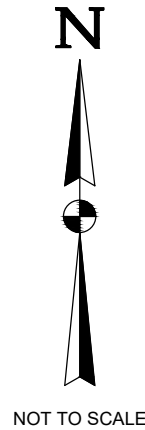



PROPOSED STOCK PILE YARD
PHASE 1
SITE: MYRA FALLS MINE
(49° 34' 31" N , 125° 36' 24" W)



DWG No: 635-8-STOCKPILEPH1GA-001	SHEET: 1 OF 11	DESIGN BY: MIKE PAQUIN, EIT DESIGN DATE: AUGUST 2, 2017 REVIEWED BY: JEREMY ARAKI, P.ENG DRAWN BY: TODD FORBES SITE VISIT: MIKE PAQUIN, EIT SITE VISIT DATES: MAY 11, 2017 FILE NAME: STOCKPILEPH1GA.DWG SCALE: AS NOTED REVISION NUMBER: 3 REVISION DATE: OCTOBER 23, 2017 ALL MEASUREMENTS IN m UNLESS OTHERWISE NOTED.	DRAWING INDEX: SHEET 2 OF 10 - NOTES SHEET 3 OF 10 - PLAN VIEW 1:1000 SHEET 4 OF 10 - PLAN VIEW 1:1000 WITH SECTION REFERENCE SHEET 5 OF 10 - PLAN VIEW 1:500 SHEET 6 OF 10 - FUEL STORAGE PAD PLAN VIEW SHEET 7 OF 10 - SECTIONS G AND H	SHEET 8 OF 10 - S/W FILL RETAINING WALL VIEWS, SECTIONS A AND B SHEET 9 OF 10 - SECTIONS C, D, AND E SHEET 10 OF 10 - SECTION F AND DETAILS 1, 2, 3 AND 4 SHEET 11 OF 11 - CONCRETE BLOCK (INTERLOCKING) WALL LAYDOWN PATTERN
PREPARED FOR: 	PREPARED BY: ONSITE ENGINEERING LTD. COASTAL OPERATIONS 1040 CEDAR STREET CAMPBELL RIVER, BC, V9W 7E2 PH.: 250-287-9174 FAX: 866-235-6943			

NOTES:

1. REFERENCED CODES

- 1.1. BC BUILDING CODE 2012
- 1.2. HEALTH SAFETY AND RECLAMATION CODE FOR MINES IN BRITISH COLUMBIA, 2017
- 1.3. BRITISH COLUMBIA MINES ACT, 1996

2. STRUCTURE:

- 2.1. CONCRETE BLOCKS TO BE NO.1 GRADE STANDARD SIZED BLOCKS AS INDICATED IN DRAWING DETAILS.
- 2.2. ALL STEEL TO BE CSA G40.21 350A STEEL UNLESS OTHERWISE NOTED.
- 2.3. ALL GALVANIZED COMPONENTS TO ADHERE TO ASTM A123.

3. GEOTECHNICAL:

- 3.1. FOUNDATION DESIGN REFERENCES THE CANADIAN FOUNDATION ENGINEERING MANUAL. SUBSURFACE INFORMATION HAS BEEN GATHERED FROM SITE OBSERVATIONS OF SOIL EXPOSURES IN EXPOSED CUTS AND MACHINE DUG TEST PITS. FIELD CONDITIONS MAY VARY FROM THOSE ENCOUNTERED. IF, UPON EXCAVATION, FIELD CONDITIONS VARY FROM THOSE ENCOUNTERED, THEN CHANGES TO THE FOUNDATION DESIGN OR INSTALLATION MAY BE REQUIRED.
- 3.2. SEE THE GEOTECHNICAL REPORT PREPARED BY ONSITE ENGINEERING LTD (OEL) FOR, COMPLETED OCTOBER 2017. THE REPORT PREPARED BY OEL DETAILS COMPACTION REQUIREMENTS FOR TYPICAL EQUIPMENT SIZES AND MATERIAL TYPES, MAXIMUM SUBGRADE ELEVATION TOLERANCES, AND ACCEPTABLE MATERIAL GRADATIONS.

4. FIELD REVIEWS:


- 4.1. A PROFESSIONAL ENGINEER OR THEIR DESIGNATE IS REQUIRED TO INSPECT THE FOLLOWING ACTIVITIES AND/OR CONSTRUCTION ELEMENTS PRIOR TO PROVIDING RECORD DRAWINGS:
 - FOUNDATION SUBGRADE SOILS FOLLOWING EXCAVATION
 - PREPARED SUBGRADE IMMEDIATELY PRIOR TO PLACING THE HDPE LINER AND ASSOCIATED GEOTEXTILE
 - LAYOUT AND PLACEMENT OF GEOGRID PRIOR TO BACK FILL
 - OTHER SITE INSPECTIONS AT THE DISCRETION OF THE PROFESSIONAL

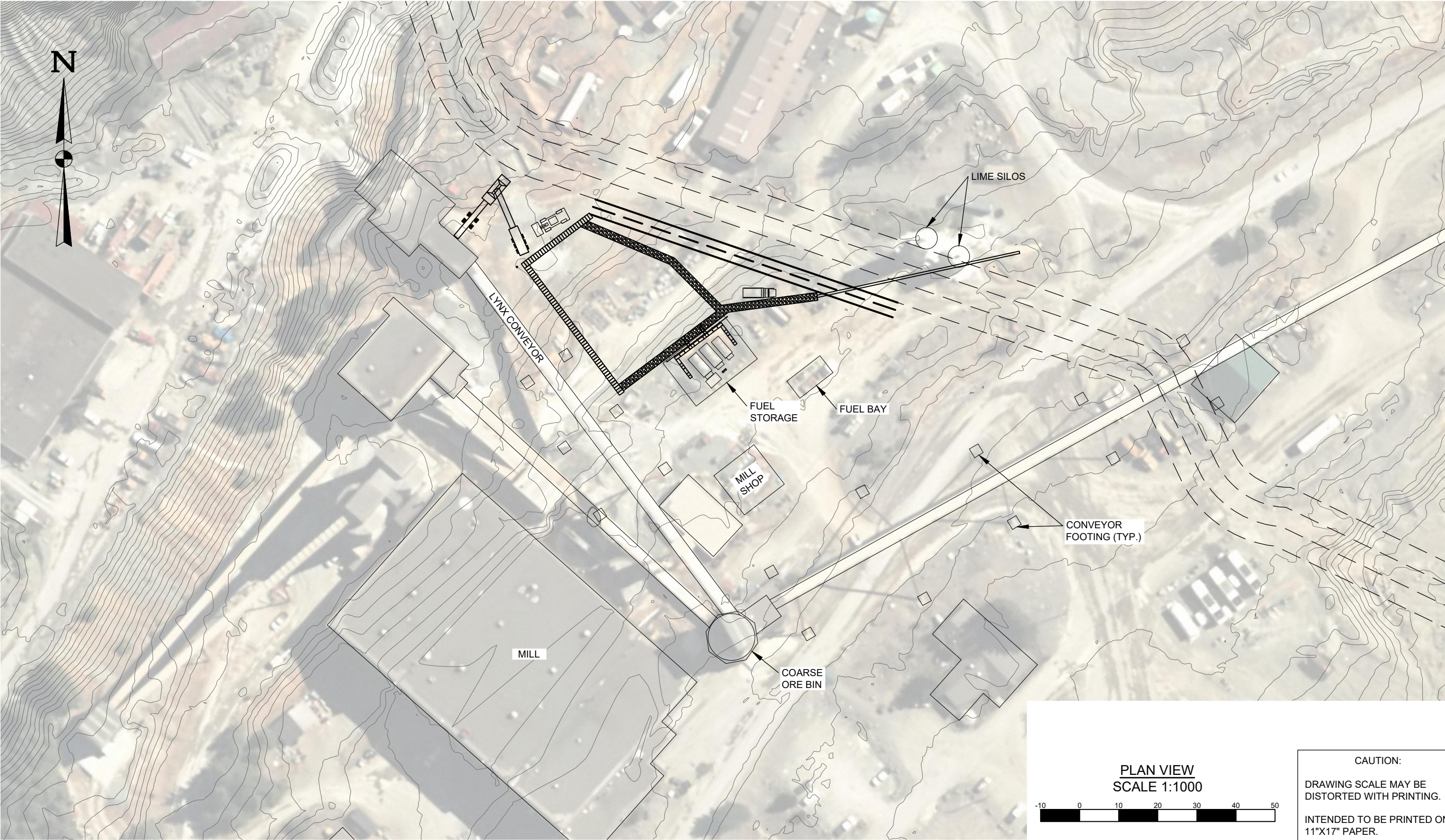
5. INSTALLATION NOTES:

- 5.1. NOTE THAT WHERE EXCAVATION SPECIFICATIONS ON THESE DRAWINGS CONFLICT WITH WORKSAFEBC REGULATIONS, WORKSAFEBC REGULATIONS ARE TO GOVERN.
- 5.2. CONTRACTOR MUST NOT DISTURB THE LYNX CONVEYOR FOOTINGS OR BEARING SOILS.
- 5.3. CONTRACTOR MUST NOT DISTURB FUEL TANK FOUNDATION SOILS TO PREVENT DIFFERENTIAL SETTLEMENT OF THE FUEL TANKS.
- 5.4. CONTRACTOR TO FIELD FIT CULVERT AROUND LIME SILOS TO PREVENT SILO FOUNDATION DISTURBANCE WHILE MAINTAINING MINIMUM SPECIFIED GRADE. DO NOT EXCEED MANUFACTURES BEND RADIUS SPECIFICATIONS DURING FIELD FIT ACTIVITIES. CULVERT MUST DISCHARGE INTO PRE-EXISTING CONTACT WATER DITCH.
- 5.5. RAIN GUN INSTALLATION TO BE FIELD FIT ONCE THE CONTRACTOR CONFIRMS THE LOCATION OF A SUITABLE TIE IN LOCATION AFTER INITIAL EXCAVATION HAS TAKEN PLACE.
- 5.6. THE CONSTRUCTION SITE IS AN HISTORIC MILL SITE AND DOCUMENTATION OF PRE-EXISITNG UTILITIES AND STRUCTURES IS LIMITED. CONTRACTOR TO EXPECT UNIDENTIFIED UTILITIES DURING EXCAVATION.

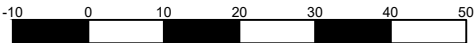
6. DATA COLLECTION METHODOLOGY

THE DESIGN IS BASED ON FIELD INSPECTIONS AND A REVIEW BY AN OEL AND NYRSTAR REPRESENTATIVE COMBINED WITH LIDAR AND ORTHOGRAPHIC DATA PROVIDED BY NYRSTAR IN JUNE 2017. NO INDEPENDENT SURVEY BY OEL WAS COMPLETED FOR THIS WORK SITE.

DWG No: 635-8-STOCKPILEPH1GA-002		SHEET: 2 OF 11	DESIGN BY: MIKE PAQUIN, EIT DESIGN DATE: AUGUST 2, 2017 REVIEWED BY: JEREMY ARAKI, P.ENG DRAWN BY: TODD FORBES SITE VISIT: MIKE PAQUIN, EIT SITE VISIT DATES: MAY 11, 2017 FILE NAME: STOCKPILEPH1GA.DWG SCALE: AS NOTED REVISION NUMBER: 3 REVISION DATE: OCTOBER 23, 2017 ALL MEASUREMENTS IN m UNLESS OTHERWISE NOTED.	PROPOSED STOCK PILE YARD PHASE 1 SITE: MYRA FALLS MINE (49° 34' 31" N , 125° 36' 24" W)	SEAL OF B.C. P.ENG.
PREPARED FOR: 	PREPARED BY: ONSITE ENGINEERING LTD. COASTAL OPERATIONS 1040 CEDAR STREET CAMPBELL RIVER, BC, V9W 7E2 PH.: 250-287-9174 FAX: 866-235-6943				



PLAN VIEW
SCALE 1:1000



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INTENDED TO BE PRINTED ON
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PROPOSED STOCK PILE YARD
PHASE 1
SITE: MYRA FALLS MINE
(49° 34' 31" N , 125° 36' 24" W)

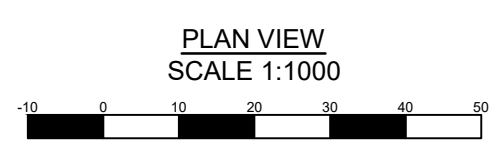
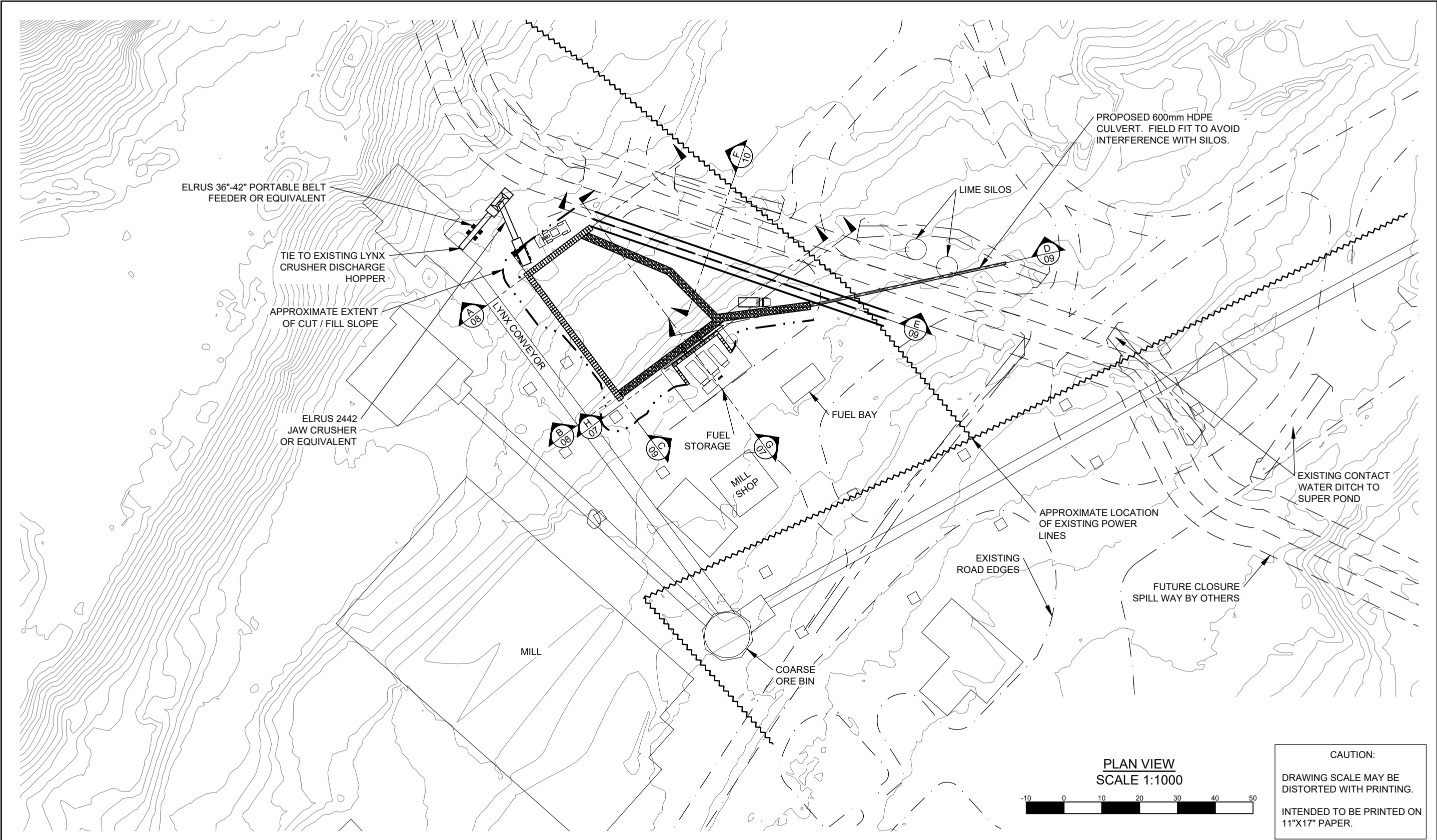
DWG No:
635-8-STOCKPILEPH1GA-003

SHEET: 3 OF 11

DESIGN BY: MIKE PAQUIN, EIT
DESIGN DATE: AUGUST 2, 2017
REVIEWED BY: JEREMY ARAKI, P.ENG
DRAWN BY: TODD FORBES
SITE VISIT: MIKE PAQUIN, EIT
SITE VISIT DATES: MAY 11, 2017
FILE NAME: STOCKPILEPH1GA.DWG
SCALE: AS NOTED
REVISION NUMBER: 3
REVISION DATE: OCTOBER 23, 2017
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FUTURE SPILL WAY

SEAL OF B.C. P.ENG.



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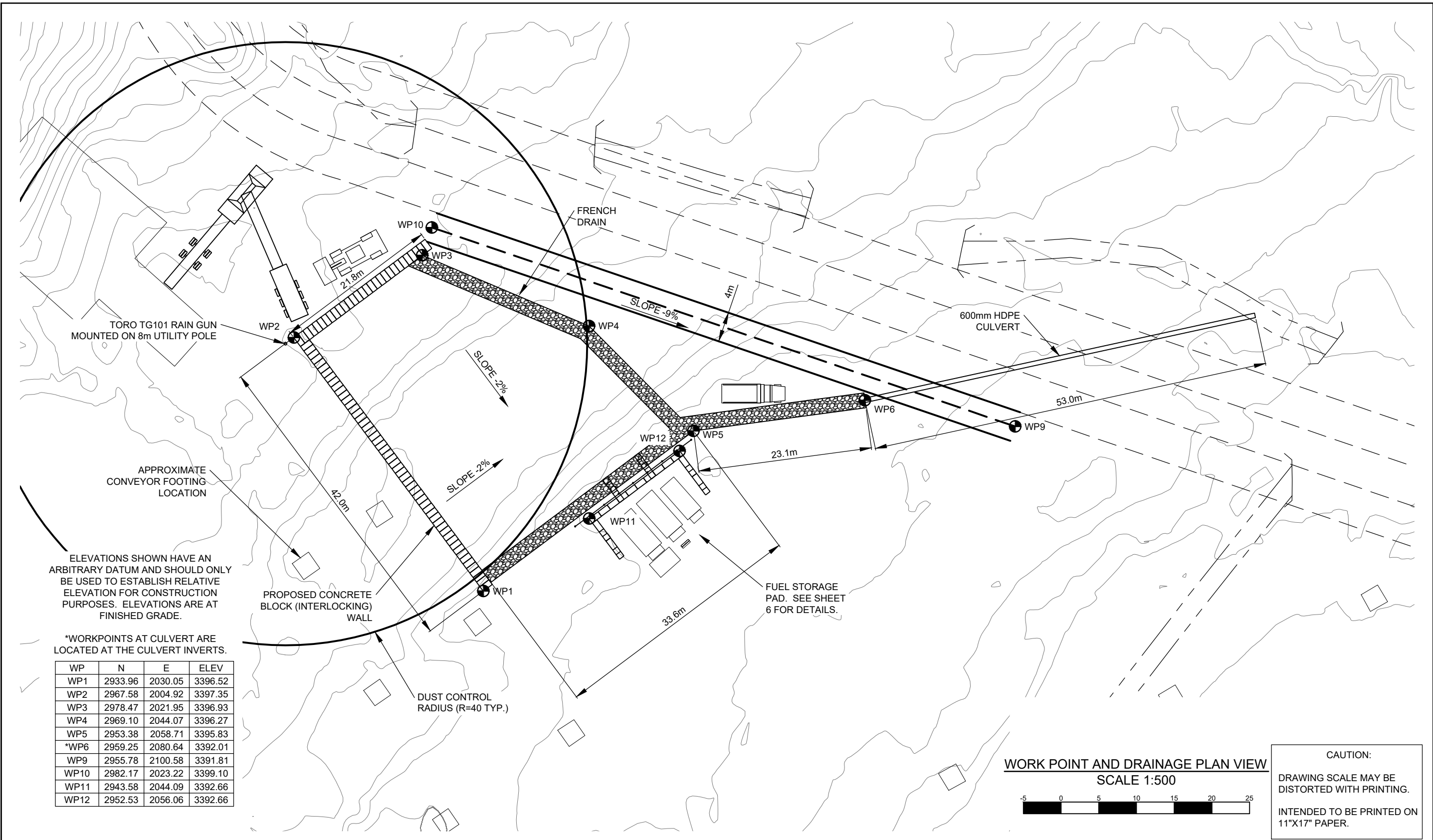
DWG No:
635-8-STOCKPILEPH1GA-004

SHEET: 4 OF 11

DESIGN BY: MIKE PAQUIN, EIT
DESIGN DATE: AUGUST 2, 2017
REVIEWED BY: JEREMY ARAKI, P.ENG
DRAWN BY: TODD FORBES
SITE VISIT: MIKE PAQUIN, EIT
SITE VISIT DATES: MAY 11, 2017
FILE NAME: STOCKPILEPH1GA.DWG
SCALE: AS NOTED
REVISION NUMBER: 3
REVISION DATE: OCTOBER 23, 2017
ALL MEASUREMENTS IN m UNLESS OTHERWISE NOTED.

EXISTING ROAD EDGES - - - - -
EXISTING DITCH - - - - -
FUTURE SPILL WAY - - - - -
APPROXIMATE EXTENT OF
CUT/FILL SLOPE - . . -

SEAL OF B.C. P.ENG.

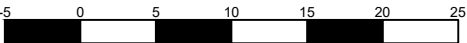


ELEVATIONS SHOWN HAVE AN ARBITRARY DATUM AND SHOULD ONLY BE USED TO ESTABLISH RELATIVE ELEVATION FOR CONSTRUCTION PURPOSES. ELEVATIONS ARE AT FINISHED GRADE.

*WORKPOINTS AT CULVERT ARE LOCATED AT THE CULVERT INVERTS.

WP	N	E	ELEV
WP1	2933.96	2030.05	3396.52
WP2	2967.58	2004.92	3397.35
WP3	2978.47	2021.95	3396.93
WP4	2969.10	2044.07	3396.27
WP5	2953.38	2058.71	3395.83
*WP6	2959.25	2080.64	3392.01
WP9	2955.78	2100.58	3391.81
WP10	2982.17	2023.22	3399.10
WP11	2943.58	2044.09	3392.66
WP12	2952.53	2056.06	3392.66

WORK POINT AND DRAINAGE PLAN VIEW
SCALE 1:500



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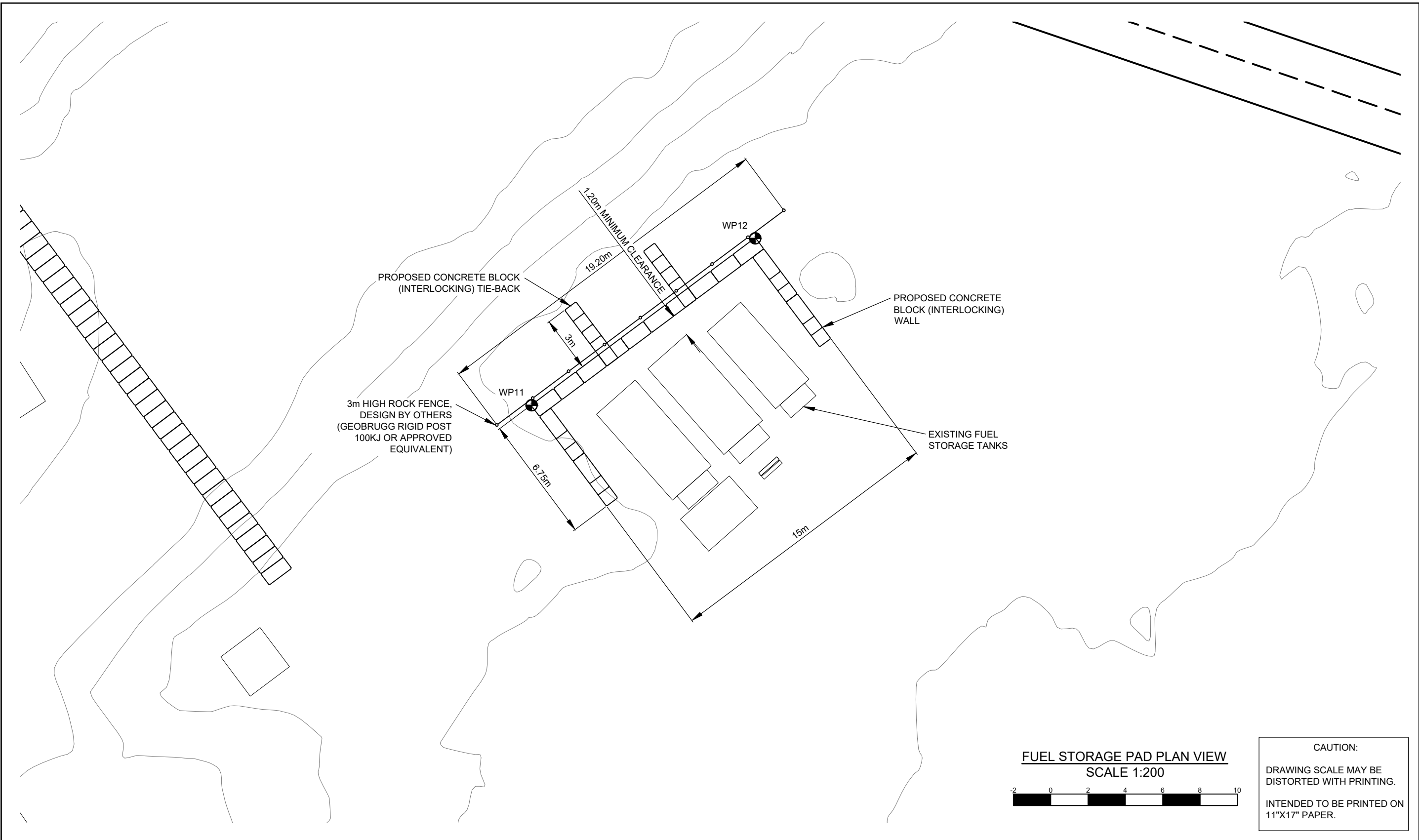
DWG No:
635-8-STOCKPILEPH1GA-005

SHEET: 5 OF 11

DESIGN BY: MIKE PAQUIN, EIT
DESIGN DATE: AUGUST 2, 2017
REVIEWED BY: JEREMY ARAKI, P.ENG
DRAWN BY: TODD FORBES
SITE VISIT: MIKE PAQUIN, EIT
SITE VISIT DATES: MAY 11, 2017
FILE NAME: STOCKPILEPH1GA.DWG
SCALE: AS NOTED
REVISION NUMBER: 3
REVISION DATE: OCTOBER 23, 2017
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FUTURE SPILL WAY
EXISTING DITCH

SEAL OF B.C. P.ENG.



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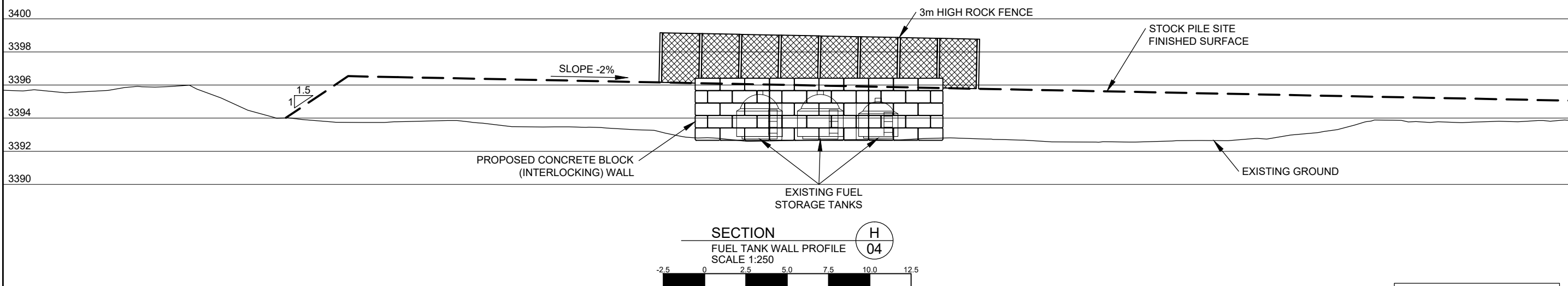
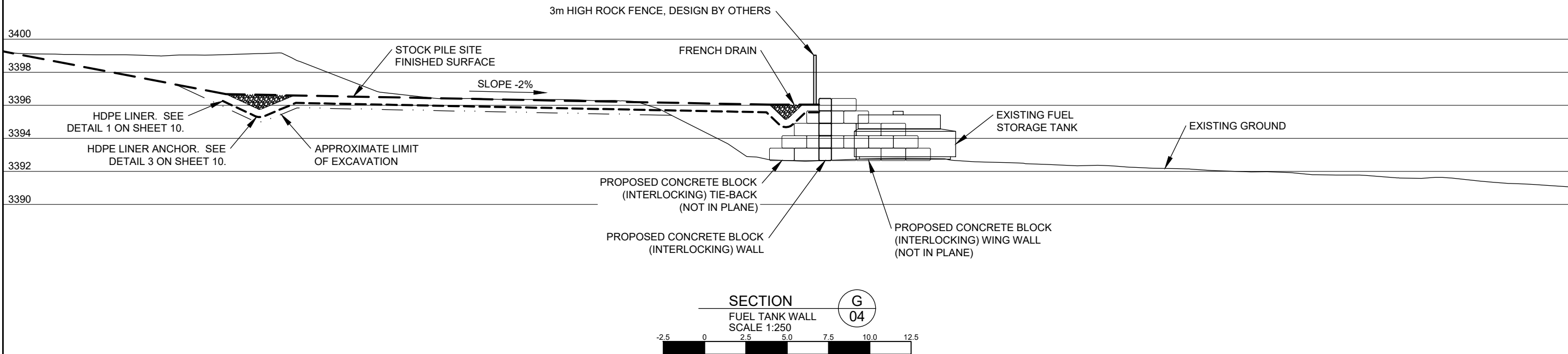
PROPOSED STOCK PILE YARD
PHASE 1
SITE: MYRA FALLS MINE
(49° 34' 31" N , 125° 36' 24" W)

DWG No:
635-8-STOCKPILEPH1GA-006

SHEET: 6 OF 11

DESIGN BY: MIKE PAQUIN, EIT
DESIGN DATE: AUGUST 2, 2017
REVIEWED BY: JEREMY ARAKI, P.ENG
DRAWN BY: TODD FORBES
SITE VISIT: MIKE PAQUIN, EIT
SITE VISIT DATES: MAY 11, 2017
FILE NAME: STOCKPILEPH1GA.DWG
SCALE: AS NOTED
REVISION NUMBER: 3
REVISION DATE: OCTOBER 23, 2017
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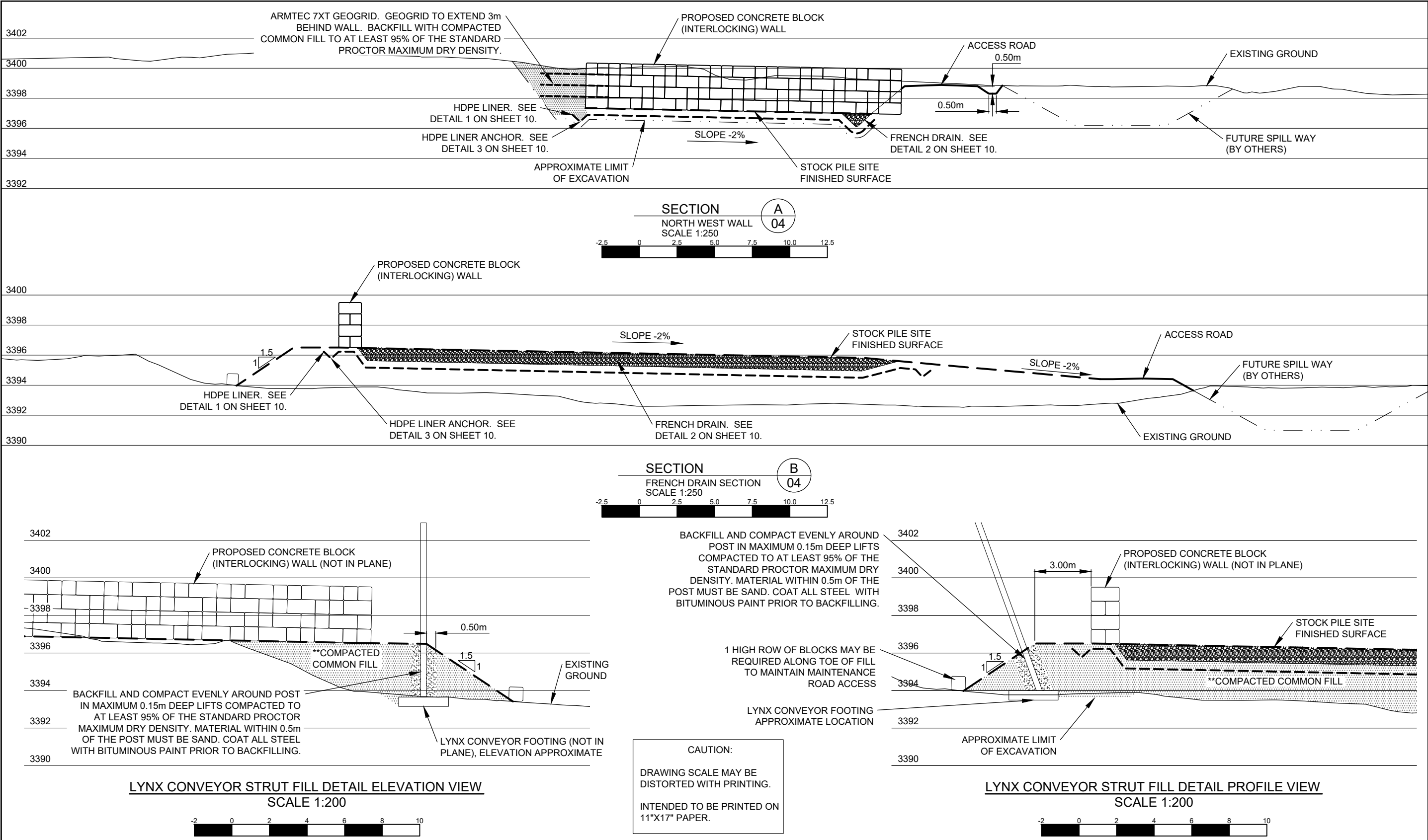
DWG No:
635-8-STOCKPILEPH1GA-007

SHEET: 7 OF 11

DESIGN BY: MIKE PAQUIN, EIT
DESIGN DATE: AUGUST 2, 2017
REVIEWED BY: JEREMY ARAKI, P.ENG
DRAWN BY: TODD FORBES
SITE VISIT: MIKE PAQUIN, EIT
SITE VISIT DATES: MAY 11, 2017
FILE NAME: STOCKPILEPH1GA.DWG
SCALE: AS NOTED
REVISION NUMBER: 3
REVISION DATE: OCTOBER 23, 2017
ALL MEASUREMENTS IN m UNLESS OTHERWISE NOTED.

DESIGNED FINISHED SURFACE — — — —
HDPE LINER — — — —
APPROXIMATE LIMIT OF EXCAVATION — . . — —
ARMTEC 7XT GEOGRID (OR APPROVED EQUIVALENT) — — — —

SEAL OF B.C. P.ENG.



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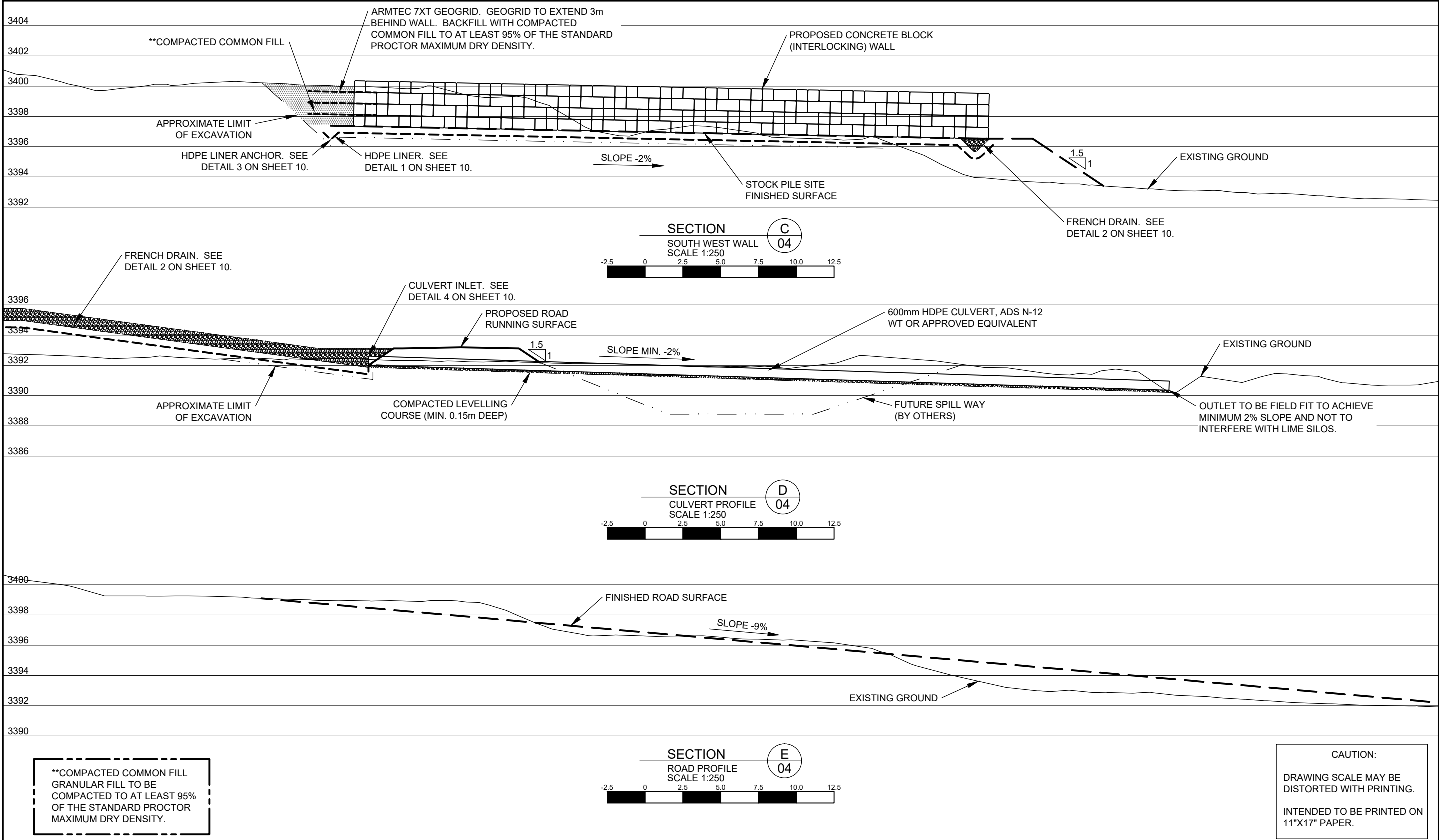
DWG No:
635-8-STOCKPILEPH1GA-008


SHEET: 8 OF 11

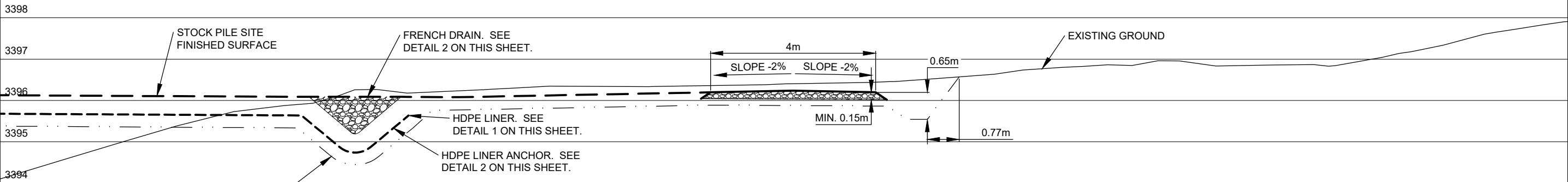
DESIGN BY: MIKE PAQUIN, EIT
DESIGN DATE: AUGUST 2, 2017
REVIEWED BY: JEREMY ARAKI, P.ENG
DRAWN BY: TODD FORBES
SITE VISIT: MIKE PAQUIN, EIT
SITE VISIT DATES: MAY 11, 2017
FILE NAME: STOCKPILEPH1GA.DWG
SCALE: AS NOTED
REVISION NUMBER: 3
REVISION DATE: OCTOBER 23, 2017
ALL MEASUREMENTS IN m UNLESS OTHERWISE NOTED.

DESIGNED FINISHED SURFACE
HDPE LINER
APPROXIMATE LIMIT OF EXCAVATION
ARMTEC 7XT GEOGRID (OR APPROVED EQUIVALENT)

SEAL OF B.C. P.ENG.

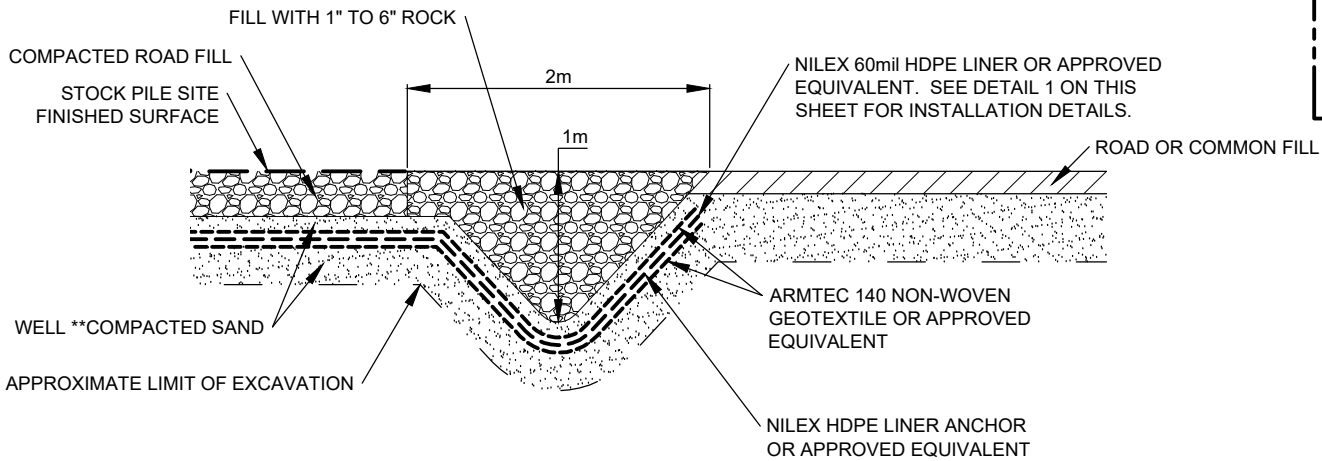


PREPARED FOR:	PREPARED BY:	PROPOSED STOCK PILE YARD PHASE 1 SITE: MYRA FALLS MINE (49° 34' 31" N , 125° 36' 24" W)		DESIGN BY: MIKE PAQUIN, EIT DESIGN DATE: AUGUST 2, 2017 REVIEWED BY: JEREMY ARAKI, P.ENG DRAWN BY: TODD FORBES SITE VISIT: MIKE PAQUIN, EIT SITE VISIT DATES: MAY 11, 2017 FILE NAME: STOCKPILEPH1GA.DWG SCALE: AS NOTED REVISION NUMBER: 3 REVISION DATE: OCTOBER 23, 2017 ALL MEASUREMENTS IN m UNLESS OTHERWISE NOTED.	DESIGNED FINISHED SURFACE HDPE LINER APPROXIMATE LIMIT OF EXCAVATION ARMTEC 7XT GEOGRID (OR APPROVED EQUIVALENT)	SEAL OF B.C. P.ENG.
	ONSITE ENGINEERING LTD. COASTAL OPERATIONS 1040 CEDAR STREET CAMPBELL RIVER, BC, V9W 7E2 PH.: 250-287-9174 FAX: 866-235-6943	DWG No: 635-8-STOCKPILEPH1GA-009	SHEET: 9 OF 11			



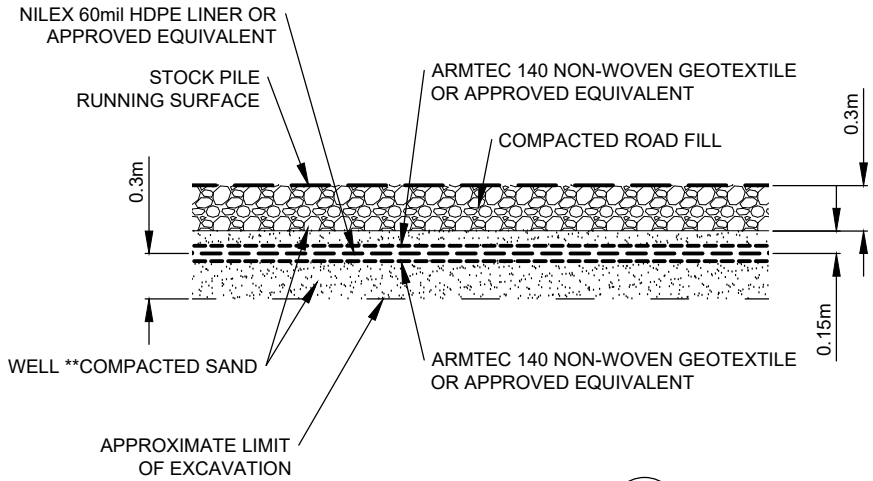
SECTION
ROAD SECTION
SCALE 1:100

F
04



90% PARENT MATERIAL
COMPACTION (TYP.).

**COMPACTED COMMON FILL
GRANULAR FILL TO BE
COMPACTED TO AT LEAST 95%
OF THE STANDARD PROCTOR
MAXIMUM DRY DENSITY.

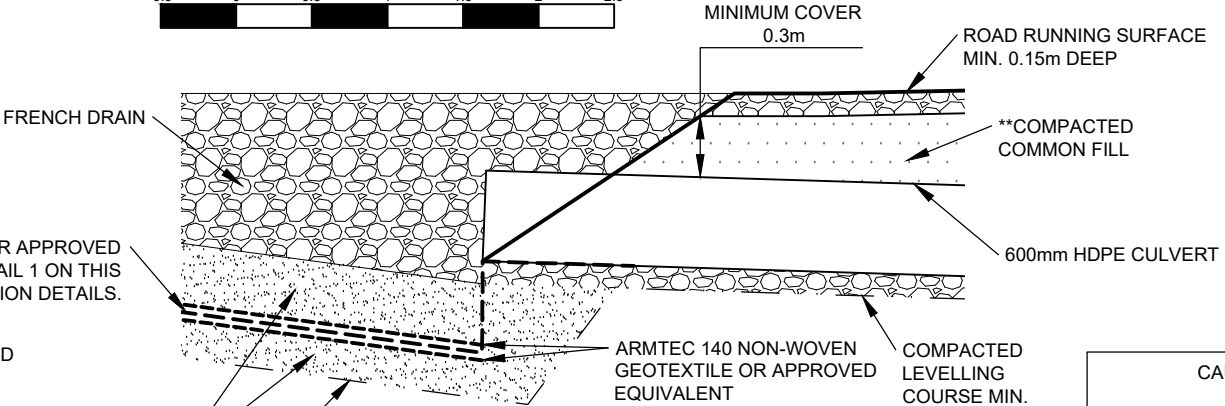


DETAIL
HDPE LINER INSTALLATION
SCALE 1:50

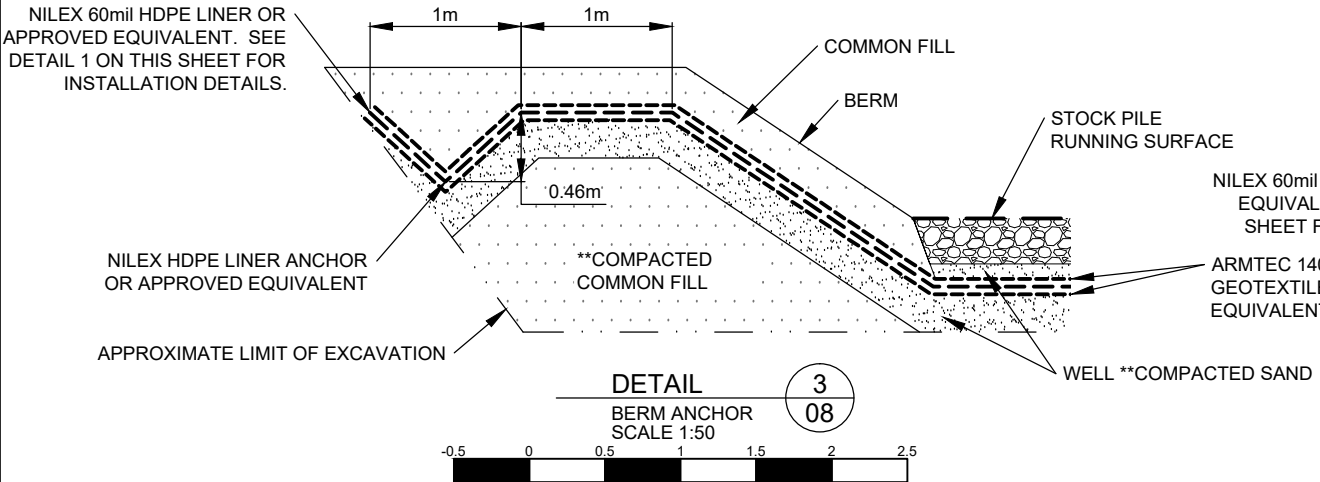
1
08

DETAIL
FRENCH DRAIN
SCALE 1:50

2
8/9



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DETAIL
BERM ANCHOR
SCALE 1:50

3
08

DETAIL
CULVERT INLET
SCALE 1:50

4
09

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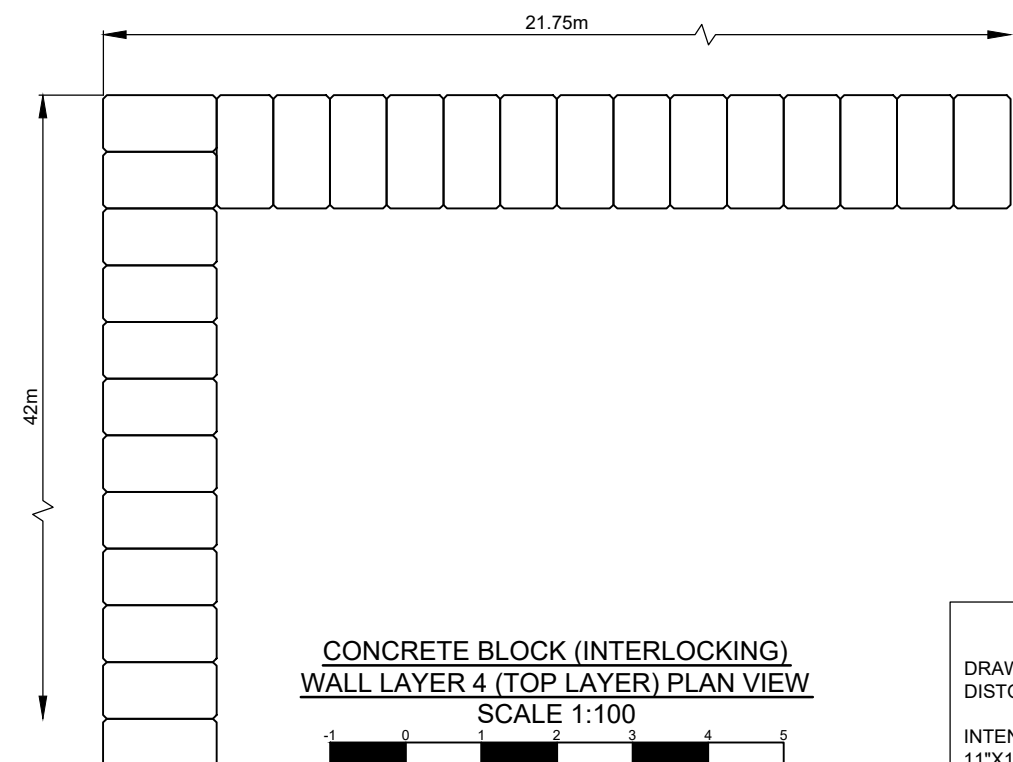
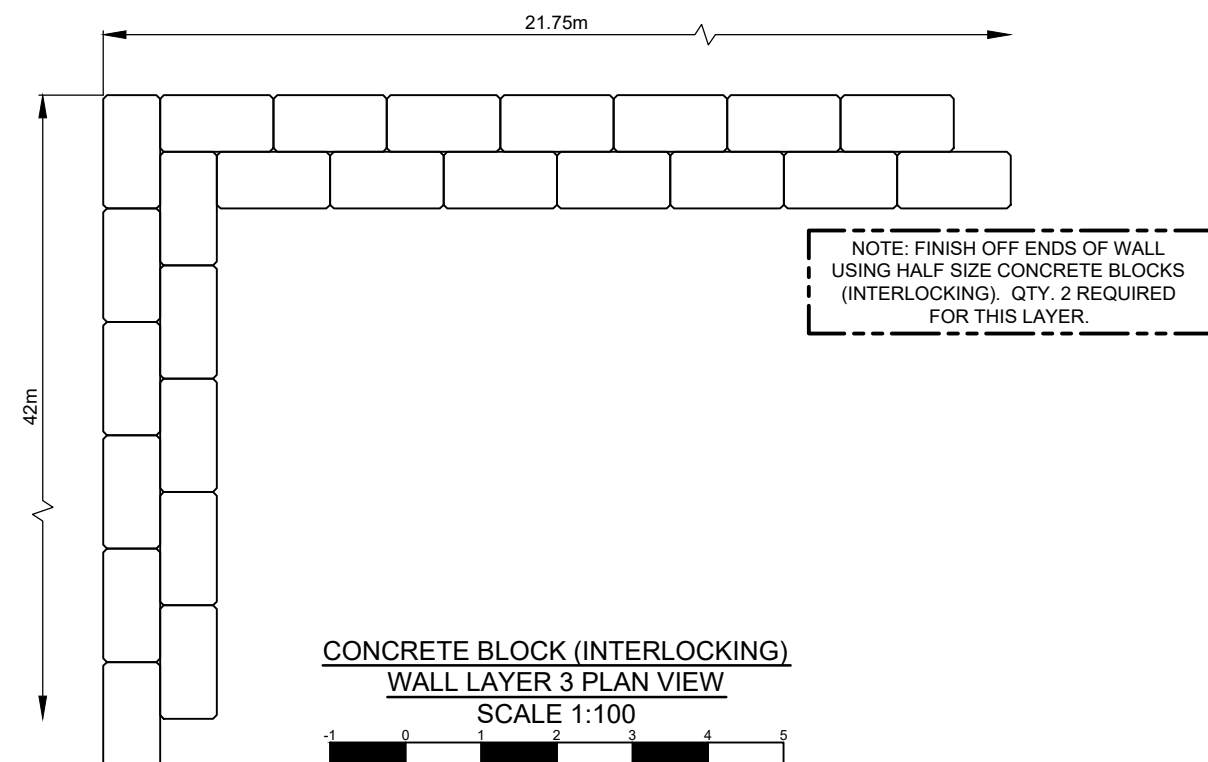
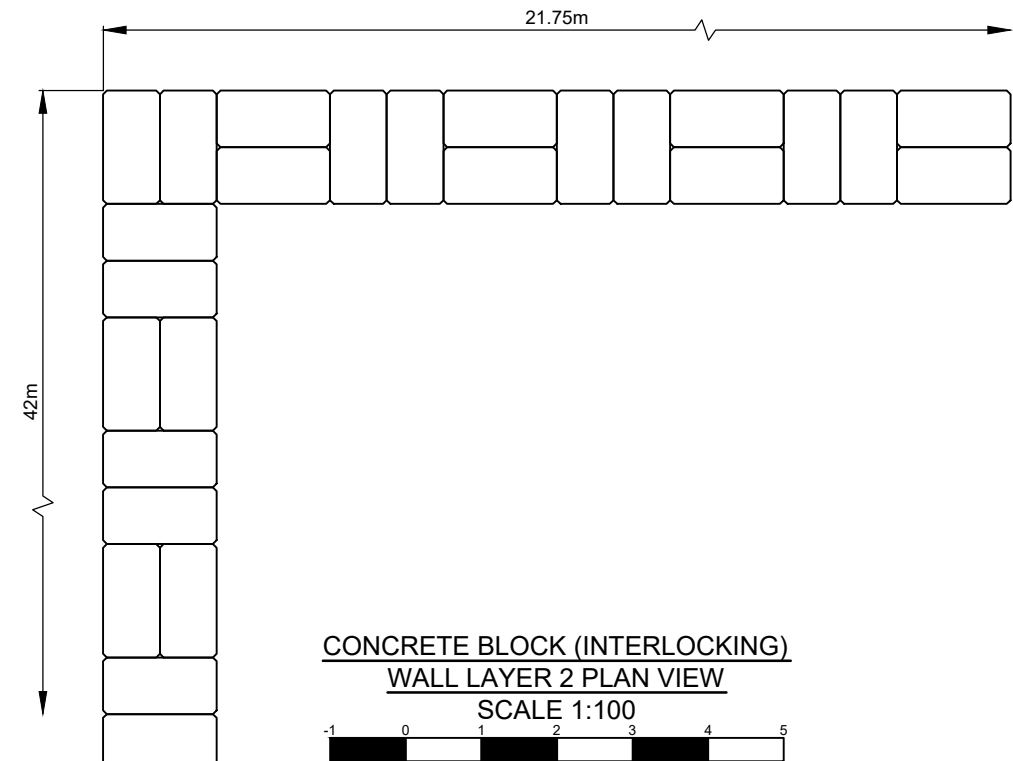
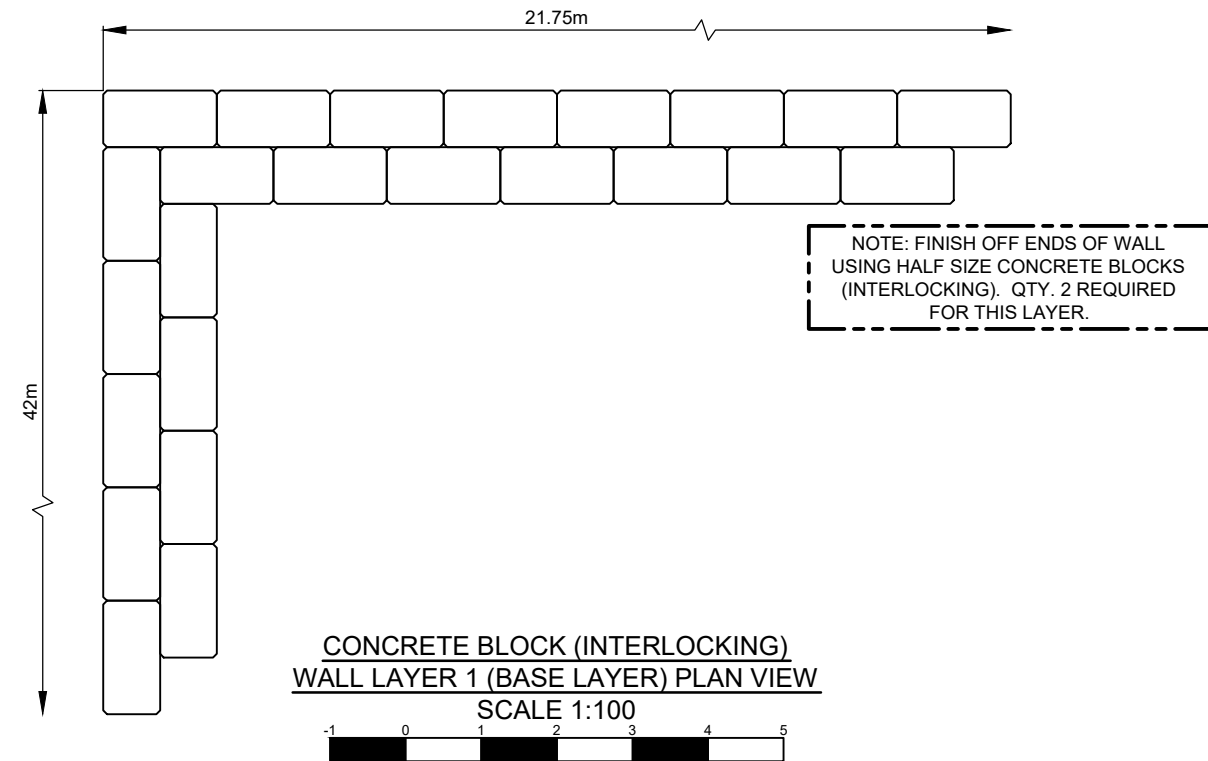
DWG No:
635-8-STOCKPILEPH1GA-010

SHEET: 10 OF 11

DESIGN BY: MIKE PAQUIN, EIT
DESIGN DATE: AUGUST 2, 2017
REVIEWED BY: JEREMY ARAKI, P.ENG
DRAWN BY: TODD FORBES
SITE VISIT: MIKE PAQUIN, EIT
SITE VISIT DATES: MAY 11, 2017
FILE NAME: STOCKPILEPH1GA.DWG
SCALE: AS NOTED
REVISION NUMBER: 3
REVISION DATE: OCTOBER 23, 2017
ALL MEASUREMENTS IN m UNLESS OTHERWISE NOTED.

DESIGNED FINISHED
SURFACE
HDPE LINER
ARMTEC 140 GEOTEXTILE
(OR APPROVED EQUIVALENT)
APPROXIMATE LIMIT OF
EXCAVATION

SEAL OF B.C. P.ENG.



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CAMPBELL RIVER, BC, V9W 7E2
PH.: 250-287-9174 FAX: 866-235-6943

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DWG No:
635-8-STOCKPILEPH1GA-011

SHEET: 11 OF 11

DESIGN BY: MIKE PAQUIN, EIT
DESIGN DATE: AUGUST 2, 2017
REVIEWED BY: JEREMY ARAKI, P.ENG
DRAWN BY: TODD FORBES
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