
00E-34



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZALLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



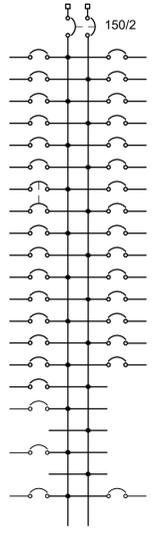
**ELECTRICAL
DETAILS**

FILENAME | 00E-40.dwg
SCALE | NONE

SHEET
00E-40

PANEL: LP-2		LOCATION: OUTSIDE LAB/OFFICE		ENCLOSURE: NEMA 12		
SERVICE: 120/240 VOLTS, 1 PHASE, 3 WIRE, 100% NEUTRAL				SERVICE ENTRANCE LABEL: NO		
MAIN DEVICE: 150 AMP CIRCUIT BREAKER, 2 POLE, 10 KA IC INTERRUPTING RATING						
FEEDER SOURCE: PP-1		FEEDER SIZE: 2 AWG				
CKT NO.	CIRCUIT IDENTIFICATION	VA PER PHASE		C.B. AMPS	CIRCUIT IDENTIFICATION	CKT NO.
		A	C			
1	PRIMARY TREATMENT BLDG LTG	1654		20/1	PRIM TREAT BLDG RECEPT	2
3	PRIMARY TREATMENT BLDG LTG		1584	20/1	PRIM TREAT BLDG RECEPT	4
5	SAMPLER SMPP-01	1176		20/1	INFLUENT PUMP ROOM RECEPT	6
7	UPS-1		163	20/1	HEAT TRACING PANEL HT-1	8
9	PRIM TREAT BLDG EXTER LTG	216		20/1	INFLUENT PUMP ROOM LTG	10
11	GARAGE DOOR		1800	20/1	ALUM CONTROL PANEL	12
13	SUMP PUMP SMP-01	1035		20/2	CLARIFIER CONTROL PANEL	14
15			1035		INFLUENT PUMP ROOM RECEPT	16
17	ALARM DIALER RECEPT	180		20/1	UNIT HTR FAN UH-1A	18
19	EXHAUST FAN WEF-1		1580	20/1	UNIT HTR FAN UH-1B	20
21	HWCP-3	1580		20/1	UNIT HTR FAN UH-1C	22
23	HWCP-4		1580	20/1	ERU-1 PEC	24
25	CP-1	60		20/1	ERU-2 PEC	26
27	CP-2		60	20/1	TEMP CONTROL PEC	28
29	PRIM TREAT BLDG OH DOOR	1800		20/1	SPARE	30
31	PRIM TREAT BLDG EMERG LTG		84	20/1	SPACE	32
33	HEAT TRACE (OCU-101) GFEP TYPE BKR (OCCUPY TWO SPACES)	1200		30/1	SPACE	34
35					SPACE	36
37	HEAT TRACE (OCU-201) GFEP TYPE BKR (OCCUPY TWO SPACES)	1200		30/1	SPACE	38
39					SPACE	40
41	BLDG 1 OUTDOOR ENCLOSURE LTG, RECEPT	400		20/1	BLDG 2 OUTDOOR ENCLOSURE LTG, RECEPT	42
EST TOTAL VA PER PHASE		7601	6306			
EST TOTAL PANELBOARD VA					21,382	

Skagway Wastewater Treatment Facility			
Panelboard LP-2 120/240V, 1 ph.	kVA	Amps	
		Phase A	Phase C
Total Load	22	83	108
25%		21	27
Total Amps		104	135
Panelboard Rating		225	225
Main Breaker Rating		150	150



PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control

**ELECTRICAL
PANELBOARD SCHEDULES**



FILENAME | 00E-42.dwg
SCALE | NONE

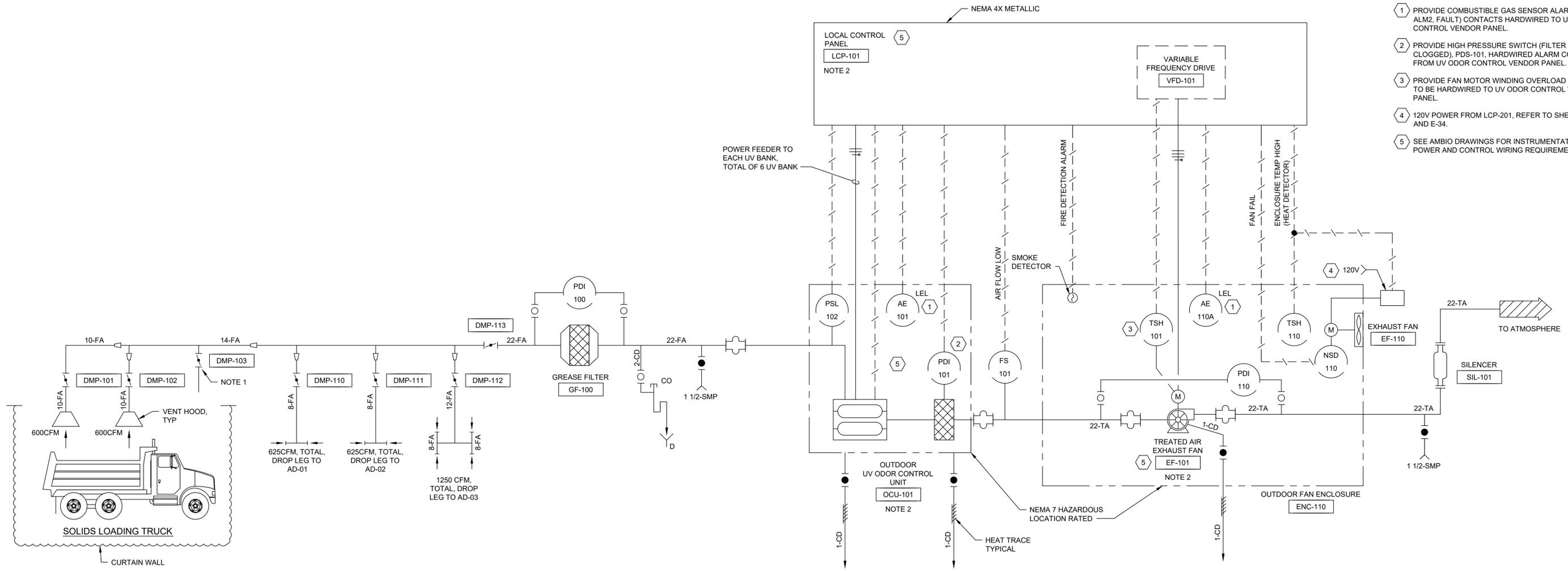
SHEET
00E-42



A	03/2020	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

- NOTES:**
- 4-FA BLIND FLANGE FUTURE CONNECTION FOR SCREW PRESS.
 - UV ODOR CONTROL UNIT (OCU-101) AND TREATED AIR EXHAUST FAN (EF-101) FURNISHED BY OWNER FROM AMBIO BIOFILTRATION LTD. INSTALLED, TESTED, AND COMMISSIONED BY CONTRACTOR.
 - SEE SHEETS E-33 AND E-34 FOR CONTROL PANEL.

- KEY NOTES:**
- PROVIDE COMBUSTIBLE GAS SENSOR ALARM (ALM1, ALM2, FAULT) CONTACTS HARDWIRED TO UV ODOR CONTROL VENDOR PANEL.
 - PROVIDE HIGH PRESSURE SWITCH (FILTER CLOGGED), PDS-101, HARDWIRED ALARM CONTACT FROM UV ODOR CONTROL VENDOR PANEL.
 - PROVIDE FAN MOTOR WINDING OVERLOAD CONTACT TO BE HARDWIRED TO UV ODOR CONTROL VENDOR PANEL.
 - 120V POWER FROM LCP-201, REFER TO SHEET E-33 AND E-34.
 - SEE AMBIO DRAWINGS FOR INSTRUMENTATION, POWER AND CONTROL WIRING REQUIREMENTS.



BUILDING #1 ODOR CONTROL PROCESS
SCALE: NONE



ISSUE	DATE	DESCRIPTION
A	03/2020	ISSUED FOR BID

PROJECT MANAGER	RYAN MOYERS
CIVIL	R. MOYERS
STRUCTURAL	D. PRINDLE
PROCESS	J. ZAHLLER
MECHANICAL	K. SUTTON
ELECTRICAL	I. RINCON
INSTRUMENTATION	I. RINCON
PROJECT NUMBER	10108243



03/31/2020



Municipality of Skagway Alaska
Wastewater Treatment Plant
Odor control



**INSTRUMENTATION
BUILDING #1
ODOR CONTROL UNIT SYSTEM
P&ID**

FILENAME | 00Y-10.dwg
SCALE | NONE

SHEET
00Y-10