

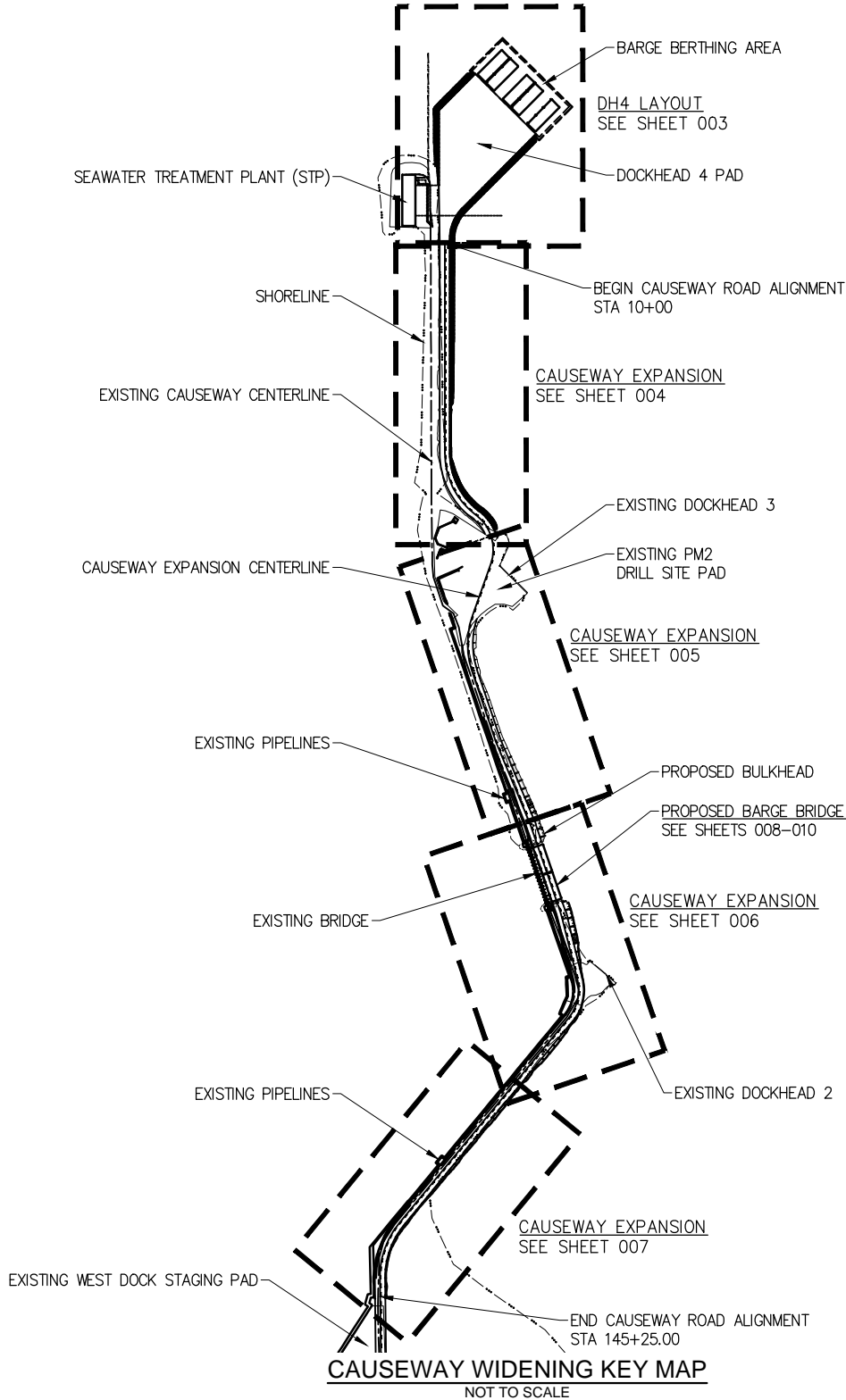
**ALASKA LNG ROUTE OVERVIEW**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 001 of 195      Date: 9/1/2018



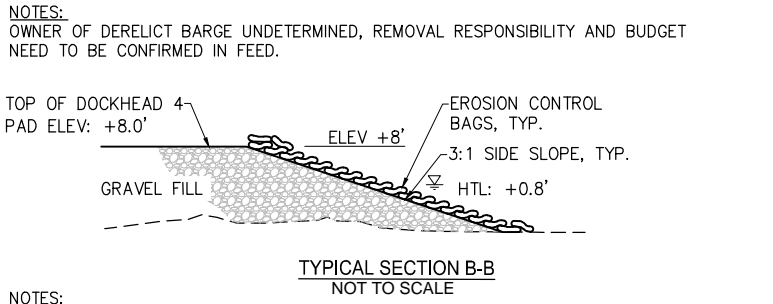
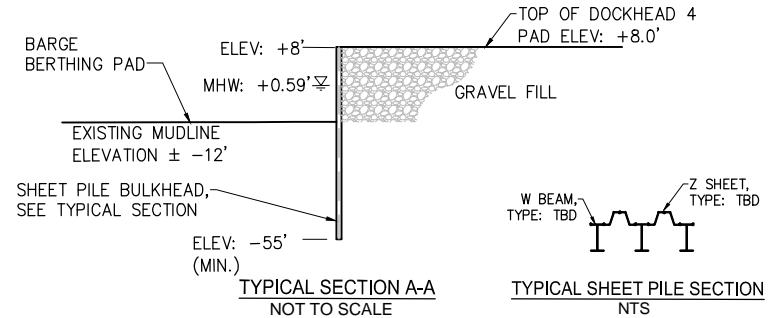
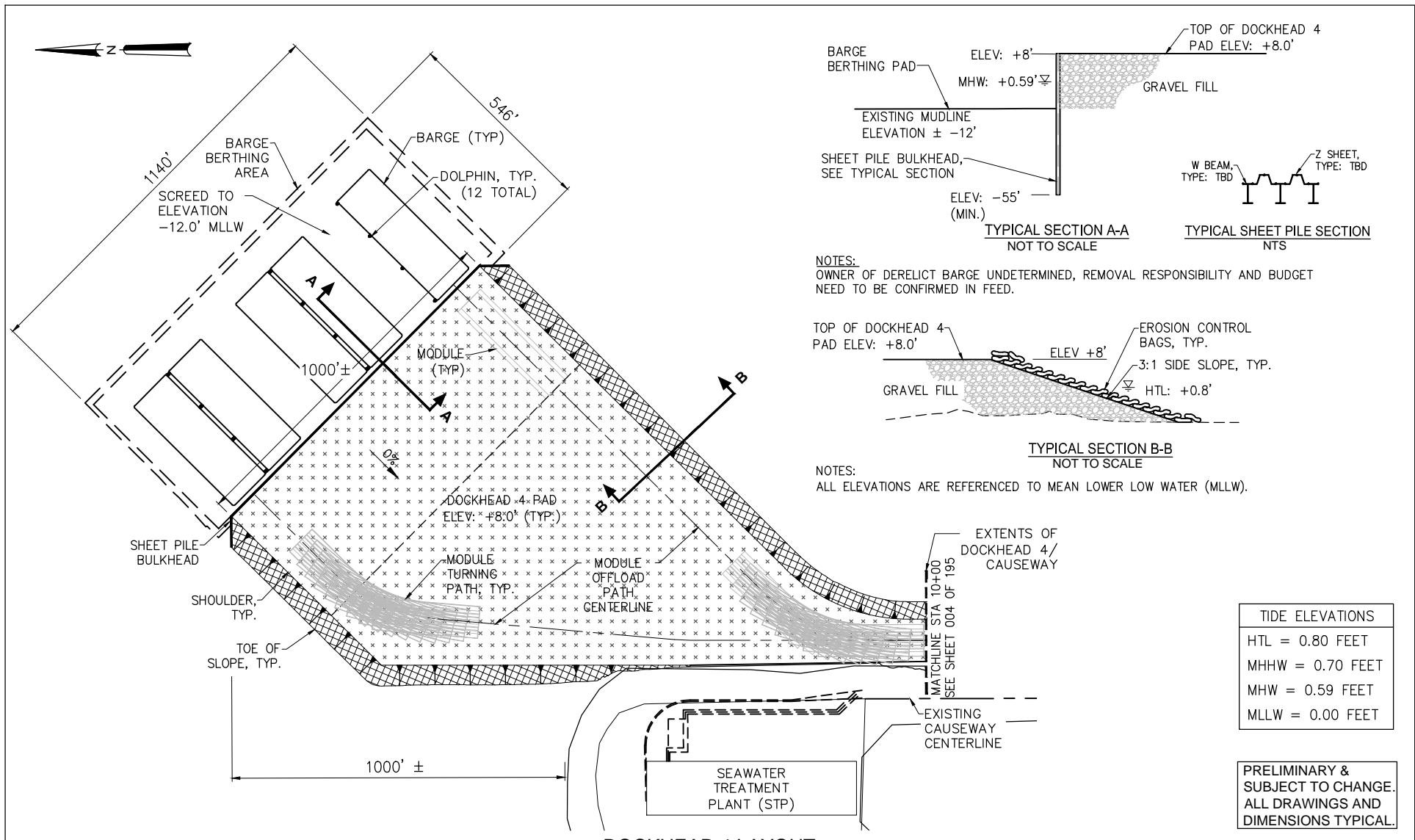
**NOTES:**

1. PRELIMINARY AND SUBJECT TO CHANGE. ALL DIMENSIONS AND DRAWINGS ARE TYPICAL.
2. SHORELINE IS DEFINED AS HIGH TIDE LINE, ELEVATION +0.8' MLLW.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

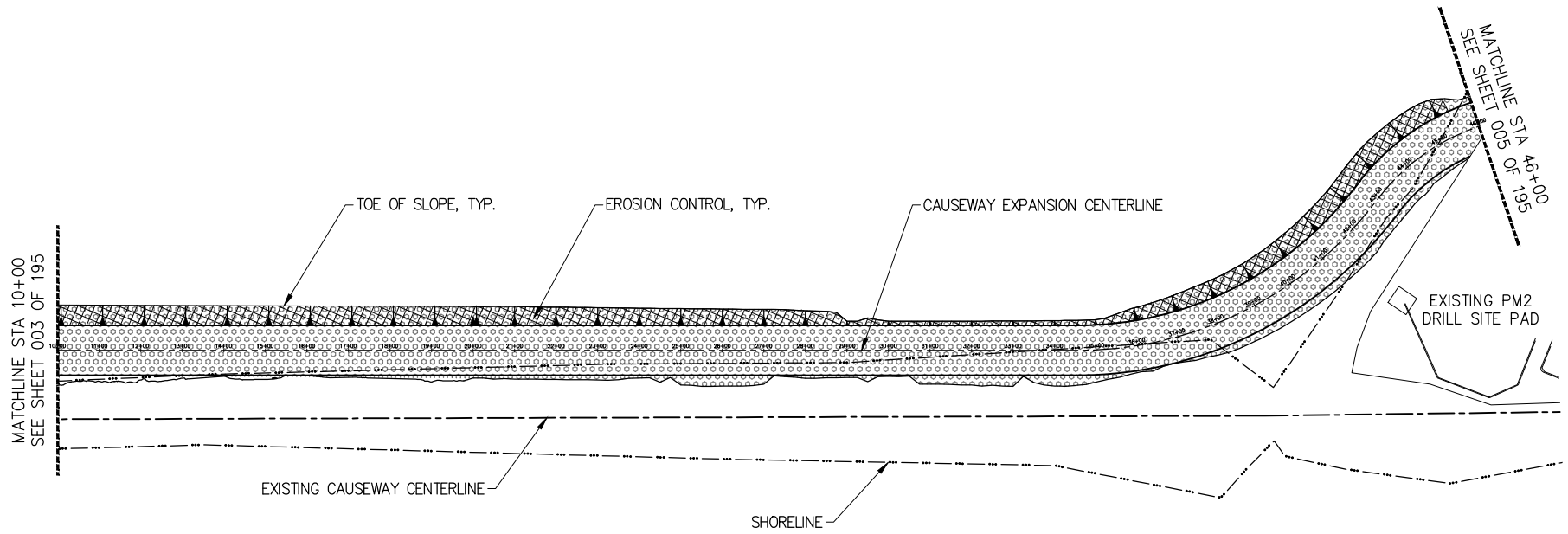
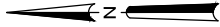
Sheet 002 of 195      Date: 9/1/2018



NOTES:  
ALL ELEVATIONS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).



NOTES:  
OWNER OF DERELICT BARGE UNDETERMINED, REMOVAL RESPONSIBILITY AND BUDGET NEED TO BE CONFIRMED IN FEED.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**CAUSEWAY ROAD ALIGNMENT 1 OF 4**  
NOT TO SCALE

**LEGEND**

-  CAUSEWAY EXPANSION
-  EROSION CONTROL (GRAVEL BAGS)

TIDE ELEVATIONS	
HTL	= 0.80 FEET
MHHW	= 0.70 FEET
MHW	= 0.59 FEET
MLLW	= 0.00 FEET

**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

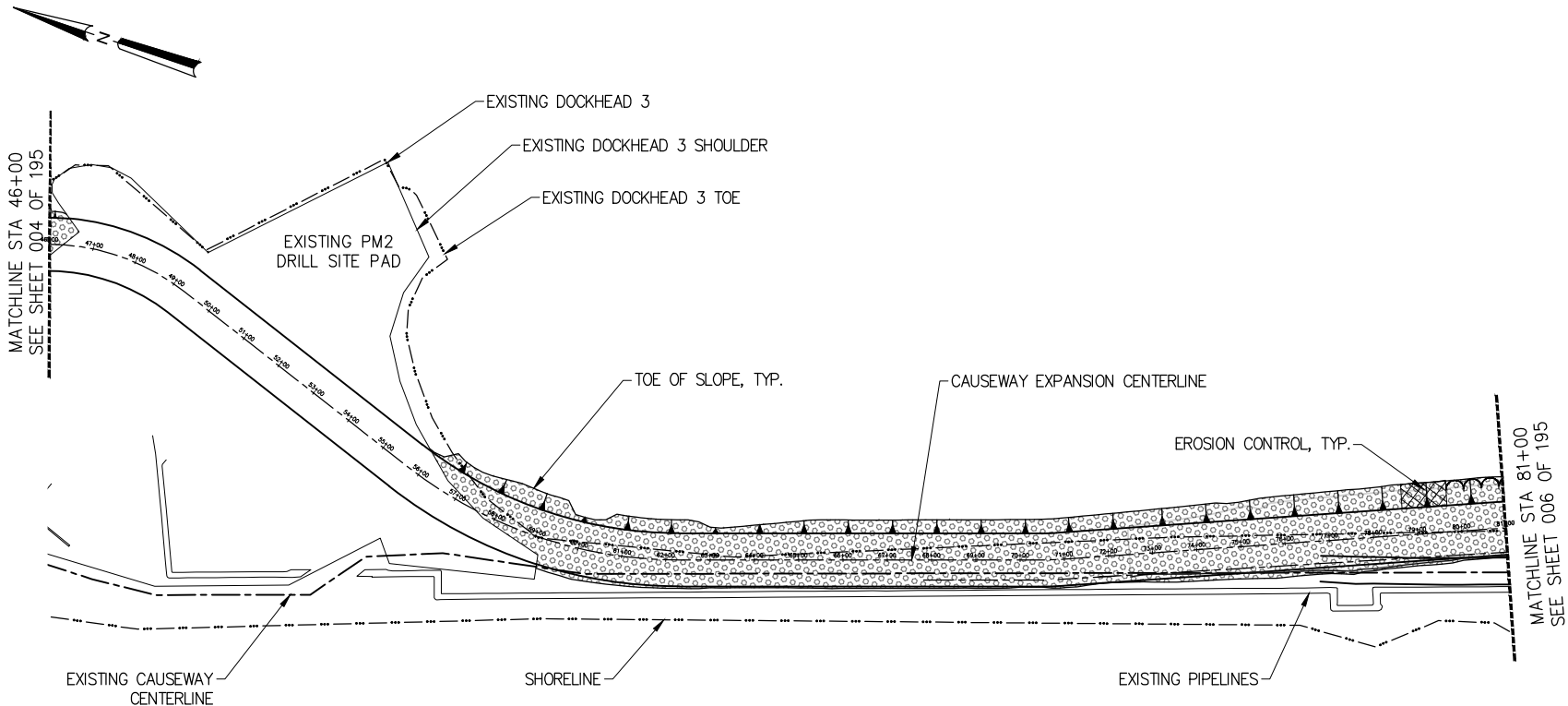
**NOTES:**

1. PRELIMINARY AND SUBJECT TO CHANGE. ALL DIMENSIONS AND DRAWINGS ARE TYPICAL.
2. TO BE CONFIRMED BY FUTURE BATHYMETRIC SURVEYS.
3. SEE SHEET 012 OF 195 FOR TYPICAL CAUSEWAY SECTION.
4. SHORELINE IS DEFINED AS HIGH TIDE LINE, ELEVATION +0.8' MLLW.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



Sheet 004 of 195      Date: 9/1/2018





**CAUSEWAY ROAD ALIGNMENT 2 OF 4**  
NOT TO SCALE

**LEGEND**

-  CAUSEWAY EXPANSION
-  EROSION CONTROL (GRAVEL BAGS)

TIDE ELEVATIONS	
HTL	= 0.80 FEET
MHHW	= 0.70 FEET
MHW	= 0.59 FEET
MLLW	= 0.00 FEET

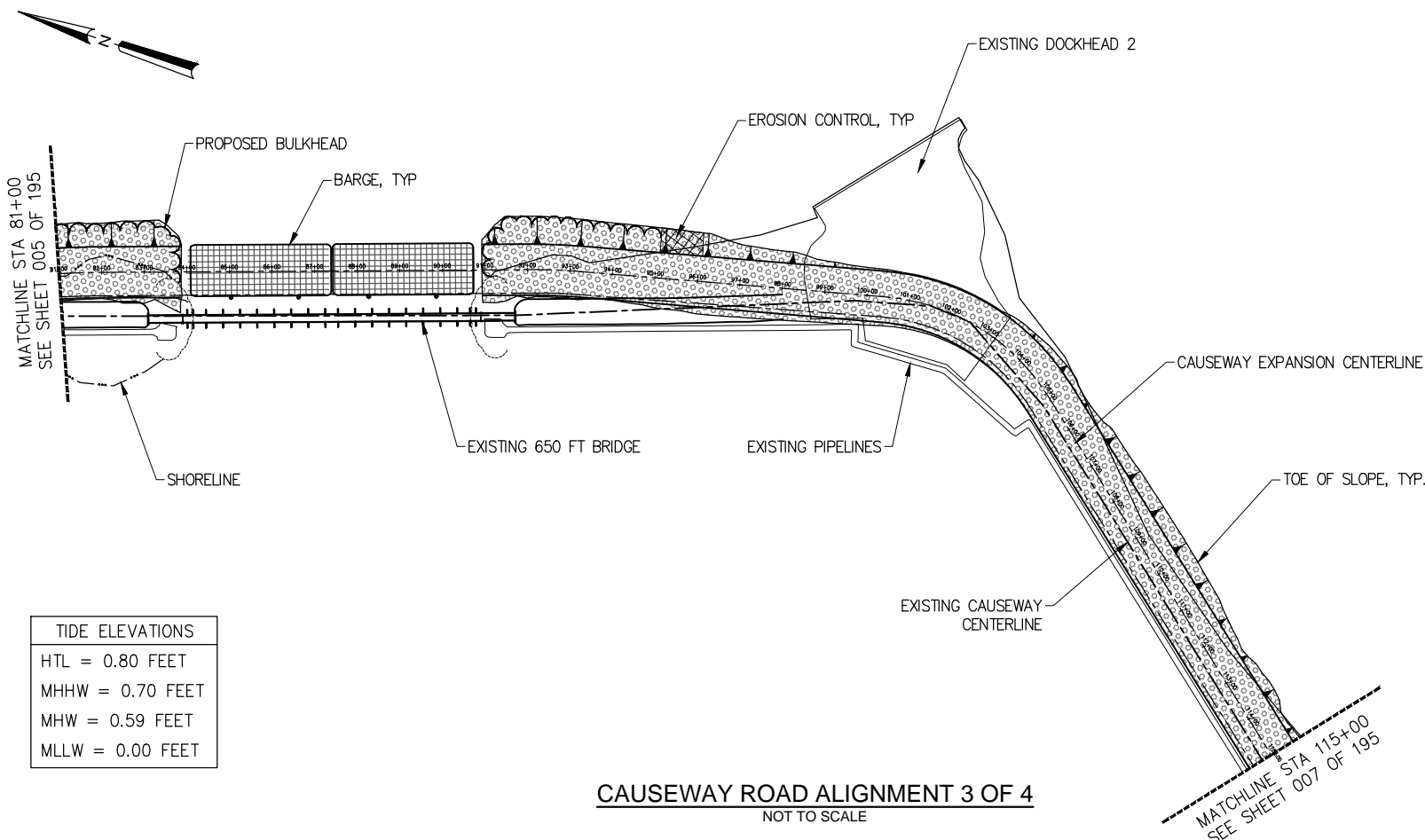
**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

**NOTES:**

1. PRELIMINARY AND SUBJECT TO CHANGE. ALL DIMENSIONS AND DRAWINGS ARE TYPICAL.
2. TO BE CONFIRMED BY FUTURE BATHYMETRIC SURVEYS.
3. SEE SHEET 013 OF 195 FOR TYPICAL CAUSEWAY SECTION.
4. SHORELINE IS DEFINED AS HIGH TIDE LINE, ELEVATION +0.8' MLLW.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 005 of 195      Date: 9/1/2018



TIDE ELEVATIONS	
HTL	= 0.80 FEET
MHHW	= 0.70 FEET
MHW	= 0.59 FEET
MLLW	= 0.00 FEET

**CAUSEWAY ROAD ALIGNMENT 3 OF 4**  
NOT TO SCALE

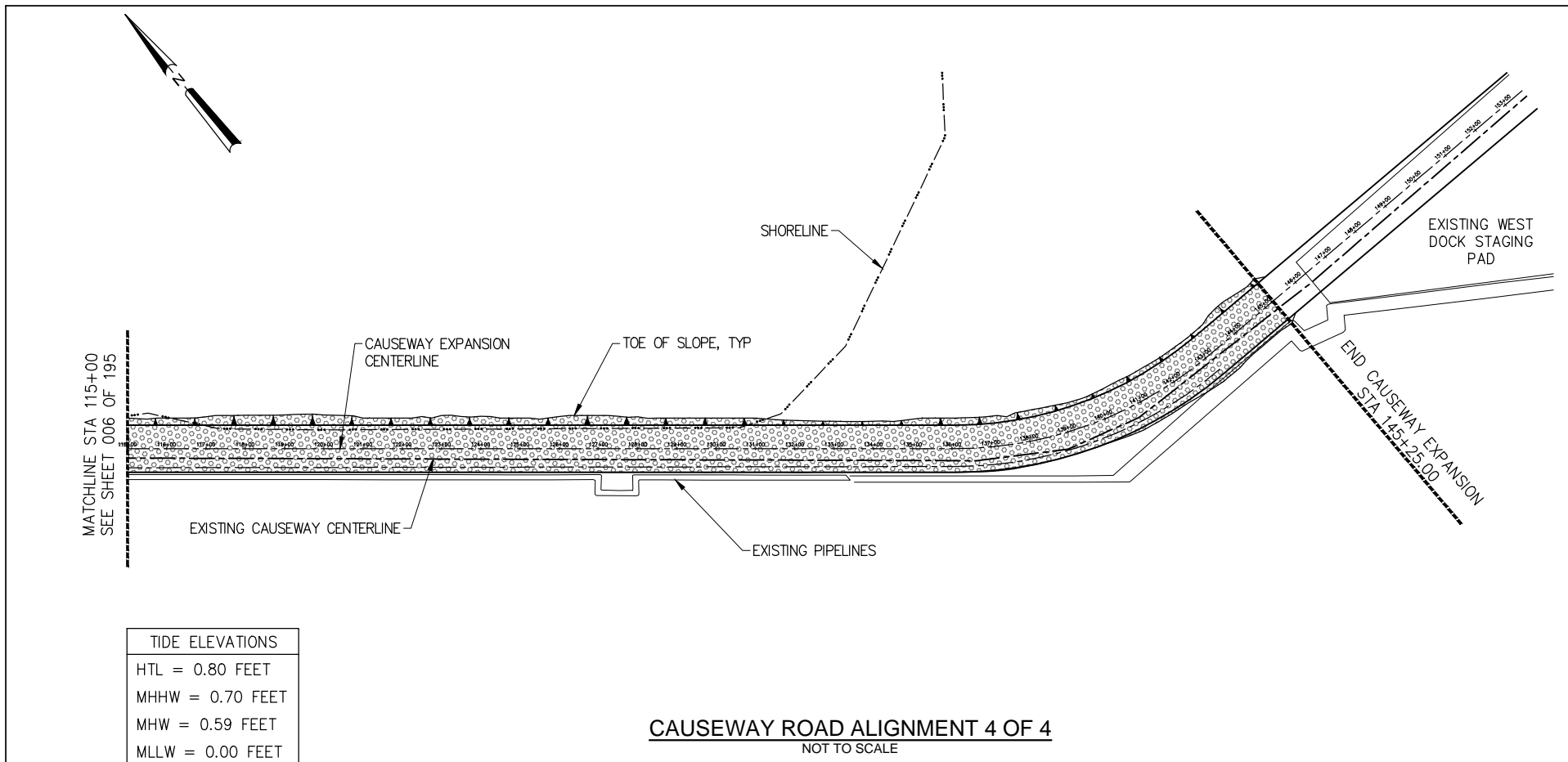
**LEGEND**

	CAUSEWAY EXPANSION
	TEMPORARY BARGE BRIDGE
	EROSION CONTROL (GRAVEL BAGS)

**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

- NOTES:**
1. PRELIMINARY AND SUBJECT TO CHANGE. ALL DIMENSIONS AND DRAWINGS ARE TYPICAL.
  2. TO BE CONFIRMED BY FUTURE BATHYMETRIC SURVEYS.
  3. SEE SHEET 013 OF 195 FOR TYPICAL CAUSEWAY SECTION.
  4. SHORELINE IS DEFINED AS HIGH TIDE LINE, ELEVATION +0.8' MLLW.



Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



TIDE ELEVATIONS	
HTL	= 0.80 FEET
MHHW	= 0.70 FEET
MHW	= 0.59 FEET
MLLW	= 0.00 FEET

**CAUSEWAY ROAD ALIGNMENT 4 OF 4**  
NOT TO SCALE

**LEGEND**

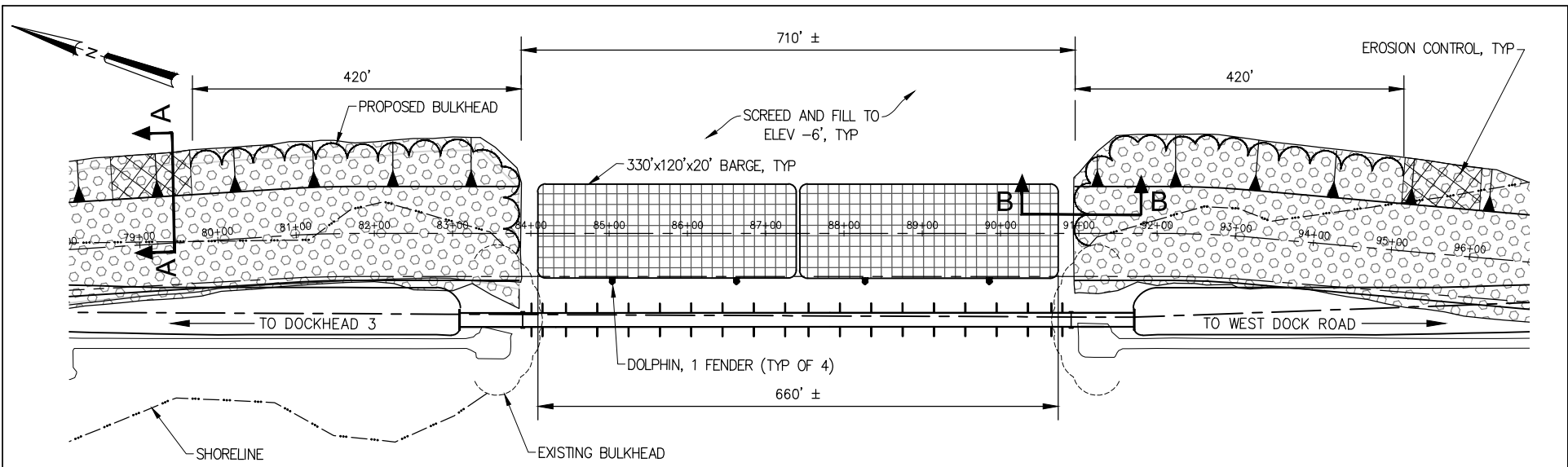
	CAUSEWAY EXPANSION
	EROSION CONTROL (GRAVEL BAGS)

**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

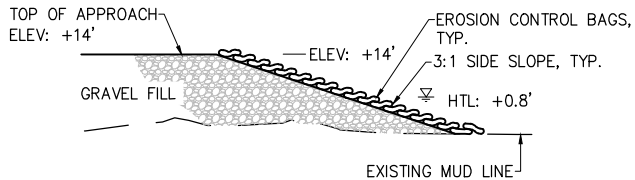
- NOTES:**
1. PRELIMINARY AND SUBJECT TO CHANGE. ALL DIMENSIONS AND DRAWINGS ARE TYPICAL.
  2. TO BE CONFIRMED BY FUTURE BATHYMETRIC SURVEYS.
  3. SEE SHEET 013 OF 195 FOR TYPICAL CAUSEWAY SECTION.
  4. SHORELINE IS DEFINED AS HIGH TIDE LINE, ELEVATION +0.8' MLLW.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

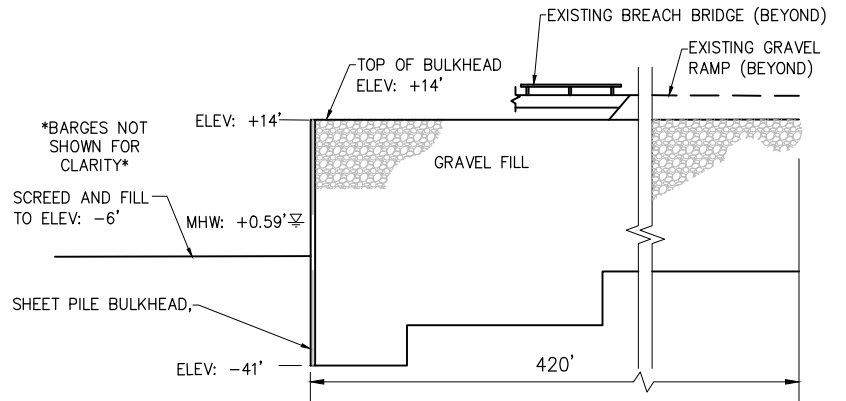
Sheet 007 of 195      Date: 9/1/2018



**CAUSEWAY ROAD - BARGE BRIDGE**  
NOT TO SCALE



**TYPICAL SECTION A-A**  
NOT TO SCALE



**TYPICAL SECTION B-B**  
NOT TO SCALE

**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

**LEGEND**

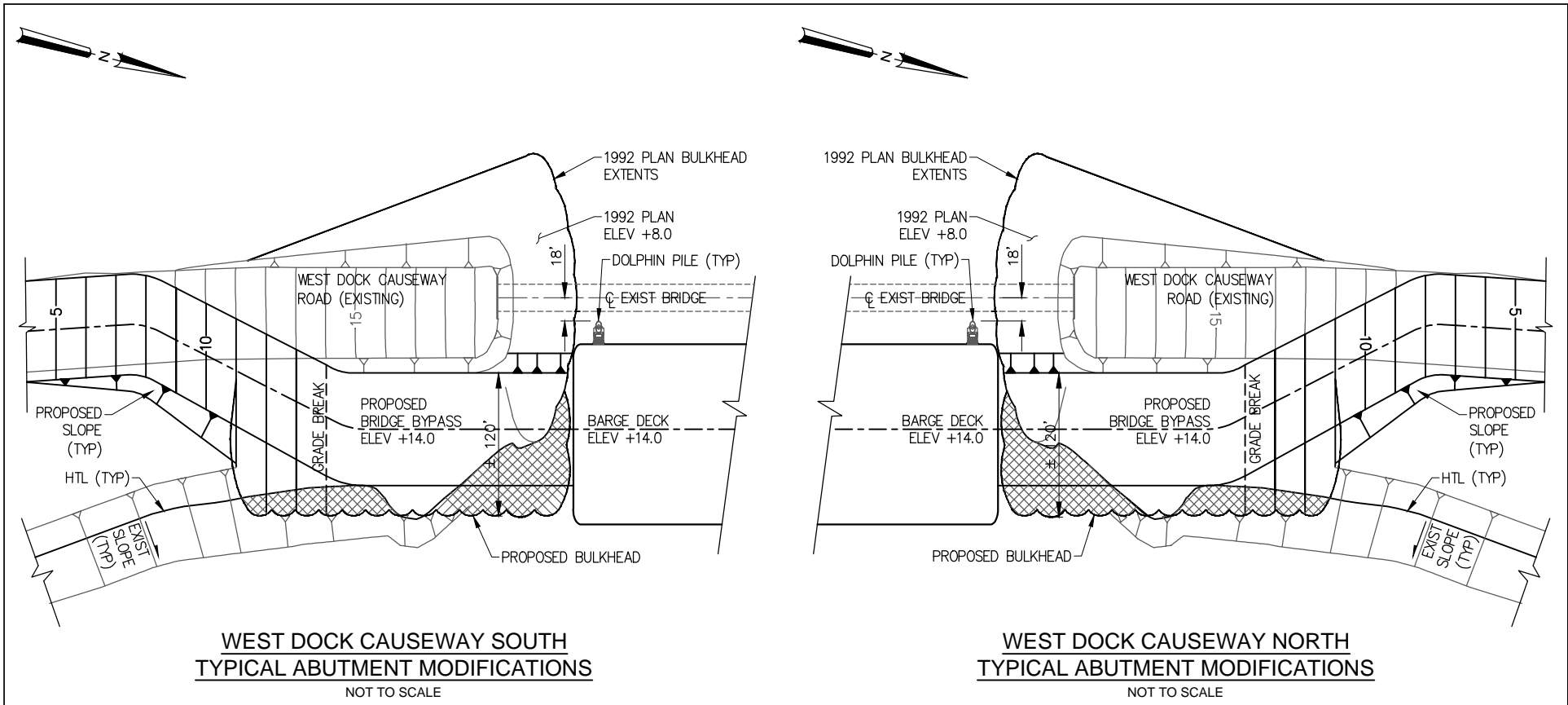
- CAUSEWAY EXPANSION
- TEMPORARY BARGE BRIDGE
- EROSION CONTROL (GRAVEL BAGS)

TIDE ELEVATIONS	
HTL	= 0.80 FEET
MHHW	= 0.70 FEET
MHW	= 0.59 FEET
MLLW	= 0.00 FEET

**NOTES:**

1. PRELIMINARY AND SUBJECT TO CHANGE. ALL DIMENSIONS AND DRAWINGS ARE TYPICAL.
2. TO BE CONFIRMED BY FUTURE BATHYMETRIC SURVEYS.
3. SEE SHEET 013 OF 195 FOR TYPICAL CAUSEWAY SECTION.
4. SHORELINE IS DEFINED AS HIGH TIDE LINE, ELEVATION +0.8' MLLW.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**WEST DOCK CAUSEWAY SOUTH  
TYPICAL ABUTMENT MODIFICATIONS**  
NOT TO SCALE

**WEST DOCK CAUSEWAY NORTH  
TYPICAL ABUTMENT MODIFICATIONS**  
NOT TO SCALE

**LEGEND**

 PERMANENT AREA OF IMPACT FROM ABUTMENT FILL BELOW HTL

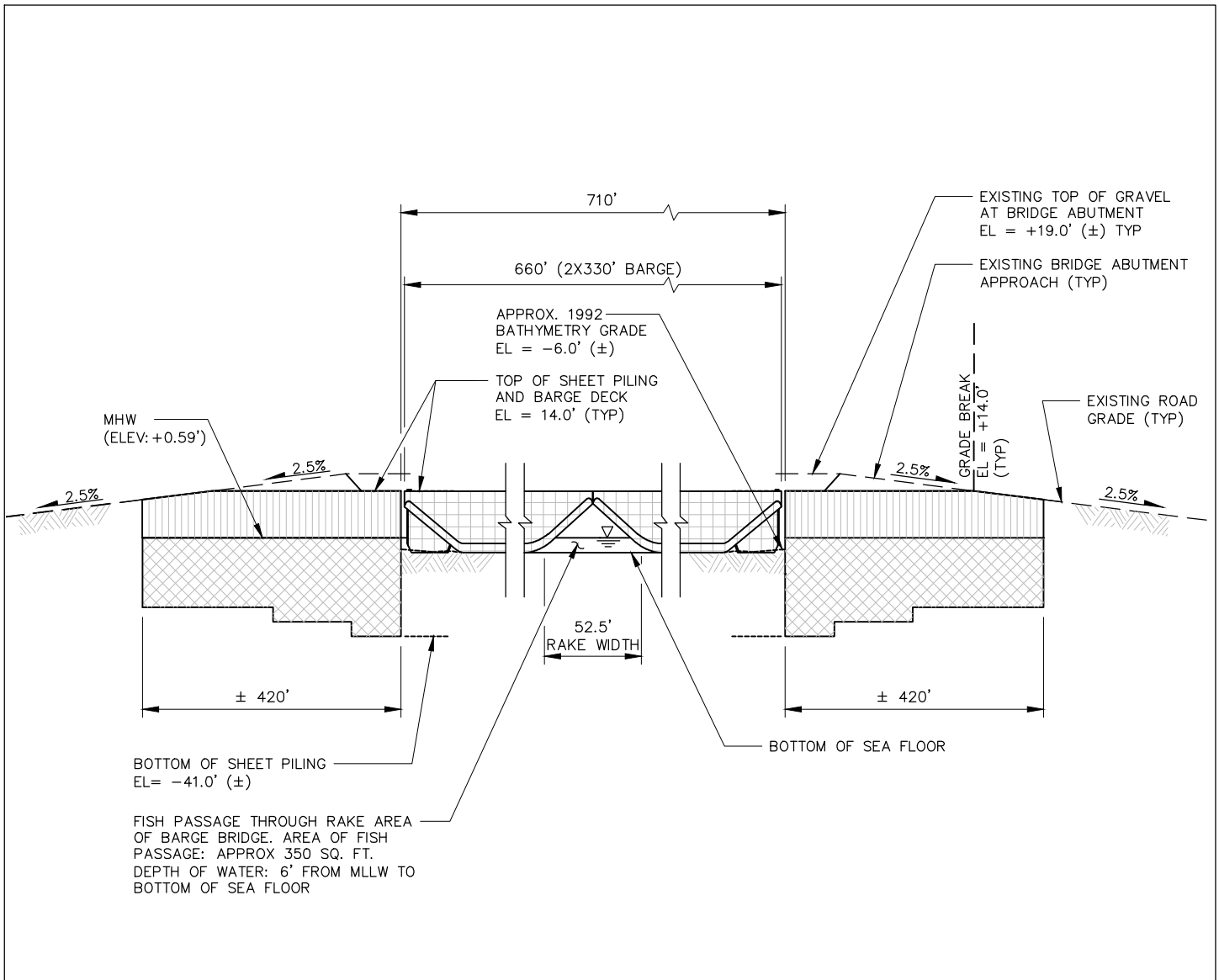
**NOTES:**

1. SURVEY DATA FOR DEPTHS ACQUIRED FROM 1992 BATHYMETRY.
2. RECOMMENDED DOCK MODIFICATIONS FOR BARGE BRIDGE APPLY NORTH AND SOUTH SIDE OF BARGE BRIDGE.
3. CAUSEWAY DATA FROM 1992 PLAN.
4. STATE WSF DATUM.

TIDE ELEVATIONS
HTL = 0.80 FEET
MHHW = 0.70 FEET
MHW = 0.59 FEET
MLLW = 0.00 FEET




Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.



**WEST DOCK CAUSEWAY SOUTH TYPICAL ABUTMENT MODIFICATIONS SECTION**  
NOT TO SCALE

**LEGEND**

-  SHEET PILE ABOVE MHW
-  PERMANENT AREA OF IMPACT FROM SHEET PILING BELOW MHW
-  BARGE

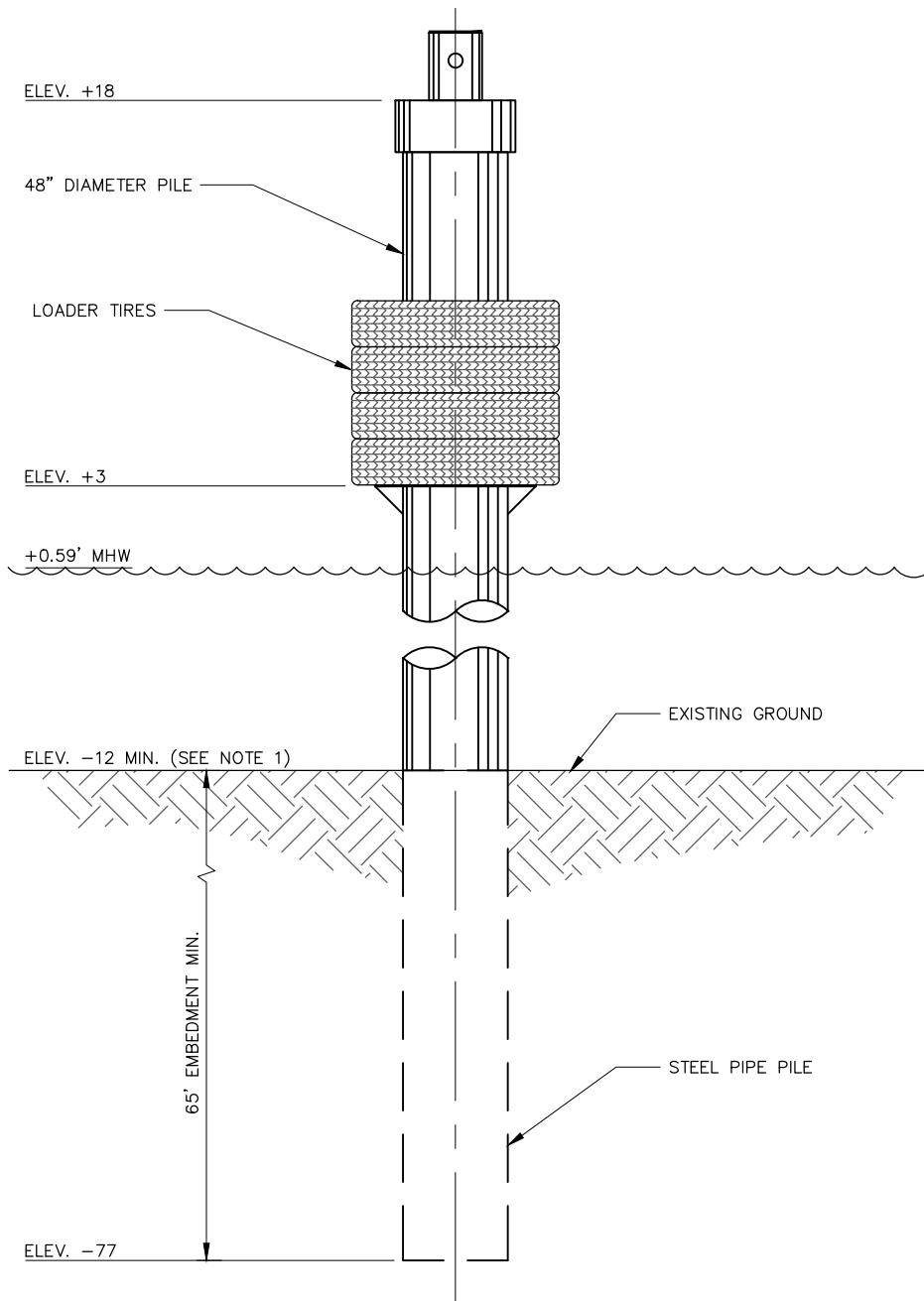
TIDE ELEVATIONS	
HTL	= 0.80 FEET
MHHW	= 0.70 FEET
MHW	= 0.59 FEET
MLLW	= 0.00 FEET

**PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.**

**NOTES:**

1. SURVEY DATA FOR DEPTHS ACQUIRED FROM 1992 BATHYMETRY.
2. CAUSEWAY DATA FROM 1992 PLAN.
3. STATE WSF DATUM.
4. ALL ELEVATIONS REFERENCED TO MLLW.
5. RECOMMENDED DOCK MODIFICATIONS FOR BARGE BRIDGE APPLY NORTH AND SOUTH SIDE OF BARGE BRIDGE.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



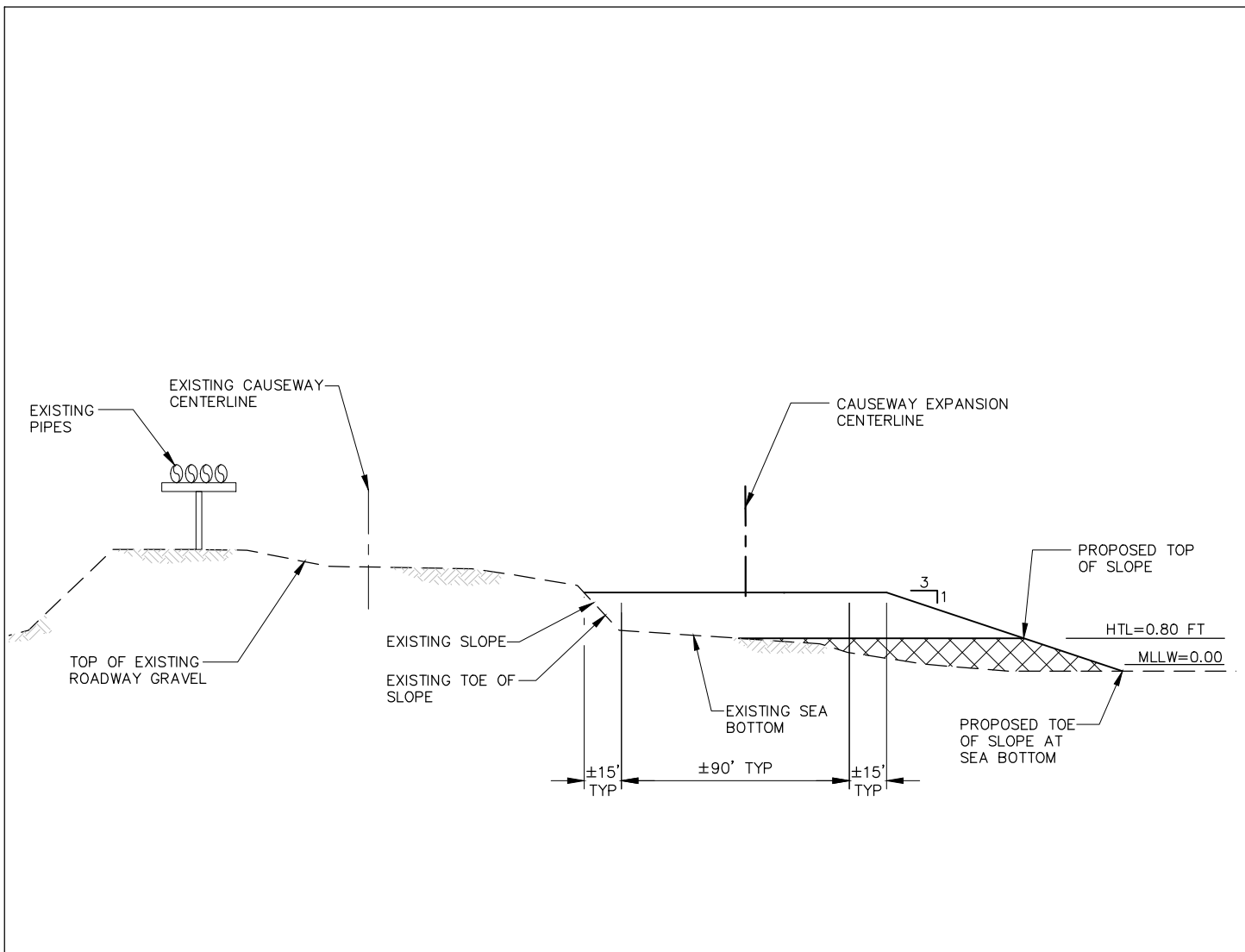
**MOORING DOLPHIN**  
NOT TO SCALE

TIDE ELEVATIONS	
HTL	= 0.80 FEET
MHHW	= 0.70 FEET
MHW	= 0.59 FEET
MLLW	= 0.00 FEET

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**  
1. MINIMUM ASSUMED ELEVATION AT BARGE BRIDGE IS -6 MLLW.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**CAUSEWAY WIDENING TYPICAL SECTION - DH3 TO DH4**

NOT TO SCALE

TIDE ELEVATIONS
HTL = 0.80 FEET
MHHW = 0.70 FEET
MHW = 0.59 FEET
MLLW = 0.00 FEET

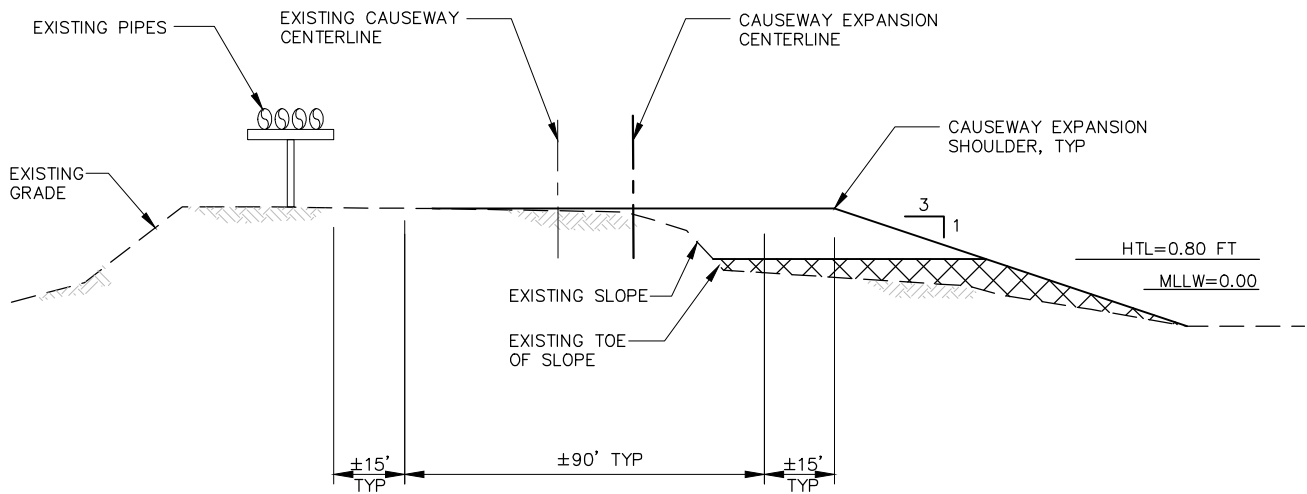
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. ALL CROSS SECTIONS, DIMENSIONS, WIDTHS AND HEIGHTS SHALL BE VERIFIED AND MAY NOT REPRESENT CURRENT CONDITIONS.
2. ALL EXISTING CROSS SECTIONS TO BE FIELD VERIFIED.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project





**CAUSEWAY WIDENING TYPICAL SECTION**

NOT TO SCALE

TIDE ELEVATIONS
HTL = 0.80 FEET
MHHW = 0.70 FEET
MHW = 0.59 FEET
MLLW = 0.00 FEET

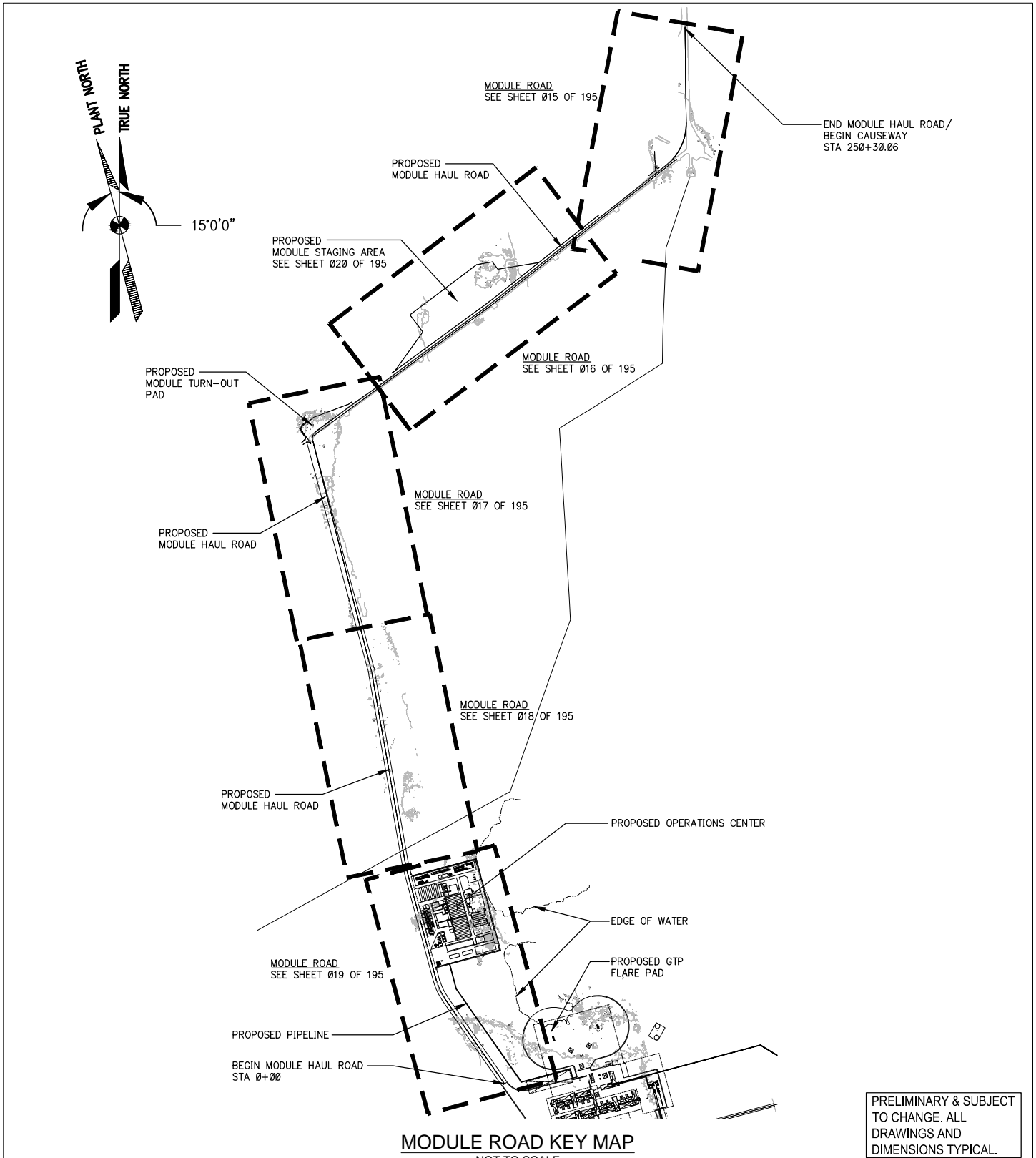
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. ALL CROSS SECTIONS, DIMENSIONS, WIDTHS AND HEIGHTS SHALL BE VERIFIED AND MAY NOT REPRESENT CURRENT CONDITIONS.
2. ALL EXISTING CROSS SECTIONS TO BE FIELD VERIFIED.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**MODULE ROAD KEY MAP**

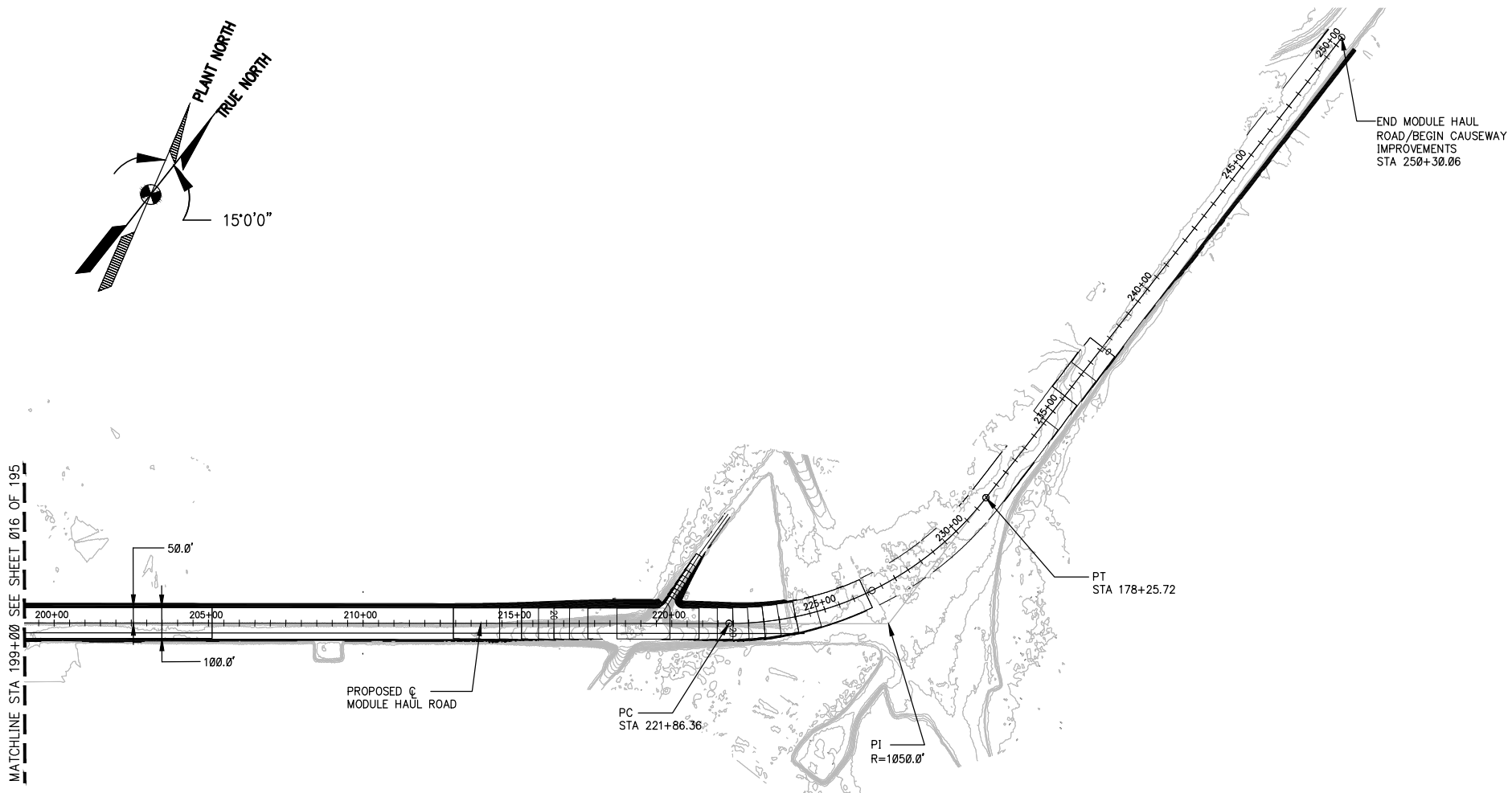
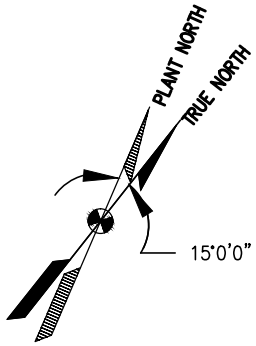
NOT TO SCALE

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

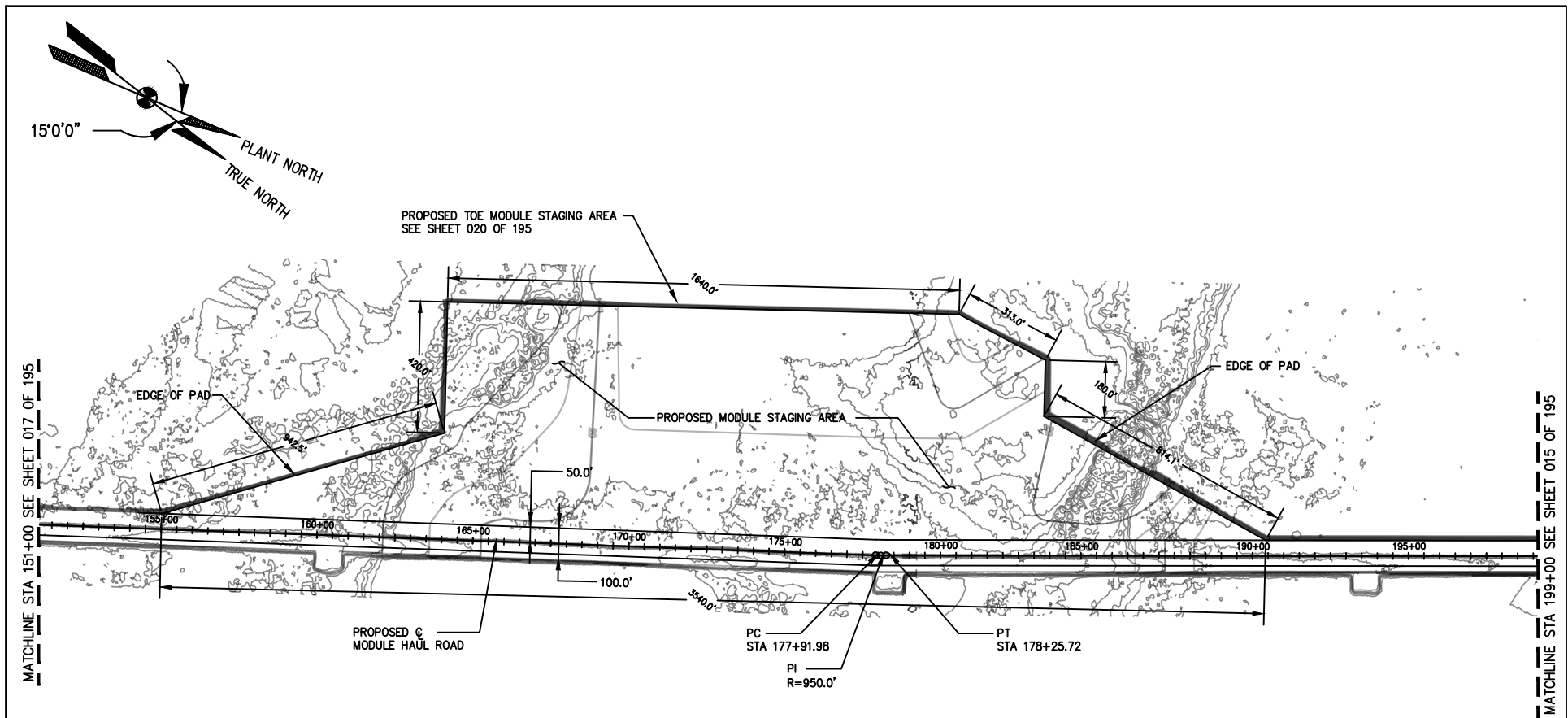


**MODULE ROAD PLAN 5 OF 5**  
NOT TO SCALE

PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

- NOTES:**
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. SEE SHEET 037 & 038 FOR MODULE ROAD TYPICAL SECTIONS.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

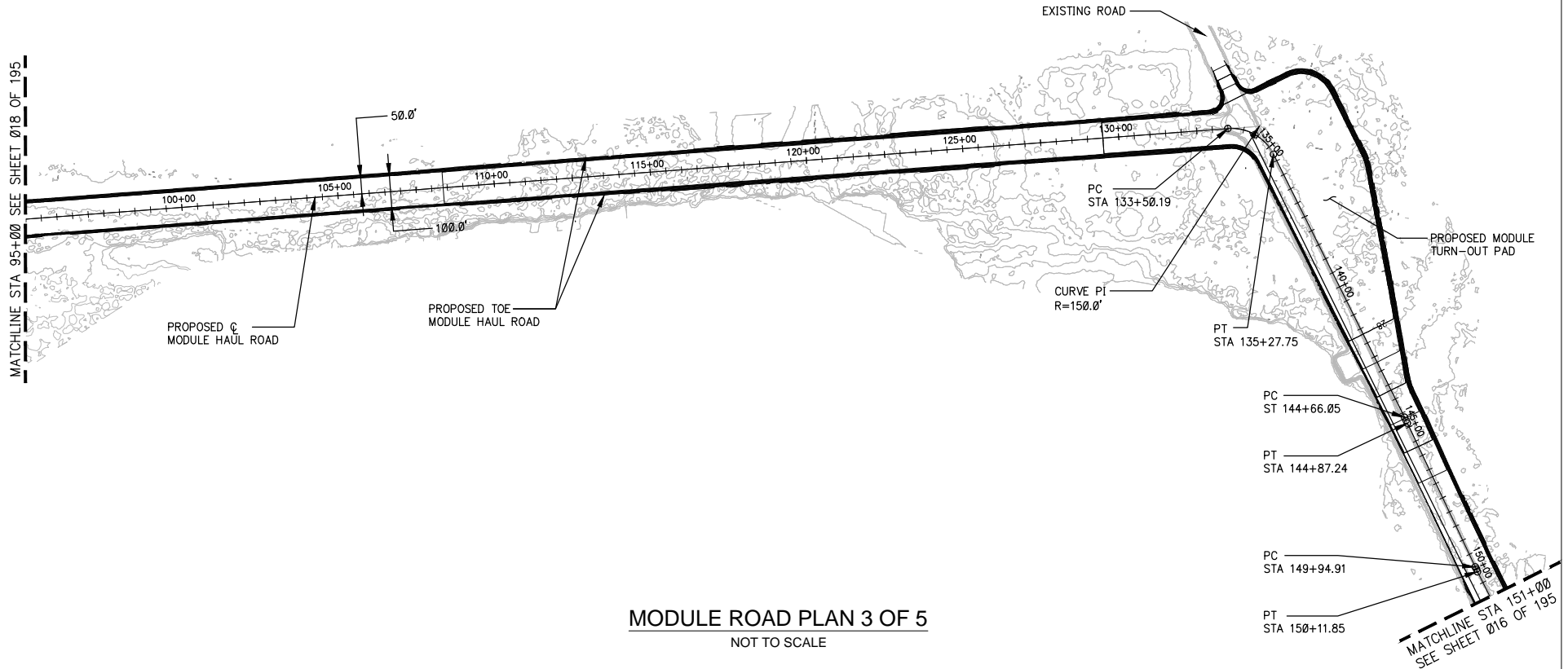
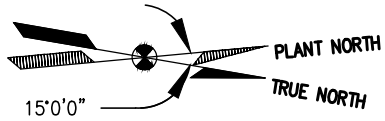


**MODULE ROAD PLAN 4 OF 5**  
NOT TO SCALE

- NOTES:**
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. SEE SHEET 037 & 038 FOR MODULE ROAD TYPICAL SECTIONS.

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



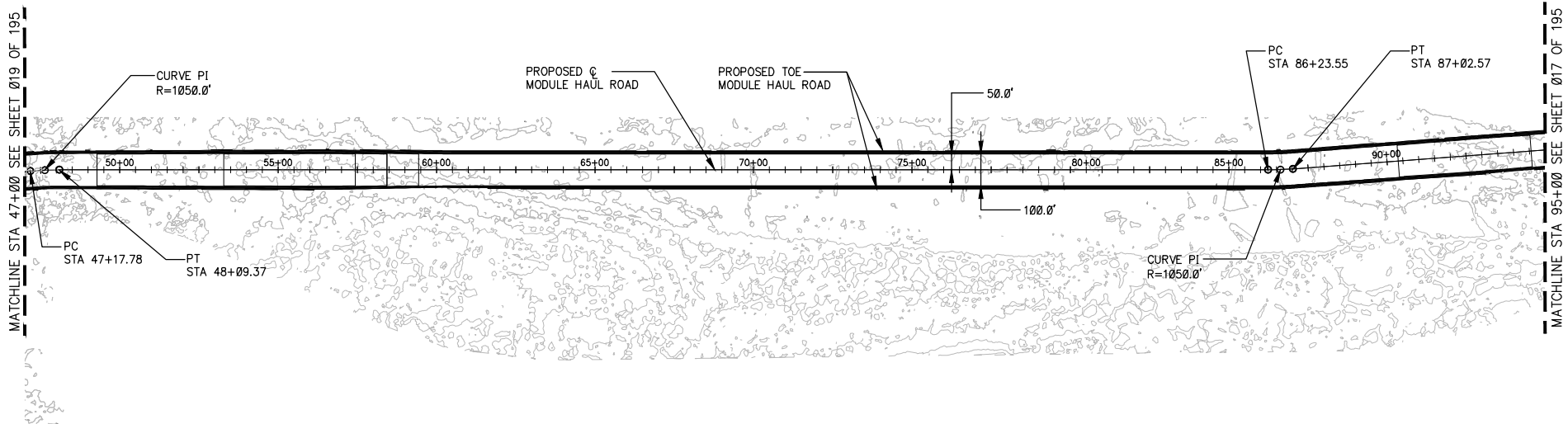
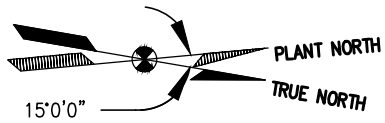
**MODULE ROAD PLAN 3 OF 5**  
NOT TO SCALE

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. SEE SHEET 037 & 038 FOR MODULE ROAD TYPICAL SECTIONS.

PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



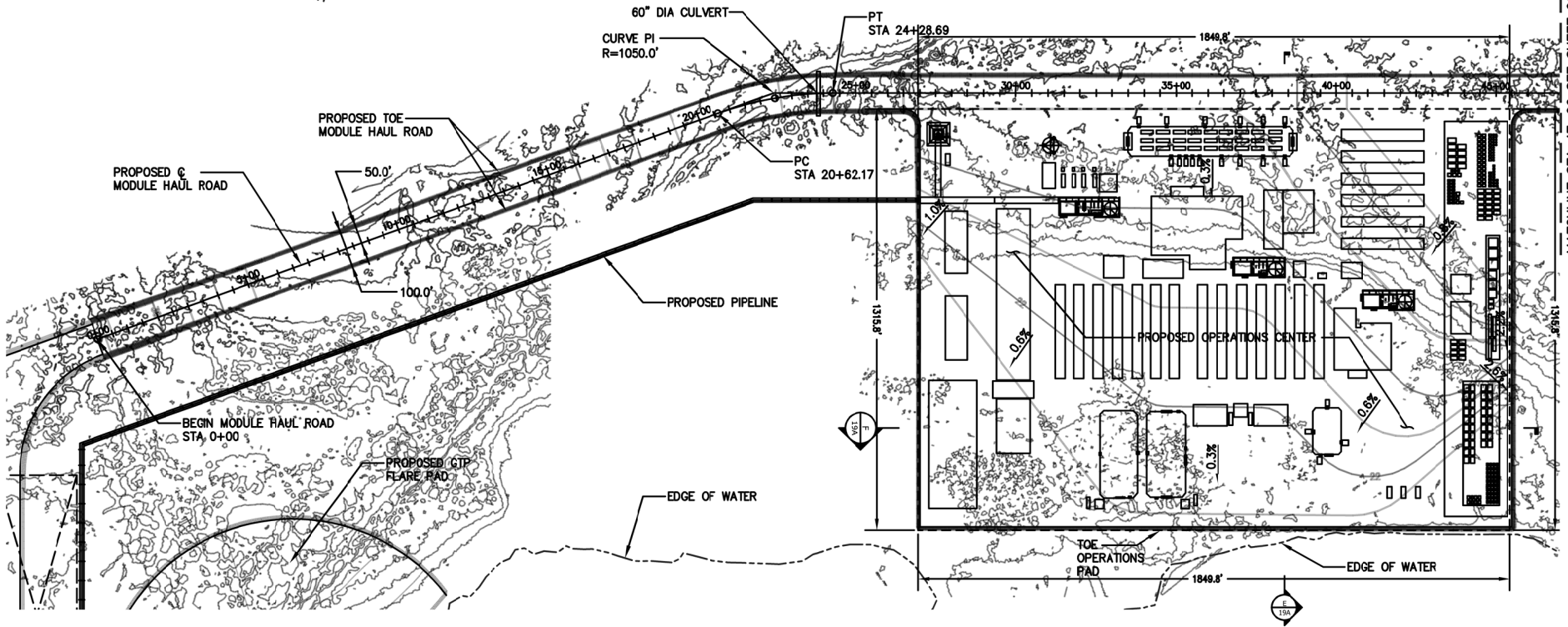
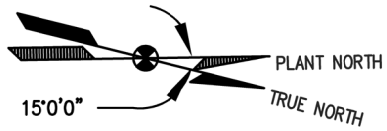
**MODULE ROAD PLAN 2 OF 5**  
NOT TO SCALE

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. SEE SHEET 037 & 038 FOR MODULE ROAD TYPICAL SECTIONS.

PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



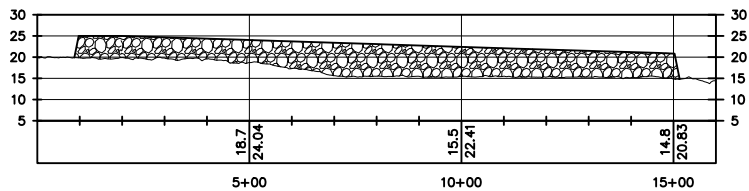
MATCHLINE STA 47+00 SEE SHEET 018 OF 195

**MODULE ROAD PLAN 1 OF 5**  
NOT TO SCALE

- NOTES:**
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. SEE SHEET 037 & 038 FOR MODULE ROAD TYPICAL SECTIONS.

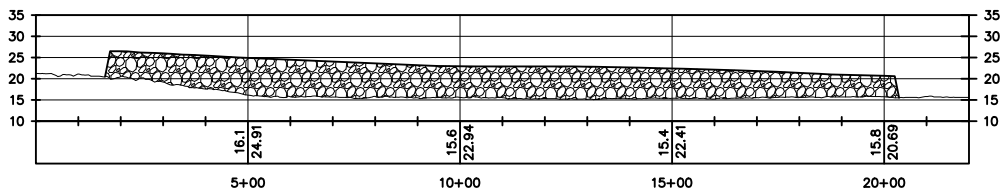
PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**SECTION E (CDLAY-00-001005-000)**

H. SCALE: 1" = 200'  
 V. SCALE: 1" = 20'



**SECTION F (CDLAY-00-001005-000)**

H. SCALE: 1" = 200'  
 V. SCALE: 1" = 20'

**OPERATIONS GRAVEL PAD - TYPICAL CROSS SECTION**

NOT TO SCALE

**NOTES:**

- 5 FOOT GRAVEL THICKNESS IS NOMINAL. GRAVEL THICKNESS WILL VARY BASED ON TOPOGRAPHY AND WILL BE SUFFICIENT TO STABILIZE THE FOOTPRINT OF THE PAD.

**LEGEND**

EXISTING GRADE



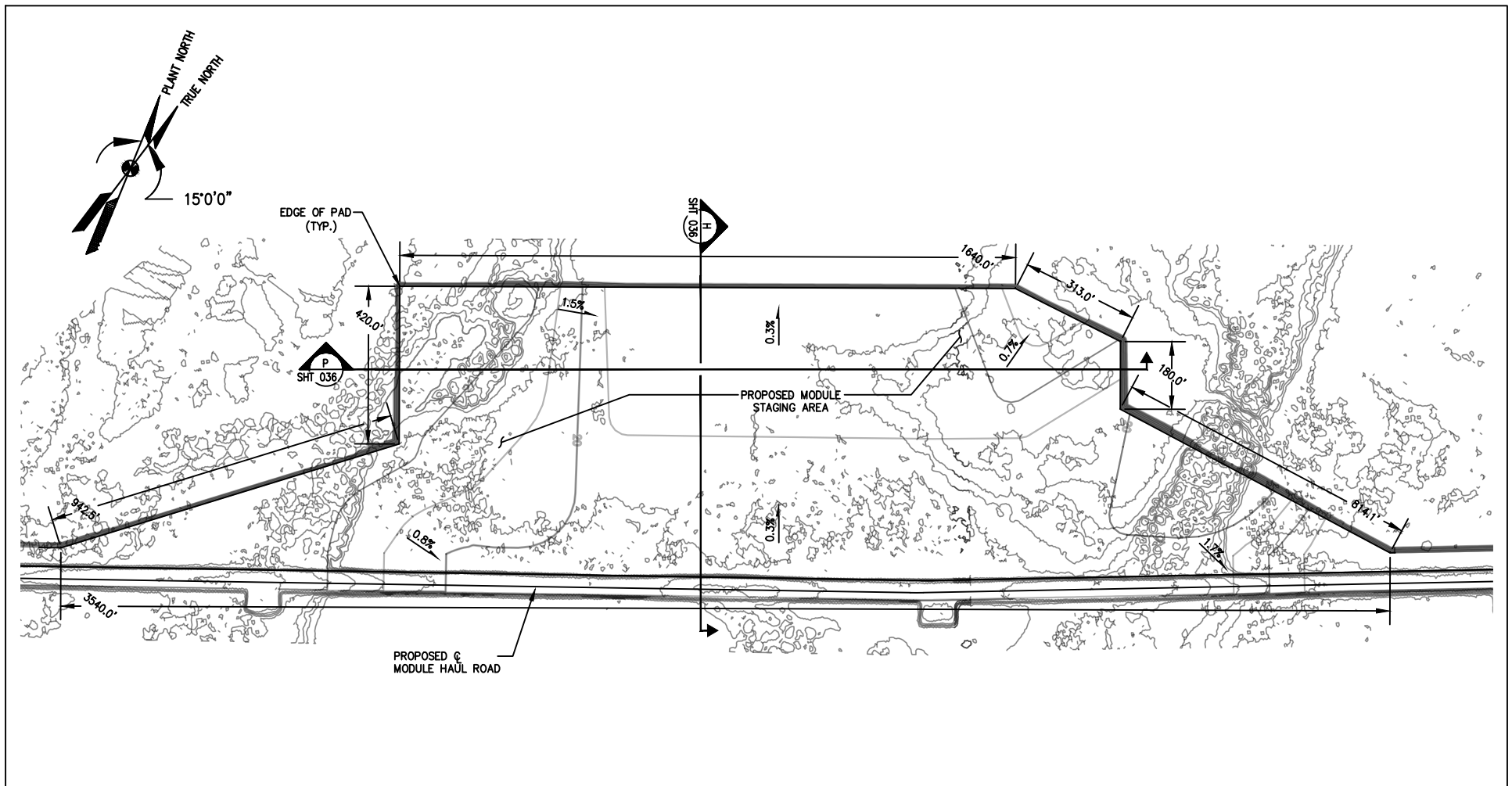
GRAVEL FILL



PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project





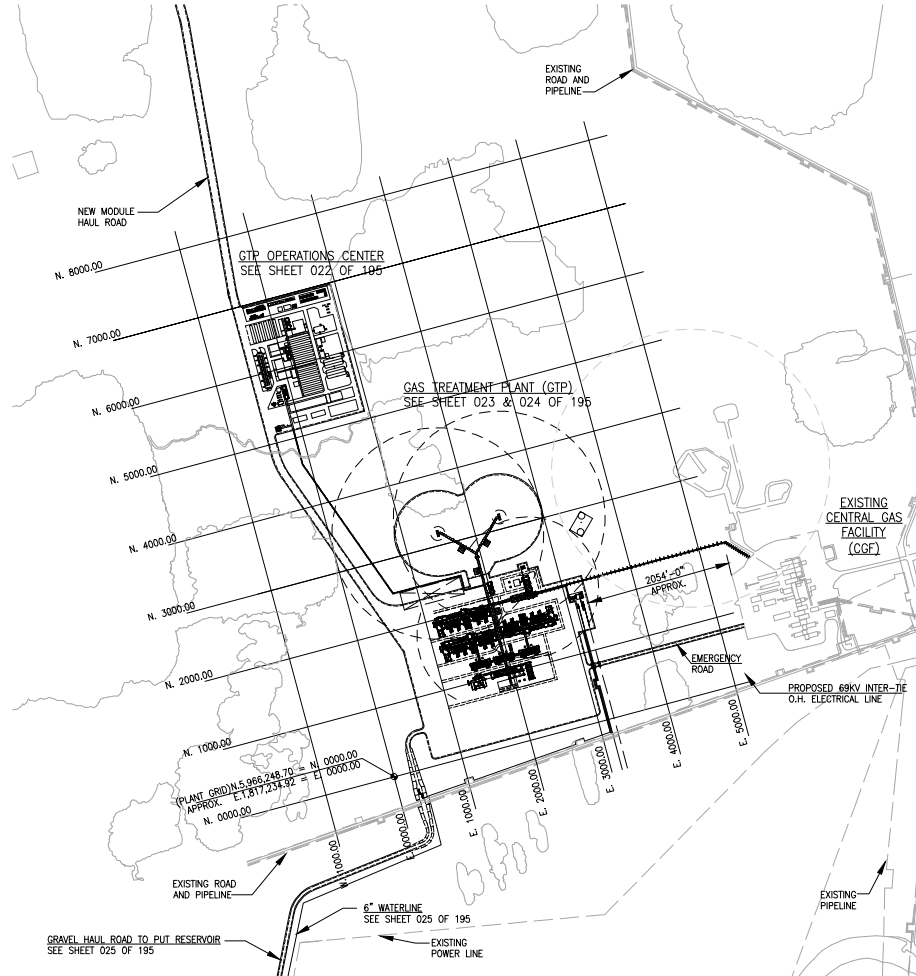
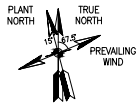
**MODULE ROAD STAGING AREA PLAN**  
NOT TO SCALE

PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. SEE SHEET 036 FOR MODULE STAGING AREA TYPICAL CROSS SECTIONS.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**NOTES:**

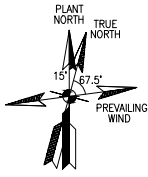
1. EXISTING PRUDHOE DISCOVERY WELL MONUMENT TO BE VERIFIED BY SURVEY.
2. IF THIS FACILITY IS LOCATED PARALLEL TO EXISTING CGF PLANT, THE ANGLE BETWEEN TRUE NORTH AND PLANT NORTH WILL BE 15 DEGREES.

**GAS TREATMENT PLANT SITE PLAN**  
NOT TO SCALE

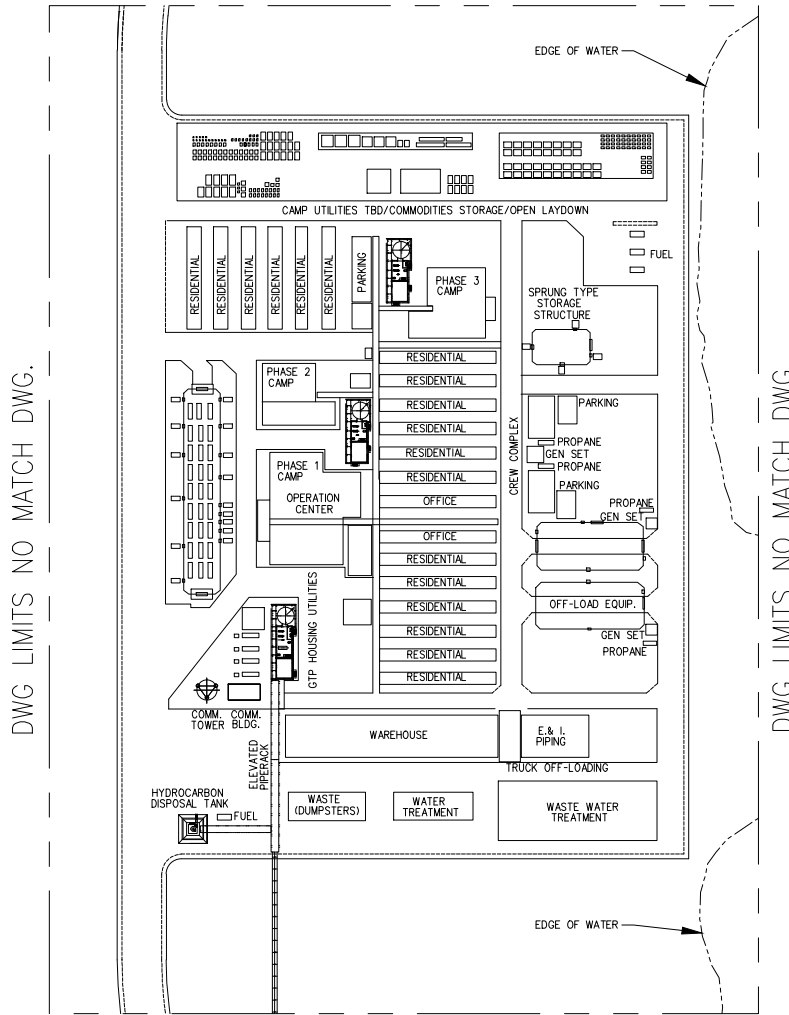
PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 021 of 195 Date: 9/1/2018



DWG LIMITS NO MATCH DWG.



DWG LIMITS NO MATCH DWG.

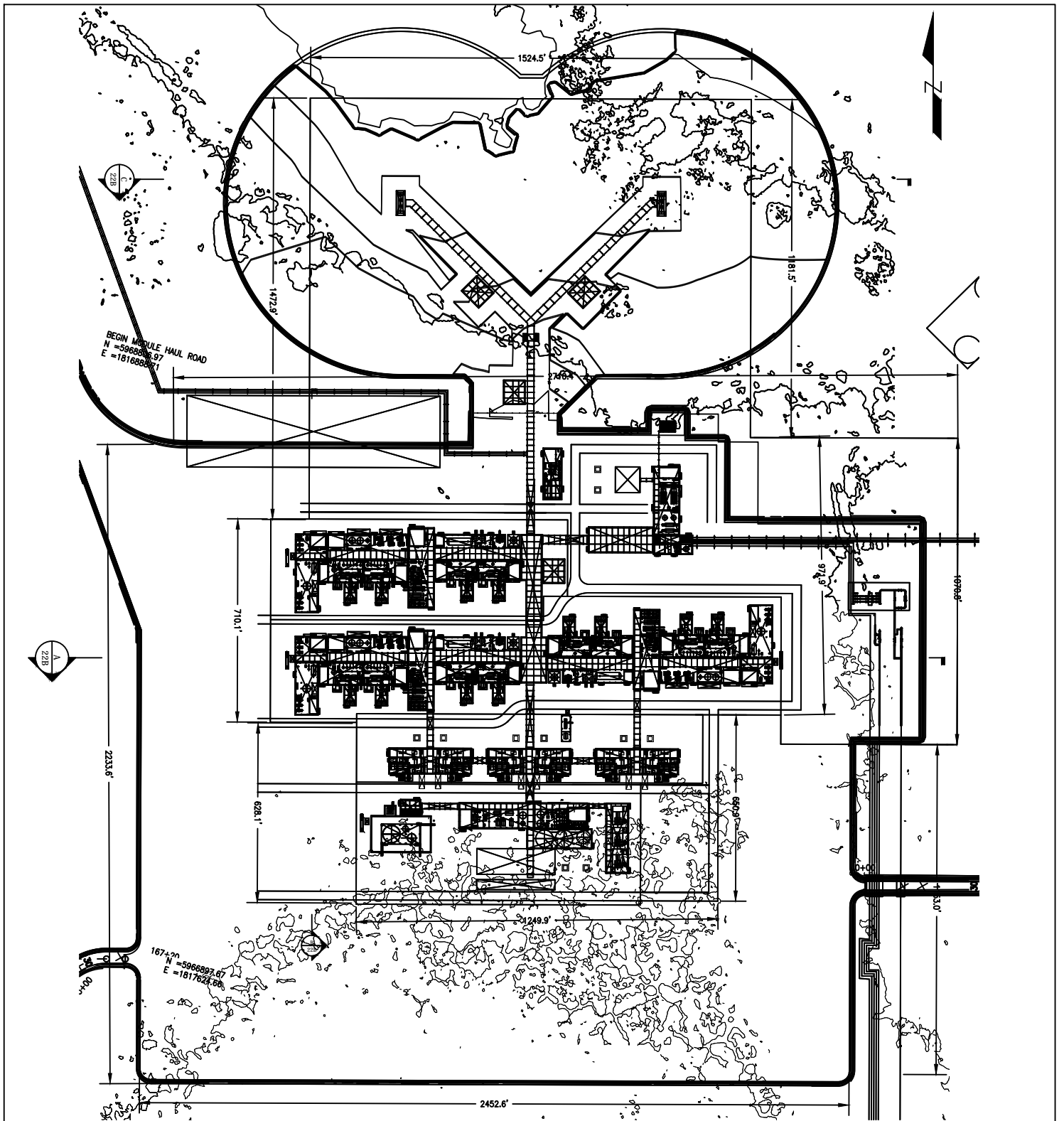
**GAS TREATMENT PLANT PLOT PLAN OPS CENTER**

NOT TO SCALE

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

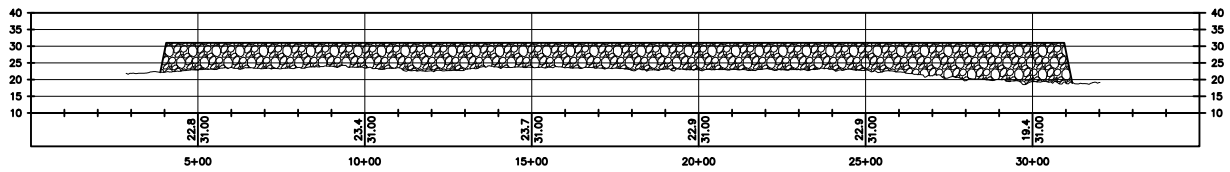
Sheet 022 of 195 Date: 9/1/2018



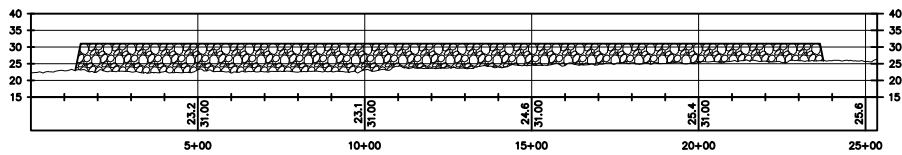
GAS TREATMENT PLANT PLOT PLAN PROCESS AND UTILITIES  
NOT TO SCALE

PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

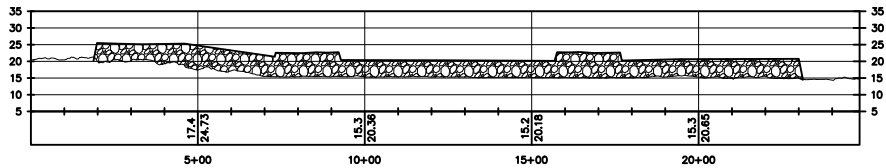
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



SECTION A (CDLAY-00-001003-000)  
 H. SCALE: 1" = 20'  
 V. SCALE: 1" = 20'



SECTION B (CDLAY-00-001003-000)  
 H. SCALE: 1" = 20'  
 V. SCALE: 1" = 20'



SECTION C (CDLAY-00-001004-000)  
 H. SCALE: 1" = 20'  
 V. SCALE: 1" = 20'

**GAS TREATMENT PLANT GRAVEL PAD - TYPICAL CROSS SECTION**

NOT TO SCALE

**NOTES:**

- 5 FOOT GRAVEL THICKNESS IS NOMINAL. GRAVEL THICKNESS WILL VARY BASED ON TOPOGRAPHY AND WILL BE SUFFICIENT TO STABILIZE THE FOOTPRINT OF THE PAD.

**LEGEND**

EXISTING GRADE



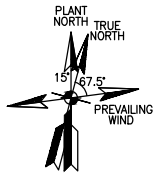
GRAVEL FILL



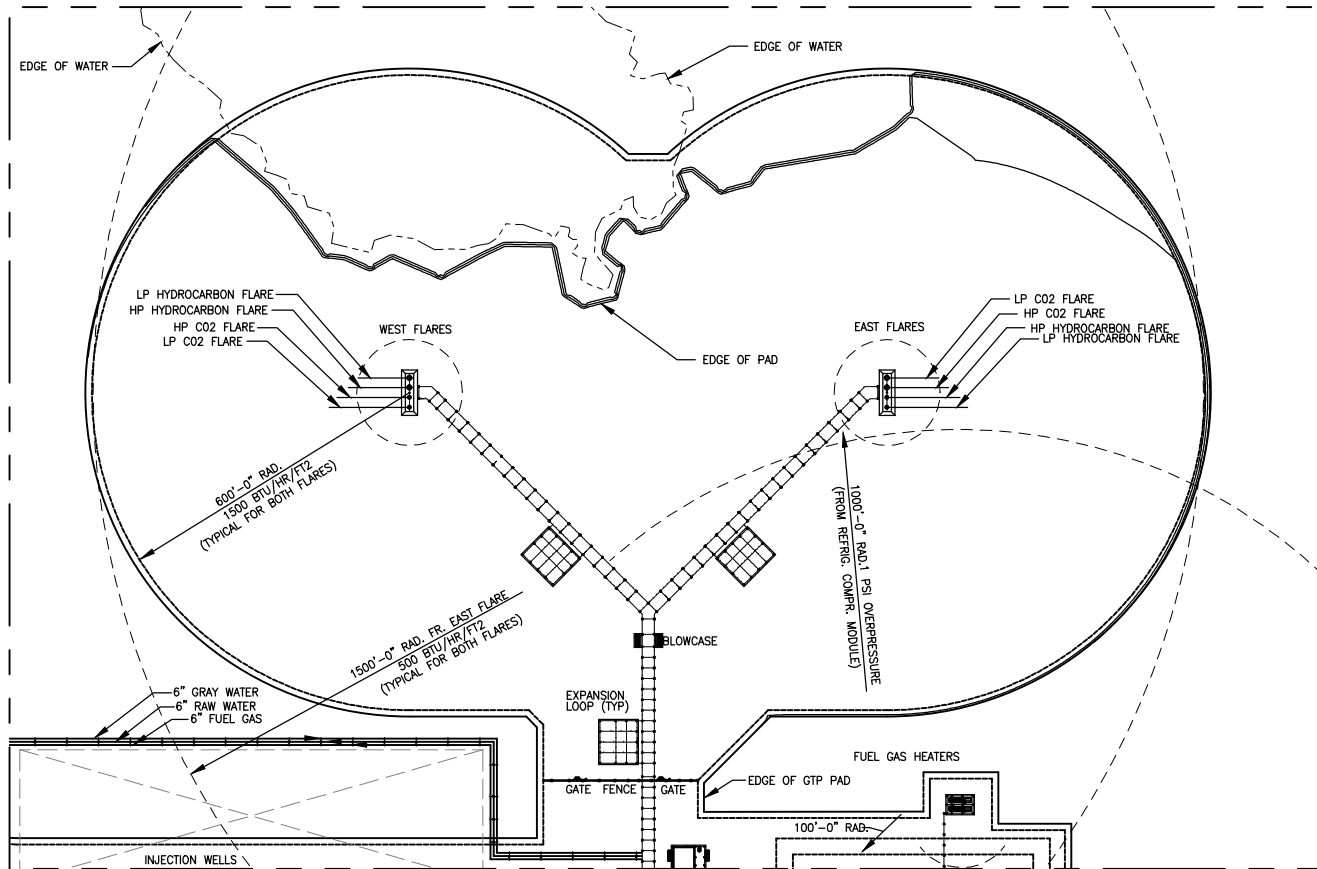
PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

DWG LIMITS NO MATCH DWG.



DWG LIMITS NO MATCH DWG.



DWG LIMITS NO MATCH DWG.

FOR CONT. SEE SHEET 024 OF 195  
FLARE

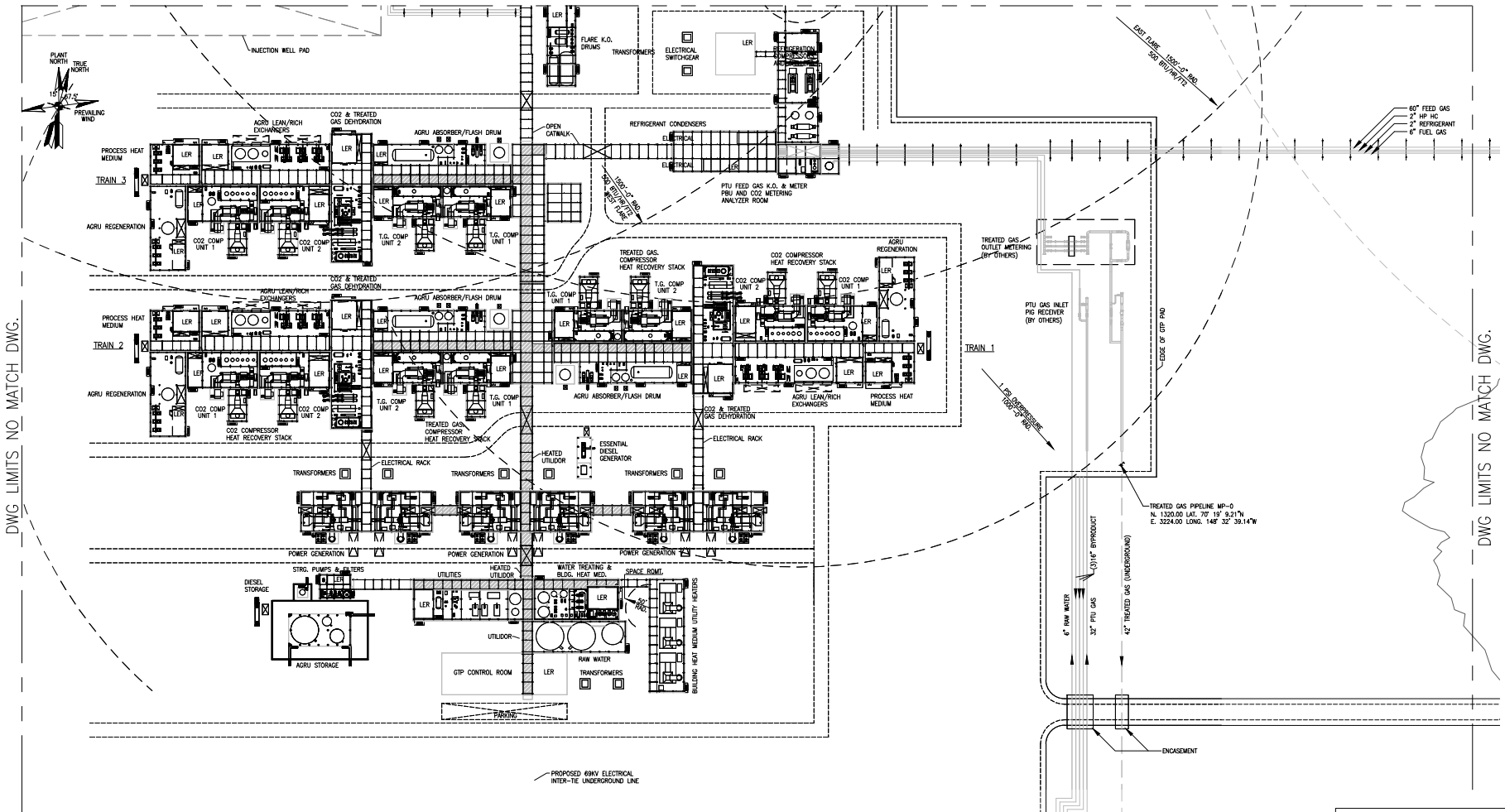
**GAS TREATMENT PLANT PLOT PLAN FLARE**  
NOT TO SCALE

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 023 of 195 Date: 9/1/2018

FOR CONT. SEE SHEET 023 OF 195

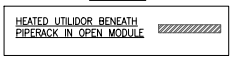


DWG LIMITS NO MATCH DWG.

DWG LIMITS NO MATCH DWG.

DWG LIMITS NO MATCH DWG.

LEGEND

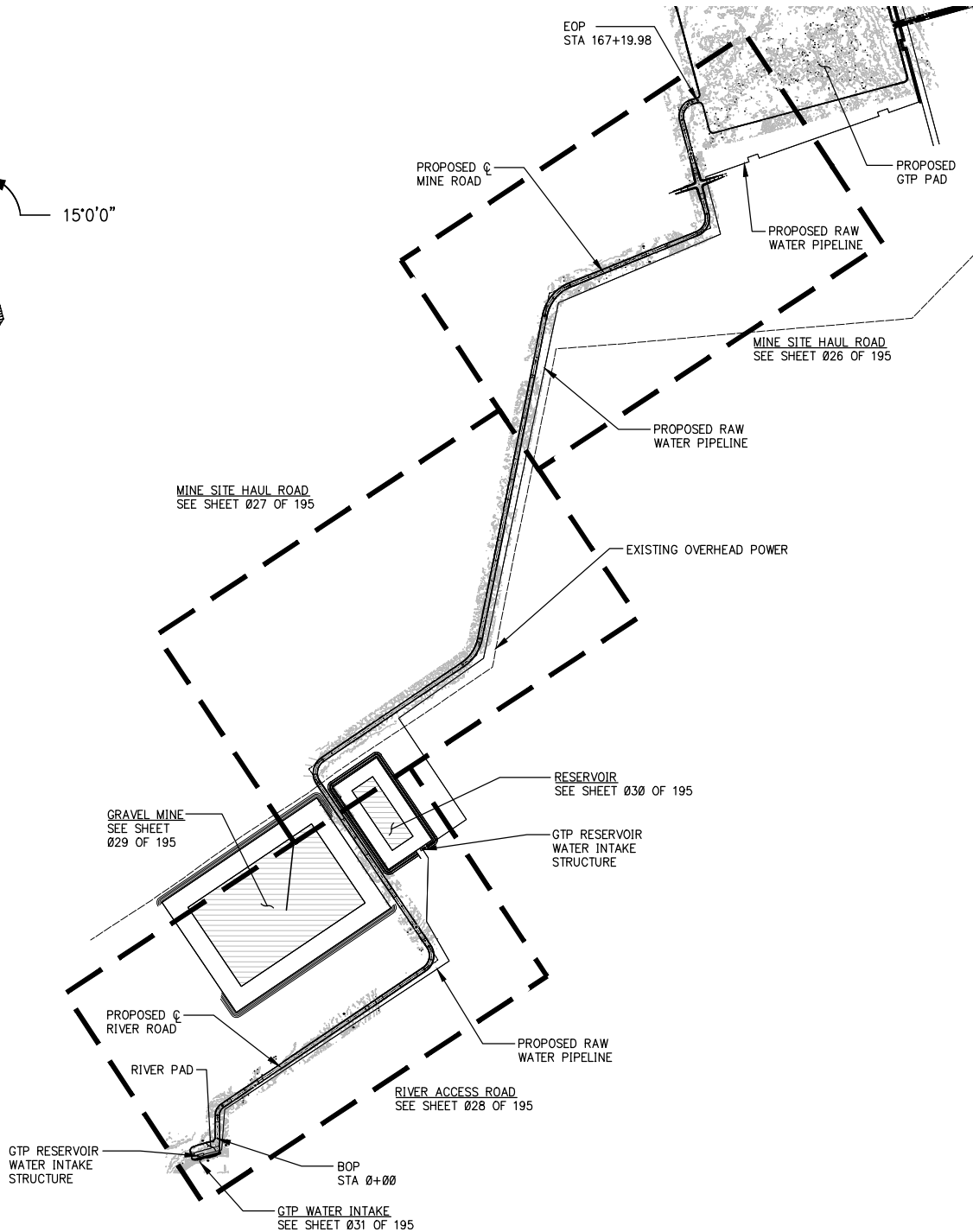
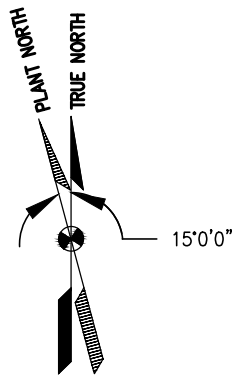


PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

**GAS TREATMENT PLANT PLOT PLAN PROCESS AND UTILITIES**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 024 of 195 Date: 9/1/2018



**RIVER ACCESS ROAD AND MINE ROAD KEY MAP**  
NOT TO SCALE

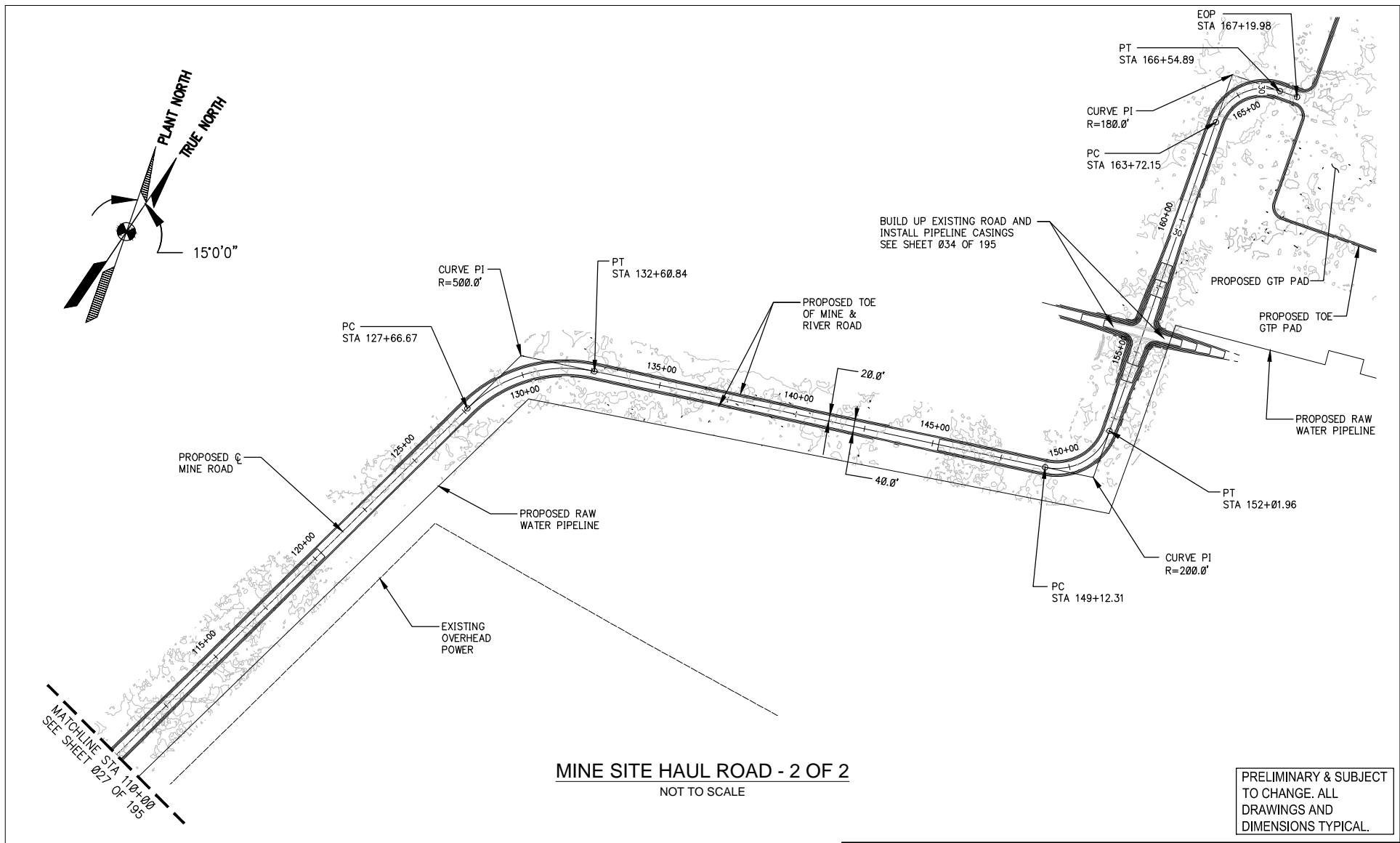
PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



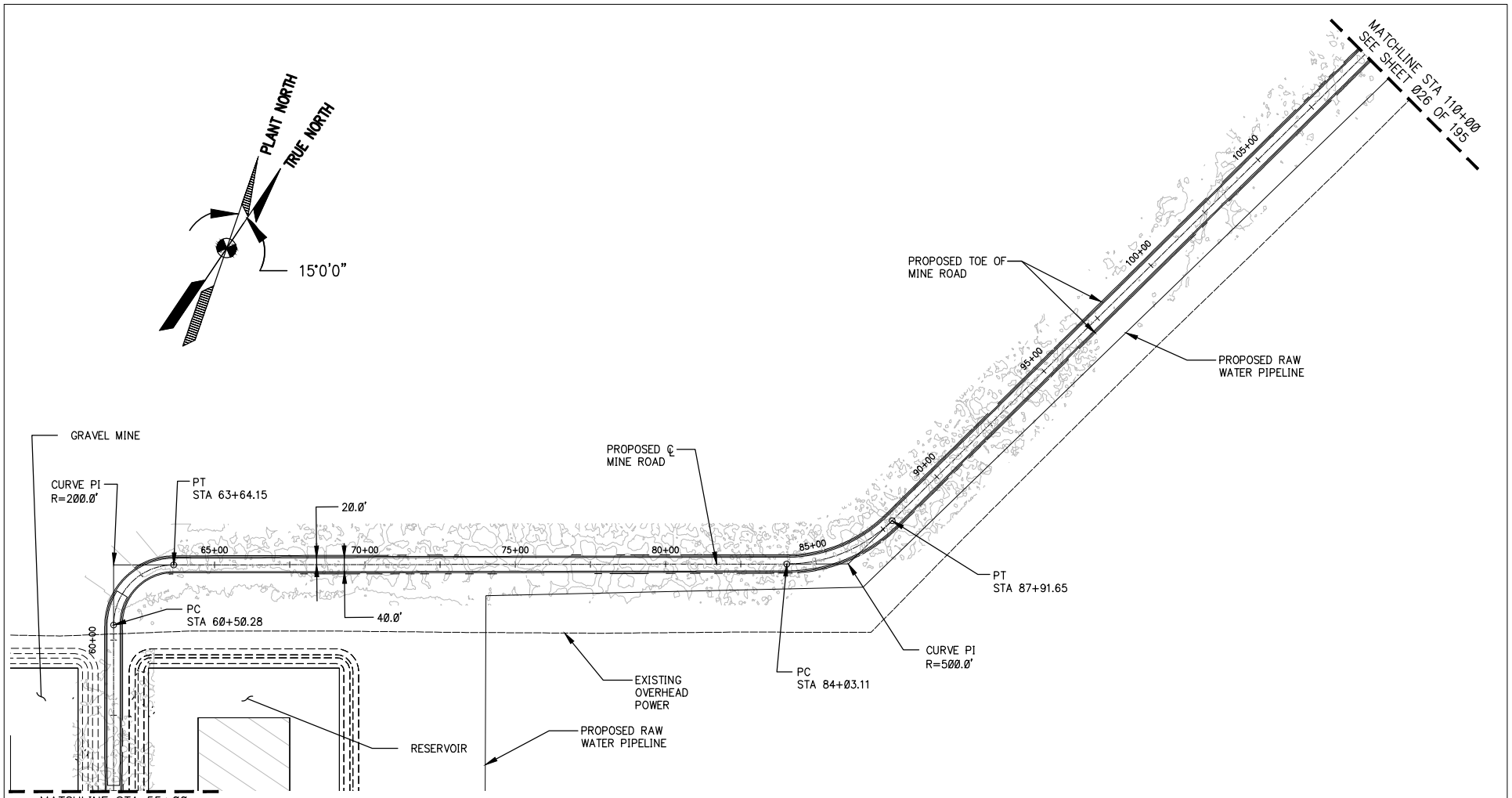


**MINE SITE HAUL ROAD - 2 OF 2**  
NOT TO SCALE

PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

- NOTES:**  
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**MINE SITE HAUL ROAD - 1 OF 2**

NOT TO SCALE

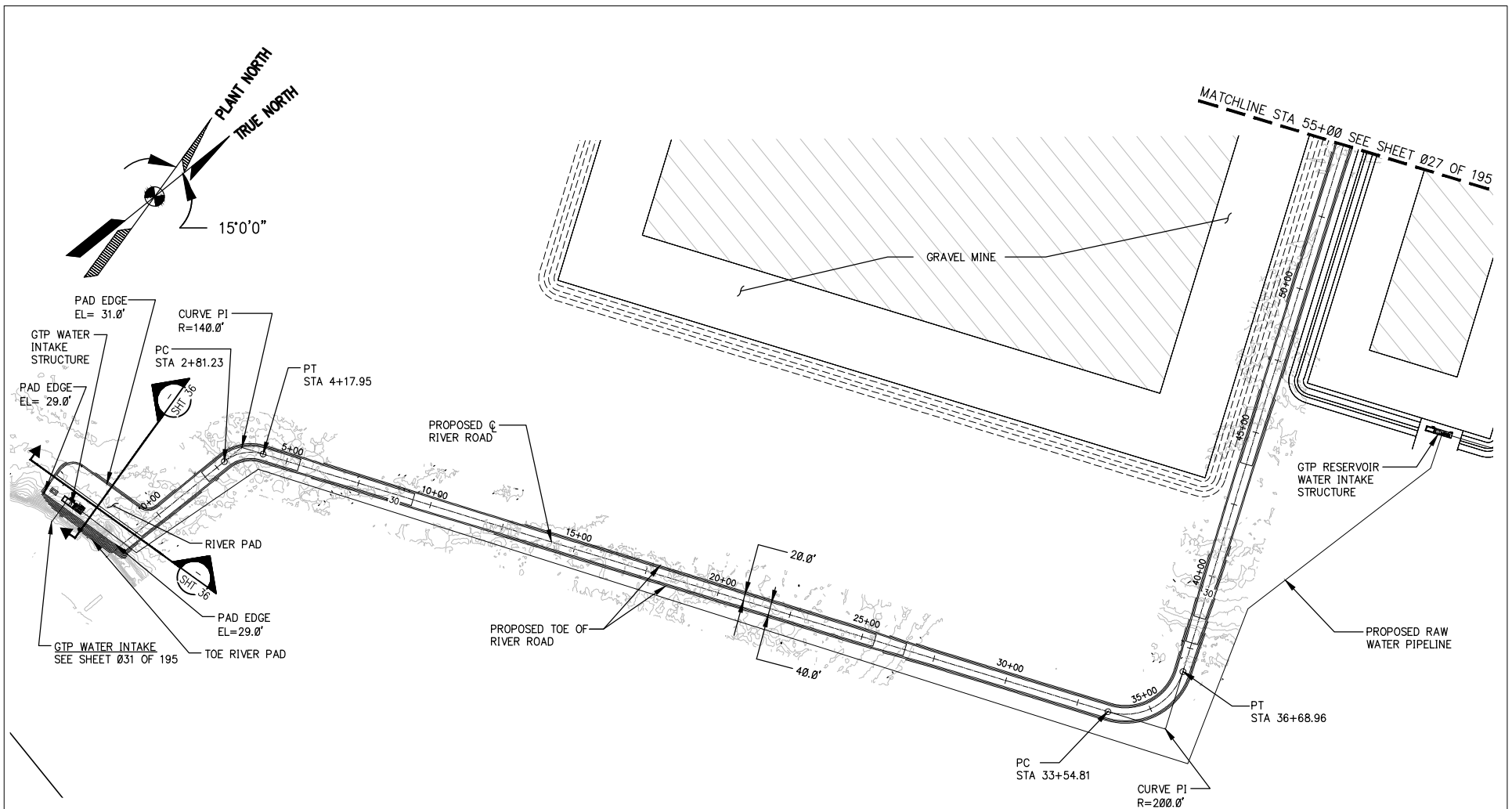
PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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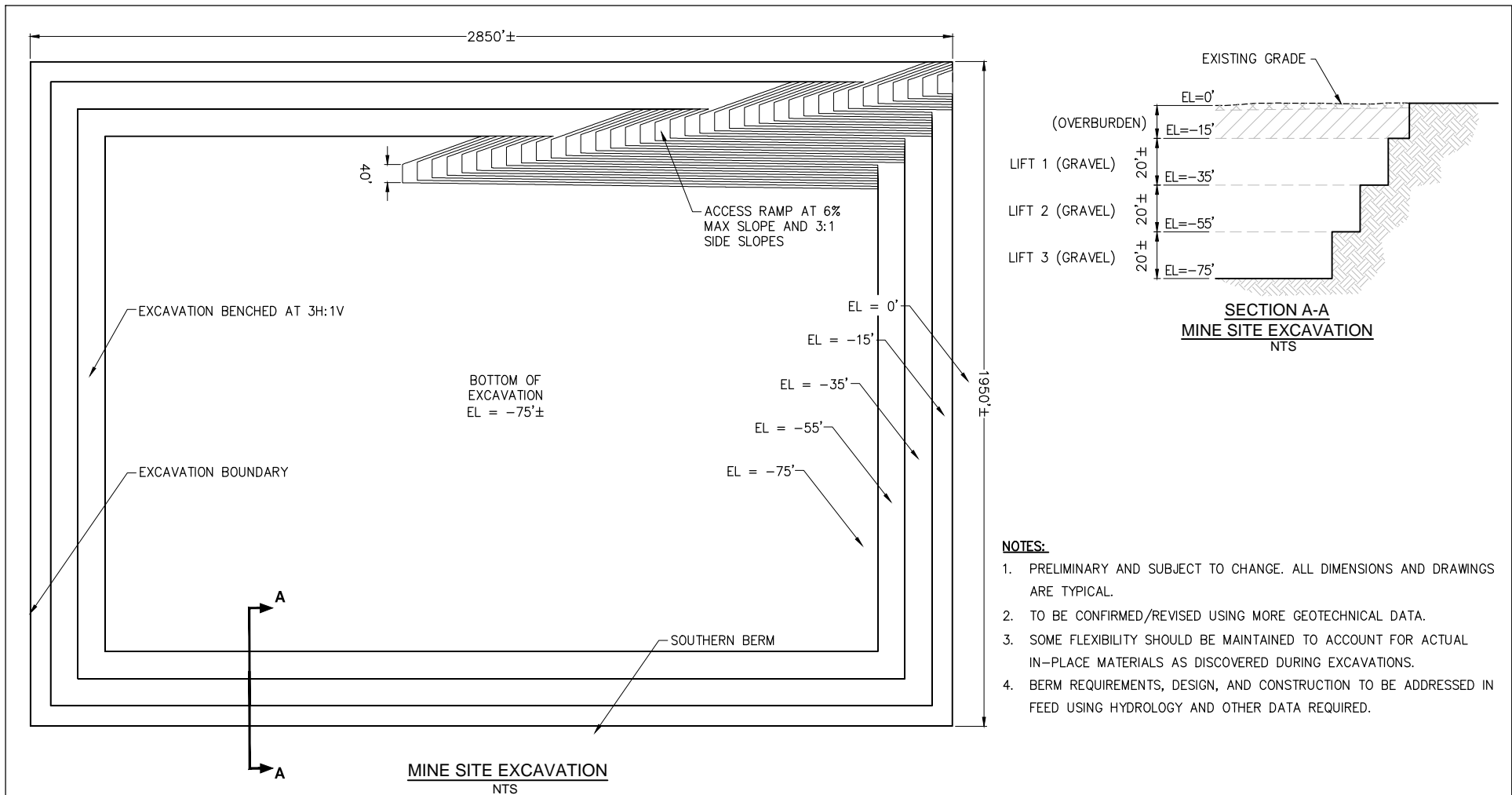
**RIVER ACCESS ROAD AND PAD**  
NOT TO SCALE

PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

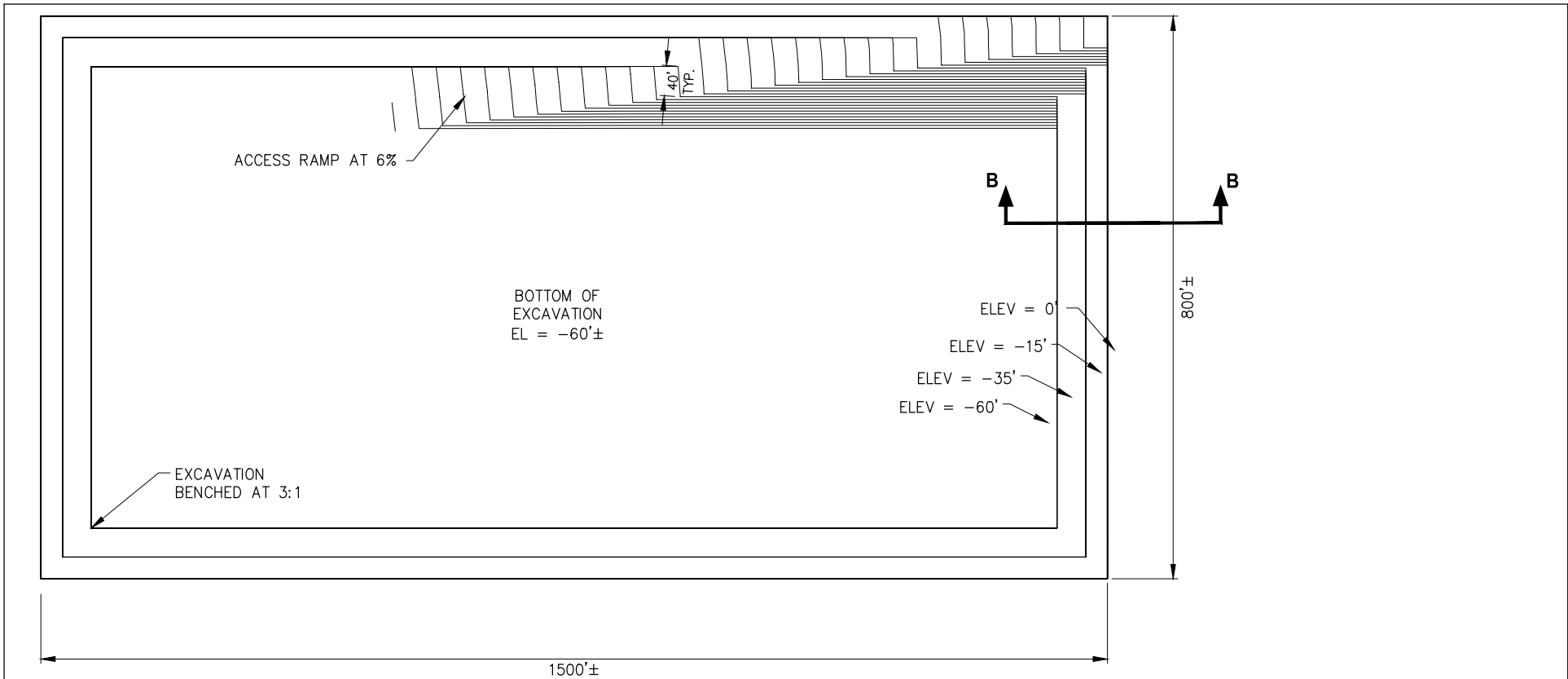


- NOTES:**
1. PRELIMINARY AND SUBJECT TO CHANGE. ALL DIMENSIONS AND DRAWINGS ARE TYPICAL.
  2. TO BE CONFIRMED/REVISED USING MORE GEOTECHNICAL DATA.
  3. SOME FLEXIBILITY SHOULD BE MAINTAINED TO ACCOUNT FOR ACTUAL IN-PLACE MATERIALS AS DISCOVERED DURING EXCAVATIONS.
  4. BERM REQUIREMENTS, DESIGN, AND CONSTRUCTION TO BE ADDRESSED IN FEED USING HYDROLOGY AND OTHER DATA REQUIRED.

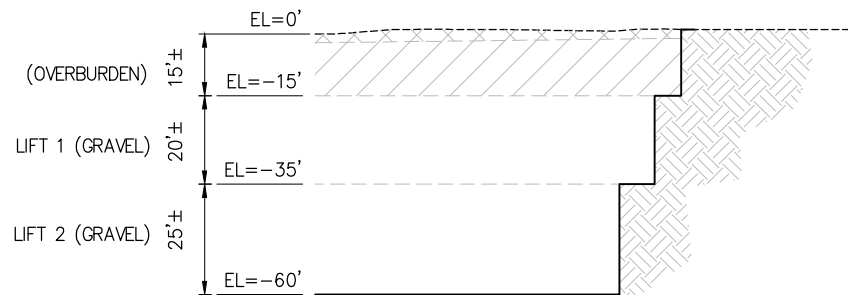
**GAS TREATMENT PLANT MINE SITE LAYOUT**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**RESERVOIR EXCAVATION**  
NTS



**SECTION B-B**  
**RESERVOIR EXCAVATION**  
NTS

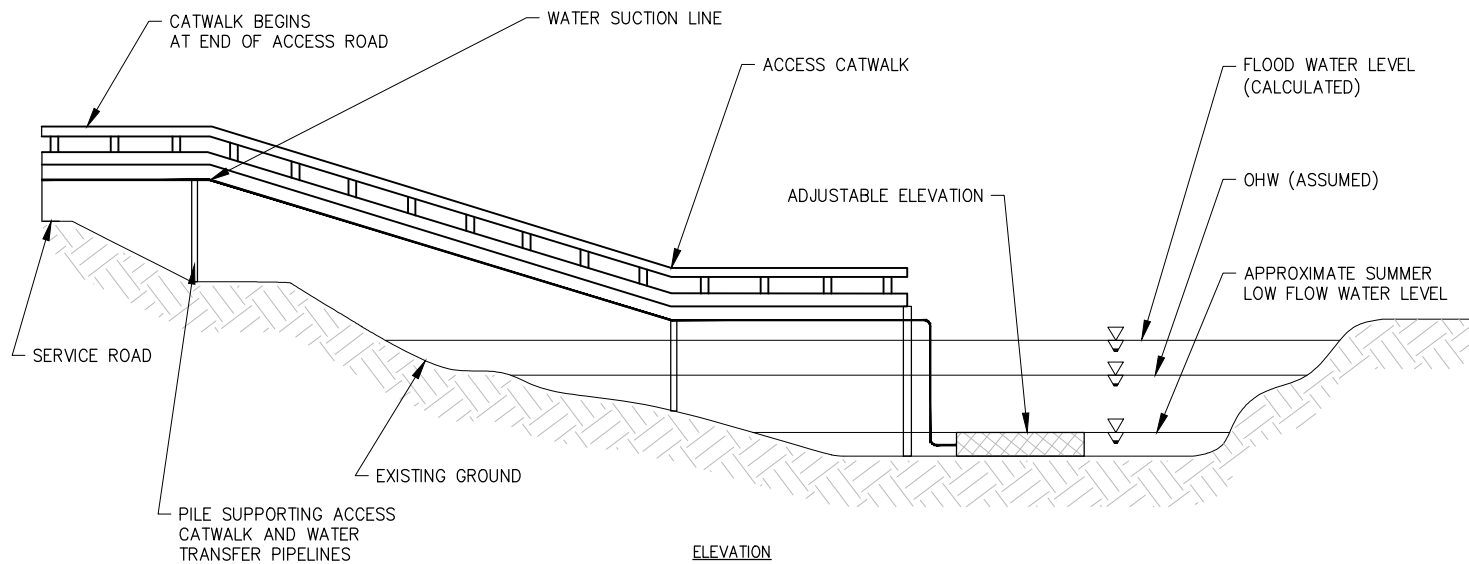
**NOTES:**

1. PRELIMINARY AND SUBJECT TO CHANGE. ALL DIMENSIONS AND DRAWINGS ARE TYPICAL.
2. TO BE CONFIRMED/REVISED USING MORE GEOTECHNICAL DATA.
3. SOME FLEXIBILITY SHOULD BE MAINTAINED TO ACCOUNT FOR ACTUAL IN-PLACE MATERIALS AS DISCOVERED DURING EXCAVATIONS.
4. BERM REQUIREMENTS, DESIGN, AND CONSTRUCTION TO BE ADDRESSED IN FEED USING HYDROLOGY AND OTHER DATA REQUIRED.

**GAS TREATMENT PLANT RESERVOIR LAYOUT**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**PRELIMINARY PUTULIGAYUK RIVER INTAKE ACCESS DETAIL**  
NOT TO SCALE

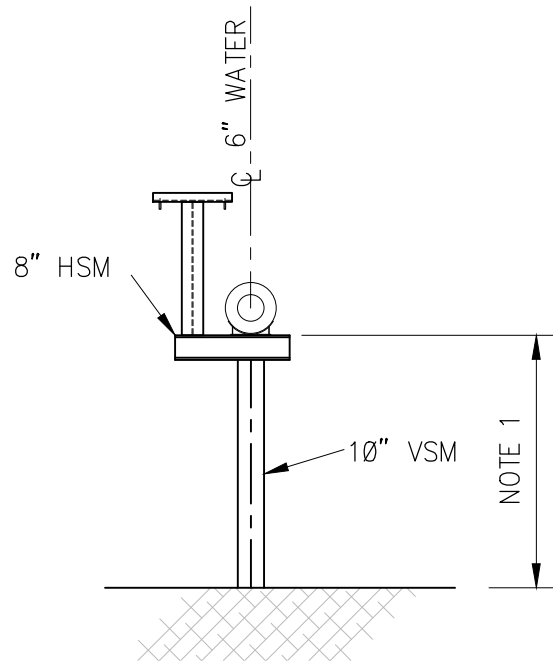
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

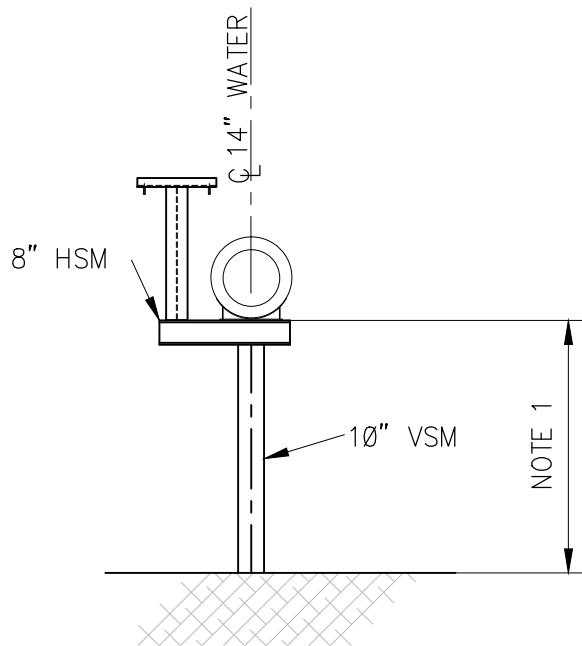
1. DETAILS BASED ON STANDARD NORTH SLOPE DESIGN CRITERIA. ALL DESIGN CRITERIA ON THIS DRAWING NEED TO BE REVISITED IN BOTH FEED AND DETAILED ENGINEERING STAGES, AND MODIFIED AS NEEDED AS THE DESIGN CRITERIA ARE FURTHER DEVELOPED.
2. SEE GAS TREATMENT PLANT SITE PLAN FOR WATERLINE LOCATION, SHEET 21 & 25 OF 195.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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GTP PIPE SUPPORT 1



GTP PIPE SUPPORT 2

GTP PIPE SUPPORTS

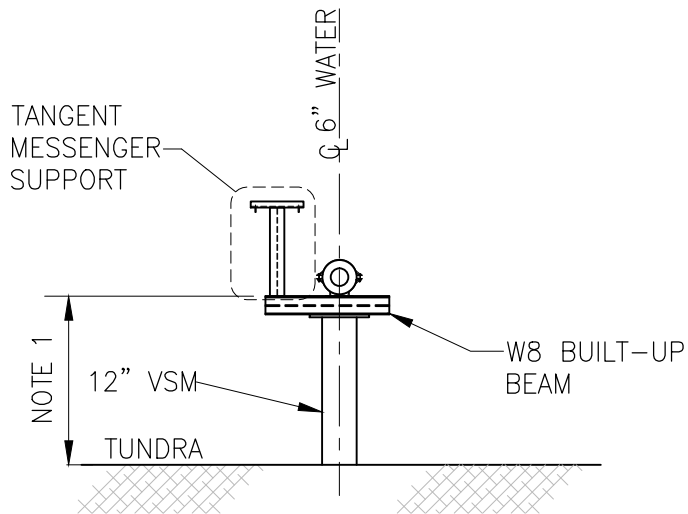
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

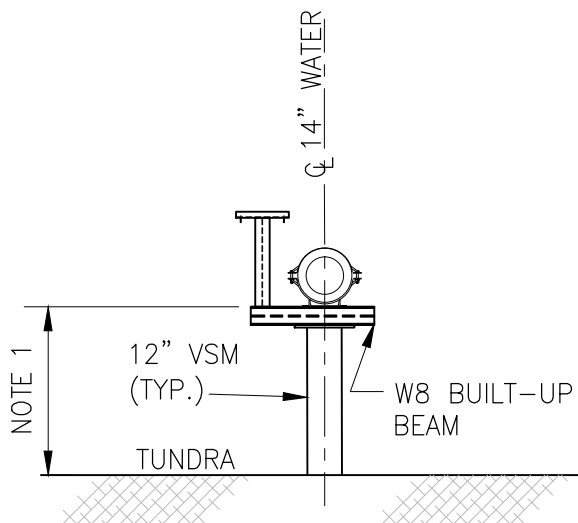
NOTES:

1. MATCH EXISTING T.O.S. WHEN PARALLELING EXISTING PIPELINES OTHERWISE 7'-0" MIN. TO T.O.S. FOR CROSS COUNTRY PIPELINES.
2. LOOP SIZES & ANALYSIS IS REQUIRED IN FEED TO CONFIRM STRESS/SIZE.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



GTP ANCHOR SUPPORT 1



GTP ANCHOR SUPPORT 2

GTP ANCHOR SUPPORTS

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

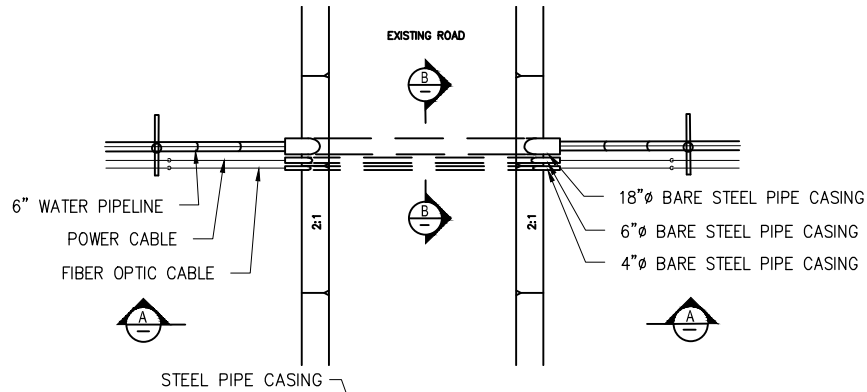
NOTES:

1. MATCH EXISTING T.O.S. WHEN PARALLELING EXISTING PIPELINES OTHERWISE 7'-0" MIN. TO T.O.S. FOR CROSS COUNTRY PIPELINES.
2. LOOP SIZES & ANALYSIS IS REQUIRED IN FEED TO CONFIRM STRESS/SIZE.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

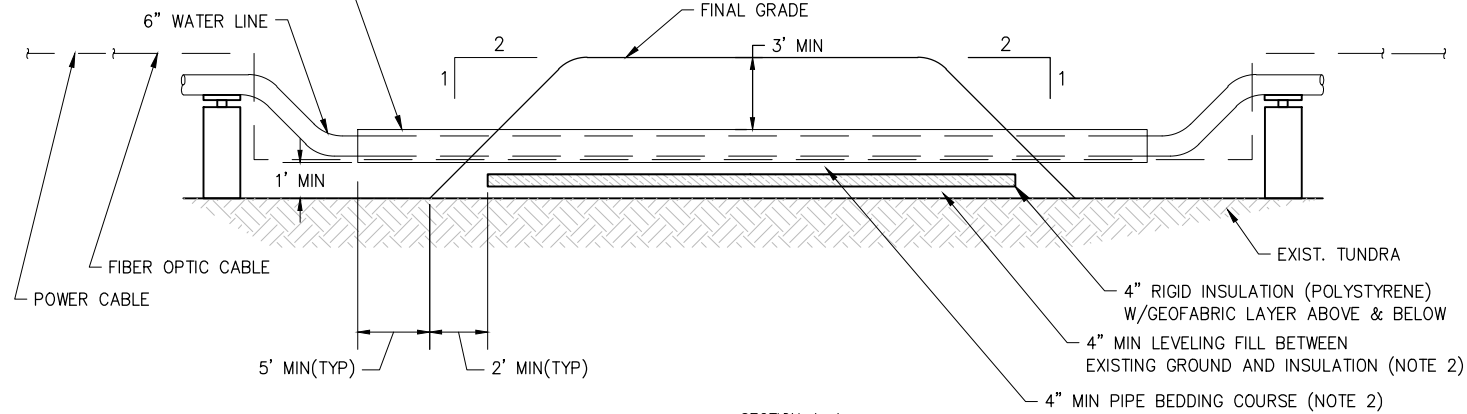
Sheet 033 of 195 Date: 9/1/2018



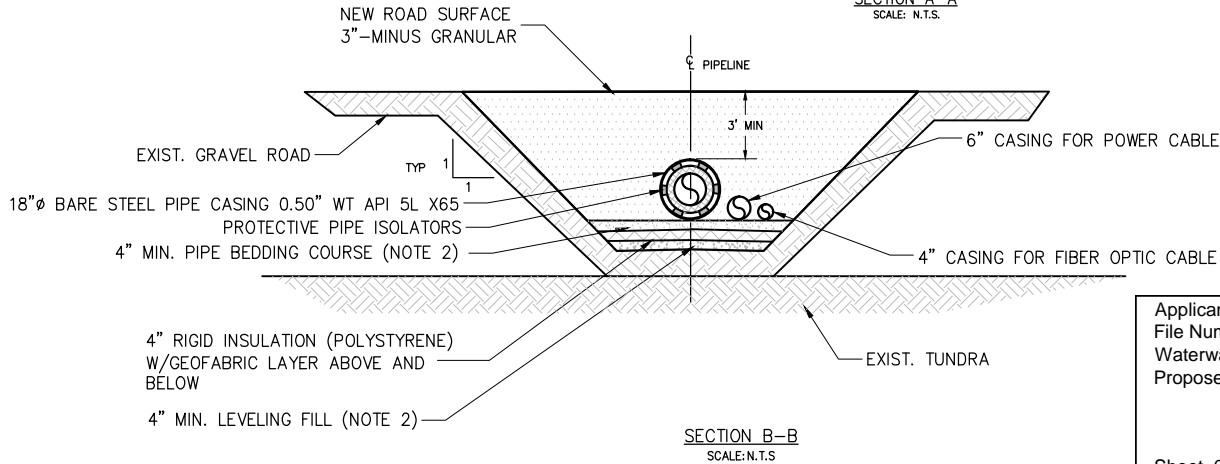


**NOTES:**

1. DETAILS BASED ON STANDARD NORTH SLOPE DESIGN CRITERIA. ALL DIMENSIONS AND DESIGN CRITERIA ON THIS DRAWING NEED TO BE REVISITED IN BOTH FEED AND DETAILED ENGINEERING STAGES, AND MODIFIED AS NEEDED AS THE DESIGN CRITERIA ARE FURTHER DEVELOPED.
2. PIPE BEDDING AND LEVELING MATERIAL SHALL BE 3/8" PEA GRAVEL.



SECTION A-A  
SCALE: N.T.S.



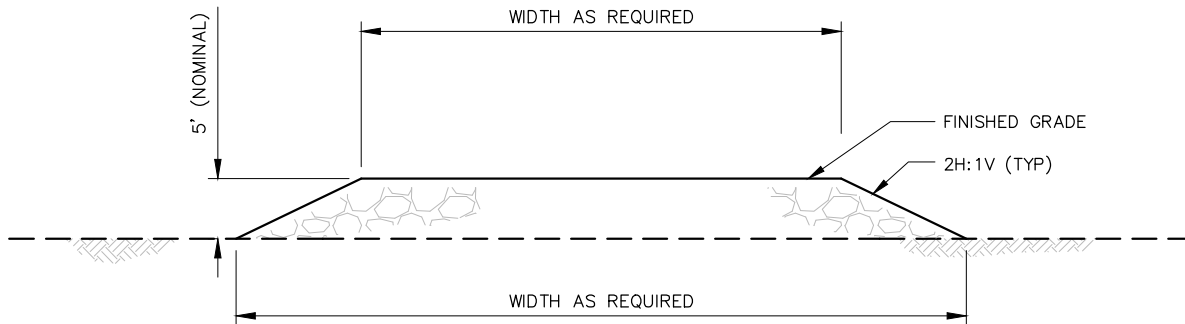
SECTION B-B  
SCALE: N.T.S.

**GTP WATER PIPELINE ROAD CROSSINGS**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**GTP & PTTL MISCELLANEOUS GRAVEL PADS - TYPICAL CROSS SECTION**  
 NOT TO SCALE

**NOTES:**

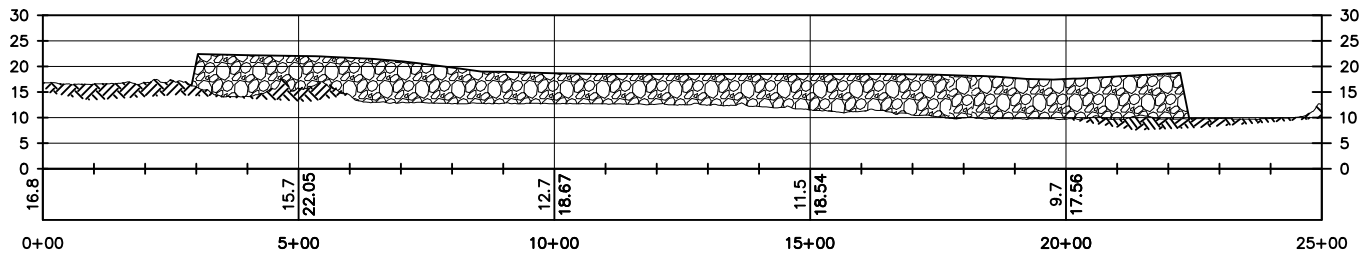
1. 5 FOOT GRAVEL THICKNESS IS NOMINAL. GRAVEL THICKNESS WILL VARY BASED ON TOPOGRAPHY AND WILL BE SUFFICIENT TO STABILIZE THE FOOTPRINT OF THE PAD.

**LEGEND**

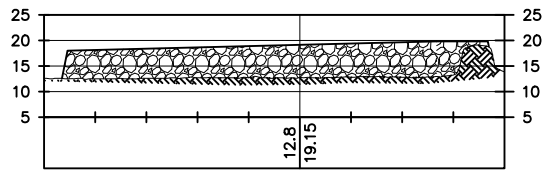
FINAL GRADE	—————
EXISTING GRADE	- - - - -
GRAVEL FILL	
EXISTING TUNDRA/FILL	

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



SECTION P  
 H. SCALE: 1" = 200'  
 V. SCALE: 1" = 20'



SECTION H  
 H. SCALE: 1" = 200'  
 V. SCALE: 1" = 20'

MODULE ROAD STAGING AREA - TYPICAL CROSS SECTION

NOT TO SCALE

NOTES:

1. 5 FOOT GRAVEL THICKNESS IS NOMINAL. GRAVEL THICKNESS WILL VARY BASED ON TOPOGRAPHY AND WILL BE SUFFICIENT TO STABILIZE THE FOOTPRINT OF THE PAD.

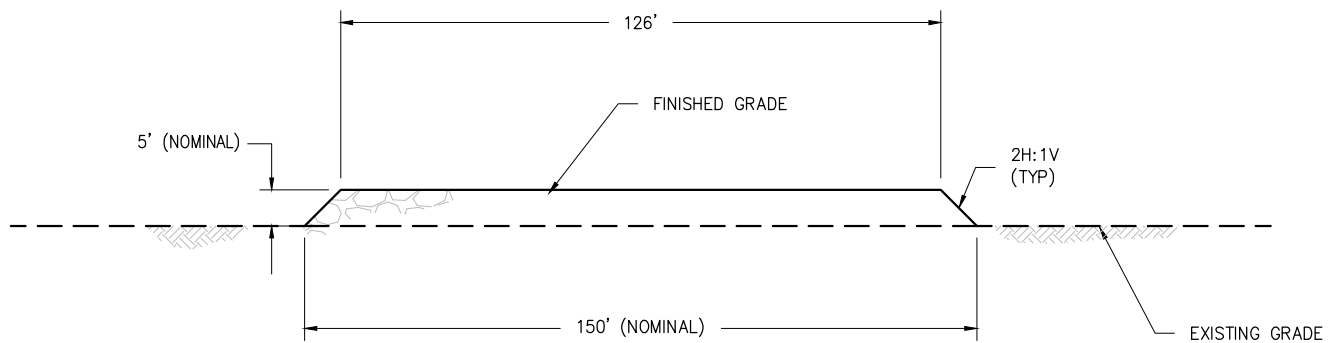
PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

LEGEND

- FINAL GRADE
- EXISTING GRADE
- GRAVEL FILL
- EXISTING TUNDRA/FILL

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**NOTES:**



1. 5 FOOT GRAVEL THICKNESS IS NOMINAL. GRAVEL THICKNESS WILL VARY BASED ON TOPOGRAPHY AND WILL BE SUFFICIENT TO STABILIZE THE FOOTPRINT OF THE ROAD.

**GTP MODULE HAUL ROAD (NEW) - CROSS SECTION**

NOT TO SCALE

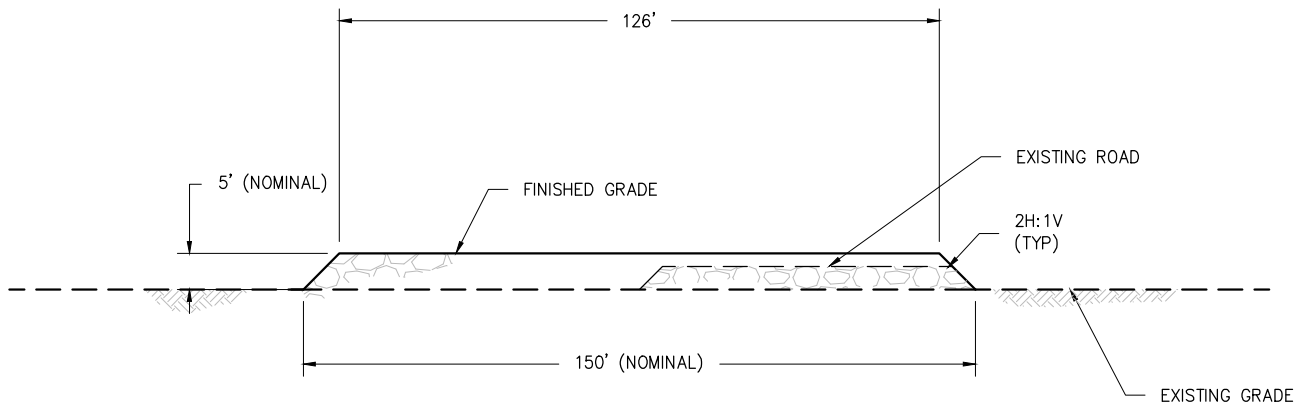
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**LEGEND**

FINAL GRADE	—————
EXISTING GRADE	- - - - -
GRAVEL FILL	
EXISTING TUNDRA/FILL	

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTE:**

1. 5 FOOT GRAVEL THICKNESS IS NOMINAL. GRAVEL THICKNESS WILL VARY BASED ON TOPOGRAPHY AND WILL BE SUFFICIENT TO STABILIZE THE FOOTPRINT OF THE ROAD.

**GTP MODULE HAUL ROAD BUILT ON EXISTING ROAD - CROSS SECTION**

NOT TO SCALE

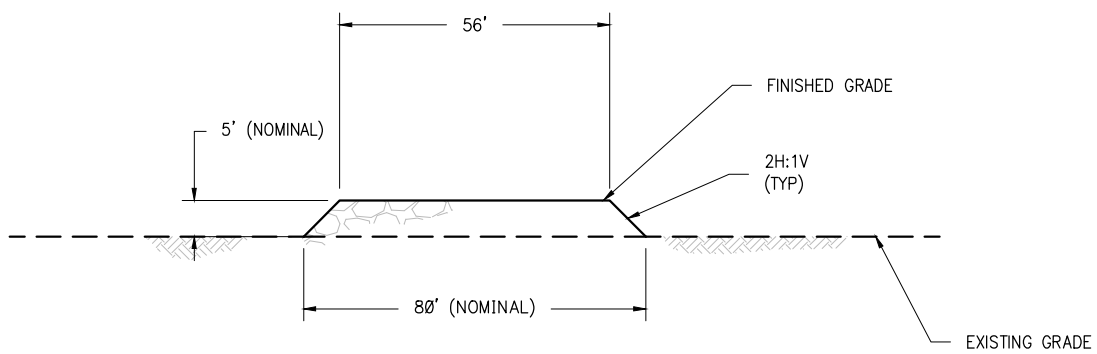
**LEGEND**

FINAL GRADE	—————
EXISTING GRADE	- - - - -
GRAVEL FILL	
EXISTING TUNDRA/FILL	

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTES:**

1. 5 FOOT GRAVEL THICKNESS IS NOMINAL. GRAVEL THICKNESS WILL VARY BASED ON TOPOGRAPHY AND WILL BE SUFFICIENT TO STABILIZE THE FOOTPRINT OF THE ROAD.

**GTP MINE GRAVEL HAUL ROAD - CROSS SECTION**

NOT TO SCALE

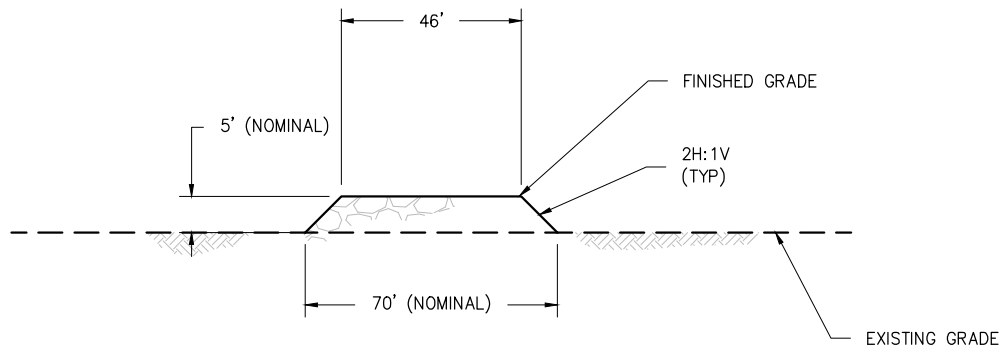
**LEGEND**

- FINAL GRADE \_\_\_\_\_
- EXISTING GRADE - - - - -
- GRAVEL FILL 
- EXISTING TUNDRA/FILL 

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTES:**

1. 5 FOOT GRAVEL THICKNESS IS NOMINAL. GRAVEL THICKNESS WILL VARY BASED ON TOPOGRAPHY AND WILL BE SUFFICIENT TO STABILIZE THE FOOTPRINT OF THE ROAD.

**GTP EMERGENCY ACCESS & RIVER ACCESS ROADS - CROSS SECTION**  
 NOT TO SCALE

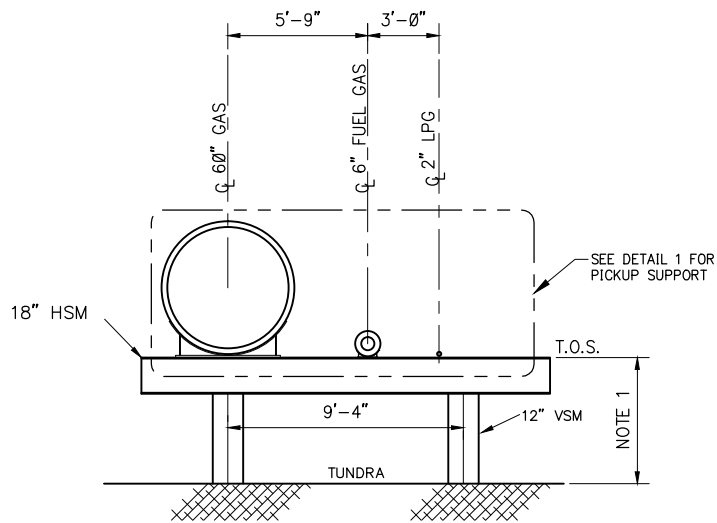
**LEGEND**

- FINAL GRADE 
- EXISTING GRADE 
- GRAVEL FILL 
- EXISTING TUNDRA/FILL 

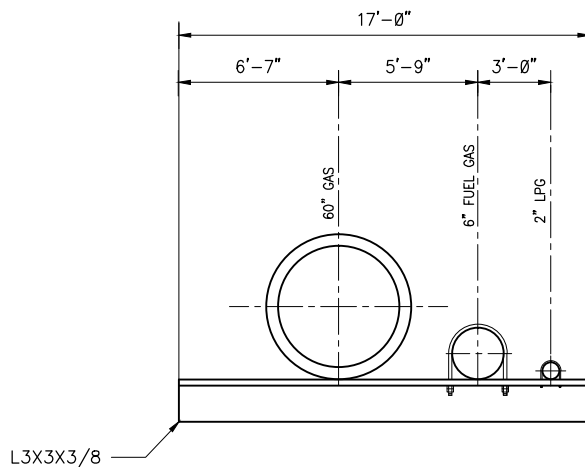
**PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.**

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**PBTL PIPE SUPPORT**



**DETAIL 1 - INTERMEDIATE PICKUP SUPPORT**

**PBTL PIPE SUPPORT**

NOT TO SCALE

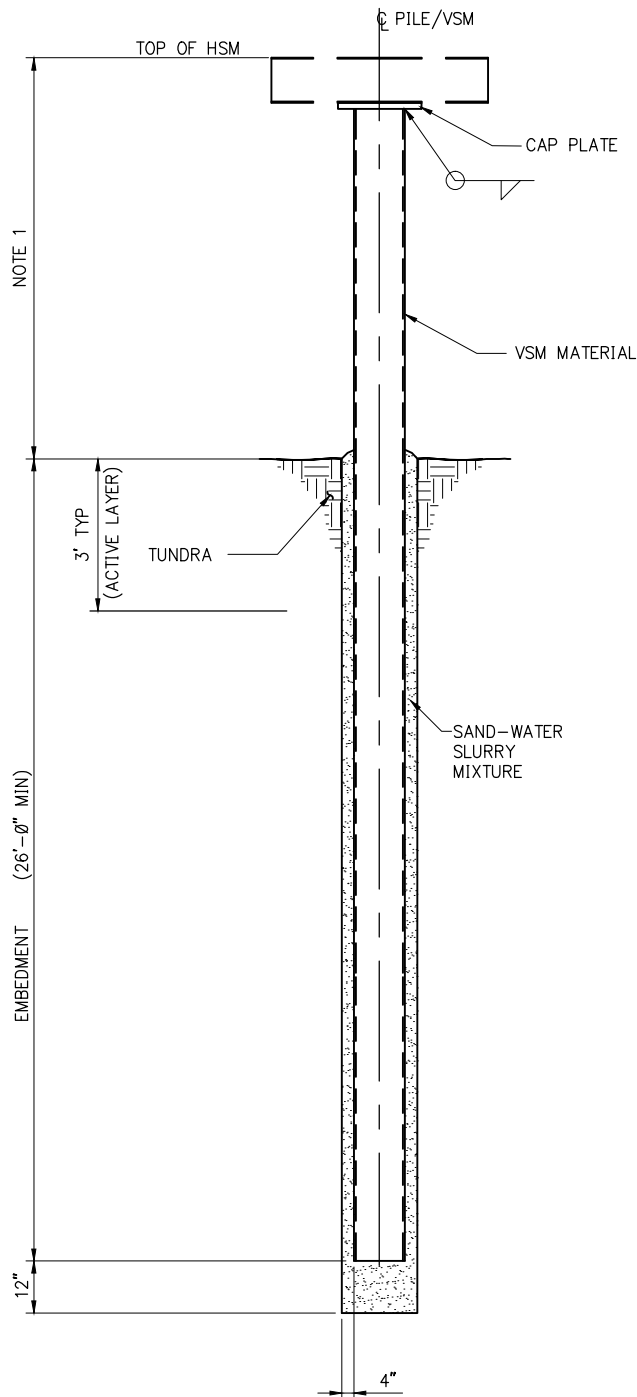
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. MATCH EXISTING T.O.S. WHEN PARALLELING EXISTING PIPELINES OTHERWISE 7'-0" MIN. TO T.O.S. FOR CROSS COUNTRY PIPELINES.
2. LOOP SIZES & ANALYSIS IS REQUIRED IN FEED TO CONFIRM STRESS/SIZE.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project





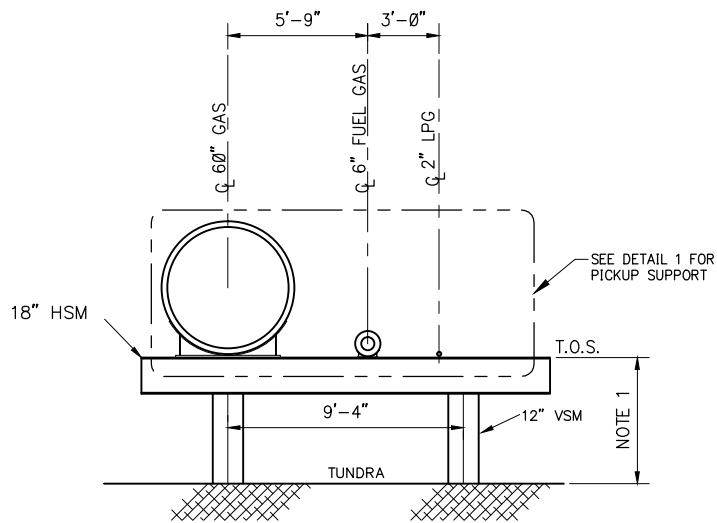
**VSM EMBEDMENT DETAIL**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

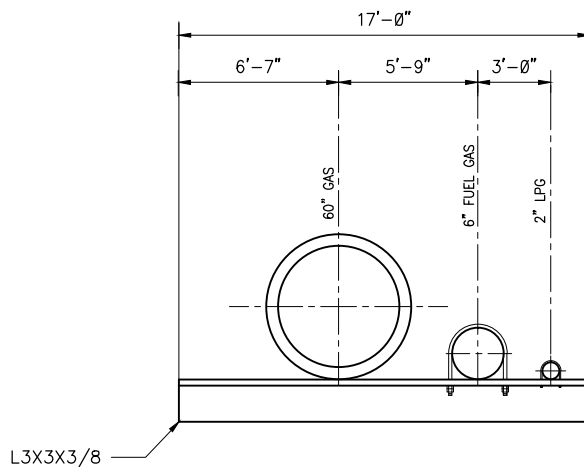
**NOTES:**

1. MATCH EXISTING T.O.S. WHEN PARALLELING EXISTING PIPELINES OTHERWISE 7'-0" MIN. TO T.O.S. FOR CROSS COUNTRY PIPELINES.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**PBTL PIPE SUPPORT**



**DETAIL 1 - INTERMEDIATE PICKUP SUPPORT**

**PBTL PIPE SUPPORT**

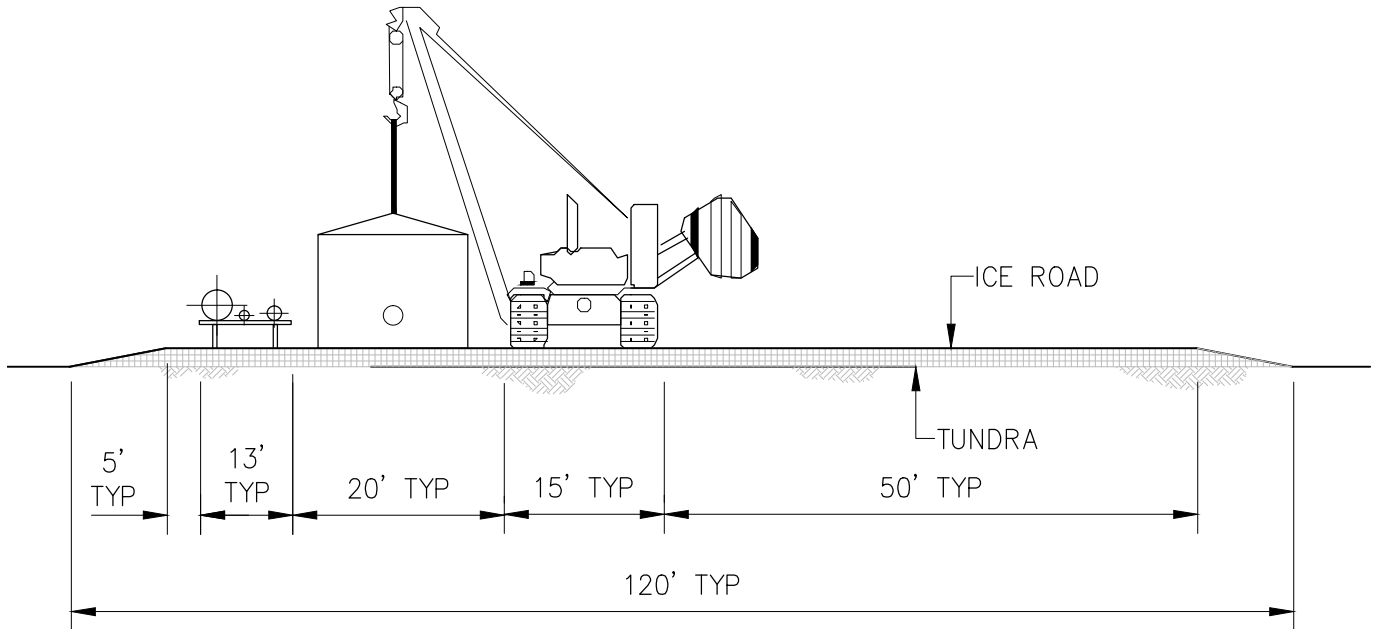
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. MATCH EXISTING T.O.S. WHEN PARALLELING EXISTING PIPELINES OTHERWISE 7'-0" MIN. TO T.O.S. FOR CROSS COUNTRY PIPELINES.
2. LOOP SIZES & ANALYSIS IS REQUIRED IN FEED TO CONFIRM STRESS/SIZE.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

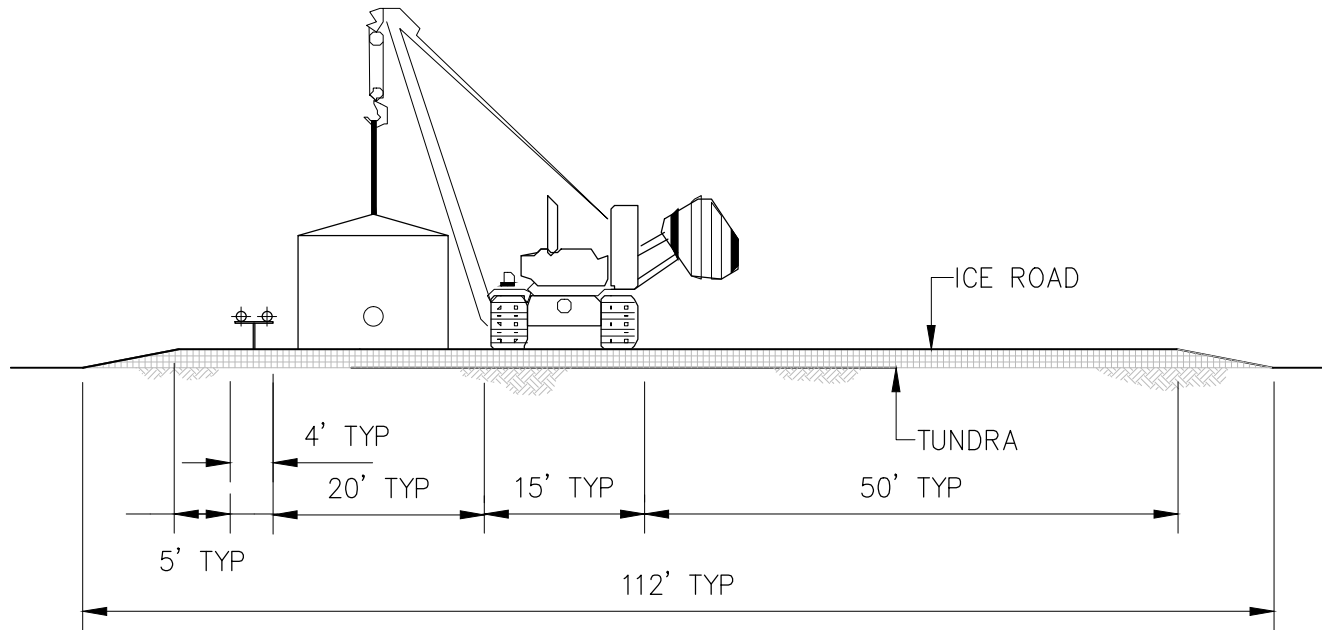


**ICE ROAD CONSTRUCTION FOR PBTL & GTP TRANSFER LINES**  
 NOT TO SCALE

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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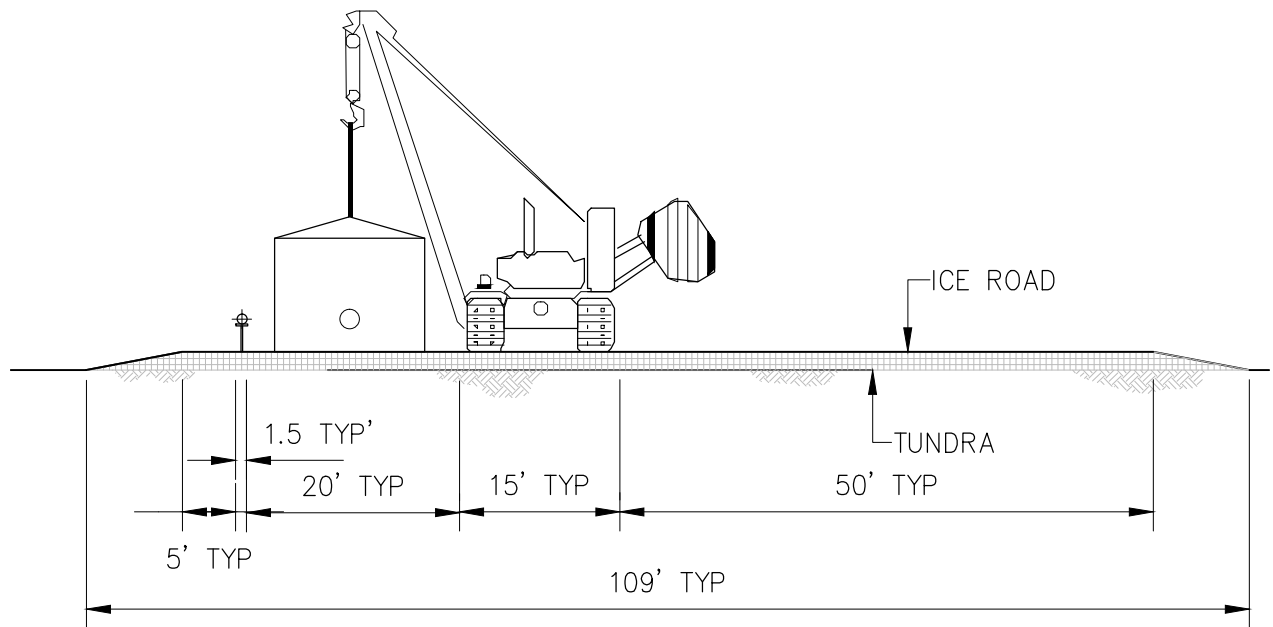


**ICE ROAD CONSTRUCTION FOR TWO GTP PIPELINES**  
 NOT TO SCALE

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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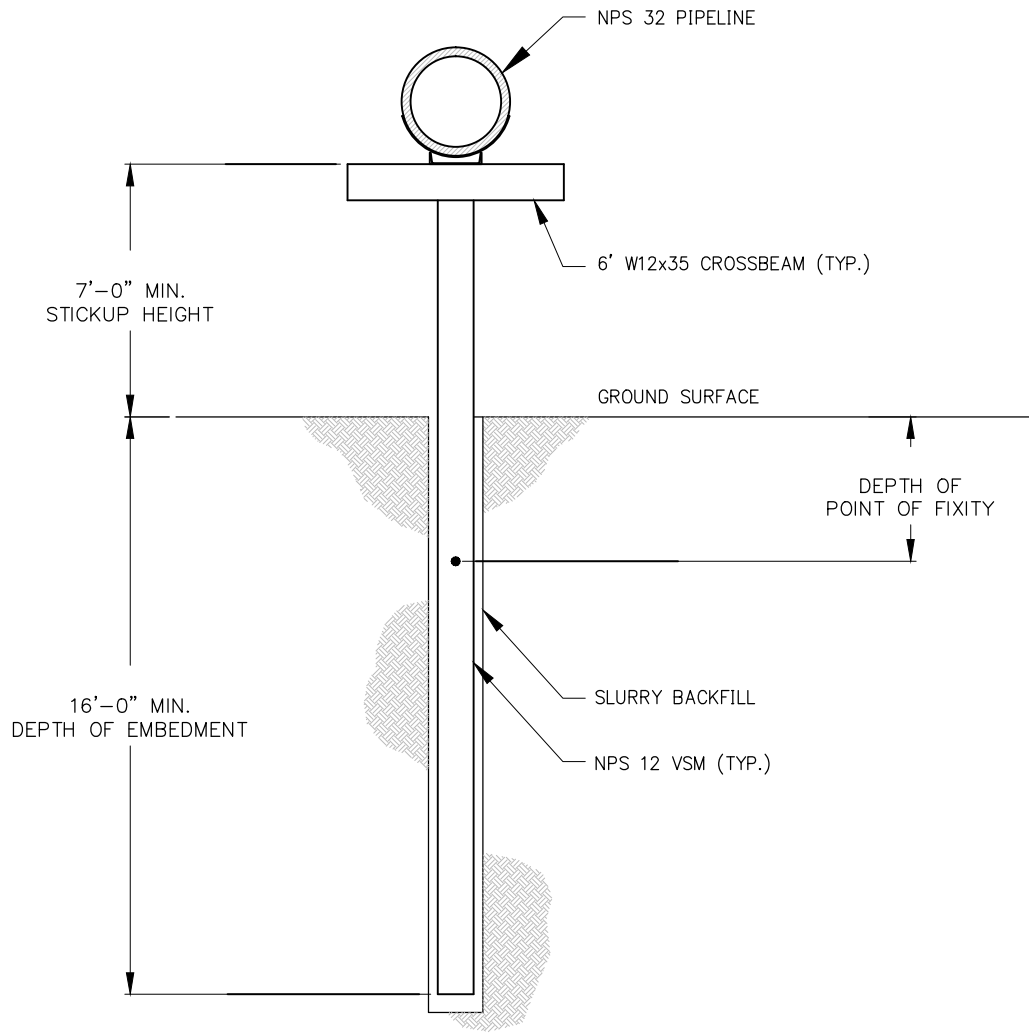
**ICE ROAD CONSTRUCTION FOR A SINGLE GTP PIPELINE**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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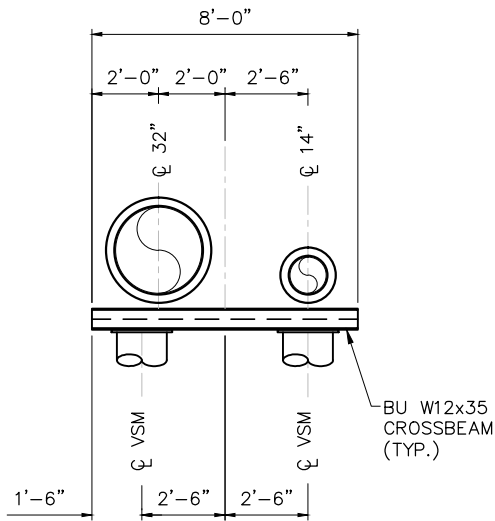
**PTTL: SUPPORT TYPICALS - SUPPORT**

NOT TO SCALE

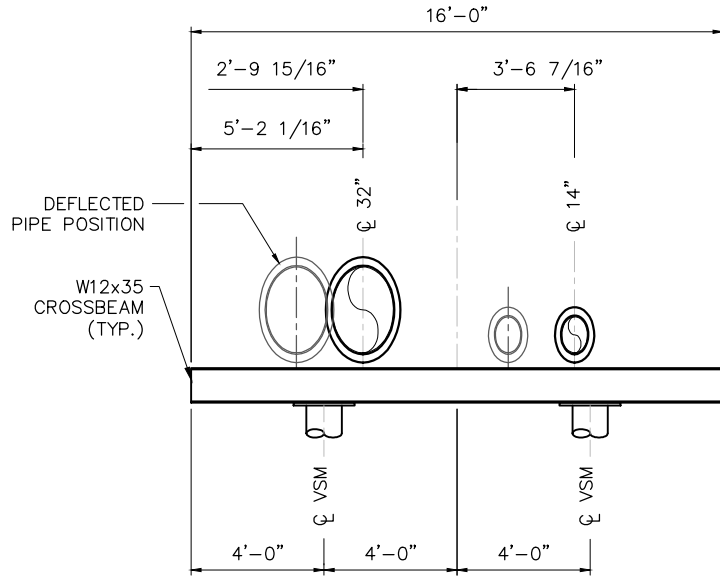
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

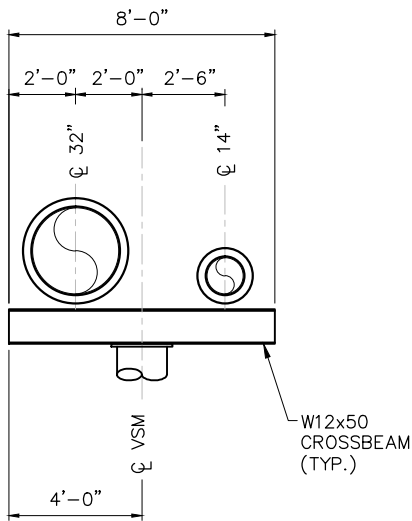
Sheet 047 of 195      Date: 9/1/2018



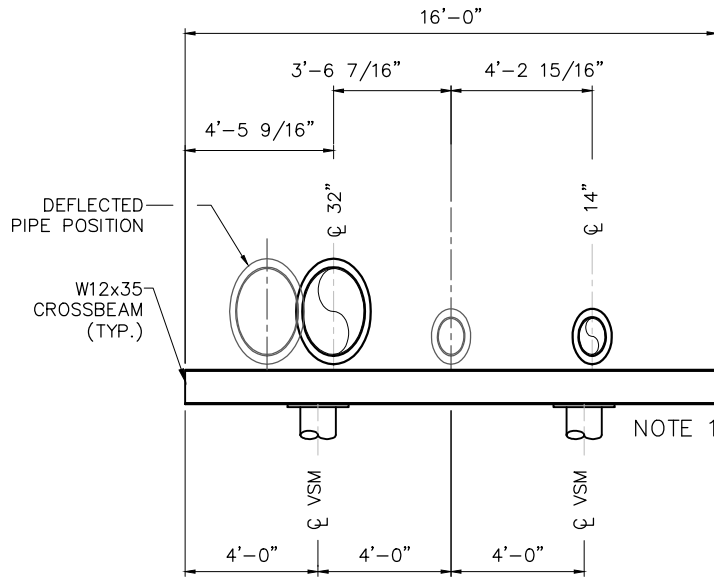
ANCHOR SUPPORT



SLIDING SUPPORT  
(VIEWED AT 45° TO PIPE IN LINE)



GUIDED SUPPORT  
(ADJACENT TO LOOP)



SLIDING SUPPORT  
(VIEWED AT 45° TO PIPE IN LOOP)

PTTL: SUPPORT TYPICALS - SHARED HSM/VSM  
FOR PTTL AND PTU WEST GATHERING LINE

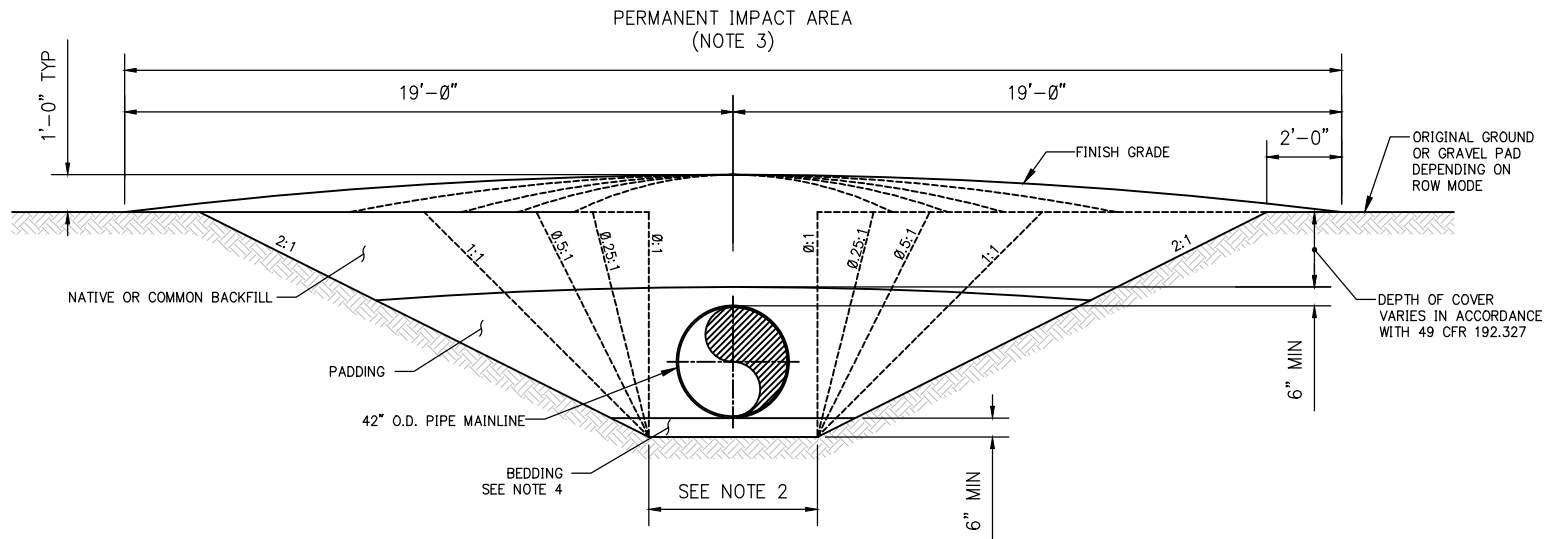
NOT TO SCALE

NOTE:

1. SLIDING SUPPORTS ARE TYPICALLY INSTALLED AT 45° FROM THE ALIGNMENT. DIMENSIONS SHOWN ARE ALONG THE HSM.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**BURIED PIPE IN CONVENTIONAL TRENCH DETAIL (VARYING SIDE SLOPES)**  
NOT TO SCALE

SIDE SLOPES ARE BASED ON SOIL TYPE AND TRENCHING EQUIPMENT		
GENERALIZED DITCH SOILS	SIDEWALL SLOPE	CONSTRUCTION MODE
FROZEN COARSE-GRAINED SOIL	VERTICAL	CHAIN DITCHER - DIFFICULT
FROZEN COARSE-GRAINED SOIL (STEEP)	VERTICAL	CHAIN DITCHER - DIFFICULT
FROZEN COARSE-GRAINED SOIL W/COBBLES	VERTICAL	CHAIN DITCHER - DIFFICULT
FROZEN FINE-GRAINED SOIL	VERTICAL	CHAIN DITCHER
FROZEN FINE-GRAINED SOIL (STEEP)	VERTICAL	CHAIN DITCHER
FROZEN FINE-GRAINED SOIL W/COBBLES	VERTICAL	CHAIN DITCHER
FROZEN ORGANICS/PEAT	VERTICAL	CHAIN DITCHER
FROZEN WEATHERED ROCK	0.5	RIP & BACKHOE
THAWED / FROZEN WEATHERED ROCK	VERTICAL	CHAIN DITCHER - DIFFICULT
THAWED COARSE-GRAINED SOIL	1	BACKHOE
THAWED COARSE-GRAINED SOIL (HIGH WATER)	2	BACKHOE
THAWED COARSE-GRAINED SOIL W/COBBLES	1	BACKHOE
THAWED COARSE-GRAINED SOIL W/COBBLES (HIGH WATER)	2	BACKHOE
THAWED FINE-GRAINED SOIL	VERTICAL	WHEEL DITCHER
THAWED FINE-GRAINED SOIL (STEEP)	0.25	BACKHOE
THAWED OR FROZEN COMPETENT ROCK, FROZEN COARSE, FINE GRAINED SOIL	2	DRILL & SHOOT

49 CFR 192.327 COVER		
LOCATION	NORMAL SOIL INCHES (MILLIMETERS)	CONSOLIDATED ROCK INCHES (MILLIMETERS)
CLASS 1 LOCATIONS	30 (762)	18 (457)
CLASS 2, 3, AND 4 LOCATIONS	36 (914)	24 (610)
DRAINAGE DITCHES OF PUBLIC ROADS AND RAILROAD CROSSINGS	36 (914)	24 (610)
STRAN BASED DESIGN PIPE	36 (914)	36 (914)
ROCK OR PERMAFROST	2	DRILL & SHOOT

**NOTES:**

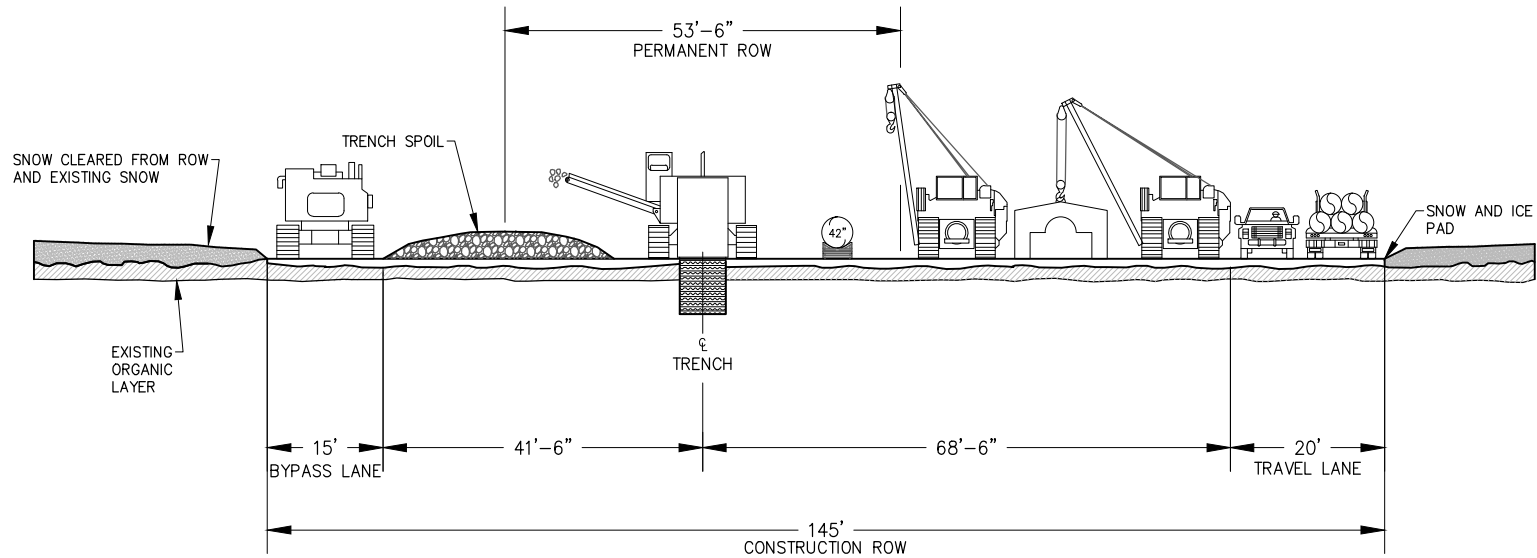
1. TYPICAL PIPE IN WETLANDS.
2. 5' FOR TRENCHER, 6' FOR BACKHOE.
3. IMPACT TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE-TO-TOE DIMENSION VARIES FROM A MINIMUM OF 9 UP TO A MAXIMUM OF 38 FEET.
4. BEDDING ONLY REQUIRED IF NATIVE TRENCH MATERIAL IS NOT SUITABLE, OTHERWISE PIPE CAN REST ON NATIVE SOIL TRENCH BOTTOM.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**TRENCH MODE - TRENCH DETAIL**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project





NOTES:

1. DRILL AND SHOOT MAY BE REQUIRED FOR DITCHING ACROSS LARGE ROCKY AREAS. IN THIS CASE, VOLUME OF DITCH AND SPOIL WOULD BE LARGER, REQUIRING ATWS FOR STORAGE (NOT SHOWN)

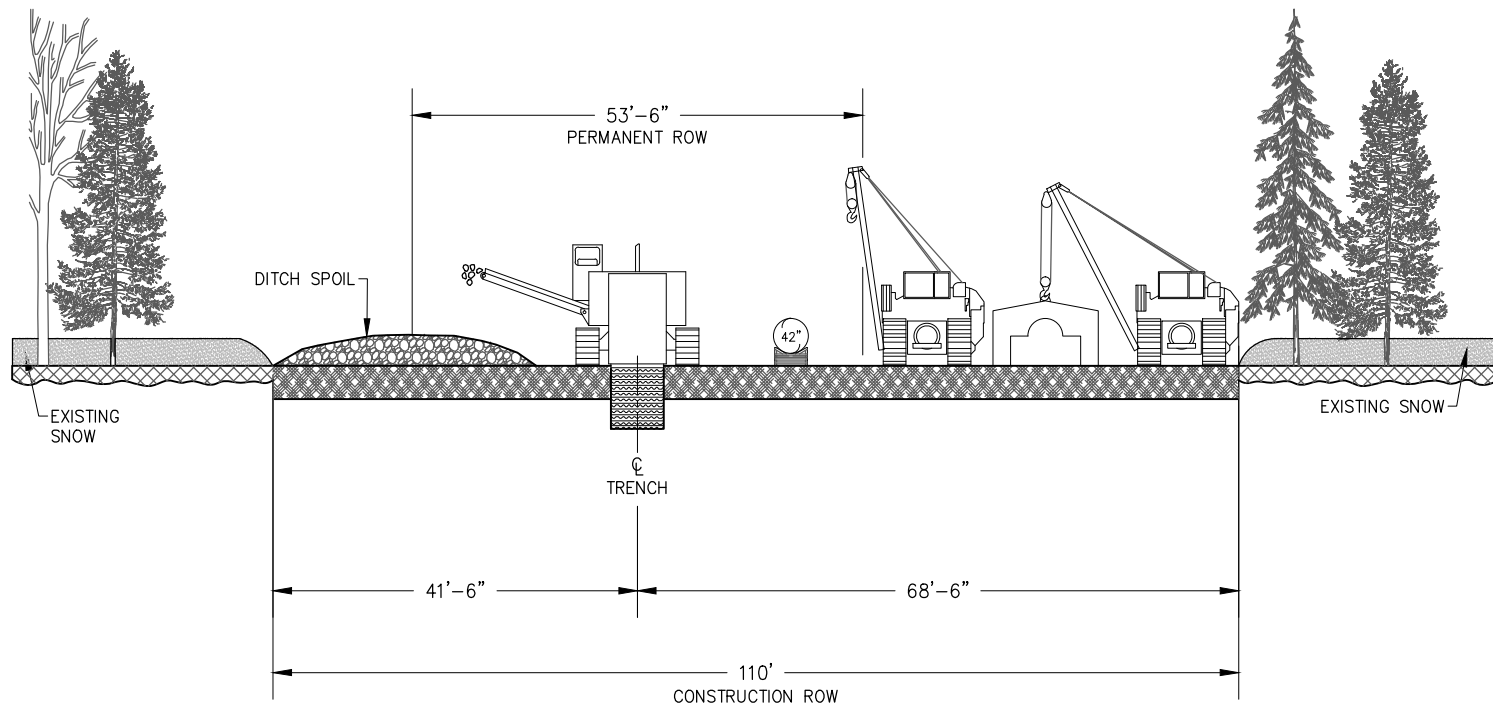
**RIGHT-OF-WAY MODE 1- ICE WORK PAD NORTH SLOPE WINTER**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTES:**

1. WHERE REQUIRED, 20 FEET MORE FOR TRAVEL LANE ON WORKING SIDE.
2. WHERE REQUIRED, 15 FEET MORE FOR BYPASS LANE ON SPOIL SIDE.
3. DRILL AND SHOOT MAY BE REQUIRED FOR DITCHING ACROSS ROCKY AREAS. IN THIS CASE, VOLUME OF DITCH AND SPOIL WOULD BE LARGER, REQUIRING ATWS FOR STORAGE (NOT SHOWN).
4. STORAGE FOR SNOW MANAGEMENT AND LOOSE SURFACE MATERIAL WILL REQUIRE ATWS (NOT SHOWN).
5. TREE STUMPS WILL BE REMOVED OVER THE DITCH-LINE AND DISPOSED OF, PRIOR TO DITCHING ACTIVITIES.

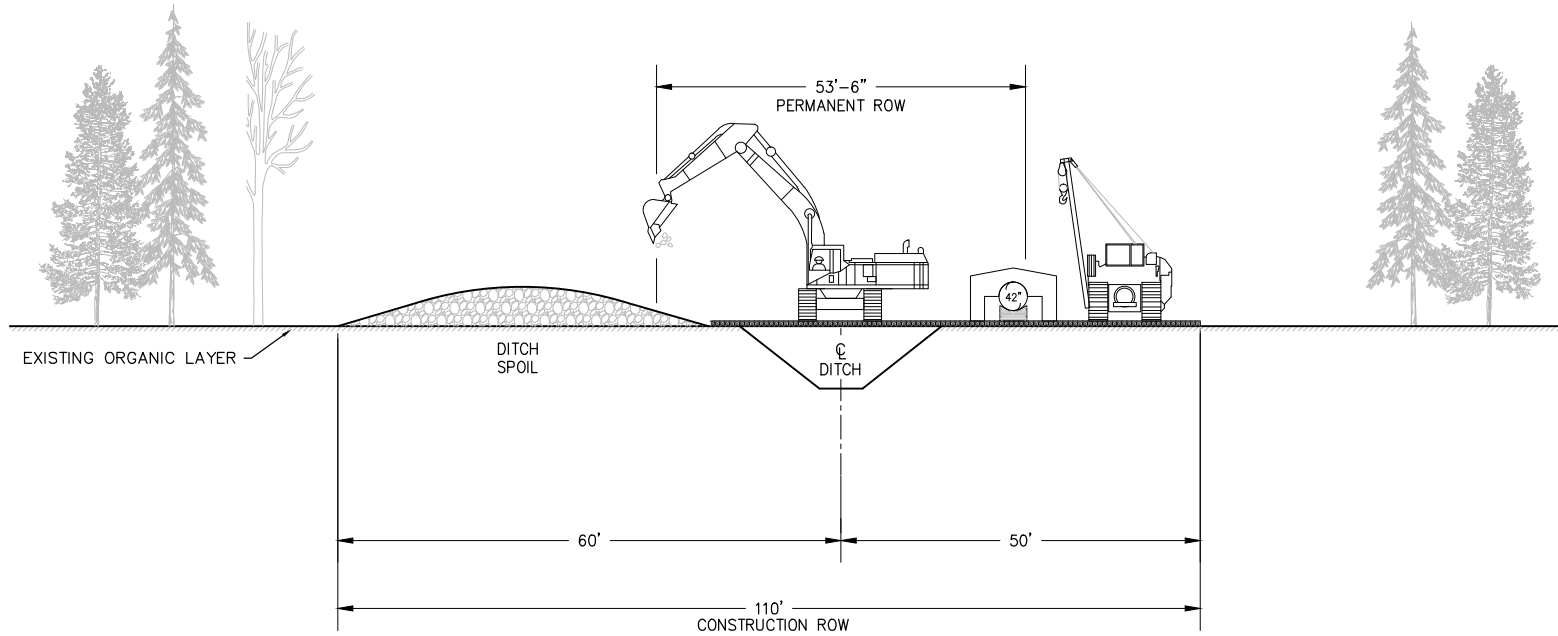
**RIGHT-OF-WAY MODE # 2 - WINTER FROST PACKED**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTES:**

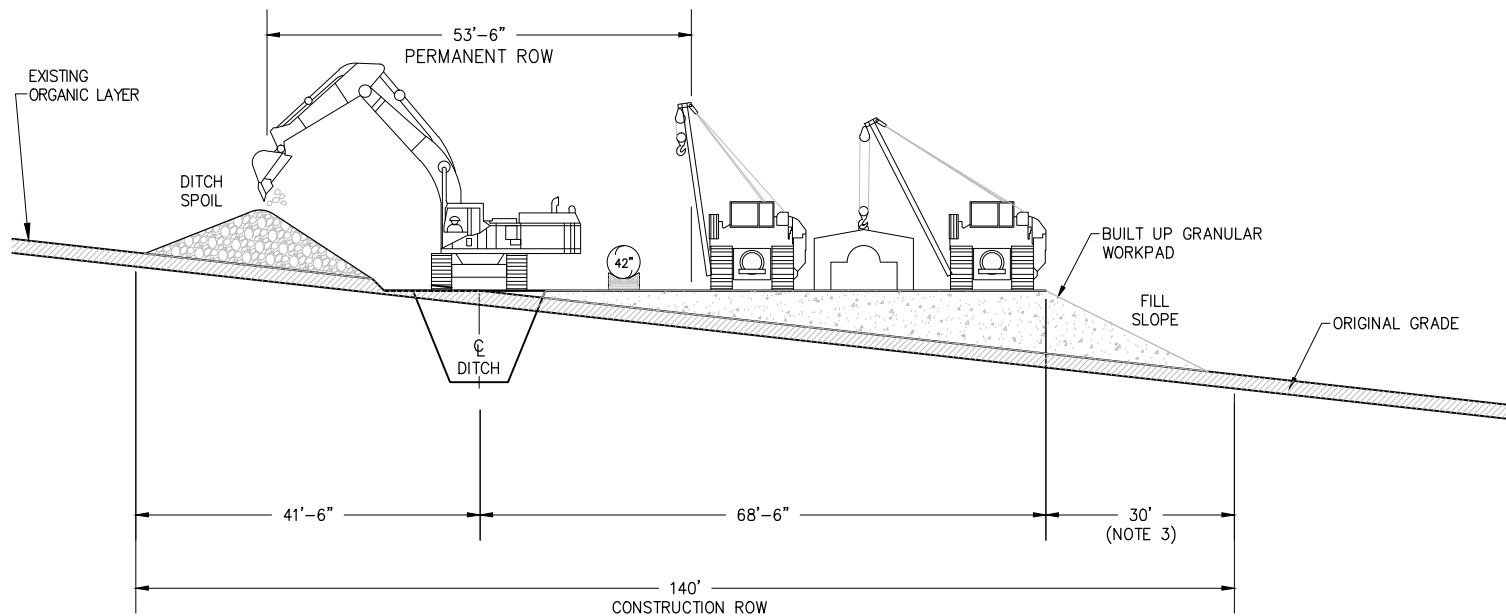
1. WHERE REQUIRED, 20 FEET MORE FOR TRAVEL LANE ON WORKING SIDE.
2. WHERE REQUIRED, 15 FEET MORE FOR BYPASS LANE ON SPOIL SIDE.
3. MATS WILL BE TRADITIONAL PIPELINE WETLAND MATS (HARDWOOD OR COMPOSITE).
4. MATS WILL BE USED ONLY AT SITE SPECIFIC LOCATIONS WHERE SATURATED WETLANDS PREVENT CONSTRUCTION EQUIPMENT FROM WORKING ON THE ROW.

**RIGHT-OF-WAY MODE # 3 - MATTED SUMMER WETLANDS**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTES:**

1. GEOTEXTILE AND GEOGRID REINFORCEMENT MAY BE PLACED AT BASE OF BUILT-UP WORK PAD.
2. NOMINAL CONFIGURATION FOR MAXIMUM OF 10% CROSS SLOPE.
3. WIDTH OF AREA FOR FILL SLOPE WILL VARY WITH TOPOGRAPHY AND MAY EXCEED VALUE SHOWN. CUT SLOPE AREA MAY ALSO BE REQUIRED FOR CROSS SLOPES STEEPER THAN 10%.
4. WHERE REQUIRED, 20 FEET MORE FOR TRAVEL LANE ON WORKING SIDE.
5. WHERE REQUIRED, 15 FEET MORE FOR BYPASS LANE ON SPOIL SIDE.

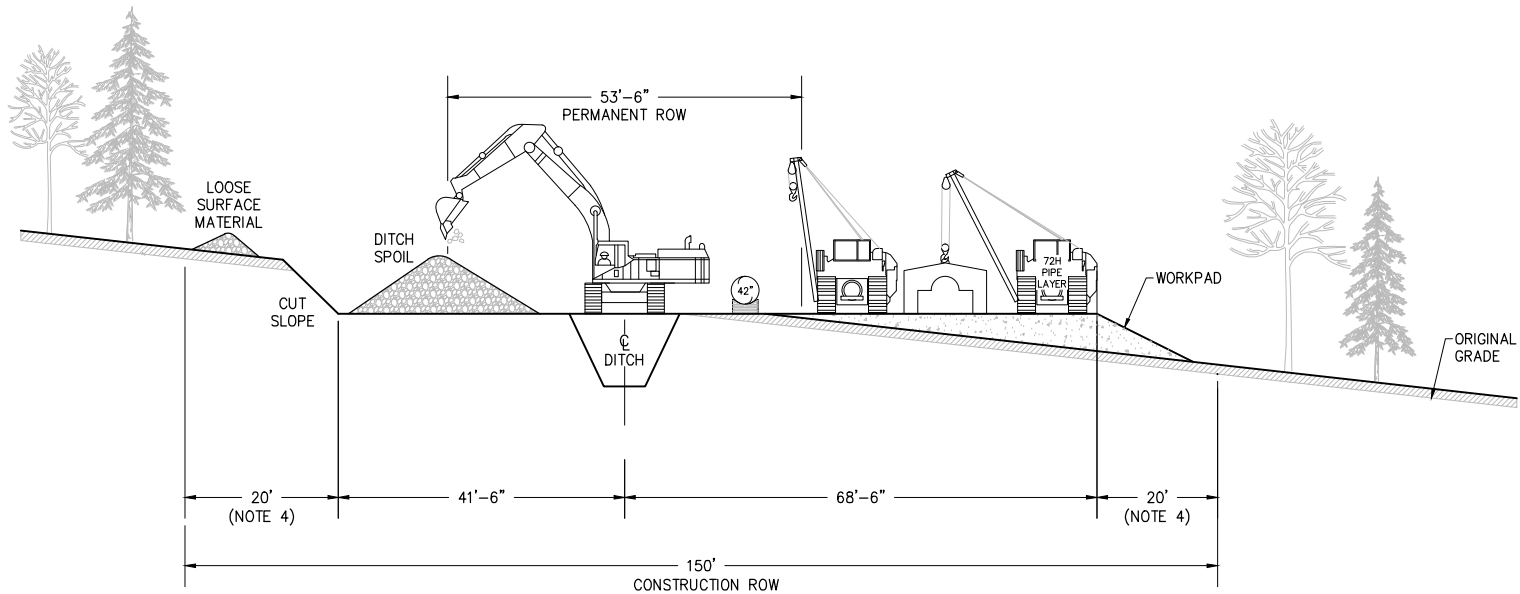
**RIGHT-OF-WAY MODE # 4 - GRANULAR WORK PAD OVER  
THAW SENSITIVE PERMAFROST (WINTER & SUMMER)**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTES:**

1. WHERE REQUIRED, 20 FEET MORE FOR TRAVEL LANE ON WORKING SIDE.
2. WHERE REQUIRED, 15 FEET MORE FOR BYPASS LANE ON SPOIL SIDE.
3. LOOSE SURFACE MATERIAL FROM GRADED CUT WILL BE STORED ON TOP OF CUT SLOPE WHERE REQUIRED.
4. WIDTH OF AREAS WILL VARY WITH TOPOGRAPHY AND MAY EXCEED VALUE SHOWN.

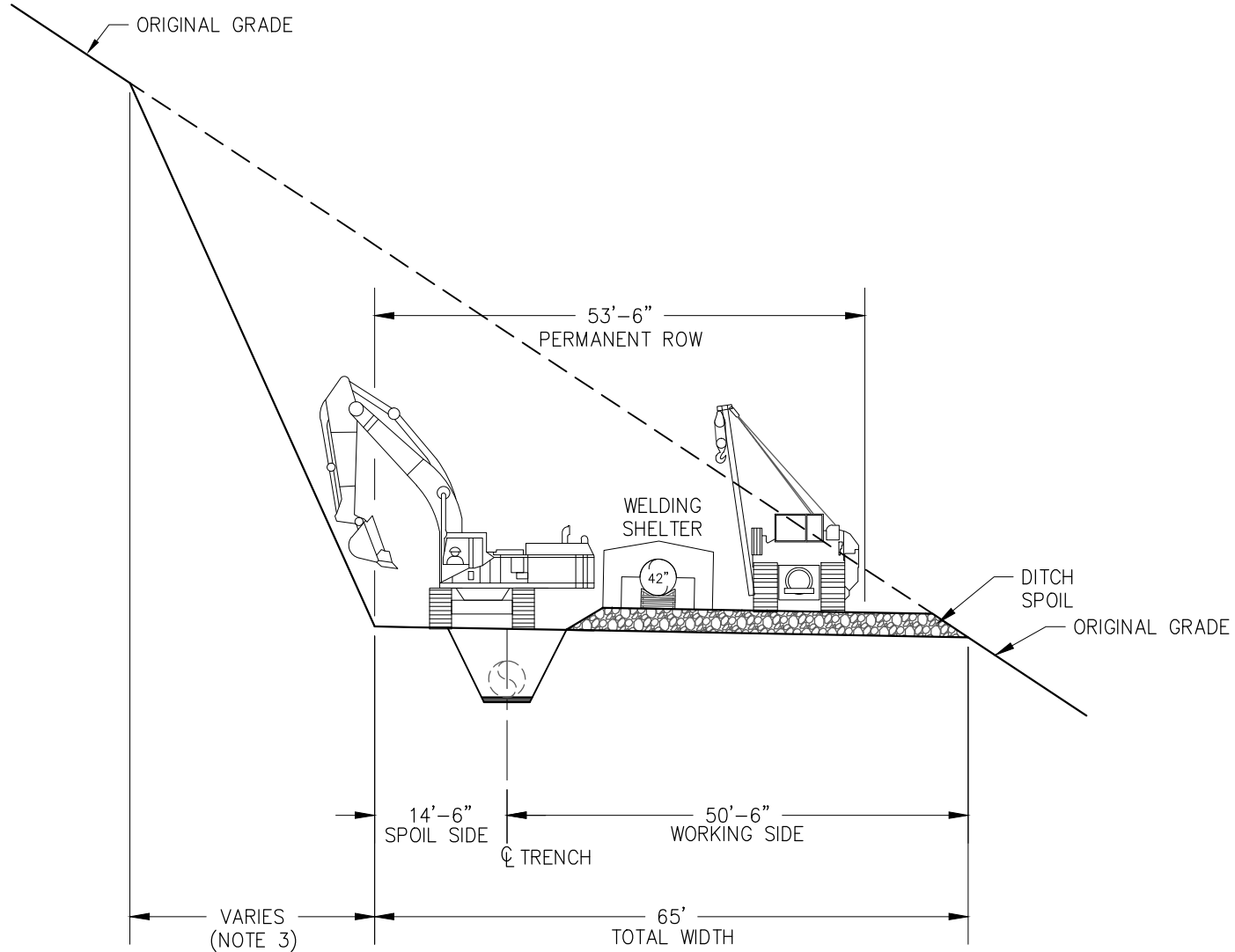
**RIGHT-OF-WAY MODE # 5A - GRADED CROSS SLOPES (WINTER OR SUMMER)**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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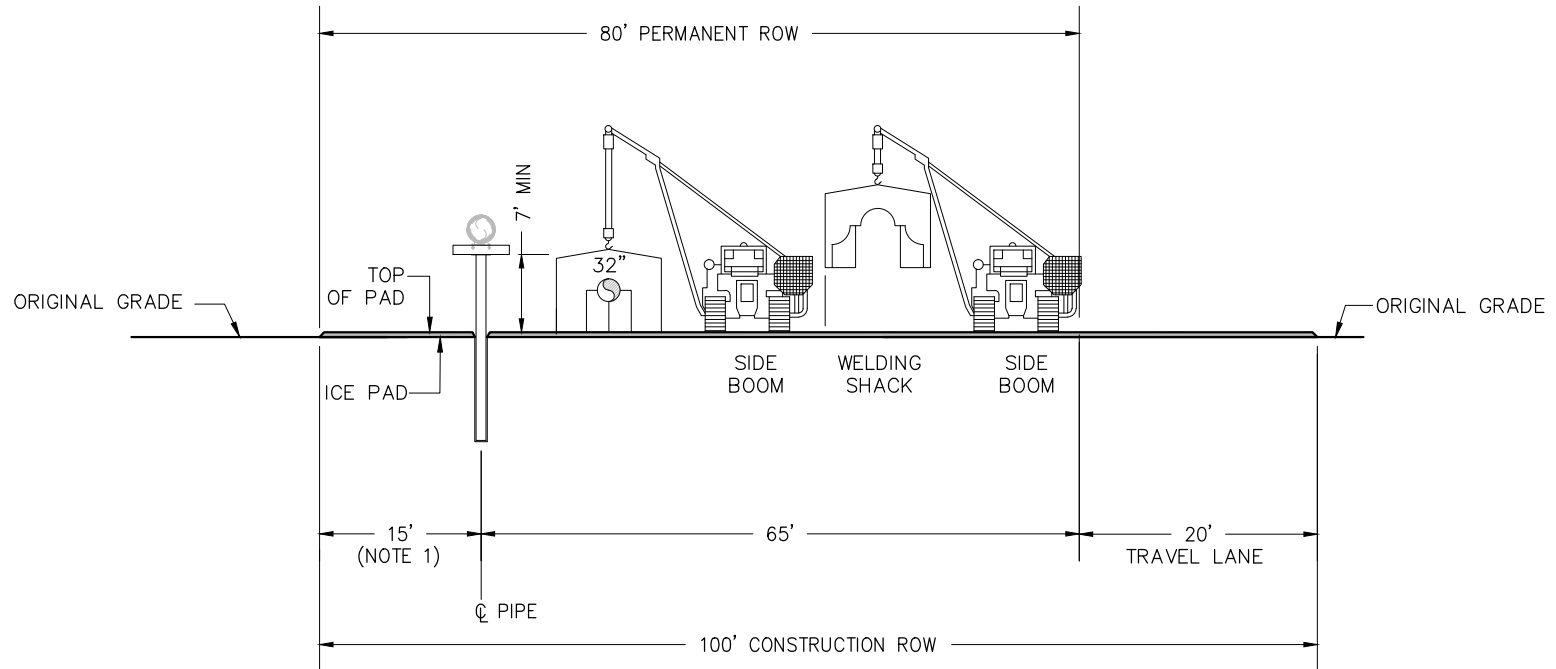
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. ROW CUT MATERIAL TO BE HAULED TO DISPOSAL AREA.
2. CUT SLOPE VARIES WITH TERRAIN AND COMPETENCY OF ROCK.
3. WIDTH OF AREA FOR CUT SLOPE WILL VARY WITH TOPOGRAPHY.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTES:**

1. WORKING AREA FOR DRILLING AND VSM STRINGING.

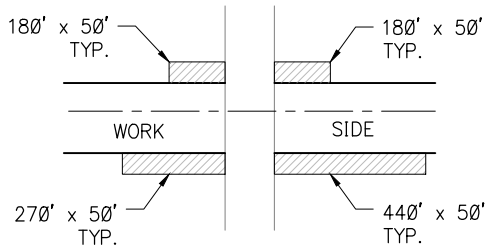
**RIGHT-OF-WAY MODE # 6 - PTTL ABOVE GROUND PIPELINE ON VSMS**

NOT TO SCALE

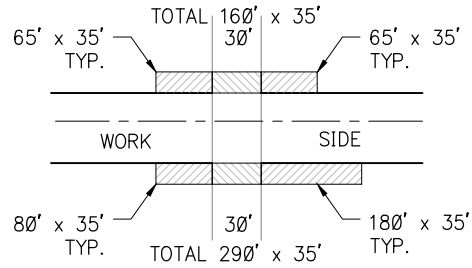
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

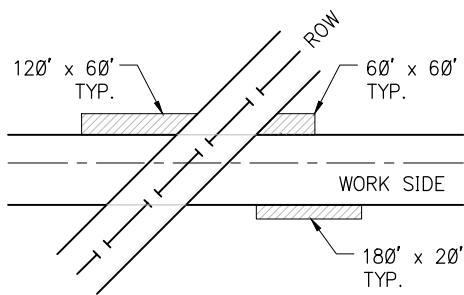
Sheet 056 of 195 Date: 9/1/2018



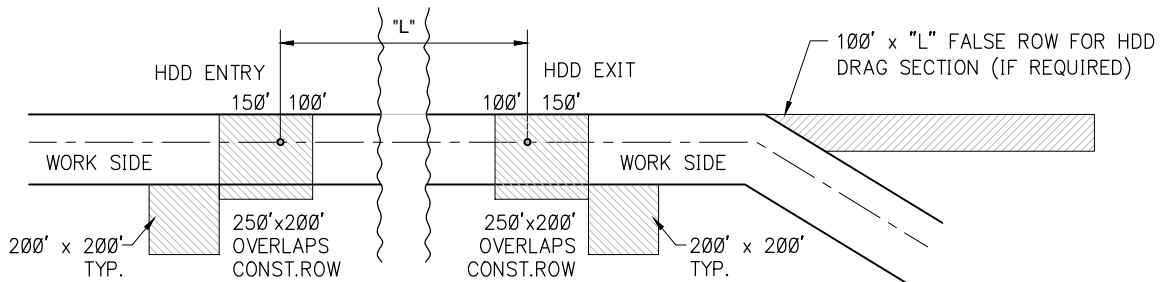
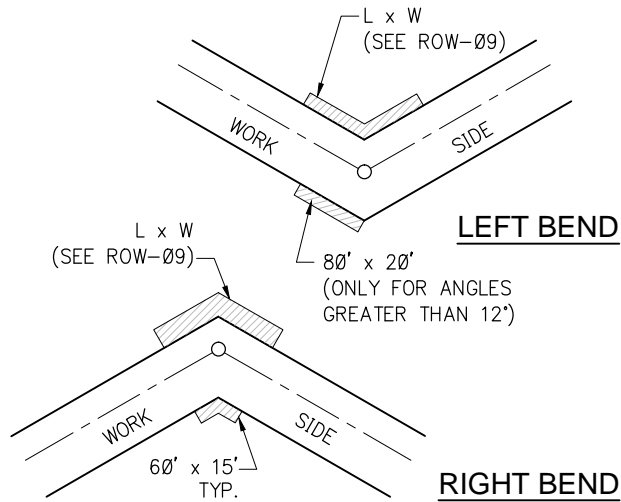
**HIGHWAY CROSSING (BORED)**



**ROAD CROSSING (OPEN CUT)**



**FOREIGN PIPELINE CROSSING**



**HORIZONTAL DIRECTIONAL DRILL (HDD)**

- PROPOSED GAS PIPELINE
- CONSTRUCTION ROW BOUNDARY
- ▨ ADDITIONAL TEMPORARY WORKSPACE (N.T.S.)

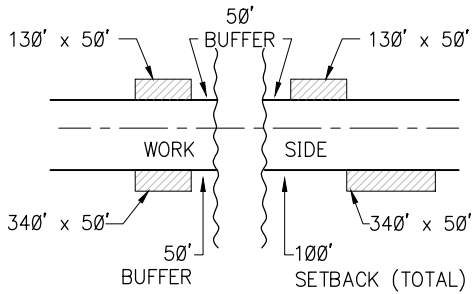
**ADDITIONAL TEMPORARY WORKSPACE 1/2**

NOT TO SCALE

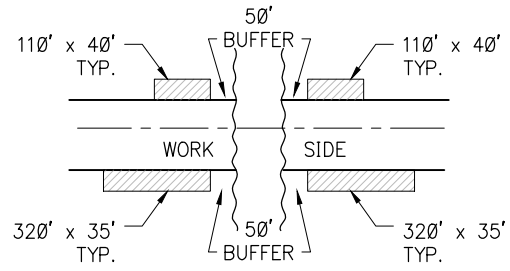
PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

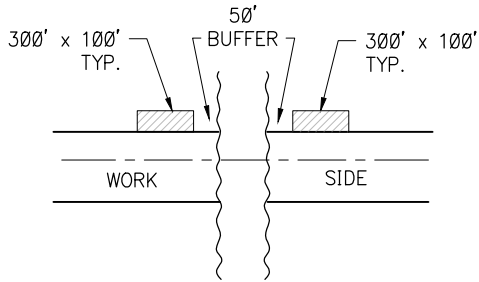




**WATERCOURSE CROSSING  
INTERMEDIATE (UP TO 100')**



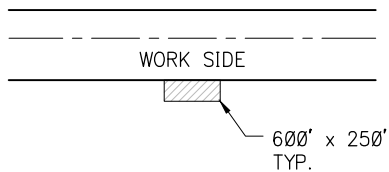
**WATERCOURSE CROSSING  
MINOR**



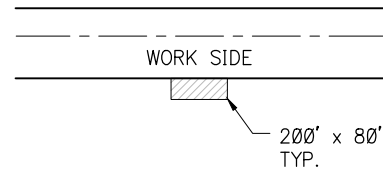
**WETLAND CROSSING (SUMMER)**

**WETLAND CROSSING (WINTER)**

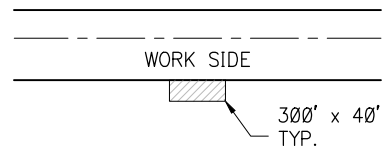
ATWS ON WETLAND x 60'  
(NOT IN TUNDRA AREAS)



**BEGINNING/END OF SPREAD**



**TURN AROUND**



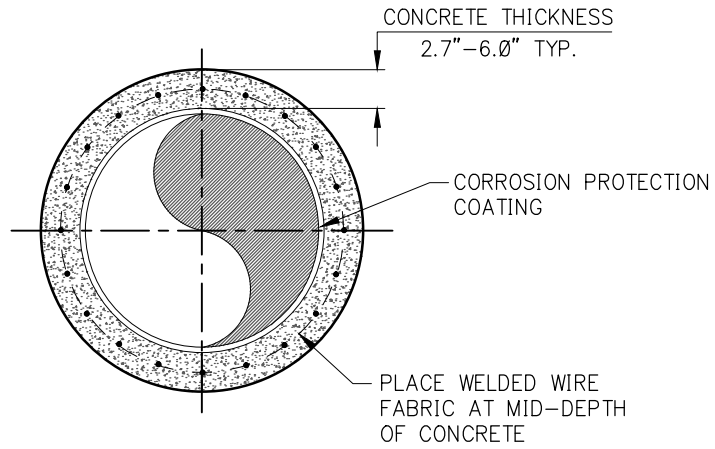
**TIMBER DECK**

- PROPOSED GAS PIPELINE
- CONSTRUCTION ROW BOUNDARY
- ADDITIONAL TEMPORARY WORKSPACE (N.T.S.)

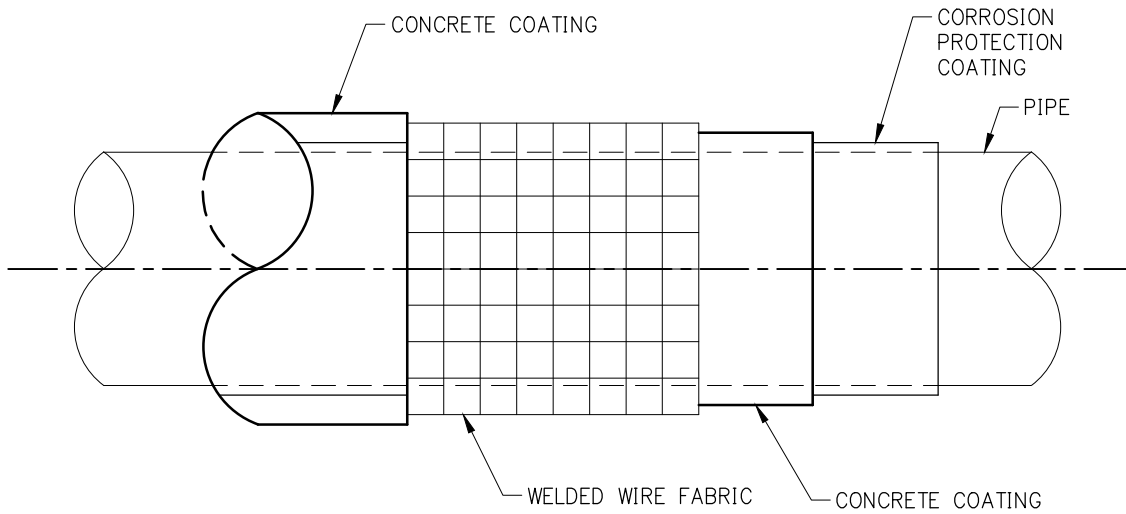
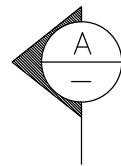
**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

**ADDITIONAL TEMPORARY WORKSPACE 2/2**  
NOT TO SCALE

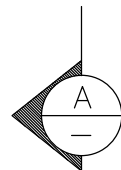
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



SECTION - A



ELEVATION

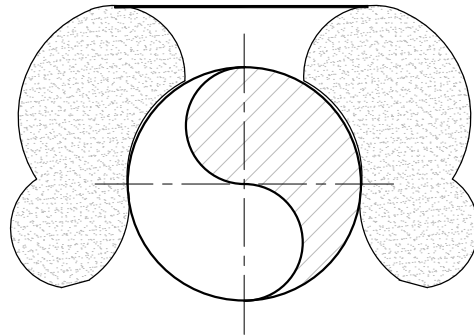


**BUOYANCY CONTROL - CONCRETE COATING, ONSHORE**  
NOT TO SCALE

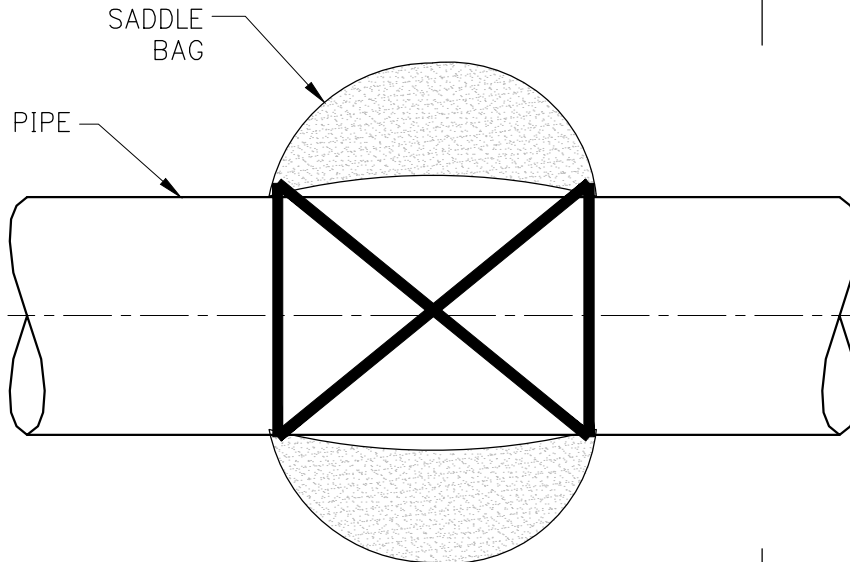
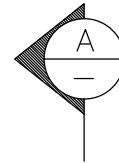
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

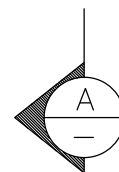
Sheet 059 of 195 Date: 9/1/2018



SECTION - A



PLAN



NOTE:

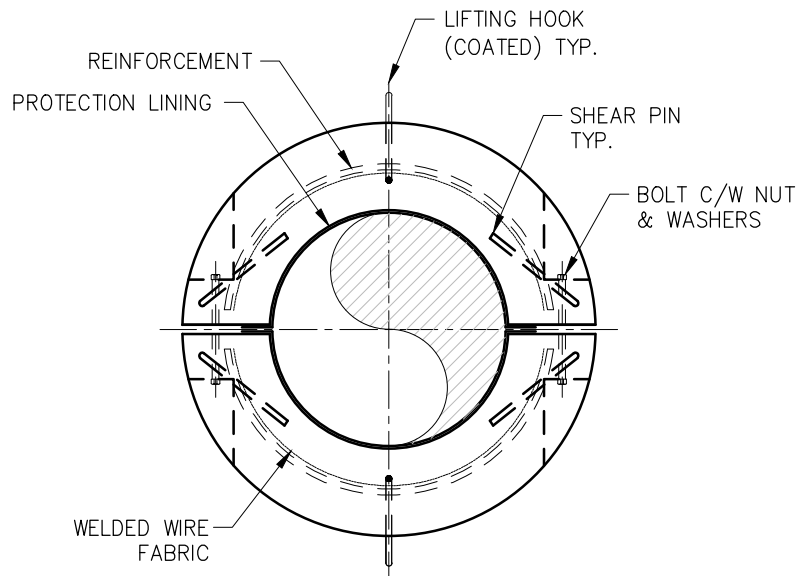
1. BAGS FILLED WITH LOCALLY SOURCED OR IMPORTED MINERAL SOIL.

**BUOYANCY CONTROL - SADDLE BAGS**  
NOT TO SCALE

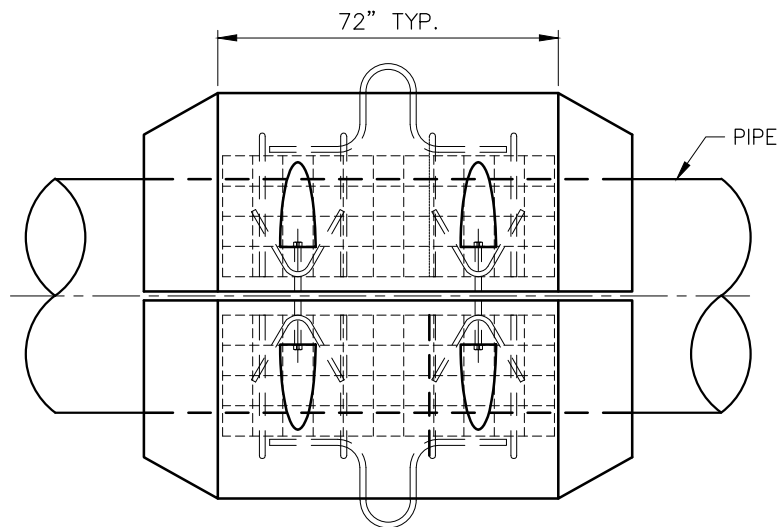
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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SECTION



ELEVATION

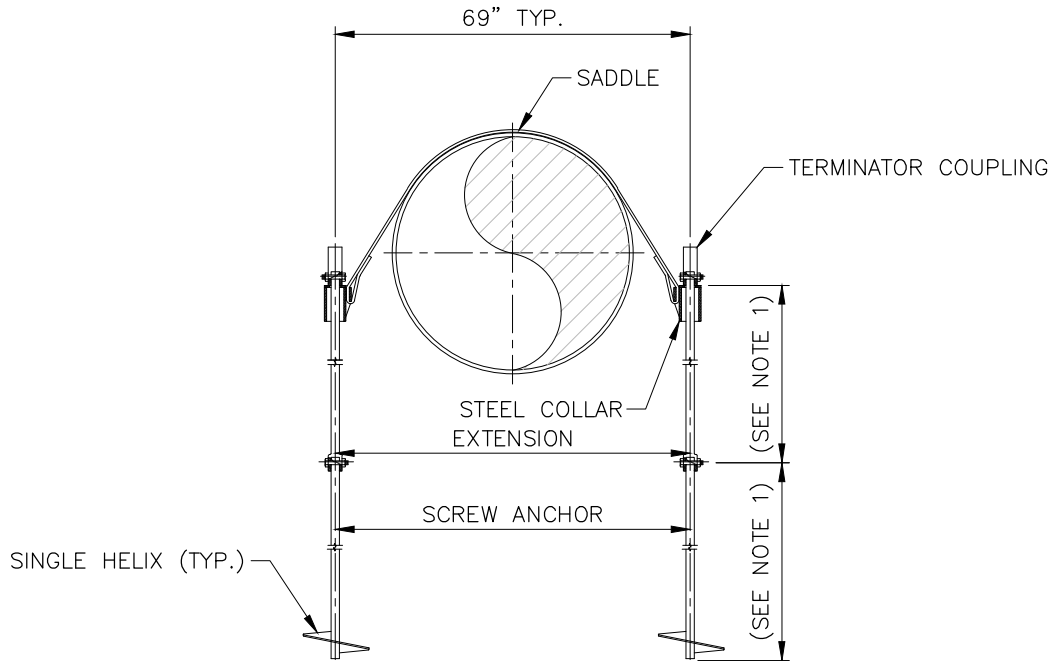
BUOYANCY CONTROL - BOLT-ON RIVER WEIGHTS

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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SECTION

NOTE:

1. EXTENSIONS WILL BE REQUIRED IF MINIMUM DEPTH (TBD) AND TORQUE (TBD) ARE NOT MET. IF BEDROCK ENCOUNTERED, ALTERNATE BUOYANCY CONTROL MEASURES WILL BE REQUIRED.

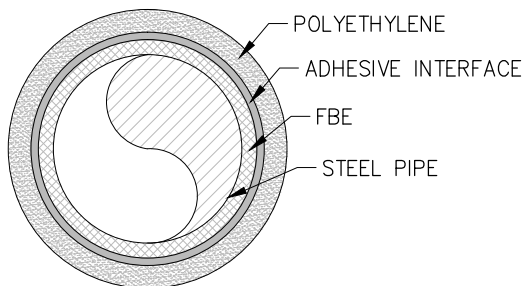
BUOYANCY CONTROL - SCREW ANCHORS

NOT TO SCALE

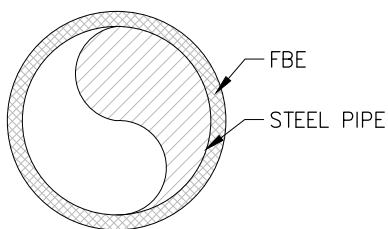
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

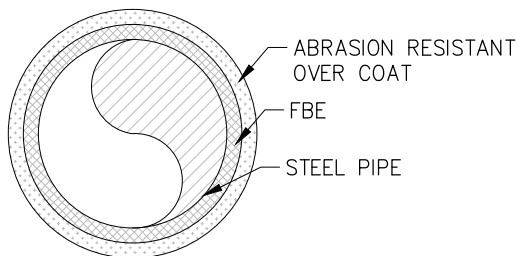
Sheet 062 of 195      Date: 9/1/2018



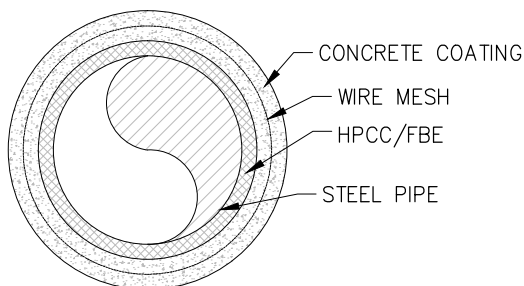
3 LAYER POLYETHYLENE



FUSION BONDED EPOXY (FBE)



ABRASION COATED FBE



CONCRETE FOR ROCK PROTECTION

**NOTE:**

1. COATINGS INDICATIVE, TO BE REPLACED WITH VENDOR SPECIFIC DRAWINGS.

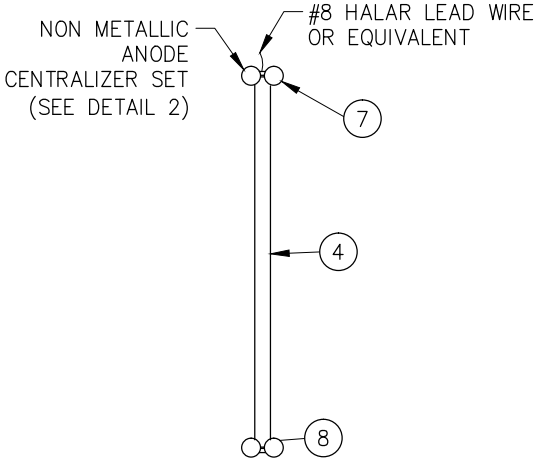
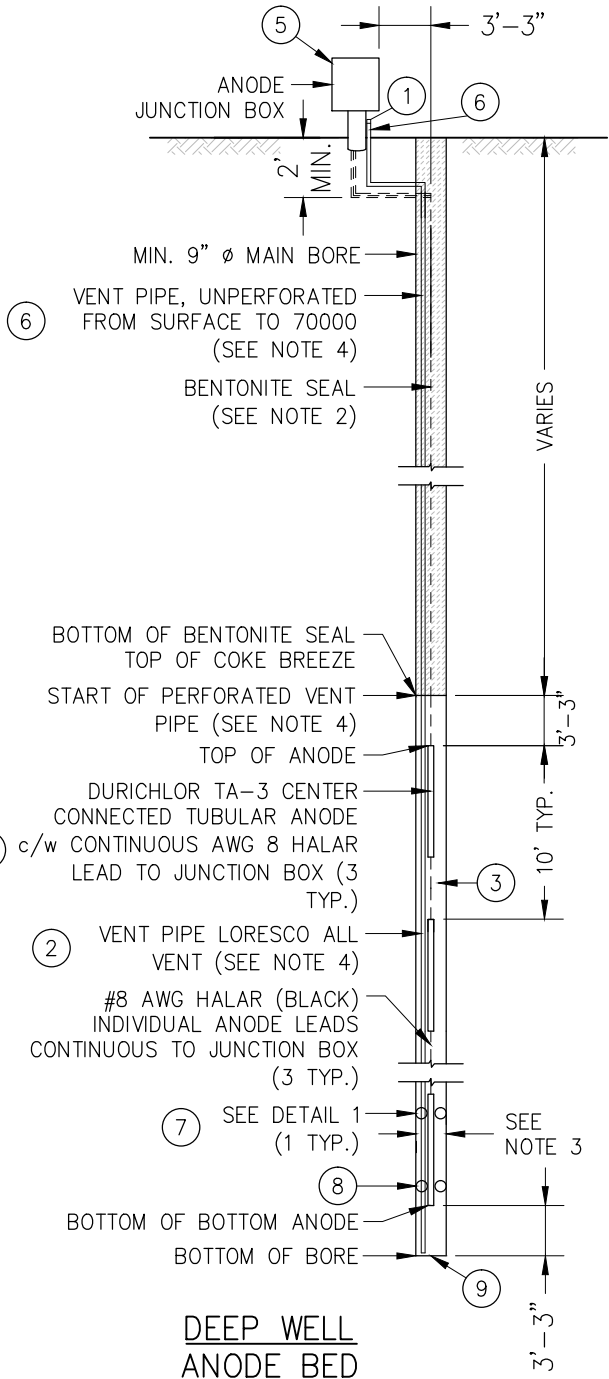
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**CORROSION CONTROL - COATINGS**  
NOT TO SCALE

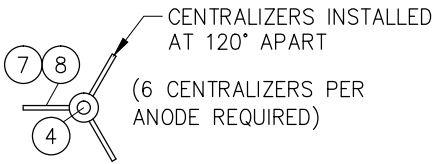
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

**MATERIALS LIST**

No.	DESCRIPTION	QTY
1	SCREENED CAP FOR 1" PVC VENT PIPE	1
2	1" DIAMETER CONTINUOUS VENT PIPE, PERFORATED (SEE NOTE 4)	39'-4"
3	CALCINED PETROLEUM COKE BREEZE	1100 lb
4	DURICHLOR TA-3, 2.6" x 7' (OR EQUIVALENT) CENTER CONNECTED TUBULAR SiFeCr ALLOY ANODE, c/w #8 AWG INDIVIDUAL HALAR LEAD WIRE CONTINUOUS TO JUNCTION BOX	4
5	4 CIRCUIT ANODE JUNCTION BOX	1
6	1" DIAMETER CONTINUOUS UNPERFORATED PVC VENT PIPE (SEE NOTE 4)	VARIES
7	ANODE CENTRALIZERS (TOP)	12
8	ANODE CENTRALIZERS (BOTTOM)	12
9	END CAP FOR 1" PVC VENT PIPE	1



**DETAIL 1  
ANODE DETAIL**



**DETAIL 2  
ANODE CENTRALIZER**

**NOTES:**

1. ALL DIMENSIONS IN INCHES AND FEET UNLESS OTHERWISE NOTED.
2. THE BENTONITE SEAL IS TO EXTEND FROM THE TOP OF THE COKE BREEZE COLUMN TO GROUND SURFACE.
3. THE DIAMETER OF THE MAIN BORE SHALL BE A MINIMUM OF 9".
4. VENT PIPE TO BE CONTINUOUS 1"  $\phi$  PVC PIPE WITH ONLY THE PORTION WITHIN THE ACTIVE GROUND BED TO BE PERFORATED.

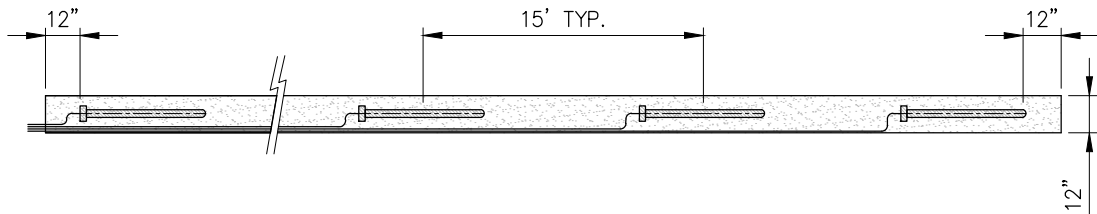
**PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.**

**CATHODIC PROTECTION - DEEP  
VERTICAL ANODE BED  
NOT TO SCALE**

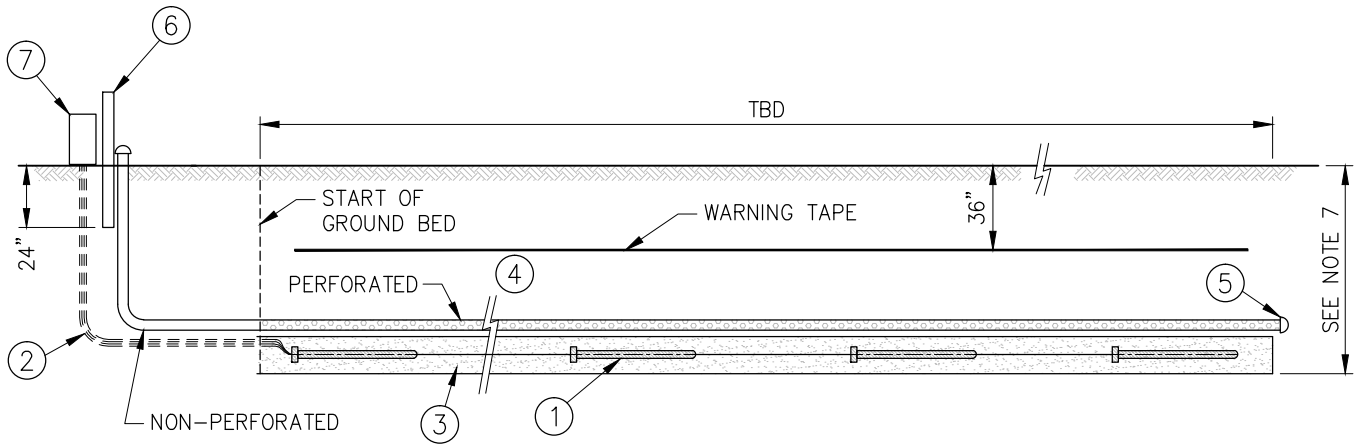
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

## MATERIAL LIST

No.	DESCRIPTION	QTY
1	2" x 60" SiFeCr. ANODES	TO SUIT
2	#8 HMWPE (BLACK) ANODE LEADS	TO SUIT
3	55 lb BAGS OF CALCINED PETROLEUM COKE BREEZE	TO SUIT
4	4.5" WEeping TILE	TO SUIT
5	4.5" CAP FOR WEeping TILE	2
6	4.5" x 4.5" x 5' TREATED CEDAR POST	1
7	B2 WIRING PEDESTAL	1



SECTIONAL PLAN VIEW



SECTIONAL ELEVATION VIEW

### GENERAL INSTALLATION PROCEDURE:

1. EXCAVATE A TRENCH.
2. POUR A 4" BED OF COKE BREEZE EVENLY ALONG THE TRENCH AND TAMP TO COMPACT.
3. PLACE ANODES AT THE NOTED SPACING IN THE CENTRE OF THE COKE BREEZE BED.
4. POUR COKE BREEZE BACKFILL OVER THE ANODES TO ACHIEVE A TRENCH COVER 4" ABOVE THE ANODES AND TAMP TO COMPACT.
5. PLACE THE WEeping TILE SYSTEM IN THE TRENCH ABOVE THE COKE BREEZE.
6. LAY WARNING TAPE AS SHOWN.
7. BURIAL DEPTH WILL VARY WITH GROUND CONDITIONS.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

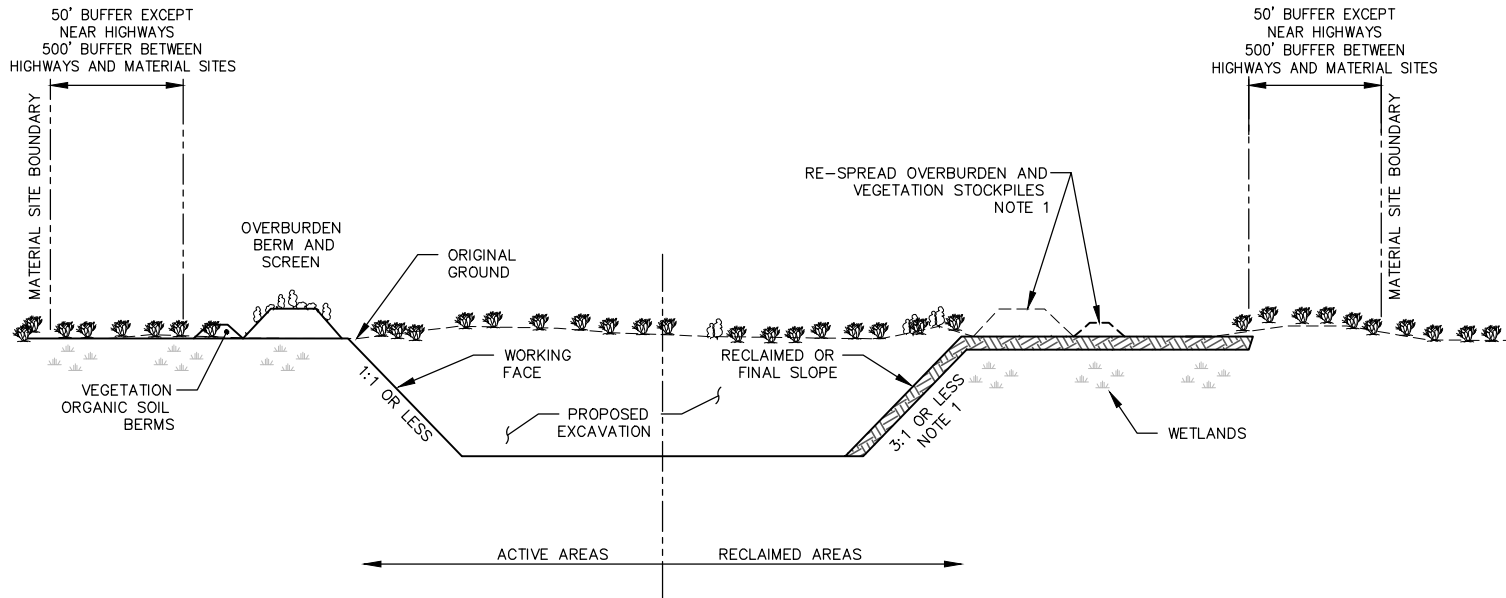
### CATHODIC PROTECTION - HORIZONTAL ANODE BED

NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**CROSS SECTION - MATERIAL SITE ABOVE WATER TABLE**  
NOT TO SCALE

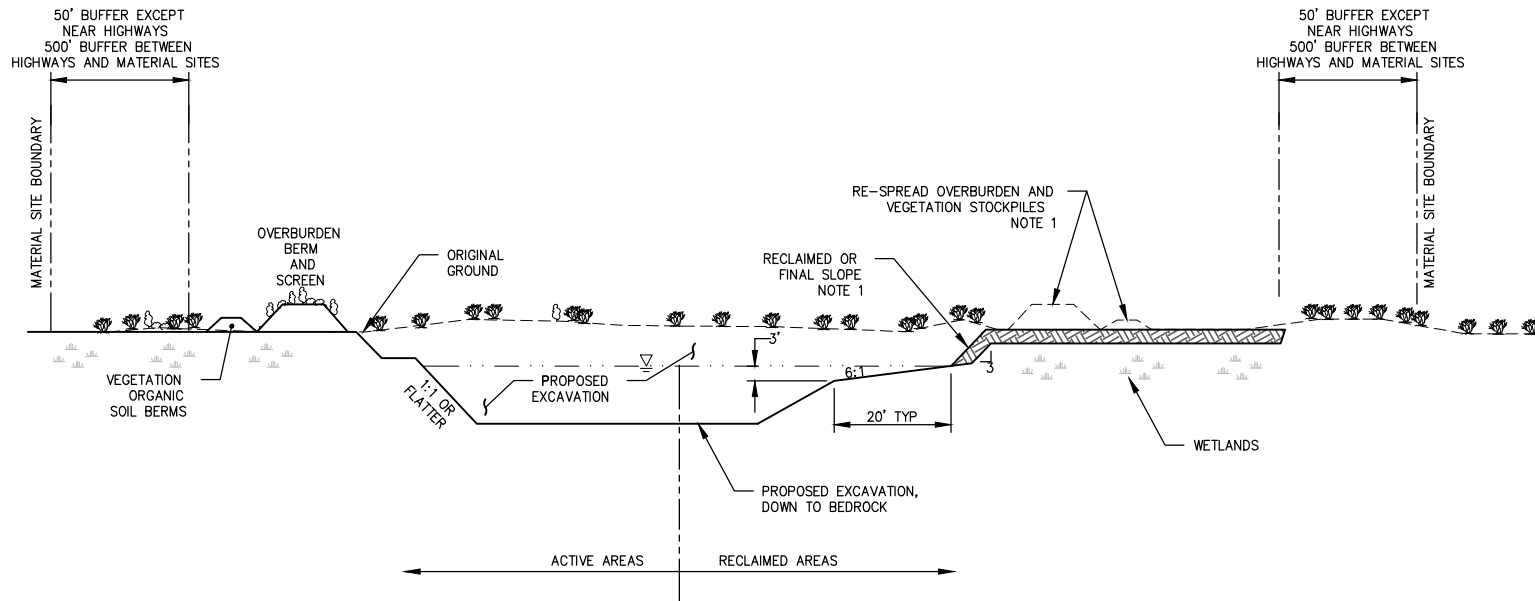
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTE:**

1. RE-SPREAD A THIN LAYER OF OVERBURDEN AND ORGANIC LAYER/VEGETATION TO PROMOTE REVEGETATION.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**CROSS SECTION - MATERIAL SITE BELOW WATER TABLE**  
NOT TO SCALE

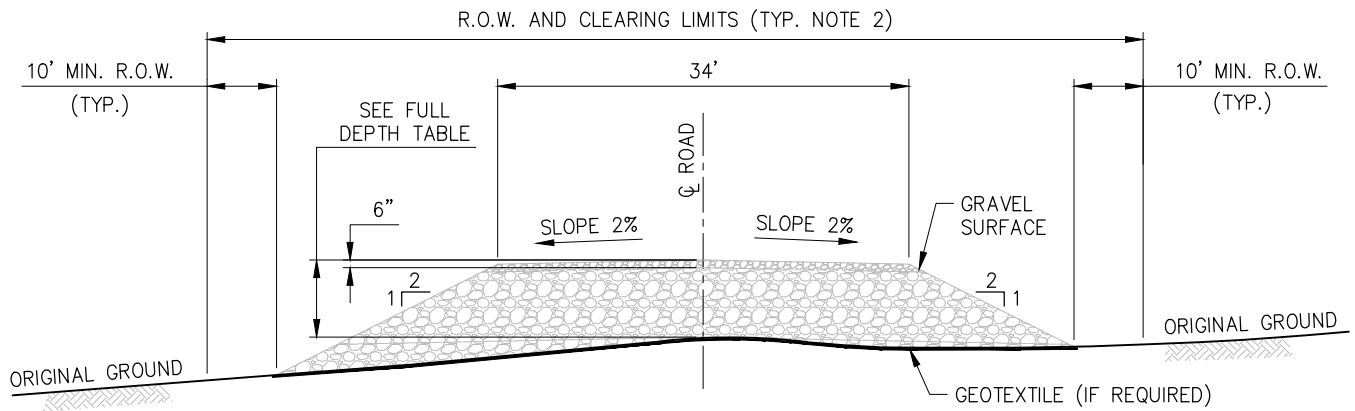
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTE:**

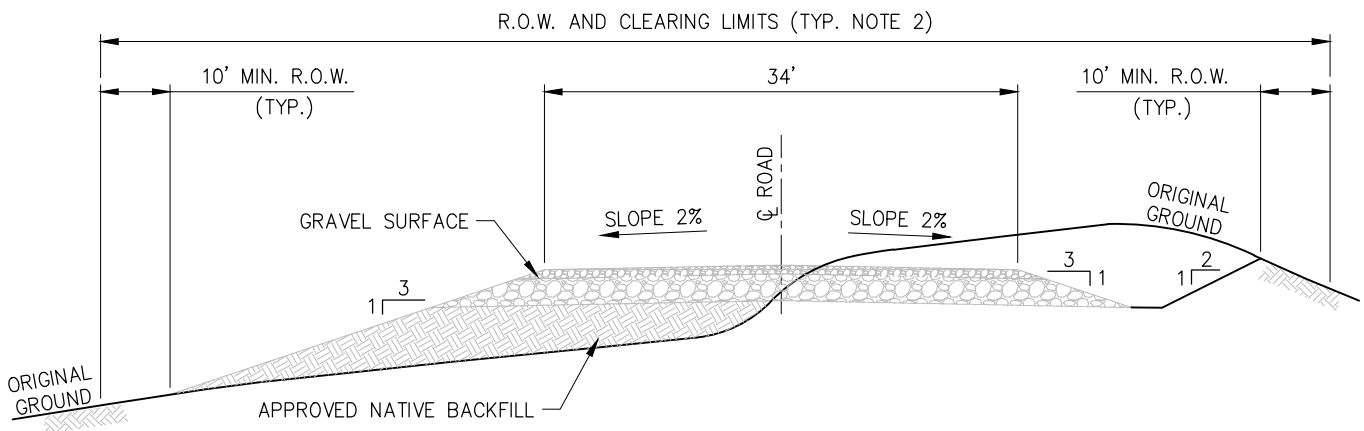
1. RE-SPREAD A THIN LAYER OF OVERBURDEN AND ORGANIC LAYER/VEGETATION TO PROMOTE REVEGETATION.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**TYPICAL CROSS – SECTION ALL WEATHER ROAD FOR PERMAFROST AREA**



**TYPICAL CROSS-SECTION ALL WEATHER ROAD FOR NON-PERMAFROST AREA**

**DESIGN STANDARDS CLASS III ALL WEATHER ROAD**

1. MAXIMUM GRADE: SUSTAINED - 6%  
PITCH - 8%
2. RIGHT-OF-WAY WIDTH 75' MIN. TO 100' MAX, DEPENDING ON CROSS SLOPE, ROAD DEPTH AND SOIL CONDITIONS.
3. SEE TABLE 1 FOR TYPICAL SUBGRADE HEIGHT.

**TABLE 1  
FULL DEPTH**

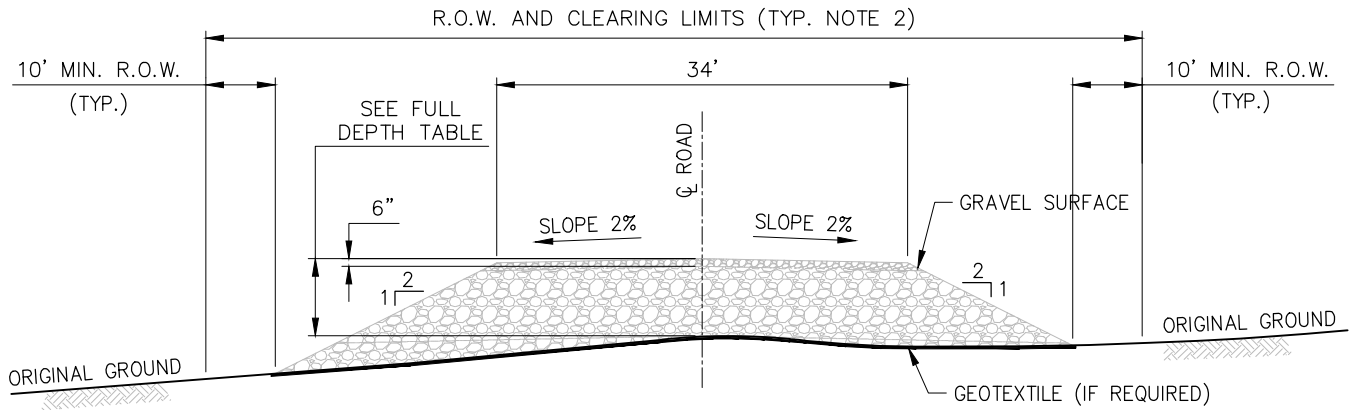
FROM - TO	DEPTH OF FILL
MP 0-193	5'
MP 193-400	4'
MP 400-572	3'
MP 572-807	2'

**ACCESS ROADS - PERMANENT ROAD SECTIONS**

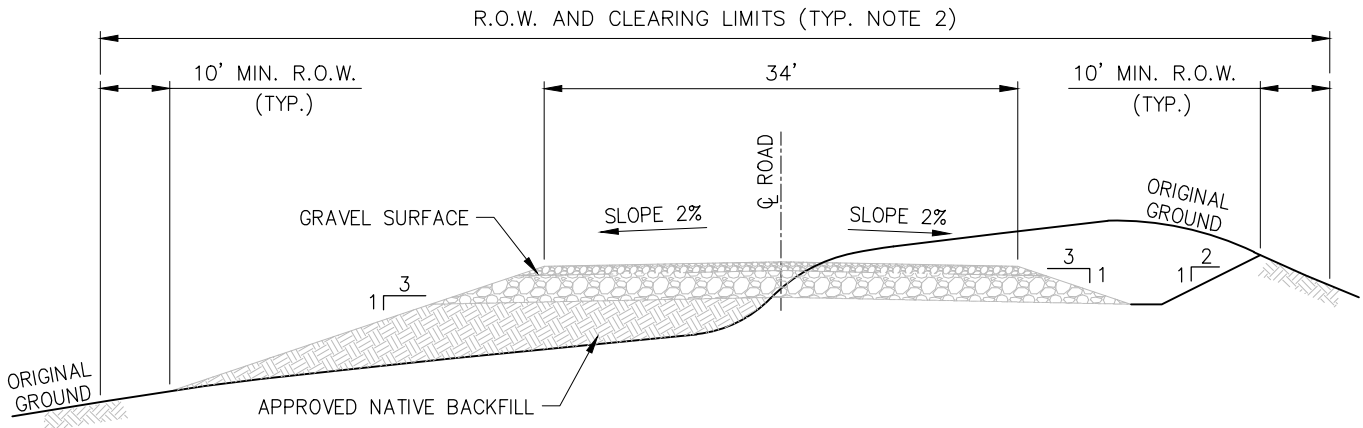
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**TYPICAL CROSS – SECTION ALL WEATHER ROAD FOR PERMAFROST AREA**



**TYPICAL CROSS-SECTION ALL WEATHER ROAD FOR NON-PERMAFROST AREA**

**TABLE 1  
FULL DEPTH**

FROM - TO	DEPTH OF FILL
MP 0-141	3'
MP 141-171	2'
MP 171-490	3'
MP 490-522	2'
MP 522-572	3'
MP 572-807	2'

**DESIGN STANDARDS CLASS III ALL WEATHER ROAD**

1. MAXIMUM GRADE: SUSTAINED - 6%  
PITCH - 8%
2. RIGHT-OF-WAY WIDTH 75' MIN. TO 100' MAX, DEPENDING ON CROSS SLOPE, ROAD DEPTH AND SOIL CONDITIONS.
3. SEE TABLE 1 FOR TYPICAL SUBGRADE HEIGHT.

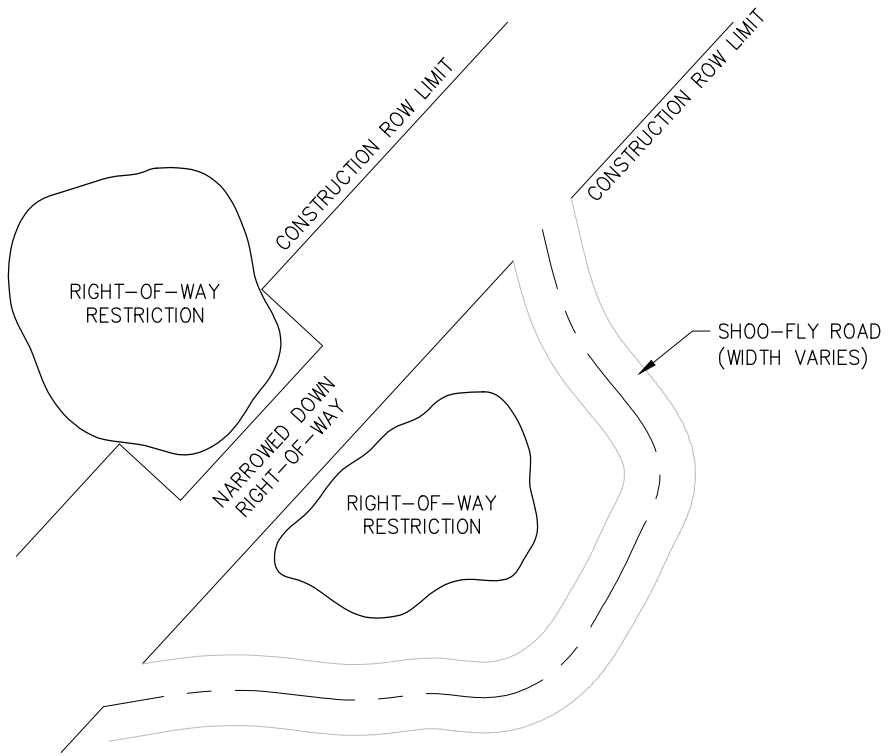
**ACCESS ROADS - TEMPORARY ROAD SECTIONS**

NOT TO SCALE

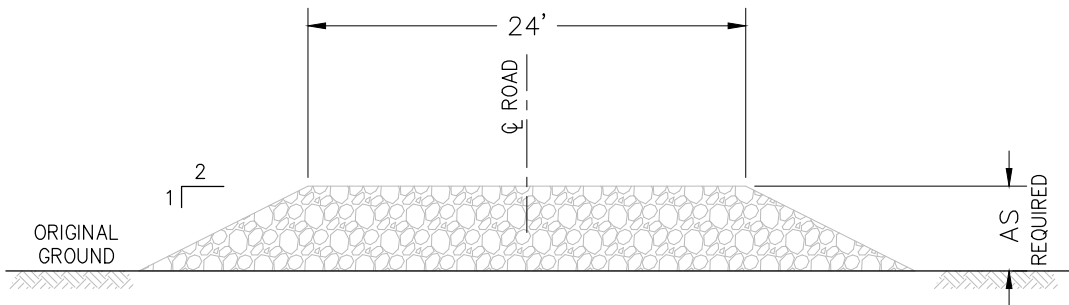
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PLAN



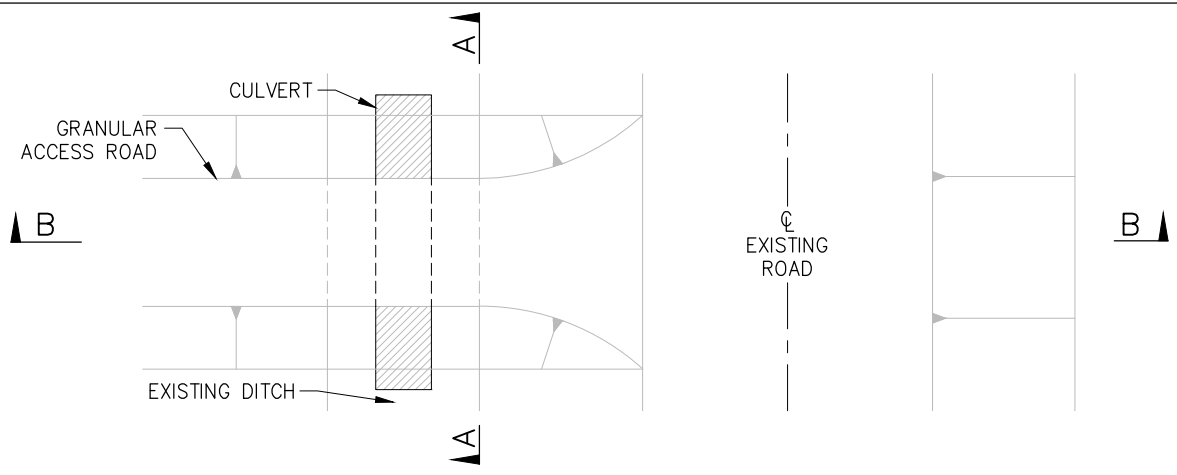
CROSS-SECTION

ACCESS ROADS - TEMPORARY SHOO-FLY ROAD  
NOT TO SCALE

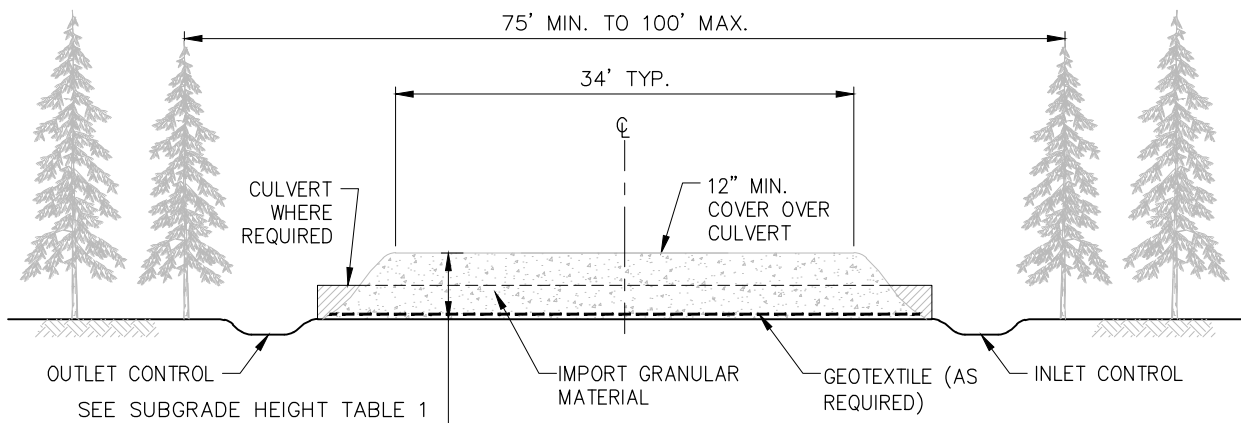
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

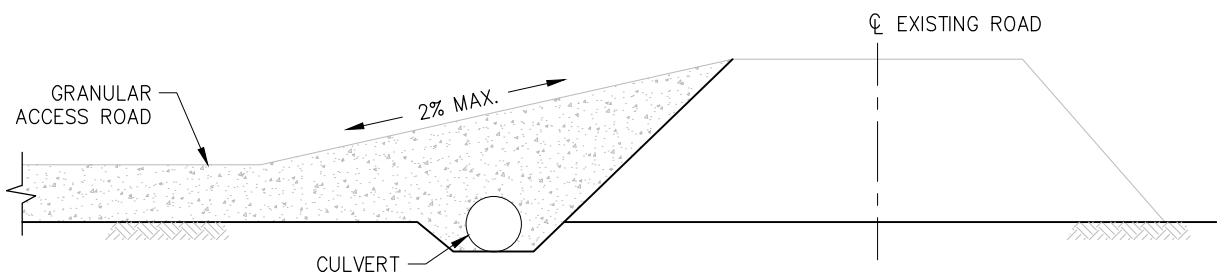
Sheet 070 of 195 Date: 9/1/2018



PLAN - EXISTING ROAD PLAN



SECTION 'A-A'



SECTION 'B-B'  
EXISTING ROAD RAMP

TABLE 1  
SUBGRADE HEIGHT

FROM - TO	DEPTH OF FILL
MP 0-141	3'
MP 141-171	2'
MP 171-490	3'
MP 490-522	2'
MP 522-572	3'
MP 572-807	2'

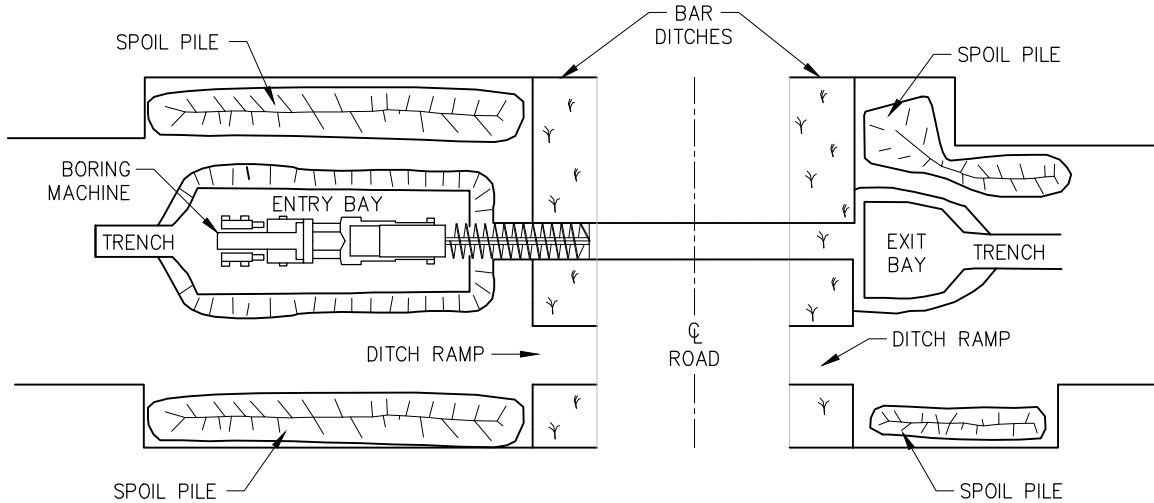
NOTES:

- ROAD RAMP SHALL BE IN ACCORDANCE WITH ADOT & PF REQUIREMENTS.

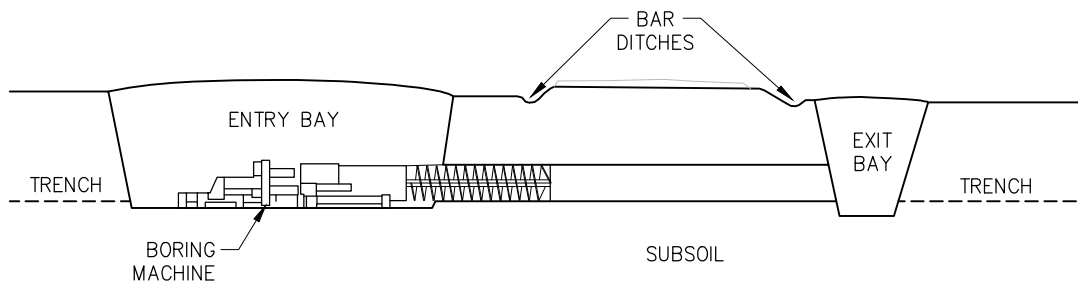
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

ACCESS ROADS - RAMP OFF EXISTING ROAD  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



PLAN VIEW



PROFILE

NOTES:

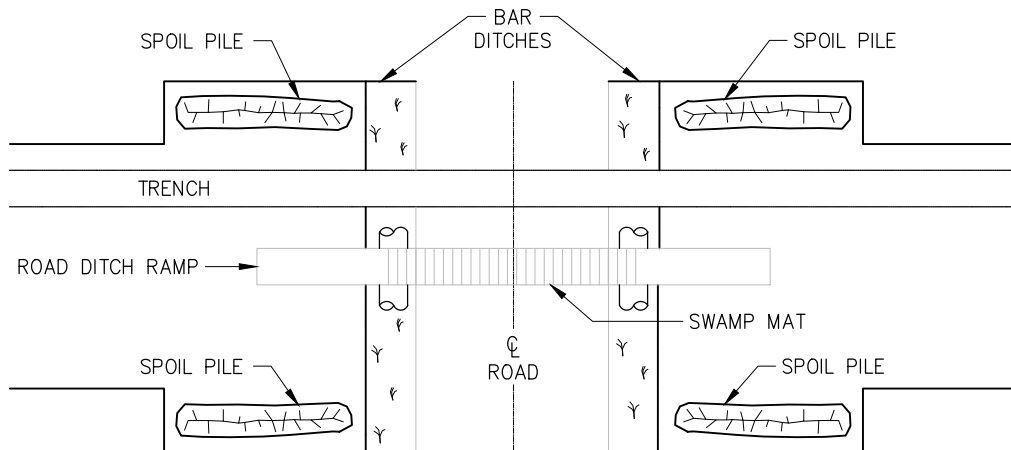
1. ADDITIONAL TEMPORARY WORKSPACE WILL BE ACQUIRED PRIOR TO CONSTRUCTION. SEE SHEET 57.
2. SHORING TO BE PROVIDED IF REQUIRED.

CONSTRUCTION - HORIZONTAL BORING/DRILLING ROADS  
NOT TO SCALE

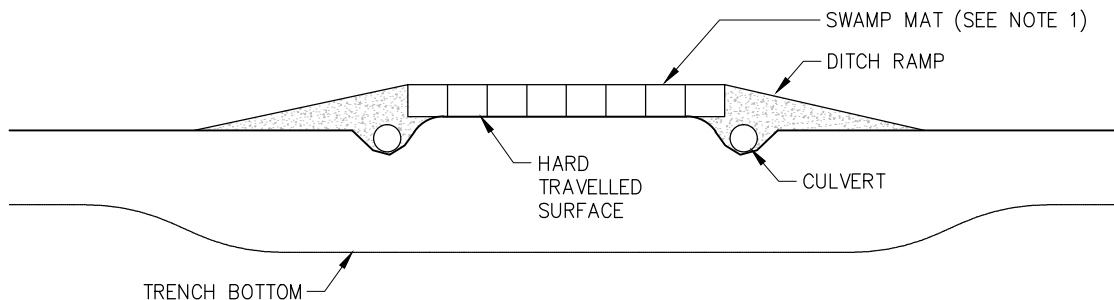
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PLAN VIEW



PROFILE

NOTES:

1. SWAMP MATS MAY BE REQUIRED ACROSS ROAD TO PROTECT HARD TRAVELED SURFACE FROM EQUIPMENT, DURING INSTALLATION.
2. TRENCH SPOIL TO BE REPLACED IN 6" LIFTS AND COMPACTED TO 95% OF THE MAXIMUM PROCTOR DRY DENSITY.
3. ORIGINAL HARD TRAVELED SURFACE TO BE RESTORED TO ORIGINAL CONDITION FOLLOWING COMPLETION OF CROSSING INSTALLATION.
4. SEE SHEET 134 FOR ADDITIONAL DESIGN DETAILS.
5. SEE SHEET 57 & 58 FOR ATWS LIMITS.

**CONSTRUCTION - OPEN-CUT ROADS**

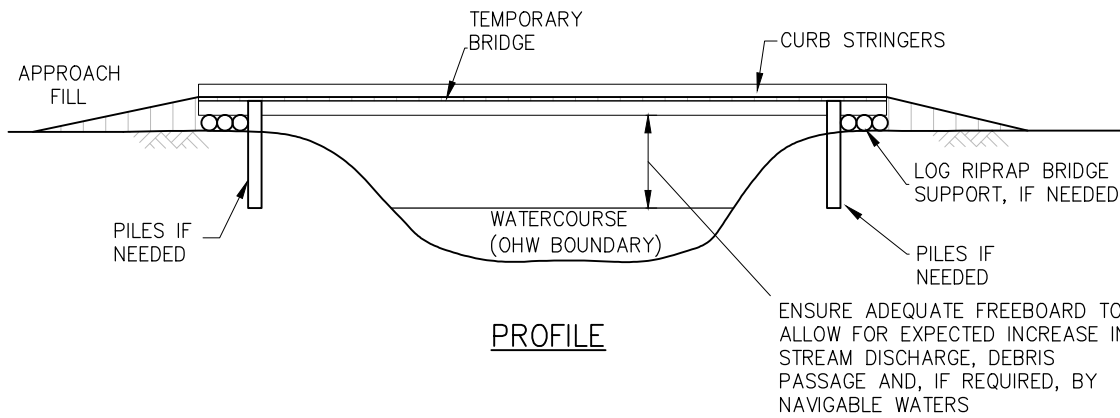
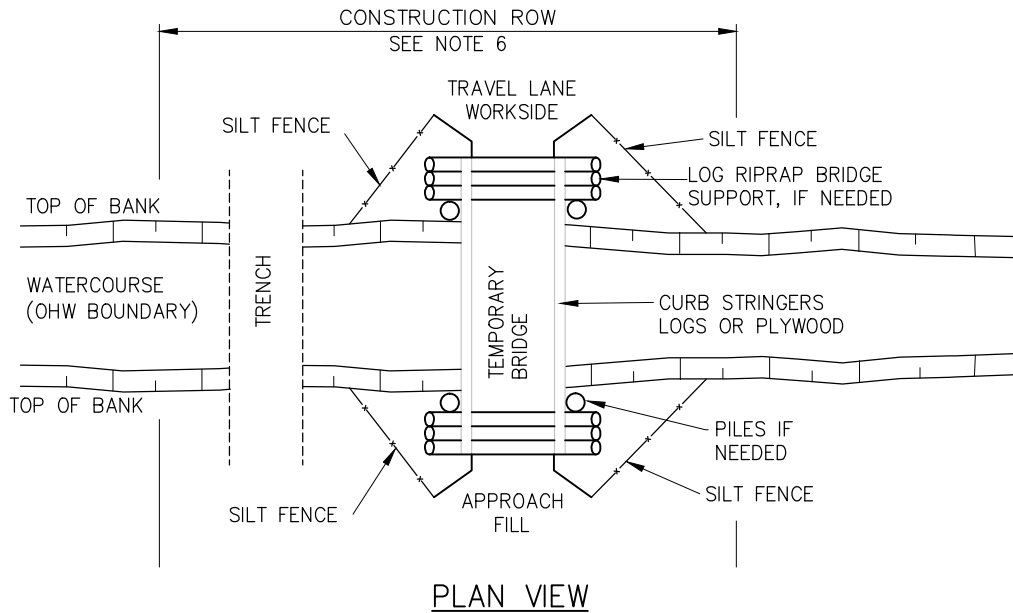
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTES:**

1. TEMPORARY BRIDGE WILL BE USED AT SENSITIVE WATERCOURSES OR WATERCOURSES WITH UNSTABLE BED OR BANKS.
2. TEMPORARY BRIDGE CROSSING SHALL BE LIMITED TO WATERCOURSES LESS THEN 100' IN WIDTH.
3. APPROACH FILLS SHALL BE USED TO AVOID CUTTING BANKS.
4. CURB STRINGERS OR PLYWOOD SHALL BE INSTALLED TO PREVENT FILL MATERIAL SPILL INTO THE WATERCOURSE.
5. BRIDGE TO BE REMOVED IMMEDIATELY AFTER USE.
6. SEE SHEETS 50 THROUGH 56 FOR CONSTRUCTION ROW WIDTH.
7. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
8. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

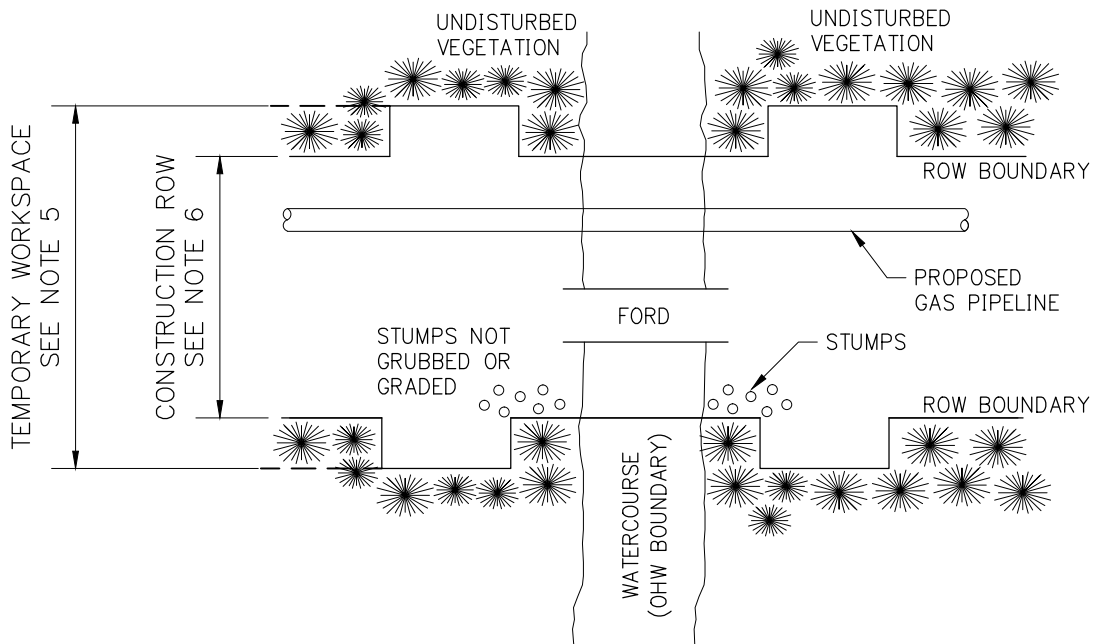
**EQUIPMENT CROSSING - TEMPORARY BRIDGE**

NOT TO SCALE

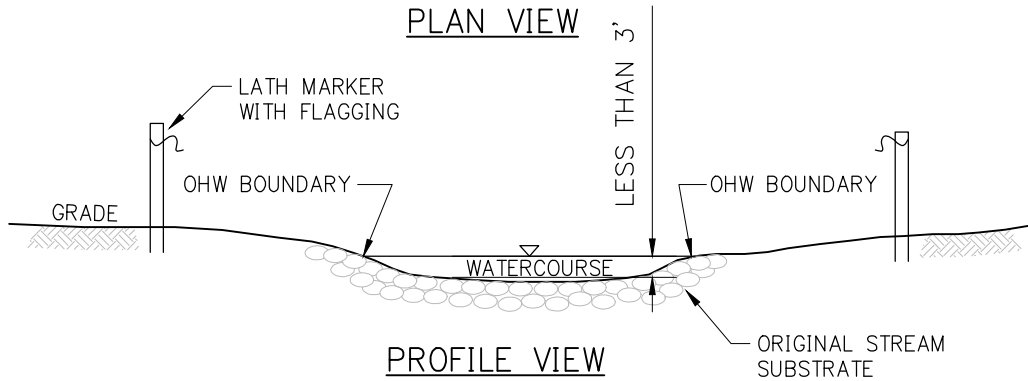
**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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PLAN VIEW



PROFILE VIEW

NOTES:

1. USED FOR VEHICLE TRANSPORT ACROSS SHALLOW AND NARROW WATERCOURSES WITH GRANULAR BEDS AND STABLE BANKS.
2. FORD WILL NOT BE USED DURING FISH SPAWNING, INCUBATION OR MIGRATION PERIODS.
3. BANKS AND APPROACHES CAN BE STABILIZED BY A GEOTEXTILE.
4. BOUNDARIES OF FORD SHALL BE MARKED.
5. SEE SHEET 57 & 58 FOR ATWS DIMENSIONS.
6. SEE SHEET 50 THROUGH 56 FOR CONSTRUCTION ROW WIDTH.
7. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
8. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

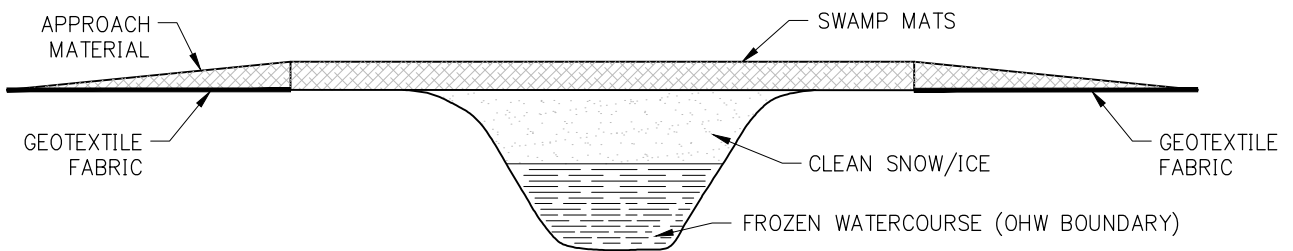
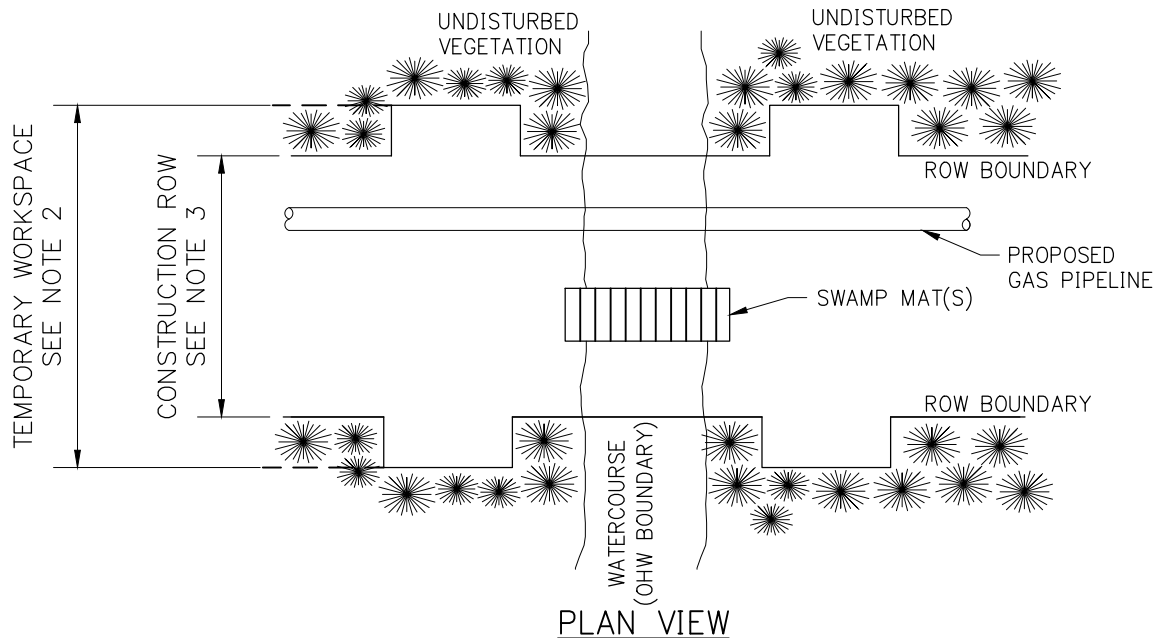
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**CONSTRUCTION - EQUIPMENT CROSSING - FORD**

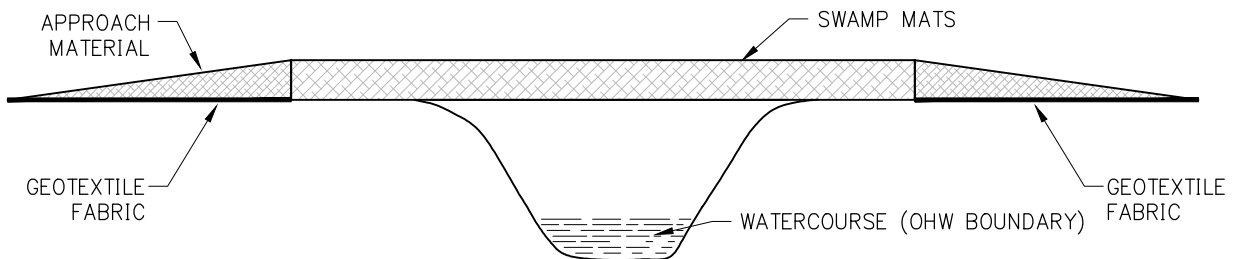
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**PROFILE 1 (WINTER CONSTRUCTION)**



**PROFILE 2 (SUMMER CONSTRUCTION)**

**NOTES:**

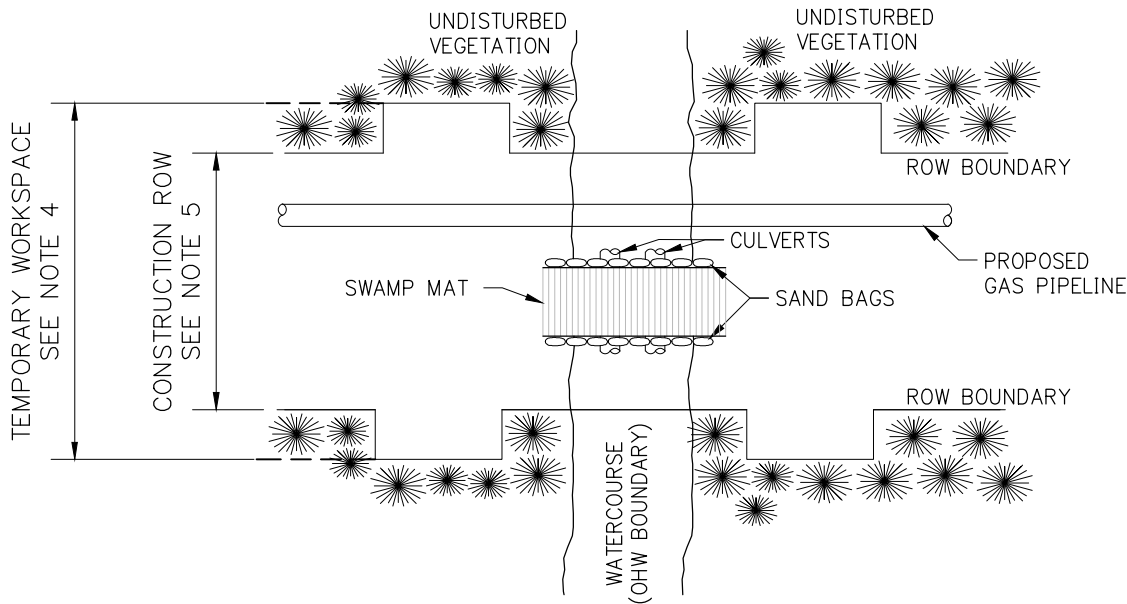
1. SWAMP MATS WILL BE USED TO PROVIDE VEHICULAR ACCESS ACROSS WATERCOURSE IN BOTH FROZEN AND UN-FROZEN CONDITIONS.
2. SEE SHEET 057 & 058 FOR ATWS DIMENSIONS.
3. SEE SHEETS 050 THROUGH 056 FOR CONSTRUCTION ROW WIDTH.
4. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
5. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

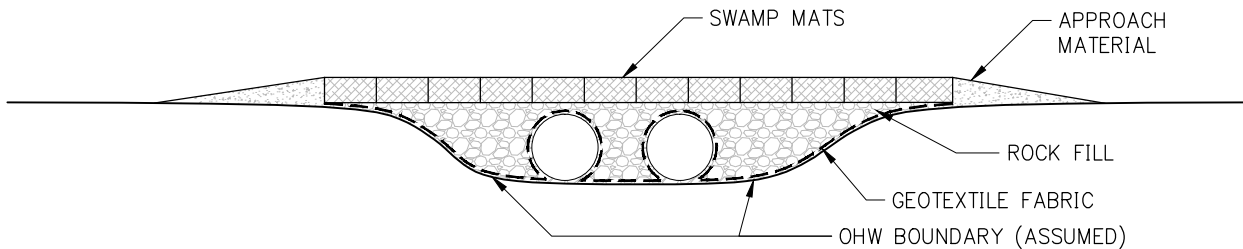
**CONSTRUCTION - EQUIPMENT CROSSING**  
**MAT BRIDGE**

NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



PLAN VIEW



PROFILE VIEW

NOTES:

1. CULVERTS WILL BE INSTALLED AS REQUIRED TO PROTECT IT FROM EROSION AND BE SUFFICIENT SIZE AND NUMBER TO HANDLE ONE IN TWENTY YEAR STREAM FLOW. CULVERTS WILL BE SUFFICIENT WALL THICKNESS AND GRADE TO HANDLE THE CONSTRUCTION EQUIPMENT THAT WILL BE OPERATED DURING THE CROSSING CONSTRUCTION.
2. RAMPS WILL BE SUFFICIENT DEPTH TO PREVENT COLLAPSE OF THE CULVERT.
3. RAMPS WILL BE CONSTRUCTED FROM COMPANY APPROVED LOCAL MATERIAL SUBSOIL FREE OF ORGANICS OR OTHER DELETERIOUS MATERIAL.
4. SEE SHEET 057 & 058 FOR ATWS DIMENSIONS.
5. SEE SHEETS 050 THROUGH 056 FOR CONSTRUCTION ROW WIDTH.
6. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
7. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

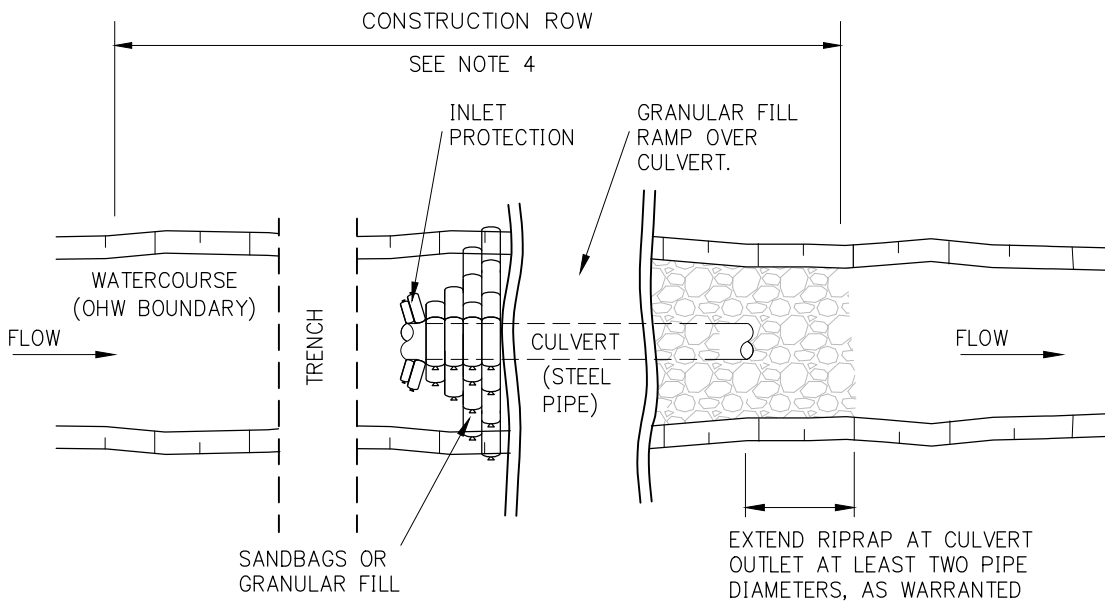
**CONSTRUCTION - EQUIPMENT CROSSING - MAT ROCK/CULVERT BRIDGE**

NOT TO SCALE

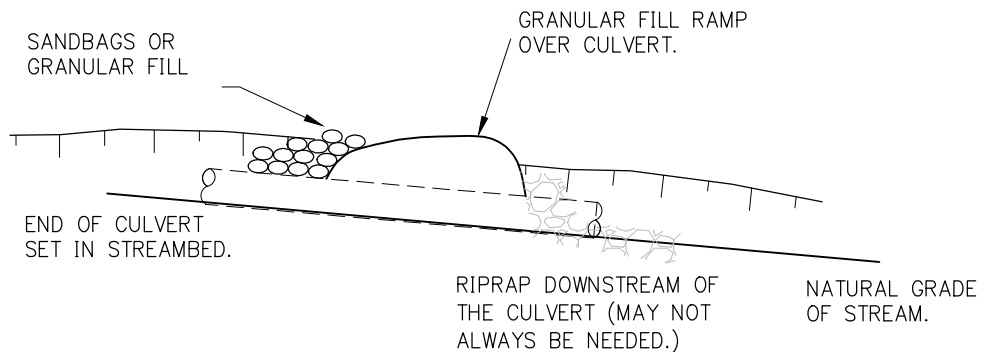
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PLAN VIEW



PROFILE

NOTES:

1. ROCK/CULVERT BRIDGE TO BE INSTALLED AT NARROW WATERCOURSES WITH LITTLE OR NO FLOW.
2. CULVERTS WILL HANDLE UP TO 150% OF THE MAXIMUM ANTICIPATED FLOW.
3. BRIDGE SHALL BE REMOVED AFTER USE.
4. SEE SHEETS 050 THROUGH 056 FOR CONSTRUCTION ROW WIDTH.
5. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
6. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHV) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHV, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

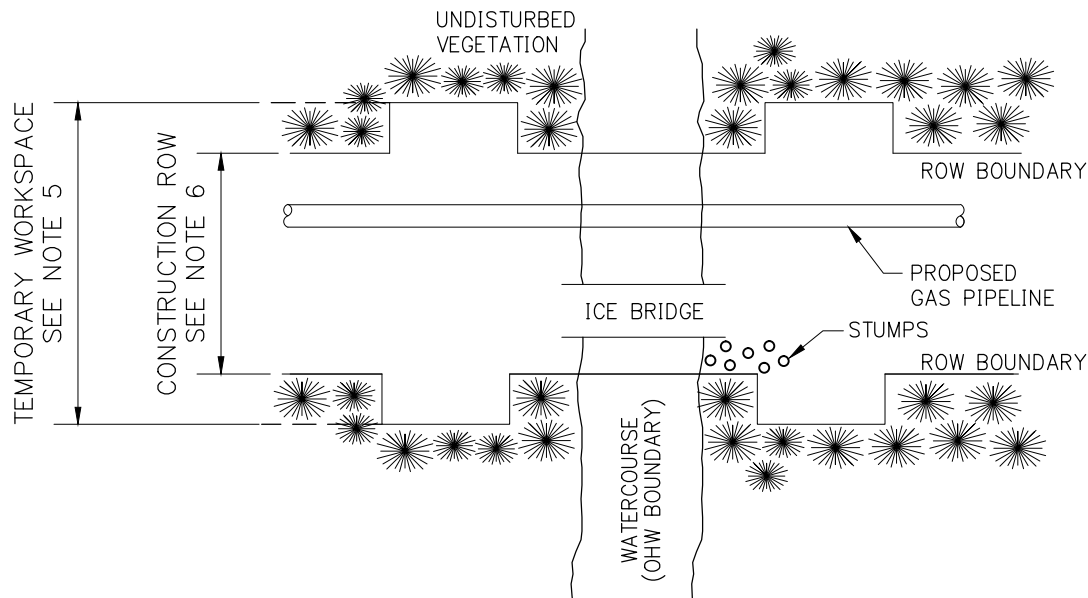
CONSTRUCTION - EQUIPMENT CROSSING ROCK/CULVERT BRIDGE

NOT TO SCALE

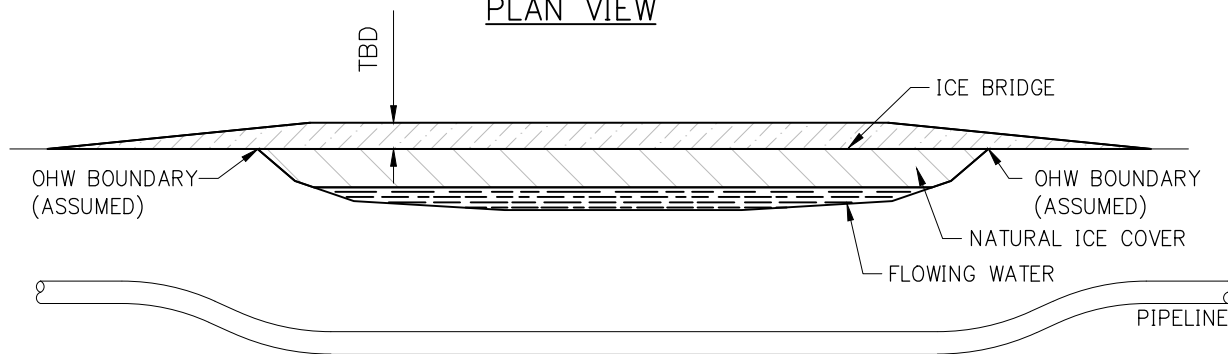
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PLAN VIEW



PROFILE VIEW

NOTES:

1. SAFE ICE THICKNESS SHALL BE MONITORED AND MAINTAINED DURING USE.
2. SNOW AND ICE APPROACHES SHALL BE USED INSTEAD OF CUTTING BANKS.
3. BRIDGE SHALL NOT IMPEDE FLOW.
4. V-NOTCH IN THE CENTRE OF THE ICE BRIDGE SHALL BE CREATED AFTER USE.
5. SEE SHEET 057 & 058 FOR ATWS DIMENSIONS.
6. SEE SHEETS 050 THROUGH 056 FOR CONSTRUCTION ROW WIDTH.
7. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
8. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

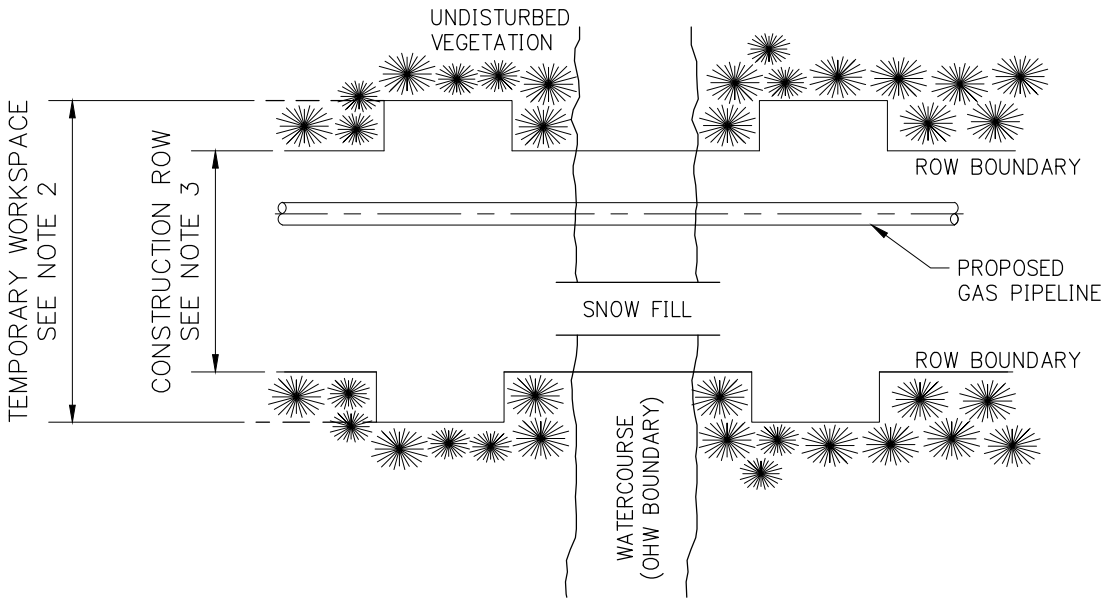
CONSTRUCTION - EQUIPMENT CROSSING - ICE BRIDGE

NOT TO SCALE

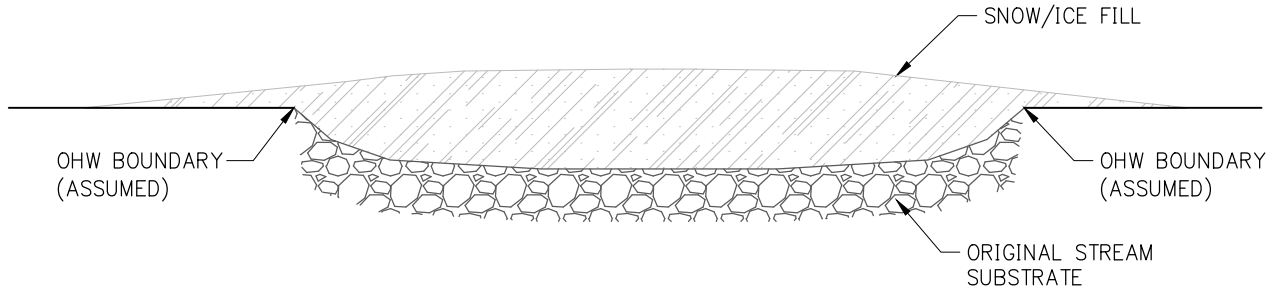
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PLAN VIEW



PROFILE VIEW

NOTES:

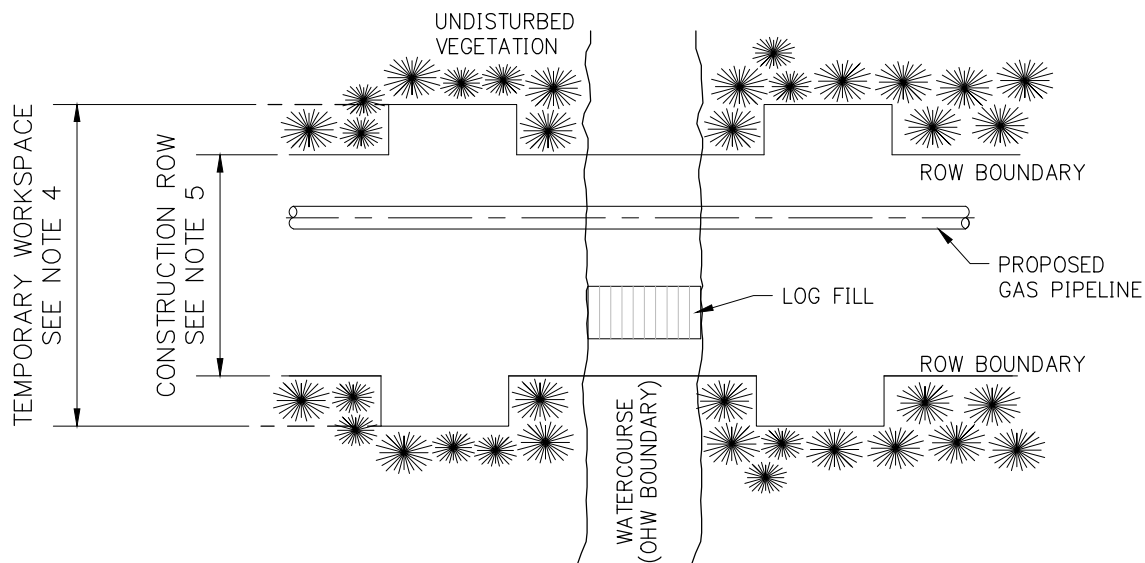
1. SNOW FILLS WILL BE USED TO PROVIDE VEHICULAR ACCESS ACROSS WATERCOURSE WITH LITTLE OR NO FLOW.
2. SEE SHEET Ø57 & Ø58 FOR ATWS DIMENSIONS.
3. SEE SHEETS Ø50 THROUGH Ø56 FOR CONSTRUCTION ROW WIDTH.
4. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
5. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

**CONSTRUCTION - EQUIPMENT CROSSING -  
CLEAN SNOW FILL WITH ICE COVER**

NOT TO SCALE

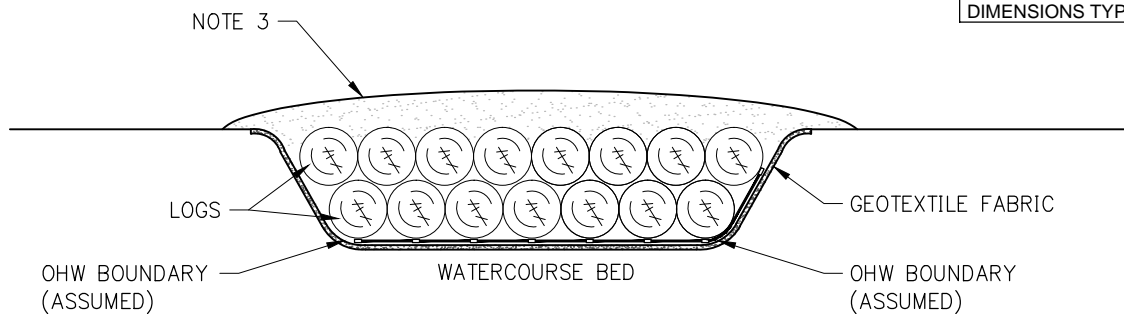
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



PLAN VIEW

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.



PROFILE

NOTES:

1. LOG FILL WILL BE USED TO PROVIDE VEHICULARE ACCESS ACROSS WATERCOURSES WITH LITTLE OR NO FLOW.
2. THE LOGS WILL BE BUNDLED WITH CABLE TO FACILITATE EASY REMOVAL AND PLACED ONTO GEOTEXTILE FABRIC IN THE CHANNEL. THE GEOTEXTILE FABRIC IS THEN WRAPPED AROUND THE LOG FILL.
3. APPROVED MATERIAL (E.G. SWAMP MAT, SNOW, SOIL) IS PLACED OVER THE LOG FILL TO PROVIDE STABLE DRIVING SURFACE.
4. SEE SHEET 057 & 058 FOR ATWS DIMENSIONS.
5. SEE SHEETS 050 THROUGH 056 FOR CONSTRUCTION ROW WIDTH.
6. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
7. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

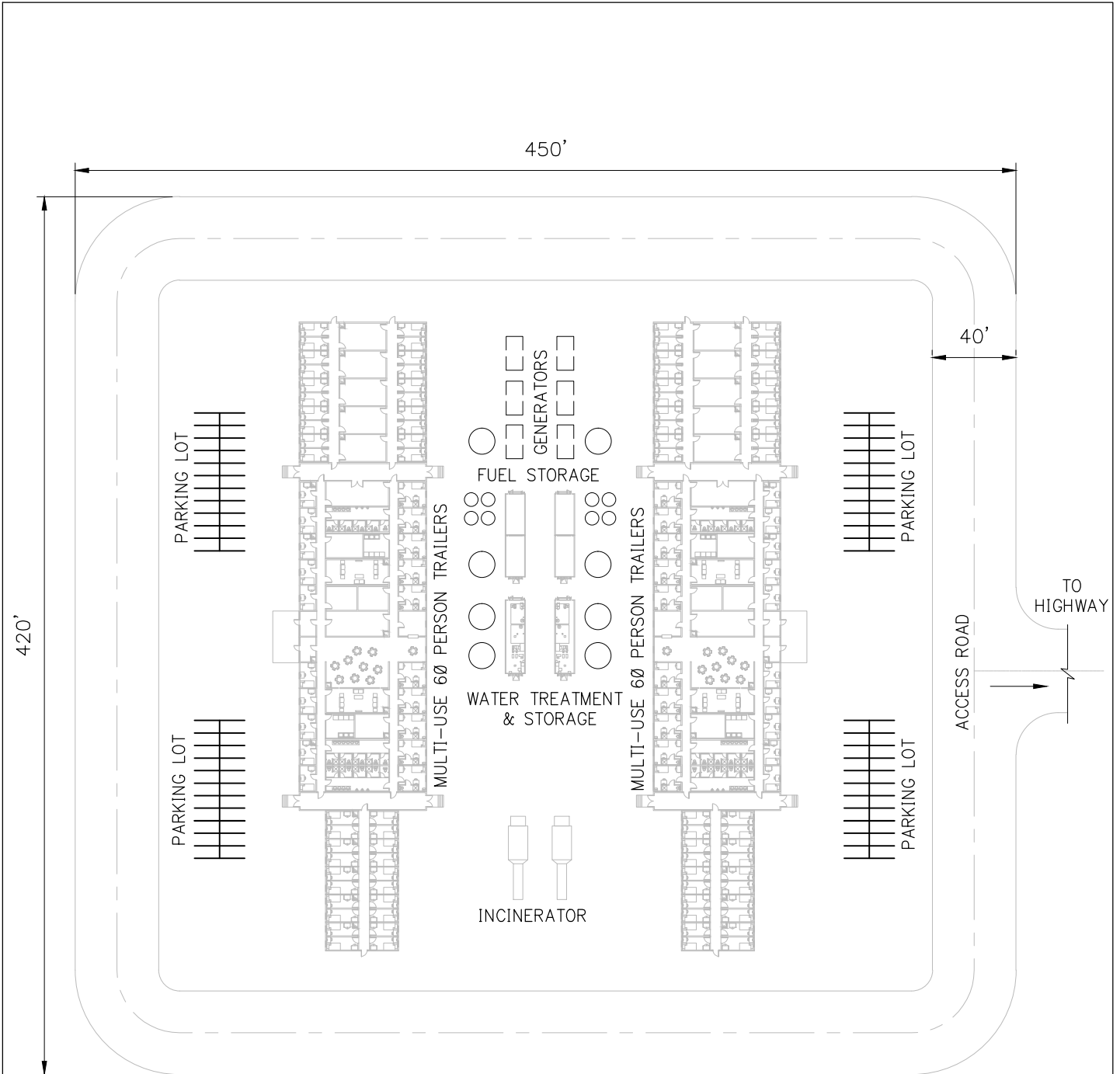
CONSTRUCTION - EQUIPMENT CROSSING - LOG FILL

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project





**120 BED PIONEER CAMPS (SKID MOUNTED) - 4.3 ACRES**  
 NOT TO SCALE

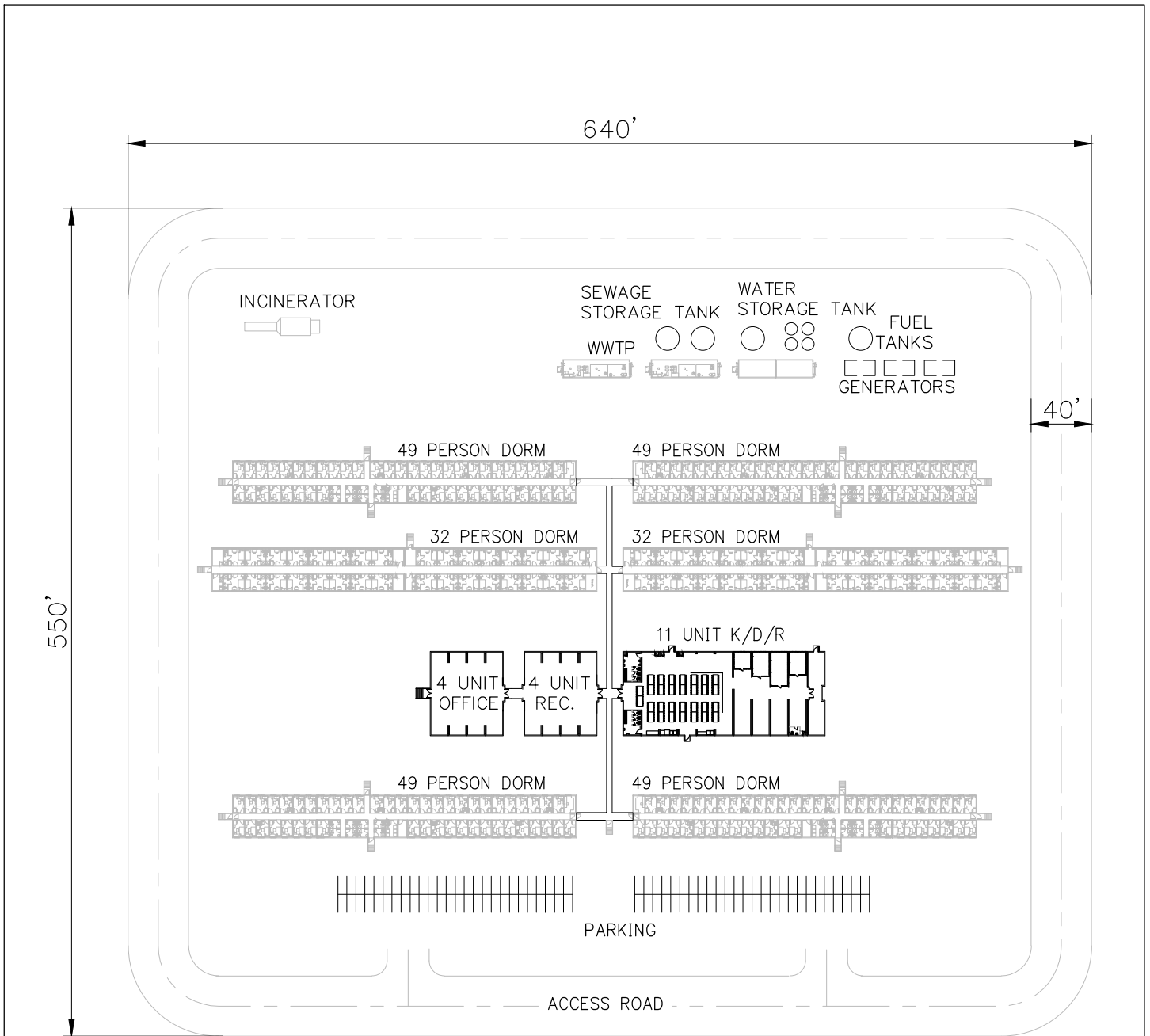
PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

NOTES:

1. INCINERATOR TO BE DOWNWIND OF PREVAILING WINDS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**240 PERSON CAMP - 8 ACRES**

NOT TO SCALE

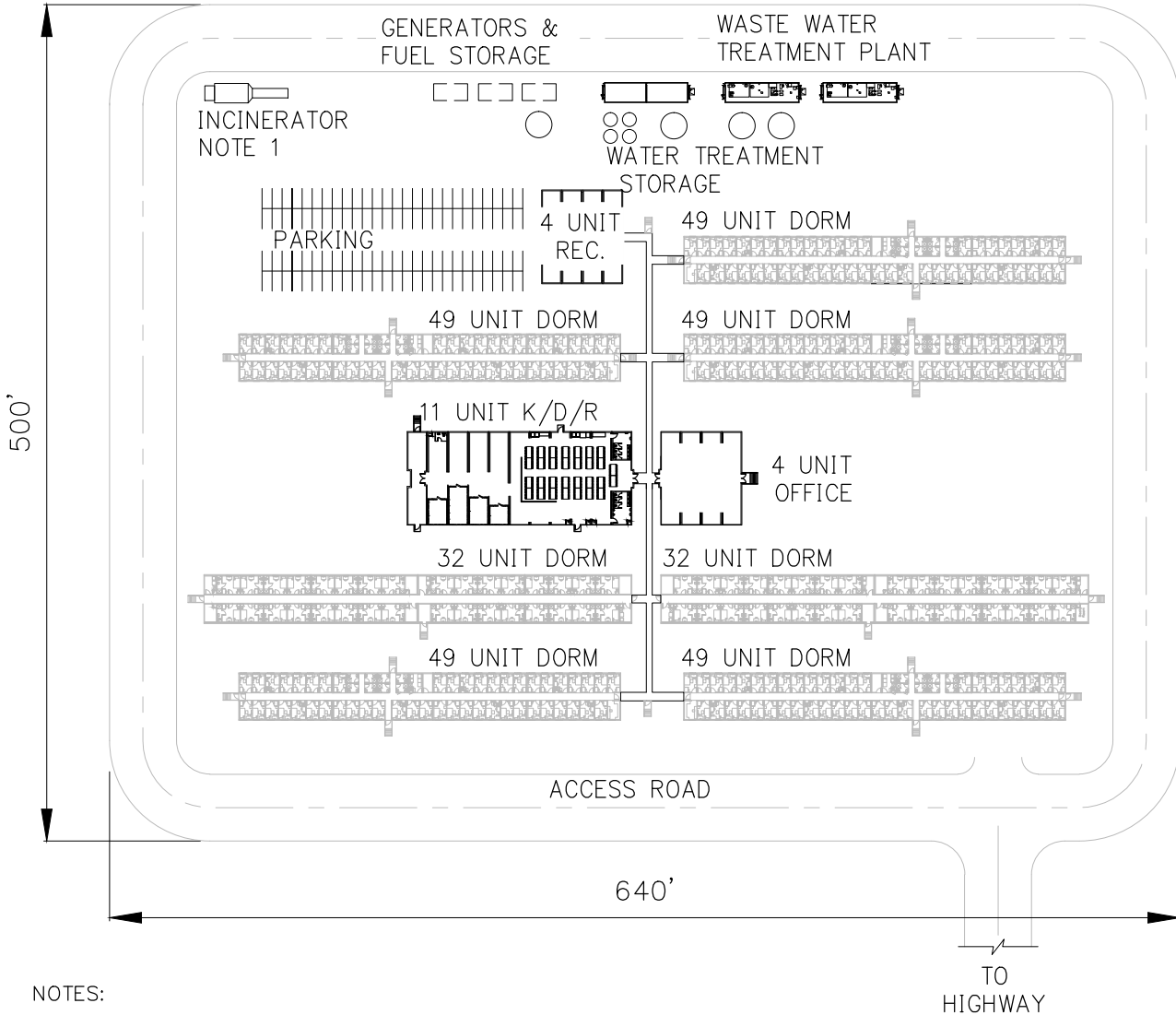
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

NOTES:

1. INCINERATOR TO BE DOWNWIND OF PREVAILING WINDS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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NOTES:

1. INCINERATOR TO BE DOWNWIND OF PREVAILING WINDS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.
3. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.

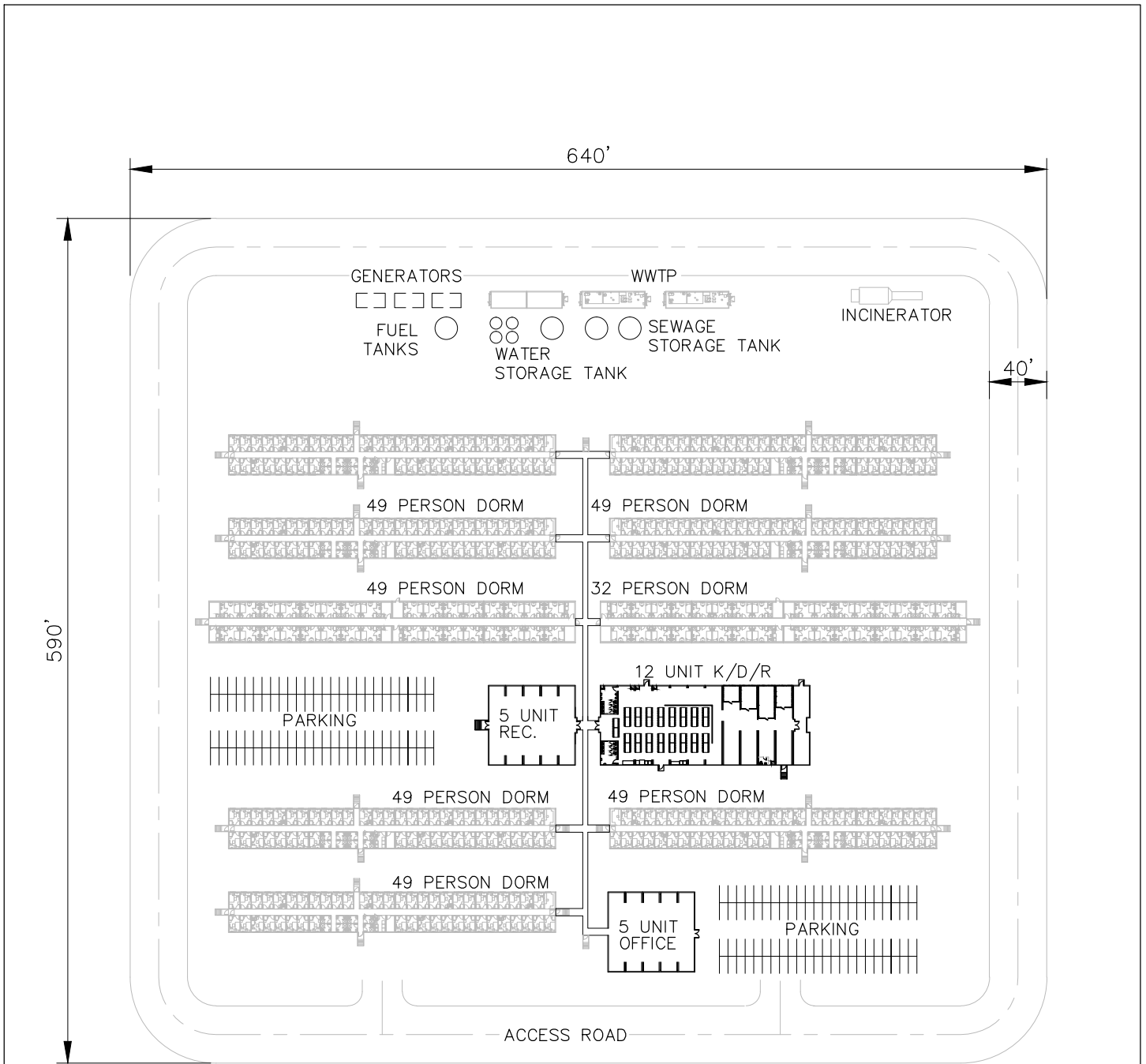
**300 PERSON CAMP - 7.4 ACRES**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**400 PERSON CAMP - 8.7 ACRES**

NOT TO SCALE

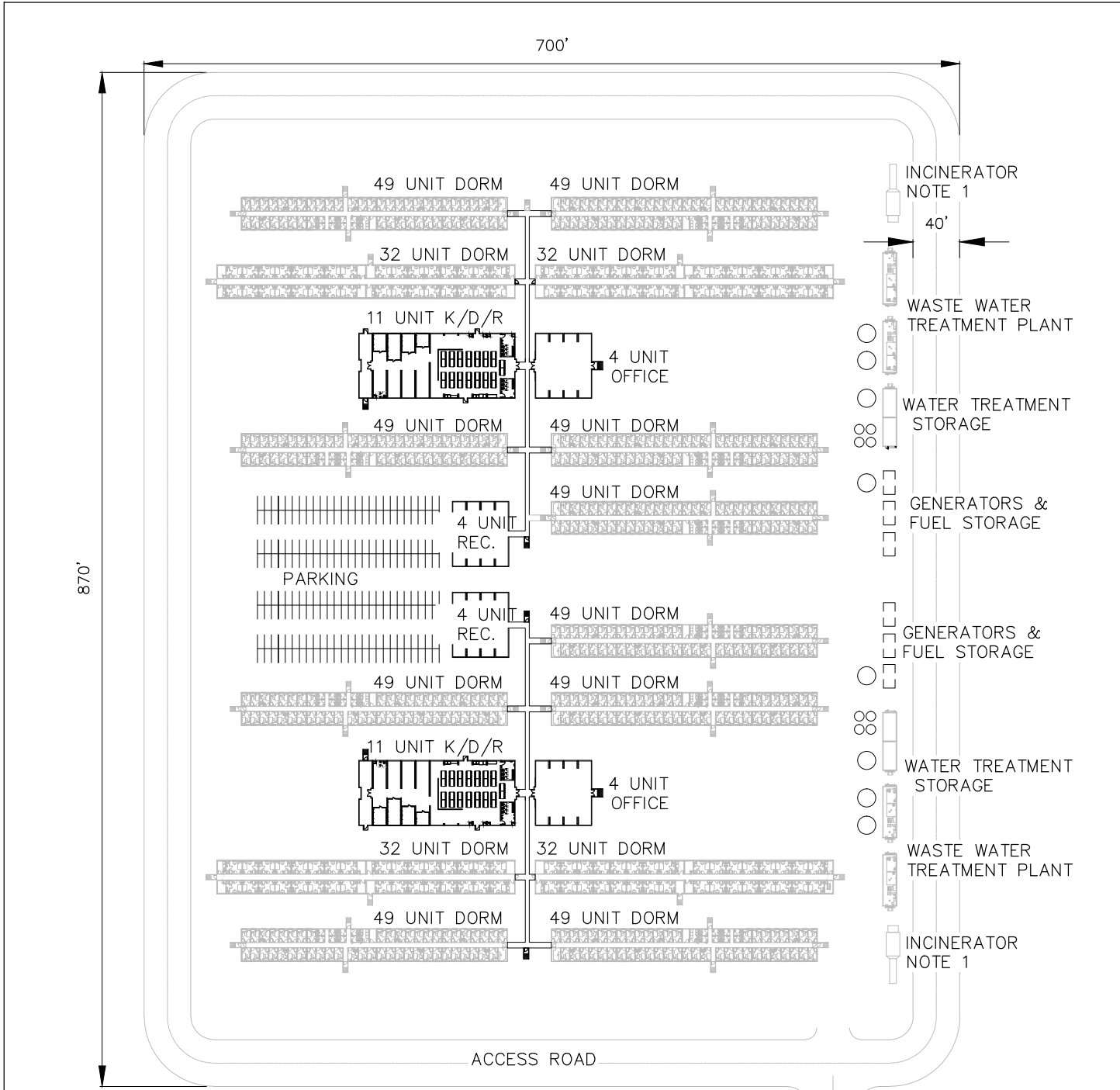
NOTES:

1. INCINERATOR TO BE DOWNWIND OF PREVAILING WINDS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**NOTES:**

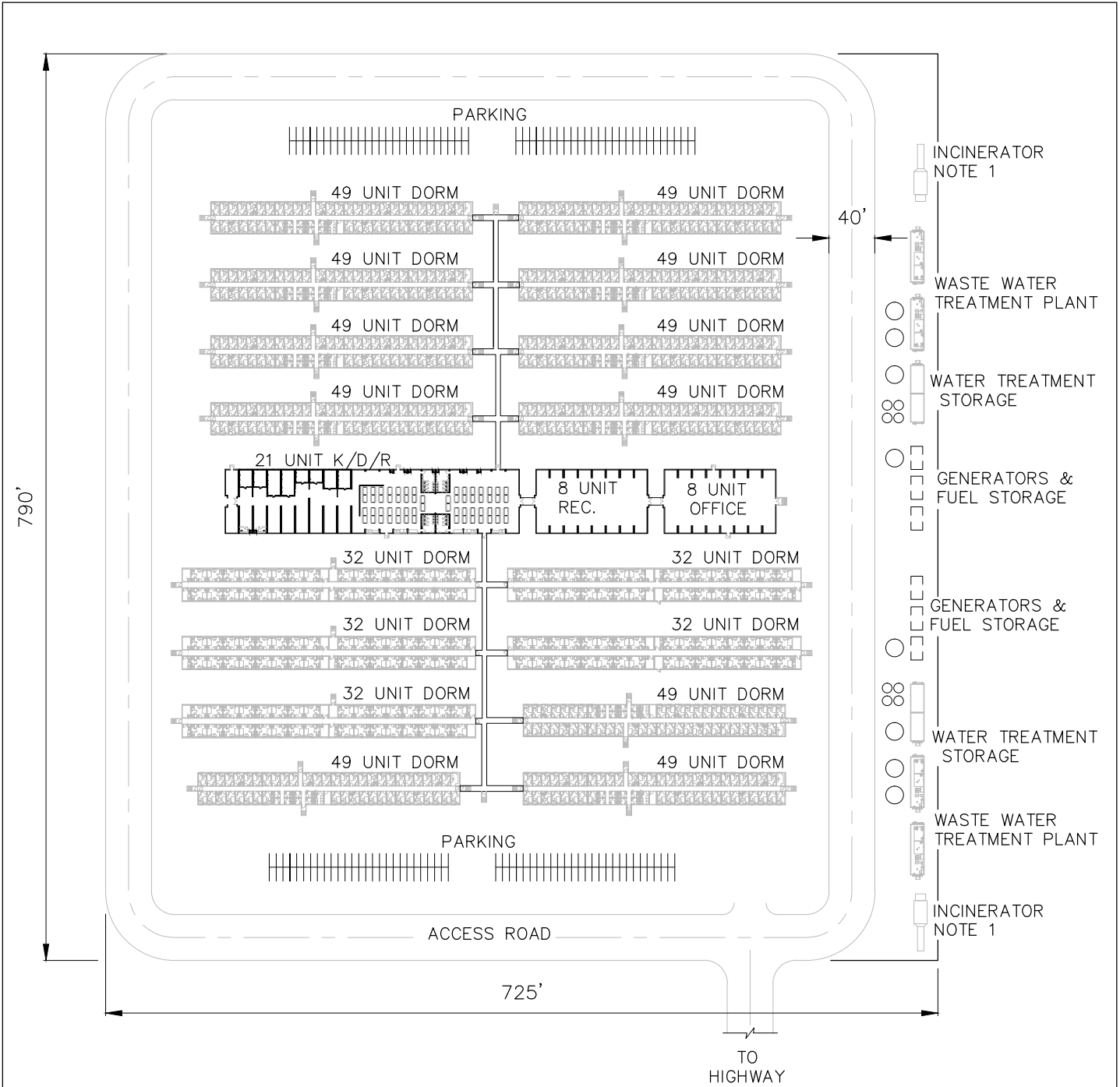
1. INCINERATOR TO BE DOWNWIND OF PREVAILING WINDS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

**PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.**

**600 PERSON CAMP - 14 ACRES**

NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**700 PERSON CAMP - 14 ACRES**

NOT TO SCALE

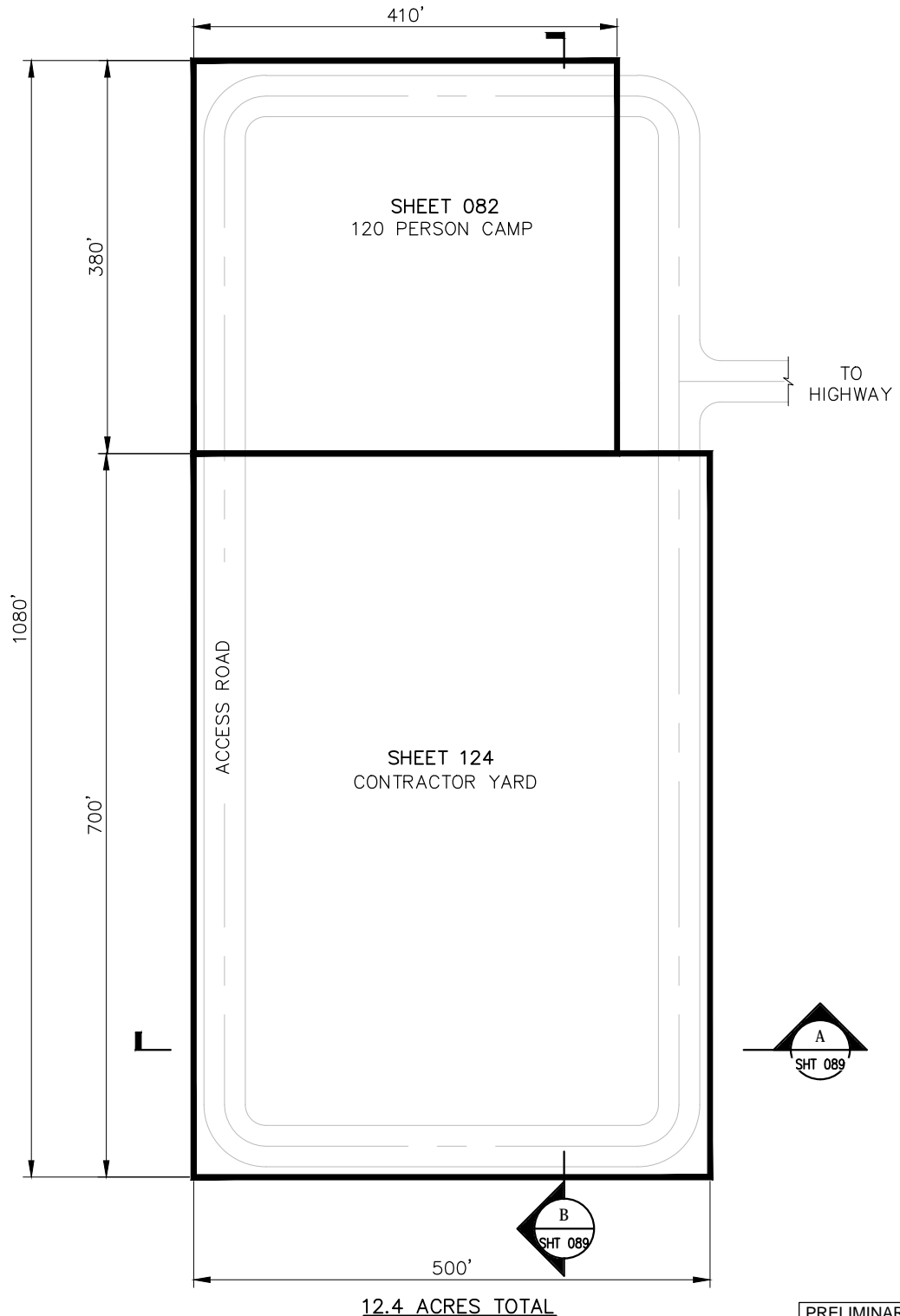
NOTES:

1. INCINERATOR TO BE DOWNWIND OF PREVAILING WINDS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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NOTE:

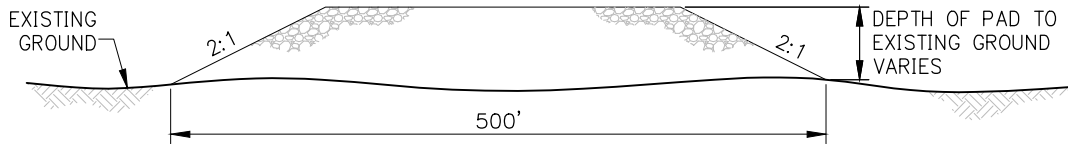
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

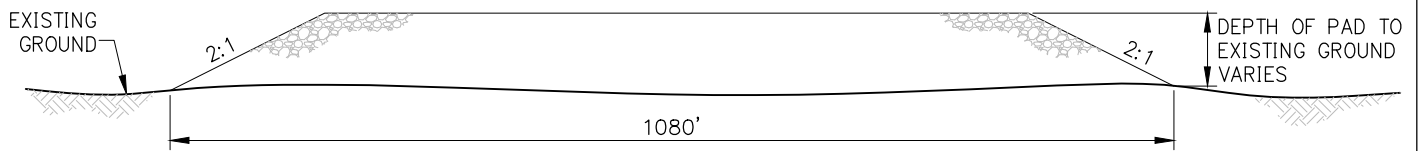
**120 MAN CAMP & CONTRACTOR  
YARD - OPTION 1**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



**ELEVATION B-B**  
NOT TO SCALE

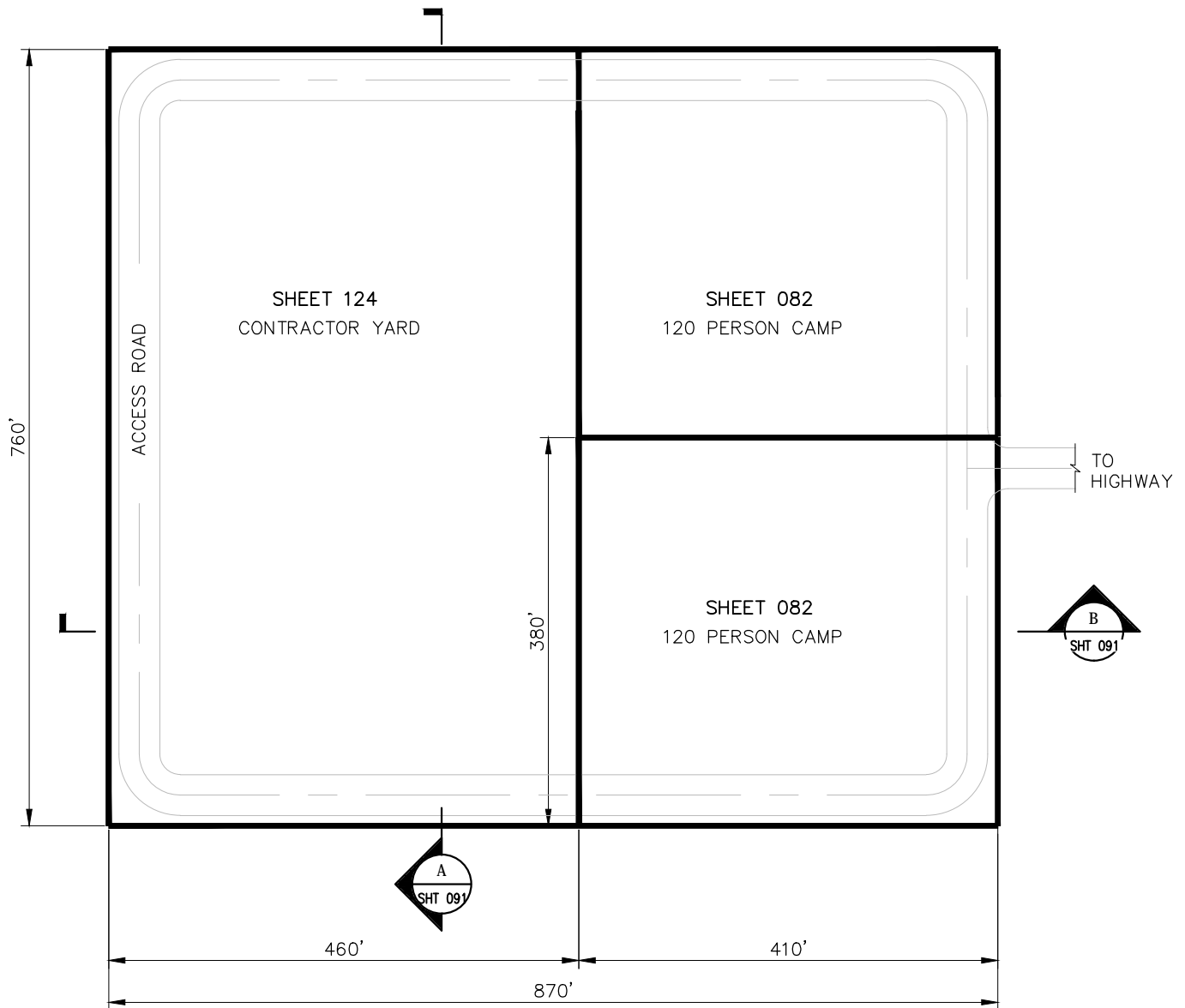
**120 MAN CAMP & CONTRACTOR YARD - OPTION 1 ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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15 ACRES TOTAL

**240 MAN CAMP & CONTRACTOR YARD - OPTION 2**

NOT TO SCALE

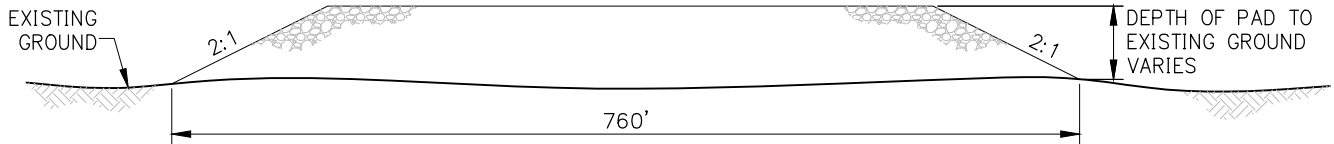
NOTE:

1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

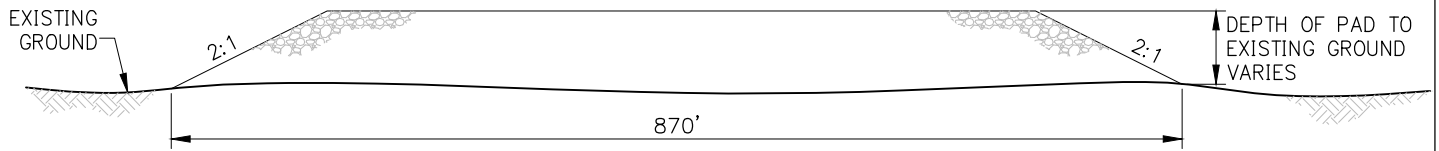
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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ELEVATION A-A  
NOT TO SCALE



ELEVATION B-B  
NOT TO SCALE

240 MAN CAMP & CONTRACTOR YARD - OPTION 2 ELEVATION  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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18.8 ACRES TOTAL

**360 MAN CAMP & CONTRACTOR YARD - OPTION 3**

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

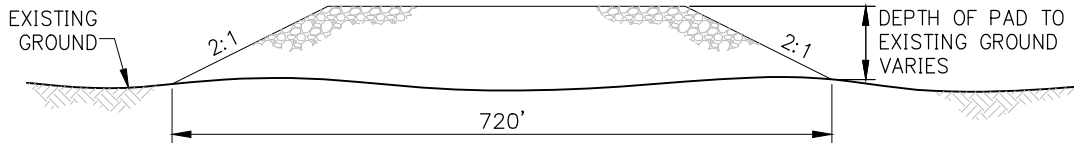
NOTE:

1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

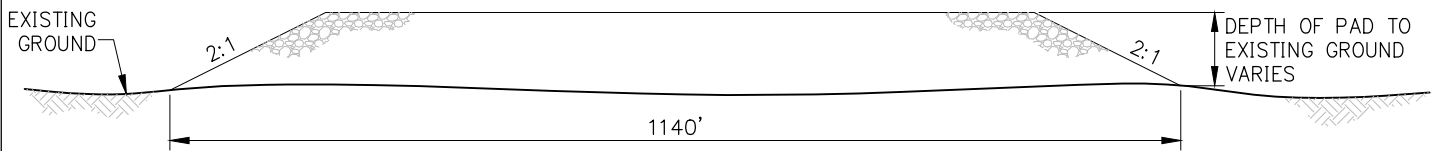
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



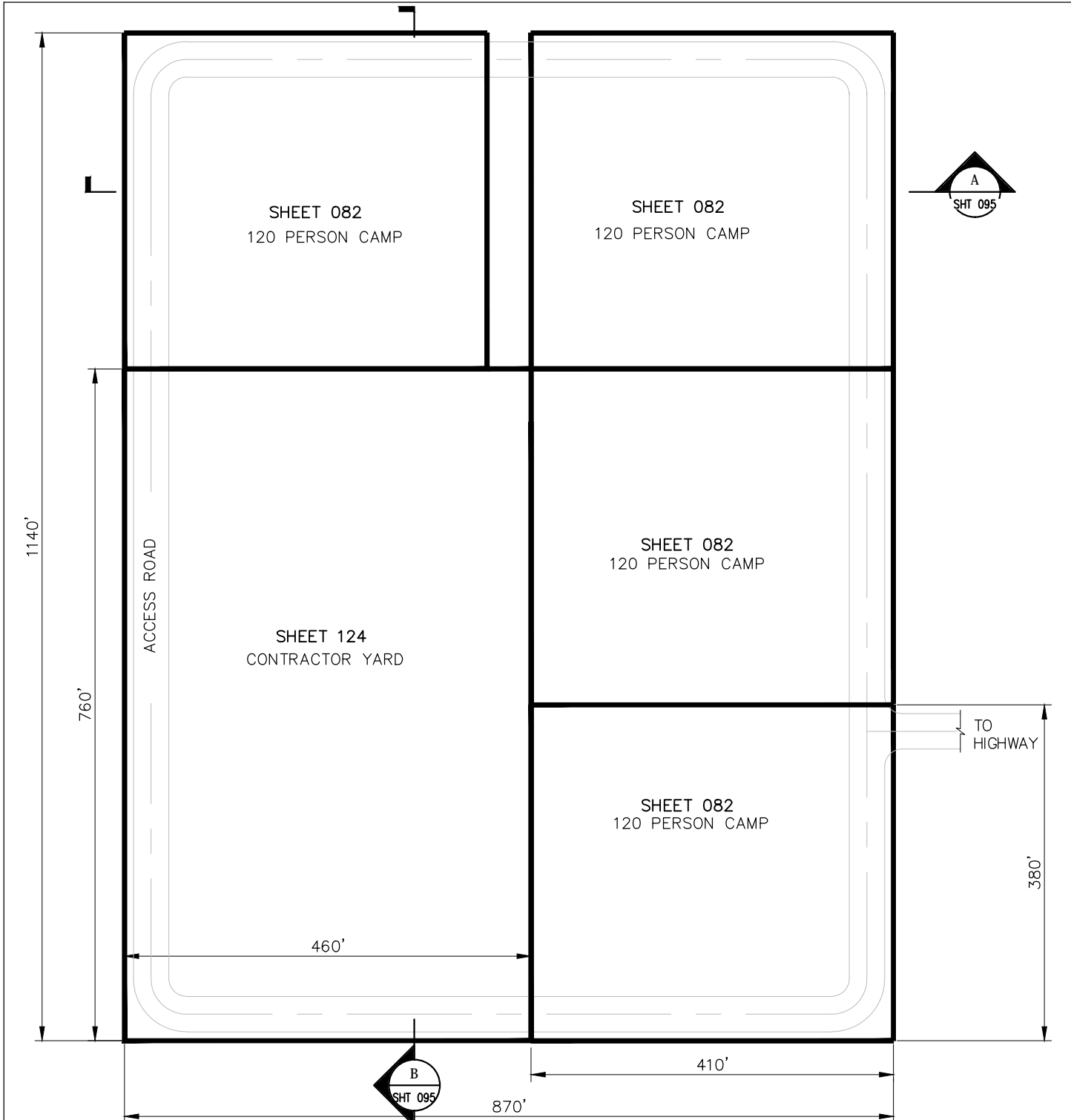
**ELEVATION B-B**  
NOT TO SCALE

**360 MAN CAMP & CONTRACTOR YARD - OPTION 3 ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**22.8 ACRES TOTAL**

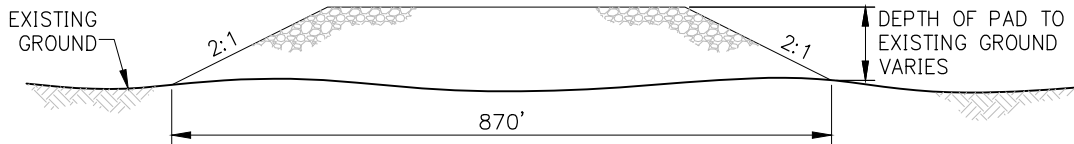
**NOTE:**

- HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
- ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

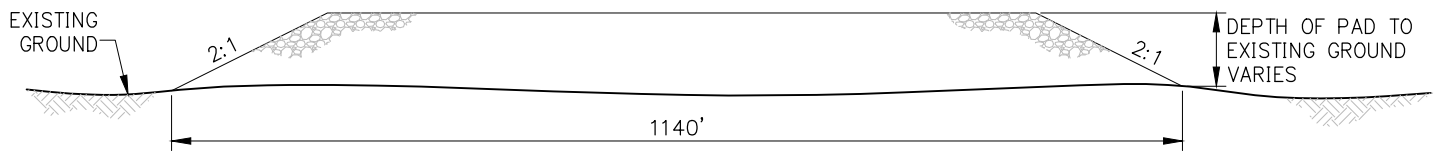
**PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.**

**480 MAN CAMP & CONTRACTOR  
YARD - OPTION 4**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**ELEVATION A-A**  
NOT TO SCALE



**ELEVATION B-B**  
NOT TO SCALE

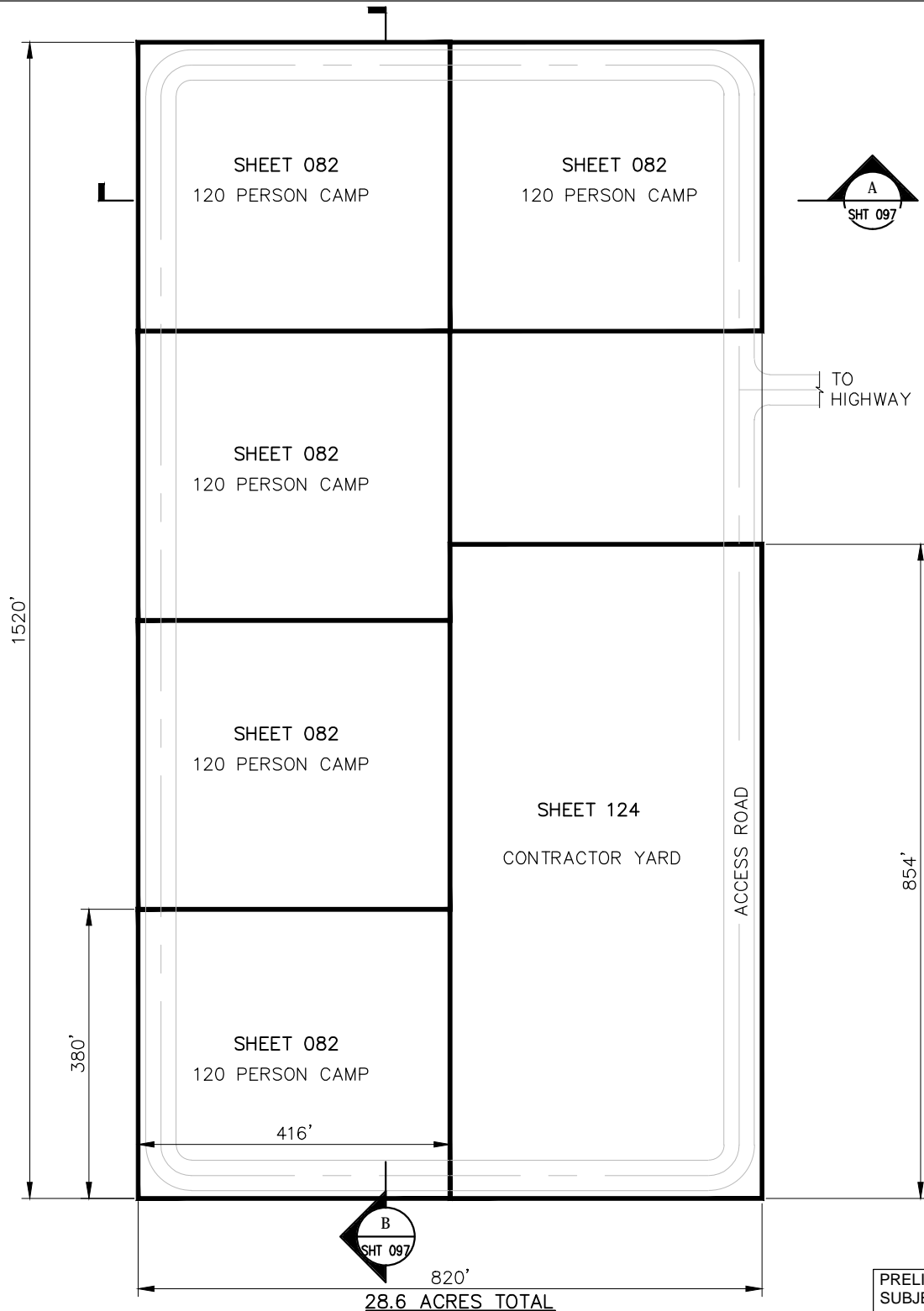
**480 MAN CAMP & CONTRACTOR YARD - OPTION 4 ELEVATION**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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NOTE:

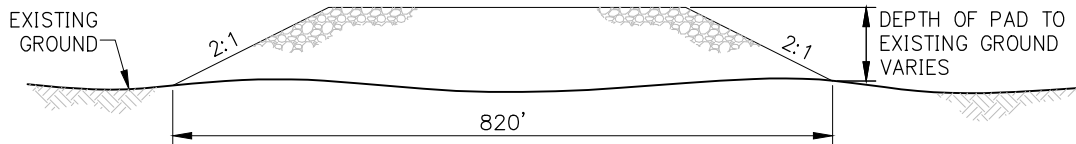
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

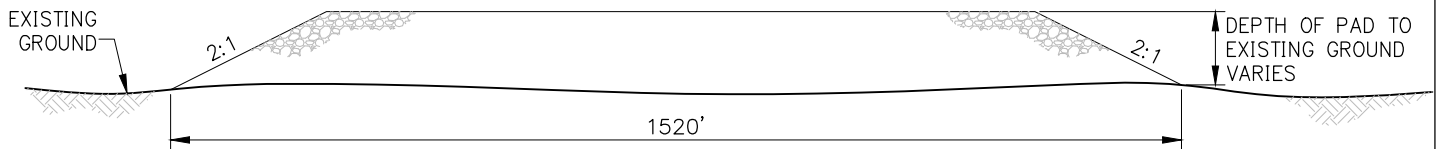
**600 MAN CAMP & CONTRACTOR  
YARD - OPTION 5**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



**ELEVATION B-B**  
NOT TO SCALE

**600 MAN CAMP & CONTRACTOR YARD - OPTION 5 ELEVATION**

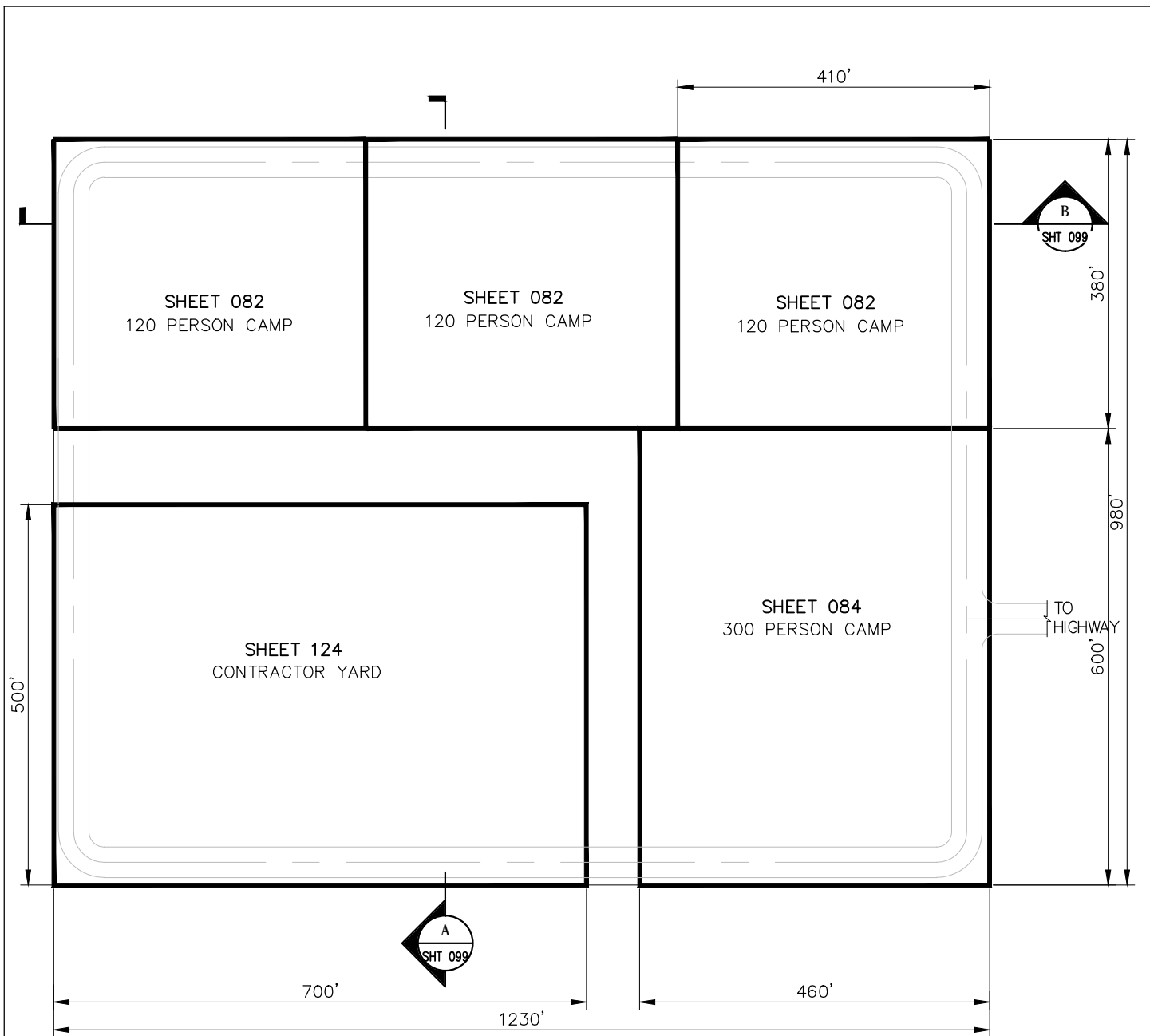
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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27.7 ACRES TOTAL

NOTE:

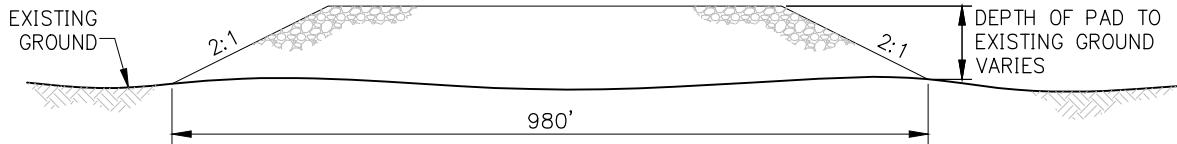
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

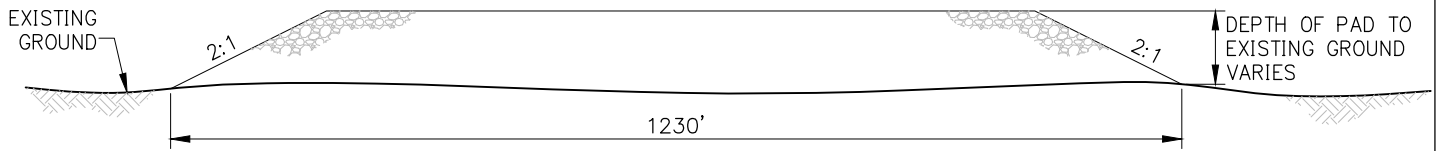
**660 MAN CAMP & CONTRACTOR YARD -**  
**OPTION 6**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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ELEVATION A-A  
NOT TO SCALE



ELEVATION B-B  
NOT TO SCALE

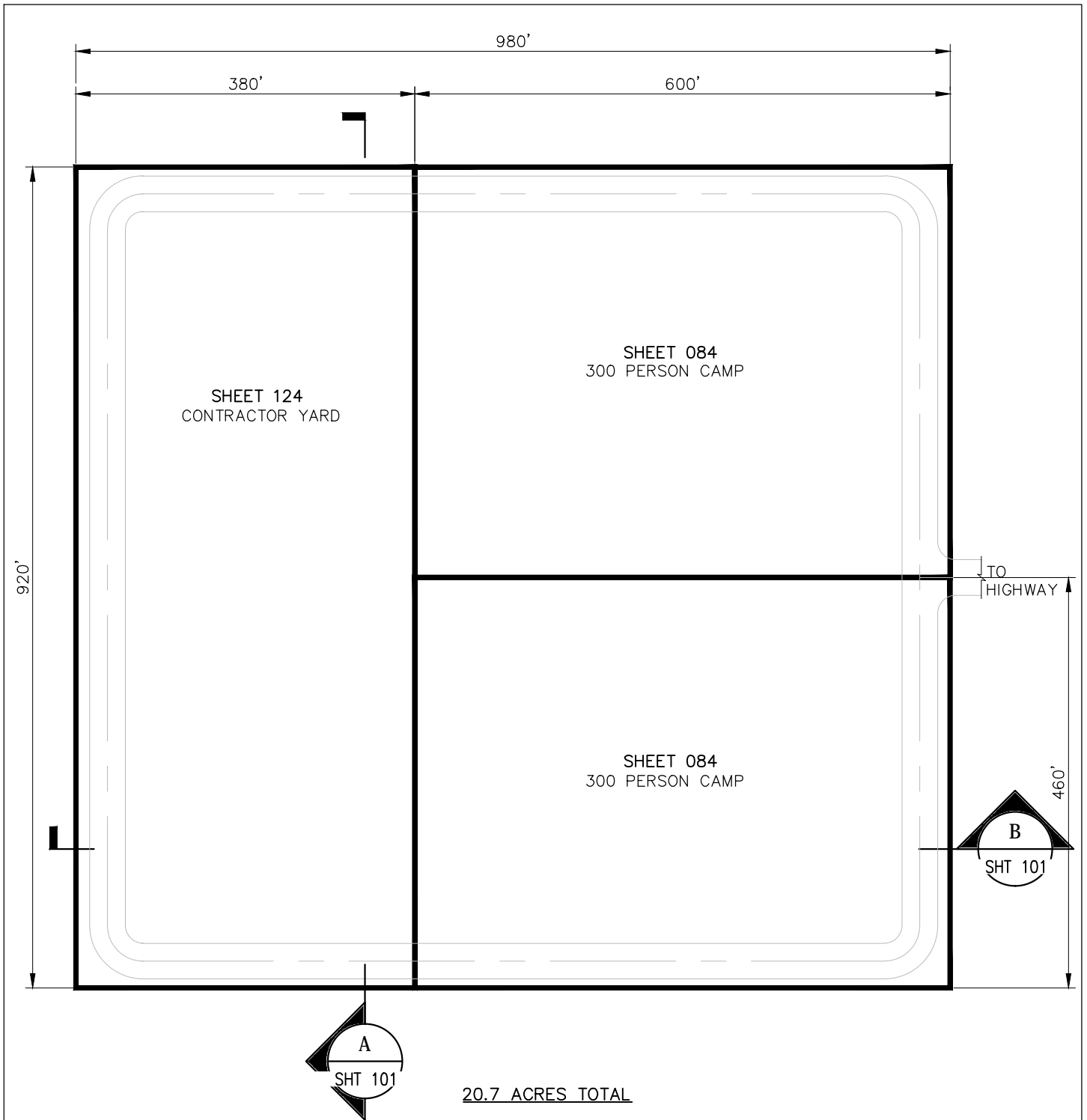
660 MAN CAMP & CONTRACTOR YARD - OPTION 6 ELEVATION

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTE:**

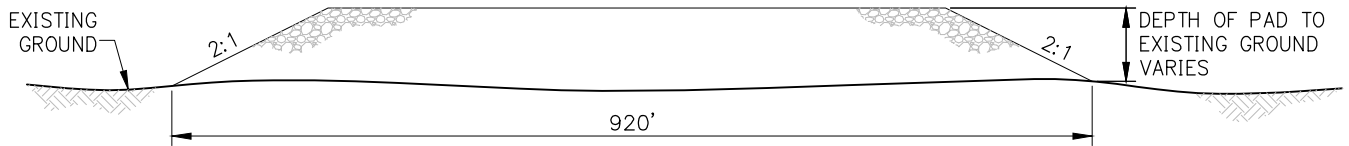
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

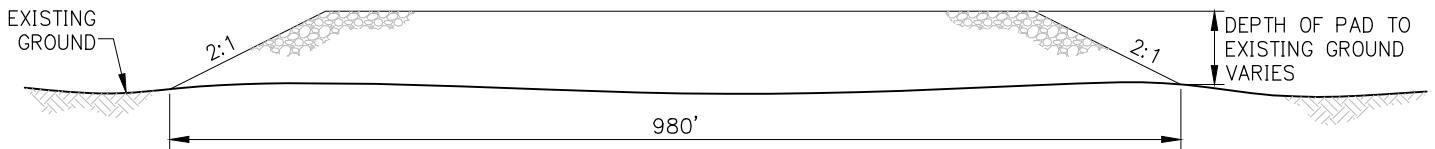
**600 MAN CAMP & CONTRACTOR YARD -  
OPTION 7**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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ELEVATION A-A  
NOT TO SCALE



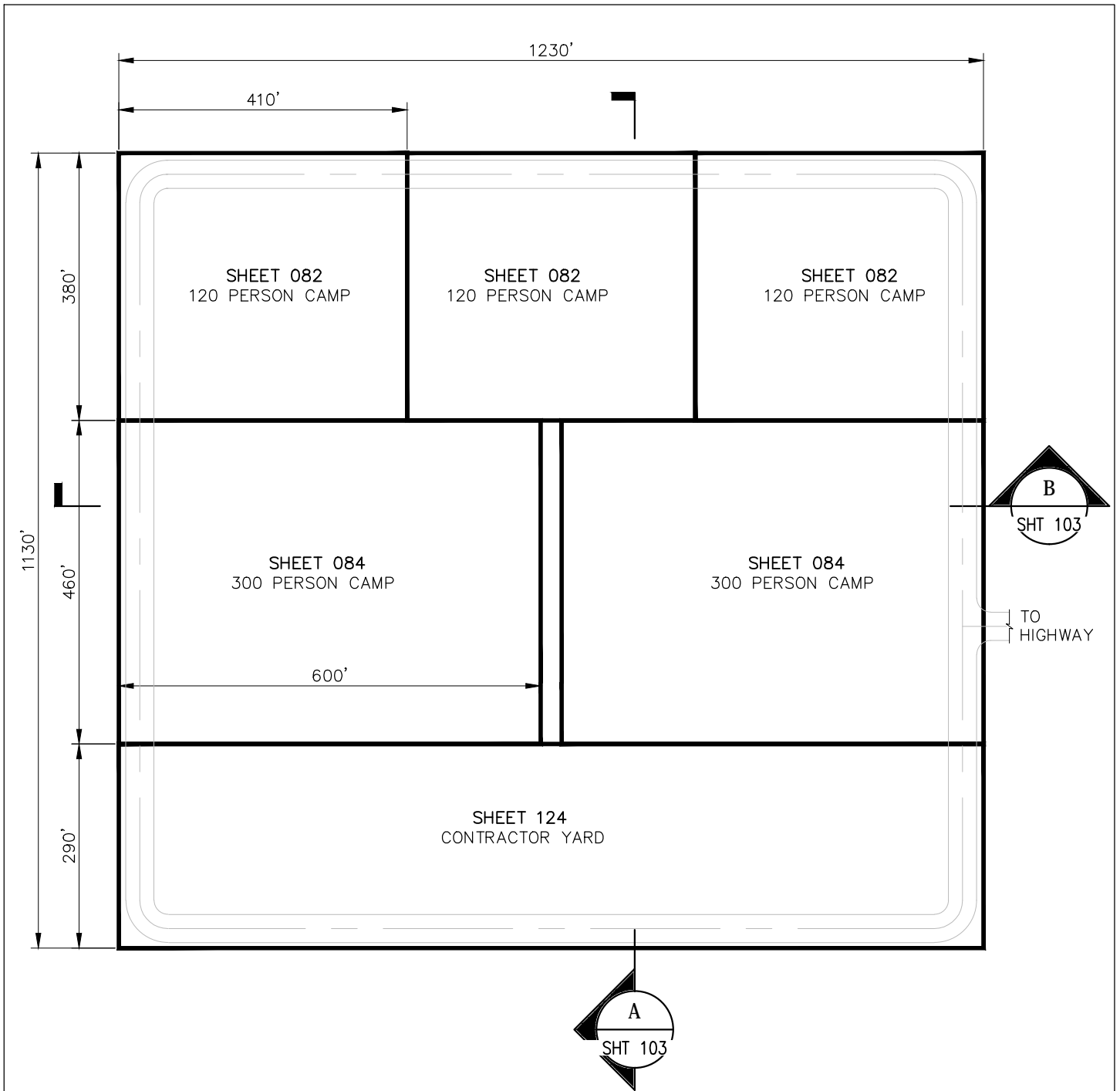
ELEVATION B-B  
NOT TO SCALE

600 MAN CAMP & CONTRACTOR YARD - OPTION 7 ELEVATION  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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32 ACRES TOTAL

NOTE:

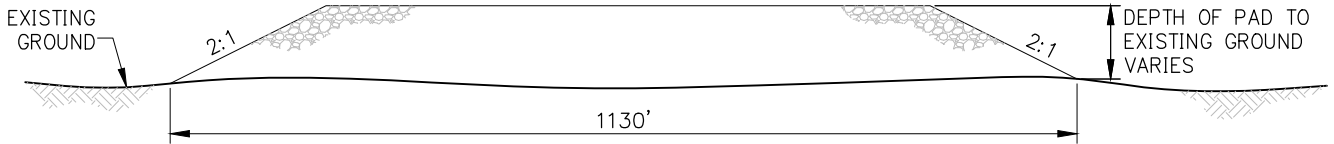
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

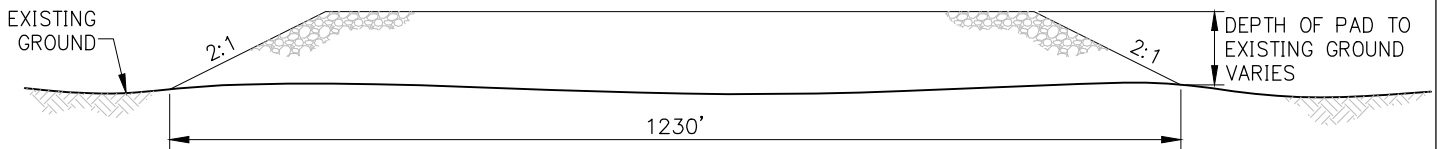
960 MAN CAMP & CONTRACTOR YARD -  
OPTION 8  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



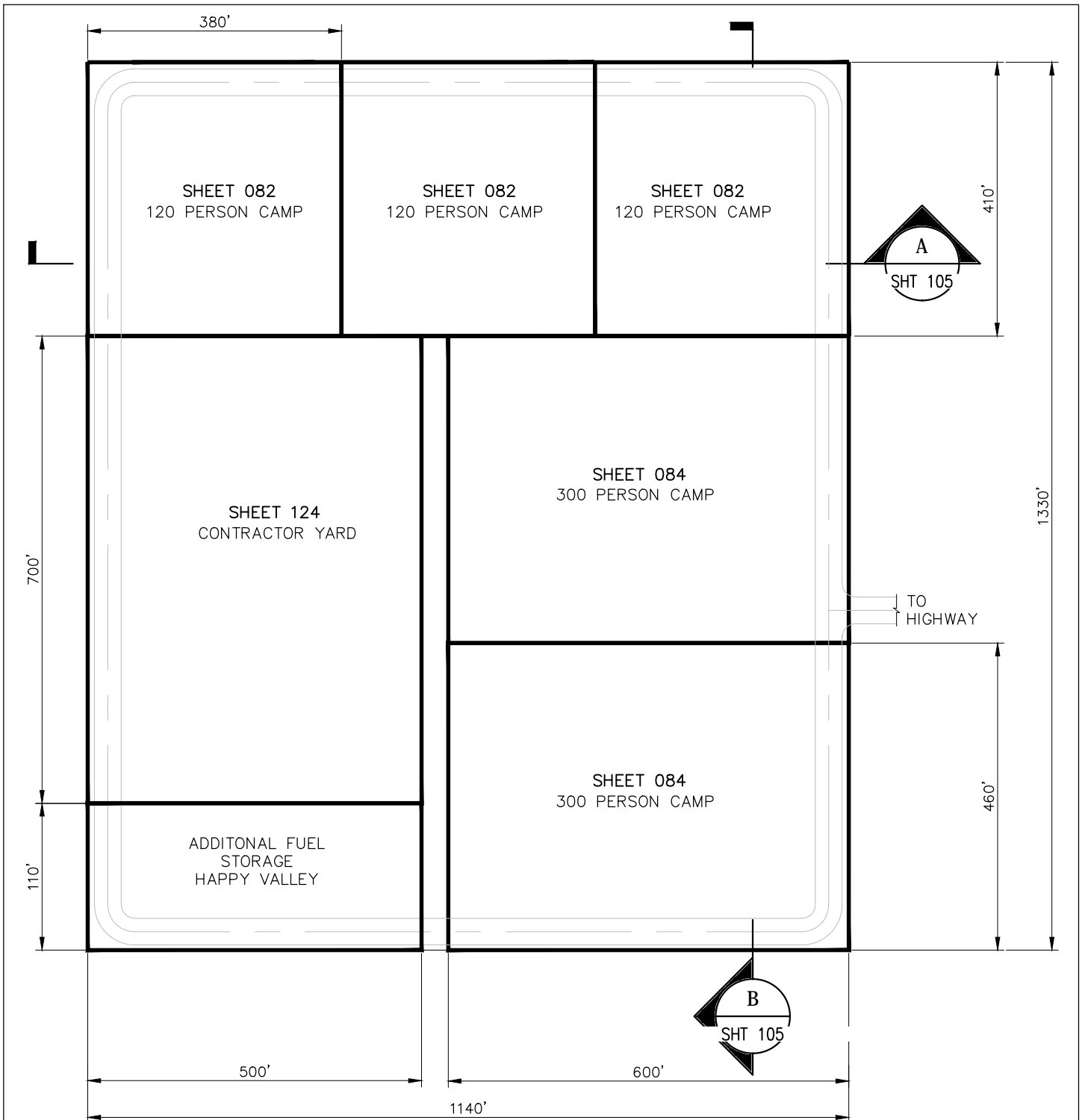
**ELEVATION B-B**  
NOT TO SCALE

**960 MAN CAMP & CONTRACTOR YARD - OPTION 8 ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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NOTE:

**34.8 ACRES TOTAL**

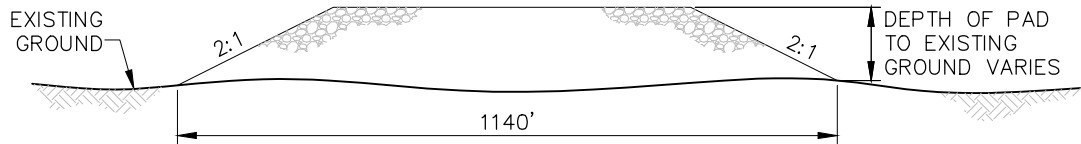
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

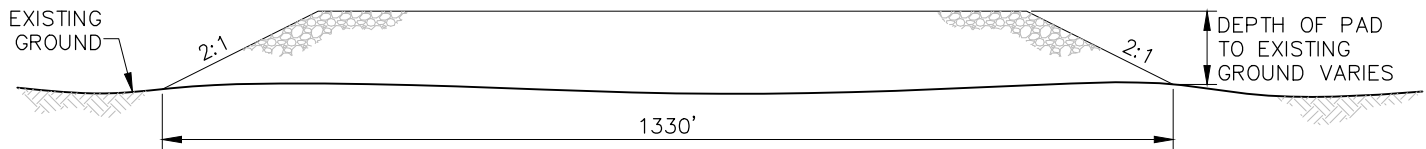
**960 MAN CAMP & CONTRACTOR YARD W/FUEL**  
**DEPOT - OPTION 9**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



**ELEVATION B-B**  
NOT TO SCALE

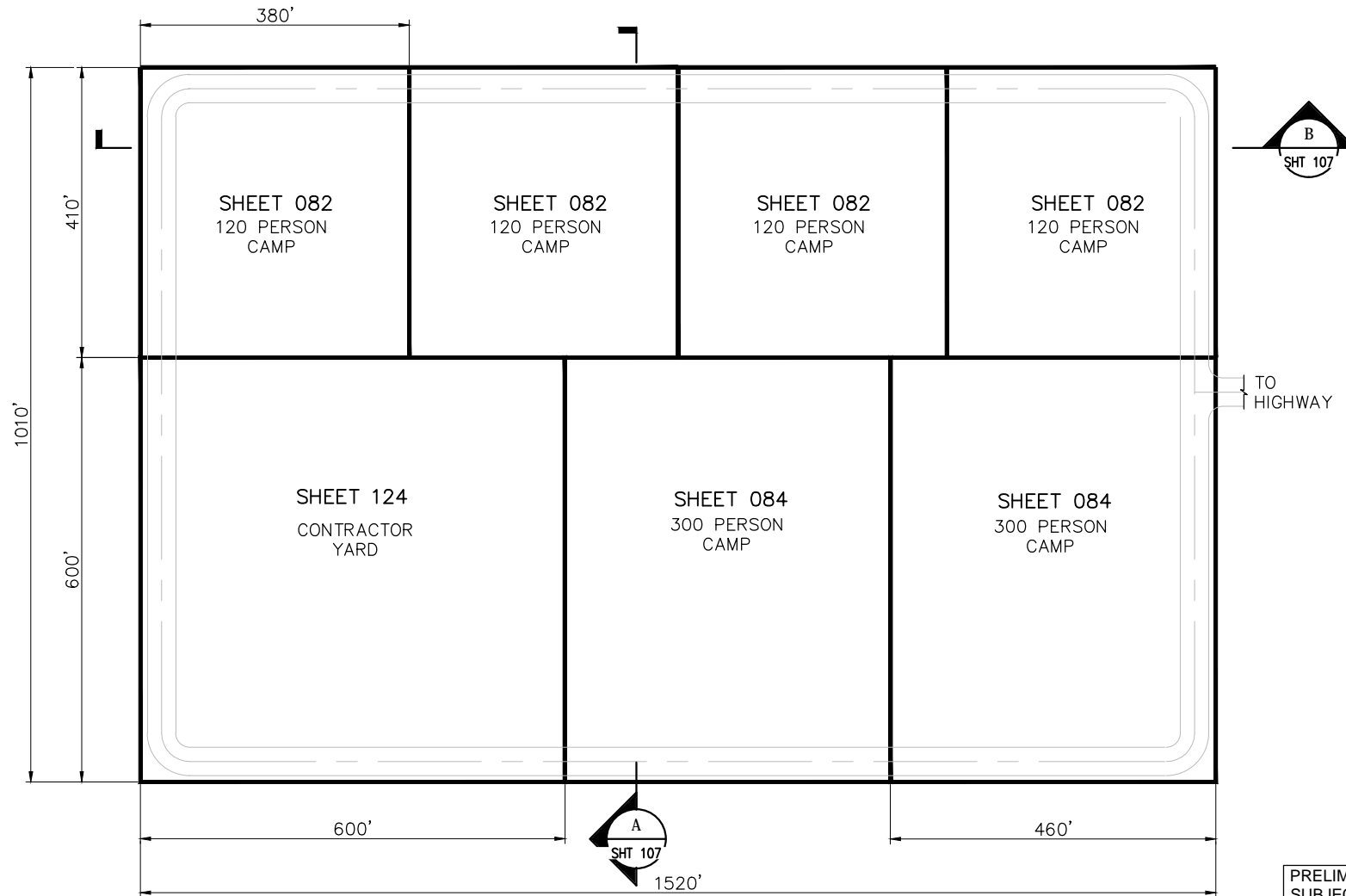
**960 MAN CAMP & CONTRACTOR YARD W/FUEL DEPOT - OPTION 9 ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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35.2 ACRES TOTAL

1080 MAN CAMP & CONTRACTOR YARD - OPTION 10

NOT TO SCALE

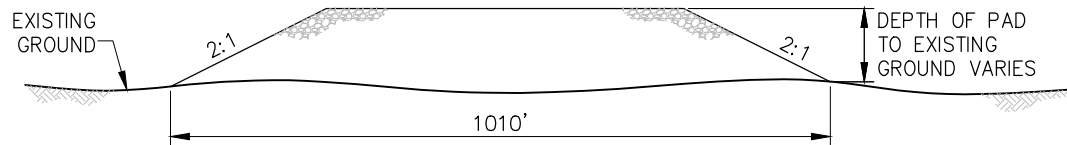
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

NOTE:

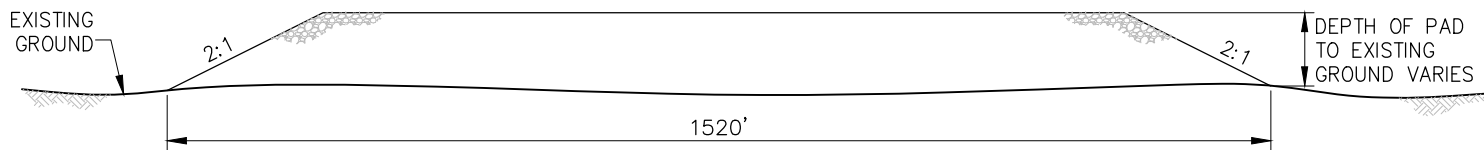
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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ELEVATION A-A  
NOT TO SCALE



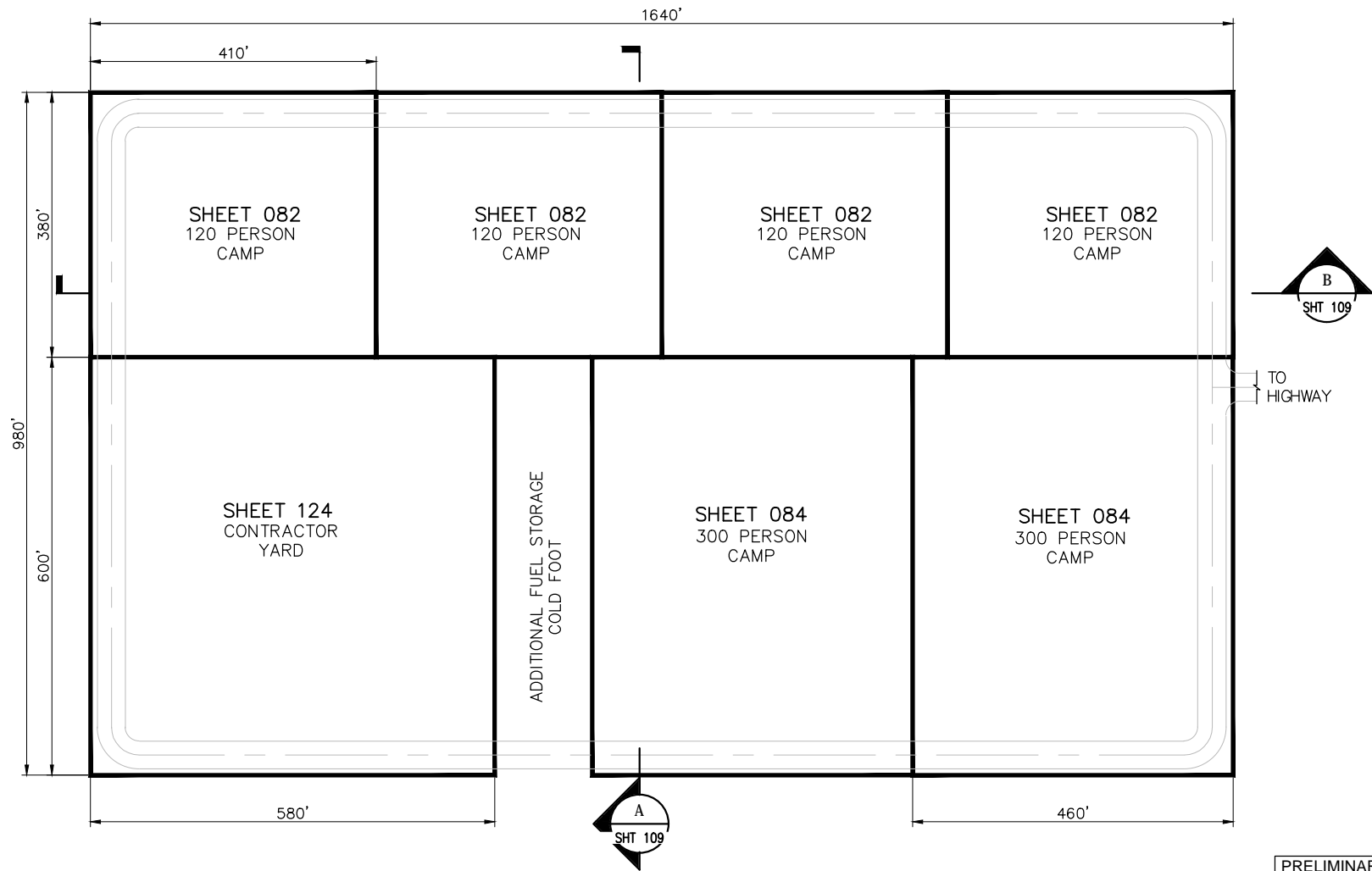
ELEVATION B-B  
NOT TO SCALE

1080 MAN CAMP & CONTRACTOR YARD - OPTION 10 ELEVATION  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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36.9 ACRES TOTAL

1080 MAN CAMP & CONTRACTOR YARD - OPTION 11

NOT TO SCALE

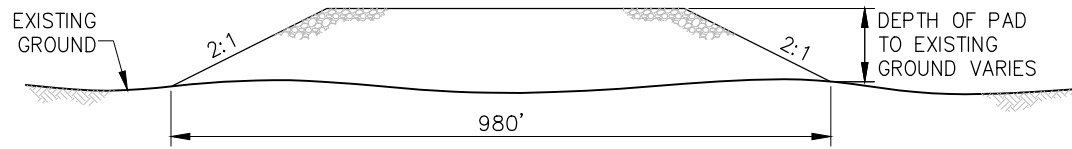
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

NOTE:

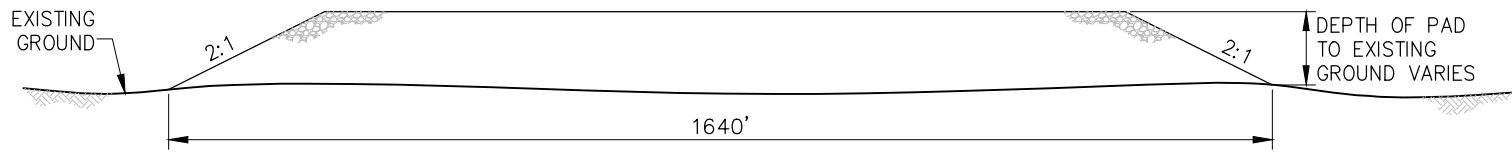
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



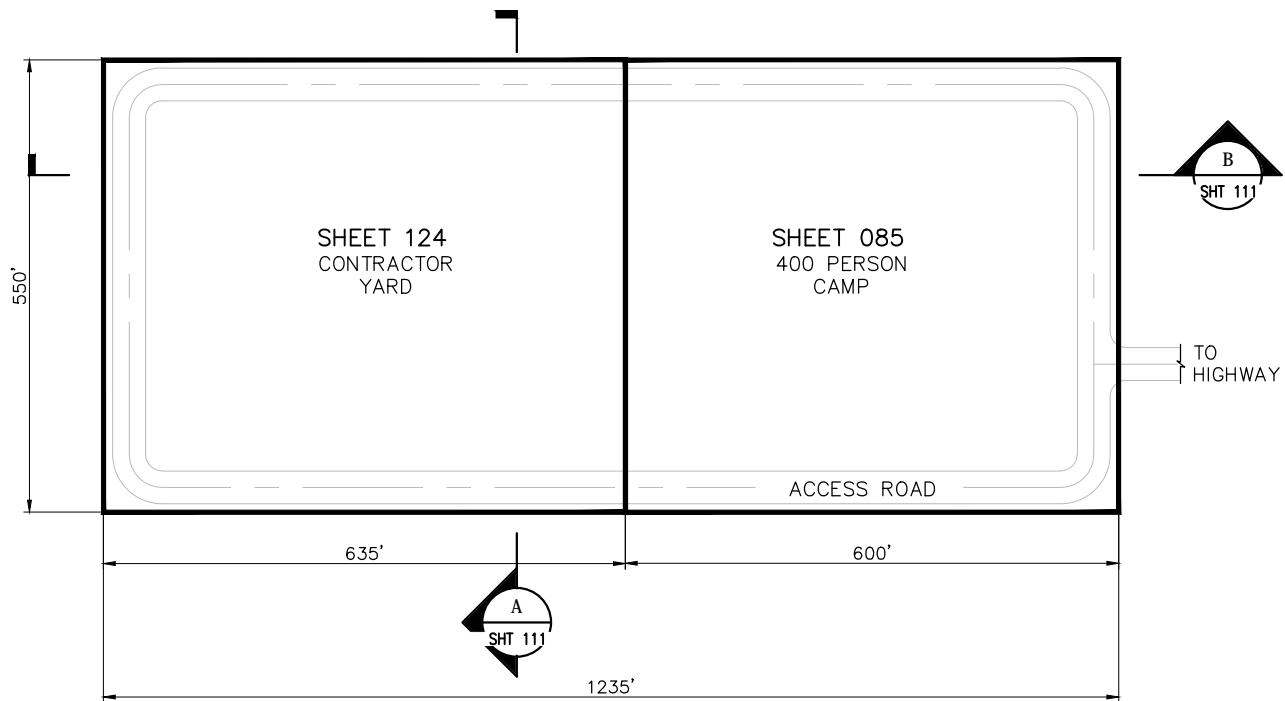
**ELEVATION B-B**  
NOT TO SCALE

**1080 MAN CAMP & CONTRACTOR YARD - OPTION 11 ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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15.6 ACRES TOTAL

400 MAN CAMP & CONTRACTOR YARD - OPTION 12

NOT TO SCALE

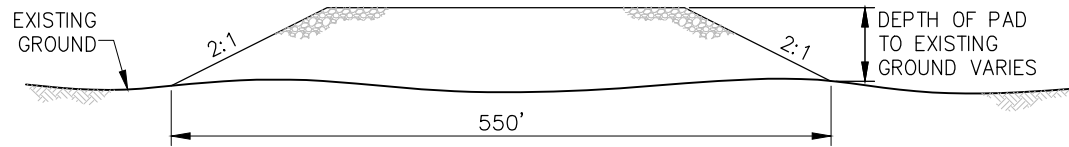
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

NOTE:

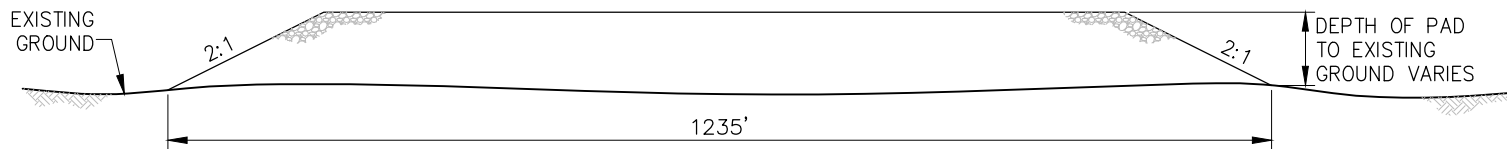
1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



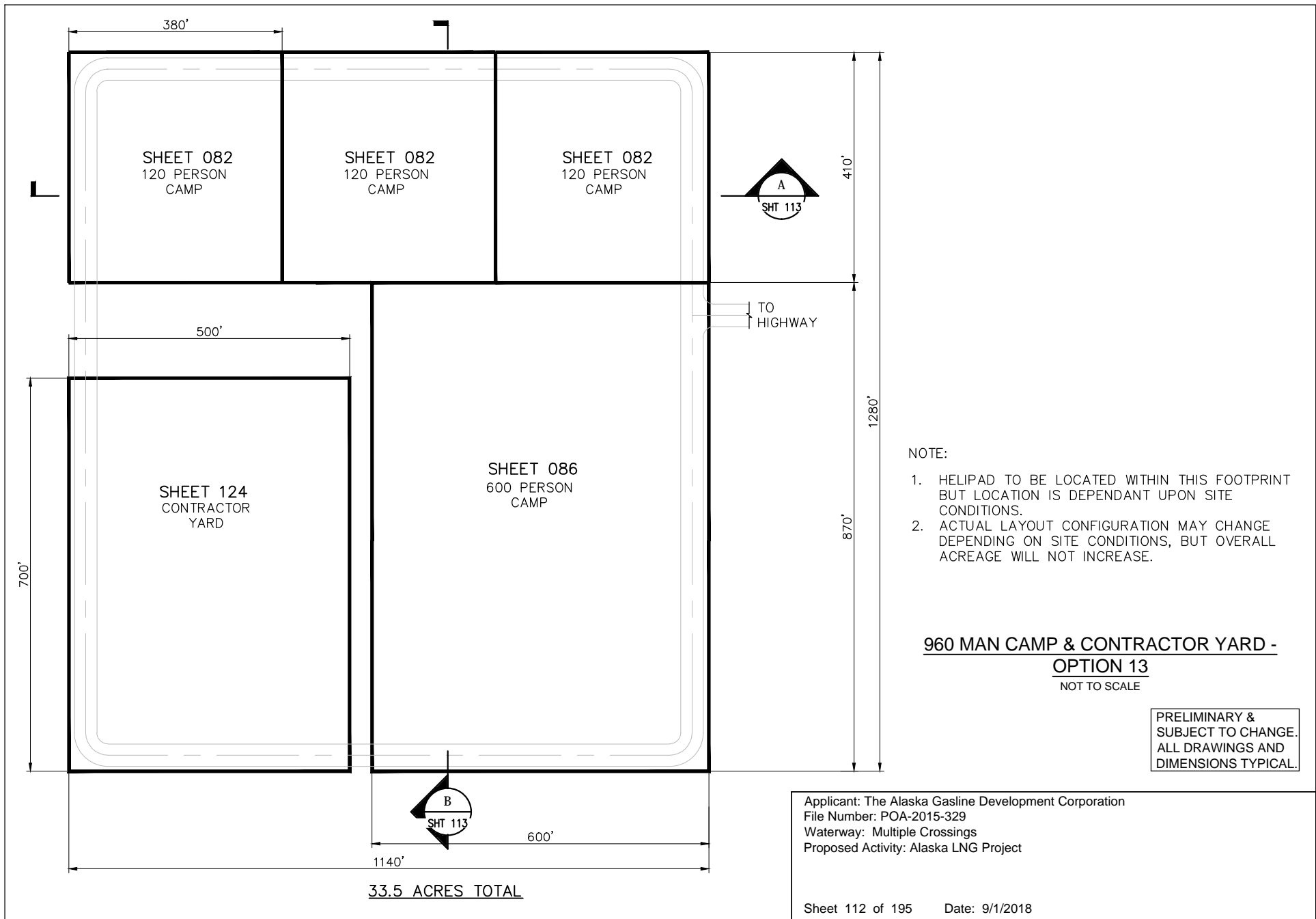
**ELEVATION B-B**  
NOT TO SCALE

**400 MAN CAMP & CONTRACTOR YARD - OPTION 12 ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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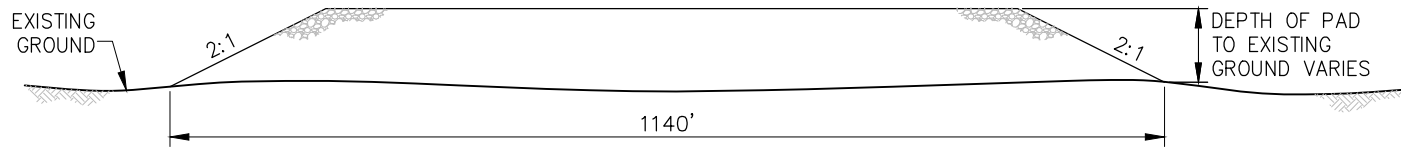
NOTE:

1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

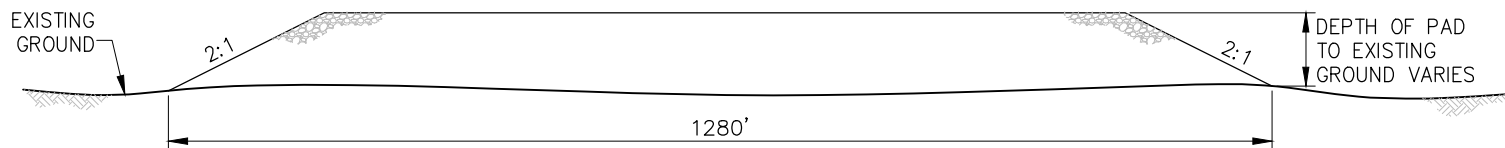
**960 MAN CAMP & CONTRACTOR YARD -**  
**OPTION 13**  
 NOT TO SCALE

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



ELEVATION A-A  
NOT TO SCALE



ELEVATION B-B  
NOT TO SCALE

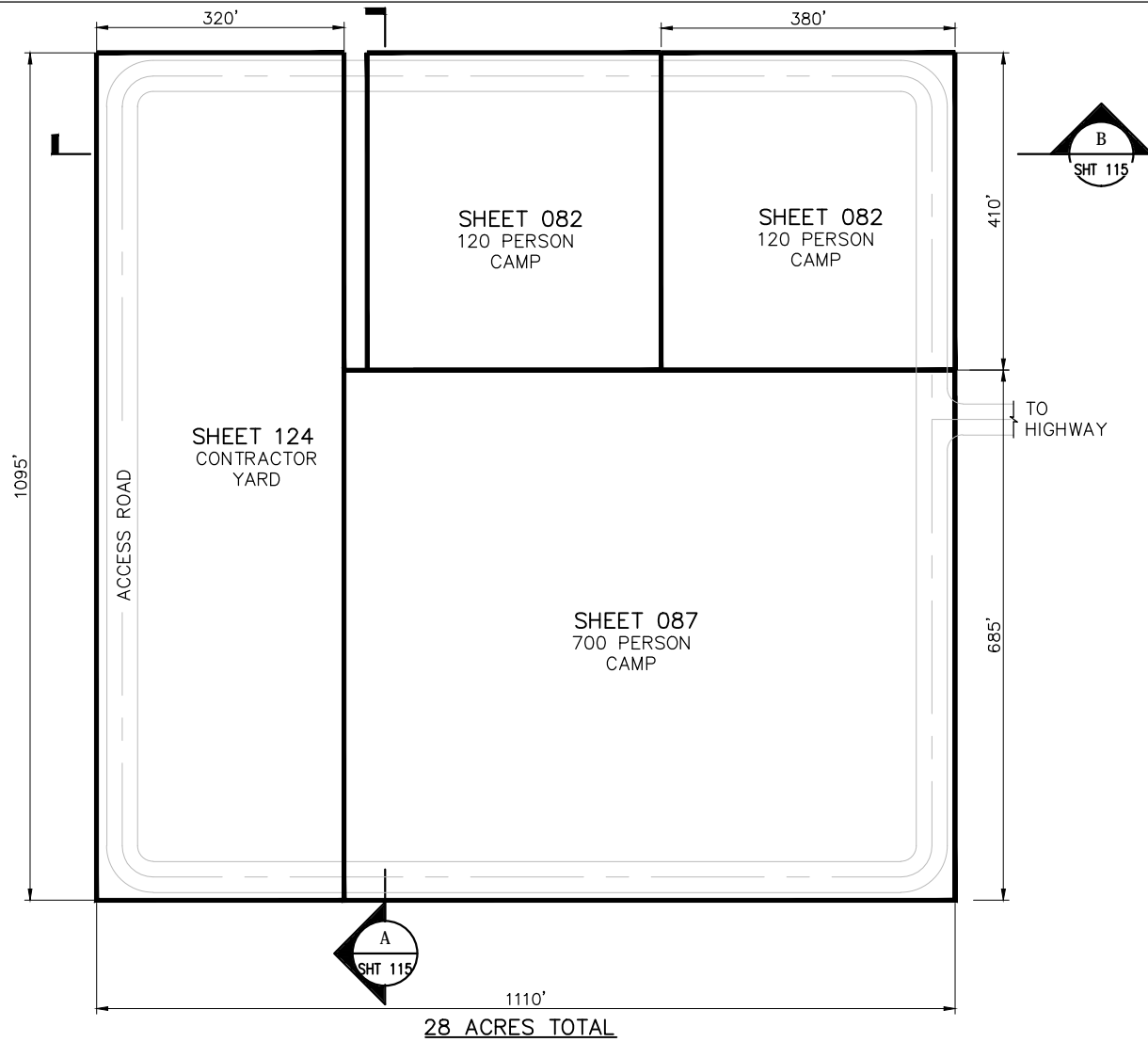
960 MAN CAMP & CONTRACTOR YARD - OPTION 13 ELEVATION  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**940 MAN CAMP & CONTRACTOR YARD - OPTION 14**

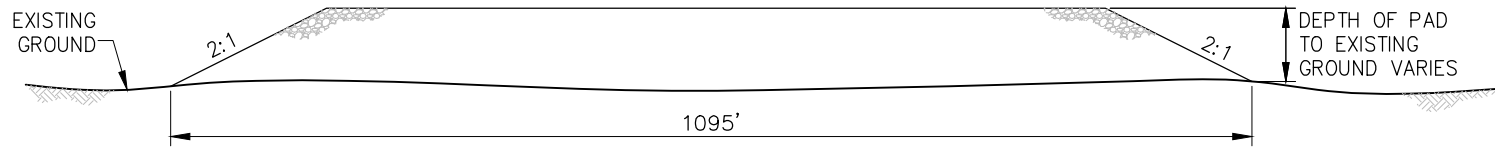
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

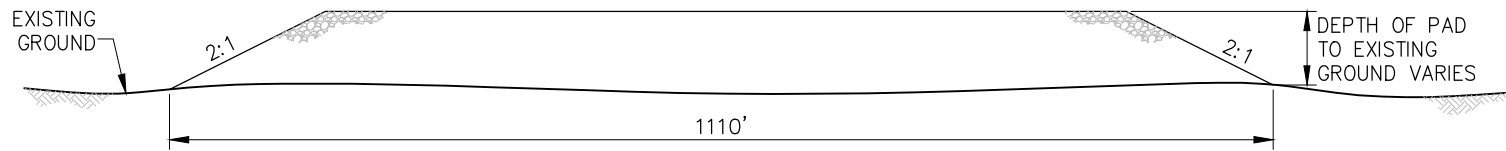
NOTE:

1. HELIPAD TO BE LOCATED WITHIN THIS FOOTPRINT BUT LOCATION IS DEPENDANT UPON SITE CONDITIONS.
2. ACTUAL LAYOUT CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**ELEVATION A-A**  
NOT TO SCALE



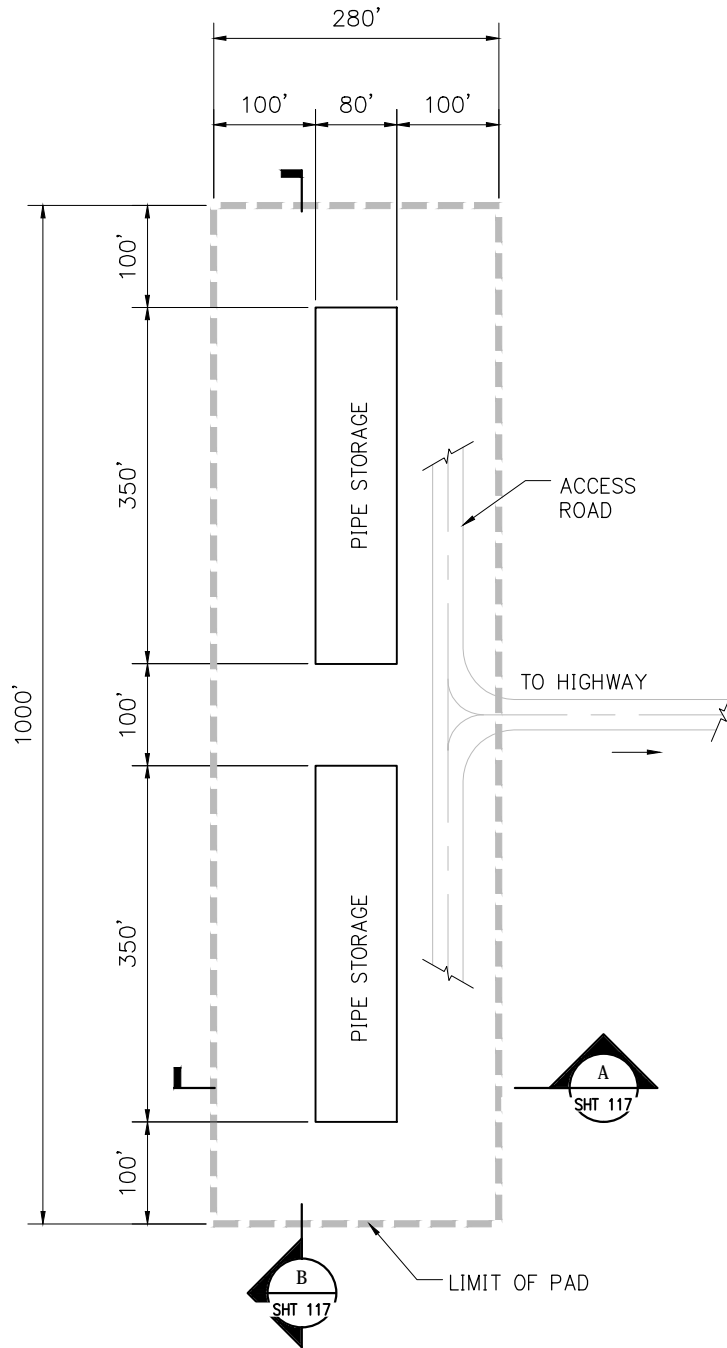
**ELEVATION B-B**  
NOT TO SCALE

**940 MAN CAMP & CONTRACTOR YARD - OPTION 14 ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**SMALL STANDALONE PIPE STORAGE YARD - 6.4 ACRES**

NOT TO SCALE

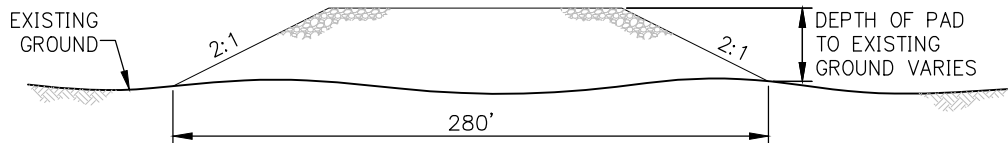
**NOTE:**

1. CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

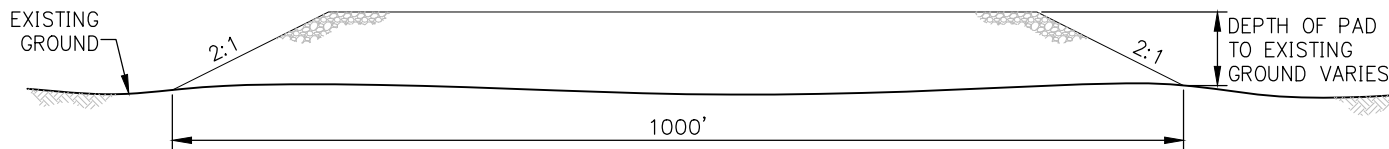
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



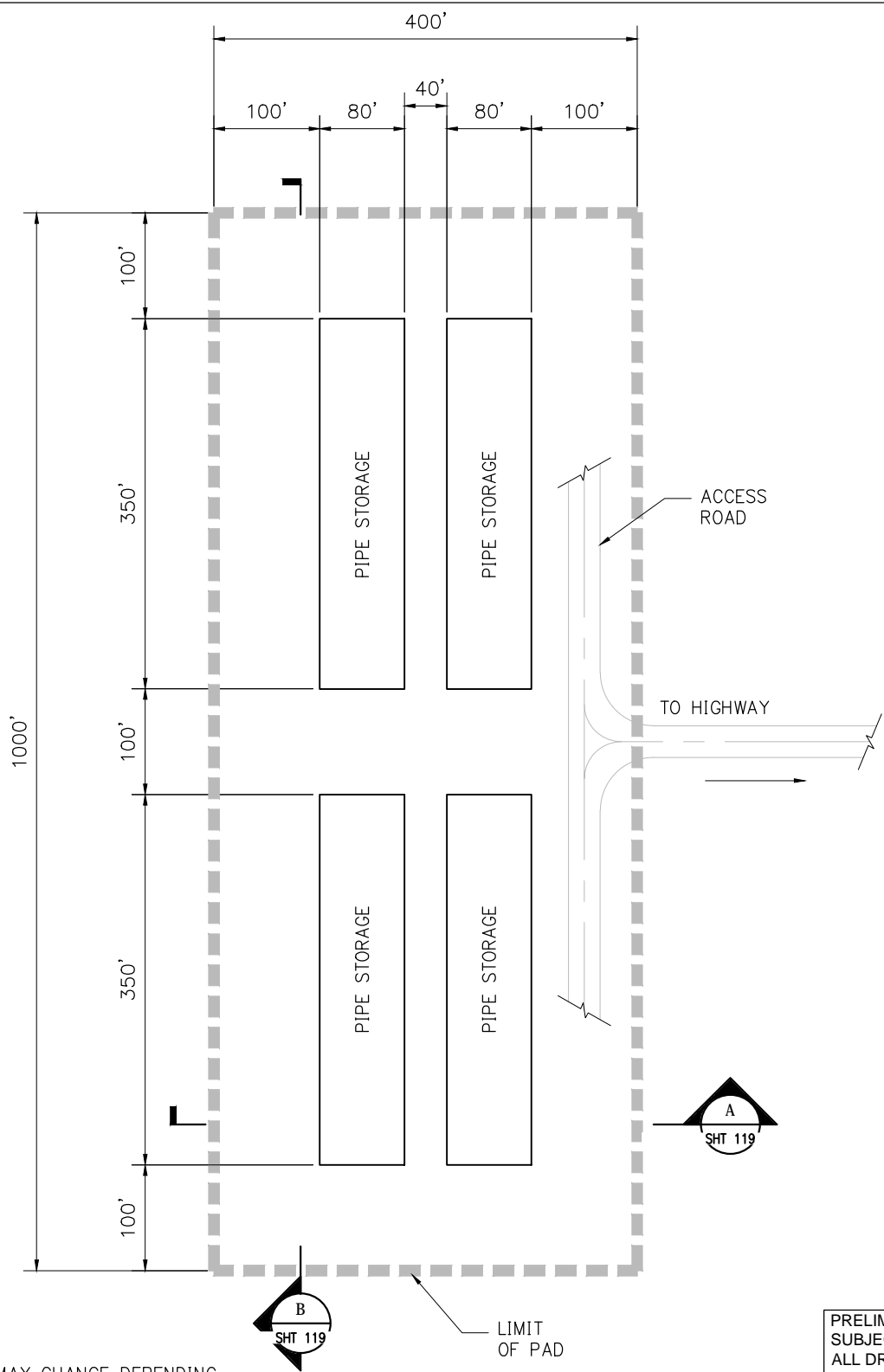
**ELEVATION B-B**  
NOT TO SCALE

**SMALL STANDALONE PIPE STORAGE YARD - 6.4 ACRES ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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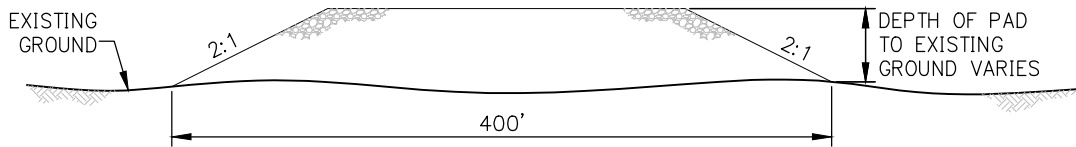
NOTE:

- 1. CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

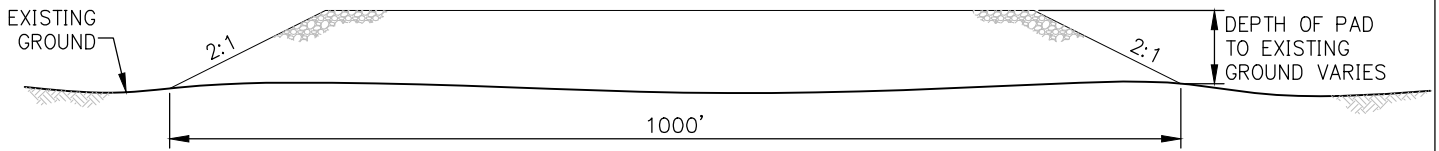
PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

**MEDIUM STANDALONE PIPE STORAGE YARD -**  
**9.2 ACRES**  
 NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**ELEVATION A-A**  
NOT TO SCALE



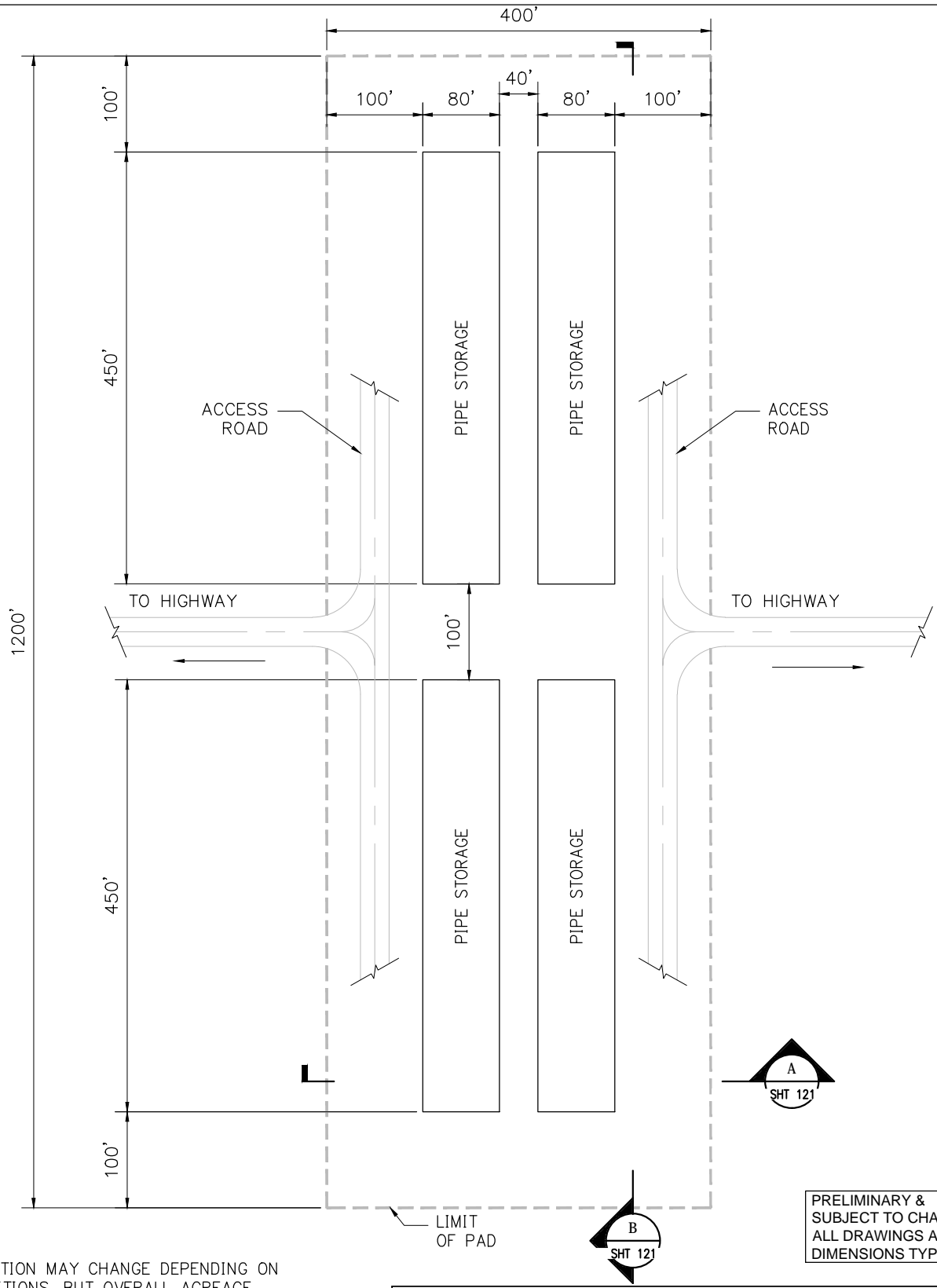
**ELEVATION B-B**  
NOT TO SCALE

**MEDIUM STANDALONE PIPE STORAGE YARD - 9.2 ACRES ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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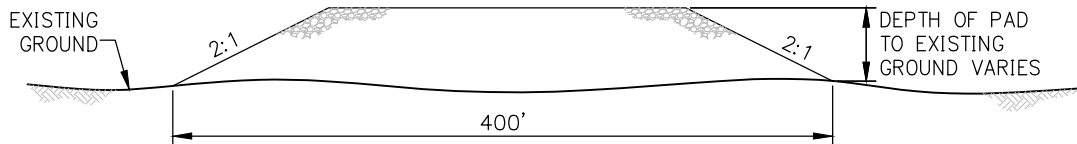
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

NOTE:

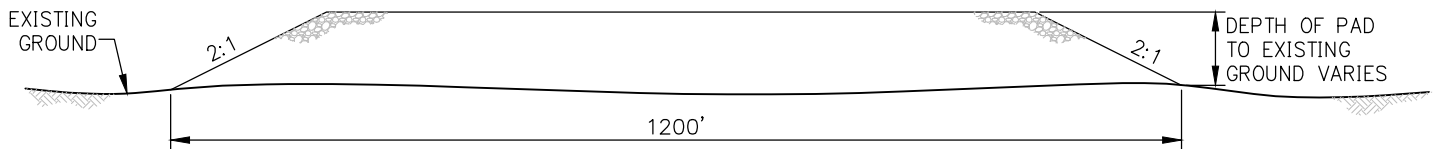
1. CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

**LARGE STANDALONE PIPE STORAGE YARD -**  
**11 ACRES**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**ELEVATION A-A**  
NOT TO SCALE



**ELEVATION B-B**  
NOT TO SCALE

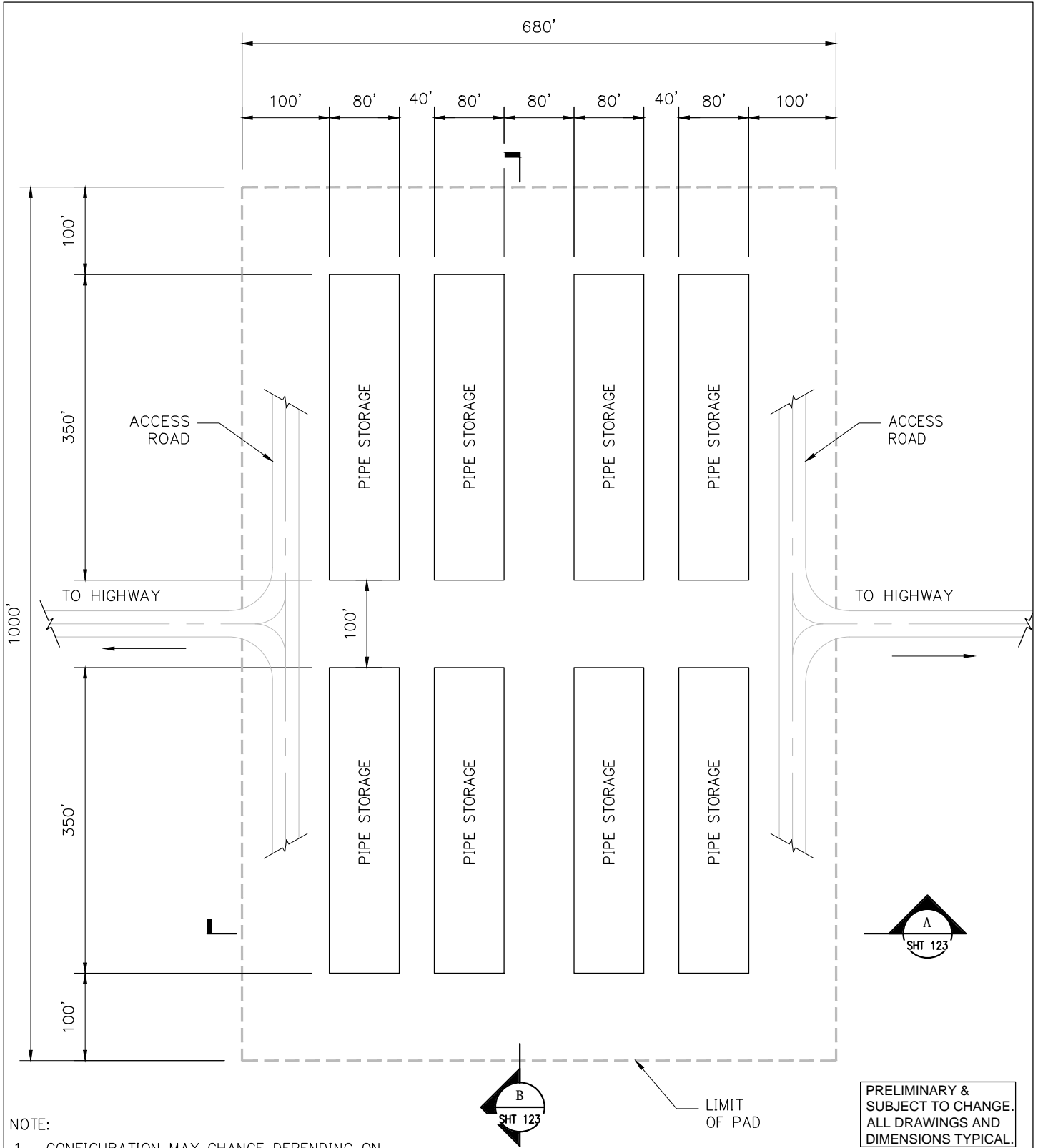
**LARGE STANDALONE PIPE STORAGE YARD - 11 ACRES ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**NOTE:**

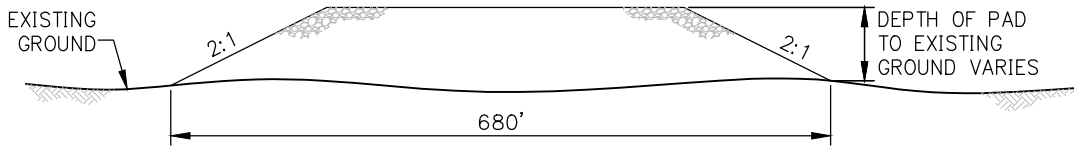
1. CONFIGURATION MAY CHANGE DEPENDING ON SITE CONDITIONS, BUT OVERALL ACREAGE WILL NOT INCREASE.

**VERY LARGE STANDALONE PIPE STORAGE**  
**YARD - 15.6 ACRES**

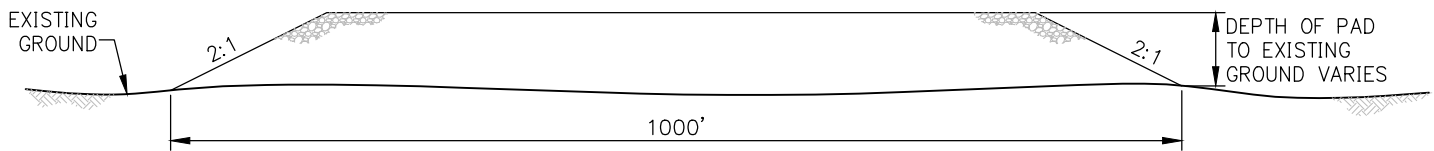
NOT TO SCALE

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



ELEVATION A-A  
NOT TO SCALE



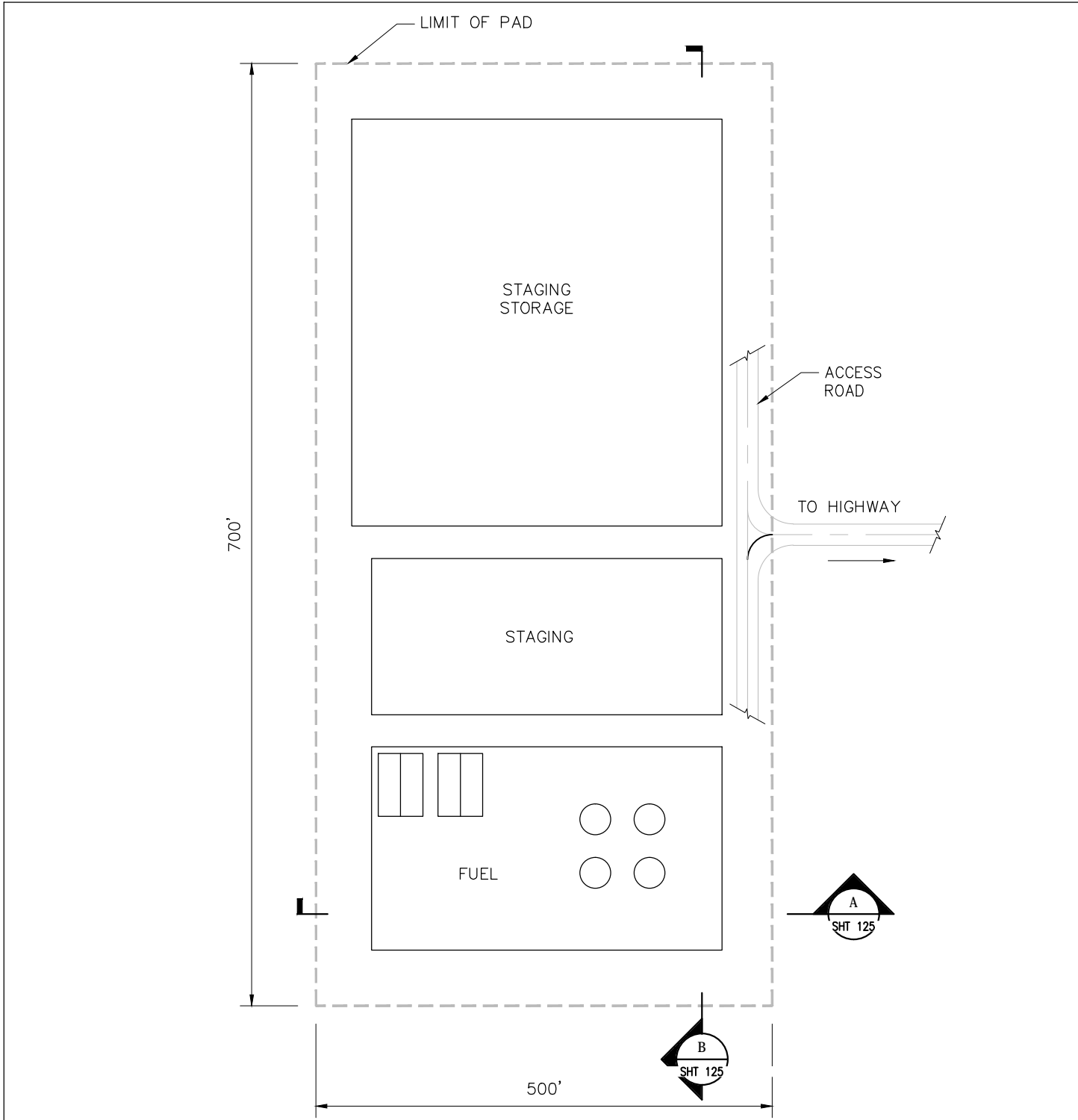
ELEVATION B-B  
NOT TO SCALE

VERY LARGE STANDALONE PIPE STORAGE YARD - 15.6 ACRES ELEVATION  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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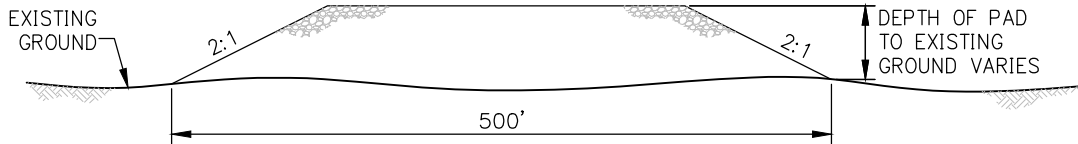
**STANDALONE CONTRACTOR YARD - 8 ACRES**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

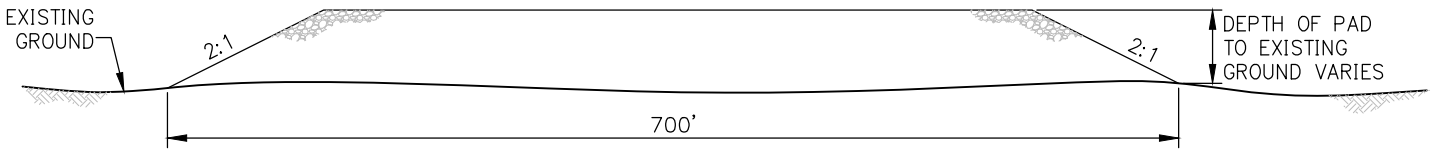
NOTE:

1. ALL STAND ALONE CONTRACTOR YARDS WILL MAINTAIN AN 8 ACRE FOOTPRINT. HOWEVER, DIMENSIONS WILL VARY IN SOME CASES.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**ELEVATION A-A**  
NOT TO SCALE



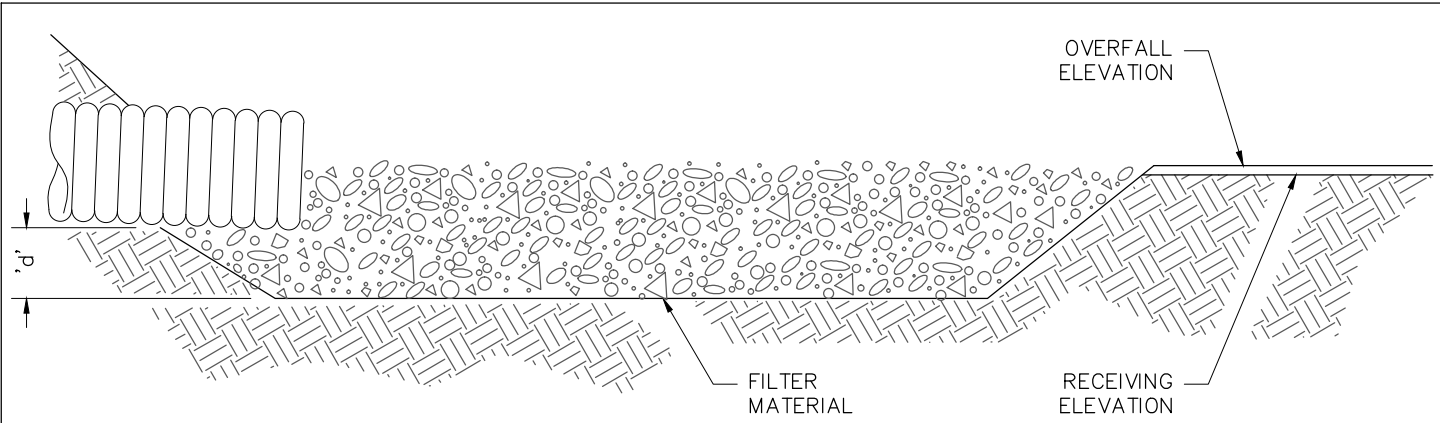
**ELEVATION B-B**  
NOT TO SCALE

**STANDALONE CONTRACTOR YARD - 8 ACRES ELEVATION**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

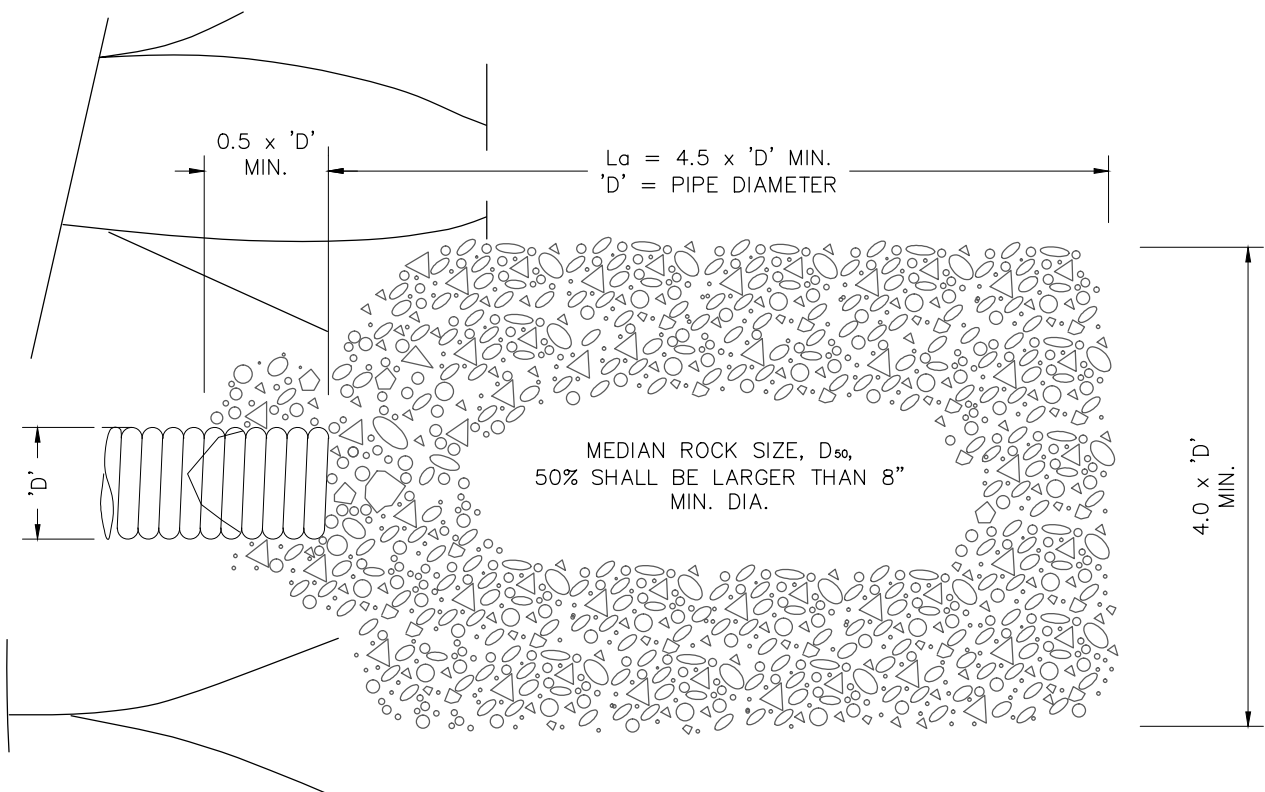
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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('d') MINIMUM THICKNESS = 12". (i.e. 1.5 x D<sub>50</sub>) FOR D<sub>50</sub> = 8".

SECTION



PLAN

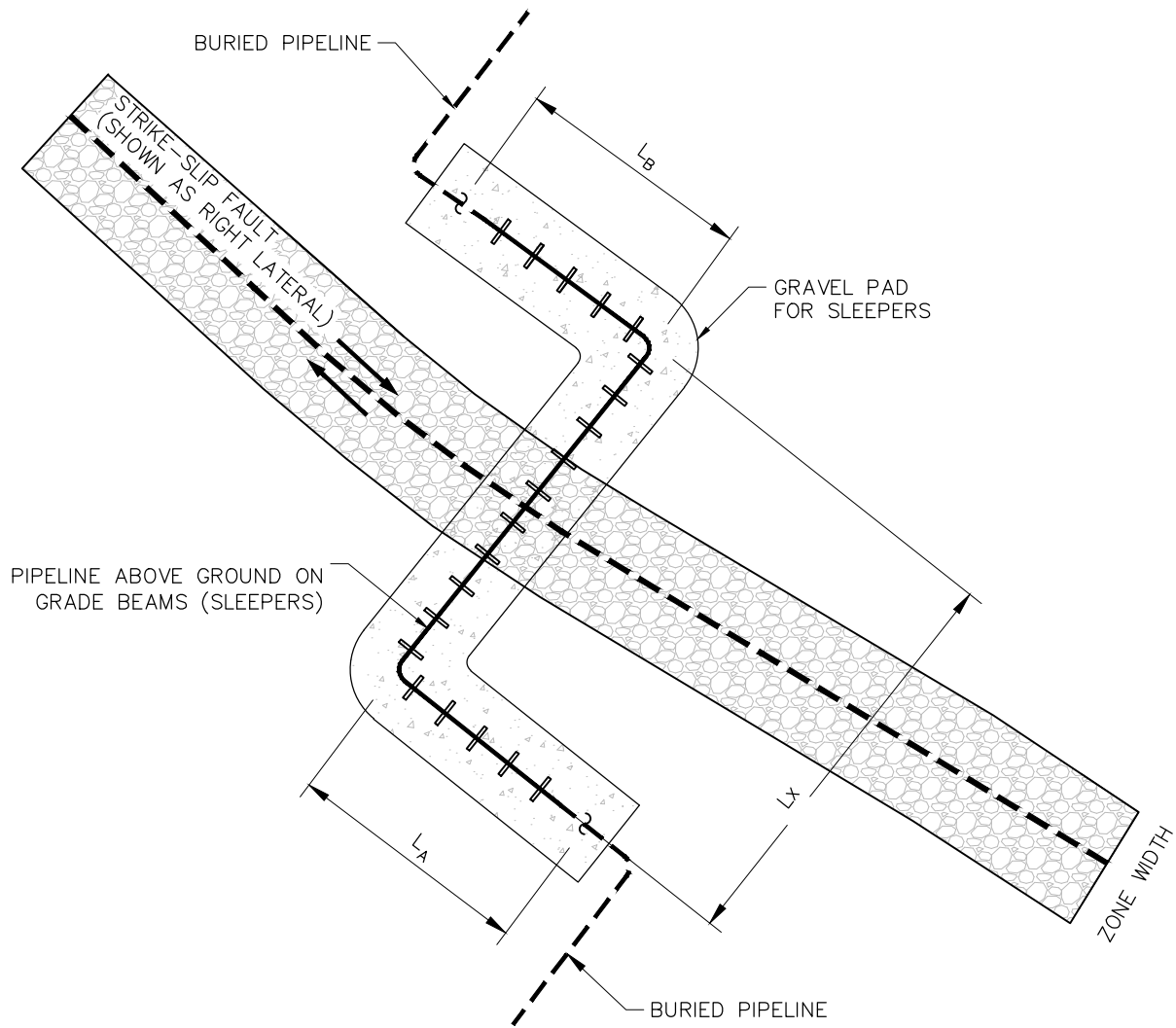
CONSTRUCTION - WATER DISCHARGE SITE  
NOT TO SCALE

NOTES:

1. 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK MINIMUM GRADED GRAVEL LAYER.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**NOTES:**

1. "ZEE" CONFIGURATION MAY BE OPPOSITE HAND.
2. DESIGN PARAMETERS TO BE DETERMINED ON A SITE SPECIFIC BASIS INCLUDE:
  - TRANSITION LEGS,  $L_A$  AND  $L_B$
  - CROSSING LEG,  $L_x$
  - SLEEPER SPACING
  - SLEEPER BEAM LENGTH
  - PIPE SHOE LENGTH
  - TYPE AND THICKNESS OF GRANULAR PAD TO SUPPORT SLEEPERS
3. SEE SHEET 129 FOR TYPICAL ELEVATION.

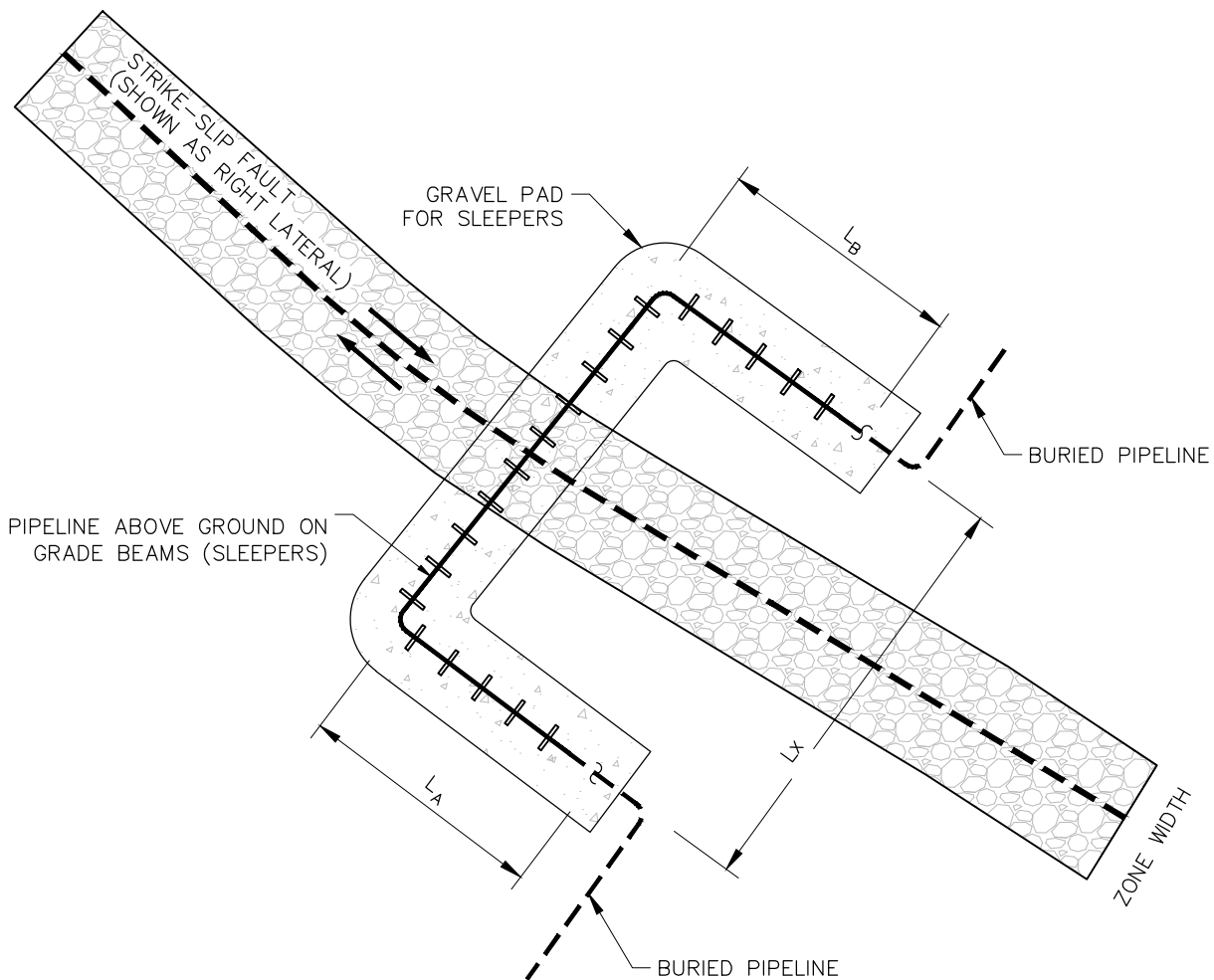
**CONCEPTUAL "ZEE" FAULT CROSSING DESIGN - STRIKE-SLIP FAULTS**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**NOTES:**

1. "U" CONFIGURATION MAY BE OPPOSITE HAND.
2. DESIGN PARAMETERS TO BE DETERMINED ON A SITE SPECIFIC BASIS INCLUDE:
  - TRANSITION LEGS,  $L_A$  AND  $L_B$
  - CROSSING LEG,  $L_x$
  - SLEEPER SPACING
  - SLEEPER BEAM LENGTH
  - PIPE SHOE LENGTH
  - TYPE AND THICKNESS OF GRANULAR PAD TO SUPPORT SLEEPERS
3. SEE SHEET 129 FOR TYPICAL ELEVATION.

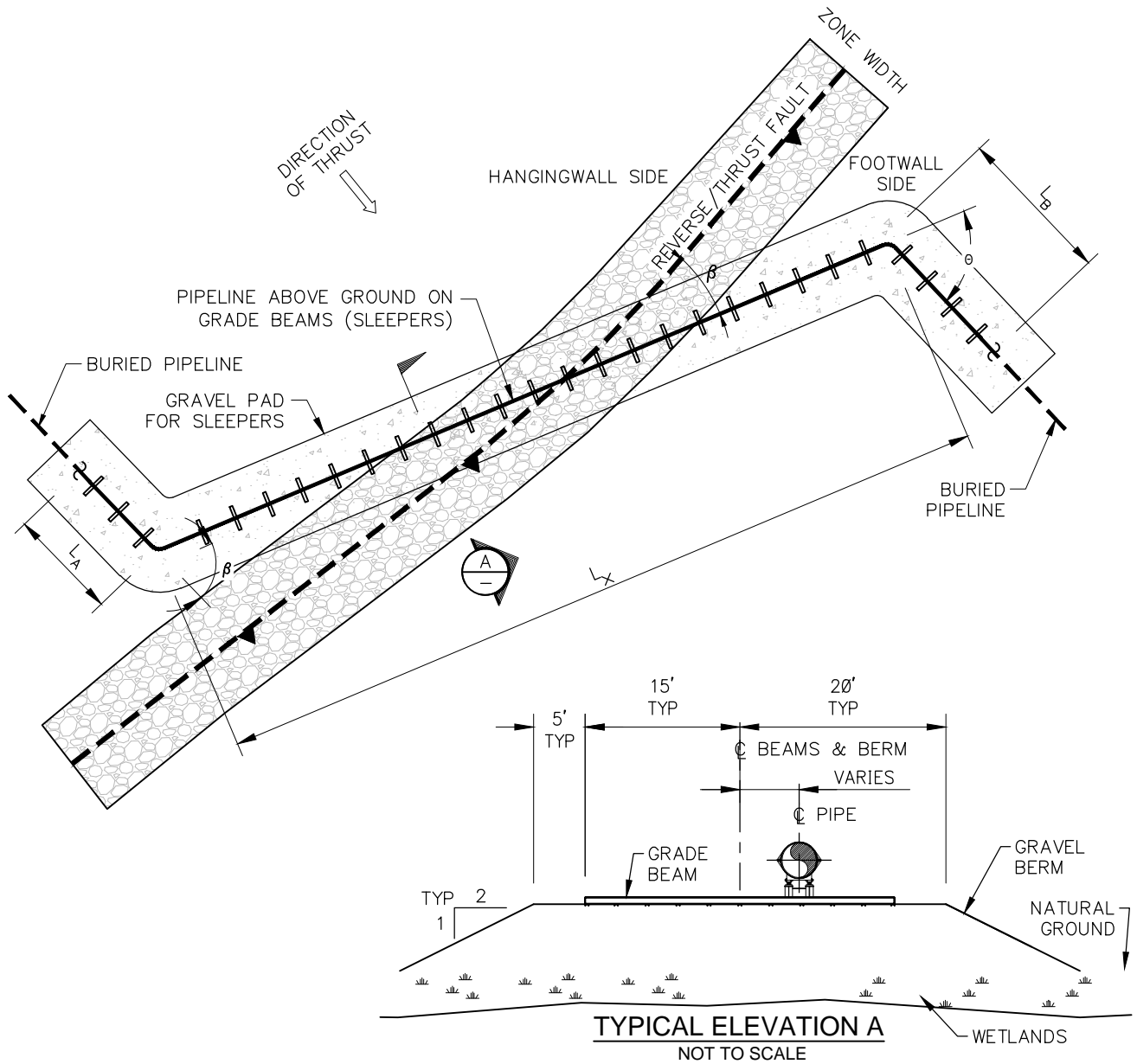
**CONCEPTUAL "U" FAULT CROSSING DESIGN - STRIKE-SLIP FAULTS**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**CONCEPTUAL "ZEE" FAULT CROSSING DESIGN  
- REVERSE OR THRUST FAULTS**

NOT TO SCALE

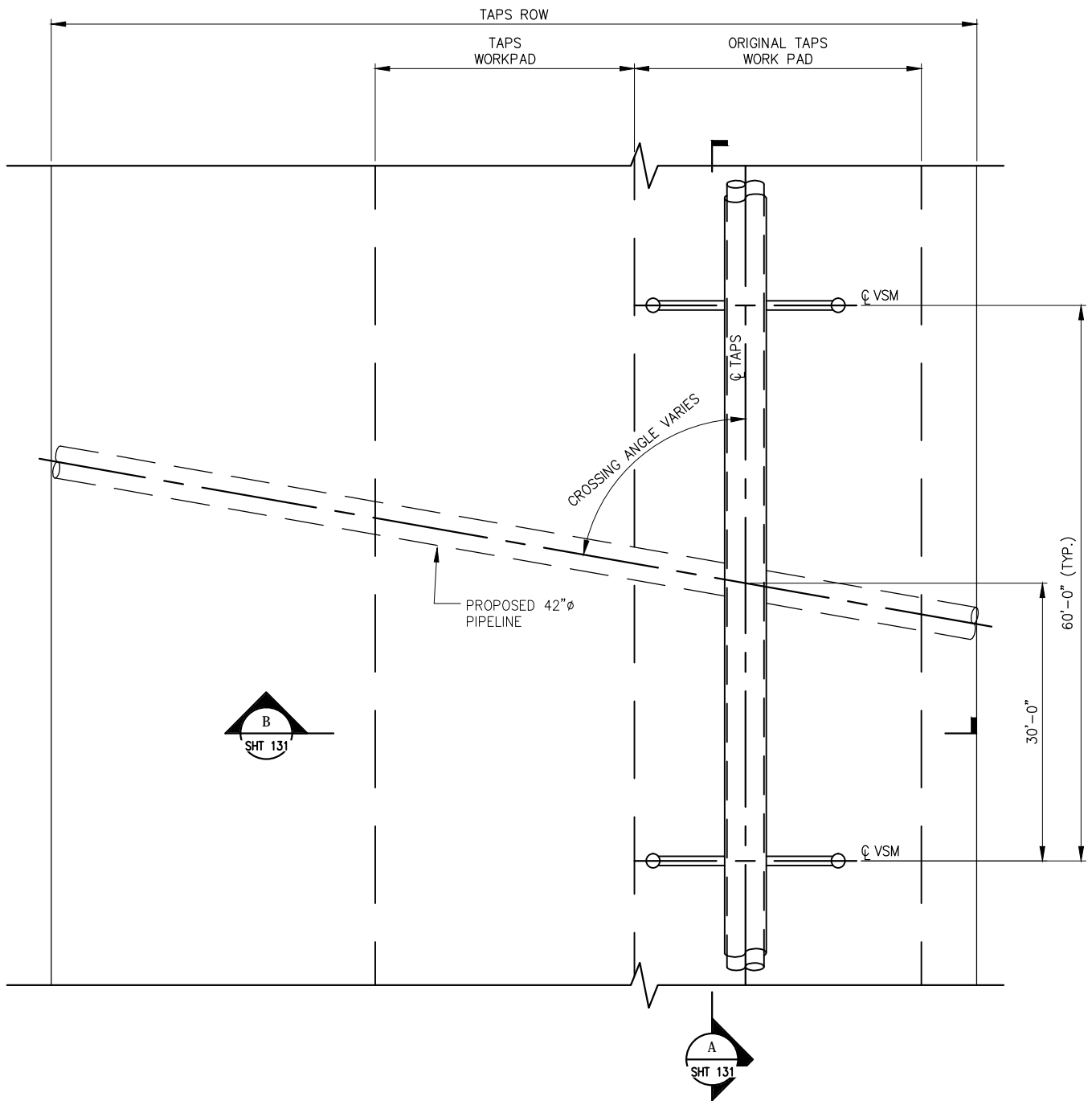
**NOTES:**

1. "ZEE" CONFIGURATION MAY BE OPPOSITE HAND.
2. DESIGN PARAMETERS TO BE DETERMINED ON A SITE SPECIFIC BASIS INCLUDE:
  - TRANSITION LEGS, L AND L
  - CROSSING LEG, L
  - SLEEPER SPACING
  - SLEEPER BEAM LENGTH
  - PIPE SHOE LENGTH
  - TYPE AND THICKNESS OF GRANULAR PAD TO SUPPORT SLEEPERS
  - INTERSECTION ANGLE,  $\beta$
  - BEND ANGLE,  $\theta$

**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



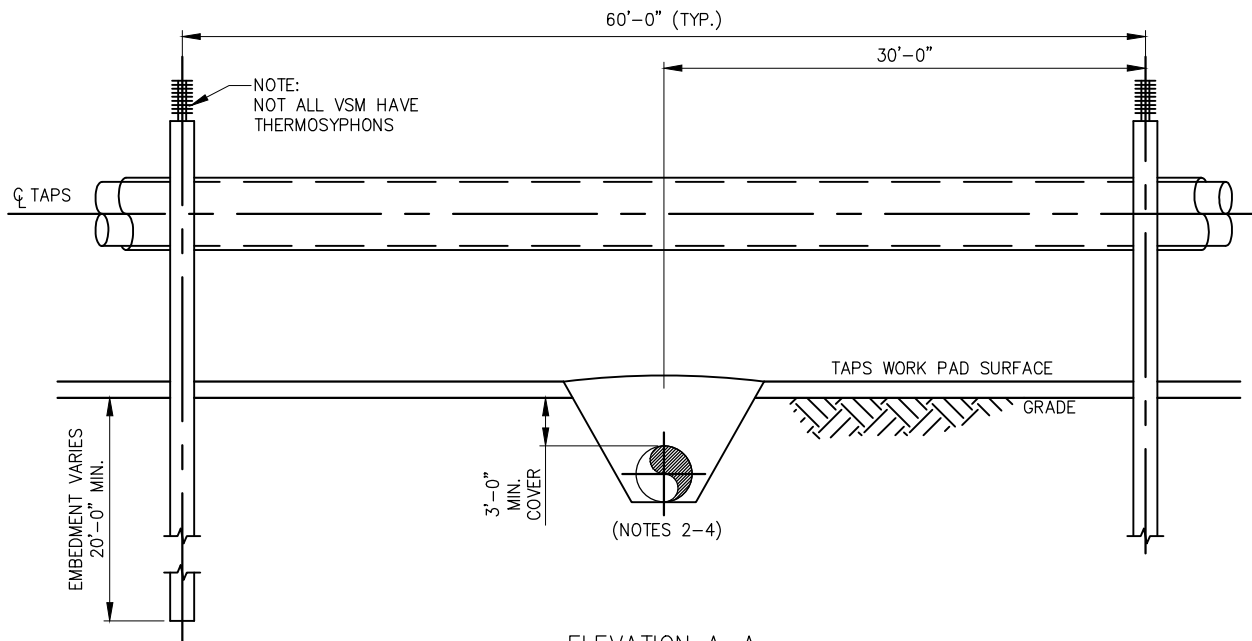


**TAPS ABOVE GROUND CROSSING - PLAN**  
 NOT TO SCALE

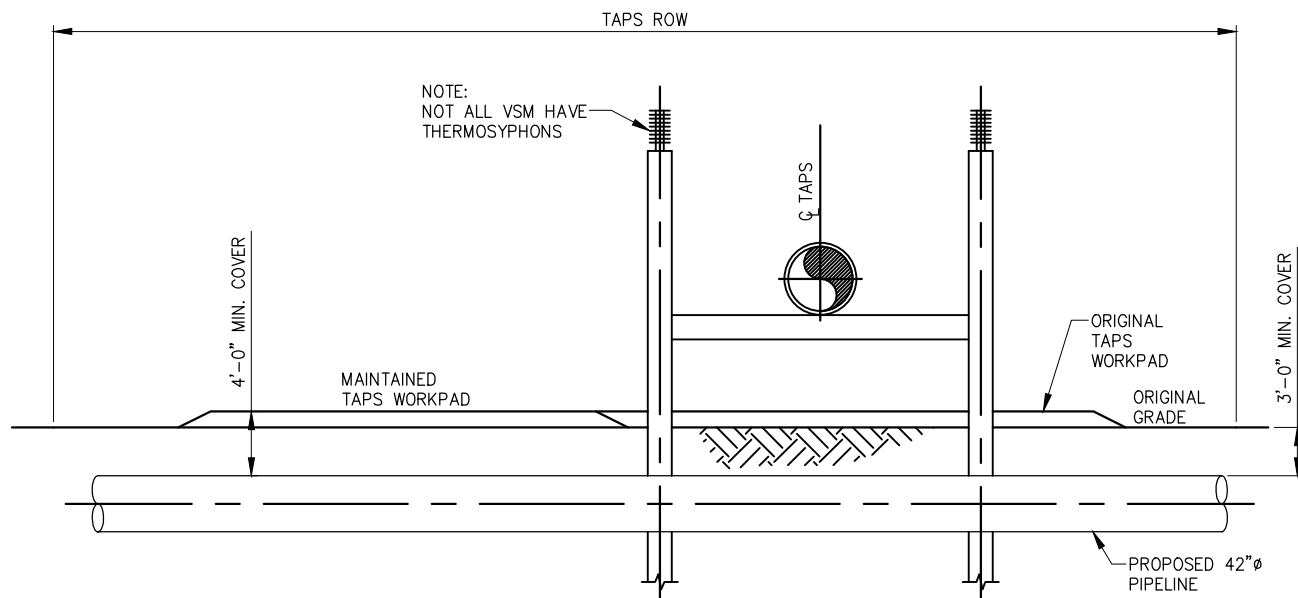
PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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ELEVATION A-A



ELEVATION B-B

**TAPS ABOVE GROUND CROSSING - ELEVATION**

NOT TO SCALE

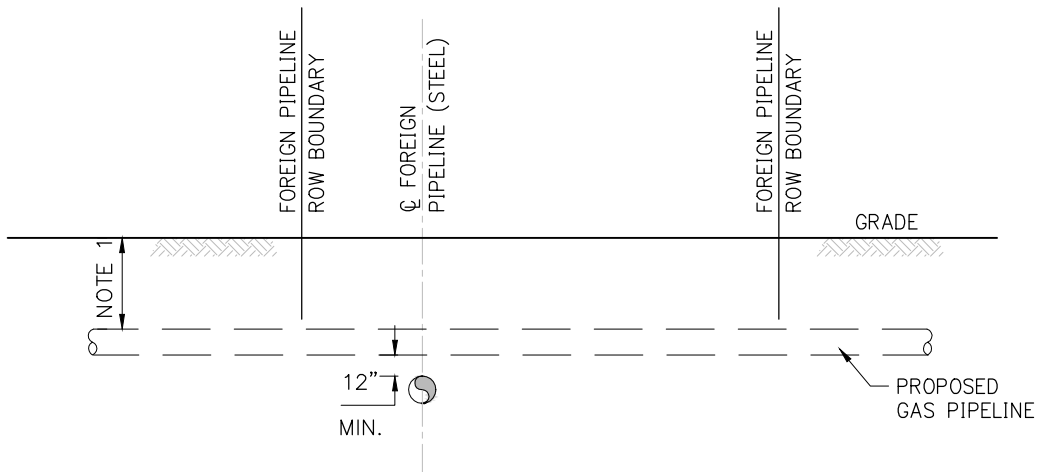
**NOTES:**

1. MINIMUM DEPTH OF COVER UNDER TAPS CENTERLINE AND ADJACENT NATURAL GRADE IS 3 FT., UNDER TAPS ACCESS ROAD IS 4 FT. STRAIGHT PIPE WILL BE MAINTAINED WITHIN TAPS ROW WHERE POSSIBLE.
2. BACKFILL WITH SELECTED MATERIAL ON TAPS ROW.
3. REPLACE INSULATION BOARD IF PRESENT AT GROUND LEVEL.
4. REPLACE TAPS WORKPAD GRANULAR MATERIAL.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

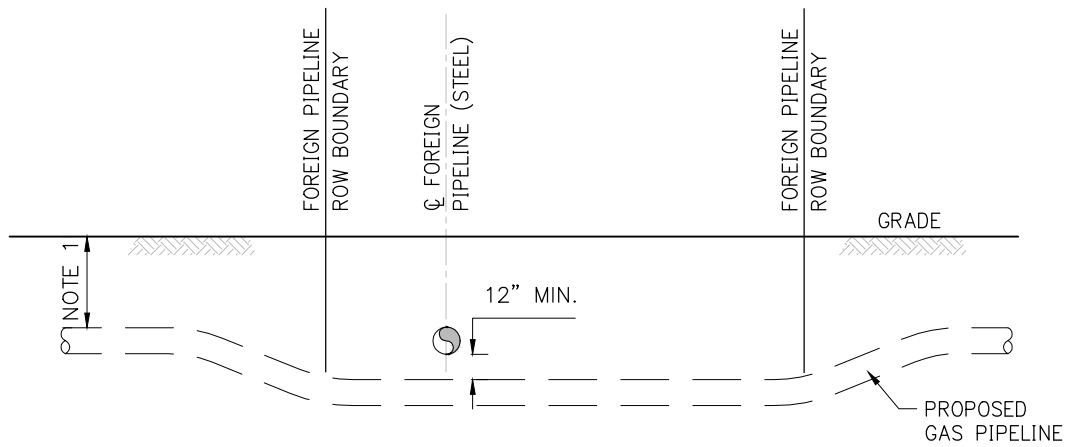
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**DETAIL "A"**

NEW PIPELINE IS PLACED OVER  
EXISTING FOREIGN PIPELINE



**DETAIL "B"**

NEW PIPELINE IS PLACED UNDER  
EXISTING FOREIGN PIPELINE

**FOREIGN PIPELINE AND UTILITY CROSSINGS - FOREIGN PIPELINES**

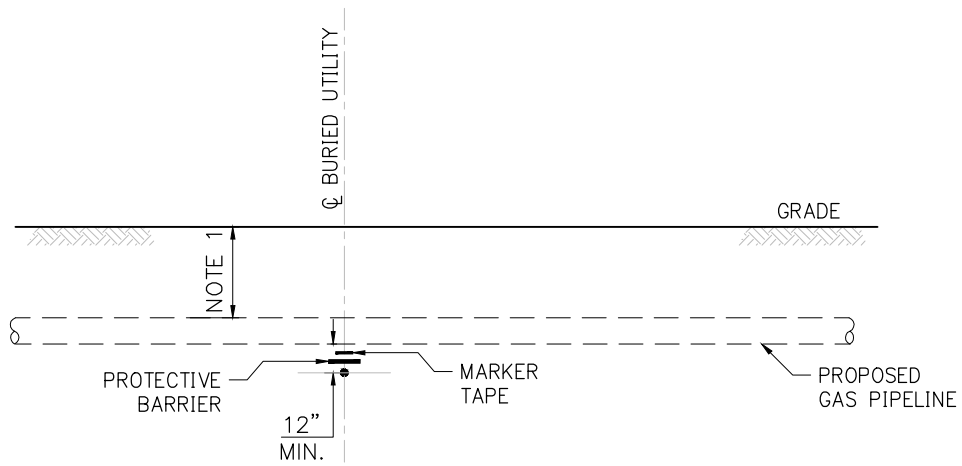
NOT TO SCALE

NOTE:

1. SEE SHEET 049 FOR MINIMUM DEPTH OF COVER.

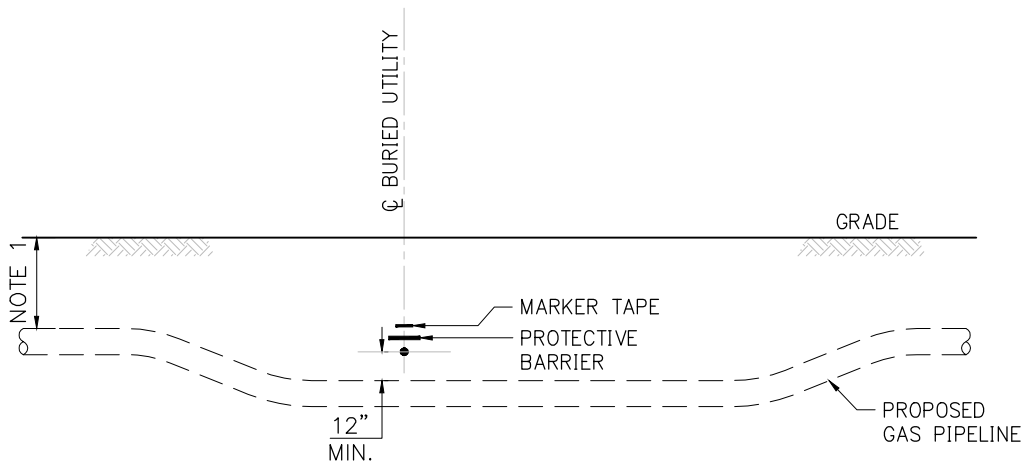
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**DETAIL "A"**

NEW PIPELINE IS PLACED OVER  
EXISTING BURIED UTILITY



**DETAIL "B"**

NEW PIPELINE IS PLACED UNDER  
EXISTING BURIED UTILITY

**FOREIGN PIPELINE AND UTILITY CROSSINGS - BURIED UTILITY**

NOT TO SCALE

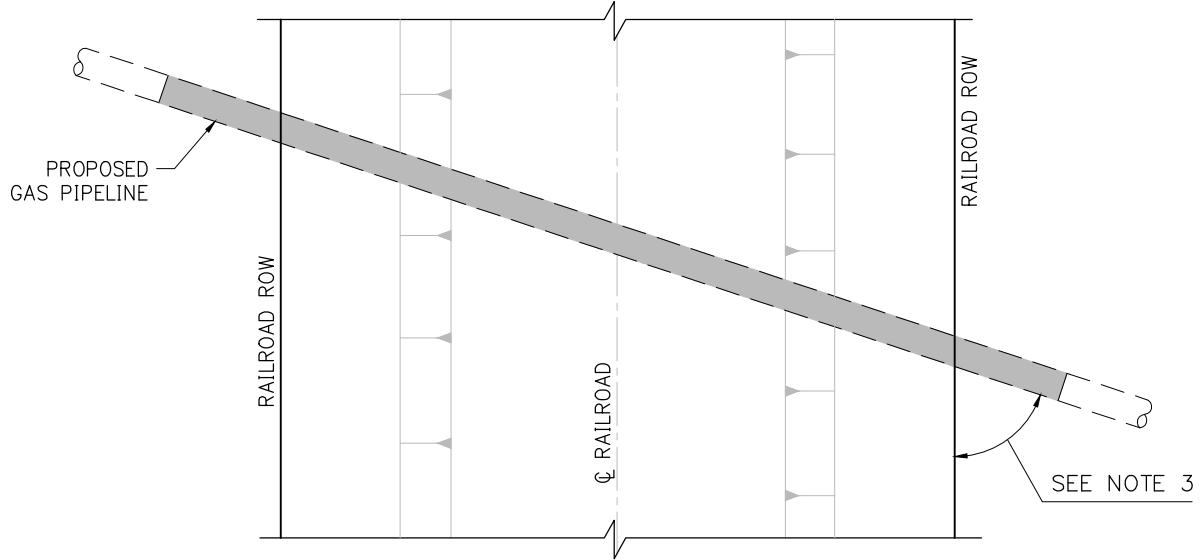
**NOTE:**

1. SEE SHEET 049 FOR MINIMUM DEPTH OF TRENCH.

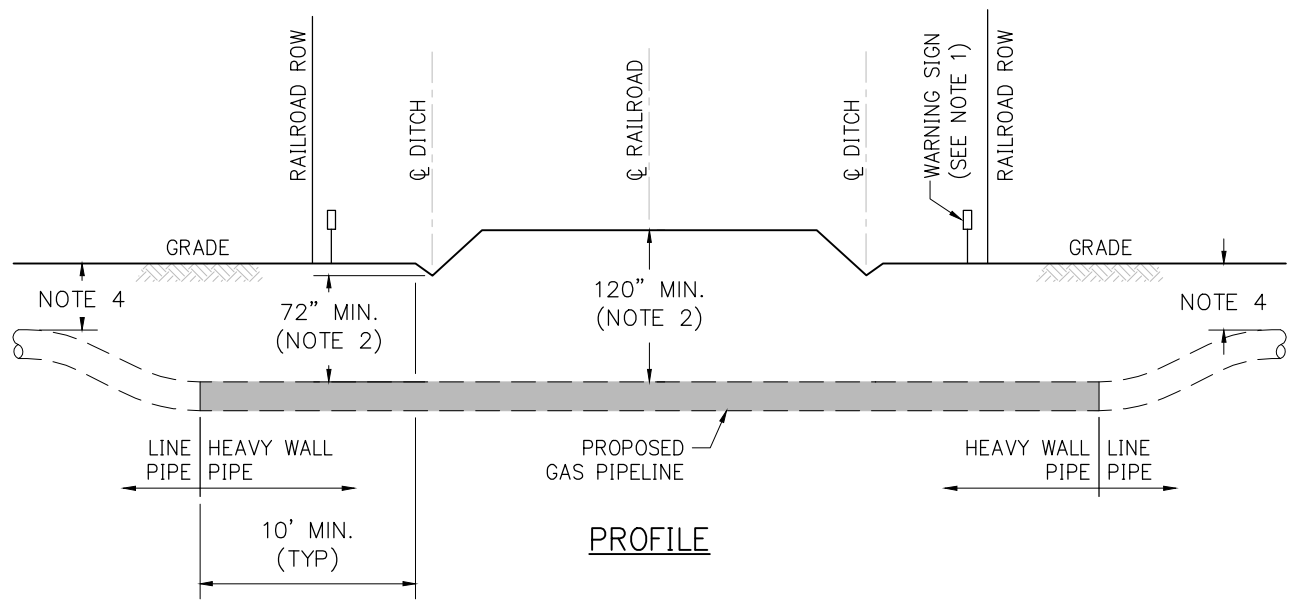
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PLAN



PROFILE

**RAILROAD CROSSING**

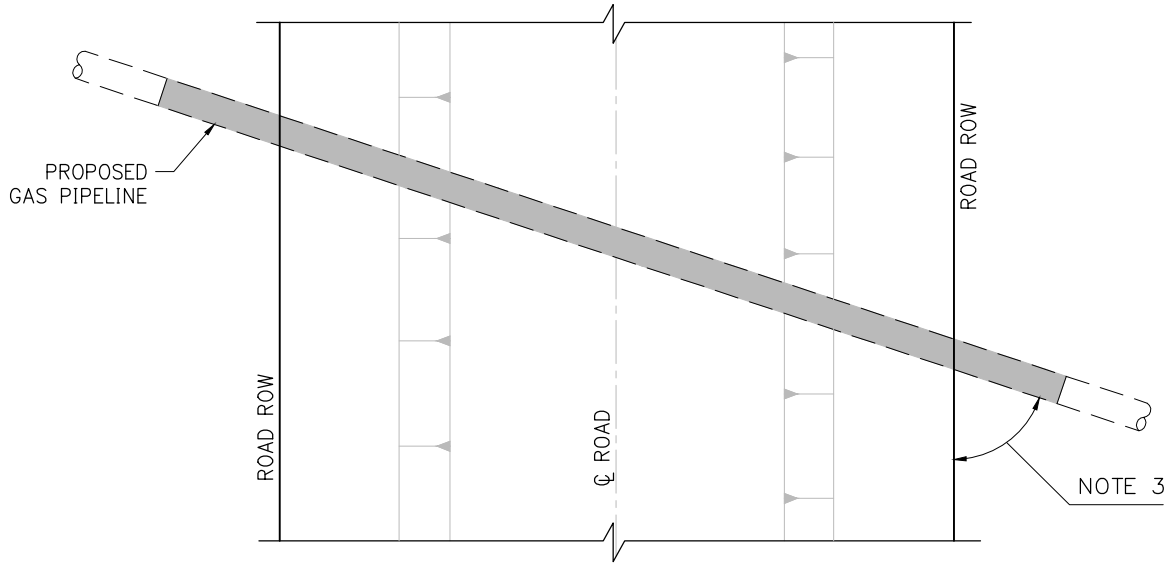
NOT TO SCALE

NOTES:

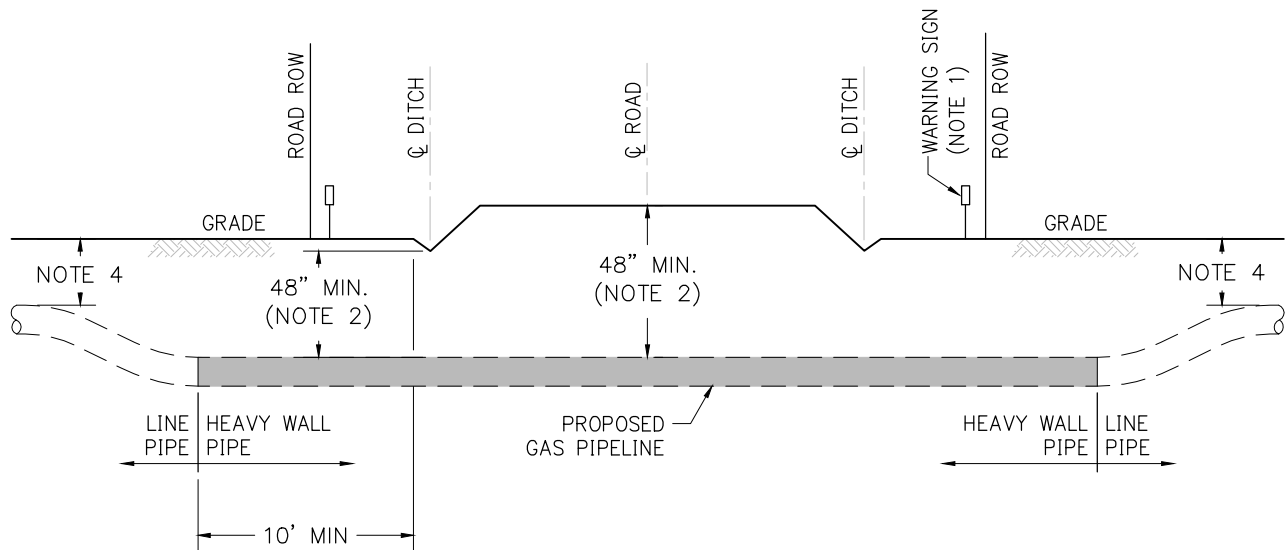
1. WARNING SIGNS TO BE INSTALLED ON EACH SIDE OF RAILROAD ROW.
2. MINIMUM DEPTHS OF COVER SHOWN, CROSSING AGREEMENTS MAY DICTATE ADDITIONAL DEPTH.
3. CROSSING ANGLE TO BE AS CLOSE AS PRACTICAL TO 90° OR AS SPECIFIED IN THE CROSSING AGREEMENT.
4. SEE SHEET 049 FOR MINIMUM DEPTH OF COVER.

**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



PLAN



PROFILE

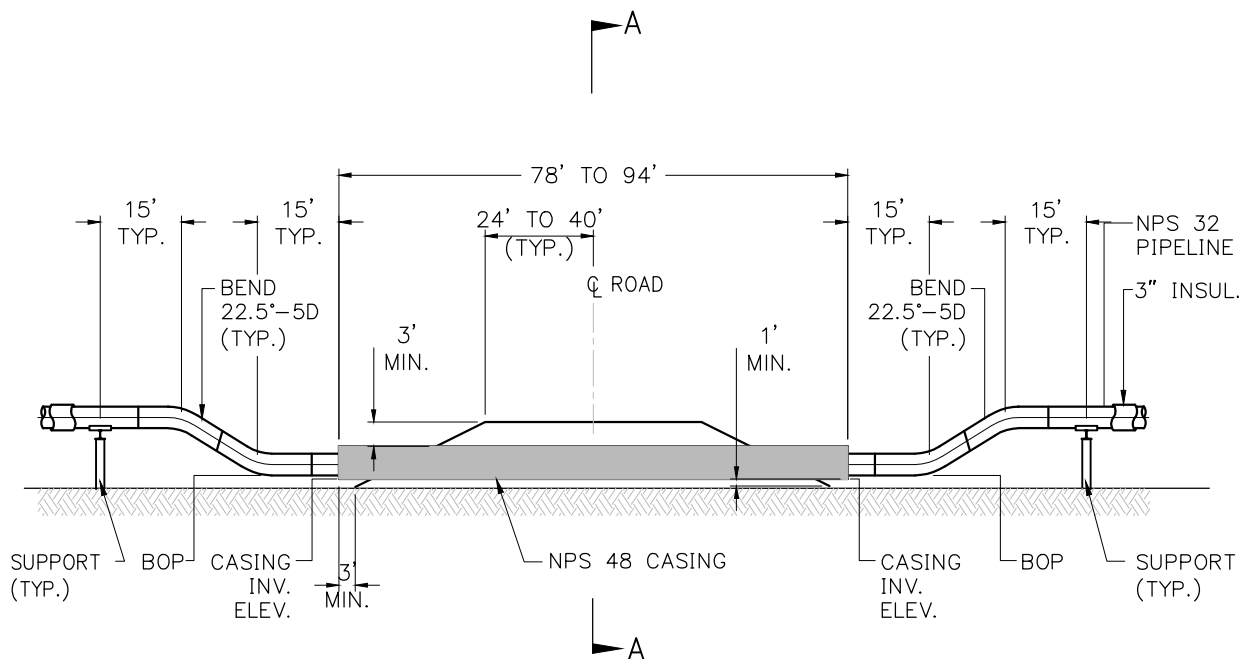
**ROAD CROSSING**  
NOT TO SCALE

NOTES:

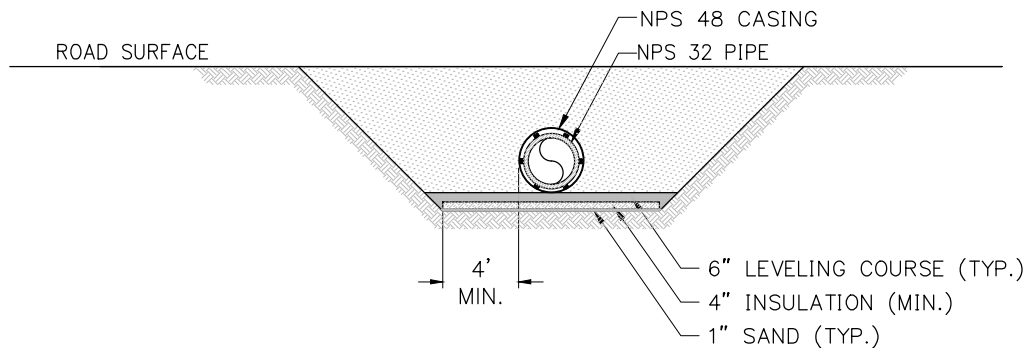
1. WARNING SIGNS TO BE INSTALLED ON EACH SIDE OF ROAD ROW.
2. MINIMUM DEPTHS OF COVER SHOWN, CROSSING AGREEMENTS MAY DICTATE ADDITIONAL DEPTH.
3. CROSSING ANGLE TO BE AS CLOSE AS PRACTICAL TO 90° OR AS SPECIFIED IN THE CROSSING AGREEMENT.
4. SEE SHEET 049 MINIMUM DEPTH OF COVER.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



ROAD CROSS ELEVATION



ROAD CROSS-SECTION A-A

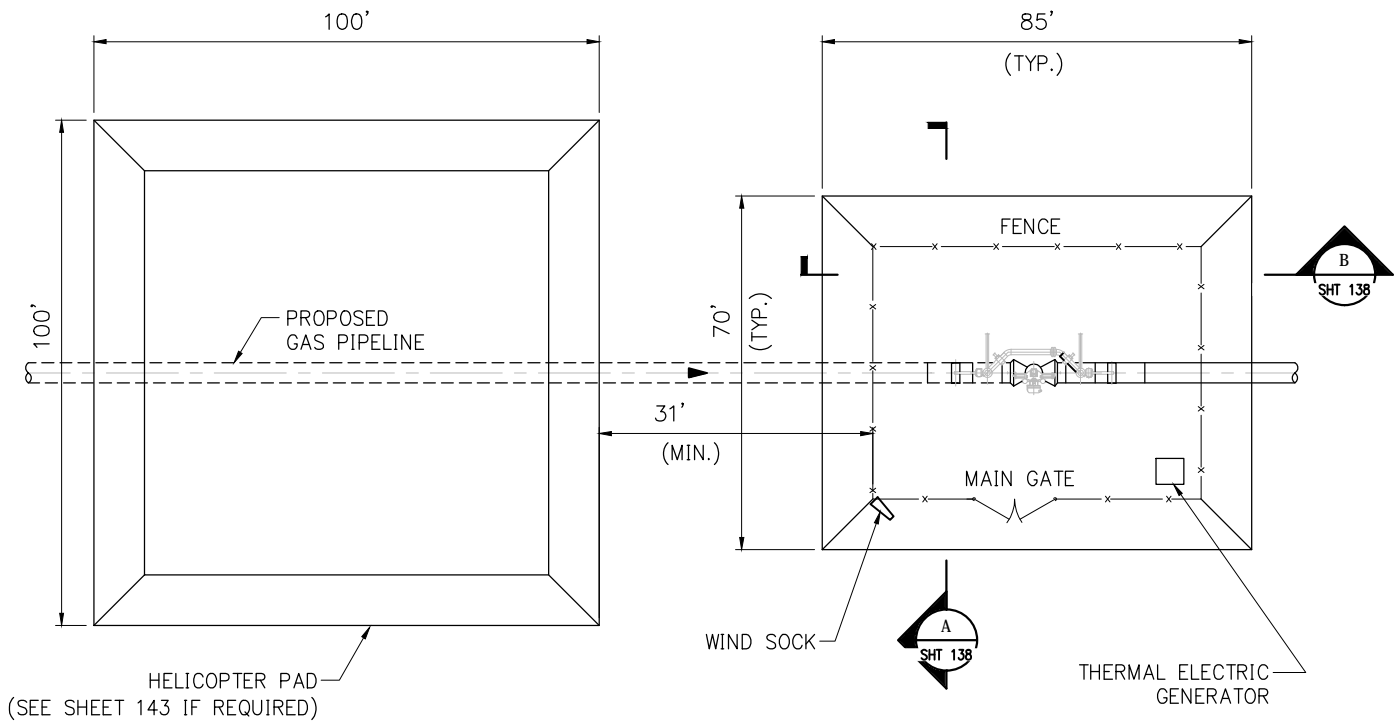
PTTL - ROAD CROSSING

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 136 of 195 Date: 9/1/2018



**PIPELINE FACILITIES - MAINLINE BLOCK VALVE PLOT PLAN**

NOT TO SCALE

**NOTES:**

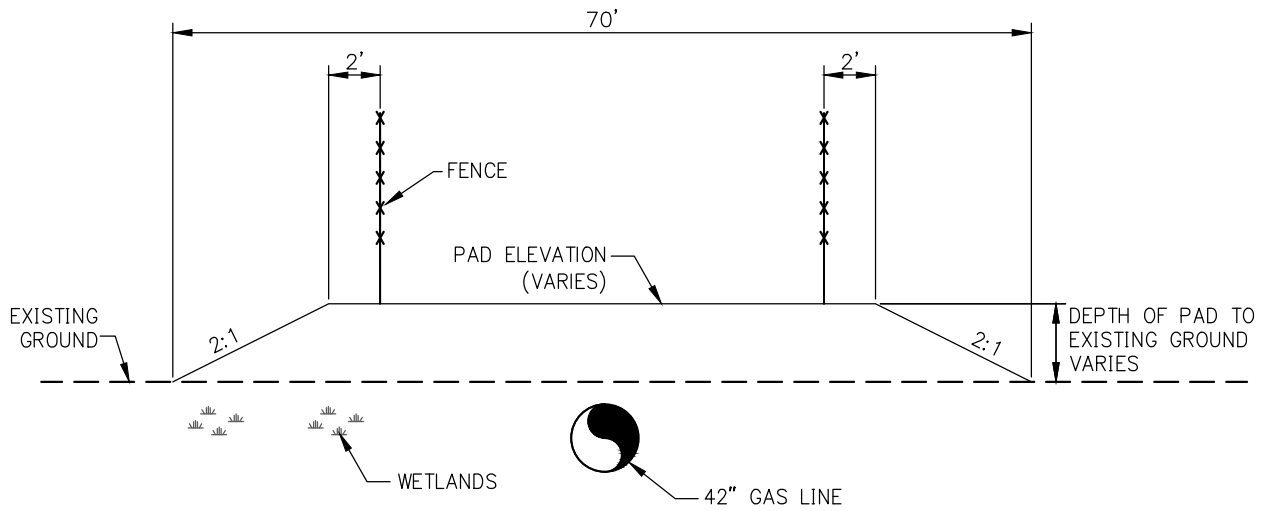
1. A HELICOPTER PAD WILL BE PROVIDED FOR ALL BLOCK VALVE LOCATIONS.
2. A THERMAL ELECTRIC GENERATOR UNIT WILL BE PROVIDED FOR AUTOMATED VALVE OPERATION AND CATHODIC PROTECTION WHERE CONVENTIONAL POWER IS NOT AVAILABLE.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

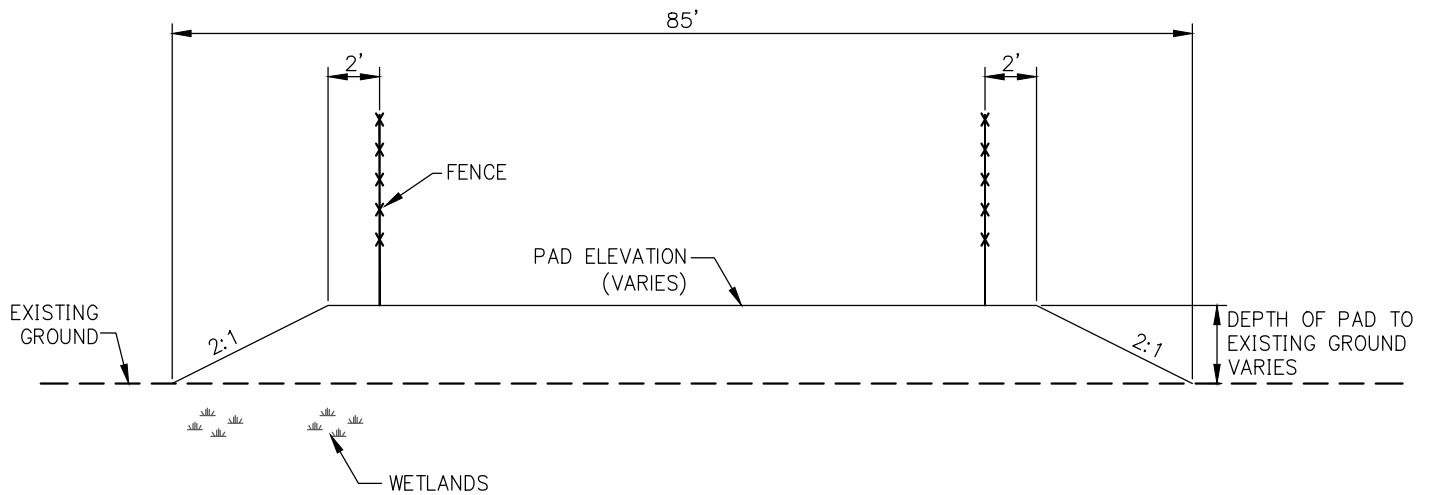
Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

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**ELEVATION A-A**  
NOT TO SCALE



**ELEVATION B-B**  
NOT TO SCALE

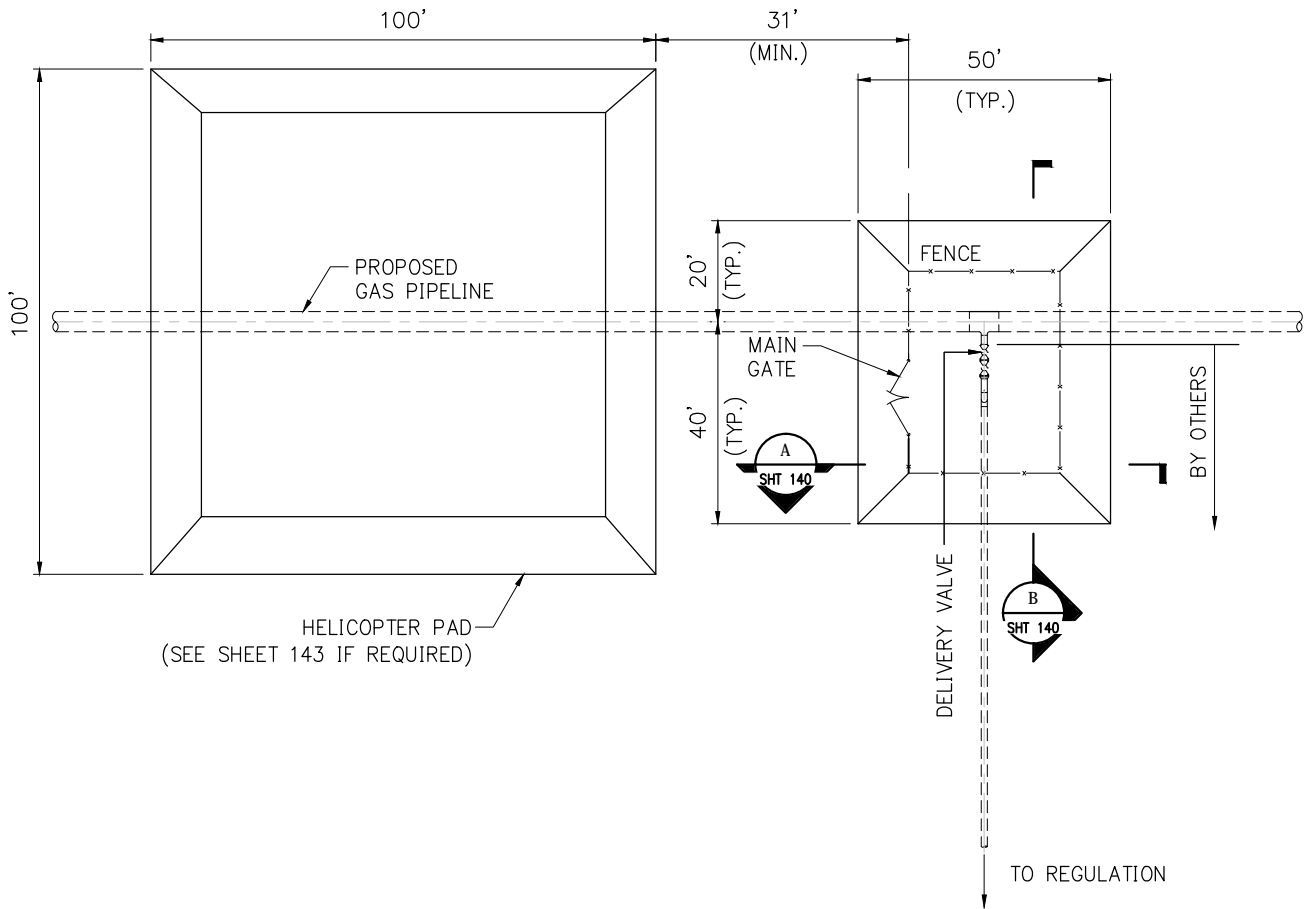
**PIPELINE FACILITIES - MAINLINE BLOCK VALVE ELEVATION**  
NOT TO SCALE

**NOTES:**

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**PIPELINE FACILITIES - TEE AND GAS VALVE DELIVERY POINT PLOT PLAN**

NOT TO SCALE

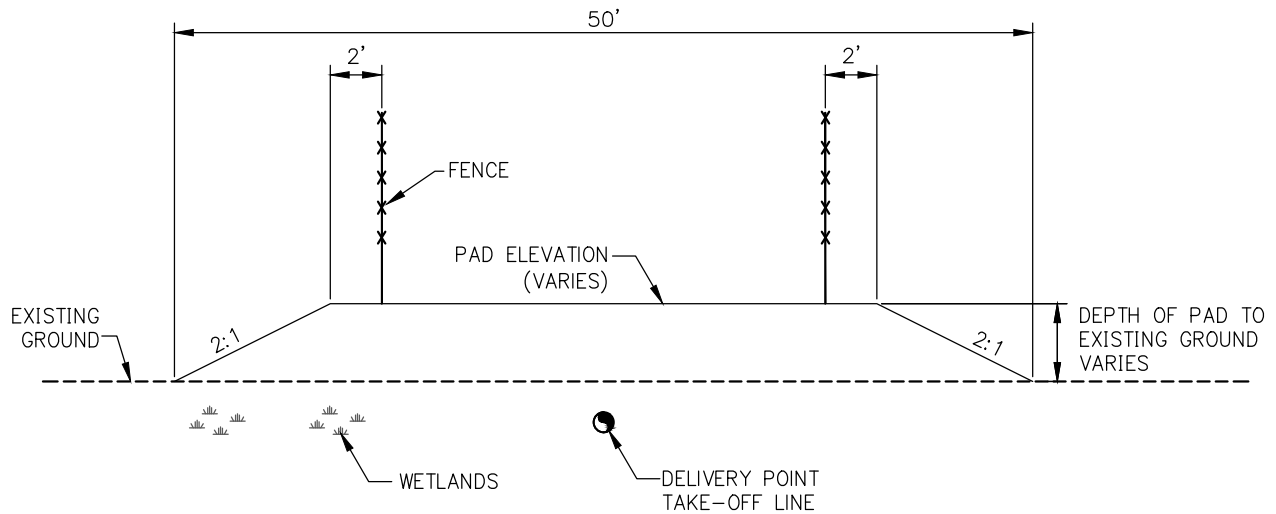
NOTES:

1. A HELICOPTER PAD WILL BE PROVIDED FOR REMOTE DELIVERY POINT TAKE-OFFS WITH NO ACCESS.
2. TAKE-OFF CONNECTIONS SIZE VARY.

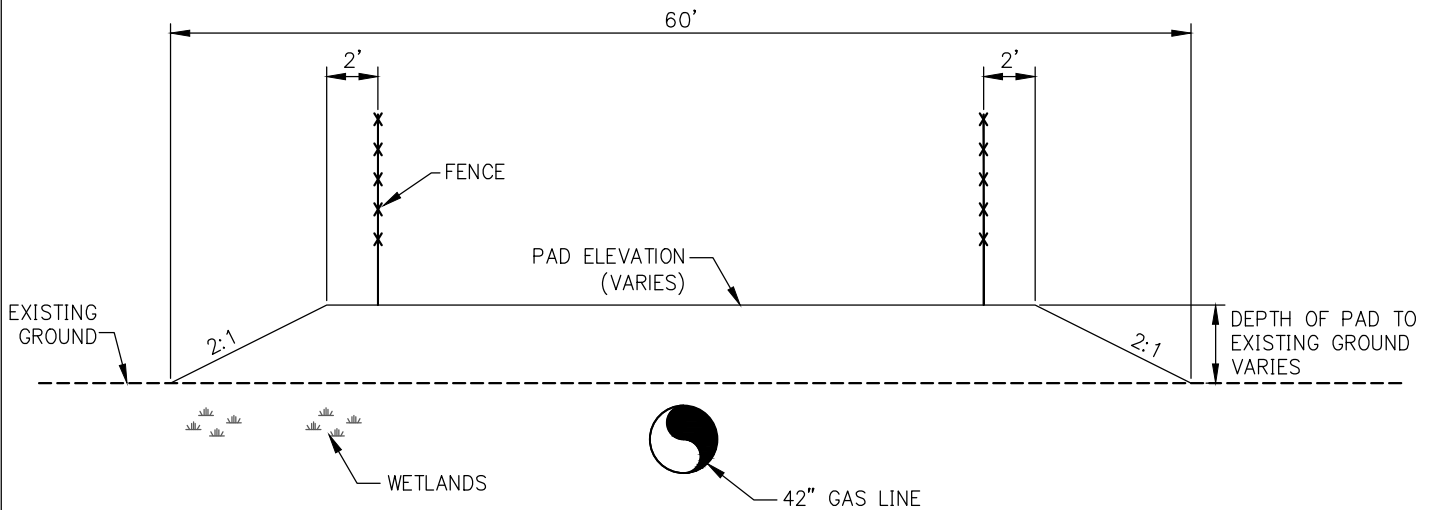
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 139 of 195 Date: 9/1/2018



**ELEVATION A-A**  
NOT TO SCALE



**ELEVATION B-B**  
NOT TO SCALE

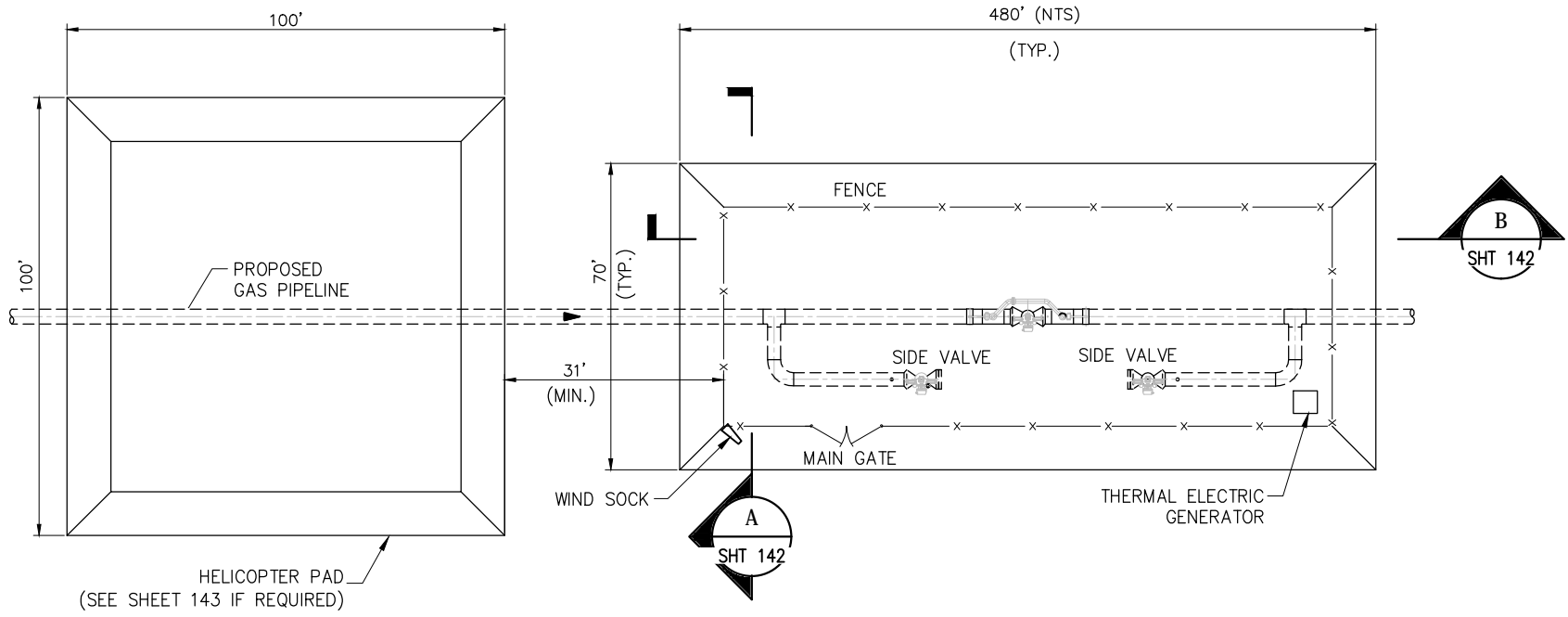
**PIPELINE FACILITIES - TEE & VALVE GAS DELIVERY POINT ELEVATION**  
NOT TO SCALE

**NOTES:**

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



PLAN

PIPELINE FACILITIES - MLBV AT COMPRESSOR STATIONS

NOT TO SCALE

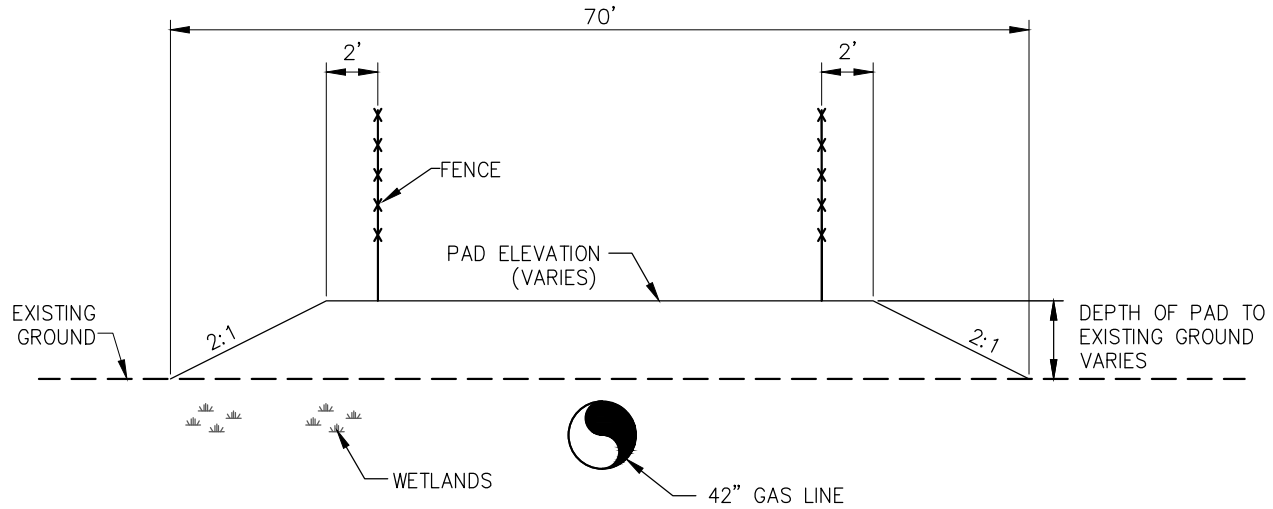
NOTES:

1. A THERMAL ELECTRIC GENERATOR UNIT WILL BE PROVIDED FOR AUTOMATED VALVE OPERATION AND CATHODIC PROTECTION WHERE CONVENTIONAL POWER IS NOT AVAILABLE.

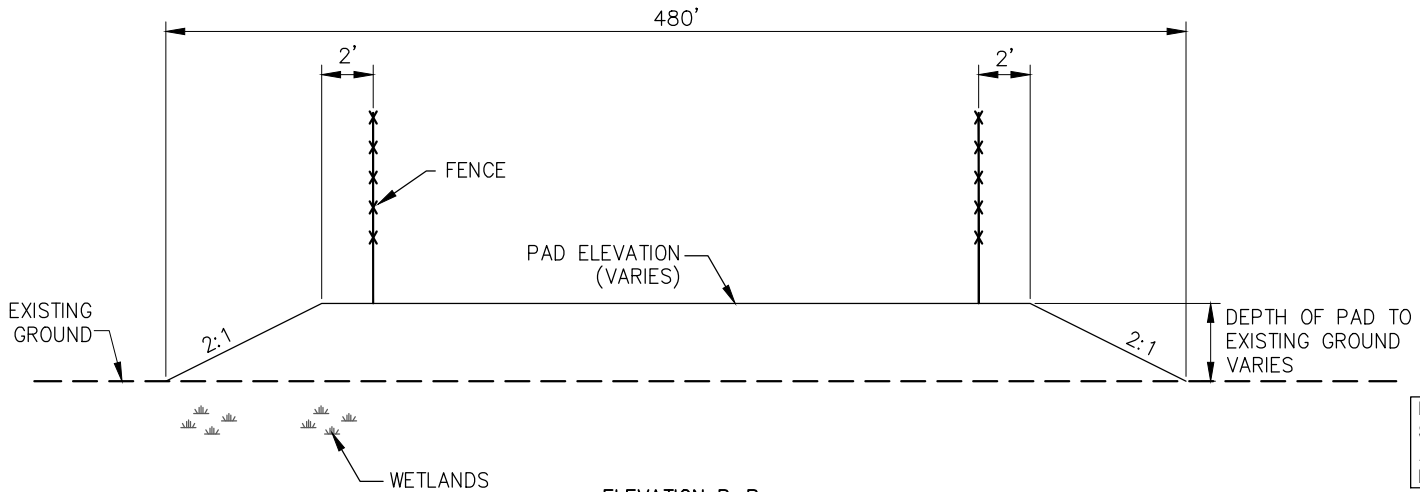
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 141 of 195      Date: 9/1/2018



**ELEVATION A-A**  
NOT TO SCALE



**ELEVATION B-B**  
NOT TO SCALE

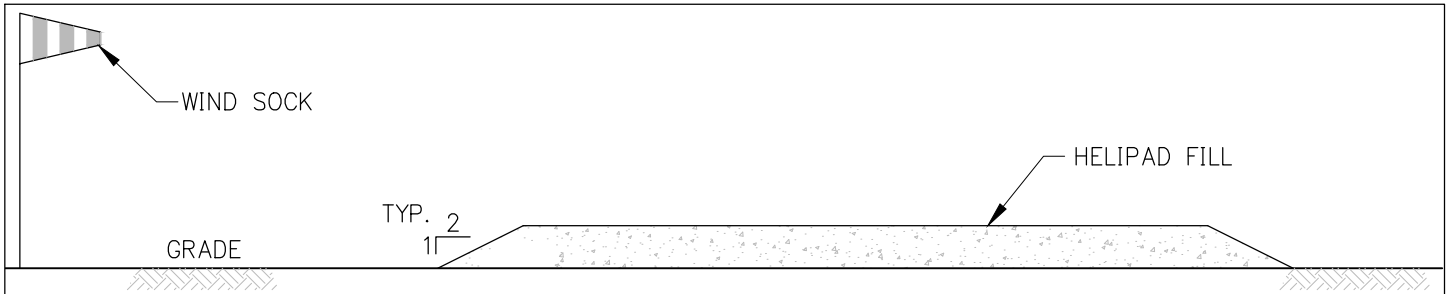
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.

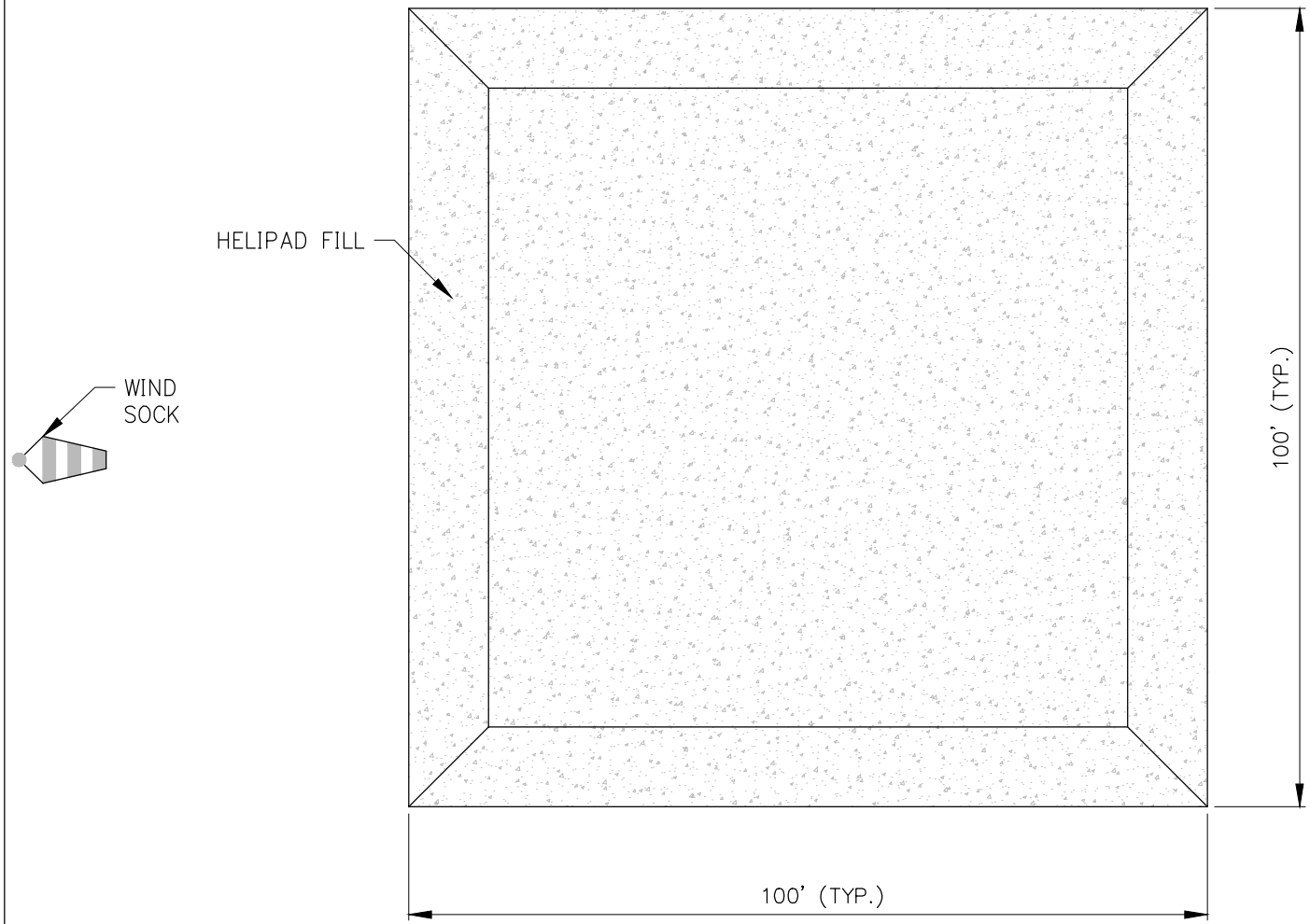
**PIPELINE FACILITIES - MLBV AT  
COMPRESSOR STATIONS ELEVATION**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PROFILE



PLAN

**CONSTRUCTION - HELIPADS**

NOT TO SCALE

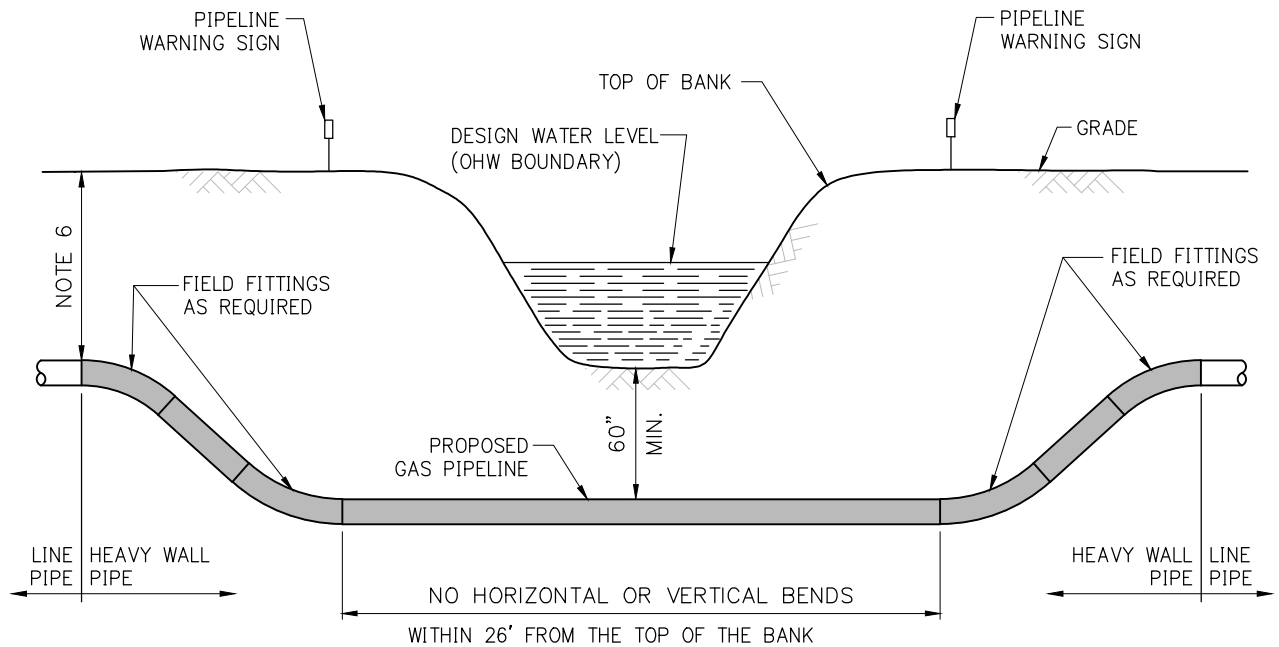
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

NOTE:

- HELIPAD THICKNESS WILL DEPEND ON LOCAL GROUND CONDITIONS.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PROFILE

NOTES:

1. CROSSING SHALL BE CONSTRUCTED IN ACCORDANCE WITH AKLNG PROCEDURES AND WITH THE METHOD APPROVED FROM AUTHORITIES HAVING JURISDICTION.
2. EROSION CONTROL DESIGN SHALL BE IMPLEMENTED AS PER AKLNG PLAN.
3. APPROVED AND APPROPRIATE VEHICLE CROSSING WILL BE INSTALLED AS REQUIRED.
4. ALL MAJOR WATERBODY CROSSINGS WILL HAVE A DETAILED SITE SPECIFIC CROSSING DRAWING INCLUDING RECLAMATION PLANS. PROFILE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY.
5. MINIMUM DEPTH OF COVER FOR WATER CROSSINGS WHEN CONSOLIDATED ROCK IS ENCOUNTERED ABOVE THE DITCH BOTTOM SHOULD BE <5'.
6. SEE SHEET 049 FOR MINIMUM DEPTH OF COVER.
7. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
8. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

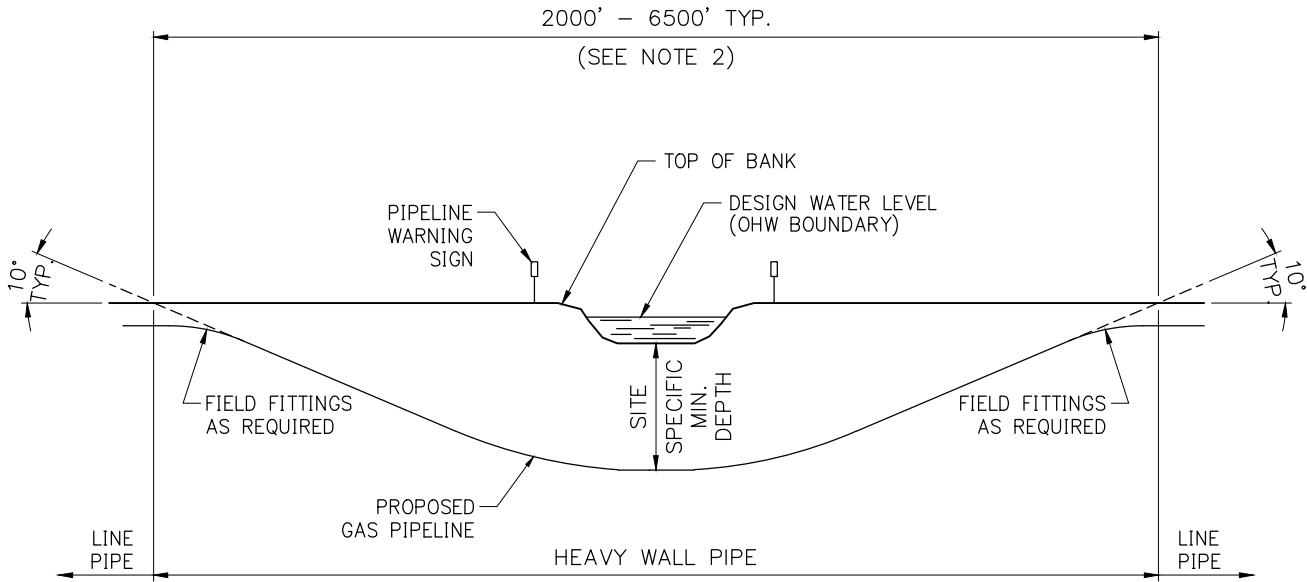
WATERBODY CROSSINGS - OPEN CUT

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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PROFILE

WATERBODY CROSSINGS - MAJOR/INTERMEDIATE - HDD  
NOT TO SCALE

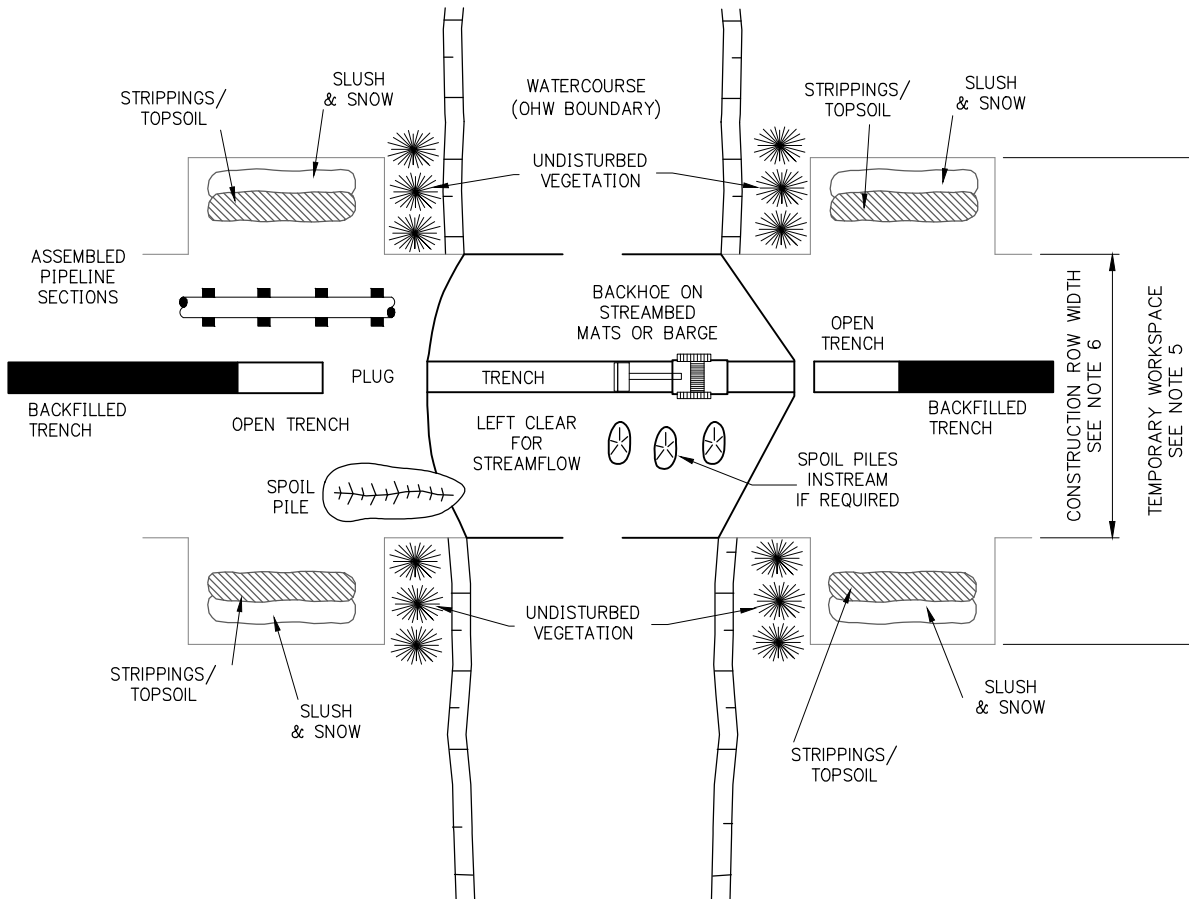
NOTES:

1. ALL HDD INSTALLATIONS WILL HAVE A DETAILED SITE SPECIFIC CROSSING DRAWING.
2. LENGTH OF HDD DEPENDS ON WATERBODY CROSSING WIDTH, DEPTH OF CHANNEL AND APPROACH SLOPE ANGLES.
3. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
4. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHV) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHV, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project





PLAN VIEW

**WATERBODY CROSSINGS - MAJOR/INTERMEDIATE OPEN CUT**

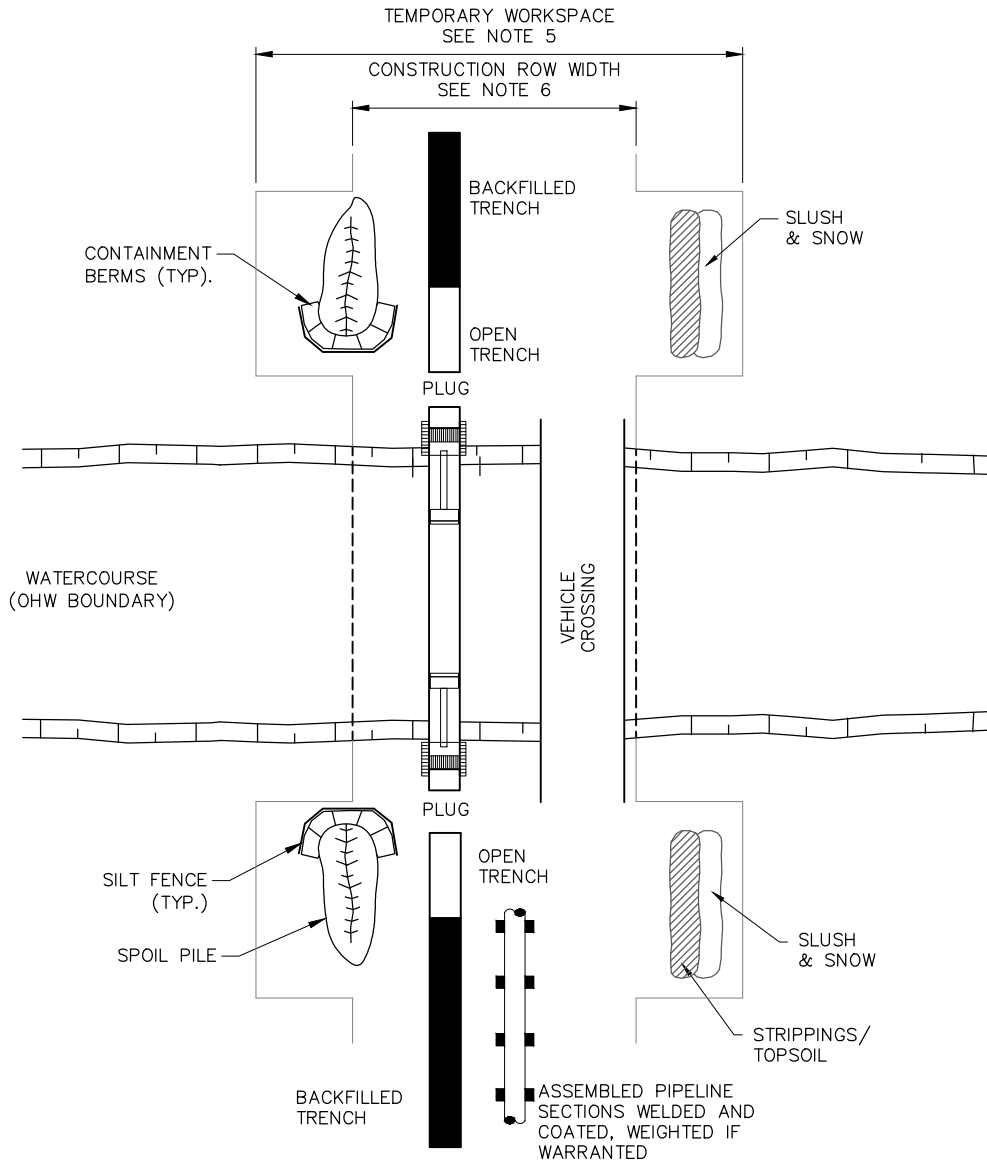
NOT TO SCALE

NOTES:

1. CROSSING SHALL BE CONSTRUCTED IN ACCORDANCE WITH AKLNG PROCEDURES AND WITH THE METHOD APPROVED FROM AUTHORITIES HAVING JURISDICTION.
2. EROSION CONTROL DESIGN SHALL BE IMPLEMENTED AS PER AKLNG PLAN.
3. INSTALL APPROVED AND APPROPRIATE VEHICLE CROSSING AS REQUIRED.
4. ALL MAJOR WATERBODY CROSSINGS WILL HAVE A DETAILED SITE SPECIFIC CROSSING DRAWING INCLUDING RECLAMATION PLANS. PROFILE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY.
5. SEE SHEET 057 & 058 FOR ATWS DIMENSIONS.
6. SEE SHEETS 050 THROUGH 056 FOR CONSTRUCTION ROW WIDTH.
7. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
8. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHV) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHV, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



PLAN VIEW

**WATERBODY CROSSINGS - MINOR - OPEN CUT**

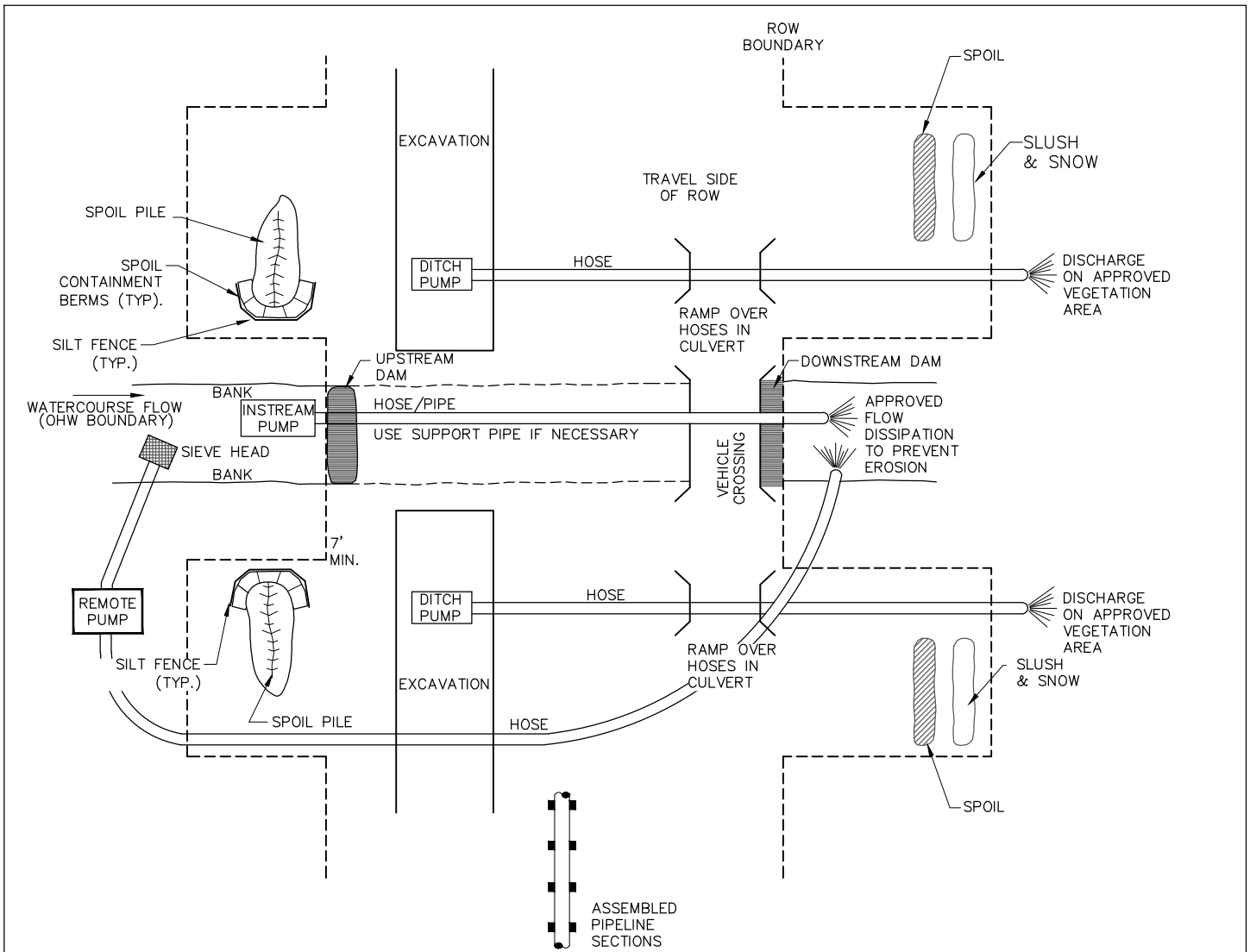
NOTES:

NOT TO SCALE

1. WORK SPACE AND MATERIAL STORAGE AREAS WILL BE CLEARED FROM VEGETATION, LEAVING THE VEGETATED BUFFER BACK FROM THE BANK ON THE STORAGE SIDE OF THE RIGHT OF WAY.
2. ROOTS AND SALVAGE SPOIL MATERIAL FROM GRADED EXCAVATED AREAS WILL BE STORED SEPARATELY OUT OF THE WAY OF CROSSING ACTIVITIES.
3. SPOIL CONTAINMENT BERMS AND SEDIMENT CONTROL FEATURE WILL BE INSTALLED DOWNSLOPE OF PROPOSED SPOIL AREAS.
4. THE INSTREAM PIPE SECTIONS WILL BE CONSTRUCTED AND HYDROSTATICALLY PRETESTED PRIOR TO INSTREAM ACTIVITIES.
5. SEE SHEET 057 & 058 FOR ATWS DIMENSIONS.
6. SEE SHEETS 050 THROUGH 056 FOR CONSTRUCTION ROW WIDTH.
7. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
8. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHV) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHV, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



## WATERBODY CROSSINGS - ISOLATED OPEN CUT - DAM AND PUMP

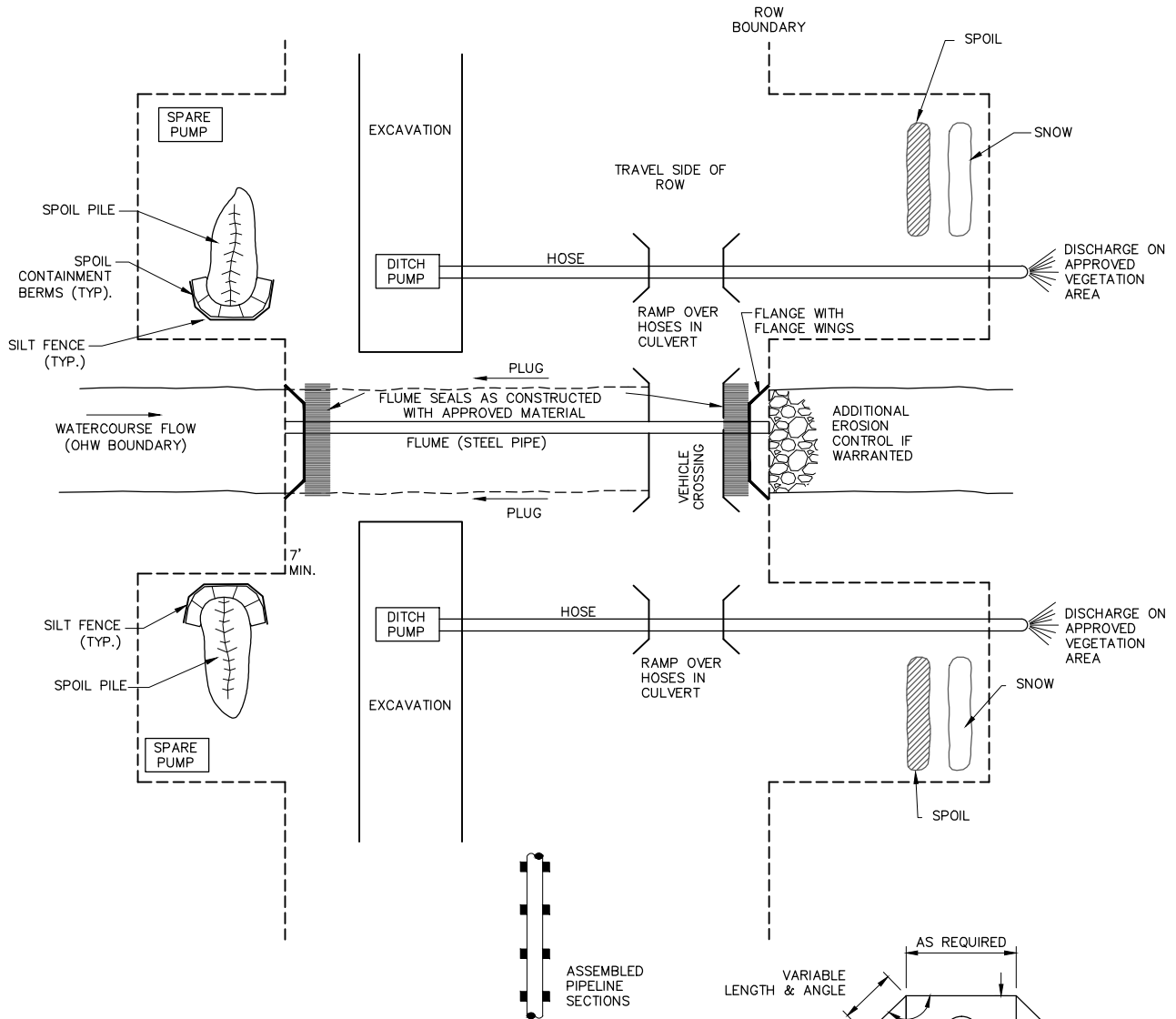
**NOTES:**

NOT TO SCALE

1. VEHICLE CROSSING WILL BE INSTALLED ON THE WORK SIDE EDGE OF THE RIGHT TO WAY TO ALLOW FOR A WIDE EXCAVATION.
2. SPOIL SIDE DAM WILL BE CONSTRUCTED USING SPECIFIED DAMMING TECHNIQUES ON THE SPOIL EDGE OF THE RIGHT OF WAY TO ALLOW FOR A WIDE EXCAVATION.
3. THE VEHICLE CROSSING CULVERT WILL BE PLUGGED OR DOWNSTREAM DAM WILL BE CONSTRUCTED USING SPECIFIED DAMMING TECHNIQUES. WHERE THE BRIDGE IS USED, THE DAM WILL BE CONSTRUCTED AS CLOSE TO THE SPOIL SIDE OF THE BRIDGE AS POSSIBLE TO ALLOW FOR A WIDE EXCAVATION.
4. THE STREAM CHANNEL WILL BE BACKFILLED. WATER CONTAINMENT SUMPS WILL BE CONSTRUCTED IF NECESSARY.
5. THE STREAM CHANNEL BED AND BANKS WILL BE STABILIZED.
6. THE VEGETATION BUFFER MINIMUM DISTANCE WILL BE 50 FEET OR AS DICTATED IN PERMITS.
7. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
8. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

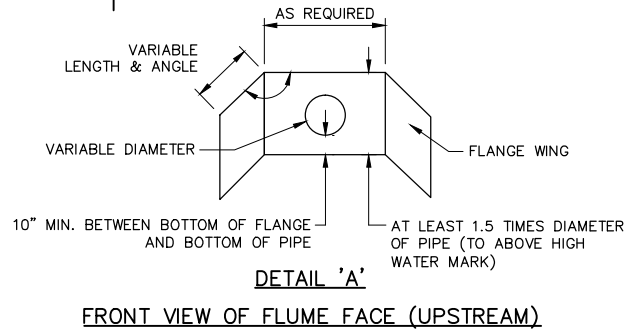
**PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.**

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**NOTES:**

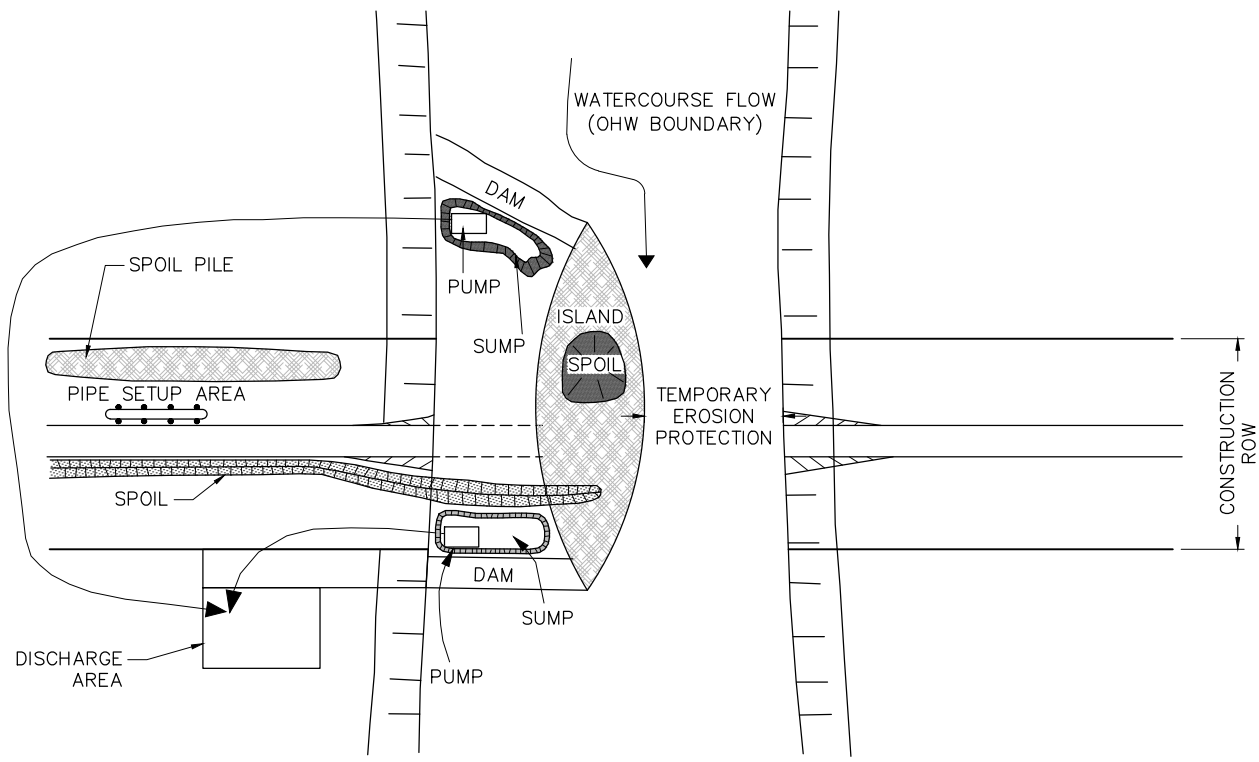
1. VEHICLE CROSSING WILL BE INSTALLED ON THE WORK SIDE EDGE OF THE RIGHT OF WAY TO ALLOW FOR A WIDE EXCAVATION.
2. THE FLUME WILL BE INSTALLED WITH FLANGES AS PER SPECIFICATION.
3. THE FLUME WILL BE INSTALLED IN THE STREAM CHANNEL USING SEALING TECHNIQUES AND AREA BETWEEN FLANGE WINGS WILL BE DEWATERED.
4. THE STREAM CHANNEL BED AND BANKS WILL BE STABILIZED VEGETATION BUFFER MINIMUM DISTANCE WILL BE 50 FEET OR AS DICTATED IN PERMITS.
5. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
6. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.



**WATERBODY CROSSINGS - ISOLATED OPEN CUT - DAM AND FLUME**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



PLAN VIEW

NOTES:

1. DEFLECTION BARRIER WILL BE CONSTRUCTED IN CASE OF HIGH VELOCITY STREAM FLOW.
2. THE DAM WILL BE CONSTRUCTED FROM LOCAL MATERIALS, SANDBAGS, AQUADAMS, SHEET PILING, MEDIAN BARRIERS, GRAVEL OR OTHER APPROPRIATE MATERIALS TO EXTEND OVER HALFWAY ACROSS THE WATERCOURSE.
3. IF DAM IS CONSTRUCTED OF LOOSE MATERIAL, RIPRAP WILL BE INSTALLED ON THE UPSTREAM SIDE TO PROTECT THE DAM FROM EROSION.
4. SPOIL STORAGE WILL BE ABOVE HIGH WATER MARK OR PROTECTED BY EROSION CONTROL MEASURES.
5. TEMPORARY CHANNEL DIVERSION THROUGH A CHANNEL EXCAVATED INTO A FLOOD PLAIN CAN BE CONSIDERED IF LINED OR PASSED THROUGH.
6. DISCHARGE AREA DIMENSIONS ARE SITE-SPECIFIC AND WILL BE DETERMINED DURING DETAIL DESIGN.
7. ANTICIPATED BANK WIDTH AND WETTED WIDTH AT TIME OF CROSSING ARE AS NOTED IN RESOURCE REPORT NO. 2, APPENDIX H.
8. IT IS THE PROJECT INTENT TO LOCATE ALL PROJECT INFRASTRUCTURE OUTSIDE OF ORDINARY HIGH WATER (OHW) UNLESS DEPICTED OTHERWISE. IF THE PLACEMENT OF INFRASTRUCTURE NECESSITATES DEVELOPMENT BELOW OHW, THEN SITE SPECIFIC APPROVALS WILL BE REQUESTED AND OBTAIN PRIOR TO CONSTRUCTION.

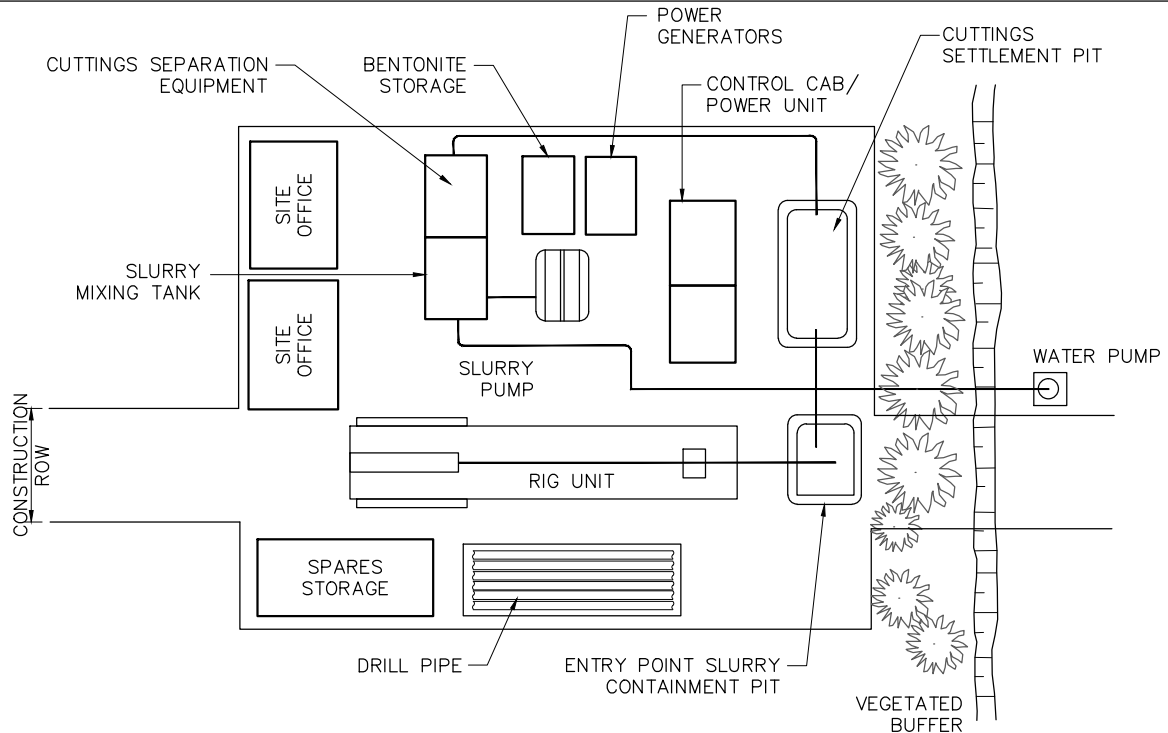
WATERBODY CROSSINGS - ISOLATED OPEN CUT - DAM AND DIVERT

NOT TO SCALE

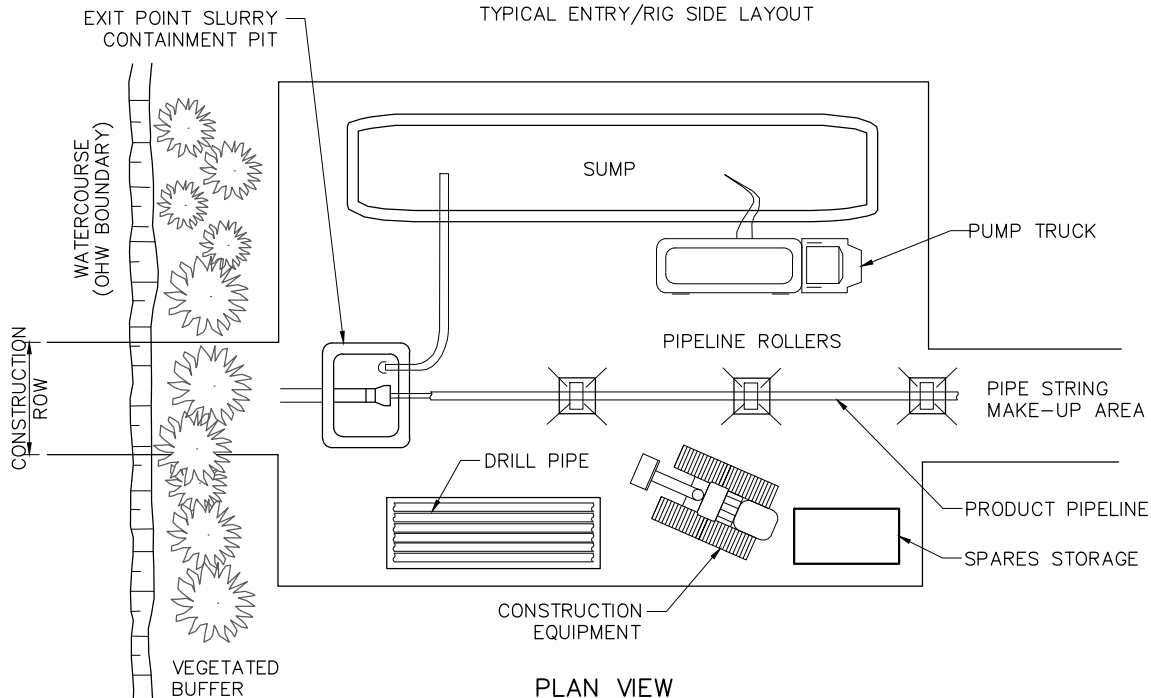
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

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**PLAN VIEW**  
TYPICAL ENTRY/RIG SIDE LAYOUT



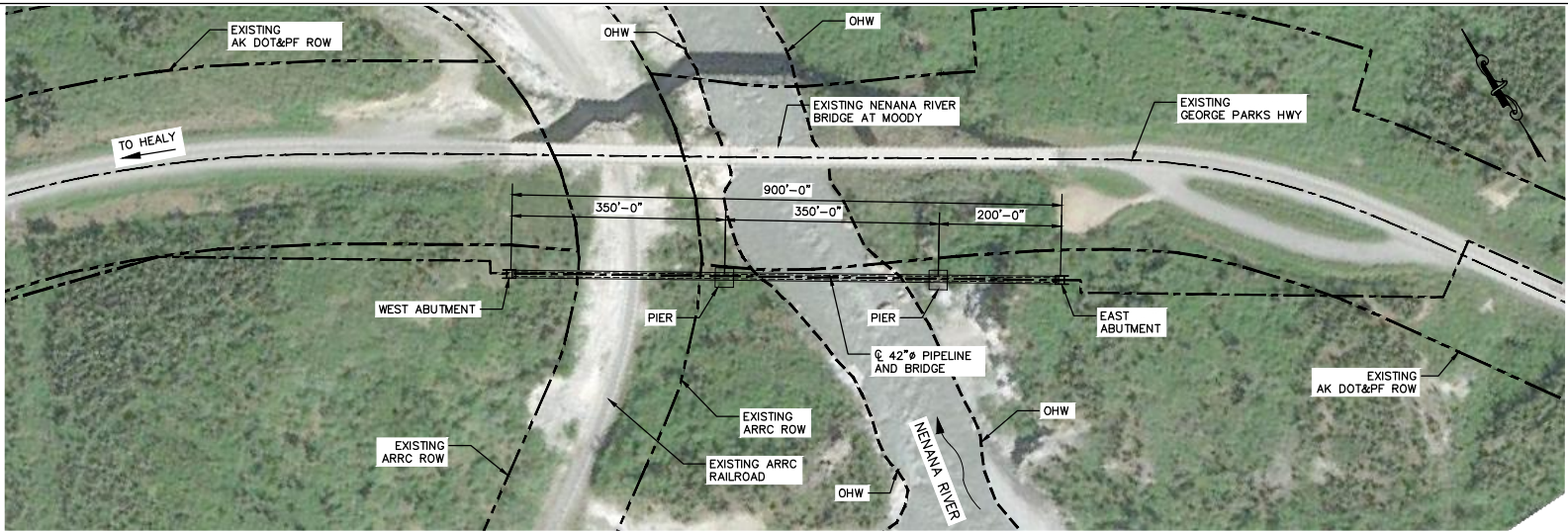
**PLAN VIEW**  
TYPICAL EXIT/PIPE SIDE LAYOUT

**WATERBODY CROSSINGS - HORIZONTAL**  
**DIRECTIONAL DRILL**

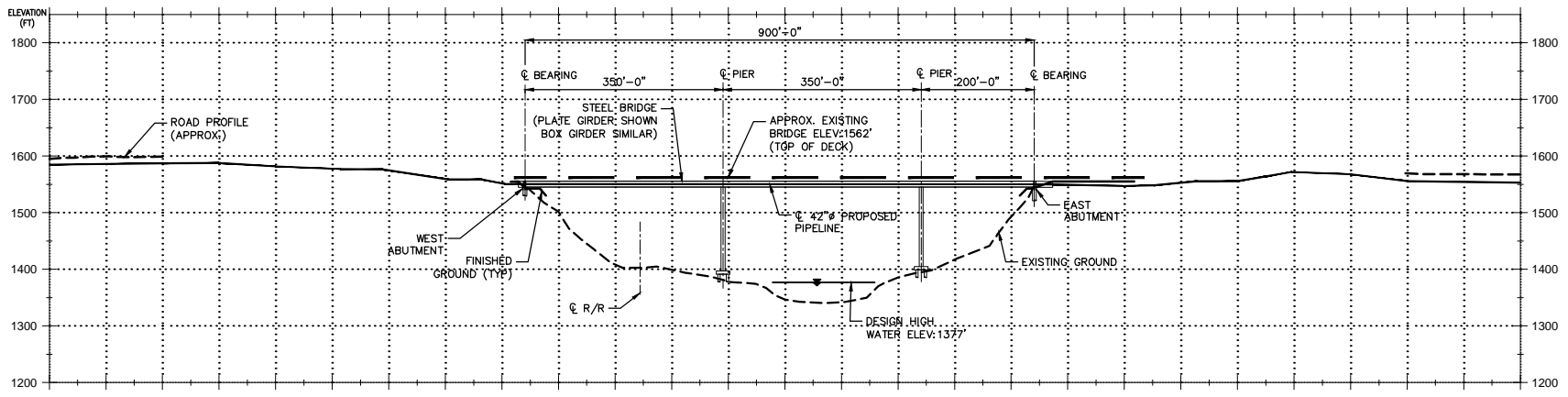
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



PLAN

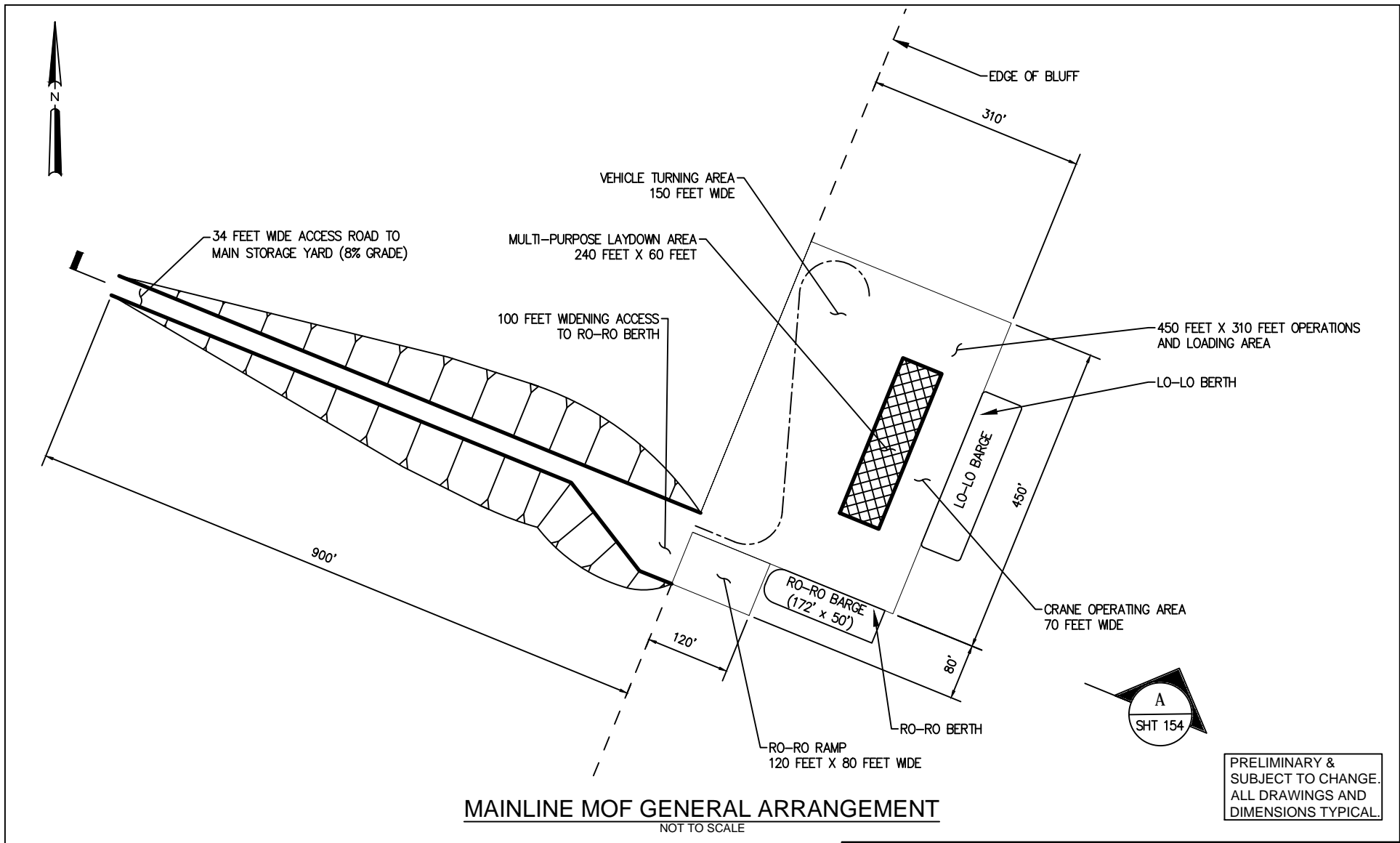


PROFILE

**NENANA RIVER CROSSING AT MOODY, ALTERNATIVE 6 UPSTREAM 3-SPAN STEEL BRIDGE**  
 NOT TO SCALE

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

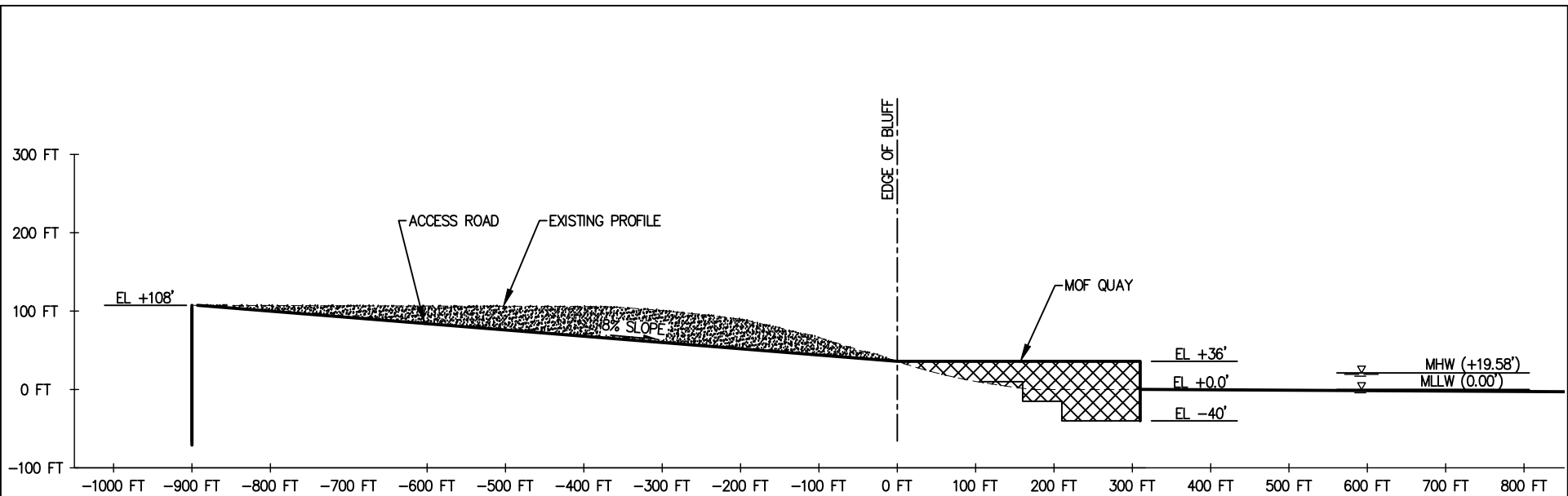
Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



NOTES:  
1. ALL ELEVATIONS AND DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project







**SECTION A - BELUGA MOF GENERAL ARRANGEMENT**

NOT TO SCALE

**LEGEND**

-  FILL
-  EXCAVATION

**NOTES:**

1. ALL ELEVATIONS AND DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. WATER LEVELS ESTIMATED BY AVERAGING TIDAL DATA FROM NIKISKI AND ANCHORAGE.
3. DEPTHS AND ELEVATIONS IN FEET TO MLLW.

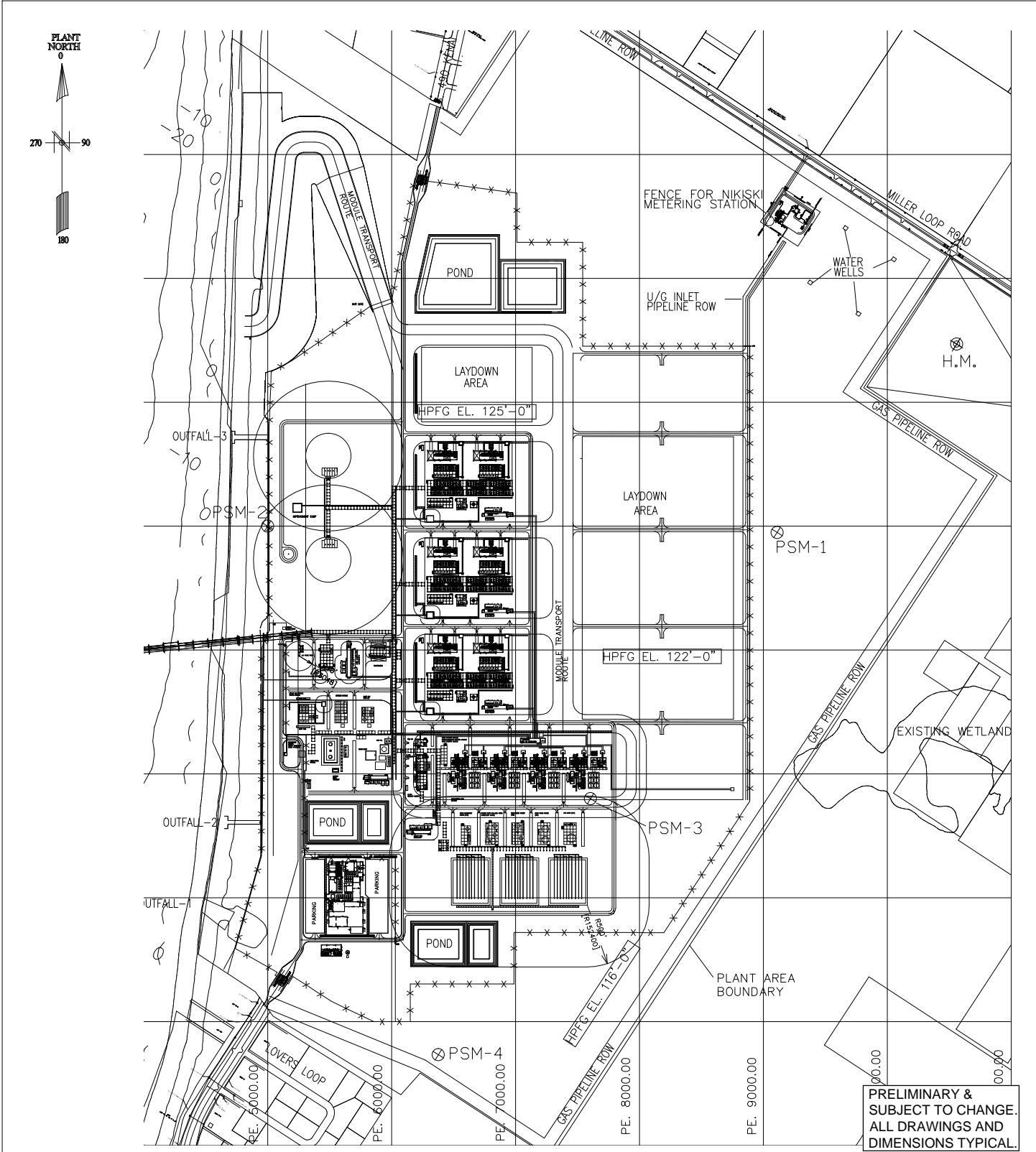
**TIDAL BAR**

28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)

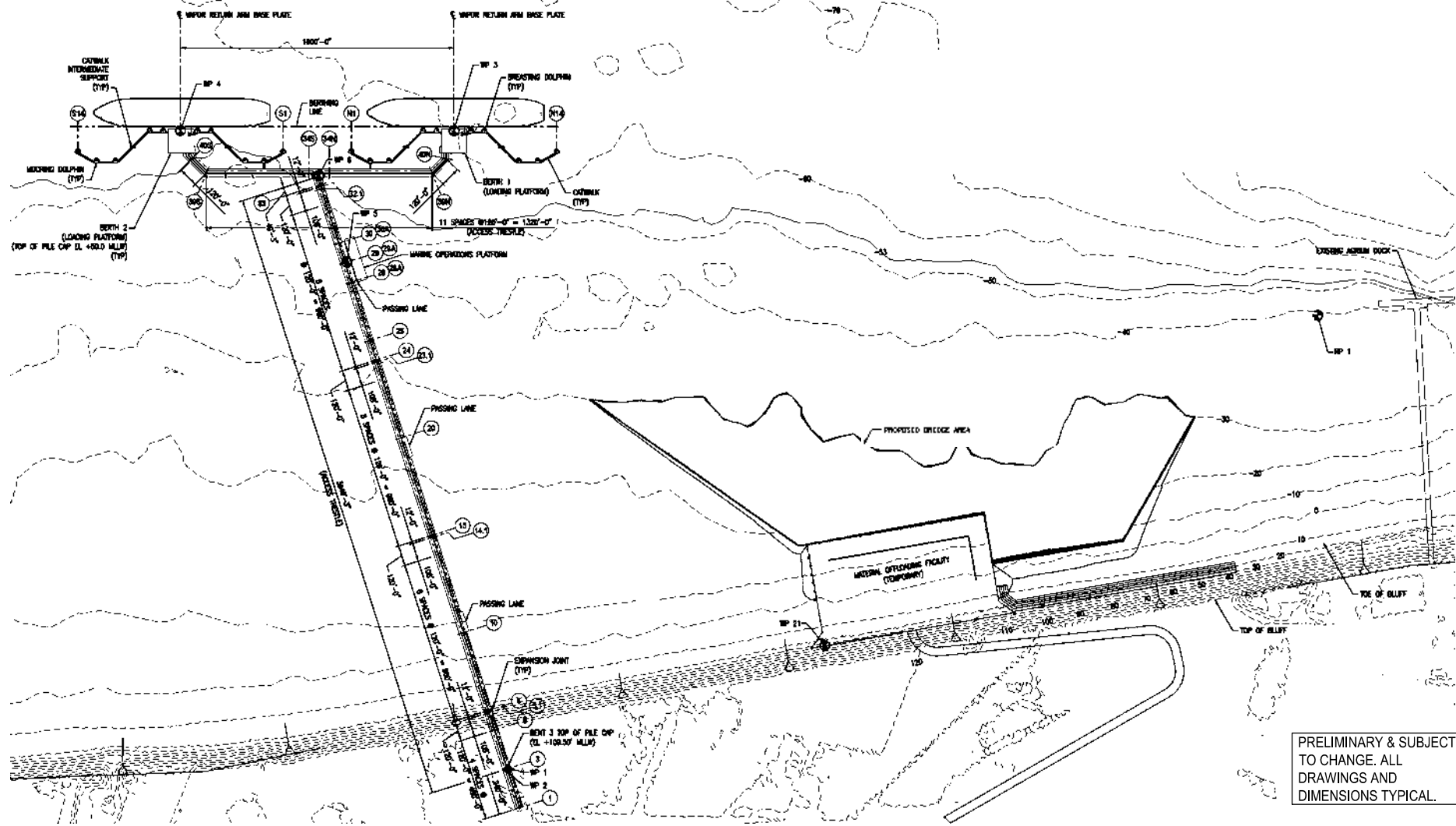
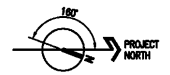
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



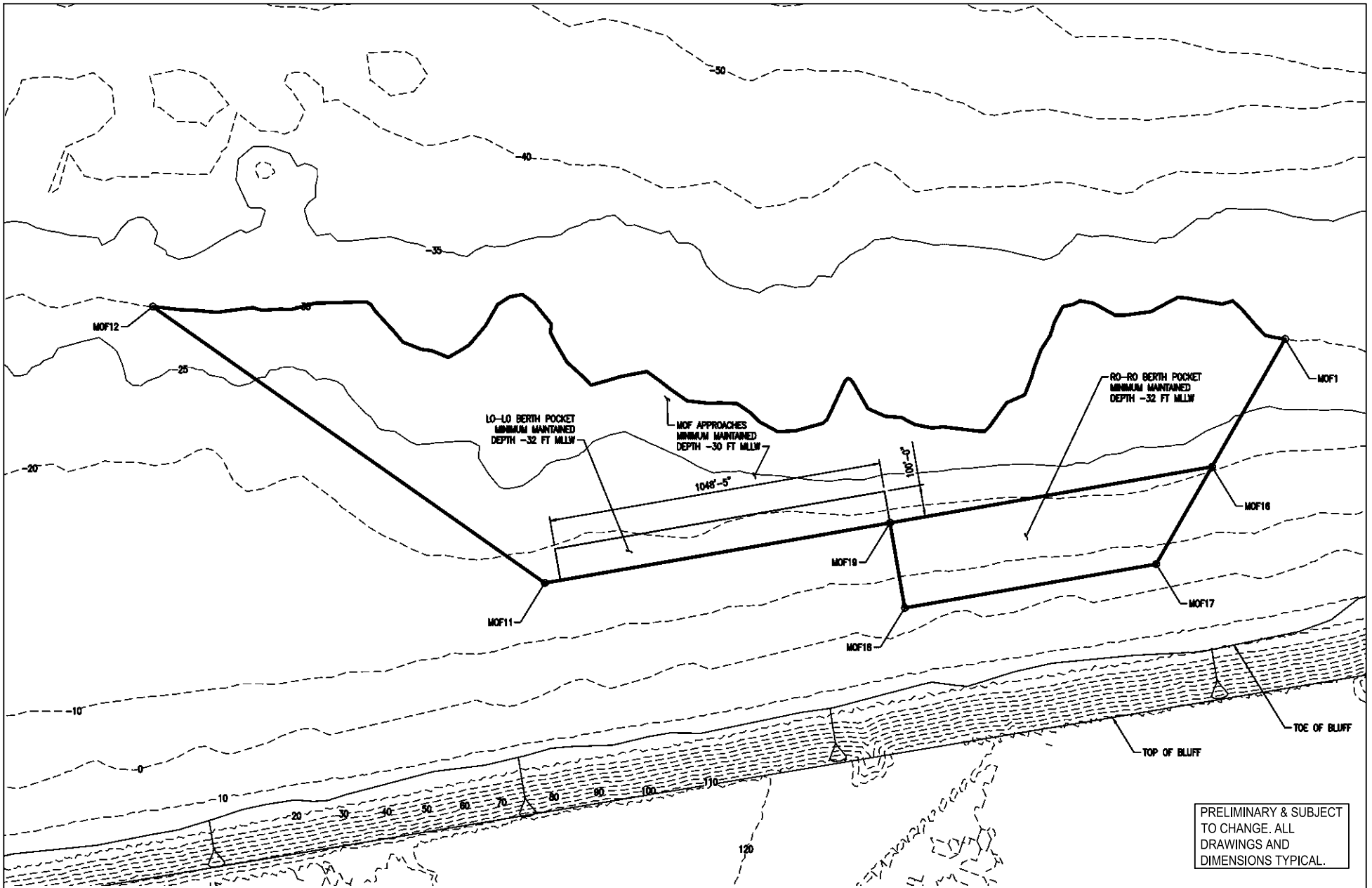
**LNG LIQUEFACTION FACILITY OVERALL  
COMPLEX SITE PLAN**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**PRODUCT LOADING FACILITY GENERAL  
ARRANGEMENT**  
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



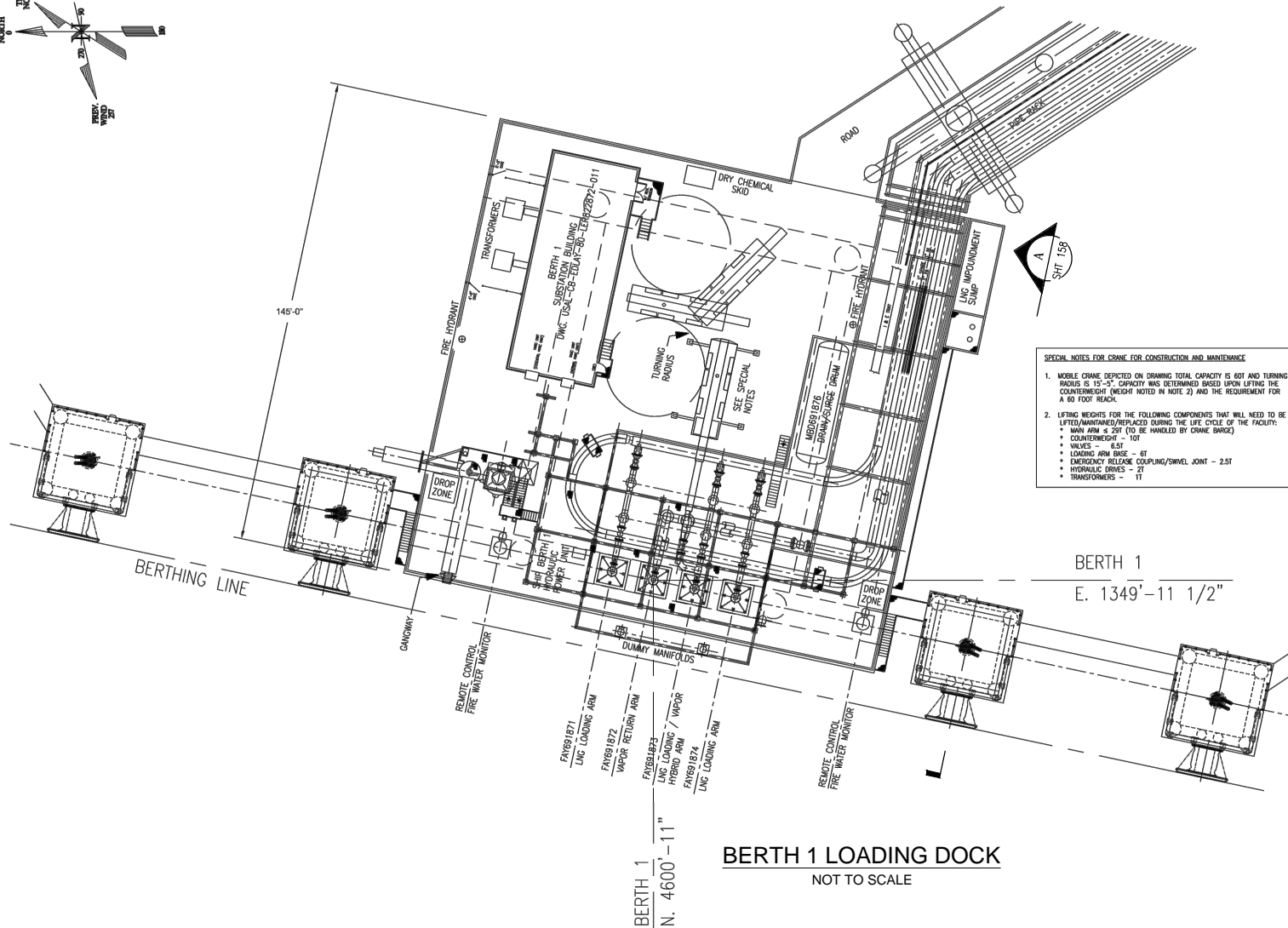
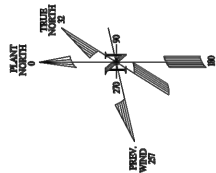
**MATERIALS OFF LOADING FACILITY DREDGING PLAN**

NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Sheet 156A of 195      Date: 12/9//2019



**SPECIAL NOTES FOR CRANE FOR CONSTRUCTION AND MAINTENANCE**

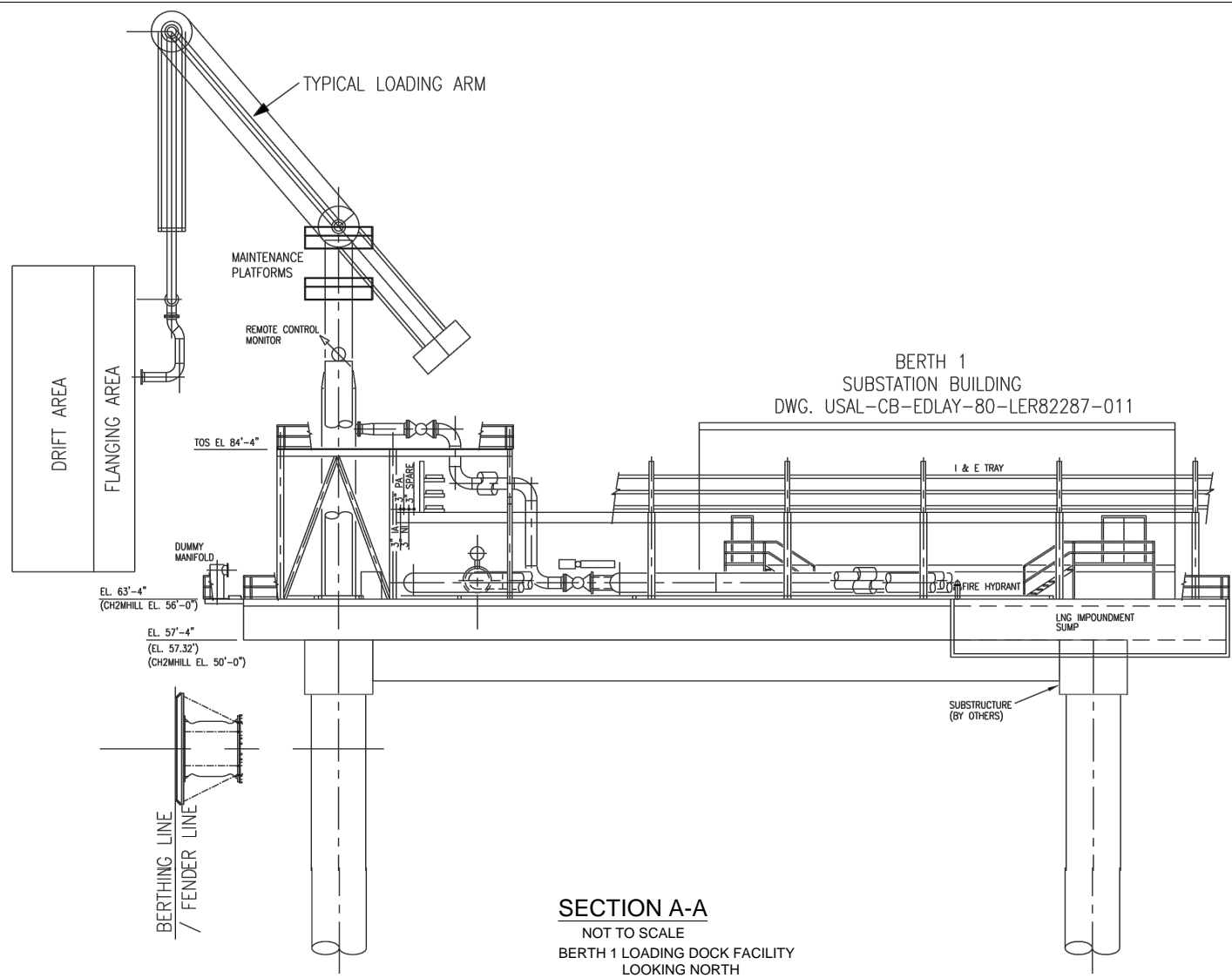
1. MOBILE CRANE DEPICTED ON DRAWING TOTAL CAPACITY IS 60T AND TURNING RADIUS IS 15'-5". CAPACITY WAS DETERMINED BASED UPON LIFTING THE COUNTERWEIGHT (WEIGHT NOTED IN NOTE 2) AND THE REQUIREMENT FOR A 60 FOOT REACH.
2. LIFTING WEIGHTS FOR THE FOLLOWING COMPONENTS THAT WILL NEED TO BE LIFTED/MAINTAINED/REPLACED DURING THE LIFE CYCLE OF THE FACILITY:
  - MAIN ARM - 25T (TO BE HANDLED BY CRANE SWAGE)
  - COUNTERWEIGHT - 10T
  - VALVES - 15T
  - LOADING ARM BASE - 6T
  - EMERGENCY RELEASE COUPLING/SWIVEL JOINT - 2.5T
  - HYDRAULIC DRIVES - 2T
  - TRANSFORMERS - 1T

**BERTH 1 LOADING DOCK**  
NOT TO SCALE

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

- NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. NAD83 ALASKA ZONE 4 COORDINATE E 1398669.69, N 2440701.86 (LAT 60 40 26.18472, LONG -151 20 53.60534) IS EQUIVALENT TO PLANT COORDINATE E 10558.71, N 6468.69 (H.M.).
  3. PLANT ELEVATION ARE BASED ON NAD88.
  4. BATHYMETRY CONTOURS ARE REFERENCED TO (MEAN LOW LOW WATER LEVEL).
  5. FINAL EQUIPMENT DIMENSIONS, COORDINATES AND ELEVATIONS TO BE CONFIRMED BY DETAIL ENGINEERING CONTRACTOR.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



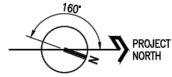
BERTH 1  
SUBSTATION BUILDING  
DWG. USAL-CB-EDLAY-80-LER82287-011

**SECTION A-A**  
NOT TO SCALE  
BERTH 1 LOADING DOCK FACILITY  
LOOKING NORTH

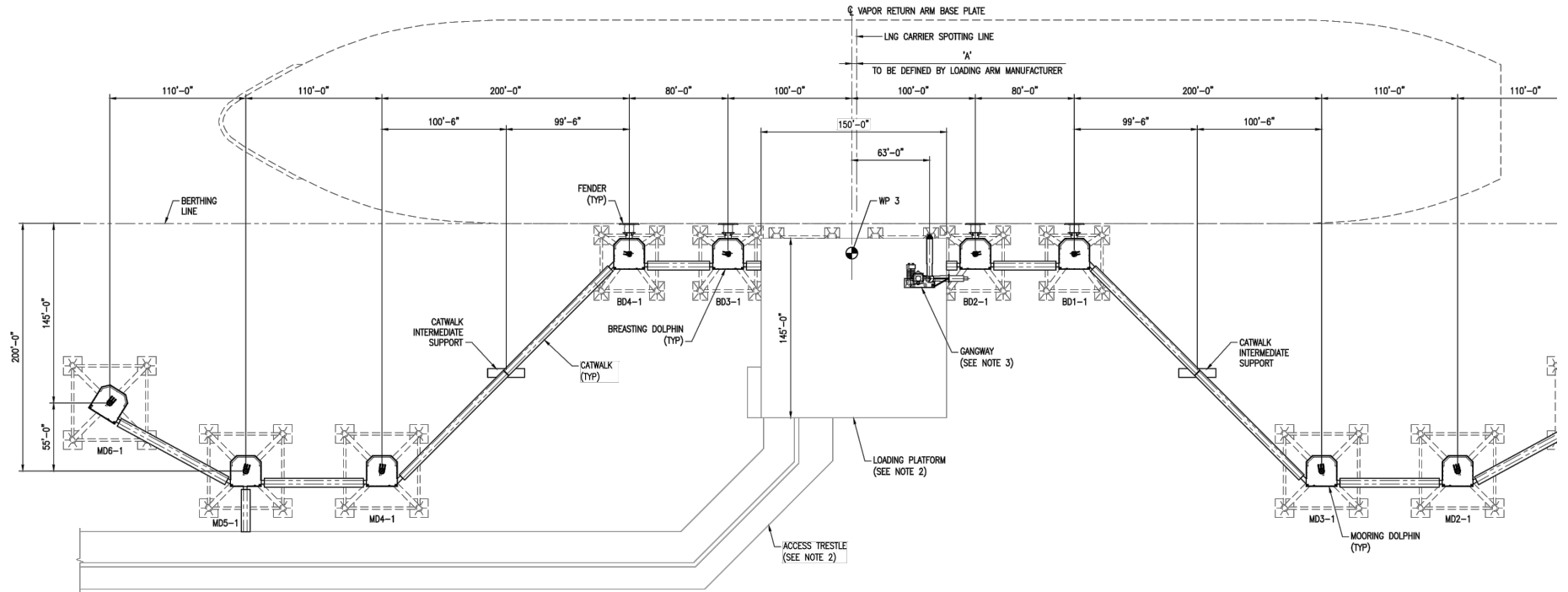
PRELIMINARY & SUBJECT  
TO CHANGE. ALL  
DRAWINGS AND  
DIMENSIONS TYPICAL.

- NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. NAD83 ALASKA ZONE 4 COORDINATE E 1398669.69, N 2440701.86 (LAT 60 40 26.18472, LONG -151 20 53.60534) IS EQUIVALENT TO PLANT COORDINATE E 10558.71, N 6468.69 (H.M.).
  3. PLANT ELEVATION ARE BASED ON NAD88.
  4. BATHYMETRY CONTOURS ARE REFERENCED TO (MEAN LOW LOW WATER LEVEL).
  5. FINAL EQUIPMENT DIMENSIONS, COORDINATES AND ELEVATIONS TO BE CONFIRMED BY DETAIL ENGINEERING CONTRACTOR.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**WATERSIDE**



**BERTH 1 LAYOUT PLAN NORTH BERTH**

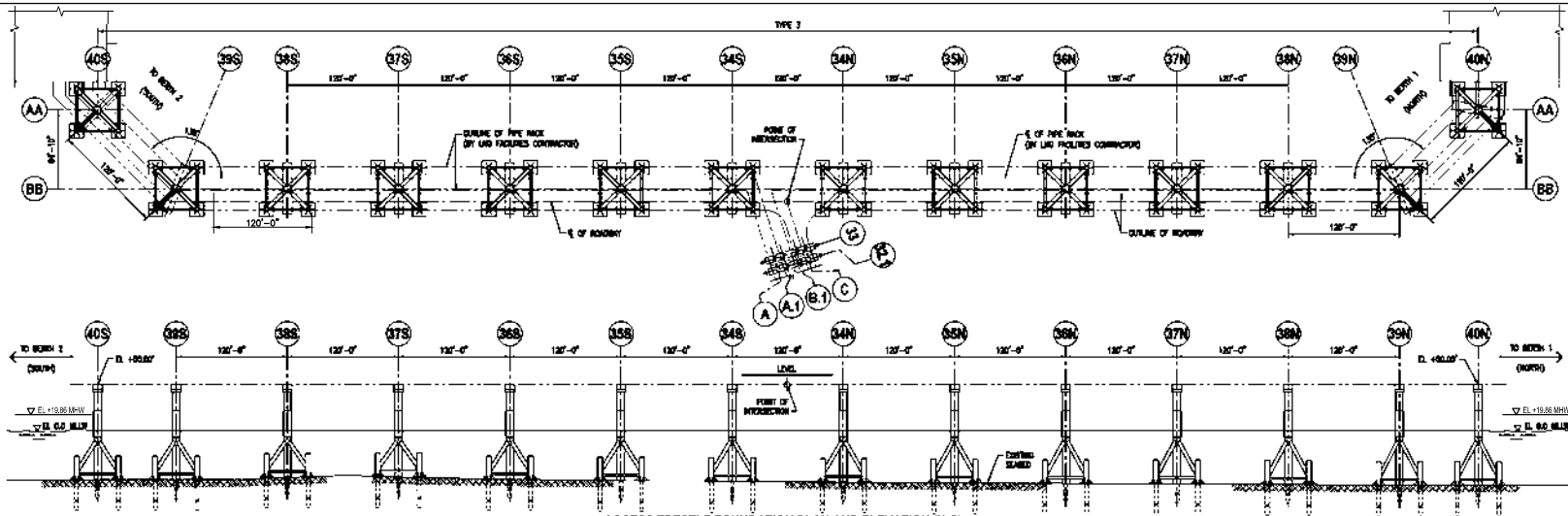
NOT TO SCALE

**NOTES:**

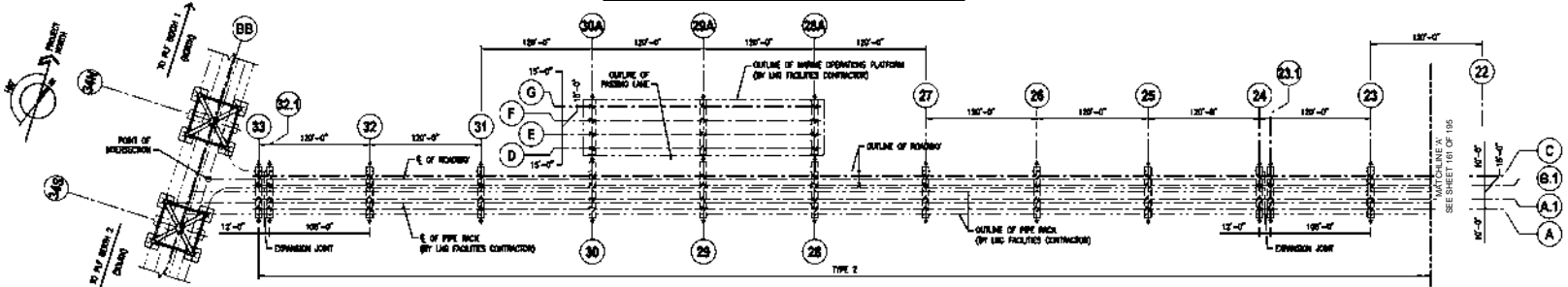
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. LOADING PLATFORM, PIPE RACKS ON TRESTLE AND ALL EQUIPMENT BY LNG FACILITIES CONTRACTOR. TRESTLE ROADWAY AND SUBSTRUCTURE BY MARINE CONTRACTOR.
3. GANGWAY INSTALLATION BY MARINE CONTRACTOR.

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



ACCESS TRESTLE FOUNDATION PLAN AND ELEVATION (N-S)



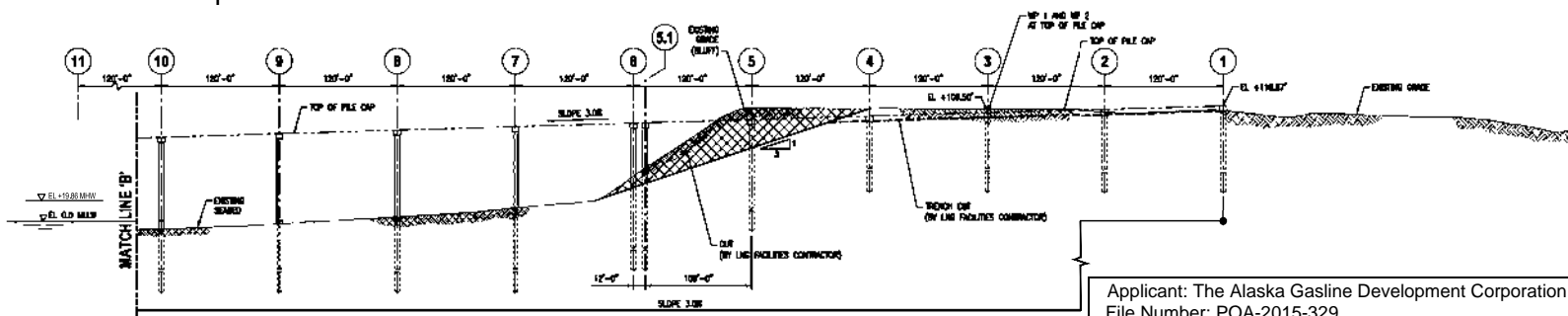
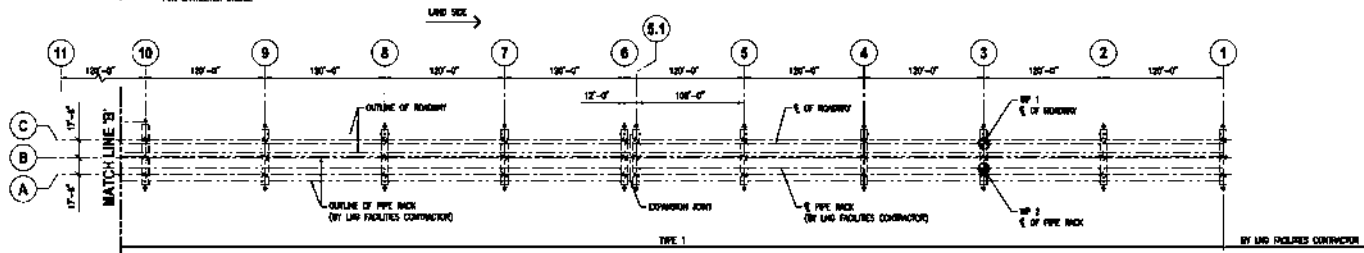
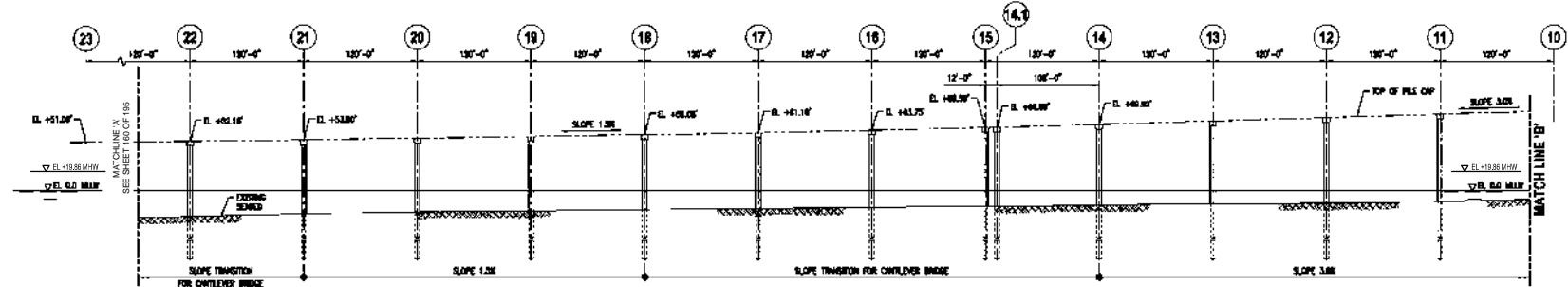
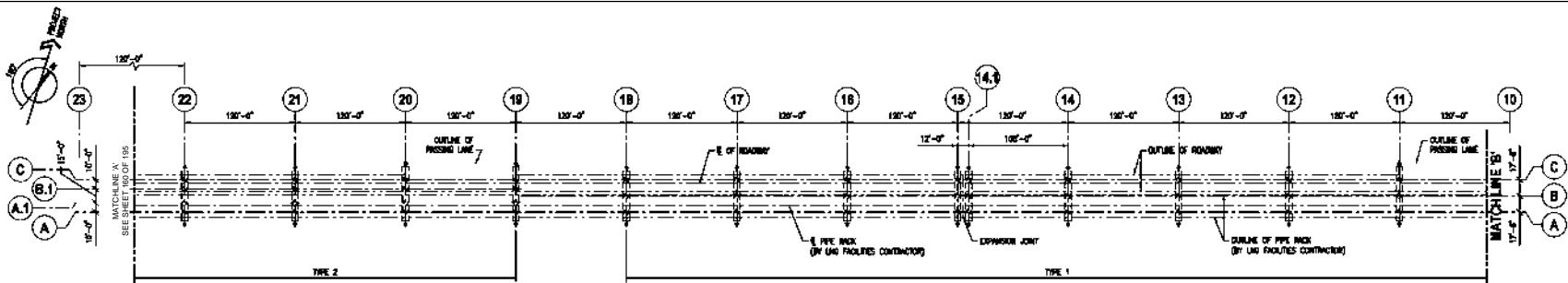
ACCESS TRESTLE FOUNDATION PLAN AND ELEVATION (E-W)

**TRESTLE FOUNDATION PLAN & PROFILE 1/2**  
NOT TO SCALE

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

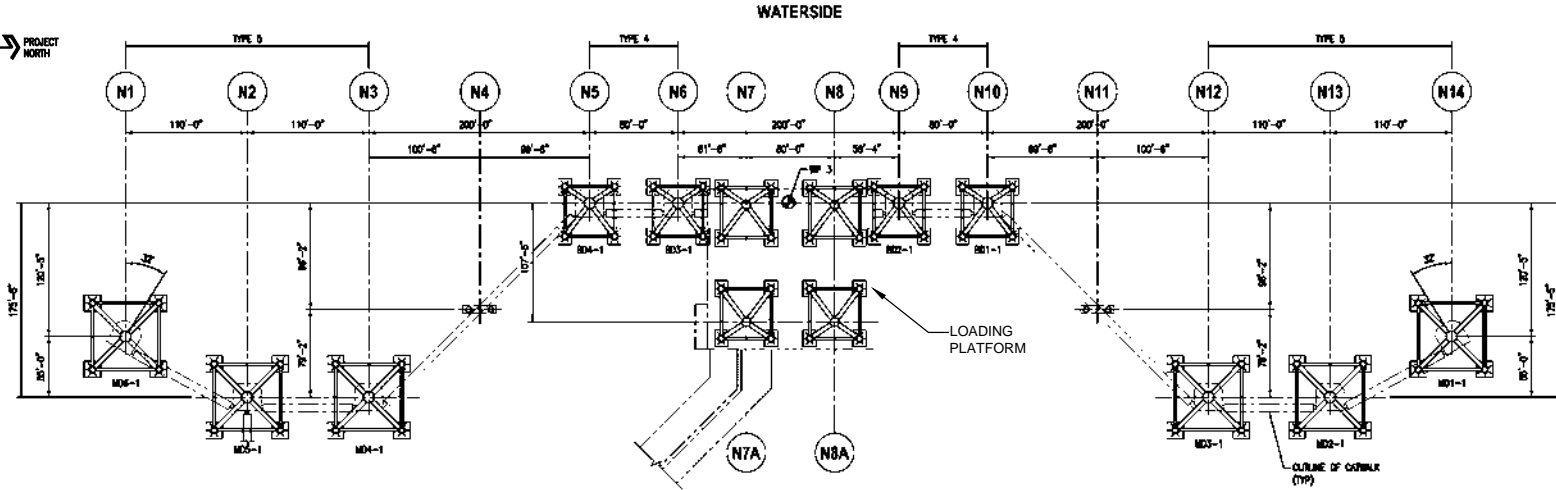
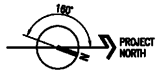




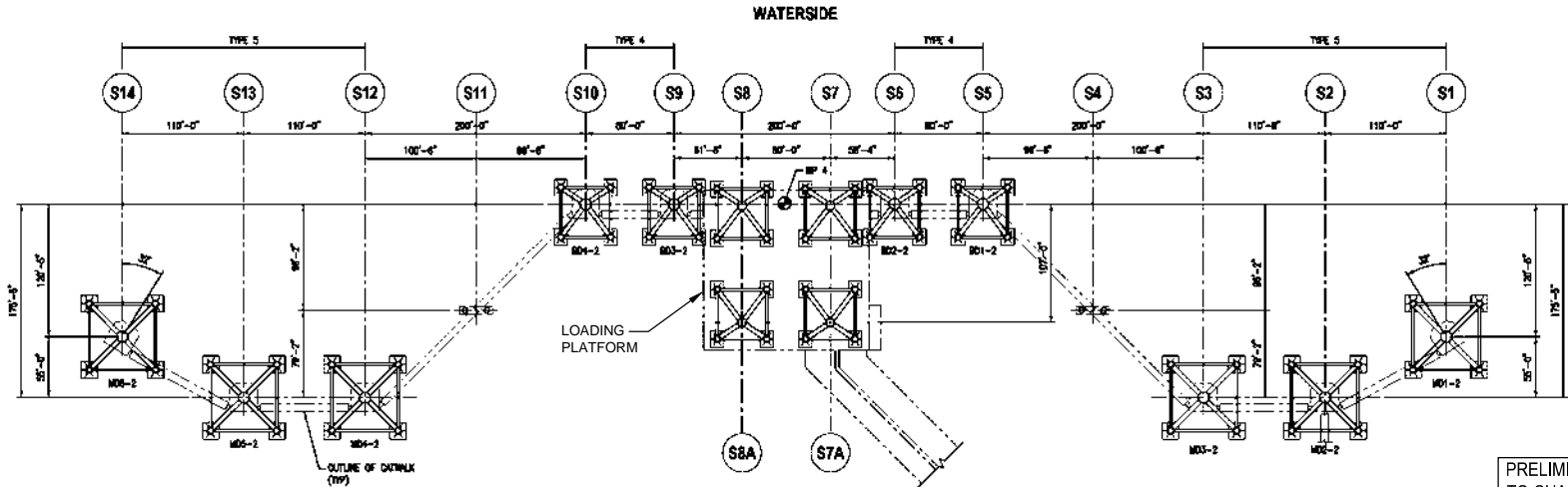
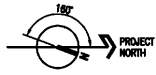
PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

**TRESTLE FOUNDATION PLAN & PROFILE 2/2**  
 NOT TO SCALE



**BERTH 1 (NORTH BERTH)**



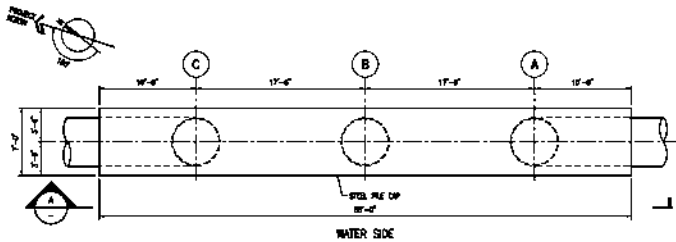
**BERTH 2 (SOUTH BERTH)**

**BERTH FOUNDATION PLAN**

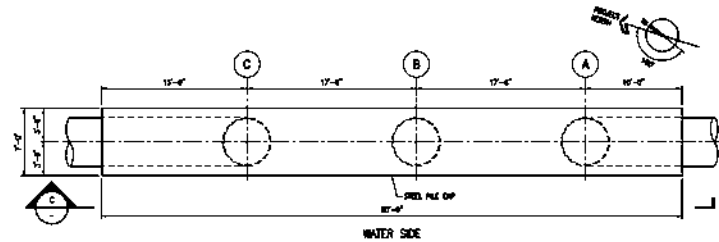
**BERTH 1 & 2 ARRANGEMENTS**  
NOT TO SCALE

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

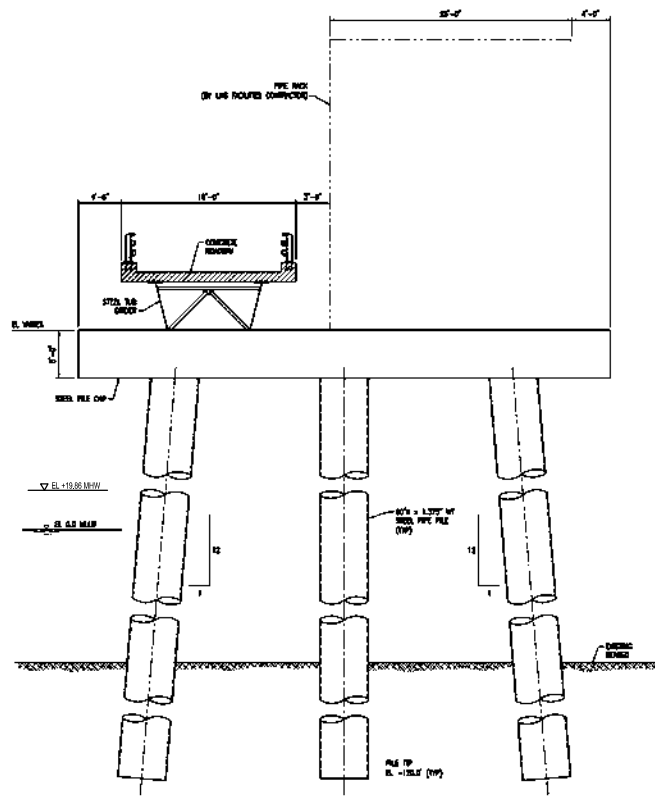
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



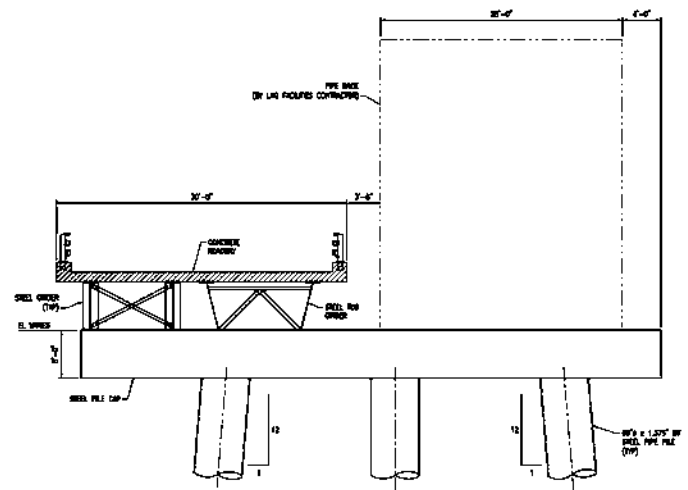
PLAN - ACCESS TRESTLE FOUNDATION TYPE 1 (BENTS 1 THRU 10)



PLAN - ACCESS TRESTLE STEEL PILE CAP AT PASSING LANE (BENTS 10 AND 11)



A ELEVATION (LOOKING EAST)



C ELEVATION (LOOKING EAST)

TIDAL BAR

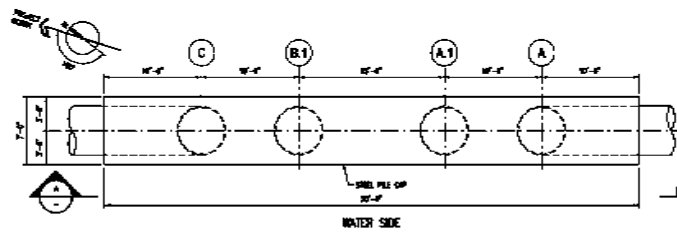
28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)

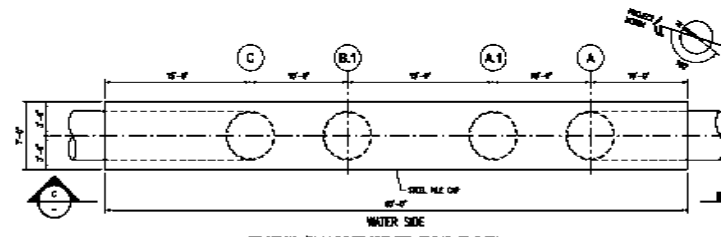
TRESTLE FOUNDATION PLAN TYPE 1  
NOT TO SCALE

PRELIMINARY & SUBJECT TO CHANGE. ALL DRAWINGS AND DIMENSIONS TYPICAL.

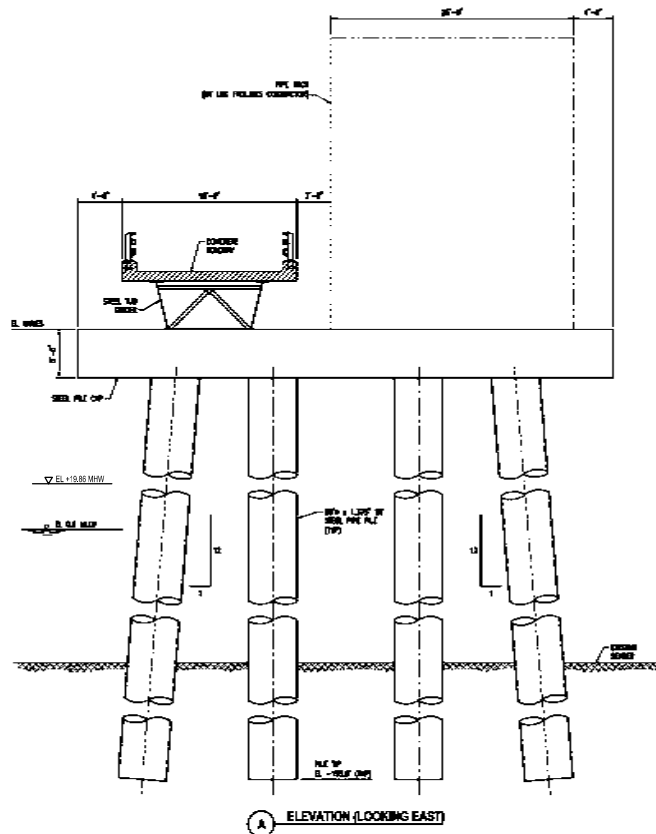
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



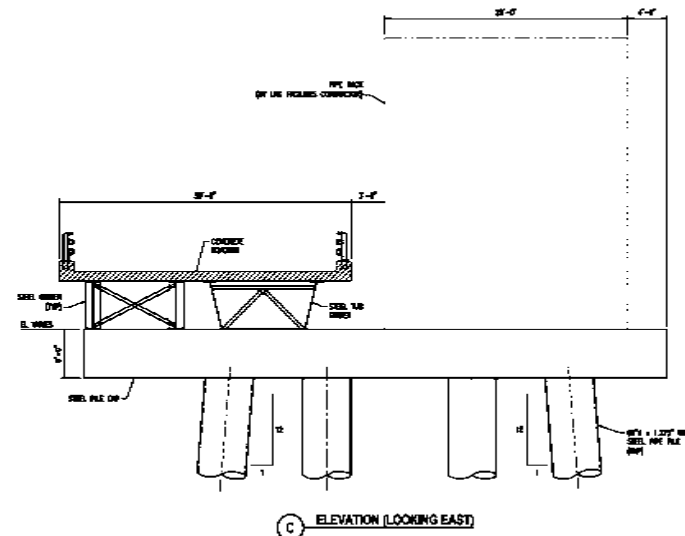
NOTE: PIPE JACK (BY LINE PILING CONTRACTOR) NOT SHOWN FOR CLARITY  
**PLAN - ACCESS TRESTLE FOUNDATION TYPE 2 (BENTS 19 THRU 33)**



NOTE: PIPE JACK (BY LINE PILING CONTRACTOR) NOT SHOWN FOR CLARITY  
**PLAN - ACCESS TRESTLE STEEL PILE CAP AT PASSING LANE (BENTS 19, 20 AND 28 THRU 30)**



**A ELEVATION (LOOKING EAST)**



**C ELEVATION (LOOKING EAST)**

**TIDAL BAR**

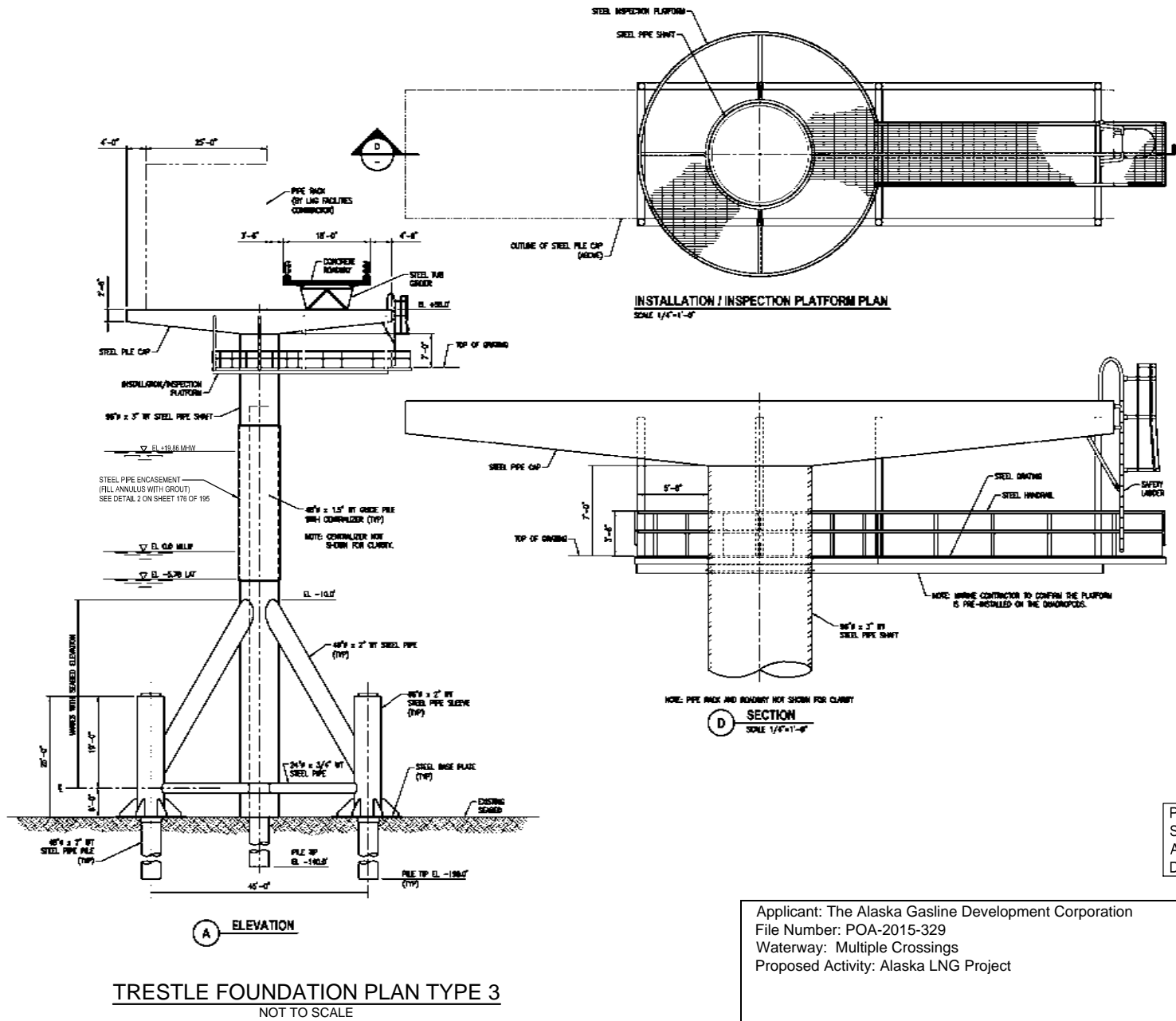
28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

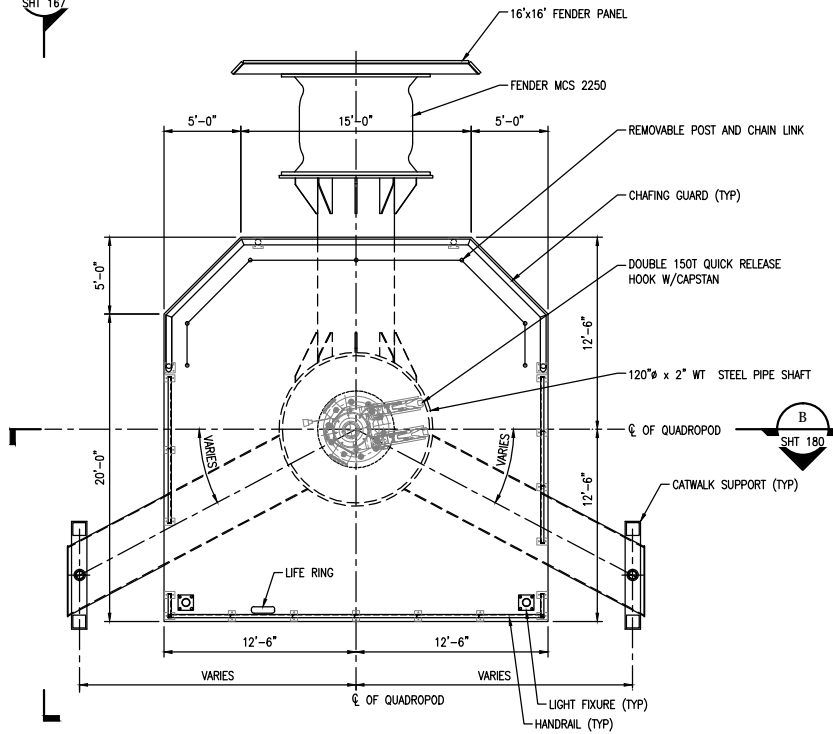
SOURCE (NOAA NIKISKI STATION 9455760)

**TRESTLE FOUNDATION PLAN TYPE 2**  
 NOT TO SCALE

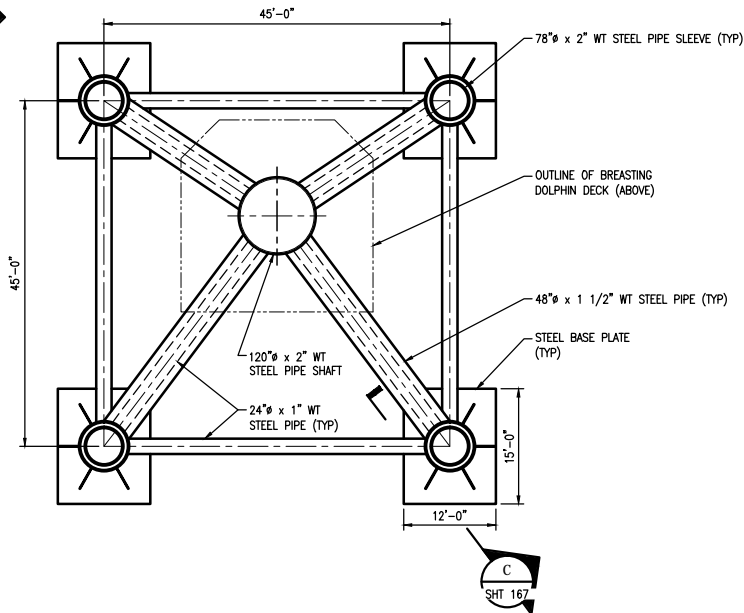
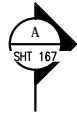
PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project





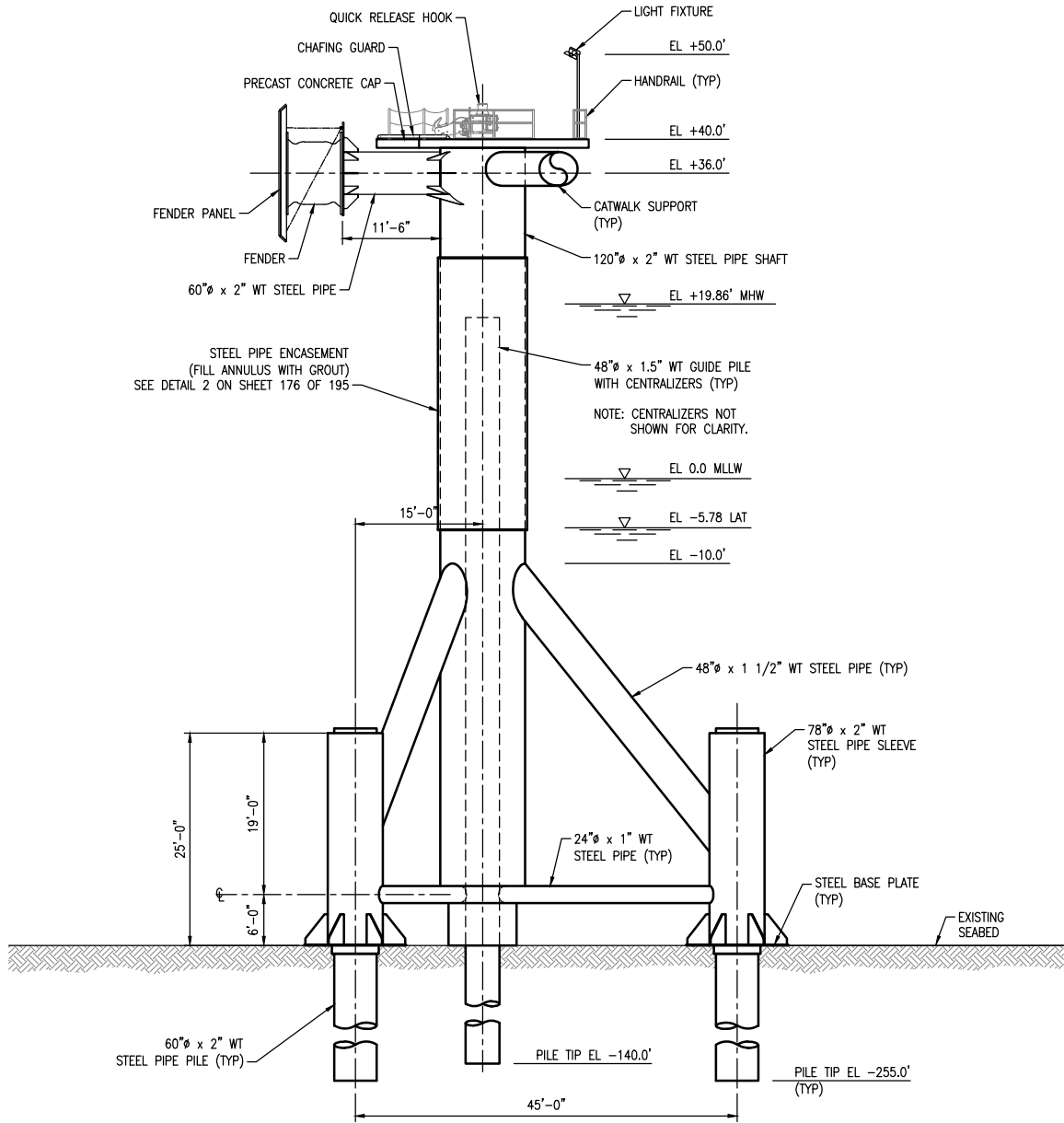
**PLAN - TYPICAL BREASTING DOLPHIN DECK TYPE 4**  
NOT TO SCALE



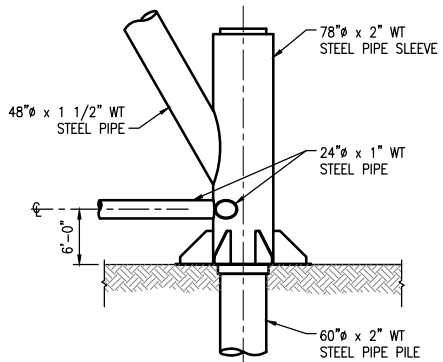
**PLAN - TYPICAL BREASTING DOLPHIN FOUNDATION TYPE**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



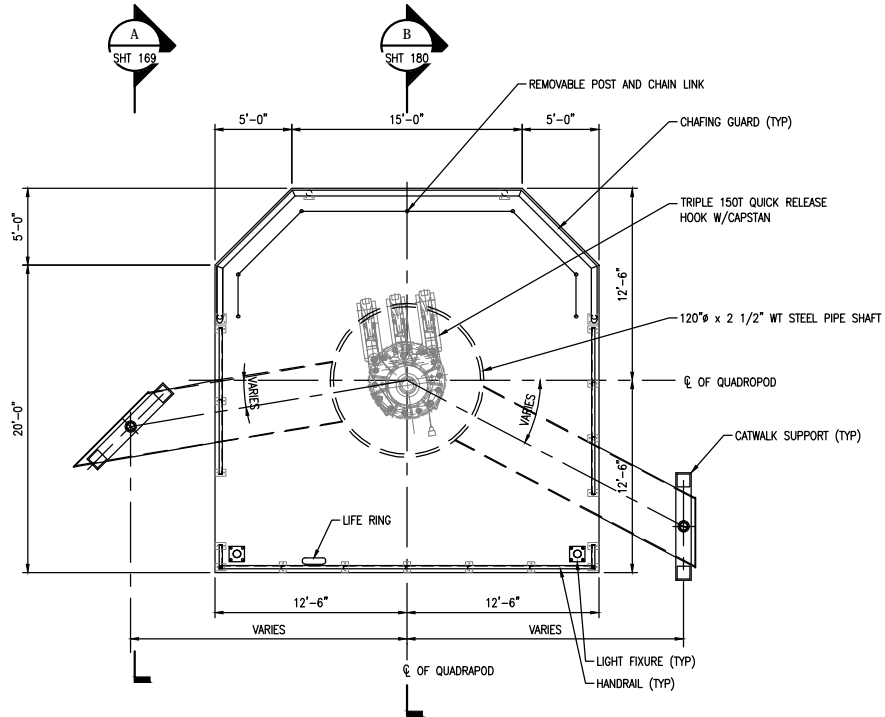
**ELEVATION - A**  
NOT TO SCALE  
**TYPE 4**



**SECTION - C**  
NOT TO SCALE

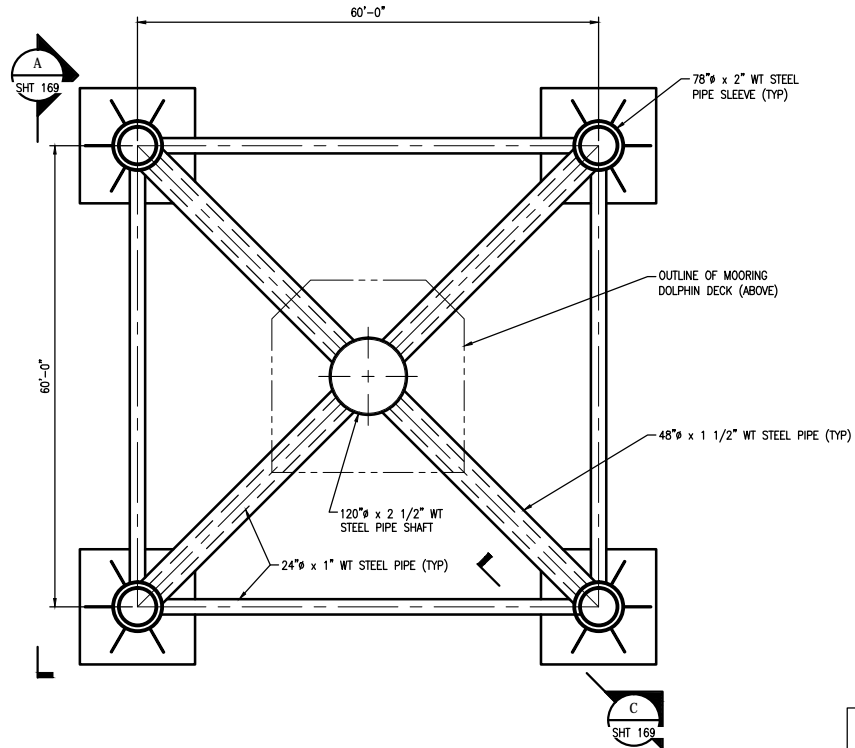
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**PLAN - TYPICAL MOORING DOLPHIN DECK TYPE 5**

NOT TO SCALE



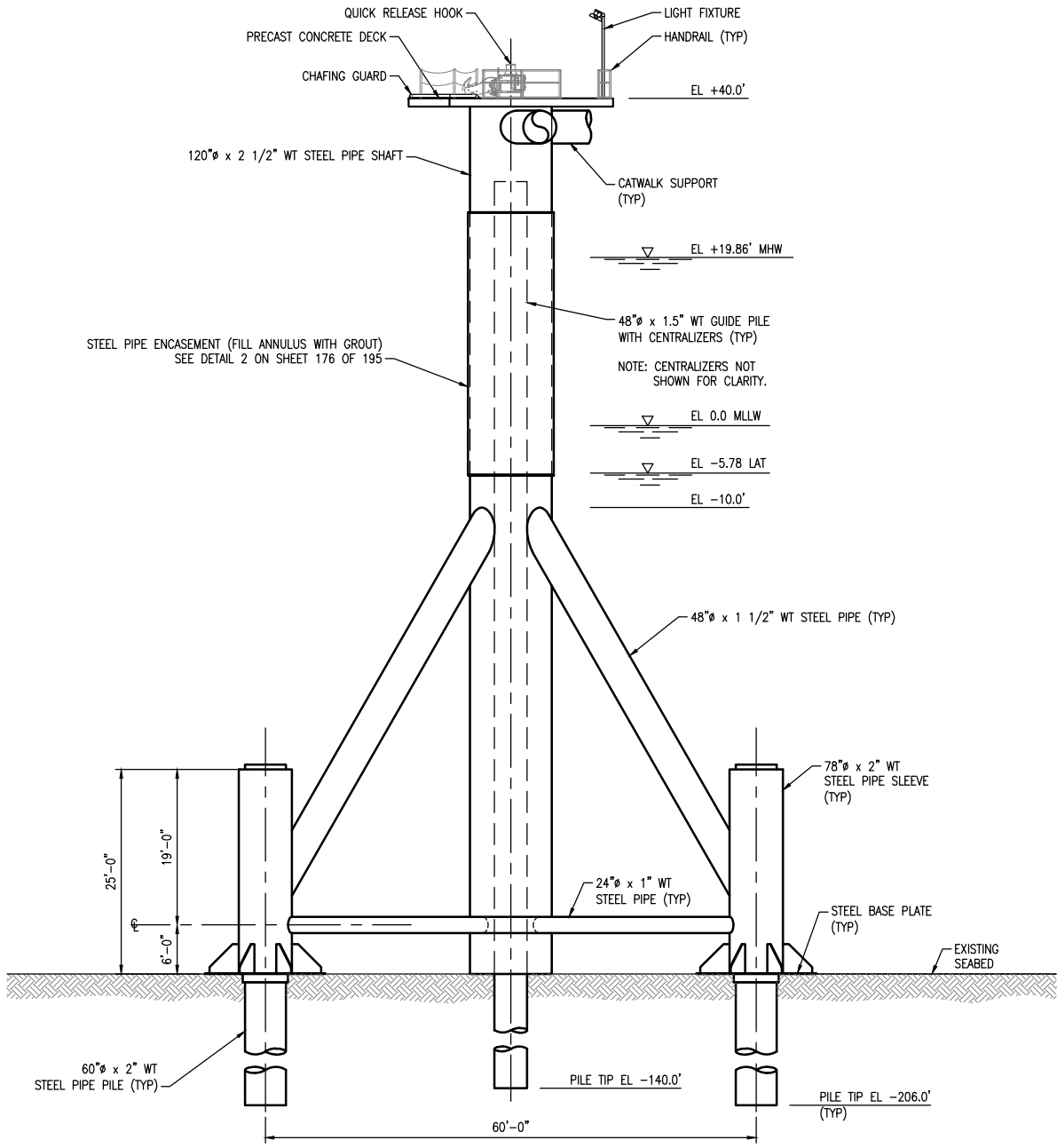
**PLAN - TYPICAL MOORING DOLPHIN FOUNDATION TYPE 5**

NOT TO SCALE

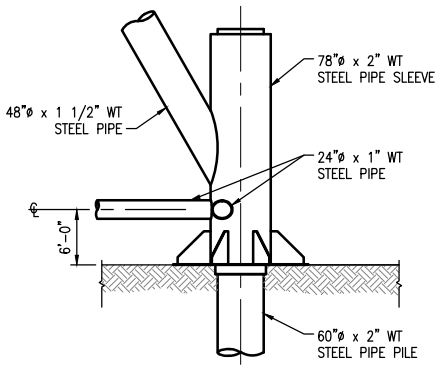
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project





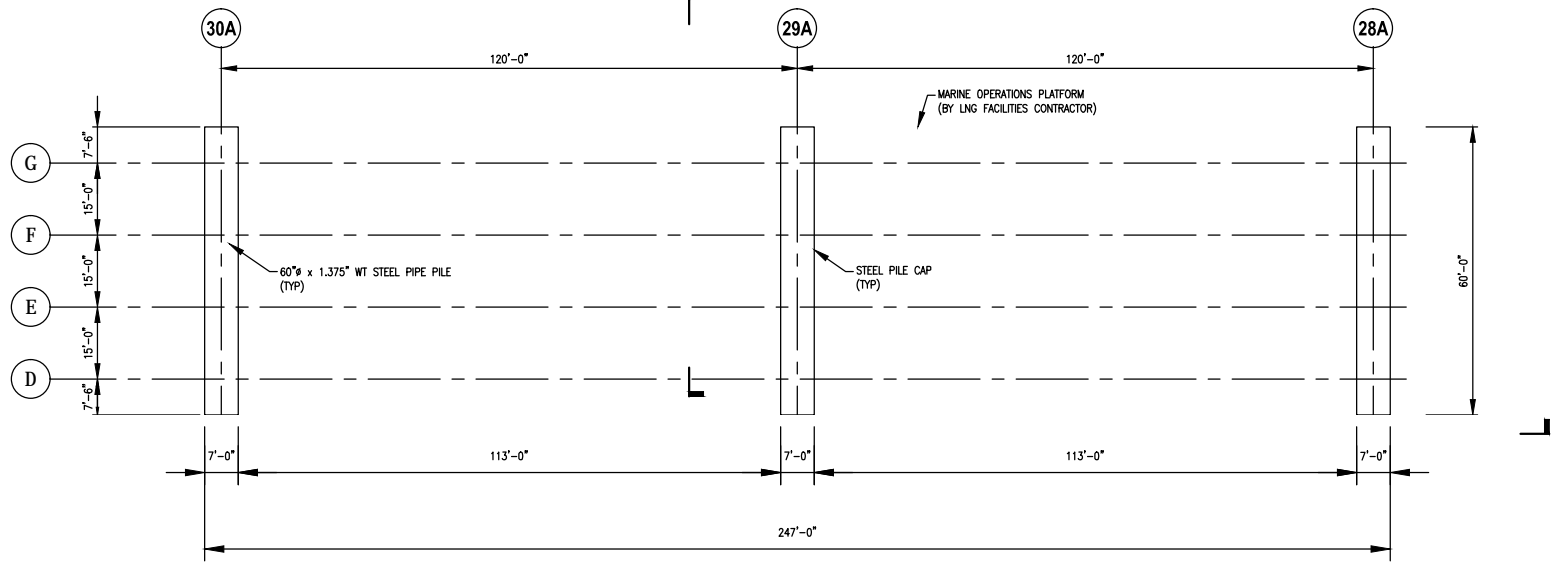
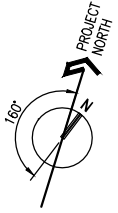
**ELEVATION - A**  
NOT TO SCALE  
**TYPE 5**



**SECTION - C**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

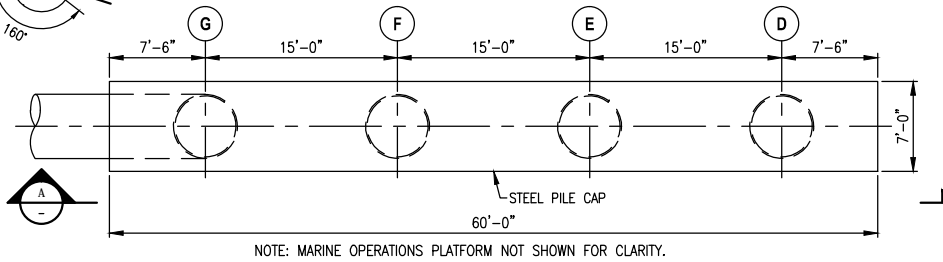
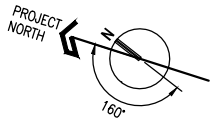
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**MARINE OPERATIONS PLATFORM FOUNDATION PLAN**  
NOT TO SCALE

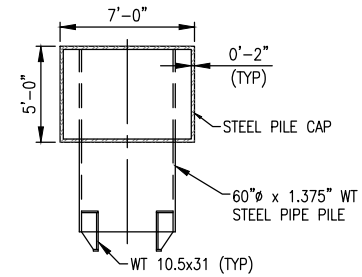
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

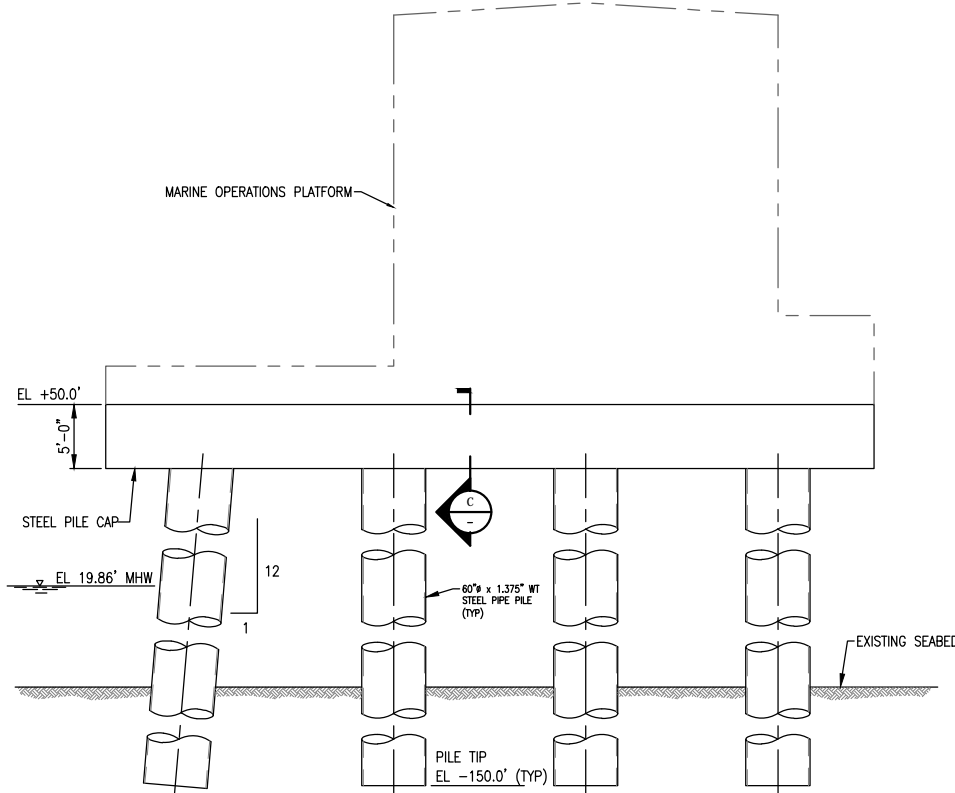


NOTE: MARINE OPERATIONS PLATFORM NOT SHOWN FOR CLARITY.

**PLAN - MARINE OPERATIONS PLATFORM**  
NOT TO SCALE



**SECTION - C**  
NOT TO SCALE



**SECTION - A**  
NOT TO SCALE

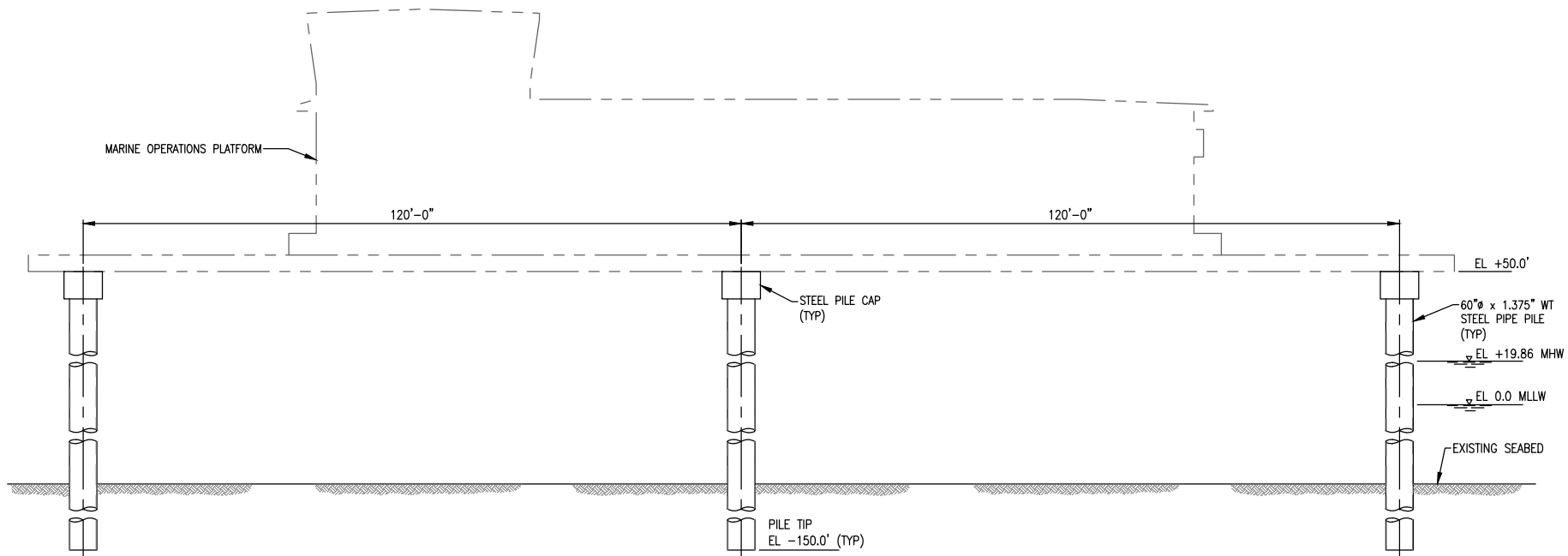
**TIDAL BAR**

28.40	HTL
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)

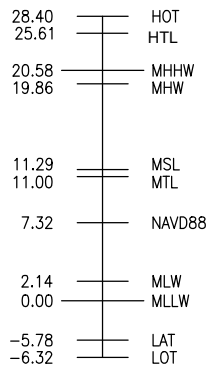
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**ELEVATION "B" - MARINE OPERATIONS PLATFORM**  
NOT TO SCALE

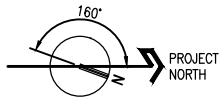
**TIDAL BAR**



SOURCE (NOAA NIKISKI STATION 9455760)

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

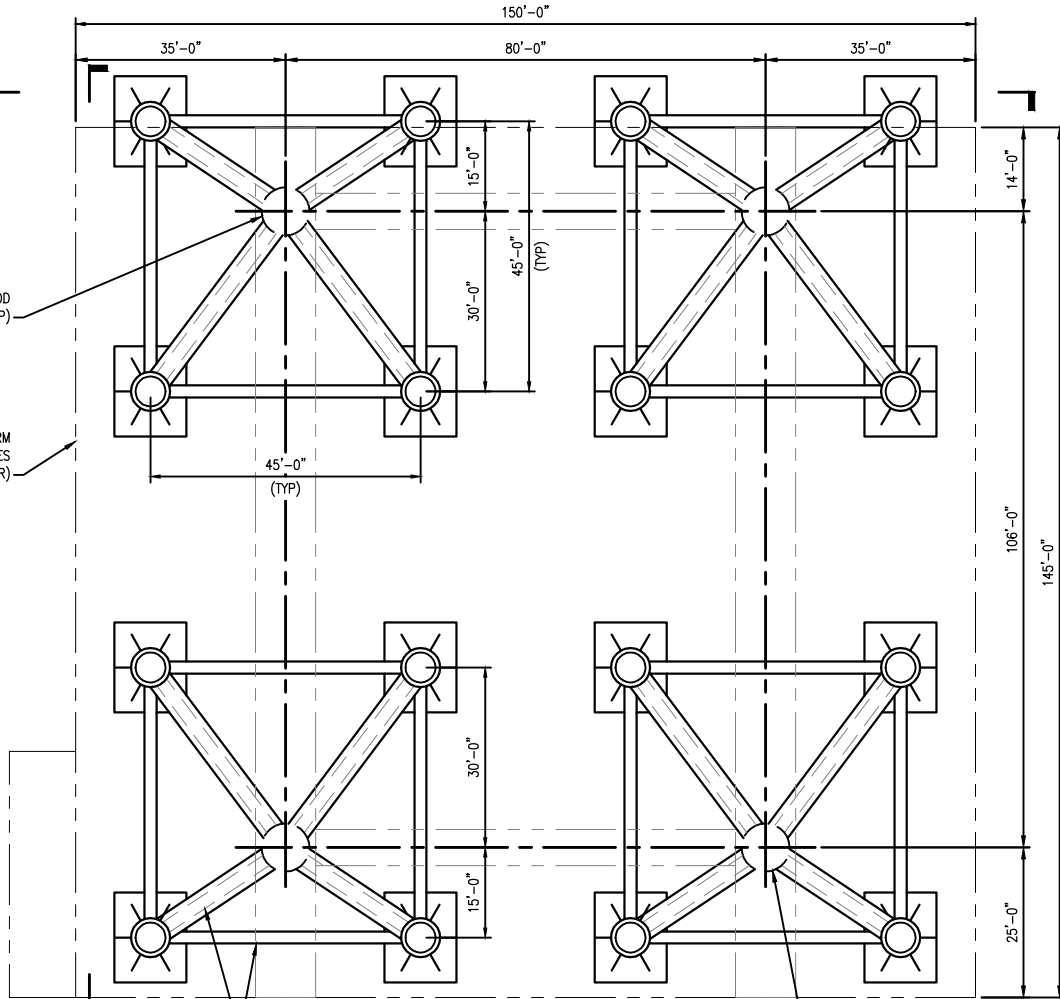
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



WATERSIDE



QUADROPOD (TYP)  
LOADING PLATFORM (BY LNG FACILITIES CONTRACTOR)



TIDAL BAR

28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)



24"Ø x 1" STEEL PIPE (TYP)

96"Ø x 2" WT STEEL PIPE SHAFT (TYP)

NOTE: INSTALLATION/INSPECTION PLATFORM NOT SHOWN FOR CLARITY.

LOADING PLATFORM FOUNDATION PLAN

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

NOTES:

1. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
2. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
3. ELEVATIONS IN FEET (MLLW).
4. INTERMEDIATE STEEL LOCATIONS TO BE DETERMINED.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

**TIDAL BAR**

28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)

LOADING PLATFORM  
(BY LNG FACILITIES CONTRACTOR)

**WATERSIDE**

BERTHING  
LINE/FENDER LINE

STEEL BOX BEAM  
(TYP)

EL +50.0'

EL +19.86' MHW

EL 0.0 MLLW

EL -10.00'

48"  $\phi$  x 1.5" STEEL PIPE  
(TYP)

66"  $\phi$  x 2" WT  
STEEL PIPE SLEEVE  
(TYP)

EXISTING SEABED

48"  $\phi$  x 2" WT STEEL PIPE PILE  
(TYP)

PILE TIP  
EL -160.0' (TYP)

14'-0" 106'-0" 145'-0" 25'-0"

QUADROPOD  
(TYP)  
48"  $\phi$  x 1.5" WT GUIDE PILE  
WITH CENTRALIZERS (TYP)  
NOTE: CENTRALIZERS NOT  
SHOWN FOR CLARITY

96"  $\phi$  x 2" WT STEEL PIPE SHAFT

24"  $\phi$  x 1" WT STEEL PIPE  
(TYP)

1  
SHT 176

24"  $\phi$  x 1" WT  
STEEL PIPE  
(TYP)

INSTALLATION/INSPECTION PLATFORM  
(NOT SHOWN FOR CLARITY)

STEEL PIPE ENCASEMENT (TYP)  
(FILL ANNULUS WITH GROUT)  
(SEE DETAIL 2 SHEET 176 OF 195)

96"  $\phi$  x 2" WT STEEL PIPE SHAFT

48"  $\phi$  x 1.5" STEEL PIPE  
(TYP)

66"  $\phi$  x 2" WT  
STEEL PIPE SLEEVE  
(TYP)

STEEL BASE PLATE

48"  $\phi$  x 2" WT STEEL PIPE PILE  
(TYP)

PILE TIP  
EL -140.0'

PILE TIP  
EL -160.0' (TYP)

15'-0" 30'-0" 45'-0"

30'-0" 15'-0" 45'-0"

**LNG PRODUCT LOADING FACILITIES**

**ELEVATION - A**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

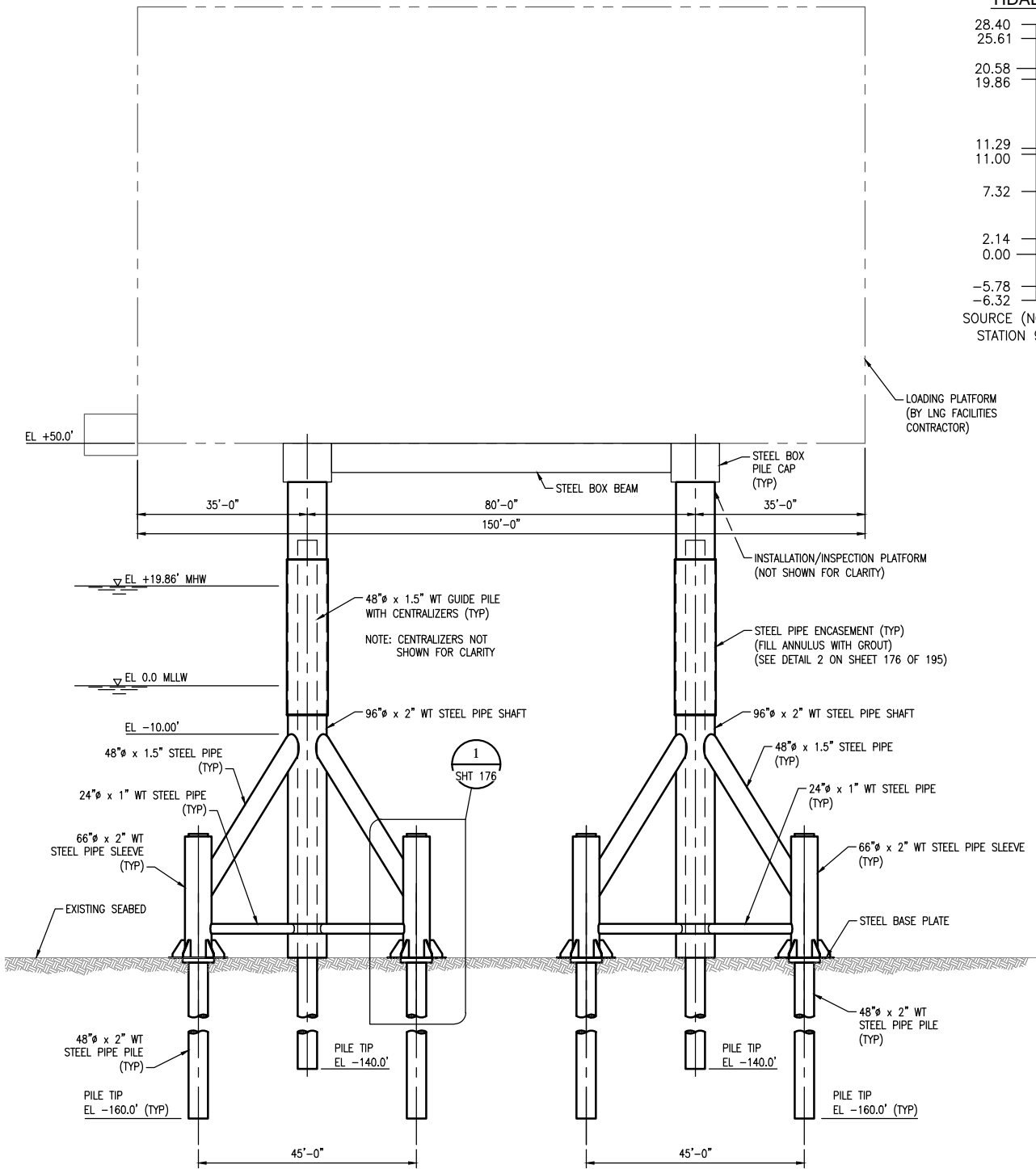
1. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
2. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
3. ELEVATIONS IN FEET (MLLW).

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

**TIDAL BAR**

28.40	HOT
25.61	HTL
20.58	MHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)



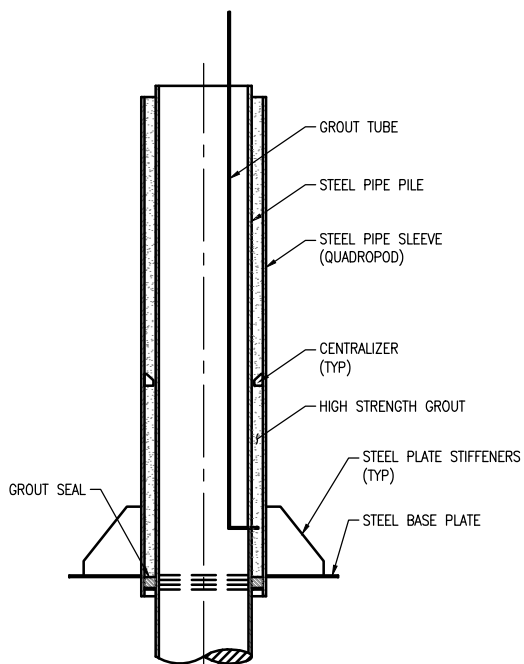
**LNG PRODUCT LOADING FACILITIES**  
**ELEVATION - B**  
 NOT TO SCALE

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

**NOTES:**

1. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
2. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
3. ELEVATIONS IN FEET (MLLW).

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



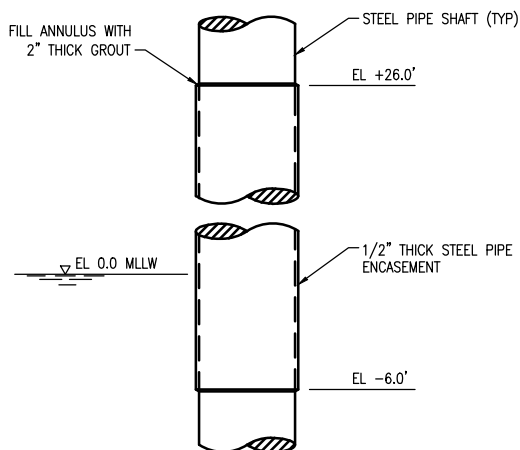
**QUADROPOD STEEL PIPE SLEEVE/PIPE CONNECTION  
TYPICAL DETAIL 1**

NOT TO SCALE

**TIDAL BAR**

28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)



NOTE: STEEL ENCASMENT PROVIDED IN SPLASH ZONE TO PREVENT STEEL SHAFT FROM ICE ABRASION AND TO PROTECT IT FROM CORROSION.

**STEEL PIPE ENCASEMENT  
TYPICAL DETAIL 2**

NOT TO SCALE

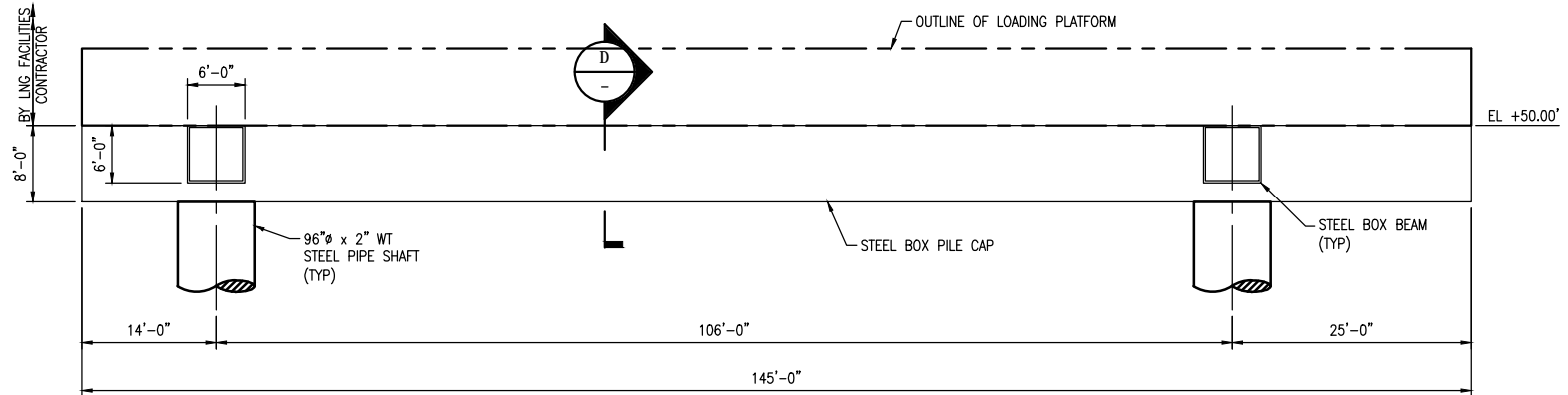
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
2. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
3. ELEVATIONS IN FEET (MLLW).
4. INTERMEDIATE STEEL LOCATIONS TO BE DETERMINED.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



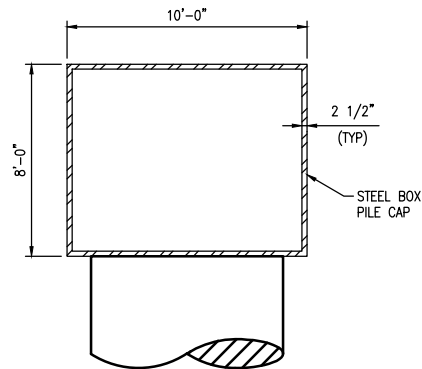


**PLATFORM FRAMING SECTION - C**  
NOT TO SCALE

**TIDAL BAR**

28.40	HOT
25.61	HAT
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)



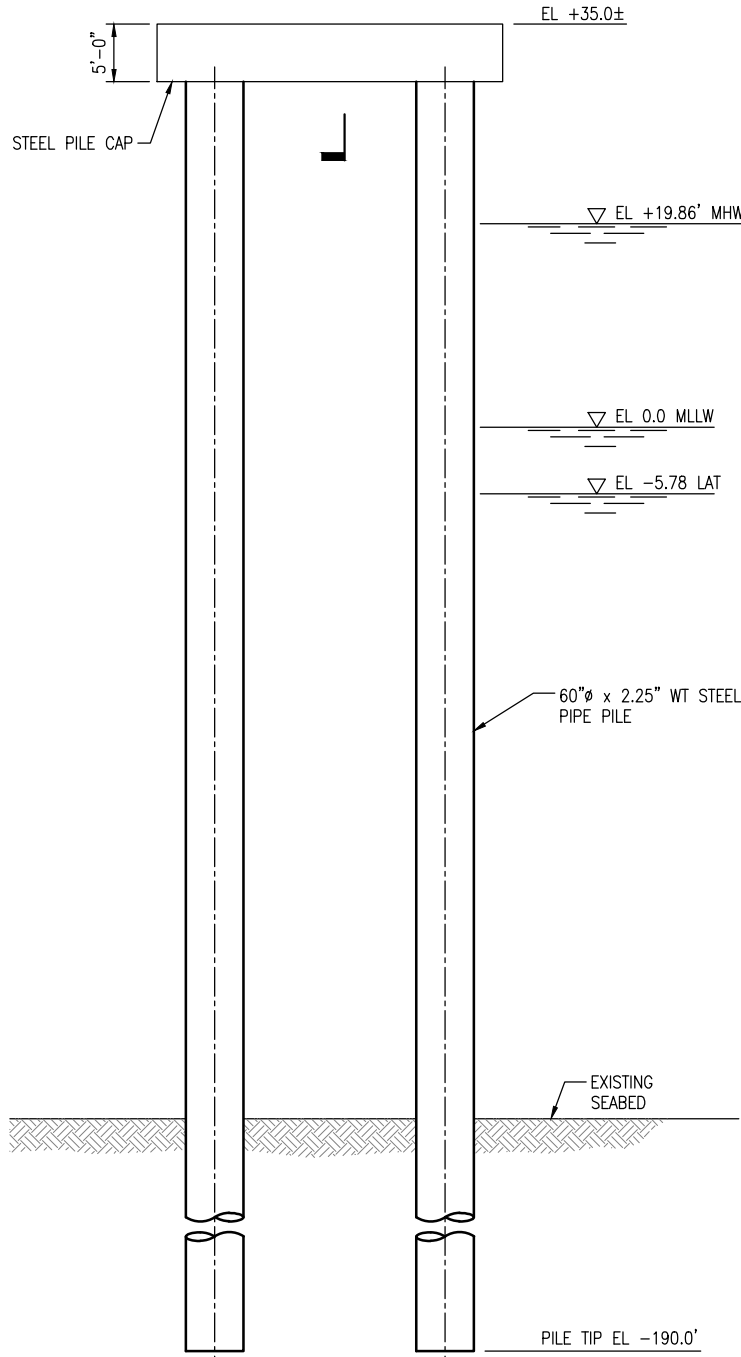
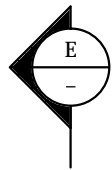
**PLATFORM FRAMING SECTION - D**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

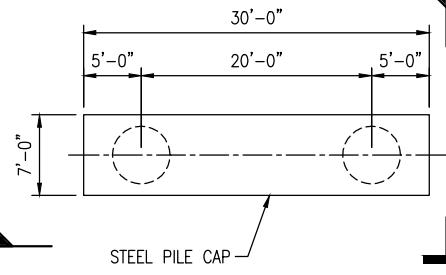
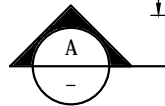
1. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
2. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
3. ELEVATIONS IN FEET (MLLW).
4. INTERMEDIATE STEEL LOCATIONS TO BE DETERMINED.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

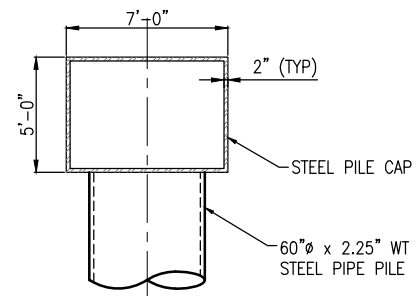


NOTE: CATWALK NOT SHOWN FOR CLARITY.

**ELEVATION - A**  
NOT TO SCALE



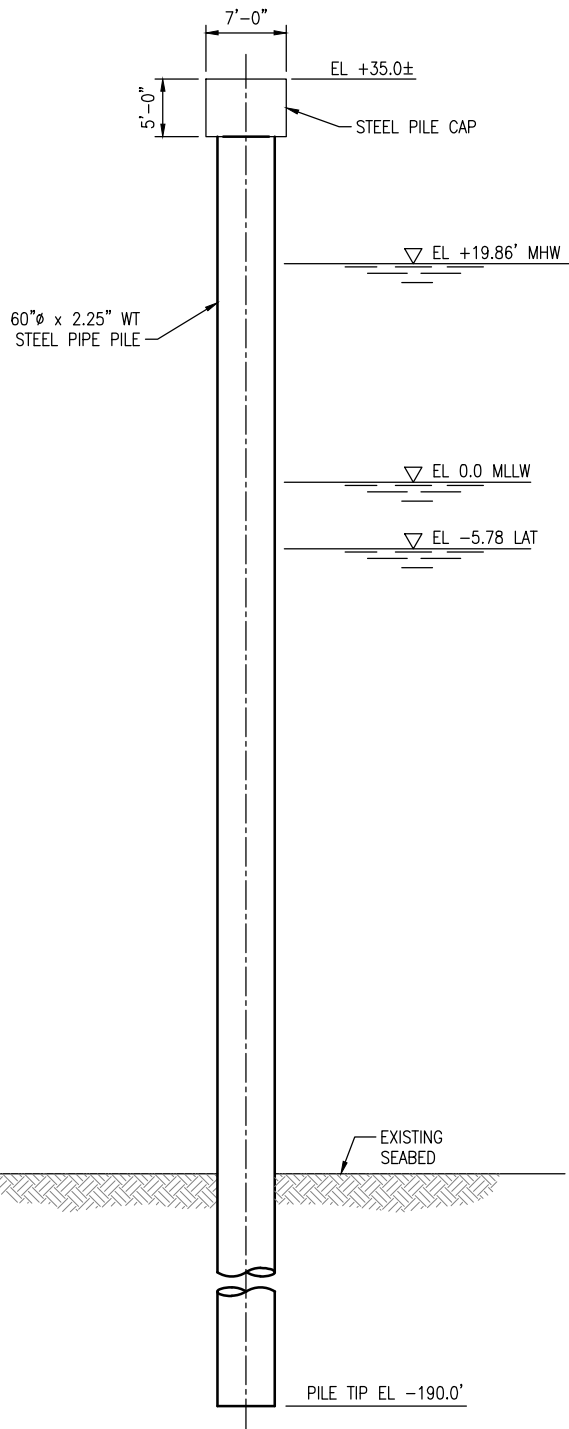
**CATWALK INTERMEDIATE SUPPORT  
FOUNDATION PLAN**  
NOT TO SCALE



**SECTION - E**  
NOT TO SCALE

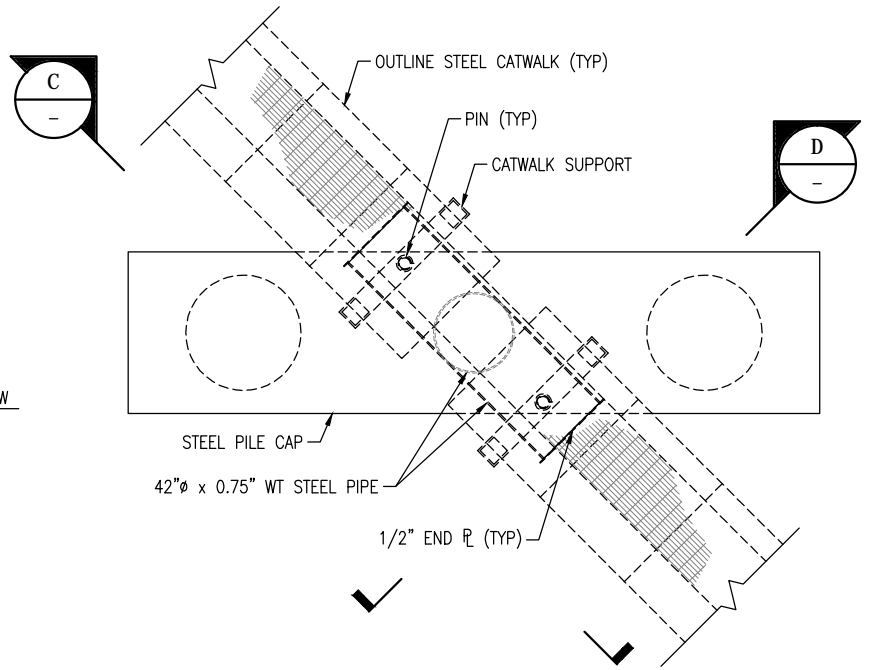
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

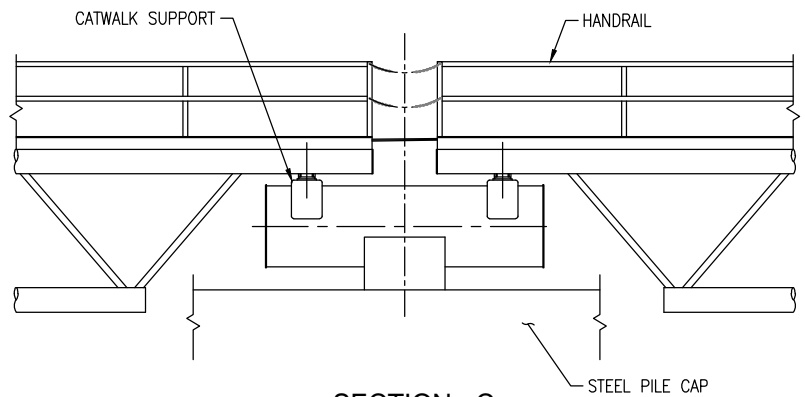


NOTE: CATWALK NOT SHOWN FOR CLARITY.

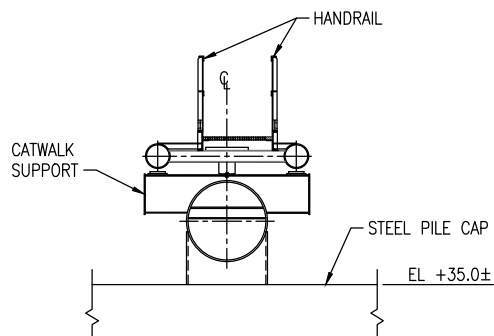
**SECTION - B**  
NOT TO SCALE



**PLAN - CATWALK INTERMEDIATE SUPPORT**  
NOT TO SCALE



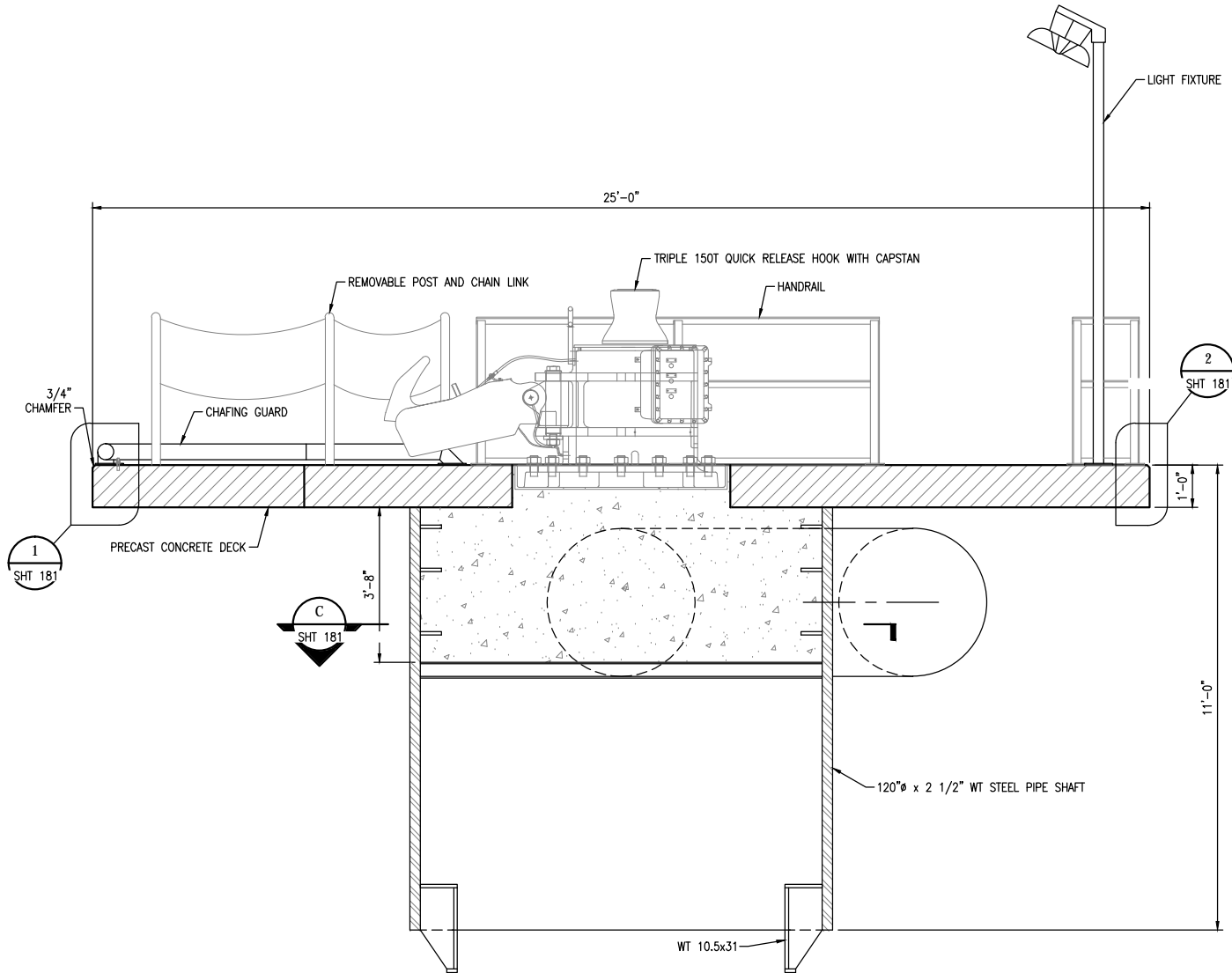
**SECTION - C**  
NOT TO SCALE



**SECTION - D**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

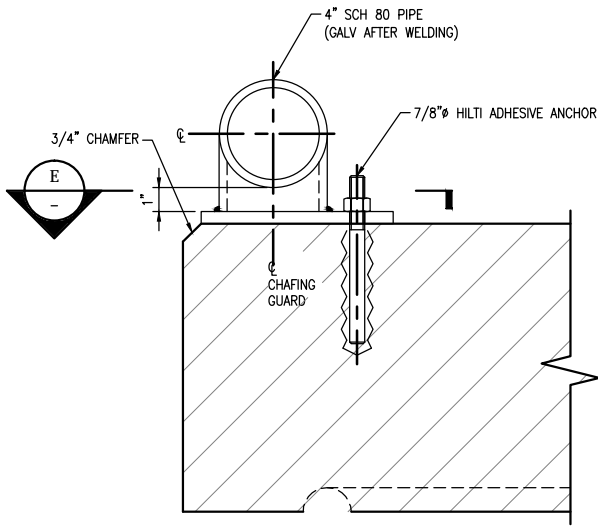
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



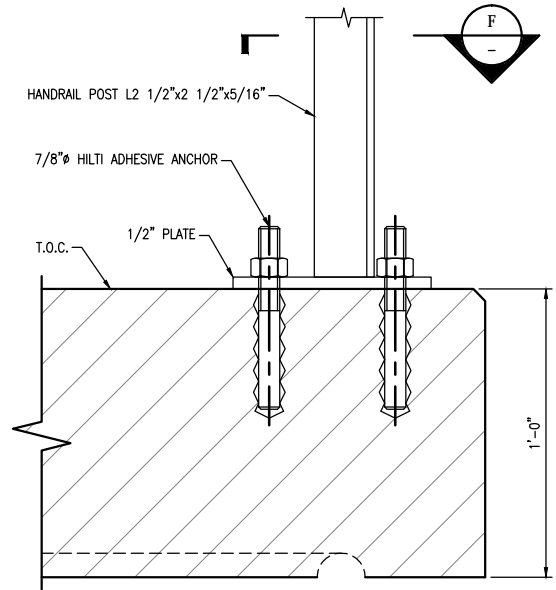
**SECTION -B**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

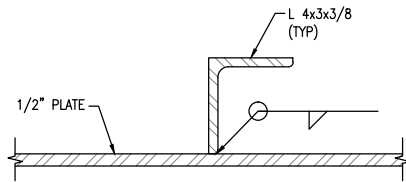
Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



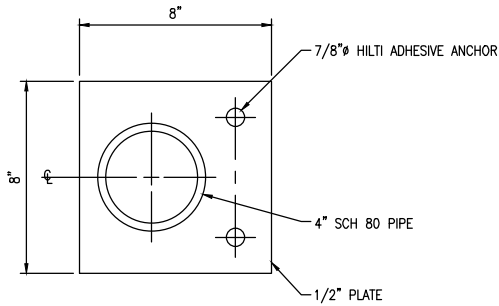
**CHAFING GUARD DETAIL 1**  
NOT TO SCALE



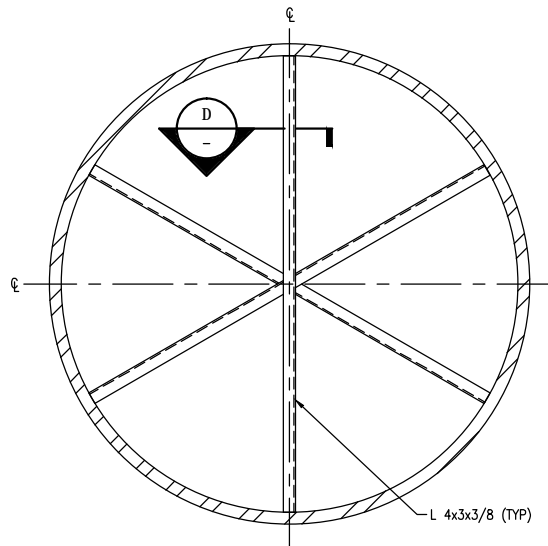
**HANDRAIL POST MOUNTING DETAIL 2**  
NOT TO SCALE



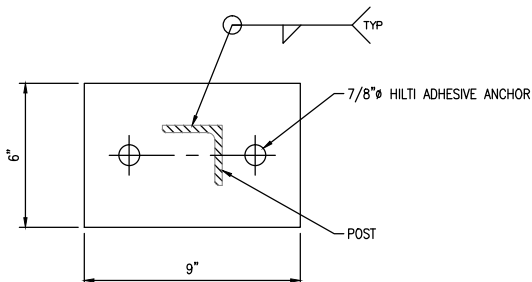
**SECTION - D**  
NOT TO SCALE



**CHAFING GUARD BASE PLATE DETAIL - E**  
NOT TO SCALE



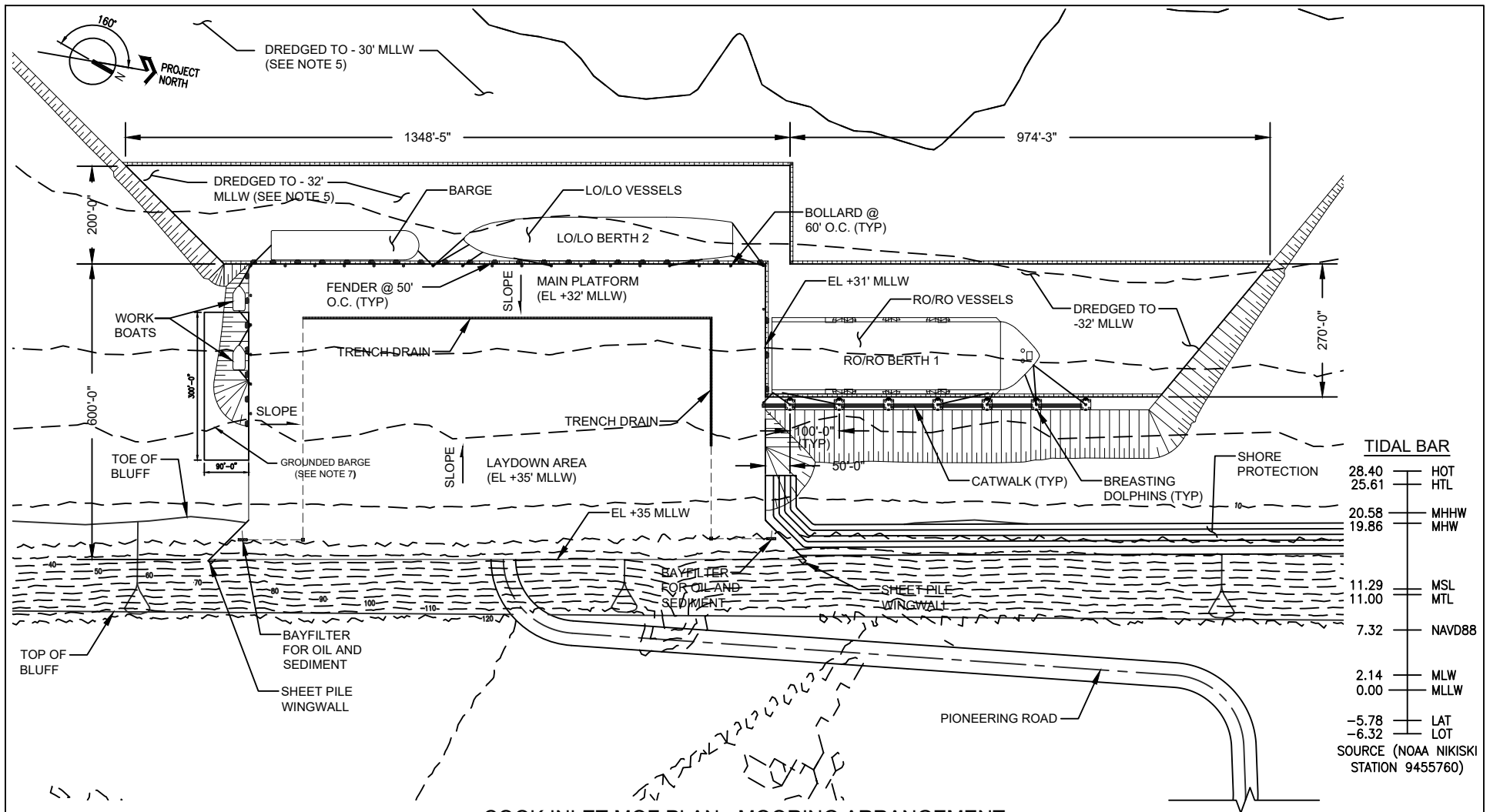
**SECTION - C**  
NOT TO SCALE



**POST BASE PLATE DETAIL - F**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



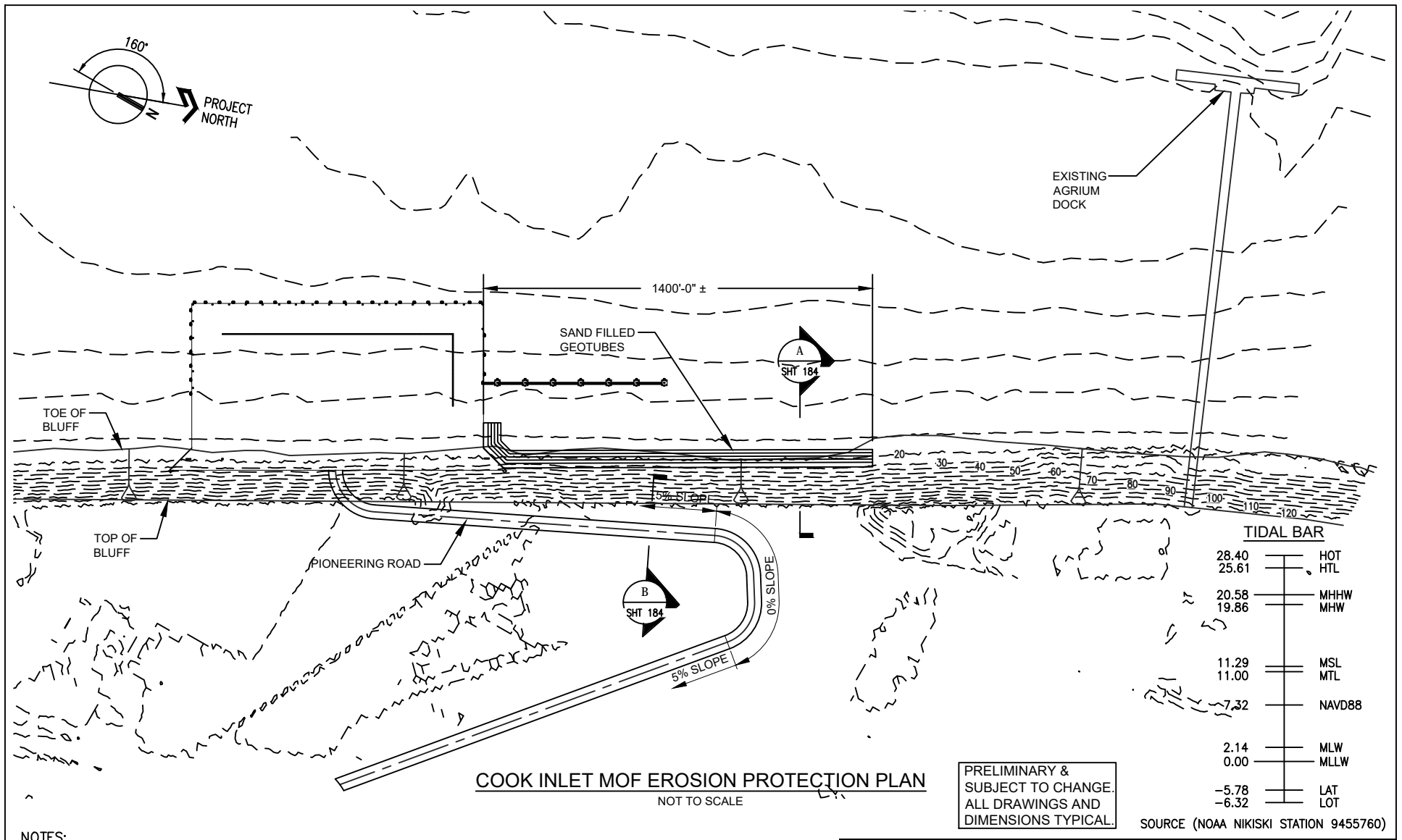
**COOK INLET MOF PLAN - MOORING ARRANGEMENT**

NOT TO SCALE

- NOTES:**
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. ALL ELEVATIONS REFERENCED TO MLLW.
  3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
  4. BATHYMETRY TAKEN FROM USAL-FG-GRZZZ-90-000003-000 REVISION "0" APRIL 29, 2015.
  5. ALL DREDGE SIDE SLOPES ASSUMED TO BE 3:1 @ MOF.
  6. ALL STRUCTURES ASSOCIATED WITH THE GENERAL ARRANGEMENT ARE TEMPORARY.
  7. TYPICAL DIMENSIONS, OPTIONAL GROUNDED BARGE FOR INITIAL CONTRACTOR WORK AREA. WILL BE REMOVED ONCE DREDGING IS COMPLETED FOR WORK BOATS.

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**COOK INLET MOF EROSION PROTECTION PLAN**

NOT TO SCALE

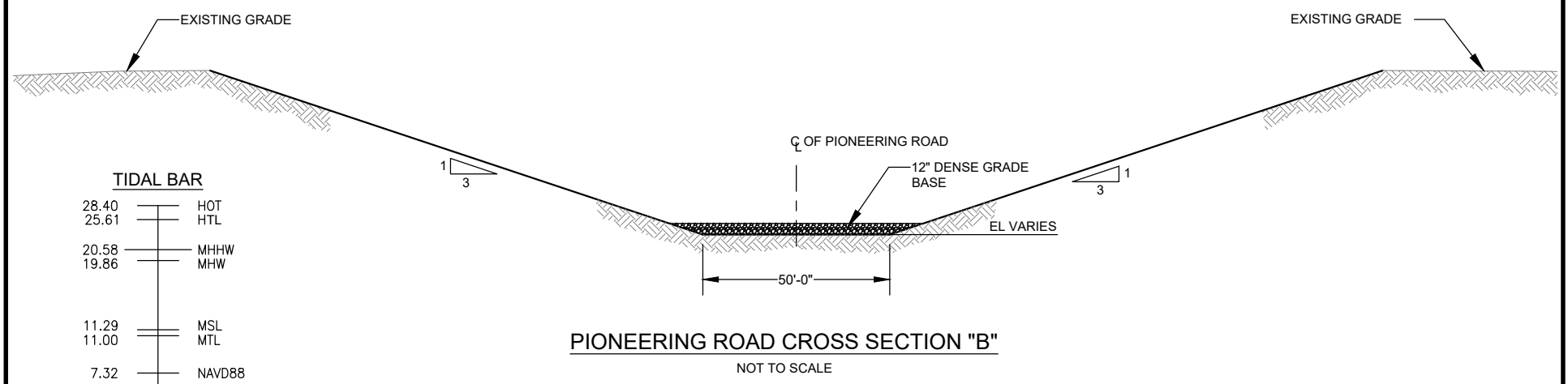
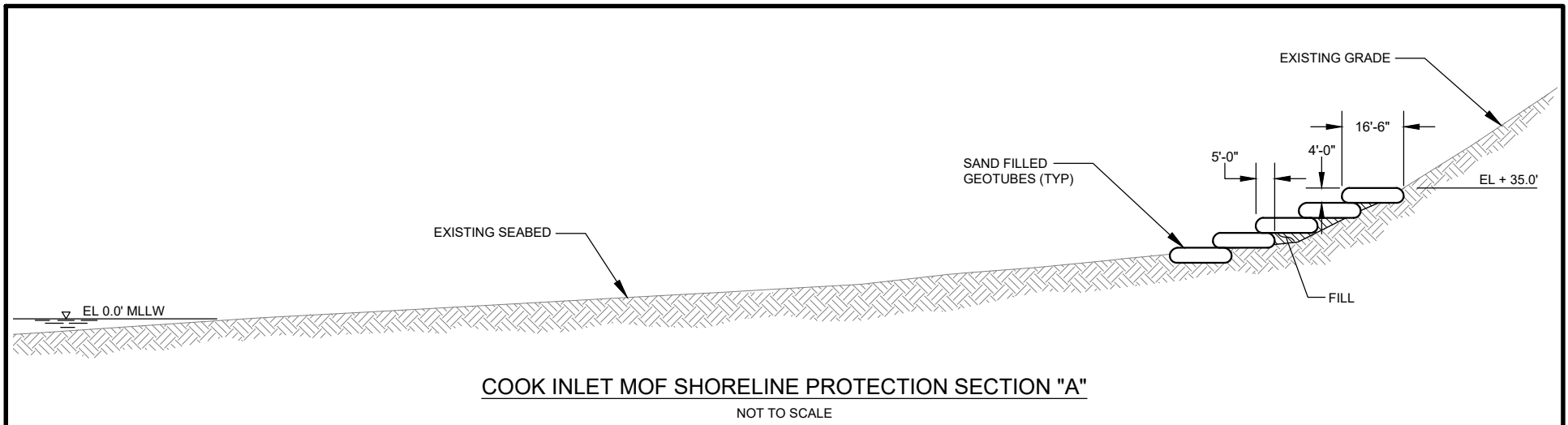
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

TIDAL BAR	
28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
-7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)

- NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. ALL ELEVATIONS REFERENCED TO MLLW.
  3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
  4. BATHYMETRY TAKEN FROM USAL-FG-GRZZZ-90-000003-000 REVISION "0" APRIL 29, 2015.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**TIDAL BAR**

28.40	HTL
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

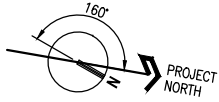
SOURCE (NOAA NIKISKI STATION 9455760)

- NOTES:**
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. ALL ELEVATIONS REFERENCED TO MLLW.
  3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project

Sheet 184 of 195      Date: 9/1/2018

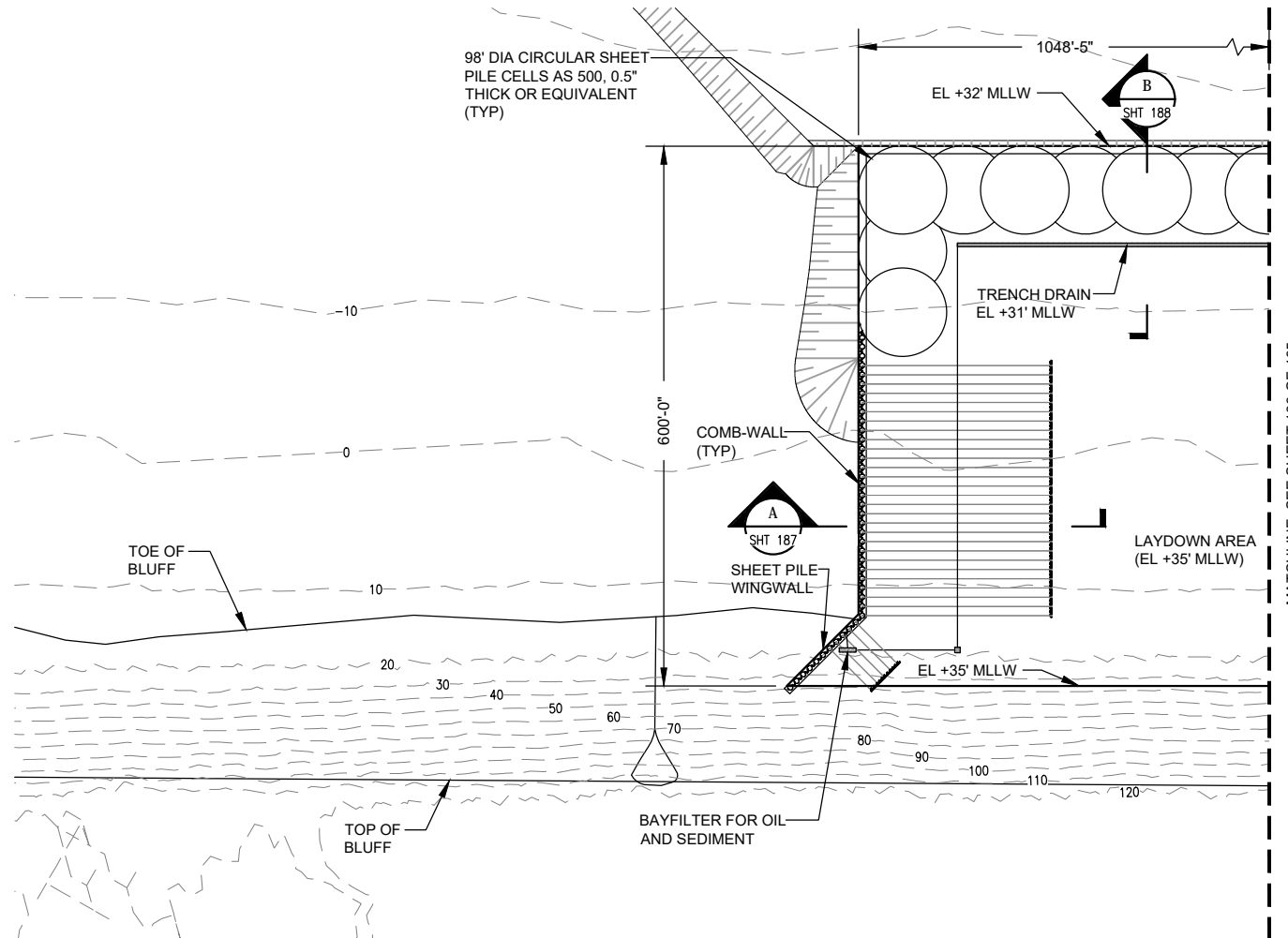




**TIDAL BAR**

28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)



**COOK INLET MOF PLAN - DETAILS 1**  
NOT TO SCALE

MATCHLINE SEE SHEET 186 OF 195

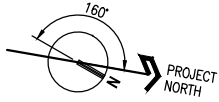
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
4. BATHYMETRY TAKEN FROM USAL-FG-GRZZZ-90-000003-000 REVISION "0" APRIL 29, 2015.
5. ALL STRUCTURES ASSOCIATED WITH THE GENERAL ARRANGEMENT ARE TEMPORARY.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

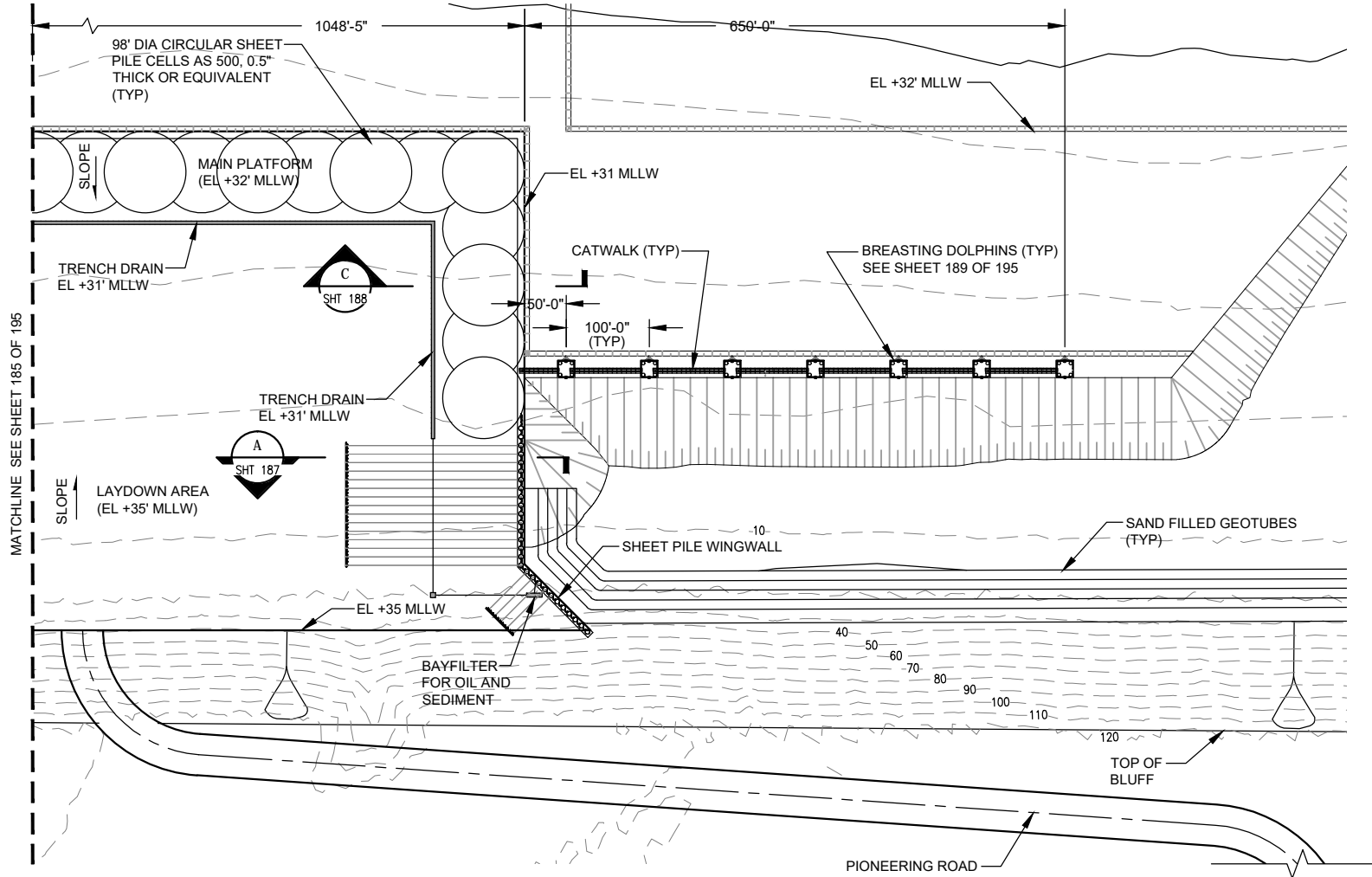
Sheet 185 of 195 Date: 9/1/2018



**TIDAL BAR**

28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI STATION 9455760)

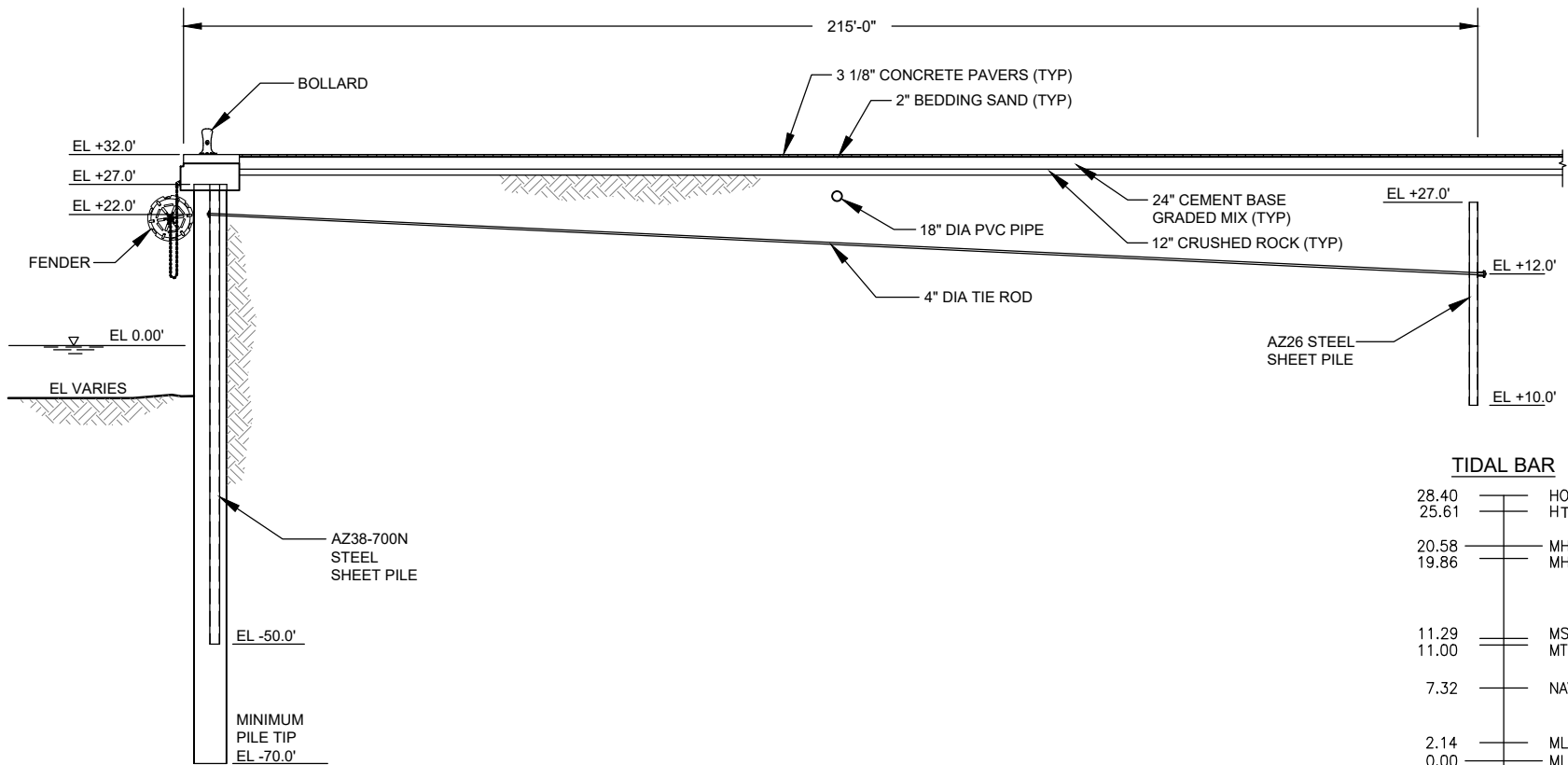


**COOK INLET MOF PLAN - DETAILS 2**  
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

- NOTES:**
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. ALL ELEVATIONS REFERENCED TO MLLW.
  3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
  4. BATHYMETRY TAKEN FROM USAL-FG-GRZZZ-90-000003-000 REVISION "0" APRIL 29, 2015.
  5. ALL STRUCTURES ASSOCIATED WITH THE GENERAL ARRANGEMENT ARE TEMPORARY.

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



TIDAL BAR		
28.40	—	HOT
25.61	—	HTL
20.58	—	MHHW
19.86	—	MHW
11.29	—	MSL
11.00	—	MTL
7.32	—	NAVD88
2.14	—	MLW
0.00	—	MLLW
-5.78	—	LAT
-6.32	—	LOT

SOURCE (NOAA NIKISKI STATION 9455760)

**COOK INLET MOF ELEVATION DETAILS 1 OF 2**  
**SECTION A - ANCHORED COMBI-WALL**

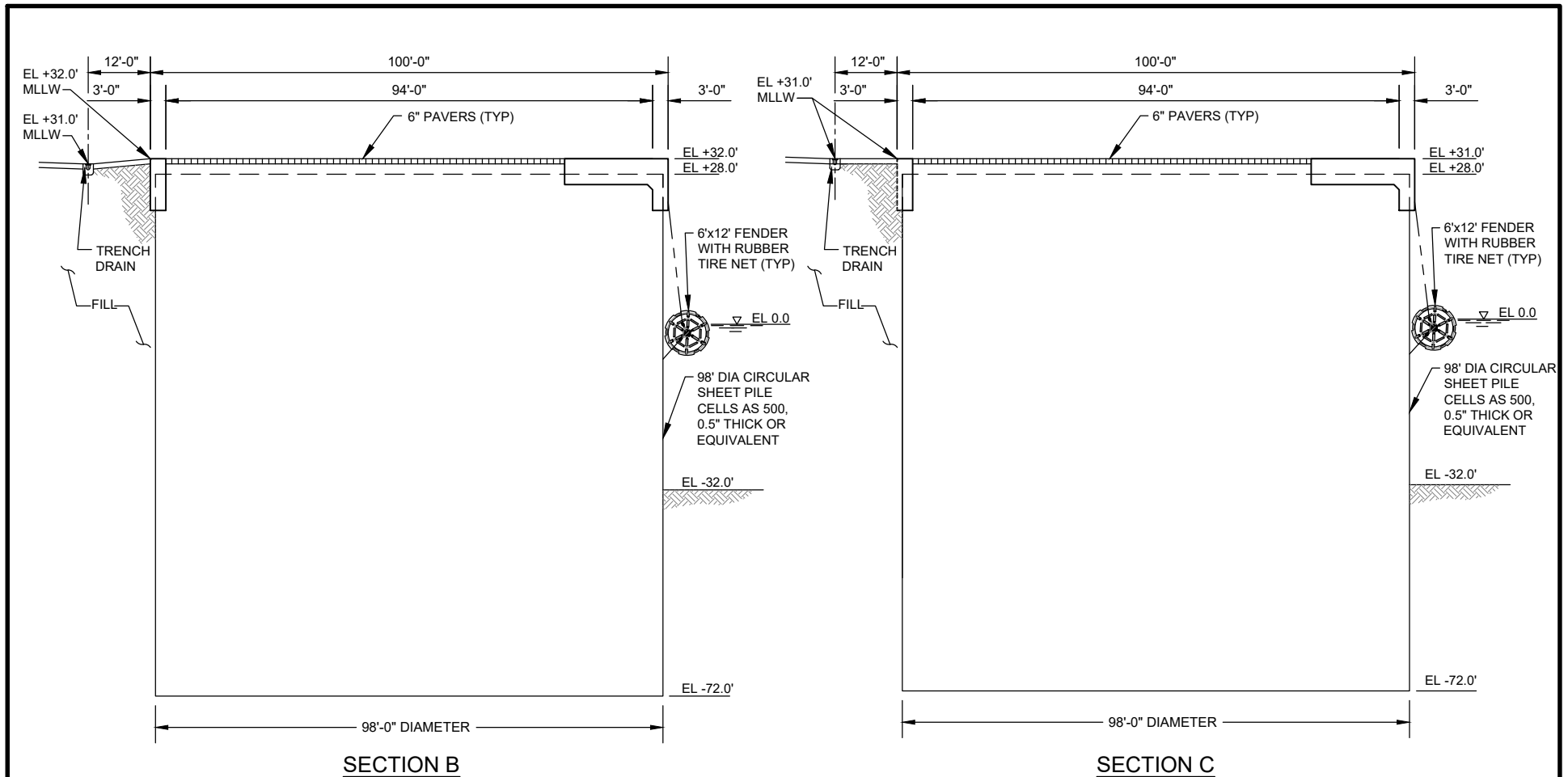
NOT TO SCALE

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**COOK INLET MOF ELEVATION DETAILS 2 OF 2**  
**SECTIONS B AND C - CIRCULAR SHEET PILE**

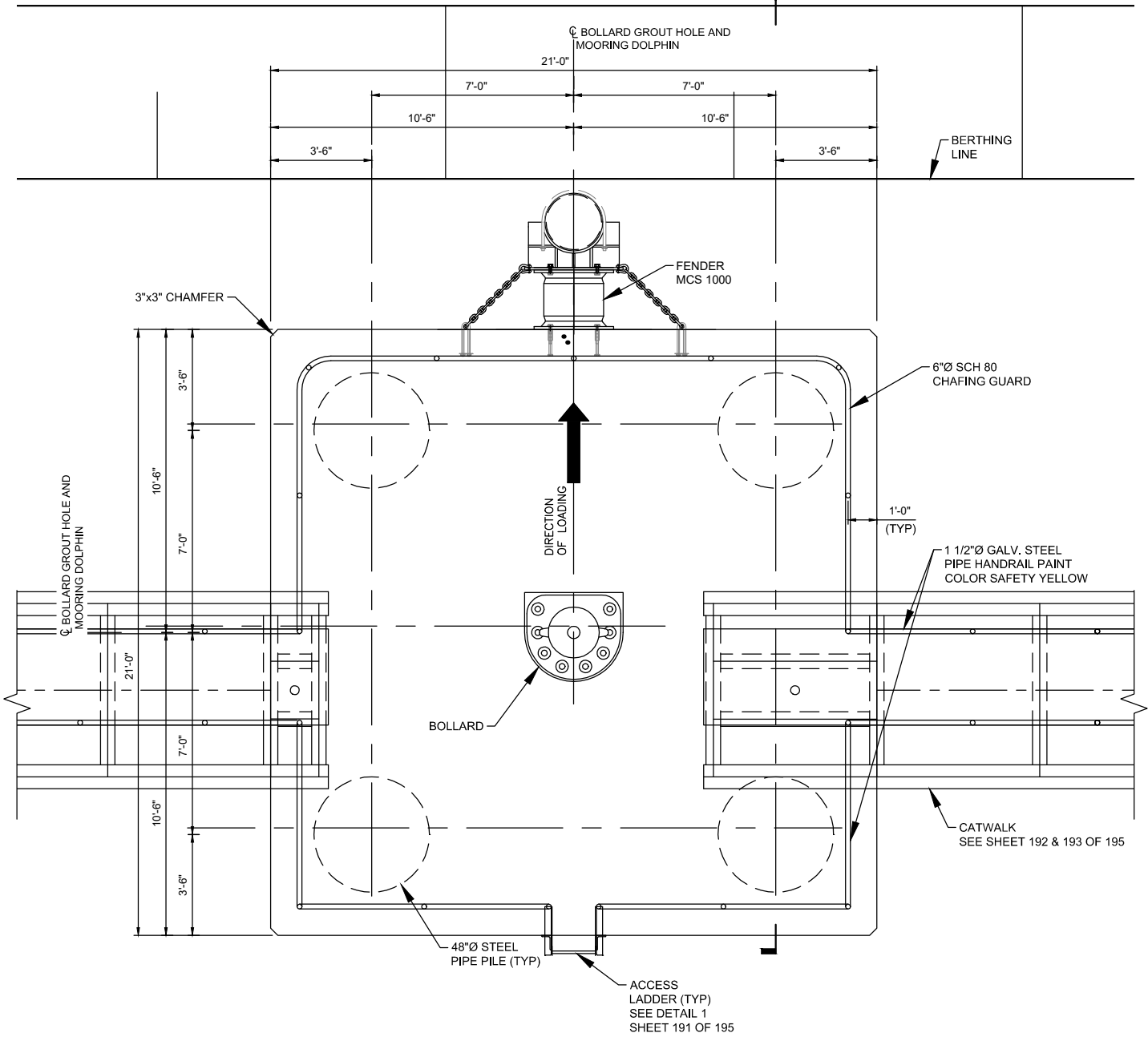
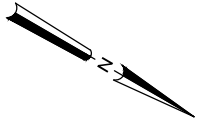
NOT TO SCALE

PRELIMINARY &  
 SUBJECT TO CHANGE.  
 ALL DRAWINGS AND  
 DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).
4. DREDGE TO -32 FEET MLLW PRIOR TO CONSTRUCTING CIRCULAR SHEET PILE.

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project



**BREASTING DOLPHIN PLAN**

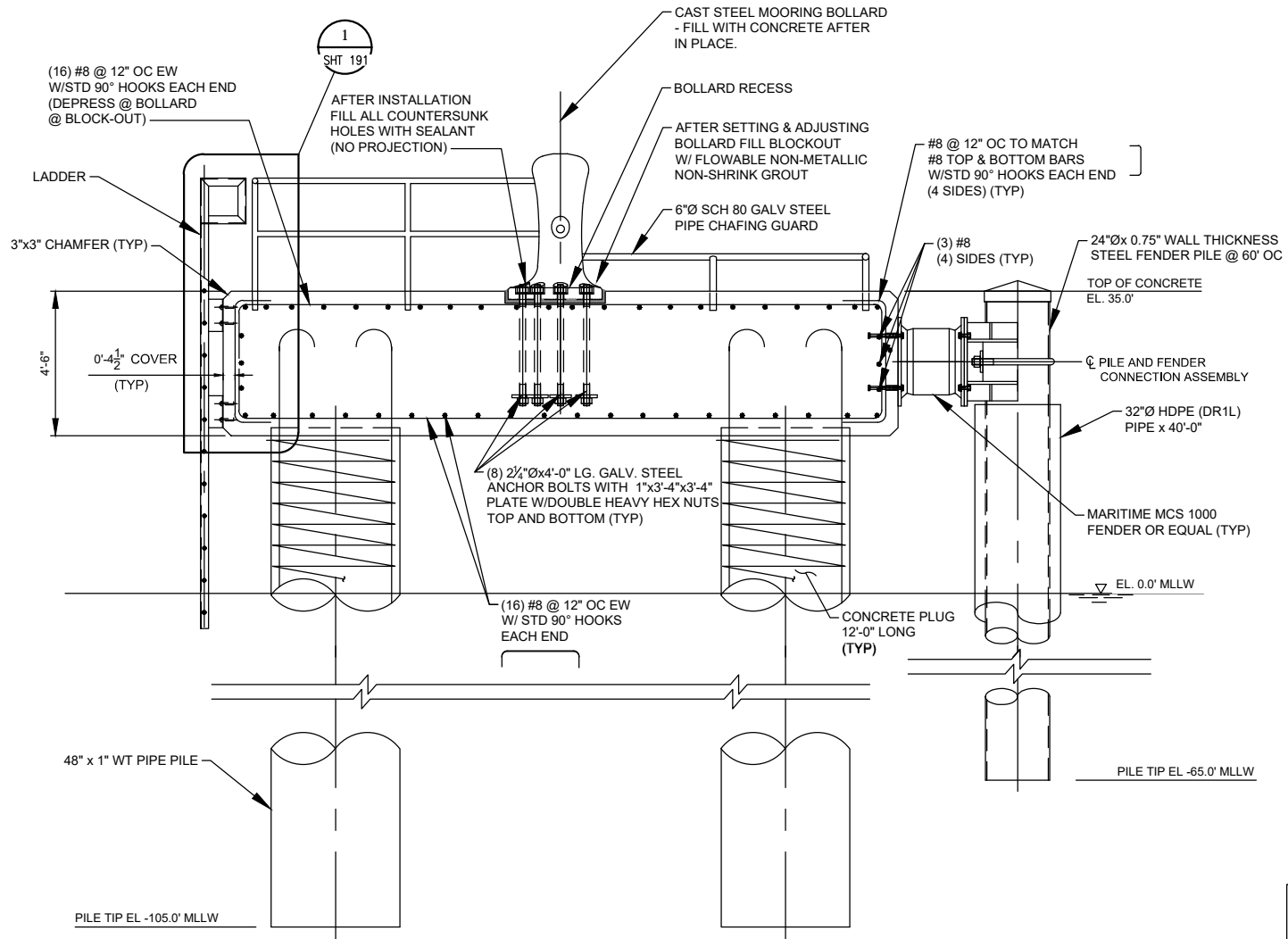
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**TIDAL BAR**

28.40	HOT
25.61	HTL
20.58	MHHW
19.86	MHW
11.29	MSL
11.00	MTL
7.32	NAVD88
2.14	MLW
0.00	MLLW
-5.78	LAT
-6.32	LOT

SOURCE (NOAA NIKISKI  
STATION 9455760)

**SECTION A - BREASTING DOLPHIN**

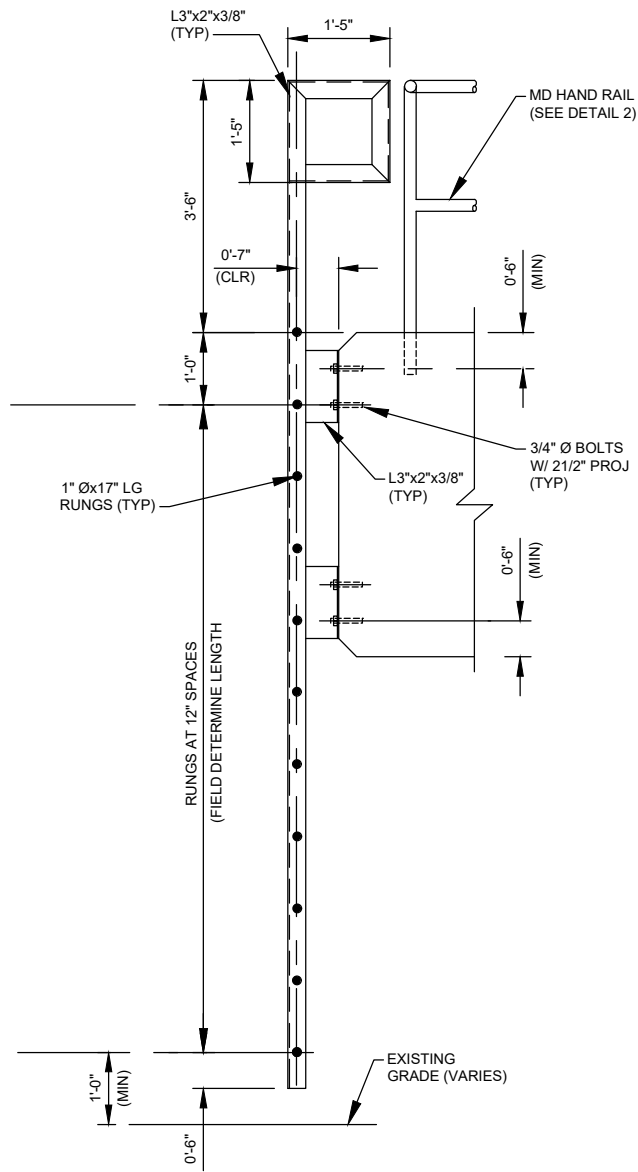
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

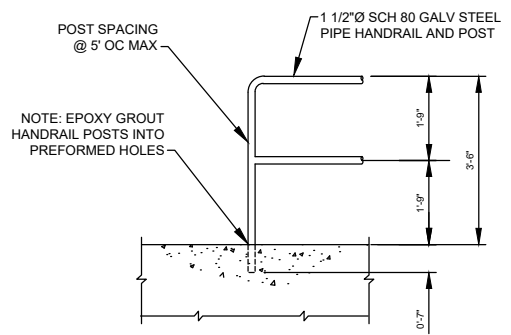
**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**DETAIL 1**



**DETAIL 2**

**BREASTING DOLPHIN HANDRAIL DETAILS**

NOT TO SCALE

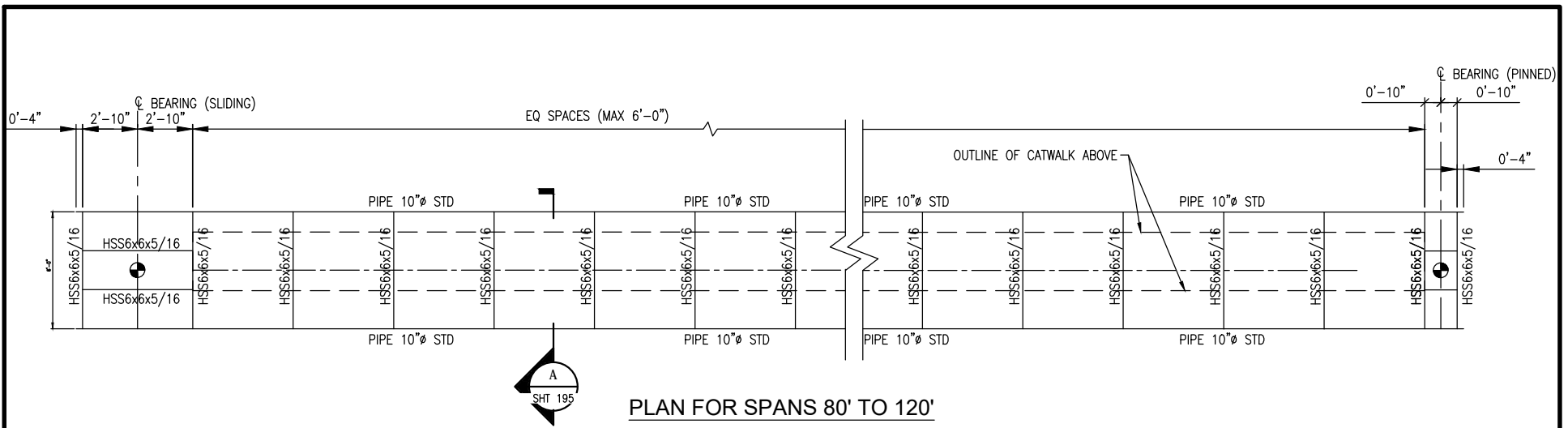
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

**NOTES:**

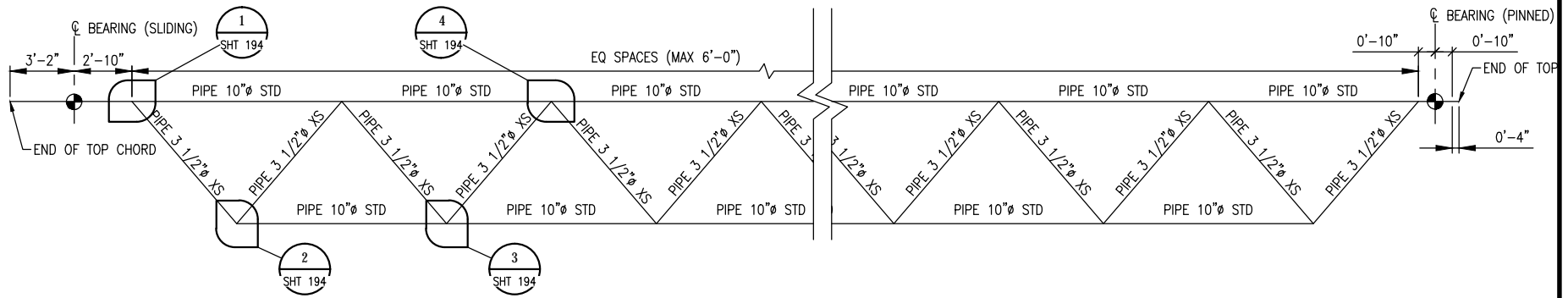
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project

Sheet 191 of 195 Date: 9/1/2018



PLAN FOR SPANS 80' TO 120'



ELEVATIONS FOR SPANS 80' TO 120'

COOK INLET MOF CATWALK DETAILS

NOT TO SCALE

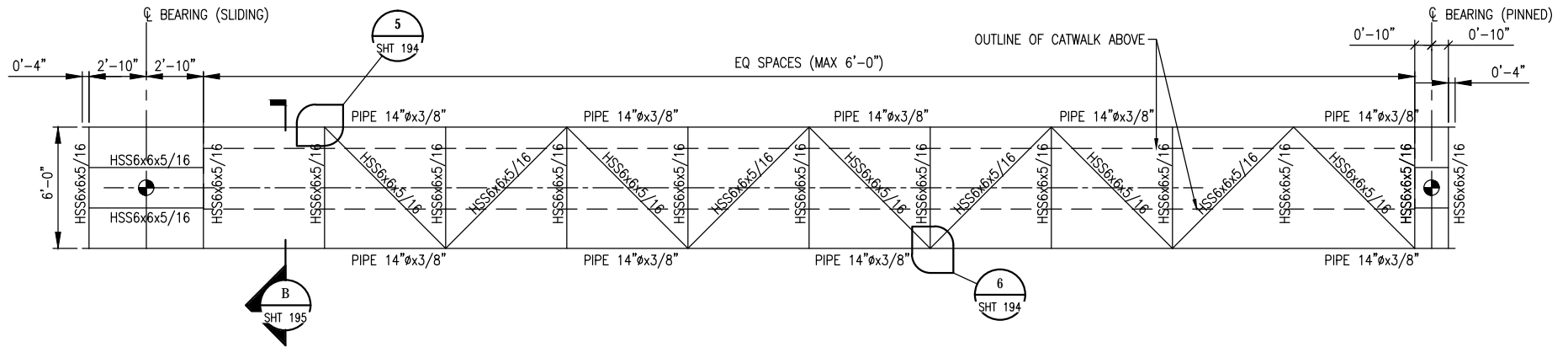
PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

NOTES:

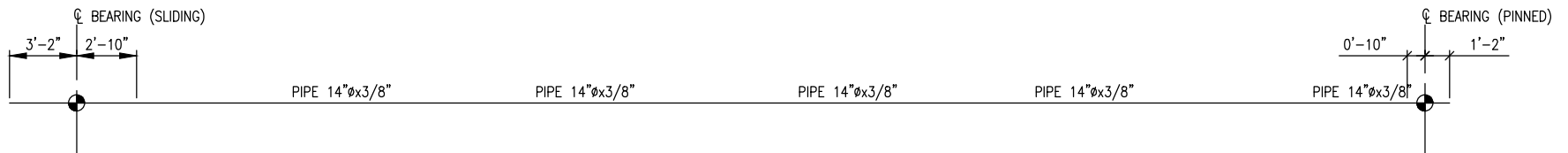
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project





**PLAN FOR SPANS 60' OR SMALLER**



**ELEVATION FOR SPANS 60' OR SMALLER**

**COOK INLET MOF CATWALK DETAILS**

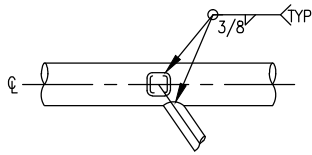
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

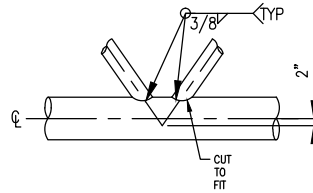
**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

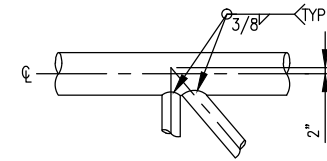
Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



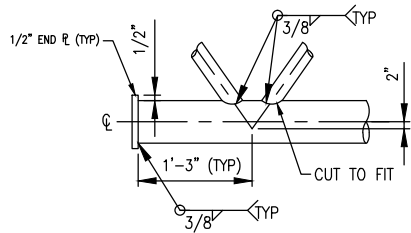
DETAIL 1 - TRUSS CONNECTION



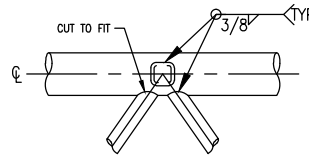
DETAIL 3 - TRUSS CONNECTION



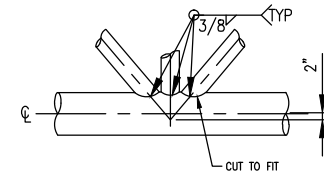
DETAIL 5 - TRUSS CONNECTION



DETAIL 2 - TRUSS CONNECTION



DETAIL 4 - TRUSS CONNECTION



DETAIL 6 - TRUSS CONNECTION

COOK INLET MOF CATWALK DETAILS

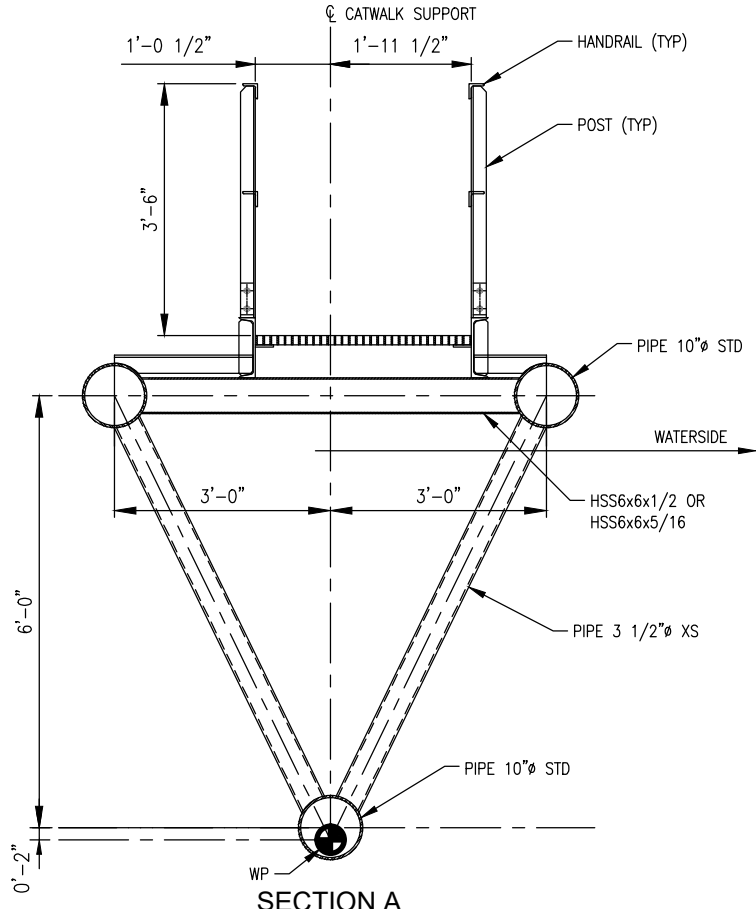
NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

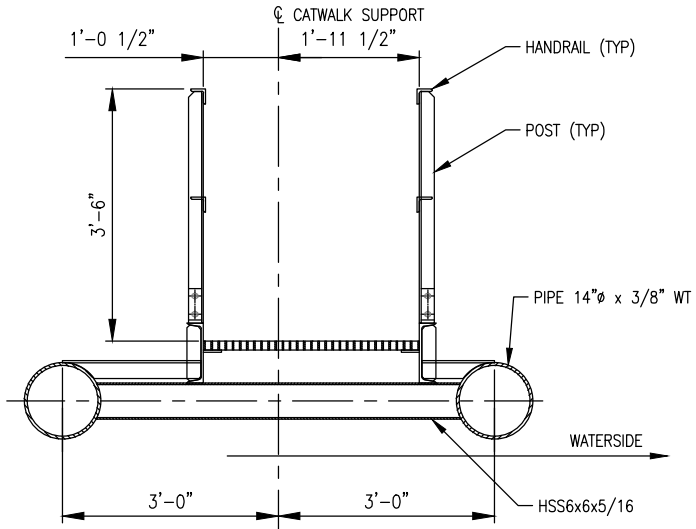
NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS REFERENCED TO MLLW.
3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

Applicant: The Alaska Gasline Development Corporation  
File Number: POA-2015-329  
Waterway: Multiple Crossings  
Proposed Activity: Alaska LNG Project



**SECTION A**



**SECTION B**

**COOK INLET MOF CATWALK DETAILS**

NOT TO SCALE

PRELIMINARY &  
SUBJECT TO CHANGE.  
ALL DRAWINGS AND  
DIMENSIONS TYPICAL.

- NOTES:**
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
  2. ALL ELEVATIONS REFERENCED TO MLLW.
  3. NAD83 ALASKA STATE PLANE COORDINATES ZONE 4 (HORIZONTAL DATUM).

Applicant: The Alaska Gasline Development Corporation  
 File Number: POA-2015-329  
 Waterway: Multiple Crossings  
 Proposed Activity: Alaska LNG Project