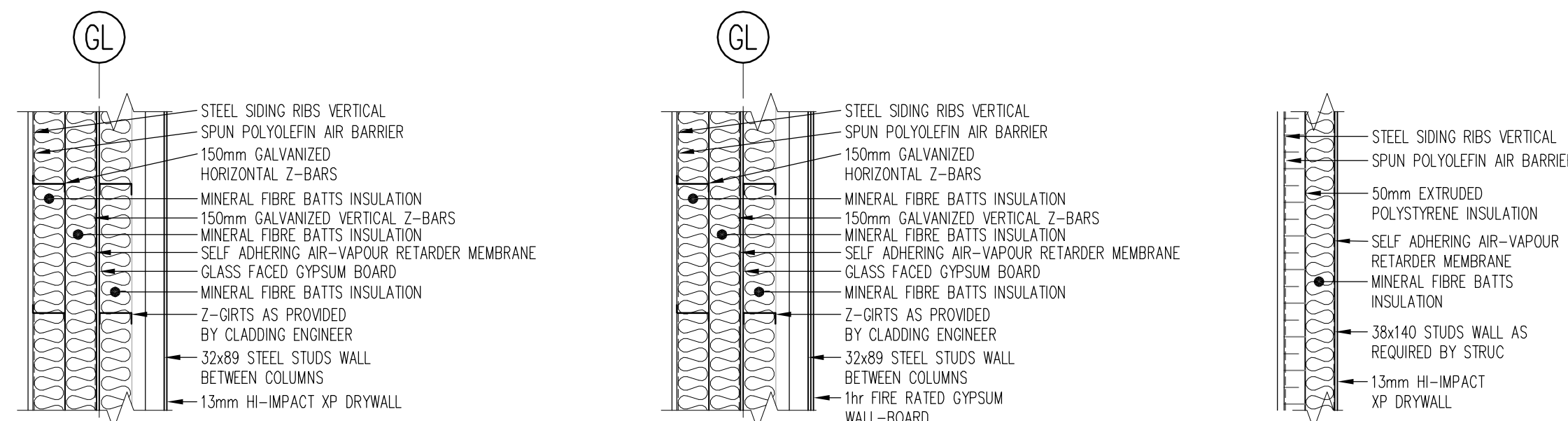


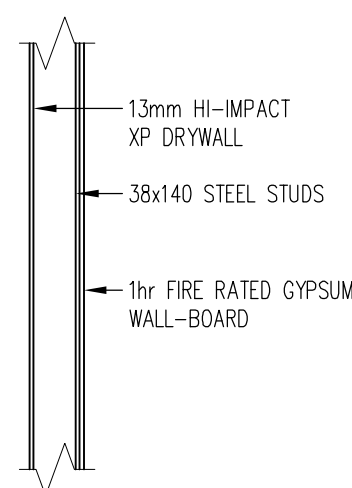
MAIN FLOOR PLAN
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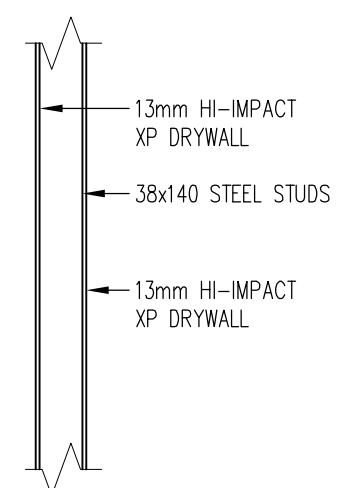
SECTION VIEW
WALL TYPE-1

SECTION VIEW
WALL TYPE-2
(FIRE RATED)

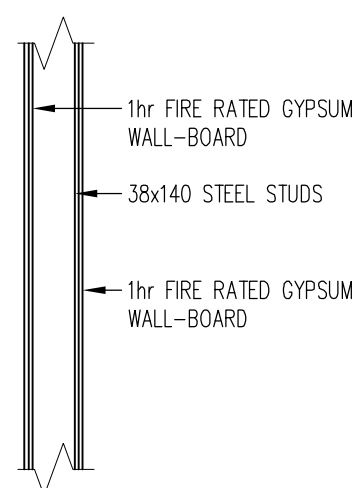
SECTION VIEW
WALL TYPE-3



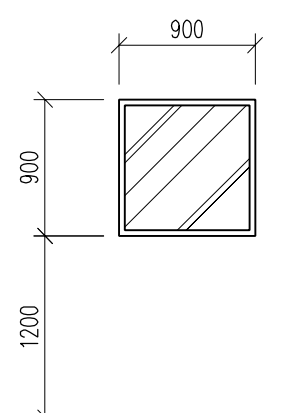
SECTION VIEW
WALL TYPE-4
(FIRE RATED)



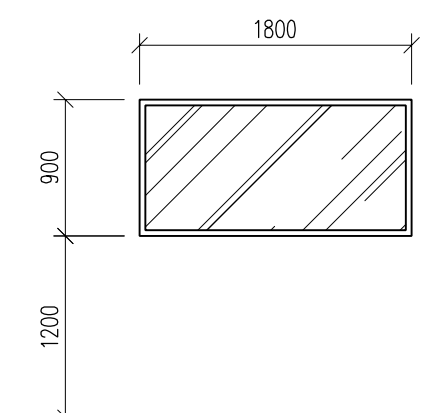
SECTION VIEW
WALL TYPE-5



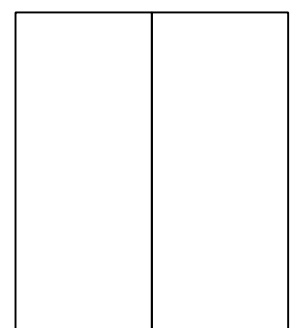
SECTION VIEW
WALL TYPE-6
(FIRE RATED)



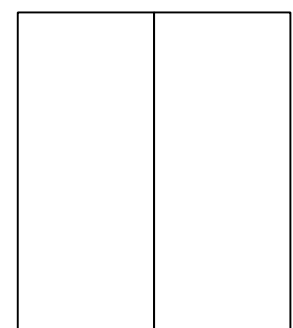
ANODIZED ALUMINUM FRAME
c/w SEALED UNIT GLAZING
c/w SPANDREL PANELS
c/w EXTERNAL POLYCARBONATE
"STORM SASH" FOR ROCK
PROTECTION BY MANUFACTURER
WINDOWTYPE A



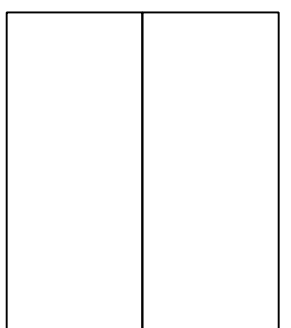
ANODIZED ALUMINUM FRAME
c/w SEALED UNIT GLAZING
c/w SPANDREL PANELS
c/w EXTERNAL POLYCARBONATE
"STORM SASH" FOR ROCK
PROTECTION BY MANUFACTURER
WINDOWTYPE B



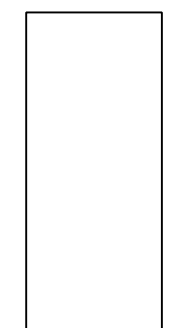
EXTERIOR DOOR
DOUBLE 900X2100
INS STEEL W/
T.B. PSF. CLOSER,
T.B. THRESHOLD,
WEATHER STRIPPING
SWEEP, KEYED LOCK &
DEAD BOLT



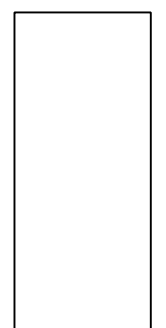
INTERIOR DOOR
DOUBLE 900X2100
INS STEEL W/
PSF. CLOSER,
THRESHOLD,
KEYED LOCK



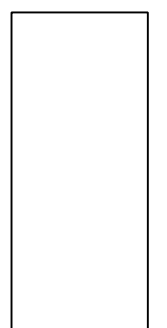
1 HR. F.R. DOOR
DOUBLE 900X2100 STEEL
W/ PSF. CLOSER,
THRESHOLD,
WEATHER STRIPPING
KEYED LOCK



INTERIOR DOOR
760X2100 STEEL W/
PSF. CLOSER,
THRESHOLD,
PRIVACY SET



EXTERIOR DOOR
900X2100 INS STEEL W/
T.B. PSF. CLOSER,
T.B. THRESHOLD,
WEATHER STRIPPING
SWEEP, KEYED LOCK &
DEAD BOLT



1 HR. F.R. DOOR
DOUBLE 760X2100 STEEL
W/ PSF. CLOSER,
THRESHOLD,
WEATHER STRIPPING
KEYED LOCK

DOOR TYPE 1

DOOR TYPE 2

DOOR TYPE 3

DOOR TYPE 4

DOOR TYPE 5

DOOR TYPE 6

REVISIONS			
NO.	DESCRIPTION	DATE	BY
A	ISSUED FOR 100% REVIEW	2014.01.16	JK
B	ISSUED FOR REVISED 100% REVIEW	2014.02.20	JK
C	ISSUED FOR TENDER	2014.03.05	JK
D	ISSUED FOR CONSTRUCTION	2014.06.30	JK

LEGEND:

- WALL TYPE SEE TYPICAL DETAIL
- DOOR TYPE SEE TYPICAL DETAIL
- WINDOW TYPE SEE TYPICAL DETAIL
- FIRE RATED WALL
- ROCK WOOL INSULATED WALL

REFERENCE DRAWINGS

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LEGEND

SECTION #
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REFERENCE DWG.

DETAIL #
SOURCE /
REFERENCE DWG.

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Bus: (867) 473-2595
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Fax: (867) 473-2647
info@williamsengineering.com
www.williamsengineering.com

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CLIENT:

NUMAVUT

JOB TITLE:
WATER SUPPLY IMPROVEMENTS
PHASE 2
WATER TREATMENT PLANT
KUGLUKTUK, NU

DWG. TITLE:
MAIN FLOOR PLAN
WALL, DOOR & WINDOW
SCHEDULE

OWN. BY:	DES. BY:	PROJ. MGR.:
JK	TL	JH

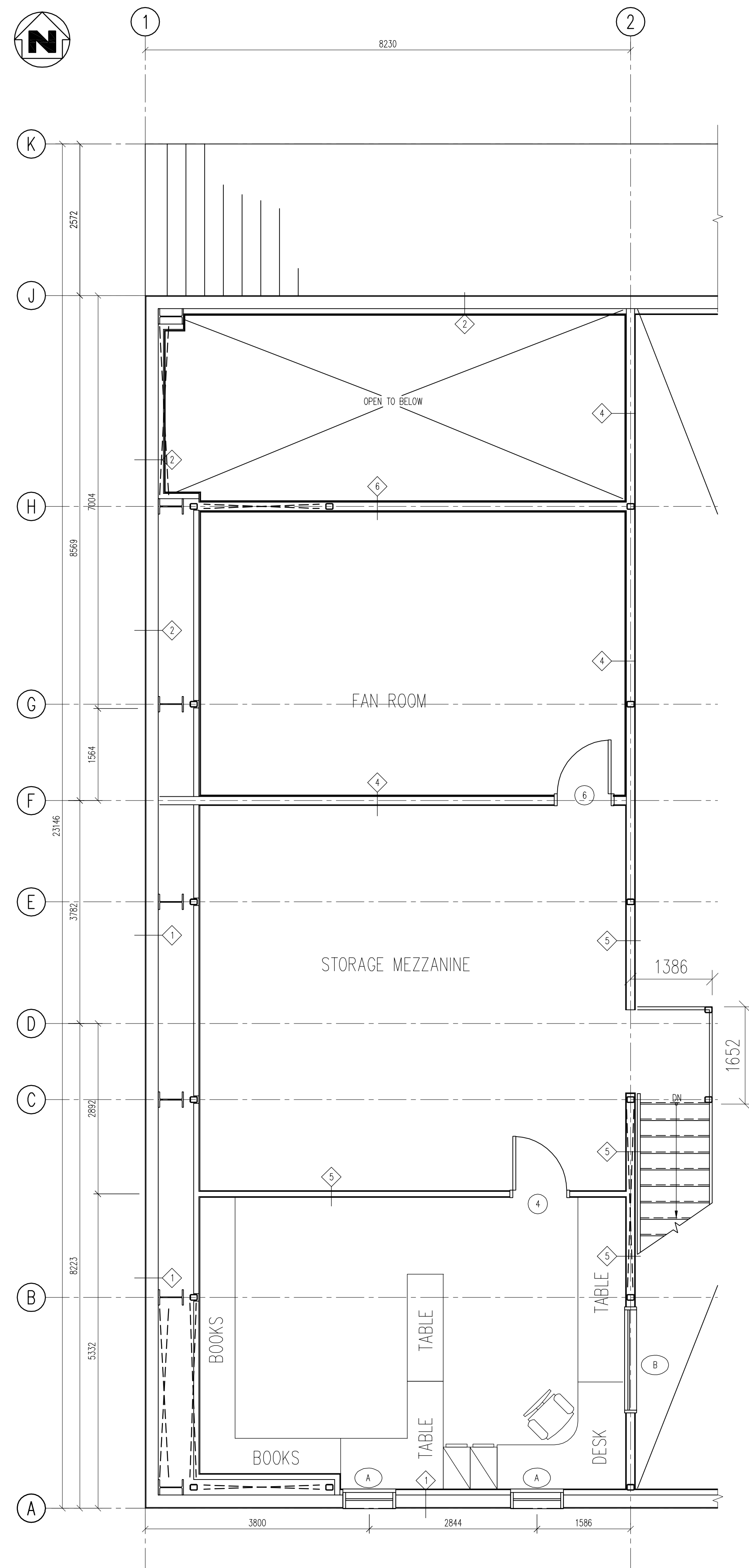
PER. REVIEW:	DATE: (YY-MM-DD)	SCALE:
TL	2014.03.05	AS NOTED

CLIENT PROJ. #	WE PROJ. #	REV. #
04-4417		13655.03

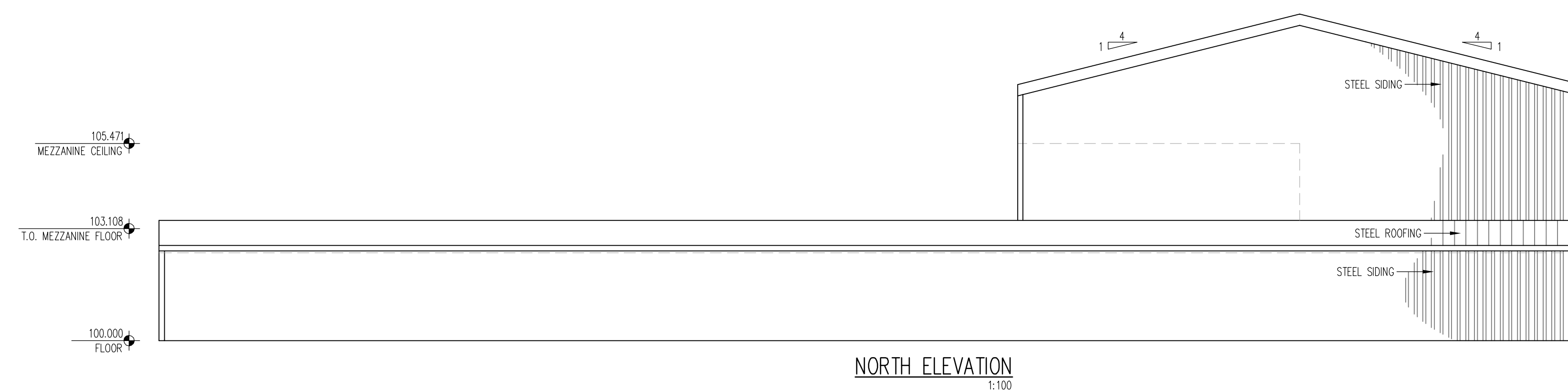
DATE: 2014.03.05

SCALE: 1/8" = 1'-0"

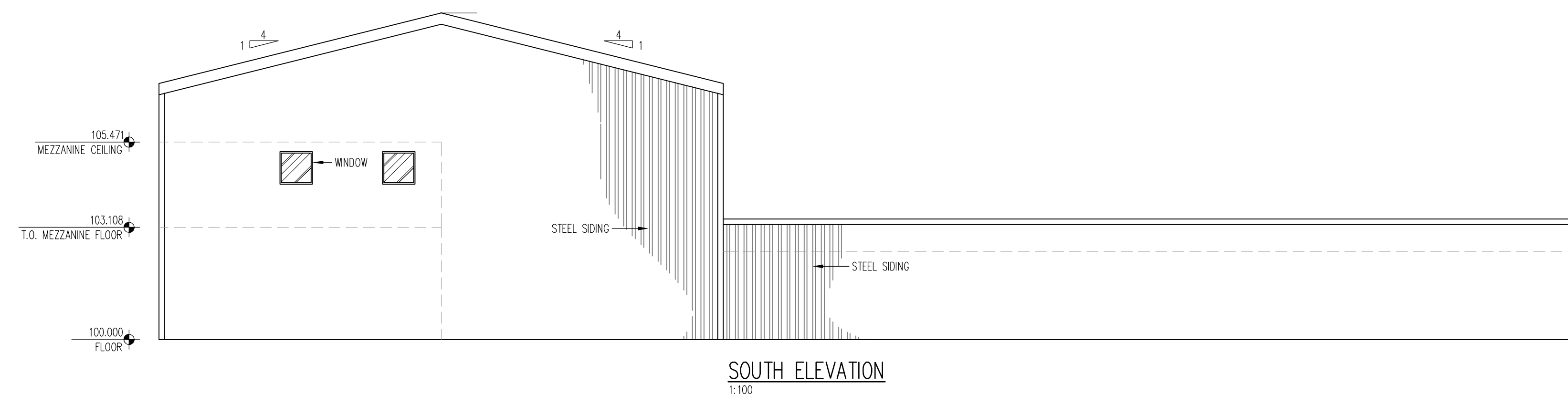
REV. 1 0



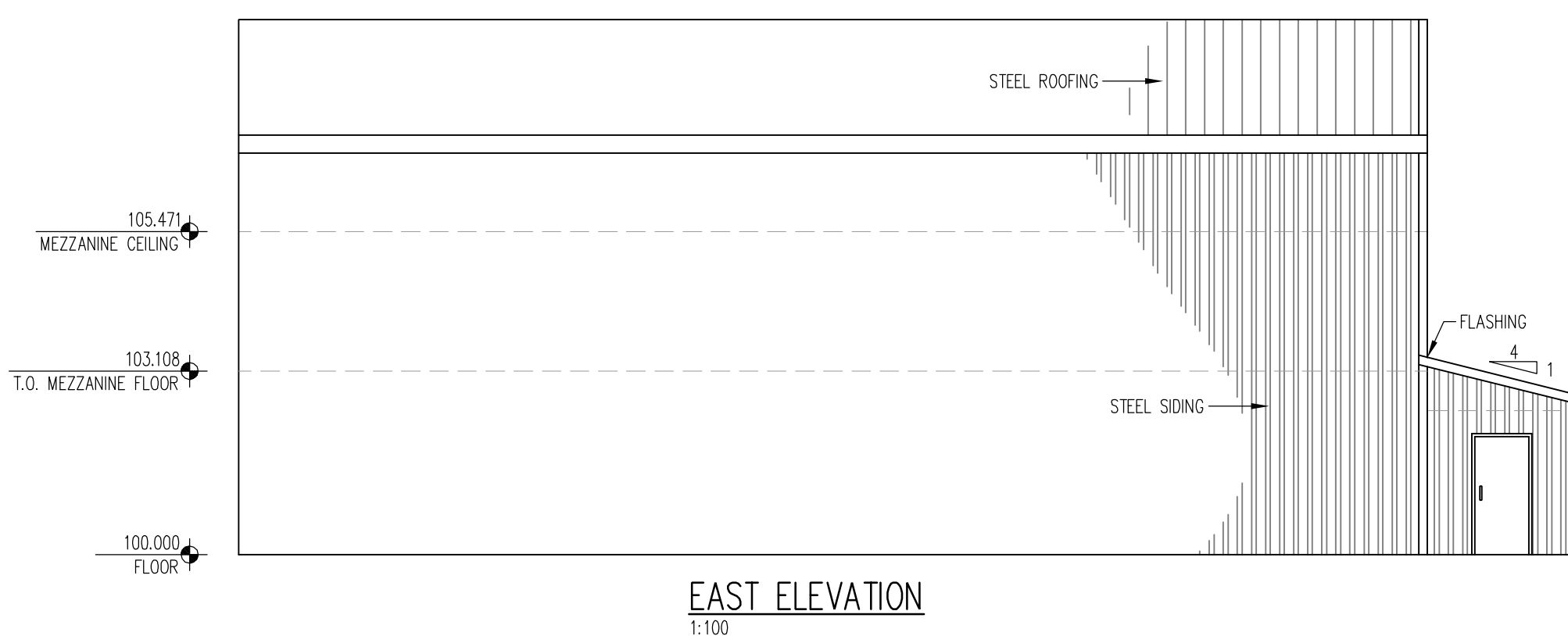
MEZZANINE FLOOR PLAN
1:50



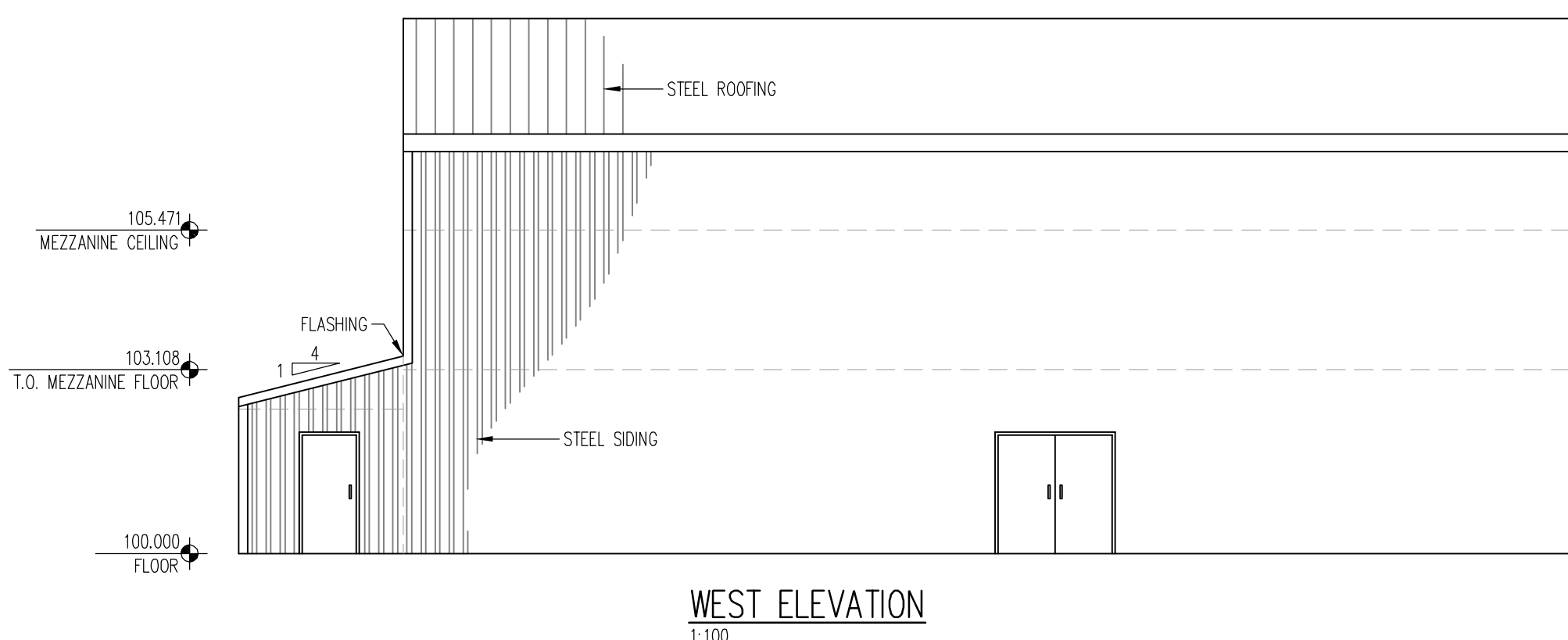
NORTH ELEVATION
1:100



SOUTH ELEVATION
1:100



EAST ELEVATION
1:100





WEST ELEVATION
1:100

[illegible]

DRAWING NO.	DESCRIPTION
↑	REFERENCE DRAWINGS


LEGEND

	SECTION # SOURCE / REFERENCE DWG.		DETAIL # SOURCE / REFERENCE DWG.
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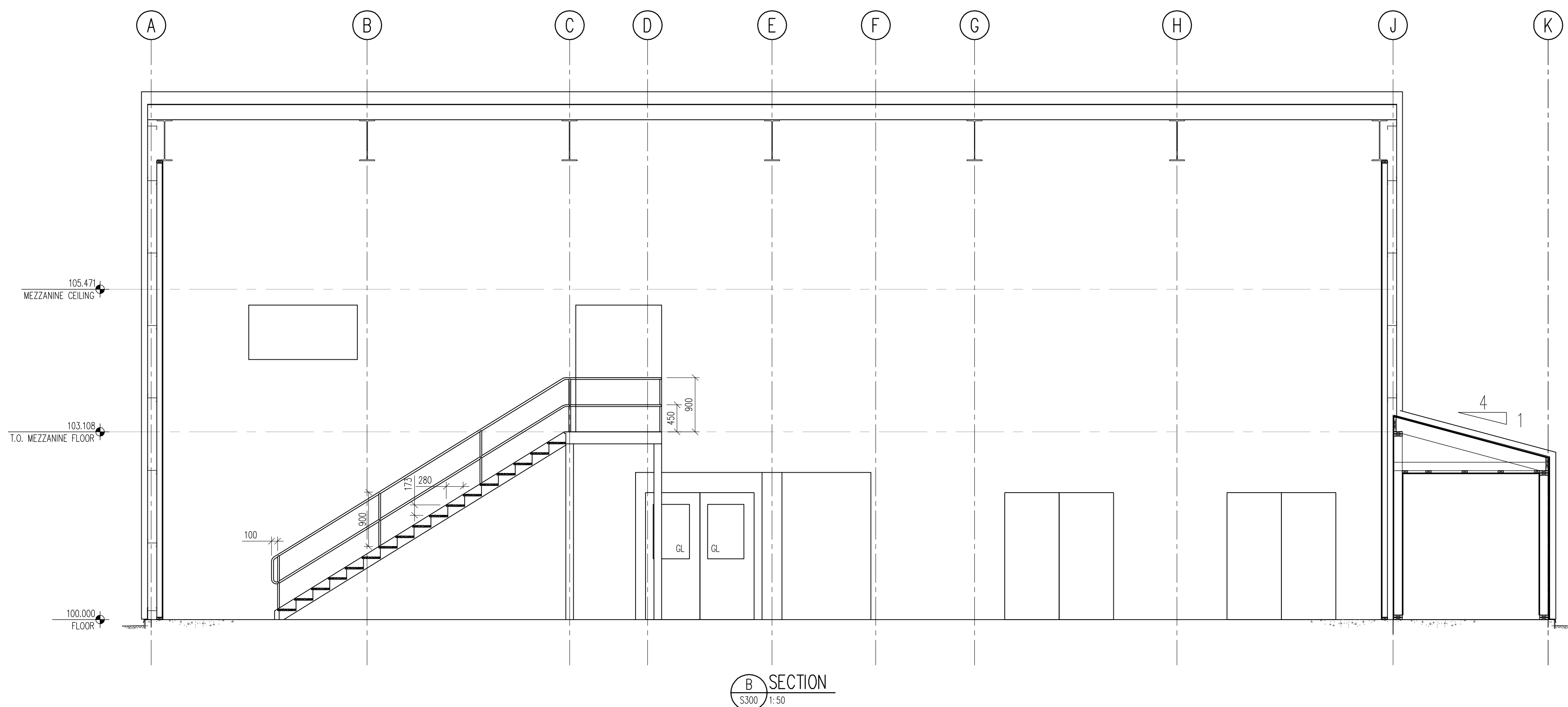
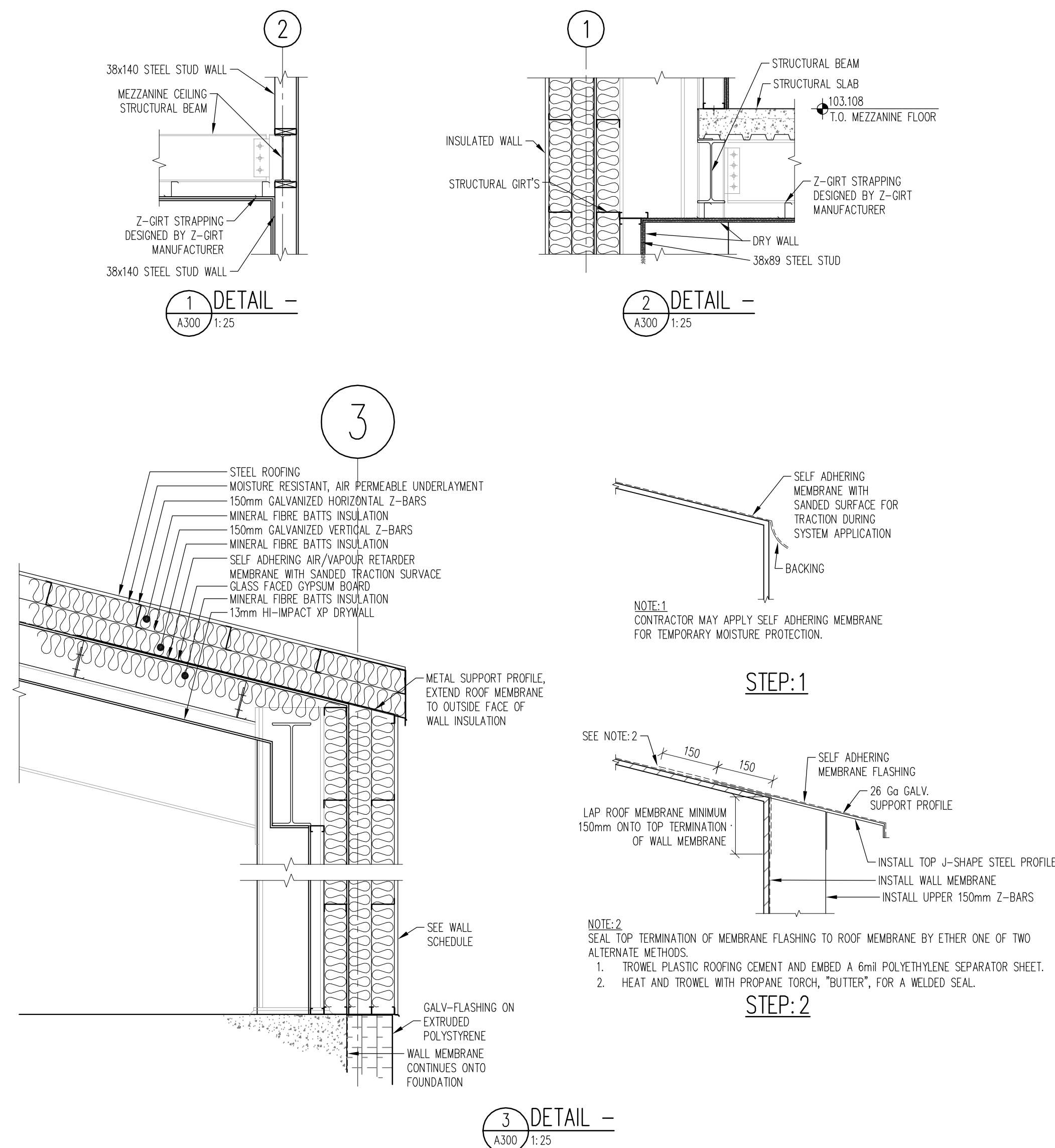
CLIENT:



JOB TITLE:
WATER SUPPLY IMPROVEMENTS
PHASE 2
WATER TREATMENT PLANT
KUGLUKTUK, NU

DWG. TITLE: MEZZANINE PLAN
ELEVATIONS

DWN. BY:		DES. BY:		PROJ. MOR.:	
JK		TL		JH	
PEER REVIEW		DATE: (YY-MM-DD)		SCALE:	
TL		2014.03.05		AS NOTED	
CLIENT PROJ. #				WE PROJ. #	
04-4417				13655.00	
DWC #		A200		OF	3
				LEV	0





REVISIONS					
NO.	DESCRIPTION	YYYY.MM.DD	BY	APP	
A	ISSUED FOR 100% REVIEW	2014.01.16	JK	TL	
B	ISSUED FOR REVISED 100% REVIEW	2014.02.20	JK	TL	
0	ISSUED FOR TENDER	2014.03.05	JK	TL	
1	ISSUED FOR CONSTRUCTION	2014.06.30	JK	TL	

[illegible]

DRAWING NO.	DESCRIPTOR

	REFERENCE DRAWINGS	
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LEGEND

	SECTION # SOURCE / REFERENCE DWG.		DETAIL # SOURCE / REFERENCE DWG.
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PERMIT NUMBER
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REGISTERED PROFESSIONAL ENGINEER
T.G. LIVINGSTON
June 20, 14
N.T.N.U.

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CLIENT:



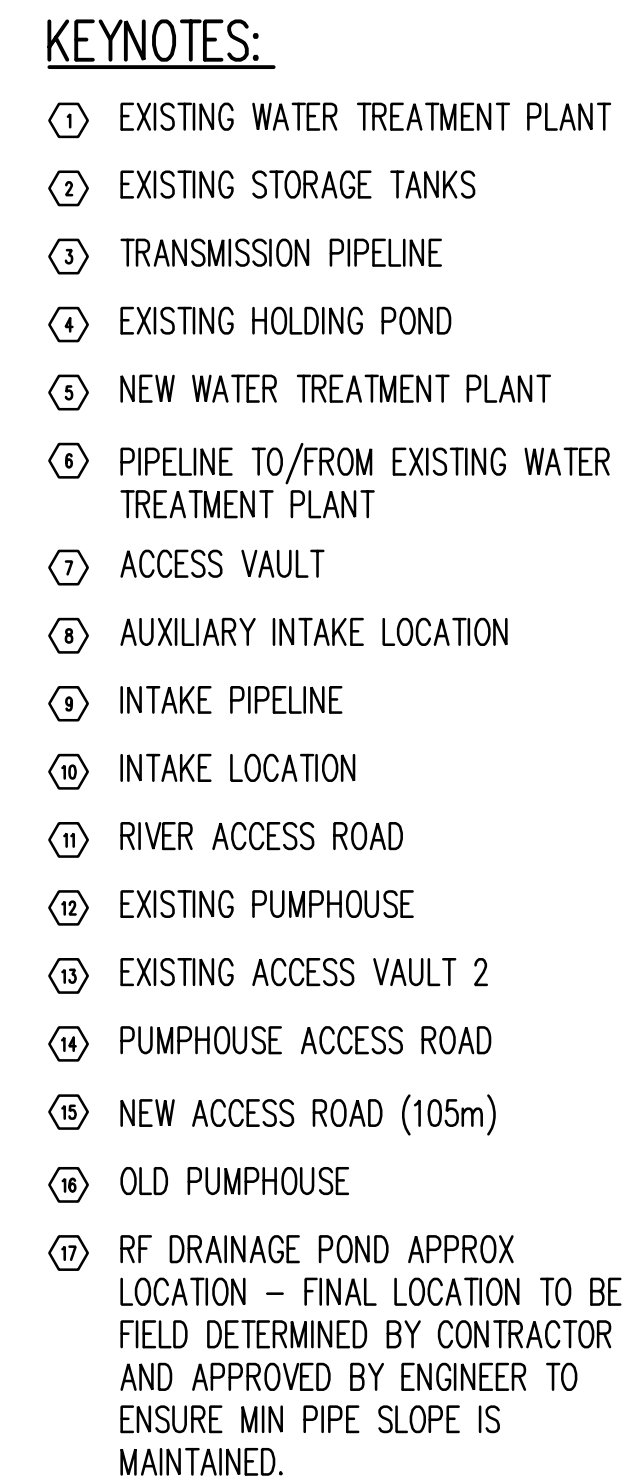
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PHASE 2
WATER TREATMENT PLANT

OWG TITLE: SECTIONS & DETAILS

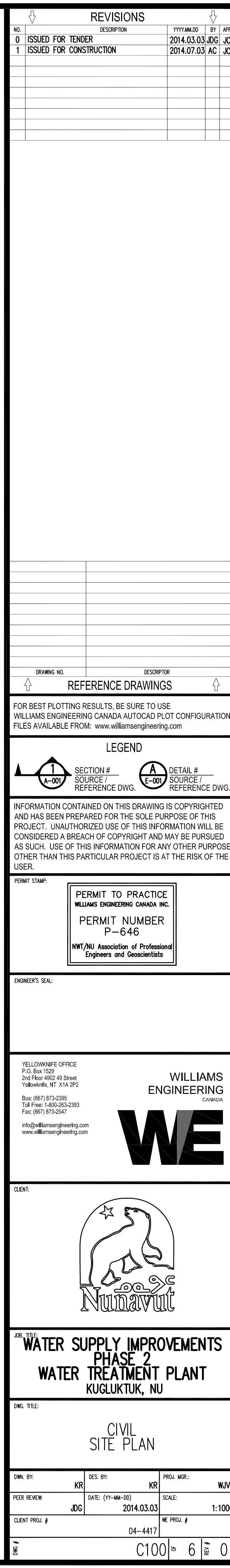
DWN. BY:	DES. BY:	PROJ. MOR.:
JK	TL	JH
DATE REVIEW:	DATE (REVISED):	STATUS:

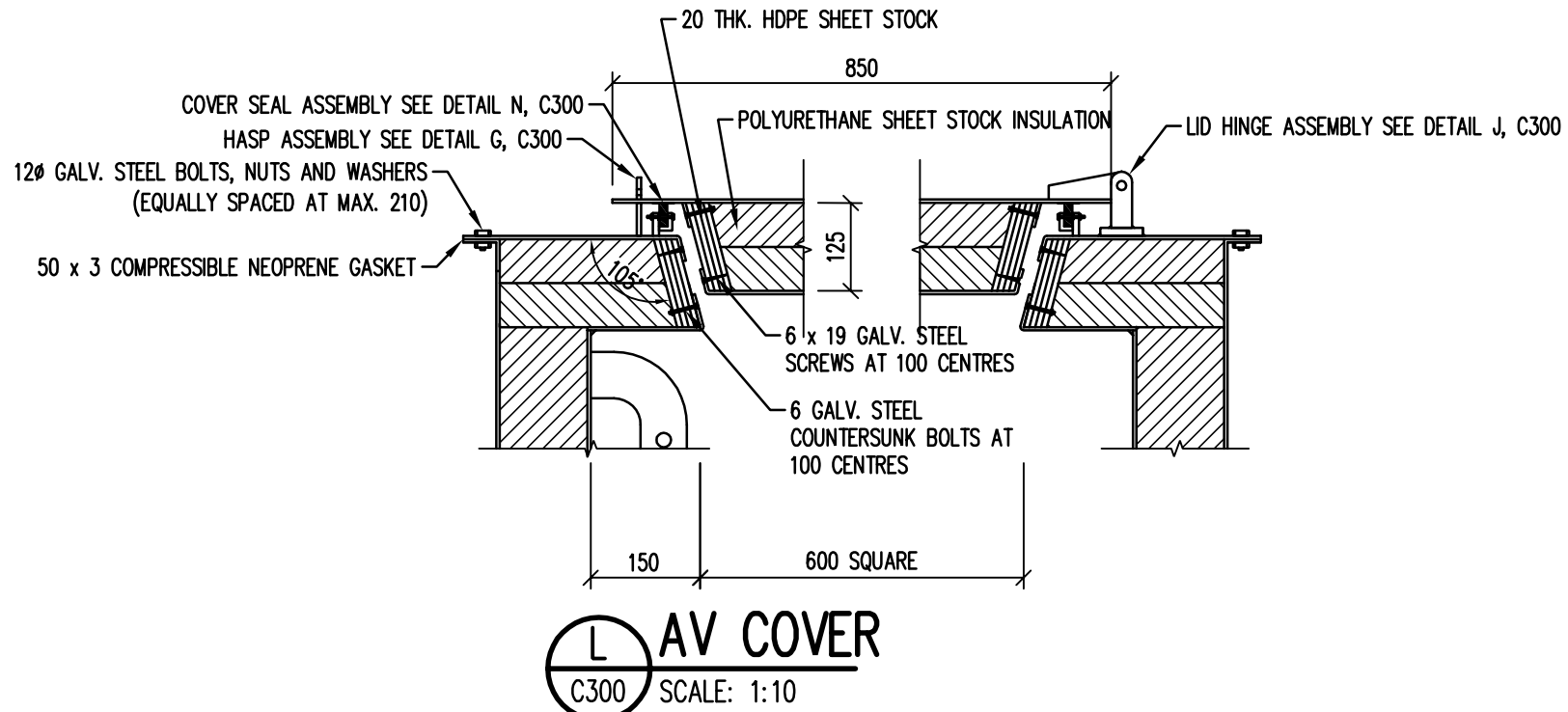
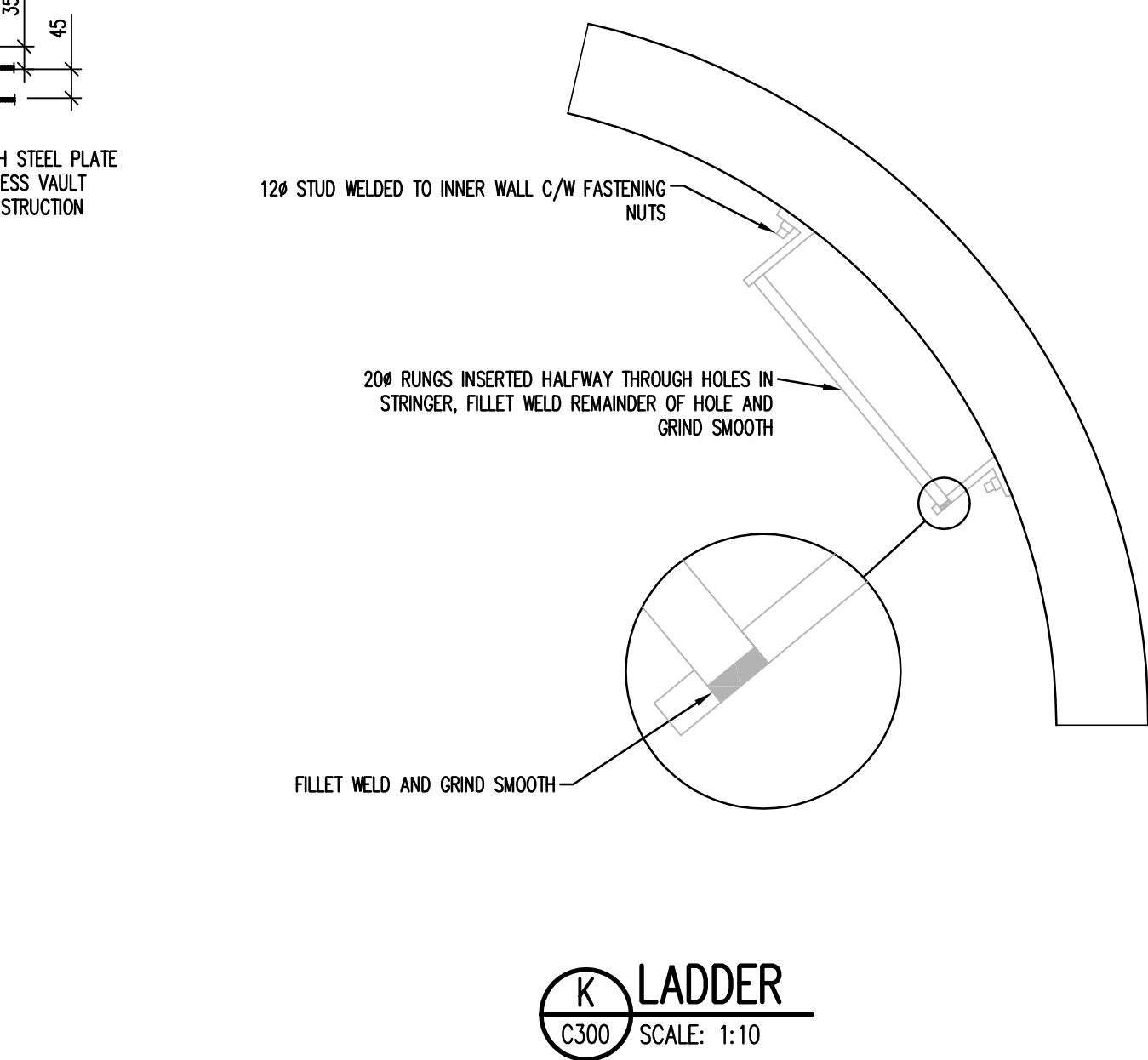
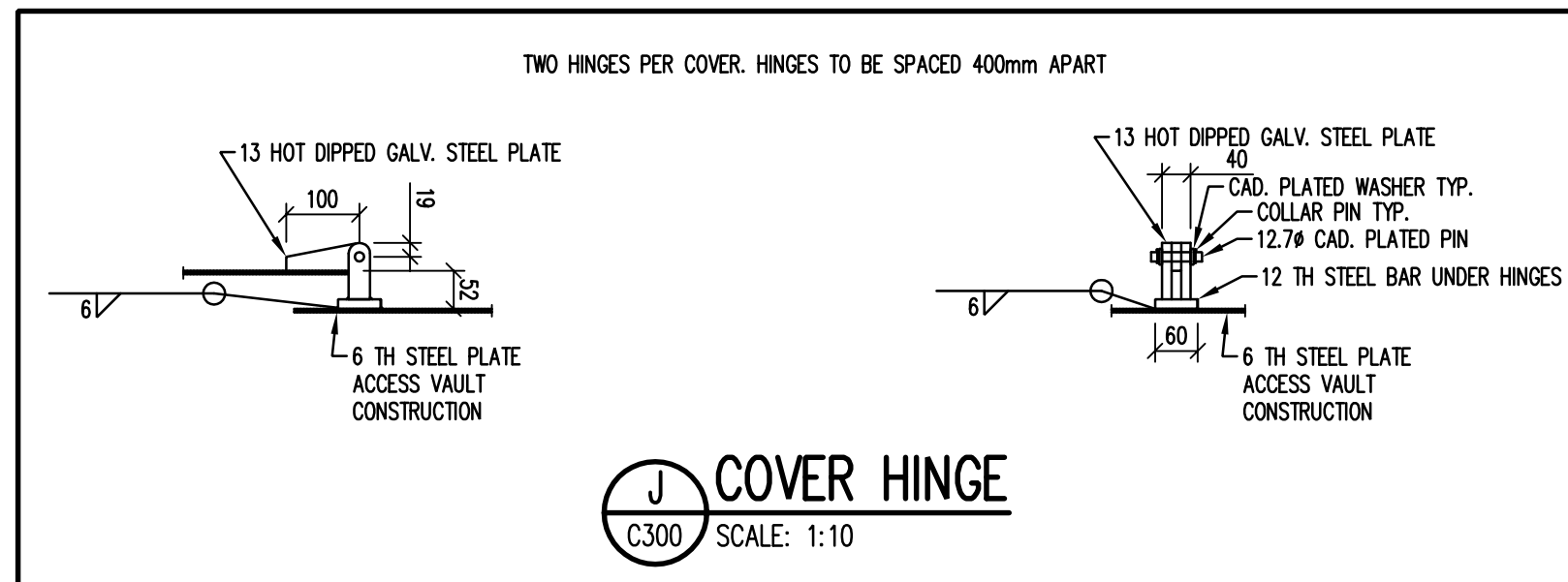
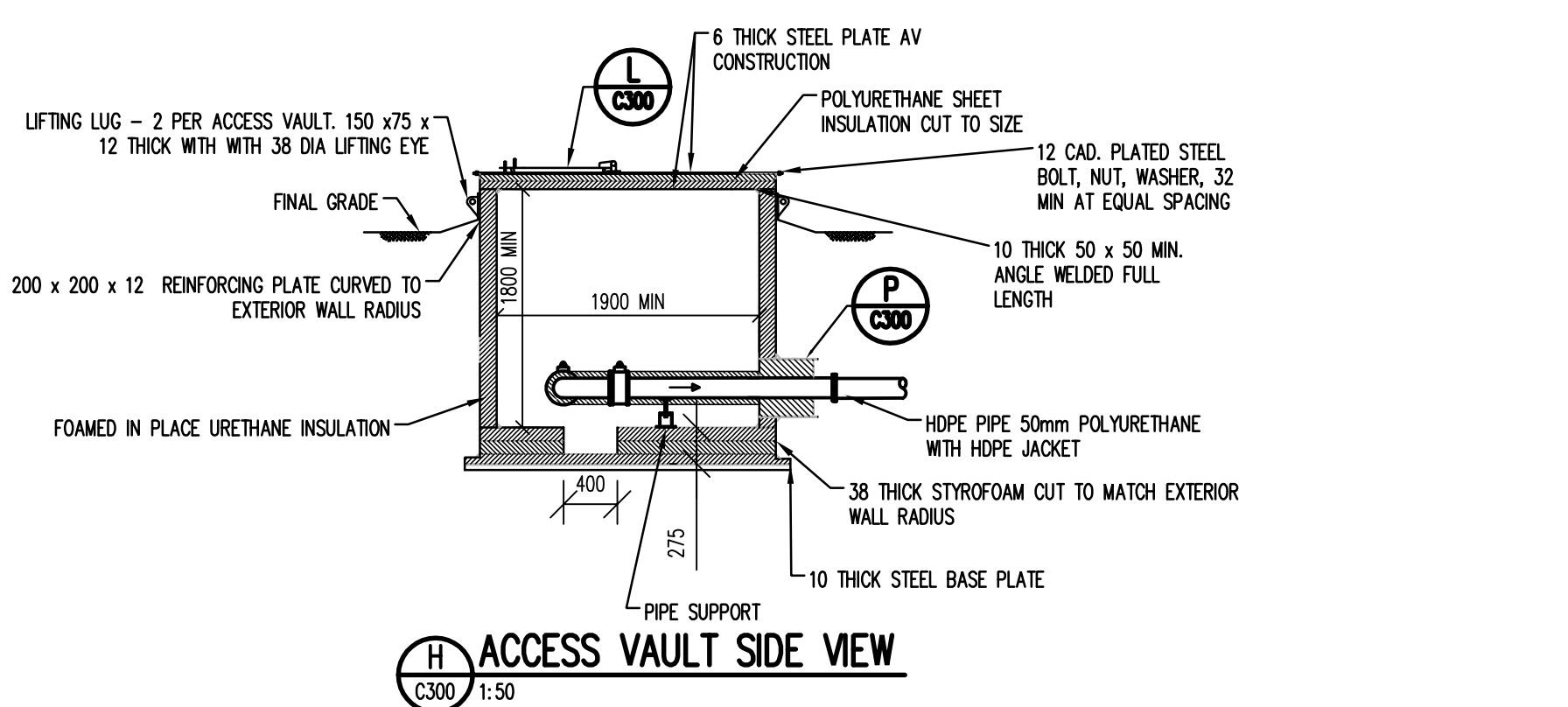
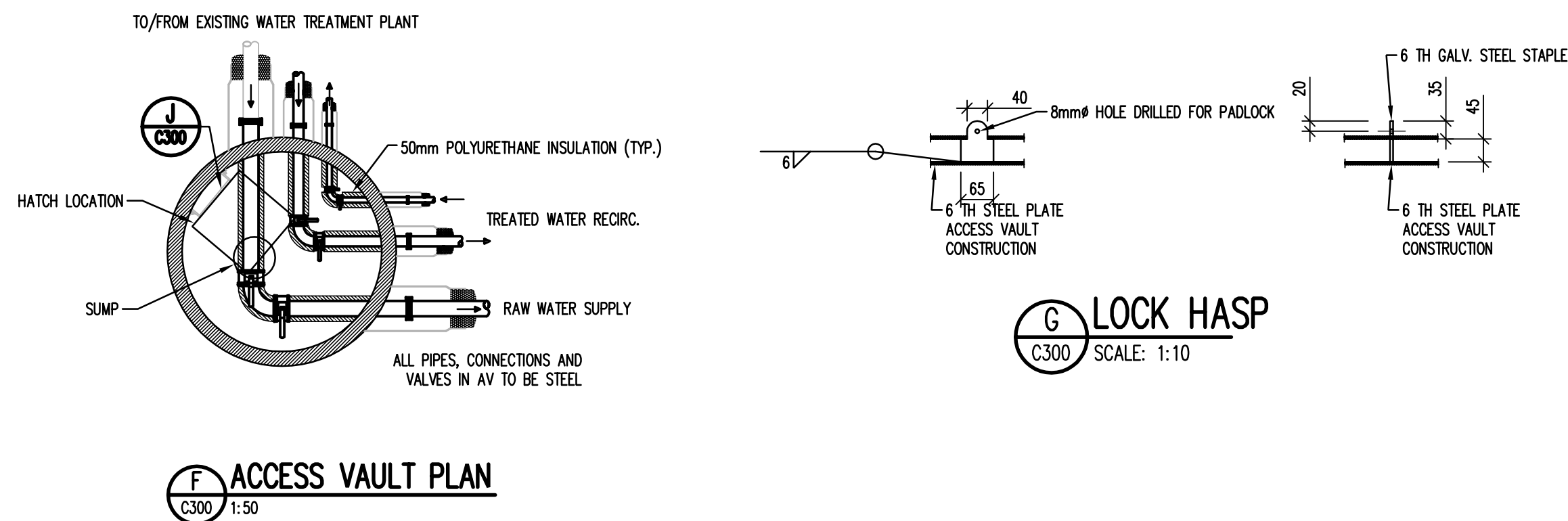
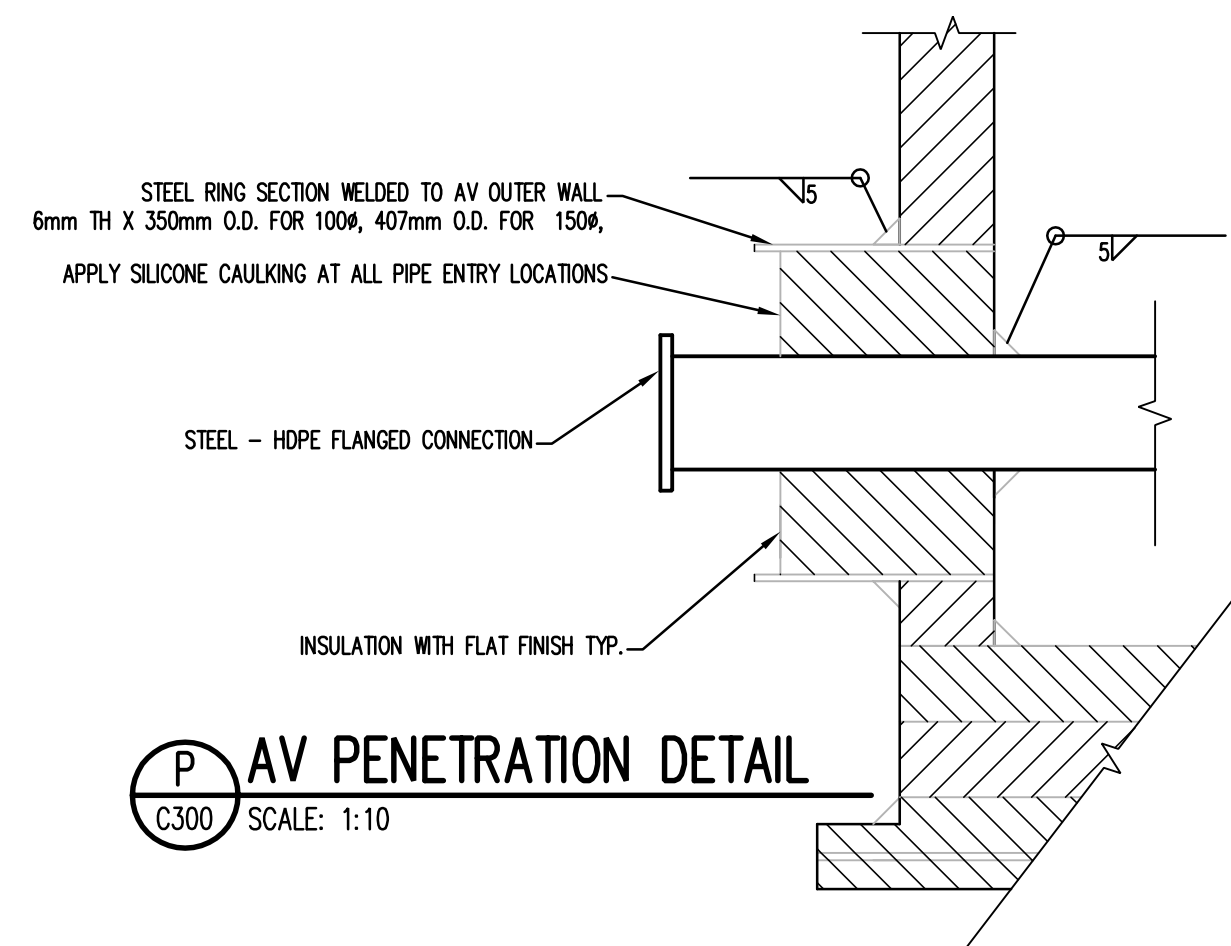
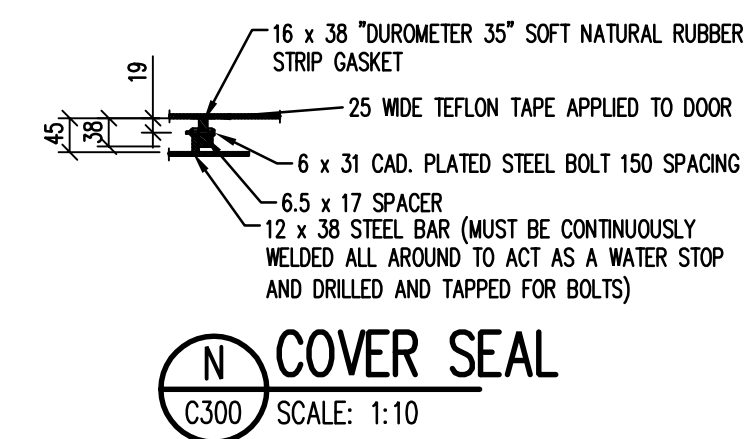
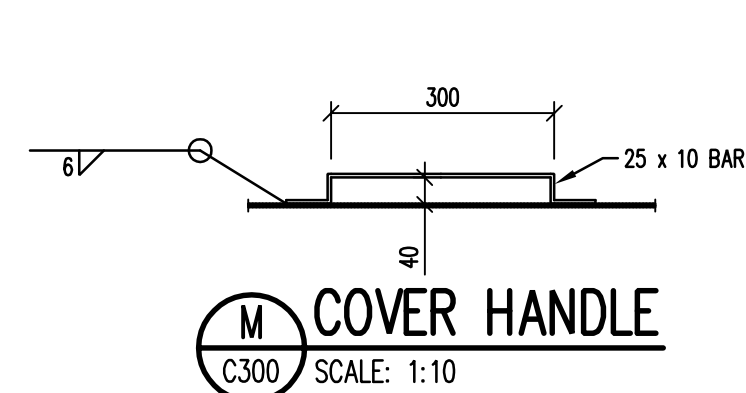
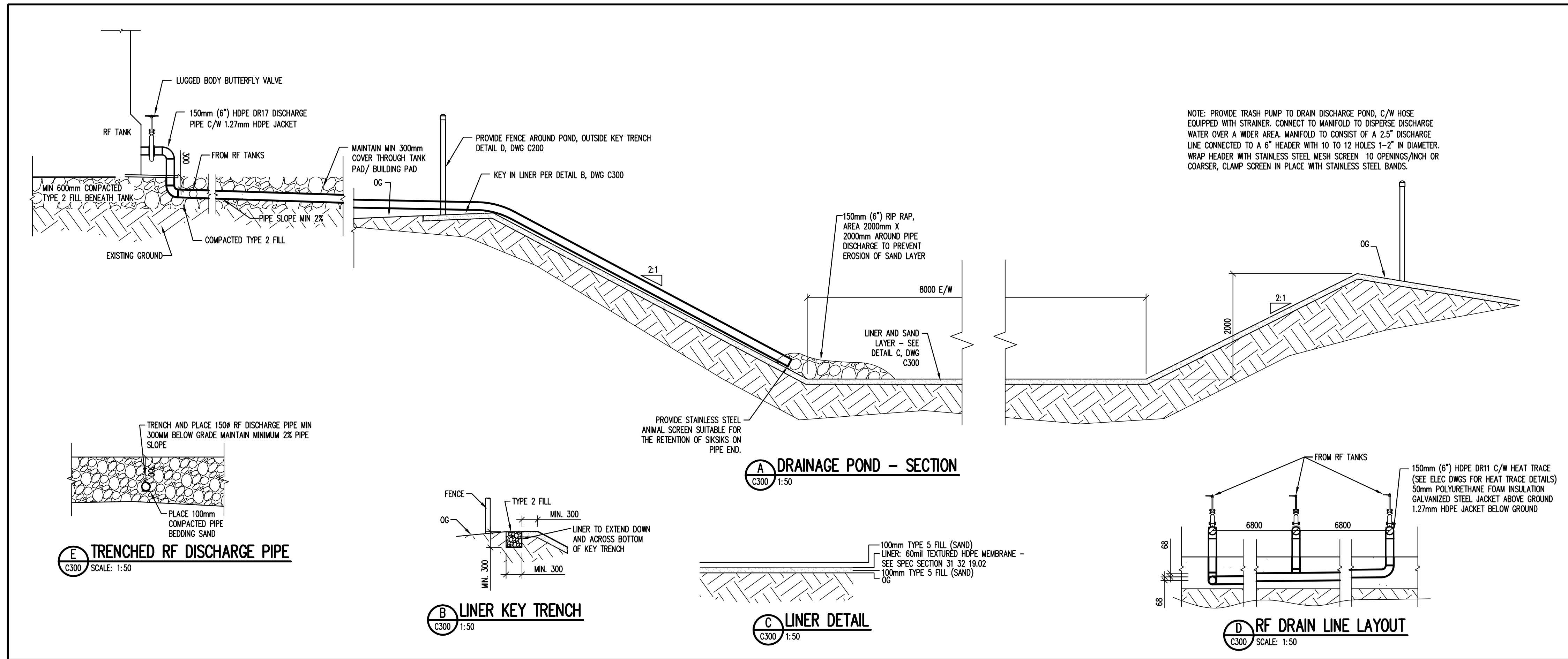
PEEK REVIEW:	TL	DATE: (YY-MM-DD)	SCALE:
		2014.03.05	AS NOTED
CLIENT PROJ. #	04-4417		WE PROJ. #
			13655.00
DWG #	A300		REV # 0

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ELEVATIONS ARE ORTHOMETRIC.
NAD83 SUITABLE FOR GRADING ONLY. BUILDING IS TO BE LAID OUT IN GROUND COORDINATES.
ROCK BOLT CONNECTS "OLD PUMPHOUSE" ROCK ANCHORS TO BEDROCK
REFERENCE POINT IS WESTERMOST OF TWO ROCK BOLTS AT THIS LOCATION.





EXTERIOR PIPE SCHEDULE					
NAME	ABOVE/BELOWGROUND	SIZE/MATERIAL	INSULATION	HEAT TRACE	CLADDING
TREATED WATER RECIRC TWS3 TO TWS2/1	ABOVEGROUND	50mm HDPE DR11	50mm POLYURETHANE	YES	GALVANIZED STEEL JACKET
TREATED WATER RECIRC TWS3 TO TWS2/1	BELOWGROUND	50mm HDPE DR11	50mm POLYURETHANE	YES	1.27mm HDPE JACKET
TREATED WATER RECIRC TWS2/1 TO TWS3	ABOVEGROUND	100mm HDPE DR11	50mm POLYURETHANE	YES	GALVANIZED STEEL JACKET
TREATED WATER RECIRC TWS2/1 TO TWS3	BELOWGROUND	100mm HDPE DR11	50mm POLYURETHANE	YES	1.27mm HDPE JACKET
RAW WATER SUPPLY	ABOVEGROUND	150mm HDPE DR11	50mm POLYURETHANE	YES	GALVANIZED STEEL JACKET
RAW WATER SUPPLY	BELOWGROUND	150mm HDPE DR11	50mm POLYURETHANE	YES	1.27mm HDPE JACKET
DRAIN PIPE	ABOVE/BELOWGROUND	150mm HDPE DR11	-	-	-
	ABOVEGROUND		50mm POLYURETHANE	YES	GALVANIZED STEEL JACKET
	BELOWGROUND		50mm POLYURETHANE	YES	1.27mm HDPE JACKET

REVISIONS					
NO.	DESCRIPTION	DATE	BY	APP.	
0	ISSUED FOR TENDER	2014.03.03	JOG		
1	ISSUED FOR CONSTRUCTION	2014.07.03	AG		

REFERENCE DRAWINGS	
DRAWING NO.	DESCRIPTION

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LEGEND

SECTION # SOURCE / REFERENCE DWG. DETAIL # SOURCE / REFERENCE DWG.

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ENGINEER'S SEAL:

WILLIAMS ENGINEERING CANADA INC.
PERMIT NUMBER P-646
NWT/NU Association of Professional Engineers and Geoscientists

CLIENT:

Numavut

JOB TITLE:

WATER SUPPLY IMPROVEMENTS PHASE 2 WATER TREATMENT PLANT KUGLUKTUK, NU

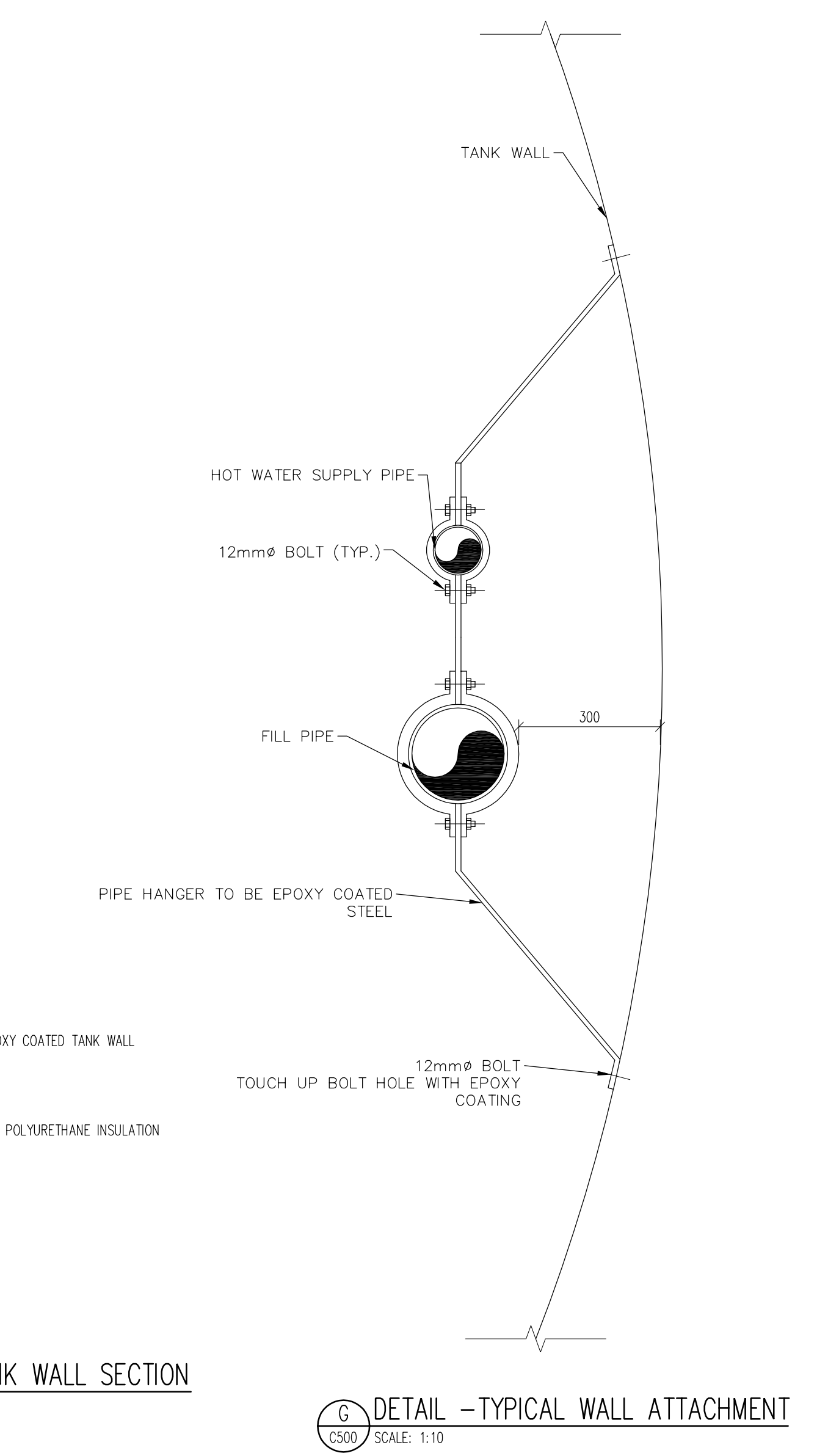
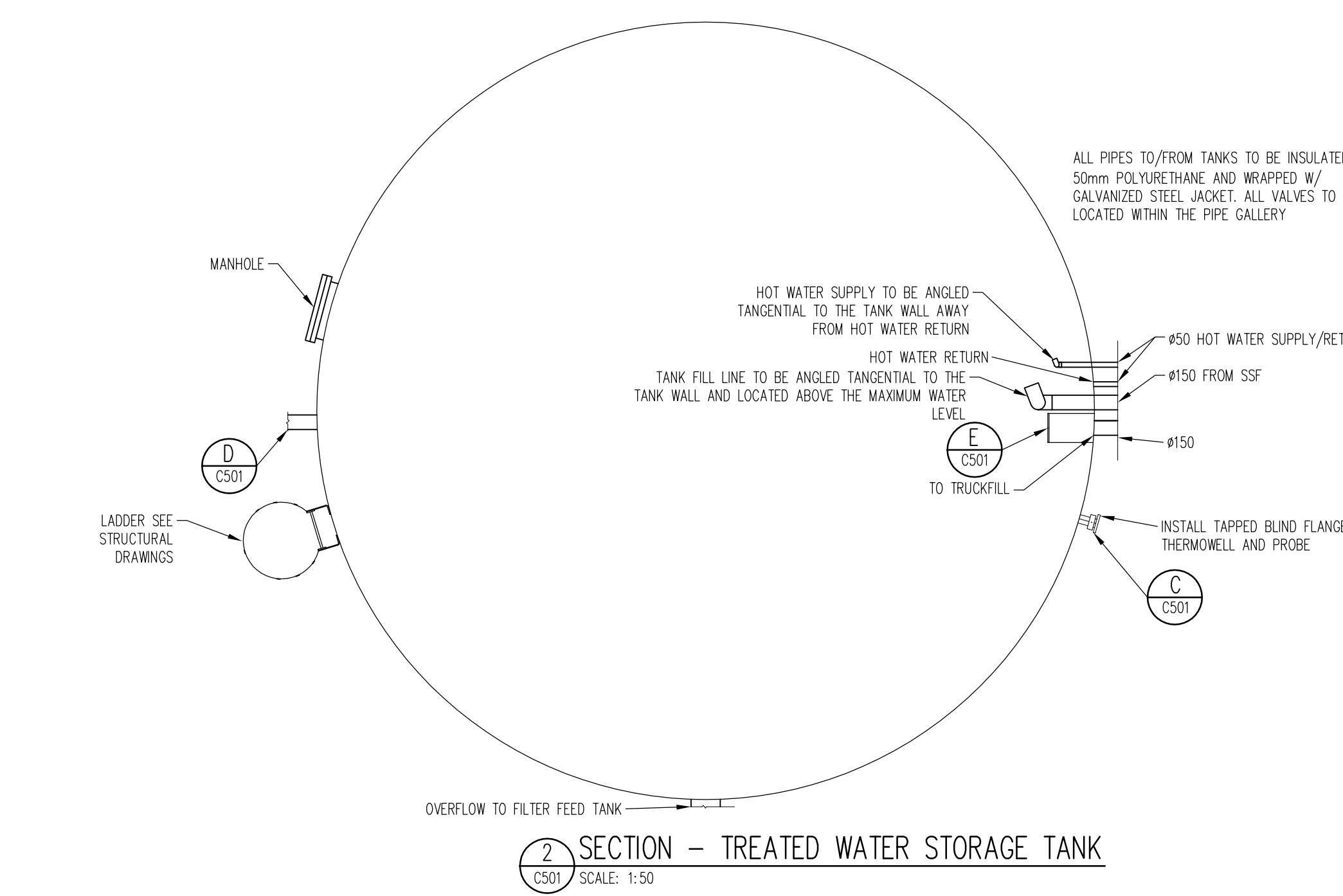
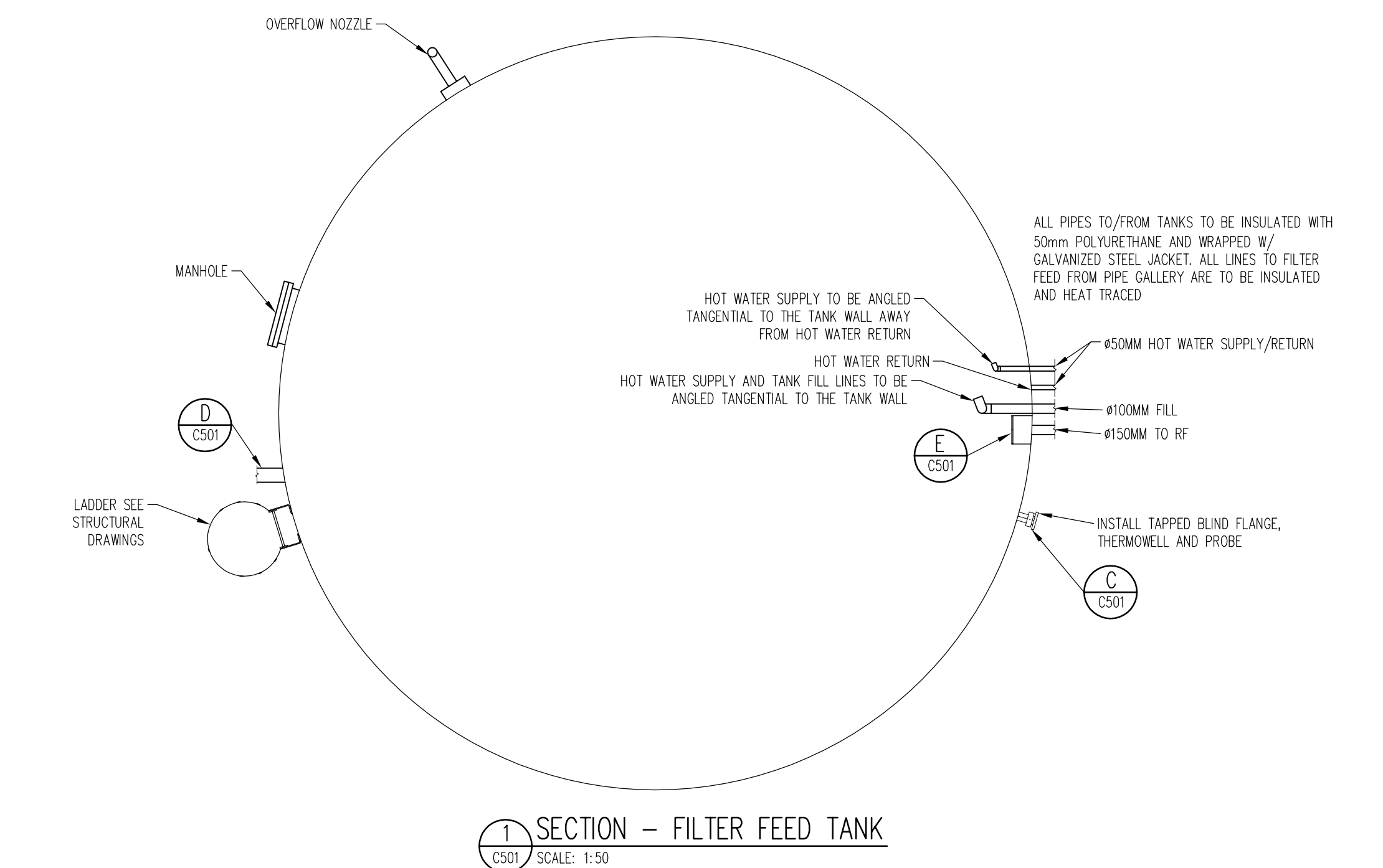
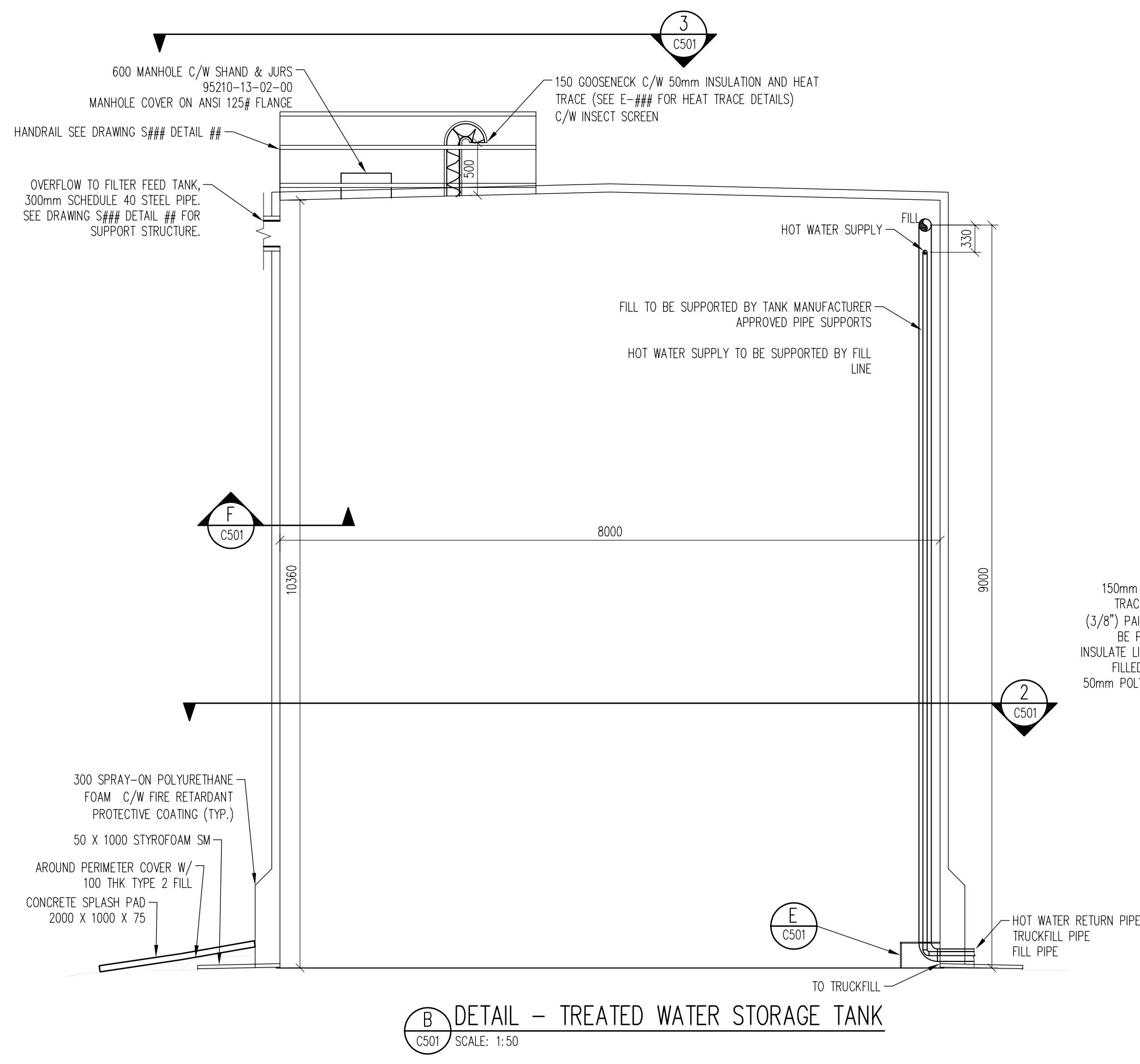
DWG. TITLE:

DRAINAGE POND & RF DRAIN DETAILS, ACCESS VAULT DETAILS

OWN. BY:	DES. BY:	PROJ. MGR.:	DATE:	SCALE:
KR	KR	WJNR	2014.03.03	1:250

C300 6 0

[illegible]



REVISIONS				
NO.	DESCRIPTION	YYYYMMDD	BY	APP
0	ISSUED FOR TENDER	2014.03.03	JDC	JR
1	ISSUED FOR CONSTRUCTION	2014.07.03	AC	JC

TANKS:

- TANKS TO BE AWMA D100 OR D103 SUITABLE FOR POTABLE WATER USE.
- CATHODIC PROTECTION IS TO BE PROVIDED FOR ALL TANKS.
- OVERFLOW AND AIR VENTS TO BE HEAT TRACED AND INSULATED.
- ALL TANKS TO HAVE GROUND LEVEL ACCESS HATCH.
- PIPE FROM TANK TO PIPE GALLERY TO BE INSULATED.
- ROOF TO HAVE THE DOWN POINTS SUITABLE FOR FALL ARREST TIE OFFS.
- BOLTED CONSTRUCTION.
- EPOXY-COATED INTERIOR.

INSULATION:

TANK - MEDIUM DENSITY SPRAYED-ON POLYURETHANE PIPE - POLYURETHANE HALF-SHELLS

- THERMAL CONDUCTIVITY 0.024 W/M°C MAX.
- CORE DENSITY: 30 KG/M³ MIN.
- SERVICE TEMPERATURE: -50°C - 40°C
- COMPRESSIVE STRENGTH: 135 kPa MIN.
- OPEN CELL CONTENT: 5% MAX.
- TENSILE STRENGTH: 337 KPA MIN.
- WATER ABSORPTION: 2.5% MAX.
- ACCEPTABLE MAT'L: BASF WALLTITE CT OR APPR. EQUAL
- 22 GA. ALUMINUM SHEET METAL CLADDING OVER ALL INSULATION

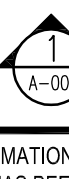
PROTECTIVE COATING:

FLAME RETARDANT LOW GLOSS ACRYLIC COPOLYMER

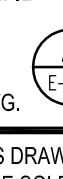
- 55-60% SOLIDS BY VOLUME
- DRY FILM THICKNESS: 550-700 MICRON (22-28MIL)
- COLOR AS PER GLOVERDALE PAINT PLETTE SWATCH # OR APPROVED EQUIVALENT:
- FILTER FEED TANK: #8311 GREY
RF TANK: #8330 GREY
SSF TANK: #7608 GREEN
TREATED WATER TANK: #7407 BLUE
- 5 ACCEPTABLE MAT'L: TOWERTHON II ELASTOMERIC OR APPROVED EQUIVALENT

DRAWING NO.	DESCRIPTION
↑	REFERENCE DRAWINGS
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LEGEND



SECTION #
SOURCE /
REFERENCE DWG.



DETAIL #
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P.O. Box 1529
2nd Floor 802-49 Street
Yellowknife, NT X1A 2P2


Bus: (867) 973-2295
Tel Fax: (867) 973-2393
Fax: (867) 973-2647

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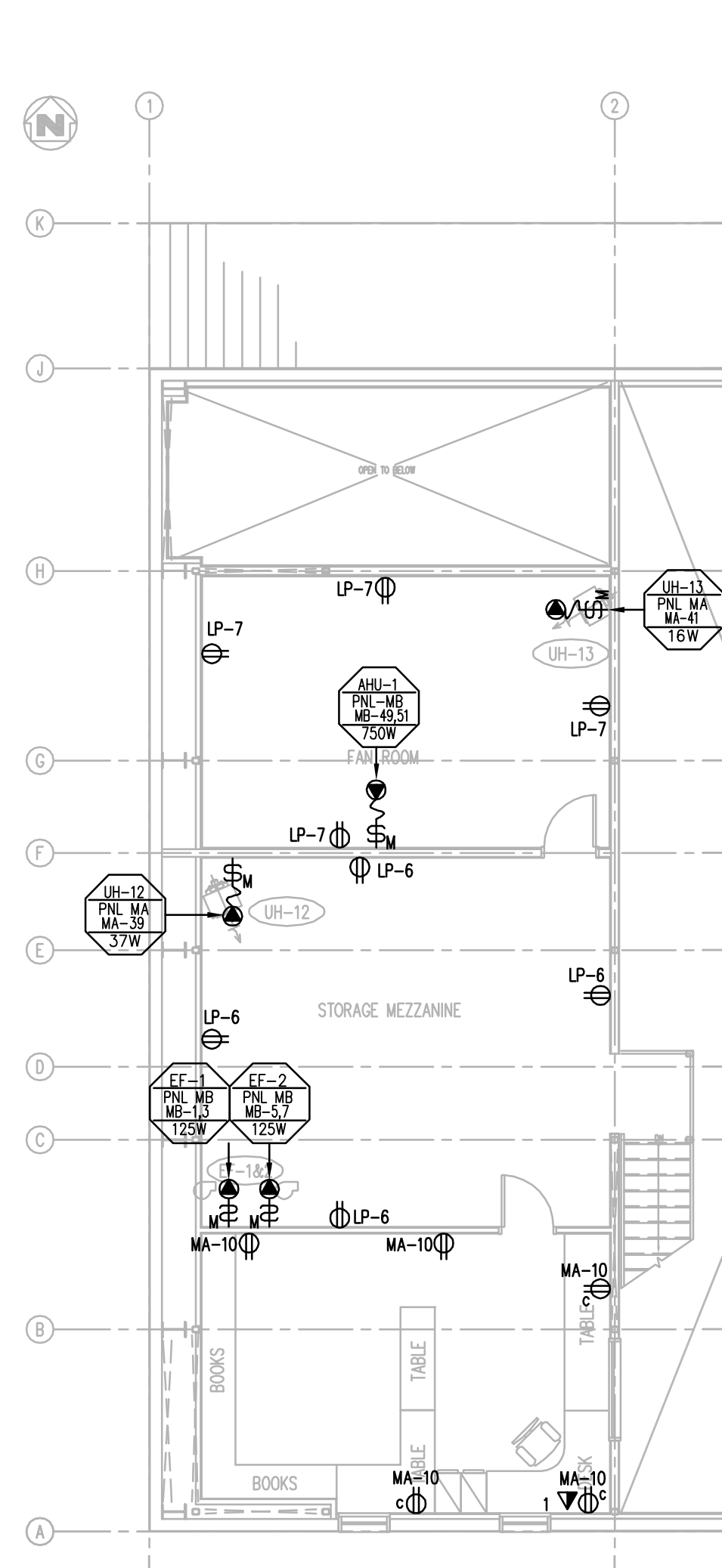
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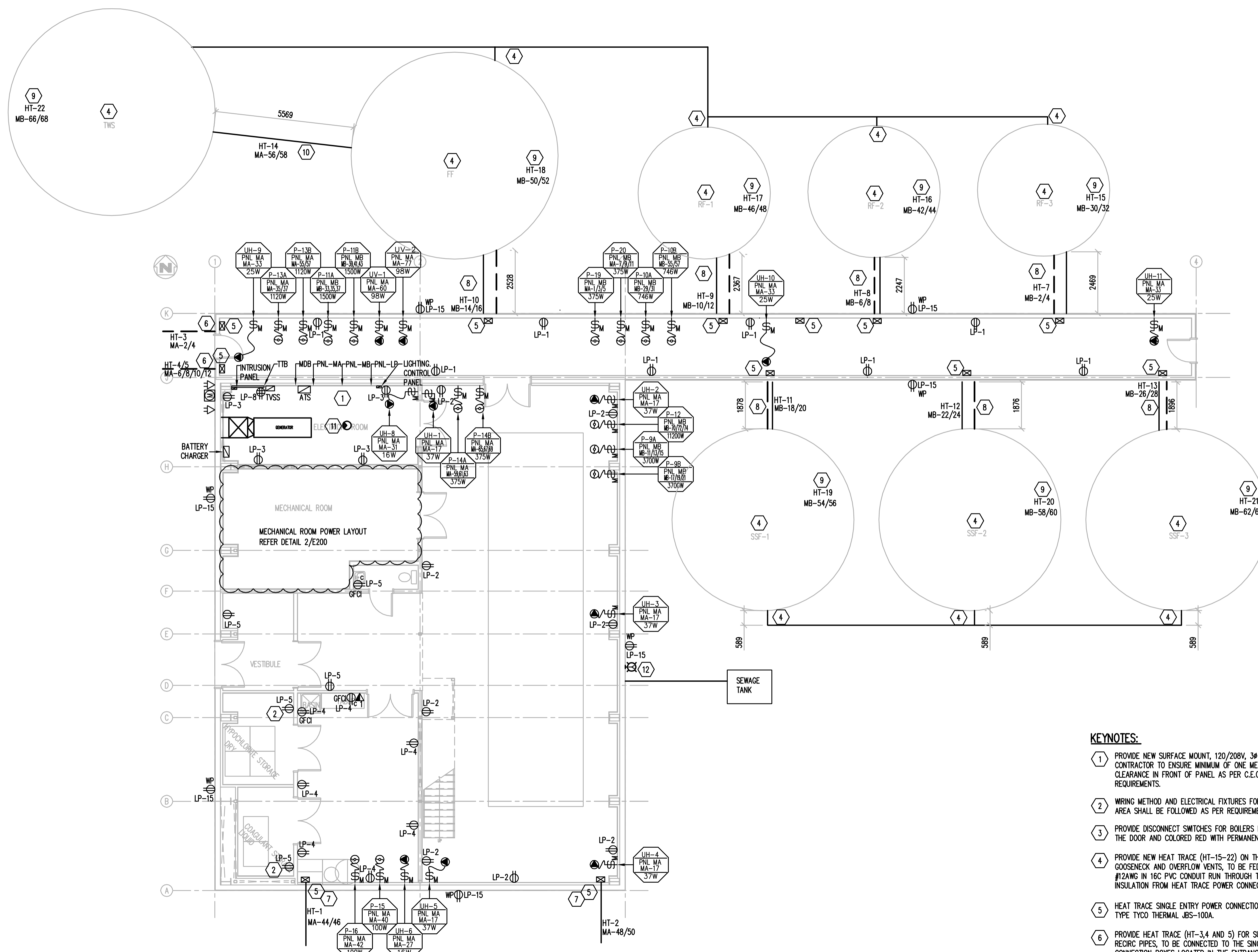
JOB TITLE: **WATER SUPPLY IMPROVEMENTS PHASE 2**
WATER TREATMENT PLANT
KUGLUKTUK, NU

DWG. TITLE: **STORAGE AND FILTER FEED TANK DETAILS**

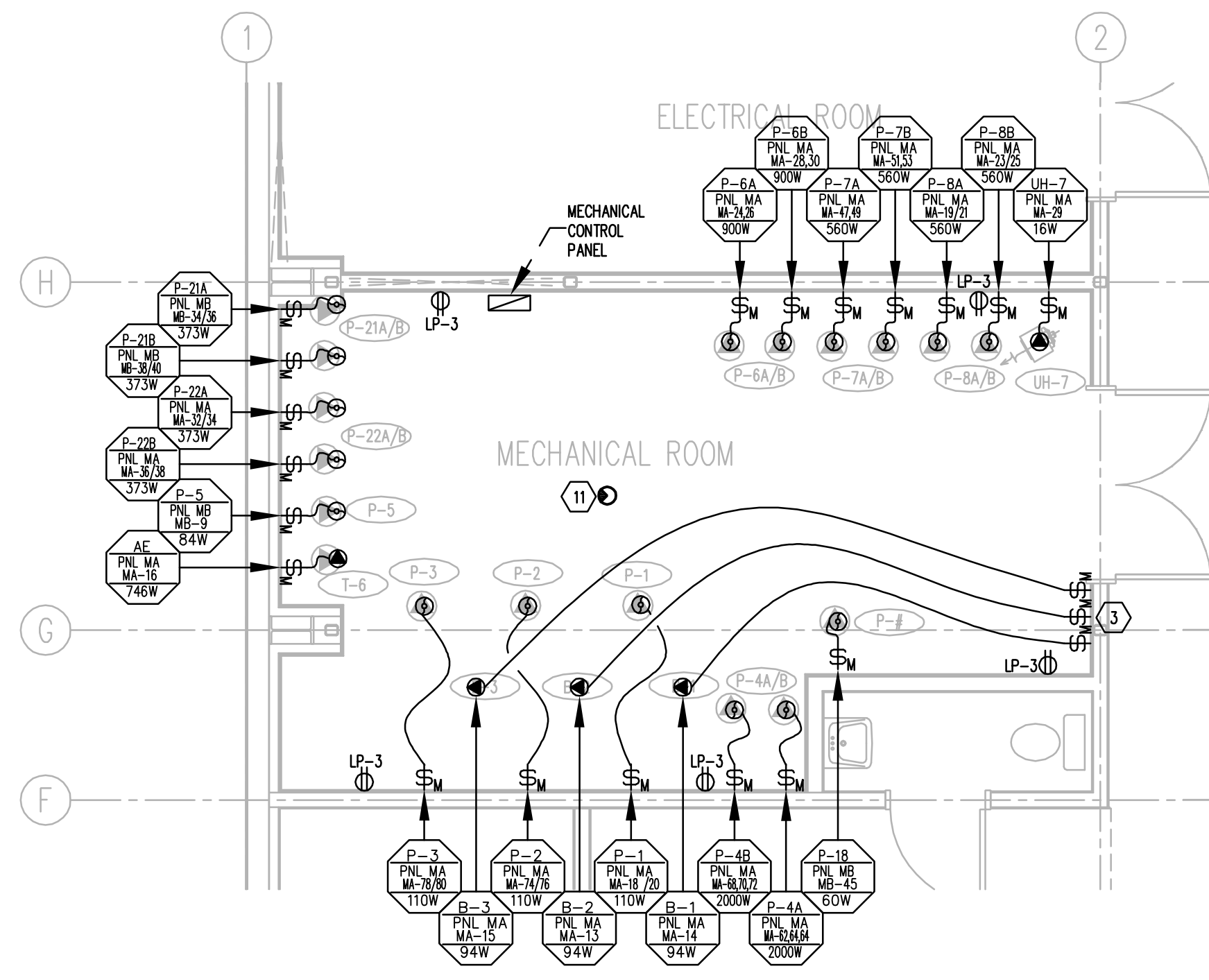
OWN. BY:	DCK BY:	KR	PROJ. MGR:	WJWR
PEER REVIEW	DATE: (YY-MM-DD)	SCALE	AS NOTED	
CLIENT PROJ. #	04-4417		WE PROJ. #	
DWG. #	C501		REV	6
		0		



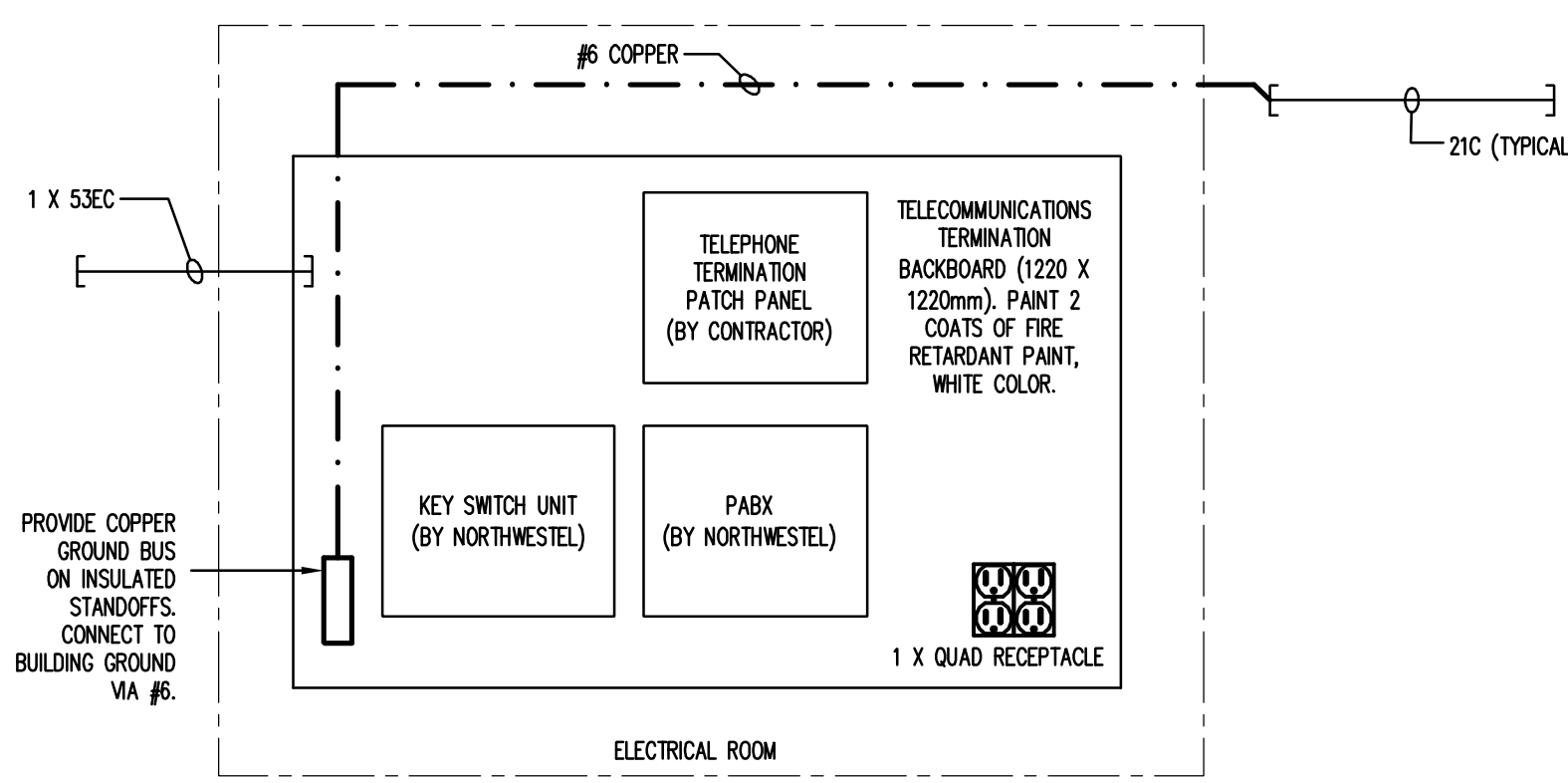
1 SECOND FLOOR POWER LAYOUT
E200 1:100



3 MAIN FLOOR POWER LAYOUT
E200 1:100



2 MECHANICAL ROOM EQUIPMENT CONNECTIONS
E200 1:50



4 TELECOMMUNICATIONS RISER DIAGRAM
E300 NTS

ELECTRICAL SYMBOL LEGEND	
	DUPLEX RECEPTACLE DESCRIPTORS: C = MOUNTED ABOVE COUNTER GFI = GROUND FAULT CIRCUIT INTERRUPTER WP = WATERPROOF
	MOTOR STARTER - MANUAL
	SERVICE ENTRANCE WEATHERHEAD
	UTILITY METER
	CIRCUIT BREAKER
	ELECTRICAL PANEL
	SWITCH, AUTOMATIC TRANSFER
	HARD WIRE CONNECTION
	MOTOR CONNECTION
	120V = LOCAL LINE VOLTAGE SMOKE/CO DETECTOR
	JACK, TELEPHONE/DATA, WALL MOUNT:

KEYNOTES:

- PROVIDE NEW SURFACE MOUNT, 120/208V, 3Ø PANELS. CONTRACTOR TO ENSURE MINIMUM OF ONE METER CLEARANCE IN FRONT OF PANEL AS PER C.E.C. REQUIREMENTS.
- WIRING METHOD AND ELECTRICAL FIXTURES FOR CHEMICAL AREA SHALL BE FOLLOWED AS PER REQUIREMENT OF C.E.C.
- PROVIDE DISCONNECT SWITCHES FOR BOILERS NEXT TO THE DOOR AND COLORED RED WITH PERMANENT LABELS.
- PROVIDE NEW HEAT TRACE (HT-15-22) ON THE GOOSENECK AND OVERFLOW VENTS, TO BE FED WITH #12AWG IN 16C PVC CONDUIT RUN THROUGH THE TANK INSULATION FROM HEAT TRACE POWER CONNECTION.
- HEAT TRACE SINGLE ENTRY POWER CONNECTION BOX TYPE TYCO THERMAL JBS-100A.
- PROVIDE HEAT TRACE (HT-3,4 AND 5) FOR SUPPLY AND RETURN PIPES, TO BE CONNECTED TO THE SINGLE ENTRY CONNECTION BOXES LOCATED IN THE ENTRANCE TO THE CORRIDOR.
- PROVIDE HEAT TRACE (HT-1 AND 2) FOR TRUCK FILL PIPES, TO BE CONNECTED TO THE SINGLE ENTRY CONNECTION BOXES LOCATED IN HYPOCHLORITE STORAGE ROOM.
- LENGTH OF THE PIPES BETWEEN BUILDING AND TANKS IS APPROXIMATE 2.5m. THE HEAT TRACE LENGTH PER PIPE IS DOUBLED TO 5m. CONTRACTOR TO CONFIRM THE LENGTH OF THE PIPES AT SITE.
- FOR EXACT LOCATION OF HEAT TRACE, REFER CIVIL DETAIL NUMBER A/C500, B/C500, A/C501 & B/C501.
- LENGTH BETWEEN THE TANKS IS 5.6m. THE HEAT TRACE LENGTH PER PUMP IS DOUBLED 11.2m. CONTRACTOR TO CONFIRM THE LENGTH OF THE PIPE AT SITE.
- PROVIDE 120V LOCAL COMBINATION SMOKE/CO DETECTOR WITH BATTERY BACKUP. ENSURE NO MEANS OF DISCONNECTION BETWEEN DETECTOR AND BRANCH CIRCUIT BREAKER. AVOID PLACING DETECTOR ON SAME BRANCH CIRCUIT AS FLUORESCENT LIGHTING.
- MECHANICAL EQUIPMENT STROBE LIGHTS FOR SEWAGE TANK. COORDINATE WITH MECHANICAL.

GENERAL NOTES:

- CONTRACTOR TO ENSURE MAXIMUM OF 4-RECEPTACLES PER 15 AMP CIRCUIT FOR GENERAL PURPOSE AND MAXIMUM OF 3-RECEPTACLES PER 15 AMP CIRCUIT FOR COMPUTER PURPOSE.
- PROVIDE MOTOR PROTECTION AS REQUIRED BY CANADIAN ELECTRICAL CODE (CEC 2012).
- ALL THE COMMUNICATION WIRING MUST BE COMPLETED BY THE CONTRACTOR IN CONFORMANCE WITH GOVERNMENT OF NUNAVUT: DEPARTMENT OF COMMUNITY & GOVERNMENT SERVICES (CIS-IPS) STRUCTURED CABLING GUIDELINES VERSION 1.5 2012.

REVISIONS

NO.	DESCRIPTION	DATE	BY	APP.
A	ISSUED FOR TENDER	2014.03.07	HR	JAB
O	ISSUED FOR CONSTRUCTION	2014.06.30	HR	JAB

REFERENCE DRAWINGS

FOR BEST PLOTTING RESULTS, BE SURE TO USE WILLIAMS ENGINEERING CANADA AUTOCAD PLOT CONFIGURATION FILES AVAILABLE FROM: www.williamsengineering.com

LEGEND

SECTION #	SOURCE / REFERENCE DWG.	DETAIL #	SOURCE / REFERENCE DWG.
A-001		E-001	

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PERMIT NUMBER
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ENGINEER'S SEAL

WILLIAMS ENGINEERING CANADA
WE

CLIENT

WATER SUPPLY IMPROVEMENTS
PHASE 2
WATER TREATMENT PLANT
KUGLUKTUK, NU

DWG. TITLE

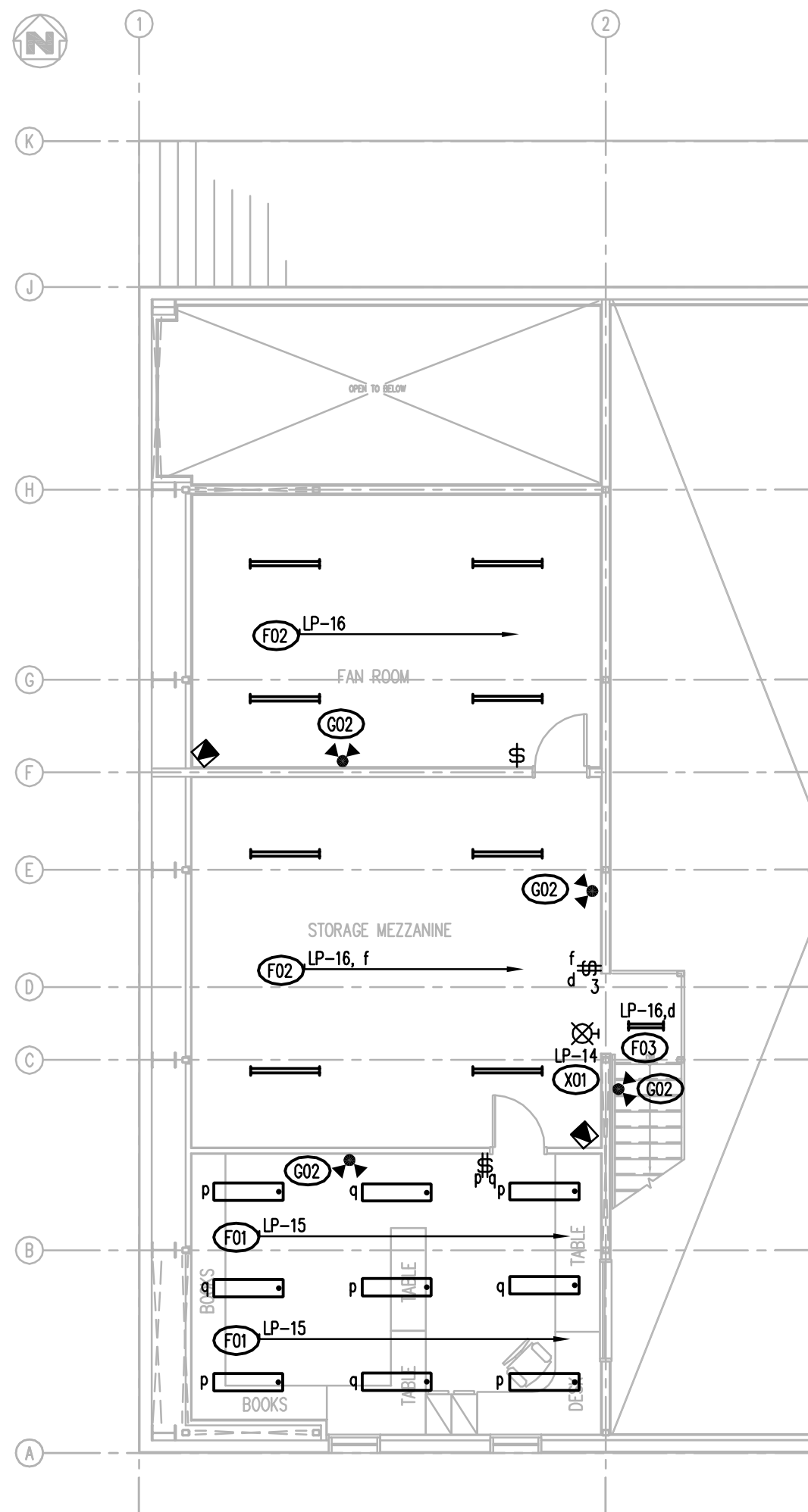
ELECTRICAL POWER LAYOUTS

DRAWN BY:	DES. BY:	PROJ. MGR.:
HR	HR	JAB

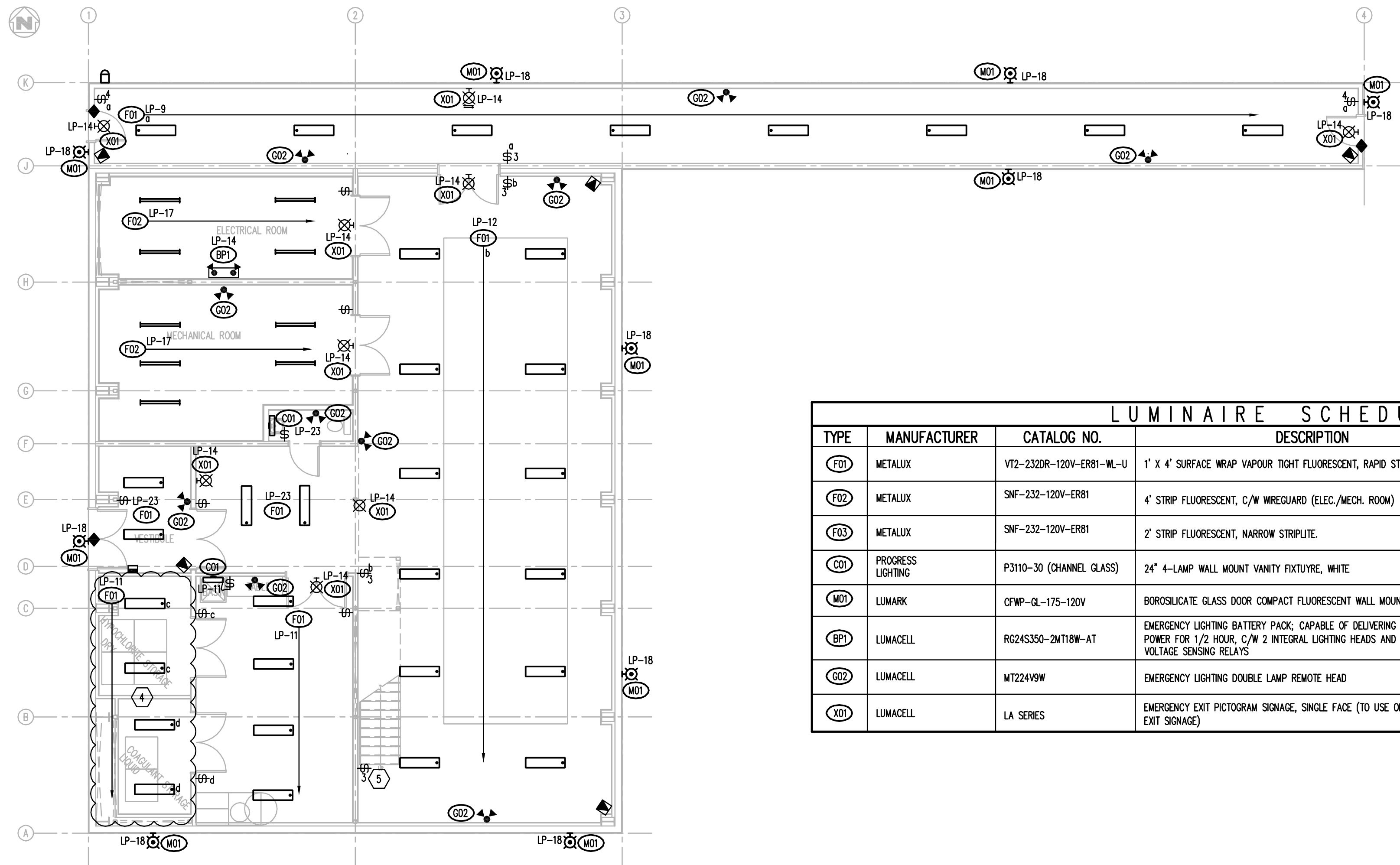
REVIEW:	DATE:	SCALE:
JAB	2014-06-30	AS SHOWN

CLIENT PROJ. #	DATE	PROJ. #
04-4417	01.3655.02	

E200 1:50
 1 C

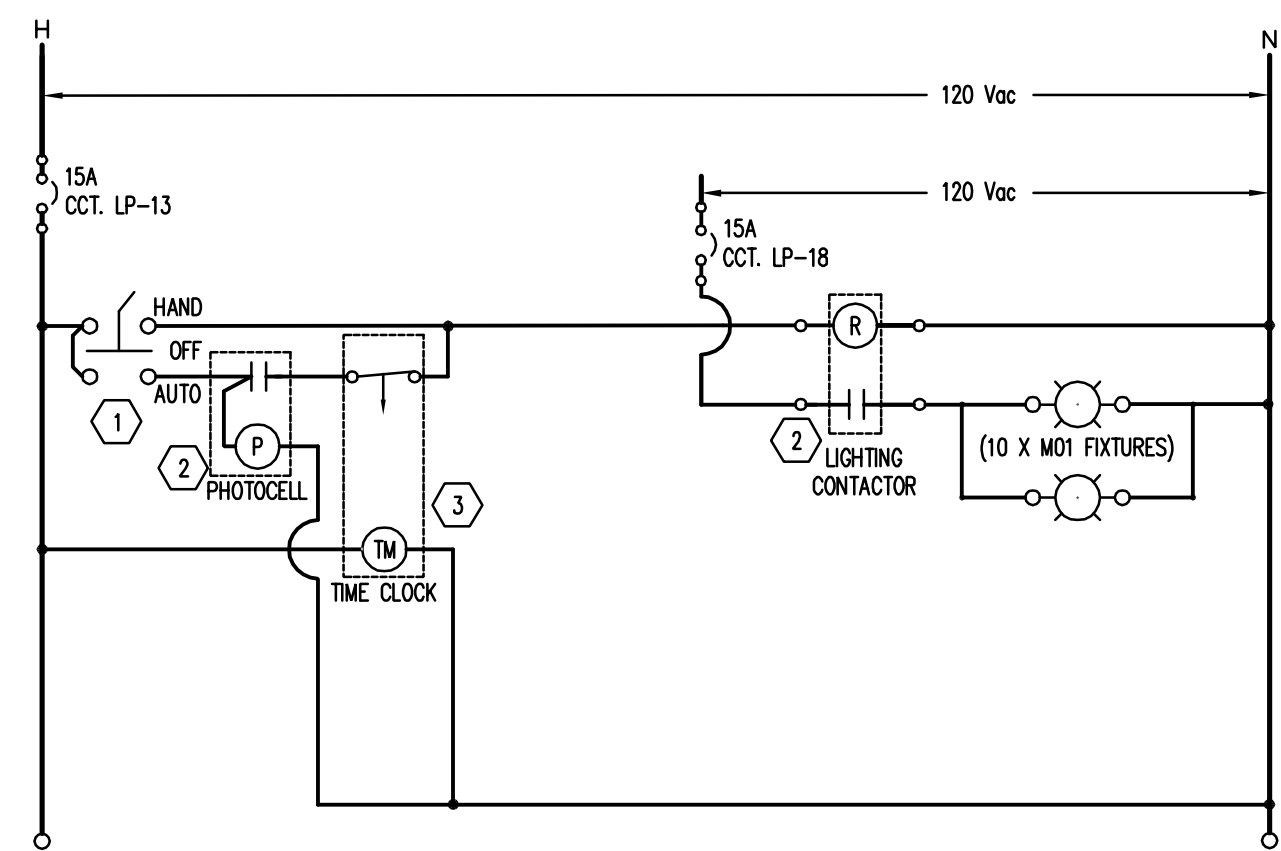


1 SECOND FLOOR LIGHTING LAYOUT
E300 1:100



3 MAIN FLOOR LIGHTING LAYOUT
E300 1:100

LUMINAIRE SCHEDULE						
TYPE	MANUFACTURER	CATALOG NO.	DESCRIPTION	LAMPS	BALLAST	MOUNTING
F01	METALUX	V12-232DR-120V-ER81-WL-U	1' X 4' SURFACE WRAP VAPOUR TIGHT FLUORESCENT, RAPID START	2 X 32 W T8	ELECTRONIC	SURFACE MOUNT
F02	METALUX	SNF-232-120V-ER81	4' STRIP FLUORESCENT, C/W WREGUARD (ELEC./MECH. ROOM)	2 X 32 W T8	ELECTRONIC	SURFACE MOUNT
F03	METALUX	SNF-232-120V-ER81	2' STRIP FLUORESCENT, NARROW STRIPLITE	2 X 32 W T8	ELECTRONIC	SURFACE MOUNT
C01	PROGRESS LIGHTING	P3110-30 (CHANNEL GLASS)	24" 4-LAMP WALL MOUNT VANITY FIXTURE, WHITE	4 X 27 W CFL MEDIUM BASE	N/A	WALL MOUNT
M01	LUMARK	CFWP-GL-175-120V	BOROSILICATE GLASS DOOR COMPACT FLUORESCENT WALL MOUNT EXTERIOR LIGHT	2 X 70 W CFL	N/A	WALL MOUNT
BP1	LUMACELL	R624S350-2MT18W-AT	EMERGENCY LIGHTING BATTERY PACK; CAPABLE OF DELIVERING 432 WATTS OF DC POWER FOR 1/2 HOUR, C/W 2 INTEGRAL LIGHTING HEADS AND INTERNALLY WIRED VOLTAGE SENSING RELAYS	2 X 9W MINI TUNGSTEN	N/A	UNIVERSAL MOUNT 120VAC / 24VDC
G02	LUMACELL	MT224V9W	EMERGENCY LIGHTING DOUBLE LAMP REMOTE HEAD	2 X 9W MINI TUNGSTEN	N/A	UNIVERSAL MOUNT 24VDC
X01	LUMACELL	LA SERIES	EMERGENCY EXIT PICTOGRAM SIGNAGE, SINGLE FACE (TO USE OF THE RUNNING MAN ON EXIT SIGNAGE)	LED	N/A	UNIVERSAL MOUNT 120VAC / 24VDC



2 EXTERIOR LIGHTING CONTROL SCHEMATIC
E300 1:100

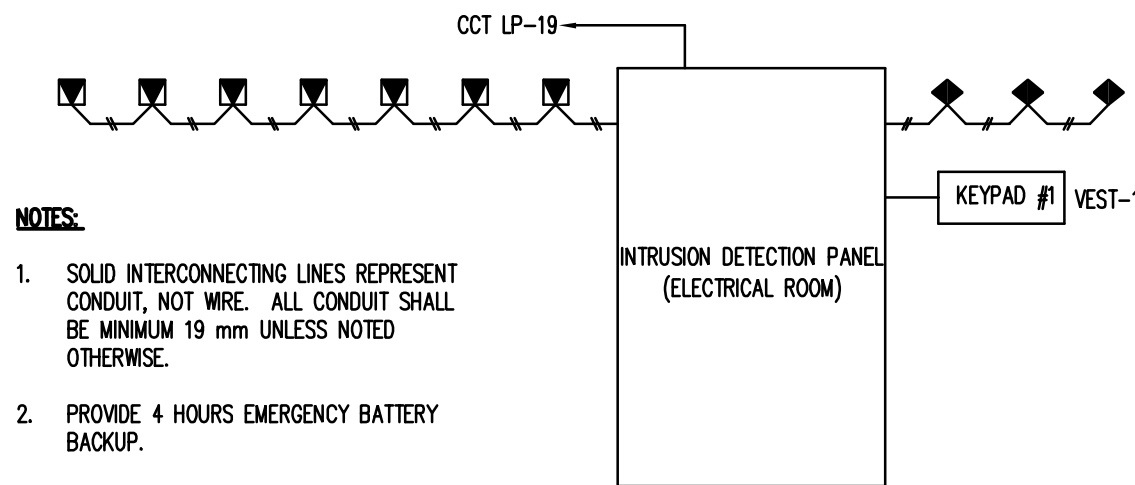
KEYNOTES:

- EXTERIOR LIGHTING CONTROLLER C/W HAND/OFF/AUTO SWITCH.
- PHOTOCELL TO TURN LIGHTS ON AT SUNSET, TURN LIGHTS OFF AT SUNRISE.
- TIMECLOCK TO TURN LIGHTS ON AND OFF. COORDINATE AT SITE WITH OWNER REQUIREMENTS.
- CHEMICAL AREA ELECTRICAL FIXTURES AND WIRING METHOD SHALL BE AS PER REQUIREMENT OF CEC.
- PROVIDE A 3 WAY SWITCH FOR STAIR LIGHT

GENERAL NOTES:

- CONTRACTOR TO ENSURE MAXIMUM "15 AMP" CIRCUIT LOADING FOR LIGHTING IS 1200 WATTS.
- ALL THE AVERAGE MAINTAINED HORIZONTAL AND VERTICAL ILLUMINANCE LEVELS AT A SPECIFIED HEIGHT OR LOCATION SHALL CONFORM TO THE 10th EDITION OF "LIGHTING HANDBOOK" ILLUMINATING ENGINEERING SOCIETY (IES) AND NATIONAL ENERGY CODE FOR BUILDS 2011 (NECB).
- LUMINAIRE ALIGNMENT
 - ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINE.
 - ALIGN LUMINAIRES MOUNTED INDIVIDUALLY

BATTERY PACK RELAY SCHEDULE	
BATTERY PACK	CIRCUITS MONITORED BY RELAYS
BP1	LP-9, LP-11, LP-12, LP-15, LP-16, LP-17



NOTES:

- SOLID INTERCONNECTING LINES REPRESENT CONDUIT, NOT WIRE. ALL CONDUIT SHALL BE MINIMUM 18 mm UNLESS NOTED OTHERWISE.
- PROVIDE 4 HOURS EMERGENCY BATTERY BACKUP.

4 SECURITY RISER DIAGRAM
E300 NTS

ELECTRICAL SYMBOL LEGEND	
	LUMINAIRE, FLUORESCENT, STRIP
	LUMINAIRE, FLUORESCENT, SURFACE OR PENDANT MOUNT
	LUMINAIRE, FLUORESCENT, WALL MOUNT
	LUMINAIRE, H.I.D., WALL MOUNT
	DESCRIPTOR-LUMINAIRE (FIXTURE TAG); E.G. F01 = LUMINAIRE TYPE F01
	SWITCH, SINGLE-POLE: 3 = 3 WAY SWITCH 4 = 4 WAY SWITCH a = LUMINAIRE SWITCHED
	SWITCH, TWO SINGLE POLE IN 2-GANG BOX
	DETECTOR, MOTION
	KEYPAD, SYSTEM
	SWITCH, DOOR POSITION (DPS)
	LIGHT, EXIT, CEILING MOUNT
	LIGHT, EXIT, WALL MOUNT; ARROWS INDICATE DIRECTION OF EGRESS
	LIGHT, EMERGENCY & BATTERY PACK, 2 LAMP HEADS
	LIGHT, EMERGENCY, 2 HEAD REMOTE

REVISIONS			
NO.	DESCRIPTION	DATE	BY
A	ISSUED FOR TENDER	2014.03.07	HR JAB
O	ISSUED FOR CONSTRUCTION	2014.06.30	HR JAB

REFERENCE DRAWINGS	
SECTION #	DETAIL #
SOURCE / REFERENCE DWG.	SOURCE / REFERENCE DWG.

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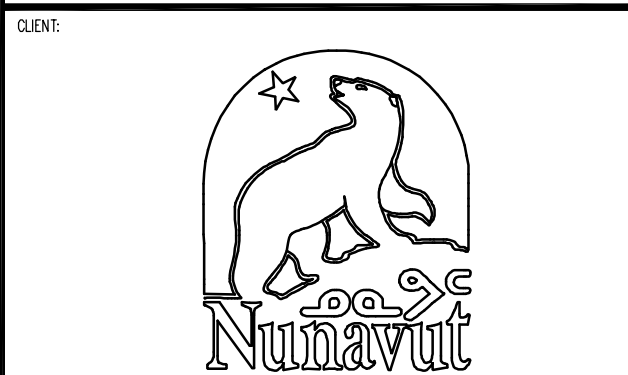
LEGEND	
SECTION #	DETAIL #
SOURCE / REFERENCE DWG.	SOURCE / REFERENCE DWG.

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WATER SUPPLY IMPROVEMENTS
PHASE 2
WATER TREATMENT PLANT
KUGLUKTUK, NU

LIGHTING LAYOUTS

OWN. BY:	DES. BY:	PROJ. MGR.:
HR	HR	JAB
REVIEW:	DATE: (YY-MM-DD)	SCALE:
JAB		AS SHOWN
CLIENT PROJ. #	04-4417	WE PROJ. #
		013655.02
DATE	E300	1 C

PANEL		MB		LOCATION	VOLTAGE	PHASE	WIRE	BUS	MAIN BKR.	INT. CAP. (SYM RMS)	CIRCUITS	MOUNTING	FEEDER			
				ELECTRICAL ROOM	120/208V	3	4	150		10kVA		84	SURFACE	41C-4#1		
NOTES: [M] = PROVIDE BREAKER LOCK ON CIRCUIT [GFCI] = GROUND FAULT CIRCUIT BREAKER																
LOADS				DESCRIPTION	POLE	AMP	CCT. NO.	#	CCT. NO.	AMP	POLE	DESCRIPTION	LOADS			
L1	L2	L3	L1										L2	L3		
	62			EF-1, STORAGE MEZZANINE	2	15	3	●	4	15	2	HT-7, TANK RF-3	165			
		62					5	●	6	15	2			165		
			62	EF-2, STORAGE MEZZANINE	2	15	7	●	8	15	2	HT-8, TANK RF-2			165	
62							9	●	10	15	2		165			
	84			P-S, MECHANICAL ROOM	1	15	9	●	11	15	2	HT-9, TANK RF-1			165	
		1233					11	●	12	15	2				165	
1233				P-9A, SKID AREA	3	15	13	●	14	15	2	HT-10, TANK FF			165	
	1233						15	●	16	15	2				165	
		1233					17	●	18	15	2				165	
1233				P-9B, SKID AREA	3	15	19	●	20	15	2	HT-11, TANK SSF-1			165	
		1233					21	●	22	15	2				165	
							23	●	24	15	2	HT-12, TANK SSF-2			165	
							25	●	26	15	2				165	
							27	●	28	15	2	HT-13, TANK SSF-3			165	
		373		P-10A, PIPE GALLERY	2	29	29	●	30	15	2				50	
373							31	●	32	15	2	HT-15, TANK RF-3			50	
		500					33	●	34	15	2				186	
			500	P-11A, PIPE GALLERY	3	35	35	●	36	15	2	P-21A, MECHANICAL ROOM			186	
500							37	●	38	15	2				186	
		500					39	●	40	15	2	P-21B, MECHANICAL ROOM			186	
			500	P-11B, PIPE GALLERY	3	41	41	●	42	15	2				50	
500							43	●	44	15	2	HT-16, TANK RF-2			50	
		60		P-12B, MECHANICAL ROOM	1	45	45	●	46	15	2				50	
							47	●	48	15	2	HT-17, TANK RF-1			50	
373				AHU-1, FAN ROOM	2	49	49	●	50	15	2				50	
	373						51	●	52	15	2	HT-18, TANK FF			50	
				SPARE			53	●	54	15	2				50	
373							55	●	56	15	2	HT-19, TANK SSF-1			50	
		373		P-10B, PIPE GALLERY	2	57	57	●	58	15	2				50	
							59	●	60	15	2	HT-20, TANK SSF-2			50	
							61	●	62	15	2				50	
							63	●	64	15	2	HT-21, TANK SSF-3			50	
							65	●	66	15	2				50	
							67	●	68	15	2	HT-22, TANK TWS			50	
							69	●	70	110					373A	
							71	●	72	110						
							73	●	74	15	3	P-12, SKID AREA			373A	
							76	●	77	15	1					
				SPARE	2	77	77	●	78	15	1	SPARE				
							79	●	80	15	1	SPARE				
							81	●	82	15	1	SPARE				
				SPARE	2	81	81	●	83	15	1	SPARE				
							83	●	84	15	1	SPARE				
TOTAL PEAK LOAD 28.082W AT 208V, IMPLIES 78.0A														5045	5129	4880
4709 4418 3901																

NOTES: 1. PROVIDE DISCONNECTION SWITCH, PROTECTION AND CONTROL WIRING AS PER CEC; CONTROLS BY MECHANICAL
2. FEED POWER THROUGH GFI BREAKER



2500	3040	2235	TOTAL PEAK LOAD 15,895W AT 208V, IMPLIES 44.2
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DRAWING NO.	DESCRIPTOR
↑	↑
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WATER SUPPLY IMPROVEMENTS
PHASE 2

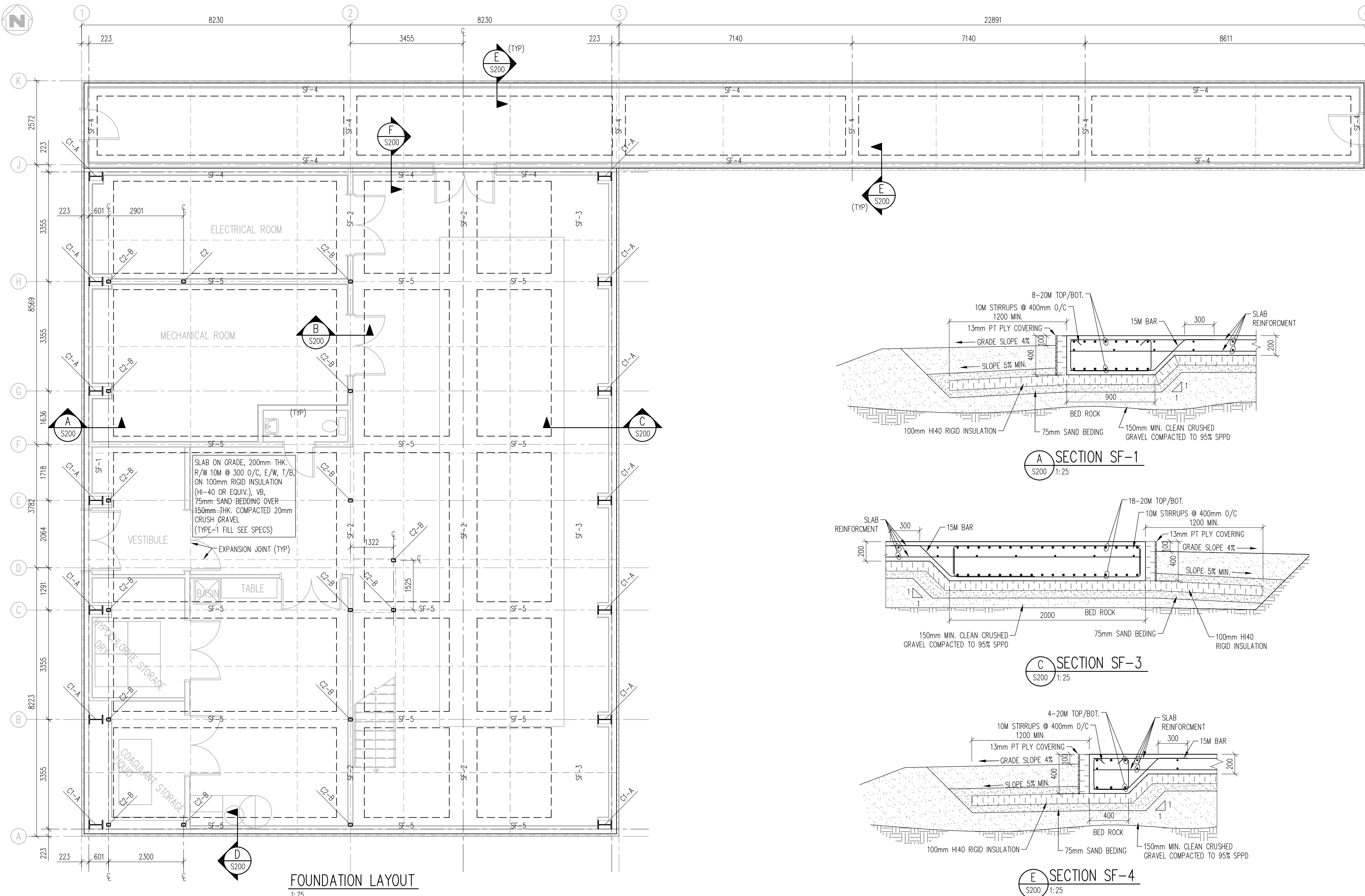
WATER TREATMENT PLANT
KUGLUKTUK, NU

OWING TITLE: GENERAL

GENERAL STRUCTURAL

OWN. BY:	PC	DES. BY:	TL	PROJ. MGR:	JH
PEER REVIEW:		DATE: (YY-MM-DD)	2014.03.05		
			AS SHOWN		
CLIENT PROJ. #	04-4417			WE PROJ. #	

Unit #	S100	5	REV	0
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FOUNDATION LAYOUT
1:75

STRIP FOOTING SCHEDULE					
TYPE	FOOTING SIZE	FOOTING REINFORCING		EL. U/S FOOTING	DETAIL
		LONG.	TRANSVERSE		
SF-1	900x400	8-20M TOP/BOT.	10M STIRRUPS @ 400mm O/C	99.600	A/S200
SF-2	850x400	8-20M TOP/BOT.	10M STIRRUPS @ 400mm O/C	99.600	B/S200
SF-3	2000x400	18-20M TOP/BOT.	10M STIRRUPS @ 400mm O/C	99.600	C/S200
SF-4	400x400	3-20M TOP/BOT.	10M STIRRUPS @ 400mm O/C	99.600	E/S200, F/S200
SF-5	500x400	4-20M TOP/BOT.	10M STIRRUPS @ 400mm O/C	99.600	D/S200

COLUMN SCHEDULE		
TYPE	SIZE	BASE PLATE TYPE
C1	W410x132	A
C2	HSS127x102x9.5	B

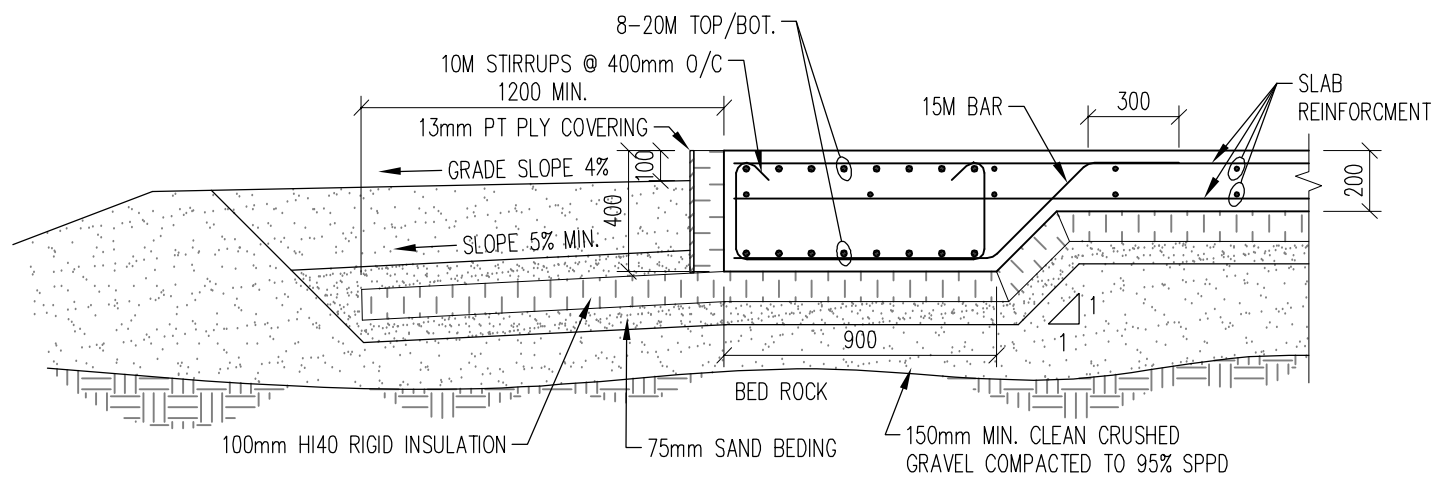
NOTE: SEE PLAN FOR LOCATION. COLUMNS TO BE CARPED WITH 6mm THK. PLATE TO SUIT, WELDED ALL AROUND. FOR BASE PLATE SEE DRAWING S200

BASE PLATE TYPE
COLUMN TYPE

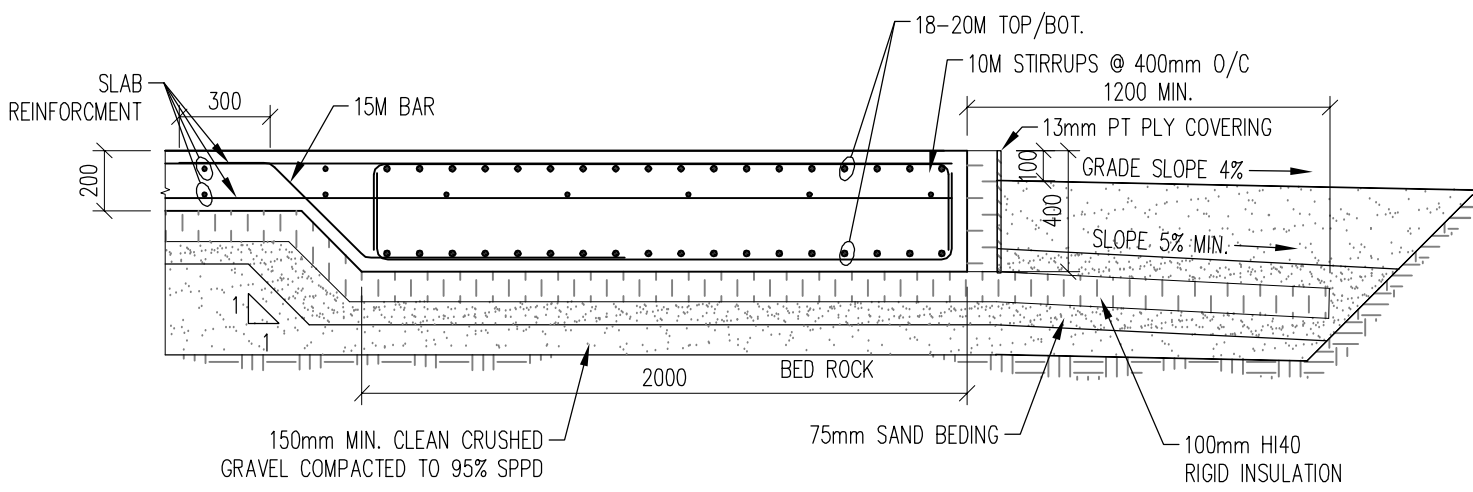
LAP SPLICE SCHEDULE				
BAR SIZE	FULL TENSION SPLICE		FULL TENSION SPLICE FOR TOP BARS (NOTE 1)	
	REGULAR BARS	EPOXY COATED BARS	REGULAR BARS	EPOXY COATED BARS
10M	400	600	500	650
15M	550	850	750	950
20M	700	1000	900	1150
25M	1100	1650	1400	1850
30M	1300	1950	1700	2200
35M	1550	2300	2000	2600

STANDARD END HOOKS (FOR GRADE 400 REBAR)			
BAR SIZE	90° HOOK LENGTH		180° HOOK LENGTH
	SEE BELOW	SEE BELOW	
10M	180		140
15M	260		180
20M	310		220
25M	400		280
30M	510		400
35M	610		480
45M	790		680
55M	1030		900

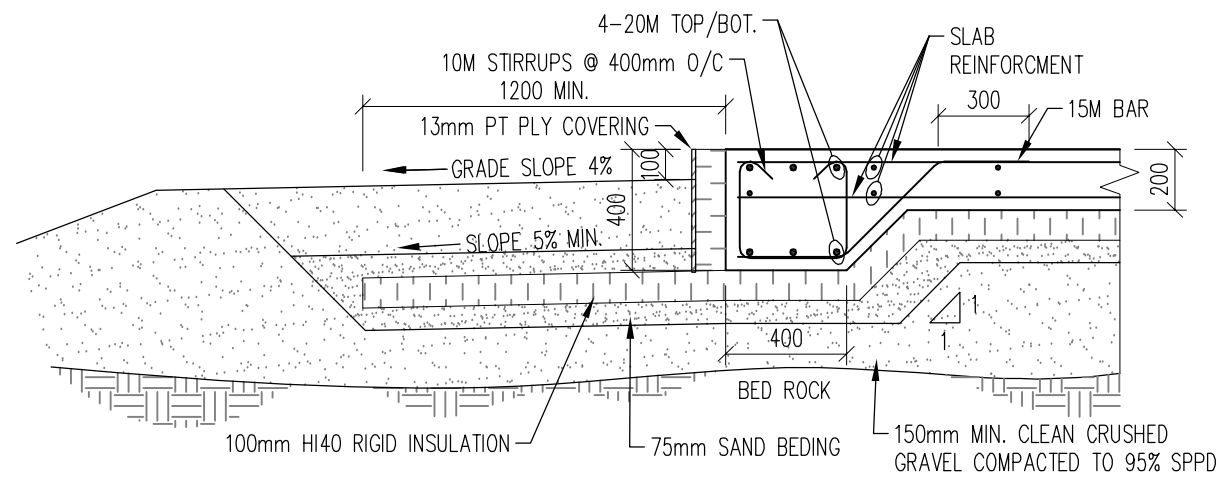
- NOTES:
- TOP BAR ARE DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 300mm OF CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.
 - THIS SCHEDULE IS FOR CLASS 10 SPLICE U.N.O.
 - APPLIES TO REINFORCING SPLICES NOT OTHERWISE DETAILLED.
 - FOR STANDARD EMBEDMENT DEPTH INTO CONCRETE, DIVIDE BASIC TENSION LAP SPICE NUMBER BY 1.30.
 - LAP SPLICE BASED ON $f_c = 30 \text{ MPa}$



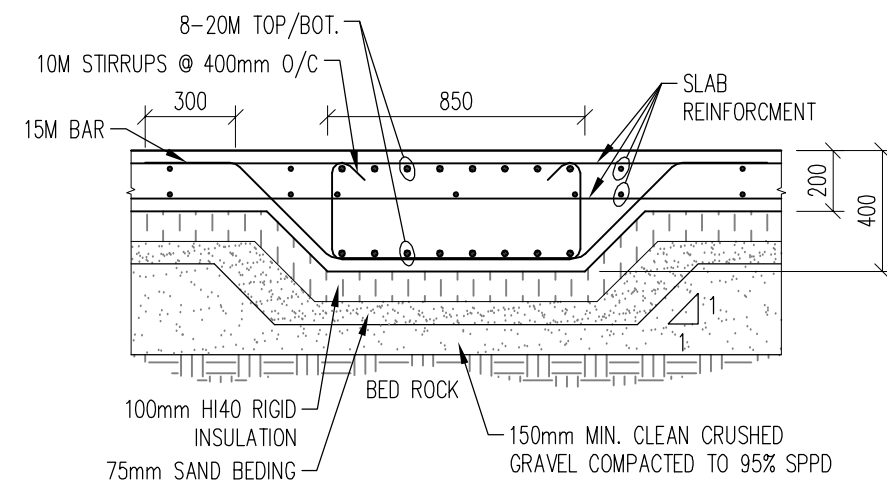
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S200 1:25



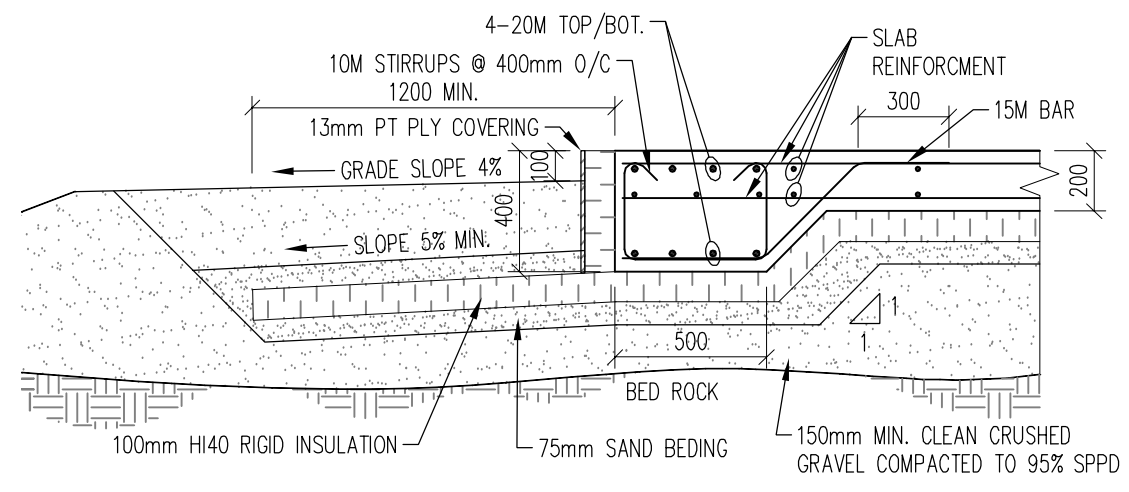
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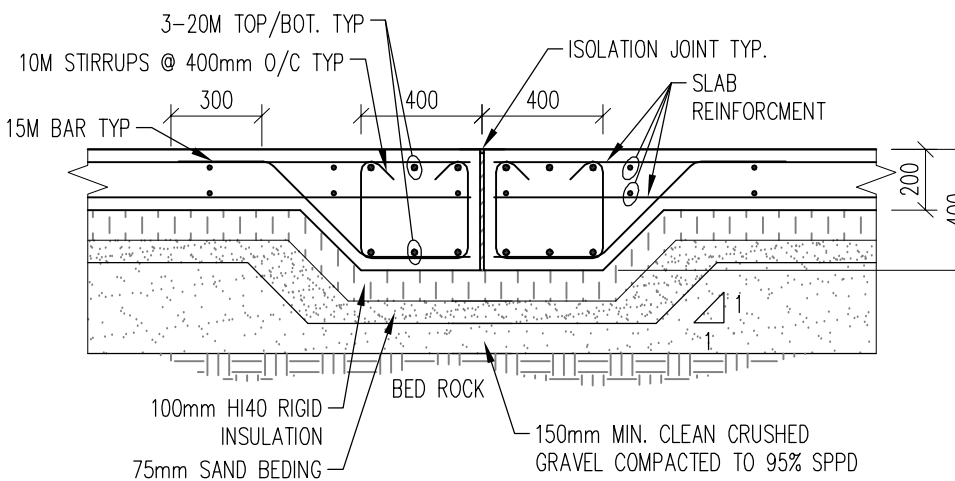
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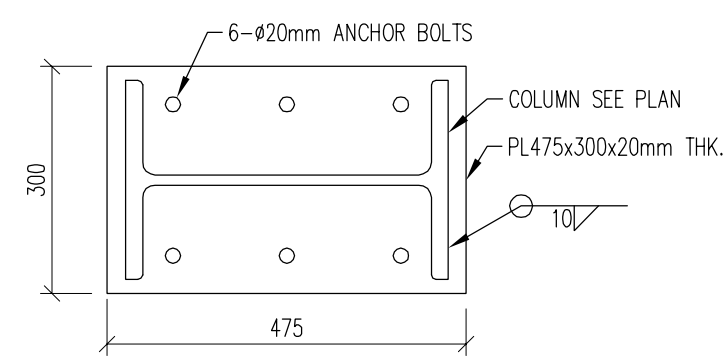
SECTION SF-2
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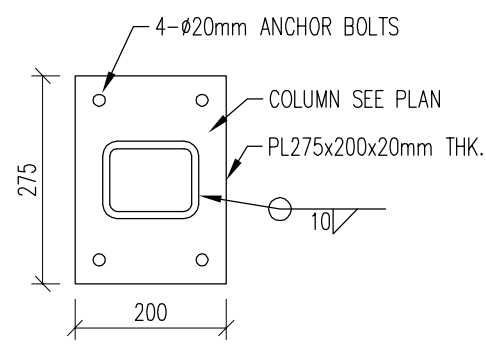
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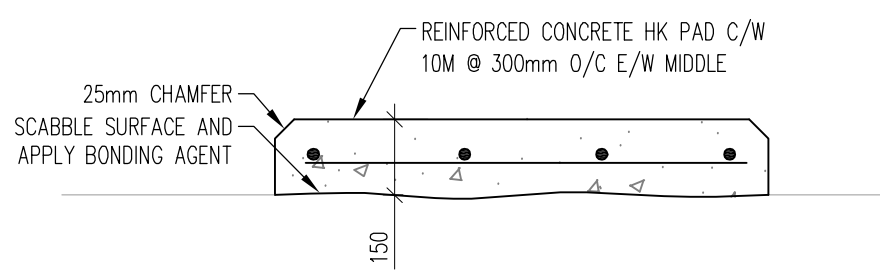
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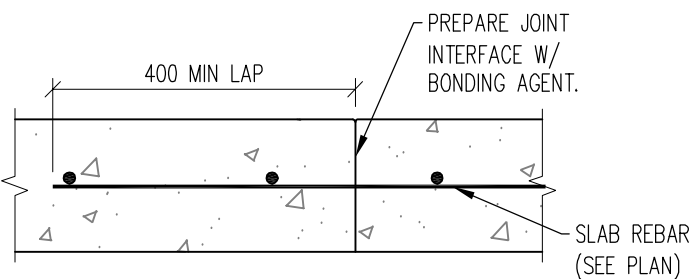
TYPICAL BASE PLATE TYPE-A
S200 1:10



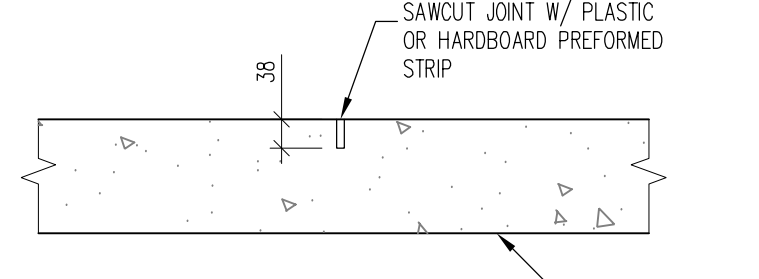
TYPICAL BASE PLATE TYPE-B
S200 1:10



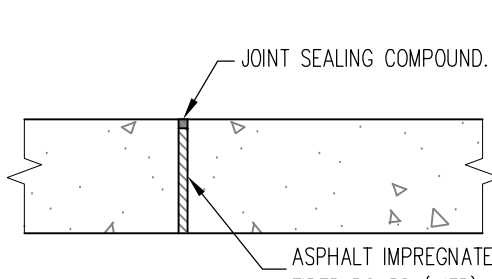
TYPICAL HOUSEKEEPING PAD DETAIL
NTS



TYPICAL CONSTRUCTION JOINT
NTS



TYPICAL CONTROL JOINT
1:25



TYPICAL ISOLATION JOINT
1:10

REVISIONS				
NO.	DESCRIPTION	DATE	BY	APP.
A	ISSUED FOR 100% REVIEW	2014.01.15	JK	TL
B	ISSUED FOR REVISED 100% REVIEW	2014.02.20	JK	TL
D	ISSUED FOR TENDER	2014.03.05	JK	TL
1	ISSUED FOR CONSTRUCTION	2014.06.30	JK	TL

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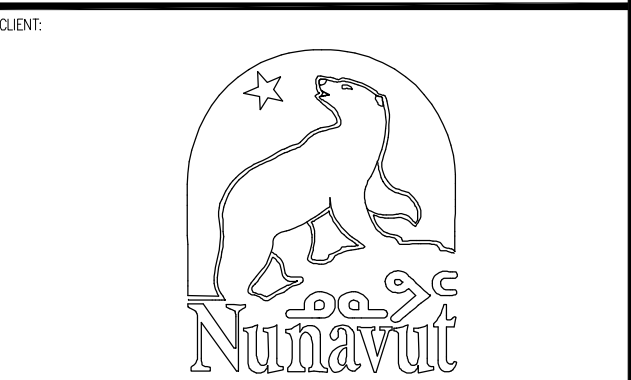
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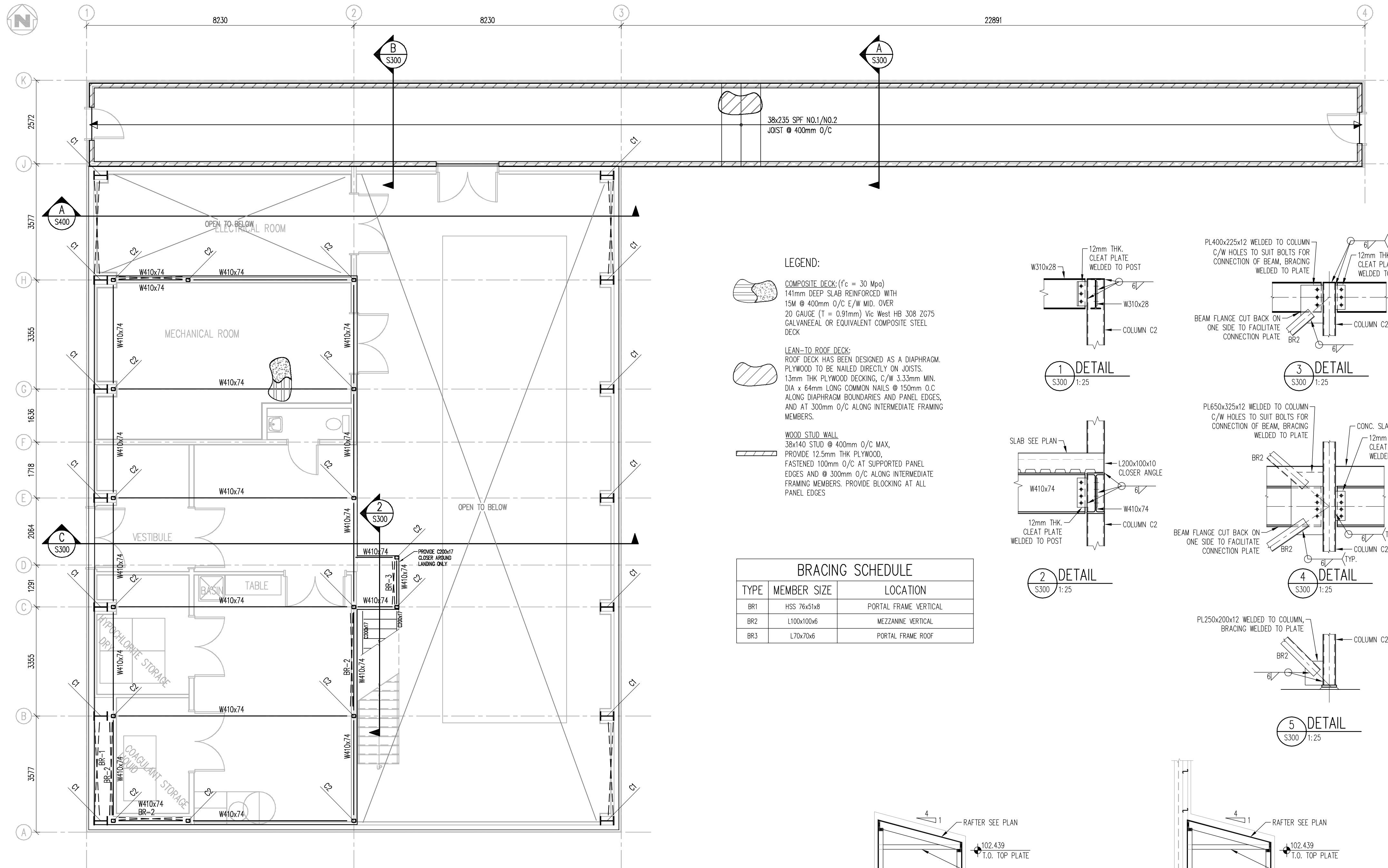
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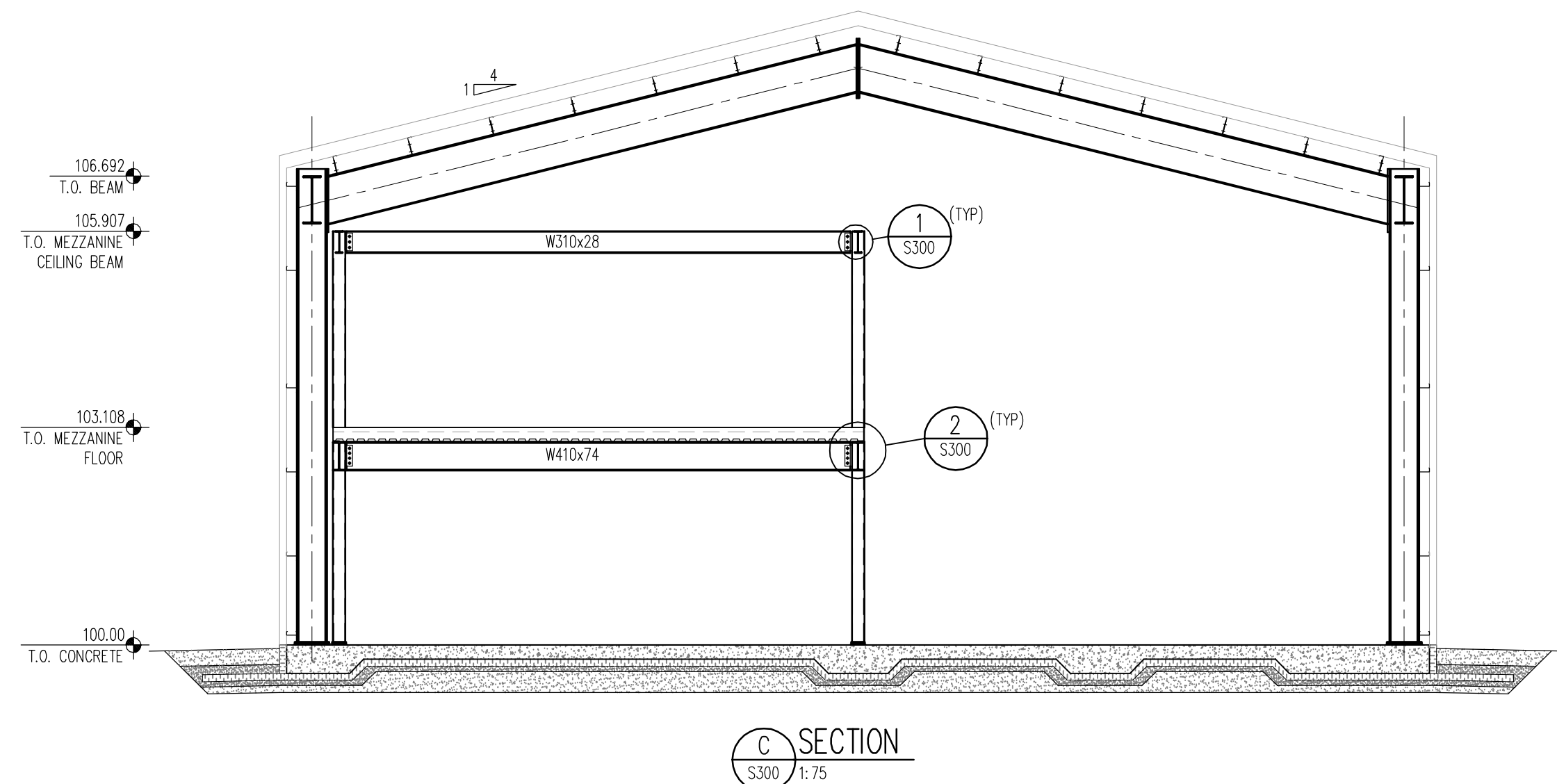
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WATER SUPPLY IMPROVEMENTS
PHASE 2
WATER TREATMENT PLANT
KUGLUKTUK, NU

DWG. TITLE:
STRUCTURAL
FOUNDATION PLAN

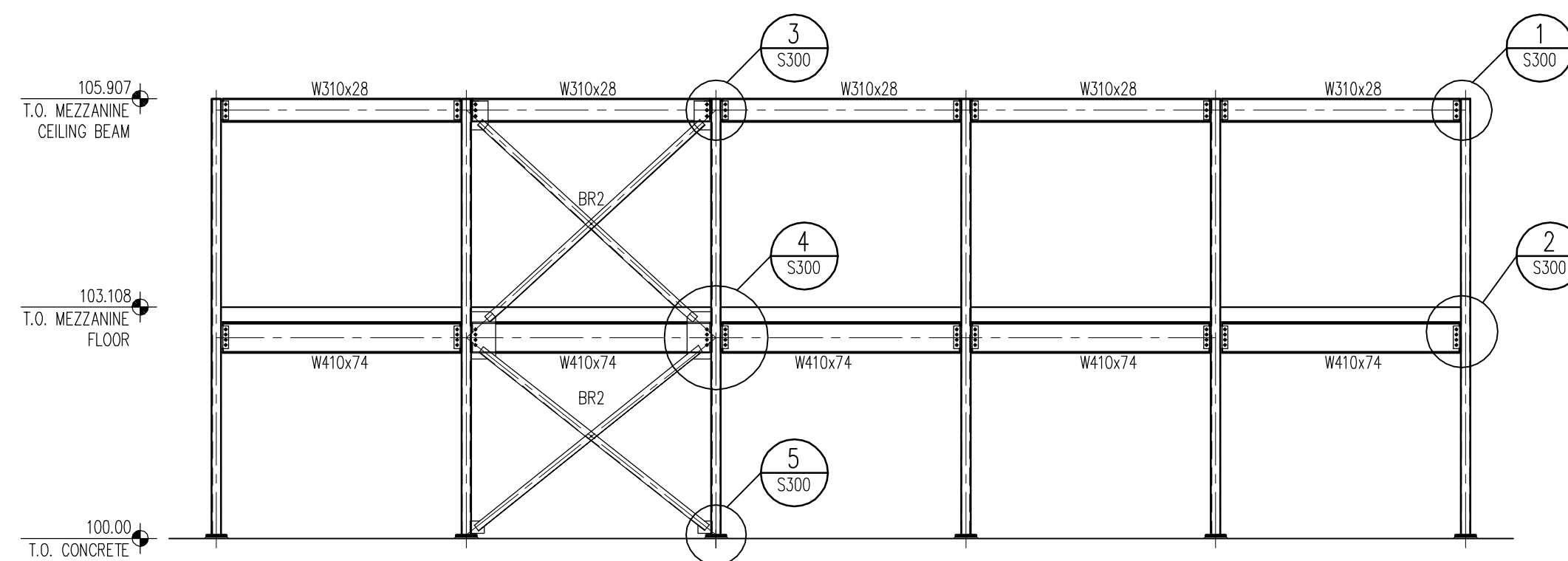
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PEER REVIEW:	PC	DATE: (YY-MM-DD) 2014.03.05	SCALE:	AS NOTED
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DWG. #	S200	5	REV. 1	0



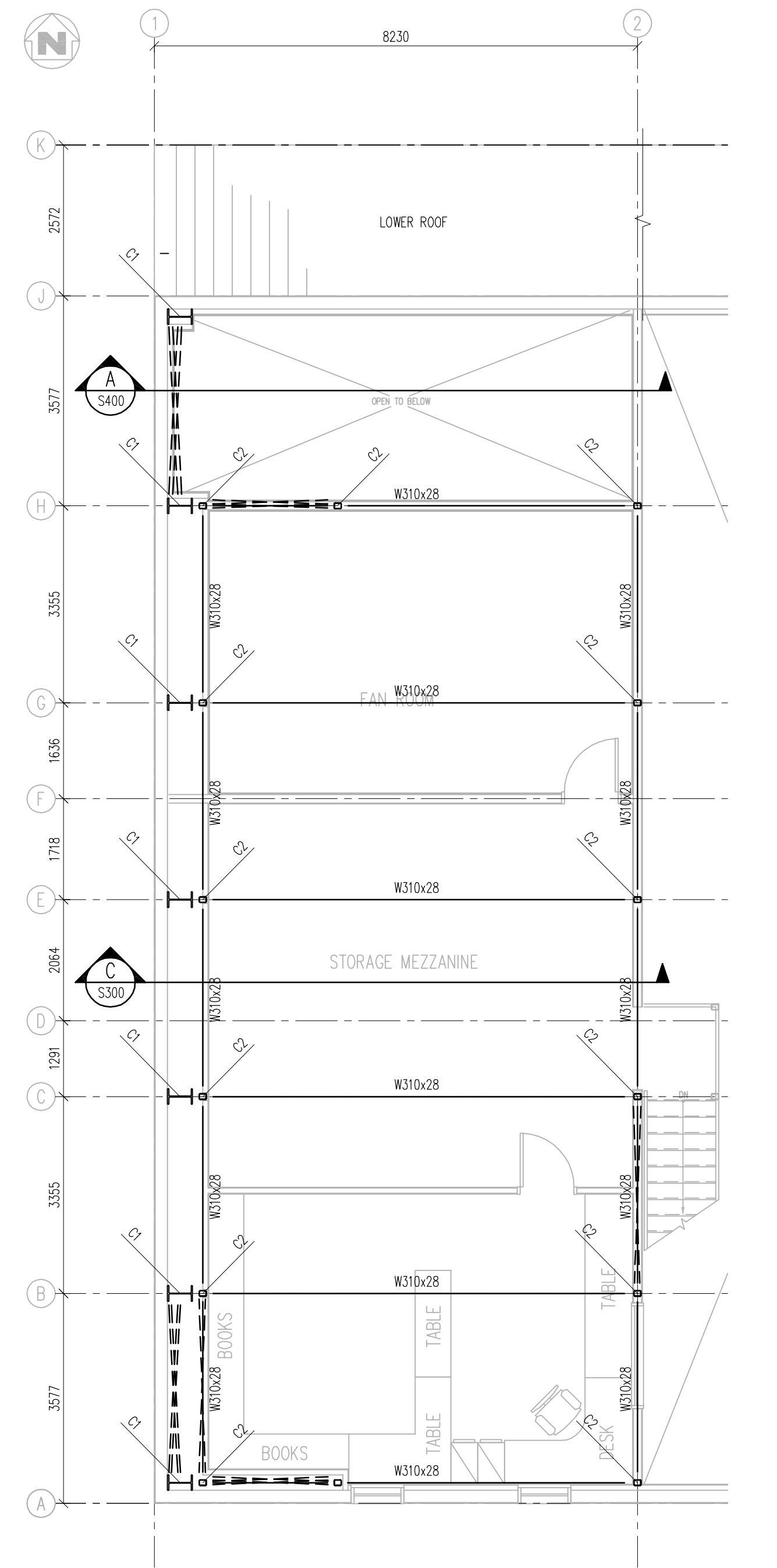
MEZZANINE FLOOR & LEAN-TO ROOF FRAMING PLAN
1:75



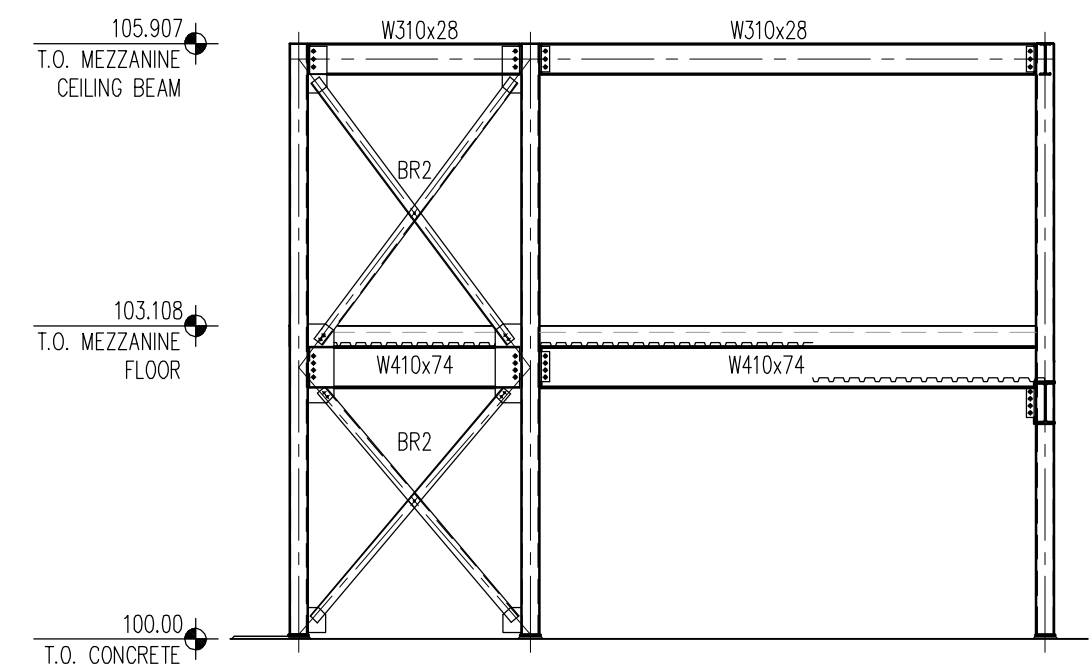
MEZZANINE BRACING FRAME: GRIDLINE 1 AND 2
1:75



MEZZANINE BRACING FRAME: GRIDLINE A AND H
1:75



MEZZANINE ROOF FRAMING PLAN
1:75



MEZZANINE BRACING FRAME: GRIDLINE A AND H
1:75

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CLIENT:

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JOB TITLE:
WATER SUPPLY IMPROVEMENTS
PHASE 2
WATER TREATMENT PLANT
KUGLUKUT, NU

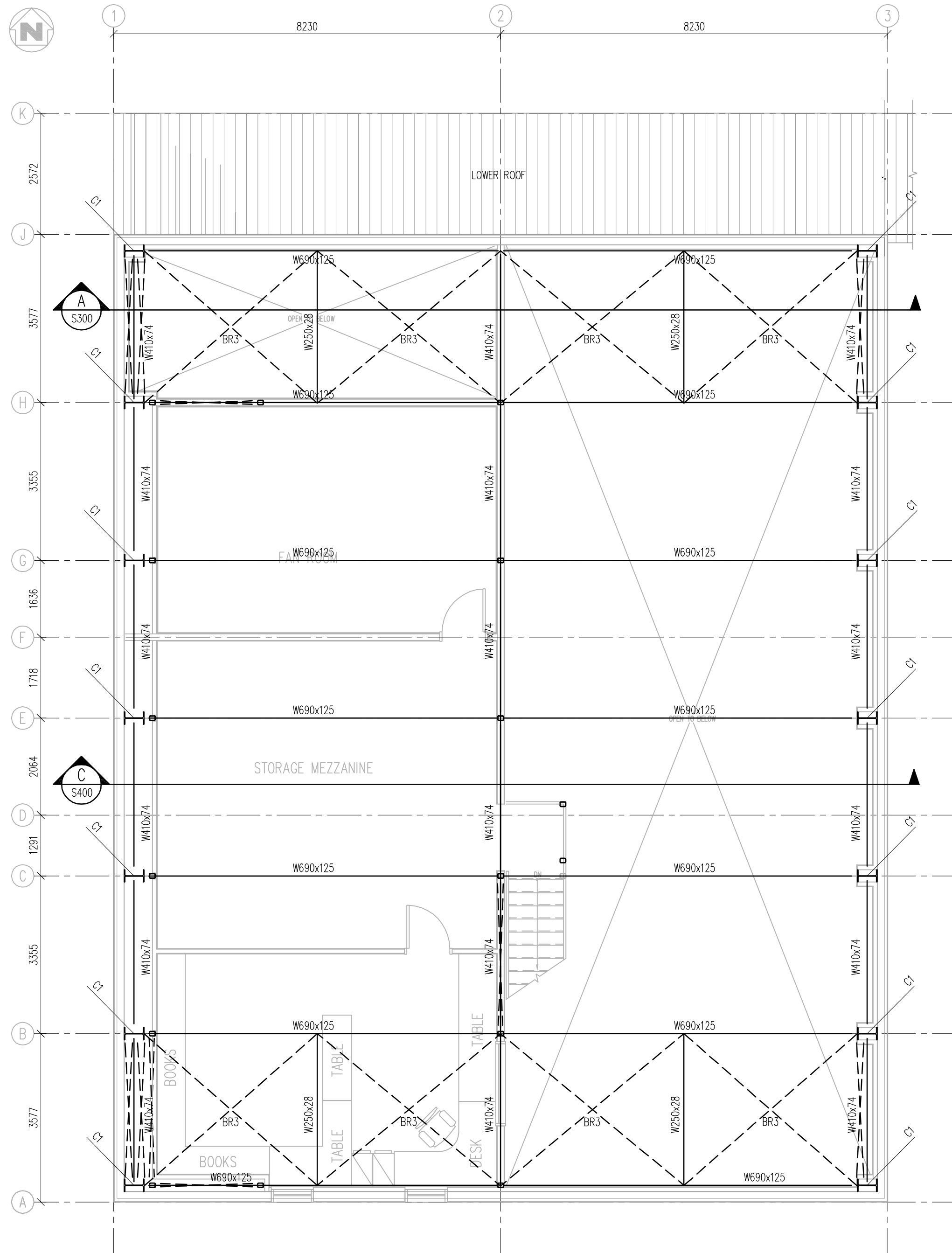
DWG. TITLE:
STRUCTURAL
MEZZANINE LAYOUT

OWN. BY:	DES. BY:	TL/WR:	PROJ. MGR.:
JK	TL/WR	JK	JK

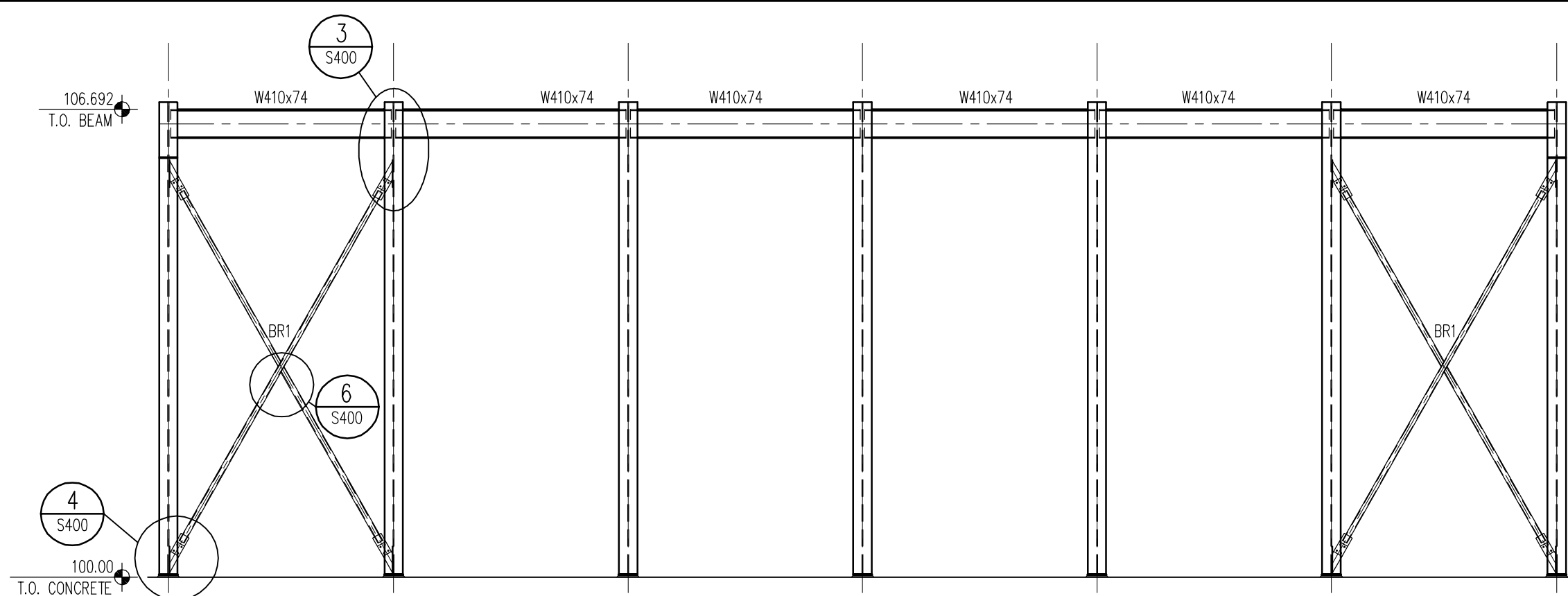
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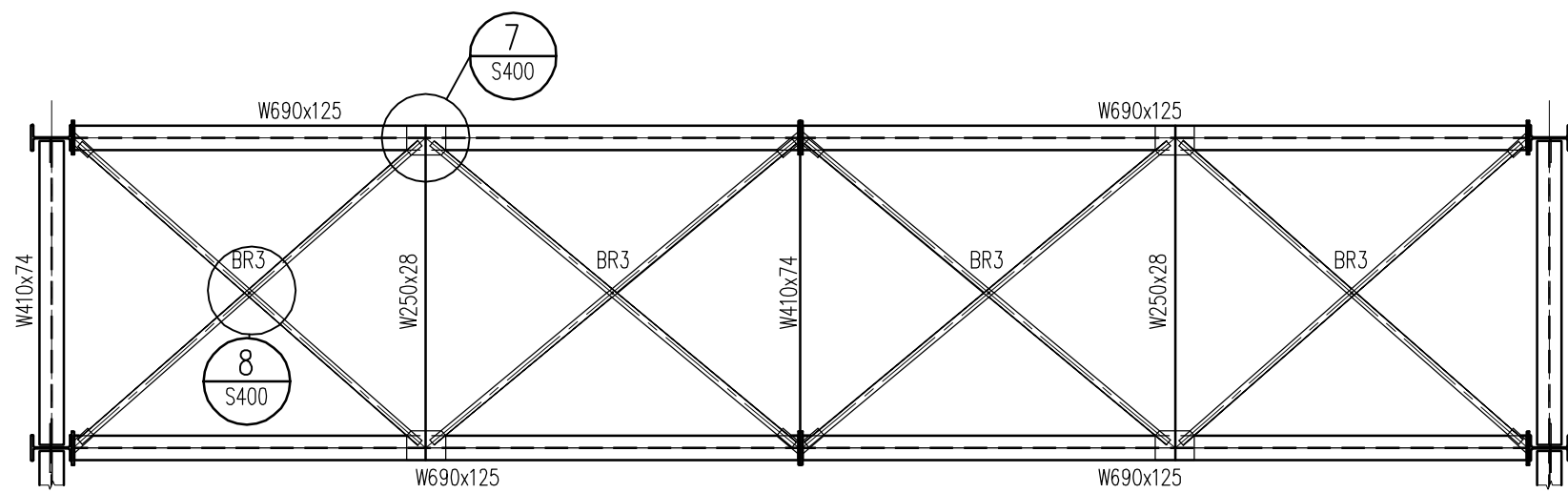
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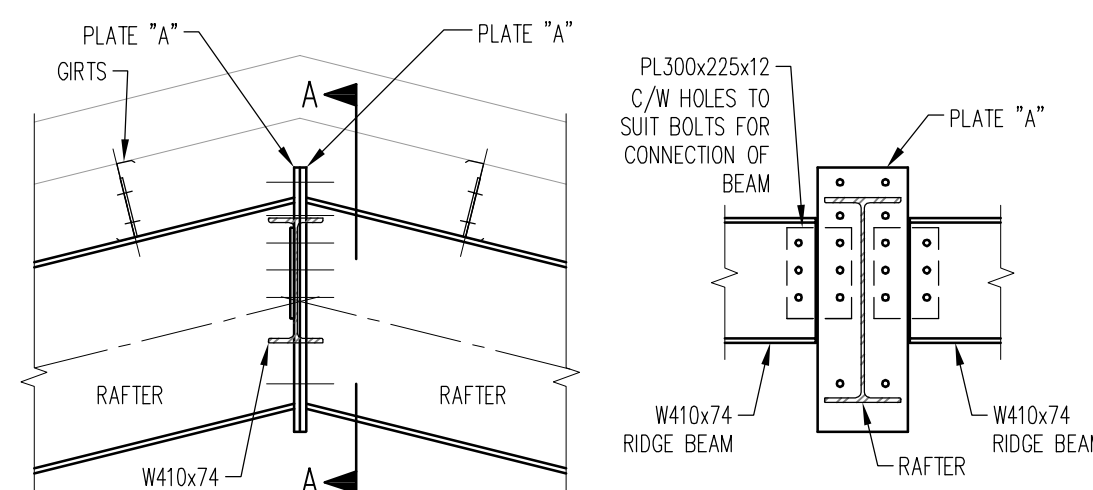
ROOF FRAME PLAN
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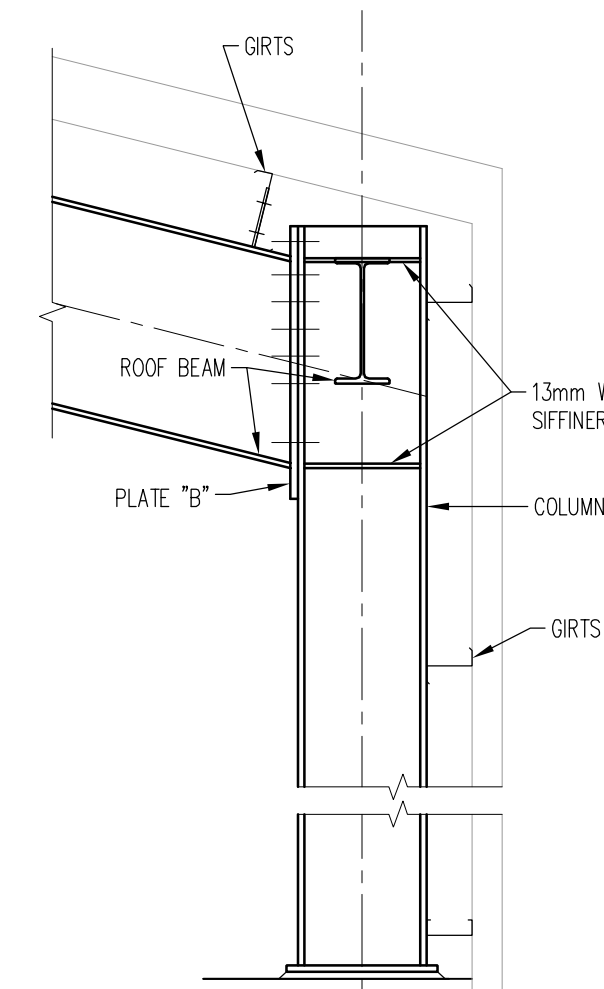
PORTAL SIDE FRAME: GRIDLINE 1 AND 3
1:75



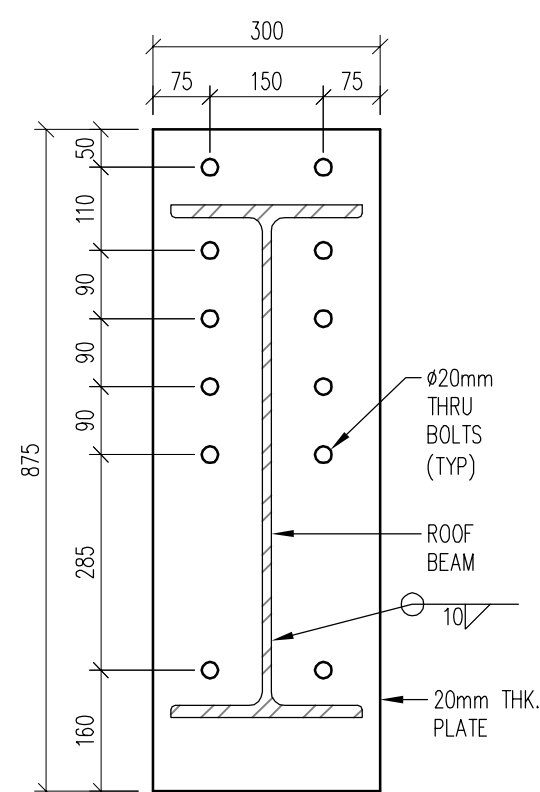
PORTAL FRAME ROOF BRACING
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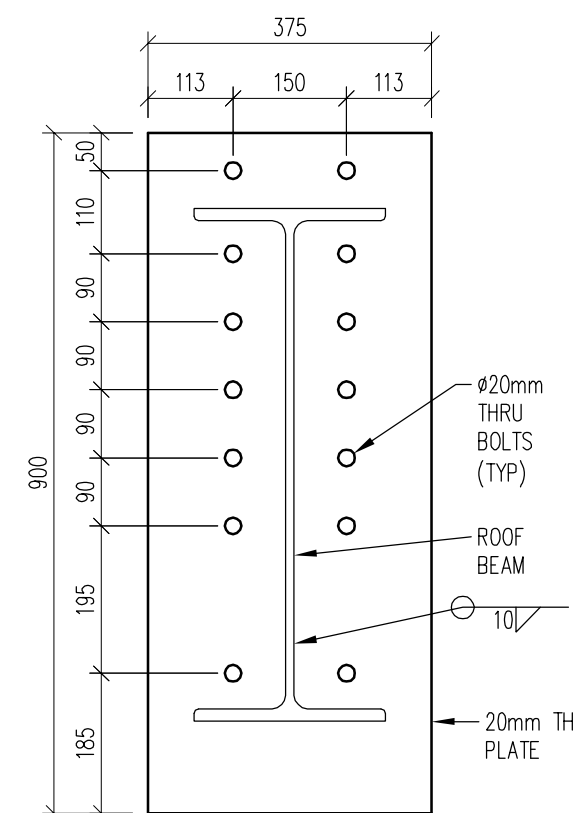
1 DETAIL - PORTAL FRAME APEX
S400 1:25



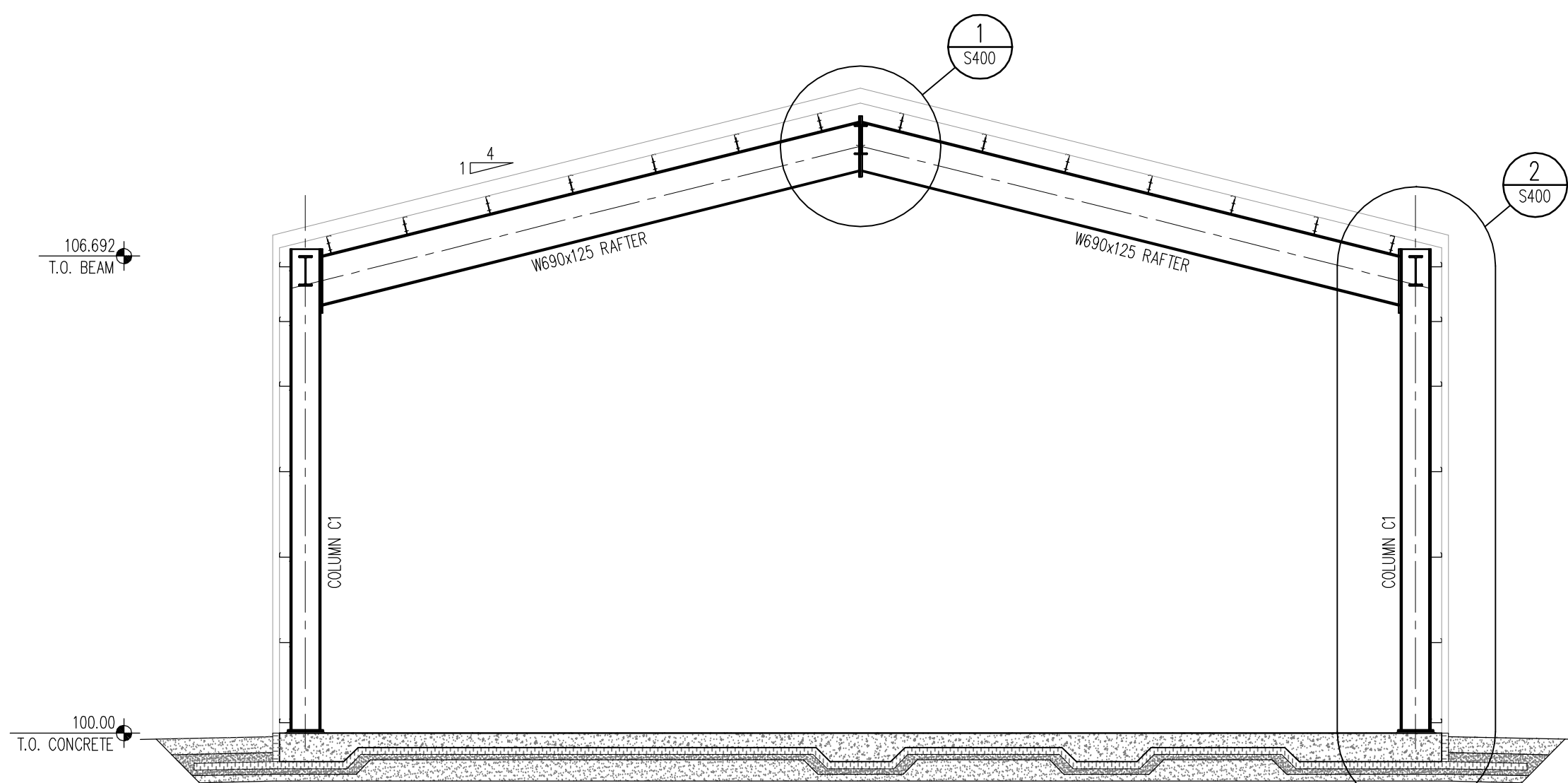
2 DETAIL - PORTAL FRAME EAVE
S400 1:25



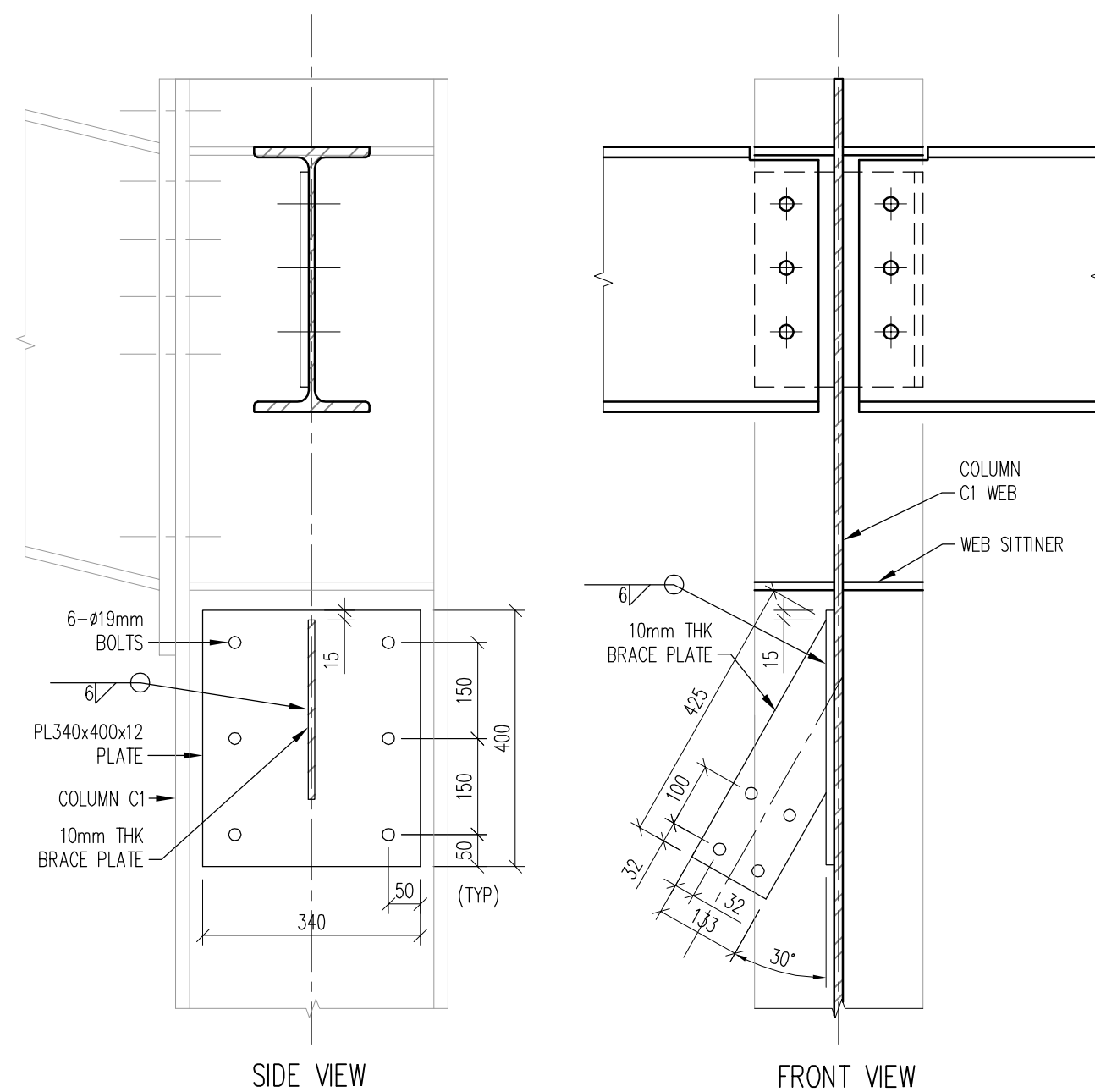
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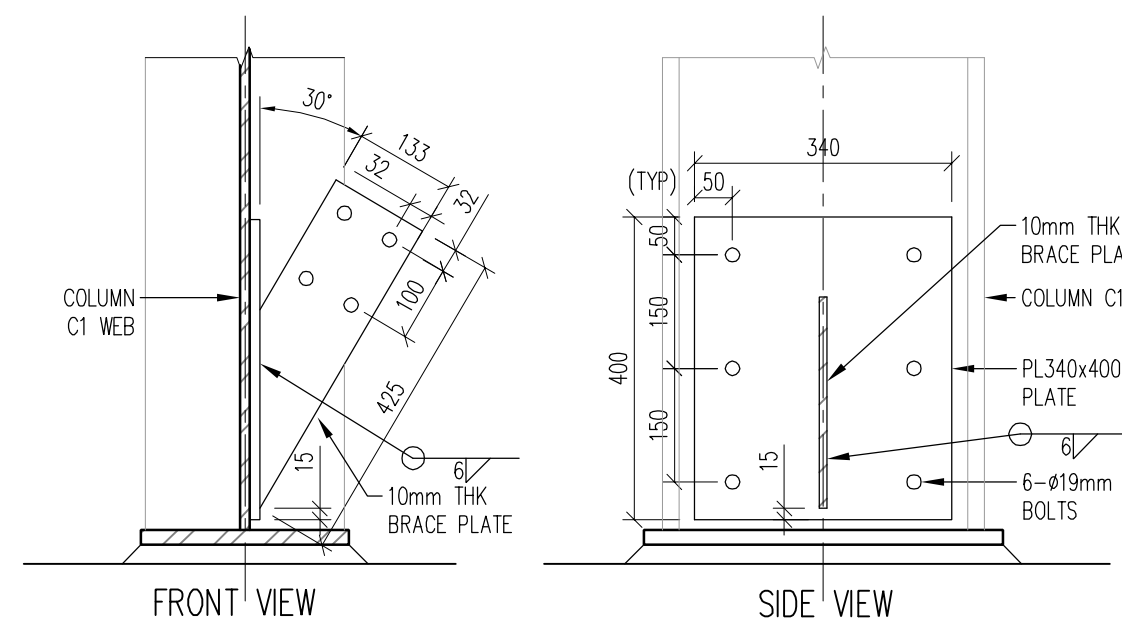
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CONNECTION PLATE "B"
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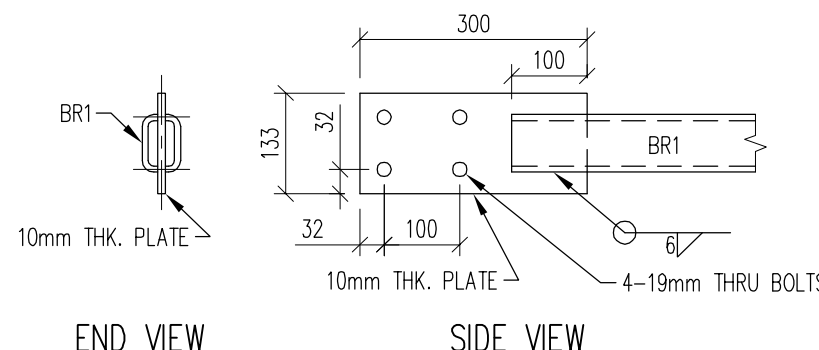
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S400 1:75



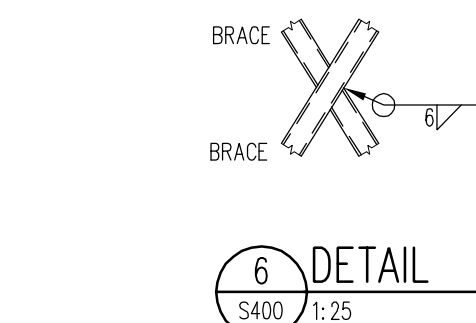
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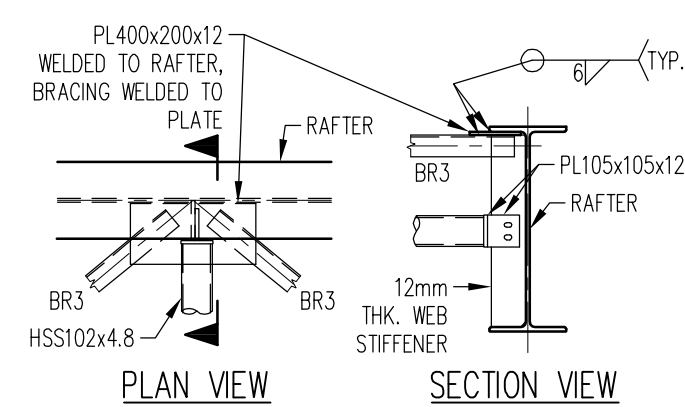
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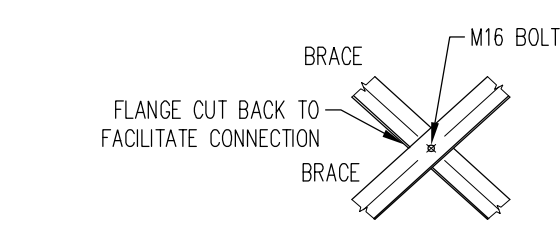
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6 DETAIL
S400 1:25



7 DETAIL
S400 1:25



8 DETAIL
S400 1:25

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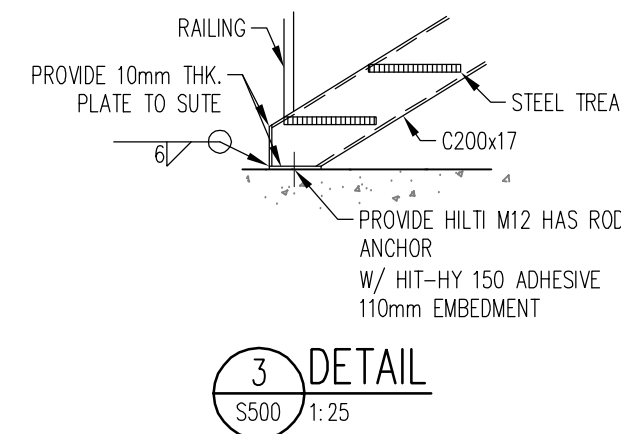
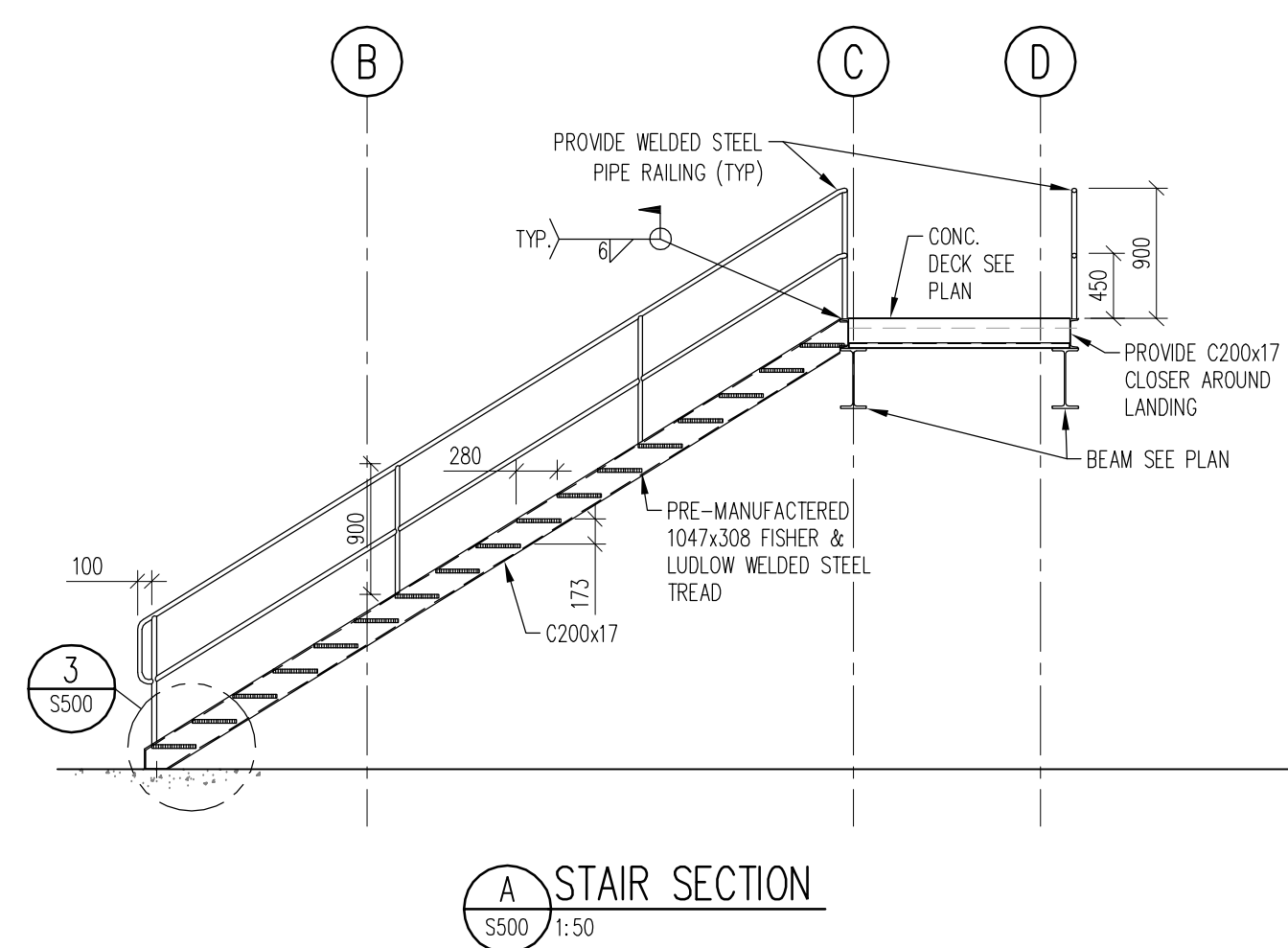
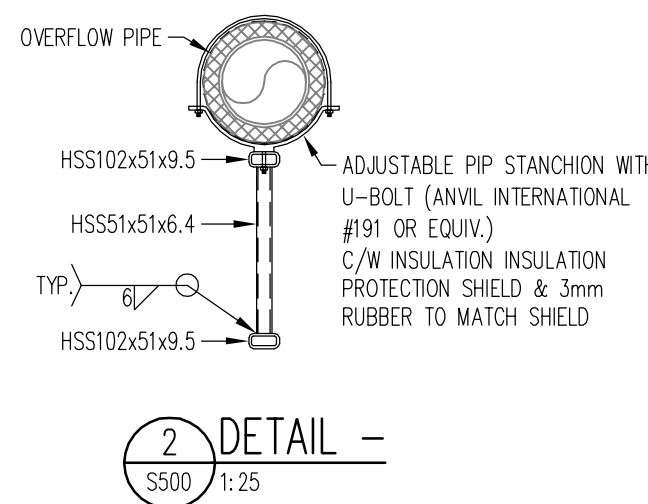
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JOB TITLE: WATER SUPPLY IMPROVEMENTS PHASE 2 WATER TREATMENT PLANT KUGLUKTUK, NU

DWG. TITLE: STRUCTURAL PORTAL FRAME LAYOUT

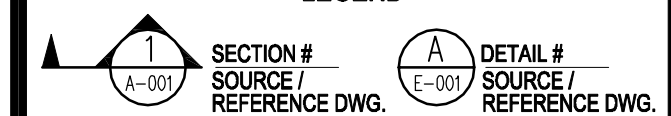
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PC	2014.03.05		
CLIENT PROJ. #	04-4417	WE PROJ. #	13655.03
DWG. #	S400	REV. #	5

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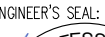
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JOB TITLE:
WATER SUPPLY IMPROVEMENTS
PHASE 2
WATER TREATMENT PLANT
KUGI UTKU, NU

DWG. TITLE: STRUCTURAL
MISCELLANIES
SECTIONS & DETAILS

DWN. BY: JK		DES. BY: TL/WVR		PROJ. MGR.: JC	
PEER REVIEW:		DATE: (YY-MM-DD)		SCALE:	
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CLIENT PROJ. #				WE PROJ. #	
04-4417				13655.00	
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