

# GOVERNMENT OF NUNAVUT COMMUNITY & GOVERNMENT SERVICES SEWAGE TREATMENT PLANT UPGRADE WORKS - PHASE 2 RANKIN INLET, NUNAVUT ISSUED FOR CONSTRUCTION

# DRAWING INDEX

# CIVIL

3-1 SITE PLAN

AND SITE DECOMMISSIONING

### SEWER AND WATER

- SW-1 NUVUK LIFT STATION EXTERIOR BYPASS
- SW-2 SEWER AND WATER SITE SERVICES DETAILS AND NOTES

# BUILDING

- B-1 BUILDING DECOMMISSIONING PLAN
- B-2 GENERAL LAYOUT GROUND FLOOR
- B-3 GENERAL LAYOUT 2ND FLOOR
- B-4 EXTERIOR BUILDING ELEVATIONS
- B-5 BUILDING CROSS SECTION
- B-6 BUILDING WALL SECTIONS
- -7 DOOR SCHEDULE, WALL SCHEDULE
  - AND BUILDING DETAILS

# STRUCTURAL

- S-1 FOUNDATION PLAN
- S-2 SLAB ON GRADE PLAN
- S-3 SECOND FLOOR FRAMING PLAN
- S-4 ROOF FRAMING PLAN
- S-5 SECTIONS AND DETAILS
- S-6 STRUCTURAL GENERAL REQUIREMENTS
- -7 STRUCTURAL GENERAL REQUIREMENTS
  CONT 'D
- S-8 CATWALK LOCATION AND DETAILS
- S-9 STRUCTURAL STAIR DETAILS AND AUGER CHANNEL COVER DETAILS
- S-10 STRUCTURAL STAIR
  AND HANDRAIL DETAILS

### MECHANICAL

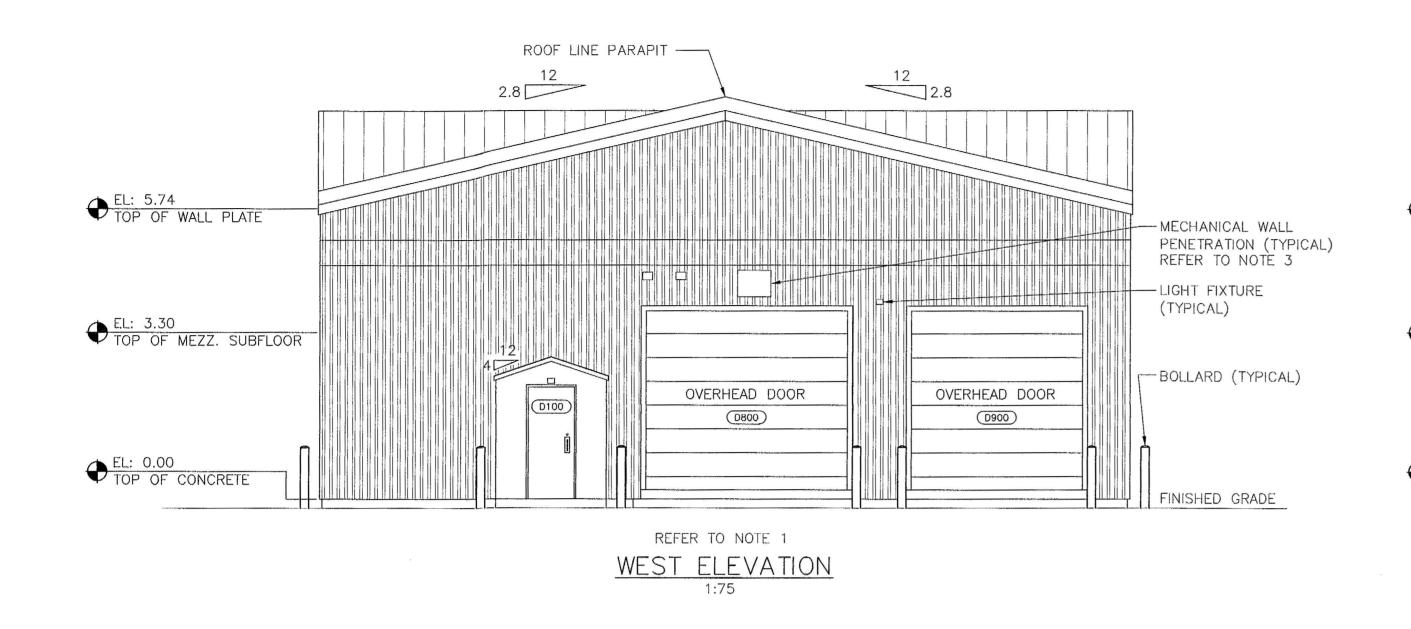
- M-1 DEMOLITION EXISTING MECHANICAL EQUIPMENT
- M-2 GROUND FLOOR MECHANICAL HVAC LAYOUT
- M-3 SECOND FLOOR MECHANICAL HVAC LAYOUT
- WI-3 SECOND LEGGIANICAL TIVAC EXTOCT
- M-4 MECHANICAL EQUIPMENT SCHEDULE & NOTES
- M-5 GROUND FLOOR MECHANICAL HYDRONIC HEATING LAYOUT
- M-6 SECOND FLOOR MECHANICAL HYDRONIC HEATING LAYOUT
- M-7 MECHANICAL HYDRONIC HEATING SCHEMATIC
- M-8 MECHANICAL STANDARD DETAILS 1
- M-9 SEWAGE PROCESS EQUIPMENT PLAN
- M-10 SEWAGE PROCESS EQUIPMENT CROSS SECTIONS
- M-11 GROUND FLOOR MECHANICAL PLUMBING LAYOUT
- M-12 SECOND FLOOR MECHANICAL PLUMBING LAYOUT AND PLUMBING SCHEMATIC
- M-13 FUEL OIL SCHEMATIC & CONTROLS SCHEDULE
- M-14 MECHANICAL STANDARD DETAILS 2

# **ELECTRICAL**

- E-1 ELECTRICAL LEGEND AND DRAWING LIST
- E-2 PANELS AND LUMINAIRE SCHEDULES
- E-3 ELECTRICAL SINGLE LINE DIAGRAM
- E-4 ELEMENTARY CONTROL WIRING DIAGRAMS SHEET 1
- E-5 ELEMENTARY CONTROL WIRING DIAGRAMS SHEET 2
- E-6 INSTRUMENTATION LOOP WIRING DIAGRAMS
- E-7 PLC CONFIGURATION & PANEL LAYOUTS
- E-8 BUILDING ELECTRICAL EQUIPMENT LAYOUT REMOVAL
- E-9 BUILDING ELECTRICAL EQUIPMENT LAYOUT LIGHTING AND HVAC
- E-10 BUILDING ELECTRICAL EQUIPMENT LAYOUT POWER
- E-11 BUILDING ELECTRICAL EQUIPMENT LAYOUT INSTRUMENTATION
- E-12 BUILDING ELECTRICAL EQUIPMENT LAYOUT MECHANICAL ROOM HVAC LAYOUT



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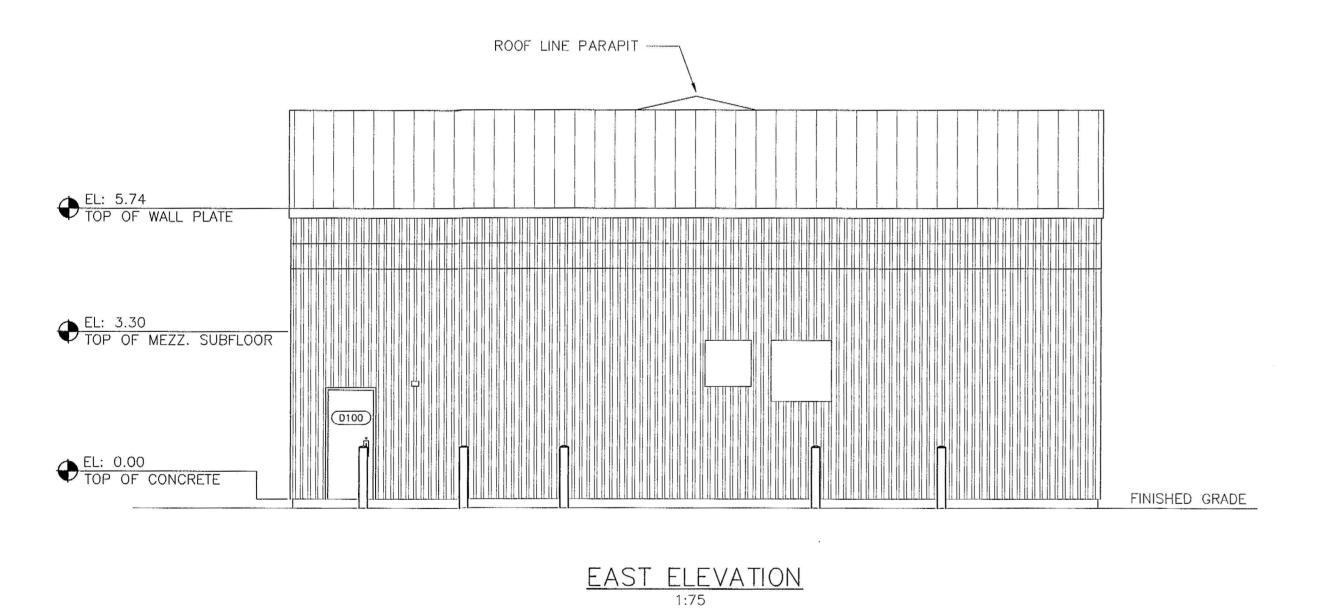
ROOF LINE PARAPIT

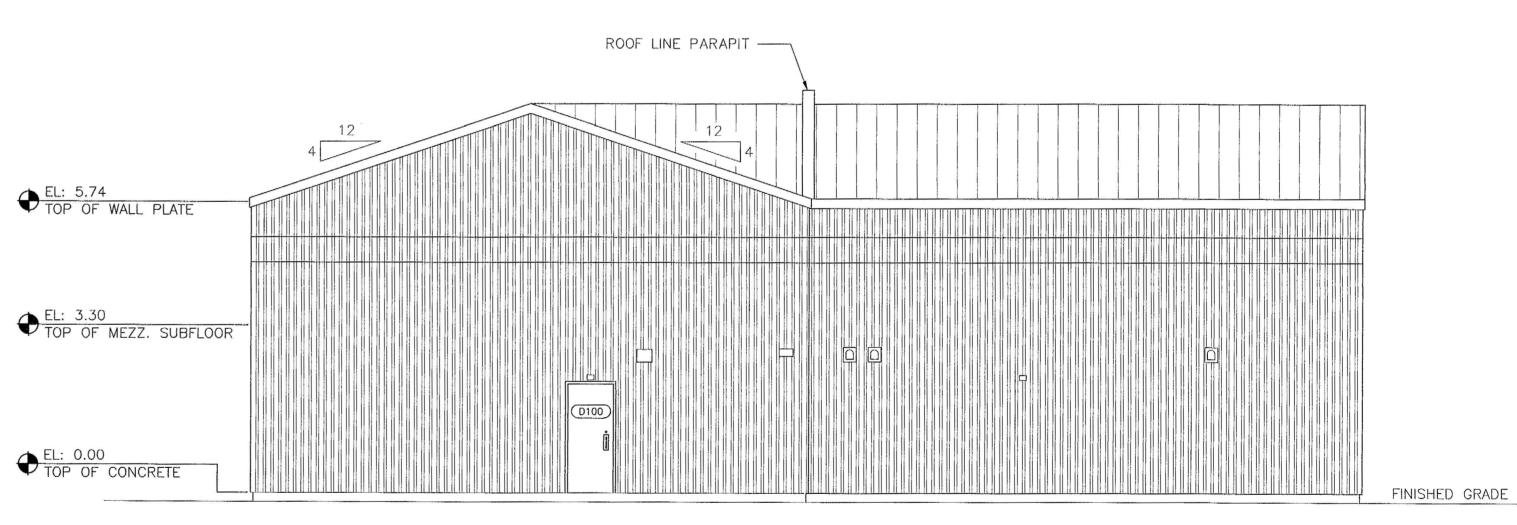
PEL: 5.74
TOP OF WALL PLATE

OVERHEAD DOOR
TOP OF CONCRETE

FINSHED GRADE

SOUTH ELEVATION
1:75





REFER TO NOTE 2

NORTH ELEVATION

# NOTES:

- 1. RELOCATE EXISTING SEWAGE TREATMENT PLANT SIGN TO ADDITION WEST ELEVATION. COORDINATE EXACT LOCATION ON SITE WITH THE OWNER.
- 2. NORTH ELEVATION DOES NOT SHOW BOLLARDS, GENERATOR OR MAIN FUEL TANK FOR CLARITY.
- 3. COORDINATE EXACT LOCATIONS AND SIZES OF MECHANICAL WALL PENETRATION WITH OTHER TRADES. COORDINATE FINISH COLORS PRIOR TO INSTALLATION.

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	Issue / Revision	Date	
1	ISSUED FOR CLIENT REVIEW	OCTOBER 2012	PERMIT TO PRACTICE  Nuna Burnside Engineering and Environmental Ltd
2	ISSUED FOR 66% SUBMISSION	NOVEMBER 2012	
3	ISSUED FOR 99% SUBMISSION	JANUARY 2013	Signature Algowie
4	ISSUED FOR TENDER	FEBRUARY 2013	Date May 27/13
5	REVISED AS PER ADDENDUM 1 TO 4 AND ISSUED FOR CONSTRUCTION	APRIL 2013	PERMIT NUMBER: P 535 The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

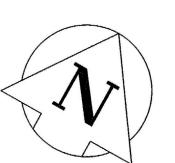


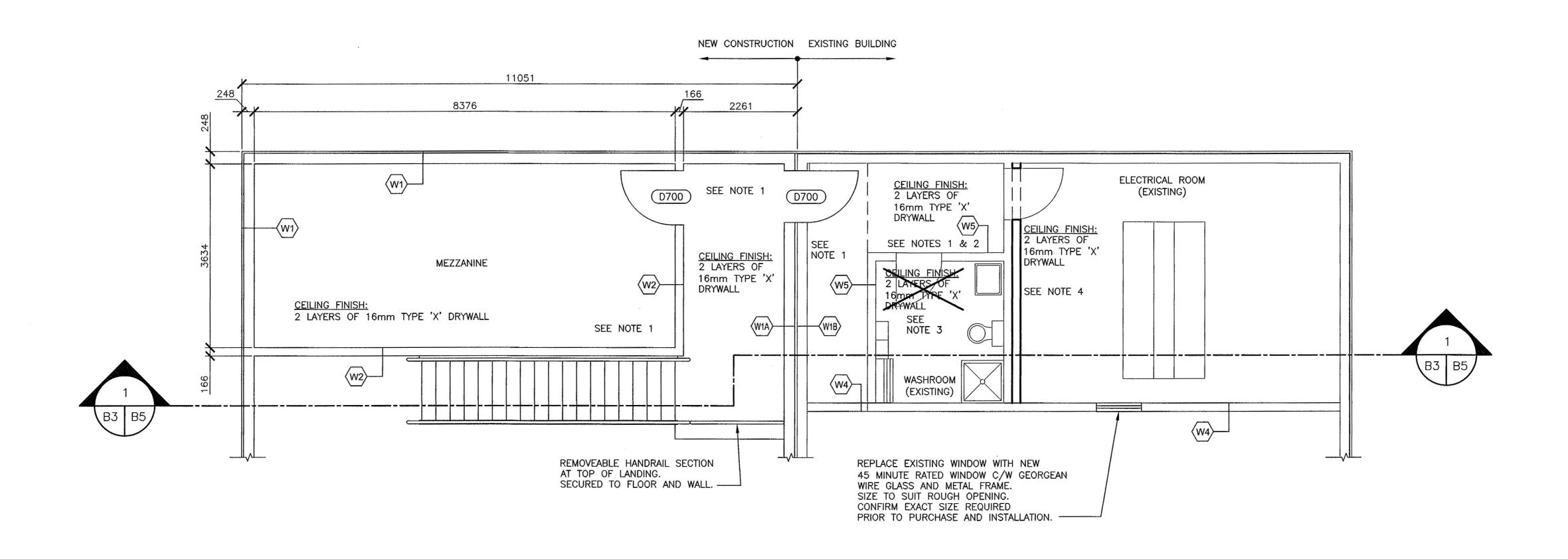
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RANKIN INLET
SEWAGE TREATMENT PLANT

EXTERIOR BUILDING ELEVATIONS





# NOTES:

- 1. INSTALL NEW FLOORING: JOHNSONITE TARKETT IQ OPTIMA, COLOR TYPE SILVER BELL, C/W 8mm FIR PLYWOOD UNDERLAYMENT AND INSTALLED TO MANUFACTURER'S SPECIFICATIONS.
- 2. REMOVE EXISTING FLOORING
- 3. DELETE ADDITION OF 2 LAYERS OF 16mm TYPE DRYWALL ON CEILING
- 4. BUILD NEW 38X89 1 HR FIRE RATED WALL AGAINST BATHROOM WALL. WALL TO BE CONSTRUCTED AS FOLLOWS;
  2 LAYERS OF 16mm TYPE X DRYWALL

- 38X89 STUDS @ 400 O.C.
  2 LAYERS OF 16mm TYPE X DRYWALL
  FIRE STOP JOINT AT CEILING

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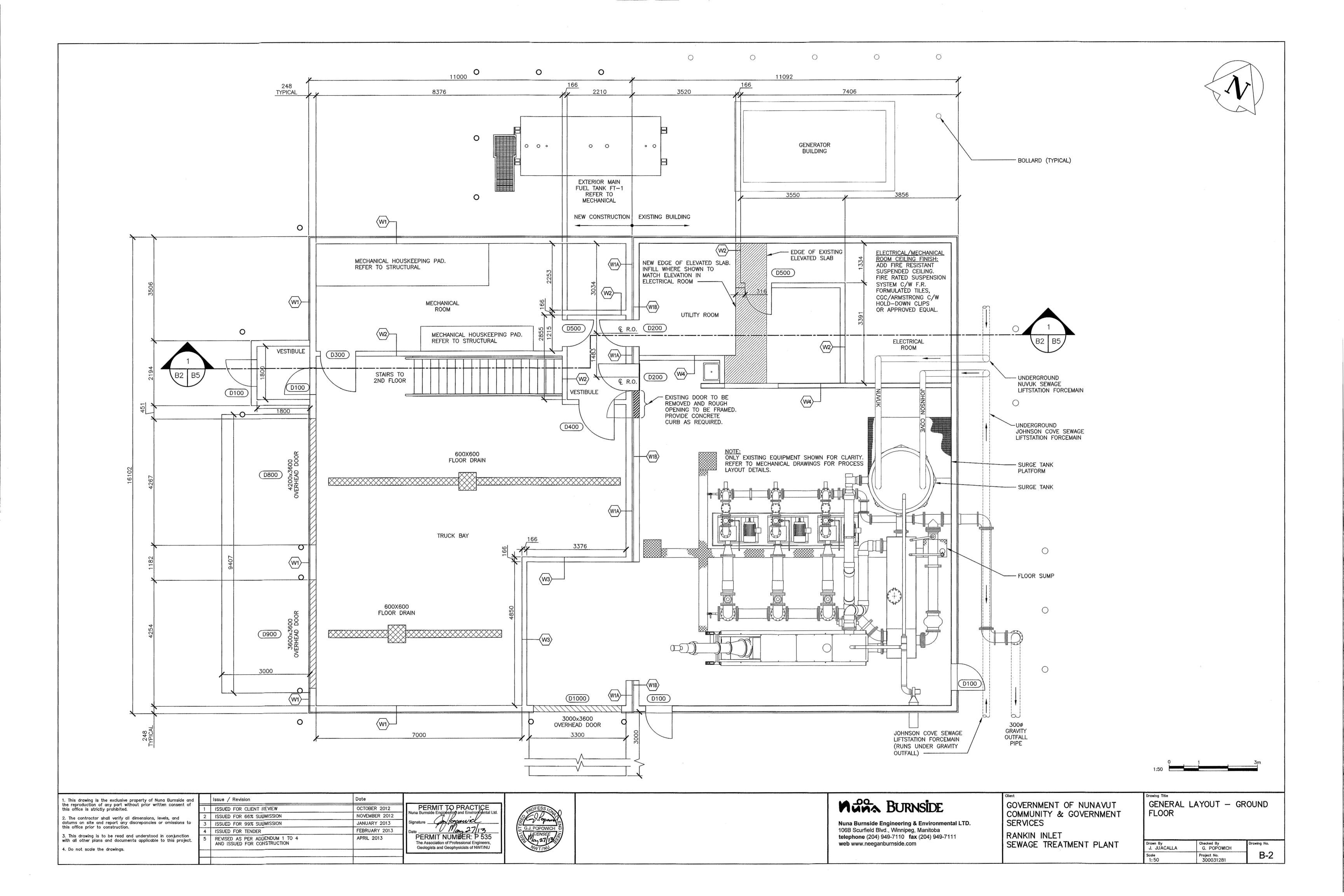
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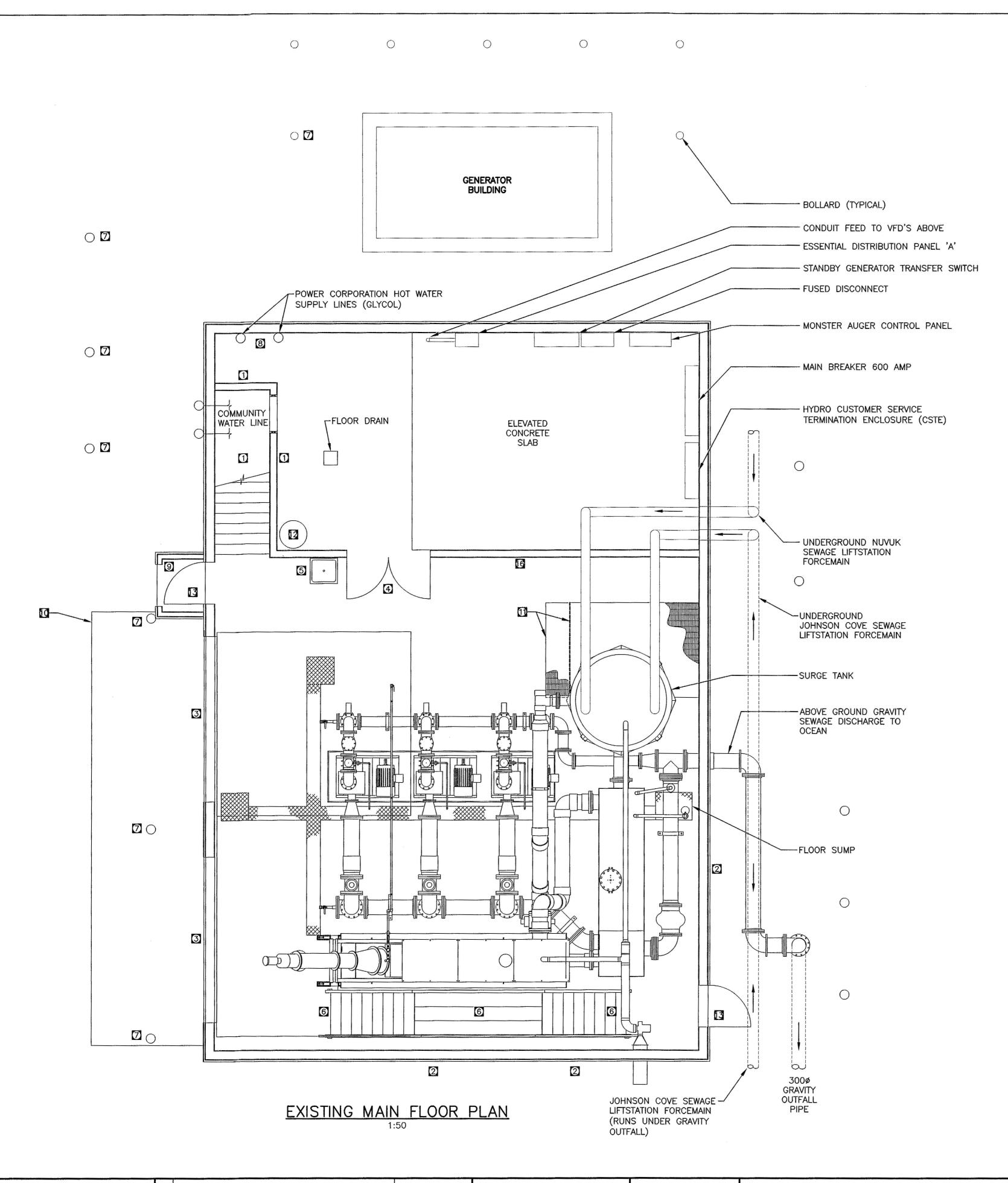
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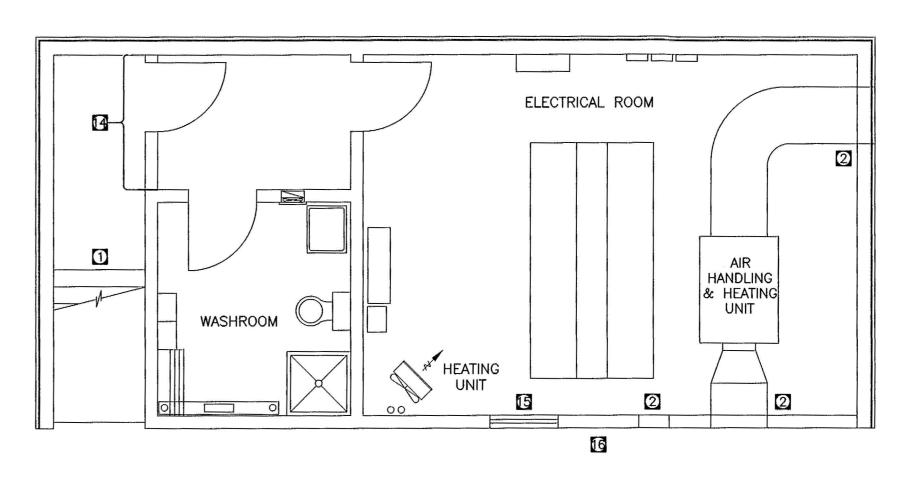
SERVICE	3	*2
RANKIN	INLET	
SEWAGE	TREATMENT	PLANT

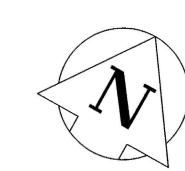
Drawing Title				
GENERAL	LAYOUT	_	2ND	FLC

own By . JUACALLA	Checked By G. POPOWICH	Drawing No.
ale : 50	Project No. 300031281	B-3









SECOND FLOOR PLAN

### EXISTING SEWAGE PLANT DECOMMISSIONING NOTES

- REMOVE & DISPOSE OF EXISTING STAIRWAY AND CONCRETE CURBS TO FLOOR LEVEL, REMOVE MAIN FLOOR MECHANICAL ROOM WEST WALL. PATCH AND REPAIR FLOORS AND WALLS AS REQUIRED FOR NEW CONSTRUCTION.
- FRAME OUT AND FINISH OPENING IN EXTERIOR AND INTERIOR WALLS AS A RESULT OF THE REMOVAL OF EXISTING HVAC EQUIPMENT. COORDINATE WITH MECHANICAL.
- REMOVE & DISPOSE OF EXISTING OVERHEAD DOORS. DOOR TRACKS, MOTORIZED OPENER AND ALL ASSOCIATED HARDWARE. FRAME AND FINISH ROUGH OPENINGS AS REQUIRED FOR NEW CONSTRUCTION.
- REMOVE & DISPOSE OF EXISTING DOUBLE MAN DOORS. FRAME AND FINISH ROUGH OPENING AS REQUIRED FOR NEW CONSTRUCTION.
- REMOVE AND RELOCATE EXISTING SERVICE SINK TO LOCATION SHOWN ON DRAWING B2.
- REMOVE & DISPOSE OF EXISTING PROCESS WALKWAY AND STAIRS. PATCH AND REPAIR FLOORS AS REQUIRED FOR NEW CONSTRUCTION.
- REMOVE & DISPOSE OF EXISTING BOLLARDS. BACKFILL HOLES AS REQUIRED FOR NEW CONSTRUCTION.
- 8 POWER CORPORATION HOT WATER LINES.
- REFER TO MECHANICAL FOR DETAILS.
- REMOVE AND DISPOSE OF EXISTING EXTERIOR VESTIBULE. BACKFILL AS REQUIRED TO ACCOMMODATE NEW SLAB CONSTRUCTION.
- REMOVE AND DISPOSE OF EXISTING APPROACH SLABS AT OVERHEAD DOORS BEING REMOVED. BACKFILL AS REQUIRED TO ACCOMMODATE NEW SLAB CONSTRUCTION.
- CUT EXISTING SURGE TANK PLATFORM TO ACCOMMODATE NEW AUGER PLATFORM BEING INSTALLED. COORDINATE CUT LOCATION, EXISTING PLATFORM SUPPORT RELOCATION AND PREPARATION REQUIREMENTS WITH NEW PLATFORM MANUFACTURER PRIOR TO WORK.
- EXISTING DOMESTIC HOT WATER TANK TO BE RELOCATED. REFER TO MECHANICAL FOR DETAILS.
- EXISTING EXTERIOR DOORS TO BE REPLACED. REFER TO DRAWINGS B2 & B7.

CONSTRUCTION.

- EXISTING DOOR AND WALL ASSEMBLY TO BE REMOVED. PATCH AND REPAIR FLOORS AND WALLS AS REQUIRED FOR NEW
- EXISTING WINDOW TO BE REPLACED. PREPARE ROUGH OPENING FOR NEW. REFER TO DRAWING B3.
- REMOVE METAL LINER ON WALL BETWEEN SEWAGE TREATMENT ROOM AND MECHANICAL/ELECTRICAL ROOMS (BOTH FLOORS) TO ALLOW FOR ADDITION OF FIRE RATED MATERIALS. REFER TO DRAWINGS B2 & B7.
- WHEREVER POSSIBLE, RECYCLE ALL DECOMMISSIONED STEEL. ALL SALVAGEABLE BUILDING MATERIALS AND EQUIPMENT SHALL BE CLEANED AND MOVED TO A DESIGNATED, SECURED SITE APPROVED BY ALL OTHER NON-SALVAGEABLE MATERIALS ARE TO BE DISPOSED OF IN THE COMMUNITY LANDFILL AS COORDINATED WITH AND DIRECTED BY THE OWNER.
- IN GENERAL, COORDINATE WALL PATCH AND REPAIR EFFORTS WITH ALL OTHER TRADES ONCE DECOMMISSIONING IS COMPLETE. THE INTENT IS TO SEAL THE EXISTING BUILDING FROM WATER AND AIR INGRESS PRIOR TO CONSTRUCTION OF BUILDING ADDITION. EXISTING BUILDING FINISH CONSTRUCTION AND RE-ROOFING.



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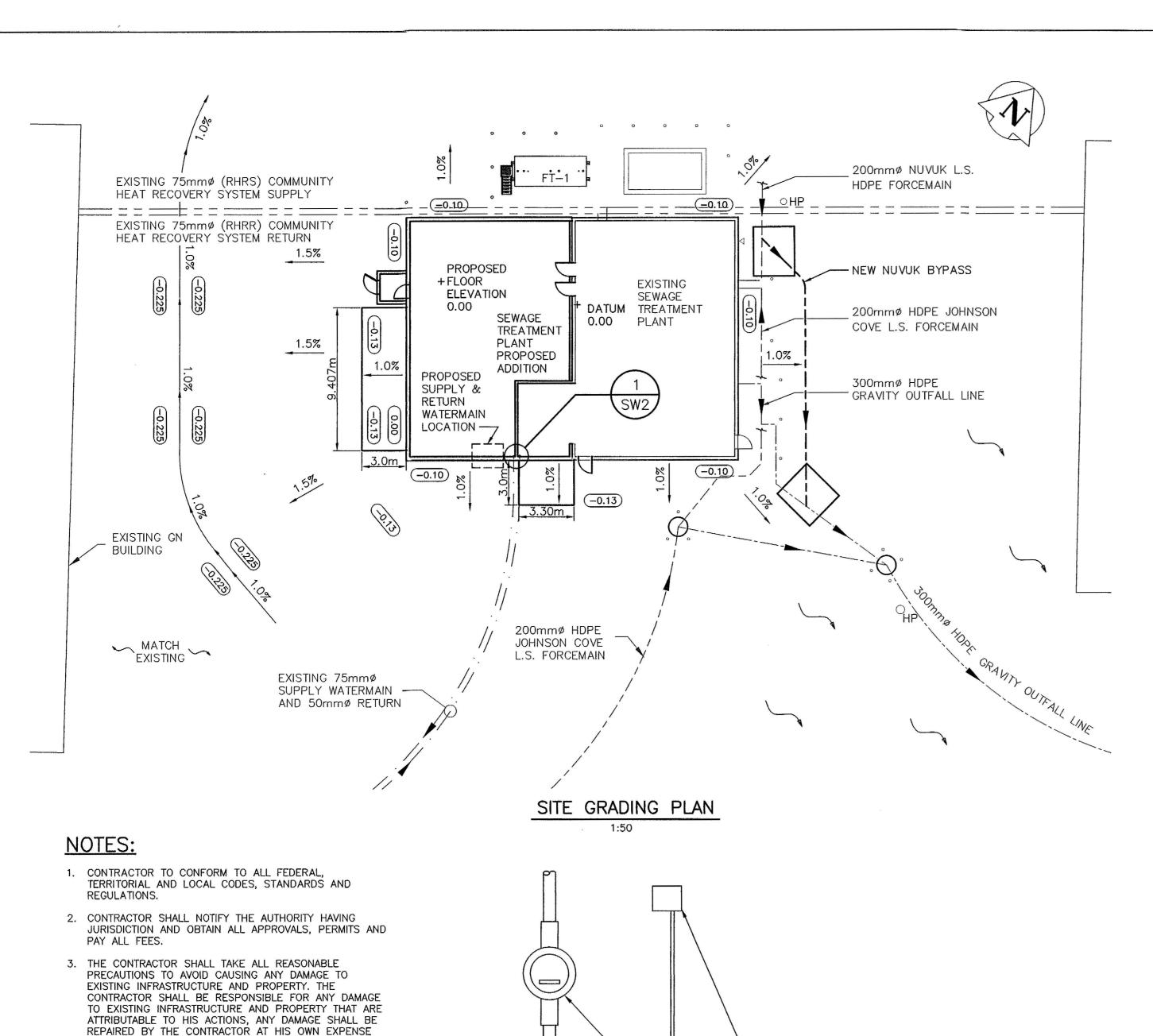
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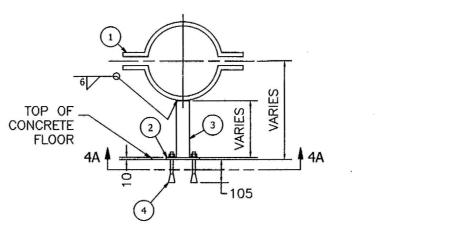
GOVERNMENT OF NUNAVUT COMMUNITY & GOVERNMENT **SERVICES** 

RANKIN	INLET	
SEWAGE	TREATMENT	PLANT

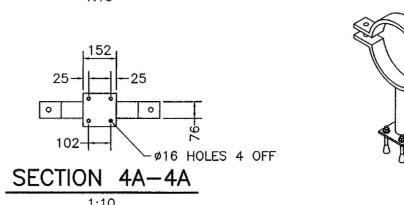
Drawing Title	
BUILDING	
DECOMMISSIONING	PLAN

Drawn By J. JUACALLA	Checked By G. POPOWICH	Drawing No.
Scale AS NOTED	Project No. 300031281	□ B-1

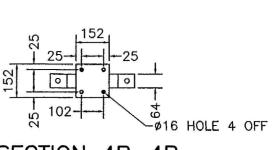






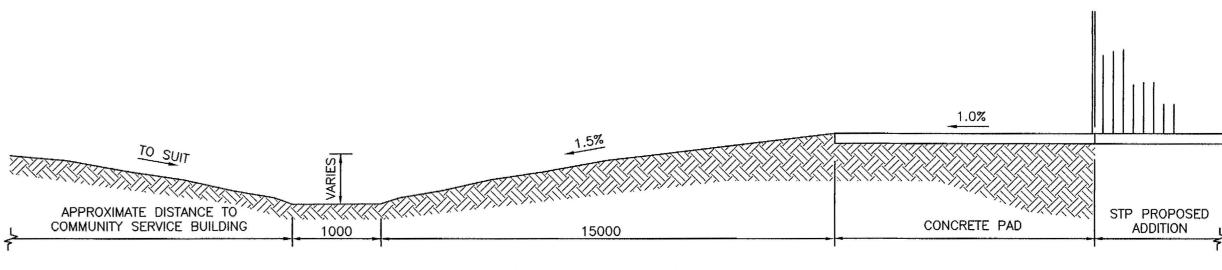


CONCRETE FLOOR  1  4B  4B  4B
PS-2 8" PIPE SUPPORT

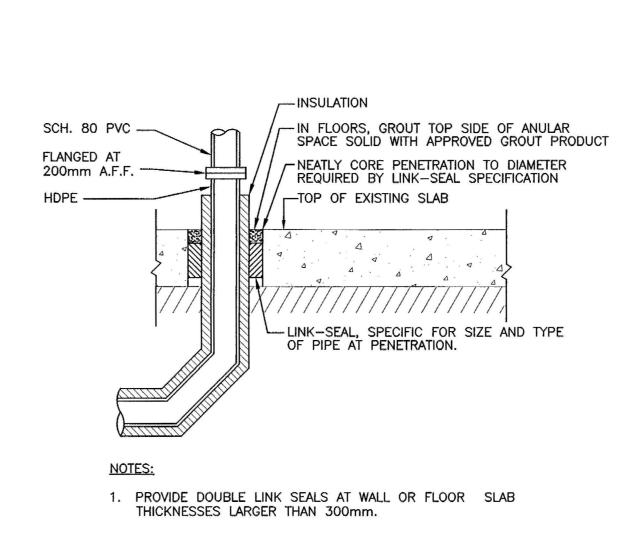


PARTS LIST				
ITEM	QUANTITY	PART NUMBER	DESCRIPTION	
1	6in	AISC - 6X3/8 - 6		
2	2	PIPE CLAMP, 2-BOLT MYATT FIG 134, 8in	FLAT BAR STEEL	
3	12.52in	ASTM A 53/A 53M PIPE 2 - SCHEDULE 40 - 12.5196850393701	PIPE	
4	4	TRUBOLT WEDGE ANCHOR, STEEL, GALV., .5in X 5.5in LONG		

PARTS LIST				
ITEM QUANTITY		PART NUMBER	DESCRIPTION	
1	2	PIPE CLAMP, 2-BOLT MYATT FIG 134, 12in	7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
2	6in	AISC - 6X3/8 - 6	FLAT BAR STEEL	
3	10.217in	ASTM A 53/A 53M PIPE 2 - SCHEDULE 40 - 10.2165354330709	PIPE	
4	4	TRUBOLT WEDGE ANCHOR, STEEL, GALV., .5in X 5.5in LONG		



NOTE: LINEWORK SHOWN EXAGGERATED FOR CLARITY LANDSCAPING CROSS—SECTION



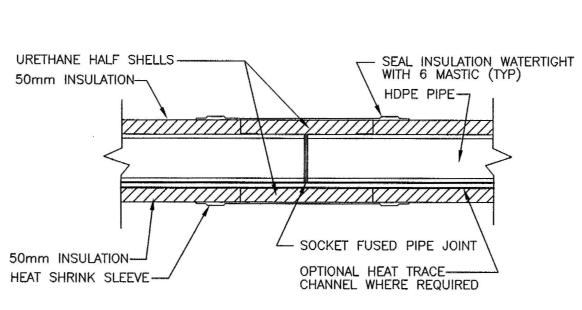
FLOOR PIPE PENETRATION (TYP)

SETTLEMENT EXCEPT AT ROADS. EXISTING GRADE EXCAVATED COMMON BACKFILL, COMPACTED TO 95% STANDARD PROCTOR DENSITY EXCEPT UNDER ROADS UTILIZE GRANULAR BACK FILL COMPACTED TO 98% PROCTOR DENSITY. . PROVIDE MARKER TAPE 600mm ABOVE TOP OF SERVICE MAINLINE. (TYP) PROPOSED 2000 HDPE BYPASS LINE C/W 50mm PRE-INSULATION GRANULAR BEDDING AND COVER MATERIAL COMPACTED TO 95% STANDARD PROCTOR 600 DENSITY. -

> MAINLINE PIPE TRENCH DETAIL SINGLE PIPE (TYP)

ELECTRICAL BOX  METER  UNION  50mmø BALL VALVE  CIRCULATION PUMP  50mmø BALL VALVE
50mmø RETURN WATERMAIN——75mmø SUPPLY WATERMAIN

WATER PIPE HEADER



PIPE JOINING DETAIL (TYP)

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TO A MINIMUM PRE-CONSTRUCTION CONDITION.

4. EXACT LOCATION OF UNDERGROUND SERVICES AND

OF 150mm DEPTH BELOW PIPE INVERT.

7. SEE TENDER DOCUMENTS FOR SUBSURFACE

MINIMUM THICKNESS OF 150mm LAYERS.

ANY DISCREPANCY GREATER THAN 0.02m.

POLES AFFECTED DURING CONSTRUCTION.

11. DRIVEWAYS, ROADS, BOULEVARDS, DITCHES ETC.

INVESTIGATION REPORT.

ORIGINAL CONDITION.

4. Do not scale the drawings.

6. CONTRACTOR TO PROVIDE AS-BUILT DRAWING TO

8. BEDDING SAND IS TO BE COMPACTED UNDER WATER,

SEWER AND FORCEMAIN MAINS, ALONG SIDES OF PIPE WHEN HALF COVERED. SAND TO BE COMPACTED IN

9. CONTRACTOR IS TO CONFIRM THE INVERT ELEVATION OF

10. TEMPORARY SUPPORT TO BE PROVIDED FOR ALL HYDRO

AFFECTED BY CONSTRUCTION TO BE REINSTATED TO

LOCATION. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING

ALIGNMENT TO CONNECT TO PROPOSED LOCATION AT

12. EXISTING WATER LINES ARE SHOWN IN APPROXIMATE

SEWAGE TREATMENT PLANT PROPOSED ADDITION.

THE EXISTING CHAMBERS AND NOTIFY THE ENGINEER OF

ENGINEER ONCE CONSTRUCTION COMPLETED.

UTILITIES ARE APPROX. CONTRACTOR IS RESPONSIBLE FOR COORDINATING LOCATES WITH UTILITIES AND VERIFYING BY EXPOSING PRIOR TO CONSTRUCTION.

5. BEDDING & BACKFILL TO SPECIFICATIONS WITH MINIMUM

QROFESS/ON
A Colon lat
G.J. POPOWICH
LICENSEE 2
May 27 195
NATINO

	SEWERMAIN			HYDRO	
ф	HYDRANT	+		M.T.S.	
$\otimes$	VALVE	0		CONCRETE	777777
	FORCEMAIN			ASPHALT	
	WATERMAIN		-000	FENCE LINE	
	HEAT RECOVERY SYSTEM LINE		TH1	TEST HOLE	
32.45	ELEVATIONS	(33.10)	5	CURB STOP	8
~	FLOW DIRECTION			C.B. LEAD	
	BENCHMARK			SIDEWALK	
	CULVERT		₩	PROPERTY CORNER	<b>(H)</b>
Онр	HYDRO POLE	<b>●</b> HP	0	BOLLARD	•
EXISTING	LEGEND — PLAN	PROPOSED	EXISTING	LEGEND - PLAN	PROPOSED

# Man Burnside

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GOVERNMENT OF NUNAVUT COMMUNITY & GOVERNMENT SERVICES RANKIN INLET

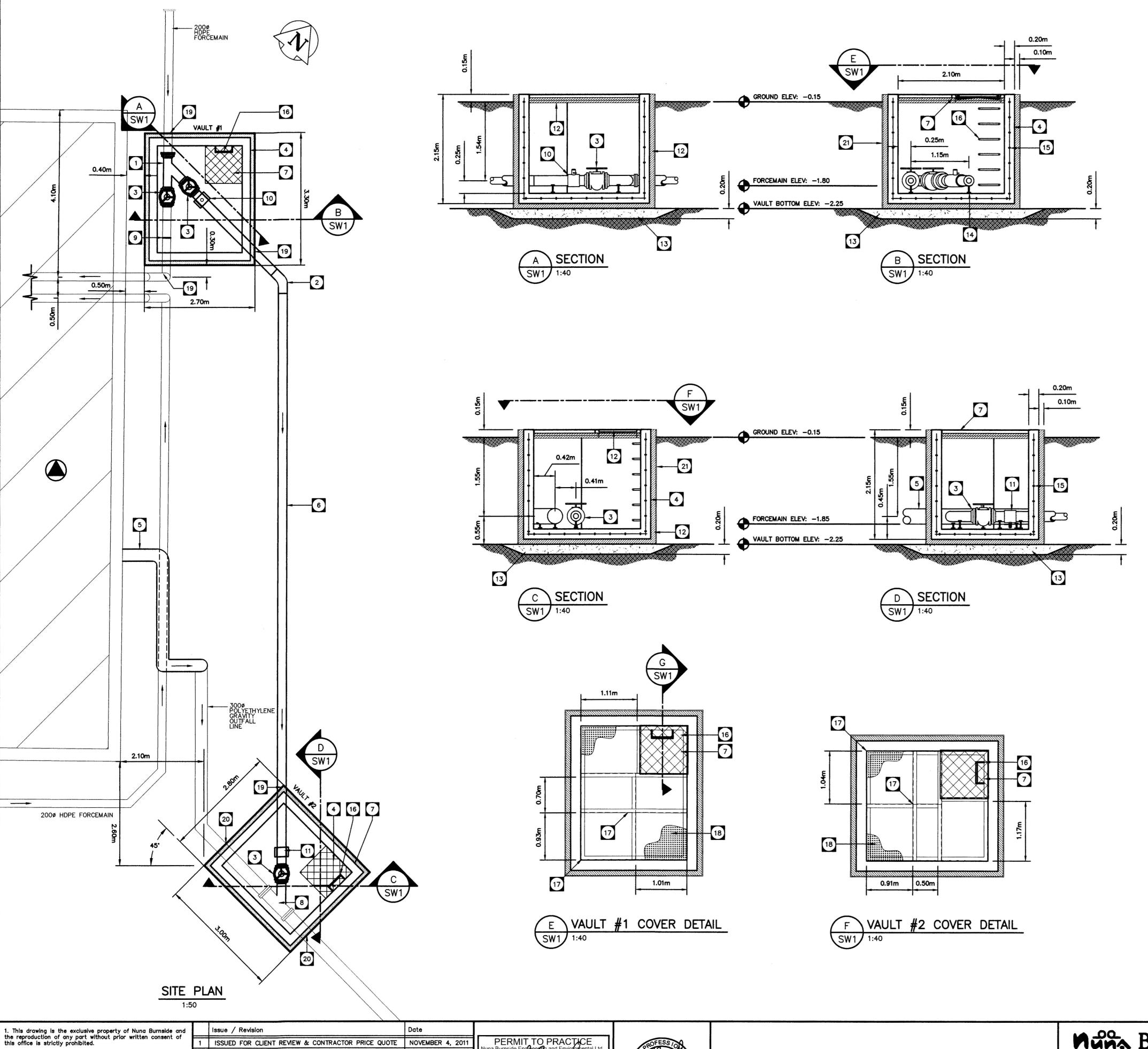
SEWAGE TREATMENT PLANT

SEWER AND WATER SITE SERVICES DETAILS AND NOTES

Drawn By C. GERUS	Checked By G. POPOWICH	Drawing No.  SW-2	
Scale AS NOTED	Project No. 300031281		

MOUND FILL OVER

TRENCH FOR



# **DRAWING NOTES:**

- BREAK INTO EXISTING 2000 HDPE FORCEMAIN. INSTALL A 45° 200mm HDPE WYE FITTING c/w 50mm PRE-INSULATION.
- 2 INSTALL 45° HDPE BEND C/W 50mm PRE-INSULATION.
- 3 INSTALL 200mm BALLCENTRIC VALVE MOUNTED VERTICALLY WITH VALVE STEM EXTENSION. (TYP)
- CONCRETE VAULTS C/W STEEL PLATE COVER. 200mm CONCRETE WALL. (TYP)
- 5 EXISTING ABOVE GROUND 300mm INSULATED GRAVITY OUTFALL.
- 6 INSTALL 200¢ HDPE BYPASS LINE C/W 50mm PRE-INSULATION.
- 7 ACCESS HATCH TO BE BILKO TYPE K-4 & RECESSED PADLOCK (OR APPROVED EQUAL). SIZE 914mm x 914mm.
- 8 INSTALL 300mm x 300mm x 200mm DR17 HDPE WYE C/W 50mm PRE-INSULATION.
- 9 EXISTING 200mmø PRE-INSULATED STEEL PIPE TRANSITION.
- 200mm X 75mm STAINLESS STEEL SADDLE C/W 75mm BALL VALVE, SCREW ON CAP & INSULATION KIT.
- 200mmø X 50mm STAINLESS STEEL SADDLE. 50mm BALL VALVE, SCREW ON CAP & INSULATION KIT.
- 2 LAYERS OF 50mm RIGID BOARD INSULATION. (TYP)
- 200mm SAND BEDDING. (TYP)
- 14 GRINNEL PIPE SUPPORT. (TYP)
- 15M REBAR BOTH WAYS @ 300m O.C. WITH 50mm 15 REBAR BOTH WAYS © 3 CONCRETE COVER MINIMUM.
- 19mmø ALUMINUM LADDER RUNGS 400mm WDE 300 O.C. FIX TO CONCRETE VAULT
- 75mm X 75mm X 6mm GALVANIZED ANGLE IRON FRAME.
- 6mm THK. GALVANIZED STEEL PLATE VAULT COVER WELDED TO ANGLE IRON FRAME.
- 200mmø LINK-SEAL FOR A 200mm THK. CONCRETE WALL. C/W STEEL SLEEVE TO SUIT. (TYP)
- 300mmø LINK-SEAL FOR A 200mm THK. CONCRETE WALL. C/W STEEL SLEEVE TO SUIT. (TYP)

21 6mm OF PRESSURE TREATED PLYWOOD SHEATHING. (TYP)

## REINFORCING STEEL:

- REINFORCING STEEL TO BE NEW DEFORMED BILLET STEEL BAR CONFORMING TO CSA G30.18 (LATEST). GRADES TO BE 400 MPa FOR 15M BARS AND LARGER; 300 MPa FOR 10M
- SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, SPACING, LOCATIONS & QUANTITIES OF REINFORCING STEEL, BENDING & CUTTING SCHEDULES, SUPPORTING & SPACING DEVICES, TALL FOR REVIEW PROPERTY OF ABRICATION. DETAIL, FABRICATE AND PLACE REINFORCING IN ACCORDANCE CSA A23.1 (LATEST), CSA A23.3 (LATEST) AND ACI SP-66 (LATEST) EXCEPT AS NOTED. LAP STEEL 36 BAR DIAMETERS (MINIMUM) UNLESS NOTED OTHERWISE.
- REINFORCING STEEL SHALL BE CLEAN, FREE OF RUST, DIRT, LOOSE SCALE, OIL, GREASE OR ANY OTHER MATERIAL WHICH WOULD REDUCE BOND WITH THE CONCRETE.
- TIE, SUPPORT AND SPACE ALL REINFORCING STEEL WITH PROPER APPROVED DEVICES DESIGNED FOR USE IN REINFORCED CONCRETE, TO PREVENT DISPLACEMENT OF REINFORCING AND ENSURE SPECIFIED CONCRETE COVER.

# **CONCRETE:**

- CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CSA A23.1/A23.2 (LATEST). SEE BELOW FOR MIX REQUIREMENTS.
- ADMIXTURES SHALL NOT BE USED UNLESS SPECIFIED HEREIN OR APPROVED BY THE DESIGN ENGINEER, CALCIUM CHLORIDE SHALL NOT BE USED.
- DESIGN, FABRICATE AND ERECT FORMWORK/SHORING IN ACCORDANCE WITH CAN/CSA-S269.3 (LATEST). ALLOW SUFFICIENT CONCRETE CURING TIME PRIOR TO REMOVAL.
- CONCRETE FINISHING SHALL MEET THE REQUIREMENTS OF CSA A23.1 (LATEST).
- FORM RELEASE AGENT SHALL BE BIODEGRADABLE, NON-STAINING AND NON-VOLATILE.
- PROVIDE ADEQUATE COLD/HOT WEATHER PROTECTION AS REQUIRED DURING CURING PERIOD.
- CAST-IN-PLACE ANCHOR BOLTS SHALL MEET
- REQUIREMENTS OF ASTM A307 (LATEST).
- CONCRETE MIX DESIGN SHALL BE PROPORTIONED TO MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:

EXPOSURE CLASS 28 DAY COMP. STRENGTH W/C RATIO AGGREGATE SIZE (MAX.) ENTRAINED AIR

5%-8%

1/8" OR 3/16" FLOOR COVERING (BY OTHERS) 1/4" ALUMINUM SMOOTH PLATE COVER RED VINYL GRIP-BILCO AUTOMATIC HOLD OPEN ARM STEEL CAST HINGES EXTRUDED ALUMINUM \_ 16mm DIA. GALV. NUT, BOLT & WASHER. LENGTH TO SUIT. (4 PER SIDE) TORSION/CAM OPERATING MECHANISM 16mm# LAG BOLT ANCHOR 65mm EMBEDMENT INTO CONCRETE (4 PER SIDE) G HATCH DETAIL
SW1 NTS

BENCH MARK: DATUM ELEV. 0.00
SEWAGE TREATMENT PLANT
TOP OF FLOOR

NOVEMBER 2012

The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to this office prior to construction. This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

4. Do not scale the drawings.

ISSUED FOR 66% SUBMISSION JANUARY 2013 ISSUED FOR 99% SUBMISSION FEBRUARY 2013 ISSUED FOR TENDER REVISED AS PER ADDENDUM 1 TO 4 AND ISSUED FOR CONSTRUCTION APRIL 2013

Geologists and Geophysicists of NWT/NU



# Man Burnside

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GOVERNMENT OF NUNAVUT COMMUNITY & GOVERNMENT SERVICES

SEWAGE TREATMENT PLANT

RANKIN INLET

NUVUK LIFT STATION EXTERIOR **BYPASS** 

Checked By
G. POPOWICH Drawn By J. JUACALLA **SW-1** Project No. 300031281 AS NOTED

