

APPENDIX C

**Application for Department of the Army Permit - Attachment A: Clean Water
Act 404 Permit Figures**

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ATTACHMENT A

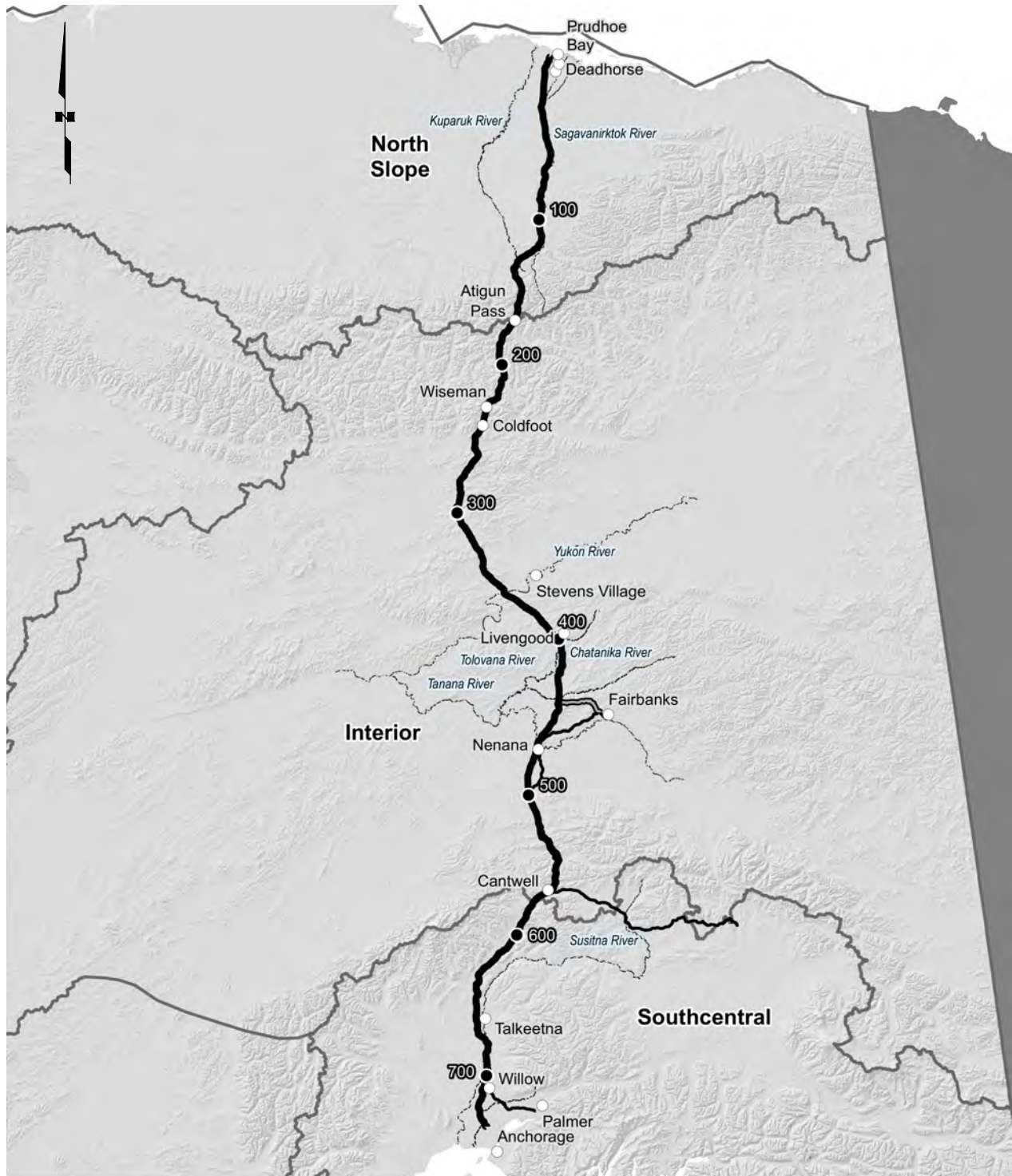
Clean Water Act 404 Permit Figures





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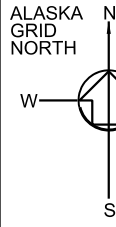


ASAP ML PIPELINE VICINITY MAP NAVIGABLE WATERS
 NOT TO SCALE

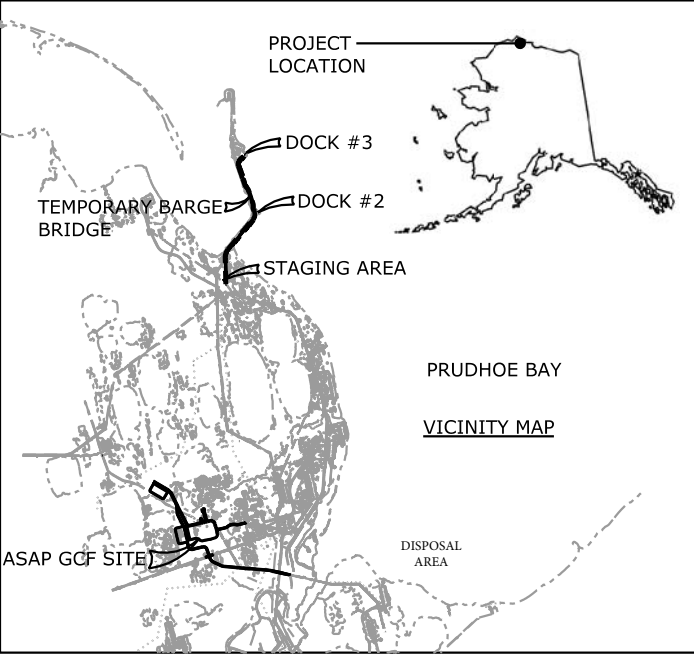
Legend	
	Town
	ASAP Alignment v6.1
	ASAP Milepost
	Fairbanks Lateral Alignment v4.1
	Navigable Waters
	ECO Regions Boundary

Applicant: Alaska Gasline Development Corporation (AGDC)
 File Number: POA-2009-651
 Waterway: As shown
 Proposed Activity: Natural Gas Pipeline
 MP 0 - MP 733
 Start = Lat: 70.3176, Long: -148.5502
 End = Lat: 61.4266, Long: -150.0786
 Sheet 1 of 73 Date: 04/23/2018

404_001_01 120815



LIMITS OF DRAWING



LOADING DOCK #3
SHEET 3
BEGIN MODULE
TRANSPORT ROAD WIDENING
STA 0+00.00

INTERTIDAL IMPACT
SHEETS 3 & 4

CAUSEWAY WIDENING
SHEETS 3 - 6

TEMPORARY BRIDGE
SHEETS 4 & 13

BEAUFORT SEA

CAUSEWAY WIDENING LAYOUT
NTS

LOADING DOCK #2

INTERTIDAL IMPACT
SHEETS 5 & 6

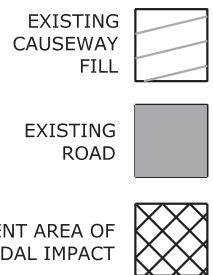
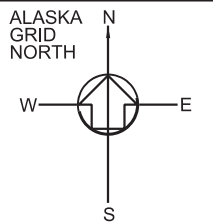
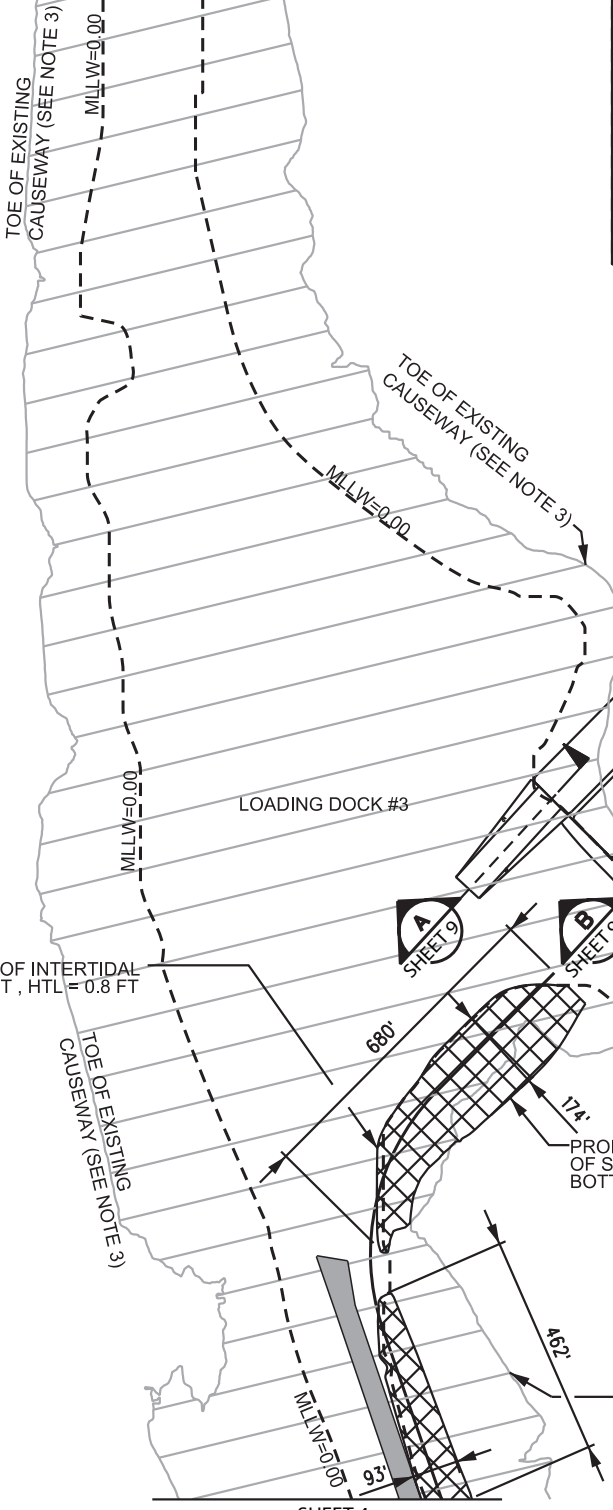
END OF CAUSEWAY
BC STA 84+36.59

LIMITS OF DRAWING

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 14 & 23, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 2 of 73 Date: 04/23/2018

404_002_01

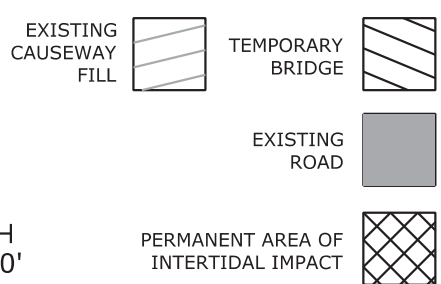
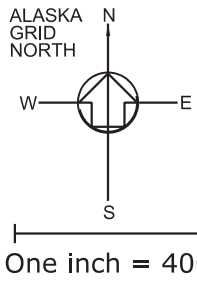
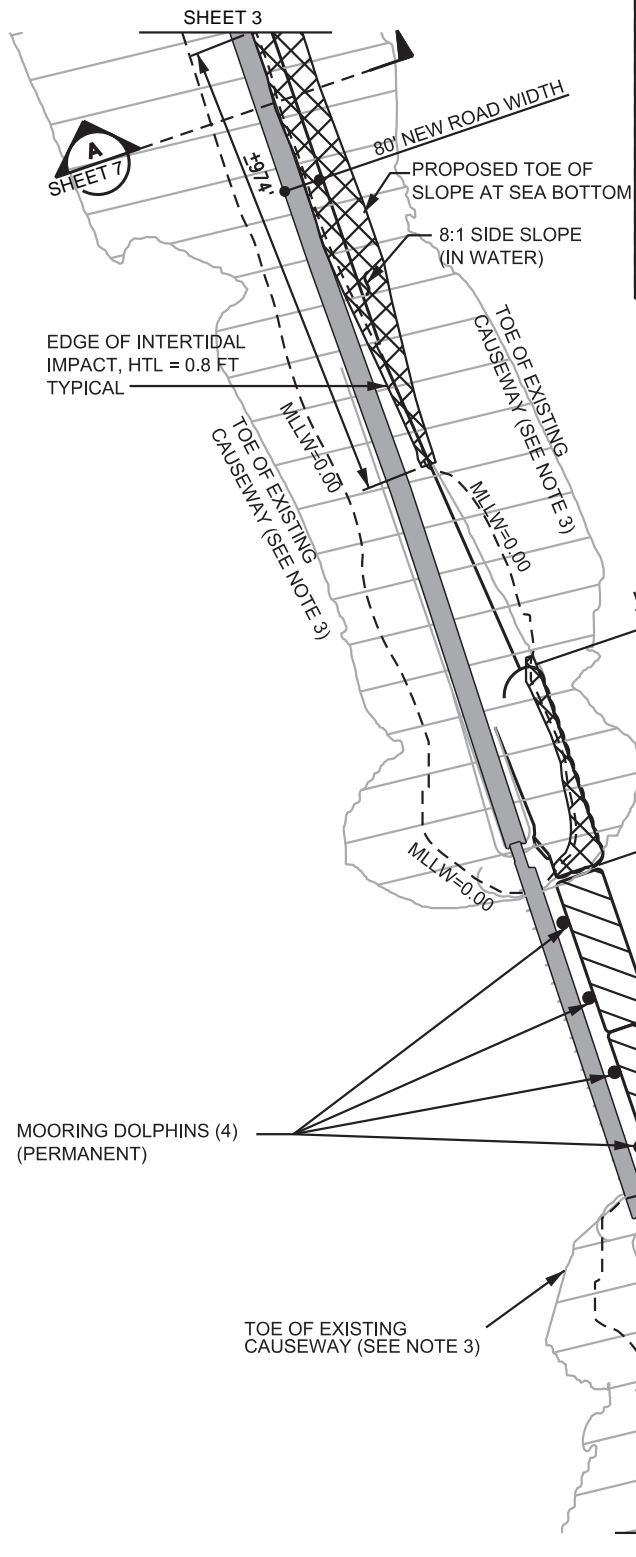
LIMITS OF DRAWING



- NOTES:
1. EDGES OF EXISTING CAUSEWAY ARE APPROXIMATE AND MAY NOT REPRESENT CURRENT SLOPES OR DIMENSIONS.
 2. SEE DWGS SHEETS 7 AND 8 FOR CROSS-SECTIONS AND ADDITIONAL NOTES.
 3. THE LIMITS OF THE EXISTING CAUSEWAY ARE BASED ON BEST AVAILABLE BUT LIMITED INFORMATION (ARCO DRAWINGS FOR WEST DOCK CAUSEWAY BREACH DATED 13OCT93). THE EXACT LOCATION WHERE THE CAUSEWAY FILL SLOPE INTERSECTS THE SEA BOTTOM IS NOT READILY DISCERNIBLE.

404_003_01

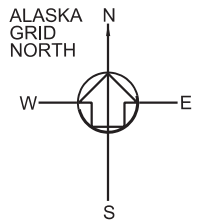
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 14, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 3 of 73 Date: 04/23/2018



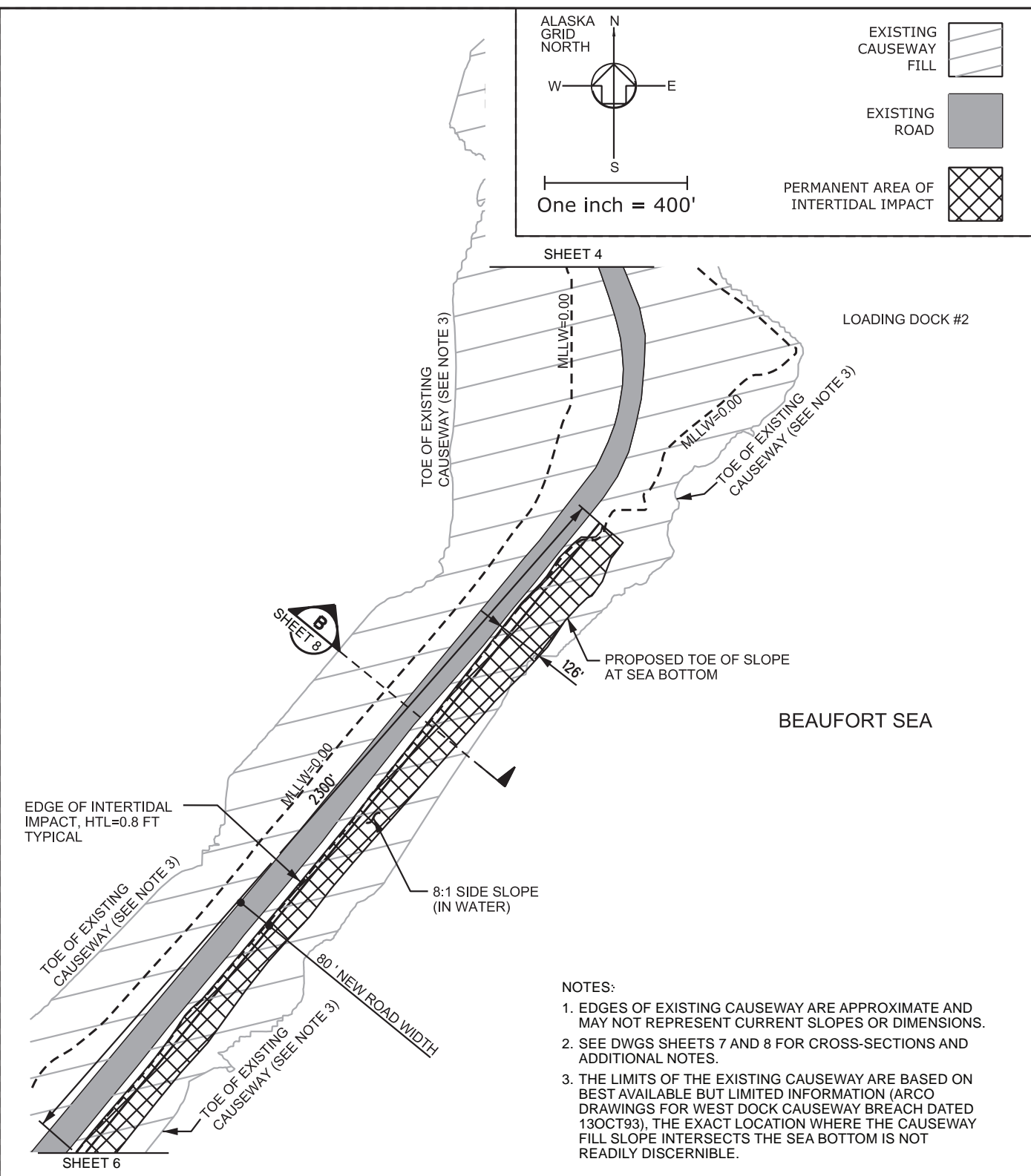
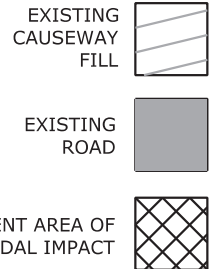
- NOTES:
1. EDGES OF EXISTING CAUSEWAY ARE APPROXIMATE AND MAY NOT REPRESENT CURRENT SLOPES OR DIMENSIONS.
 2. SEE DWGS SHEETS 7 AND 8 FOR CROSS-SECTIONS AND ADDITIONAL NOTES.
 3. THE LIMITS OF THE EXISTING CAUSEWAY ARE BASED ON BEST AVAILABLE BUT LIMITED INFORMATION (ARCO DRAWINGS FOR WEST DOCK CAUSEWAY BREACH DATED 13OCT93), THE EXACT LOCATION WHERE THE CAUSEWAY FILL SLOPE INTERSECTS THE SEA BOTTOM IS NOT READILY DISCERNIBLE.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 14, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 4 of 73 Date: 04/23/2018

404_004_01



One inch = 400'

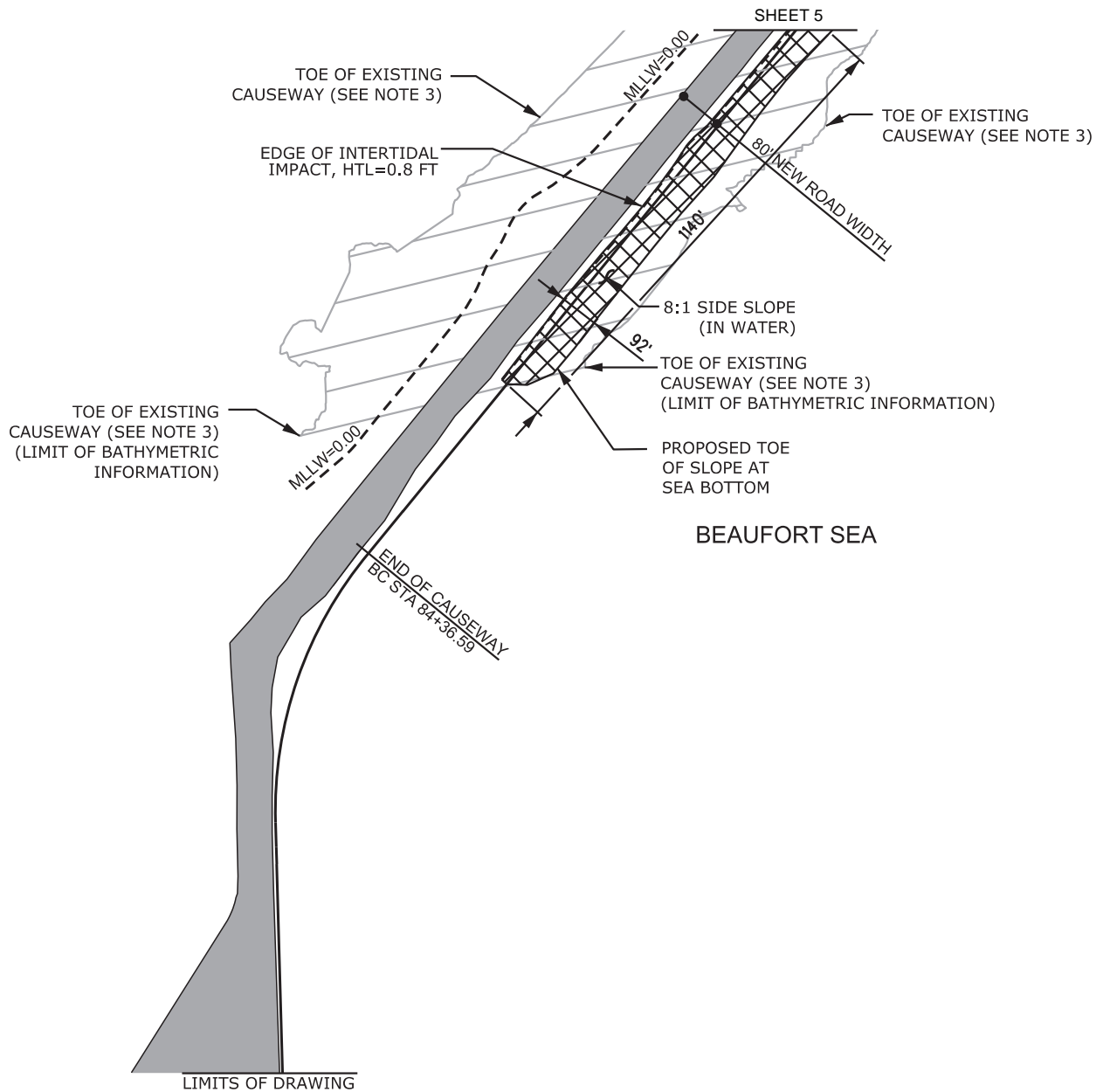
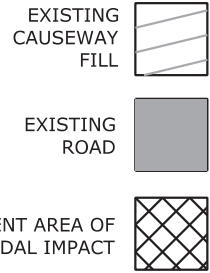
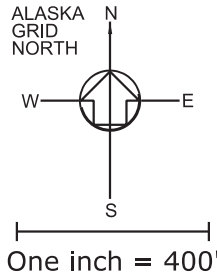


- NOTES:
1. EDGES OF EXISTING CAUSEWAY ARE APPROXIMATE AND MAY NOT REPRESENT CURRENT SLOPES OR DIMENSIONS.
 2. SEE DWGS SHEETS 7 AND 8 FOR CROSS-SECTIONS AND ADDITIONAL NOTES.
 3. THE LIMITS OF THE EXISTING CAUSEWAY ARE BASED ON BEST AVAILABLE BUT LIMITED INFORMATION (ARCO DRAWINGS FOR WEST DOCK CAUSEWAY BREACH DATED 13OCT93), THE EXACT LOCATION WHERE THE CAUSEWAY FILL SLOPE INTERSECTS THE SEA BOTTOM IS NOT READILY DISCERNIBLE.

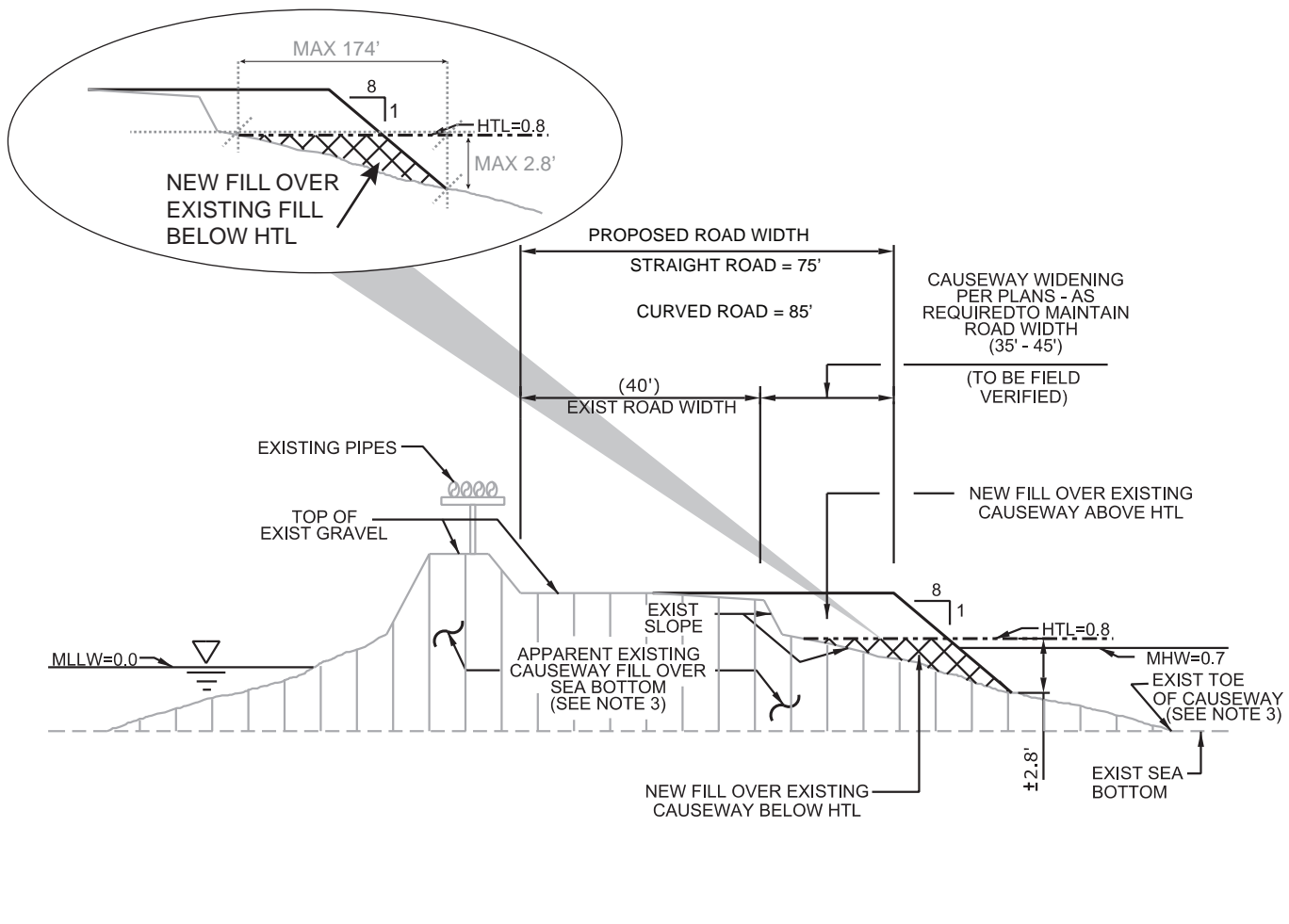
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 23, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 5 of 73 Date: 04/23/2018

NOTES:

1. EDGES OF EXISTING CAUSEWAY ARE APPROXIMATE AND MAY NOT REPRESENT CURRENT SLOPES OR DIMENSIONS.
2. SEE DWGS SHEETS 7 AND 8 FOR CROSS-SECTIONS AND ADDITIONAL NOTES.
3. THE LIMITS OF THE EXISTING CAUSEWAY ARE BASED ON BEST AVAILABLE BUT LIMITED INFORMATION (ARCO DRAWINGS FOR WEST DOCK CAUSEWAY BREACH DATED 13OCT93), THE EXACT LOCATION WHERE THE CAUSEWAY FILL SLOPE INTERSECTS THE SEA BOTTOM IS NOT READILY DISCERNIBLE.



Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 23, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 6 of 73 Date: 04/23/2018



CAUSEWAY WIDENING SECTION A
 NTS SHEET 4

TIDE ELEVATIONS:
HTL = 0.80 FT
MHW = 0.70 FT
MLLW = 0.00 FT

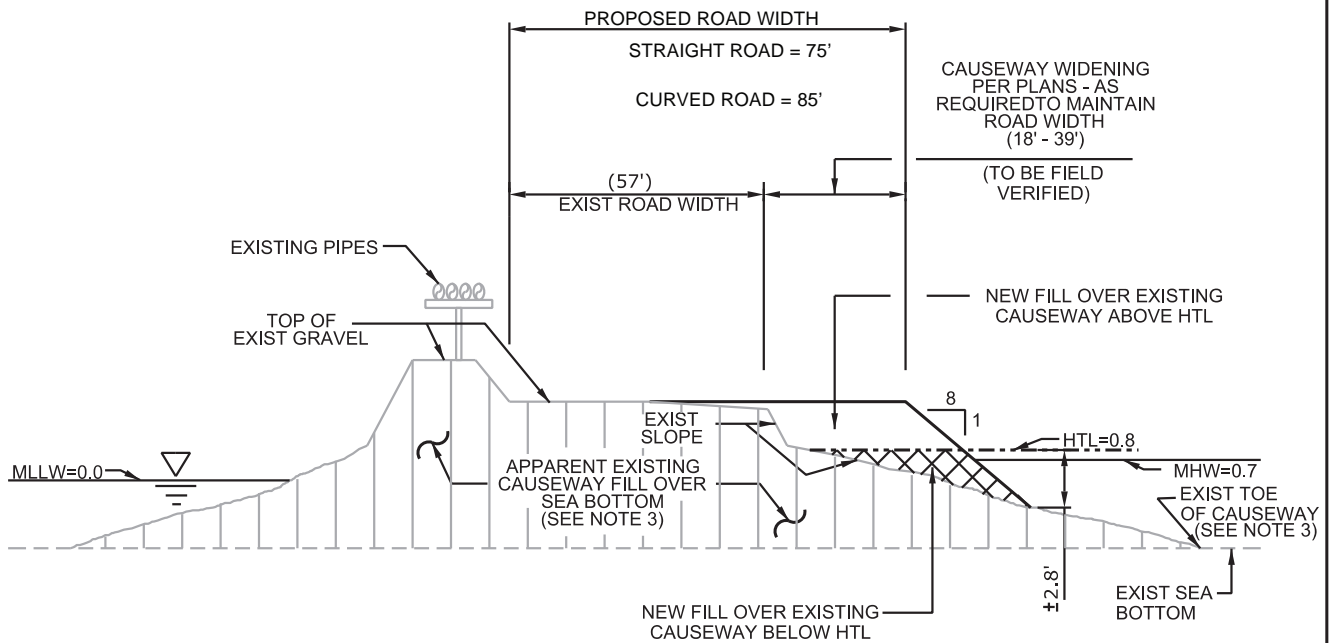
NOTES:

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.
3. THE LIMITS OF EXISTING CAUSEWAY ARE BASED ON THE BEST AVAILABLE BUT LIMITED INFORMATION (ARCO ALASKA DRAWINGS FOR WEST DOCK CAUSEWAY BREACH DATED 13OCT93), THE EXACT LOCATION WHERE THE CAUSEWAY FILL SLOPE INTERSECTS THE SEA BOTTOM IS NOT READILY DISCERNIBLE.

EXISTING CAUSEWAY FILL	
NEW FILL ABOVE HTL & OVER EXISTING CAUSEWAY	
PERMANENT AREA OF INTERTIDAL IMPACT	

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 14, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 7 of 73 Date: 04/23/2018

404_007_01



CAUSEWAY WIDENING SECTION B
 NTS SHEET 5

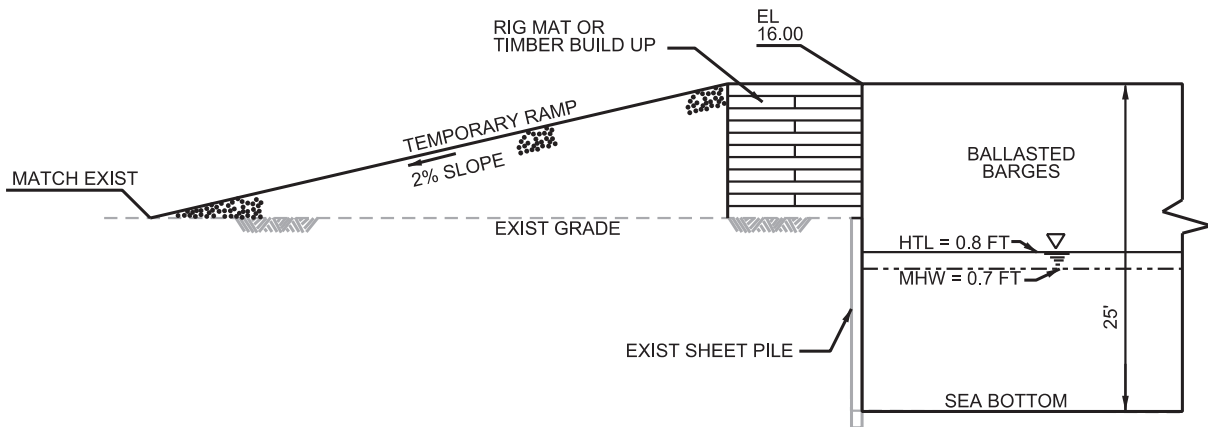
TIDE ELEVATIONS:	
HTL	= 0.80 FT
MHW	= 0.70 FT
MLLW	= 0.00 FT

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.
3. THE LIMITS OF EXISTING CAUSEWAY ARE BASED ON THE BEST AVAILABLE BUT LIMITED INFORMATION (ARCO ALASKA DRAWINGS FOR WEST DOCK CAUSEWAY BREACH DATED 13OCT93), THE EXACT LOCATION WHERE THE CAUSEWAY FILL SLOPE INTERSECTS THE SEA BOTTOM IS NOT READILY DISCERNIBLE.

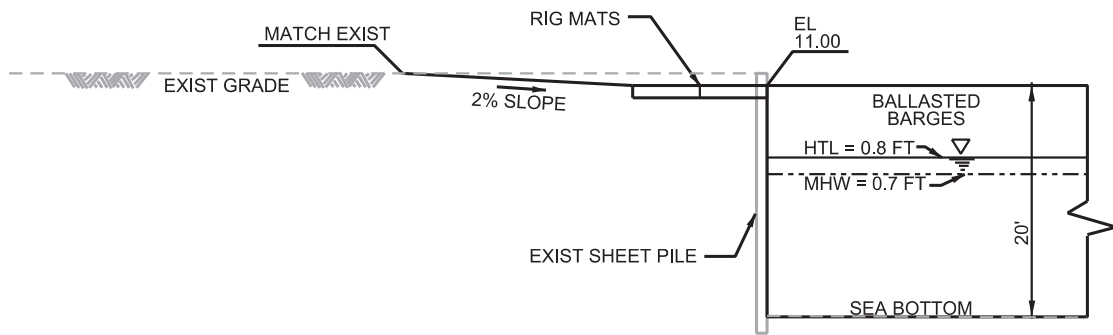
EXISTING CAUSEWAY FILL	
NEW FILL ABOVE HTL & OVER EXISTING CAUSEWAY	
PERMANENT AREA OF INTERTIDAL IMPACT	

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 23, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 8 of 73 Date: 04/23/2018



RAMP SECTION
NTS

(A)
SHEET 2

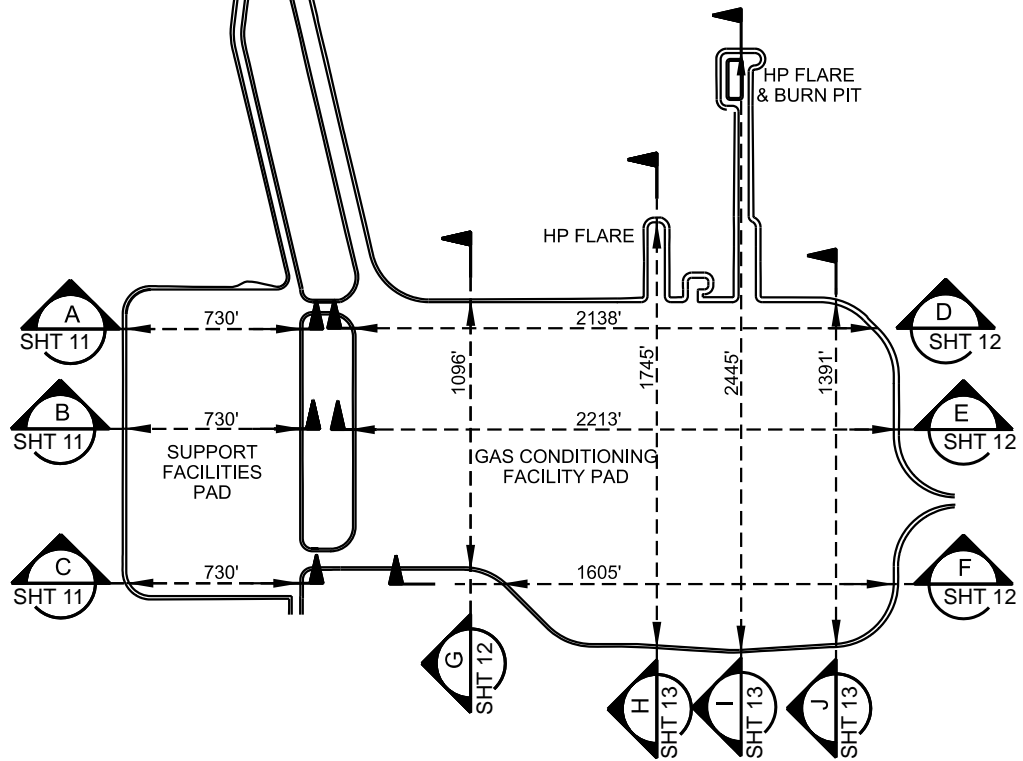
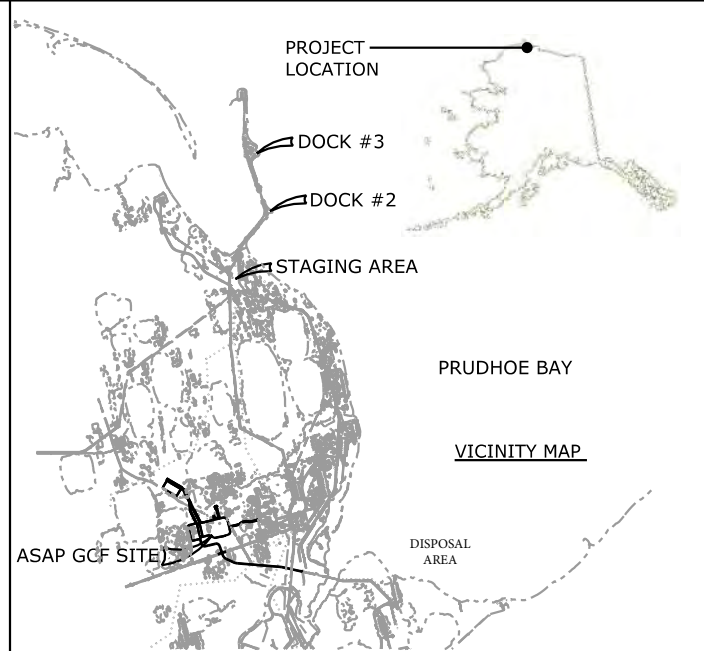
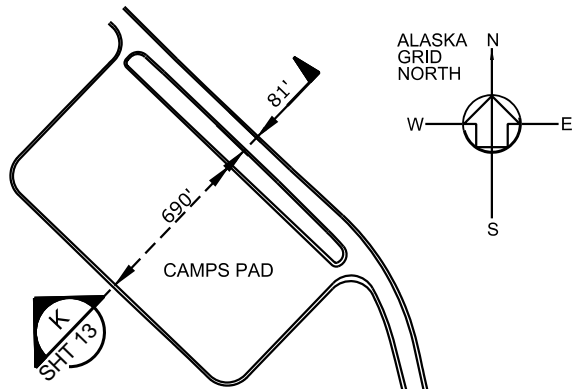


RAMP SECTION
NTS

(B)
SHEET 2

TIDE ELEVATIONS:	
HTL	= 0.80 FT
MHW	= 0.70 FT
MLLW	= 0.00 FT

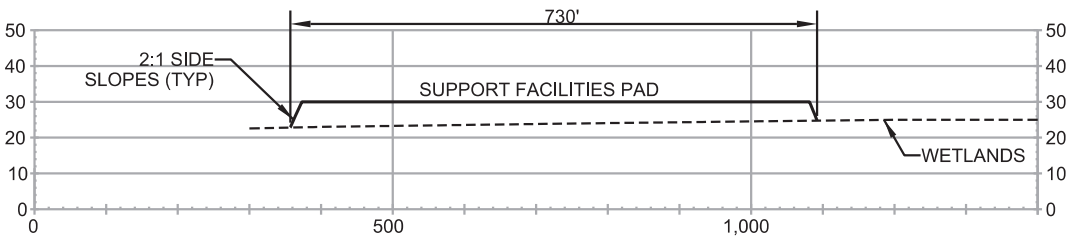
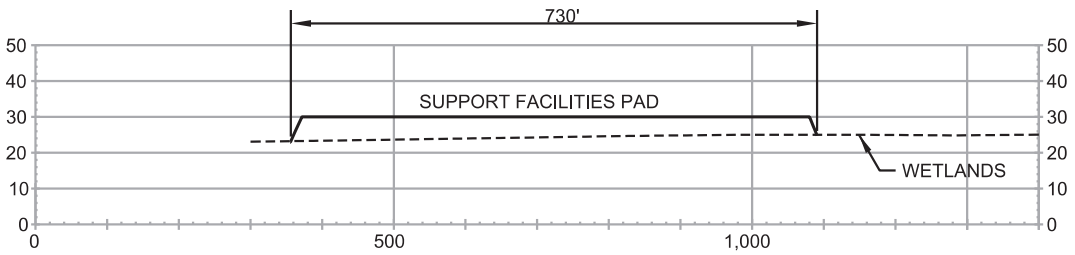
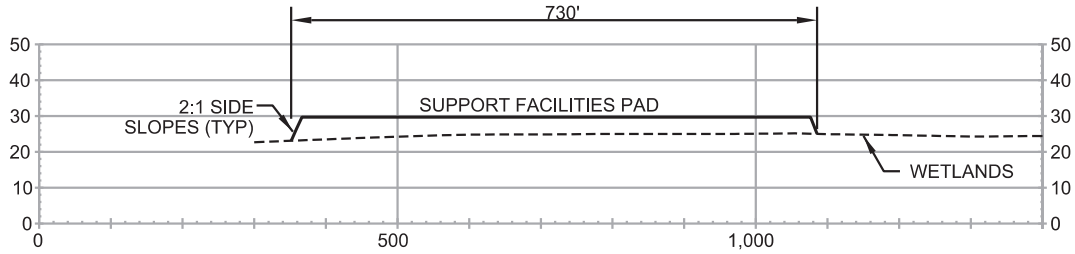
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 14, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 9 of 73 Date: 04/23/2018



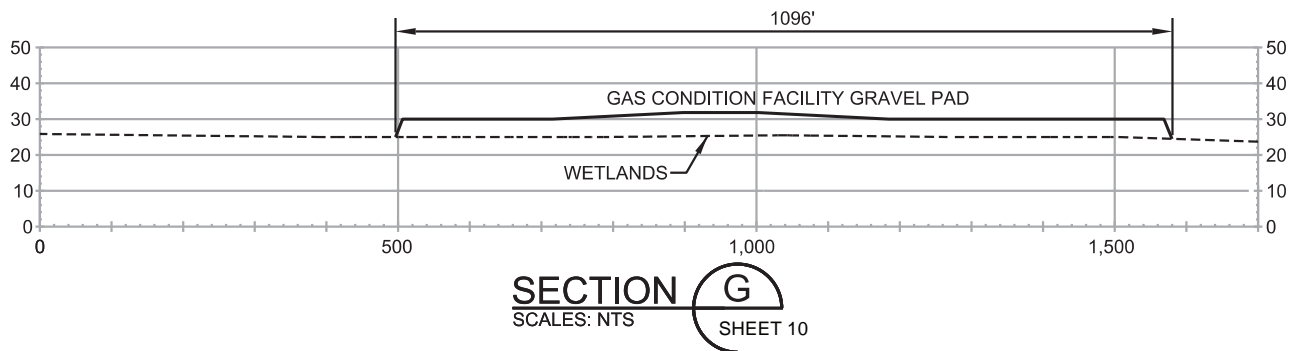
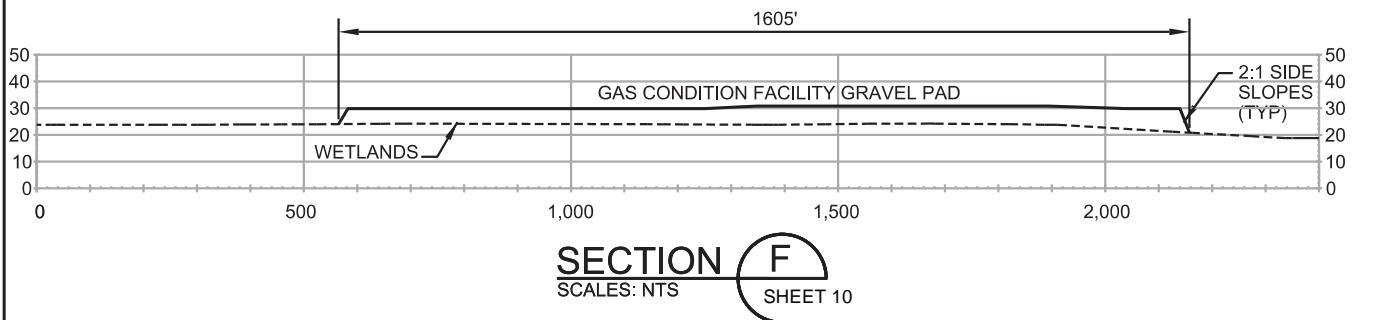
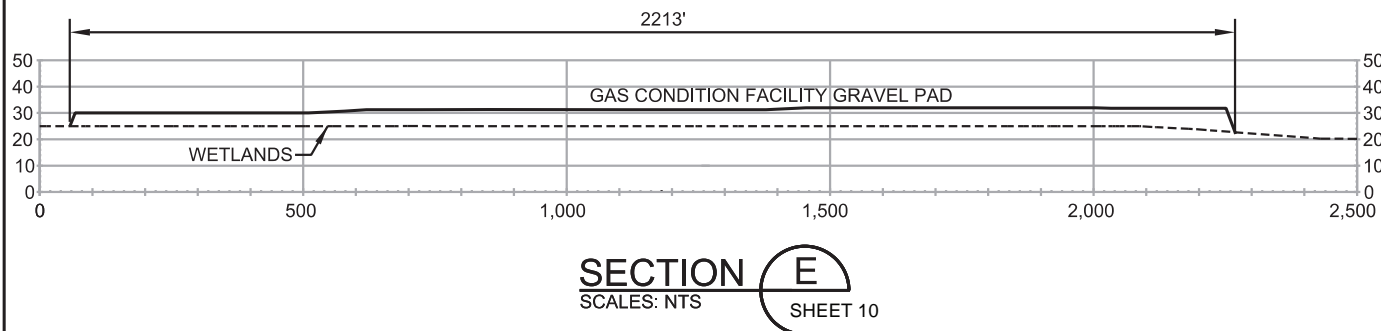
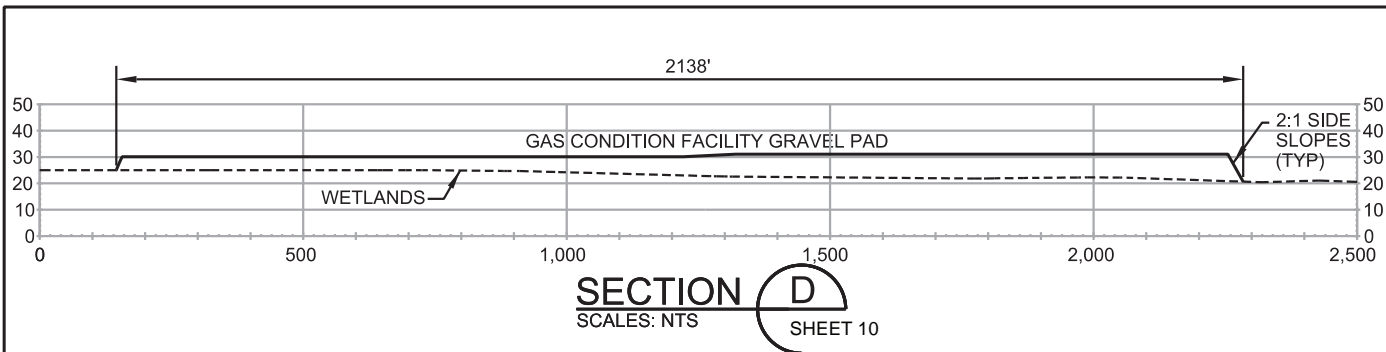
SECTIONS KEY PLAN

NTS

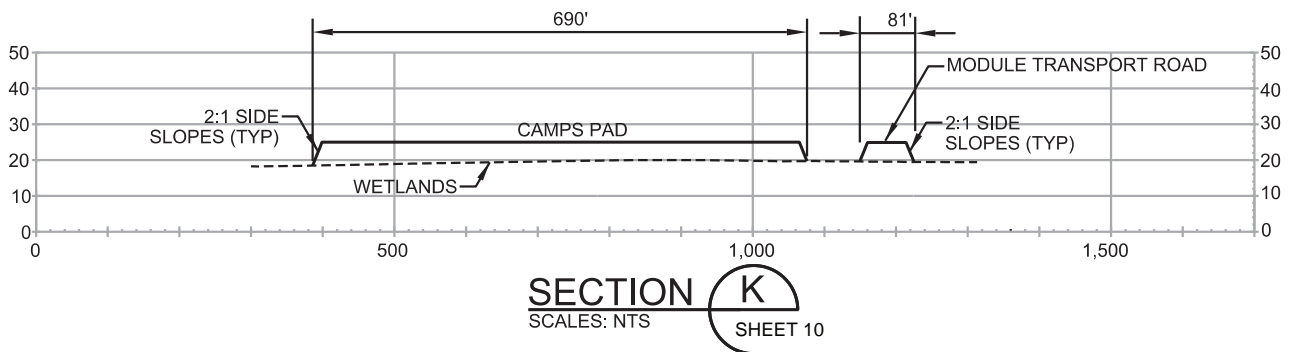
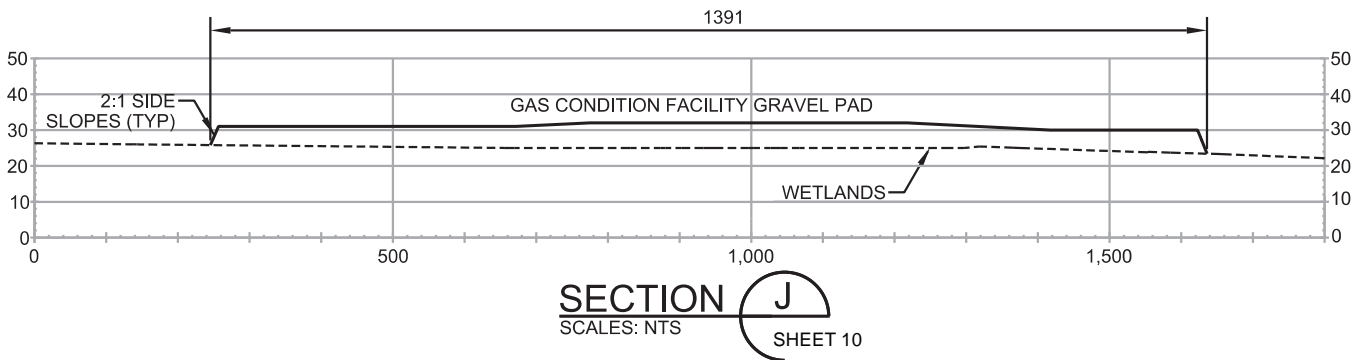
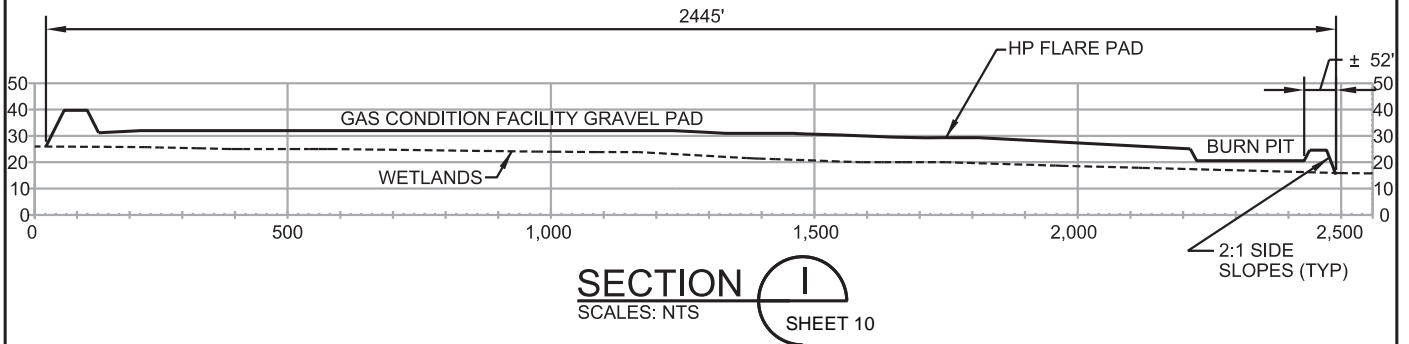
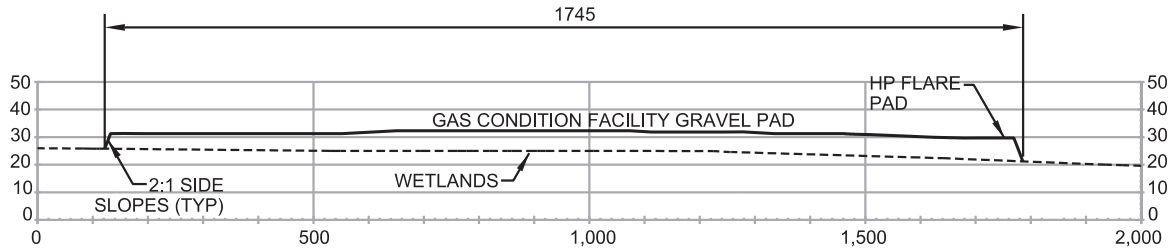
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Not Applicable
 Proposed Activity: Gas Cond., Fac., Support Facilities Pad, Camps Pad
 Sec. 4,9,&10, T11N, R14E, M. Umiat
 Start = Lat.: 70.32825° Long.: -148.58205°
 End = Lat.: 70.31976° Long.: -148.55381°
 Sheet 10 of 73 Date: 04/23/2018



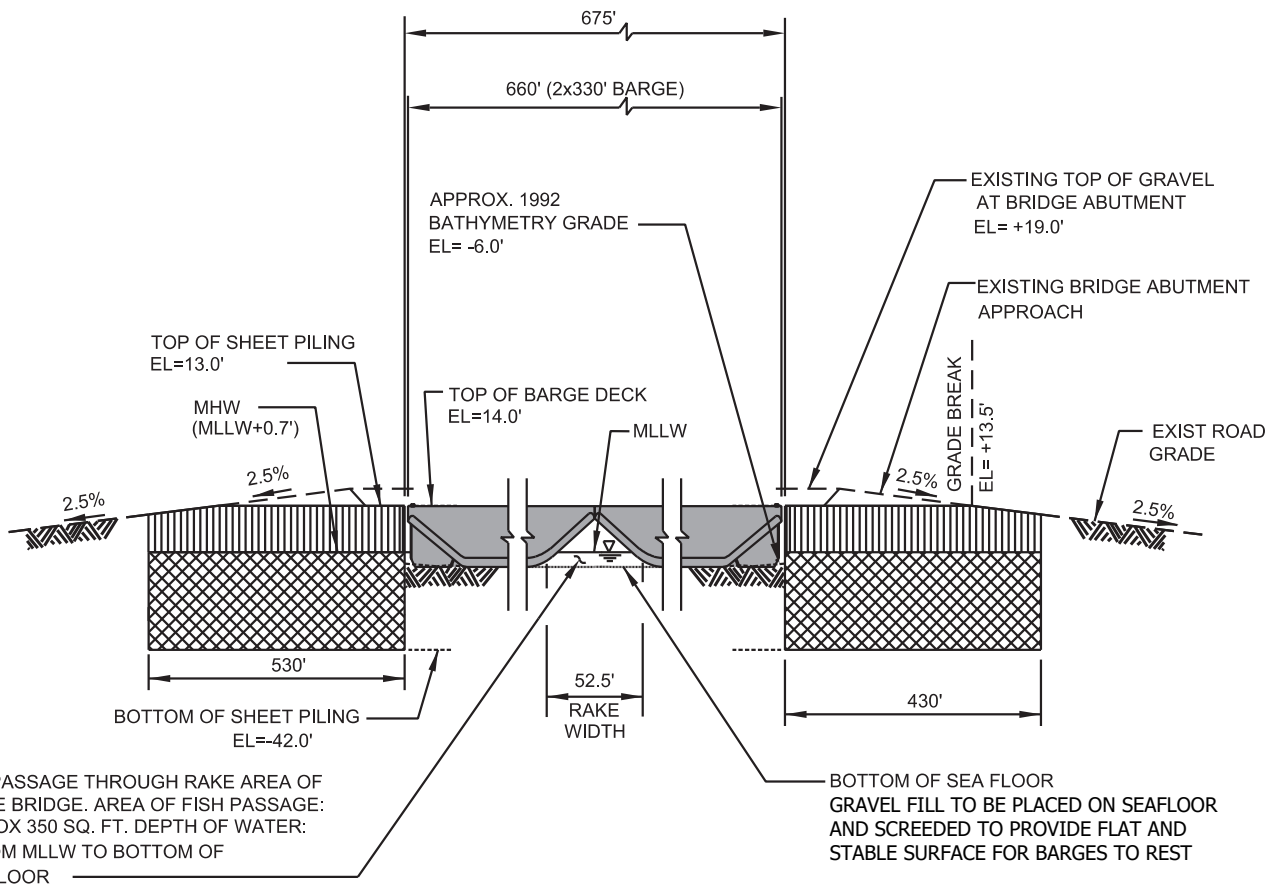
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Not Applicable
 Proposed Activity: Support Facilities Pad
 Sec. 10, T11N, R14E, M. Umiat
 Start = Lat.: 70.31976° Long.: -148.55381°
 End = Lat.: 70.31976° Long.: -148.55381°
 Sheet 11 of 73 Date: 04/23/2018



Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Not Applicable
 Proposed Activity: Gas Conditioning Facility
 Sec. 10, T11N, R14E, M. Umiat
 Start = Lat.: 70.31976° Long.: -148.55381°
 End = Lat.: 70.31976° Long.: -148.55381°
 Sheet 12 of 73 Date: 04/23/2018






Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Not Applicable
 Proposed Activity: Gas Conditioning Facility & Camps Pad
 Sec. 4, 9 & 10, T11N, R14E, M. Umiat
 Start = Lat.: 70.31976° Long.: -148.55381°
 End = Lat.: 70.31976° Long.: -148.55381°
 Sheet 13 of 73 Date: 04/23/2018



WEST DOCK CAUSEWAY SOUTH
TYPICAL ABUTMENT MODIFICATIONS SECTION

TIDE ELEVATIONS:	
HTL	= 0.80 FT
MHW	= 0.70 FT
MLLW	= 0.00 FT

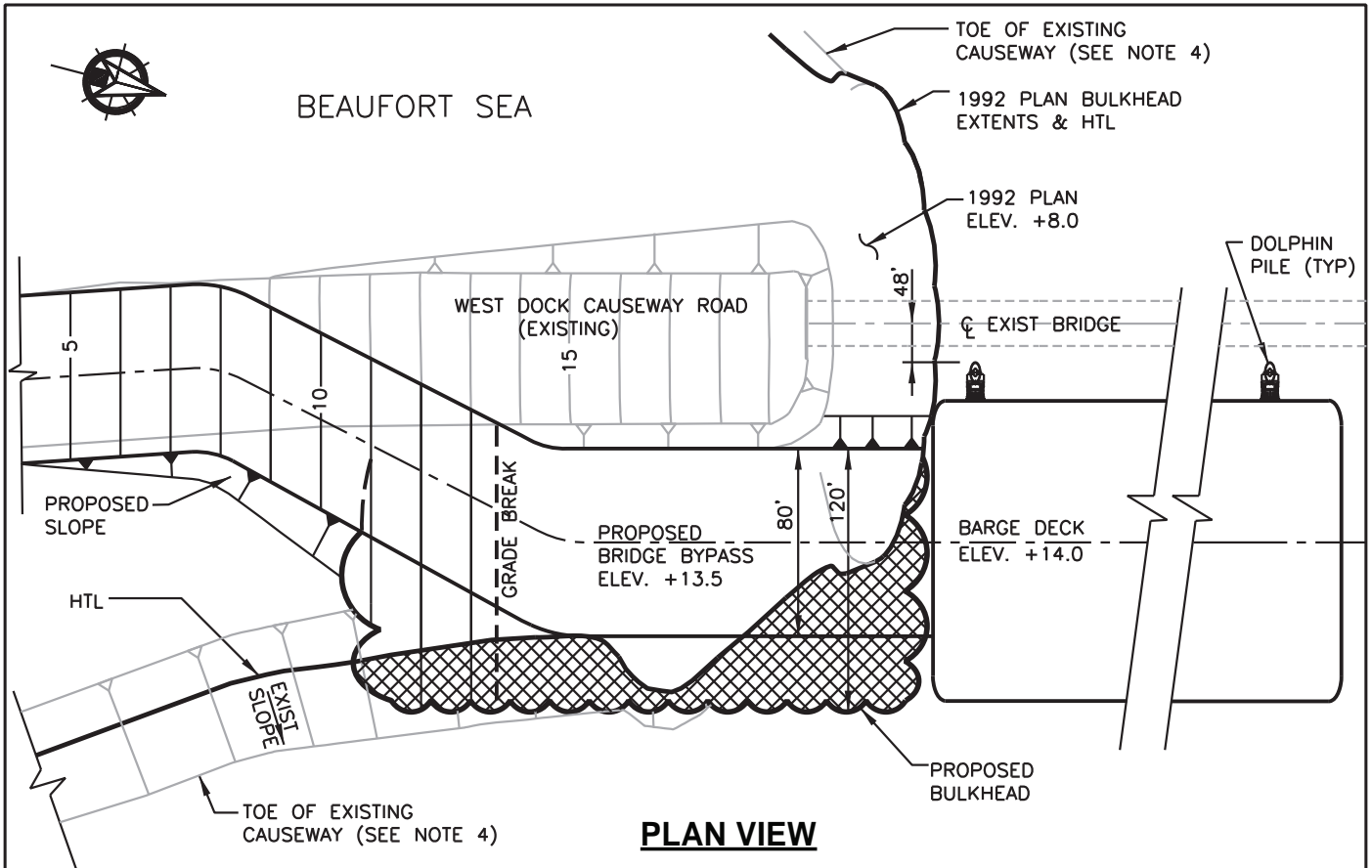
LEGEND:

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

NOTES:

- Survey data for depths acquired from 1992 bathymetry.
- Recommended dock modifications for barge bridge apply north and south side of barge bridge.
- Causeway data from 1992 plan.
- State WSF Datum.
- All Elevations Referenced from MLLW.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Not Applicable
 Proposed Activity: West Dock Improvements
 Sec. 14, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 14 of 73 Date: 04/23/2018



PLAN VIEW

NOTE: PLAN EXAGGERATED IN LONGITUDINAL DIRECTION FOR CLARITY

**WEST DOCK CAUSEWAY SOUTH
TYPICAL ABUTMENT MODIFICATIONS**

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. The limits of the Existing Causeway are based on best available but limited information (Arco Drawings for West Dock Causeway Breach dated 13Oct93), the exact location where the Causeway fill slope intersects the sea bottom is not readily discernible.

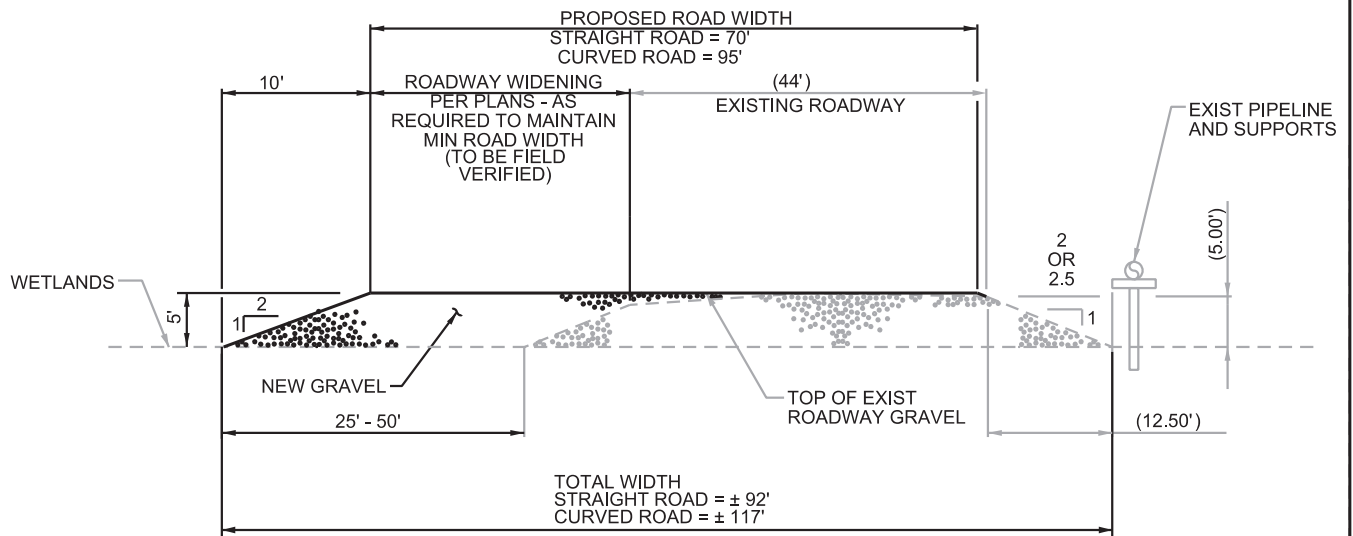
TIDE ELEVATIONS	
MHW	= 0.70 FT
MLLW	= 0.00 FT
HTL	= 0.80 FT

LEGEND:



PERMANENT AREA OF IMPACT FROM SHEET PILING BELOW HTL

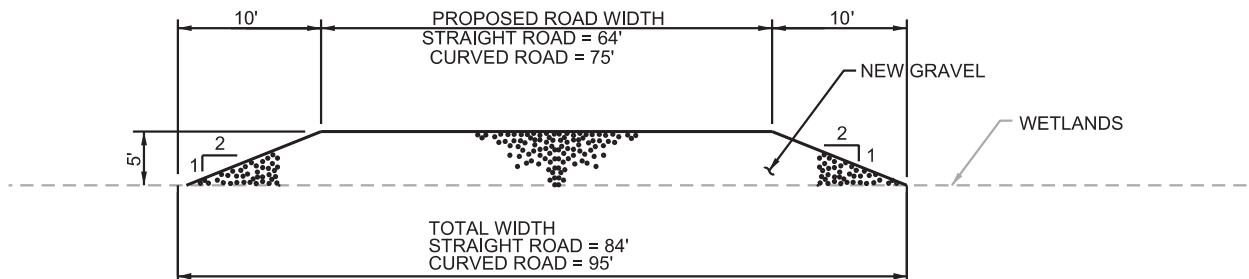
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec. 14, T12N, R14E, M. Umiat
 Start = Lat.: 70.40027° Long.: -148.52316°
 End = Lat.: 70.37950° Long.: -148.53433°
 Sheet 15 of 73 Date: 04/23/2018



ROADWAY WIDENING SECTION



NTS

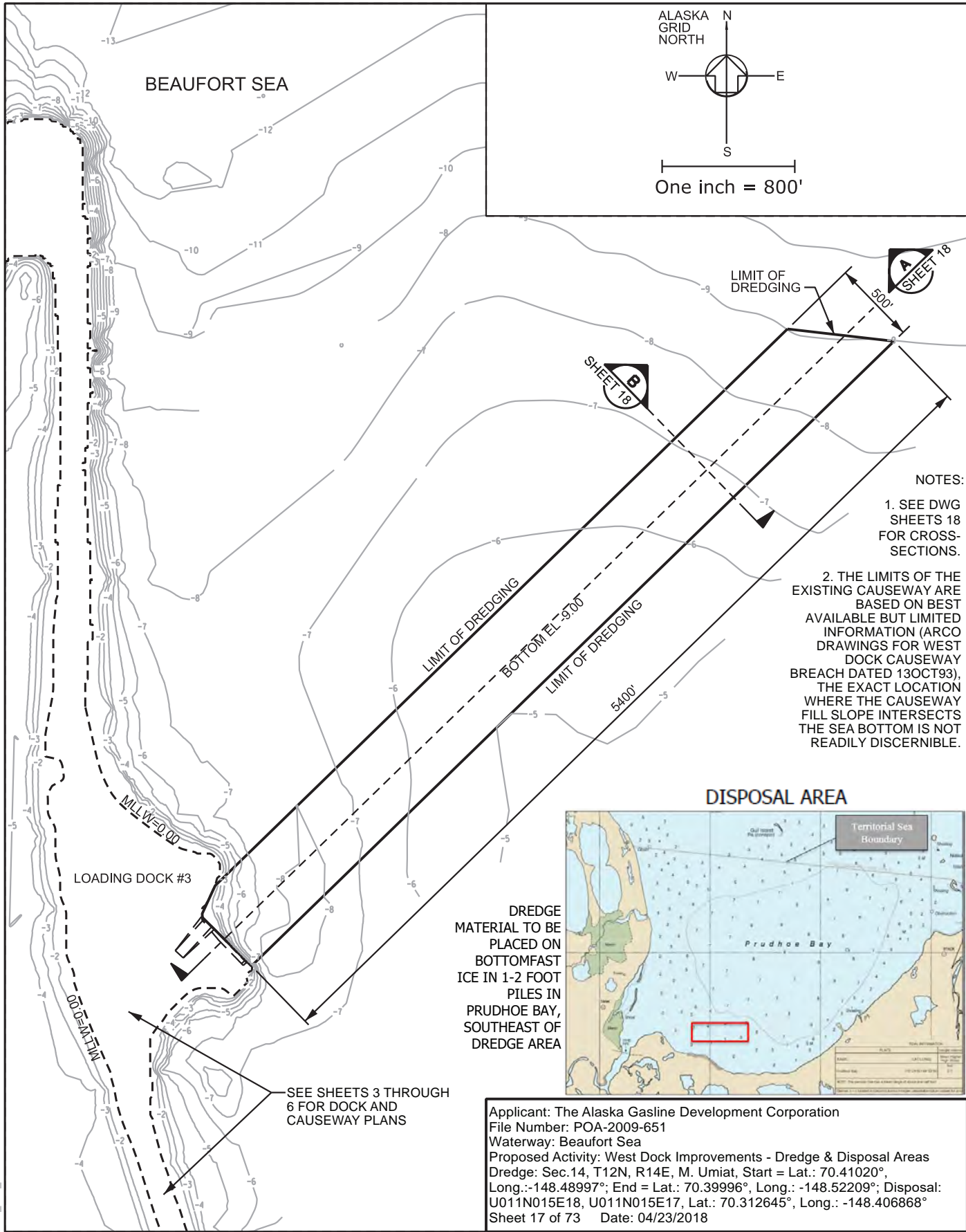
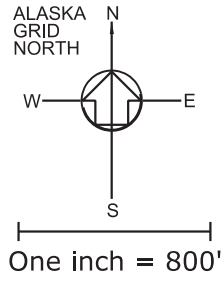


ROADWAY SECTION



NTS

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Not Applicable
 Proposed Activity: Existing Road Widening and New Road
 Sec.4,5,9,&10, T11N, R14E; Sec.27,28,32,&33, T12N, R14E, M. Umiat
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 End = Lat.: 70.379499° Long.: -148.534332°
 Sheet 16 of 73 Date: 04/23/2018



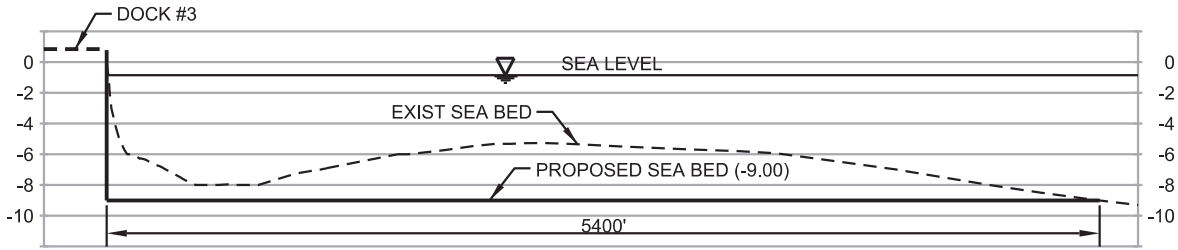
- NOTES:
1. SEE DWG SHEETS 18 FOR CROSS-SECTIONS.
 2. THE LIMITS OF THE EXISTING CAUSEWAY ARE BASED ON BEST AVAILABLE BUT LIMITED INFORMATION (ARCO DRAWINGS FOR WEST DOCK CAUSEWAY BREACH DATED 13OCT93), THE EXACT LOCATION WHERE THE CAUSEWAY FILL SLOPE INTERSECTS THE SEA BOTTOM IS NOT READILY DISCERNIBLE.



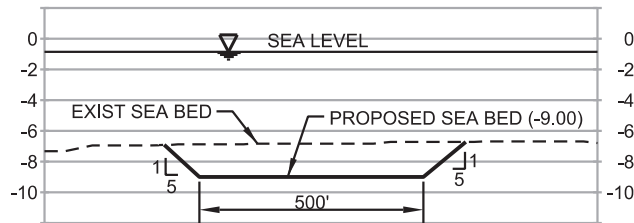
DREDGE MATERIAL TO BE PLACED ON BOTTOMFAST ICE IN 1-2 FOOT PILES IN PRUDHOE BAY, SOUTHEAST OF DREDGE AREA

SEE SHEETS 3 THROUGH 6 FOR DOCK AND CAUSEWAY PLANS

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements - Dredge & Disposal Areas
 Dredge: Sec.14, T12N, R14E, M. Umiat, Start = Lat.: 70.41020°, Long.: -148.48997°; End = Lat.: 70.39996°, Long.: -148.52209°; Disposal: U011N015E18, U011N015E17, Lat.: 70.312645°, Long.: -148.406868°
 Sheet 17 of 73 Date: 04/23/2018



SECTION A
 SCALES: NTS SHEET 17



SECTION B
 SCALES: NTS SHEET 17

NOTE:

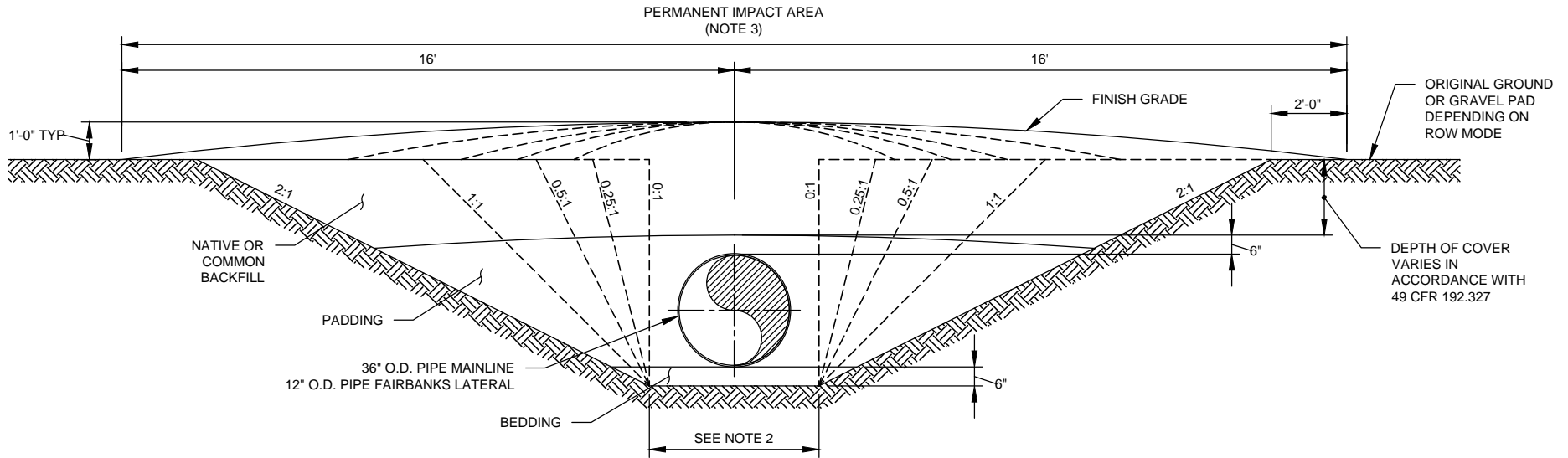
SEA BED ELEVATIONS ARE REFERENCED TO THE NATIONAL OCEAN SERVICE MEAN LOWER LOW WATER DATUM (NOS MLLW 83-01 TIDAL DATUM EPOCH) FROM WATER LEVEL DATA ACQUIRED AT THE NOS TIDE GAUGE IN THE WEST DOCK SEAWATER TREATMENT PLANT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Waterway: Beaufort Sea
 Proposed Activity: West Dock Improvements
 Sec.14, T12N, R14E, M. Umia
 Start = Lat.: 70.41020° Long.: -148.48997°
 End = Lat.: 70.39996° Long.: -148.52209°
 Sheet 18 of 73 Date: 04/23/2018

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Applicant: The Alaska Gasline Development Corporation
File Number: POA-2009-651
Proposed Activity: Natural Gas Pipeline
MP 0 - MP 733
Start = Lat.: 70.3176° Long.: -148.5502°
End = Lat.: 61.4266° Long.: -150.0786°

Sheet 19 of 73 Date: 05/29/2015



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

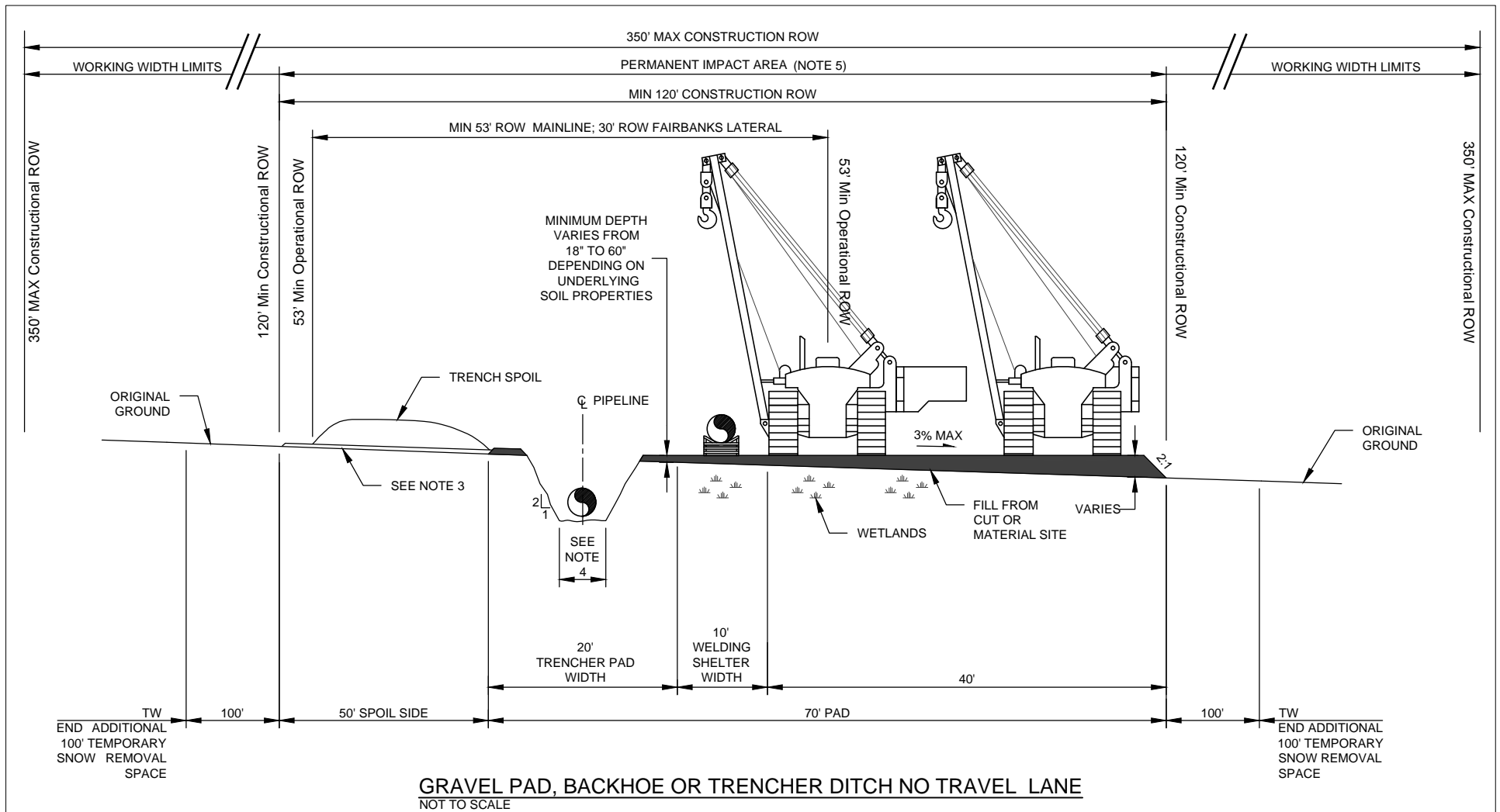
SIDE SLOPES ARE BASED ON SOIL TYPE AND TRENCHING EQUIPMENT		
GENERALIZED DITCH SOILS	SIDEWALL SLOPE	CONSTRUCTION MODE
FROZEN COARSE-GRAINED SOIL	VERTICAL	CHAIN DITCHER - DIFFICULT
FROZEN COARSE-GRAINED SOIL (STEEP)	VERTICAL	CHAIN DITCHER - DIFFICULT
FROZEN COARSE-GRAINED SOIL W/COBBLES	VERTICAL	CHAIN 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
ROCK	VERTICAL	DRILL & SHOOT OR 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

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)

NOTES:

1. TYPICAL PIPE IN WETLANDS.
2. FOR MAINLINE 5.0'; FOR FAIRBANKS LATERAL 3.0'.
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 FT UP TO A MAXIMUM OF 32 FT. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
File Number: POA-2009-651
Proposed Activity: Natural Gas Pipeline
Start = MP 0.0
End = Terminus

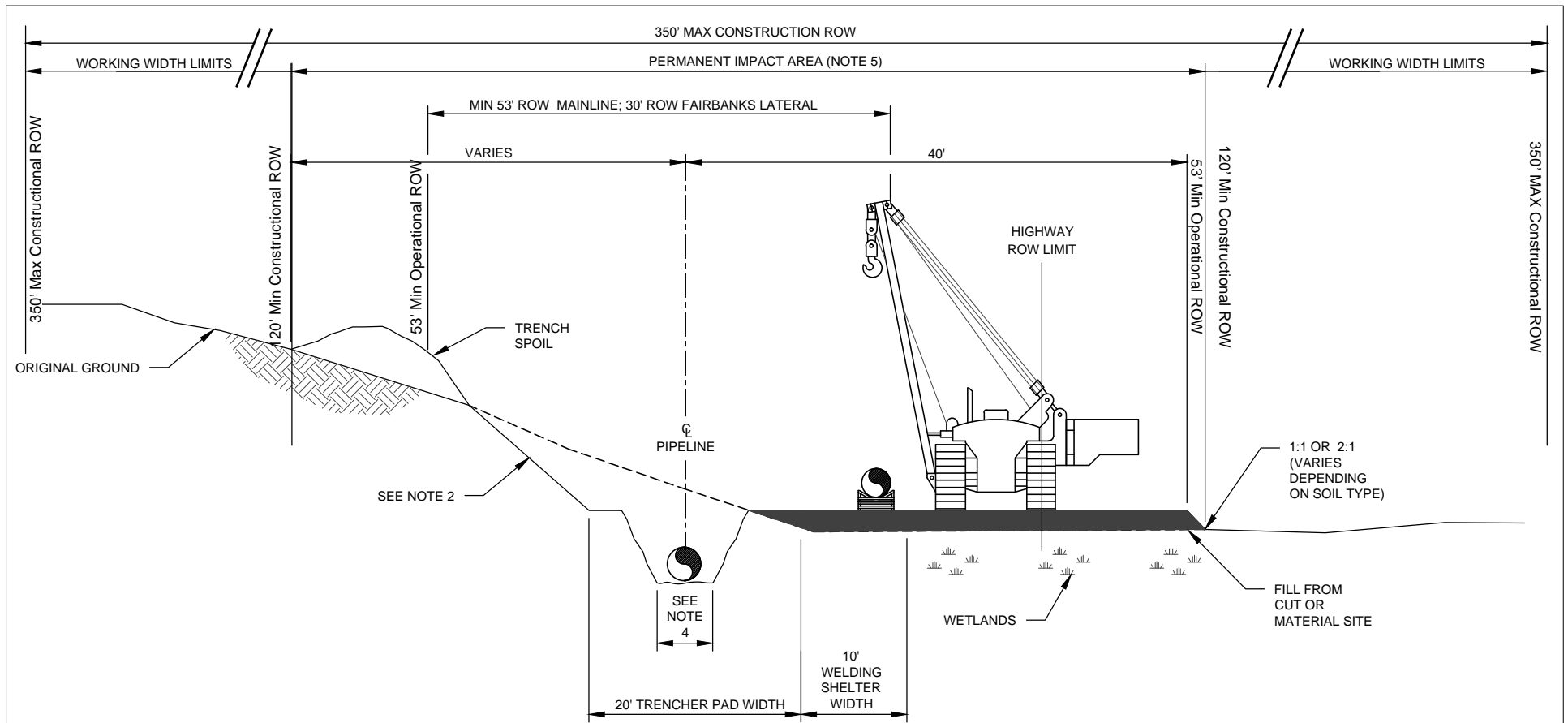


NOTES:

1. TRENCH SPOIL PILES MUST BE KEPT LOW TO PREVENT DEEP DRIFTS FROM FORMING.
2. ADDITIONAL WORK SPACE WILL BE NEEDED IN AREAS OF STEEP SIDE SLOPES TO ACCOMMODATE FILL SLOPES.
3. THIN SNOW LAYER FOR SEPARATION OF EXISTING GROUND VEGETATION FROM SPOIL IF CONSTRUCTED IN WINTER. NO SEPARATION IF CONSTRUCTED IN SUMMER. SPOIL NOT USED TO BACKFILL TRENCH TO BE SEEDED AND BMPS EMPLOYED TO PREVENT EROSION.
4. MAINLINE 5.0'; FAIRBANKS LATERAL 3.0'.
5. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Where Thaw Unstable Soils Occur

Sheet 21 of 73 Date: 04/23/2018



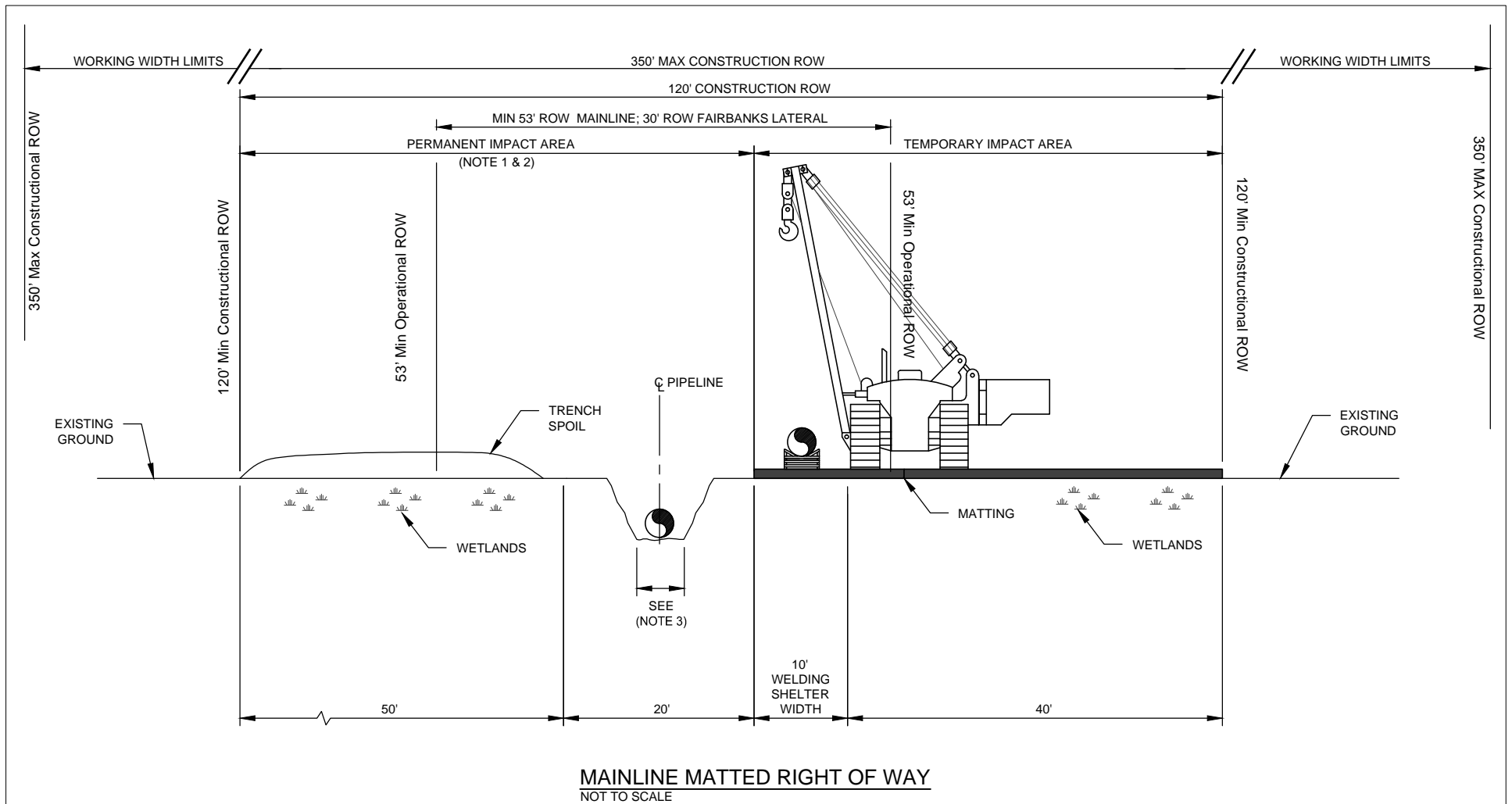
WORK PAD WITHIN HIGHWAY RIGHT OF WAY
NOT TO SCALE

NOTES:

1. SPOIL PILE WILL BE TRANSPORTED TO TEMPORARY STOCKPILE AREA IF PIPELINE TRENCH IS WITHIN 30 FEET OF THE HIGHWAY.
2. EXCAVATION LIMITS VARY WITH EXISTING GROUND GRADIENT.
3. FOR SECTIONS LOCATED WITHIN WETLANDS.
4. MAINLINE 5.0'. FAIRBANKS LATERAL 3.0'.
5. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.
6. GRAVEL OVERLAY REQUIRED WHERE SOILS ARE FINE GRAINED. DEPTH VARIES FROM 18" TO 60" DEPENDING ON SOIL TYPE.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Where ASAP Footprint is within Highway Right of Way

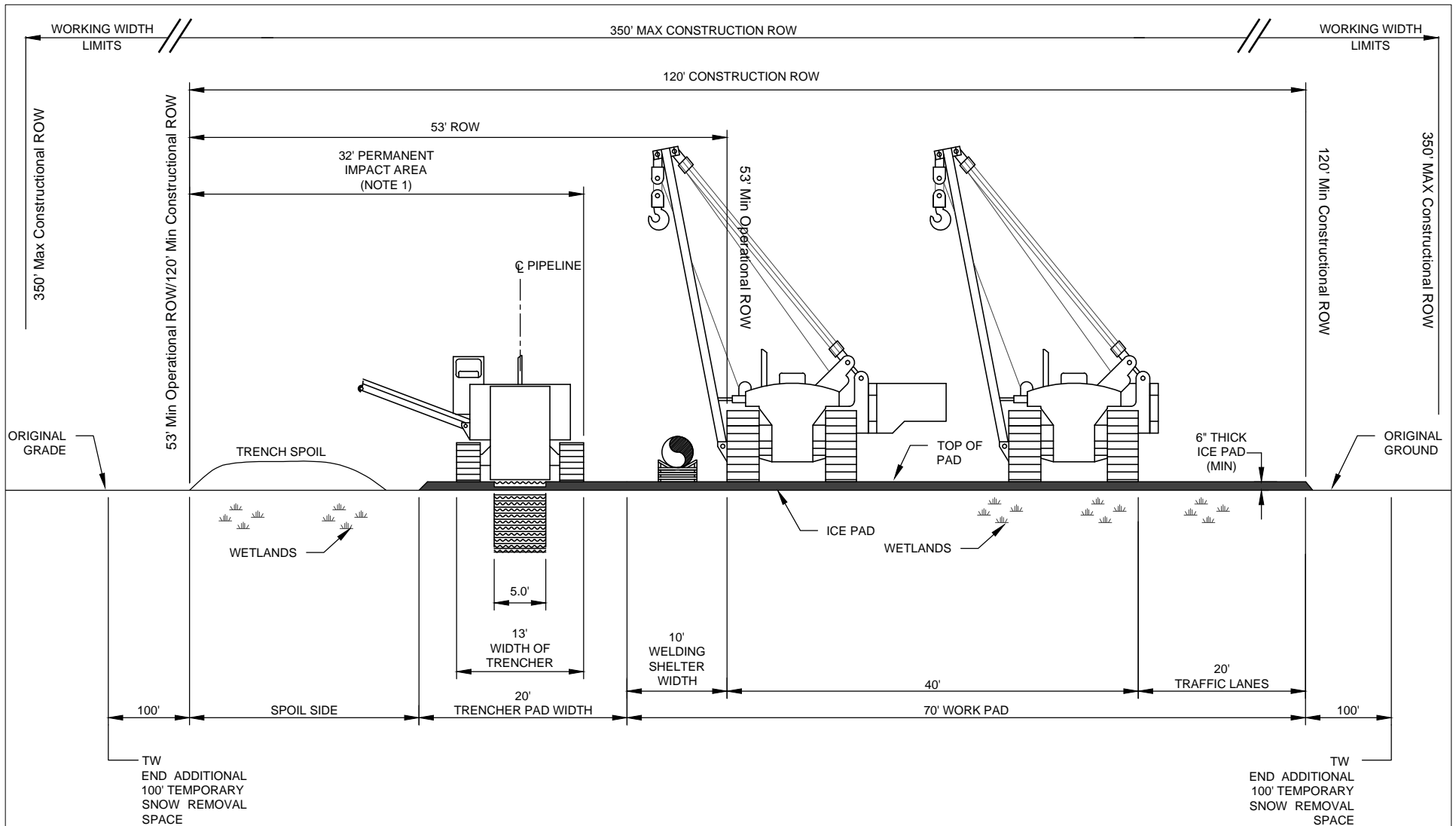
Sheet 22 of 73 Date: 04/23/2018



NOTES:

1. PERMANENT IMPACT AREA BASED ON TRENCH SIDEWALL SLOPE OF 2:1 & TRENCH SPOIL WIDTH.
2. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE WIDTH. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.
3. MAINLINE 5.0'. FAIRBANKS LATERAL 3.0'.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: From MP 62 to Terminus in Wetlands during Summer Construction
 Sheet 23 of 73 Date: 04/23/2018



TUNDRA ICE WORKPAD TYPICAL RIGHT OF WAY
NOT TO SCALE

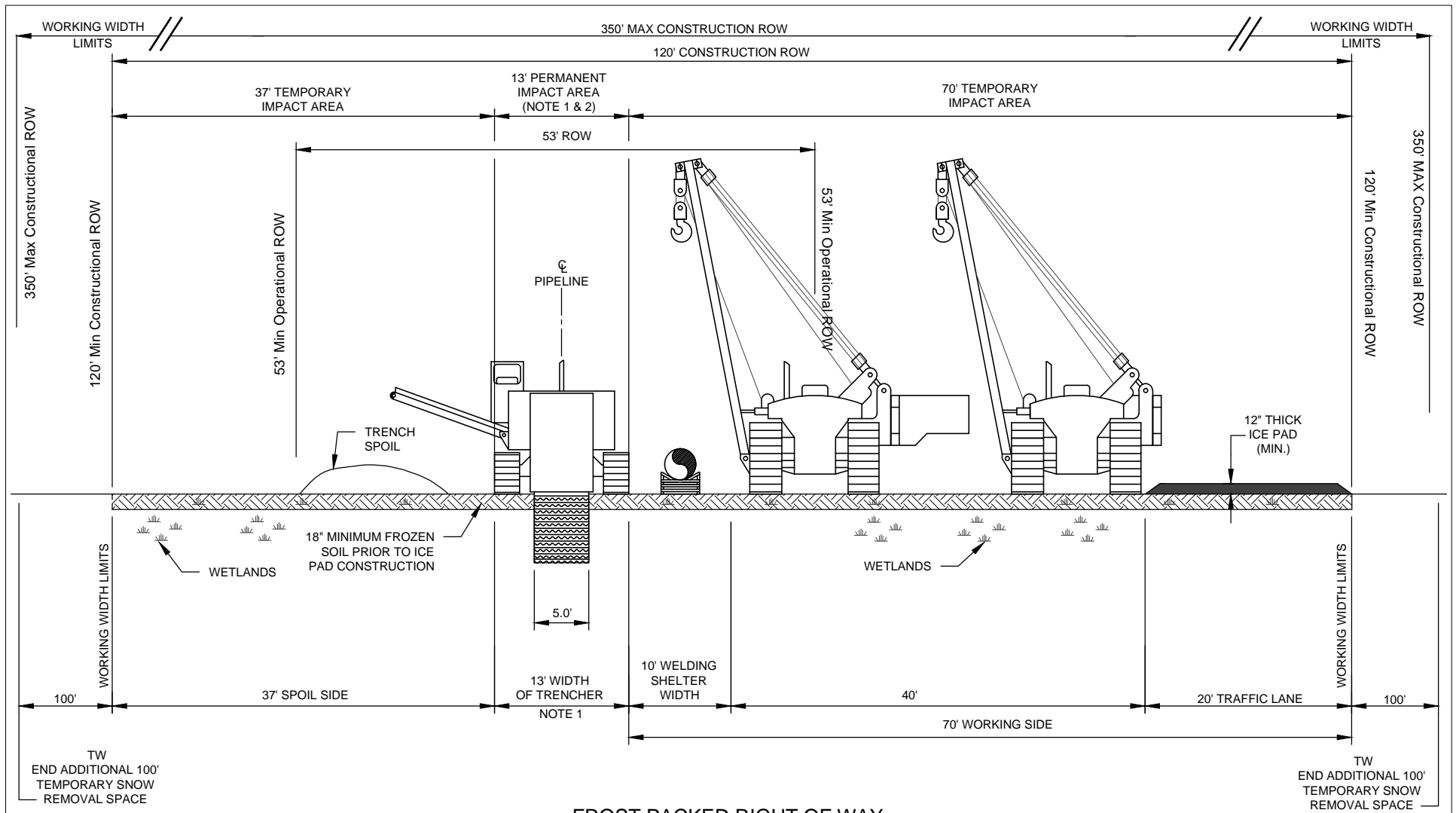
NOTES:

- IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE-TO-TOE WIDTH. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT. IMPACTS FROM MP0 TO MP62 WILL BE APPROXIMATELY 9FT IN WIDTH (5FT WIDTH OF TRENCH, PLUS APPROXIMATELY 2FT EITHER SIDE OF TRENCH TO FORM THE TOE OF THE CROWN). AREA UNDER TRENCH SPOIL HAS BEEN DEEMED TEMPORARY IMPACT. TRENCH SPOIL WILL BE USED TO FILL AND CROWN THE DITCH TO THE EXTENT PRACTICABLE. EXACT WIDTH OF TOE AND CROWN MAY VARY DEPENDING ON CONDITIONS.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Approximately MP 0.0 = MP 62.0

Sheet 24 of 73 Date: 04/23/2018

404_024_01



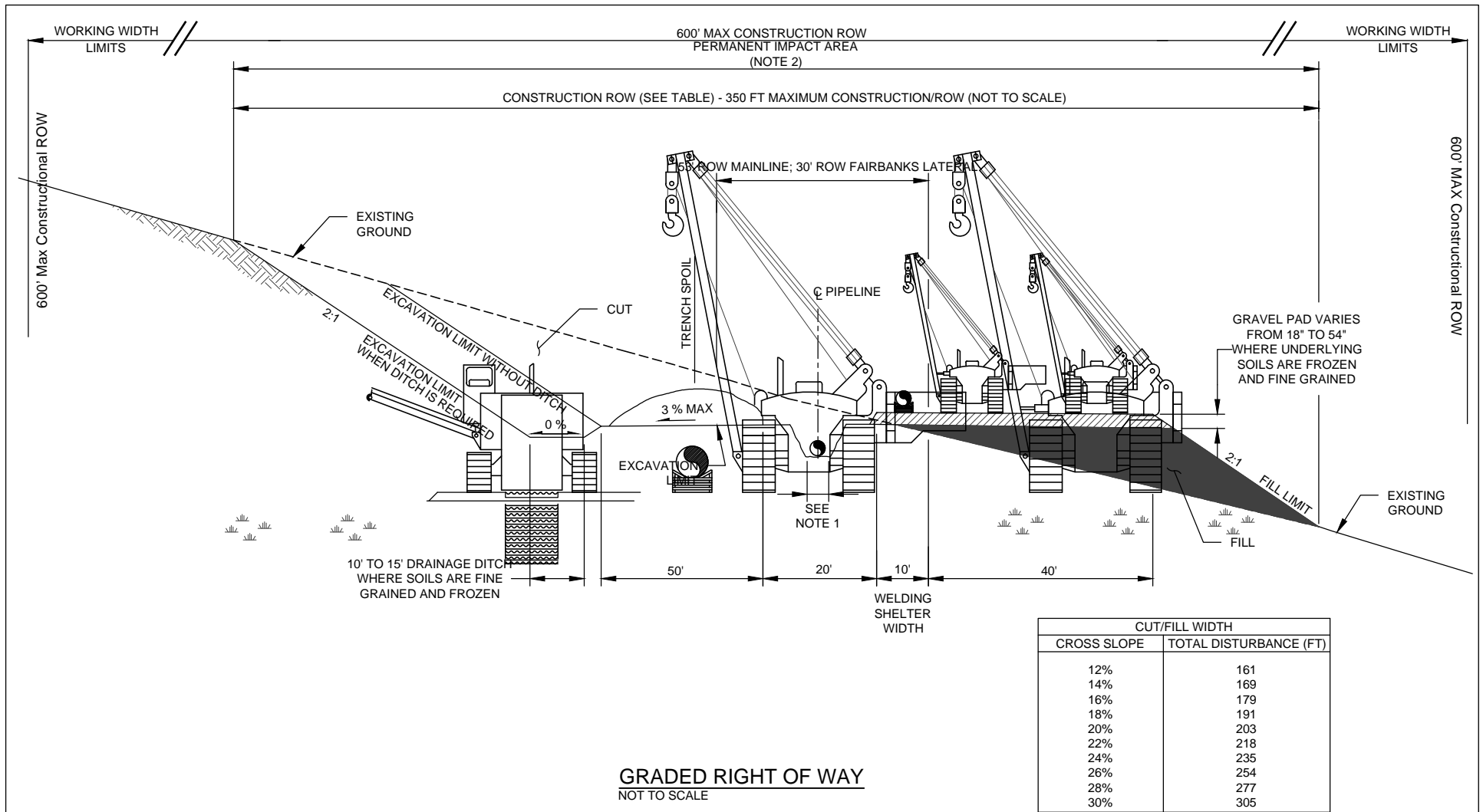
FROST PACKED RIGHT OF WAY
NOT TO SCALE

NOTES:

1. 13 FEET OF PERMANENT IMPACT ACCOUNTS FOR WIDTH OF TRENCHER, SPACE FOR EXCAVATOR IF NEEDED AND SOIL COVER.
2. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL-TOE-TO-TOE WIDTH. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT. EXACT WIDTH OF RESULTING TOE AND CROWN MAY VARY DEPENDING ON CONDITIONS.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: As Applicable on the Mainline

Sheet 25 of 73 Date: 04/23/2018

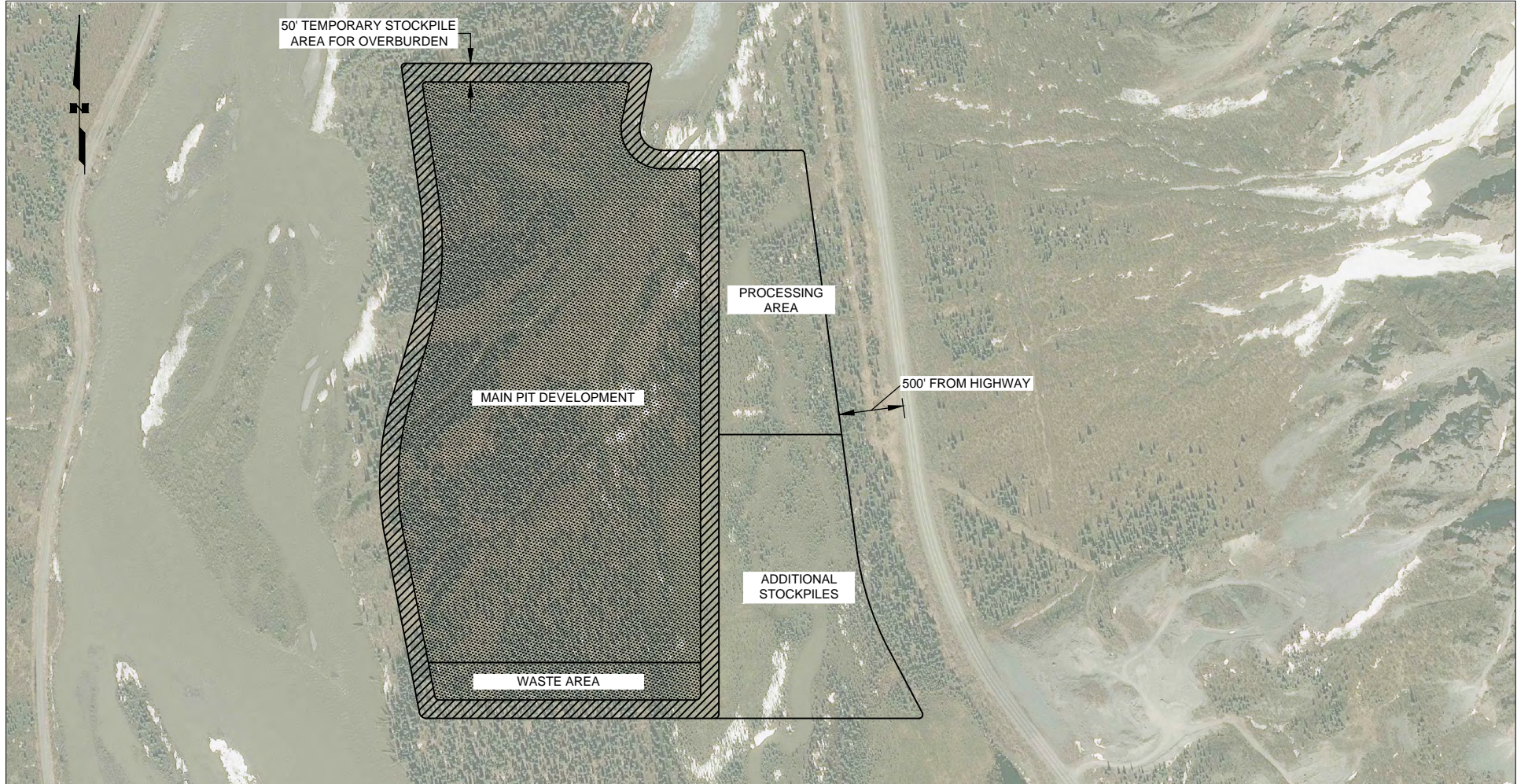


NOTES:

1. FOR MAINLINE 5.0' MINIMUM; FOR FAIRBANKS LATERAL 3.0' MINIMUM.
2. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: In Wetlands where Cross Slope exceeds 10%

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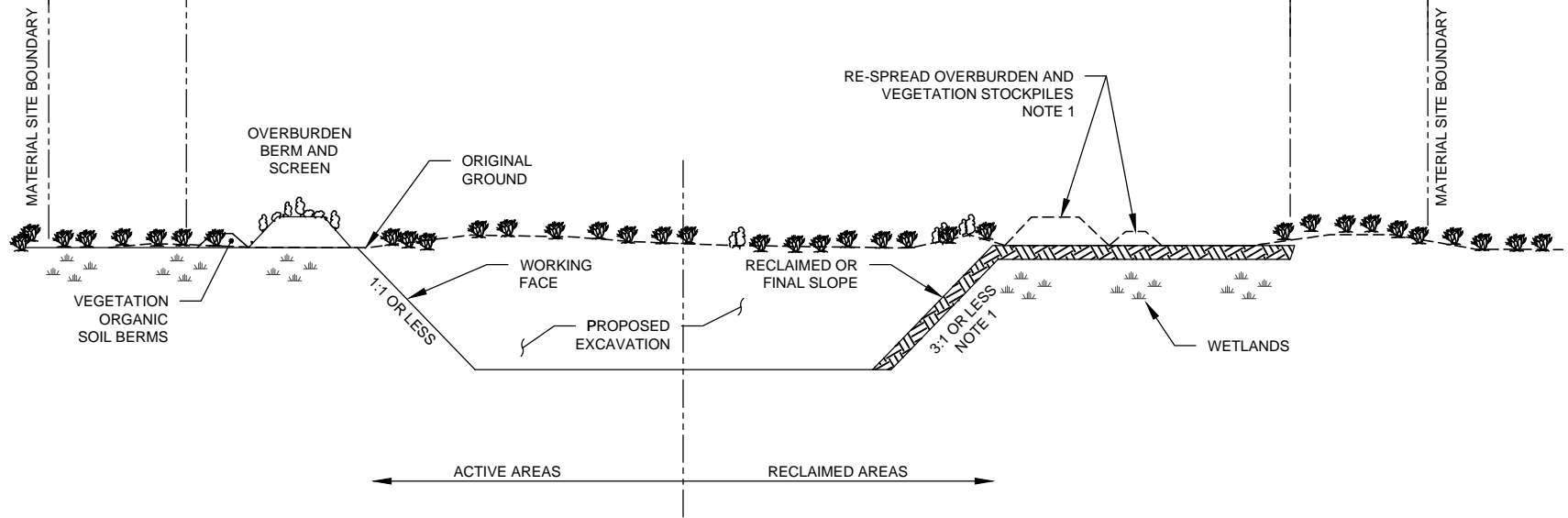
GRAVEL SOURCE PIT
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Start = MP 0.0
 End = Terminus

Sheet 27 of 73 Date: 04/23/2018

50' BUFFER EXCEPT
NEAR HIGHWAYS
500' BUFFER BETWEEN
HIGHWAYS AND MATERIAL SITES

50' BUFFER EXCEPT
NEAR HIGHWAYS
500' BUFFER BETWEEN
HIGHWAYS AND MATERIAL SITES



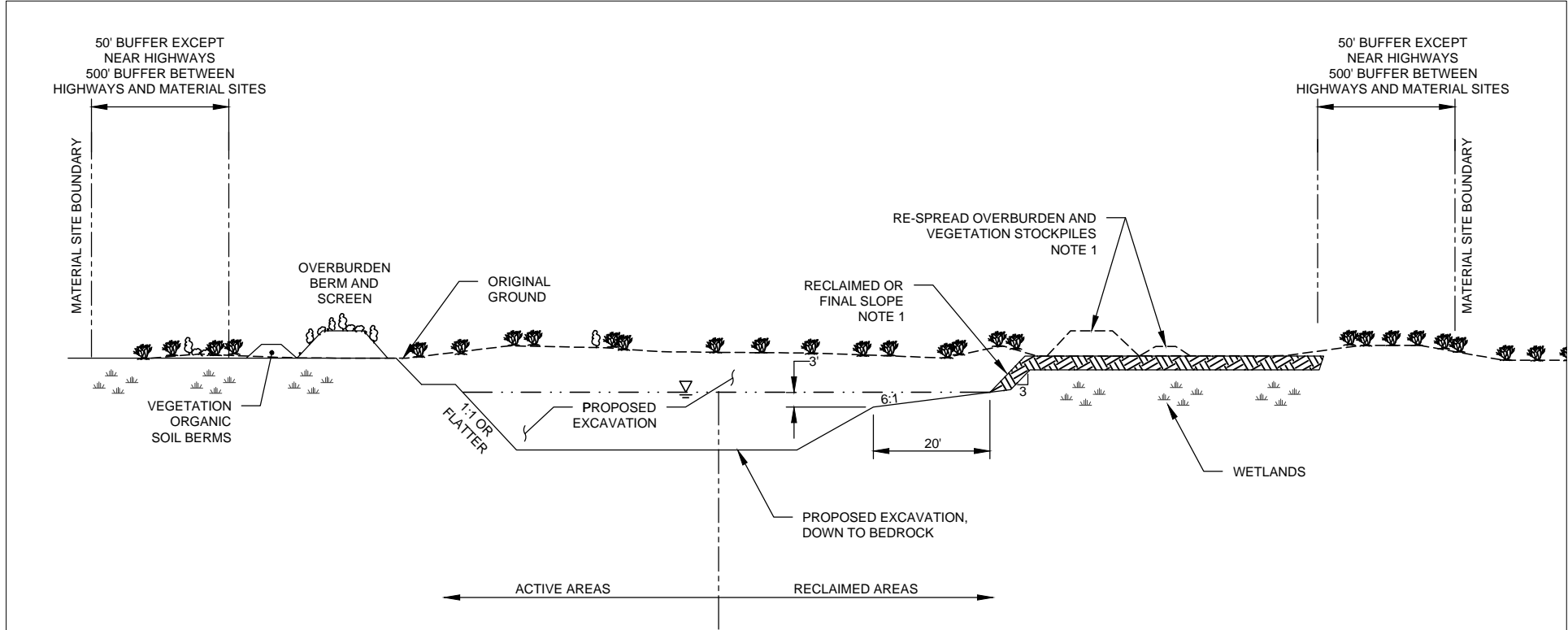
TYPICAL CROSS-SECTION OF MATERIAL SITE ABOVE WATER TABLE
NOT TO SCALE

NOTES:

1. RE-SPREAD OVERBURDEN AND ORGANIC DEPTH LAYER/VEGETATION.

Applicant: The Alaska Gasline Development Corporation
File Number: POA-2009-651
Proposed Activity: Natural Gas Pipeline
Location: See Materials List

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TYPICAL CROSS-SECTION OF MATERIAL SITE BELOW WATER TABLE
 NOT TO SCALE

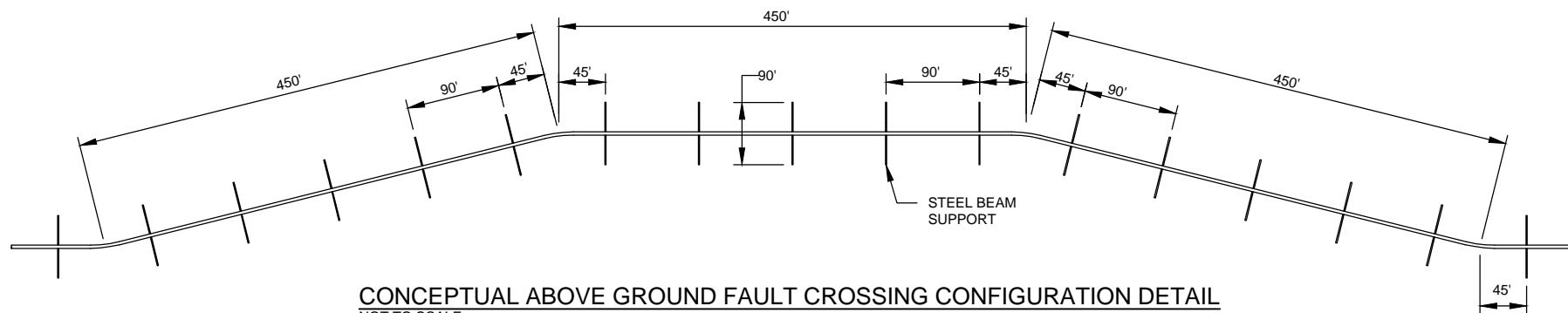
NOTES:

1. RE-SPREAD OVERBURDEN AND ORGANIC LAYER/VEGETATION.

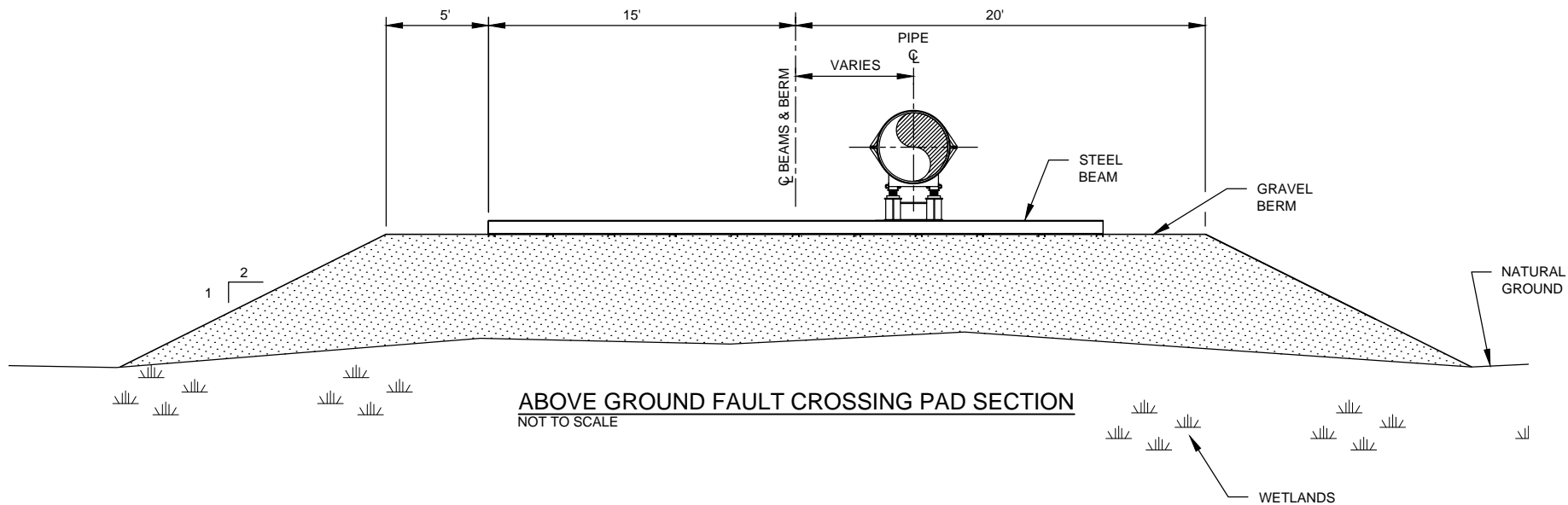
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Material Site List

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404_029_01



CONCEPTUAL ABOVE GROUND FAULT CROSSING CONFIGURATION DETAIL
NOT TO SCALE



ABOVE GROUND FAULT CROSSING PAD SECTION
NOT TO SCALE

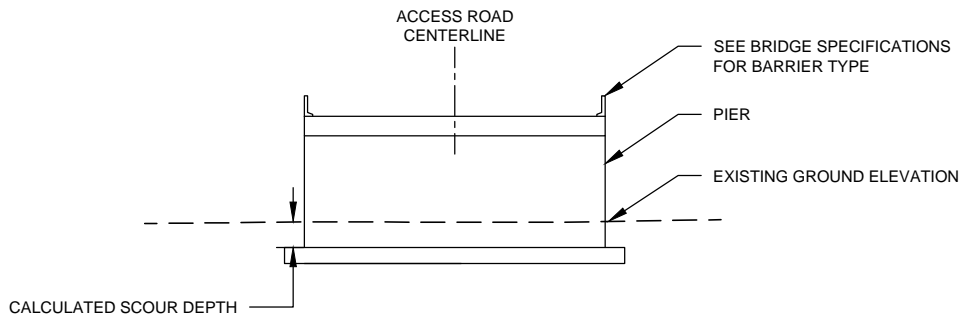
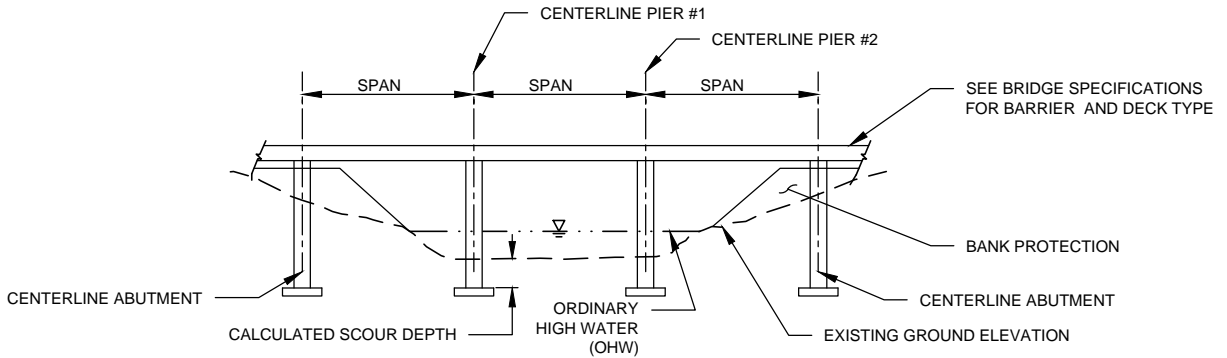
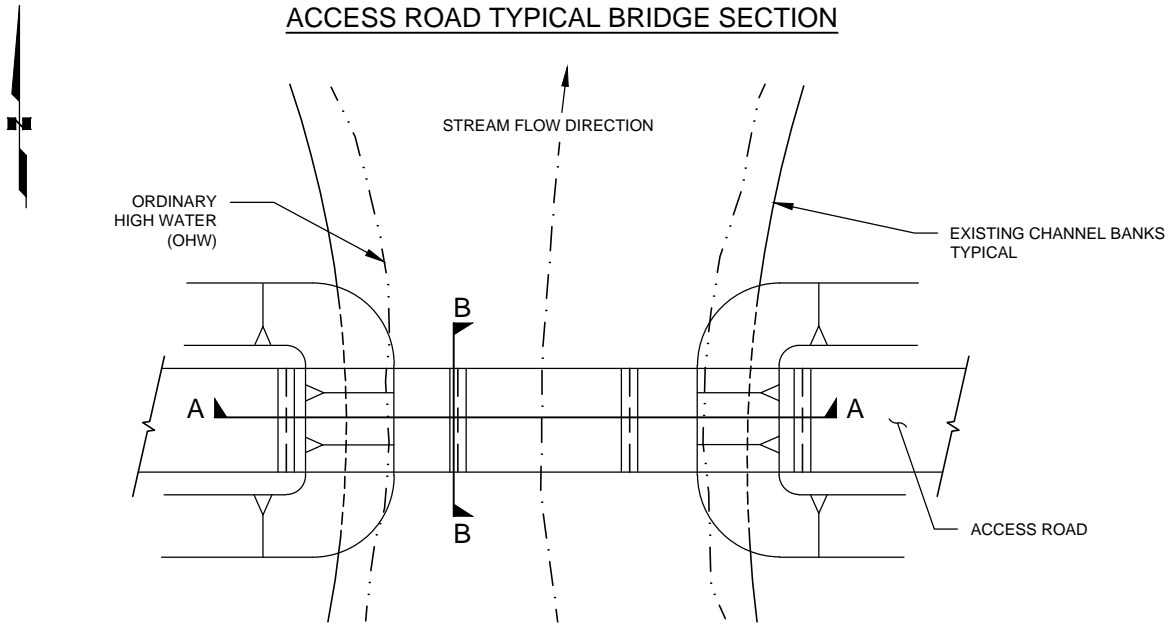
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Start = MP 531.0
 End = MP 539.0

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404_030_01

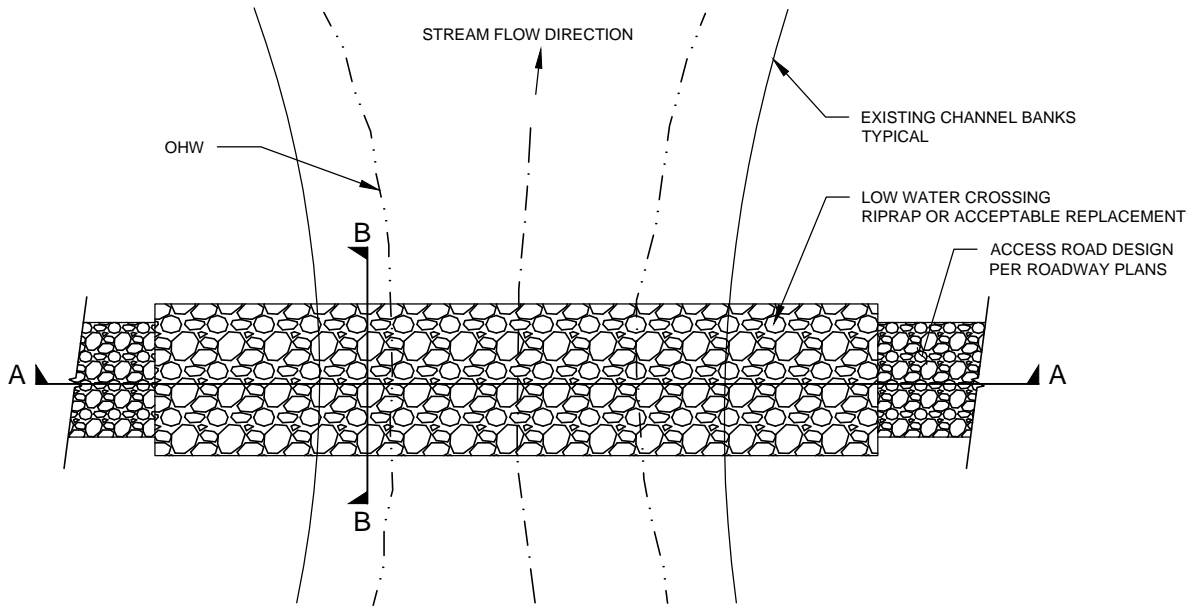
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ACCESS ROAD TYPICAL BRIDGE SECTION

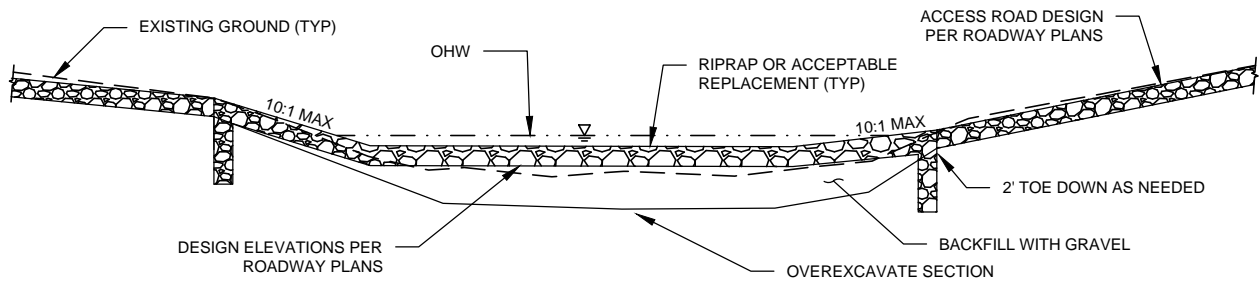


Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Structures List

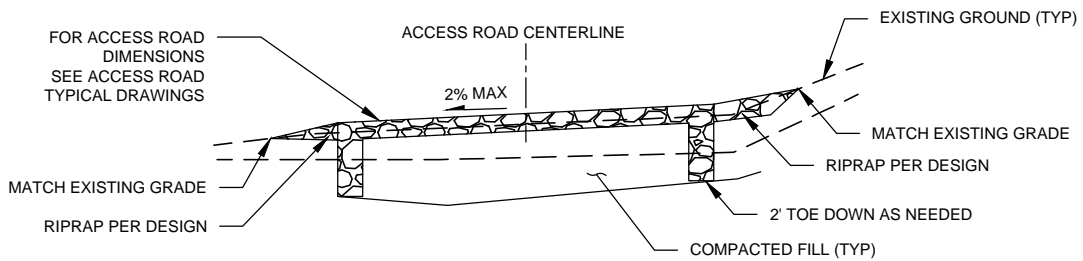
ACCESS ROAD LOW WATER CROSSING SECTION



PLAN VIEW
NOT TO SCALE



CROSS SECTION A-A
NOT TO SCALE



CROSS SECTION B-B
NOT TO SCALE

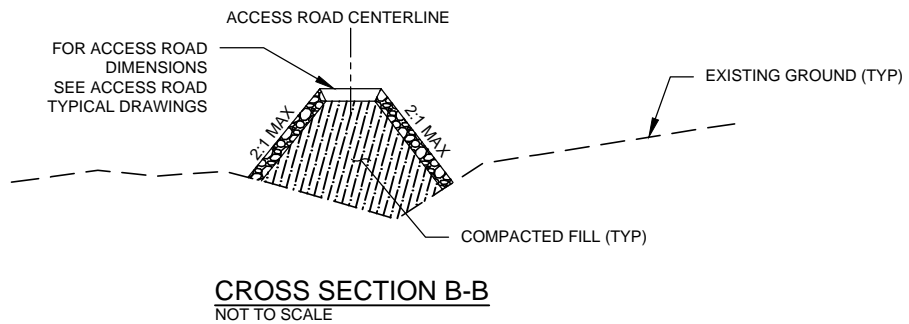
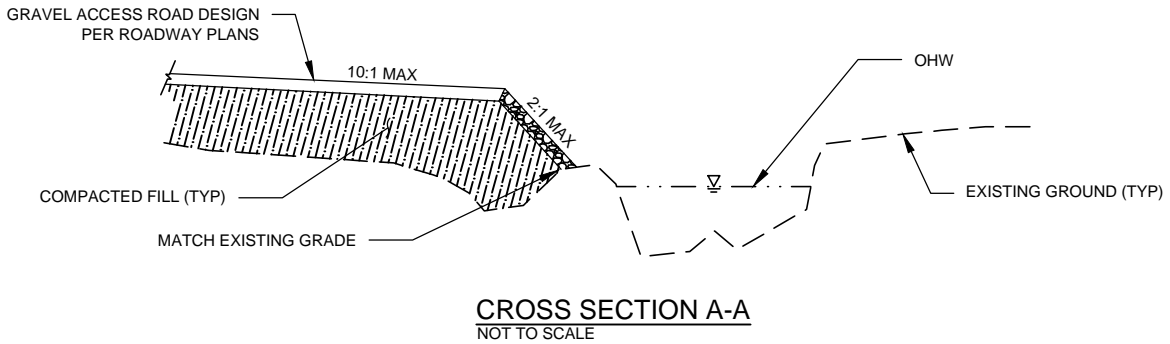
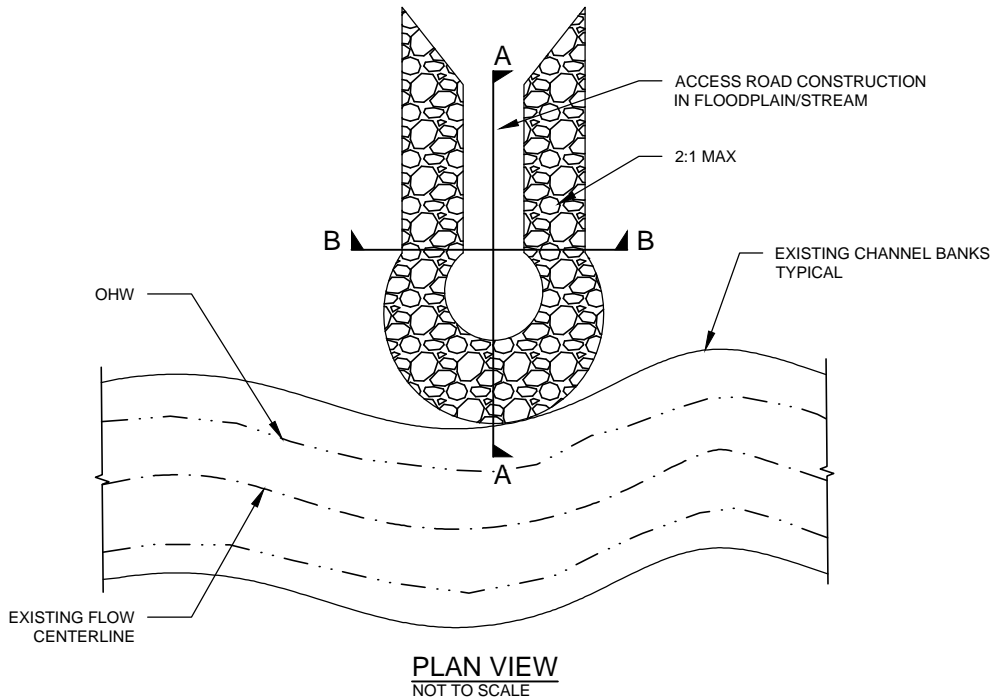
NOTES:

1. WILL REPLACE CULVERTS IN A LOW FLOW CIRCUMSTANCE BASED ON SITE CONDITIONS.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Structures List

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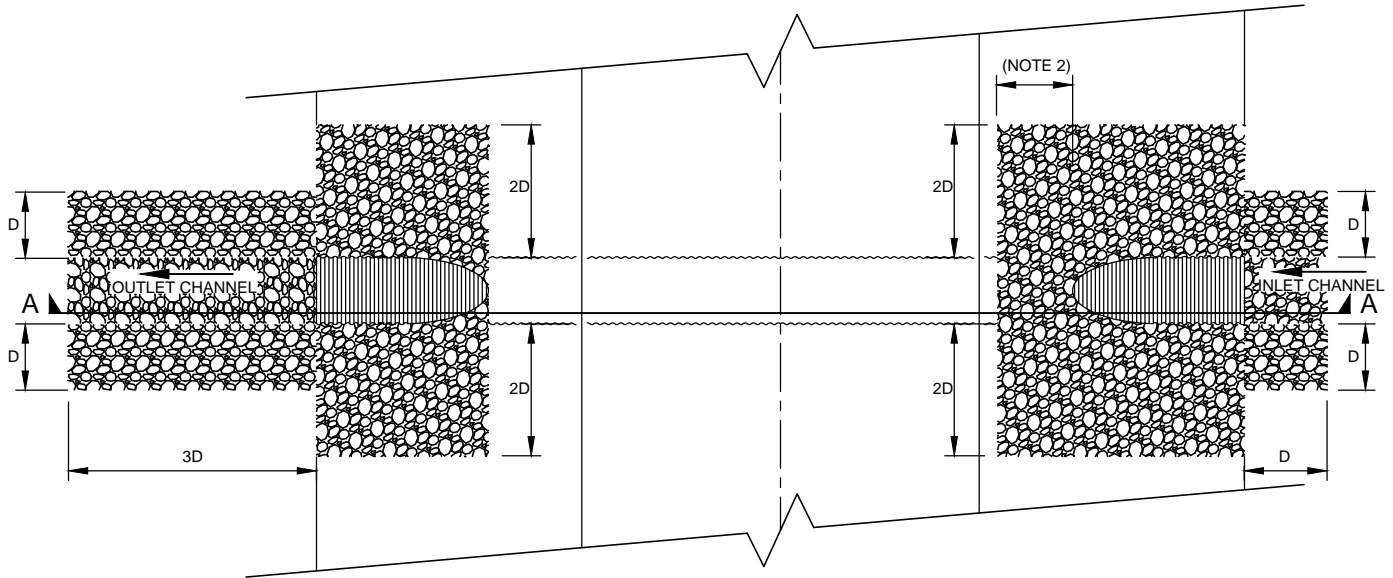
ACCESS ROAD CONSTRUCTION TO STREAMS AND FLOODPLAINS



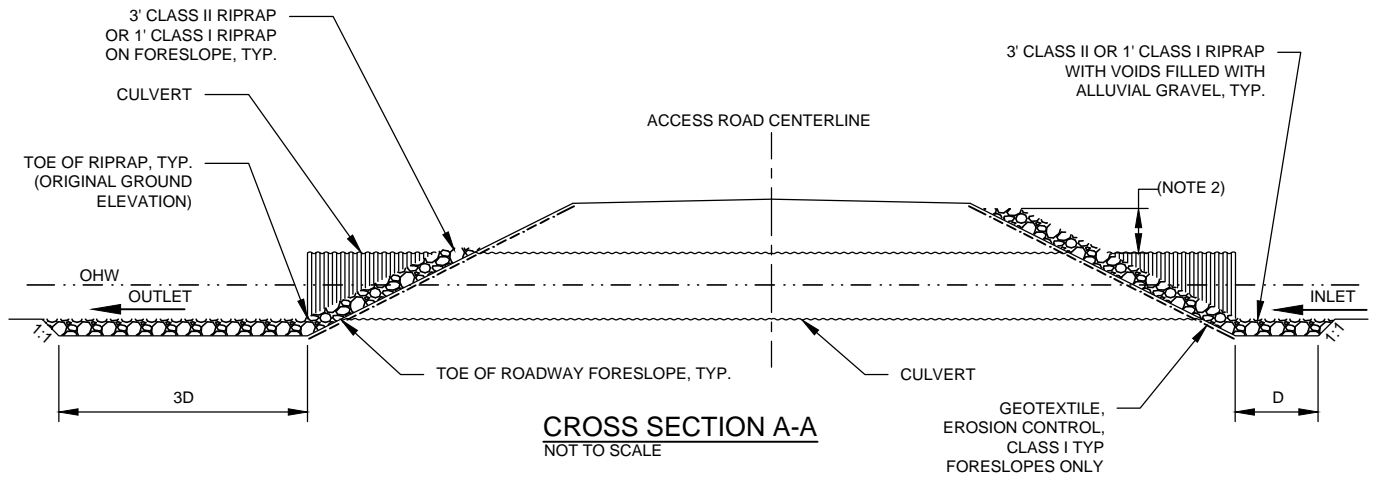
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: By Waterway

Sheet 33 of 73 Date: 04/23/2018

CROSS CULVERT DETAIL
NOT TO SCALE



PLAN VIEW
NOT TO SCALE



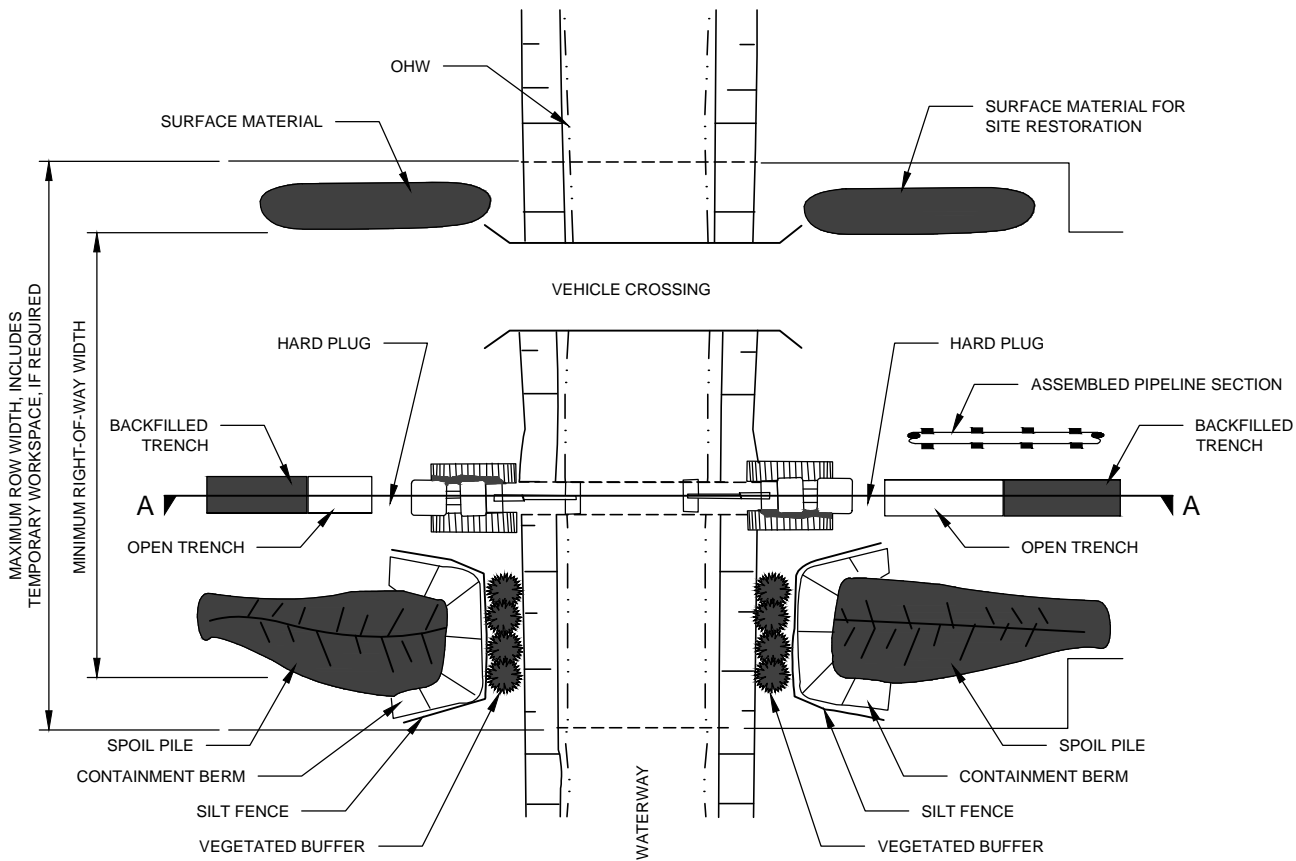
CROSS SECTION A-A
NOT TO SCALE

TRENCH NOTES:

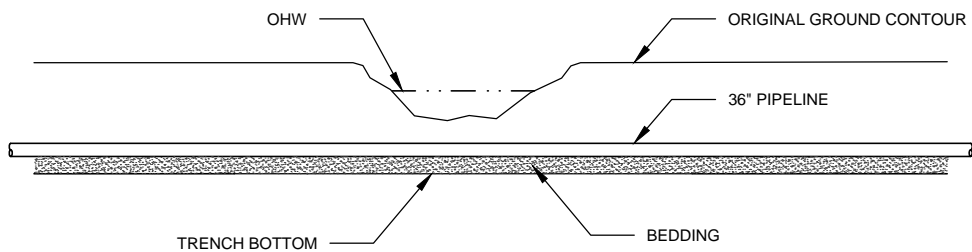
1. EROSION CONTROL STRUCTURES ARE APPROXIMATE AND MAY BE FIELD ADJUSTED BY THE ENGINEER TO TAKE ADVANTAGE OF EXISTING CHANNEL FEATURES.
2. EXTEND RIPRAP THREE FEET ABOVE THE PIPE ON THE INLET SIDE OR TO THE EDGE OF THE SHOULDER.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Stream Crossing List

Sheet 34 of 73 Date: 04/23/2018



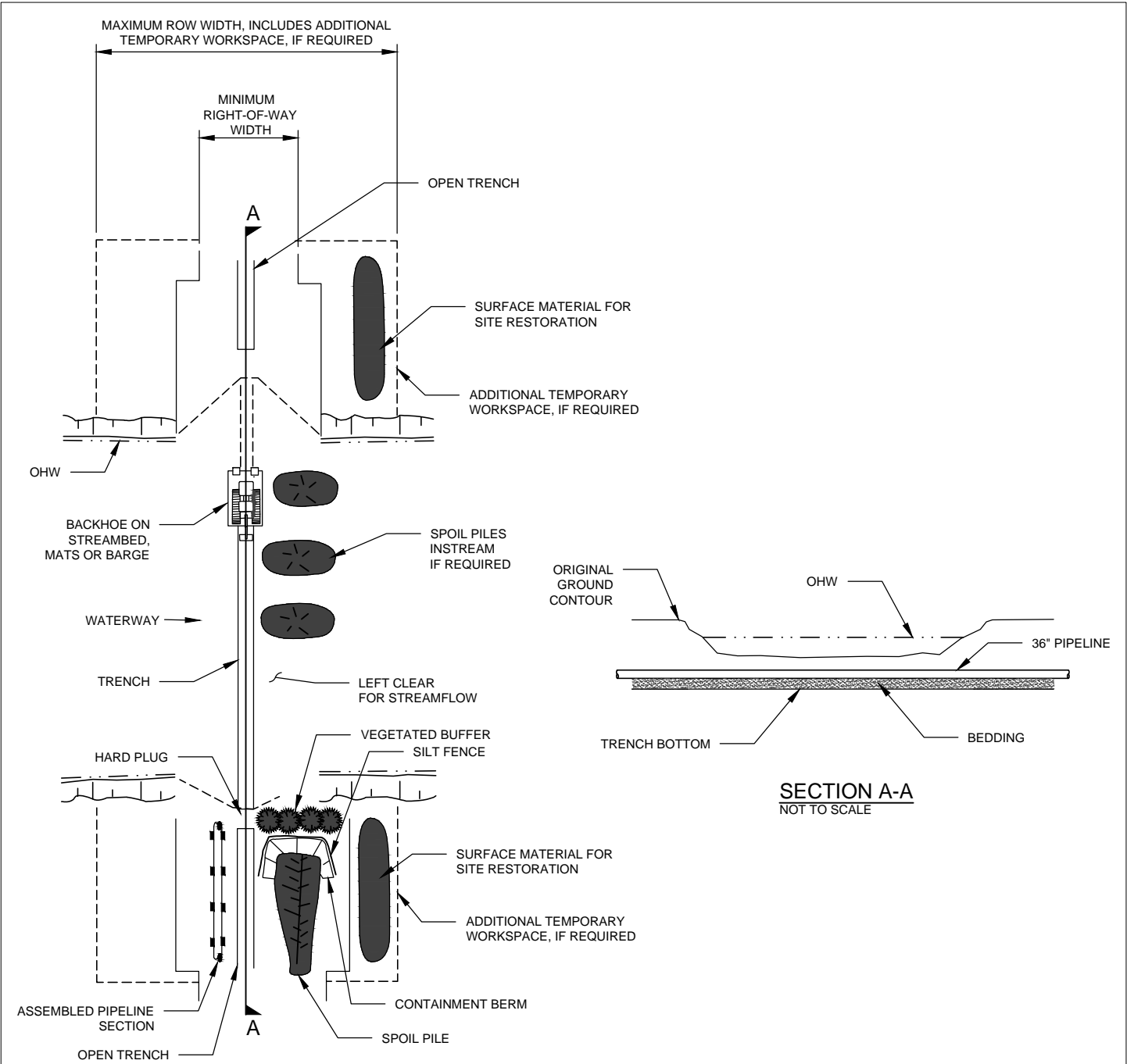
OPEN CUT TRENCHING MODE AT SMALL CROSSINGS - TYPICAL
NOT TO SCALE



SECTION A-A
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Stream Crossing List

Sheet 35 of 73 Date: 04/23/2018



SECTION A-A
NOT TO SCALE

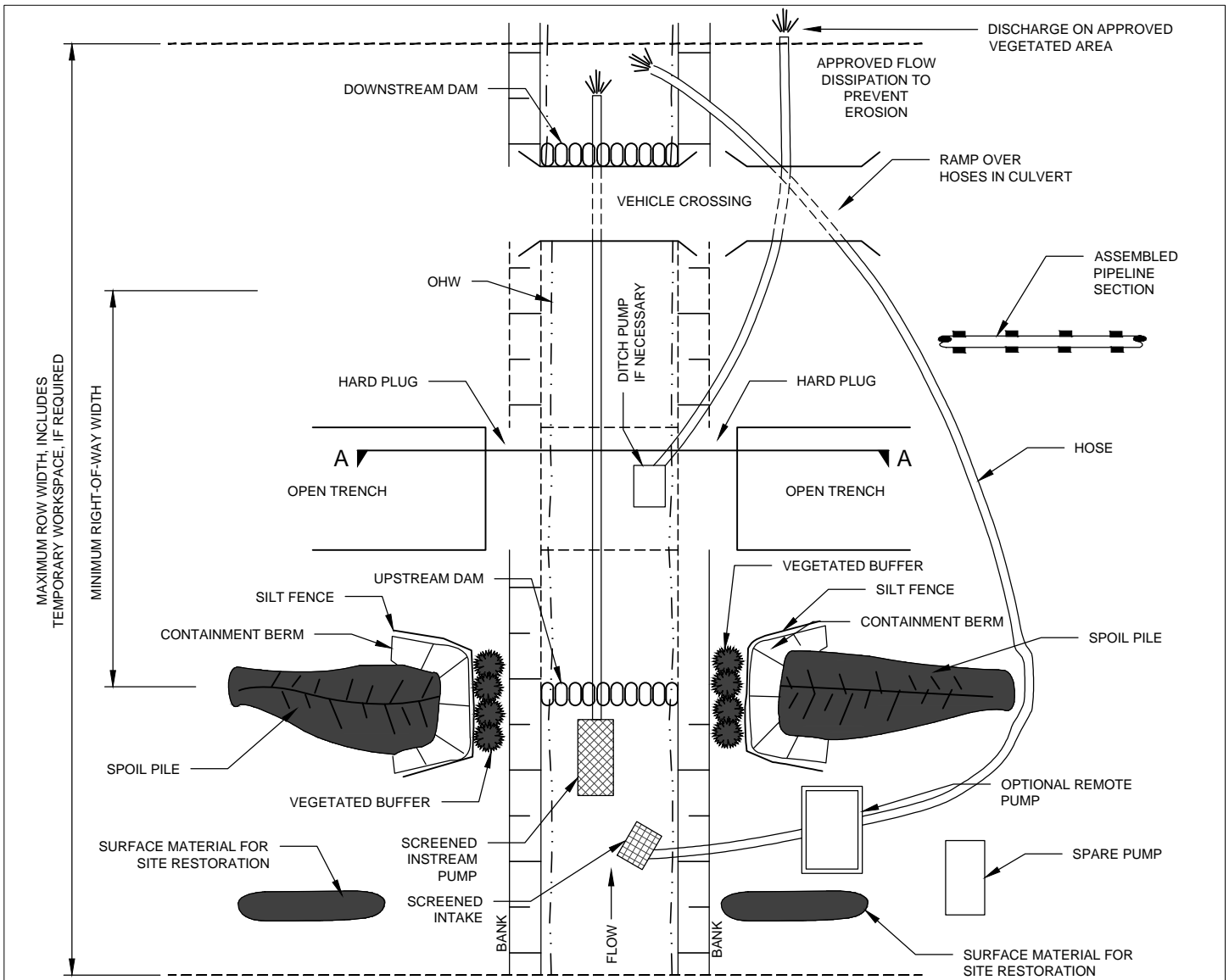
OPEN CUT TRENCHING MODE AT LARGE CROSSINGS - TYPICAL
NOT TO SCALE

NOTES:

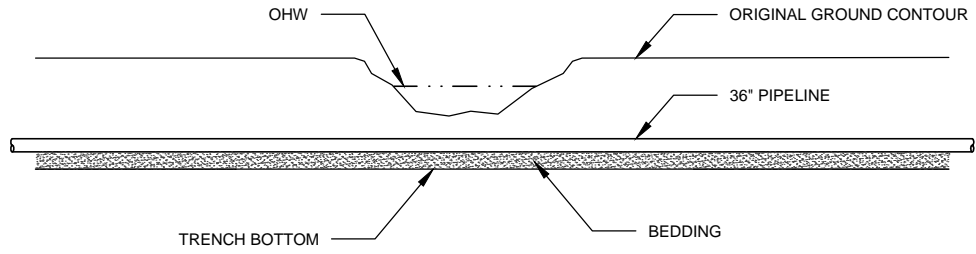
1. REMOVE WINGWALLS.
2. REVEGETATE BANKS TO AVOID EROSION.
3. MICROTOPOGRAPHY WILL BE LEFT.
4. CROSSING USACE NAVIGABLE WATERWAYS:
- KUPARUK RIVER - ST_130.8

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Stream Crossing List
 Sheet 36 of 73 Date: 04/23/2018

404_036_01



ISOLATED OPEN CUT TRENCHING MODE USING DAM AND PUMP - TYPICAL
NOT TO SCALE



SECTION A-A
NOT TO SCALE

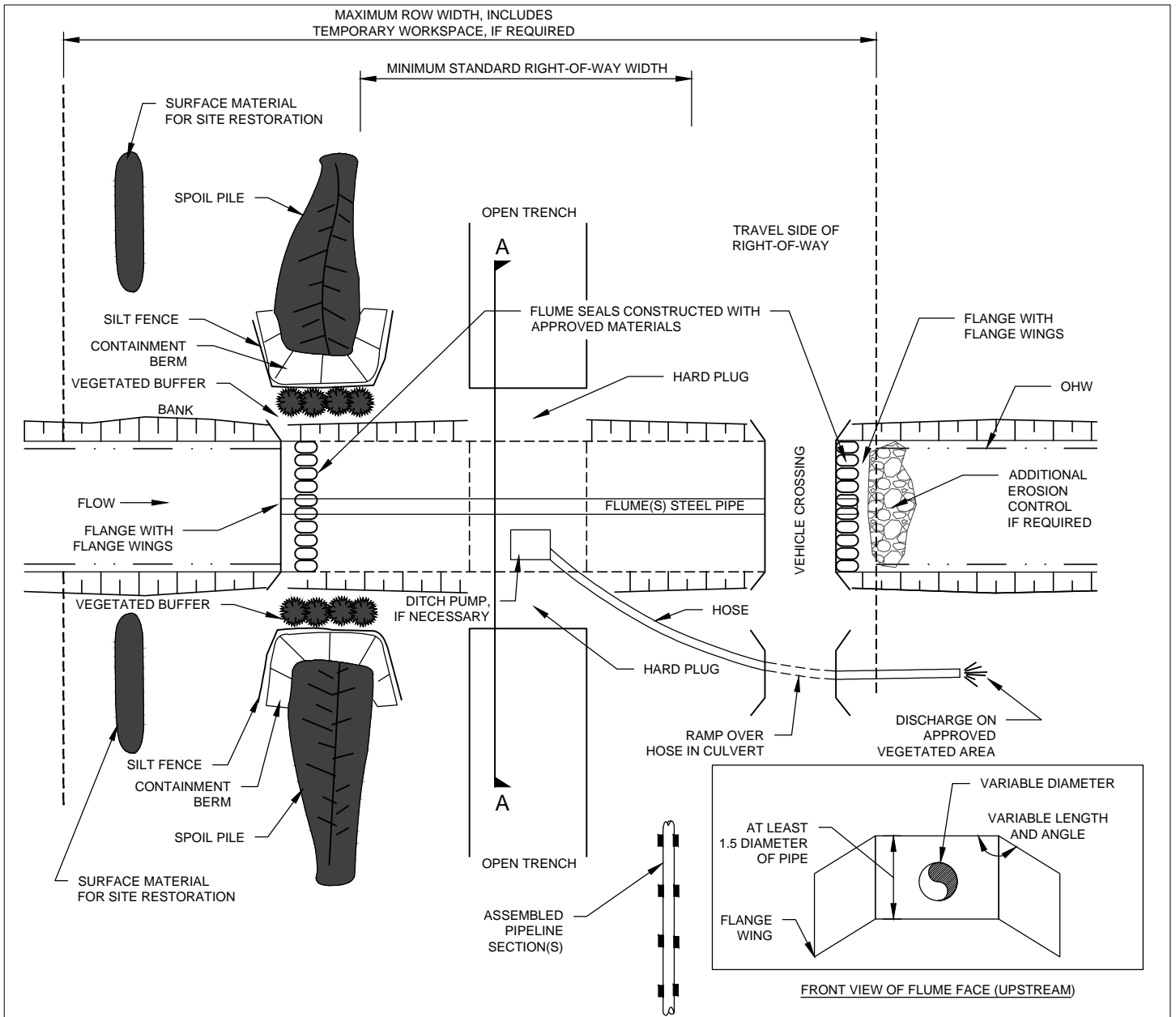
NOTES:

1. CROSSING USACE NAVIGABLE WATERWAYS:
 - TOLOVANA RIVER - ST_401.3
 - CHATANIKA RIVER - ST_437.6
 - LITTLE SUSITNA RIVER - ST_729.1
 - NENANA RIVER - ST_475 / ST_488.2

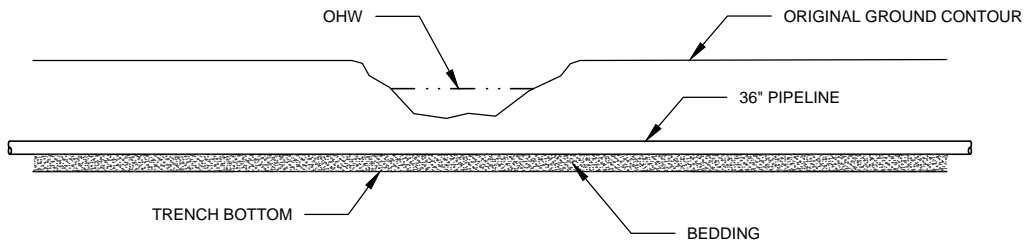
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Stream Crossing List

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404_37_01



ISOLATED OPEN CUT TRENCHING MODE USING FLUME - TYPICAL
 NOT TO SCALE



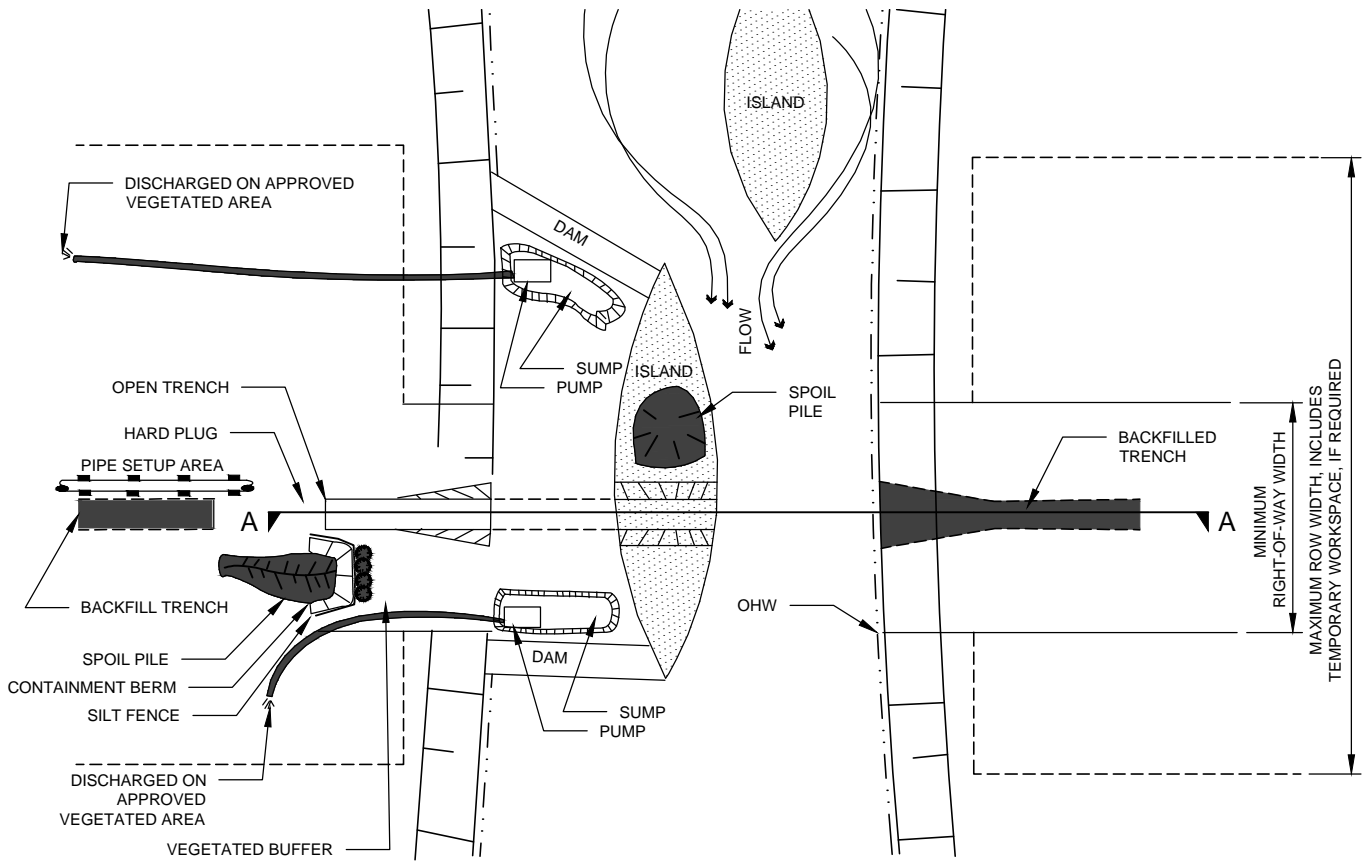
SECTION A-A
 NOT TO SCALE

NOTES:

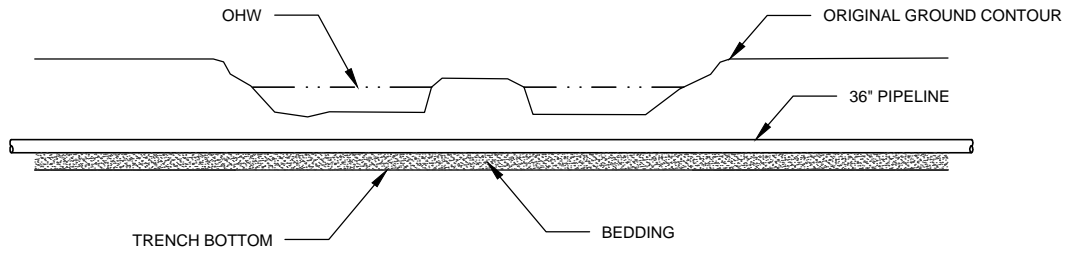
1. ONLY CLEAN FILL WILL BE PLACED IN CREEK AS PART OF FLUME.
2. CROSSING USACE NAVIGABLE WATERWAYS:
 - TOLOVANA RIVER - ST_401.3
 - CHATANIKA RIVER - ST_437.6
 - LITTLE SUSITNA RIVER - ST_729.1
 - NENANA RIVER - ST_475 / ST_488.2

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Stream Crossing List

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ISOLATED OPEN CUT TRENCHING MODE USING DIVERSION - TYPICAL
 NOT TO SCALE



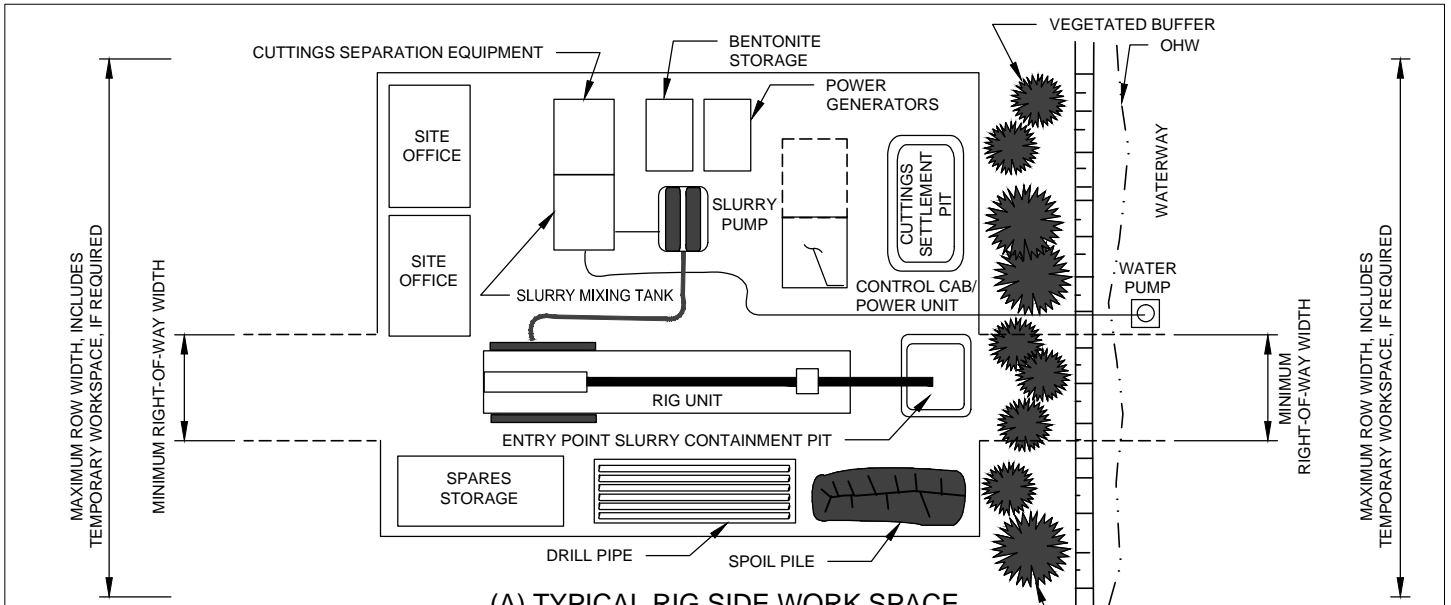
SECTION A-A
 NOT TO SCALE

NOTES:

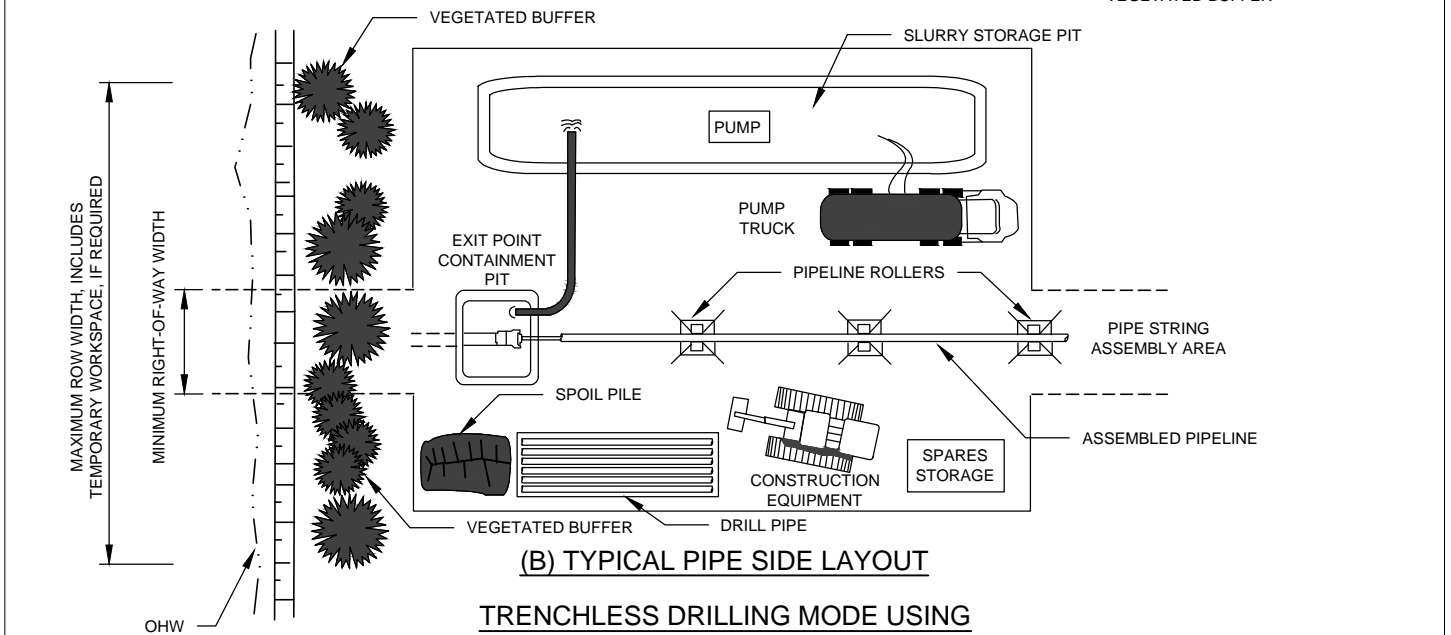
- CROSSING USACE NAVIGABLE WATERWAYS:
 - TOLOVANA RIVER - ST_401.3
 - CHATANIKA RIVER - ST_437.6
 - LITTLE SUSITNA RIVER - ST_729.1
 - NENANA RIVER - ST_475 / ST_488.2

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Stream Crossing List

Sheet 39 of 73 Date: 04/23/2018

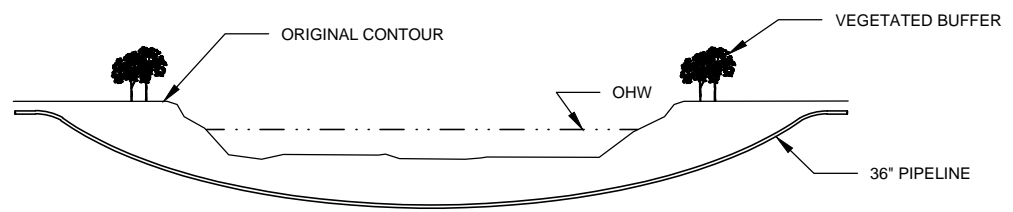


(A) TYPICAL RIG SIDE WORK SPACE



(B) TYPICAL PIPE SIDE LAYOUT

TRENCHLESS DRILLING MODE USING HORIZONTAL DIRECTIONAL DRILLING (HDD) - TYPICAL
NOT TO SCALE

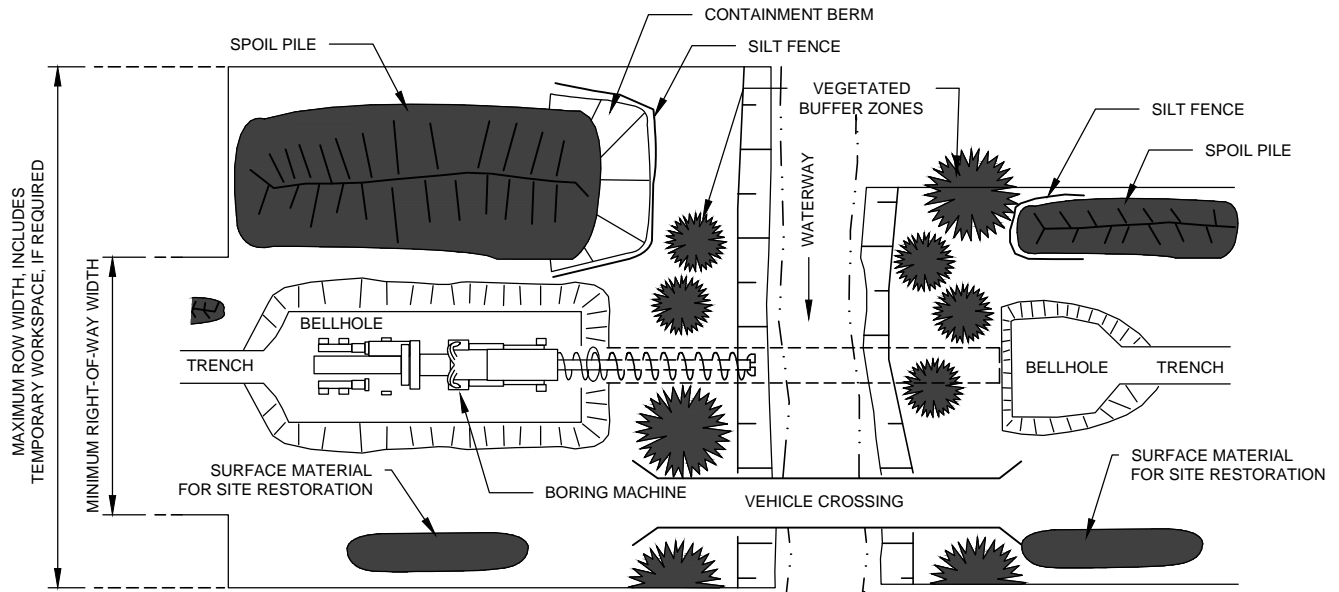


PROFILE
NOT TO SCALE

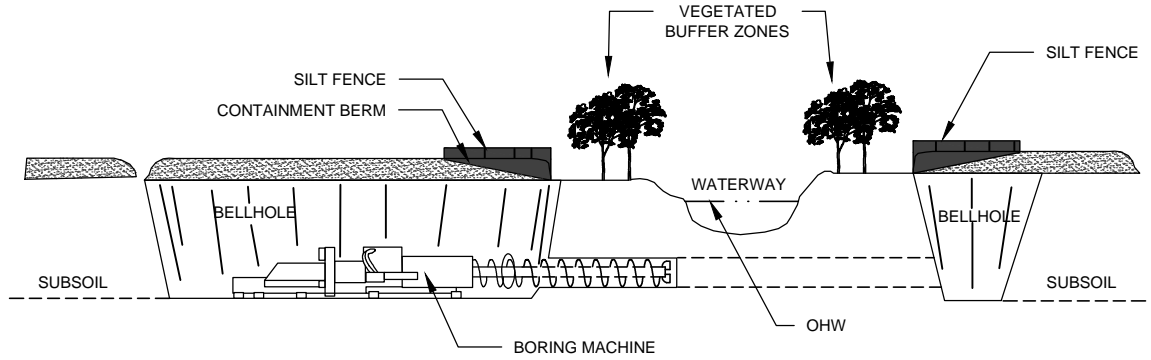
- NOTES:**
- CROSSING USACE NAVIGABLE WATERWAYS:
 - YUKON RIVER - ST_356
 - TANANA RIVER - ST_471.9
 - WILLOW CREEK - ST_705.5

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Stream Crossing List

404_40_01



PLAN



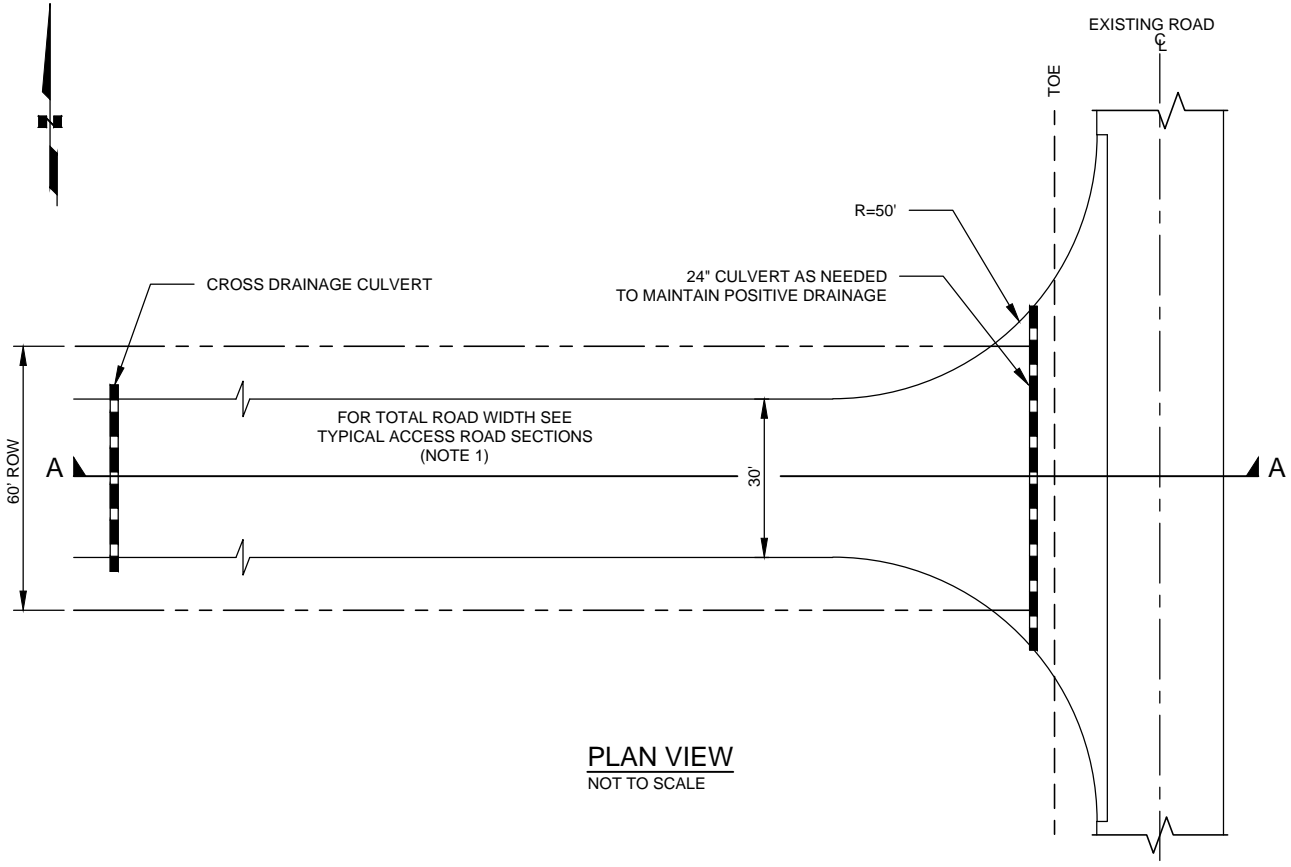
PROFILE

TRENCHLESS DRILLING MODE USING DIRECT BORING - TYPICAL
 NOT TO SCALE

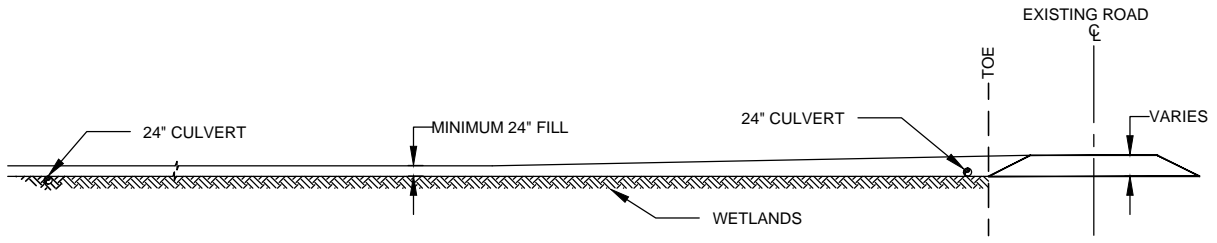
NOTES:

- CROSSING USACE NAVIGABLE WATERWAYS:
 - WILLOW CREEK - ST_705.5

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Stream Crossing List



PLAN VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE

ROAD INTERSECTION DETAIL
NOT TO SCALE

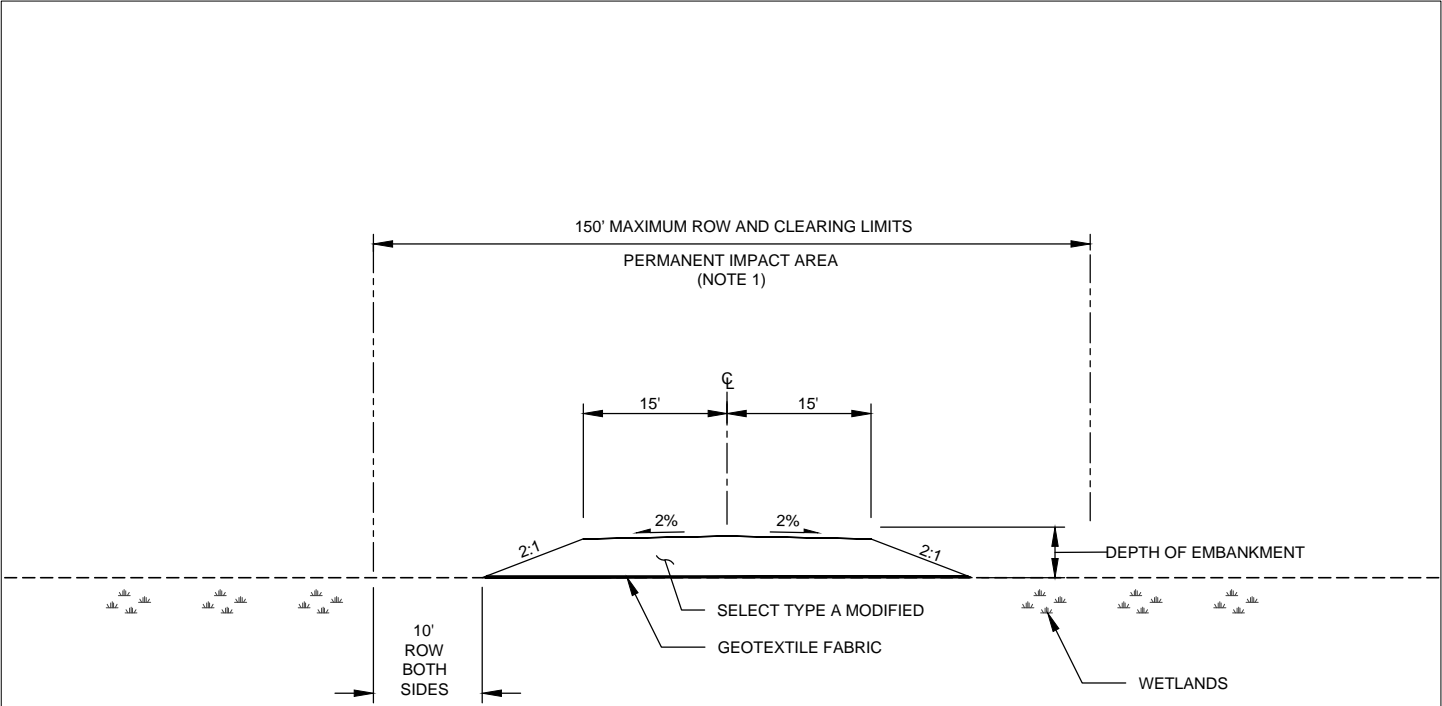
NOTE:

1. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Access Road List

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404_42_01



TYPICAL ACCESS ROAD IN FILL
NOT TO SCALE

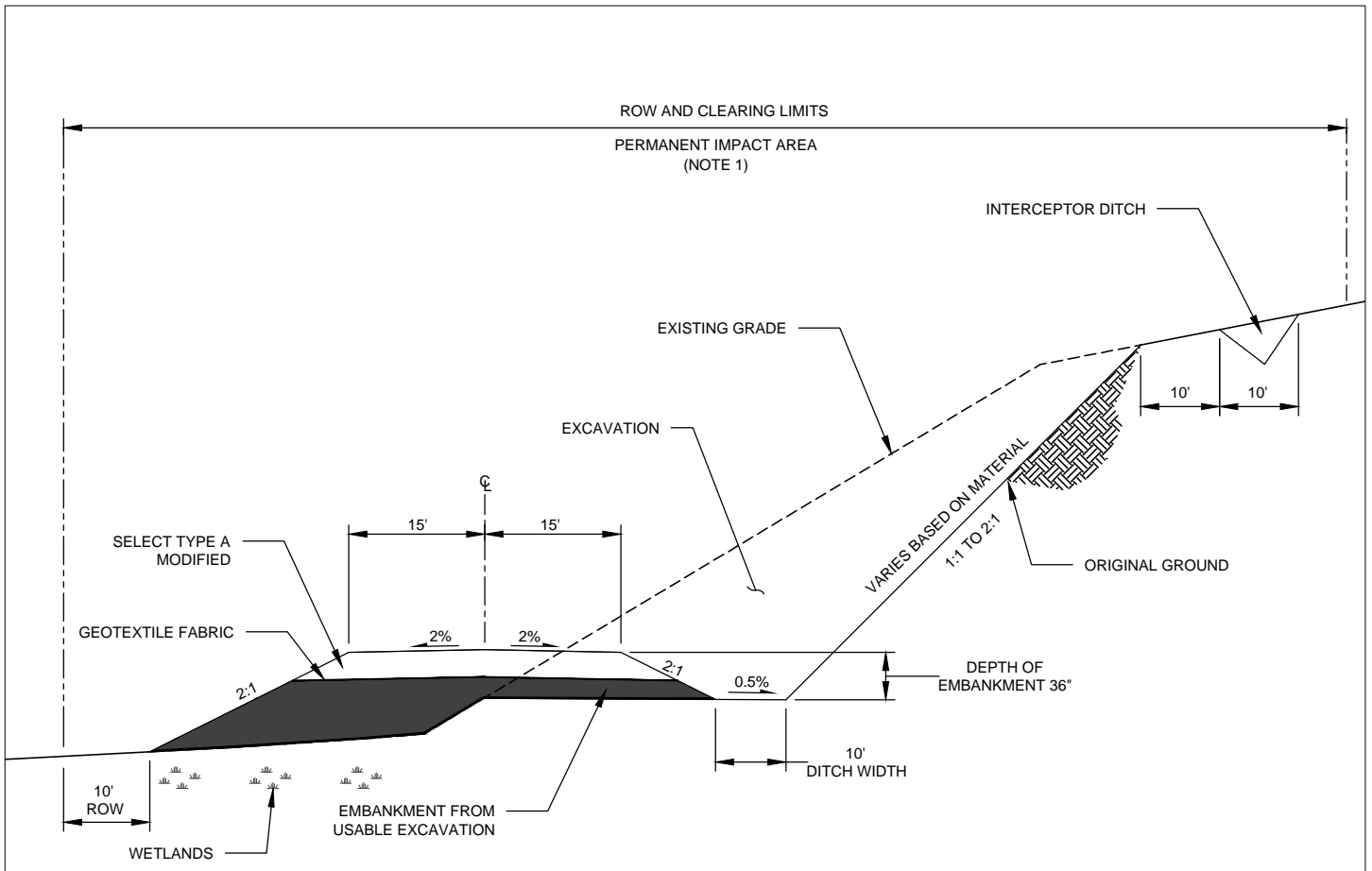
ACCESS ROAD
2' MAX SELECT TYPE A MODIFIED FILL
GEOTEXTILE FABRIC UNDER FILL

NOTES:

1. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Road Access List

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TYPICAL ACCESS ROAD WITH 2 LEVEL CUT
NOT TO SCALE

ACCESS ROAD
2' SELECT TYPE A MODIFIED FILL
GEOTEXTILE FABRIC UNDER FILL

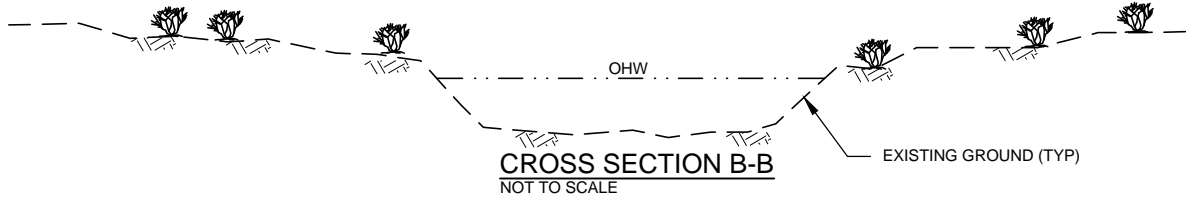
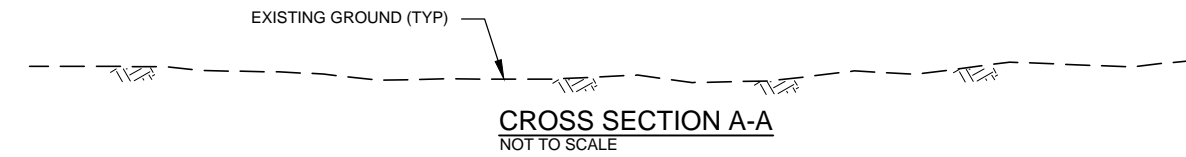
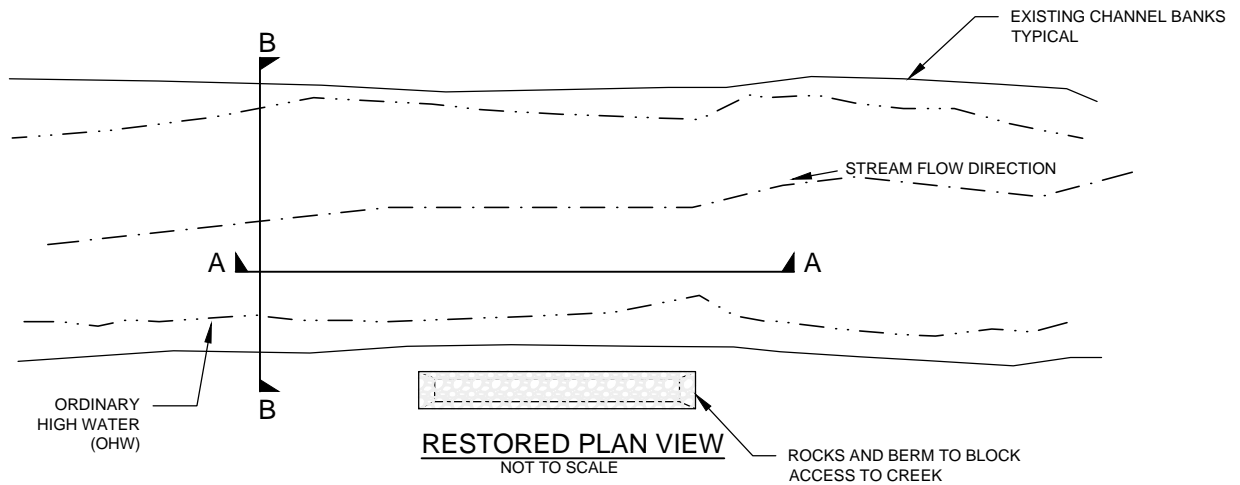
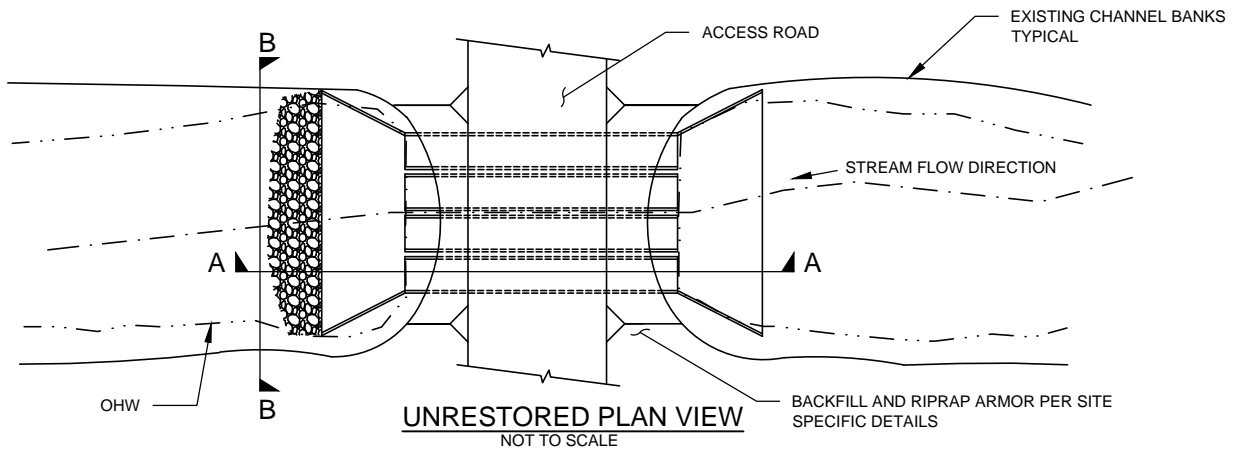
NOTES:

- IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION VARIES FROM A MINIMUM OF 120 FEET UP TO A MAXIMUM OF 350 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Access Road List

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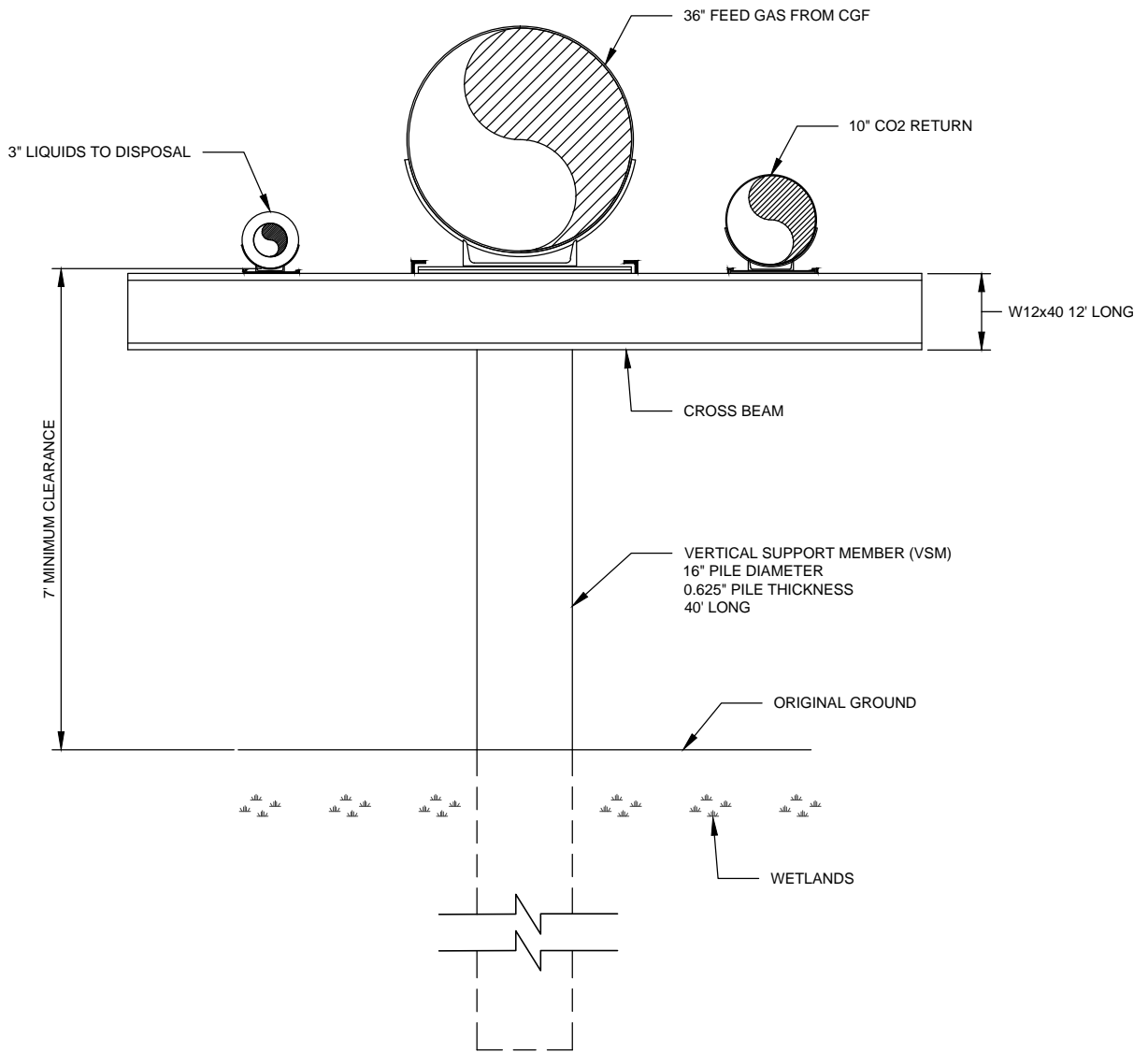
PIPE SECTION RESTORATION IN CONSTRUCTION ACCESS ROADS



NOTES:

1. REMOVE WINGWALLS AND CULVERTS.
2. REVEGETATE BANKS TO AVOID EROSION.
3. MICROTOPOGRAPHY WILL BE LEFT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Access Road List

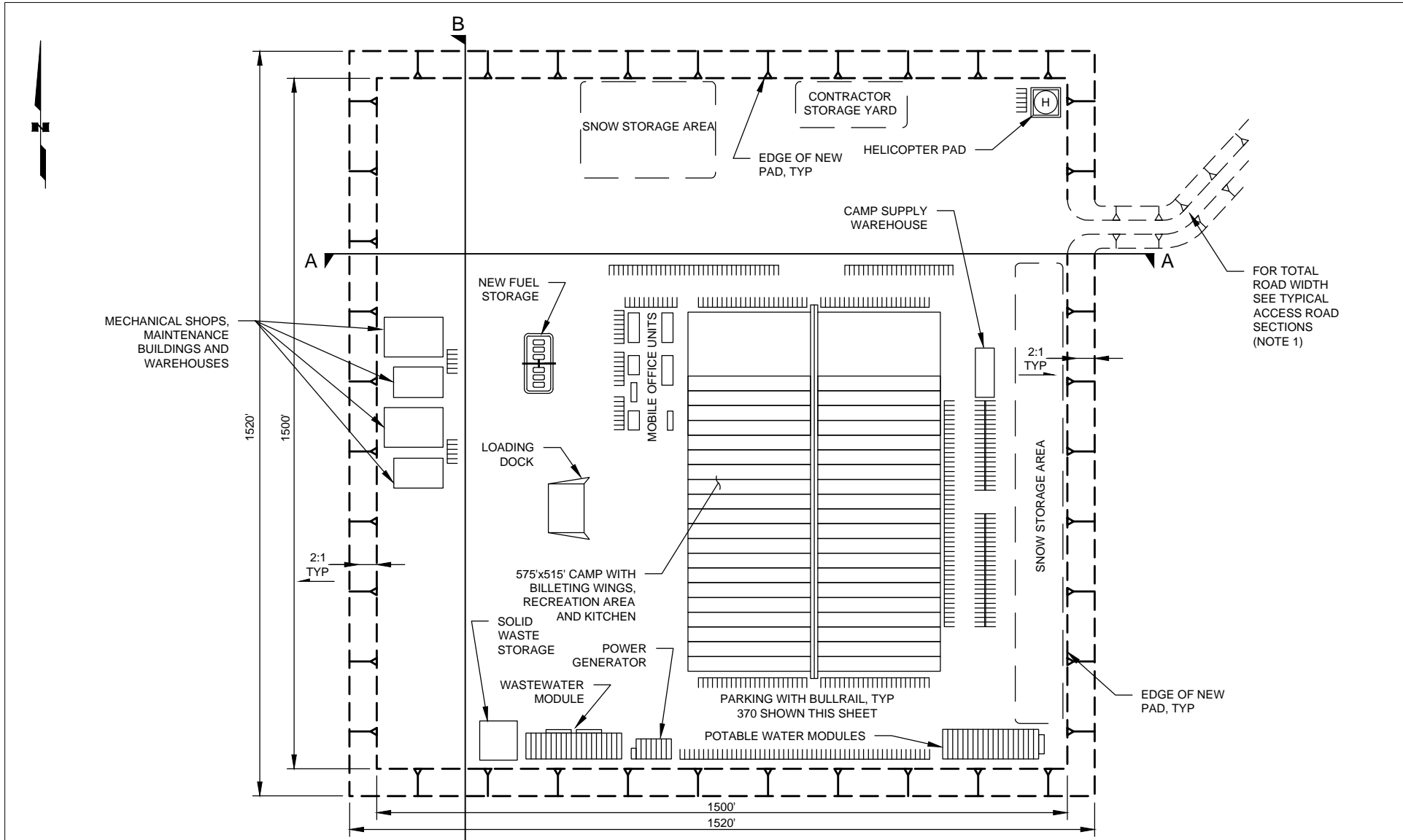


ABOVE GROUND PIPES ON VSMS
 NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: North Slope GCF

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800 PERSON CAMP SITE
NOT TO SCALE

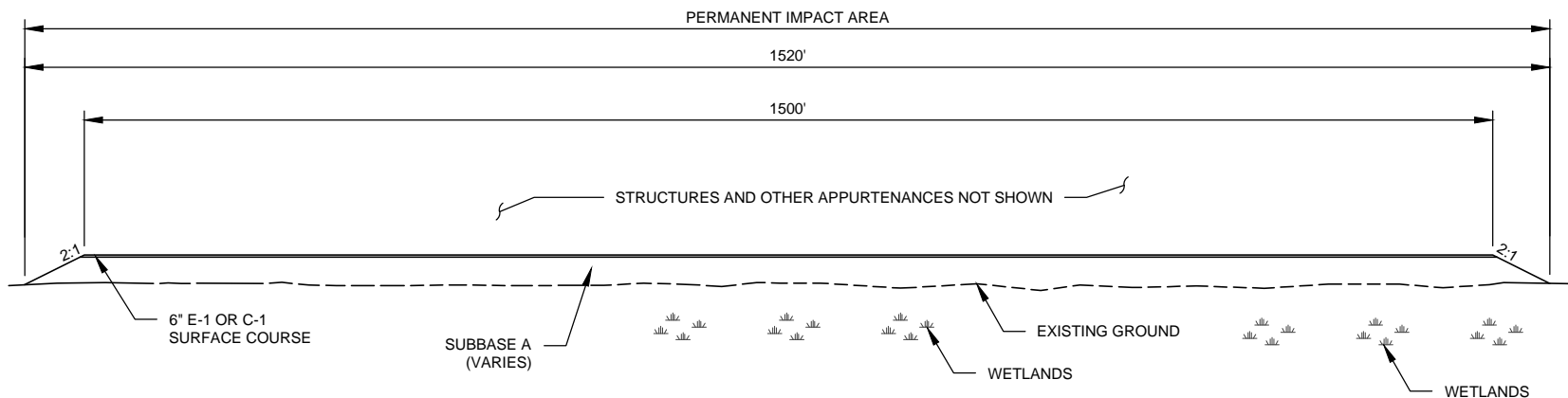
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Camp List

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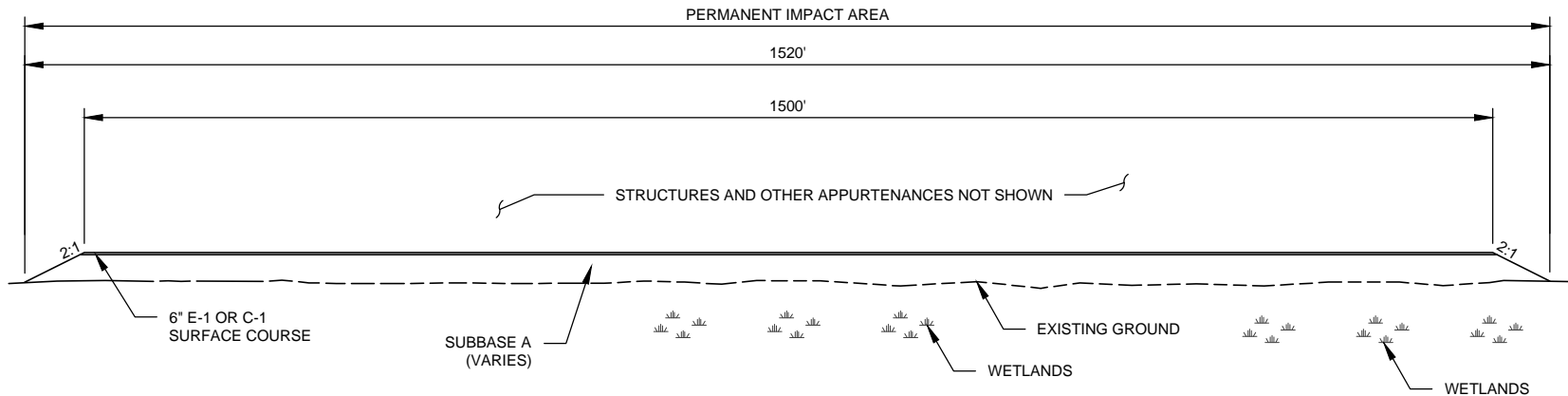
NOTES:

1. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION FOR THE ACCESS ROAD VARIES FROM A MINIMUM OF 38 FEET TO A MAXIMUM OF 150 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

404_048_01



CAMP SITE SECTION A-A
NOT TO SCALE

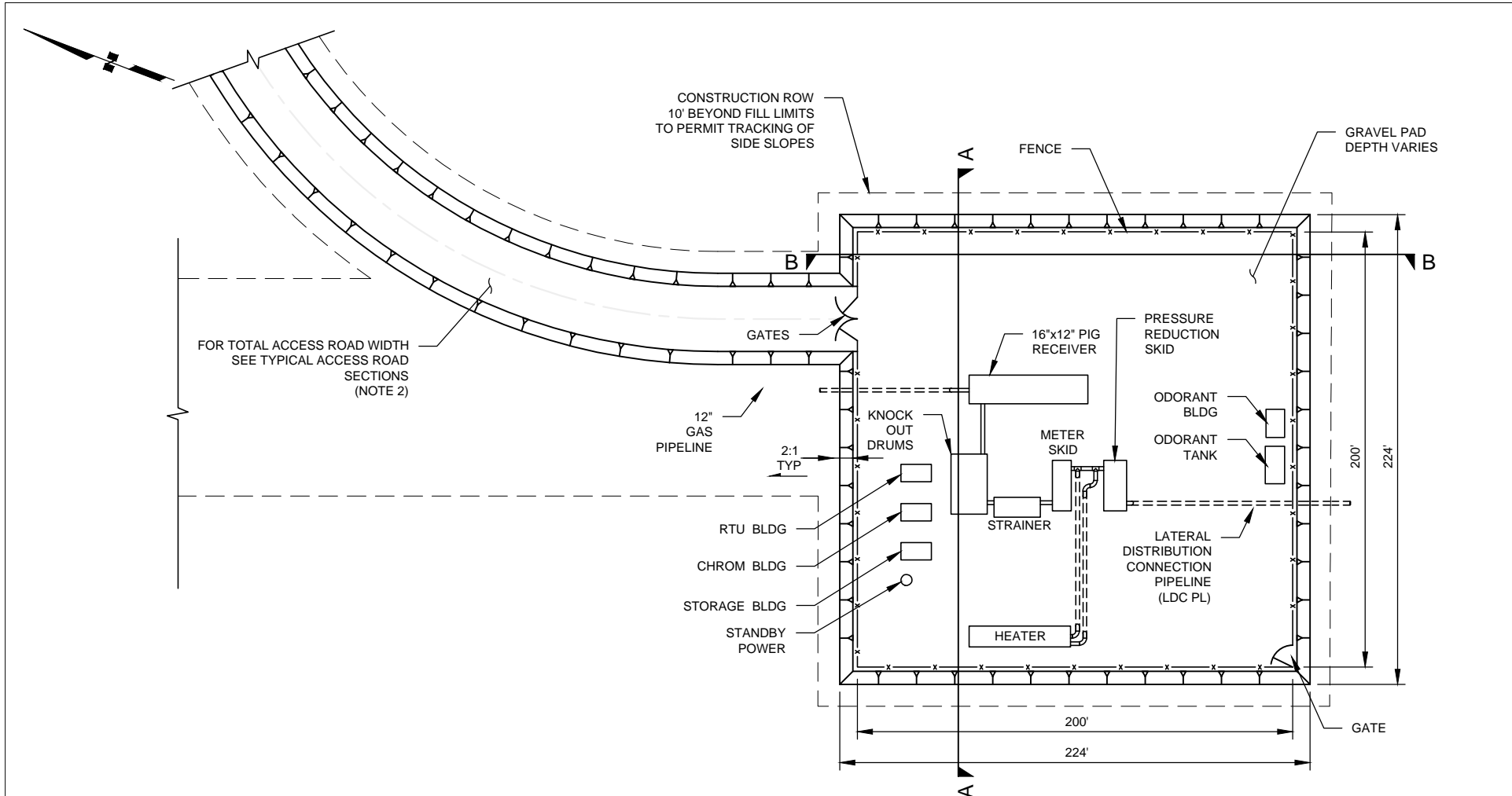


CAMP SITE SECTION B-B
NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See Camp List

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404_049_01



FAIRBANKS DELIVERY SITE LAYOUT
(RECEIVER/METERING SITE)
 NOT TO SCALE

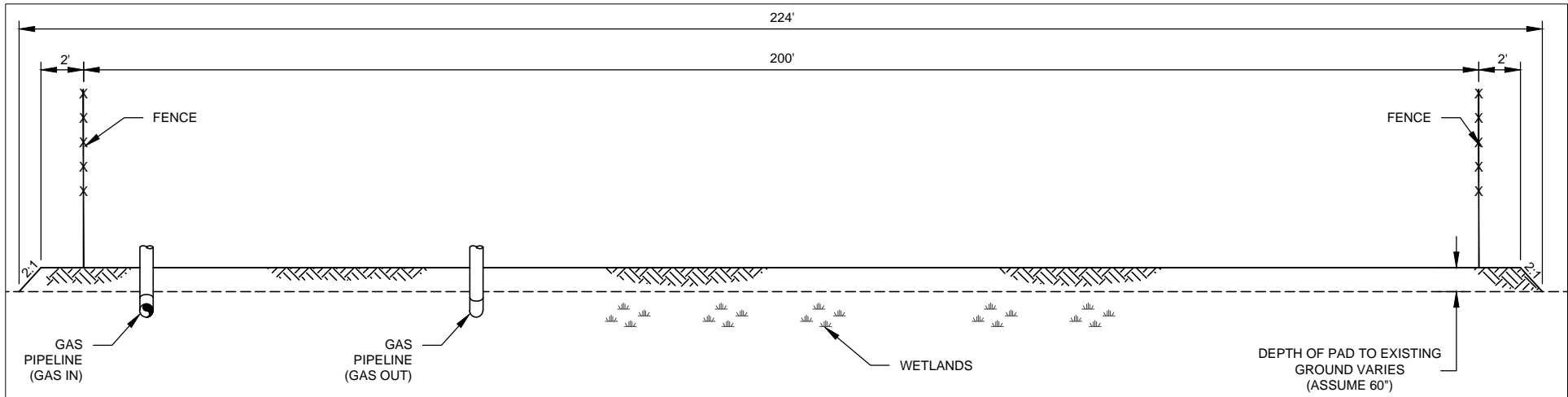
NOTES:

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.
2. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION FOR THE ACCESS ROAD VARIES FROM A MINIMUM OF 38 FEET TO A MAXIMUM OF 150 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Lat 64.8594, Long -147.8748

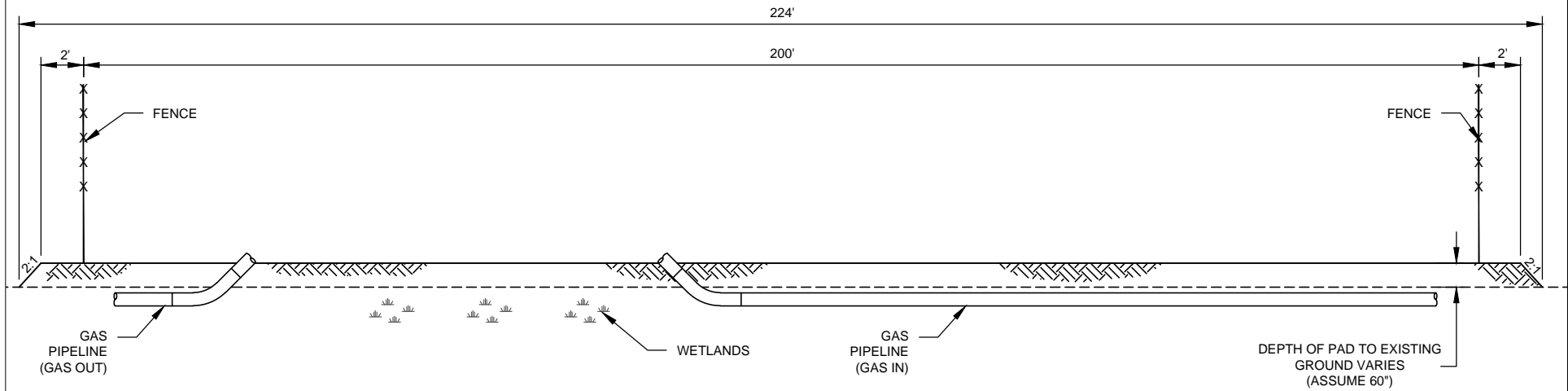
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404_050_01



FAIRBANKS DELIVERY SITE LAYOUT (RECEIVER/METERING SITE)

SECTION A-A
NOT TO SCALE



FAIRBANKS DELIVERY SITE LAYOUT (RECEIVER/METERING SITE)

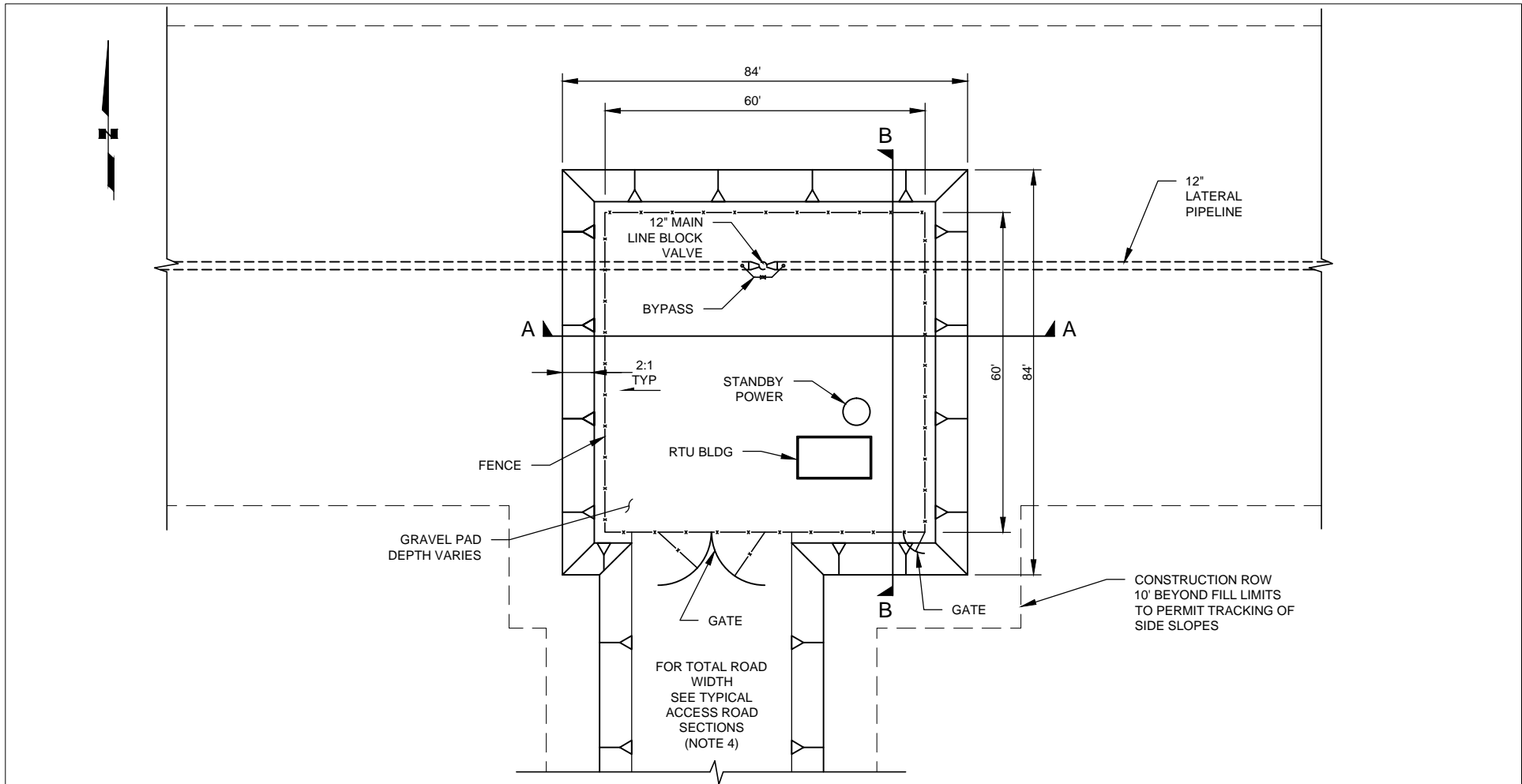
SECTION B-B
NOT TO SCALE

NOTES:

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Lat 63.8594, Long -147.8748

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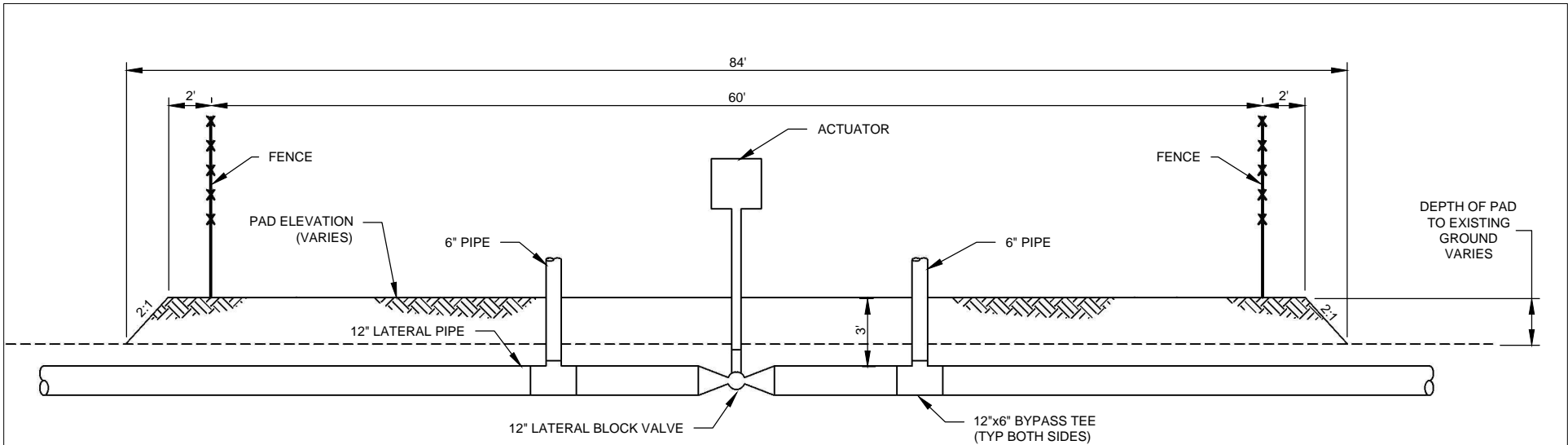
12" FAIRBANKS LATERAL BLOCK VALVE TYPICAL SITE LAYOUT
NOT TO SCALE

NOTES:

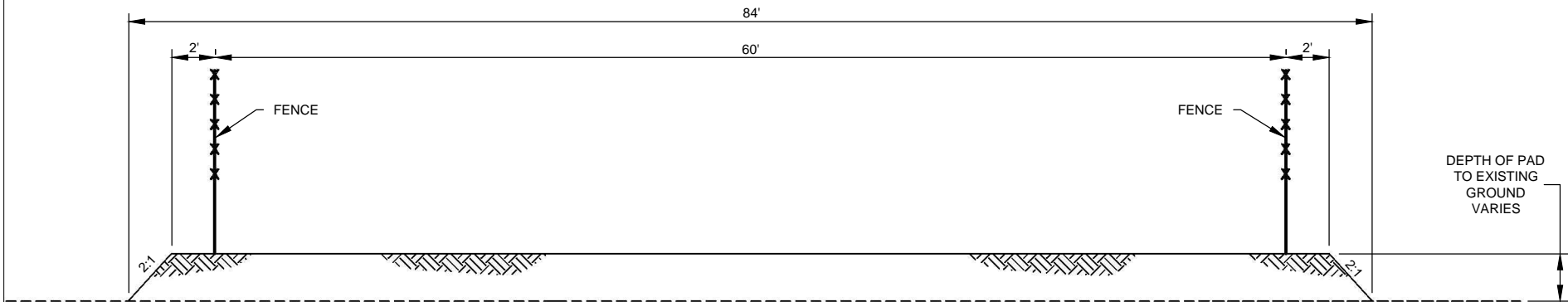
1. MAINLINE BLOCK VALVES WILL HAVE REINFORCED CONCRETE PAD FOUNDATION. VALVE FOUNDATION.
2. ALL ABOVE GROUND EQUIPMENT AND PIPING WILL BE SUPPORTED BY VSM'S.
3. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.
4. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION FOR THE ACCESS ROAD VARIES FROM A MINIMUM OF 38 FEET TO A MAXIMUM OF 150 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
File Number: POA-2009-651
Proposed Activity: Natural Gas Pipeline
Location: MP 0.0, MP 20.0, Terminus of Fairbanks Lateral

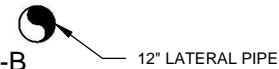
Sheet 52 of 73 Date: 04/23/2018



12" IN-LINE BLOCK VALVE - SECTION A-A
NOT TO SCALE



12" IN-LINE BLOCK VALVE - SECTION B-B
NOT TO SCALE

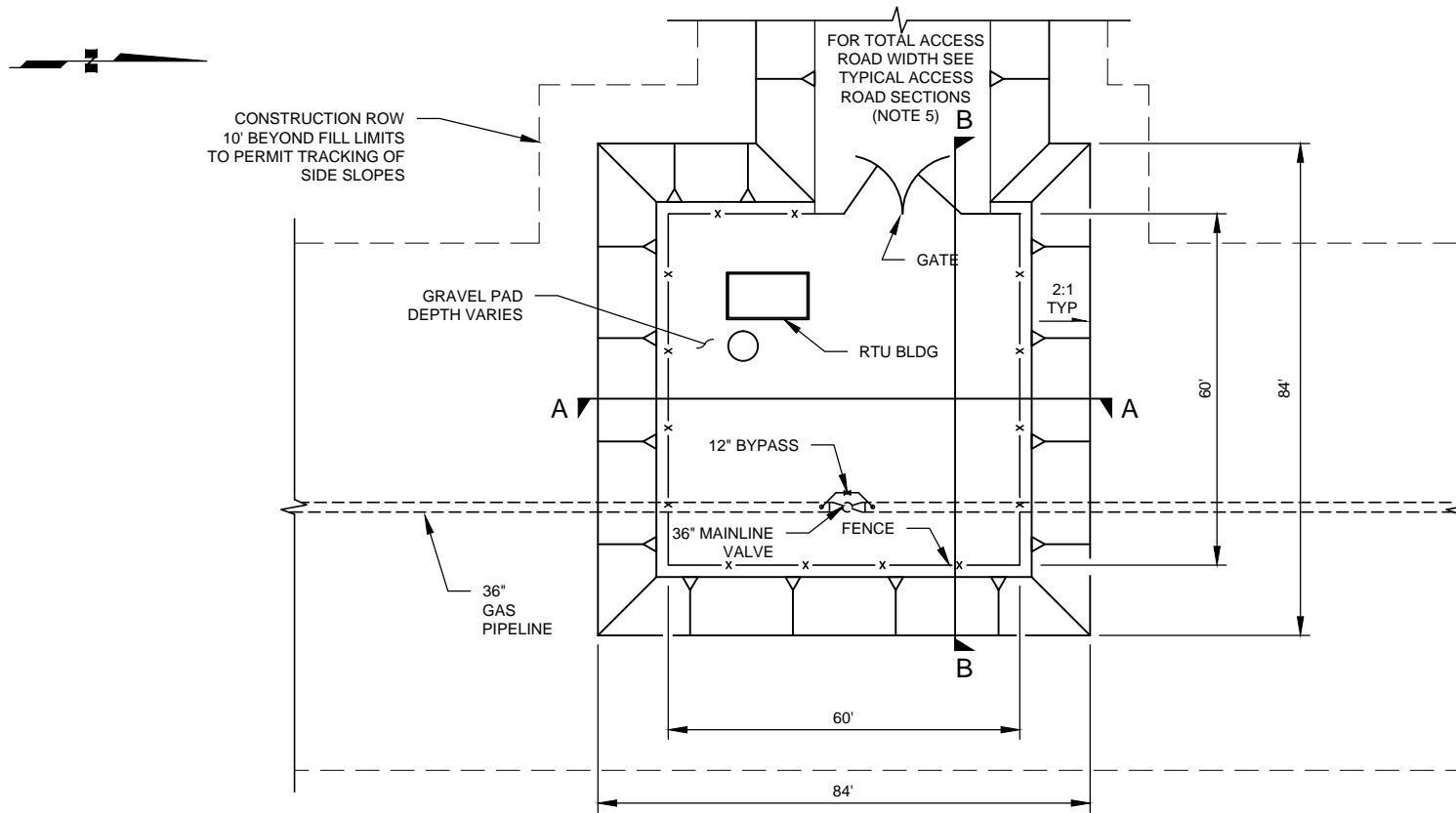


NOTES:

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: MP 0.0, MP 20.0, Terminus of Lateral

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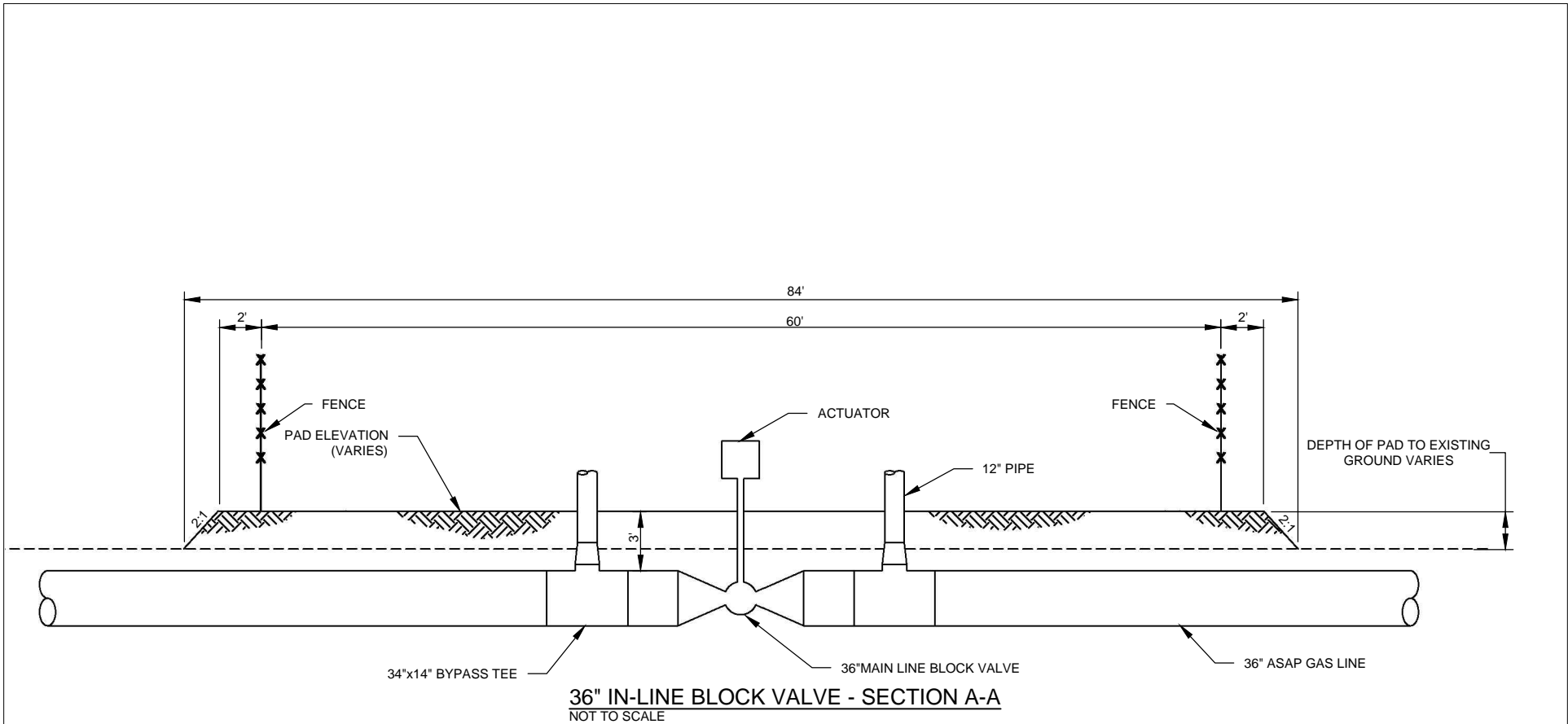
36" MAIN LINE BLOCK VALVE TYPICAL SITE LAYOUT
NOT TO SCALE

NOTES:

1. MAINLINE BLOCK VALVES WILL HAVE REINFORCED CONCRETE PAD FOUNDATION. VALVE FOUNDATION.
2. ALL ABOVE GROUND EQUIPMENT AND PIPING WILL BE SUPPORTED BY VSM'S.
3. IMPACTS CALCULATED IN PERMANENT FOOTPRINT.
4. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.
5. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION OF THE ACCESS ROAD VARIES FROM A MINIMUM OF 38 FEET TO A MAXIMUM OF 150 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Approximately Every 20 Miles

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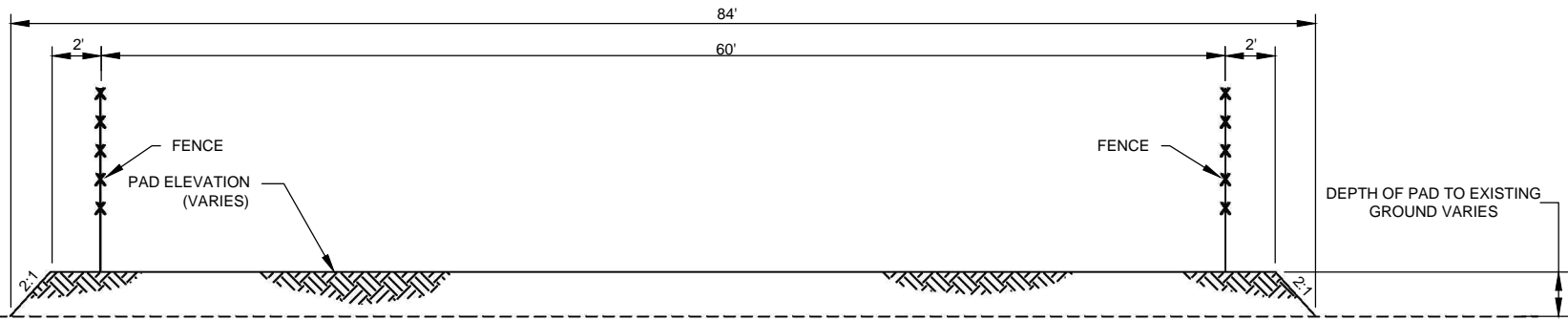


NOTES:

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Approximately Every 20 Miles

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36" IN-LINE BLOCK VALVE - SECTION B-B
NOT TO SCALE

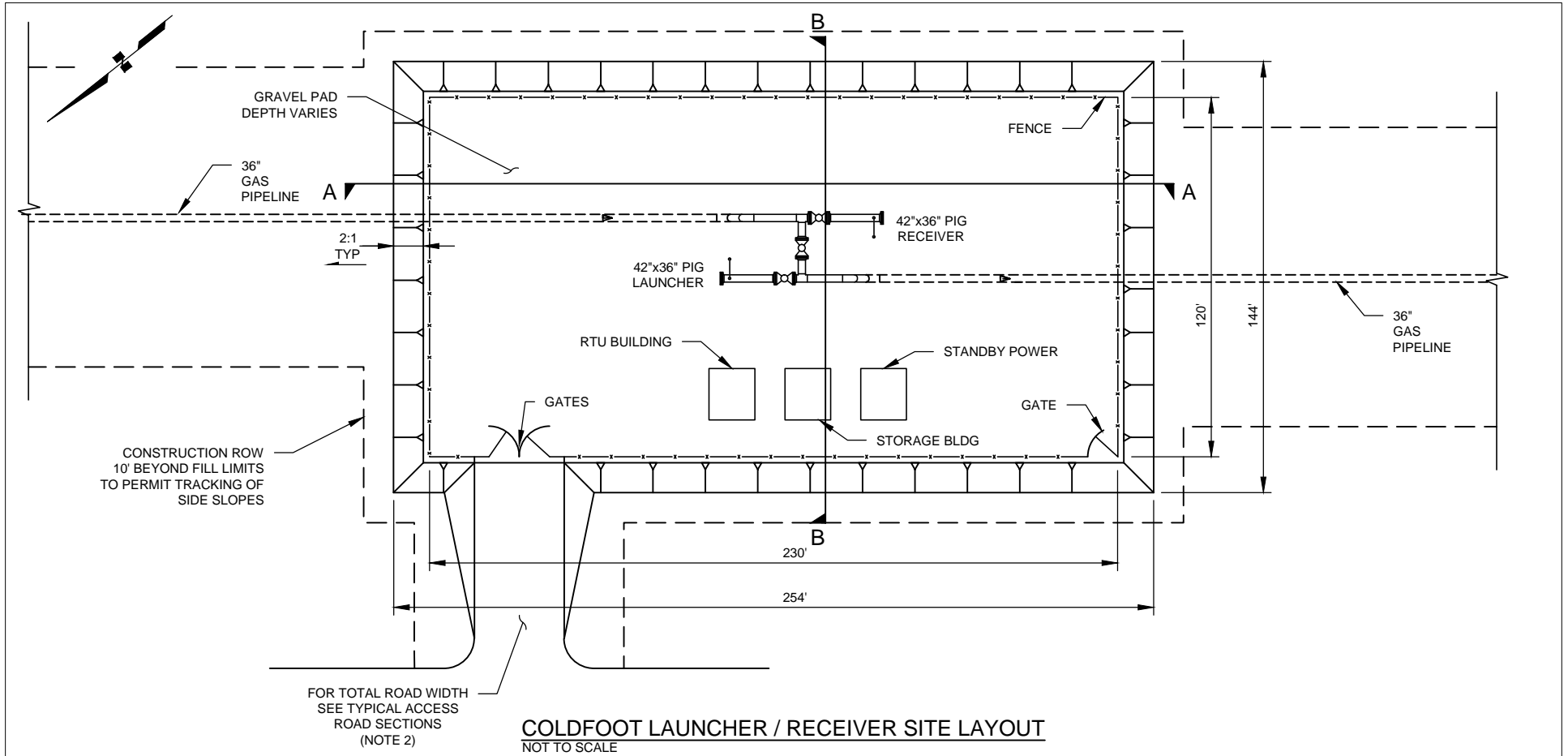
NOTES:

- 1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Approximately Every 20 Miles

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404_056_01



COLDFOOT LAUNCHER / RECEIVER SITE LAYOUT
NOT TO SCALE

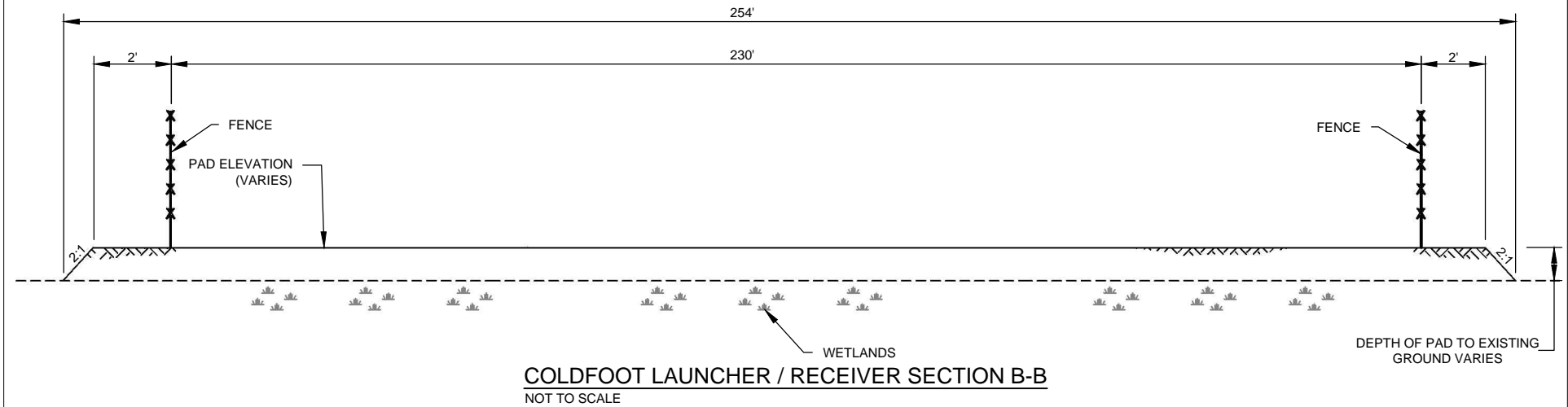
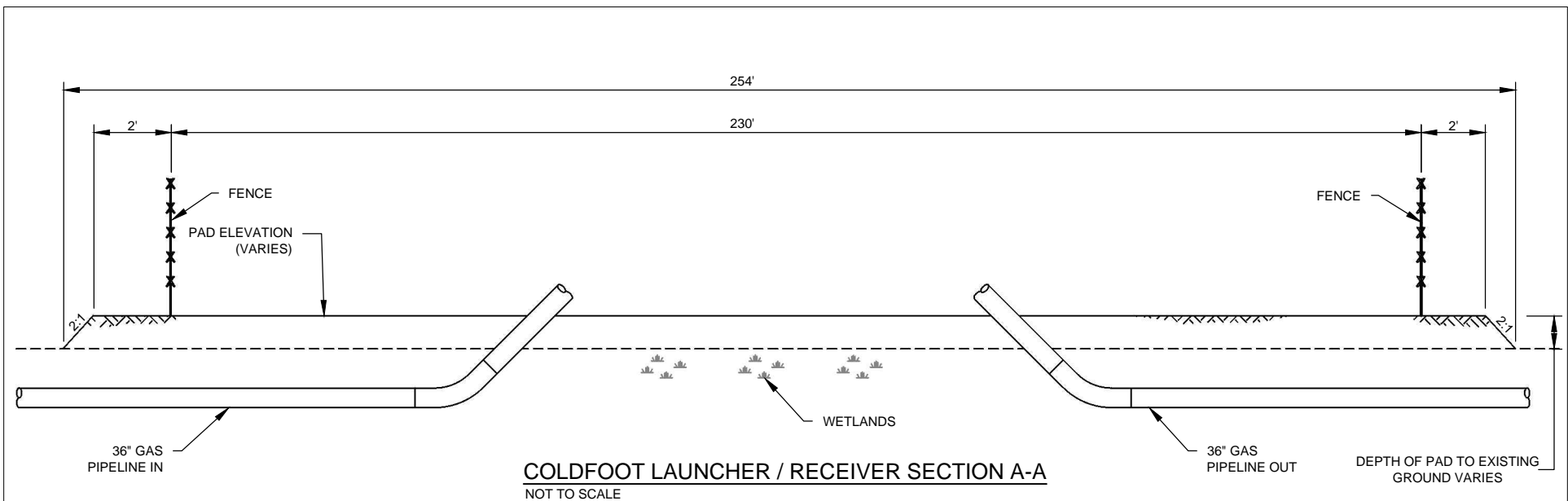
NOTES:

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.
2. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION OF THE ACCESS ROAD VARIES FROM A MINIMUM OF 38 FEET TO A MAXIMUM OF 150 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: MP 249.05

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404_057_01

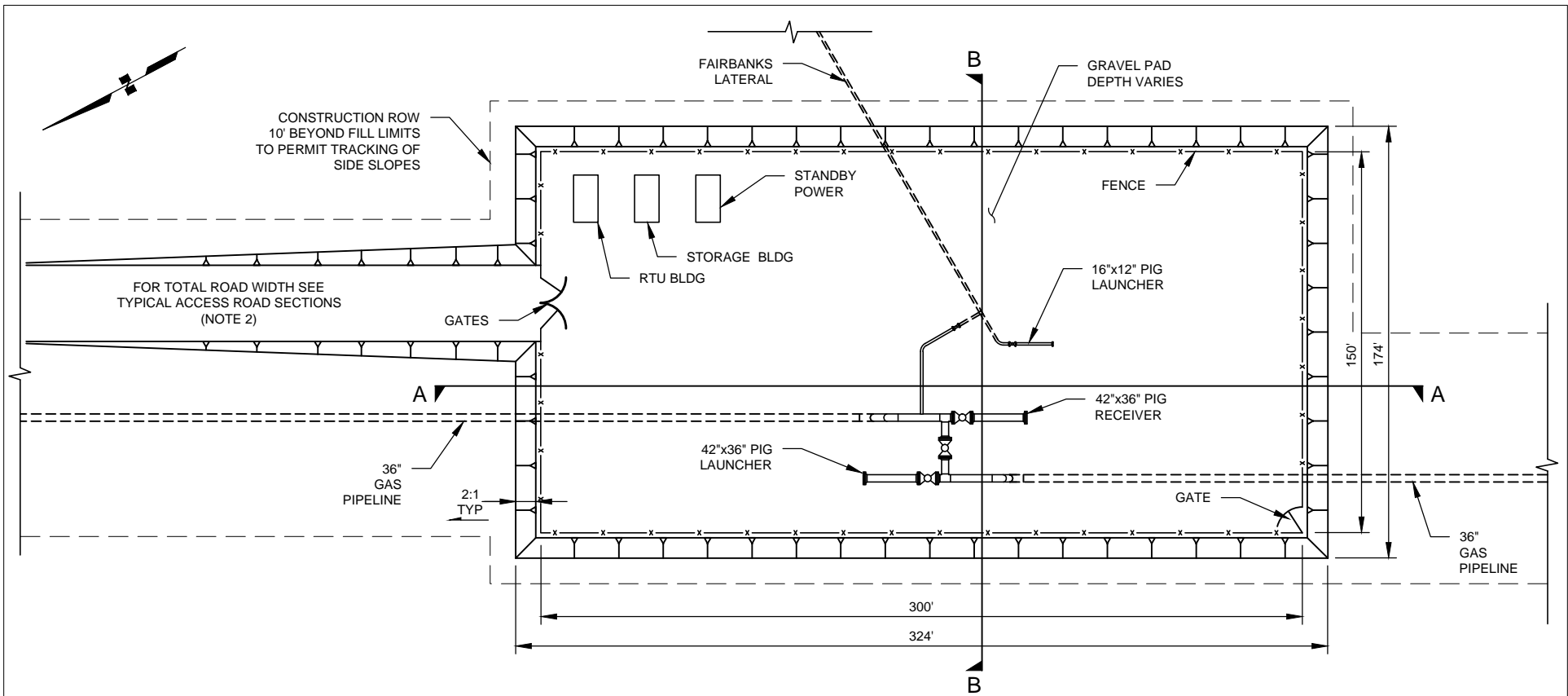


NOTES:

1. PIPING SHOWN FOR REFERENCE ONLY.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: MP 249.05

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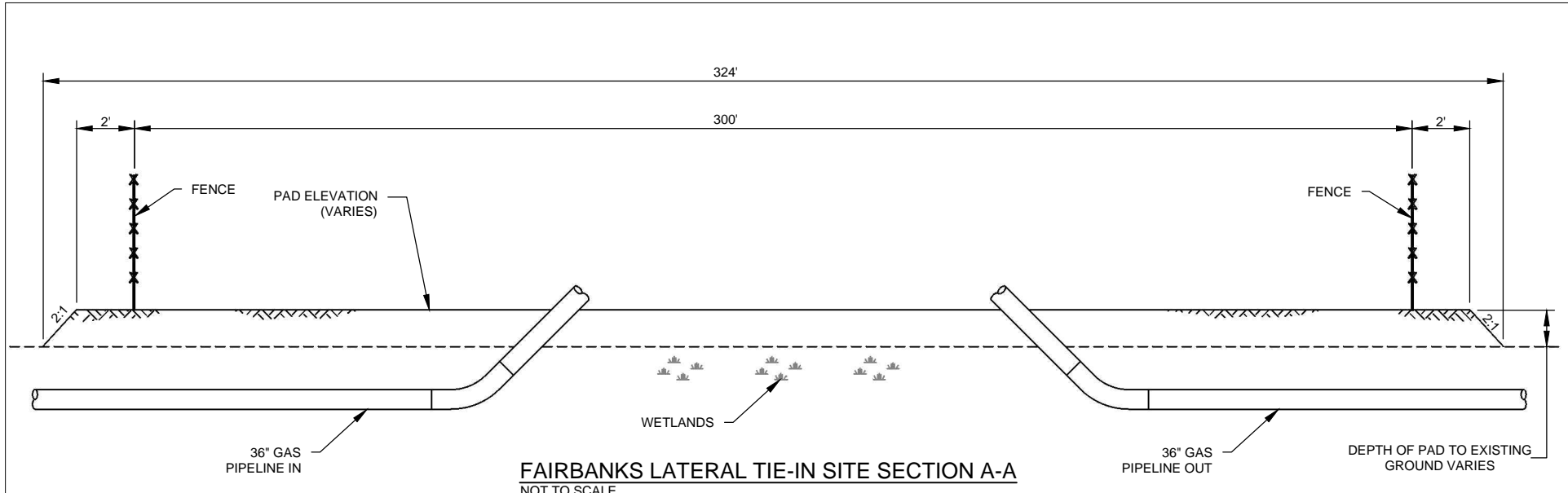
FAIRBANKS LATERAL TIE-IN SITE LAYOUT
NOT TO SCALE

NOTES:

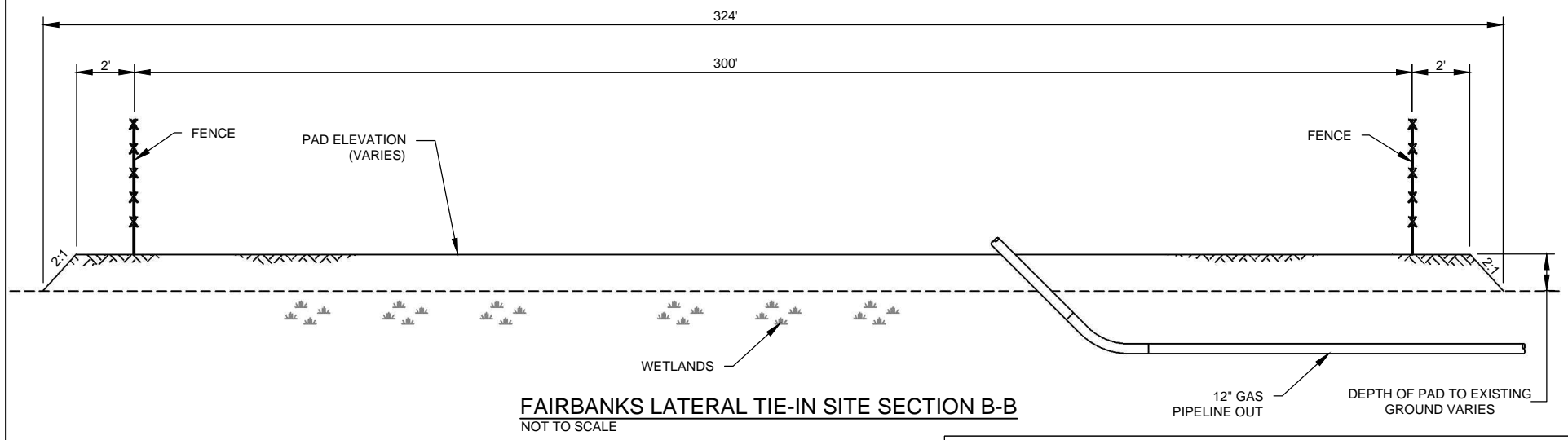
1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.
2. IMPACTS TO WOVS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION OF THE ACCESS ROAD VARIES FROM A MINIMUM OF 38 FEET TO A MAXIMUM OF 150 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: MP 439.1

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FAIRBANKS LATERAL TIE-IN SITE SECTION A-A
NOT TO SCALE



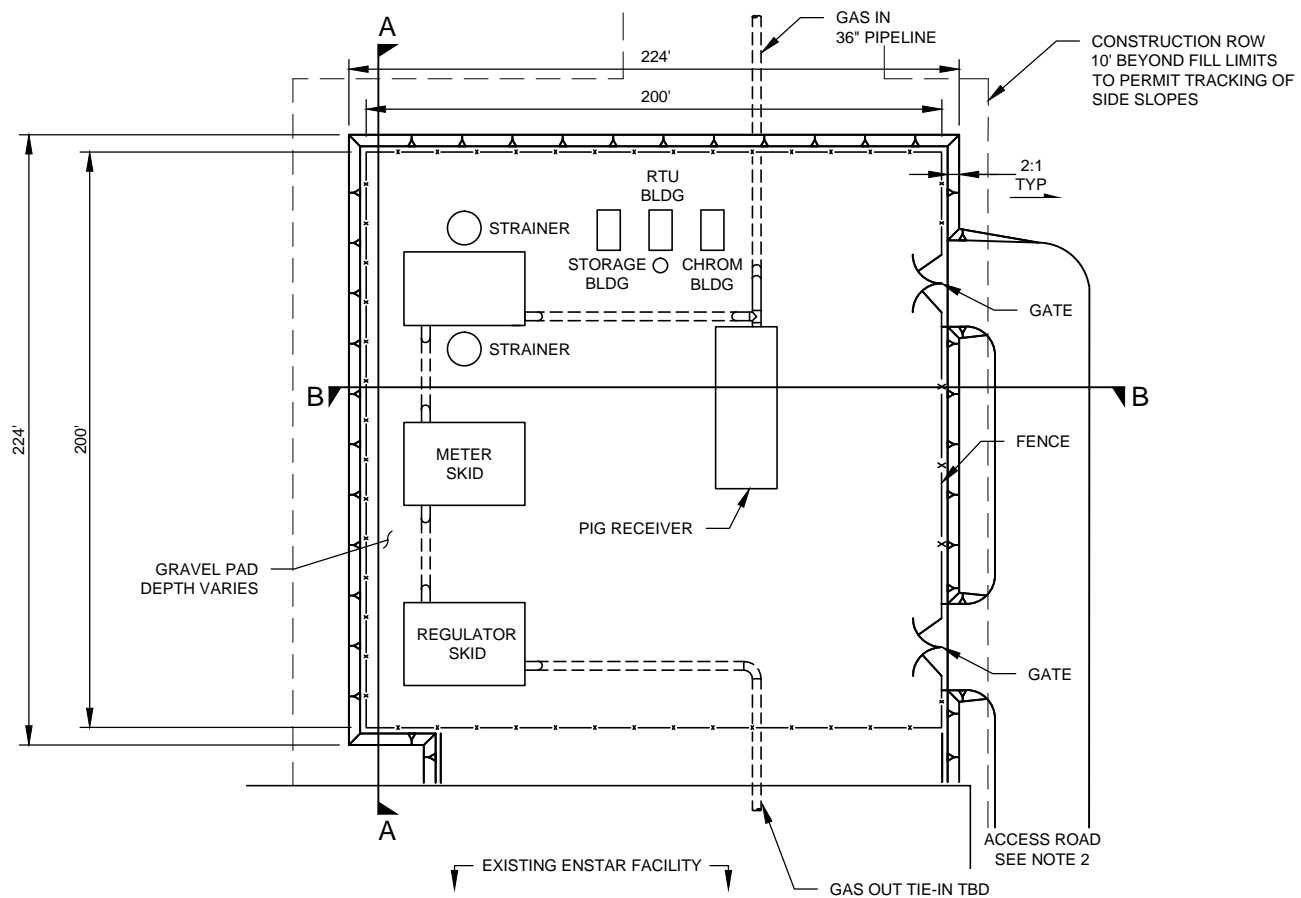
FAIRBANKS LATERAL TIE-IN SITE SECTION B-B
NOT TO SCALE

- NOTES:**
1. PIPING SHOWN FOR REFERENCE ONLY.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: MP-439.1

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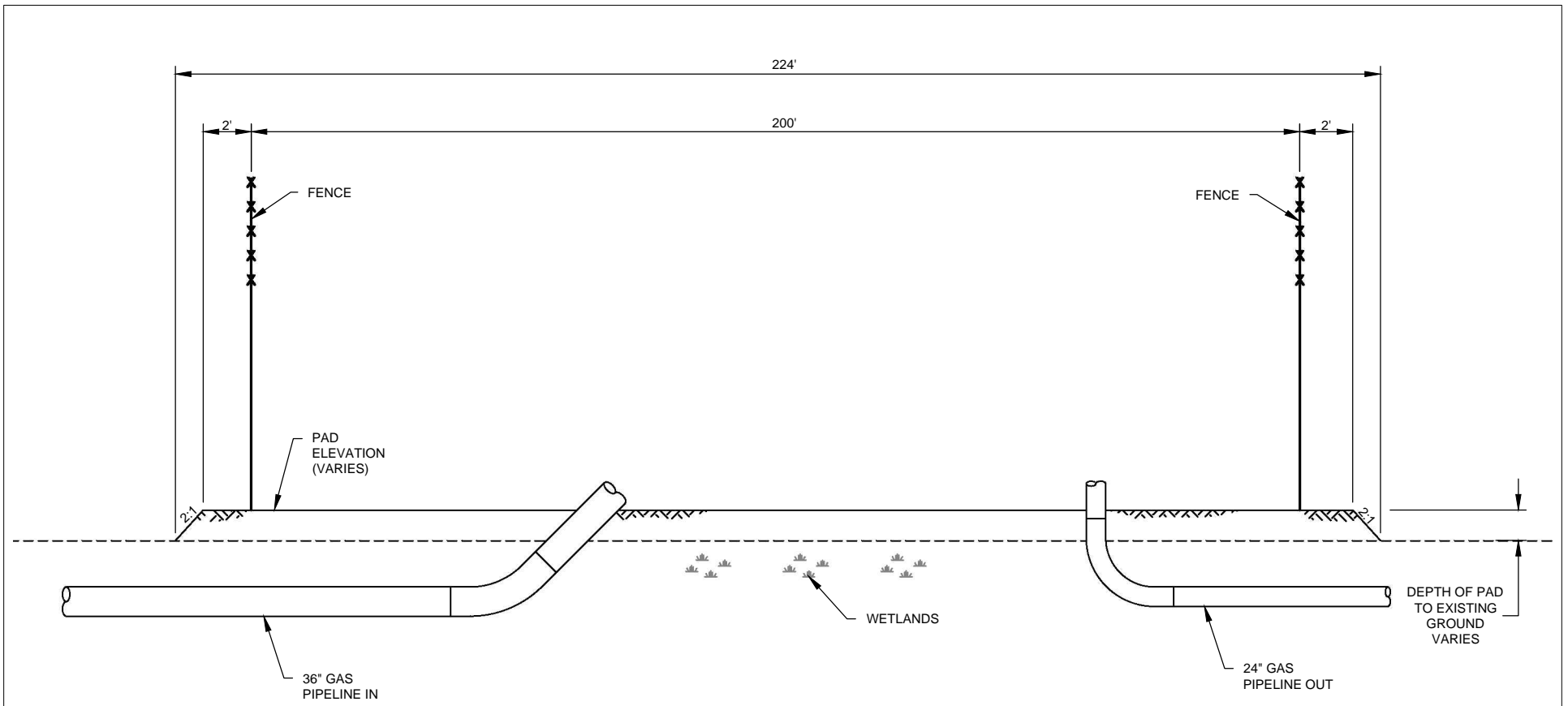
BELUGA - ENSTAR TIE-IN SITE LAYOUT
NOT TO SCALE

NOTES:

1. PIPING AND EQUIPMENT SHOWN FOR REFERENCE ONLY.
2. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION OF THE ACCESS ROAD VARIES FROM A MINIMUM OF 38 FEET TO A MAXIMUM OF 150 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Terminus

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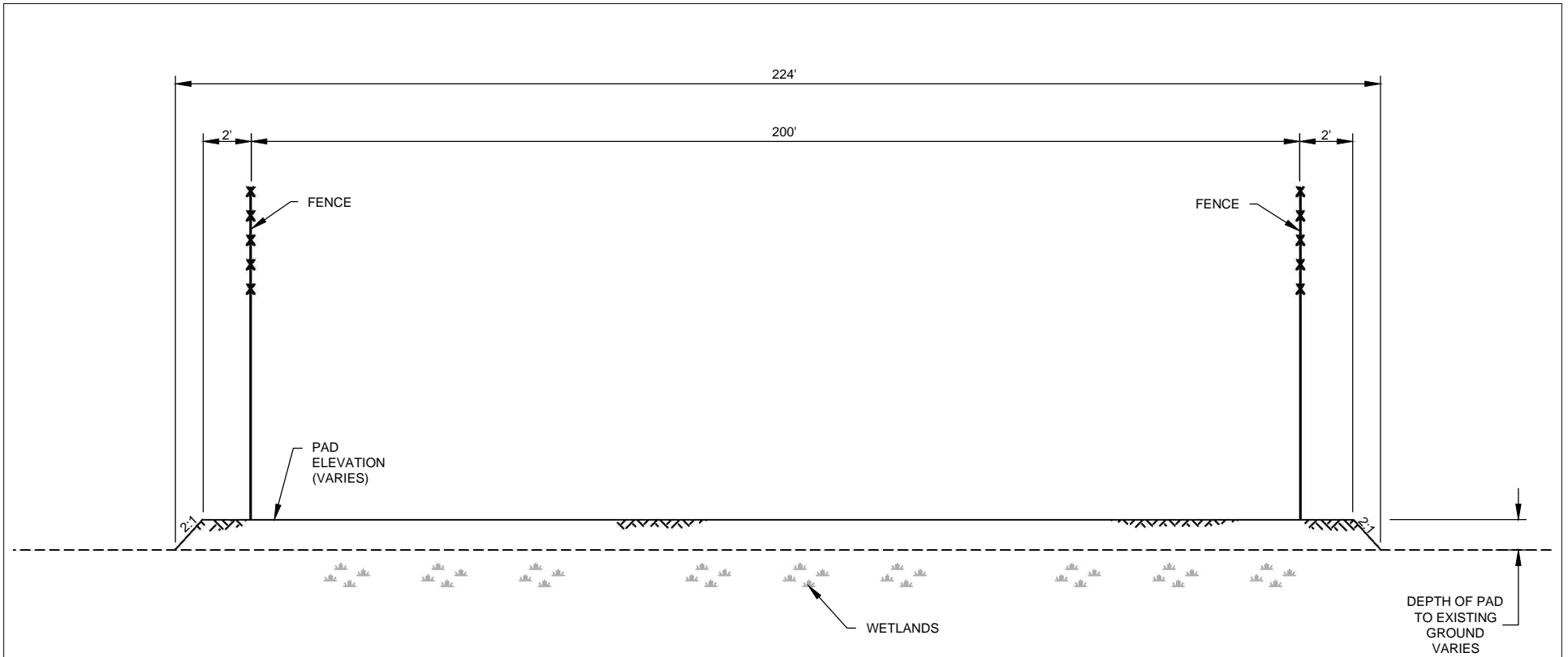
BELUGA - ENSTAR TIE-IN SITE SECTION A-A
 NOT TO SCALE

- NOTES:**
1. PIPING SHOWN FOR REFERENCE ONLY.

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Terminus

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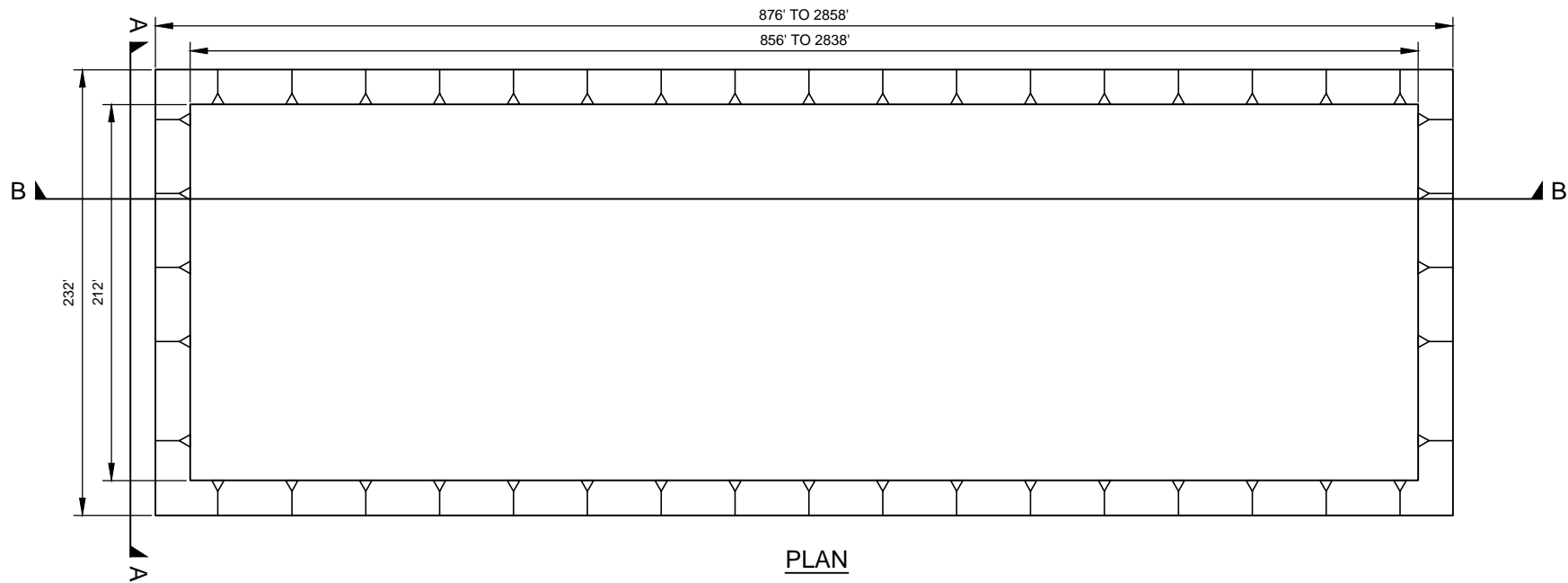
404_062_01



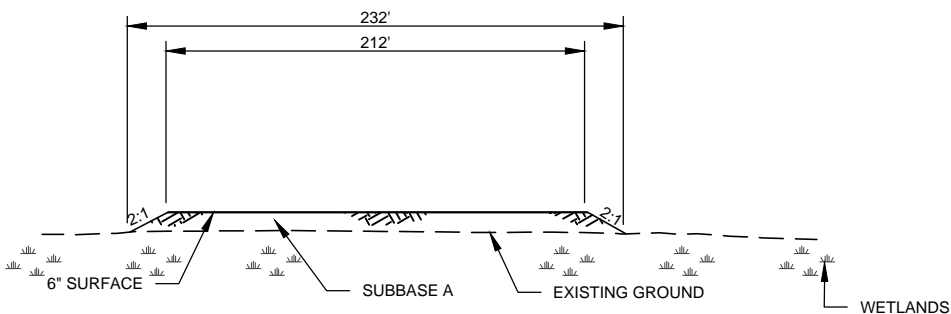
BELUGA - ENSTAR TIE-IN SITE SECTION B-B
 NOT TO SCALE

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Pipeline Terminus

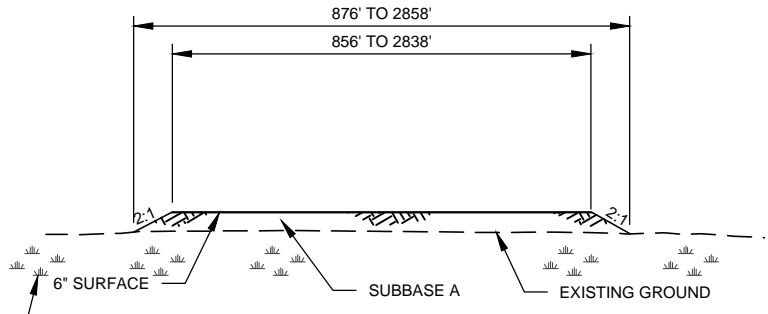
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PLAN



SECTION A-A



SECTION B-B

PIPE STORAGE YARD TYPICAL PLAN AND SECTION
NOT TO SCALE

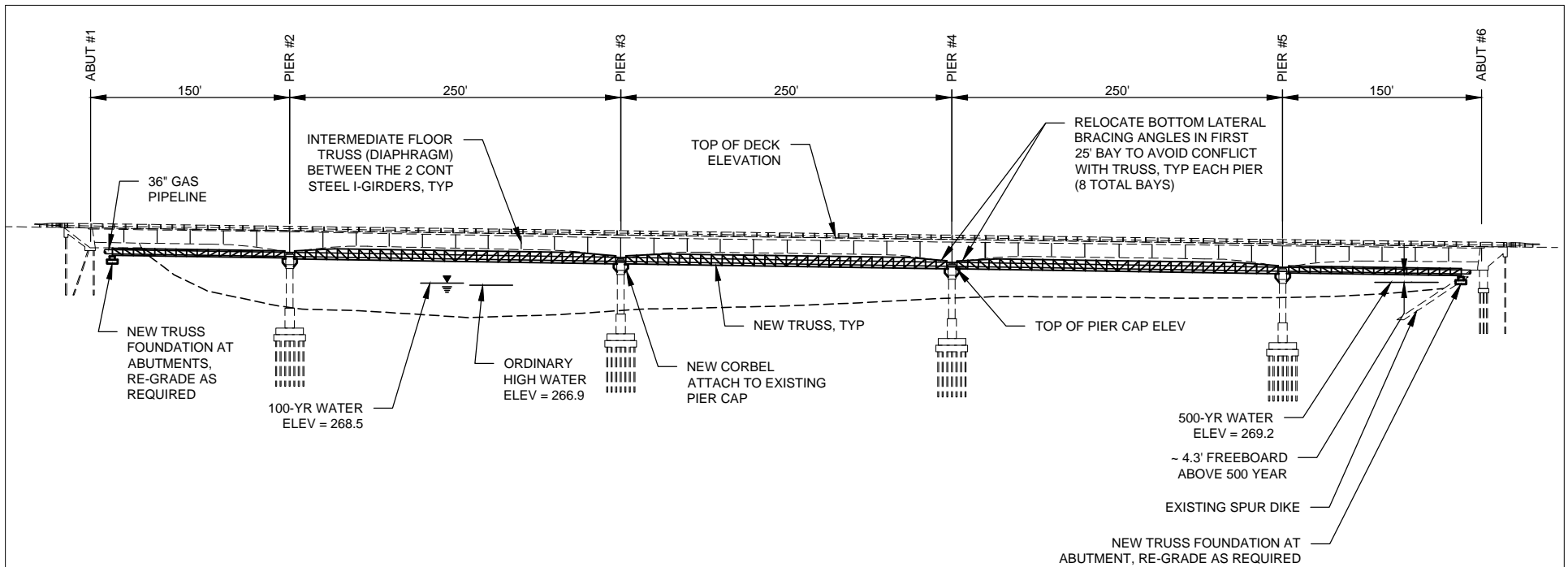
NOTES:

1. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. THE TOE TO TOE DIMENSION VARIES FROM A MINIMUM OF 232 FEET TO A MAXIMUM OF 2858 FEET. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: The Alaska Gasline Development Corporation
File Number: POA-2009-651
Proposed Activity: Natural Gas Pipeline
Location: See Pipe Storage Yard List

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404_064_01



EXISTING SUSITNA BRIDGE (No. 254) - ELEVATION
NOT TO SCALE

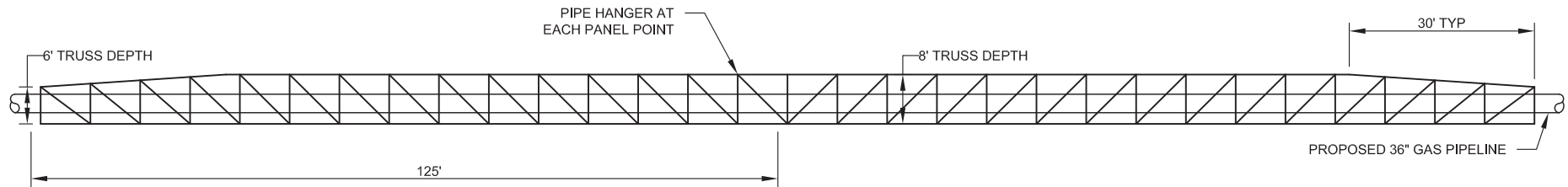
SUSITNA BRIDGE RIVER CROSSING			
LOCATION	TOP OF DECK ELEVATION	TOP OF PIER ELEVATION	BOTTOM OF TRUSS ELEVATION
ABUT #1	310.4		288.9
PIER #2	308.2	288.5	285.7
PIER #3	304.4	284.7	282.6
PIER #4	300.7	280.9	278.7
PIER #5	296.9	277.2	275.1
ABUT #6	294.7		273.5

NOTES:

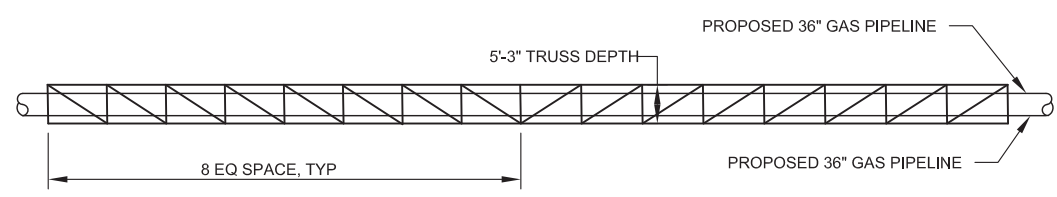
- AERIAL CROSSING NAVIGABLE WATERWAY.
- SUSITNA RIVER - ST_673.5

Applicant: The Alaska Gasline Development Corporation
File Number: POA-2009-651
Proposed Activity: Natural Gas Pipeline
Location: Lat 62.1754, Long -150.1743

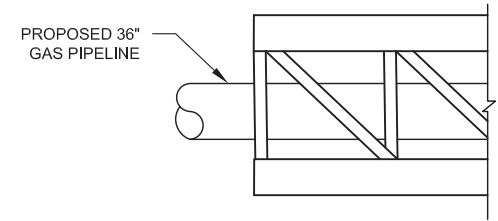
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TYPICAL 250' SPAN TRUSS ELEVATION
NOT TO SCALE



TYPICAL 150' SPAN TRUSS ELEVATION
NOT TO SCALE



TYPICAL TRUSS ELEVATION
NOT TO SCALE

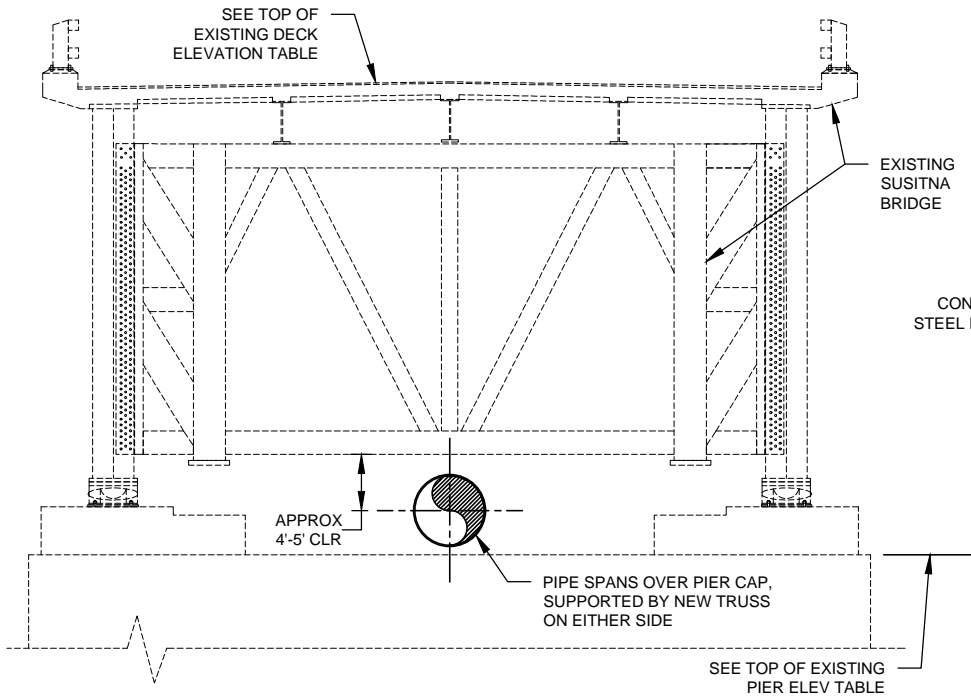
EXISTING SUSITNA BRIDGE (No. 254)

- NOTES:**
1. AERIAL CROSSING NAVIGABLE WATERWAY.
- SUSITNA RIVER - ST_673.5

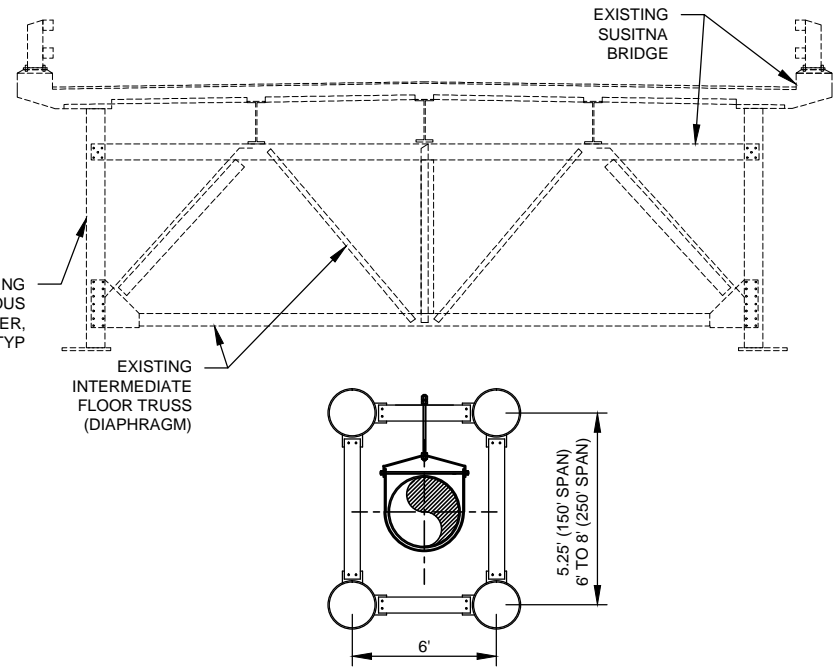
Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Lat 62.1754, Long -150.1743

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404_066_01



TYPICAL SECTION AT PIERS
NOT TO SCALE



TYPICAL SECTION IN SPAN
NOT TO SCALE

EXISTING SUSITNA BRIDGE (No. 254)

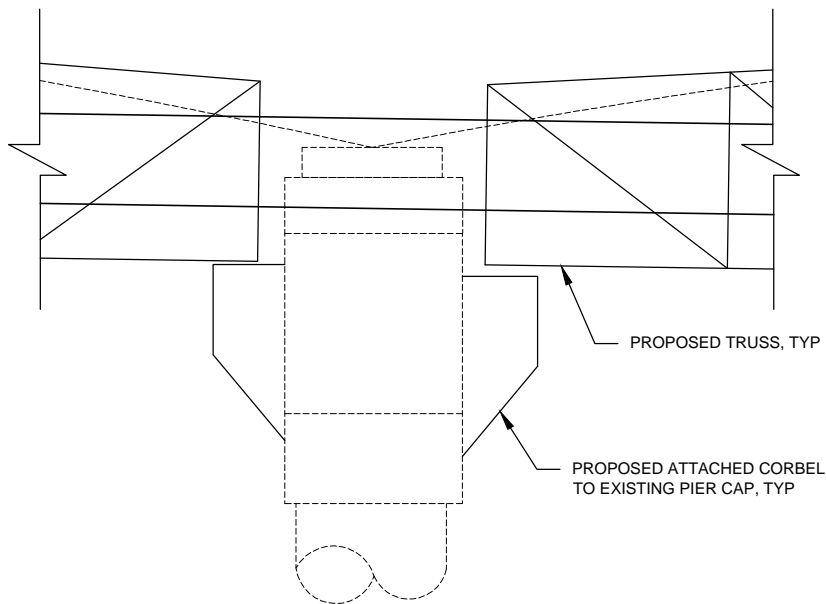
SUSITNA BRIDGE RIVER CROSSING			
LOCATION	TOP OF DECK ELEVATION	TOP OF PIER ELEVATION	BOTTOM OF TRUSS ELEVATION
ABUT #1	310.4		288.9
PIER #2	308.2	288.5	285.7
PIER #3	304.4	284.7	282.6
PIER #4	300.7	280.9	278.7
PIER #5	296.9	277.2	275.1
ABUT #6	294.7		273.5

NOTES:

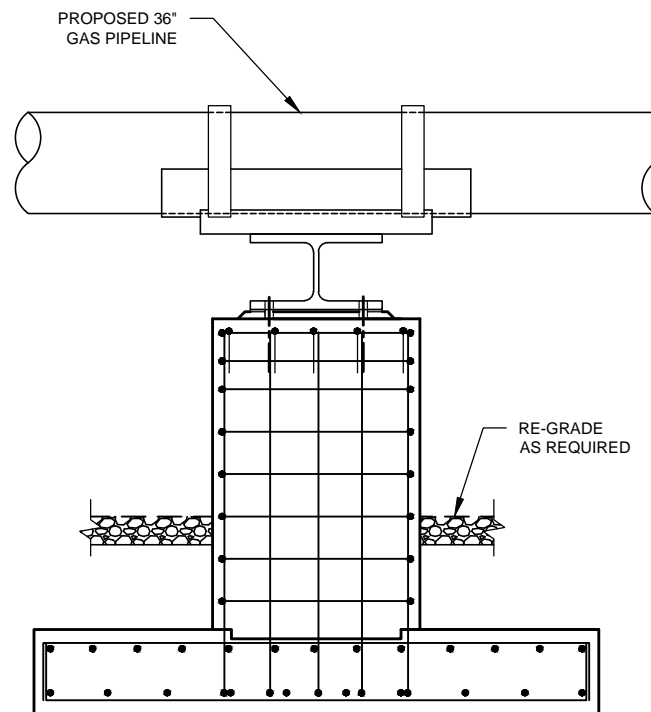
1. AERIAL CROSSING NAVIGABLE WATERWAY.
- SUSITNA RIVER - ST_673.5

Applicant: The Alaska Gasline Development Corporation
File Number: POA-2009-651
Proposed Activity: Natural Gas Pipeline
Location: Lat 62.1754, Long -150.1743

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TYPICAL SECTION AT CORBEL
NOT TO SCALE



TYPICAL FOUNDATION ABUTMENT
NOT TO SCALE

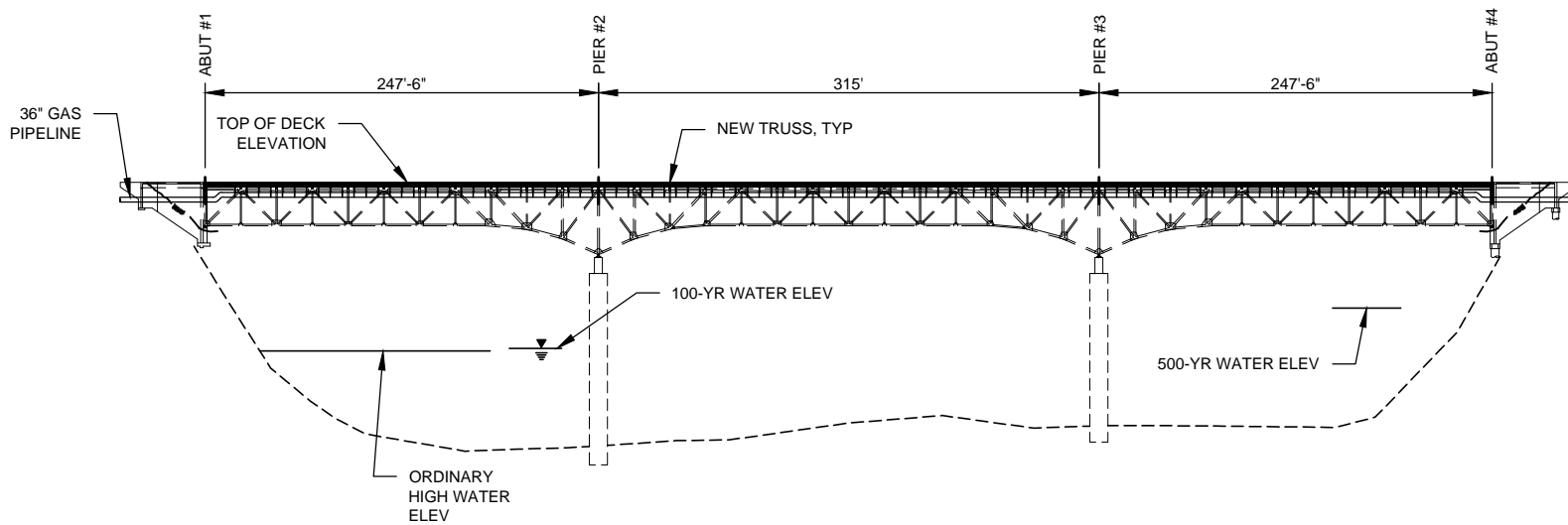
EXISTING SUSITNA BRIDGE (No. 254)

NOTES:

1. AERIAL CROSSING NAVIGABLE WATERWAY.
- SUSITNA RIVER - ST_673.5

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Lat 62.1754, Long -150.1743

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EXISTING MOODY RIVER BRIDGE - ELEVATION
 NOT TO SCALE

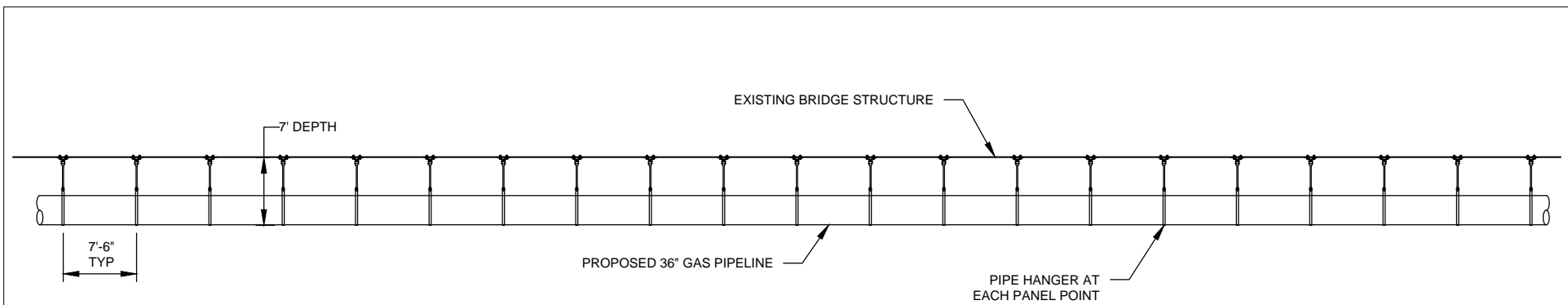
NOTES:

1. AERIAL CROSSING NAVIGABLE WATERWAY.
 - MOODY RIVER - ST_530.9

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Lat 63.8026, Long -148.9327

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404_069_01



TYPICAL SPAN PIPE HANGER ELEVATION
 NOT TO SCALE

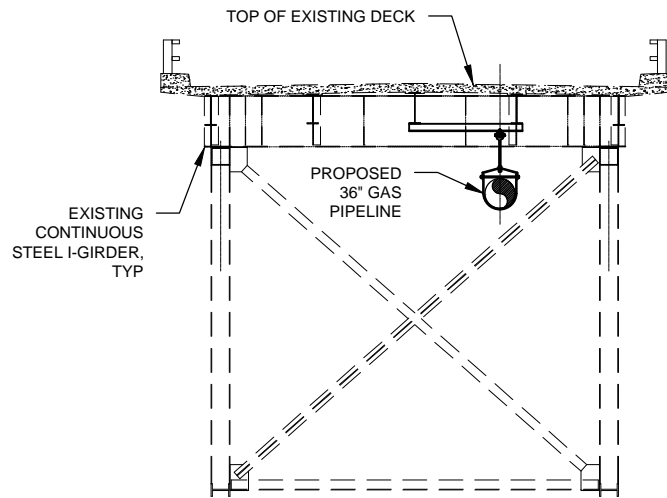
EXISTING MOODY RIVER BRIDGE

NOTES:

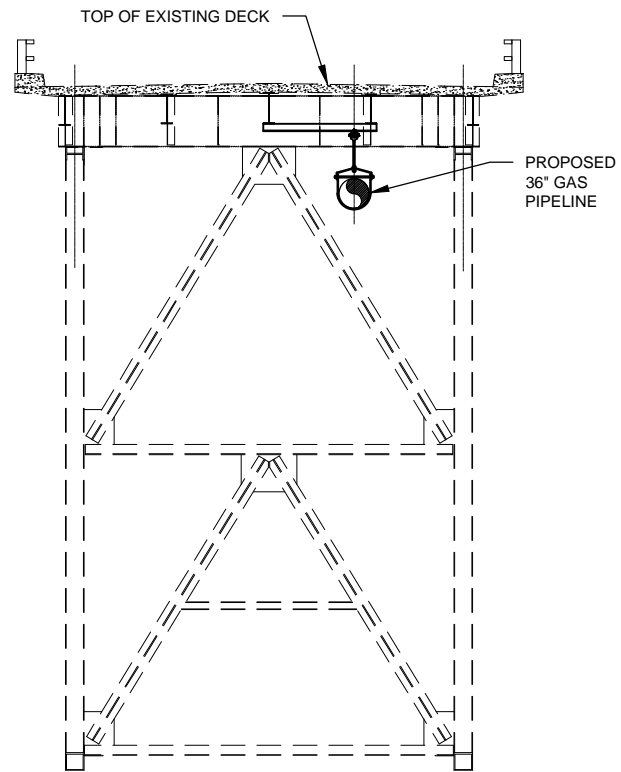
1. AERIAL CROSSING NAVIGABLE WATERWAY.
 - MOODY RIVER - ST_530.9

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Lat 63.8026, Long -148.9327

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TYPICAL SECTION IN SPAN
NOT TO SCALE



TYPICAL SECTION AT PIERS
NOT TO SCALE

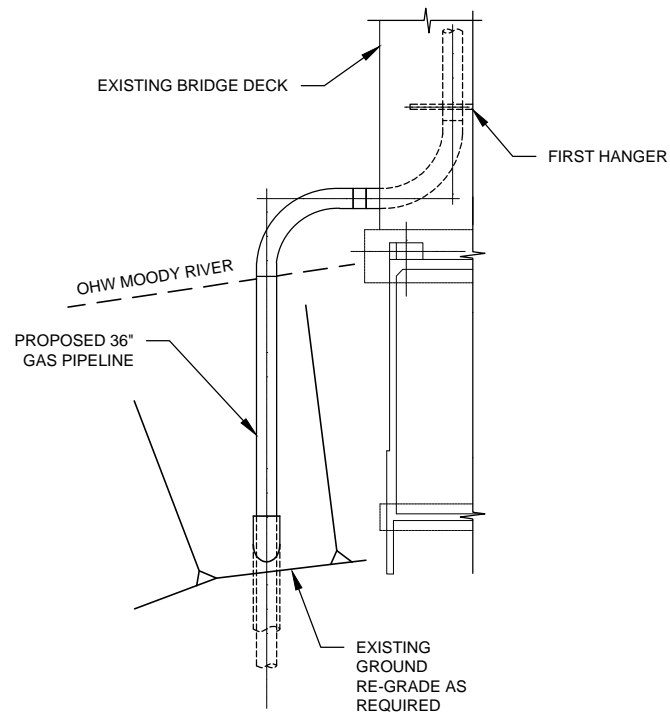
EXISTING MOODY RIVER BRIDGE

NOTES:

1. AERIAL CROSSING NAVIGABLE WATERWAY.
- MOODY RIVER - ST_530.9

Applicant: The Alaska Gasline Development Corporation
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: Lat 63.8026, Long -148.9327

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ENTRANCE INTO SOUTH END OF BRIDGE
NOT TO SCALE

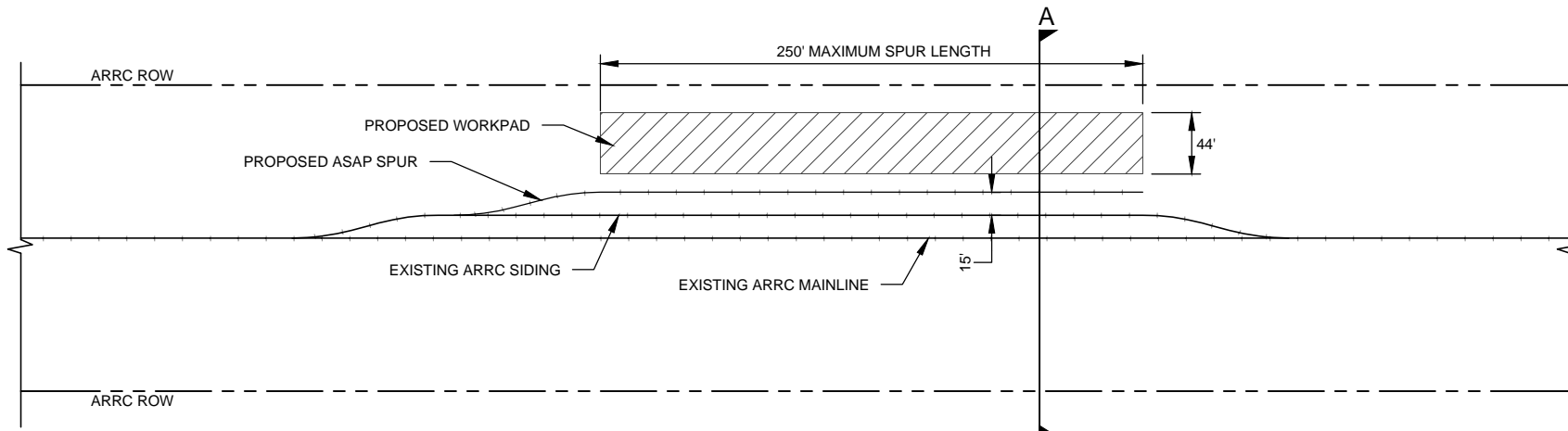
EXISTING MOODY RIVER BRIDGE

NOTES:

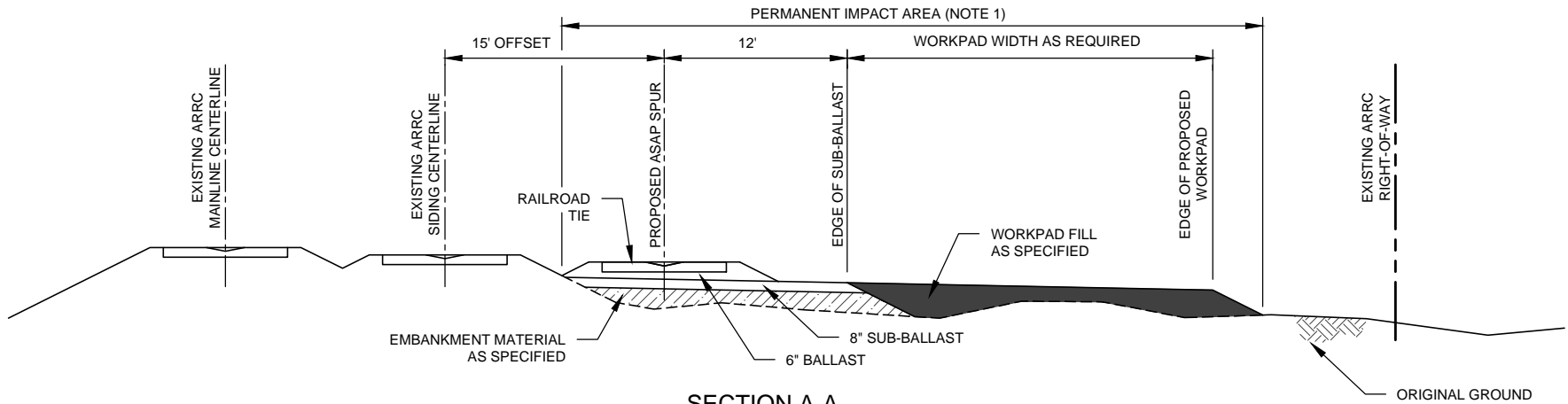
1. AERIAL CROSSING NAVIGABLE WATERWAY.
- MOODY RIVER - ST_530.9

Applicant: The Alaska Gasline Development Corporation
File Number: POA-2009-651
Proposed Activity: Natural Gas Pipeline
Location: Lat 63.8026, Long -148.9327

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PLAN
NOT TO SCALE



SECTION A-A
NOT TO SCALE

RAILROAD SPUR LAYOUT - TYPICAL
NOT TO SCALE

LOCATIONS

NAME	MILEPOST
WILLOW	707
SUNSHINE	676
HURRICANE	604
BROAD PASS	581
CANTWELL	566
USIBELLI	521
GRAVEL	495
HARDING	471
DUNBAR	454

NOTES:

1. IMPACTS TO WOUS AND WETLANDS ARE CALCULATED ON THE ACTUAL TOE TO TOE WIDTH. SIDING SPUR OF 44 FEET TOE TO TOE. IMPACT FOOTPRINTS ARE SHOWN IN APPENDIX B FOR THE ENTIRE PROJECT.

Applicant: Alaska Gasline Development Corporation (AGDC)
 File Number: POA-2009-651
 Proposed Activity: Natural Gas Pipeline
 Location: See List

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