UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK, N.B.

PROJECT No. 2308072

CLIENT PROJECT No. F-23-NQ-01

ISSUED FOR TENDER

LIST OF DRAWINGS

Client: ATLANTIC FIRST NATIONS WATER AUTHORITY

Project: UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01 PROJECT No. 2308072

GENERAL NOTES

1. THE HORIZONTAL AND VERTICAL DATUM UTILIZED: NAD83 (CSRS) NEW BRUNSWICK DOUBLE STEREOGRAPHIC PROJECTION AND THE CANADIAN GEODETIC VERTICAL DATUM OF 1928 (CGVD28).
2. ALL ELEVATIONS ARE IN METERS (m).
3. SAFETY SIGNS TO BE INSTALLED PRIOR TO START OF CONSTRUCTION AND IN ACCORDANCE WITH WITH THE NBDTI WORK AREA TRAFFIC CONTROL MANUAL.
4. ALL UTILITY POLES TO BE SUPPORTED DURING CONSTRUCTION, INCIDENTAL TO THE WORK. CONTRACTOR TO CONTACT UTILITY COMPANY PRIOR TO EXCAVATION WITHIN 3.0m OF ANY POLES.
5. SILT FENCING AND EROSION CONTROL STRUCTURES TO BE INSTALLED AS PER THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN.
6. CLEAN-UP TO BE DONE ON A DAILY BASIS. DUST TO BE CONTROLLED WITH WATER AS REQUIRED, AS DIRECTED BY THE ENGINEER, MINIMUM ONCE A DAY.
7. THE CONTRACTOR IS RESPONSIBLE TO RETAIN A LAND SURVEYOR CURRENTLY LICENSED TO PRACTICE IN THE PROVINCE OF NB TO REPLACE ANY KNOWN PROPERTY MARKERS THAT ARE DISTURBED BY THE CONTRACTOR, INCIDENTAL TO THE WORK.
8. THE CONTRACTOR TO CONFIRM EXACT LOCATION OF EXISTING PIPING PRIOR TO PIPE INSTALLATION.
9. THE CONTRACTOR SHALL ENSURE THAT ALL UNDERGROUND UTILITIES, NATURAL GAS LINES AND MUNICIPAL SERVICES ARE LOCATED IN THE FIELD BEFORE THE START OF EXCAVATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES, INCIDENTAL TO THE WORK.
10. ALL DISTURBED AREAS SHALL BE REINSTATED TO PREVIOUS CONDITIONS OR BETTER; IN ACCORDANCE WITH THE SPECIFICATIONS.
11. ALL GRASSED AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH 100mm OF TOPSOIL AND HYDROSEED, AS SHOWN ON DRAWINGS.
12. THE CONTRACTOR MUST ENSURE THAT ACCESS TO THE FACILITY IS MAINTAINED DURING CONSTRUCTION FOR THE AFNWA OPERATIONS CREWS.
13. REFER TO SPECIFICATIONS FOR CONSTRUCTION SEQUENCE AND GEOTECHNICAL INFORMATION.
14. ALL WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE PERMITS.
15. PROPERTY LINES AND RIGHT OF WAYS TAKEN FROM SERVICE NEW BRUNSWICK PROPERTY MAPS.
16. REFER TO SPECIFICATION FOR SLUDGE SURVEY SUMMARY LETTER FOR DETAILS ON SLUDGE VOLUMES AND APPROXIMATE LOCATIONS.
17. ALL EQUIPMENT SHALL BE NEW, UNLESS OTHERWISE SPECIFIED.
18. CONTRACTOR IS TO PROVIDE A MINIMUM OF 24 HOURS NOTICE TO REQUEST FOR INTERRUPTION OF SERVICE REQUIRED TO UNDERTAKE THE WORK.

CONTROL POINT (m)			
NB MON. No.	NORTHING	EASTING	ELEV.
15232	7527193.635m	2407867.536m	80.284m

GENERAL LEGEND

ITEM	EXISTING	NEW
WATER MAIN	W	W
SANITARY SEWER	S	S
SEWER PRESSURE PIPE	FM	FM
STORM SEWER	ST	ST
AIR LINE	AIR	AIR
SANITARY MANHOLE		
STORM MANHOLE		
VALVE		
FIRE HYDRANT		
CURB STOP		
BENDS		
TEE		
CAP OR PLUG		
REDUCER		
SLEEVE OR COUPLING		
UTILITY POLE		
TREE		
WELL		
ASPHALT DRIVEWAY	A	
GRAVEL DRIVEWAY	G	
FENCE		
CULVERT		
TREE LINE		
EROSION CONTROL STRUCTURE		TYPE "A" TYPE "B" TYPE "C"
WATERCOURSE		
DITCH		
SILT FENCING		

NOTES

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	HK	KKM

NEQOTKUK MALISEET NATION

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

ENGLOBE

PROFESSIONAL ENGINEER
Province of New Brunswick
M8726
Kyle K. McConnell
April 10, 2025
Date
INGÉNIEUR(E) PROFESSIONNEL(LE)

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

OVERALL LOCATION PLAN AND GENERAL NOTES

Scale: 50m 0 100m (1:5000 FULL SCALE)

Drawn By	Design By
NG	KKM
Checked By	Cadd Check
KKM	TS

Sheet 01 of 09

File Name: 2308072.001 CVR-C01.DWG

Drawing No.: C01

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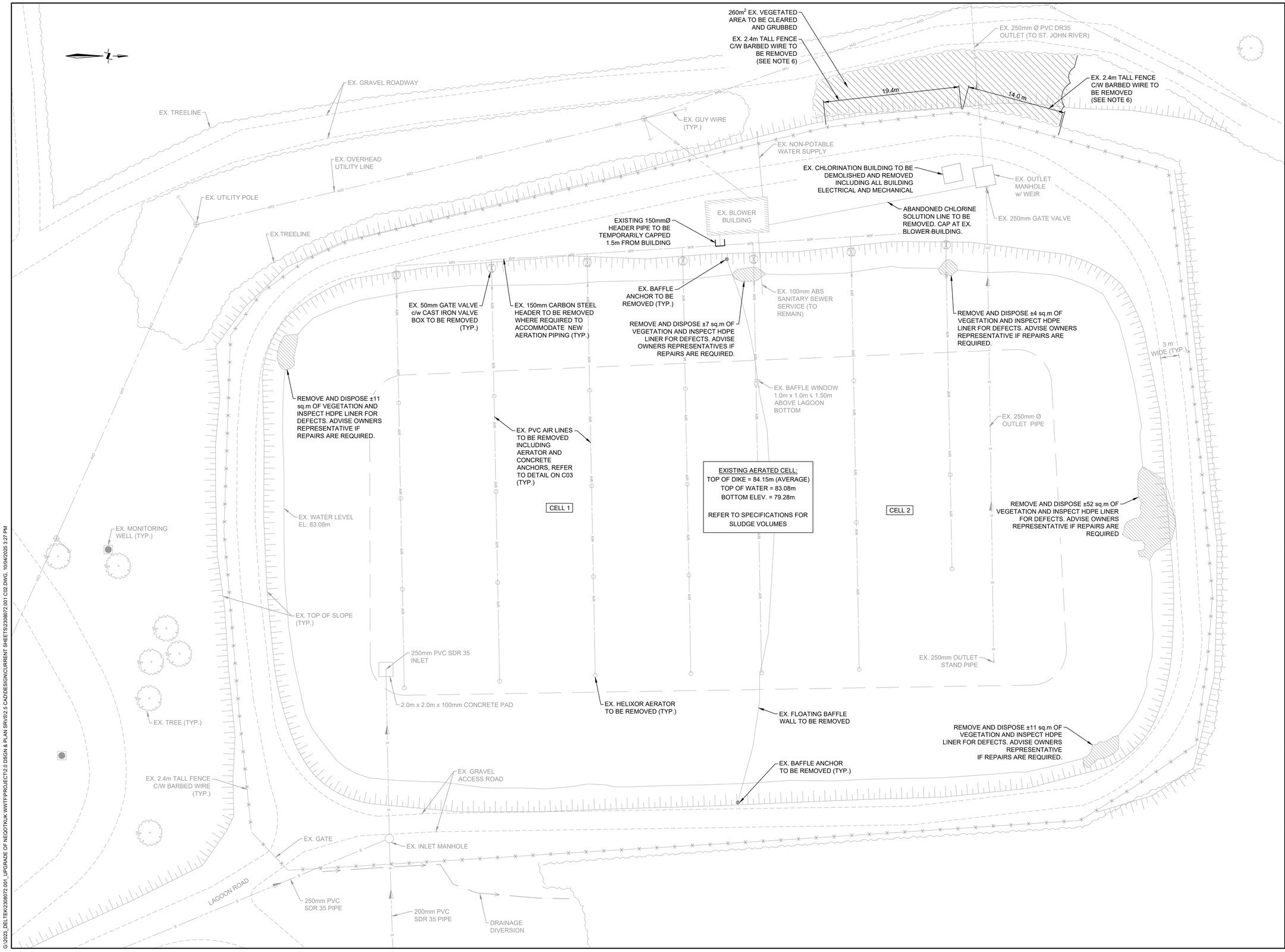

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NOTES

1. REFER TO DRAWING C01 FOR GENERAL NOTES.
2. REFER TO DRAWING C03 FOR CROSS SECTIONS OF THE EXISTING AERATION PIPING.
3. ALL BURIED AERATION PIPING AND LATERALS SHALL BE REMOVED.
4. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGE TO THE LINER CAUSED BY THEIR ACTIVITIES, INCIDENTAL TO THE WORK.
5. REFER TO SPECIFICATIONS FOR CONSTRUCTION SEQUENCE.
6. COORDINATE SITE PREPARATION WORK WITH WORK FOR PROPOSED UV BUILDING (REFER TO DWG C04)
7. ALL DEMOLITIONS AND REMOVALS ARE TO BE DISPOSED IN ACCORDANCE WITH SECTION 02 41 15.

NO.	DATE	REVISIONS	BY	APPR.
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NEGOOTKUK MALISEET NATION

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

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REGISTERED PROFESSIONAL ENGINEER Province of New Brunswick
M8726
Kyle K. McConnell
April 10, 2025
Date
Membre du Nouveau-Brunswick
INGÉNIEUR INSCRIT(E)

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

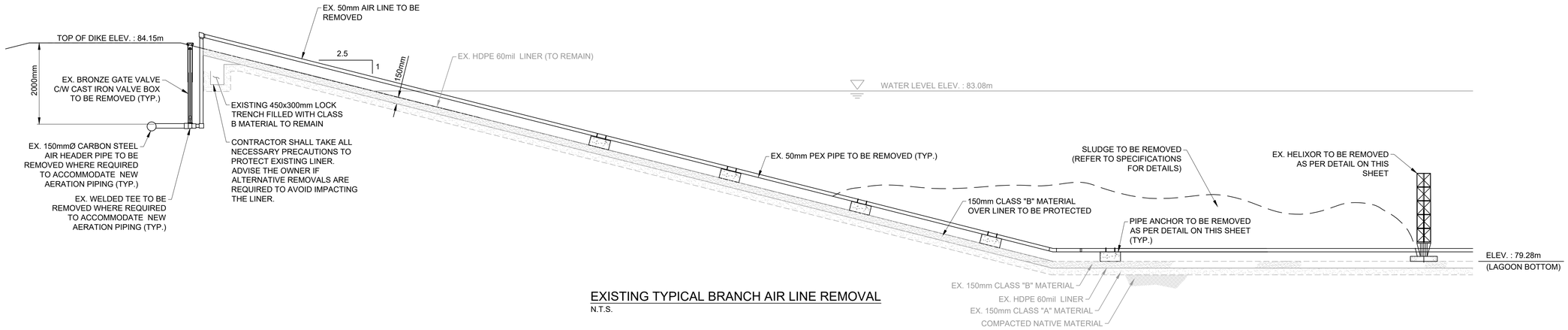
DRAWING TITLE

EXISTING CONDITIONS AND REMOVALS PLAN

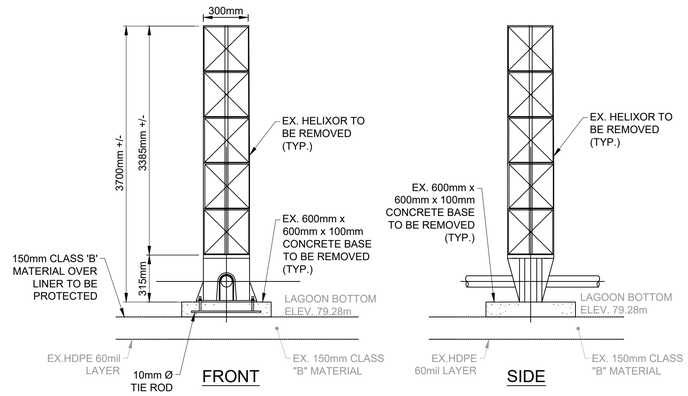
Scale	Drawn By	Design By
2.5m 0 5m (1:250 FULL SCALE)	NG	KKM
	Checked By	Cadd Check
	KKM	TS
	Sheet 02 of 09	

File Name
2308072.001 C02.DWG

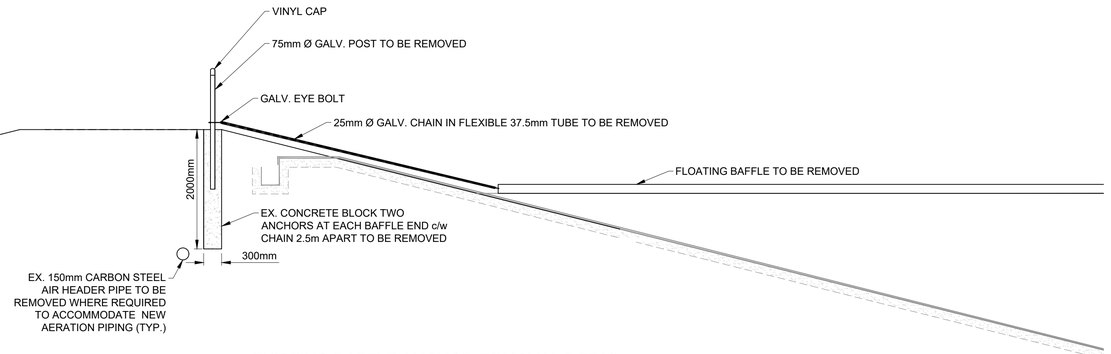
Drawing No.
C02



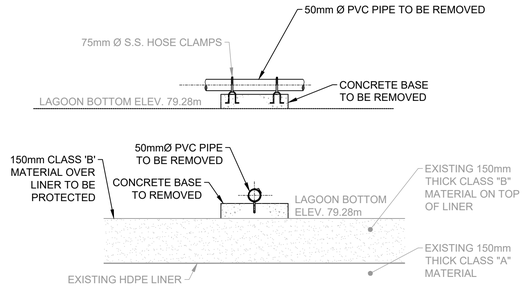
EXISTING TYPICAL BRANCH AIR LINE REMOVAL
N.T.S.



EXISTING HELIXOR AERATOR REMOVAL DETAIL (TYP.)
N.T.S.



EXISTING BAFFLE ANCHOR REMOVAL DETAIL
N.T.S.



INTERMEDIATE PIPE ANCHOR REMOVAL DETAIL
N.T.S.

NOTES

1. REFER TO DRAWING C01 FOR GENERAL NOTES.
2. REFER TO DRAWING C02 FOR EXISTING CONDITIONS AND REMOVAL PLAN.
3. ALL DEMOLITIONS AND REMOVALS ARE TO BE DISPOSED IN ACCORDANCE WITH SECTION 02 41 15.

NO.	DATE	REVISIONS	BY	APPR.
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NEGOTKUK MALISEET NATION

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

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Kyle K. McConnell
April 10, 2025
Date
Province du Nouveau-Brunswick
INGÉNIEUR IMMATRICULÉ

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

EXISTING CONDITIONS AND REMOVAL SECTIONS

Scale	Drawn By	Design By
AS NOTED	NG	KKM
	Checked By: KKM	Cadd Check: TS
	Sheet 03 of 09	

File Name: 2308072.001 C03.DWG

Drawing No.: C03

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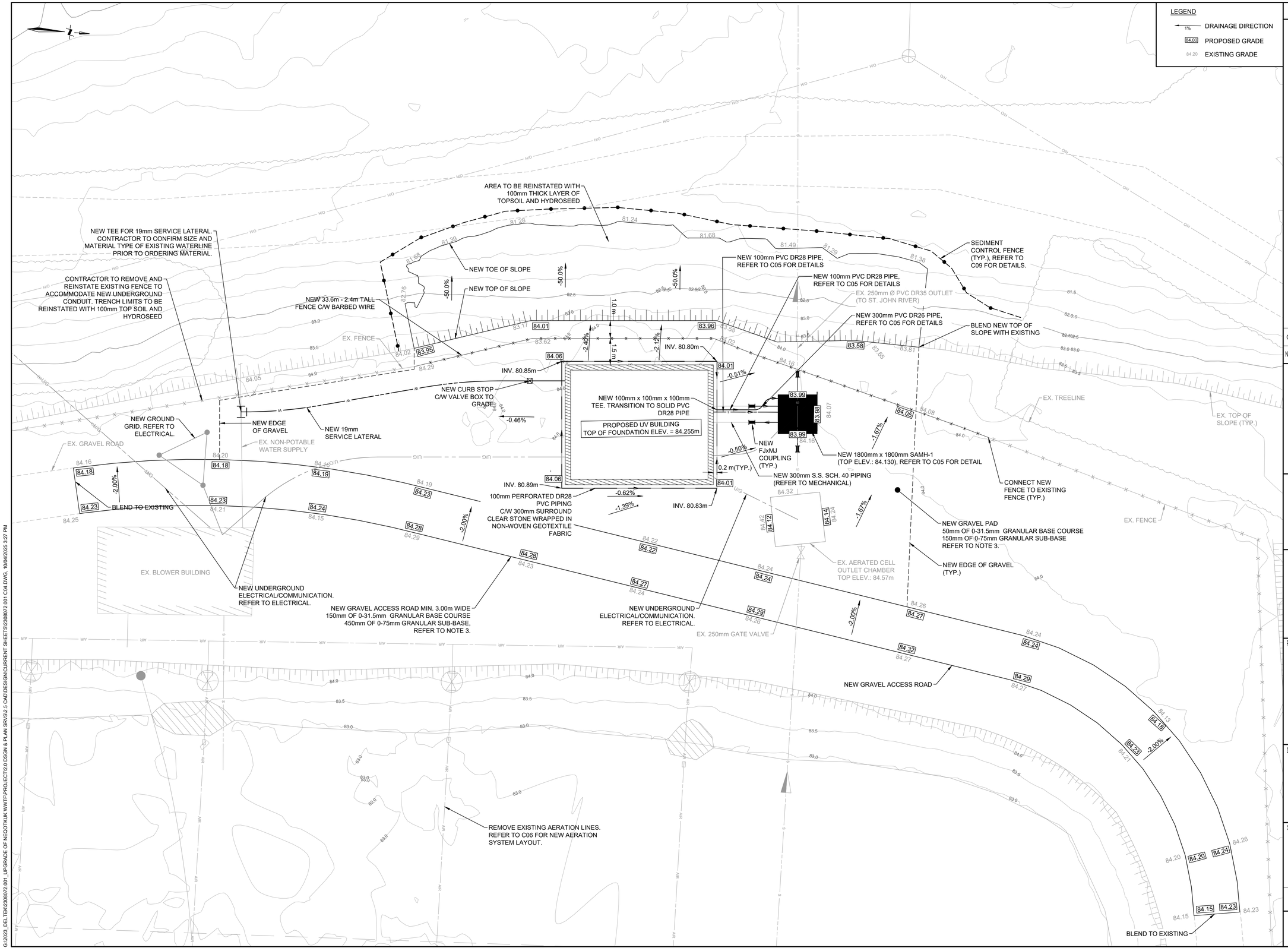

NOTES

1. REFER TO DRAWING C01 FOR GENERAL NOTES.
2. REFER TO GEOTECHNICAL REPORT IN THE SPECIFICATIONS.
3. NEW GRANULAR BASE AND GRANULAR SUB-BASE TO BE COMPACTED TO 95% MAX. DRY DENSITY AS PER ASTM D698.
4. REFER TO DRAWING C05 FOR NEW UV BUILDING BY PASS MANHOLE PLAN, PROFILE AND DETAIL.
5. REFER TO ELECTRICAL DRAWINGS OF BURIED CONDUIT LOCATION AND DETAILS.
6. REFER TO DRAWING C02 FOR EXISTING CONDITIONS AND REMOVAL PLAN.
7. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DETAILS.

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UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING SITE SERVICING AND GRADING PLAN

Scale	Drawn By	Design By
1m 0 2m (1:100 FULL SCALE)	SYA	KKM
	Checked By: KKM	Cadd Check: TS
	Sheet 04 of 09	

File Name: 2308072.001 C04.DWG

Drawing No.: C04

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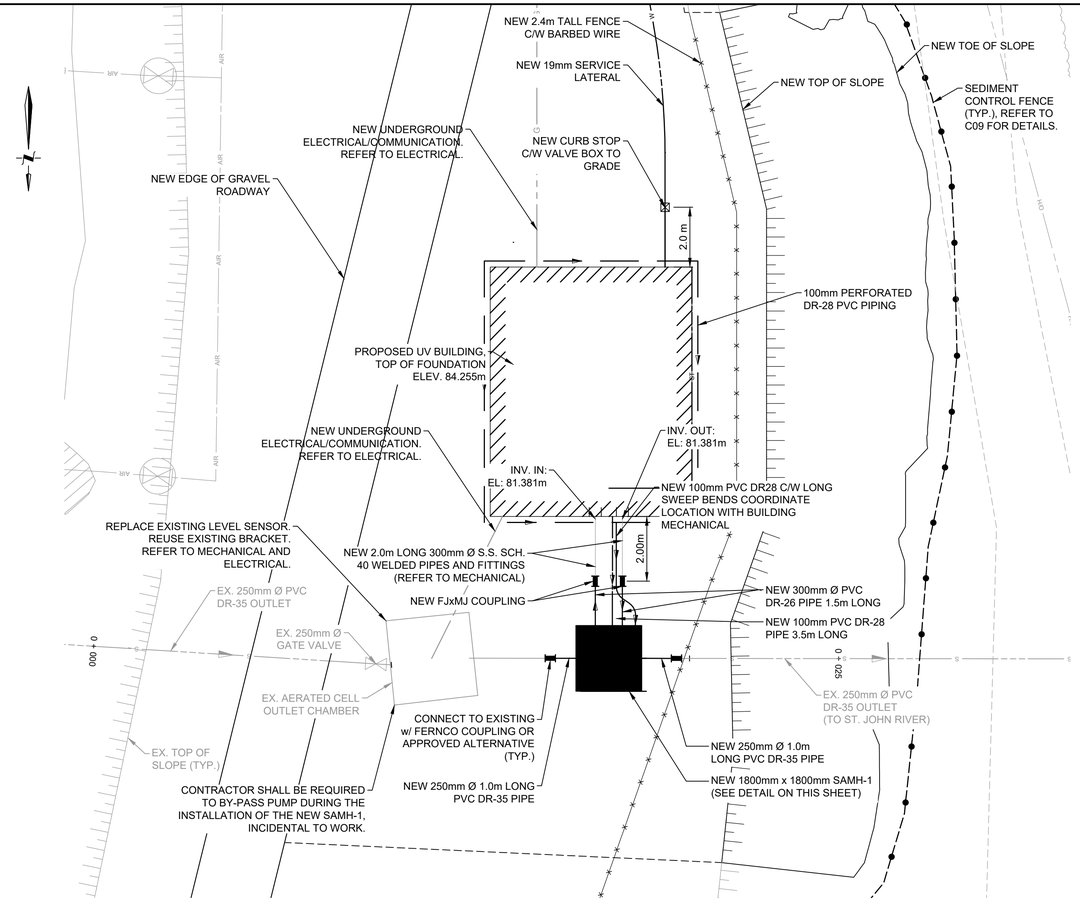
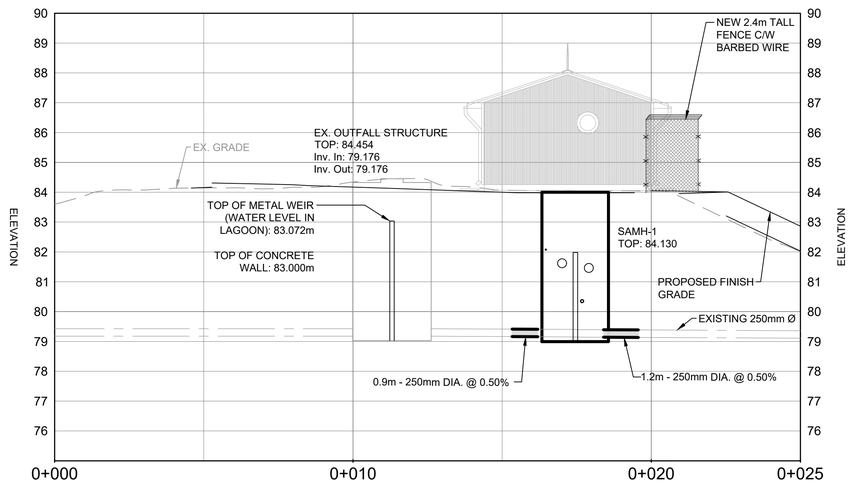


NEW PIPE BY-PASS UV BUILDING PLAN

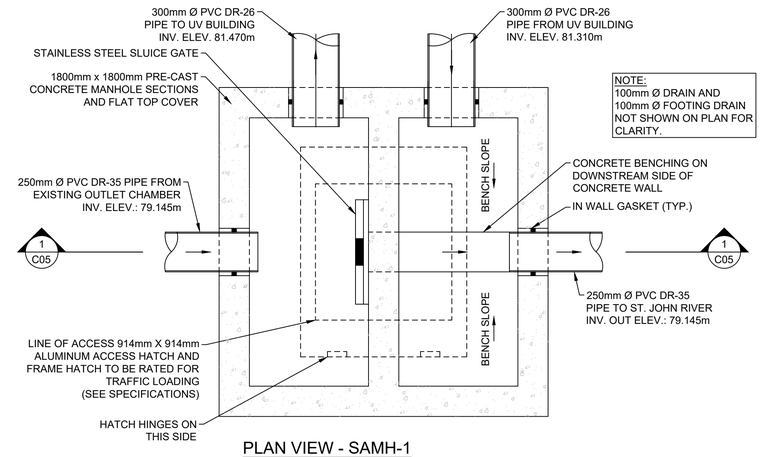
1m 0 2m
(1:100 FULL SCALE)



NEW PIPE BY-PASS UV BUILDING PROFILE

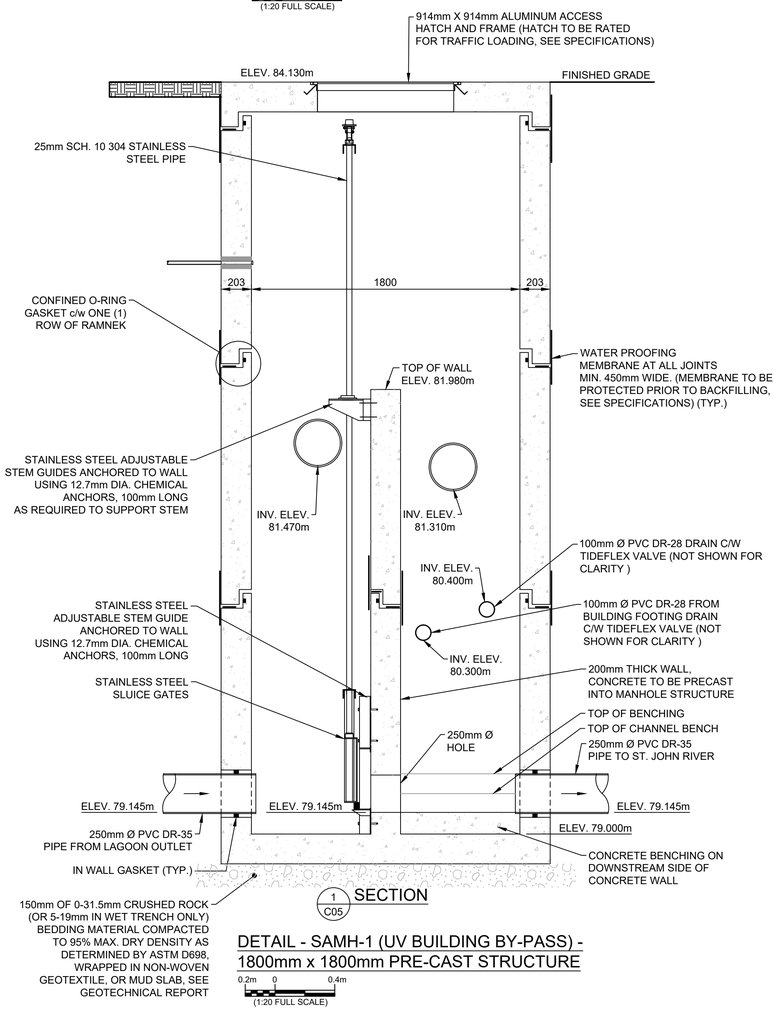
1m 0 2m
(1:100 FULL SCALE)

STRUCTURE COORDINATES		
STRUCTURE	EASTING	NORTHING
SAMH-1	2406736.052	7532345.334



PLAN VIEW - SAMH-1

0.2m 0 0.4m
(1:20 FULL SCALE)



DETAIL - SAMH-1 (UV BUILDING BY-PASS) - 1800mm x 1800mm PRE-CAST STRUCTURE

0.2m 0 0.4m
(1:20 FULL SCALE)

NOTES

1. REFER TO DRAWING C01 FOR GENERAL NOTES.

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NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING BY-PASS MANHOLE AND PIPING - PLAN AND PROFILE

Scale	Drawn By	Design By
AS SHOWN	SYA	KKM
	Checked By: KKM	Cadd Check: TS
	Sheet 05 of 09	

File Name: 2308072.001 C05.DWG

Drawing No.: C05

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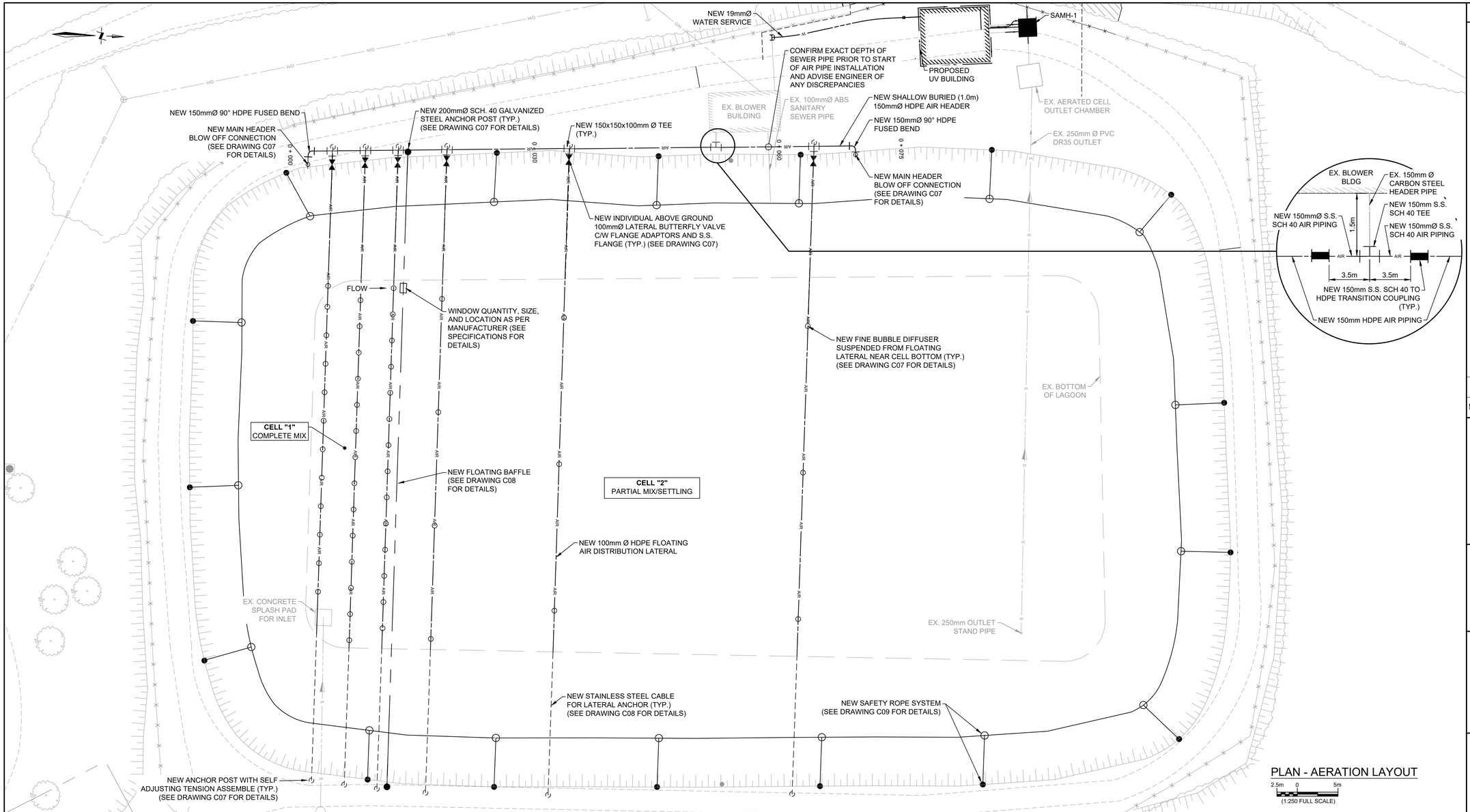
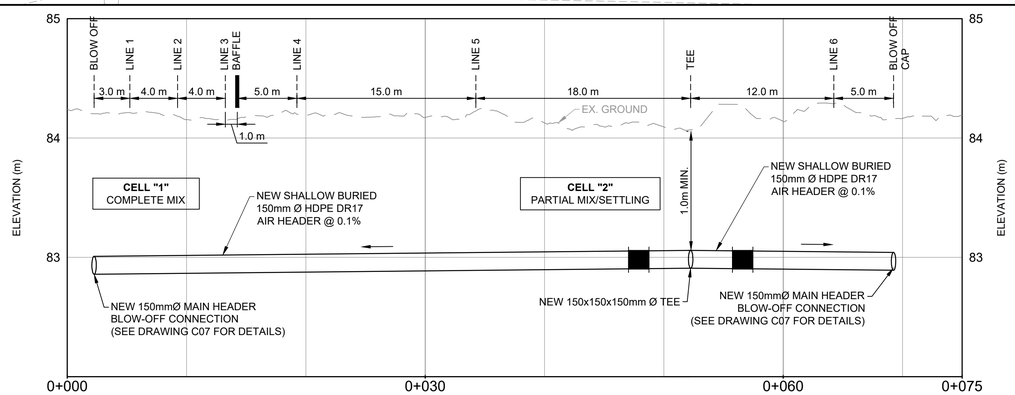


PLAN - AERATION LAYOUT

2.5m 0 5m
(1:250 FULL SCALE)



PROFILE - AIR HEADER

2.5m 0 5m
(1:250 HORIZONTAL SCALE)
0.25m 0 0.5m
(1:25 VERTICAL SCALE)

NOTES

1. REFER TO DRAWING C01 FOR GENERAL NOTES.
2. REFER TO DRAWING C02 FOR EXISTING CONDITIONS AND REMOVALS PLAN.

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NEQOTKUK N.B.

DRAWING TITLE

NEW AERATION PLAN AND PROFILE

Scale	Drawn By	Design By
AS SHOWN	NG/SYA	KKM
	Checked By	Cadd Check
	KKM	TS
	Sheet 06 of 09	

File Name: 2308072.001 C06.DWG

Drawing No.: C06

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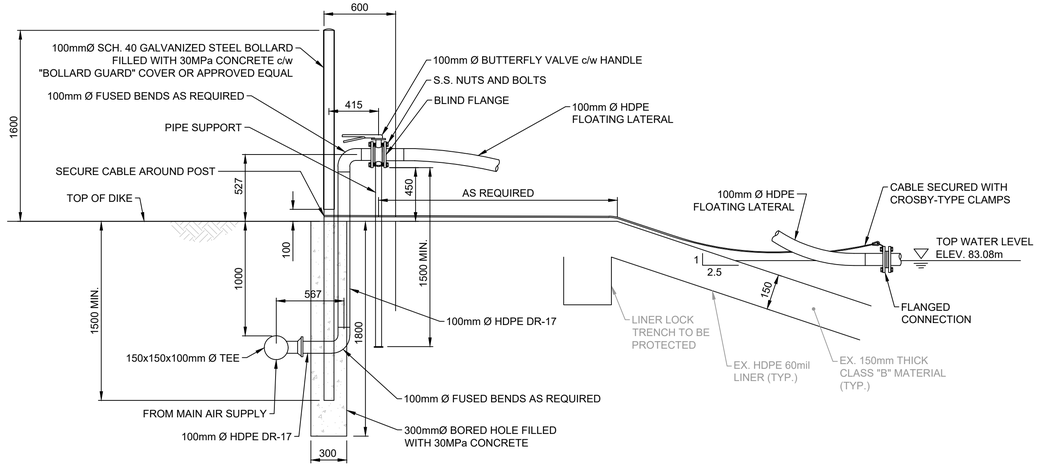
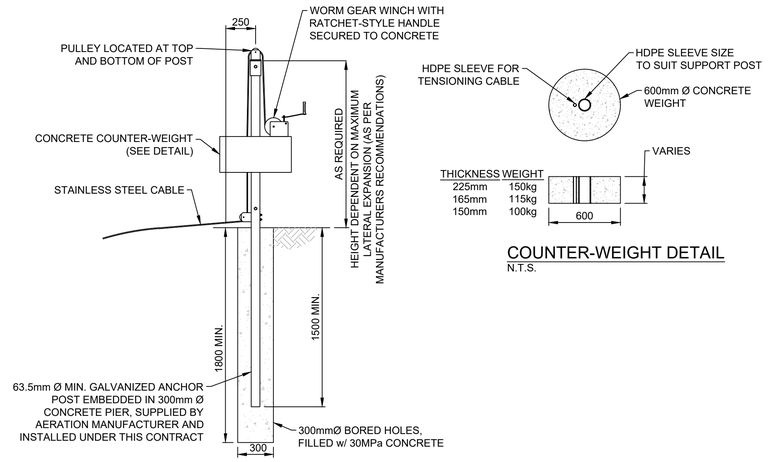
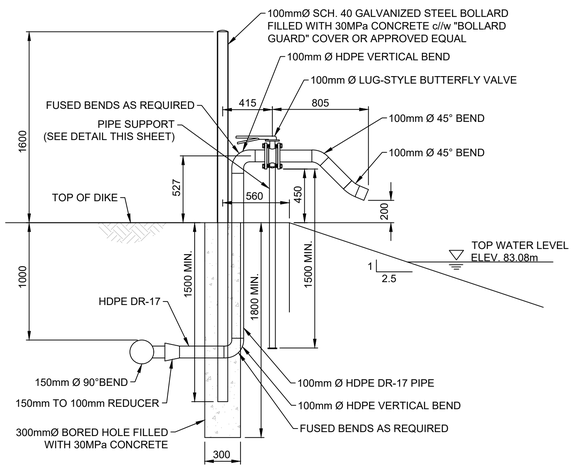


150mm Ø MAIN HEADER AIR LATERAL CONNECTION DETAIL
N.T.S.

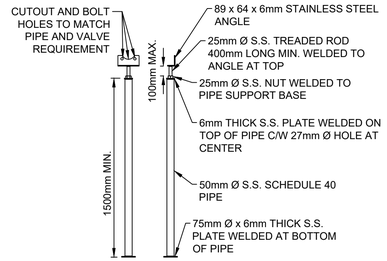


SELF-ADJUSTING TENSION ASSEMBLY (AT LATERAL FREE END)
N.T.S.

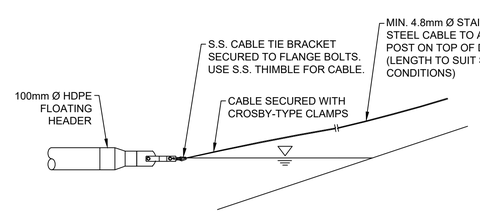
COUNTER-WEIGHT DETAIL
N.T.S.



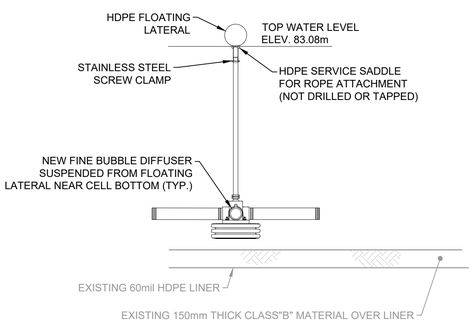
150mm Ø MAIN HEADER BLOW-OFF DETAIL
N.T.S.



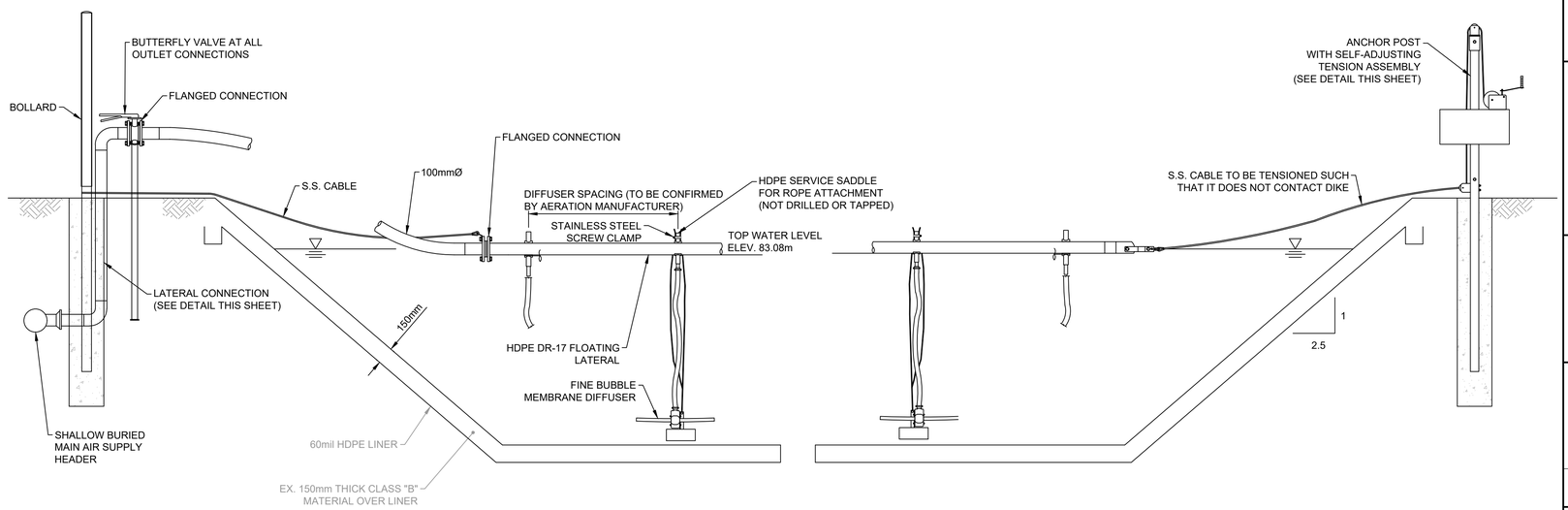
DETAIL - SUPPORT POST
N.T.S.



LATERAL DETAIL AT HEADER (FREE END)
N.T.S.



LATERAL DETAIL - ELEVATION (AERATION CELL)
N.T.S.



AERATED CELL SECTION
N.T.S.

NOTES

1. REFER TO DRAWING C01 FOR GENERAL NOTES.

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NEQOTKUK MALISEET NATION

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBE

LICENSED PROFESSIONAL ENGINEER
Province of New Brunswick
M8726
Kyle K. McConnell
April 10, 2025
Ingénieur(e) professionnel(le)

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

AERATION SYSTEM TYPICAL DETAILS

Scale	Drawn By	Design By
AS NOTED	NG	KKM
	Checked By	Cadd Check
	KKM	TS
	Sheet 07 of 09	

File Name: 2308072.001 C07-09.DWG

Drawing No.: C07

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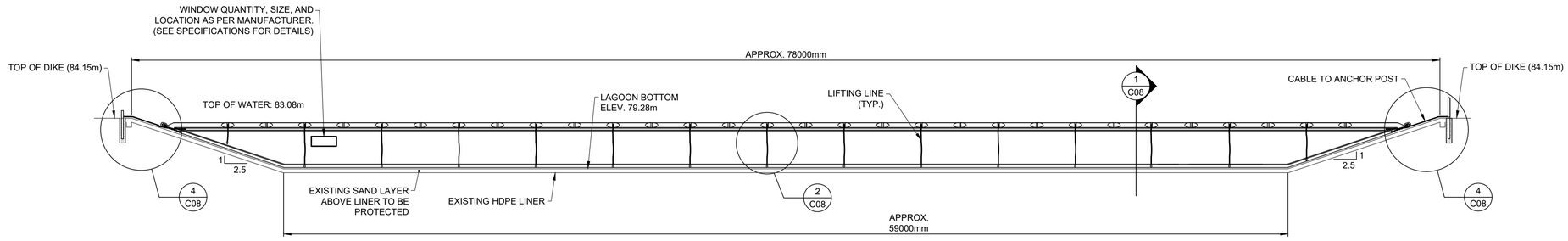
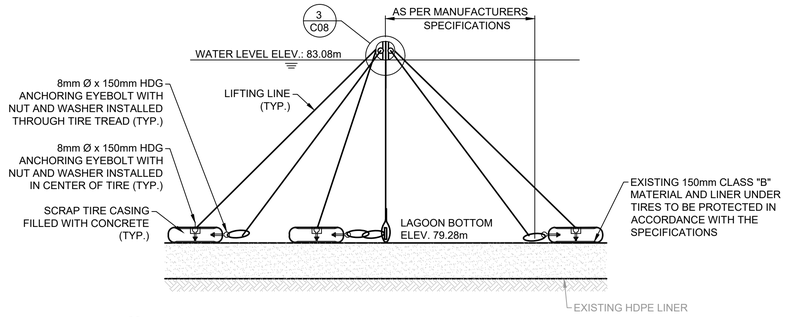
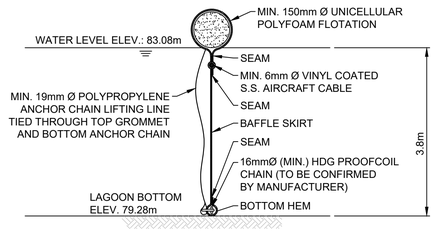


ELEVATION - BAFFLE CURTAIN WALL
N.T.S.



1 C08 DETAIL - BAFFLE CURTAIN ANCHORING (QUANTITY AS PER MANUFACTURERS SPECIFICATIONS)
N.T.S.



2 C08 SECTION - BAFFLE CURTAIN
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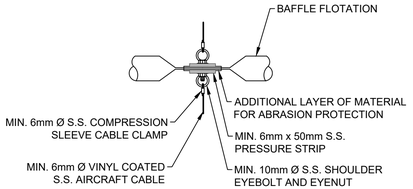
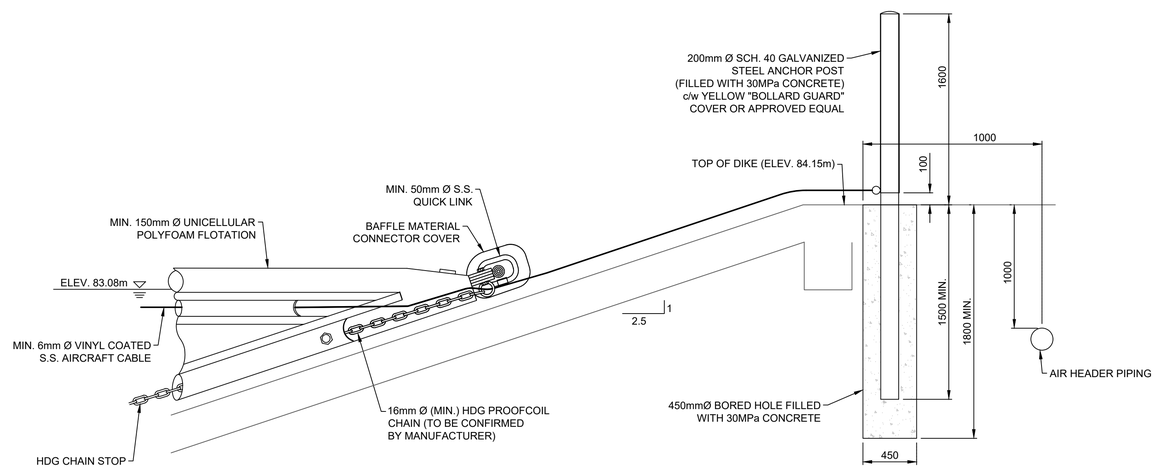
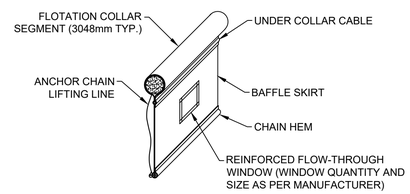


3 C08 DETAIL - ANCHOR LIFTING LINE CONNECTION
N.T.S.



4 C08 DETAIL - END CONNECTOR ANCHOR POST FOR BAFFLE CURTAIN WALL
N.T.S.



BAFFLE ISOMETRIC
N.T.S.

NOTES

1. REFER TO DRAWING C01 FOR GENERAL NOTES.

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	HK	KKM

M8726
Kyle K. McConnell
April 10, 2025

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

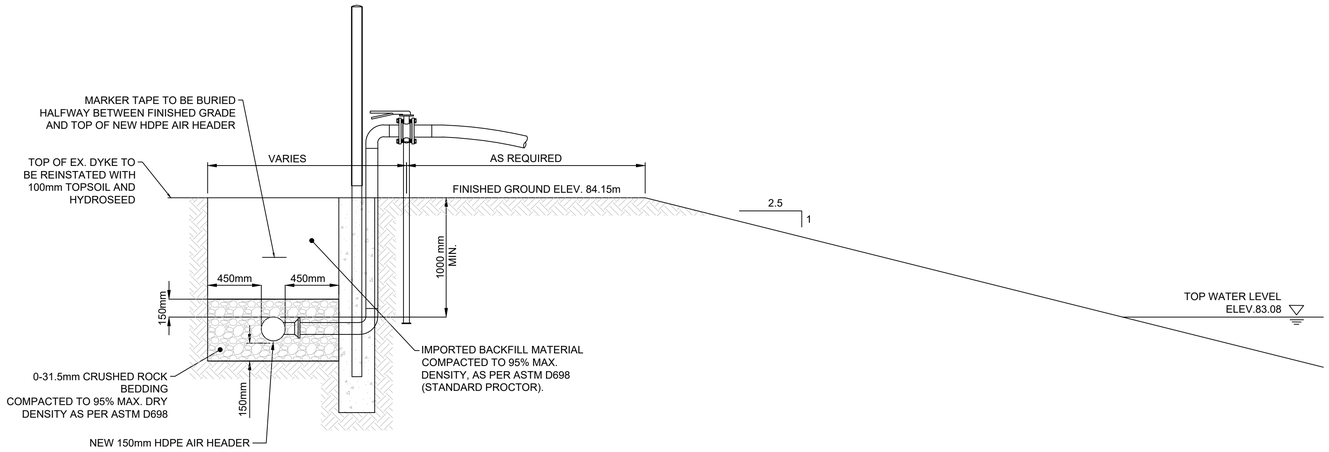
DRAWING TITLE

BAFFLE TYPICAL DETAILS

Scale	Drawn By	Design By
AS NOTED	NG	KKM
	Checked By	Cadd Check
	KKM	TS
	Sheet 08 of 09	

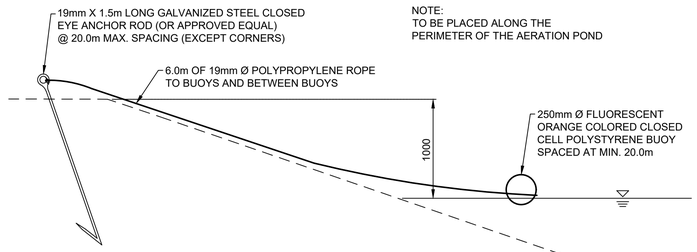
File Name
2308072.001 C07-09.DWG

Drawing No.
C08



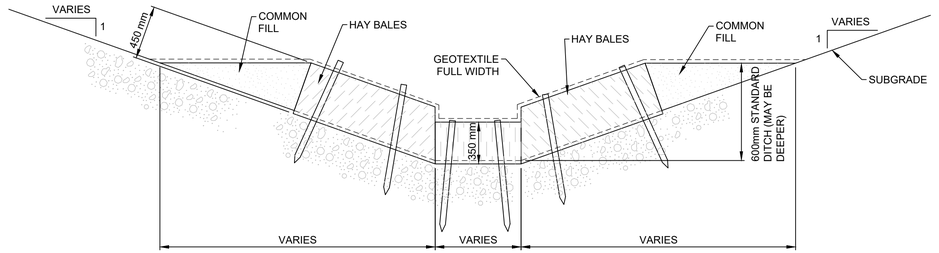
DETAIL - AIR PIPE TRENCH

0.25m 0 0.5m
1:25 (FULL SCALE)



DETAIL - SAFETY ROPE

N.T.S.

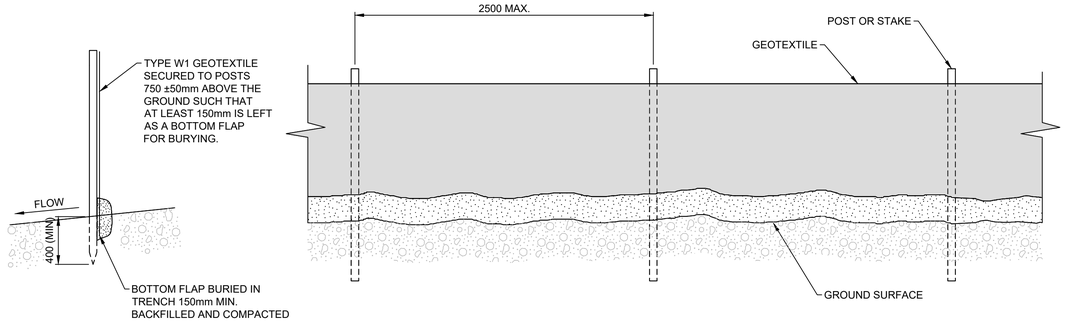


DETAIL - TYPE C EROSION CONTROL STRUCTURE

0.25m 0 0.5m
1:25 (FULL SCALE)

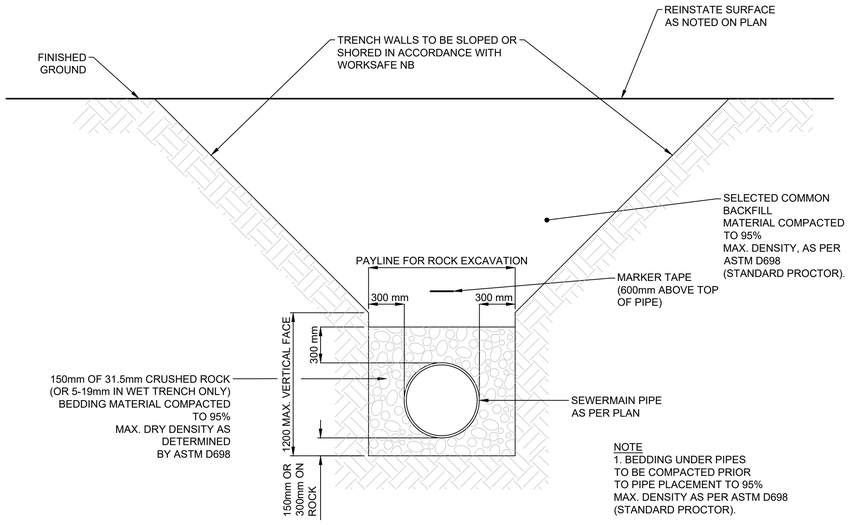
NOTES:

1. ALL SEDIMENT AND EROSION CONTROL FEATURES SHALL BE INSTALLED AS INDICATED BY THE DETAILS ON THE DRAWINGS.
2. THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT AND EROSION CONTROL FEATURES IN A FUNCTIONAL CONDITION CONTINUOUSLY THROUGHOUT THE COMPLETION OF THE CONTRACT.
3. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROL FEATURES AFTER EACH RAINFALL EVENT AND AT LEAST DAILY DURING PERIODS OF PROLONGED RAINFALL.
4. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY DAMAGE TO SEDIMENT CONTROL FEATURES OR PARTS THEREOF.
5. THE CONTRACTOR SHALL REMOVE RETAINED SEDIMENT PRIOR TO IT HAVING ACCUMULATED TO A LEVEL APPROXIMATELY, BUT NOT EXCEEDING, ONE-HALF THE HEIGHT OF THE SEDIMENT CONTROL FENCE. THIS SEDIMENT SHALL BE DISPOSED OF AT A LOCATION AT LEAST 30m AWAY FROM ANY WATERCOURSE AND IN SUCH A MANNER THAT THE SEDIMENT SHALL NOT BE RETURNED TO THE WORK AREA OR WATERCOURSE.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL SEDIMENT AND CONTROL FEATURES ONCE DIRECTED BY THE ENGINEER IN THE FIELD UPON COMPLETION OF THE CONTRACT.
7. SEDIMENT AND EROSION CONTROL FEATURES REMOVED BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OFF THE WORK SITE.



DETAIL - SEDIMENT CONTROL FENCE

0.25m 0 0.5m
1:25 (FULL SCALE)



NOTE
1. BEDDING UNDER PIPES TO BE COMPACTED PRIOR TO PIPE PLACEMENT TO 95% MAX. DENSITY AS PER ASTM D698 (STANDARD PROCTOR).

DETAIL - PIPE TRENCH AND ROAD RESTORATION CLASS "B" BEDDING

0.25m 0 0.5m
1:25 (FULL SCALE)

NOTES

1. REFER TO DRAWING C01 FOR GENERAL NOTES.

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0.0	APR 10/25	ISSUED FOR TENDER	HK	KKM

NEQOTKUK MALISEET NATION

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBe

REGISTERED PROFESSIONAL ENGINEER
Province of New Brunswick
M8726
Kyle K. McConnell
April 10, 2025
Province du Nouveau-Brunswick
INGÉNIEUR INSCRIT/E

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

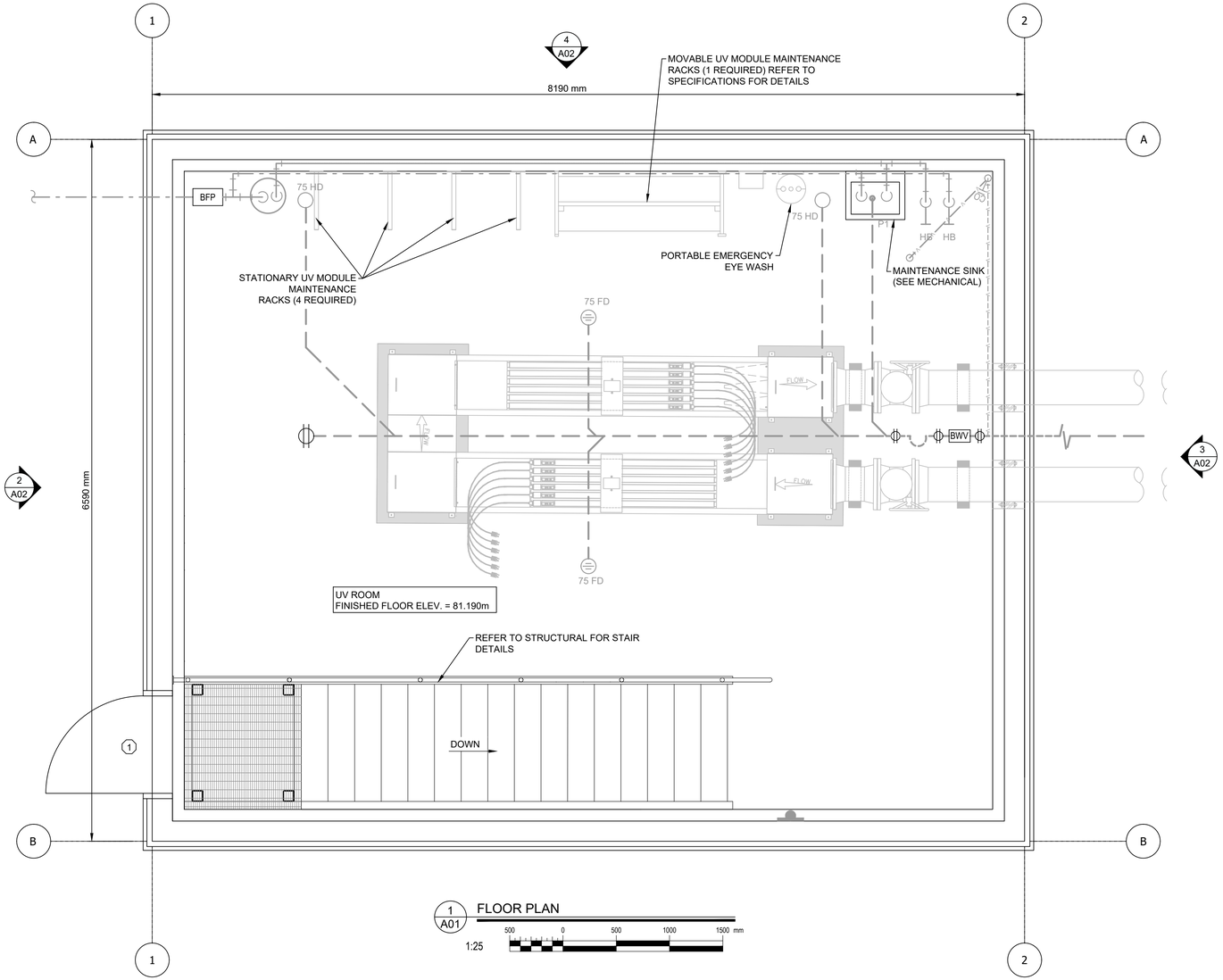
DRAWING TITLE

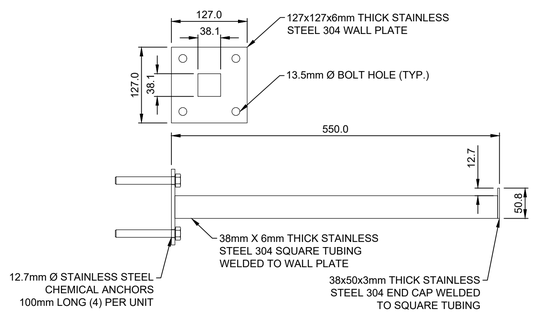
CONSTRUCTION TYPICAL DETAILS

Scale	Drawn By	Design By
AS NOTED	NG	KKM
	Checked By	Cadd Check
	KKM	TS
	Sheet 09 of 09	

File Name
2308072.001 C07-09.DWG

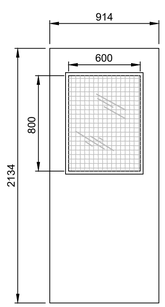
Drawing No.
C09





UV MODULE STORAGE RACK DETAIL

N.T.S.



MAN DOOR C/W WINDOW EXTERIOR

DOOR SCHEDULE

NO.	QUANTITY	SIZE			CONSTRUCTION		FRAME		600 X 800 WINDOW C/W GEORGIAN WIRE MESH	REMARKS
		WIDTH	HEIGHT	THICK	CORE	MATERIAL	TYPE	MATERIAL		
1	2	914	2134	45	INSULATED	METAL	2	METAL	YES	C/W DOOR SWEEP & WEATHER STRIPPING

1. DOOR FRAMES - TYPE 1 THERMAL BROKEN FRAME , TYPE 2 STANDARD FRAME.
2. REFER TO SPECIFICATIONS FOR DOOR HARDWARE.

NOTES

1. CONTRACTOR TO INSTALL ATTIC INSULATION ACCESS DOOR. SIZE AND LOCATION TO BE IN ACCORDANCE WITH NBC LATEST EDITION.
2. REFER TO MECHANICAL DRAWINGS FOR VENTILATION AND PLUMBING DETAILS.
3. SIZES OF CONCRETE EQUIPMENT PADS TO BE CONFIRMED DURING SHOP DRAWING REVIEW.
4. REFER TO STRUCTURAL FOR DOOR AND LOUVER OPENING LOCATIONS FOR INSTALLATION.
5. OUTSIDE DIMENSIONS ARE FROM OUTSIDE OF FOUNDATION WALL.

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	AS	DM

NEQOTKUK MALISEET NATION

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBe

LICENCED PROFESSIONAL ENGINEER Province of New Brunswick
L6611 2025
David Mandville
Signature
2025-04-10
Date
INGÉNIEUR TITULAIRE DE PERMIS Province du Nouveau-Brunswick

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

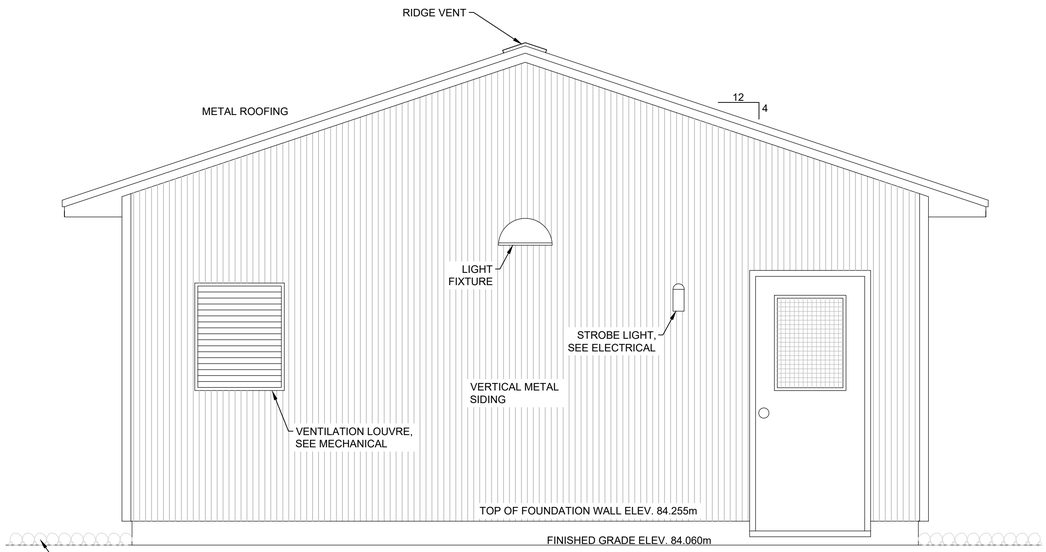
DRAWING TITLE

NEW UV BUILDING, FLOOR PLAN AND DETAILS

Scale	Drawn By	Design By
AS NOTED	AS	DM
	Checked By: DM	Cadd Check: -
	Sheet 01 of 03	

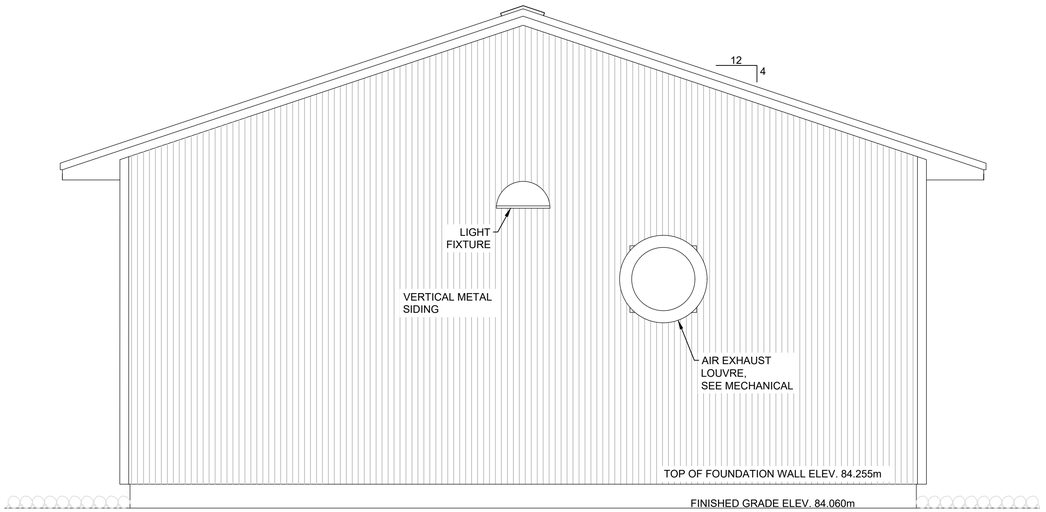
File Name: 2308072.001 A01-A03.DWG

Drawing No.: A01



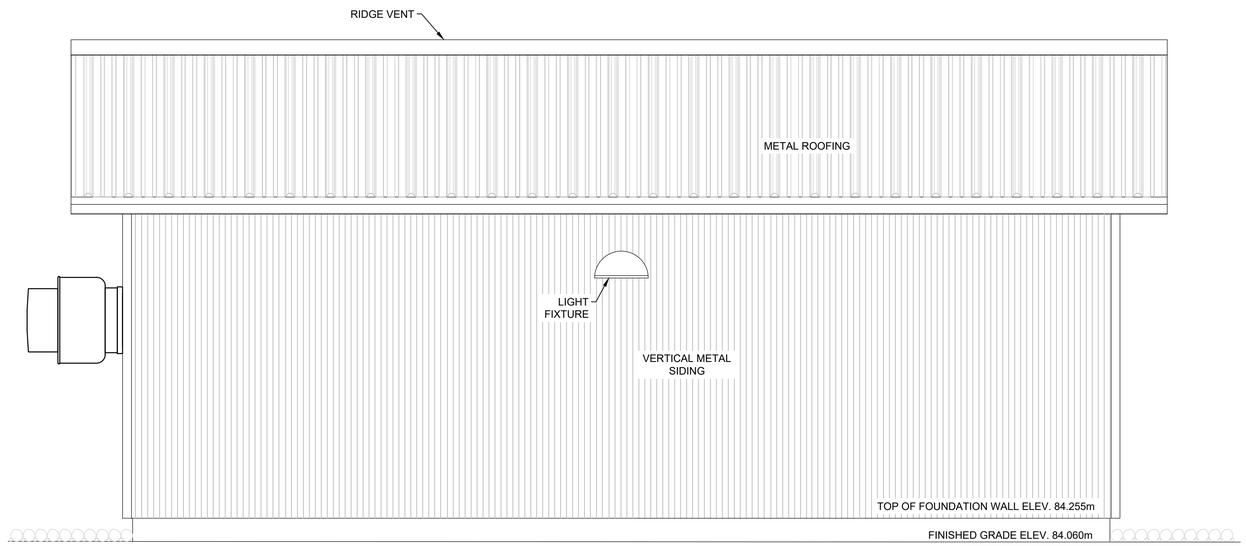
2 A02 ELEVATION

1:25



3 A02 ELEVATION

1:25



4 A02 ELEVATION

1:25

NOTES

1. REFER TO MECHANICAL DRAWINGS FOR VENTILATION AND PLUMBING DETAILS.
2. REFER TO ELECTRICAL DRAWINGS FOR DETAILS.
3. SIZE OF OPENING FOR AIR LOUVERS AND EXHAUST FANS THROUGH WALL TO BE CONFIRMED WITH SHOP DRAWINGS.
4. REFER TO STRUCTURAL FOR REINFORCING DETAILS AND LINTEL DETAILS AT OPENINGS.
5. EXACT LOCATION OF VENTILATION OPENINGS TO BE COORDINATED WITH STRUCTURAL CONTRACTOR.

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PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING, ARCHITECTURAL ELEVATIONS

Scale	Drawn By	Design By
AS NOTED	AS	DM
	Checked By	Cadd Check
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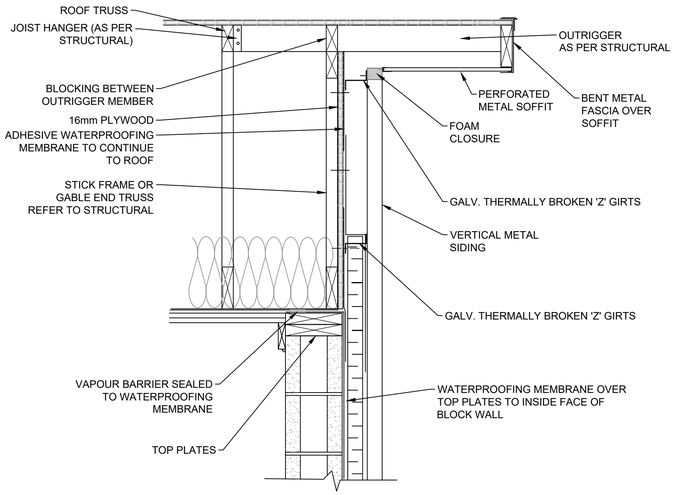
	Sheet 02 of 03	

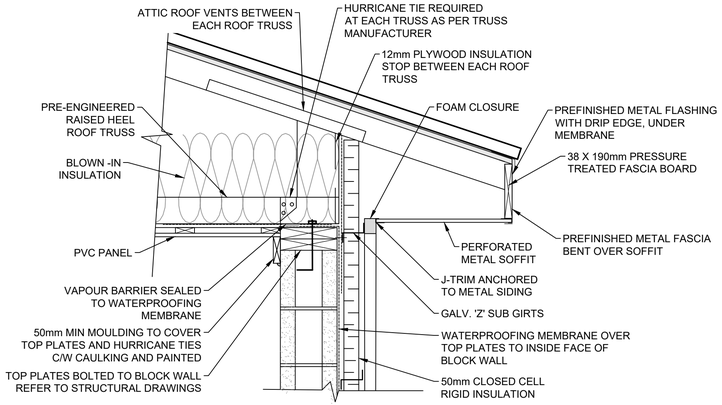
File Name
2308072.001 A01-A03.DWG

Drawing No.
A02



5 A03 GABLE END DETAIL

1:10



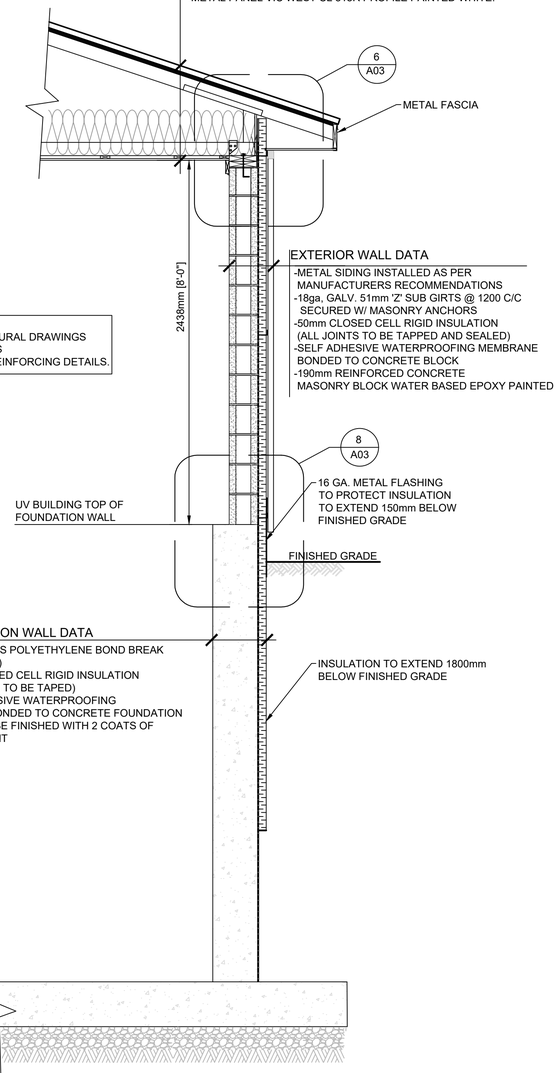
6 A03 SECTION DETAIL AT SOFFIT

1:10

ROOF DATA

-METAL ROOFING C/W DRIP EDGE AND FLASHING
-SBS MODIFIED BITUMEN SELF-ADHESIVE HIGH TEMP MEMBRANE
-19mm T & G PLYWOOD
-PRE-ENGINEERED 450mm RAISED HEEL ROOF TRUSS @ 600mm O.C.
-R.S.I. 7 BLOWN-IN INSULATION
-6 mil VAPOR BARRIER (JOINTS TAPED AND SEALED)
-19x64mm STRAPPING @ 400mm O.C.
-METAL PANEL VIC WEST CL 815R PROFILE PAINTED WHITE.

NOTE:
REFER TO STRUCTURAL DRAWINGS FOR CONNECTIONS AND CONCRETE REINFORCING DETAILS.



EXTERIOR WALL DATA

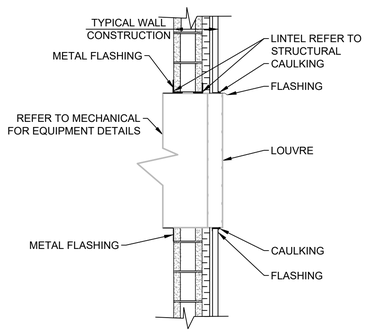
-METAL SIDING INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS
-18ga, GALV. 51mm 'Z' SUB GIRTS @ 1200 C/C SECURED W/ MASONRY ANCHORS
-50mm CLOSED CELL RIGID INSULATION (ALL JOINTS TO BE TAPPED AND SEALED)
-SELF ADHESIVE WATERPROOFING MEMBRANE BONDED TO CONCRETE BLOCK
-190mm REINFORCED CONCRETE MASONRY BLOCK WATER BASED EPOXY PAINTED

FOUNDATION WALL DATA

-TWO LAYERS POLYETHYLENE BOND BREAK (6 MIL POLY)
-50mm CLOSED CELL RIGID INSULATION (ALL JOINTS TO BE TAPED)
-SELF ADHESIVE WATERPROOFING BARRIER BONDED TO CONCRETE FOUNDATION
-WALLS TO BE FINISHED WITH 2 COATS OF EPOXY PAINT

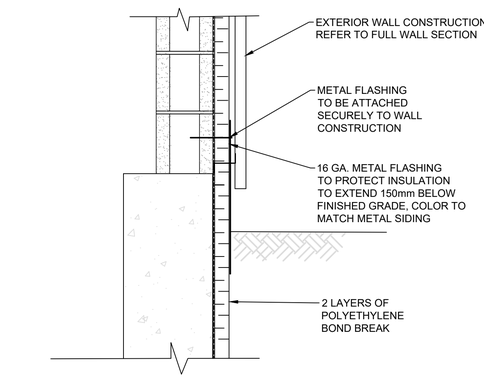
10 A03 TYPICAL WALL SECTION

1:20



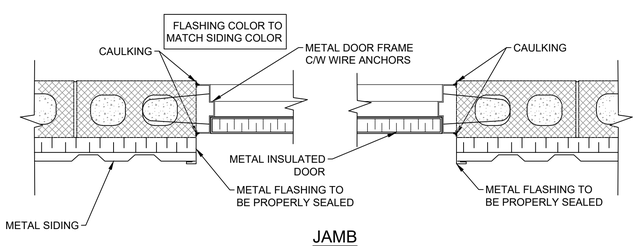
7 A03 TYPICAL MECH. WALL PENETRATION DETAIL

1:20

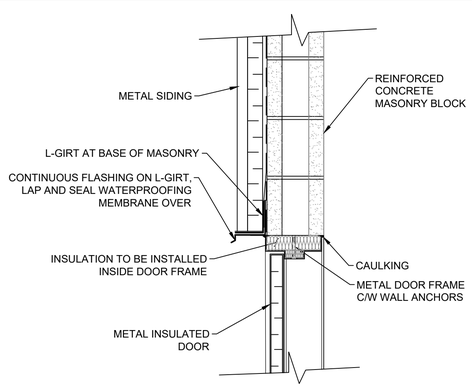


8 A03 SECTION DETAIL AT BASE OF WALL

1:10



JAMB



HEAD

9 A03 DOOR INSTALLATION DETAILS

1:10

NOTES

1. REFER TO SPECIFICATIONS FOR PIPE PENETRATION SEAL DETAILS.
2. REFER TO STRUCTURAL DRAWINGS FOR PIPE PENETRATION SEAL REINFORCING DETAILS.
3. REFER TO STRUCTURAL DRAWINGS FOR WALL REINFORCING DETAILS OF OPENINGS.
4. REFER TO STRUCTURAL DRAWINGS FOR REINFORCED CONCRETE WALL, SLAB AND CONCRETE BLOCK DETAILS.
5. REFER TO SPECIFICATIONS FOR FINISH CONCRETE FLOOR TREATMENT REQUIREMENTS.

NO.	DATE	REVISIONS	BY	APPR.
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NEQOTKUK MAL I SEET NATION

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PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

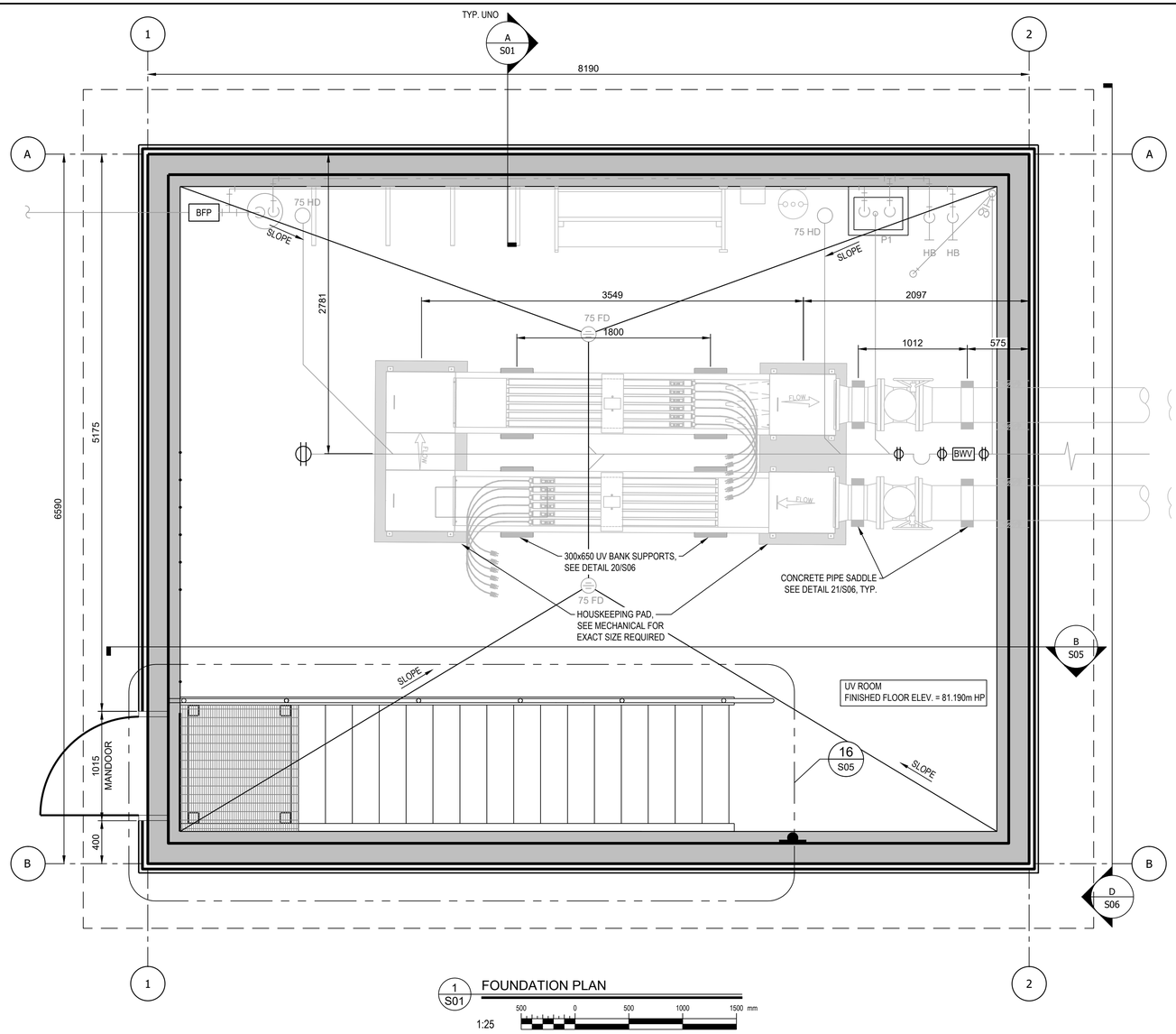
DRAWING TITLE

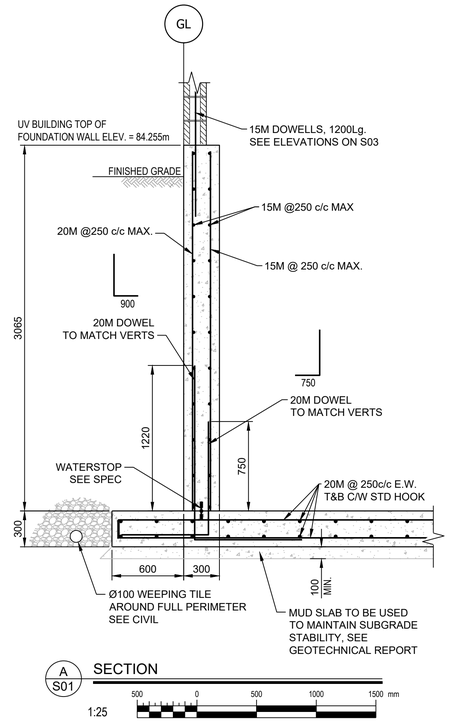
NEW UV BUILDING, TYPICAL CONSTRUCTION DETAILS

Scale	Drawn By	Design By
AS NOTED	AS	DM
	Checked By	Cadd Check
	DM	-
	Sheet 03 of 03	

File Name
2308072.001 A01-A03.DWG

Drawing No.
A03





ABBREVIATIONS:

ALT. = ALTERNATE	C/W = COMPLETE WITH	FTG = FOOTING	(STEEL ANGLE)	S.S. = STAINLESS STEEL
ARCH. = ARCHITECTURAL	DIA. = DIAMETER	GALV. = GALVANIZED	MECH. = MECHANICAL	STND. = STANDARD
B = BOTTOM	DIAG. = DIAGONAL	GA. = GAUGE	MIN. = MINIMUM	t = THICKNESS
BLL = BOTTOM LOWER LAYER	DB = DROP BEAM	H1E = HOOK ONE END	MAX. = MAXIMUM	T&B = TOP AND BOTTOM
BTWN = BETWEEN	DP = DIAGONAL DROP	H2E = HOOK TWO (BOTH) ENDS	MC = MOMENT CONNECTION	THK = THICK
BUL = BOTTOM UPPER LAYER	DWG = DRAWING	HD = HUB DRAIN	NON-FACTORED LOAD KN-m.	TJ = TIE JOIST
CANT. = CANTILEVER	(E) = EXISTING	H.E.F. = HORIZONTAL EACH FACE	NF = NEAR FACE	T.O. = TOP OF
C.J. = CONSTRUCTION JOINT	EA = EACH	HK = HOOK	N.T.S. = NOT TO SCALE	T.O.C. = TOP OF CONCRETE
CLR = CLEAR COVER	EE = EACH END	HORZ. = HORIZONTAL	O.C. = ON CENTER	T.O.S. = TOP OF STEEL
CMU = CONCRETE MASONRY UNIT	EF = EACH FACE	HP = HIGH POINT	OWSJ = OPEN WEB STEEL JOIST	TLL = TOP LOWER LAYER
CO = CLEAN OUT	ELEC. = ELECTRICAL	HSS = HOLLOW STRUCTURAL SECTION	OPP. = OPPOSITE	TUL = TOP UPPER LAYER
COJ = CONFIRM ON JOB	ELEV. = ELEVATION	I.D. = INSIDE DIAMETER	PERP. = PERPENDICULAR	TYP. = TYPICAL
COL. = COLUMN	EMB. = EMBEDDED	I.J. = ISOLATION JOINT	PL = PLATE	U.N.O. = UNLESS NOTED OTHERWISE
COMP. = COMPOSITE	ES = EACH SIDE	INCL. = INCLUDING	REINF. = REINFORCING	U/S = UNDERSIDE
CONC. = CONCRETE	EW = EACH WAY	INT. = INTERIOR	R.T.U. = ROOF TOP UNIT	V.E.F. = VERTICAL EACH FACE
CONT. = CONTINUOUS	EXT. = EXTERIOR	LG. = LONG	R/W = REINFORCED WITH	VERT. = VERTICAL
	FAA = FALL ARREST ANCHORS	LLV = LONG LEG VERTICAL (STEEL ANGLE)	S.C. = SAW CUT	W/ = WITH
	FD = FLOOR DRAIN	LLH = LONG LEG HORIZONTAL	SIM = SIMILAR	
	FF = FAR FACE		S.O.G. = SLAB ON GRADE	

GENERAL NOTES:

1. CHECK ALL DIMENSIONS WITH ARCHITECTURAL, CIVIL, MECHANICAL, PROCESS AND ELECTRICAL DRAWINGS AND REPORT DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. COORDINATE WORK WITH ARCHITECTURAL, CIVIL, MECHANICAL, PROCESS AND ELECTRICAL DRAWINGS AND REPORT ANY INCONSISTENCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
3. ALL WORK SHALL BE CARRIED OUT AND COMPLY WITH THE NATIONAL BUILDING CODE OF CANADA (LATEST EDITION), LOCAL BY-LAWS, GAVERNING CONSTRUCTION SAFETY REGULATION AND/OR LEGISLATION, AND ALL REGULATIONS SET BY GOVERNING BODY AND/OR AUTHORITY HAVING JURISDICTION. IN CASE OF CONFLICT OR DISCREPANCY THE MOST STRINGENT REQUIREMENTS SHALL APPLY.
4. SUBSTITUTION FROM SPECIFIED PRODUCTS AND MATERIALS MUST BE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL REIMBURSE THE CONSULTANT(S)/ ENGINEER FOR ADDITIONAL COSTS INCURRED AS A RESULT OF REVIEWING ANY CHANGES TO THE CONTRACT DOCUMENTS.
5. DIMENSIONS ARE IN MILLIMETERS (mm) AND ELEVATIONS ARE IN METERS (m) TYPICAL. ALL ELEVATIONS TO BE FIELD VERIFIED AND COORDINATED WITH ALL DISCIPLINE DRAWINGS.
6. CO-ORDINATE ALL WORK WITH RELATED TRADES FOR DEPRESSIONS, DOOR, LOUVRE, VENT AND EQUIPMENT OPENINGS, PIPE PENETRATIONS INSERTS AND ITEMS TO BE BUILT INTO ROOF AND WALL SYSTEMS, FOUNDATION FOOTINGS, SLABS AND WALLS.
7. FOR ADDITIONAL INFORMATION, NOTES AND REQUIREMENTS, REFER TO SPECIFICATIONS.

DESIGN PARAMETERS:

1. 2015 NATIONAL BUILDING CODE OF CANADA (GRAND FALLS, NB)
2. IMPORTANCE CATEGORY FOR BUILDING = POST-DISASTER
3. DESIGN LOAD PER THIS SECTION: UNLESS NOTED OTHERWISE ON THE DRAWINGS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF EQUIPMENT AND COLLATERAL LOADS WITH APPROVED SHOP DRAWINGS AND ALL DISCIPLINES. SEE SPECIFICATION.
4. SPECIFIED DEAD LOADS FOR ROOF DESIGN (UNLESS NOTED OTHERWISE):
   a.SLOPED GABLE END WOOD ROOF = 0.9 kPa
5. SPECIFIED FLOOR LIVE LOAD (UNLESS NOTED OTHERWISE):
   a.STAIRS, LANDINGS, BASE SLAB AND PIT GRATING = 4.8 kPa
6. SPECIFIED GROUND SNOW LOAD (S_Q)= 3.6 kPa,
7. SPECIFIED RAIN LOAD (Sr)=0.6k Pa
8. ROOF DESIGN SNOW LOAD:
   a.CASE 1: SAME LOAD (UPWIND/DOWNWIND) = 4.08 kPa (ULS), 2.93 (SLS)
   b.CASE 2: UNBALANCED (UPWIND/DOWNWIND) = 0.75kPa / 4.65 kPa (ULS), 0.54kPa / 3.35kPa(SLS)
9. SPECIFIED WIND LOAD (q1/10)= 0.37kPA, (q1/50)= 0.48 kPa
   SPECIFIED ROOF UPLIFT DUE TO WIND: SEE UPLIFT DIAGRAMS
10. SPECIFIED SEISMIC:
    a.SITE CLASS:C
    b.Sa(0.2s) (g) = 0.144
    c.Sa(0.5s) (g) = 0.096
    d.Sa(1.0s) (g) =0.058
    e.Sa(2.0s) (g) = 0.03
    f.Sa(5.0s) (g) = 0.0078
    g.Sa(10.0s) (g) =0.0034
    h.PGA (g) = 0.088
    i.PGV (m/s) = 0.102
    j.SFRS: (MASONRY-CONVENTIONAL CONSTRUCTION – SHEAR WALLS) Rd=1.5 Ro=1.5
11. TEMPORARY CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN PARAMETERS AND SHALL NOT BE APPLIED BEFORE THE STRUCTURE HAS SUFFICIENT STRENGTH AND STABILITY.
12. FOOTINGS HAVE BEEN DESIGNED BASED ON THE FOLLOWING SOIL BEARING CAPACITIES: SLS 250kPa, ULS: 300kPa. BASED ON THE GEOTECHNICAL REPORT BY ENGLOBE; REFER TO THE REPORT FOR ANY PARTICULARS AS TO SOIL CONDITIONS AND FOUNDATION RECOMMENDATIONS. ENSURE THAT THE REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT ARE READ AND UNDERSTOOD PRIOR TO COMMENCING WITH THE FOUNDATION WORK.
13. REFERENCE GEOTECHNICAL REPORT FOR SLAB-ON-GRADE SUB-BASE PREPARATION.

NOTES

NO.	DATE	REVISIONS	BY	APPR.
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NEQOTKUK WASTEWATER AUTHORITY INC.

ATLANTIC FIRST NATIONS WATER AUTHORITY

eNGLOBe

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6611 2025
David Mandville
Signature
2025-04-10
Date
INGÉNIEUR TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

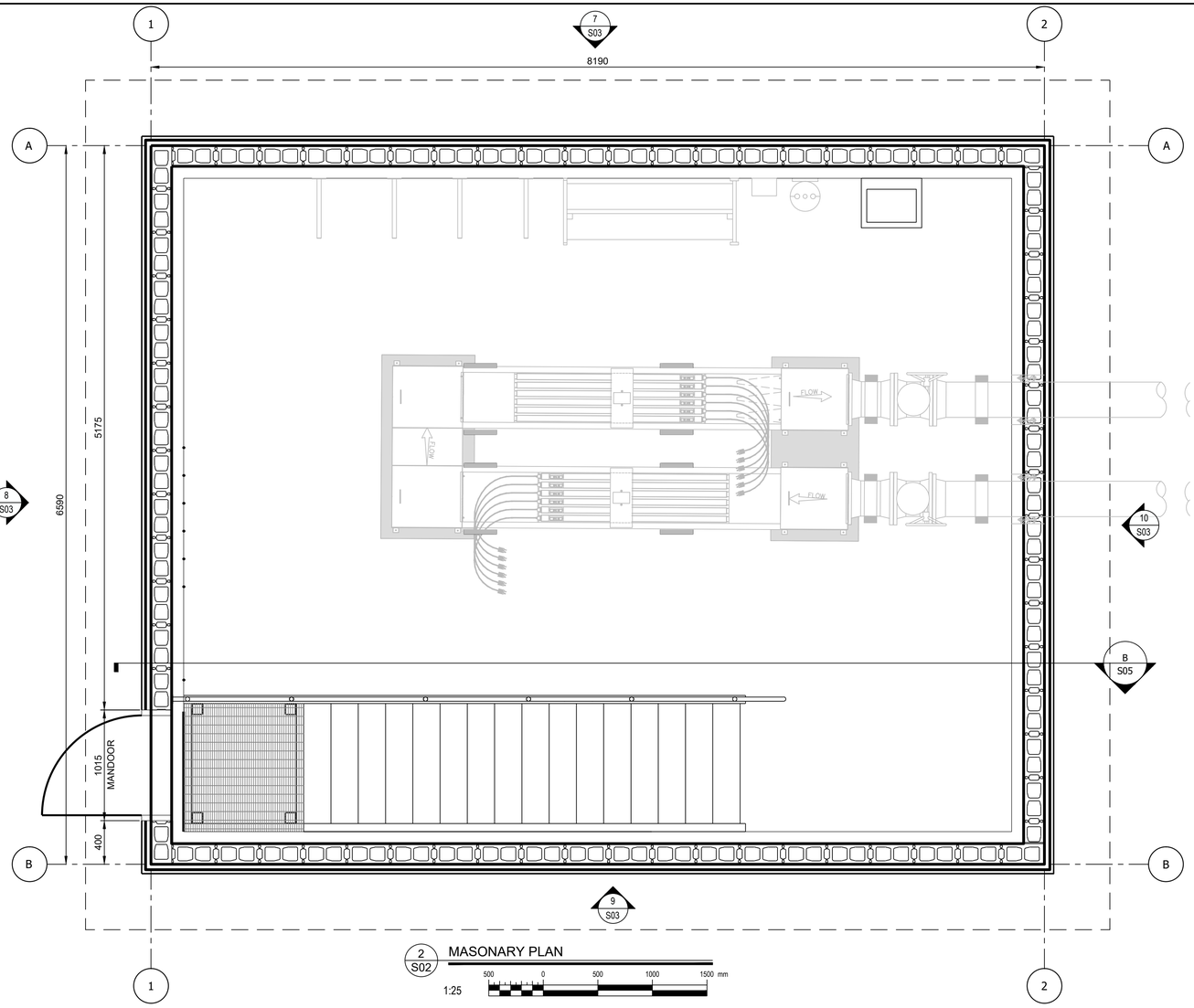
DRAWING TITLE

NEW UV BUILDING, FOUNDATION PLAN AND SECTIONS

Scale	Drawn By	Design By
1:25	AS	DM
	Checked By: DM	Cadd Check: -
	Sheet 01 of 06	

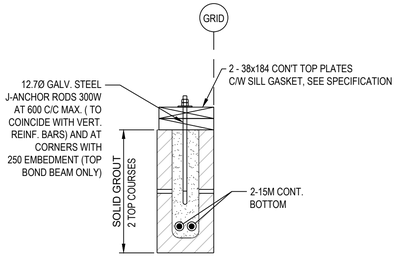
File Name: 2308072.001 S.DWG

Drawing No.: S01



2 S02 MASONARY PLAN

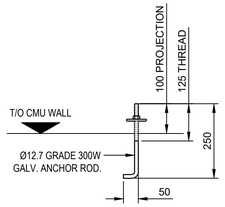
1:25



TYPICAL MASONRY BOND BEAM REINFORCEMENT FOR LOAD BEARING WALL AT ROOF

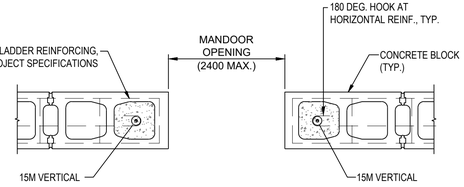
5 S02 BOND BEAM REINFORCEMENT

1:10



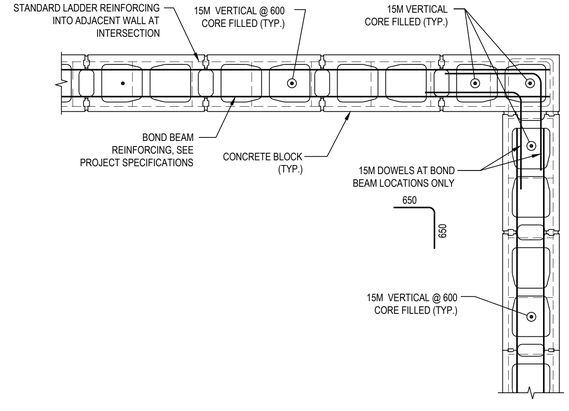
3 S02 TOP WALL PLATE ANCHOR DETAIL

1:10



4 S02 MANDOOR OPENING

1:20



6 S02 MASONARY WALL CORNER REINFORCEMENT

1:20

NOTES

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NEQOTKUK MALISEET NATION

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NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING, MASONRY PLAN AND DETAILS

Scale	Drawn By	Design By
AS SHOWN	AS	DM
	Checked By	Cadd Check
	DM	-
	Sheet 02 of 06	

File Name
2308072.001 S.DWG

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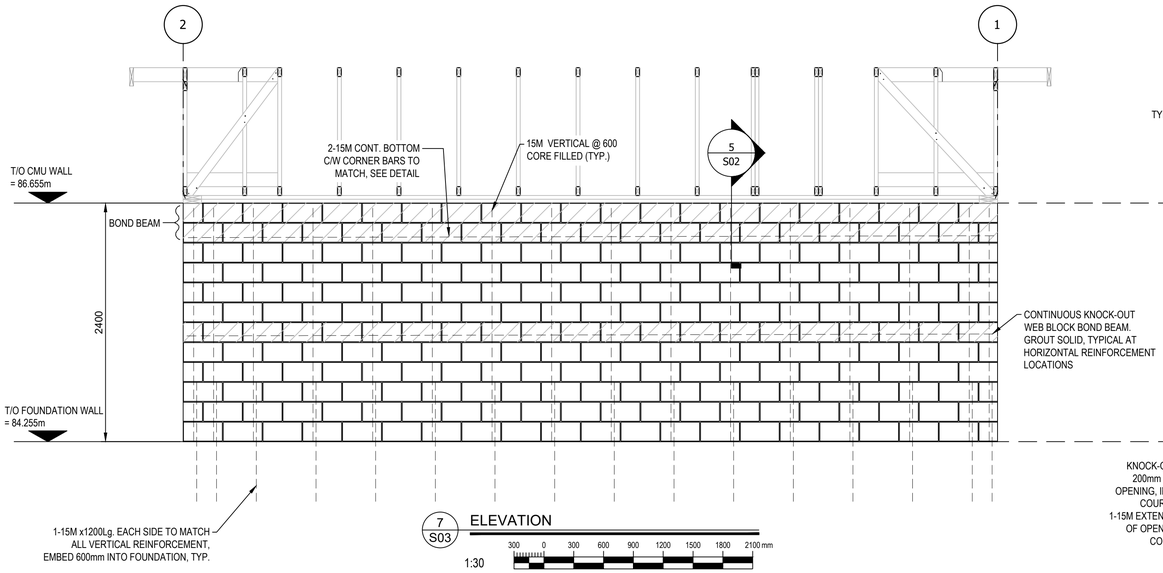
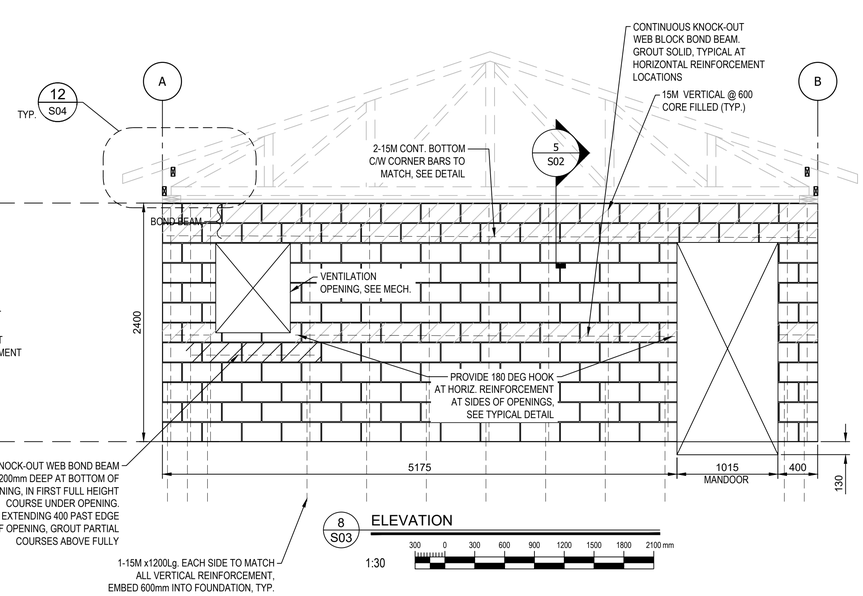
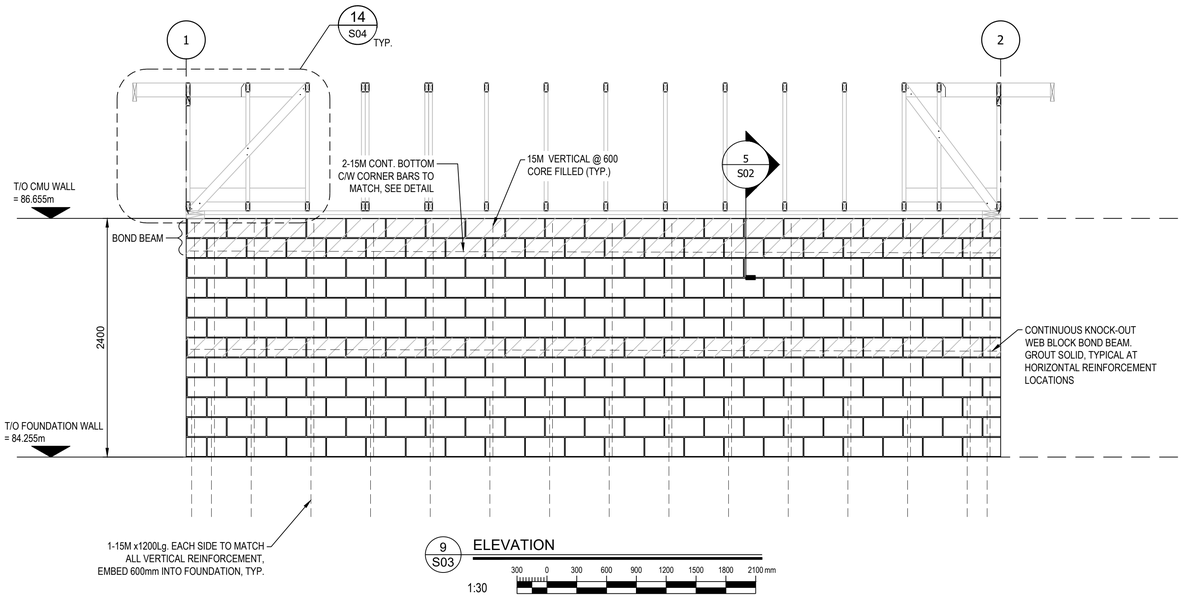
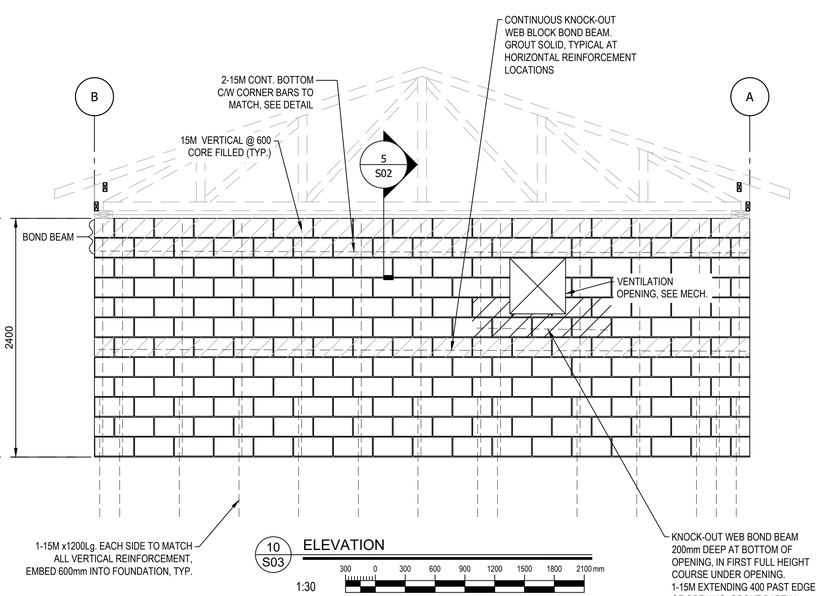
S02









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NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING, MASONRY ELEVATIONS

Scale	Drawn By	Design By
1:30	AS	DM
	Checked By	Cadd Check
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	Sheet 03 of 06	

File Name
2308072.001 S.DWG

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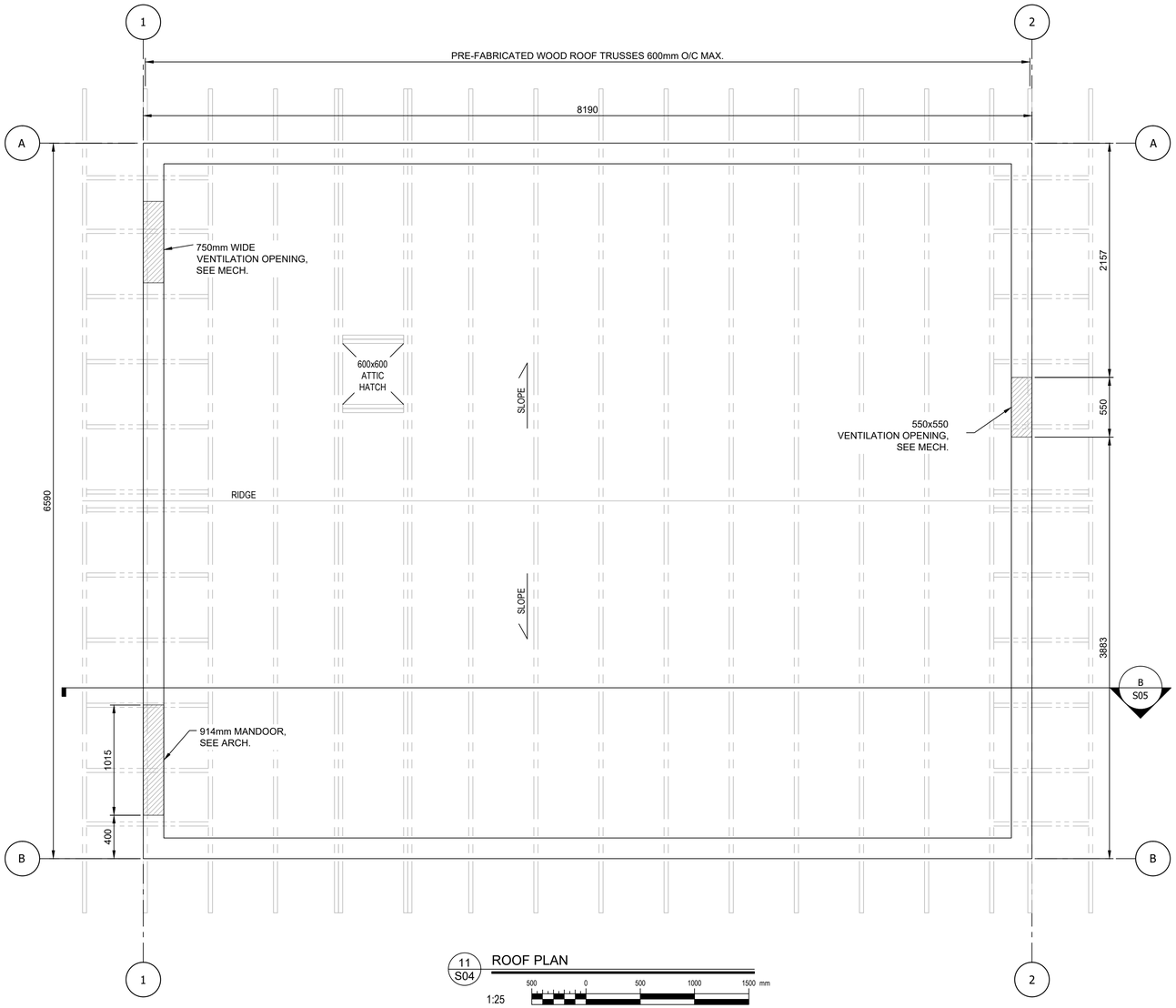
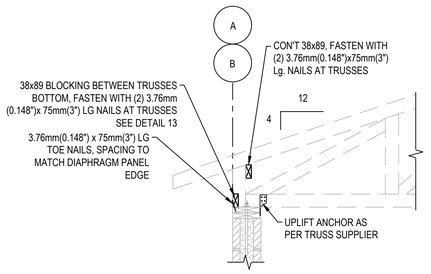


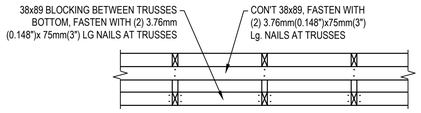
11 S04 ROOF PLAN

1:25



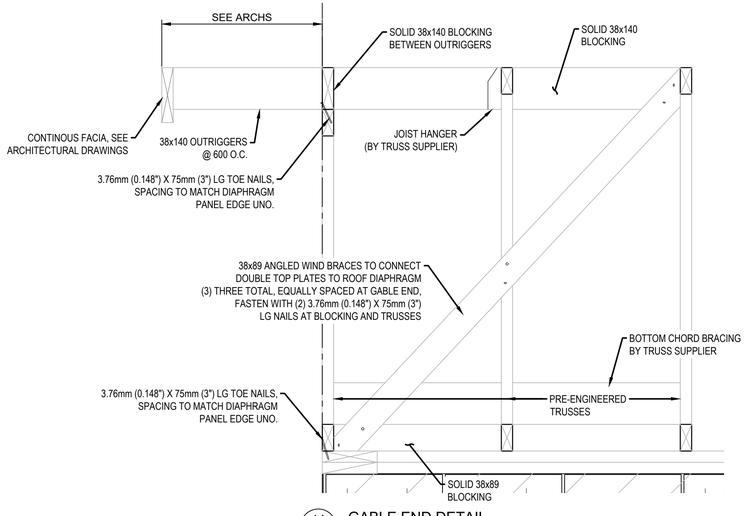
12 S04 TYPICAL TRUSS BLOCKING

1:20



13 S04 TRUSS BLOCKING ELEVATION VIEW

1:20



14 S04 GABLE END DETAIL

1:10

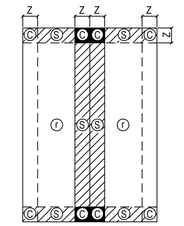
WIND LOADS - MAIN ROOF

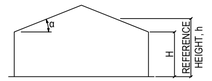
REF FIG. 4.1.7.6.C NBCC 2015

LOADS ARE UNFACTORED
IMPORTANCE FACTOR APPLIED

Z = 1.00m
EXPOSURE = OPEN
INTERIOR PRESSURE = CATEGORY 3

LEGEND: ——— ROOF WITH OVERHANG
– – – – – ROOF WITHOUT OVERHANG





GABLE ROOFS

7° < α < 45°

FOR MEMBERS WITH 5m² < TRIB AREA	FOR MEMBERS WITH 5m² > TRIB AREA
REGION -ve	REGION -ve
C = -0.68 kPa S = -0.51 kPa R = -0.68 kPa	C = -0.54 kPa S = -1.03 kPa R = -0.86 kPa
REGION +ve	REGION +ve
C,S,R = 0.11 kPa	C,S,R = 0.13 kPa
OVERHANGS	OVERHANGS
OC = -0.51 kPa OS = -1.03 kPa OR = -1.03 kPa	OC = -0.91 kPa OS = -1.05 kPa OR = -1.05 kPa

NOTES

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L6611 2025
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NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING, ROOF PLAN

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1:25	AS	DM
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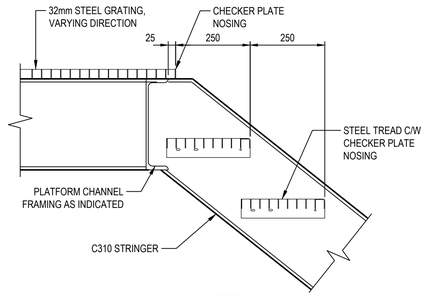
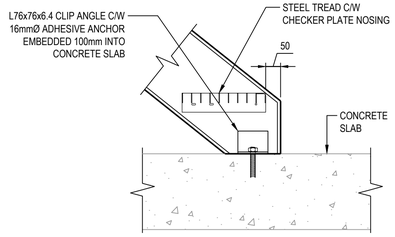
	Sheet 04 of 06	

File Name: 2308072.001 S.DWG

Drawing No.: S04



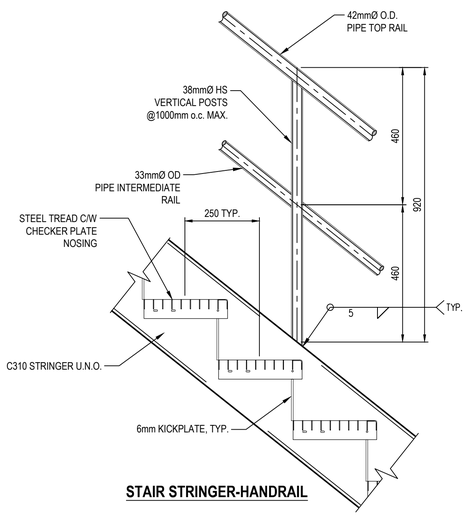
TOP OF LANDING-STEEL



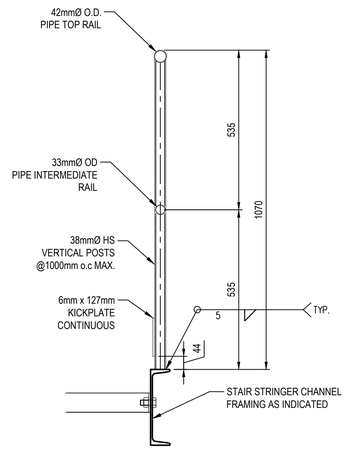
BOTTOM OF STAIRS-CONCRETE

15 S05 TYPICAL STAIR DETAILS

1:10



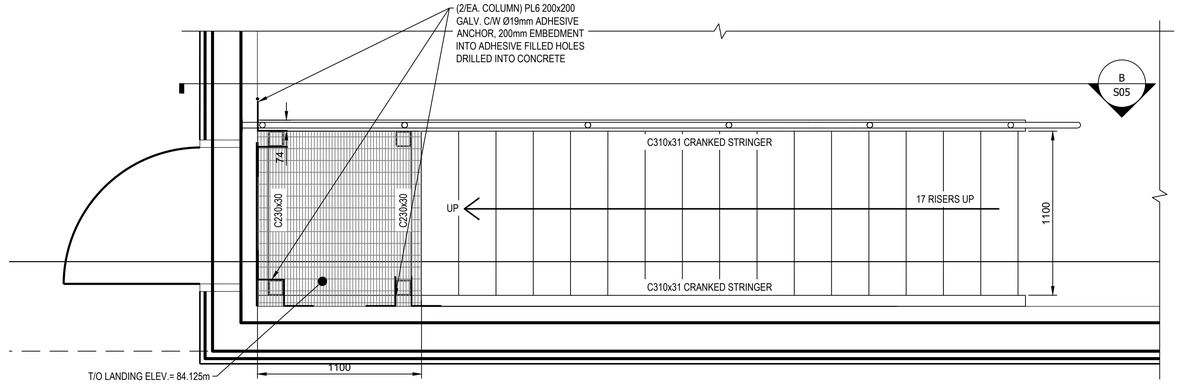
STAIR STRINGER-HANDRAIL



STAIR STRINGER-HANDRAIL

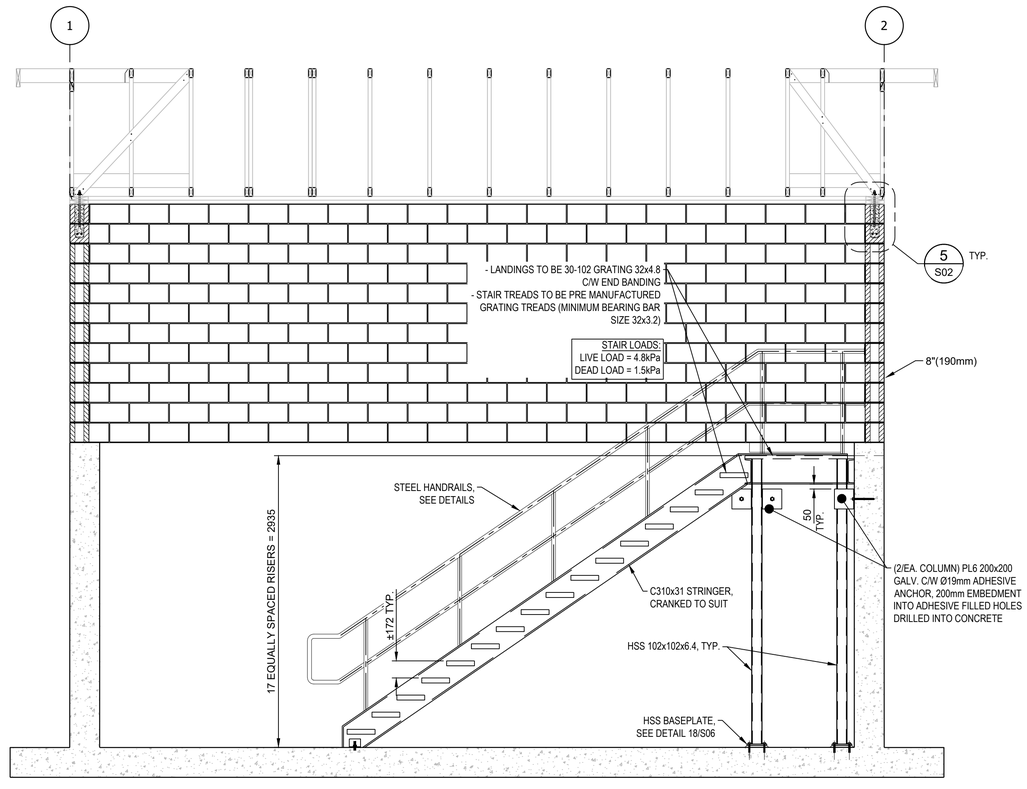
17 S06 TYPICAL HANDRAIL DETAILS

1:10



16 S05 PARTIAL PLAN VIEW - STRUCTURAL STAIRS

1:20



B S05 SECTION

1:30

NOTES

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Province of New Brunswick
L6611 2025
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PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING, STAIR SECTIONS AND DETAILS

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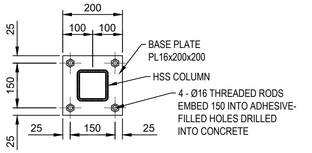
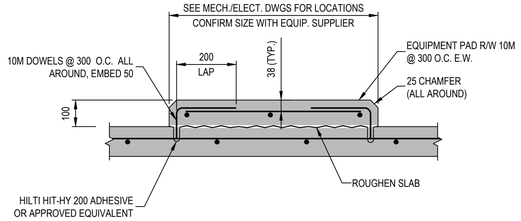
File Name: 2308072.001 S.DWG

Drawing No.: S05



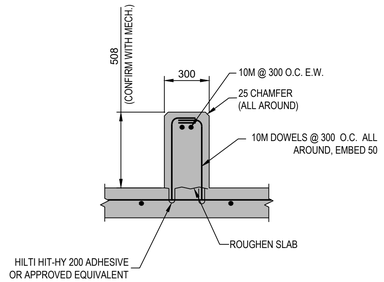
18 S06 TYPICAL BASEPLATE DETAIL

1:10



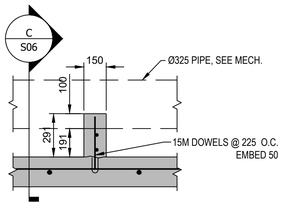
19 S06 TYPICAL HOUSEKEEPING PAD

1:20



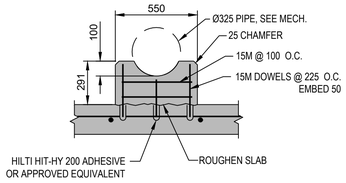
20 S06 TYPICAL UV BANK SUPPORT

1:20



21 S06 TYPICAL PIPE SADDLE

1:20



C S06 SECTION - PIPE SADDLE

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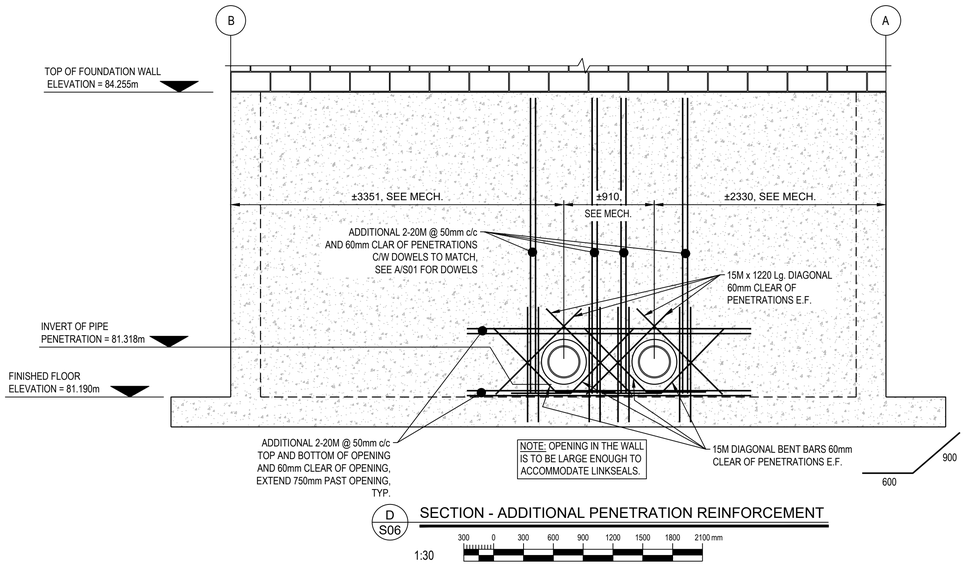

D S06 SECTION - ADDITIONAL PENETRATION REINFORCEMENT

1:30

NOTES

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NEQOTKUK MALISEET NATION

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NEW UV BUILDING, SECTIONS AND DETAILS

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	Checked By	Cadd Check
	DM	-
	Sheet 06 of 06	

File Name
2308072.001 S.DWG

Drawing No.
S06

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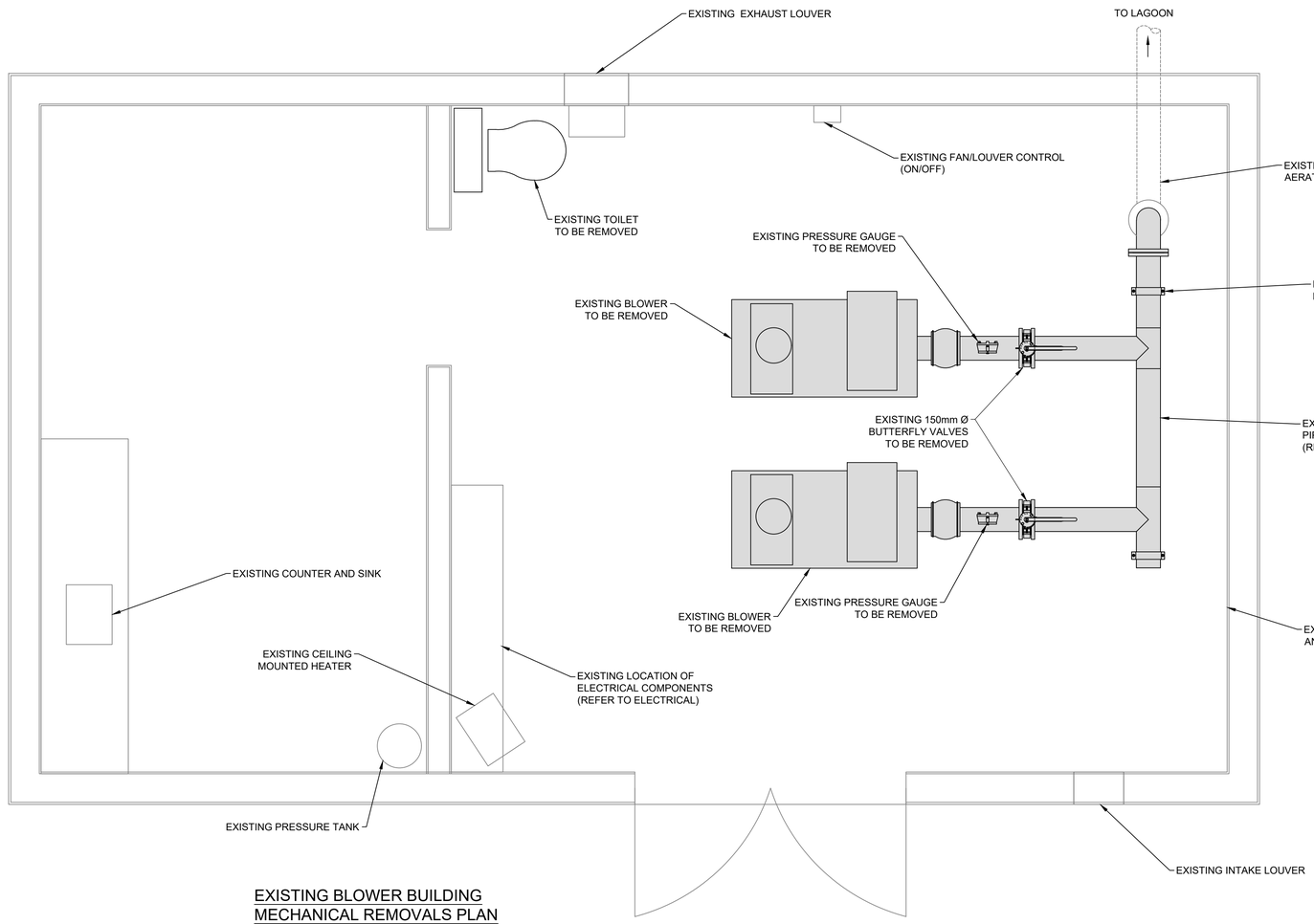

EXISTING BLOWER BUILDING MECHANICAL REMOVALS PLAN

0.2m 0 0.4m
(1:20 FULL SCALE)

NOTES

1. REFER TO ARCHITECTURAL AND STRUCTURAL SPECIFICATIONS FOR ADDITIONAL DETAILS IN REGARDS TO THE APPLICATION OF NEW SIDING INSTALLATION.

NO.	DATE	REVISIONS	BY	APPR.
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NEQOTKUK MALISEET NATION

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INGÉNIEUR IMMATRICULÉ

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EXISTING BLOWER BUILDING, REMOVALS PLAN

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	Sheet 01 of 06	

File Name: 2308072.001 M01-M03.DWG

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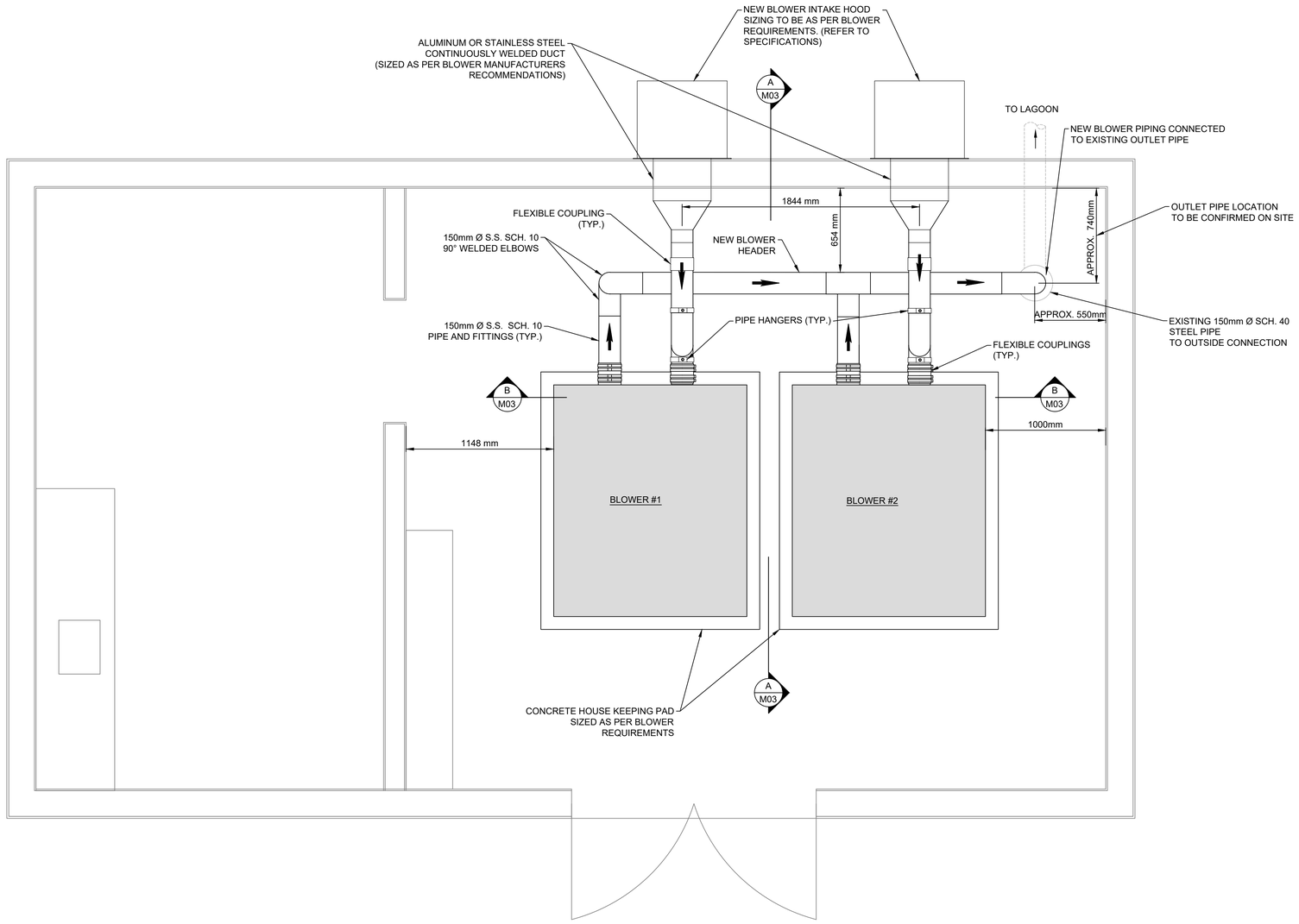

EXISTING BLOWER BUILDING
NEW BLOWER INSTALLATION PLAN

0.2m 0 0.4m
(1:20 FULL SCALE)

NOTES

1. CONNECTION TO BLOWER INTAKE HOODS TO BE MADE WITH FLEXIBLE RUBBER COUPLINGS APPROVED BY BLOWER MANUFACTURER.
2. INSTALL INTAKE HOOD IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. CONTRACTOR TO SUPPLY ALL FASTENERS, ANCHORS FOR THE INSTALLATION OF THE BLOWERS.
4. AIR INTAKE AND BLOWER DISCHARGE PIPING TO BE STAINLESS STEEL SCH. 10 STEEL, EXCEPT WHERE OTHERWISE NOTED.
5. PIPE SUPPORTS TO BE ANCHORED TO THE FLOOR USING 12.7mm Ø CHEMICAL ANCHORS, 100mm LONG.
6. FINAL BLOWER CONCRETE PAD DIMENSIONS TO BE DETERMINED FOLLOWING SHOP DRAWING REVIEW BY THE CONTRACTOR.
7. CONTRACTOR TO PROVIDE FITTINGS AS REQUIRED, INCIDENTAL TO THE WORK FOR THE CONNECTION OF BLOWER INTAKE AND DISCHARGE PIPING.
8. PIPING DIMENSIONS AND DIAMETER TO BE CONSIDERED MINIMAL AND BE CONFIRMED DURING SHOP DRAWING REVIEW.
9. TRANSITION FROM SCH. 10 S.S. PIPING TO SCH. 40 STEEL PIPING TO BE DONE INSIDE BUILDING AT FLANGE CONNECTION.
10. REFER TO STRUCTURAL FOR WALL PENETRATION OF NEW INTAKE HOODS.
11. EXACT WALL OPENINGS TO BE CONFIRMED FOLLOWING BLOWER AND INTAKE HOOD SHOP DRAWING APPROVAL.
12. LOCATION OF PIPE HANGERS ARE TO BE INSTALLED SO THERE IS NO INTERFERENCE WITH EXISTING LIGHTING MOUNTED ON THE CEILING. REFER TO STRUCTURAL FOR ANCHORING OF PIPE HANGERS.

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EXISTING BLOWER BUILDING, NEW BLOWER INSTALLATION PLAN

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AS NOTED	DWD	SS
	Checked By	Cadd Check
	SML	TS
	Sheet 02 of 06	

File Name
2308072.001 M01-M03.DWG

Drawing No.
M02

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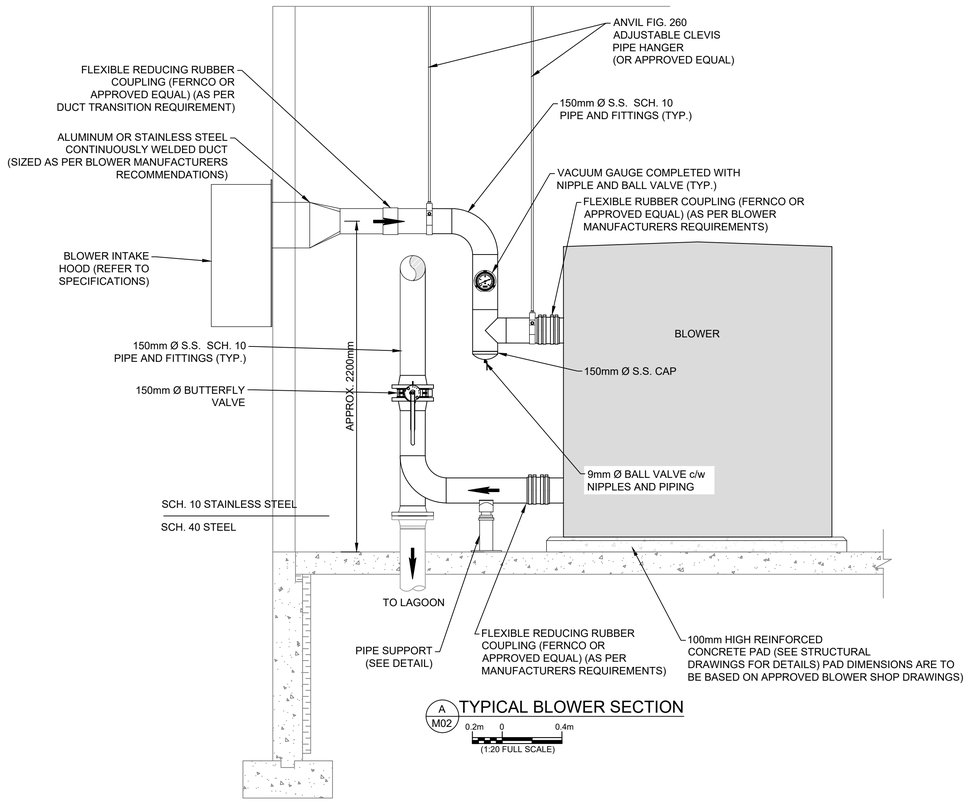
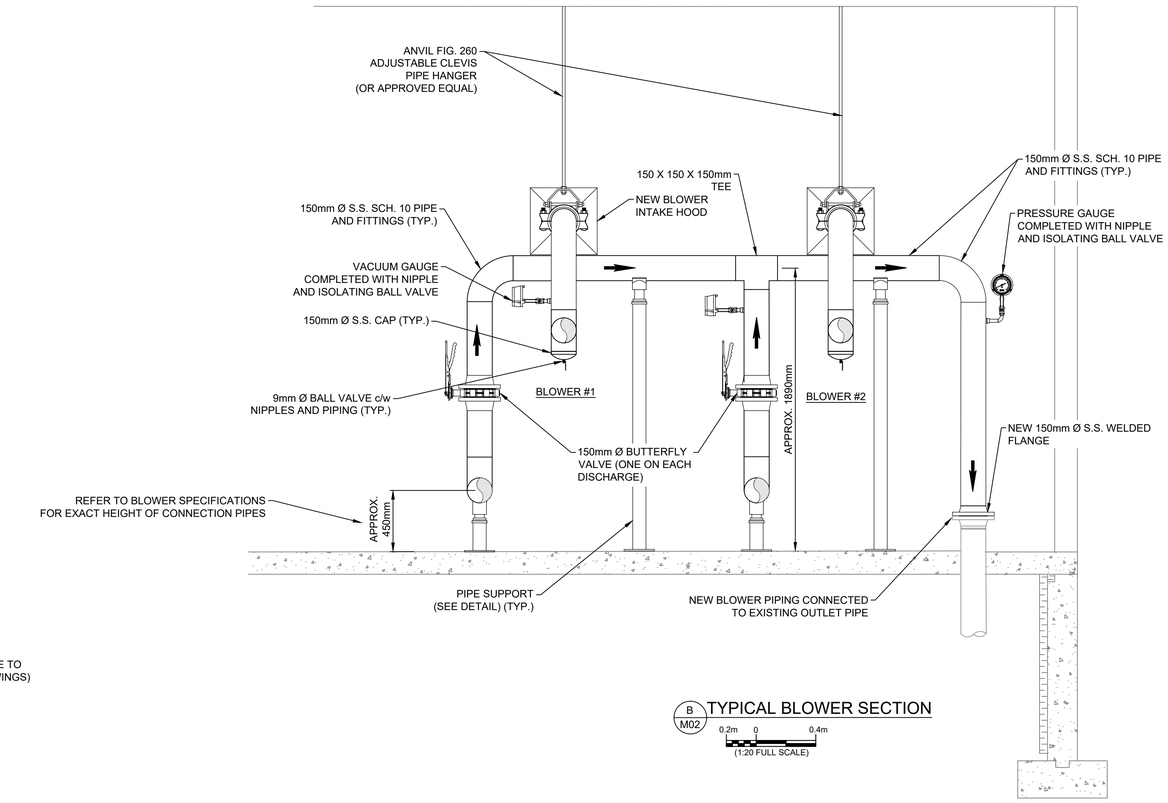


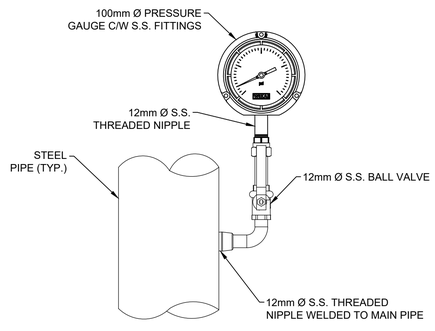
A M02 TYPICAL BLOWER SECTION

0.2m 0 0.4m
(1:20 FULL SCALE)



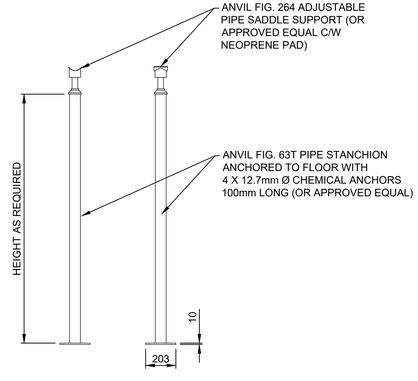
B M02 TYPICAL BLOWER SECTION

0.2m 0 0.4m
(1:20 FULL SCALE)



TYPICAL INSTALLATION -
VACUUM/PRESSURE GAUGE

0.05m 0 0.1m
(1:5 FULL SCALE)



PIPE SUPPORT DETAIL

0.2m 0 0.4m
(1:20 FULL SCALE)

NOTES

1. CONNECTION TO BLOWER INTAKE HOODS TO BE MADE WITH FLEXIBLE RUBBER COUPLINGS APPROVED BY BLOWER MANUFACTURER.
2. INSTALL INTAKE HOOD IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. CONTRACTOR TO SUPPLY ALL FASTENERS, ANCHORS FOR THE INSTALLATION OF THE BLOWERS.
4. AIR INTAKE AND BLOWER DISCHARGE PIPING TO BE STAINLESS STEEL SCH. 10 STEEL, EXCEPT WHERE OTHERWISE NOTED.
5. PIPE SUPPORTS TO BE ANCHORED TO THE FLOOR USING 12.7mm Ø CHEMICAL ANCHORS, 100mm LONG.
6. FINAL BLOWER CONCRETE PAD DIMENSIONS TO BE DETERMINED FOLLOWING SHOP DRAWING REVIEW BY THE CONTRACTOR.
7. CONTRACTOR TO PROVIDE FITTINGS AS REQUIRED, INCIDENTAL TO THE WORK FOR THE CONNECTION OF BLOWER INTAKE AND DISCHARGE PIPING.
8. PIPING DIMENSIONS AND DIAMETER TO BE CONSIDERED MINIMAL AND BE CONFIRMED DURING SHOP DRAWING REVIEW.
9. TRANSITION FROM SCH. 10 S.S. PIPING TO SCH. 40 STEEL PIPING TO BE DONE INSIDE BUILDING AT FLANGE CONNECTION.
10. REFER TO STRUCTURAL FOR WALL PENETRATION OF NEW INTAKE HOODS.
11. EXACT WALL OPENINGS TO BE CONFIRMED FOLLOWING BLOWER AND INTAKE HOOD SHOP DRAWING APPROVAL.
12. LOCATION OF PIPE HANGERS ARE TO BE INSTALLED SO THERE IS NO INTERFERENCE WITH EXISTING LIGHTING MOUNTED ON THE CEILING. REFER TO STRUCTURAL FOR ANCHORING OF PIPE HANGERS.

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	DWD	SS

NEGOTKUK MALISEET NATION

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBE

REGISTERED PROFESSIONAL ENGINEER
Province of New Brunswick
M8261
Shawn M. LeBlanc
Signature
2025-04-10
Date
Province du Nouveau-Brunswick
INGÉNIEUR IMMATRICULÉ

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

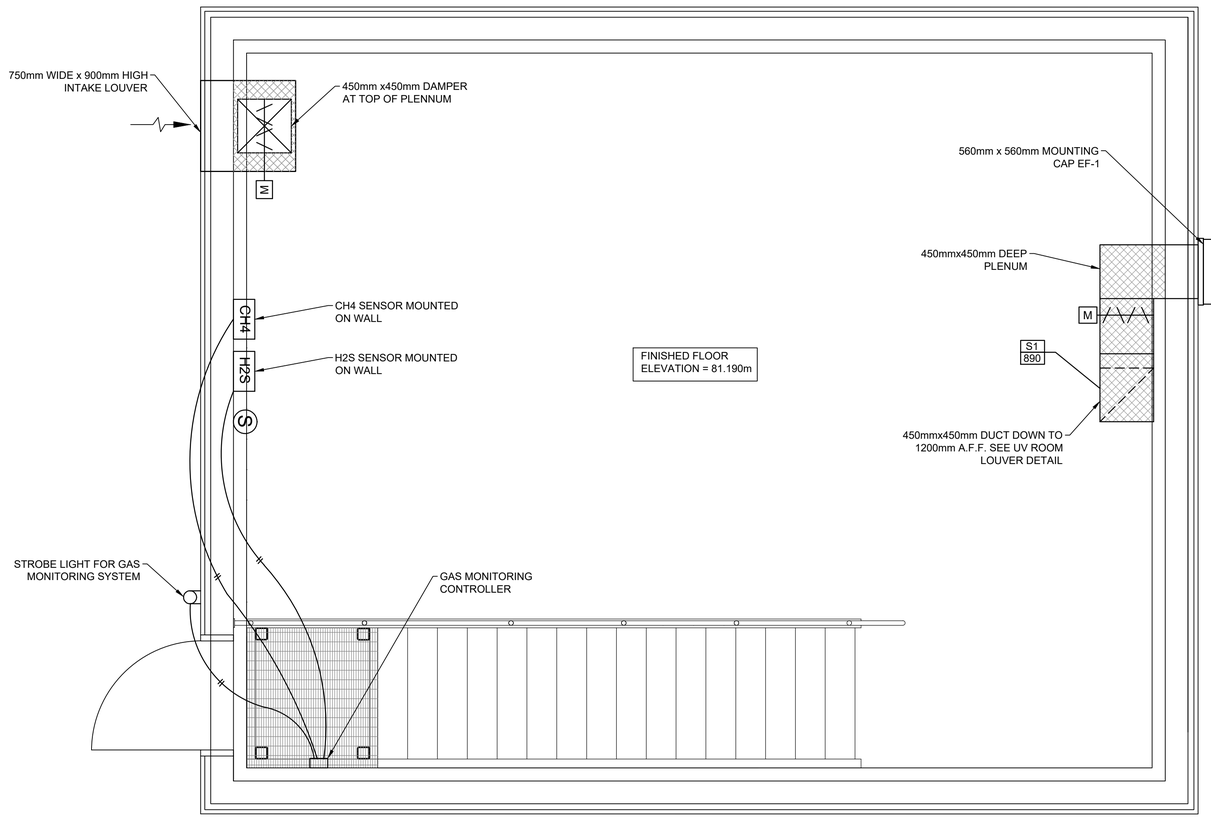
DRAWING TITLE

EXISTING BLOWER BUILDING, MECHANICAL SECTIONS AND DETAILS

Scale	Drawn By	Design By
AS NOTED	DWD	SS
	Checked By: SML	Cadd Check: TS
	Sheet 03 of 06	

File Name: 2308072.001 M01-M03.DWG

Drawing No.: M03



VENTILATION FLOOR PLAN

0.25m 0 0.5m
(1:25 FULL SCALE)

LEGEND

- RIGID DUCTWORK
- type / flow — DIFFUSER/GRILLE
- THERMAL INSULATION
- S — SENSOR BY ELECTRICAL
- EXHAUST FAN
- M — MOTORIZED DAMPER
- CH4 — METHANE SENSOR (INSTALL NEAR CEILING)
- H2S — HYDROGEN SULPHIDE SENSOR (INSTALL 1200-1800mm ABOVE FLOOR)
- CONTROL WIRING

NOTES

1. EXHAUST FAN OPENING DIMENSIONS TO BE CONFIRMED FOLLOWING SHOP DRAWING APPROVAL.
2. DAMPERS SHALL BE INSULATED ALUMINUM FRAME AND BLADES, LOW LEAKAGE TYPE. TAMCO 9000 OPPOSED BLADE OR EQUAL FOR LOUVERS AND ASSOCIATED DUCTWORK.
3. ACTUATORS SHALL BE BELIMO AF24 OR EQUAL, SUPPLIED BY VENTILATION CONTRACTOR AND INSTALLED BY CONTROLS CONTRACTOR.

DIFFUSER GRILLE SCHEDULE

NO.	TYPE	SERVICE	L/S RANGE	NECK SIZE	THROW m	PATTERN	MANUFACTURER
ST	GRID FACE SURFACE MOUNT	SUPPLY	890	450x 450	-	◁	E.H. PRICE 450x450/80/F/A/B12

APPROVED EQUAL: NAILOR INDUSTRIES

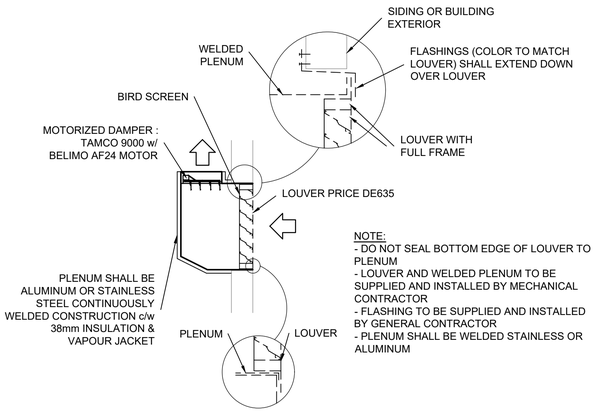
FAN SCHEDULE

NO.	MANUFACTURER	APPLICATION	L/S	SP (Pa)	RPM	ELECTRIC W	V	PH	REMARKS
EF-1	GREENHECK CUBE-160	UV ROOM EXHAUST	890	1270	856	248	115	1	C/W BS, DS, VI, RC MD AND DISCONNECT

BS - BIRD SCREEN
DS - FACTORY WIRED DISCONNECT
APPROVED EQUAL: S&P FANS

MD - MOTORIZED DAMPER
RC - ROOF CURB

VI - VIBRATION ISOLATORS
WC - WALL CAP C/W FLASHING



NOTE:
- DO NOT SEAL BOTTOM EDGE OF LOUVER TO PLENUM
- LOUVER AND WELDED PLENUM TO BE SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR
- FLASHING TO BE SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR
- PLENUM SHALL BE WELDED STAINLESS OR ALUMINUM

UV ROOM - INTAKE WALL LOUVER DETAIL

N.T.S.

CONTROL (NORMAL MODE)

-VENTILATION SHALL BE CONTROLLED BY STATION PLC.

-DIGITAL TEMPERATURE SENSOR SHALL HAVE MANUAL OVERRIDE BUTTON.

-@ > 25° C START EF-1 (EDITABLE BY OWNER).

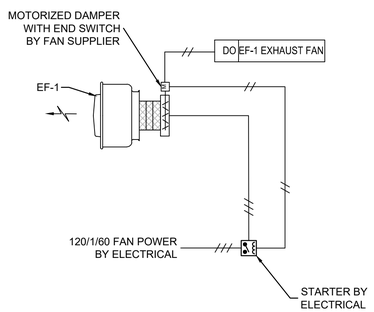
-WILL STOP WHEN TEMPERATURE DROPS 3°C BELOW START POINT.

-HIGH TEMPERATURE ALARM @ 35° C (EDITABLE BY OWNER)

-LOW TEMPERATURE ALARM @ 10° C (EDITABLE BY OWNER)

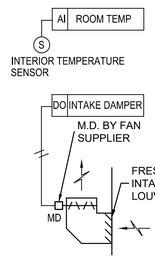
-VENTILATION TO OPERATE FOR 15 MIN. AT 1:00PM EACH DAY (EDITABLE BY OWNER).

-GAS DETECTION SIGNAL FROM GAS CONTROLLER WILL SEND ALARM TO PLC. PLC TO ACTIVATE VENTILATION.



EF-1 VENTILATION CONTROLS

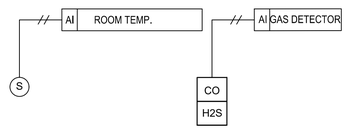
N.T.S.



NOTES:
ALL 120 VOLT AND 24 VOLTS WIRING BY ELECTRICAL CONTRACTOR.

DAMPERS TO BE ALUMINUM FRAME, AND ALUMINUM BLADE. LOW LEAKAGE INSULATED TYPE. SUPPLIED AND INSTALLED BY VENTILATION CONTRACTOR

QUANTITIES OF DAMPERS AND ACTUATORS SHALL BE VERIFIED ON SITE. ACTUATORS BY VENTILATION CONTRACTOR. CONTRACTOR SHALL PROVIDE ADDITIONAL COMPONENTS AS REQUIRED TO MAKE SYSTEM COMPLETE AND OPERATIONAL.



GAS DETECTOR:
- ON GAS DETECTION ALARM
- VENTILATION GOES TO MAX.
- ALARM SENT THRU SCADA

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NEGOTKUK MALISEET NATION

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eNGLOBe

REGISTERED PROFESSIONAL ENGINEER
Province of New Brunswick
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Shawn M. LeBlanc
Signature
2025-04-10
Date
Province du Nouveau-Brunswick
INGÉNIEUR IMMATRICULÉ

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

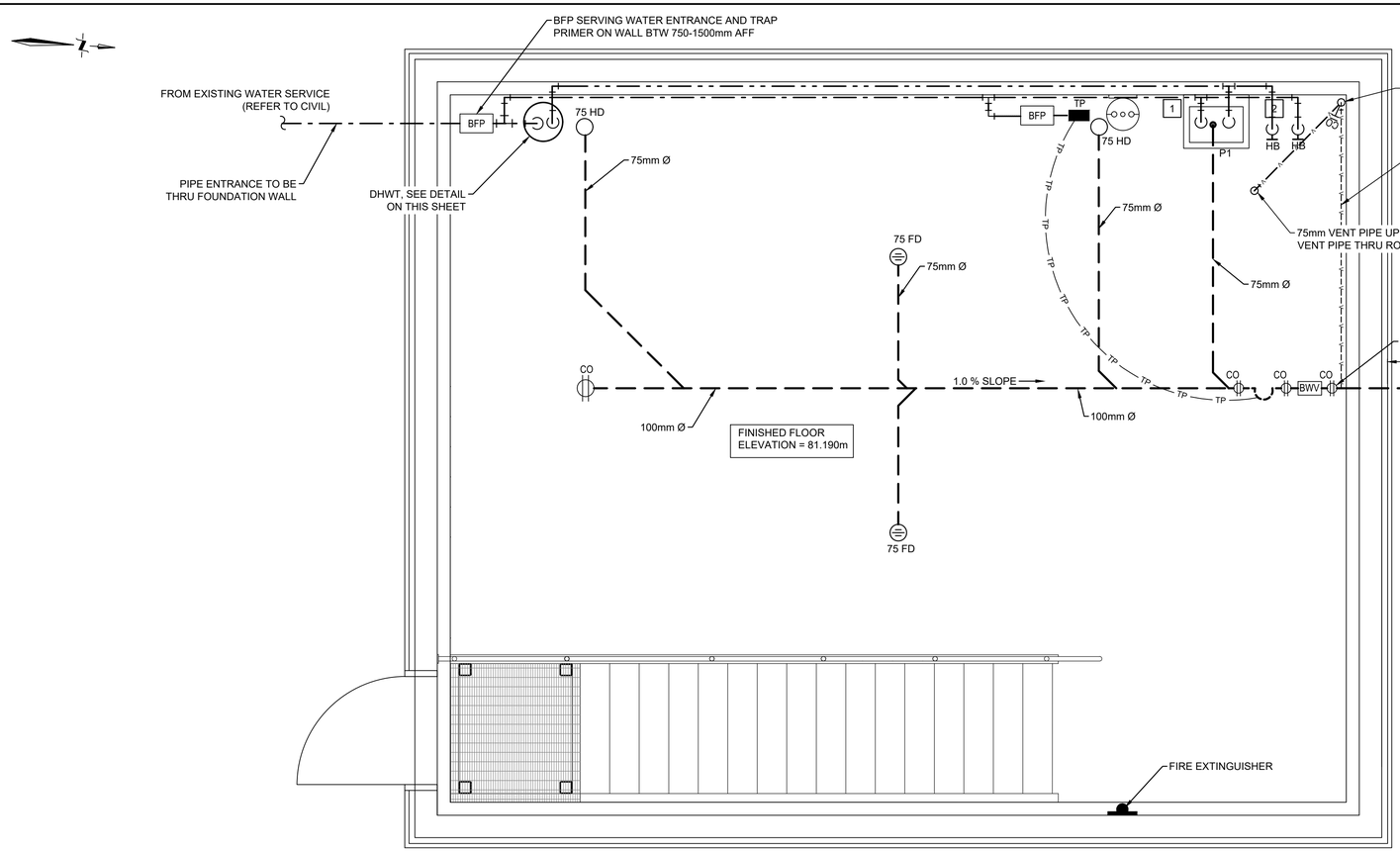
DRAWING TITLE

NEW UV BUILDING, VENTILATION PLAN, SCHEDULES AND DETAILS

Scale	Drawn By	Design By
AS NOTED	DWD	SS
	Checked By	Cadd Check
	SML	TS
	Sheet 04 of 06	

File Name
2308072.001 M04-M05.DWG

Drawing No.
M04



SANITARY / VENTING AND WATER FLOOR PLAN

0.25m 0 0.5m
(1:25 FULL SCALE)

NOTES

- ALL PIPING ON EXTERIOR WALL SHALL BE RUN ON WARM SIDE OF INSULATION.
- PROVIDE SHUT OFF VALVES FOR ALL BACKFLOW PREVENTORS.

1 DROP 19mm Ø CW SERVING HOSE BIBBS AND 13mm Ø DHW & DCW SERVING LAUNDRY TUB C/W SHUT OFF VALVES

2 RISE 19mm Ø CW PIPE SERVING HOSE BIBB ON WARM SIDE OF INSULATION IN WALL.

LEGEND

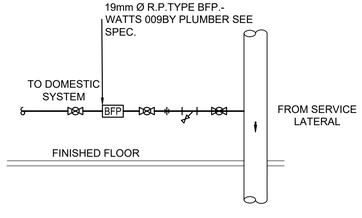
- TW — TEMPERED WATER
- NEW UNDERSLAB COLD WATER
- NEW COLD WATER
- NEW HOT WATER
- V — NEW VENT
- V — VENT BELOW SLAB
- NEW SANITARY
- TP — NEW TRAP PRIMER
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- FD — FLOOR DRAIN
- CO — FLOOR CLEAN OUT
- CO — WALL CLEAN OUT
- HD — HUB DRAIN
- PIPE DOWN
- PIPE UP
- ANTI-SIPHON VALVE
- WHA — WATER HAMMER ARRESTORS
- BALL VALVE
- PR — PRESSURE RELIEF VALVE
- CHECK VALVE
- BFP — BACK FLOW PREVENTOR (REDUCED PRESSURE)
- FUNNEL
- UNION
- REDUCER
- HB — HOSE BIBB
- STRAINER
- FIRE EXTINGUISHER
- MV — MIXING VALVE
- PIPE DOWN
- RUNNING TRAP
- BWV — BACK WATER VALVE

PLUMBING FIXTURE SCHEDULE

No.	MANUFACTURER	TRIM			PIPE SIZE					REMARKS
		STOPS	SUPPLY	TRAP	TW	CW	DHW	W	V	
P1	FLOOR MOUNTED LAUNDRY TUB (F) FL-1	(D) 47P2512	(F) A-1 DECK	(D) 33T160	13	13	38	-	-	
HB	INTERIOR HOSE BIBB (M) MHY-90	BALL VALVE	-	-	-	19	19	-	-	c/w CAST IRON WHEEL HANDLE, INDICATE ON HB WHETHER COLD OR HOT WATER

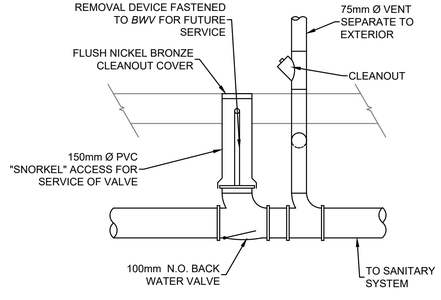
ACCEPTABLE PRODUCTS:
WASTE: (D)-DELTA, (McG)-McGUIRE, (Z)-ZURN
STOPS / BRASS: (DA)-DAHL, (D)-DELTA, (McG)-McGUIRE, (Z)-ZURN
SUPPLIES / FAUCETS: (C)-CRANE, (CB)-CAMBRIDGE BRASS, (CF)-CHICAGO FAUCETS, (D)-DELTA, (McG)-McGUIRE, (SL)-SLOAN, (Z)-ZURN
FLOOR DRAINS: (JRS)-J. R. SMITH, (M)-MIFAB, (Z)-ZURN
HOSE BIBBS: (M)-MIFAB, (Z)-ZURN
LAUNDRY TUB: (F) FIAT

NOTE: ALL STOPS SHALL BE BY ONE MANUFACTURER.
ALL SUPPLIES SHALL BE BY ONE MANUFACTURER.



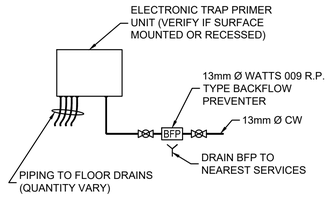
DOMESTIC WATER ENTRANCE DETAIL

N.T.S.



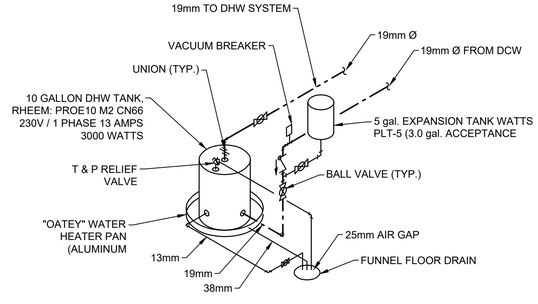
BACK WATER VALVE DETAIL

N.T.S.



ELECTRONIC TRAP PRIMER UNIT DETAIL

N.T.S.



DHW HEATER DETAIL

N.T.S.

NOTES

1. PRIOR TO INSTALLING SANITARY PLUMBING, CONTRACTOR TO CONFIRM INVERT ELEVATION AT CONNECTION OUTSIDE OF BUILDING

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	DWD	SS

NEGOTKUK MALISEET NATION

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBE

REGISTERED PROFESSIONAL ENGINEER Province of New Brunswick M8261 Shawn M. LeBlanc Signature 2025-04-10 Date Province du Nouveau-Brunswick INGÉNIEUR IMMATRICULÉ

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING, DOMESTIC WATER, PLUMBING PLAN AND SCHEDULES AND DETAILS

Scale	Drawn By	Design By
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	Checked By	Cadd Check
	SML	TS
	Sheet 05 of 06	

File Name
2308072.001 M04-M05.DWG

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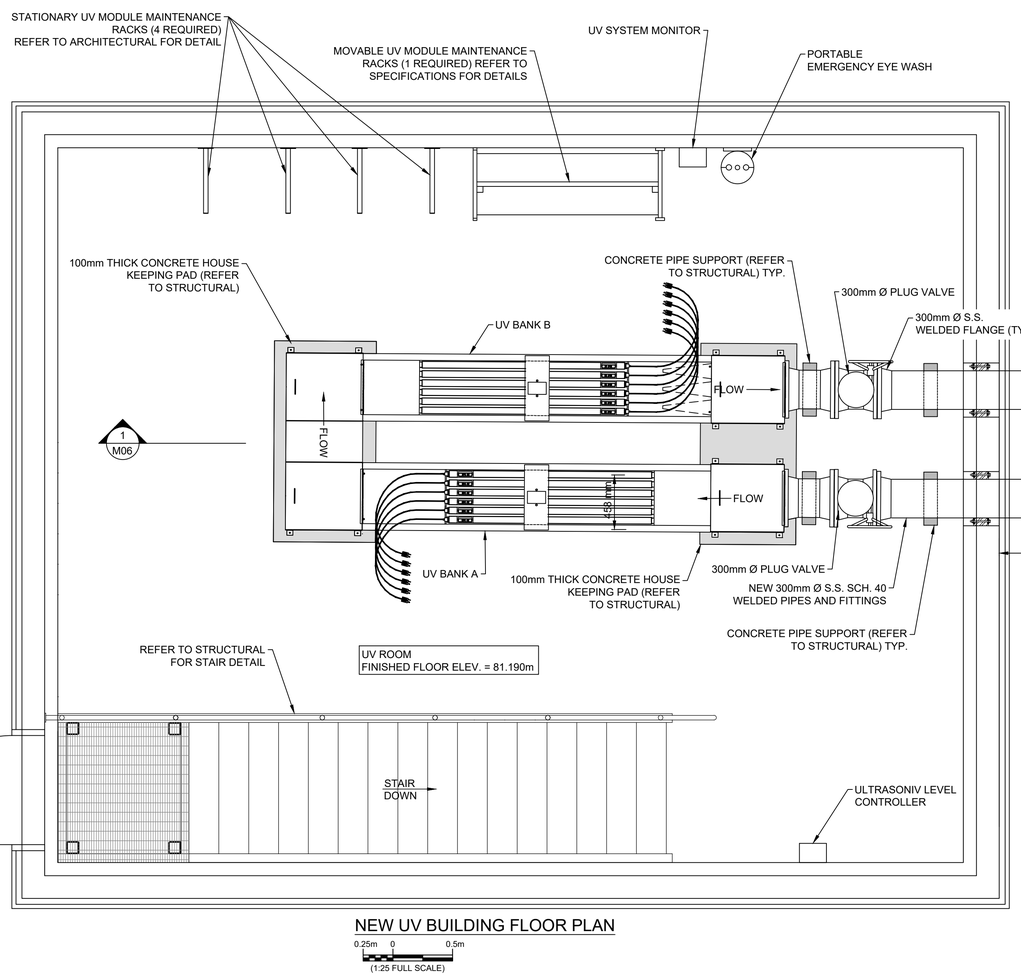
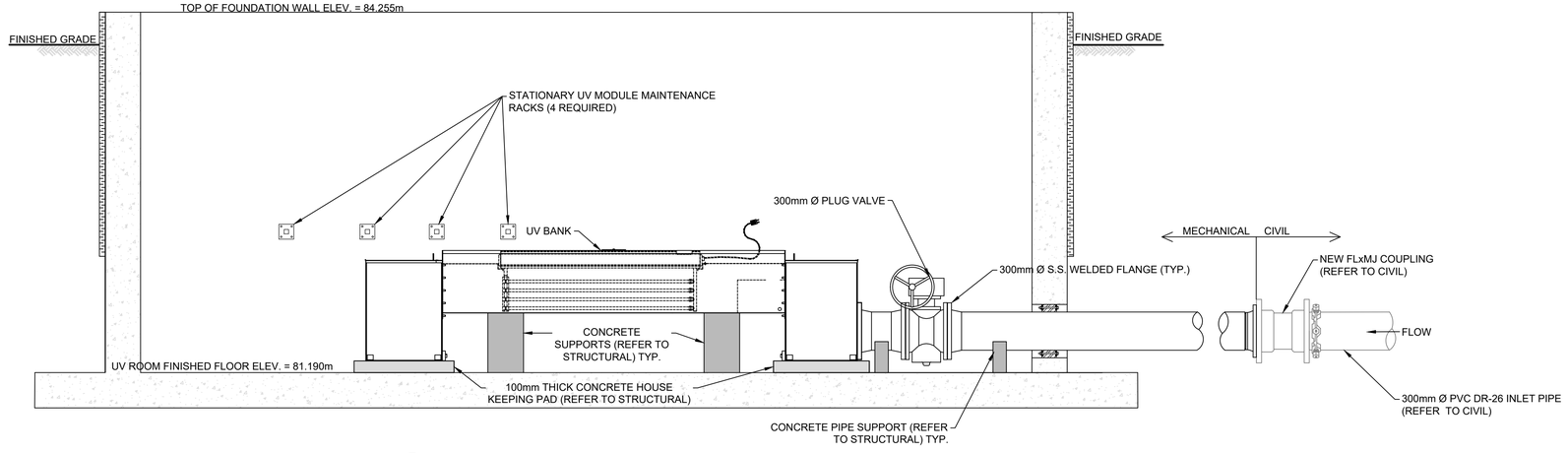
M05



NEW UV BUILDING FLOOR PLAN

0.25m 0 0.5m
(1:25 FULL SCALE)



1 M06 UV BUILDING CROSS SECTION

0.25m 0 0.5m
(1:25 FULL SCALE)

NOTES

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UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING, FLOOR PLAN AND SECTION

Scale	Drawn By	Design By
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	Checked By: SML	Cadd Check: TS
	Sheet 06 of 06	

File Name: 2308072.001 M06-M07.DWG

Drawing No.: M06

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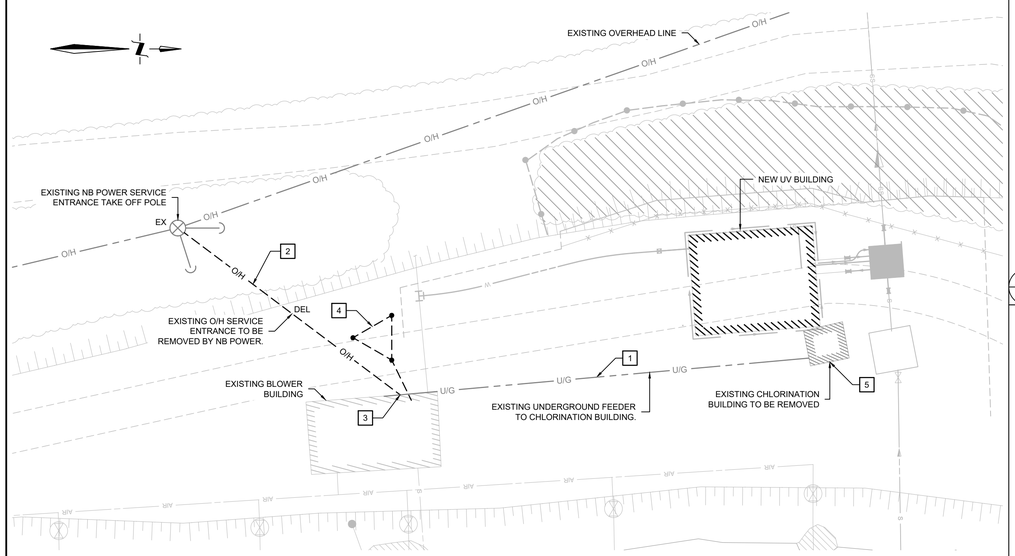
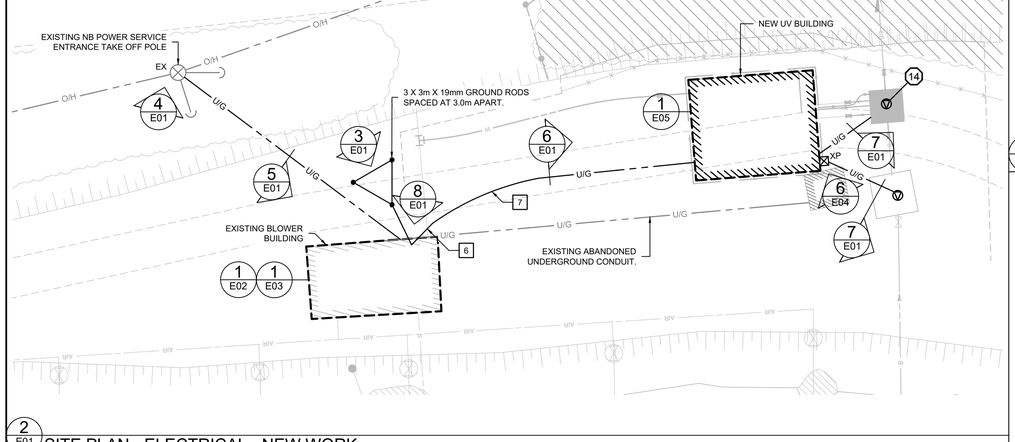


1 E01 SITE PLAN - ELECTRICAL - DEMOLITION PLAN 1:200



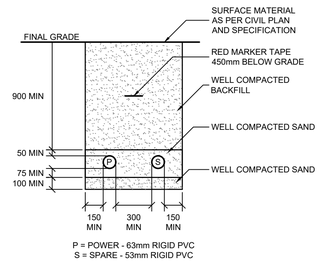
2 E01 SITE PLAN - ELECTRICAL - NEW WORK 1:200

DETAIL NOTE:
1. CONTRACTOR TO PROVIDE PHOTOS TO ELECTRICAL ENGINEER OF EXOTHERMIC WELD FOR APPROVAL. CONTRACTOR SHALL PROVIDE INDIVIDUAL PHOTOS OF EVERY CONNECTION, ON BOTH SIDES OF THE CONNECTION. IF NO PHOTOS ARE PROVIDED ENGINEER MAY REQUEST THIS CONTRACTOR TO DIG UP CONNECTIONS AT NO ADDITIONAL COST.
2. GROUND GRID SHALL BE INSTALLED A MINIMUM OF 1.0m BELOW FINISHED GRADE.

3 E01 GROUND GRID DETAIL NTS

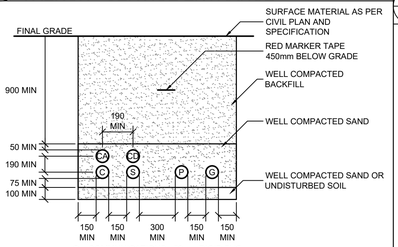
DETAIL NOTES:
1. INSTALL AS PER NB POWER STANDARD
2. UNDERGROUND SERVICE CONDUIT SHALL BE SEALED AND INSTALLED AS PER CEC 6-300. PROVIDE SUITABLE DRAINAGE TO CONDUIT TO AVOID MOISTURE AND WATER BACKUP.
3. CONDUITS SHALL RISE MINIMUM 600mm A.F.G C/W CONDUIT GUARD. SEAL ALL CONDUITS TO PREVENT WATER ENTRY.

4 E01 TAKE-OFF POLE DETAIL NTS



P = POWER - 63mm RIGID PVC
S = SPARE - 53mm RIGID PVC

5 E01 TRENCH - SERVICE ENTRANCE NTS

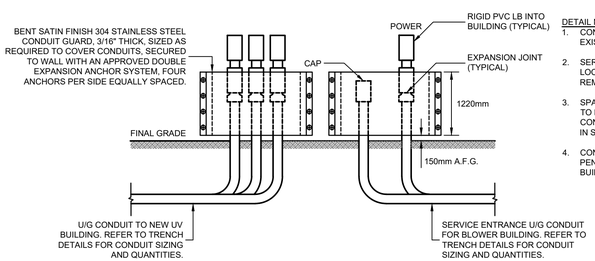


C = COMMUNICATIONS - 53mm RIGID PVC
G = GROUND - 27mm RIGID PVC
P = POWER - 53mm RIGID PVC
S = SPARE - 53mm RIGID PVC
CA = CONTROLS ANALOG - 53mm
CD = CONTROLS DIGITAL - 53mm

6 E01 TRENCH - NEW UV BUILDING FEEDER NTS

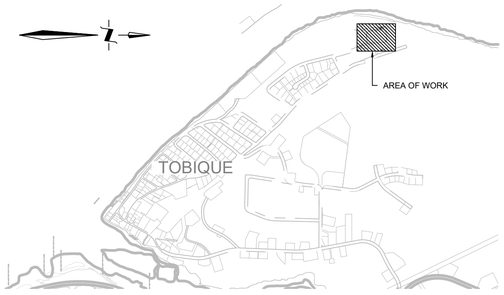
S = SPARE - 53mm RIGID PVC
C = COMMUNICATIONS - 27mm RIGID PVC

7 E01 TRENCH - UV WELLS NTS



DETAIL NOTES:
1. CONFIRM ELEVATIONS ON SITE WITH EXISTING CONDITIONS.
2. SERVICE ENTRANCE POKE-THROUGH LOCATION IN BUILDING SHALL MATCH REMOVED METER BOX.
3. SPARE CONDUIT FROM TAKE OFF POLE TO BE STUBBED UP AND CAPPED. CONTRACTOR SHALL INCLUDE FISH CORD IN SPARE CONDUIT.
4. CONDUIT TO NEW UV BUILDING TO MATCH PENETRATION HEIGHT OF BLOWER BUILDING SERVICE ENTRANCE LB.

8 E01 DETAIL - CONDUIT GUARD ELEVATION NTS



9 E01 KEY PLAN NTS

GENERAL NOTES:

1. CONTRACTOR SHALL LOCATE ALL EXISTING SERVICES IN AREA WHERE TRENCHING IS PROPOSED (POWER, COMMUNICATIONS, NATURAL GAS PIPING, DRAINAGE, WATER ENTRANCE, SPRINKLER ENTRANCE, ETC.). CONTRACTOR SHALL CARRY ALL COSTS ASSOCIATED REQUIRED TO PROVIDE SITE LOCATES AND COORDINATE WITH LOCAL UTILITIES/AUTHORITIES FOR LOCATES.

   CONTRACTOR TO PROVIDE FULL SITE PHOTOS OF THE AREA OF WORK TO THE CONSULTANT. ALL SURFACES DISTURBED BY THIS WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
2. CONFIRM GRADE OF ASPHALT AND MATCH PRIOR TO REPAIRS. HYDRO SEED SHALL BE USED FOR EXISTING LAWN LOCATIONS. NO EXTRAS WILL BE ALLOWED FOR AREAS REPAIRED OUTSIDE OF THE SCOPE OF WORK.

   INDICATED ROUTING IS DIAGRAMMATIC ONLY, EXACT ROUTING MAY
3. BE DIFFERENT THAN SHOWN. PROVIDE EXACT ROUTING ON AS-BUILT DRAWINGS AT END OF CONSTRUCTION.

   CONTRACTOR SHALL REVIEW THE DRAWING PACKAGE IN ITS ENTIRETY DURING THE TENDER PROCESS. ANY ERRORS,
4. OMISSIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE CONSULTANT DURING THE TENDERING PROCESS FOR CLARIFICATION.

REFERENCE NOTES:

1. APPROXIMATE LOCATION OF EXISTING FEEDER TO CHLORINATION BUILDING. FEEDER TO BE DISCONNECTED AND REMOVED AS PER SEQUENCE OF WORK DETAIL 12 ON SHEET E01. CONDUIT TO BE ABANDONED.
2. EXISTING NB POWER SERVICE ENTRANCE CABLE TO BE REMOVED. ELECTRICAL CONTRACTOR TO COORDINATE WITH NB POWER.
3. ELECTRICAL CONTRACTOR TO REMOVE SERVICE MAST AND CABLES AFTER NB POWER DISCONNECTS MAIN POWER. GENERAL CONTRACTOR TO PATCH ALL WALL AND ROOF ASSEMBLIES TO MATCH EXISTING. COORDINATE WITH ARCHITECTURAL.
4. APPROXIMATE LOCATION OF EXISTING GROUNDING RODS. CONTRACTOR TO REMOVE EXISTING GROUNDING RODS AND INSTALL NEW GROUND GRID AS SHOWN IN DETAIL 3 ON SHEET E01.
5. EXISTING CHLORINATION BUILDING TO BE DECOMMISSIONED AND DEMOLISHED AS PER SEQUENCE OF WORK DETAIL 12 ON SHEET E01. ALL ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO OWNER FOR FIRST RIGHT OF REFUSAL.
6. CONTRACTOR TO EITHER HAND DIG OR HYDRO VACUUM WHEN EXCAVATING AROUND EXISTING UNDERGROUND INFRASTRUCTURE.
7. CONTRACTOR TO USE LONG SWEEP BEND ELBOWS TO MAINTAIN CONDUIT BENDS TO A MINIMUM.

10 E01 NOTES NTS

$	15A, 120V TOGGLE SWITCH
TC	TIME CLOCK
	DUAL REMOTE HEADS, '#' INDICATES DC CIRCUIT NUMBER.
BATT	BATTERY PACK C/W DUAL HEADS, '#' INDICATES DC CIRCUIT NUMBER.
	LINEAR LUMINAIRE
	WALL MOUNTED LUMINAIRE
	15A, 125V DUPLEX RECEPTACLE
	20A, 125V GFCI DUPLEX RECEPTACLE
	DIRECT CONNECTION
	JUNCTION BOX
	DISCONNECT
	MOTOR STARTER, REFER TO MECHANICAL EQUIPMENT SCHEDULE
	MOTOR
	SURFACE MOUNT PANELBOARD
M	SERVICE METER
LT	LOW TEMPERATURE SENSOR
S	SMOKE ALARM
H-#	SUSPENDED UNIT HEATER, H-# INDICATES TYPE, REFER TO SCHEDULE
SACP	SECURITY ALARM CONTROL PANEL
MD	MOTION DETECTOR (WALL MOUNTED)
DC	DOOR CONTACT
KP	ENTRANCE KEYPAD
H	HORN SECURITY ALARM BEACON
AFF	INDICATES ABOVE FINISHED FLOOR
ADF	INDICATES ABOVE DOOR FRAME
DEL	INDICATES DEVICE TO BE REMOVED
EX	INDICATES EXISTING TO REMAIN
MH	INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR
MV	INDICATES DEVICE TO BE RELOCATED
REL	INDICATES DEVICE IN RELOCATED POSITION
WP	INDICATES WEATHER PROOF
#	MECHANICAL EQUIPMENT TAG, SEE MECHANICAL SCHEDULE
#	REFERENCE NOTE
	EXISTING CONDITIONS
	NEW WORK
	DEMOLITION
	ELECTRICAL CABLE
O/H	O/H ELECTRICAL
U/G	U/G ELECTRICAL
O/H	EXISTING O/H ELECTRICAL
	EXISTING ELECTRICAL CABLE
U/G	EXISTING U/G ELECTRICAL
	ELECTRICAL POLE
	GUY WIRE

11 E01 LEGEND NTS

SEQUENCE OF WORK:

ANY DISCREPANCIES OR OMISSIONS SHALL BE BROUGHT TO THE ENGINEERS AND CLIENT REPRESENTATIVES ATTENTION BEFORE COMMENCING ANY WORK. TO REDUCE THE DOWNTIME, THE CONTRACTOR SHALL PLAN OUT THEIR OWN SEQUENCE OF WORK AND PROVIDE TO THE ENGINEER AND CLIENT REPRESENTATIVE FOR FINAL REVIEW PRIOR TO COMMENCING ANY WORK. THE BELOW SEQUENCE OF WORK SHALL BE USED AS GUIDANCE.

1. CHLORINATION BUILDING POWER SHALL BE DISCONNECTED AT PANEL 2N1A IN THE BLOWER BUILDING. TECK90 FEEDER CABLE FROM BLOWER BUILDING TO CHLORINATION BUILDING SHALL BE DISCONNECTED FROM JUNCTION BOX IN BLOWER BUILDING. TECK90 FEEDER CABLE TO CHLORINATION BUILDING SHALL BE DISCONNECTED FROM CHLORINATION BUILDING ENTRANCE AND THEN PULLED THROUGH U/G CONDUIT .
2. ALL ELECTRICAL EQUIPMENT IN CHLORINATION BUILDING TO BE REMOVED AND HANDED OVER TO OWNER FOR FIRST RIGHT OF REFUSAL. THIS INCLUDES PANELBOARD, BREAKERS, INTERIOR AND EXTERIOR RECEPTACLES, SWITCHES, BASEBOARD HEATER, AND LIGHTS.
3. ELECTRICAL SERVICE ENTRANCE TO BLOWER BUILDING TO BE DISCONNECTED BY NB POWER. CONTRACTOR TO COORDINATE DISCONNECTION WITH NB POWER. CONTRACTOR SHALL ALSO COORDINATE DISCONNECTION WITH CLIENT AND PROVIDE CLIENT WRITTEN NOTICE 36 HOURS AHEAD OF DISCONNECTION.
4. ELECTRICAL CONTRACTOR SHALL PERFORM BLOWER BUILDING DEMOLITION AS DETAILED IN DETAIL 1 ON SHEET E01 AND SHEET E02.
5. ELECTRICAL CONTRACTOR SHALL INSTALL NEW ELECTRICAL ELECTRICAL INFRASTRUCTURE FOR BLOWER BUILDING AS PER DETAIL 2 ON SHEET E01 AND DETAIL 1 ON SHEET E03.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE CONNECTION OF NEW BLOWER BUILDING SERVICE WITH NB POWER ONCE NEW DISTRIBUTION EQUIPMENT HAS BEEN INSTALLED.
7. ELECTRICAL CONTRACTOR SHALL START NEW UV BUILDING ELECTRICAL EQUIPMENT INSTALLATION.

12 E01 SEQUENCE OF WORK NTS

NOTES

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	JB	EB

NEGOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBe

M8247
G.M. Graeme Powell
2025-04-10
Province of New Brunswick
PROFESSIONAL ENGINEER

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

ELECTRICAL SITE PLAN, LEGEND AND DETAILS.

Scale	Drawn By	Design By
AS SHOWN	GP/JB	GP
	Checked By	Cadd Check
	EB	GS
	Sheet 01 of 06	

File Name
2308072.001 E01.DWG

Drawing No.
E01

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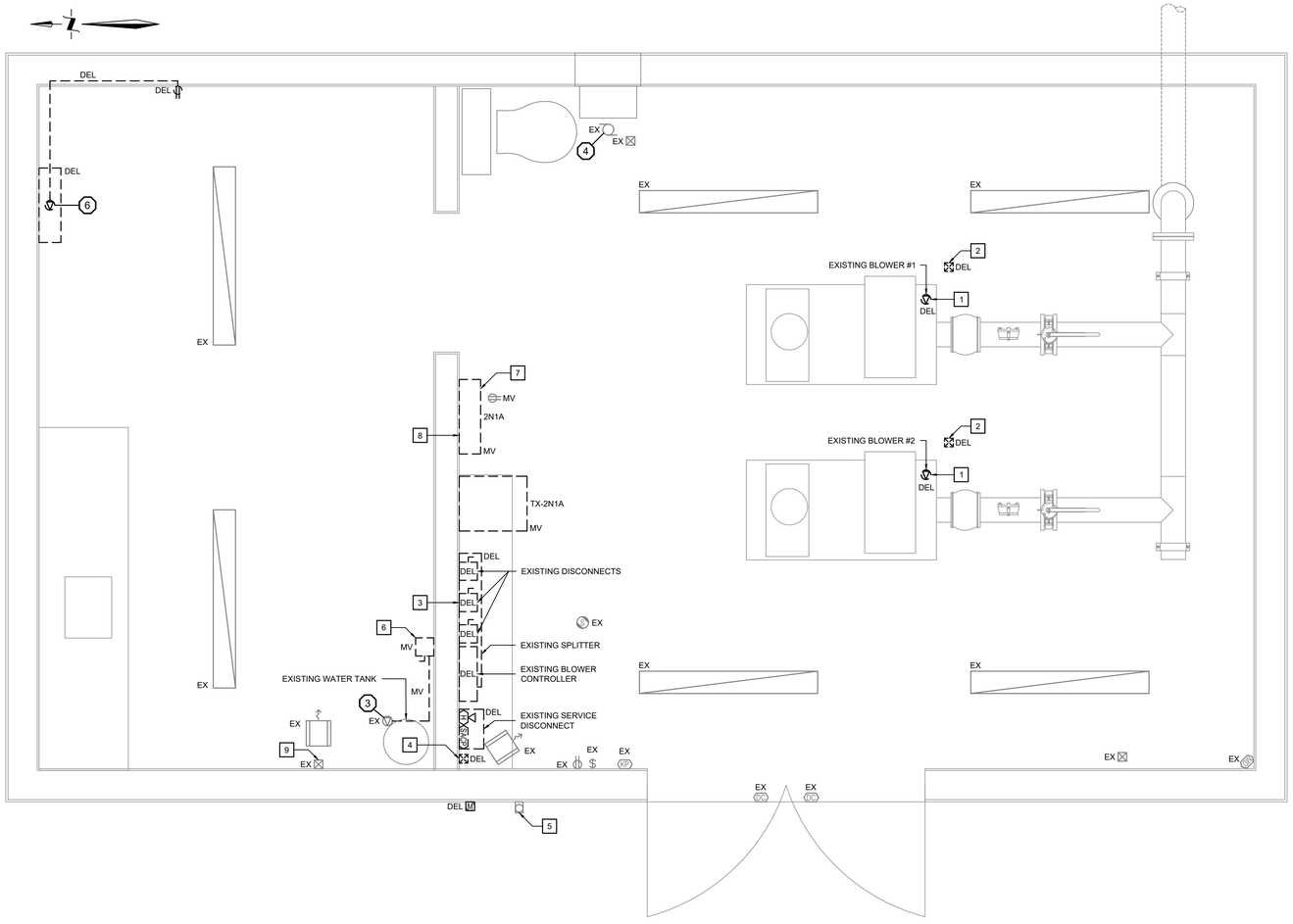
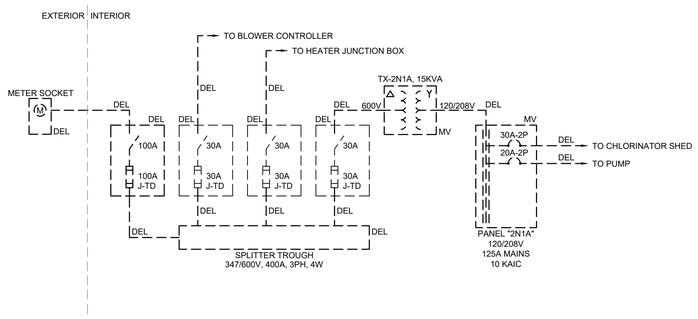


1 E02 BLOWER BUILDING - FLOOR PLAN - EXISTING 1:20



3 E02 BLOWER BUILDING - SINGLE LINE DIAGRAM - DEMO PLAN NTS

GENERAL NOTES:

1. ALL CUTTING, PATCHING & REFINISHING OF FLOORS, WALLS, CEILING & ROOFING BY GENERAL CONTRACTOR.
2. ALL DEVICES INDICATED ON DEMOLITION PLANS SHALL BE REMOVED, INCLUDING BACKBOX, CONDUIT AND CONDUCTORS BACK TO SOURCE OF SUPPLY (PANELBOARD, DATA RACK, ETC.) UNLESS NOTED OTHERWISE.
3. CIRCUITS SHOWN FOR REFERENCE WHERE AVAILABLE. REMOVE CONDUCTORS AND WIRING BACK TO SOURCE OF SUPPLY FOR DEVICES INDICATED FOR REMOVAL.
4. NO WORK SHALL BE COMPLETED WITHIN PANELS LIVE. COORDINATE WITH USERS/OWNER FOR SHUT DOWNS REQUIRED TO COMPLETE WORK.
5. ANY SHUT DOWNS SHALL BE COORDINATED WITH USERS/OWNER AND BE DONE AFTER HOURS AS REQUIRED. PROVIDE MINIMUM 36 HOUR WRITTEN NOTICE PRIOR TO STARTING WORK WHEN SHUT DOWN TIME IS APPROVED.

REFERENCE NOTES:

1. ELECTRICAL CONTRACTOR TO DISCONNECT EXISTING BLOWER AND REMOVE POWER AND CONTROL CONDUCTORS BACK TO BLOWER CONTROL PANEL.
2. APPROXIMATE LOCATION OF CEILING MOUNTED JUNCTION BOX FOR BLOWER.
3. ELECTRICAL CONTRACTOR TO REMOVE ENCLOSED SWITCH INCLUDING CONDUIT UP TO JUNCTION BOX ON CEILING. JUNCTION BOX ON CEILING TO REMAIN.
4. APPROXIMATE LOCATION OF CHLORINATION BUILDING FEEDER JUNCTION BOX ALLOWING TRANSITION FROM NMD TO TECK90. ELECTRICAL CONTRACTOR TO DISCONNECT AND REMOVE CABLING BACK TO PANELBOARD. ELECTRICAL CONTRACTOR TO DISCONNECT TECK90 CABLING FROM JUNCTION BOX AND PREPARE TECK90 CABLE FOR BEING PULLED THROUGH U/G CONDUIT FROM CHLORINATION BUILDING.
5. APPROXIMATE LOCATION OF LB INTO BLOWER BUILDING FOR CHLORINATION BUILDING U/G FEEDER. AFTER CHLORINATION U/G TECK90 FEEDER CABLE REMOVED ELECTRICAL CONTRACTOR TO REMOVE LB AND CAP U/G CONDUIT. U/G CONDUIT TO BE ABADONED IN PLACE. LB PENETRATION TO BE SEALED AND PATCHED.
6. WATER PUMP DISCONNECT, FINAL CONNECTION TO PUMP WITH AC90. ELECTRICAL CONTRACTOR TO DISCONNECT THE WATER PUMP DISCONNECT AND REMOVE CABLING AND CONDUIT BACK TO PANELBOARD. CONTRACTOR TO KEEP DISCONNECT SWITCH AND AC90 CABLE FOR RELOCATION AS PER DETAIL 1 ON SHEET E03.
7. WHEN REMOVING PANELBOARD, CONTRACTOR SHALL DISCONNECT AND REMOVE ALL CABLING AND CONDUIT FROM PANELBOARD UP TO JUNCTION BOXES FOR ALL LIGHTING, RECEPTACLE AND FAN CIRCUITS.
8. APPROXIMATE LOCATION OF LB THROUGH PARTITION WALL FOR PUMP FEEDER. GENERAL CONTRACTOR TO PATCH HOLE AND REFINISH PARTITION WALL AFTER CONDUIT AND LB HAVE BEEN REMOVED.
9. EXISTING PUMP CONTROL JUNCTION BOX.

2 E02 NOTES NTS

Panel Voltage: 208

CCT	Description	Phase A	Phase B	Phase C	P	Brkr. Amps	Brkr. Amps	P	Phase A	Phase B	Phase C	Panel 2N1A (EX) Description	CCT
1	LIGHTS & PLUGS				1	20	20	1				LIGHTS & PLUGS	2
3	FANS				1	15	20	2				PUMP	4
5	SPARE				1	15							6
7	**CHLORINATOR SHED (DEL)**				2	30							8
9													10
11													12
13													14
15													16
17													18
19													20
	Phase Loads (VA)	0	0	0					0	0	0		
	Total Phase Loads (VA)		0			0				0			
	Total Load (VA)		0										
	Total Amperage		0.00	amps									

* C/W BREAKER LOCK
** C/W GROUND FAULT
EXISTING

LOADS SHOWN ARE "ESTIMATED CONNECTED LOADS"

4 E02 BLOWER BUILDING - EXISTING PANEL SCHEDULE NTS

NOTES

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	JB	EB

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

ENGLOBE

ASSOCIATION OF PROFESSIONAL ENGINEERS of New Brunswick
M8247
G.M. Graeme Powell
2025-05-12
PROFESSIONAL ENGINEER

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

BLOWER BUILDING EXISTING PLAN

Scale	Drawn By	Design By
AS SHOWN	GP/JB	GP
	Checked By: EB	Cadd Check: GS
	Sheet 02 of 06	

File Name: 2308072.001 E02.DWG

Drawing No.: E02

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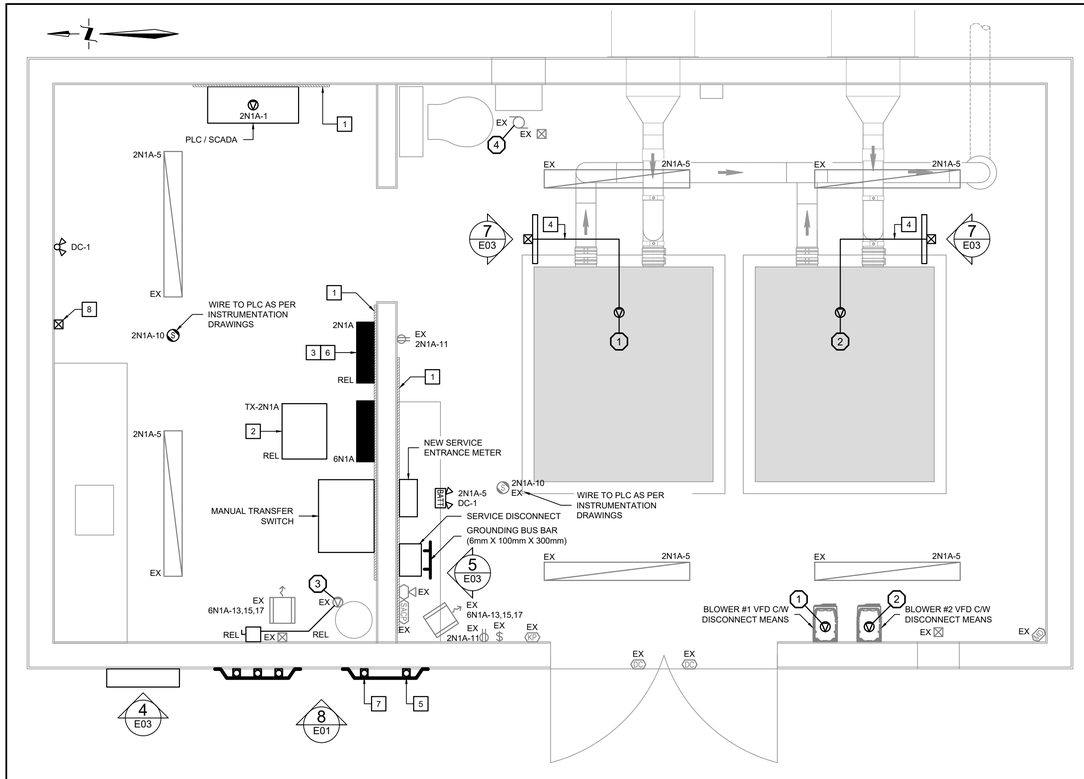
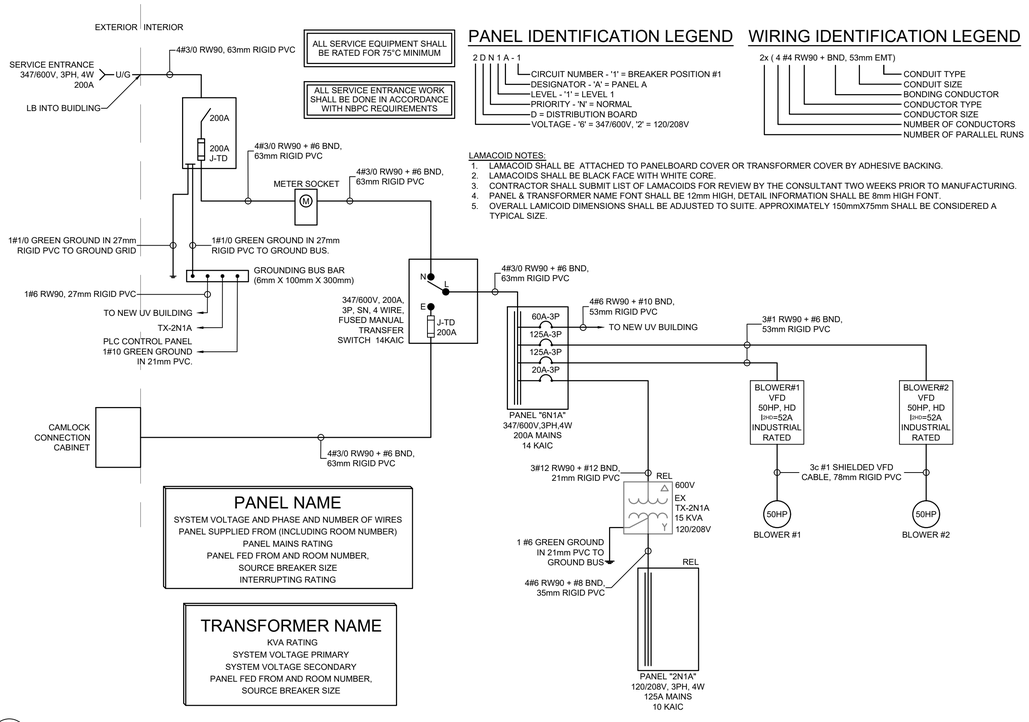


1 E03 BLOWER BUILDING - FLOOR PLAN - NEW WORK 1:25



ALL SERVICE EQUIPMENT SHALL BE RATED FOR 75°C MINIMUM

ALL SERVICE ENTRANCE WORK SHALL BE DONE IN ACCORDANCE WITH NBPC REQUIREMENTS

PANEL IDENTIFICATION LEGEND

2 D N 1 A - 1
- CIRCUIT NUMBER - '1' = BREAKER POSITION #1
- DESIGNATOR - 'A' = PANEL A
- LEVEL - '1' = LEVEL 1
- PRIORITY - 'N' = NORMAL
- D = DISTRIBUTION BOARD
- VOLTAGE - '6' = 347/600V, '2' = 120/208V

WIRING IDENTIFICATION LEGEND

2x (4 #4 RW90 + BND, 53mm EMT)
- CONDUIT TYPE
- CONDUIT SIZE
- BONDING CONDUCTOR
- CONDUCTOR TYPE
- CONDUCTOR SIZE
- NUMBER OF CONDUCTORS
- NUMBER OF PARALLEL RUNS

LAMACOID NOTES:
1. LAMACOID SHALL BE ATTACHED TO PANELBOARD COVER OR TRANSFORMER COVER BY ADHESIVE BACKING.
2. LAMACOIDS SHALL BE BLACK FACE WITH WHITE CORE.
3. CONTRACTOR SHALL SUBMIT LIST OF LAMACOIDS FOR REVIEW BY THE CONSULTANT TWO WEEKS PRIOR TO MANUFACTURING.
4. PANEL & TRANSFORMER NAME FONT SHALL BE 12mm HIGH, DETAIL INFORMATION SHALL BE 8mm HIGH FONT.
5. OVERALL LAMICOID DIMENSIONS SHALL BE ADJUSTED TO SUITE. APPROXIMATELY 150mmX75mm SHALL BE CONSIDERED A TYPICAL SIZE.

2 E03 BLOWER BUILDING - SINGLE LINE DIAGRAM - NEW WORK NTS

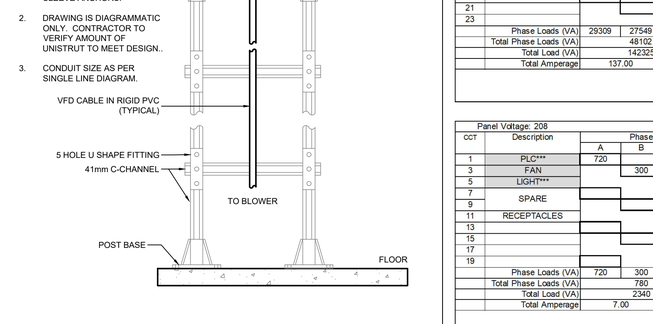
GENERAL NOTES:

1. ALL CUTTING, PATCHING & REFINISHING OF FLOORS, WALLS, CEILING & ROOFING BY GENERAL CONTRACTOR.
2. CONTRACTOR SHALL SEAL ALL CONDUIT PENETRATIONS THROUGH WALLS. GENERAL CONTRACTOR SHALL FIRE STOP ALL CONDUITS THAT PENETRATE THROUGH A FIRE RATED ASSEMBLY (FLOOR/WALL).

REFERENCE NOTES:

1. CONTRACTOR TO INSTALL NEW PLYWOOD BACKBOARD PAINTED WITH FIRE RATED PAINT.
2. WALL MOUNTED TRANSFORMER SHALL BE MOUNTED SO BOTTOM OF TRANSFORMER IS 300mm ABOVE PANELBAORD AND 300mm FROM WALL. CONTRACTOR TO FASTEN WALL MOUNTING KIT TO STUDS ADDING BLOCKING AND BACKING AS REQUIRED.
3. CONTRACTOR TO RELOCATE EXISTING 2N1A PANELBOARD TO THIS LOCATION. CONTRACTOR TO RUN NEW CIRCUIT CABLING AND RIGID PVC CONDUIT TO EXISTING JUNCTION BOXES FOR RECEPTACLES, LIGHTS, FANS, HEATERS AND MECH EQUIPMENT. MINIMUM ALLOWABLE WIRE SIZE #12AWG, MINIMUM ALLOWABLE CONDUIT SIZE 21mm. ALL CONDUIT AND WIRE SIZES TO ADHERE TO CANADIAN ELECTRICAL CODE.
4. CONTRACTOR TO USE SHORT PIECE OF C-CHANNEL WITH POST BASE NEXT TO BLOWER TO RUN TECK90 CABLE FOR DIRECT CONNECT TO BLOWER. FINAL TERMINATION TO BLOWER SHALL BE WITH WEATHER PROOF CONNECTORS.
5. NEW SERVICE ENTRANCE LOCATION SHALL RE-USE EXISTING PENETRATION AS REMOVED SERVICE METER, EXPANDING HOLES SIZE AS NEEDED TO MINIMIZE WORK REQUIRED ON EXTERIOR BUILDING SURFACES. ELECTRICAL CONTRACTOR TO LB NEW SERVICE ENTRANCE INTO BUILDING TO DISCONNECT SWITCH. CONDUIT AND WIRE SIZING INDICATED ON SINGLE LINE DIAGRAM. GENERAL CONTRACTOR SHALL PATCH HOLES CREATED BY DEVICE REMOVALS AND WALL TO MATCH EXISTING.
6. ELECTRICAL CONTRACTOR TO REWIRE PANEL 2N1A AS PER PANEL SCHEDULE IN DETAIL 8 ON SHEET E03.
7. SPARE CONDUIT FROM SERVICE POLE.
8. JUNCTION BOX NEMA TYPE 1 FOR PLC/SCADA ANTENNA CONNECTION. SEE INSTRUMENTATION DRAWINGS FOR WIRING AND CONDUIT DETAILS.

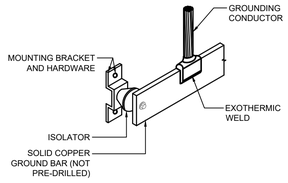
3 E03 NOTES NTS



347/600V CAMLOCK ENCLOSURE

347/600V DETAIL NOTES:
1. PORTABLE GENERATOR CAMLOCK ENCLOSURE SHALL BE COMPLETE WITH THE FOLLOWING FEATURES:
   - 1.1. NEMA 3R RATED 304 STAINLESS STEEL CONSTRUCTION, WALL MOUNTED HOUSING.
   - 1.2. COLOR CODED CAMLOCK RECEPTACLES WITH ANGLED CAMLOCK PLATE.
   - 1.3. BOTTOM ACCESS DOOR.
   - 1.4. STAINLESS STEEL HINGED DOOR WITH PAD-LOCK COMPATIBLE HANDLE.
   - 1.5. 600V, 200A RATED WITH 5 WIRE LUG CONFIGURATION.
2. STANDARD OF ACCEPTANCE FOXFAB# FFCC-C1-200-C4-G-304-LA. CONTRACTOR MAY ENGAGE CUSTOM PANEL MANUFACTURER TO PROVIDE A CSA CERTIFIED EQUIVALENT.

4 E03 BLOWER BUILDING - PORTABLE GENERATOR CAMLOCK CABINET DETAIL NTS



DETAIL NOTES:
1. ALL GROUND BUS CONNECTIONS SHALL BE MADE BY EXOTHERMIC WELDING OR CRIMPED CONNECTORS. BOLTED CONNECTIONS ARE NOT ACCEPTABLE.

5 E03 BLOWER BUILDING - GROUND BUS INSTALLATION DETAIL - NEW WORK NTS

NOTES:
1. FASTEN POST BASES TO CONCRETE WITH CONCRETE SLEEVE ANCHORS.
2. DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR TO VERIFY AMOUNT OF UNISTRUT TO MEET DESIGN..
3. CONDUIT SIZE AS PER SINGLE LINE DIAGRAM.

7 E03 BLOWER BUILDILNG - TYP. UNISTRUT DETAIL NTS

Service Entrance Calculation (Rule 8-210)

Existing Blower Building			
Existing Blower Building Load*	18700 W		
Special Loads:	Load (W)	Demand Factor	Load (W)
Existing Blowers (Removed)	-14861	100%	-14861
New Blowers (Added)	108077	100%	108077
Total Building	111916 W		
Building Entrance Voltage	600 V,3ø		
Building Current	108 A		
New UV Building			
Area: Industrial	46 m^2		
Basic:	25 W/m^2		
Basic load:	1150 W		
Special Loads:	Load (W)	Demand Factor	Load (W)
UV System	6000	100%	6000
Heating	15000	100%	15000
Hot Water Tank	3000	100%	3000
Pumps	1440	100%	1440
Ventilation	600	100%	600
Total Building	27190 W		
Building Entrance Voltage	600 V,3ø		
Building Current	27 A		
Total Site			
Total Site Load	139106 W		
Service Entrance Voltage	600 V,3ø		
Site Entrance Current:	135 A		

* Based on 12 months of NB Power bills with peak demand April 2023.

6 E03 BLOWER BUILDING - DEMAND CALC NTS

Panel Voltage: 600

CCT	Description	Phase A	Phase B	Phase C	P	Brkr. Amps	Brkr. Amps	P	Phase A	Phase B	Phase C	Description	CCT
1	NEW UV BUILDING (PANEL 6N1B)	9296							780				2
3			7536		3	60	20	3		660		TX-2N1A	4
5				9076							900		6
7	NEW BLOWER #1	18013							18013				8
9			18013		3	125	125	3		18013		NEW BLOWER #2	10
11				18013							18013		12
13	HEATERS	2000											14
15			2000		3	15							16
17				2000									18
19													20
21													22
23													24
	Phase Loads (VA)	29309	27549	29089					18793	18673	18913		
	Total Phase Loads (VA)	48102			46222				48002				
	Total Load (VA)	142325											
	Total Amperage	137.00		amps									

Panel|6N1A

* C/W BREAKER LOCK
** C/W GROUND FAULT

LOADS SHOWN ARE "ESTIMATED CONNECTED LOADS"

Panel Voltage: 208

CCT	Description	Phase A	Phase B	Phase C	P	Brkr. Amps	Brkr. Amps	P	Phase A	Phase B	Phase C	Description	CCT
1	PLC***	720			1	20	20	1				SPARE	2
3	FAN		300		1	15	20	2		300		PUMP	4
5	LIGHT***			600	1	15					300		6
7	SPARE				2	30	15	1	60			AIR FLOW METER	8
9							15	1		60		SMOKE DETECTORS*	10
11	RECEPTACLES				1	15							12
13													14
15													16
17													18
19													20
	Phase Loads (VA)	720	300	600					60	360	300		
	Total Phase Loads (VA)	780			660				900				
	Total Load (VA)	2340											
	Total Amperage	7.00		amps									

Panel|2N1A (REL)

* C/W BREAKER LOCK
** C/W GROUND FAULT
*** RE-USED BREAKER
EXISTING

LOADS SHOWN ARE "ESTIMATED CONNECTED LOADS"

PANELBOARD IS 10 KAIC SQUARE D QO LOAD CENTER

8 E03 BLOWER BUILDING - PANEL SCHEDULES - NEW WORK NTS

NOTES

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	JB	EB

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBe

M8247 G.M. Graeme Powell — Province of New Brunswick — Signature — 2024-04-10 — Date — Association of Professional Engineers and Geoscientists of New Brunswick

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

BLOWER BUILDING NEW WORK, SINGLE LINE DIAGRAM, PANEL SCHEDULES AND DETAILS

Scale	Drawn By	Design By
AS SHOWN	GP/JB	GP
	Checked By	Cadd Check
	EB	GS
	Sheet 03 of 06	

File Name: 2308072.001 E03.DWG

Drawing No.: E03

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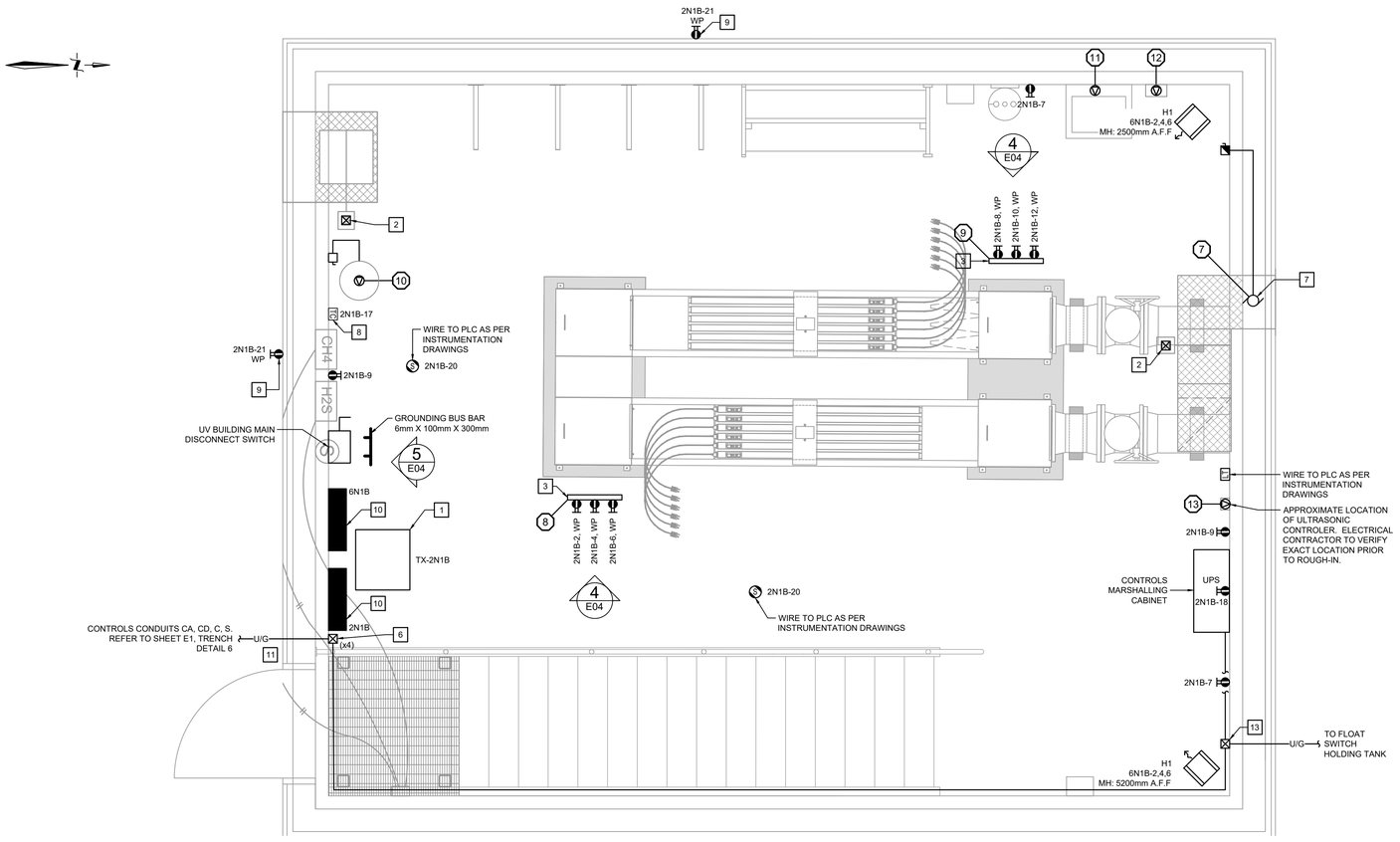


1 E04 UV BUILDING - FLOOR PLAN - POWER AND COMMUNICATIONS - NEW WORK 1:25

GENERAL NOTES:

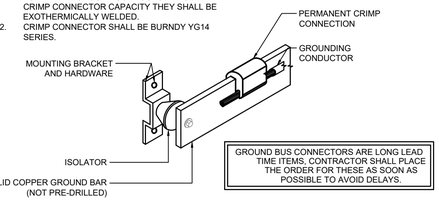
1. ALL CUTTING, PATCHING & REFINISHING OF FLOORS, WALLS, CEILING & ROOFING BY GENERAL CONTRACTOR.

REFERENCE NOTES:

1. WALL MOUNTED TRANSFORMER SHALL BE MOUNTED SO BOTTOM OF TRANSFORMER IS 300mm ABOVE PANELBOARD AND 150mm FROM WALL. CONTRACTOR TO FASTEN WALL MOUNTING KIT TO STUDS ADDING BLOCKING AND BACKING AS REQUIRED.
2. JUNCTION BOX NEMA TYPE 3R FOR MOTORIZED DAMPER. REFER TO CONTROL DRAWINGS FOR WIRING AND CONDUIT DETAILS. COORDINATE LOCATION OF DAMPER PRIOR TO CONDUIT ROUGH-IN.
3. FLOOR TO CEILING C-CHANNEL SUPPORT STRUCTURE. COORDINATE ACTUAL CONNECTION POINTS PRIOR TO INSTALLING C-CHANNEL SYSTEM. LIMIT ANY OBSTRUCTIONS FOR FUTURE WORK.
4. NOT USED.
5. NOT USED.
6. PULL BOX FOR SPARE CONDUIT FROM BLOWER BUILDING, PULL BOX TO BE 300mm X 300mm X 150mm. CONDUIT PENETRATIONS BELOW GRADE TO BE SEALED WITH HYDRA SEAL AS REQUIRED.
7. CONTROL WIRING FOR ACTUATOR AND LIMIT SWITCHES FOR INTAKE AND EXHAUST LOUVERS BY ELECTRICAL CONTRACTOR. COORDINATE ALL WIRING REQUIREMENTS WITH MECHANICAL DRAWINGS. VENTILATION CONTROLS SHALL BE DONE THROUGH PLC.
8. TIME CLOCK TO CONTROL EXTERIOR LIGHTING.
9. ALL EXTERIOR RECEPTACLES SHALL BE C/W HEAVY DUTY PVC WHILE IN USE COVER PLATES.
10. ELECTRICAL PANELBOARDS SHALL BE NEMA TYPE 3R ENCLOSURE
11. APPROXIMATE LOCATION OF H2S/CH4 STROBE LIGHT BY MECHANICAL. ELECTRICAL CONTRACTOR TO COORDINATE EXACT LOCATION WITH ARCHITECT. ELECTRICAL CONTRACTOR TO PROVIDE CONNECTION BACK TO GAS DETECTOR CONTROLLER AS PER INSTRUMENTATION DRAWINGS.
12. APPROXIMATE LOCATION OF CONTROL ANALOG, CONTROL DIGITAL AND COMMUNICATIONS CONDUITS FROM BLOWER BUILDING. ELECTRICAL CONTRACTOR TO COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN
13. PULL BOX FOR SPARE CONDUIT TO HOLDING TANK, PULL BOX TO BE 300mm X 300mm X 150mm. CONDUIT PENETRATIONS BELOW GRADE TO BE SEALED WITH HYDRA SEAL AS REQUIRED.

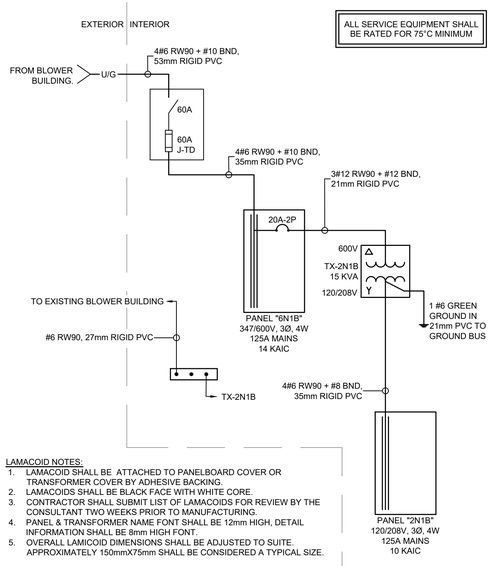
2 E04 NOTES NTS

DETAIL NOTES:
1. ALL GROUND BUS CONNECTIONS SHALL BE MADE BY PERMANENT CRIMP TO GROUND BUS.WHERE GROUND CONDUCTOR EXCEEDS CRIMP CONNECTOR CAPACITY THEY SHALL BE EXOTHERMICALLY WELDED.
2. CRIMP CONNECTOR SHALL BE BURNDY YG14 SERIES.



GROUND BUS CONNECTORS ARE LONG LEAD TIME ITEMS, CONTRACTOR SHALL PLACE THE ORDER FOR THESE AS SOON AS POSSIBLE TO AVOID DELAYS.

5 E04 UV BUILDILNG - GROUND BUS INSTALLATION DETAIL NTS

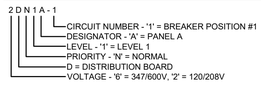


LAMACOID NOTES:
1. LAMACOID SHALL BE ATTACHED TO PANELBOARD COVER OR TRANSFORMER COVER BY ADHESIVE BACKING.
2. LAMACOIDS SHALL BE BLACK FACE WITH WHITE CORE.
3. CONTRACTOR SHALL SUBMIT LIST OF LAMACOIDS FOR REVIEW BY THE CONSULTANT TWO WEEKS PRIOR TO MANUFACTURING.
4. PANEL & TRANSFORMER NAME FONT SHALL BE 12mm HIGH, DETAIL INFORMATION SHALL BE 8mm HIGH FONT.
5. OVERALL LAMICOID DIMENSIONS SHALL BE ADJUSTED TO SUITE. APPROXIMATELY 150mmX75mm SHALL BE CONSIDERED A TYPICAL SIZE.

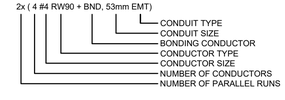
PANEL NAME
SYSTEM VOLTAGE AND PHASE AND NUMBER OF WIRES
PANEL SUPPLIED FROM (INCLUDING ROOM NUMBER)
PANEL MAINS RATING
PANEL FED FROM AND ROOM NUMBER,
SOURCE BREAKER SIZE
INTERRUPTING RATING

TRANSFORMER NAME
KVA RATING
SYSTEM VOLTAGE PRIMARY
SYSTEM VOLTAGE SECONDARY
PANEL FED FROM AND ROOM NUMBER,
SOURCE BREAKER SIZE

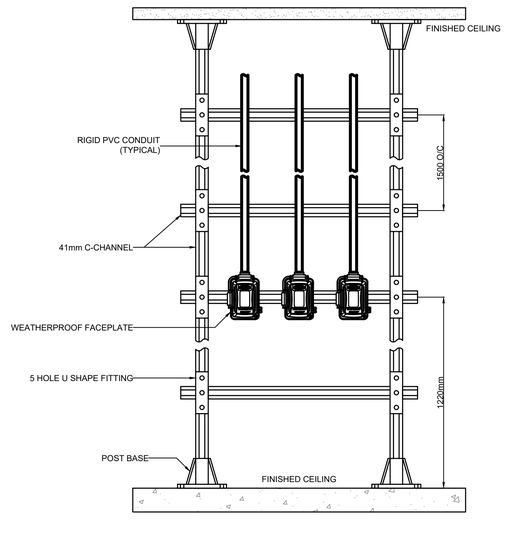
PANEL IDENTIFICATION LEGEND



WIRING IDENTIFICATION LEGEND

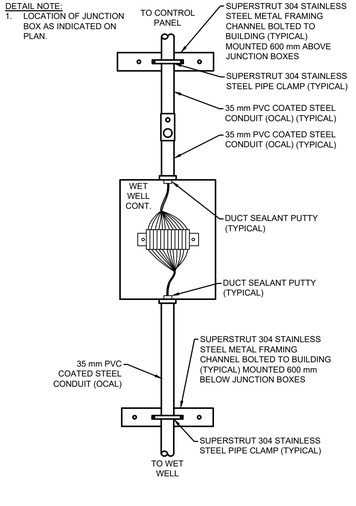


3 E04 UV BUILDING - SINGLE LINE DIAGRAM - NEW WORK NTS



4 E04 DETAIL - UV SYSTEM POWER UNISTRUT STRUCTURE NTS

DETAIL NOTE:
1. LOCATION OF JUNCTION BOX AS INDICATED ON PLAN.



6 E04 EXPLOSION PROOF WELL BOX DETAIL NTS

NOTES

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	JB	EB

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBE

REGISTERED PROFESSIONAL ENGINEER
Province of New Brunswick
M8247
G.M. Graeme Powell
Signature
2025-04-10
Date
Ordre des ingénieurs du Nouveau-Brunswick

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

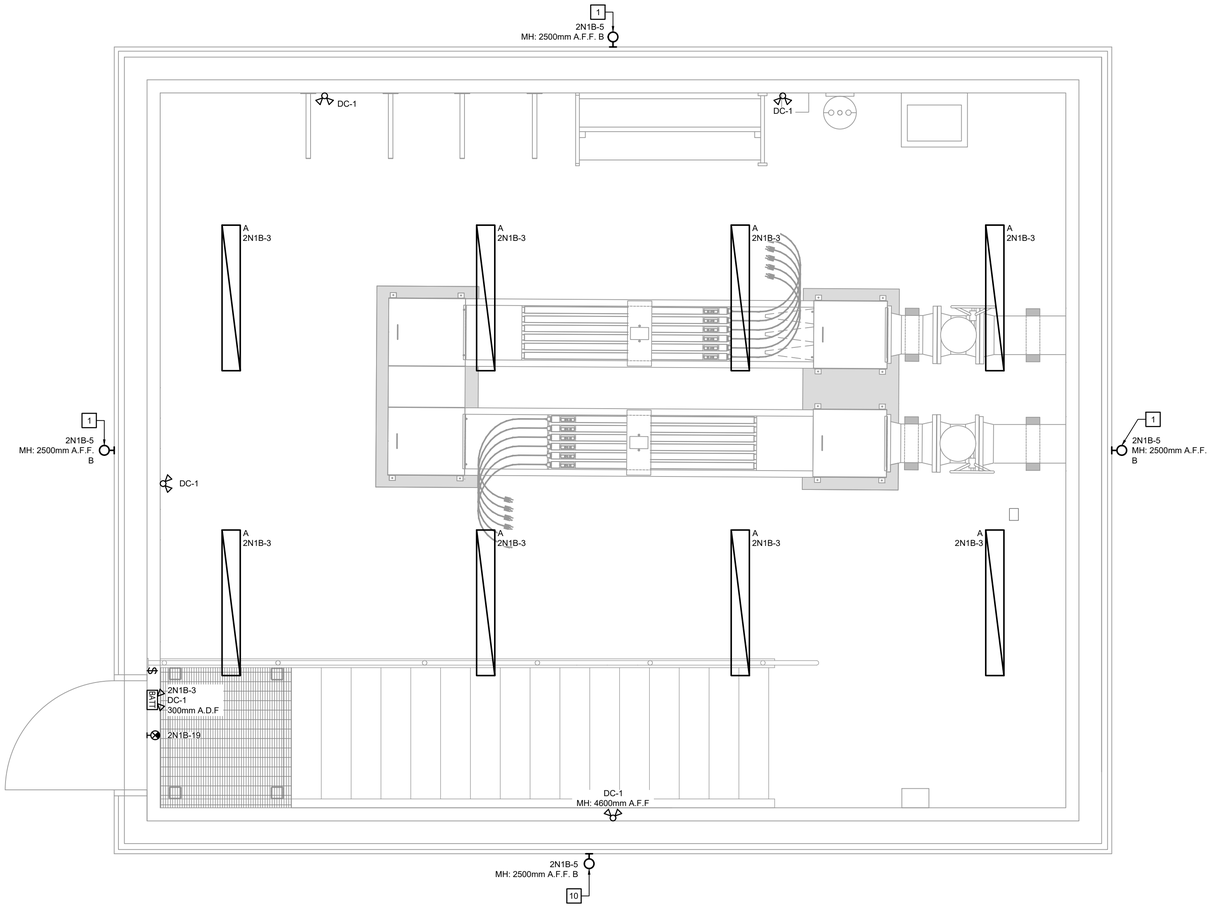
DRAWING TITLE

NEW UV BUILDING POWER AND COMMUNICATIONS, SINGLE LINE DIAGRAM, AND DETAILS

Scale	Drawn By	Design By
AS SHOWN	GP/JB	GP
	Checked By	Cadd Check
	EB	GS
	Sheet 04 of 06	

File Name
2308072.001 E04-E06.DWG

Drawing No.
E04



1 E05 UV BUILDING - FLOOR PLAN - LIGHTING - NEW WORK 1:25

GENERAL NOTES:

1. ALL CUTTING, PATCHING & REFINISHING OF FLOORS, WALLS, CEILING & ROOFING BY GENERAL CONTRACTOR.

REFERENCE NOTES:

1 EXTERIOR LIGHTING SHALL BE WIRED THROUGH TIME CLOCK.

2 E05 NOTES NTS

NOTES

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	JB	EB

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

eNGLOBe

M8247
G.M. Graeme Powell
2025-05-10

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING LIGHTING

Scale	Drawn By	Design By
AS SHOWN	GP/JB	GP
	Checked By	Cadd Check
	EB	GS
	Sheet 05 of 06	

File Name
2308072.001 E04-E06.DWG

Drawing No.
E05

Y:\SHARED\CAD\ARTMOUTH\DATA\PROJECTS\2023_DELTEK\2308072.001_UPGRADE OF NEQOTKUK WWTF\PROJECT\2.0 DSGN & PLAN SRVS\2.5 CAD\DESIGN\CURRENT SHEETS\2308072.001 E04-E06.

MECHANICAL EQUIPMENT SCHEDULE

ID	DESCRIPTION	VOLTAGE	LOAD	BREAKER	FEEDER	CCT ID	CONTROLS	DISCONNECT	BUILDING	NOTES
1	BLOWER #1	600V, 3PH	50HP	125A-3P	3#1 RW90 + #6 BND, 41mm RIGID PVC + 3c#1 SHIELDED VFD CABLE	6N1A-7,9,11	VFD	-	BLOWER	2,10
2	BLOWER #2	600V, 3PH	50HP	125A-3P	3#1 RW90 + #6 BND, 41mm RIGID PVC + 3c#1 SHIELDED VFD CABLE	6N1A-8,10,12	VFD	-	BLOWER	2,10
3	PUMP	208V, 1PH	7.6A FLA	20A-2P	2#12 RW90 + #12 BND, 21mm RIGID PVC + 2c#12 TECK90	2N1A-4,6	-	EXISTING RELOCATED	BLOWER	1,3
4	EXISTING EXHAUST FAN	120V, 1PH	2.5A FLA	15A-1P	2#12 RW90 + #12 BND, 21mm RIGID PVC + 2c#12 TECK90	2N1A-3	PLC	EXISTING	BLOWER	1,3
5	NOT USED									
6	CHLORINATION STATION	120V, 1PH	-	-	-	-	-	-	BLOWER	4
7	EXHAUST FAN	120V, 1PH	2.5A FLA	15A-1P	2#12 RW90 + #12 BND, 21mm RIGID PVC + 2c#12 TECK90	2N1B-1	PLC	MSR	UV	5
8	UV SYSTEM A	120V, 1PH	6.4 FLA	20A-1P	2#10 RW90 + #12 BND, 21mm RIGID PVC	2N1B-2, 2N1B-4, 2N1B-6	PLC	RECETPACLE	UV	6
9	UV SYSTEM B	120V, 1PH	6.4 FLA	20A-1P	2#10 RW90 + #12 BND, 21mm RIGID PVC	2N1B-8, 2N1B-10, 2N1B-12	PLC	RECEPTACLE	UV	6
10	HOT WATER TANK	208V, 1PH	3KW	20A-2P	2#12 RW90 + #12 BND, 21mm RIGID PVC + 2c#12 TECK90	2N1B-11,13	-	30A NEMA 3R	UV	5,7
11	UV SYSTEM CONTROLLER	120V, 1PH	5A FLA	15A-1P	2#12 RW90 + #12 BND, 21mm RIGID PVC	2N1B-14	-	-	UV	-
12	TRAP PRIMER	120V, 1PH	FACT	15A-1P	2#12 RW90 + #12 BND, 21mm RIGID PVC + 2c#12 TECK90	2N1B-15	-	-	UV	5
13	ULTRASONIC CONTROLER	120V, 1PH	FACT	15A-1P	2#12 RW90 + #12 BND, 21mm RIGID PVC + 2c#12 TEKC90	2N1B-16	-	-	UV	5
14	FLOAT SWTICH (HOLDING TANK)	24V	FRACT	PLC	WIRING AND CONDUIT BY CONTROLS CONTRACTOR	PLC	PLC	-	UV	8,9
15	ULTRASONIC SENSOR (HOLDING TANK)	24V	FRACT	PLC	WIRING AND CONDUIT BY CONTROLS CONTRACTOR	PLC	PLC	-	UV	8,9

NOTES:
1. FINAL CONNECTION TO UNIT SHALL BE MADE WITH TECK90.
2. VFD SHALL COME C/W DISCONNECT MEANS.
3. EXISTING EQUIPMENT TO BE RECONNECTED AFTER INITIAL BLOWER BUILDING DEMOLITION WORK. CONTRACTOR TO USE EXISTING BREAKER IN PANELBOARD.
4. EXISTING BLOWER BUILDING EQUIPMENT TO BE REMOVED.
5. FINAL CONNECTION TO UNIT SHALL BE MADE WITH TECK90 C/W WEATHER TIGHT AND APPROVED CONNECTORS.
6.UV SYSTEM USES THREE THREE (3) 20A-1P BREAKERS CONNECTED TO INDIVIDUAL 20A GFCI RECEPTACLES.
7. HOT WATER TANK DISCONNECT LOCATED UNDER ENTRANCE STAIRS. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
8. CONTROL WIRING AS PER INSTRUMENTATION DRAWINGS.
9. POWER WIRING AS PER INSTRUMENTATION DRAWINGS.
10. FINAL CONNECTION FROM VFD TO BLOWER SHALL BE MADE WITH SHIELDED VFD.

CONTROLS LEGEND:
MS - MANUAL STARTER C/W OVERLOAD PROTECTION AND LOCKOUT PROVISION
MSR-MANUAL STARTER C/W OVERLOAD PROTECTION, LOCKOUT PROVISION AND EXTERNAL CONTROL RELAY, RELAY BASE SHALL BE MOUNTED WITHIN AN ENCLOSURE SEPARATE FROM MANUAL STARTER (CONFIRM CONTROL COIL VOLTAGE WITH MECHANICAL CONTRACTOR)
HOA - MAGNETIC STARTER C/W DISCONNECT, CONTROL RELAYS AND HAND, OFF,AUTO SELECTOR SWITCH.
SS - SOFT START
VFD - VARIABLE FREQUENCY DRIVE, C/W LOCK OUT PROVISIONS

1 E06 BLOWER AND UV BUILDING MECHANICAL EQUIPMENT SCHEDULE NTS

Panel Voltage: 600

CCT	Description	Phase A	Phase B	Phase C	P	Brkr. Amps	Brkr. Amps	P	Phase A	Phase B	Phase C	Description	CCT
1		4296							5000				2
3	TX-2N1B		3976		3	20	20	3		5000		HEATERS	4
5				4076							5000		6
7													8
9													10
11													12
13													14
15													16
17													18
	Phase Loads (VA)	4296	3976	4076					5000	5000	5000		
	Total Phase Loads (VA)	9296				8976			9076				
	Total Load (VA)	27348											
	Total Amperage	27.00	amps										

Panel|6N1B

* C/W BREAKER LOCK
** C/W GROUND FAULT

LOADS SHOWN ARE "ESTIMATED CONNECTED LOADS"

Panel Voltage: 208

CCT	Description	Phase A	Phase B	Phase C	P	Brkr. Amps	Brkr. Amps	P	Phase A	Phase B	Phase C	Description	CCT
1	EXHAUST FAN (EF-1)	300			1	15	20	1	768			UV SYSTEM A RECEPTACLE #1	2
3	INTERIOR LIGHTS		400		1	15	20	1		768		UV SYSTEM A RECEPTACLE #2	4
5	EXTERIOR LIGHTS			200	1	15	20	1			768	UV SYSTEM A RECEPTACLE #3	6
7	INTERIOR RECEPTACLES	240			1	20	20	1	768			UV SYSTEM B RECEPTACLE #1	8
9	INTERIOR RECEPTACLES		240		1	20	20	1		768		UV SYSTEM B RECEPTACLE #2	10
11	HOT WATER TANK			1500	2	20	20	1			768	UV SYSTEM B RECEPTACLE #3	12
13		1500					15	1	600			UV SYSTEM CONTROLLER	14
15	TRAP PRIMER**		60		1	15	15	1		60		ULTRASONIC CONTROLLER	16
17	TIME CLOCK			120	1	15	15	1			720	PLC / SCADA	18
19	EXIT SIGN*	60			1	15	15	1	60			SMOKE DETECTOR*	20
21	EXTERIOR RECEPTACLES		240		1	20							22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
	Phase Loads (VA)	2100	940	1820					2196	1596	2256		
	Total Phase Loads (VA)	4296				2536			4076				
	Total Load (VA)	10908											
	Total Amperage	31.00	amps										

Panel|2N1B

* C/W BREAKER LOCK
** C/W GROUND FAULT

LOADS SHOWN ARE "ESTIMATED CONNECTED LOADS"

2 E06 UV BUILDING - PANEL SCHEDULES NTS

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER			MOUNTING TYPE	LAMP	VOLTAGE
A	LIGHT GRAY, FULLY GASKETED, POLYCARBONATE HOUSING, HIGH-IMPACT RESISTANT HOUSING AND EXTRUDED SILICONE RUBBER GASKET. SURFACE MOUNT	LITHONIA: #CSVT-L48-5000LM-MVOLT-40K-80CRI	CREE: C-VT-A-LVT4-S5L-SCCT-UL-GR	DAY-BRITE: VTS-4-2856L-8CST-UNV3-DIM	SURFACE MOUNT	LED ~5000LM ~42 WATTS 4000K ≥80CRI	120V
B	EXTERIOR WALL MOUNTED LED FIXTURE, BLACK FINISH, DISTRIBUTION TYPE 3 MEDIUM	LITHONIA: WDGE2-LED-P4-40K-70CRI-T3M-MVOLT-SRM-DBLXD	CREE: OSQW-C-6L-40K7-3M-UL-WM-BK	GARDCO: GWS-A04-740-T3M-UNV-BK	WALL MOUNT	LED ~4800LM ~47 WATTS 4000K ≥70CRI	120V
BATT	FULLY GASKETED DIE-CAST ALUMINIUM BACK PLATE WITH CLEAR POLYCARBONATE COVER. NEMA-4X CERTIFIED, WHITE FINISH	READY-LITE: LDX12-72NM-2-LD10	EMERGI-LITE: 12NXM-W72/2-LJ	LUMACELL: RG12NX72-2-LD10	WALL MOUNT	120VAC INPUT, 12V DC OUTPUT, 2x6W LED	120V
	LED DUAL HEAD REMOTE, WHITE FINISH, NEMA 4X	READY-LITE: TUF-NMMP-2-LD10	EMERGI-LITE: EF39P-D-M-LI	LUMACELL: MQM-NX	WALL MOUNT	12V DC INPUT, 2x6W LED	120V
	PVC FRAME PICTORAL EXIT SIGN, UNIVERSAL MOUNTING, UNIVERSAL FACES C/W AUTO TEST AND DIAGNOSITC, SELF-POWERED C/W BATTERY CHARGER, WHITE FINISH, NEMA 4X	READY-LITE: RN SERIES	EMERGI-LITE: EN SERIES	LUMACELL: LN SERIES	-	3W LED	120V

NOTES:
1.MANUFACTURERS NOT LISTED AND/OR NOT ADDED TO LIST DURING TENDER/QUOTATION PERIOD WILL NOT BE ACCEPTED POST AWARD OF PROJECT.

3 E06 UV BUILDING LUMINAIRE SCHEDULE NTS

HEATER SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	CONTROLS	VOLTAGE/ LOAD
H1	7.5KW, 600V, 3PH, UNIT HEATER C/W 24V BUILT IN RELAY FOR TEMPERATURE CONTROL	STELPRO: SHU0763C24CHAR	BY PLC BY 24V BUILT-IN RELAY ON HEATER	600V, 3PH

NOTES:
1. APPROVED EQUIVALENT BY OUELLETTE, CHROMALOX.

4 E06 UV BUILDING HEATING SCHEDULE NTS

NOTES

NO.	DATE	REVISIONS	BY	APPR.
0.0	APR 10/25	ISSUED FOR TENDER	JB	EB

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

ENGLOBE

M8247 G.M. Graeme Powell 2025-04-10 NEW BRUNSWICK ASSOCIATION OF TECHNOLOGISTS AND TECHNICIANS

PROJECT TITLE

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01

NEQOTKUK N.B.

DRAWING TITLE

NEW UV BUILDING SCHEDULES

Scale	Drawn By	Design By
AS SHOWN	GP/JB	GP
	Checked By: EB	Cadd Check: GS
	Sheet 06 of 06	

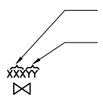
File Name: 2308072.001 E04-E06.DWG

Drawing No.: E06

GENERAL INSTRUMENT SYMBOLS

- FIELD MOUNTED INSTRUMENT
- INSTRUMENT MOUNTED ON FACE OF PANEL (IN CONTROL ROOM)
- INSTRUMENT MOUNTED BEHIND OR INSIDE OF PANEL (IN CONTROL ROOM)
- INSTRUMENT MOUNTED ON FACE OF LOCAL PANEL/MCC
- INSTRUMENT MOUNTED BEHIND OR INSIDE OF LOCAL PANEL/MCC
- SINGLE INSTRUMENT HOUSING CONTAINING TWO (OR MORE) INSTRUMENTATION FUNCTIONS
- PILOT LIGHT MOUNTED ON FACE OF PANEL IN CONTROL ROOM
- PILOT LIGHT MOUNTED ON FACE OF LOCAL PANEL/MCC
- CONTROL INTERLOCK FUNCTION, SEE SCHEMATICS AND SYSTEM SPECIFICATIONS FOR SPECIFIC FUNCTION
- LOCAL CONTROL PANEL SEE CONTROL WIRING AND/OR EQUIPMENT PACKAGE SPECIFICATIONS — X: INDICATES PANEL DESIGNATION AS REQUIRED ON THE RESPECTIVE DRAWING

EQUIPMENT IDENTIFICATION



- DEVICE CODE – THE LETTERS DEFINE THE PROCESS EQUIPMENT TYPE (SEE PROCESS EQUIPMENT ABBREVIATIONS TABLE)
- DEVICE / LOOP NUMBER (TWO DIGITS NUMERIC IDENTIFIER)
- EXAMPLE: V01

DIGITAL SYSTEMS INTERFACE SYMBOLS

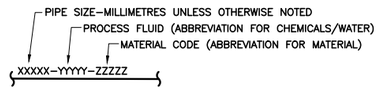
NOTE: REFER TO DETAILED SYSTEM SPECIFICATIONS FOR FUNCTIONAL DESCRIPTION. ALSO SEE I/O SCHEDULES FOR COMPLETE INPUT AND OUTPUT LISTINGS.

- COMPUTER OR DISTRIBUTED CONTROL SYSTEM FUNCTION BLOCK
- LETTERS, TAG NUMBERS, ABBREVIATIONS AND OTHER ANNOTATIONS ARE SIMILAR TO THE GENERAL INSTRUMENT LEGEND
- DATA INTERFACE TO CONTROL SYSTEM FUNCTIONS. DIRECTION OF ARROW DENOTES INPUT OR OUTPUT SIGNAL
  NOTE: NO ARROW HEAD INDICATES INPUT/OUTPUT SIGNALS VIA COMMUNICATIONS LINKS
- PROGRAMMABLE LOGIC CONTROLLER
- 'PLC' DENOTES PROGRAMMABLE LOGIC CONTROLLER
- '123' THREE DIGITAL CODE TO IDENTIFY PLC DESIGNATION
- '45' REPRESENTS THE RIO PANEL TAG IF APPLICABLE
- SHARED DISPLAY/CONTROL ACCESSIBLE TO OPERATOR ON MAIN CONTROL CONSOLE
- PANEL MOUNTED AUXILIARY OPERATOR DEVICE NOT NORMALLY ON MAIN CONTROL CONSOLE
- FIELD MOUNTED OPERATOR DEVICE
- A SOFTWARE FUNCTION WHICH PROVIDES CONTROL FROM A DISTRIBUTED OPERATOR STATION. XXX DENOTES ACTION (e.g. START/STOP)
- CONNECTION TO/FROM FIELD MOUNTED PLC OR RTU
- CONNECTION TO/FROM A CENTRAL OR MASTER PLC OR RTU NORMALLY ACCESSIBLE TO OPERATOR
- CONNECTION TO/FROM A PLC OR RTU IN AN AUXILIARY LOCATION NORMALLY ACCESSIBLE TO OPERATOR
- CONNECTION TO/FROM A CENTRAL OR MASTER PLC OR RTU NOT NORMALLY ACCESSIBLE TO OPERATOR OR MOUNTED BEHIND THE PANEL
- CONNECTION TO/FROM A PLC OR RTU IN AN AUXILIARY LOCATION NOT NORMALLY ACCESSIBLE TO OPERATOR OR MOUNTED BEHIND THE PANEL

LINE LEGEND AND SYMBOLS

- MAIN/PRIMARY PROCESS (CLOSED CONDUIT)
- SECONDARY PROCESS, INSTRUMENT LINE OR CONNECTION TO PROCESS
- FLOW ARROW FOR PROCESS FLOW DIRECTION
- PROCESS LINE COMING FROM OR GOING TO ANOTHER SHEET (N XXXXX)
- SHEET NUMBER
- LINE NUMBER (IF APPLICABLE)
- PROCESS LINE CONNECTING OUTSIDE OF PROJECT SCOPE
- KEY NOTE (1)
- ELECTRIC SIGNAL – ANALOG OR DISCRETE (ONE OR MULTIPLE)
- HYDRAULIC SIGNAL
- PNEUMATIC SIGNAL
- INTERNAL SYSTEM SIGNAL LINK (SOFTWARE OR DATA LINK)
- GROUPING FRAME
- PROCESS LINES CROSSING (NOT CONNECTED)
- SIGNAL CONNECTION POINT
- SIGNAL CROSSING POINT (NOT CONNECTED)
- SIGNAL NO. NN FROM/TO SHEET NO. XX (NN/XX)

PIPELINE IDENTIFICATION DESCRIPTION



TRANSDUCER & CONVERTER DESIGNATION

E	VOLTAGE
FSK	FREQUENCY SHIFT KEYING
H	HYDRAULIC
I	CURRENT
P	PNEUMATIC
PD	PULSE DURATION
PF	PULSE FREQUENCY
R	RESISTANCE (ELECTRICAL)

EXAMPLE: E/H = VOLTAGE TO HYDRAULIC TRANSDUCER

POWER SUPPLY ABBREVIATIONS

AS	AIR SUPPLY
ES	ELECTRIC SUPPLY
GS	GAS SUPPLY
HS	HYDRAULIC SUPPLY
NS	NITROGEN SUPPLY
SS	STEAM SUPPLY
WS	WATER SUPPLY

AS – POWER SUPPLY SOURCE LABEL. USED ONLY WHERE NECESSARY TO HELP CLARIFY AN INSTRUMENT OR SYSTEM FUNCTION.

HAND SWITCH DESIGNATIONS

HAND SELECTOR SWITCH (OR PUSH BUTTON) – MAINTAINED CONTACTS (CONTROLLED DEVICE WILL RESTART ON RETURN OF POWER AFTER POWER FAILURE)

SPRING RETURN AND SWITCH (OR PUSH BUTTON) – MOMENTARY CONTACTS CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE)

POTENTIOMETER

XX: SEE ELECTRICAL AND AND CONTROLS ABBREVIATIONS

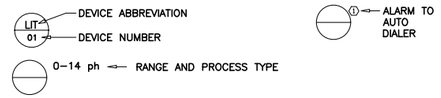
EXAMPLES:

- HOA / HS 172 — REPRESENTS A HAND/OFF/AUTO HAND SWITCH
- TEMP / HIC — TEMPERATURE CONTROL POTENTIOMETER

IDENTIFICATION LETTERS FOR INSTRUMENT TAGGING (1,2)

LETTER	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS (3)		ALARM		
B	BURNER, COMBUSTION			CLOSE, STOP, DECREASE (4)	
C	CONDUCTIVITY (ELECTRICAL)		CONTROLLER	CONTROL	
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL	DIFFERENTIAL	OPEN, START, INCREASE (4)	
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)	RATIO		FAIL (4)
G	STATUS		GLASS		
H	HAND (MANUALLY INITIATED)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME–SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTOR, MOTION	MOMENTARY	MOMENTARY	MOTOR (4)	MIDDLE OR INTER–MEDIATE
N				ON, OPERATE (4)	
O			ORIFICE (RESTRICTION)		
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE OR TOTALIZE	INTEGRATE OR TOTALIZE		
R	RADIATION		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION (3)	MULTIFUNCTION (3)	MULTIFUNCTION (3)
V	VIBRATION			VALVE, DAMPER, OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED		UNCLASSIFIED (3)	UNCLASSIFIED (3)	UNCLASSIFIED (3)
Y	EVENT, STATE, OR PRESENCE			RELAY OR COMPUTE	
Z	POSITION, DIMENSION			DRIVE, ACTUATOR OR UNCLASSIFIED FINAL CONTROL ELEMENT	

TAG NUMBERS AND ADDITIONAL DESIGNATIONS



INSTRUMENT FUNCTIONAL DESIGNATIONS AND ABBREVIATIONS

K	GAIN OR ATTENUATE (INPUT:OUTPUT)
–K	GAIN AND REVERSE
Σ	ADD OR SUM (ADD AND SUBTRACT)
Δ	SUBTRACT (DIFFERENCE)
$\sqrt{}$	EXTRACT SQUARE ROOT
÷	DIVIDE
F(X)	CHARACTERIZE SIGNAL
>	HIGH–SELECT
<	LOW–SELECT
×	MULTIPLY
∫	INTEGRATE (TIME INTEGRAL)
CH_4	METHANE
CL_2	CHLORINE RESIDUAL
CO_2	CARBON DIOXIDE
DO	DISSOLVED OXYGEN
LEL	LOWER EXPLOSIVE LIMIT
MLSS	MIXED LIQUOR SUSPENDED SOLIDS
O_2	OXYGEN (PURITY)
pH	pH CELL
TURB	TURBIDITY
H2S	HYDROGEN SULFIDE
ORP	OXIDATION REDUCTION POTENTIAL

ELECTRICAL & CONTROL EQUIPMENT AND FUNCTIONS ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	AUTO	H	HAND/HOLD	NO	NORMALLY OPENED	PF	POWER FAIL RELAY	TA	TEST ALARM
CB	CIRCUIT BREAKER	HS	HAND SWITCH OR PUSH BUTTON OR SELECTOR SWITCH	O	OPEN/OFF	PSU	POWER SUPPLY UNIT	TD	TIME DELAY/RELAY
CP	CONTROL PANEL	HOA	HAND–OFF–AUTO	OC	OPEN–CLOSE	REV	REVERSE	UPS	UNINTERRUPTIBLE POWER SUPPLY
D	DISABLE	IO	LOCAL INPUT/OUTPUT PLC/RTU MODULES	OL	OVERLOAD	RTU	REMOTE TELEMETRY/TERMINAL UNIT	VFD/VSD	VARIABLE FREQUENCY/SPEED DRIVE
E	ENABLE	J	JOG	ON	ON	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION	R	REMOTE
ET	ELAPSED TIME	LP	CONTROL PANEL, LIGHTING	OO	ON–OFF	SP	STOP	L	LOCAL/LOCK
FWD	FORWARD	M	MOTOR	OOA	ON–OFF–AUTO	SS	START–STOP	LOR	LOCAL–OFF–REMOTE
FZ	FUSE	MCC	MOTOR CONTROL CENTER	OOR	ON–OFF–REMOTE	ST	START	FOR	FORWARD–OFF–REVERSE
G	GROUND	NC	NORMALLY CLOSED	OSC	OPEN–STOP–CLOSE	T	TRANSFORMER	FOS	FAST–OFF–SLOW
HL	HIGH–LOW								

LICENCED PROFESSIONAL ENGINEER Province of New Brunswick
L6767 Richard O'Shea 2024
Signature
2025–04–10
Date
INGÉNIEURE TITULAIRE DE PERMIS Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK — ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F–23–NQ–01
P&ID LEGEND 1

SCALE	N.T.S.
DWG. NO.	P01
CONT. NO.	2000–00
SHEET NO.	01 OF 05

PROCESS PIPING LEGEND

PROCESS FLUID (ABBREVIATION FOR CHEMICALS/WATER)

LEGEND	SERVICE
A	AIR, PLANT UTILITY
AA	AQUEOUS AMMONIA
AC	ACTIVATED CARBON
ACS	ACTIVATED CARBON SLURRY
ACW	ACID CHEMICAL WASTE
AH	AMMONIA HYDROXIDE
AHP	AIR, HIGH PRESSURE PROCESS
AI	AIR, INSTRUMENT
AIW	AIR WASH
AL	ALUM
ALB	AIR, LABORATORY
ALD	ALUM (DRY)
ALL	ALUM (LIQUID)
ALP	AIR, LOW PRESSURE PROCESS
ALS	ALUM SLUDGE
AMS	AMMONIA SOLUTION
ARD	ACID RESISTANT DRAIN
ARL	AIR RELEASE LINE
ARV	ACID RESISTANT VENT
ASC	ANTISCALANT CHEMICAL
ASH	SODA ASH
ASI	ACTIVATED SILICA
ASPD	ACID SUMP PUMP DISCHARGE
AUS	ALUM SOLUTION
AWS	AIR WASH SUPPLY
B	BRINE
BDS	BLENDED DIGESTED SLUDGE
BFE	BIOFILTER EFFLUENT
BFI	BIOFILTER INFLUENT
BFR	BIOFILTER RECYCLE
BFW	BRINE FEEDWATER
BP	BUBBLER PIPE
BS	BRINE SLUDGE
BSD	BLENDED SLUDGE
BSPD	BASIC SUMP PUMP DISCHARGE
BTS	BLENDED THICKENED SLUDGE
BUP	BUBBLER PIPE
BWS	BACKWASH SUPPLY
BWW	BACKWASH WASTE WATER
BWWS	BACKWASH WASTE WATER SLUDGE
BYP	BYPASS
C	CARBON SLURRY
CA	CITRIC ACID
CC	COMBINED CENTRATE
CD	CARBON DIOXIDE GAS
CEN	CENTRATE
CEX	COOLED EXHAUST
CG	CHLORINE GAS (PRESSURE)
CGR	CHILLED GLYCOL RETURN
CGS	CHILLED GLYCOL SUPPLY
CGV	CHLORINE GAS (VACUUM)
CHD	CHEMICAL DRAIN, GRAVITY
CHDP	CHEMICAL DRAIN, PRESSURE
CHS	CHEMICAL SLUDGE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CL	CHLORINE LIQUID (PRESSURE)
CLSAM	CHLORINE SAMPLING LINE
CNA	CELL CAUSTIC
CND	CONDENSER WATER
CO	CONDENSATE DRAIN
CPSM	CONCENTRATED PRIMARY SCUM
CRAWS	CONDITIONED RAW SLUDGE
CRG	CONDENSATE RETURN GRAVITY
CRP	CONDENSATE RETURN PRESSURE
CRT	CONDENSATE RETURN TRANSFER
CS	CHLORINE SOLUTION
CSD	CHEMICAL SUMP DISCHARGE
CSM	CONCENTRATED SCUM
CTR	COOLING TOWER RETURN
CTS	COOLING TOWER SUPPLY
CUF	SCUM CONCENTRATOR UNDERFLOW
CW	CONDENSER WATER
CWR	COOLING WATER RETURN
CWS	COOLING WATER SUPPLY

LEGEND	SERVICE
D	DRAIN (SANITARY)
DA	DEHUMIDIFIED AIR
DAS	DIGESTED ACTIVATED SLUDGE
DBS	DRIED BIOSOLIDS
DC	DEWATERING CENTRATE
DEX	DRYER EXHAUST
DF	DIESEL FUEL
DFS	DIESEL FUEL SUPPLY
DFR	DIESEL FUEL RETURN
DG	DIGESTER GAS
DGC	DIGESTER GAS CONDENSATE
DGD	DIGESTER GAS DISCHARGE
DGER	DIGESTER GAS EXPLOSION RELIEF
DGM	DIGESTER GAS MIXING
DGR	DIGESTER GAS RELIEF
DGRE	DIGESTER GAS RECIRCULATION
DGW	DIGESTER GAS WITHDRAWAL
DIW	DEIONIZED WATER
DL	DRY LIME
DLS	DILUTE SLUDGE
DPO	DRY POLYMER
DPSD	DEGRITTED PRIMARY SLUDGE
DRCY	DRYER RECYCLE
DRL	DRIP LEG
DS	DIGESTED SLUDGE
DSC	DEWATERED SLUDGE CAKE
DSLW	DIGESTED SLUDGE WITHDRAWAL
DSM	DIGESTER SCUM
DSP	DRY STANDPIPE
DUS	DUST
DW	DISTILLED WATER
DWG	DIGESTER WASTE GAS
EA	EXHAUST AIR
EFF	EFFLUENT
EMA	EMISSION AIR
EWW	EYEWASH WATER
FBW	FILTER BACKWASH WATER
FBWW	FILTER BACKWASH WASTEWATER
FC	FERRIC CHLORIDE
FDW	FINISHED WATER
FE	FILTER EFFLUENT
FEC	FERRIC CHLORIDE
FES	FERRIC SULPHATE
FEX	FURNACE EXHAUST
FF	FIRE SUPPRESSION FOAM
FI	FILTER INFLUENT
FLA	HYDROFLUOSILICIC ACID
FLOC	FLOCCULATION
FLS	FLUORIDE SOLUTION
FLT	FILTRATE
FLW	FLOCCULATED WATER
FNS	FINES
FODR	FOUNDATION DRAIN
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OVERFLOW
FP	FIRE PROTECTION
FS	FIRE SPRINKLER
FTW	FILTER TO WASTE
FW	FILTERED WATER
GAS	GASOLINE
GD	GRIT DRAIN
GOX	GASEOUS OXYGEN
GOX1	GOX PRODUCT
GOX2	GOX PRODUCT
GOX3	GOX VENT
GOX4	GOX PRESSURE BUILD
GOX5	GOX ADDITION
GLR	GLYCOL RETURN
GLS	GLYCOL SUPPLY
GR	GRIT SLURRY
GRD	GRIT DRAIN
GTO	GRAVITY THICKENER OVERFLOW
GTS	GRAVITY THICKENED SLUDGE
GTSM	GRAVITY THICKENED SCUM

LEGEND	SERVICE
H	HYDROGEN GAS
HF	HYDRAULIC FLUID
HFR	HYDRAULIC FLUID RETURN
HFS	HYDRAULIC FLUID SUPPLY
HGR	HEATING GLYCOL RETURN
HGS	HEATING GLYCOL SUPPLY
HPOX	HIGH PURITY OXYGEN
HPOXV	HIGH PURITY OXYGEN VENT
HPR	HIGH PRESSURE RETURN (CONDENSATE)
HPS	HIGH PRESSURE STEAM
HPW	HIGH PRESSURE WATER
HPW3	HIGH PRESSURE EFFLUENT WATER
HRR	HEAT RECOVERY RETURN
HRS	HEAT RECOVERY SUPPLY
HRSD	HEATED RECIRCULATED SLUDGE
HS	HEAVY SOLIDS
HUM	HUMIDIFIER
HW	HOT WATER (DOMESTIC)
HW2	HOT SEPERATED POTABLE WATER
HW3R	HOT EFFLUENT WATER RETURN
HW3S	HEATING EFFLUENT WATER SUPPLY
HWJ	HOT WATER JACKET
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HWW2	HOT WATER, W2
HYD	HYDROGEN PEROXIDE
HYL	HYDRATED LIME (DRY)
LA	LABORATORY AIR
LCW	LABORATORY COLD WATER
LD	DRY LIME
LG	LUBRICATION GREASE
LHW	LABORATORY HOT WATER
LO	LUBRICATING OIL
LOD	LUBE OIL DRAIN
LOR	LUBE OIL RETURN
LOS	LUBE OIL SUPPLY
LOX	LIQUID OXYGEN
LOX1	LOX MAKE
LOX2	LOX PRODUCT
LOX3	LOX ADDITION
LOX4	LOX TRANSFER
LOX5	LOX WITHDRAWAL
LOX6	LOX PRESSURE BUILD
LPC	LOW PRESSURE CONDENSATE
LPO	LIQUID POLYMER
LPR	LOW PRESURE RETURN (CONDENSATE)
LPS	LOW PRESSURE STEAM
LRHW	LABORATORY RECIRCULATING HOT WATER
LS	LIME SLURRY
LSD	LIME SLUDGE
LV	LABORATORY VACUUM
MA	MURIATIC ACID
MDE	MIXED DRYER EXHAUST
ML	MIXED LIQUOR
MLR	MIXED LIQUOR RECYCLE
MO	MINERAL OIL
MOL	METHANOL (100%)
MPR	MEDIUM PRESSURE RETURN (CONDENSATE)
MPS	MEDIUM PRESSURE STEAM
MS	METHANOL (23% OR LESS SOLUTION)
MU	MAKE-UP WATER
MXW	MIXED WATER
NA	SODIUM HYDROXIDE
NG	NATURAL GAS
NGH	NATURAL GAS (HIGH PRESSURE)
NGL	NATURAL GAS (LOW PRESSURE)
NGM	NATURAL GAS (MEDIUM PRESSURE)
NIT	NITROGEN GAS
NRCY	NITRATE RICH RECYCLE
NT	NITROGEN TRICHLORIDE
N2	NITROGEN

LEGEND	SERVICE
O	OZONE
OA	ODOROUS AIR
OD	ROOF OVERFLOW DRAIN
OES	OUTDOOR EXHAUST STACK
OF	OVERFLOW
OFL	OUTFALL (PLANT OUTFALL)
OL	OVERFLOW LIQUOR
OSA	OUTSIDE AIR
OW	OZONATED WATER
OX	OXYGEN
OXWG	OXYGEN WASTE GAS
OZG	OZONE GAS
P	PROPANE GAS
PAB	PROCESS AIR BLOWOFF
PAC	POWDERED ACTIVATED CARBON
PAD	PROCESS AIR DIFFUSER
PD	PROCESS DRAIN
PDS	PRIMARY DIGESTED SLUDGE
PE	PRIMARY EFFLUENT
PI	PRIMARY INFLUENT
PLE	PLANT EFFLUENT
PLY	POLYELECTROLYTE
PLS	POLYELECTROLYTE SOLUTION
PO	POLYMER SOLUTION
POD	POLYMER (DRY)
PRD	PRODUCT
PRL	PRESSURE RELIEF LINE
PS	PRESSURE SEWER
PSD	PRIMARY SLUDGE
PSM	PRIMARY SCUM
PTW	PRE-TREATED WATER
PUA	PURGE AIR
PVT	PNEUMATIC VENT
QUL	QUICK LIME (DRY)
RA	RETURN AIR
RAS	RETURN ACTIVATED SLUDGE
RASS	RETURN ACTIVATED SLUDGE SYPHON
RAW	RAW WATER
RAWRE	RAW AND RECIRCULATED SLUDGE
RAWS	RAW SLUDGE
RB	RAW BRINE
RCS	RECARBONATION SLUDGE
RCY	RECYCLE
RD	ROOF DRAIN
REC	RECIRCULATION
REL	REFRIGERANT LIQUID
RES	REFRIGERANT SUCTION
RF	REFRIGERANT
RHG	REFRIGERANT HOT GAS
RHW	RECIRCULATED HOT WATER
RS	RAW SEWAGE
RSD	RECIRCULATED SLUDGE
RV	RELIEF VALVE
RWL	RAIN WATER LEADER
S	SANITARY SEWER (GRAVITY)
SA	SAMPLE
SAB	SCRUBBER AND BLOWDOWN
SAC	SPENT ACTIVATED CARBON
SAS	SODA ASH SOLUTION
SAW	SURFACE AGITATOR WATER
SB	SPENT BRINE
SBC	CAUSTIC SCRUBBER BLOWDOWN
SBS	SODIUM BISULFITE
SC	COLD SLUDGE
SCR	SCREENINGS
SD	STORM DRAIN
SDG	SULFUR DIOXIDE GAS (PRESSURE)
SDL	SULFUR DIOXIDE LIQUID (PRESSURE)
SDS	SULFUR DIOXIDE SOLUTION
SDV	SULFUR DIOXIDE GAS (VACUUM)
SE	SECONDARY EFFLUENT
SEF	SECONDARY EFFLUENT

LEGEND	SERVICE
SEL	SENSING LINE
SEP	SEPTAGE
SET	SETTLED WATER
SFA	SULFURIC ACID
SH	HEATED SLUDGE
SHC	SODIUM HYPOCHLORITE
SHD	SODIUM HYDROXIDE
SHY	SODIUM HYPOCHLORITE
SI	SECONDARY INFLUENT
SLC	SLUDGE CAKE
SLD	SETTLED SLUDGE
SLL	SLUDGE LOADING
SLOV	SLUDGE OVERFLOW
SLR	SLUDGE RECIRCULATION
SLT	SLUDGE TRANSFER
SOW	SOFTENED WATER
SPD	SUMP PUMP DISCHARGE
SR	SCRUBBER RECYCLE
SRL	SURGE RELIEF LINE
SS	STORM SEWER
SSD	SECONDARY DIGESTED SLUDGE
SSI	SODIUM SILICATE
SSM	SECONDARY SCUM
STD	STORM DRAIN
STG	STACK GAS
SU	SUPERNATANT
SUF	SUPERNATANT FEED
SULF	SUPERNATANT LOWER FEED
SUO	SUPERNATANT OVERFLOW
SUUF	SUPERNATANT UPPER FEED
SW	SURFACE WASH
SW2	SOFTENED W2
TAS	THICKENED ACTIVATED SLUDGE
TB	TREATED BRINE
TBS	THICKENER BOTTOM SLUDGE
TC	THICKENING CENTRATE RECYCLE
TDS	THICKENED DIGESTED SLUDGE
TI	THRESHOLD INHIBITOR
TPS	THICKENED PRIMARY SLUDGE
TRW	TREATED WATER
TS	THICKENED SLUDGE
TSD	TERTIARY SLUDGE
TSE	TERTIARY SETTLING TANK EFFLUENT
TSM	TERTIARY SCUM
TUF	THICKENED UNDER FLOW
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UD	UNDERDRAIN
UNW	UNWATERING
V	VENT
VAC	VACUUM
VAR	VACUUM RELIEF
VR	VAPOR RECOVERY
VTR	VENT THRU ROOF
W1	POTABLE WATER
W2	PLANT SERVICE WATER (NON-POTABLE)
W3	PLANT EFFLUENT WATER (NON-POTABLE)
W3(HOT)	PLANT EFFLUENT WATER HOT (NON-POTABLE)
W3(HP)	PLANT EFFLUENT WATER HIGH PRESSURE (NON-POTABLE)
W3(CLD)	PLANT EFFLUENT WATER COLD (NON-POTABLE)
W3(RET)	PLANT EFFLUENT WATER RETURN (NON-POTABLE)
WAS	WASTE ACTIVATED SLUDGE
WLOR	WASTE LUBE OIL RETURN
WLOS	WASTE LUBE OIL SUPPLY
WML	WASTE MIXED LIQUOR
WSP	WET STANDPIPE
WVA	WASTE VACUUM LINE

MATERIAL CODE (ABBREVIATION FOR MATERIAL)

LEGEND	SERVICE
ABS	ACRYLONITRILE BUTADIENE STYRENE
CISP	CAST IRON SOIL PIPE
CLDI	CEMENT LINED DUCTILE IRON
CLSTL	CEMENT LINED STEEL
CPVC	CHLORINATED POLYVINYL CHLORIDE
CU	COPPER
CPP	CONCRETE PRESSURE PIPE
FRP	FIBERGLASS REINFORCED PLASTIC
GSP	GALVANIZED STEEL PIPE
PE	POLYETHYLENE
HDPE	HIGH DENSITY POLYETHYLENE
POP	POLYPROPYLENE
PVC	POLYVINYL CHLORIDE
SST	STAINLESS STEEL
STL	STEEL

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Richard G. Cook
Signature
2025-04-10
Date
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Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
P&ID LEGEND 2

SCALE	N.T.S.
DWG. NO.	P02
CONT. NO.	2000-00
SHEET NO.	02 OF 05

VALVE SYMBOLS

GATE
KNIFE GATE
BUTTERFLY
GLOBE
BALL
VEE–BALL
PLUG
SEAT PORT ECCENTRIC PLUG
DIAPHRAGM
MULTI–PORT VALVE (GATE VALVE SHOWN. FOR OTHER VALVE TYPES, APPROPRIATE VALVE SYMBOL SHOWN.) SEAT PORTS ARE IMPLIED BY INDICATED FLOW PATTERN.
ANGLE GATE

PINCH
NEEDLE
SWING CHECK
BALL CHECK
BACKFLOW PREVENTER
ROTARY
TELESCOPING
SAMPLE
MUD
EXPLOSION RELIEF
THERMAL

AIR AND/OR VACUUM RELEASE
REGULATED SIDE PRESSURE – REDUCING REGULATOR SELF–CONTAINED
PRESSURE – REDUCING REGULATOR WITH EXTERNAL PRESSURE TAP
BACKPRESSURE REGULATOR SELF CONTAINED
BACKPRESSURE REGULATOR WITH EXTERNAL PRESSURE TAP
PRESSURE RELIEF
VACUUM RELIEF
PRESSURE RELIEF
COMBINATION PRESSURE / VACUUM RELIEF VALVE

GATE SYMBOLS

SLUICE
FABRICATED SLIDE
BUTTERFLY
FLAP
STOP LOG

ACTUATOR SYMBOLS

PNEUMATIC DIAPHRAGM SPRING–OPPOSED, SINGLE OR DOUBLE ACTING
PNEUMATIC CYLINDER SINGLE OR DOUBLE ACTING ACTUATED BY ONE INPUT
ELECTRIC MOTOR
SOLENOID

VALVE POSITIONER
HYDRAULIC
DIAPHRAGM, DIFFERENTIAL PRESSURE
ELECTROHYDRAULIC

MANUAL
VARIABLE FREQUENCY DRIVE
HYDRA MOTOR SAFETY SHUT OFF VALVE

XX: FO FAIL OPEN
FC FAIL CLOSED
FLP FAIL TO LAST POSITION

NOTE: ON LOSS OF PRIMARY POWER (PNEUMATIC, LECTRICAL, OR HYDRAULIC)

PRIMARY ELEMENT SYMBOLS

PARSHALL FLUME
WEIR
ORFICE PLATE
FLOW TUBE / VENTURI
PITOT–STATIC
VORTEX METER
ULTRASONIC FLOWMETER
ELECTROMAGNETIC FLOWMETER
PROPELLER OR TURBINE METER
V–CONE METER

THERMAL FLOWMETER
LEVEL (BUBBLER TUBE)
SIGHT GLASS
TEMPERATURE ELEMENT WITH WELL

LEVEL (FLOAT)
ROTAMETER
DENSITY METER
GENERIC
LEVEL (ULTRASONIC)
TEMPERATURE ELEMENT SURFACE MOUNTED
XX:

MISCELLANEOUS SYMBOLS

VENT TO ATMOSPHERE
AIR GAP
PIG INSERT POINT
PIG CATCH POINT
SELF CONTAINED AIR SUPPLY
AIR PURGE SET
FLUSHING CONNECTION
SEAL WATER SET
WATER PURGE SET
FLEXIBLE CONNECTION
AERATOR
DIAPHRAGM SEAL
ANNULAR DIAPHRAGM SEAL
COMPOSITE SAMPLER
CALIBRATION COLUMN
INLINE SILENCER
BLIND FLANGE
PIPE CAP
STRAINER
BASKET STRAINER
FILTER
PULSATION DAMPENER
EXPANSION CHAMBER
TEST BURNER
FLAME PROVING ROD AS PRIMARY TEMPERATURE ELEMENT
BURNER FLAME SCANNER AS PRIMARY TEMPERATURE ELEMENT
TANK
REDUCER/EXPANDER

FFLCPLLLX
PANEL CONTINUED ON SAME OR OTHER DRAWING
PANEL OUTLINE
PANEL NAME
120V 120 VOLT, 60 HZ POWER
480V 480 VOLT, 60 HZ POWER
XX AIR SET XX = SUPPLY PRESSURE IN kPa.
PLUG
RECEPTACLE
RUPTURE DISK (VACUUM)
RUPTURE DISK (PRESSURE)
TV MONITOR
TV CAMERA
LOGIC ELEMENT: IF A AND NOT B THEN C
LOGIC ELEMENT: IF A OR B THEN C
RADIO ANTENNA
INTERLOCK, SEE CONTROL DIAGRAMS
HORN
SKIMMING MECHANISM
MIXER
FLEXIBLE METAL HOSE CONNECTOR
DRIP CAP
GAS FILTER
FLAME CHECK (FLASH–BACK ARRESTER)
HIGH ENERGY IGNITION
GAS CARBURETOR
AIR FILTER
NOZZLE MIXING CONCENTRIC RING BURNER

PUMP AND COMPRESSOR SYMBOLS

CENTRIFUGAL PUMP (DRY PIT)
CENTRIFUGAL WET PIT PUMP OR TURBINE PUMP
RECIPROCATING OR METERING PUMP (POSITIVE DISPLACEMENT)
DIAPHRAGM PUMP
GEAR PUMP OR BLOWER (POSITIVE DISPLACEMENT)
PERISTALTIC PUMP

PROGESSING CAVITY PUMP
COMPRESSOR (MULTISTAGE CENTRIFUGAL)
COMPRESSOR SINGLE STAGE
BLOWER OR FAN (CENTRIFUGAL)
EJECTOR
CAKE PUMP

PISTON PUMP
SUBMERSIBLE SUMP PUMP
ROTARY PUMP
VACUUM PUMP
SCREW PUMP

XX: AS
CS–1 ADJUSTABLE SPEED
CS–2 CONSTANT SPEED (SINGLE SPEED)
CONSTANT SPEED (TWO SPEED)

MAJOR EQUIPMENT SYMBOLS

CENTRIFUGE
CLASSIFIER
SCREW CONVEYOR WITH DUAL DISCHARGE
SCREW CONVEYOR
TWO WAY SCREW CONVEYOR
CONVEYOR

BAR SCREEN
CYCLONE
MANUAL DRIP TRAP
AUTOMATIC DRIP TRAP
AUTO DRIP TRAP

FILTER PRESS
GRINDER (IN–LINE)
HEAT EXCHANGER
BOILER
BIN : LIVE BOTTOM
BIN : SLIDING FRAME

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Date
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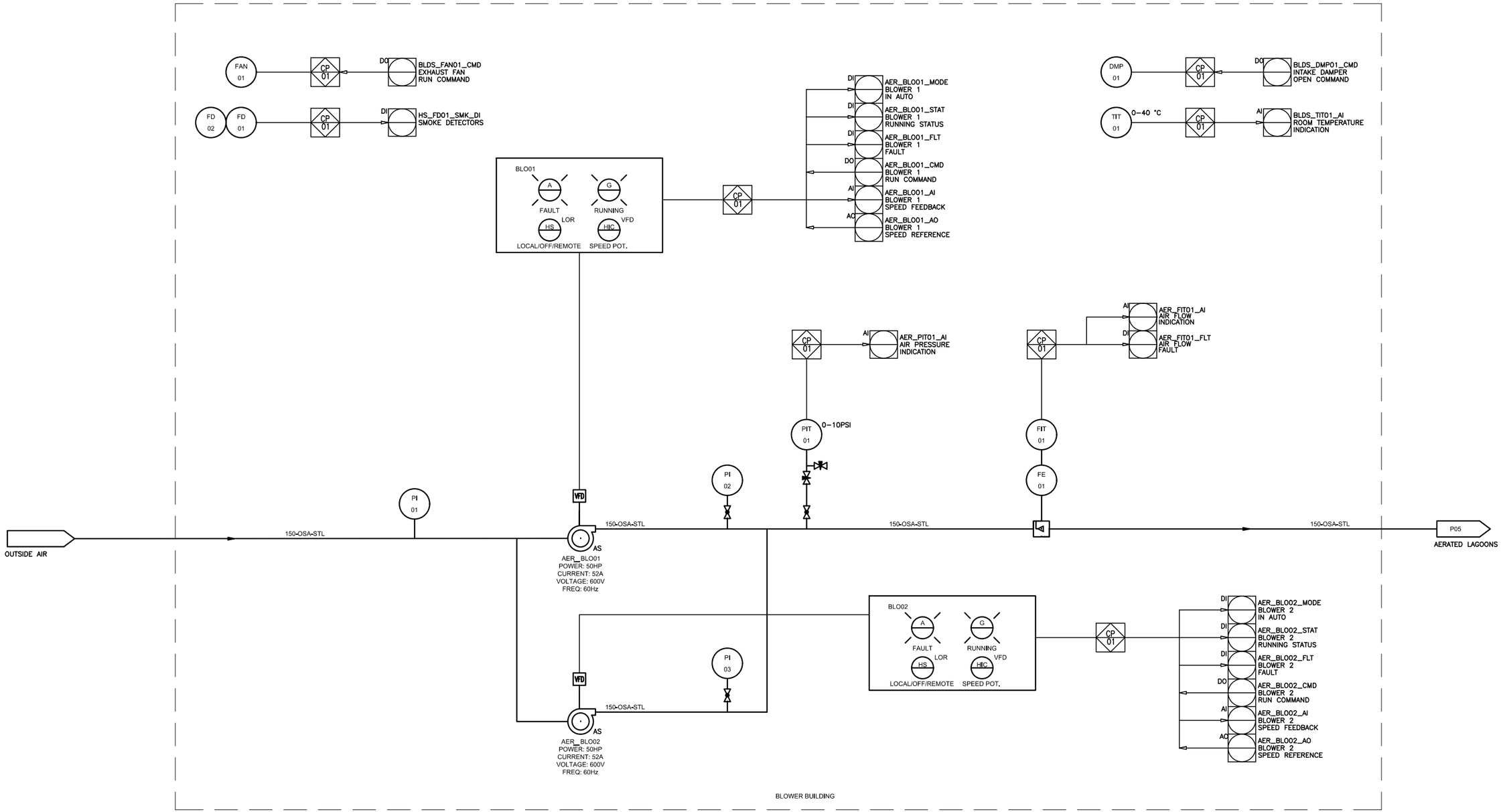
No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

DATE 04/01/2025
DESIGN S.T.S.
DRAWN S.T.S.
CHECKED Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F–23–NQ–01
P&ID LEGEND 3

SCALE N.T.S.
DWG. NO. P03
CONT. NO. 2000–00
SHEET NO. 03 OF 05



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NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
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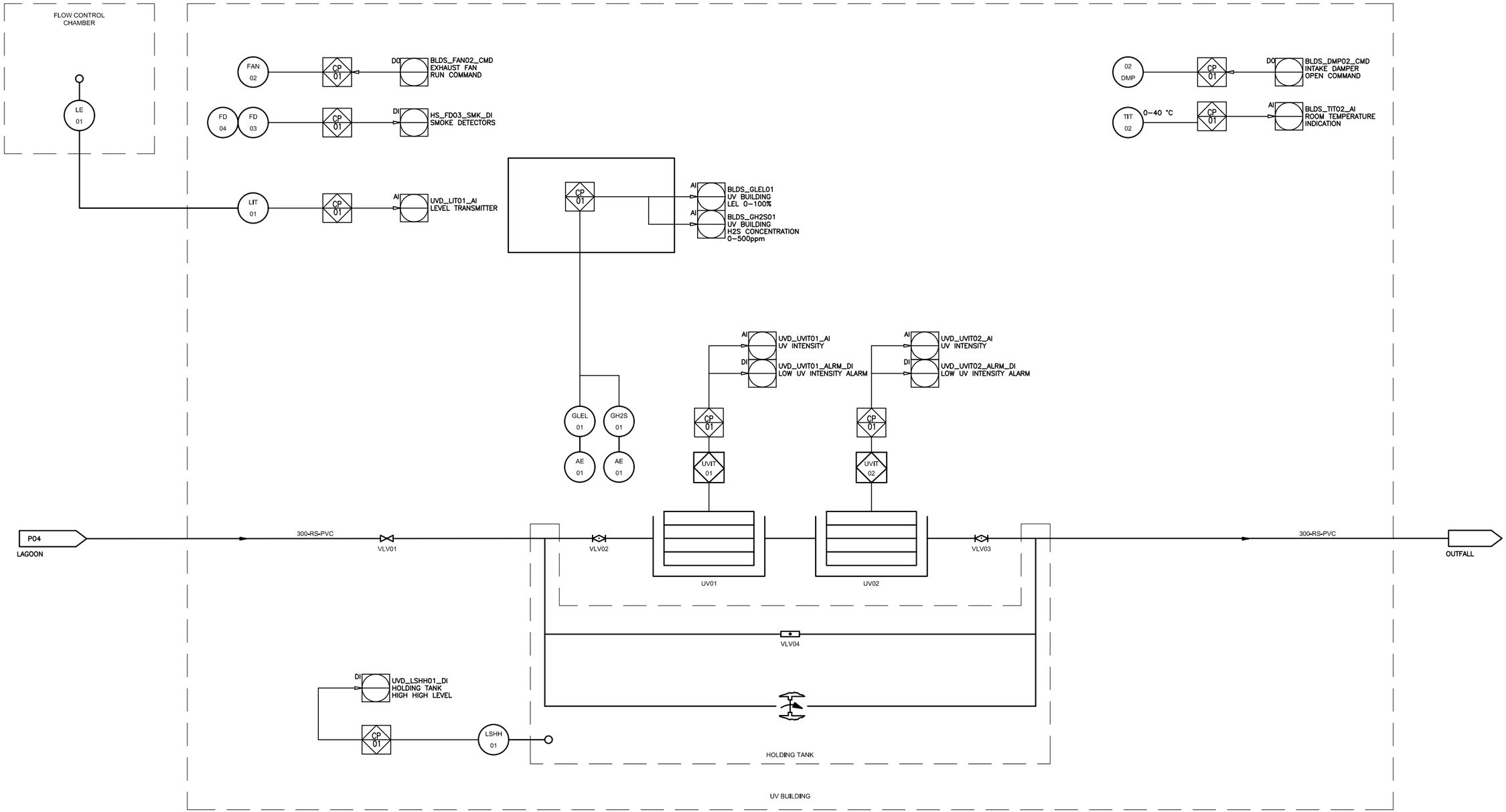
UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01 P&ID BLOWER BUILDING

SCALE	N.T.S.
DWG. NO.	P04
CONT. NO.	2000-00
SHEET NO.	04 OF 05



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UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01 P&ID UV BUILDING

SCALE	N.T.S.
DWG. NO.	P05
CONT. NO.	2000-00
SHEET NO.	05 OF 05

DRAWING NUMBER	DESCRIPTION
I01	DRAWING INDEX
I02	SYMBOL LEGEND
I03	I/O TERMINAL BLOCK DETAILS
I04	120VAC POWER RAIL DETAIL
I05	BLOWER BUILDING CONTROL PANEL WWTF_CP01 BILL OF MATERIALS
I06	NETWORK DIAGRAM
I07	BLOWER BUILDING CONTROL PANEL WWTF_CP01 EXTERIOR LAYOUT
I08	BLOWER BUILDING CONTROL PANEL WWTF_CP01 INTERIOR LAYOUT
I09	BLOWER BUILDING WWTF_CP01 120VAC WIRING DIAGRAM 1
I10	BLOWER BUILDING WWTF_CP01 120VAC WIRING DIAGRAM 2
I11	BLOWER BUILDING WWTF_CP01 24VDC WIRING DIAGRAM 1
I12	BLOWER BUILDING WWTF_CP01 24VDC WIRING DIAGRAM 2
I13	BLOWER BUILDING WWTF_CP01 COMPACTLOGIX RACK 0 SLOT 0-1: CPU & DIGITAL INPUT CARD
I14	BLOWER BUILDING WWTF_CP01 COMPACTLOGIX RACK 0 SLOT 2: DIGITAL INPUT CARD
I15	BLOWER BUILDING WWTF_CP01 COMPACTLOGIX RACK 0 SLOT 3: DIGITAL INPUT CARD
I16	BLOWER BUILDING WWTF_CP01 COMPACTLOGIX RACK 0 SLOT 4: DIGITAL OUTPUT CARD
I17	BLOWER BUILDING WWTF_CP01 COMPACTLOGIX RACK 0 SLOT 5: ANALOG INPUT CARD
I18	BLOWER BUILDING WWTF_CP01 COMPACTLOGIX RACK 0 SLOT 6: ANALOG INPUT CARD
I19	BLOWER BUILDING WWTF_CP01 COMPACTLOGIX RACK 0 SLOT 7: ANALOG OUTPUT CARD
I20	UV BUILDING MARSHALLING PANEL WWTF_JB01 BILL OF MATERIALS
I21	UV BUILDING MARSHALLING PANEL WWTF_JB01 EXTERIOR LAYOUT
I22	UV BUILDING MARSHALLING PANEL WWTF_JB01 INTERIOR LAYOUT
I23	UV BUILDING WWTF_JB01 MARSHALLING WIRING DIAGRAM 1
I24	UV BUILDING WWTF_JB01 MARSHALLING WIRING DIAGRAM 2
I25	INSTRUMENTATION DETAILS

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6762 2024
Richard G. Doyle
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE 04/01/2025
DESIGN S.T.S.
DRAWN S.T.S.
CHECKED Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
DRAWING INDEX

SCALE N.T.S.
DWG. NO. I01
CONT. NO. 2000-00
SHEET NO. 01 OF 25

COIL CONTACTS

- NORMALLY OPEN CONTACT (NO)
- NORMALLY CLOSED CONTACT (NC)
- NORMALLY OPEN CONTACT (TDC) TIME DELAY CLOSING WHEN RELAY ENERGIZED
- NORMALLY CLOSED CONTACT (TDO) TIME DELAY OPENING WHEN RELAY ENERGIZED
- NORMALLY OPEN CONTACT (TDO) TIME DELAY OPENING WHEN RELAY DE-ENERGIZED
- NORMALLY CLOSED CONTACT (TDC) TIME DELAY COSING WHEN RELAY DE-ENERGIZED

RELAY COILS

- CR — CONTROL RELAY
- M — MOTOR STARTER
- TR — TIMER
- SOLENOID

PROTECTIVE DEVICES

- FUSE
- CIRCUIT BREAKER
- THERMAL OVERLOAD

LIMIT SWITCHES

- NORMALLY OPEN
- NORMALLY CLOSED
- HELD CLOSED NORMALLY OPEN
- HELD OPEN NORMALLY CLOSED
- PROXIMITY SWITCH

PUSHBUTTONS & SWITCHES

- NORMALLY OPEN PUSHBUTTON
- NORMALLY CLOSED PUSHBUTTON
- NORMALLY CLOSED MUSHROOM HEAD PUSHBUTTON
- NORMALLY OPEN MUSHROOM HEAD PUSHBUTTON
- DISCONNECT SWITCH
- TOGGLE SWITCH
- TWO POSITION SELECTOR SWITCH OPEN
- TWO POSITION SELECTOR SWITCH CLOSED
- SPRING RETURN SELECTOR SWITCH OPEN
- SPRING RETURN SELECTOR SWITCH CLOSED
- NORMALLY OPEN CONTACT
- NORMALLY CLOSED CONTACT

PIOLT LIGHTS & METERS

- PILOT LIGHT
- PILOT LIGHT PUSH TO TEST P.T.T.

PILOT LIGHT COLOURS

A	AMBER	W	WHITE	C	CLEAR
Y	YELLOW	B	BLUE	O	ORANGE
G	GREEN	R	RED		

(A)

METER DESIGNATIONS

A	AMMETER (D – DENOTES MAX. DEMAND INDICATOR)	VA	VOLT AMMETER
		VAR	VARMETER
AH	AMPERE HOUR	VARH	VARHOUR METER
PF	POWER FACTOR	KW	KILOWATT METER
V	VOLTMETER	KWH	KILOWATT HOUR METER
W	WATT METER	T	THERMOSTAT
HZ	FREQUENCY METER		

- ETM — ELAPSED TIME METER

CONDUCTORS

- CONDUCTOR
- CONDUCTORS NOT CONNECTED
- CONDUCTORS NOT CONNECTED
- CONDUCTORS CONNECTED
- CONDUCTOR SHIELD
- CONDUCTOR SHIELD TWISTED PAIR
- GROUND
- CHASSIS GROUND
- SIGNAL GROUND
- SEPARABLE CONNECTOR

MISCELLANEOUS

- 600V / 120V — CONTROL TRANSFORMER
- LINE REACTOR
- BATTERY
- SURGE SUPRESSOR
- ALARM HORN
- RESISTOR
- DIODE
- CAPACITOR
- ELECTRICAL HEATER
- DUPLEX RECEPTACLE
- TERMINAL IN FIELD
- TERMINAL IN PAC PANEL
- 0.5A — FUSED TERMINAL BLOCK
- DISCONNECTING TERMINAL BLOCK
- NEW
- EXISTING

PROCESS SWITCHES

- LEVEL SWITCH NORMALLY OPEN
- LEVEL SWITCH NORMALLY CLOSED
- FLOW SWITCH NORMALLY OPEN
- FLOW SWITCH NORMALLY CLOSED
- PRESSURE SWITCH NORMALLY OPEN
- PRESSURE SWITCH NORMALLY CLOSED
- TEMPERATURE SWITCH NORMALLY OPEN
- TEMPERATURE SWITCH NORMALLY CLOSED

INSTURMENTATION

- TAG 0000 (+ / −) — 2-WIRE TRANSMITTER 4–20mA UNLESS NOTED
- TAG 0000 (L / N / G, + / −) — 4-WIRE TRANSMITTER 4–20mA UNLESS NOTED
- TAG 0000 (+ / −) — ANALOG CONTROL OUTPUT 4–20mA UNLESS NOTED

WIRING LINE CODES

- PANEL WIRING
- FIELD WIRING

GENERAL WIRING SPECIFICATIONS – INTERNAL PANEL WIRING

WIRING TYPE	MINIMUM WIRE GAUGE	COLOUR CODE
AC POWER, 1 PHASE (120VAC – 15A CCT)	#12 AWG TEW UNLESS OTHERWISE SPECIFIED	HOT – BLACK NEUTRAL – WHITE GROUND – GREEN
SIGNAL WIRING ANALOG AND LOW VOLTAGE	#18 AWG SHIELDED TWISTED PAIR UNLESS OTHERWISE SPECIFIED BELDEN #8760	POSITIVE – WHITE NEGATIVE – BLACK
120VAC CONTROL	#16 AWG TEW UNLESS OTHERWISE SPECIFIED	HOT – RED NEUTRAL – WHITE GROUND – GREEN
POWER & 24VDC CONTROL	#16 AWG TEW UNLESS OTHERWISE SPECIFIED	POSITIVE – DARK BLUE NEGATIVE – DARK BLUE GROUND – GREEN
INTERLOCK CONTROL CIRCUITS (EXTERNALLY SOURCED)	#16 AWG TEW UNLESS OTHERWISE SPECIFIED	YELLOW
ISOLATED GROUND	#16 AWG TEW UNLESS OTHERWISE SPECIFIED	GROUND – GREEN WITH WHITE STRIPE

GENERAL WIRING SPECIFICATIONS – FIELD WIRING

WIRING TYPE	MINIMUM WIRE GAUGE	COLOUR CODE
AC POWER, 1 PHASE (120VAC – 15A CCT)	#12 AWG T90 UNLESS OTHERWISE SPECIFIED	HOT – BLACK NEUTRAL – WHITE GROUND – GREEN
SIGNAL WIRING ANALOG AND LOW VOLTAGE	#16 AWG SHIELDED TWISTED PAIR UNLESS OTHERWISE SPECIFIED DECA CABLES INC. PART#:73-242	POSITIVE – WHITE NEGATIVE – BLACK
120VAC CONTROL	#14 AWG T90 UNLESS OTHERWISE SPECIFIED	HOT – RED NEUTRAL – WHITE GROUND – GREEN
POWER & 24VDC CONTROL	#14 AWG T90 UNLESS OTHERWISE SPECIFIED	POSITIVE – DARK BLUE NEGATIVE – DARK BLUE GROUND – GREEN
INTERLOCK CONTROL CIRCUITS (EXTERNALLY SOURCED)	#14 AWG T90 UNLESS OTHERWISE SPECIFIED	YELLOW
ISOLATED GROUND	#16 AWG TEW UNLESS OTHERWISE SPECIFIED	GROUND – GREEN WITH WHITE STRIPE

GENERAL NOTES:

1. ALL TAGGING IS TO CONFORM TO THE LATEST VERSION OF THE AFNWA TAGGING STANDARD.
2. THE CONTRACTOR IS TO SUBMIT TAG LIST TO ENGINEER FOR REVIEW AND APPROVAL.
3. THE PANEL MANUFACTURER IS USE THIS DRAWING SET TO PRODUCE SHOP DRAWINGS FOR REVIEW PRIOR TO BUILDING.

LICENCED PROFESSIONAL ENGINEER Province of New Brunswick
L6767 2024
Richard O'Shea
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

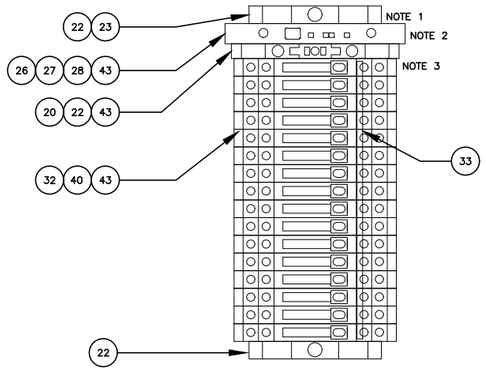
ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
SYMBOL LEGEND

SCALE	N.T.S.
DWG. NO.	I02
CONT. NO.	2000-00
SHEET NO.	02 OF 25

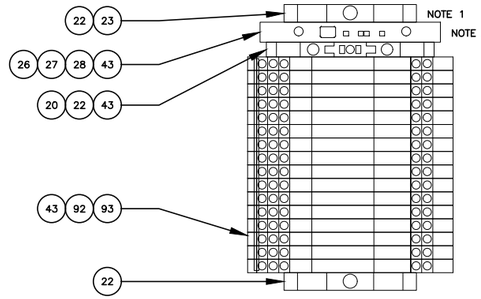
TYPICAL DIGITAL INPUT TERMINAL BLOCK DETAIL



NOTES:

1. DIGITAL INPUT TERMINAL BLOCK LABEL TO BE MARKED 'RX SLOT Y', WHERE X IS THE RACK NUMBER AND Y IS THE SLOT NUMBER. FOR EXAMPLE, R0 SLOT 10.
2. ALL FUSE TERMINALS OF THIS TYPE ARE TO BE MOUNTED SUCH THAT THE HINGE IS CLOSEST TO THE INTERNAL WIRING DUCT.
3. FOR ALL DIGITAL INPUT TERMINAL BLOCKS, THE BOTTOM LEVEL OF THE TWO LEVEL TERMINAL BLOCK IS TO BE THE COMMON 24VDC SUPPLY.
4. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.

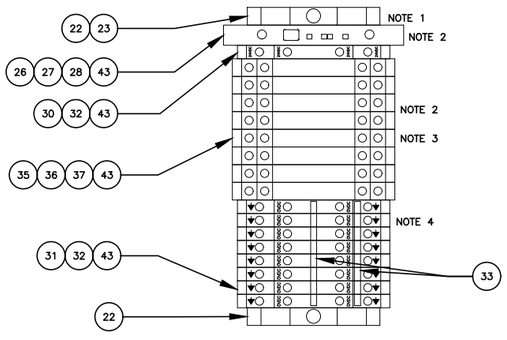
TYPICAL DIGITAL OUTPUT TERMINAL BLOCK DETAIL



NOTES:

1. DIGITAL OUTPUT TERMINAL BLOCK LABEL TO BE MARKED 'RX SLOT Y', WHERE X IS THE RACK NUMBER AND Y IS THE SLOT NUMBER. FOR EXAMPLE, R0 SLOT 10.
2. ALL FUSE TERMINALS OF THIS TYPE ARE TO BE MOUNTED SUCH THAT THE HINGE IS CLOSEST TO THE INTERNAL WIRING DUCT.
3. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.

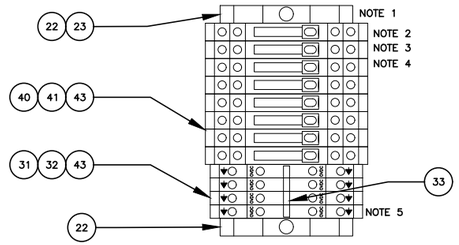
TYPICAL ANALOG INPUT TERMINAL BLOCK DETAIL



NOTES:

1. ANALOG INPUT TERMINAL BLOCK LABEL TO BE MARKED 'RX SLOT Y', WHERE X IS THE RACK NUMBER AND Y IS THE SLOT NUMBER. FOR EXAMPLE, R0 SLOT 10.
2. ALL FUSE TERMINALS OF THIS TYPE ARE TO BE MOUNTED SUCH THAT THE HINGE IS CLOSEST TO THE INTERNAL WIRING DUCT.
3. FOR ALL ANALOG INPUT TERMINAL BLOCKS, THE TOP LEVEL OF THE STANDARD TWO LEVEL TERMINAL BLOCK IS TO BE THE DC POWER SUPPLY COMMON (0VDC). THE BOTTOM LEVEL IS TO BE USED FOR ANALOG SHIELD CONNECTIONS AND CONNECTED TO THE ISOLATED GROUND BAR.
4. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.

TYPICAL ANALOG OUTPUT TERMINAL BLOCK DETAIL



NOTES:

1. ANALOG OUTPUT TERMINAL BLOCK LABEL TO BE MARKED 'RX SLOT Y', WHERE X IS THE RACK NUMBER AND Y IS THE SLOT NUMBER. FOR EXAMPLE, R0 SLOT 10.
2. ALL DISCONNECT TERMINALS OF THIS TYPE ARE TO BE MOUNTED SUCH THAT THE HINGE IS CLOSEST TO THE INTERNAL WIRING DUCT.
3. FOR LEVEL (FUSE) IS TO BE THE "+" SIGNAL, BOTTOM LEVEL IS TO BE THE "–" SIGNAL.
4. FOR ALL ANALOG OUTPUT TERMINAL BLOCKS, THE TOP AND BOTTOM LEVEL OF THE TWO LEVEL TWO LEVEL TERMINAL BLOCK IS TO BE USED FOR ANALOG SHIELD CONNECTIONS AND CONNECTED TO THE ISOLATED GROUND BAR.
5. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard O'Neill
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

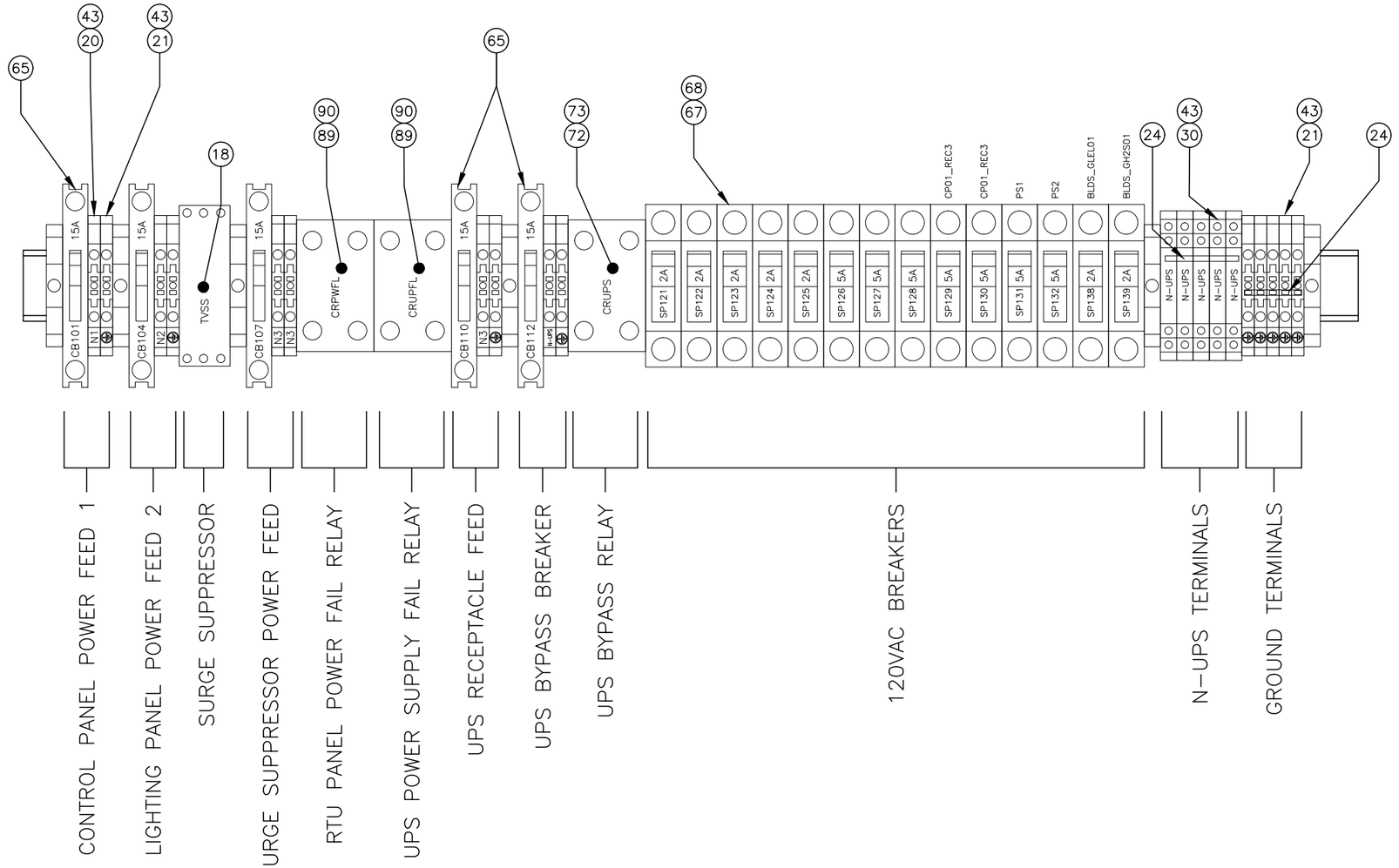
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
I/O TERMINAL BLOCK DETAILS

SCALE	N.T.S.
DWG. NO.	103
CONT. NO.	2000-00
SHEET NO.	03 OF 25



NOTES:

1. ALL FUSE TERMINALS ARE TO BE MOUNTED SUCH THAT THE HINGE IS ON THE LEFT. IN CASES WHERE A FUSE TERMINAL IS MOUNTED VERTICALLY, THE HINGE HALL BE AT THE BOTTOM.
2. ALL CIRCUIT BREAKERS ARE TO BE MOUNTED SUCH THAT THEY ARE ON WHEN THE SWITCH IS POINTING TOWARD THE INTERNAL WIRING DUCT.
3. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.

LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard G. Cloutier
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK
WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
120VAC POWER RAIL DETAIL

SCALE	N.T.S.
DWG. NO.	104
CONT. NO.	2000-00
SHEET NO.	04 OF 25

ITEM	TAG	QTY	PART NUMBER	DESCRIPTION	MANUFACTURER
1		1	1418SN4SSM16	RTU PANEL ENCLOSURE, NEMA 12 STAINLESS STEEL, 48"X 36"X 16", INCLUDES BACKPLATE	HAMMOND
2					
3					
4	DSW1	1	A-20GQ-B7-K	DOOR SWITCH	OMRON
5					
6	REC3	1	5500521:CSA	COMBO RJ45/120VAC RECEPTACLE	PHOENIX CONTACT
7		1	MHK2	HANDLE KIT FOR NEMA 12 PANEL, LOCKING AND PAD LOCKING HANDLE	HAMMOND
8					
9					
10					
11	PL1	1	800T-QTH2G	POWER ON LIGHT, GREEN, PUSH TO TEST, 120VAC	ALLEN BRADLEY
12	PL2	1	800T-QTH2B	COMMUNICATIONS OK LIGHT, BLUE, PUSH TO TEST, 24VDC	ALLEN BRADLEY
13	PL3	1	800T-QTH2A	GENERAL ALARM LIGHT, AMBER, PUSH TO TEST, 24VDC	ALLEN BRADLEY
14					
15	UPS01	1	9SX1500	UPS, POWERWARE 9SX SERIES, 1500VA	EATON
16		1	NETWORK-M3	UPS, ETHERNET COMM. CARD	EATON
17		10	1050000000	TERMINAL BLOCK END PLATE WAP 2.5-10	WEIDMULLER
18	TVSS01	1	2907918	SURGE SUPPRESSOR, 120VAC, 15A	PHOENIX CONTACT
19	HI/LO	1	G01175.0-00	HI/LO TEMPERATURE SWITCH	GENESIS
20		20	1020100000	TERMINAL BLOCK, WDU 4	WEIDMULLER
21		10	1010100000	GROUND TERMINAL BLOCK, GREEN YELLOW, WPE 4	WEIDMULLER
22		40	1061200000	TERMINAL BLOCK END BRACKET, WEW 35/2	WEIDMULLER
23		12	1806120000	TERMINAL BLOCK END BRACKET MARKER, EM 8/30	WEIDMULLER
24		1	1909020000	PLUG IN JUMPER, 20 POLE, YELLOW, FOR WDU 4	WEIDMULLER
25					
26		30	1880410000	FUSED TERMINAL BLOCK, 10-60V AC/DC, LED INDICATOR, WSI 4/2/LD	WEIDMULLER
27		10	1880450000	FUSED TERMINAL BLOCK END PLATE, WAP WSI 4/2	WEIDMULLER
28		40	AGC-2	FUSE, 2A (INCLUDES SPARES)	BUSSMAN
29		10	AGC-5	FUSE, 5A (INCLUDES SPARES)	BUSSMAN
30		30	1022300000	TERMINAL BLOCK, TWO LEVEL, SCREW CLAMPS, TOP AND BOTTOM LEVELS CONNECTED, WDK2.5V	WEIDMULLER
31		72	1041100000	TERMINAL BLOCK, TWO LEVEL, SCREW CLAMPS, WDK 2.5 ZQV	WEIDMULLER
32		16	1059100000	END PLATE FOR DI TERMINAL BLOCK, TWO LEVEL, WDK 2.5 ZQV	WEIDMULLER
33		8	1909000000	PLUG IN JUMPERS, 20-POLE, FOR WDK 2.5 ZQV	WEIDMULLER
34					
35		16	9532440000	AI TERMINAL BLOCK, TWO LEVEL FUSED, SCREW CLAMPS, KDKS 1/35 DB	WEIDMULLER
36		2	9532470000	END PLATE FOR AI TERMINAL BLOCK, TWO LEVEL FUSED, SCREW CLAMPS, KDKS 1/35 DB	WEIDMULLER
37		56	GMA-500-R	FUSE, 0.5A, FAST ACTING, FOR AI FUSED TERMINALS (INCLUDES 20 SPARES)	BUSSMAN
38		64	1609900000	AI TERMINAL BLOCK MARKER FOR KDKS 1/35 DB	WEIDMULLER
39					
40		8	0687460000	TERMINAL BLOCK, TWO LEVEL, DISCONNECTING, SCREW CLAMPS, DKT4	WEIDMULLER
41		1	0687460000	END PLATE FOR AO TERMINAL BLOCK, TWO LEVEL, DISCONNECTING, SCREW CLAMPS, DKT5	WEIDMULLER
42					
43		800	1609900000	W SERIES TERMINAL BLOCK MARKER, WS 12/6 MC, 12mm LENGTH, WHITE	WEIDMULLER
44			F2X4IB6	WIRING DUCT, 50mm WIDE X 100mm HIGH, NARROW SLOT, INTRINSIC BLUE	PANDUIT
45			F3X4LG6	WIRING DUCT, 75mm WIDE X 100mm HIGH, NARROW SLOT, LIGHT GRAY	PANDUIT
46			F2X4LG6	WIRING DUCT, 50mm WIDE X 100mm HIGH, NARROW SLOT, LIGHT GRAY	PANDUIT
47			F1X4LG6	WIRING DUCT, 25mm WIDE X 100mm HIGH, NARROW SLOT, LIGHT GRAY	PANDUIT
48		1	7914760001	DIN RAIL MOUNT SPARE FUSE DRAWER	WEIDMULLER
49		2	PK9GTACP	GROUND BAR, COPPER, 9 TERMINALS	SQUARE D
50		2	04154-02	STANDOFF, HEXAGONAL, RED, 25.4mm HIGH, 12-24 UNC x .375" LONG EXTERNAL STUD	TELECT

ITEM	TAG	QTY	PART NUMBER	DESCRIPTION	MANUFACTURER
51		2	5069-RTB64-SCREW	5069 COMPACT I/O POWER TERMINAL RTB KIT	ALLEN BRADLEY
52		1	5069-L320ER	COMPACTLOGIX PROCESSOR, c/w ETHERNET PORT	ALLEN BRADLEY
53		3	5069-IB16	COMPACTLOGIX 16 POINT 24VDC DIGITAL INPUT CARD	ALLEN BRADLEY
54		1	5069-OW16	COMPACTLOGIX 16 POINT DIGITAL OUTPUT CARD	ALLEN BRADLEY
55		2	5069-IF8	COMPACTLOGIX 8 POINT ANALOG INPUT CARD	ALLEN BRADLEY
56		1	5069-OF8	COMPACTLOGIX 8 POINT ANALOG OUTPUT CARD	ALLEN BRADLEY
57		10	5069-RTB18-SCREW	5069 COMPACT I/O TERMINAL RTB KIT	ALLEN BRADLEY
58					
59		1	5069-ECR	COMPACTLOGIX END CAP	ALLEN BRADLEY
60			514510000	DIN MOUNTING RAIL	WEIDMULLER
61		1	1019710	FDX 20 SERIES 6 PORT LC DUPLEX FIBRE OPTIC DISTRIBUTOR C/W ACCESSORIES AS REQUIRED	PHOENIX CONTACT
62		3	1115636	LC TO LC OS2 FIBRE PATCH CABLE	PHOENIX CONTACT
63					
64					
65	CB101,104,107,110,112	10	1492-MCAA115	CIRCUIT BREAKER, PRIMARY, 15A	ALLEN BRADLEY
66					
67	SP126-131	14	1492-SPM1B050	CIRCUIT BREAKER, SUPPLEMENTARY, 5A	ALLEN BRADLEY
68	SP121-125	10	1492-SPM1B020	CIRCUIT BREAKER, SUPPLEMENTARY, 2A	ALLEN BRADLEY
69					
70					
71					
72	CRUPS	1	100C16D200	CONTACTOR, 110VAC, 16A, 4 POLE	ALLEN BRADLEY
73	CRUPS	1	100-FA11	100-C AUXILIARY CONTACT BLOCK, FRONT MOUNTING	ALLEN BRADLEY
74					
75	UPS REC1	2	BC1110	RECEPTACLE BOX, 1 GANG	IBERVILLE
76	UPS REC1	1	NP7	1 GANG, 1 SIMPLEX RECEPTACLE WALLPLATE, BROWN	HUBBELL
77	UPS REC1	1	HBL5251	RECEPTACLE, SIMPLEX, 15A, BROWN	HUBBELL
78					
79					
80		1	LMR-195	1m INDOOR COAXIAL CABLE C/W MALE SMA TO MALE N-TYPE	TIMES MICROWAVE
81		1	LMR-400	10m OUTDOOR COAXIAL CABLE C/W UV RESISTANT JACKET, MALE N-TYPE TO MALE N-TYPE	TIMES MICROWAVE
82		1	LP-BTR-NFF	SURGE ARRESTOR FEMALE N-TYPE CONNECTIONS	TIMES MICROWAVE
83		1	ANT-5G-OMNI-OUT-N	OUTDOOR 5G OMNI-DIRECTIONAL OUTDOOR ANTENNA	CISCO
84		1	P-LTEA-EA	CELLULAR PLUGGABLE INTERFACE MODULE	CISCO
85		1	IR1101-NA-K9	INDUSTRIAL INTEGRATED 1101 ROUTER WITH DIN-RAIL KIT	CISCO
86		1	IE-3300-8T2S	CISCO CATALYST IE3300 RUGGED SERIES	CISCO
87	PS1, PS2	2	2866763	DC POWER SUPPLY, QUINT SFB SERIES, 10A OUTPUT	PHOENIX CONTACT
88	DIO1	1	2866514	DC POWER SUPPLY REDUNDANCY MODULE, 12-24VDC, 2X10A, 1X20A RATED	PHOENIX CONTACT
89	CRUPFL,CRPWRL,CRPDR	3	700-HN153	700-HB RELAY BASE	ALLEN BRADLEY
90	CRUPFL,CRPWRL	2	700-HB33A1-4	RELAY, 120VAC COIL, 3PDT, 15A CONTACT RATING, LED STATUS INDICATION	ALLEN BRADLEY
91	CRPDR	1	700-HB33Z24-4	RELAY, 24VDC COIL, 3PDT, 15A CONTACT RATING, LED STATUS INDICATION	ALLEN BRADLEY
92	CR0701-CR0717	16	1122770000	RELAY & BASE, 24VDC COIL, 3PDT, 6A CONTACT RATING, LED STATUS INDICATION	WEIDMULLER
93	CR0701-CR0717	2	1909120000	PLUG IN CROSS CONNECTION FOR DO RELAYS	WEIDMULLER
94		4	A3L980-03-RED-S	ETHERNET PATCH CABLE, CAT6, RED, SNAGLESS, 3FT (RADIO, PAC)	BELKIN
95		4	A3L980-07-RED-S	ETHERNET PATCH CABLE, CAT6, RED, SNAGLESS, 7FT (DOOR PORT, OIT)	BELKIN
96		2	A3L980-10-RED-S	ETHERNET PATCH CABLE, CAT6, RED, SNAGLESS, 10FT (UPS)	BELKIN
97		1	P-LTEA-EA	CELLULAR PLUGGABLE INTERFACE MODULE	CISCO
98					
99		AS REQ	PSHT-250-175-WT	HEAT SHRINK WIRE LABELS, PERMASLEEVE, 1.765"W x 0.439"H	BRADY
100			TF-SBB-012-RN5N	OS2 FIBER OPTIC CABLE 12 STRAND	BELDEN

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard G. Doyle
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

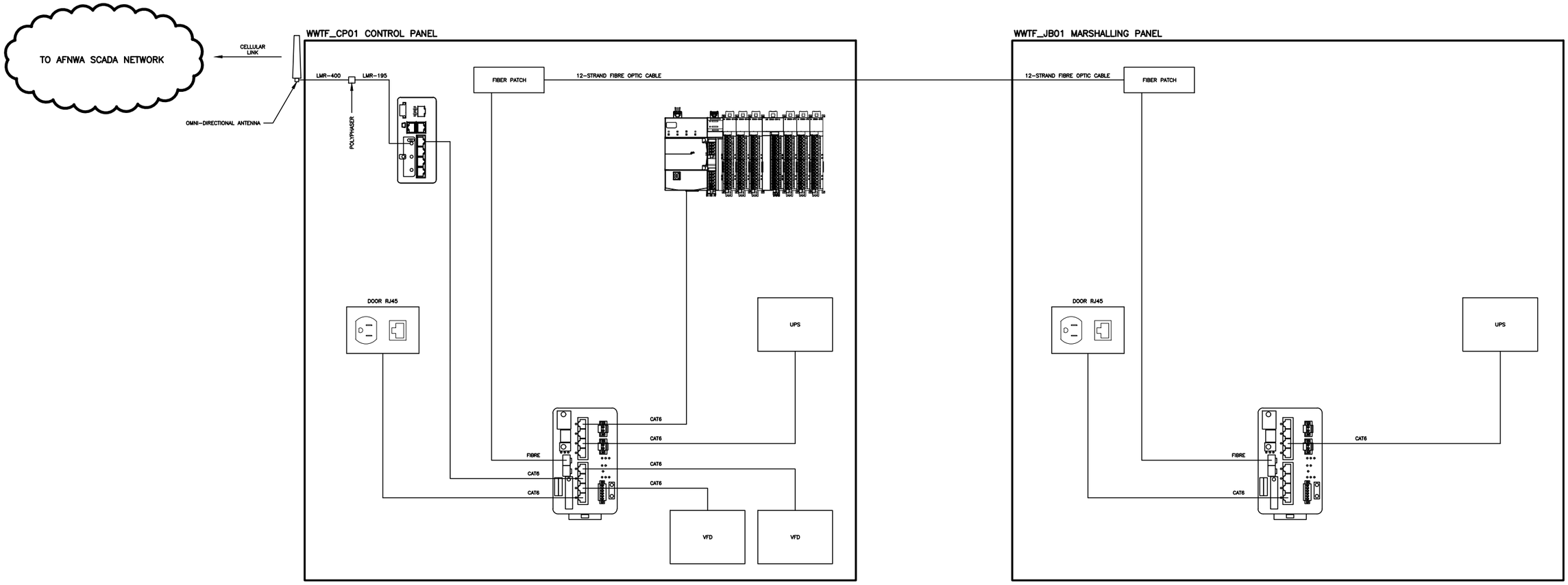
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
BLOWER BUILDING CONTROL PANEL WWTF_CP01
BILL OF MATERIALS

SCALE	N.T.S.
DWG. NO.	I05
CONT. NO.	2000-00
SHEET NO.	05 OF 25



ETHERNET SWITCH STANDARD PORT ASSIGNMENTS

SWITCH PORT NUMBER	DEVICE
GE 1/1	BUILDING TO BUILDING CONNECTION
GE 1/2	SPARE
FE 1/3	PLC
FE 1/4	SPARE
FE 1/5	UPS
FE 1/6	SPARE
FE 1/7	VFD
FE 1/8	ROUTER CONNECTION
FE 1/9	VFD
FE 1/10	DOOR PORT

ETHERNET SWITCH STANDARD PORT ASSIGNMENTS

SWITCH PORT NUMBER	DEVICE
GE 1/1	BUILDING TO BUILDING CONNECTION
GE 1/2	SPARE
FE 1/3	SPARE
FE 1/4	SPARE
FE 1/5	UPS
FE 1/6	SPARE
FE 1/7	SPARE
FE 1/8	SPARE
FE 1/9	SPARE
FE 1/10	DOOR PORT

NOTES:

1. ALLEN BRADLEY PANELVIEW 5310 SERIES WILL BE USED WHERE APPLICABLE, TO BE DETERMINED DURING DESIGN.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard O'Neill
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

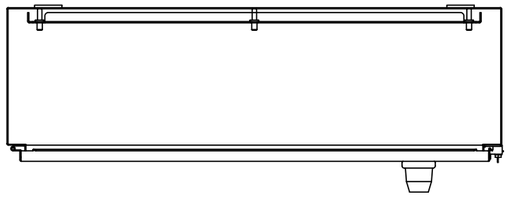
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

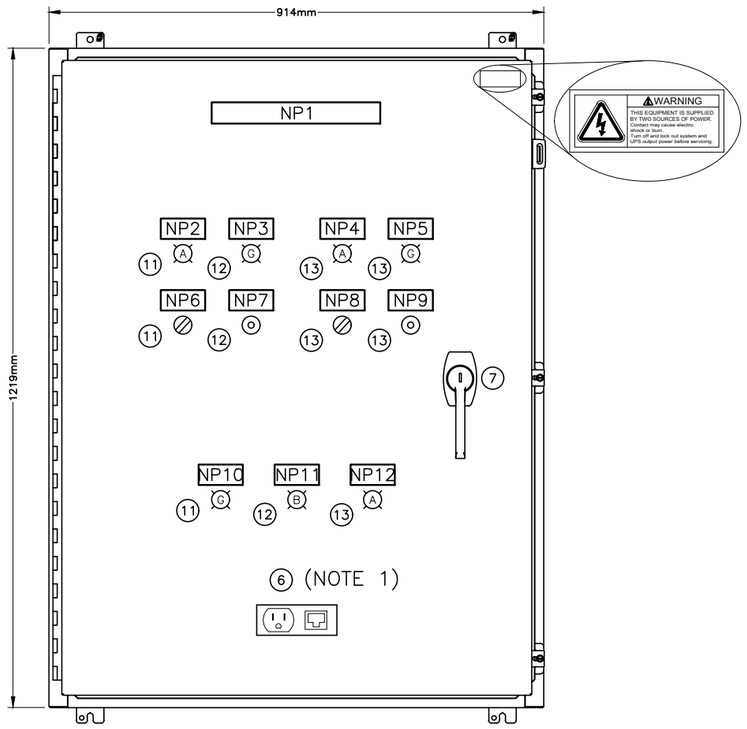
DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
NETWORK DIAGRAM

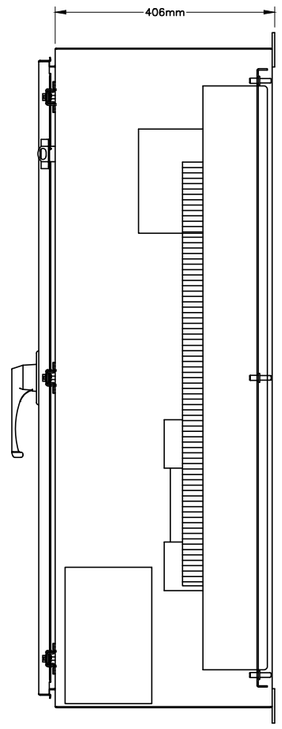
SCALE	N.T.S.
DWG. NO.	106
CONT. NO.	2000-00
SHEET NO.	06 OF 25



CONTROL PANEL LAYOUT TOP VIEW



CONTROL PANEL LAYOUT FRONT VIEW



CONTROL PANEL LAYOUT RIGHT SIDE VIEW

NAMEPLATE LEGEND		
NAMEPLATE	LINE 1	LINE 2
NP1	6NQ_WWTF_CP01	CONTROL PANEL
NP2	BLOWER 1	FAULT
NP3	BLOWER 1	RUNNING
NP4	BLOWER 2	FAULT
NP5	BLOWER 2	RUNNING
NP6	BLOWER 1	LOCAL/OFF/AUTO
NP7	BLOWER 1	SPEED REFERENCE
NP8	BLOWER 2	LOCAL/OFF/AUTO
NP9	BLOWER 2	SPEED REFERENCE
NP10	POWER	OK
NP11	COMM	OK
NP12	GENERAL	ALARM

NOTES:

1. RJ45/120V RECEPTACLE IS TO BE INSTALLED ON THE FRONT OF THE RTU PANEL.
2. ALL FIELD WIRING IS TO ENTER THE PANEL FROM THE BOTTOM.
3. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.
4. CONSULTANT TO CHANGE TO NEMA4X SS INSULATED AND HEATED PANEL COMPLETE WITH INNER AND OUTER DOOR TO PROTECT INNER DOOR MOUNTED COMPONENTS FROM THE ELEMENTS WHEN PANEL IS TO BE INSTALLED OUTDOORS.

LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6782 2024
Richard G. Ouellet
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

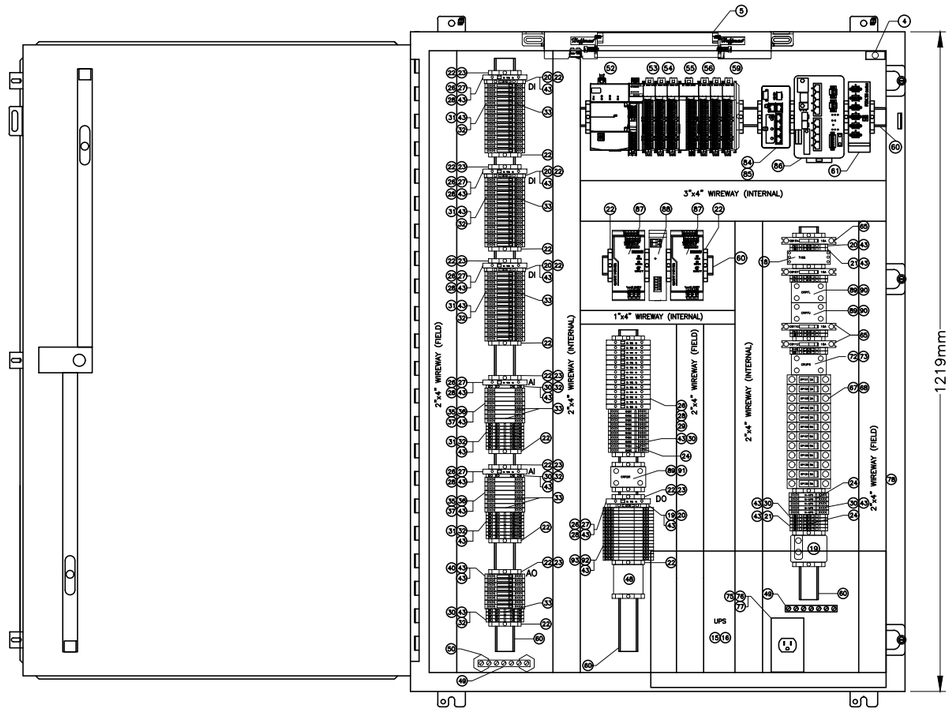
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
BLOWER BUILDING CONTROL PANEL WWTF_CP01
EXTERIOR LAYOUT

SCALE	N.T.S.
DWG. NO.	107
CONT. NO.	2000-00
SHEET NO.	07 OF 25



NOTES:

1. ALL FUSE TERMINALS ARE TO BE MOUNTED SUCH THAT THE HINGE IS CLOSEST TO THE INTERNAL WIRING DUCT.
2. ALL CIRCUIT BREAKERS ARE TO BE MOUNTED SUCH THAT THEY ARE ON WHEN THE SWITCH IS POINTING TOWARD THE INTERNAL WIRING DUCT.
3. USE A RIGHT ANGLE CONNECTOR TO CONNECT THE ANTENNA TO THE RADIO,
4. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.
5. INDOOR HIGH TEMPERATURE ONLY, OUTDOOR PANEL DUAL TEMPERATURE REQUIRED.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6765 2024
Richard G. Cloutier
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

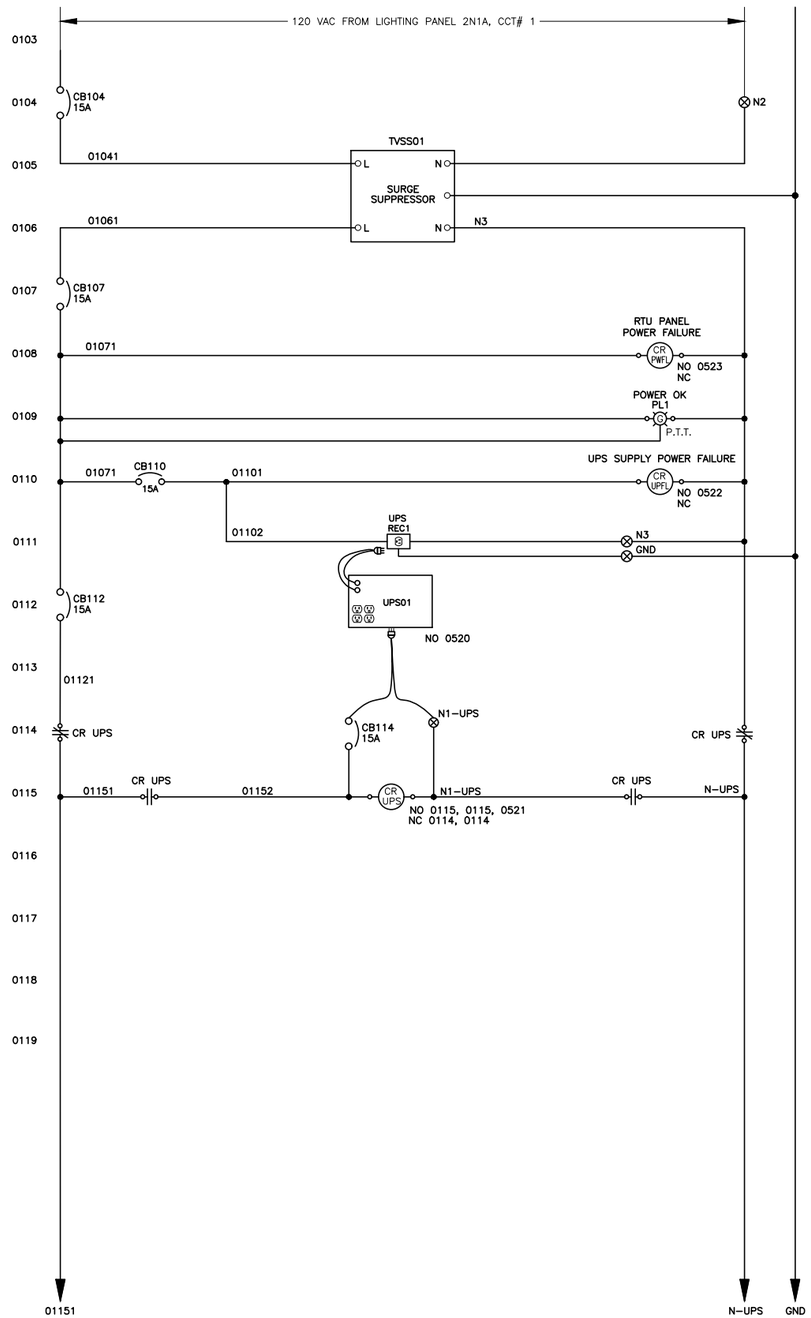
NEQOTKUK

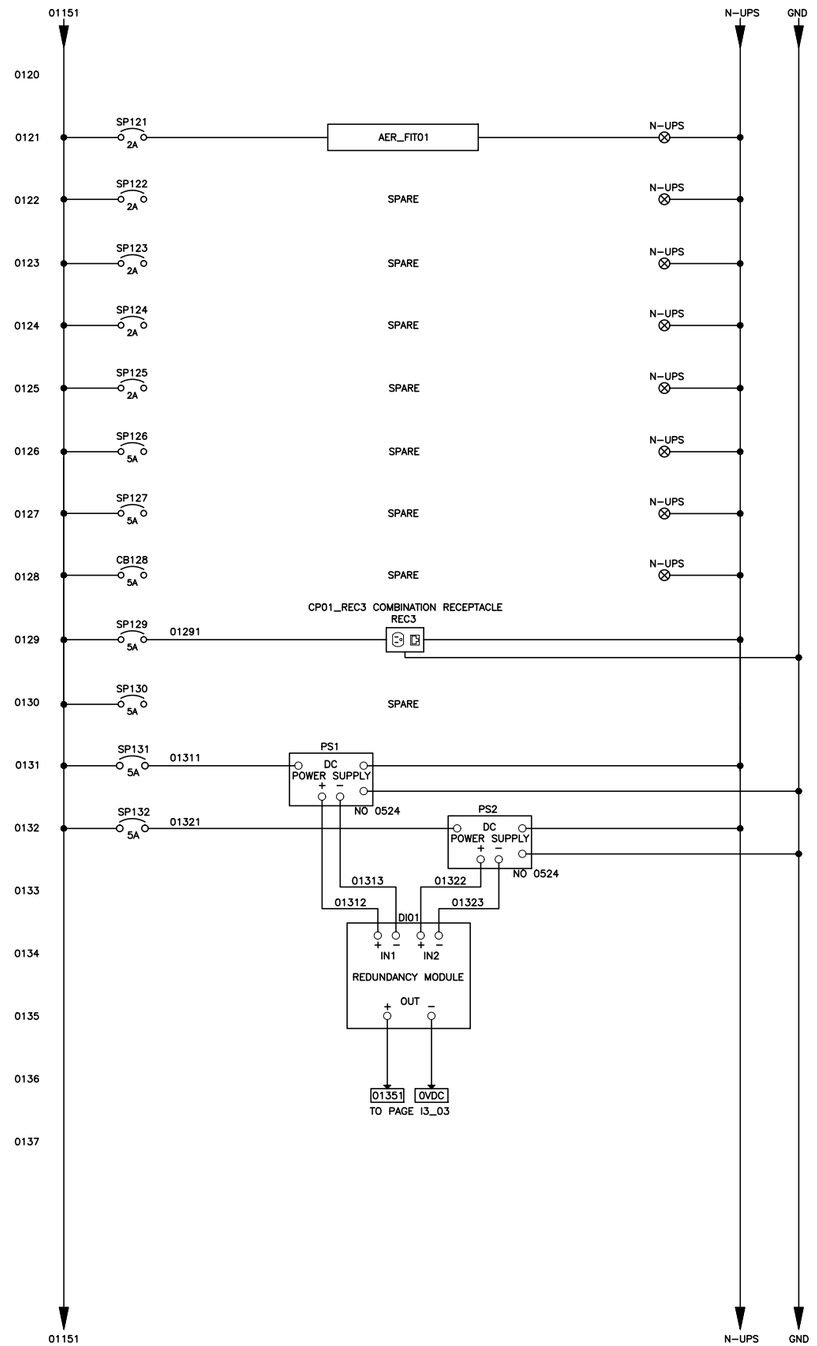
ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01 BLOWER BUILDING CONTROL PANEL WWTF_CP01 INTERIOR LAYOUT

SCALE	N.T.S.
DWG. NO.	108
CONT. NO.	2000-00
SHEET NO.	08 OF 25





LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard G. Oliver
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
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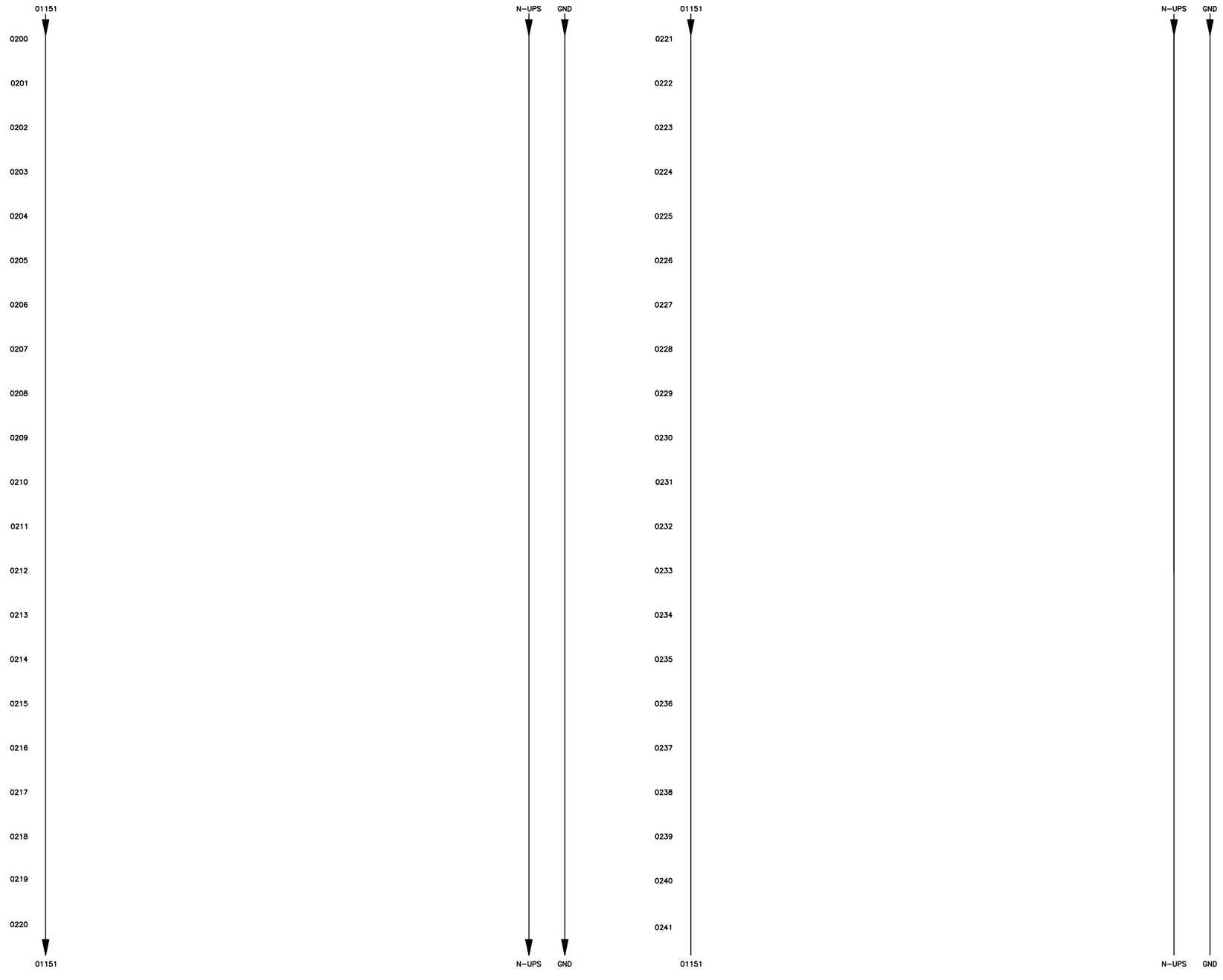
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01 BLOWER BUILDING CONTROL PANEL WWTF_CP01 120VAC WIRING DIAGRAM 1

SCALE	N.T.S.
DWG. NO.	109
CONT. NO.	2000-00
SHEET NO.	09 OF 25



LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6762 2024
Richard G. Doyle
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

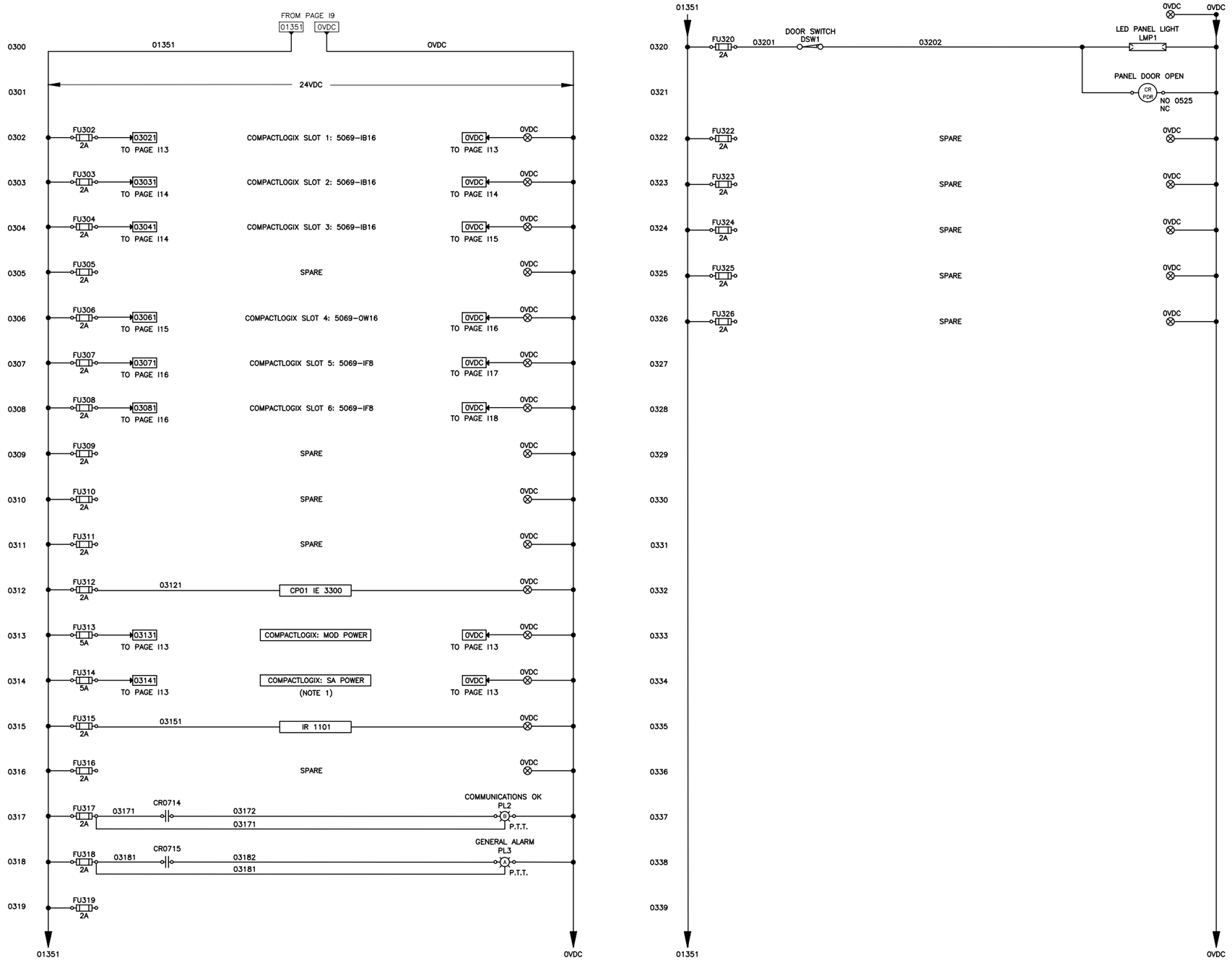
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE 04/01/2025
DESIGN S.T.S.
DRAWN S.T.S.
CHECKED Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01 BLOWER BUILDING CONTROL PANEL WWTF_CP01 120VAC WIRING DIAGRAM 2

SCALE N.T.S.
DWG. NO. 110
CONT. NO. 2000-00
SHEET NO. 10 OF 25



NOTES:

1. BASED ON DETAILED DESIGN, CONSULTANT MAY NEED ADDITIONAL SA POWER. SA POWER MAY BE 120VAC BASED ON DESIGN.
2. ALLEN BRADLEY PANELVIEW 5310 SERIES WILL BE USED WHERE APPLICABLE, TO BE DETERMINED DURING DESIGN.

LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard O'Keefe
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nauveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01 BLOWER BUILDING CONTROL PANEL WWTF_CP01 24VDC WIRING DIAGRAM 1

SCALE	N.T.S.
DWG. NO.	I11
CONT. NO.	2000-00
SHEET NO.	11 OF 25

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0VDC

0VDC

LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6762 2024
Richard G. Doyle
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nauveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

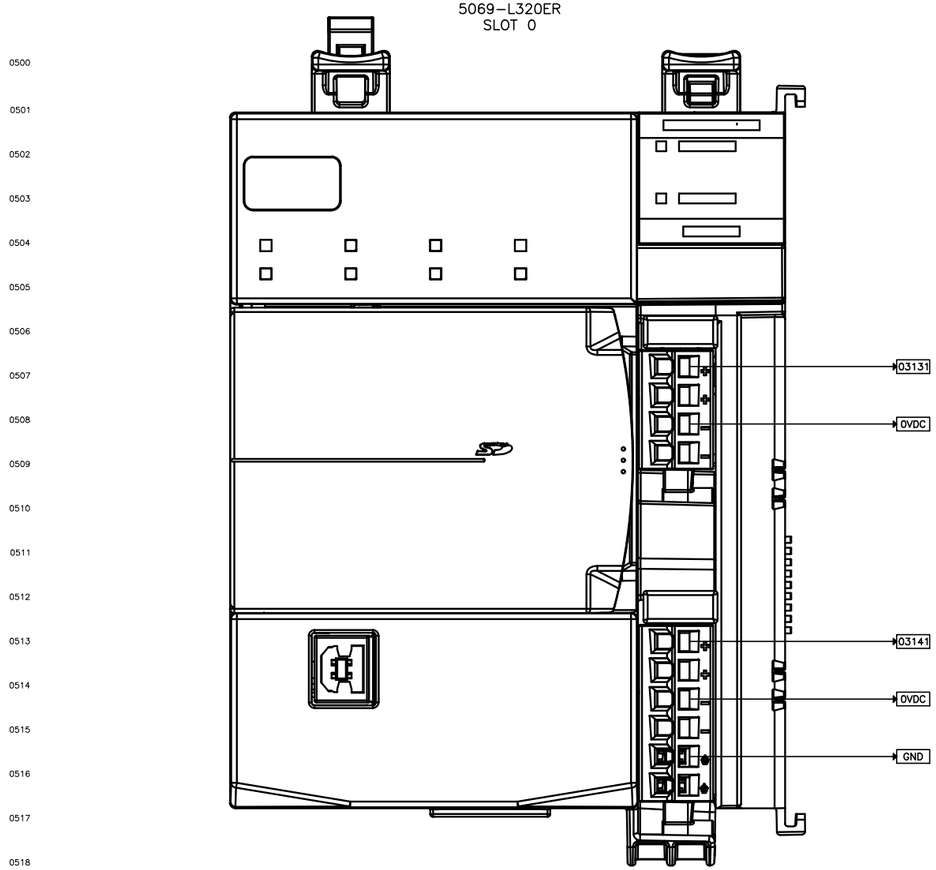
ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

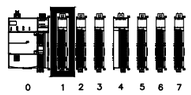
DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
BLOWER BUILDING CONTROL PANEL WWTF_CP01 24VDC WIRING DIAGRAM 2

SCALE	N.T.S.
DWG. NO.	112
CONT. NO.	2000-00
SHEET NO.	12 OF 25

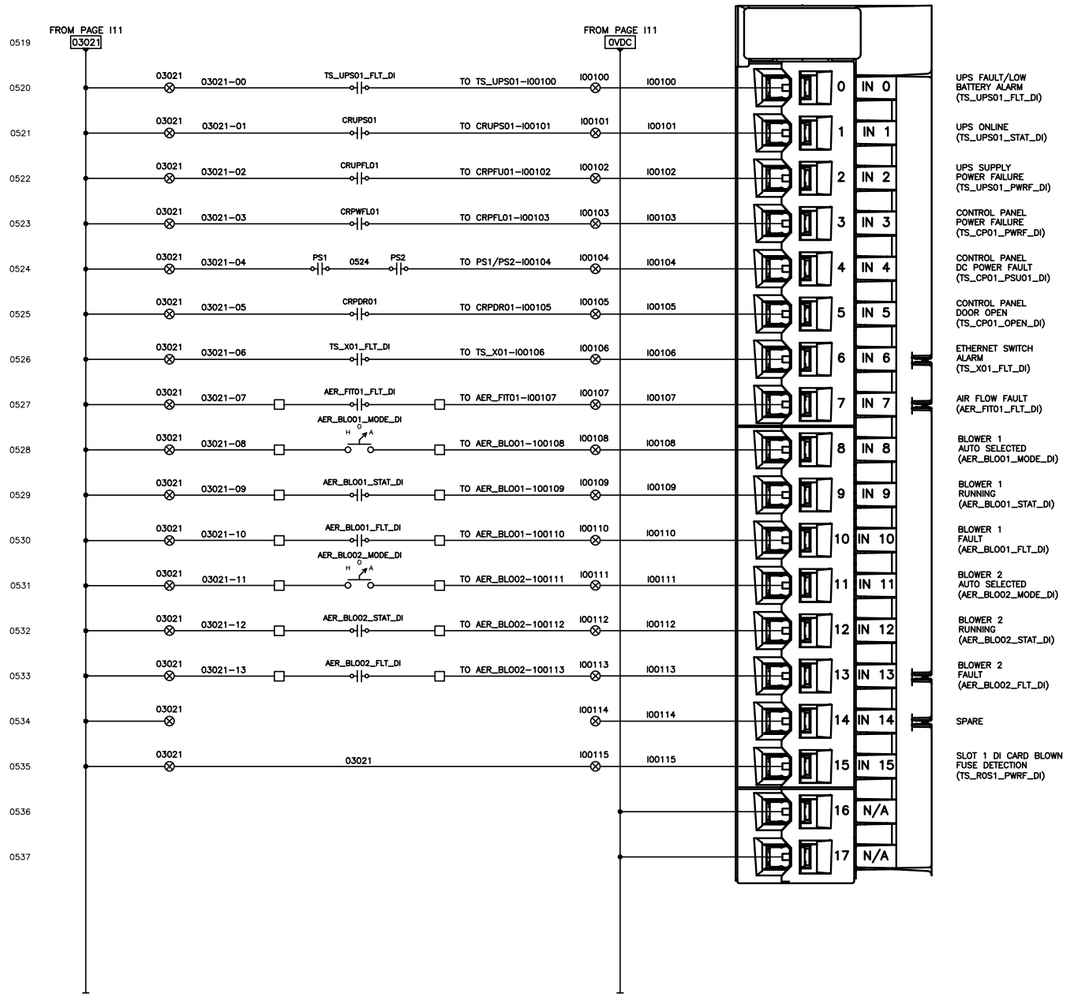
PROCESSOR
5069-L320ER
SLOT 0





DC INPUT
SLOT 1

5069-IB16



NOTES:

1. REFER TO THE CONTRACT I/O LIST FOR A COMPLETE LISTING OF SIGNALS TO BE SHOWN ON THE SHOP DRAWINGS. SHOP DRAWINGS TO INCLUDE LOOPS FOR ALL I/O CARDS, NOT TYPICALS.
2. ALL I/O POINTS ARE TO HAVE TWO WIRES FROM THE RTU PANEL TO THE FIELD DEVICE. COMBINING COMMON WIRES IS NOT ACCEPTABLE.

LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard G. Osgie
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

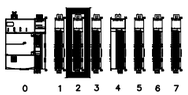
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
BLOWER BUILDING WWTF_CP01
COMPACTLOGIX RACK 0 SLOT 0-1: CPU & DIGITAL INPUT CARD

SCALE	N.T.S.
DWG. NO.	113
CONT. NO.	2000-00
SHEET NO.	13 OF 25



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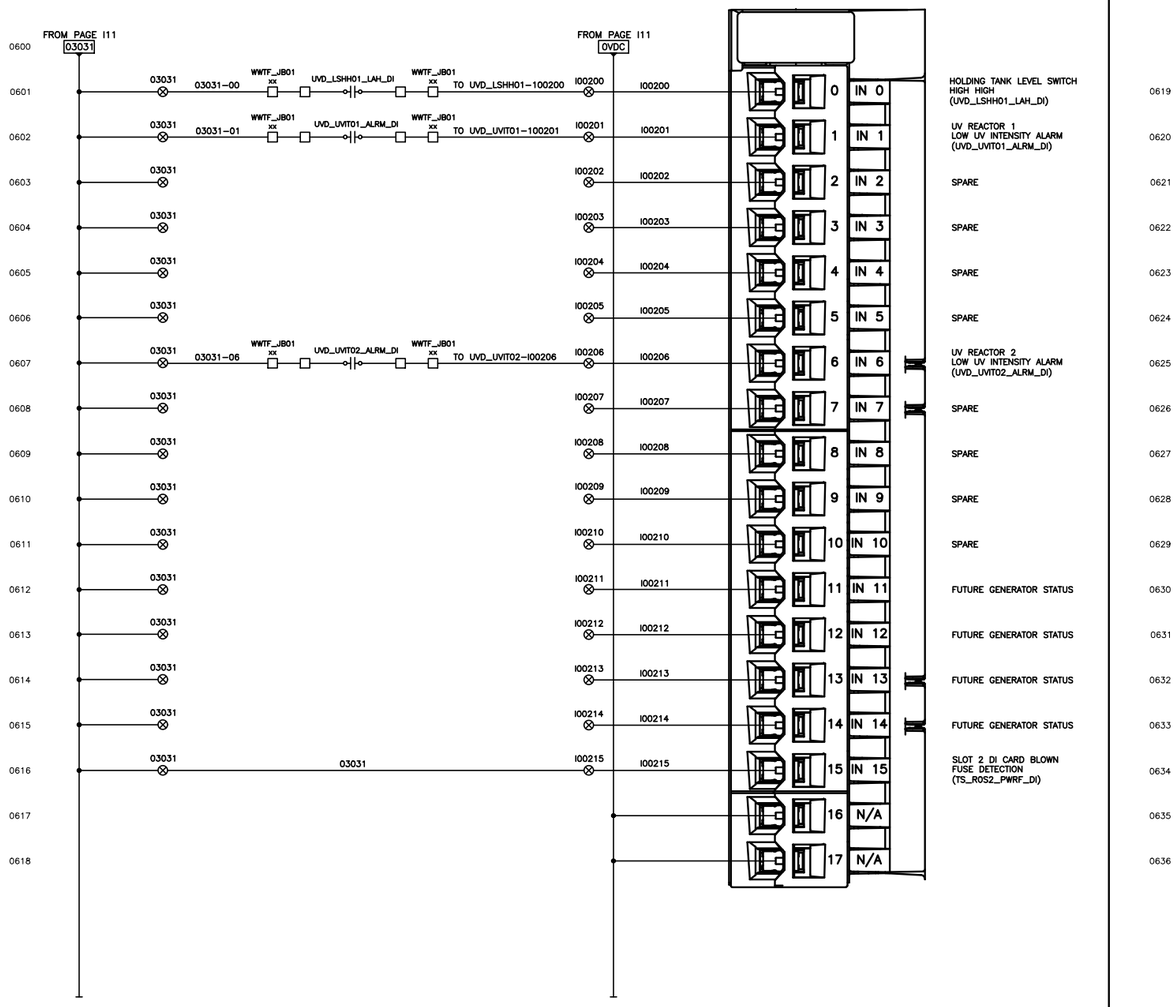
SLOT 2

5069–IB16



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NOTES:

1. REFER TO THE CONTRACT I/O LIST FOR A COMPLETE LISTING OF SIGNALS TO BE SHOWN ON THE SHOP DRAWINGS. SHOP DRAWINGS TO INCLUDE LOOPS FOR ALL I/O CARDS, NOT TYPICALS.
2. ALL I/O POINTS ARE TO HAVE TWO WIRES FROM THE RTU PANEL TO THE FIELD DEVICE. COMBINING COMMON WIRES IS NOT ACCEPTABLE.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6765 2024
Richard G. Cloutier
Signature
2025–04–10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

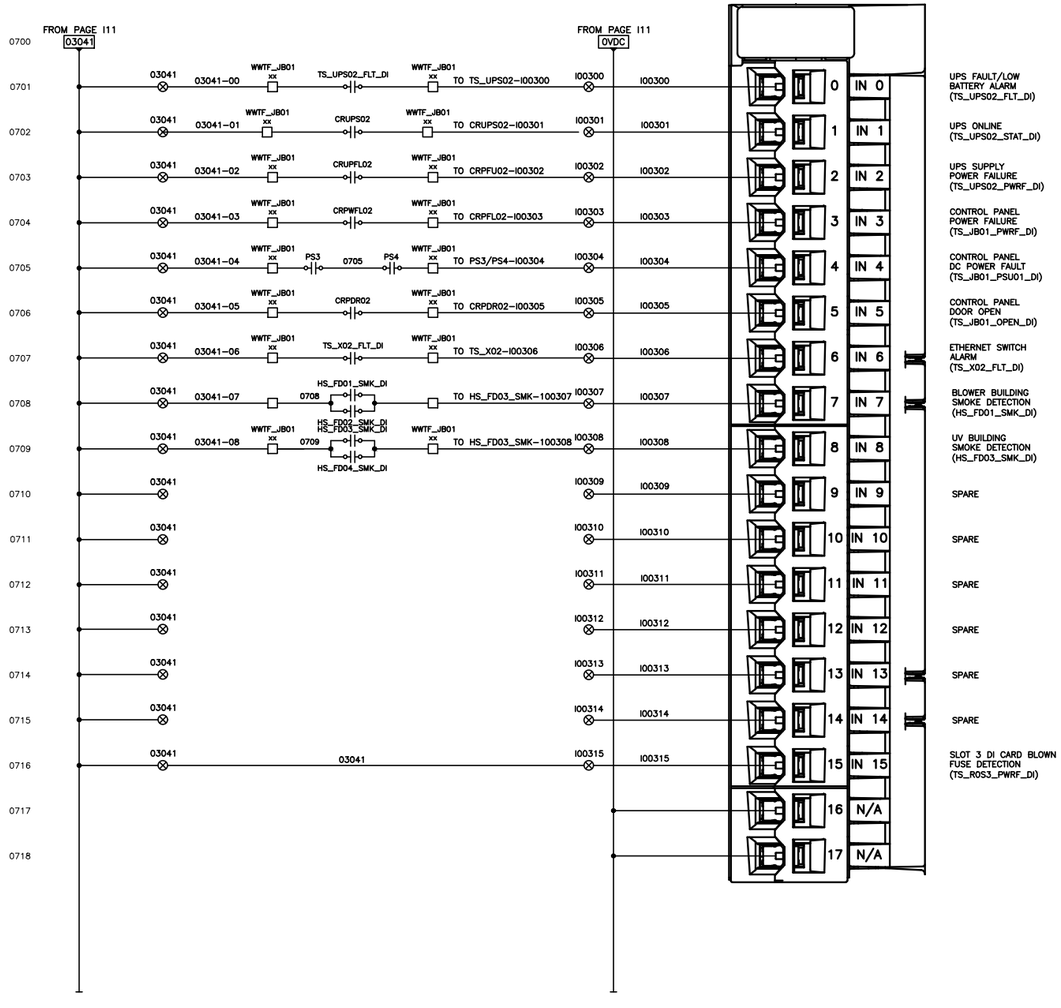
DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F–23–NQ–01
BLOWER BUILDING WWTF_CP01
COMPACTLOGIX RACK 0 SLOT 2: DIGITAL INPUT CARD

SCALE	N.T.S.
DWG. NO.	114
CONT. NO.	2000–00
SHEET NO.	14 OF 25

DC INPUT
SLOT 3

5069-IB16



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NOTES:

1. REFER TO THE CONTRACT I/O LIST FOR A COMPLETE LISTING OF SIGNALS TO BE SHOWN ON THE SHOP DRAWINGS. SHOP DRAWINGS TO INCLUDE LOOPS FOR ALL I/O CARDS, NOT TYPICALS.
2. ALL I/O POINTS ARE TO HAVE TWO WIRES FROM THE RTU PANEL TO THE FIELD DEVICE. COMBINING COMMON WIRES IS NOT ACCEPTABLE.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard G. Cloutier
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

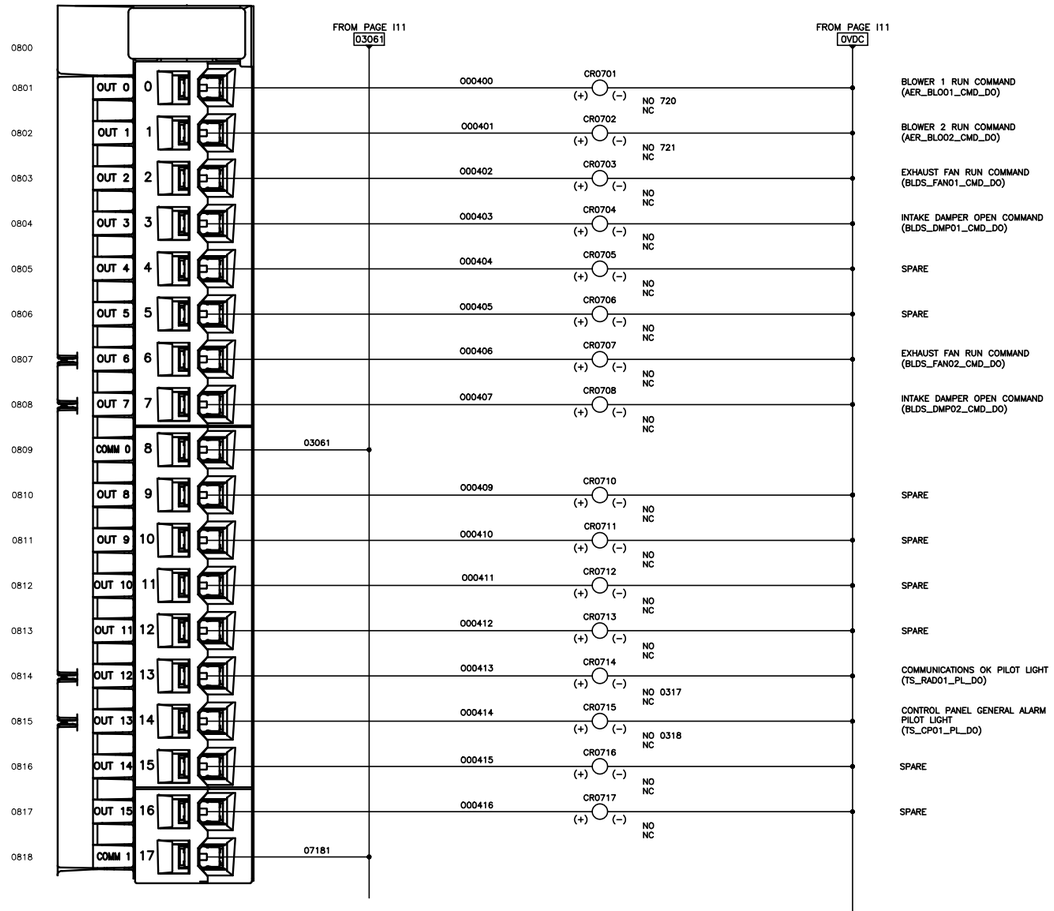
DATE 04/01/2025
DESIGN S.T.S.
DRAWN S.T.S.
CHECKED Z.T.S.

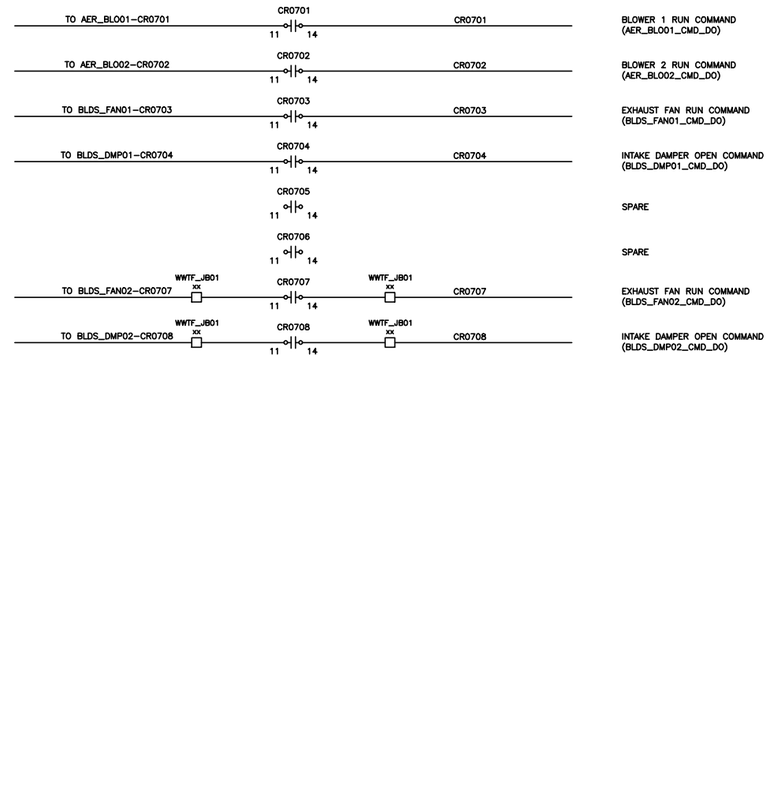
UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
BLOWER BUILDING WWTF_CP01
COMPACTLOGIX RACK 0 SLOT 3: DIGITAL INPUT CARD

SCALE N.T.S.
DWG. NO. I15
CONT. NO. 2000-00
SHEET NO. 15 OF 25

DC OUTPUT
SLOT 4

5069-OW16





NOTES:

1. REFER TO THE CONTRACT I/O LIST FOR A COMPLETE LISTING OF SIGNALS TO BE SHOWN ON THE SHOP DRAWINGS. SHOP DRAWINGS TO INCLUDE LOOPS FOR ALL I/O CARDS, NOT TYPICALS.
2. ALL I/O POINTS ARE TO HAVE TWO WIRES FROM THE RTU PANEL TO THE FIELD DEVICE. COMBINING COMMON WIRES IS NOT ACCEPTABLE.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6782 2024
Richard G. Crosbie
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nauveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

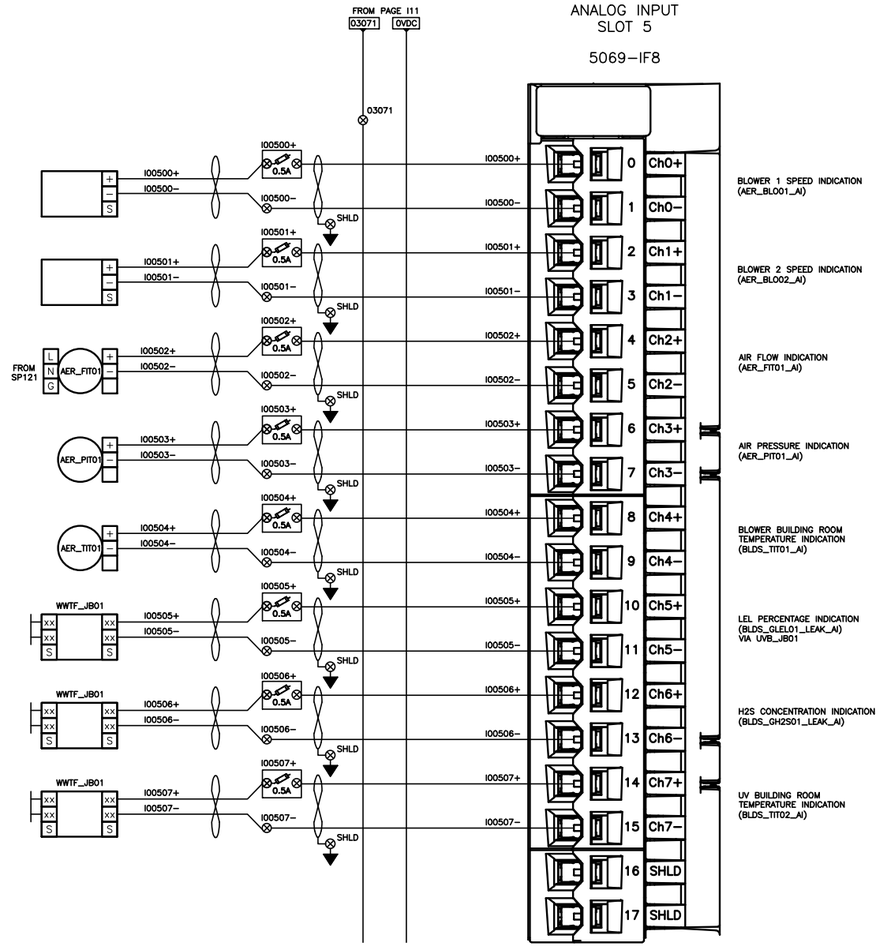
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
BLOWER BUILDING WWTF_CP01
COMPACTLOGIX RACK 0 SLOT 4: DIGITAL OUTPUT CARD

SCALE	N.T.S.
DWG. NO.	I16
CONT. NO.	2000-00
SHEET NO.	16 OF 25



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NOTES:

1. REFER TO THE CONTRACT I/O LIST FOR A COMPLETE LISTING OF SIGNALS TO BE SHOWN ON THE SHOP DRAWINGS. SHOP DRAWINGS TO INCLUDE LOOPS FOR ALL I/O CARDS, NOT TYPICALS.
2. ALL I/O POINTS ARE TO HAVE TWO WIRES FROM THE RTU PANEL TO THE FIELD DEVICE. COMBINING COMMON WIRES IS NOT ACCEPTABLE.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard G. Doyle
Signature
2025–04–10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

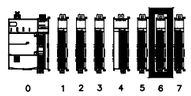
NEQOTKUK

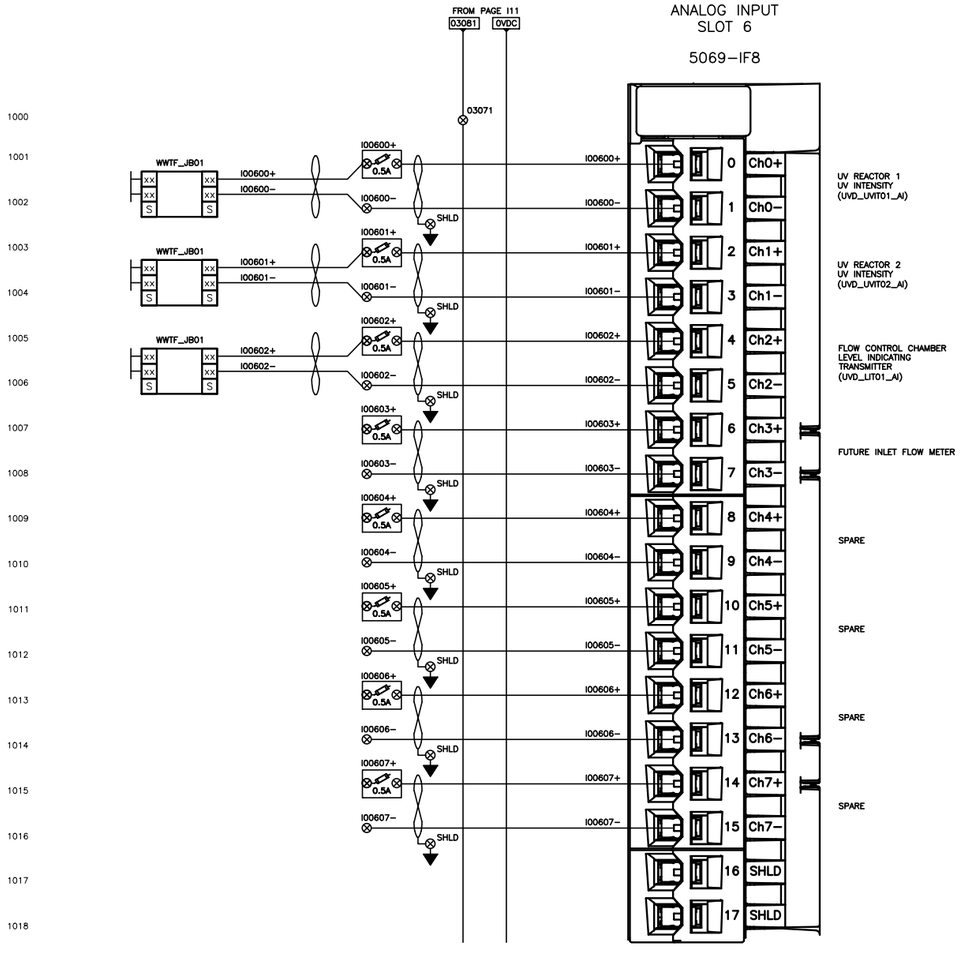
ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE 04/01/2025
DESIGN S.T.S.
DRAWN S.T.S.
CHECKED Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F–23–NQ–01
BLOWER BUILDING WWTF_CP01
COMPACTLOGIX RACK 0 SLOT 5: ANALOG INPUT CARD

SCALE N.T.S.
DWG. NO. I17
CONT. NO. 2000–00
SHEET NO. 17 OF 25





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NOTES:

1. REFER TO THE CONTRACT I/O LIST FOR A COMPLETE LISTING OF SIGNALS TO BE SHOWN ON THE SHOP DRAWINGS. SHOP DRAWINGS TO INCLUDE LOOPS FOR ALL I/O CARDS, NOT TYPICALS.
2. ALL I/O POINTS ARE TO HAVE TWO WIRES FROM THE RTU PANEL TO THE FIELD DEVICE. COMBINING COMMON WIRES IS NOT ACCEPTABLE.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6782 2024
Richard G. Chiasson
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

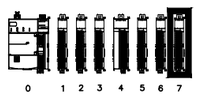
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

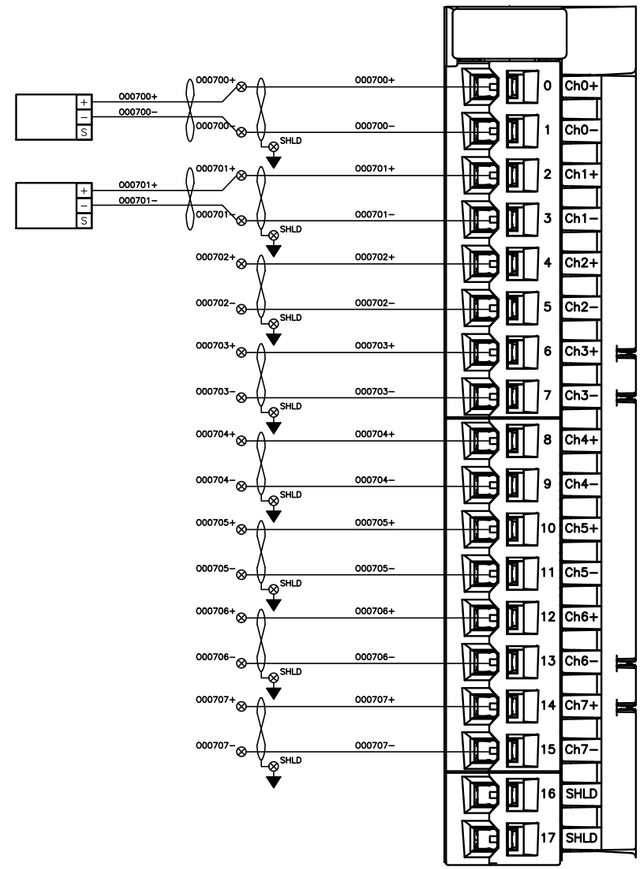
UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
BLOWER BUILDING WWTF_CP01
COMPACTLOGIX RACK 0 SLOT 6: ANALOG INPUT CARD

SCALE	N.T.S.
DWG. NO.	I18
CONT. NO.	2000-00
SHEET NO.	18 OF 25



ANALOG OUTPUT
SLOT 7

5069–OF8



1119
1120
1121
1122
1123
1124
1125
1126
1127
1128
1129
1130
1131
1132
1133
1134
1135
1136

INTENTIONALLY LEFT BLANK

NOTES:

1. REFER TO THE CONTRACT I/O LIST FOR A COMPLETE LISTING OF SIGNALS TO BE SHOWN ON THE SHOP DRAWINGS. SHOP DRAWINGS TO INCLUDE LOOPS FOR ALL I/O CARDS, NOT TYPICALS.
2. ALL I/O POINTS ARE TO HAVE TWO WIRES FROM THE RTU PANEL TO THE FIELD DEVICE. COMBINING COMMON WIRES IS NOT ACCEPTABLE.

LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6782 2024
Richard G. Cassie
Signature
2025–04–10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F–23–NQ–01
BLOWER BUILDING WWTF_CP01
COMPACTLOGIX RACK 0 SLOT 7: ANALOG OUTPUT CARD

SCALE	N.T.S.
DWG. NO.	119
CONT. NO.	2000–00
SHEET NO.	19 OF 25

ITEM	TAG	QTY	PART NUMBER	DESCRIPTION	MANUFACTURER
1		1	1418SN4SSM16	RTU PANEL ENCLOSURE, NEMA 12 STAINLESS STEEL, 48"X 36"X 16", INCLUDES BACKPLATE	HAMMOND
2					
3					
4	DSW2	1	A-20GQ-B7-K	DOOR SWITCH	OMRON
5		1	LEDDCMSMAG	ENCLOSURE COMPACT LIGHT C/W MAGNETIC MOUNT AND MOTION SENSOR	HAMMOND
6	REC3	1	5500521:CSA	COMBO RJ45/120VAC RECEPTACLE	PHOENIX CONTACT
7		1	MHK2	HANDLE KIT FOR NEMA 12 PANEL, LOCKING AND PAD LOCKING HANDLE	HAMMOND
8					
9					
10					
11					
12					
13					
14					
15	UPS02	1	9SX1500	UPS, POWERWARE 9SX SERIES, 1500VA	EATON
16		1	NETWORK-M2	UPS, ETHERNET COMM. CARD	EATON
17		2	1050000000	TERMINAL BLOCK END PLATE WAP 2.5-10	WEIDMULLER
18	TVSS02	1	2907918	SURGE SUPPRESSOR, 120VAC, 15A	PHOENIX CONTACT
19					
20		60	1020100000	TERMINAL BLOCK, WDU 4	WEIDMULLER
21		10	1010100000	GROUND TERMINAL BLOCK, GREEN YELLOW, WPE 4	WEIDMULLER
22		20	1061200000	TERMINAL BLOCK END BRACKET, WEW 35/2	WEIDMULLER
23		3	1806120000	TERMINAL BLOCK END BRACKET MARKER, EM 8/30	WEIDMULLER
24			1909020000	PLUG IN JUMPER, 20 POLE, YELLOW, FOR WDU 4	WEIDMULLER
25					
26		10	1880410000	FUSED TERMINAL BLOCK, 10-60V AC/DC, LED INDICATOR, WSI 4/2/LD	WEIDMULLER
27		10	1880450000	FUSED TERMINAL BLOCK END PLATE, WAP WSI 4/2	WEIDMULLER
28		15	AGC-2	FUSE, 2A (INCLUDES SPARES)	BUSSMAN
29					
30		10	1022300000	TERMINAL BLOCK, TWO LEVEL, SCREW CLAMPS, TOP AND BOTTOM LEVELS CONNECTED, WDK2.5V	WEIDMULLER
31		40	1041100000	TERMINAL BLOCK, TWO LEVEL, SCREW CLAMPS, WDK 2.5 ZQV	WEIDMULLER
32		1	1059100000	END PLATE FOR TERMINAL BLOCK, TWO LEVEL, WDK 2.5 ZQV	WEIDMULLER
33			1909000000	PLUG IN JUMPERS, 20-POLE, FOR WDK 2.5 ZQV	WEIDMULLER
34					
35					
36					
37					
38					
39					
40		16	0687460000	TERMINAL BLOCK, TWO LEVEL, DISCONNECTING, SCREW CLAMPS, DKT4	WEIDMULLER
41		1	0687460000	END PLATE FOR TERMINAL BLOCK, TWO LEVEL, DISCONNECTING, SCREW CLAMPS, DKT5	WEIDMULLER
42			F2X4LG6	WIRING DUCT, 50mm WIDE X 100mm HIGH, NARROW SLOT, LIGHT GRAY	PANDUIT
43		*LOT*	1609900000	W SERIES TERMINAL BLOCK MARKER, WS 12/6 MC, 12mm LENGTH, WHITE	WEIDMULLER
44					
45					
46					
47			F1X4LG6	WIRING DUCT, 25mm WIDE X 100mm HIGH, NARROW SLOT, LIGHT GRAY	PANDUIT
48					
49		2	PK9GTACP	GROUND BAR, COPPER, 9 TERMINALS	SQUARE D
50		2	04154-02	STANDOFF, HEXAGONAL, RED, 25.4mm HIGH, 12-24 UNC x .375" LONG EXTERNAL STUD	TELECT

ITEM	TAG	QTY	PART NUMBER	DESCRIPTION	MANUFACTURER
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61		1	1019710	FDX 20 SERIES 6 PORT LC DUPLEX FIBRE OPTIC DISTRIBUTOR C/W ACCESSORIES AS REQUIRED	PHOENIX CONTACT
62		3	1115636	LC TO LC OS2 FIBRE PATCH CABLE	PHOENIX CONTACT
63					
64					
65	CB101,104,107,110,112	10	1492-MCAA115	CIRCUIT BREAKER, PRIMARY, 15A	ALLEN BRADLEY
66					
67	SP126-131	5	1492-SPM1B050	CIRCUIT BREAKER, SUPPLEMENTARY, 5A	ALLEN BRADLEY
68	SP121-125	5	1492-SPM1B020	CIRCUIT BREAKER, SUPPLEMENTARY, 2A	ALLEN BRADLEY
69					
70					
71					
72	CRUPS	1	100C16D200	CONTACTOR, 110VAC, 16A, 4 POLE	ALLEN BRADLEY
73	CRUPS	1	100-FA11	100-C AUXILIARY CONTACT BLOCK, FRONT MOUNTING	ALLEN BRADLEY
74					
75	UPS REC1	2	BC1110	RECEPTACLE BOX, 1 GANG	IBERVILLE
76	UPS REC1	1	NP7	1 GANG, 1 SIMPLEX RECEPTACLE WALLPLATE, BROWN	HUBBELL
77	UPS REC1	1	HBL5251	RECEPTACLE, SIMPLEX, 15A, BROWN	HUBBELL
78					
79					
80					
81					
82					
83					
84					
85					
86		1	IE-3300-8T2S	CISCO CATALYST IE3300 RUGGED SERIES	CISCO
87	PS3, PS4	2	2866763	DC POWER SUPPLY, QUINT SFB SERIES, 10A OUTPUT	PHOENIX CONTACT
88	DI02	1	2866514	DC POWER SUPPLY REDUNDANCY MODULE, 12-24VDC, 2X10A, 1X20A RATED	PHOENIX CONTACT
89	CRUPFL,CRPWRL,CRPDR	3	700-HN153	700-HB RELAY BASE	ALLEN BRADLEY
90	CRUPFL,CRPWRL	2	700-HB33A1-4	RELAY, 120VAC COIL, 3PDT, 15A CONTACT RATING, LED STATUS INDICATION	ALLEN BRADLEY
91	CRPDR	1	700-HB33Z24-4	RELAY, 24VDC COIL, 3PDT, 15A CONTACT RATING, LED STATUS INDICATION	ALLEN BRADLEY
92					
93					
94					
95					
96					
97					
98					
99		AS REQ	PSHT-250-175-WT	HEAT SHRINK WIRE LABELS, PERMASLEEVE, 1.765"W x 0.439"H	BRADY
100					

LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6787 2024
Richard G. Cloutier
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

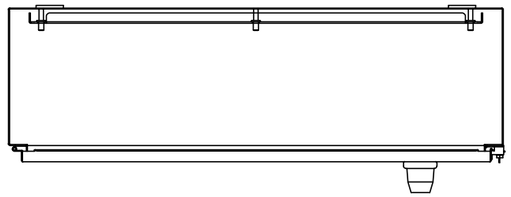
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

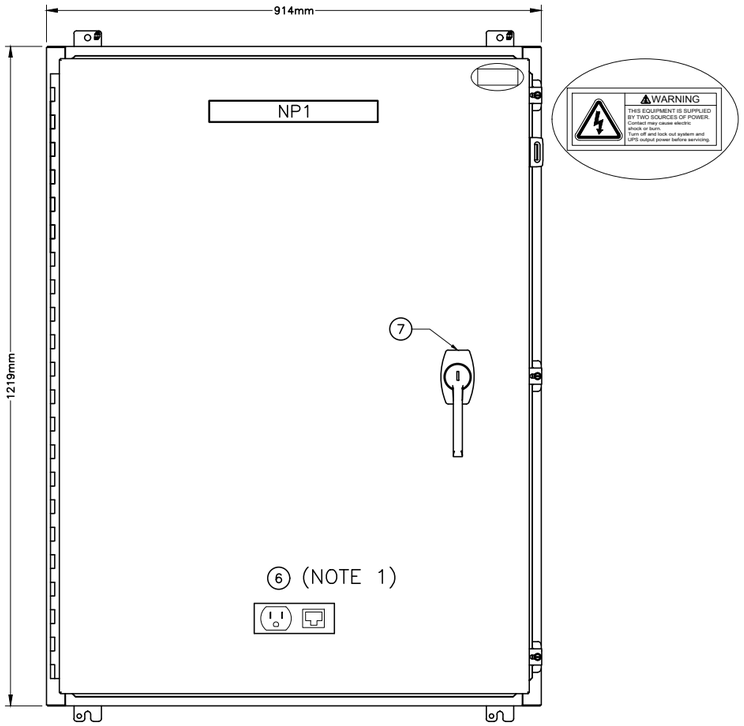
DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
UV BUILDING MARSHALLING PANEL WWTF_JB01
BILL OF MATERIALS

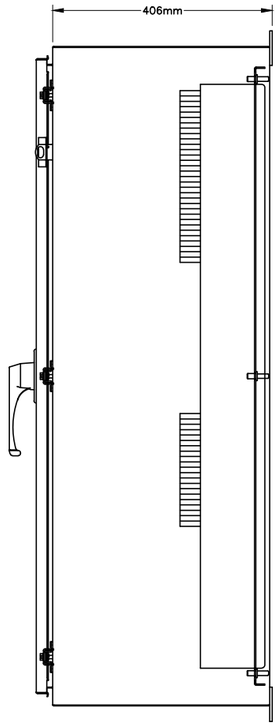
SCALE	N.T.S.
DWG. NO.	I20
CONT. NO.	2000-00
SHEET NO.	20 OF 25



CONTROL PANEL LAYOUT TOP VIEW



CONTROL PANEL LAYOUT FRONT VIEW



CONTROL PANEL LAYOUT RIGHT SIDE VIEW

NAMEPLATE LEGEND		
NAMEPLATE	LINE 1	LINE 2
NP1	6NQ_WWTF_JB01	MARSHALLING PANEL

NOTES:

1. RJ45/120V RECEPTACLE IS TO BE INSTALLED ON THE FRONT OF THE RTU PANEL.
2. ALL FIELD WIRING IS TO ENTER THE PANEL FROM THE BOTTOM.
3. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.
4. CONSULTANT TO CHANGE TO NEMA4X SS INSULATED AND HEATED PANEL COMPLETE WITH INNER AND OUTER DOOR TO PROTECT INNER DOOR MOUNTED COMPONENTS FROM THE ELEMENTS WHEN PANEL IS TO BE INSTALLED OUTDOORS.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6762 2024
Richard G. Doyle
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

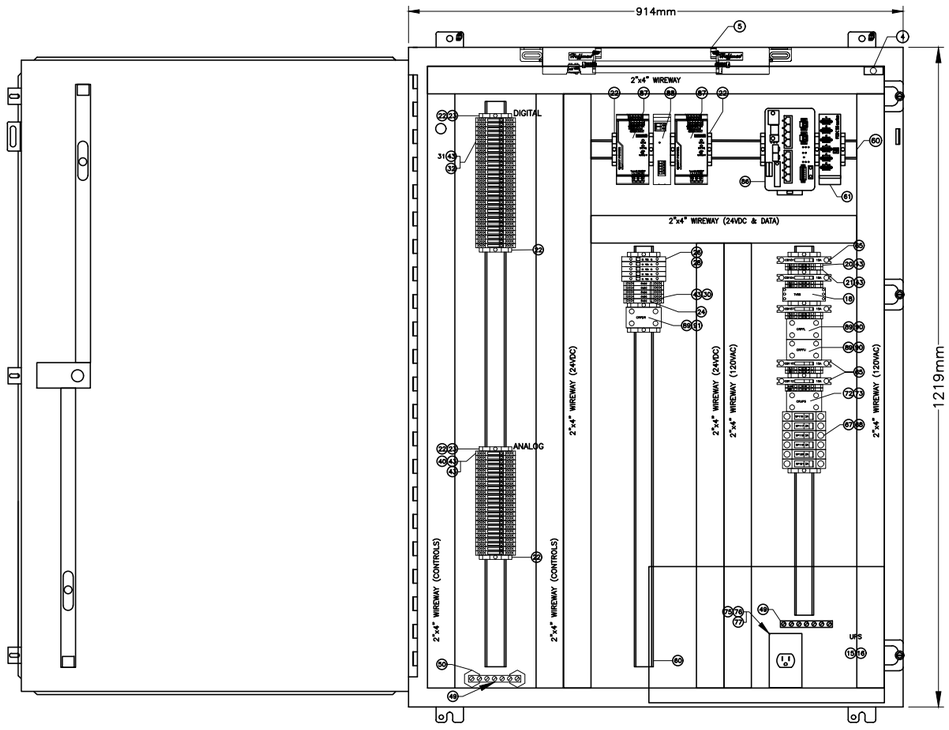
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
UV BUILDING MARSHALLING PANEL WWTF_JB01
EXTERIOR LAYOUT

SCALE	N.T.S.
DWG. NO.	I21
CONT. NO.	2000-00
SHEET NO.	21 OF 25



NOTES:

1. ALL FUSE TERMINALS ARE TO BE MOUNTED SUCH THAT THE HINGE IS CLOSEST TO THE INTERNAL WIRING DUCT.
2. ALL CIRCUIT BREAKERS ARE TO BE MOUNTED SUCH THAT THEY ARE ON WHEN THE SWITCH IS POINTING TOWARD THE INTERNAL WIRING DUCT.
3. USE A RIGHT ANGLE CONNECTOR TO CONNECT THE ANTENNA TO THE RADIO,
4. REFER TO BILL OF MATERIALS FOR ITEM NUMBER DESCRIPTIONS.
5. INDOOR HIGH TEMPERATURE ONLY, OUTDOOR PANEL DUAL TEMPERATURE REQUIRED.

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard O'Keefe
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

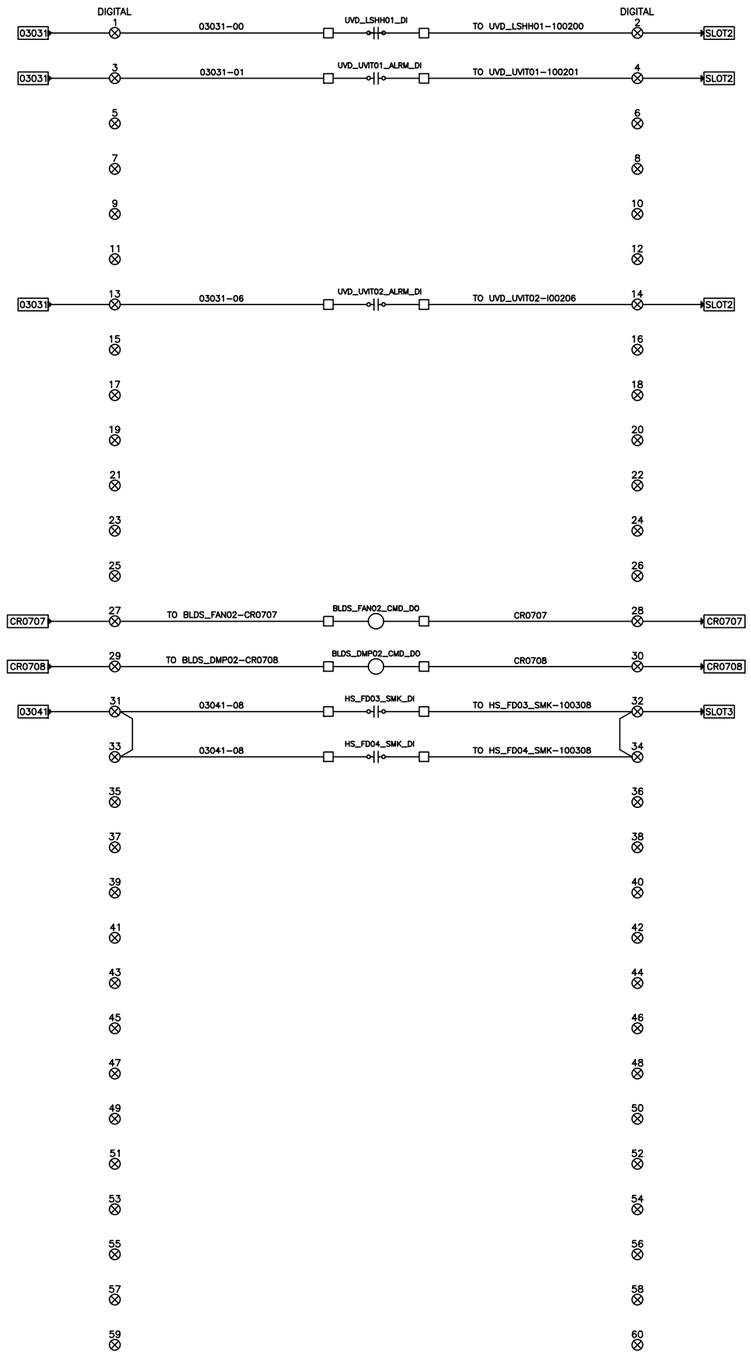
NEQOTKUK

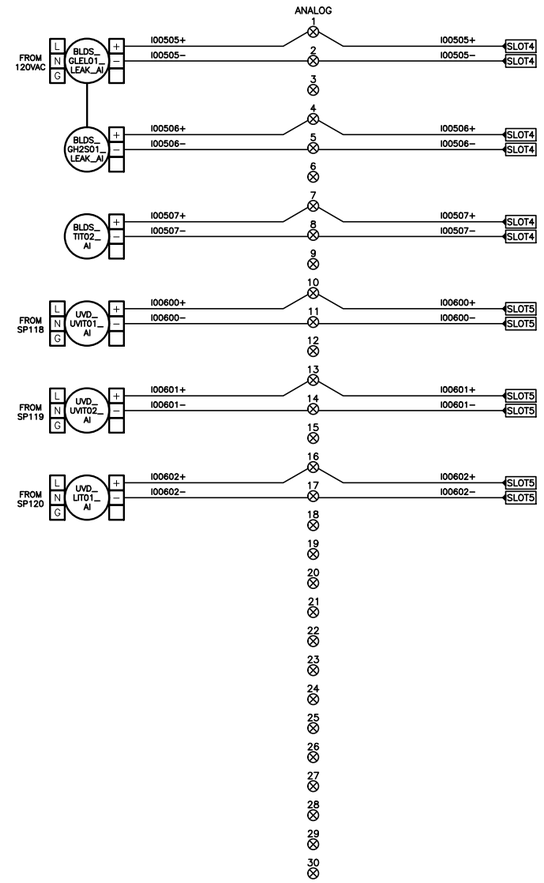
ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F-23-NQ-01
UV BUILDING MARSHALLING PANEL WWTF_JB01
INTERIOR LAYOUT

SCALE	N.T.S.
DWG. NO.	I22
CONT. NO.	2000-00
SHEET NO.	22 OF 25





LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard G. Oake
Signature
2025–04–10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

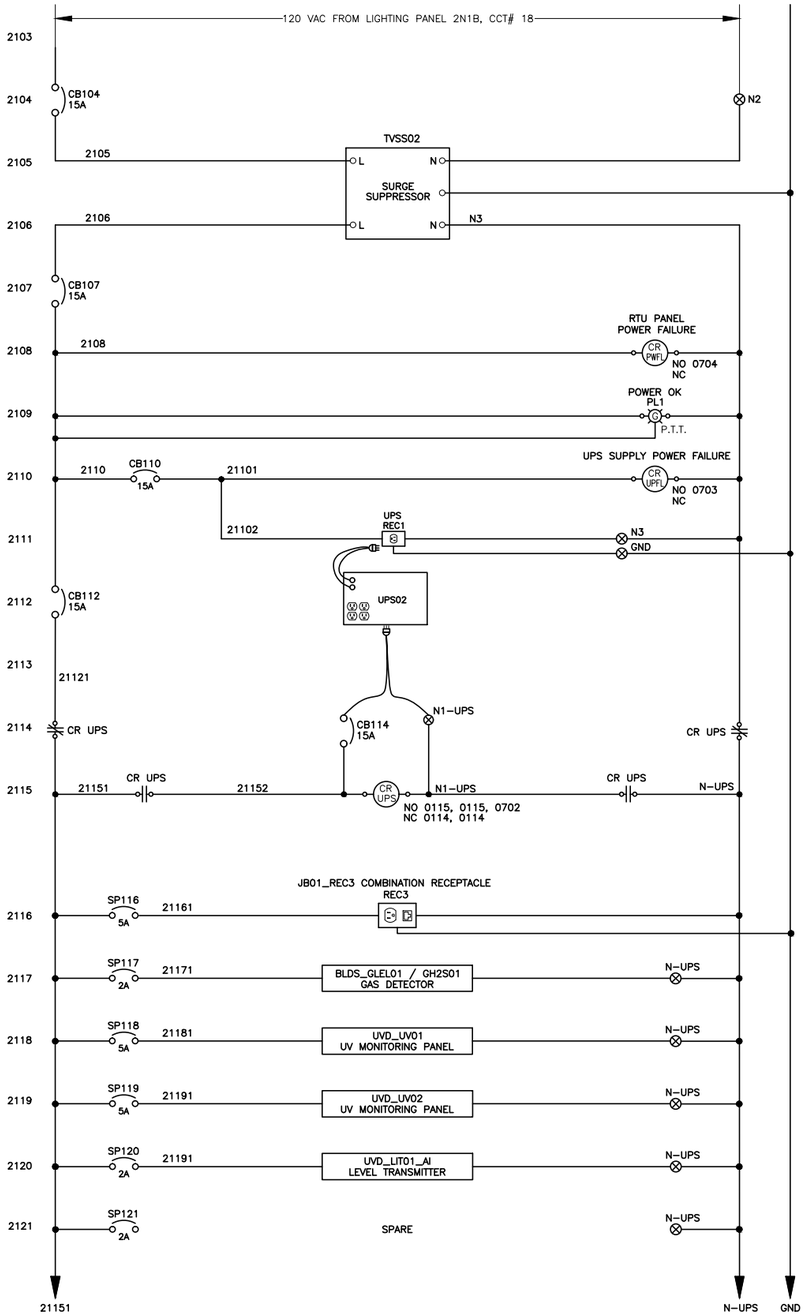
NEQOTKUK

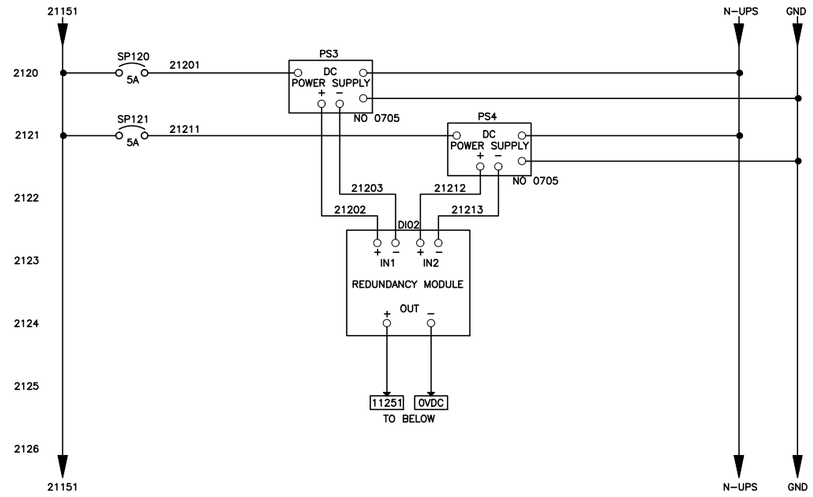
ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

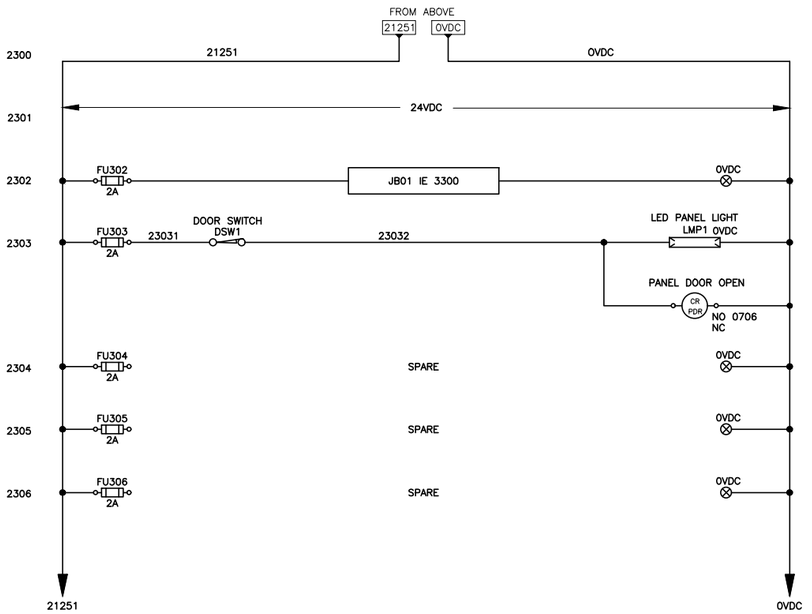
DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F–23–NQ–01
UV BUILDING WWTF_JB01
MARSHALLING PANEL WIRING DIAGRAM 1

SCALE	N.T.S.
DWG. NO.	123
CONT. NO.	2000–00
SHEET NO.	23 OF 25







NOTES:

1. BASED ON DETAILED DESIGN, CONSULTANT MAY NEED ADDITIONAL SA POWER. SA POWER MAY BE 120VAC BASED ON DESIGN.
2. ALLEN BRADLEY PANELVIEW 5310 SERIES WILL BE USED WHERE APPLICABLE, TO BE DETERMINED DURING DESIGN.

LICENCED
PROFESSIONAL ENGINEER
Province of New Brunswick
L6787 2024
Richard O. Olsen
Signature
2025-04-10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

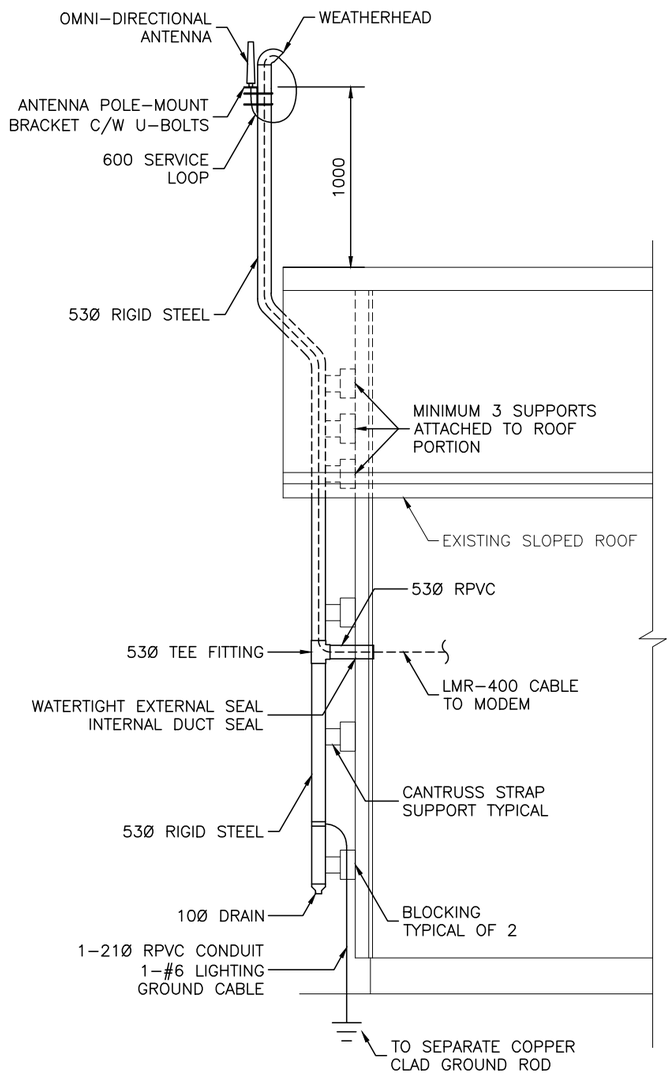
NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

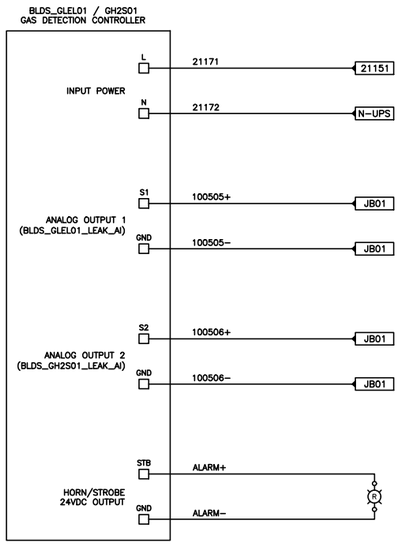
DATE	04/01/2025
DESIGN	S.T.S.
DRAWN	S.T.S.
CHECKED	Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY CLIENT PROJECT NO. F-23-NQ-01 UV BUILDING WWTF_JB01 MARSHALLING PANEL WIRING DIAGRAM 2

SCALE	N.T.S.
DWG. NO.	124
CONT. NO.	2000-00
SHEET NO.	24 OF 25



CELLULAR ANTENNA DETAILS



GAS DETECTION CONTROLLER DETAILS

LICENCED PROFESSIONAL ENGINEER
Province of New Brunswick
L6767 2024
Richard O'Shea
Signature
2025–04–10
Date
INGÉNIEURE TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

No.	DATE	REVISIONS	BY
0.0	APR 10/25	ISSUED FOR TENDER	GP

NEQOTKUK

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DATE 04/01/2025
DESIGN S.T.S.
DRAWN S.T.S.
CHECKED Z.T.S.

UPGRADE OF NEQOTKUK WASTEWATER TREATMENT FACILITY
CLIENT PROJECT NO. F–23–NQ–01
INSTRUMENTATION DETAILS

SCALE N.T.S.
DWG. NO. I25
CONT. NO. 2000–00
SHEET NO. 25 OF 25