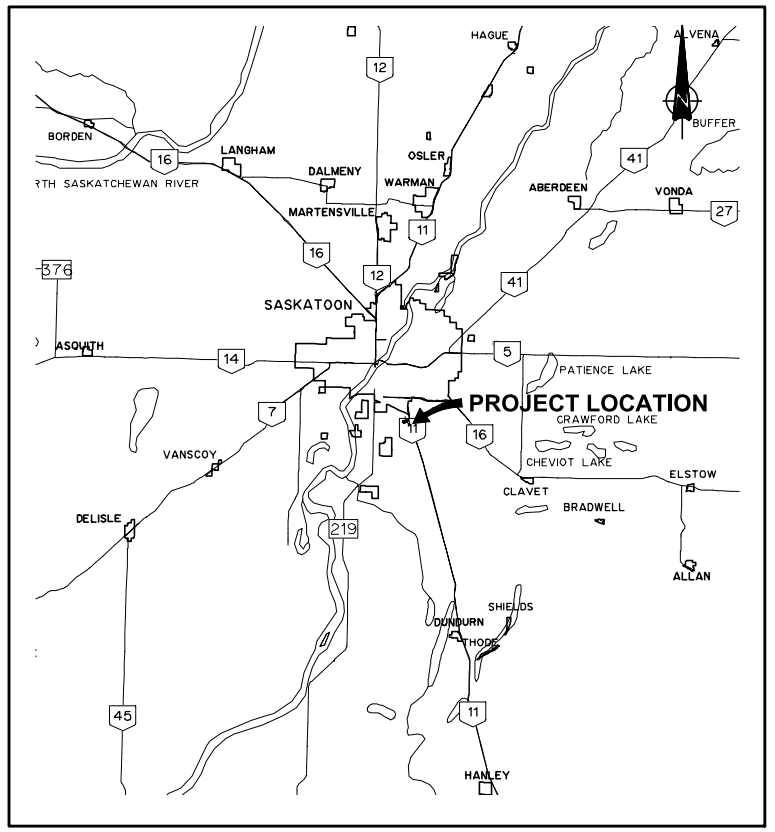
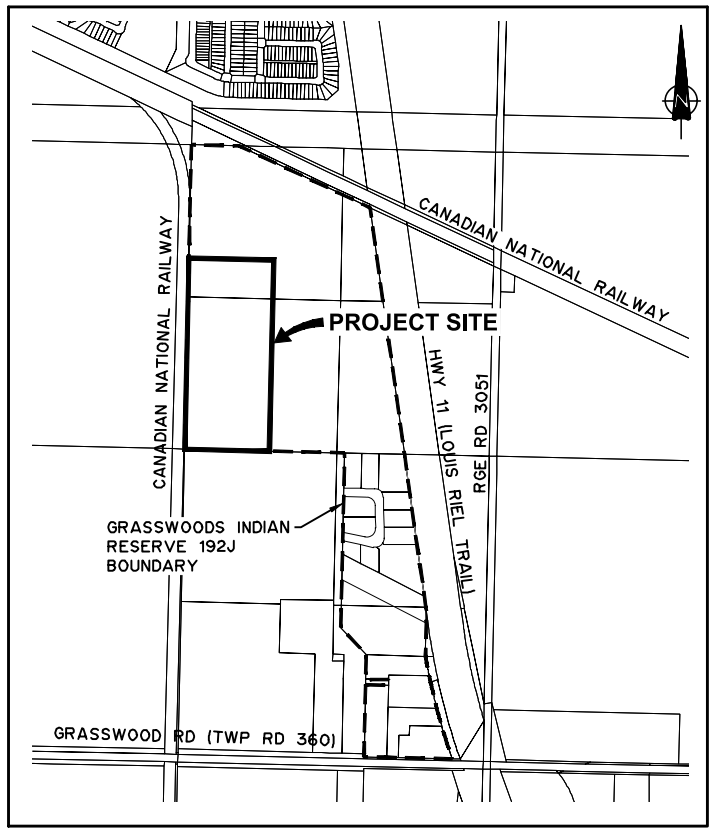
SET _____



LOCATION PLAN



SITE PLAN

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT FACILITY

FOR CONSTRUCTION

7603-002-00

MPE Engineering Ltd.

TITLE SHEET

GENERAL

G0.1 LIST OF DRAWINGS

CIVIL

C0.1 LEGEND
C0.2 ABBREVIATIONS
C1.1 SETBACK PLAN
C1.2 OVERALL SITE PLAN
C1.3 UNDERGROUND PLAN
C1.4 GRADING PLAN
C1.5 ROUGH GRADING PLAN (BY OTHERS)
C2.1 PLAN PROFILE STATION 0+000 TO 0+041.6
C2.2 PLAN PROFILE STATION 0+000 TO 0+113.8
C2.3 PLAN PROFILE STATION 0+000 TO 0+26.8
C2.4 PLAN PROFILE STATION 0+000 TO 0+053.7
C2.5 PLAN PROFILE STATION 0+000 TO 0+54.8
C2.6 PLAN PROFILE STATION 0+000 TO 0+37.7
C2.7 SITE SECTIONS
C3.1 DETAILS SHEET 1
C3.2 DETAILS SHEET 2
C3.3 DETAILS SHEET 3
C3.4 DETAILS SHEET 4
C3.5 DETAILS SHEET 5

ARCHITECTURAL

A0.1 LOWER FLOOR BUILDING CODE REVIEW
A0.2 MAIN FLOOR BUILDING CODE REVIEW
A1.1 ELEVATIONS
A1.2 ELEVATIONS
A2.1 LOWER FLOOR PLAN
A2.2 MAIN FLOOR PLAN
A2.3 CEILING FRAME PLAN
A2.4 ROOF PLAN
A3.1 SECTIONS
A3.2 SECTIONS
A3.3 SECTIONS
A3.4 SECTIONS
A3.5 SECTIONS
A3.6 SECTIONS
A3.7 SECTIONS
A3.8 SECTIONS
A4.1 SCHEDULES
A4.2 SIGN SCHEDULE
A5.1 BUILDING DETAILS
A5.2 BUILDING DETAILS
A5.3 BUILDING DETAILS
A6.1 MILLWORK LAYOUT PLAN
A6.2 MILLWORK ELEVATIONS
A6.3 MILLWORK ELEVATIONS AND DETAILS
A7.1 ALUMINUM STAIR PLANS AND SECTIONS
A7.2 ALUMINUM STAIR DETAILS
A8.1 ALUMINUM PLATFORM PLAN, SECTIONS AND DETAILS
A9.1 MBR TANK - COVER PLAN, AND DETAILS
A10.1 MUA SUPPORT FRAME
A11.1 BRIDGE CRANE PLAN AND DETAILS

STRUCTURAL

S1.1 LOWER FLOOR PLAN
S1.2 MAIN FLOOR PLAN
S1.3 PARTIAL MAIN FLOOR PLAN
S1.4 PARTIAL MAIN FLOOR PLAN
S2.1 CONCRETE SECTIONS
S2.2 CONCRETE SECTIONS
S2.3 CONCRETE SECTIONS
S2.4 CONCRETE SECTIONS
S2.5 CONCRETE SECTIONS
S3.1 REINFORCING DETAILS
S3.2 REINFORCING DETAILS
S3.3 REINFORCING DETAILS
S3.4 REINFORCING DETAILS
S4.1 DETAILS
S5.1 SEPTAGE RECEIVING STATION BUILDING SLAB AND FOUNDATION

MECHANICAL

M0.1 MECHANICAL LEGEND
M1.1 HEATING AND VENTILATION FLOW DIAGRAM
M2.1 HVAC LOWER LEVEL PLAN
M2.2 HEATING AND VENTILATION MAIN LEVEL PLAN
M2.3 PLUMBING, FIRE PROTECTION AND SANITARY LOWER LEVEL PLAN
M2.4 PLUMBING, FIRE PROTECTION AND SANITARY MAIN LEVEL PLAN
M2.5 PLUMBING AND FIRE PROTECTION MECHANICAL ROOM WASHROOM AND LABORATORY
M3.1 MECHANICAL DETAILS
M3.2 MECHANICAL DETAILS

PROCESS PIPING

P0.1 EQUIPMENT LEGEND
P0.2 PIPING LEGEND
P0.3 INSTRUMENTATION LEGEND
P0.4 PROCESS FLOW OVERVIEW
P0.5 HYDRAULIC PROFILES PHASE 1 LIQUID STREAM
P0.6 HYDRAULIC PROFILES PHASE 2 LIQUID STREAM
P0.7 HYDRAULIC PROFILES PHASE 1 SOLID STREAM
P0.8 HYDRAULIC PROFILES PHASE 2 SOLID STREAM
P1.1 PID - INFLUENT PUMPING STATION
P1.2 PID - FINE SCREENING
P1.3 PID - BIOREACTORS
P1.4 PID - MEMBRANE TANK
P1.5 PID - PERMEATE PUMPING
P1.6 PID - MEMBRANE TANK AND UV DISINFECTION
P1.7 PID - EFFLUENT CHAMBER AND PUMPING
P1.8 PID - SLUDGE THICKENING AND AEROBIC DIGESTORS
P1.9 PID - AIR SYSTEMS
P1.10 PID - POLYMER FEED SYSTEM
P1.11 PID - CLEAN-IN-PLACE CHEMICAL FEED SYSTEM
P1.12 PID - ALUM AND SODIUM HYDROXIDE FEED SYSTEMS
P1.13 PID - COMPRESSOR AND AUXILLARY SYSTEMS
P1.14 PID - SEPTAGE RECEIVING STATION
P1.15 SUEZ EQUIPMENT TAG LIST - SHEET 1
P1.16 SUEZ EQUIPMENT TAG LIST - SHEET 2
P1.17 SUEZ EQUIPMENT TAG LIST - SHEET 3
P2.1 LOWER LEVEL PLAN
P2.2 MAIN LEVEL PLAN
P2.3 CHEMICAL FEED PIPING SCHEMATIC - LOWER LEVEL FLOOR PLAN
P2.4 CHEMICAL FEED PIPING SCHEMATIC - MAIN LEVEL FLOOR PLAN
P2.5 PLANT SERVICE WATER PIPING SCHEMATIC LOWER LEVEL FLOOR PLAN
P2.6 PLANT SERVICE WATER PIPING SCHEMATIC MAIN LEVEL FLOOR PLAN
P2.7 COMPRESSED AIR PIPING SCHEMATIC LOWER LEVEL FLOOR PLAN
P2.8 COMPRESSED AIR PIPING SCHEMATIC MAIN LEVEL FLOOR PLAN
P2.9 PROCESS SECTIONS
P3.1 HEADWORKS AND TREATMENT AREA - LOWER LEVEL PLAN
P3.2 HEADWORKS AND TREATMENT AREA - MAIN LEVEL PLAN
P3.3 HEADWORKS AND TREATMENT AREA - SECTIONS
P3.4 HEADWORKS AND TREATMENT AREA - SECTIONS
P3.5 HEADWORKS AND TREATMENT AREA - SECTIONS
P3.6 HEADWORKS AND TREATMENT AREA - SECTIONS
P3.7 HEADWORKS AND TREATMENT AREA - SECTIONS
P3.8 HEADWORKS AND TREATMENT AREA - ROTARY DRUM THICKENER PLAN AND SECTIONS
P3.9 HEADWORKS AND TREATMENT AREA - POLYMER FEED SYSTEM DETAILS
P3.10 HEADWORKS AND TREATMENT AREA - DETAILS
P4.1 BIOREACTOR AND PUMP ROOM - LOWER LEVEL LOWER PIPING
P4.2 BIOREACTOR AND PUMP ROOM - LOWER LEVEL UPPER PIPING
P4.3 BIOREACTOR AND PUMP ROOM - MAIN LEVEL
P4.4 BIOREACTOR AND PUMP ROOM - SECTIONS
P4.5 BIOREACTOR AND PUMP ROOM - SECTIONS
P4.6 BIOREACTOR AND PUMP ROOM - SECTIONS
P4.7 BIOREACTOR AND PUMP ROOM - SECTIONS
P4.8 BIOREACTOR AND PUMP ROOM - SECTIONS
P4.9 BIOREACTOR AND PUMP ROOM - SECTIONS
P4.10 BIOREACTOR AND PUMP ROOM - SUBMERGED VALVE DETAILS
P4.11 BIOREACTOR AND PUMP ROOM - COMPRESSOR SYSTEM
P4.12 BIOREACTOR AND PUMP ROOM DETAILS
P5.1 TYPICAL DETAILS SHEET 1
P5.2 TYPICAL DETAILS SHEET 2
P5.3 TYPICAL DETAILS SHEET 3
P5.4 TYPICAL DETAILS SHEET 4

ELECTRICAL

E0.1 ELECTRICAL LEGEND
E0.2 ELECTRICAL SITE PLAN
E0.3 COMMUNICATION AND CONTROL
E1.1 ELECTRICAL LOWER LEVEL PLAN
E1.2 ELECTRICAL MAIN FLOOR PLAN
E1.3 LIGHTING AND RECEPTACLE LOWER LEVEL PLAN
E1.4 LIGHTING AND RECEPTACLE MAIN FLOOR PLAN
E1.5 INSTRUMENTATION LOWER LEVEL PLAN
E1.6 INSTRUMENTATION MAIN FLOOR PLAN
E1.7 ELECTRICAL ROOM PLAN
E1.8 ELECTRICAL ROOM SECTION
E1.9 ELECTRICAL ROOM SECTION
E1.10 ELECTRICAL ROOM SECTION
E1.11 ELECTRICAL ROOM SECTION
E1.12 LIGHTING SECTIONS
E1.13 CABLE TRAY SECTION
E1.14 CABLE TRAY SECTION
E1.15 CABLE TRAY SECTION
E1.16 CABLE TRAY SECTION
E2.1 SINGLE LINE DIAGRAM
E2.2 SINGLE LINE DIAGRAM
E2.3 PANEL A AND UPS PANEL SCHEDULES
E2.4 LUMINAIRE AND MECHANICAL SCHEDULES
E2.5 CABLE AND CONDUIT SCHEDULE
E2.6 CABLE AND CONDUIT SCHEDULE
E2.7 CABLE AND CONDUIT SCHEDULE
E2.8 CABLE AND CONDUIT SCHEDULE
E2.9 CABLE AND CONDUIT SCHEDULE
E2.10 CABLE AND CONDUIT SCHEDULE
E2.11 CABLE AND CONDUIT SCHEDULE
E2.12 CABLE AND CONDUIT SCHEDULE
E2.13 CABLE AND CONDUIT SCHEDULE
E3.1 ACCESS CONTROL LAYOUT
E3.2 ACCESS CONTROL DETAIL
E4.1 SCHEMATICS
E4.2 SCHEMATICS
E4.3 SCHEMATICS
E4.4 SCHEMATICS
E4.5 SCHEMATICS
E5.1 ELECTRICAL DETAILS
E5.2 ELECTRICAL DETAILS
E5.3 ELECTRICAL DETAILS
E5.4 ELECTRICAL DETAILS
E5.5 ELECTRICAL DETAILS
E5.6 ELECTRICAL DETAILS
E5.7 ELECTRICAL DETAILS
E5.8 ELECTRICAL DETAILS

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ENV	22727	

PROFESSIONAL ENGINEER
M. STUSICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
LIST OF DRAWINGS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	J.P.	SCALE	
DATE	NOVEMBER 2020	DRAWING	G0.1

PROPOSED	LEGAL SURVEY AND CONTROL	EXISTING
	SASKATCHEWAN SURVEY CONTROL MONUMENT	SSCM No.
	CONTROL POINT	CP No.
	IRON PIN	
	PROPERTY LINE	
	UTILITY RIGHT OF WAY EASEMENT	

PROPOSED	SURFACE FEATURES	EXISTING
XXX XXX.XX	ABBREVIATION ELEVATION	XXX XXX.XX
	ASPHALT SWALE	
	BOLLARD	
	BOREHOLE	
	BUSH	
	BUS PAD	BP
	BUS SHELTER	BS
	CONCRETE SWALE	
	CURB AND GUTTER	
	DRAINAGE DITCH	
	DRAINAGE SWALE	
	DRAINAGE SWALE BACKFILLED	
	EDGE OF PAVEMENT	
ET	ELECTRICAL TRANSFORMER	ET
x	FENCE BARBED WIRE	x
o o	FENCE CHAIN LINK	o o
x x	FENCE TO BE REMOVED	
GW	GUY WIRE	GW
LS	LIGHT STANDARD	LS
	MONOLITHIC SIDEWALK	
PED	PEDESTAL	PED
PP	POWER POLE	PP
	RAILWAY	
	ROAD MARKING DELINEATION	
	REMOVALS	
	MILLING AND OVERLAY	
	ASPHALT ROAD	
	GRAVEL ROAD	
	SEPARATE SIDEWALK	
	SIGN	
	SILT FENCE	
TS	TRAFFIC SIGNAL	TS
	TREE	

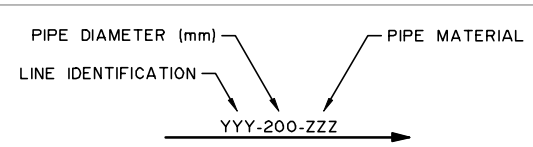
PROPOSED	SHALLOW UTILITIES	EXISTING
C	CABLE	C
FO	FIBRE OPTIC	FO
G	GAS	G
	GAS ABANDONED	G
OH	OVERHEAD POWER	OH
T	TELEPHONE	T
UG	UNDERGROUND POWER	UG

PROPOSED	FITTINGS	EXISTING
	BELLxFLANGE ADAPTER	
	COUPLER	
	CROSS	
	ELBOW 90°	
	ELBOW 45°	
	LOT SERVICE	
	MANHOLE	
	PLUG	
	REDUCER	
	TEE	
	VAULT	
WP	WATER POINT	WP

PROPOSED	WATERWORKS	EXISTING
	BUTTERFLY VALVE	
	GATE VALVE	
	HYDRANT	
	CURB STOP	
W 150	WATER MAIN	W 150
	WATER MAIN ABANDONED	

PROPOSED	SEWERS	EXISTING
	CATCH BASIN	
	CULVERT	
	CLEANOUT	
	INLET STRUCTURE	
	LANDSCAPE CATCH BASIN	
	OUTFALL STRUCTURE	
	PLUG VALVE	
S 200	SANITARY	S 200
S 200	SANITARY ABANDONED	S 200
ST 200	STORM	ST 200
ST 200	STORM ABANDONED	ST 200
TD 100	TILE DRAIN	TD 100

LINE LABELLING



S	SANITARY WASTE
TEW	TEMPERED EFFLUENT WASTE
TE	TREATED EFFLUENT
OF	OVERFLOW

LINE CODE	FLANGE RATING	SCH OR THICKNESS	BASIC MATERIAL	SPECIAL NOTES
B8	ANSI 150	SDR 35	PVC	-
B11	AWWA 150	C900 AND C905	PVC	-
D2	ANSI 150	SCH 10S	STAINLESS STEEL, 316L	-
J2	-	CLASS V	REINFORCED CONCRETE PIPE	-
D4	ANSI 150	SCH 40	STAINLESS STEEL TYPE 316L	-
F1			HDPE DRAINPIPE	C/W FILTER SOCK
B6	ANSI 150	SDR 28	PVC	-
D1	ABSI 150	SCH 10S	STAINLESS STEEL TYPE 304L	-
H2	-	DR11	HDPE, C406	

NOTES:
1. ALL ELEVATIONS, STATIONS, PIPE LENGTHS AND DIMENSIONS IN METRES AND PIPE SIZES IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL BOLD ITEMS INDICATE WORK TO BE DONE AND ALL LIGHT ITEMS INDICATE EXISTING CONDITIONS.

UTM 13 NAD 83
COORDINATES

THE EXISTENCE, LOCATION AND ELEVATION OF ALL UTILITIES AS SHOWN ON ANY PLANS MAY BE BASED ON INFORMATION RECEIVED FROM THE RESPECTIVE AUTHORITIES AND ARE NOT GUARANTEED BY THE ENGINEER. NO RESPONSIBILITY IS IMPLIED OR ASSUMED BY THE ENGINEER AS TO THE LOCATION AND ELEVATION OR ANY OMISSIONS. THE CONTRACTOR OR ANY THIRD-PARTY IS RESPONSIBLE FOR DETERMINING THE EXISTENCE, LOCATION AND ELEVATION OF ALL SUCH UTILITIES AND MUST CONTACT THE VARIOUS UTILITY COMPANIES FOR ON SITE INFORMATION PRIOR TO COMMENCEMENT OF ANY OPERATIONS.

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PROFESSIONAL ENGINEER
M. STADNICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
LEGEND

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	C0.1

ABANDONED	AB
ACRE	AC
AIR RELEASE MANHOLE	AR
ALBERTA SURVEY CONTROL MONUMENT	ASCM
ASBESTOS CEMENT	AC
ASPHALTIC CONCRETE PAVEMENT	ACP
AT	@
AVENUE	AVE
BACK OF WALK	BOW
BEDDING	BED
BEGINNING OF CURVE	BC
BEGINNING OF VERTICAL CURVE	BVC
BENCH MARK	BM
BLOCK	BLK
BOTTOM	BTM
BOTTOM OF PIPE	BOP
BOUNDARY	BDY
BOULEVARD	BLVD
BUILDING	BLDG
CABLE	C
CANADIAN NATIONAL RAILWAY	CNR
CANADIAN PACIFIC RAILWAY	CPR
CANADIAN STANDARDS ASSOCIATION	CSA
CAPACITY	CAP
CAST IRON	CI
CATCH BASIN	CB
CATHODIC PROTECTION	CP
CENTRE LINE	CL
CERTIFICATE OF TITLE	C OF T
CHAIN LINK FENCE	CLF
CHECK VALVE IN MANHOLE	CVM
CLASS	CL
CLEAN OUT	CO
COMMUNITY RESERVE	COMM RES
COMPLETE WITH	C/W
CONCRETE	CONC
CONDUIT	COND
CORRUGATED METAL PIPE	CMP
CORRUGATED STEEL PIPE	CSP
COUPLING	CPLG
CREEK	CRK
CRESCENT	CRES
CROSSFALL	X-FALL
CROSS SECTION	X-SEC
CUBIC METRE PER SECOND	m^3/s
CULVERT	CULV
CURB AND GUTTER	C&G
CURED IN PLACE PIPE	CIPP
CURVE TO SPIRAL	CS
DEGREE	°
DELTA	Δ
DIAMETER	Φ
DIMENSION RATIO	DR
DRAWING	DWG
DRIVEWAY	DWY
DUCTILE IRON	DI
DWELLING	DWLG
EAST	E
EDGE OF GRAVEL	EOG
EDGE OF PAVEMENT	EOP
EDGE OF ROAD	EOR
ELECTRICAL TRANSFORMER	ET
ELEVATION	ELEV
ENCASEMENT	ENC
END OF CURVE	EC
END OF VERTICAL CURVE	EVC
ENGINEER	ENG
ENVIRONMENTAL RESERVE	ER
EXTERIOR DROP	EXT DROP
EXISTING GROUND	EG

FACE OF CURB	FOC
FACE OF WALK	FOW
FIBRE OPTIC	FO
FINISHED GRADE	FG
FINISHED LANDSCAPE GRADE	FLG
FLANGE	FLG
FLAPPER GATE	FP
FLOOD PLAIN	FLD PLN
FLOOD WAY	FLD WY
FLOOR	FLR
FLOW RATE	Q
FOOTING	FTG
FORCE MAIN	FM
GALVANIZED	GALV
GALVANIZED IRON	GI
GAS	G
HECTARE	ha
HEIGHT	H
HIGH DENSITY POLYETHYLENE	HDPE
HIGH POINT	HP
HIGHWAY	HWY
HORIZONTAL	HOR OR H
HOSPITAL	HOSP
HYDRANT	HYD
INLET CHAMBER	IC
INLET CONTROL DEVICE	ICD
INLET/OUTLET STRUCTURE (DRY POND)	I/O
INSIDE DIAMETER	ID
INTERSECTION	INT
INVERT	INV
IRON PIN	IP
KILOGRAM	kg
KILOMETRES	km
KILOMETRES PER HOUR	km/h
RATE OF CURVATURE	K
LENGTH	L
LENGTH OF CURVE	LC
LENGTH OF VERTICAL CURVE	LVC
LIFT STATION	LS
LIP OF GUTTER	LG
LIP OF GUTTER RADIUS	LGR
LONG RADIUS	LR
LONG TANGENT	LT
LOW POINT	LP
LOW PROFILE CURB AND GUTTER	LPC&G
MANHOLE	MH
MAXIMUM	MAX
MEDIAN	MED
METRE	m
METRES PER SECOND	m/s
METER CHAMBER	MC
MIDDLE ORDINATE DISTANCE (VERTICAL SEPARATION FROM PI)	M
MILLIMETRE	mm
MINIMUM	MIN
MINUTES	'
MONOLITHIC SIDEWALK	MONO
MUNICIPAL RESERVE	MR
NORTH	N
NORTH EAST	NE
NORTH WEST	NW
NOT TO SCALE	NTS
ON CENTRE	OC
OUTLET CHAMBER	OC
OUTSIDE DIAMETER	OD
OVERHEAD POWER	OH

PER	/
PERCENT	%
POINT OF INTERSECTION	PI
POLYETHYLENE	PE
POLYVINYL CHLORIDE	PVC
POWER POLE	PP
POUNDS PER SQUARE INCH	PSI
PRESSURE REDUCING MANHOLE	PRVM
PROPERTY LINE	PL
PULL BOX	PB
PUMP STATION	PS
RADIUS	R
RANGE	RGE
RAW WATER	RW
REDUCER	RED
REGISTERED PLAN	REG'D PL
REINFORCED	RE
REINFORCED CONCRETE	RC
RELOCATION	RELO
RESERVOIR	RES
RIGHT OF WAY	ROW
ROAD	RD
ROLLED CURB AND GUTTER	RCG
RUBBER GASKET	RG
SANITARY	S
SECOND	"
SHOULDER	SHLD
SLOPE	S
SOUTH	S
SOUTH EAST	SE
SOUTH WEST	SW
SPIRAL TO CURVE	SC
SPIRAL TO TANGENT	ST
SQUARED	SQ
STANDARD	STD
STAINLESS STEEL	SST
STATION	STA
STEEL	ST
STREET	ST
STORM	ST
TANGENT	TAN
TANGENT TO SPIRAL	TS
TAPPING VALVE	TV
TELEPHONE	T
THRUST BLOCK	TB
TOP OF ASPHALT	TOA
TOP OF CURB	TOC
TOP OF PIPE	TOP
TOP OF RAIL	TOR
TOWNSHIP	TWP
TRAFFIC SIGNAL	TS
TYPICAL	TYP
UNDERGROUND POWER	UG
UTILITY RIGHT OF WAY	URW
VALVE	V
VALVE CHAMBER	VC
VELOCITY	VEL
VERTICAL	VER OR V
VERTICAL BEND DOWN	VBD
VERTICAL BEND UP	VBU
VERTICAL CURVE	VC
VERTICAL POINT OF INTERSECTION	VPI
VITRIFIED CLAY TILE	VCT
WATER	W
WEST	W
WEEPING TILE DRAIN	WTD
WHEEL CHAIR RAMP	WCR
WIDTH	W

OVERLAND STORM WATER FLOW FORMULA ABBREVIATIONS

DEPTH OF FLOW IN 1 IN 5 YEAR STORM EVENT	$D_{1:5}$
DEPTH OF FLOW IN 1 IN 100 YEAR STORM EVENT	$D_{1:100}$
FLOW RATE FOR A 1 IN 5 YEAR STORM EVENT	$Q_{1:5}$
FLOW RATE FOR A 1 IN 100 YEAR STORM EVENT	$Q_{1:100}$
VELOCITY FOR A 1 IN 5 YEAR STORM EVENT	$V_{1:5}$
VELOCITY FOR A 1 IN 100 YEAR STORM EVENT	$V_{1:100}$

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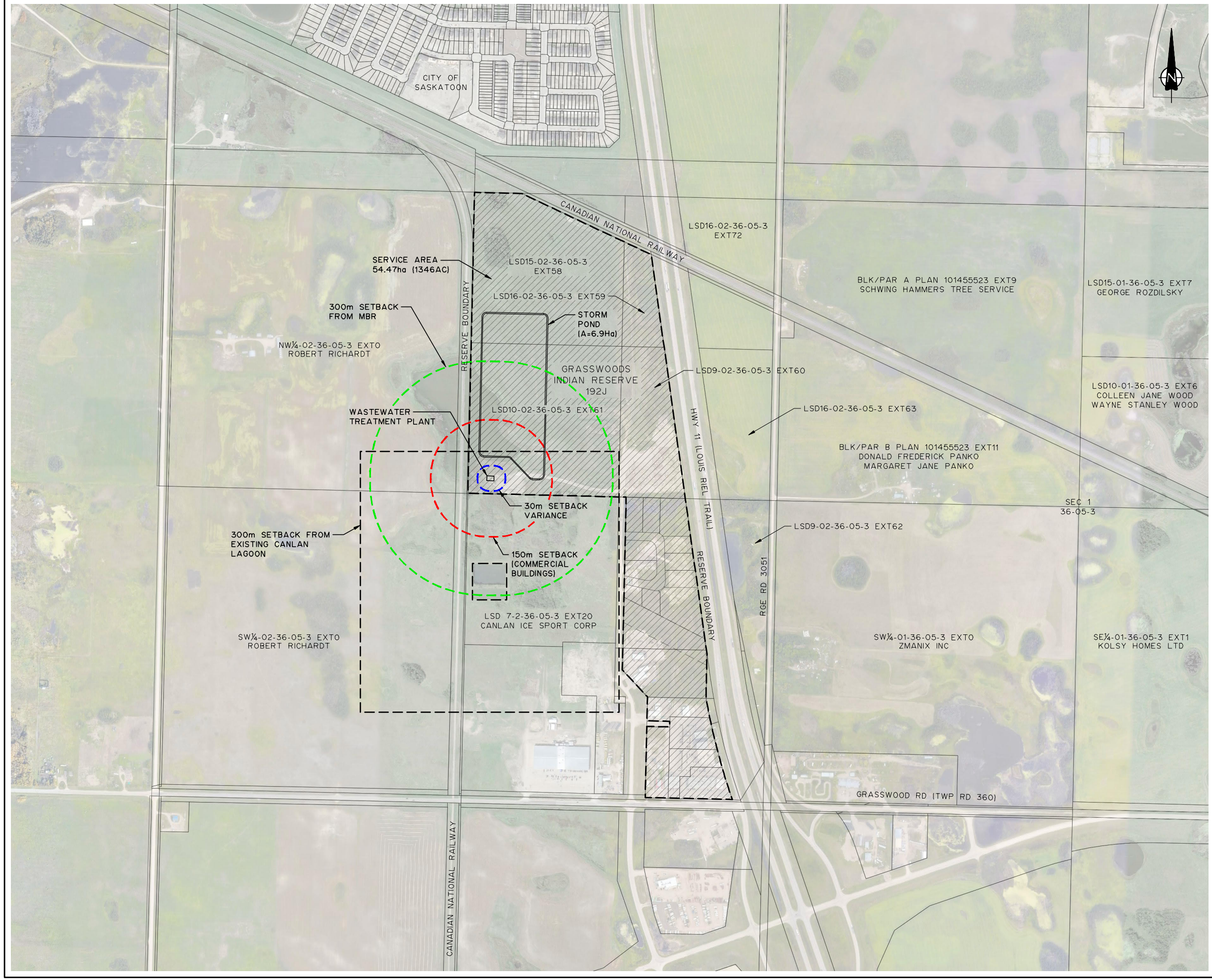
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CIVIL
ABBREVIATIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	
DATE	NOVEMBER 2020	DRAWING	C0.2



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS AND ABBREVIATIONS REFER TO THE LEGEND AND ABBREVIATIONS DRAWINGS.
2. CONTRACTOR TO EXPOSE EXISTING UTILITY LINES BY HYDROVAC EXCAVATION AND CONFIRM ELEVATIONS.

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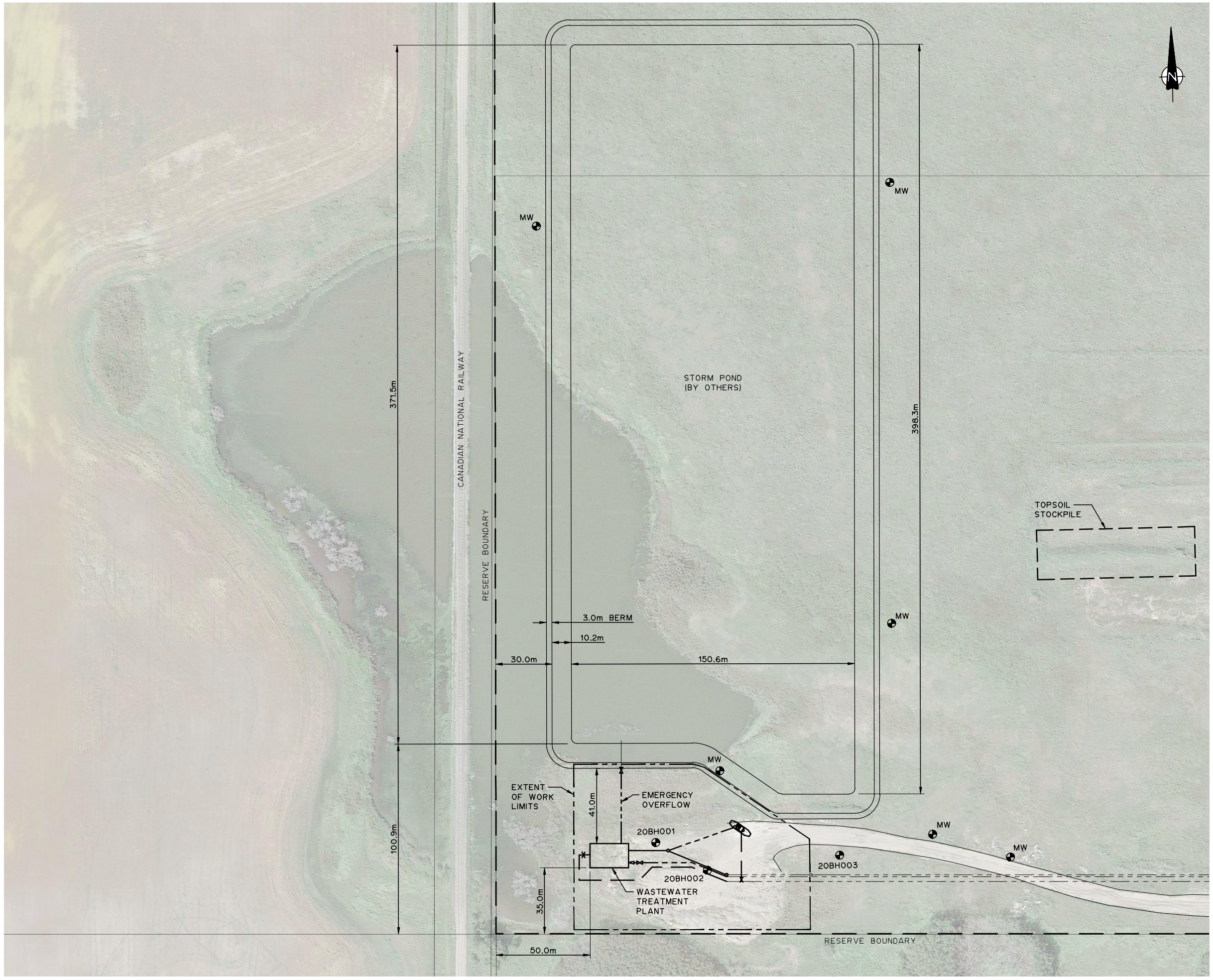
PROFESSIONAL ENGINEER
M. STUSICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
SITE SETBACK PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:10000
DATE	NOVEMBER 2020	DRAWING	C1.1



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS AND ABBREVIATIONS REFER TO THE LEGEND AND ABBREVIATIONS DRAWINGS.
2. CONTRACTOR TO EXPOSE EXISTING UTILITY LINES BY HYDROVAC EXCAVATION AND CONFIRM ELEVATIONS.
3. STRIP SITE AS NECESSARY TO PREVENT CONTAMINATION OF MATERIALS.
4. PROTECT ALL EXISTING SITE FEATURES UNLESS OTHERWISE NOTED.

20BHXXX	BOREHOLE NUMBER
MW	MONITORING WELL

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

ISSUE	YY-MM-DD	REVISION
2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
CIVIL	22727	
ENV	22727	

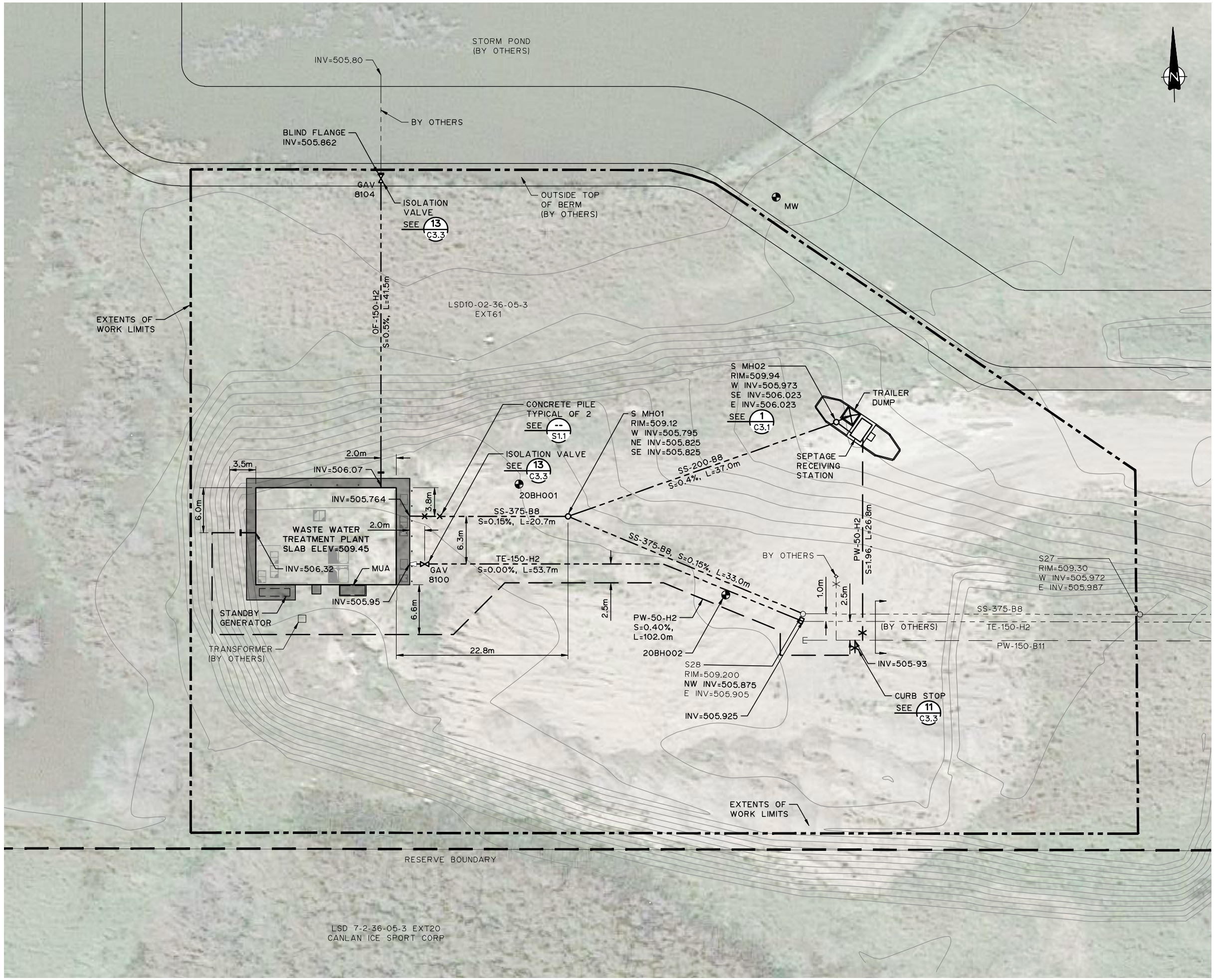
PROFESSIONAL ENGINEER
M. J. STUCK
MEMBER 22727
January 21 2021
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
OVERALL SITE PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:2000
DATE	NOVEMBER 2020	DRAWING	C1.2



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS AND ABBREVIATIONS REFER TO THE LEGEND AND ABBREVIATIONS DRAWINGS.
2. CONTRACTOR TO EXPOSE EXISTING UTILITY LINES BY HYDROVAC EXCAVATION AND CONFIRM ELEVATIONS.
3. STRIP SITE AS NECESSARY TO PREVENT CONTAMINATION OF MATERIALS.
4. PROTECT ALL EXISTING SITE FEATURES UNLESS OTHERWISE NOTED.
5. UNSUITABLE MATERIAL TO BE REMOVED AND DISPOSED OF.

20BHXXX	BOREHOLE NUMBER
MW	MONITORING WELL

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ENV	22727	

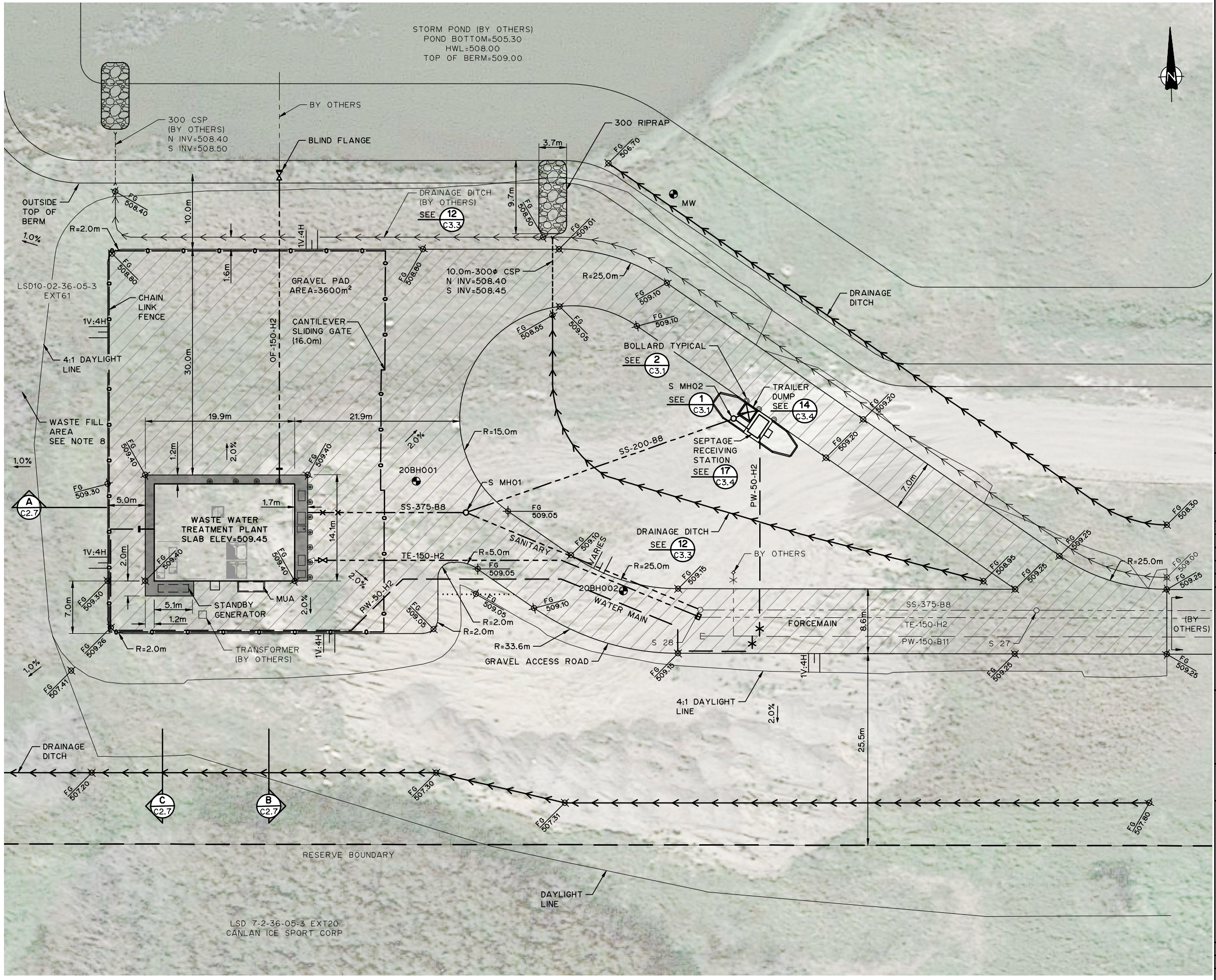
PROFESSIONAL ENGINEER
M. J. STUCK
MEMBER 22727
January 21 2021
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
UNDERGROUND PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:500
DATE	NOVEMBER 2020	DRAWING	C1.3



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS AND ABBREVIATIONS REFER TO THE LEGEND AND ABBREVIATIONS DRAWINGS.
2. CONTRACTOR TO EXPOSE EXISTING UTILITY LINES BY HYDROVAC EXCAVATION AND CONFIRM ELEVATIONS.
3. STRIP SITE AS NECESSARY TO PREVENT CONTAMINATION OF MATERIALS.
4. PROTECT ALL EXISTING SITE FEATURES UNLESS OTHERWISE NOTED.
5. ALL DISTURBED AREAS TO BE RESTORED WITH 150mm TOPSOIL & SEED UNLESS OTHERWISE NOTED.
6. ALL GRADES SHOWN ARE TO FINISHED GRADE.
7. UNSUITABLE MATERIAL TO BE REMOVED AND DISPOSED OF BY CONTRACTOR.
8. CONTRACTOR TO BLEND WASTE FILL AREA AND ENSURE POSITIVE DRAINAGE.

20BHXXX	BOREHOLE NUMBER
MW	MONITORING WELL

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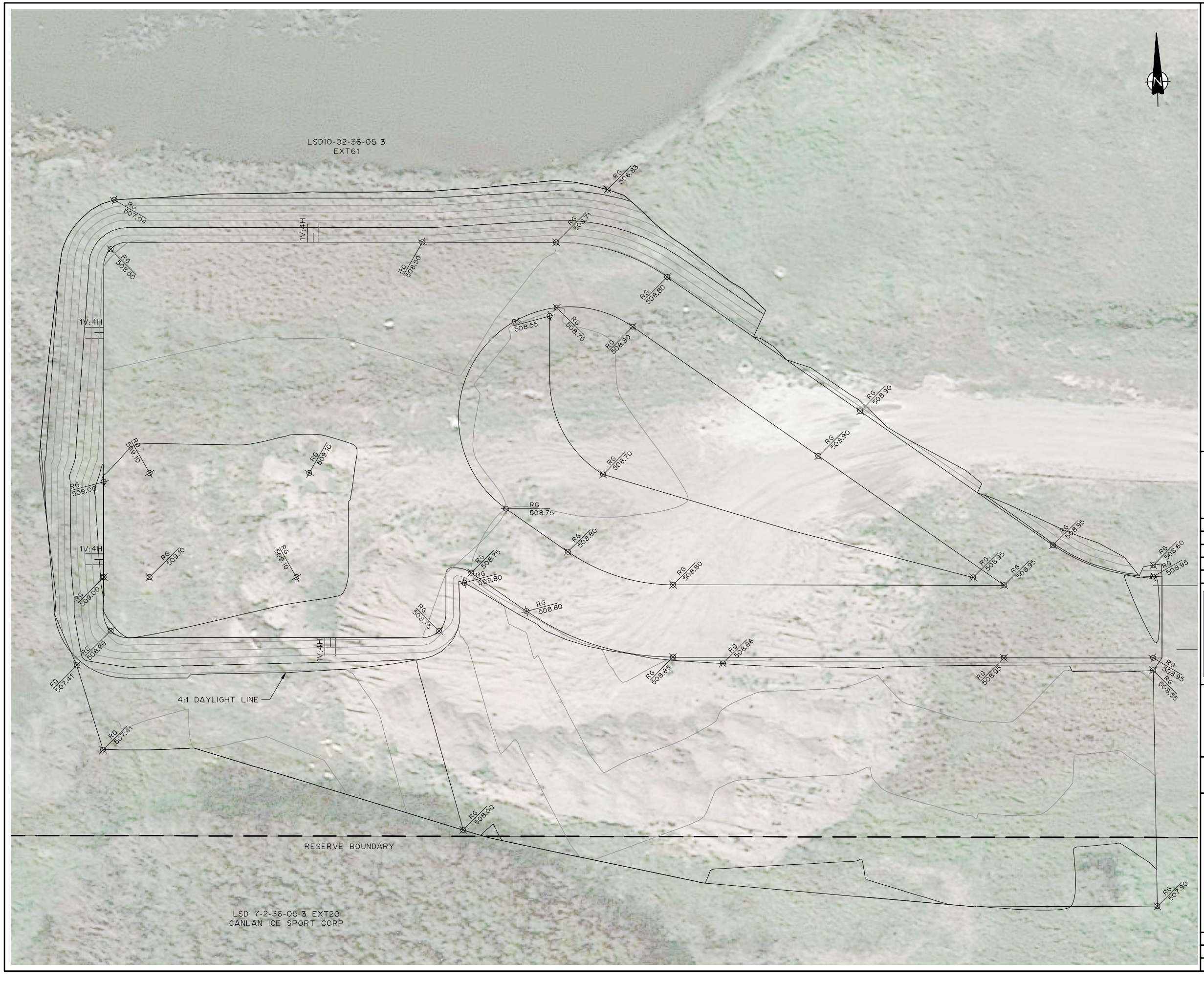
PROFESSIONAL ENGINEER
M. STADICK
MEMBER 22727
January 21 2021
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
SITE GRADING PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:500
DATE	NOVEMBER 2020	DRAWING	C1.4



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS AND ABBREVIATIONS REFER TO THE LEGEND AND ABBREVIATIONS DRAWINGS.
2. CONTRACTOR TO EXPOSE EXISTING UTILITY LINES BY HYDROVAC EXCAVATION AND CONFIRM ELEVATIONS.
3. STRIP SITE AS NECESSARY TO PREVENT CONTAMINATION OF MATERIALS. TOPSOIL TO BE STRIPPED AND STOCKPILED PRIOR TO PLACEMENT OF COMPACTED FILL.
4. PROTECT ALL EXISTING SITE FEATURES UNLESS OTHERWISE NOTED.
5. COMPACTED FILL TO 98% OF MAXIMUM DRY DENSITY AND -1% TO +2% OF OPTIMUM MOISTURE CONTENT.
6. ALL GRADES SHOWN ARE TO ROUGH GRADE.
7. UNSUITABLE MATERIAL TO BE REMOVED AND DISPOSED OF BY CONTRACTOR.

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Number C1334
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ENV	22727	

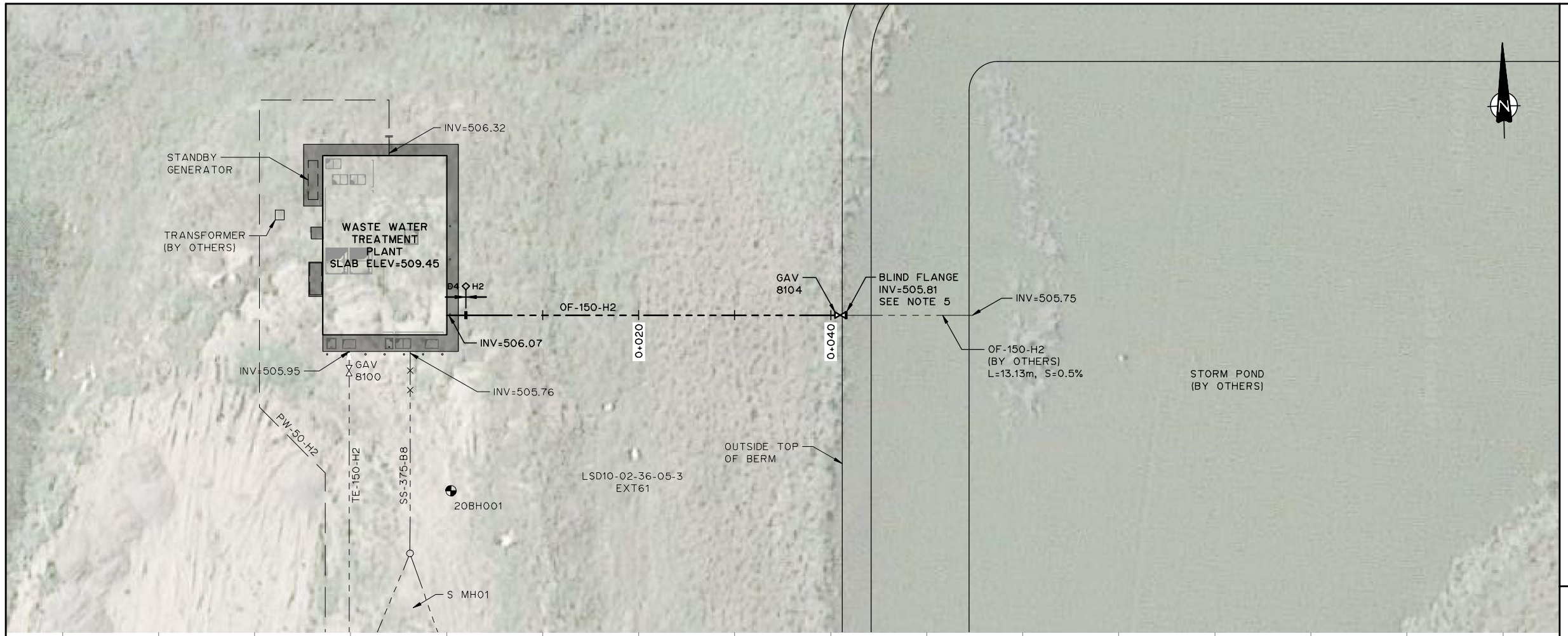
PROFESSIONAL ENGINEER
M.J. STUSICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

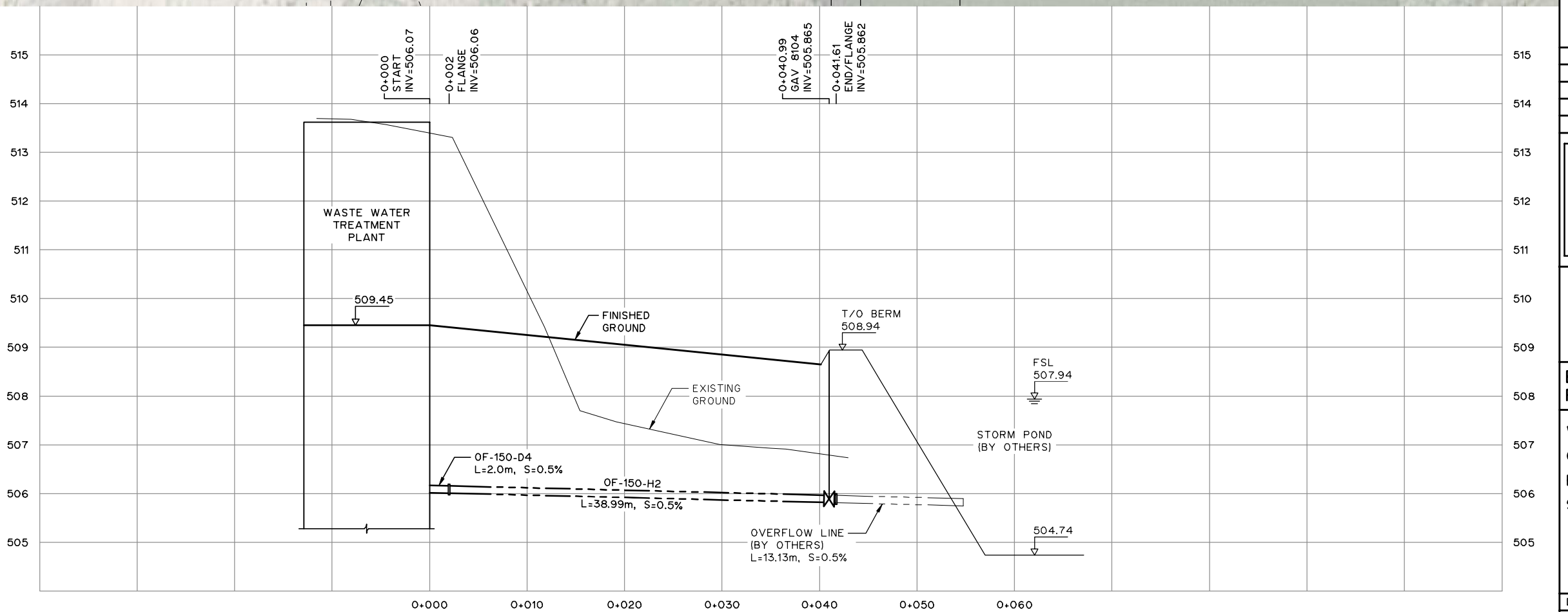
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
ROUGH GRADING PLAN
(BY OTHERS)

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:500
DATE	NOVEMBER 2020	DRAWING	C1.5





NOTES:

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2. CONTRACTOR TO EXPOSE EXISTING UTILITY LINES BY HYDROVAC EXCAVATION AND CONFIRM ELEVATIONS.
3. STRIP SITE AS NECESSARY TO PREVENT CONTAMINATION OF MATERIALS.
4. PROTECT ALL EXISTING SITE FEATURES UNLESS OTHERWISE NOTED.
5. CONTRACTOR TO INSTALL BLIND FLANGE.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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2	21-01-15	FOR CONSTRUCTION
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ENV	22727	

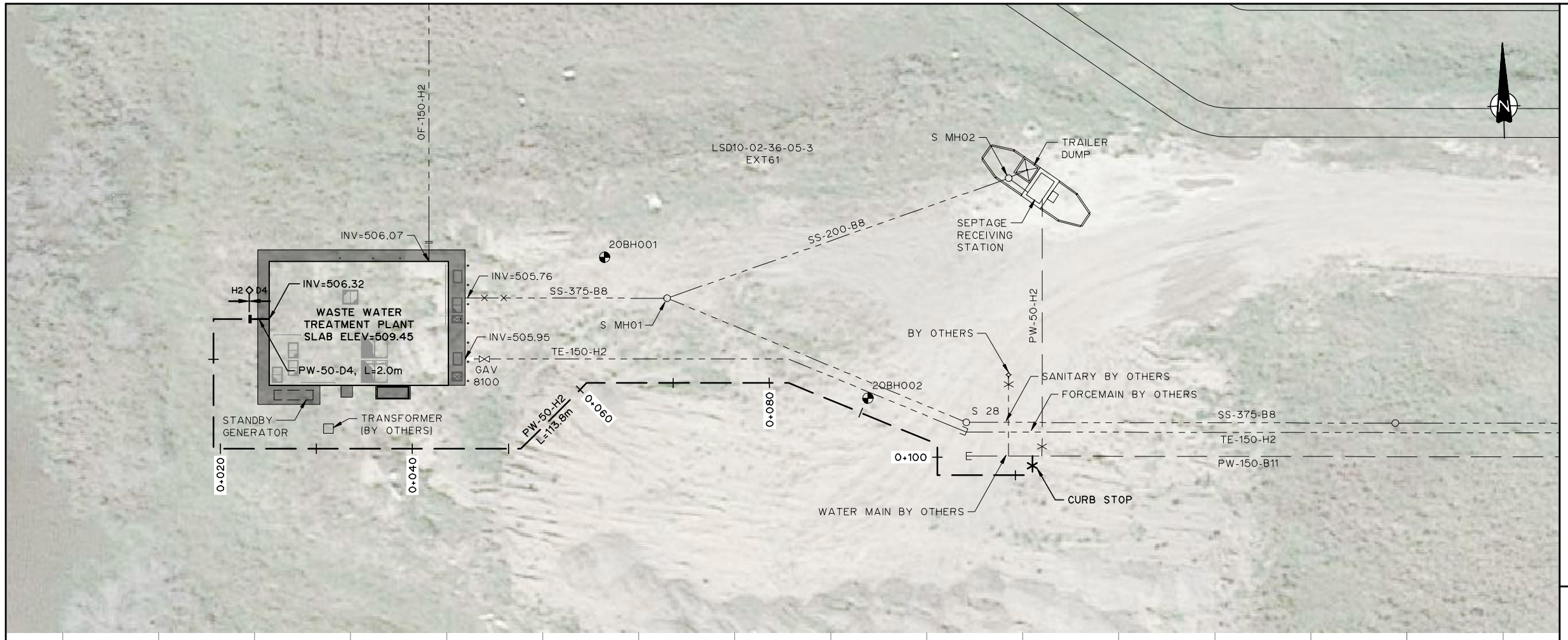
PROFESSIONAL ENGINEER
M. STUDNICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

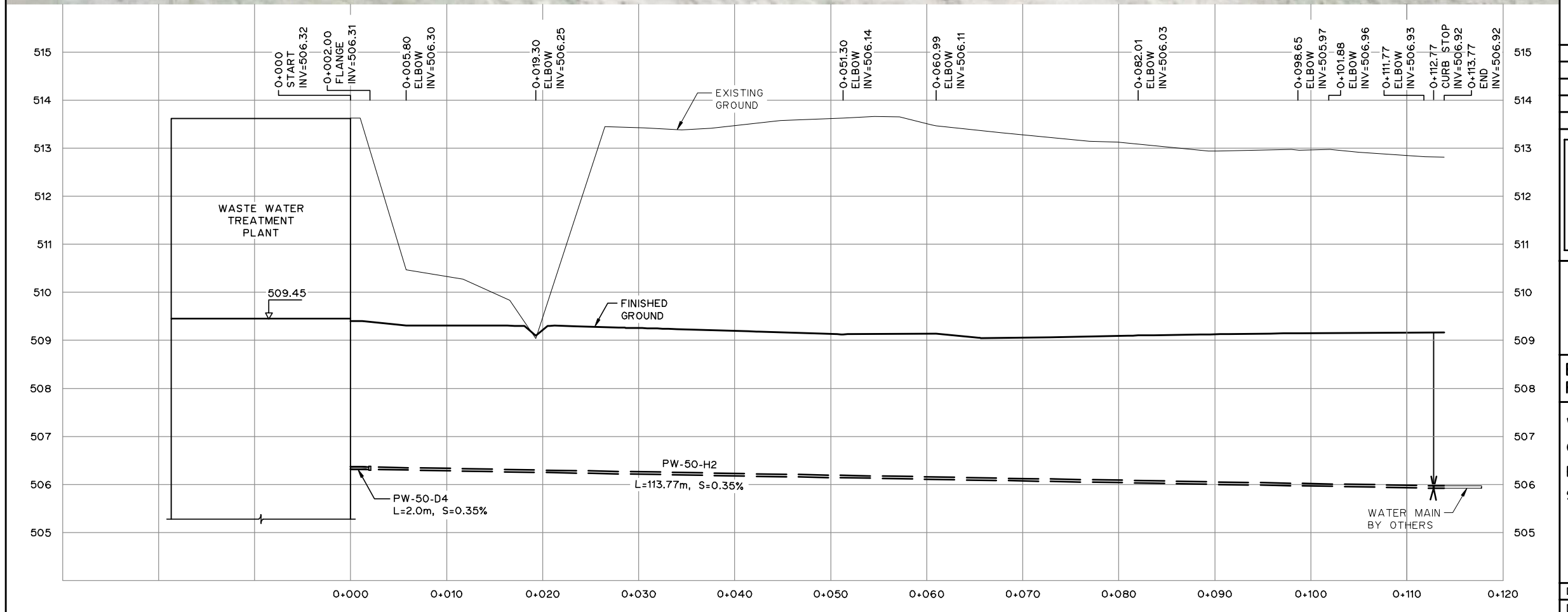
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
PLAN PROFILE
STATION 0+000 TO 0+041.6

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	H 1:500 V 1:100
DATE	NOVEMBER 2020	DRAWING	C2.1





NOTES:

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20BHXXX BOREHOLE NUMBER

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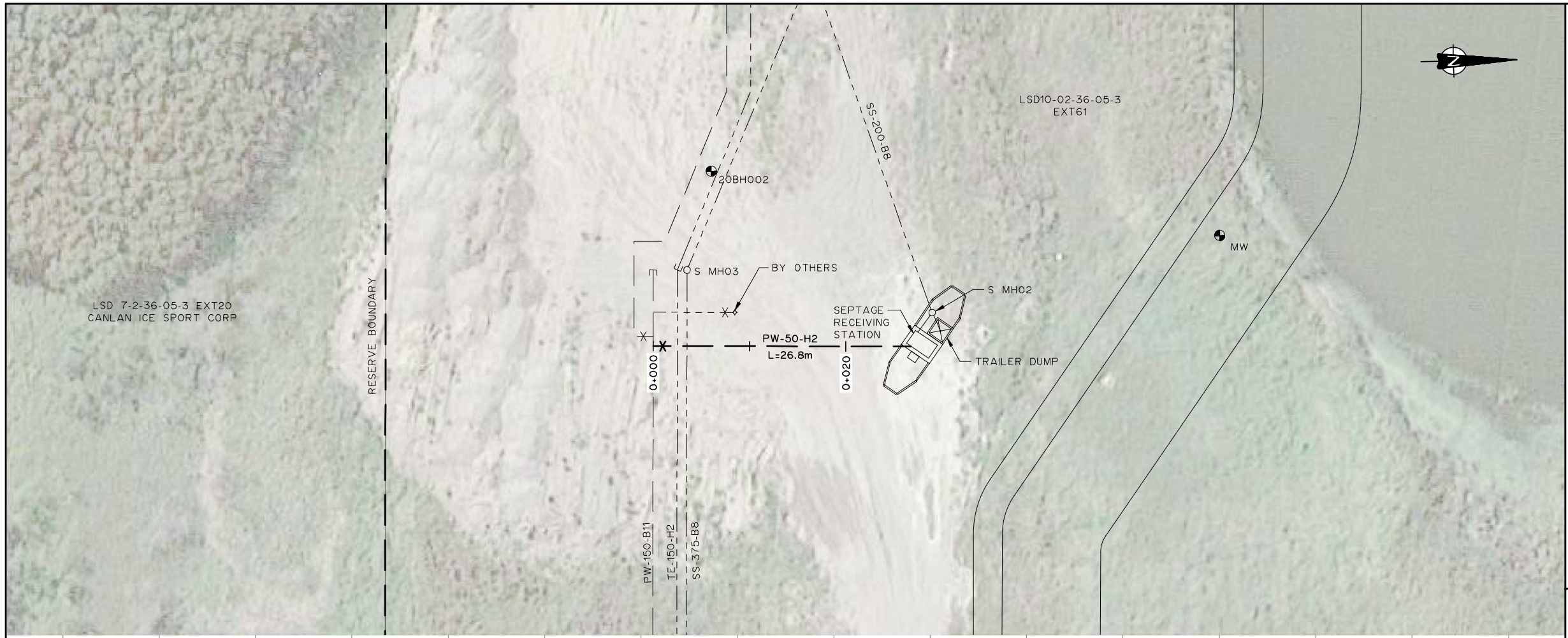
PROFESSIONAL ENGINEER
M. STADNICK
MEMBER 22727
January 21 2021
YR. MN. DAY.
SASKATCHEWAN

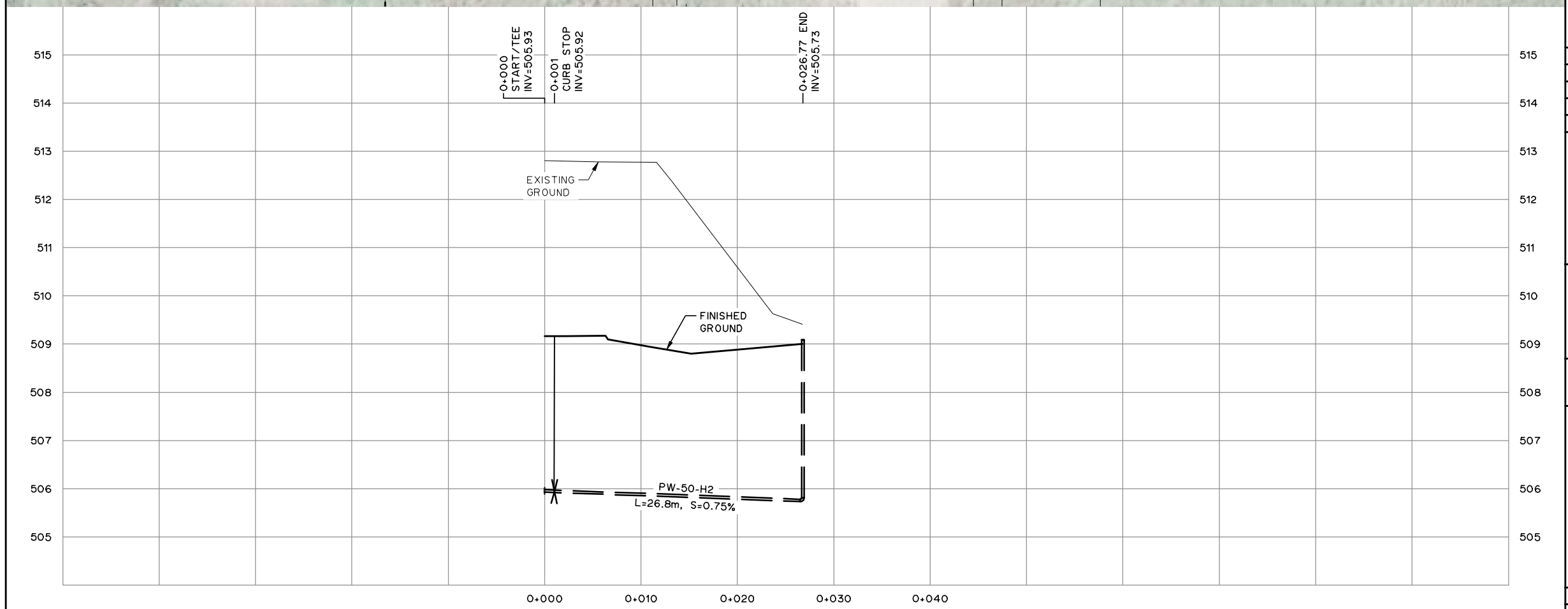
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
PLAN PROFILE
STATION 0+000 TO 0+113.8

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	H 1:500 V 1:100
DATE	NOVEMBER 2020	DRAWING	C2.2





NOTES:

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Association of Professional Engineers & Geoscientists of Saskatchewan
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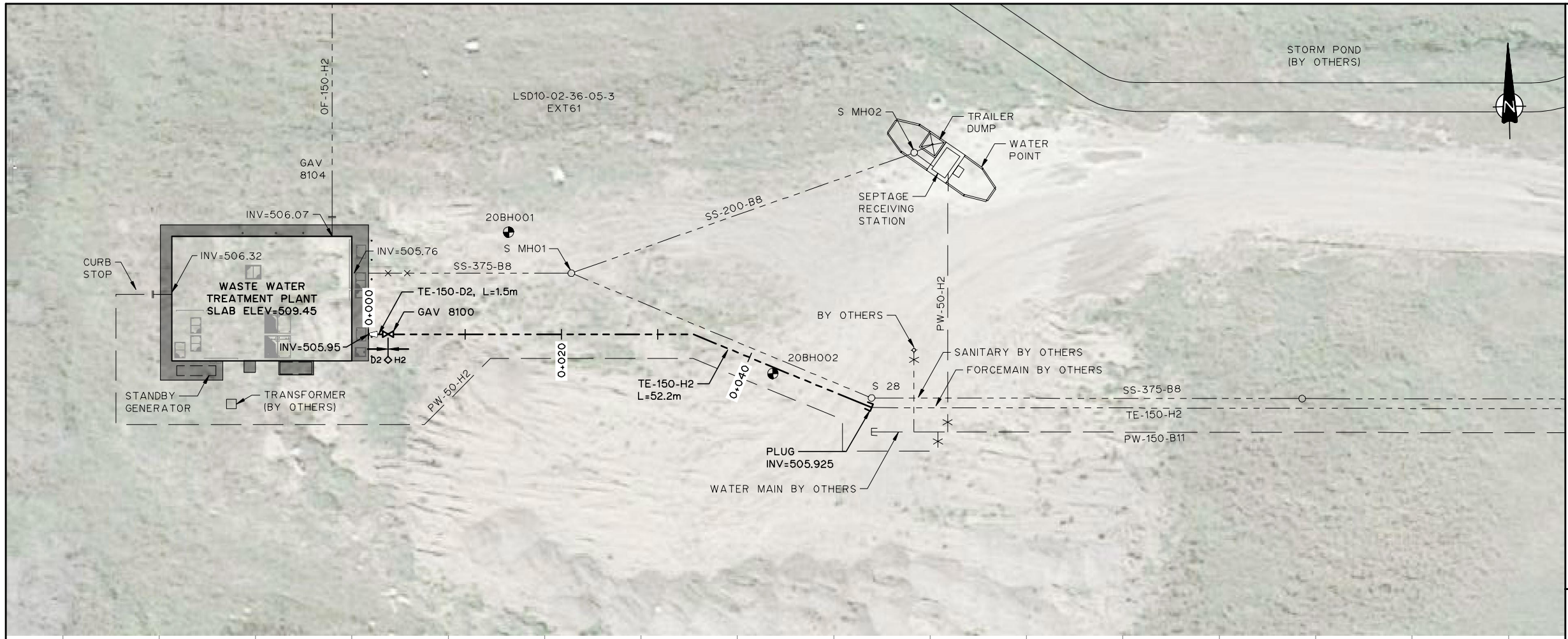
PROFESSIONAL ENGINEER
M. STUSICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

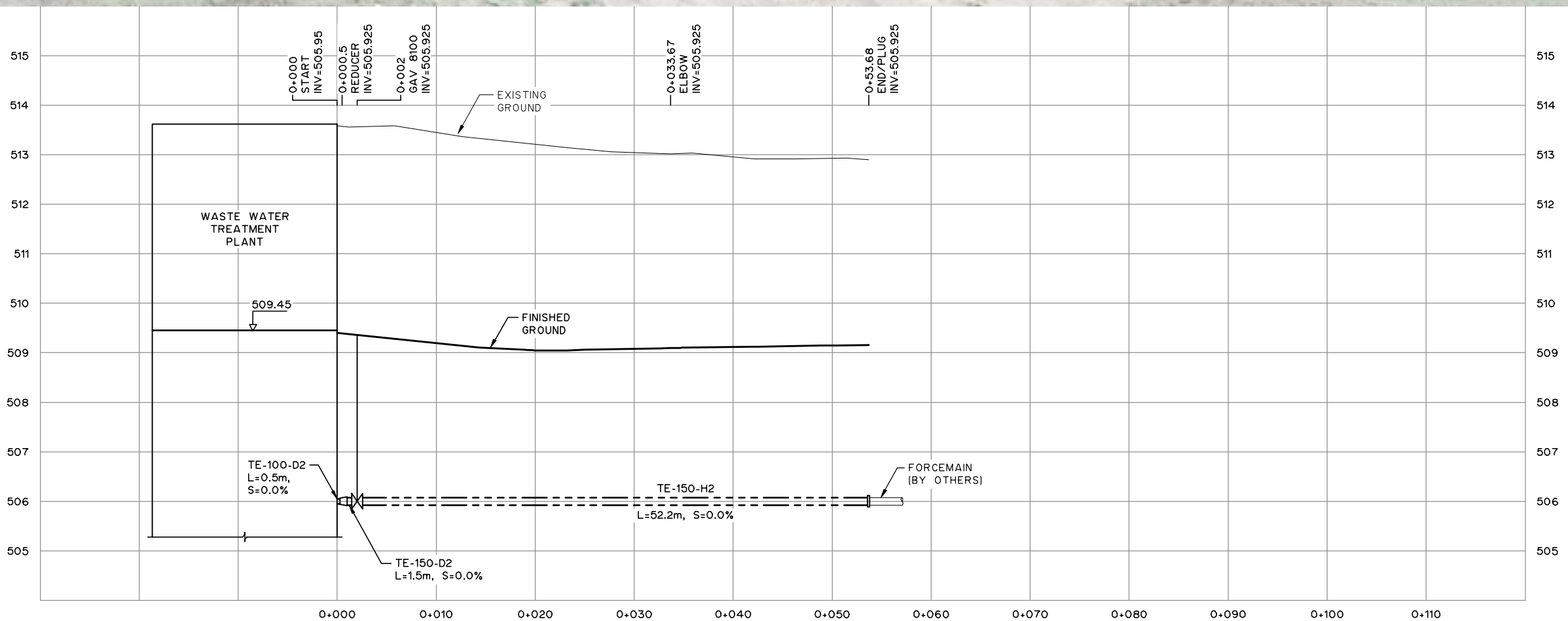
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
PLAN PROFILE
STATION 0+000 TO 0+026.8

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	H 1:500 V 1:100
DATE	NOVEMBER 2020	DRAWING	C2.3





NOTES:

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ENV	22727	

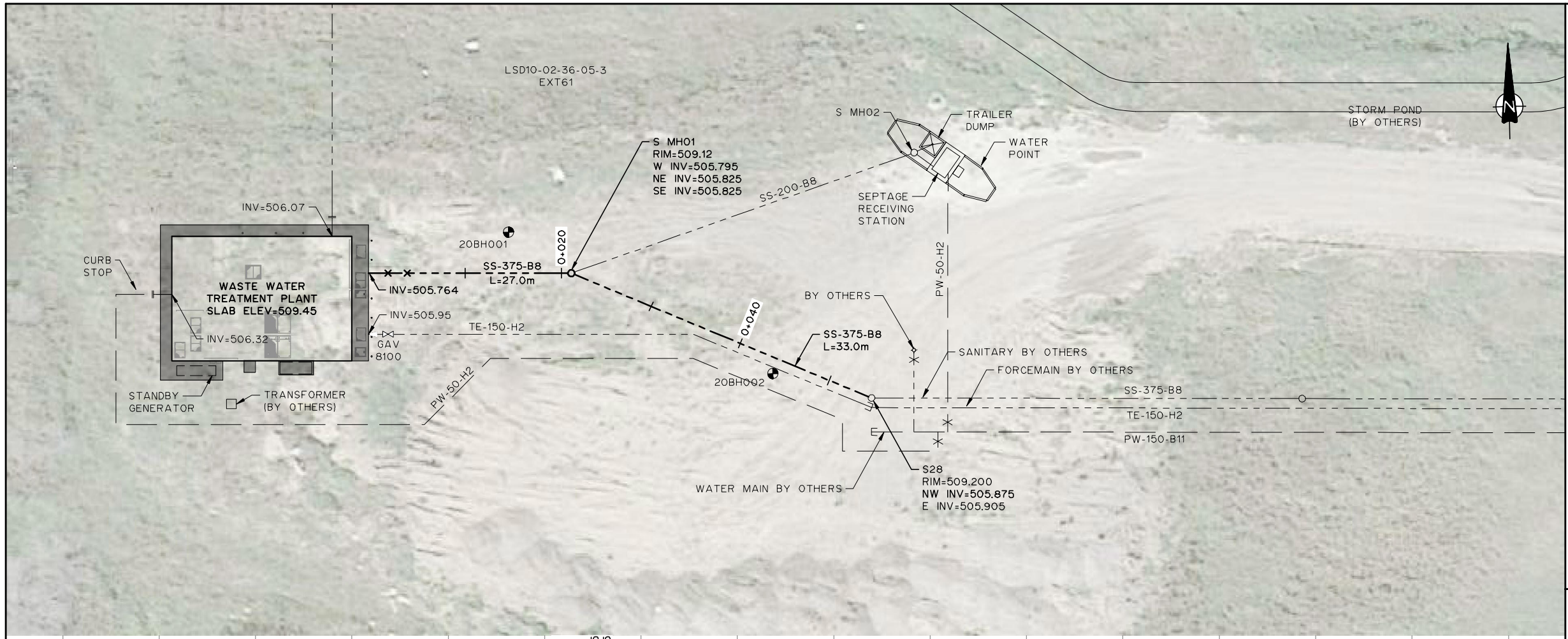
PROFESSIONAL ENGINEER
M. STUDNICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

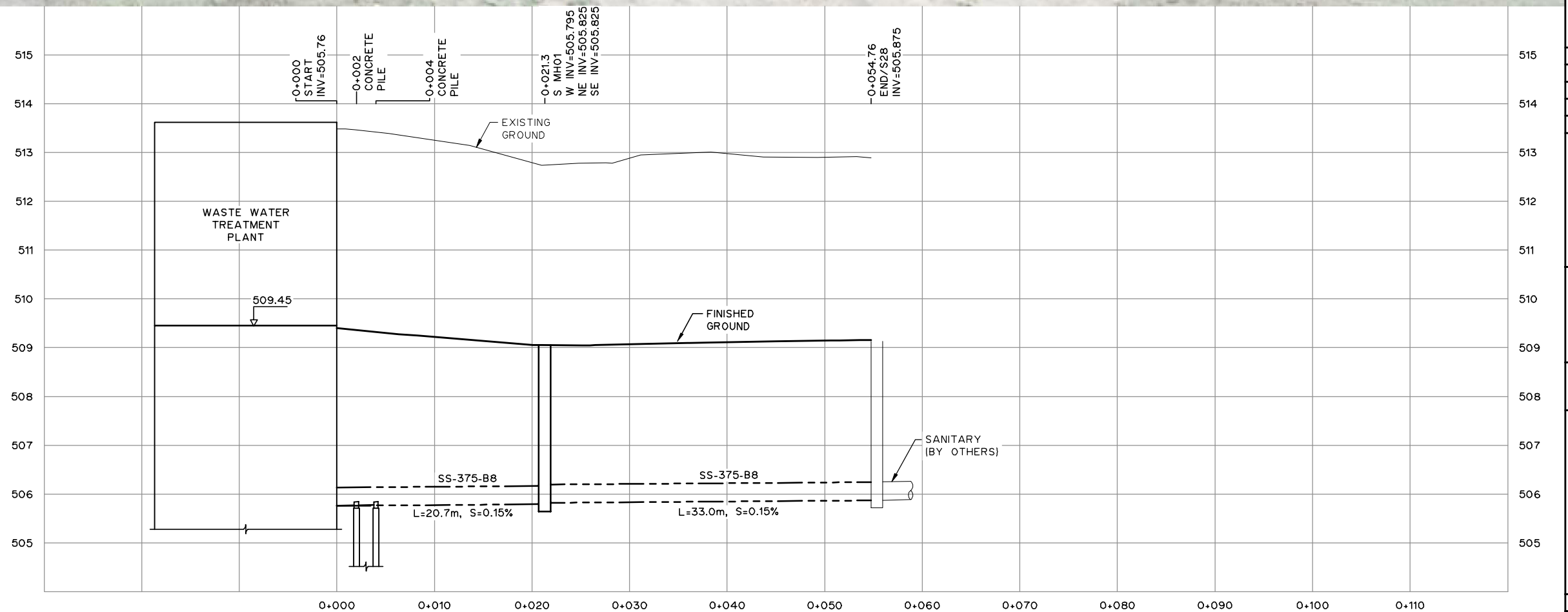
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
PLAN PROFILE
STATION 0+000 TO 0+53.7

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	H 1:500 V 1:100
DATE	NOVEMBER 2020	DRAWING	C2.4





NOTES:

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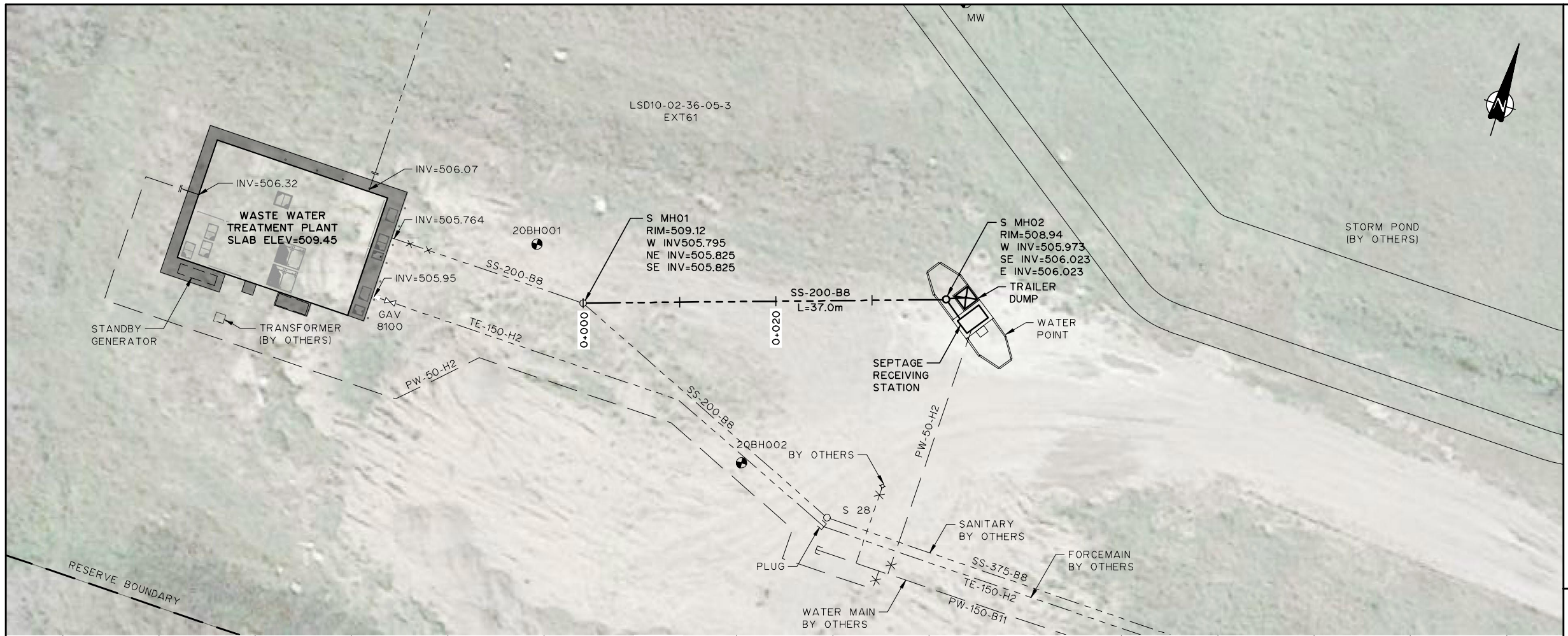
PROFESSIONAL ENGINEER
M. STUSICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
PLAN PROFILE
STATION 0+000 TO 0+054.8

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	H 1:500 V 1:100
DATE	NOVEMBER 2020	DRAWING	C2.5



NOTES:

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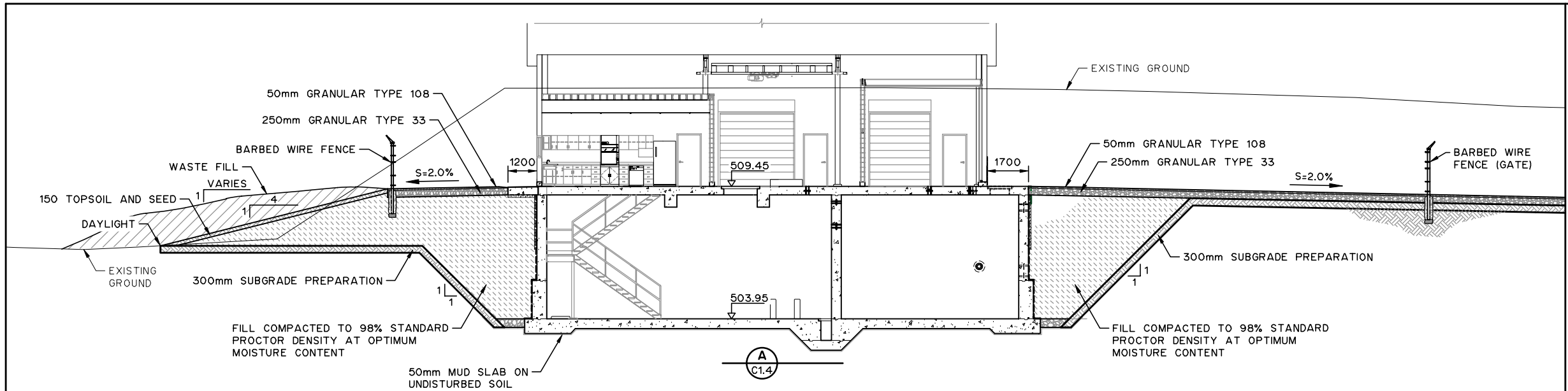
PROFESSIONAL ENGINEER
M. STUDNICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

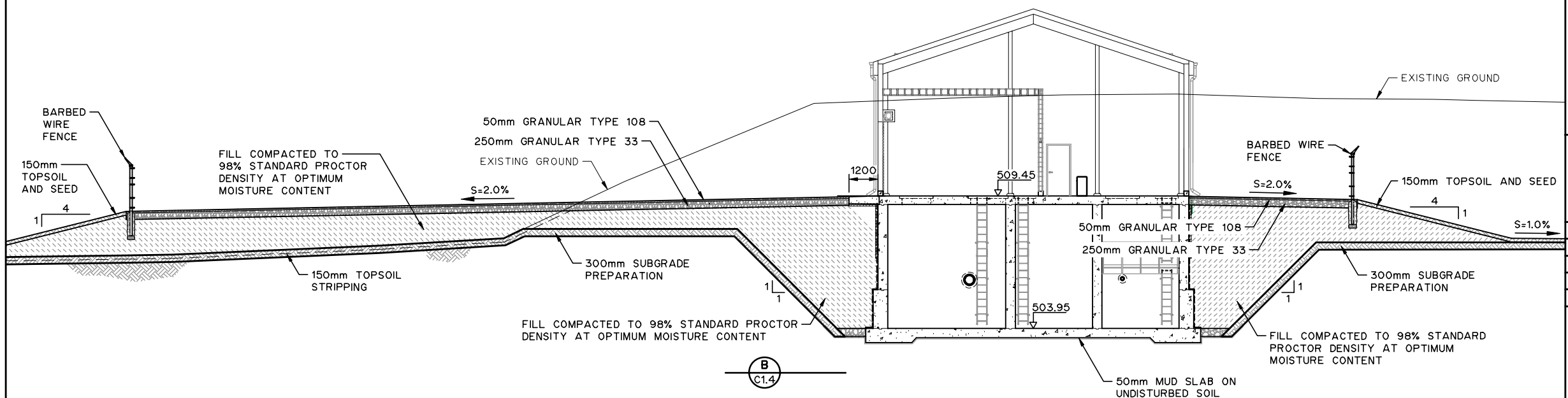
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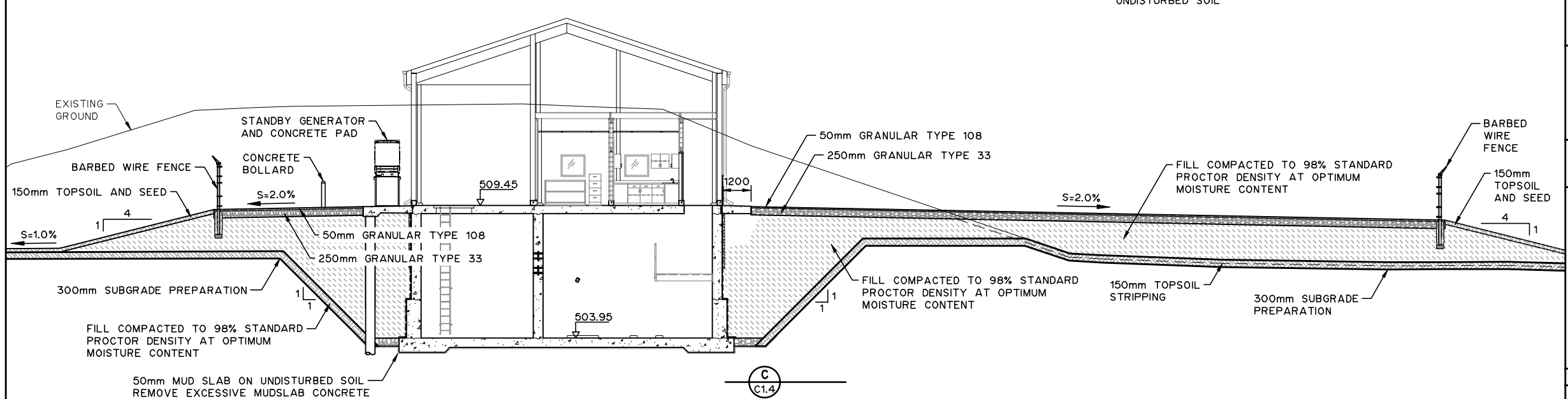
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
PLAN PROFILE
STATION 0+000 TO 0+37.7

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	H 1:500 V 1:100
DATE	NOVEMBER 2020	DRAWING	C2.6







NOTES:

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ENV	22727	

PROFESSIONAL ENGINEER
M.J. STUSICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

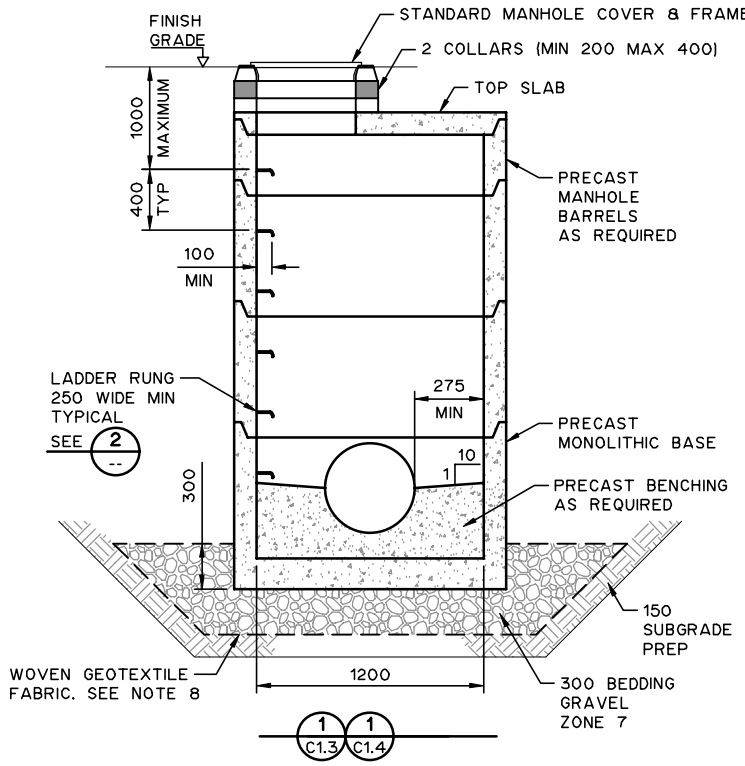
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

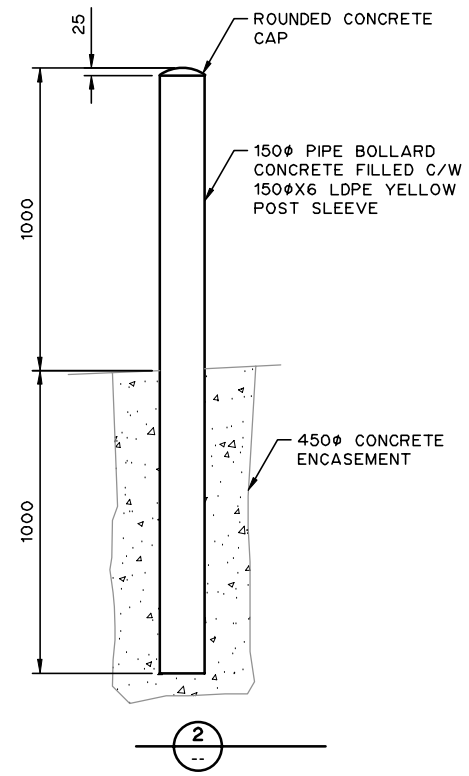
CIVIL

SITE SECTIONS

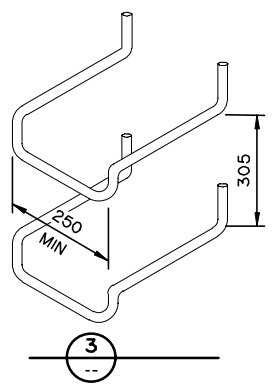
DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:200
DATE	NOVEMBER 2020	DRAWING	C2.7



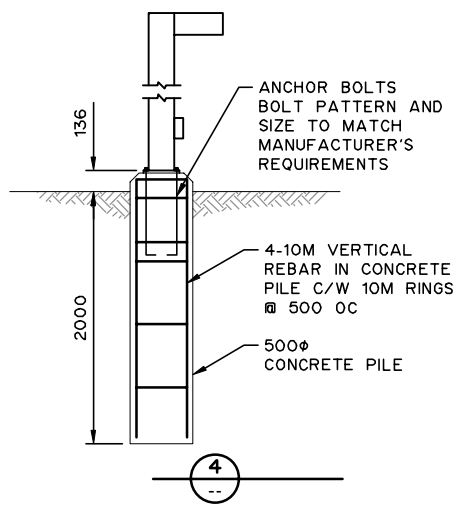
STANDARD PRECAST MANHOLE
NTS



TYPICAL BOLLARD DETAIL
1:25



TYPICAL LADDER RUNG DETAIL
NTS



TYPICAL LIGHT STANDARD DETAIL
NTS

NOTES:

1. ALL ELEVATIONS AND STATIONS ARE IN METERS UNLESS NOTED OTHERWISE. ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH GENERATOR SUPPLIER AND ENGINEER.
3. TOPSOIL ELEVATION MAY VARY BETWEEN 50mm MINIMUM TO 150mm MAXIMUM BELOW TOP OF CONCRETE PAD.
4. CONTRACTOR TO INSTALL LIGHT STANDARD.
5. 20 CHAMFER ALL EXPOSED CORNERS.
6. PILES ARE FACTORED LOADS.
7. CONTRACTOR TO COORDINATE GENERATOR PAD CONDUIT PENETRATIONS WITH GENERATOR MANUFACTURER PRIOR TO INSTALLING CONCRETE. CABLE AND CONDUITS ARE PERMITTED TO BE INSTALLED TOGETHER IN ONE TRENCH, PROVIDE SETTLING LOOPS FOR ALL SLAB PENETRATIONS.
8. WOVEN GEOTEXTILE TO BE WRAPPED AROUND BEDDING GRAVEL.
9. 100ϕ WEEPING TILE C/W 150-200ϕ WASHED ROCK AND GEOTEXTILE FABRIC FILTER.
10. 45° ELBOW REQUIRED IF INTERNAL DROP FALLS ON CONCRETE BENCHING.

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2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
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MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	SK. Reg. No.	Signature
CIVIL	22727	
ENV	22727	

PROFESSIONAL ENGINEER
M. STRUICK
MEMBER 22727
January 21 2021
YR. MN. DAY.
SASKATCHEWAN

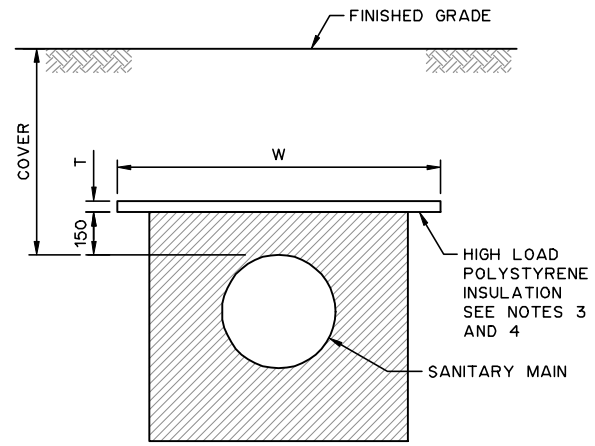
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
DETAILS SHEET 1

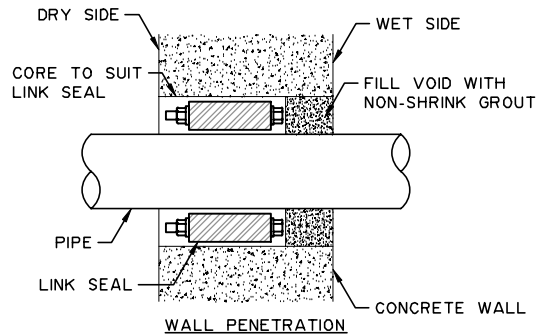
DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	C3.1

PIPE COVER (m)	MINIMUM INSULATION THICKNESS T(mm)	MINIMUM INSULATION WIDTH W=2W1+W2 (m)								
		PIPE DIAMETER 150–200mm			PIPE DIAMETER 250–300mm			PIPE DIAMETER 400mm		
		CLAY	MIX	GRAVEL	CLAY	MIX	GRAVEL	CLAY	MIX	GRAVEL
1.6–1.7	75	2.4	3.0	3.6	2.5	3.1	3.7	2.6	3.2	3.8
1.8–1.9	50	2.0	2.6	3.2	2.1	2.7	3.3	2.2	2.8	3.4
2.0–2.1	50	1.6	2.2	2.8	1.7	2.3	2.9	1.8	2.4	3.0
2.2–2.3	50	1.2	1.8	2.4	1.3	1.9	2.5	1.4	2.0	2.6
2.4–2.5	50	0.8	1.4	2.0	0.9	1.5	2.1	1.0	1.6	2.2
2.6–2.7	50	0.4	1.0	1.6	0.5	1.1	1.7	0.6	1.2	1.8
2.8–2.9	50	--	0.6	1.2	--	0.7	1.3	--	0.8	1.4
3.0–3.1	50	--	--	0.8	--	--	0.9	--	--	1.0
3.2–3.3	50	--	--	0.4	--	--	0.5	--	--	0.6

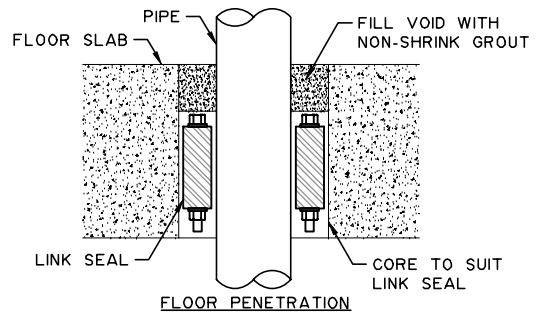


5
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FROST PROTECTION
NTS



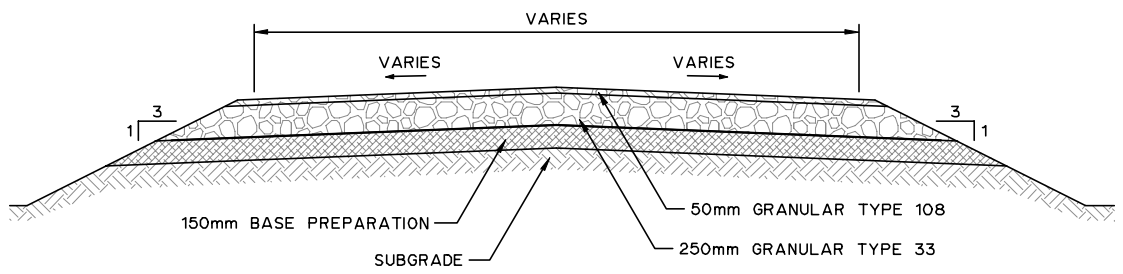
WALL PENETRATION



FLOOR PENETRATION

6
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TYPICAL LINK SEAL
NTS



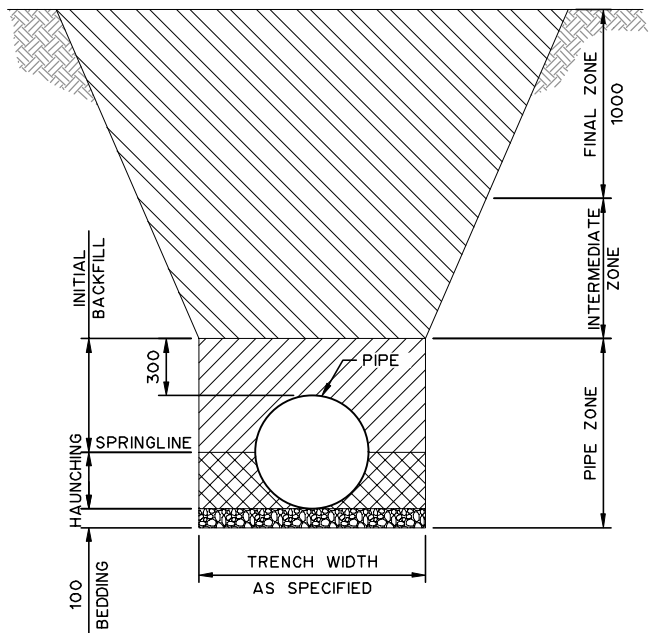
7
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TYPICAL ROAD SECTION
NTS

NON-WOVEN GEOTEXTILE FILTER FABRIC		
SPECIFICATIONS AND PHYSICAL PROPERTIES		
	CLASS IM 1,2	CLASS 3
GRAB STRENGTH	650 N	875 N
ELONGATION (FAILURE)	50%	50%
PUNCTURE STRENGTH	275 N	550 N
BURST STRENGTH	2.1 MPa	2.7 MPa
TRAPEZOIDAL TEAR	250 N	350 N
MINIMUM FABRIC LAP TO BE 300 mm		

WOVEN GEOTEXTILE FILTER FABRIC	
SPECIFICATIONS AND PHYSICAL PROPERTIES	
GRAB STRENGTH	1275 N
ELONGATION (FAILURE)	15%
PUNCTURE STRENGTH	275 N
BURST STRENGTH	3.6 MPa
TRAPEZOIDAL TEAR	475 N
MINIMUM FABRIC LAP TO BE 1000 mm	

9
--



8
--

TYPICAL BACKFILL DETAIL
NTS
(SEE NOTE 5)

NOTES:

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2. ALL ELEVATIONS, STATIONS & PIPE LENGTHS ARE IN METRES AND PIPE SIZES AND DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
3. HIGH LOAD POLYSTYRENE (OR APPROVED EQUIVALENT (COMPRESSIVE STRENGTH = 40PSI).
4. DURING DELIVERY AND STORAGE, PROTECT INSULATION FROM SUNLIGHT, PHYSICAL DAMAGE, IGNITION SOURCE, AND INCOMPATIBLE CHEMICALS (SOLVENTS, PETROLEUM PRODUCTS ETC.).
5. TRENCH BACKFILL COMPACTION AND MATERIAL TO BE AS PER SPECIFICATION 02319.

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CIVIL	22727	
ENV	22727	

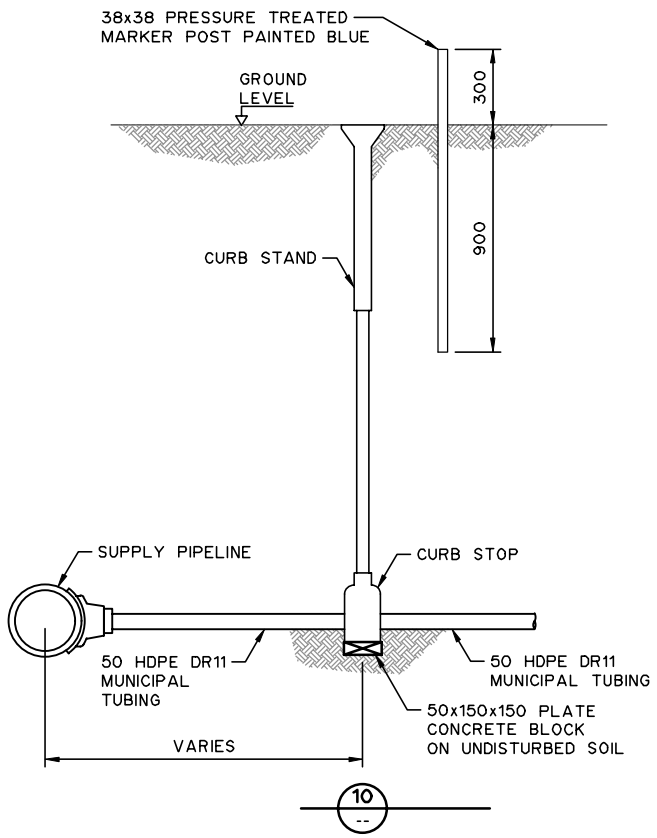
PROFESSIONAL ENGINEER
M. STRICK
MEMBER 22727
January 21 2021
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

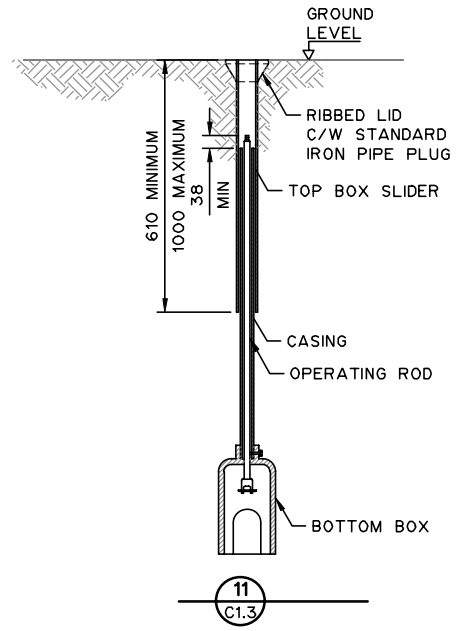
WASTEWATER TREATMENT PLANT
CIVIL
DETAILS SHEET 2

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	C3.2



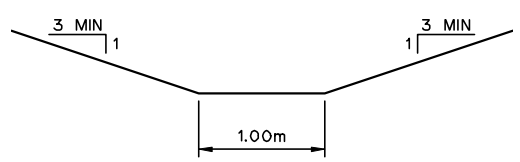
10
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TYPICAL SERVICE CONNECTION
NTS



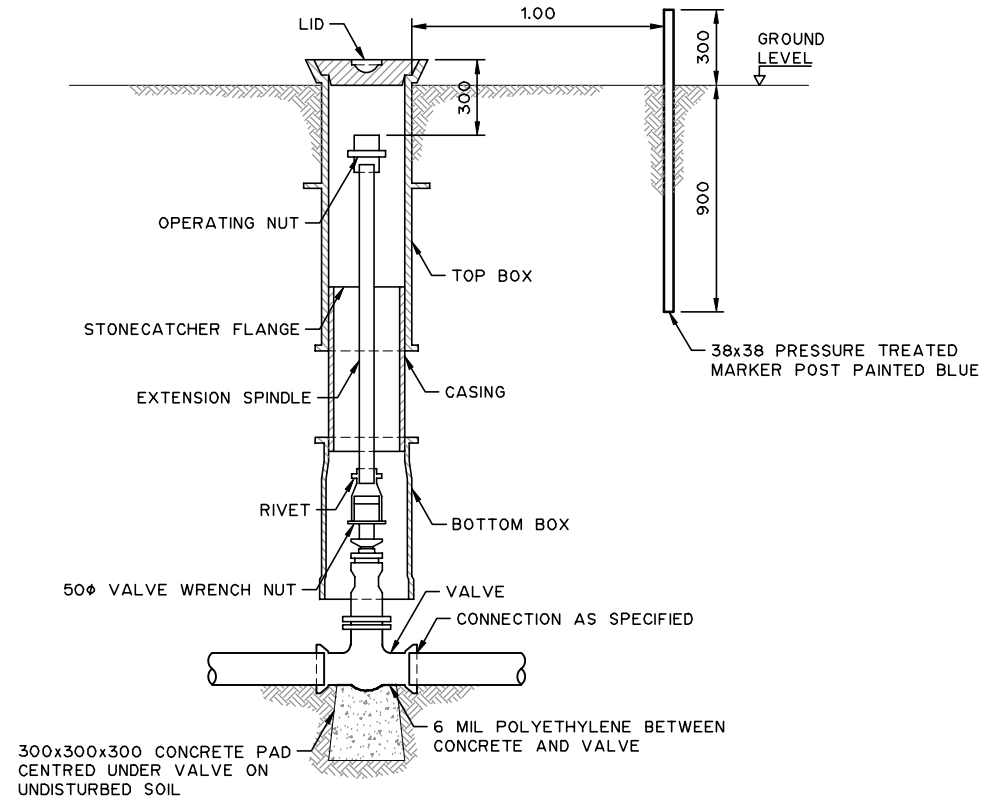
11
C1.3

CURB STAND DETAILS (SERVICE BOX)
NTS



12
C1.4

DRAINAGE DITCH SECTION
NTS



13
C1.3

BURIED GATE VALVE 100mm TO 200mm
NTS

NOTES:

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3. HIGH LOAD POLYSTYRENE (OR APPROVED EQUIVALENT (COMPRESSIVE STRENGTH = 40PSI).
4. DURING DELIVERY AND STORAGE, PROTECT INSULATION FROM SUNLIGHT, PHYSICAL DAMAGE, IGNITION SOURCE, AND INCOMPATIBLE CHEMICALS (SOLVENTS, PETROLEUM PRODUCTS ETC.).
5. TRENCH BACKFILL COMPACTION AND MATERIAL TO BE AS PER SPECIFICATION 02319.

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ENV	22727	

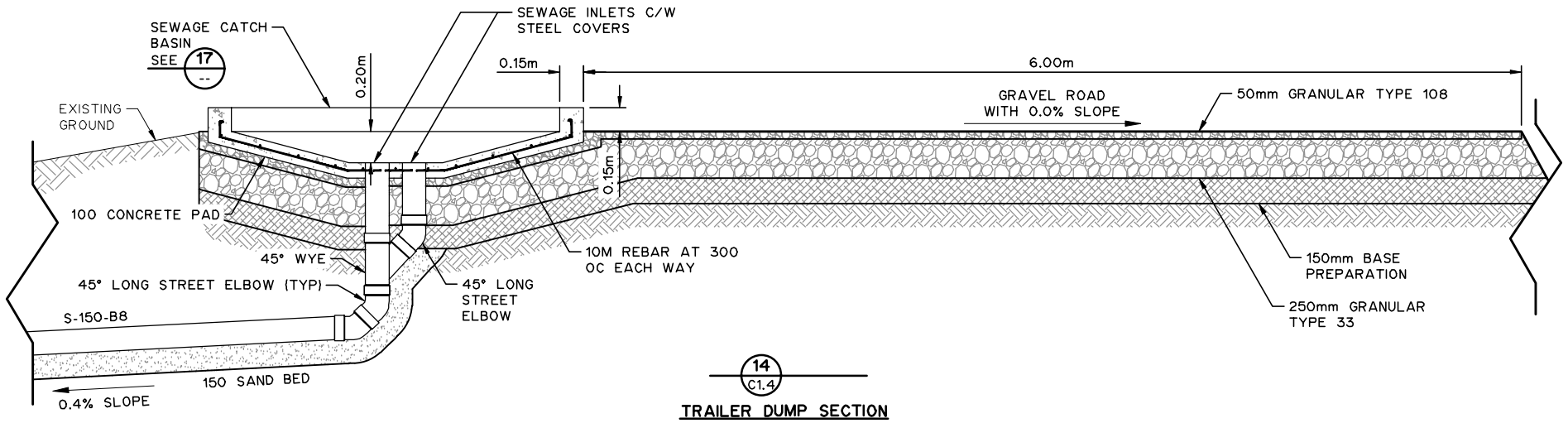
PROFESSIONAL ENGINEER
M. STADICK
MEMBER 22727
January 21 2021
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

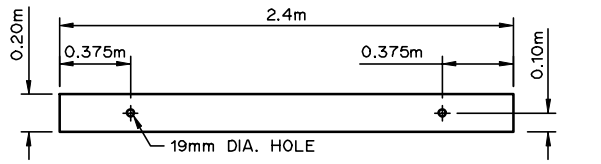
WASTEWATER TREATMENT PLANT
CIVIL
DETAILS SHEET 3

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	C3.3

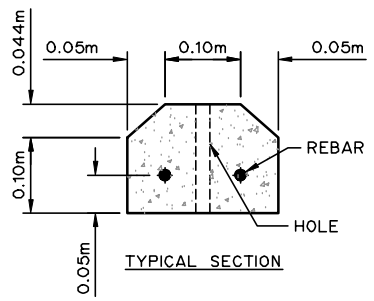


14
C1.4

TRAILER DUMP SECTION
NTS

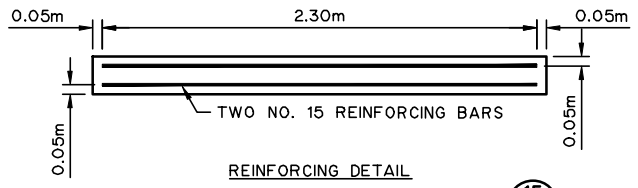


PLAN VIEW



TYPICAL SECTION

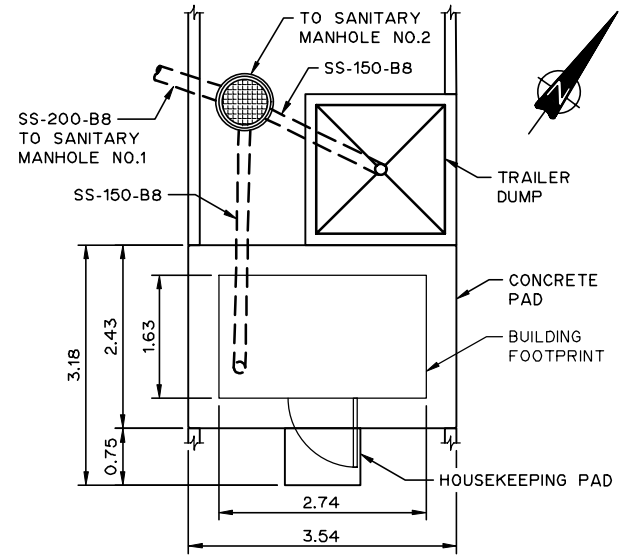
NOTE:
TWO 15.8mm x 375mm HEADLESS DRIFT PINS WITH SHARPENED POINTS TO BE SUPPLIED WITH EACH CURB SECTION.



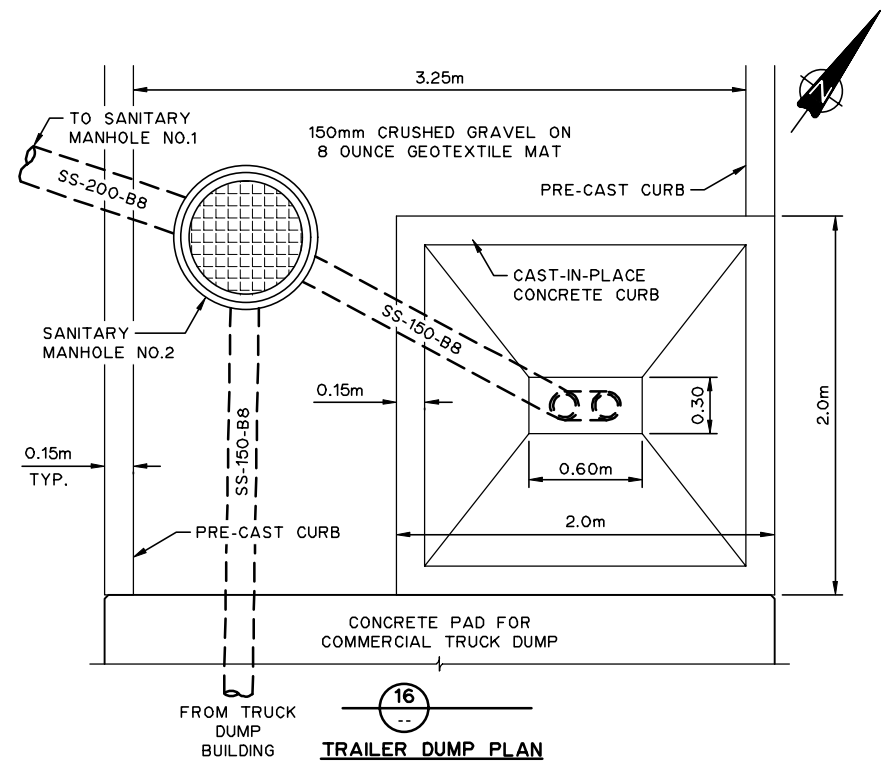
REINFORCING DETAIL

15
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PRECAST CONCRETE CURB
NTS

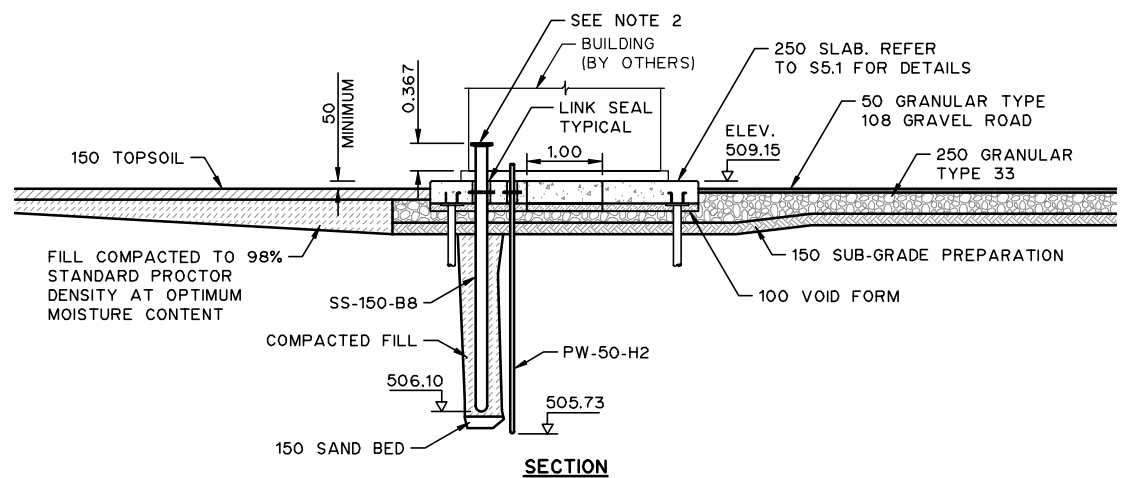


PLAN



16
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TRAILER DUMP PLAN
NTS



SECTION

17
C1.4

CONCRETE PAD FOR COMMERCIAL TRUCK DUMP
1:100

NOTES:
1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS, AND ABBREVIATIONS REFER TO THE LEGEND AND ABBREVIATIONS DRAWINGS.
2. CONTRACTOR TO COORDINATE WITH SEPTAGE STATION SUPPLIER FOR EXACT LOCATION AND CONNECT TO SEPTAGE TERMINAL PIPING.
3. CONTRACTOR TO INSTALL LIGHT STANDARD.

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ENV	22727	

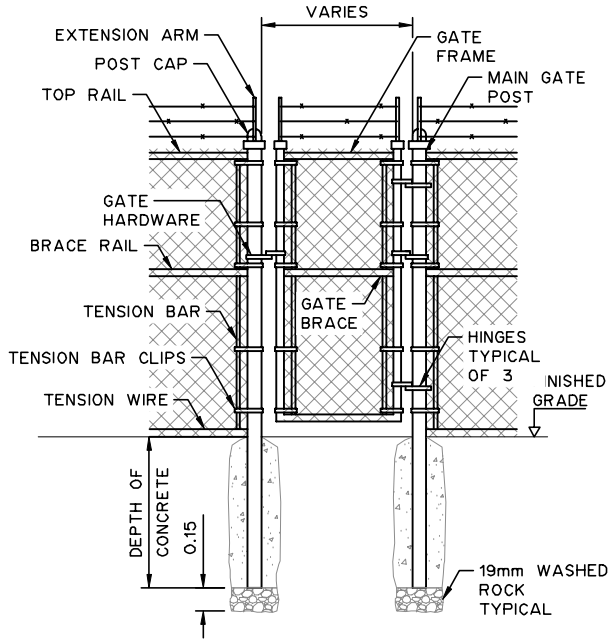
PROFESSIONAL ENGINEER
M. J. STUSICK
MEMBER 22727
January 21 2021
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

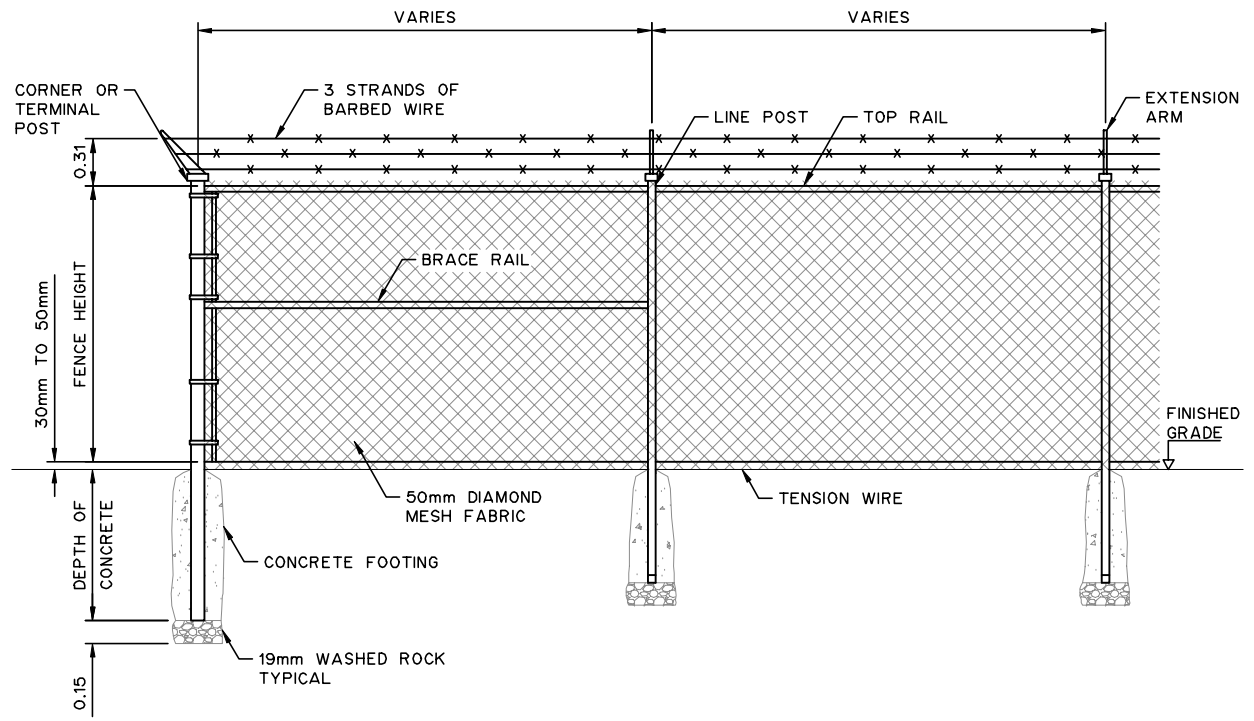
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
DETAILS SHEET 4

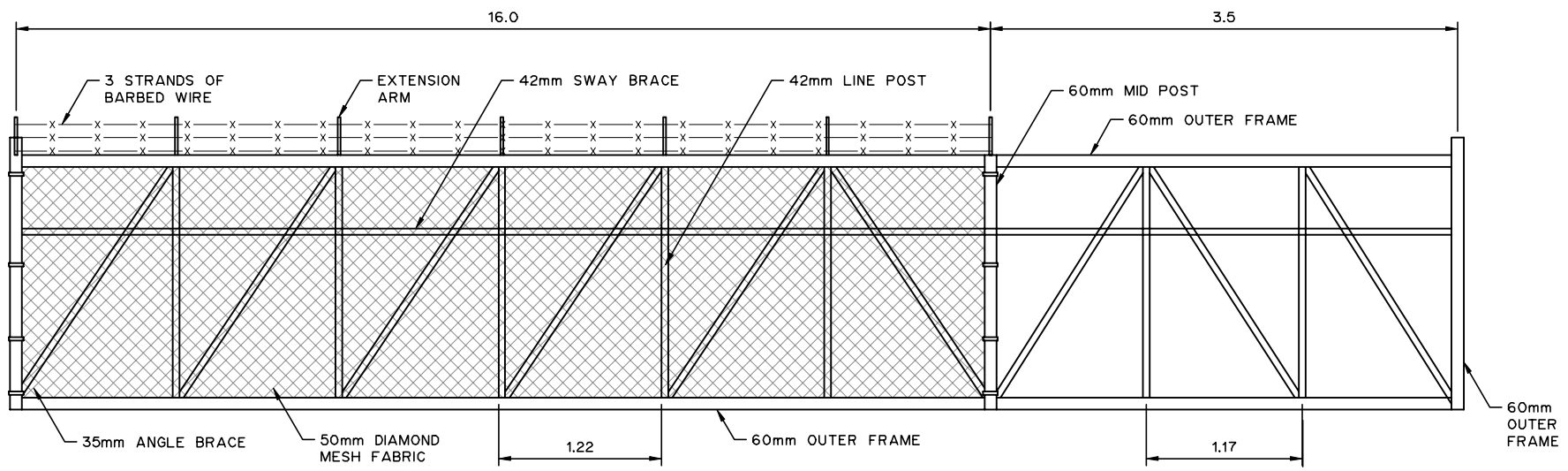
DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	C3.4



CHAIN LINK MANGATE WITH SECURITY TOP



CHAIN LINK FENCE WITH SECURITY TOP



CANTILEVER GATE WITH SECURITY TOP

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, SYMBOLS, AND ABBREVIATIONS REFER TO THE LEGEND AND ABBREVIATIONS DRAWINGS.

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ENV	22727	

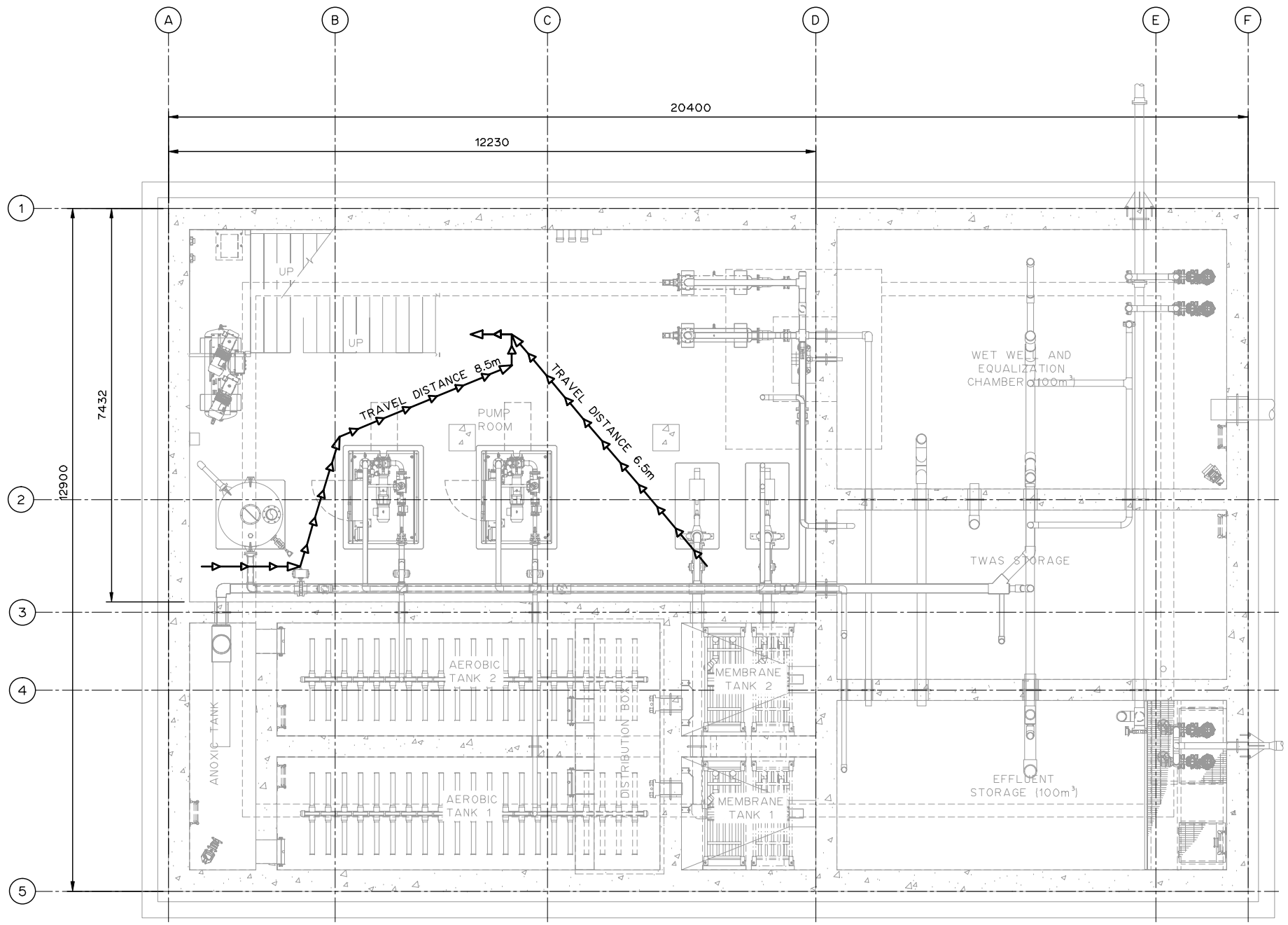
PROFESSIONAL ENGINEER
M. STUSICK
MEMBER 22727
January 21 2021
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
CIVIL
DETAILS SHEET 5

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	C3.5



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.

LEGEND:

1 HOUR FIRE SEPARATION

TRAVEL DISTANCE

CODE REVIEW (NATIONAL BUILDING CODE - 2015

OCCUPANCY GROUP F3: LOW HAZARD INDUSTRIAL

BUILDING AREA: 225m²

BUILDING HEIGHT: 1 STOREY

CONSTRUCTION: NON-COMBUSTIBLE/COMBUSTIBLE

SPRINKLER: NO

FACING: 1 STREET

CONFORMING TO GROUP F3: 3.2.2.85

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Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

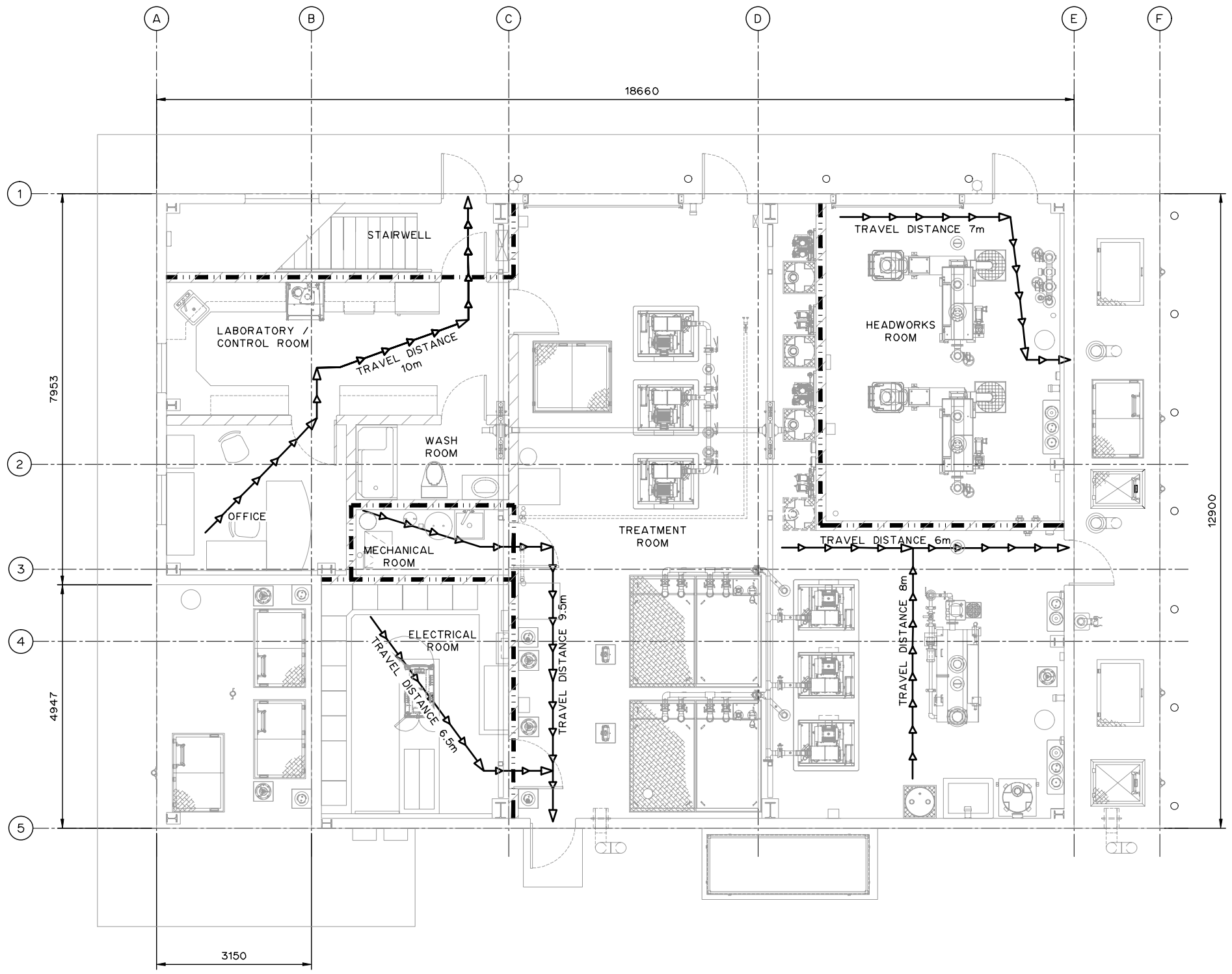
PROFESSIONAL ENGINEER
W. KONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
LOWER FLOOR
BUILDING CODE REVIEW

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	A0.1



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.

LEGEND:

1 HOUR FIRE SEPARATION

TRAVEL DISTANCE

CODE REVIEW (NATIONAL BUILDING CODE - 2015

OCCUPANCY GROUP F3: LOW HAZARD INDUSTRIAL

BUILDING AREA: 225m²

BUILDING HEIGHT: 1 STOREY

CONSTRUCTION: NON-COMBUSTIBLE/COMBUSTIBLE

SPRINKLER: NO

FACING: 1 STREET

CONFORMING TO GROUP F3: 3.2.2.85

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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

PROFESSIONAL ENGINEER
W. BOAG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

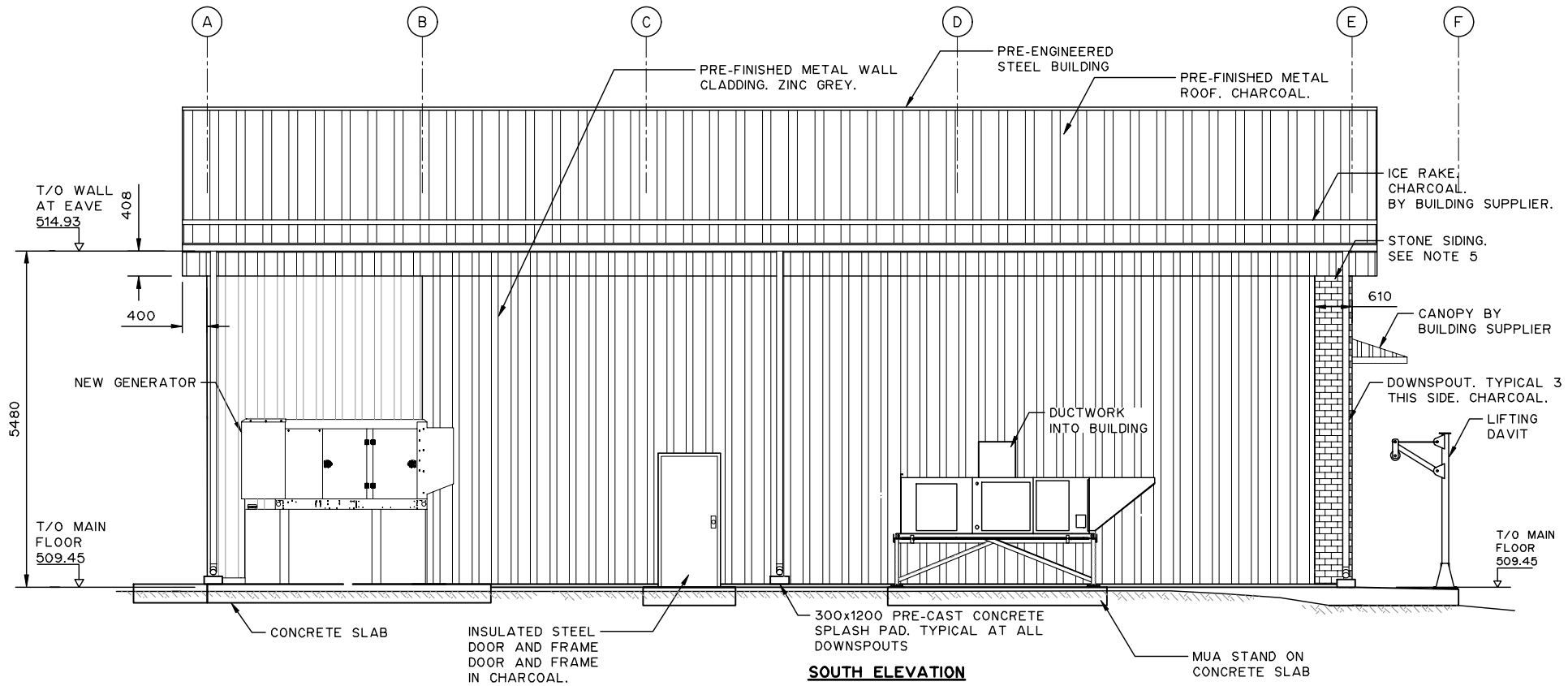
WASTEWATER TREATMENT PLANT

ARCHITECTURAL

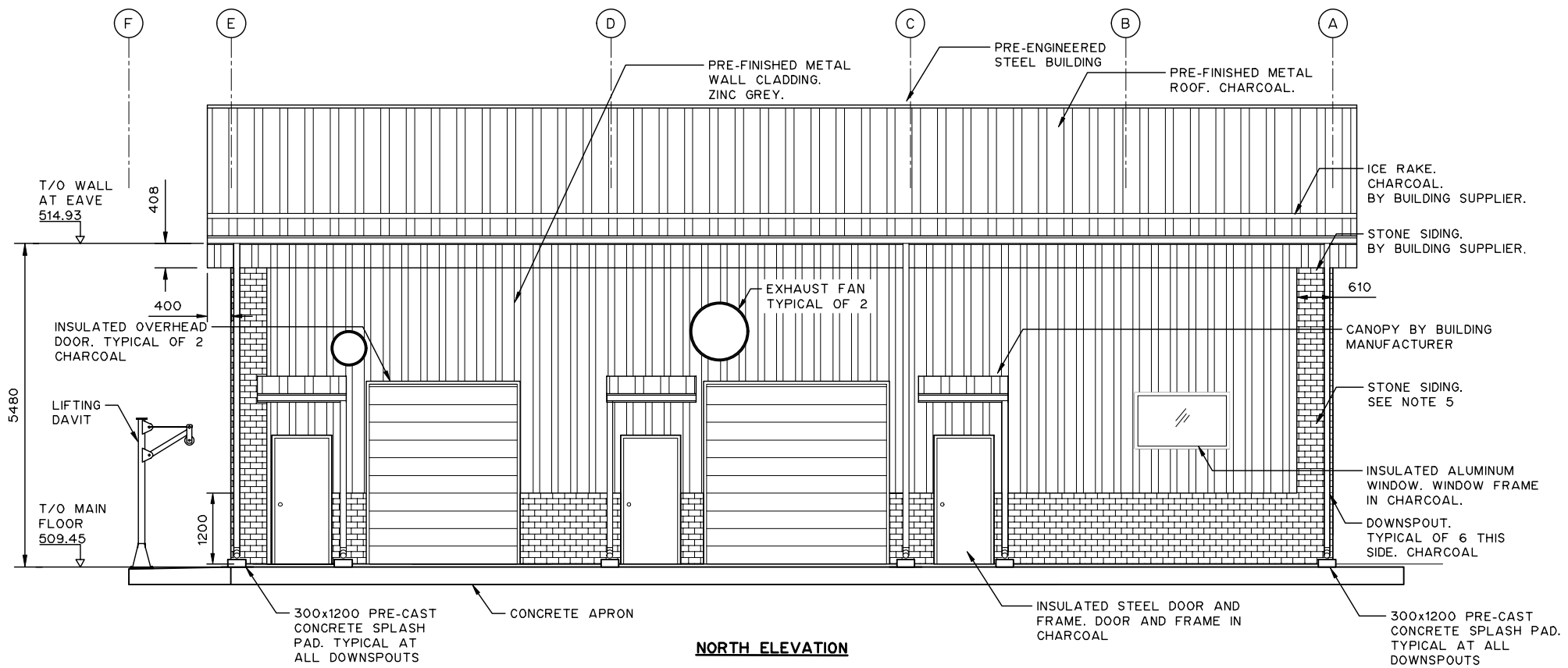
MAIN FLOOR

BUILDING CODE REVIEW

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	A0.2



SOUTH ELEVATION



NORTH ELEVATION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. BUILDING EXTERIOR COLOUR FINISH AS FOLLOWS:
   EXTERIOR WALL CLADDING: ZINC GREY
   ROOF, ICE RAKE, FASCIA, EAVESTROUGH, DOWNSPOUT, DOOR (MANDOOR AND OVERHEAD DOORS) AND WINDOWS: CHARCOAL
   ALL OTHER FINISH COLOURS NOT SPECIFIED. TO BE SELECTED BY OWNER FROM STANDARD RANGE.
3. REFER TO OTHER DISCIPLINE'S DRAWINGS FOR EXACT LOCATIONS OF MECHANICAL, ELECTRICAL AND PROCESS EQUIPMENT.
4. REFER TO CIVIL DRAWING FOR SITE GRADING DETAILS.
5. STONE SIDING TO BE BEONSTONE PANELIZED STONE SIDING BY OLDCASTLE OR ENGINEER APPROVED EQUAL. CLASSIC COLLECTION. COLOUR TO BE SELECTED BY OWNER FROM ENTIRE RANGE AVAILABLE. COMPLETE WITH ALL NECESSARY ACCESSORIES INCLUDING SILL CAP AND METAL FURRING. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE WITH BUILDING MANUFACTURER FOR ADDITIONAL SUPPORTS BEHIND STONE SIDING. SUBMIT SAMPLE OF SIDING FOR REVIEW PRIOR TO ORDERING.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

ISSUE	YY-MM-DD	REVISION
2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER

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MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

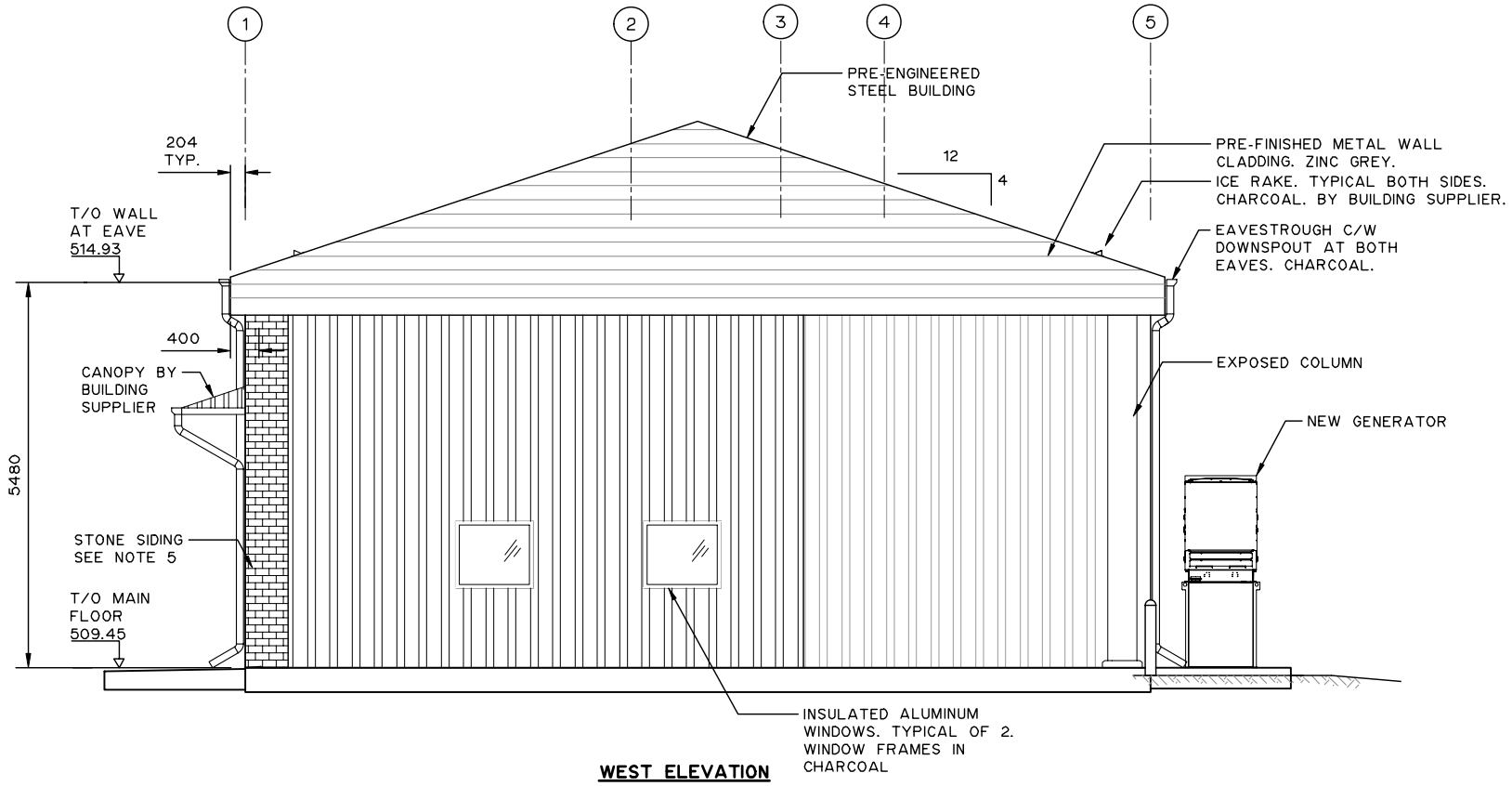
PROFESSIONAL ENGINEER W. EONG MEMBER 34196 2021 01 15 SASKATCHEWAN

MPE Engineering Ltd.

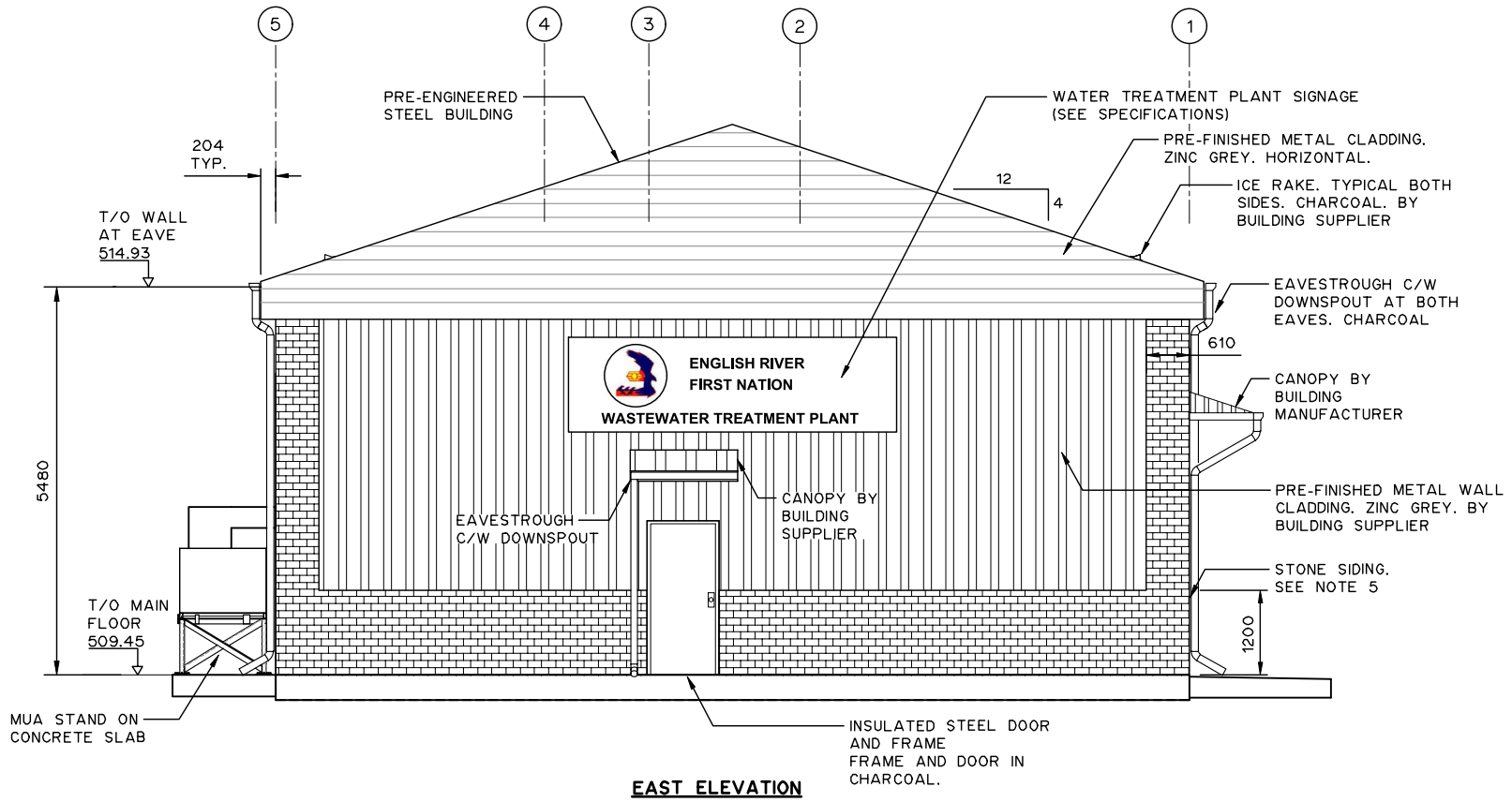
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
ELEVATIONS

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	A1.1



WEST ELEVATION



EAST ELEVATION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. BUILDING EXTERIOR COLOUR FINISH AS FOLLOWS: EXTERIOR WALL CLADDING: ZINC GREY ROOF, ICE RAKE, FASCIA, EAVESTROUGH, DOWNSPOUT, DOOR (MANDOOR AND OVERHEAD DOORS) AND WINDOWS: CHARCOAL ALL OTHER FINISH COLOURS NOT SPECIFIED. TO BE SELECTED BY OWNER FROM STANDARD RANGE.
3. REFER TO OTHER DISCIPLINE'S DRAWINGS FOR EXACT LOCATIONS OF MECHANICAL, ELECTRICAL AND PROCESS EQUIPMENT.
4. REFER TO CIVIL DRAWING FOR SITE GRADING DETAILS.
5. STONE SIDING TO BE BEONSTONE PANELIZED STONE SIDING BY OLDCASTLE OR ENGINEER APPROVED EQUAL. CLASSIC COLLECTION. COLOUR TO BE SELECTED BY OWNER FROM ENTIRE RANGE AVAILABLE. COMPLETE WITH ALL NECESSARY ACCESSORIES INCLUDING SILL CAP AND METAL FURRING. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE WITH BUILDING MANUFACTURER FOR ADDITIONAL SUPPORTS BEHIND STONE SIDING. SUBMIT SAMPLE OF SIDING FOR REVIEW PRIOR TO ORDERING.

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2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
ISSUE	YY-MM-DD	REVISION

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Number C1334
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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

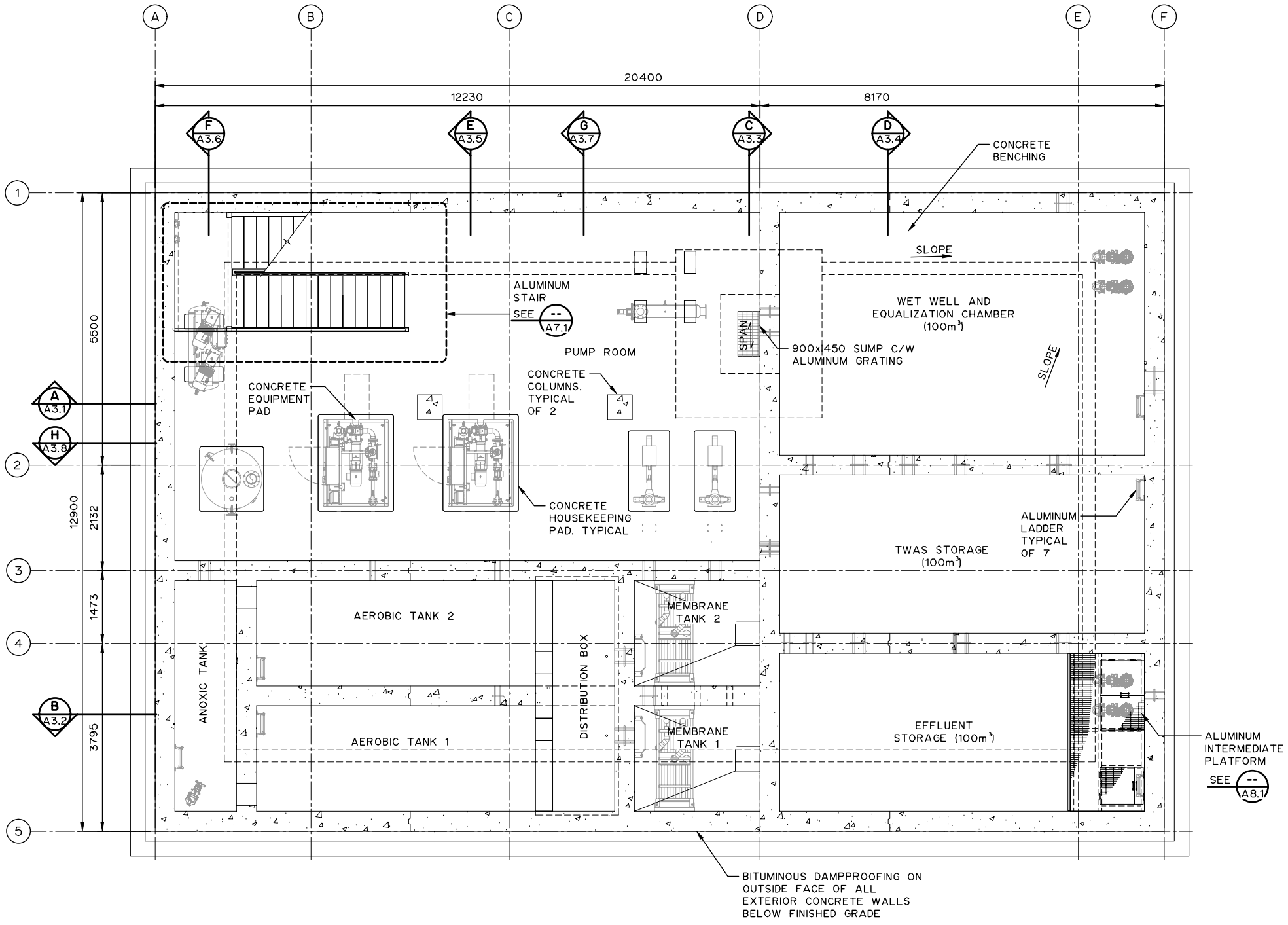
PROFESSIONAL ENGINEER — W. KONG — MEMBER 34196 — 2021 01 15 — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
ELEVATIONS

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	A1.2



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR SIZE AND REINFORCEMENT OF CONCRETE COMPONENTS.
3. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
4. ALL ALUMINUM LADDERS TO MEET P.I.P.
5. SEE OTHER DISCIPLINES FOR LOCATIONS AND SIZES OF PENETRATIONS.
6. SLOPE FLOOR TO DRAINS.
7. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING GEOTECHNICAL ENGINEER'S APPROVAL.

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Number C1334
Permission to Consult held by:

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STRUCTURAL	34196	

PROFESSIONAL ENGINEER
W. BOAG
MEMBER 34196
2021 01 15
W. WAL. DAY
SASKATCHEWAN

MPE Engineering Ltd.

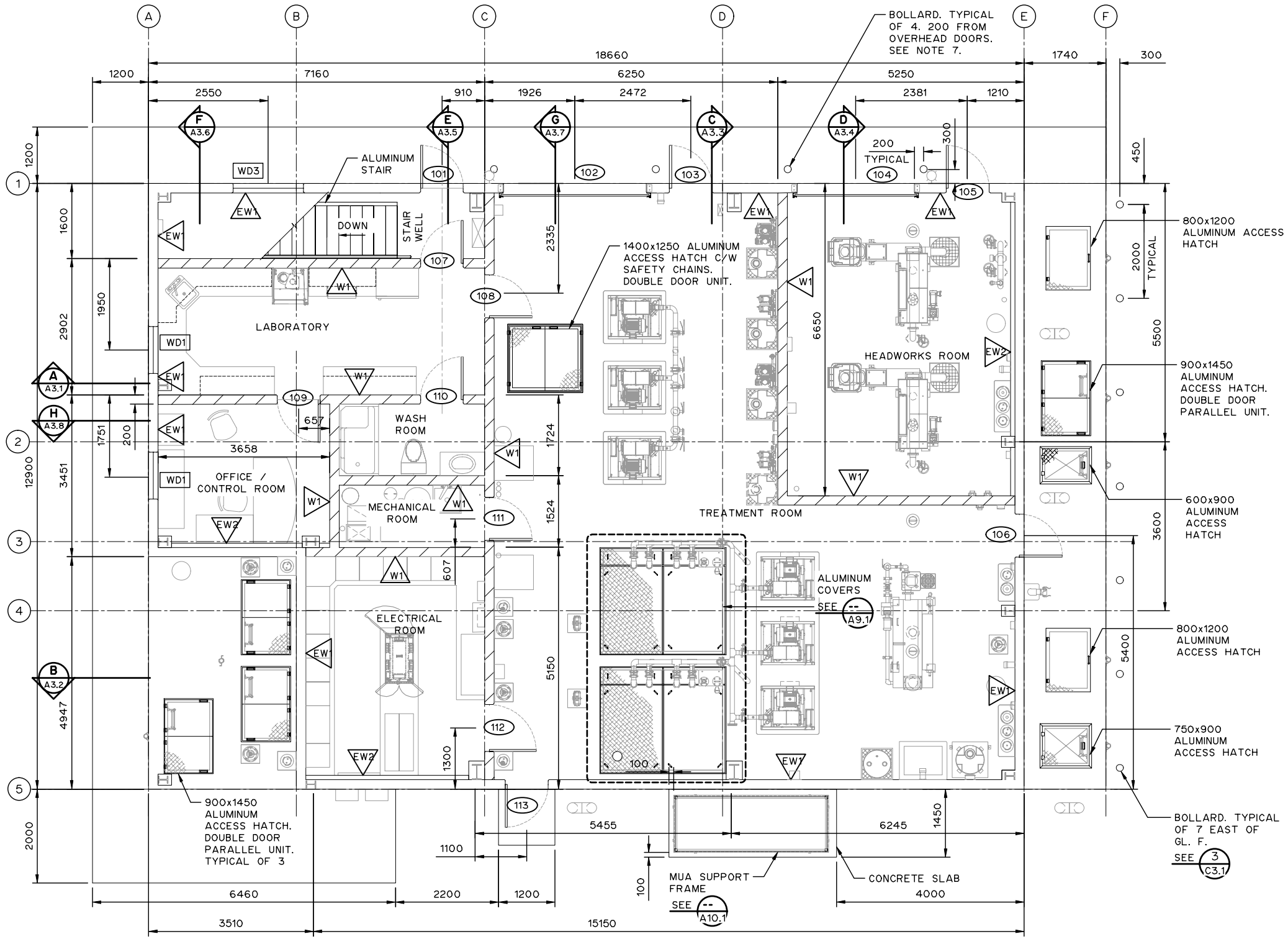
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

ARCHITECTURAL

LOWER FLOOR PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	A2.1



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
4. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
5. SEE STRUCTURAL DRAWINGS FOR DETAILS FOR ALL CONCRETE HOUSEKEEPING PADS AND CONCRETE EQUIPMENT PADS.
6. COORDINATE WITH OTHER DISCIPLINES FOR LOCATION AND SIZE OF WALL AND FLOOR PENETRATIONS.
7. PROVIDE POUR IN PLACE SAFETY BOLLARDS BY ULINE CANADA MODEL NO. H-7685 OR EQUAL. FILL WITH CONCRETE.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

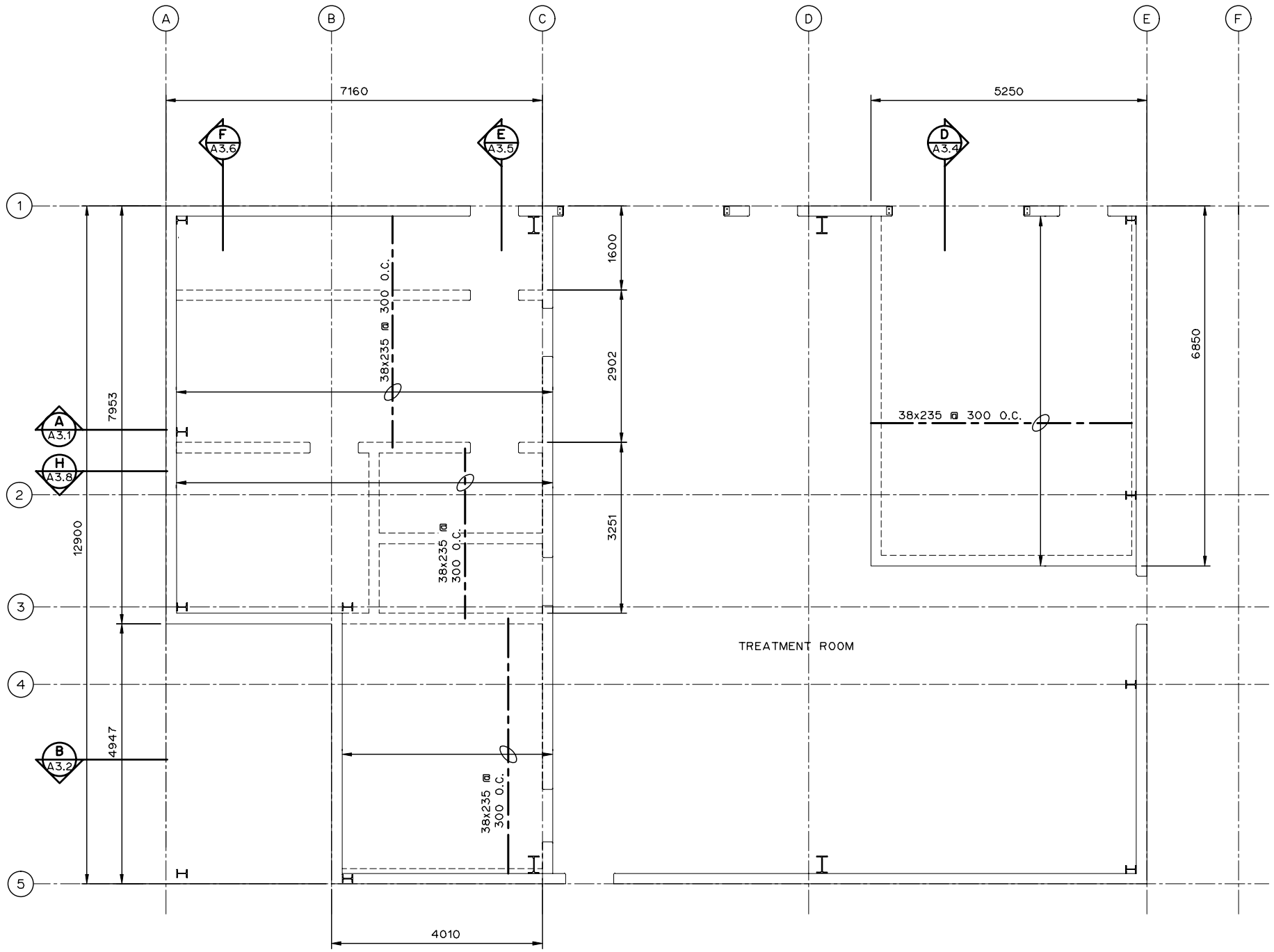
PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
MAIN FLOOR PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	A2.2



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.

MEZZANINE DESIGN NOTES:

DEAD LOAD: STRUCTURE SELF-WEIGHT

LIVE LOAD: 1 kPa

* MEZZANINE NOT FOR STORAGE

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2	21-01-15	FOR CONSTRUCTION
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ISSUE	YY-MM-DD	REVISION

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Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

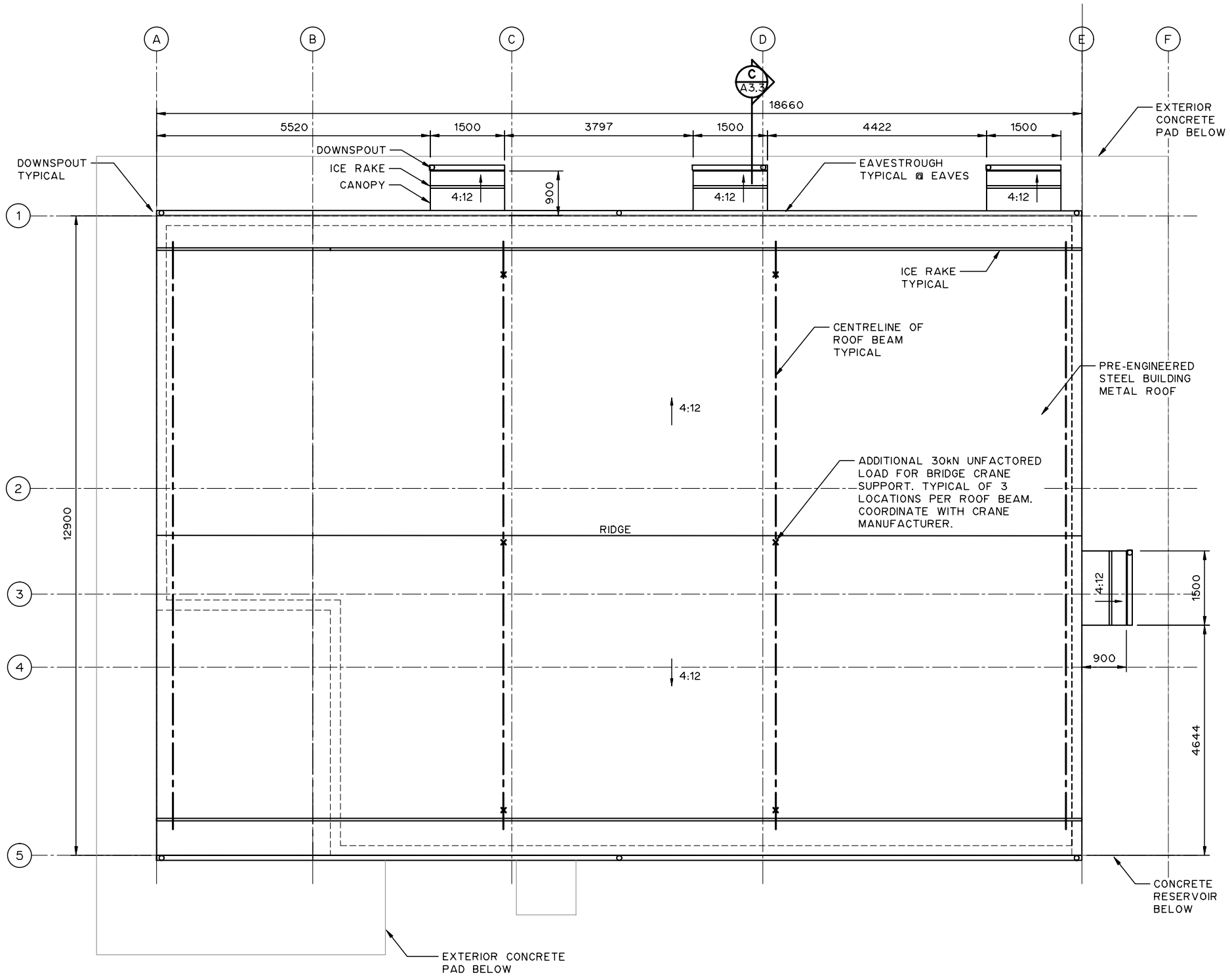
PROFESSIONAL ENGINEER
W. DONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
CEILING FRAMING PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	A2.3



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. BUILDING TO BE CONSTRUCTED ACCORDING TO THE LATEST EDITION OF THE NATIONAL BUILDING CODE. BUILDING DESIGNED AS POST DISASTER FOR SASKATOON, SASKATCHEWAN.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

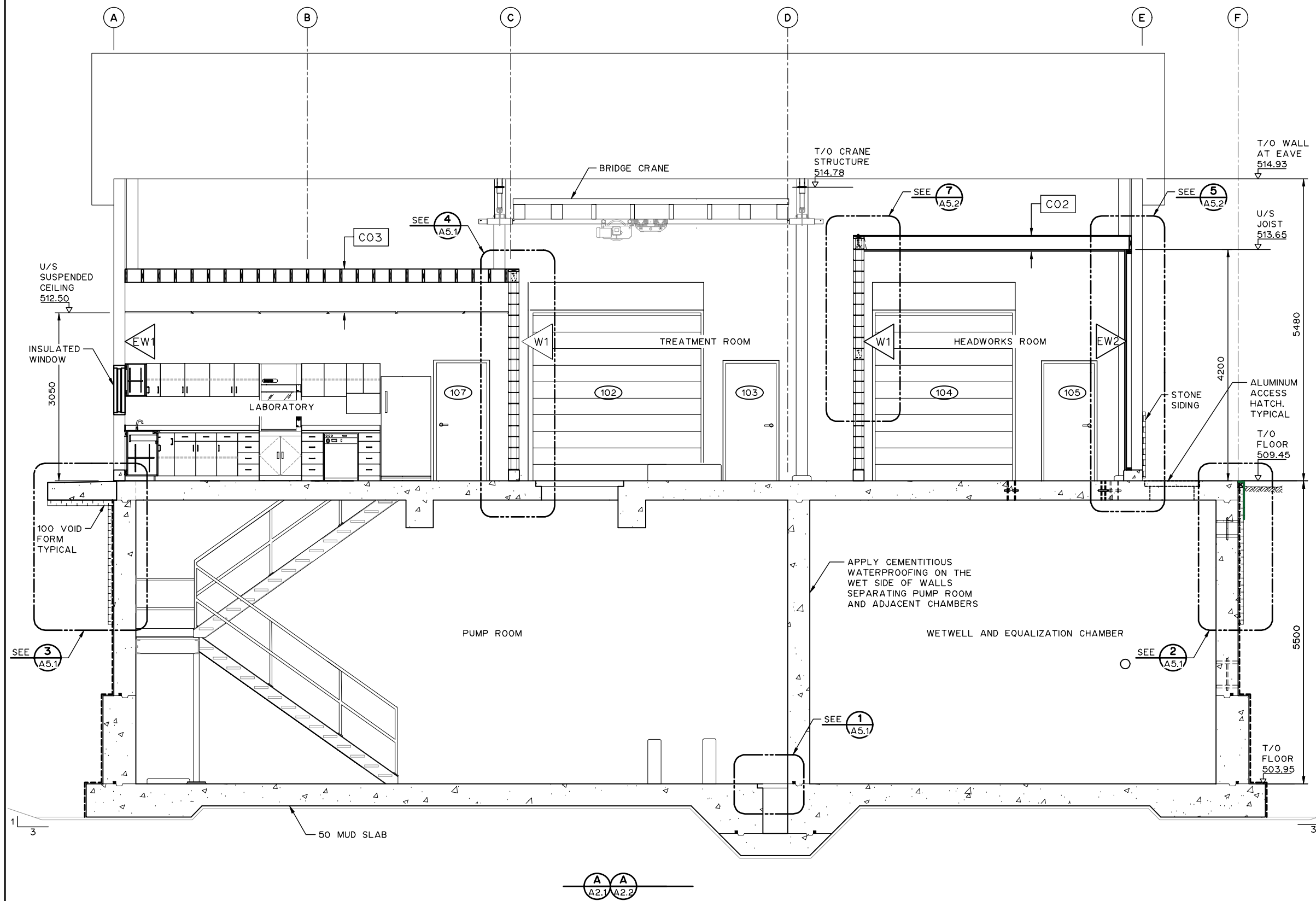
PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
ROOF PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	A2.4



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
4. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
5. TOP OF FLOOR ELEVATIONS SHOWN INDICATE MAXIMUM FLOOR ELEVATION WITH THE ROOM.
6. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
7. ALL LADDERS TO P.I.P. REQUIREMENTS.
8. SEE STRUCTURAL FOR ALL CONCRETE DETAILS.
9. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING GEOTECHNICAL ENGINEER'S APPROVAL.
10. SEE DRAWING A11.1 FOR BRIDGE CRANE SUPPORT DETAILS.

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STRUCTURAL	34196	

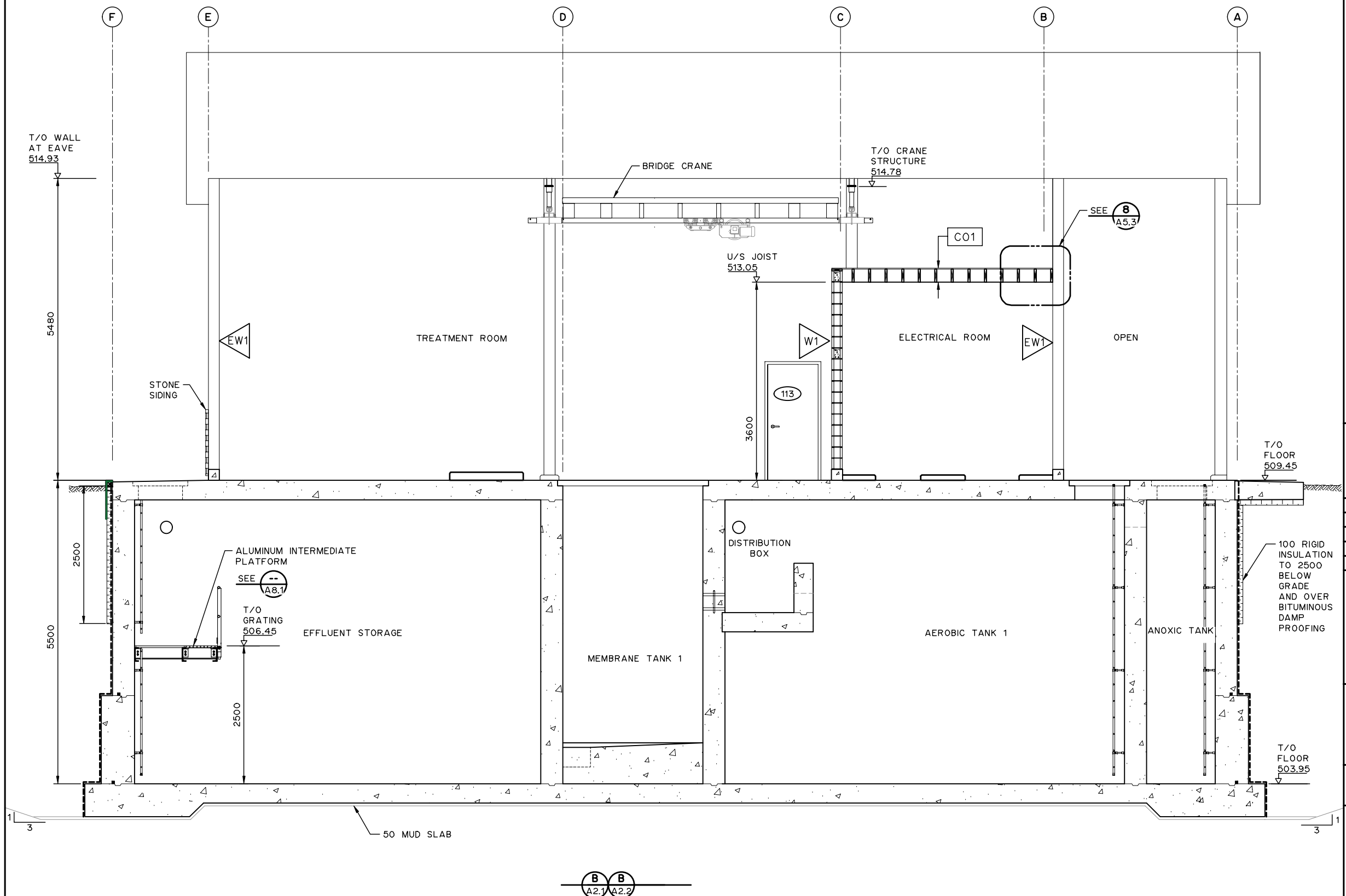
PROFESSIONAL ENGINEER OF SASKATCHEWAN
W. ESNG
MEMBER 34196
2021 01 15

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	A3.1



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
4. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
5. TOP OF FLOOR ELEVATIONS SHOWN INDICATE MAXIMUM FLOOR ELEVATION WITH THE ROOM.
6. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
7. ALL LADDERS TO P.I.P. REQUIREMENTS.
8. SEE STRUCTURAL FOR ALL CONCRETE DETAILS.
9. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING GEOTECHNICAL ENGINEER'S APPROVAL.
10. SEE DRAWING A11.1 FOR BRIDGE CRANE SUPPORT DETAILS.

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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

PROFESSIONAL ENGINEER W. ZONG MEMBER 34196 2021 01 15 SASKATCHEWAN

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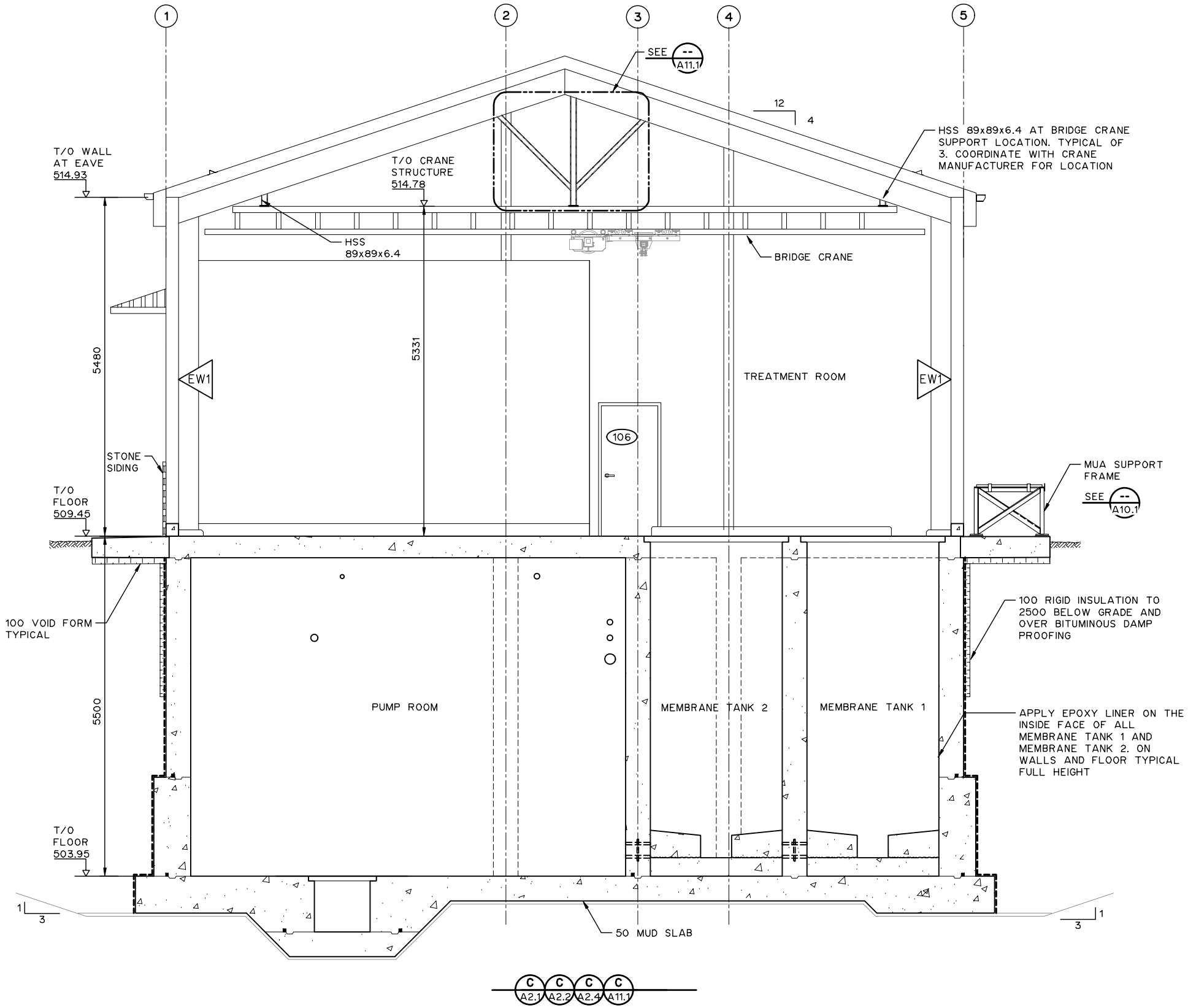
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

ARCHITECTURAL

SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	A3.2



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
4. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
5. TOP OF FLOOR ELEVATIONS SHOWN INDICATE MAXIMUM FLOOR ELEVATION WITH THE ROOM.
6. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
7. ALL LADDERS TO P.I.P. REQUIREMENTS.
8. SEE STRUCTURAL FOR ALL CONCRETE DETAILS.
9. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING GEOTECHNICAL ENGINEER'S APPROVAL.
10. SEE DRAWING A11.1 FOR BRIDGE CRANE SUPPORT DETAILS.

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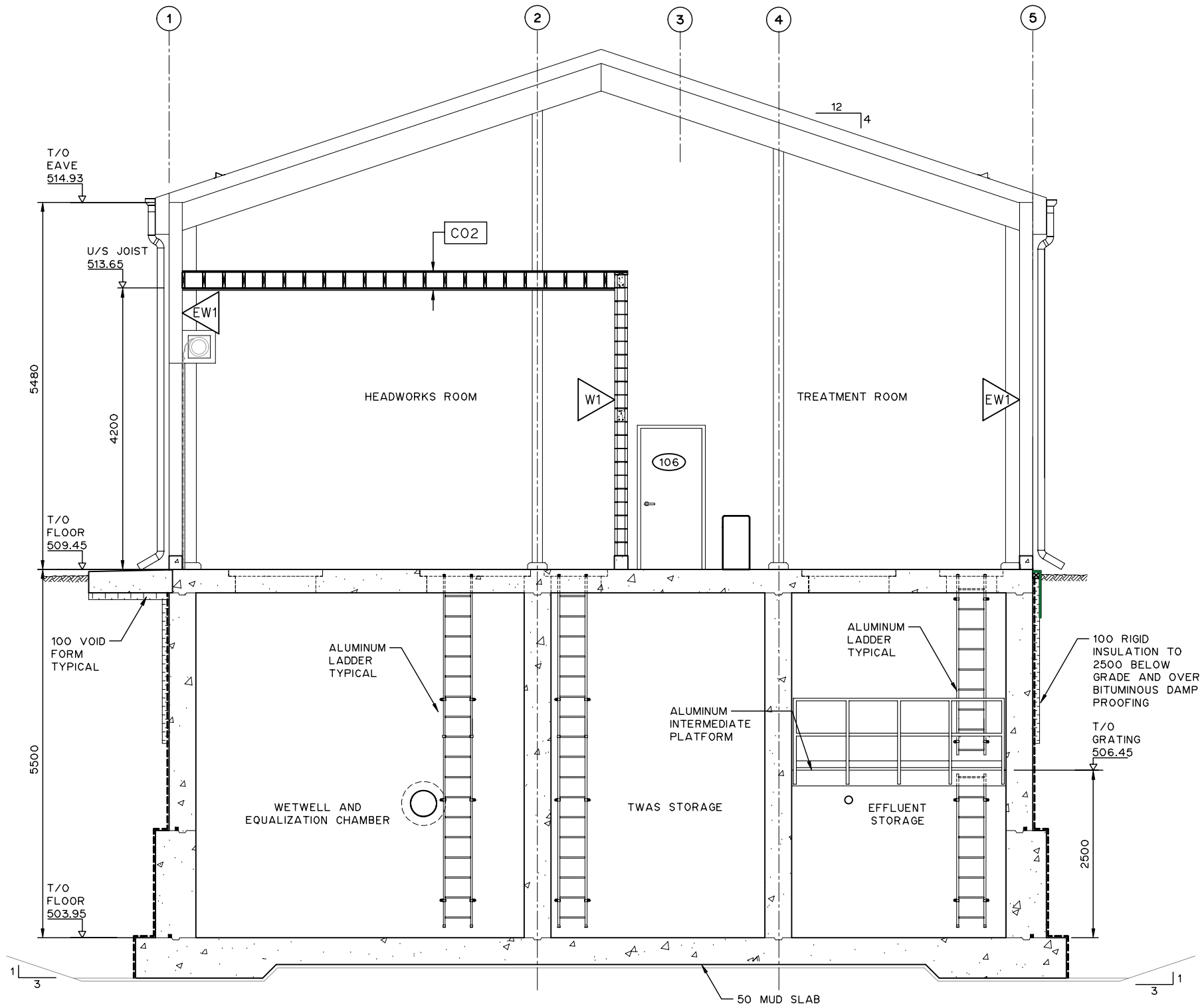
PROFESSIONAL ENGINEER
W. KONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	A3.3



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
4. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
5. TOP OF FLOOR ELEVATIONS SHOWN INDICATE MAXIMUM FLOOR ELEVATION WITH THE ROOM.
6. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
7. ALL LADDERS TO P.I.P. REQUIREMENTS.
8. SEE STRUCTURAL FOR ALL CONCRETE DETAILS.
9. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING GEOTECHNICAL ENGINEER'S APPROVAL.
10. SEE DRAWING A11.1 FOR BRIDGE CRANE SUPPORT DETAILS.

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STRUCTURAL	34196	

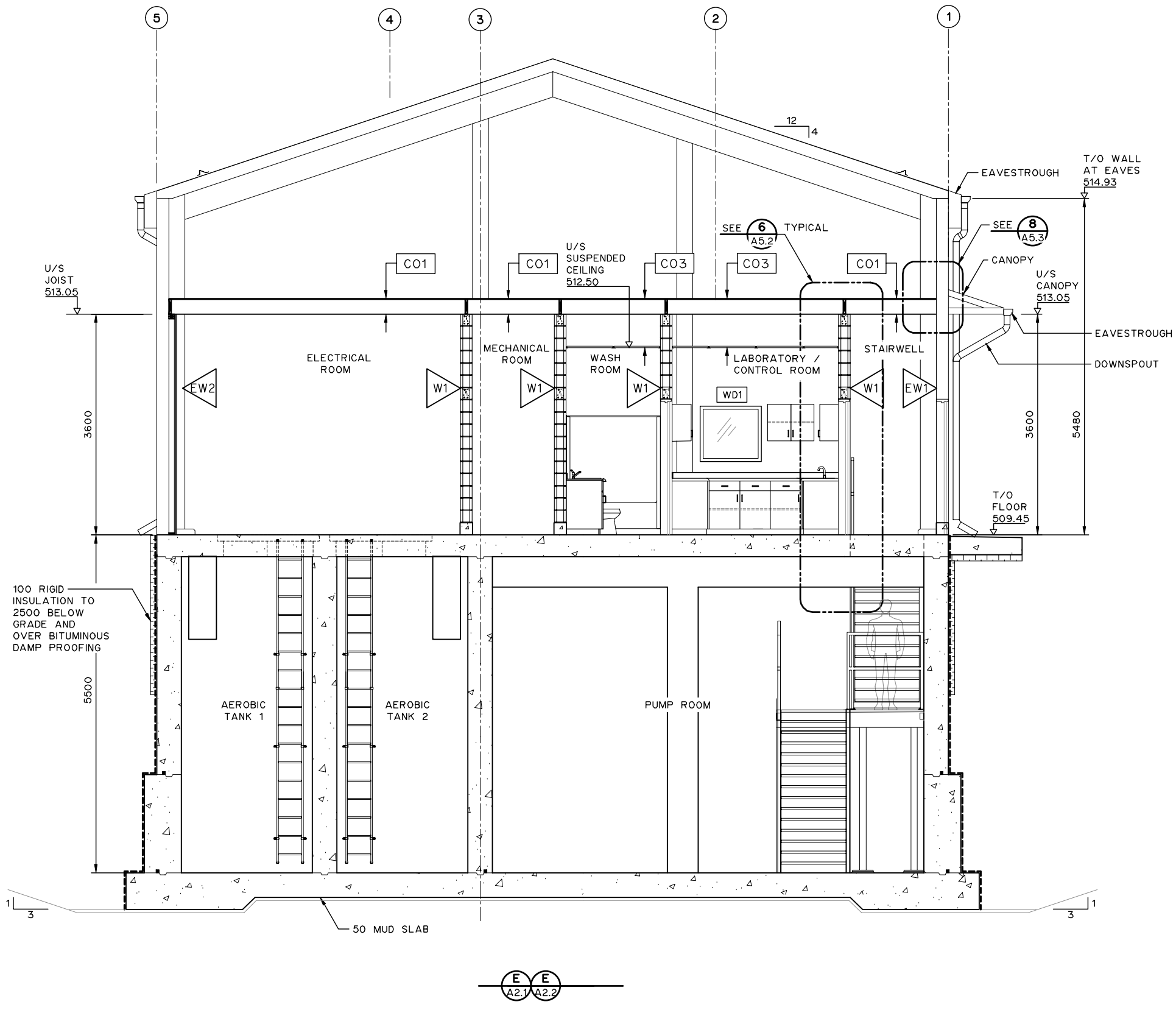
PROFESSIONAL ENGINEER
W. ZONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	A3.4



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
4. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
5. TOP OF FLOOR ELEVATIONS SHOWN INDICATE MAXIMUM FLOOR ELEVATION WITH THE ROOM.
6. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
7. ALL LADDERS TO P.I.P. REQUIREMENTS.
8. SEE STRUCTURAL FOR ALL CONCRETE DETAILS.
9. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING GEOTECHNICAL ENGINEER'S APPROVAL.
10. SEE DRAWING A11.1 FOR BRIDGE CRANE SUPPORT DETAILS.

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STRUCTURAL	34196	

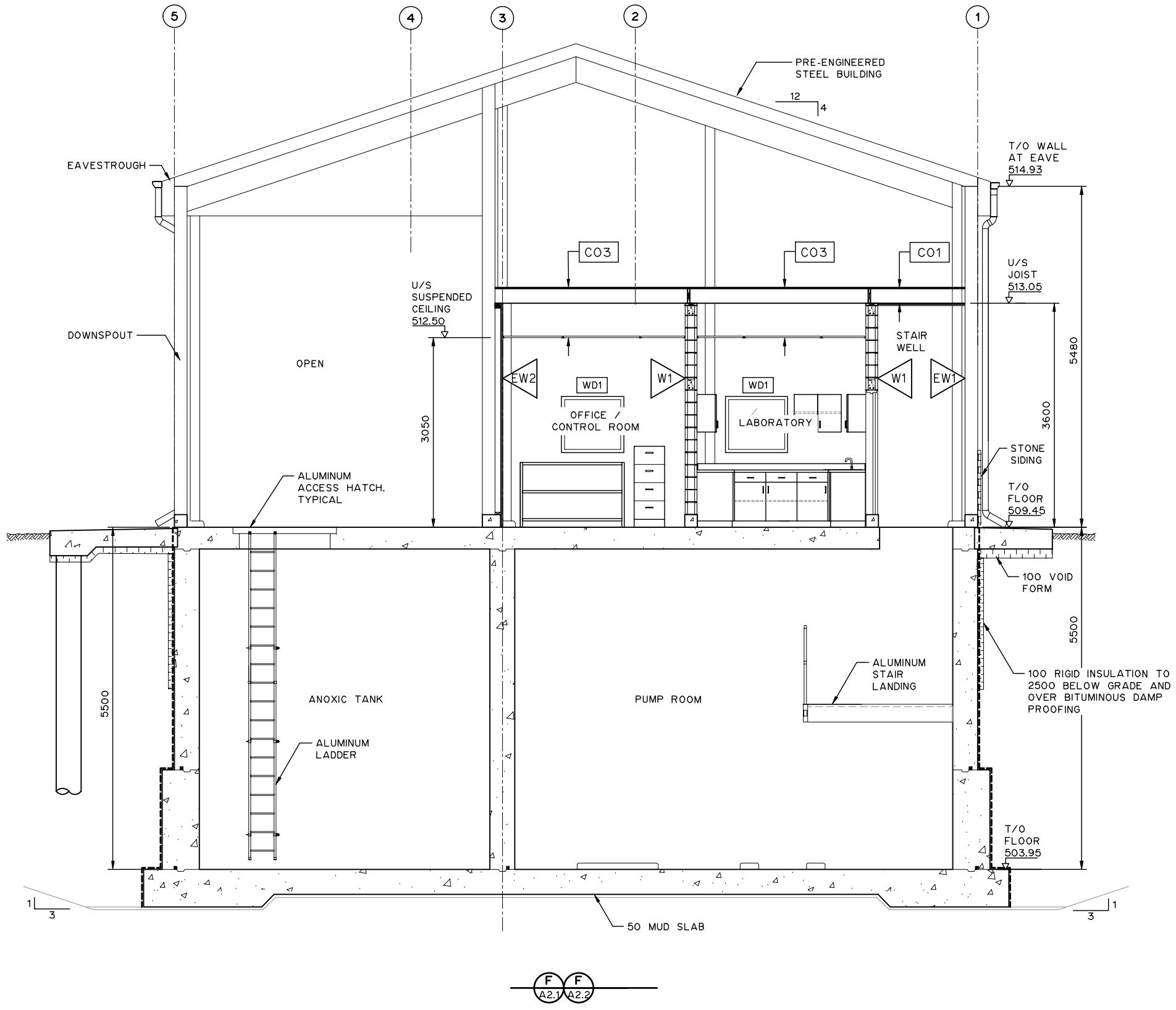
PROFESSIONAL ENGINEER
W. KONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	A3.5



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
4. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
5. TOP OF FLOOR ELEVATIONS SHOWN INDICATE MAXIMUM FLOOR ELEVATION WITH THE ROOM.
6. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
7. ALL LADDERS TO P.I.P. REQUIREMENTS.
8. SEE STRUCTURAL FOR ALL CONCRETE DETAILS.
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10. SEE DRAWING A11.1 FOR BRIDGE CRANE SUPPORT DETAILS.

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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

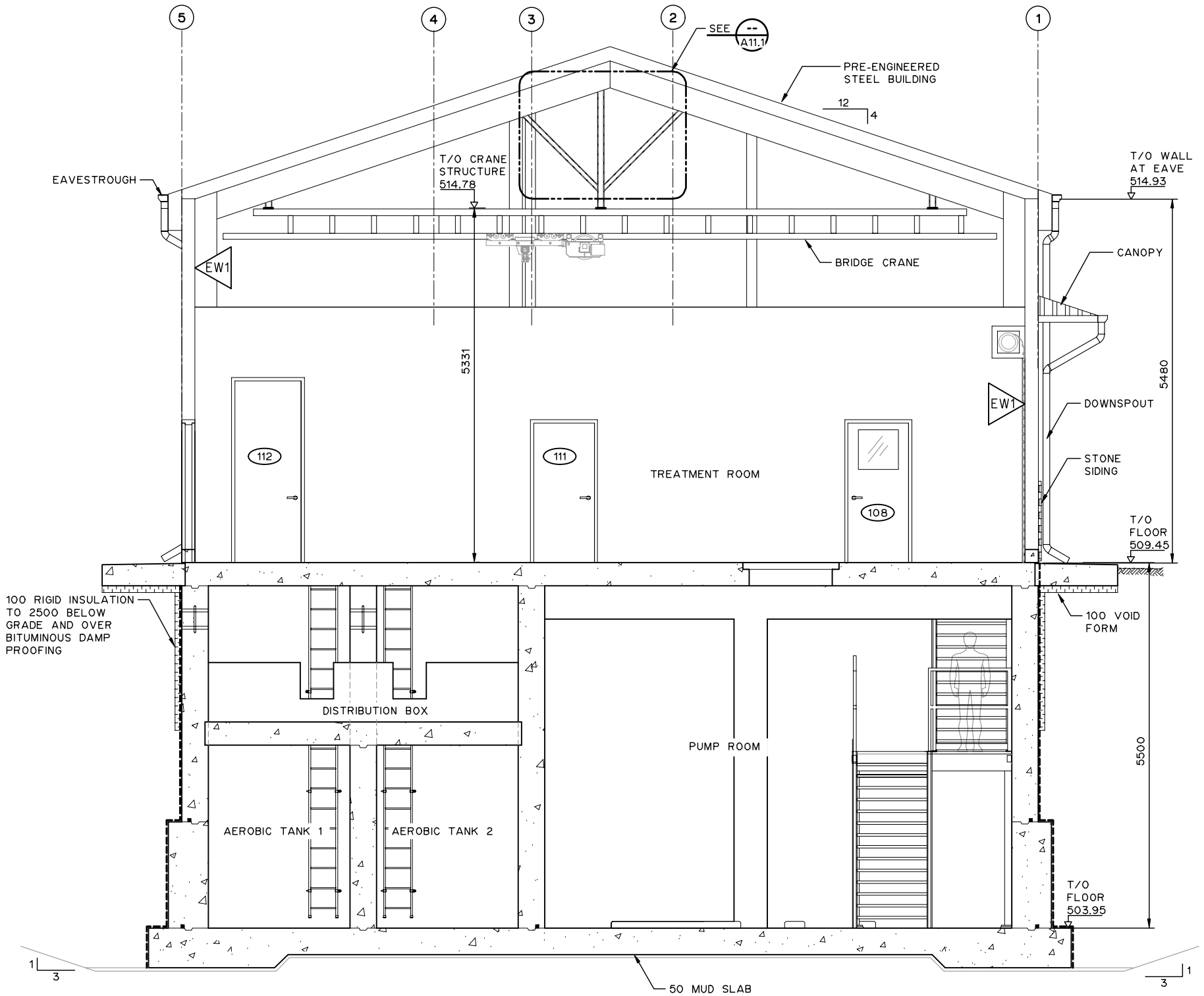
PROFESSIONAL ENGINEER
W. EONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	A3.6



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
4. SEE DRAWING A4.1 FOR ROOM FINISH SCHEDULE.
5. TOP OF FLOOR ELEVATIONS SHOWN INDICATE MAXIMUM FLOOR ELEVATION WITH THE ROOM.
6. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
7. ALL LADDERS TO P.I.P. REQUIREMENTS.
8. SEE STRUCTURAL FOR ALL CONCRETE DETAILS.
9. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING GEOTECHNICAL ENGINEER'S APPROVAL.
10. SEE DRAWING A11.1 FOR BRIDGE CRANE SUPPORT DETAILS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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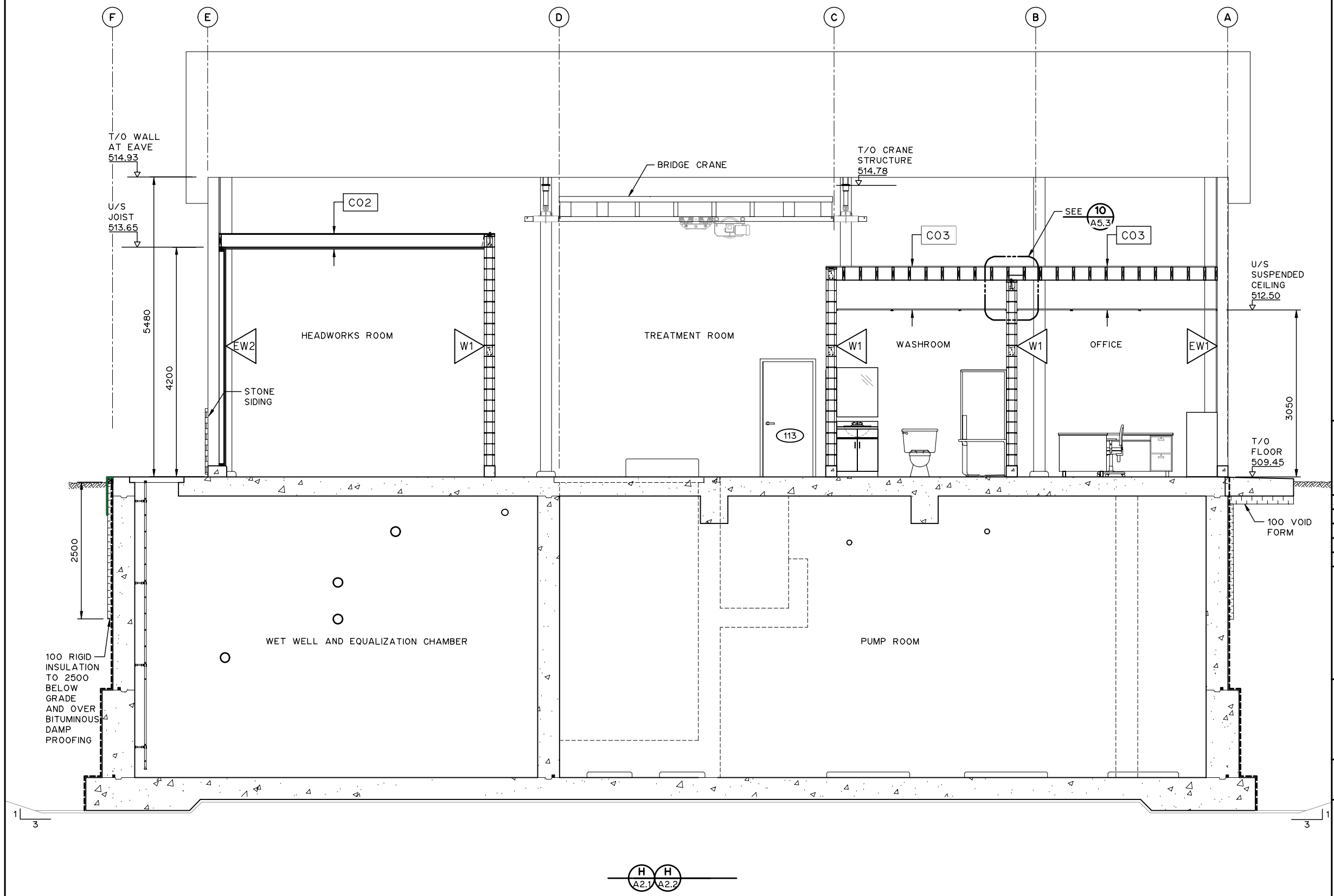
PROFESSIONAL ENGINEER W. BONG MEMBER 34196 2021 01 15 SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	A3.7



NOTES:

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2. SEE STRUCTURAL DRAWINGS FOR LOCATION AND SIZE OF CONCRETE EQUIPMENT PADS.
3. SEE DRAWING A4.1 FOR DOOR, AND WINDOW SCHEDULES.
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MEMBER 34196
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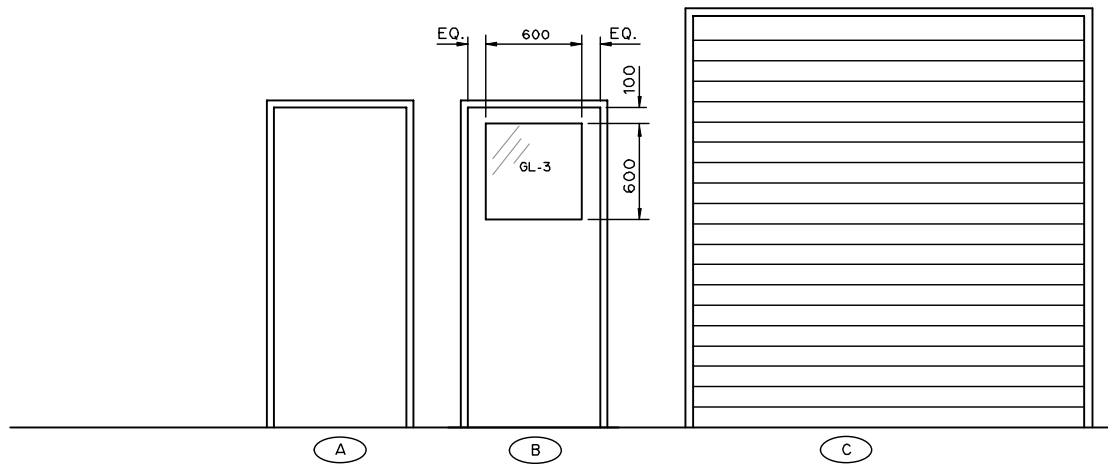
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

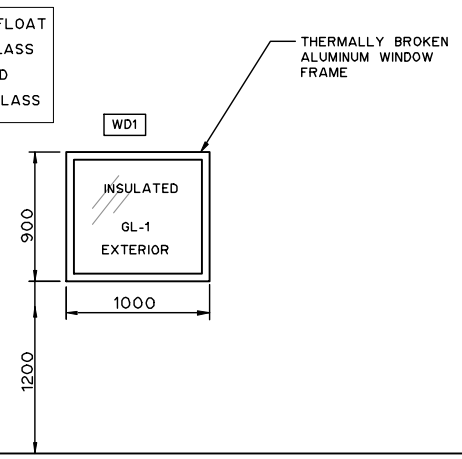
ARCHITECTURAL

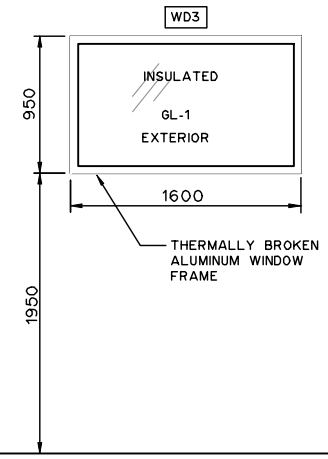
SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	A3.8



GL-1 DOUBLE PANE CLEAR FLOAT
GL-2 SINGLE PANE WIRED GLASS
GL-3 SINGLE PANE TEMPERED
GL-4 DOUBLE PANE WIRED GLASS





MARK	NOMINAL SIZE	DOOR TYPE	MATERIAL DOOR-FRAME	FINISH DOOR-FRAME	FIRE RESIST. RATING (MIN)	GLAZING	COMMENTS
101	914x2134	A	HOLLOW METAL/STEEL	PAINT/PAINT	--	--	INSULATED DOOR AND FRAME
102	3050x3050	C			--	--	
103	914x2134	A	HOLLOW METAL/STEEL	PAINT/PAINT	--	--	INSULATED DOOR AND FRAME
104	2500x3050	C			--	--	
105	914x2134	A	HOLLOW METAL/STEEL	PAINT/PAINT	--	--	INSULATED DOOR AND FRAME
106	914x2134	A	HOLLOW METAL/STEEL	PAINT/PAINT	--	--	INSULATED DOOR AND FRAME
107	914x2134	A	HOLLOW METAL/STEEL	PAINT/PAINT	45	--	
108	914x2134	B	HOLLOW METAL/STEEL	PAINT/PAINT	--	TEMPERED	
109	914x2134	B	HOLLOW METAL/STEEL	PAINT/PAINT	--	TEMPERED	
110	914x2134	A	HOLLOW METAL/STEEL	PAINT/PAINT	--	--	
111	914x2134	A	HOLLOW METAL/STEEL	PAINT/PAINT	45	--	
112	914x2740	A	HOLLOW METAL/STEEL	PAINT/PAINT	45	--	
113	914x2134	A	HOLLOW METAL/STEEL	PAINT/PAINT	--	--	INSULATED DOOR AND FRAME

CEILING CONSTRUCTION ASSEMBLIES:

CO1 — 45 MINUTE FIRE RESISTANCE RATING
16 PLYWOOD
38x235 @ 300 O.C.
2-16 TYPE X GYPSUM BOARD

CO2 — 45 MINUTE FIRE RESISTANCE RATING
16 PLYWOOD
38x235 @ 300 O.C.
2-16 TYPE X GYPSUM BOARD
PREFINISHED METAL CLADDING

CO3
16 PLYWOOD
38x235 @ 300 O.C.
SUSPENDED CEILING TILE

EXTERIOR WALL CONSTRUCTION ASSEMBLIES:

EW1
PREFINISHED INTERIOR METAL LINER
PRE-ENGINEERED BUILDING WALL CONSTRUCTION
PRE-FINISHED EXTERIOR METAL CLADDING, ZINC GREY
(SEE ELEVATIONS FOR LOCATION OF STONE VENEER)

EW2
PREFINISHED INTERIOR METAL LINER
2-16 TYPE X GYPSUM BOARD
38x89 @ 300 O.C.
PRE-ENGINEERED BUILDING WALL CONSTRUCTION
PRE-FINISHED METAL CLADDING, ZINC GREY (SEE ELEVATIONS FOR LOCATION OF STONE VENEER)

INTERIOR WALL CONSTRUCTION ASSEMBLIES:

W1
200 CONCRETE BLOCK WALL, PAINTED

ROOM FINISH SCHEDULE

ROOM	FLOOR	BASE	WALLS - TYPE-FINISH	CEILING - TYPE-FINISH	COMMENTS
STAIRWELL	EPOXY	EPOXY	METAL LINER - PREFINISHED AND CONCRETE BLOCK PAINTED	DRYWALL - PAINTED	45-MIN FIRE SEPARATION ON INTERIOR WALLS AND CEILING
LAB/CONTROL ROOM	EPOXY	EPOXY	METAL LINER - PREFINISHED AND CONCRETE BLOCK PAINTED	SUSPENDED CEILING TILES	
OFFICE	EPOXY	EPOXY	METAL LINER - PREFINISHED AND CONCRETE BLOCK PAINTED	SUSPENDED CEILING TILES	
WASHROOM	EPOXY	EPOXY	CONCRETE BLOCK - PAINTED	SUSPENDED CEILING TILES	
MECHANICAL ROOM	EPOXY	EPOXY	CONCRETE BLOCK - PAINTED	DRYWALL - PAINTED	45-MIN FIRE SEPARATION ON INTERIOR WALLS AND CEILING
ELECTRICAL ROOM	EPOXY	EPOXY	CONCRETE BLOCK - PAINTED	DRYWALL - PAINTED	45-MIN FIRE SEPARATION ON INTERIOR WALLS AND CEILING
TREATMENT ROOM	EPOXY	EPOXY	METAL LINER - PREFINISHED AND CONCRETE BLOCK PAINTED	METAL LINER - PREFINISHED	
HEADWORKS ROOM	EPOXY	EPOXY	METAL LINER - PREFINISHED AND CONCRETE BLOCK PAINTED	METAL LINER - PREFINISHED	45-MIN FIRE SEPARATION ON INTERIOR WALLS AND CEILING
PUMP ROOM	EPOXY	--	SACK-RUBBED FINISHED CONCRETE	SMOOTH FORMED CONCRETE	APPLY CEMENTITIOUS WATERPROOFING ON TOP OF THE ENTIRE LOWER CONCRETE FLOOR, ON THE INSIDE FACE OF ALL EXTERIOR WALLS, ON THE WET SIDE OF THE WALLS BETWEEN PUMP ROOM AND ADJACENT WASTEWATER TREATMENT TANKS. EXTEND WATERPROOFING ON ADJACENT INTERIOR WALLS 1000 HORIZONTALLY FROM EXTERIOR WALLS AND PUMP ROOM WALLS. REFER TO SPECIFICATION SECTION 07150
WETWELL AND EQUALIZATION CHAMBER	SMOOTH FINISHED CONCRETE	--	SMOOTH FORMED CONCRETE	SMOOTH FORMED CONCRETE	
TWAS STORAGE	SMOOTH FINISHED CONCRETE	--	SMOOTH FORMED CONCRETE	SMOOTH FORMED CONCRETE	
EFFLUENT STORAGE	SMOOTH FINISHED CONCRETE	--	SMOOTH FORMED CONCRETE	SMOOTH FORMED CONCRETE	
ANOXIC TANK	SMOOTH FINISHED CONCRETE	--	SMOOTH FORMED CONCRETE	SMOOTH FORMED CONCRETE	
AEROBIC TANK 1	SMOOTH FINISHED CONCRETE	--	SMOOTH FORMED CONCRETE	SMOOTH FORMED CONCRETE	
AEROBIC TANK 2	SMOOTH FINISHED CONCRETE	--	SMOOTH FORMED CONCRETE	SMOOTH FORMED CONCRETE	
DISTRIBUTION BOX	SMOOTH FINISHED CONCRETE	--	SMOOTH FORMED CONCRETE	SMOOTH FORMED CONCRETE	
MEMBRANE TANK 1	CONCRETE TANK EPOXY LINER	--	CONCRETE TANK EPOXY LINER	--	SEE SPECIFICATION 03360 FOR PRODUCT INFORMATION
MEMBRANE TANK 2	CONCRETE TANK EPOXY LINER	--	CONCRETE TANK EPOXY LINER	--	SEE SPECIFICATION 03360 FOR PRODUCT INFORMATION

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PROFESSIONAL ENGINEER — W. SONG — MEMBER 34196 — 2021 01 15 — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
SCHEDULES

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	
DATE	NOVEMBER 2020	DRAWING	A4.1

SIGN SCHEDULE

SIGN	REQUIRED	LOCATION	LAMACOID SIGN	GRAPHIC SIGN	ACKLANDS GRAINGER PRODUCT NO.
WASHROOM	1	WASHROOM DOOR	WASHROOM		
WARNING	LOCATED AT ALL HOSE BIBBS	HEADWORKS, PUMP ROOM AND TREATMENT ROOM			
ELECTRICAL ROOM	1	ELECTRICAL ROOM DOOR	ELECTRICAL ROOM		BDY 40658 ALUMINUM BDY 46690 ALUMINUM BDY 42660 ALUMINUM
EXIT	5	ABOVE ALL EXTERIOR DOORS AND ABOVE DOOR 107			
FIRE EXTINGUISHER SIGNAGE	5	ABOVE FIRE EXTINGUISHERS			BDY 43491 ALUMINUM
EMERGENCY SAFETY SHOWER SIGNAGE	1	NEAR EMERGENCY SAFETY SHOWERS			BDY 41203 ALUMINUM
EMERGENCY EYE WASH SIGNAGE	1	LAB AREA SINK			BDY 43481 ALUMINUM
FIRST AID SIGNAGE	2	CONTROL ROOM AND LAB; LOCATION DIRECTED BY ENGINEER			ACFMFSD923VS VINYL
HEADWORKS ROOM	1	HEADWORKS ROOM DOOR	HEADWORKS ROOM		BDY 42660 ALUMINUM
WHMIS CLASS D DECAL	3	VARIOUS LOCATIONS AS DIRECTED BY ENGINEER			
WHMIS CLASS E DECAL	1	ALUM TANK			
WHMIS CLASS E DECAL	1	SODIUM HYPOCHLORITE (DISINFECTION) TANK			
TREATMENT AREA	3	ON DOORS 103, 106, AND 107			BDY 46690 ALUMINUM
WHMIS CLASS E DECAL	1	POLYMER			
WHMIS CLASS E DECAL	1	CITRIC ACID			

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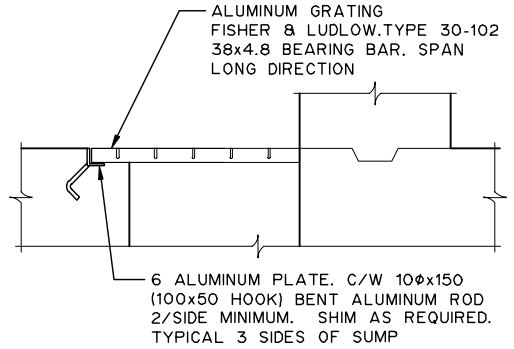
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STRUCTURAL	34196	

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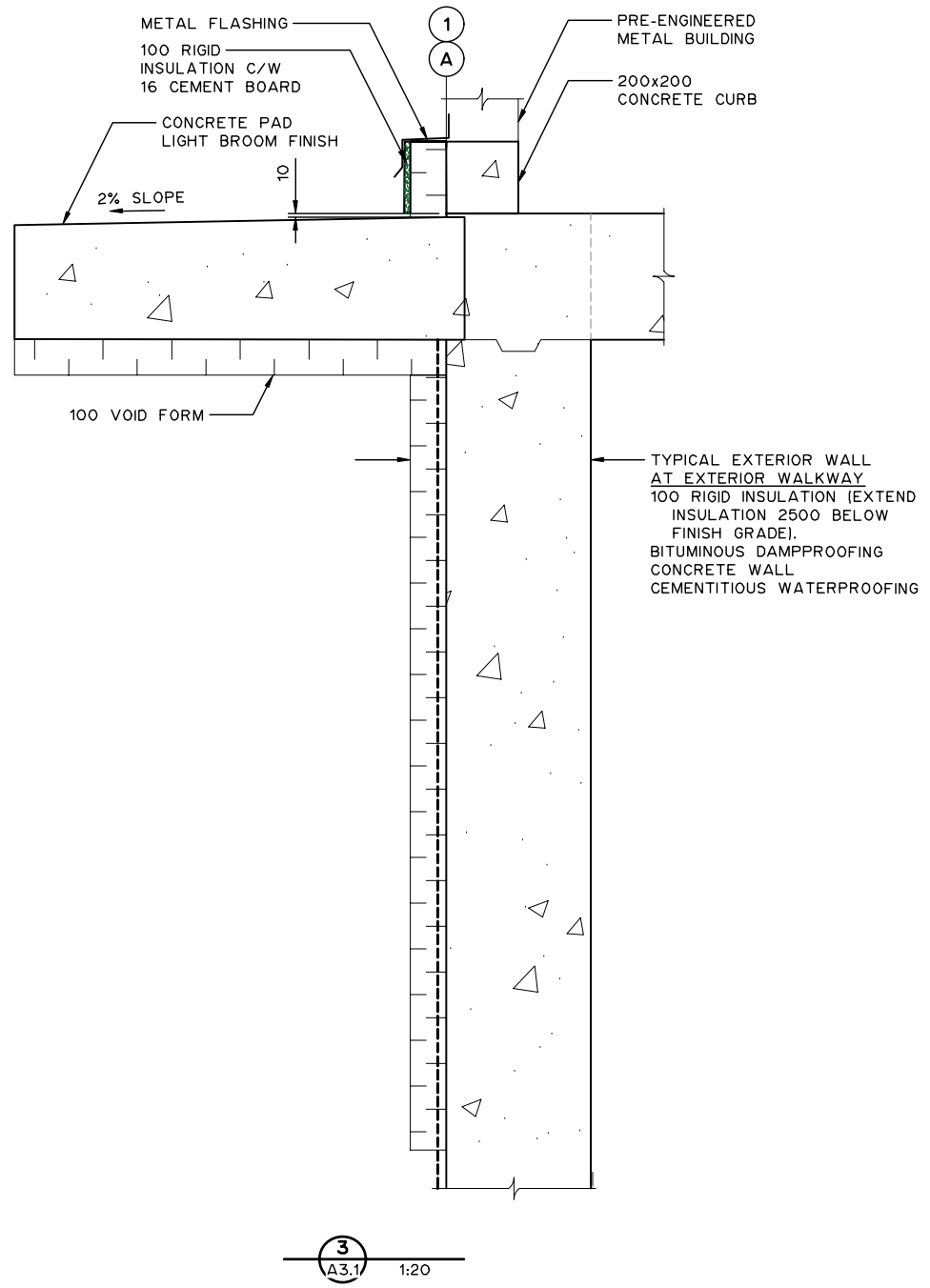
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
SIGN SCHEDULE

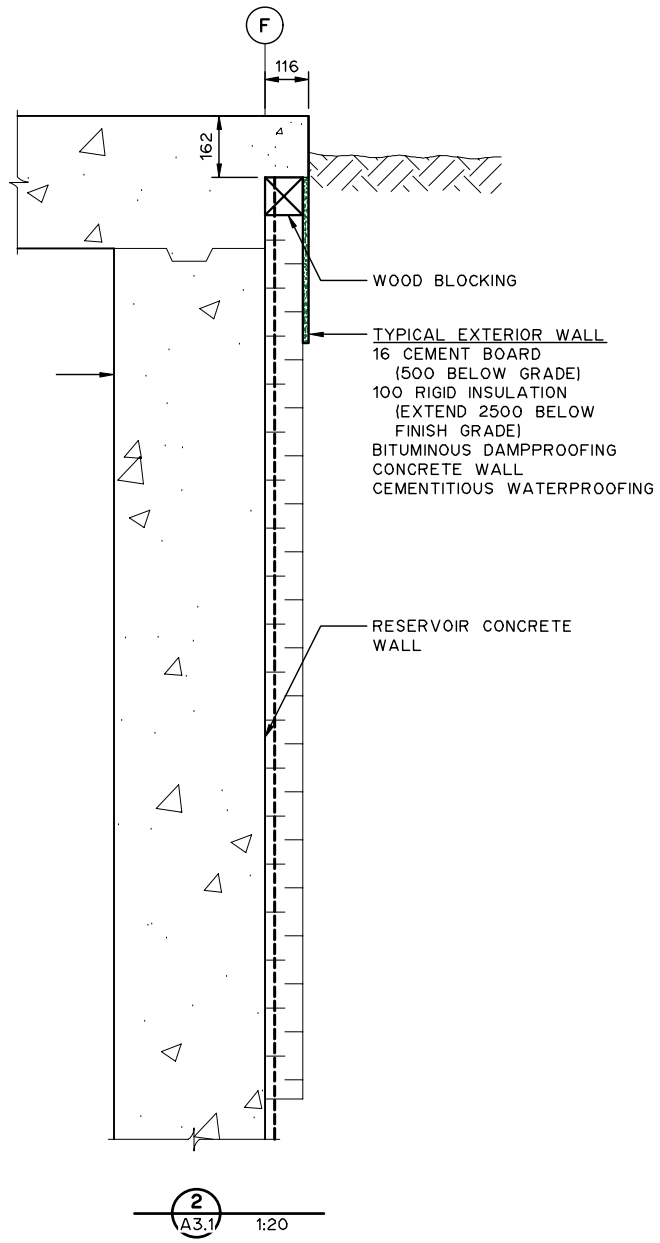
DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	
DATE	NOVEMBER 2020	DRAWING	A4.2



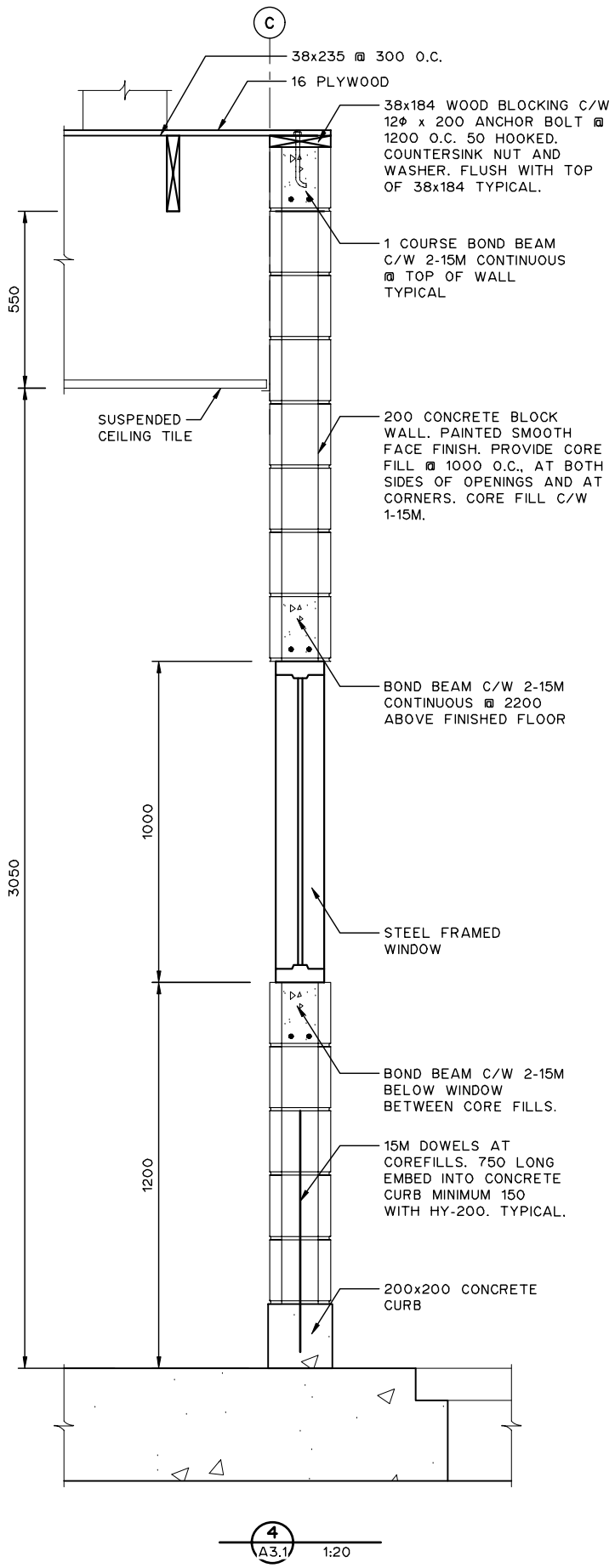
1 A3.1 1:20



3 A3.1 1:20



2 A3.1 1:20



4 A3.1 1:20

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. BITUMEN COATING IS REQUIRED FOR ALL ALUMINUM SURFACE AREAS THAT ARE IN CONTACT WITH CONCRETE.

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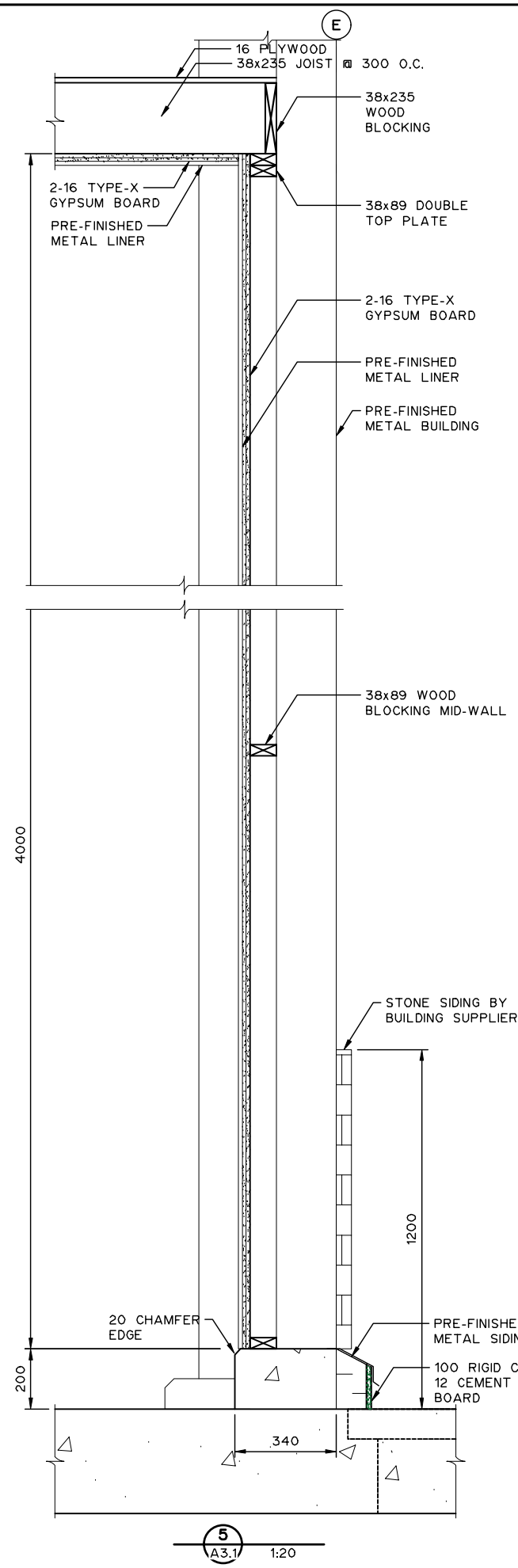
PROFESSIONAL ENGINEER
W. BONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

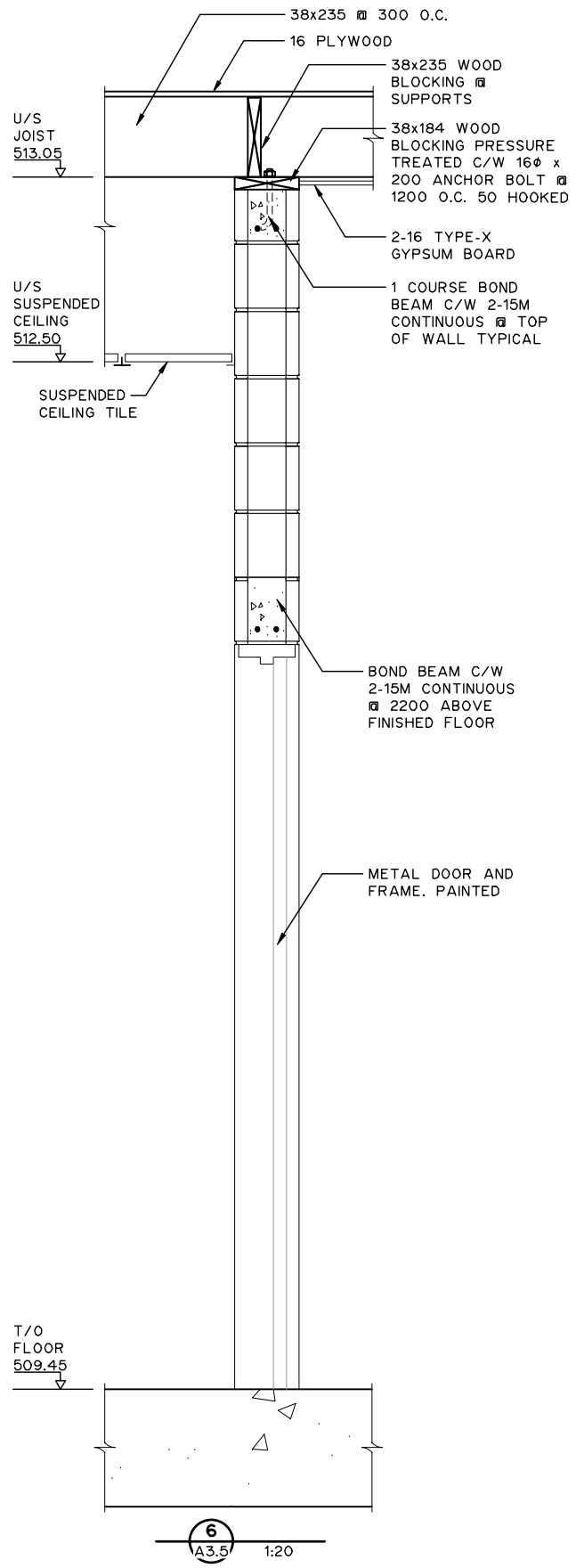
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
BUILDING DETAILS

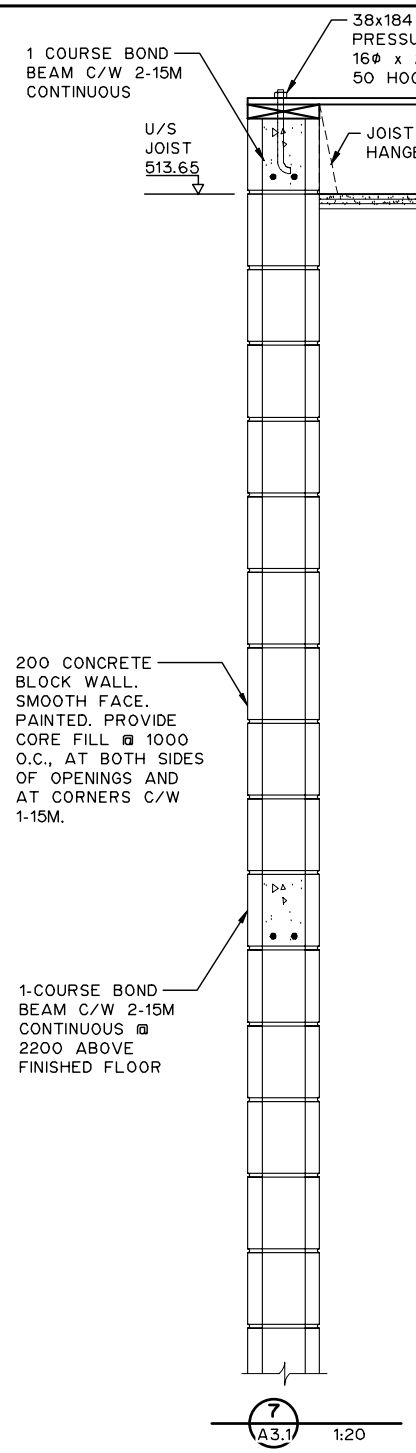
DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	A5.1



5 A3.1 1:20



6 A3.5 1:20



7 A3.1 1:20

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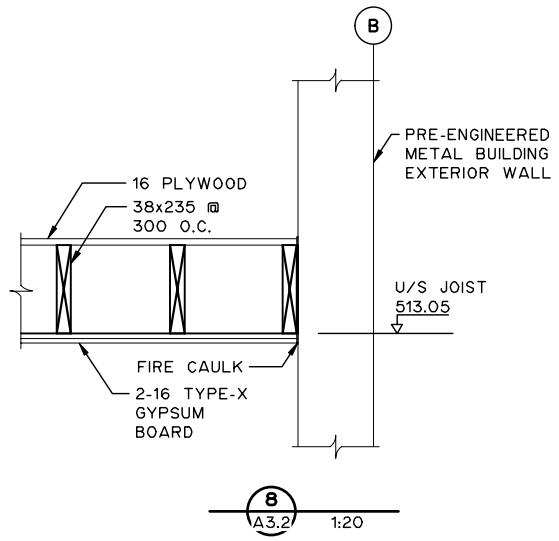
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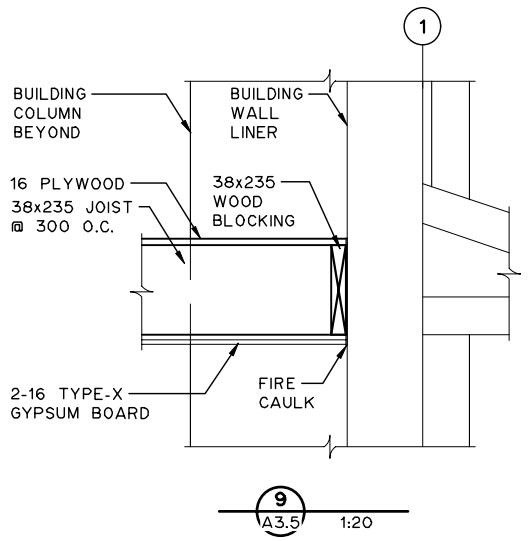
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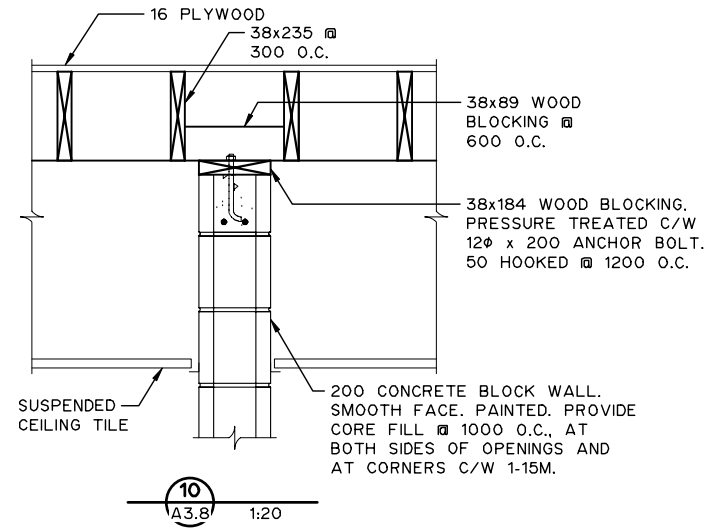
DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	A5.2



8 A3.2 1:20



9 A3.5 1:20



10 A3.8 1:20

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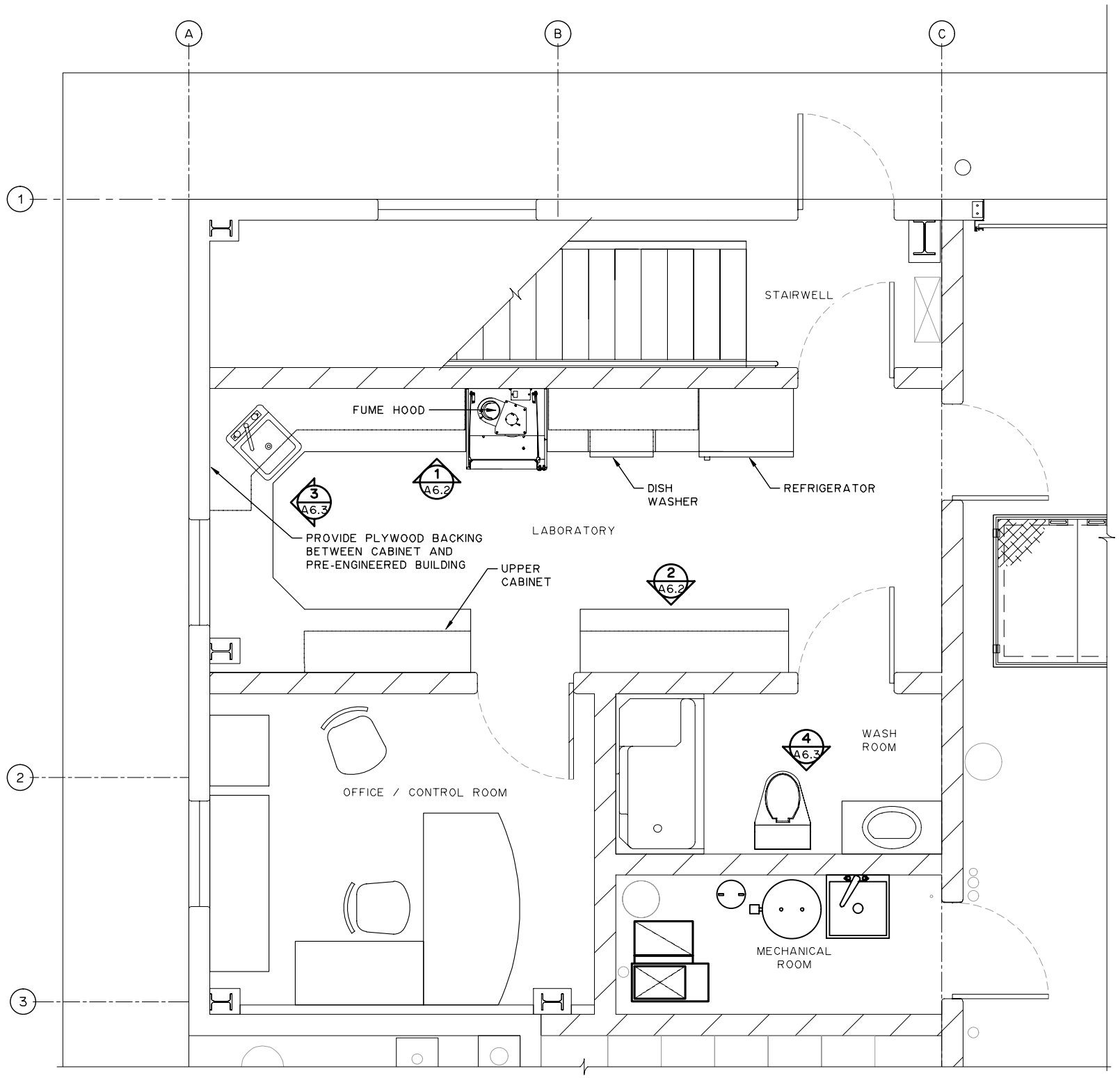
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MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
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DRAWN	D.F.F.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	A5.3



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2. SEE DRAWING A6.3 FOR TYPICAL MILLWORK SECTION. COORDINATE LOCATION AND TYPE OF ALL ELECTRICAL COMPONENTS WITH ELECTRICAL. OUTLETS AND DATAPORTS SHOWN ON THIS DRAWING ARE A SCHEMATIC REPRESENTATION ONLY
3. ALL LAB EQUIPMENT AND APPLIANCES SHOWN IN THE DRAWINGS TO BE SUPPLIED BY THE CONTRACTOR. SEE SPECIFICATION SECTION 10650 AND 10951.
4. OFFICE FURNITURE SHOWN IS FOR INFORMATION ONLY. OFFICE FURNITURE IS NOT PART OF THIS CONTRACT.

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STRUCTURAL	34196	

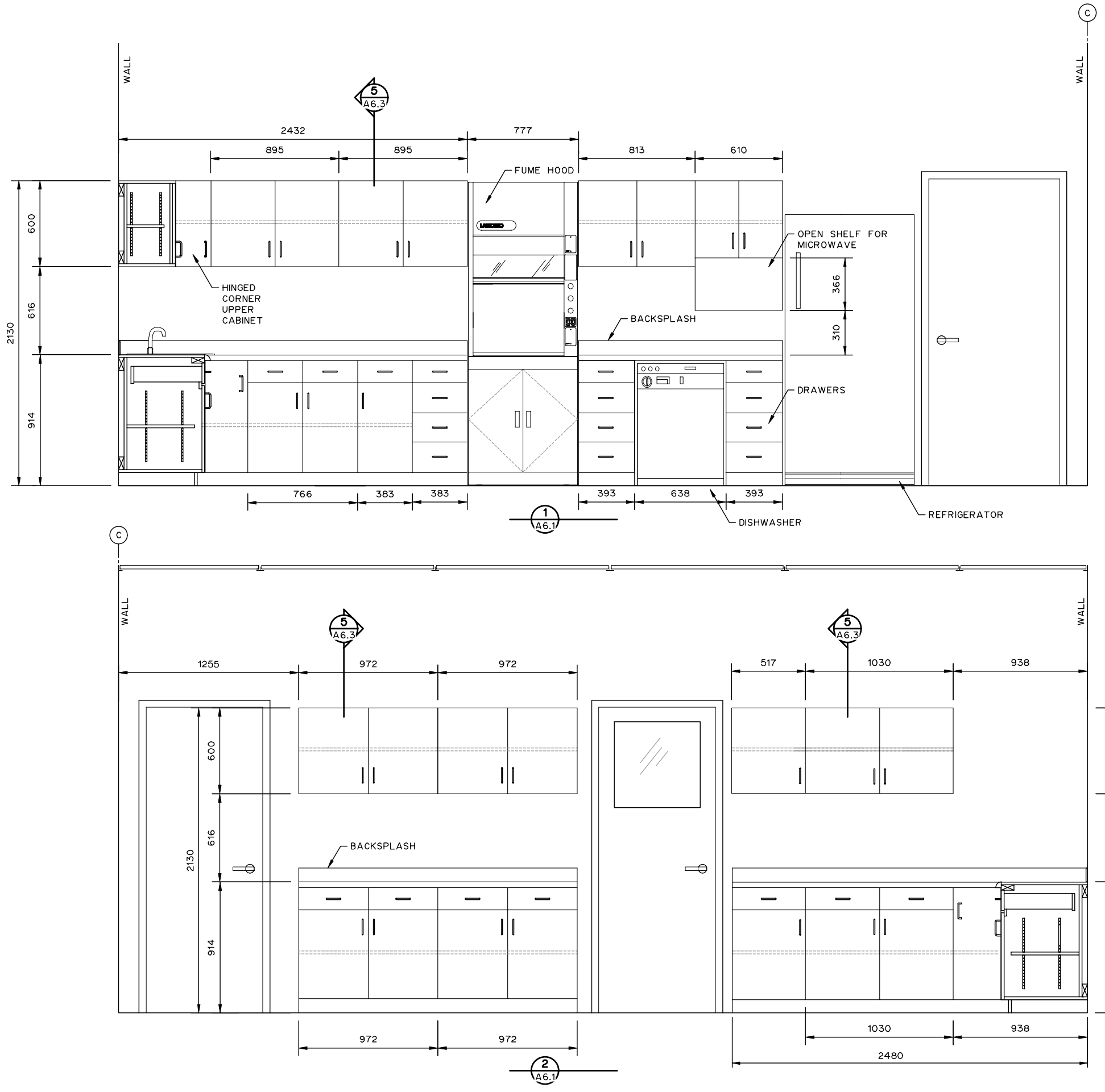
PROFESSIONAL ENGINEER
W. BONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
MILLWORK LAYOUT PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	A6.1



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE DRAWING A6.3 FOR TYPICAL MILLWORK SECTION. COORDINATE LOCATION AND TYPE OF ALL ELECTRICAL COMPONENTS WITH ELECTRICAL. OUTLETS AND DATAPORTS SHOWN ON THIS DRAWING ARE A SCHEMATIC REPRESENTATION ONLY
3. ALL LAB EQUIPMENT AND APPLIANCES SHOWN IN THE DRAWINGS TO BE SUPPLIED BY THE CONTRACTOR. SEE SPECIFICATION SECTION 10650 AND 10951.
4. OFFICE FURNITURE SHOWN IS FOR INFORMATION ONLY. OFFICE FURNITURE IS NOT PART OF THIS CONTRACT.

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2	21-01-15	FOR CONSTRUCTION
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Association of Professional Engineers & Geoscientists of Saskatchewan
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Number C1334
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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

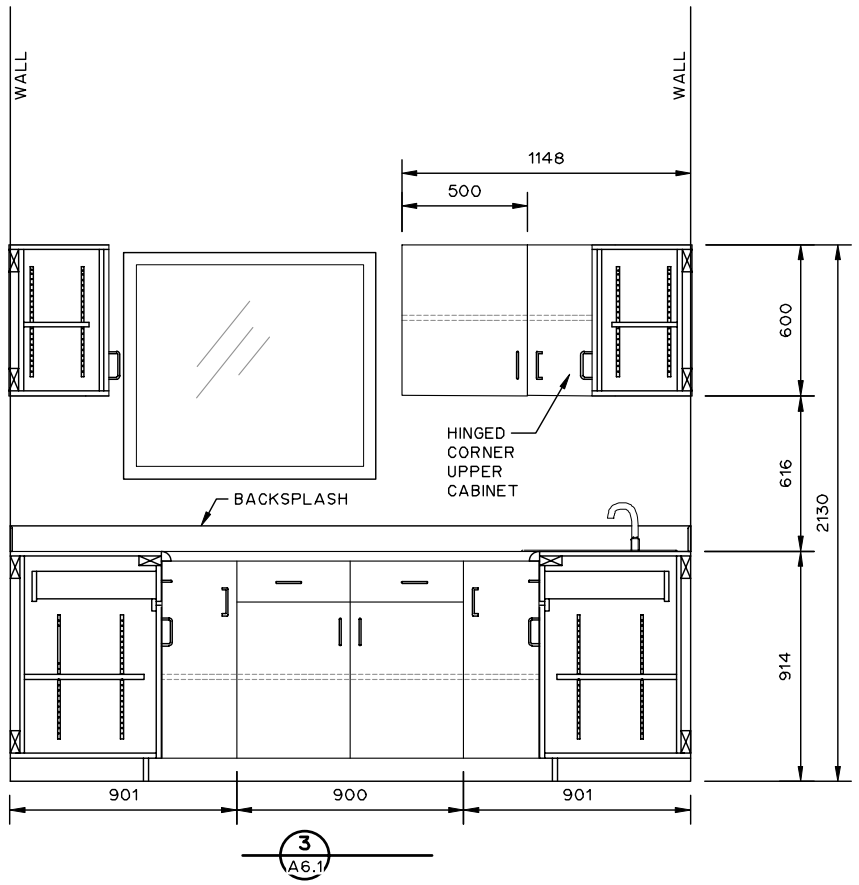
PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

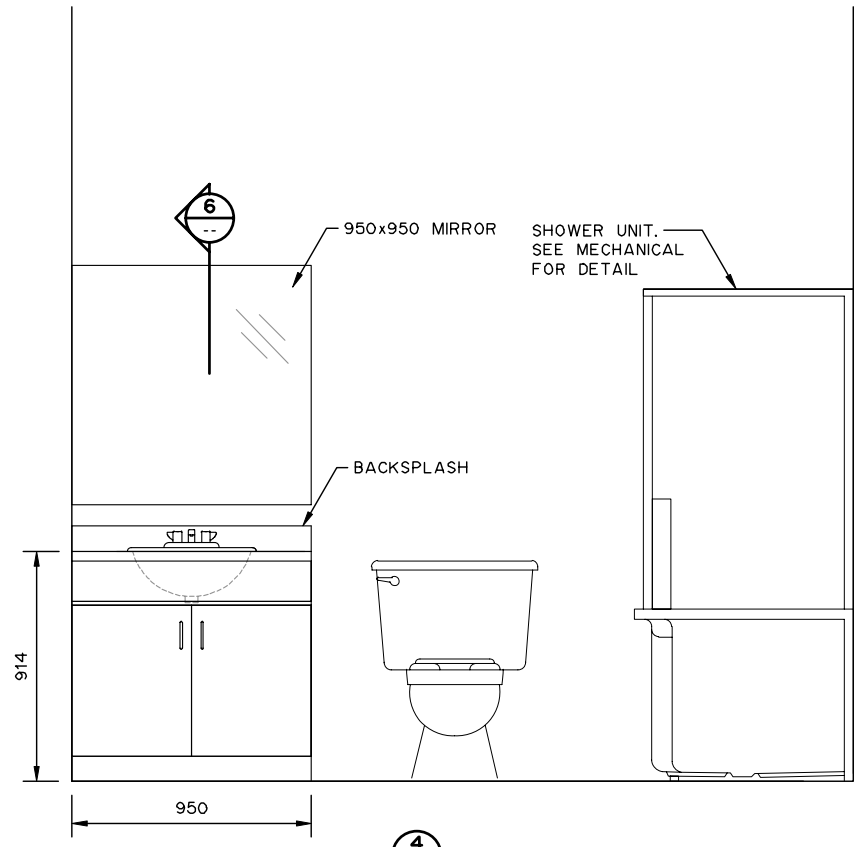
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
MILLWORK ELEVATIONS

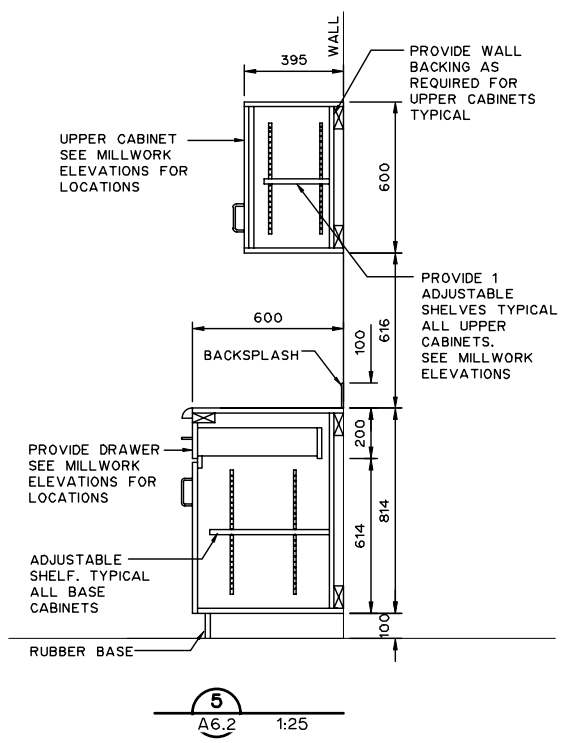
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DRAWN	D.F.F.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	A6.2



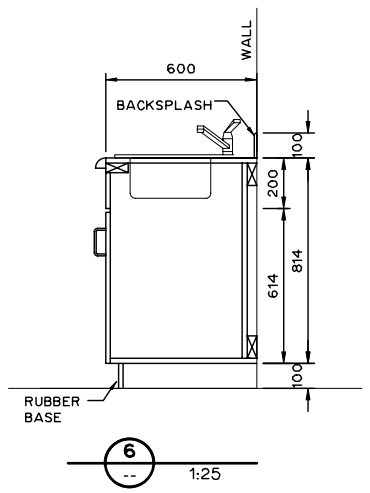
3
A6.1



4
A6.1



5
A6.2
1:25



6
--
1:25

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. SEE DRAWING A6.3 FOR TYPICAL MILLWORK SECTION. COORDINATE LOCATION AND TYPE OF ALL ELECTRICAL COMPONENTS WITH ELECTRICAL. OUTLETS AND DATAPORTS SHOWN ON THIS DRAWING ARE A SCHEMATIC REPRESENTATION ONLY
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4. OFFICE FURNITURE SHOWN IS FOR INFORMATION ONLY. OFFICE FURNITURE IS NOT PART OF THIS CONTRACT.
5. SEE SPECIFICATION 10811 FOR WASHROOM ACCESSORIES.

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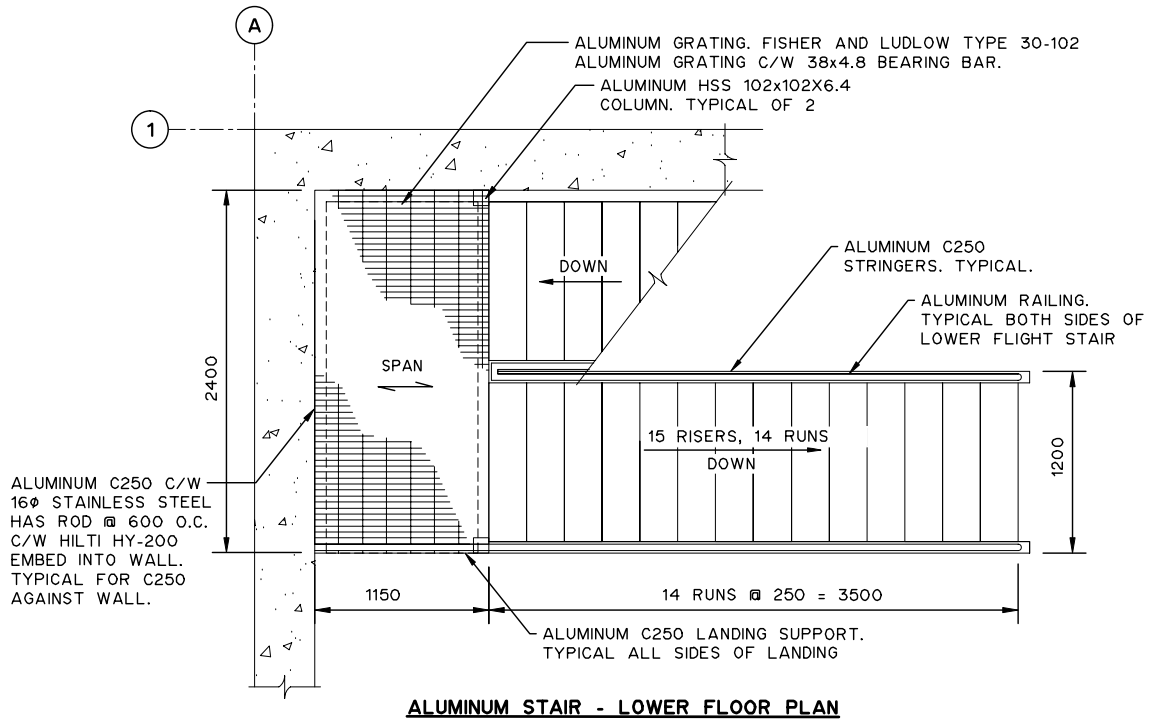
PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

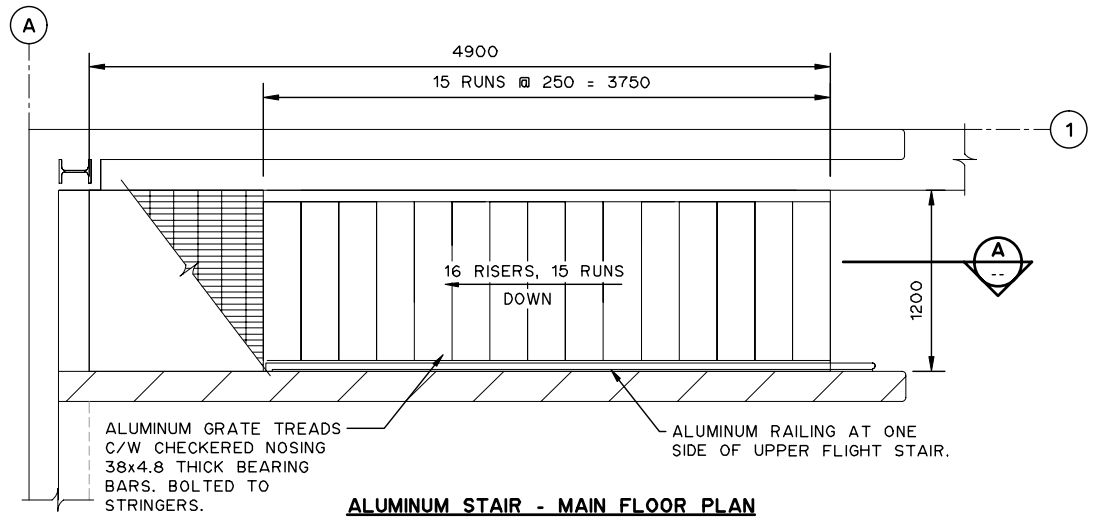
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
MILLWORK ELEVATIONS AND DETAILS

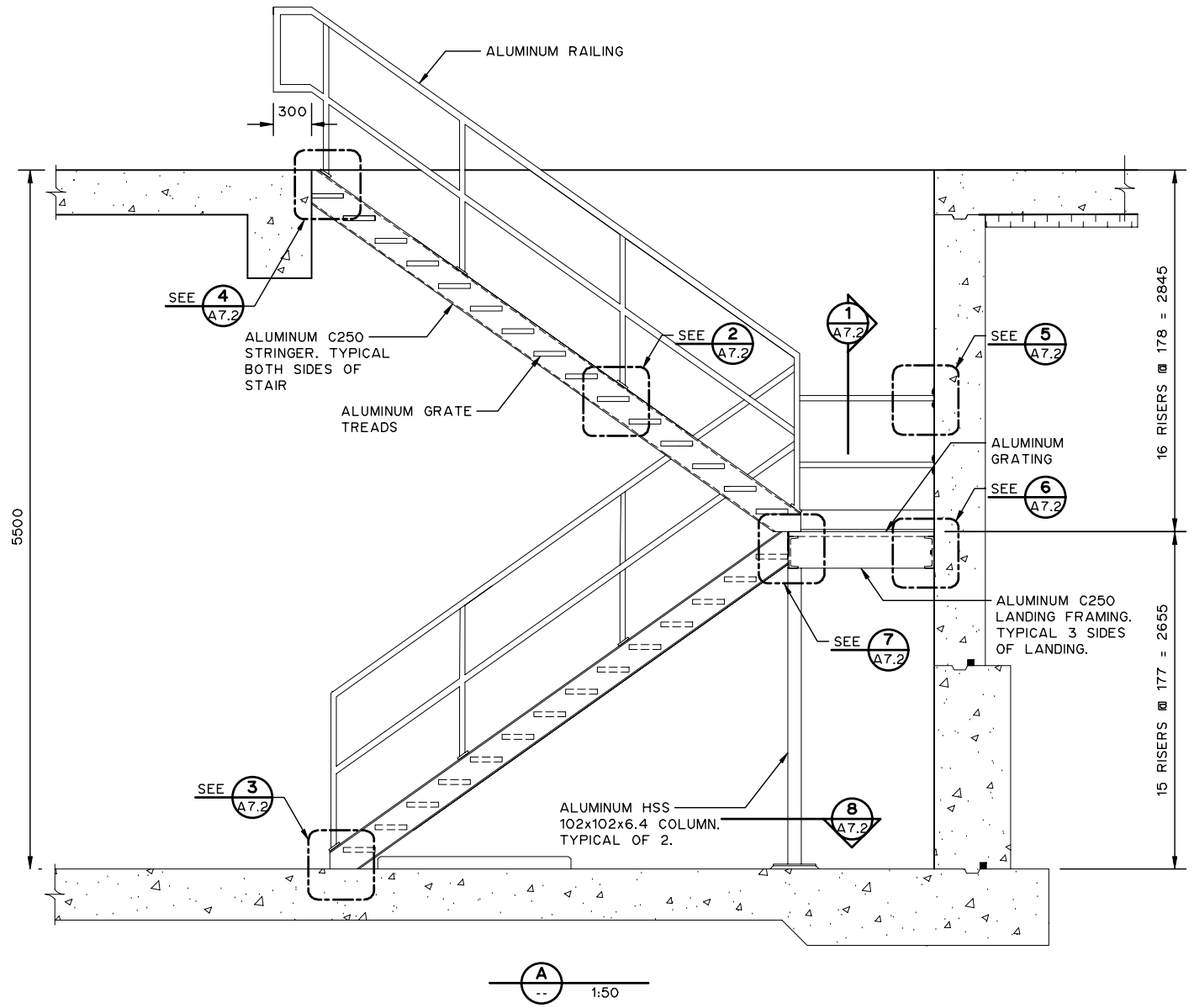
DESIGNED	W.W.L.S.	JOB	7603-002-00
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DATE	NOVEMBER 2020	DRAWING	A6.3

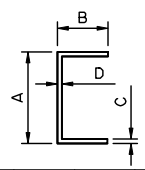


ALUMINUM STAIR - LOWER FLOOR PLAN
1:50



ALUMINUM STAIR - MAIN FLOOR PLAN
1:50





MEMBER	A	B	C	D
C250	254	73.4	11.1	13.4

ALUMINUM CHANNEL SCHEDULE

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. BITUMEN COATING IS REQUIRED FOR ALL ALUMINUM SURFACE AREAS THAT ARE IN CONTACT WITH CONCRETE.
3. ALL PLATFORM MEMBERS AND GRATING TO BE STRUCTURAL ALUMINUM ALLOY 6061-T6 UNLESS NOTED OTHERWISE.

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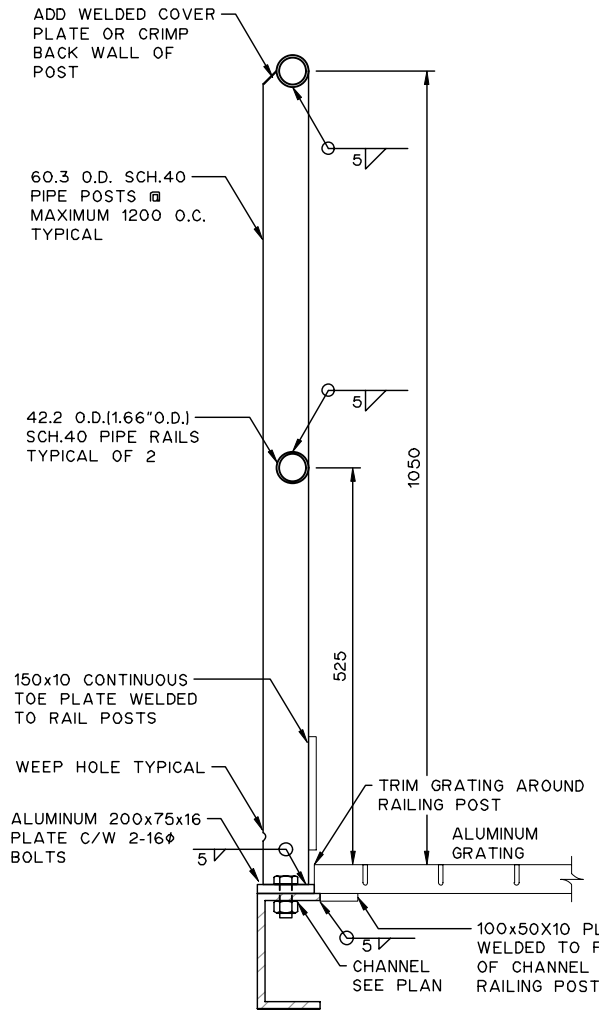
PROFESSIONAL ENGINEER — W. KONG — MEMBER 34196 — 2021 01 15 — SASKATCHEWAN

MPE Engineering Ltd.

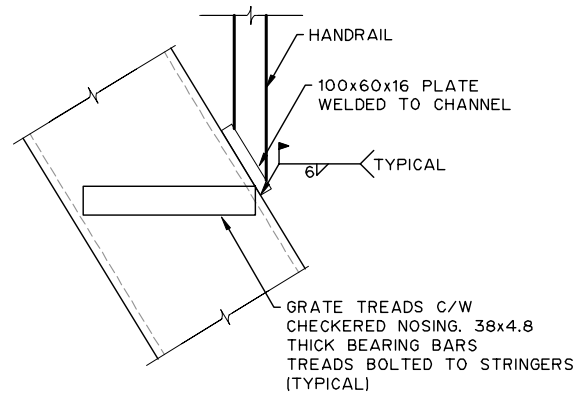
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
ALUMINUM STAIR PLANS AND SECTIONS

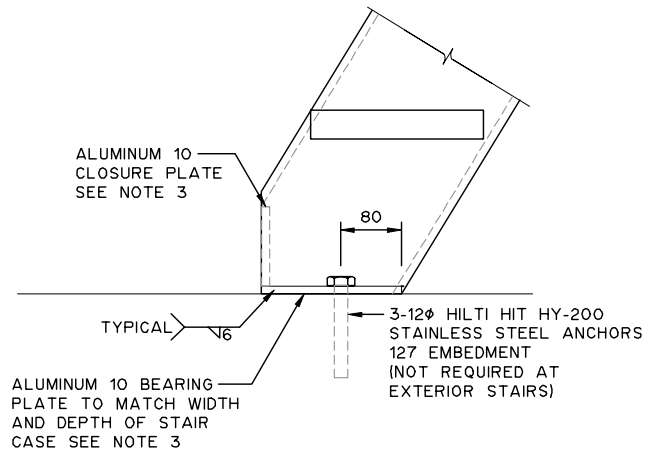
DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	A7.1



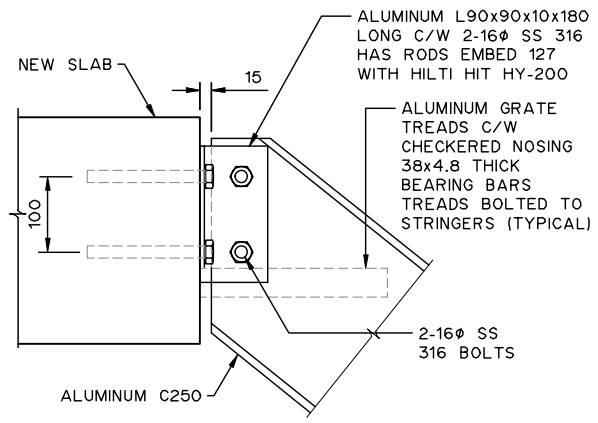
1 A7.1 **TYPICAL HANDRAIL DETAIL** N.T.S.



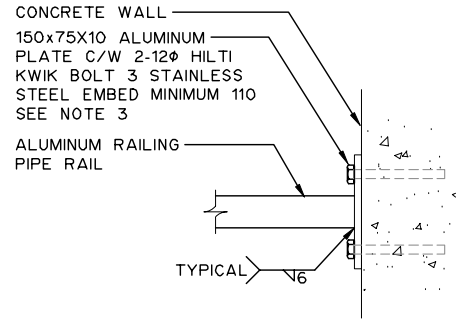
2 A7.1 **TYPICAL HANDRAIL TO STRINGER CONNECTION** N.T.S.



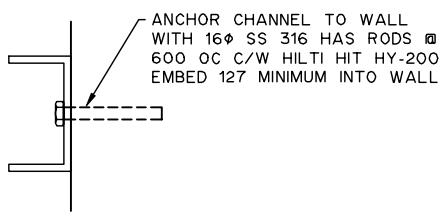
3 A7.1 **TYPICAL BEARING PLATE CONNECTION** N.T.S.



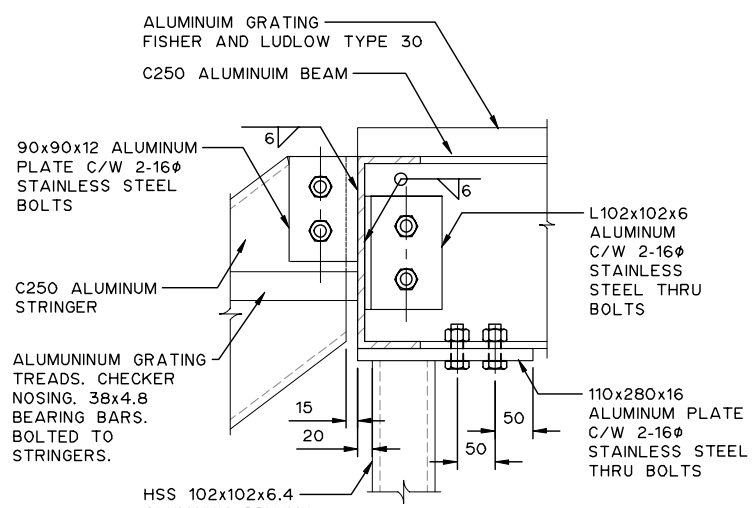
4 A7.1 **TYPICAL STRINGER TO CONCRETE CONNECTION** N.T.S.



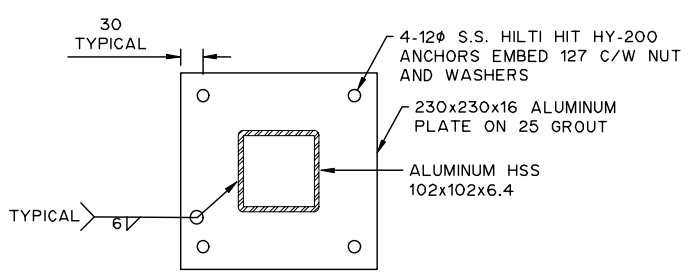
5 A7.1 **RAILING PIPE TO CONCRETE WALL DETAIL** N.T.S.



6 A7.1 **TYPICAL LANDING CHANNEL TO WALL CONNECTION** N.T.S.



7 A7.1 N.T.S.



8 A7.1 **TYPICAL 102x102 HSS COLUMN BASE PLATE** N.T.S.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL BOLD ITEMS INDICATE WORK TO BE DONE, AND ALL LIGHT ITEMS INDICATE EXISTING CONDITIONS.
3. BITUMEN COATING IS REQUIRED FOR ALL ALUMINUM SURFACE AREAS THAT ARE IN CONTACT WITH CONCRETE.
4. ALL INTERIOR MEMBERS TO BE STRUCTURAL ALUMINUM ALLOY 6061-T6 UNLESS NOTED OTHERWISE.

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STRUCTURAL	34196	

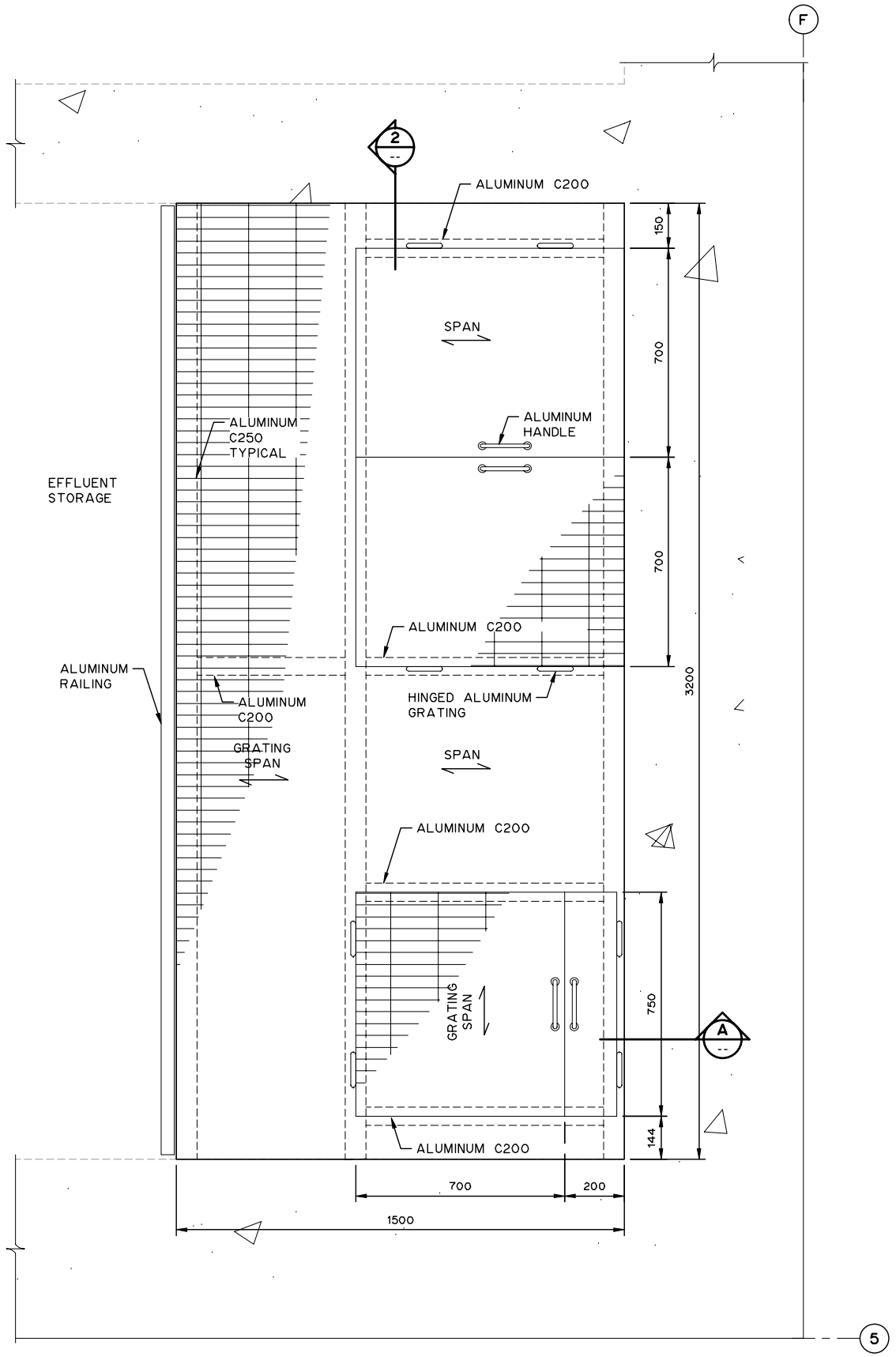
PROFESSIONAL ENGINEER W. BOAG MEMBER 34196 2021 01 15 SASKATCHEWAN

MPE Engineering Ltd.

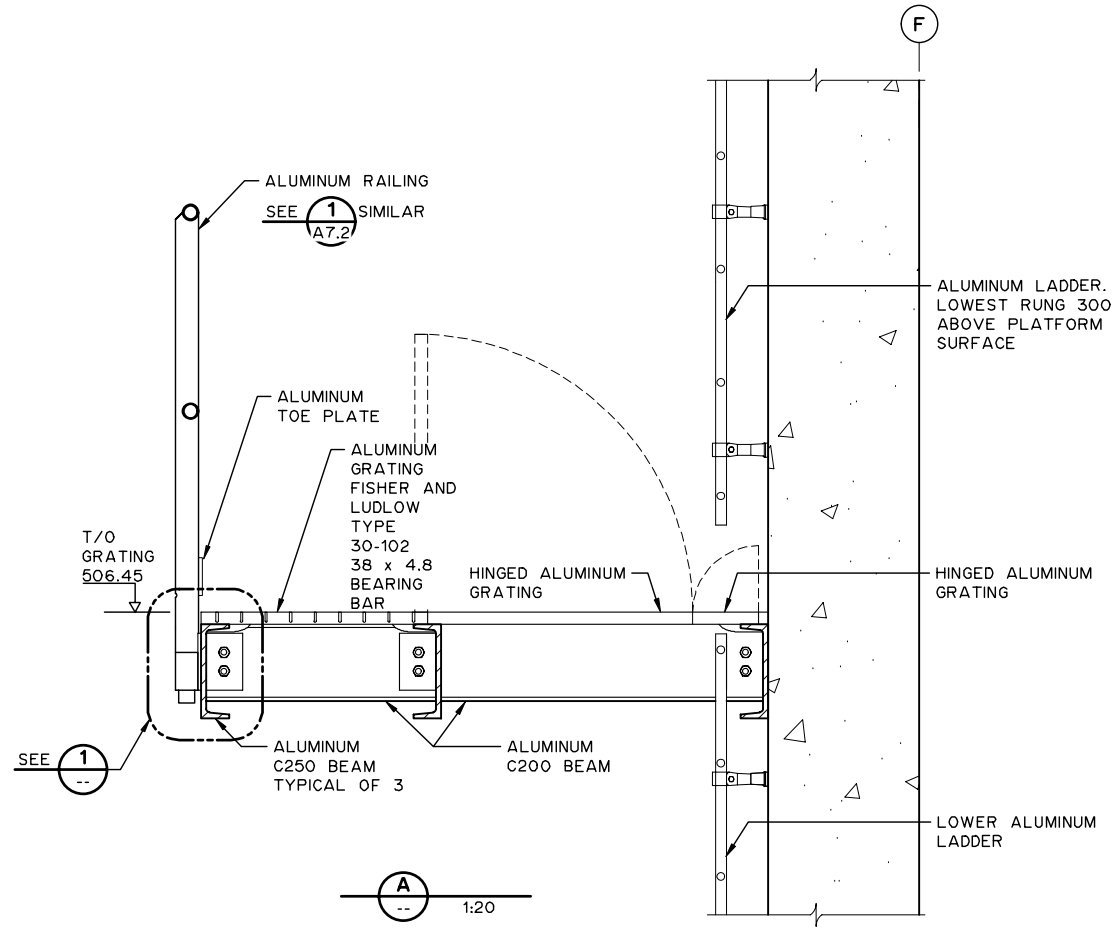
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

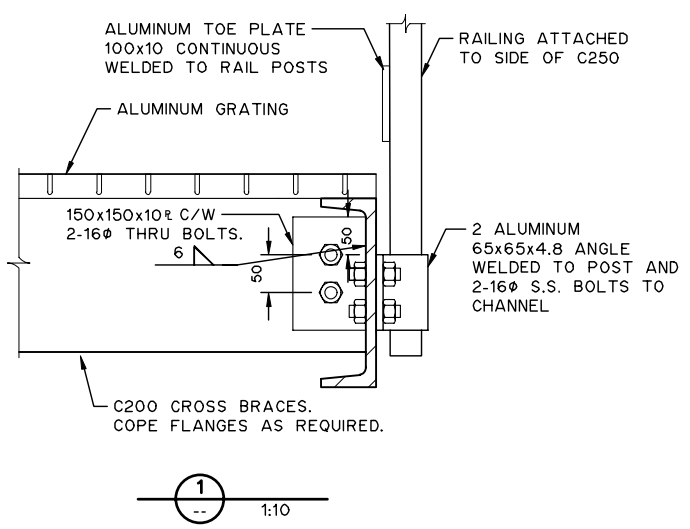
WASTEWATER TREATMENT PLANT
ARCHITECTURAL
ALUMINUM STAIR DETAILS

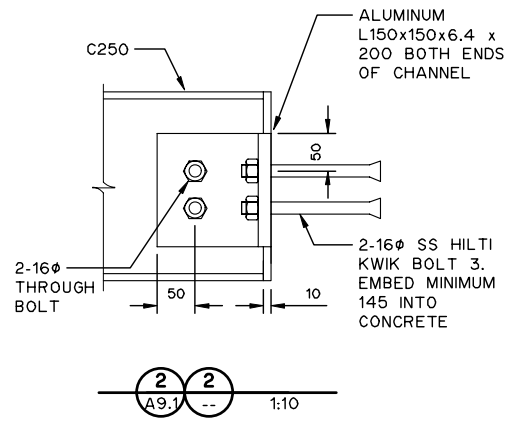
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DRAWN	D.F.F.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	A7.2

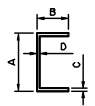


EFFLUENT STORAGE INTERMEDIATE PLATFORM PLAN
1:20









MEMBER	A	B	C	D
C200	203	76	9	5
C250	254	73.4	11.1	13.4

ALUMINUM CHANNEL SCHEDULE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. BITUMEN COATING IS REQUIRED FOR ALL ALUMINUM SURFACE AREAS THAT ARE IN CONTACT WITH CONCRETE.

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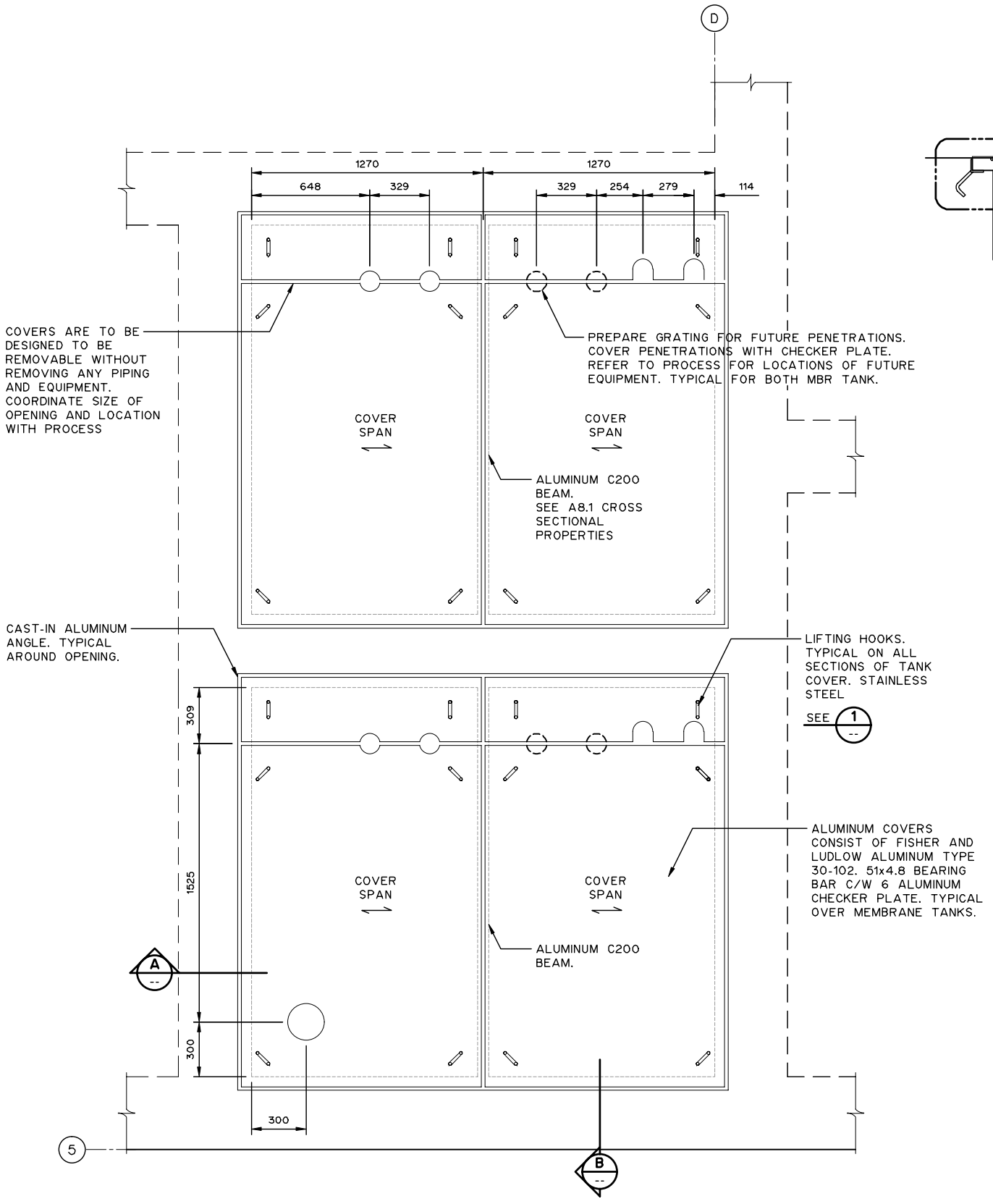
PROFESSIONAL ENGINEER
W. KONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

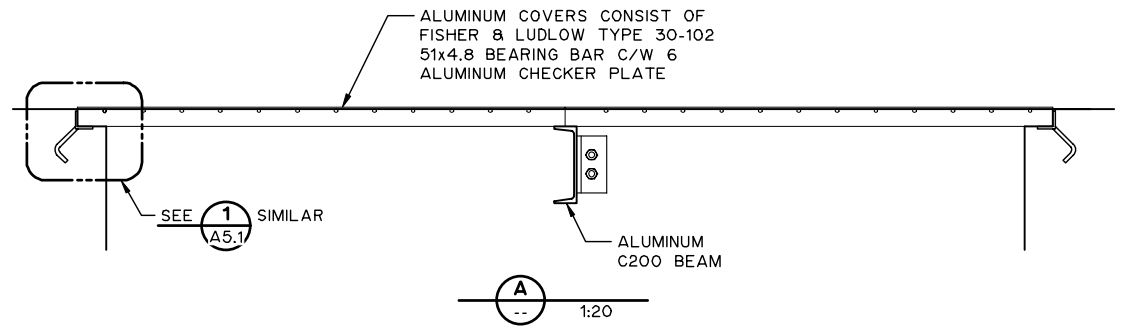
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

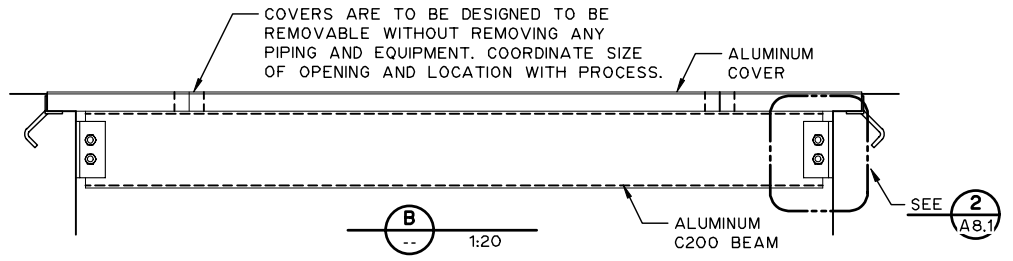
WASTEWATER TREATMENT PLANT
ARCHITECTURAL
ALUMINUM PLATFORM

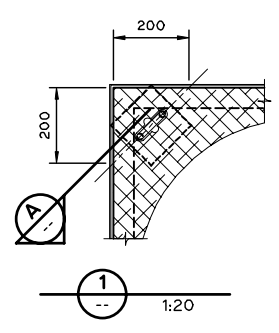
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DATE	NOVEMBER 2020	DRAWING	A8.1

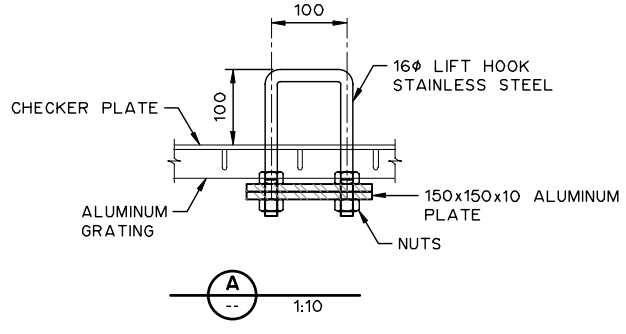


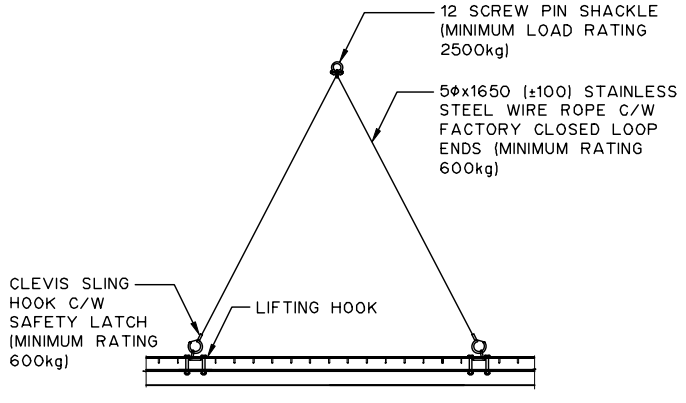
MBR TANK ALUMINUM COVER PLAN
1:30











TYPICAL RIGGING DETAIL
N.T.S.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. BITUMEN COATING IS REQUIRED FOR ALL ALUMINUM SURFACE AREAS THAT ARE IN CONTACT WITH CONCRETE.
3. STRUCTURAL ALUMINUM ALLOY 6061-T6 TYPICAL.
4. COORDINATE SIZE AND LOCATION OF OPENINGS THROUGH SLAB AND GRATING WITH MECHANICAL AND PROCESS PLANS.
5. CONTRACTOR TO ENSURE TANK LIDS DO NOT HAVE A GAP GREATER THAN 6mm ANYWHERE.
6. CONTRACTOR TO INSTALL GRATING PRIOR TO EQUIPMENT INSTALL TO ENSURE SAFETY.

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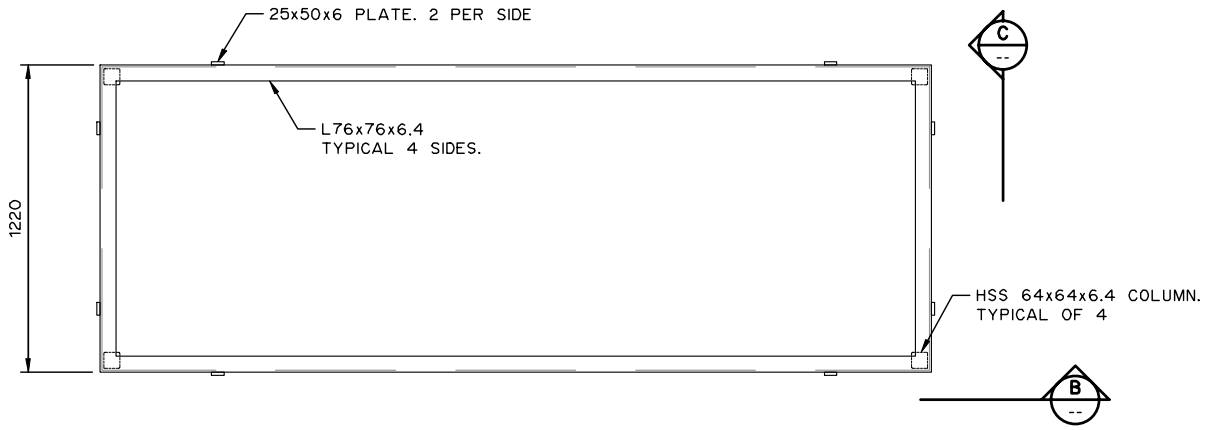
PROFESSIONAL ENGINEER W. SONG MEMBER 34196 2021 01 15 SASKATCHEWAN

MPE Engineering Ltd.

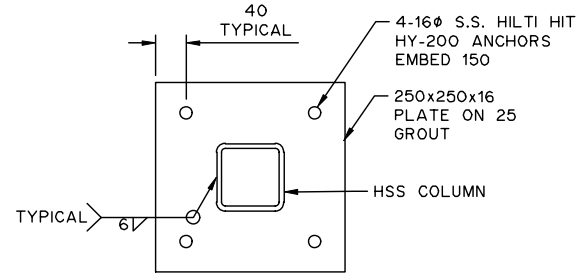
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
MBR TANK
COVER PLAN, SECTIONS AND DETAILS

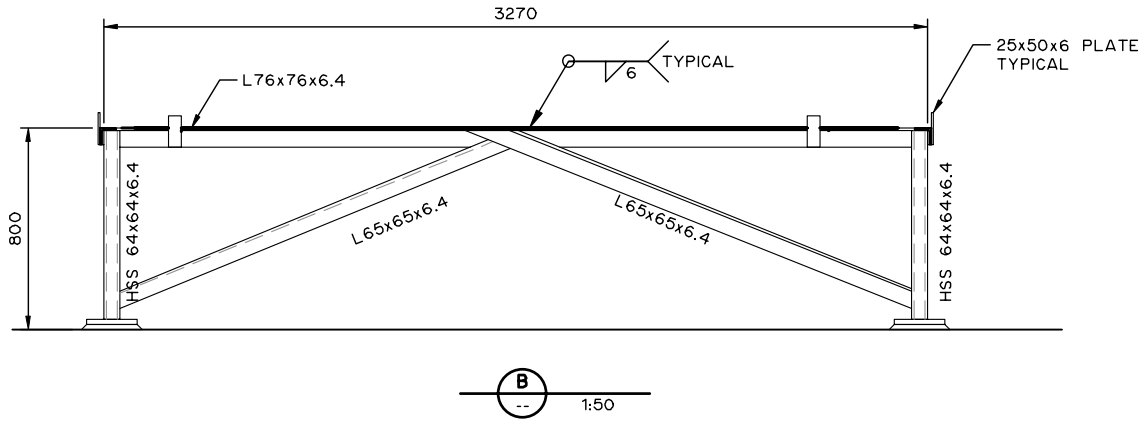
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DATE	NOVEMBER 2020	DRAWING	A9.1



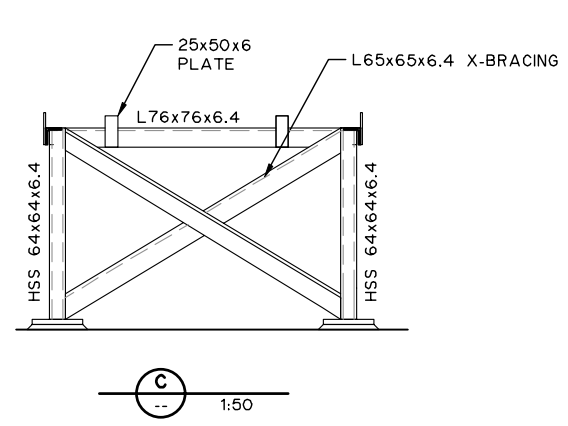
MUA SUPPORT FRAME PLAN
1:30



TYPICAL COLUMN BEARING PLATE DETAIL
1:10



1:50



1:50

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. MUA SUPPORT FRAME TO BE CONSTRUCTED WITH GALVANIZED STEEL UNLESS NOTED OTHERWISE.
3. COORDINATE WITH MAKE-UP AIR UNIT SUPPLIER FOR SIZE OF UNIT. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE NOTED.

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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

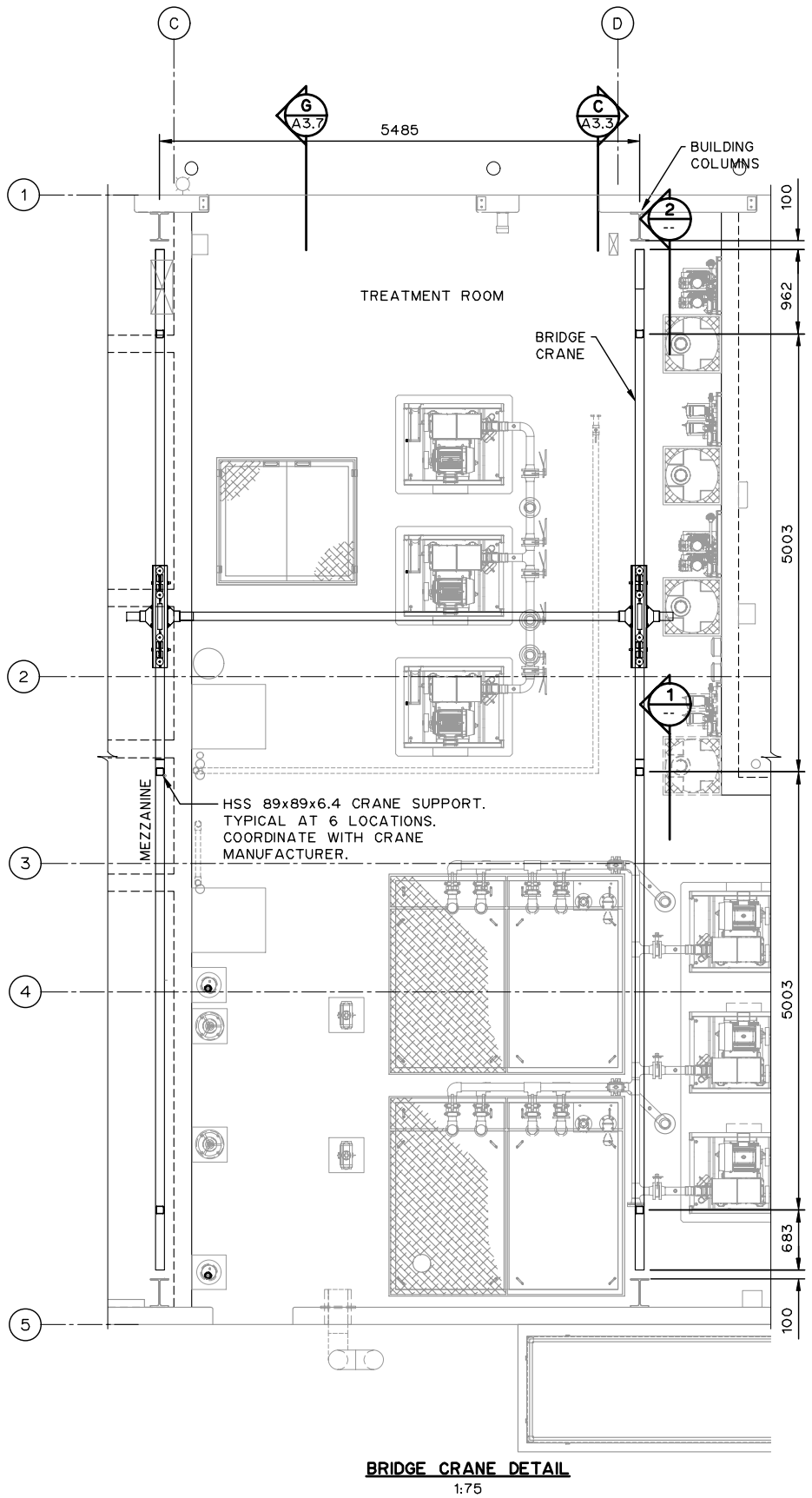
PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

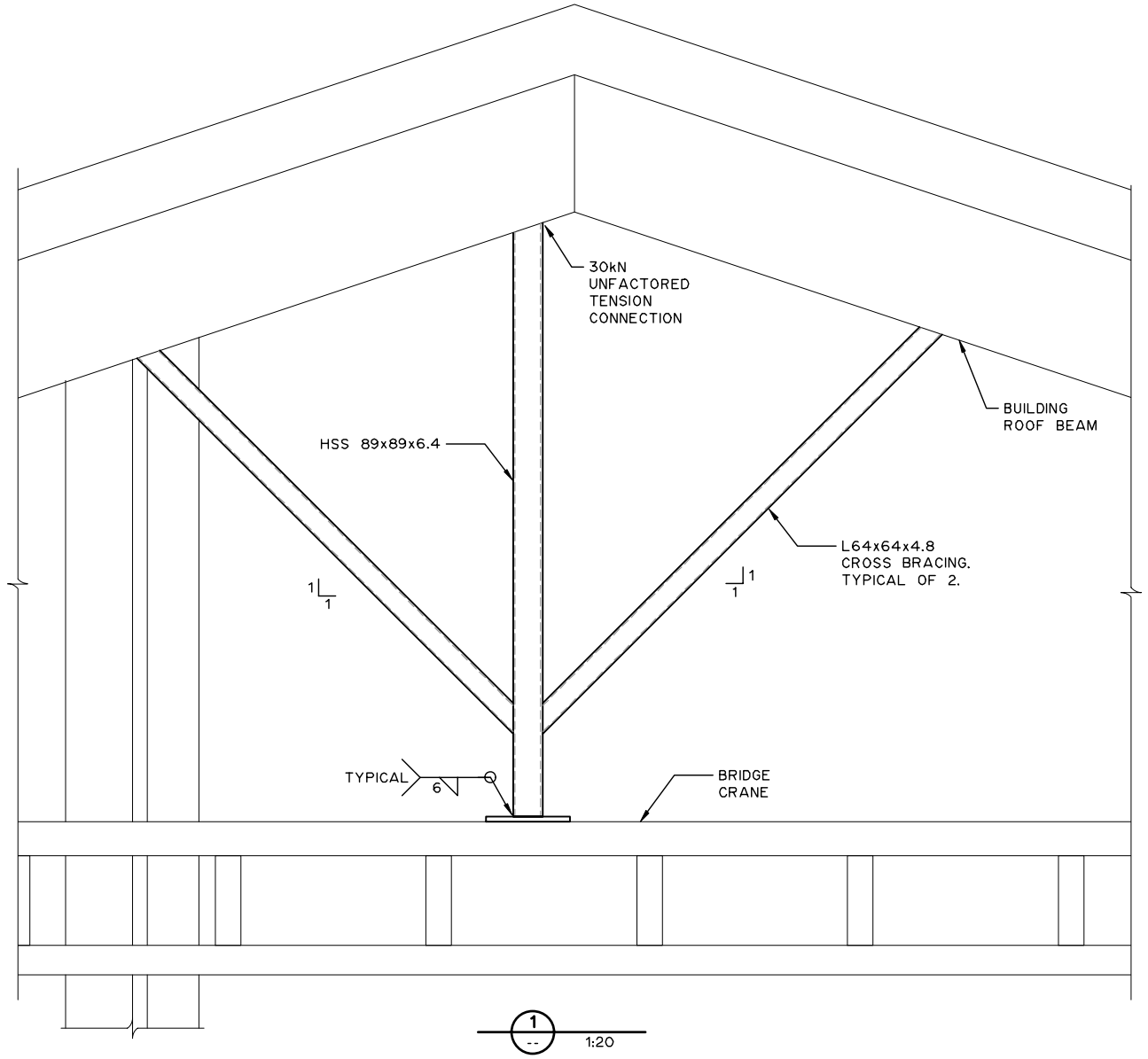
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
MUA SUPPORT FRAME

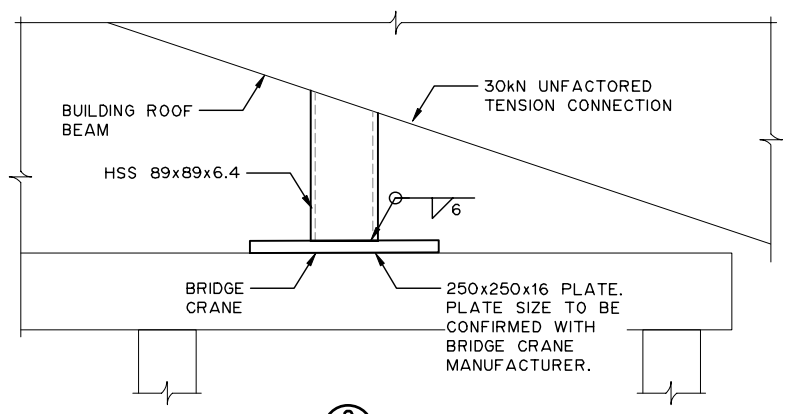
DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	A10.1



BRIDGE CRANE DETAIL
1:75



1 -- 1:20



2 -- 1:10

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. CONTRACTOR TO PROVIDE HOISTS WITH SERIAL NUMBERS, LOADING RATES AND ENGINEERED DRAWINGS. MONORAIL AND HOISTS TO BE TESTED BY CERTIFIED AGENCY.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
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Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

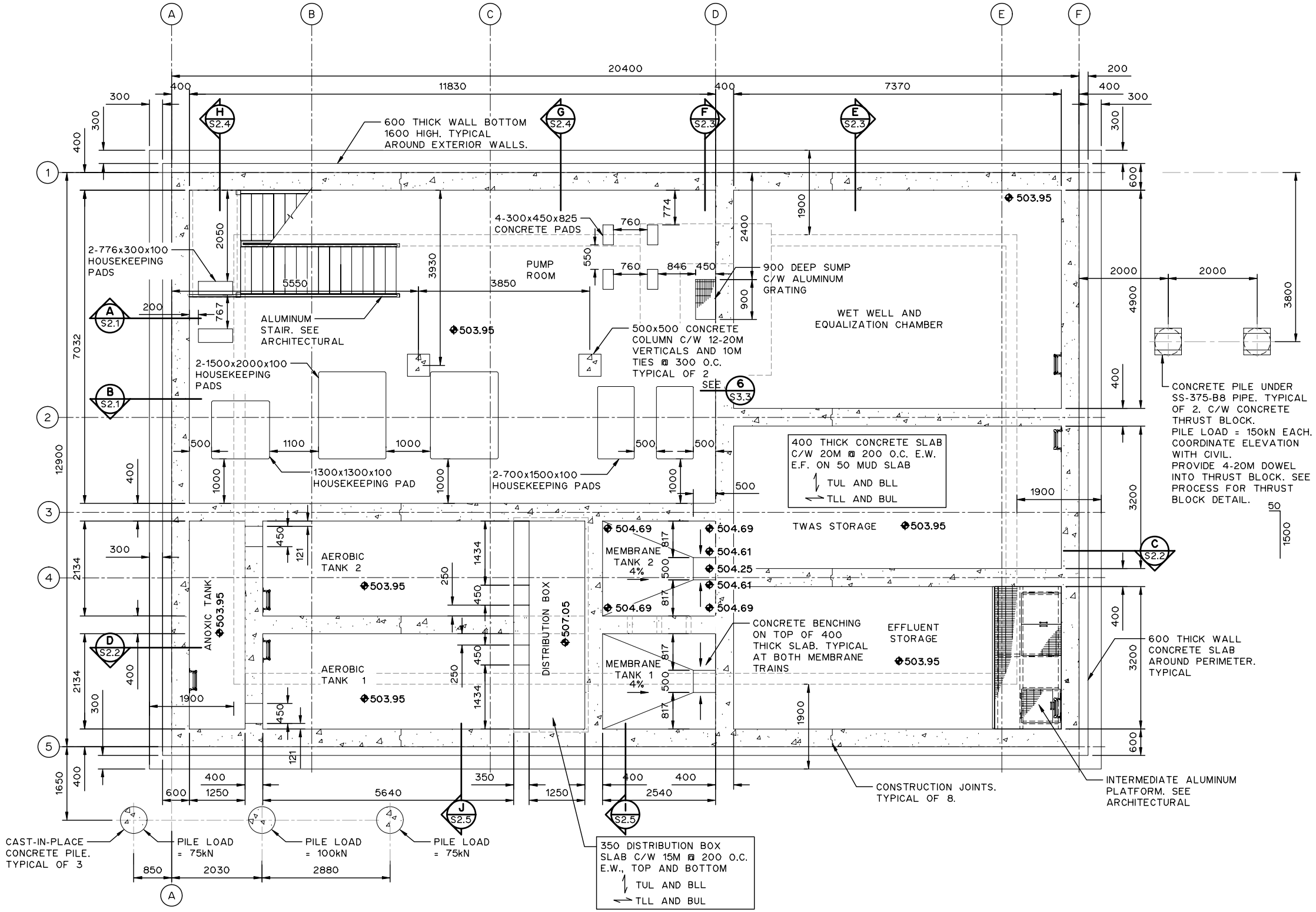
PROFESSIONAL ENGINEER
W. DONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ARCHITECTURAL
BRIDGE CRANE PLAN AND DETAILS

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	A11.1



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. 20 CHAMFER ALL EXPOSED CONCRETE EDGES.
3. COORDINATE LOCATION OF ALL PENETRATIONS WITH PROCESS.
4. CAST-IN SLEEVES C/W LEAK PLATE FOR ALL FLOOR AND WALL PENETRATIONS. SEE PROCESS FOR DETAILS AND LOCATIONS.
5. CONCRETE PILES ARE TO BE DESIGNED BY PILE DESIGNER. FOLLOW RECOMMENDATIONS PROVIDED BY GEOTECHNICAL REPORT PROVIDED IN CONTRACT.
6. REFER TO S4.1 FOR ADDITIONAL REINFORCING AROUND PENETRATIONS AND CONCRETE PADS.
7. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING GEOTECHNICAL ENGINEER'S APPROVAL. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
8. TOP SLAB MUST BE IN-PLACED IN ITS ENTIRETY, EXCEPT FOR CANTILEVER SIDEWALKS PRIOR TO BACKFILLING AROUND LOWER LEVEL OR HYDROSTATIC PRESSURE TEST.
9. SEE ARCHITECTURAL FOR CONCRETE FINISHES AND COATINGS.

(SEE BELOW FOR CONTINUATION)

NOTES (CONT'D):

10. SEE ARCHITECTURAL FOR ALL ALUMINUM COMPONENTS. COORDINATE ALL CAST-IN ALUMINUM COMPONENTS.
11. SLOPE FLOOR TO DRAINS
12. REFER TO MECHANICAL DRAWINGS FOR LOCATION OF FLOOR/ HUB DRAINS.

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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

PROFESSIONAL ENGINEER W. BONG MEMBER 34196 2021 01 15 SASKATCHEWAN

MPE Engineering Ltd.

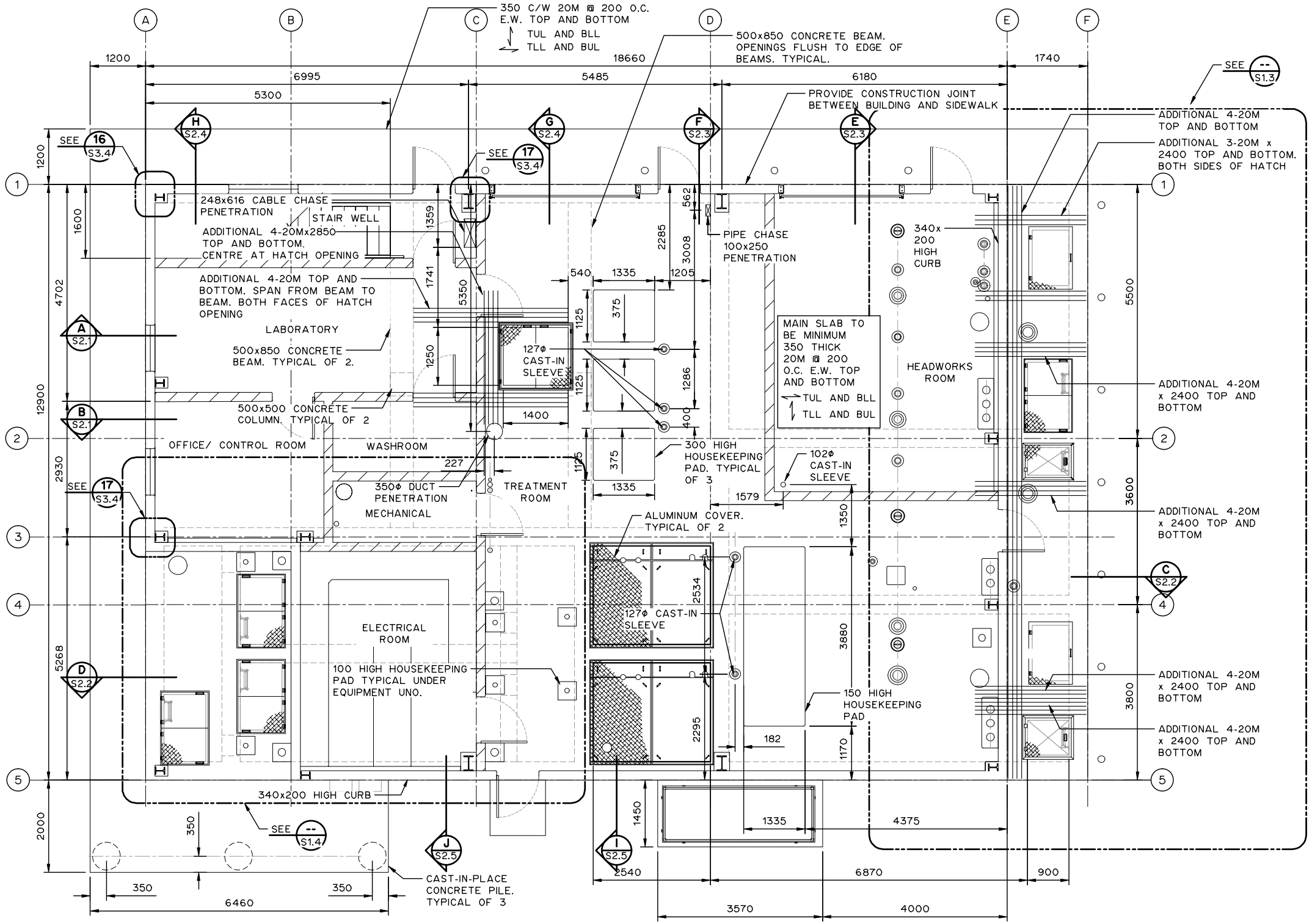
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
LOWER FLOOR PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	S1.1

NOTES (CONT'D):

MAIN FLOOR SLAB DESIGN LOADS:
DEAD LOAD = 10.6 kPa
LIVE LOAD = 15 kPa



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. COORDINATE ALL CONCRETE PADS AND PENETRATIONS, SIZES AND LOCATIONS WITH OTHER DISCIPLINES.
3. SEE ARCHITECTURAL FOR LOCATION OF WALL CURBS. DISCONTINUE CURBS AT DOOR OPENINGS.
4. CAST-IN SLEEVES C/W LEAK PLATE FOR ALL PENETRATIONS. LEAK SEAL AND LEAK PLATE MIGHT NOT BE SHOWN ON THE DRAWING. SEE PROCESS FOR DETAIL.
5. REFER TO S4.1 FOR ADDITIONAL REINFORCING AROUND PENETRATIONS AND REINFORCING DETAILS FOR CONCRETE PADS.
6. 20 CHAMFER ALL EXPOSED CONCRETE EDGE.
7. SEE SPECIFICATION SECTION 03300 3.3.6 FOR CONDUIT AND PIPE INSTALLED IN SLAB.
8. SEE ARCHITECTURAL FOR BUILDING AND ALUMINUM COMPONENTS.
9. SEE ARCHITECTURAL FOR CONCRETE FINISHES AND COATINGS.
10. CAST-IN ANCHOR FOR BUILDING COLUMNS TO BE MINIMUM 500 LONG C/W 90 HOOK.
11. PROVIDE 200x200 CONCRETE CONCRETE CURB UNDER EXTERIOR AND INTERIOR WALLS. TYPICAL UNLESS NOTE OTHERWISE. SEE S4.1 FOR REINFORCING.
12. REFER TO MECHANICAL DRAWINGS FOR LOCATION OF FLOOR/HUB DRAINS.

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STRUCTURAL	34196	

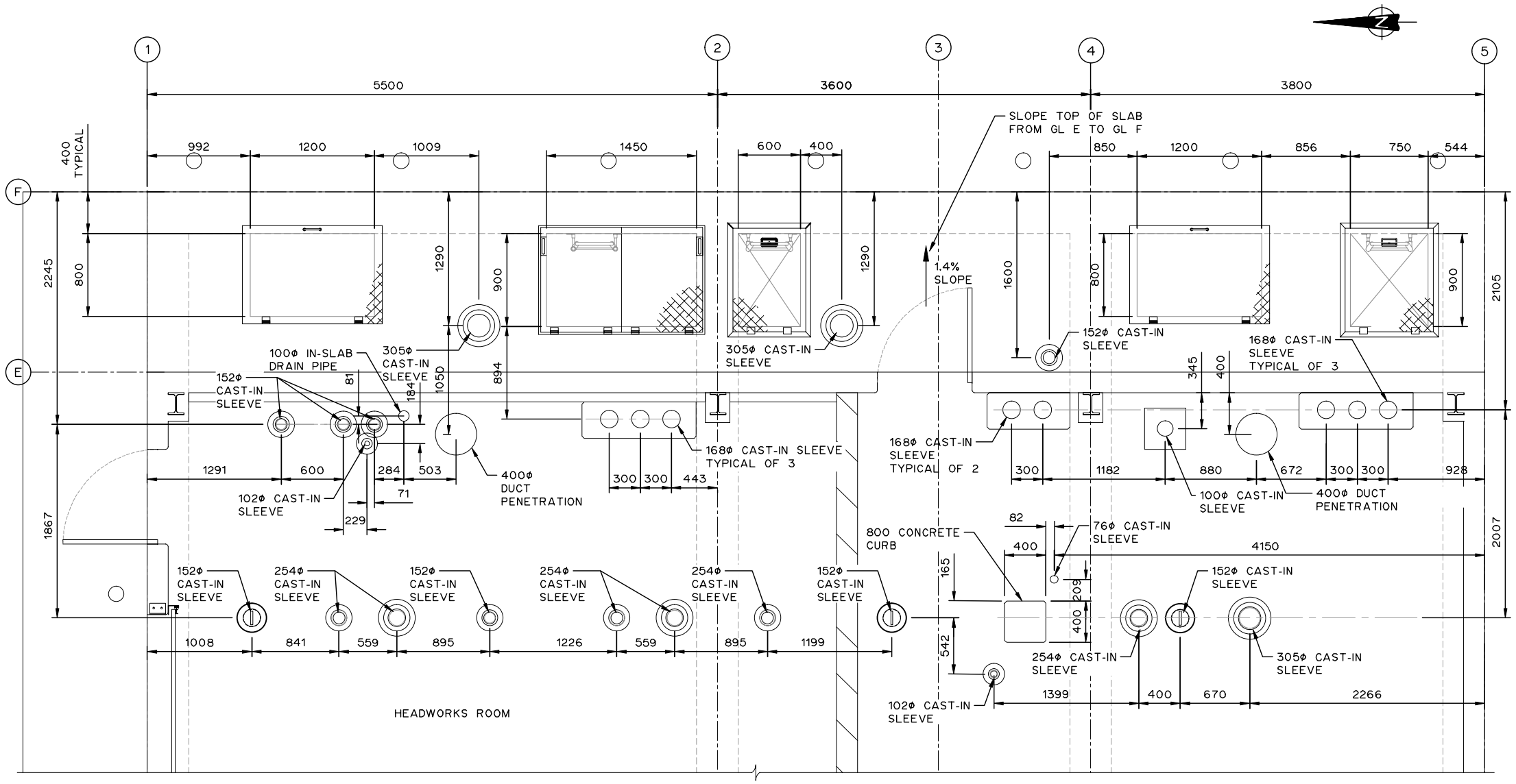
PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
MAIN FLOOR PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:100
DATE	NOVEMBER 2020	DRAWING	S1.2



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
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7. SEE SPECIFICATION SECTION 03300 3.3.6 FOR CONDUIT AND PIPE INSTALLED IN SLAB.
8. SEE ARCHITECTURAL FOR BUILDING AND ALUMINUM COMPONENTS.
9. SEE ARCHITECTURAL FOR CONCRETE FINISHES AND COATINGS.
10. CAST-IN ANCHOR FOR BUILDING COLUMNS TO BE MINIMUM 500 LONG C/W 50 HOOK.
11. PROVIDE 200x200 CONCRETE CONCRETE CURB UNDER EXTERIOR AND INTERIOR WALLS. TYPICAL UNLESS NOTE OTHERWISE.

MAIN FLOOR SLAB DESIGN LOADS:

DEAD LOAD = 10.6 kPa

LIVE LOAD = 15 kPa

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STRUCTURAL	34196	

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W. ZONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

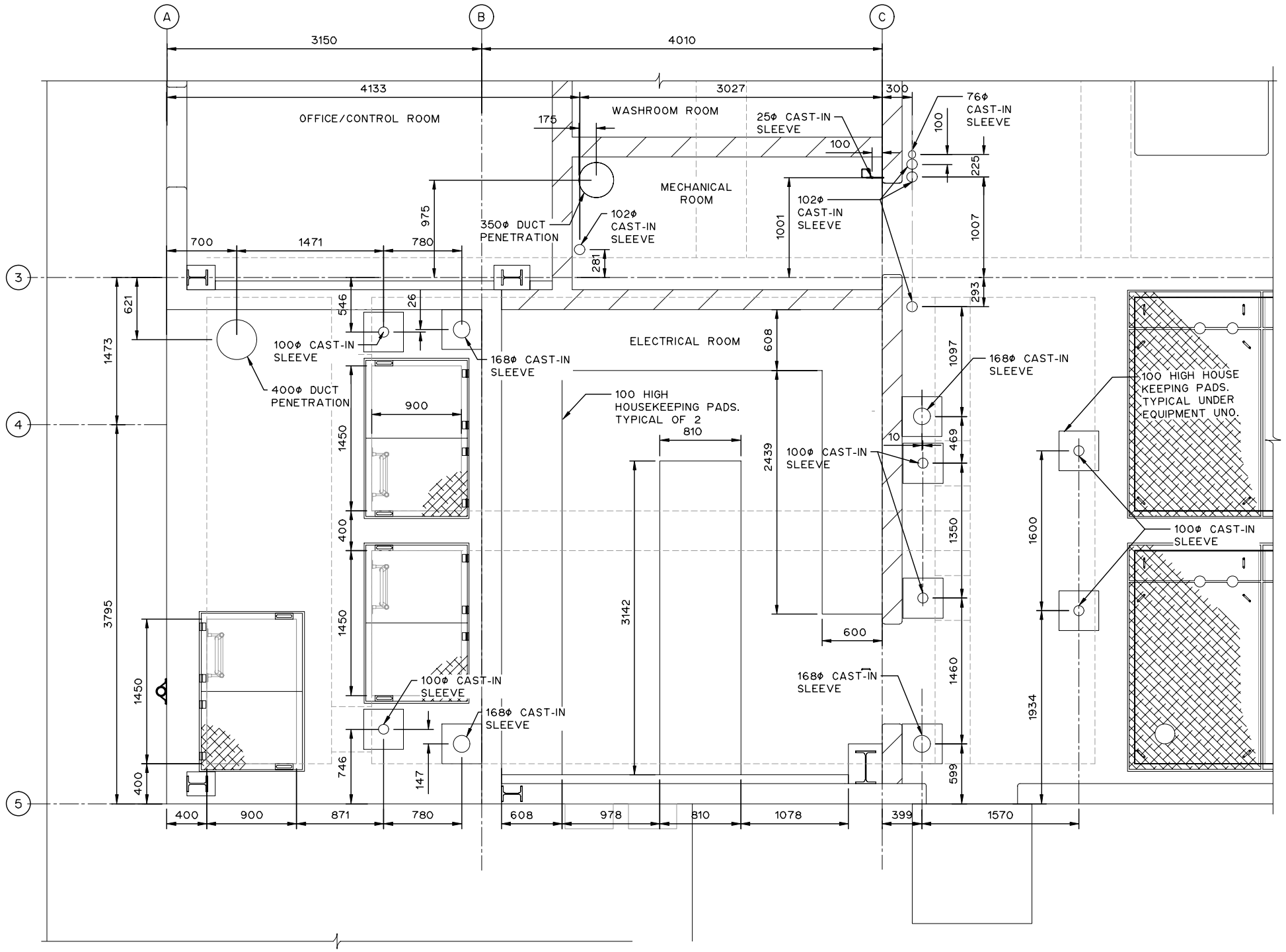
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
PARTIAL MAIN FLOOR PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	S1.3

MAIN FLOOR SLAB DESIGN LOADS:
DEAD LOAD = FLOOR SELF-WEIGHT
LIVE LOAD = WTP - 16kPa
MEETING ROOM, WASHROOM,
STORAGE - 4.8kPa



NOTES:

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5. REFER TO S4.1 FOR ADDITIONAL REINFORCING AROUND PENETRATIONS AND REINFORCING DETAILS FOR CONCRETE PADS.
6. 20 CHAMFER ALL EXPOSED CONCRETE EDGE.
7. SEE SPECIFICATION SECTION 03300 3.3.6 FOR CONDUIT AND PIPE INSTALLED IN SLAB.
8. SEE ARCHITECTURAL FOR BUILDING AND ALUMINUM COMPONENTS.
9. SEE ARCHITECTURAL FOR CONCRETE FINISHES AND COATINGS.
10. CAST-IN ANCHOR FOR BUILDING COLUMNS TO BE MINIMUM 500 LONG C/W 50 HOOK.
11. PROVIDE 200x200 CONCRETE CONCRETE CURB UNDER EXTERIOR AND INTERIOR WALLS. TYPICAL UNLESS NOTE OTHERWISE. SEE S4.1 FOR REINFORCING.

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STRUCTURAL	34196	

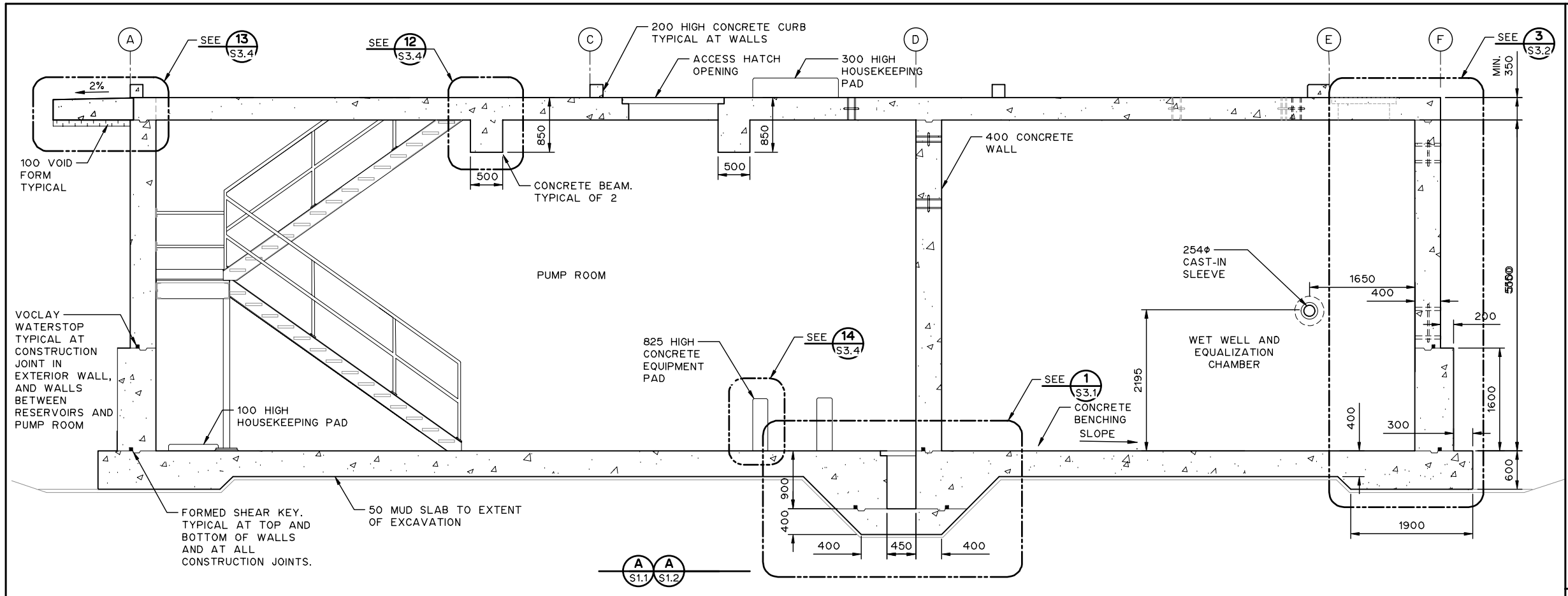
PROFESSIONAL ENGINEER
W. ELOND
MEMBER 34196
2021 01 15
SASKATCHEWAN

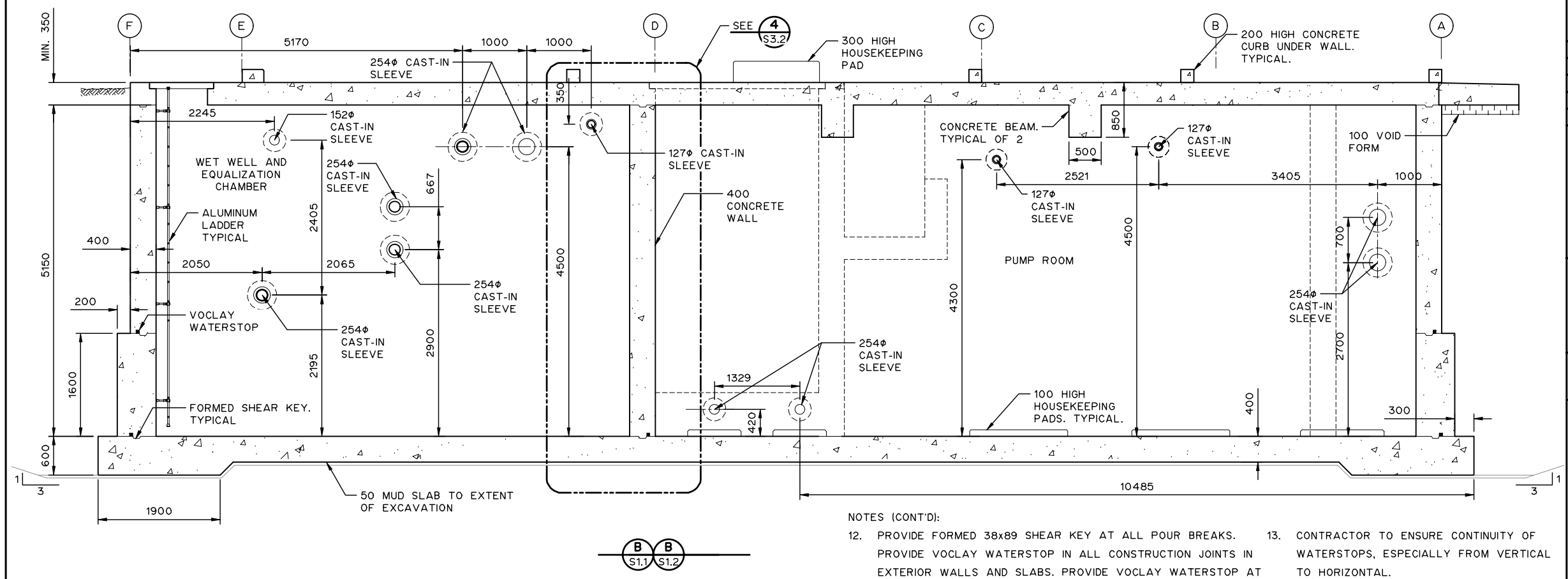
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
PARTIAL MAIN FLOOR PLAN

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	S1.4





NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
3. 20 CHAMFER ALL EXPOSED CONCRETE EDGES.
4. COORDINATE ALL CAST-IN ALUMINUM COMPONENTS WITH ARCHITECTURAL.
5. COORDINATE LOCATION AND SIZE OF ALL FLOOR AND WALL PENETRATIONS WITH OTHER DISCIPLINES.
6. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING ENGINEER'S APPROVAL.
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8. CAST-IN SLEEVE C/W LEAK PLATE FOR ALL PENETRATIONS. LEAK SEAL AND LEAK PLATE MIGHT NOT BE SHOWN IN THE DRAWING. SEE PROCESS FOR DETAIL.
9. SEE ARCHITECTURAL FOR CONCRETE FINISHES AND COATINGS.
10. SEE SPECIFICATIONS SECTION 03300 3.3.6 FOR CONDUITS AND PIPES INSTALLED IN SLAB.
11. SEE ARCHITECTURAL FOR WIDTH OF WALL CONCRETE CURBS, DISCONTINUE CURBS AT DOOR OPENINGS.

(SEE BELOW FOR CONTINUATION)

NOTES (CONT'D):

12. PROVIDE FORMED 38x89 SHEAR KEY AT ALL POUR BREAKS. PROVIDE VOCLAY WATERSTOP IN ALL CONSTRUCTION JOINTS IN EXTERIOR WALLS AND SLABS. PROVIDE VOCLAY WATERSTOP AT BOTTOM OF INTERIOR WALLS THAT SEPARATE PUMP ROOM AND ADJACENT RESERVOIRS.
13. CONTRACTOR TO ENSURE CONTINUITY OF WATERSTOPS, ESPECIALLY FROM VERTICAL TO HORIZONTAL.

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Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

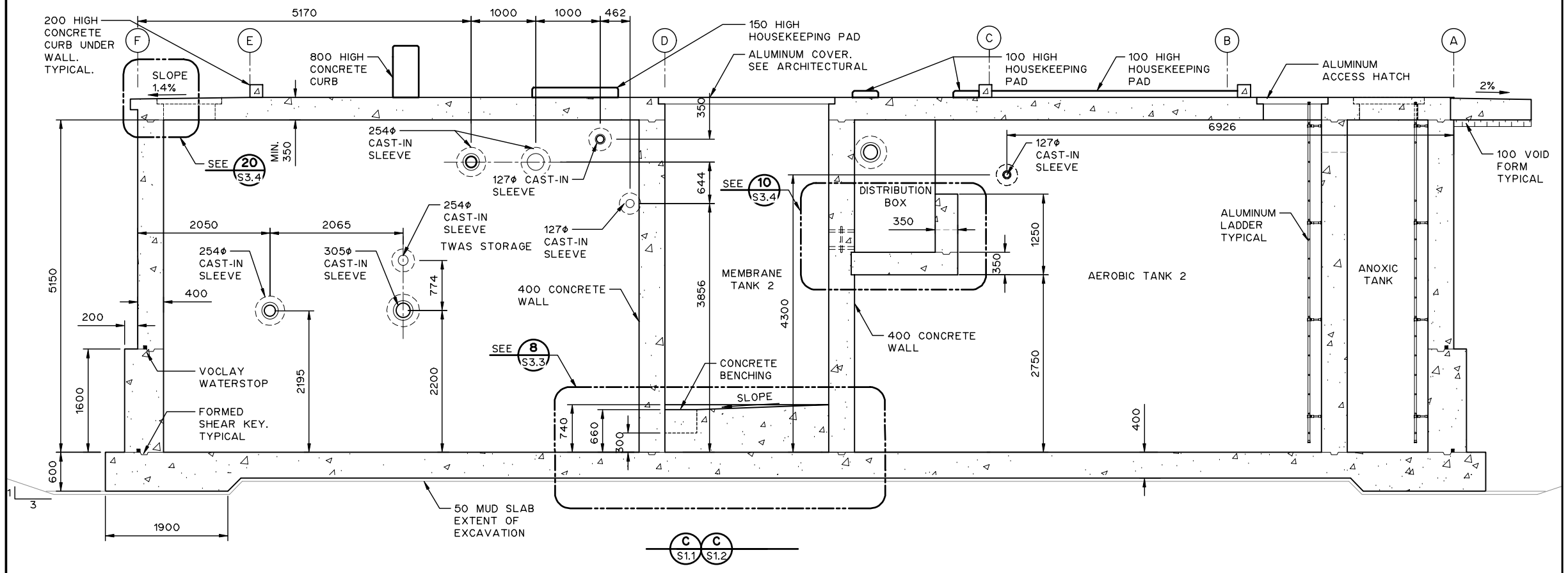
PROFESSIONAL ENGINEER
W. KONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

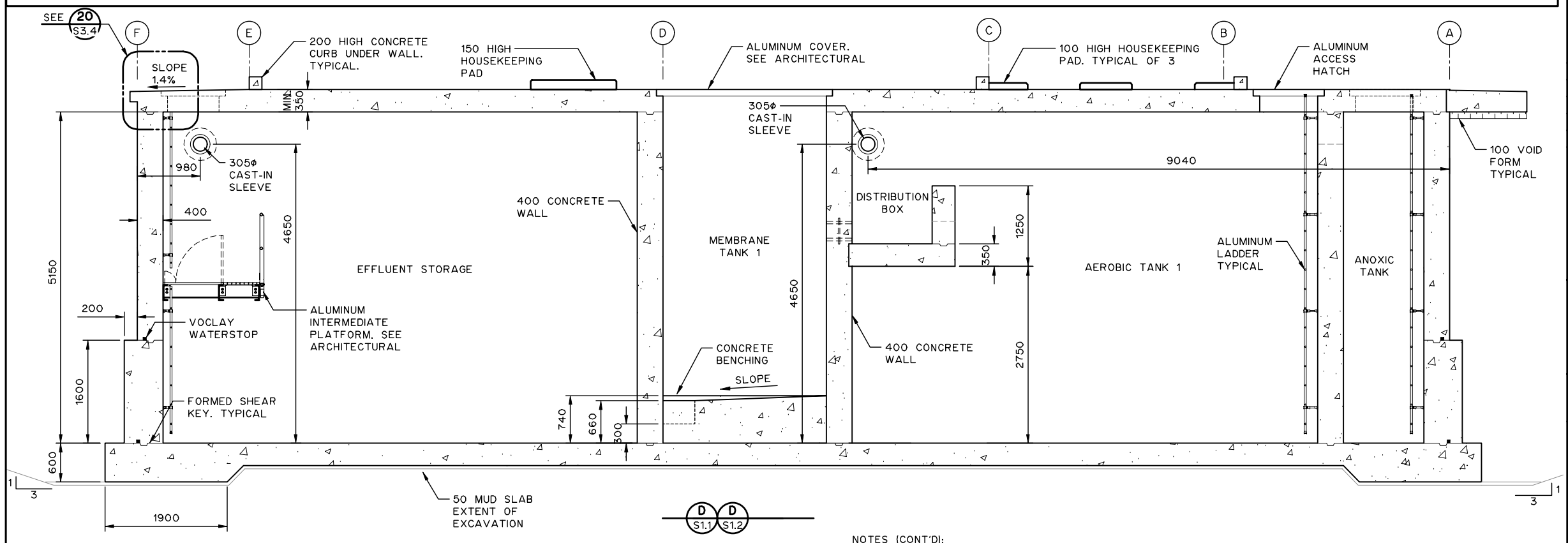
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
CONCRETE SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	S2.1





NOTES:

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9. SEE ARCHITECTURAL FOR CONCRETE FINISHES AND COATINGS.
10. SEE SPECIFICATIONS SECTION 03300 3.3.6 FOR CONDUITS AND PIPES INSTALLED IN SLAB.
11. SEE ARCHITECTURAL FOR WIDTH OF WALL CONCRETE CURBS, DISCONTINUE CURBS AT DOOR OPENINGS.

(SEE BELOW FOR CONTINUATION)

NOTES (CONT'D):

12. PROVIDE FORMED 38x89 SHEAR KEY AT ALL POUR BREAKS. PROVIDE VOCLAY WATERSTOP IN ALL CONSTRUCTION JOINTS IN EXTERIOR WALLS AND SLABS. PROVIDE VOCLAY WATERSTOP AT BOTTOM OF INTERIOR WALLS THAT SEPARATE PUMP ROOM AND ADJACENT RESERVOIRS.
13. CONTRACTOR TO ENSURE CONTINUITY OF WATERSTOPS, ESPECIALLY FROM VERTICAL TO HORIZONTAL.

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STRUCTURAL	34196	

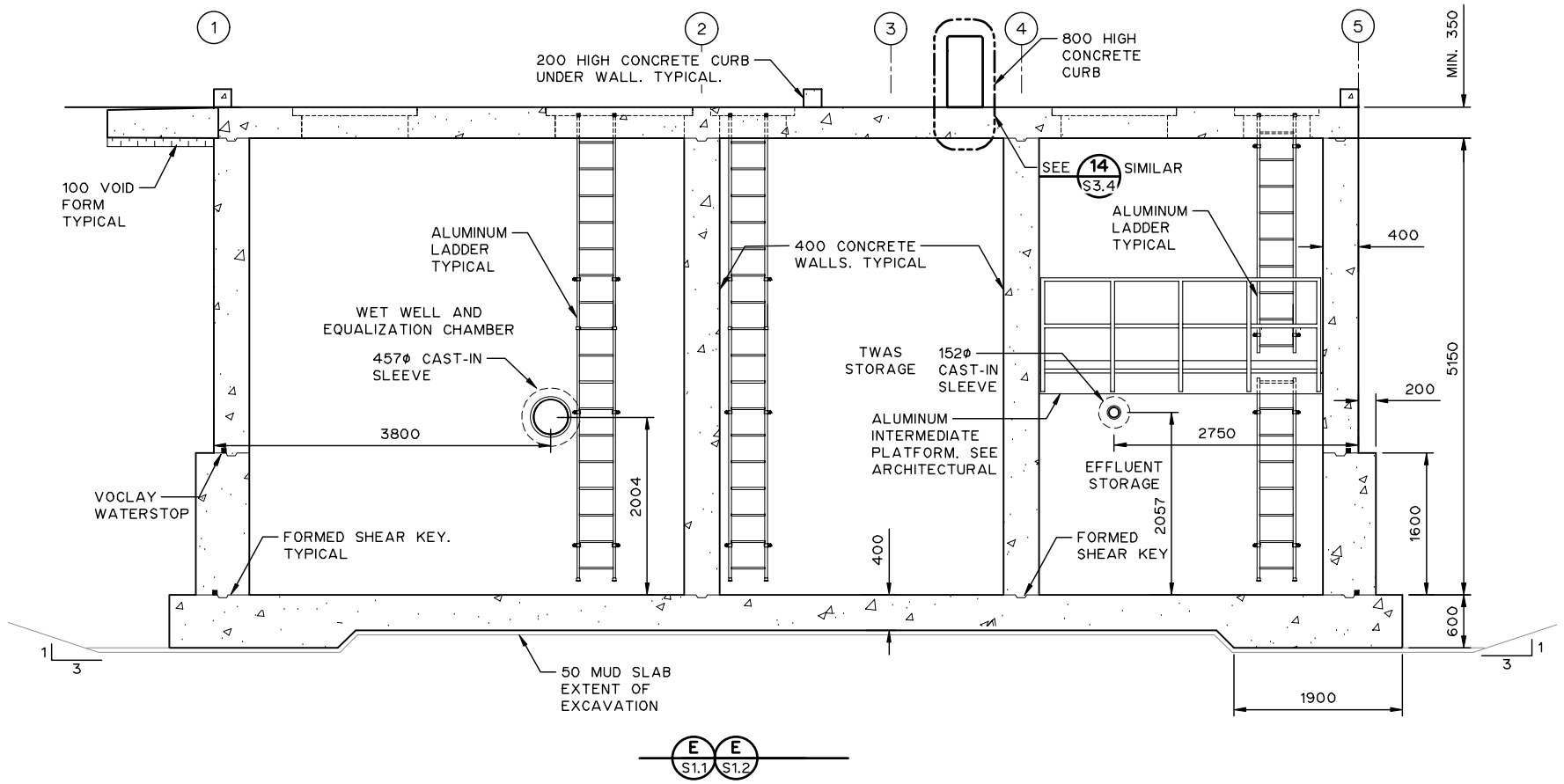
PROFESSIONAL ENGINEER W. KONG MEMBER 34196 2021 01 15 SASKATCHEWAN

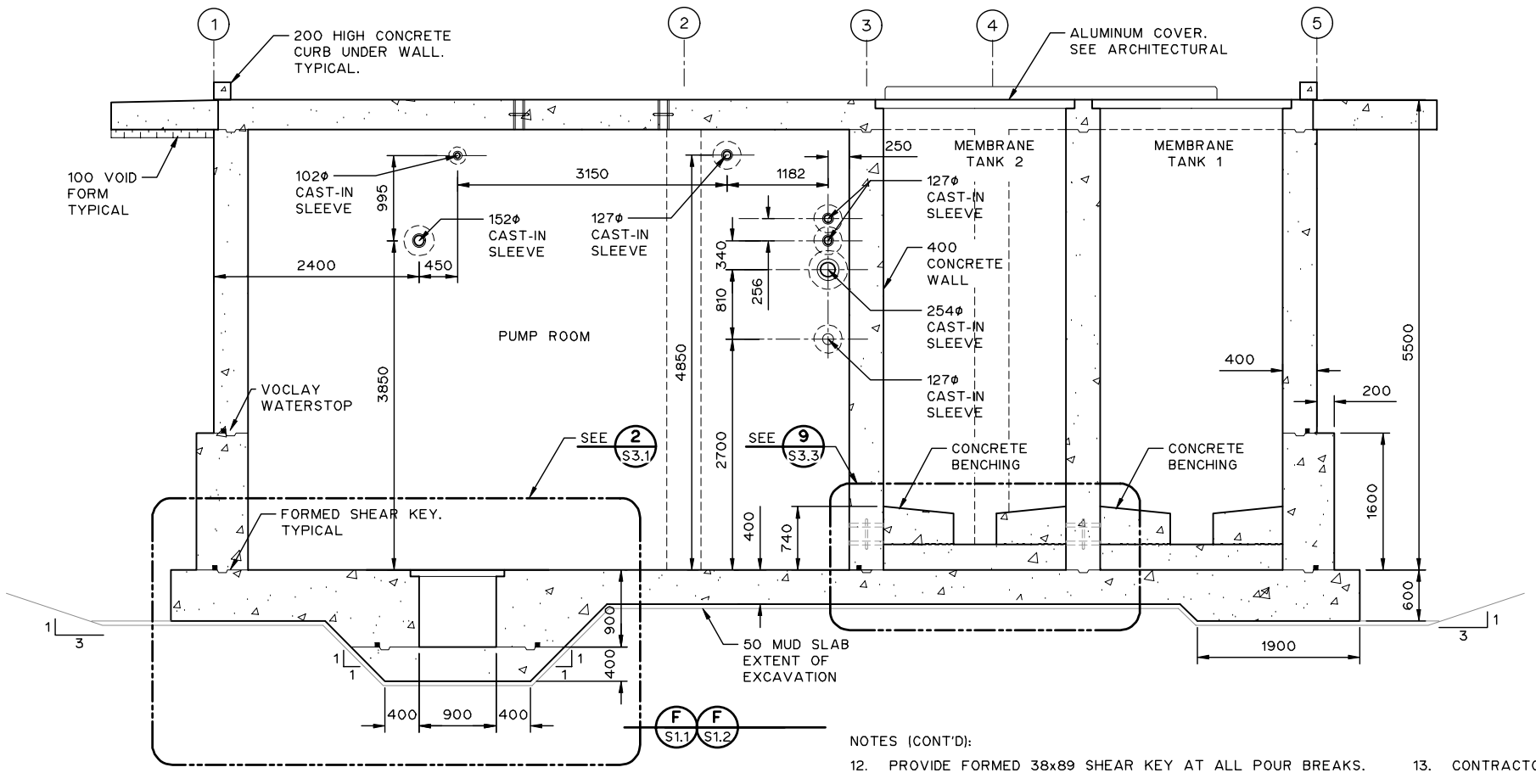
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
CONCRETE SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	S2.2





NOTES (CONT'D):

12. PROVIDE FORMED 38x89 SHEAR KEY AT ALL POUR BREAKS. PROVIDE VOCLAY WATERSTOP IN ALL CONSTRUCTION JOINTS IN EXTERIOR WALLS AND SLABS. PROVIDE VOCLAY WATERSTOP AT BOTTOM OF INTERIOR WALLS THAT SEPARATE PUMP ROOM AND ADJACENT RESERVOIRS.
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11. SEE ARCHITECTURAL FOR WIDTH OF WALL CONCRETE CURBS, DISCONTINUE CURBS AT DOOR OPENINGS.

(SEE BELOW FOR CONTINUATION)

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STRUCTURAL	34196	

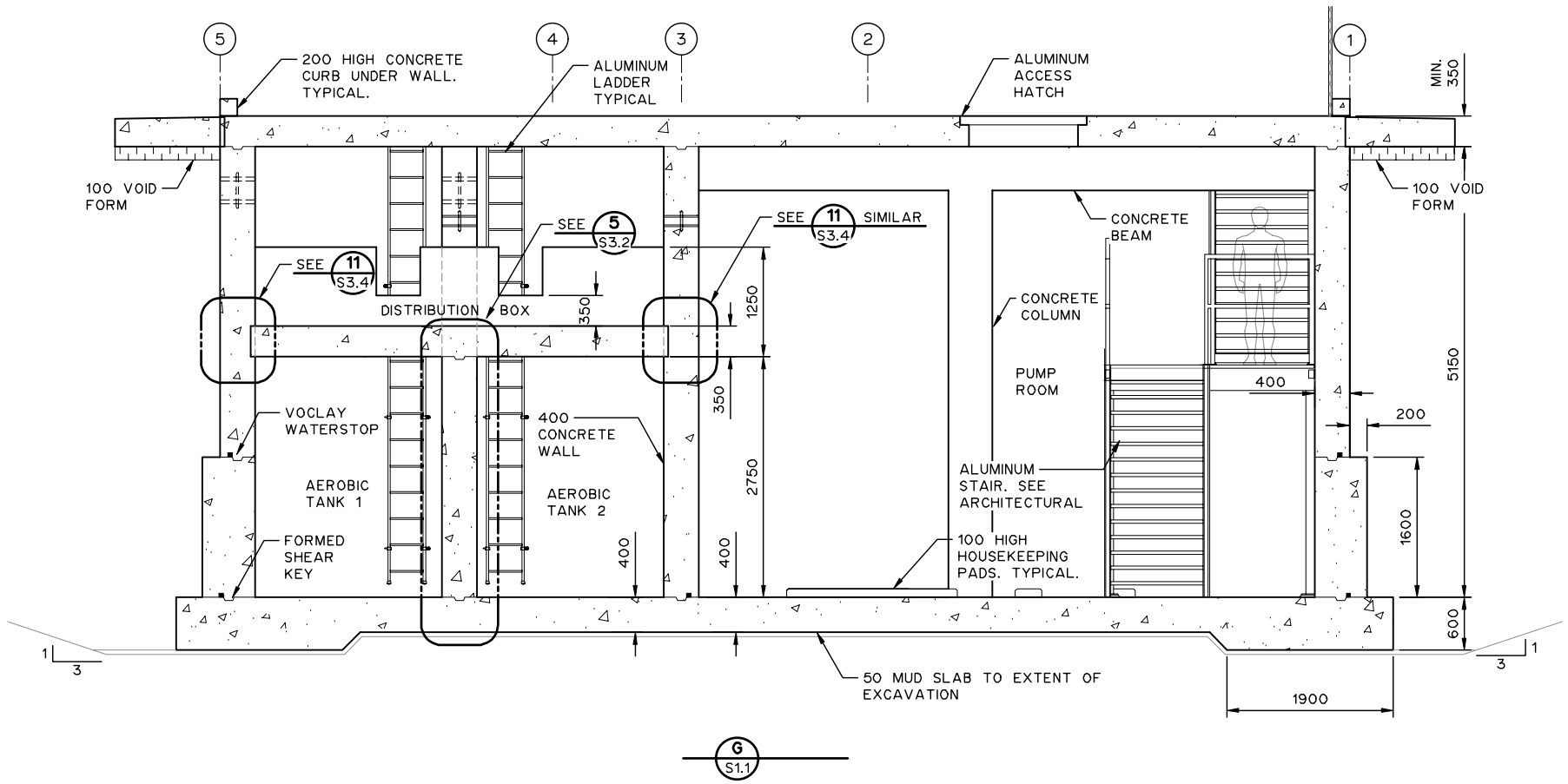
PROFESSIONAL ENGINEER W. KONG MEMBER 34196 2021 01 15 SASKATCHEWAN

MPE Engineering Ltd.

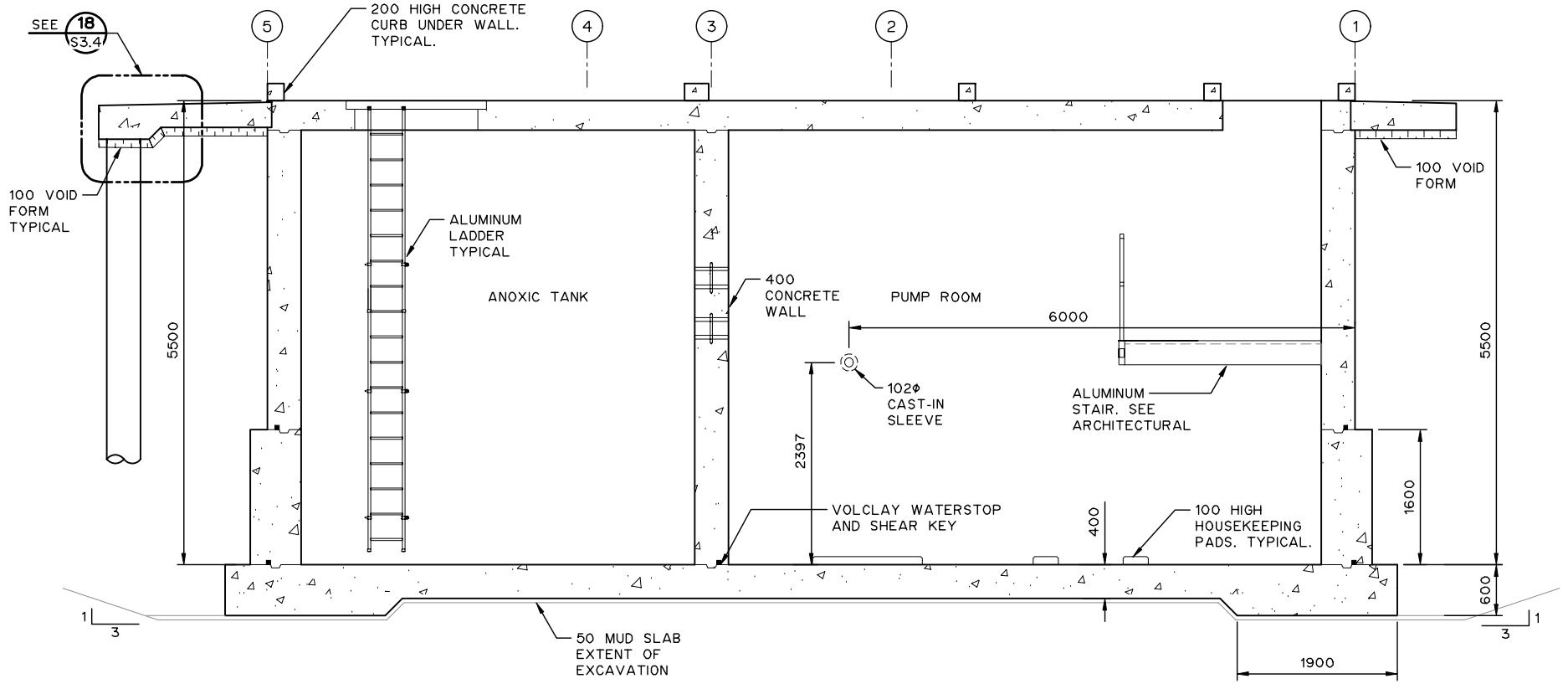
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
CONCRETE SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	S2.3



G
S1.1



H
S1.1

NOTES (CONT'D):

12. PROVIDE FORMED 38x89 SHEAR KEY AT ALL POUR BREAKS. PROVIDE VOCLAY WATERSTOP IN ALL CONSTRUCTION JOINTS IN EXTERIOR WALLS AND SLABS. PROVIDE VOCLAY WATERSTOP AT BOTTOM OF INTERIOR WALLS THAT SEPARATE PUMP ROOM AND ADJACENT RESERVOIRS.
13. CONTRACTOR TO ENSURE CONTINUITY OF WATERSTOPS, ESPECIALLY FROM VERTICAL TO HORIZONTAL.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. MUD SLAB TO EXTEND FULL WIDTH OF EXCAVATION.
3. 20 CHAMFER ALL EXPOSED CONCRETE EDGES.
4. COORDINATE ALL CAST-IN ALUMINUM COMPONENTS WITH ARCHITECTURAL.
5. COORDINATE LOCATION AND SIZE OF ALL FLOOR AND WALL PENETRATIONS WITH OTHER DISCIPLINES.
6. BOTTOM OF EXCAVATION IS TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO MUD SLAB. MUD SLAB MUST BE PLACED IMMEDIATELY FOLLOWING ENGINEER'S APPROVAL.
7. TOP SLAB MUST BE IN-PLACE IN ITS ENTIRETY PRIOR TO BACKFILLING AROUND RESERVOIR OR HYDROSTATIC PRESSURE TEST.
8. CAST-IN SLEEVE C/W LEAK PLATE FOR ALL PENETRATIONS. LEAK SEAL AND LEAK PLATE MIGHT NOT BE SHOWN IN THE DRAWING. SEE PROCESS FOR DETAIL.
9. SEE ARCHITECTURAL FOR CONCRETE FINISHES AND COATINGS.
10. SEE SPECIFICATIONS SECTION 03300 3.3.6 FOR CONDUITS AND PIPES INSTALLED IN SLAB.
11. SEE ARCHITECTURAL FOR WIDTH OF WALL CONCRETE CURBS, DISCONTINUE CURBS AT DOOR OPENINGS.

(SEE BELOW FOR CONTINUATION)

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ISSUE	YY-MM-DD	REVISION
2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER

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Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
STRUCTURAL	34196	

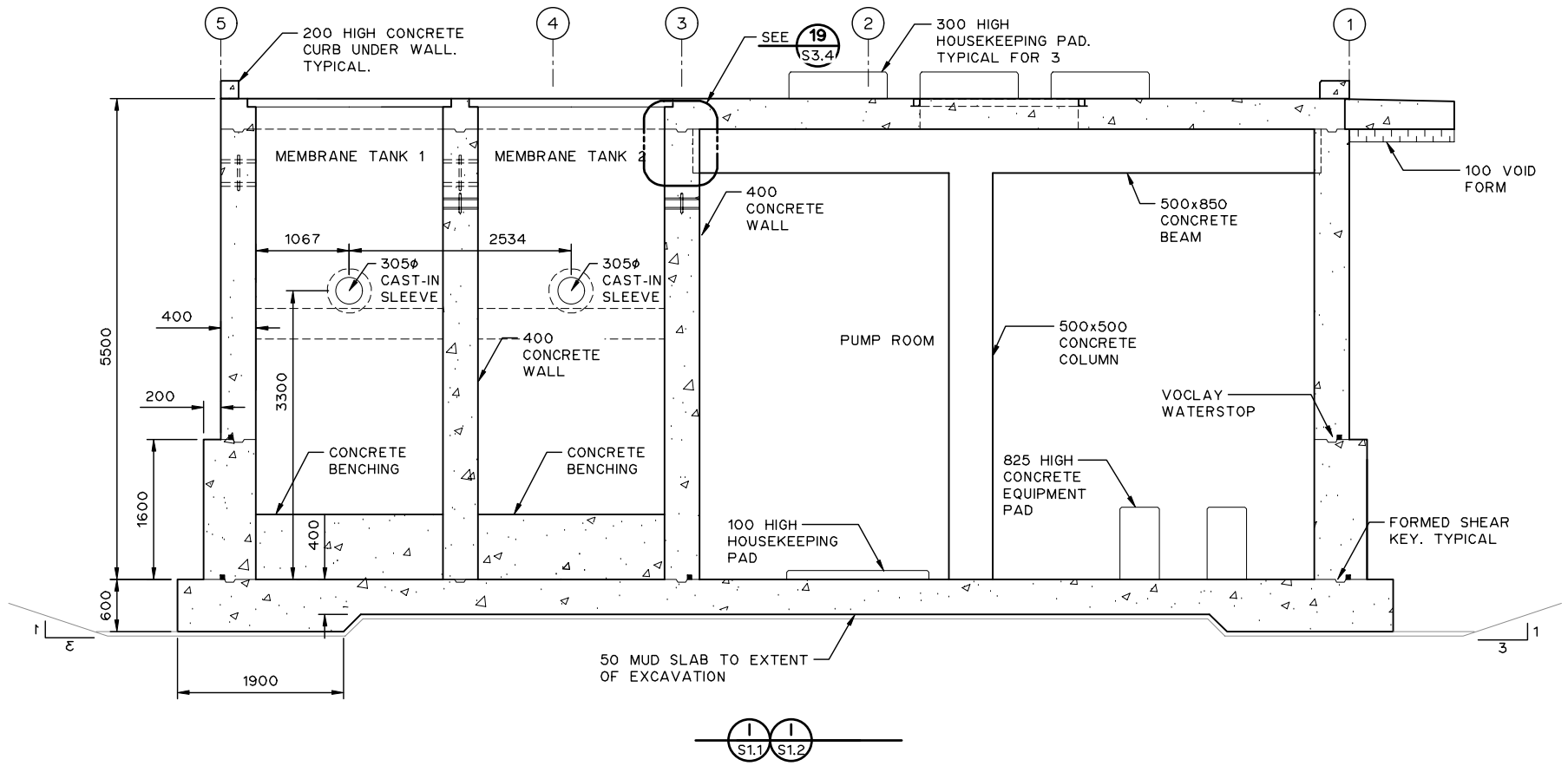
PROFESSIONAL ENGINEER
W. KONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

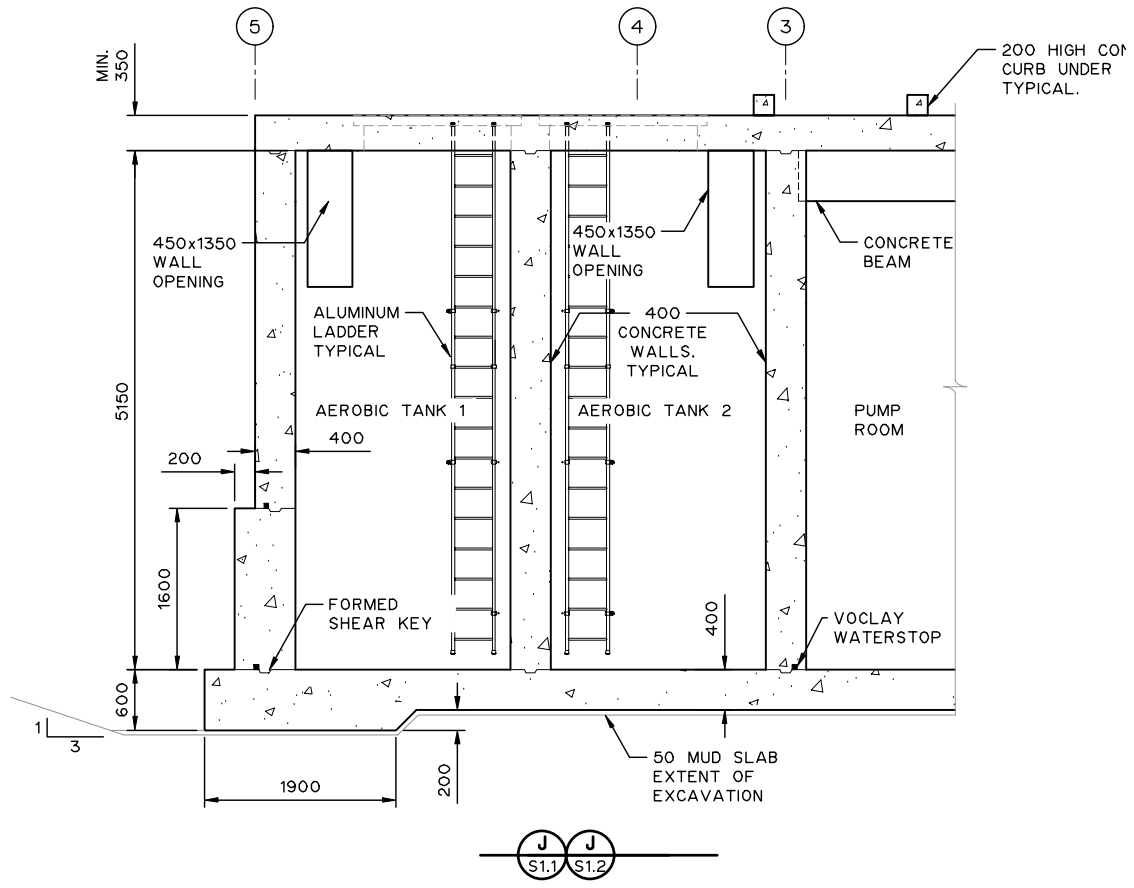
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ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
CONCRETE SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	S2.4





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(SEE BELOW FOR CONTINUATION)

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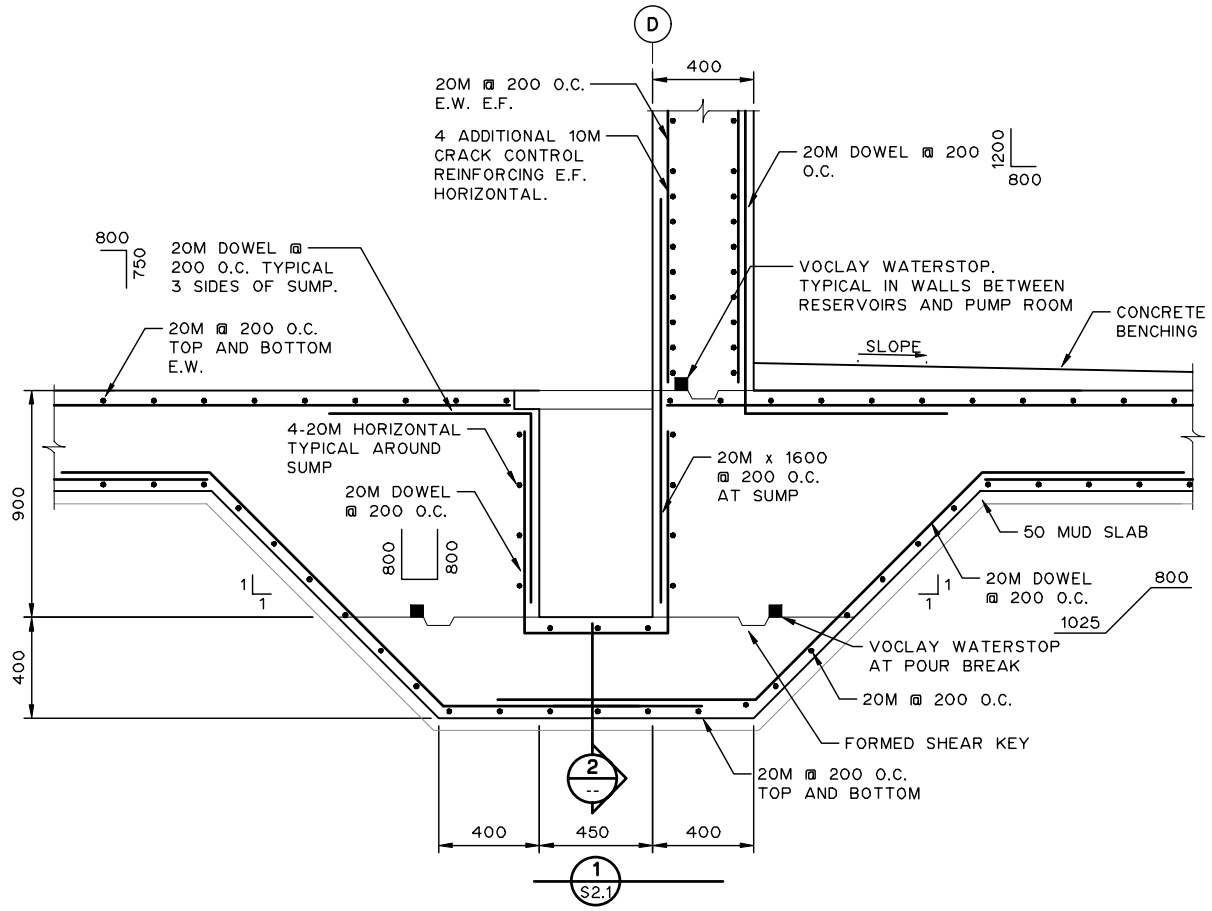
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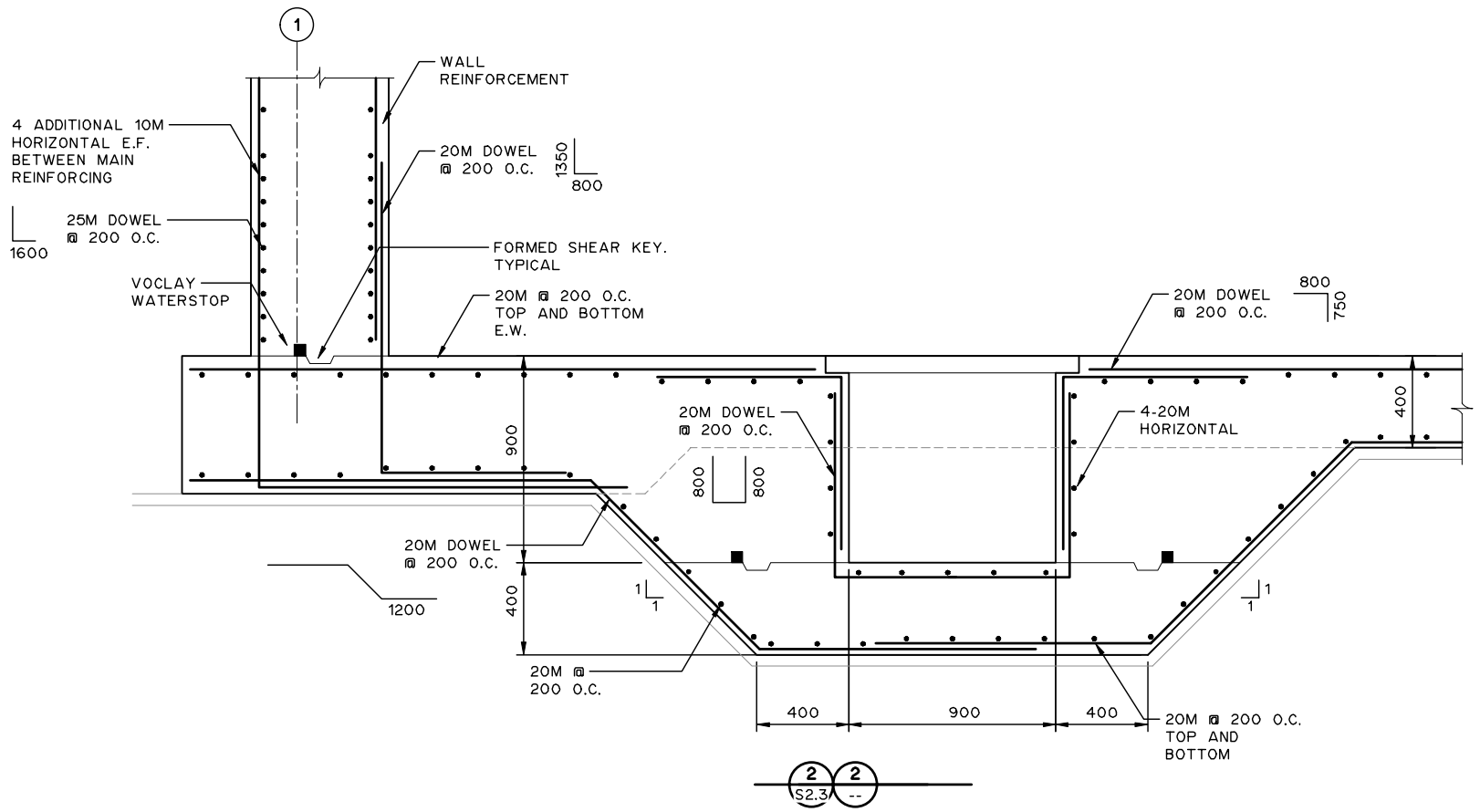
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ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
CONCRETE SECTIONS

DESIGNED	I.K., W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	S2.5





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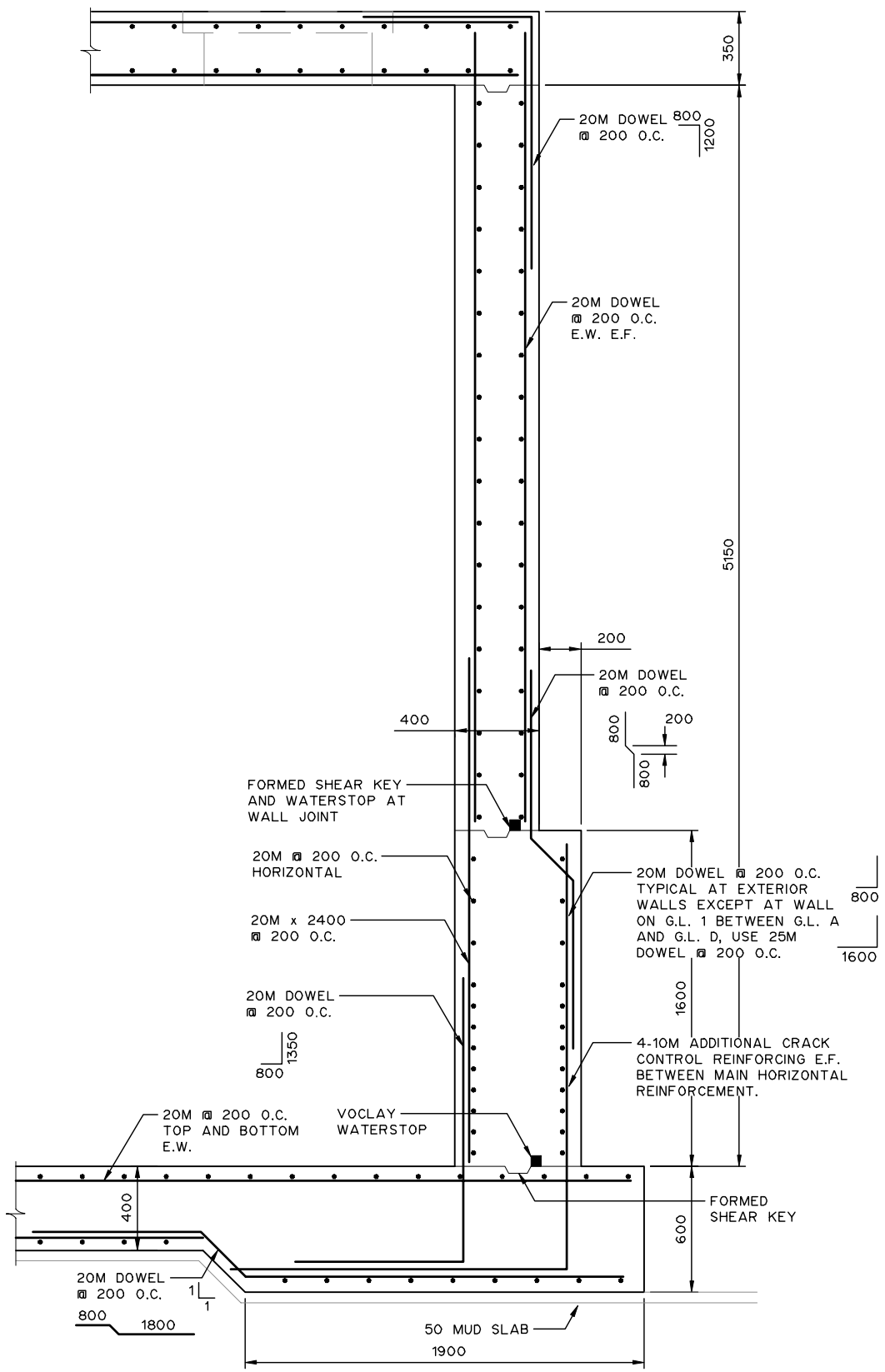
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2021 01 15
SASKATCHEWAN

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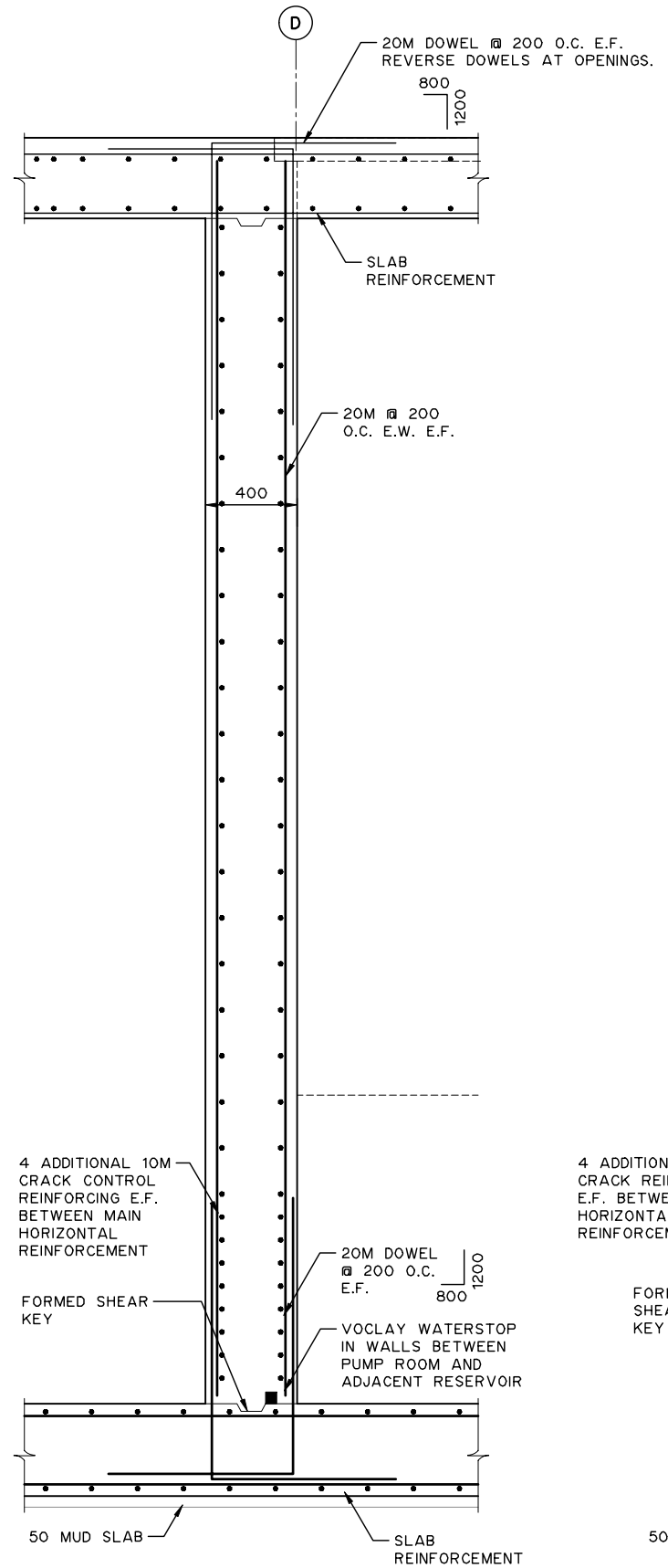
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PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
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REINFORCING DETAILS

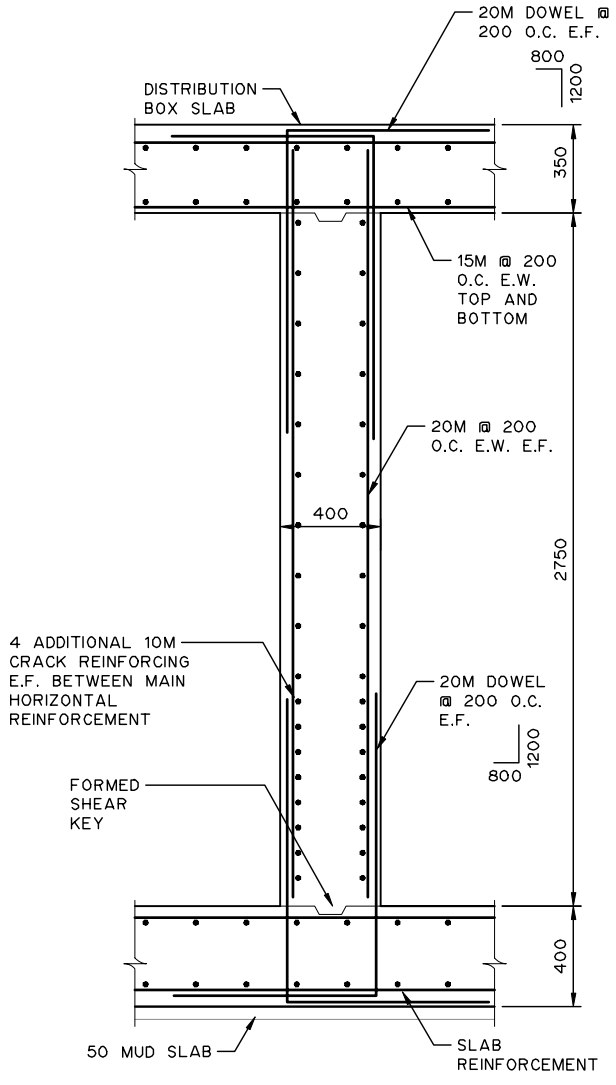
DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	S3.1



3 S2.1 TYPICAL EXTERIOR WALL DETAIL



4 S2.1



5 S2.4

NOTES:

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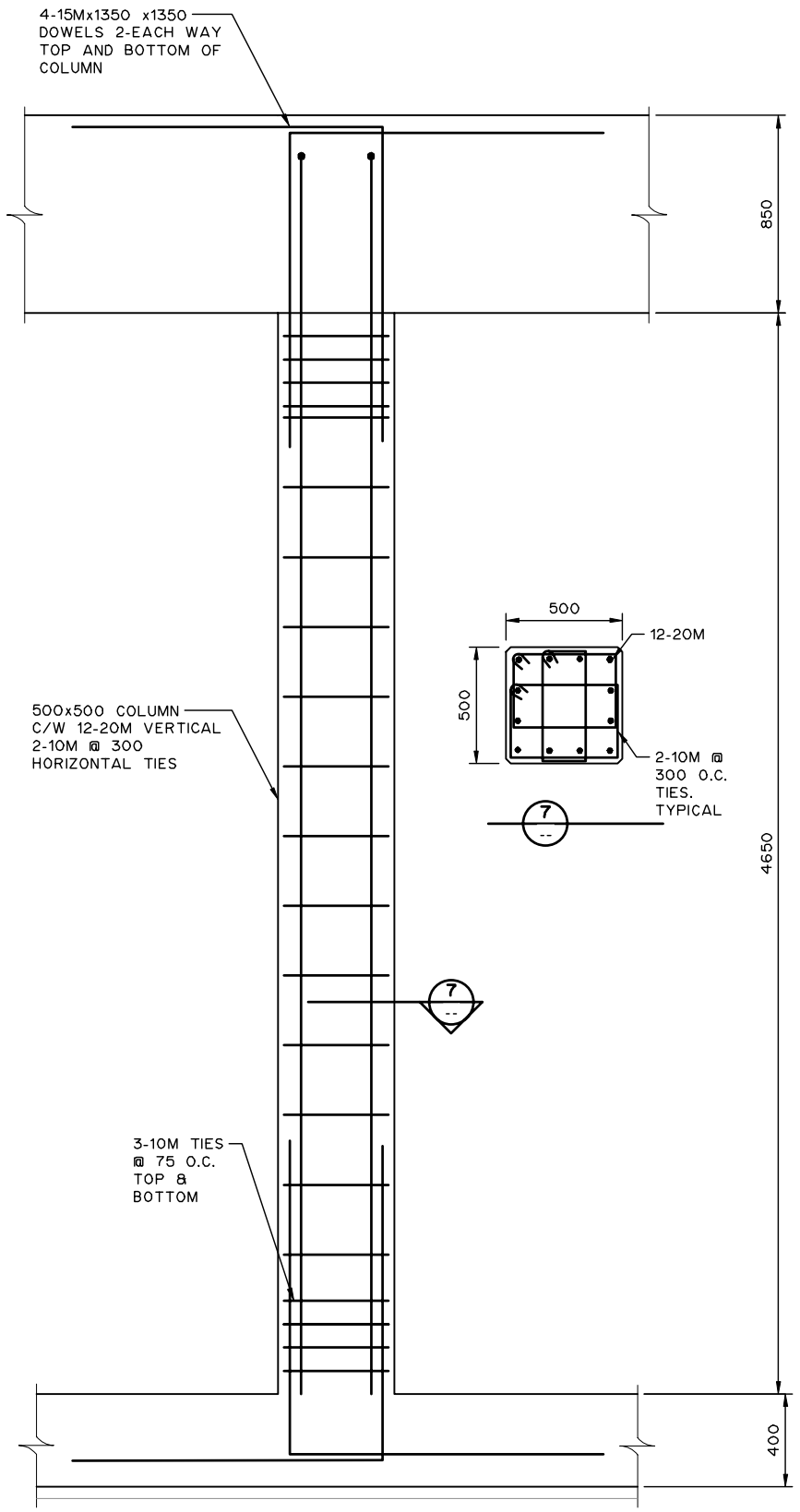
PROFESSIONAL ENGINEER W. BOAG MEMBER 34196 2021 01 15 SASKATCHEWAN

MPE Engineering Ltd.

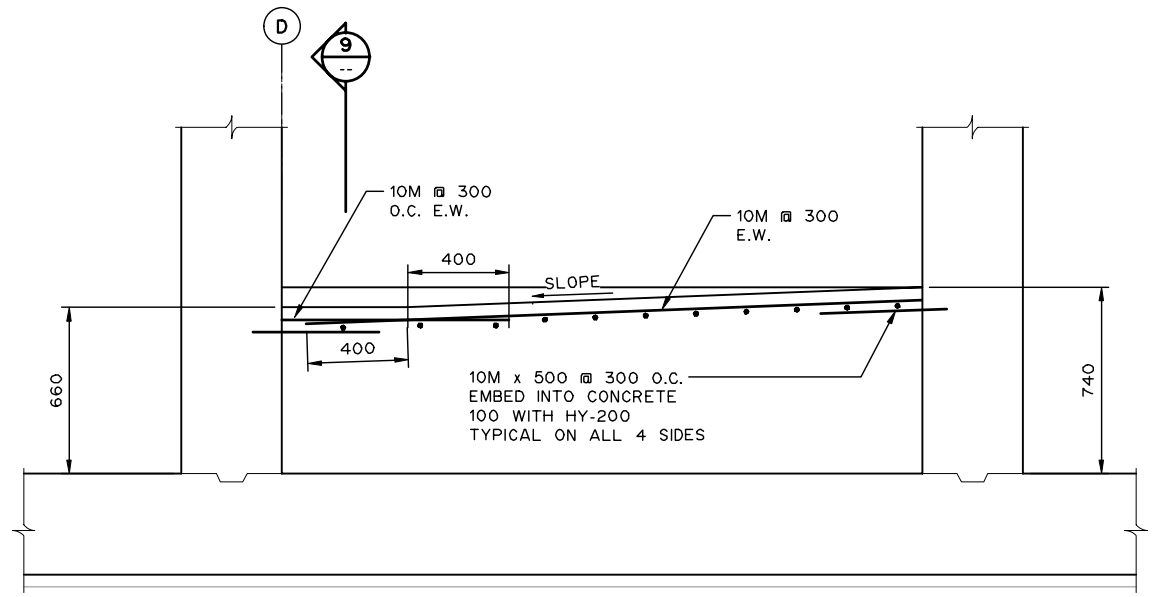
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
REINFORCING DETAILS

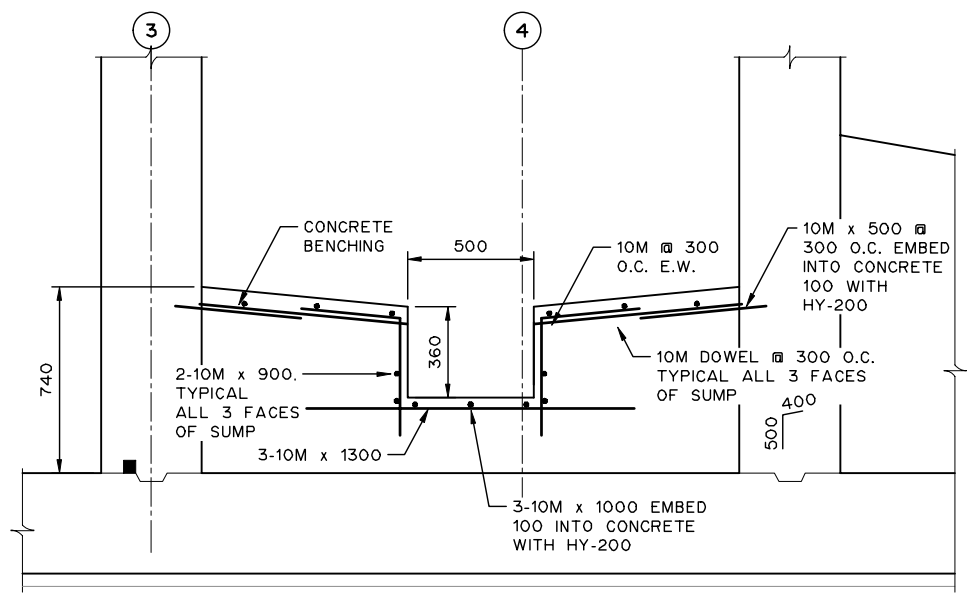
DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	S3.2



6 S2.1 CONCRETE COLUMN REINFORCING



8 S2.2 TYPICAL MEMBRANE TRAIN BENCHING REINFORCEMENT



9 S2.3 9 --

NOTES:

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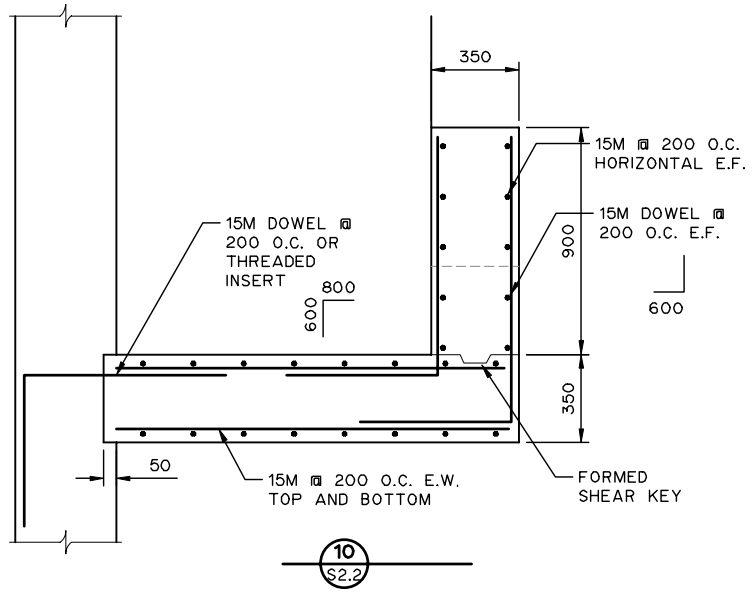
PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
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SASKATCHEWAN

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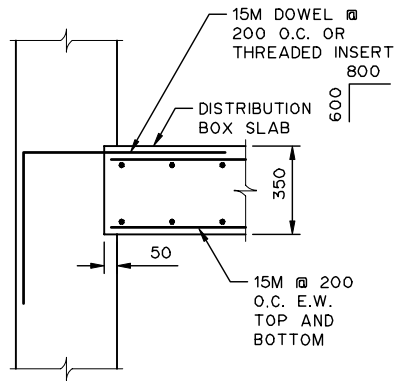
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
REINFORCING DETAILS

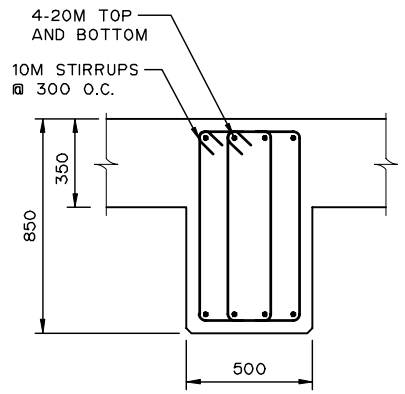
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DRAWN	D.F.F.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	S3.3



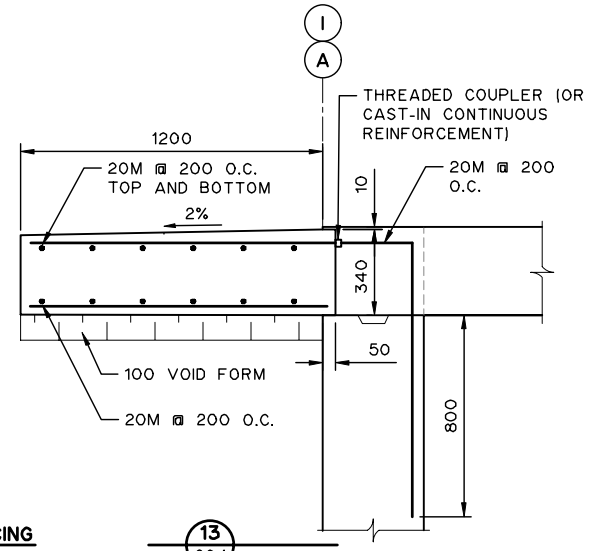
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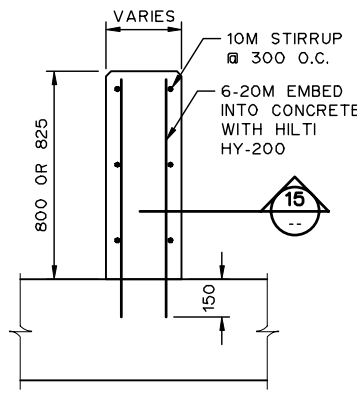
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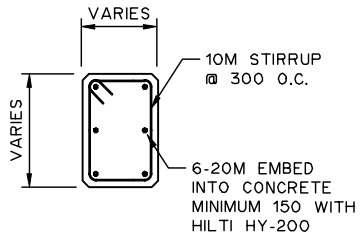
12 TYPICAL FLOOR BEAM REINFORCING S2.1



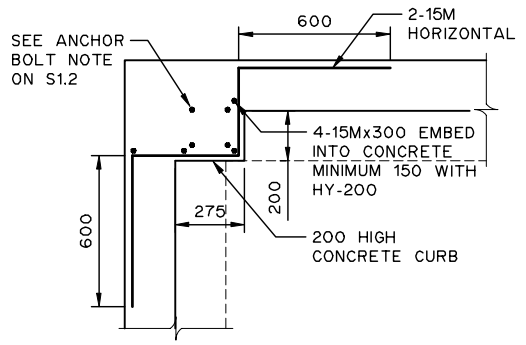
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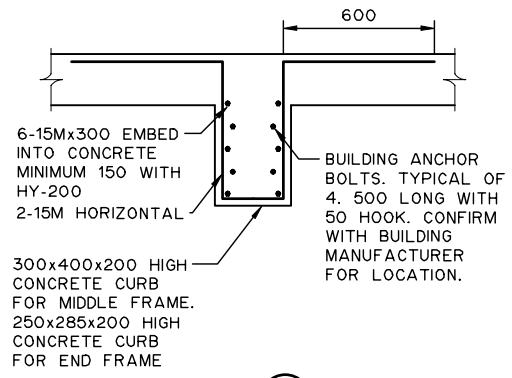
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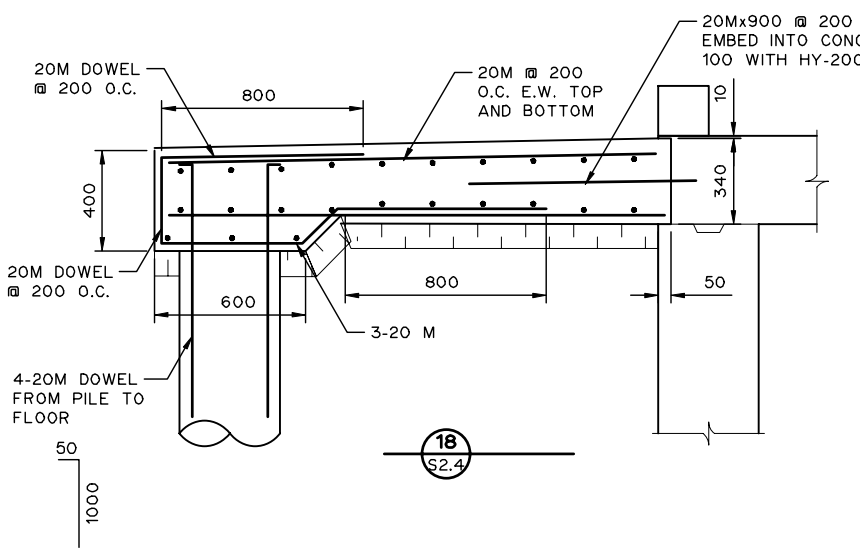
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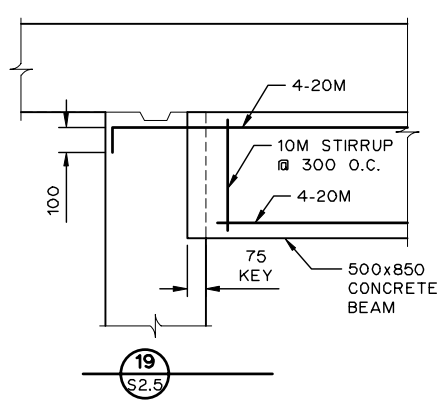
16 S1.2



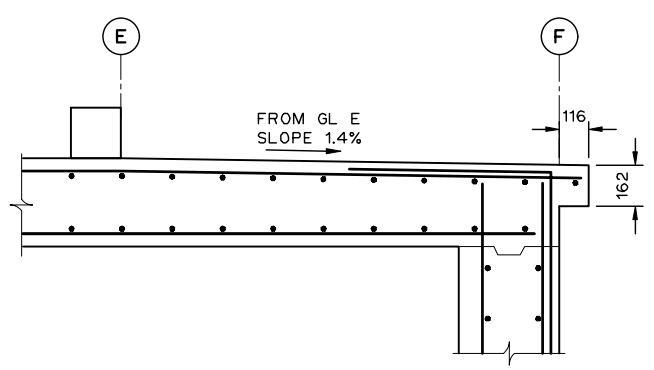
17 S1.2



18 S2.4



19 S2.5



20 S2.2

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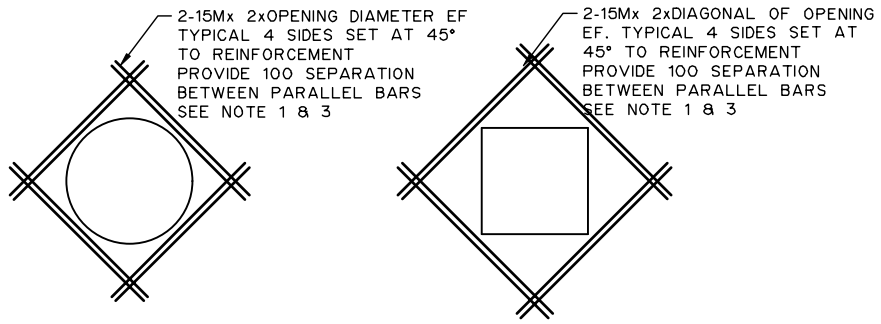
PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

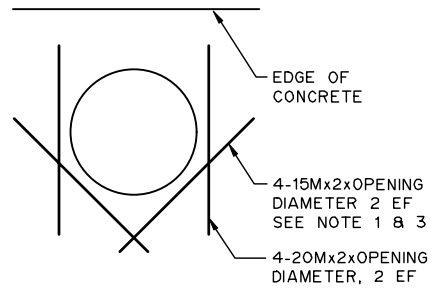
WASTEWATER TREATMENT PLANT
STRUCTURAL
REINFORCING DETAILS

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	S3.4

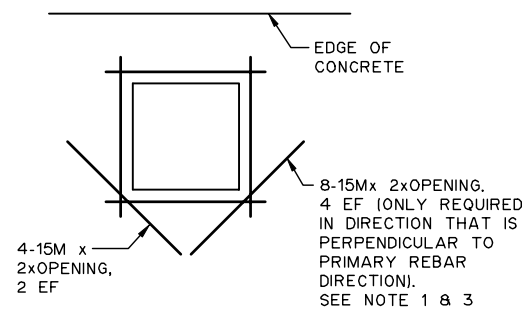


TYPICAL ROUND OPENING REINFORCING
NTS

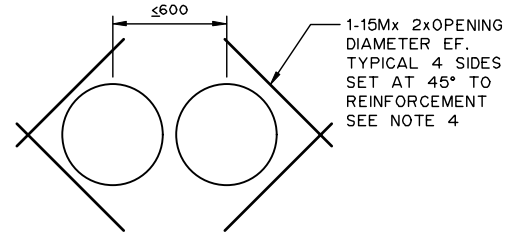
TYPICAL SQUARE OPENING REINFORCING
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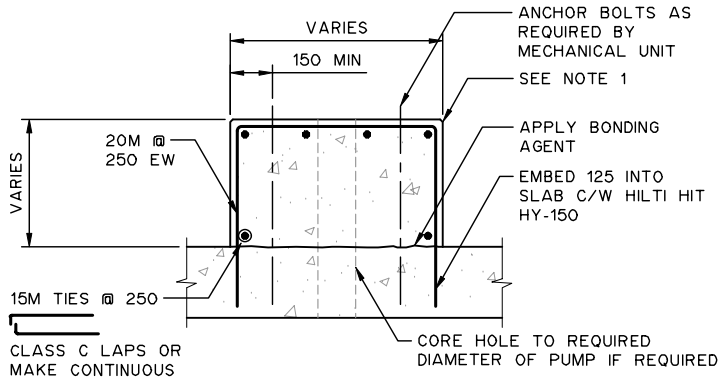
TYPICAL ROUND OPENING FOR EDGE CONDITIONS
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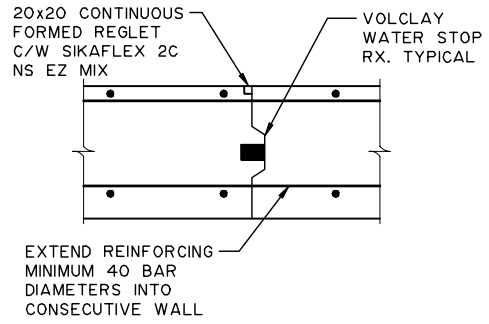
TYPICAL SQUARE OPENING REINFORCING FOR EDGE CONDITIONS
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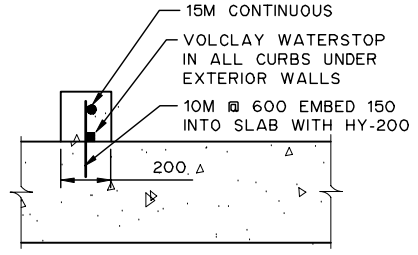
TYPICAL COMBINED OPENING REINFORCING
NTS



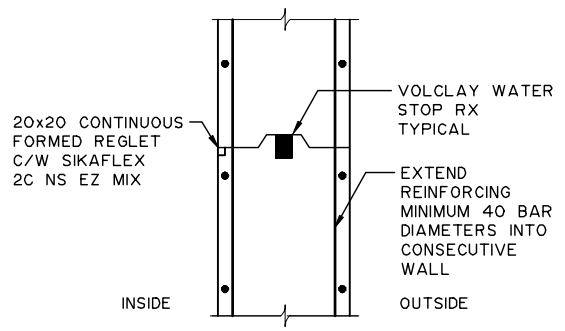
TYPICAL CAST IN PLACE PUMP BASE
NTS



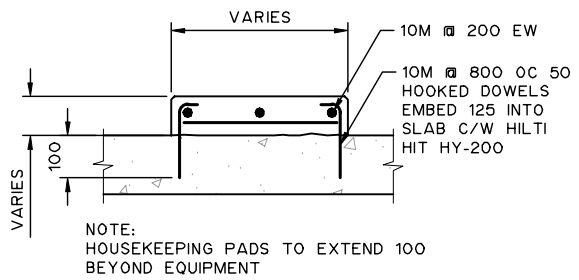
TYPICAL SLAB CONSTRUCTION JOINT
NTS



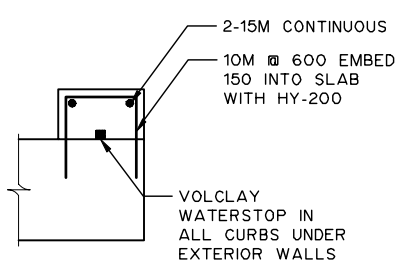
TYPICAL 200 HIGH CURB
NTS



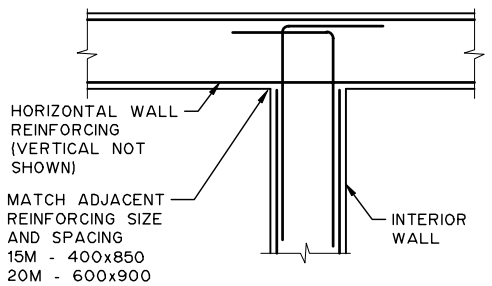
TYPICAL VERTICAL WALL/CURB CONSTRUCTION JOINT
NTS



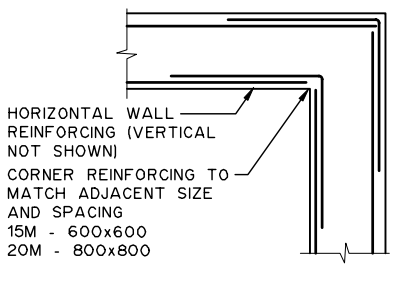
TYPICAL HOUSEKEEPING PAD
NTS



TYPICAL 340x200 HIGH CURB
NTS



TYPICAL TANK WALL INTERSECTION
NTS



TYPICAL CORNER DETAIL
NTS

NOTES:

1. FOR EACH BAR INTERRUPTED BY OPENING, IN THE PRIMARY REBAR DIRECTION ADD BAR TO EITHER SIDE OF OPENING. TYPICAL TOP AND BOTTOM. ALLOW MINIMUM 40 SPACING BETWEEN BARS, TYPICAL FOR ALL OPENINGS.
2. 20 CHAMFER ALL EXPOSED CONCRETE EDGES.
3. TYPICAL REINFORCING DETAILS FOR OPENINGS APPLY TO ALL OPENINGS GREATER OR EQUAL TO 150Φ FOR SLAB, 150Φ FOR WALLS, OR WHEN REINFORCEMENT INTERSECTS AN OPENING.
4. FOR OPENINGS THAT ARE SPACED CLOSER THAN OR EQUAL TO 600, PROVIDE OPENING REINFORCING AS IF IT IS ONE PENETRATION.

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2	21-01-15	FOR CONSTRUCTION
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STRUCTURAL	34196	

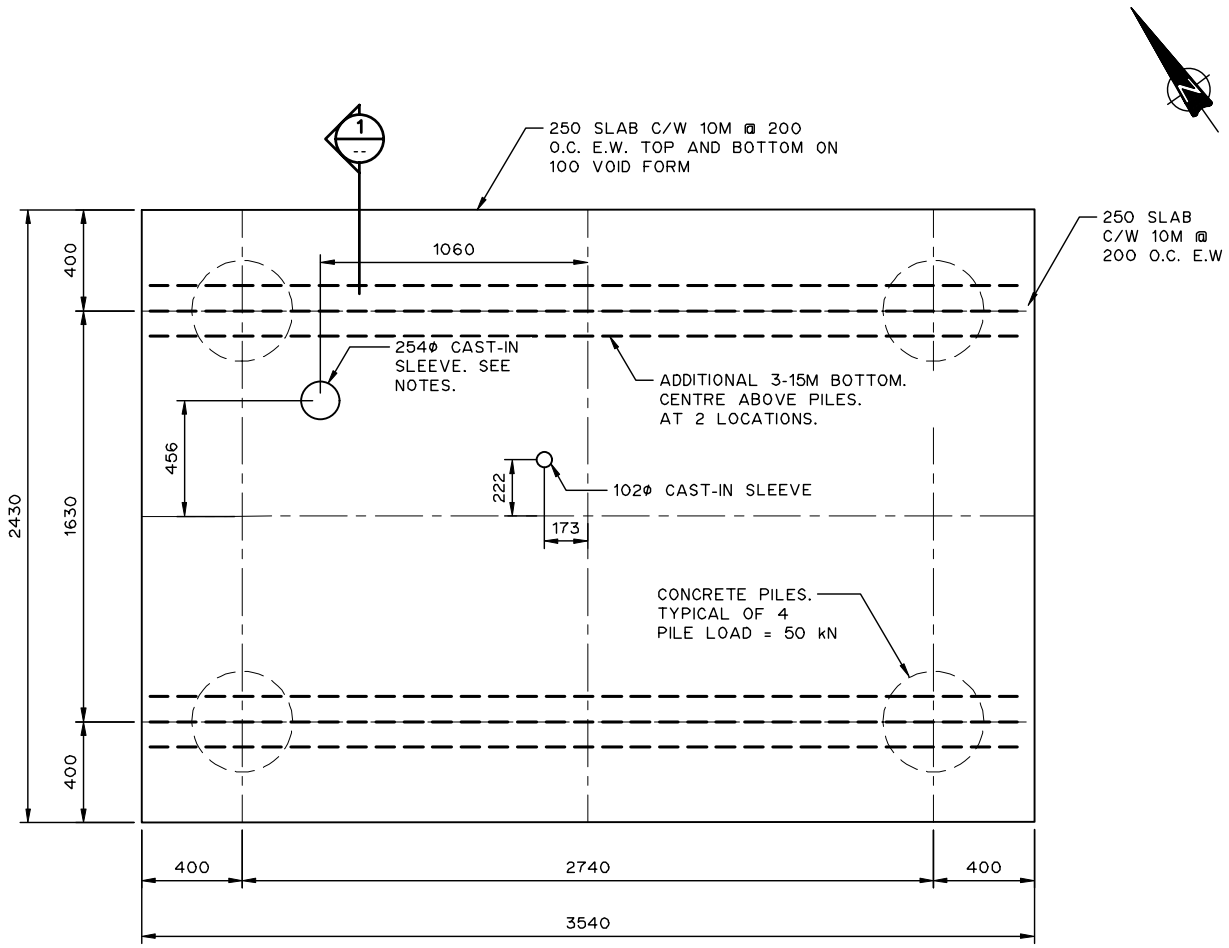
PROFESSIONAL ENGINEER W. SONG MEMBER 34196 2021 01 15 SASKATCHEWAN

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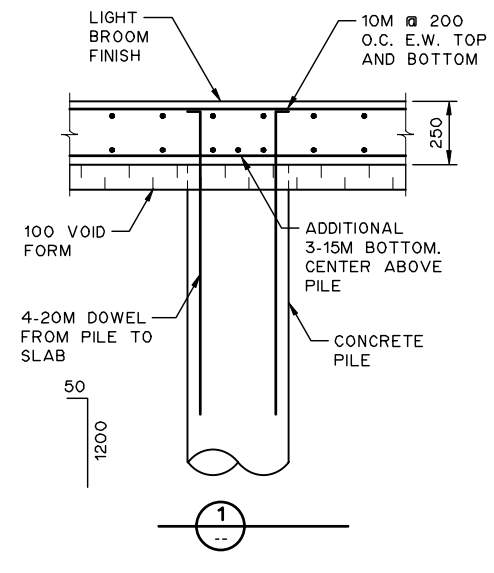
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
DETAILS

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	S4.1



SEPTAGE RECEIVING STATION BUILDING SLAB PLAN



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. 20 CHAMFER EXPOSED CONCRETE EDGES.
3. SEE CIVIL FOR LOCATION OF BUILDING AND SLAB.
4. CONTRACTOR TO COORDINATE LOCATION AND PROVIDE CONCRETE PENETRATIONS FOR PIPING AND CONDUIT AS REQUIRED BY SEPTAGE STATION MANUFACTURER AND SUPPLIER.
5. CONTRACTOR TO PROVIDE ALL BUILDING ANCHORAGE TO CONCRETE SLAB AS PER MANUFACTURERS REQUIREMENTS.

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PROFESSIONAL ENGINEER
W. SONG
MEMBER 34196
2021 01 15
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
STRUCTURAL
SEPTAGE RECEIVING STATION
BUILDING SLAB AND FOUNDATION

DESIGNED	W.W.L.S.	JOB	7603-002-00
DRAWN	D.F.F.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	S5.1

GENERAL EQUIPMENT

- PROPOSED
- EQUIPMENT TO BE REMOVED
- EXISTING
- MARKER DENOTING EXTENT OF WORK TO EXISTING SYSTEMS

PLUMBING

- G — NATURAL GAS
- DCW — DOMESTIC COLD WATER
- DHW — DOMESTIC HOT WATER
- DHWR — DOMESTIC HOT WATER RETURN
- W — WATER SERVICE
- SAN ---- SAN — BELOW GRADE SANITARY
- SAN — ABOVE GRADE SANITARY
- STM ---- STM — BELOW GRADE STORM
- STM — ABOVE GRADE STORM
- F — FIRE PROTECTION
- DR — DRAIN LINE
- CA — COMPRESSED AIR
- V — V — SANITARY VENT
- WEEPING TILE

HEATING

- HWS — HEATING WATER SUPPLY
- HWR — HEATING WATER RETURN
- GLS — GLYCOL SUPPLY
- GLR — GLYCOL RETURN

COOLING

- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- CWS — CONDENSER WATER SUPPLY
- CWR — CONDENSER WATER RETURN
- R — REFRIGERANT PIPE

GENERAL PIPING

- PIPE DROP
- PIPE RISE
- OFFSET DOWN
- BOTTOM TAKE-OFF
- TOP TAKE-OFF
- TEE CONNECTION
- CAP
- BLOW OFF STRAINER
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- FLANGED SPOOL PIECE
- UNION/FLANGED CONNECTION
- EJ-1 — EXPANSION JOINT
- PUMP
- PRESSURE GAUGE AND COCK
- STRAINER
- 25ø — PIPE SIZE
- DIRECTION OF FLOW
- T — TEMPERATURE SENSOR SINGLE POINT PROBE
- SENSOR AVERAGING PROBE
- AIR SEPARATOR
- AIR SCOOP
- CHEMICAL POT FEEDER
- AAV — AIR VENT

HEATING EQUIPMENT

- 2 WAY CONTROL VALVE
- 3 WAY CONTROL VALVE
- BALANCE VALVE
- CIRCUIT SETTER
- GAS COCK
- ISOLATION VALVE
- PRESSURE REDUCING VALVE
- RELIEF OR SAFETY VALVE
- AUTOMATIC FILL VALVE
- S — SOLENOID VALVE
- DP — DIFFERENTIAL PRESSURE VALVE
- STEAM TRAPS
- S — SUPERVISED VALVE
- SWING GATE CHECK VALVE
- BACK FLOW PREVENTER
- SIGHT GLASS
- MICRON FILTER
- TYPE / SIZE / KW — RADIATION TAG

PLUMBING FIXTURE

- DRINKING FOUNTAIN
- THERMOMETER
- M — METER
- FD — FLOOR DRAIN
- FFD — FUNNEL FLOOR DRAIN
- HD — HUB DRAIN
- RD — ROOF DRAIN
- RUNNING TRAP
- FIXTURE TRAP
- CLEAN-OUT
- IN FLOOR CLEANOUT
- NFHB — NON FREEZE HOSE BIBB
- SANITARY VENT

FIRE PROTECTION

- FIRE EXTINGUISHER
- FIRE EXTINGUISHER C/W SEMI RECESSED CABINET
- FHC — FIRE HOSE STATION
- FIRE DEPARTMENT SIAMESE CONNECTION
- UPRIGHT SPRINKLER
- PENDANT SPRINKLER
- CONCEALED SPRINKLER
- D — DRY PENDANT SPRINKLER
- SIDEWALL HEAD SPRINKLER
- D — SIDEWALL HEAD DRY SPRINKLER

VENTILATION DUCT WORK

- THERMAL LINING (INSULATION)
- ACOUSTICAL LINING (INSULATION)
- RECTANGULAR DUCT
- 300ø — ROUND DUCT
- 300/200 — FLAT OVAL DUCT
- FLEXIBLE DUCT CONNECTION
- BRAIDED FLEXIBLE PIPE CONNECTOR
- DOUBLE SPHERE RUBBER PIPE CONNECTOR
- VARIABLE VOLUME TERMINAL UNIT
- 100x75 75x50 — TRANSITION
- 100x75 75ø — RECTANGULAR TO ROUND TRANSITION
- TURNING VANES
- S — SMOKE DETECTORS
- DUCT REHEAT COIL
- RELIEF VENT
- CHIMNEY
- INDICATES DIRECTION OF AIR FLOW
- AIR FLOW MEASURING STATION

VENTILATION FIXTURE

- CEILING FAN
- FAN
- EF — SIDE WALL FAN
- H — DEHUMIDISTAT
- F — FREEZE-STAT
- DP — DIFFERENTIAL PRESSURE SENSOR
- T — THERMOSTAT
- T — THERMOSTAT C/W LOCKABLE COVER
- T S — THERMOSTAT C/W REMOTE TEMPERATURE SENSOR
- SUPPLY AIR DUCT
- RETURN AIR DUCT
- EXHAUST AIR DUCT
- OUTSIDE OR COMBUSTION AIR
- RETURN/EXHAUST GRILLE
- SUPPLY DIFFUSER
- ROUND SUPPLY DUCT RISER
- ROUND SUPPLY DUCT DROP
- TYPE / SIZE / L/S / QTY — AIR GRILL TAG
  - S - SUPPLY
  - R - RETURN
  - E - EXHAUST
  - T - TRANSFER
- BALANCE DAMPER
- FD — FIRE DAMPER
- M — MOTORIZED DAMPER

TAGS

- -- — FIXTURE AND EQUIPMENT TAG
- FS — FLOW SWITCH
- -- — EMCS POINT IDENTIFICATION TAG
- -- — VAV BOX IDENTIFICATION TAG
- E / P — VOLTAGE/CURRENT PRESSURE TRANSDUCER
- -- — KEY NOTES

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL BOLD ITEMS INDICATE WORK TO BE DONE AND ALL LIGHT ITEMS INDICATE EXISTING CONDITIONS.

THE EXISTENCE, LOCATION AND ELEVATION OF ALL UTILITIES AS SHOWN ON ANY PLANS MAY BE BASED ON INFORMATION RECEIVED FROM THE RESPECTIVE AUTHORITIES AND ARE NOT GUARANTEED BY THE ENGINEER. NO RESPONSIBILITY IS IMPLIED OR ASSUMED BY THE ENGINEER AS TO THE LOCATION AND ELEVATION OR ANY OMISSIONS. THE CONTRACTOR OR ANY THIRD-PARTY IS RESPONSIBLE FOR DETERMINING THE EXISTENCE, LOCATION AND ELEVATION OF ALL SUCH UTILITIES AND MUST CONTACT THE VARIOUS UTILITY COMPANIES FOR ON SITE INFORMATION PRIOR TO COMMENCEMENT OF ANY OPERATIONS.

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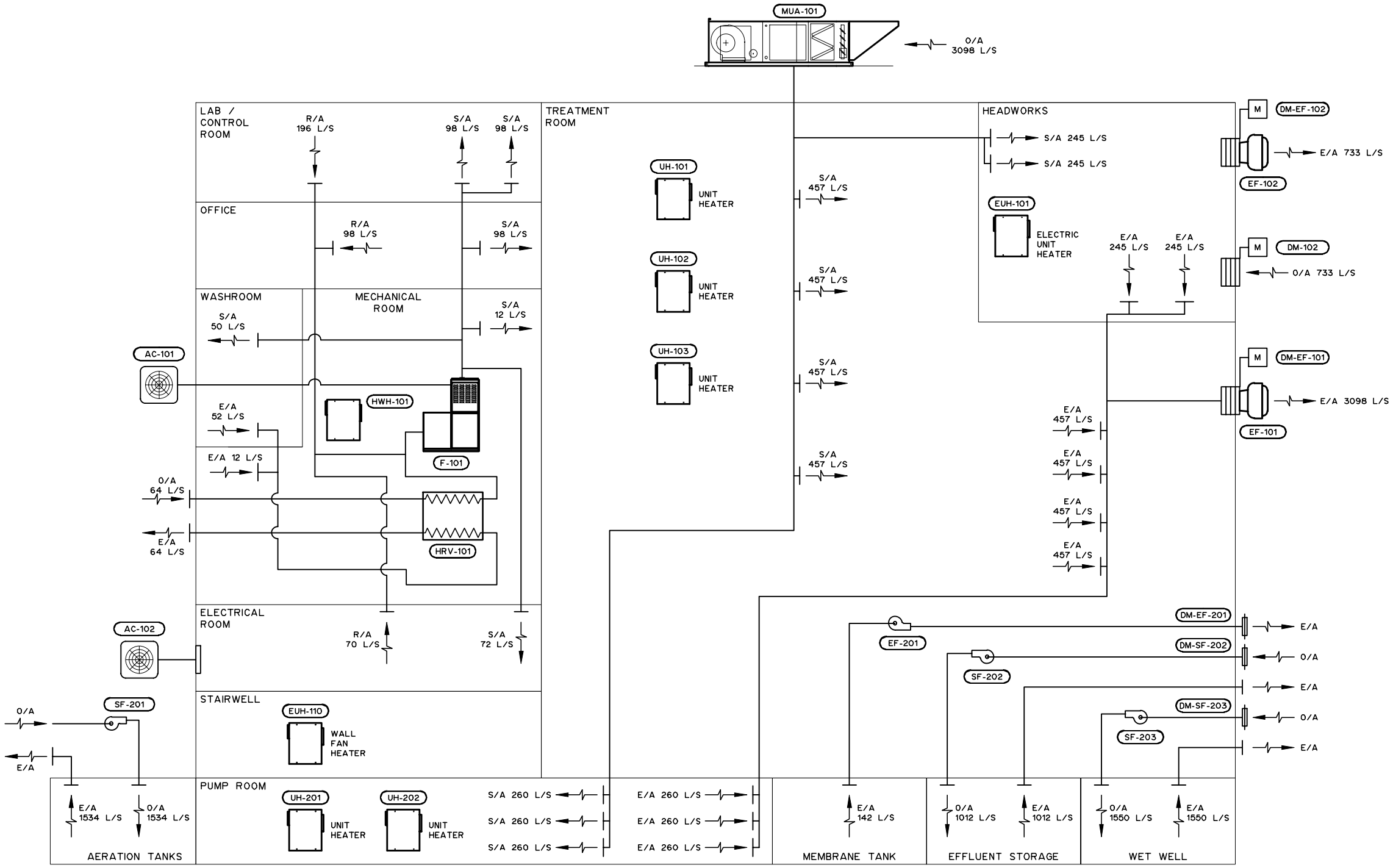
PROFESSIONAL ENGINEER — R.R. TINDAL — MEMBER 24112 — 2021-01-19 — VR. MIL.CAY — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
MECHANICAL
LEGEND

DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	M0.1



NOTES:

ABBREVIATIONS:

S/A	SUPPY AIR
E/A	EXHAUST AIR
O/A	OUTSIDE AIR
R/A	RETURN AIR

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PROFESSIONAL ENGINEER — R.R. ORSET — MEMBER 2012 — 2021-01-19 — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
MECHANICAL
HEATING AND VENTILATION
FLOW DIAGRAM

DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	M1.1

DESIGN CRITERIA

MUA-101
- MAKEUP AIR HANDLING UNIT
- 5.6 kW, 3100 L/S
- 600 VAC/3 PH/60 Hz

EF-101
- EXHAUST FAN
- 1.12 kW, 3100 L/S
- 600 VAC/3 PH/60 Hz

HRV-101
- HEAT RECOVERY VENTILATOR
- 0.15 kW, 64 L/s
- 120 VAC/1 PH/60 Hz

F-101
- FORCED AIR FURNACE
- 0.22 kW, 545 L/s
- 120 VAC/1 PH/60 Hz

AC-101
- CONDENSING UNIT
- 1.98 kW
- 208 VAC/1 PH/60 Hz

AC-102
- CONDENSER
- 4.68 kW
- 208 VAC/1 PH/60 Hz
- EVAPORATOR
- 0.2kW
- 208 VAC/1 PH/60 Hz

SF-202
- SUPPLY FAN
- 1.12 kW, 1012 L/S
- 208 VAC/1 PH/60 Hz

SF-203
- SUPPLY FAN
- 1.12 kW, 1550 L/S
- 208 VAC/1 PH/60 Hz

SF-201
- SUPPLY FAN
- 1.12kW, 1534 L/S
- 208 VAC/1 PH/60 Hz

HWH-101
- HOT WATER HEATER
- 120 VAC/1 PH/60 Hz

EF-102
- EXHAUST FAN
- 0.19kW, 735 L/S
- 600 VAC/3 PH/60 Hz

EUH-101
- ELECTRIC UNIT HEATER
- 15 kW
- 600 VAC/3 PH/60 Hz

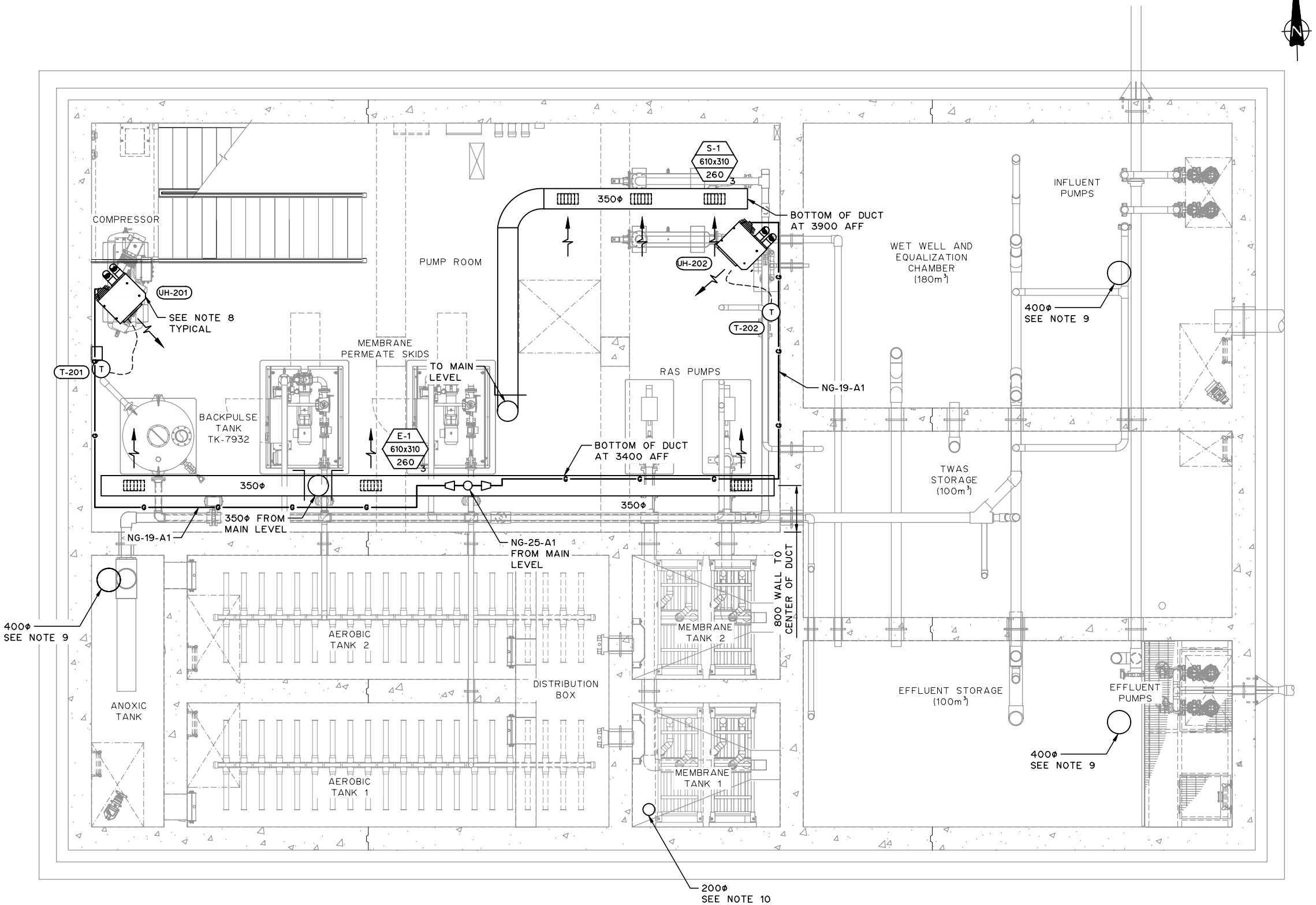
EUH-110
- WALL FAN HEATER
- 4 kW
- 208 VAC/1 PH/60 Hz

UH-101/102/103/201/202
- UNIT HEATER
- 0.2 kW
- 120 VAC/1 PH/60 Hz

EF-201
- EXHAUST FAN
- 0.11 kW, 142 L/S
- 120 VAC/1 PH/60 Hz

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.



2. SUPPLY AND INSTALL MANUFACTURER'S CONCENTRIC VENT KIT.
3. EACH GAS CONNECTION TO AN APPLIANCE SHALL BE MADE WITH A UNION, ISOLATION GAS COCK AND DIRT LEG. GAS LINES TO BE SIZED TO CAN/CSA B149.1-05.
4. PROVIDE DUCTING AND MISCELLANEOUS FITTINGS WHERE REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
5. HEATING AND VENTILATION EQUIPMENT SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS INCLUDING MEETING ALL CLEARANCE REQUIREMENTS.
6. DRAWING IS DIAGRAMMATIC AND INDICATES INTENT ONLY. PROVIDE ALL VERTICAL AND HORIZONTAL OFFSETS NOT NECESSARILY IDENTIFIED IN THE DRAWING IN A MANNER THAT MEETS CODE REQUIREMENTS.
7. ALL DUCT AND FLUE PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS ARE TO BE COMPLETE WITH FIRE DAMPERS AND CONFORMING ACCESS PANEL. FIRE DAMPERS ARE TO BE UL LISTED AND MANUFACTURED AS REQUIRED BY CAN/ULC-S112.2-07.
8. UNIT HEATERS TO BE INSTALLED AT 4200 ABOVE FINISHED FLOOR. COORDINATE ON SITE WITH PROCESS EQUIPMENT. SUPPLY AND INSTALL MANUFACTURER'S CONCENTRIC VENT KIT. VENT TO RUN ALONG CEILING TO NORTH WALL AND PENETRATE MAIN FLOOR SLAB. RUN VENT AS CLOSE AS POSSIBLE TO NORTH WALL.
9. PVC DUCT THROUGH FLOOR C/W LINK SEAL. DUCT TO EXTEND 50 BELOW FINISHED CEILING.
10. PVC DUCT TO EXTEND 50 BELOW GRATING.

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R.R. UNSH
MEMBER 24112
2021-01-19
SASKATCHEWAN

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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

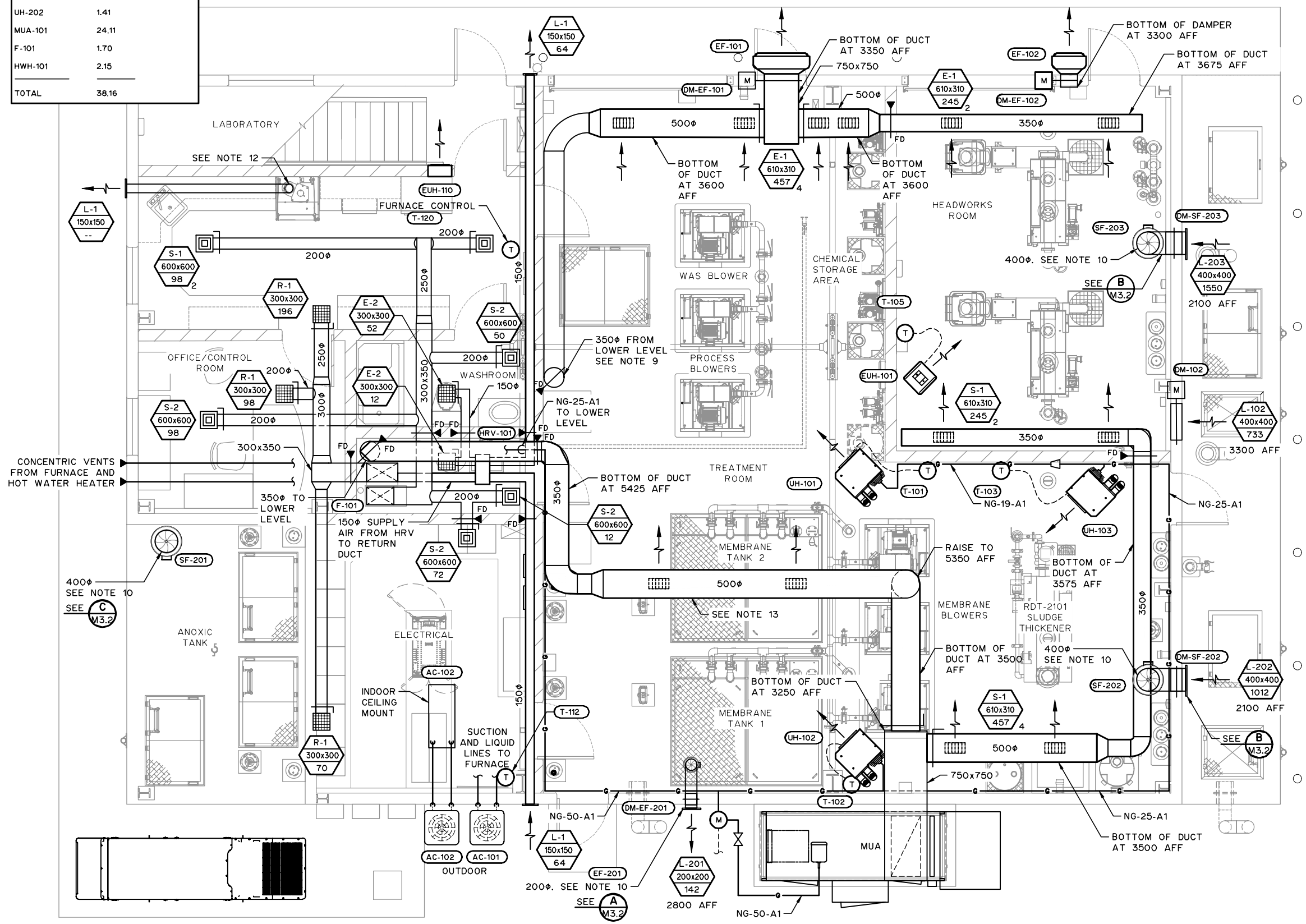
WASTEWATER TREATMENT PLANT
MECHANICAL - HVAC
LOWER LEVEL
PLAN

DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	M2.1

GAS SCHEDULE	
EQUIPMENT	CONSUMPTION (m3/hr)
UH-101	2.46
UH-102	2.46
UH-103	2.46
UH-201	1.41
UH-202	1.41
MUA-101	24.11
F-101	1.70
HWH-101	2.15
TOTAL	38.16

NOTES:

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2. SUPPLY AND INSTALL MANUFACTURER'S CONCENTRIC VENT KIT.
3. EACH GAS CONNECTION TO AN APPLIANCE SHALL BE MADE WITH A UNION, ISOLATION GAS COCK AND DIRT LEG. GAS LINES TO BE SIZED TO CAN/CSA B149.1-05.
4. PROVIDE DUCTING AND MISCELLANEOUS FITTINGS WHERE REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
5. HEATING AND VENTILATION EQUIPMENT SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS INCLUDING MEETING ALL CLEARANCE REQUIREMENTS.
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7. ALL DUCT AND FLUE PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS ARE TO BE COMPLETE WITH FIRE DAMPERS AND CONFORMING ACCESS PANEL. FIRE DAMPERS ARE TO BE UL LISTED AND MANUFACTURED AS REQUIRED BY CAN/ULC-S112.2-07.
8. UNIT HEATERS TO BE INSTALLED AT 3000 ABOVE FINISHED FLOOR. COORDINATE ON SITE WITH PROCESS EQUIPMENT.
9. INSTALL FIRE DAMPER ABOVE FLOOR TO PUMP ROOM.
10. PVC DUCT TO TANK BELOW.
11. GAS PRESSURE WILL BE 7-IN W.C. FROM UTILITY TO BUILDING. CONTRACTOR TO COORDINATE GAS SERVICE CONNECTION WITH UTILITY.
12. CONNECT 150ϕ EXHAUST DUCT TO FUME HOOD.
13. SUPPLY DUCT TO BE INSTALLED BETWEEN ROOF JOISTS AND AS CLOSE TO THE SOUTH WALL AS THE ROOF PITCH ALLOWS.



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MECHANICAL	24112	

PROFESSIONAL ENGINEER SASKATCHEWAN
R.R. URSEY MEMBER 24112
2021-01-19
YR. MO. DAY

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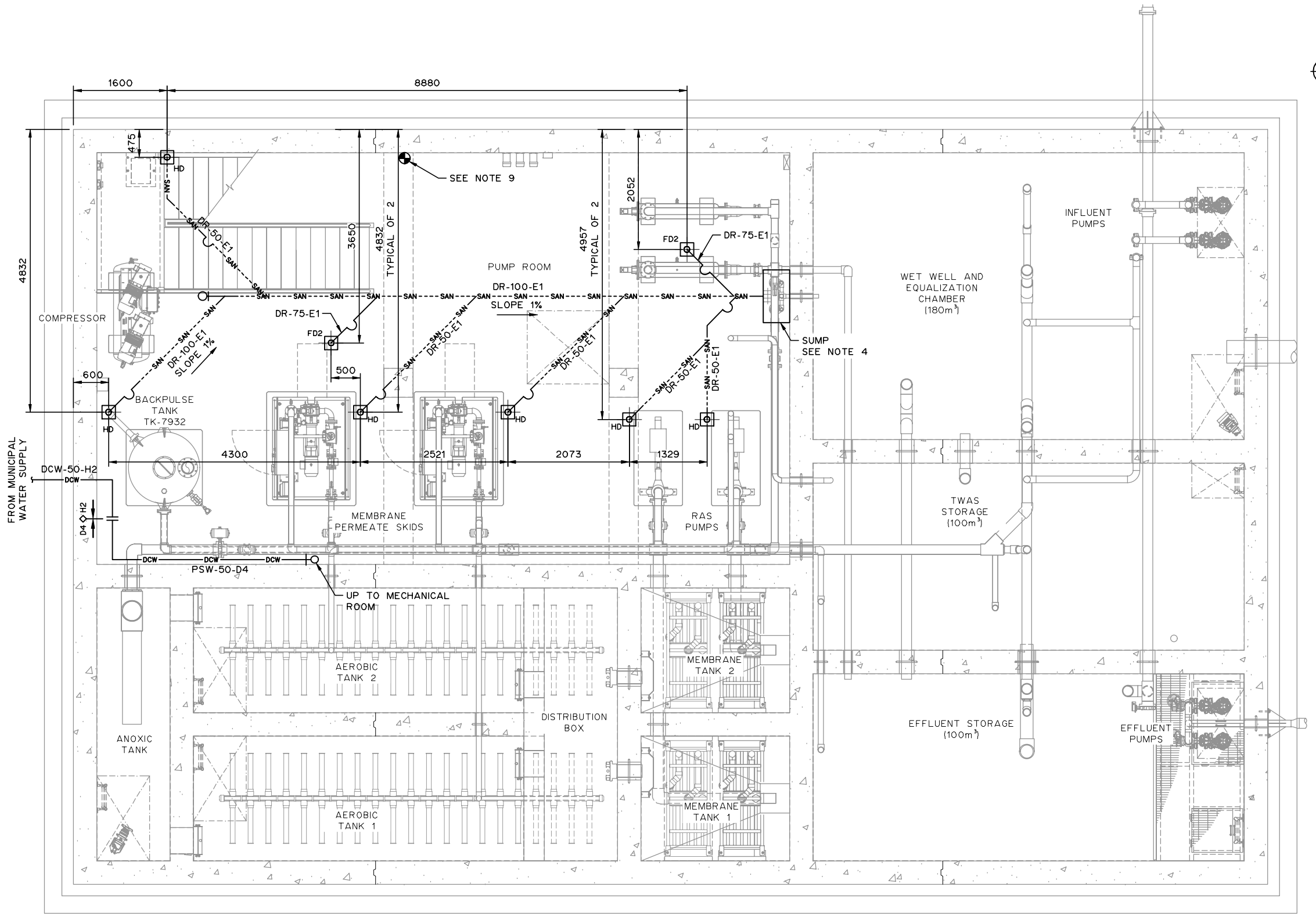
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
MECHANICAL
HEATING AND VENTILATION
MAIN LEVEL PLAN

DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	M2.2

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. ALL PLUMBING SHALL BE INSTALLED TO NATIONAL PLUMBING CODE REQUIREMENTS.
3. VENT ALL PLUMBING EQUIPMENT AND FIXTURES AS REQUIRED BY CODE. GROUP FIXTURE VENTS TO MINIMIZE ROOF OPENINGS.
4. 75Φ SANITARY VENT TO ATMOSPHERE. INCREASE TO 100Φ AT ROOF PENETRATION.
5. SANITARY WASTE AND DRAINAGE SYSTEM SHALL BE INSTALLED C/W SLOPES, CLEANOUTS, VENTS, TRAPS, TRAP PRIMERS, FIXTURE CONNECTIONS, ETC. TO MEET ALL CODE REQUIREMENTS.
6. ALL HUB DRAINS TO BE DR-38-E1 UNLESS NOTED OTHERWISE.
7. PLUMBING CONTRACTOR TO COORDINATE WITH STRUCTURAL CONTRACTOR TO ENSURE FLOOR SLOPES TOWARDS FLOOR DRAINS.
8. HUB DRAINS FOR PUMP SEAL FLUSH WATER TO BE INSTALLED WITHIN PUMP EQUIPMENT PAD. CONTRACTOR TO CO-ORDINATE WITH PROCESS MECHANICAL CONTRACTOR.
9. PROVIDE FIRE EXTINGUISHERS AS INDICATED ON PLANS, IN ACCORDANCE WITH NFPA 10 AND AS REQUIRED BY AUTHORITY HAVING JURISDICTION. EXTINGUISHERS TO BE 4.5kg ABC C/W WALL MOUNTING BRACKETS.
10. ALL SANITARY PIPING IN LOWER LEVEL TO BE CAST-IN PLACE. CAST-IN PLACE SANITARY PIPING IS TO BE LOCATED BETWEEN THE MATS OF STRUCTURAL STEEL.
11. ALL SANITARY PIPING LOCATED IN THE UPPER LEVEL IS TO BE BELOW THE STRUCTURAL SLAB. SANITARY PIPING IS TO BE SUPPORTED FROM HANGERS INSTALLED IN THE STRUCTURAL SLAB AND BEDDED IN PEA GRAVEL.
12. DRAWING IS DIAGRAMMATIC AND INDICATES INTENT ONLY.



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ISSUE	YY-MM-DD	REVISION

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
MECHANICAL	24112	

PROFESSIONAL ENGINEER SASKATCHEWAN
R.R. TINSLEY MEMBER 24112
2021-01-19
PROVINCE OF SASKATCHEWAN

MPE Engineering Ltd.

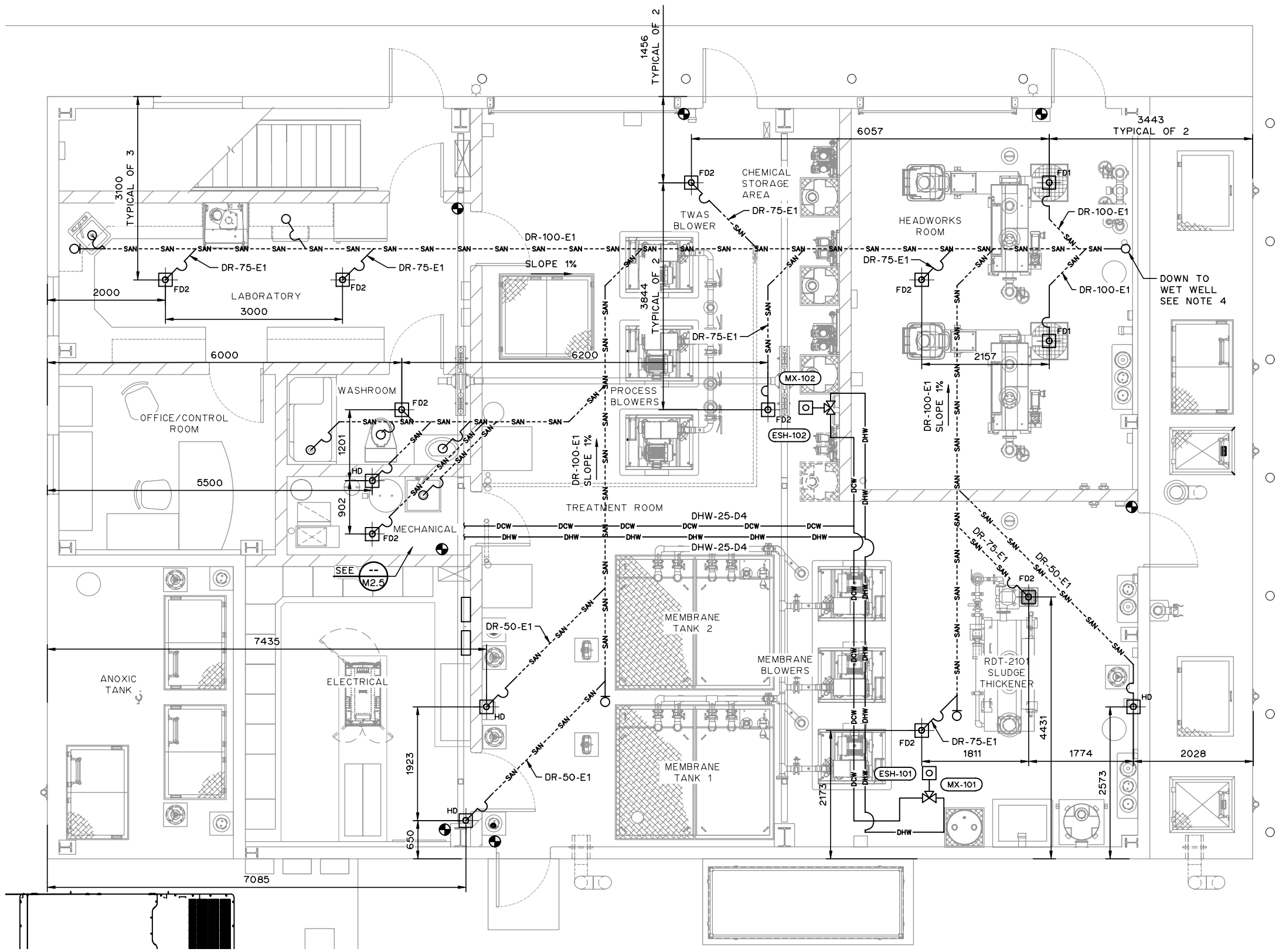
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
MECHANICAL
PLUMBING, FIRE PROTECTION AND SANITARY
LOWER LEVEL PLAN

DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	M2.3

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. ALL PLUMBING SHALL BE INSTALLED TO NATIONAL PLUMBING CODE REQUIREMENTS.
3. VENT ALL PLUMBING EQUIPMENT AND FIXTURES AS REQUIRED BY CODE. GROUP FIXTURE VENTS TO MINIMIZE ROOF OPENINGS.
4. 75Φ SANITARY VENT TO ATMOSPHERE. INCREASE TO 100Φ AT ROOF PENETRATION.
5. SANITARY WASTE AND DRAINAGE SYSTEM SHALL BE INSTALLED C/W SLOPES, CLEANOUTS, VENTS, TRAPS, TRAP PRIMERS, FIXTURE CONNECTIONS, ETC. TO MEET ALL CODE REQUIREMENTS.
6. ALL HUB DRAINS TO BE DR-38-E1 UNLESS NOTED OTHERWISE.
7. PLUMBING CONTRACTOR TO COORDINATE WITH STRUCTURAL CONTRACTOR TO ENSURE FLOOR SLOPES TOWARDS FLOOR DRAINS.
8. HUB DRAINS FOR PUMP SEAL FLUSH WATER TO BE INSTALLED WITHIN PUMP EQUIPMENT PAD. CONTRACTOR TO CO-ORDINATE WITH PROCESS MECHANICAL CONTRACTOR.
9. PROVIDE FIRE EXTINGUISHERS AS INDICATED ON PLANS, IN ACCORDANCE WITH NFPA 10 AND AS REQUIRED BY AUTHORITY HAVING JURISDICTION. EXTINGUISHERS TO BE 4.5kg ABC C/W WALL MOUNTING BRACKETS.
10. ALL SANITARY PIPING IN LOWER LEVEL TO BE CAST-IN PLACE. CAST-IN PLACE SANITARY PIPING IS TO BE LOCATED BETWEEN THE MATS OF STRUCTURAL STEEL.
11. ALL SANITARY PIPING LOCATED IN THE UPPER LEVEL IS TO BE BELOW THE STRUCTURAL SLAB. SANITARY PIPING IS TO BE SUPPORTED FROM HANGERS INSTALLED IN THE STRUCTURAL SLAB AND BEDDED IN PEA GRAVEL.
12. ALL DOMESTIC WATER SUPPLY PIPING SHALL BE 20Φ UNLESS NOTED OTHERWISE.
13. INSTALL PIPING ON COMMON RACKS WITH PROCESS PIPING WHERE POSSIBLE. COORDINATE WITH OTHER TRADES ON SITE.
14. DRAWING IS DIAGRAMMATIC AND INDICATES INTENT ONLY.



THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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MECHANICAL	24112	

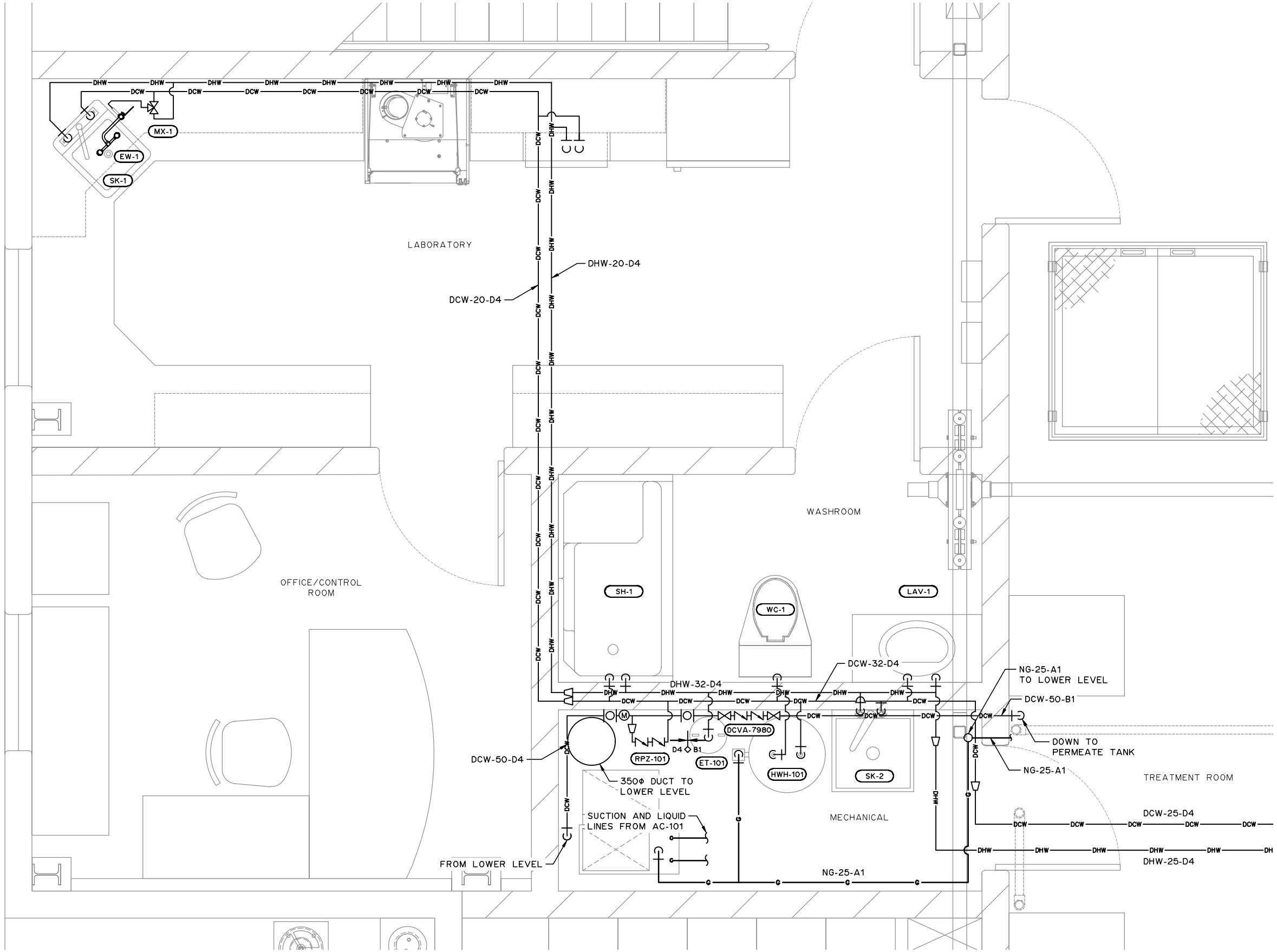
PROFESSIONAL ENGINEER — R.R. LINDSAY — MEMBER SASK — 2021-01-19 — YR. MO. DAY — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
MECHANICAL
PLUMBING, FIRE PROTECTION AND SANITARY
MAIN LEVEL PLAN

DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	M2.4



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. ALL PLUMBING SHALL BE INSTALLED TO NATIONAL PLUMBING CODE REQUIREMENTS.
3. VENT ALL PLUMBING EQUIPMENT AND FIXTURES AS REQUIRED BY CODE. GROUP FIXTURE VENTS TO MINIMIZE ROOF OPENINGS.
4. CONTRACTOR TO PROVIDE 50mm CONDUIT PVC SLEEVE FOR DOMESTIC HOT AND COLD WATER LINES IN CONCRETE TO FEED LAB FIXTURES.M
5. PROVIDE FIRE EXTINGUISHERS AS INDICATED ON PLANS, IN ACCORDANCE WITH NFPA 10 AND AS REQUIRED BY AUTHORITY HAVING JURISDICTION. EXTINGUISHERS TO BE 4.5kg ABC C/W WALL MOUNTING BRACKETS.
6. ALL DOMESTIC WATER SUPPLY PIPING SHALL BE 20ϕ UNLESS NOTED OTHERWISE.
7. INSTALL PIPING ON COMMON RACKS WITH PROCESS PIPING WHERE POSSIBLE. COORDINATE WITH OTHER TRADES ON SITE.
8. DRAWING IS DIAGRAMMATIC AND INDICATES INTENT ONLY.

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MECHANICAL	24112	

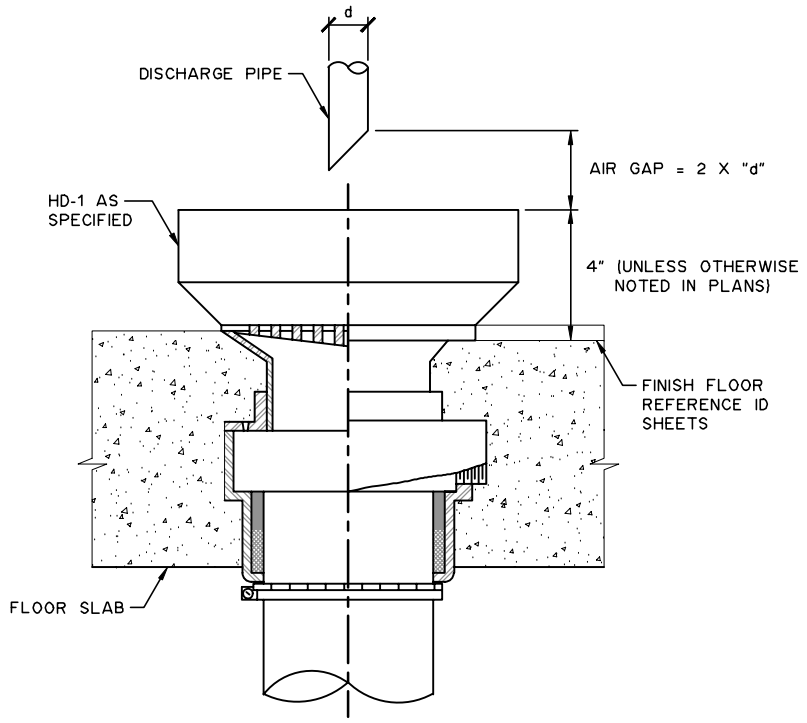
PROFESSIONAL ENGINEER — R.R. TINSLEY — MEMBER 24112 — 2021-01-19 — YR. MO. DAY — SASKATCHEWAN

MPE Engineering Ltd.

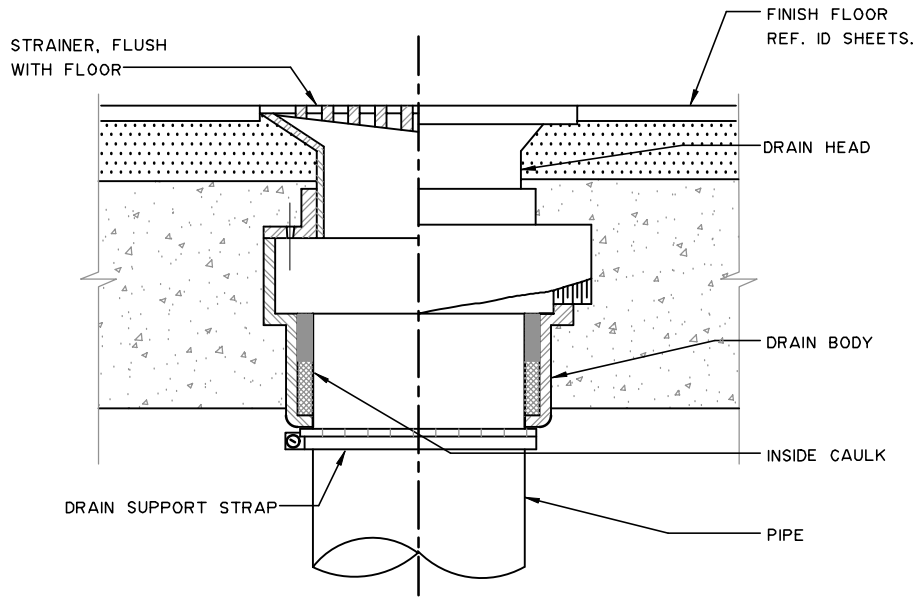
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
MECHANICAL
PLUMBING AND FIRE PROTECTION
MECHANICAL ROOM, WASHROOM, AND LABORATORY

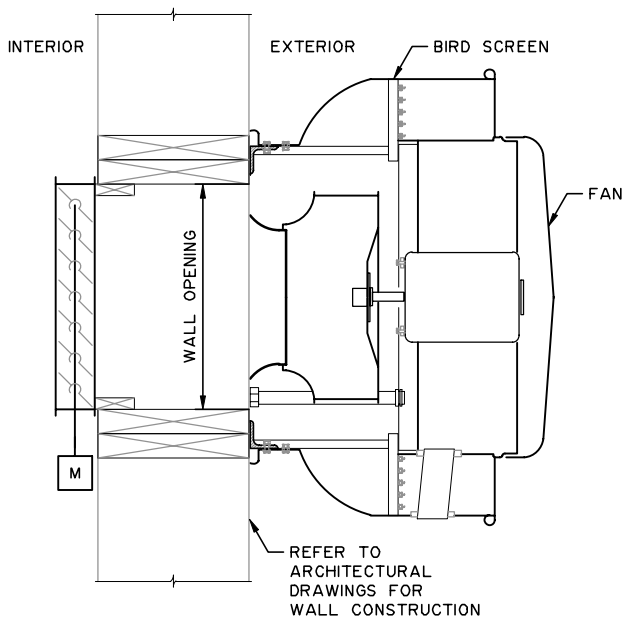
DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	M2.5



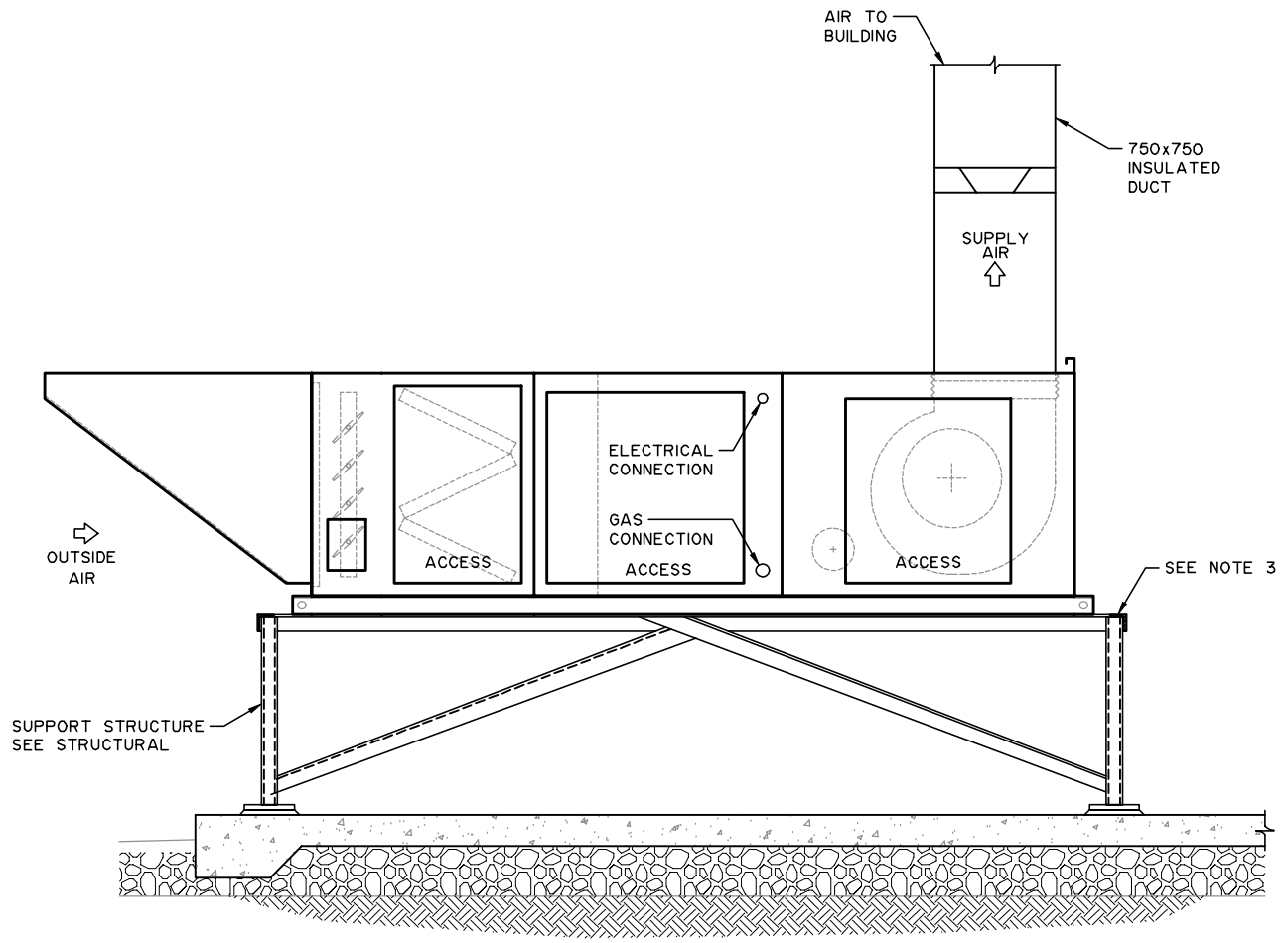
TYPICAL HUB DRAIN DETAIL



TYPICAL FLOOR DRAIN DETAIL



TYPICAL WALL FAN DETAIL



TYPICAL MAKEUP AIR HANDLING UNIT

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. FABRICATE AND INSTALL DUCTWORK IN ACCORDANCE WITH SMACHA STANDARDS.
3. CONTRACTOR TO CONFIRM DIMENSIONS OF AIR HANDLING UNIT AND ENSURE DIMENSIONS OF SUPPORT STRUCTURE AND PAD SUIT UNIT. COORDINATE WITH STRUCTURAL.

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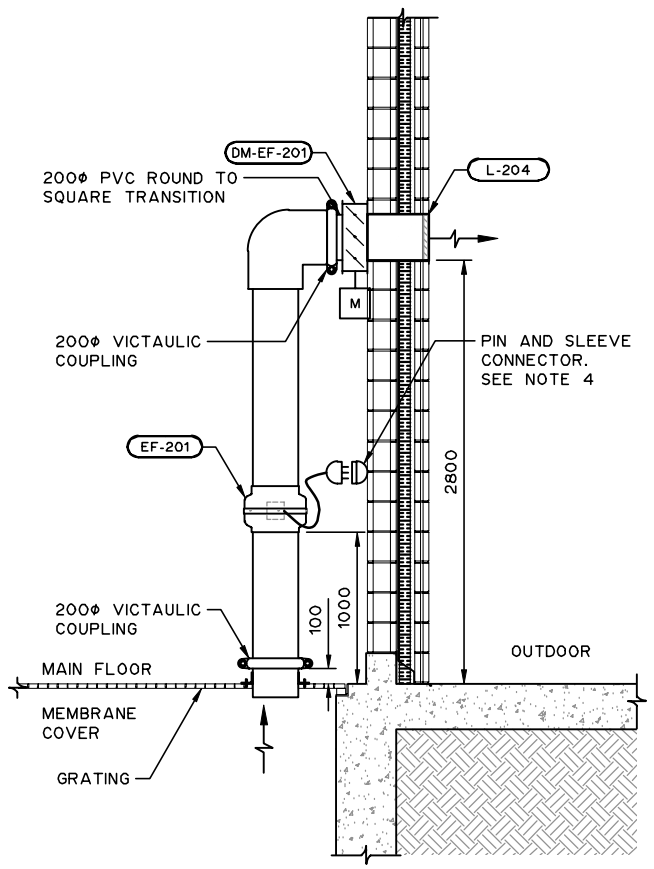
R.R. TIPSY MEMBER 24112 2021-01-19 PROFESSIONAL ENGINEER SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

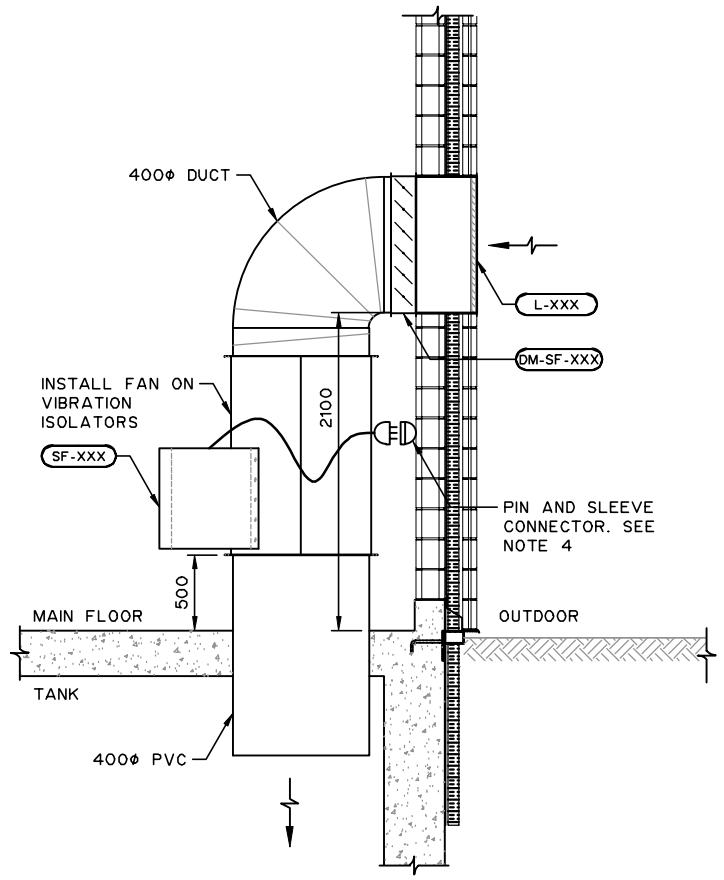
WASTEWATER TREATMENT PLANT
MECHANICAL
DETAILS

DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	M3.1



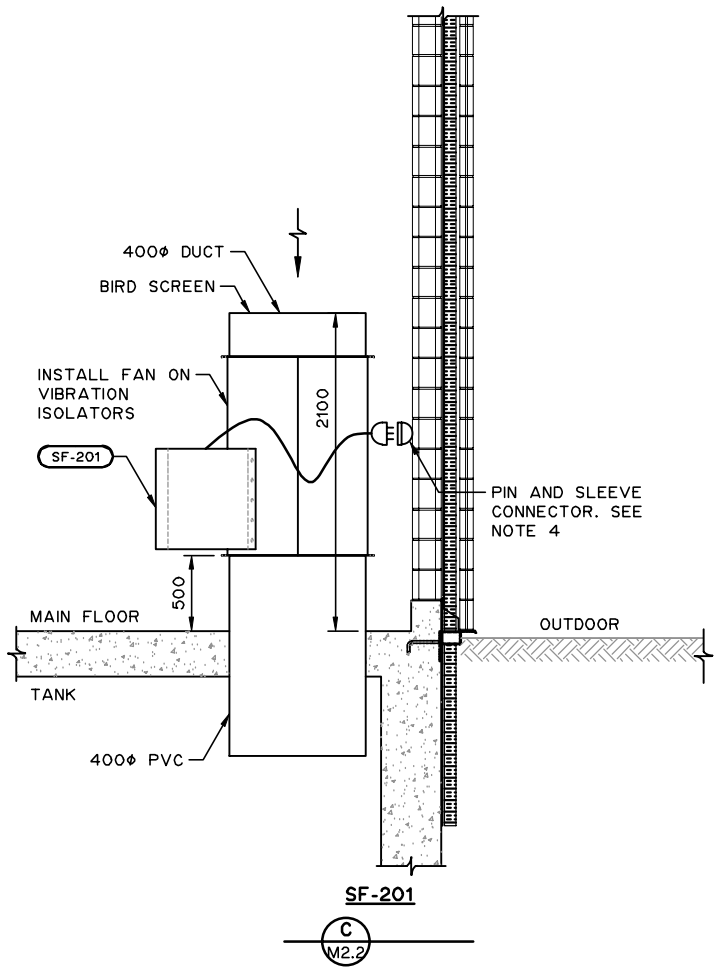
EF-201

A M2.2



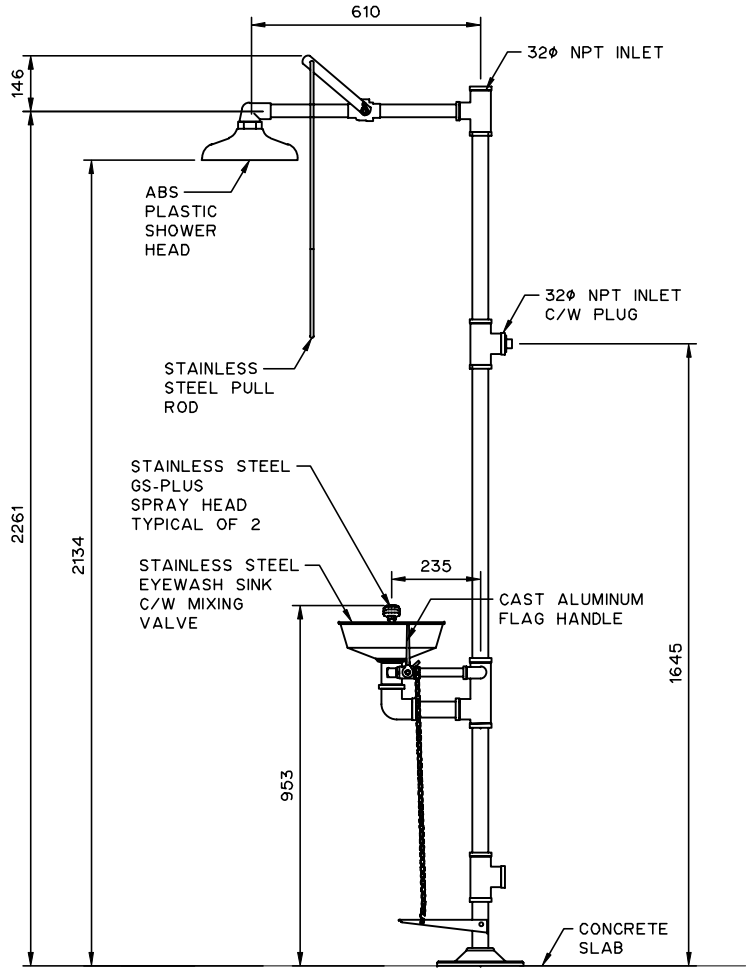
SF-202 & SF-203

B M2.2



SF-201

C M2.2



NOTE: REFER TO SPECIFICATIONS FOR MORE DETAILS

SHOWER AND EYE/FASH WASH COMBINATION DETAL

D --

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. FABRICATE AND INSTALL DUCTWORK IN ACCORDANCE WITH SMACHA STANDARDS.
3. INSTALL LOUVRE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
4. CONTRACTOR TO MOUNT PIN AND SLEEVE CONNECTOR 1500mm AWAY MAXIMUM IN A LOCATION ACCESSIBLE FOR MAINTENANCE.

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MECHANICAL	24112	

PROFESSIONAL ENGINEER SASKATCHEWAN
R.R. URSU
MEMBER 24112
2021-01-19
TH. MIL.DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

MECHANICAL

DETAILS

DESIGNED	R.R.U.	JOB	7603-002-00
DRAWN	T.D.D.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	M3.2

PUMPS

- VERTICAL TURBINE PUMP (CLOSED SHAFT / OPEN SHAFT)
- CENTRIFUGAL MULTISTAGE PUMP
- RECIPROCATING PUMP
- VACUUM PUMP
- ROTARY PUMP
- PERISTALTIC PUMP
- METERING PUMP
- DUPLEX METERING PUMP
- AIR OPERATED DIAPHRAGM PUMP
- SCREW PUMP
- SUBMERSIBLE EFFLUENT PUMP
- SUMP PUMP
- SUBMERSIBLE TURBINE PUMP
- SUBMERSIBLE MULTISTAGE PUMP
- JET MIXER EJECTOR/EDUCTOR
- DRUM PUMP

COMPRESSORS

- CENTRIFUGAL COMPRESSOR
- ROTARY LOBE OR CLAW COMPRESSOR
- RECIPROCATING AIR COMPRESSOR
- SCREW AIR COMPRESSOR
- REFRIGERATED AIR DRYER
- DESICCANT DRYER

BLOWERS

- CENTRIFUGAL FAN OR BLOWER
- POSITIVE DISPLACEMENT BLOWER
- FAN

VALVES

- GATE (GAV)
- GLOBE (GLV)
- BUTTERFLY (BUV)
- BALL (BAV)
- PLUG (PLV)
- NEEDLE (NEV)
- CHECK (CHV)
- DIAPHRAGM (DIV)
- BLOCK AND BLEED (BBV)
- FLAP GATE (WFG)
- MUD (MUV)
- BLOCK (BV)
- SLIDE GATE (SGV)
- SLUICE GATE (SLV)
- PINCH (PV)
- KNIFE GATE (KGV)
- ROTARY (ROV)
- POST INDICATOR (PIV)
- UNKNOWN (UNV)
- FLOAT OPERATED
- SOLENOID
- SOLENOID 3-WAY
- SOLENOID 4-WAY
- NORMALLY OPEN (NO)
- NORMALLY CLOSED (NC)
- LOCK OPEN (LO)
- LOCK CLOSED (LC)
- CAR SEAL OPEN (CSO)
- CAR SEAL CLOSED (CSC)

ELECTRIC CONTROL VALVE ACTUATORS

- MOTORIZED VALVE
- MOTORIZED VALVE (FAIL OPEN)
- MOTORIZED VALVE (FAIL CLOSED)
- MOTORIZED VALVE (FAIL LAST)

HYDRAULIC CONTROL VALVE ACTUATORS

- DIAPHRAGM ACTUATED VALVE
- FLOW CONTROL VALVE
- DIAPHRAGM ACTUATED PRESSURE CONTROL VALVE (FLAG IN DIRECTION OF CONTROLLED PRESSURE)
- DIRECT ACTING PRESSURE CONTROL VALVE (FLAG IN DIRECTION OF CONTROLLED PRESSURE)
- DIAPHRAGM ACTUATED DIAPHRAGM VALVE C/W SOLENOID AND MICRO SWITCH

PNEUMATIC CONTROL VALVE ACTUATORS

- CYLINDER OPERATED CONTROL VALVE
- SINGLE ACTING ACTUATOR (AIR TO CLOSE)
- DOUBLE ACTING ACTUATOR
- SOLENOID ON ACTUATOR
- POSITIONER AND CYLINDER (AIR TO CLOSE) SINGLE ACTING
- POSITIONER AND CYLINDER (AIR TO OPEN) SINGLE ACTING
- POSITIONER AND CYLINDER (AIR TO AIR) DOUBLE ACTING
- ELECTRO-HYDRAULIC CONTROL VALVE
- THERMOSTATICALLY CONTROLLED VALVE

RELIEF VALVES

- AIR VACUUM (ANTI-SIPHON) (AV)
- AIR RELEASE/VACUUM (CAV)
- AIR RELEASE (ARV)
- RUPTURE DISC
- DIRECT ACTING SAFETY RELIEF VALVE (ANGLE BODY)
- DIRECT ACTING SAFETY RELIEF VALVE (GLOBE BODY)
- OPEN DRAIN TO SEWER OR FLOOR DRAIN
- MUSHROOM VENT
- GOOSENECK VENT (PIPE)

MF/UF/RO

- FOUR PORT HOUSING
- TWO PORT HOUSING
- END PORT HOUSING
- MEMBRANE MODULE

HEATING

- HEAT EXCHANGER
- TANK HEATER
- IN-LINE HEATER
- PLATE AND FRAME HEAT EXCHANGER
- DESUPERHEATER
- RADIATOR (AIR)

MIXING DEVICES

- VERTICAL MIXER
- INLINE MIXER
- STATIC MIXER
- TANK MIXER
- FLOCCULATOR MIXER

FILTERS

- STRAINER "Y" TYPE
- STRAINER BASKET TYPE
- STRAINER BASKET TYPE (DUPLEX)
- FIXED SCREEN
- TRAVELING WATER SCREEN
- LINE FILTER
- PRE-FILTER
- PRE-FILTER C/W REGULATOR
- COMBINATION LINE FILTER C/W REGULATOR AND LUBRICATOR
- CENTRIFUGE

LINE IDENTIFICATION

- PRIMARY FLOW LINE
- SECONDARY FLOW LINE
- FUTURE LINE
- EXISTING LINE
- CHANNEL
- CONNECTING LINES
- CROSS OVER LINES (BREAK ALL VERTICAL LINES)
- DIRECTION OF FLOW
- DIRECTION OF SLOPE (2% SLOPE)
- INSULATION COLD OR PERSONAL PROTECTION
- INSULATION TRACE - ELECTRIC (E)
- INSULATION TRACE - STEAM OR GLYCOL
- LINE SPECIFICATION CHANGE (A1 ◇ B1)
- SPECTACLE BLIND (SB)
- LINE CONNECTION TO ANOTHER DRAWING (DWG NO.)
- LINE CONNECTION FROM ANOTHER DRAWING (DWG NO.)

FLOW ELEMENTS

- FLUME
- WEIR
- TURBINE OR PROPELLER TYPE PRIMARY ELEMENT
- ROTAMETER TYPE FLOW INDICATOR (FI --)
- PITOT TUBE OR PITOT VENTURI TUBE
- ORIFICE PLATE TYPE FLOW INDICATOR RO - RESTRICTION ORIFICE
- FLOW SIGHT GLASS (FI --)
- FLOW STRAIGHTENING VANES
- VENTURI TUBE
- POSITIVE DISPLACEMENT TYPE FLOW TOTALIZING INDICATOR
- VORTEX SENSOR
- MAGNETIC FLOW METER (M)
- ULTRASONIC FLOW METER (U)
- TURBINE FLOW METER
- BACK FLOW PREVENTER

ROTATING EQUIPMENT

- COMMINUTOR
- BARMINUTOR
- BELT CONVEYOR (M)
- SCREW CONVEYOR (M)
- NATURAL GAS ENGINE (NG)
- DIESEL ENGINE (D)
- VARIABLE SPEED GEAR BOX (MECHANICAL)
- GEAR DRIVE

SYMBOLS

- ELECTRIC MOTOR (M)
- PNEUMATIC MOTOR (P)
- SOLENOID (S)
- I/P CONVERTOR (I/P)
- SPECIALTY ITEM (SP XX)

VESSELS/TANKS

- PRESSURE TANK
- HOPPER TANK
- DOME TANK
- OPEN TANK
- CLOSED TANK
- WASH DOWN BOWL

MISCELLANEOUS

- FIRE EXTINGUISHER
- DIAPHRAGM SEAL/GAUGE GUARD
- PULSATION DAMPENER
- SPRAY NOZZLE
- COARSE BUBBLE DIFFUSER
- FINE BUBBLE DIFFUSER
- LAUNDER DIFFUSER/COLLECTOR
- CALIBRATION COLUMN
- SACRIFICIAL ANODE
- ULTRAVIOLET REACTOR
- SILENCER (MUFFLER)
- IMPACTOR
- LEVEL SWITCH
- ULTRASONIC OR RADAR LEVEL INSTRUMENT
- INJECTION QUILL (CHEMICAL INJECTION NOZZLE)
- HOSE CONNECTION (BIBB)
- SAFETY SHOWER
- CAMLOCK CONNECTION (E)
- EYE WASH
- SAMPLE POINT (SP)
- DRAIN POINT (DP)
- MANUAL VENT/PURGE POINT (VP)
- PIG LAUNCHER
- PIG RECEIVER

NOTES:

1. ALL ELEVATIONS AND STATIONS ARE IN METERS UNLESS NOTED OTHERWISE. ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL ITEMS SHOWN IN BOLD INDICATE WORK TO BE DONE. ALL ITEMS SHOWN IN LIGHT INDICATE EXISTING CONDITIONS. ALL ITEMS SHOWN IN LIGHT/DASHED INDICATE FUTURE WORK AND EQUIPMENT.

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CIVIL	52866	

PROFESSIONAL ENGINEER — I. KAGOBE — MPE ENGINEERING LTD. — 2021-01-18 YR. MN. DAY — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
EQUIPMENT LEGEND

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NONE
DATE	NOVEMBER 2020	DRAWING	P0.1

PIPE CONNECTIONS

DESCRIPTION	DOUBLE LINE (> 100ϕ)	SINGLE LINE (< 100ϕ)
WELD NECK FLANGED CONNECTION		
SLIP-ON FLANGED CONNECTION		
VICTAULIC FLANGED CONNECTION	VF	VF
BLIND FLANGE		
INSULATING FLANGE	IF	IF
WELDED CONNECTION (RANDOM LENGTH PIPE)		
SCREWED CONNECTION (RANDOM LENGTH PIPE)		
VICTAULIC JOINT CONNECTION	VC	VC
UNION		
COMPRESSION COUPLING	CC	CC
FLANGED COUPLING	FCC	FCC
BELLxFLANGE		
BELL AND SPIGOT, RING TIGHT, MECHANICAL JOINT CONNECTION		
COUPLER (PVC)		

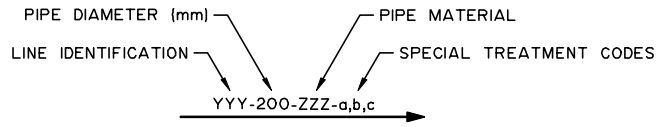
PIPE TO VALVE CONNECTIONS

DESCRIPTION	DOUBLE LINE (> 100ϕ)	SINGLE LINE (< 100ϕ)
WELD NECK FLANGED CONNECTION		
SLIP-ON FLANGED CONNECTION		
WELDED CONNECTION		
THREADED CONNECTION		
VICTAULIC CONNECTION	VC	VC

PIPE FITTINGS

DESCRIPTION	DOUBLE LINE (> 100ϕ)	SINGLE LINE (< 100ϕ)
CROSS		
CROSS (BRANCH UP)		
45° ELBOW		
45° ELBOW (UP)		
45° ELBOW (DOWN)		
LATERAL		
90° ELBOW		
90° ELBOW (UP)		
90° ELBOW (DOWN)		
45° ELBOW (SHORT RADIUS)	SR	SR
90° ELBOW (SHORT RADIUS)	SR	SR
BASE ELBOW		
SIDE OUTLET ELBOW (UP)		
SIDE OUTLET ELBOW (DOWN)		
TEE		
TEE (BRANCH UP)		
TEE (BRANCH DOWN)		
SIDE OUTLET TEE (UP)		
CAP		
CONCENTRIC REDUCER		
ECCENTRIC REDUCER		
EXPANSION JOINT		
FLEXIBLE CONNECTION		

LINE LABELLING



LINE IDENTIFICATION (YYY)

AA	AQUA AMMONIA
AAS	AERATION AIR SUPPLY
ACI	ACID (pH ADJUSTMENT)
ACS	POWDERED ACTIVATED CARBON SOLUTION
AD	AIR DISTRIBUTION
AL	ALUM
ALS	ALUM SOLUTION
ALG	ALGAECIDE SOLUTION
AMG	AMMONIA GAS
AMS	AMMONIA SOLUTION
ANS	ANTISCALANT
AS	AIR SUPPLY
BWS	BACKWASH SUPPLY
CAS	CITRIC ACID SOLUTION
CDG	CARBON DIOXIDE GAS
CDS	CARBON DIOXIDE SOLUTION
CI	CORROSION INHIBITOR
CIPS	CLEAN IN PLACE SUPPLY
CIPR	CLEAN IN PLACE RETURN
CIPD	CLEAN IN PLACE DRAIN
CLG	CHLORINE GAS
CLS	CHLORINE SOLUTION
CO	COAGULANT
COS	COAGULANT SOLUTION
CS	CAUSTIC SODA SOLUTION
DCW	DOMESTIC COLD WATER
DE	DAF EFFLUENT
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRCULATION
DL	DIESEL FUEL
DR	DRAIN
DW	DAF WASTE
EW	EFFLUENT WATER
FL	FLUORIDE
FTW	FILTER TO WASTE
FW	FILTERED WATER
G(H)	NATURAL GAS (HIGH PRESSURE)
G(L)	NATURAL GAS (LOW PRESSURE)
GLS	GLYCOL SUPPLY
GLR	GLYCOL RETURN
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
IA	INSTRUMENT AIR
OF	OVERFLOW
PLY	POLYELECTROLYTE (LIQUID)
PLYS	POLYELECTROLYTE SOLUTION
PO	POLYMER
POS	POLYMER SOLUTION
PPS	POTASSIUM PERMANGANATE SOLUTION
PSW	PLANT SERVICE WATER
PW	POTABLE WATER
RAS	RETURN ACTIVATED SLUDGE
RF	REFRIGERANT
RJW	REJECT WATER
RW	RAW WATER
S	SANITARY WASTE
SA	SULFURIC ACID
SAM	SAMPLE LINE
SAS	SODA ASH SOLUTION
SB	SODIUM BISULPHATE
SEN	SENSING LINE
SHS	SODIUM HYPOCHLORITE SOLUTION
SLG	SLUDGE
SPSW	SOFTENED PLANT SERVICE WATER
SU	SUPERNATANT
SV	SANITARY VENT
TEW	TEMPERED EFFLUENT WASTE
TW	TREATED WATER
VE	VENT
WAS	WASTE ACTIVATED SLUDGE
WT	WEEPING TILE
XR	EXCESS RECIRCULATION

PIPE MATERIAL (ZZZ)

LINE CODE	FLANGE RATING	SCH OR THICKNESS	BASIC MATERIAL	SPECIAL NOTES
A1	ANSI 150	-	CARBON STEEL	STANDARD WEIGHT (STD)
A2	ANSI 150	-	CARBON STEEL	EXTRA STRONG (XS)
A3	ANSI 300	SCH 80	CARBON STEEL	EXTRA STRONG (XS)
B1	ANSI 150	SCH 80	PVC	-
B2	ANSI 150	SCH 40	PVC	-
B3	ANSI 150	SDR 18	PVC	-
B4	ANSI 150	SDR 21	PVC	-
B5	ANSI 150	SDR 26	PVC	-
B6	ANSI 150	SDR 28	PVC	-
B7	ANSI 150	SDR 32.5	PVC	-
B8	ANSI 150	SDR 35	PVC	-
B9	ANSI 150	SDR 41	PVC	-
B10	ANSI 150	SDR 51	PVC	-
B11	AWWA 150	C900 AND C905	PVC	-
B12	-	SCH 80	PVC (WELL RISER PIPE)	CERTA-LOCK
C1	-	TYPE K	COPPER	-
C2	-	TYPE L	COPPER	-
C3	-	TYPE M	COPPER	-
D1	ANSI 150	SCH 10S	STAINLESS STEEL, 304L	-
D2	ANSI 150	SCH 10S	STAINLESS STEEL, 316L	-
D3	ANSI 150	SCH 40S	STAINLESS STEEL, 304L	-
D4	ANSI 150	SCH 40S	STAINLESS STEEL, 316L	-
D5	ANSI 300	SCH 40S	STAINLESS STEEL, 304L	-
D6	ANSI 300	SCH 40S	STAINLESS STEEL, 316L	-
D7	ANSI 300	SCH 80S	STAINLESS STEEL, 304L	-
D8	ANSI 300	SCH 80S	STAINLESS STEEL, 316L	-
E1	-	-	PVC-DWV	-
E2	-	-	ABS-DWV	-
F1	-	-	BIG 'O' DRAIN	C/W FILTER SOCK
G1	ANSI 150	-	DUCTILE IRON	-
G2	ANSI 150	-	CAST IRON	-
H1	-	DR 9	HDPE, C906	-
H2	-	DR 11	HDPE, C906	-
H3	-	DR 13.5	HDPE, C906	-
H4	-	DR 15.5	HDPE, C906	-
H5	-	DR 17	HDPE, C906	-
H6	-	DR 32	HDPE, C906	-
H7	-	DR 11	PE 2406, YELLOW	-
H11	-	-	PEX A, WATER SERVICE	-
J1	-	-	ASBESTOS CEMENT PIPE	-
J2	-	CLASS V	REINFORCED CONCRETE PIPE	-
K1	-	-	PE OD TUBING	-
K2	-	-	PE ID TUBING	-
K3	-	-	LLDPE OD TUBING	-
K4	-	-	PP OD TUBING	-

SPECIAL TREATMENT CODES (a,b,c)

A	CEMENT MORTAR LINING
B	INTERNAL HOT APPLIED COAL TAR LINING
C	EXTERNAL HOT APPLIED COAL TAR LINING
D	INTERNAL EPOXY COATED
E	EXTERNAL EPOXY COATED
F	EXTERNAL YELLOW JACKETED
G	EXTERNAL DOUBLE WRAP POLYKEN TAPE
H	EXTERNAL INSULATED
I	EXTERNAL INSULATION AND ALUMINIUM MECHANICAL PROTECTION
J	EXTERNAL SHOP PRIME
K	DENSYL MASTIC WRAP - BURIED FLANGES, COUPLERS AND VALVES
L	GALVANIZED
M	ROCK SHIELD
N	FROST SHIELDED
P	INSTALLED IN RPVC CONDUIT
R	TRACER WIRE INSTALLED ABOVE PIPE

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PROFESSIONAL ENGINEER — I. KAGOBE — MEMBER 52866 — 2021-01-18 YR. MN. DAY — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS
PIPING LEGEND

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NONE
DATE	NOVEMBER 2020	DRAWING	P0.2

IDENTIFICATION LETTERS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	INPUT/OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		AUTO
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	COMMUNICATION			CONTROL	CLOSE
D	USER'S CHOICE	DIFFERENTIAL			
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO (FRACTION)			FAULT
G	USER'S 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	MOTOR	MOMENTARY			MIDDLE INTERMEDIATE
N	SECURITY		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE, RESTRICTION		OPEN
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY OR EVENT	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		RUN/REMOTE
S	SPEED, FREQUENCY	SAFETY		SWITCH/STATUS	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL 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	

INSTRUMENT/DEVICE IDENTIFICATION EXAMPLES (aaa)

aaa

AIT	ANALYZER INDICATOR TRANSMITTER
FCV	FLOW CONTROL VALVE
FIT	FLOW INDICATOR TRANSMITTER
LIT	LEVEL INDICATOR TRANSMITTER
PCV	PRESSURE CONTROL VALVE
PIT	PRESSURE INDICATOR TRANSMITTER
PI	PRESSURE INDICATOR (PRESSURE GAGE)
TSH	TEMPERATURE SWITCH HIGH (HEAT DETECTOR)
TSL	TEMPERATURE SWITCH LOW (HEAT DETECTOR)
ZSC	POSITION SWITCH CLOSE (DOOR CONTACT)

VALVE FUNCTION EXAMPLES (aaa)

aaa

ZY or ZC	POSITION COMPUTE/CONVERT (CONTROL) - AO
ZT or ZI	POSITION TRANSMIT (FEEDBACK) - AI
ZCO or YSO	POSITION CONTROL OPEN - DO
ZCC or YSC	POSITION CONTROL CLOSE - DO
ZSO	POSITION STATUS OPEN - DI
ZSC	POSITION STATUS CLOSE - DI

MOTOR FUNCTION EXAMPLES (aaa)

aaa

HSA or HA	HAND STATUS AUTO (AUTO SIGNAL FROM THE HAND-OFF-AUTO SWITCH) - DI
MCR or YS	MOTOR CONTROL RUN (START) - DO
MSR or YC	MOTOR STATUS RUN - DI
MSF or YA	MOTOR STATUS FAULT (OVERLOAD) - DI
SY or SC	SPEED COMPUTE/CONVERT (CONTROL) - AO
ST or SI	SPEED TRANSMIT (FEEDBACK) - AI
TSH or YA	TEMPERATURE STATUS HIGH (THERMISTOR) - DI
LSH or YA	LEVEL STATUS HIGH (LEAKAGE IN SUBMERSIBLE PUMP SEAL) - DI

EQUIPMENT TAG

- LOCALLY MOUNTED INSTRUMENT
- PANEL MOUNTED INSTRUMENT
- BACK OF PANEL MOUNTED INSTRUMENT

PRESSURE CONTROL VALVE LEGEND (xx)

PCV xx — PRESSURE CONTROL VALVE

SU	SUSTAINING
RD	REDUCING
RL	RELIEVING
SA	SURGE ANTICIPATING
VR	VACUUM RELIEF

ANALYZING ELEMENT/ALARM LEGEND (yy)

AE xx — AIT yy — AIT yy — AIT yy — PROCESS ANALYZER

CL2	CHLORINE
TURB	TURBIDITY
pH	pH
DO	DISSOLVED OXYGEN
CON	CONDUCTIVITY
TEMP	TEMPERATURE
PC	PARTICLE COUNT

BUILDING ANALYZING ELEMENT/ALARM LEGEND

ASy zz — BUILDING ANALYZER

y:

H	HIGH
L	LOW
F	FAULT

zz:

SMK	SMOKE
H_2S	H_2S
CH_4	METHANE
CO	CARBON MONOXIDE

FUNCTION BLOCK

aaa qq / Y xx — SINGLE SIGNAL — HMI

aaa xx / aaa xx / aaa xx / aaa qq / Y xx — MULTIPLE SIGNAL

xx:

AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT

Y:

H	HART
D	DEVICE NET
C	CONTROL NET
M	MODBUS
P	PROFIBUS
E	ETHERNET

qq — PLC IDENTIFIER

INTERLOCK

- x - INTERLOCK NUMBER (IF APPLICABLE)
  $ - INTERLOCK SYSTEM (IE; PLC, DCS, MCC, VFD, ETC.)
- x - PACKAGE CONTROL INTERFACE
  $ - CONTROL SYSTEM TYPE
- F — FIRE SYSTEM
- S — SECURITY MONITORING SYSTEM

POWER SUPPLY AND PURGE FLUIDS LEGEND

AS	AIR SUPPLY	HS	HYDRAULIC SUPPLY
IS	INSTRUMENT AIR SUPPLY	NS	NITROGEN SUPPLY
PS	PLANT AIR SUPPLY	SS	STEAM SUPPLY
ES	ELECTRICAL SUPPLY	WS	WATER SUPPLY
GS	GAS SUPPLY		

SIGNAL TYPES

- PNEUMATIC SIGNAL
- ELECTRICAL SIGNAL
- HYDRAULIC SIGNAL
- CAPILLARY TUBING (FILLED SYSTEM)
- ELECTRO MAGNETIC OR SONIC SIGNAL (GUIDED)
- ELECTRO MAGNETIC OR SONIC SIGNAL (NOT GUIDED)
- INTERNAL SYSTEM LINK (SOFTWARE OR DATA LINK)
- MECHANICAL LINK

FUNCTION SYMBOLS

XY XY

K	PROPORTIONAL	A/D	ANALOG TO DIGITAL
√	SQUARE ROOT EXTRACTOR	P/I	CURRENT TO PNEUMATIC CONVERTER
>	HIGH SELECTOR	I/P	PNEUMATIC TO CURRENT TRANSDUCER
<	LOW SELECTOR	E/P	VOLT TO PNEUMATIC TRANSDUCER
÷	DIVIDE	E/I	VOLT TO CURRENT TRANSDUCER
X	MULTIPLY	MV/I	MILLIVOLT TO CURRENT TRANSDUCER
Σ	SUMMATION	I/I	CURRENT TO CURRENT TRANSDUCER
Δ	DIFFERENCE	f(x)	NON-LINEAR OR UNSPECIFIED FUNCTION
±	BIAS	f(t)	FUNCTION OF TIME
X^n	EXPONENTIAL	REV	REVERSE
⊳	HIGH LIMITING	A/M	AUTO MANUAL
∫	INTEGRAL	AVG	AVERAGE
d/dt	DERIVATIVE		

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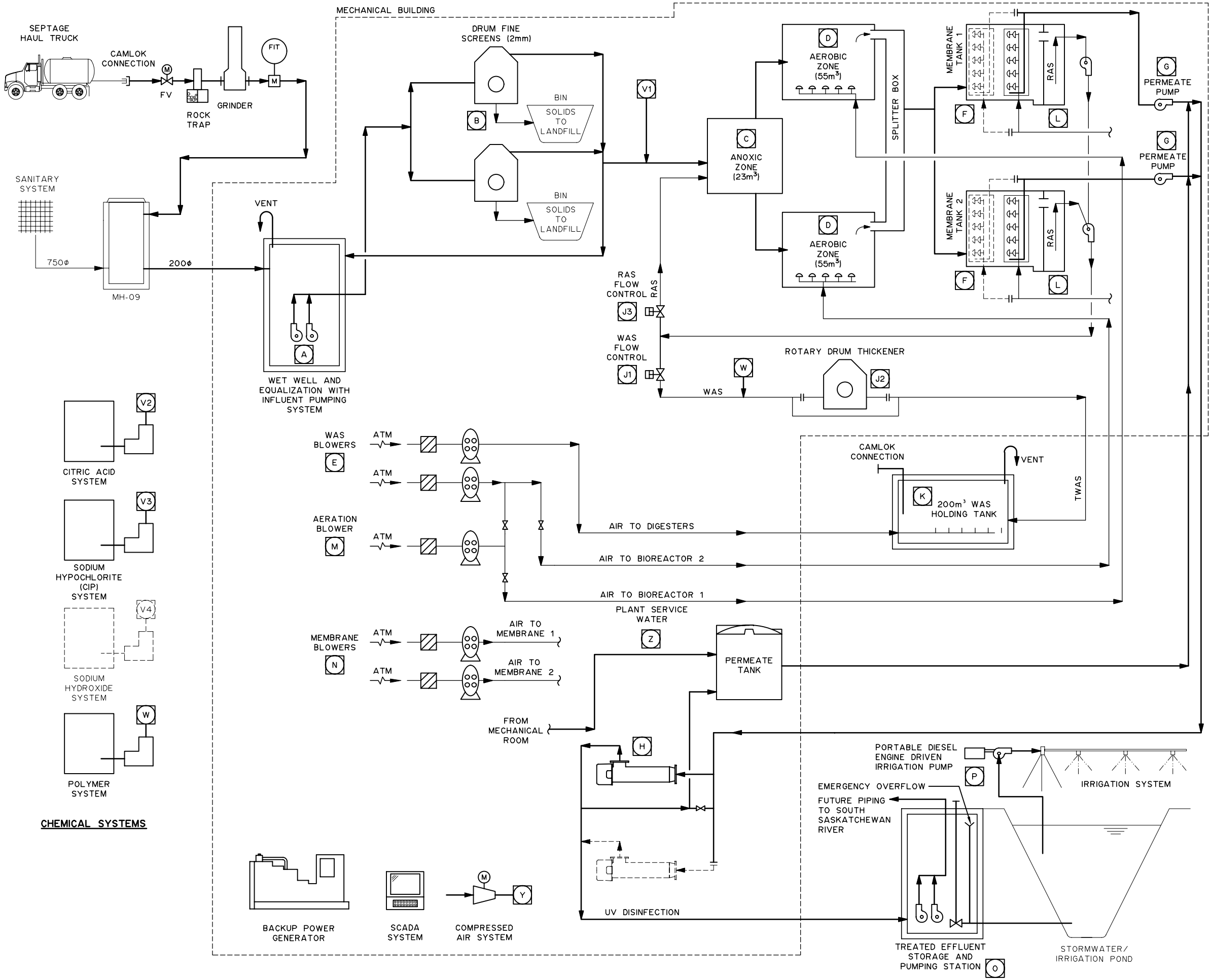
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MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT PROCESS INSTRUMENTATION LEGEND

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P0.3



TAG	DESCRIPTION	DESIGN	UNITS
A	INFLUENT PUMPING	580 6.7	m^3/DAY L/sec
B	FINE SCREENING (2mm)	580 6.7	m^3/DAY L/sec
C	BIOREACTOR ANOXIC	23	m^3
D	BIOREACTOR AEROBIC	55	m^3/TRAIN
E	WAS BLOWER	65	CFM
F	MBR AVG DAY FLOW MBR MAX MONTH FLOW (N-1) PEAK HYDRAULIC	190 374 580	m^3/DAY m^3/DAY m^3/DAY
G	PERMEATE PUMPING	580	m^3/DAY
H	UV DISINFECTION TREATMENT FUTURE HYDRAULIC	374 580	m^3/DAY m^3/DAY
I	-		
J	(1) WAS FLOW CONTROL (2) ROTARY DRUM THICKENER (3) RAS FLOW CONTROL	7.29 7.29 2273	m^3/DAY m^3/DAY m^3/DAY
K	SLUDGE STORAGE	100	m^3
L	RAS PUMPING	2273	m^3/DAY
M	AERATION BLOWER SYSTEM	187 EA	CFM
N	MEMBRANE BLOWERS (EA)	122	CFM
O	EFFLUENT PUMPING SYSTEM	7	L/sec
P	IRRIGATION PUMPING SYSTEM	7	L/sec
V1	ALUM SYSTEM	1.2	L/hr
V2	CITRIC ACID SYSTEM (CIP)	45	L/hr
V3	SODIUM HYPOCHLORITE (CIP)	116	L/hr
V4	SODIUM HYDROXIDE SYSTEM	-	L/hr
W	POLYMER FEED SYSTEM	-	L/hr
Y	COMPRESSED AIR SYSTEM	--	SCFM
Z	PLANT SERVICE WATER	--	L/sec

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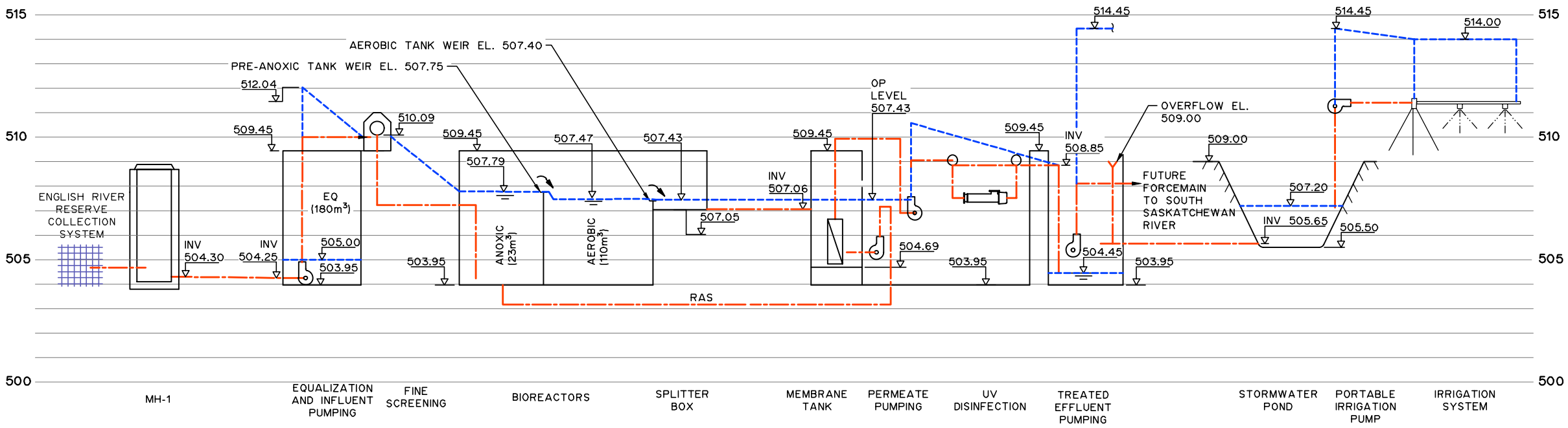
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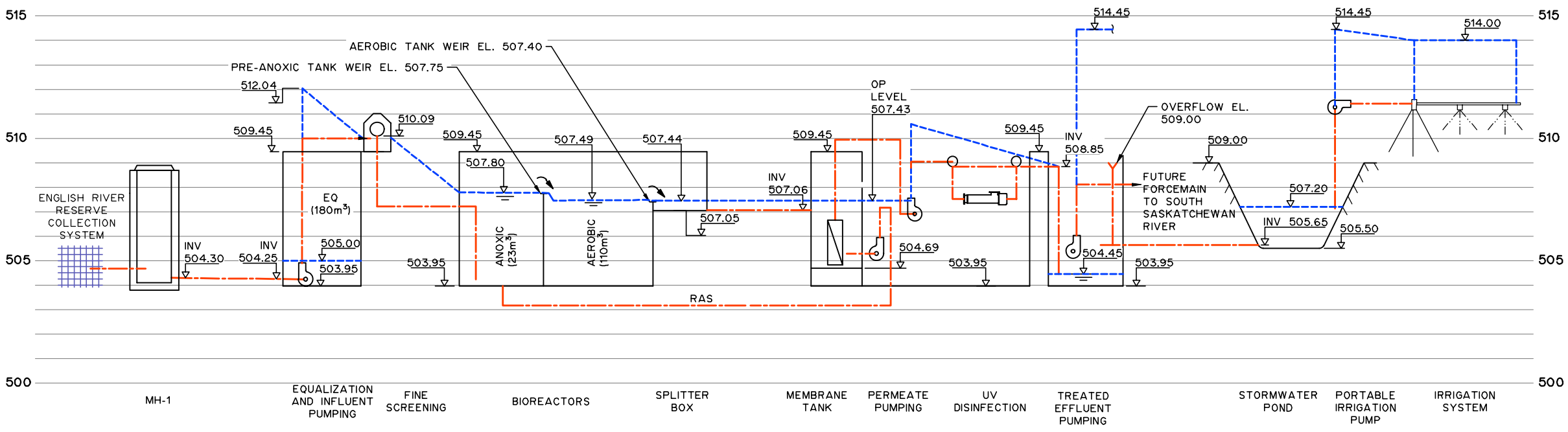
WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS FLOW DIAGRAM
OVERVIEW

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P0.4



SCENARIO L1: PHASE 1 ADF HYDRAULIC PROFILE

CURRENT ADF =3.3 L/sec (282 m^3/day) {HEADWORKS / MEMBRANES / UV}
RAS FLOW =10.0 L/sec (866 m^3/day) {BIOREACTOR / MEMBRANE INFLUENT CHANNEL}
@ADF FLOW



SCENARIO L2: PHASE 1 MMF HYDRAULIC PROFILE

CURRENT MMF =4.4 L/sec (376 m^3/day) {HEADWORKS / MEMBRANES / UV}
RAS FLOW =15.7 L/sec (1355 m^3/day) {BIOREACTOR / MEMBRANE INFLUENT CHANNEL}
@MMF FLOW

LEGEND

- PIPE NETWORK
- STRUCTURE
- HYDRAULIC PROFILE (LIQUID)

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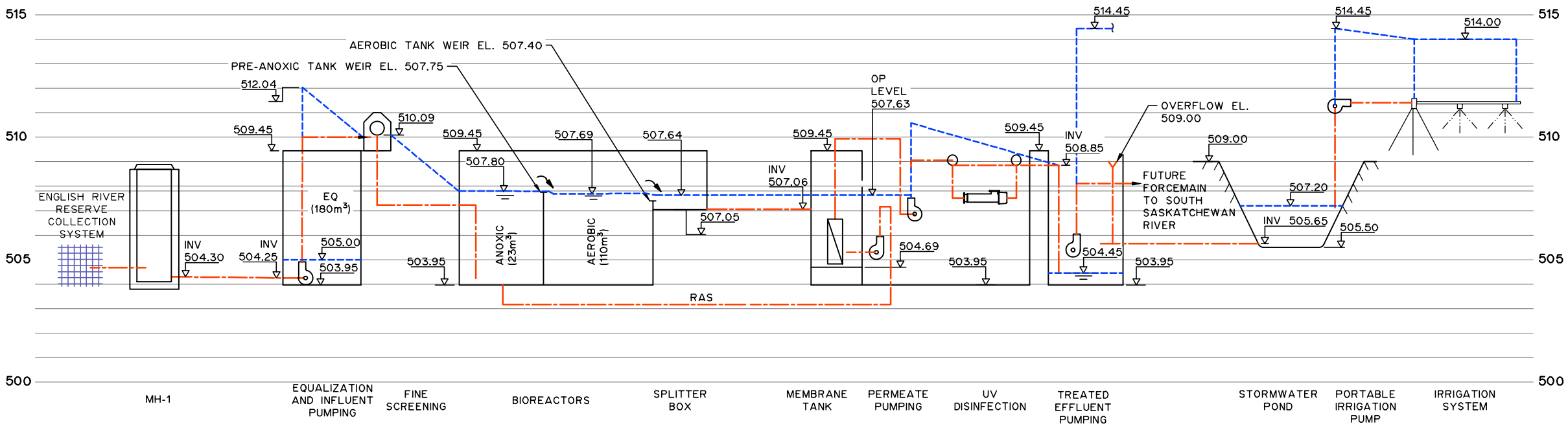
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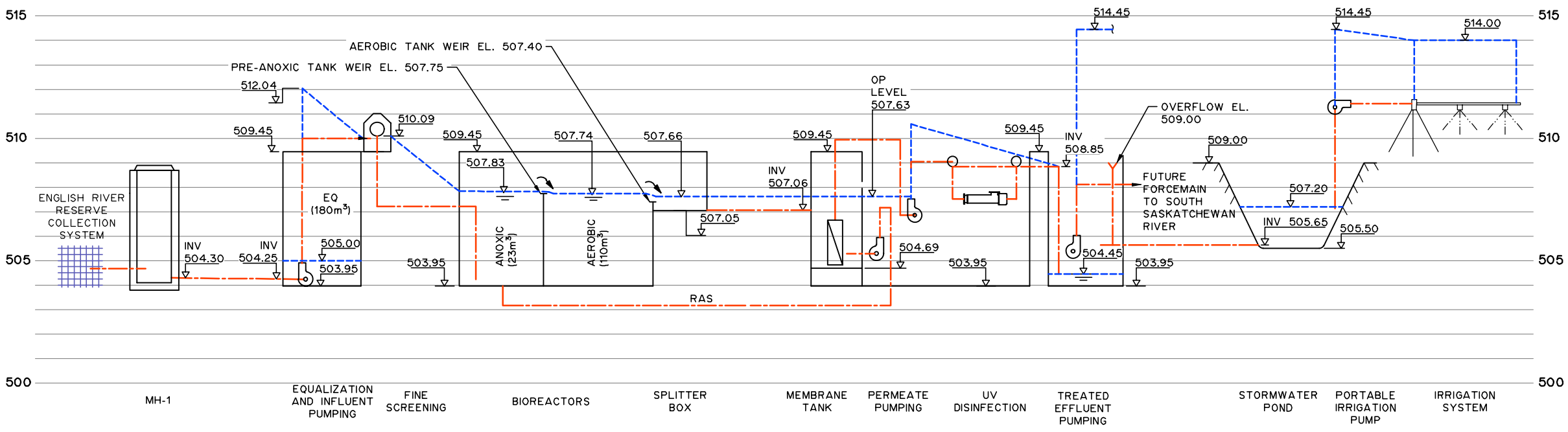
WASTEWATER TREATMENT PLANT
PROCESS PIPING
HYDRAULIC PROFILES
PHASE 1
LIQUID STREAM

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	PO.5



SCENARIO L3: PHASE 2 ADF HYDRAULIC PROFILE

CURRENT ADF =3.3 L/sec (288 m^3/day) {HEADWORKS / MEMBRANES / UV}
RAS FLOW =16.08 L/sec (1390 m^3/day) {BIOREACTOR / MEMBRANE INFLUENT CHANNEL}
@ADF FLOW



SCENARIO L4: PHASE 2 MMF HYDRAULIC PROFILE

CURRENT MMF =XX L/sec (432 m^3/day) {HEADWORKS / MEMBRANES / UV}
RAS FLOW =XX L/sec (2011 m^3/day) {BIOREACTOR / MEMBRANE INFLUENT CHANNEL}
@MMF FLOW

LEGEND

- PIPE NETWORK
- STRUCTURE
- HYDRAULIC PROFILE (LIQUID)

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ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

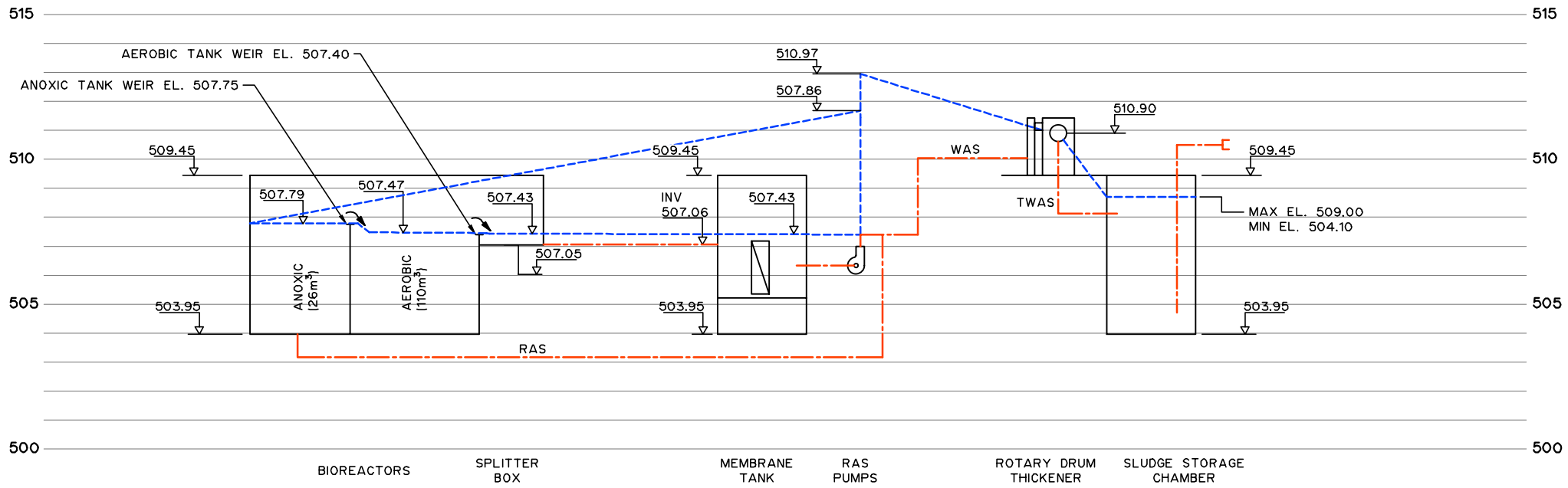
PROCESS PIPING

HYDRAULIC PROFILES

PHASE 2

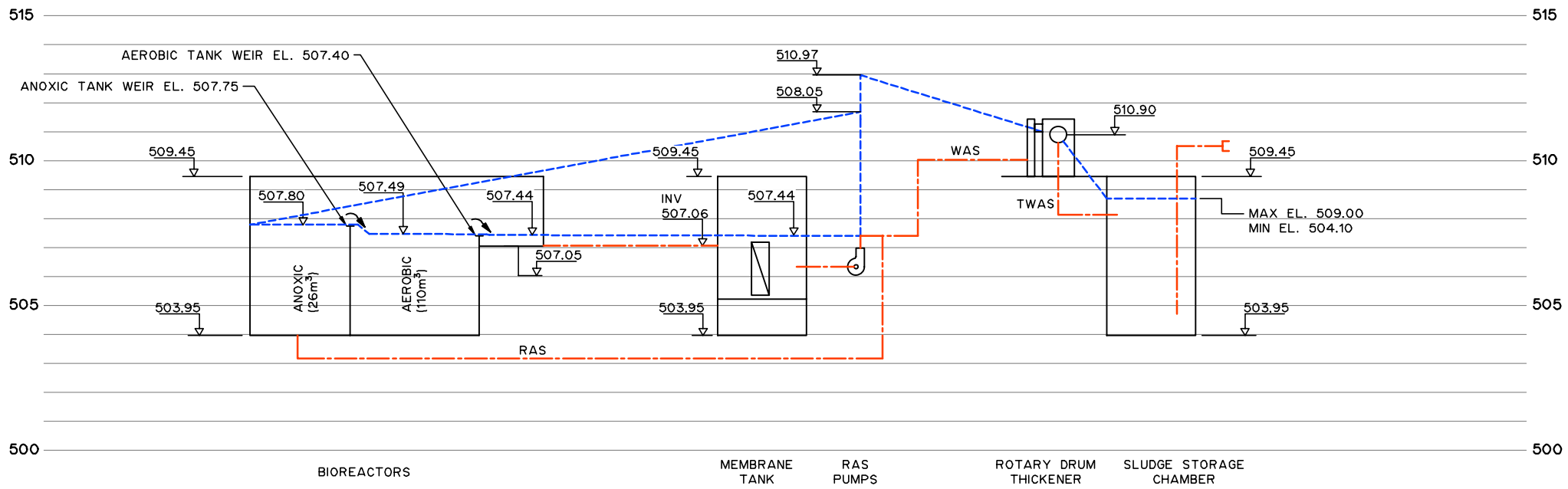
LIQUID STREAM

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P0.6



SCENARIO S1: PHASE 1 ADF HYDRAULIC PROFILE

RAS ADF	=13.1 L/sec	(1128 m^3/day)	{BIOREACTOR / MEMBRANE INFLUENT CHANNEL}
WAS ADF	=0.08 L/sec	(7.1 m^3/day)	{ROTARY DRUM THICKENER / SLUDGE STORAGE}



SCENARIO S2: PHASE 1 MMF HYDRAULIC PROFILE

RAS MMF	=17.4 L/sec	(1504 m^3/day)	{BIOREACTOR / MEMBRANE INFLUENT CHANNEL}
WAS MMF	=0.09 L/sec	(7.6 m^3/day)	{ROTARY DRUM THICKENER / SLUDGE STORAGE}

LEGEND

- PIPE NETWORK
- STRUCTURE
- HYDRAULIC PROFILE (SOLID)

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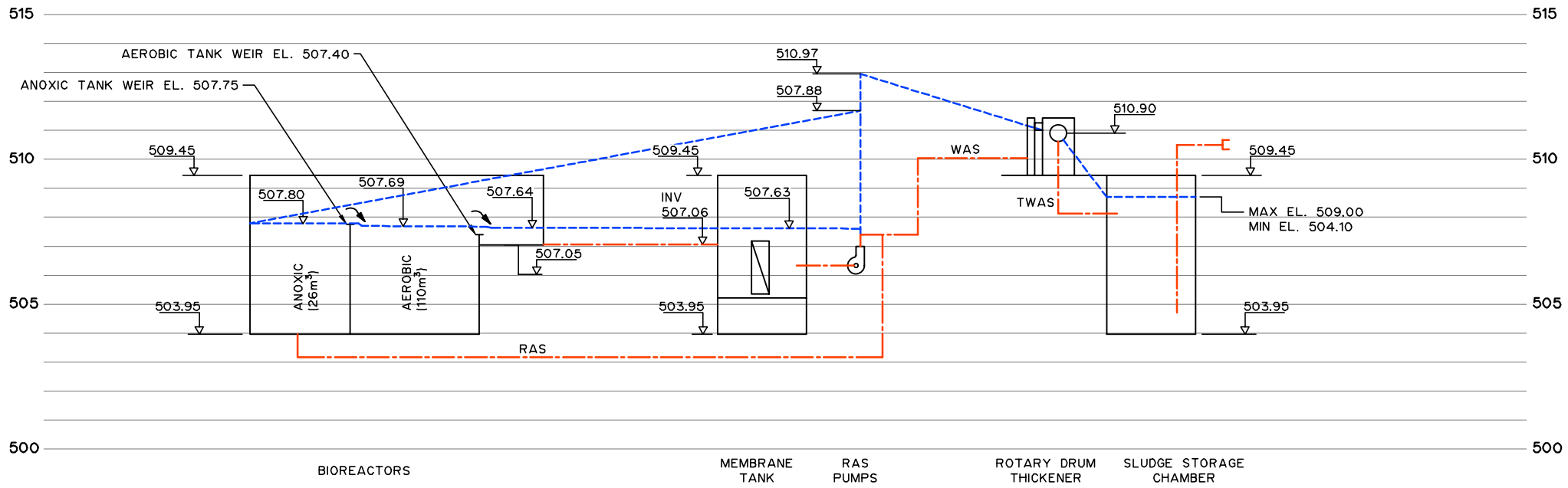
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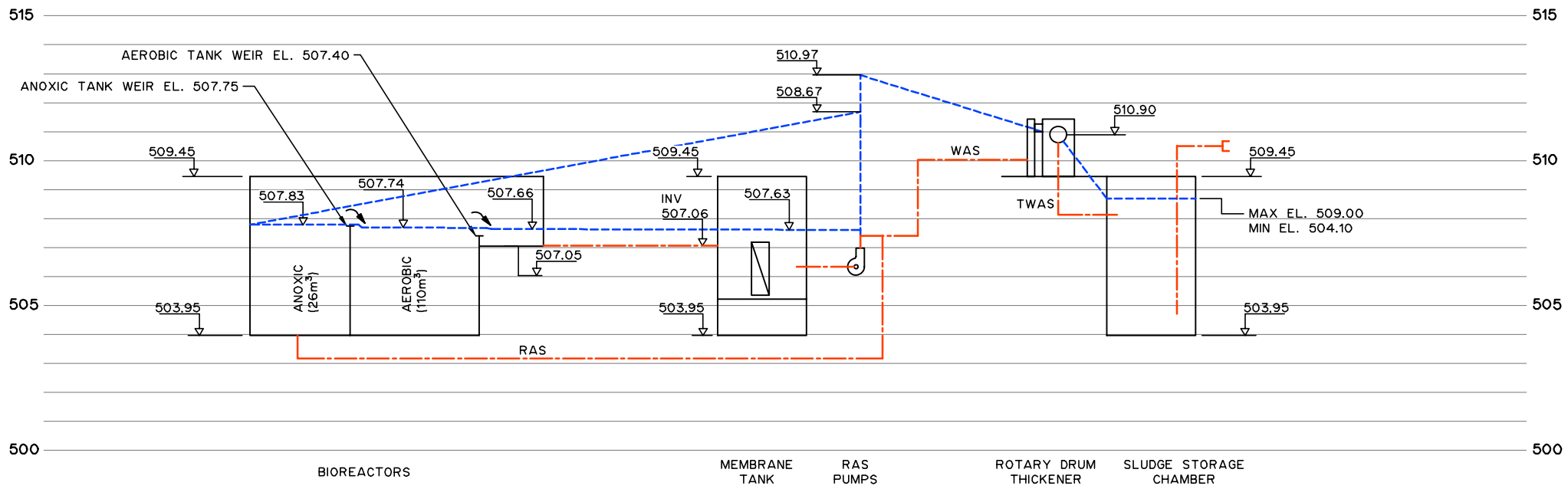
WASTEWATER TREATMENT PLANT
PROCESS PIPING
HYDRAULIC PROFILES
PHASE 1
SOLID STREAM

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P0.7



SCENARIO S3: PHASE 2 ADF HYDRAULIC PROFILE

RAS ADF =13.3 L/sec (1151 m^3/day) {BIOREACTOR / MEMBRANE INFLUENT CHANNEL}
WAS ADF =0.12 L/sec (10.2 m^3/day) {ROTARY DRUM THICKENER / SLUDGE STORAGE}



SCENARIO S4: PHASE 2 MMF HYDRAULIC PROFILE

RAS MMF =25 L/sec (2160 m^3/day) {BIOREACTOR / MEMBRANE INFLUENT CHANNEL}
WAS MMF =0.13 L/sec (10.9 m^3/day) {ROTARY DRUM THICKENER / SLUDGE STORAGE}

LEGEND

- PIPE NETWORK
- STRUCTURE
- HYDRAULIC PROFILE (SOLID)

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2	21-01-15	FOR CONSTRUCTION
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Discipline	SK. Reg. No.	Signature
CIVIL	52866	

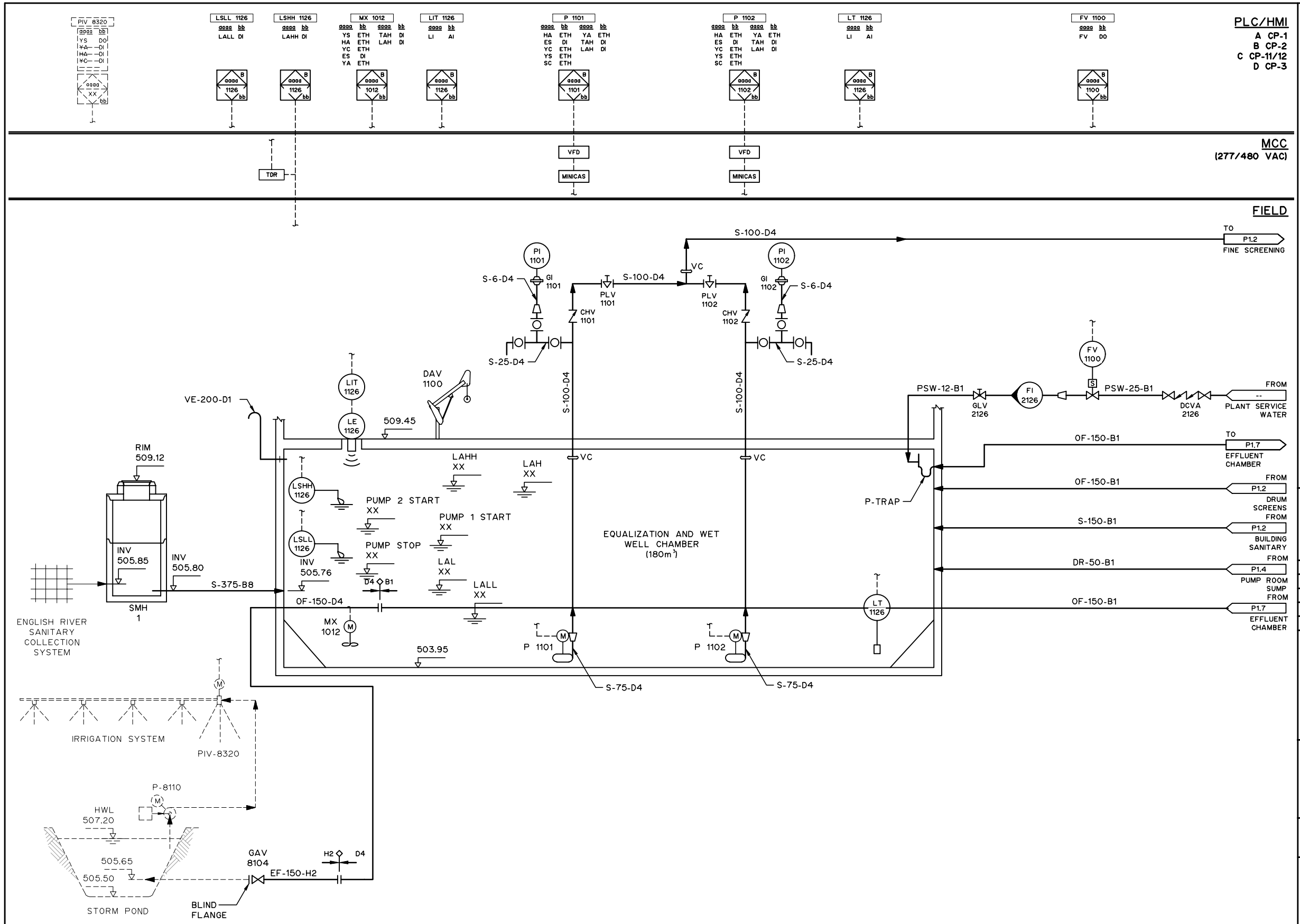
I. KAGOBE MEMBER 52866
2021-01-18 YR. MN. DAY
PROFESSIONAL ENGINEER SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
HYDRAULIC PROFILES
PHASE 2
SOLID STREAM

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	PO.8



NOTES:

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CIVIL	52866	

PROFESSIONAL ENGINEER — KAGORO — MEMBER 52866 — 2021-01-18 — PROVINCE OF SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
INFLUENT PUMPING STATION

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.1

DESIGN CRITERIA

PIV-8320
- IRRIGATION PIVOT
- POWER REQUIREMENT
- 8 MOTORS EACH 34 RPM, 0.6HP
- 575VAC/3PH/60Hz

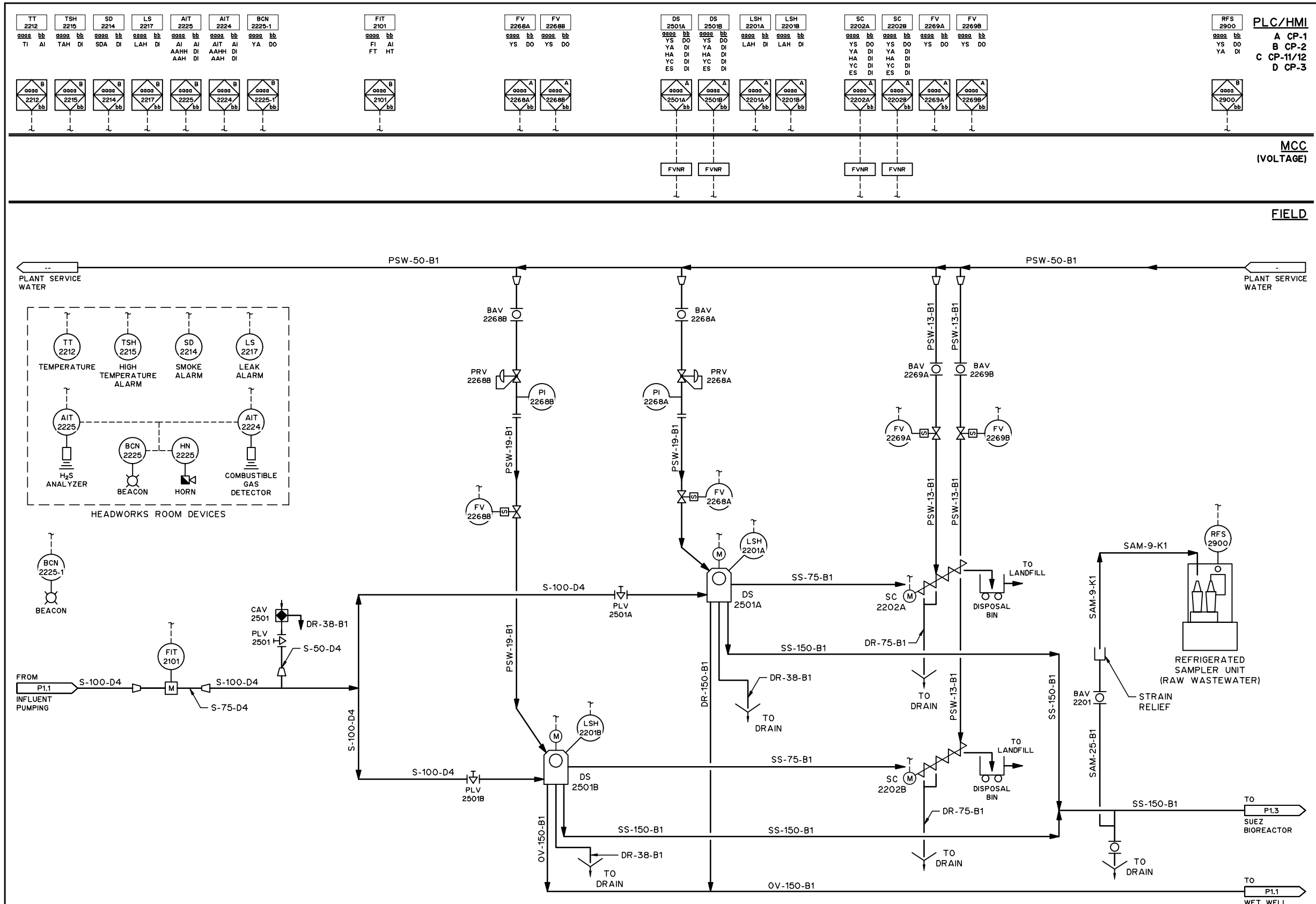
P-8110
- PORTABLE IRRIGATION PUMP
- DUTY POINT: 15.0 L/s @ 35m
- ENGINE DRIVEN

LIT 1126
- RANGE: 0-10 m
- POWER: 120 VAC

MX 1012
- SUBMERSIBLE MIXER
- 2.4 HP, 1675 RPM
- 575 VAC/3 PH/60 HZ

P1101/1102
- SEWAGE PUMP
- DUTY POINT: 8.22 L/s @ 8.16m
- 2.7 HP, 1160 RPM
- 575 VAC/3 PH/60 HZ

LT 1126
- RANGE: 0-10 m
- POWER: 24 VDC



NOTES:

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FIT 2101
- FLOW: 0-20 L/sec
- POWER: 24 VDC

DS 2501 A/B
- FINE DRUM SCREEN
- CAPACITY: 7.0 L/sec @ TSS= 250 mg/L
- 7.0 L/sec @ TSS= 117 mg/L
- 0.5 HP
- 575 VAC/3 PH/60 Hz
- WASH WATER: 0.69 L/sec @ 28 m

PRV 2268A/PRV 2268B
- RANGE: 25-75 psig
- SP: 40 psig
- MIN/MAX: 40/60 psi

SC 2202 A/B
- SCREW CONVEYOR
- 0.5 HP
- 575 VAC/3 PH/60 Hz
- WASH WATER: 0.19 L/sec @ 28 m

DESIGN CRITERIA

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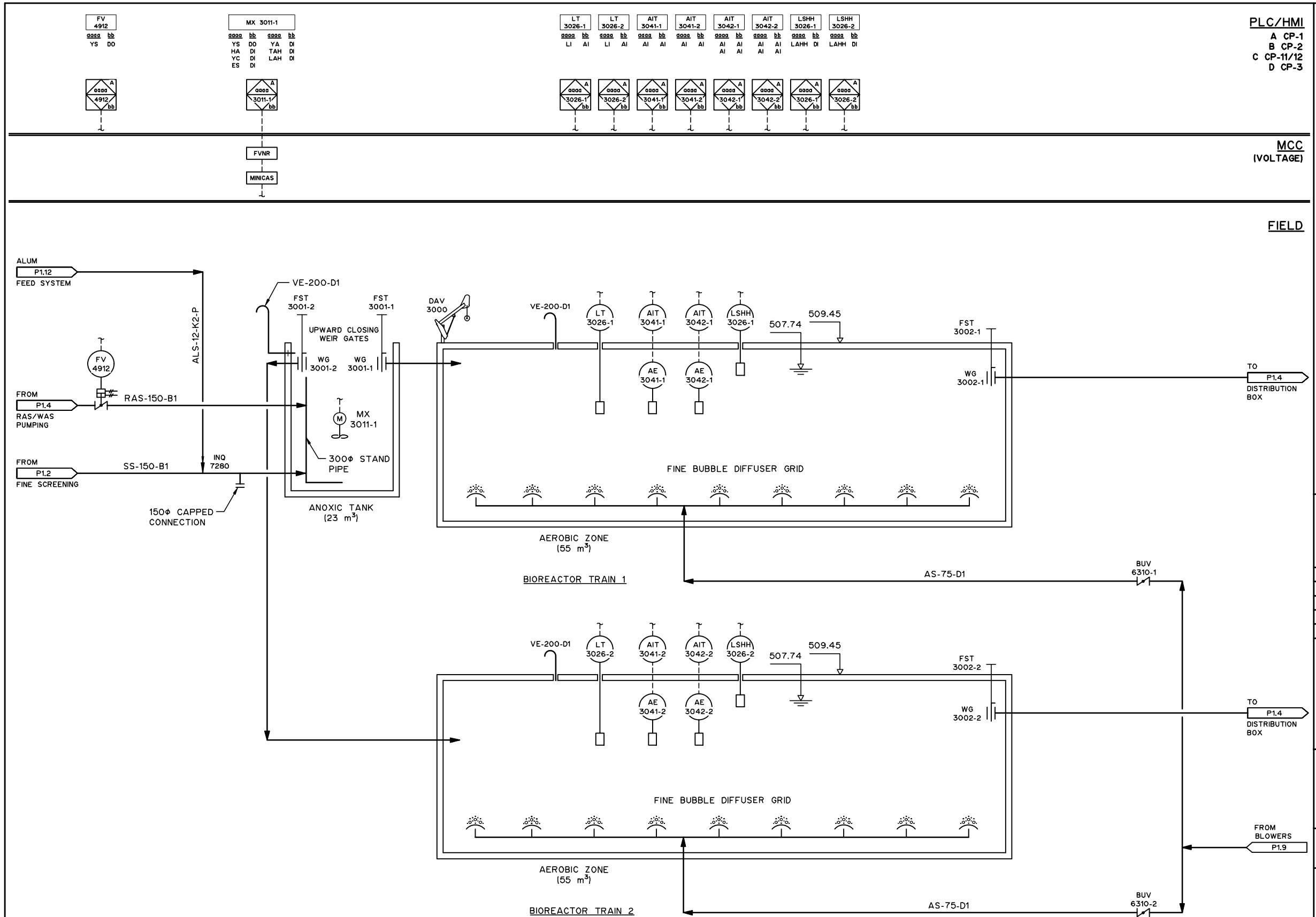
PROFESSIONAL ENGINEER KAGORO NUMBER 52866 2021-01-18 YR. MN. DAY SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
FINE SCREENING

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.2



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. LSHH 3026-1 AND LSHH 3026-2 TO BE PLACED 300mm BELOW UNDERSIDE OF TANK.
3. INFLUENT AND RAS PIPES SHOULD BE SUBMERGED ⅔ OF THE TOP OF THE TANK OF MAX LEVEL.
4. PROVIDE APPROPRIATE VENTING.

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CIVIL	52866	

PROFESSIONAL ENGINEER
KAGOBE
SASKATCHEWAN
2021-01-18
YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
BIOREACTORS

DESIGN CRITERIA

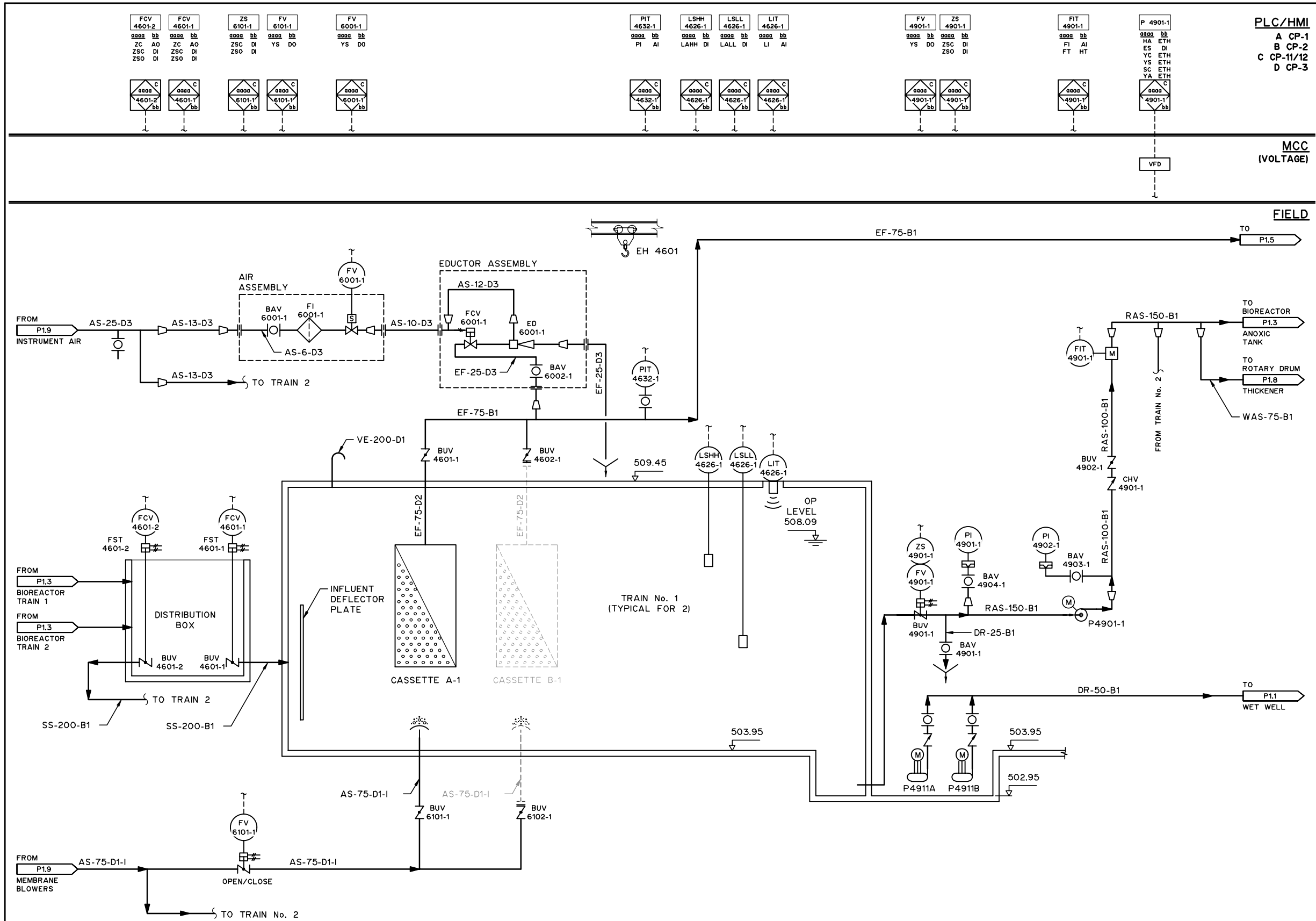
LT 3026-1/LT 3026-2
- RANGE: 0-10 m
- POWER: 24 VDC

MX 3011-1
- SUBMERSIBLE MIXER
- 1.2 HP, 1750 RPM
- 575 VAC/3 PH/60 HZ

AIT 3041-1/AIT 3041-2
- DO METER RANGE: 0-10 mg/L
- TEMP RANGE: 0-50 °C
- POWER: 120 VAC

AIT 3042-1/AIT 3042-2
- PH RANGE: 0-14
- POWER: 120 VAC

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.3



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

EH 4601
- ELECTRIC HOIST
  1 HP/575 VAC/3 PH/60 Hz
- TRACTOR DRIVES
  3 DRIVES
- DRIVE MOTOR
  $\frac{1}{3}$ HP/575 VAC/3 PH/60 Hz

PIT 4632-1/PIT 4632-2
- RANGE: -103 TO 103 kPa (-15 TO 15 PSI)
- POWER: 24 VDC

LIT 4626-1/LIT 4626-2
- RANGE: 0-5 m
- POWER: 24 VDC

P 4901-1/P 4901-2
- RAS PUMP
- DUTY POINT: 23-34 L/sec @ 2.8m
- 7.5 HP, 900 RPM
- 575 VAC/3 PH/60 HZ

FIT 4901-1/FIT 4901-2
- RANGE: 0-30 L/sec
- POWER: 120 VAC

P 4911A/4911B
- SUMP PUMP
- DUTY POINT: 2.8L/s @ 6.1m
- 0.5 HP, 1550 RPM
- 115 VAC/1 PH/60 HZ

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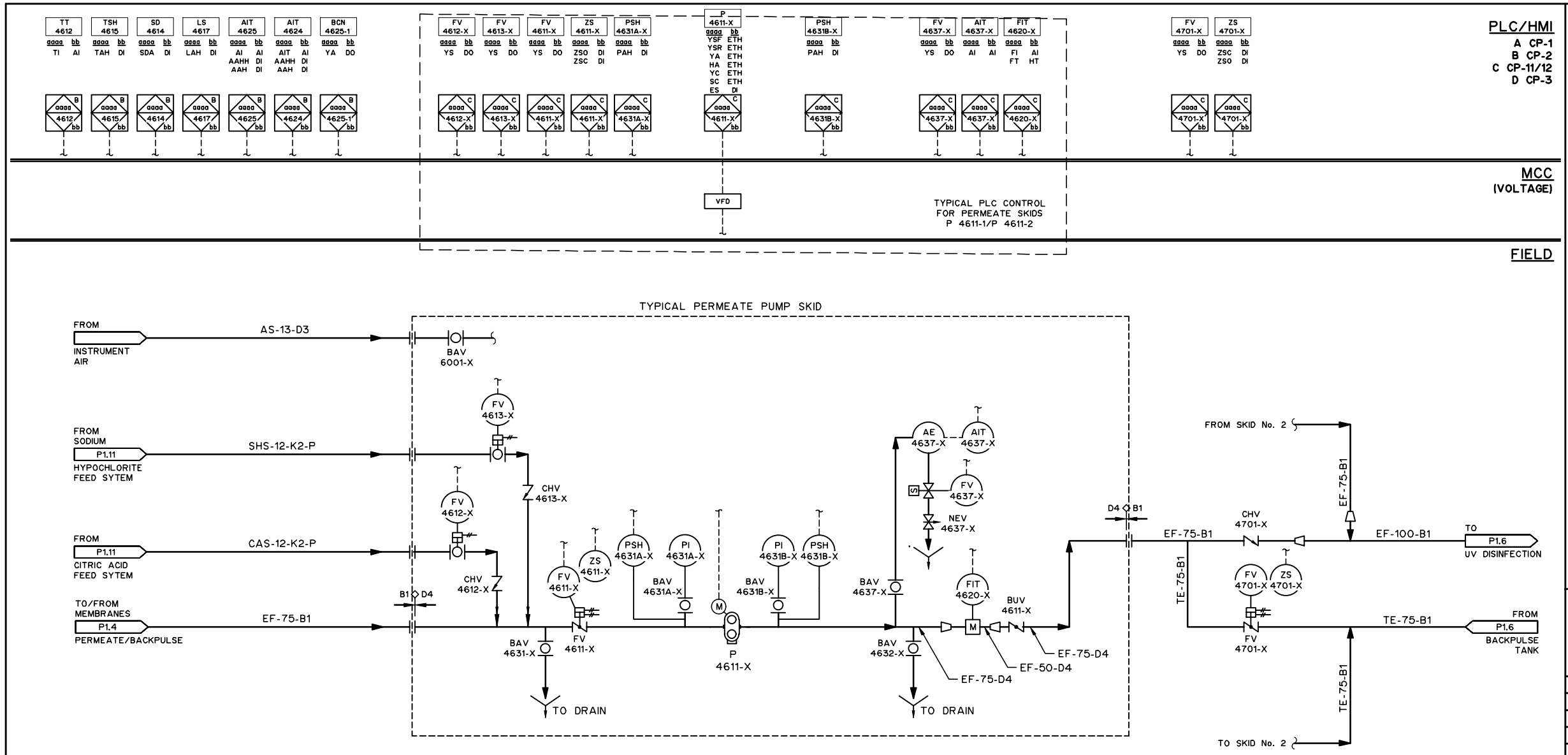
PROFESSIONAL ENGINEER — KAGORO — MEMBER — SASKATCHEWAN
2021-01-18 YR. MN. DAY

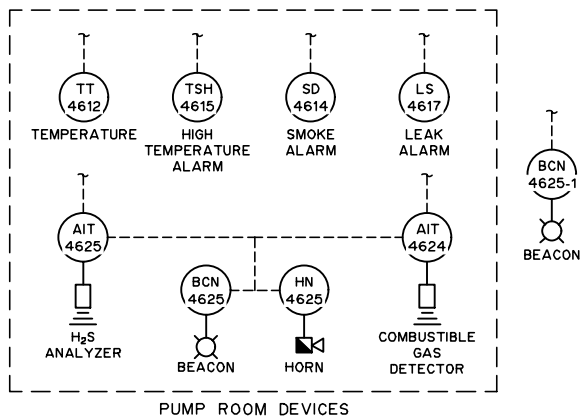
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION
DIAGRAM
MEMBRANE TANK

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.4





PSH 4631A-X/4631B-X
- SP: 276 kPa (40 PSI)

P 4611-X
- PERMEATE PUMP
- MIN FLOW: 1.26 L/sec
- MAX FLOW: 14.5 L/sec
- 7.5 HP, 1800 RPM
- 575 VAC/3 PH/60 HZ

FIT 4620-1/FIT 4620-2
- RANGE: 0-20 L/sec
- POWER: 120 VAC

AIT 4637-1/AIT 4637-2
TURBIDITY RANGE: 0-10 NTU

DESIGN CRITERIA

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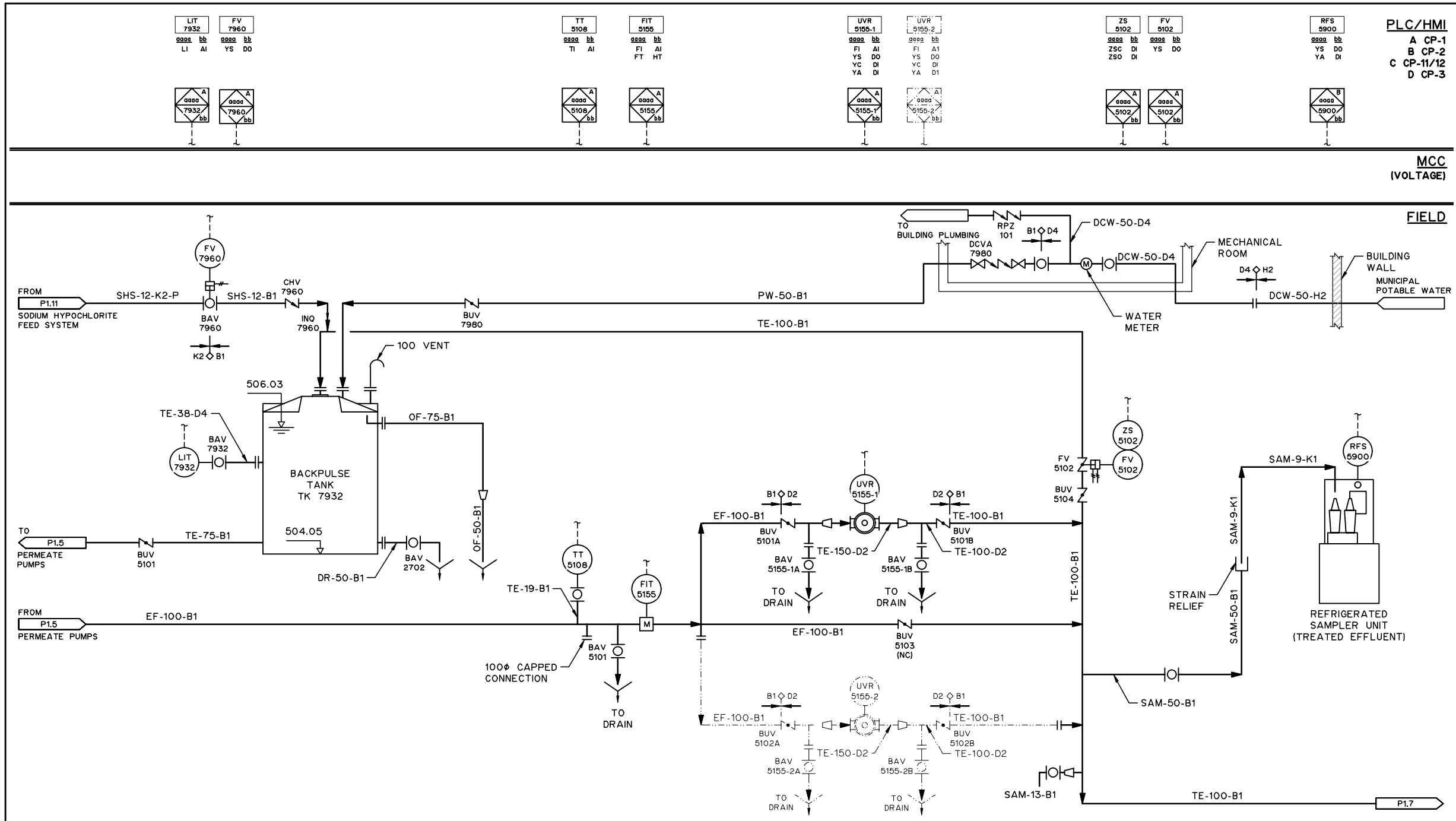
PROFESSIONAL ENGINEER KAGORO MEMBER 52866 2021-01-18 YR. MN. DAY SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
PERMEATE PUMPING

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.5



FIT 5155
- RANGE: 0-20 L/s
- POWER: 120 VAC

PRV 7921
- SP: 40 psig

LIT 7932
- RANGE: 0-52 kPa (0-7.5 psi)
- POWER: 24 VDC

TK 7932
- BACKPULSE PERMEATE TANK
- CAPACITY: 15000 L

TT 5108
- RANGE: 0-40°C
- POWER: 24 VDC

UVR 5155-1/UVR 5155-2
- UV REACTOR
- DESIGN DOSE: 44.47 mJ/cm^2
- TREATMENT CAPACITY: 7,700 m^3/DAY
- HYDRAULIC CAPACITY: 11,900 m^3/DAY
- NUMBER OF LAMPS: 4/UNIT
- 208VAC/1 PH
- 13.5 kVA, 10.8 kW

DESIGN CRITERIA

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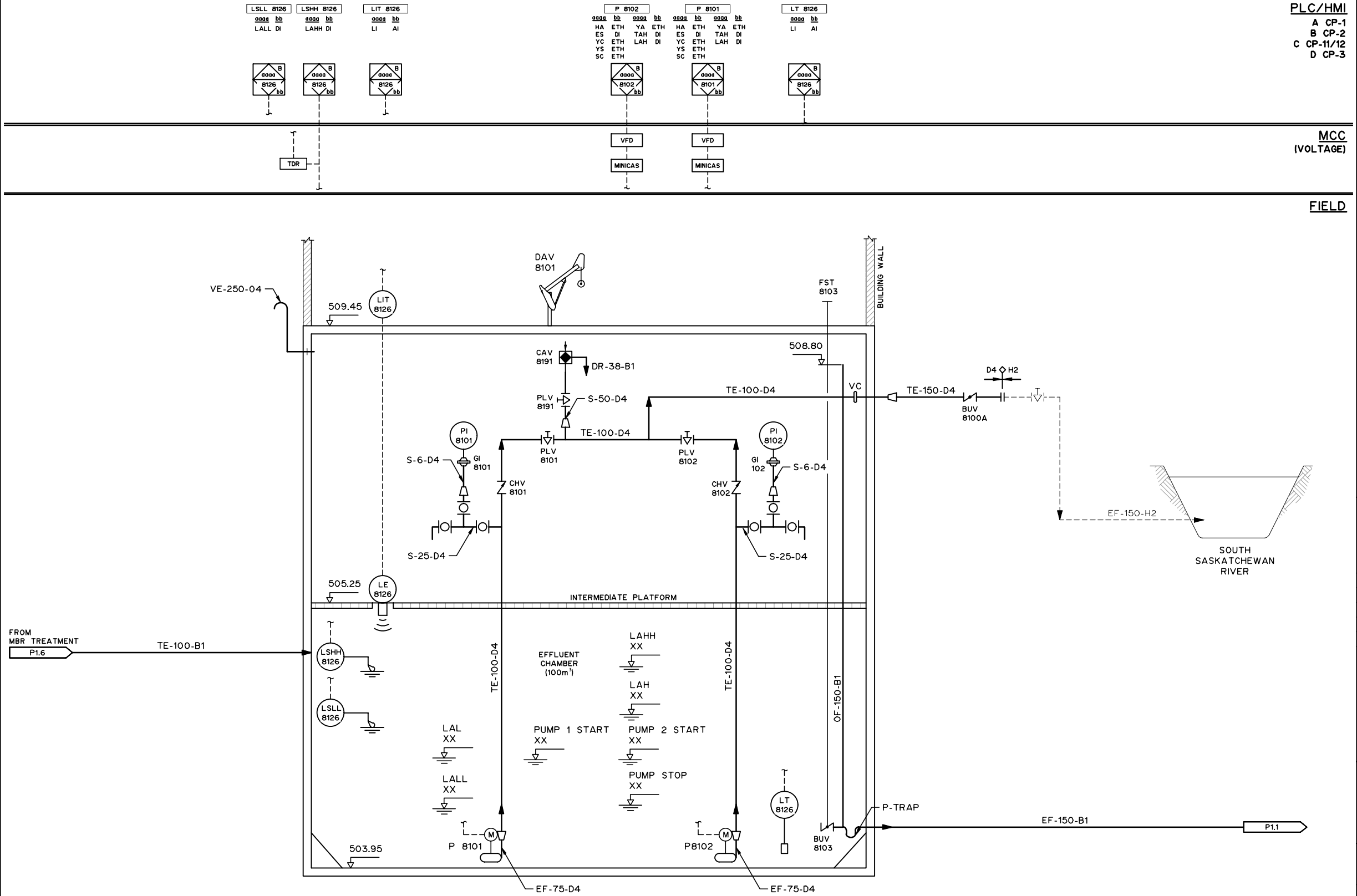
PROFESSIONAL ENGINEER KAGOBE EMMANUEL JOSEPH SASKATCHEWAN
2021-01-18 YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
BACKPULSE TANK AND UV DISINFECTION

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.6



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PROFESSIONAL ENGINEER
KAGOBE
EMMANUEL JOHN
2021-01-18
YR MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
EFFLUENT CHAMBER AND PUMPING

DESIGNED	I.K.		JOB	7603-002-00
DRAWN	L.J.S.		SCALE	NTS
DATE	NOVEMBER 2020		DRAWING	P1.7

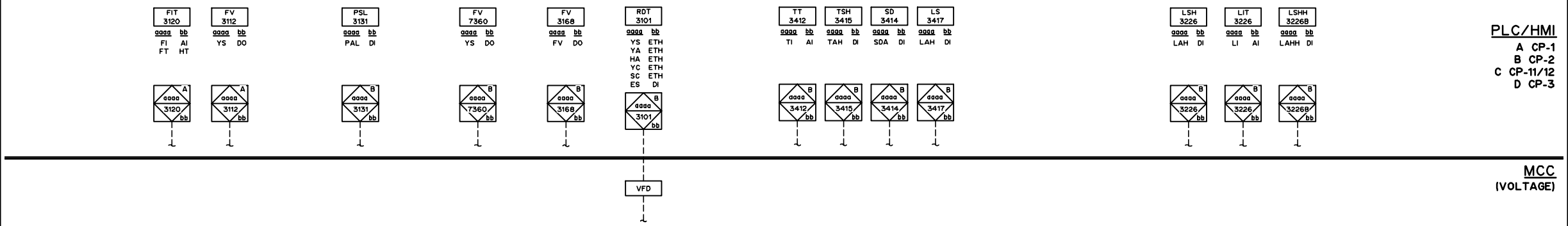
LIT 8126
- RANGE: 0-10 m
- POWER: 120 VAC

P8101/8102
- SEWAGE PUMP
- DUTY POINT: 7.0 L/s @ 12.08m
- 2.7 HP, 1160 RPM
- 575 VAC/3 PH/60 HZ

LT 8126
- RANGE: 0-10 m
- POWER: 24 VDC

- P-8110
- PORTABLE IRRIGATION PUMP
- DUTY POINT: 15.0 L/s @ 35m
- ENGINE DRIVEN

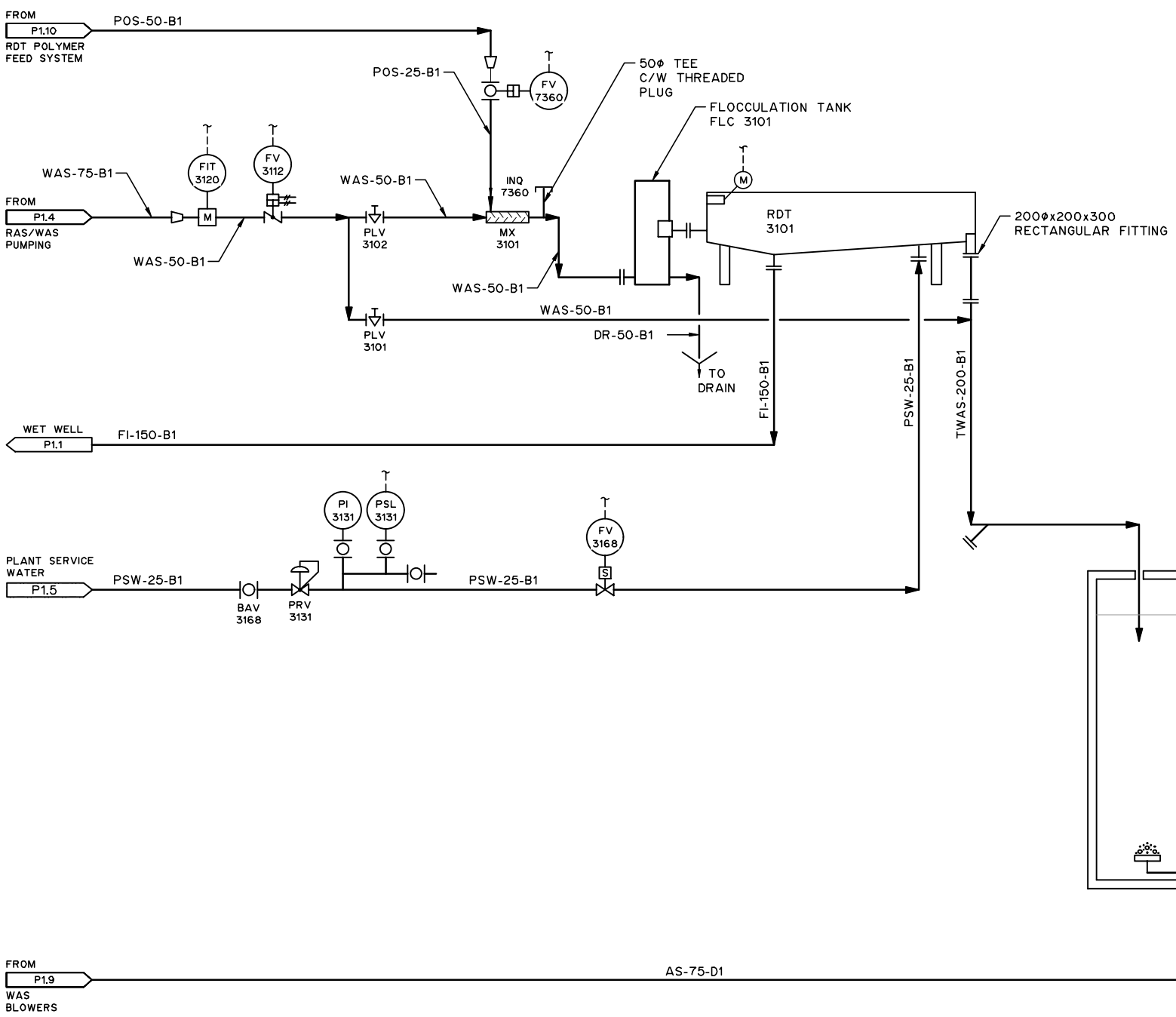
DESIGN CRITERIA

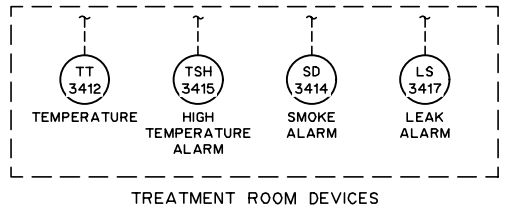


PLC/HMI
A CP-1
B CP-2
C CP-11/12
D CP-3

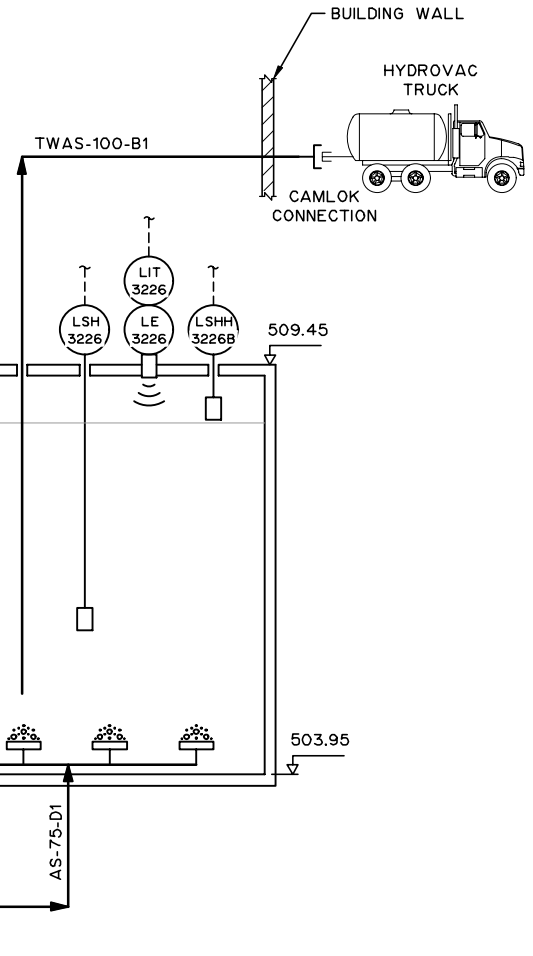
MCC
(VOLTAGE)

FIELD





TREATMENT ROOM DEVICES



FIT 3120
- RANGE: 0-342 L/hr
- POWER: 120 VAC

MX 3101
-

RDT 3101
- ROTARY DRUM THICKENER
- CAPACITY: 3.2 m^3/hr (25 USGPM) @1% TS (57.2 kg/hr DRY)
- 1/3 HP 1750 RPM
- 575 VAC/3 PH/60 Hz
- TEFC

PRV 3131
- RANGE: 25-75 psig
- SP: 50 psig

PSL 3131
- SP: 35 psig
- RANGE: 0-100 psi

LIT 3226
- RANGE: 0-10 m
- POWER: 24 VDC

DESIGN CRITERIA

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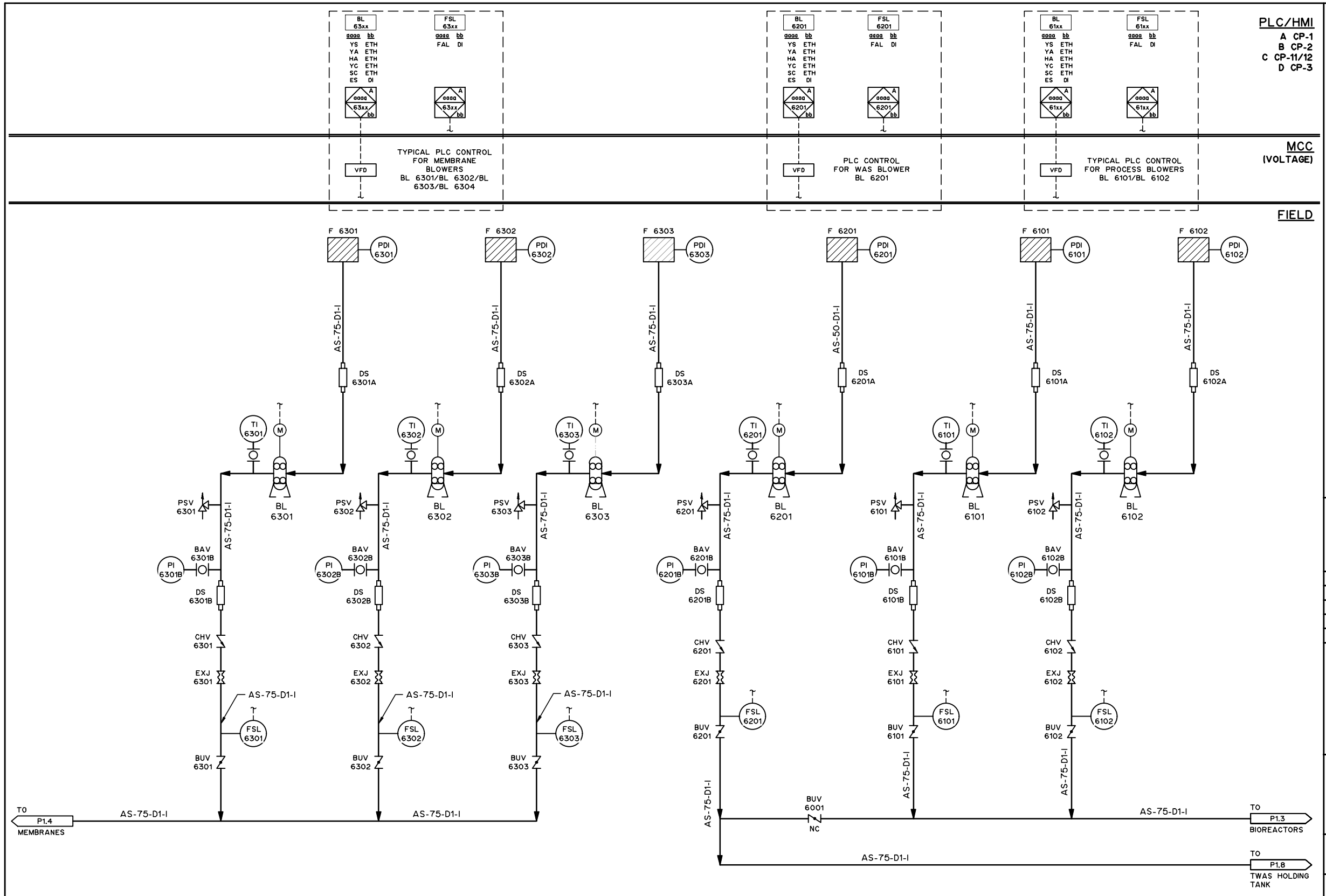
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MPE Engineering Ltd.
Number C1334
Permission to Consult held by:
Discipline: CIVIL | Sk. Reg. No.: 52866 | Signature
PROFESSIONAL ENGINEER I. KAGOBE MEMBER 52866 SASKATCHEWAN
2021-01-18 YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
SLUDGE THICKENING AND HOLDING TANK

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.8



NOTES:

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PROFESSIONAL ENGINEER — KAGORO — MEMBER — SASKATCHEWAN
2021-01-18
YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
AIR SYSTEMS

DESIGNED	I.K.		JOB	7603-002-00
DRAWN	L.J.S. (D.A.B.)		SCALE	NTS
DATE	NOVEMBER 2020		DRAWING	P1.9

DESIGN CRITERIA

BL 6301/BL 6302/BL 6303
- DUTY POINT: 112 SCFM @ 6.5 psi
- 10.0 HP @ 1800 RPM
- 600 VAC/3 PH/60 Hz
- MAX SPEED: 4800 RPM

BL 6101/BL 6102
- DUTY POINT: 200 SCFM @ 7.5 psi
- 15 HP
- 600 VAC/3 PH/60 Hz

BL 6201
- DUTY POINT: 200 SCFM @ 7.5 psi
- 15 HP
- 600 VAC/3 PH/60 Hz

F 6301/F 6302/F 6303/ F 6101/F 6102
- FILTER SILENCER
- MEDIUM FILTER EFFICIENCY: 92%
- SEPARATION: 5 um - 60-90%
  10 um - 85-98%

FSL 6301/FSL 6302/FSL 6303
- SP: 0.00 SCFM
- POWER: 24 VDC

FSL 6101/FSL 6102
- SP: 0.00SCFM
- POWER: 24 VDC

FSL 6201
- SP: --SCFM
- POWER: 24 VDC

PSV 6301/PSV 6302/PSV 6303
- SP: 1000 mbar

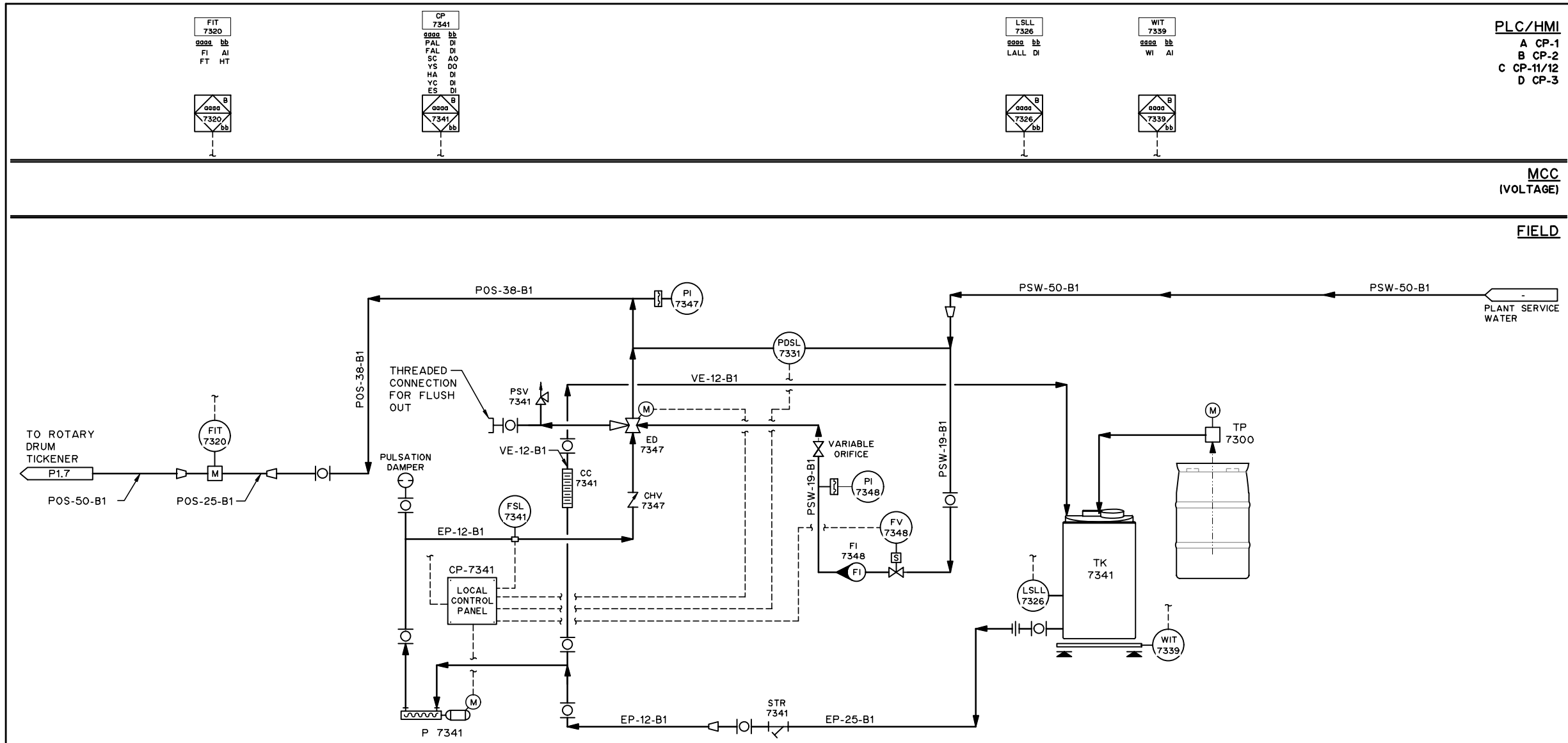
PSV 6101/PSV 6102
- SP: 1000 mbar

PSV 6201
- SP: 1000 mbar

TI 6301/TI 6302/TI 6303
- RANGE: 0-200°C

TI 6101/TI 6102
- RANGE: 0-200°C

TI 6201
- RANGE: 0-200°C



RDT POLYMER SYSTEM

NOTES:

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CIVIL	52866	

PROFESSIONAL ENGINEER
KAGORO
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
POLYMER FEED SYSTEM

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.10

DESIGN CRITERIA

FIT 7320
- RANGE: 0-10 L/sec
- POWER: 120 VAC

P 7341
- CAPACITY: 0.095-1.89 L/hr (0.22 kg/hr DRY POLYMER)
- 0.5 HP
- 120 VAC/3 PH/60 Hz

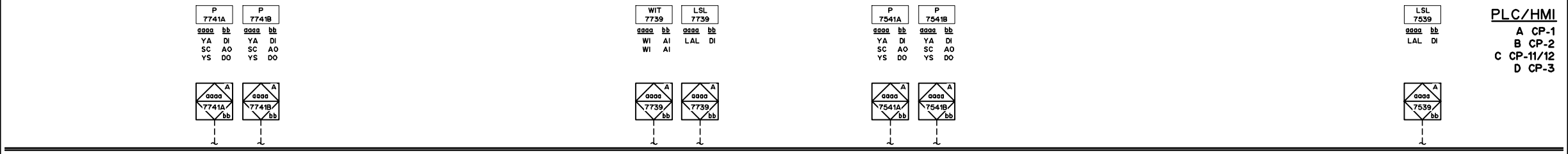
PSV 7341
- SP: 50 psig

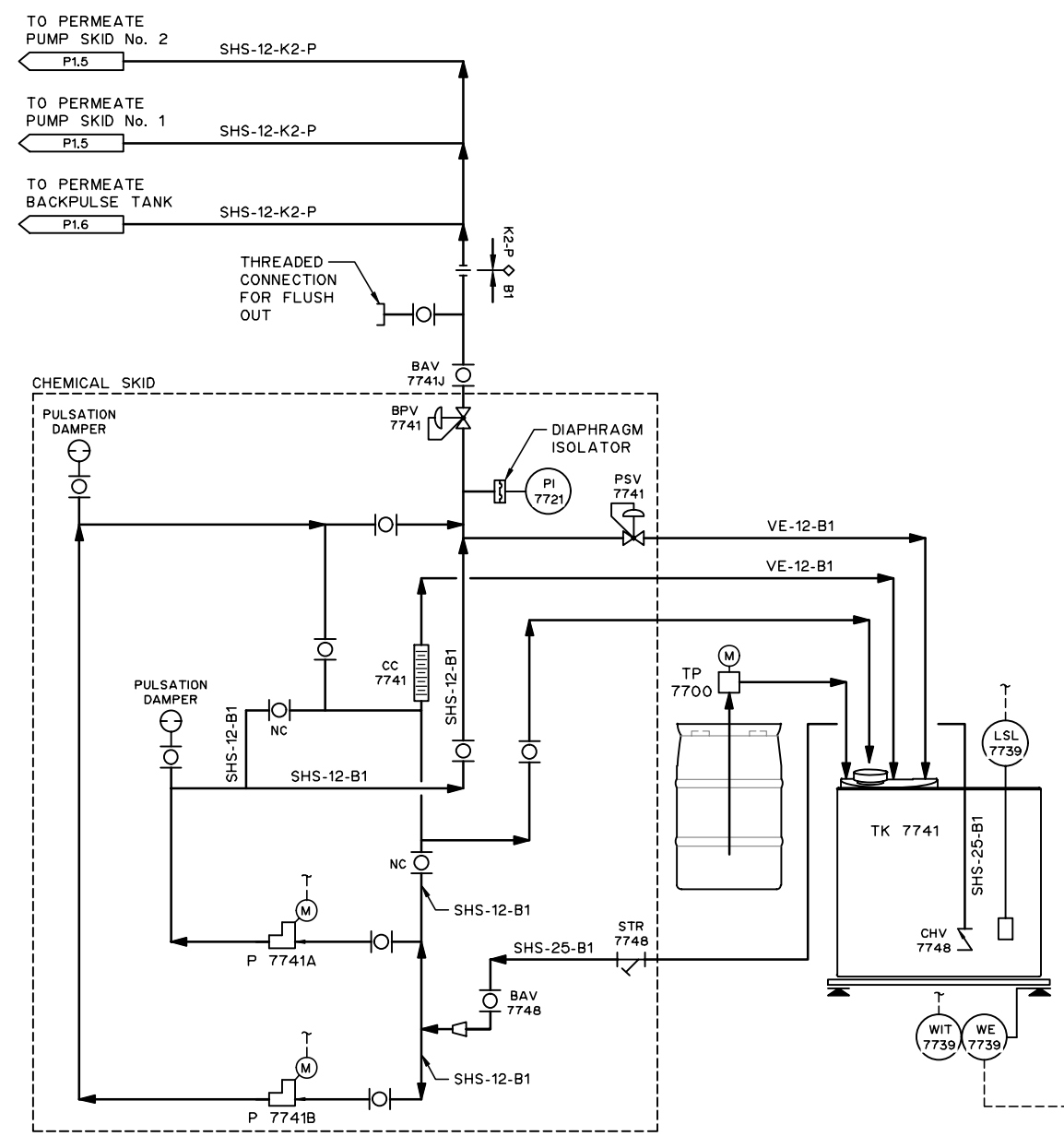
FI 7348
- FLOW: 25-250 L/hr

TK 7341
- POLYMER DAY TANK
- CAPACITY: 181 L

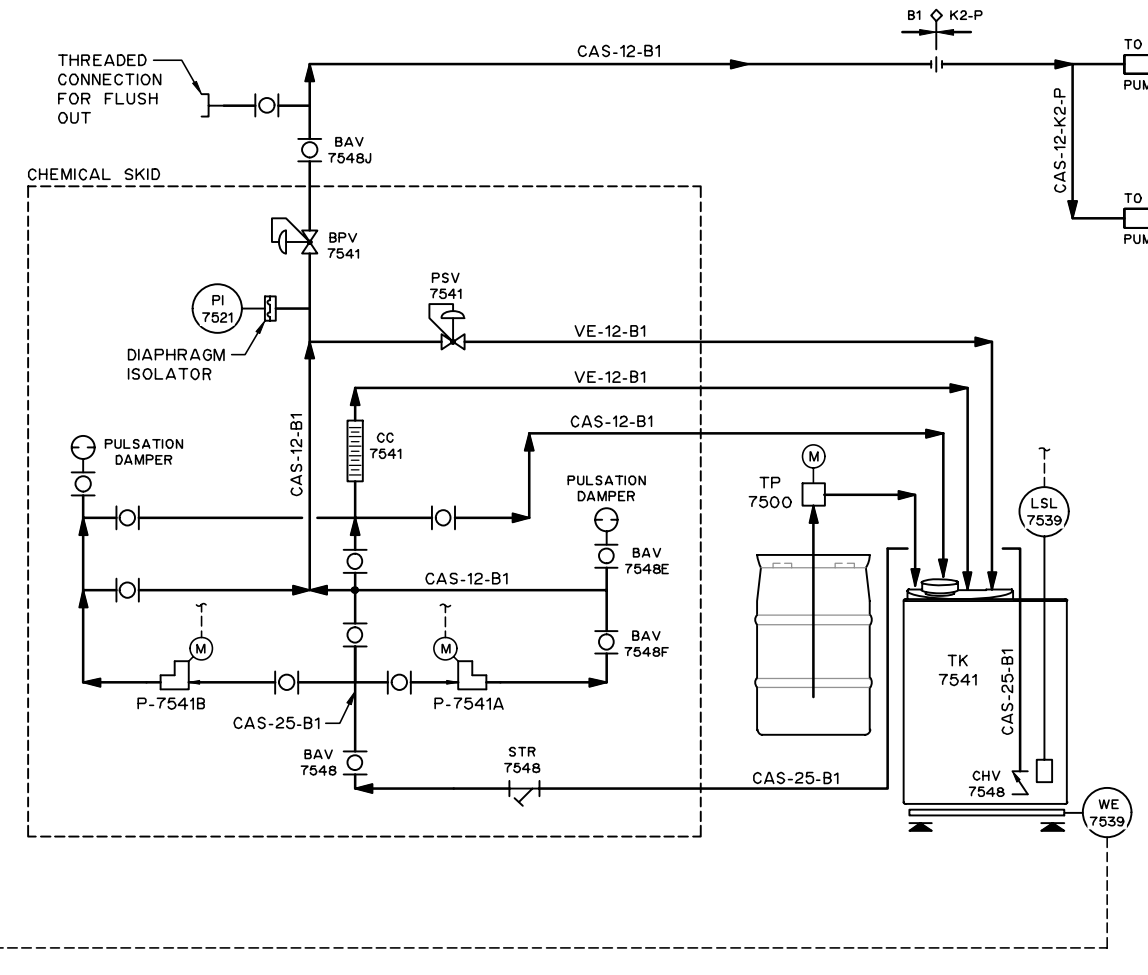
WIT 7339
- RANGE: 0-500 kg
- POWER: 120 VAC

TP 7300
- CHEMICAL TRANSFER PUMP
- DUTY POINT: 2.8 L/s (45 gal/min)
- 120 VAC/1 PH/60 Hz





SODIUM HYPOCHLORITE SYSTEM



CITRIC ACID SYSTEM

P 7741A/B
- PERISTATIC PUMP
- DUTY POINT: 0.48-3.78 L/MIN @ 20psi
- 0.5 HP
- 120 VAC/3 PH/60 Hz

TP 7700
- CHEMICAL TRANSFER PUMP
- DUTY POINT: 2.8 L/s (45 gal/min)
- 120 VAC/1 PH/60 Hz

TK 7741
- SODIUM HYPOCHLORITE DAY TANK
- CAPACITY: 790 L

WIT 7739
- RANGE: 0-500 kg
- POWER: 120 VAC

PSV 7741
- SP: 50 psig

P 7541A/B
- MAINTENANCE: 1.13 L/min @ 30psi
- RECOVERY: 1.5 L/min @ 30psi
- 120 VAC/3 PH/60 Hz
- 0.5Hp

TP 7500
- CHEMICAL TRANSFER PUMP
- DUTY POINT: 2.8 L/s (45 gal/min)
- 120 VAC/1 PH/60 Hz

TK 7541
- CITRIC ACID DAY TANK
- CAPACITY: 790 L

PSV 7541
- SP: XX psig

DESIGN CRITERIA

NOTES:
1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
ISSUE	YY-MM-DD	REVISION

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

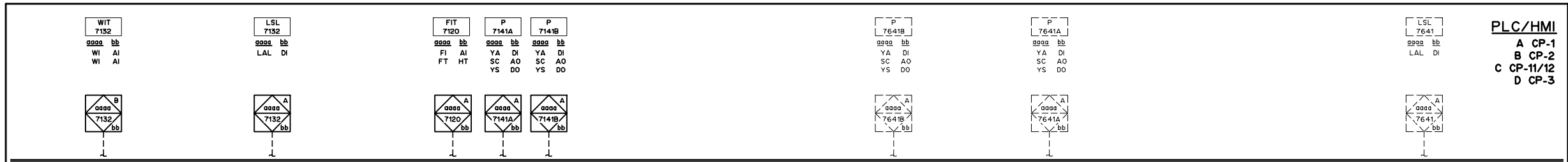
PROFESSIONAL ENGINEER
KAGORO
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

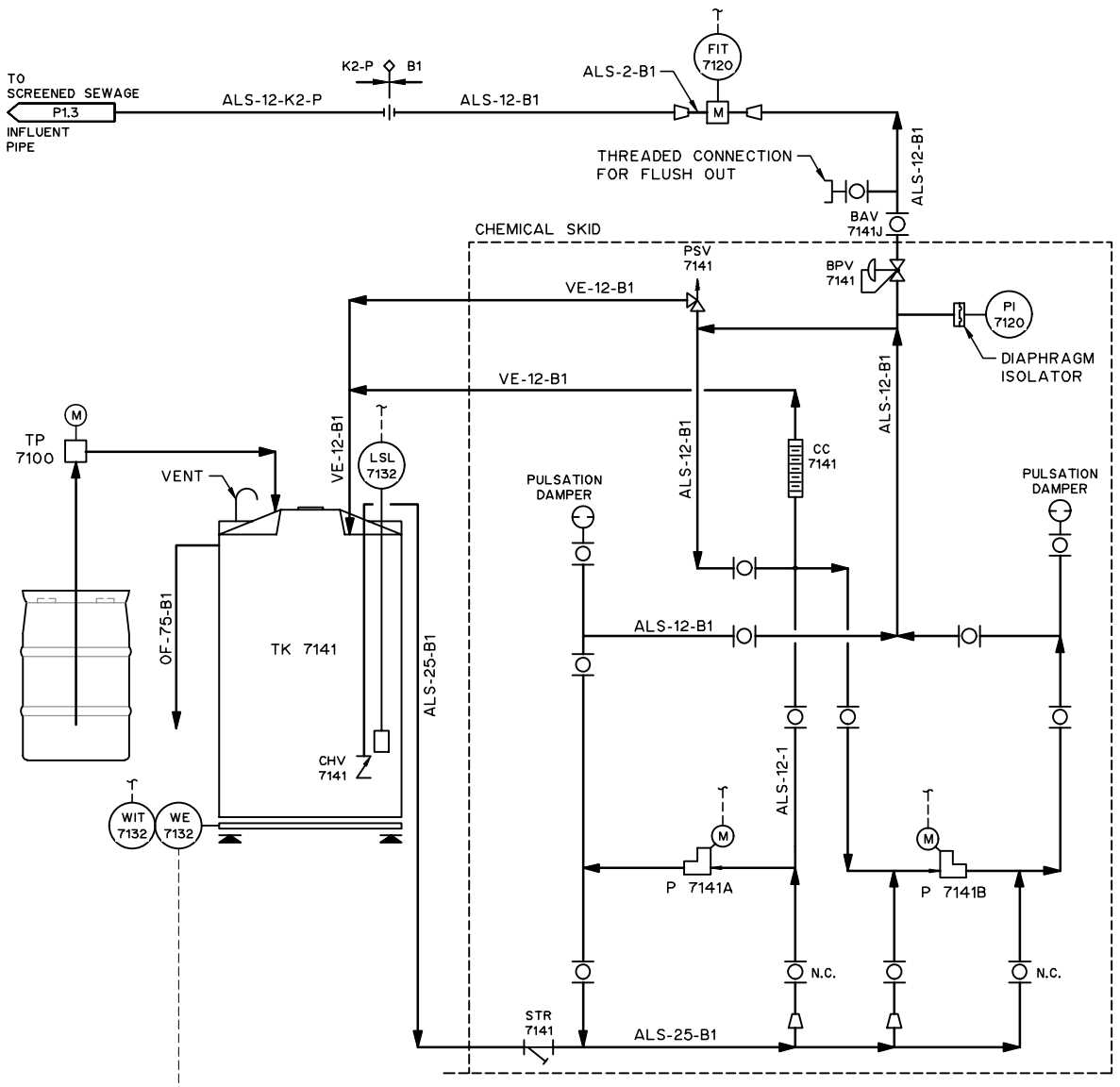
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
CLEAN-IN-PLACE CHEMICAL FEED SYSTEM

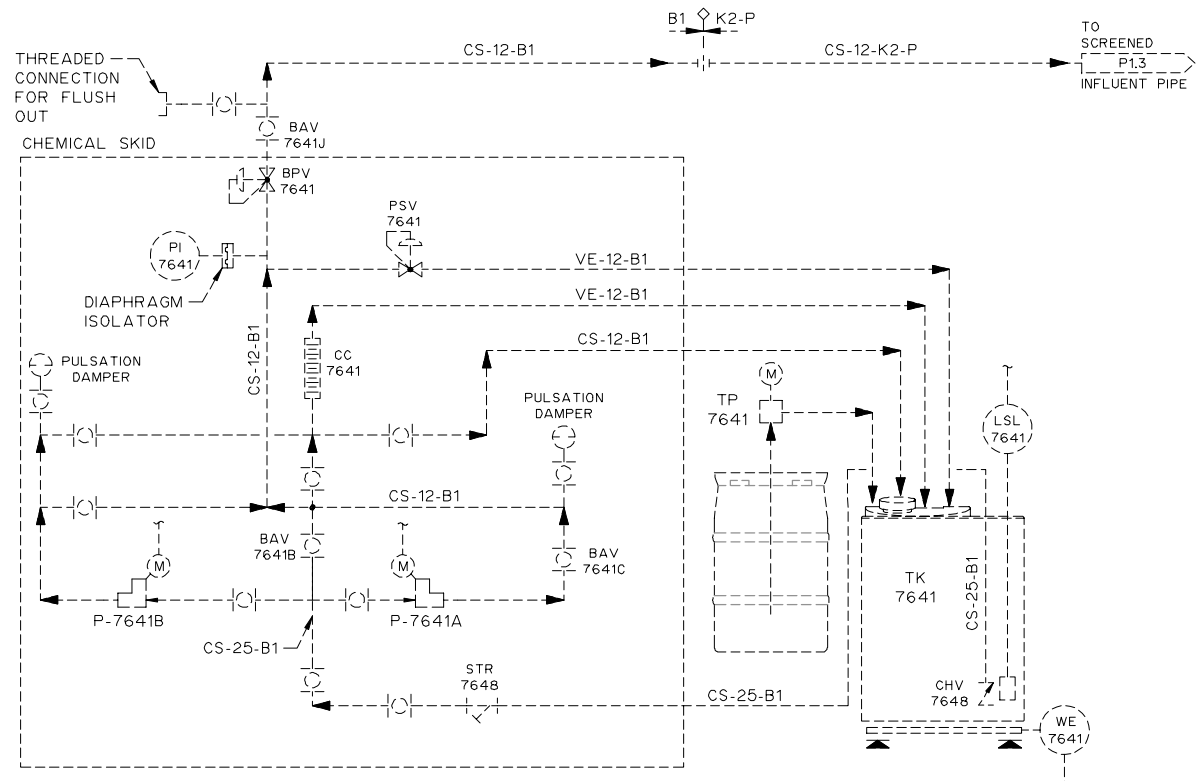
DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.11



FIELD



ALUM FEED SYSTEM



SODIUM HYDROXIDE SYSTEM
(FUTURE)

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PROFESSIONAL ENGINEER
KAGORO
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
ALUM AND SODIUM HYDROXIDE FEED SYSTEMS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.12

DESIGN CRITERIA

P 7141A/B
- CAPACITY: 19 L/hr @ 145 psi
- 1/8 HP
- 115 VAC/1 PH/60 Hz

TP 7100
- CHEMICAL TRANSFER PUMP
- DUTY POINT: 2.8 L/s (45 gal/min)
- 120 VAC/1 PH/60 Hz

TK 7141
- ALUM BULK TANK
- CAPACITY: 9 000 L

WIT 7132
- RANGE: 0-500 kg
- POWER: 120 VAC

PSV 7141
- SP: 50 psig

FIT 7120
- RANGE: 0-5 L/hr
- POWER: 120 VAC

P 7641A/B
- DUTY: 18 L/min @ 30 psi
- 0.5 HP
- 120 VAC/3 PH/60 Hz

TP 7641
- CHEMICAL TRANSFER PUMP
- DUTY POINT: 2.8 L/s (45 gal/min)
- 120 VAC/1 PH/60 Hz

TK 7641
- SODIUM HYDROXIDE DAY TANK
- CAPACITY: XX L

PSV 7641
- SP: XX psig

PLC HMI

A CP-1
B CP-2
C CP-11/12
D CP-3

AC 6008A — gggg bb: YC DI, YA DI, YS DO, HA DI
AC 6008B — gggg bb: YC DI, YA DI, YS DO, HA DI
GEN 9910 — gggg bb: YS DO, YA DI, YC DI, LAH DI, LAL DI
ATS 9919 — gggg bb: JA DI, YA DI
TVSS 101 — gggg bb: YA DI
UPS 101 — gggg bb: YA DI, JA DI
PQM 101 — gggg bb: YA DI
AHF 101 — gggg bb: YA DI
SD 9914C — gggg bb: SDA DI
TSH 9915C — gggg bb: TAH DI
PSL 6031 — gggg bb: PAL DI
PSLL 6031 — gggg bb: PALL DI
SD 9914B — gggg bb: SDA DI
TSH 9915B — gggg bb: TAH DI
SD 9914D — gggg bb: SDA DI
TSH 9915D — gggg bb: TAH DI
SD 9914A — gggg bb: SDA DI
TSH 9915A — gggg bb: TAH DI
LS 9917-A — gggg bb: LAH DI
ZS 9900 — gggg bb: ZSO DO, ZSC DO
EF 101 — gggg bb: YA DI, YC DI
ZA 9911 — gggg bb: ZA DI
ZS 9912 — gggg bb: ZSO DO, ZSC DO
TT 9912 — gggg bb: TI AI
MUA 101 — gggg bb: YA DI, YC DI
EF 102 — gggg bb: YA DI, YC DI
FV 9900A — gggg bb: YS DO

A 6008A bb | A 6008B bb | B 9910 bb | B 9919 bb | B 101 bb | B 101 bb | B 101 bb | B 101 bb | B 9914C bb | B 9915C bb | A 6031 bb | A 6031 bb | B 9914B bb | B 9915B bb | B 9914D bb | B 9915D bb | B 9914A bb | B 9915A bb | B 9917-A bb | B 9900 | B 101 bb | B 9911 bb | B 9912 bb | B 9912 bb | B 101 bb | B 102 bb | B 9900A bb

MCC
(VOLTAGE)

FIELD

ELECTRICAL ROOM ALARMS: TVSS 101 — TRANSIENT VOLTAGE SURGE SUPPRESSOR; UPS-101 — POWER SUPPLY; PQM 101 — POWER QUALITY MONITOR; AHF 101 — ACTIVE HARMONIC FILTER; SD 9914C — SMOKE ALARM; TSH 9915C — HIGH TEMPERATURE ALARM

LABORATORY ALARMS: SD 9914B — SMOKE ALARM; TSH 9915B — HIGH TEMPERATURE ALARM

OFFICE ALARMS: SD 9914D — SMOKE ALARM; TSH 9915D — HIGH TEMPERATURE ALARM

MECHANICAL ROOM ALARMS: SD 9914A — SMOKE ALARM; TSH 9915A — HIGH TEMPERATURE ALARM; LS 9917A — LEAK ALARM

MUA-101 — MAKE-UP AIR UNIT

EF-101 — EXHAUST FAN

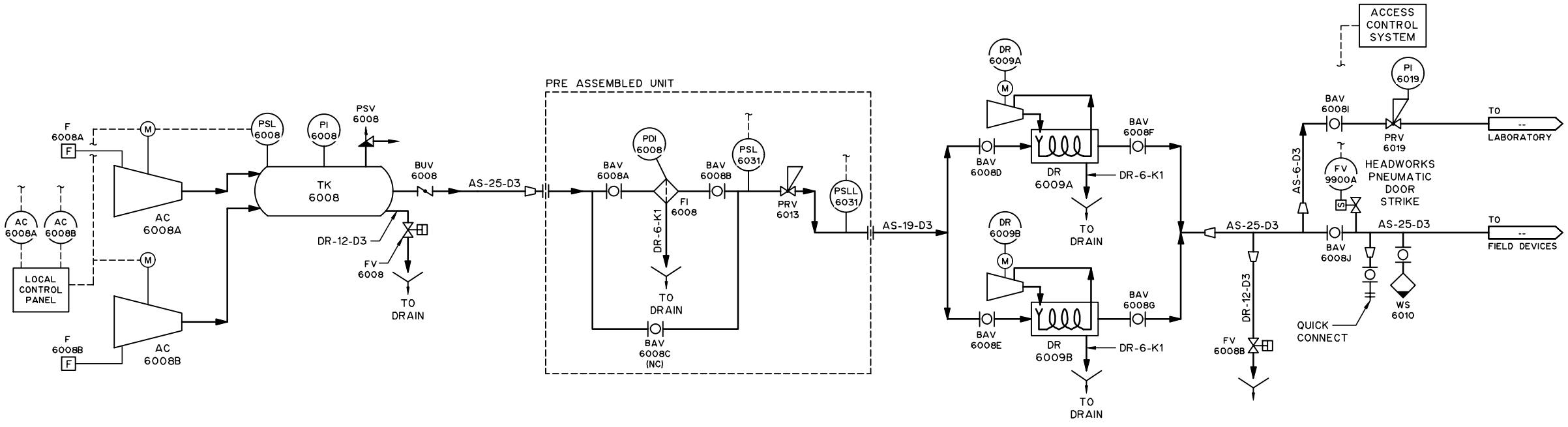
EF-102 — EXHAUST FAN

NG ENGINE — 150 kW GENERATOR; GEN 9910; ATS 9919; GRID POWER; POWER TO WTP

ZS 9900 — GATE OPEN/CLOSE — EXTERIOR CHAINLINK FENCE GATE

ZA 9911 — INTRUSION ALARM (FROM SECURITY PANEL); ZS 9912 — POWER DOOR LOCK — WASTEWATER TREATMENT PLANT SECURITY ALARM SYSTEM

TT 9912 — OUTSIDE TEMPERATURE TRANSMITTER — WASTEWATER TREATMENT PLANT BUILDING DEVICES



F 6008A/F 6008B
- POWER: 120VAC

AC 6008A/AC 6008B
- DUTY POINT: 25 CFM @ 150 psig
- 5.0 HP, 1800 RPM
- 600 VAC/3 PH/60 Hz

PSV 6008
- SP: 200 psig

TK 6008
- 454 L (120 US gpm)
- WET RECEIVER

PSL 6008
- SP HIGH: 145 psig
- SP LOW: 110 psig

WS 6008
- CAPACITY: 25 SCFM

FI 6008
- 1 MICRON FILTER
- CAPACITY: 25 SCFM

DR 6009A/DR 6009B
- CAPACITY: 0-25 CFM
- 0.25Hp, 120 VAC/1 PH/60 Hz

PSL 6031
- SP: 90 psi

PSLL 6031
- SP: 70 psi

PRV 6013
- SP: 90 psig

PRV 6019
- SP: 50 psig

DESIGN CRITERIA

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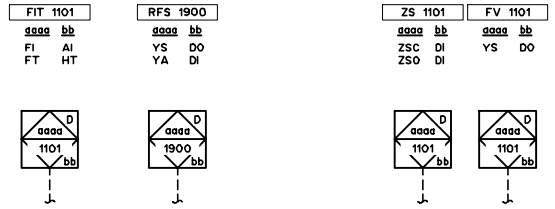
PROFESSIONAL ENGINEER — KAGOBO — MEMBER — SASKATCHEWAN — 2021-01-18 YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT PROCESS PIPING PROCESS AND INSTRUMENTATION DIAGRAM COMPRESSOR AND AUXILLARY SYSTEMS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.13

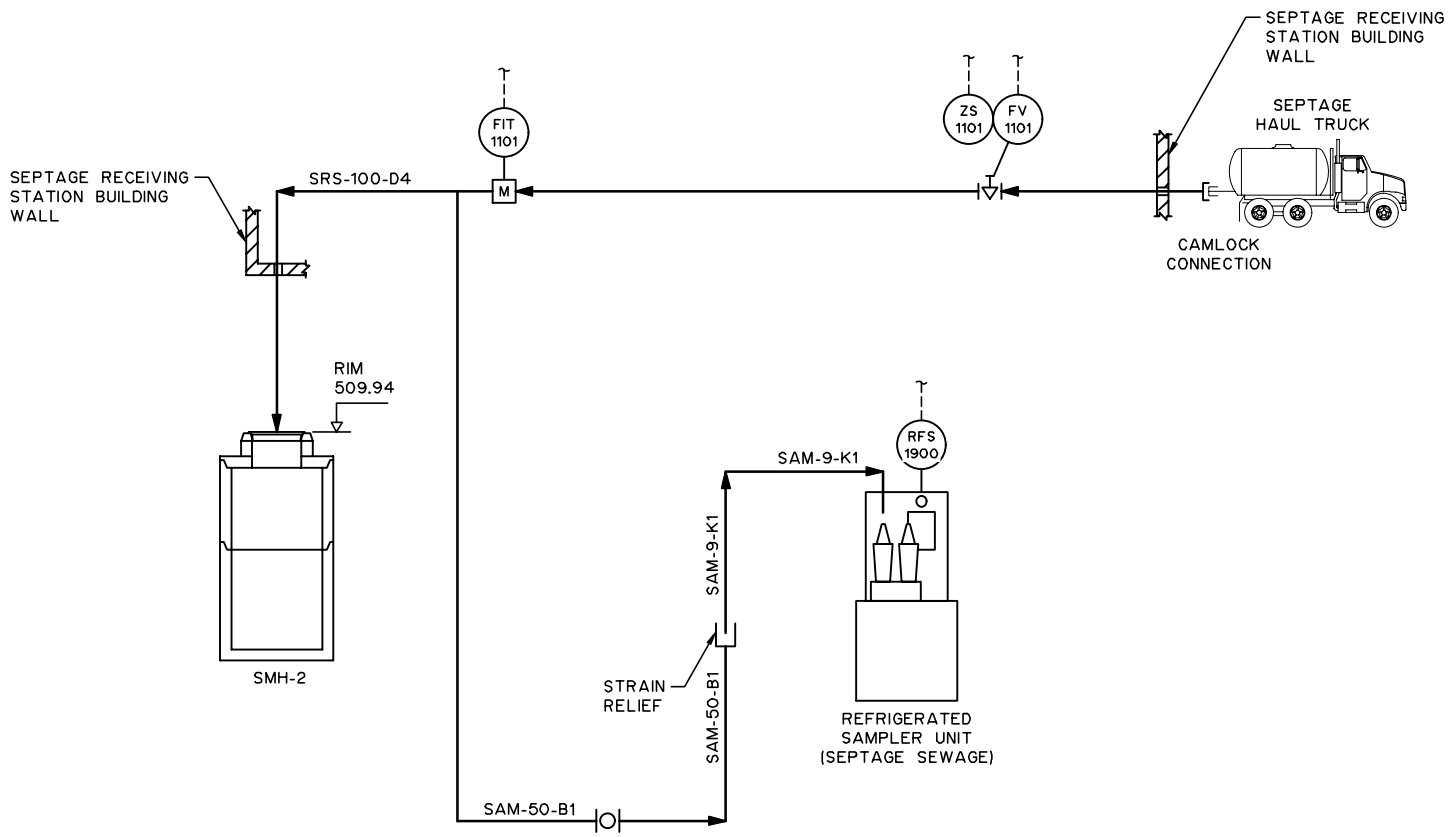


PLC/HMI

A CP-1
B CP-2
C CP-11/12
D CP-3

MCC
(277/480 VAC)

FIELD



FIT 1101
- FLOW: 0-X m^3/DAY

DESIGN CRITERIA

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PROFESSIONAL ENGINEER
KAGORO
SASKATCHEWAN
2021-01-18
YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS AND INSTRUMENTATION DIAGRAM
SEPTAGE RECEIVING STATION

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.14

SUEZ P&ID	SUEZ TAG	MPE P&ID	MPE TAG	EQUIPMENT DESCRIPTION
DRUM SCREENS				
DS-101	XX-FIT-XXX	P1.2	FIT 2101	FLOW METER
DS-101	XX-HV-XXX	P1.2	PLV 2501	PLUG VALVE
DS-101	XX-XXX-XXX	P1.2	CAV 2501	COMBINATION AIR VALVE
DS-101	03-HV-201-A	P1.2	PLV 2501A	PLUG VALVE
DS-101	03-HV-201-B	P1.2	PLV 2501B	PLUG VALVE
DS-101	03-HV-202-A	P1.2	BAV 2268A	BALL VALVE
DS-101	03--HV-202-B	P1.2	BAV 2268B	BALL VALVE
DS-101	03-PY-201-A	P1.2	PRV 2268A	PRESSURE REDUCING VALVE
DS-101	03-PY-201-B	P1.2	PRV 2268B	PRESSURE REDUCING VALVE
DS-101	03-PI-201-A	P1.2	PI 2268A	PRESSURE INDICATOR
DS-101	03-PI-201-B	P1.2	PI 2268B	PRESSURE INDICATOR
DS-101	03-FV-201-A	P1.2	FV 2268A	FLOW VALVE
DS-101	03-FV-201-B	P1.2	FV 2268B	FLOW VALVE
DS-101	03-SCR-201-A	P1.2	DS 2501A	DRUM SCREEN
DS-101	03-SCR-201-B	P1.2	DS 2501B	DRUM SCREEN
DS-101	03-LSH-101-1	P1.2	LSH 2201A	LEVEL SWITCH (HIGH)
DS-101	03-LSH-101-2	P1.2	LSH 2201B	LEVEL SWITCH (HIGH)
DS-101	03-HV-203-A	P1.2	BAV 2269A	BALL VALVE
DS-101	03-HV-203-B	P1.2	BAV 2269B	BALL VALVE
DS-101	03-FV-102-A	P1.2	FV 2269A	FLOW VALVE
DS-101	03-FV-102-B	P1.2	FV 2269B	FLOW VALVE
DS-101	XX-XX-XXX-A	P1.2	SC 2202A	SCREW CONVEYOR
DS-101	XX-XX-XXX-B	P1.2	SC 2202B	SCREW CONVEYOR
MEMBRANE BLOWERS				
DS-102	20-F-201-A	P1.9	F 6301	INLET FILTER AND SILENCER
DS-102	20-F-201-B	P1.9	F 6302	INLET FILTER AND SILENCER
DS-102	20-F-201-C	P1.9	F 6303	INLET FILTER AND SILENCER
DS-102	20-PDI-201-A	P1.9	PDI 6301	DIFFERENTIAL PRESS. TRANSMITTER
DS-102	20-PDI-201-B	P1.9	PDI 6302	DIFFERENTIAL PRESS. TRANSMITTER
DS-102	20-PDI-201-C	P1.9	PDI 6303	DIFFERENTIAL PRESS. TRANSMITTER
DS-102	20-B-201-A	P1.9	BL 6301	BLOWER MEMBRANE TRAIN 1
DS-102	20-B-201-B	P1.9	BL 6302	BLOWER MEMBRANE TRAIN 2
DS-102	20-B-201-C	P1.9	BL 6303	BLOWER STANDBY
DS-102	20-PSV-201-A	P1.9	PSV 6301	PRESSURE SUSTAINING VALVE
DS-102	20-PSV-201-B	P1.9	PSV 6302	PRESSURE SUSTAINING VALVE
DS-102	20-PSV-201-C	P1.9	PSV 6303	PRESSURE SUSTAINING VALVE
DS-102	20-HV-203-A	P1.9	BAV 6301B	BALL VALVE
DS-102	20-HV-203-B	P1.9	BAV 6302B	BALL VALVE
DS-102	20-HV-203-C	P1.9	BAV 6303B	BALL VALVE
DS-102	20-PI-203-A	P1.9	PI 6301B	PRESSURE INDICATOR
DS-102	20-PI-203-B	P1.9	PI 6302B	PRESSURE INDICATOR
DS-102	20-PI-203-C	P1.9	PI 6303B	PRESSURE INDICATOR
DS-102	XX-XX-XXX-A	P1.9	DS 6301B	DISCHARGE SILENCER
DS-102	XX-XX-XXX-B	P1.9	DS 6302B	DISCHARGE SILENCER
DS-102	XX-XX-XXX-C	P1.9	DS 6303B	DISCHARGE SILENCER
DS-102	20-CV-201-A	P1.9	CHV 6301	CHECK VALVE
DS-102	20-CV-201-B	P1.9	CHV 6302	CHECK VALVE
DS-102	20-CV-201-C	P1.9	CHV 6303	CHECK VALVE
DS-102	20-XX-XXX-A	P1.9	EXJ 6301	DISCHARGE FLEXIBLE SLEEVE
DS-102	20-XX-XXX-B	P1.9	EXJ 6302	DISCHARGE FLEXIBLE SLEEVE
DS-102	20-XX-XXX-C	P1.9	EXJ 6303	DISCHARGE FLEXIBLE SLEEVE
DS-102	20-FSL-201-A	P1.9	FSL 6301	FLOW SWITCH (LOW)
DS-102	20-FSL-201-B	P1.9	FSL 6302	FLOW SWITCH (LOW)
DS-102	20-FSL-201-C	P1.9	FSL 6303	FLOW SWITCH (LOW)
DS-102	20-HV-201-A	P1.9	BUV 6301	BUTTERFLY VALVE
DS-102	20-HV-201-B	P1.9	BUV 6302	BUTTERFLY VALVE
DS-102	20-HV-201-C	P1.9	BUV 6303	BUTTERFLY VALVE
PROCESS BLOWERS				
DS-103	16-F-801	P1.9	F 6201	INLET FILTER AND SILENCER
DS-103	16-PDI-801	P1.9	PDI 6201	DIFFERENTIAL PRESS. TRANSMITTER
DS-103	16-B-801	P1.9	BL 6201	BLOWER TWAS
DS-103	16-PSV-801	P1.9	PSV 6201	PRESSURE SUSTAINING VALVE
DS-103	16-HV-803	P1.9	BAV 6201B	BALL VALVE
DS-103	16-PI-803	P1.9	PI 6201B	PRESSURE INDICATOR
DS-103	XX-XX-XXX	P1.9	DS 6201B	DISCHARGE SILENCER
DS-103	16-CV-801	P1.9	CHV 6201	CHECK VALVE
DS-103	16-XX-XXX	P1.9	EXJ 6201	DISCHARGE FLEXIBLE SLEEVE
DS-103	16-FSL-801	P1.9	FSL 6201	FLOW SWITCH (LOW)
DS-103	16-HV-801	P1.9	BUV 6201	BUTTERFLY VALVE
DS-103	16-F-501-A	P1.9	F 6101	INLET FILTER AND SILENCER
DS-103	16-F-501-B	P1.9	F 6102	INLET FILTER AND SILENCER
DS-103	16-PDI-501-A	P1.9	PDI 6101	DIFFERENTIAL PRESS. TRANSMITTER
DS-103	16-PDI-501-B	P1.9	PDI 6102	DIFFERENTIAL PRESS. TRANSMITTER
DS-103	16-B-501-A	P1.9	BL 6101	BLOWER BIOREACTOR TANK 1
DS-103	16-B-501-B	P1.9	BL 6102	BLOWER BIOREACTOR TANK 2
DS-103	16-PSV-501-A	P1.9	PSV 6101	PRESSURE SUSTAINING VALVE
DS-103	16-PSV-501-B	P1.9	PSV 6102	PRESSURE SUSTAINING VALVE
DS-103	16-HV-503-A	P1.9	BAV 6101B	BALL VALVE
DS-103	16-HV-503-B	P1.9	BAV 6102B	BALL VALVE
DS-103	16-PI-503-A	P1.9	PI 6101B	PRESSURE INDICATOR
DS-103	16-PI-503-B	P1.9	PI 6102B	PRESSURE INDICATOR
DS-103	XX-XX-XXX-X	P1.9	DS 6101B	DISCHARGE SILENCER
DS-103	XX-ML-XXX-X	P1.9	DS 6102B	DISCHARGE SILENCER
DS-103	16-CV-501-A	P1.9	CHV 6101	CHECK VALVE
DS-103	16-CV-501-B	P1.9	CHV 6102	CHECK VALVE
DS-103	16-XX-XXX-A	P1.9	EXJ 6101	DISCHARGE FLEXIBLE SLEEVE
DS-103	16-XX-XXX-B	P1.9	EXJ 6102	DISCHARGE FLEXIBLE SLEEVE
DS-103	16-FSL-501-A	P1.9	FSL 6101	FLOW SWITCH (LOW)
DS-103	16-FSL-501-B	P1.9	FSL 6102	FLOW SWITCH (LOW)
DS-103	16-HV-501-A	P1.9	BUV 6101	BUTTERFLY VALVE
DS-103	16-HV-501-B	P1.9	BUV 6102	BUTTERFLY VALVE
BIOREACTOR				
DS-104	20-FV-807	P1.3	FCV 4912	FLOW CONTROL VALVE
DS-104	16-HV-409-1	P1.3	WG 3001-1	UPWARD CLOSING WEIR GATE
DS-104	16-HV-409-2	P1.3	WG 3001-2	UPWARD CLOSING WEIR GATE
DS-104	16-MX-211	P1.3	MX 3011-1	MIXER - ANOXIC TANK
DS-104	16-LIT-403-1	P1.3	LT 3026-1	HYDROSTATIC LEVEL TRANSDUCER
DS-104	16-LIT-403-2	P1.3	LT 3026-2	HYDROSTATIC LEVEL TRANSDUCER
DS-104	16-AIT-405-1	P1.3	AIT 3041-1	DISSOLVED OXYGEN WATER
DS-104	16-AIT-405-2	P1.3	AIT 3041-2	DISSOLVED OXYGEN WATER
DS-104	16-AIT-402-1	P1.3	AIT 3042-1	PH SENSOR
DS-104	16-AIT-402-2	P1.3	AIT 3042-2	PH SENSOR
DS-104	16-LSHH-401-1	P1.3	LSHH 3026-1	LEVEL SWITCH (HIGH HIGH)
DS-104	16-LSHH-401-2	P1.3	LSHH 3026-2	LEVEL SWITCH (HIGH HIGH)
DS-104	16-HV-510-1	P1.3	WG 3002-1	WEIR GATE
DS-104	16-HV-510-2	P1.3	WG 3002-2	WEIR GATE
DS-104	16-HV-505-1	P1.3	BUV 6310-1	BUTTERFLY VALVE
DS-104	16-HV-505-2	P1.3	BUV 6310-2	BUTTERFLY VALVE
MEMBRANE TANKS				
DS-105	20-FV-209-1	P1.4	FCV 4601-1	FLOW CONTROL VALVE
DS-105	20-FV-209-2	P1.4	FCV 4601-2	FLOW CONTROL VALVE
DS-105	20-FV-205-1	P1.4	FV 6101-1	FLOW VALVE
DS-105	20-FV-205-2	P1.4	FV 6101-2	FLOW VALVE
DS-105	20-HV-204A-1	P1.4	BUV 6101-1	BUTTERFLY VALVE
DS-105	20-HV-204A-2	P1.4	BUV 6101-2	BUTTERFLY VALVE
DS-105	20-HV-204B-1	P1.4	BUV 6102-1	BUTTERFLY VALVE
DS-105	20-HV-204B-2	P1.4	BUV 6102-2	BUTTERFLY VALVE
DS-105	20-HV-310A-1	P1.4	BUV 4601-1	BUTTERFLY VALVE
DS-105	20-HV-310A-2	P1.4	BUV 4601-2	BUTTERFLY VALVE
DS-105	20-HV-310B-1	P1.4	BUV 4602-1	BUTTERFLY VALVE
DS-105	20-HV-310B-2	P1.4	BUV 4602-2	BUTTERFLY VALVE
DS-105	20-HV-307-1	P1.4	BAV 4632-1	BALL VALVE
DS-105	20-HV-307-2	P1.4	BAV 4632-2	BALL VALVE
DS-105	20-PIT-301-1	P1.4	PIT-4632-1	PRESSURE TRANSMITTER
DS-105	20-PIT-301-2	P1.4	PIT-4632-2	PRESSURE TRANSMITTER
DS-105	20-LSHH-201-1	P1.4	LSHH 4626-1	LEVEL SWITCH (HIGH HIGH)
DS-105	20-LSHH-201-2	P1.4	LSHH 4626-2	LEVEL SWITCH (HIGH HIGH)
DS-105	20-LSLL-201-1	P1.4	LSLL 4626-1	LEVEL SWITCH (LOW LOW)
DS-105	20-LSLL-201-2	P1.4	LSLL 4626-2	LEVEL SWITCH (LOW LOW)
DS-105	20-LIT-203-1	P1.4	LIT 4626-1	LEVEL TRANSMITTER
DS-105	20-LIT-203-2	P1.4	LIT 4626-2	LEVEL TRANSMITTER
DS-105	23-HV-803-1	P1.4	BAV 6003-1	BALL VALVE, AIR SPLY
DS-105	23-HV-803-2	P1.4	BAV 6003-2	BALL VALVE, AIR SPLY
DS-105	20-HV-802-1	P1.4	BAV 6001-1	BALL VALVE, AIR SPLY
DS-105	20-HV-802-2	P1.4	BAV 6001-2	BALL VALVE, AIR SPLY
DS-105	20-F-801-1	P1.4	F 6001-1	FILTER, AIR SPLY
DS-105	20-F-801-2	P1.4	F 6001-2	FILTER, AIR SPLY
DS-105	20-FV-802-1	P1.4	FV 6001-1	FLOW VALVE, AIR SPLY
DS-105	20-FV-802-2	P1.4	FV 6001-2	FLOW VALVE, AIR SPLY
DS-105	20-FV-801-1	P1.4	FCV 6001-1	FLOW CONTROL VALVE, AIR SPLY
DS-105	20-FV-801-2	P1.4	FCV 6001-2	FLOW CONTROL VAVLE, AIR SPLY
DS-105	20-E-801-1	P1.4	ED 6001-1	EDUCTOR, AIR SPLY
DS-105	20-E-801-2	P1.4	ED 6001-2	EDUCTOR, AIR SPLY
DS-105	20-HV-801-1	P1.4	BAV 6002-1	BALL VALVE, AIR SPLY
DS-105	20-HV-801-2	P1.4	BAV 6002-2	BALL VALVE, AIR SPLY
PROCESS PUMP (PERMEATE)				
DS-106	23-FV-102-1	P1.5	FV 4613-1	FLOW VALVE, SODIUM HYPO.
DS-106	23-FV-102-1	P1.5	FV 4613-2	FLOW VALVE, SODIUM HYPO.
DS-106	23-CV-101-1	P1.5	CHV 4613-1	CHECK VALVE, SODIUM HYPO.
DS-106	23-CV-101-2	P1.5	CHV 4613-2	CHECK VALVE, SODIUM HYPO.
DS-106	23-FY-302-1	P1.5	FV 4612-1	FLOW VALVE, CITRIC ACID
DS-106	23-FY-302-2	P1.5	FV 4612-2	FLOW VALVE, CITRIC ACID
DS-106	23-CV-301-1	P1.5	CHV 4612-1	CHECK VALVE, CITRIC ACID
DS-106	23-CV-301-2	P1.5	CHV 4612-2	CHECK VALVE, CITRIC ACID
DS-106	20-HV-306-1	P1.5	BAV 4631-1	BALL VALVE
DS-106	20-HV-306-2	P1.5	BAV 4631-2	BALL VALVE
DS-106	20-FV-302-1	P1.5	FV 4611-1	FLOW VALVE
DS-106	20-FV-302-2	P1.5	FV 4611-2	FLOW VALVE
DS-106	20-HV-304-1	P1.5	BAV 4631A-1	BALL VALVE
DS-106	20-HV-304-2	P1.5	BAV 4631A-2	BALL VALVE
DS-106	20-PI-304-1	P1.5	PI 4631A-1	PRESSURE INDICATOR

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KAGORO
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2021-01-18
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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
SUEZ EQUIPMENT TAG LIST
SHEET 1

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.15

SUEZ P&ID	SUEZ TAG	MPE P&ID	MPE TAG	EQUIPMENT DESCRIPTION
DS-106	20-PI-304-2	P1.5	PI 4631A-2	PRESSURE INDICATOR
DS-106	20-PSH-302-1	P1.5	PSH 4631A-1	PRESSURE SWITCH (HIGH)
DS-106	20-PSH-302-2	P1.5	PSH 4631A-2	PRESSURE SWITCH (HIGH)
DS-106	20-P-301-1	P1.5	P 4611-1	PUMP
DS-106	20-P-301-2	P1.5	P 4611-2	PUMP
DS-106	20-HV-303-1	P1.5	BAV 4631B-1	BALL VALVE
DS-106	20-HV-303-2	P1.5	BAV 4631B-2	BALL VALVE
DS-106	20-PI-303-1	P1.5	PI 4631B-1	PRESSURE INDICATOR
DS-106	20-PI-303-2	P1.5	PI 4631B-2	PRESSURE IDICATOR
DS-106	20-PSH-304-1	P1.5	PSH 4631B-1	PRESSURE SWITCH (HIGH)
DS-106	20-PSH-304-2	P1.5	PSH 4631B-2	PRESSURE SWITCH (HIGH)
DS-106	20-HV-305-1	P1.5	BAV 4632-1	BALL VALVE
DS-106	20-HV-305-2	P1.5	BAV 4632-2	BALL VALVE
DS-106	20-HV-320-1	P1.5	BAV 4637-1	BALL VALVE
DS-106	20-HV-320-2	P1.5	BAV 4637-2	BALL VALVE
DS-106	20-AIT-320-1	P1.5	AIT 4637-1	TURBIDITY
DS-106	20-AIT-320-2	P1.5	AIT 4637-2	TURBIDITY
DS-106	20-FV-320-1	P1.5	FV 4637-1	FLOW VALVE
DS-106	20-FV-320-2	P1.5	FV 4637-2	FLOW VALVE
DS-106	20-HCV-320-1	P1.5	NEV 4637-1	NEEDLE VALVE
DS-106	20-HCV-320-2	P1.5	NEV 4637-2	NEEDLE VALVE
DS-106	20-FIT-307-1	P1.5	FIT 4620-1	FLOW METER
DS-106	20-FIT-307-2	P1.5	FIT 4620-2	FLOW METER
DS-106	20-HV-301-1	P1.5	BUV 4611-1	BUTTERFLY VALVE
DS-106	20-HV-301-2	P1.5	BUV 4611-2	BUTTERFLY VALVE
DS-106	20-CV-301-1	P1.5	CHV 4701-1	CHECK VALVE
DS-106	20-CV-301-2	P1.5	CHV 4701-2	CHECK VALVE
DS-106	20-FV-609-1	P1.5	FV 4701-1	FLOW VALVE
DS-106	20-FV-609-2	P1.5	FV 4701-2	FLOW VALVE
DS-106	90-HV-010-1	P1.5	BAV 6001-1	BALL VALVE, AIR SPLY
DS-106	90-HV-010-2	P1.5	BAV 6001-2	BALL VALVE, AIR SPLY
BACKPULSE TANK				
DS-107	23-FV-161	P1.6	FV 7960	FLOW VALVE, SODIUM HYPO.
DS-107	23-CV-110	P1.6	CHV 7960	CHECK VALVE
DS-107	20-HV-611	P1.6	BAV 7932	BALL VALVE
DS-107	20-LIT-603	P1.6	LIT 7932	LIT TRANSMITTER
DS-107	XX-HV-XXX	P1.6	BUV 5104	BALL VALVE
DS-107	20-FV-641	P1.6	FV 5102	FLOW VALVE
DS-107	20-HV-609	P1.6	BUV 5101	BUTTERFLY VALVE
DS-107	20-HV-608	P1.6	BAV 2702	BALL VALVE
DS-107	20-TT-001	P1.6	TT 5108	TEMPERATURE TRANSMITTER
DS-107	XX-HV-XXX	P1.6	BAV 5101	BALL VALVE
RAS/WAS/DRAIN PUMPS				
DS-108(1 OF 2)	20-FV-501-1	P1.4	FV 4901-1	FLOW VALVE
DS-108(1 OF 2)	20-FV-501-2	P1.4	FV 4901-2	FLOW VALVE
DS-108(1 OF 2)	20-HV-504-1	P1.4	BAV 4904-1	BALL VALVE
DS-108(1 OF 2)	20-HV-504-2	P1.4	BAV 4904-2	BALL VALVE
DS-108(1 OF 2)	20-PI-504-1	P1.4	PI 4901-1	PRESSURE INDICATOR
DS-108(1 OF 2)	20-PI-504-2	P1.4	PI 4901-2	PRESSURE INDICATOR
DS-108(1 OF 2)	20-HV-506-1	P1.4	BAV 4601-1	BALL VALVE
DS-108(1 OF 2)	20-HV-506-2	P1.4	BAV 4601-2	BALL VALVE
DS-108(1 OF 2)	20-P-501-1	P1.4	P 4901-1	PUMP
DS-108(1 OF 2)	20-P-501-2	P1.4	P 4901-2	PUMP
DS-108(1 OF 2)	20-HV-503-1	P1.4	BAV 4903-1	BALL VALVE
DS-108(1 OF 2)	20-HV-503-2	P1.4	BAV 4903-2	BALL VALVE
DS-108(1 OF 2)	20-PI-503-1	P1.4	PI 4902-1	PRESSURE INDICATOR
DS-108(1 OF 2)	20-PI-503-2	P1.4	PI 4902-2	PRESSURE INDICATOR
DS-108(1 OF 2)	20-CV-501-1	P1.4	CHV 4901-1	CHECK VALVE
DS-108(1 OF 2)	20-CV-501-2	P1.4	CHV 4901-2	CHECK VALVE
DS-108(1 OF 2)	20-HV-501-1	P1.4	BUV 4902-1	BUTTERFLY VALVE
DS-108(1 OF 2)	20-HV-501-2	P1.4	BUV 4902-2	BUTTERFLY VALVE
DS-108(1 OF 2)	20-FIT-507-1	P1.4	FIT 4901-1	FLOW METER
DS-108(1 OF 2)	20-FIT-507-2	P1.4	FIT 4901-2	FLOW METER
DS-108(1 OF 2)	20-FIT-401	P1.8	FIT 3120	FLOW METER
DS-108(1 OF 2)	20-FV-701	P1.8	FV 3112	FLOW VALVE
TWAS HOLDING TANK				
DS-108(2 OF 2)	16-LIT-701	P1.8	LIT 3226	HYDROSTATIC LEVEL TRANSDUCER
DS-108(2 OF 2)	16-LSH-703	P1.8	LSH 3226	LEVEL SWITCH (HIGH)
DS-108(2 OF 2)	16-LSHH-XXX	P1.8	LSHH 3226B	LEVEL SWITCH (HIGH HIGH)
UV SYSTEM				
DS-109	38-FIT-101	P1.6	FIT 5155	FLOW METER
DS-109	XX-HV-XXX	P1.6	BUV 5103	BUTTERFLY VALVE
DS-109	38-HV-101	P1.6	BUV 5101A	BUTTERFLY VALVE
DS-109	--	P1.6	BUV 5102A	BUTTERFLY VALVE, FUTURE
DS-109	38-SV-101	P1.6	BAV 5155-1A	BALL VALVE
DS-109	--	P1.6	BAV 5155-2A	BALL VALVE, FUTURE
DS-109	38-UV-101-1	P1.6	UVR 5155-1	UV REACTOR
DS-109	--	P1.6	UVR 5155-2	UV REACTOR, FUTURE
DS-109	38-SV-102	P1.6	BAV 5155-1B	BALL VALVE
DS-109	--	P1.6	BAV 5155-2B	BALL VALVE, FUTURE
DS-109	38-HV-102	P1.6	BUV 5101B	BUTTERFLY VALVE
DS-109	--	P1.6	BUV 5102B	BUTTERFLY VALVE, FUTURE
SODIUM HYPOCHLORITE SYSTEM				
DS 110(1 OF 2)	23-TK-101	P1.11	TK 7741	SODIUM HYPOCHLORITE TANK
DS 110(1 OF 2)	23-CV-101	P1.11	--	CHECK VALVE
DS 110(1 OF 2)	23-LSL-101	P1.11	LSL 7739	LEVEL SWITCH (LOW)
DS 110(1 OF 2)	23-P-101-A	P1.11	P 7741A	CHEMICAL PUMP
DS 110(1 OF 2)	23-P-101-B	P1.11	P 7741B	CHEMICAL PUMP, STANDBY
DS 110(1 OF 2)	23-FQI-101	P1.11	CC 7741	CALIBRATION COLUMN
DS 110(1 OF 2)	23-PI-103	P1.11	PI 7721	PRESSURE INDICATOR
DS 110(1 OF 2)	23-PSV-109	P1.11	PSV 7741	PRESSURE SUSTAINING VALVE
DS 110(1 OF 2)	23-PCV-101	P1.11	BPV 7741	BACKFLOW PRESSURE VALVE
DS 110(1 OF 2)	23-HV-XXX	P1.11	BAV 7748	BALL VALVE
DS 110(1 OF 2)	23-CV-XXX	P1.11	CHV 7748	CHECK VALVE
DS 110(1 OF 2)	23-XXX-XXX	P1.11	STR 7748	STRAINER
DS 110(1 OF 2)	23-PSV-101-A	P1.11	--	PRESSURE SUSTAINING VALVE
DS 110(1 OF 2)	23-PSV-101-B	P1.11	--	PRESSURE SUSTAINING VALVE
DS 110(1 OF 2)	23-HV-101-A	P1.11	BAV 7741J	BALL VALVE
DS 110(1 OF 2)	23-HV-102-A	P1.11	BAV 7741X	BALL VALVE
DS 110(1 OF 2)	23-HV-102-B	P1.11	BAV 7741X	BALL VALVE
DS 110(1 OF 2)	23-HV-105	P1.11	BAV 7741X	BALL VALVE
DS 110(1 OF 2)	23-HV-104-A	P1.11	BAV 7741X	BALL VALVE
DS 110(1 OF 2)	23-HV-104-B	P1.11	BAV 7741X	BALL VALVE
DS 110(1 OF 2)	23-HV-103-A	P1.11	BAV 7741X	BALL VALVE
DS 110(1 OF 2)	23-HV-103-B	P1.11	BAV 7741X	BALL VALVE
DS 110(1 OF 2)	23-HV-106-A	P1.11	BAV 7741X	BALL VALVE
DS 110(1 OF 2)	23-HV-106-B	P1.11	BAV 7741X	BALL VALVE
CITRIC ACID SYSTEM				
DS 110(1 OF 2)	23-TK-301	P1.11	TK 7541	CITRIC ACID TANK
DS 110(1 OF 2)	23-CV-301	P1.11	--	CHECK VALVE
DS 110(1 OF 2)	23-LSL-301	P1.11	LSL 7539	LEVEL SWITCH (LOW)
DS 110(1 OF 2)	23-P-301-A	P1.11	P 7541A	CHEMICAL PUMP
DS 110(1 OF 2)	23-P-301-B	P1.11	P 7541B	CHEMICAL PUMP, STANDBY
DS 110(1 OF 2)	23-FQI-301	P1.11	CC 7541	CALIBRATION COLUMN
DS 110(1 OF 2)	23-PI-303	P1.11	PI 7521	PRESSURE INDICATOR
DS 110(1 OF 2)	23-PSV-XXX	P1.11	PSV 7541	PRESSURE SUSTAINING VALVE
DS 110(1 OF 2)	23-PCV-301	P1.11	BPV 7541	BACKFLOW PRESSURE VALVE
DS 110(1 OF 2)	23-HV-XXX	P1.11	BAV 7548	BALL VALVE
DS 110(1 OF 2)	23-CV-XXX	P1.11	CHV 7548	CHECK VALVE
DS 110(1 OF 2)	23-XXX-XXX	P1.11	STR 7548	STRAINER
DS 110(1 OF 2)	23-PSV-301-A	P1.11	--	PRESSURE SUSTAINING VALVE
DS 110(1 OF 2)	23-PSV-301-B	P1.11	--	PRESSURE SUSTAINING VALVE
DS 110(1 OF 2)	23-HV-301-A	P1.11	BAV 7541J	BALL VALVE
DS 110(1 OF 2)	23-HV-302-A	P1.11	BAV 7541X	BALL VALVE
DS 110(1 OF 2)	23-HV-302-B	P1.11	BAV 7541X	BALL VALVE
DS 110(1 OF 2)	23-HV-305	P1.11	BAV 7541X	BALL VALVE
DS 110(1 OF 2)	23-HV-304-A	P1.11	BAV 7541X	BALL VALVE
DS 110(1 OF 2)	23-HV-304-B	P1.11	BAV 7541X	BALL VALVE
DS 110(1 OF 2)	23-HV-303-A	P1.11	BAV 7541X	BALL VALVE
DS 110(1 OF 2)	23-HV-303-B	P1.11	BAV 7541X	BALL VALVE
DS 110(1 OF 2)	23-HV-306-A	P1.11	BAV 7541X	BALL VALVE
DS 110(1 OF 2)	23-HV-306-B	P1.11	BAV 7541X	BALL VALVE
ALUM SYSTEM				
DS 110(2 OF 2)	10-TK-601	P1.12	TK 7141	ALUM TANK
DS 110(2 OF 2)	10-CV-601	P1.12	--	CHECK VALVE
DS 110(2 OF 2)	10-LSL-601	P1.12	LSL 7132	LEVEL SWITCH (LOW)
DS 110(2 OF 2)	10-P-601-A	P1.12	P 7141A	CHEMICAL PUMP
DS 110(2 OF 2)	10-P-601-B	P1.12	P 7141B	CHEMICAL PUMP, STANDBY
DS 110(2 OF 2)	10-FQI-601	P1.12	CC 7141	CALIBRATION COLUMN
DS 110(2 OF 2)	10-PI-603	P1.12	PI 7120	PRESSURE INDICATOR
DS 110(2 OF 2)	10-PSV-XXX	P1.12	PSV 7141	PRESSURE SUSTAINING VALVE
DS 110(2 OF 2)	10-PCV-601	P1.12	BPV 7141	BACKFLOW PRESSURE VALVE
DS 110(2 OF 2)	23-HV-XXX	P1.12	BAV 7141	BALL VALVE
DS 110(2 OF 2)	23-CV-XXX	P1.12	CHV 7141	CHECK VALVE
DS 110(2 OF 2)	23-XXX-XXX	P1.12	STR 7141	STRAINER
DS 110(2 OF 2)	10-PSV-601-A	P1.12	--	PRESSURE SUSTAINING VALVE
DS 110(2 OF 2)	10-PSV-601-B	P1.12	--	PRESSURE SUSTAINING VALVE
DS 110(2 OF 2)	10-HV-601-A	P1.12	BAV 7141J	BALL VALVE
DS 110(2 OF 2)	10-HV-602-A	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-HV-602-B	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-HV-605	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-HV-604-A	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-HV-604-B	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-HV-603-A	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-HV-603-B	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-HV-606-A	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-HV-606-B	P1.12	BAV 7141X	BALL VALVE
DS 110(2 OF 2)	10-FIT-XXX	P1.12	FIT 7120	FLOW METER
SODIUM HYDROXIDE SYSTEM (FUTURE)				
DS 110(2 OF 2)	15-TK-601	P1.12	TK 7641	ALUM TANK
DS 110(2 OF 2)	15-CV-601	P1.12	--	CHECK VALVE

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SUEZ EQUIPMENT TAG LIST
SHEET 2

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.16

SUEZ P&ID	SUEZ TAG	MPE P&ID	MPE TAG	EQUIPMENT DESCRIPTION
DS 110(2 OF 2)	15-LSL-601	P1.12	LSL 7641	LEVEL SWITCH (LOW)
DS 110(2 OF 2)	15-P-601-A	P1.12	P 7641A	CHEMICAL PUMP
DS 110(2 OF 2)	15-P-601-B	P1.12	P 7641B	CHEMICAL PUMP, STANDBY
DS 110(2 OF 2)	15-FQI-601	P1.12	CC 7641	CALIBRATION COLUMN
DS 110(2 OF 2)	15-PI-603	P1.12	PI 7641	PRESSURE INDICATOR
DS 110(2 OF 2)	15-PSV-XXX	P1.12	PSV 7641	PRESSURE SUSTAINING VALVE
DS 110(2 OF 2)	15-PCV-601	P1.12	BPV 7641	BACKFLOW PRESSURE VALVE
DS 110(2 OF 2)	15-HV-XXX	P1.12	BAV 7648	BALL VALVE
DS 110(2 OF 2)	15-CV-XXX	P1.12	CHV 7648	CHECK VALVE
DS 110(2 OF 2)	15-XXX-XXX	P1.12	STR 7648	STRAINER
DS 110(2 OF 2)	15-PSV-601-A	P1.12	--	PRESSURE SUSTAINING VALVE
DS 110(2 OF 2)	15-PSV-601-B	P1.12	--	PRESSURE SUSTAINING VALVE
DS 110(2 OF 2)	15-HV-601-A	P1.12	BAV 7641J	BALL VALVE
DS 110(2 OF 2)	15-HV-602-A	P1.12	BAV 7641X	BALL VALVE
DS 110(2 OF 2)	15-HV-602-B	P1.12	BAV 7641X	BALL VALVE
DS 110(2 OF 2)	15-HV-605	P1.12	BAV 7641X	BALL VALVE
DS 110(2 OF 2)	15-HV-604-A	P1.12	BAV 7641X	BALL VALVE
DS 110(2 OF 2)	15-HV-604-B	P1.12	BAV 7641X	BALL VALVE
DS 110(2 OF 2)	15-HV-603-A	P1.12	BAV 7641X	BALL VALVE
DS 110(2 OF 2)	15-HV-603-B	P1.12	BAV 7641X	BALL VALVE
DS 110(2 OF 2)	15-HV-606-A	P1.12	BAV 7641X	BALL VALVE
DS 110(2 OF 2)	15-HV-606-B	P1.12	BAV 7641X	BALL VALVE
COMPRESSOR SYSTEM				
DS 111	90-F-001-A	P1.13	F 6008A	FILTER
DS 111	90-F-001-B	P1.13	F 6008B	FILTER
DS 111	90-AC-001-A	P1.13	AC 6008A	AIR COMPRESSOR
DS 111	90-AC-001-B	P1.13	AC 6008B	AIR COMPRESSOR
DS 111	90-TK-001	P1.13	TK 6008	AIR RECEIVER TANK
DS 111	90-PSL-001	P1.13	PSL 6008	PRESSURE SWITCH (LOW)
DS 111	90-PI-001	P1.13	PI 6008	PRESSURE INDICATOR
DS 111	90-PSV-001	P1.13	PSV 6008	PRESSURE SUSTAINING VALVE
DS 111	90-HV-001	P1.13	BAV 6008	BUTTERFLY VALVE
DS 111	90-FV-001	P1.13	FV 6008A	FLOW VALVE
DS 111	90-HV-004	P1.13	BAV 6008A	BALL VALVE
DS 111	90-F-020	P1.13	FI 6008	FILTER
DS 111	90-DPI-101	P1.13	PDI 6008	DIFFERENTIAL PRESS. TRANSMITTER
DS 111	90-HV-005	P1.13	BAV 6008B	BALL VALVE
DS 111	90-HV-006	P1.13	BAV 6008C	BALL VALVE
DS 111	90-PSL-003	P1.13	PSL 6031	PRESSURE SWITCH (LOW)
DS 111	90-PV-001	P1.13	PRV 6013	PRESSURE REDUCING VALVE
DS 111	90-PSLL-002	P1.13	PSLL 6031	PRESSURE SWITCH (LOW LOW)
DS 111	90-HV-002-A	P1.13	BAV 6008D	BALL VALVE
DS 111	90-HV-002-B	P1.13	BAV 6008E	BALL VALVE
DS 111	90-DR-001-A	P1.13	DR 6009A	AIR DRYER
DS 111	90-DR-001-B	P1.13	DR 6009B	AIR DRYER, STANDBY
DS 111	90-HV-003-A	P1.13	BAV 6008F	BALL VALVE
DS 111	90-HV-003-B	P1.13	BAV 6008G	BALL VALVE
DS 111	90-FV-011	P1.13	FV 6008B	FLOW VALVE
DS 111	90-HV-XXX	P1.13	BAV 6008H	BALL VALVE
DS 111	90-HV-XXX	P1.13	BAV 6008I	BALL VALVE
DS 111	90-HV-XXX	P1.13	BAV 6008J	BALL VALVE
DS 111	90-PRV-XXX	P1.13	PRV 6019	PRESSURE REDUCING VALVE
DS 111	90-FV-XXX	P1.13	FV 9900A	ACCESS CTRL PNEUMATIC STRIKER
DS 111	90-FV-XXX	P1.13	FV 9900B	ACCESS CTRL PNEUMATIC STRIKER

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Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
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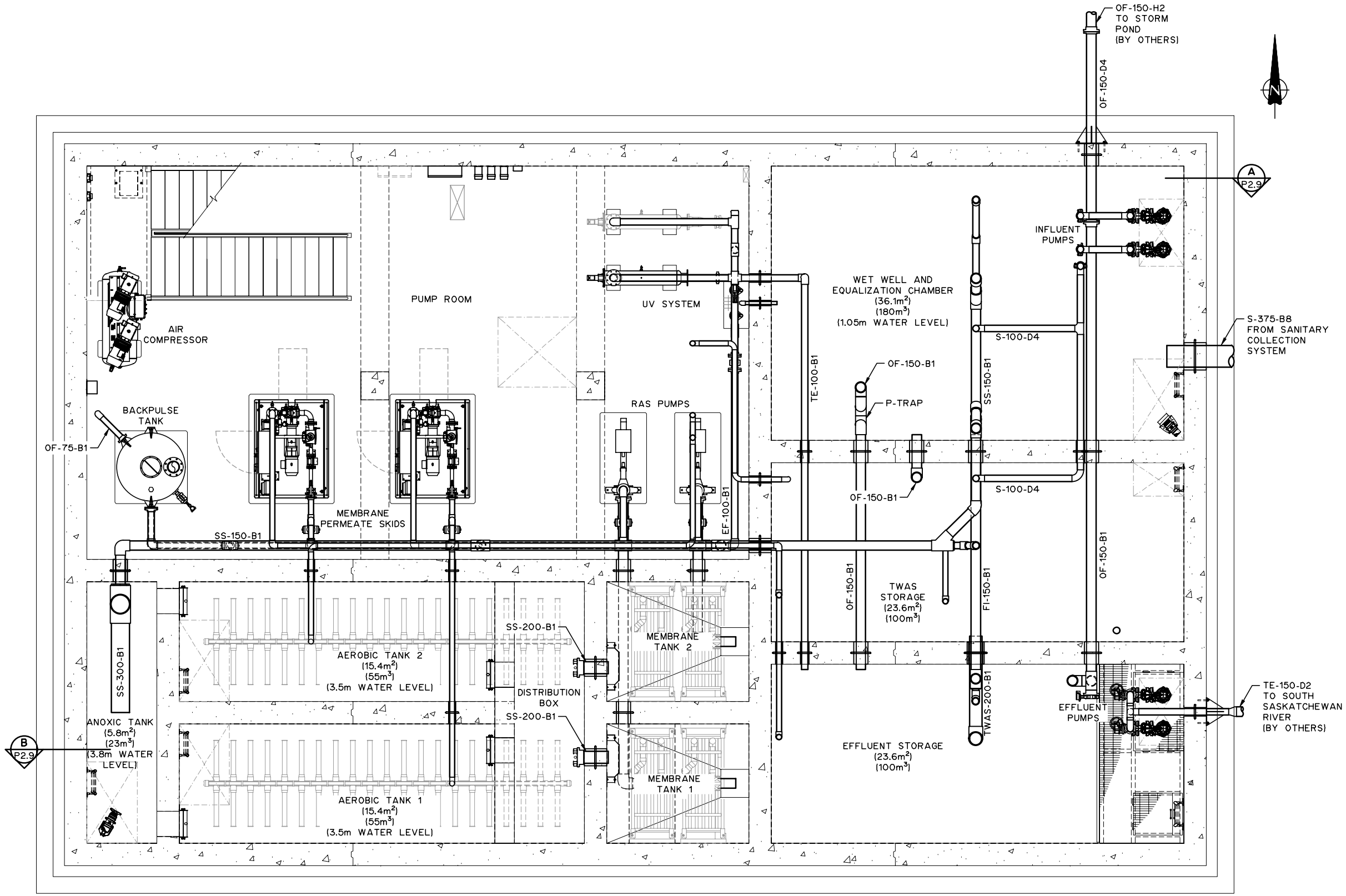
PROFESSIONAL ENGINEER
I. KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
SUEZ EQUIPMENT TAG LIST
SHEET 3

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P1.17



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.

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CIVIL	52866	

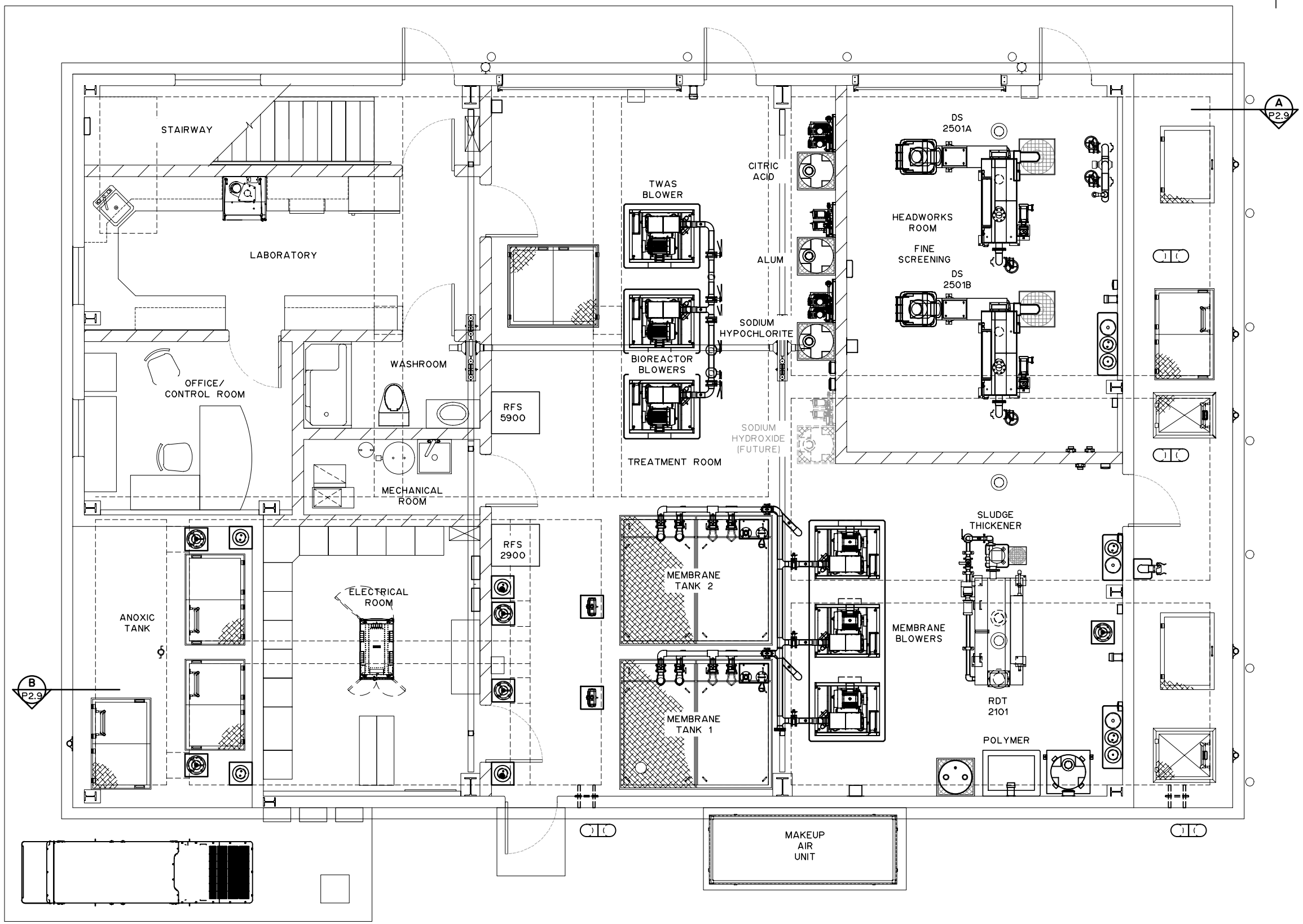
PROFESSIONAL ENGINEER
KAGOBO
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
LOWER LEVEL PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	P2.1



NOTES:

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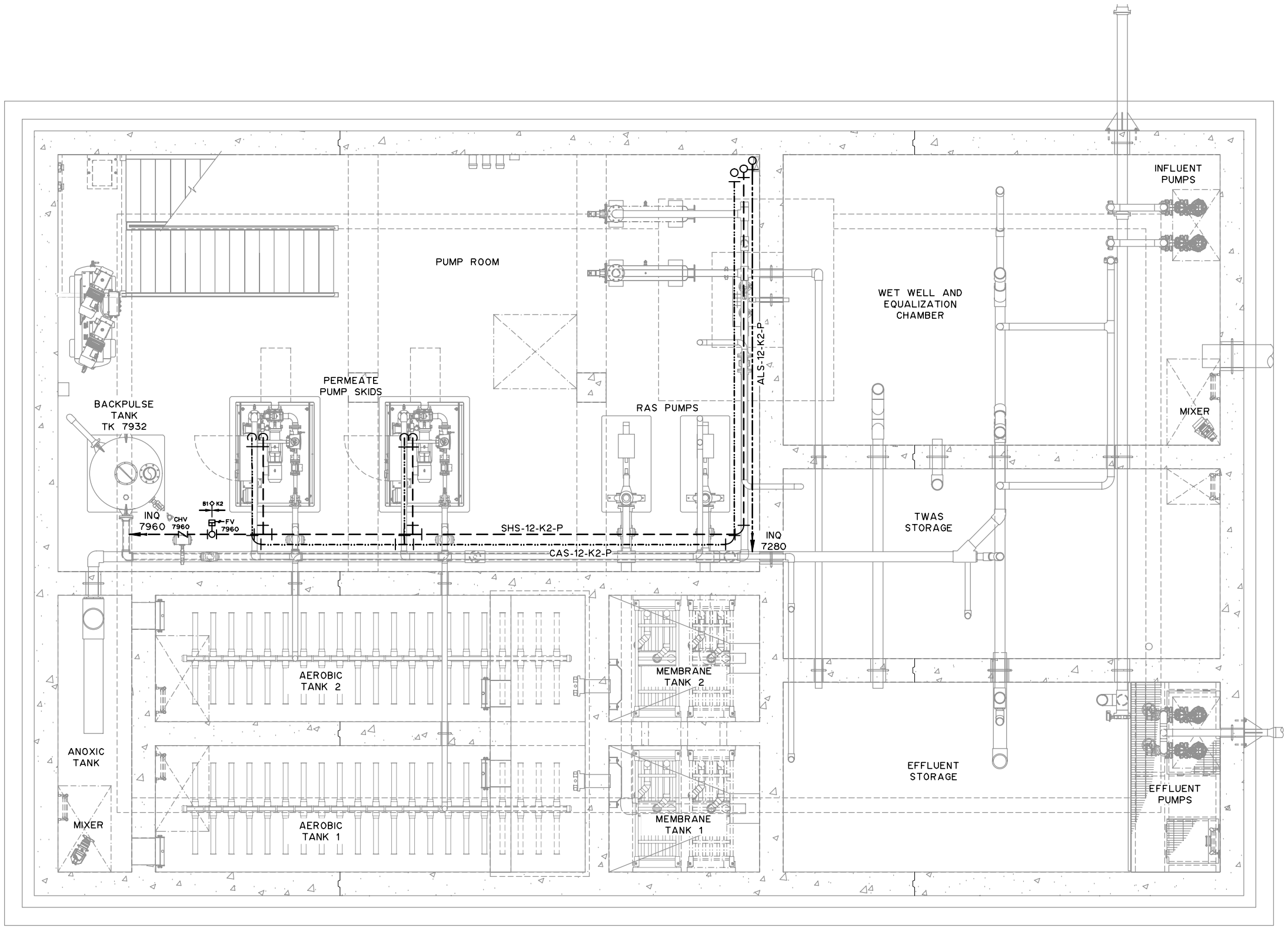
PROFESSIONAL ENGINEER
KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
MAIN LEVEL PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	P2.2



NOTES:

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3. PIPING IS SHOWN SCHEMATICALLY ONLY. CONTRACTOR IS TO MOUNT PIPE ON RACKS AND WALLS TO CARRY OUT WORK IN NEATEST POSSIBLE MANNER. CONTRACTOR TO COORDINATE WITH ENGINEER WITH RESPECT TO PIPING ROUTES PRIOR TO CARRYING OUT WORK.

LEGEND

- ALUM SULPHATE SOLUTION
- POLYMER SOLUTION
- SODIUM HYPOCHLORITE
- CITRIC ACID SOLUTION

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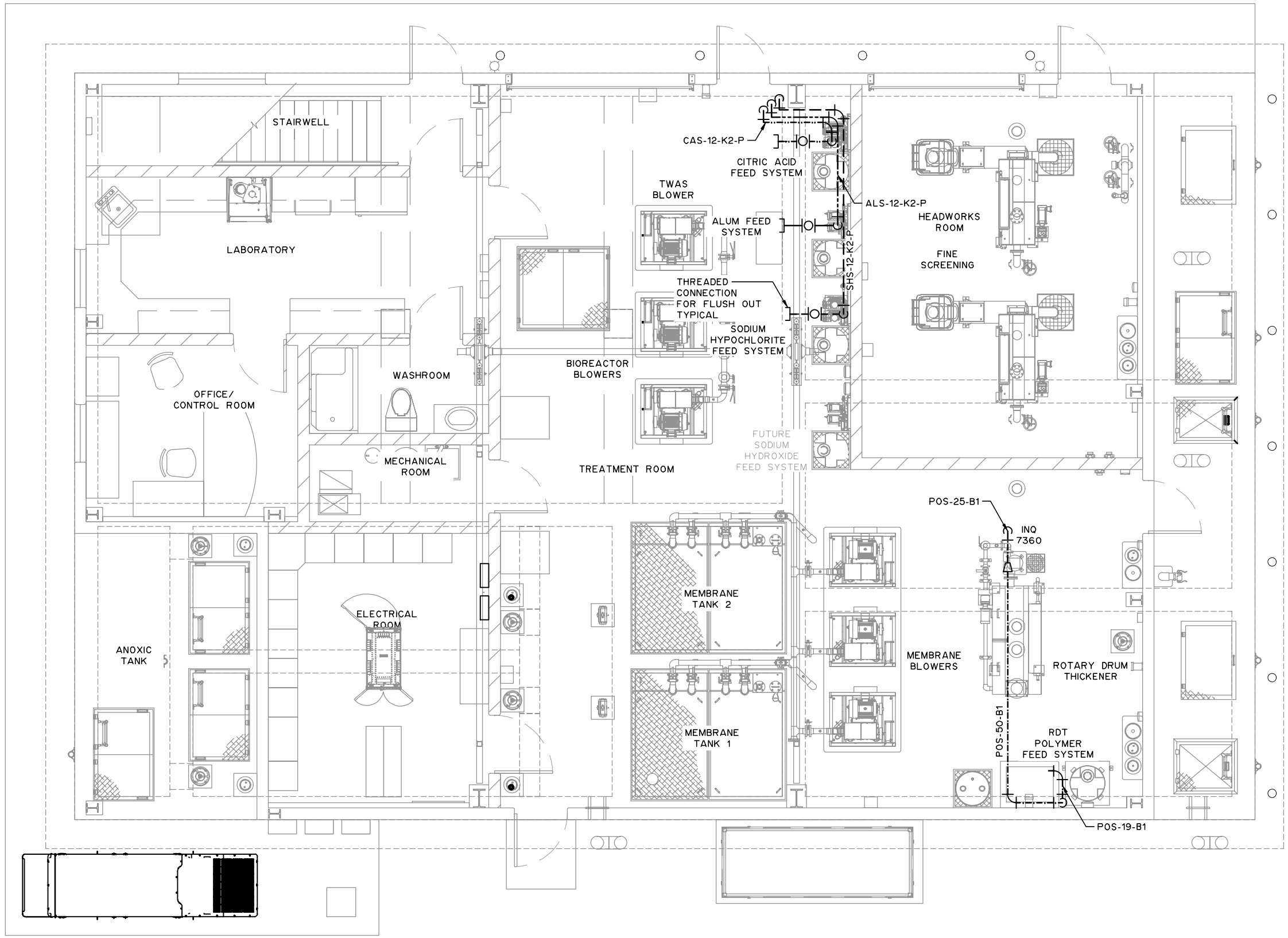
PROFESSIONAL ENGINEER
KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
CHEMICAL FEED PIPING SCHEMATIC
LOWER LEVEL FLOOR PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	P2.3



NOTES:

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LEGEND

- ALUM SULPHATE SOLUTION
- POLYMER SOLUTION
- SODIUM HYPOCHLORITE
- CITRIC ACID SOLUTION

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CIVIL	52866	

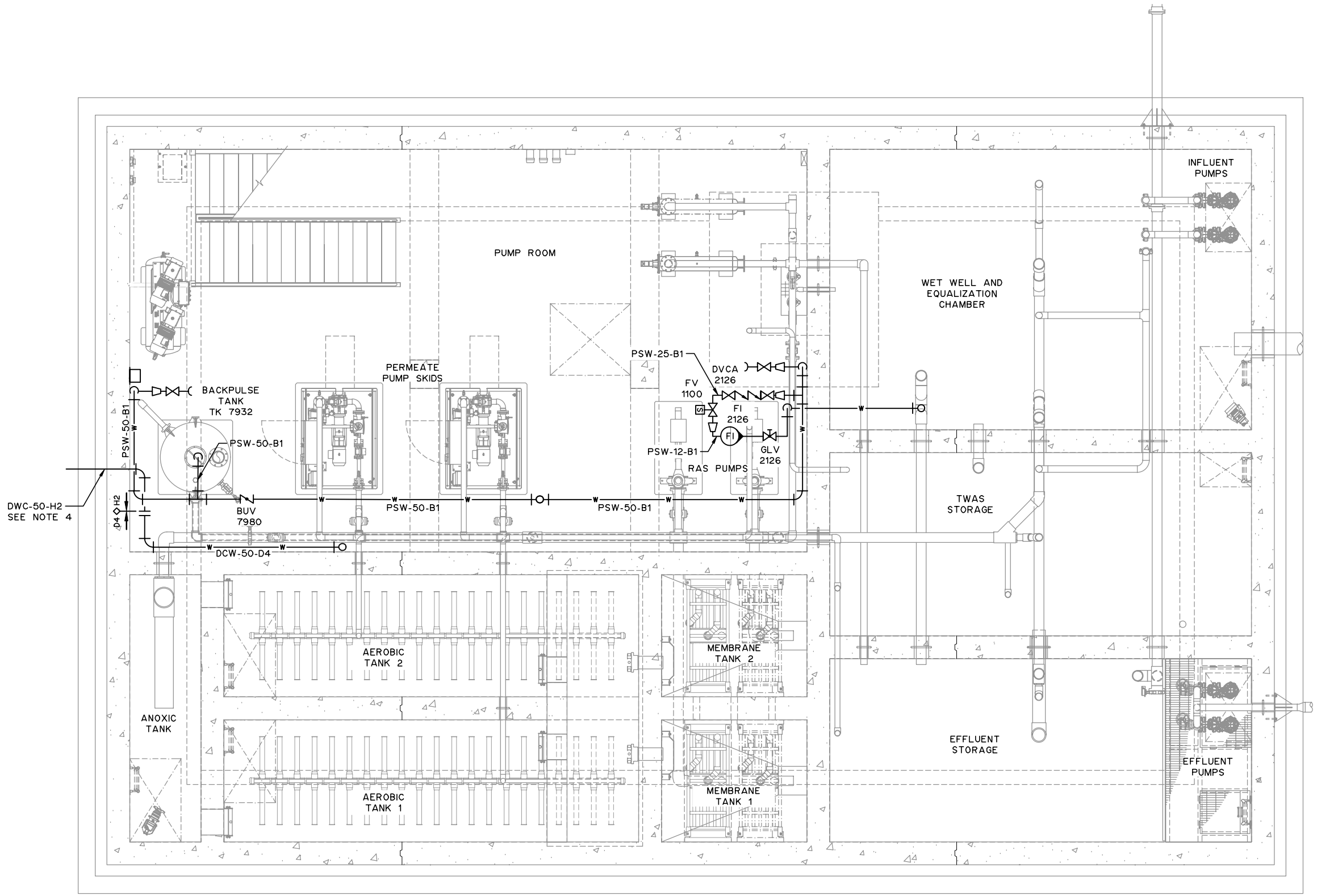
PROFESSIONAL ENGINEER
KAGORA
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
CHEMICAL FEED PIPING SCHEMATIC
MAIN LEVEL FLOOR PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	P2.4



NOTES:

1. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
2. STEEL PIPES LARGER THAN 75ø SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
3. PVC PIPES LARGER THAN 150ø SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. CONTRACTOR TO CONNECT TO MUNICIPAL POTABLE WATERLINE. SEE DRAWING M2.4.
5. PIPING IS SHOWN SCHEMATICALLY ONLY. CONTRACTOR TO MOUNT PIPE ON RACKS AND WALLS TO CARRY OUT WORK IN NEATEST POSSIBLE MANNER. CONTRACTOR TO COORDINATE WITH ENGINEER WITH RESPECT TO PIPING ROUTES PRIOR TO CARRYING OUT WORK.

LEGEND

- PLANT SERVICE WATER
- EMERGENCY SHOWER
- HOSE REEL
- HOSE BIBB

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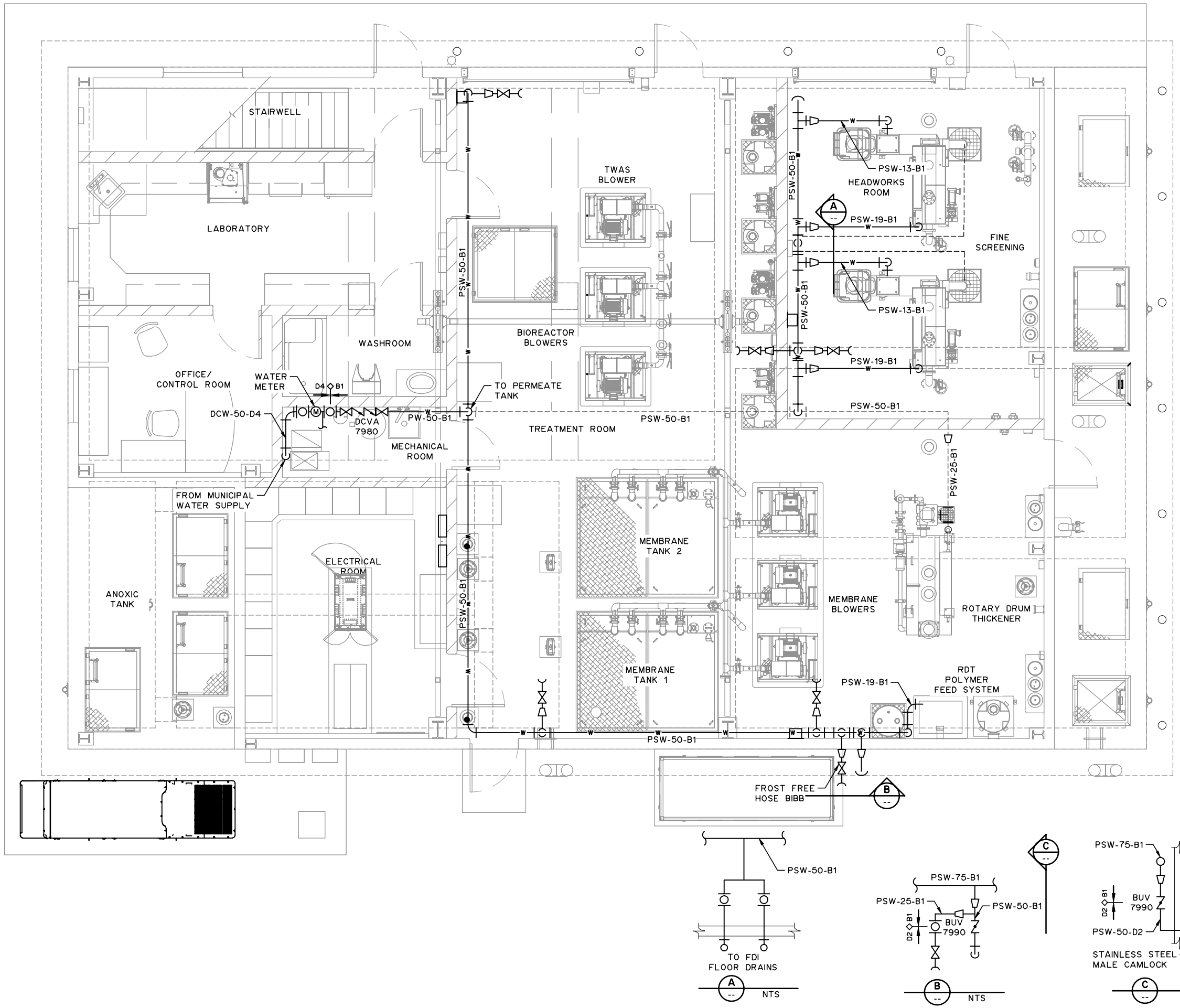
PROFESSIONAL ENGINEER
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2021-01-18
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MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PLANT SERVICE WATER
PIPING SCHEMATIC
LOWER LEVEL FLOOR PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	P2.5



NOTES:

1. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
2. STEEL PIPES LARGER THAN 75ø SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
3. PVC PIPES LARGER THAN 150ø SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
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5. CONTRACTOR TO CONNECT TO MUNICIPAL POTABLE WATERLINE. SEE DRAWING MX.X.

LEGEND

- PLANT SERVICE WATER
- PLANT SERVICE WATER (BELOW SLAB)
- EMERGENCY SHOWER
- HOSE REEL
- HOSE BIBB

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MEMBER 52866
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SASKATCHEWAN

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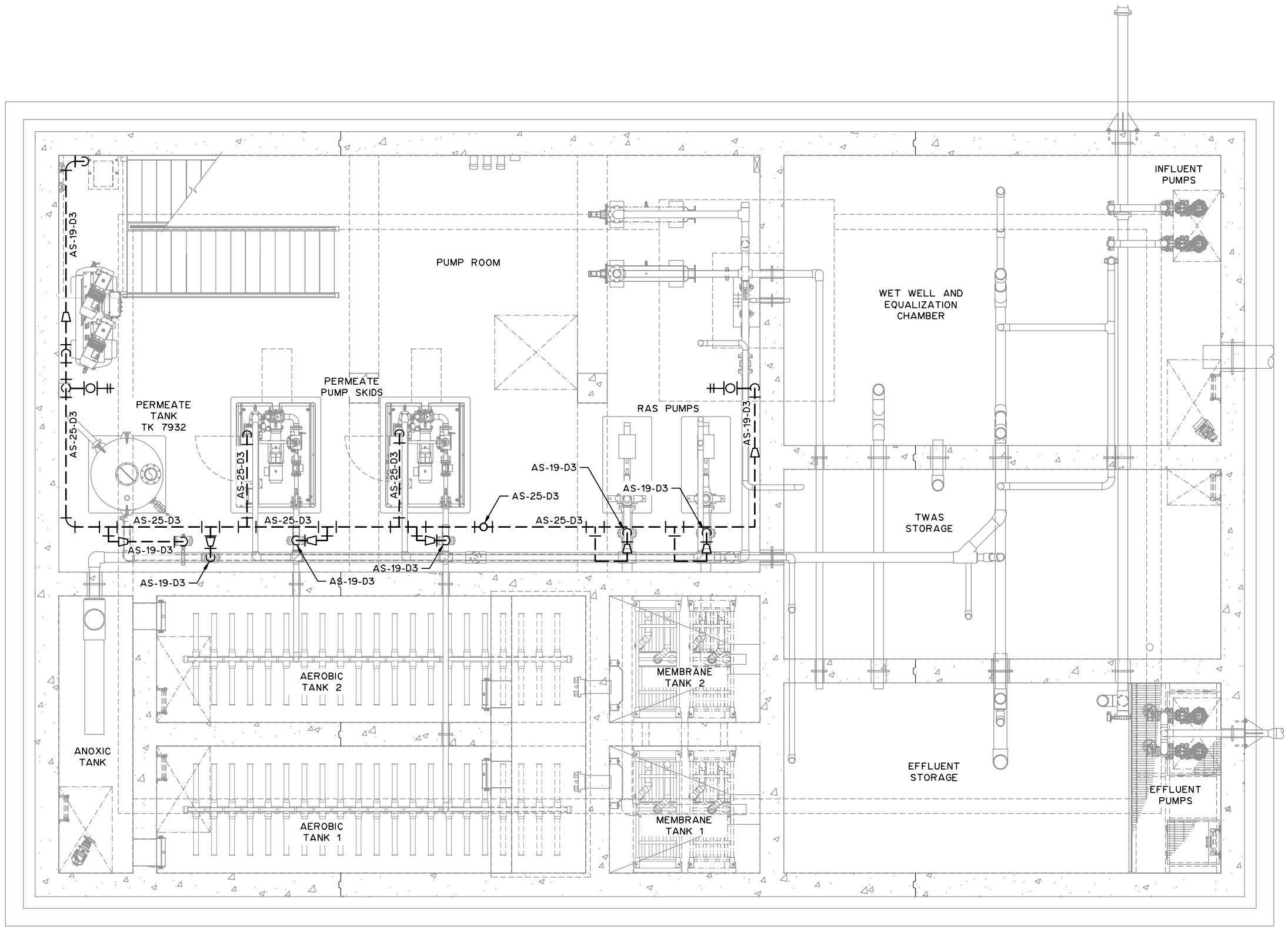
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PLANT SERVICE WATER
PIPING SCHEMATIC
MAIN LEVEL FLOOR PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	P2.6

LEGEND

- STAINLESS STEEL (UNREGULATED PRESSURE)
- STAINLESS STEEL (90 PSI FOR FIELD DEVICES, ETC.)
- STAINLESS STEEL (30 PSI FOR AIR SCRUBS)
- QUICK CONNECT AND ISOLATION BALL VALVE
- INLINE AIR-WATER SEPERATOR



NOTES:

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4. CONTRACTOR TO CONNECT COMPRESSED AIR SYSTEM FOR FIELD DEVICES TO CONTROL/SOLENOID RACKS IN PANELS AS PER CONTRACT DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR TO CONNECT SOLENOID VALVES IN CONTROL/SOLENOID PANEL TO FIELD DEVICES WITH TUBING SUITABLE FOR SERVICE AND AS PER MANUFACTURER'S RECOMMENDATIONS.
6. CONTRACTOR TO FIELD VERIFY LOCATION OF QUICK COUPLINGS WITH ENGINEER PRIOR TO INSTALLATION.
7. CONTRACTOR TO PLUMB AN APPROPRIATE AIR SUPPLY TO ALL DEVICES. THIS DRAWING IS SCHEMATIC AND MAY NOT REPRESENT ALL REQUIRED LINES.

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Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

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MPE Engineering Ltd.

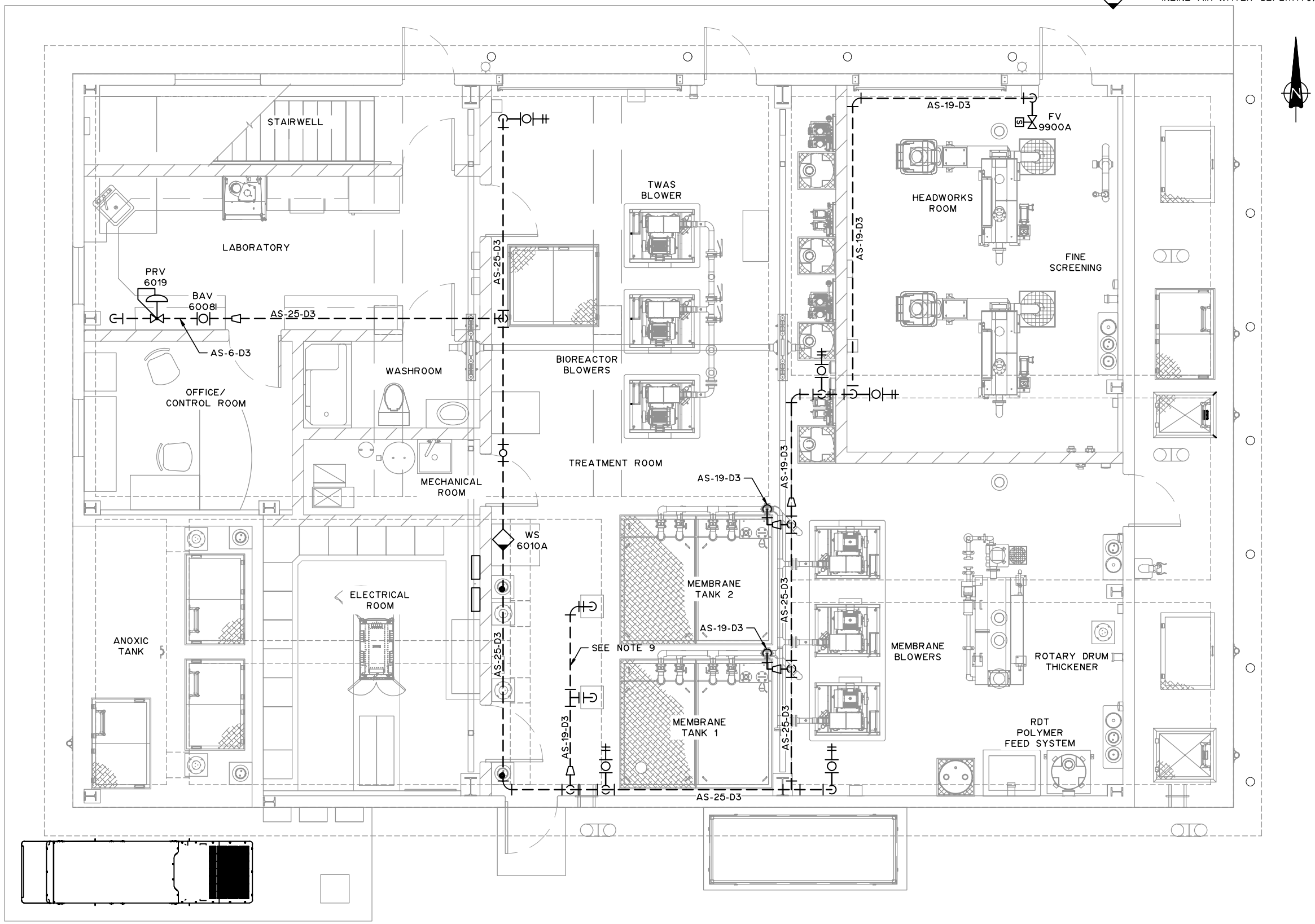
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
COMPRESSED AIR
PIPING SCHEMATIC
LOWER LEVEL FLOOR PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	P2.7

LEGEND

- STAINLESS STEEL (UNREGULATED PRESSURE)
- STAINLESS STEEL (90 PSI FOR FIELD DEVICES, ETC.)
- STAINLESS STEEL (30 PSI FOR AIR SCRUBS)
- QUICK CONNECT AND ISOLATION BALL VALVE
- INLINE AIR-WATER SEPERATOR



NOTES:

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7. CONTRACTOR TO PLUMB AN APPROPRIATE AIR SUPPLY TO ALL DEVICES. THIS DRAWING IS SCHEMATIC AND MAY NOT REPRESENT ALL REQUIRED LINES.
8. CONTRACTOR TO CONNECT TO PNEUMATIC DOOR STRIKE.
9. AIR LINE TO FLOOR STAND PNEUMATIC ACTUATORS TO BE RUN IN SLAB.

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Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

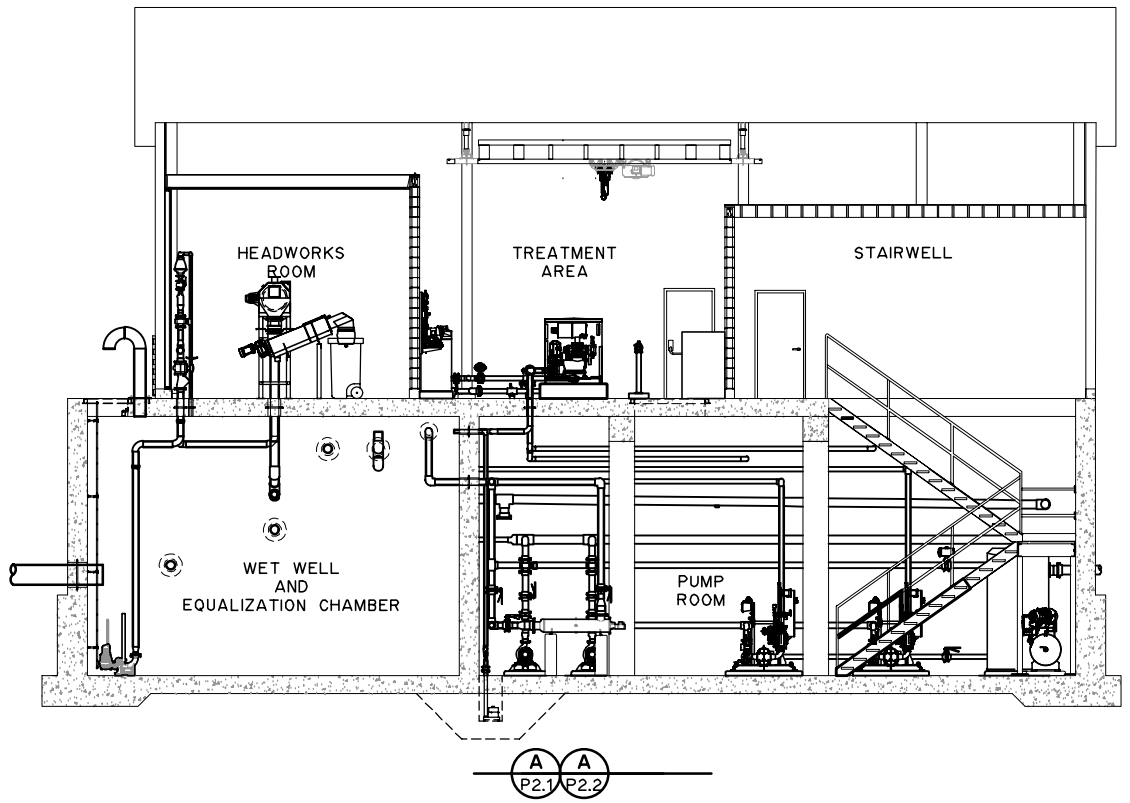
PROFESSIONAL ENGINEER KAGOBO SASKATCHEWAN 2021-01-18 YR. MN. DAY

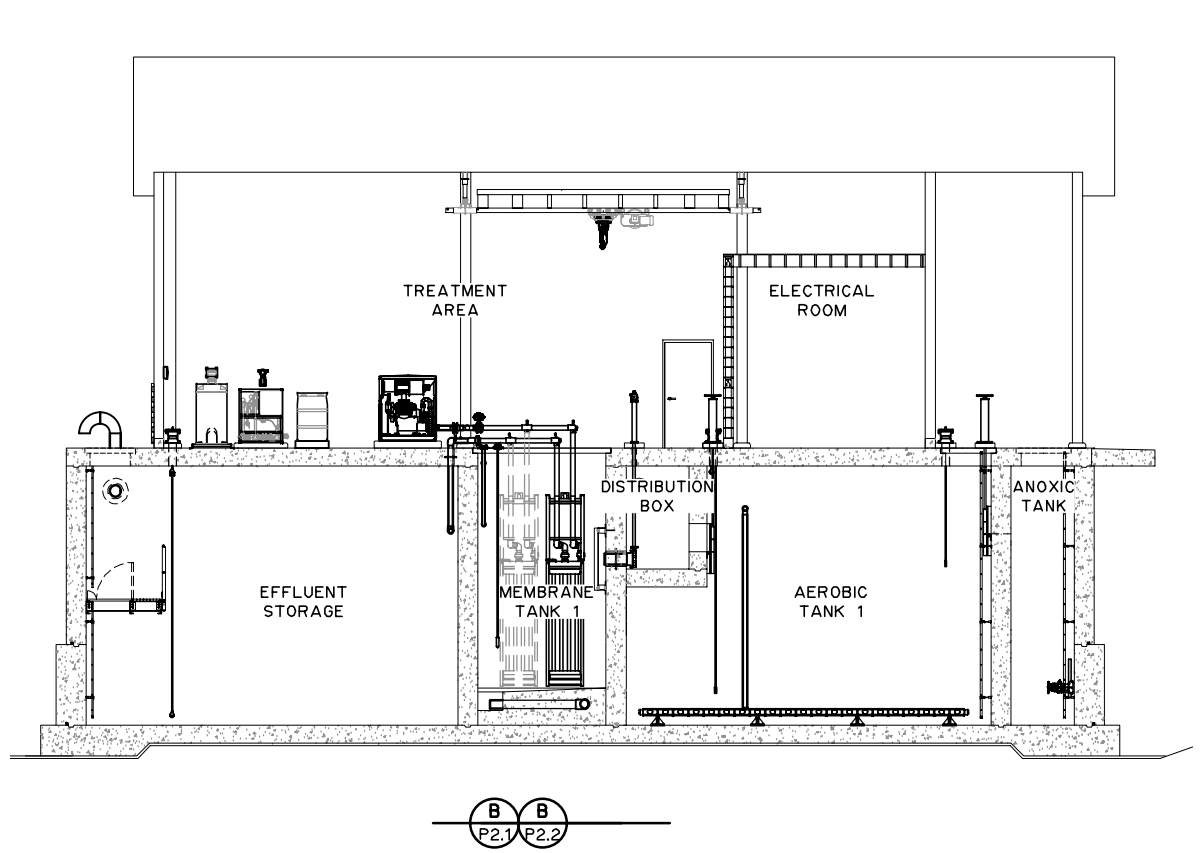
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
COMPRESSED AIR
PIPING SCHEMATIC
MAIN LEVEL FLOOR PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	P2.8





NOTES:

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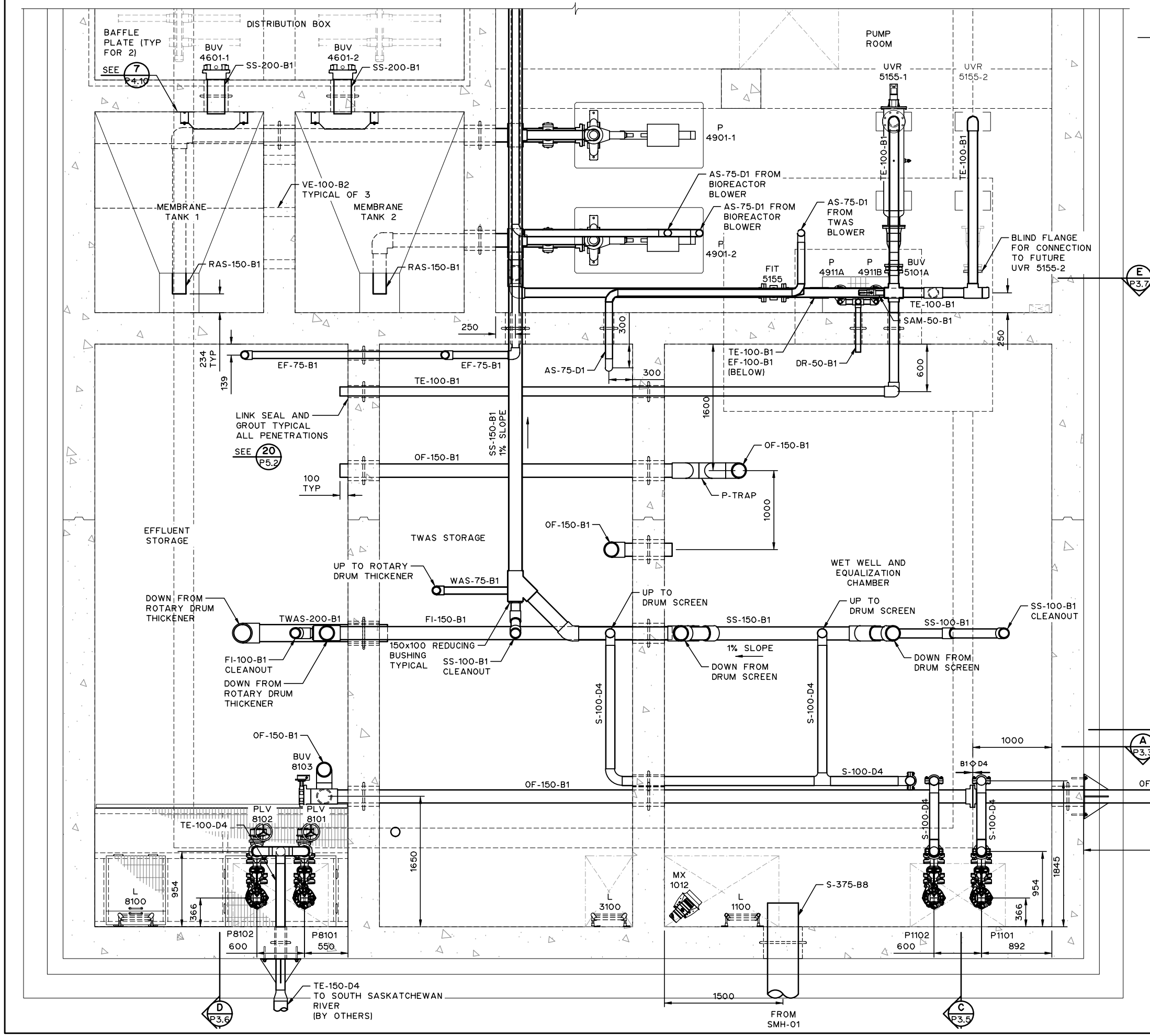
PROFESSIONAL ENGINEER
I. KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
PROCESS SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	1:150
DATE	NOVEMBER 2020	DRAWING	P2.9



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
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3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

ISSUE	YY-MM-DD	REVISION
2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

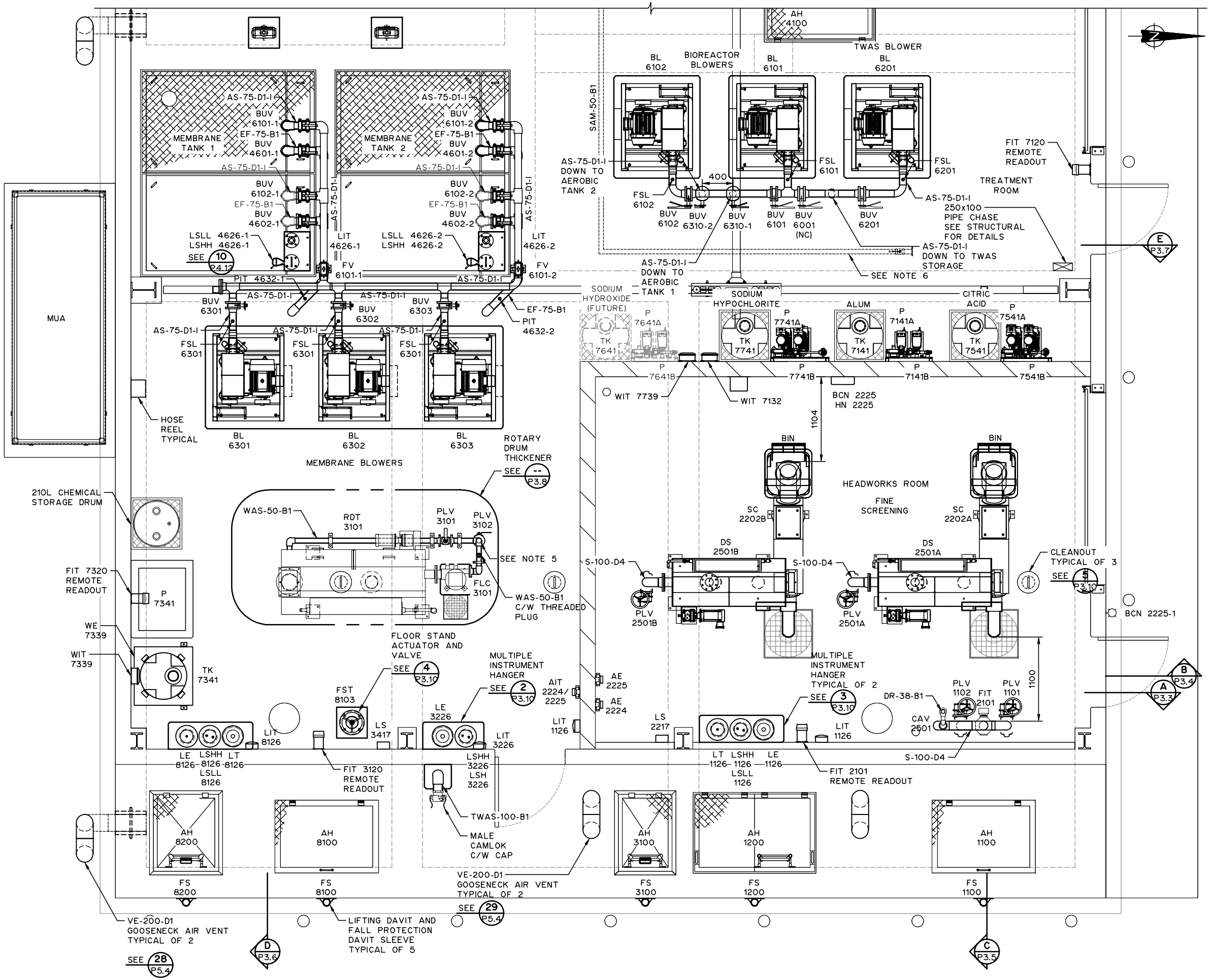
PROFESSIONAL ENGINEER KAGORO MEMBER 52866 2021-01-18 YR. MN. DAY SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREA
LOWER LEVEL PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P3.1



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO CO-ORDINATE FLOW PENETRATION LOCATIONS WITH ROTARY DRUM THICKENER SUPPLIER.
6. 50ϕ SCHEDULE 40 PVC SAMPLE LINE CONDUIT TO BE RUN BELOW SLAB. CONDUIT TO COME WITH LONG RADIUS 90° ELBOWS. CAULK OPENING AROUND TUBING TO ENSURE GAS TIGHT SEAL.
7. CONTRACTOR TO MOUNT ANALYZERS, FLOW METER AND LEVEL TRANSMITTER REMOTE READOUTS 1500 ABOVE FINISHED FLOOR. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
ISSUE	YY-MM-DD	REVISION

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Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

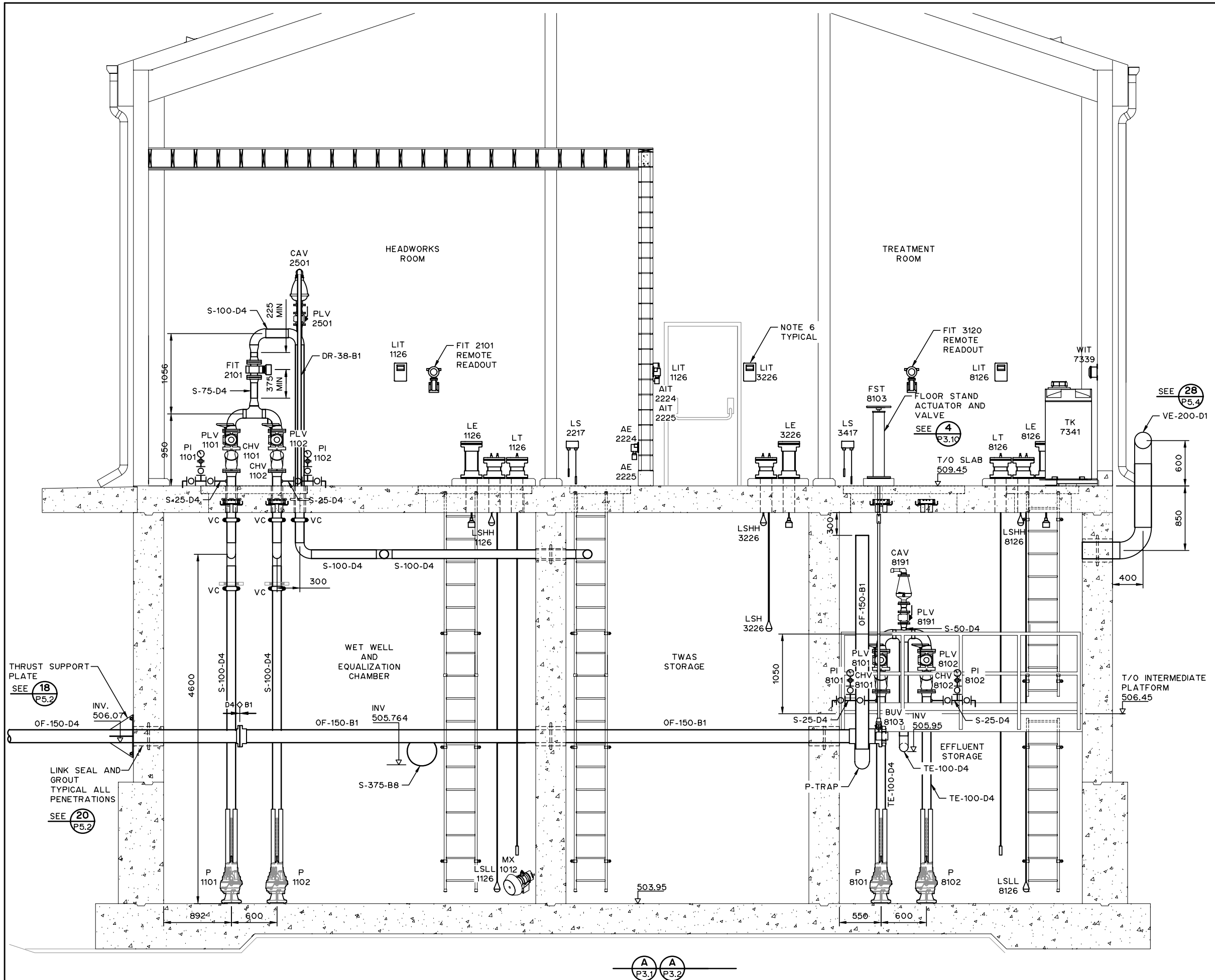
PROFESSIONAL ENGINEER KAGORO MEMBER 52866 2021-01-18 YR. MN. DAY SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREA
MAIN LEVEL
PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P3.2



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO LEGEND DRAWING.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. 50Φ SCHEDULE 40 PVC CONDUIT CAST IN SLAB FOR PLANT INFLUENT SAMPLE TUBING. CONDUIT TO COME WITH LONG RADIUS 90° ELBOWS. CAULK OPENING AROUND TUBING TO ENSURE GAS TIGHT SEAL.
6. CONTRACTOR TO MOUNT ANALYZERS, FLOW METER AND LEVEL TRANSMITTER REMOTE READOUTS 1500 ABOVE FINISHED FLOOR. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

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2	21-01-15	FOR CONSTRUCTION
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ISSUE	YY-MM-DD	REVISION

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CIVIL	52866	

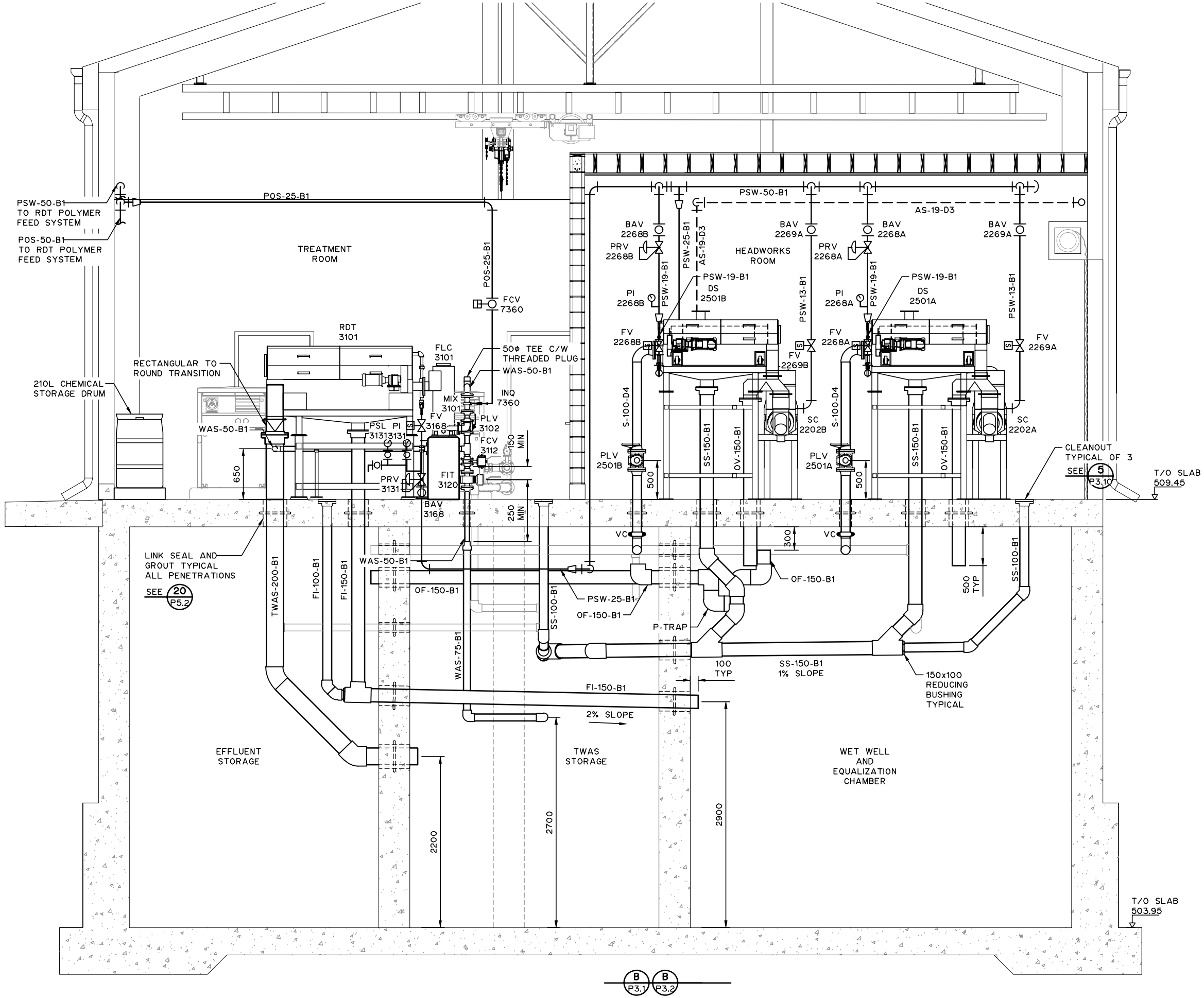
PROFESSIONAL ENGINEER — I. KAGOBE — MEMBER 52866 — 2021-01-18 YR. MN. DAY — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT PROCESS PIPING HEADWORKS AND TREATMENT AREA SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P3.3



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGEND DRAWING.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.

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Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

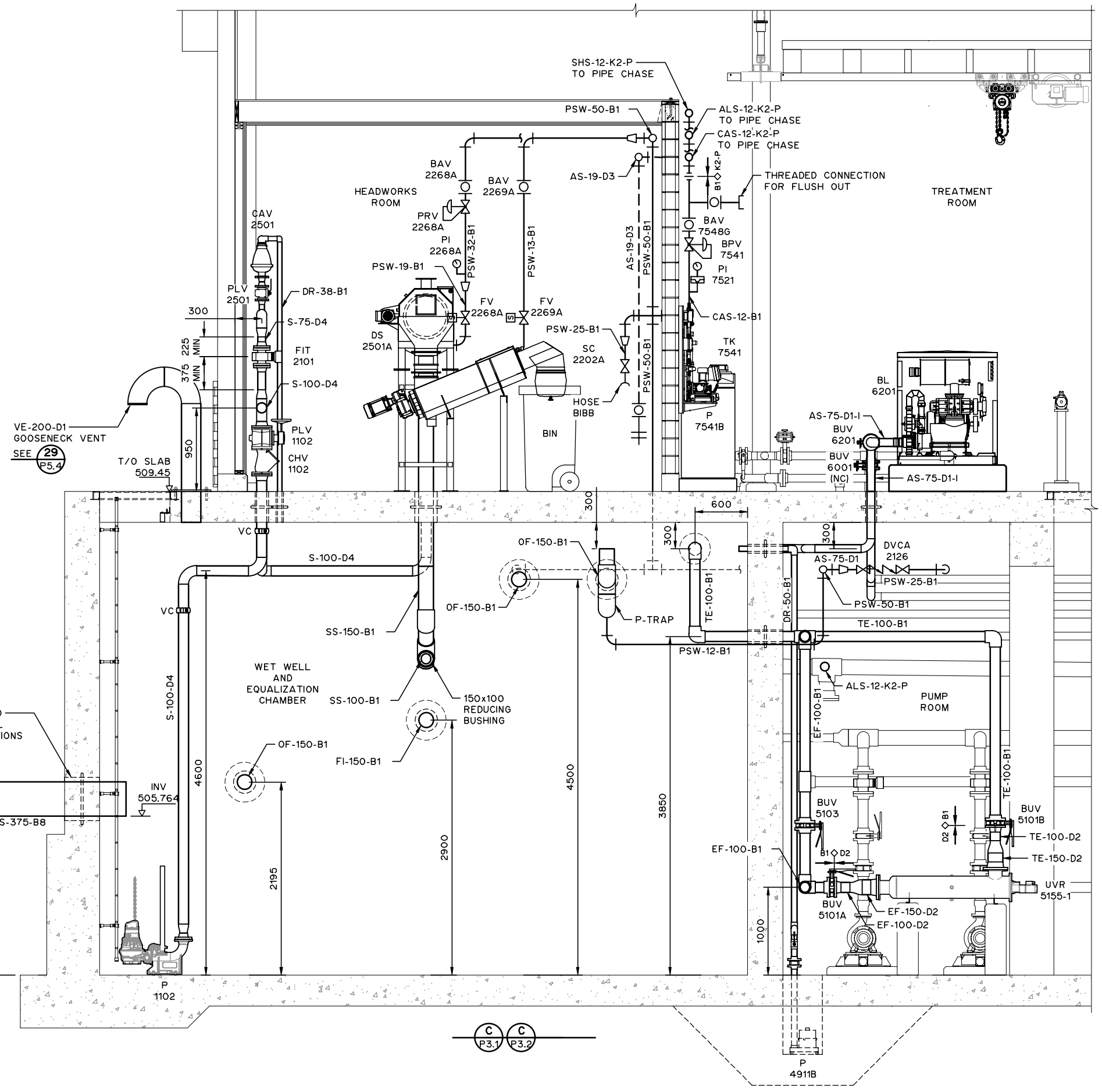
PROFESSIONAL ENGINEER KAGOBE AMBROISE-JEAN SASKATCHEWAN 2021-01-18 YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREA
SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P3.4



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. 50Φ SCHEDULE 40 PVC CONDUIT CAST IN SLAB FOR PLANT INFLUENT SAMPLE TUBING. CONDUIT TO COME WITH LONG RADIUS 90° ELBOWS. CAULK OPENING AROUND TUBING TO ENSURE GAS TIGHT SEAL.
6. CONTRACTOR TO MOUNT ANALYZERS, FLOW METER AND LEVEL TRANSMITTER REMOTE READOUTS 1500 ABOVE FINISHED FLOOR. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

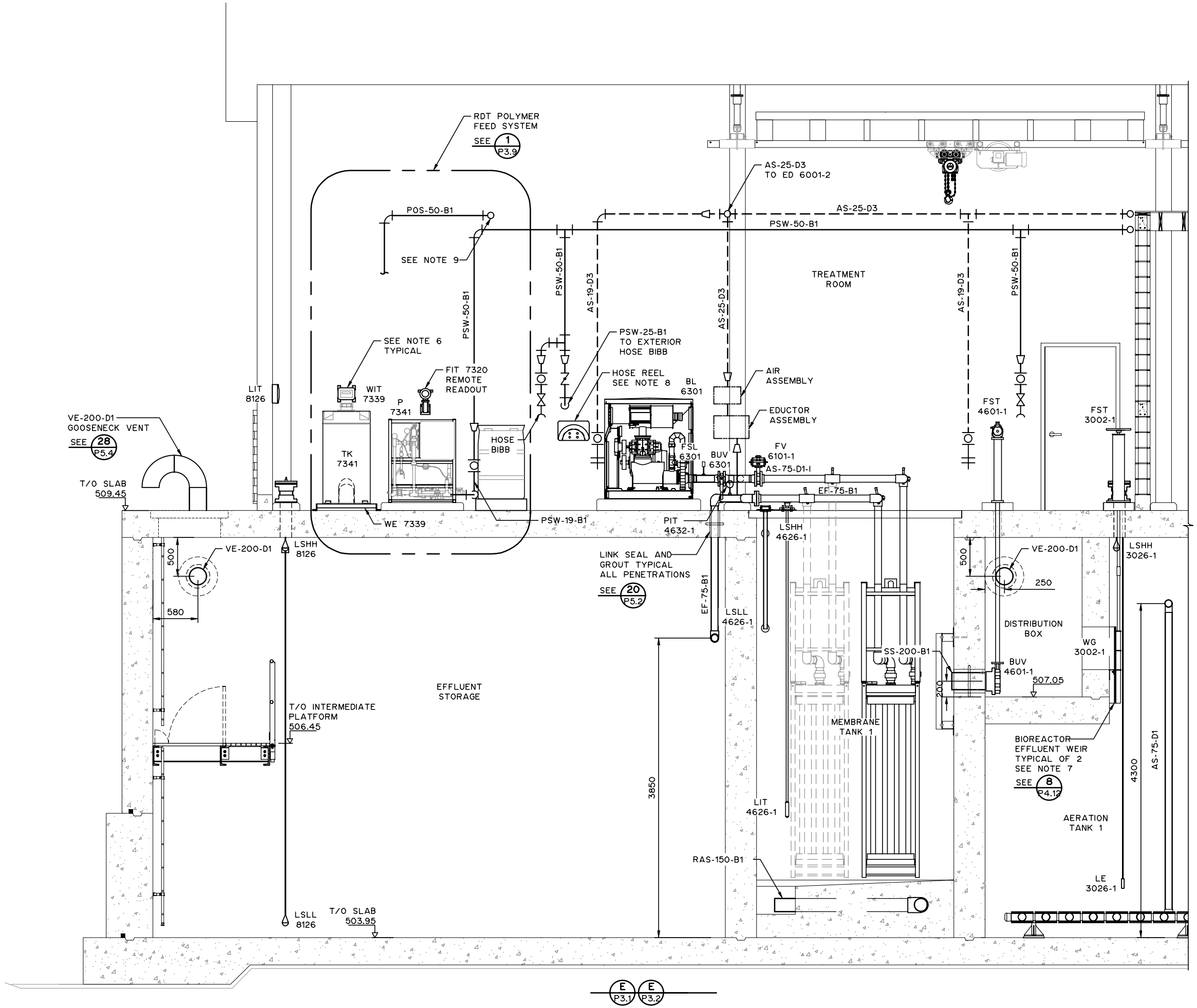
PROFESSIONAL ENGINEER
I. KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREA
SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P3.5



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. 50Φ SCHEDULE 40 PVC CONDUIT FOR PLANT INFLUENT SAMPLE TUBING TO BE RUN BELOW SLAB. CONDUIT TO COME WITH LONG RADIUS 90° ELBOWS. CAULK OPENING AROUND TUBING TO ENSURE GAS TIGHT SEAL.
6. CONTRACTOR TO MOUNT ANALYZERS, FLOW METER AND LEVEL TRANSMITTER REMOTE READOUTS 1500 ABOVE FINISHED FLOOR. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
7. CONTRACTOR TO COORDINATE SIZE OF PENETRATION WITH STRUCTURAL.
8. SEE STANDARD DETAIL IN SECTION 15015 C/W 25Φ HOSE.
9. CONTRACTOR TO NEATLY PLUMB POLYMER SOLUTION LINE TO ROTARY DRUM THICKENER INJECTION POINT.

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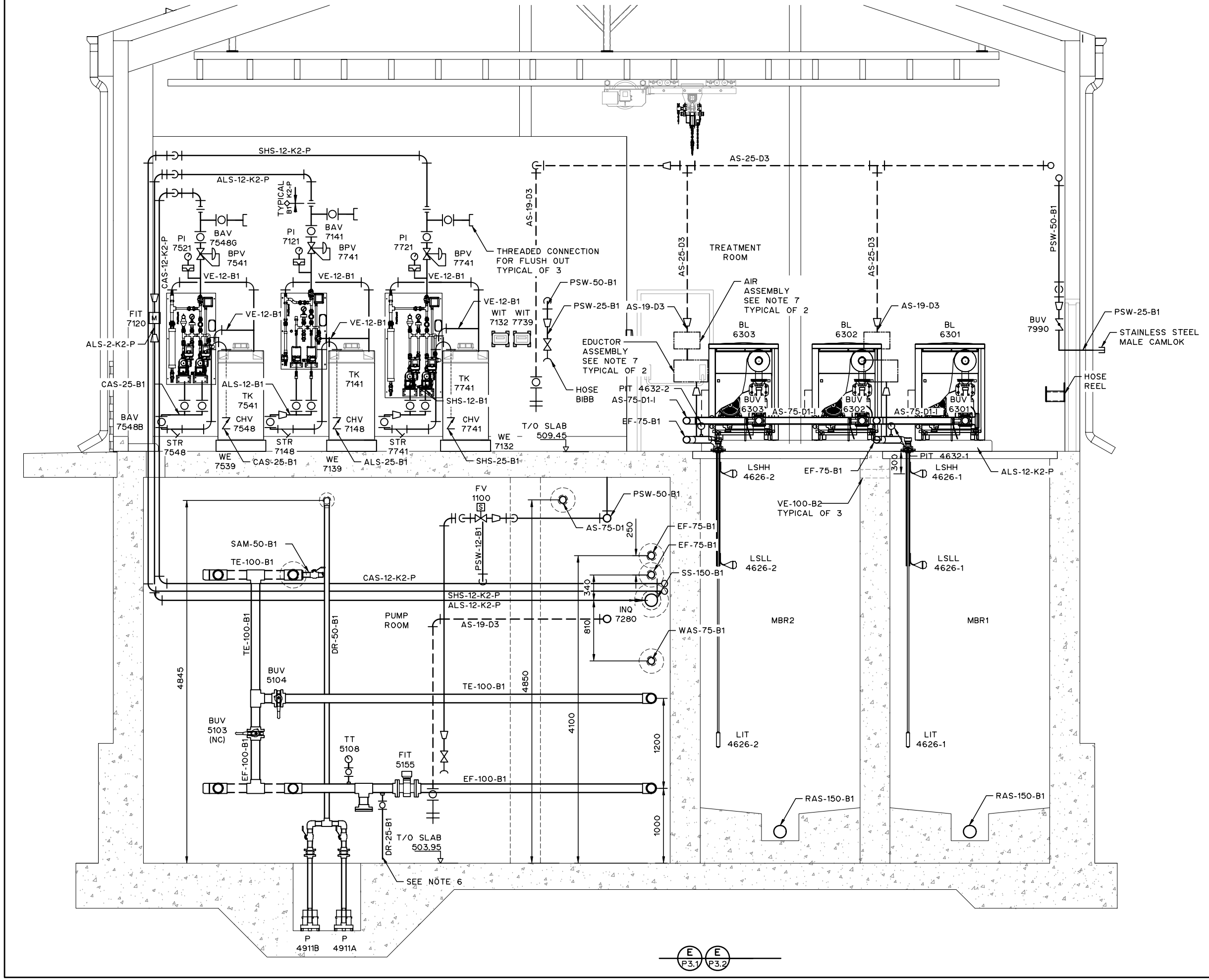
PROFESSIONAL ENGINEER — KAGORO — MEMBER 52866 — 2021-01-18 YR. MN. DAY — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREA
SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P3.6



E P3.1 E P3.2

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO MOUNT ANALYZERS, FLOW METER AND LEVEL TRANSMITTER REMOTE READOUTS 1500 ABOVE FINISHED FLOOR. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
6. CONTRACTOR TO NEATLY PLUMB DRAIN LINE TO SUMP.
7. CONTRACTOR TO MOUNT AIR ASSEMBLY AND EDUCTOR ASSEMBLY OFF FINISHED FLOOR USING APPROPRIATE SUPPORTS. COORDINATE WITH ENGINEER ON EXACT LOCATION PRIOR TO INSTALLATION.

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Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

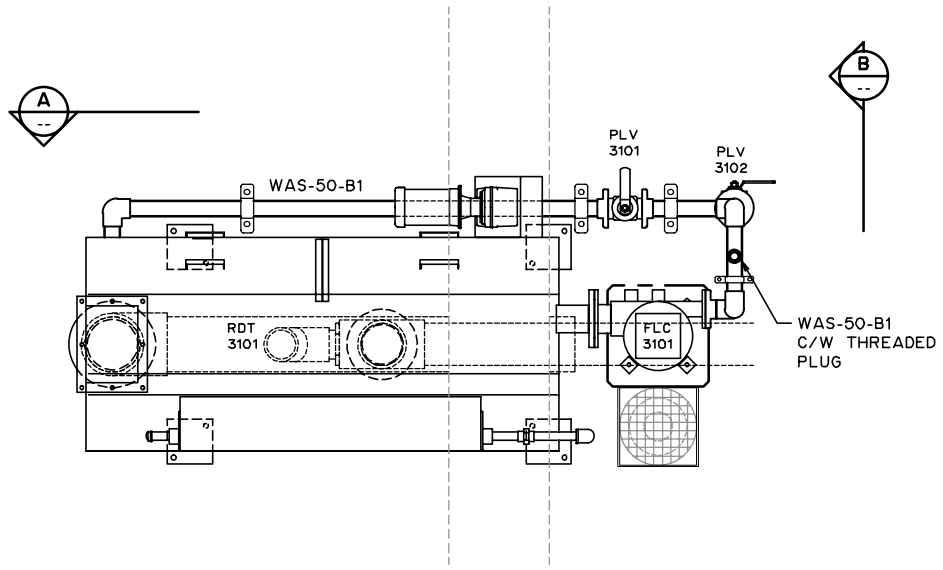
PROFESSIONAL ENGINEER
KAGOBE
MEMBER/MEMBRE
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

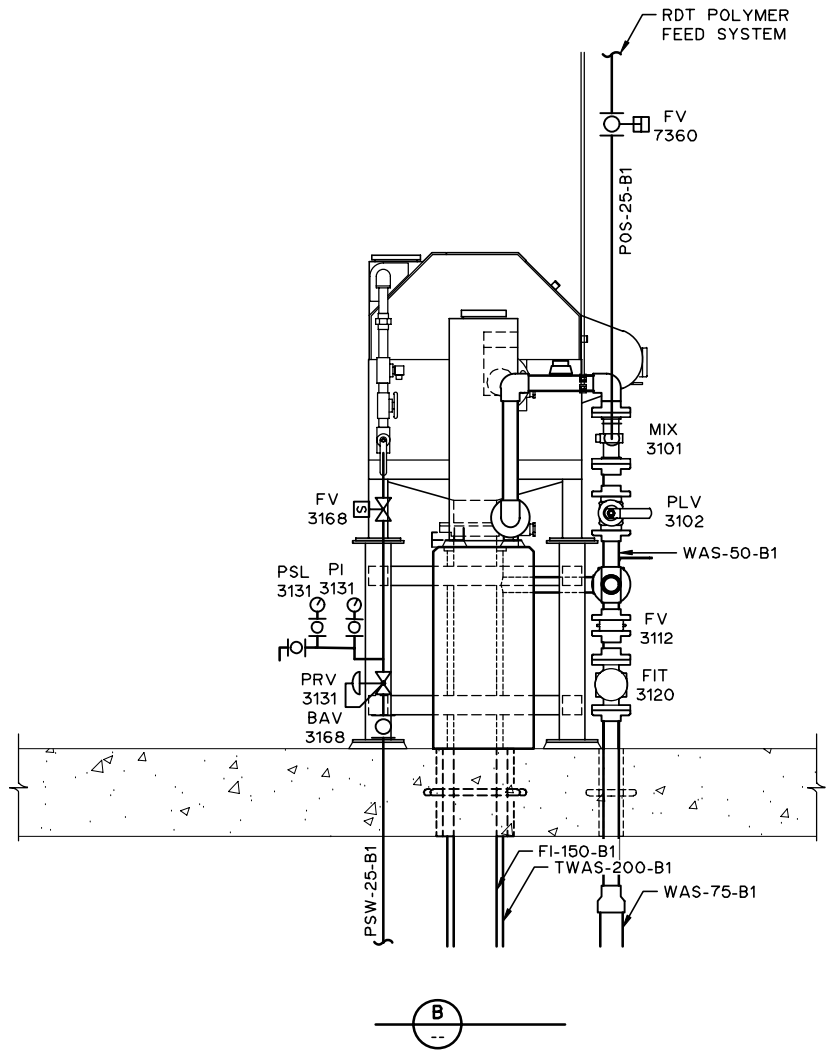
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

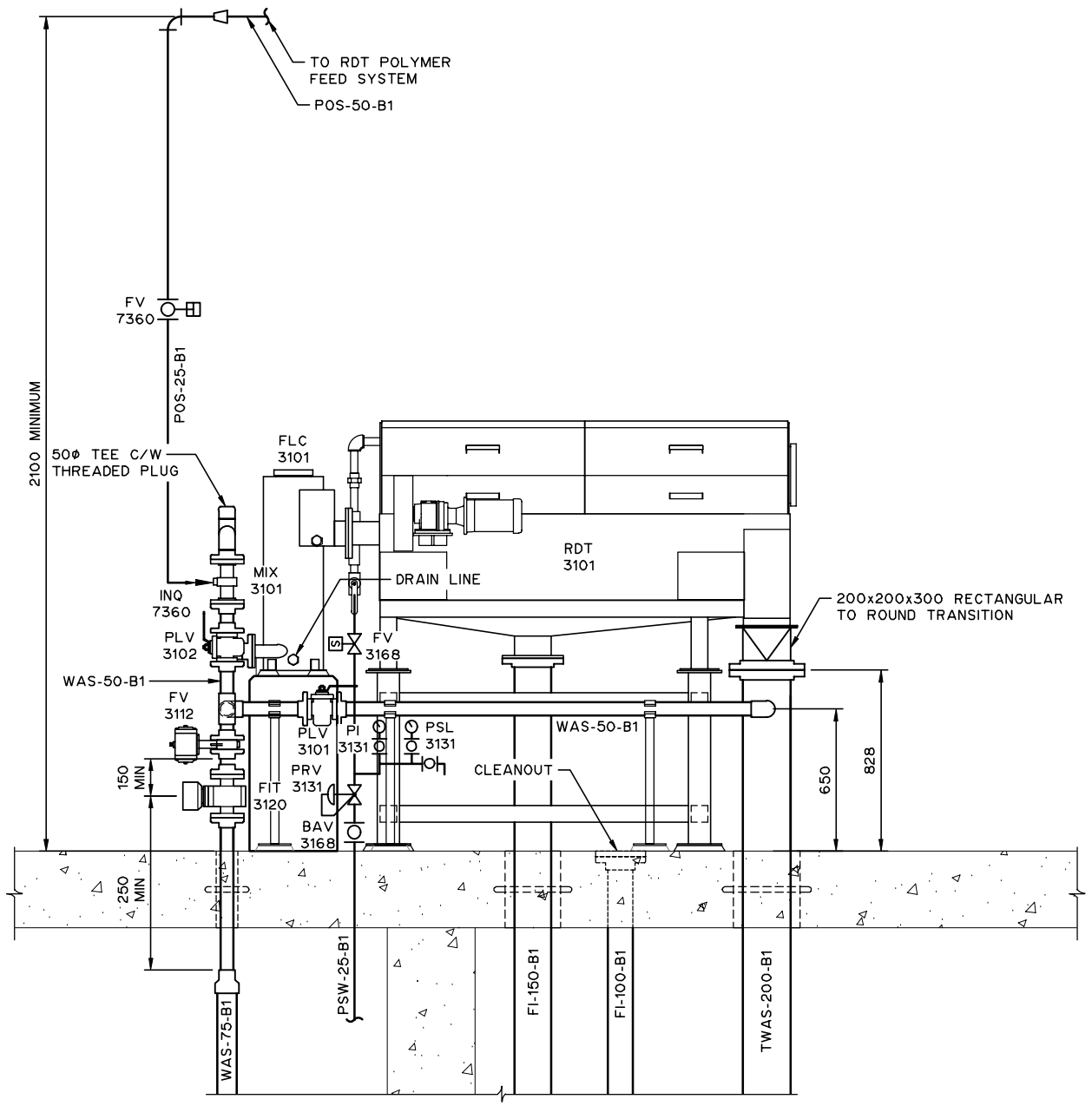
WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREA
SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P3.7



PLAN





NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. NOTE ANY DISCREPANCIES WITH ENGINEER PRIOR TO CONSTRUCTION OR FABRICATION.
3. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER MANUFACTURER'S RECOMMENDATIONS.
4. PIPING IS SHOWN SCHEMATICALLY ONLY. CONTRACTOR TO MOUNT PIPE ON RACKS AND/OR WALLS TO CARRY OUT WORK IN NEATEST POSSIBLE MANNER. CONTRACTOR TO COORDINATE WITH ENGINEER WITH RESPECT TO PIPING ROUTES PRIOR TO CARRYING OUT WORK.
5. CONTRACTOR TO CORE HOLE FOR PENETRATIONS. CONTRACTOR TO USE LINK SEAL AND GROUT AS PER CONTRACT SPECIFICATIONS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
ISSUE	YY-MM-DD	REVISION

Association of Professional Engineers & Geoscientists of Saskatchewan
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MPE Engineering Ltd.
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CIVIL	52866	

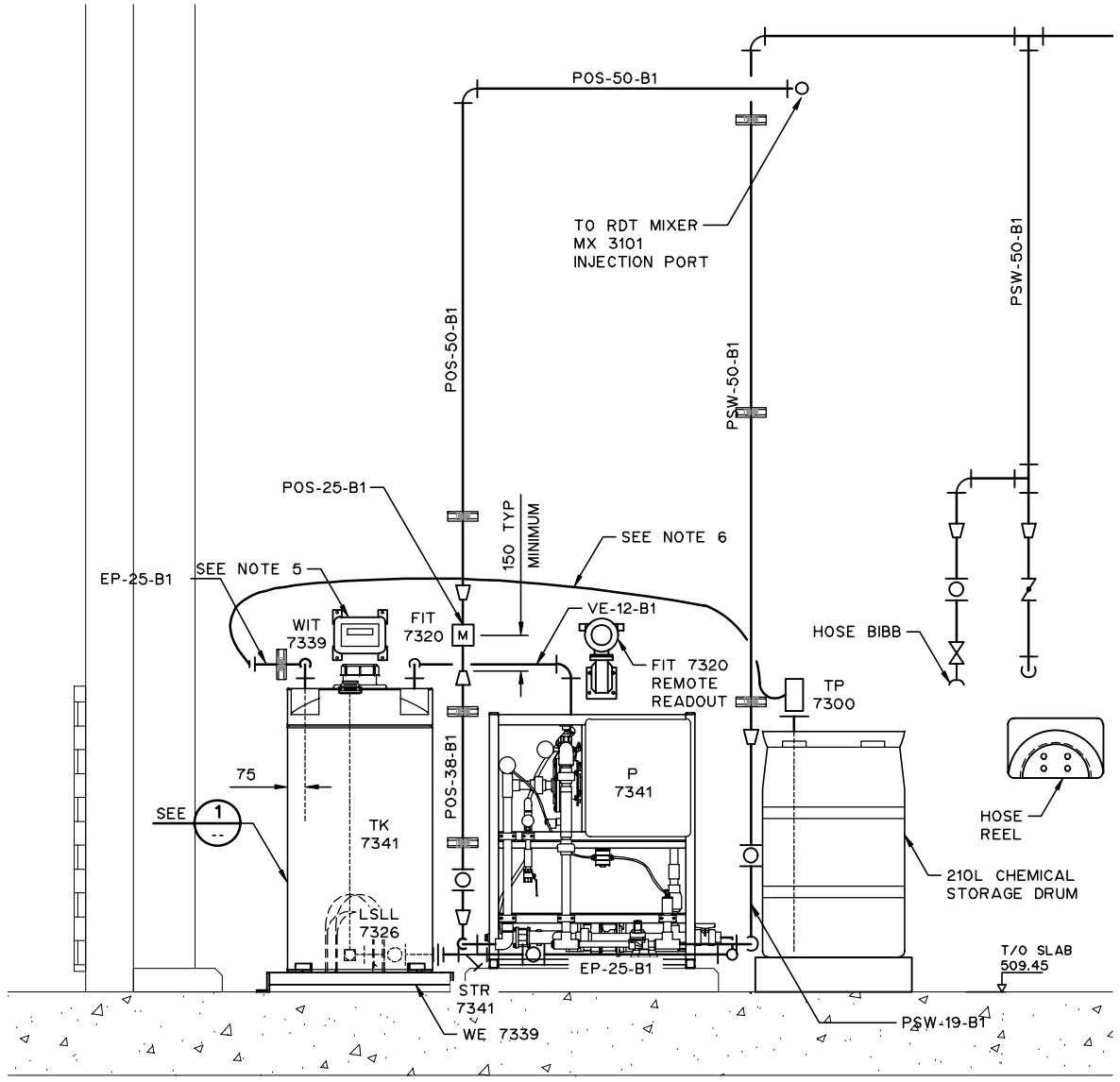
PROFESSIONAL ENGINEER
I. KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

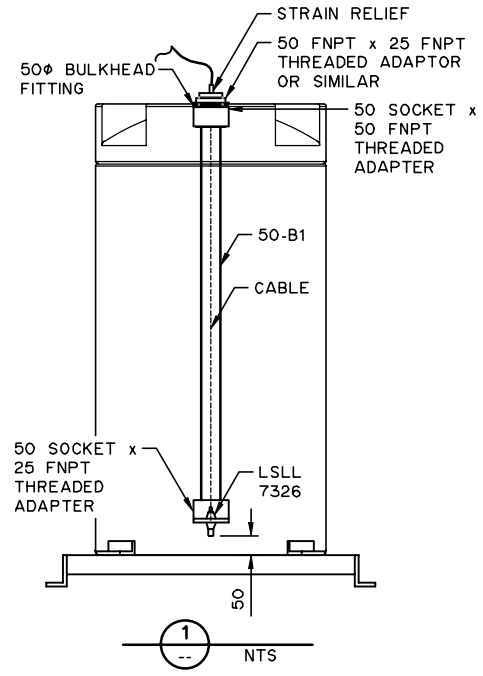
WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREAS
ROTARY DRUM THICKENER
PLAN AND SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	P3.8



RDT POLYMER FEED SYSTEM

1 / P3.6 NTS



1 / -- NTS

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. NOTE ANY DISCREPANCIES WITH ENGINEER PRIOR TO CONSTRUCTION OR FABRICATION.
3. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER MANUFACTURER'S RECOMMENDATIONS.
4. PIPING IS SHOWN SCHEMATICALLY ONLY. CONTRACTOR TO MOUNT PIPE ON RACKS AND/OR WALLS TO CARRY OUT WORK IN NEATEST POSSIBLE MANNER. CONTRACTOR TO COORDINATE WITH ENGINEER WITH RESPECT TO PIPING ROUTES PRIOR TO CARRYING OUT WORK.
5. CONTRACTOR TO MOUNT ALL SCALE REMOTE READOUTS 1500 ABOVE FINISHED FLOOR. CONFIRM LOCATIONS WITH ENGINEER PRIOR TO INSTALLATION.
6. CONTRACTOR TO PROVIDE SUFFICIENT LENGTH OF 19Φ PVC TUBING TO ALLOW OPERATOR TO PUMP FROM ALL DRUMS EASILY.
7. CONTRACTOR TO CORE HOLE FOR PENETRATIONS. CONTRACTOR TO USE LINK SEAL AND GROUT AS PER CONTRACT SPECIFICATIONS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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CIVIL	52866	

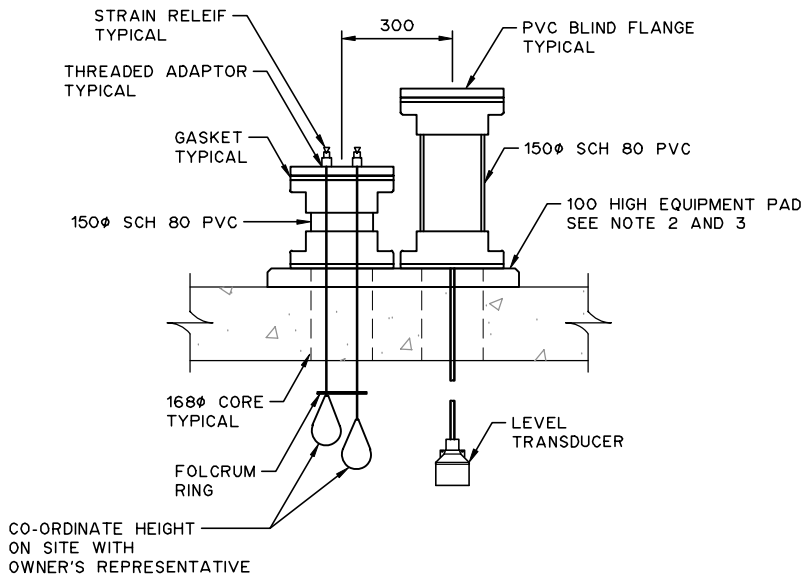
PROFESSIONAL ENGINEER
I. KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

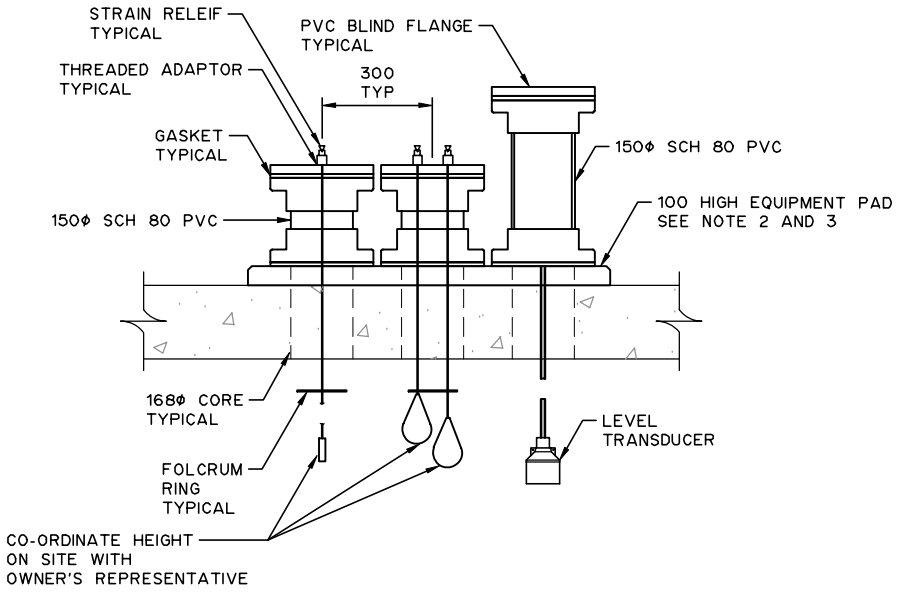
WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREAS
POLYMER FEED SYSTEM DETAILS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	SHOWN
DATE	NOVEMBER 2020	DRAWING	P3.9



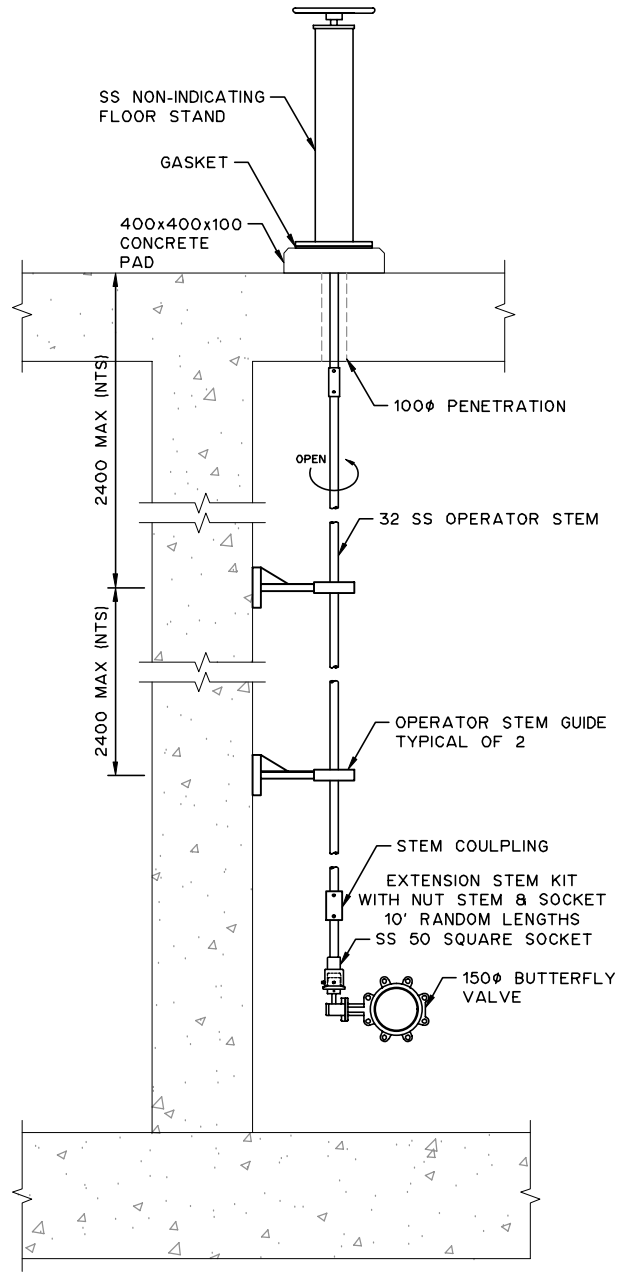
MULTIPLE INSTRUMENT HANGER

2 / P3.2 NTS



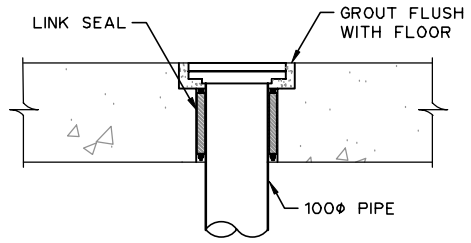
MULTIPLE INSTRUMENT HANGER

3 / P3.2 NTS



SUBMERGED VALVE WITH FLOOR STAND OPERATOR

4 / P3.2 4 / P3.3 NTS



TYPICAL PROCESS CLEANOUT

5 / P3.2 NTS

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. 20 CHAMFER ALL EXPOSED CONCRETE EDGES TYPICAL.
3. HOUSEKEEPING PADS TO EXTEND 100 BEYOND EQUIPMENT. COORDINATE WITH SUPPLIER.

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CIVIL	52866	

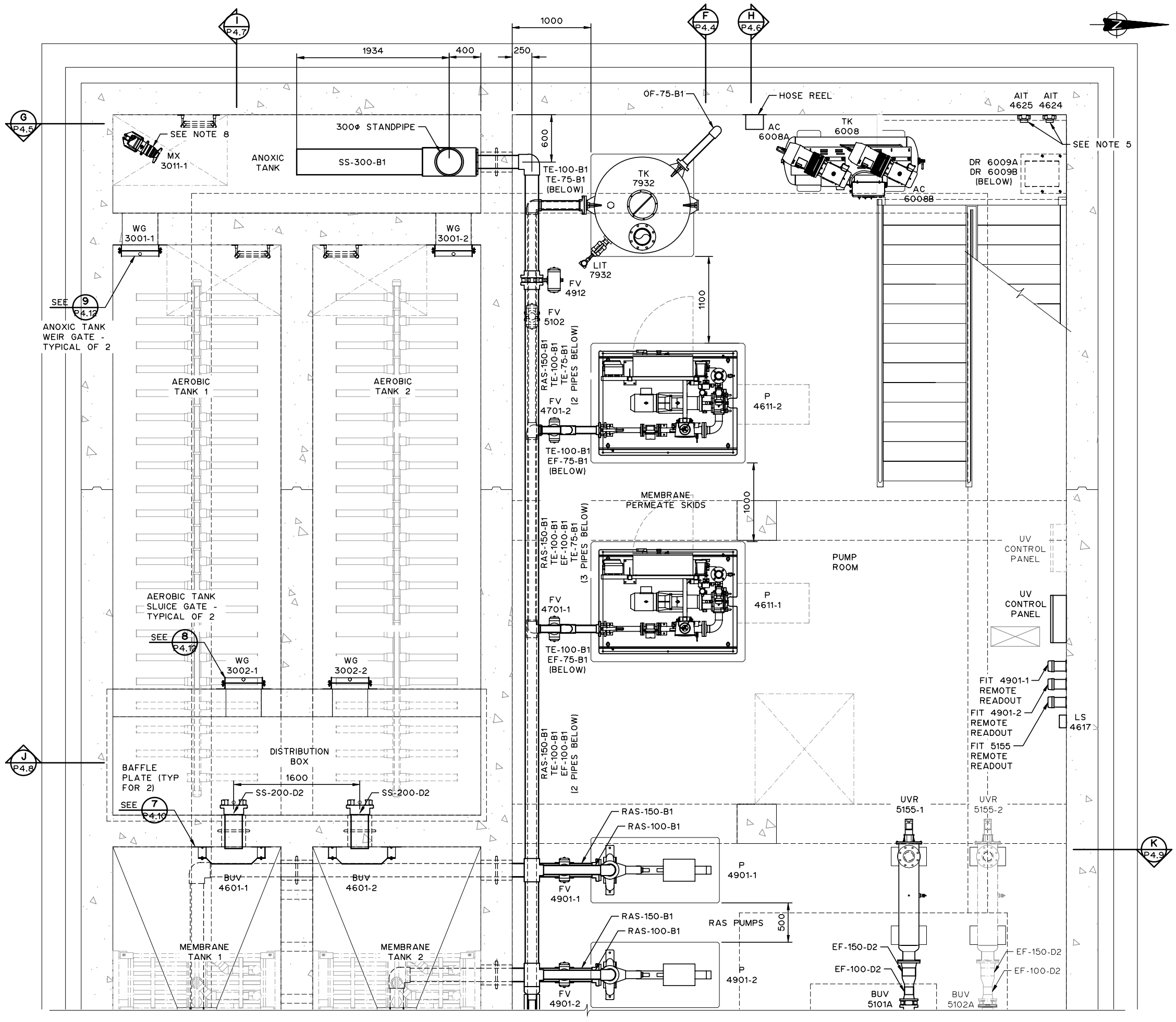
PROFESSIONAL ENGINEER
KAGORO
MEMBER 52866
2021-01-18
PROVINCE OF SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
HEADWORKS AND TREATMENT AREAS
DETAILS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	SHOWN
DATE	NOVEMBER 2020	DRAWING	P3.10



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. AIT 4625 AND AIT 4624 BEACONS AND HORNS ARE TO BE INSTALLED IN THE STAIRWELL LANDING SO AS TO BE VISIBLE TO ANY PERSON(S) AT THE TOP OF THE STAIRS.
6. ALL PIPE SUPPORTS AND PIPE HANGERS TO BE 316 SS.
7. STAINLESS STEEL ISOLATION BALL VALVES REQUIRED AT ALL PNEUMATIC FIELD DEVICES AND SKID CONNECTIONS.
8. CONTRACTOR TO PROVIDE TUBING GUIDE AND CABLE SUPPORT FOR MIXER.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

ISSUE	YY-MM-DD	REVISION
2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

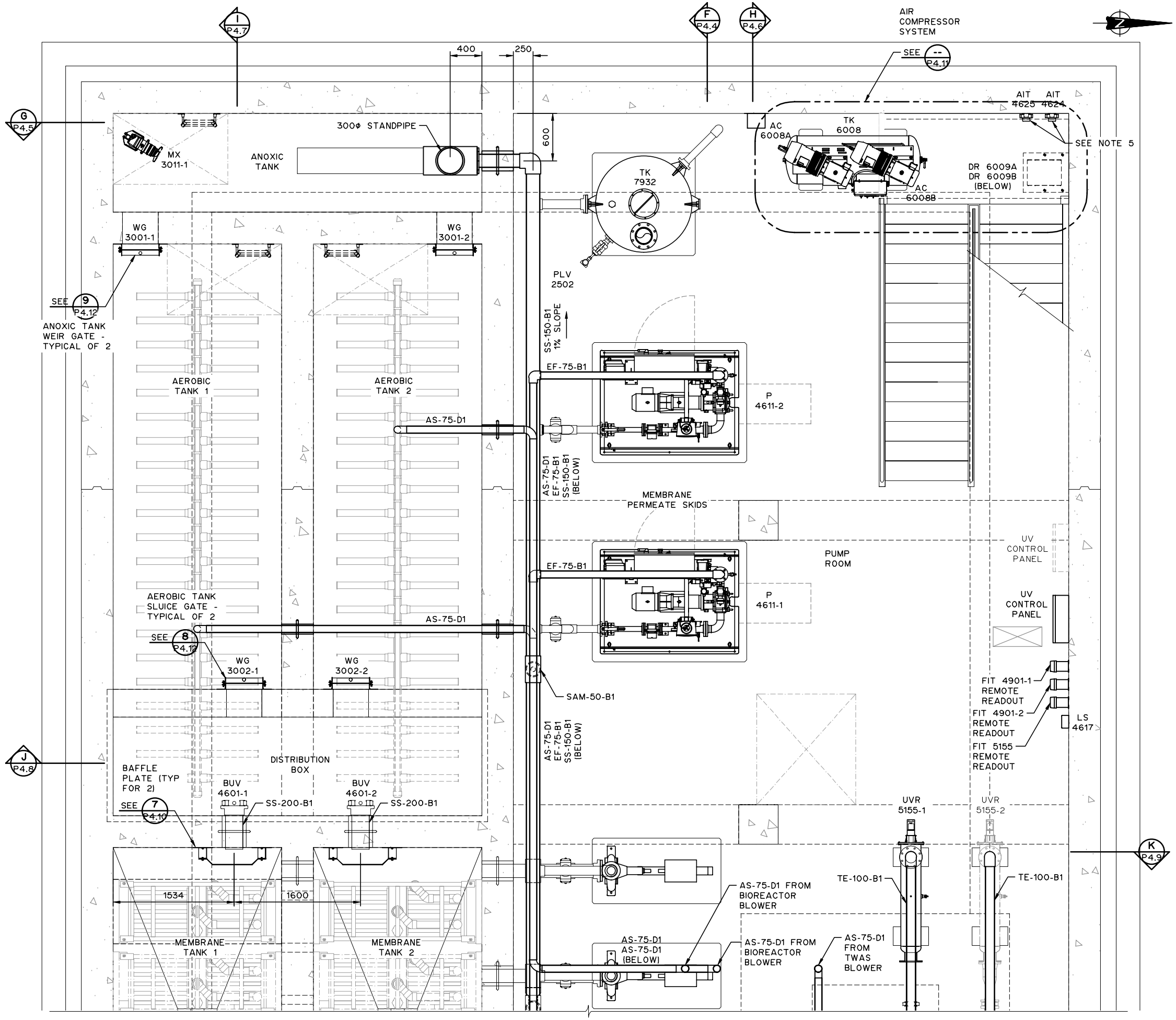
PROFESSIONAL ENGINEER I. KAGOBE MEMBER 52866 2021-01-18 YR. MN. DAY SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM
LOWER LEVEL PLAN
LOWER PIPING

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.1



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. AIT 4625 AND AIT 4624 BEACONS AND HORNS ARE TO BE INSTALLED IN THE STAIRWELL LANDING SO AS TO BE VISIBLE TO ANY PERSON(S) AT THE TOP OF THE STAIRS.
6. ALL PIPE SUPPORTS AND PIPE HANGERS TO BE 316 SS.
7. STAINLESS STEEL ISOLATION BALL VALVES REQUIRED AT ALL PNEUMATIC FIELD DEVICES AND SKID CONNECTIONS.
8. ALL BOLTS, RODS, NUTS AND WASHERS TO BE 316 SS IN AEROBIC TANKS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

ISSUE	YY-MM-DD	REVISION
2	21-01-15	FOR CONSTRUCTION
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Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

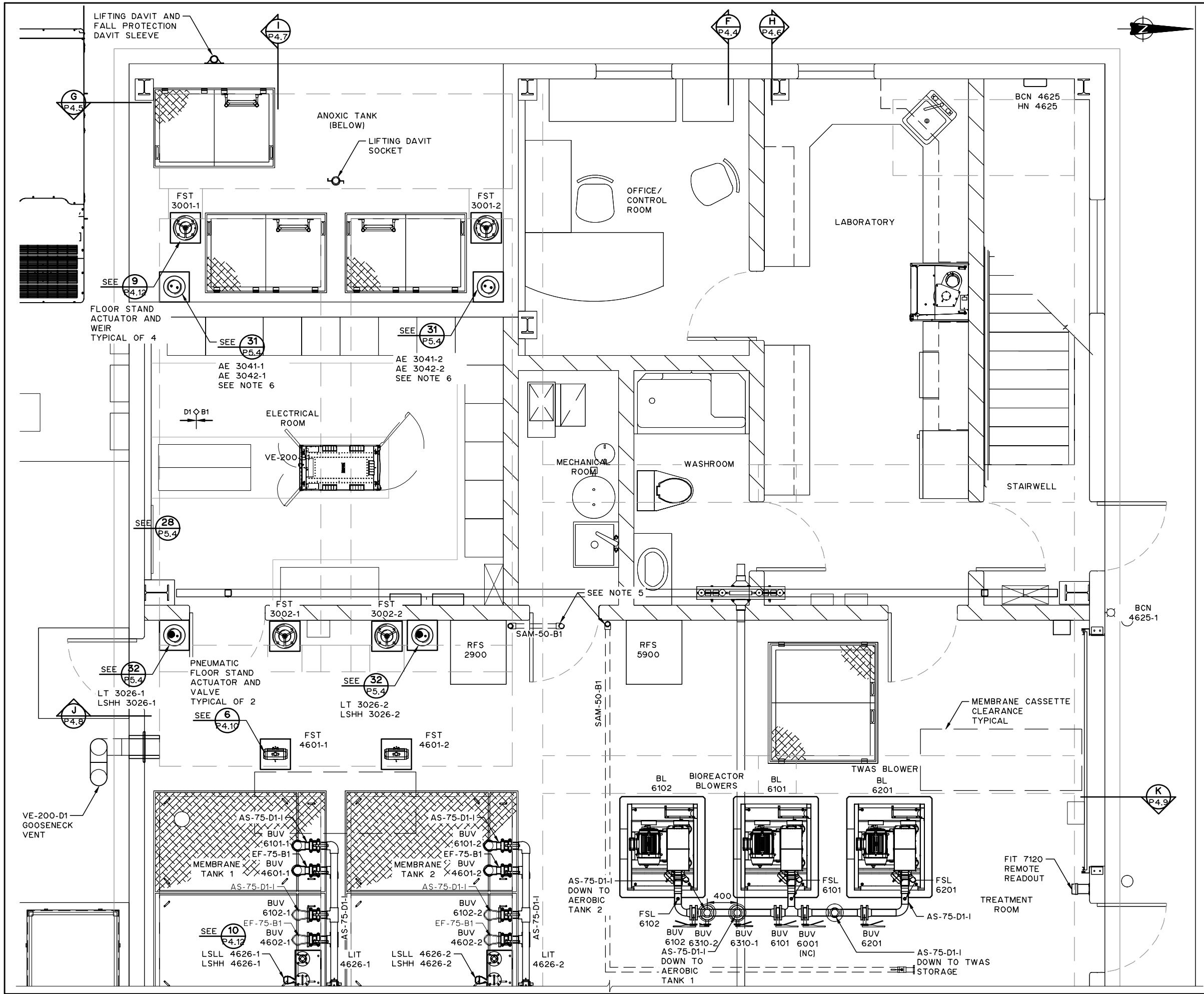
PROFESSIONAL ENGINEER — KAGORO — OMBABEER SINGH — 2021-01-18 — PR. MN. DAY — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM
LOWER LEVEL PLAN
UPPER PIPING

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.2



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. 50ϕ SCHEDULE 40 PVC CONDUIT FOR PLANT INFLUENT AND EFFLUENT SAMPLE TUBINGS TO BE RUN BELOW SLAB. CONDUIT TO COME WITH LONG RADIUS 90° ELBOWS. CAULK AROUND OPENING TO ENSURE GAS TIGHT SEAL.
6. REMOTE DISPLAYS FOR DISSOLVED OXYGEN AND PH SENSORS FOR AEROBIC TANKS TO BE MOUNTED ON FRONT OF CP-2 IN THE ELECTRICAL ROOM.
7. ALL PIPE SUPPORTS AND PIPE HANGERS TO BE 316 SS.
8. ALL BOLTS, RODS, NUTS, AND WASHERS TO BE 316 SS IN AEROBIC TANKS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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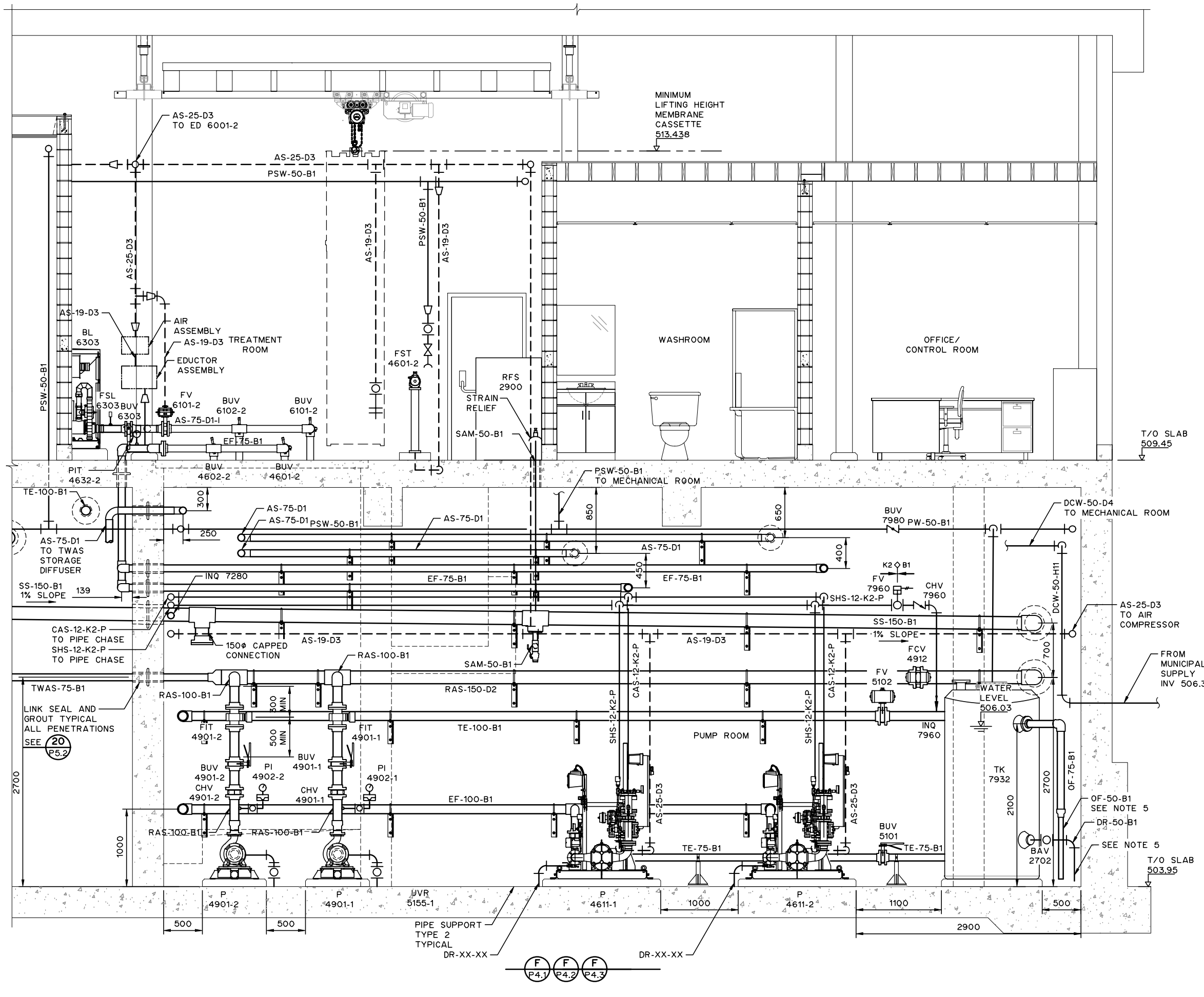
PROFESSIONAL ENGINEER KAGORO MEMBER 52866 2021-01-18 YR. MN. DAY SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM
MAIN LEVEL
PLAN

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.3



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO NEATLY PLUMB DRAIN LINE TO THE NEAREST FLOOR DRAIN.

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CIVIL	52866	

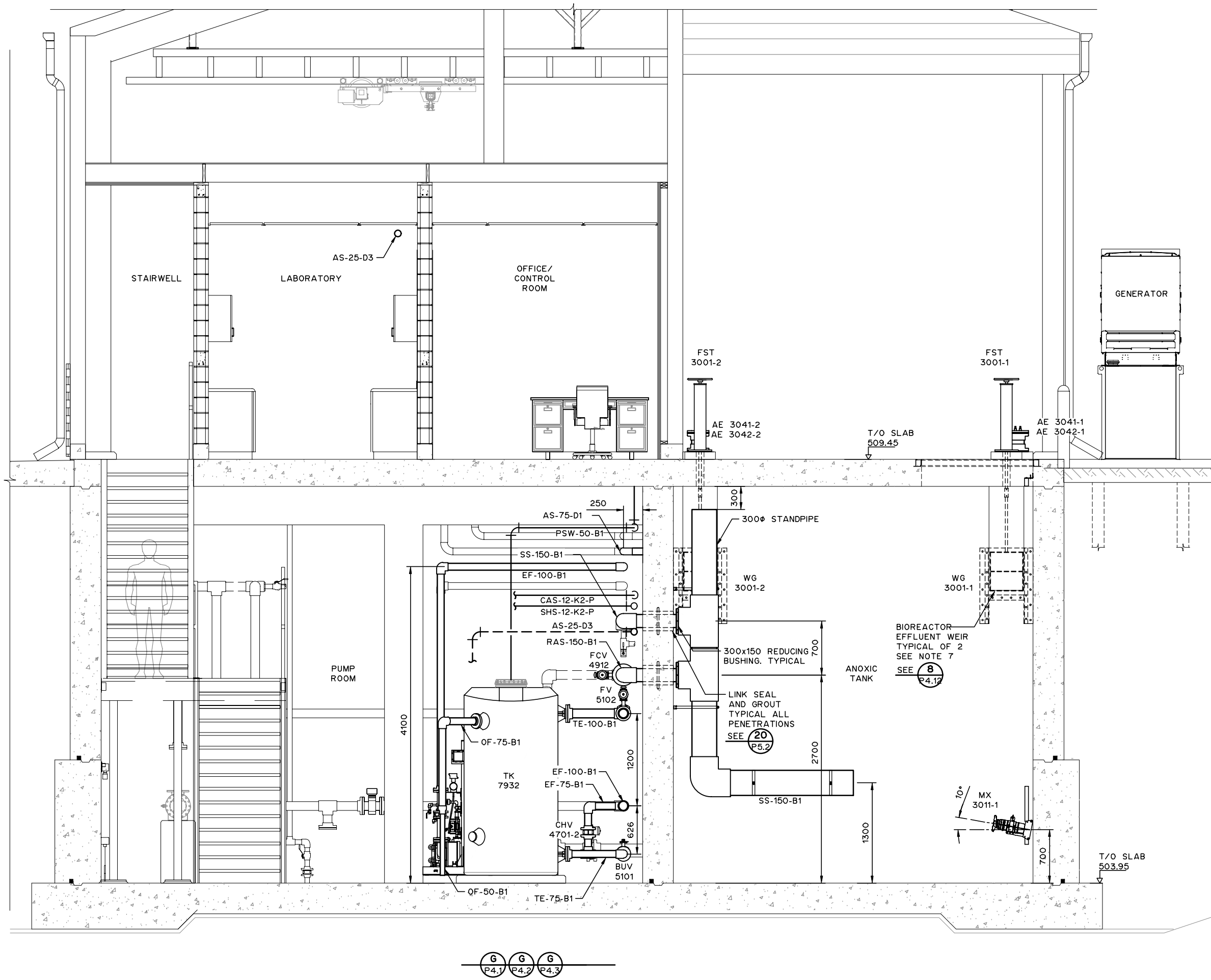
PROFESSIONAL ENGINEER KAGOBO MBUGUA JOHN SASKATCHEWAN
2021-01-18 YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.4



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
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3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO NEATLY PLUMB DRAIN LINE TO THE NEAREST FLOOR DRAIN.

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Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

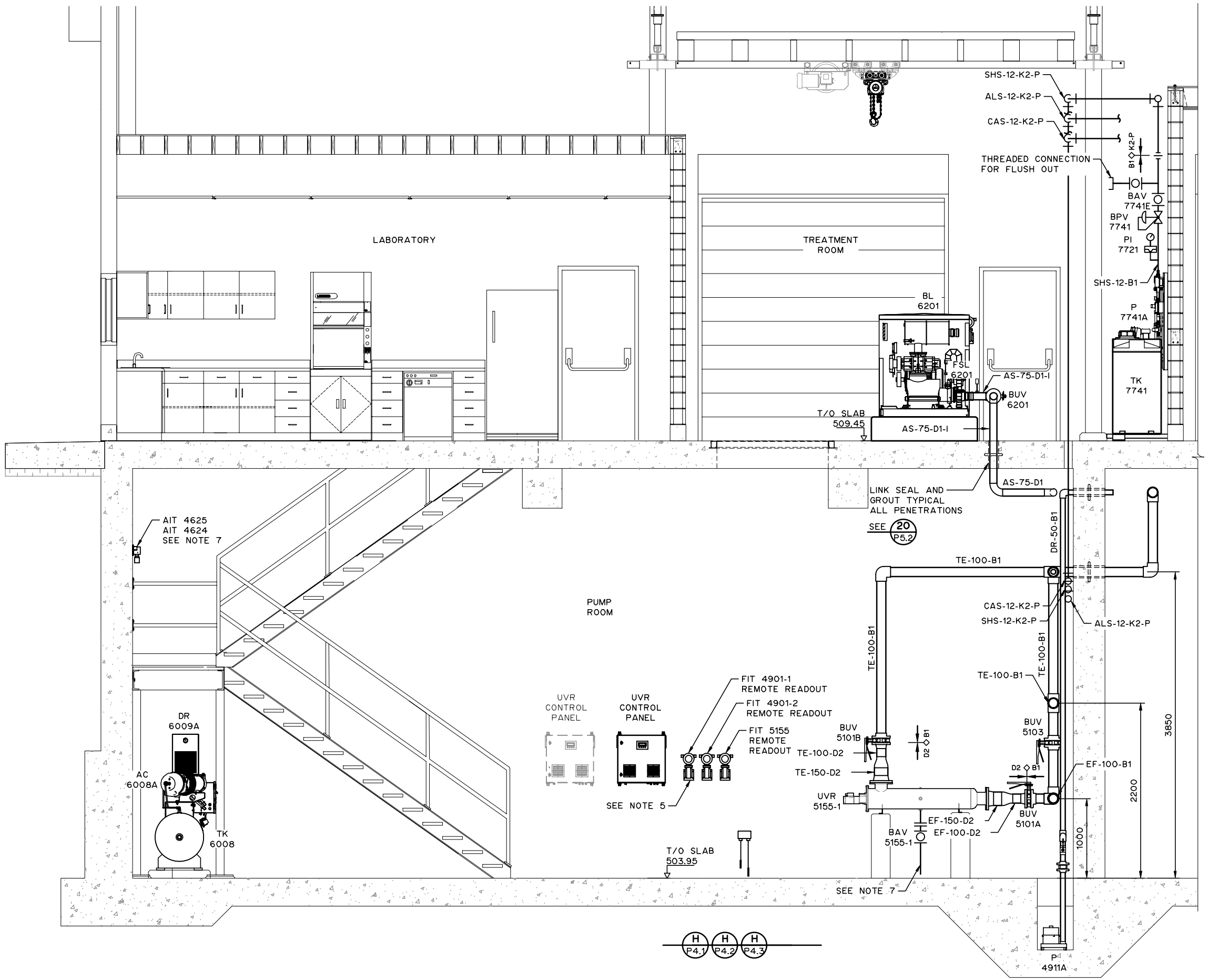
PROFESSIONAL ENGINEER
I. KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.5



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGEND DRAWING.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO MOUNT ANALYZERS, FLOW METER AND LEVEL TRANSMITTER REMOTE READOUTS 1500 ABOVE FINISHED FLOOR. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
6. AIT 4625 AND AIT 4624 BEACONS AND HORNS ARE TO BE INSTALLED IN THE STAIRWELL LANDING SO AS TO BE VISIBLE TO ANY PERSON(S) AT THE TOP OF THE STAIRS.
7. CONTRACTOR TO NEATLY PLUMB DRAIN LINE TO NEAREST FLOOR DRAIN.

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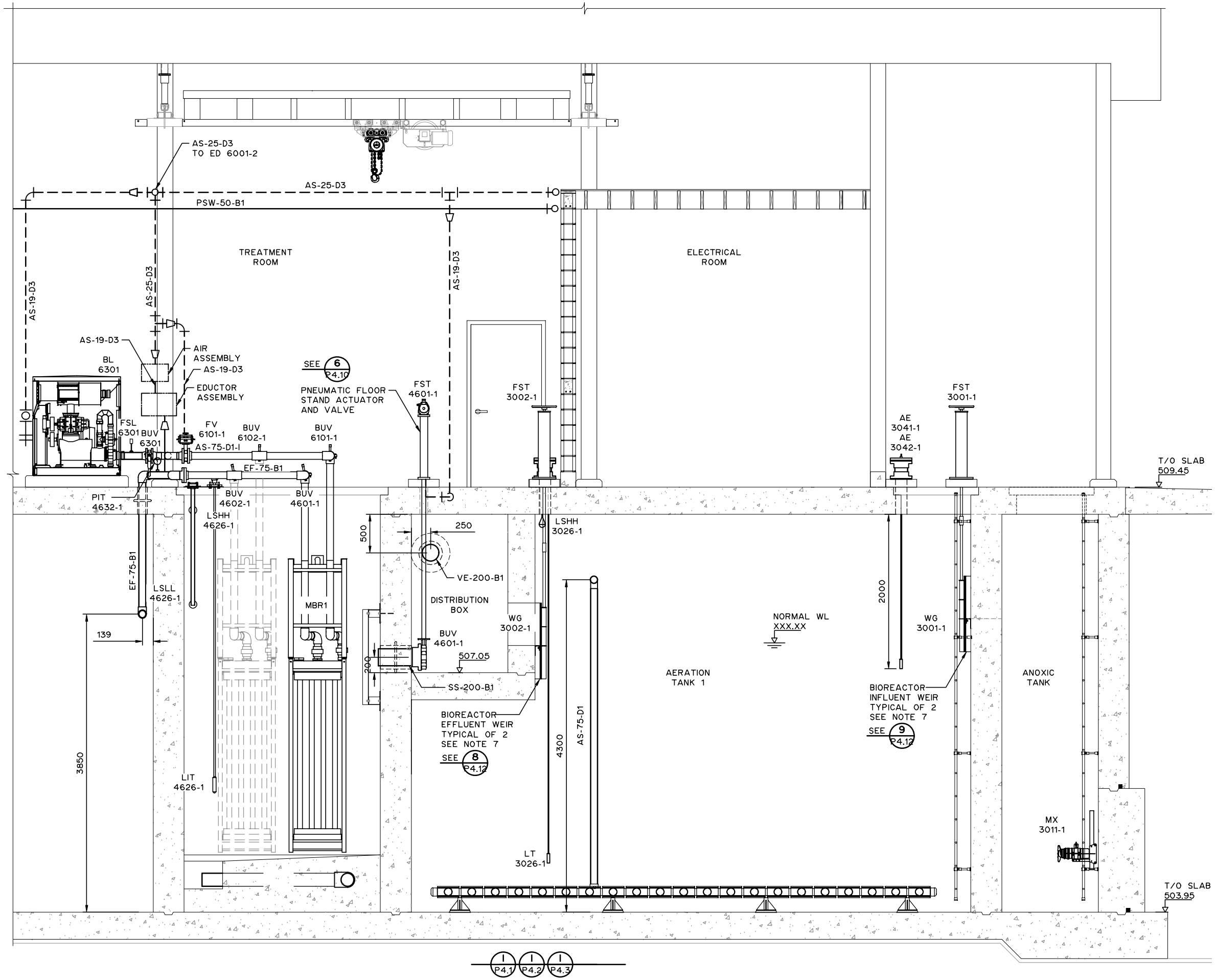
PROFESSIONAL ENGINEER — KAGORO — MEMBER — SASKATCHEWAN
2021-01-18 YR. MN. DAY

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM
SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.6



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO NEATLY PLUMB DRAIN LINE TO THE NEAREST FLOOR DRAIN.

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ISSUE	YY-MM-DD	REVISION

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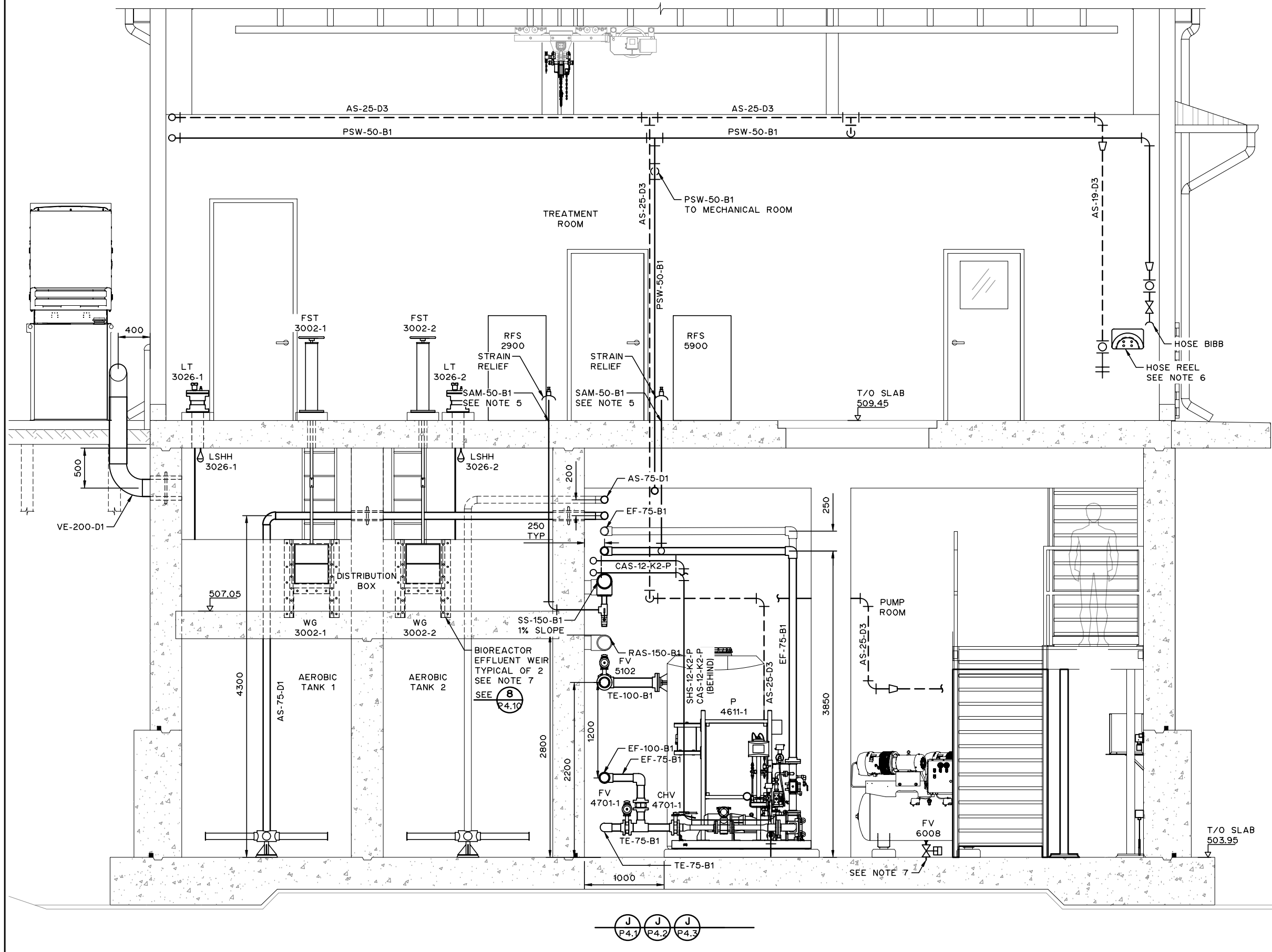
PROFESSIONAL ENGINEER
KAGORO
MEMBER OF APEGS
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM
SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	C.A.Z.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.7



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS, AND SYMBOLS, REFER TO THE LEGENDD DRAWINGS.
2. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
3. STEEL PIPES LARGER THAN 75Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150Φ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. 50Φ SCHEDULE 40 PVC CONDUIT CAST IN SLAB FOR PLANT INFLUENT SAMPLE TUBING. CONDUIT TO COME WITH LONG RADIUS 90° ELBOWS. CAULK OPENING AROUND TUBING TO ENSURE GAS TIGHT SEAL.
6. SEE STANDARD DETAIL IN SECTION 15015 C/W 25Φ HOSE.
7. CONTRACTOR TO NEATLY PLUMB DRAIN LINE TO NEAREST FLOOR DRAIN.

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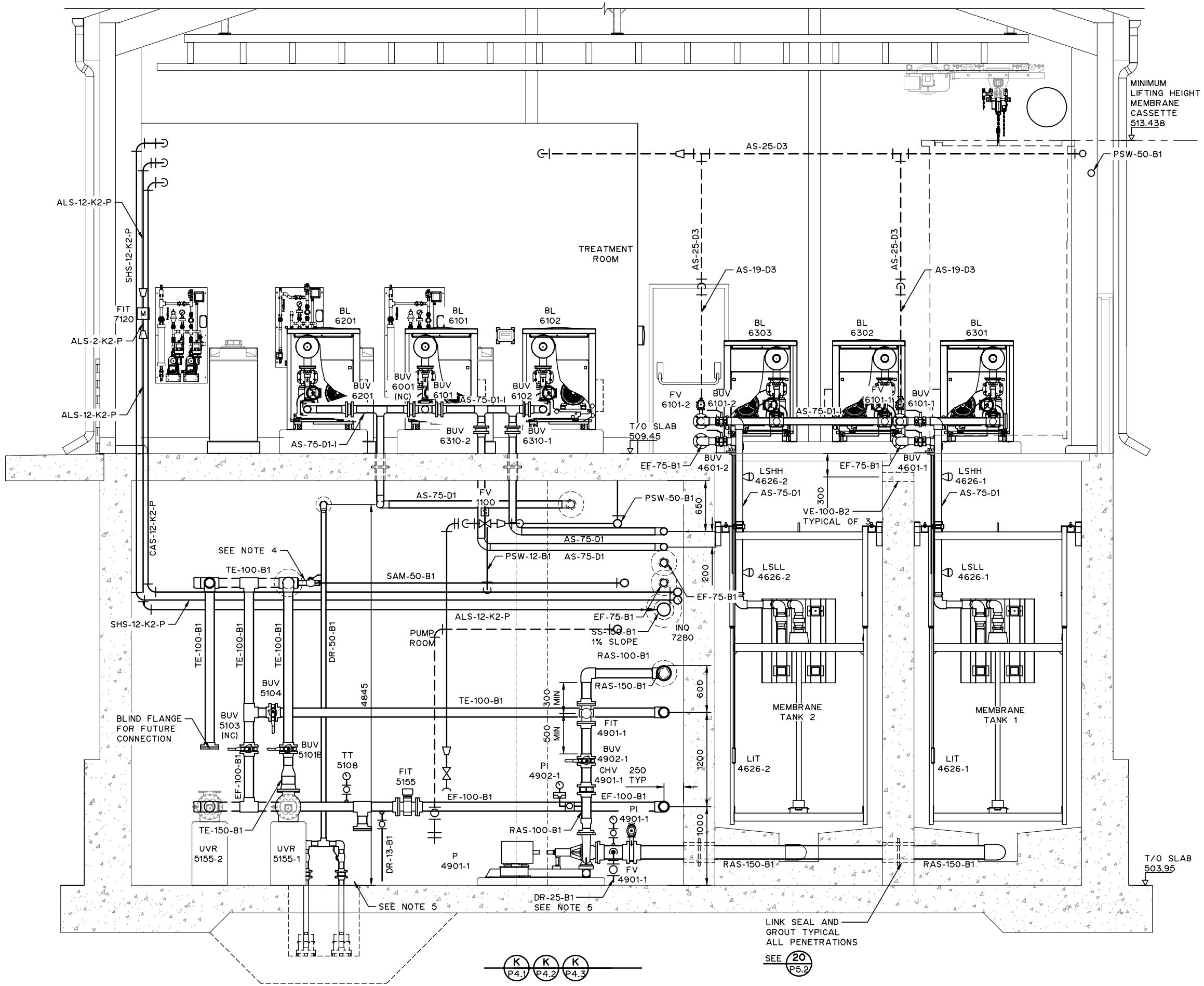
PROFESSIONAL ENGINEER
KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM SECTIONS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.8



NOTES:

1. CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER PIPING AND SUPPORT MANUFACTURER'S RECOMMENDATIONS.
2. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
3. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. 50ϕ SCHEDULE 40 PVC CONDUIT FOR PLANT INFLUENT SAMPLE TUBING TO BE RUN BELOW SLAB. CONDUIT TO COME WITH LONG RADIUS 90° ELBOWS. CAULK OPENING AROUND TUBING TO ENSURE GAS TIGHT SEAL.
5. CONTRACTOR TO NEATLY PLUMB DRAIN LINE TO NEAREST FLOOR DRAIN

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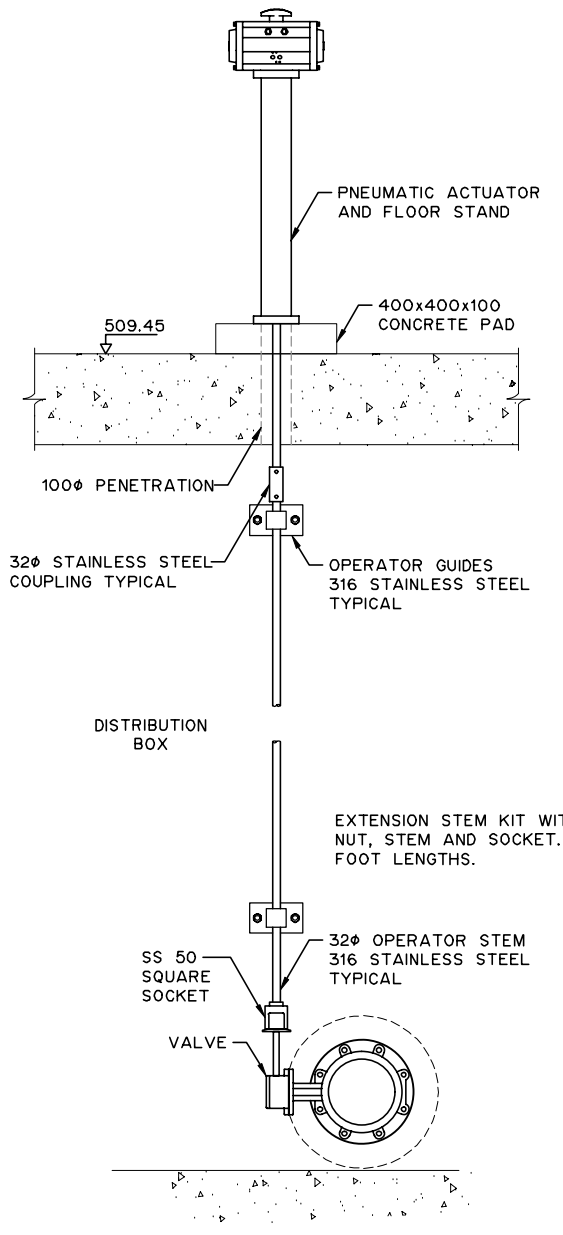
PROFESSIONAL ENGINEER
KAGORO
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

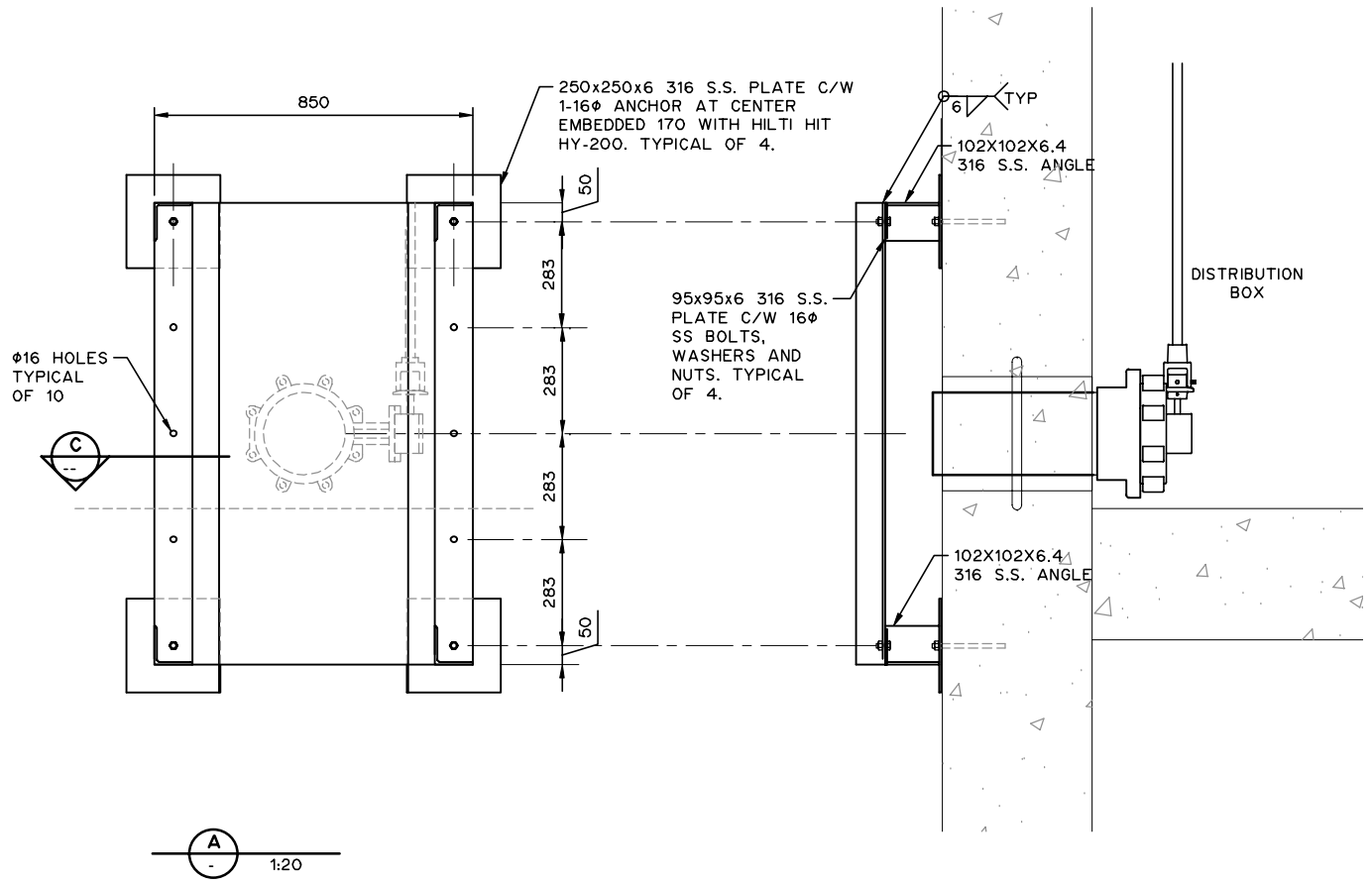
WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM
SECTIONS

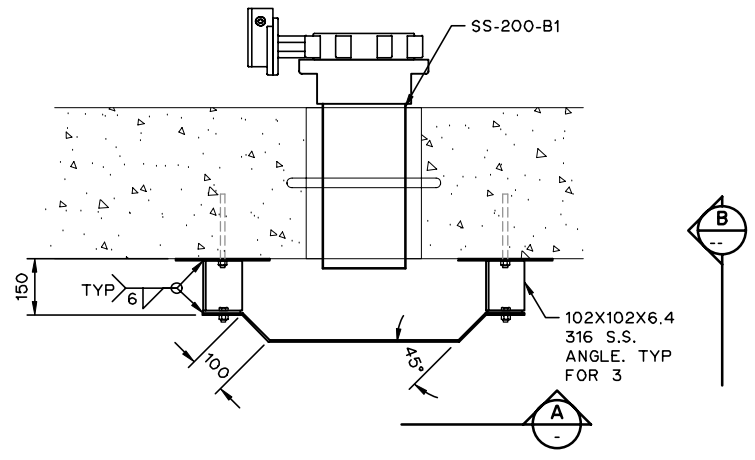
DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	P4.9



SUBMERGED VALVE WITH PNUEMATIC OPERATOR DETAIL

6 P4.3 6 P4.7 1:25





MEMBRANE TANK BAFFLE PLATE

7 P3.1 7 P4.1 7 P4.2 1:20

NOTES:

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3. STEEL PIPES LARGER THAN 75ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ϕ SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.

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PROFESSIONAL ENGINEER
I. KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

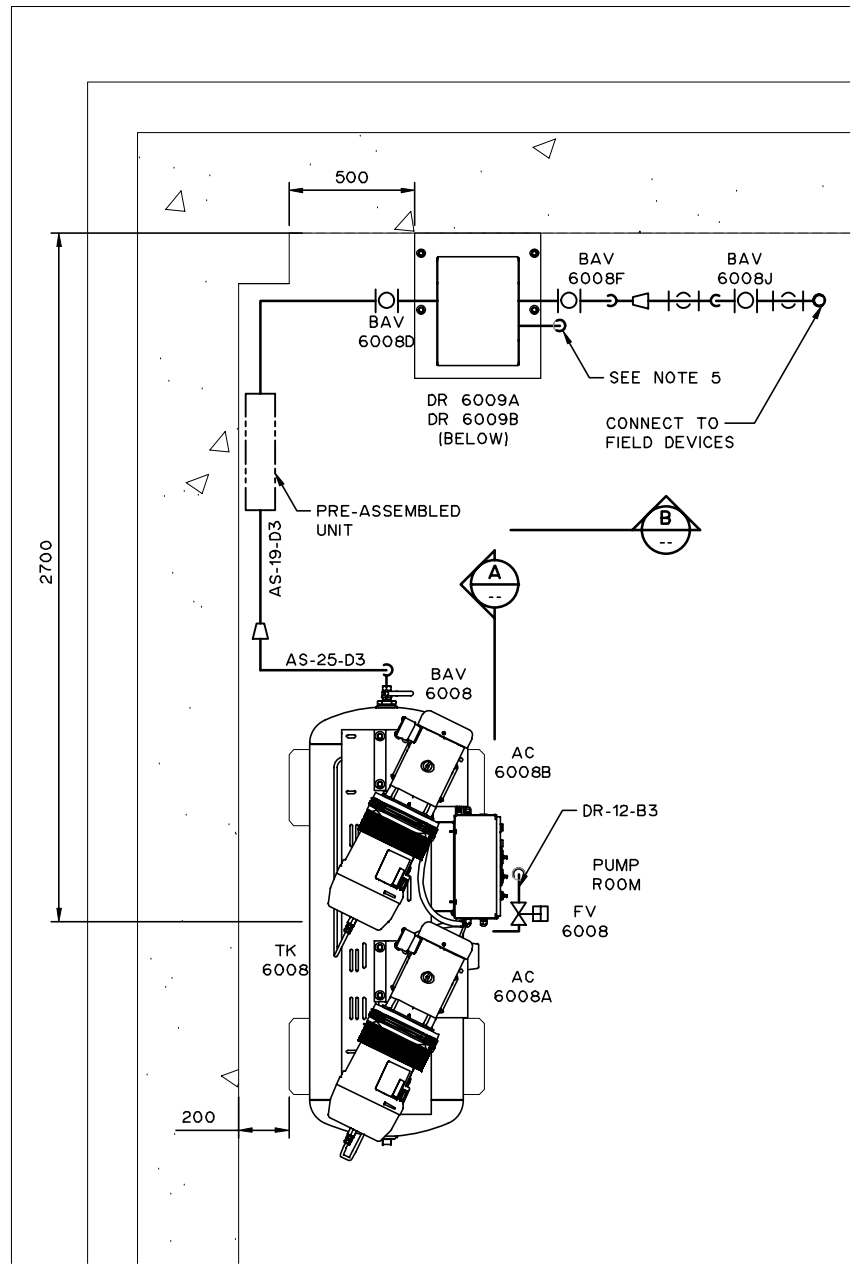
WASTEWATER TREATMENT PLANT

PROCESS PIPING

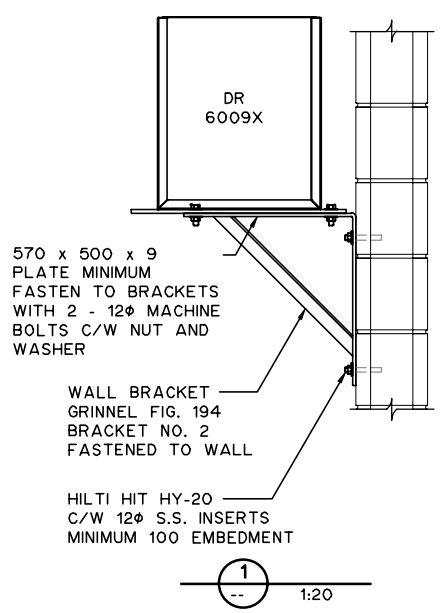
BIOREACTOR AND PUMP ROOM

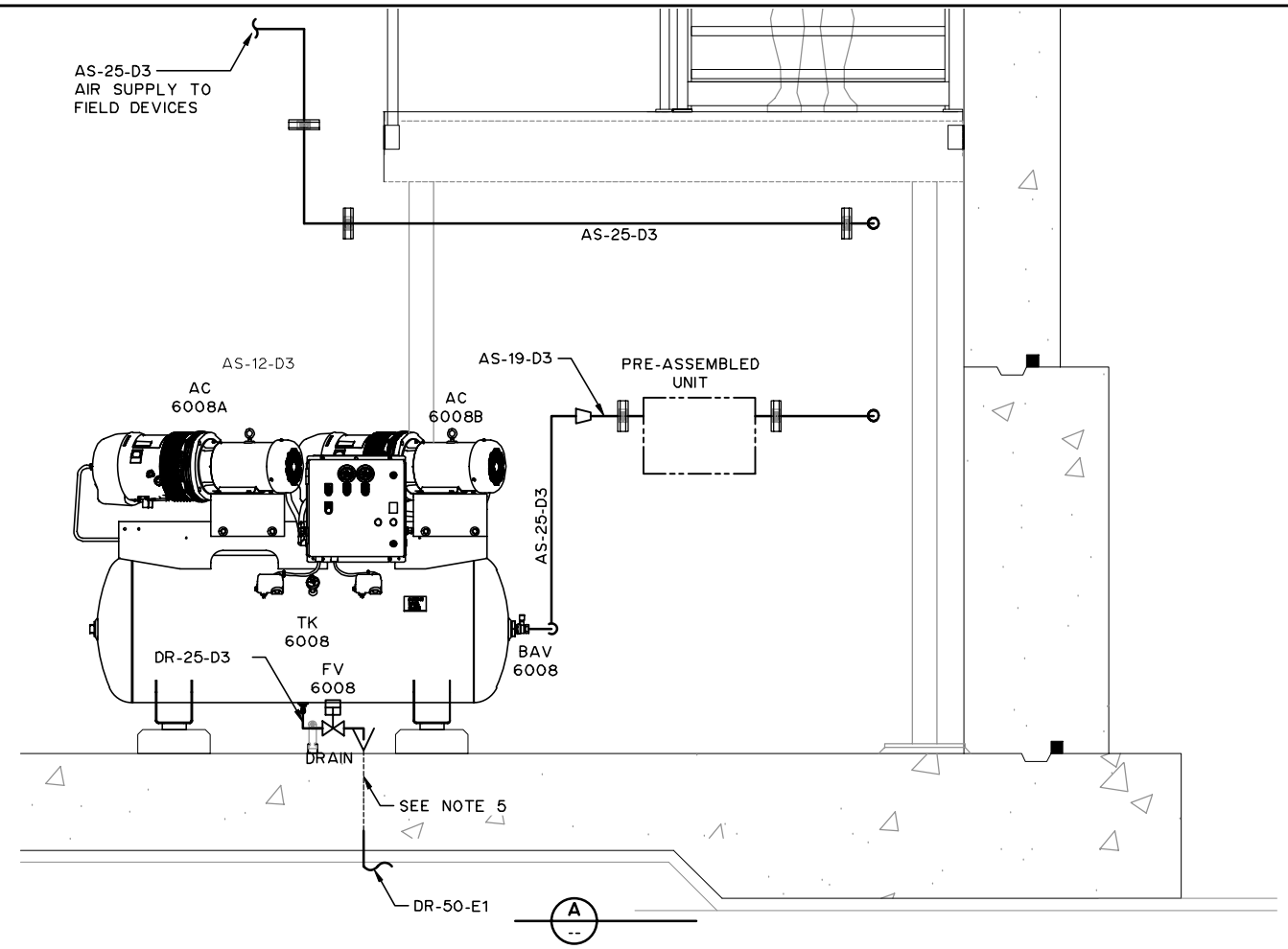
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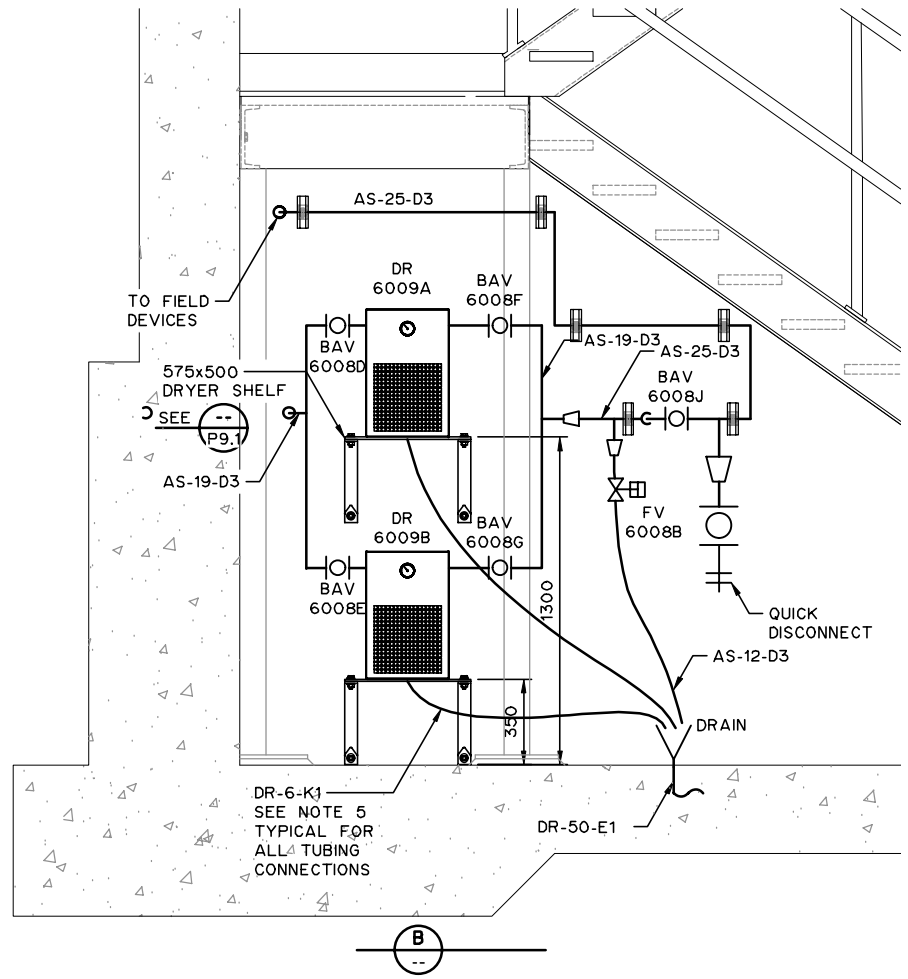
DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	SHOWN
DATE	NOVEMBER 2020	DRAWING	P4.10



PLAN







NOTES:

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3. STEEL PIPES LARGER THAN 75ø SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
4. PVC PIPES LARGER THAN 150ø SHALL NOT BE SUPPORTED FROM THE ROOF SYSTEM UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO NEATLY PLUMB WASTE TUBING TO NEAREST FLOOR DRAIN.

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CIVIL	52866	

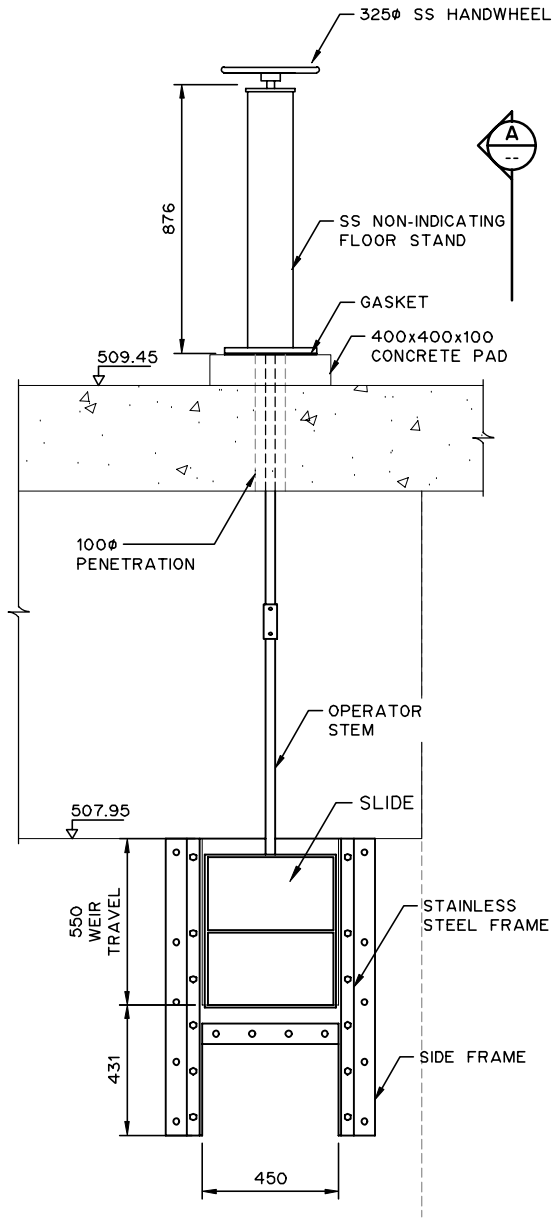
PROFESSIONAL ENGINEER
KAGOBE
MEMBER 52866
2021-01-18
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

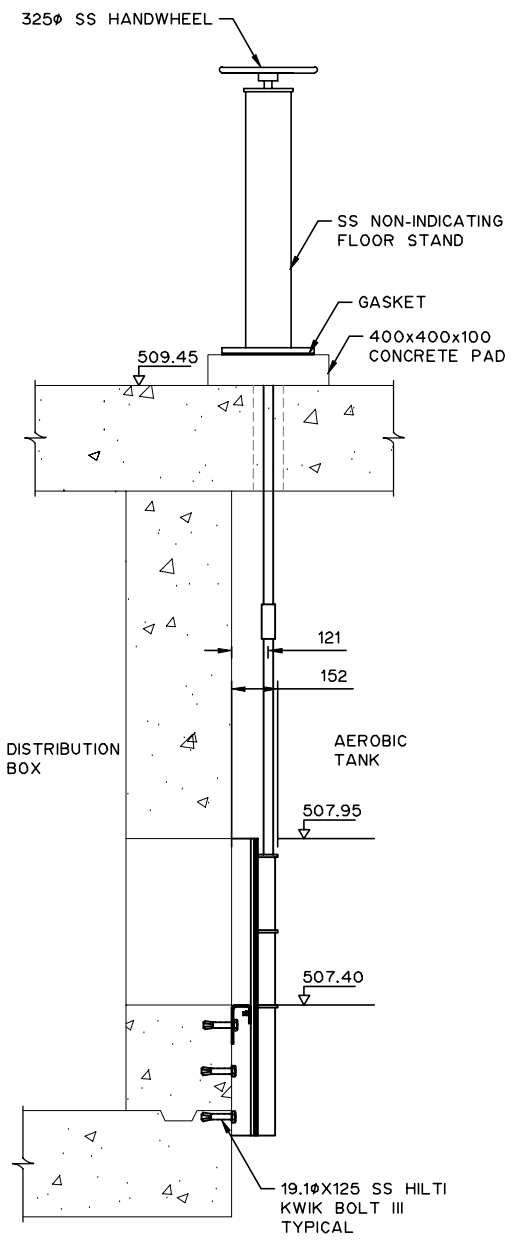
WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM
AIR COMPRESSOR SYSTEM

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	P4.11

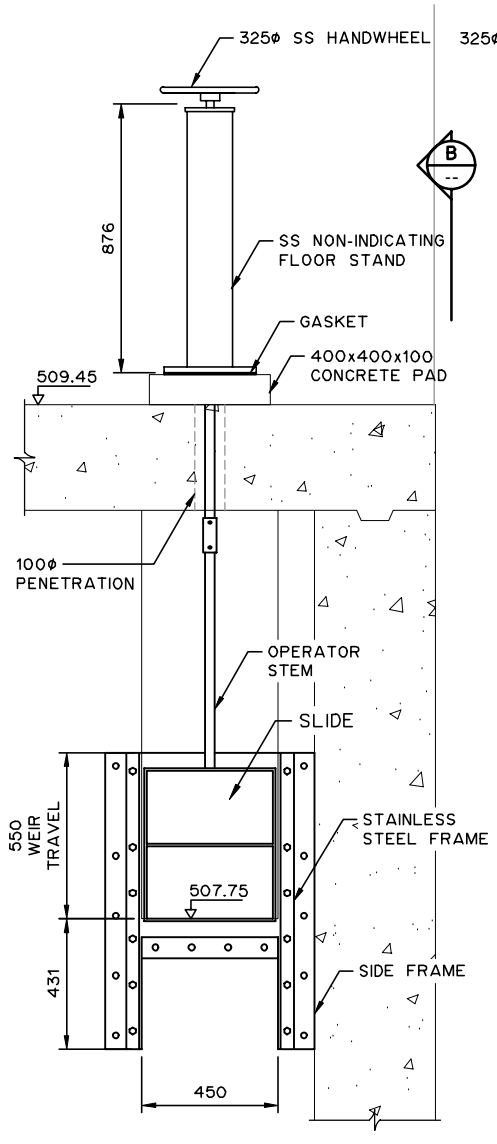


EFFLUENT TANK WEIR GATE

8 P3.6 | 8 P4.1 | 8 P4.2 | 8 P4.5 | 8 P4.7 | 8 | NTS

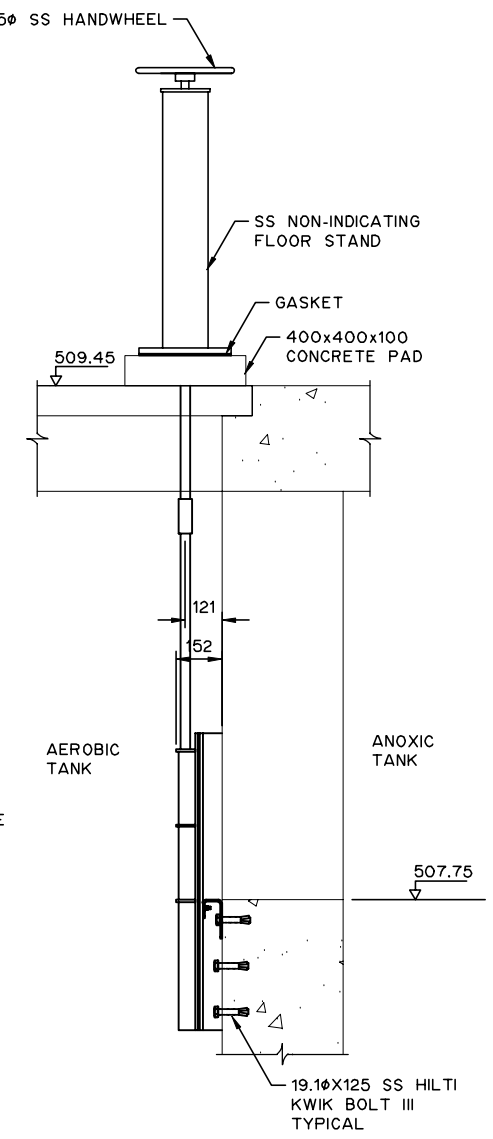


A --

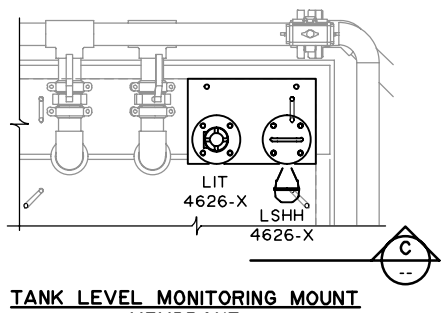


INFLUENT TANK WEIR GATE

9 P4.1 | 9 P4.2 | 9 P4.7 | NTS

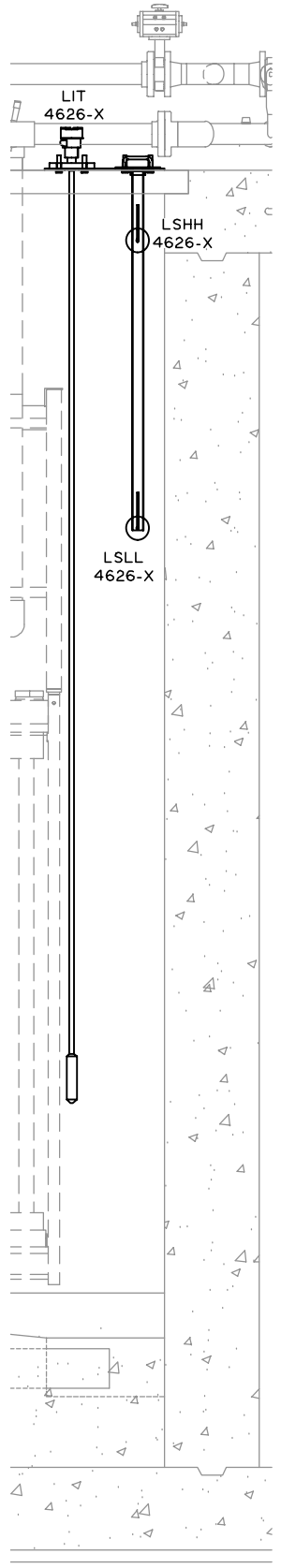


B --



TANK LEVEL MONITORING MOUNT MEMBRANE

10 P3.2 | 10 P4.3 | 1:30



C -- 1:30

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

ISSUE	YY-MM-DD	REVISION
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1	20-10-15	FOR TENDER

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
CIVIL	52866	

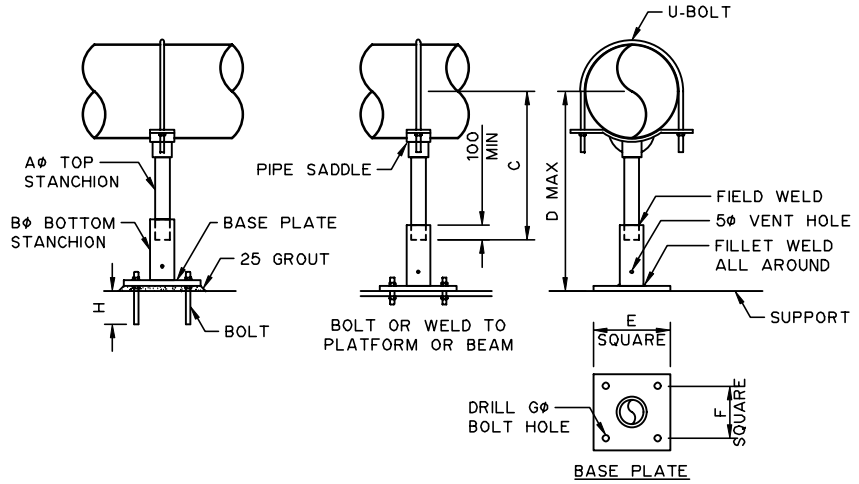
PROFESSIONAL ENGINEER — I. KAGORO — MEMBER 52866 — 2021-01-18 YR. MN. DAY — SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
BIOREACTOR AND PUMP ROOM
DETAILS

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	SHOWN
DATE	NOVEMBER 2020	DRAWING	P4.12



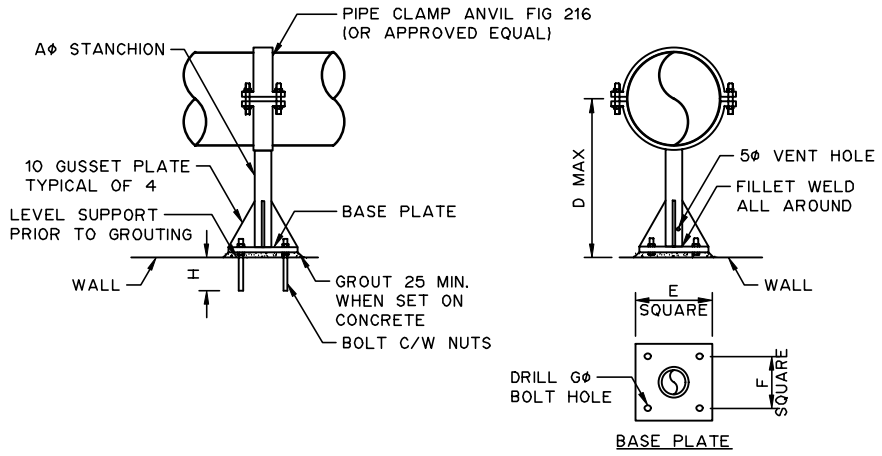
NOTES:

1. STANCHION MATERIAL SCH. 40 316 STAINLESS STEEL PIPE, OR AS PER SPECIFICATIONS.
   BASE PLATE - 316 STAINLESS STEEL
   PIPE STANCHION SADDLE - MAY BE MYATT FIG. 306 OR ANVIL FIG. 259

PIPE SIZE		65	80	100	125	150	200	250	300	350	400	450	500	600
A		40	65	65	65	75	75	75	100	100	100	150	150	150
B		65	75	75	75	100	100	100	150	150	150	200	200	200
C	MIN	200	210	235	250	270	300	350	380	410	450	500	530	600
	MAX	330	340	350	375	390	420	460	500	530	570	610	650	720
D MAX		1000	1200	1200	1200	1500	1500	1500	1800	1800	1800	2000	2000	2000
THICK x		8	8	8	8	12	12	12	12	12	12	16	16	16
E SQUARE		150	150	200	200	200	200	200	250	250	250	300	300	300
F SQUARE		100	100	150	150	150	150	150	190	190	190	240	240	240
G ø x No. HOLES		15ø x 4		20ø x 4						25ø x 4				
BOLT øxH		M12x100 HILTI HIT HY-200		M16x150 HILTI HIT HY-200						M20x150 (MIN) HILTI HIT HY-200				

PIPE SUPPORT TYPE 1

11 -- NTS



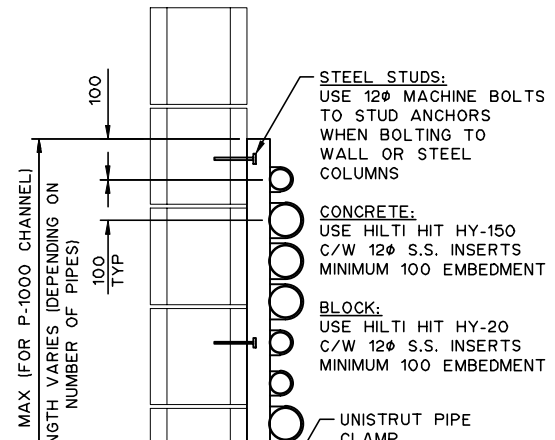
NOTES:

1. STANCHION MATERIAL SCH 40 STAINLESS STEEL 316 PIPE, OR AS PER SPECIFICATIONS. BASEPLATE - STAINLESS STEEL 316.
2. REDUCE EMBEDMENT FOR FASTENING TO BLOCK WALLS: 150 FOR 200 WALL, 100 FOR 150 WALL. (ENSURE ANCHORS EMBED INTO CORE FILL)
3. IN WET AREAS ALL CLAMPS, BOLTS, NUTS, WASHERS AND STEEL PLATE ETC. TO BE STAINLESS STEEL 316.

PIPE SIZE		65	80	100	125	150	200	250	300	350	400	500	600	750
A		65	75	75	75	100	100	100	150	150	150	150	150	150
D MAX		1000	1200	1200	1200	1500	1500	1500	1800	1800	1800	1800	1800	1800
THICK x		8	8	8	8	12	12	12	12	12	12	12	12	12
E SQUARE		200	200	250	250	250	250	250	300	300	300	300	300	300
F SQUARE		150	150	200	200	200	200	200	240	240	240	240	240	240
G ø x No. HOLES		15ø x 4		20ø x 4						25ø x 4				
BOLT øxH		M12x100 HILTI HIT HY-200		M16x150 HILTI HIT HY-200						M20x150 (MIN) HILTI HIT HY-200				

PIPE SUPPORT TYPE 2

12 -- NTS

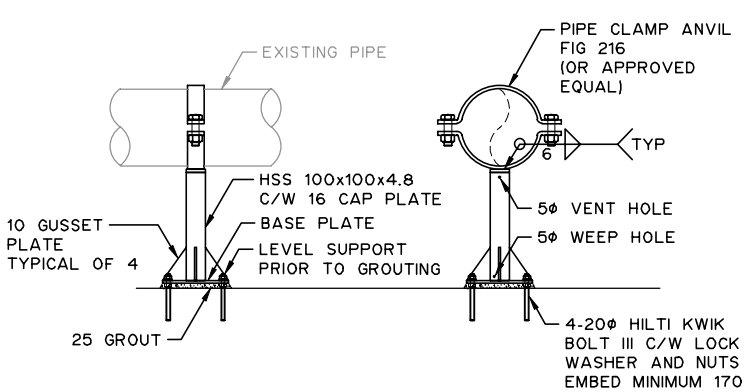


NOTES:

1. CONTRACTOR TO FOLLOW PIPE UNISTRUT MANUFACTURER RECOMMENDATIONS FOR LINE SPACING AND ALLOWABLE SPAN.

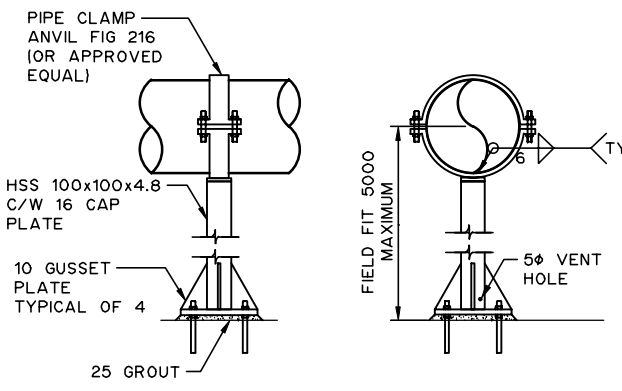
UNISTRUT CHANNEL PIPE SUPPORT FOR 50mm AND SMALLER

15 -- NTS



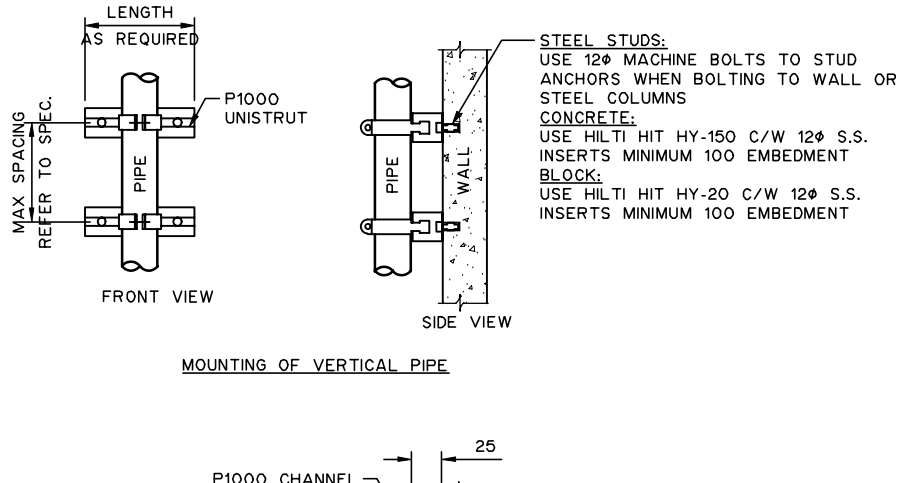
TYPE A PIPE SUPPORT

13 -- NTS



TYPE B PIPE SUPPORT

14 -- NTS



UNISTRUT PIPE SUPPORT UP TO 50mm PIPE

16 -- NTS

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

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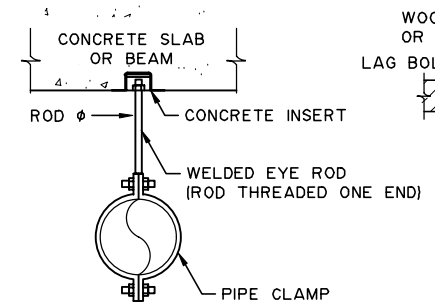
PROFESSIONAL ENGINEER — I. KAGOBE — MEMBER 52866 — 2021-01-18 YR. MN. DAY — SASKATCHEWAN

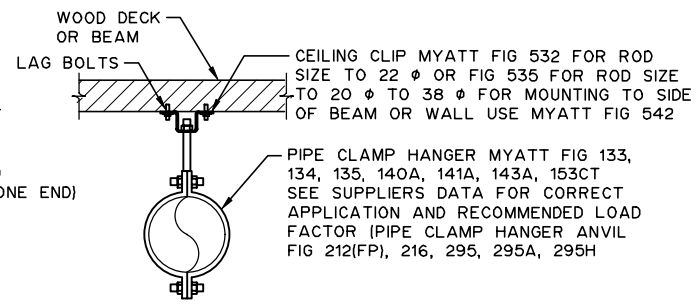
MPE Engineering Ltd.

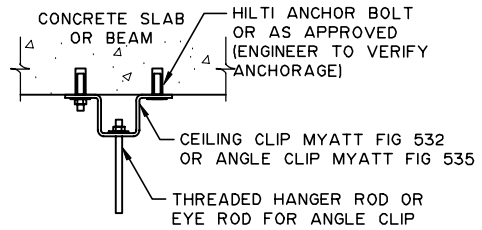
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

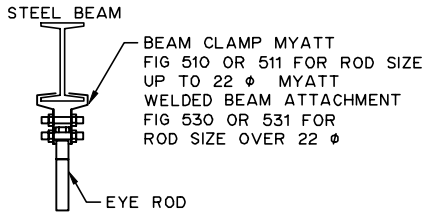
WASTEWATER TREATMENT PLANT
PROCESS PIPING
TYPICAL DETAILS SHEET 1

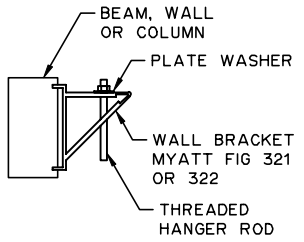
DESIGNED	I.K.	JOB	7603-002-00	
DRAWN	L.J.S.	SCALE	AS SHOWN	
DATE	NOVEMBER 2020	DRAWING	P5.1	

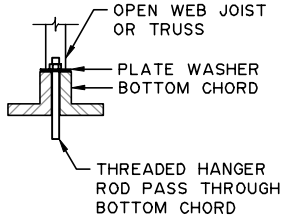


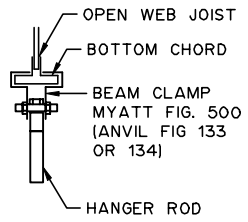


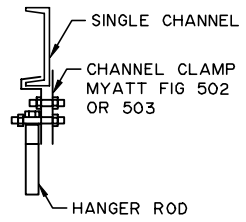


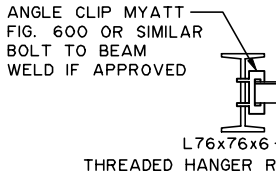


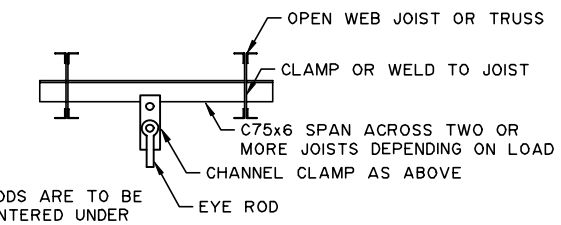












NOTE: ABOVE TWO METHODS ARE TO BE USED IF LOAD IS NOT CENTERED UNDER STRUCTURAL MEMBER.

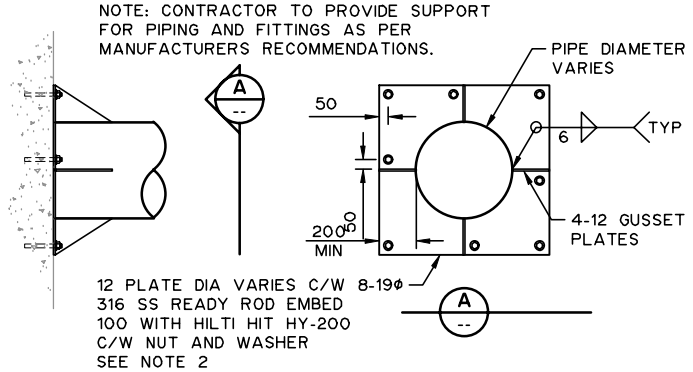
NOTES:
1. MANUFACTURED COMPONENTS MAY BE ORDERED FROM MYATT, ANVIL OR AS APPROVED.
2. FABRICATED COMPONENTS SHOP PRIMED OR GALVANIZED AS PER SPECIFICATIONS.

PIPE SIZE	10	15	20	25	30	40	50	65	75	100	150
CLEVIS No.	ROD ϕ										
MYATT 122	10	10	10	10	10	10	10	12	12	12	
MYATT 124			10	10	10	10	10	12	12	16	20
MYATT 125									20	22	25
MYATT 126										20	20
MYATT 151		10	10	10	10	10	10	12	12	12	20

STANDARD PIPE CLAMP HANGER DETAILS

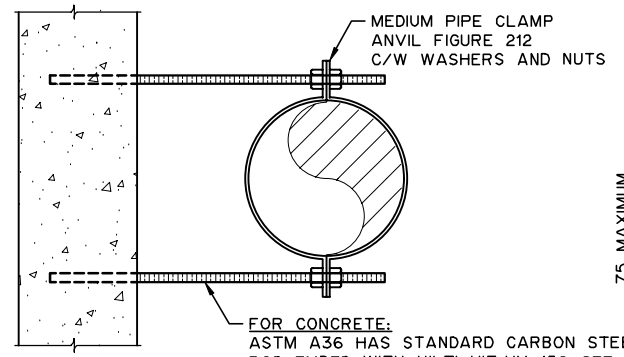
17 -- NTS

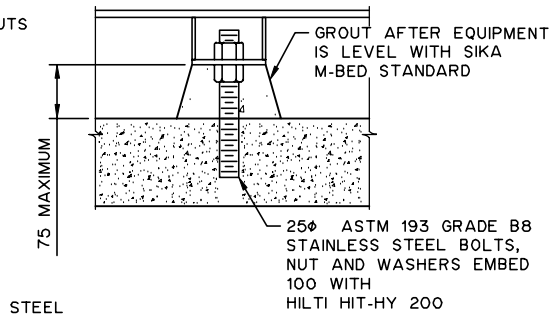
NOTE: CONTRACTOR TO PROVIDE SUPPORT FOR PIPING AND FITTINGS AS PER MANUFACTURERS RECOMMENDATIONS.



TYPICAL THRUST SUPPORT PLATE DETAIL

18 -- 1:20





TYPICAL EQUIPMENT PAD

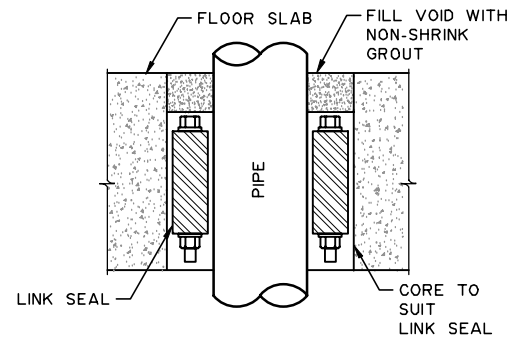
NTS

ANVIL FIGURE 212		
PIPE SIZE (mm)	ROD ϕ	MIN. EMBED
25 TO 38	8	100
50 TO 89	12.5	127
100 TO 125	16	127
150 TO 200	19	170
250 TO 400	22	190
450	25	225
500 TO 600	32	250

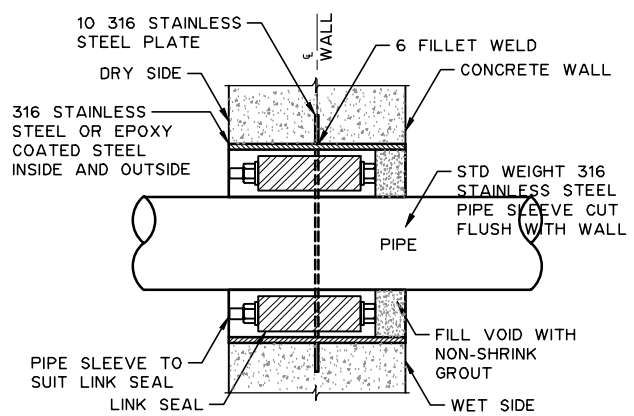
NOTE: IF FASTENED TO BLOCK WALL, VERIFY ANCHORAGE WITH ENGINEER.

RISER /HANGER PIPE SUPPORT TYPE 4

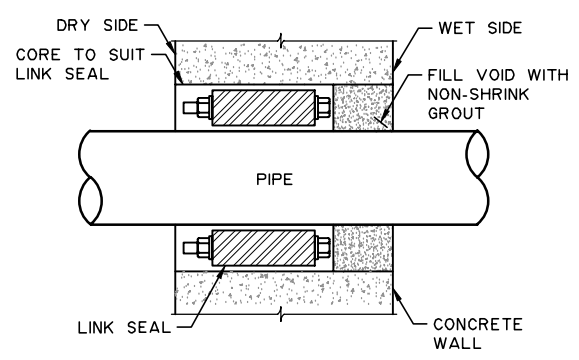
19 -- NTS



FLOOR PENETRATION



WALL SLEEVE IN CONCRETE WALL



WALL PENETRATION

TYPICAL PENETRATION AND LINK SEALS

20 -- NTS

NOTES:
1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. ENSURE JOINT BETWEEN PLATE AND CONCRETE IS WATER TIGHT. PROVIDE GASKETS AS REQUIRED. CAULK WITH SIKAFLEX 1A.

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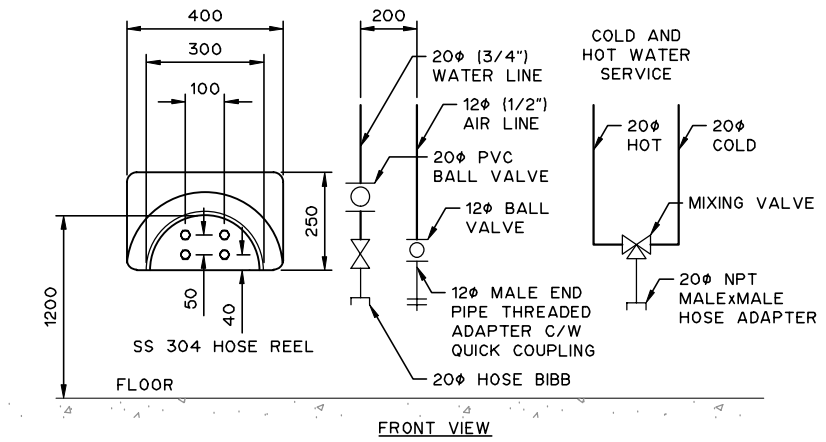
PROFESSIONAL ENGINEER — KAGORO — NUMBER 52866 — 2021-01-18 YR. MN. DAY — SASKATCHEWAN

MPE Engineering Ltd.

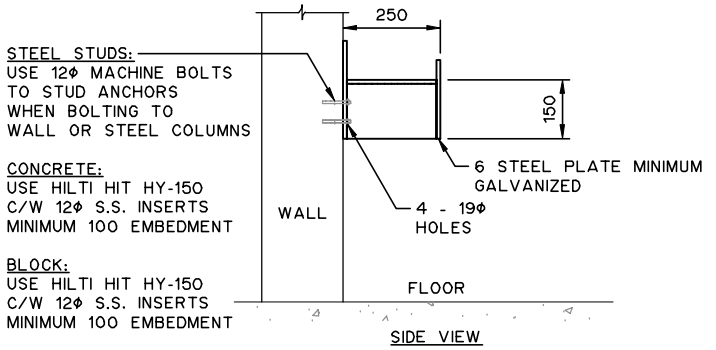
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
PROCESS PIPING
TYPICAL DETAILS SHEET 2

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	AS SHOWN
DATE	NOVEMBER 2020	DRAWING	P5.2



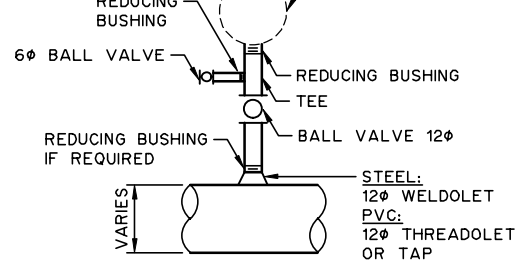
FRONT VIEW



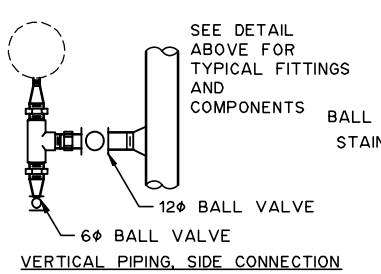
SIDE VIEW

HOSE REEL AND PIPING DETAIL
FOR PLANT SERVICE WATER AND COMPRESSED AIR

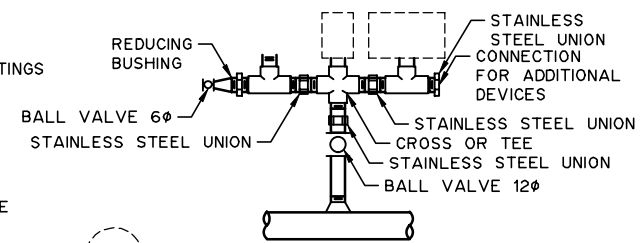
21 -- NTS



HORIZONTAL PIPING, TOP CONNECTION

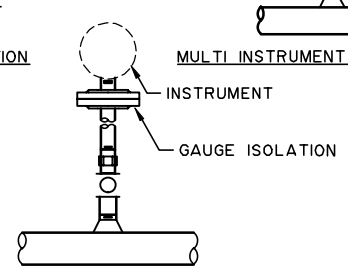


VERTICAL PIPING, SIDE CONNECTION



MULTI INSTRUMENT CONNECTION

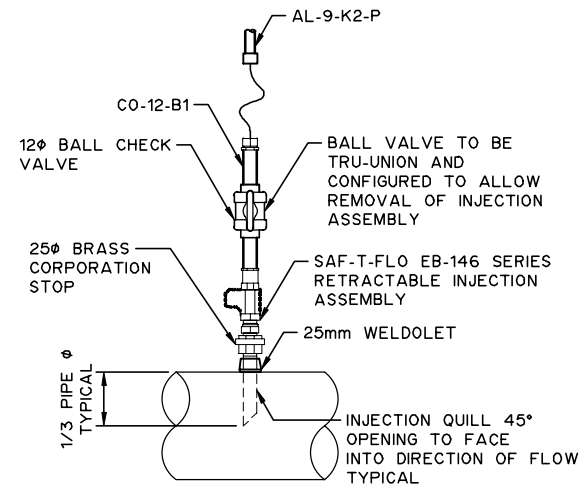
NOTE: ALL PIPING FOR INSTRUMENTATION TO BE 12ϕ AND 316 SCH40 STAINLESS STEEL UNLESS NOTED OTHERWISE.



GAUGE ISOLATION

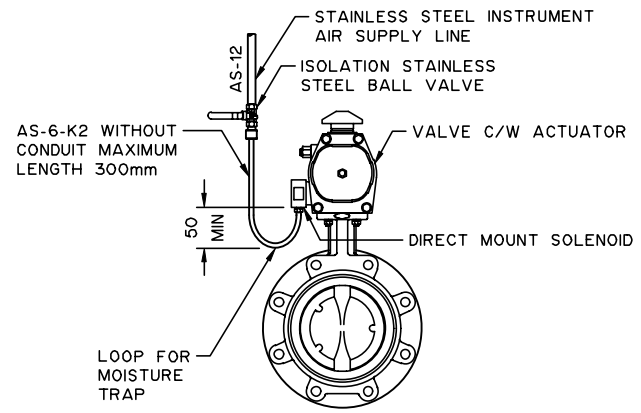
INSTRUMENT CONNECTION DETAILS

22 -- NTS



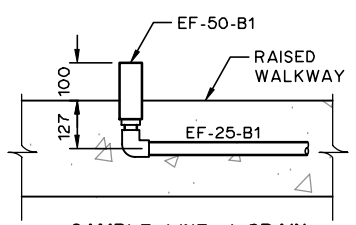
ALUM INJECTION DETAIL

23 -- NTS



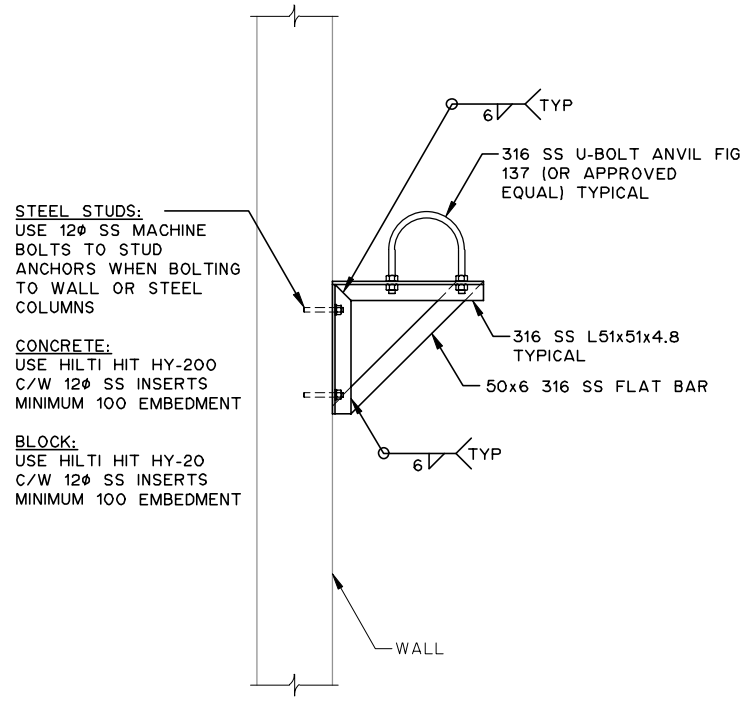
INSTRUMENT AIR CONNECTION
TO PNEUMATIC FIELD DEVICES

24 -- NTS



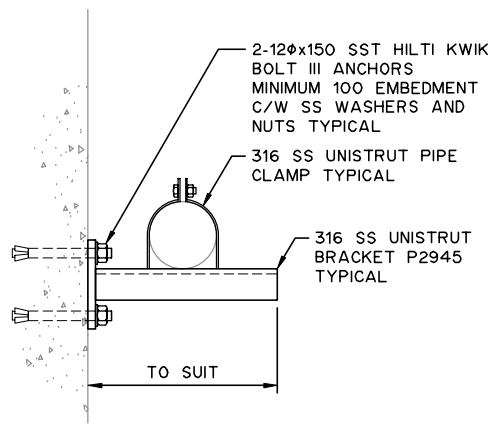
SAMPLE LINE / DRAIN

25 -- NTS



TYPICAL PIPE WALL SUPPORT DETAIL

26 -- NTS



TYPICAL UNISTRUT PIPE SUPPORT

27 -- NTS

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

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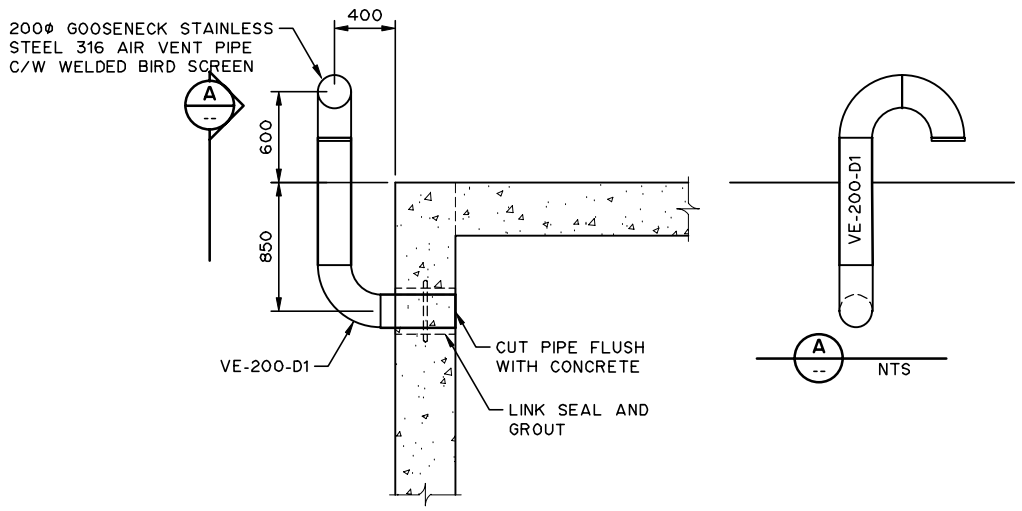
PROFESSIONAL ENGINEER — KAGORO — NUMBER 52866 — 2021-01-18 YR. MN. DAY — SASKATCHEWAN

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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

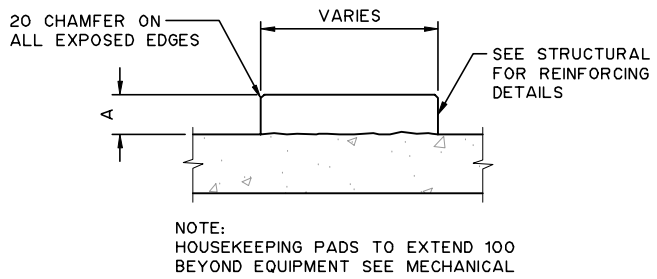
WASTEWATER TREATMENT PLANT
PROCESS PIPING
TYPICAL DETAILS SHEET 3

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P5.3



CORED RESERVOIR VENT DETAIL WALL PENETRATION

28 -- NTS



NOTE:
HOUSEKEEPING PADS TO EXTEND 100 BEYOND EQUIPMENT SEE MECHANICAL

TYPICAL EQUIPMENT PAD

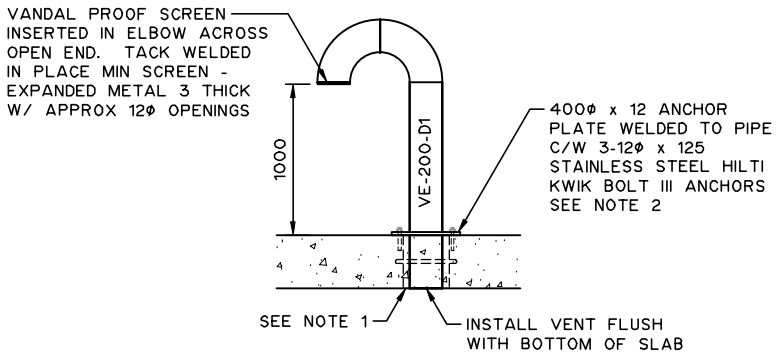
30 -- 1:50

SEE NOTE 4

EQUIPMENT	PAD HEIGHT (A)
TWAS BLOWER	300
BIOREACTOR BLOWERS	300
MEMBRANE BLOWERS	148
PERMEATE TANK	100
PERMEATE PUMP SKIDS	100
RAS PUMPS	100
AIR COMPRESSOR	100
UVR	825

NOTES:
1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. 20 CHAMFER ALL EXPOSED CONCRETE EDGES TYPICAL.
3. HOUSEKEEPING PADS TO EXTEND 100 BEYOND EQUIPMENT. COORDINATE WITH SUPPLIER.
4. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING HEIGHT OF PAD WITH EQUIPMENT SUPPLIERS PRIOR TO INSTALLATION.

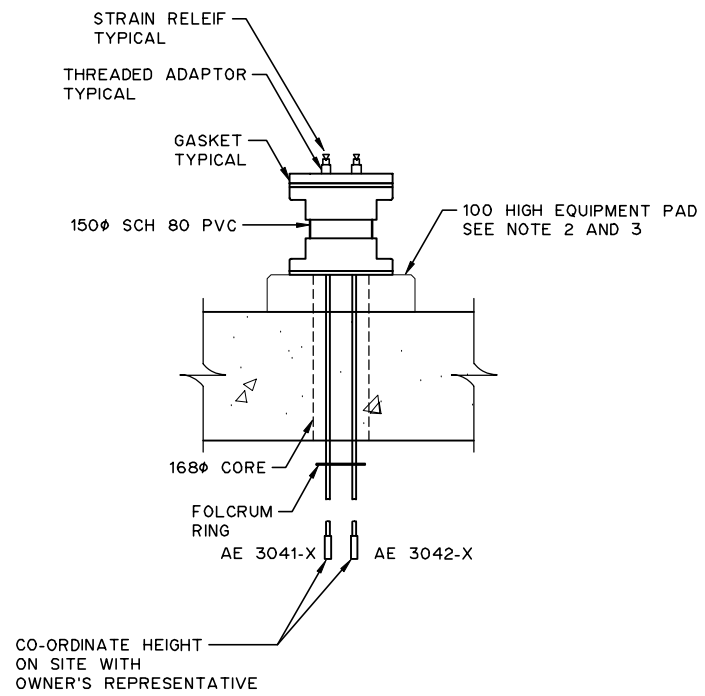
THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS



NOTES:
1. CONTRACTOR TO CORE HOLE FOR PENETRATIONS. CONTRACTOR TO USE LINK SEAL AND GROUT AS PER CONTRACT SPECIFICATIONS.
2. ENSURE JOINT BETWEEN PLATE AND CONCRETE IS WATER TIGHT. PROVIDE GASKETS AS REQUIRED.

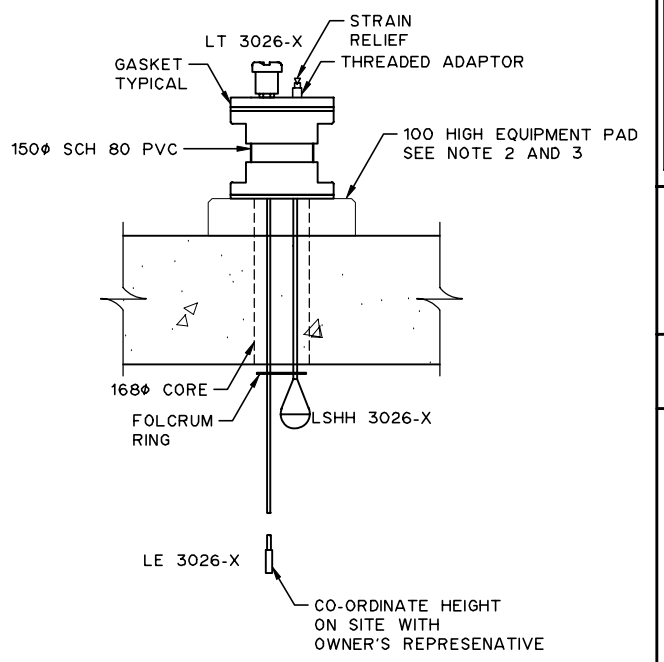
CORED RESERVOIR VENT DETAIL SLAB PENETRATION

29 -- NTS



PH AND DISSOLVED OXYGEN INSTRUMENTS

31 P4.3 NTS



LSHH AND LT INSTRUMENTS

32 P4.3 NTS

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MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

PROCESS PIPING

TYPICAL DETAILS SHEET 4

DESIGNED	I.K.	JOB	7603-002-00
DRAWN	L.J.S.	SCALE	NTS
DATE	NOVEMBER 2020	DRAWING	P5.4

DISTRIBUTION

- CONDUIT IDENTIFICATION TAG
- LIGHTING/POWER PANEL
- DATA PANEL
- INTERCOM PANEL
- FIRE ANNUNCIATOR PANEL
- GROUND BAR
- PLYWOOD BACKBOARD
- EXTERIOR TRANSFORMER
- DRY TYPE TRANSFORMER
- METERING CABINET GREATER THAN 200A
- UTILITY METER PLAN
- POWER METER
- ELECTRIC UTILITY METER 200A AND LESS
- WATER METER
- GAS METER
- SPLITTER
- ELECTRICAL CENTRAL DISTRIBUTION PANEL (CDP)
- ELECTRICAL MOTOR CONTROL CENTRE (MCC)
- ELECTRICAL MAIN DISTRIBUTION BOARD
- TRANSFER SWITCH WITH BY-PASS
- TRANSFER SWITCH
- LVT 120/24V LOW VOLTAGE TRANSFORMER
- WEATHER HEAD

LIGHTING

- SURFACE MOUNTED LIGHT FIXTURE
- RECESSED LIGHT FIXTURE
- RECESSED LIGHT FIXTURE WITH END PLATES
- SURFACE MOUNTED STRIP LIGHT FIXTURE
- CEILING LIGHT FIXTURE
- UNDER CABINET/VALENCE STRIP LIGHT FIXTURE
- WALL MOUNTED CUBED LIGHT FIXTURE
- SURFACE MOUNTED LIGHT FIXTURE
- RECESSED LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- EM WALL MOUNTED LIGHT FIXTURE ON EMERGENCY
- TRACK LIGHT C/W PENDANT HEADS
- TRACK LIGHT C/W ADJUSTABLE HEADS
- BOLLARD LIGHT FIXTURE
- POLE MOUNTED LIGHT FIXTURE (ONE HEAD SHOWN)
- WALL MOUNTED HID LIGHT FIXTURE

POWER

- DUPLEX RECEPTACLE
- SPLIT FEED RECEPTACLE
- FOURPLEX RECEPTACLE
- SWITCHED DUPLEX RECEPTACLE
- 20A T-SLOT RECEPTACLE (KITCHEN)
- TWISTLOCK RECEPTACLE
- 208 VOLT 1PH RECEPTACLE
- 208 VOLT 3PH RECEPTACLE
- WALL MOUNTED USB PORT
- PEDESTAL DUPLEX RECEPTACLE
- SB - WALL MOUNTED MULTI-GANG BOX
- WALL MOUNTED PUSH BUTTON
- SPD WALL MOUNTED SURGE PROTECTIVE DEVICE (SPD OR TVSS)
- VFD WALL MOUNTED VARIABLE FREQUENCY DRIVE (VFD)
- CEILING MOUNTED DUPLEX RECEPTACLE
- CEILING MOUNTED FOURPLEX RECEPTACLE
- CEILING MOUNTED 208 VOLT 1PH RECEPTACLE
- CEILING MOUNTED 208 VOLT 3PH RECEPTACLE
- R AUXILIARY RELAY
- P CEILING MOUNTED POWER ZONE BOX
- REEL DOWN RECEPTACLE
- PACK POLE
- No. FLOOR MOUNTED DUPLEX RECEPTACLE (No. of OUTLETS)
- No. FLOOR MOUNTED FOURPLEX RECEPTACLE (No. of OUTLETS)
- No. FLOOR MOUNTED 208 VOLT 1PH RECEPTACLE
- No. FLOOR MOUNTED 208 VOLT 3PH RECEPTACLE
- SB - FLOOR MOUNTED MULTI-GANG BOX
- MOTOR
- MOTOR WITH DISCONNECT SWITCH
- MOTOR WITH FUSIBLE DISCONNECT SWITCH
- MOTOR WITH COMBINATION DISCONNECT SWITCH

POWER CONTINUED

- MSM MAGNETIC MOTOR STARTER
- HOME RUN WITH WIRE COUNT
- WAP WIRELESS ACCESS POINT
- ELECTRICAL HEATING
- HEAT TRACING
- PIN AND SLEEVE CONNECTOR (FEMALE)
- PIN AND SLEEVE CONNECTOR (MALE)

SWITCHES AND JUNCTIONS BOXES

- LINE VOLTAGE SWITCH
- P SWITCH C/W PILOT LIGHT
- 2 TWO POLE SWITCH
- 3 THREE WAY SWITCH
- 4 FOUR WAY SWITCH
- M MANUAL MOTOR PROTECTION SWITCH C/W PILOT LIGHT
- K KEY OPERATED SWITCH - CYLINDER TYPE
- T TIMER SWITCH
- D DIMMER SWITCH - SLIDER TYPE
- L INTERNALLY ILLUMINATED LIGHT SWITCH
- R LOW VOLTAGE SWITCH
- 2 GANG SWITCH
- 3 GANG SWITCH
- 4 GANG SWITCH
- 5 GANG SWITCH
- WALL MOUNTED PHOTOCELL
- WALL MOUNTED JUNCTION BOX
- FLOOR MOUNTED JUNCTION BOX
- J SQUARE CEILING MOUNTED JUNCTION BOX
- T THERMOSTAT
- NON-FUSEABLE DISCONNECT SWITCH
- FUSEABLE DISCONNECT SWITCH
- COMBINATION MAGNETIC HOA STARTER
- O/H DOOR PUSH BUTTON
- PB PULL BOX

LIFE SAFETY

- CEILING MOUNTED EXIT LIGHT SINGLE FACE
- CEILING MOUNTED EXIT LIGHT DOUBLE FACE
- CEILING COMBINATION EXIT SIGN AND EMERGENCY LIGHT C/W BATTERY
- WALL MOUNTED EXIT LIGHT SINGLE FACE
- WALL MOUNTED EXIT LIGHT DOUBLE FACE
- WALL COMBINATION EXIT SIGN AND EMERGENCY LIGHT C/W BATTERY
- EXIT LIGHT DIRECTIONAL ARROW
- WALL MOUNTED EMERGENCY LIGHTING BATTERY PACK
- CEILING MOUNTED EMERGENCY LIGHTING DOUBLE REMOTE HEAD
- CEILING MOUNTED EMERGENCY LIGHTING RECESSED REMOTE HEAD
- WALL MOUNTED EMERGENCY LIGHTING DOUBLE REMOTE HEAD
- SMOKE DETECTOR
- SMOKE ALARM - 120V

POWER EQUIPMENT

- DELTA WYE TRANSFORMER
- DISTRIBUTION TRANSFORMER
- POTENTIAL TRANSFORMER
- FUSE DRAW OUT TYPE
- CIRCUIT BREAKER DRAW OUT TYPE
- 3 PHASE GENERATOR (GROUNDED)
- THERMAL OVERLOAD PROTECTION
- INTERLOCK
- CAPACITOR
- A CURRENT METER
- CONTACTOR
- FUSE
- DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- XXX CIRCUIT BREAKER — XXX FRAME SIZE, XXX TRIP RATING, XXX POLE
- ETM ELAPSED TIME METER

POWER EQUIPMENT CONTINUED

- GROUND ROD
- GROUND ROD C/W WELL
- GROUND ROD WITHOUT WELL
- GH GATE HOIST
- x kw HEATER C/W KILOWATT RATING
- XXX MOTOR CONTROL IDENTIFICATION TAG
- TRANSFER SWITCH

COMMUNICATIONS

- WALL MOUNTED TELEPHONE OUTLET
- WALL MOUNTED DATA OUTLET
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- WALL MOUNTED TELEVISION OUTLET
- WALL MOUNTED CHIME OR BUZZER
- CEILING MOUNTED TELEPHONE OUTLET
- CEILING MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- CEILING MOUNTED TELEVISION OUTLET
- CEILING MOUNTED DATA OUTLET (No. OF OUTLETS)
- No. FLOOR MOUNTED DATA OUTLET (No. OF OUTLETS)
- No. FLOOR MOUNTED TELEPHONE OUTLET (No. OF OUTLETS)
- No. FLOOR MOUNTED TELEVISION OUTLET (No. OF OUTLETS)
- No. FLOOR MOUNTED COMBINATION TELEPHONE/DATA OUTLET (No. OF OUTLETS)
- RADIO LINK

CONTROL PANEL EQUIPMENT

- RESET PUSH BUTTON (NO)
- RESET PUSH BUTTON (NC)
- MUSHROOM HEAD STOP
- H A O A O H — 3 POSITION SELECTOR SWITCH
- ON OFF — 2 POSITION SELECTOR SWITCH
- H A O OFF O ON — HAND-OFF-AUTO SELECTOR SWITCH
- U D — UP-OFF-DOWN SELECTOR SWITCH
- RESET PUSH BUTTON
- A AMBER PILOT LIGHT
- G GREEN PILOT LIGHT
- R RED PILOT LIGHT
- DUPLEX RECEPTACLE
- SINGLE PHASE PLUG
- MAIN CONTROL PANEL FUSED TERMINAL BLOCK
- AUXILIARY FUSED TERMINAL BLOCK
- CIRCUIT BREAKER
- MAIN CONTROL PANEL TERMINAL BLOCK
- PLC/RTU TERMINAL
- AUXILIARY TERMINAL BLOCK
- MCC/VFD TERMINAL BLOCK
- DEVICE TERMINAL BLOCK
- R 1000 — DRY CONTACT RELAY
- d TDR 1000 b — TIME DELAY RELAY
- M MAGNETIC CONTACTOR
- SOLENOID
- DRY CONTACT RELAY (NC)
- DRY CONTACT RELAY (NO)
- VARIABLE RESISTOR
- RESISTOR
- TH THERMISTOR
- DIODE
- MOV METAL OXIDE VARISTOR

INSTRUMENTATION EQUIPMENT

- LEVEL SWITCH (OPEN ON RISING LEVEL)
- LEVEL SWITCH (OPEN ON FALLING LEVEL)
- FLOW SWITCH (OPEN ON RISING FLOW)
- FLOW SWITCH (OPEN ON FALLING FLOW)
- PRESSURE SWITCH (OPEN ON RISING PRESSURE)
- PRESSURE SWITCH (OPEN ON FALLING PRESSURE)
- TEMPERATURE SWITCH (OPEN ON RISING TEMPERATURE)
- TEMPERATURE SWITCH (OPEN ON FALLING TEMPERATURE)
- LIMIT SWITCH (NC)
- LIMIT SWITCH (NO)
- TIME DELAY RELAY (NC)
- TIME DELAY RELAY (NO)
- XXX / XXX INSTRUMENTATION IDENTIFICATION TAG

PLC I/O

- PLC DI PLC/RTU DIGITAL INPUT
- PLC DO PLC/RTU DIGITAL OUTPUT
- PLC AI PLC/RTU ANALOG INPUT
- PLC AO PLC/RTU ANALOG OUTPUT

MISCELLANEOUS AND LABELS

- REVISION NUMBER
- FIXTURE TYPE
- MECHANICAL EQUIPMENT IDENTIFICATION TAG
- KITCHEN EQUIPMENT TAG
- KEY NOTES
- SINGLE LINE BREAK
- DOUBLE LINE BREAK
- E CAPPED OFF LINE OR CONDUIT
- CONDUIT BREAK
- CABLE TRAY
- DW DISH WASHER
- F FRIDGE
- R RANGE
- M MICROWAVE
- G GARBURATOR
- D DRYER
- W WASHER
- NL NIGHT LIGHT
- TP TAMPER PROOF
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- IG ISOLATED GROUND
- EM EMERGENCY
- AF AMP FRAME
- AT AMP TRIP
- WP WEATHER PROOF
- XP EXPLOSION PROOF
- E EXISTING DEVICE TO REMAIN
- X EXISTING DEVICE TO BE REMOVED
- ER EXISTING DEVICE TO BE RELOCATED
- RD RELOCATED DEVICE
- WIRE COUNT
- CONDUIT RUN UP
- CONDUIT RUN DOWN
- OH OVERHEAD POWER
- UG UNDERGROUND POWER
- CONDUCTOR/CONDUIT
- UNDERGROUND CONDUCTOR/CONDUIT
- FLEXIBLE CONDUIT
- EXISTING EQUIPMENT
- NEW EQUIPMENT
- EQUIPMENT TO BE REMOVED

OCCUPANCY SENSORS

- WALL MOUNTED PASSIVE INFRARED OCCUPANCY SENSOR
- WALL MOUNTED ULTRA SONIC OCCUPANCY SENSOR
- WALL MOUNTED PASSIVE INFRARED/ULTRASONIC OCCUPANCY SENSOR

NOTES:

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PROFESSIONAL ENGINEER — R.G. OESTE — MEMBER 32675 — 2021-01-22 (YR. MN. DAY.) — SASKATCHEWAN

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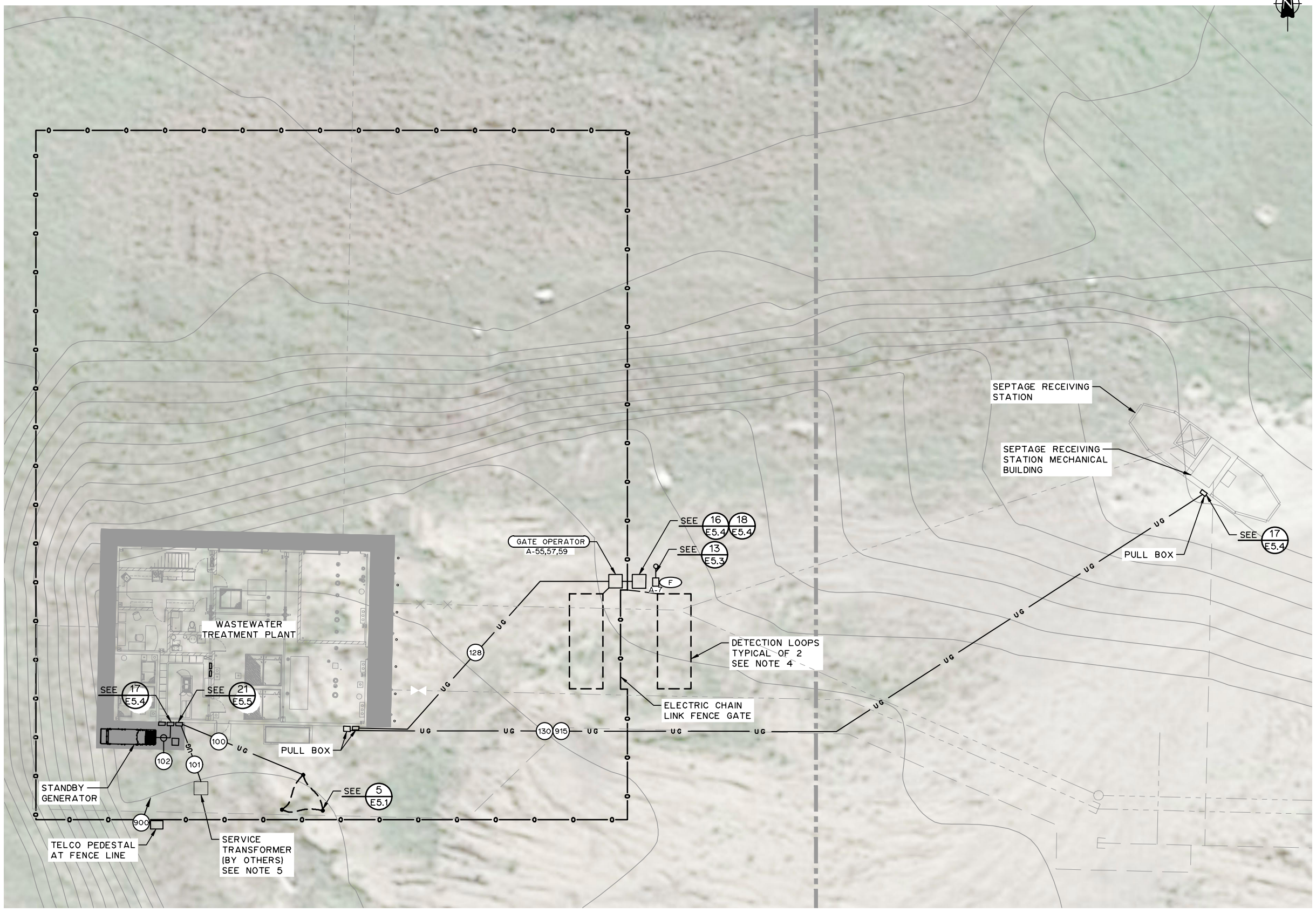
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

ELECTRICAL

ELECTRICAL LEGEND

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E0.1



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. (---) SEE CONDUIT AND CABLE SCHEDULES ON E-DRAWING SERIES.
3. (-) SEE LUMINAIRE SCHEDULE.
4. DETECTION LOOP AND GATE OPERATOR SUPPLIED BY GATE MANUFACTURER. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL WIRING, CONDUIT AND LOCAL WEATHERPROOF DISCONNECT.
5. CONTRACTOR TO COORDINATE AND CONFORM TO ELECTRIC UTILITY REQUIREMENTS FOR NEW SERVICE INSTALLATION.

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PROFESSIONAL ENGINEER
R.G. OFSTIE
MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

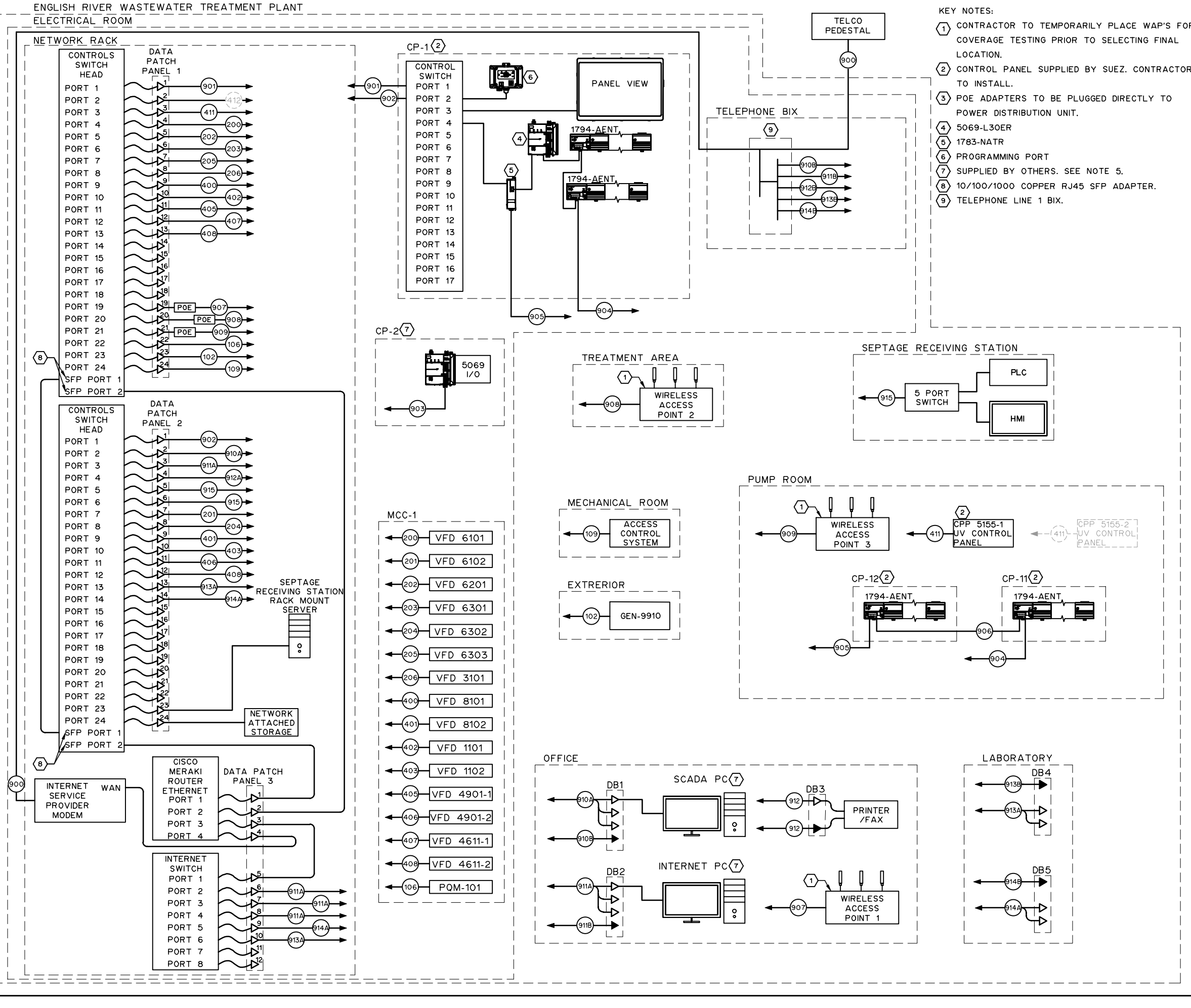
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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

ELECTRICAL
SITE PLAN

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:300
DATE	NOVEMBER 2020	DRAWING	E0.2



KEY NOTES:

1. CONTRACTOR TO TEMPORARILY PLACE WAP'S FOR COVERAGE TESTING PRIOR TO SELECTING FINAL LOCATION.
2. CONTROL PANEL SUPPLIED BY SUEZ. CONTRACTOR TO INSTALL.
3. POE ADAPTERS TO BE PLUGGED DIRECTLY TO POWER DISTRIBUTION UNIT.
4. 5069-L30ER
5. 1783-NATR
6. PROGRAMMING PORT
7. SUPPLIED BY OTHERS. SEE NOTE 5.
8. 10/100/1000 COPPER RJ45 SFP ADAPTER.
9. TELEPHONE LINE 1 BIX.

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2. (--) SEE CONDUIT AND CABLE SCHEDULES ON E-DRAWINGS SERIES.
3. POE = POWER OVER ETHERNET
   DB = DEVICE BOX
4. ALL CABLES TO BE CAT6 UNLESS OTHERWISE NOTED.
5. CP-2 TO BE PROVIDED BY OTHERS. CONTRACTOR TO INSTALL CONTROL PANEL AND TERMINATE DEVICES ACCORDING TO PID P1.x SERIES DRAWINGS AND PANEL DRAWINGS. PANEL DRAWINGS TO BE PROVIDED AT TIME OF CONSTRUCTION.
6. ALL CONTROL NETWORK KEYSTONE PORTS TO BE COLOR CODED RED.
7. ALL INTERNET NETWORK KEYSTONE PORTS TO BE COLOR CODED BLUE.
8. ALL TELEPHONE KEYSTONE PORTS TO BE COLOR CODED WHITE.

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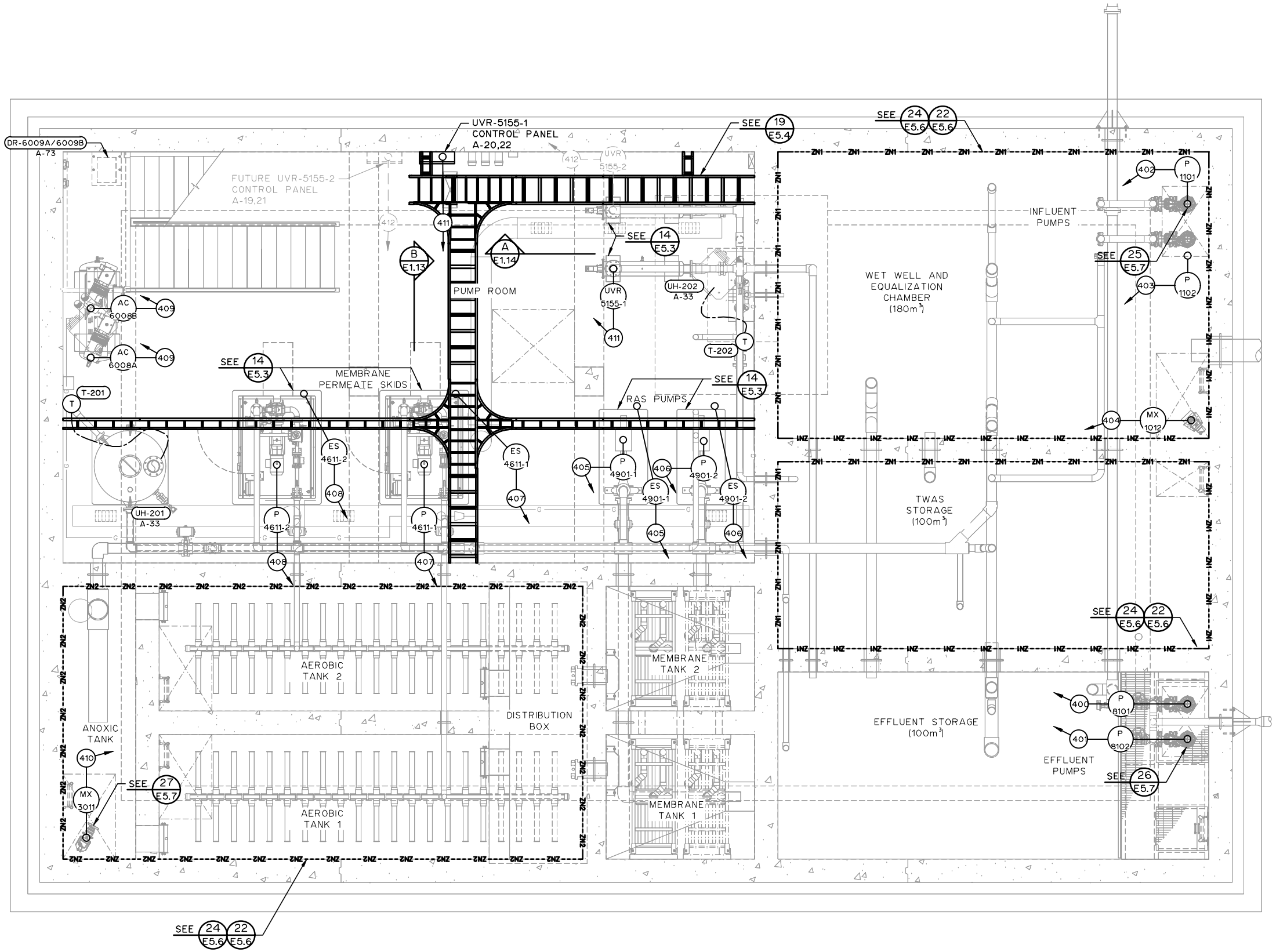
PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22
YR MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
COMMUNICATION AND CONTROL

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E0.3



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2. (--) SEE CONDUIT AND CABLE SCHEDULES ON E-DRAWINGS SERIES.

LEGEND:

1. ——ZN2——ZN2—— ZONE 2 CATEGORY 2
2. ——ZN1——ZN1—— ZONE 1 CATEGORY 1

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PROFESSIONAL ENGINEER
R.G. OFSTIE
MEMBER 32675
2021-01-22
YR. MN. DAY.
SASKATCHEWAN

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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL LOWER LEVEL PLAN

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	E1.1

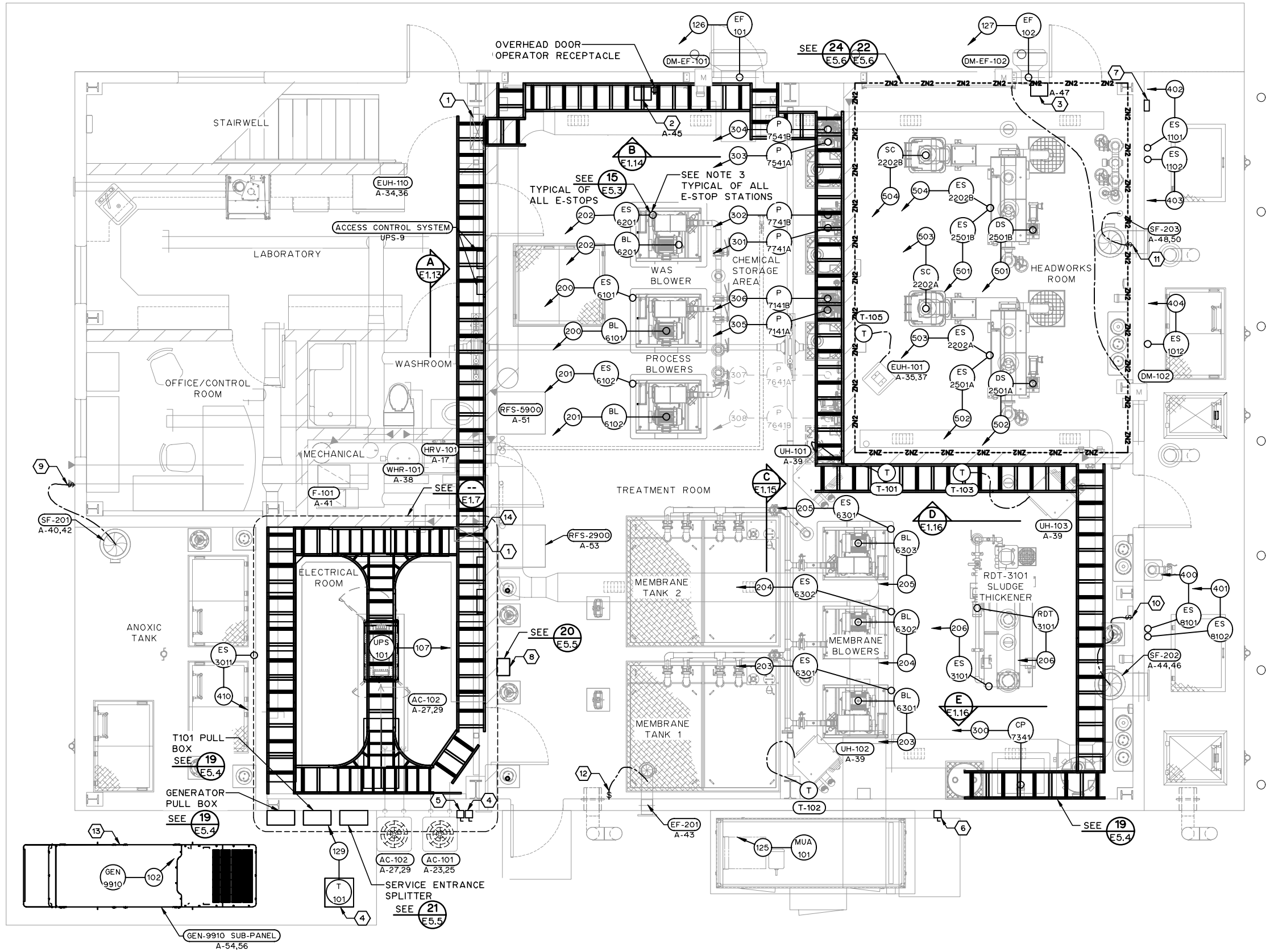
KEY NOTES:

(14) CABLE TRAY TO EXIT ELECTRICAL ROOM CEILING. TRAY NORTH OF ELECTRICAL ROOM TO BE RUN ABOVE MEZZANINE.

(15) NEMA 3R ENCLOSURE.

LEGEND:

1. ——ZN2——ZN2—— ZONE 2 CATEGORY 2
2. ——ZN1——ZN1—— ZONE 1 CATEGORY 1



NOTES:

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2. (--) SEE CONDUIT AND CABLE SCHEDULES ON E-DRAWINGS SERIES.
3. MOUNT IN EASILY ACCESSED LOCATION ON CONTROLLED EQUIPMENT OR WITHIN 1000 OF CONTROLLED EQUIPMENT.

KEY NOTES:

(1) CONTRACTOR TO FIRE STOP PENETRATION USING ROXTEC MULTI-TRANSIT CABLE GLAND SYSTEM COMPLETE WITH AT LEAST 10% SPARE CAPACITY FOR FUTURE CABLE RUNS OF EACH SIZE.

(2) OVERHEAD DOOR OPERATOR C/W THREE BUTTON CONTROL STATION.

(3) HEADWORKS OVERHEAD DOOR OPERATOR C/W THREE BUTTON CONTROL STATION. TO BE RATED ZONE 2.

(4) AC 101 NEMA 4X LOCKABLE OUTDOOR DISCONNECT.

(5) AC 102 NEMA 4X LOCKABLE OUTDOOR DISCONNECT.

(6) MUA 101 NEMA 4X LOCKABLE OUTDOOR DISCONNECT.

(7) EF 102 LOCAL CONTROL STATION.

(8) EH 4601 HOIST CONTROL PANEL AND DISCONNECT.

(9) MOTOR STARTING RATED SWITCH FOR SF 201.

(10) MOTOR STARTING RATED SWITCH FOR SF 202.

(11) MOTOR STARTING RATED SWITCH FOR SF 203.

(12) MOTOR STARTING RATED SWITCH FOR EF 201.

(13) PROVIDE STEEL SPRING VIBRATION ISOLATORS BETWEEN THE RAIL BASE AND SUB-BASE FUEL TANK.

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2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
ISSUE	YY-MM-DD	REVISION

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
ELECTRICAL	32675	

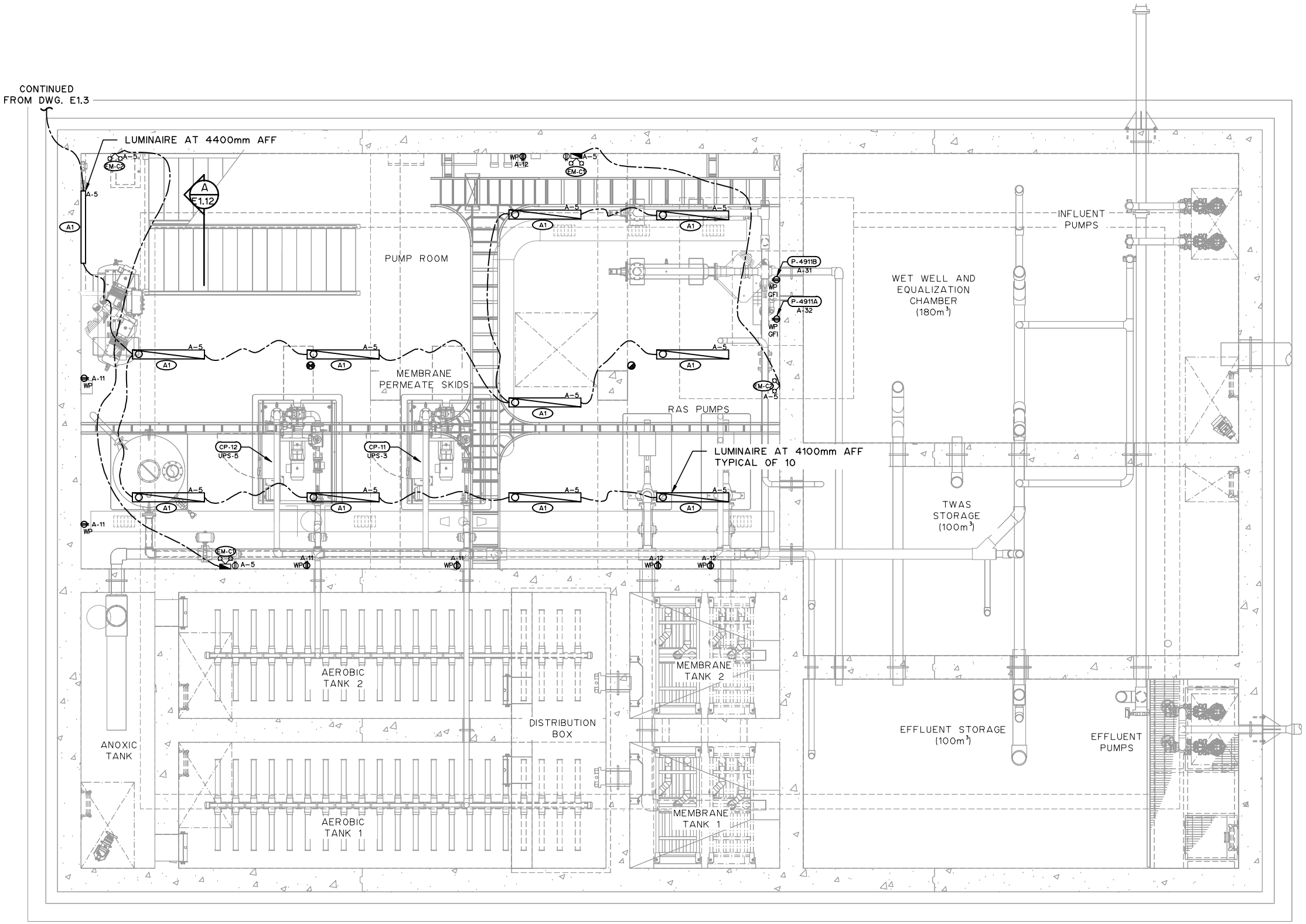
PROFESSIONAL ENGINEER
R.G. OFSTIE
MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL MAIN FLOOR PLAN

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	E1.2



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

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ELECTRICAL	32675	

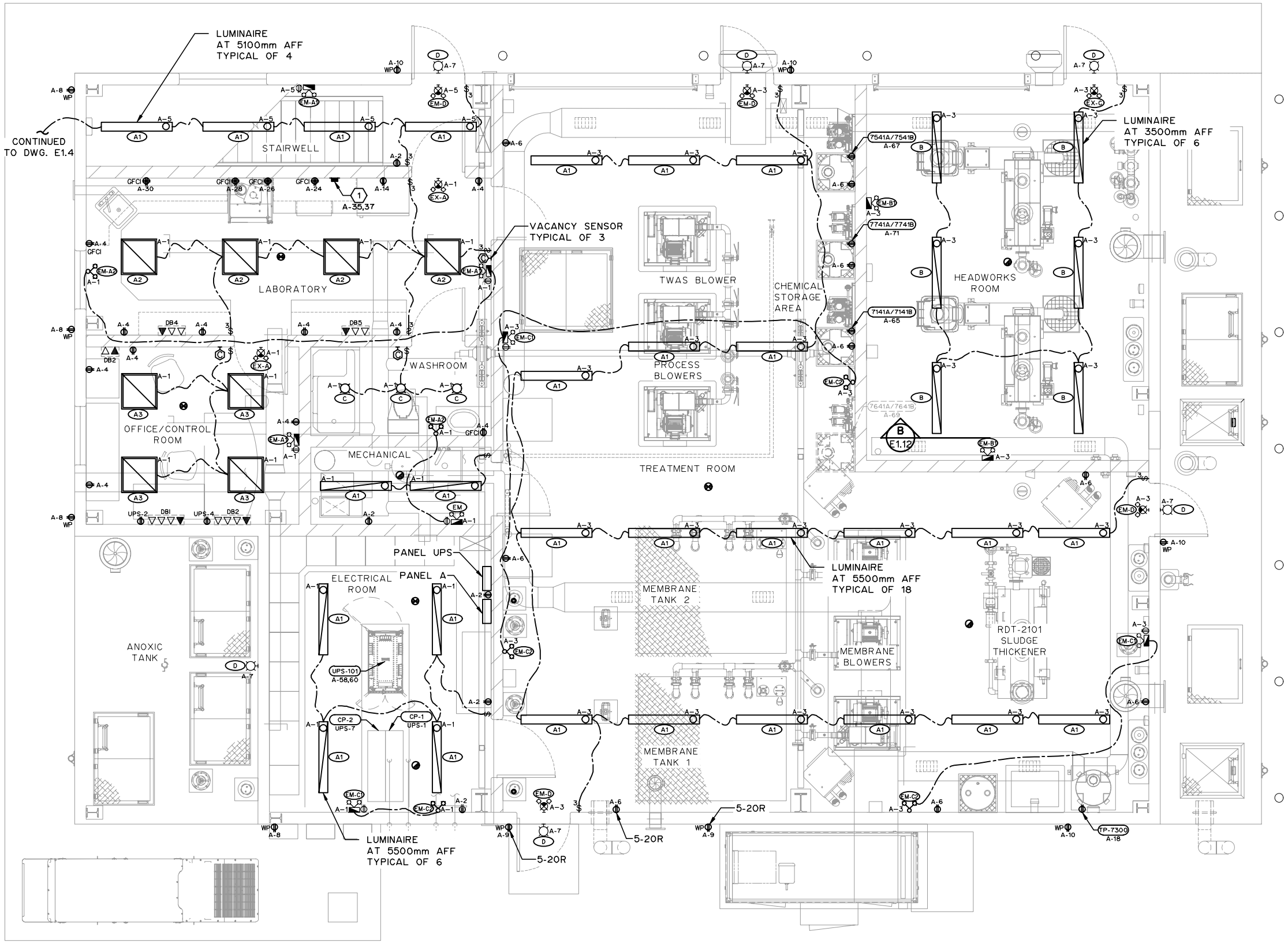
PROFESSIONAL ENGINEER
R.G. OFSTIE
MEMBER 32675
2021-01-22
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
LIGHTING AND RECEPTACLE LOWER LEVEL PLAN

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E1.3



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. SEE ARCHITECTURAL MILLWORK ELEVATION DRAWINGS FOR LOCATION OF LABORATORY AND CONTROL ROOM RECEPTACLE LOCATIONS.
3. RECEPTACLES AND DATA PORTS IN LABORATORY TO BE INTEGRATED INTO MILLWORK. CONCEAL CONDUIT WITHIN MILLWORK WHERE POSSIBLE. CONTRACTOR TO COORDINATE RECEPTACLE BOX CUTOUTS WITH MILLWORK.

KEY NOTES:

(1) DISHWASHER JUNCTION BOX TO BE INTERNAL TO MILLWORK.

LEGEND:

1. DBx = DEVICE BOX REFER TO COMMUNICATION ARCHITECTURE DRAWING FOR DETAILS.

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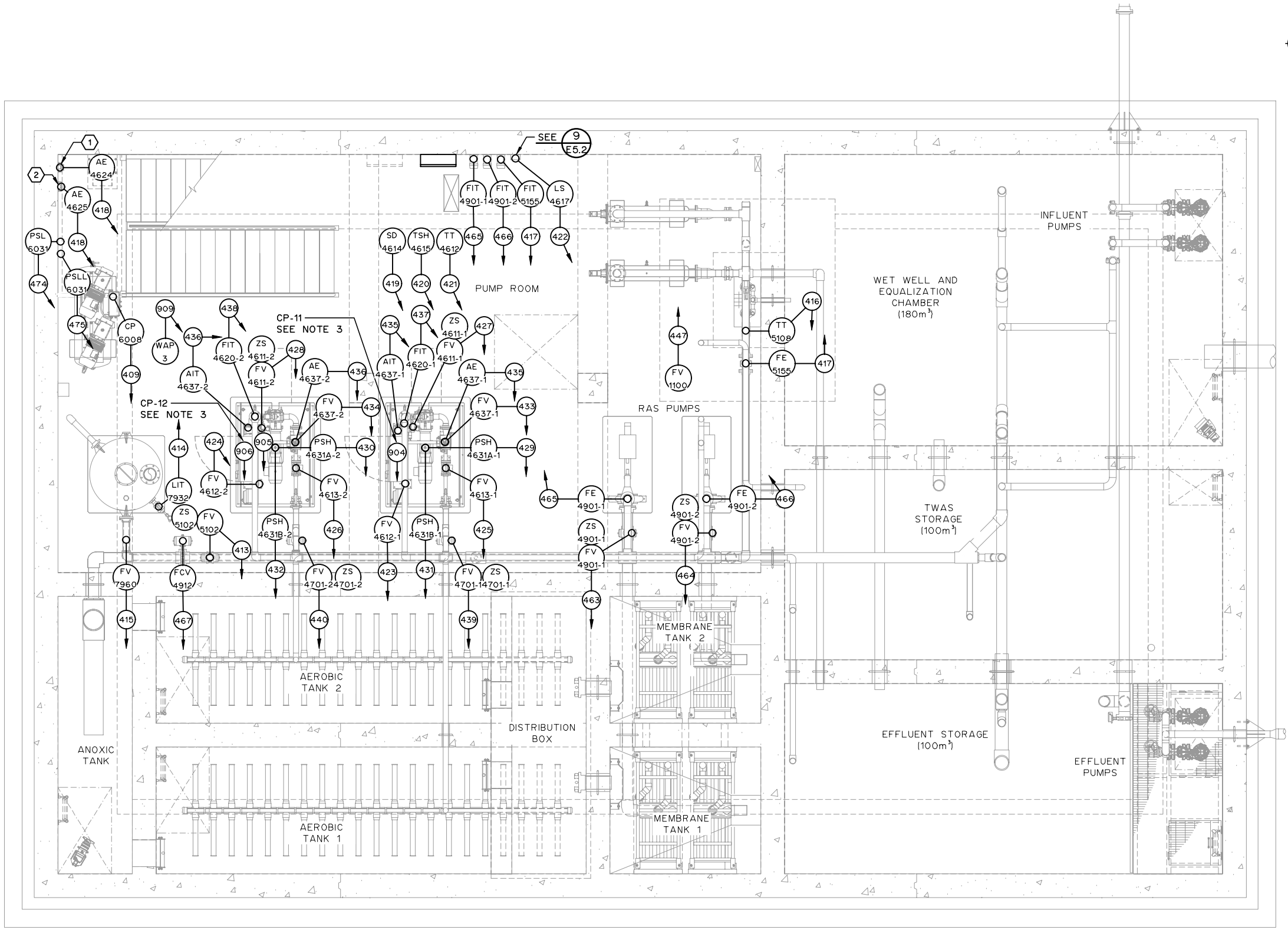
PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22
YR MN DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
LIGHTING AND RECEPTACLE MAIN FLOOR PLAN

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E1.4



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. (--) SEE CONDUIT AND CABLE SCHEDULES ON E-DRAWINGS SERIES.
3. CP-11 AND CP-12 TO BE PROVIDED BY SUEZ. CONTRACTOR TO INSTALL CONTROL PANEL AND TERMINATE DEVICES ACCORDING TO PID P1.X SERIES DRAWINGS AND PANEL DRAWINGS.

KEY NOTES:

(1) METHANE SENSOR TO BE MOUNTED 200 FROM CEILING.
(2) H2S SENSOR TO BE MOUNTED 50 AFF.

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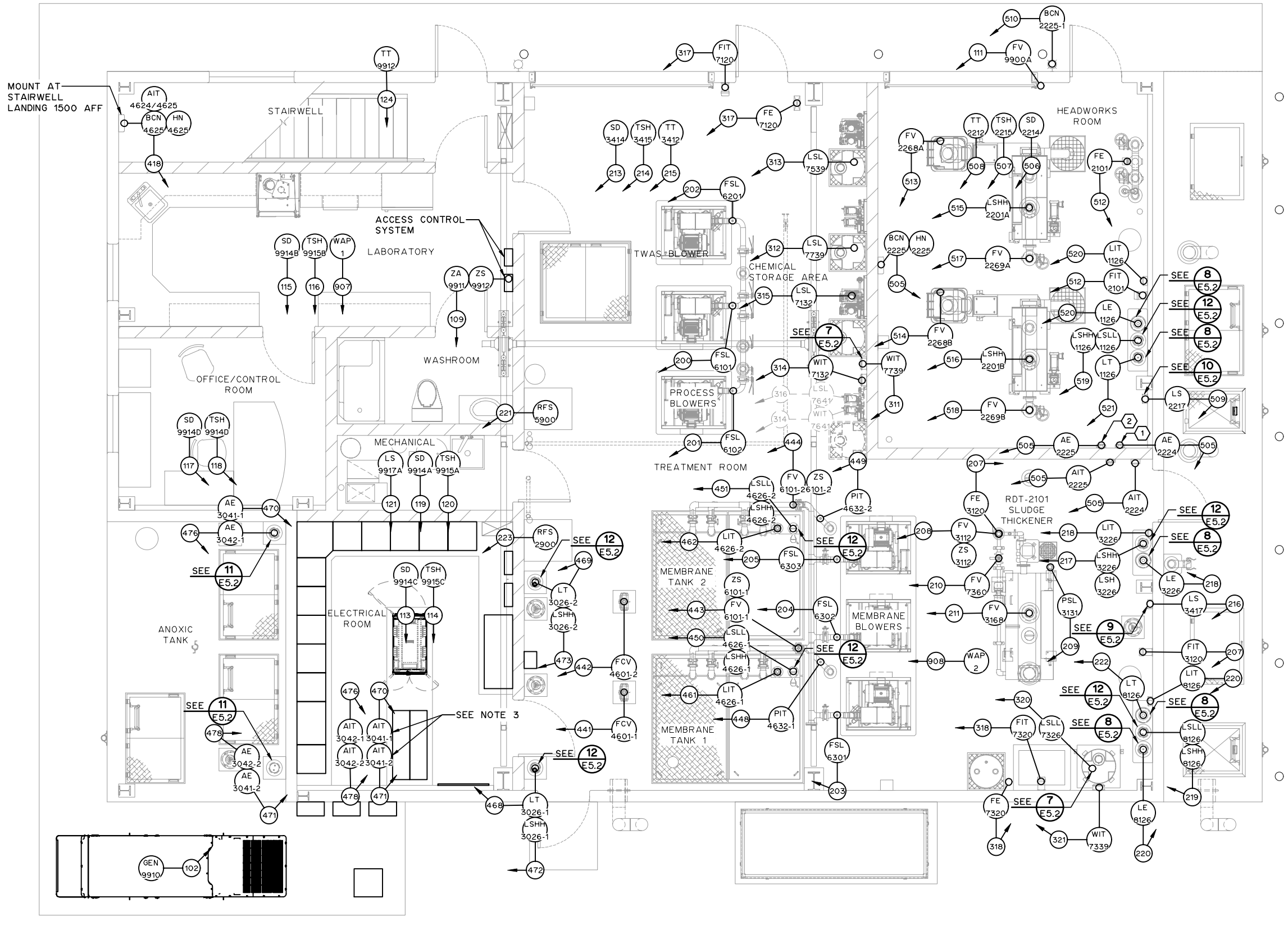
PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22
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MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
INSTRUMENTATION LOWER LEVEL PLAN

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	E1.5



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. (--) SEE CONDUIT AND CABLE SCHEDULES ON DRAWINGS.
3. MOUNT AIT-3041-1, AIT-3042-1, AND AIT-3041-2 AIT-3042-2 TO FRONT OF CP-2.

KEY NOTES:

(1) METHANE SENSOR TO BE MOUNTED 200 FROM CEILING.

(2) H2S SENSOR TO BE MOUNTED 50 AFF.

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ELECTRICAL	32675	

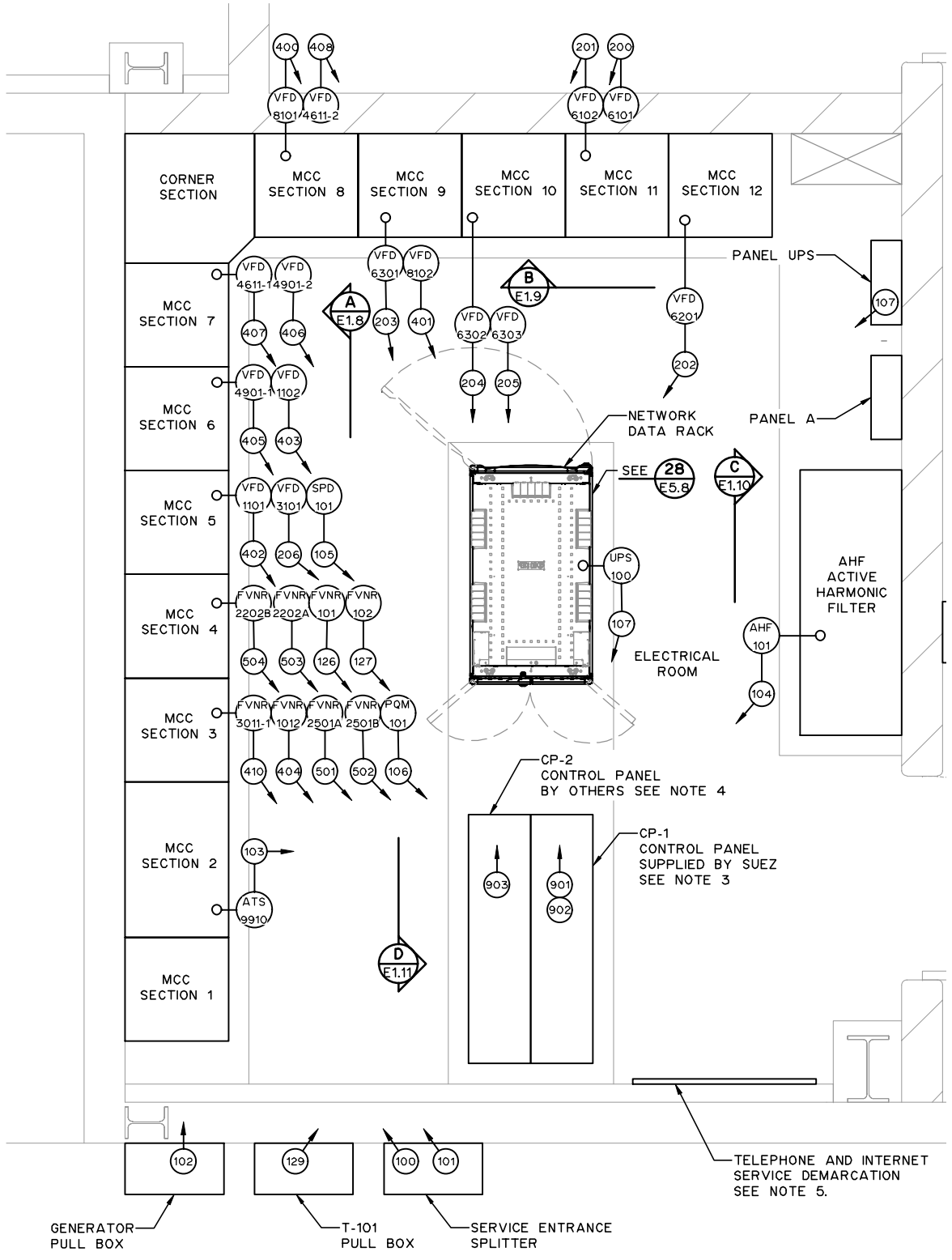
PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22 YR MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
INSTRUMENTATION MAIN FLOOR PLAN

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	E1.6



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. (---) SEE CONDUIT AND CABLE SCHEDULES ON E-DRAWINGS SERIES.
3. CP-1 TO BE PROVIDED BY SUEZ. CONTRACTOR TO INSTALL CONTROL PANEL AND TERMINATE DEVICES ACCORDING TO PID P1.x SERIES DRAWINGS AND PANEL DRAWINGS.
4. CP-2 TO BE PROVIDED BY OTHERS. CONTRACTOR TO INSTALL CONTROL PANEL AND TERMINATE DEVICES ACCORDING TO PID P1.x SERIES DRAWINGS AND PANEL DRAWINGS. PANEL DRAWINGS TO BE PROVIDED AT TIME OF CONSTRUCTION.
5. INSTALL 900W x 1200H x 25D PLYWOOD BACKBOARD FOR TELCO EQUIPMENT. PAINT TO MATCH WALLS.

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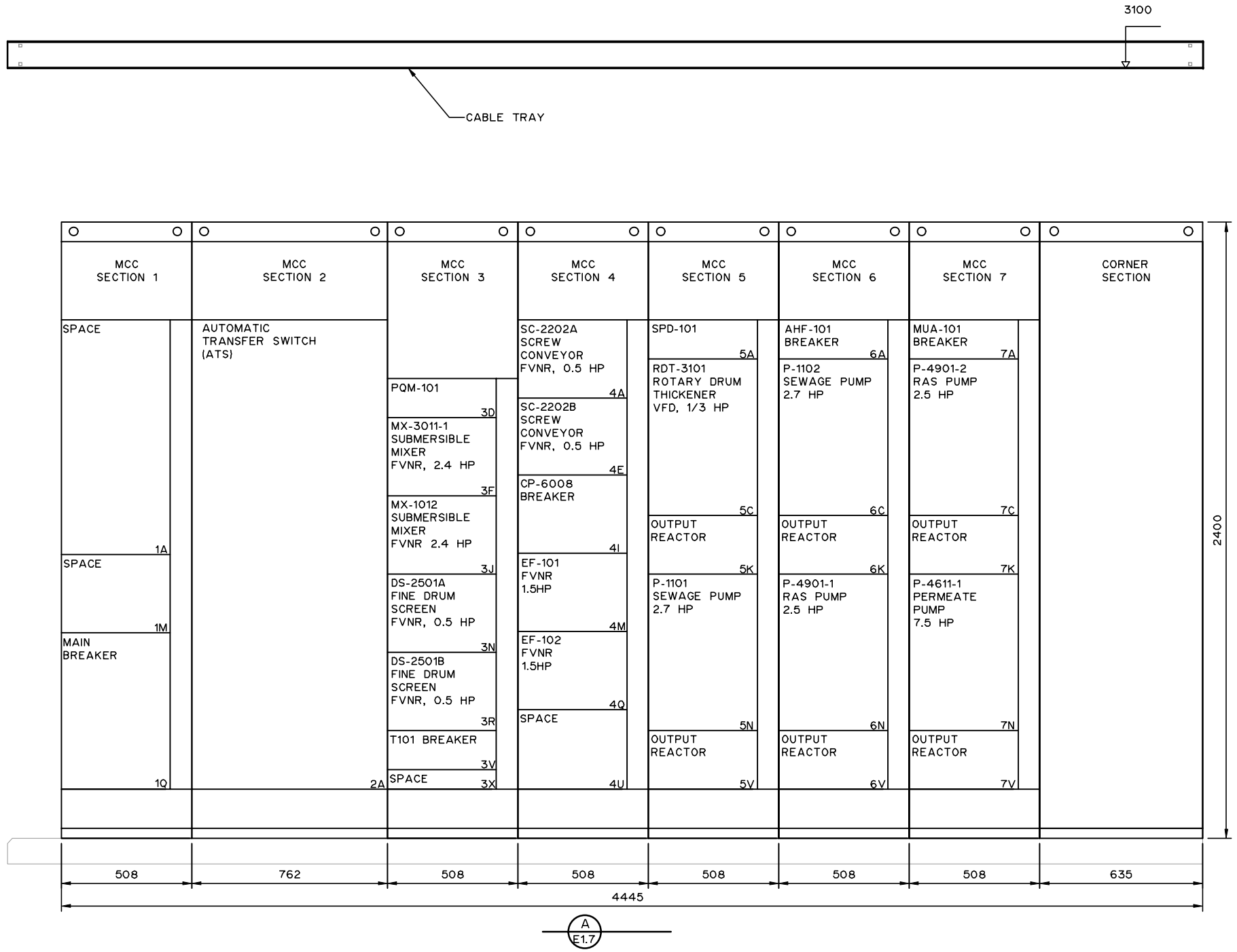
PROFESSIONAL ENGINEER
R.G. DESTIE
MEMBER 32675
2021-01-22
YR MN DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL ROOM LAYOUT

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:30
DATE	NOVEMBER 2020	DRAWING	E1.7



NOTES:

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Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
ELECTRICAL	32675	

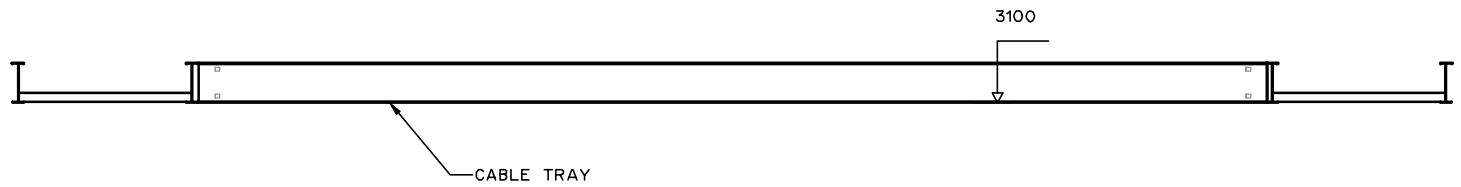
PROFESSIONAL ENGINEER
R.G. DESTIE
MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

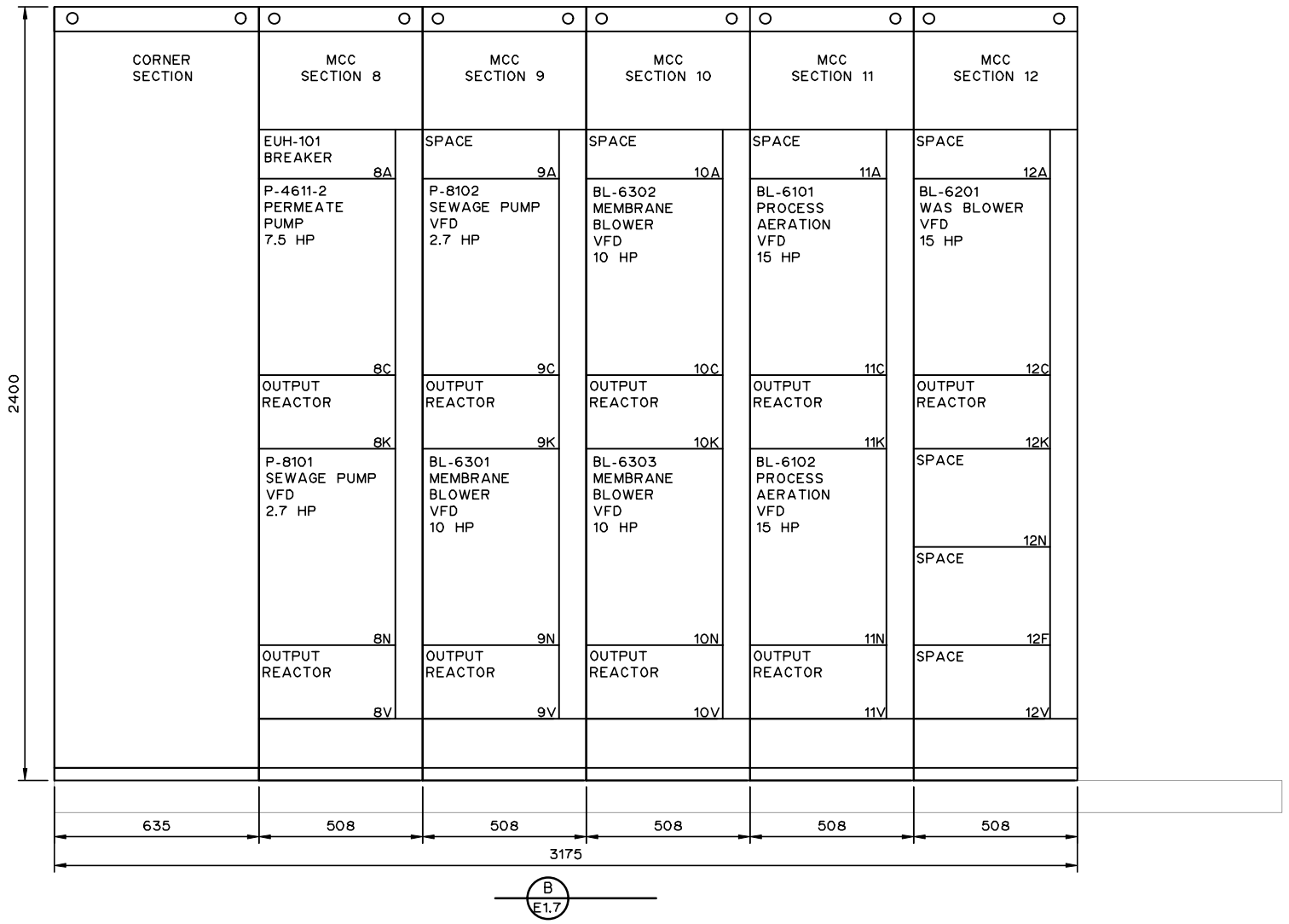
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL ROOM SECTION

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:20
DATE	NOVEMBER 2020	DRAWING	E1.8





NOTES:

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MPE Engineering Ltd.
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Discipline	Sk. Reg. No.	Signature
ELECTRICAL	32675	

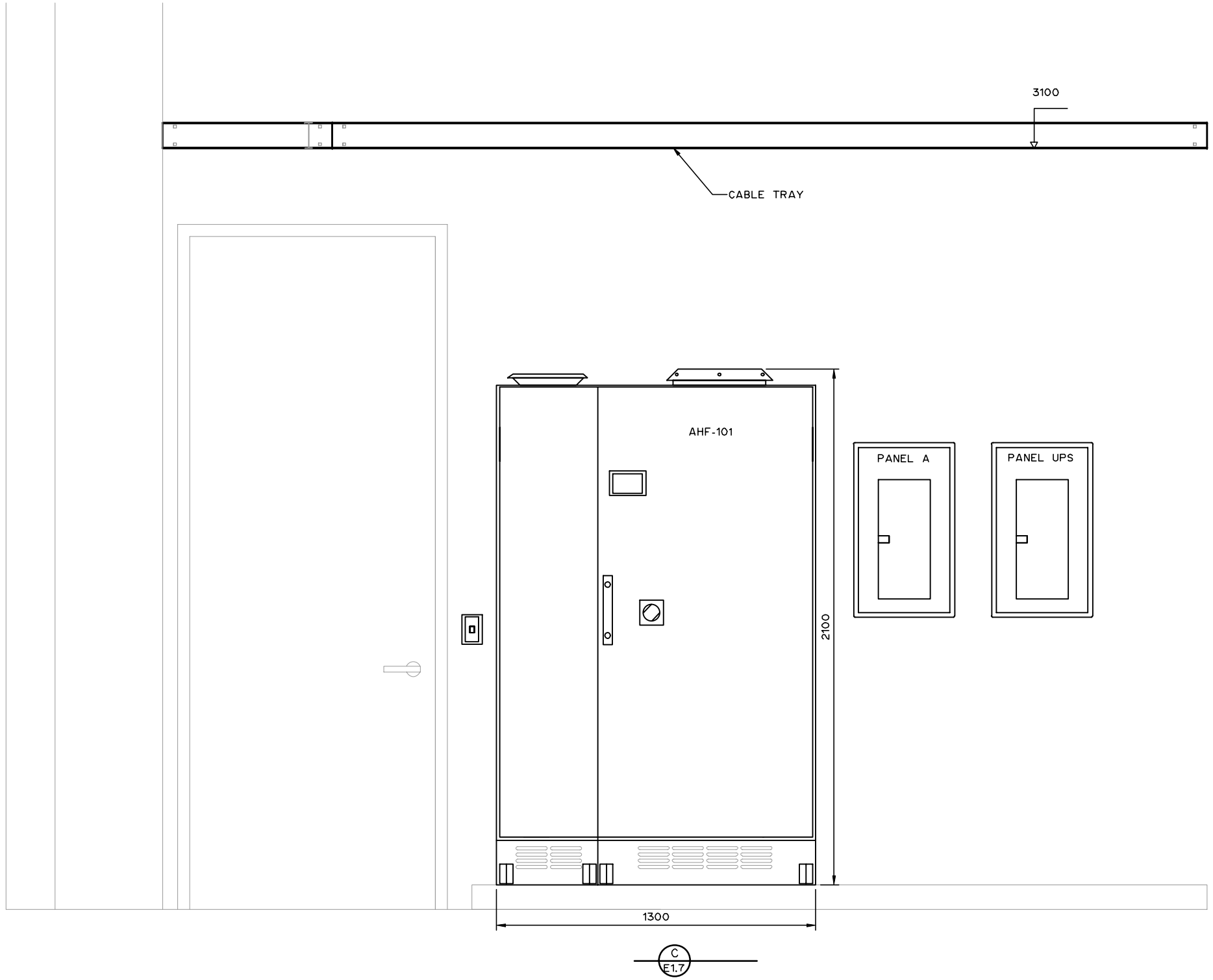
PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22
YR MN DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL ROOM SECTION

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:20
DATE	NOVEMBER 2020	DRAWING	E1.9



NOTES:

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Discipline	Sk. Reg. No.	Signature
ELECTRICAL	32675	

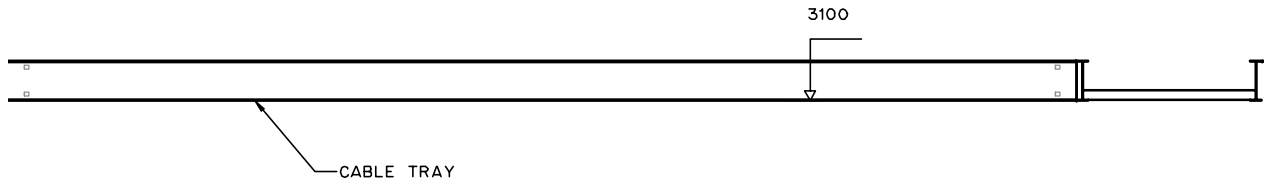
PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

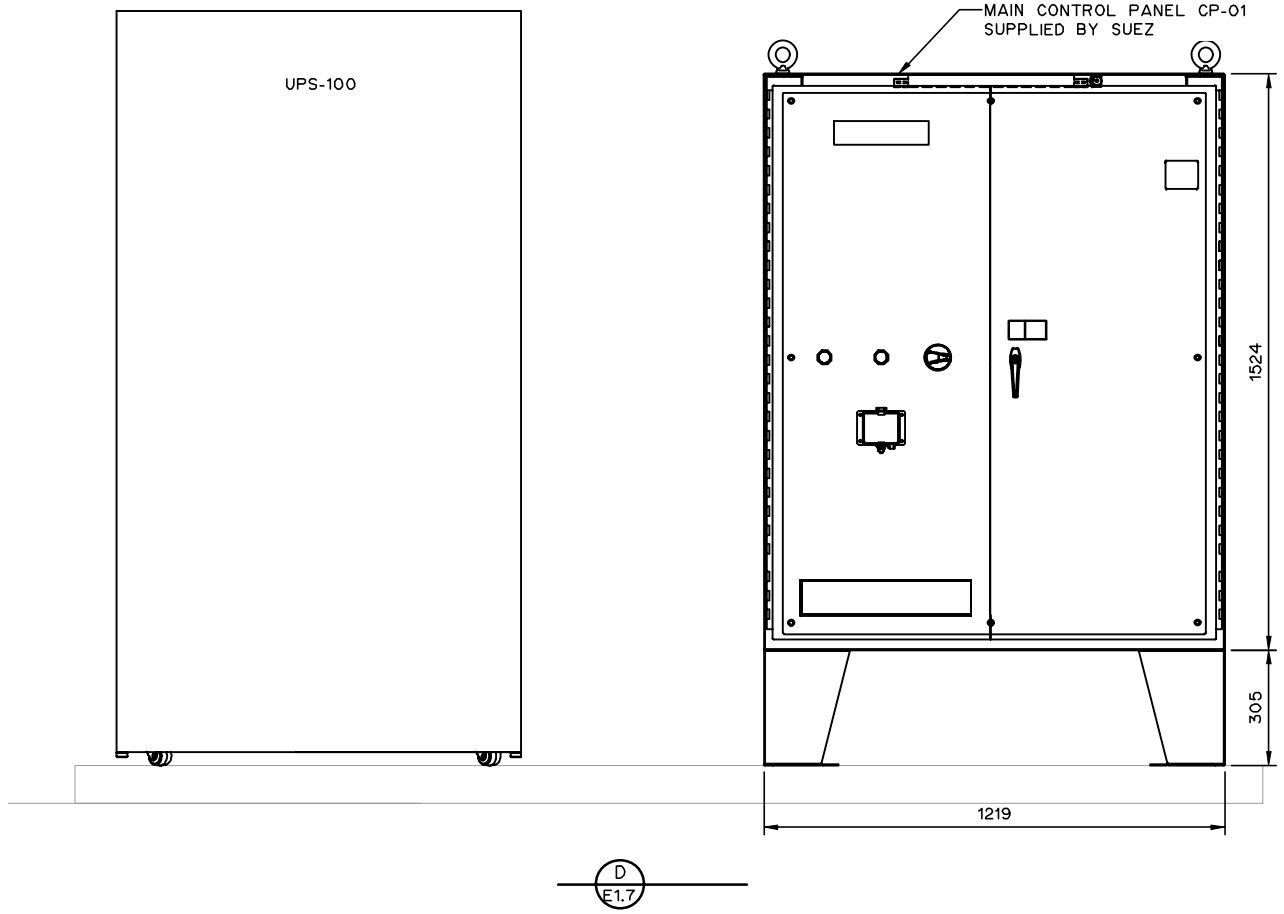
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL ROOM SECTION

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DATE	NOVEMBER 2020	DRAWING	E1.10





D
E1.7

NOTES:

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Discipline: ELECTRICAL | Sk. Reg. No.: 32675 | Signature

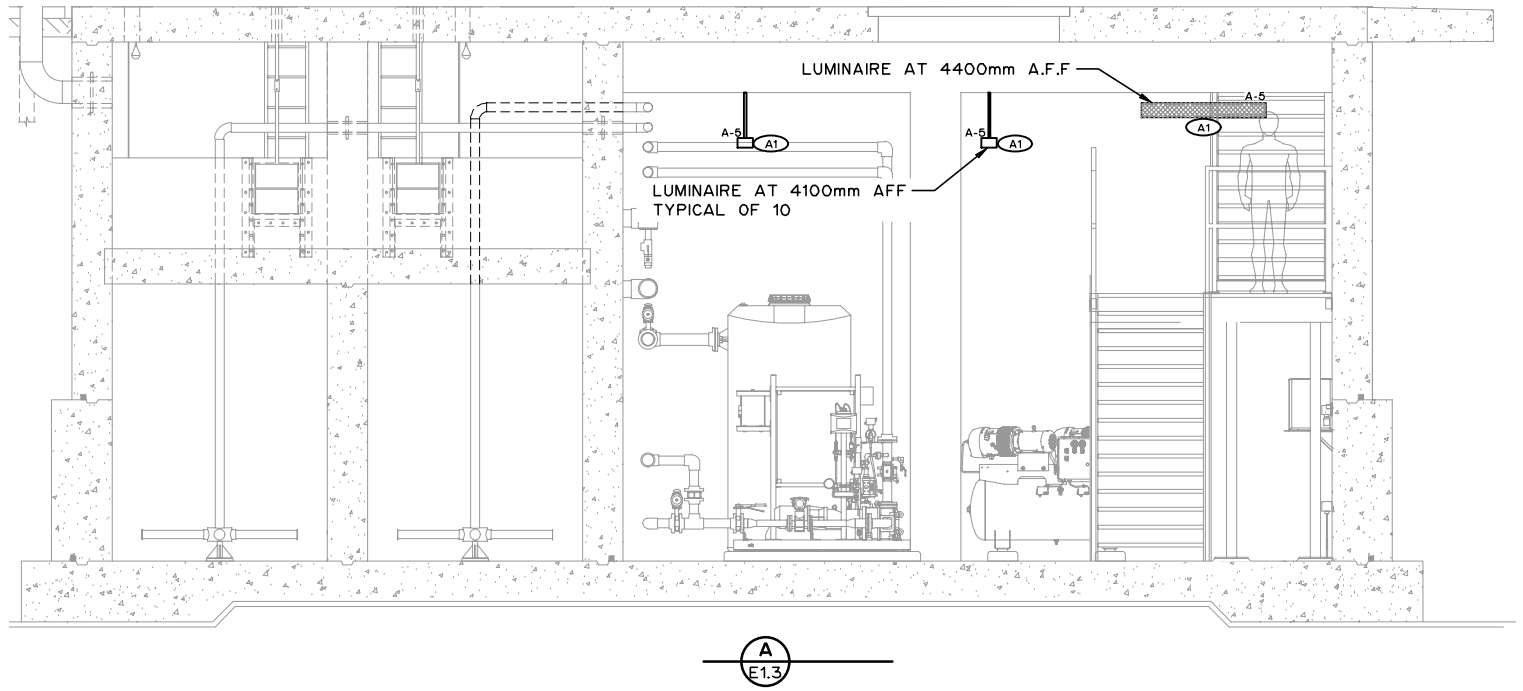
PROFESSIONAL ENGINEER
R.G. DESTIE
MEMBER 32675
2021-01-22
YR MN DAY
SASKATCHEWAN

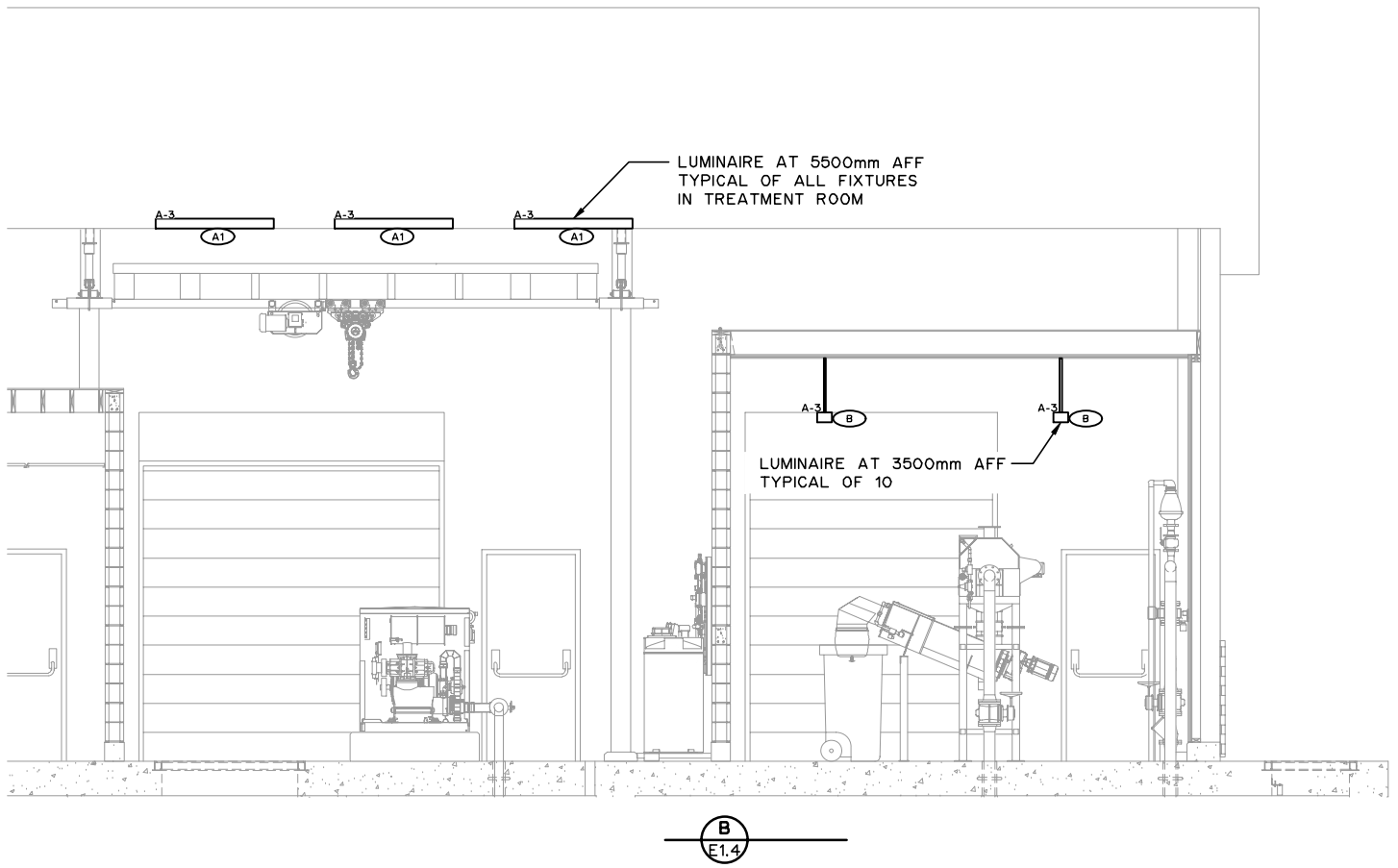
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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL ROOM SECTION

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:20
DATE	NOVEMBER 2020	DRAWING	E1.11





NOTES:

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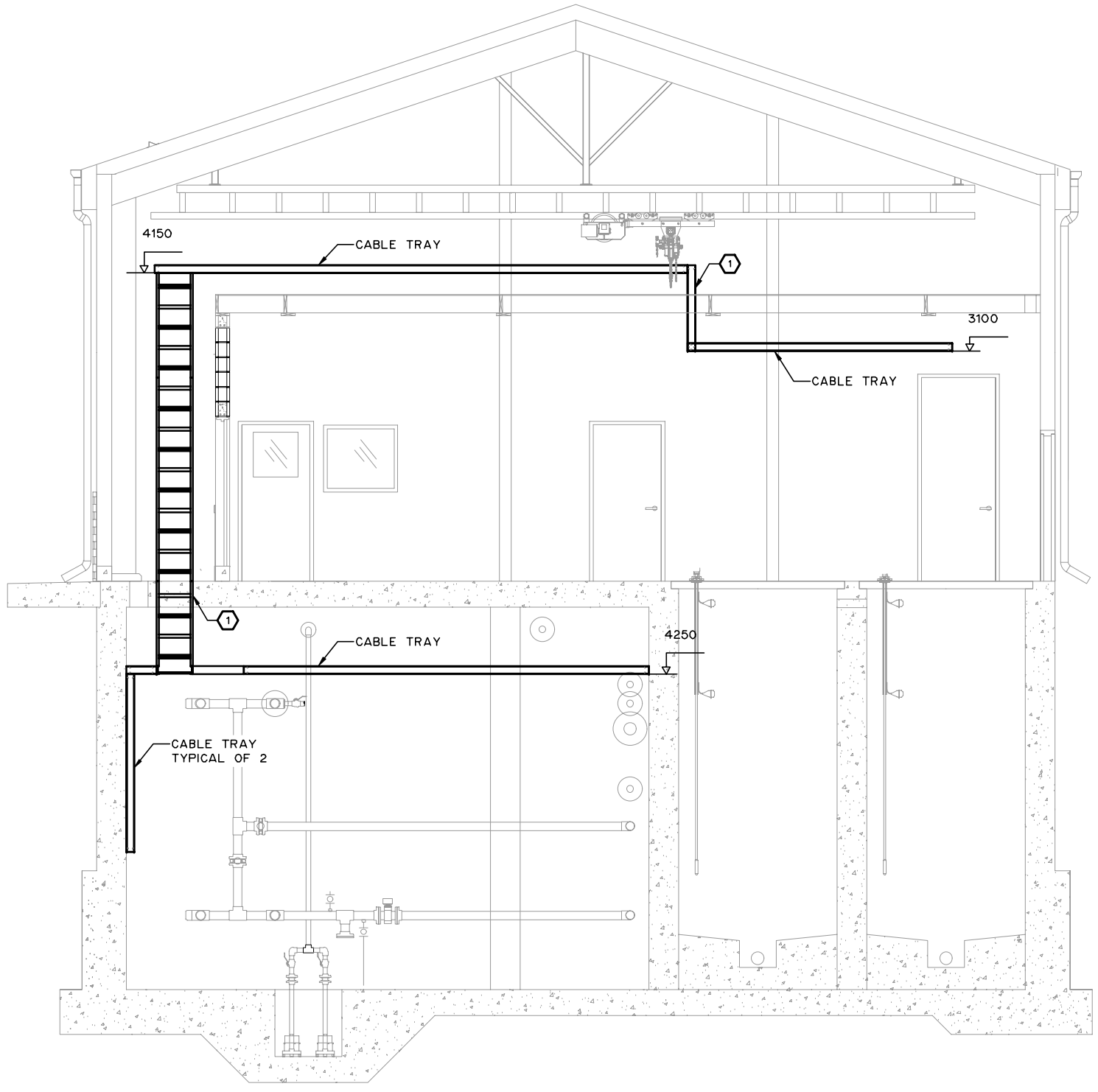
PROFESSIONAL ENGINEER
R.G. DESTIE
MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
LIGHTING SECTIONS

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:75
DATE	NOVEMBER 2020	DRAWING	E1.12



A E1.2 B E1.1

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

KEY NOTES:

(1) CONTRACTOR TO FIRE STOP PENETRATION USING ROXTEC MULTI-TRANSIT CABLE GLAND SYSTEM COMPLETE WITH AT LEAST 10% SPARE CAPACITY FOR FUTURE CABLE RUNS OF EACH SIZE.

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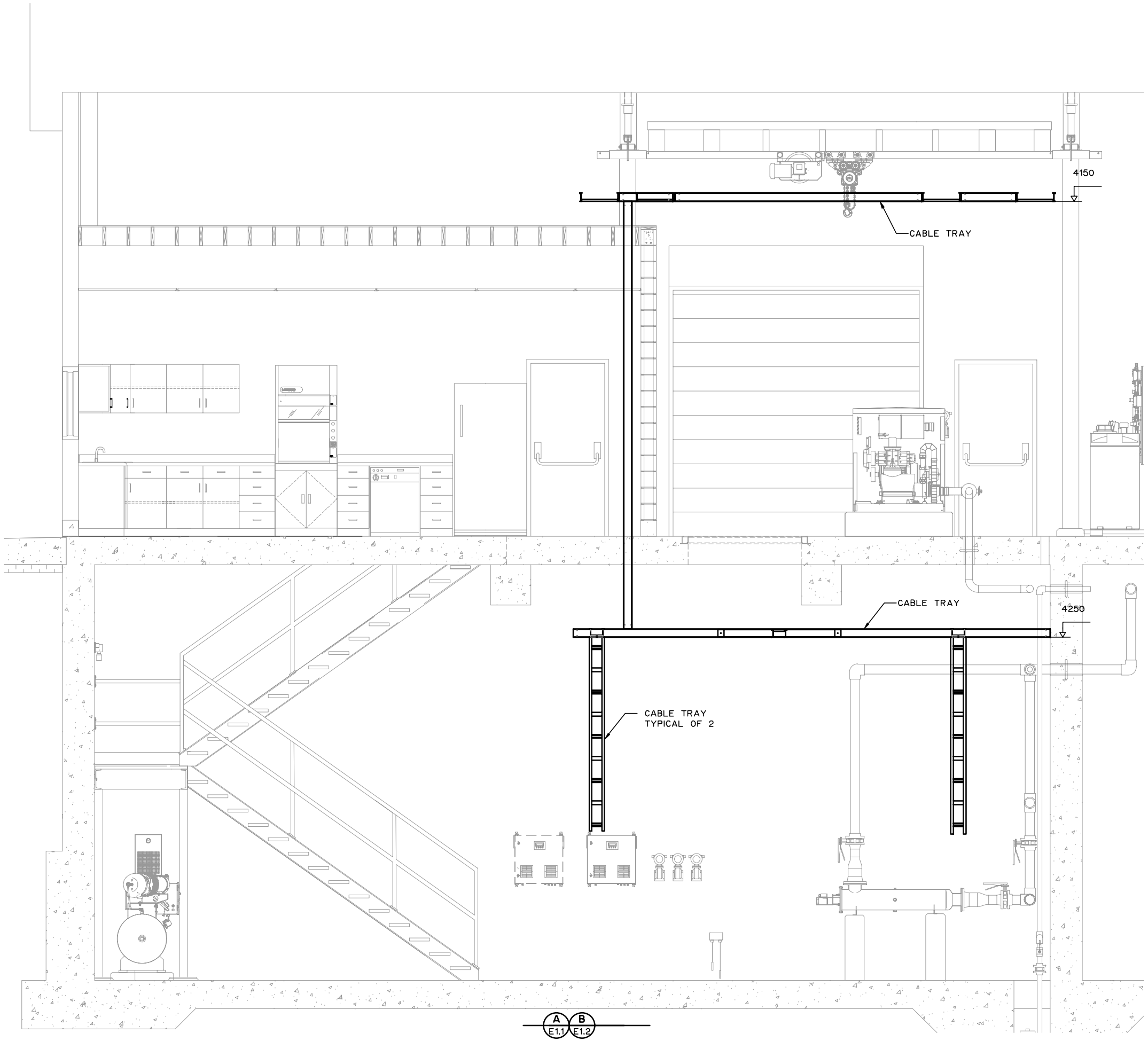
PROFESSIONAL ENGINEER
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2021-01-22
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MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE TRAY SECTION

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DATE	NOVEMBER 2020	DRAWING	E1.13



NOTES:

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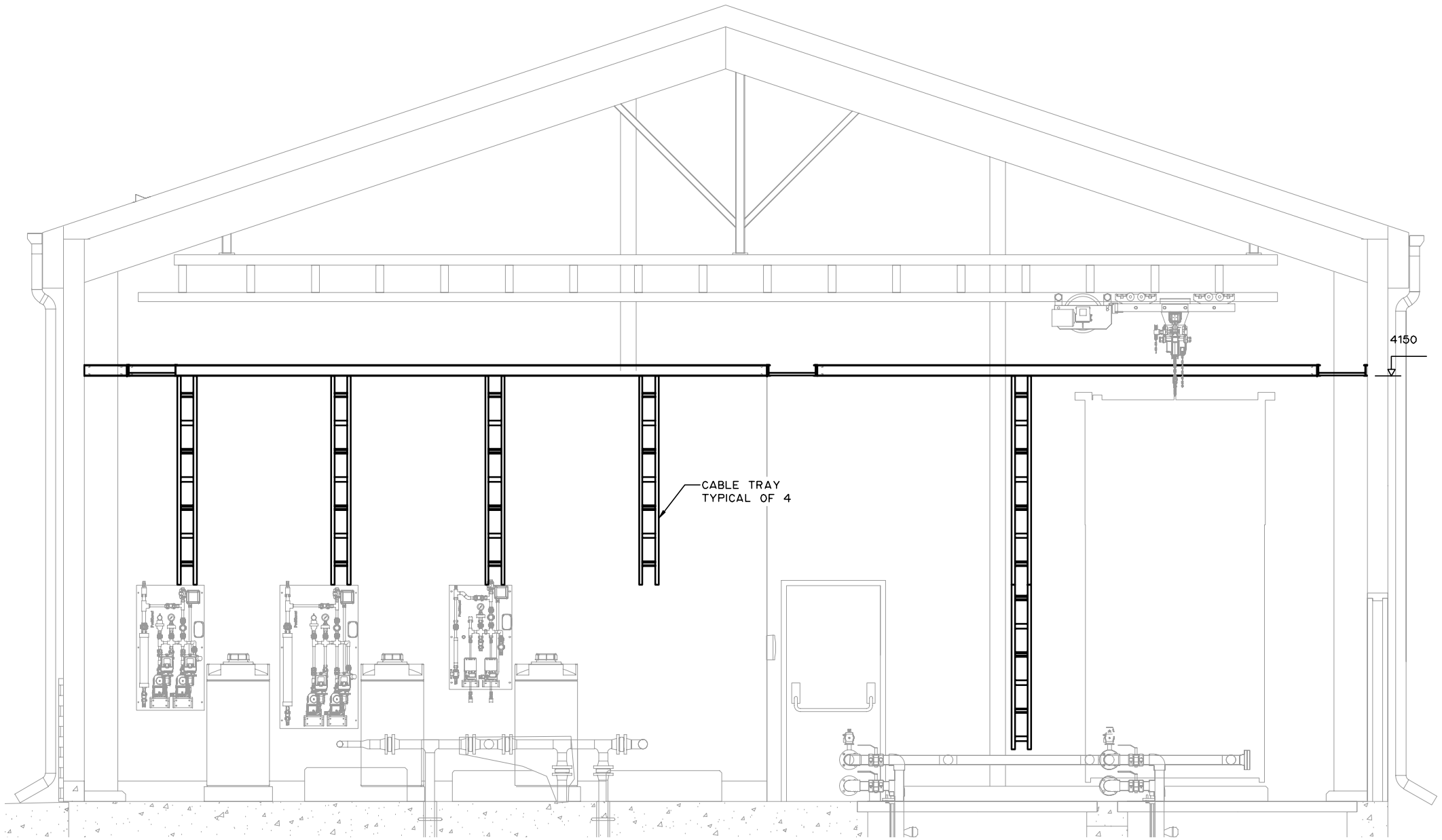
PROFESSIONAL ENGINEER
R.G. DESTE
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2021-01-22
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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE TRAY SECTION

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DRAWN	T.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	E1.14



C
E1.2

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

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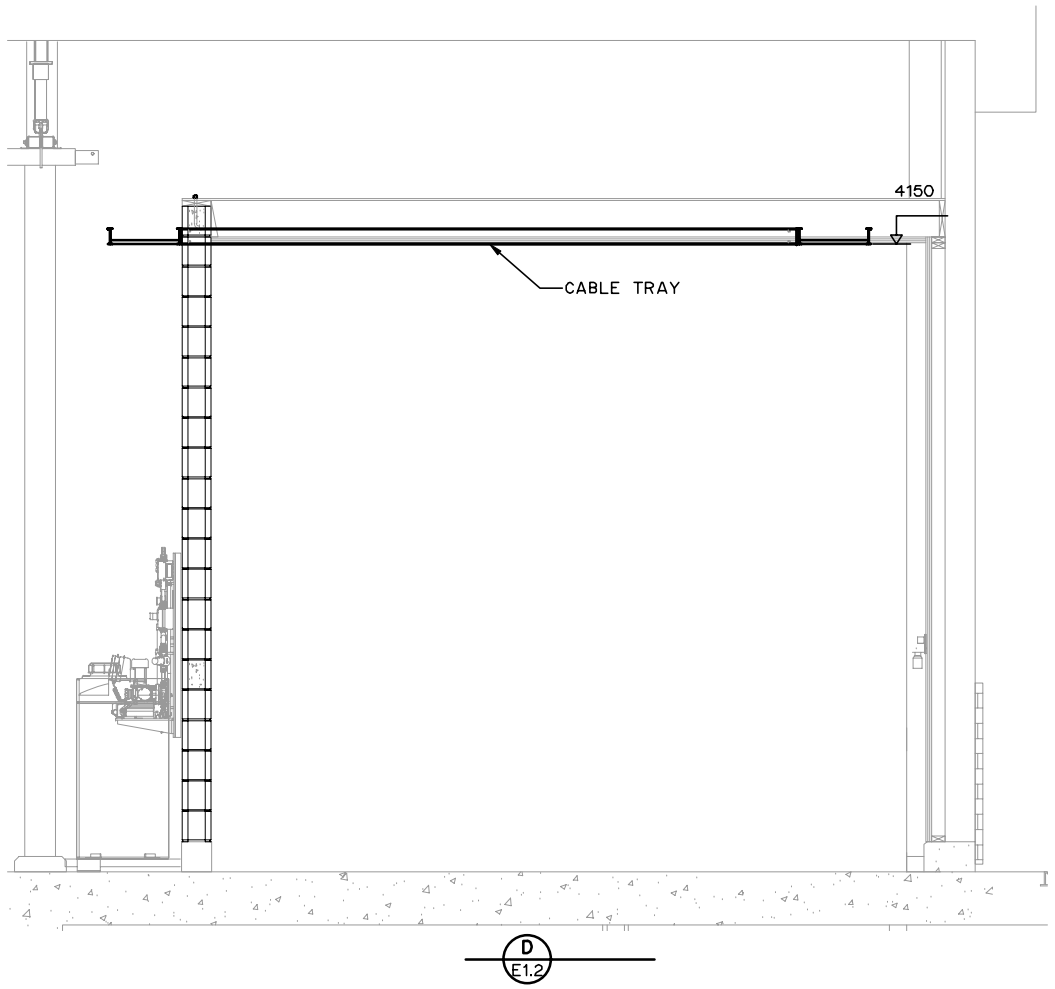
PROFESSIONAL ENGINEER
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2021-01-22
YR. MN. DAY.
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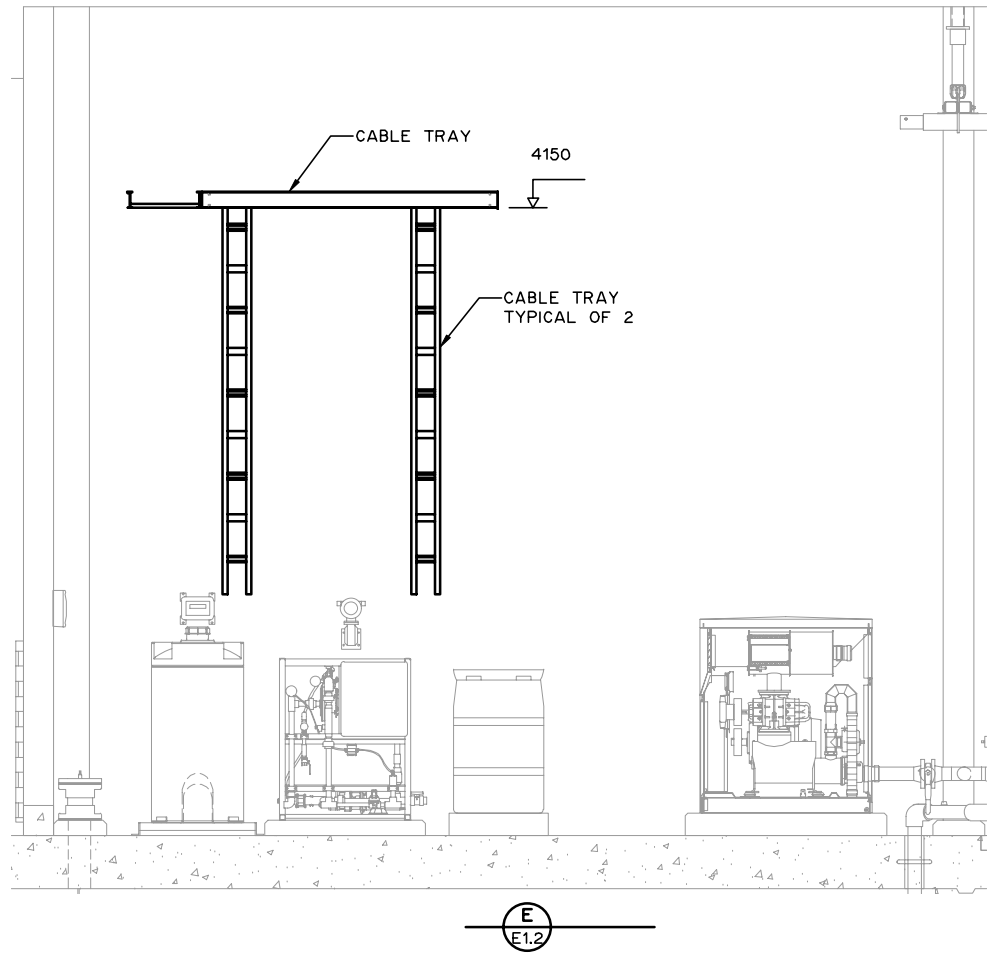
MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE TRAY SECTION

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	E1.15





NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

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2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
ISSUE	YY-MM-DD	REVISION

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	SK. Reg. No.	Signature
ELECTRICAL	32675	

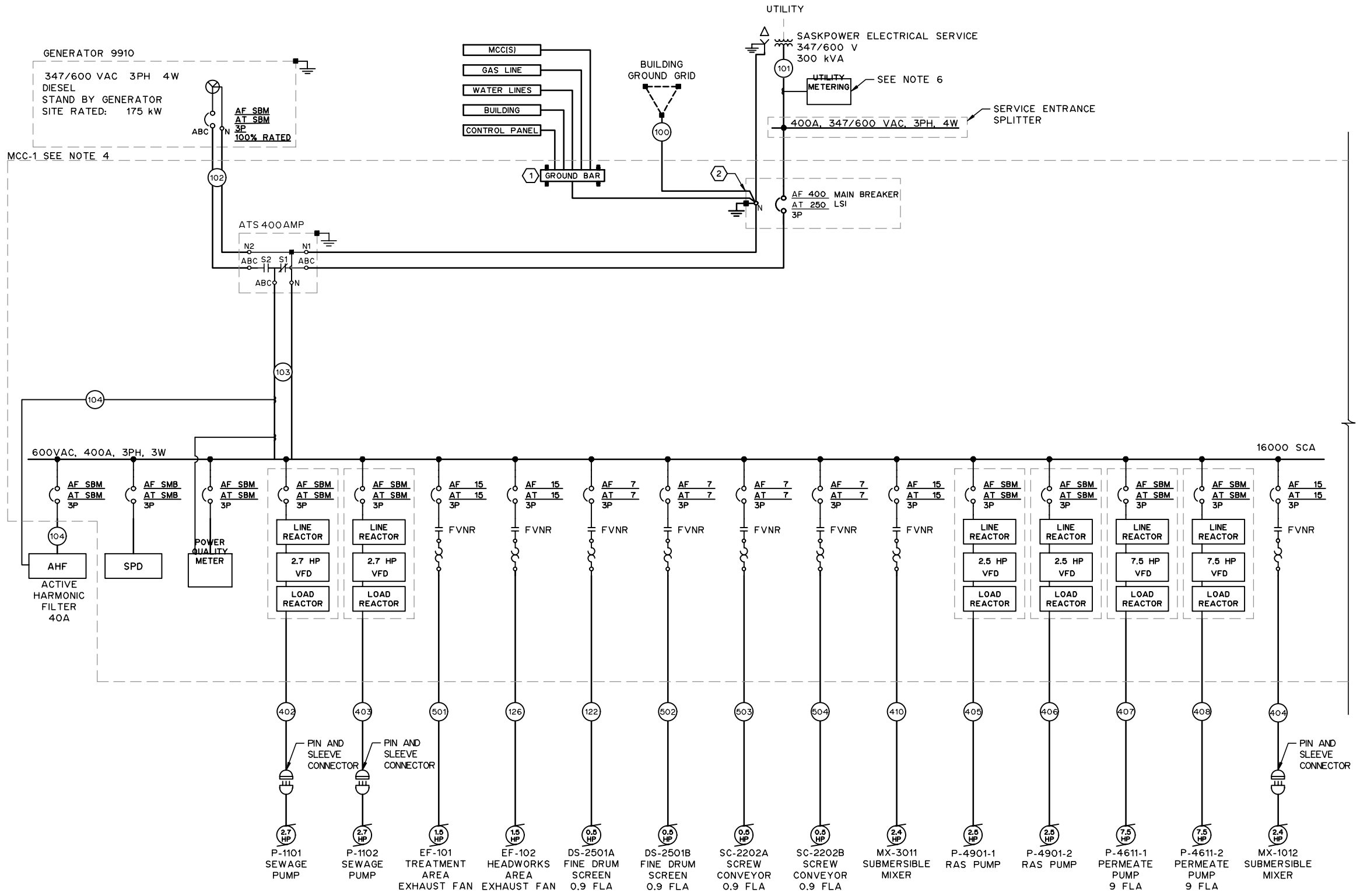
PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22
YR MN DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE TRAY SECTION

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	1:50
DATE	NOVEMBER 2020	DRAWING	E1.16



NOTES:

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2. SBM = SIZED BY MANUFACTURER. SIZE OVER CURRENT DEVICE AND CABLING AS PER MANUFACTURERS RECOMMENDATIONS.
3. (--) SEE CONDUIT AND CABLE SCHEDULES ON E-DRAWINGS SERIES.
4. SEE MCC LINE UP FOR PROPOSED MCC LAYOUT AND DIMENSIONS.
5. EQUIPMENT SHOWN CONNECTED TO GROUND BUS IS A TYPICAL REPRESENTATION OF EQUIPMENT TO BE CONNECTED. IT IS THE CONTRACTORS RESPONSIBILITY TO PROPERLY GROUND AND BOND ALL NECESSARY EQUIPMENT AS PER RELEVANT CODES.
6. UTILITY METERING AT TRANSFORMER BY ELECTRIC COMPANY.
5. SEE MOTOR STARTER DETAILS ON E-DRAWING SERIES.

KEY NOTES:

1. GROUND BUSS BAR, HOFFMAN: DGTB216 OR EQUAL.
2. CONTINUOUS GROUND CABLE, DO NOT CUT.
3. WALL MOUNTED TRANSFORMER.

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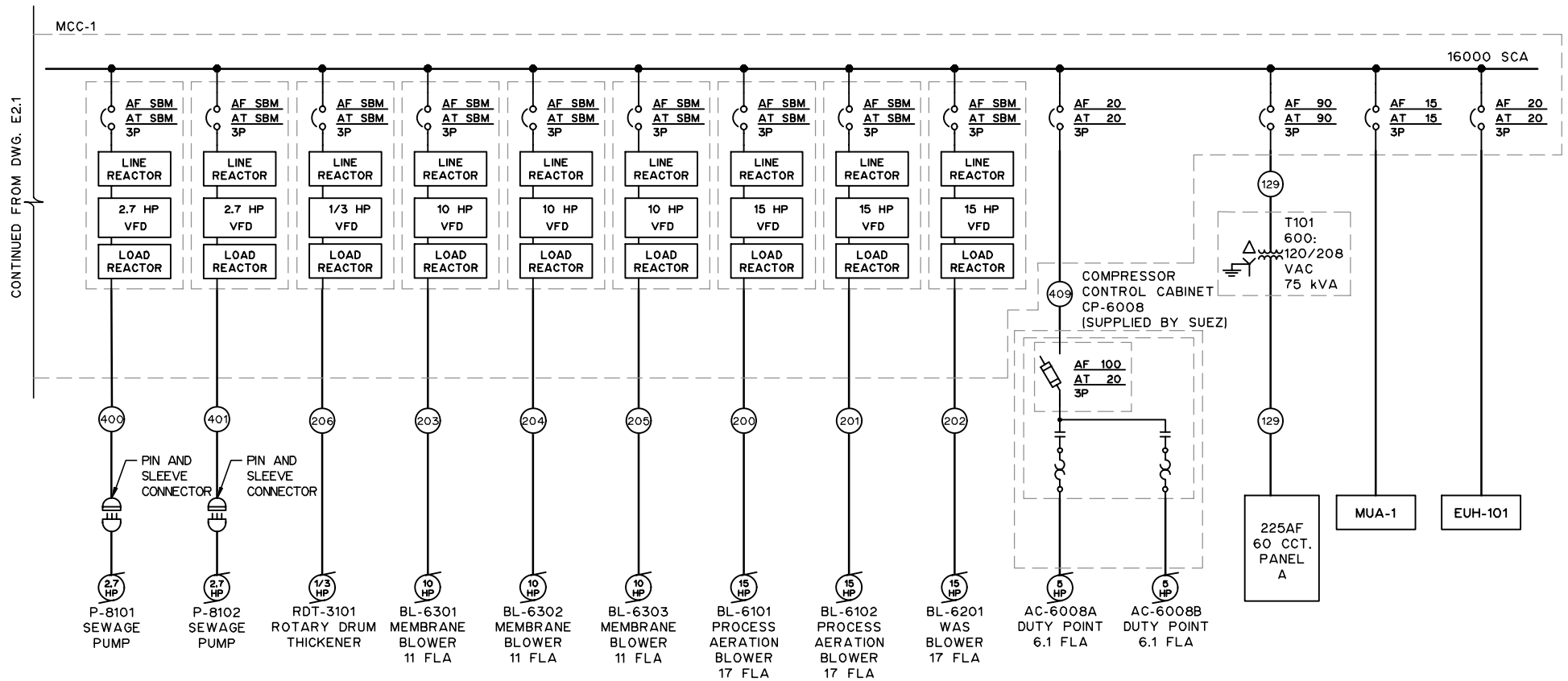
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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
SINGLE LINE DIAGRAM

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.1



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5. SEE MOTOR STARTER DETAILS ON E-DRAWING SERIES.

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MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
SINGLE LINE DIAGRAM

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.2

	PANEL: A							
	LOCATION: ELECTRICAL ROOM							
	120/208V 3PH 4W 225A							
DESCRIPTION	LOAD (W)	TRIP AMPS	BRK. No.	PHASE	BRK. No.	TRIP AMPS	LOAD (W)	DESCRIPTION
LAB, CONTROL, MECHANICAL, WASHROOM AND ELECTRICAL ROOMS LIGHTING		15	1	A	2	15		WASHROOM, MECHANICAL AND ELECTICAL ROOMS RECEPTACLES
TREATMENT AND HEADWORKS ROOMS LIGHTING		15	3	B	4	15		STAIRWELL, LAB AND CONTROL ROOMS RECEPTACLES
STAIRWELL AND LOWER LEVEL INTERIOR LIGHTING		15	5	C	6	15		TREATMENT ROOM RECEPTACLES
AREA LIGHTING		15	7	A	8	15		EXTERIOR RECEPTACLES
HVAC MAINTENANCE RECEPTACLES		20	9	B	10	15		EXTERIOR RECEPTACLES
LOWER LEVEL RECEPTACLES CCT 2		15	11	C	12	15		LOWER LEVEL RECEPTACLES CCT 1
			13	A	14	20		LAB REFRIGERATOR RECEPTACLE
			15	B	16			
HRV-101 HEAT RECOVERY VENTILATOR		15	17	C	18	15		TP-7300 TRANSFER PUMP
UVR 5155-2 ULTRAVIOLET REACTOR (FUTURE)		15	19	A	20	15		UVR 5155-1 ULTRAVIOLET REACTOR
			21	B	22			
AC-101 AIR CONDITIONER	1980	20	23	C	24	15		LAB RECEPTACLES 1
			25	A	26	15		LAB RECEPTACLES 2
AC-102 AIR CONDITIONER	4680	30	27	B	28	15		LAB RECEPTACLES 3
			29	C	30	15		LAB RECEPTACLES 4
P-4911B SUMP PUMP RECEPTACLES		20	31	A	32	20		P-4911A SUMP PUMP RECEPTACLES
UH-201 AND UH-202 UNIT HEATER		15	33	B	34	20	4000	EUH-110 ELECTRIC UNIT HEATER
LABORATORY DISHWASHER		20	35	C	36			
			37	A	38	15		HOT WATER HEATER
UH-101, UH-102 AND UH-103 UNIT HEATERS		15	39	B	40	15	1100	SF-201 AERATION TANK SUPPLY FAN
F-101 FURNACE		15	41	C	42			
EF-201 MEMBRANE TANK EXHAUST FAN	50	15	43	A	44	15	1100	SF-202 EFFLUENT TANK SUPPLY FAN
OVERHEAD DOOR OPERATOR		15	45	B	46			
OVERHEAD DOOR OPERATOR		15	47	C	48	15	1100	SF-203 WET WELL TANK SUPPLY FAN
			49	A	50			
RFS-5900 REFRIDGERATED SAMPLER		15	51	B	52			
RFS-2900 REFRIDGERATED SAMPLER		15	53	C	54	60		GEN-9910 GENERATOR BREAKER PANEL
PERIMETER GATE OPERATOR	746	15	55	A	56			
			57	B	58	30	4800	UPS-101 PLANT UNINTERRUPTABLE POWER SUPPLY
			59	C	60			
SEPTAGE RECEIVING STATION SUBPANEL		50	61	A	62			
			63	B	64			
P7141A / P7141B CHEMICAL PUMP		15	65	C	66			
P7541A / P7541B CHEMICAL PUMP		15	67	A	68			
P7641A / P7641B CHEMICAL PUMP (FUTURE)		15	69	B	70			
P7741A / P7741B CHEMICAL PUMP		15	71	C	72			
DR-6009A / DR-6009B AIR DRYERS	400	15	73	A	74			
			75	B	76			
			77	C	78			
			79	A	80			
			81	B	82			
			83	C	84			

SEE NOTES 2 AND 3

	PANEL: UPS							
	LOCATION: ELECRICAL ROOM							
	120/208V 1PH 3W 60A							
DESCRIPTION	LOAD (W)	TRIP AMPS	BRK. No.	PHASE	BRK. No.	TRIP AMPS	LOAD (W)	DESCRIPTION
MAIN CONTROL PANEL CP-1		15	1	A	2	15		SCADA PC RECEPTACLE
REMOTE I/O PANEL CP-11		15	3	B	4	15		INTERNET PC RECEPTACLE
REMOTE I/O PANEL CP-12		15	5	C	6			
PLANT CONTROL PANEL CP-2		15	7	A	8			
ACCESS CONTROL SYSTEM POWER SUPPLY (ASC PSU)		15	9	B	10			
			11	C	12			
			13	A	14			
			15	B	16			
			17	C	18			
			19	A	20			
			21	B	22			
			23	C	24			

SEE NOTES 2 AND 3

NOTES:

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2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROPERLY SIZED WIRING AND BREAKERS BETWEEN ALL BREAKERS SHOWN AND THE EQUIPMENT INDICATED FOR CONNECTIONS NOT INDICATED IN THE CABLE AND CONDUIT SCHEDULE.
3. MINIMUM WIRING SHALL BE No.12 AWG.

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MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
PANEL A AND UPS PANEL SCHEDULES

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.3

LUMINAIRE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER/MODEL (OR APPROVED EQUIVALENT)	MOUNTING HEIGHT	LAMPS	LENS	FIXTURE LUMEN OUTPUT	COLOUR TEMPERATURE	MOUNTING	VOLT	LIFESPAN	REMARKS
A1	LED STRIP LIGHT	COLUMBIA LIGHTING / LCL4-40HL-EU	3500/4100/5100 / 5500 AFF	LED	N/A	5411	4000K	FLUSH W/ CEILING	120 VAC	50,000 HRS	
A2	FLAT PANEL LED	22FP4240C	3050 AFF	LED	N/A	4465	4000K	T-BAR CEILING	120 VAC		
A3	FLAT PANEL LED	22FP2540HE	3050 AFF	LED	N/A	2551	4000K	T-BAR CEILING	120 VAC		
B	LED HAZARDOUS LOCATION STRIP LIGHT	COLUMBIA LIGHTING / HEM4-40HL-DFA-EU	3500 AFF	LED	DEEP FROSTED ACRYLIC	5800	4000K	FLUSH TO CEILING	120 VAC	60,000 HRS	CLASS 1, DIVISION 2, GROUPS A, B, C, D
C	LED DOWNLIGHT	PRESSCOILITE / LBP6-6LBP11L40KWH	3050 AFF	LED	N/A	800	4000K	CEILING	120 VAC	60,000 HRS	
D	LED WALL PACK	RAB DESIGN / AWL-LED26-A-4K-BRZ-PC	3000 AFF	LED	CLEAR TEMPERED GLASS	3566	4000K	WALL	120 VAC	100,000 HRS	C/W PHOTOCELL FOR OUTDOOR LOCATIONS
F	LED POLE LIGHT	VPL/80L-180/5K7/3/UNV/x/DB/7PR	4000 ABOVE SLAB	LED	ACRYLIC, TYPE III DISTRIBUTION	22246	4000K	POLE	120 VAC	60,000 HRS	POLE TO BE AS PER DETAIL 13 ON DRAWING E5.3
EM-A1	EMERGENCY BATTERY PACK WITH TWO HEADS	AIMLITE / EBST12-2L	2500 AFF	LED	N/A			WALL	120 VAC / 12 VDC		
EM-A2	DOUBLE REMOTE HEAD	AIMLITE / RMMD-2-12-6-LA-WHT	2500 AFF	LED	N/A			WALL	120 VAC / 12 VDC		
EM-B1	HAZARDOUS LOCATION EMERGENCY BATTERY PACK WITH TWO HEADS	AIMLITE / EBZN2-12-050-2MW-6WLA	2500 AFF	LED	N/A			WALL	120 VAC / 12 VDC		CLASS 1, DIVISION 2, GROUPS A, B, C, D
EM-C1	WET LOCATION EMERGENCY BATTERY PACK WITH TWO HEADS	AIMLITE / EBN-12-50-6WLA-WHT	2500 AFF	LED	N/A			WALL	120 VAC / 12 VDC		
EM-C2	WET LOCATION DOUBLE REMOTE HEAD	AIMLITE / RMN-2-12-6W-LA-WHT	2500 AFF	LED	N/A			WALL	120 VAC / 12 VDC		
EM-D	WET LOCATION EXIT SIGN AND BATTERY PACK WITH TWO HEADS	AIMLITE / CRPN-12-36-1-WHT-W-6WLA									
EX-A	ILLUMINATED EXIT SIGN	AIMLITE / RPSP-1-WHT-BAT	2500 AFF	LED	N/A			WALL	120 VAC / 12 VDC		
EX-C	HAZARDOUS LOCATION ILLUMINATED EXIT	AIMLITE / RPHZ-1-W-1-1-CD	102 ABOVE DOOR	LED	N/A			WALL	120 VAC / 12 VDC		CLASS 1, DIVISION 2, GROUPS A, B, C, D

MECHANICAL SCHEDULE

TAG	DESCRIPTION	LOCATION	LOAD	VOLTAGE	PHASE	FEEDER	STARTER	CCT BRK (AMPS)	CCT No.	CONTROL	INTERLOCKS	REMARKS
EF-101	EXHAUST FAN	TREATMENT ROOM	1120 W	600 VAC	3	12 AWG	FVNR	15	MCC	CONTINUOUS OPERATION	DM-EF-101, MUA-101	EXPLOSION PROOF / ZONE 2
EF-102	EXHAUST FAN	HEADWORKS	190 W	600 VAC	3	12 AWG	FVNR	15	MCC	REMOTE CONTROL STATION	DM-EF-102	EXPLOSION PROOF / ZONE 2
EF-201	EXHAUST FAN	TREATMENT ROOM	80 W	120 VAC	1	12 AWG		15	A 43	MANUAL SWITCH		
SF-201	SUPPLY FAN	BUILDING EXTERIOR	1120 W	208 VAC	1	12 AWG	MANUAL STARTER	15	A 40, 42	MANUAL SWITCH		
SF-202	SUPPLY FAN	BUILDING EXTERIOR	1120 W	208 VAC	1	12 AWG	MANUAL STARTER	15	A 44, 46	MANUAL SWITCH		
SF-203	SUPPLY FAN	BUILDING EXTERIOR	1120 W	208 VAC	1	12 AWG	MANUAL STARTER	15	A 48, 50	MANUAL SWITCH		
MUA-101	MAKEUP AIR HANDLING UNIT	BUILDING EXTERIOR	5600 W	600 VAC	3	12 AWG		15	MCC	CONTINUOUS OPERATION	EF-101	
F-101	FURNACE	MECHANICAL ROOM	300 W	120 VAC	1	12 AWG		15	A 41	REMOTE THERMOSTAT	T-120	
HRV-101	HEAT RECOVERY VENTILATOR	MECHANICAL ROOM	150 W	120 VAC	1	12 AWG		15	A 17	CONTINUOUS OPERATION		
AC-101	AIR CONDITIONER	BUILDING EXTERIOR	1.976 kW	208 VAC	1	12 AWG		20	A 23, 25	REMOTE THERMOSTAT	T-120	
AC-102	AIR CONDITIONER CONDENSER	BUILDING EXTERIOR	4.68 kW	208 VAC	1	10 AWG		30	A 27, 29	REMOTE THERMOSTAT	T-112	
	AIR CONDITIONER EVAPORATOR	ELECTRICAL ROOM	270 W	208 VAC	1	10 AWG						
UH-101	UNIT HEATER	TREATMENT ROOM	186 W	120 VAC	1	12 AWG		15	A 39	REMOTE THERMOSTAT	T-101	
UH-102	UNIT HEATER	TREATMENT ROOM	186 W	120 VAC	1	12 AWG		15	A 39	REMOTE THERMOSTAT	T-102	
UH-103	UNIT HEATER	TREATMENT ROOM	186 W	120 VAC	1	12 AWG		15	A 39	REMOTE THERMOSTAT	T-103	
UH-201	UNIT HEATER	PUMP ROOM	186 W	120 VAC	1	12 AWG		15	A 33	REMOTE THERMOSTAT	T-105	
UH-202	UNIT HEATER	PUMP ROOM	186 W	120 VAC	1	12 AWG		15	A 33	REMOTE THERMOSTAT	T-201	
EUH-101	ELECTRIC UNIT HEATER	HEADWORKS ROOM	15 kW	600 VAC	3	12 AWG		20	MCC	REMOTE THERMOSTAT	T-202	
EUH-110	WALL FAN HEATER	STAIRWAY	4 kW	208 VAC	1	12 AWG		20	A 34, 36	INEGRAL CONTROL		
HWH-101	HOT WATER HEATER	MECHANICAL ROOM		120 VAC	1	12 AWG		15	A 38	INEGRAL CONTROL		
T-101	REMOTE THERMOSTAT	TREATMENT ROOM		24 VAC	1	14 AWG					UH-101	DIVISION 16 TO SUPPLY AND TERMINATE THERMOSTAT WIRING
T-102	REMOTE THERMOSTAT	TREATMENT ROOM		24 VAC	1	14 AWG					UH-102	DIVISION 16 TO SUPPLY AND TERMINATE THERMOSTAT WIRING
T-103	REMOTE THERMOSTAT	TREATMENT ROOM		24 VAC	1	14 AWG					UH-103	DIVISION 16 TO SUPPLY AND TERMINATE THERMOSTAT WIRING
T-105	REMOTE THERMOSTAT	HEADWORKS ROOM		24 VAC	1	14 AWG					EUH-105	DIVISION 16 TO SUPPLY AND TERMINATE THERMOSTAT WIRING
T-112	REMOTE THERMOSTAT	ELECTRICAL ROOM		24 VAC	1	14 AWG					AC-102	DIVISION 16 TO SUPPLY AND TERMINATE THERMOSTAT WIRING
T-120	REMOTE THERMOSTAT	LAB/CONTROL ROOM		24 VAC	1	14 AWG					F-101, AC-101	DIVISION 16 TO SUPPLY AND TERMINATE THERMOSTAT WIRING
T-201	REMOTE THERMOSTAT	PUMP ROOM		24 VAC	1	14 AWG					UH-201	DIVISION 16 TO SUPPLY AND TERMINATE THERMOSTAT WIRING
T-202	REMOTE THERMOSTAT	PUMP ROOM		24 VAC	1	14 AWG					UH-202	DIVISION 16 TO SUPPLY AND TERMINATE THERMOSTAT WIRING
DM-EF-101	ELECTRIC DAMPER	TREATMENT ROOM	6.5 W	120 VAC	1	14 AWG			MCC		EF-101	
DM-EF-102	ELECTRIC DAMPER	HEADWORKS ROOM	6.5 W	120 VAC	1	14 AWG			MCC		EF-102, DM-102	
DM-102	ELECTRIC DAMPER	HEADWORKS ROOM	6.5 W	120 VAC	1	14 AWG			MCC		EF-102, DM-EF-102	

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ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
LUMINAIRE AND MECHANICAL SCHEDULES

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.4

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
100	A	GROUND	WWTP EXTERIOR	N/A	GROUND GRID	MAIN BREAKER	BARE COPPER	1	6 AWG	GROUND GRID
101	A	SECONDARY SERVICE CONDUCTORS	WWTP EXTERIOR	2-63? DB2 IN CONCRETE DUCT BANK	SERVICE TRANSFORMER	SERVICE ENTRANCE SPLITTER	R90 AL	4 IN EACH	250 KCMIL	600 VAC POWER
	B			2-53? RIGID STEEL	SERVICE ENTRANCE SPLITTER	MAIN BREAKER	R90	4 IN EACH	3/0 AWG	600 VAC POWER
102	A	GENERATOR	WWTP EXTERIOR	TECK	GEN 9910	ATS 9919	R90	4	250 KCMIL	600 VAC POWER
	B			TECK			R90	4	14 AWG	GENERATOR START SIGNAL (2 SPARE)
	D			TECK		CP-2	R90	6	14 AWG	120 VAC STATUS
	E						R90	3	6 AWG	60A BREAKER PANEL
	F			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
103	A	AUTOMATIC TRANSFER SWITCH	ELECTRICAL ROOM	-	ATS 9919	GENERATOR	-	-	-	SEE GENERATOR
	B			TECK		CP-2	R90	5	14 AWG	24 VDC STATUS (2 SPARE)
104	A	ACTIVE HARMONIC FILTER	ELECTRICAL ROOM	1-63? RPVC IN SLAB	AHF 101	MCC-1	R90	4	4/0 AWG	600 VAC POWER
	B			1-35? RPVC IN SLAB			R90	6	10 AWG	CURRENT TRANSFORMER
	C			TECK		CP-2	R90	2	14 AWG	24 VDC STATUS
105	A	SURGE PROTECTION DEVICE (SPD)	ELECTRICAL ROOM	TECK	SPD 101	CP-2	R90	2	14 AWG	24 VDC STATUS
106	A	POWER QUALITY MONITOR	ELECTRICAL ROOM	TECK	PQM 101	CP-2	R90	2	14 AWG	24 VDC STATUS
	B			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET COMMUNICATIONS
107	A	UNINTERRUPTABLE POWER SUPPLY	ELECTRICAL ROOM	TECK	UPS 101	CP-2	R90	4	14 AWG	24 VDC STATUS
	B			TECK		PANEL A	R90	3	8 AWG	120/208 VAC 1PH POWER
	C			TECK		PANEL UPS	R90	3	8 AWG	120/208 VAC 1PH POWER
108	A	ACCESS CONTROL SYSTEM POWER SUPPLY - ACS PSU	ELECTRICAL ROOM	TECK	ACS PSU	PANEL UPS	R90	2	12 AWG	120 VAC POWER
109	A	ACCESS CONTROL SYSTEM (ACS) MASTER CONTROLLER	ELECTRICAL ROOM	1-27? EMT	ZS 9911	CP-2	R90	6	14 AWG	24 VDC STATUS AND CONTROL
	B			1-21? EMT	ACS MASTER	ACS PSU	R90	2	14 AWG	24 VDC POWER
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET COMMUNICATIONS
	D			1-21? EMT		ACS SLAVE 1	BELDEN	1-PAIR	18 AWG	RS 485 COMMUNICATIONS
	E		STAIRWELL	1-27? RPVC - TRANSITION TO 1-27? EMT IN OFFICE AREAS		DOOR 101	HONEYWELL 3206	6	22 AWG	CARD READER
							HONEYWELL 3115	4	18 AWG	ELECTRIC STRIKE
							HONEYWELL 3102	2	22 AWG	DOOR CONTACT
							HONEYWELL 3104	4	22 AWG	MOTION RTE
	F		TREATMENT ROOM	1-27? RPVC - TRANSITION TO 1-27? EMT IN OFFICE AREAS		DOOR 103	HONEYWELL 3206	6	22 AWG	CARD READER
							HONEYWELL 3115	4	18 AWG	ELECTRIC STRIKE
							HONEYWELL 3102	2	22 AWG	DOOR CONTACT
							HONEYWELL 3104	4	22 AWG	MOTION RTE
110	A	ACCESS CONTROL SYSTEM (ACS) SLAVE CONTROLLER	ELECTRICAL ROOM	1-21? EMT	ACS SLAVE 1	ACS PSU	R90	2	14 AWG	24 VDC POWER
	B			1-21? EMT		ACS MASTER	BELDEN	1-PAIR	18 AWG	RS 485 COMMUNICATIONS
	C		TREATMENT ROOM	1-27? RPVC		DOOR 106	HONEYWELL 3206	6	22 AWG	CARD READER
							HONEYWELL 3115	4	18 AWG	ELECTRIC STRIKE
							HONEYWELL 3102	2	22 AWG	DOOR CONTACT
							HONEYWELL 3104	4	22 AWG	MOTION RTE
	D		TREATMENT ROOM	1-27? RPVC		DOOR 113	HONEYWELL 3206	6	22 AWG	CARD READER
							HONEYWELL 3115	4	18 AWG	ELECTRIC STRIKE
							HONEYWELL 3102	2	22 AWG	DOOR CONTACT
							HONEYWELL 3104	4	22 AWG	MOTION RTE
111	A	ACCESS CONTROL SYSTEM (ACS) SLAVE CONTROLLER	ELECTRICAL ROOM	1-21? EMT	ACS SLAVE 2	ACS PSU	R90	2	14 AWG	24 VDC POWER
	B			1-21? EMT		ACS SLAVE 2	BELDEN	1-PAIR	18 AWG	RS 485 COMMUNICATIONS
	C		HEADWORKS	1-27? RIGID ALUMINUM		DOOR 105	HONEYWELL 3206	6	22 AWG	CARD READER
							R90	2	14 AWG	PNEUMATIC STRIKE
							HONEYWELL 3102	2	22 AWG	DOOR CONTACT
							HONEYWELL 3102	2	22 AWG	PUSH TO EXIT BUTTON

NOTES:
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3. SEE ELECTRICAL PANEL AND MECHANICAL EQUIPMENT SCHEDULES FOR ADDITIONAL WIRING REQUIREMENTS.
4. LIKE VOLTAGE WIRING CAN BE COMBINED IN COMMON CONDUIT PROVIDING MINIMUM 25% SPARE IN ACCOUNTED FOR IN ADD IN TO CEC CONDUIT FILL REQUIREMENTS. SEPARATE CONDUITS ARE REQUIRED FOR 120VAC, 24VDC, ANALOG SIGNALS, COMMUNICATION.
5. ALL IN CONCRETE SLAB RIGID ALUMINUM (ALUM) CONDUIT TO HAVE OUTSIDE OF CONDUIT COVERED WITH CORROSION PROTECTIVE COATING BITUMASTIC, ASPHALT BASED PAINT OR PVC COATING.
6. IN CONCRETE SLAB CONDUITS TO BE RPVC OR RIGID ALUMINUM.
7. IN CEILING CONDUITS TO BE EMT.
8. SURFACE MOUNT CONDUITS TO BE RPVC AND ARE ONLY PERMITTED FOR VERTICAL RUNS INTO CEILING SPACE AND HORIZONTAL RUNS LESS THAN 600. INSTALL ALL CONDUITS IN WALLS, CEILINGS AND FLOORS UNLESS OTHERWISE INDICATED.
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Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
ELECTRICAL	32675	

PROFESSIONAL ENGINEER
R.G. OSTIE
MEMBER 32675
2021-01-22
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE AND CONDUIT SCHEDULE

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.5

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
112	A	ACCESS CONTROL SYSTEM (ACS) SLAVE CONTROLLER	ELECTRICAL ROOM	1-21? EMT	ACS SLAVE 3	ACS PSU	R90	2	14 AWG	24 VDC POWER
	B			1-21? EMT		ACS SLAVE 6	BELDEN	1-PAIR	18 AWG	RS 485 COMMUNICATIONS
	C		HEADWORKS	1-21? RIGID ALUMINUM		OVERHEAD DOOR 104	HONEYWELL 3102	2	22 AWG	DOOR CONTACT
	D		TREATMENT ROOM	1-21? RPVC		OVERHEAD DOOR 102	HONEYWELL 3102	2	22 AWG	DOOR CONTACT
	E		LAB	1-21? RPVC - TRANSITION TO 1-21? EMT IN OFFICE AREAS		OFFICE MOTION DETECTOR	HONEYWELL 3104	4	22 AWG	MOTION DETECTOR
	F		OFFICE	1-21? RPVC - TRANSITION TO 1-21? EMT IN OFFICE AREAS		LAB MOTION DETECTOR	HONEYWELL 3104	4	22 AWG	MOTION MOTION DETECTOR
113	A	SMOKE DETECTOR	ELECTRICAL ROOM	1-21? RPVC	SD 9914C	CP-2	R90	2	14 AWG	24 VDC POWER
							R90	2	14 AWG	24 VDC STATUS
114	A	TEMPERATURE SWITCH HIGH	ELECTRICAL ROOM	1-21? RPVC	TSH 9915C	CP-2	R90	2	14 AWG	24 VDC STATUS
115	A	SMOKE DETECTOR	LABORATORY	1-21? EMT	SD 9914B	CP-2	R90	2	14 AWG	24 VDC POWER
							R90	2	14 AWG	24 VDC STATUS
116	A	TEMPERATURE SWITCH HIGH	LABORATORY	1-21? EMT	TSH 9915B	CP-2	R90	2	14 AWG	24 VDC STATUS
117	A	SMOKE DETECTOR	OFFICE	1-21? EMT	SD 9914D	CP-2	R90	2	14 AWG	24 VDC POWER
							R90	2	14 AWG	24 VDC STATUS
118	A	TEMPERATURE SWITCH HIGH	OFFICE	1-21? EMT	TSH 9915D	CP-2	R90	2	14 AWG	24 VDC STATUS
119	A	SMOKE DETECTOR	MECHANICAL ROOM	1-21? EMT	SD 9914A	CP-2	R90	2	14 AWG	24 VDC POWER
							R90	2	14 AWG	24 VDC STATUS
120	A	TEMPERATURE SWITCH HIGH	MECHANICAL ROOM	1-21? EMT	TSH 9915A	CP-2	R90	2	14 AWG	24 VDC STATUS
121	A	CONDUCTIVITY LEVEL SWITCH	MECHANICAL ROOM	1-21? EMT	LS 9917A RELAY	CP-2	R90	2	14 AWG	120 VAC POWER
	B			1-21? EMT			R90	2	14 AWG	24 VDC STATUS
	C			N/A		LS 9917A PROBES	PRE-MANUFACTURED CABLES			PROBE WIRING
124	A	TEMPERATURE TRANSMITTER	WWTP EXTERIOR	1-21? EMT	TT 9912	CP-2	BELDEN	1-PAIR	18 AWG	ANALOG STATUS - TEMPERATURE
125	A	MAKE UP AIR UNIT	WWTP EXTERIOR	TECK	MUA 101	MCC-1	SEE MECHANICAL SCHEDULE			
	B			TECK		CP-2	R90	3	14 AWG	24 VDC STATUS
126	A	EXHAUST FAN	WWTP EXTERIOR	TECK	EF 101	FVNR EF 101	SEE MECHANICAL SCHEDULE			
	B			TECK		CP-2	R90	3	14 AWG	24 VDC STATUS
127	A	EXHAUST FAN	WWTP EXTERIOR	TECK	EF 102	FVNR EF 102	SEE MECHANICAL SCHEDULE			
	B			TECK		CP-2	R90	3	14 AWG	24 VDC STATUS
128	A	PERIMETER GATE OPERATOR	WWTP EXTERIOR	TECK	PERIMETER GATE OPERATOR	PANEL A	R90	3	12 AWG	208 VAC POWER
	B			TECK		CP-2	R90	4	14 AWG	24 VAC CONTROL
	C			TECK		KEYPAD PEDESTAL	R90	2	14 AWG	24 VAC POWER
	D			TECK			BELDEN	1-PAIR	18 AWG	GATE OPEN COMMAND
	E			TECK		DETECTION LOOP 1	PRE-MANUFACTURED CABLE			VEHICLE DETECTION LOOP
	F			TECK		DETECTION LOOP 2	PRE-MANUFACTURED CABLE			VEHICLE DETECTION LOOP
	G			TECK		NETWORK RACK DATA PATCH PANEL	1-CAT 6 ETHERNET			ETHERNET COMMUNICATIONS (SPARE)
129	A	TRANSFORMER	ELECTRICAL ROOM	TECK	T-101	MCC-1	R90	3	3 AWG	600 VAC POWER
	B			TECK		PANEL A	R90	4	350 KCMIL	120/208 VAC POWER
130	A	SEPTAGE RECEIVING STATION	EXTERIOR	TECK	SEPTAGE RECEIVING STATION	PANEL A	R90	3	2 AWG	120/208 VAC POWER

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
200	A	VARIABLE FREQUENCY DRIVE (VFD)	TREATMENT ROOM	1-35? RPVC IN SLAB	VFD 6101	BL 6101	R90	3	12 AWG	600 VAC POWER
	B			1-21? RPVC IN SLAB		ES 6101	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-1	R90	2	14 AWG	120 VAC STATUS
	E	FLOW SWITCH LOW		1-35? RPVC IN SLAB	FSL 6101		R90	3	14 AWG	24 VDC STATUS AND POWER
201	A	VARIABLE FREQUENCY DRIVE (VFD)	TREATMENT ROOM	1-35? RPVC IN SLAB	VFD 6102	BL 6102	R90	3	12 AWG	600 VAC POWER
	B			1-21? RPVC IN SLAB		ES 6102	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-1	R90	2	14 AWG	120 VAC STATUS
	E	FLOW SWITCH LOW		1-35? RPVC IN SLAB	FSL 6102		R90	3	14 AWG	24 VDC STATUS AND POWER
202	A	VARIABLE FREQUENCY DRIVE (VFD)	TREATMENT ROOM	1-35? RPVC IN SLAB	VFD 6201	BL 6201	R90	3	12 AWG	600 VAC POWER
	B			1-21? RPVC IN SLAB		ES 6201	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-1	R90	2	14 AWG	120 VAC STATUS
	E	FLOW SWITCH LOW		1-35? RPVC IN SLAB	FSL 6201		R90	3	14 AWG	24 VDC STATUS AND POWER

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Discipline: ELECTRICAL | Sk. Reg. No.: 32675 | Signature

PROFESSIONAL ENGINEER
R.G. OESTIE
MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE AND CONDUIT SCHEDULE

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.6

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
203	A	VARIABLE FREQUENCY DRIVE (VFD)	TREATMENT ROOM	1-35? RPVC IN SLAB	VFD 6301	BL 6301	R90	3	12 AWG	600 VAC POWER
	B			1-21? RPVC IN SLAB		ES 6301	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-1	R90	2	14 AWG	120 VAC STATUS
	E	FLOW SWITCH LOW		1-35? RPVC IN SLAB	FSL 6301		R90	3	14 AWG	24 VDC STATUS AND POWER
204	A	VARIABLE FREQUENCY DRIVE (VFD)	TREATMENT ROOM	1-35? RPVC IN SLAB	VFD 6302	BL 6302	R90	3	12 AWG	600 VAC POWER
	B			1-21? RPVC IN SLAB		ES 6302	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-1	R90	2	14 AWG	120 VAC STATUS
	E	FLOW SWITCH LOW		1-35? RPVC IN SLAB	FSL 6302		R90	3	14 AWG	24 VDC STATUS AND POWER
205	A	VARIABLE FREQUENCY DRIVE (VFD)	TREATMENT ROOM	1-35? RPVC IN SLAB	VFD 6303	BL 6303	R90	3	12 AWG	600 VAC POWER
	B			1-21? RPVC IN SLAB		ES 6303	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-1	R90	2	14 AWG	120 VAC STATUS
	E	FLOW SWITCH LOW		1-35? RPVC IN SLAB	FSL 6303		R90	3	14 AWG	24 VDC STATUS AND POWER
206	A	VARIABLE FREQUENCY DRIVE (VFD)	TREATMENT ROOM	1-21? RPVC IN SLAB	VFD 3101	RDT 3101	R90	3	12 AWG	600 VAC POWER
	B			1-21? RPVC IN SLAB		ES 3101	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-2	R90	2	14 AWG	120 VAC STATUS
207	A	MAGNETIC FLOW METER - REMOTE DISPLAY	TREATMENT ROOM	1-21? RPVC	FIT 3120	FE 3120	PRE-MANUFACTURED CABLE			ANALOG STATUS
	B			1-21? RPVC		CP-1	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	C			1-21? RPVC			R90	2	14 AWG	120 VAC POWER
208	A	PNUEMATIC FLOW VALVE (FV)	TREATMENT ROOM	1-21? RPVC IN SLAB	FV 3112	CP-1	R90	2	14 AWG	24 VDC CONTROL
	B			1-21? RPVC IN SLAB	ZS 3112		R90	4	14 AWG	24 VDC STATUS
209	A	PRESSURE SWITCH LOW (PSL)	TREATMENT ROOM	1-21? RPVC IN SLAB	PSL 3131	CP-2	R90	2	14 AWG	120 VAC STATUS
210	A	PNEUMATIC FLOW VALVE (FV)	TREATMENT ROOM	1-21? RPVC IN SLAB	FV 7360	CP-2	R90	2	14 AWG	24 VDC CONTROL
211	A	SOLENOID FLOW VALVE (FV)	TREATMENT ROOM	1-21? RPVC IN SLAB	FV 3168	CP-2	R90	2	14 AWG	24 VDC CONTROL
213	A	SMOKE DETECTOR	TREATMENT ROOM	TECK	SD 3414	CP-2	R90	2	14 AWG	24 VDC POWER
							R90	2	14 AWG	24 VDC STATUS
214	A	TEMPERATURE SWITCH HIGH	TREATMENT ROOM	TECK	TSH 3415	CP-2	R90	2	14 AWG	24 VDC STATUS
215	A	TEMPERATURE TRANSMITTER	TREATMENT ROOM	TECK	TT 3412	CP-2	BELDEN	1-PAIR	18 AWG	ANALOG STATUS
216	A	CONDUCTIVITY LEVEL SWITCH	TREATMENT ROOM	TECK	LS 3417 RELAY	CP-2	R90	2	14 AWG	120 VAC POWER
	B			TECK			R90	2	14 AWG	24 VDC STATUS
	C			N/A		LS 3417 PROBES	PRE-MANUFACTURED CABLES			PROBE WIRING
217	A	LEVEL SWITCH(S)	TREATMENT ROOM	TECK	LSH 3226 / LSHH 3226B	CP-2	R90	4	14 AWG	24 VDC STATUS
218	A	LEVEL INDICATING TRANSMITTER - REMOTE DISPLAY	TREATMENT ROOM	1-21? RPVC	LIT 3226	LE 3226	PRE-MANUFACTURED CABLE			ELEMENT CABLE - LEVEL
	B			TECK		CP-2	R90	2	14 AWG	24 VDC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL
219	A	LEVEL SWITCH(S)	TREATMENT ROOM	TECK	LSH 8126 / LSHH 8126B	CP-2	R90	4	14 AWG	24 VDC STATUS
220	A	LEVEL INDICATING TRANSMITTER - REMOTE DISPLAY	TREATMENT ROOM	1-21? RPVC	LIT 8126	LE 8126	PRE-MANUFACTURED CABLE			ELEMENT CABLE - LEVEL
	B			TECK		CP-2	R90	2	14 AWG	24 VDC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL
221	A	REFRIGERATED SAMPLER UNIT	TREATMENT ROOM	TECK	RFS 5900	PANEL A	R90	2	12 AWG	120 VAC POWER
	B			TECK		CP-2	R90	4	14 AWG	24 VDC STATUS AND CONTROL
222	A	LEVELTRANSMITTER	TREATMENT ROOM	TECK	LT 8126	CP-2	BELDEN	2	14 AWG	ANALOG STATUS - LEVEL
223	A	REFRIGERATED SAMPLER UNIT	TREATMENT ROOM	TECK	RFS 2900	PANEL A	R90	2	12 AWG	120 VAC POWER
	B			TECK		CP-2	R90	4	14 AWG	24 VDC STATUS AND CONTROL

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PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22
YR MN DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE AND CONDUIT SCHEDULE

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.7

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
300	A	ROTARY DRUM THICKENER POLYMER SYSTEM	TREATMENT ROOM	1-21? RPVC IN SLAB	CP 7341	PANEL A	R90	2	12 AWG	120 VAC POWER
	B			1-27? RPVC IN SLAB		CP-2	R90	16	14 AWG	24 VDC STATUS AND CONTROL
	C			1-21? RPVC IN SLAB			BELDEN	3-PAIRS	18 AWG	ANALOG CONTROL
301	A	CHEMICAL METERING PUMP (SODIUM HYPOCHLORITE)	TREATMENT ROOM	TECK	P 7741A	PANEL A	R90	2	12 AWG	120 VAC POWER
	B			TECK		CP-1	R90	2	14 AWG	24 VDC STATUS
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG CONTROL
302	A	CHEMICAL METERING PUMP (SODIUM HYPOCHLORITE)	TREATMENT ROOM	TECK	P 7741B	PANEL A	R90	2	12 AWG	120 VAC POWER
	B			TECK		CP-1	R90	2	14 AWG	24 VDC STATUS
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG CONTROL
303	A	CHEMICAL METERING PUMP (CITRIC ACID)	TREATMENT ROOM	TECK	P 7541A	PANEL A	R90	2	12 AWG	120 VAC POWER
	B			TECK		CP-1	R90	2	14 AWG	24 VDC STATUS
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG CONTROL
304	A	CHEMICAL METERING PUMP (CITRIC ACID)	TREATMENT ROOM	TECK	P 7541B	CP-1	R90	2	12 AWG	120 VAC POWER
	B			TECK			R90	2	14 AWG	24 VDC STATUS
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG CONTROL
305	A	CHEMICAL METERING PUMP (ALUM)	TREATMENT ROOM	TECK	P 7141A	CP-1	R90	2	12 AWG	120 VAC POWER
	B			TECK			R90	2	14 AWG	24 VDC STATUS
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG CONTROL
306	A	CHEMICAL METERING PUMP (ALUM)	TREATMENT ROOM	TECK	P 7141B	CP-1	R90	2	12 AWG	120 VAC POWER
	B			TECK			R90	2	14 AWG	24 VDC STATUS
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG CONTROL
307	A	CHEMICAL METERING PUMP (SODIUM HYDROXIDE)	TREATMENT ROOM	TECK	P 7641A	CP-1	R90	2	12 AWG	120 VAC POWER (FUTURE)
	B			TECK			R90	2	14 AWG	24 VDC STATUS (FUTURE)
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG CONTROL (FUTURE)
308	A	CHEMICAL METERING PUMP (SODIUM HYDROXIDE)	TREATMENT ROOM	TECK	P 7641A	CP-1	R90	2	12 AWG	120 VAC POWER (FUTURE)
	B			TECK			R90	2	14 AWG	24 VDC STATUS (FUTURE)
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG CONTROL (FUTURE)
311	A	WEIGHT INDICATING TRANSMITTER - REMOTE DISPLAY	TREATMENT ROOM	TECK	WIT 7739 / 7539	WE 7739	PRE-MANUFACTURED CABLE			ELEMENT CABLE - LOAD CELLS
	B			TECK		WE 7539	PRE-MANUFACTURED CABLE			ELEMENT CABLE - LOAD CELLS
	C			TECK		CP-2	R90	2	14 AWG	120 VAC POWER
	D			TECK			BELDEN	2-PAIRS	18 AWG	ANALOG STATUS - WEIGHT
312	A	LEVEL SWITCH(S)	TREATMENT ROOM	TECK	LSL 7739	CP-1	R90	4	14 AWG	24 VDC POWER AND STATUS
313	A	LEVEL SWITCH(S)	TREATMENT ROOM	TECK	LSL 7539	RIO-1	R90	4	14 AWG	24 VDC POWER AND STATUS
314	A	WEIGHT INDICATING TRANSMITTER - REMOTE DISPLAY	TREATMENT ROOM	TECK	WIT 7132 / 7641	WE 7132	PRE-MANUFACTURED CABLE			ELEMENT CABLE - LOAD CELLS
	B			TECK		WE 7641	PRE-MANUFACTURED CABLE			ELEMENT CABLE - LOAD CELLS (FUTURE)
	C			TECK		CP-2	R90	2	14 AWG	120 VAC POWER
	D			TECK			BELDEN	2-PAIRS	18 AWG	ANALOG STATUS - WEIGHT
315	A	LEVEL SWITCH(S)	TREATMENT ROOM	TECK	LSL 7132	CP-1	R90	4	14 AWG	24 VDC POWER AND STATUS
316	A	LEVEL SWITCH(S)	TREATMENT ROOM	TECK	LSL 7641	CP-1	R90	4	14 AWG	24 VDC POWER AND STATUS (FUTURE)
317	A	MAGNETIC FLOW METER - REMOTE DISPLAY	TREATMENT ROOM	TECK	FIT 7120	FE 7120	PRE-MANUFACTURED CABLE			ANALOG STATUS
	B			TECK		CP-1	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	C			TECK			R90	2	14 AWG	120 VAC POWER
318	A	MAGNETIC FLOW METER - REMOTE DISPLAY	TREATMENT ROOM	TECK	FIT 7320	FE 7320	PRE-MANUFACTURED CABLE			ANALOG STATUS
	B			TECK		CP-2	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	C			TECK			R90	2	14 AWG	120 VAC POWER
320	A	LEVEL SWITCH(S)	TREATMENT ROOM	TECK	LSLL 7326	CP-2	R90	4	14 AWG	24 VDC POWER AND STATUS
321	A	WEIGHT INDICATING TRANSMITTER - REMOTE DISPLAY	TREATMENT ROOM	TECK	WIT 7339	WE 7339	PRE-MANUFACTURED CABLE			ELEMENT CABLE - LOAD CELLS
	B			TECK		CP-2	R90	2	14 AWG	120 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG STATUS - WEIGHT

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3. SEE ELECTRICAL PANEL AND MECHANICAL EQUIPMENT SCHEDULES FOR ADDITIONAL WIRING REQUIREMENTS.
4. LIKE VOLTAGE WIRING CAN BE COMBINED IN COMMON CONDUIT PROVIDING MINIMUM 25% SPARE IN ACCOUNTED FOR IN ADD IN TO CEC CONDUIT FILL REQUIREMENTS. SEPARATE CONDUITS ARE REQUIRED FOR 120VAC, 24VDC, ANALOG SIGNALS, COMMUNICATION.
5. ALL IN CONCRETE SLAB RIGID ALUMINUM (ALUM) CONDUIT TO HAVE OUTSIDE OF CONDUIT COVERED WITH CORROSION PROTECTIVE COATING BITUMASTIC, ASPHALT BASED PAINT OR PVC COATING.
6. IN CONCRETE SLAB CONDUITS TO BE RPVC OR RIGID ALUMINUM.
7. IN CEILING CONDUITS TO BE EMT.
8. SURFACE MOUNT CONDUITS TO BE RPVC AND ARE ONLY PERMITTED FOR VERTICAL RUNS INTO CEILING SPACE AND HORIZONTAL RUNS LESS THAN 600. INSTALL ALL CONDUITS IN WALLS, CEILINGS AND FLOORS UNLESS OTHERWISE INDICATED.
9. ALL CABLING SIZE BASED ON 75° TERMINATION TEMPERATURE.
10. PROVIDE AND INSTALL APPROPRIATELY SIZED GROUND CABLE FOR ALL CABLE RUNS.
11. ALL CABLES ARE TO BE COPPER UNLESS OTHERWISE NOTED.
12. CONTRACTOR TO LABEL ALL CONTROL AND INSTRUMENTATION WIRING AS PER DETAIL 3 ON E5.1.
13. CONTRACTOR TO LABEL ALL POWER CONDUIT AS PER DETAIL 4 ON E5.1.
14. WHERE CONDUIT AND CABLE IS MARKED FUTURE, CONTRACTOR IS TO INSTALL ONLY THE INDICATED CONDUIT BETWEEN THE FUTURE DEVICE AND THE CONDUIT SOURCE.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

ISSUE	YY-MM-DD	REVISION
2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER

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Discipline	Sk. Reg. No.	Signature
ELECTRICAL	32675	

PROFESSIONAL ENGINEER
R.G. DESPIE
MEMBER 32675
2021-01-22
YR MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE AND CONDUIT SCHEDULE

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.8

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
400	A	VARIABLE FREQUENCY DRIVE WITH MINICAS (VFD)	EFFLUENT CHAMBER	N/A	P 8101	PIN AND SLEEVE RECEPTACLE	3C + 1-PAIR PUMP CABLE		10 AWG	600 VAC POWER AND ANALOG STATUS
	B			TECK	VFD 8101		R90	3	10 AWG	600 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	0-12 VDC ANALOG PUMP SENSORS
	D			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	E			TECK		ES 8101	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	F			TECK		CP-2	R90	2	14 AWG	120 VAC STATUS
	G			TECK			R90	3	14 AWG	24 VDC STATUS
401	A	VARIABLE FREQUENCY DRIVE WITH MINICAS (VFD)	EFFLUENT CHAMBER	N/A	P 8102	PIN AND SLEEVE RECEPTACLE	3C + 1-PAIR PUMP CABLE		10 AWG	600 VAC POWER AND ANALOG STATUS
	B			TECK	VFD 8102		R90	3	10 AWG	600 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	0-12 VDC ANALOG PUMP SENSORS
	D			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	E			TECK		ES 8102	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	F			TECK		CP-2	R90	2	14 AWG	120 VAC STATUS
	G			TECK			R90	3	14 AWG	24 VDC STATUS
402	A	VARIABLE FREQUENCY DRIVE WITH MINICAS (VFD)	EQUALIZATION CHAMBER	N/A	P 1101	PIN AND SLEEVE RECEPTACLE	3C + 1-PAIR PUMP CABLE		12 AWG	600 VAC POWER AND ANALOG STATUS
	B			TECK	VFD 1101		R90	3	12 AWG	600 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	0-12 VDC ANALOG PUMP SENSORS
	D			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	E			TECK		ES 1101	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	F			TECK		CP-2	R90	2	14 AWG	120 VAC STATUS
	G			TECK			R90	3	14 AWG	24 VDC STATUS
403	A	VARIABLE FREQUENCY DRIVE WITH MINICAS (VFD)	EQUALIZATION CHAMBER	N/A	P 1102	PIN AND SLEEVE RECEPTACLE	3C + 1-PAIR PUMP CABLE		12 AWG	600 VAC POWER AND ANALOG STATUS
	B			TECK	VFD 1102		R90	3	12 AWG	600 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	0-12 VDC ANALOG PUMP SENSORS
	D			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	E			TECK		ES 1102	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	F			TECK		CP-2	R90	2	14 AWG	120 VAC STATUS
	G			TECK			R90	3	14 AWG	24 VDC STATUS
404	A	FULL VOLTAGE NON REVERSING STARTER WITH MINICAS (FVNR)	EQUALIZATION CHAMBER	N/A	MX 1012	PIN AND SLEEVE RECEPTACLE	3C + 1-PAIR PUMP CABLE		12 AWG	600 VAC POWER AND ANALOG STATUS
	B			TECK	FVNR 1012		R90	3	12 AWG	600 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	0-12 VDC ANALOG PUMP SENSORS
	D			TECK		ES 1102	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	E			TECK		CP-2	R90	4	14 AWG	120 VAC STATUS AND CONTROL
	F			TECK			R90	8	14 AWG	24 VDC STATUS
405	A	VARIABLE FREQUENCY DRIVE (VFD)	PUMP ROOM	TECK	VFD 4901-1	P 4901-1	R90	3	12 AWG	600 VAC POWER
	B			TECK		ES 4901-1	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-11	R90	2	14 AWG	120 VAC STATUS
406	A	VARIABLE FREQUENCY DRIVE (VFD)	PUMP ROOM	TECK	VFD 4901-2	P 4901-2	R90	3	12 AWG	600 VAC POWER
	B			TECK		ES 4901-2	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-12	R90	2	14 AWG	120 VAC STATUS
407	A	VARIABLE FREQUENCY DRIVE (VFD)	PUMP ROOM	TECK	VFD 4611-1	P 4611-1	R90	3	12 AWG	600 VAC POWER
	B			TECK		ES 4611-1	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-11	R90	4	14 AWG	120 VAC STATUS
408	A	VARIABLE FREQUENCY DRIVE (VFD)	PUMP ROOM	TECK	VFD 4611-2	P 4611-2	R90	3	12 AWG	600 VAC POWER
	B			TECK		ES 4611-2	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	C			TECK		NETWORK RACK DATA PATCH PANEL	1-SHEILDED CAT 6 ETHERNET			ETHERNET/IP COMMUNICATIONS
	D			TECK		CP-12	R90	4	14 AWG	120 VAC STATUS
409	A	AIR COMPRESSOR CONTROL PANEL	PUMP ROOM	TECK	CP 6008	MCC-1	R90	3	10 AWG	600 VAC POWER
	B			TECK		AC 6008A	R90	3	12 AWG	600 VAC POWER
	C			TECK		AC 6008B	R90	3	12 AWG	600 VAC POWER
	D			TECK		CP-1	R90	4	14 AWG	120 VAC CONTROL
	E			TECK			R90	12	14 AWG	24 VDC STATUS
410	A	FULL VOLTAGE NON REVERSING STARTER WITH MINICAS (FVNR)	ANOIXIC CHAMBER	N/A	MX 3011	PIN AND SLEEVE RECEPTACLE	3C + 1-PAIR PUMP CABLE		12 AWG	600 VAC POWER AND ANALOG STATUS
	B			TECK	FVNR 3011		R90	3	12 AWG	600 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	0-12 VDC ANALOG PUMP SENSORS
	D			TECK		ES 3011	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	E			TECK		CP-2	R90	4	14 AWG	120 VAC STATUS AND CONTROL
	F			TECK			R90	8	14 AWG	24 VDC STATUS
411	A	UV REACTOR CONTROL POWER PANEL (CPP)	UV AREA	TECK	CPP 5155-1	PANEL A	R90	2	12 AWG	208 VAC POWER
	B			TECK		CP-1	R90	10	14 AWG	24VDC STATUS AND CONTROL
	C			TECK			BELDEN	2-PAIR	18 AWG	ANALOG STATUS
	D			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET COMMUNICATION
	E			TECK		UVR 5155-1	PRE-MANUFACTURED			REACTOR POWER SUPPLY
	F			TECK			PRE-MANUFACTURED			REACTOR CONTROL

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Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
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Number C1334
Permission to Consult held by:
Discipline: ELECTRICAL | Sk. Reg. No.: 32675 | Signature

PROFESSIONAL ENGINEER
R.G. OESTE
MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE AND CONDUIT SCHEDULE

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.9

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
412	A	UV REACTOR CONTROL POWER PANEL (CPP)	UV AREA	TECK	CPP 5155-2	PANEL A	R90	2	12 AWG	208 VAC POWER (FUTURE)
	B			TECK		CP-1	R90	5	14 AWG	24VDC STATUS AND CONTROL (FUTURE)
	C			TECK			BELDEN	2-PAIR	18 AWG	ANALOG STATUS (FUTURE)
	D			TECK		NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			ETHERNET COMMUNICATION (FUTURE)
	E			TECK		UVR 5155-2	PRE-MANUFACTURED			REACTOR POWER SUPPLY (FUTURE)
	F			TECK			PRE-MANUFACTURED			REACTOR CONTROL (FUTURE)
413	A	PNUEMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 5102	CP-1	R90	2	14 AWG	24 VDC CONTROL
	B			TECK	ZS 5102		R90	4	14 AWG	24 VDC STATUS
414	A	LEVEL INDICATING TRANSMITTER - INTEGRAL DISPLAY	PUMP ROOM	TECK	LIT 7932	CP-1	BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL
415	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 7960	CP-1	R90	2	14 AWG	24 VDC CONTROL
416	A	TEMPERATURE TRANSMITTER	PUMP ROOM	TECK	TT 5108	CP-1	BELDEN	1-PAIR	18 AWG	ANALOG STATUS
417	A	MAGNETIC FLOW METER - REMOTE DISPLAY	PUMP ROOM	TECK	FIT 5155	FE 5155	PRE-MANUFACTURED CABLE			ANALOG STATUS
	B			TECK		CP-1	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	C			TECK			R90	2	14 AWG	120 VAC POWER
418	A	ANALYZER INDICATING TRANSMITTER - REMOTE DISPLAY	PUMP ROOM	TECK	AIT 4624 / AIT 4625	AE 4625	BELDEN	1-PAIR	18 AWG	ELEMENT CABLE - H2S
	B			TECK		AE 4624	BELDEN	1-PAIR	18 AWG	ELEMENT CABLE - METHANE
	C			TECK		BCN 4625	R90	2	14 AWG	12 VDC POWER
	D			TECK		HN 4625	R90	2	14 AWG	12 VDC POWER
	E			TECK		CP-2	R90	2	14 AWG	120 VAC POWER
	F			TECK			R90	6	14 AWG	24 VDC STATUS
	G			TECK			BELDEN	2-PAIR	18 AWG	ANALOG STATUS
419	A	SMOKE DETECTOR	PUMP ROOM	TECK	SD 4614	CP-2	R90	2	14 AWG	24 VDC POWER
							R90	2	14 AWG	24 VDC STATUS
420	A	TEMPERATURE SWITCH HIGH	PUMP ROOM	TECK	TSH 4615	CP-2	R90	2	14 AWG	24 VDC STATUS
421	A	TEMPERATURE TRANSMITTER	PUMP ROOM	TECK	TT 4612	CP-2	BELDEN	1-PAIR	18 AWG	ANALOG STATUS
422	A	CONDUCTIVITY LEVEL SWITCH	PUMP ROOM	TECK	LS 4617 RELAY	CP-2	R90	2	14 AWG	120 VAC POWER
	B			TECK			R90	2	14 AWG	24 VDC STATUS
	C			N/A		LS 4617 PROBES	PRE-MANUFACTURED CABLES			PROBE WIRING
423	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4612-1	CP-11	R90	2	14 AWG	24 VDC CONTROL
424	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4612-2	CP-12	R90	2	14 AWG	24 VDC CONTROL
425	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4613-1	CP-11	R90	2	14 AWG	24 VDC CONTROL
426	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4613-2	CP-12	R90	2	14 AWG	24 VDC CONTROL
427	A	PNUEMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4611-1	CP-11	R90	2	14 AWG	24 VDC CONTROL
	B			TECK	ZS 4611-1		R90	4	14 AWG	24 VDC STATUS
428	A	PNUEMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4611-2	CP-12	R90	2	14 AWG	24 VDC CONTROL
	B			TECK	ZS 4611-2		R90	4	14 AWG	24 VDC STATUS
429	A	PRESSURE SWITCH HIGH (PSH)	PUMP ROOM	TECK	PSH 4631A-1	CP-11	R90	2	14 AWG	120 VAC STATUS
430	A	PRESSURE SWITCH HIGH (PSH)	PUMP ROOM	TECK	PSH 4631A-2	CP-12	R90	2	14 AWG	120 VAC STATUS
431	A	PRESSURE SWITCH HIGH (PSH)	PUMP ROOM	TECK	PSH 4631B-1	CP-11	R90	2	14 AWG	120 VAC STATUS
432	A	PRESSURE SWITCH HIGH (PSH)	PUMP ROOM	TECK	PSH 4631B-2	CP-12	R90	2	14 AWG	120 VAC STATUS
433	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4637-1	CP-11	R90	2	14 AWG	24 VDC CONTROL
434	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4637-2	CP-12	R90	2	14 AWG	24 VDC CONTROL
435	A	ANALYZER INDICATING TRANSMITTER - REMOTE DISPLAY	PUMP ROOM	TECK	AIT 4637-1	AE 4637-1	PRE-MANUFACTURED CABLE			ELEMENT CABLE - TURBIDITY
	B			TECK		CP-11	R90	2	14 AWG	120 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG STATUS
436	A	ANALYZER INDICATING TRANSMITTER - REMOTE DISPLAY	PUMP ROOM	TECK	AIT 4637-2	AE 4637-2	PRE-MANUFACTURED CABLE			ELEMENT CABLE - TURBIDITY
	B			TECK		CP-12	R90	2	14 AWG	120 VAC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG STATUS
437	A	MAGNETIC FLOW METER - INTEGRAL DISPLAY	PUMP ROOM	TECK	FIT 4620-1	FE 4620-1	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	B			TECK		CP-11	R90	2	14 AWG	120 VAC POWER
438	A	MAGNETIC FLOW METER - INTEGRAL DISPLAY	PUMP ROOM	TECK	FIT 4620-2	FE 4620-2	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	B			TECK		CP-12	R90	2	14 AWG	120 VAC POWER
439	A	PNUEMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4701-1	CP-11	R90	2	14 AWG	24 VDC CONTROL
	B			TECK	ZS 4701-1		R90	4	14 AWG	24 VDC STATUS
440	A	PNUEMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4701-2	CP-12	R90	2	14 AWG	24 VDC CONTROL
	B			TECK	ZS 4701-2		R90	4	14 AWG	24 VDC STATUS
441	A	PNEUMATIC FLOW CONTROL VALVE WITH LIMIT SWITCHES	TREATMENT ROOM	TECK	FCV 4601-1	CP-11	BELDEN	1-PAIR	18 AWG	ANALOG CONTROL
	B			TECK			R90	3	14 AWG	24 VDC STATUS
442	A	PNEUMATIC FLOW CONTROL VALVE WITH LIMIT SWITCHES	TREATMENT ROOM	TECK	FCV 4601-2	CP-12	BELDEN	1-PAIR	18 AWG	ANALOG CONTROL
	C			TECK			R90	3	14 AWG	24 VDC STATUS
443	A	PNEUMATIC FLOW VALVE (FV)	TREATMENT ROOM	1-21? RPVC IN SLAB	FV 6101-1	CP-11	R90	2	14 AWG	24 VDC CONTROL
	B				ZS 6101-1		R90	4	14 AWG	24 VDC STATUS
444	A	PNEUMATIC FLOW VALVE (FV)	TREATMENT ROOM	1-21? RPVC IN SLAB	FV 6101-2	CP-12	R90	2	14 AWG	24 VDC CONTROL
	B				ZS 6101-2		R90	4	14 AWG	24 VDC STATUS
445	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 6001-1	CP-11	R90	2	14 AWG	24 VDC CONTROL
446	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 6001-2	CP-12	R90	2	14 AWG	24 VDC CONTROL

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Discipline	Sk. Reg. No.	Signature
ELECTRICAL	32675	

PROFESSIONAL ENGINEER
R.G. DESTIE
MEMBER 32675
2021-01-22
YR MN DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE AND CONDUIT SCHEDULE

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.10

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
447	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 1100	CP-12	R90	2	14 AWG	24 VDC CONTROL
448	A	PRESSURE INDICATING TRANSMITTER (PIT)	TREATMENT ROOM	1-21? RPVC IN SLAB - TRANSITION TO TECK IN PUMP ROOM	PIT 4632-1	CP-11	R90	2	14 AWG	ANALOG STATUS
449	A	PRESSURE INDICATING TRANSMITTER (PIT)	TREATMENT ROOM	1-21? RPVC IN SLAB - TRANSITION TO TECK IN PUMP ROOM	PIT 4632-2	CP-12	R90	2	14 AWG	ANALOG STATUS
450	A	LEVEL SWITCH(S)	TREATMENT ROOM	1-21? RPVC IN SLAB - TRANSITION TO TECK AT PUMP ROOM	LSH 4626-1 / LSHH 4626-1	CP-11	R90	4	14 AWG	24 VDC STATUS
451	A	LEVEL SWITCH(S)	TREATMENT ROOM	1-21? RPVC IN SLAB - TRANSITION TO TECK AT PUMP ROOM	LSH 4626-2 / LSHH 4626-2	CP-12	R90	4	14 AWG	24 VDC STATUS
461	A	LEVEL INDICATING TRANSMITTER - INTEGRAL DISPLAY	TREATMENT ROOM	1-21? RPVC IN SLAB - TRANSITION TO TECK AT PUMP ROOM	LIT 4626-1	CP-11	BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL
462	A	LEVEL INDICATING TRANSMITTER - INTEGRAL DISPLAY	TREATMENT ROOM	1-21? RPVC IN SLAB - TRANSITION TO TECK AT PUMP ROOM	LIT 4626-2	CP-12	BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL
463	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4901-1	CP-11	R90	2	14 AWG	24 VDC CONTROL
	B				ZS 4901-1		R90	4	14 AWG	24 VDC STATUS
464	A	PNEUMATIC FLOW VALVE (FV)	PUMP ROOM	TECK	FV 4901-2	CP-12	R90	2	14 AWG	24 VDC CONTROL
	B				ZS 4901-2		R90	4	14 AWG	24 VDC STATUS
465	A	MAGNETIC FLOW METER - REMOTE DISPLAY	PUMP ROOM	TECK	FIT 4901-1	FE 4901-1	PRE-MANUFACTURED CABLE			ANALOG STATUS
	B			TECK		CP-11	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	C			TECK			R90	2	14 AWG	120 VAC POWER
466	A	MAGNETIC FLOW METER - REMOTE DISPLAY	PUMP ROOM	TECK	FIT 4901-2	FE 4901-2	PRE-MANUFACTURED CABLE			ANALOG STATUS
	B			TECK		CP-12	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	C			TECK			R90	2	14 AWG	120 VAC POWER
467	A	PNEUMATIC FLOW VALVE WITH LIMIT SWITCHES	PUMP ROOM	TECK	FCV 4912	CP-1	R90	2	14 AWG	24 VDC CONTROL
	B			TECK			R90	4	14 AWG	24 VDC STATUS
468	A	PRESSURE LEVEL TRANSMITTER	BIOREACTOR 1	TECK	LT 3026-1	CP-1	BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL
469	A	PRESSURE LEVEL TRANSMITTER	BIOREACTOR 2	TECK	LT 3026-2	CP-1	BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL
470	A	ANALYZER INDICATING TRANSMITTER - REMOTE DISPLAY	BIOREACTOR 1	TECK	AIT 3041-1	AE 3041-1	PRE-MANUFACTURED CABLE			ELEMENT CABLE - DISSOLVED OXYGEN
	C			TECK		CP-1	R90	2	14 AWG	120 VAC POWER
	D			TECK			BELDEN	1-PAIR	18 AWG	ANALOG STATUS
471	A	ANALYZER INDICATING TRANSMITTER - REMOTE DISPLAY	BIOREACTOR 2	N/A	AIT 3041-2	AE 3041-2	PRE-MANUFACTURED CABLE			ELEMENT CABLE - DISSOLVED OXYGEN
	C			TECK		CP-1	R90	2	14 AWG	120 VAC POWER
	D			TECK			BELDEN	1-PAIR	18 AWG	ANALOG STATUS
472	A	LEVEL SWITCH(S)	BIOREACTOR 1	TECK	LSHH 3026-1	CP-1	R90	2	14 AWG	24 VDC STATUS
473	A	LEVEL SWITCH(S)	BIOREACTOR 2	TECK	LSHH 3026-2	CP-1	R90	2	14 AWG	24 VDC STATUS
474	A	PRESSURE SWITCH LOW (PSL)	PUMP ROOM	TECK	PSL 6031	CP-1	R90	2	14 AWG	24 VDC STATUS
475	A	PRESSURE SWITCH LOW LOW (PSLL)	PUMP ROOM	TECK	PSLL 6031	CP-1	R90	2	14 AWG	24 VDC STATUS
476	A	ANALYZER INDICATING TRANSMITTER - REMOTE DISPLAY	BIOREACTOR 1	1-21? RPVC	AIT 3042-1	AE 3042-1	PRE-MANUFACTURED CABLE			ELEMENT CABLE - pH & TEMPERATURE
	C			TECK		CP-1	R90	2	14 AWG	120 VAC POWER
	D			TECK			BELDEN	2-PAIR	18 AWG	ANALOG STATUS
478	A	ANALYZER INDICATING TRANSMITTER - REMOTE DISPLAY	BIOREACTOR 2	1-21? RPVC	AIT 3042-2	AE 3042-2	PRE-MANUFACTURED CABLE			ELEMENT CABLE - pH & TEMPERATURE
	C			TECK		CP-1	R90	2	14 AWG	120 VAC POWER
	D			TECK			BELDEN	2-PAIR	18 AWG	ANALOG STATUS

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ELECTRICAL	32675	

PROFESSIONAL ENGINEER
R.G. OESTE
MEMBER 32675
2021-01-22
YR. MN. DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE AND CONDUIT SCHEDULE

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.11

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
501	B	FULL VOLTAGE NON REVERSING STARTER (FVNR)	HEADWORKS	1-21? RIGID ALUMINUM IN SLAB	FVNR 2501A	DS 2501A	R90	3	12 AWG	600 VAC POWER
	D			1-21? RIGID ALUMINUM IN SLAB		ES 2501A	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	E			TECK		CP-1	R90	4	14 AWG	120 VAC STATUS AND CONTROL
	F			TECK			R90	4	14 AWG	24 VDC STATUS
502	B	FULL VOLTAGE NON REVERSING STARTER (FVNR)	HEADWORKS	1-21? RIGID ALUMINUM IN SLAB	FVNR 2501B	DS 2501B	R90	3	12 AWG	600 VAC POWER
	D			1-21? RIGID ALUMINUM IN SLAB		ES 2501B	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	E			TECK		CP-1	R90	4	14 AWG	120 VAC STATUS AND CONTROL
	F			TECK			R90	4	14 AWG	24 VDC STATUS
503	B	FULL VOLTAGE NON REVERSING STARTER (FVNR)	HEADWORKS	1-21? RIGID ALUMINUM IN SLAB	FVNR 2202A	SC 2202A	R90	3	12 AWG	600 VAC POWER
	D			1-21? RIGID ALUMINUM IN SLAB		ES 2202A	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	E			TECK		CP-1	R90	4	14 AWG	120 VAC STATUS AND CONTROL
	F			TECK			R90	4	14 AWG	24 VDC STATUS
504	B	FULL VOLTAGE NON REVERSING STARTER (FVNR)	HEADWORKS	1-21? RIGID ALUMINUM IN SLAB	FVNR 2202B	SC 2202B	R90	3	12 AWG	600 VAC POWER
	D			1-21? RIGID ALUMINUM IN SLAB		ES 2202B	R90	4	14 AWG	120 VAC EMERGENCY STOP STATUS
	E			TECK		CP-1	R90	4	14 AWG	120 VAC STATUS AND CONTROL
	F			TECK			R90	4	14 AWG	24 VDC STATUS
505	A	ANALYZER INDICATING TRANSMITTER - REMOTE DISPLAY	HEADWORKS	TECK	AIT 2224 / AIT 2225	AE 2225	BELDEN	1-PAIR	18 AWG	ELEMENT CABLE - H2S
	B			TECK		AE 2224	BELDEN	1-PAIR	18 AWG	ELEMENT CABLE - METHANE
	C			TECK		BCN 2225	R90	2	14 AWG	12 VDC POWER
	D			TECK		HN 2225	R90	2	14 AWG	12 VDC POWER
	E			TECK		CP-2	R90	2	14 AWG	120 VAC POWER
	F			TECK			R90	6	14 AWG	24 VDC STATUS
	G			TECK			BELDEN	2-PAIR	18 AWG	ANALOG STATUS
507	A	TEMPERATURE SWITCH HIGH	HEADWORKS	TECK	TSH 2215	CP-2	R90	2	14 AWG	24 VDC STATUS
508	A	TEMPERATURE TRANSMITTER	HEADWORKS	TECK	TT 2212	CP-2	BELDEN	1-PAIR	18 AWG	ANALOG STATUS
509	A	CONDUCTIVITY LEVEL SWITCH	HEADWORKS	TECK	LS 2217 RELAY	CP-2	R90	2	14 AWG	120 VAC POWER
	B			TECK			R90	2	14 AWG	24 VDC STATUS
	C			N/A		LS 2217 PROBES	PRE-MANUFACTURED CABLES			PROBE WIRING
510	A	ALARM BEACON	HEADWORKS	TECK	BCN 2225-1	CP-2	R90	2	14 AWG	120 VAC CONTROL
512	A	MAGNETIC FLOW METER - REMOTE DISPLAY	HEADWORKS	TECK	FIT 2101	FE 2101	PRE-MANUFACTURED CABLE			ANALOG STATUS
	B			TECK		CP-2	BELDEN	1-PAIR	18 AWG	HART STATUS - FLOW
	C			TECK			R90	2	14 AWG	120 VAC POWER
513	A	PNEUMATIC FLOW VALVE (FV)	HEADWORKS	TECK	FV 2268A	CP-1	R90	2	14 AWG	24 VDC CONTROL
514	A	PNEUMATIC FLOW VALVE (FV)	HEADWORKS	TECK	FV 2268B	CP-1	R90	2	14 AWG	24 VDC CONTROL
515	A	LEVEL SWITCH(S)	HEADWORKS	TECK	LSHH 2201A	CP-1	R90	2	14 AWG	24 VDC STATUS
516	A	LEVEL SWITCH(S)	HEADWORKS	TECK	LSHH 2201B	CP-1	R90	2	14 AWG	24 VDC STATUS
517	A	PNEUMATIC FLOW VALVE (FV)	HEADWORKS	TECK	FV 2269A	CP-1	R90	2	14 AWG	24 VDC CONTROL
518	A	PNEUMATIC FLOW VALVE (FV)	HEADWORKS	TECK	FV 2269B	CP-1	R90	2	14 AWG	24 VDC CONTROL
519	A	LEVEL SWITCH(S)	EQUALIZATION CHAMBER	TECK	LSHH 1126 / LSLL 1126	CP-2	R90	4	14 AWG	24 VDC STATUS
520	A	LEVEL INDICATING TRANSMITTER - REMOTE DISPLAY	EQUALIZATION CHAMBER	1-21? RIGID ALUMINUM	LIT 1126	LIT 1126	PRE-MANUFACTURED CABLE			ELEMENT CABLE - LEVEL
	B			TECK		CP-2	R90	2	14 AWG	24 VDC POWER
	C			TECK			BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL
521	A	LEVEL SWITCH(S)	EQUALIZATION CHAMBER	TECK	LT 1126B	CP-2	BELDEN	1-PAIR	18 AWG	ANALOG STATUS - LEVEL

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DESIGNED	R.G.D	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.12

CONDUIT AND CABLE SCHEDULE

COND. No.	COND. TAG	DESCRIPTION	LOCATION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	No. OF WIRES	WIRE SIZE	REMARKS
900	A	TELEPHONE AND INTERNET SERVICE	ELECTRICAL ROOM	1-53? RPVC	SASKTEL PEDESTAL	TELEPHONE DEMARCATION	PULL STRING			PULL STRING
	B			TECK	TELEPHONE DEMARCATION	NETWORK RACK DATA PATCH PANEL	2-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
901	A	CONTROL PANEL 1 NETWORK HEAD	ELECTRICAL ROOM	TECK	CP-1	NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
902	A	CONTROL PANEL 1 NETWORK TAIL	ELECTRICAL ROOM	TECK	CP-1	NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
903	A	CONTROL PANEL 2 NETWORK HEAD	ELECTRICAL ROOM	TECK	CP-2	NETWORK RACK DATA PATCH PANEL	2-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
904	A	CONTROL PANEL 11 NETWORK	PUMP ROOM	TECK	CP-11	CP-1	1-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
905	A	CONTROL PANEL 12 NETWORK	PUMP ROOM	TECK	CP-12	CP-1	1-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
906	A	CONTROL PANEL 11 TO 12 NETWORK	PUMP ROOM	TECK	CP-11	CP-12	1-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
907	A	WIRELESS ACCESS POINT	OFFICE	1-21? EMT	WAP-1	NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
908	A	WIRELESS ACCESS POINT	TREATMENT ROOM	TECK	WAP-2	NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
909	A	WIRELESS ACCESS POINT	PUMP ROOM	TECK	WAP-3	NETWORK RACK DATA PATCH PANEL	1-SHIELDED CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
910	A	DEVICE BOX 1 - SCADA PC	OFFICE	1-27? EMT	DB-1	NETWORK RACK DATA PATCH PANEL	3-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
	B					TELEPHONE BIX	1-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
911	A	DEVICE BOX 2 - INTERNET PC	OFFICE	1-27? EMT	DB-2	NETWORK RACK DATA PATCH PANEL	3-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
	B					TELEPHONE BIX	1-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
912	A	DEVICE BOX 3 - PRINTER/FAX	OFFICE	1-21? EMT	DB-3	NETWORK RACK DATA PATCH PANEL	1-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
	B					TELEPHONE BIX	1-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
913	A	DEVICE BOX 4 - LABORATORY 1	LABORATORY	1-21? EMT	DB-4	TELEPHONE BIX	1-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
				1-21? EMT		NETWORK DATA RACK	2-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
914	A	DEVICE BOX 5 - LABORATORY 2	LABORATORY	1-21? EMT	DB-5	TELEPHONE BIX	1-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
				1-21? EMT		NETWORK DATA RACK	2-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS
915	A	SEPTAGE RECEIVING STATION	EXTERIOR	TECK	SEPTAGE RECEIVING STATION CONTROL PANEL	NETWORK RACK DATA PATCH PANEL	2-CAT 6 ETHERNET			SEE E0.3 FOR DEVICE AND PORT DETAILS

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. THE CONDUIT AND CABLE SCHEDULE IS INTENDED TO SHOW THE MAJORITY OF THE POWER AND INSTRUMENTATION CABLE RUNS. INSTALL AND CONNECT ALL CABLES AND CONDUIT TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
3. SEE ELECTRICAL PANEL AND MECHANICAL EQUIPMENT SCHEDULES FOR ADDITIONAL WIRING REQUIREMENTS.
4. LIKE VOLTAGE WIRING CAN BE COMBINED IN COMMON CONDUIT PROVIDING MINIMUM 25% SPARE IN ACCOUNTED FOR IN ADD IN TO CEC CONDUIT FILL REQUIREMENTS. SEPARATE CONDUITS ARE REQUIRED FOR 120VAC, 24VDC, ANALOG SIGNALS, COMMUNICATION.
5. ALL IN CONCRETE SLAB RIGID ALUMINUM (ALUM) CONDUIT TO HAVE OUTSIDE OF CONDUIT COVERED WITH CORROSION PROTECTIVE COATING BITUMASTIC, ASPHALT BASED PAINT OR PVC COATING.
6. IN CONCRETE SLAB CONDUITS TO BE RPVC OR RIGID ALUMINUM.
7. IN CEILING CONDUITS TO BE EMT.
8. SURFACE MOUNT CONDUITS TO BE RPVC AND ARE ONLY PERMITTED FOR VERTICAL RUNS INTO CEILING SPACE AND HORIZONTAL RUNS LESS THAN 600. INSTALL ALL CONDUITS IN WALLS, CEILINGS AND FLOORS UNLESS OTHERWISE INDICATED.
9. ALL CABLING SIZE BASED ON 75° TERMINATION TEMPERATURE.
10. PROVIDE AND INSTALL APPROPRIATELY SIZED GROUND CABLE FOR ALL CABLE RUNS.
11. ALL CABLES ARE TO BE COPPER UNLESS OTHERWISE NOTED.
12. CONTRACTOR TO LABEL ALL CONTROL AND INSTRUMENTATION WIRING AS PER DETAIL 3 ON E5.1.
13. CONTRACTOR TO LABEL ALL POWER CONDUIT AS PER DETAIL 4 ON E5.1.
14. WHERE CONDUIT AND CABLE IS MARKED FUTURE, CONTRACTOR IS TO INSTALL ONLY THE INDICATED CONDUIT BETWEEN THE FUTURE DEVICE AND THE CONDUIT SOURCE.

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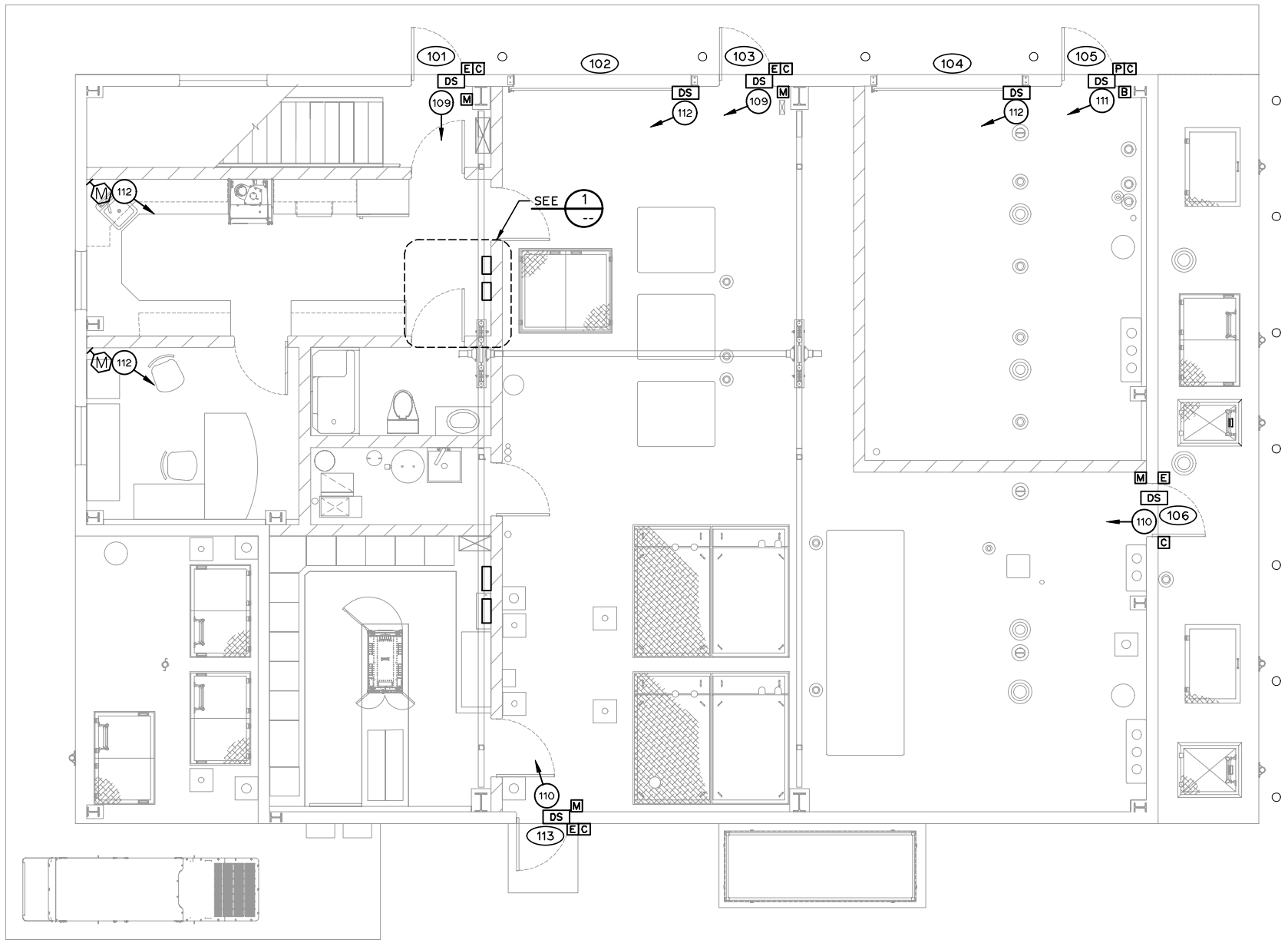
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ENGLISH RIVER ENTERPRISES
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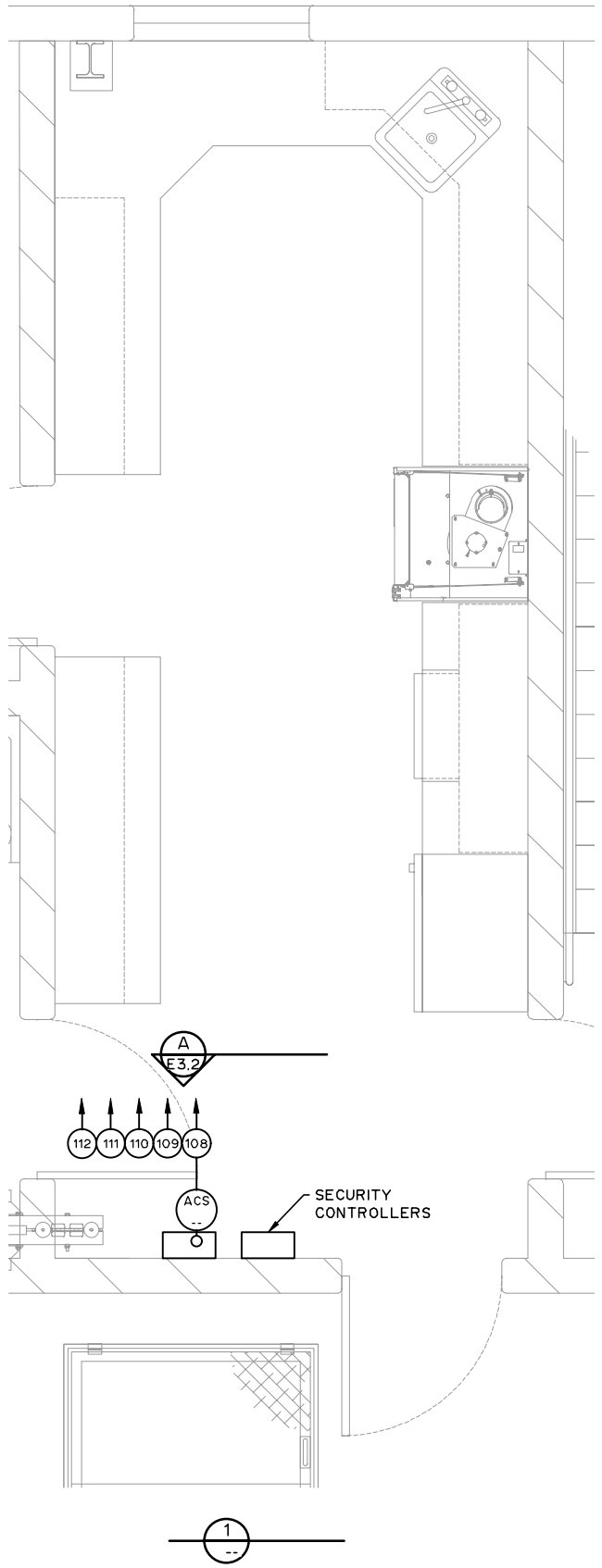
WASTEWATER TREATMENT PLANT
ELECTRICAL
CABLE AND CONDUIT SCHEDULE

DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E2.13



ACCESS CONTROL LAYOUT PLAN

SEE -- E3.2



NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. SBM = SIZED BY MANUFACTURER. SIZE OVER CURRENT DEVICE AND CABLING AS PER MANUFACTURERS RECOMMENDATIONS.
3. (--) SEE CONDUIT AND CABLE SCHEDULES ON E-DRAWINGS SERIES.
3. (XXX) DOOR TAG. REFER TO ARCHITECTURAL DRAWINGS
4. HEIGHT TO BE CONFIRMED ON SITE.

LEGEND:

C	WALL MOUNTED CARD READER
M	WALL MOUNTED MOTION SENSOR
DS	DOOR POSITION SWITCH (DOOR CONTACT)
E	ELECTRIC STRIKE
P	PNEUMATIC STRIKE
M	MOTION RTE
B	ZONE 2 RATED PUSH BUTTON RTE

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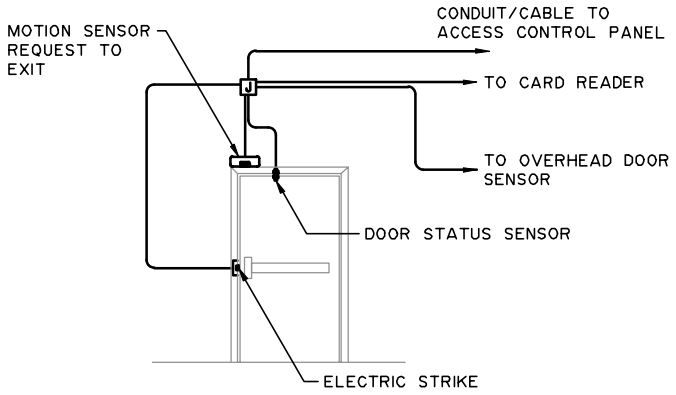
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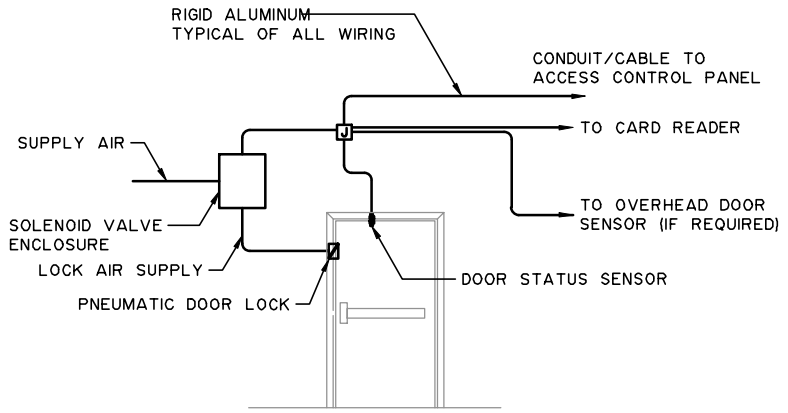
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WASTEWATER TREATMENT PLANT
ELECTRICAL
ACCESS CONTROL LAYOUT

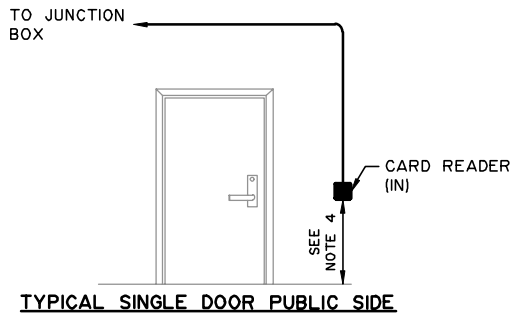
DESIGNED	R.G.O	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E3.1



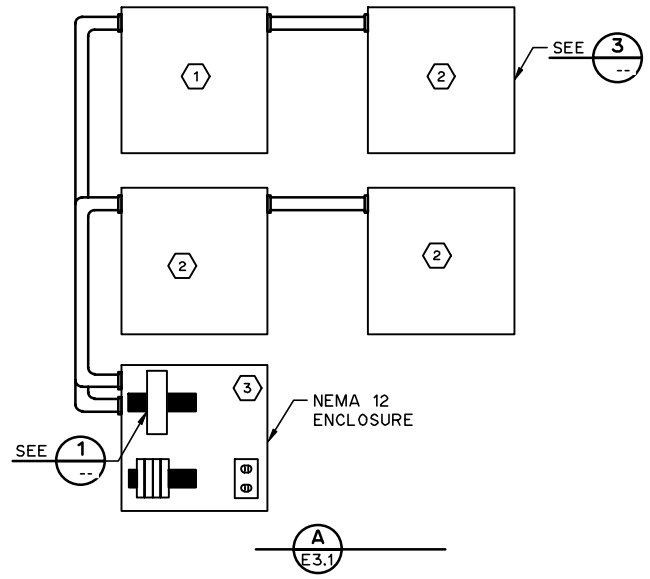
TYPICAL SINGLE DOOR SECURE SIDE



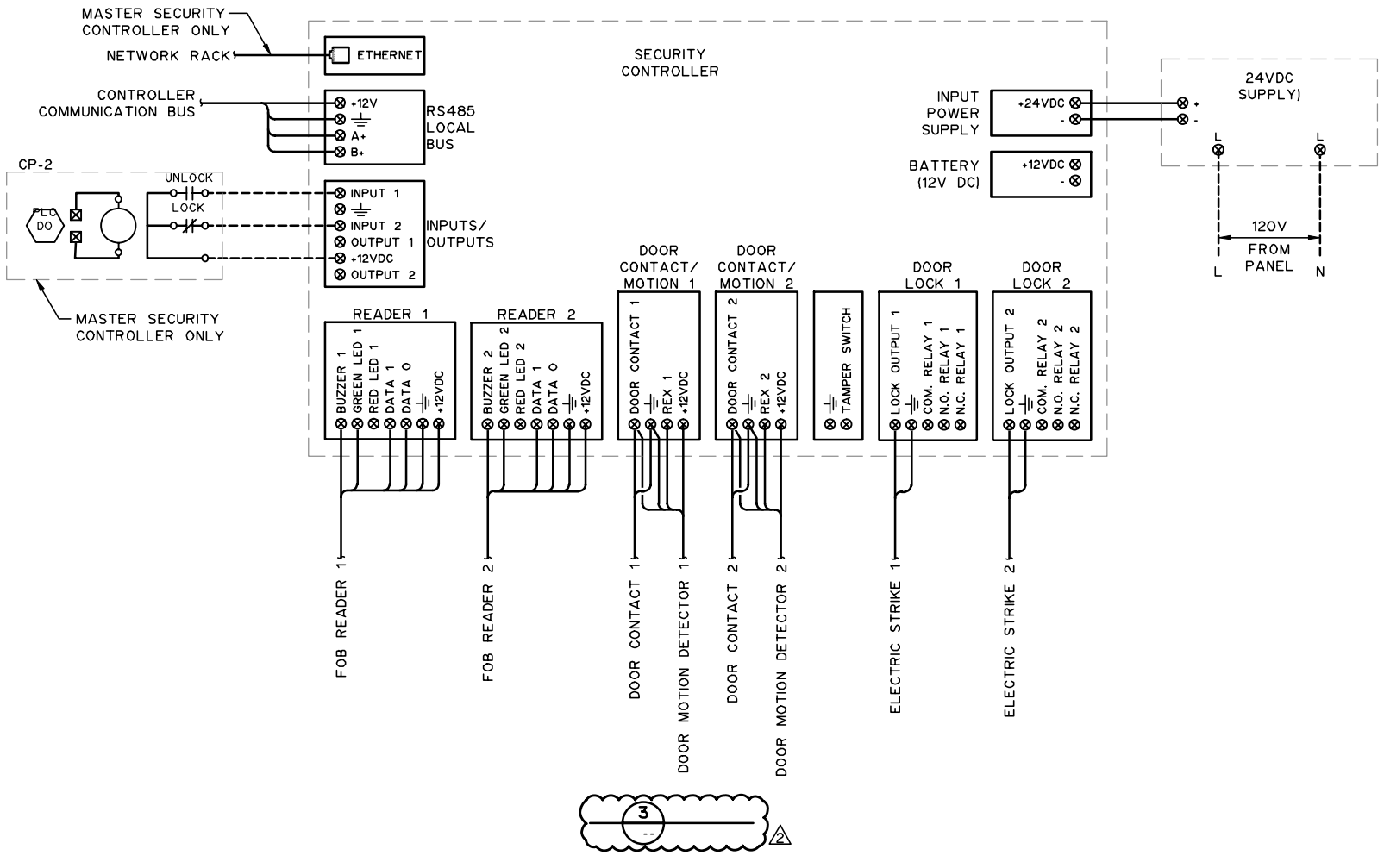
HEADWORKS SINGLE DOOR SECURE SIDE

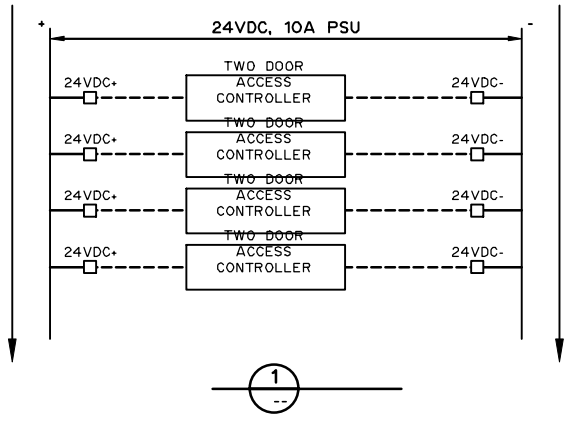


TYPICAL SINGLE DOOR PUBLIC SIDE



TYPICAL DOOR ACCESS CONTROL DETAIL





NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. THIS DETAIL SHOWS CABLE REQUIREMENTS FOR SECURITY SYSTEM COMPONENTS ONLY. ARCHITECTURAL REQUIREMENTS AND DOOR HARDWARE MAY BE DIFFERENT THAN INDICATED. ELECTRICAL CONTRACTOR TO CONFIRM ALL ELECTRICAL ROUGH-IN MOUNTING HEIGHTS AND LOCATIONS FOR ACCESS CONTROL COMPONENTS. CONFIRM COMPATIBILITY WITH DOOR HARDWARE BEFORE ORDERING.
3. COORDINATE WIRING WITH DOOR HARDWARE INSTALLATION.
4. HEIGHT TO BE CONFIRMED ON SITE.
5. INSTALL 24VDC PSU INTO NEMA 12 ENCLOSURE C/W TERMINALS AND DIN RAIL AS REQUIRED.

KEY ITEMS:

1. MASTER 2 DOOR CONTROLLER
2. SLAVE 2 DOOR CONTROLLER
3. ACS POWER SUPPLY. SEE NOTE 5

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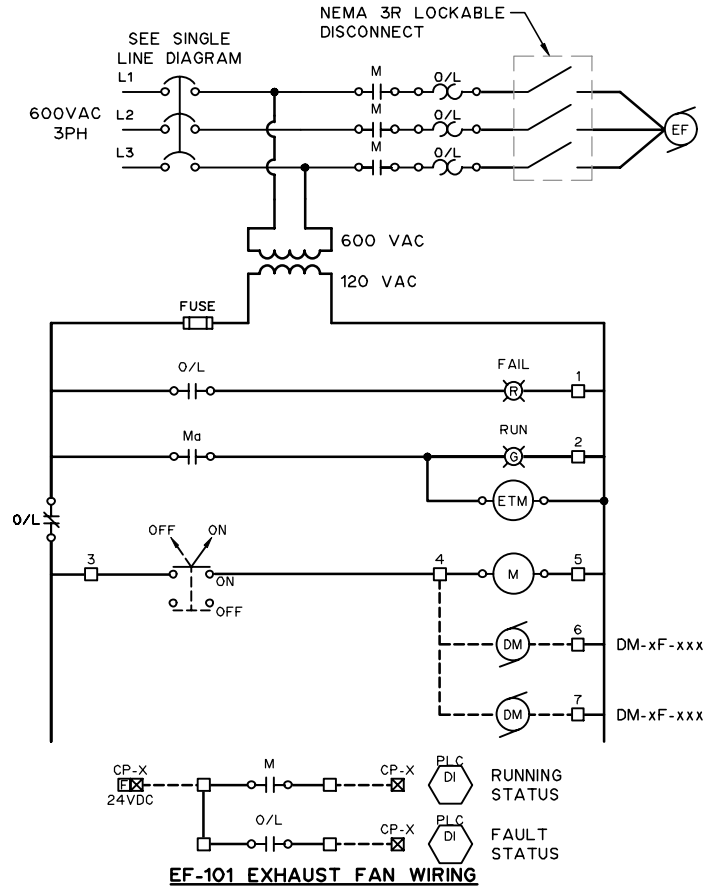
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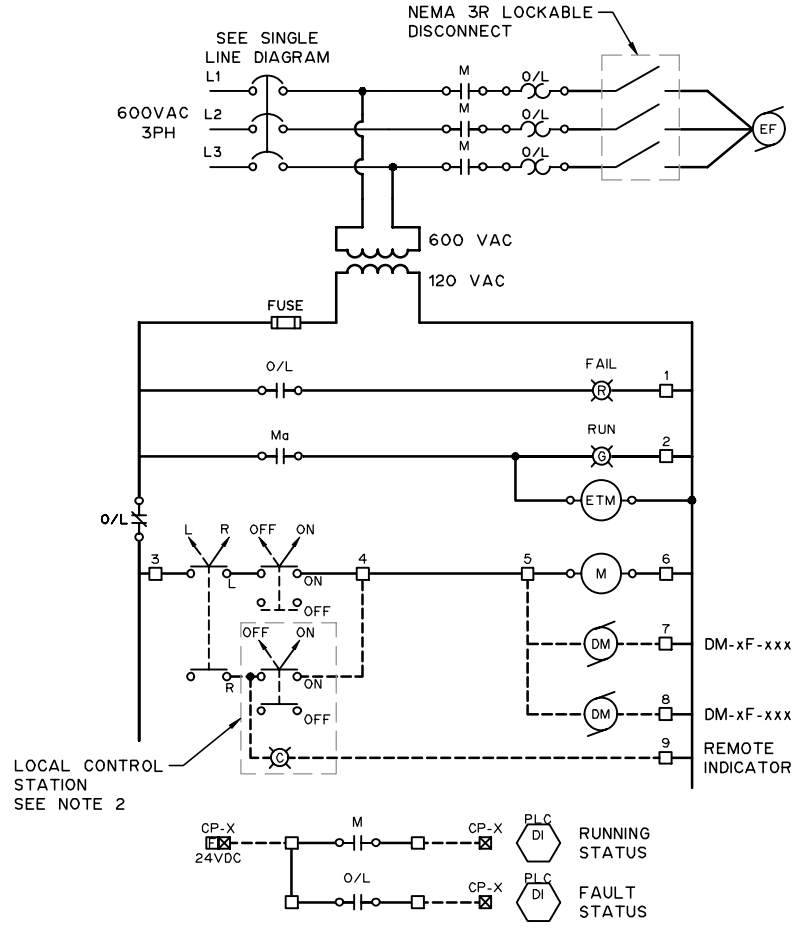
WASTEWATER TREATMENT PLANT
ELECTRICAL
ACCESS CONTROL DETAILS

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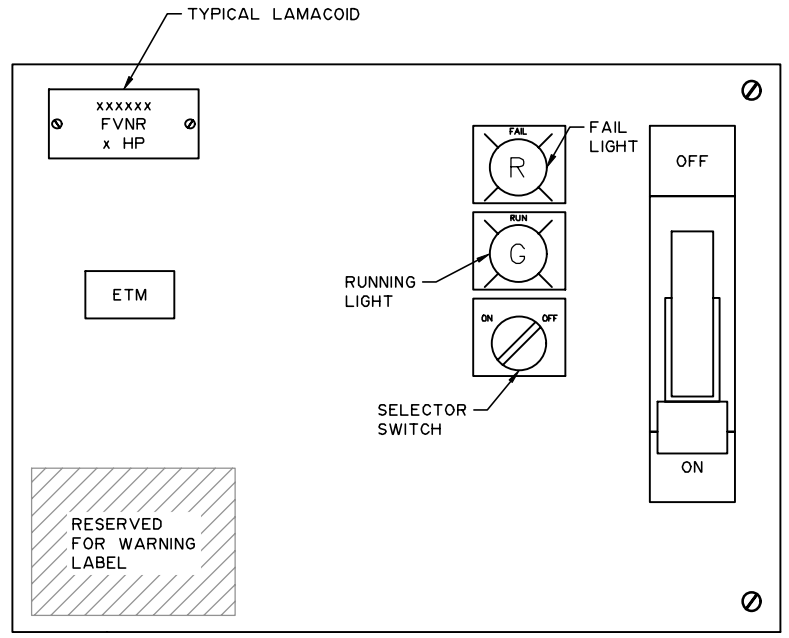
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EF-101	1119	DM-EF-101

EF-101 EXHAUST FAN WIRING

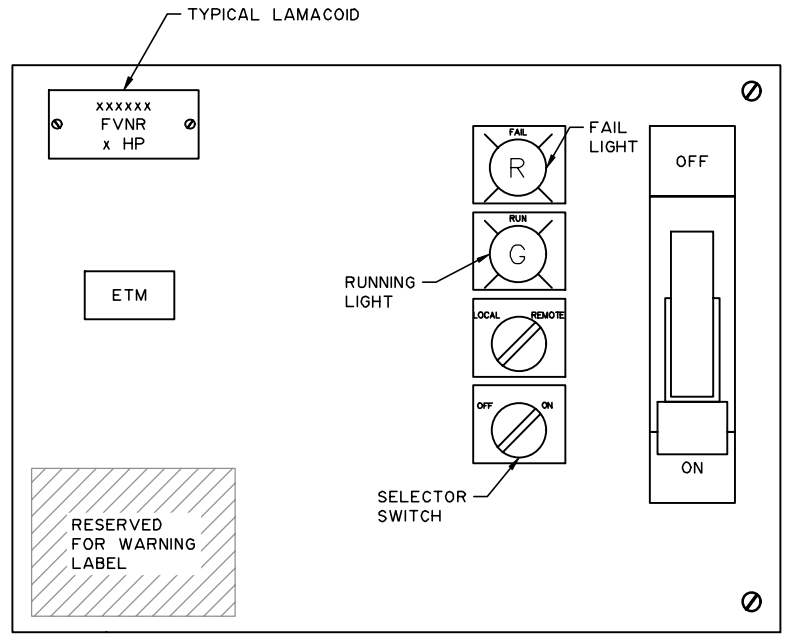


xF TAG	LOAD (W)	DM TAG
EF-102	1119	DM-EF-102

EF-102 EXHAUST FAN WIRING



VOLTAGE NON REVERSING STARTER FRONT PANEL



VOLTAGE NON REVERSING STARTER FRONT PANEL

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.
2. MOUNT ON BUILDING EXTERIOR 1000 FROM HEADWORKS ENTRANCE.

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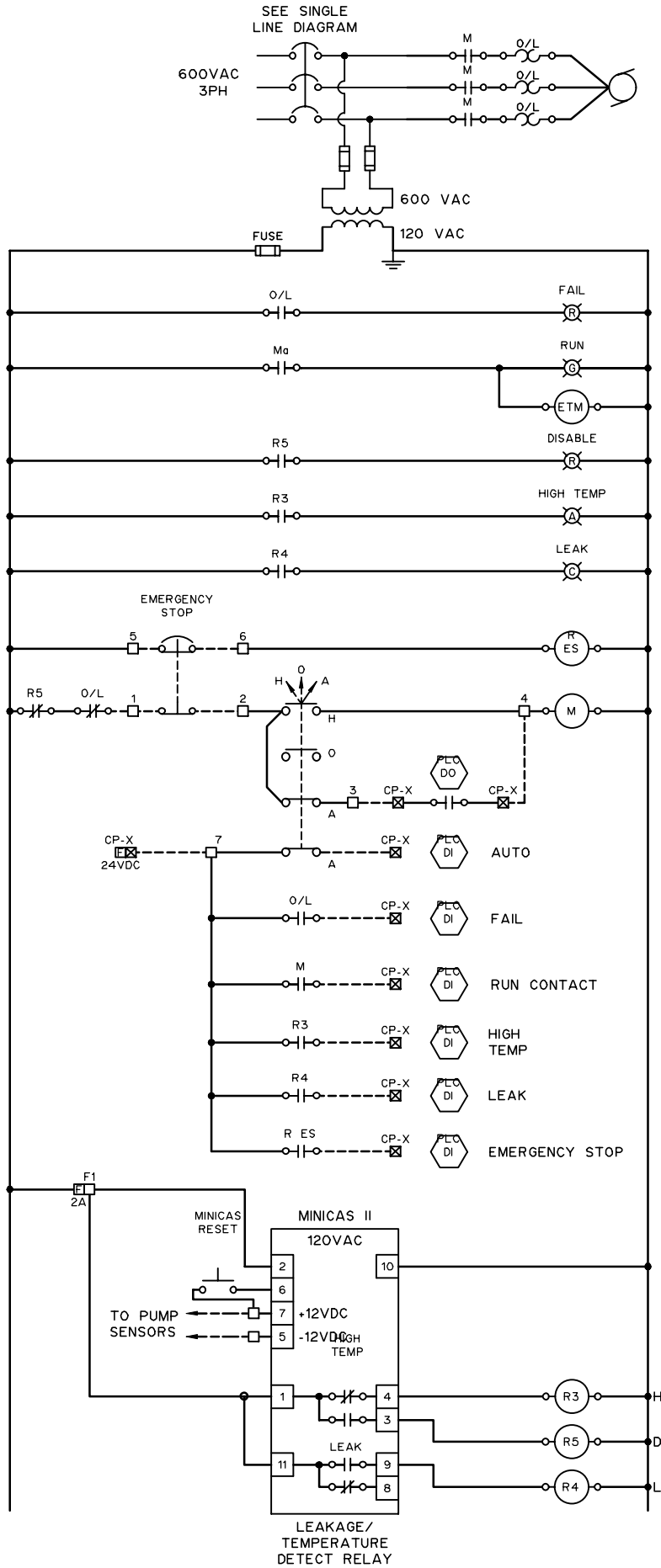
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ENGLISH RIVER ENTERPRISES
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WASTEWATER TREATMENT PLANT
ELECTRICAL
SCHEMATICS

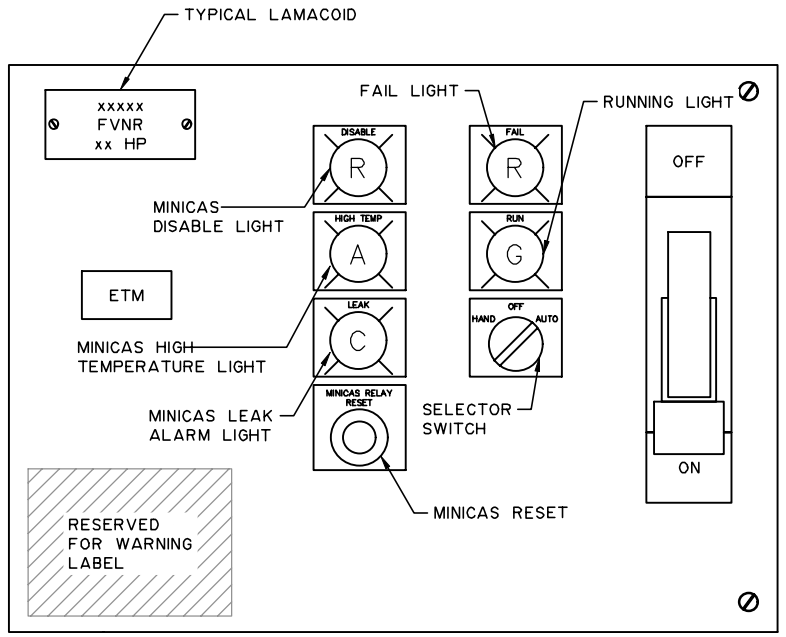
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DATE	NOVEMBER 2020	DRAWING	E4.1



SEE FVNR SCHEDULE

FVNR STARTER SCHEDULE	
PUMP TAG	HP
MX 3011	2.4
MX 1012	2.4

TYPICAL FULL VOLTAGE NON REVERSING STARTER WITH MINICAS



TYPICAL FULL VOLTAGE NON REVERSING STARTER WITH MINICAS FRONT PANEL

NOTES:

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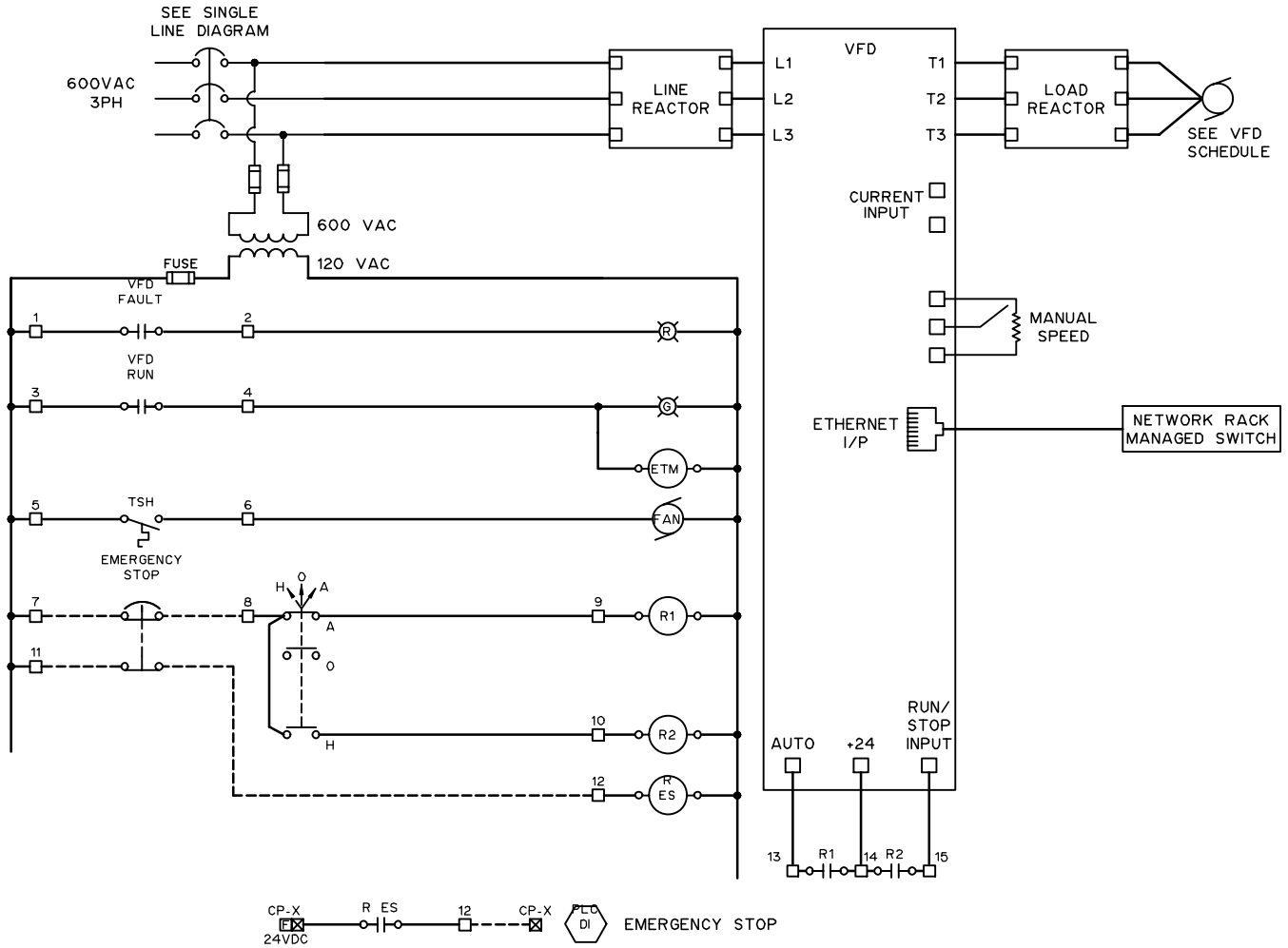
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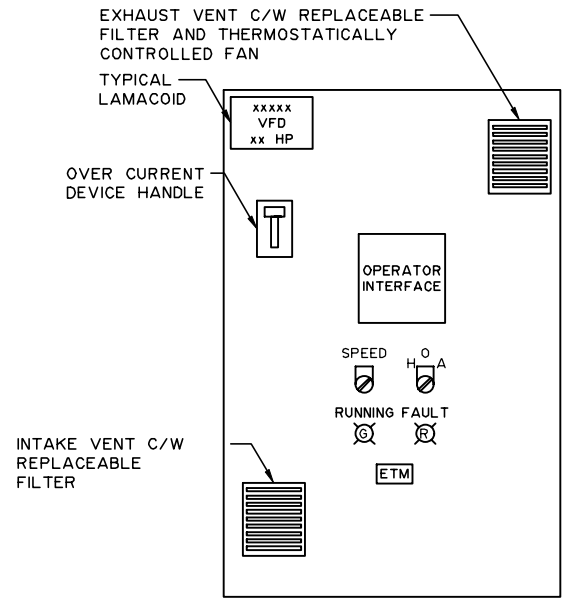
WASTEWATER TREATMENT PLANT
ELECTRICAL
SCHEMATICS

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E4.2

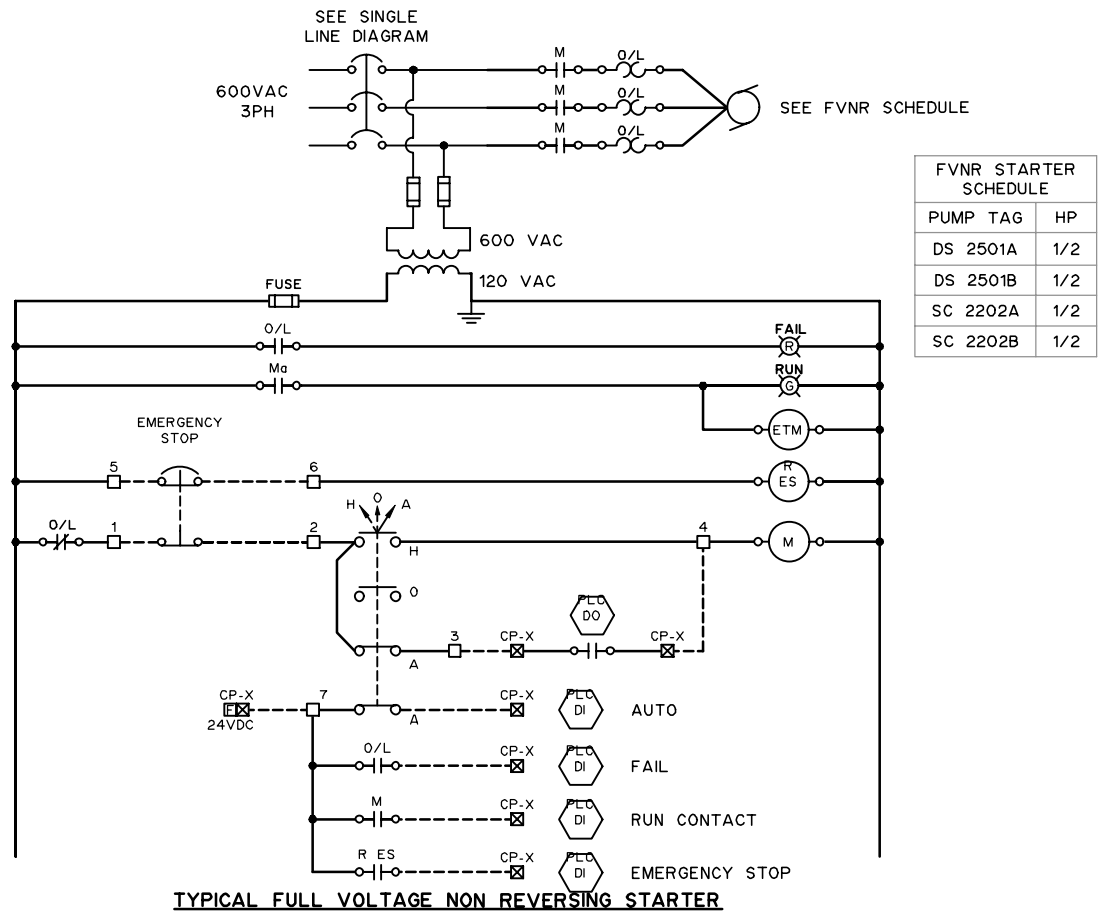


TYPICAL VFD WIRING

VFD SCHEDULE	
TAG	HP
BL 6301	10
BL 6302	10
BL 6303	10
BL 6201	15
BL 6101	15
BL 6102	15
P 4901-1	2.5
P 4901-2	2.5
RDT 3101	1/3

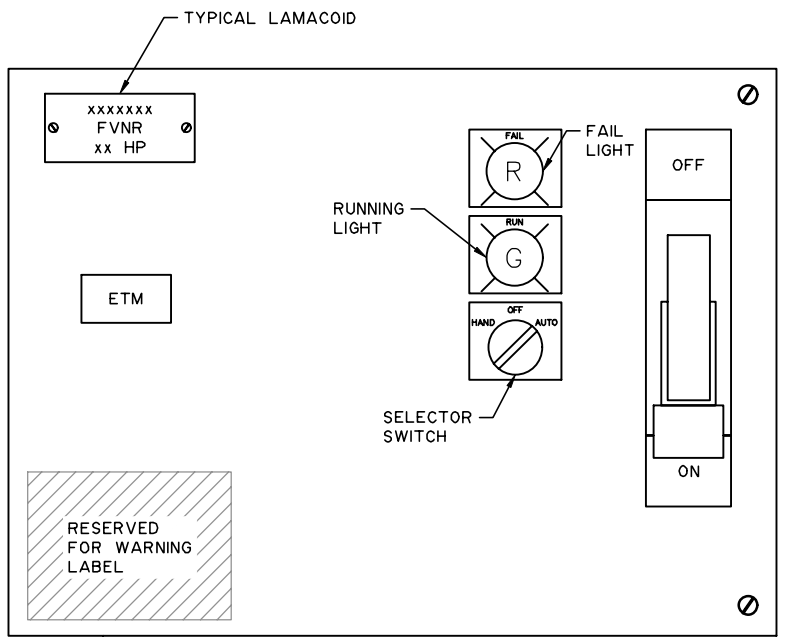


TYPICAL VFD FRONT PANEL



TYPICAL FULL VOLTAGE NON REVERSING STARTER

FVNR STARTER SCHEDULE	
PUMP TAG	HP
DS 2501A	1/2
DS 2501B	1/2
SC 2202A	1/2
SC 2202B	1/2



TYPICAL FULL VOLTAGE NON REVERSING STARTER FRONT PANEL

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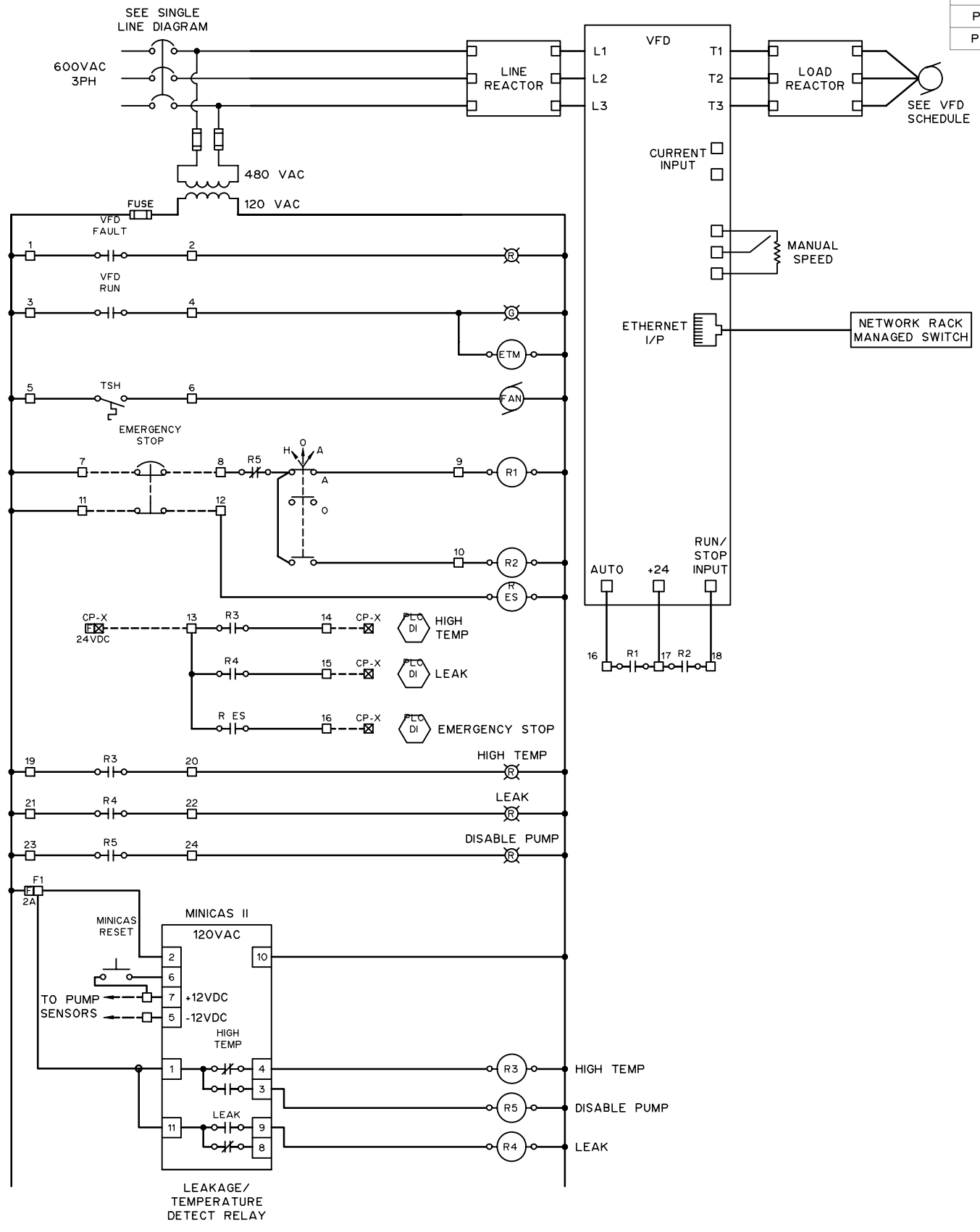
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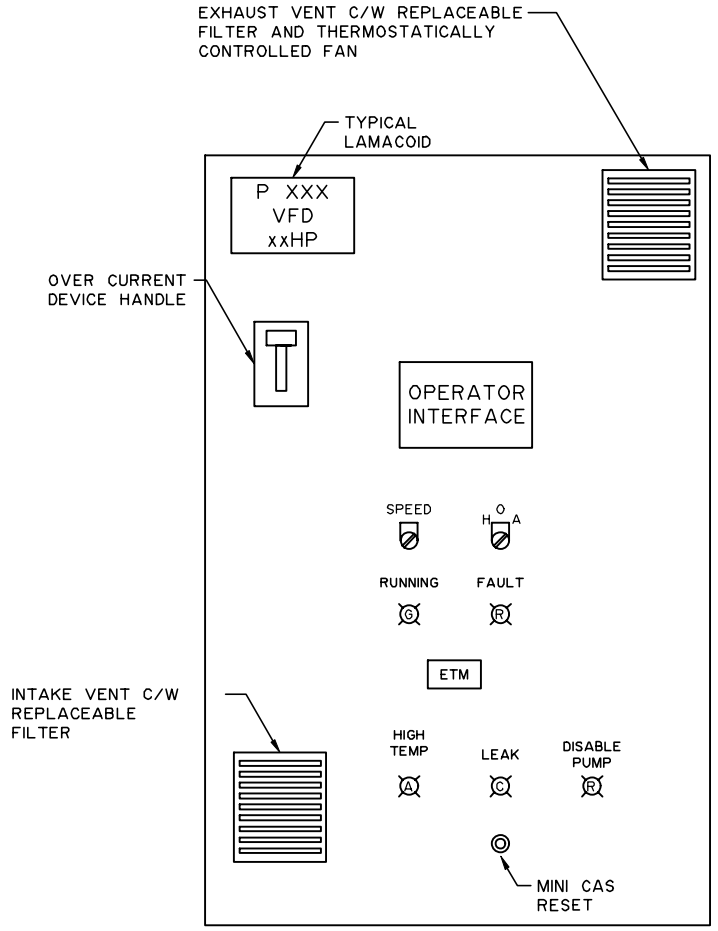
WASTEWATER TREATMENT PLANT
ELECTRICAL
SCHEMATICS

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E4.3

VFD SCHEDULE	
TAG	HP
P 1101	2.7
P 1102	2.7
P 8101	2.7
P 8102	2.7



TYPICAL VFD WITH MINICAS WIRING



TYPICAL VFD WITH MINICAS FRONT PANEL

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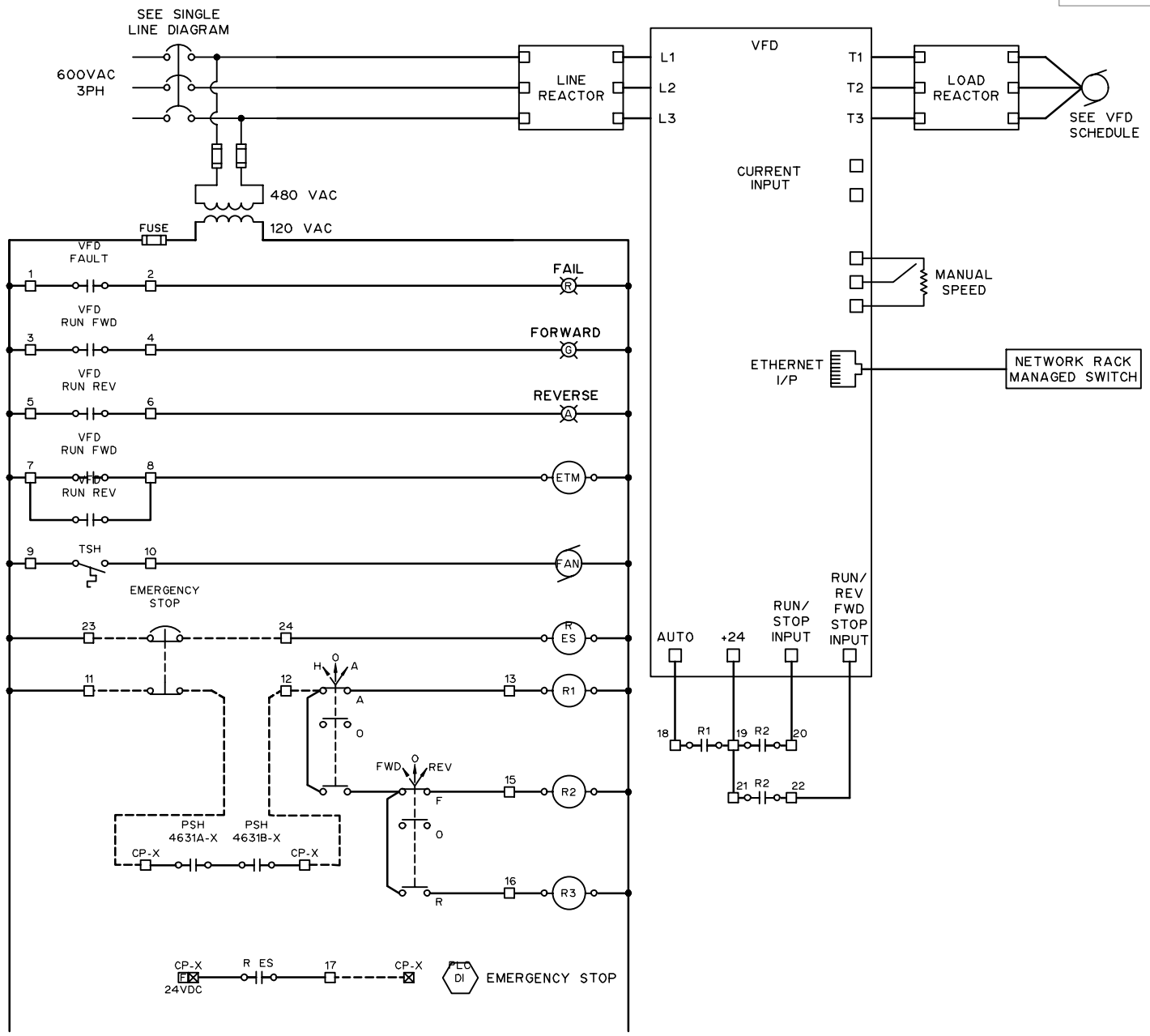
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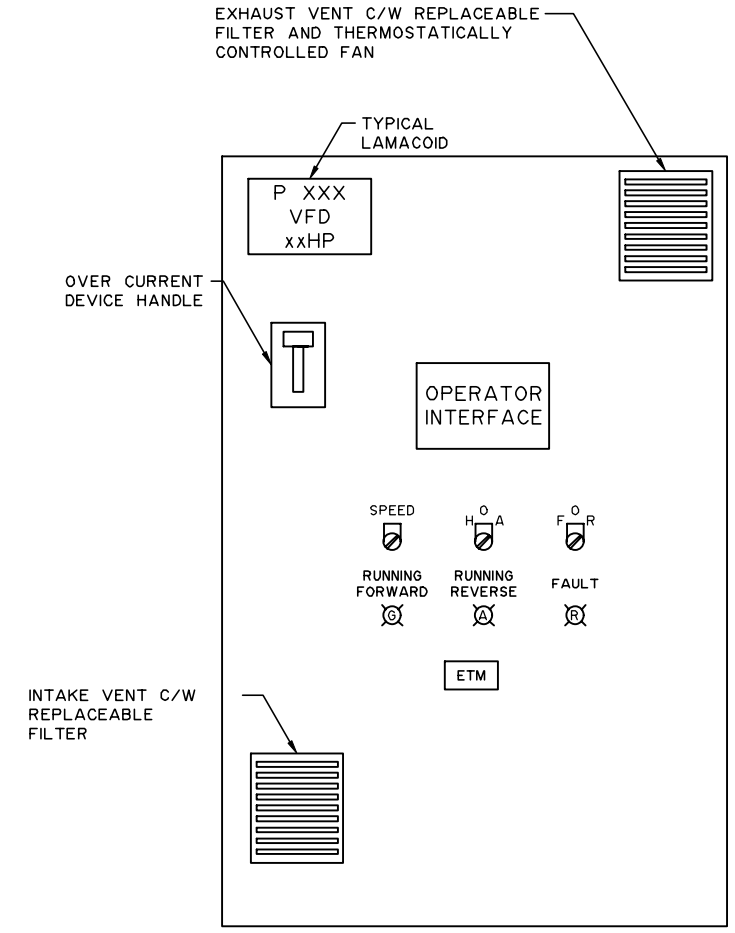
WASTEWATER TREATMENT PLANT
ELECTRICAL
SCHEMATICS

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DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E4.4

VFD SCHEDULE	
TAG	HP
P 4611-1	7.5
P 4611-2	7.5



TYPICAL PERMEATE VFD WIRING



TYPICAL VFD WITH MINICAS FRONT PANEL

NOTES:

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Permission to Consult held by:
Discipline: ELECTRICAL
Sk. Reg. No.: 32675
Signature

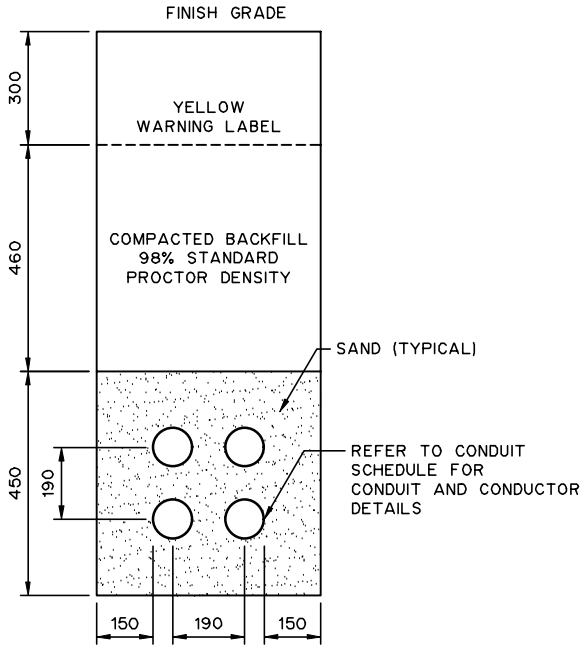
PROFESSIONAL ENGINEER
R.G. DESTE
MEMBER 32675
2021-01-22
YR MN DAY
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

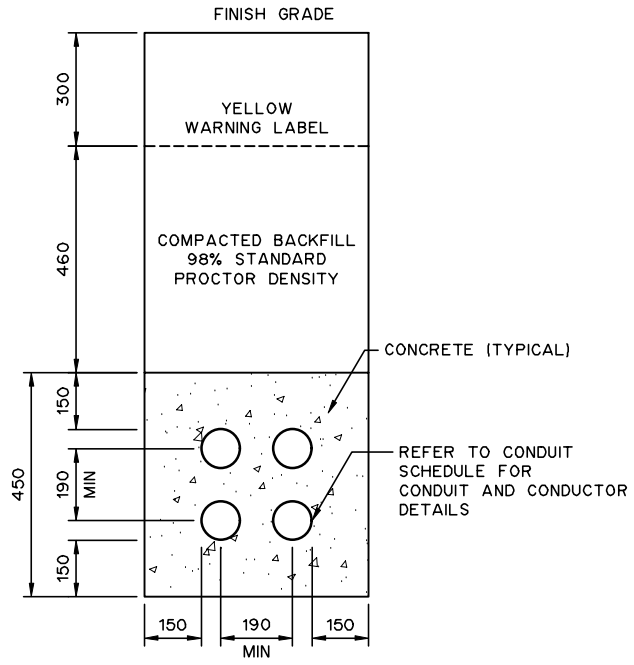
WASTEWATER TREATMENT PLANT
ELECTRICAL
SCHEMATICS

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E4.5



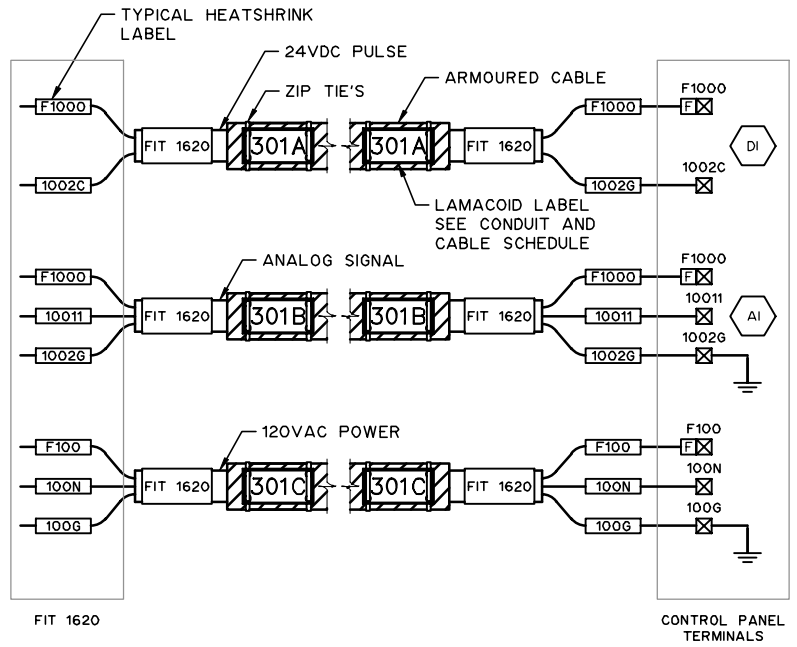
TYPICAL TRENCHING DETAIL

1 E5.4

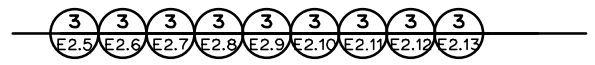


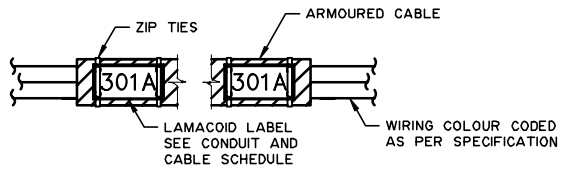
UTILITY POWER TRENCHING DETAIL

2 E5.5

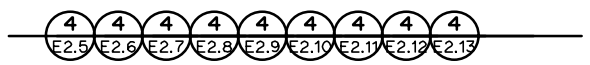


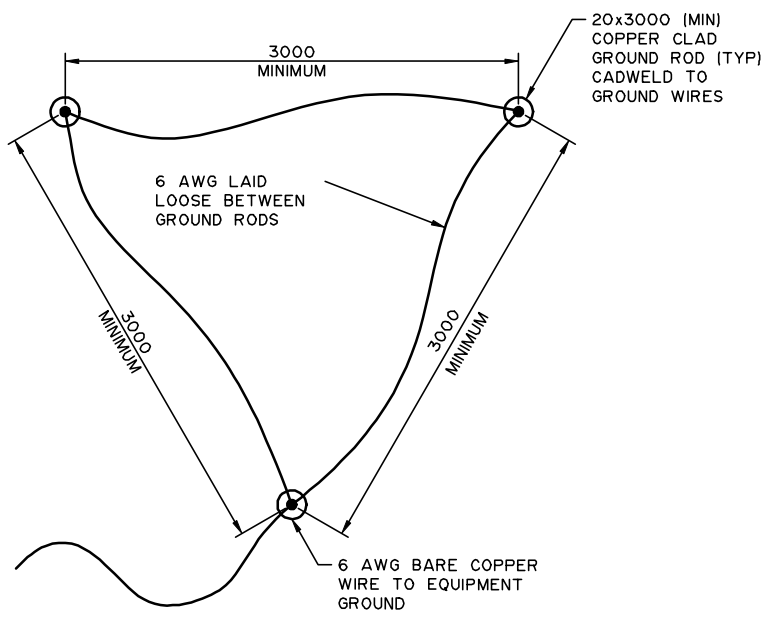
TYPICAL CONTROL AND INSTRUMENTATION WIRE LABELING





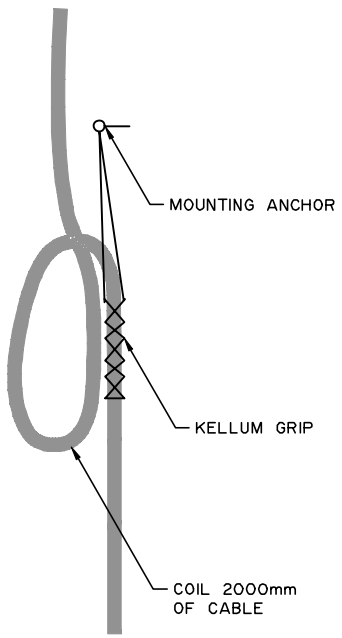
TYPICAL CONDUIT LABELLING





TYPICAL GROUND GRID DETAIL

5 E0.2



TYPICAL KELLUM GRIP DETAIL

6 E5.7

NOTES:

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ELECTRICAL	32675	

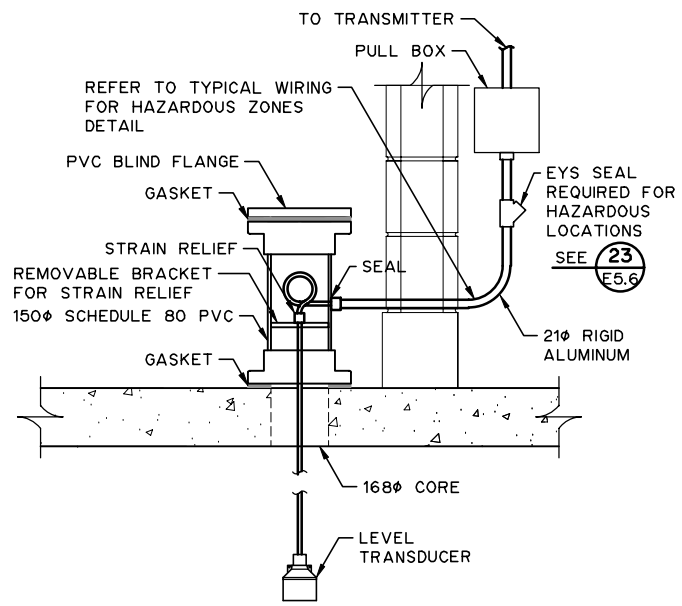
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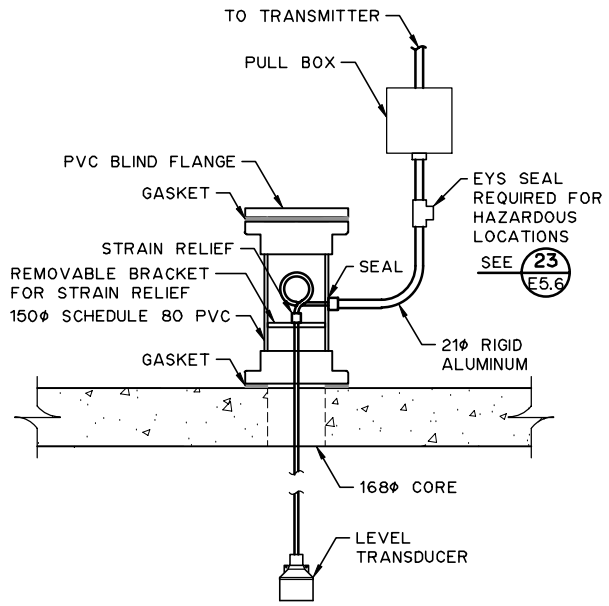
WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL DETAILS

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E5.1



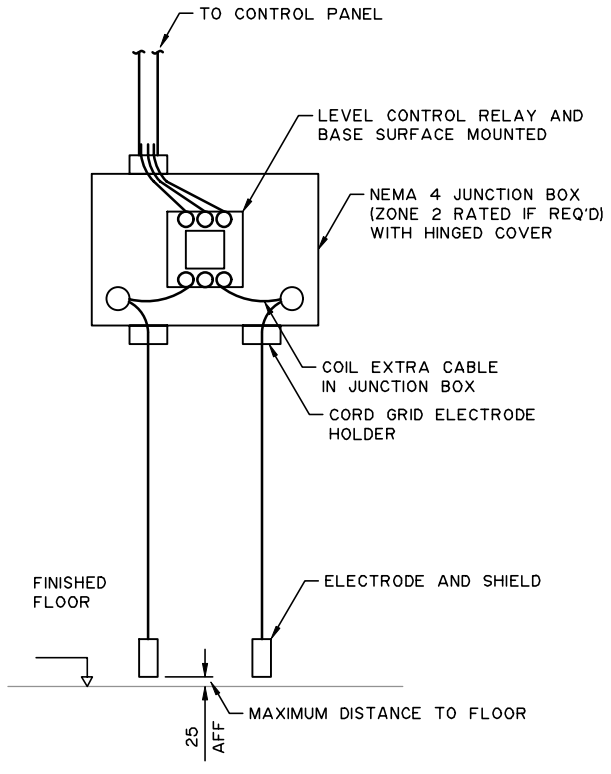
TYPICAL TRANSDUCER MOUNT THROUGH WALL

7 E1.6



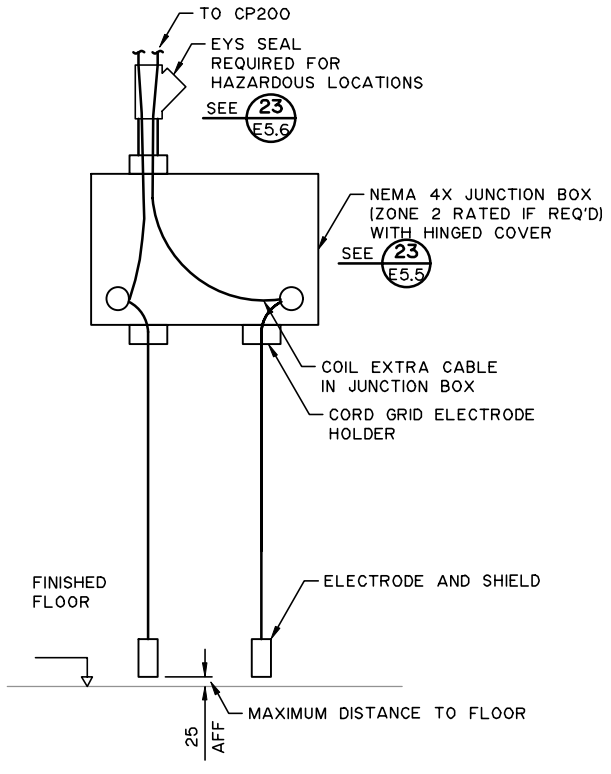
TYPICAL TRANSDUCER MOUNT FOR SLAB

8 E1.6



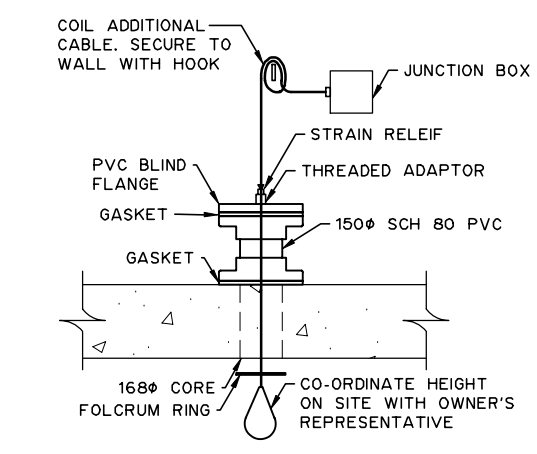
TYPICAL LEAK SWITCH DETAIL

9 E1.5 9 E1.6



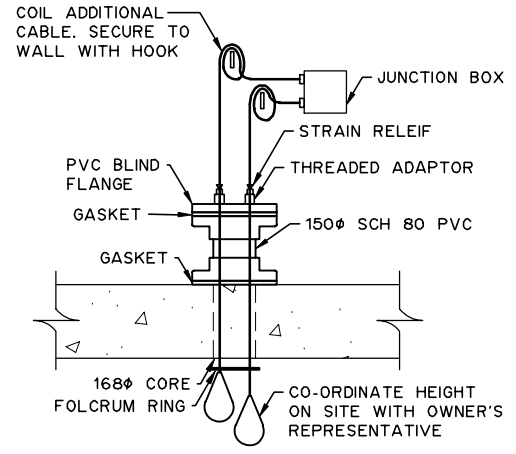
HEADWORKS LEAK SWITCH DETAIL

10 E1.6



TYPICAL SINGLE INSTRUMENTATION HANGER

11 E1.6



TYPICAL MULTIPLE INSTRUMENTATION HANGER

12 E1.6

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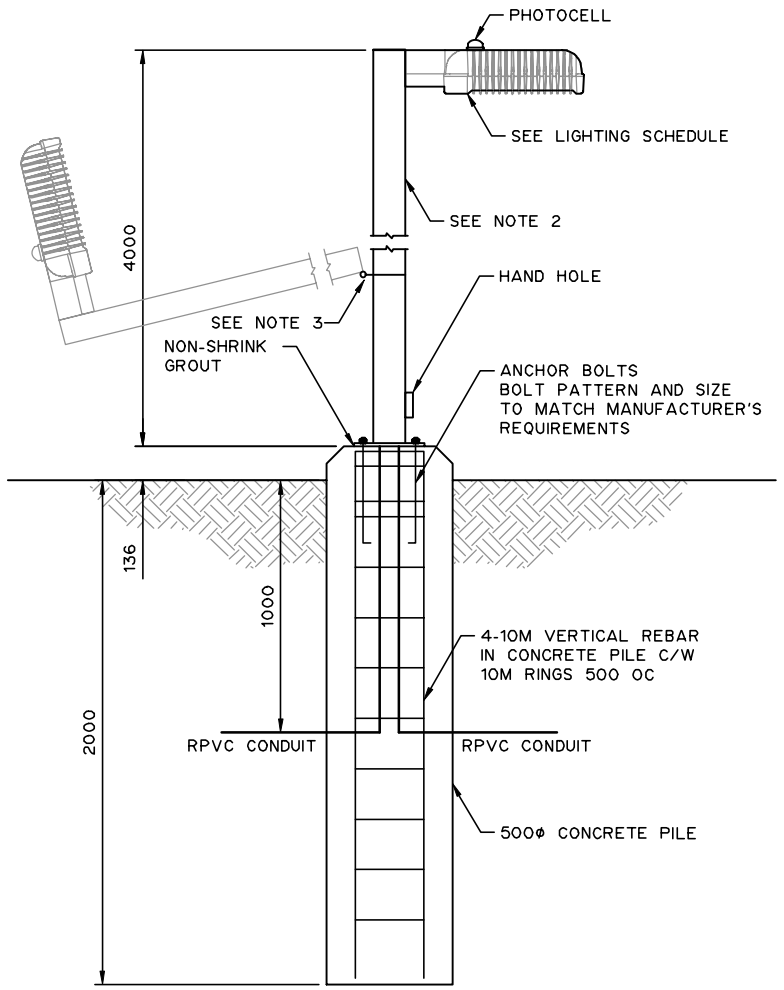
ENGLISH RIVER ENTERPRISES PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

ELECTRICAL

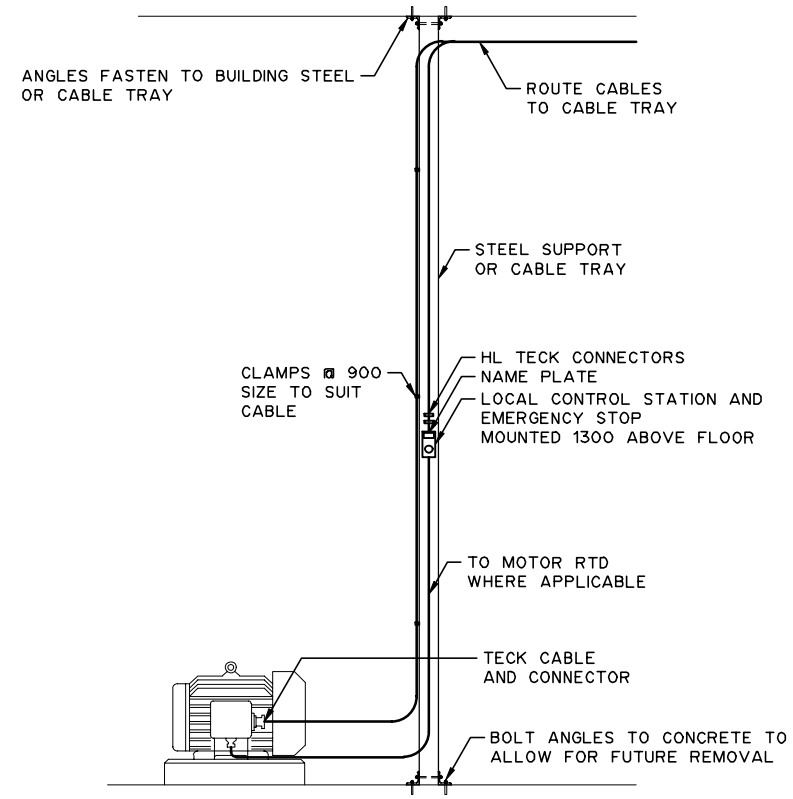
ELECTRICAL DETAILS

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DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E5.2



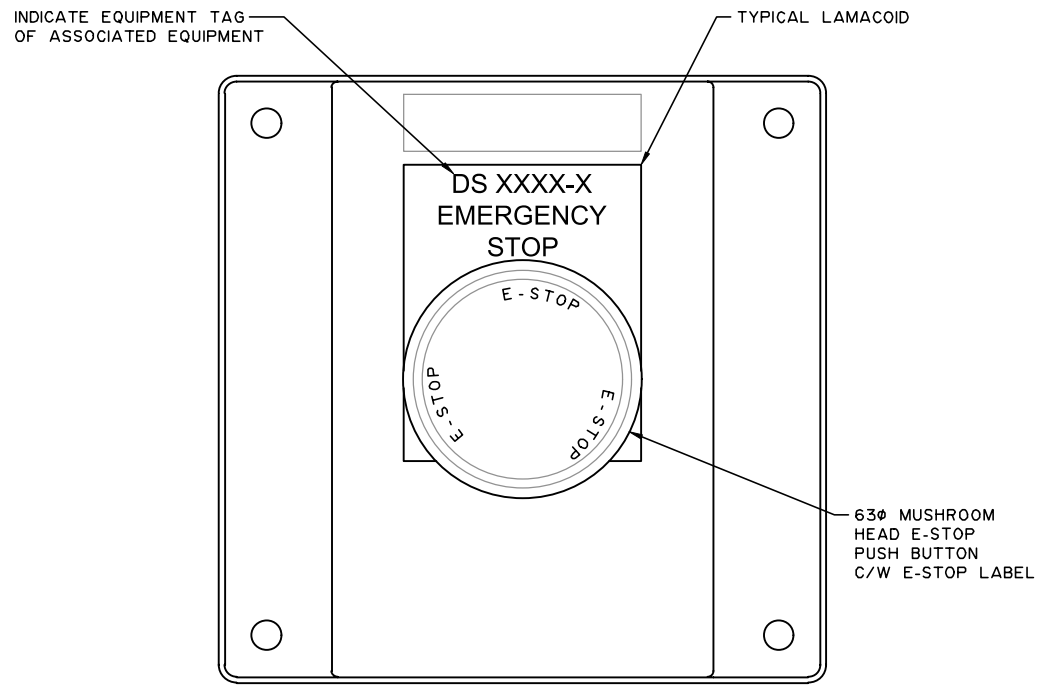
TYPICAL LIGHT STANDARD DETAIL

13 / E0.2



MOTOR CONNECTION SEPARATE POWER AND CONTROL CABLES DETAIL

14 / E1.1



EMERGENCY STOP STATION DETAIL

15 / E1.1

NOTES:

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2. POLE TO BE CECO CE 5SQH SERIES HINGED POLE C/W ALL ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. FINISH TO BE DARK BRONZE.
3. COORDINATE PIVOT DIRECTION TO AVOID INTERFERENCE WITH OTHER ELEMENTS.

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R.G. DESTE
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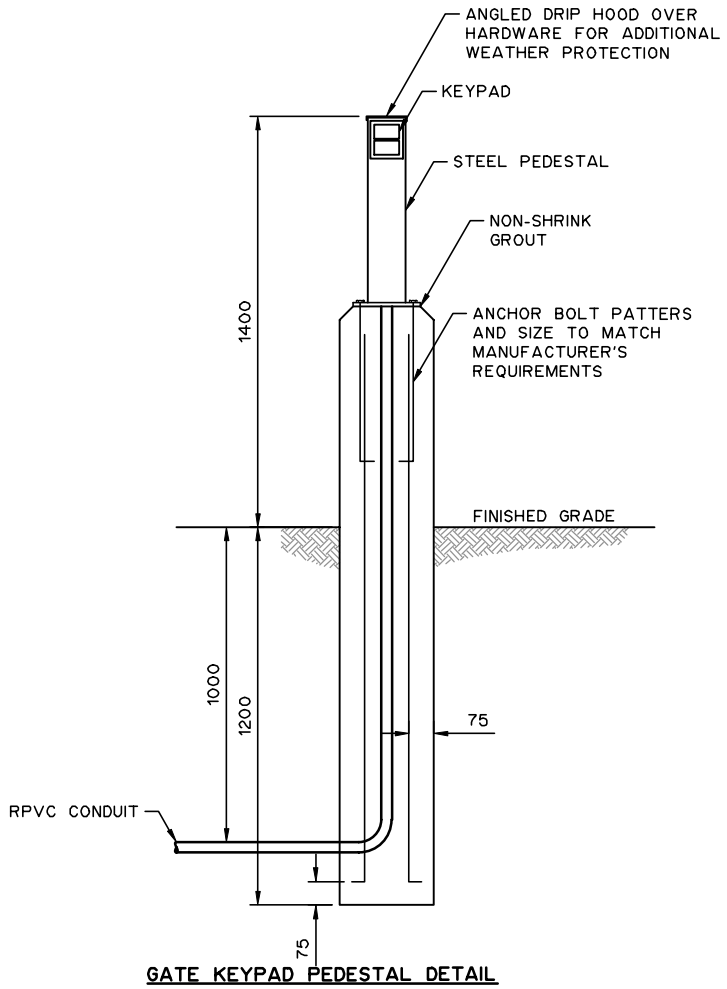
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT

ELECTRICAL

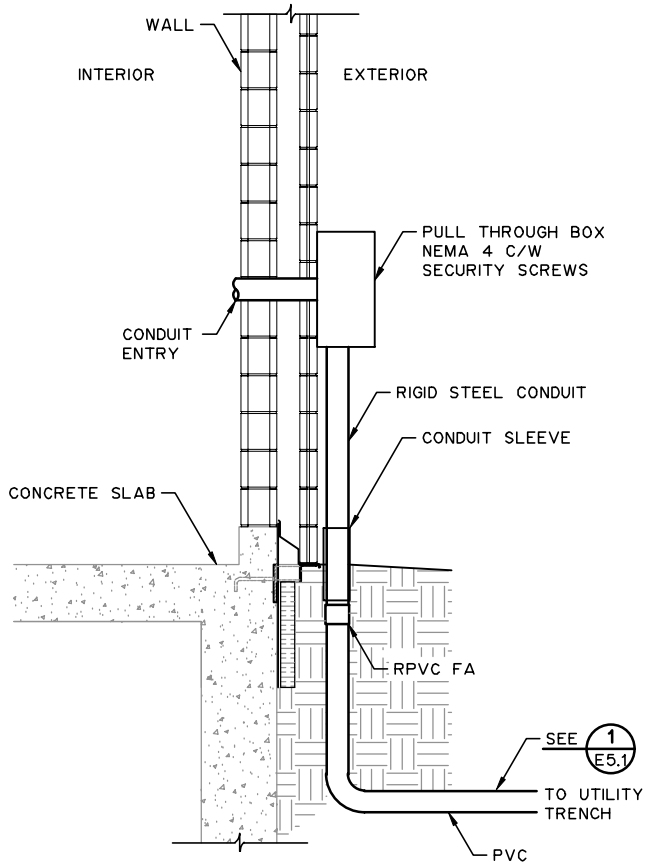
ELECTRICAL DETAILS

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DATE	NOVEMBER 2020	DRAWING	E5.3



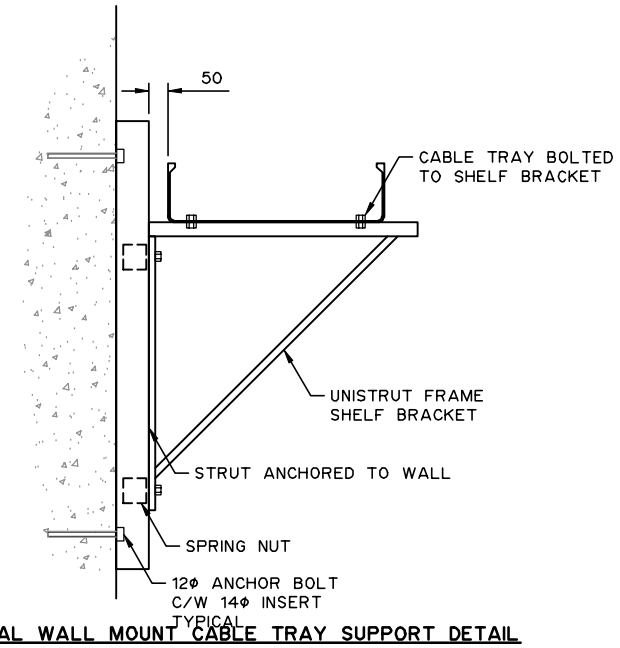
GATE KEYPAD PEDESTAL DETAIL

16 E0.2

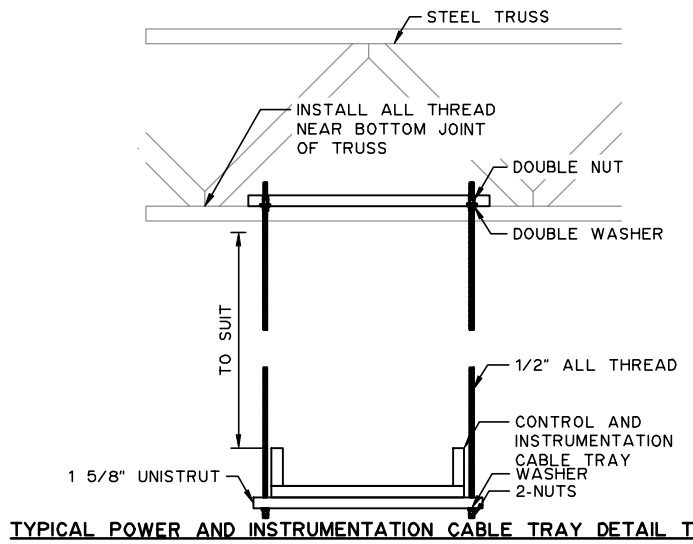


STANDARD CONDUIT ENTRY DETAIL

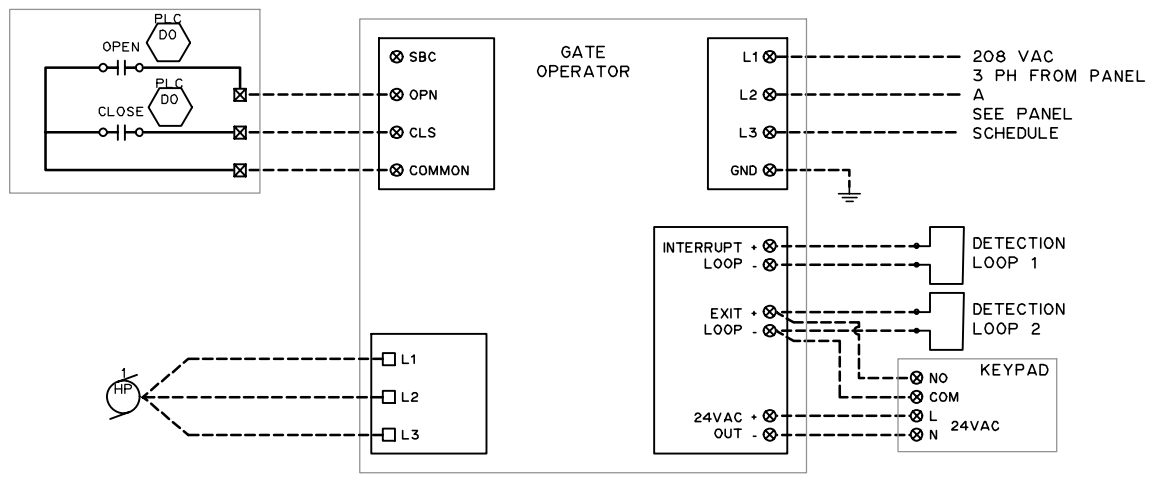
17 E0.2



TYPICAL WALL MOUNT CABLE TRAY SUPPORT DETAIL

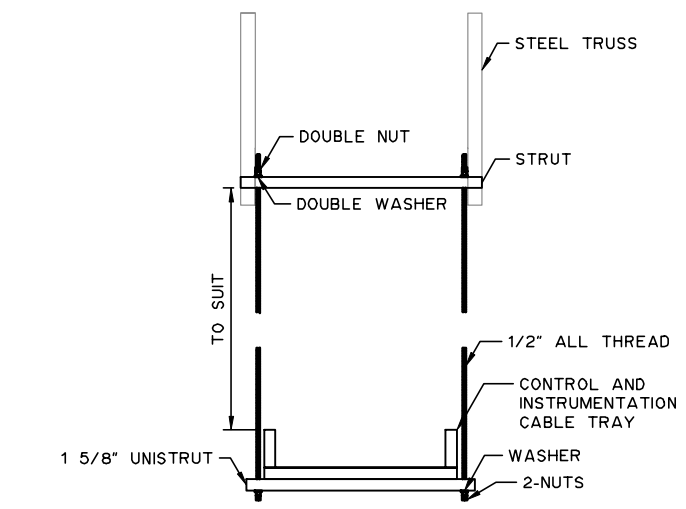


TYPICAL POWER AND INSTRUMENTATION CABLE TRAY DETAIL TYPE 1



GATE OPERATOR WIRING DETAIL

18 E0.1



TYPICAL POWER AND INSTRUMENTATION CABLE TRAY DETAIL TYPE 2

19 E1.1 | 19 E1.2

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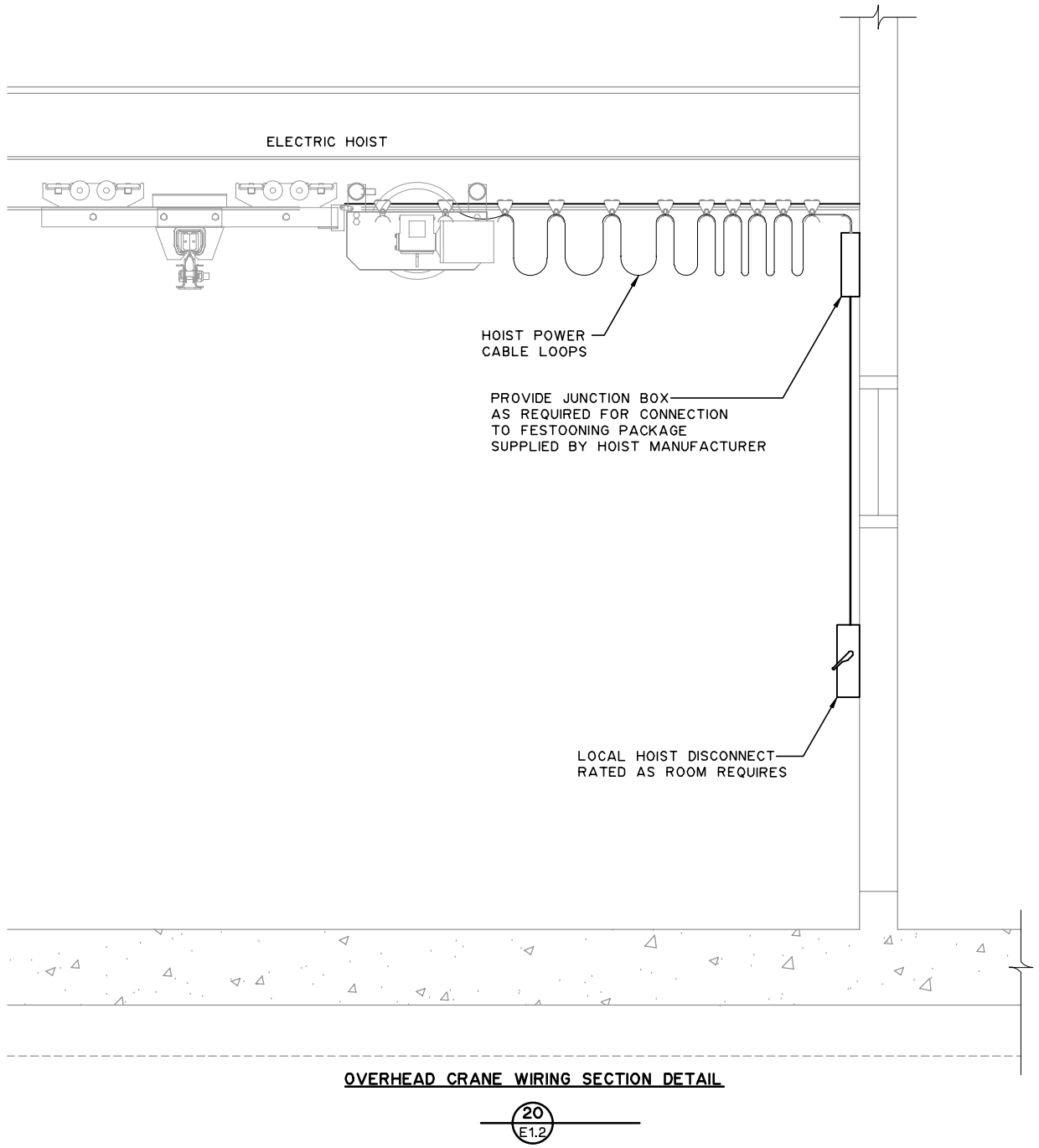
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WASTEWATER TREATMENT PLANT

ELECTRICAL

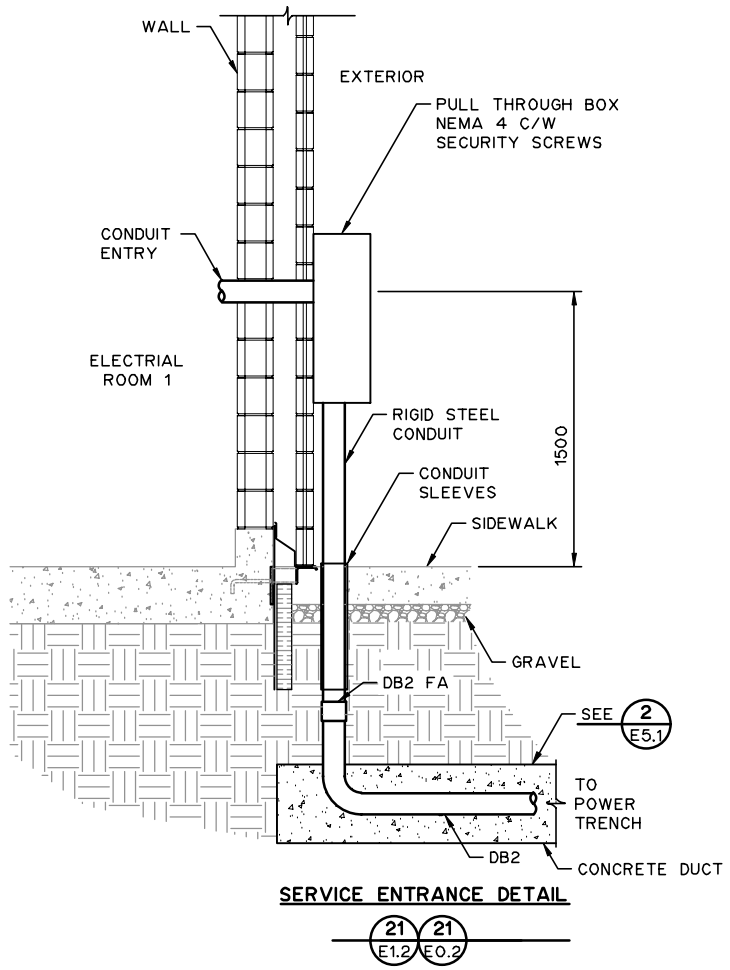
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DATE	NOVEMBER 2020	DRAWING	E5.4



OVERHEAD CRANE WIRING SECTION DETAIL

20 / E1.2



SERVICE ENTRANCE DETAIL

21 / E1.2 21 / E0.2

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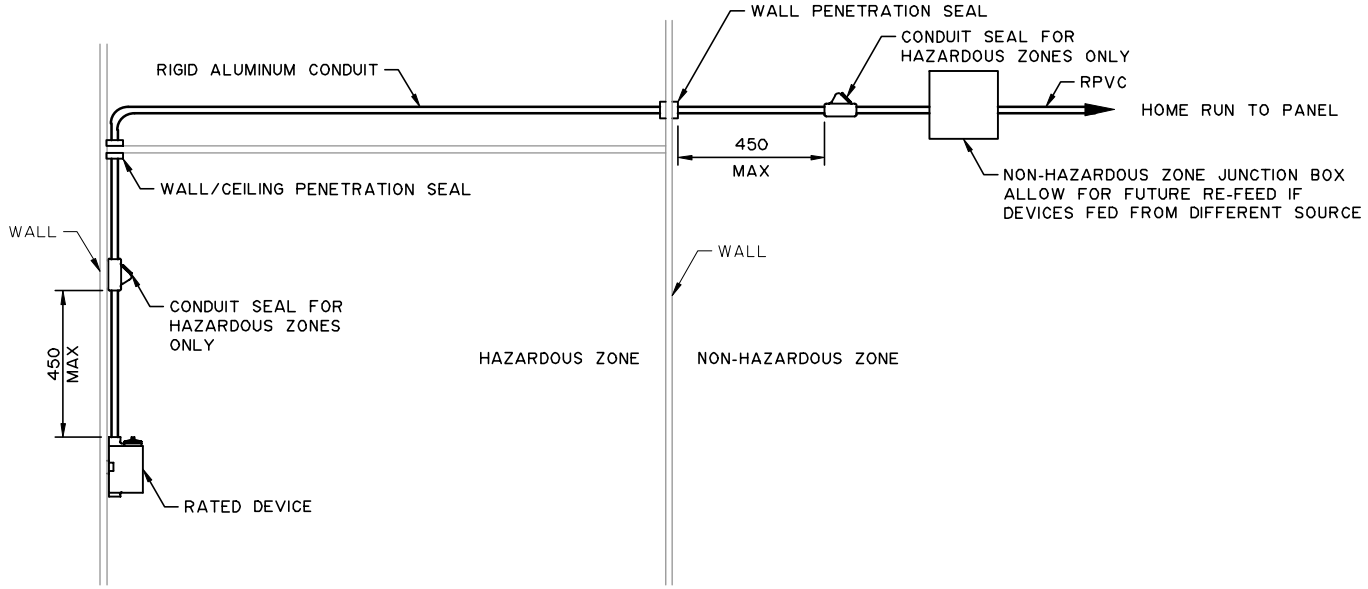
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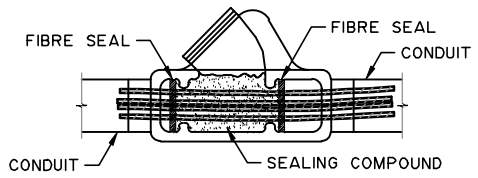
WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL DETAILS

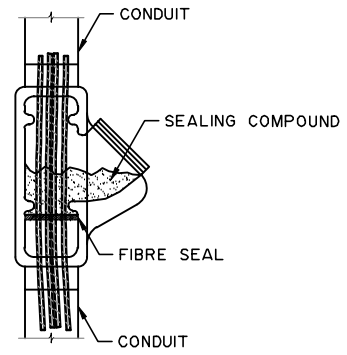
DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E5.5



TYPICAL WIRING FOR HAZARDOUS ZONES DETAIL

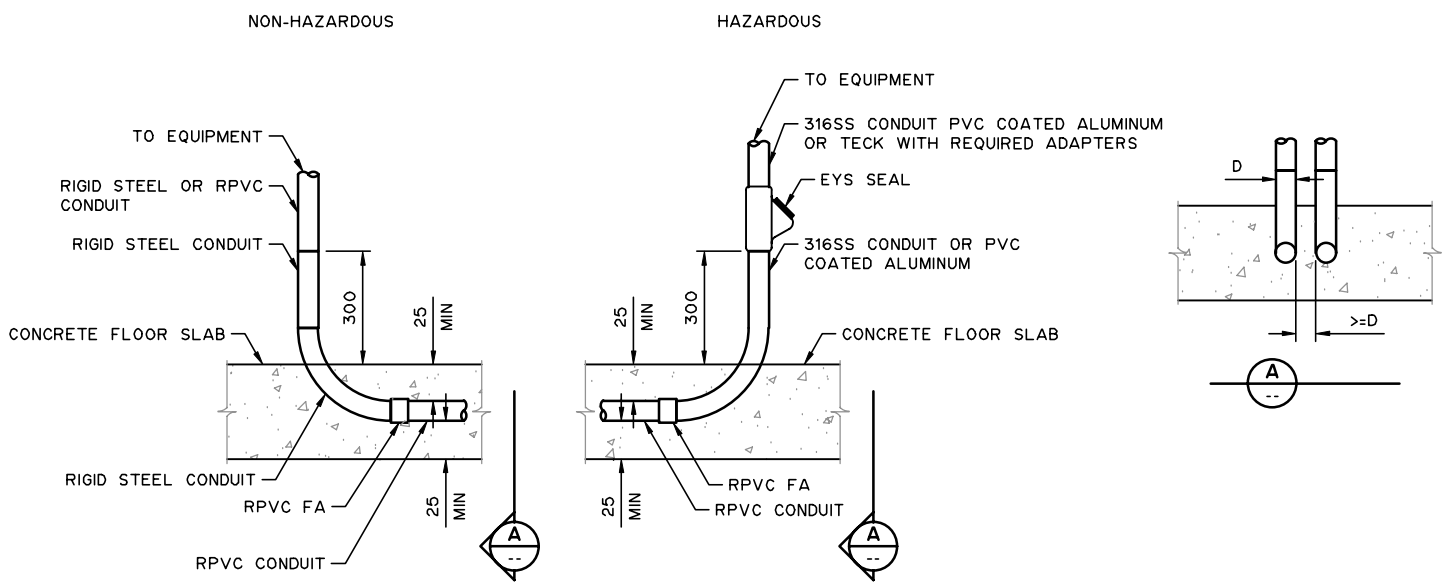
22 E1.1 / 22 E1.2





HAZARDOUS CONDUIT SEAL DETAIL

23 E5.2



IN SLAB CONDUIT INSTALLATION FOR HAZARDOUS AND NON HAZARDOUS ZONES DETAIL

24 E1.1 / 24 E1.2

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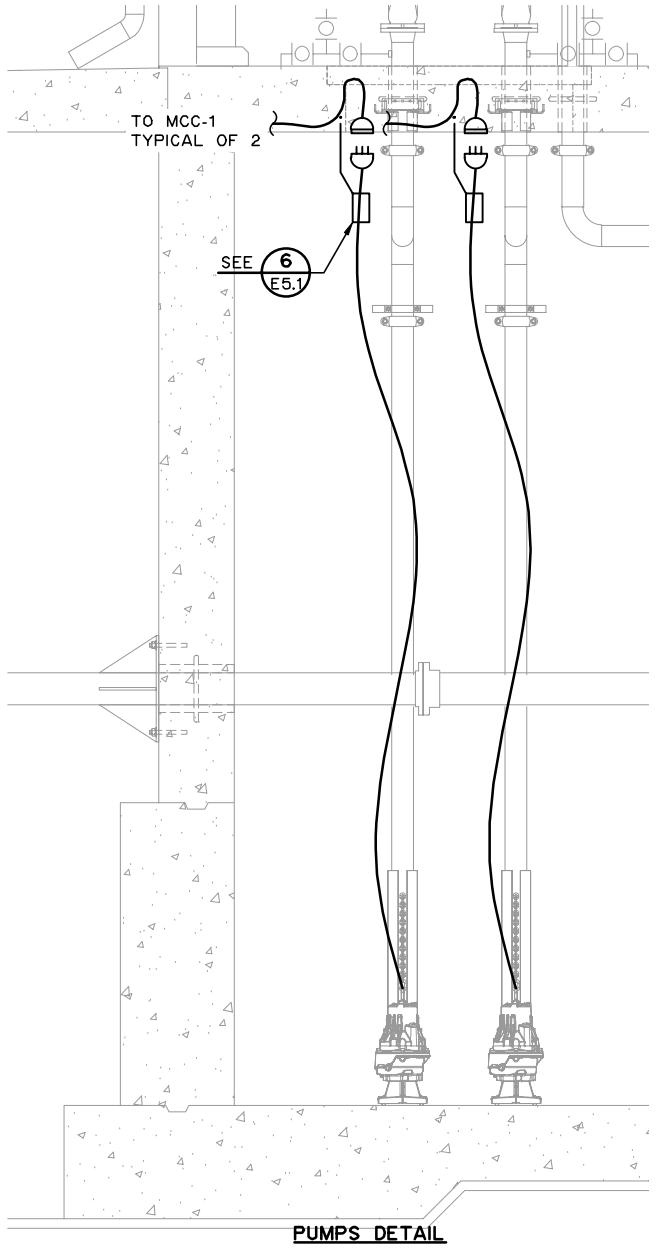
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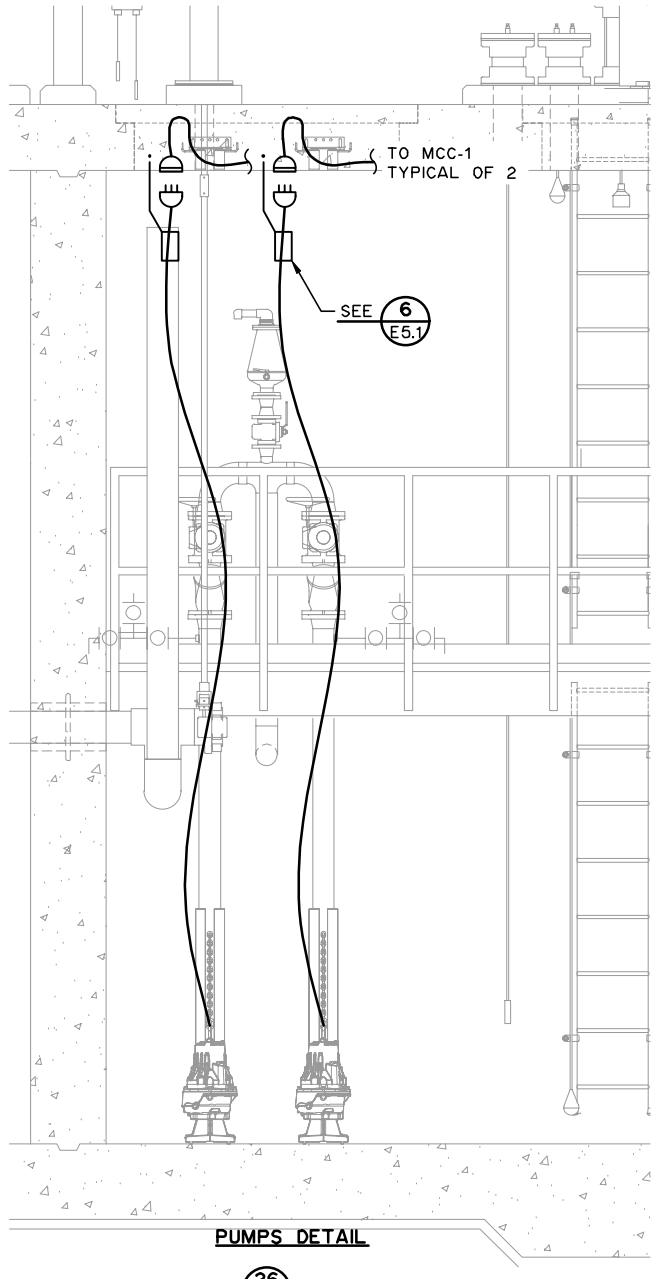
ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL DETAILS

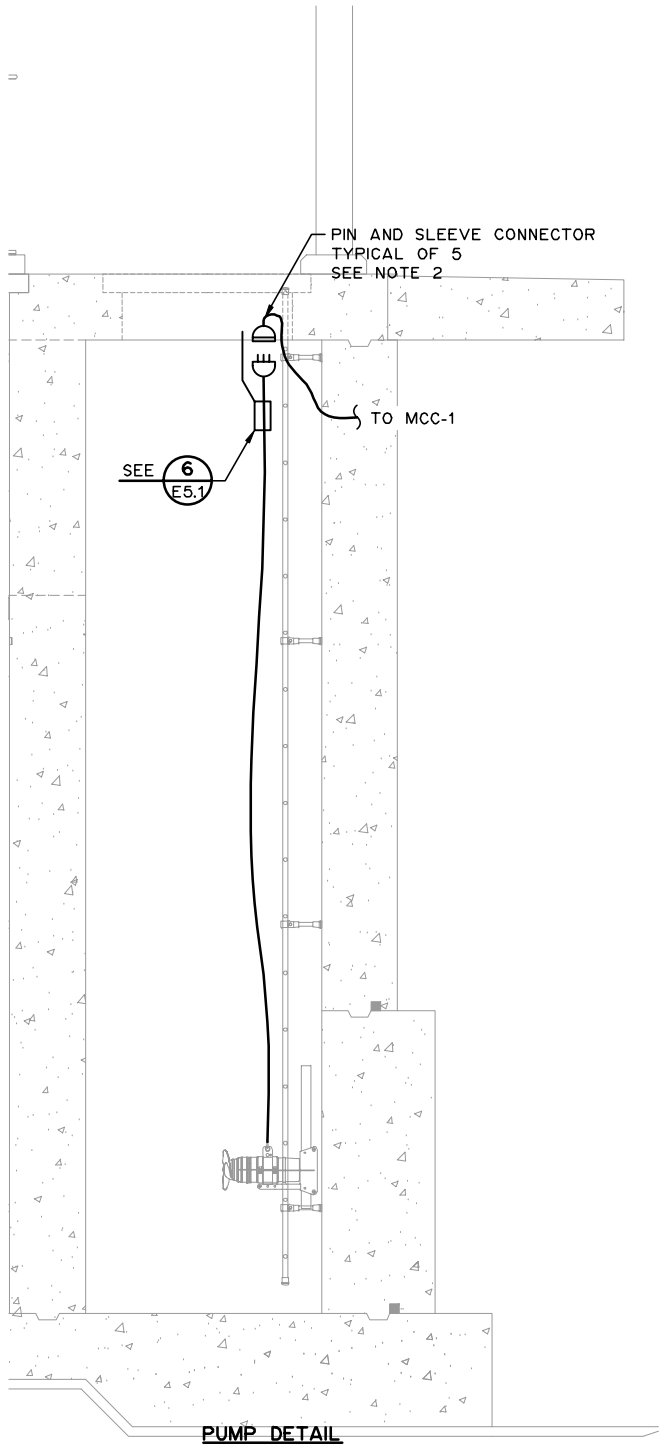
DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E5.6



PUMPS DETAIL
25 E1.1



PUMPS DETAIL
26 E1.1



PUMP DETAIL
27 E1.1

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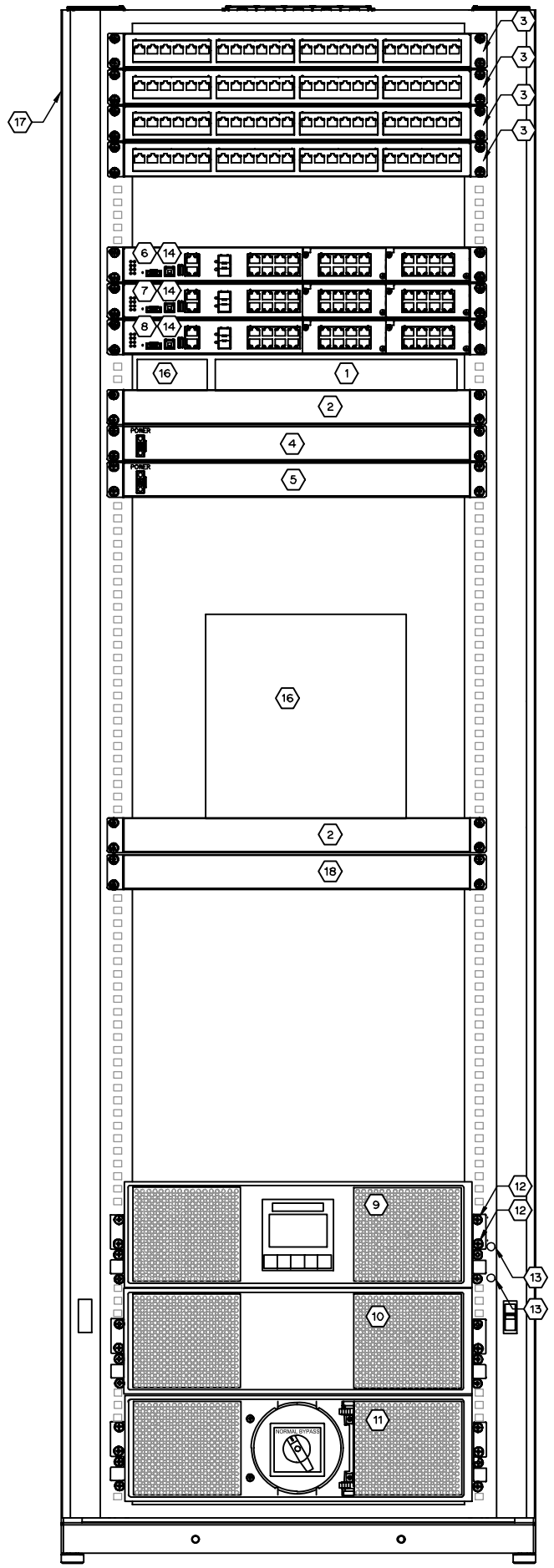
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ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

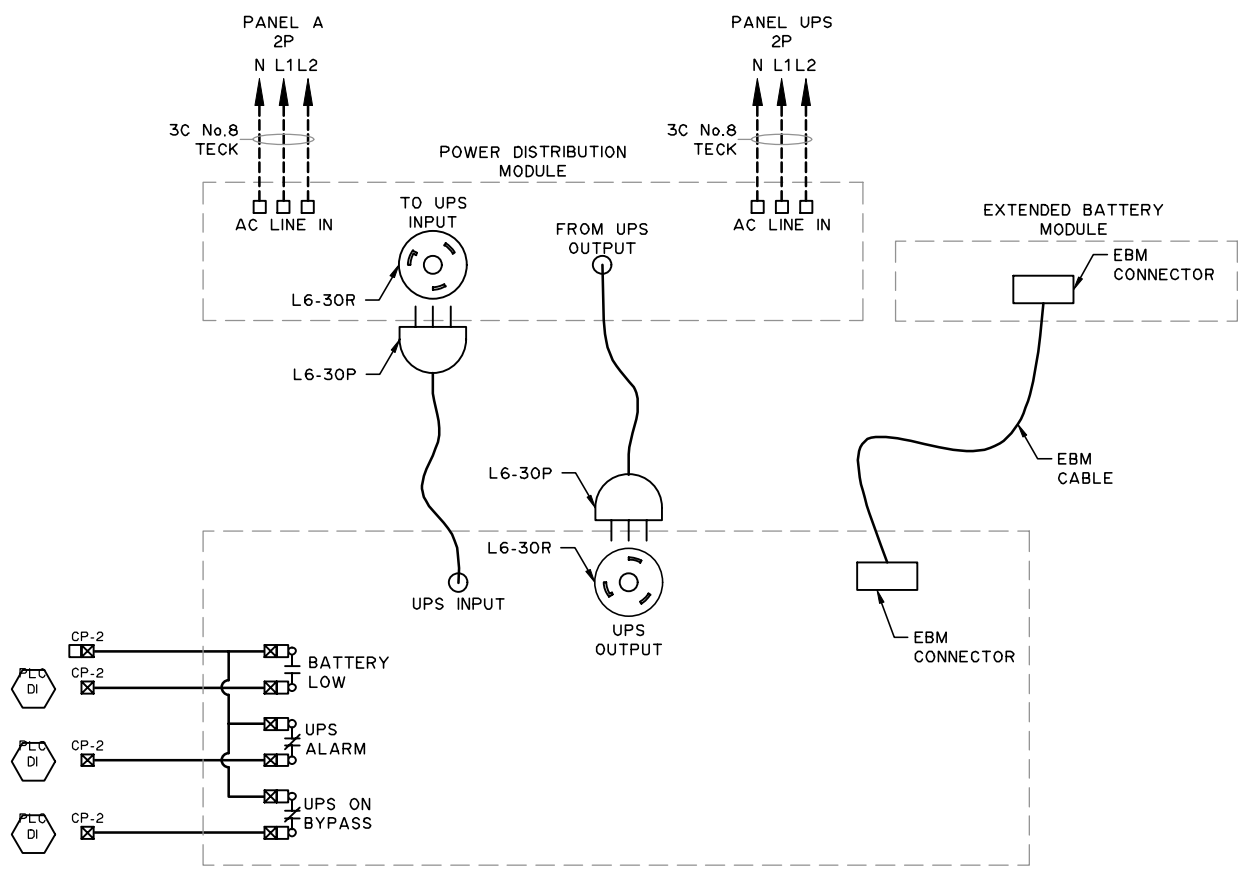
WASTEWATER TREATMENT PLANT
ELECTRICAL
ELECTRICAL DETAILS

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E5.7



KEY ITEMS:

1. CISCO MERAKI ROUTER, SUPPLIED BY OTHERS, CONTRACTOR TO INSTALL CONTRACTOR TO INSTALL
2. IU RACK MOUNTED SHELF
3. 24 PORT KEYSTONE TYPE RACK MOUNT PATCH PANEL C/W 24 CAT 6 KEYSTONES.
4. 1U, 10 RECEPTACLE, POWER DISTRIBUTION UNIT WITH INTEGRAL POWER CONDITIONER. RECEPTACLES ON REAR SIDE. PANEL A SOURCE.
5. 1U, 10 RECEPTACLE, POWER DISTRIBUTION UNIT WITH INTEGRAL POWER CONDITIONER. RECEPTACLES ON REAR SIDE. PANEL D SOURCE.
6. CONTROL NETWORK HEAD ROUTER
7. CONTROL NETWORK TAIL ROUTER
8. INTERNET ROUTER
9. UNINTERRUPTIBLE POWER SUPPLY (UPS)
10. EXTENDED BATTERY MODULE (EBM)
11. POWER DISTRIBUTION MODULE (PDM)
12. TWO M6X12 CABINET-MOUNTING BRACKET SCREWS TYPICAL
13. TWO M6X12 RAIL-MOUNTING SCREWS TYPICAL
14. TERMINATE PATCH CABLES FROM PATCH PANEL TO ROUTER AS PER COMMUNICATION ARCHITECTURE AND CABLE AND CONDUIT SCHEDULE.
15. NETWORK ATTACHED STORAGE DEVICE (NAS).
16. INTERNET SERVICE PROVIDER MODEM. SUPPLIED BY ISP. CONTRACTOR TO INSTALL AND TERMINATE PATCH CABLES INATE OATCH CABLES.
    42U NETWORK RACK. CONTRACTOR TO SUPPLY ALL CABLE MANAGEMENT DEVICES AND MOUNTING HARDWARE REQUIRED FOR A COMPLETE, NEAT AND WORKMANLIKE INSTALLATION. SEPTAGE RECEIVING STATION RACK MOUNTED SERVER. SUPPLIED BY SEPTAGE RECEIVING STATION VENDOR, INSTALLED BY CONTRACTOR.



UPS AND PDM WIRING DIAGRAM

NOTES:

1. FOR INFORMATION REGARDING GENERAL NOTES, UTILITIES, ABBREVIATIONS AND SYMBOLS, REFER TO THE LEGEND DRAWINGS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS

2	21-01-15	FOR CONSTRUCTION
1	20-10-15	FOR TENDER
ISSUE	YY-MM-DD	REVISION

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
MPE Engineering Ltd.
Number C1334
Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
ELECTRICAL	32675	

PROFESSIONAL ENGINEER
R.G. OFSTIE
MEMBER 32675
2021-01-22
YR. MN. DAY.
SASKATCHEWAN

MPE Engineering Ltd.

ENGLISH RIVER ENTERPRISES
PROPERTY MANAGEMENT LP

WASTEWATER TREATMENT PLANT
ELECTRICAL
UPS PACK LAYOUT AND WIRING DETAILS

DESIGNED	R.G.O.	JOB	7603-002-00
DRAWN	T.S.	SCALE	N.T.S.
DATE	NOVEMBER 2020	DRAWING	E5.8