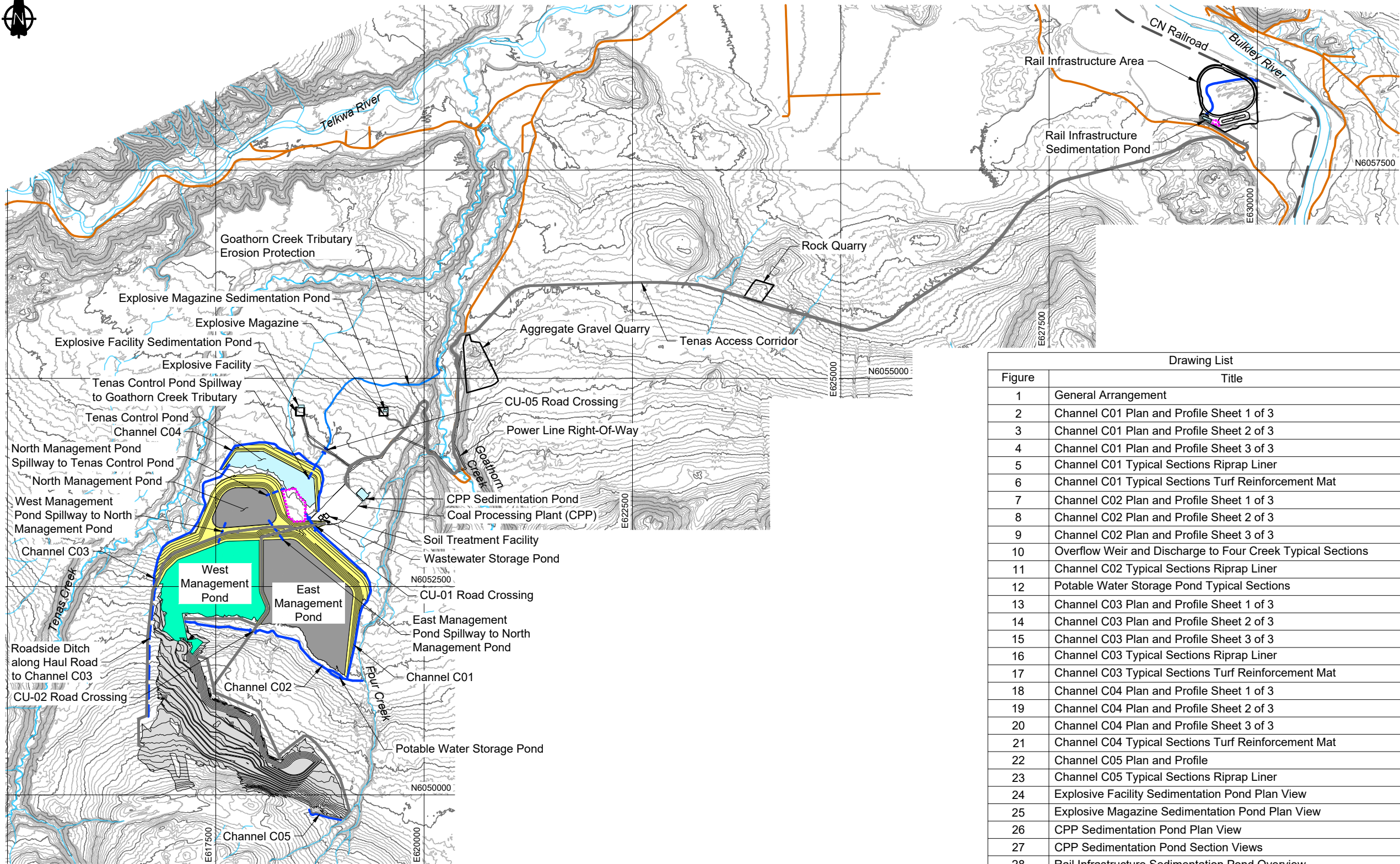


Appendix 13.11-A Engineering Drawings



LEGEND

- Water Management Feature
- Spillway
- Existing Watercourse
- Existing Road
- Proposed Haul Road and Service Road
- Dam and Butress
- Sedimentation and Control Pond
- Active Management Pond
- Backfill / NAG Pile
- Covered Inactive Management Pond
- Topsoil Stockpile

NOTES

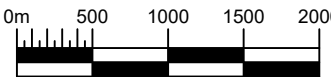
- Contours shown at 5.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- General Arrangement reflects active footprints at End of Mining. See Tenas Project - Water Management Technical Design Report (SRK 2021) for Phased Water Management figures.

REFERENCE

NAD83 UTM Zone 9.

Drawing List	
Figure	Title
1	General Arrangement
2	Channel C01 Plan and Profile Sheet 1 of 3
3	Channel C01 Plan and Profile Sheet 2 of 3
4	Channel C01 Plan and Profile Sheet 3 of 3
5	Channel C01 Typical Sections Riprap Liner
6	Channel C01 Typical Sections Turf Reinforcement Mat
7	Channel C02 Plan and Profile Sheet 1 of 3
8	Channel C02 Plan and Profile Sheet 2 of 3
9	Channel C02 Plan and Profile Sheet 3 of 3
10	Overflow Weir and Discharge to Four Creek Typical Sections
11	Channel C02 Typical Sections Riprap Liner
12	Potable Water Storage Pond Typical Sections
13	Channel C03 Plan and Profile Sheet 1 of 3
14	Channel C03 Plan and Profile Sheet 2 of 3
15	Channel C03 Plan and Profile Sheet 3 of 3
16	Channel C03 Typical Sections Riprap Liner
17	Channel C03 Typical Sections Turf Reinforcement Mat
18	Channel C04 Plan and Profile Sheet 1 of 3
19	Channel C04 Plan and Profile Sheet 2 of 3
20	Channel C04 Plan and Profile Sheet 3 of 3
21	Channel C04 Typical Sections Turf Reinforcement Mat
22	Channel C05 Plan and Profile
23	Channel C05 Typical Sections Riprap Liner
24	Explosive Facility Sedimentation Pond Plan View
25	Explosive Magazine Sedimentation Pond Plan View
26	CPP Sedimentation Pond Plan View
27	CPP Sedimentation Pond Section Views
28	Rail Infrastructure Sedimentation Pond Overview
29	Rail Infrastructure Sedimentation Pond Plan View
30	TCP and Management Pond Emergency Spillways Typical Sections

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PERMITTING



SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 General Arrangement.dwg

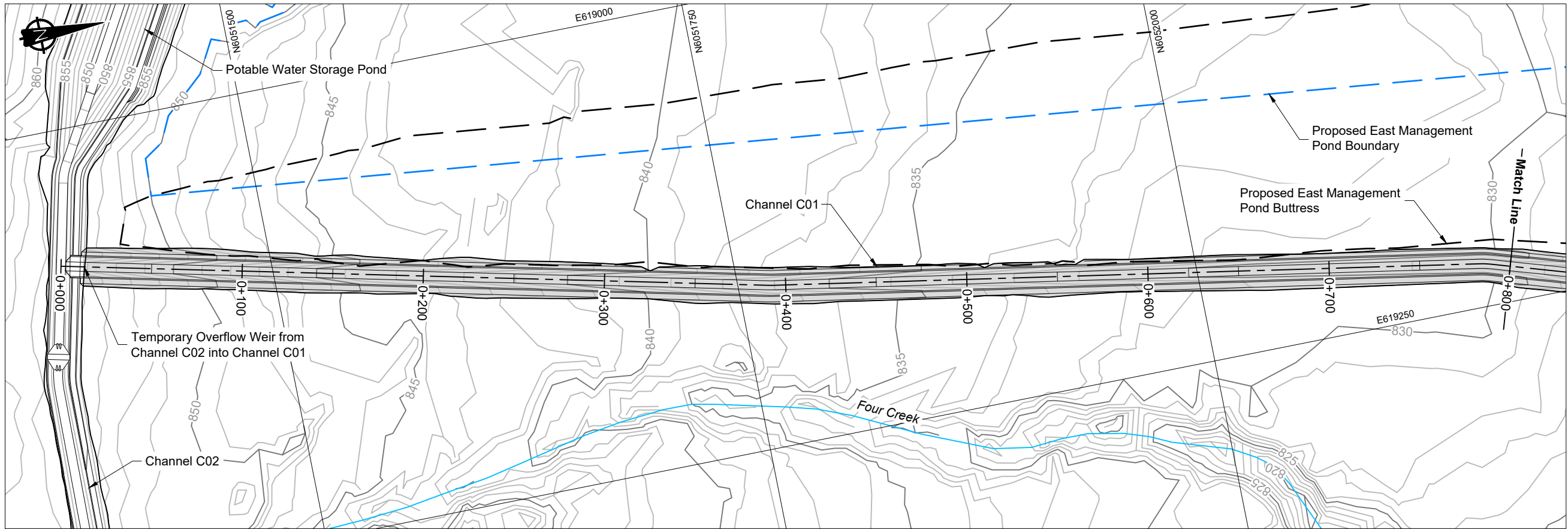


Telkwa Coal Limited

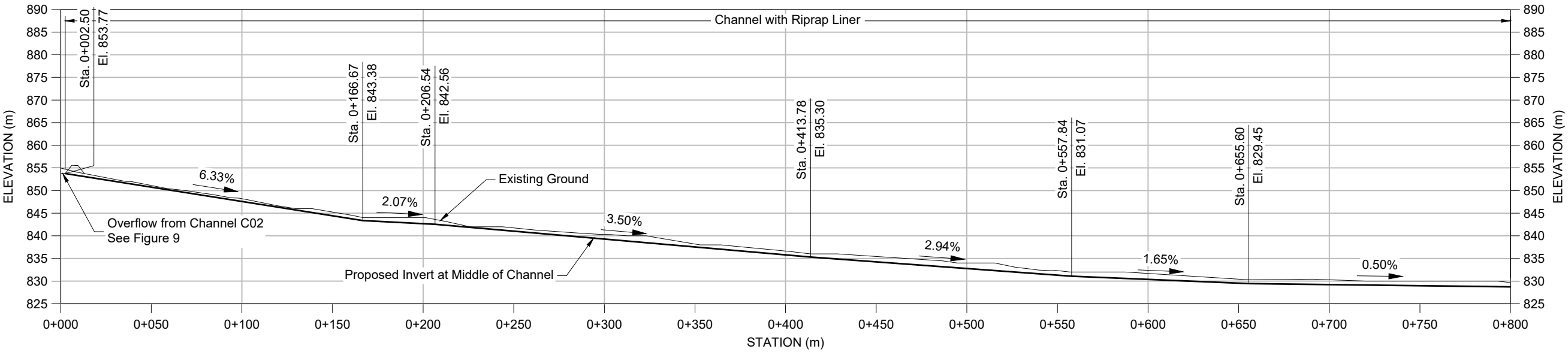
Tenas Project Water Management Design

General Arrangement

DATE: 2021/07/16
APPROVED: SAB
FIGURE: 1



Channel C01 Plan View



Channel C01 Profile View
2.5x Vertical Exaggeration

LEGEND

- Existing Watercourse
- Proposed Buttress Boundary
- Proposed Management Pond Boundary
- Proposed Channel

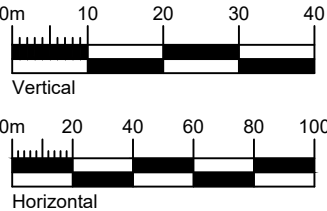
NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.

REFERENCE

NAD83 UTM Zone 9.

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PERMITTING



SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C01.dwg



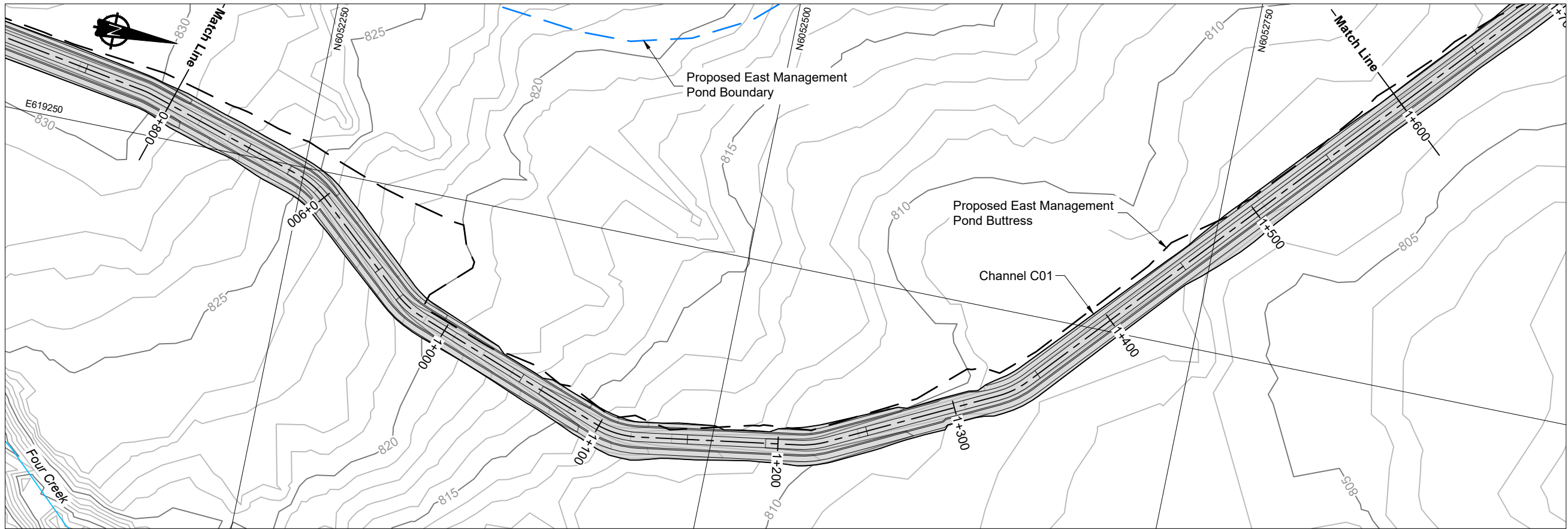
Telkwa Coal Limited

Tenas Project Water Management Design

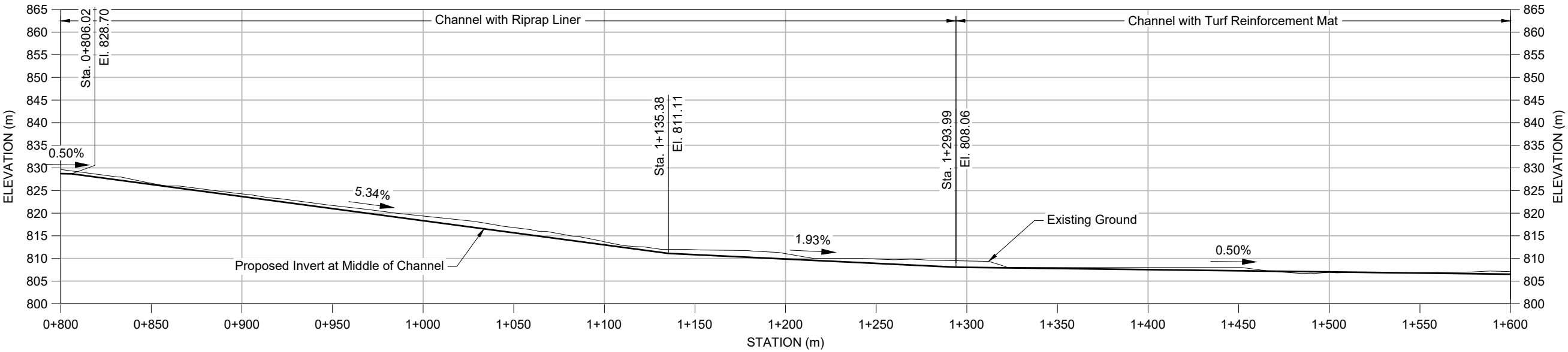
Channel C01
Plan and Profile
Sheet 1 of 3

DATE: 2021/07/16
APPROVED: SAB
FIGURE: 2

\\ark-adf\share\proj\001_SITES\Telkwa Coal\000_AutoCAD\Water Management\Engineering\Padaga\1CT027.003 Channel C01.dwg



Channel C01 Plan View



Channel C01 Profile View
2.5x Vertical Exaggeration

LEGEND

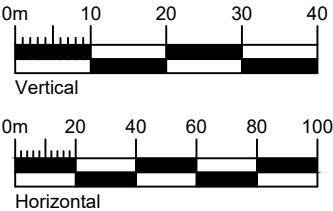
- Existing Watercourse
- Proposed Buttress Boundary
- Proposed Management Pond Boundary
- Proposed Channel

NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.

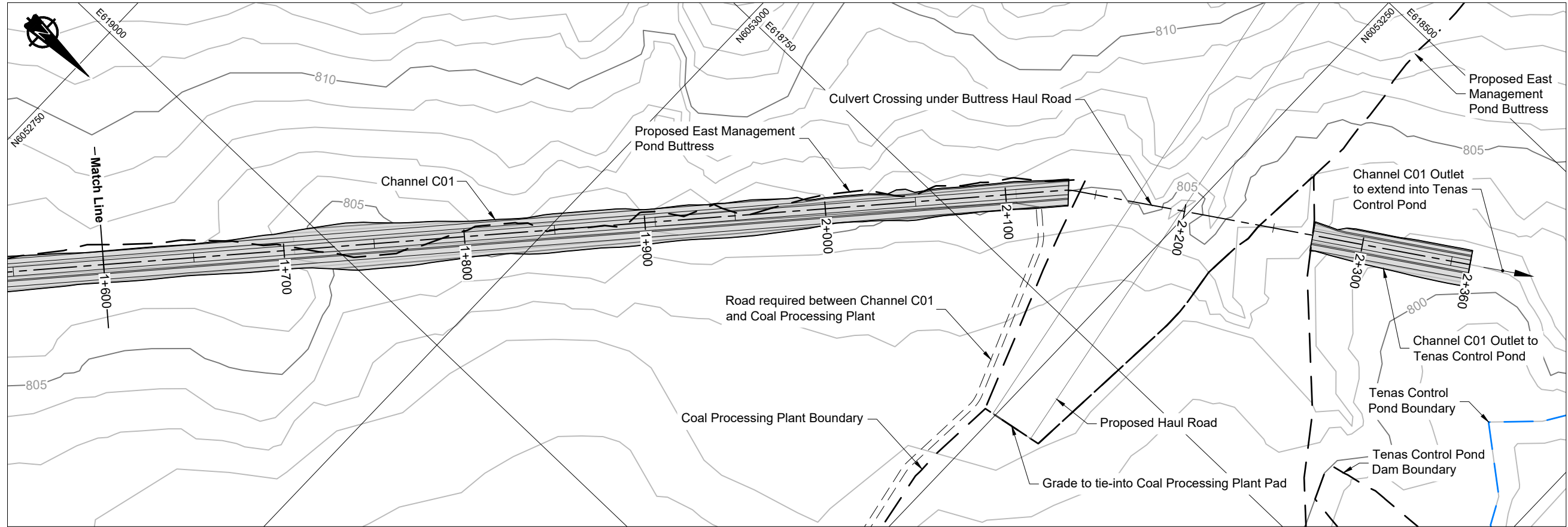
REFERENCE
NAD83 UTM Zone 9.

ISSUED FOR
PERMITTING

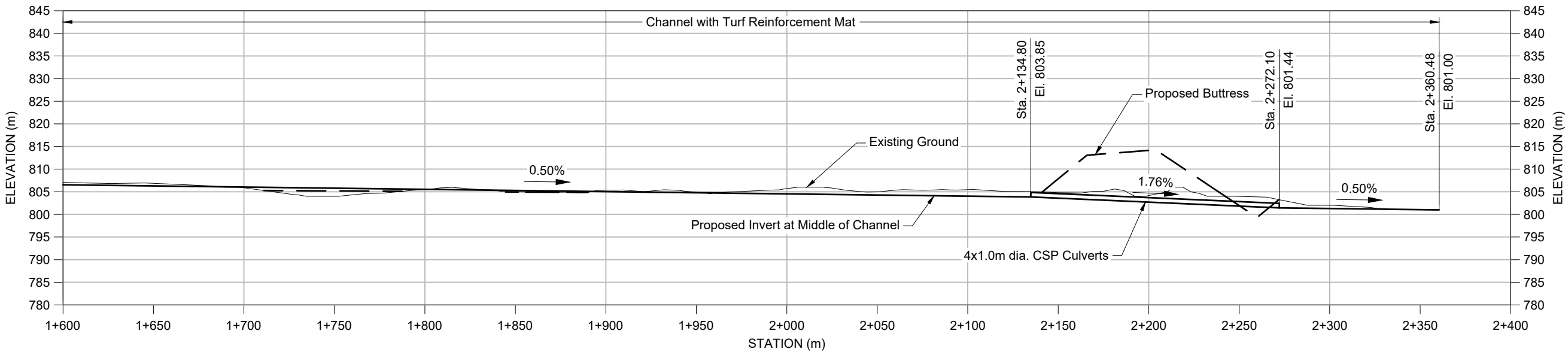


\\ark-adf\share\env\Projects\01_SITES\Telkwa Coal\040_AutoCAD\Water Management\Engineering Package\1CT027.003_Channel C01.dwg

 SRK JOB NO.: 1CT027.003 FILE NAME: 1CT027.003 Channel C01.dwg	 Telkwa Coal Limited	Tenas Project Water Management Design		
		Channel C01 Plan and Profile Sheet 2 of 3		
		DATE: 2021/07/16	APPROVED: SAB	FIGURE: 3



Channel C01 Plan View



Channel C01 Profile View
2.5x Vertical Exaggeration

LEGEND

- Existing Watercourse
- Proposed Buttress Boundary
- Proposed Management Pond Boundary
- Proposed Channel

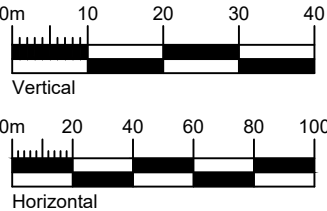
NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.

REFERENCE

NAD83 UTM Zone 9.

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PERMITTING



SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C01.dwg

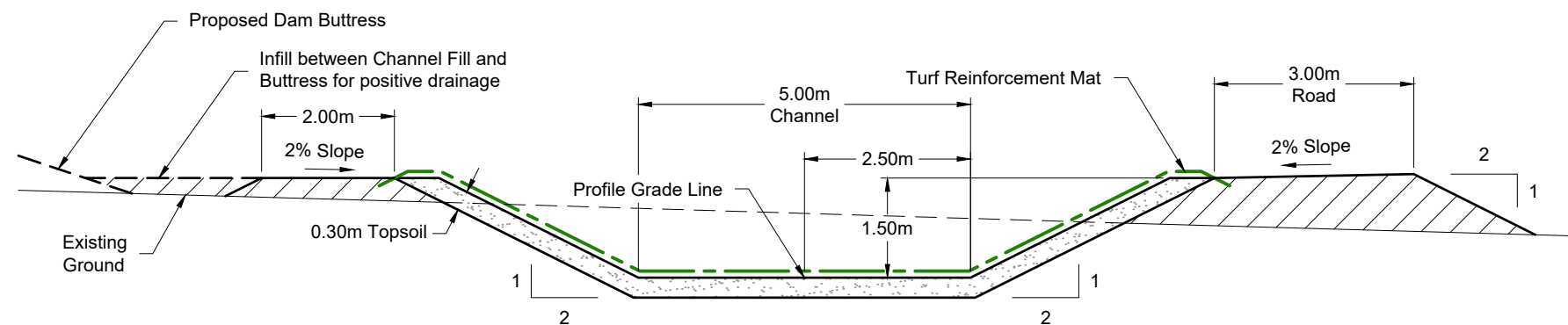


Telkwa Coal Limited

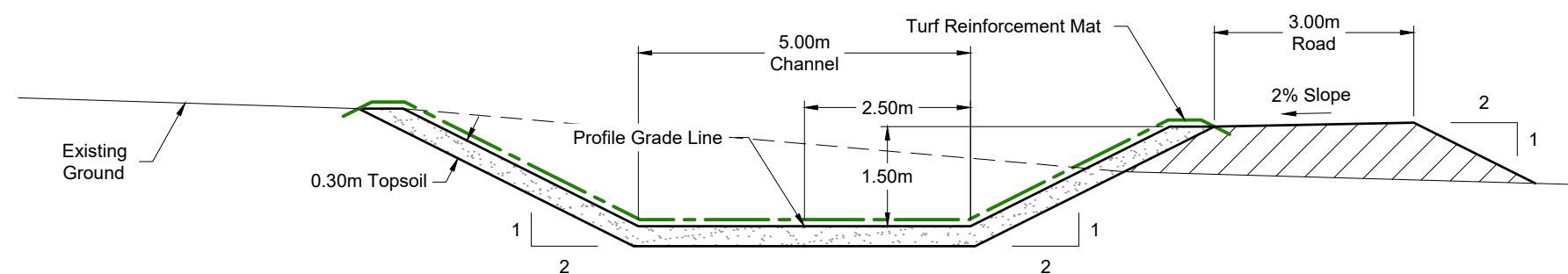
Tenas Project Water Management Design

Channel C01
Plan and Profile
Sheet 3 of 3

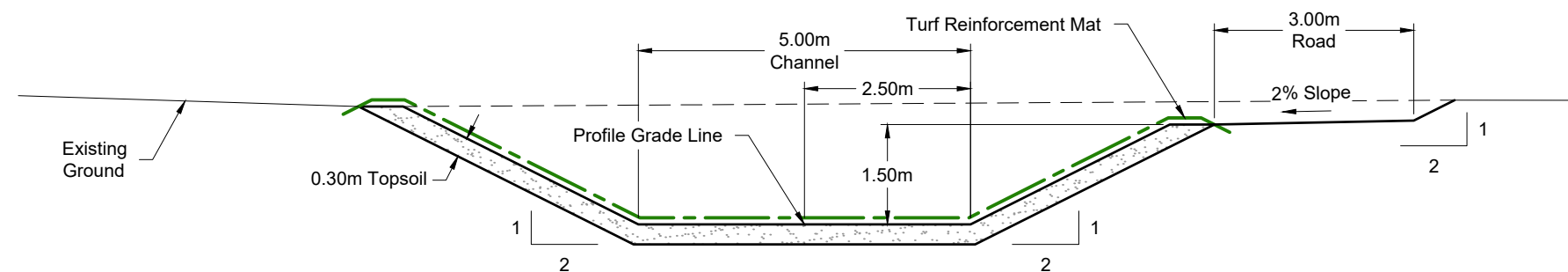
DATE: 2021/07/16
APPROVED: SAB
FIGURE: 4



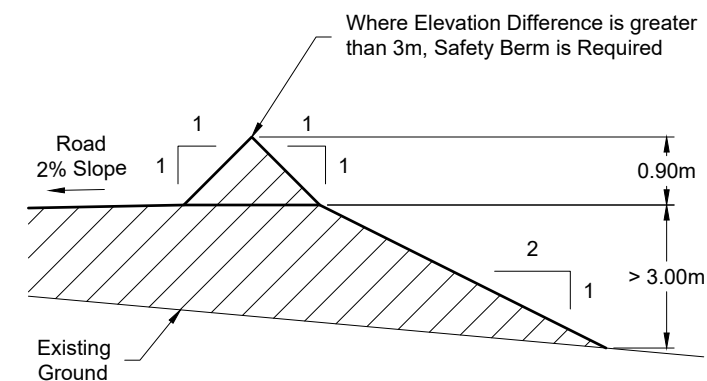
Channel and Road in Fill



Channel in Cut and Road in Fill



Channel and Road in Cut



Not To Scale

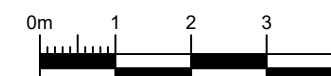
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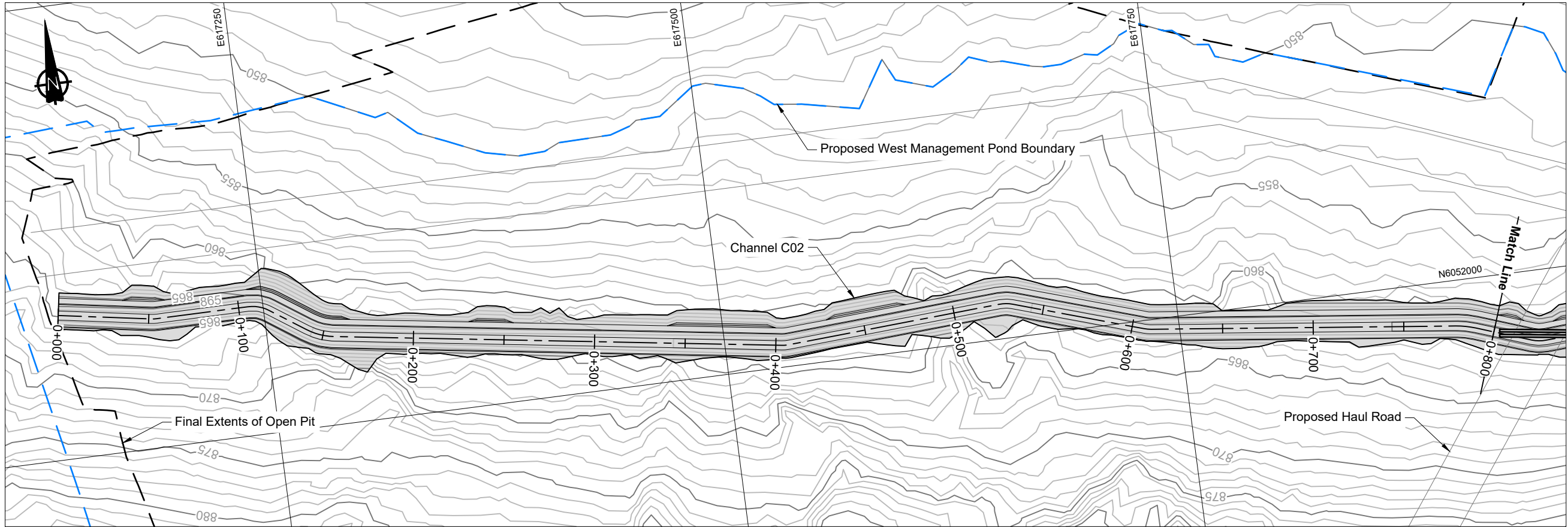
 Engineered Fill

NOTES

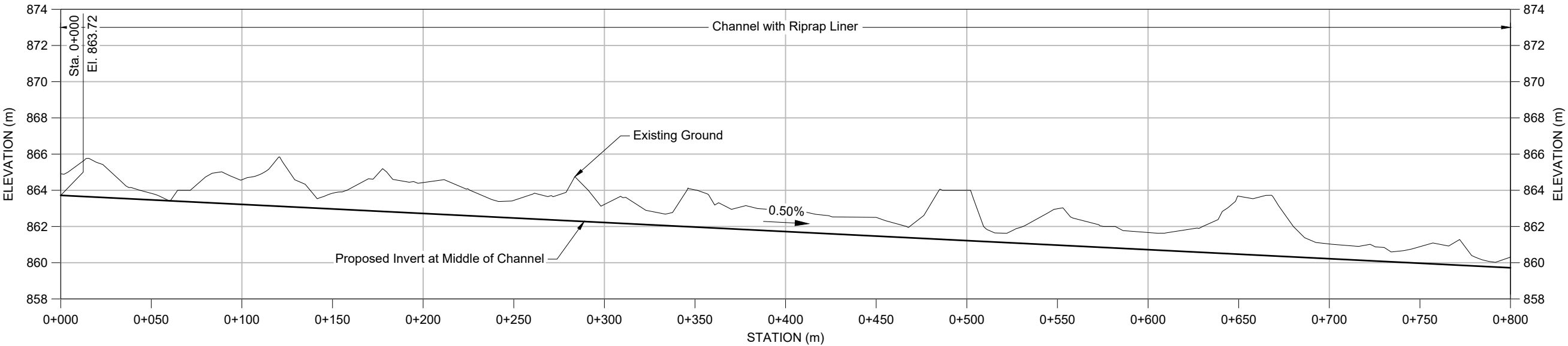
1. All dimensions shown in meters unless otherwise stated.
2. Road surfaces to be finished with approved surfacing material.
3. Topsoil to be preserved from the Channel and Road excavation and used for the Turf Reinforcement Mat bedding layer. Additional seed and fertilizer to be incorporated to promote vegetation growth.
4. TRMs to be installed and anchored per manufacturers specifications.

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PERMITTING**





Channel C02 Plan View



Channel C02 Profile View
10x Vertical Exaggeration

LEGEND

- Existing Watercourse
- Proposed Buttress Boundary
- Proposed Management Pond Boundary
- Proposed Channel

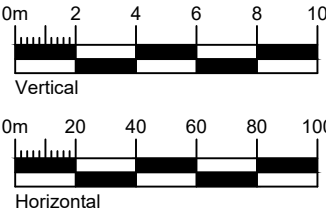
NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.

REFERENCE

NAD83 UTM Zone 9.

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SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C02.dwg

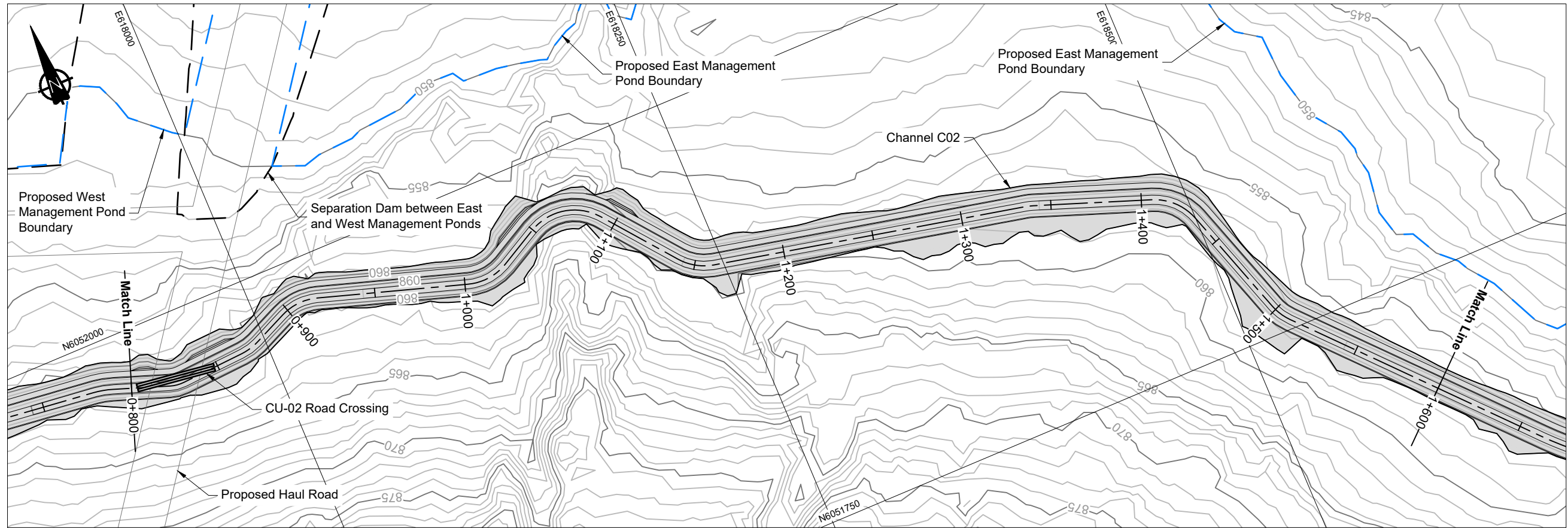


Telkwa Coal Limited

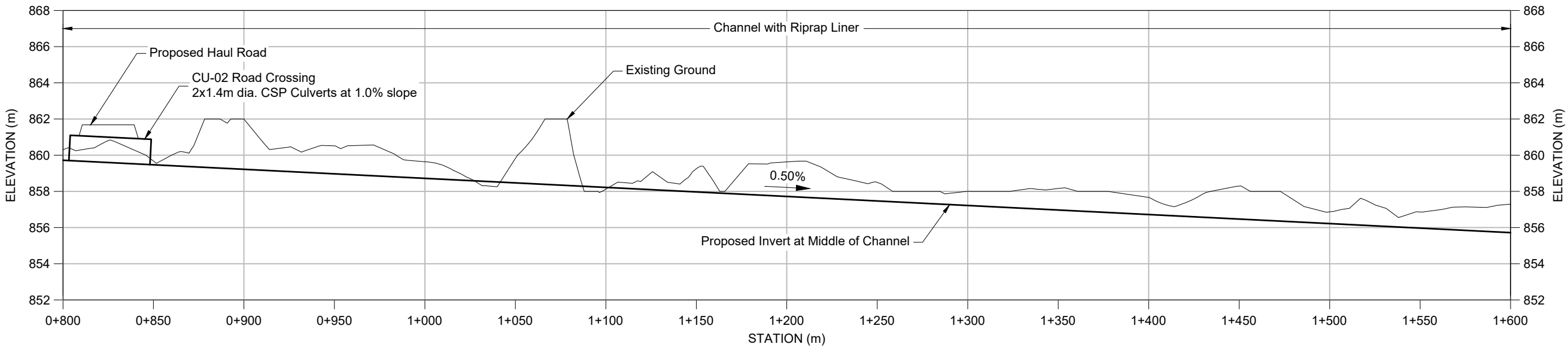
Tenas Project Water Management Design

Channel C02
Plan and Profile
Sheet 1 of 3

DATE: 2021/07/16
APPROVED: SAB
FIGURE: 7



Channel C02 Plan View



Channel C02 Profile View
10x Vertical Exaggeration

LEGEND

- Existing Watercourse
- Proposed Buttress Boundary
- Proposed Management Pond Boundary
- Proposed Channel

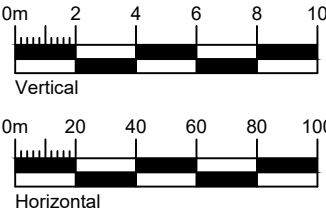
NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.

REFERENCE

NAD83 UTM Zone 9.

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PERMITTING



SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C02.dwg

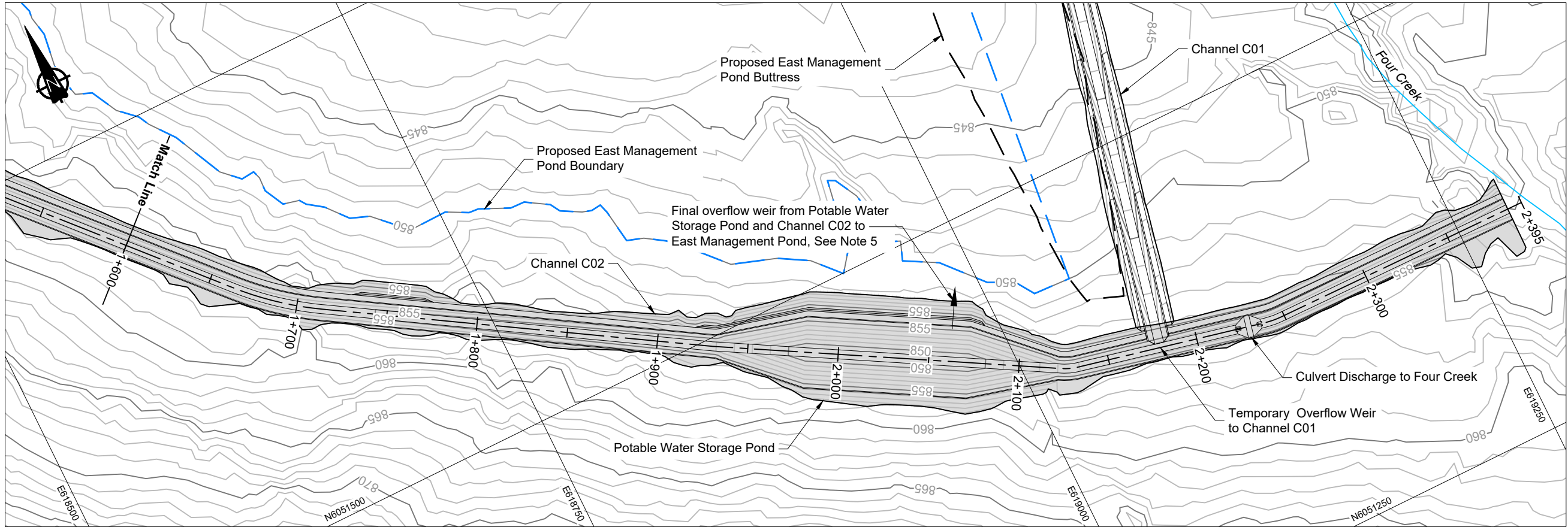


Telkwa Coal Limited

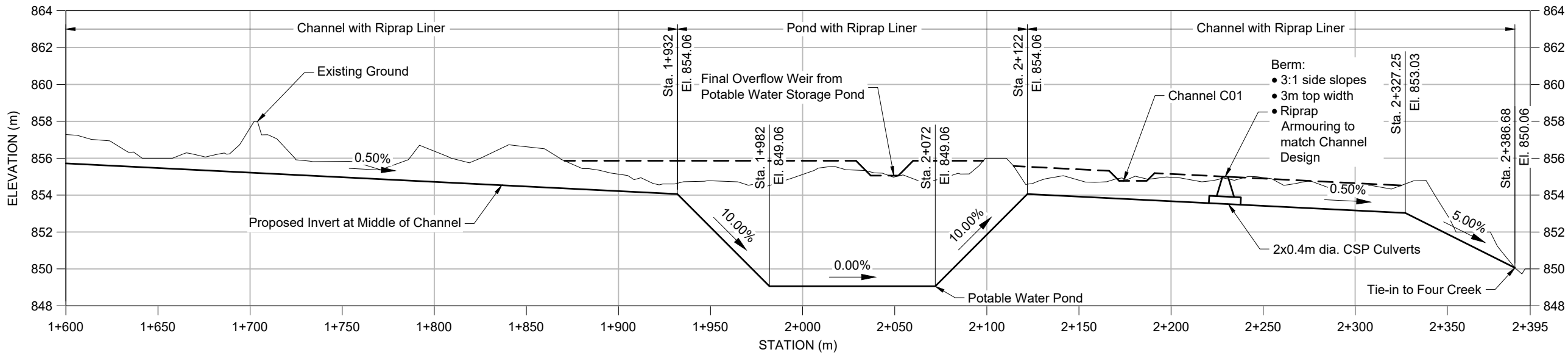
Tenas Project Water Management Design

Channel C02
Plan and Profile
Sheet 2 of 3

DATE: 2021/07/16
APPROVED: SAB
FIGURE: 8



Channel C02 Plan View



Channel C02 Profile View
10x Vertical Exaggeration

LEGEND

- Existing Watercourse
- Proposed Buttriss Boundary
- Proposed Management Pond Boundary
- Proposed Channel

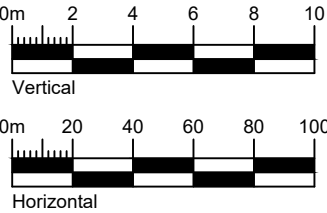
NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.
- Temporary overflow weir from Channel C02 will be constructed at confluence with C01. Once EMP becomes operational, the permanent overflow weir will be constructed from the Potable Water Pond to EMP, and the original discharge to Channel C01 will be backfilled.

REFERENCE

NAD83 UTM Zone 9.

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SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C02.dwg



Telkwa Coal Limited

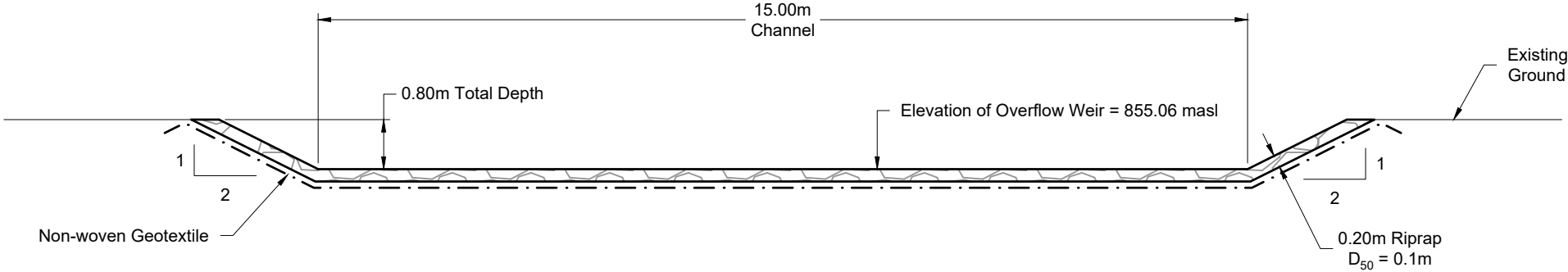
Tenas Project Water Management Design

Channel C02
Plan and Profile
Sheet 3 of 3

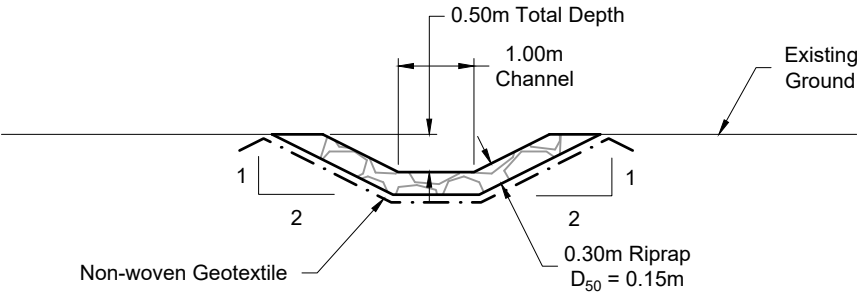
DATE: 2021/07/16
APPROVED: SAB
FIGURE: 9

\\ark-adf\share\env\Projects\01_SITES\Telkwa Coal\040_AutoCAD\Water Management\Engineering Package\1CT027.003_Channel C02.dwg

- NOTES**
1. All dimensions shown in meters unless otherwise stated.
 2. Liner tie-in details as per manufacturer specifications

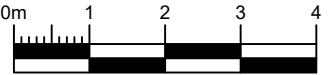


Channel C02 Overflow Weir to Channel C01 and East Management Pond



Discharge to Four Creek

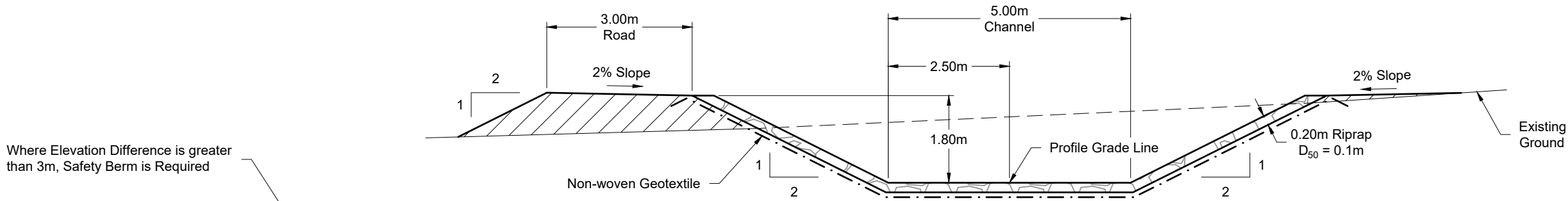
**ISSUED FOR
PERMITTING**



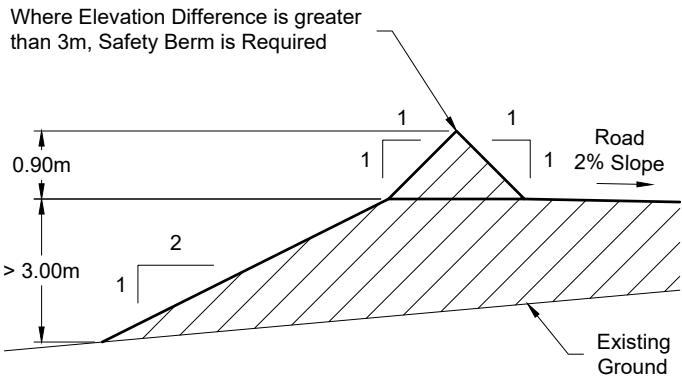
				Tenas Project Water Management Design	
SRK JOB NO.: 1CT027.003		Telkwa Coal Limited		Overflow Weir and Discharge to Four Creek Typical Sections	
FILE NAME: 1CT027.003 Channel C02 Discharge to Four Creek.dwg				DATE: 2021/07/16	APPROVED: SAB
				FIGURE: 10	

\\ark-adf\share\env\Projects\01_SITES\Telkwa Coal\040_AutoCAD\Water Management\Engineering Pedaga\1CT027.003 Channel C02 Discharge to Four Creek.dwg

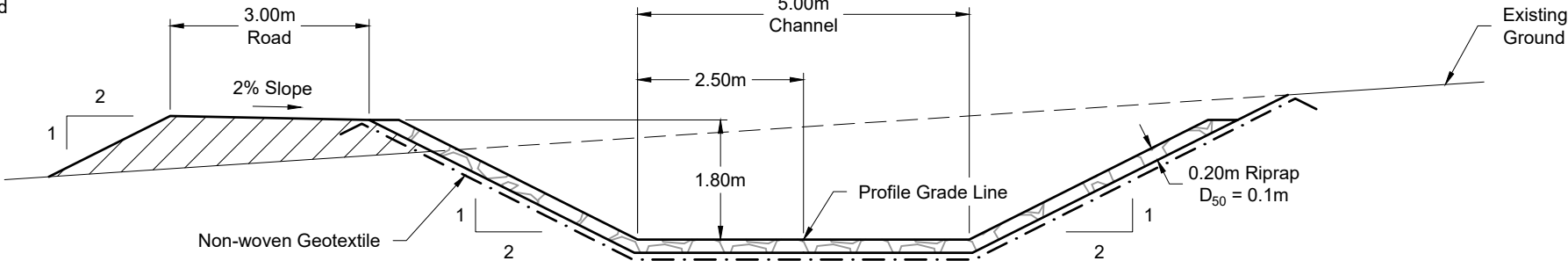
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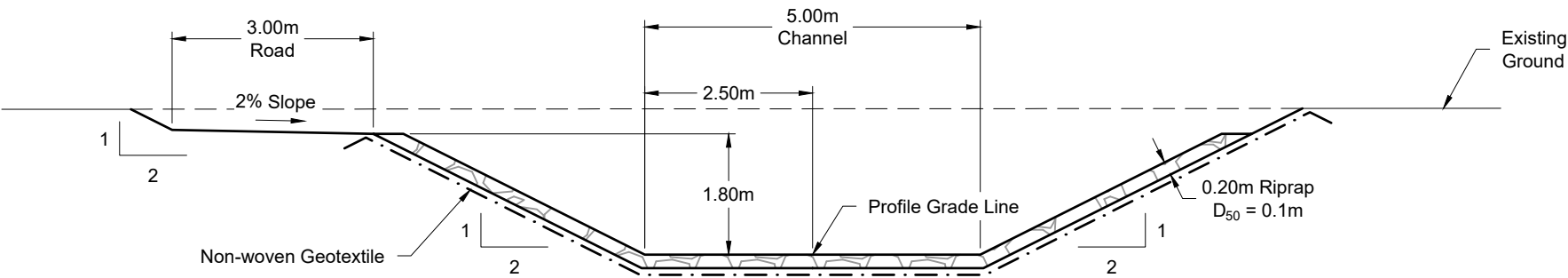
Channel and Road in Fill



Safety Berm Detail
Not To Scale



Channel in Cut and Road in Fill



Channel and Road in Cut

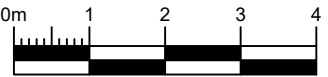
LEGEND

Engineered Fill

NOTES

1. All dimensions shown in meters unless otherwise stated.
2. Road surfaces to be finished with approved surfacing material.
3. Liner tie-in details as per manufacturer specifications.

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srk consulting

SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C02 Typ Sec.dwg

TELKWA COAL
LIMITED

Telkwa Coal Limited

Tenas Project Water Management Design

Channel C02
Typical Sections
Riprap L:iner

DATE:
2021/07/16

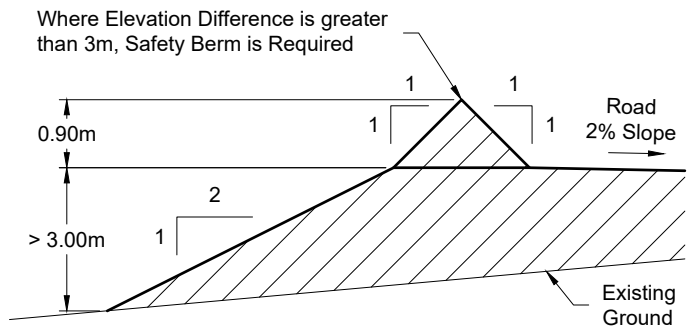
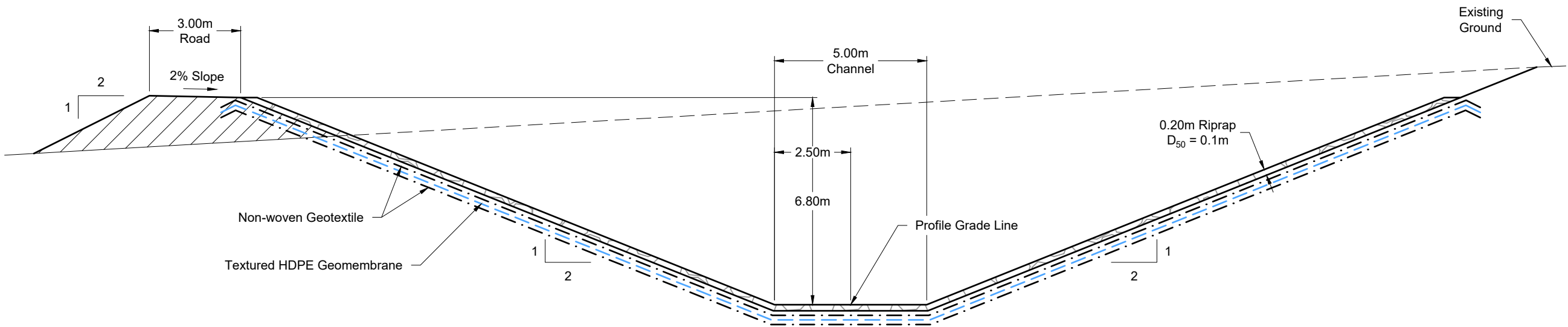
APPROVED:
SAB

FIGURE:
11

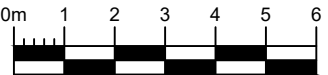
LEGEND

 Engineered Fill

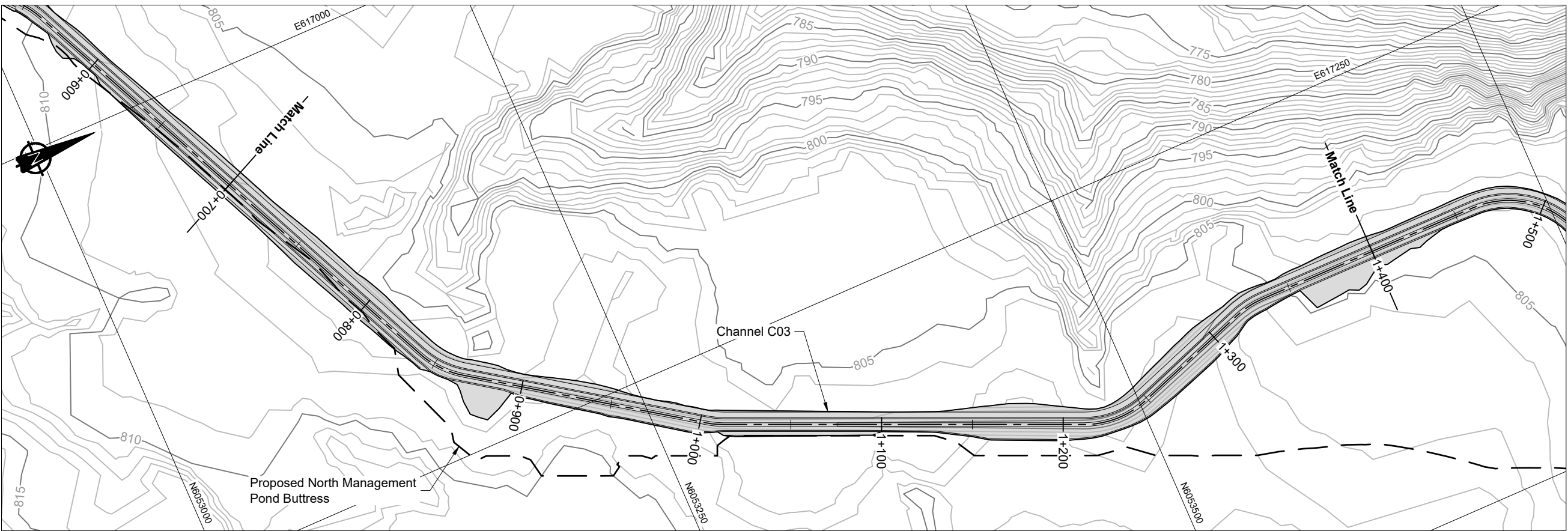
- NOTES**
1. All dimensions shown in meters unless otherwise stated.
 2. Road surfaces to be finished with approved surfacing material.
 3. Liner tie-in details as per manufacturer specifications.
 4. Road width to be extended to accommodate safety berm where required.



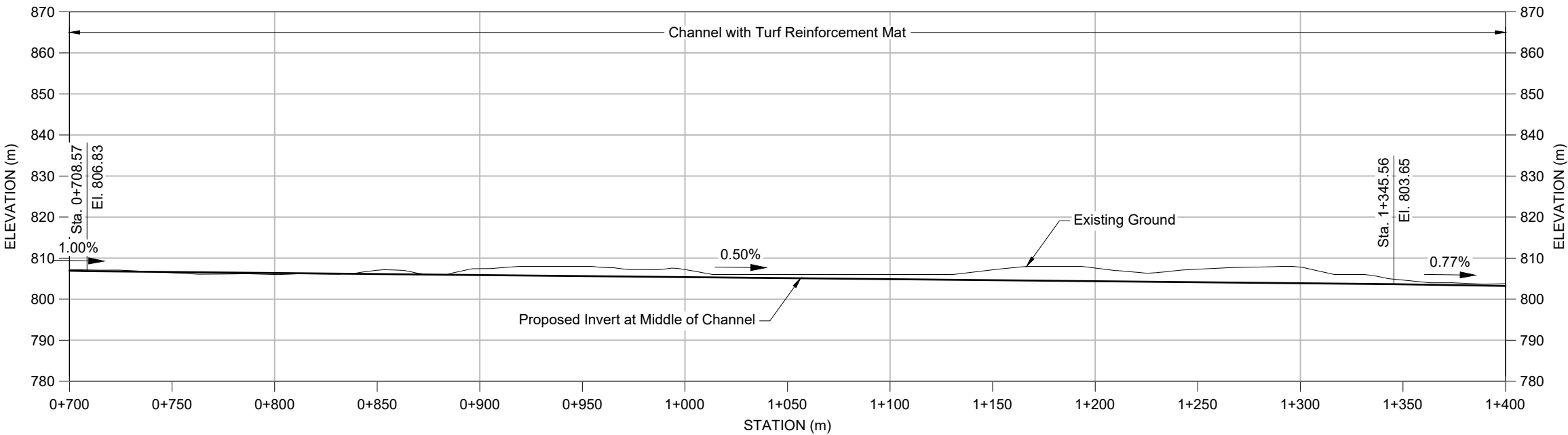
**ISSUED FOR
PERMITTING**



				Tenas Project Water Management Design		
SRK JOB NO.: 1CT027.003		Telkwa Coal Limited		Potable Water Storage Pond Typical Section Riprap Liner		
FILE NAME: 1CT027.003 Channel C02 Typ Sec.dwg				DATE: 2021/07/16		APPROVED: SAB



Channel C03 Plan View



Channel C03 Profile View
2x Vertical Exaggeration

LEGEND

- Existing Watercourse
- Proposed Buttress Boundary
- Proposed Management Pond Boundary
- Proposed Channel

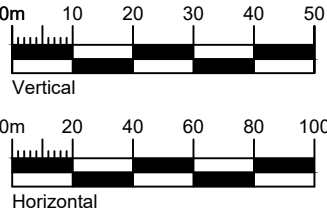
NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.

REFERENCE

NAD83 UTM Zone 9.

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SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C03.dwg

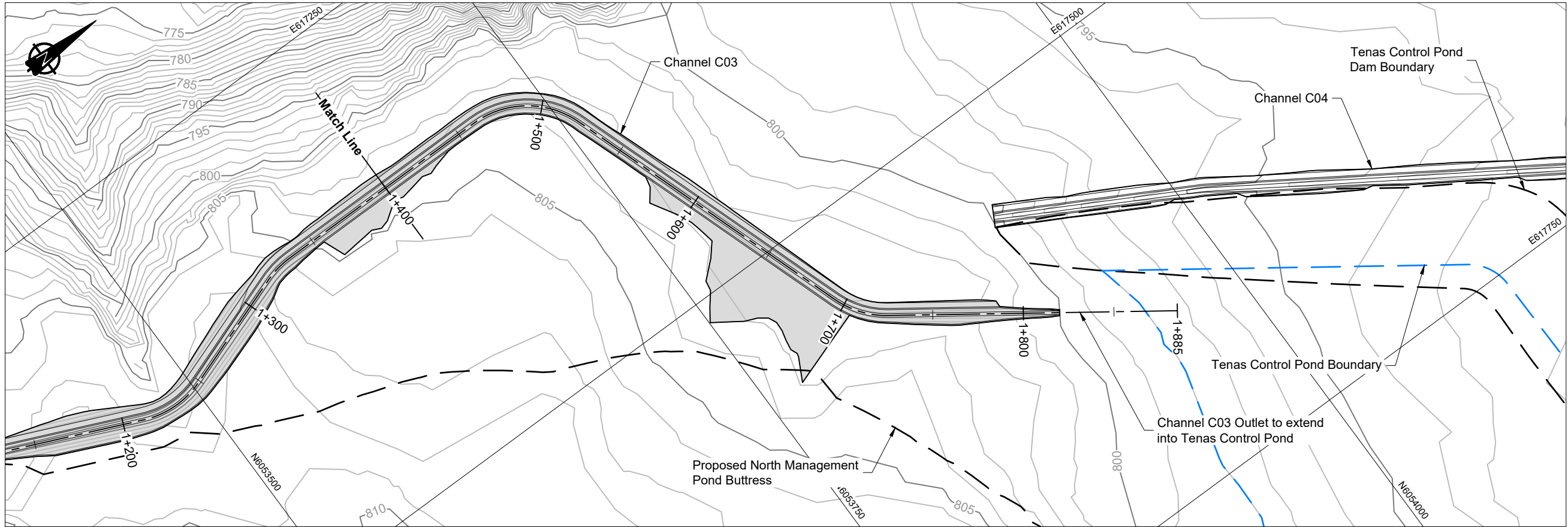


Telkwa Coal Limited

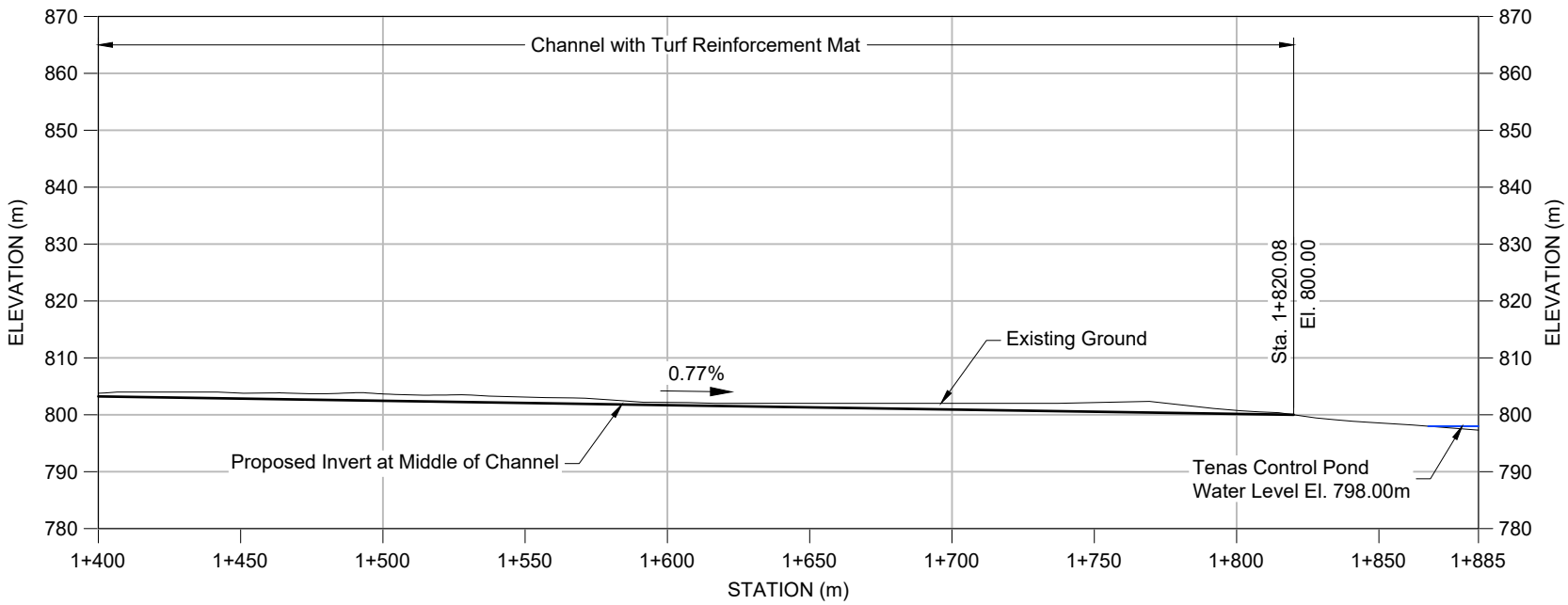
Tenas Project Water Management Design

Channel C03
Plan and Profile
Sheet 2 of 3

DATE: 2021/07/16
APPROVED: SAB
FIGURE: 14



Channel C03 Plan View



Channel C03 Profile View
2x Vertical Exaggeration

LEGEND

- Existing Watercourse
- Proposed Buttrass Boundary
- Proposed Management Pond Boundary
- Proposed Channel

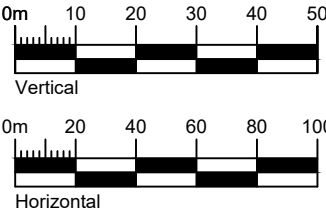
NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.

REFERENCE

NAD83 UTM Zone 9.

ISSUED FOR
PERMITTING



SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C03.dwg



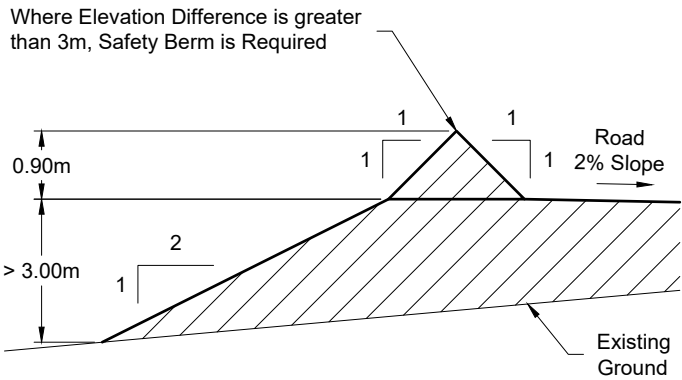
Telkwa Coal Limited

Tenas Project Water Management Design

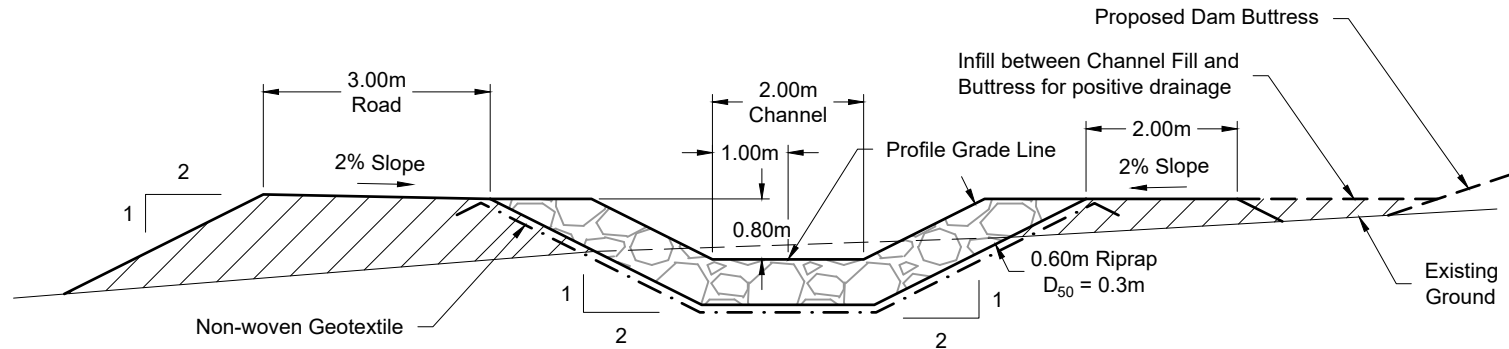
Channel C03
Plan and Profile
Sheet 3 of 3

DATE: 2021/07/16
APPROVED: SAB
FIGURE: 15

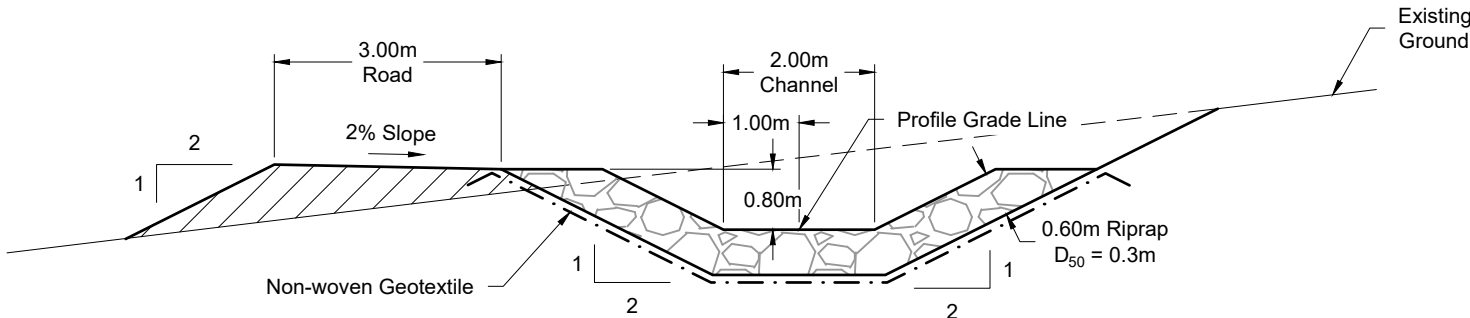
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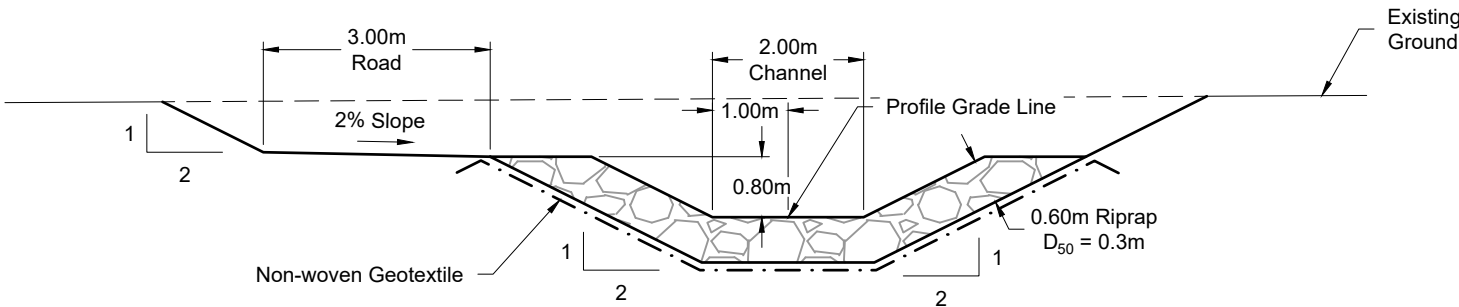
Safety Berm Detail
Not To Scale



Channel in Cut and Road in Fill



Channel in Cut and Road in Fill



Channel in Cut and Road in Fill

LEGEND

Engineered Fill

NOTES

1. All dimensions shown in meters unless otherwise stated.
2. Road surfaces to be finished with approved surfacing material.
3. Liner tie-in details as per manufacturer specifications.

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PERMITTING**



SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C03 Typ Sec.dwg

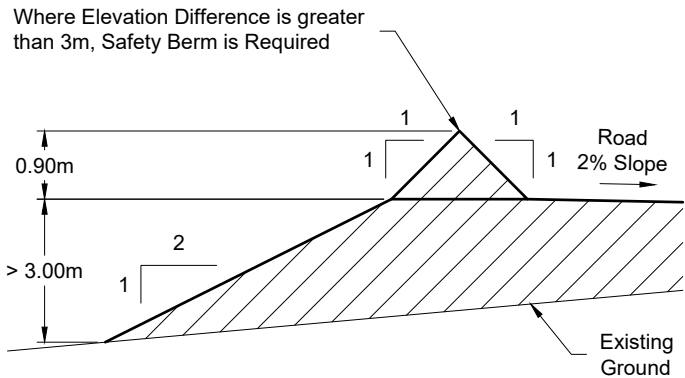
Telkwa Coal Limited

Tenas Project Water Management Design

Channel C03
Typical Sections
Riprap Liner

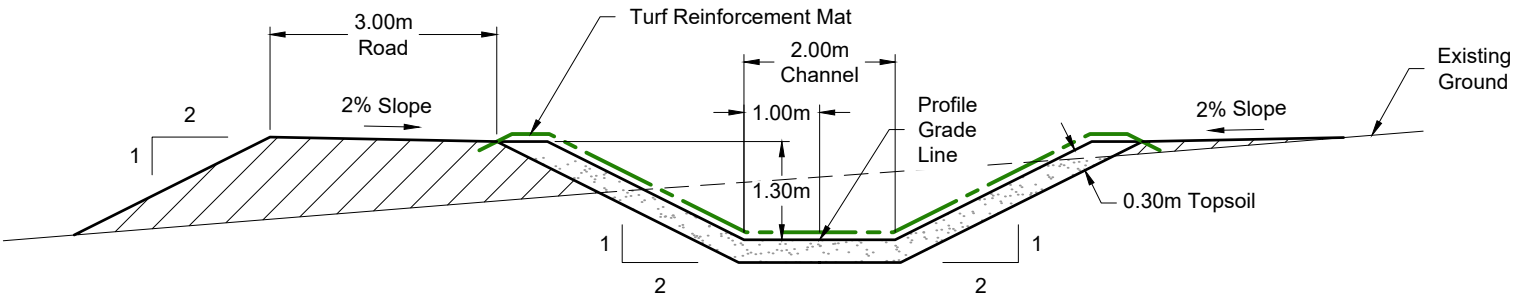
DATE: 2021/07/16
APPROVED: SAB
FIGURE: 16

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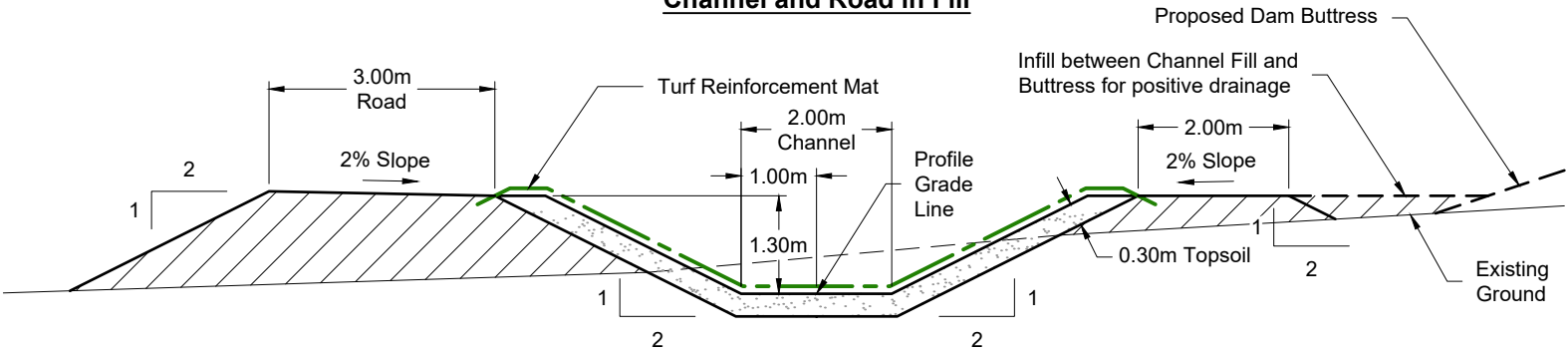


Safety Berm Detail

Not To Scale

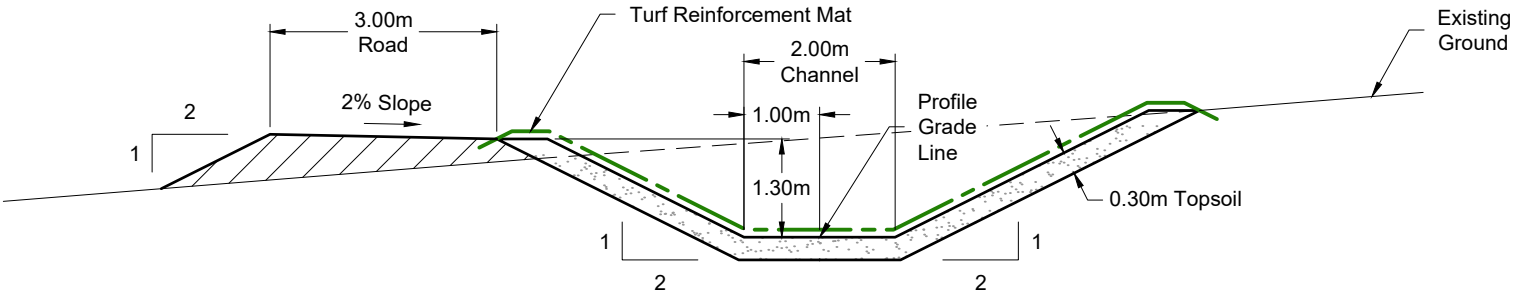


Channel and Road in Fill

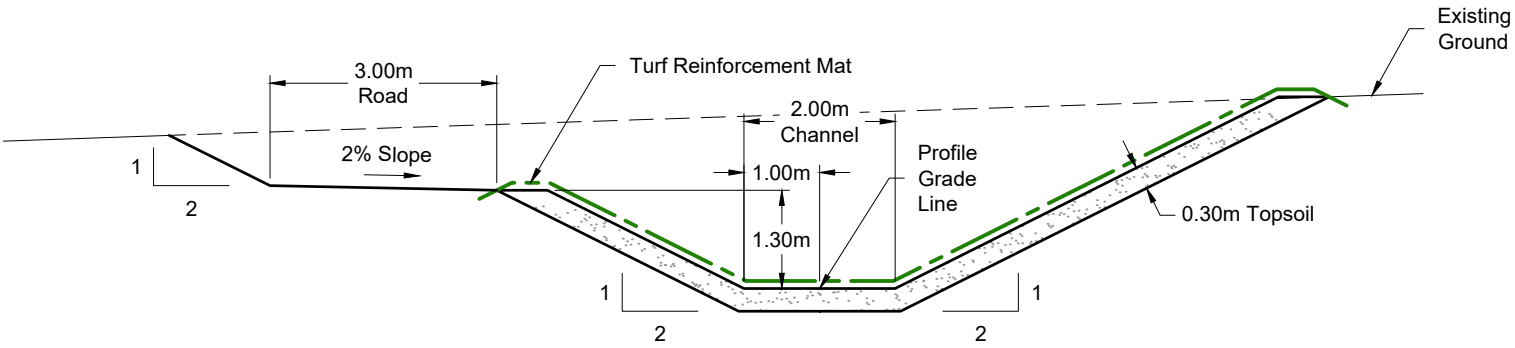


Channel and Road in Fill

Sta. 0+785 to 0+875 and Sta. 1+045 to 1+280



Channel in Cut and Road in Fill



Channel and Road in Cut

LEGEND

Engineered Fill

NOTES

1. All dimensions shown in meters unless otherwise stated.
2. Road surfaces to be finished with approved surfacing material.
3. Topsoil to be preserved from the Channel and Road excavation and used for the Turf Reinforcement Mat bedding layer. Additional seed and fertilizer to be incorporated to promote vegetation growth.
4. TRMs to be installed and anchored per manufacturers specifications.

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srk consulting

SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C03a Typ Sec.dwg

TELKWA COAL LIMITED

Telkwa Coal Limited

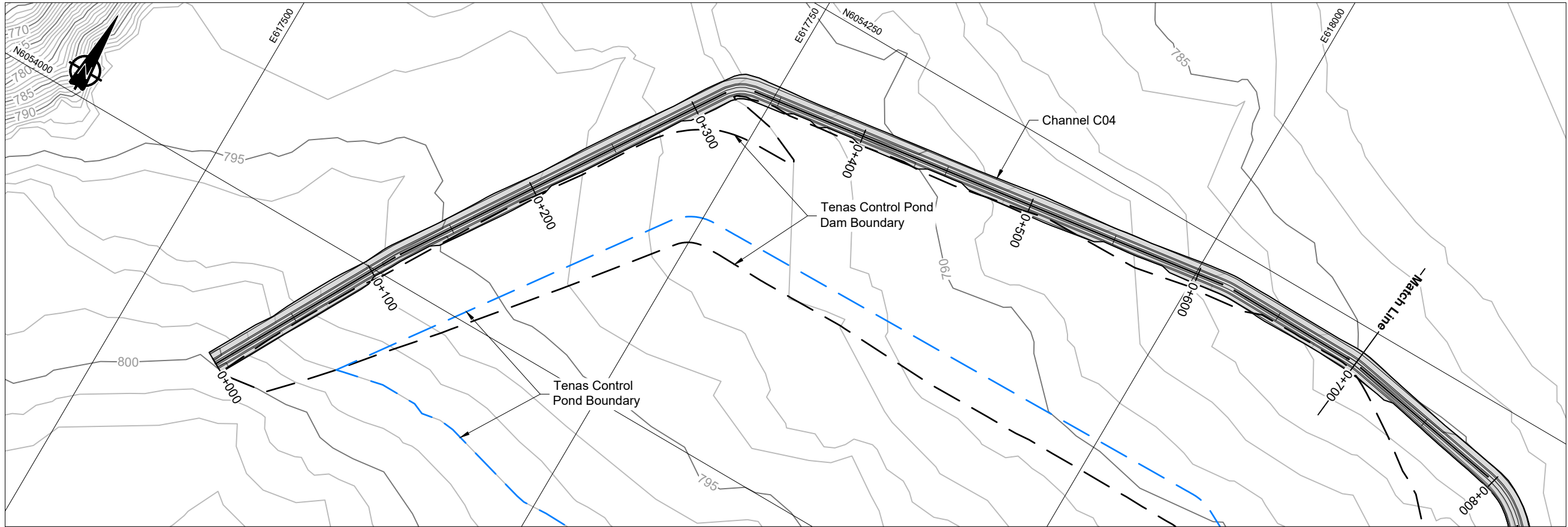
Tenas Project Water Management Design

**Channel C03
Typical Sections
Turf Reinforcement Mat**

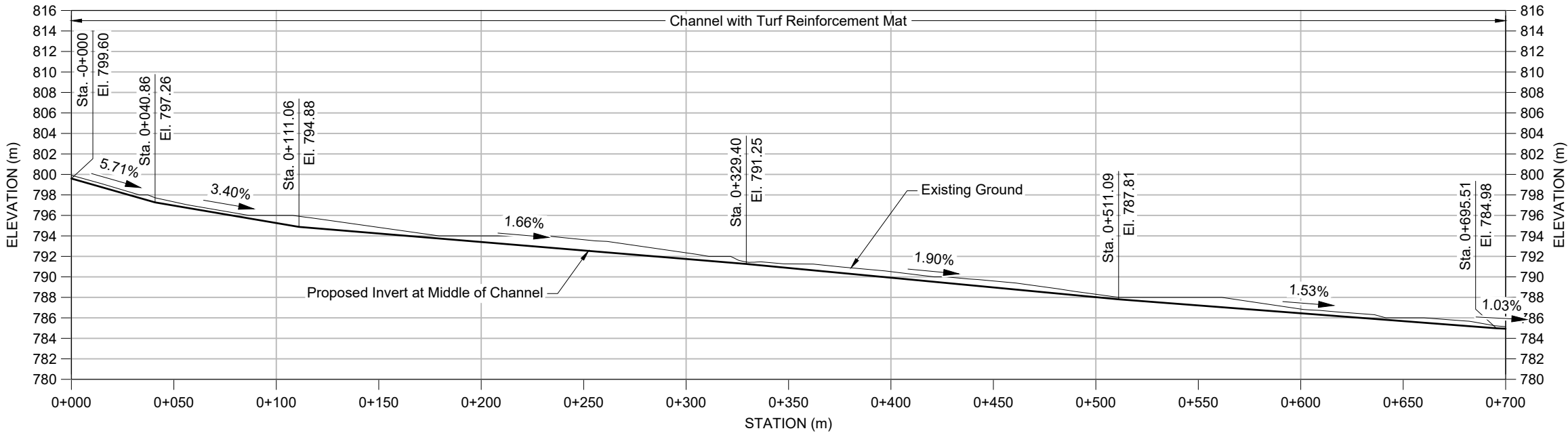
DATE:
2021/07/16

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SAB

FIGURE:
17



Channel C04 Plan View



Channel C04 Profile View
5x Vertical Exaggeration

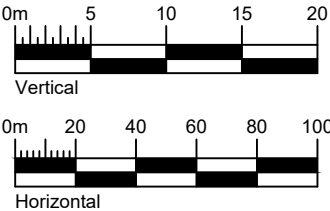
LEGEND

- Existing Watercourse
- Proposed Buttress Boundary
- Proposed Management Pond Boundary
- Proposed Channel

- NOTES**
- Contours shown at 1.0m intervals.
 - All dimensions shown in meters unless otherwise stated.
 - Mine Infrastructure designs by Telkwa Coal Limited (TCL).
 - Infrastructure extents shown at End Of Mine.

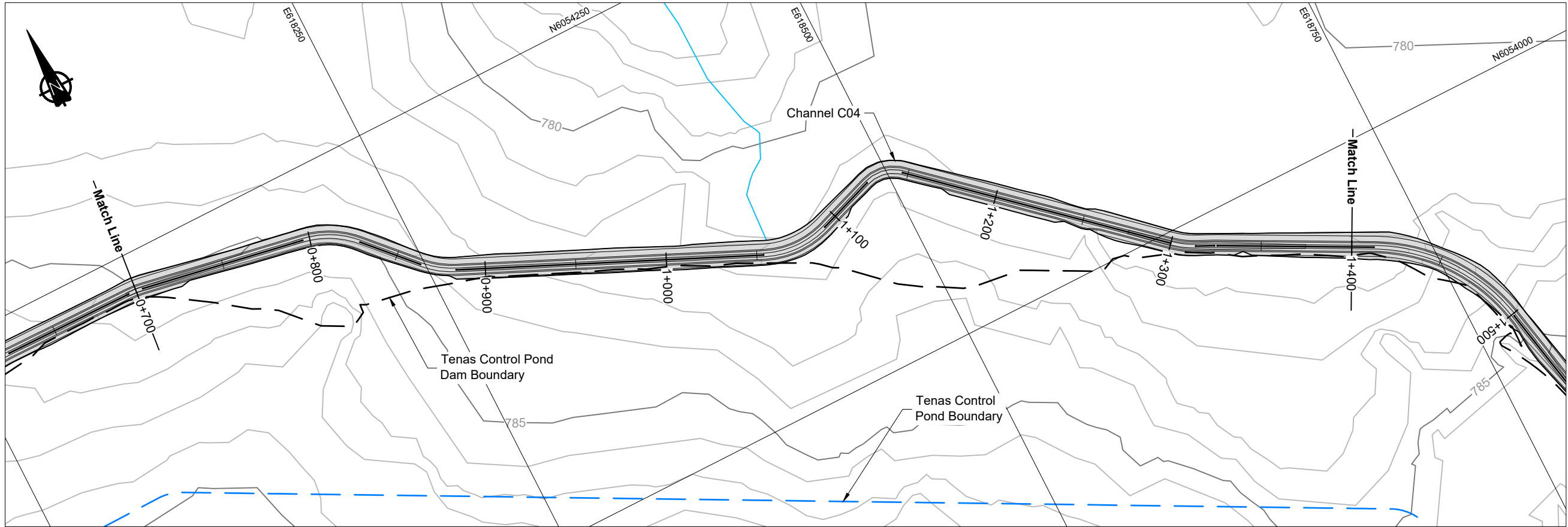
REFERENCE
NAD83 UTM Zone 9.

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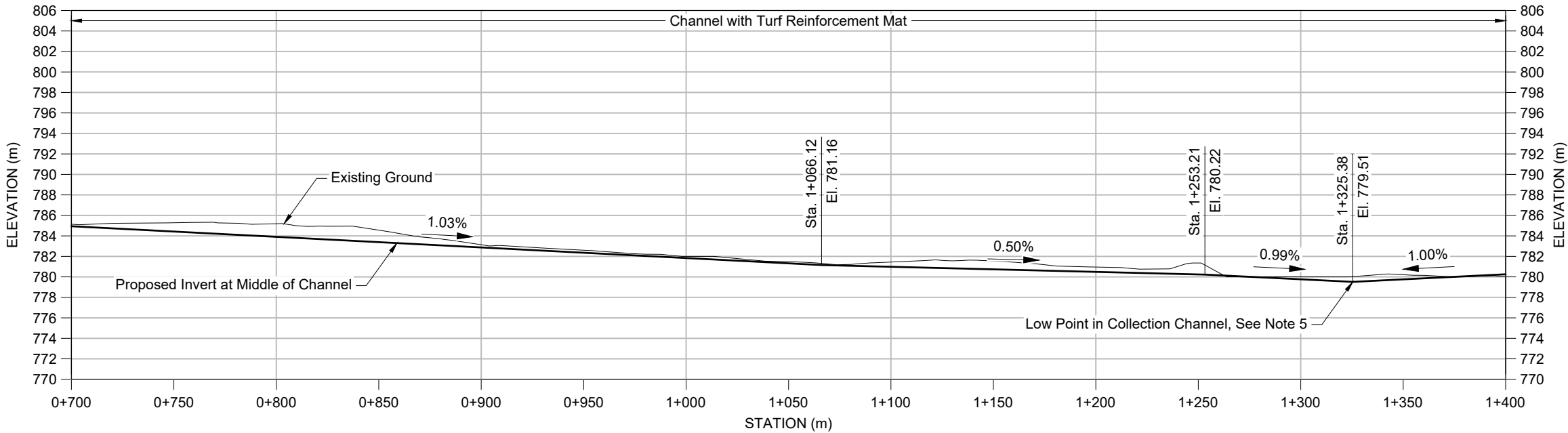


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 SRK JOB NO.: 1CT027.003 FILE NAME: 1CT027.003 Channel C04.dwg	 Telkwa Coal Limited	Tenas Project Water Management Design		
		Channel C04 Plan and Profile Sheet 1 of 3		
		DATE: 2021/07/16	APPROVED: SAB	FIGURE: 18



Channel C04 Plan View



Channel C04 Profile View
5x Vertical Exaggeration

LEGEND

- Existing Watercourse
- Proposed Buttress Boundary
- Proposed Management Pond Boundary
- Proposed Channel

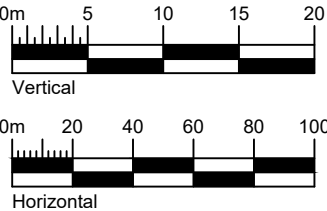
NOTES

- Contours shown at 1.0m intervals.
- All dimensions shown in meters unless otherwise stated.
- Mine Infrastructure designs by Telkwa Coal Limited (TCL).
- Infrastructure extents shown at End Of Mine.
- Water collection at channel low point. Pumped back to Tenas Control Pond or discharged to Goathorn Creek tributary.

REFERENCE

NAD83 UTM Zone 9.

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SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C04.dwg

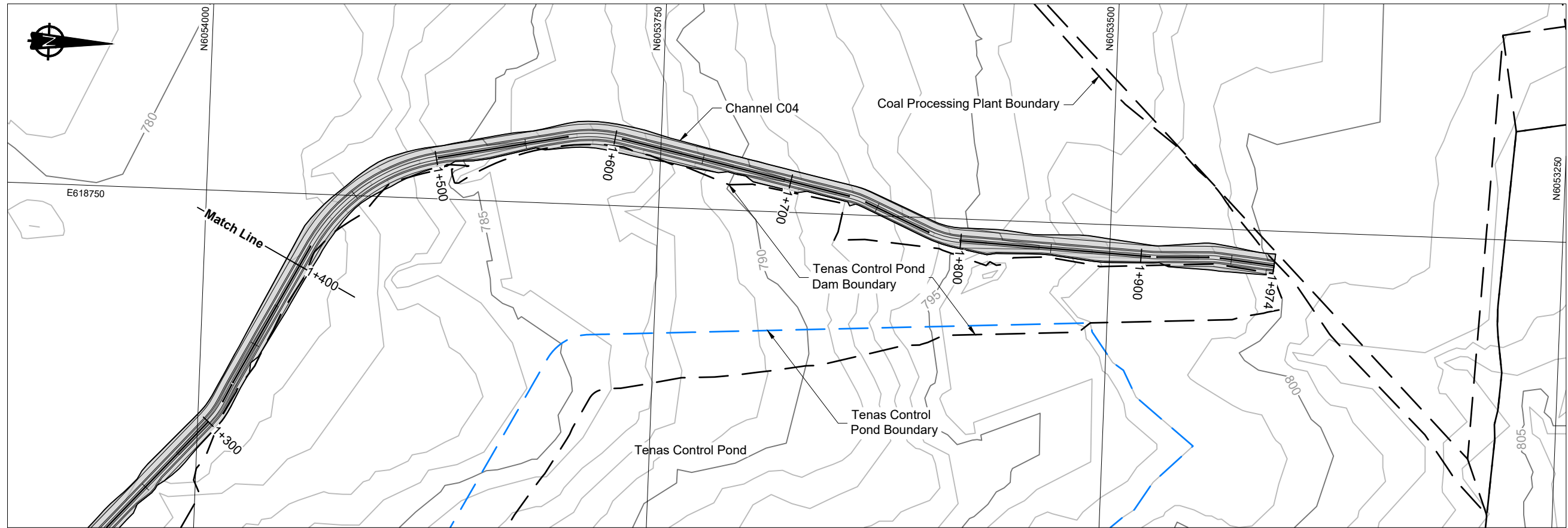


Telkwa Coal Limited

Tenas Project Water Management Design

Channel C04
Plan and Profile
Sheet 2 of 3

DATE: 2021/07/16
APPROVED: SAB
FIGURE: 19

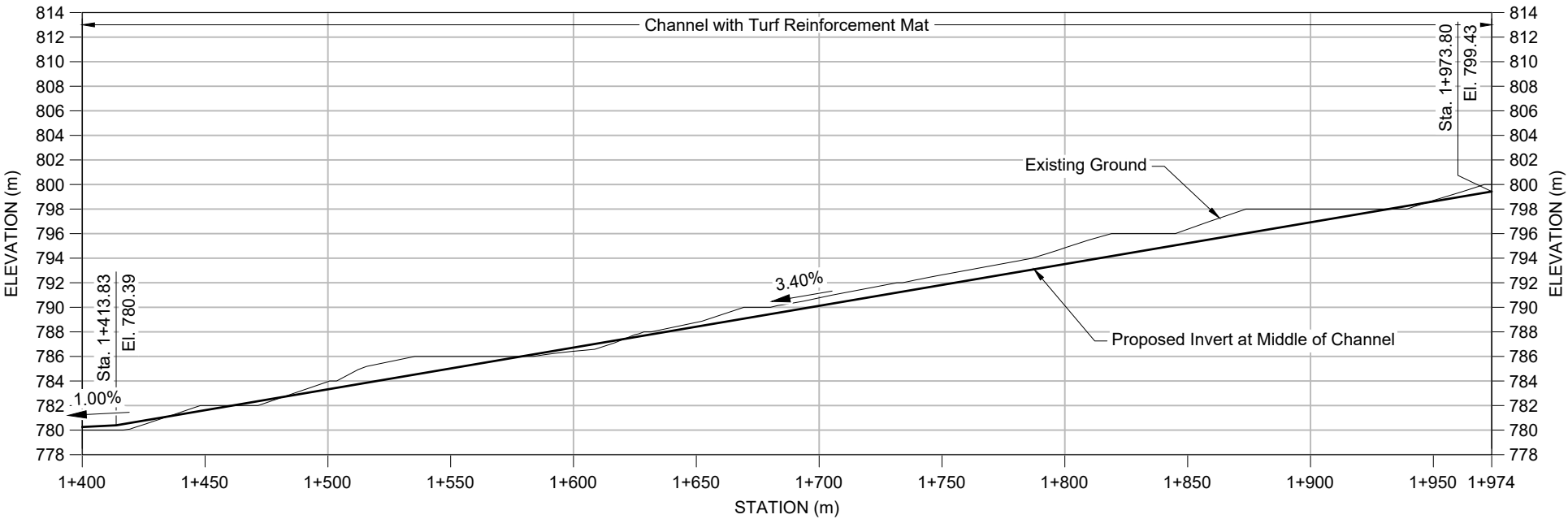


- LEGEND**
- Existing Watercourse
 - Proposed Buttress Boundary
 - Proposed Management Pond Boundary
 - Proposed Channel

- NOTES**
- Contours shown at 1.0m intervals.
 - All dimensions shown in meters unless otherwise stated.
 - Mine Infrastructure designs by Telkwa Coal Limited (TCL).
 - Infrastructure extents shown at End Of Mine.

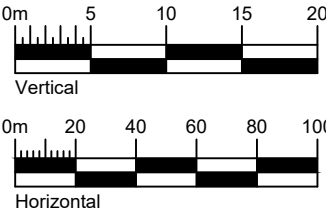
REFERENCE
NAD83 UTM Zone 9.

Channel C04 Plan View



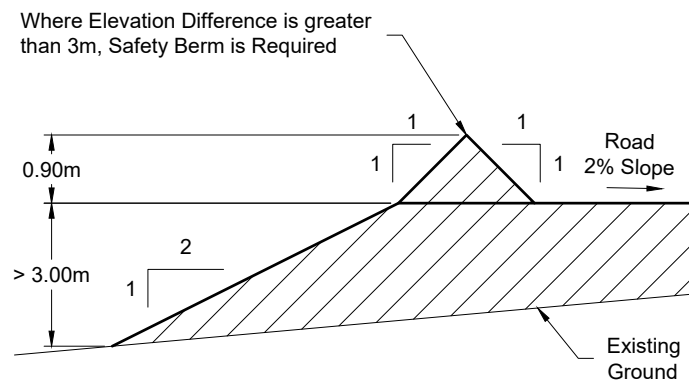
Channel C04 Profile View
5x Vertical Exaggeration

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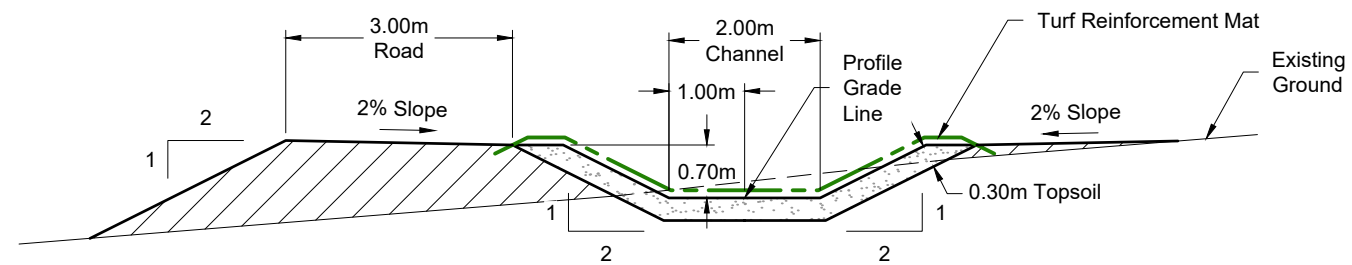
\\ark-adf\share\proj\001_SITES\Telkwa Coal\040_AutoCAD\Water Management\Engineering Package\1CT027.003_Channel C04.dwg

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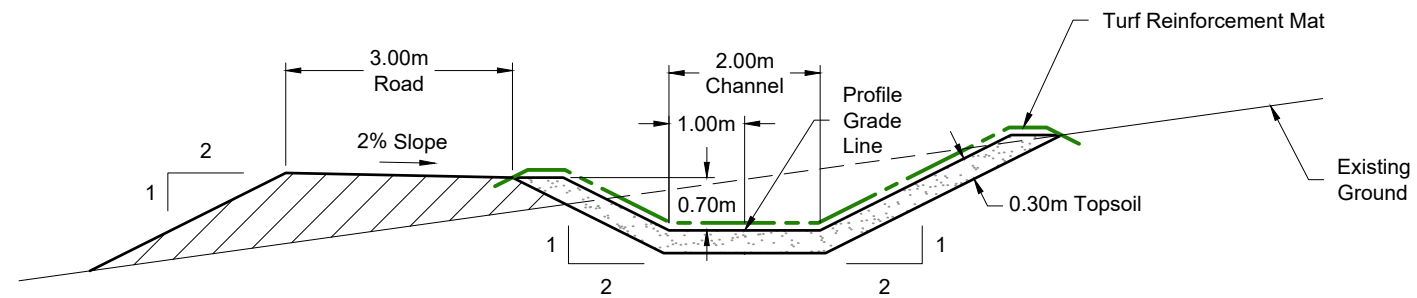


Safety Berm Detail

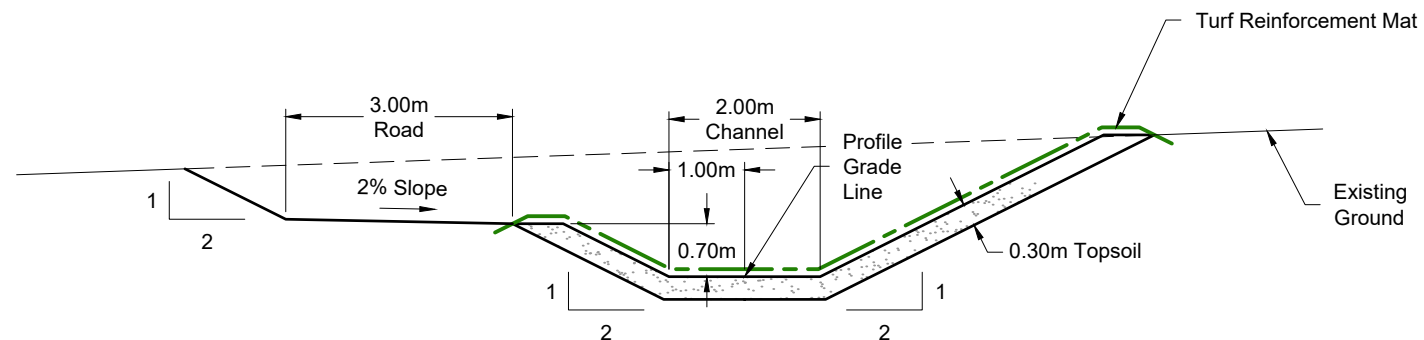
Not To Scale



Channel and Road in Fill



Channel in Cut and Road in Fill



Channel and Road in Cut

LEGEND

 Engineered Fill

NOTES

1. All dimensions shown in meters unless otherwise stated.
2. Road surfaces to be finished with approved surfacing material.
3. Topsoil to be preserved from the Channel and Road excavation and used for the Turf Reinforcement Mat bedding layer. Additional seed and fertilizer to be incorporated to promote vegetation growth.
4. TRMs to be installed and anchored per manufacturers specifications.

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SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C04 Typ Sec.dwg

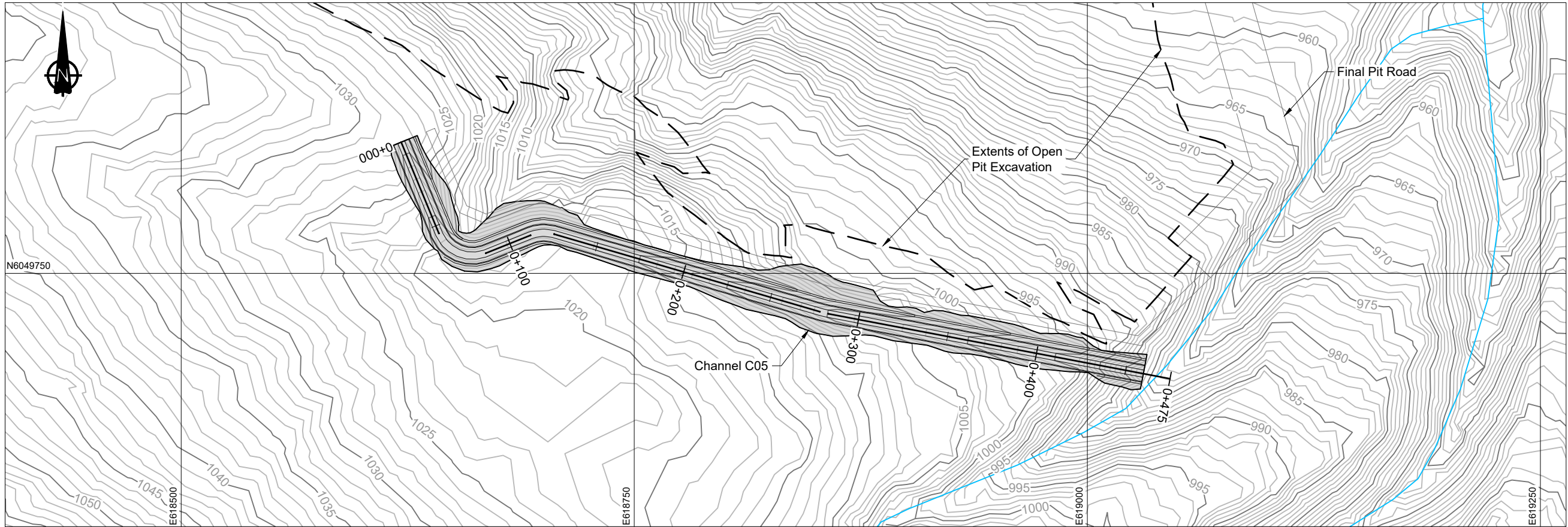


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Tenas Project Water Management Design

Channel C04
Typical Sections
Turf Reinforcement Mat

DATE: 2021/07/16
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FIGURE: 21

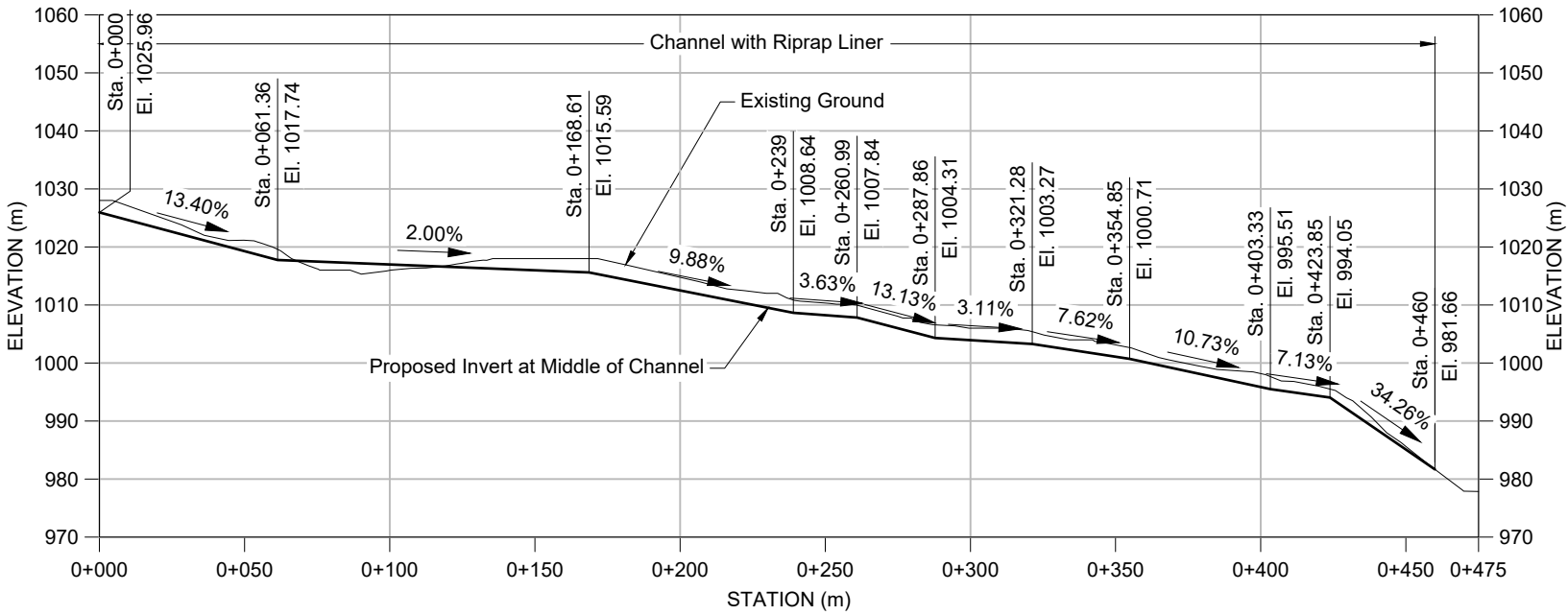


- LEGEND**
- Existing Watercourse
 - Proposed Buttress Boundary
 - Proposed Management Pond Boundary
 - Proposed Channel

- NOTES**
- Contours shown at 1.0m intervals.
 - All dimensions shown in meters unless otherwise stated.
 - Mine Infrastructure designs by Telkwa Coal Limited (TCL).
 - Infrastructure extents shown at End Of Mine.

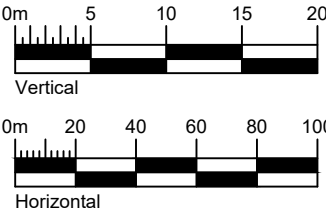
REFERENCE
NAD83 UTM Zone 9.

Channel C05 Plan View



Channel C05 Profile View
5x Vertical Exaggeration

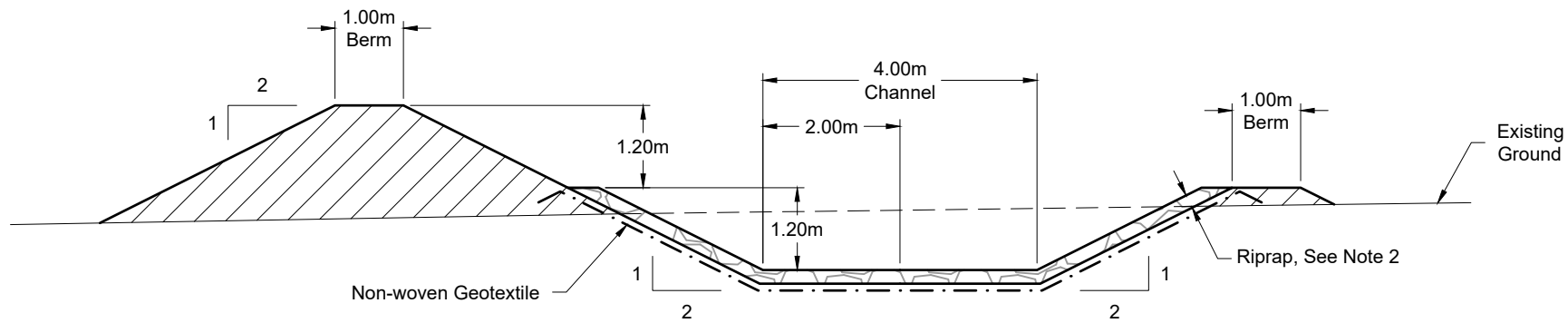
ISSUED FOR PERMITTING



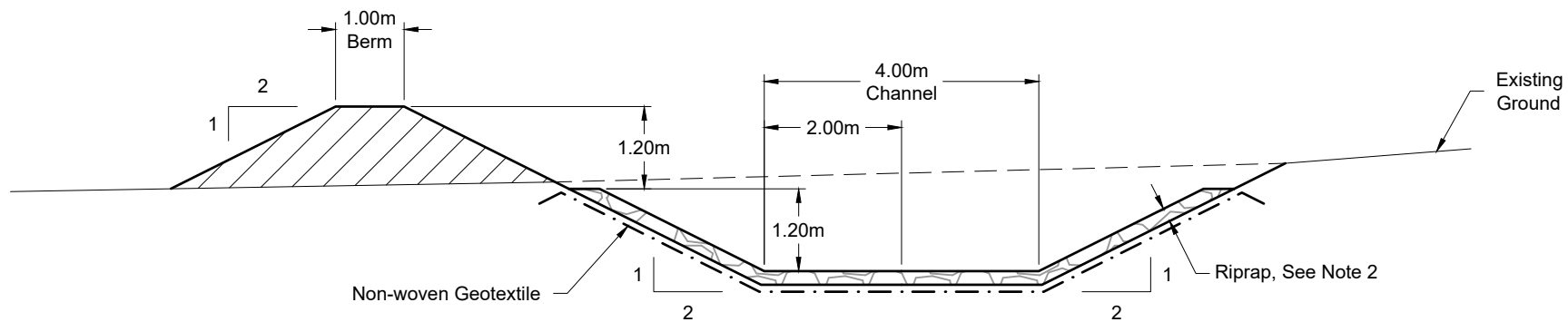
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		Tenas Project Water Management Design		
		Channel C05 Plan and Profile		
SRK JOB NO.: 1CT027.003 FILE NAME: 1CT027.003 Channel C05.dwg	Telkwa Coal Limited	DATE: 2021/07/16	APPROVED: SAB	FIGURE: 22

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Channel and Berm in Fill



Channel in Cut and Berm in Fill

LEGEND

 Engineered Fill

NOTES

1. All dimensions shown in meters unless otherwise stated.
2. Riprap size will vary based on longitudinal slope of channel. For slopes less than 10%, D_{50} of 0.1m can be used with a layer thickness of 0.2m. For slopes $>10\%$, D_{50} of 0.3m will be required with layer thickness of 0.6m
3. Road surfaces to be finished with approved surfacing material.
4. Liner tie-in details as per manufacturer specifications.

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SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Channel C05 Typ Sec.dwg



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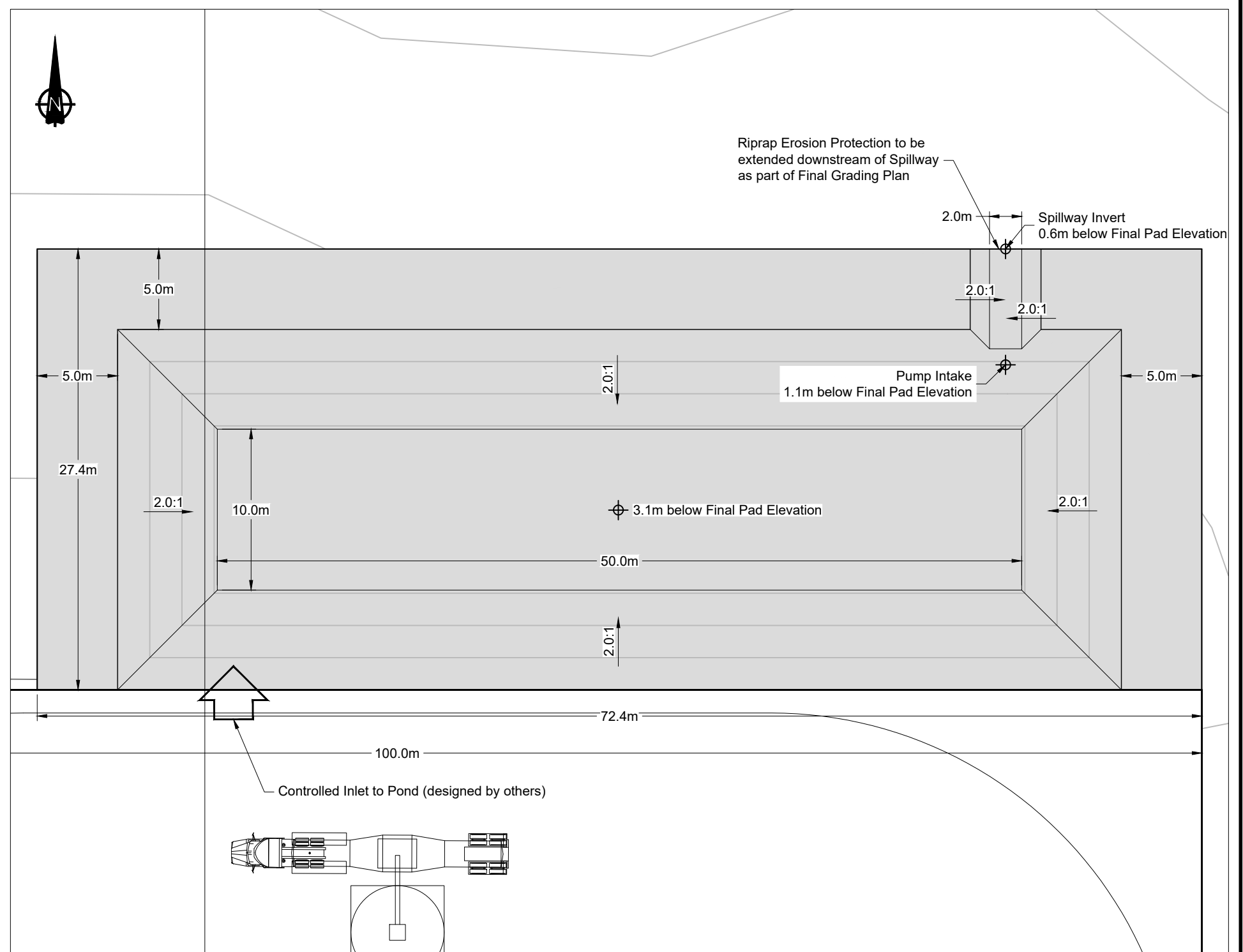
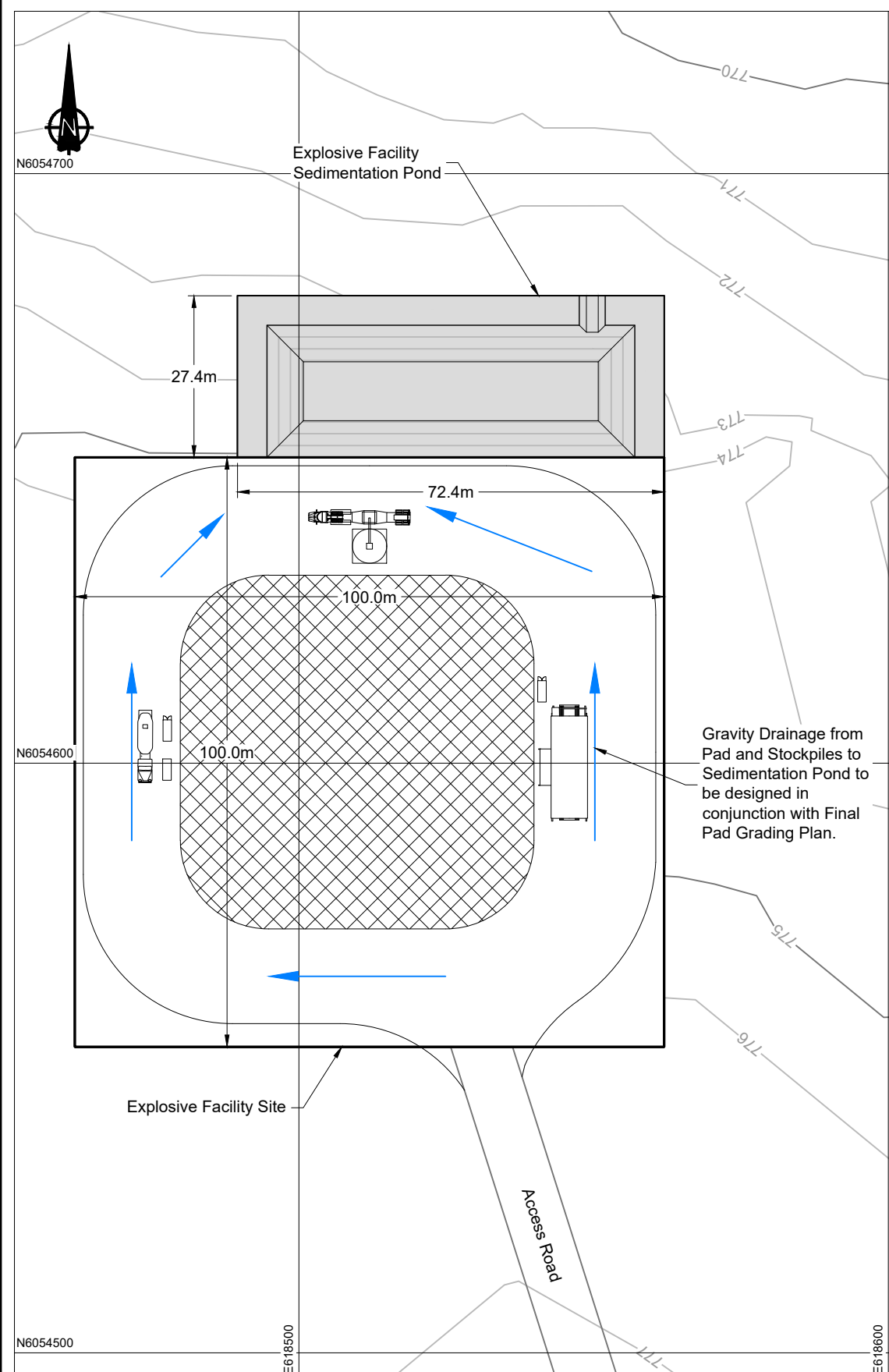
Tenas Project Water Management Design

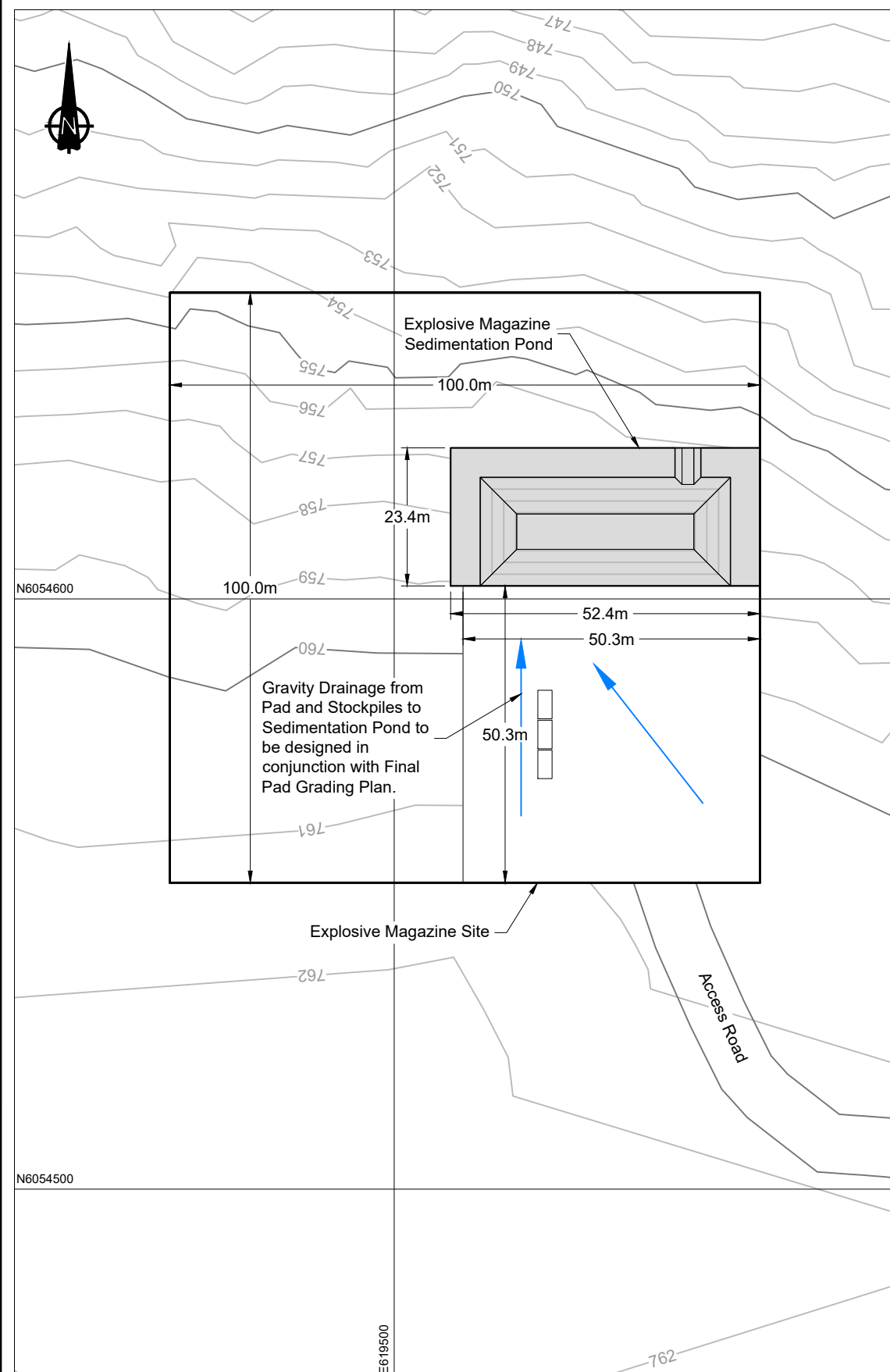
Channel C05
Typical Sections
Riprap Liner

DATE:
2021/07/16

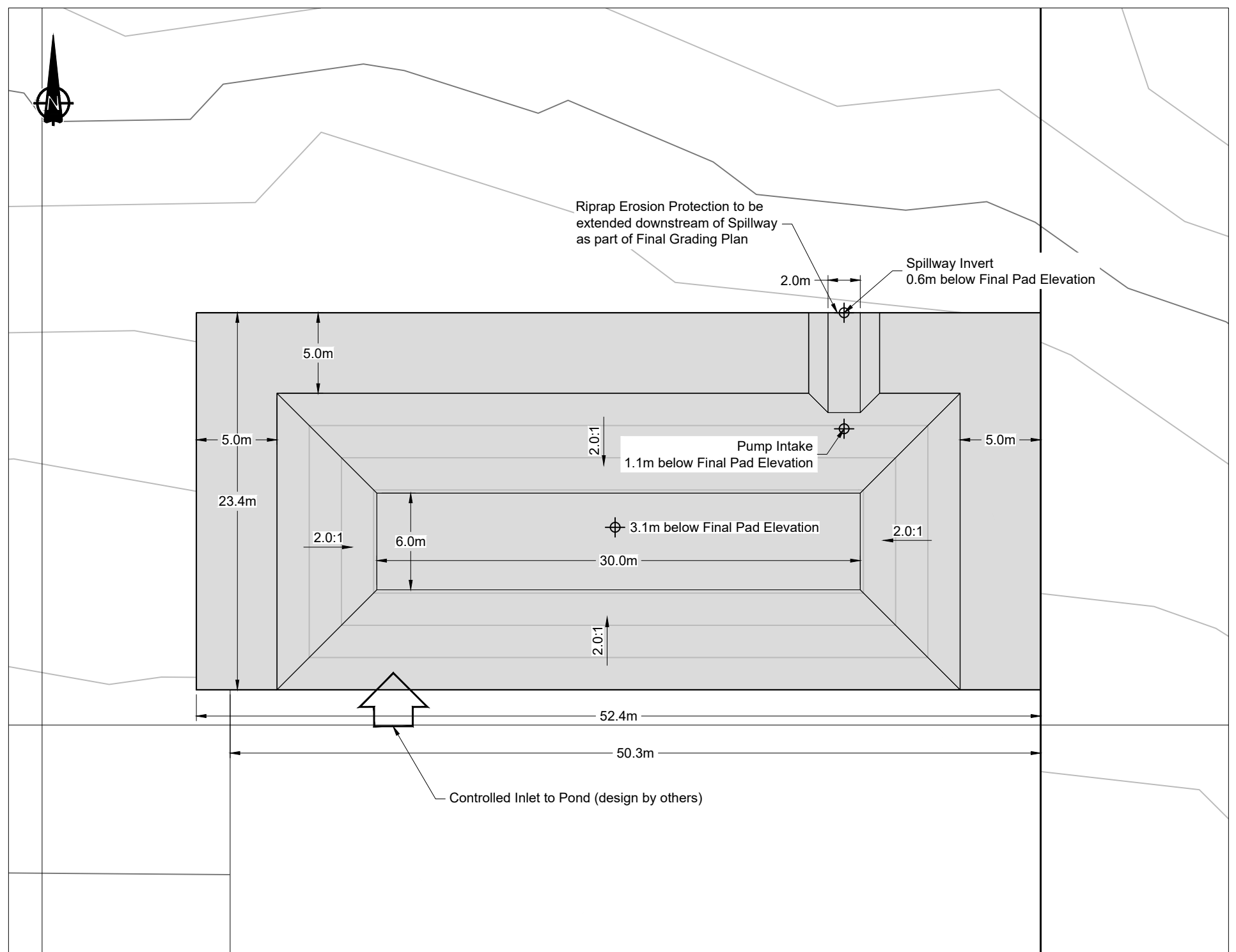
APPROVED:
SAB

FIGURE:
23

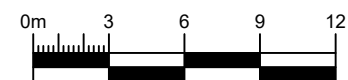




Magazine Storage Site Overview



Explosive Storage Pond Detail



NOTES

1. Contours shown at 1.0m intervals.
2. All dimensions shown in meters unless otherwise stated.
3. Explosive Magazine Site features taken from Drawing 50003 Revision 5 in file "General R5.dwg" created by Orica Mining Services dated 2020/09/29.
4. Final grade of Explosives Storage Area pad is not known. Pond design based on depths relative to final pad elevation.
5. Pond to be unlined to promote infiltration. Coarse gravel layer to be placed across exposed ground to reduce erosion of pond slopes.

REFERENCE

NAD83 UTM Zone 9.



SRK JOB NO.: 1CT027.003

FILE NAME: 1CT027.003 Explosive Sites Ponds.dwg



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Tenas Project Water Management Design

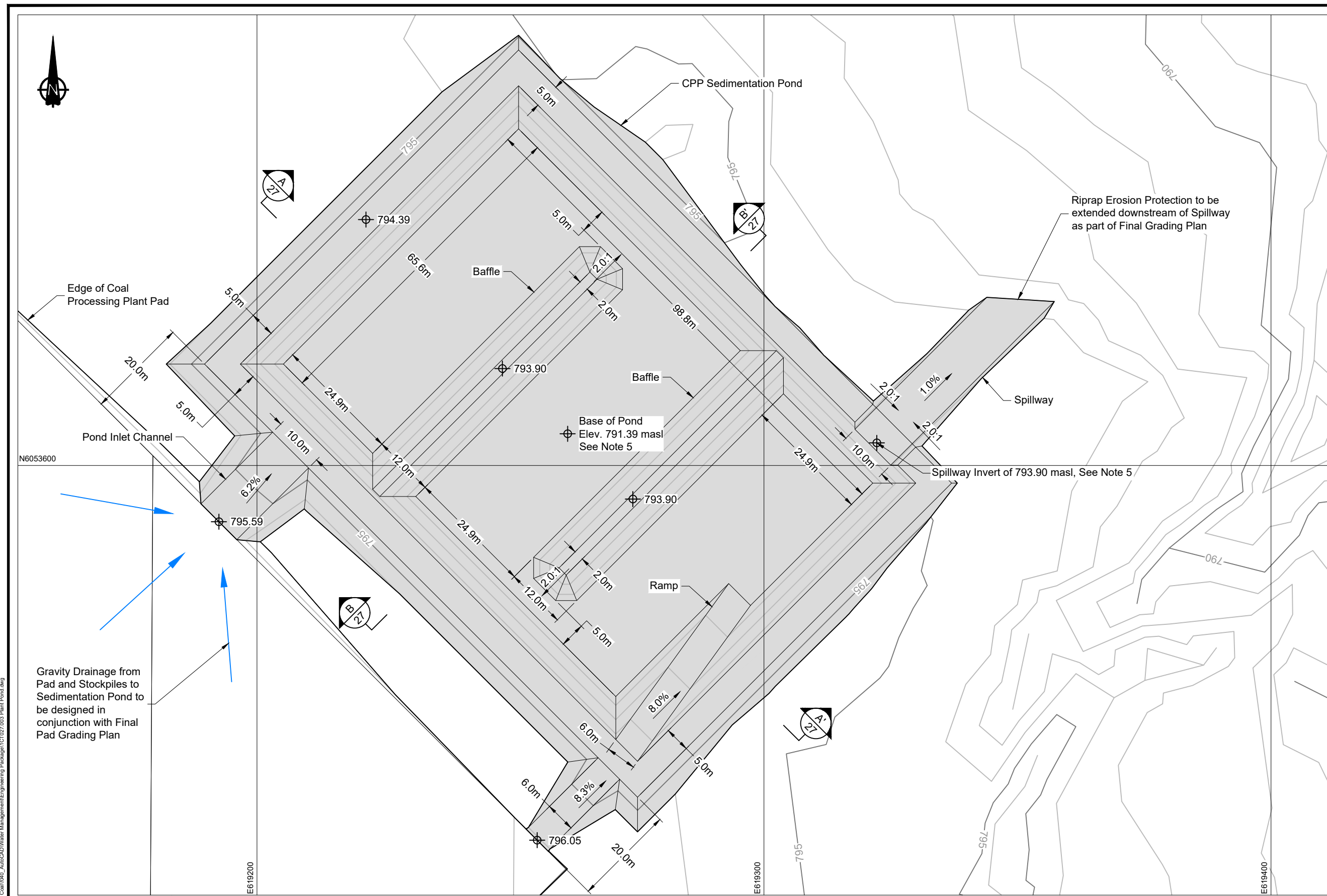
Explosive Magazine
Sedimentation Pond
Plan View

DATE:
2021/07/16

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FIGURE:
25

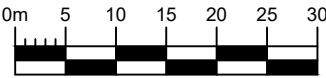
**ISSUED FOR
PERMITTING**



- NOTES**
1. Contours shown at 1.0m intervals.
 2. All dimensions shown in meters unless otherwise stated.
 3. Mine Infrastructure designs by Telkwa Coal Limited (TCL).
 4. Pond to be unlined to promote infiltration. Coarse gravel layer to be placed across exposed ground to reduce erosion of pond slopes.
 5. CPP Sedimentation Pond modeling has been developed based on a pond invert elevation of 791.39 masl and spillway invert of 793.90 masl. Updated designs require a pond invert of 791.09 masl and spillway invert of 793.69 masl, as shown. Elevations shown to be updated in models prior to issuing for construction.

REFERENCE
NAD83 UTM Zone 9.

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SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Plant Pond.dwg



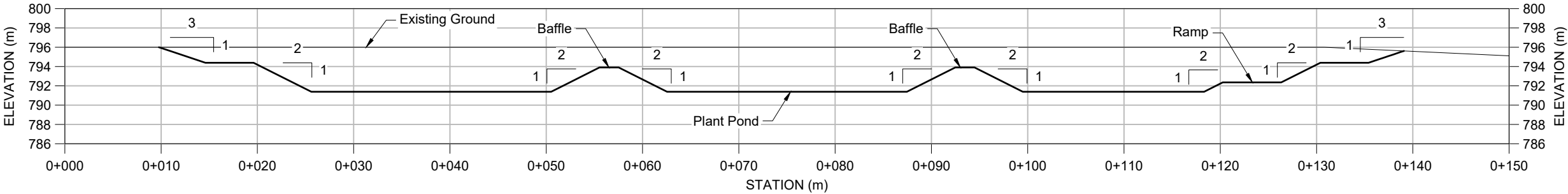
Telkwa Coal Limited

Tenas Project Water Management Design

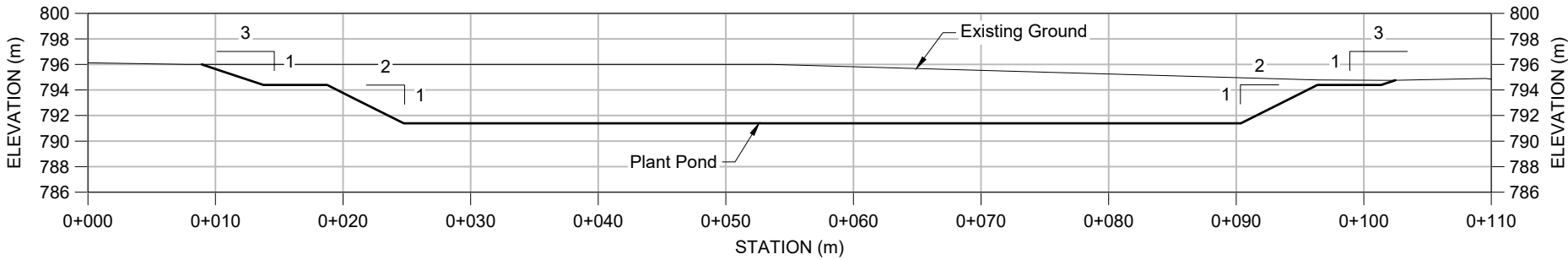
CPP Sedimentation Pond
Plan View

DATE: 2021/07/16	APPROVED: SAB	FIGURE: 26
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- NOTES**
1. All dimensions shown in meters unless otherwise stated.
 2. Pond to be unlined to promote infiltration. Coarse gravel layer to be placed across exposed ground to reduce erosion of pond slopes.

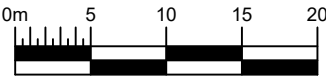


A
26
Section through CPP Sedimentation Pond



B
26
Section through CPP Sedimentation Pond

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Tenas Project Water Management Design

CPP Sedimentation Pond
Section Views

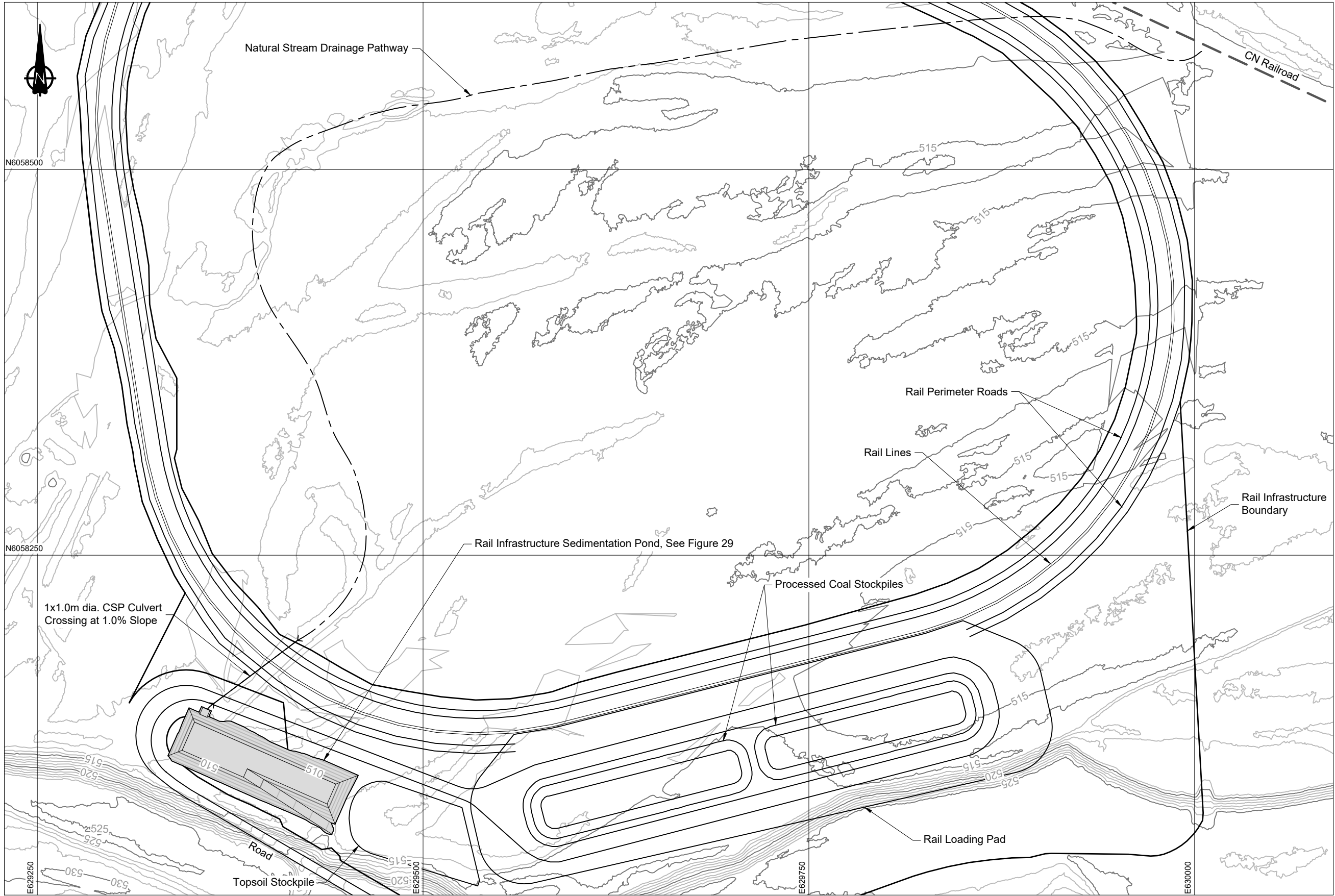
SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Plant Pond.dwg

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FIGURE:
27



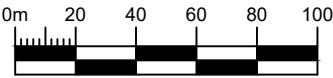
NOTES

1. Contours shown at 1.0m intervals.
2. All dimensions shown in meters unless otherwise stated.
3. Mine Infrastructure designs by Telkwa Coal Limited (TCL).
4. Gravity Drainage from Stockpiles to Sedimentation Pond to be developed in conjunction with Final Grading Plan.

REFERENCE

NAD83 UTM Zone 9.

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PERMITTING**



SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Rail Load Out Pond - Overview.dwg



Telkwa Coal Limited

Tenas Project Water Management Design

Rail Infrastructure
Sedimentation Pond
Overview

DATE: 2021/07/16
APPROVED: SAB
FIGURE: 28

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N6058200



Rail Infrastructure
Area Boundary

1x1.0m dia. CSP Culvert
Crossing at 1.0% Slope

Riprap Apron

Road

Rail Lines

Road

Road

Rail Infrastructure Sedimentation Pond

Rail Loading Pad

Topsoil Stockpile

Road

N6058100

E629300

E629400

E629500

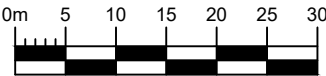
NOTES

1. Contours shown at 1.0m intervals.
2. All dimensions shown in meters unless otherwise stated.
3. Mine Infrastructure designs by Telkwa Coal Limited (TCL).
4. Pond to be unlined to promote infiltration. Coarse gravel layer to be placed across exposed ground to reduce erosion of pond slopes.
5. Gravity Drainage from Stockpiles to Sedimentation Pond to be developed in conjunction with Final Grading Plan.

REFERENCE

NAD83 UTM Zone 9.

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SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Rail Load Out Pond.dwg



Telkwa Coal Limited

Tenas Project Water Management Design

Rail Infrastructure
Sedimentation Pond
Plan View

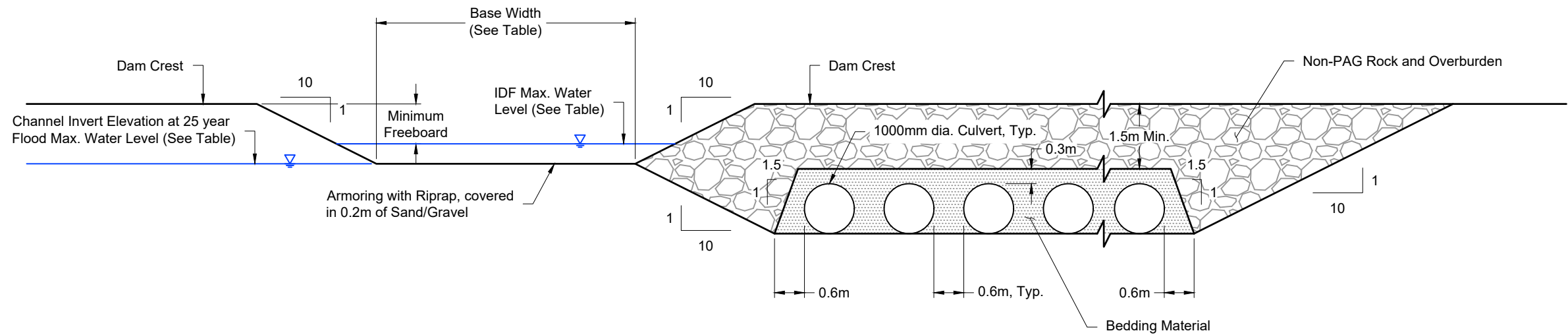
DATE:
2021/07/16

APPROVED:
SAB

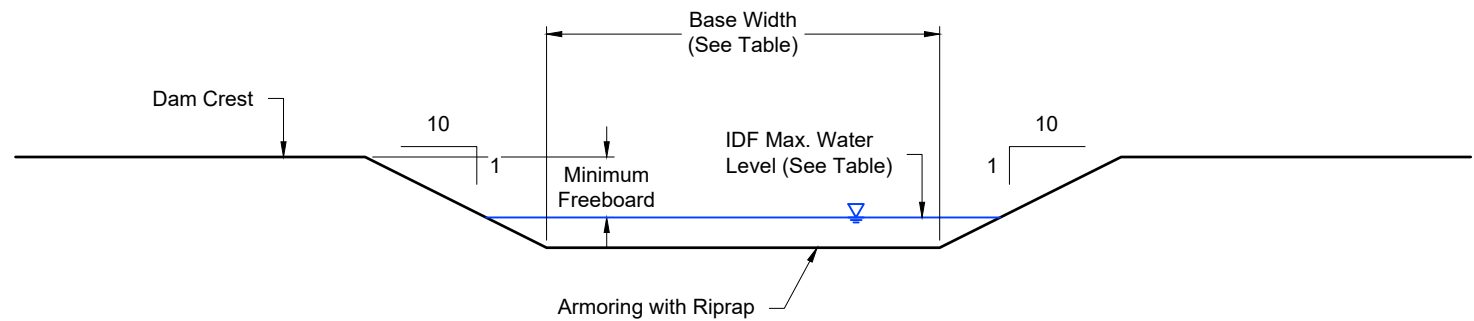
FIGURE:
29

\\ark-adf\share\env\Projects\01_SITES\Telkwa Coal\040_AutoCAD\Water Management\Engineering\Padaga\1CT027.003_Rail Load Out Pond.dwg

\\ark-adf\share\env\Projects\01_SITES\Telkwa Coal\040_AutoCAD\Water Management\Engineering\Padaga\1CT027.003_Spillways.dwg



Spillway during Operation



Spillway at Closure

Pond	Phase	Channel Invert Elevation (masl)	Culvert ID	Culvert Invert Elevation (masl)	Base Width (m)	IDF Max. Water Level (masl)	Spillway Riprap D ₅₀ (m)	Number of 1000mm dia. Culverts	Embankment Channel Riprap D ₅₀ (m)
Tenas Control Pond	Operation	798.0	n.a.	n.a.	30.0	799.0	0.15	n.a.	0.65
East Management Pond	Operation	850.8	CU-03	849.4	26.0	851.2	0.10	14	0.25
	Closure	850.0		n.a.	26.0	850.3	0.10	n.a.	0.25
West Management Pond	Operation	851.0	CU-04	849.4	11.5	851.4	0.10	14	0.25
	Closure	850.0		n.a.	22.5	850.4	0.10	n.a.	0.25
North Management Pond	Operation	828.0	n.a.	n.a.	19.0	828.6	0.10	n.a.	0.40
	Closure	828.0	n.a.	n.a.	25.0	828.5	0.10	n.a.	0.35

NOTES

1. All dimensions shown in meters unless otherwise stated.
2. Minimum Riprap thickness will be 2 x D₅₀.
3. Geotextiles to be included as-needed and will include tie-ins according to manufacturer specifications.

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Not To Scale



SRK JOB NO.: 1CT027.003
FILE NAME: 1CT027.003 Spillways.dwg



Telkwa Coal Limited

Tenas Project Water Management Design

TCP and Management Pond
Emergency Spillways
Typical Sections

DATE:
2021/07/16

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FIGURE:
30