

BRIDGE REHABILITATION

GLACIER NATIONAL PARK, BRITISH COLUMBIA

KM 31.2 TRANS-CANADA HIGHWAY

COUGAR BROOK BRIDGE

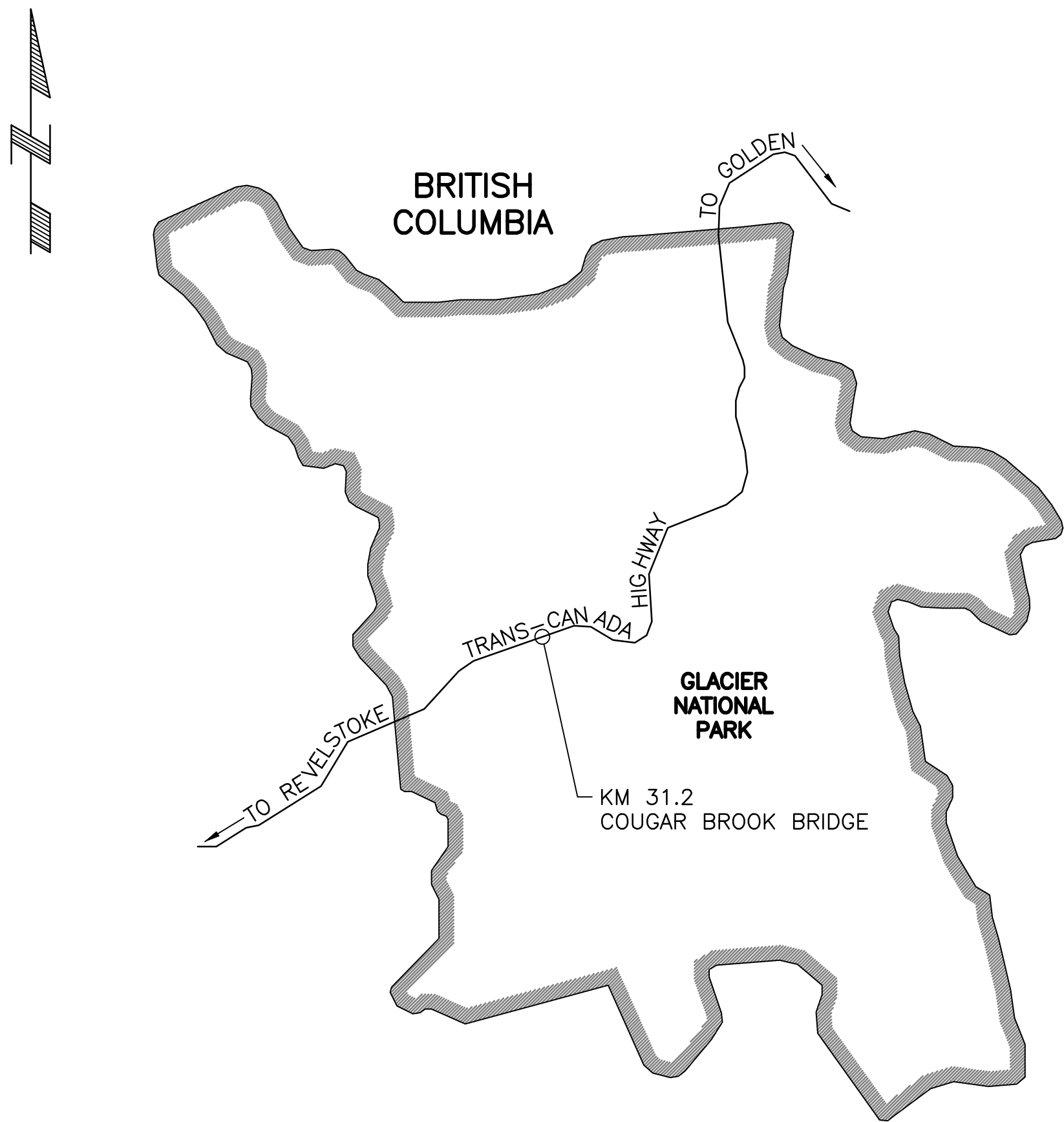
DRAWING LIST:

1080-01-201	COVER SHEET – DRAWING LIST AND LOCATION MAP
1080-01-202	GENERAL ARRANGEMENT – EXISTING CONDITION
1080-01-203	GENERAL ARRANGEMENT – FINAL CONDITION
1080-01-204	ABUTMENT AND APPROACH MODIFICATIONS
1080-01-205	CONCRETE DECK MODIFICATIONS
1080-01-206	SUGGESTED CONSTRUCTION ZONE STAGING AND PARTIAL DEPTH DECK REPAIRS
1080-01-207	CAST-IN-PLACE BARRIER – LAYOUT AND REINFORCEMENT
1080-01-208	BICYCLE RAILING
1080-01-209	PRECAST BARRIERS AND SPILLWAY DETAILS

REFERENCE DRAWINGS

1958 ORIGINAL DESIGN DRAWINGS, COUGAR CREEK BRIDGE
T.C.H. MILE 19.45 (KM 31.5), GLACIER NATIONAL PARK:

1 OF 3	GENERAL LAYOUT
2 OF 3	CONCRETE & REINFORCEMENT DETAILS
3 OF 3	STANDARD HANDRAIL DETAIL



LOCATION MAP

N.T.S.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION



DO NOT SCALE DRAWINGS

A	ISSUED FOR TENDER	20/03/08
Revision/ Révision	Description/Description	Date/Date

Client/client
Parks Canada
Agency
L'Agence Parcs
Canada

COWI

Project title/Titre du projet
BRIDGE REHABILITATION
GLACIER NATIONAL PARK, BRITISH COLUMBIA
KM 31.2 TRANS-CANADA HIGHWAY
COUGAR BROOK BRIDGE

Approved by/Approuvé par
JUGN

Designed by/Concepté par
TWB

Drawn by/Dessiné par
MACM

PWGSC Project Manager/Administrateur de Projets TPSGC

PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSGC

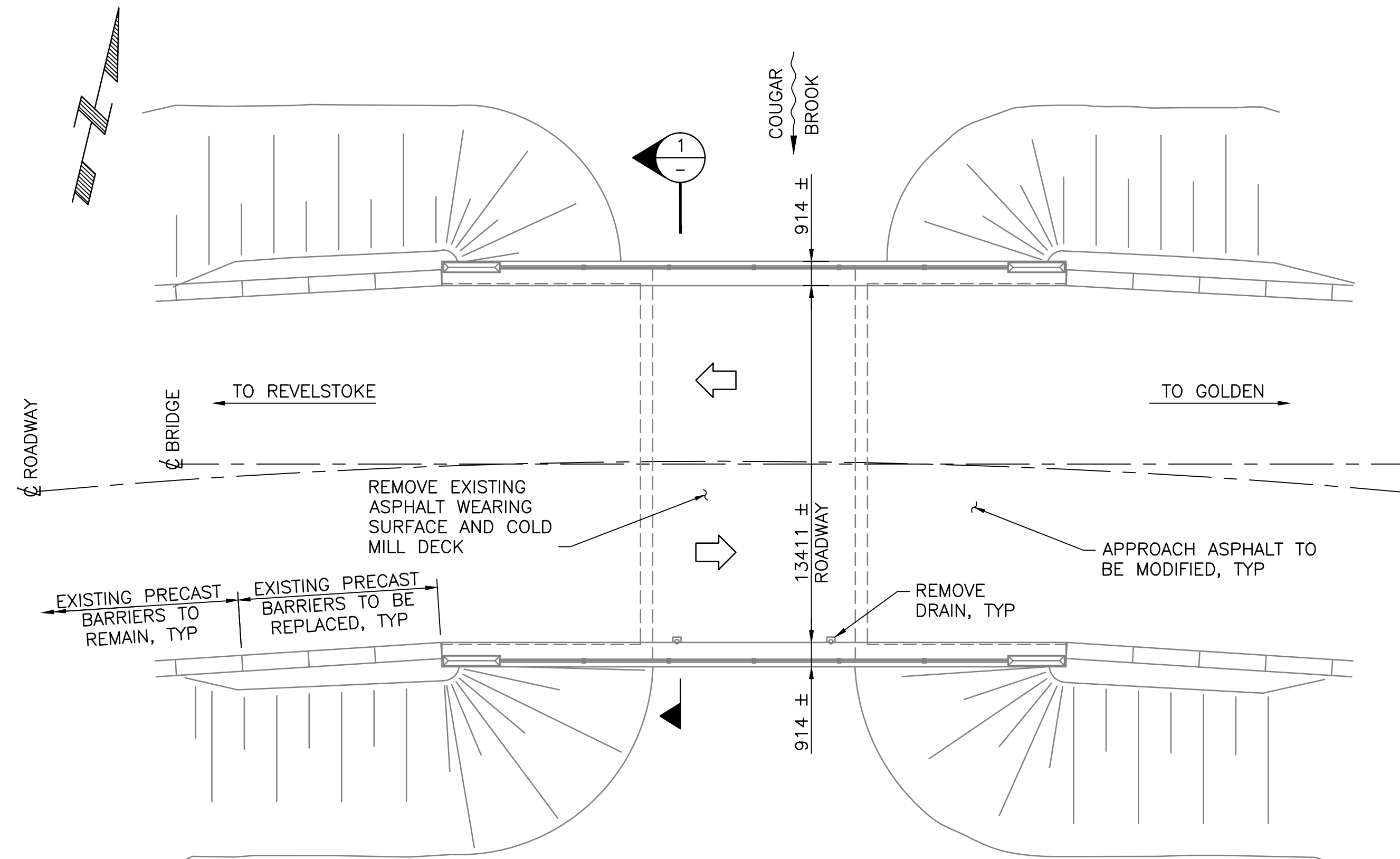
Client/client
PCA

Drawing title/Titre du dessin

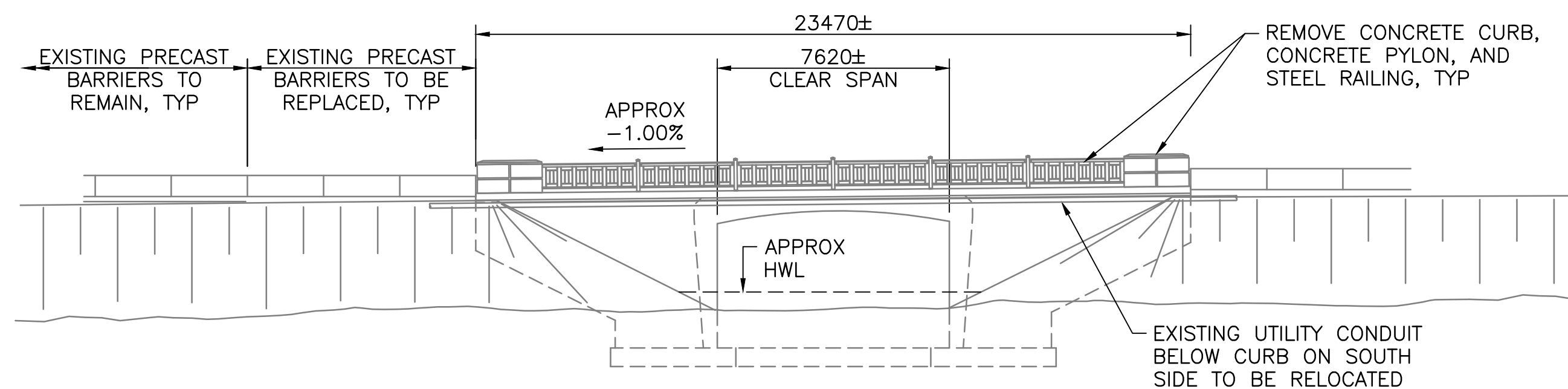
COVER SHEET
DRAWING LIST AND
LOCATION MAP

Project No./No. du projet 1080-01	Sheet/Feuille 201 OF	Revision no./ La Révision no. A
---	----------------------------	--

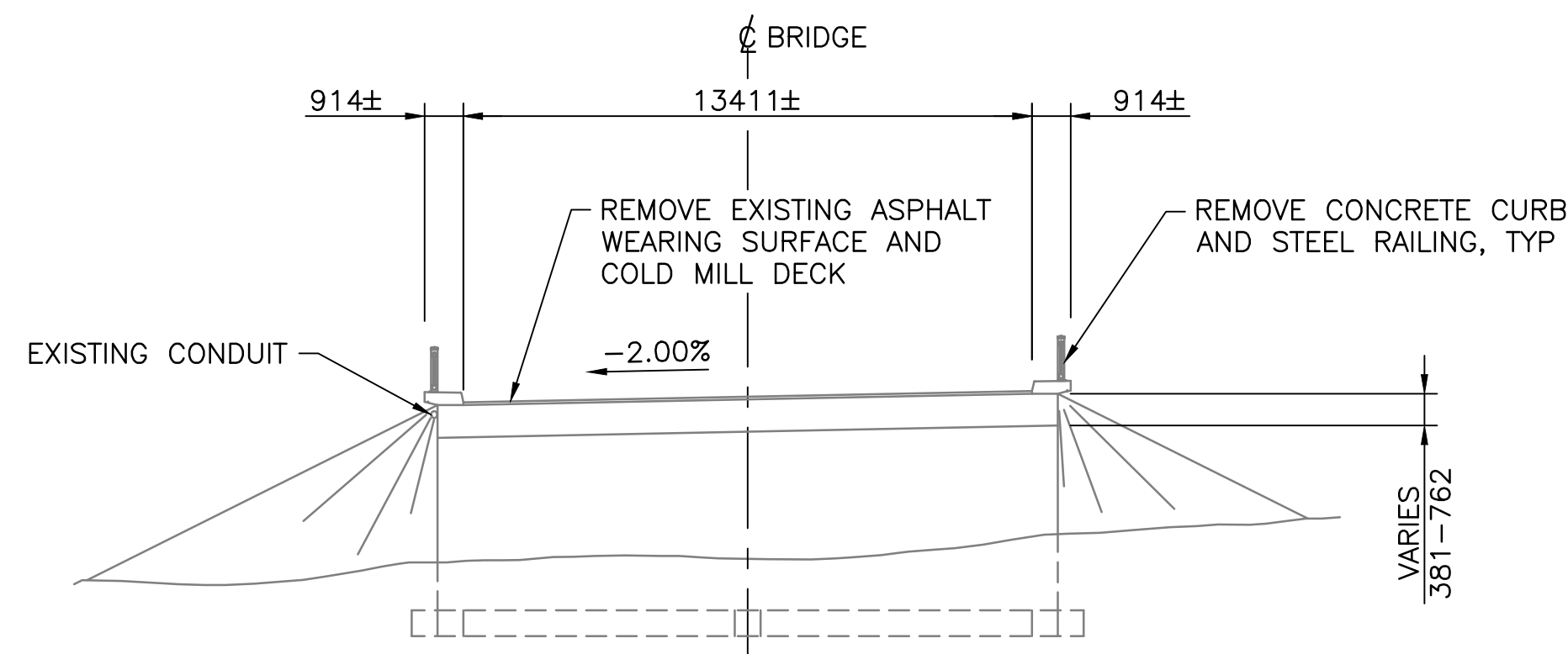
G:\1945\02-Drawings\1080-01-200 (G.C. TOH_31.2 Cougar Brook Bridge)\02-Drawings\1080-01-202.dwg 3/6/2020 11:43:37 AM by Mara Conan



PLAN
1:150



ELEVATION
1:150



SECTION 1
1:150

NOTE: WEST ABUTMENT SHOWN,
EAST ABUTMENT SIMILAR.

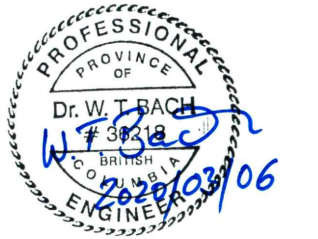
SCOPE OF WORK:

- CONSTRUCTION TO BE COMPLETED IN THREE STAGES.
- TEMPORARILY RELOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION IN ACCORDANCE WITH SPECIFICATIONS.
- REMOVE AND DISPOSE OF ASPHALT WEARING SURFACE.
- REMOVE AND DISPOSE OF EXISTING CONCRETE CURB, CONCRETE PYLON AND STEEL RAILING.
- COLD MILLING OF CONCRETE DECK. CONCRETE REMOVAL AT TOP OF WINGWALLS.
- PARTIAL DEPTH DECK CONCRETE REPAIRS WHEN AUTHORIZED BY DEPARTMENTAL REPRESENTATIVE.
- REMOVE DECK DRAINS.
- SUPPLY AND CONSTRUCTION OF NEW REINFORCED CONCRETE OVERLAY AND WINGWALL TOPPINGS.
- SUPPLY AND CONSTRUCTION OF NEW CAST-IN-PLACE CONCRETE BARRIERS.
- FABRICATE, SUPPLY AND INSTALL NEW BICYCLE RAILING AND CONNECTION BRACKETS.
- MODIFY APPROACH PAVEMENT (INCLUDING ASPHALT MILLING AND NEW ASPHALT).
- SUPPLY AND INSTALL NEW PRECAST TRANSITION BARRIERS, INCLUDING CUSTOM PRECAST BARRIERS.
- INSTALLATION OF NEW SPILLWAYS (DRAINAGE FLUMES)
- APPLY LANE MARKINGS ON NEW FINISHED ROAD SURFACE.
- SUPPLY AND INSTALL NEW DRIP STOPS AT DECK SOFFIT.

NOTES:

- DIMENSIONS PROVIDED FOR REFERENCE ONLY, CONTRACTOR TO VERIFY ACCURACY OF SUCH INFORMATION BY FIELD MEASUREMENTS.
- ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION



DO NOT SCALE DRAWINGS

PA	ISSUED FOR TENDER	20/03/08
Revision/	Description/Description	Date/Date

Client/client	Parks Canada Agency	L'Agence Parcs Canada
---------------	------------------------	--------------------------

COWI

Project title/Titre du projet
**BRIDGE REHABILITATION
GLACIER NATIONAL PARK, BRITISH COLUMBIA**
**KM 31.2 TRANS-CANADA HIGHWAY
COUGAR BROOK BRIDGE**

Approved by/Approuvé par
JUGN

Designed by/Conçu par
TWB

Drawn by/Dessiné par
MICH

PWOSC Project Manager/Administrateur de Projets TPSCG

PWOSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSCG

Client/client
PCA


Drawing title/Titre du dessin

GENERAL ARRANGEMENT
EXISTING CONDITION

Project No./No. du projet 1080-01	Sheet/Feuille 202 OF	Revision no./ La Révision no. A
---	----------------------------	--

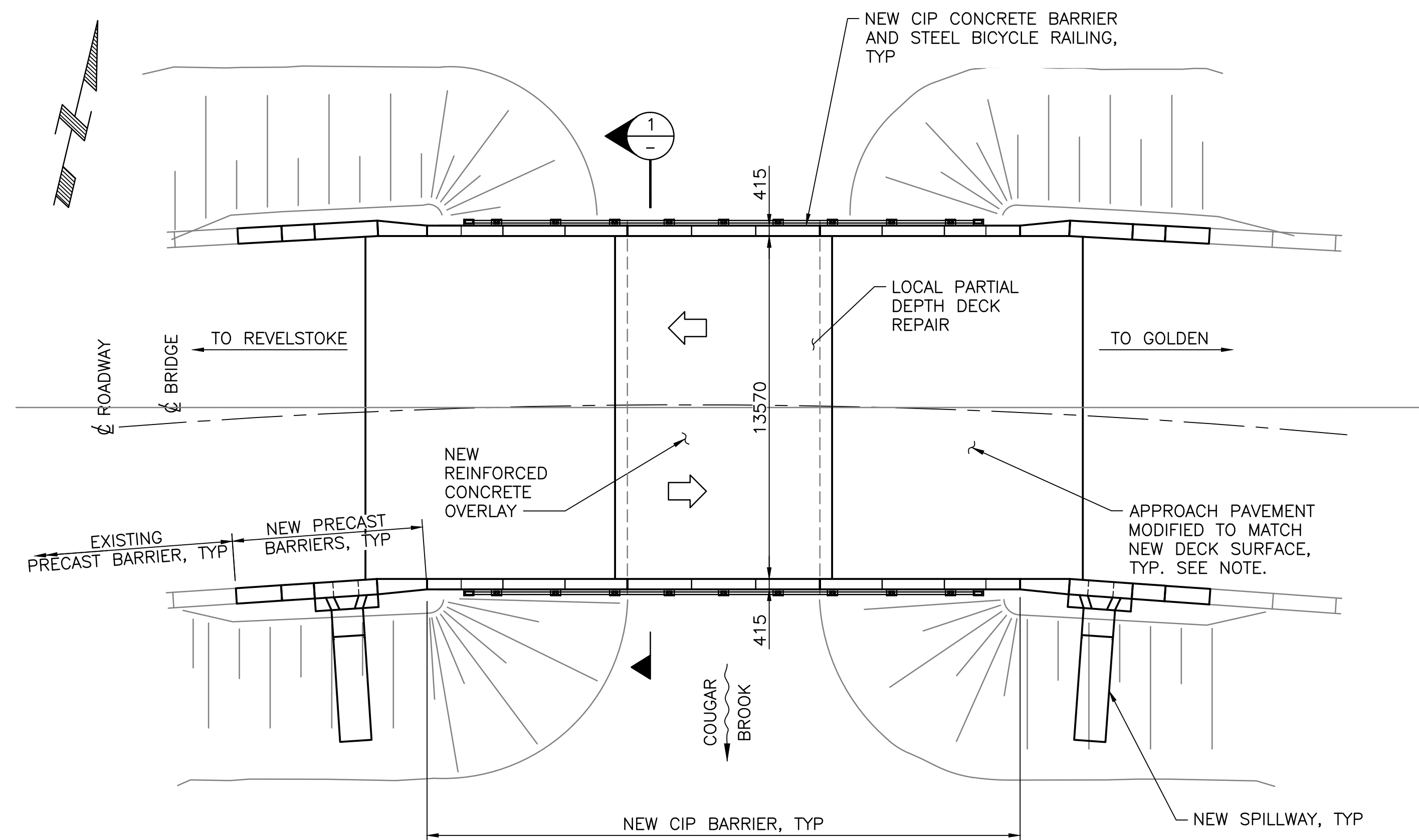
ISSUED FOR TENDER
NOT FOR CONSTRUCTION



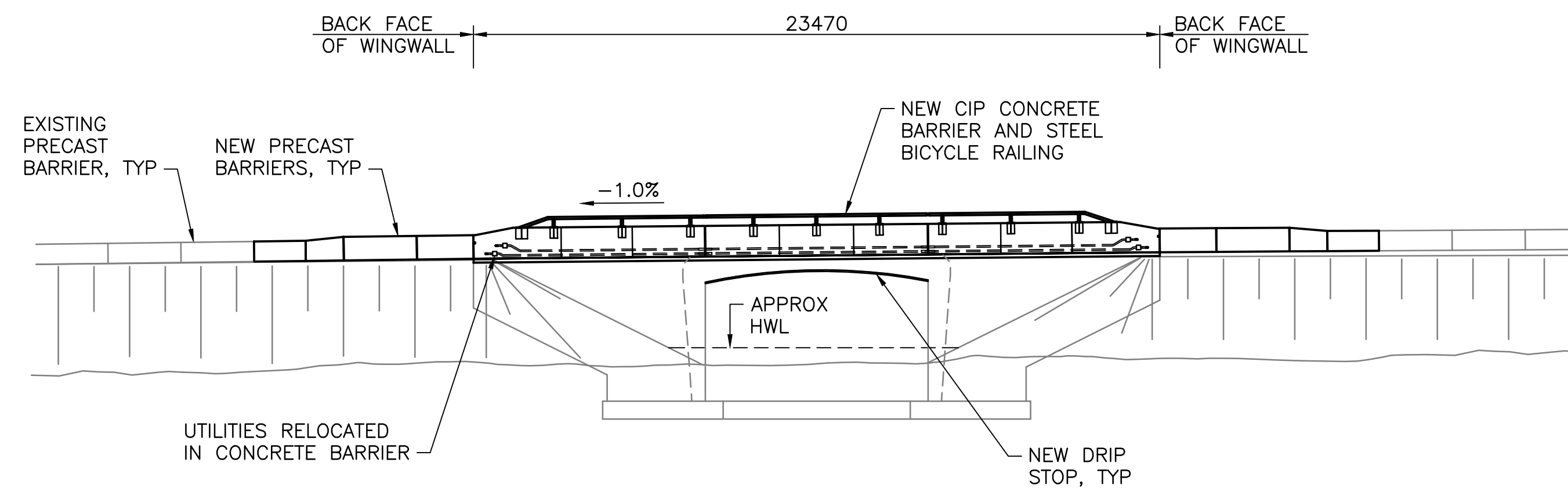
Client/client	
	<div>Parks Canada Agency</div> <div>L'Agence Parcs Canada</div>



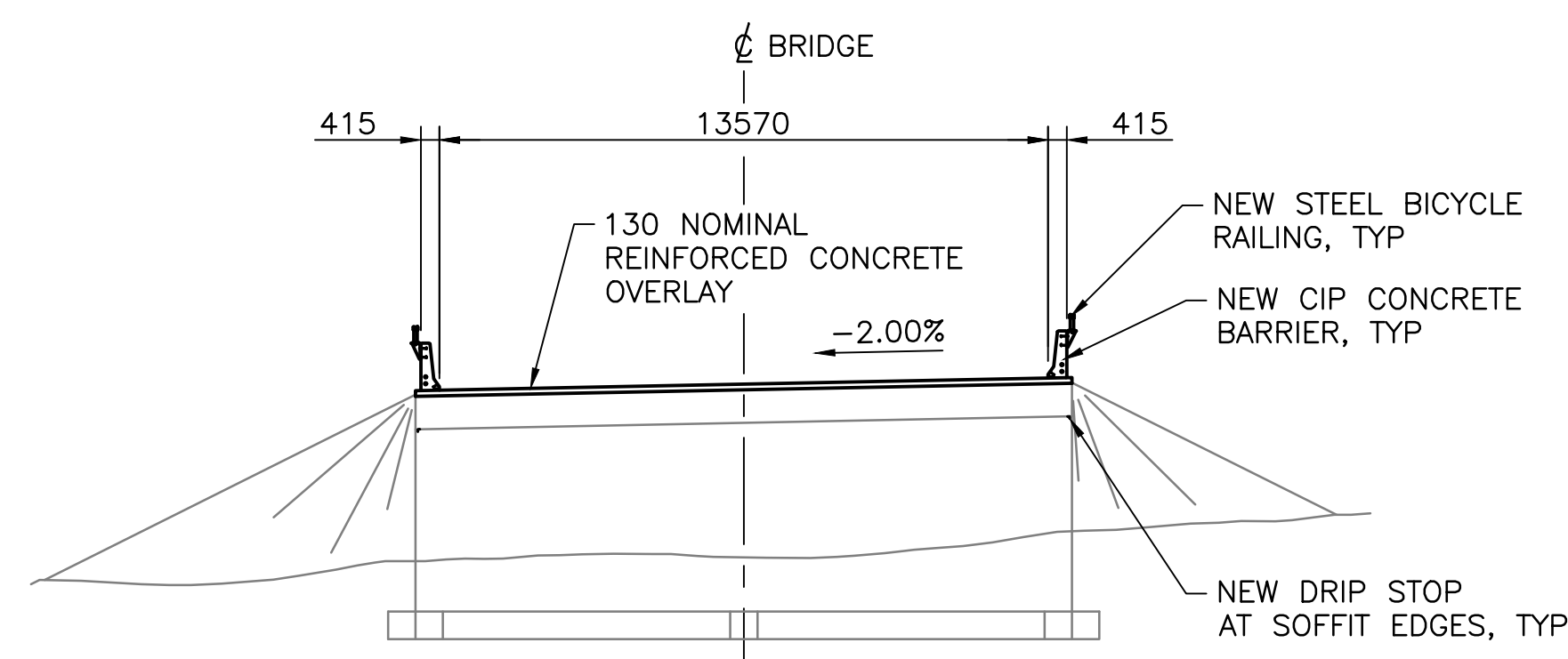
Project No./No. du projet 1080-01	Sheet/Feuille 203 OF	Revision no. La Révision no. A
---	---------------------------------------	---



PLAN
1:150



ELEVATION
1:150

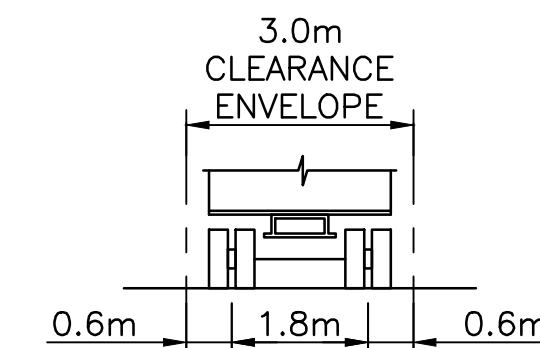
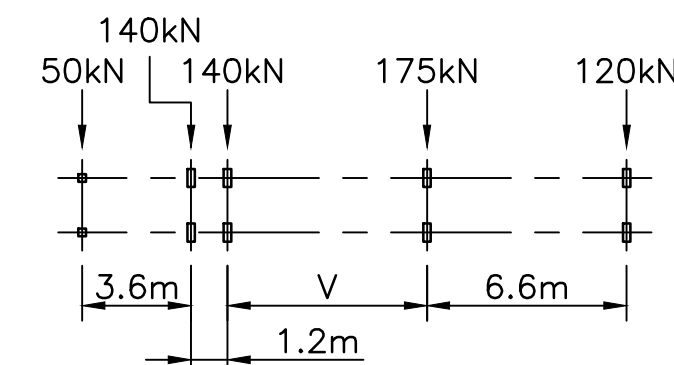


SECTION 1
1:150

NOTE: WEST ABUTMENT SHOWN,
EAST ABUTMENT SIMILAR.

NOTE: THE GRADE AND CROSS SLOPE OF THE COMPLETED DECK SHALL BE TRANSITIONED TO THE GRADE AND CROSS SLOPE OF THE EXISTING APPROACH ROADWAY OVER A DISTANCE OF AT LEAST 8m PAST THE DECK AT EACH END OF THE COMPLETED BRIDGE STRUCTURE. THE TRANSITION SHALL BE DONE BY PARTIAL DEPTH MILLING OF THE EXISTING PAVEMENT AND PLACING AN ASPHALT LAYER OF NO LESS THAN 50mm THICKNESS.

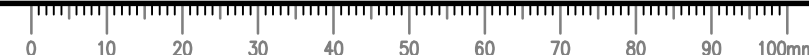
— VEHICLE LOADING: BCL-625



V = VARIABLE SPACING - 6.6m TO 18m INCLUSIVE. SPACING TO BE USED IS THAT WHICH PRODUCES MAXIMUM STRESSES.

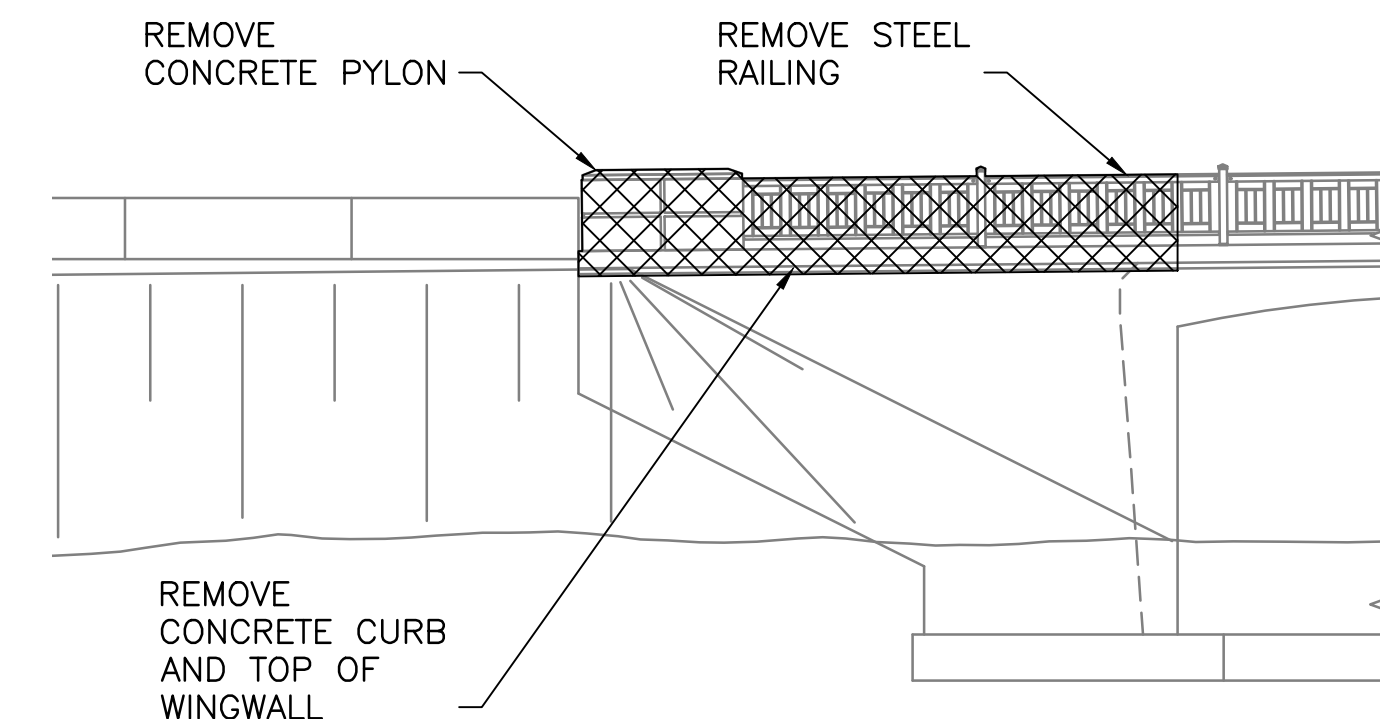
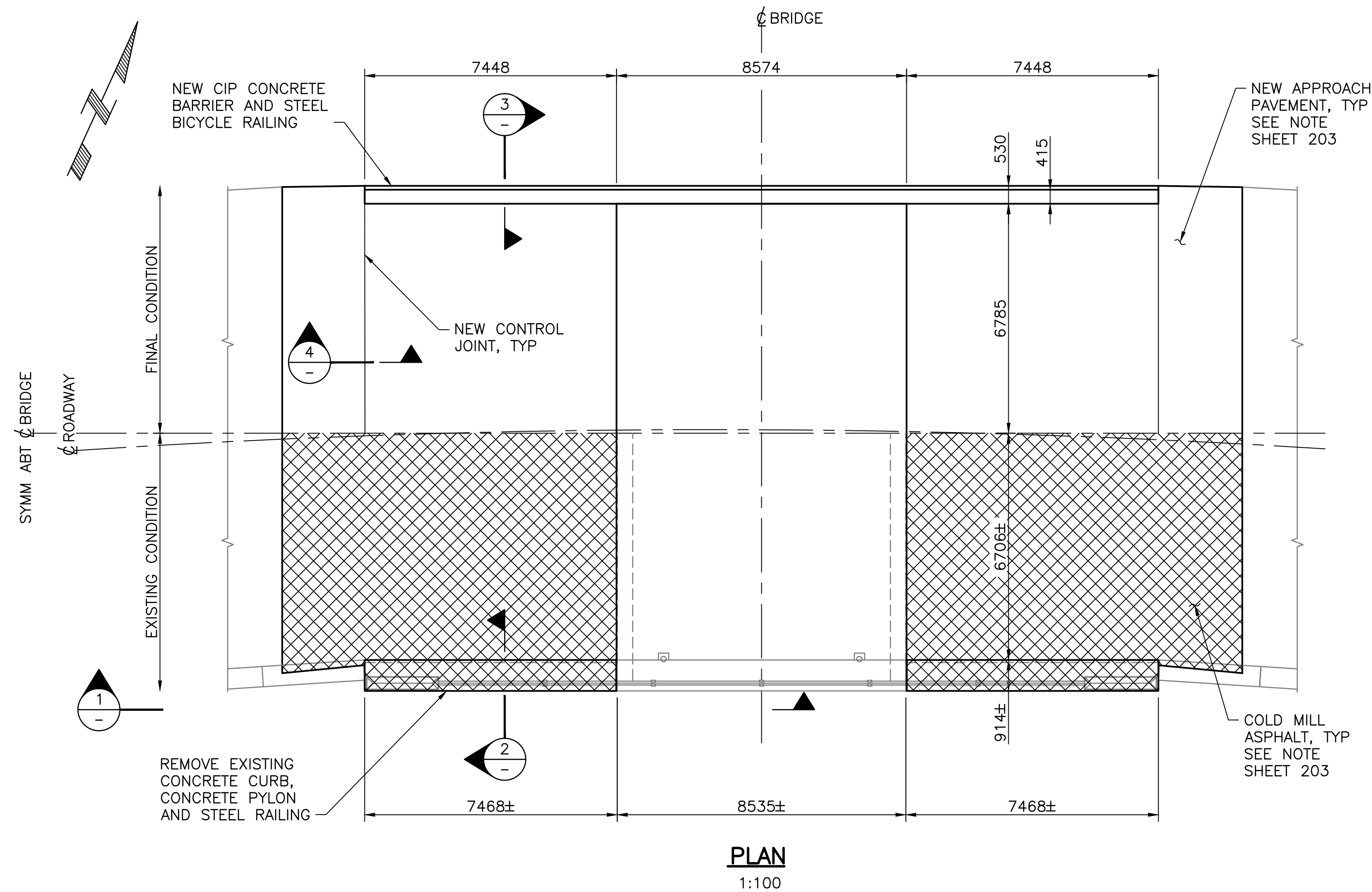
LANE LOADING AND DYNAMIC LOAD ALLOWANCE
AS PER CAN/CSA S6-14.

3.3 TRAFFIC BARRIER: TL-4 (ON BRIDGE DECK ONLY).
TRAFFIC BARRIER NOT RATED ON WING WALLS.

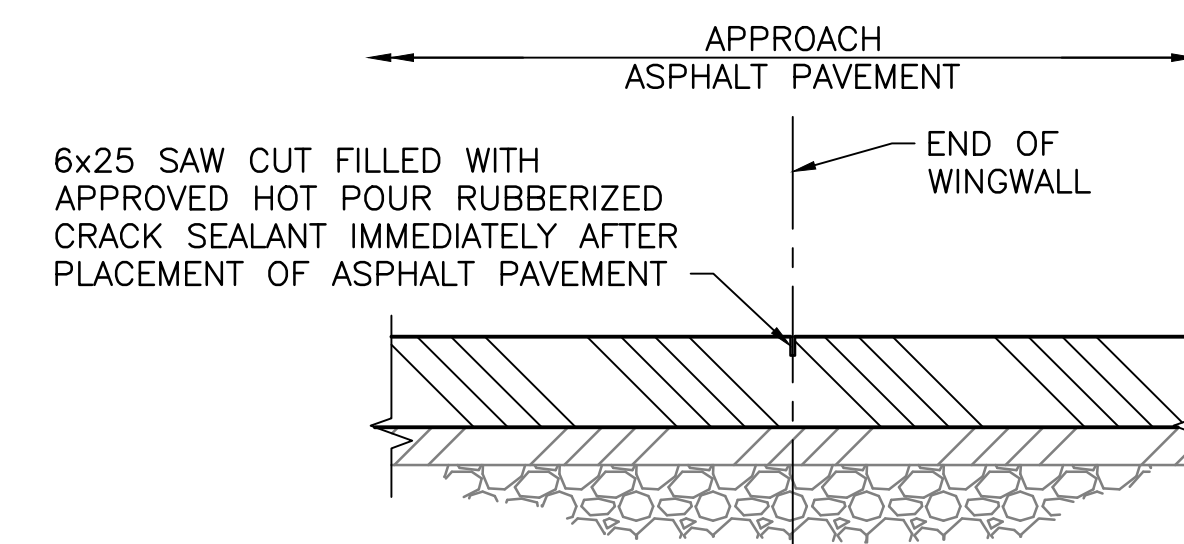


G:\1945\02-Drawings\1080-01-200 (G.C. TOH_31.2 Cougar Brook Bridge)\02-Drawings\1080-01-204.dwg 3/6/2020 11:42:40 AM by Mara Coman

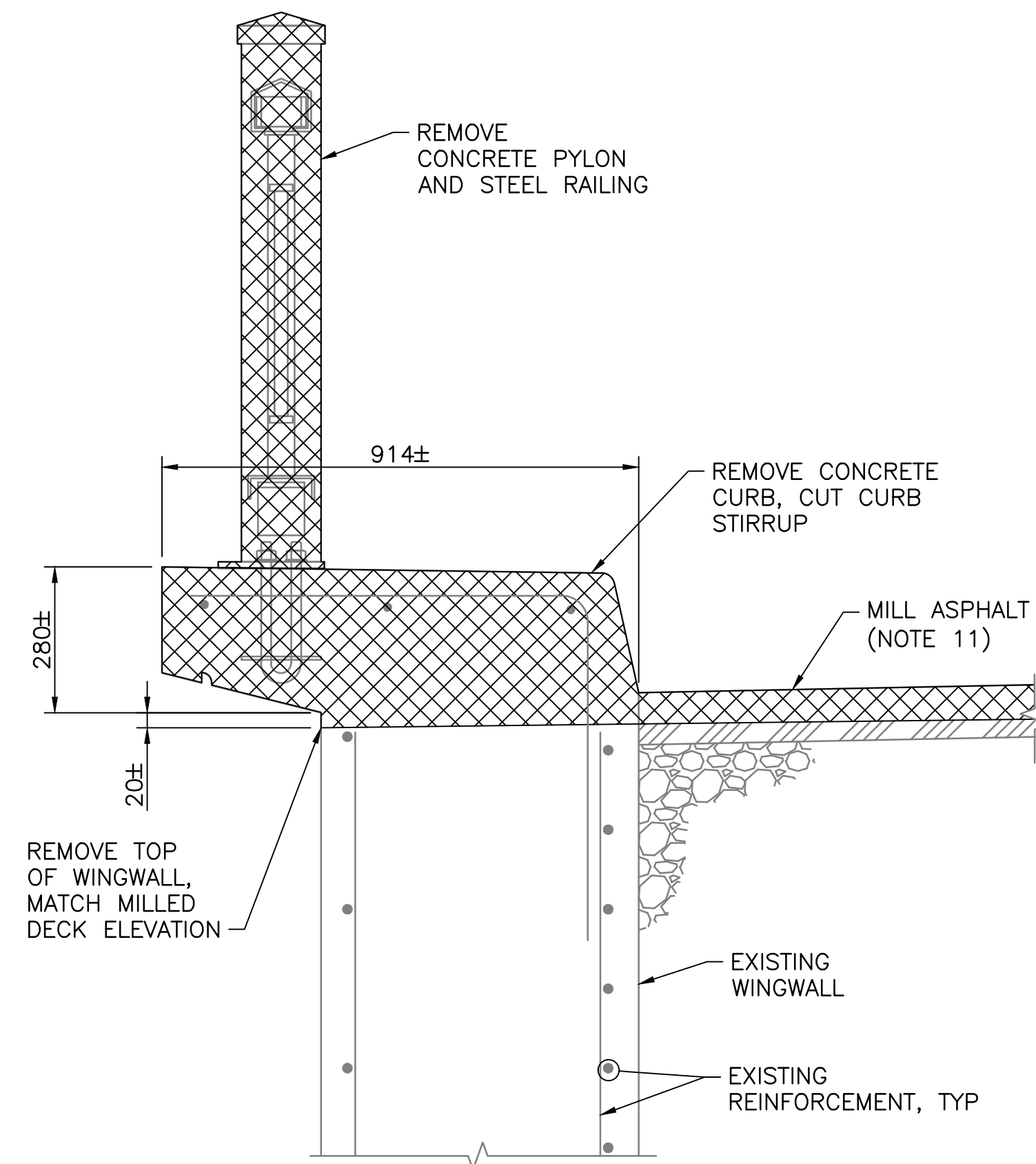
PWGC - A1 - 841X594



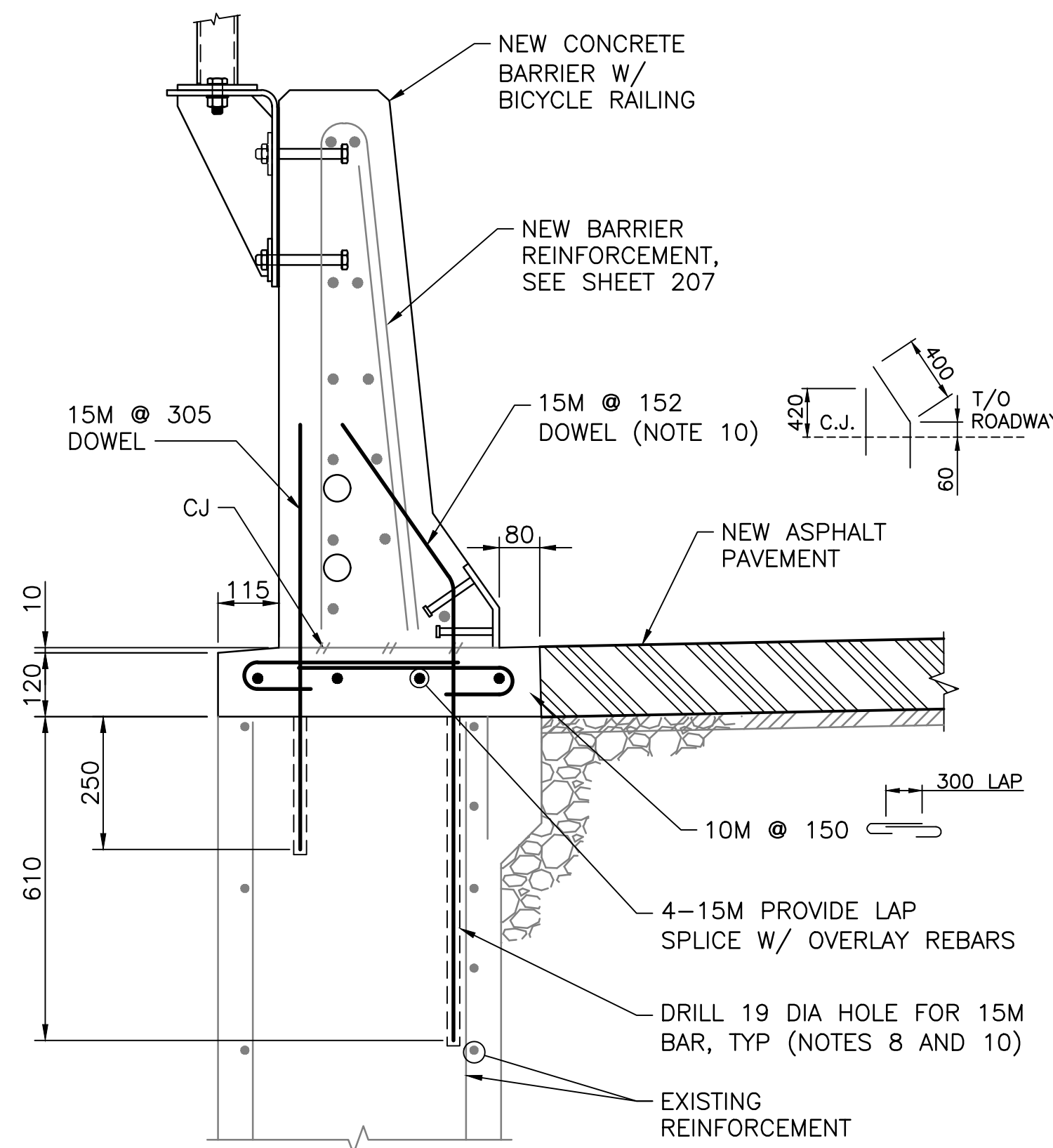
VIEW
1:100



CONTROL JOINT
SECTION 4
1:10



EXISTING CONDITION
SECTION 2
1:10



FINAL CONDITION
SECTION 3
1:10

LEGEND:
- REMOVALS

NOTES:

1. ABUTMENT AND APPROACH MODIFICATIONS TO OCCUR IN THREE STAGES IN ACCORDANCE WITH SPECIFICATIONS.
2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE: 45 MPa AT 28 DAYS.
3. CHAMFER EXPOSED EDGES 20.
4. REINFORCING STEEL: CAN/CSA G30.18M GRADE 400W.
5. MINIMUM COVER: 50 UNO.
6. MINIMUM LAP: 500 UNO.
7. SAWCUT 25 DEPTH ALONG EDGE OF CONCRETE REMOVALS.
8. DOWELS TO BE ANCHORED WITH HILTI HIT-HY200 OR APPROVED EQUIVALENT. HOLES TO BE HAMMER DRILLED.
9. CONSTRUCTION JOINTS TO BE CLEAN, FREE OF LAITANCE AND ROUGHENED TO A FULL AMPLITUDE OF ABOUT 5mm.
10. PLACE DOWELS IN-PLANE OF EXISTING VERTICAL BARS AT A MAXIMUM DISTANCE OF 80 mm C/C. DO NOT DAMAGE EXISTING BARS.
11. LOCAL FULL DEPTH ASPHALT REMOVALS ADJACENT TO WING WALL AS REQUIRED TO COMPLETE WING WALL MODIFICATIONS NOT SHOWN. ADDITIONAL ASPHALT REMOVALS BEYOND THAT SHOWN TO BE REPLACED IN KIND.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION



DO NOT SCALE DRAWINGS

Revision/ Révision	Description/ Description	Date/ Date
A	ISSUED FOR TENDER	20/03/06

Client/ client	Parks Canada Agency	L'Agence Parcs Canada
----------------	---------------------	-----------------------

COWI

Project title/ Titre du projet
BRIDGE REHABILITATION
GLACIER NATIONAL PARK, BRITISH COLUMBIA

KM 31.2 TRANS-CANADA HIGHWAY
COUGAR BROOK BRIDGE

Approved by/ Approuvé par
JUGN

Designed by/ Conçue par
TWB

Drawn by/ Dessiné par
MACM

PWGC Project Manager/ Administrateur de Projets TPSCG

PWGC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSCG

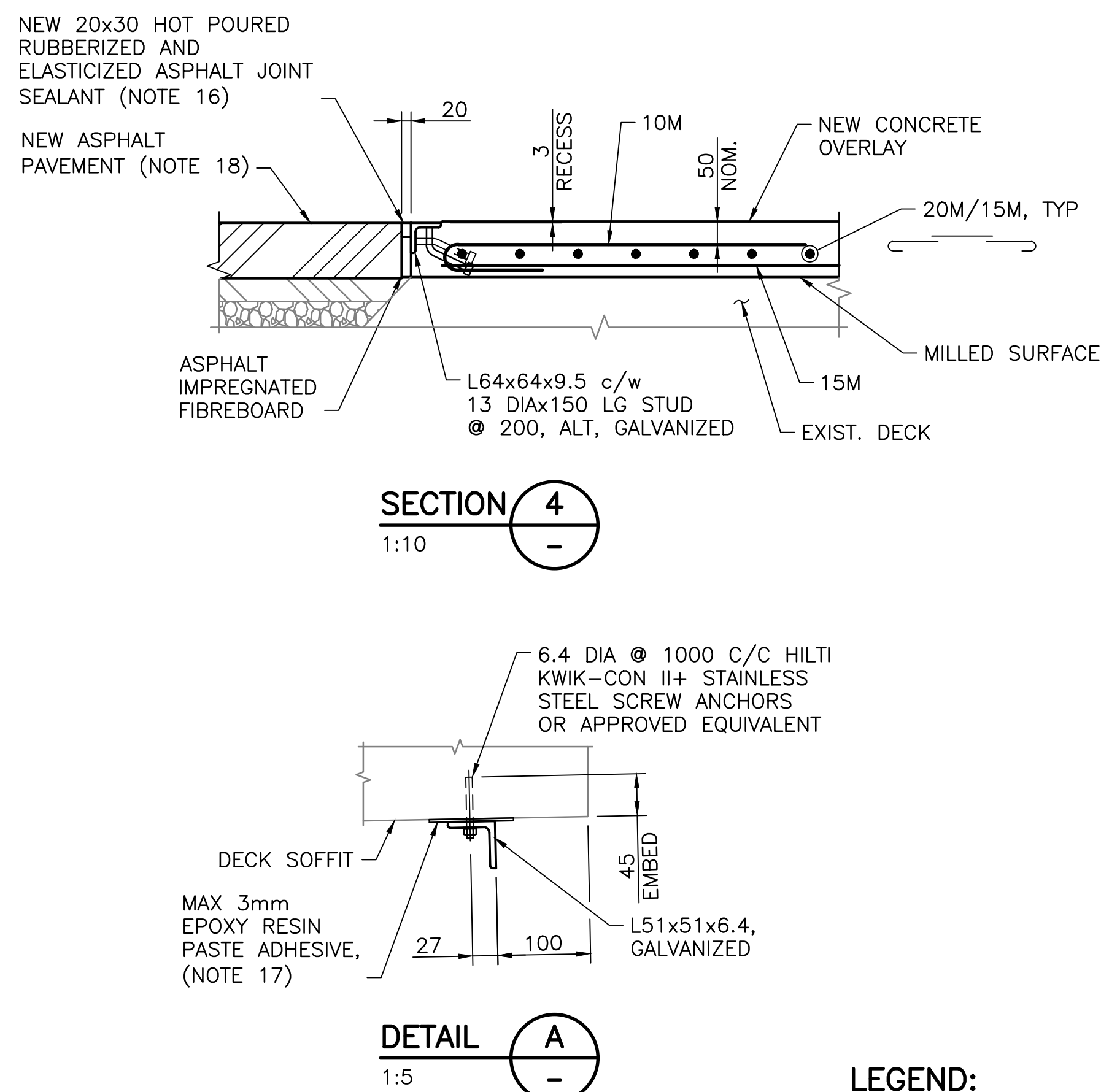
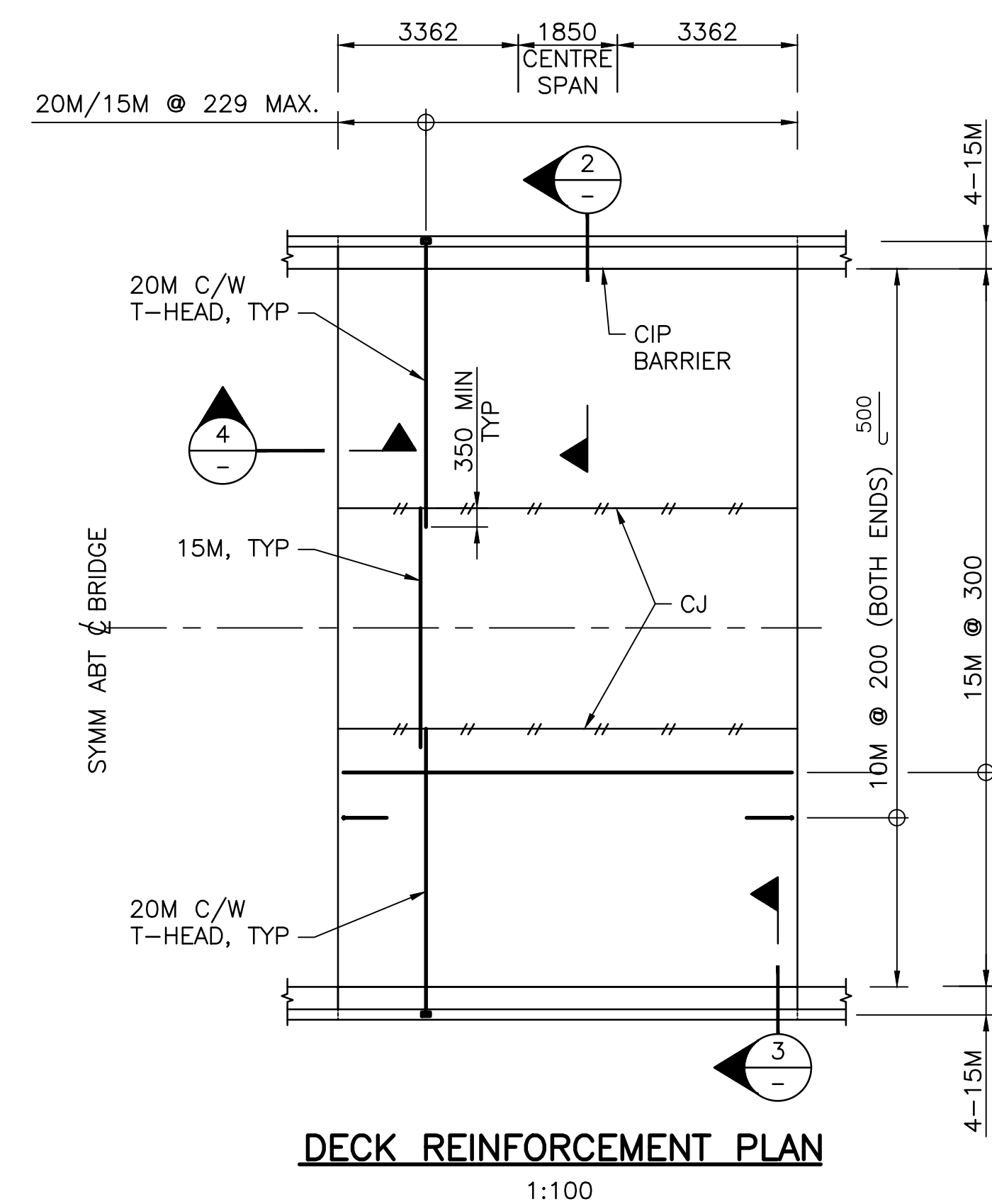
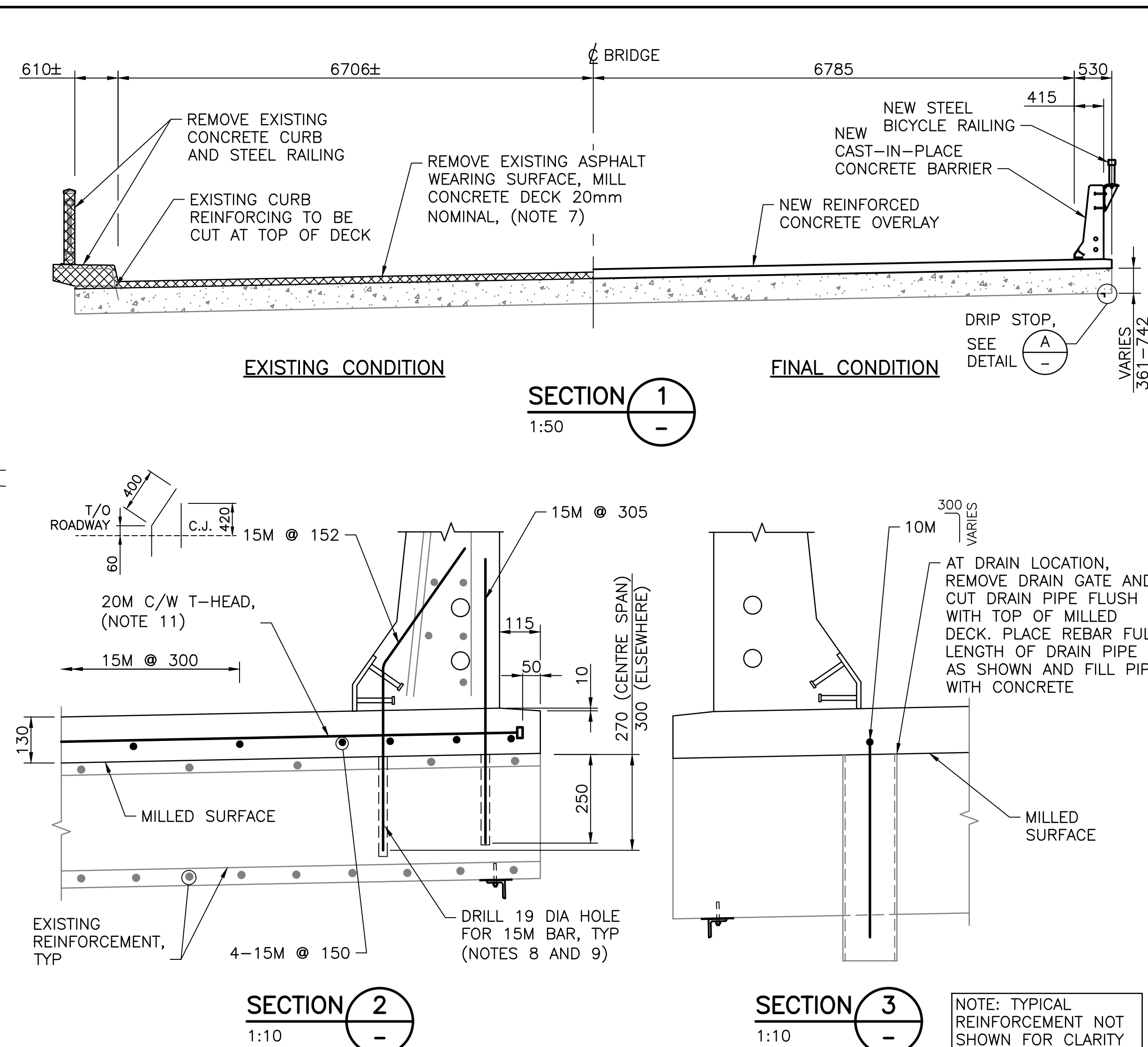
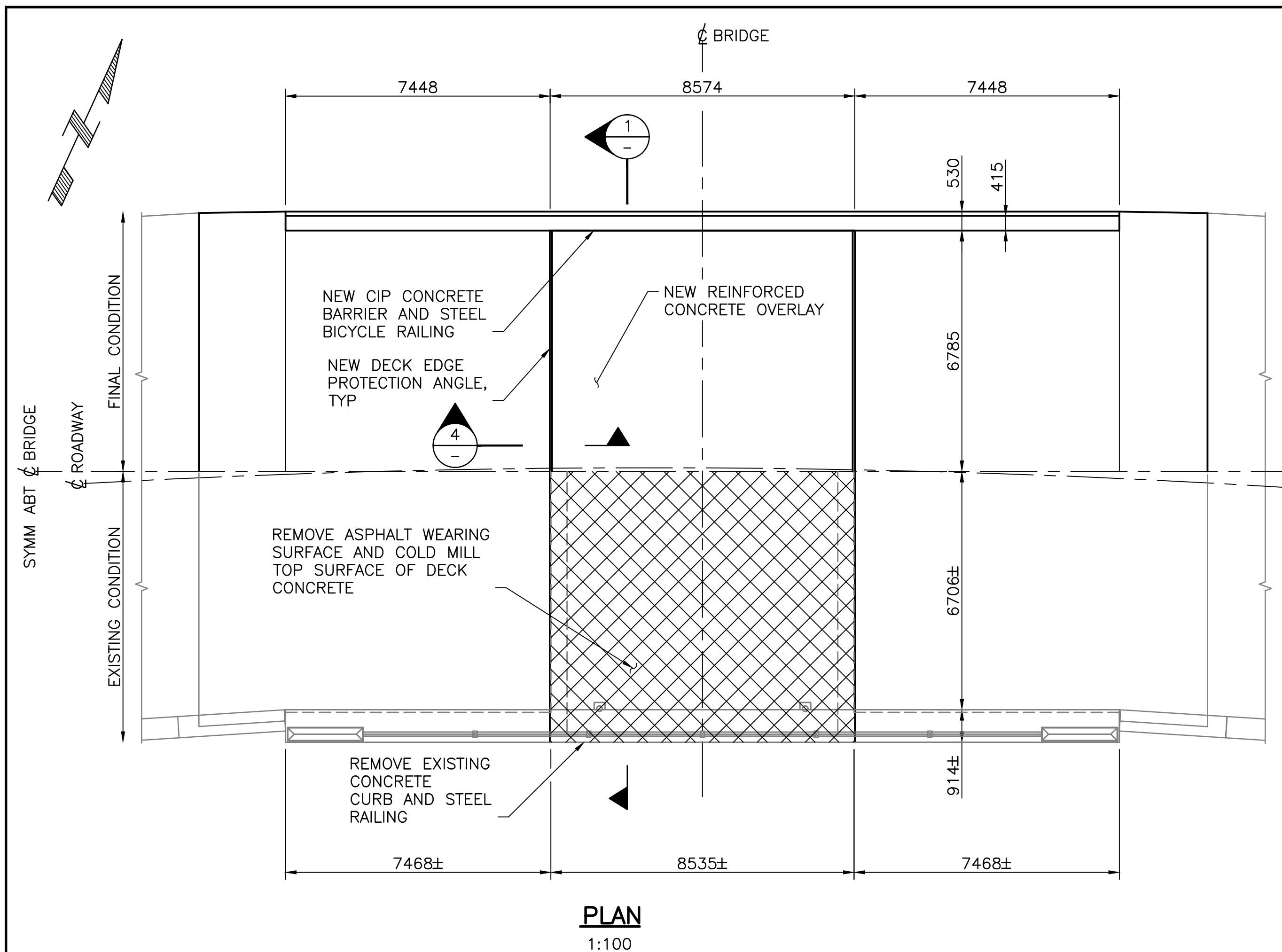
Client/ client
PCA

Drawing title/ Titre du dessin

ABUTMENT AND
APPROACH MODIFICATIONS

Project No./ No. du projet 1080-01	Sheet/ Feuille 204 OF	Revision no./ La Révision no. A
--	------------------------------------	---

G:\1945\02-Drawings\1080-01-200 (G.C. TOH_31.2 Cougar Brook Bridge)\02-Drawings\1080-01-205.dwg 3/6/2020 11:42:17 AM by Mara Conan



LEGEND:

- REMOVALS

NOTES:

- DECK MODIFICATIONS TO OCCUR IN THREE STAGES IN ACCORDANCE WITH SPECIFICATIONS.
- MINIMUM COMPRESSIVE STRENGTH OF CONCRETE: 45 MPa AT 28 DAYS.
- CHAMFER EXPOSED EDGES 20.
- REINFORCING STEEL: CAN/CSA G30.18M GRADE 400W.
- MINIMUM COVER:
 - TOP OF DECK 70, U.N.O. 60 AT T-HEADS
 - 50 ALL OTHER
- MINIMUM LAP 500 FOR 15M REBARS UNO. LAP SPLICE NOT SHOWN.
- USE COVER METER TO CHECK ACTUAL CONCRETE COVER BEFORE MILLING. DO NOT MILL CLOSER THAN 15mm TO TOP LAYER REINFORCEMENT.
- DRILL HOLES FOR BARRIER DOWELS BETWEEN EXISTING TOP REBARS IN DECK SLAB. IDENTIFY LOCATION OF BARS BEFORE DRILLING. DO NOT DAMAGE EXISTING BARS. HOLES TO BE HAMMER DRILLED.
- DOWELS TO BE ANCHORED WITH HILTI HIT-HY200 OR APPROVED EQUIVALENT.
- CONSTRUCTION JOINTS TO BE CLEAN, FREE OF LAITANCE AND ROUGHENED TO MIN AMPLITUDE 5mm.
- T-HEADED REBARS SHALL BE HRC100 SERIES WITH HRC110 HEAD.
- STEEL: CAN/CSA G40.21 GRADE 300W, GALVANIZED AFTER FABRICATION.
- STUDS: CAN/CSA W59 ANNEX H, TYPE B, GALVANIZED AFTER FABRICATION.
- WELDING: CAN/CSA W59.
- GALVANIZED IN ACCORDANCE W/ ASTM A123M.
- JOINT SEALANT SHALL BE MACSEAL 6690-2 BY MCASPHALT OR APPROVED EQUIVALENT.
- EPOXY RESIN PASTE ADHESIVE FOR DRIP STOP SHALL BE SIKADUR 31 HI-MOD GEL OR APPROVED EQUIVALENT. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS. GAP BETWEEN SOFFIT AND STEEL ANGLE MUST BE COMPLETELY SEALED.
- LOCAL FULL DEPTH ASPHALT REMOVAL ADJACENT TO JOINT AS REQUIRED TO INSTALL JOINT NOT SHOWN. ADDITIONAL ASPHALT REMOVALS BEYOND THAT SHOWN TO BE REPLACED IN KIND.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION



DO NOT SCALE DRAWINGS

A	ISSUED FOR TENDER	20/03/06
Revision/	Description/Description	Date/Date

Client/client		
	Parks Canada Agency	L'Agence Parcs Canada

COWI

Project title/Titre du projet
BRIDGE REHABILITATION
GLACIER NATIONAL PARK, BRITISH COLUMBIA

KM 31.2 TRANS-CANADA HIGHWAY
COUGAR BROOK BRIDGE

Approved by/Approuvé par
JUGN

Designed by/Concept par
TWB

Drawn by/Dessiné par
MACM

PWGC Project Manager/Administrateur de Projets TPSCG

PWGC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSCG

Client/client
PCA

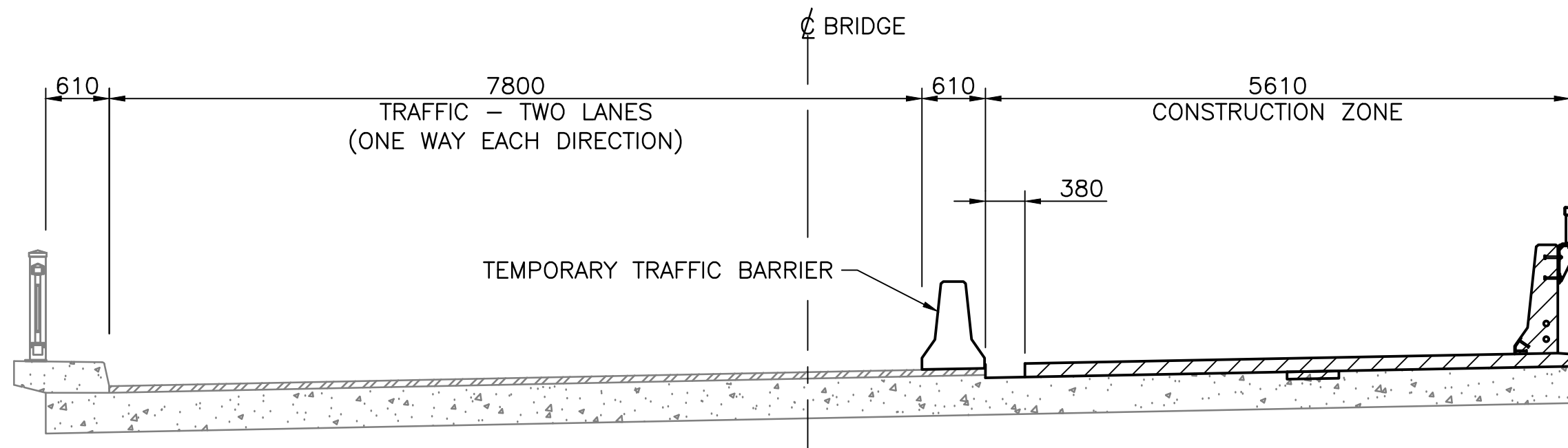
Drawing title/Titre du dessin

CONCRETE DECK
MODIFICATIONS

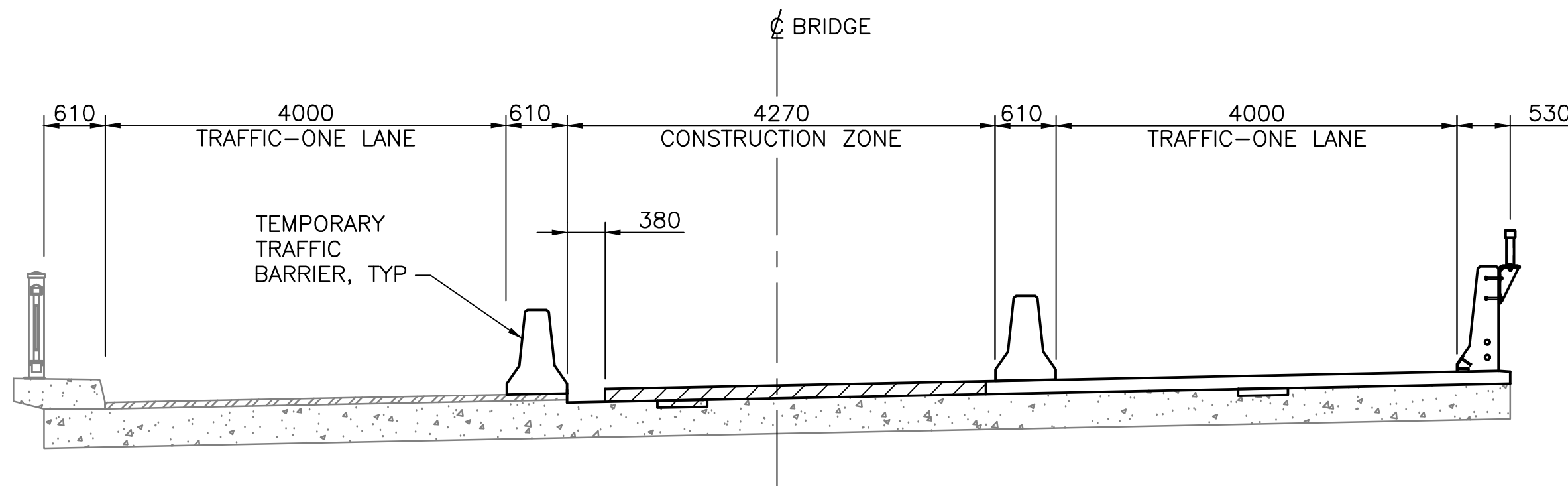
Project No./No. du projet 1080-01	Sheet/Feuille 205 OF	Revision no./La Révision no. A
---	-----------------------------------	--



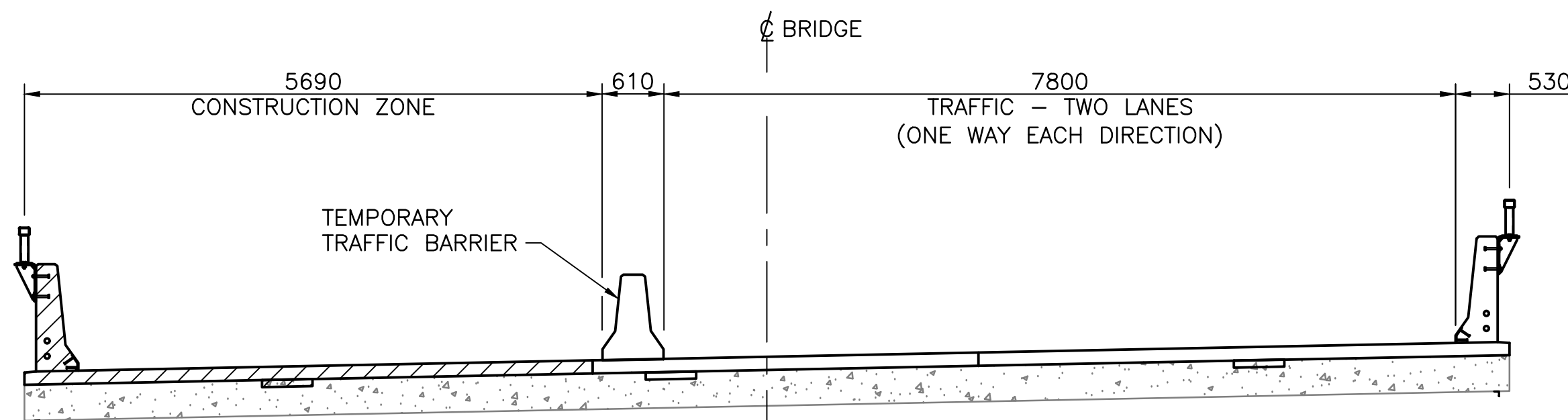
G:\1945\02-Drawings\1080-01-200 (G.L. TOH_31.2 Cougar Brook Bridge)\02-Drawings\1080-01-206.dwg 3/6/2020 11:41:49 AM by Mara Conan



STAGE 1



STAGE 2



STAGE 3

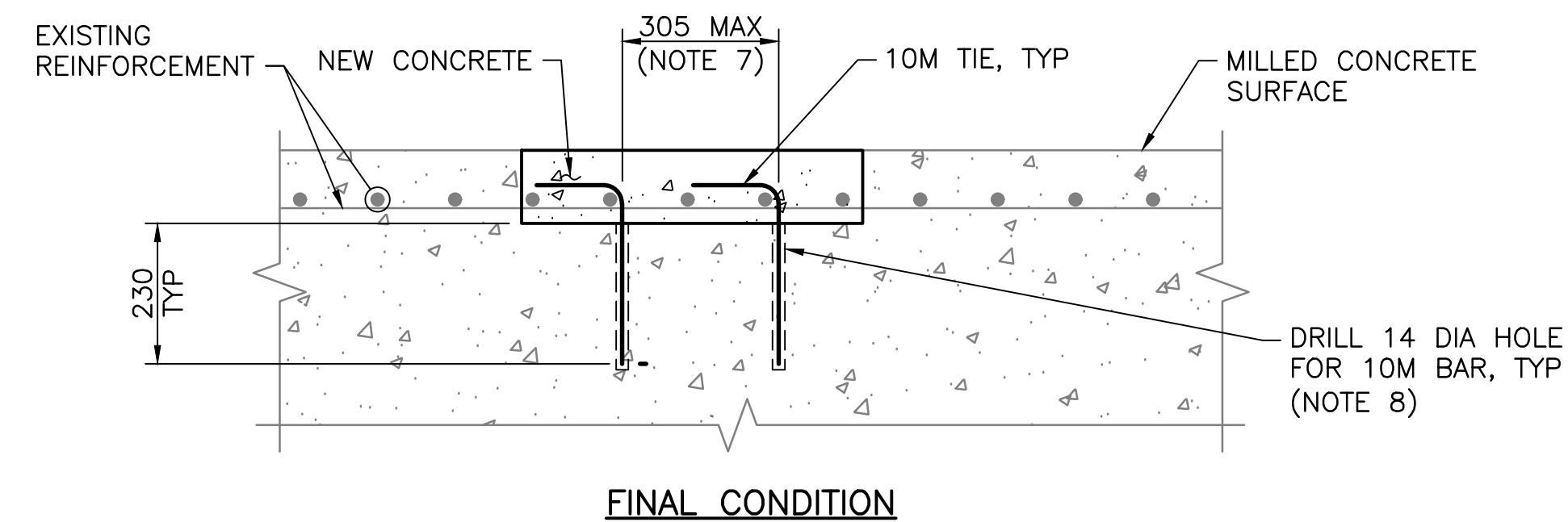
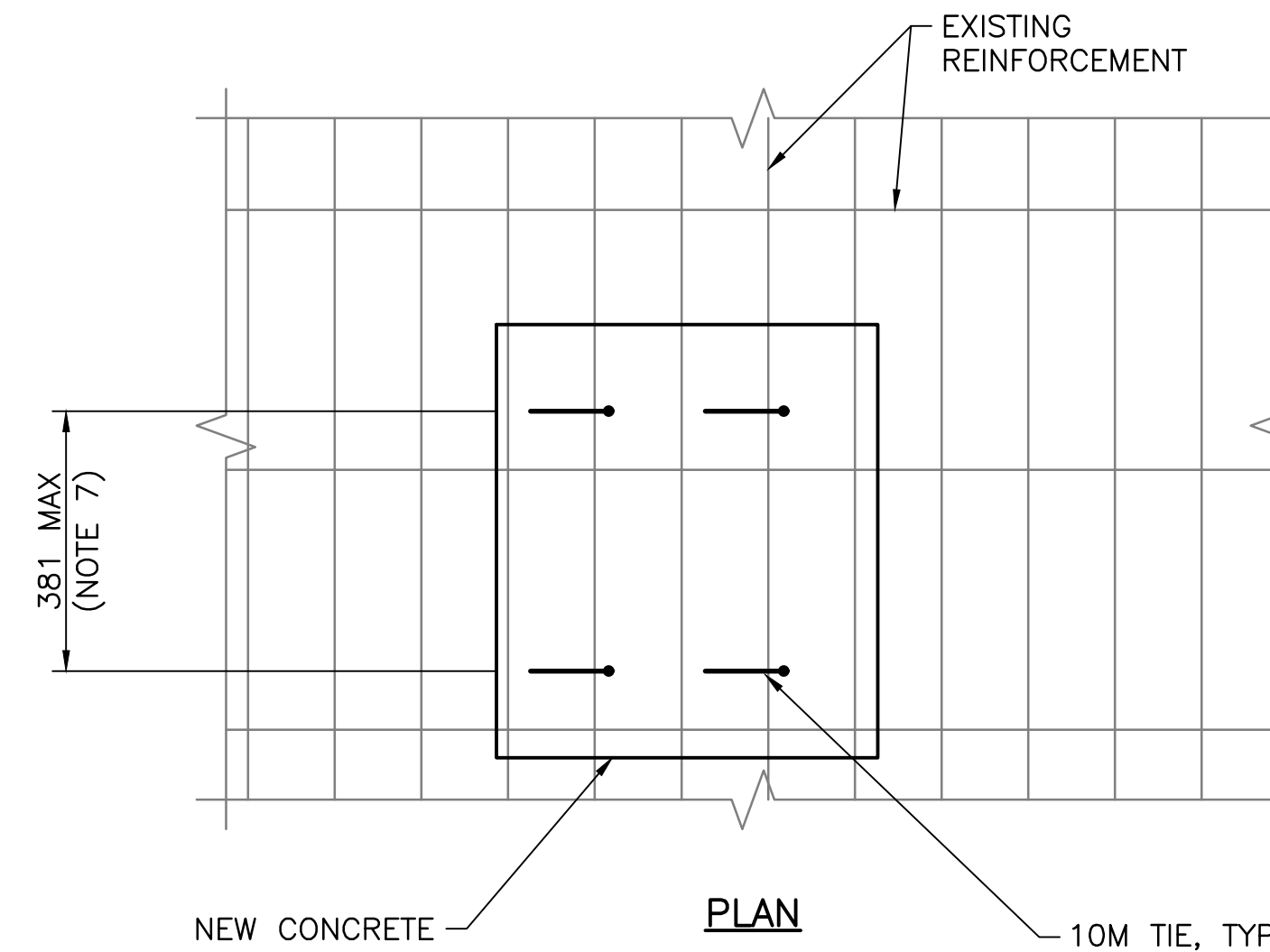
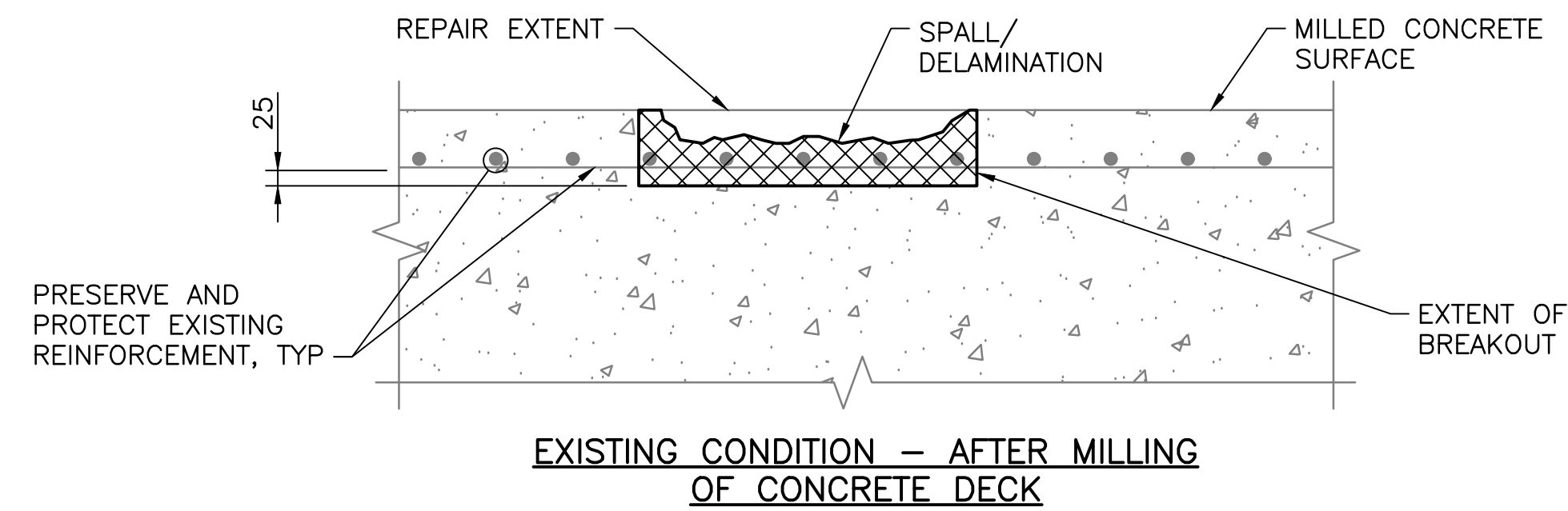
SUGGESTED CONSTRUCTION ZONE STAGING

1:75

PARTIAL DEPTH DECK REPAIRS SHOWN ILLUSTRATION ONLY. REPAIR LOCATIONS TO BE DETERMINED ON-SITE. (NOTES 3 AND 4)

LEGEND:

- REMOVALS
- WORK IN CONSTRUCTION ZONE
- COMPLETED STAGE



PARTIAL DEPTH DECK CONCRETE REPAIR

1:10

DECK OVERLAY NOT SHOWN FOR CLARITY

NOTES:

- MINIMUM COMPRESSIVE STRENGTH OF CONCRETE: 45 MPa AT 28 DAYS.
- REINFORCING STEEL: CAN/CSA G30.18M, GRADE 400W.
- PARTIAL DEPTH DECK PATCH REPAIRS AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE IN ACCORDANCE WITH SPECIFICATIONS.
- PRIOR TO START OF REMOVALS FOR PARTIAL DEPTH DECK REPAIRS, SUBMIT DRAWING INDICATING IDENTIFIED PATCH LOCATIONS TO EOR (ENGINEER OF RECORD) FOR REVIEW AND APPROVAL.
- REPAIR AREAS TO HAVE STRAIGHT EDGES ONLY AND SHALL BE RECTANGULAR IN SHAPE. SAWCUT 5mm DEEP ALONG EDGES OF CONCRETE REPAIRS. EDGES SHALL BE PLANE AND VERTICAL. DO NOT DAMAGE EXISTING REINFORCEMENT.
- REMOVE ALL UNSOUND CONCRETE IN REPAIR AREA AS SHOWN.
- PLACE AT LEAST 9-10M TIES/SQM. PROVIDE SYMMETRICAL TIE LAYOUT AS SHOWN.
- TIES TO BE ANCHORED WITH HILTI HIT HY-200 OR APPROVED EQUIVALENT. DO NOT DAMAGE EXISTING REINFORCEMENT. HOLES TO BE HAMMER DRILLED.
- CONSTRUCTION JOINT TO BE CLEAN, FREE OF LAITANCE AND ROUGHENED.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION



DO NOT SCALE DRAWINGS

Revision/	Description/Description	Date/Date
A	ISSUED FOR TENDER	20/03/08

Client/client	Parks Canada Agency	L'Agence Parcs Canada
---------------	---------------------	-----------------------

COWI

Project title/Titre du projet
**BRIDGE REHABILITATION
GLACIER NATIONAL PARK, BRITISH COLUMBIA**

**KM 31.2 TRANS-CANADA HIGHWAY
COUGAR BROOK BRIDGE**

Approved by/Approuvé par
JUGN

Designed by/Concept par
TWB

Drawn by/Dessiné par
MACM

PWGSC Project Manager/Administrateur de Projets TPSCG

PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSCG

Client/client
PCA

Drawing title/Titre du dessin

**SUGGESTED CONSTRUCTION ZONE
STAGING AND PARTIAL DEPTH
DECK REPAIRS**

Project No./No. du projet
1080-01

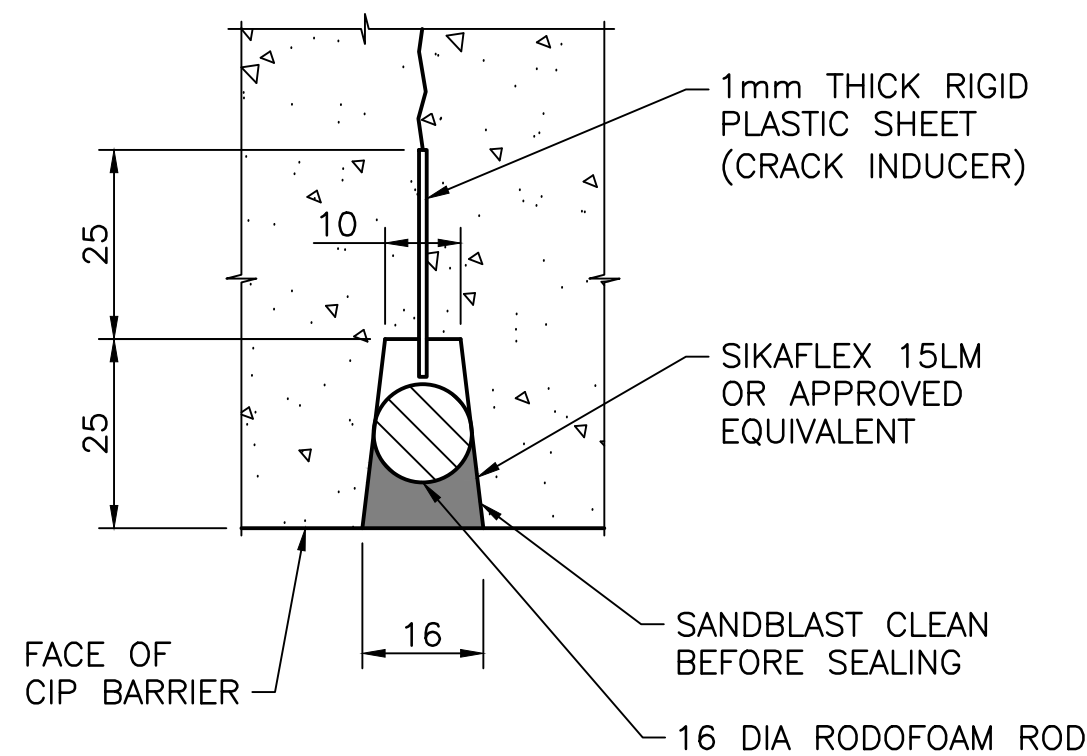
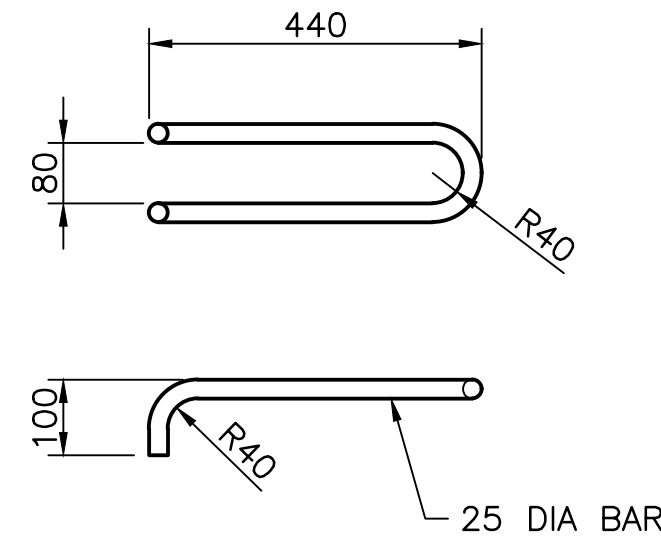
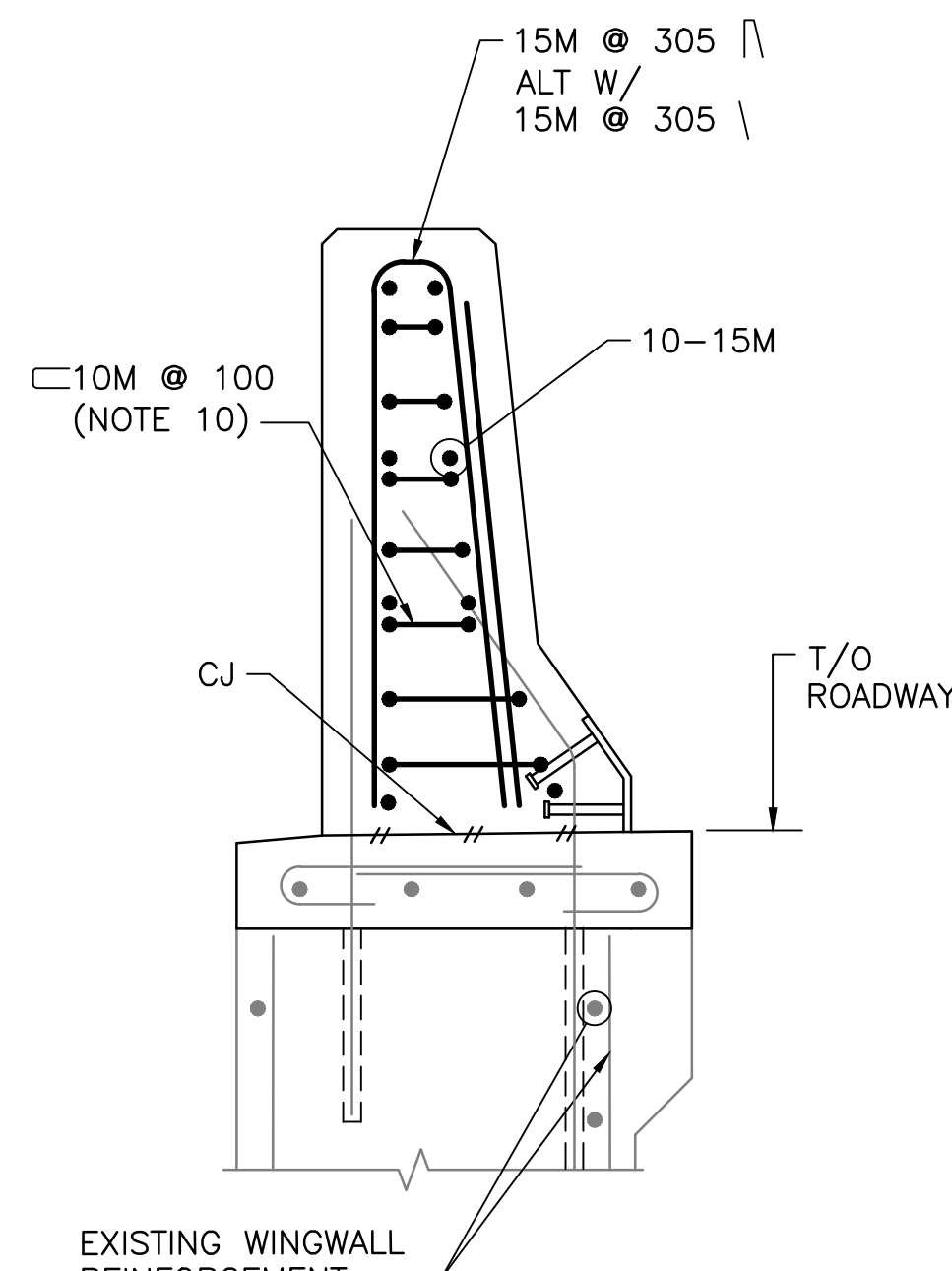
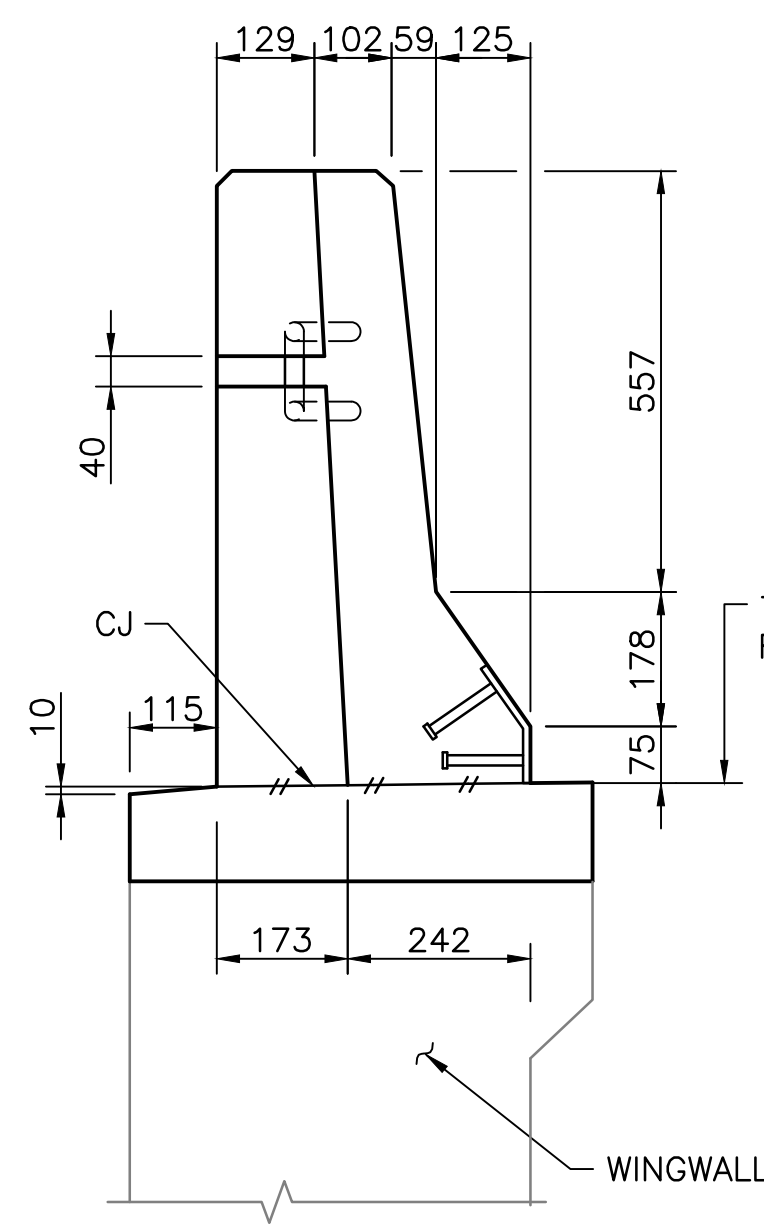
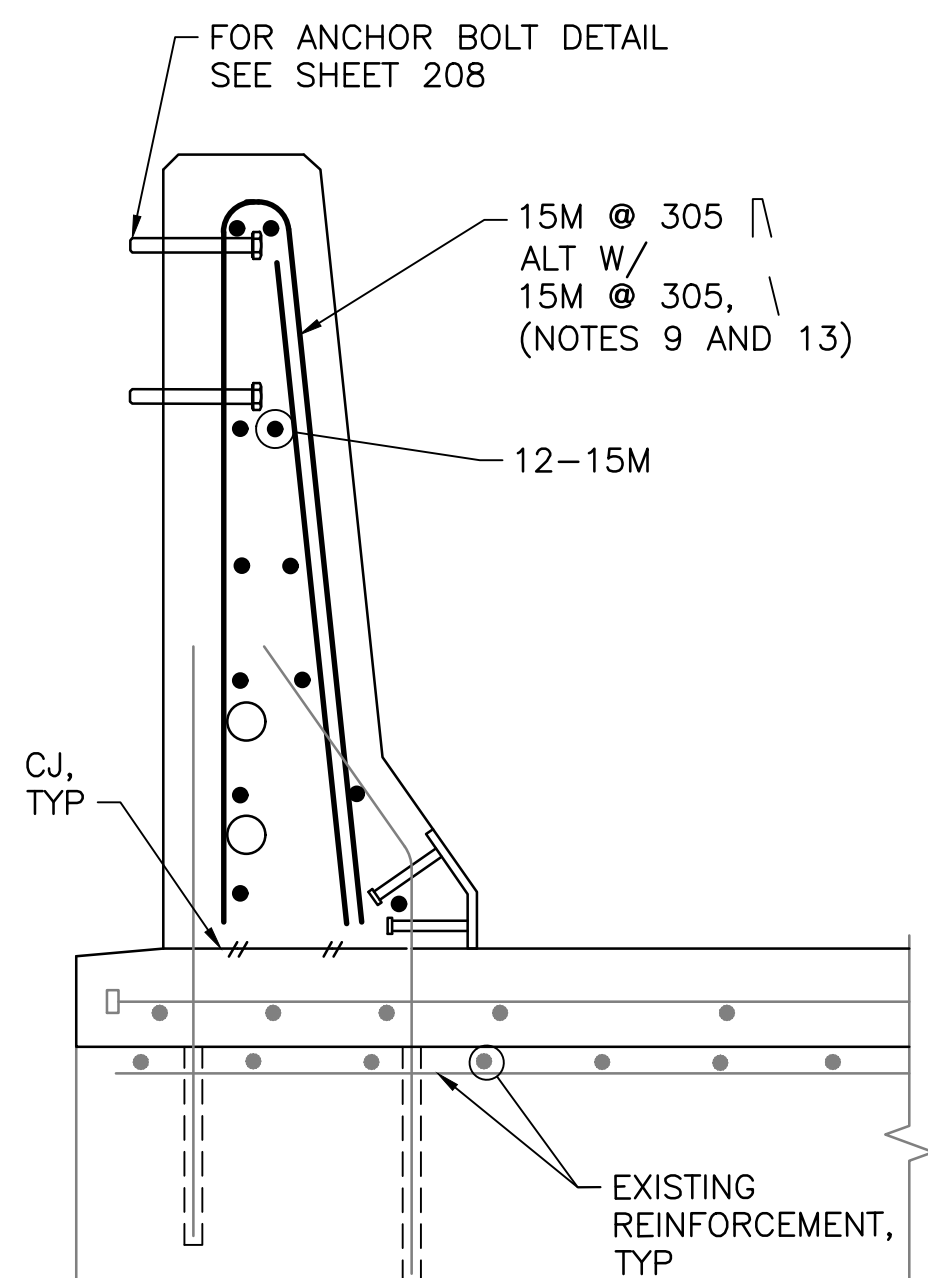
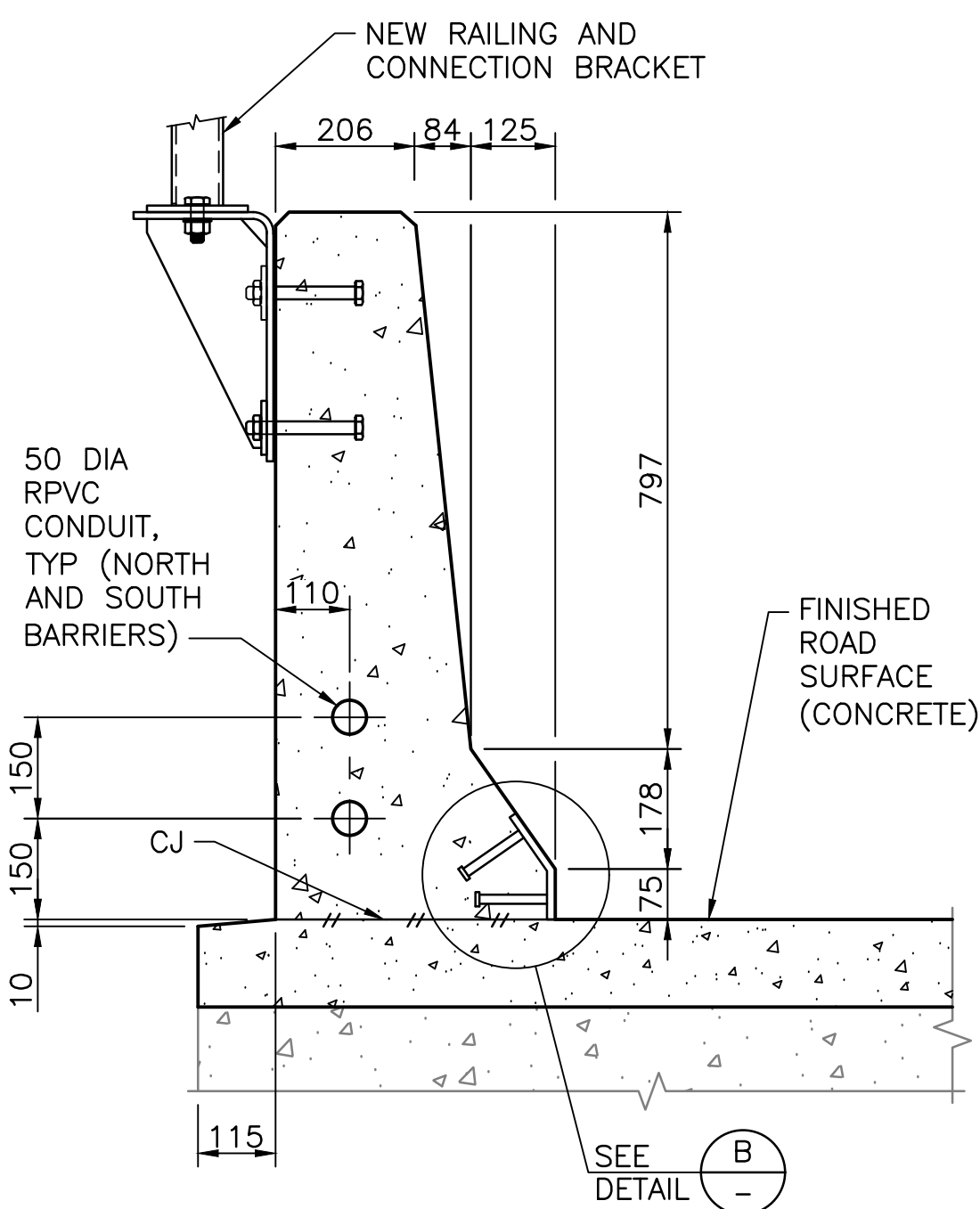
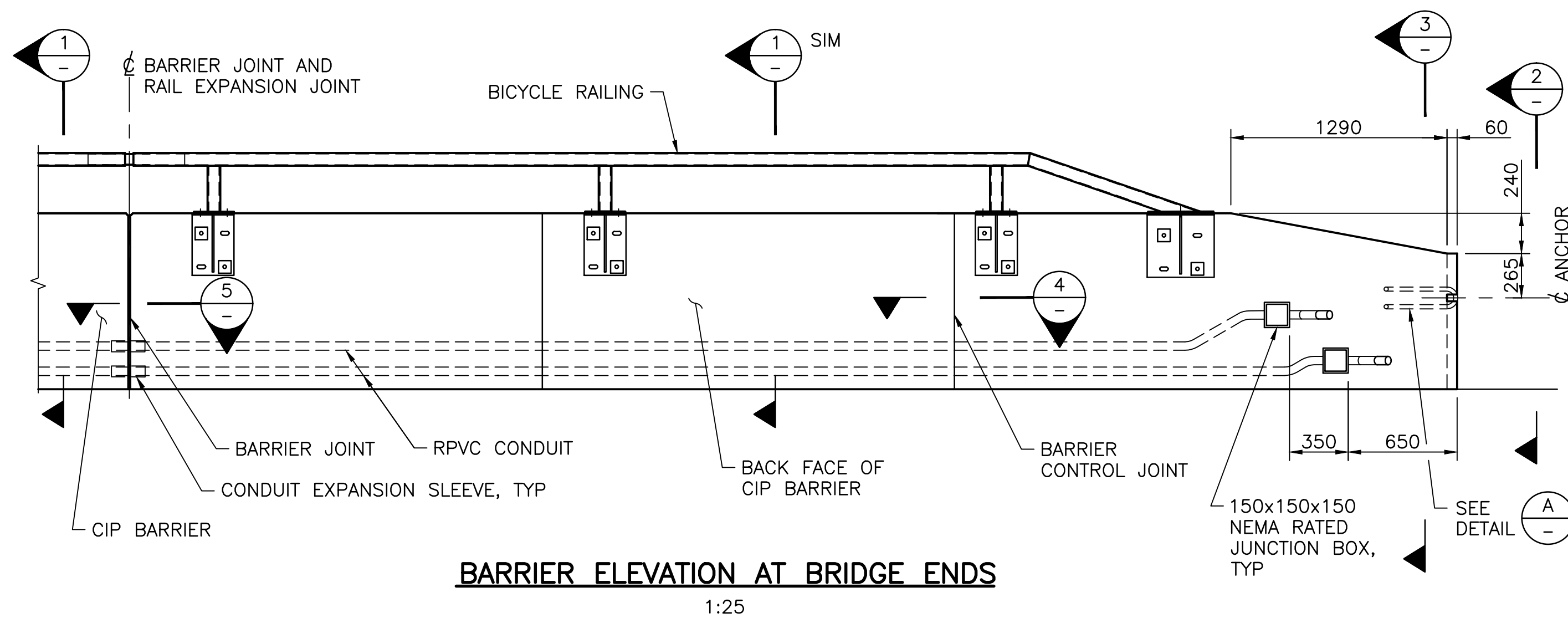
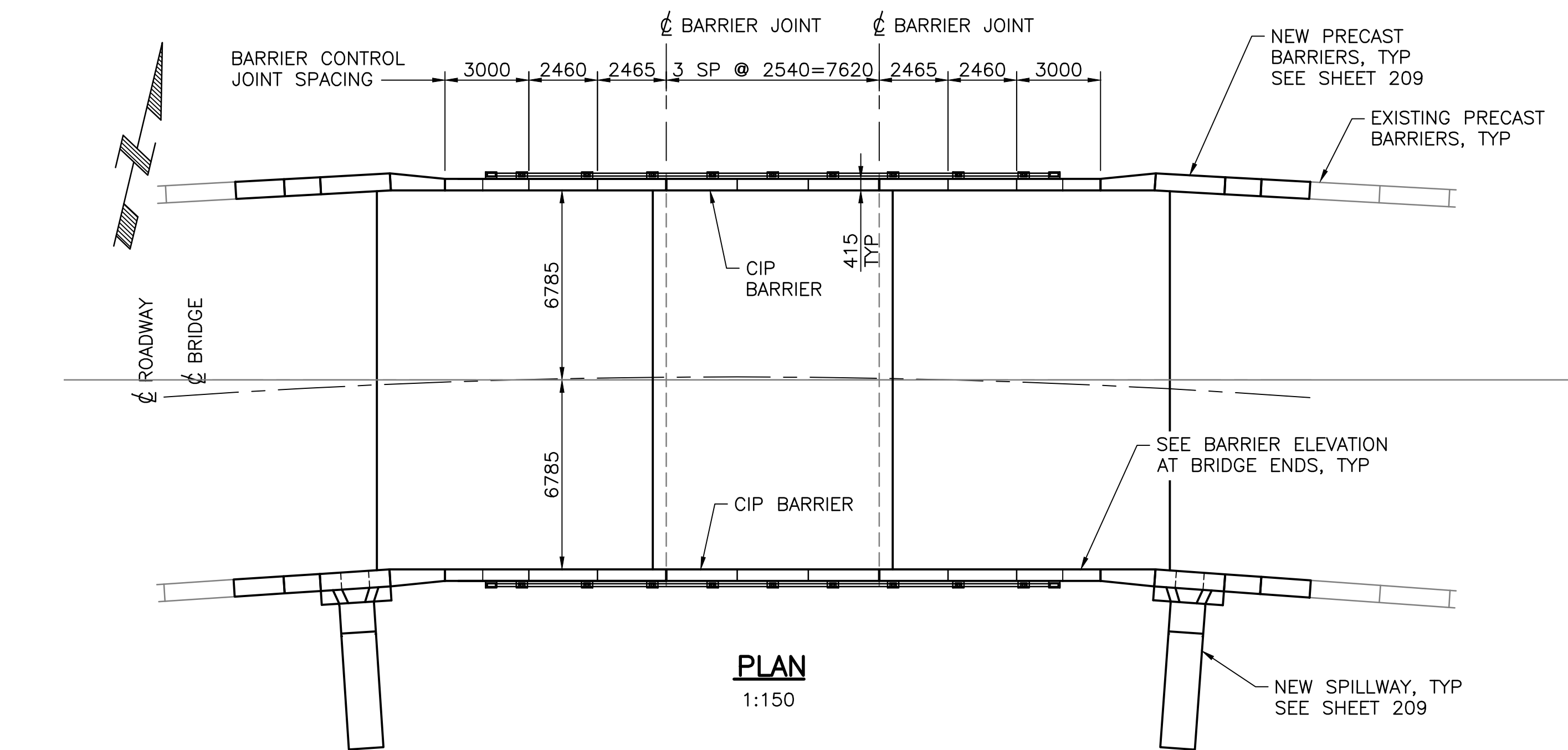
Sheet/Feuille
206
OF

Revision no./
La Révision
no.
A



G:\1945\02-Drawings\1080-01-200 (GLC TOH 31.2 Cougar Brook Bridge)\02-Drawings\1080-01-207.dwg 3/6/2020 11:41:22 AM by Mara Conan

PWOSC - A1 - 841X594

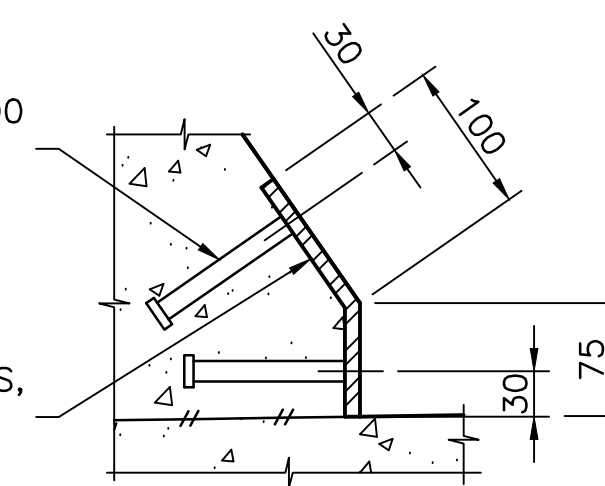


TYPICAL BARRIER CONTROL JOINT

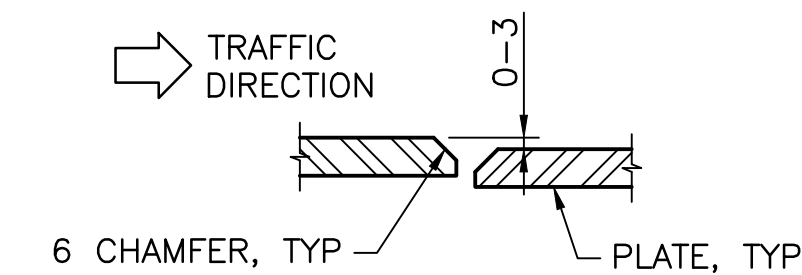
SECTION 4
1:1

12 DIA STUDS, 100 LONG @ 200, TYP, STAGGERED. MAX. 100 FROM FREE EDGE

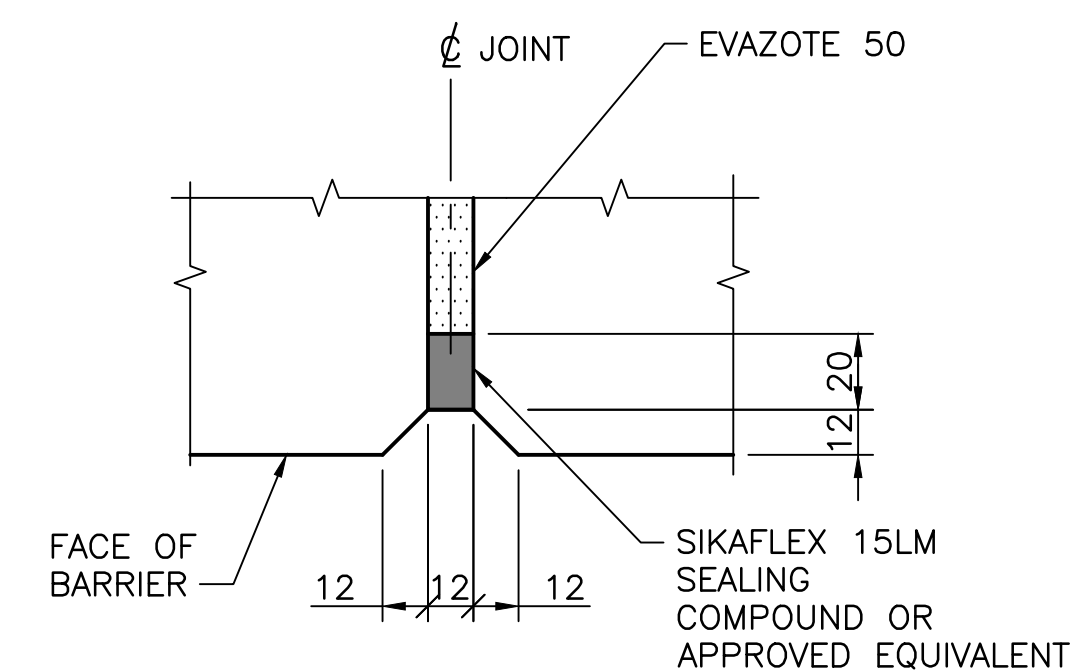
GALVANIZED BENT #10 CHAMFER ENDS @ SPLICES, SEE SPLICE DETAIL



DETAIL B
1:5



SPLICE DETAIL
1:2



TYPICAL BARRIER JOINT

SECTION 5
1:2

NOTES:

1. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE: 45 MPa AT 28 DAYS.
2. CHAMFER EXPOSED EDGES 20mm UNO.
3. REINFORCING STEEL: CAN/CSA G30.18 GRADE 400W.
4. MINIMUM COVER: 50mm UNO.
5. MINIMUM REINFORCING LAP LENGTH 600mm UNO.
6. STEEL: CAN/CSA G40.21M GRADE 300W, GALVANIZE AFTER FABRICATION.
7. STUDS: CAN/CSA W59 ANNEX H, TYPE B, GALVANIZE AFTER FABRICATION.
8. HOT DIP GALVANIZE TO ASTM A123/A123M.
9. PROVIDE REDUCED BEND DIAMETER OF 81 (MEASURED ON THE INSIDE OF THE BAR) AND PLACE BAR ON SKEW TO SATISFY COVER REQUIREMENTS.
10. PLACE HAIRPINS 10M AT 100mm HORIZONTALLY AT BARRIER ENDS.
11. REPLACE BARRIER REINFORCEMENT CUT FOR JUNCTION BOX WITH ADDITIONAL EQUIVALENT BARS ADJACENT TO THE BOX.
12. CONDUIT ELBOWS NOT TO EXCEED 22.5 DEGREES. ENDS OF CONDUIT SHALL TERMINATE IN RADIAL SWEEPS OR 22.5 DEGREE ELBOWS.
13. SPACING TO MATCH STARTER BARS.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION



DO NOT SCALE DRAWINGS

Revision	Description/Description	Date/Date
A	ISSUED FOR TENDER	20/03/08

Client/client	Parks Canada Agency	L'Agence Parcs Canada
---------------	---------------------	-----------------------

COWI

Project title/Titre du projet
**BRIDGE REHABILITATION
GLACIER NATIONAL PARK, BRITISH COLUMBIA**
**KM 31.2 TRANS-CANADA HIGHWAY
COUGAR BROOK BRIDGE**

Approved by/Approuvé par
JUGN

Designed by/Conçu par
TWB

Drawn by/Dessiné par
MACM

PWOSC Project Manager/Administrateur de Projets TPSCG

PWOSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSCG

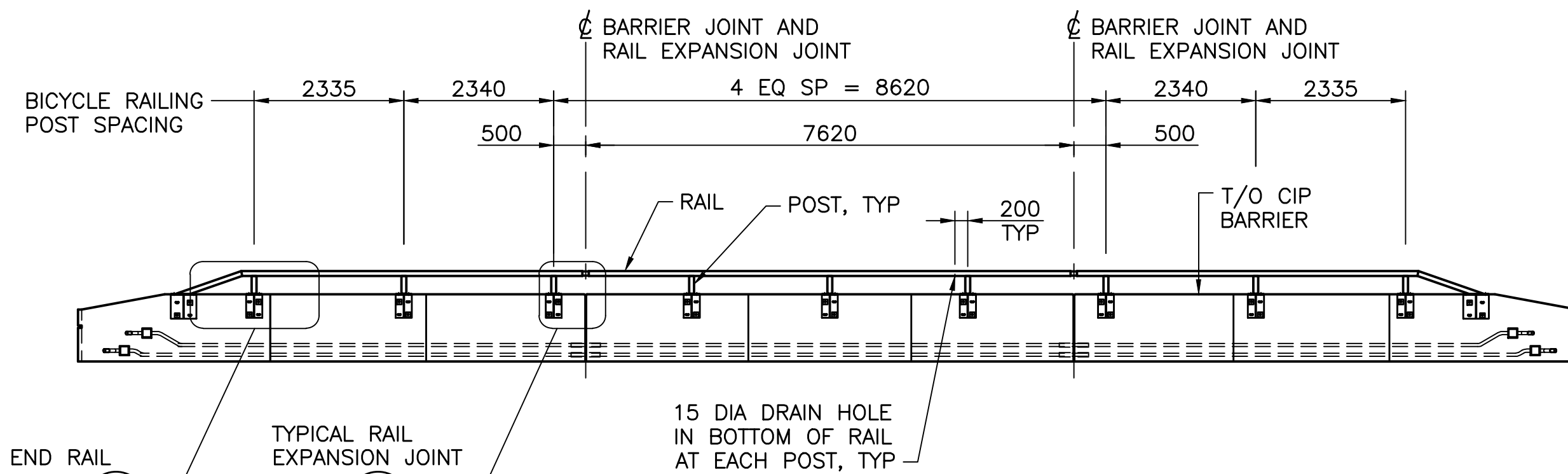
Client/client
PCA

Drawing title/Titre du dessin

**CAST-IN-PLACE BARRIER
LAYOUT AND REINFORCEMENT**

Project No./No. du projet 1080-01	Sheet/Feuille 207 OF	Revision no./ La Révision no. A
--------------------------------------	----------------------------	---------------------------------------

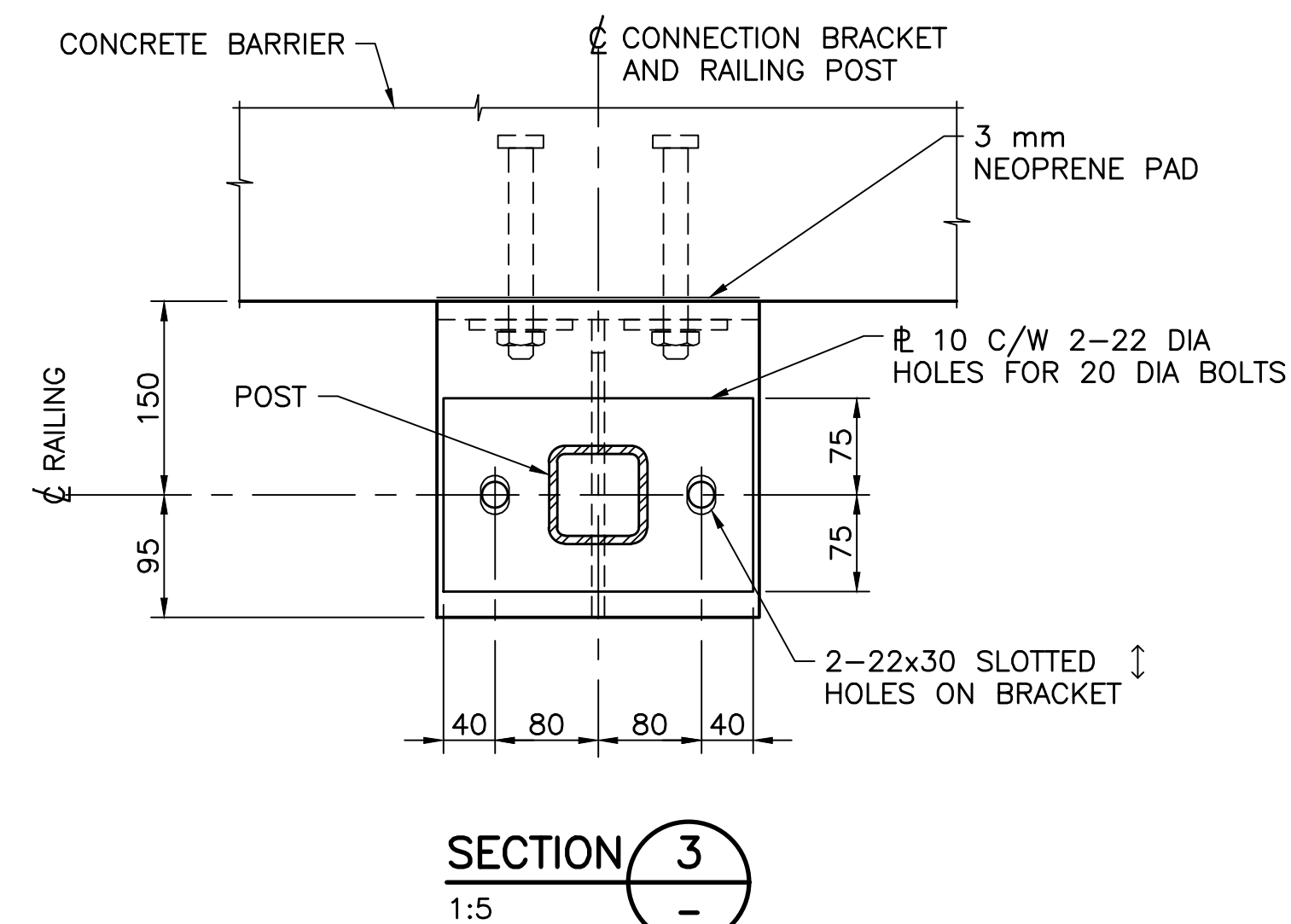
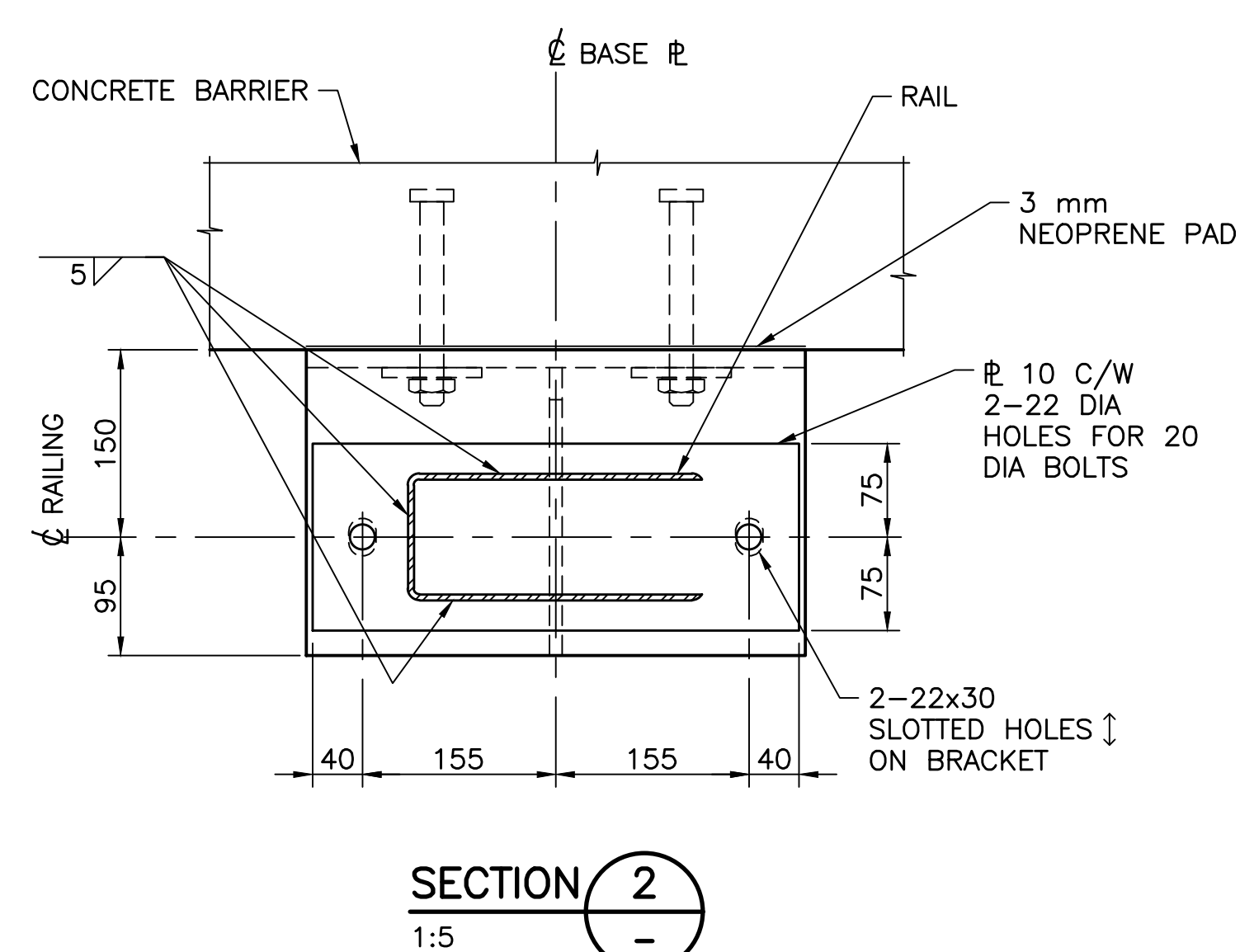
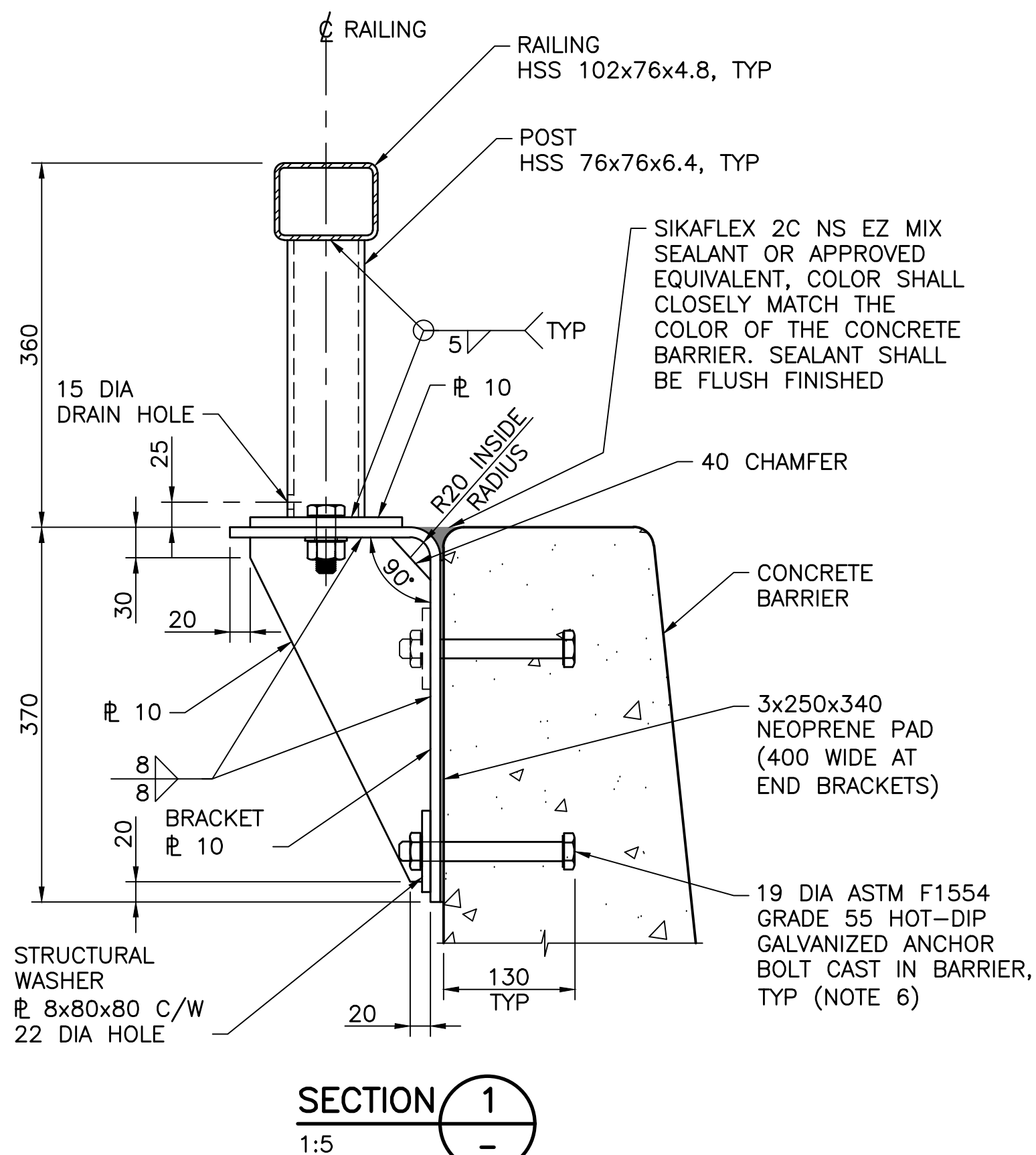
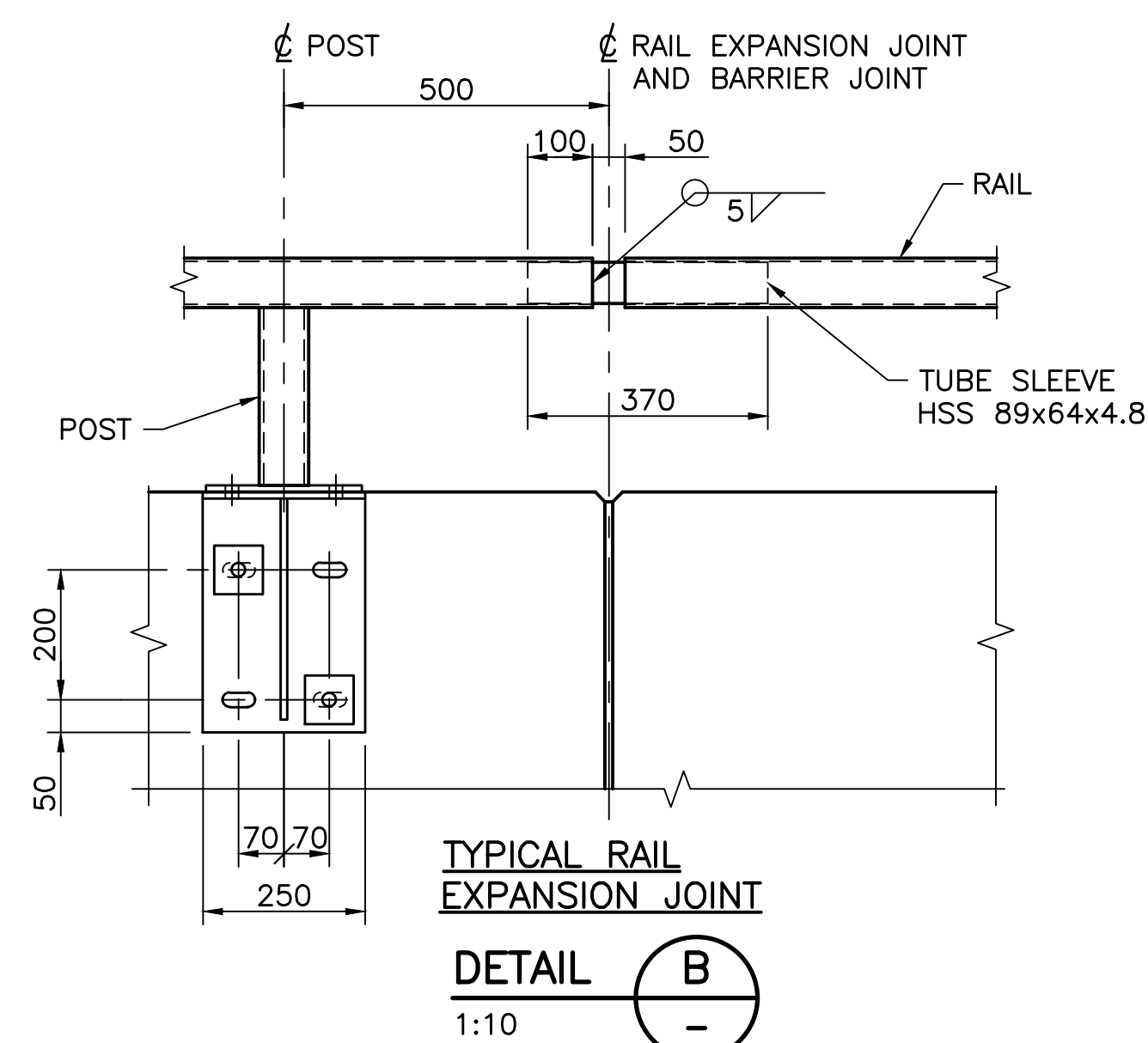
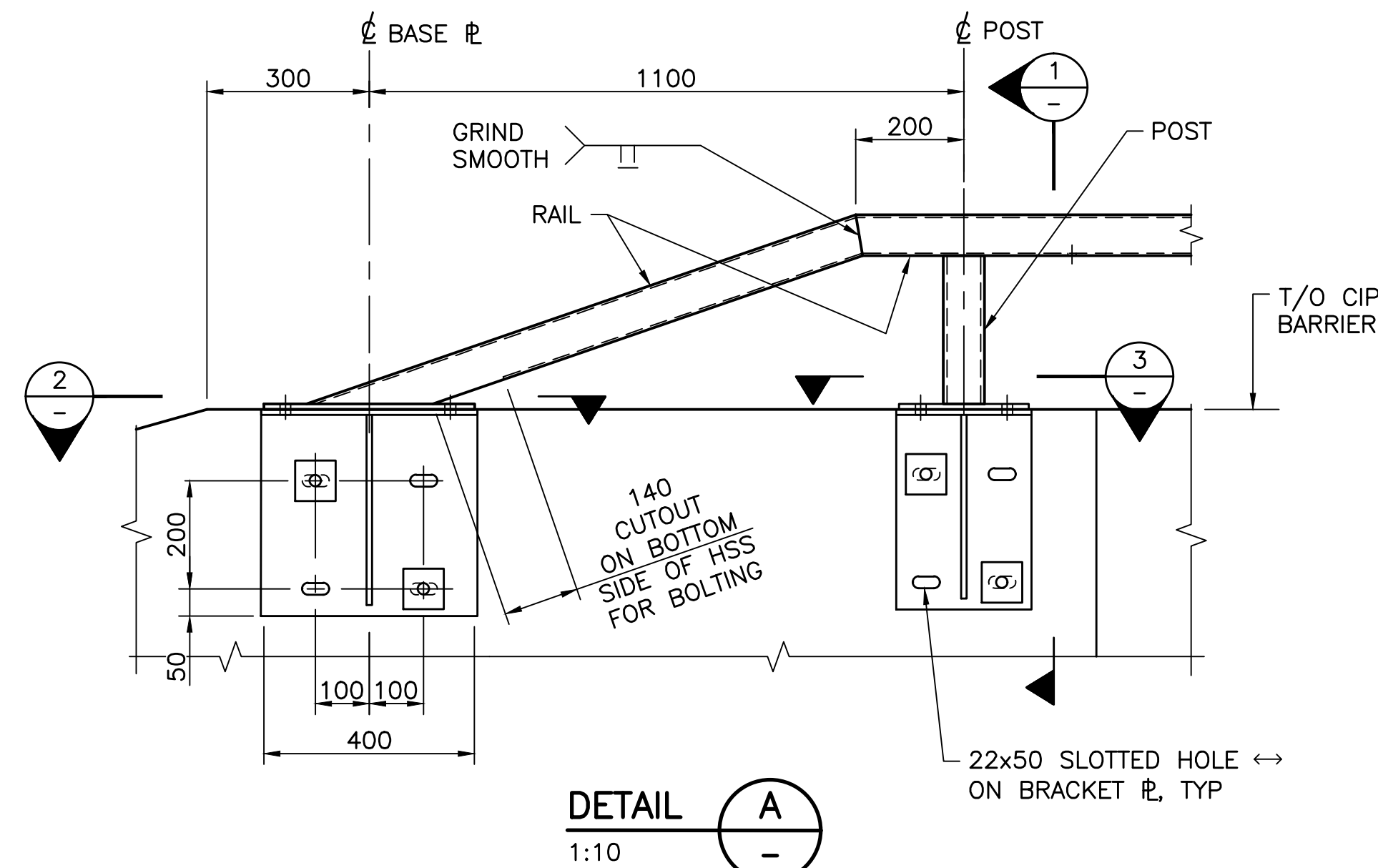
G:\1945\02-Drawings\1080-01-200 (G.C. TOH_31.2 Cougar Brook Bridge)\02-Drawings\1080-01-200.dwg 3/6/2020 11:40:50 AM by Mara Conan



ELEVATION

1:50

(SOUTH RAILING SHOWN - NORTH RAILING SIMILAR)



NOTES:

- STEEL:
HSS: CAN/CSA-G40.21M GRADE 350W, CLASS C.
OTHER: CAN/CSA-G40.21M GRADE 300W.
- BOLTS: ASTM F3125, GRADE A325.
- WELDING TO CAN/CSA W59.
- GALVANIZE ALL STEEL WORK AFTER FABRICATION IN ACCORDANCE WITH ASTM A123M.
- NEOPRENE PAD 50 DUROMETER HARDNESS IN ACCORDANCE WITH ASTM D2240.
- TWO ANCHOR RODS REQUIRED AT EACH BRACKET, ONE TOP AND ONE BOTTOM, EITHER SIDE OF STIFFENER PLATE.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION



DO NOT SCALE DRAWINGS

Revision/	Description/Description	Date/Date
A	ISSUED FOR TENDER	20/03/06

Client/client	Parks Canada Agency	L'Agence Parcs Canada
---------------	---------------------	-----------------------

COWI

Project title/Titre du projet
BRIDGE REHABILITATION
GLACIER NATIONAL PARK, BRITISH COLUMBIA
KM 31.2 TRANS-CANADA HIGHWAY
COUGAR BROOK BRIDGE

Approved by/Approuvé par
JUGN

Designed by/Conçu par
TWS

Drawn by/Dessiné par
MACM

PWOSC Project Manager/Administrateur de Projets TFSGC

PWOSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TFSGC

Client/client
PCA

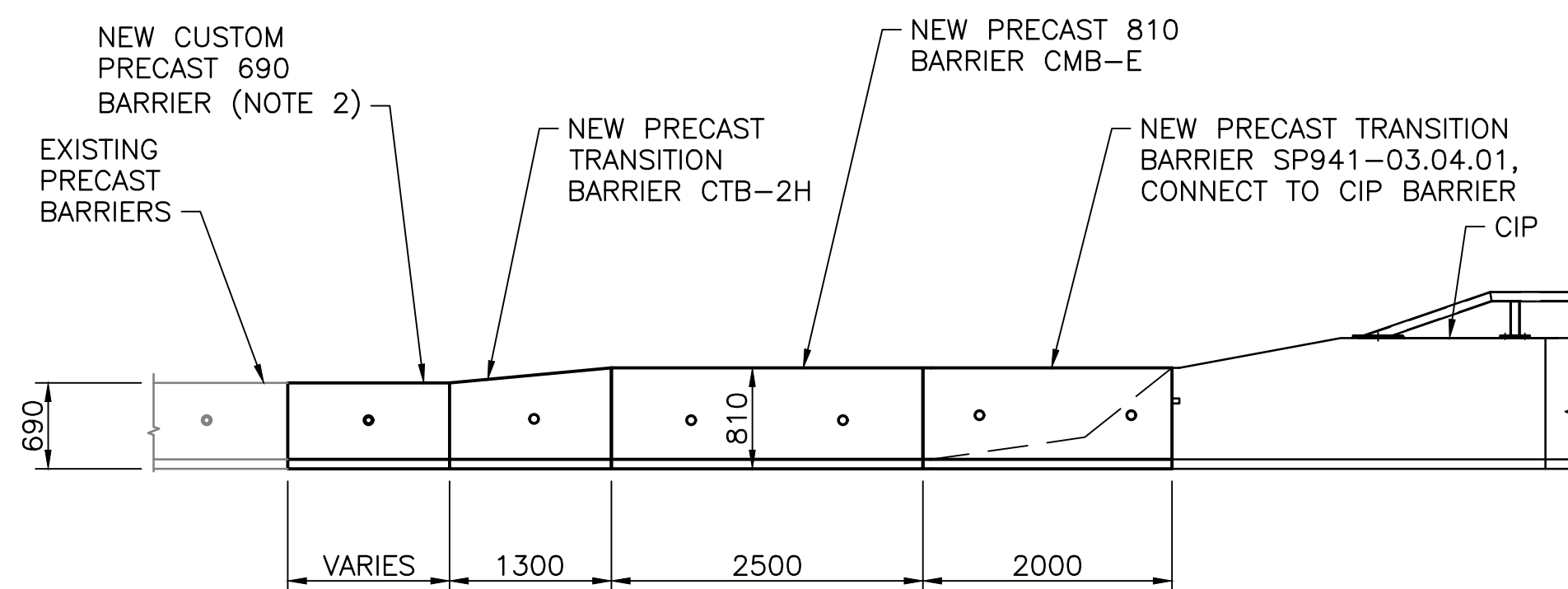
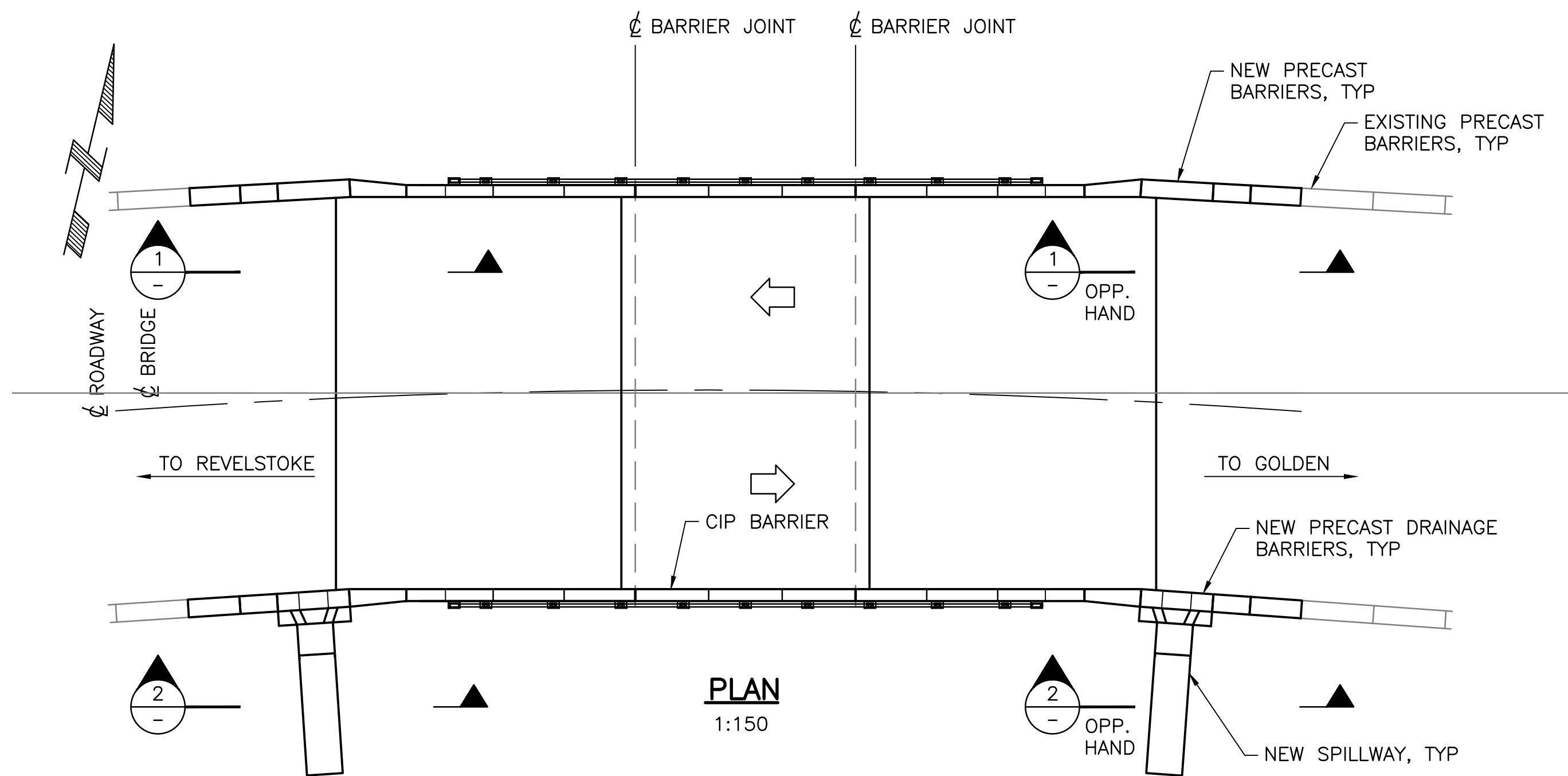
Drawing title/Titre du dessin

BICYCLE RAILING

Project No./No. du projet 1080-01	Sheet/Feuille 208 OF	Revision no./ La Révision no. A
--------------------------------------	----------------------------	---------------------------------------

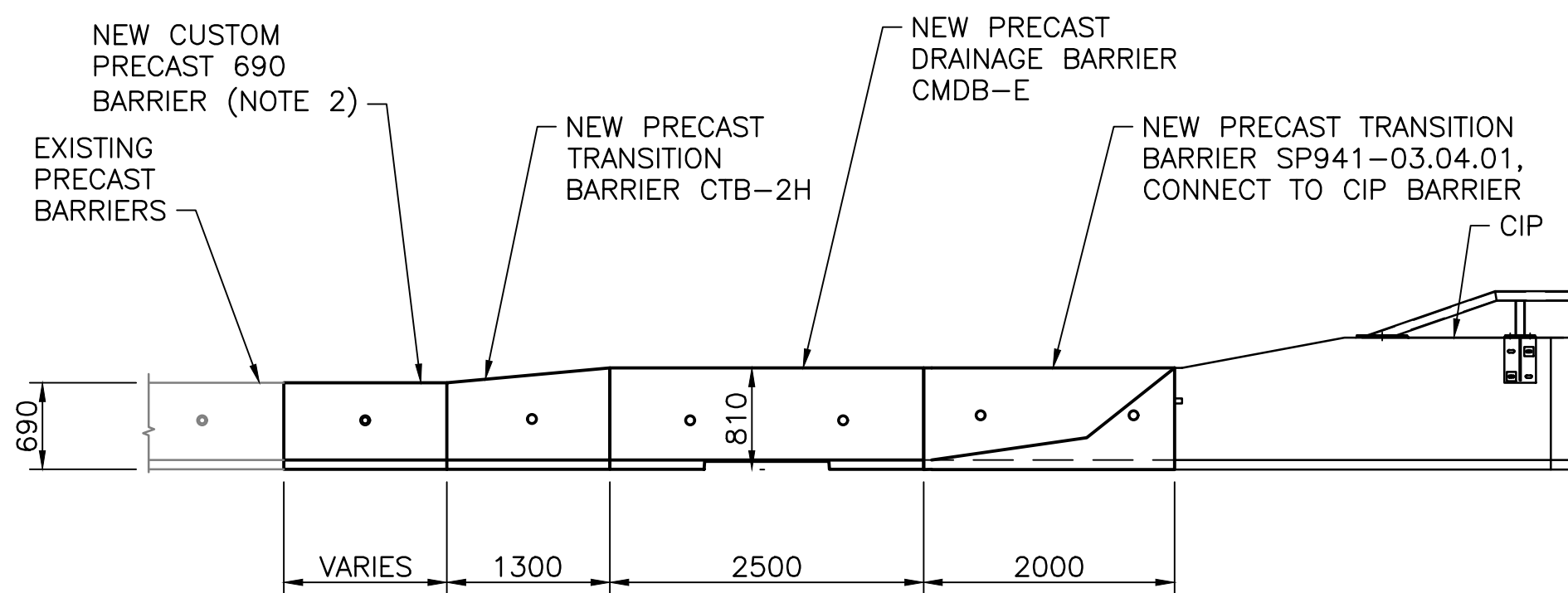


G:\1945\02-Drawings\1080-01-200 (GLC TOH 31.2 Cougar Brook Bridge)\02-Drawings\1080-01-200.dwg 3/6/2020 11:40:22 AM by Mara Coman



PRECAST BARRIERS	
NO. OF UNITS	DESCRIPTION
4	CUSTOM 690 PRECAST BARRIERS (EACH DIFFERENT)
4	CTB-2H
2	CMDB-E, DRAINAGE BARRIER
2	CMB-E
4	SP941-03.04.01

VIEW 1
1:50

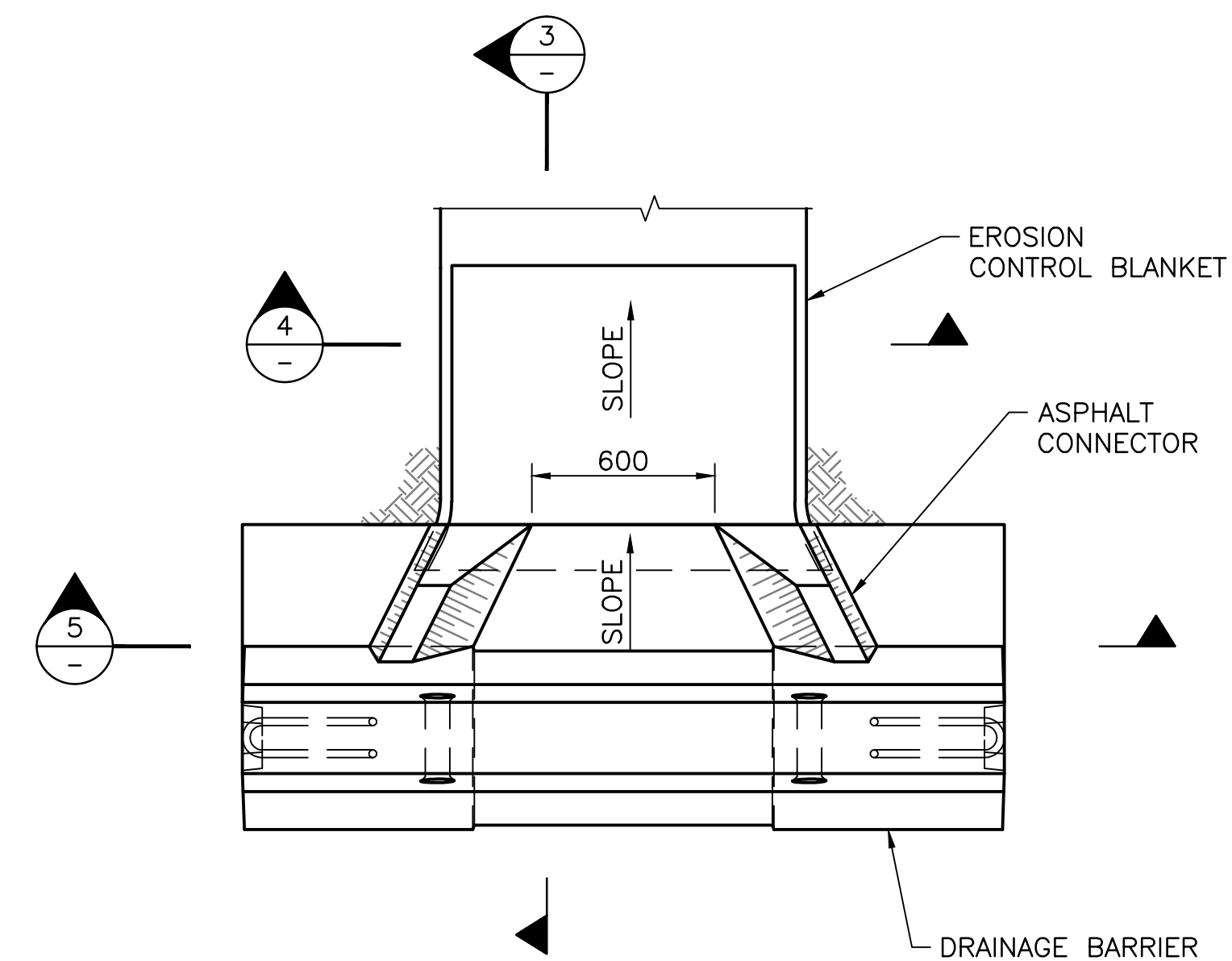


VIEW 2
1:50

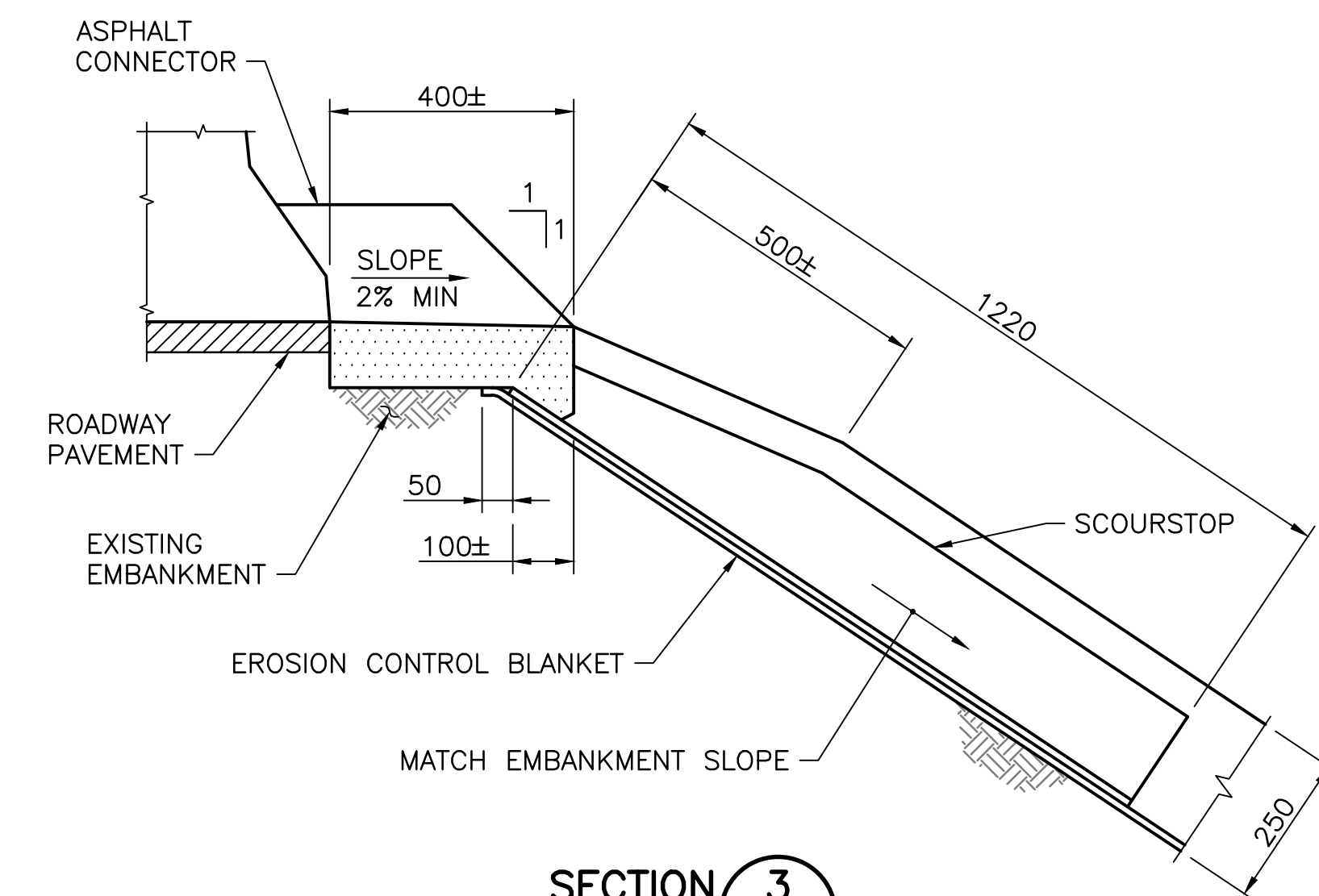
(SPILLWAY NOT SHOW FOR CLARITY)

NOTES:

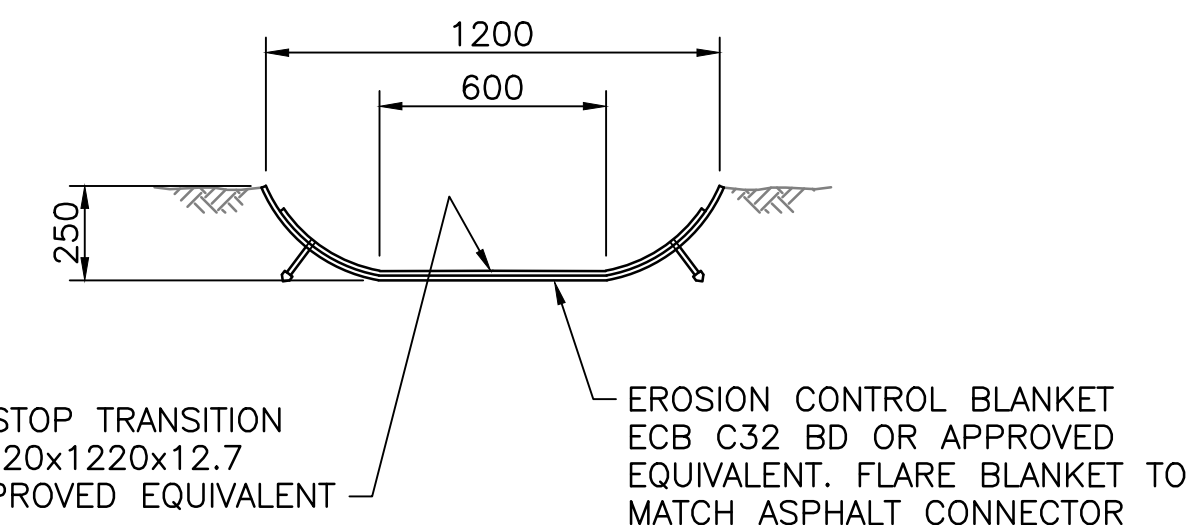
- FOR MATERIAL, QUALITY OF WORK AND OTHER DETAILS OF NEW PRECAST BARRIERS, REFER TO SECTION 941 OF BC MOT 2016 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, WITH THE FOLLOWING EXCEPTION: SYNTHETIC FIBRE REINFORCEMENT SHALL BE ADDED TO THE PRECAST BARRIERS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- CUSTOM 690 BARRIER DETAILS TO MATCH SECTION 941 OF BC MOT 2016 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DRAWINGS SP941-01.02.01, WITH THE FOLLOWING EXCEPTIONS:
 - THE LENGTH OF THE NEW CUSTOM PRECAST 690 BARRIER TO BE FIELD MEASURED BY CONTRACTOR TO FIT. LENGTH FOR EACH CUSTOM BARRIER MAY DIFFER.
 - CONTRACTOR TO CONFIRM IN FIELD IF EYE OR HOOK CONNECTION REQUIRED FOR CONNECTION TO EXISTING PRECAST BARRIERS. AT CONNECTION TO NEW CTB-2H BARRIER, EYE CONNECTION REQUIRED.
- FIELD FIT ASPHALT CONNECTOR TOP OF EMBANKMENT TO EDGE OF ROADWAY PAVEMENT. ASPHALT CONNECTOR TO BE INSTALLED FOLLOWING BARRIER INSTALLATION.
- ANCHOR SCOURSTOP TRANSITION MAT WITH STAKES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- EXTEND EROSION CONTROL BLANKET TO BASE OF EMBANKMENT, AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE, AND STAPLED IN PLACE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



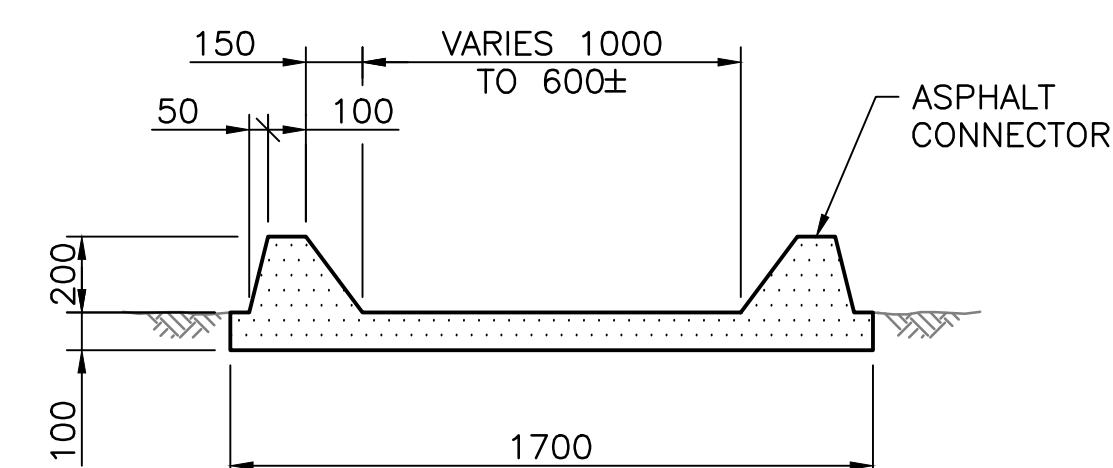
DRAINAGE BARRIER AND SPILLWAY PLAN
1:20



SECTION 3
1:10



SECTION 4
1:20



SECTION 5
1:20

ISSUED FOR TENDER
NOT FOR CONSTRUCTION



DO NOT SCALE DRAWINGS

Revision/	Description/Description	Date/Date
A	ISSUE FOR TENDER	20/03/06

Client/client	Parks Canada Agency	L'Agence Parcs Canada
---------------	---------------------	-----------------------

COWI

Project title/Titre du projet
BRIDGE REHABILITATION
GLACIER NATIONAL PARK, BRITISH COLUMBIA

KM 31.2 TRANS-CANADA HIGHWAY
COUGAR BROOK BRIDGE

Approved by/Approuvé par
JUGN

Designed by/Concept par
TWB

Drawn by/Dessiné par
MACM

PWGC Project Manager/Administrateur de Projets TFSGC

PWGC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TFSGC

Client/client
PCA

Drawing title/Titre du dessin

PRECAST BARRIERS AND
SPILLWAY DETAILS

Project No./No. du
projet
1080-01

Sheet/Feuille
209
OF

Revision no./
La Révision
no.
A

