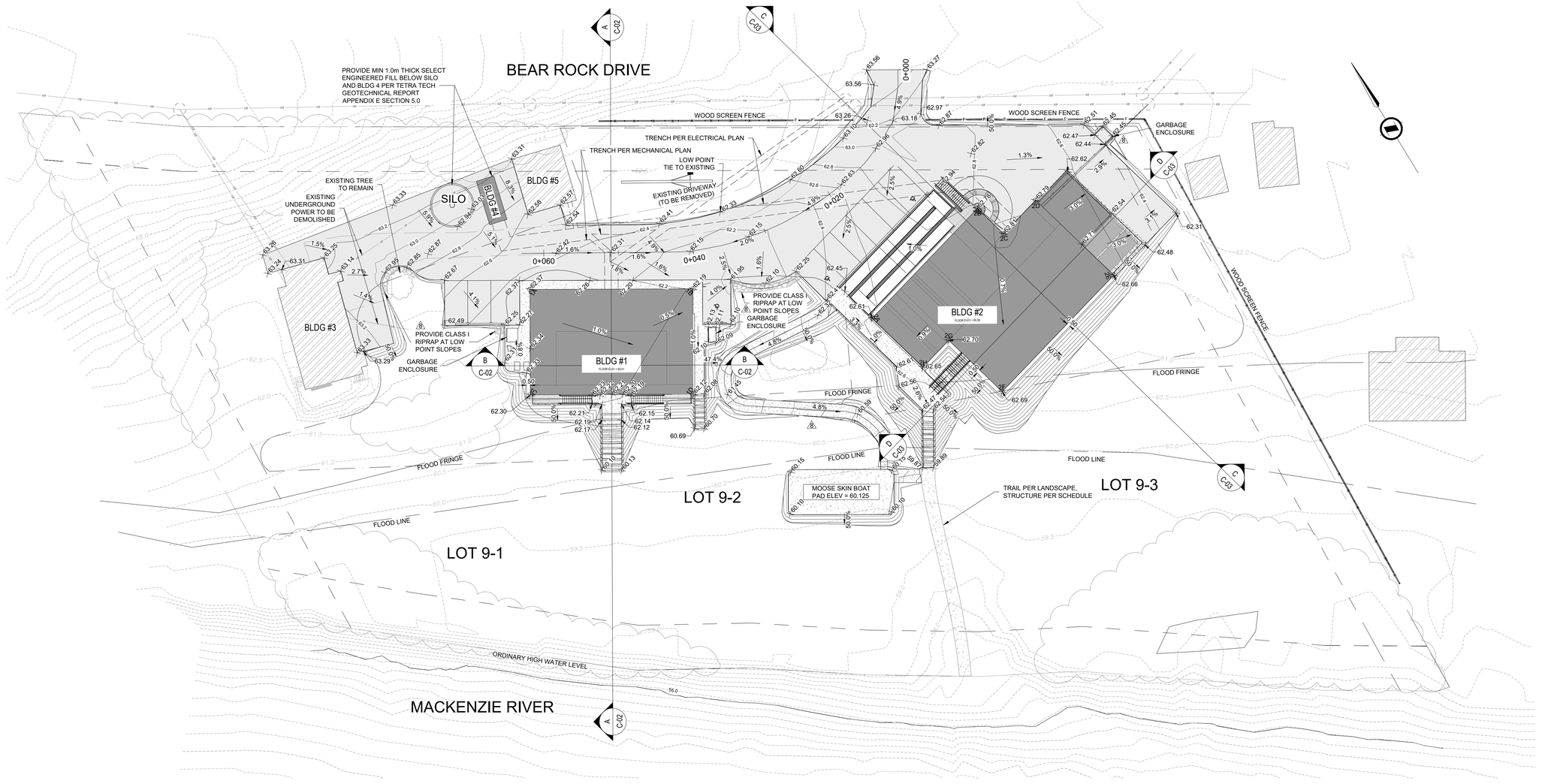


LEGEND

- EXISTING PROPERTY LINE
- PROPOSED OVERHEAD POWER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING UNDERGROUND POWER LINE
- EXISTING POWER POLES
- EXISTING FENCE
- PROPOSED FENCE
- FLOOD FRINGE/ FLOOD LINE
- PROPOSED PATHWAY
- PROPOSED GRAVEL AREA & PARKING
- PROPOSED BUILDINGS
- EXISTING BUILDING/STRUCTURES (TO REMAIN)
- PROPOSED GRAVEL TRAIL / MOOSE SKIN BOAT PAD
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING TREES
- PROPOSED GRADING

NOTES

1. ALL COORDINATES AND DISTANCES BASED ON 3TM COORDINATE SYSTEM (NAD 83).

NOT FOR CONSTRUCTION

FOR INFORMATION ONLY

PROPOSED BUILDING CORNERS		
CORNER ID	NORTHING	EASTING
1A	7199983.3811	377680.1861
1B	7199972.1436	377698.8892
1C	7199971.2799	377672.9152
1D	7199960.0639	377691.6161
2A	7199956.3397	377717.3707
2B	7199961.6082	377737.0296
2C	7199956.8974	377738.2921
2D	7199958.5048	377744.2913
2E	7199944.5076	377748.0421
2F	7199938.9157	377727.1746
2G	7199948.4903	377724.6087
2H	7199947.2066	377719.8182

GRAVEL STRUCTURE			
MATERIAL	SITE ACCESS	BUILDING PAD	COMPACTION % SPMDD
GRANULAR BASE COURSE (< 20mm)	150 mm	150 mm	100%
GRANULAR SUB-BASE (PIT RUN)	250 mm MIN	850 mm MIN	98%
GEOTEXTILE	-	WOVEN PER GEOTECH	-
PREPARED SUBGRADE PER GEOTECH	-	-	98%

8

GRAVEL TRAIL / MOOSE SKIN BOAT PAD GRAVEL STRUCTURE		
MATERIAL	THICKNESS	COMPACTION % SPMDD
GRANULAR BASE COURSE (< 10mm)	100 mm	100%
GRANULAR BASE COURSE (< 20mm)	100 mm	98%
GEOTEXTILE	WOVEN PER GEOTECH	-

NO.	DESCRIPTION	DATE (YYYY-MM-DD)	BY	APPD
8	ISSUED FOR ADDENDUM 1	2023-09-29	JW	GD
7	ISSUED FOR TENDER	2023-05-26	JW	GD
6	ISSUED FOR ACCESSIBLE PATHWAY REVIEW	2023-05-24	JW	GD
5	ISSUED FOR 99% DESIGN REVIEW	2023-03-31	JW	TH
4	ISSUED FOR 66% DESIGN REVIEW	2023-01-27	JW	GD
3	ISSUED FOR 33% R1	2022-07-18	JW	GD
2	ISSUED FOR 33% DESIGN REVIEW	2021-12-15	JW	GD
1	ISSUED FOR DEVELOPMENT PERMIT	2021-12-10	JW	GD

PERMIT

SEAL

	BY	DATE (YYYY-MM-DD)
DESIGNED	JW	2021-12-10
DRAWN	PH	2021-12-10
CHECKED	GD	2021-13-10

SCALE 1:300 (0 / 6 / 12 m)

PROJECT

TULITA OFFICE AND STAFF HOUSING
SW NORTHWEST TERRITORIES FIELD UNIT
LOTS 9-1 TO 9-3, PL 61343

CLIENT REFERENCE NO.: PO 45440990

SHEET TITLE

PROPOSED GRADING PLAN

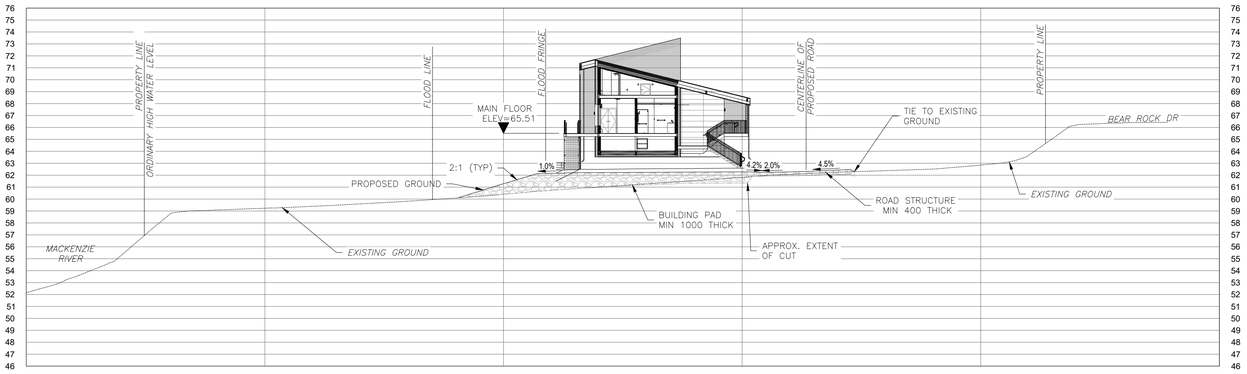
FILE NO. 70011_Tulita_Grading_Plan_99%_230524.dwg

ENG DWG NO. 1

SHEET ID. **C-01**

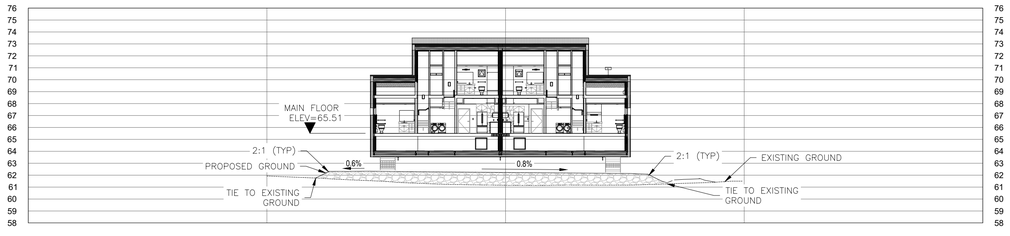
SHEET COUNT

SHEET SIZE ANSI D 25 mm 0



SECTION A-A VIEW

H: 1:250 V: 1:250



SECTION B-B VIEW

H: 1:250 V: 1:250

NOTES

1. ALL COORDINATES AND DISTANCES BASED ON 3TM COORDINATE SYSTEM (NAD 83).

NOT FOR CONSTRUCTION

FOR INFORMATION ONLY

NO.	DESCRIPTION	DATE (YYYY-MM-DD)	BY	APPD
8	ISSUED FOR ADDENDUM 1	2023-09-29	JW	GD
7	ISSUED FOR TENDER	2023-05-26	JW	GD
6	ISSUED FOR ACCESSIBLE PATHWAY REVIEW	2023-05-24	JW	GD
5	ISSUED FOR 99% DESIGN REVIEW	2023-03-31	JW	TH
4	ISSUED FOR 66% DESIGN REVIEW	2023-01-27	JW	TH
3	ISSUED FOR 33% R1	2022-07-18	JW	GD
2	ISSUED FOR 33% DESIGN REVIEW	2021-12-15	JW	GD
1	ISSUED FOR DEVELOPMENT PERMIT	2021-12-10	JW	GD

PERMIT

SEAL

	BY	DATE (YYYY-MM-DD)
DESIGNED	JW	2021-12-10
DRAWN	PH	2021-12-10
CHECKED	GD	2021-13-10

SCALE

PROJECT

TULITA OFFICE AND STAFF HOUSING
SW NORTHWEST TERRITORIES FIELD UNIT
LOTS 9-1 TO 9-3, PL 61343

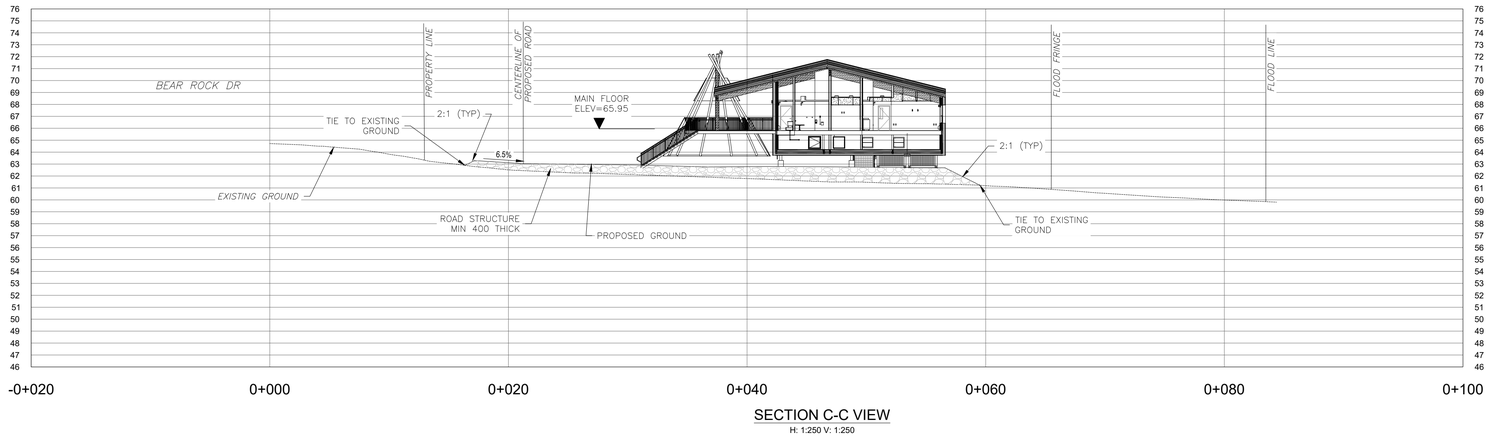
CLIENT REFERNCE NO: 45440990

SHEET TITLE

OFFICE & STAFF HOUSING
PROPOSED GRADING PLAN
SECTION A-A & SECTION B-B

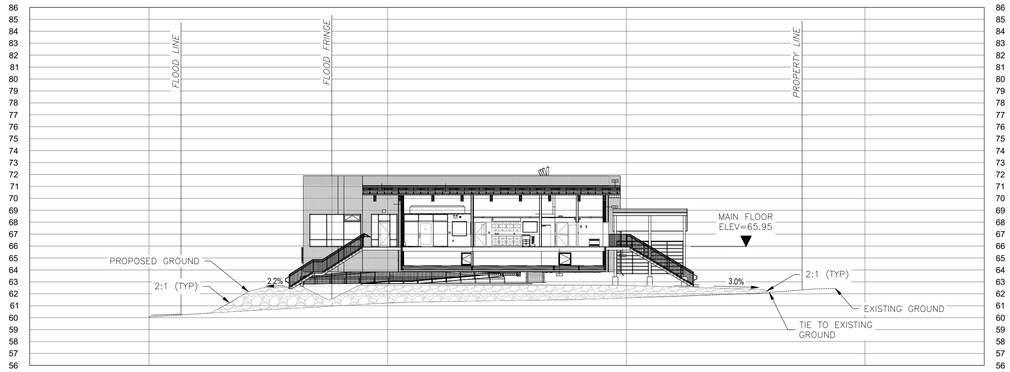
FILE NO.	ENG DWG NO.
70011_Tulita_Grading_Plan_99%_230524.dwg	2
SHEET ID.	SHEET COUNT
C-02	

SHEET SIZE ANSI D 25 mm 0



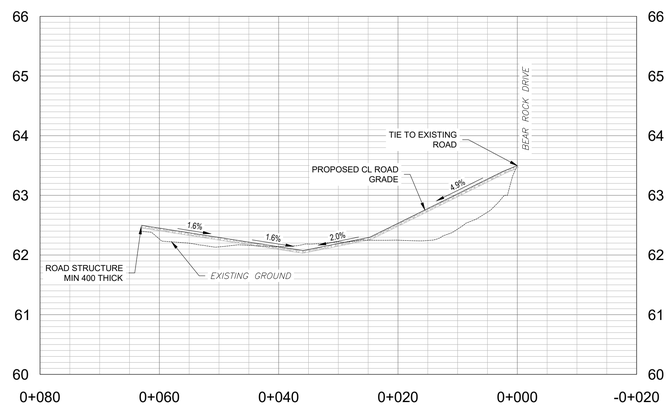
SECTION C-C VIEW

H: 1:250 V: 1:250



SECTION D-D VIEW

H: 1:250 V: 1:250



ROADWAY CENTERLINE PROFILE

NOTES

1. ALL COORDINATES AND DISTANCES BASED ON 3TM COORDINATE SYSTEM (NAD 83).

NOT FOR CONSTRUCTION

FOR INFORMATION ONLY

No.	Description	Date (YYYY-MM-DD)	By	Appd
8	ISSUED FOR ADDENDUM 1	2023-09-29	JW	GD
7	ISSUED FOR TENDER	2023-05-26	JW	GD
6	ISSUED FOR ACCESSIBLE PATHWAY REVIEW	2023-05-24	JW	GD
5	ISSUED FOR 99% DESIGN REVIEW	2023-03-31	JW	TH
4	ISSUED FOR 66% DESIGN REVIEW	2023-01-27	JW	GD
3	ISSUED FOR 33% R1	2022-07-18	JW	GD
2	ISSUED FOR 33% DESIGN REVIEW	2021-12-15	JW	GD
1	ISSUED FOR DEVELOPMENT PERMIT	2021-12-10	JW	GD

PERMIT

SEAL

	By	Date (YYYY-MM-DD)
DESIGNED	JW	2021-12-10
DRAWN	PH	2021-12-10
CHECKED	GD	2021-12-10

SCALE

PROJECT

TULITA OFFICE AND STAFF HOUSING
SW NORTHWEST TERRITORIES FIELD UNIT
LOTS 9-1 TO 9-3, PL 61343

CLIENT REFERENCE NO.: 45440990

SHEET TITLE

PROPOSED GRADING PLAN
SECTION C-C, SECTION D-D & CL ROAD PROFILE

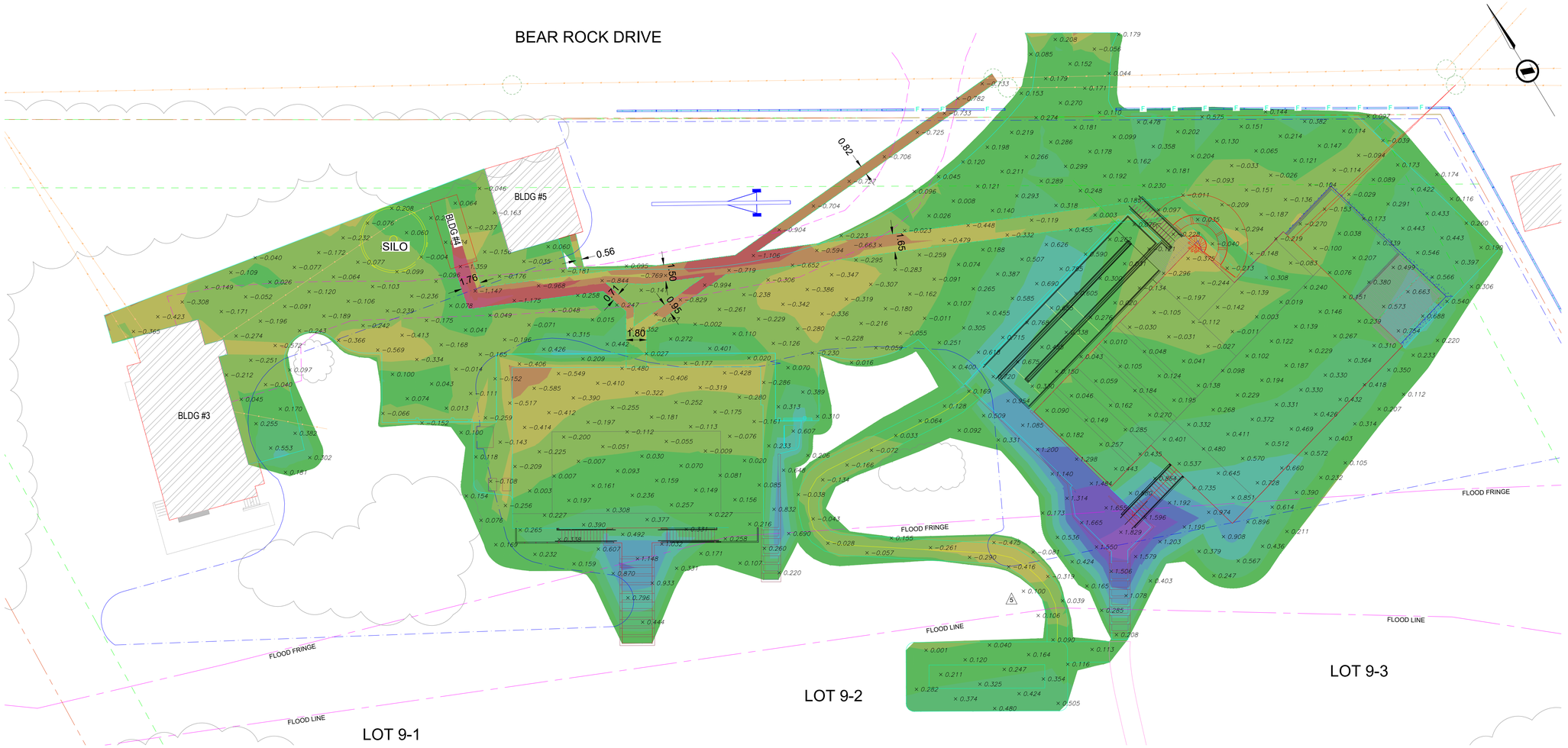
FILE NO. 70011_Tulita_Grading_Plan_99%_230524.dwg

ENG DWG NO. 3

SHEET ID. **C-03**

SHEET COUNT

SHEET SIZE ANSI D 25 mm 0



LEGEND

- EXISTING PROPERTY LINE
- PROPOSED OVERHEAD POWER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING POWER POLES
- EXISTING FENCE
- PROPOSED FENCE
- FLOOD FRINGE/ FLOOD LINE
- PROPOSED PATHWAY
- EXISTING BUILDING/STRUCTURES (TO REMAIN)
- EXISTING TREES
- AREA OF INVESTIGATION CONTAINING UNDISTURBED ARCHAEOLOGICAL RESOURCES

NOTES

1. ALL COORDINATES AND DISTANCES BASED ON 3TM COORDINATE SYSTEM (NAD 83).
2. EARTHWORK VOLUMES:
   - 2.1. EARTHWORK VOLUMES IS COMPARISON BETWEEN STRIPPED SURFACE AND ROUGH GRADE. STRIPPED SURFACE IS 0.1m BELOW EXISTING GRADE AND ROUGH GRADE IS 0.4m BELOW FINAL ROAD GRADE AND 1m BELOW BUILDING GRAVEL PAD.
   - 2.2. EARTHWORK VOLUMES FOR THE PROJECT AREA HAS BEEN PREPARED BY THE CONSULTANT AND HAS BEEN MADE AVAILABLE TO CONTRACTORS FOR INFORMATION PURPOSES ONLY. QUANTITIES ARE CONSIDERED APPROXIMATE ONLY AND MAY VARY DURING CONSTRUCTION DUE TO OBSERVED IN-FIELD CONDITIONS. CONTRACTOR SHOULD ALL MAKE NOTE THAT THE EARTHWORK VOLUMES DOES NOT INCLUDE FACTORS FOR SWELL OR COMPACTION, BUT ARE RATHER JUST GEOMETRIC CUT AND FILL AREAS.
   - 2.3. IT IS RECOGNIZED THAT EARTHWORK VOLUMES WILL BE AFFECTED BY A NUMBER OF FACTORS INCLUDING SUB-CUT EXCAVATION DEPTHS, SWELL AND COMPACTION.
   - 2.4. THE PROVISION OF EARTHWORK VOLUMES IS FOR INFORMATION ONLY AND THE CONTACTOR SHALL BID THE WORK ACCORDING TO ITS OWN HAULING AND OPERATIONAL REQUIREMENTS. NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY VARIANCE IN THE IMPORT OR EXPORT FILL.
   - 2.5. ANY EXCESS CUT MATERIAL REMAINING ON-SITE FOLLOWING COMPLETION OF GRADING AND EXHAUSTION OF EXCESS MATERIAL LOCATIONS SHALL BECOME PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE AND CONSIDERED INCIDENTAL TO THE WORK.

NO.	DESCRIPTION	DATE (YYYY-MM-DD)	BY	APPD
5	ISSUED FOR ADDENDUM 1	2023-09-29	JW	GD
4	ISSUED FOR TENDER	2023-05-26	JH	JW
3	ISSUED FOR REVIEW	2023-05-12	JH	JW
2	ISSUED FOR REVIEW	2023-04-15	JH	JW
1	ISSUED FOR REVIEW	2023-04-10	JW	GD

PERMIT

SEAL

NOT FOR CONSTRUCTION

FOR INFORMATION ONLY

	BY	DATE (YYYY-MM-DD)
DESIGNED	JW	2021-12-10
DRAWN	JH	2023-04-04
CHECKED	GD	2023-04-06

SCALE 1:200 (0 4 8 m)

PROJECT

TULITA OFFICE AND STAFF HOUSING
SW NORTHWEST TERRITORIES FIELD UNIT
LOTS 9-1 TO 9-3, PL 61343

CLIENT REFERENCE NO.: PO 45440990

SHEET TITLE

CUT FILL PLAN

FILE NO. 70011_Tulita_Cut-Fill.dwg

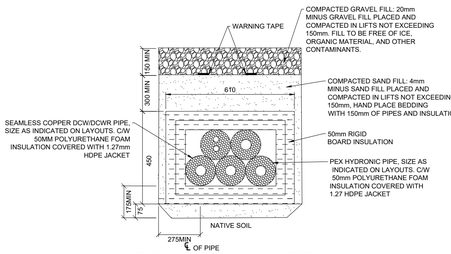
ENG DWG NO. 4

SHEET ID. **C-04**

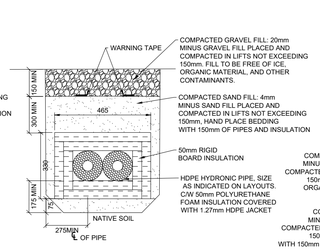
SHEET COUNT

SHEET SIZE ANSI D 25 mm 0

FILE: G:\PROJECTS\70000\70000\70011_TULITA_OFFICE_AND_STAFF_HOUSING\02_CAD\20_DRAFTING\201_ISL\CIVIL\70011_TULITA_CUT-FILL.DWG | DATE: September 29, 2023 2:40:59 PM | ISC: UNRESTRICTED



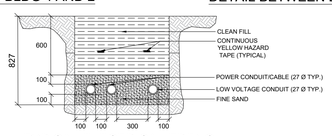
TYPICAL MECHANICAL TRENCH DETAIL BETWEEN BLDG 4 AND 2



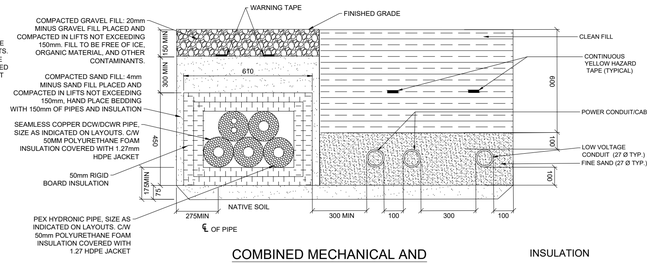
TYPICAL MECHANICAL TRENCH DETAIL BETWEEN BLDG 4 AND 1

MECHANICAL TRENCH STRUCTURE		
	BETWEEN BLDG 4 AND 2	BETWEEN BLDG 4 AND 1
GRAVEL (<20mm)	MIN. 150mm	
SAND (<4mm)	825mm	705mm

ELECTRICAL TRENCH STRUCTURE	
CLEAN FILL	MIN. 600mm
FINE SAND	230mm



TYPICAL ELECTRICAL TRENCH DETAIL



COMBINED MECHANICAL AND ELECTRICAL TRENCH DETAIL

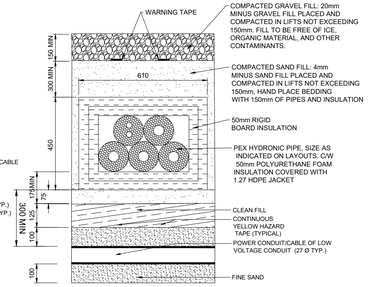
MAINTAIN MIN. 300mm SEP. BETWEEN POWER CONDUIT AND MECH.

INSULATION

DETAILS ARE NOT TO SCALE

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
Stripped Surface vs Rough Grade	1.000	1.000	3326.23sq.m	304.14 Cu. M.	727.55 Cu. M.	423.40 Cu. M.<Fill>
Totals			3326.23sq.m	304.14 Cu. M.	727.55 Cu. M.	423.40 Cu. M.<Fill>



MECHANICAL AND ELECTRICAL TRENCH CROSSING DETAIL

MAINTAIN MIN. 300mm SEP. BETWEEN BOTTOM OF MECH. INSULATION AND POWER CONDUIT

ELEVATIONS TABLE

NUMBER	MINIMUM	MAXIMUM	AREA	EXCAVATION VOLUME	COLOUR
1	-1.479	-1.200	5.96	0.41	
2	-1.200	-0.900	31.05	5.75	
3	-0.900	-0.600	64.01	18.44	
4	-0.600	-0.300	243.97	55.38	
5	-0.300	0.000	877.16	224.16	
6	0.000	0.300	1224.52	442.45	
7	0.300	0.600	550.07	165.84	
8	0.600	0.900	186.81	65.10	
9	0.900	1.200	74.28	31.06	
10	1.200	1.500	30.95	15.63	
11	1.500	1.800	28.25	6.86	
12	1.800	1.999	9.19	0.60	

Not For Construction
For Information Only
See enclosed Civil Engineering drawings, for reference. Note these drawings are being provided For Information Only, Not For Construction, indicative of the planned ground works on-site. Underground trenching areas are noted to have the deepest excavations on-site, proposed during construction.
Words Extracted from Civil Engineering Drawings for Translation from English to French

1st page
Bottom Right-Hand Corner Title Block (below ISL trademark) :
DRAWING SHEET ID.: C-01
ENG DWG NO.: 1
FILE NO.: 70011_Tulita_Grading_Plan_99%_230524.dwg
SHEET TITLE: PROPOSED GRADING PLAN
PROJECT: TULITA OFFICE AND STAFF HOUSING
SW NORTHWEST TERRITORIES FIELD UNIT
LOTS 9-1 TO 9-3, PL 61343
CLIENT REFERENCE NO.: PO 45440990
SHEET COUNT
SHEET SIZE ANSI D

Top Right-Hand Corner Page, then down :
LEGEND
EXISTING PROPERTY LINE
PROPOSED OVERHEAD POWER LINE
EXISTING OVERHEAD POWER LINE
EXISTING UNDERGROUND POWER LINE
EXISTING POWER POLES
EXISTING FENCE
PROPOSED FENCE
FLOOD FRINGE / FLOOD LINE
PROPOSED PATHWAY
PROPOSED GRAVEL AREA & PARKING
PROPOSED BUILDINGS
EXISTING BUILDING / STRUCTURES (TO REMAIN)
PROPOSED GRAVEL TRAIL / MOOSE SKIN BOAT PAD
EXISTING CONTOURS
PROPOSED CONTOURS
EXISTING TREES
PROPOSED GRADING

NOTES :

1. ALL COORDINATES AND DISTANCES BASED ON 3TM COORDINATE SYSTEM (NAD 83).

NO.	DESCRIPTION	DATE (YYYY-MM-DD)	BY	APPD
Δ8	ISSUED FOR ADDENDUM 1	2023-09-29	JW	GD
7	ISSUED FOR TENDER	2023-05-26	JW	GD
6	ISSUED FOR ACCESSIBLE PATHWAY REVIEW	2023-05-24	JW	GD
5	ISSUED FOR 99% DESIGN REVIEW	2023-03-31	JW	TH
4	ISSUED FOR 66% DESIGN REVIEW	2023-01-27	JW	GD
3	ISSUED FOR 33% R1	2022-07-18	JW	GD
2	ISSUED FOR 33% DESIGN REVIEW	2021-12-15	JW	GD
1	ISSUED FOR DEVELOPMENT PERMIT	2021-12-10	JW	GD

PERMIT SEAL

	BY	DATE (YYYY-MM-DD)
DESIGNED	JW	2021-12-10
DRAWN	PH	2021-12-10
CHECKED	GD	2021-13-10

SCALE 1:300 0 6 12m

Main Drawing (Left of Page), top to bottom, left to right :

BEAR ROCK DRIVE

PROVIDE MIN 1.0m THICK SELECT ENGINEERED FILL BELOW SILO AND BLDG 4 PER TETRA TECH GEOTECHNICAL REPORT APPENDIX E SECTION 5.0

WOOD SCREEN FENCE

GARBAGE ENCLOSURE

TRENCH PER ELECTRICAL PLAN

TRENCH PER MECHANICAL PLAN

LOW POINT TIE TO EXISTING

EXISTING DRIVEWAY (TO BE REMOVED)
EXISTING TREE TO REMAIN
EXISTING UNDERGROUND POWER TO BE DEMOLISHED
SILO
BLDG #4
BLDG #5
BLDG #3
PROVIDE CLASS I RIPRAP AT LOW POINT SLOPES
GARBAGE ENCLOSURE
BLDG #1
FLOOR ELEV = 65.51
PROVIDE CLASS I RIPRAP AT LOW POINT SLOPES
BLDG #2
FLOOR ELEV = 65.95
WOOD SCREEN FENCE
FLOOD FRINGE
FLOOD LINE
LOT 9-1 LOT 9-2 LOT 9-3
MOOSE SKIN BOAT PAD ELEV = 60.125
TRAIL PER LANDSCAPE, STRUCTURE PER SCHEDULE
ORDINARY HIGH WATER LEVEL
MACKENZIE RIVER

PROPOSED BUILDING CORNERS		
CORNER ID	NORTHING	EASTING
1A	7199983.3811	377680.1861
1B	7199972.1436	377698.8892
1C	7199971.2799	377672.9152
1D	7199960.0639	377691.6161
2A	7199956.3397	377717.3707
2B	7199961.6082	377737.0296
2C	7199956.8974	377738.2921
2D	7199958.5048	377744.2913
2E	7199944.5076	377748.0421
2F	7199938.9157	377727.1746
2G	7199948.4903	377724.6087
2H	7199947.2066	377719.8182

GRAVEL STRUCTURE			
MATERIAL	SITE ACCESS	BUILDING PAD	COMPACTION %

			SPMDD
GRANULAR BASE COURSE (< 20mm)	150 mm	150 mm	100%
GRANULAR SUB-BASE (PIT RUN) 80 mm	250 mm MIN	850 mm MIN	98%
GEOTEXTILE	-	WOVEN PER GEOTECH	-
PREPARED SUBGRADE PER GEOTECH	-	-	98%

GRAVEL TRAIL / MOOSE SKIN BOAT PAD GRAVEL STRUCTURE		
MATERIAL	THICKNESS	COMPACTION % SPMDD
GRANULAR BASE COURSE (< 10mm)	100 mm	100%
GRANULAR BASE COURSE (< 20mm)	100 mm	98%
GEOTEXTILE	WOVEN PER GEOTECH	-

2nd page
Bottom Right-Hand Corner Title Block (below ISL trademark) :
DRAWING SHEET ID.: C-02
ENG DWG NO.: 2
FILE NO.: 70011_Tulita_Grading_Plan_99%_230524.dwg
SHEET TITLE: OFFICE & STAFF HOUSING PROPOSED GRADING PLAN SECTION A-A & SECTION B-B
PROJECT: TULITA OFFICE AND STAFF HOUSING
SW NORTHWEST TERRITORIES FIELD UNIT
LOTS 9-1 TO 9-3, PL 61343
CLIENT REFERENCE NO.: PO 45440990
SHEET COUNT
SHEET SIZE ANSI D

Top Right-Hand Corner Page, then down:

NOTES :

1. ALL COORDINATES AND DISTANCES BASED ON 3TM COORDINATE SYSTEM (NAD 83).

Δ8	ISSUED FOR ADDENDUM 1	2023-09-29	JW	GD
7	ISSUED FOR TENDER	2023-05-26	JW	GD
6	ISSUED FOR ACCESSIBLE PATHWAY REVIEW	2023-05-24	JW	GD
5	ISSUED FOR 99% DESIGN REVIEW	2023-03-31	JW	TH
4	ISSUED FOR 66% DESIGN REVIEW	2023-01-27	JW	TH
3	ISSUED FOR 33% R1	2022-07-18	JW	GD

NO.	DESCRIPTION	DATE (YYYY-MM-DD)	BY	APPD
2	ISSUED FOR 33% DESIGN REVIEW	2021-12-15	JW	GD
1	ISSUED FOR DEVELOPMENT PERMIT	2021-12-10	JW	GD

PERMIT SEAL

	BY	DATE (YYYY-MM-DD)
DESIGNED	JW	2021-12-10
DRAWN	PH	2021-12-10
CHECKED	GD	2021-13-10

SCALE

Main Drawing (Left of Page), top to bottom, left to right :
SECTION A-A VIEW H: 1:250 V: 1:250
MACKENZIE RIVER
PROPERTY LINE
ORDINARY HIGH WATER LEVEL
EXISTING GROUND
FLOOD LINE
PROPOSED GROUND
2:1 (TYP) 1% 4.2% 2% 4.5%
MAIN FLOOR ELEV = 65.51
FLOOD FRINGE
BUILDING PAD MIN 1000 THICK
APPROX. EXTENT OF CUT
CENTRELINE OF PROPOSED ROAD
ROAD STRUCTURE MIN 400 THICK
TIE TO EXISTING GROUND
EXISTING GROUND
PROPERTY LINE
BEAR ROCK DRIVE
SECTION B-B VIEW H: 1:250 V: 1:250
PROPOSED GROUND
TIE TO EXISTING GROUND
2:1 (TYP) 0.6% 0.8% 2:1 (TYP)
MAIN FLOOR ELEV = 65.51
EXISTING GROUND
TIE TO EXISTING GROUND

3rd page
Bottom Right-Hand Corner Title Block (below ISL trademark) :
DRAWING SHEET ID.: C-03
ENG DWG NO.: 3
FILE NO.: 70011_Tulita_Grading_Plan_99%_230524.dwg

SHEET TITLE: PROPOSED GRADING PLAN SECTION C-C, SECTION D-D & CL ROAD PROFILE
PROJECT: TULITA OFFICE AND STAFF HOUSING
SW NORTHWEST TERRITORIES FIELD UNIT
LOTS 9-1 TO 9-3, PL 61343
CLIENT REFERENCE NO.: PO 45440990
SHEET COUNT
SHEET SIZE ANSI D 25 mm

Top Right-Hand Corner Page, then down:

NOTES :

1. ALL COORDINATES AND DISTANCES BASED ON 3TM COORDINATE SYSTEM (NAD 83).

NO.	DESCRIPTION	DATE (YYYY-MM-DD)	BY	APPD
Δ8	ISSUED FOR ADDENDUM 1	2023-09-29	JW	GD
7	ISSUED FOR TENDER	2023-05-26	JW	GD
6	ISSUED FOR ACCESSIBLE PATHWAY REVIEW	2023-05-24	JW	GD
5	ISSUED FOR 99% DESIGN REVIEW	2023-03-31	JW	TH
4	ISSUED FOR 66% DESIGN REVIEW	2023-01-27	JW	GD
3	ISSUED FOR 33% R1	2022-07-18	JW	GD
2	ISSUED FOR 33% DESIGN REVIEW	2021-12-15	JW	GD
1	ISSUED FOR DEVELOPMENT PERMIT	2021-12-10	JW	GD

PERMIT SEAL

	BY	DATE (YYYY-MM-DD)
DESIGNED	JW	2021-12-10
DRAWN	PH	2021-12-10
CHECKED	GD	2021-12-10

SCALE

Main Drawing (Left of Page), top to bottom, left to right :
SECTION C-C VIEW H: 1:250 V: 1:250
BEAR ROCK DRIVE
EXISTING GROUND
TIE TO EXISTING GROUND
PROPERTY LINE
CENTRELINE OF PROPOSED ROAD
ROAD STRUCTURE MIN 400 THICK
PROPOSED GROUND
MAIN FLOOR ELEV = 65.95
2:1 (TYP) 6.5% 2:1 (TYP)
TIE TO EXISTING GROUND
FLOOD FRINGE
FLOOD LINE
SECTION D-D VIEW H: 1:250 V: 1:250
FLOOD LINE
FLOOD FRINGE
PROPERTY LINE
PROPOSED GROUND
2:1 (TYP) 2.2% 3.0% 2:1 (TYP)
MAIN FLOOR ELEV = 65.95
TIE TO EXISTING GROUND
EXISTING GROUND
ROADWAY CENTRELINE PROFILE
ROAD STRUCTURE MIN 400 THICK
EXISTING GROUND
PROPOSED CL ROAD GRADE
TIE TO EXISTING ROAD
BEAR ROCK DRIVE

4th page
Bottom Right-Hand Corner Title Block (below ISL trademark) :
DRAWING SHEET ID.: C-04
ENG DWG NO.: 4
FILE NO.: 70011_Tulita_Grading_Plan_99%_230524.dwg
SHEET TITLE: CUT FILL PLAN
PROJECT: TULITA OFFICE AND STAFF HOUSING
SW NORTHWEST TERRITORIES FIELD UNIT
LOTS 9-1 TO 9-3, PL 61343
CLIENT REFERENCE NO.: PO 45440990
SHEET COUNT
SHEET SIZE ANSI D 25 mm

Top Right-Hand Corner Page, then down:
LEGEND :
EXISTING PROPERTY LINE
PROPOSED OVERHEAD POWER LINE
EXISTING OVERHEAD POWER LINE
EXISTING POWER POLES
EXISTING FENCE
PROPOSED FENCE
FLOOD FRINGE / FLOOD LINE
PROPOSED PATHWAY
EXISTING BUILDING / STRUCTURES (TO REMAIN)
EXISTING TREES
AREA OF INVESTIGATION CONTAINING UNDISTURBED ARCHAEOLOGICAL RESOURCES

NOTES
1. ALL COORDINATES AND DISTANCES BASED ON 3TM COORDINATE SYSTEM (NAD 83).
1. EARTHWORK VOLUMES:
2.1. EARTHWORK VOLUMES IS COMPARISON BETWEEN STRIPPED SURFACE AND ROUGH GRADE. STRIPPED SURFACE IS 0.1m BELOW EXISTING GRADE AND ROUGH GRADE IS 0.4m BELOW FINAL ROAD GRADE AND 1m BELOW BUILDING GRAVEL PAD.
2.2. EARTHWORK VOLUMES FOR THE PROJECT AREA HAS BEEN PREPARED BY THE CONSULTANT AND HAS BEEN MADE AVAILABLE TO CONTRACTORS FOR INFORMATION PURPOSES ONLY. QUANTITIES ARE CONSIDERED APPROXIMATE ONLY AND MAY VARY DURING CONSTRUCTION DUE TO OBSERVED IN-FIELD CONDITIONS. CONTRACTOR SHOULD ALL MAKE NOTE THAT THE EARTHWORK VOLUMES DOES NOT INCLUDE FACTORS FOR SWELL OR COMPACTION, BUT ARE RATHER JUST GEOMETRIC CUT AND FILL AREAS.
2.3. IT IS RECOGNIZED THAT EARTHWORK VOLUMES WILL BE AFFECTED BY A NUMBER OF FACTORS INCLUDING SUB-CUT EXCAVATION DEPTHS, SWELL AND COMPACTION.
2.4. THE PROVISION OF EARTHWORK VOLUMES IS FOR INFORMATION ONLY AND THE CONTACTOR SHALL BID THE WORK ACCORDING TO ITS OWN HAULING AND OPERATIONAL REQUIREMENTS. NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY VARIANCE IN THE IMPORT OR EXPORT FILL.
2.5. ANY EXCESS CUT MATERIAL REMAINING ON-SITE FOLLOWING COMPLETION OF GRADING AND EXHAUSTION OF EXCESS MATERIAL LOCATIONS SHALL BECOME PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE AND CONSIDERED INCIDENTAL TO THE WORK.

Δ5	ISSUED FOR ADDENDUM 1	2023-09-29	JW	GD
4	ISSUED FOR TENDER	2023-05-26	JH	JW
3	ISSUED FOR REVIEW	2023-05-12	JH	JW
2	ISSUED FOR REVIEW	2023-04-15	JH	JW
1	ISSUED FOR REVIEW	2023-04-10	JW	GD

NO.	DESCRIPTION	DATE (YYYY-MM-DD)	BY	APPD

PERMIT

SEAL

	BY	DATE (YYYY-MM-DD)
DESIGNED	JW	2021-12-10
DRAWN	JH	2023-04-04
CHECKED	GD	2023-04-06

SCALE 1:200 0 4 8m

Main Drawing (Left of Page), top to bottom, left to right :
BEAR ROCK DRIVE
BLDG # 3
SILO
BLDG # 4
BLDG # 5
FLOOD FRINGE
FLOOD LINE
LOT 9-1 LOT 9-2 LOT 9-3

TYPICAL MECHANICAL TRENCH DETAIL BETWEEN BLDG 4 and 2
- SEAMLESS COPPER DCW/DCWR PIPE, SIZE AS INDICATED ON LAYOUTS. C/W 50MM POLYURETHANE FOAM INSULATION COVERED WITH 1.27mm HDPE JACKET
- WARNING TAPE
- COMPACTED GRAVEL FILL: 20mm MINUS GRAVEL FILL PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 150mm. FILL TO BE FREE OF ICE, ORGANIC MATERIAL, AND OTHER CONTAMINANTS.
- COMPACTED SAND FILL: 4mm MINUS SAND FILL PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 150mm, HAND PLACE BEDDING WITH 150mm OF PIPES AND INSULATION
- 50mm RIGID BOARD INSULATION
- PEX HYDRONIC PIPE, SIZE AS INDICATED ON LAYOUTS. C/W 50mm POLYURETHANE FOAM INSULATION COVERED WITH 1.27 HDPE JACKET
- NATIVE SOIL
- ℄ /CL OF PIPE

TYPICAL MECHANICAL TRENCH DETAIL BETWEEN BLDG 4 and 1
- WARNING TAPE
- COMPACTED GRAVEL FILL: 20mm MINUS GRAVEL FILL PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 150mm. FILL TO BE FREE OF ICE, ORGANIC MATERIAL, AND OTHER CONTAMINANTS.
- COMPACTED SAND FILL: 4mm MINUS SAND FILL PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 150mm, HAND PLACE BEDDING WITH 150mm OF PIPES AND INSULATION
- 50mm RIGID BOARD INSULATION
- HDPE HYDRONIC PIPE, SIZE AS INDICATED ON LAYOUTS. C/W 50mm POLYURETHANE FOAM INSULATION COVERED WITH 1.27mm HDPE JACKET
- NATIVE SOIL

- ℄ /CL OF PIPE

TYPICAL ELECTRICAL TRENCH DETAIL

- CLEAN FILL
- CONTINUOUS YELLOW HAZARD TAPE (TYPICAL)
- POWER CONDUIT / CABLE (27 Ø TYP.)
- LOW VOLTAGE CONDUIT (27 Ø TYP.)
- FINE SAND

MECHANICAL TRENCH STRUCTURE		
	BETWEEN BLDG 4 AND 2	BETWEEN BLDG 4 AND 1
GRAVEL (<20MM)	MIN. 150mm	
SAND (<4MM)	825mm	705mm

ELECTRICAL TRENCH STRUCTURE	
CLEAN FILL	MIN. 600mm
FINE SAND	230mm

DETAILS ARE NOT TO SCALE

COMBINED MECHANICAL AND ELECTRICAL TRENCH DETAIL

MAINTAIN MIN. 300MM SEP. BETWEEN POWER CONDUIT AND MECH.

- COMPACTED GRAVEL FILL: 20mm MINUS GRAVEL FILL PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 150mm. FILL TO BE FREE OF ICE, ORGANIC MATERIAL, AND OTHER CONTAMINANTS.
- COMPACTED SAND FILL: 4mm MINUS SAND FILL PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 150mm, HAND PLACE BEDDING WITH 150mm OF PIPES AND INSULATION
- SEAMLESS COPPER DCW/DCWR PIPE, SIZE AS INDICATED ON LAYOUTS. C/W 50MM POLYURETHANE FOAM INSULATION COVERED WITH 1.27mm HDPE JACKET
- 50mm RIGID BOARD INSULATION
- PEX HYDRONIC PIPE, SIZE AS INDICATED ON LAYOUTS. C/W 50mm POLYURETHANE FOAM INSULATION COVERED WITH 1.27 HDPE JACKET
- WARNING TAPE
- FINISHED GRADE
- NATIVE SOIL
- ℄ OF PIPE
- CLEAN FILL
- CONTINUOUS YELLOW HAZARD TAPE (TYPICAL)

- POWER CONDUIT / CABLE
- LOW VOLTAGE CONDUIT (27 Ø TYP.)
- FINE SAND (27 Ø TYP.)
- INSULATION

CUT / FILL SUMMARY

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
Stripped Surface vs Rough Grade	1.000	1.000	3326.23 sq.m	304.14 Cu.M	727.55 Cu.M	423.40 Cu.M. <Fill>
Totals			3326.23 sq.m	304.14 Cu. M	727.55 Cu.M	423.40 Cu.M. <Fill>

MECHANICAL AND ELECTRICAL TRENCH CROSSING DETAIL
MAINTAIN MIN. 300MM SEP. BETWEEN BOTTOM OF MECH. INSULATION AND POWER CONDUIT
- WARNING TAPE
- COMPACTED GRAVEL FILL: 20mm MINUS GRAVEL FILL PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 150mm. FILL TO BE FREE OF ICE, ORGANIC MATERIAL, AND OTHER CONTAMINANTS.
- COMPACTED SAND FILL: 4mm MINUS SAND FILL PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 150mm, HAND PLACE BEDDING WITH 150mm OF PIPES AND INSULATION
- 50mm RIGID BOARD INSULATION
- PEX HYDRONIC PIPE, SIZE AS INDICATED ON LAYOUTS. C/W 50mm POLYURETHANE FOAM INSULATION COVERED WITH 1.27 HDPE JACKET
- CLEAN FILL
- CONTINUOUS YELLOW HAZARD TAPE (TYPICAL)
- POWER CONDUIT/CABLE OF LOW VOLTAGE CONDUIT (27 Ø TYP.)
- FINE SAND

ELEVATIONS TABLE					
NUMBER	MINIMUM	MAXIMUM	AREA	EXCAVATION VOLUME	COLOUR
1	-1.479	-1.200	5.96	0.41	Refer to Drawing C-04
2	-1.200	-0.900	31.05	5.75	
3	-0.900	-0.600	64.01	18.44	
4	-0.600	-0.300	243.97	55.38	
5	-0.300	0.000	877.16	224.16	
6	0.000	0.300	1224.52	442.45	
7	0.300	0.600	550.07	165.84	
8	0.600	0.900	186.81	65.10	
9	0.900	1.200	74.28	31.06	
10	1.200	1.500	30.95	15.63	
11	1.500	1.800	28.25	6.86	
12	1.800	1.999	9.19	0.60	