Appendix A

Figures

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Figure List

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Grantley Harbor-Frontal Port Clarence HUC1905010516

Imuruk Basin

Imuruk Basin HUC1905010515

Outlet Kuzitrin River HUC1905010509

Kuzitrin River

Marys Igloo

Outlet Pilgrim River HUC1905010507

PILGRIM HOT SPRINGS ROAD

MP 18.8

MP 15

MP 10

MP 5

MP 0

Oro Grande Creek

Cobblestone River HUC1905010510

Cobblestone River

Windy Creek

Grand Central River

Tisuk River

Feather River-Frontal Bering Sea HUC1905010421

Headwaters Pilgrim River HUC1905010506

KOUGAROK ROAD/NOME-TAYLOR HIGHWAY

Salmon Lake

Sinuk River HUC1905010419

Sinuk River

Glacial Lake

Nome River HUC1905010416

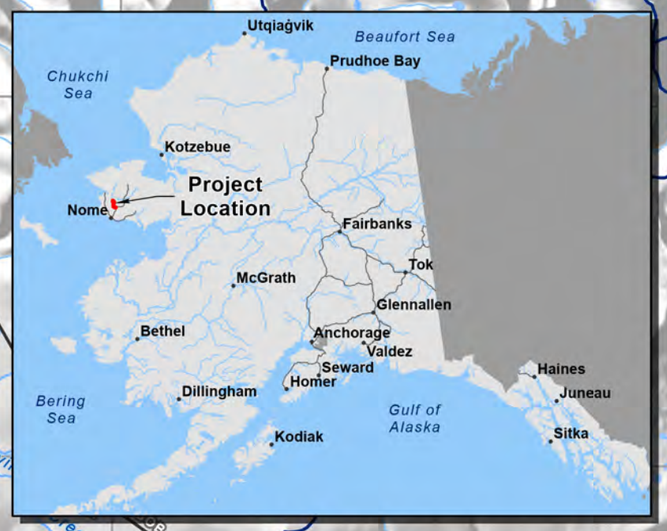
Eldorado River HUC1905010414

Eldorado River

Canyon Creek

Stewart River

Nome River



Project Footprint
Map Index
Project Milepost
HUC 10 Watershed
USGS Waterbody
USGS Stream
Township Boundary
Towns
Existing Road
NHDWaterbody

NOTES

0 1 2 3 Miles

1 inch = 3 miles

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **NOME RIVER, SINUK RIVER, COBBLESTONE RIVER, AND IMURUK BASIN WATERSHED**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **VICINITY MAP**

DATE: **AUGUST 2025**

FIGURE NO. **V-001**

-165°37'40" -165°37'20" -165°37' -165°36'40" -165°36'20" -165°36' -165°35'40" -165°35'20" -165°35' -165°34'40" -165°34'20"

65°4'25" 65°4'20" 65°4'15" 65°4'10" 65°4'5" 65°4' 65°3'55" 65°3'50" 65°3'45" 65°3'40" 65°3'35"

D-001

Access Ramp

Construction Staging Pad

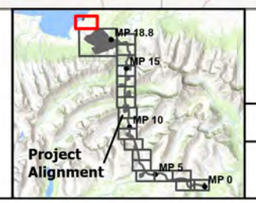
Imuruk Basin

50

100

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index
Temporary Fill

Jurisdictional Wetland and Water Impact
Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 240 480 720 Feet

1:7,200

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **IMURUK BASIN**

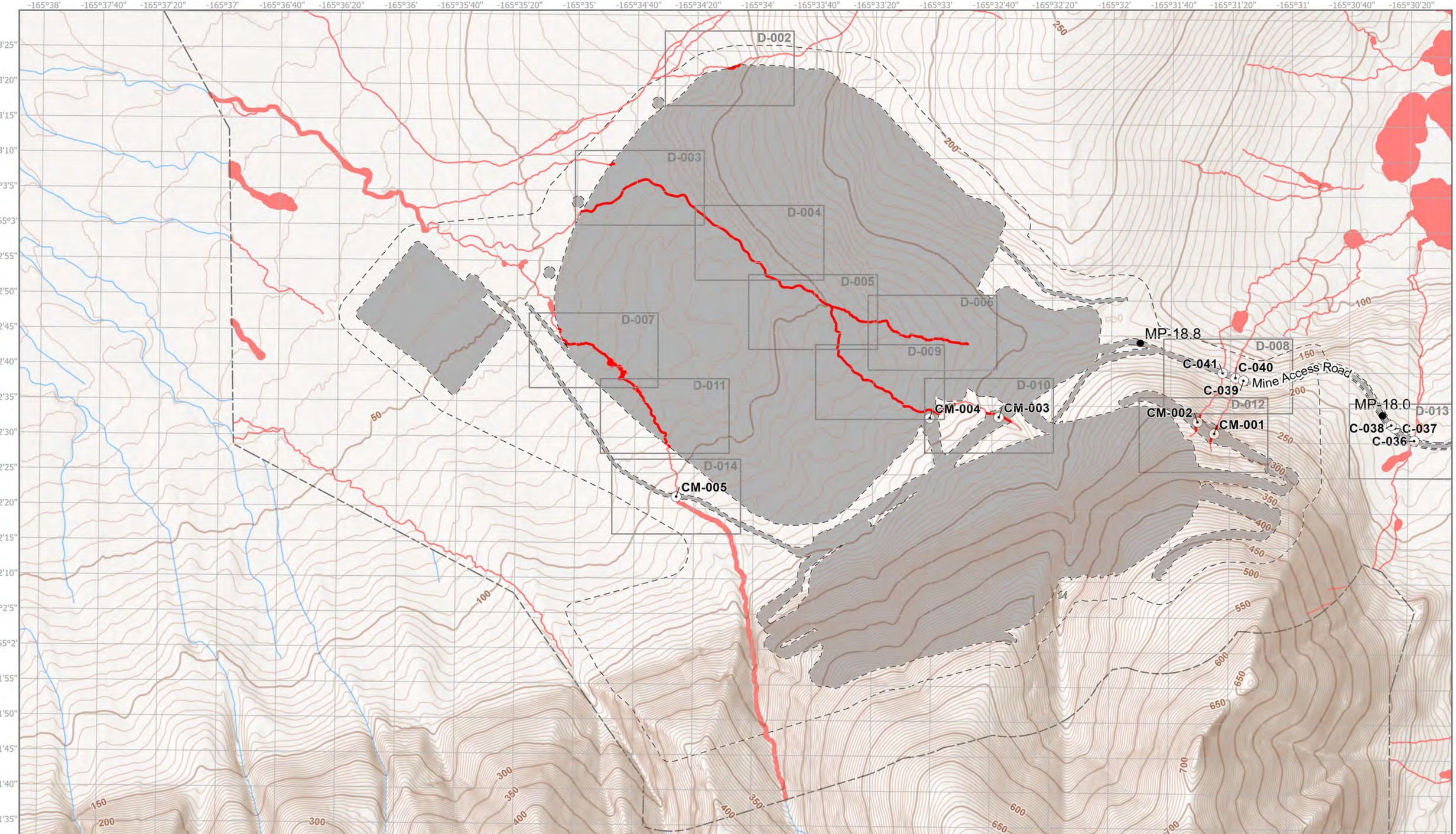
FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW
CONSTRUCTION STAGING PAD

DATE: **AUGUST 2025**

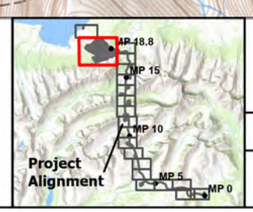
FIGURE NO. **P-001**



Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index

Stream Culvert
Project Milepost

Jurisdictional Wetland and Water Impact
Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 525 1,050 1,575 Feet

1:15,500

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **IMURUK BASIN**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW MINE SITE

DATE: **AUGUST 2025**

FIGURE NO. **P-002**

-165°30'40" -165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28'

65°3'5" 65°3' 65°2'55" 65°2'50" 65°2'45" 65°2'40" 65°2'35" 65°2'30" 65°2'25"

100 100 150 200 250

D-013

MP-18.0

C-038 C-037 C-036

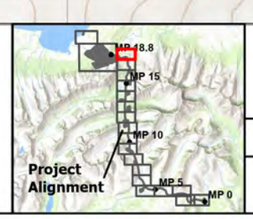
Mine Access Road

Cobblestone River

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index

Stream Culvert
Project Milepost

Jurisdictional Wetland and Water
USGS Waterbody (outside mapping limit)
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-003**

-165°30'40" -165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28'

65°2'20" 65°2'15" 65°2'10" 65°2'5" 65°2' 65°1'55" 65°1'50" 65°1'45" 65°1'40"

MP-17.0

C-035

C-034

C-033

B-006

C-032

D-015

D-016

D-017

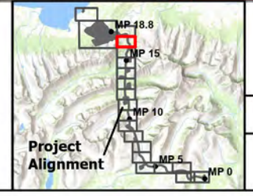
Mine Access Road

100 150 200 250 300 350 400 450

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index
Temporary Fill

Bridges
Stream Culvert
Fish Passage Culvert
Project Milepost

Jurisdictional Wetland and Water Impact
Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-004**

-165°30'40" -165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28'

65°1'35" 65°1'30" 65°1'25" 65°1'20" 65°1'15" 65°1'10" 65°1'5" 65°1' 65°0'55"

C-031

D-017

C-030

MP-16.0

Material Site - MS33

Cobblestone River

Mine Access Road

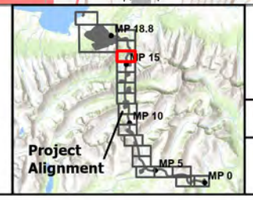
D-018

C-029

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index

Stream Culvert
Project Milepost

Jurisdictional Wetland and Water
USGS Waterbody (outside mapping limit)
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-005**

-165°30'40" -165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28'

65°0'50" 65°0'45" 65°0'40" 65°0'35" 65°0'30" 65°0'25" 65°0'20" 65°0'15" 65°0'10"

Material Site - MS12

MP-15.0

C-028

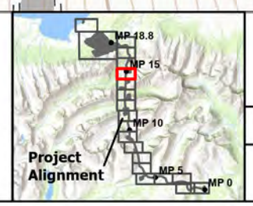
C-027

Mine Access Road

Oro Grande Creek

Cobblestone River

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Stream Culvert
Project Milepost
Jurisdictional Wetland and Water
USGS Waterbody (outside mapping limit)
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-006**

-165°30'40" -165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28'

65°0'5" 65° 64°59'55" 64°59'50" 64°59'45" 64°59'40" 64°59'35" 64°59'30" 64°59'25"

D-019

C-026

150

Material Site - MS34

MP-14.0

Cobblestone River

Mine Access Road

150

D-020

C-025

B-005

Osborne Creek

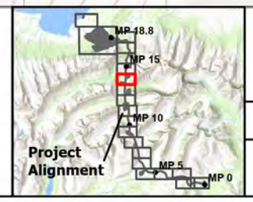
Material Site - MS11

800 750 700 650 600 550 500 450 400 350 300 250 200

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index
Temporary Fill

Bridges
Stream Culvert
Project Milepost

Jurisdictional Wetland and Water Impact
Jurisdictional Wetland and Water
USGS Waterbody (outside mapping limit)
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-007**

-165°30'40" -165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28'

64°59'20" 64°59'15" 64°59'10" 64°59'5" 64°59' 64°58'55" 64°58'50" 64°58'45" 64°58'40"

Mine Access Road

MP-13.0

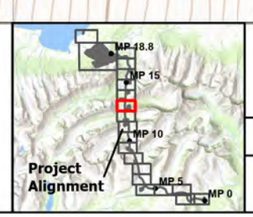
Cobblestone River

Material Site - MS35

200 200 250 300 350 400 450 500 550 600 650 700 750

150 150

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Project Milepost
Jurisdictional Wetland and Water
USGS Waterbody (outside mapping limit)
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

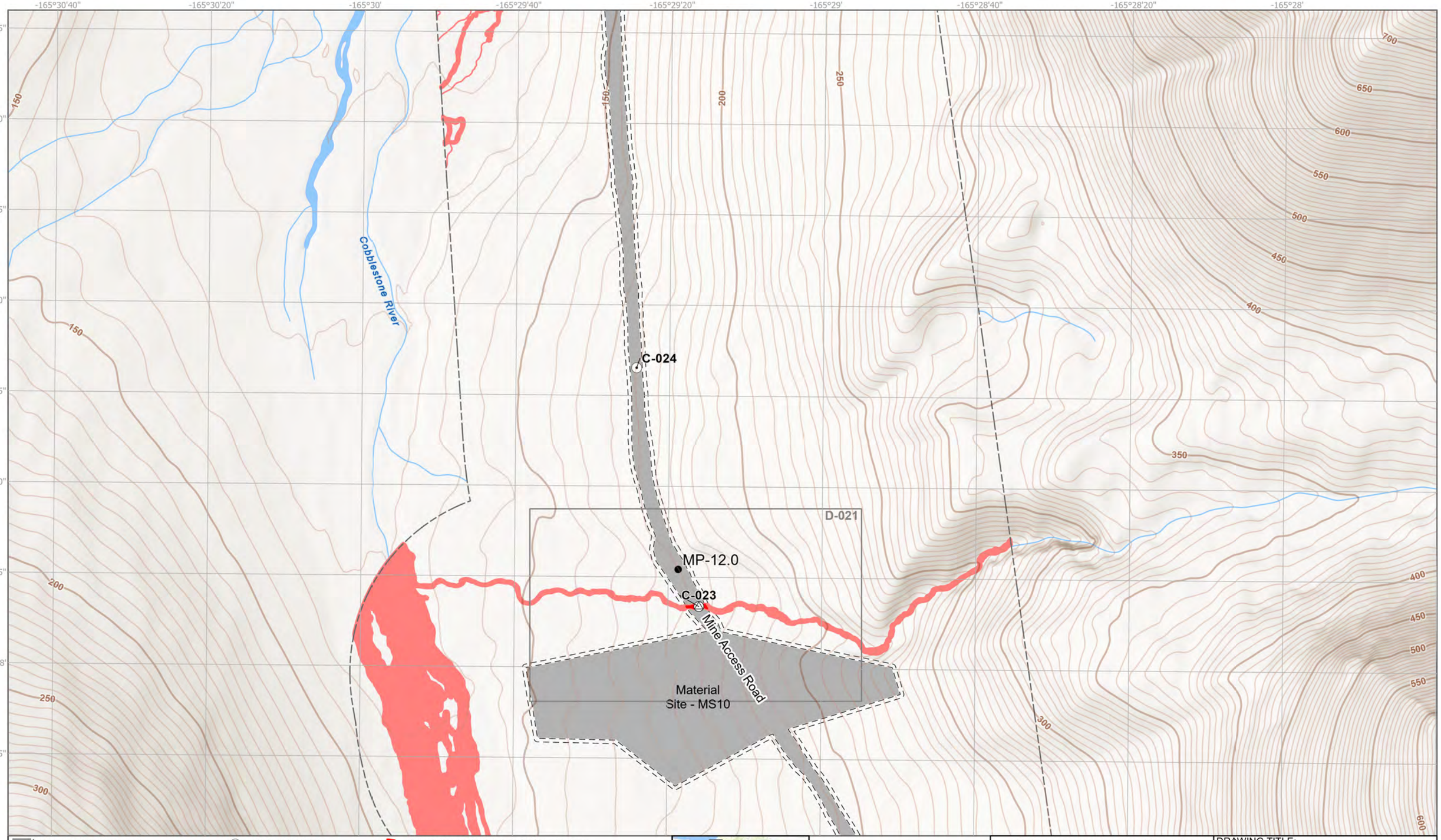
FILE NO. **POA-2018-00210**

DRAWING TITLE:

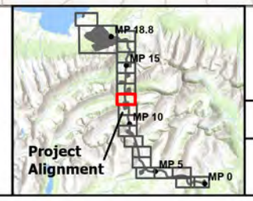
PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-008**



- Wetland Mapping Limit
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Impacts Detail Map Index
- Stream Culvert
- Fish Passage Culvert
- Project Milepost
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- USGS Waterbody (outside mapping limit)
- USGS Stream (outside mapping limits)
- 5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **PLAN VIEW ACCESS ROAD**

DATE: **AUGUST 2025**

FIGURE NO. **P-009**

-165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28' -165°27'40"

64°57'50" 64°57'45" 64°57'40" 64°57'35" 64°57'30" 64°57'25" 64°57'20" 64°57'15" 64°57'10" 64°57'5"

Cobblestone River

Mine Access Road

D-022

C-022

Material Site - MS22

MP-11.0

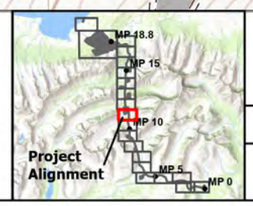
Cobblestone River

150 200 250 300 350 400 450 500 550 600 650 700

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index

Fish Passage Culvert
Project Milepost

Jurisdictional Wetland and Water Impact
Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-010**

-165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28' -165°27'40"

64°57'
64°56'55"
64°56'50"
64°56'45"
64°56'40"
64°56'35"
64°56'30"
64°56'25"
64°56'20"

200 250 300 350 400 450 500 550 600 650 700

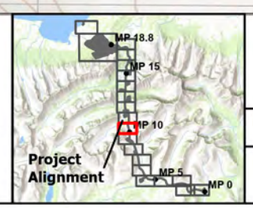
Mine Access Road

D-023

C-021
C-020
C-019
C-018
C-017
C-016
C-015
C-014

MP-10.0

- Wetland Mapping Limit
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Impacts Detail Map Index
- Stream Culvert
- Project Milepost
- Jurisdictional Wetland and Water
- USGS Stream (outside mapping limits)
- 5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-011**

-165°30'20" -165°30' -165°29'40" -165°29'20" -165°29' -165°28'40" -165°28'20" -165°28' -165°27'40"

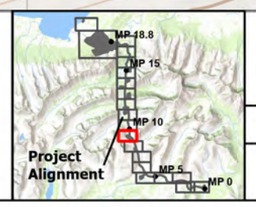
64°56'15" 64°56'10" 64°56'5" 64°56' 64°55'55" 64°55'50" 64°55'45" 64°55'40" 64°55'35"

Material Site - MS08

Mine Access Road

MP-9.0

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Project Milepost
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE AND SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-012**

-165°29'20" -165°29' -165°28'40" -165°28'20" -165°28' -165°27'40" -165°27'20" -165°27' -165°26'40"

64°55'30" 64°55'25" 64°55'20" 64°55'15" 64°55'10" 64°55'5" 64°55' 64°54'55" 64°54'50"

450 650 800 750 700 650 600 550 500 450 400 350 300 250

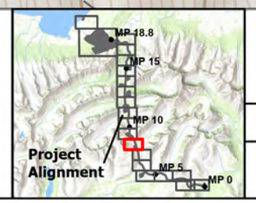
Mine Access Road

Windy Creek

Material Site - MS07

MP-8.0

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Project Milepost
Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-013**

-165°28' -165°27'40" -165°27'20" -165°27' -165°26'40" -165°26'20" -165°26' -165°25'40" -165°25'20" -165°25'

64°54'45" 64°54'40" 64°54'35" 64°54'30" 64°54'25" 64°54'20" 64°54'15" 64°54'10" 64°54'5"

Windy Creek

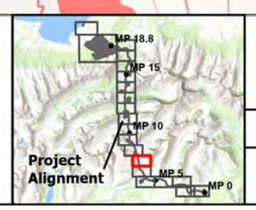
Mine Access Road

D-024

C-013

750 700 650 600 550 500 450 400 350 300 250 200 450 500 400 350 300 250 200

- Wetland Mapping Limit
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Impacts Detail Map Index
- Stream Culvert
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- USGS Stream (outside mapping limits)
- 5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-014**

-165°28' -165°27'40" -165°27'20" -165°27' -165°26'40" -165°26'20" -165°26' -165°25'40" -165°25'20" -165°25'

64°54' 64°53'55" 64°53'50" 64°53'45" 64°53'40" 64°53'35" 64°53'30" 64°53'25" 64°53'20"

MP-7.0

D-025

C-012

B-004

Mine Access Road

C-011

D-026

MP-6.0

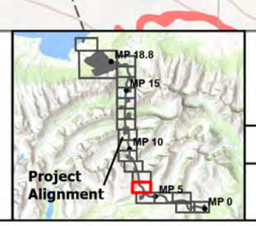
Windy Creek

500 450 400 350 300 250 200

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index
Temporary Fill

Bridges
Stream Culvert
Fish Passage Culvert
Project Milepost

Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-015**

-165°27'20" -165°27' -165°26'40" -165°26'20" -165°26' -165°25'40" -165°25'20" -165°25' -165°24'40" -165°24'20"

64°53'15" 64°53'10" 64°53'5" 64°53' 64°52'55" 64°52'50" 64°52'45" 64°52'40" 64°52'35"

D-026

C-010

Windy Creek

Material Site - MS06

Mine Access Road

350 300 250 200

Windy Creek

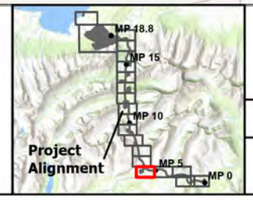
Sinuk River

Sinuk River

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index

Fish Passage Culvert

Jurisdictional Wetland and Water Impact
Jurisdictional Wetland and Water
USGS Waterbody (outside mapping limit)
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-016**

-165°24' -165°23'40" -165°23'20" -165°23' -165°22'40" -165°22'20" -165°22' -165°21'40" -165°21'20"

64°53'15" 64°53'10" 64°53'5" 64°53' 64°52'55" 64°52'50" 64°52'45" 64°52'40" 64°52'35"

350 300 250 200 250 300 350 400 450 500

Sinuk River

D-027

Mine Access Road

B-003

MP-5.0

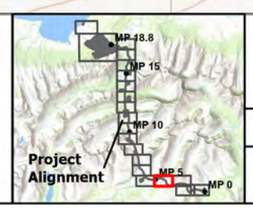
MP-4.0

Sinuk River

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index
Temporary Fill

Bridges
Project Milepost

Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-017**

-165°21' -165°20'40" -165°20'20" -165°20' -165°19'40" -165°19'20" -165°19' -165°18'40" -165°18'20"

64°53'15" 64°53'10" 64°53'5" 64°53' 64°52'55" 64°52'50" 64°52'45" 64°52'40" 64°52'35"

600 600 550 500 450 400 350 300 350 300 250 300

D-028

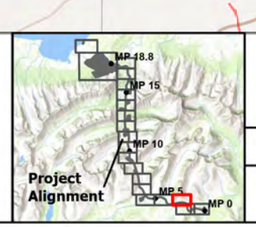
Mine Access Road

C-007 C-006 C-005 MP-3.0 C-009 C-008 C-004 MP-2.0

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index

Stream Culvert
Project Milepost

Jurisdictional Wetland and Water Impact
Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK AND NOME RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-018**

-165°20'20" -165°20' -165°19'40" -165°19'20" -165°19' -165°18'40" -165°18'20" -165°18' -165°17'40"

64°52'35" 64°52'30" 64°52'25" 64°52'20" 64°52'15" 64°52'10" 64°52'5" 64°52' 64°51'55"

D-028

C-004

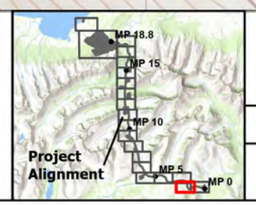
MP-2.0

MP-1.0

Mine Access Road

300 300 250 350 350

- Wetland Mapping Limit
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Impacts Detail Map Index
- Stream Culvert
- Project Milepost
- Jurisdictional Wetland and Water
- USGS Stream (outside mapping limits)
- 5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK AND NOME RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-019**

-165°18' -165°17'40" -165°17'20" -165°17' -165°16'40" -165°16'20" -165°16' -165°15'40" -165°15'20"

64°52'35" 64°52'30" 64°52'25" 64°52'20" 64°52'15" 64°52'10" 64°52'5" 64°52' 64°51'55"

250 250 250 200

B-002 Mine Access Road MP-1.0

Material Site - MS02

C-003 C-002 B-001 C-001 MP-0.0

D-029

Nome River

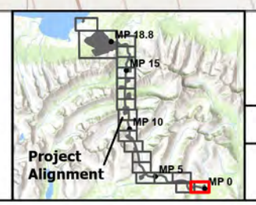
KOUGAROK ROAD/NOME-TAYLOR HIGHWAY

Nome River

Wetland Mapping Limit
Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Impacts Detail Map Index
Temporary Fill

Bridges
Fish Passage Culvert
Project Milepost
Existing Road

Jurisdictional Wetland and Water Impact
Jurisdictional Wetland and Water
USGS Stream (outside mapping limits)
5 Meter Contour



0 200 400 600 Feet

1:6,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **NOME RIVER**

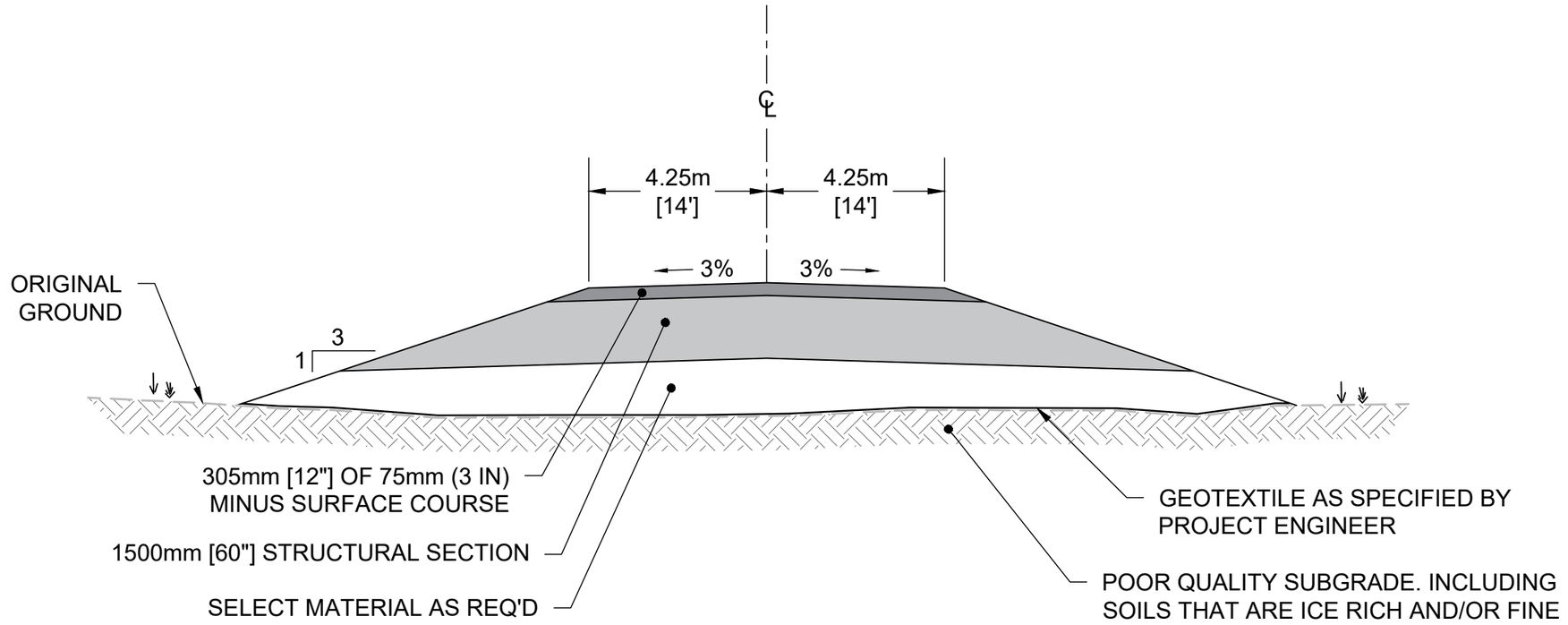
FILE NO. **POA-2018-00210**

DRAWING TITLE:

PLAN VIEW ACCESS ROAD

DATE: **AUGUST 2025**

FIGURE NO. **P-020**



1 GRAPHITE ONE ACCESS ROAD TYPICAL SECTION OVER PERMAFROST & WETLANDS

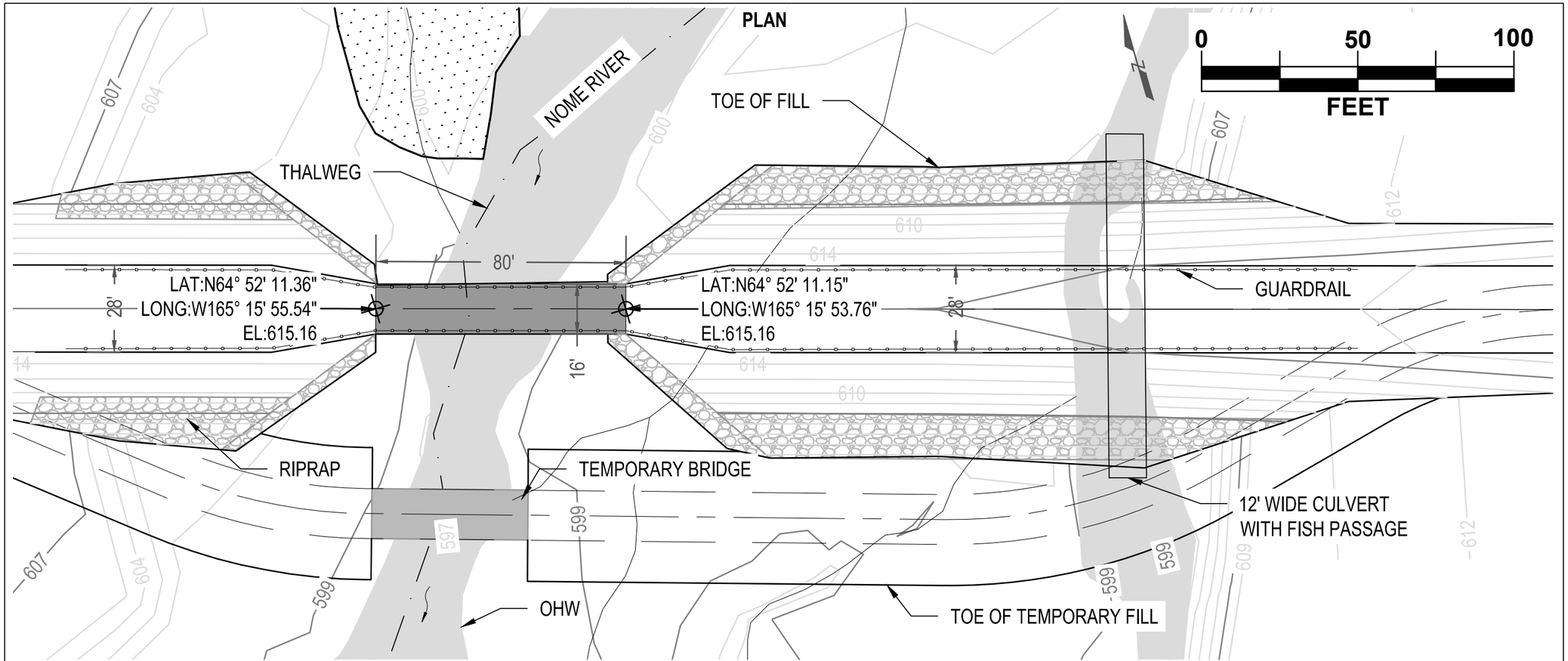
NOTES:

1. CLEARING LIMITS MIN. 1.5M [5FT] BEYOND TOP OF CUT OR TOE OF FILL.
2. SURFACE COURSE TO CONSIST OF 75MM [3IN] MINUS, WELL GRADED, DURABLE, GRANULAR MATERIAL WITH 6 TO 10% PASSING THE NO. 200 SIEVE.
3. STRUCTURAL SECTION & SELECT MATERIAL TO CONSIST OF COARSE ROCK FILL.
4. ALL MATERIAL TO BE FREE OF ORGANICS, FROZEN MATERIAL, MUCK, OR OTHER DELETERIOUS MATERIAL. ALL MATERIAL IS TO BE NON FROST SUSCEPTIBLE.
5. WHEN CONSTRUCTING OVER PERMAFROST OR WETLANDS THE NATIVE VEGETATION & GROUND SURFACE TO BE LEFT IN PLACE TO THE EXTENT POSSIBLE.

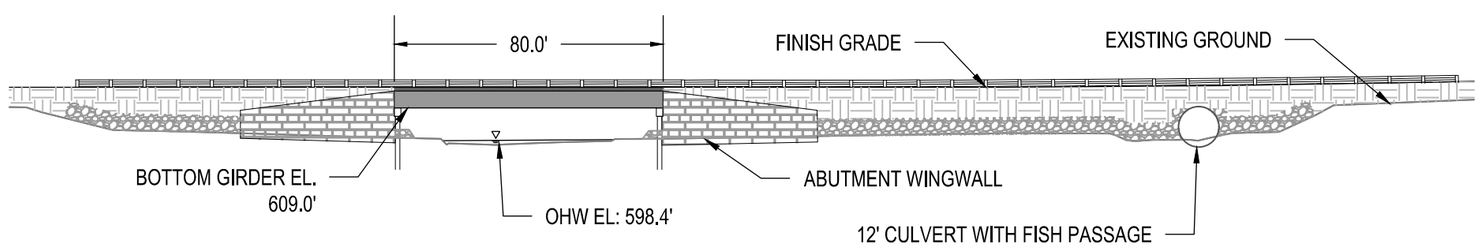
GRAPHITE CREEK PROJECT
APPLICANT: GRAPHITE ONE

LAT., LONG.	PROPOSED ACTIVITY:	DRAWING TITLE:	
VARIES	ROAD CONSTRUCTION	ROAD DESIGN TYPICAL SECTION	
WATERWAY: VARIES	FILE NO. POA-2018-00210	DATE: **AUGUST 2025**	FIGURE NO. **RX-001**

PLAN



PROFILE



LEGEND

- WETLAND
- STREAM

NOTES:

1. DRAWINGS ARE FOR PERMIT APPLICATIONS ONLY.
2. ORGINAL GROUND, ORDINARY HIGH WATER, THALWEG, FROM 2021 TOPOGRAPHIC STREAM SURVEY.
3. COORDINATE SYSTEM: NAD83, UTM ZONE 3, METERS
4. DRAWINGS ARE CONCEPTUAL, FINAL DESIGN SUBJECT TO UPDATED HYDROLOGY SURVEY AND FINAL ABUTMENT DESIGN.

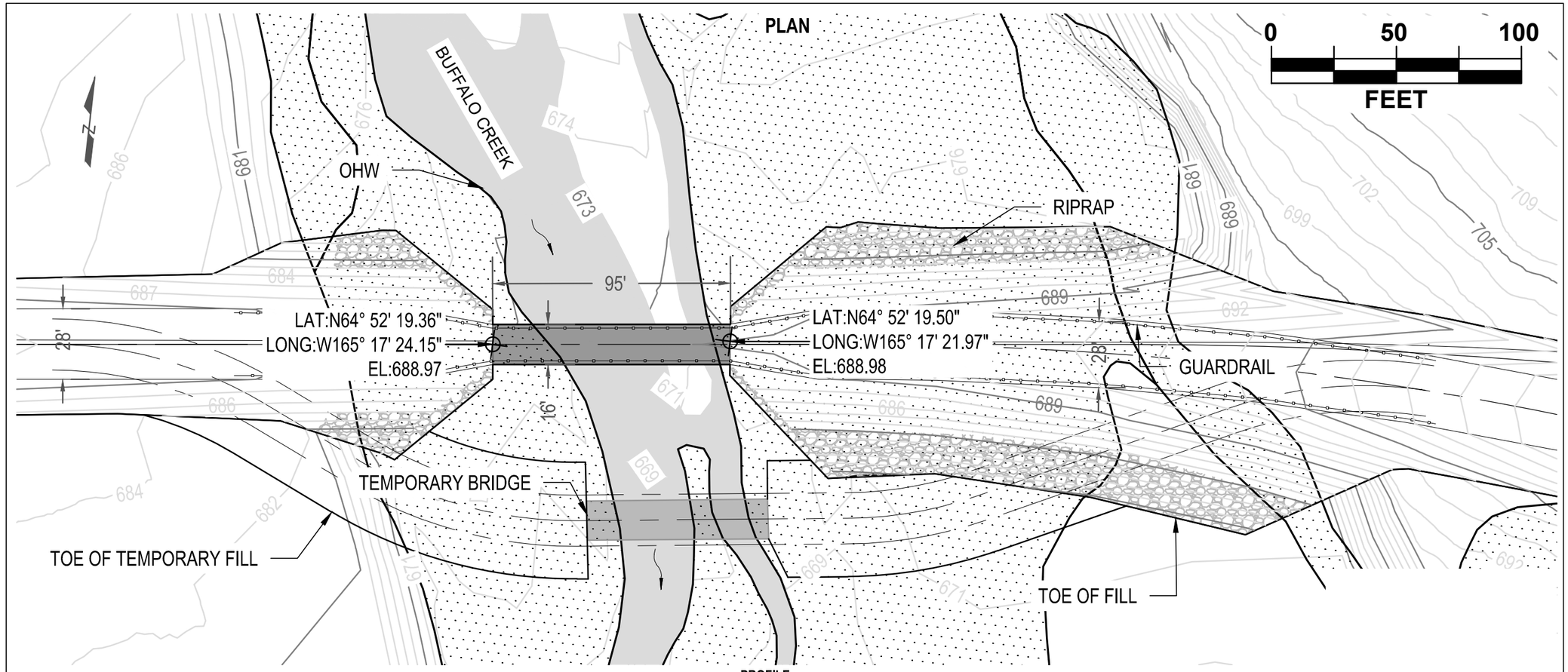
GRAPHITE CREEK PROJECT
APPLICANT: GRAPHITE ONE

LAT., LONG.	PROPOSED ACTIVITY:
VARIES	ROAD CONSTRUCTION
WATERWAY: VARIES	FILE NO. POA-2018-00210

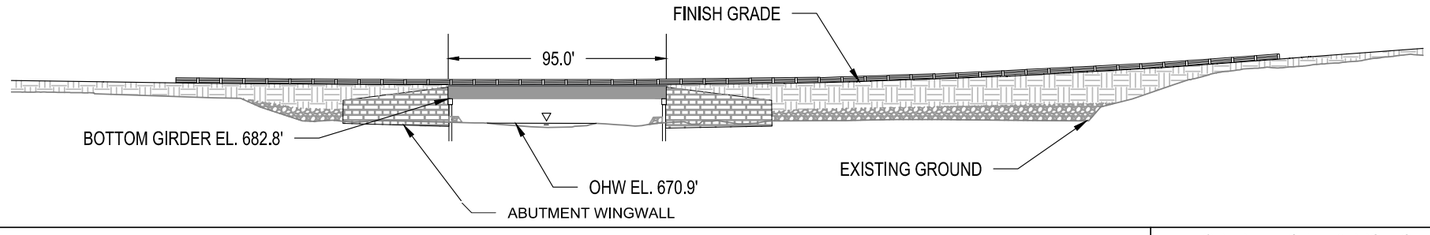
DRAWING TITLE: NOME RIVER BRIDGE

DATE:	FIGURE NO.
AUGUST 2025	BX-001

PLAN



PROFILE



LEGEND

WETLAND

STREAM

NOTES:

1. DRAWINGS ARE FOR PERMIT APPLICATIONS ONLY.
2. ORGINAL GROUND, ORDINARY HIGH WATER, THALWEG, FROM 2021 TOPOGRAPHIC STREAM SURVEY.
3. COORDINATE SYSTEM: NAD83, UTM ZONE 3, METERS
4. DRAWINGS ARE CONCEPTUAL, FINAL DESIGN SUBJECT TO UPDATED HYDROLOGY SURVEY AND FINAL ABUTMENT DESIGN.

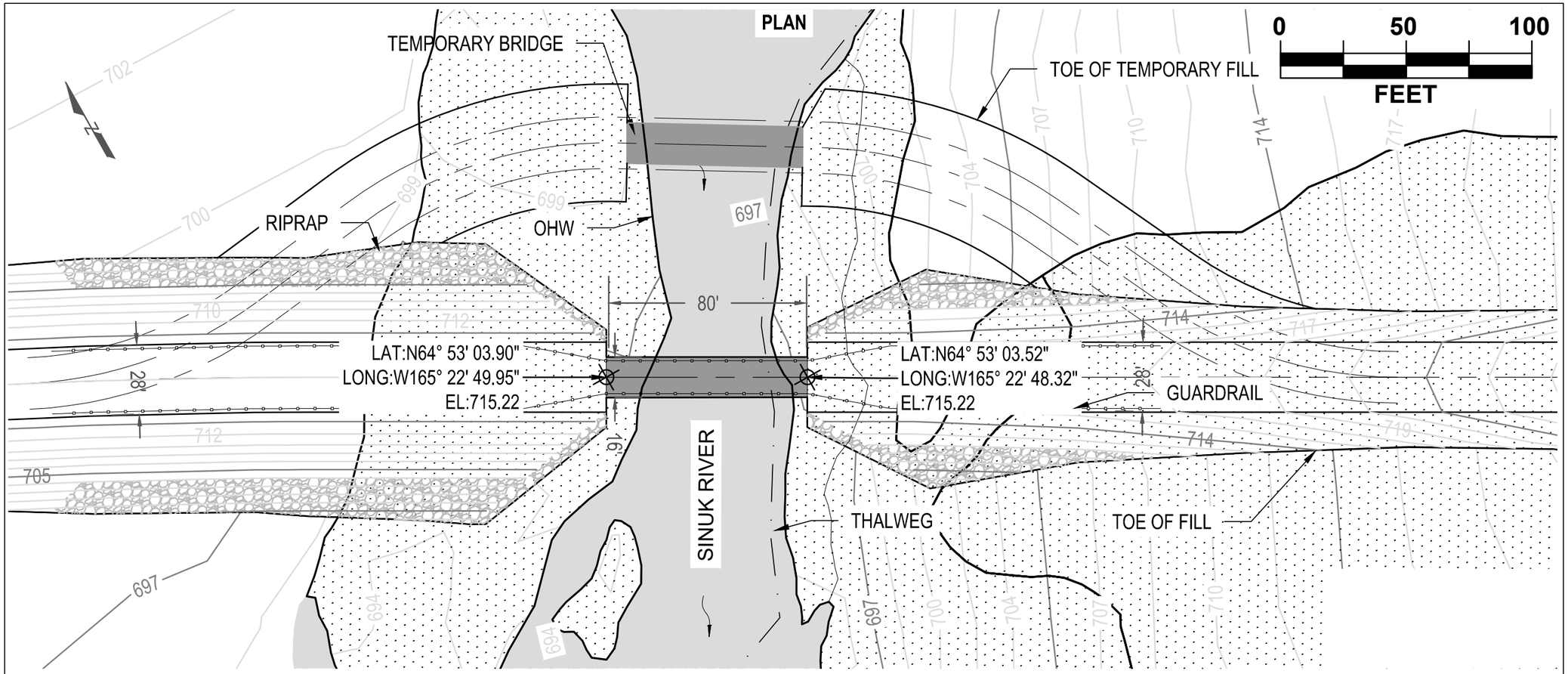
GRAPHITE CREEK PROJECT
APPLICANT: GRAPHITE ONE

LAT., LONG.	PROPOSED ACTIVITY:
VARIES	ROAD CONSTRUCTION
WATERWAY: VARIES	FILE NO. POA-2018-00210

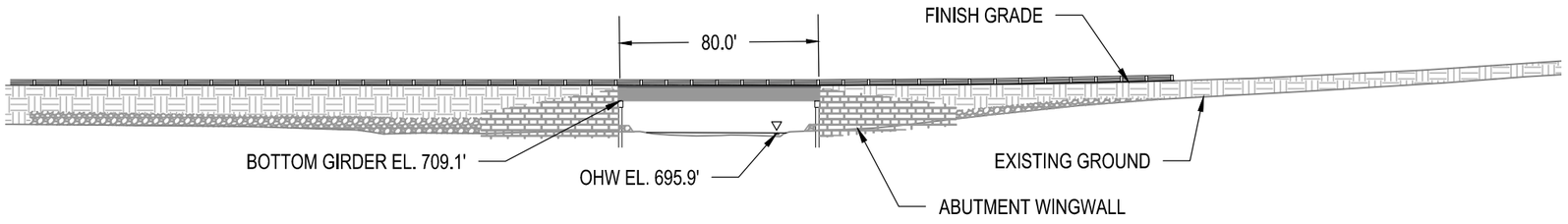
DRAWING TITLE: BUFFALO CREEK BRIDGE

DATE:	FIGURE NO.
AUGUST 2025	BX-002

PLAN



PROFILE



LEGEND

- WETLAND
- STREAM

NOTES:

1. DRAWINGS ARE FOR PERMIT APPLICATIONS ONLY.
2. ORGINAL GROUND, ORDINARY HIGH WATER, THALWEG, FROM 2021 TOPOGRAPHIC STREAM SURVEY.
3. COORDINATE SYSTEM: NAD83, UTM ZONE 3, METERS
4. DRAWINGS ARE CONCEPTUAL, FINAL DESIGN SUBJECT TO UPDATED HYDROLOGY SURVEY AND FINAL ABUTMENT DESIGN.

GRAPHITE CREEK PROJECT
APPLICANT: GRAPHITE ONE

LAT., LONG.	PROPOSED ACTIVITY:
VARIES	ROAD CONSTRUCTION
WATERWAY: VARIES	**FILE NO.** POA-2018-00210

DRAWING TITLE: SINUK RIVER BRIDGE

DATE:	FIGURE NO.
AUGUST 2025	BX-003

PLAN

0 50 100
FEET

TEMPORARY BRIDGE

RIPRAP

131.2'

LAT:N64° 53' 47.91"
LONG:W165° 26' 43.08"
EL:623.36

LAT:N64° 53' 47.24"
LONG:W165° 26' 40.47"
EL:623.36

28'

16'

GUARDRAIL

TOE OF TEMPORARY FILL

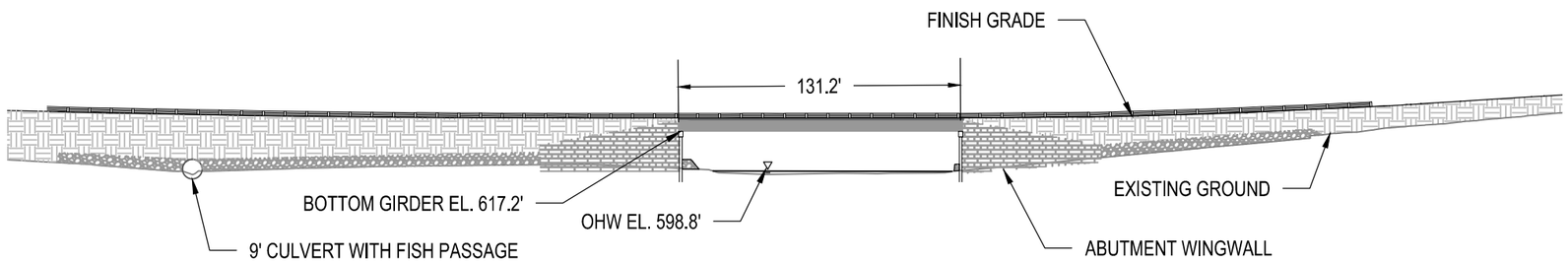
TOE OF FILL

9' WIDE CULVERT
WITH FISH PASSAGE

WINDY CREEK

OHW

PROFILE



LEGEND

WETLAND

STREAM

NOTES:
1. DRAWINGS ARE FOR PERMIT APPLICATIONS ONLY.
2. ORGINAL GROUND, ORDINARY HIGH WATER, THALWEG, FROM 2021 TOPOGRAPHIC STREAM SURVEY.
3. COORDINATE SYSTEM: NAD83, UTM ZONE 3, METERS
4. DRAWINGS ARE CONCEPTUAL, FINAL DESIGN SUBJECT TO UPDATED HYDROLOGY SURVEY AND FINAL ABUTMENT DESIGN.

GRAPHITE CREEK PROJECT
APPLICANT: GRAPHITE ONE

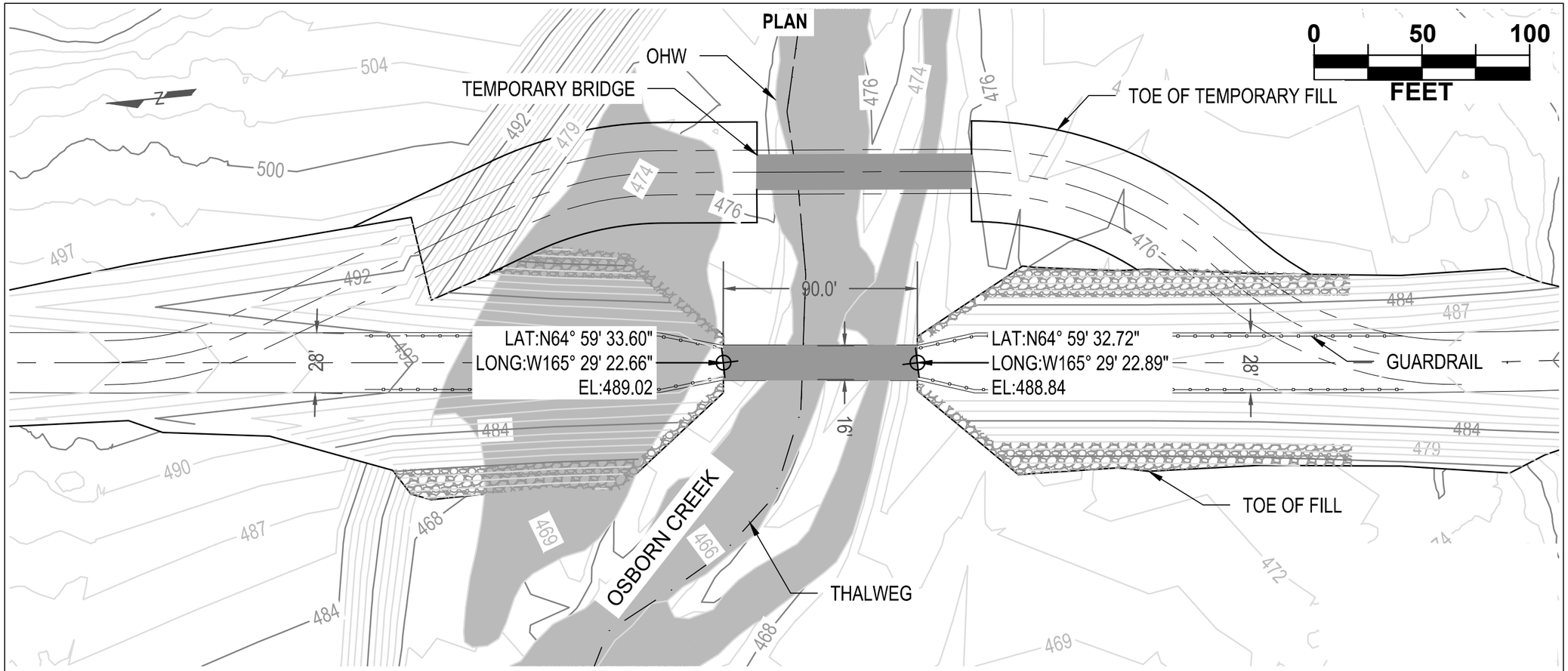
LAT., LONG.	PROPOSED ACTIVITY:
VARIES	ROAD CONSTRUCTION
WATERWAY:	FILE NO.
VARIES	POA-2018-00210

DRAWING TITLE: WINDY CREEK BRIDGE

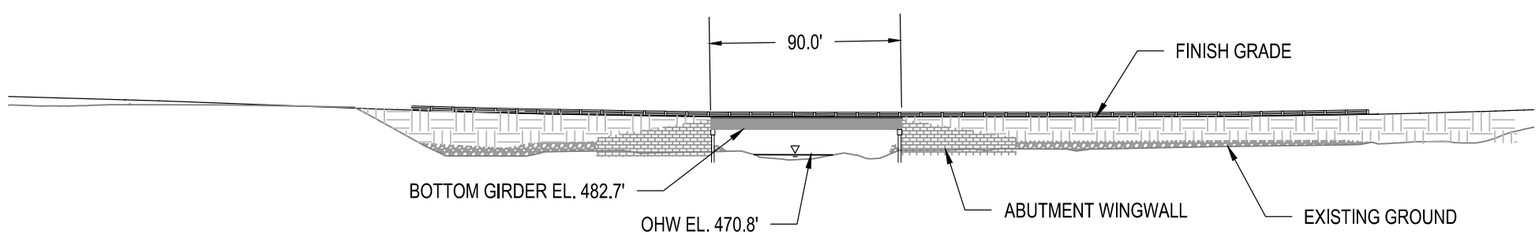
DATE: AUGUST 2025

FIGURE NO. BX-004

PLAN



PROFILE



LEGEND

WETLAND

STREAM

NOTES:

1. DRAWINGS ARE FOR PERMIT APPLICATIONS ONLY.
2. ORGINAL GROUND, ORDINARY HIGH WATER, THALWEG, FROM 2021 TOPOGRAPHIC STREAM SURVEY.
3. COORDINATE SYSTEM: NAD83, UTM ZONE 3, METERS
4. DRAWINGS ARE CONCEPTUAL, FINAL DESIGN SUBJECT TO UPDATED HYDROLOGY SURVEY AND FINAL ABUTMENT DESIGN.

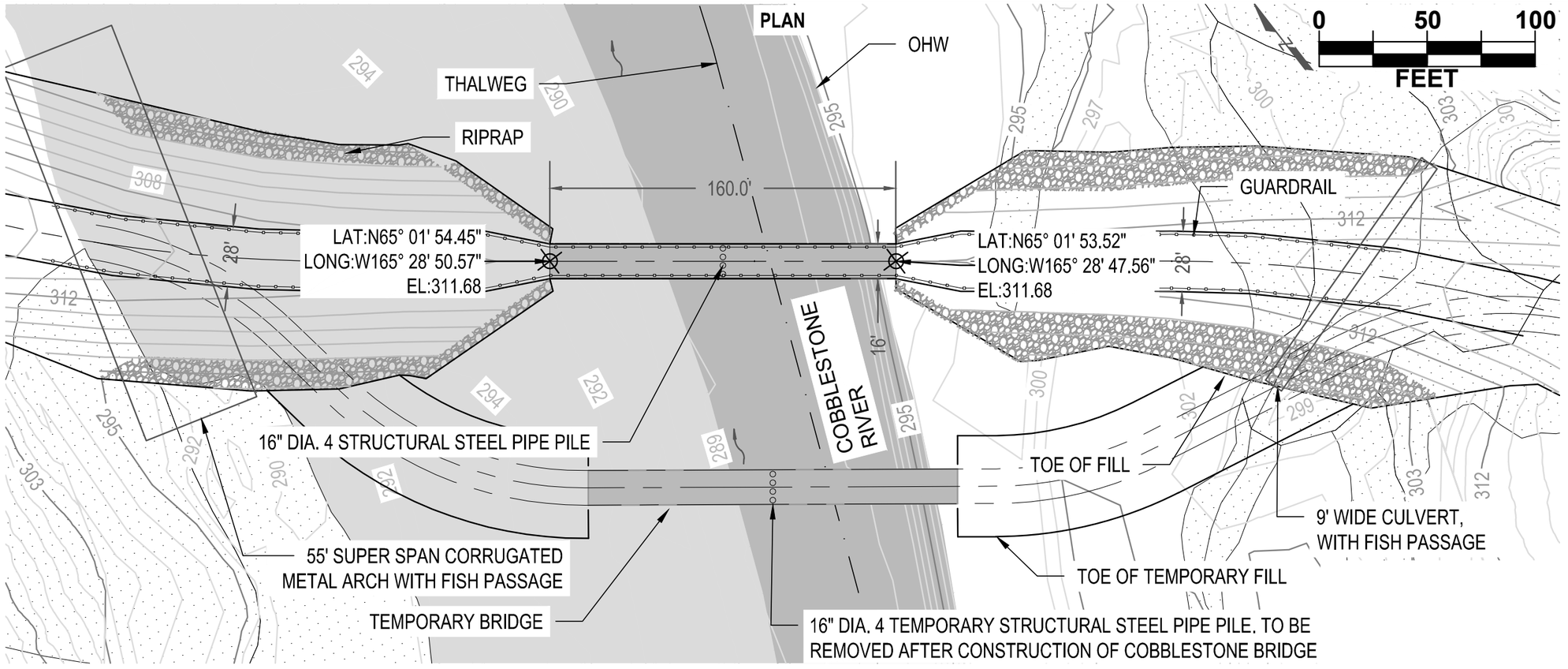
GRAPHITE CREEK PROJECT
APPLICANT: GRAPHITE ONE

LAT., LONG.	PROPOSED ACTIVITY:
VARIES	ROAD CONSTRUCTION
WATERWAY:	**FILE NO.**
VARIES	POA-2018-00210

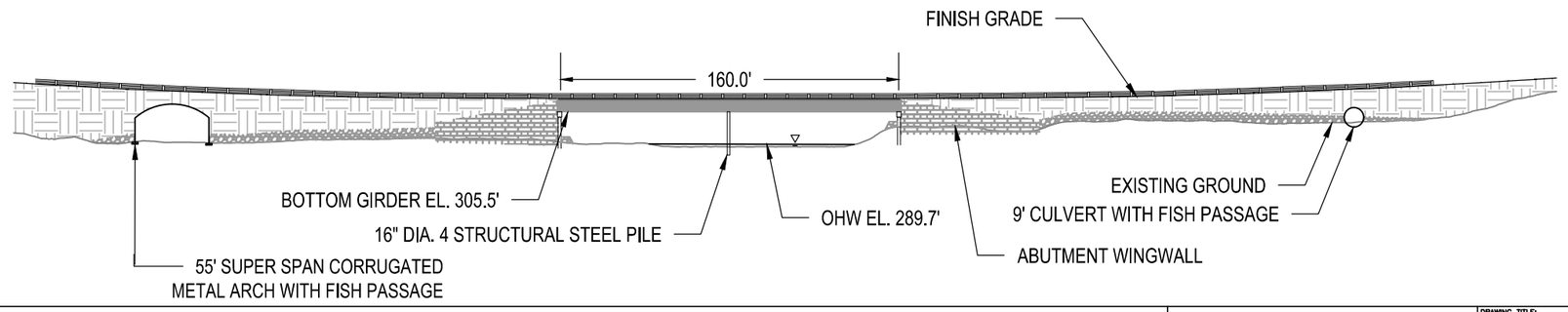
DRAWING TITLE: OSBORN CREEK BRIDGE

DATE:	FIGURE NO.
AUGUST 2025	BX-005

PLAN



PROFILE



LEGEND

WETLAND

STREAM

NOTES:

1. DRAWINGS ARE FOR PERMIT APPLICATIONS ONLY.
2. ORGINAL GROUND, ORDINARY HIGH WATER, THALWEG, FROM 2021 TOPOGRAPHIC STREAM SURVEY.
3. COORDINATE SYSTEM: NAD83, UTM ZONE 3, METERS
4. DRAWINGS ARE CONCEPTUAL, FINAL DESIGN SUBJECT TO UPDATED HYDROLOGY SURVEY AND FINAL ABUTMENT DESIGN.

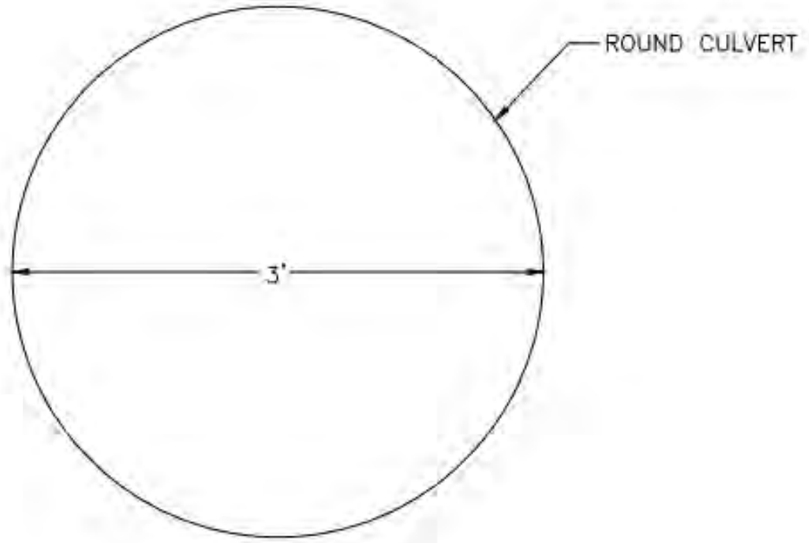
GRAPHITE CREEK PROJECT
APPLICANT: GRAPHITE ONE

LAT., LONG.	PROPOSED ACTIVITY:
VARIES	ROAD CONSTRUCTION
WATERWAY: VARIES	FILE NO. POA-2018-00210

DRAWING TITLE:
COBBLESTONE RIVER BRIDGE

DATE: AUGUST 2025

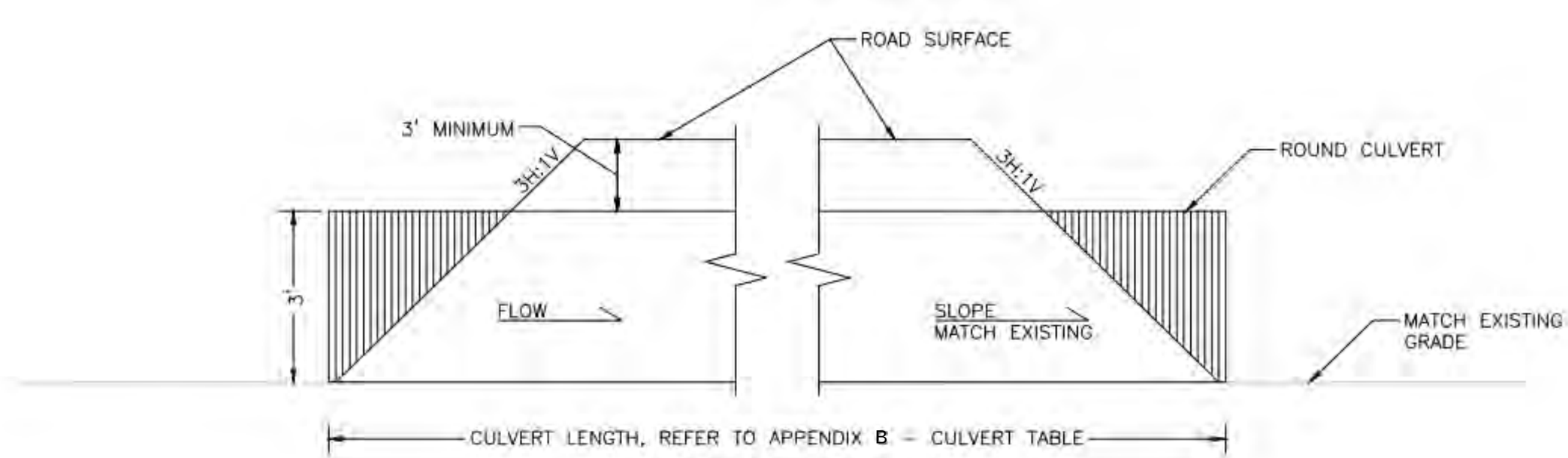
FIGURE NO. BX-006



TYPICAL SECTION
NTS

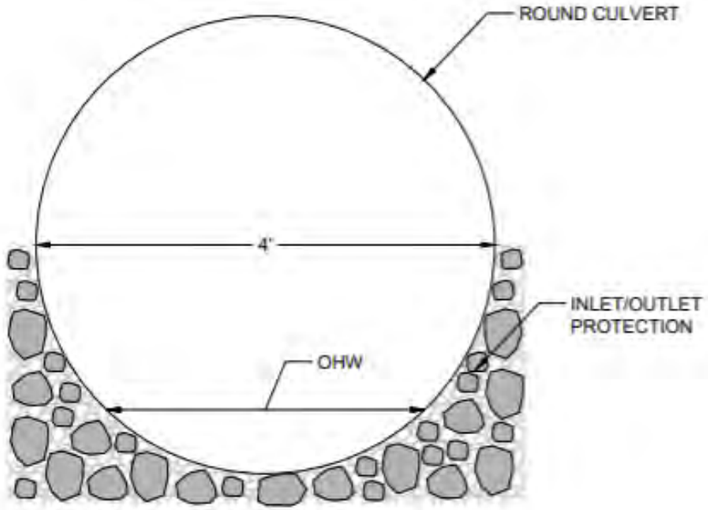
NOTES:

1. CATEGORY 1 CULVERTS SHALL BE INSTALLED AS NEEDED DURING ROAD CONSTRUCTION FOR CROSS DRAINAGE. CATEGORY 1 CULVERTS SHALL NOT BE USED ON MAPPED STREAMS.
2. CULVERTS SHALL SPAN ENTIRE TOE OF FILL WIDTH.
3. DIAMETER SHALL BE 3',
4. MINIMUM COVER WILL BE DETERMINED BASED ON EQUIPMENT LOADING AND CULVERT DESIGN.
5. EROSION AND STORMWATER RUNOFF CONTROL MEASURES AND STABILIZATION OF DISTURBED AREAS WILL BE IMPLEMENTED AS NECESSARY AND IN ACCORDANCE WITH BEST PRACTICES.

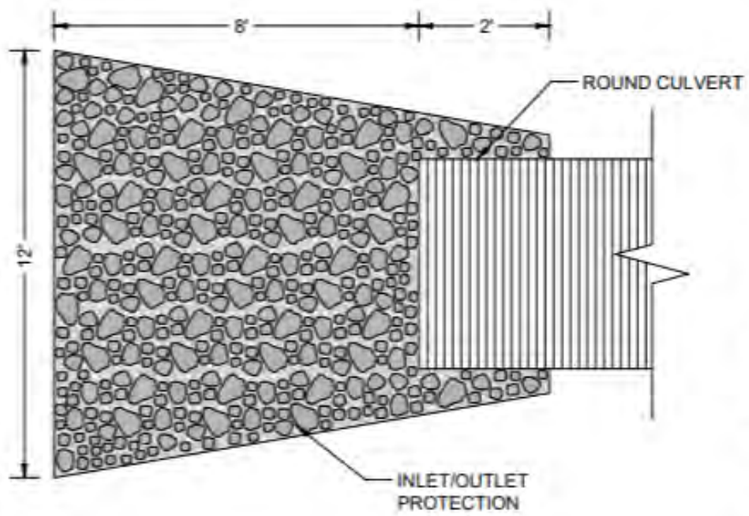


TYPICAL PROFILE
NTS

GRAPHITE CREEK PROJECT APPLICANT: GRAPHITE ONE		DRAWING TITLE: CULVERT CATEGORY 1 TYPICAL SECTION	
LAT., LONG. VARIES	PROPOSED ACTIVITY: ROAD CONSTRUCTION		
WATERWAY: VARIES	FILE NO. POA-2018-00210	DATE: AUGUST 2025	FIGURE NO. CX-001



TYPICAL SECTION
NTS



TYPICAL INLET/OUTLET PROTECTION
NTS

NOTES:

CATEGORY 2 CULVERTS SHALL BE INSTALLED ON MAPPED STREAMS THAT HAVE A STREAM WIDTH OF UP TO 2' AT THE ORDINARY HIGH WATER (OHW) MARK.

CULVERT SHALL SPAN ENTIRE TOE OF FILL WIDTH.

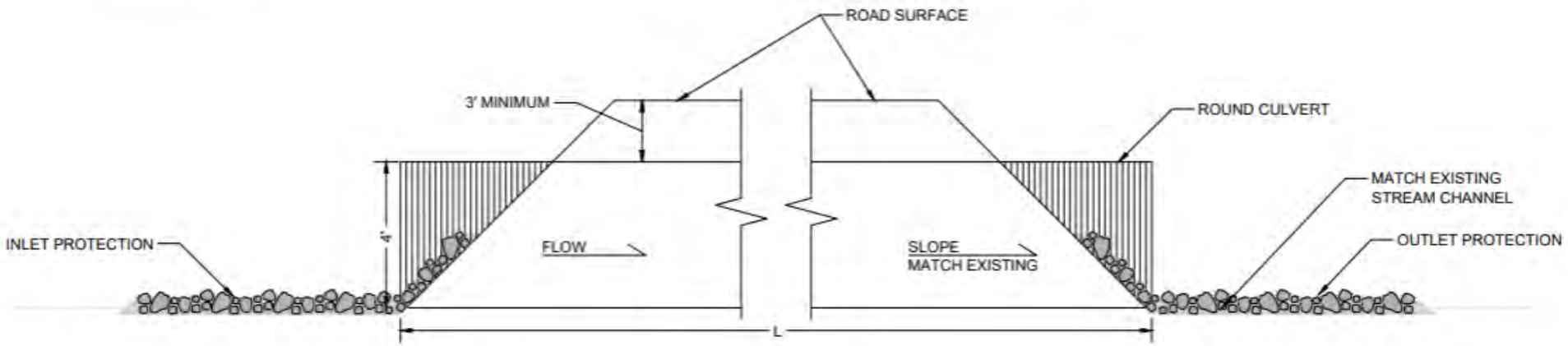
DIAMETER SHALL BE 4'.

STREAM IMPACT AREA EQUALS STREAM WIDTH TIMES CULVERT LENGTH PLUS THE AREA ASSOCIATED WITH INLET/OUTLET PROTECTION.

STREAM BED SLOPE THROUGH CULVERT SHALL MATCH STREAM SLOPE TO MAXIMUM EXTENT PRACTICABLE.

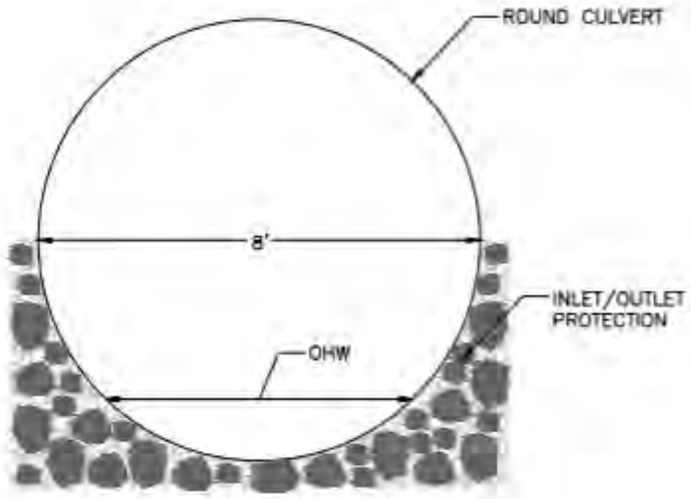
MINIMUM COVER WILL BE DETERMINED BASED ON EQUIPMENT LOADING AND CULVERT DESIGN.

INLET, OUTLET, AND BUOYANCY PROTECTION SHALL BE CONSTRUCTED PER ALASKA DOT HIGHWAY DRAINAGE MANUAL.

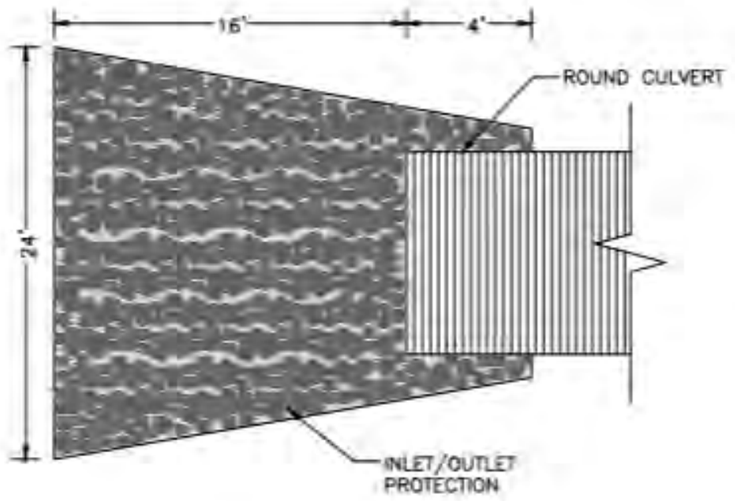


TYPICAL PROFILE
NTS

GRAPHITE CREEK PROJECT APPLICANT: GRAPHITE ONE		DRAWING TITLE: CULVERT CATEGORY 2 TYPICAL SECTION	
LAT., LONG. VARIES	PROPOSED ACTIVITY: ROAD CONSTRUCTION		
WATERWAY: VARIES	FILE NO. POA-2018-00210	DATE: AUGUST 2025	FIGURE NO. CX-002



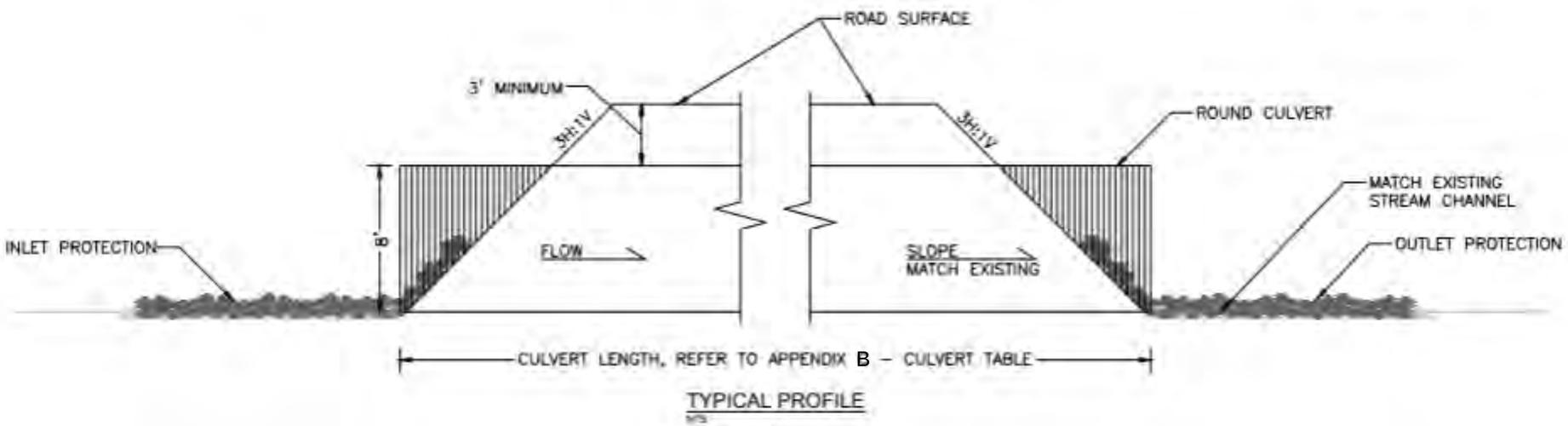
TYPICAL SECTION



TYPICAL INLET/OUTLET PROTECTION

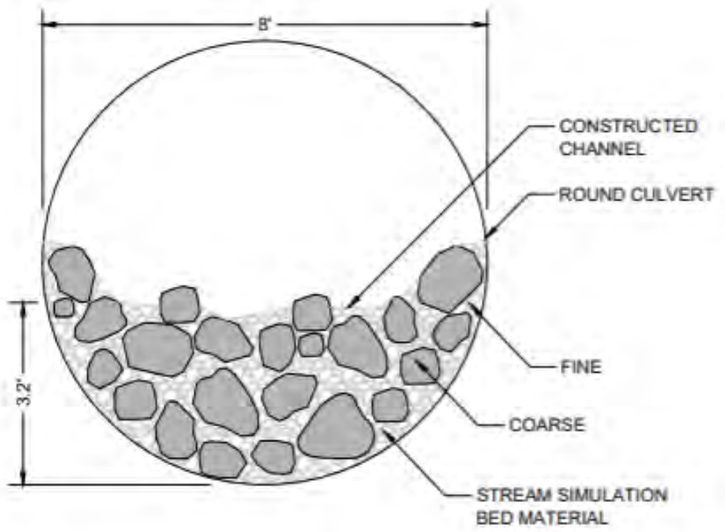
NOTES:

1. CATEGORY 3 CULVERTS SHALL BE INSTALLED ON MAPPED STREAMS THAT HAVE A STREAM WIDTH GREATER THAN 2' TO 6' AT THE ORDINARY WATER (OHW) MARK.
2. CULVERTS SHALL SPAN ENTIRE TOE OF FILL WIDTH.
3. DIAMETER SHALL BE 8'.
4. STREAM IMPACT AREA EQUALS STREAM WIDTH TIMES CULVERT LENGTH PLUS THE AREA ASSOCIATED WITH INLET/OUTLET PROTECTION.
5. STREAM BED SLOPE THROUGH CULVERT SHALL MATCH STREAM SLOPE TO MAXIMUM EXTENT PRACTICABLE.
6. MINIMUM COVER WILL BE DETERMINED BASED ON EQUIPMENT LOADING AND CULVERT DESIGN.
7. INLET, OUTLET, AND BUOYANCY PROTECTION SHALL BE CONSTRUCTED PER ALASKA DOT HIGHWAY DRAINAGE MANUAL.
8. EROSION AND STORMWATER RUNOFF CONTROL MEASURES AND STABILIZATION OF DISTURBED AREAS WILL BE IMPLEMENTED AS NECESSARY AND IN ACCORDANCE WITH BEST PRACTICES.

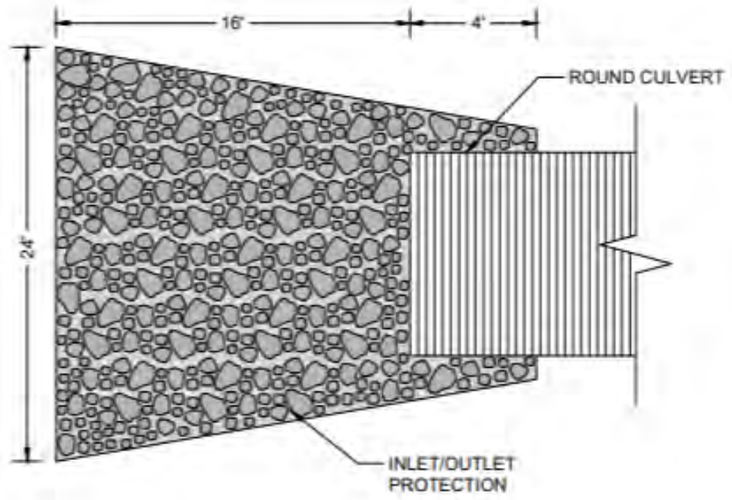


TYPICAL PROFILE

GRAPHITE CREEK PROJECT APPLICANT: GRAPHITE ONE		DRAWING TITLE: CULVERT CATEGORY 3 TYPICAL SECTION	
LAT., LONG. VARIES	PROPOSED ACTIVITY: ROAD CONSTRUCTION		
WATERWAY: VARIES	FILE NO. POA-2018-00210	DATE: AUGUST 2025	FIGURE NO. CX-003



TYPICAL SECTION
NTS



TYPICAL INLET/OUTLET PROTECTION
NTS

NOTES:

CATEGORY 4 CULVERTS SHALL BE INSTALLED IN MAPPED STREAMS WHERE FISH PASSAGE IS REQUIRED AND THAT HAVE A STREAM WIDTH UP TO 6' AT THE ORDINARY HIGH WATER (OHW) MARK.

CULVERT SHALL SPAN ENTIRE TOE OF FILL WIDTH.

DIAMETER SHALL BE 8'. EMBEDMENT SHALL BE EQUAL TO 0.4*D.

STREAM IMPACT AREA EQUALS STREAM WIDTH TIMES CULVERT LENGTH PLUS THE AREA ASSOCIATED WITH INLET/OUTLET PROTECTION.

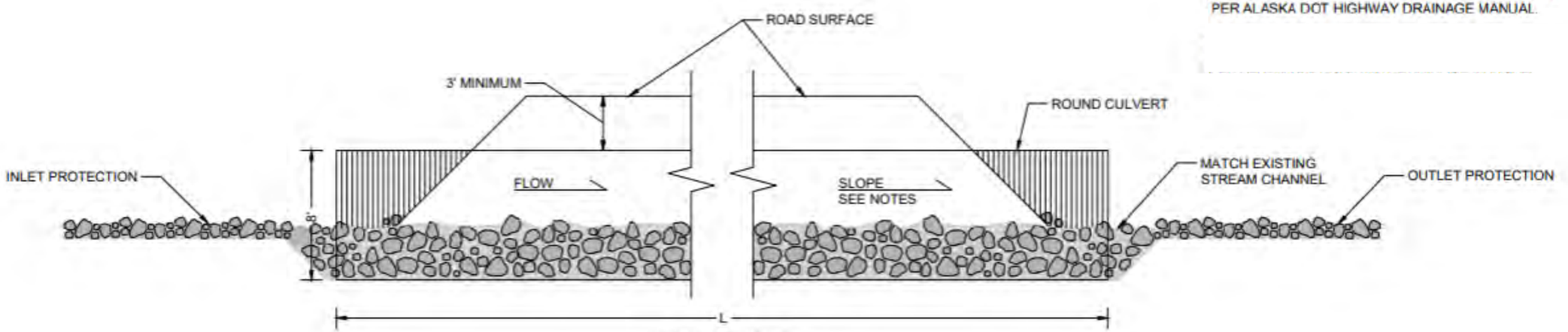
STREAM BED SLOPE THROUGH CULVERT SHALL MATCH CHANNEL BED SLOPE TO MAXIMUM EXTENT PRACTICABLE, BUT NO GREATER THAN CHANNEL BED SLOPE ±1%.

MINIMUM COVER WILL BE DETERMINED BASED ON EQUIPMENT LOADING AND CULVERT DESIGN.

CONSTRUCTED CHANNEL INSIDE CULVERT TO HAVE DIMENSIONS SIMILAR TO ADJACENT CHANNEL REACHES.

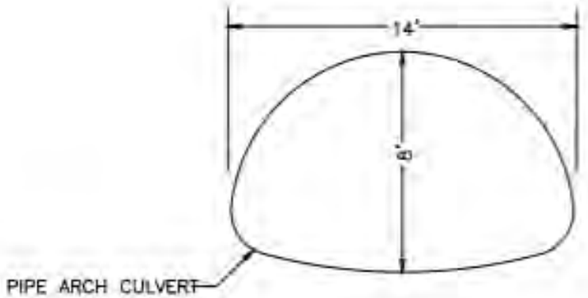
INLET/OUTLET PROTECTION SHALL MATCH STREAM SIMULATION BED MATERIAL PLACED INSIDE CULVERT.

CONSTRUCTED CHANNEL INSIDE CULVERT TO BUOYANCY PROTECTION SHALL BE CONSTRUCTED PER ALASKA DOT HIGHWAY DRAINAGE MANUAL.

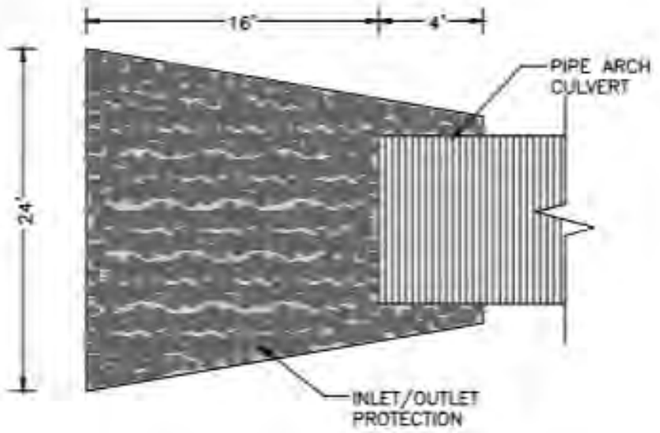


TYPICAL PROFILE
NTS

GRAPHITE CREEK PROJECT APPLICANT: GRAPHITE ONE		DRAWING TITLE: CULVERT CATEGORY 4 TYPICAL SECTION	
LAT., LONG.: VARIES	PROPOSED ACTIVITY: ROAD CONSTRUCTION		
WATERWAY: VARIES	FILE NO.: POA-2018-00210	DATE: AUGUST 2025	FIGURE NO.: CX-004



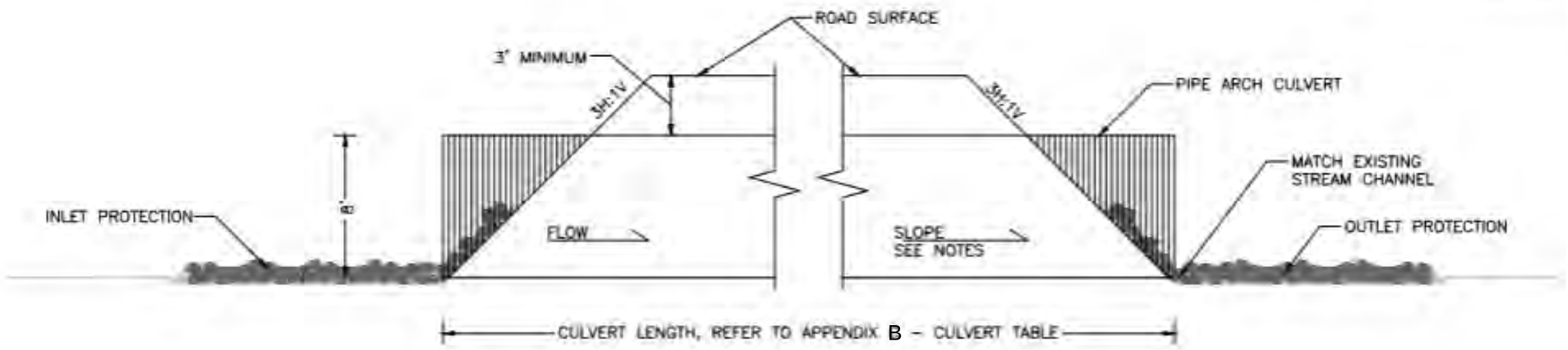
TYPICAL SECTION



TYPICAL INLET/OUTLET PROTECTION

NOTES:

1. CATEGORY 5 CULVERTS SHALL BE INSTALLED IN MAPPED STREAMS THAT HAVE A STREAM WIDTH BETWEEN 6' & 10' AT THE ORDINARY HIGH WATER (OHW) MARK. CATEGORY 5 SHALL NOT BE USED FOR FISH PASSAGE.
2. CULVERTS SHALL SPAN ENTIRE TOE OF FILL WIDTH.
3. CULVERT SHALL BE PIPE ARCH THAT IS 8' TALL BY 14' WIDE.
4. STREAM IMPACT AREA EQUALS STREAM WIDTH TIMES CULVERT LENGTH.
5. STREAM BED SLOPE THROUGH CULVERT SHALL MATCH CHANNEL BED SLOPE TO MAXIMUM EXTENT PRACTICABLE.
6. MINIMUM COVER WILL BE DETERMINED BASED ON EQUIPMENT LOADING AND CULVERT DESIGN.
7. INLET, OUTLET, AND BUOYANCY PROTECTION SHALL BE CONSTRUCTED PER ALASKA DOT HIGHWAY DRAINAGE MANUAL.
8. EROSION AND STORMWATER RUNOFF CONTROL MEASURES AND STABILIZATION OF DISTURBED AREAS WILL BE IMPLEMENTED AS NECESSARY AND IN ACCORDANCE WITH BEST PRACTICES.

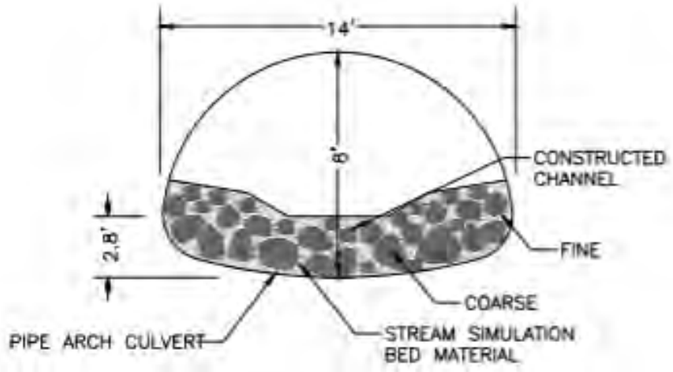


TYPICAL PROFILE

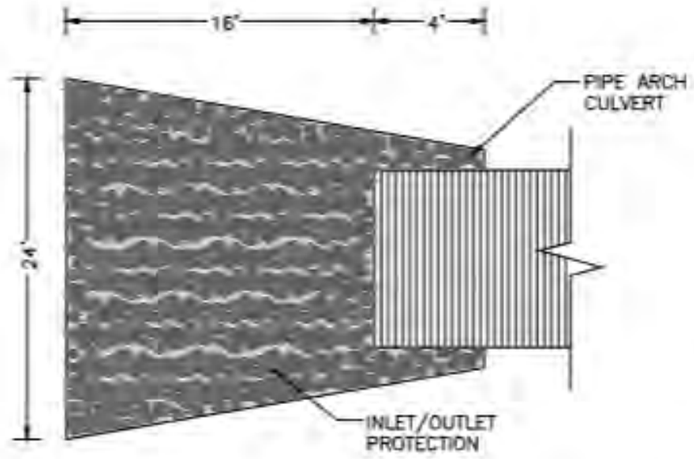
GRAPHITE CREEK PROJECT
APPLICANT: GRAPHITE ONE

DRAWING TITLE: CULVERT CATEGORY 5 TYPICAL SECTION

LAT., LONG.	PROPOSED ACTIVITY:	DRAWING TITLE:	
VARIES	ROAD CONSTRUCTION	CULVERT CATEGORY 5 TYPICAL SECTION	
WATERWAY: VARIES	FILE NO. POA-2018-00210	DATE: AUGUST 2025	FIGURE NO. CX-005



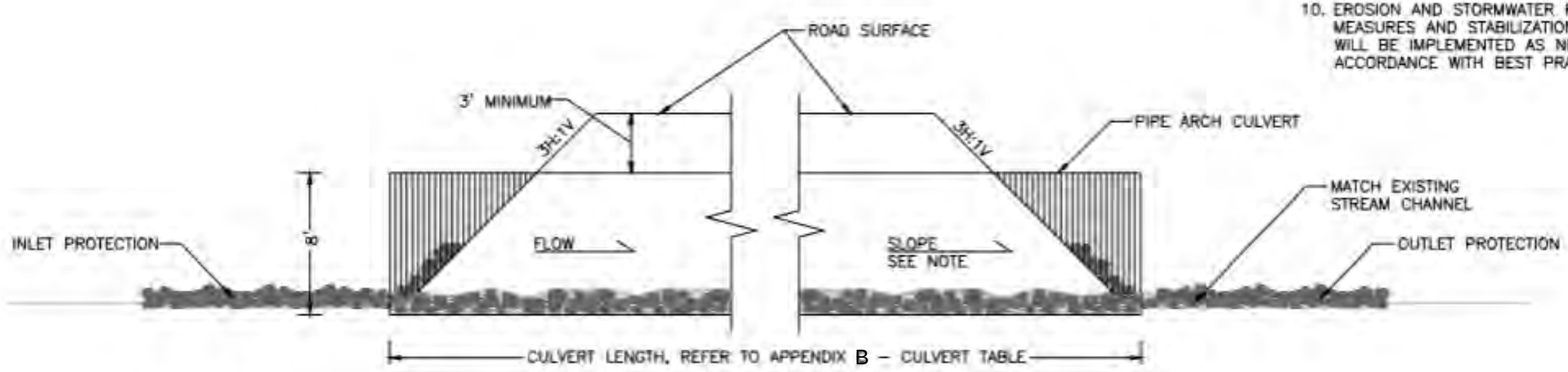
TYPICAL SECTION



TYPICAL INLET/OUTLET PROTECTION

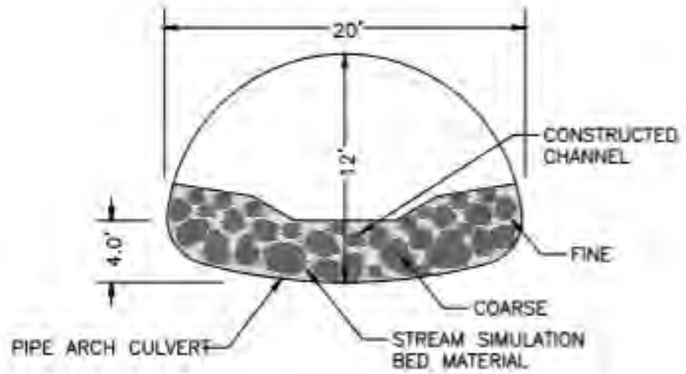
NOTES:

1. CATEGORY 6 CULVERTS SHALL BE INSTALLED IN MAPPED STREAMS WHERE FISH PASSAGE IS REQUIRED AND THAT HAVE A STREAM WIDTH BETWEEN 6' & 10' AT THE ORDINARY HIGH WATER (OHW) MARK.
2. CULVERTS SHALL SPAN ENTIRE TOE OF FILL WIDTH.
3. CULVERT SHALL BE PIPE ARCH THAT IS 8' TALL BY 14' WIDE.
4. STREAM IMPACT AREA EQUALS STREAM WIDTH TIMES CULVERT LENGTH.
5. STREAM BED SLOPE THROUGH CULVERT SHALL MATCH CHANNEL BED SLOPE TO MAXIMUM EXTENT PRACTICABLE, BUT NO GREATER THAN CHANNEL BED SLOPE ±1%.
6. MINIMUM COVER WILL BE DETERMINED BASED ON EQUIPMENT LOADING AND CULVERT DESIGN.
7. CONSTRUCTED CHANNEL INSIDE CULVERT TO HAVE DIMENSIONS SIMILAR TO ADJACENT CHANNEL REACHES.
8. SUBSTRATE DESIGNED PER MEMORANDUM OF AGREEMENT STREAM SIMULATION DESIGN REQUIREMENTS.
9. INLET, OUTLET, AND BUOYANCY PROTECTION SHALL BE CONSTRUCTED PER ALASKA DOT HIGHWAY DRAINAGE MANUAL.
10. EROSION AND STORMWATER RUNOFF CONTROL MEASURES AND STABILIZATION OF DISTURBED AREAS WILL BE IMPLEMENTED AS NECESSARY AND IN ACCORDANCE WITH BEST PRACTICES.

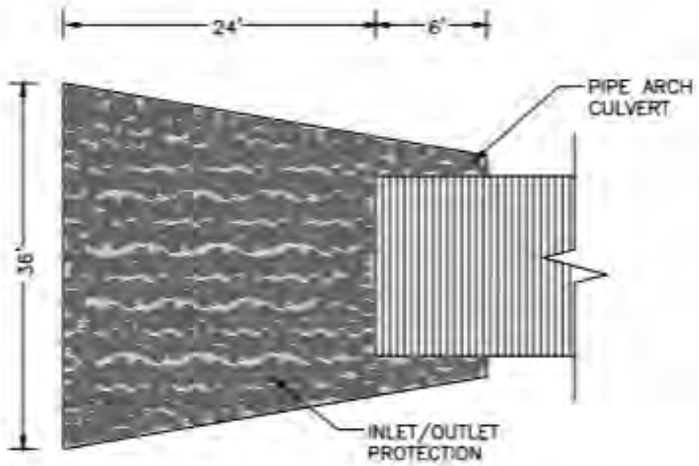


TYPICAL PROFILE

GRAPHITE CREEK PROJECT APPLICANT: GRAPHITE ONE		DRAWING TITLE: CULVERT CATEGORY 6 TYPICAL SECTION	
LAT., LONG. VARIES	PROPOSED ACTIVITY: ROAD CONSTRUCTION		
WATERWAY: VARIES	FILE NO. POA-2018-00210	DATE: AUGUST 2025	FIGURE NO. CX-006



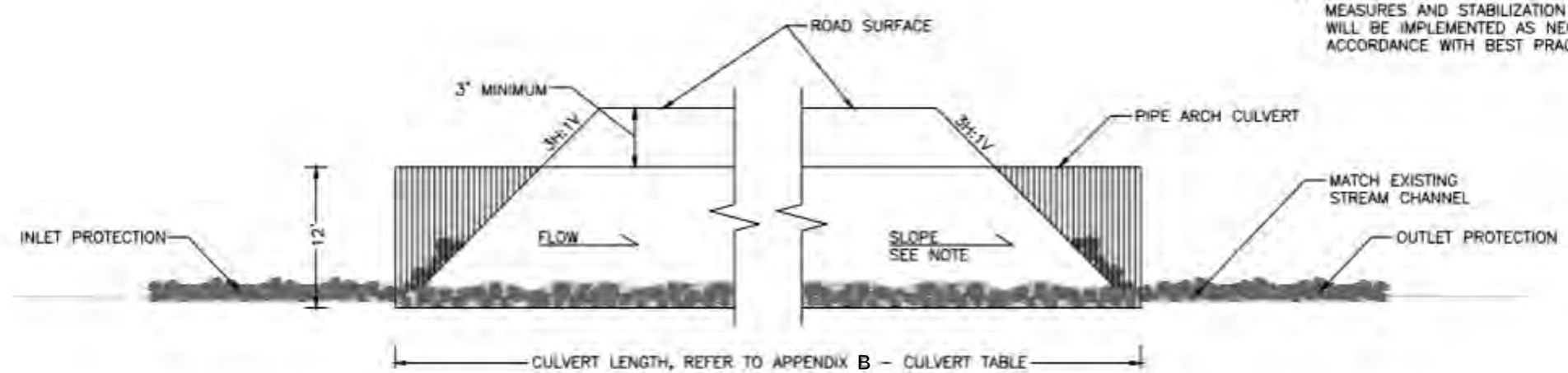
TYPICAL SECTION



TYPICAL INLET/OUTLET PROTECTION

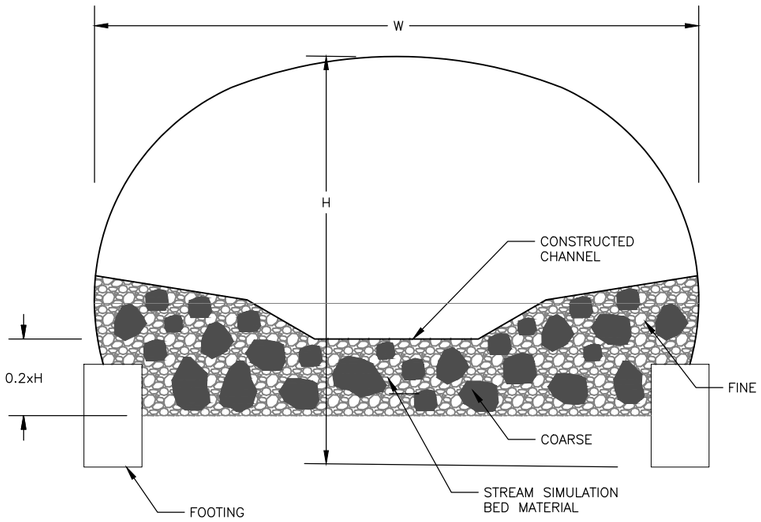
NOTES:

1. CATEGORY 7 CULVERTS SHALL BE INSTALLED IN MAPPED STREAMS WHERE FISH PASSAGE IS REQUIRED AND THAT HAVE A STREAM WIDTH BETWEEN 10' & 16' AT THE ORDINARY HIGH WATER (OHW) MARK.
2. CULVERTS SHALL SPAN ENTIRE TOE OF FILL WIDTH.
3. CULVERT SHALL BE PIPE ARCH THAT IS 12' TALL BY 20' WIDE.
4. STREAM IMPACT AREA EQUALS STREAM WIDTH TIMES CULVERT LENGTH.
5. STREAM BED SLOPE THROUGH CULVERT SHALL MATCH CHANNEL BED SLOPE TO MAXIMUM EXTENT PRACTICABLE, BUT NO GREATER THAN CHANNEL BED SLOPE ±1%.
6. MINIMUM COVER WILL BE DETERMINED BASED ON EQUIPMENT LOADING AND CULVERT DESIGN.
7. CONSTRUCTED CHANNEL INSIDE CULVERT TO HAVE DIMENSIONS SIMILAR TO ADJACENT CHANNEL REACHES.
8. SUBSTRATE DESIGNED PER MEMORANDUM OF AGREEMENT STREAM SIMULATION DESIGN REQUIREMENTS.
9. INLET, OUTLET, AND BUOYANCY PROTECTION SHALL BE CONSTRUCTED PER ALASKA DOT HIGHWAY DRAINAGE MANUAL.
10. EROSION AND STORMWATER RUNOFF CONTROL MEASURES AND STABILIZATION OF DISTURBED AREAS WILL BE IMPLEMENTED AS NECESSARY AND IN ACCORDANCE WITH BEST PRACTICES.

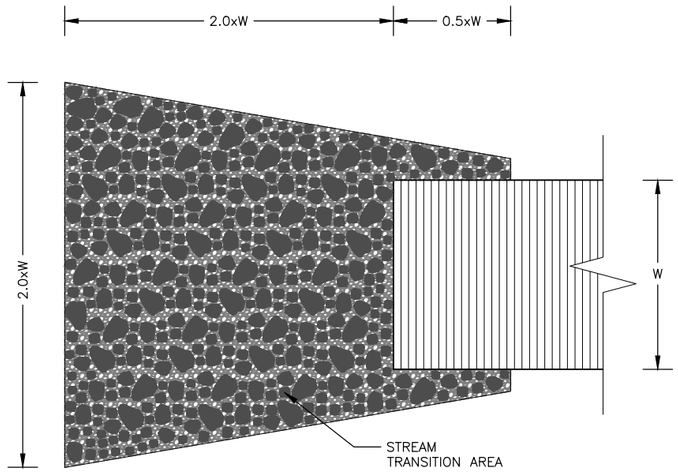


TYPICAL PROFILE

GRAPHITE CREEK PROJECT APPLICANT: GRAPHITE ONE		DRAWING TITLE: CULVERT CATEGORY 7 TYPICAL SECTION	
LAT., LONG. VARIES	PROPOSED ACTIVITY: ROAD CONSTRUCTION		
WATERWAY: VARIES	FILE NO. POA-2018-00210	DATE: AUGUST 2025	FIGURE NO. CX-007



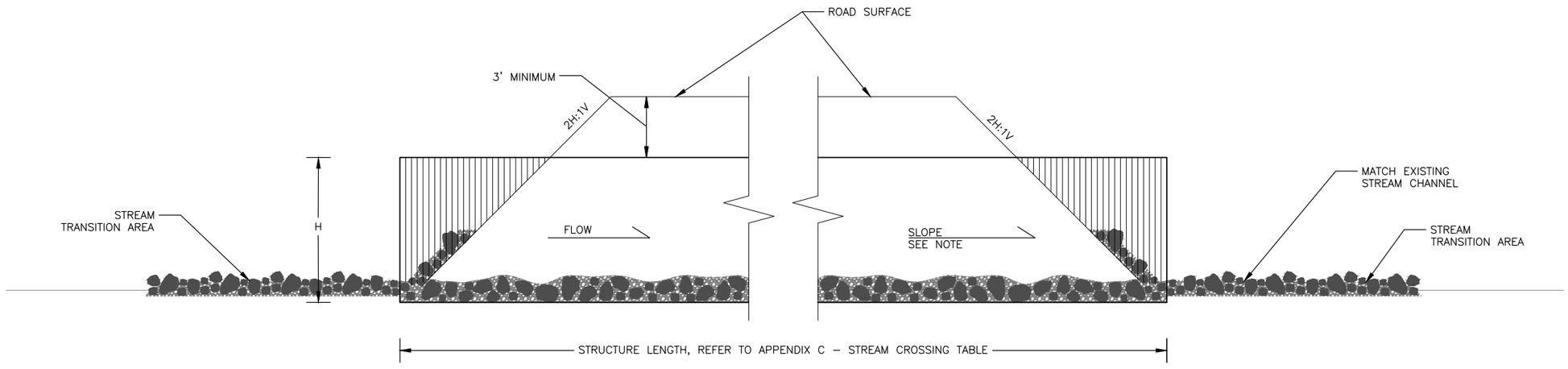
TYPICAL SECTION
NOT TO SCALE



TYPICAL INLET/OUTLET PROTECTION - PLAN VIEW
NOT TO SCALE

NOTES:

1. CATEGORY 8 STRUCTURES SHALL BE INSTALLED IN MAPPED STREAMS WHERE FISH PASSAGE IS REQUIRED AND THAT HAVE A STREAM WIDTH BETWEEN 13' & 30' AT THE ORDINARY HIGH WATERMARK (OHW).
2. STRUCTURES SHALL SPAN ENTIRE TOE OF FILL WIDTH.
3. CATEGORY 8 STRUCTURES SHALL BE SITE SPECIFIC STRUCTURE TYPE WITH SITE SPECIFIC WIDTH UP TO 50' STRUCTURE HEIGHT SHALL BE SITE SPECIFIC BASED ON THE 100 YEAR EVENT (1% AEP) PER USFWS CULVERT DESIGN GUIDELINES FOR ECOLOGICAL FUNCTION, REVISION 9, 2024. BOTTOMLESS ARCH STRUCTURE IS SHOW IN DETAILS, BUT OTHER STRUCTURE TYPES MAY BE CONSIDERED IN FINAL DESIGN.
4. STREAM IMPACT AREA EQUALS STREAM WIDTH TIMES STRUCTURE LENGTH.
5. STREAM BED SLOPE THROUGH STRUCTURE SHALL MATCH CHANNEL BED SLOPE TO MAXIMUM EXTENT PRACTICABLE, BUT NO GREATER THAN CHANNEL BED SLOPE ±1%.
6. MINIMUM COVER WILL BE DETERMINED BASED ON EQUIPMENT LOADING AND STRUCTURE DESIGN.
7. CONSTRUCTED CHANNEL INSIDE STRUCTURE TO HAVE DIMENSIONS SIMILAR TO ADJACENT CHANNEL REACHES.
8. SUBSTRATE DESIGNED PER MEMORANDUM OF AGREEMENT STREAM SIMULATION DESIGN REQUIREMENTS.
9. STREAM TRANSITION AREA SIZE PER USFWS *CULVERT DESIGN GUIDELINES FOR ECOLOGICAL FUNCTION*, REVISION 9, 2024.
10. EROSION AND STORMWATER RUNOFF CONTROL MEASURES AND STABILIZATION OF DISTURBED AREAS WILL BE IMPLEMENTED AS NECESSARY AND IN ACCORDANCE WITH BEST PRACTICES.
11. BUOYANCY PROTECTION SHALL BE CONSTRUCTED PER ALASKA DOT HIGHWAY DRAINAGE MANUAL.



TYPICAL PROFILE
NOT TO SCALE

GRAPHITE CREEK PROJECT
APPLICANT: **GRAPHITE ONE**

DRAWING TITLE: **CULVERT CATEGORY 8**

LAT., LONG.	PROPOSED ACTIVITY:	DATE:	FIGURE NO.
VARIES	**ROAD CONSTRUCTION**	**AUGUST 2025**	**CX-008**
WATERWAY: **VARIES**	FILE NO.		

-165°33'
-165°32'40"
-165°32'20"
65°2'35"
65°2'30"

STRIMP_003_4
R3UBH
85.04 ft
65.04304, -165.54816

STRIMP_003_3
R3UBH
76.6 ft
65.04288, -165.5489

CM-004

CM-003

150

STRIMP_003_5
R3UBH
0.02 acres
65.04263, -165.54378

Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Stream Culvert
Jurisdictional Stream Impact
Jurisdictional Stream
5 Meter Contours

0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **IMURUK**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-010**

-165°34'40"

-165°34'20"

65°2'35"

66°2'30"

STRIMP_512
R3UBH
194 ft
65.04385, -165.57834

WATIMP_453
R3UBH
0.07 acres
65.04359, -165.57767

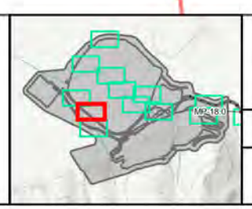
STRIMP_509_1
R3UBF
861 ft
65.04249, -165.57605

STRIMP_509_2
R3UBF
49.07 ft
65.04151, -165.57486

STRIMP_509_3
R3UBF
26.14 ft
65.04135, -165.57458

100

Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Jurisdictional Stream Impact
Jurisdictional Stream
Jurisdictional Wetland and Water Impact
5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **IMURUK**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-011**

-165°31'40"

-165°31'20"

65°2'35"

65°2'30"

200

250

300

STRIMP_006_1
R3UBH
< 0.01 acres
65.04244, -165.52525

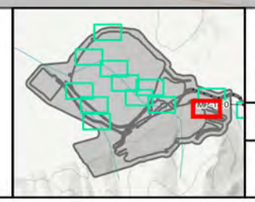
STRIMP_007_1
R3UBH
< 0.01 acres
65.04198, -165.52374

CM-002

CM-001

T 5S R 34W SEC 22
T 5S R 34W SEC 23

Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Stream Culvert
Jurisdictional Stream Impact
Jurisdictional Stream
5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-012**

-165°30'20"

65°2'35"

MP-18.0

C-038

C-037

STRIMP_145
R3UBH
< 0.01 acres
65.04179, -165.50502
116.47 cy of fill

MP-17.9

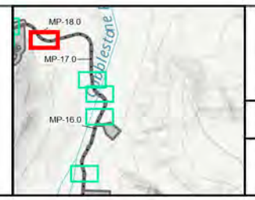
C-036

MP-17.8

65°2'30"

200

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Stream Culvert
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-013**

-165°34'40"

-165°34'20"

65°2'25"

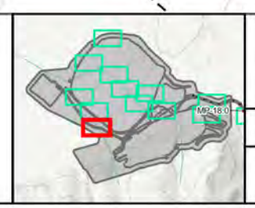
65°2'20"

CM-005

STRIMP_509_4
R3UBF
< 0.01 acres
65.03937, -165.5739

100

Permanent Disturbance Limit
Potential Vegetation Clearing Limit
Stream Culvert
Jurisdictional Stream Impact
Jurisdictional Stream
Jurisdictional Wetland and Water
5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **IMURUK**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-014**

-165°29'20"

-165°29'

-165°28'40"

65°2'5"

65°2'

C-035

MP-16.8

STRIMP_151
R3UBH
< 0.01 acres
65.03435, -165.48346
48.34 cy of fill

C-034

MP-16.7

STRIMP_150
R3UBH
< 0.01 acres
65.03427, -165.48332
65.87 cy of fill

Cobblestone River

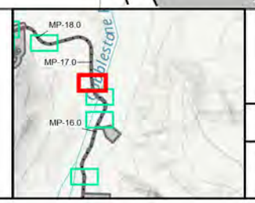
100

T 5S R 34W SEC 23
T 5S R 34W SEC 24

T 5S R 34W SEC 23
T 5S R 34W SEC 26

T 5S R 34W SEC 24
T 5S R 34W SEC 25

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Stream Culvert
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-015**

-165°29'

-165°28'40"

T 5S R 34W SEC 24
T 5S R 34W SEC 25

55°1'55"

WATIMP_394
R2UBF
0.14883 acres
65.03208, -165.48166
1850.79 cy of fill

MP-16.6

WATIMP_393
R2USC
0.37284 acres
65.03197, -165.48119
4683.25 cy of fill

C-033

WATIMP_440
R2UBH
< 0.01 acres
65.03166, -165.4803
0 cy of fill

Temporary Fill

WATTIMP_394
R2UBF
0.02288 acres
65.03178, -165.48152
184.53 cy of fill

B-006

MP-16.5

STRIMP_426
R3UBH
< 0.01 acres
65.03115, -165.47878
76.92 cy of fill

WETIMP_089
PEM1F
0.20389 acres
65.03115, -165.47871
2607.01 cy of fill

Temporary Fill

C-032

WATTIMP_393
R2USC
0.11605 acres
65.03164, -165.48125
936.11 cy of fill

Cobblestone River

STRTIMP_426
R3UBH
< 0.01 acres
65.0311, -165.47929
13.36 cy of fill

WATTIMP_440
R2UBH
< 0.01 acres
65.03139, -165.48058
0 cy of fill

WETTIMP_089
PEM1F
0.01826 acres
65.03109, -165.4792
147.31 cy of fill

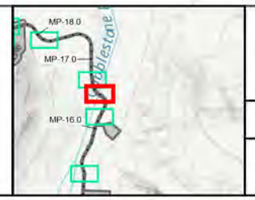
MP-16.4

100

100

55°1'50"

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Temporary Fill
- Bridges
- FIsh Passage Culvert
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-016**

-165°29'

-165°28'40"

65°1'40"

65°1'35"

MP-16.2

MP-16.1

C-031

STRIMP_154
R3UBH
0.01 acres
65.02732, -165.47987
139.5 cy of fill

Material
Site - MS33

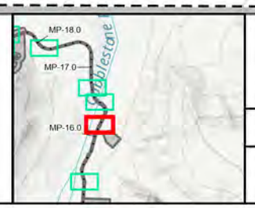
Cobblestone River

100

100

150

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Stream Culvert
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-017**

-165°29'20"

-165°29'

65°1'

65°0'55"

Cobblestone River

100

200

150

MP-15.4

MP-15.3

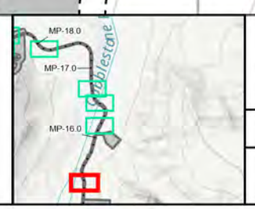
C_029

STRIMP_503
R3UBH
< 0.01 acres
65.01678, -165.48665
99.04 cy of fill

STRIMP_504
R3UBH
0.02 acres
65.01649, -165.48666
191.75 cy of fill

T 5S R 34W SEC 35
T 5S R 34W SEC 36

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Stream Culvert
- Wetlands Mapping Limit
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-018**

-165°29'40"

-165°29'20"

-165°29'

65°0'5"

65°

MP-14.3

MP-14.2

C-026

150

200

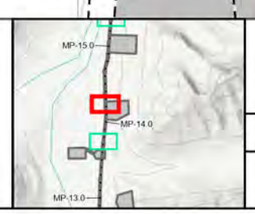
T 6S R 34W SEC 2
T 6S R 34W SEC 1

STRIMP_023
R3UBH
< 0.01 acres
65.00089, -165.48895
13.88 cy of fill

STRIMP_423
R3UBH
< 0.01 acres
64.99954, -165.48883
20.75 cy of fill

Material Site - MS34

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Stream Culvert
- Jurisdictional Stream Impact
- Jurisdictional Stream
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-019**

-165°29'40"

-165°29'20"

64°59'40"

64°59'35"

STRIMP_344
R3UBH
< 0.01 acres
64.99413, -165.48927
17.03 cy of fill

C-025

MP 13.8

WATIMP_142
R3USC
0.23523 acres
64.99286, -165.48961
2939.2 cy of fill

Temporary Fill

WATTIMP_142
R3USC
0.07556 acres
64.99276, -165.48907
609.52 cy of fill

150

MP 13.7

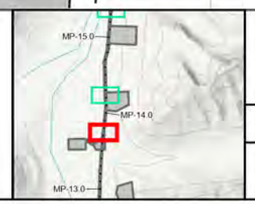
B-005

Osborne Creek

Temporary Fill

T 6S R 34W SEC 2
T 6S R 34W SEC 1

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Temporary Fill
- Bridges
- Stream Culvert
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-020**

-165°29'20"

-165°29'

64°58'5"

64°58'

MP-12.0

MP-11.9

C-023

WATIMP_166
R3UBH
0.03125 acres
64.96761, -165.48782
365.57 cy of fill

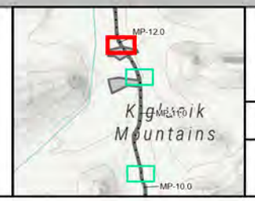
Material Site - MS10

T 6S R 34W SEC 14
T 6S R 34W SEC 13

150

200

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- FIsh Passage Culvert
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-021**

-165°29'

-165°28'40"

64°57'45"

64°57'40"

WATIMP_186
R3UBH
0.05387 acres
64.96157, -165.47992
630.06 cy of fill

MP-11.5

C-022

200

250

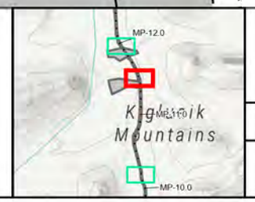
Material Site - MS22

MP-11.4

T 6S R 34W SEC 13
T 6S R 34W SEC 24

250

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- FIsh Passage Culvert
- Wetlands Mapping Limit
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-022**

-165°28'

-165°28'40"

64°56'40"

64°56'35"

400

350

STRIMP_013
R3UBH
< 0.01 acres
64.94371, -165.47852
39.07 cy of fill

STRIMP_021
R3UBH
< 0.01 acres
64.94353, -165.4785
41.47 cy of fill

STRIMP_018
R3UBH
< 0.01 acres
64.9433, -165.4785
44.53 cy of fill

STRIMP_019
R3UBH
< 0.01 acres
64.94311, -165.47844
52.02 cy of fill

STRIMP_020
R3UBH
< 0.01 acres
64.94296, -165.47842
44.4 cy of fill

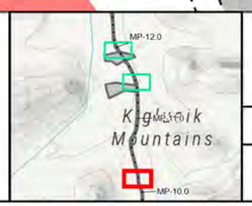
STRIMP_014
R3UBH
< 0.01 acres
64.94286, -165.47838
46.82 cy of fill

STRIMP_016
R3UBH
< 0.01 acres
64.94279, -165.47832
26.28 cy of fill

STRIMP_015
R3UBH
< 0.01 acres
64.94281, -165.47842
38.42 cy of fill

C-021
MP-10.2
C-020
C-019
C-018
C-017
C-016
C-015
C-014
MP-10.1

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Stream Culvert
- Wetlands Mapping Limit
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **COBBLESTONE RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-023**

-165°27'20"

-165°27'

64°54'35"

64°54'30"

250

MP-7.6

WATIMP_190
R3UBH
0.06173 acres
64.90833, -165.45114
722.07 cy of fill

T 7S R 34W SEC 1
T 7S R 33W SEC 6

C-013

MP-7.5

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Stream Culvert
- Jurisdictional Stream
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- 5 Meter Contours

0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-024**

-165°27'

-165°26'40"

64°53'50"

64°53'45"

T 7S R 34W SEC 12
T 7S R 33W SEC 7

STRIMP_497
R3UBH
< 0.01 acres
64.89709, -165.44617
2.28 cy of fill

STRIMP_090
R3UBH
< 0.01 acres
64.89709, -165.44617
5.49 cy of fill

MP-6.8

Windy Creek

Temporary
Fill

C-012

STRIMP_500
R3UBH
< 0.01 acres
64.89693, -165.44667
47.84 cy of fill

MP-6.7

Temporary
Fill

STRIMP_498
R3UBH
0.02 acres
64.89695, -165.44644
262.3 cy of fill

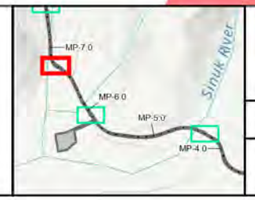
B-004

MP-6.6

200

200

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Temporary Fill
- Bridges
- FIsh Passage Culvert
- Wetlands Mapping Limit
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-025**

-165°26'

-165°25'40"

64°53'20"

64°53'15"

200

T 7S R 33W SEC 7
T 7S R 33W SEC 18

MP-6.0

MP-5.9

WATIMP_191
R3UBH
0.09702 acres
64.8876, -165.43053
1134.81 cy of fill

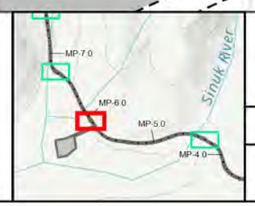
WATIMP_497
R3USC
0.01128 acres
64.88765, -165.43092
131.97 cy of fill

C-010

WATIMP_171
R3USC
0.02357 acres
64.88752, -165.43021
275.69 cy of fill

Material Site - MS06

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- FIsh Passage Culvert
- Wetlands Mapping Limit
- Jurisdictional Stream
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-026**

-165°23'

-165°22'40"

64°53'5"

64°53'

T 7S R 33W SEC 17
T 7S R 33W SEC 16

MP-4.4

Temporary Fill

STRTIMP_341
R3UBH
< 0.01 acres
64.8845, -165.3797
26.19 cy of fill

Temporary Fill

MP-4.3

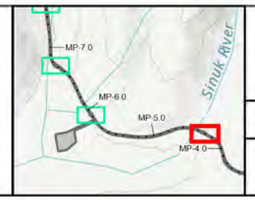
B-003

STRIMP_341
R3UBH
< 0.01 acres
64.88428, -165.37999
50.25 cy of fill

MP-4.2

Sinuk River

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Temporary Fill
- Bridges
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water
- 5 Meter Contours



0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **SINUK RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-027**

-165°20'40"

-165°20'20"

64°52'45"

84°52'40"

WATIMP_125
R3UBH
< 0.01 acres
64.87831, -165.34251
81.83 cy of fill

350

MP-2.8

MP-2.9

C-007

C-009

C-006

C-005

C-008

MP-3.0

MP-3.1

STRIMP_194
R3UBH
< 0.01 acres
64.8784, -165.34155
71.36 cy of fill

- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Stream Culvert
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- 5 Meter Contours

0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

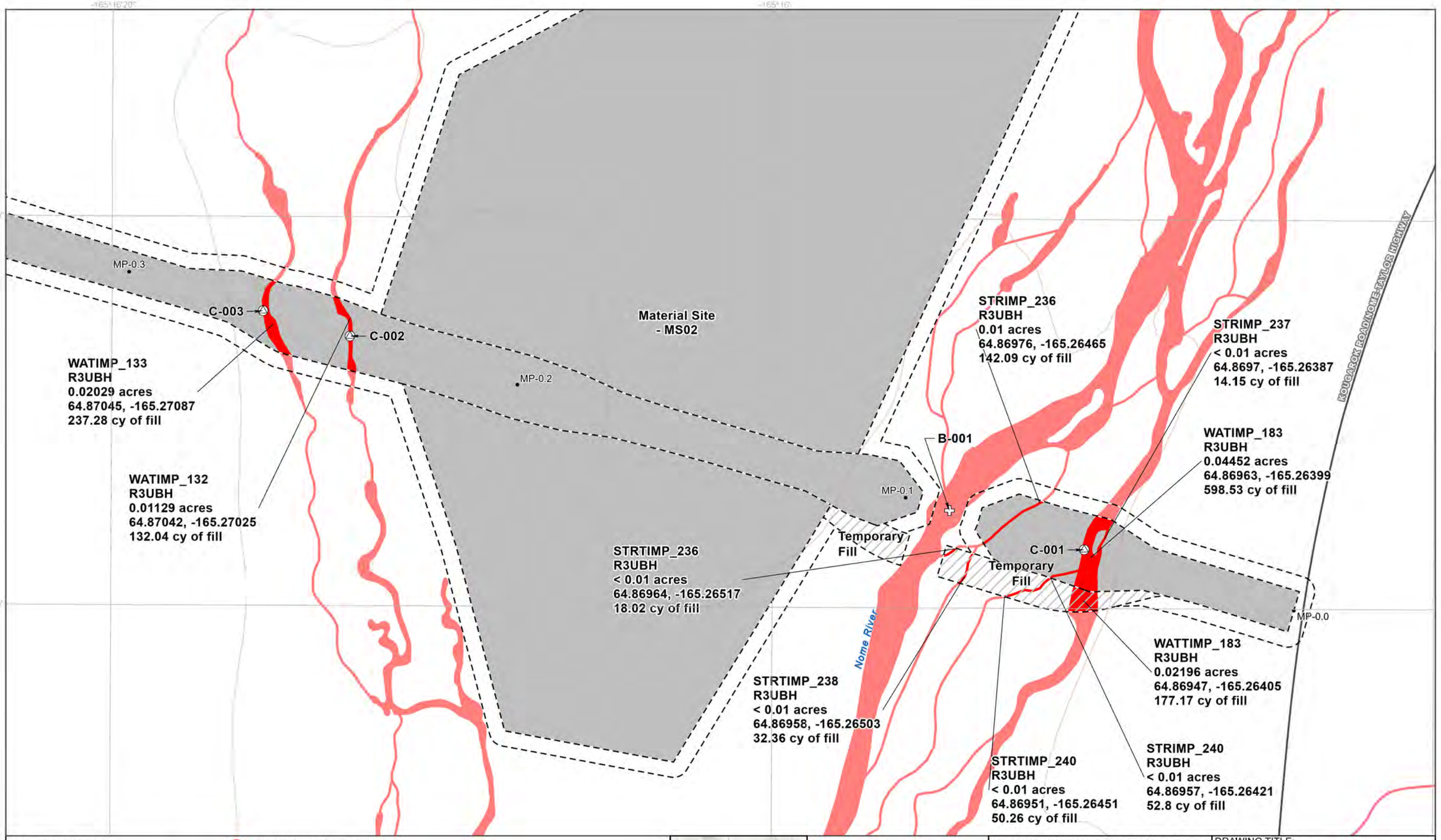
WATERWAY: **NOME RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

FIGURE NO. **D-028**



- Project Milepost
- Permanent Disturbance Limit
- Potential Vegetation Clearing Limit
- Temporary Fill
- Bridges
- FIsh Passage Culvert
- Jurisdictional Stream Impact
- Jurisdictional Stream
- Jurisdictional Wetland and Water Impact
- Jurisdictional Wetland and Water
- 5 Meter Contours

0 40 80 120 Feet

1:1,400

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

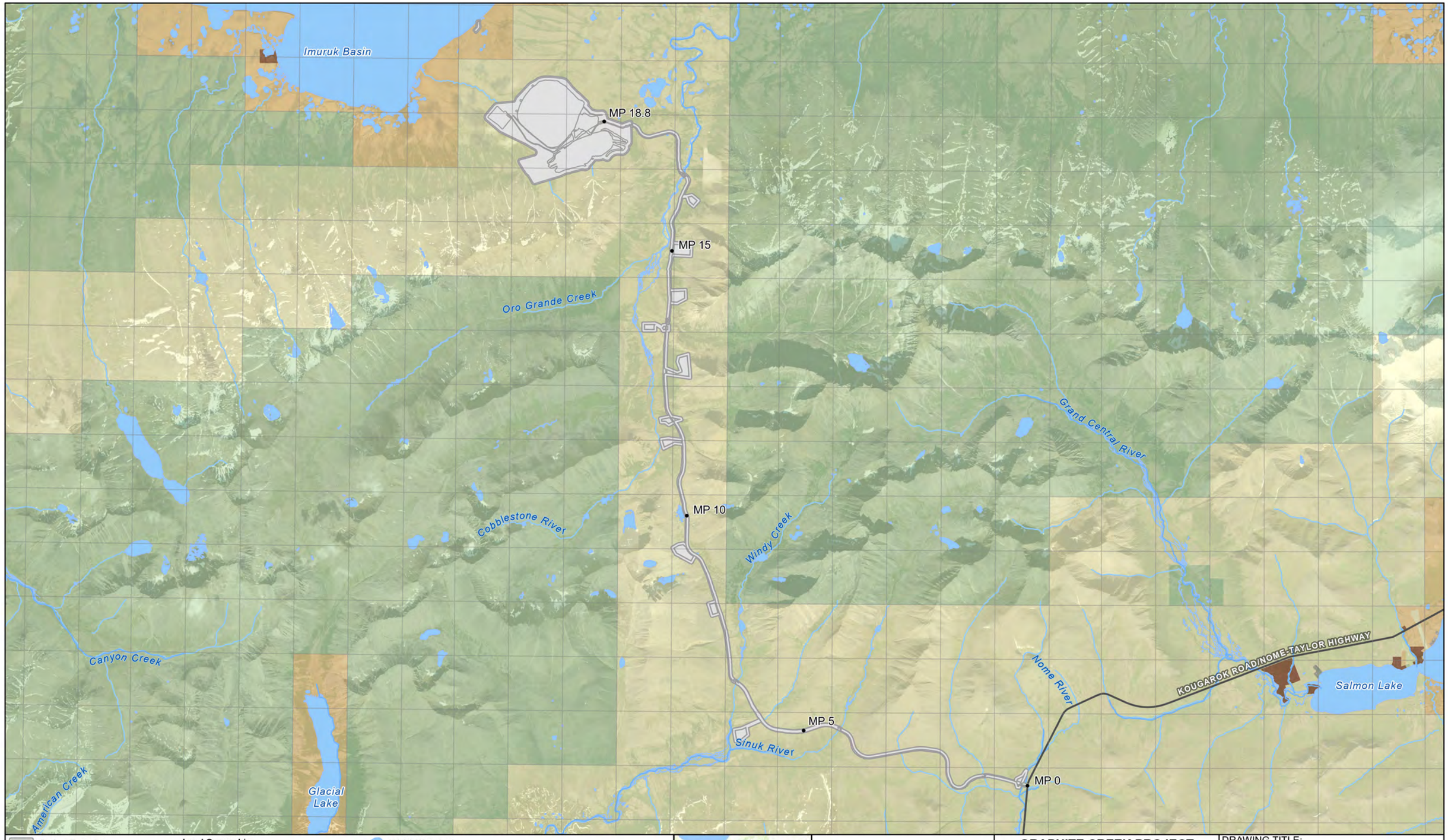
WATERWAY: **NOME RIVER**

FILE NO. **POA-2018-00210**

DRAWING TITLE: **WOTUS IMPACTS DETAIL**

DATE: **JUNE 2025**

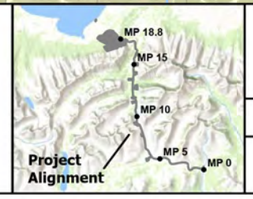
FIGURE NO. **D-029**



Project Footprint
Section Boundary
Project Milepost

Land Ownership
State
Bureau of Land Management
Alaska Native Lands
Alaska Native Allotment

USGS Waterbody
USGS Stream



0 3,000 6,000 9,000 Feet

1:105,000

NAD 1983 UTM Zone 3N

GRAPHITE CREEK PROJECT

APPLICANT: **GRAPHITE ONE ALASKA, INC.**

LAT., LONG. OF PROJECT: **VARIES**

PROPOSED ACTIVITY: **MINE AND ROAD CONSTRUCTION**

WATERWAY: **NOME RIVER, SINUK RIVER, COBBLESTONE RIVER, AND IMURUK BASIN WATERSHED**

FILE NO. **POA-2018-00210**

DRAWING TITLE:

LAND OWNERSHIP

DATE: **AUGUST 2025**

FIGURE NO. **O-001**

Appendix B

Culvert Impacts Table

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Table B-1. Jurisdictional Impacts from Inlet/Outlet Protection at Culverts

Culvert ID	Milepost	Latitude	Longitude	WOTUS Impact Detail Figure No.	Stream Width (ft)	Fish Presence	Anadromous Fish Presence	Culvert Category	Culvert Diameter (ft)	Culvert Length (ft)	Impacts from Permanent Placement of Inlet/Outlet Protection [a]		
											Permanent Impact to Stream Channel (sq ft) [b]	Excavation in WOTUS (cy) [b]	Fill Volume in WOTUS - Stream Bed Material (cy) [b]
Access Road Culverts													
C-001	0.1	64.86965	-165.26405	D-029	12	Yes	Yes	7	18	101	864	96	96
C-002	0.2	64.87041	-165.27022	D-029	4	Yes	Yes	4	9	99	144	16	16
C-003	0.3	64.87050	-165.27095	D-029	7	Yes	Yes	6	15	105	420	47	47
C-007	5.9	64.87841	-165.34159	D-028	4	No	No	3	9	83	144	16	16
C-009	6.1	64.87832	-165.34251	D-028	4	No	No	3	9	78	144	16	16
C-010	6.7	64.88754	-165.43018	D-026	22	Yes	Yes	8	37	138	3,256	362	362
C-012	8.4	64.89698	-165.44648	D-025	6	Yes	No	4	9	134	216	24	24
C-013	8.4	64.90833	-165.45125	D-024	17	No	No	7	20	153	1,360	151	151
C-014	8.7	64.94278	-165.47831	D-023	2	No	No	2	4	82	32	4	4
C-015	9.6	64.94283	-165.47834	D-023	2	No	No	2	4	83	32	4	4
C-016	10.0	64.94287	-165.47836	D-023	2	No	No	2	4	85	32	4	4
C-017	10.2	64.94295	-165.47840	D-023	2	No	No	2	4	80	32	4	4
C-018	10.2	64.94307	-165.47845	D-023	2	No	No	2	4	76	32	4	4
C-019	11.5	64.94331	-165.47846	D-023	2	No	No	2	4	76	32	4	4
C-020	11.7	64.94354	-165.47849	D-023	2	No	No	2	4	74	32	4	4
C-021	12.0	64.94372	-165.47852	D-023	2	No	No	2	4	72	32	4	4
C-022	12.0	64.96155	-165.47982	D-022	16	Yes	No	8	27	128	1,728	192	192
C-023	12.2	64.96761	-165.48777	D-021	12	Yes	No	7	18	125	864	96	96
C-025	12.7	64.99413	-165.48924	D-020	1	No	No	2	4	62	16	2	2
C-026	12.9	65.00089	-165.48870	D-019	3	No	No	3	9	117	108	12	12
C-029	14.7	65.01679	-165.48655	D-018	3	Yes	Yes	3	9	98	108	12	12
C-031	15.2	65.02732	-165.47983	D-017	6	No	No	3	9	103	216	24	24
C-032	15.4	65.03113	-165.47869	D-016	2	No	No	4	4	125	72	8	8
C-033	15.7	65.03214	-165.48175	D-016	33	Yes	Yes	8	55	185	7,260	807	807
C-034	15.7	65.03429	-165.48345	D-015	2	No	No	2	4	115	32	4	4
C-036	16.6	65.04179	-165.50501	D-013	5	No	No	3	9	85	180	20	20
C-040	18.5	65.04422	-165.52174	D-008	1	No	No	2	4	110	16	2	2
C-041	18.5	65.04441	-165.52294	D-008	1	No	No	2	4	90	16	2	2
Mine Site Culverts													
CM-001	NA	65.04200	-165.52369	D-012	1	No	No	2	4	90	16	2	2
CM-002	NA	65.04247	-165.52526	D-012	1	No	No	2	4	90	16	2	2
CM-003	NA	65.04259	-165.54381	D-010	2	No	No	2	4	90	32	4	4
CM-004	NA	65.04254	-165.55026	D-010	2	No	No	2	4	90	32	4	4
CM-005	NA	65.03936	-165.57387	D-014	2	No	No	2	4	90	32	4	4
										Totals	**17,548**	**1,950**	**1,950**

[a] Table only includes impacts from installation of inlet/outlet protection. Impacts to stream channel impacted by road footprint are included in road impacts.

[b] Total acreage presented may not reflect the sum of the individual cells due to rounding.