PLAN
SCALE 1:400

Labels in PLAN:
- NEW ABUTMENT (TYP.)
- OTONABEE RIVER FLOW
- PROP. PEDESTRIAN BRIDGE (TYP.)
- PIER EXTENSION (TYP.)
- REMOVE GABION WALL ONLY AS REQUIRED TO CONSTRUCT THE ABUTMENT AND RESTORE TO SIDE OF ABUTMENT (TYP.)
- MECHANICALLY STABILIZED EARTH RETAINING WALL
- EXISTING ABANDONED COMMUNICATIONS POLE TO BE REMOVED (TYP.)
- OTONABEE RIVER FLOW
- PROP. PEDESTRIAN BRIDGE
- REMOVE GABION WALL ONLY AS REQUIRED TO CONSTRUCT NEW ABUTMENT & RESTORE TO SIDE OF ABUTMENT (TYP.)
- EXIST. TRUSS (TYP.)
- EXIST. PLATE GIRDER (TYP.)
- NEW FENCE
- EXST. ABUTMENT (TYP.)
- 36813 SPAN W1
- 31521 SPAN W2
- 33227 SPAN W3
- 40507 SPAN E1

WEST BRIDGE - ELEVATION
SCALE 1:200

Labels:
- PEDESTRIAN DECK
- ILLUMINATION FRAME (TYP.)
- W1 36813
- W2 31521
- W3 33227
- PROPOSED PEDESTRIAN BRIDGE (TYP.)
- NEW ABUTMENT (TYP.)
- CONC. PIER EXTENSION (TYP.)
- RIVER W.L. MAY 11, 2012 189.3m±
- REGULATORY FLOOD W.L. 191.13 m±
- EXIST. PIER (TYP.)
- APPROX. STREAMBED

SECTION R RETAINING WALL
SCALE 1:100

Labels:
- MECHANICALLY STABILIZED EARTH RETAINING STRUCTURE WITH CONCRETE FACING
- PROPOSED WALKWAY
- NEW FENCE
- EXISTING GRADE
- TOP OF WALL EL.192.5±
- EXIST. WALKWAY
- REGULATORY W.L. 191.13±
- PROPOSED GRADE
- MAY 11, 2012 W.L. 189.3±
- 1500

EAST BRIDGE - ELEVATION
SCALE 1:200

Labels:
- PEDESTRIAN DECK
- E1 40507
- PROPOSED PEDESTRIAN BRIDGE (TYP.)
- NEW ABUTMENT (TYP.)
- RIVER W.L. MAY 11, 2012 189.3 m±
- REGULATORY FLOOD W.L. 191.13 m±

SECTION A
SCALE 1:100

Labels:
- EXISTING RAILWAY TRUSS
- 4298
- 3415
- 3080
- 3000
- 3847
- 3406
- 2236
- 1303
- 441
- 1171
- CONCRETE PEDESTAL
- CONCRETE PIER EXTENSION
- EXISTING PIER MASONRY TO BE REMOVED
- W.L. MAY 11, 2012 EL.189.3±

SECTION B
SCALE 1:100

Labels:
- LUMINAIRE ON FRAME (TYP.)
- ILLUMINATION FRAME (TYP.)
- GUARD RAIL (TYP.)
- NEW BRIDGE SOFFIT EL.191.65±
- TOP OF PIER EL.191.21±
- CONCRETE PEDESTAL
- CONCRETE PIER EXTENSION
- EXISTING PIER MASONRY TO BE REMOVED
- DECORATIVE BRACING
- CONCRETE DECK EL.192.82±
- EXISTING RAILWAY PLATE GIRDER
- 4000

SECTION C
SCALE 1:100

Labels:
- EXISTING RAILWAY TRUSS
- 4486
- NEW ABUTMENT

NOTES:

GENERAL

DESIGN IN ACCORDANCE WITH CANADIAN HIGHWAY BRIDGE DESIGN CODE, 2006.
CHECK ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO STARTING WORK. REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.

CONCRETE

CONCRETE CONSTRUCTION SHALL CONFORM TO CSA A23 SERIES AND THE REQUIREMENTS OF THE CHBDC.
CLASS OF CONCRETE = 35 MPa
MAXIMUM SLUMP 75 mm.
ALL CONCRETE SHALL HAVE 5% TO 7% AIR ENTRAINMENT
PROVIDE COVER FOR CONCRETE AS REQUIRED IN THE CHBDC. WHERE CAST AGAINST EARTH PROVIDE 75 mm COVER, AND WHERE CAST AGAINST FORMED SURFACE PROVIDE 50 mm COVER MINIMUM OR AS REQUIRED.
ALL CONSTRUCTION JOINTS SHALL HAVE ROUGH SURFACE UNLESS NOTED OTHERWISE.
ALL EXPOSED EDGES SHALL HAVE 20 mm CHAMFER UNLESS NOTED OTHERWISE.
ALL CONCRETE WORK TO BE DONE IN THE DRY.

REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CSA G30.18, GRADE 400.
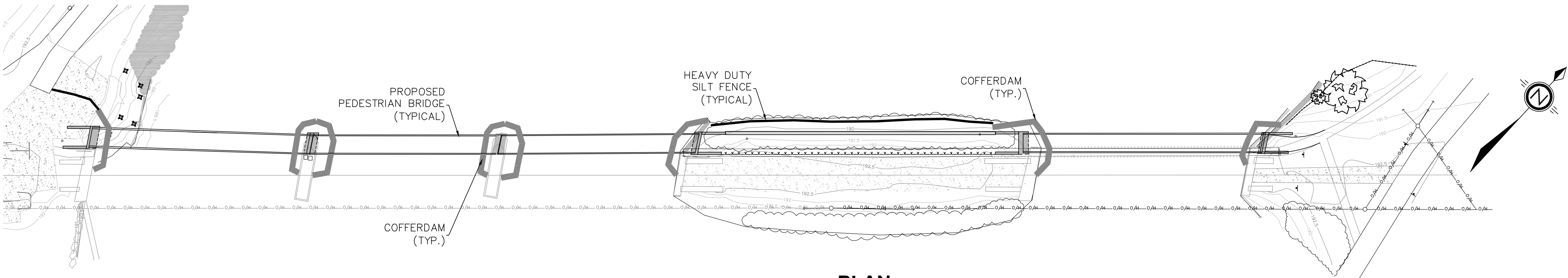
STRUCTURAL STEEL

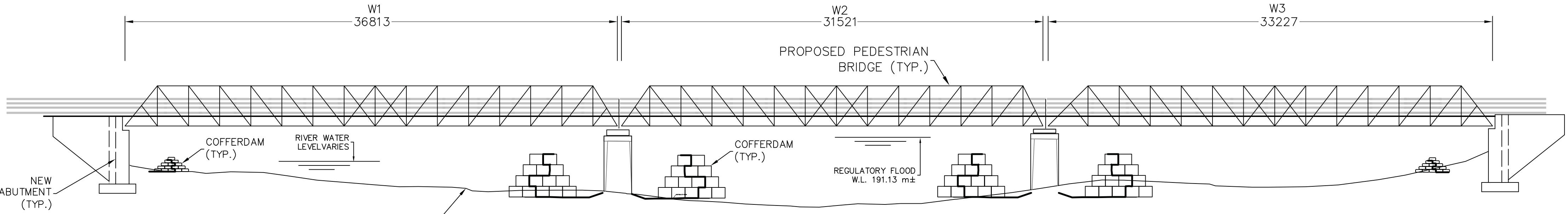STRUCTURAL STEEL SHALL CONFORM TO CSA G40.21–M 350W
WELDING OF STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARD W59–M1989 AND SHALL BE UNDERTAKEN BY A FABRICATOR FULLY APPROVED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA STANDARD W47.1–1992.
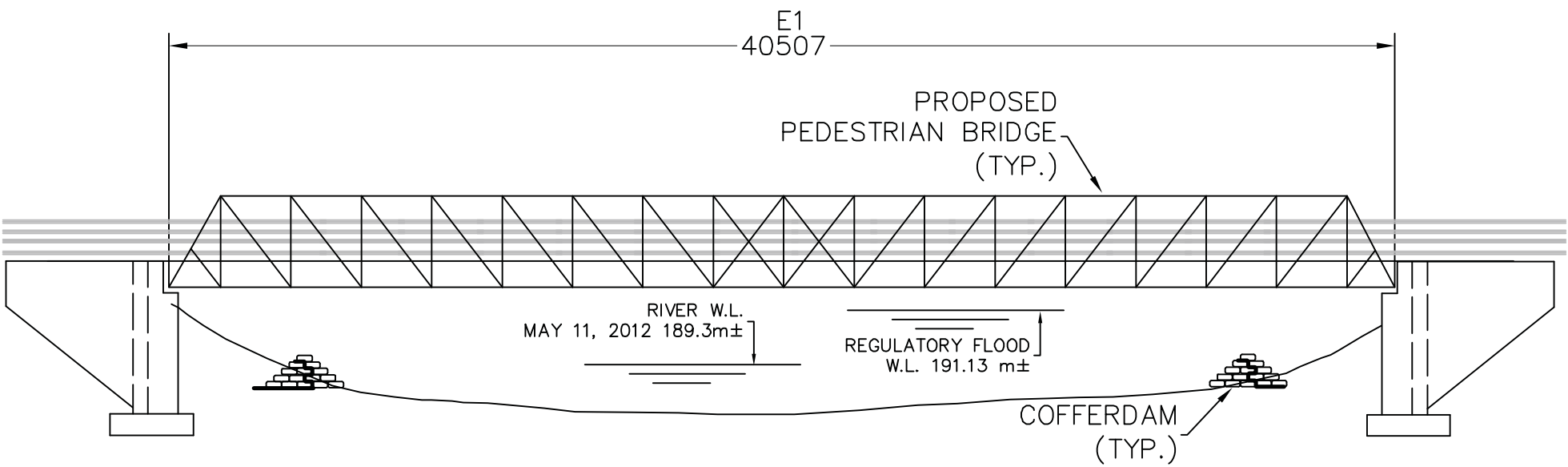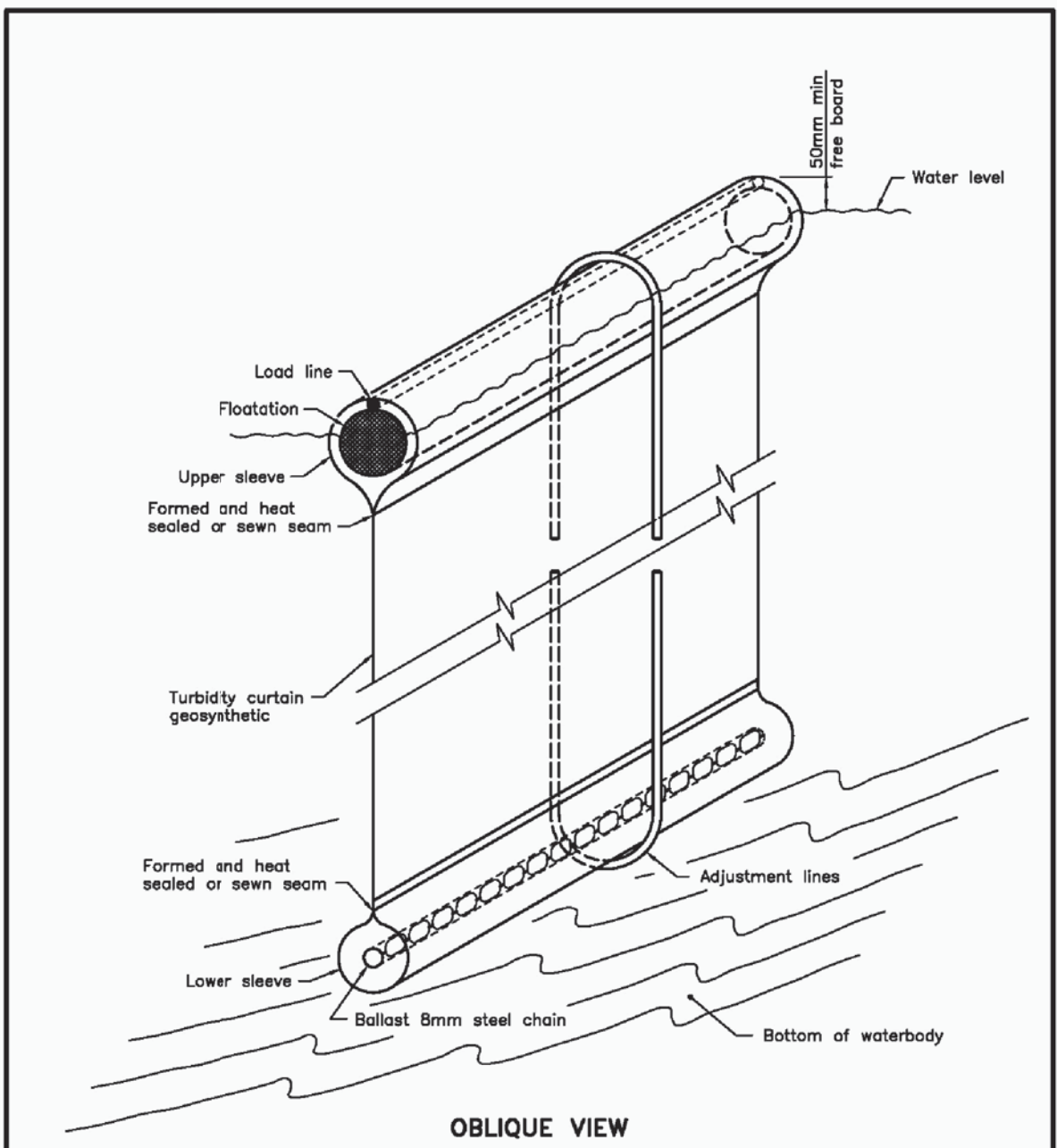ALL EXPOSED TUBE ENDS ARE TO BE CAPPED.

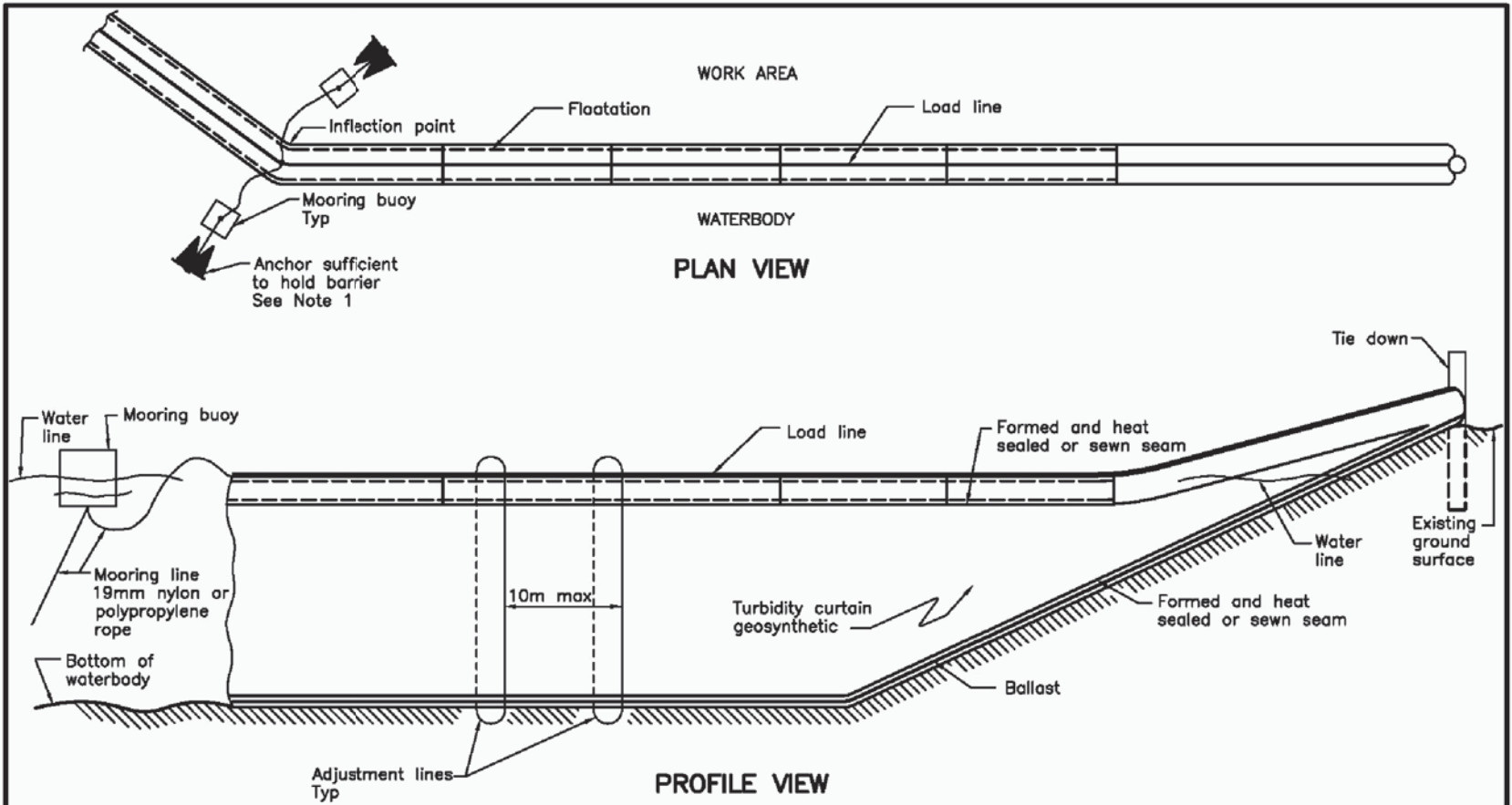|	REVISIONS		
4	ISSUED FOR OC PERMIT	6SEP12	
3	ISSUED FOR CITY REVIEW	24AUG12	
2	ISSUED FOR GEOTECH.	13AUG12	
1	ISSUED FOR APPROVALS	27JULY12	

REGISTERED PROFESSIONAL ENGINEER
L. SANCHEZ
Sept 6, 2012
PROVINCE OF ONTARIO

SE. Sanchez Engineering Inc.

8440 Danforth Road West, RR 6
Cobourg, Ontario
Tel: 905-372-9594
Fax: 905-372-7812
sei.eng@sanchezengineering.ca
www.sanchezengineering.ca

CITY OF PETERBOROUGH

CP RAIL BRIDGE WALKWAY REPLACEMENT

DWG. TITLE
GENERAL ARRANGEMENT

PROJECT NO:	SN0256	DRAWN BY:	S.K.
		DESIGNED BY:	Q.T. - L.S.
		CHECKED BY:	L.S.

DATE: JULY 2012

SCALE: AS SHOWN

DWG. NO.: **G1**

PLAN
SCALE 1:400

PROPOSED PEDESTRIAN BRIDGE (TYPICAL)

HEAVY DUTY SILT FENCE (TYPICAL)

COFFERDAM (TYP.)

COFFERDAM (TYP.)

NOTES:

GENERAL

THE INTENTION IS THAT ALL WORK WITHIN THE WATERWAY SHALL BE CONSTRUCTED IN THE DRY. THE CONTRACTOR SHALL PROVIDE SUFFICIENT PUMPS OF ADEQUATE CAPACITY TO MAINTAIN THE WORK AREAS FREE OF WATER.

EROSION AND SEDIMENT CONTROL

ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO OPSS 805, NOV 10.

INSTALL ALL EROSION AND SEDIMENT CONTROLS BEFORE STARTING WORK.

INSTALL TURBIDITY CURTAINS OUTSIDE OF COFFERDAMS AND AT LEAST 5m AWAY FROM TOE OF COFFERDAM.

INSTALL HEAVY DUTY SILT FENCE PER OPSS 219.130 AT APPROACHES ALONG THE STREAM BANKS.

FOR COFFERDAMS ON SHALLOW WATER AT WEST AND EAST ABUTMENTS THE CONTRACTOR WILL BE PERMITTED TO DISCHARGE DEWATERING FLOW TO A SILTATION CONTROL BAG.

COFFERDAMS

THE WATER LEVELS IN THE RIVER VARY. THE CONTRACTOR SHALL CONTACT THE TRENT SEVERN WATERWAY TO OBTAIN WATER LEVEL DATA.

THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING THE COFFERDAMS SUFFICIENTLY HIGH TO KEEP THE WORK AREAS FREE OF WATER.

COFFERDAMS SHALL BE CONSTRUCTED TO PROVIDE AN IMPERMEABLE BARRIER TO THE RIVER FLOW.

THE CONTRACTOR IS CAUTIONED THAT IT MAY BE NECESSARY TO EXTEND THE IMPERVIOUS MEMBRANE TO THE ABUTMENT AND TO WEIGHT IT TO PREVENT UPLIFT.

COFFERDAMS SHALL BE CONSTRUCTED AND REMOVED WITH THE TURBIDTY CURTAINS IN PLACE.

WEST BRIDGE - ELEVATION
SCALE 1:200

| W1 36813 | W2 31521 | W3 33227 |

PROPOSED PEDESTRIAN BRIDGE (TYP.)

COFFERDAM (TYP.)
RIVER WATER LEVEL VARIES
COFFERDAM (TYP.)
REGULATORY FLOOD W.L. 191.13 m±
NEW ABUTMENT (TYP.)
APPROX. STREAMBED

EAST BRIDGE - ELEVATION
SCALE 1:200

E1 40507

PROPOSED PEDESTRIAN BRIDGE (TYP.)

RIVER W.L. MAY 11, 2012 189.3m±
REGULATORY FLOOD W.L. 191.13 m±
COFFERDAM (TYP.)

TURBIDITY CURTAIN (OPSD 219.261)

50mm min free board
Water level
Load line
Floatation
Upper sleeve
Formed and heat sealed or sewn seam
Turbidity curtain geosynthetic
Formed and heat sealed or sewn seam
Lower sleeve
Ballast 8mm steel chain
Adjustment lines
Bottom of waterbody

OBLIQUE VIEW

NOTES:
A All dimensions are in millimeters.

| ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2006 | Rev 1 |

TURBIDITY CURTAIN
SEAM DETAIL
OPSD 219.261

TURBIDITY CURTAIN (OPSD 219.260)

WORK AREA
Floatation
Load line
Infloation point
Mooring buoy Typ
Anchor sufficient to hold barrier See Note 1
WATERBODY

PLAN VIEW

Water line
Mooring buoy
Load line
Formed and heat sealed or sewn seam
Tie down
Mooring line 19mm nylon or polypropylene rope
Turbidity curtain geosynthetic
Water line
Existing ground surface
Bottom of waterbody
10m max
Ballast
Formed and heat sealed or sewn seam
Adjustment lines Typ

PROFILE VIEW

NOTES:
1 Anchoring is to provide positive positioning for turbidity curtain.
A All dimensions are in millimetres or metres unless otherwise shown.

| ONTARIO PROVINCIAL STANDARD DRAWING | 1996 02 01 | Rev |

TURBIDITY CURTAIN
Date
OPSD - 219.260

COFFERDAM DETAILS
SCALE 1:100

SANDBAGS FILLED WITH PEA GRAVEL
POLYETHYLENE MEMBRANE
STREAMBED
WATER LEVEL

1.0x1.0x1.0 SANDBAGS FILLED WITH ROUND GRAVEL
POLYETHYLENE MEMBRANE
STREAMBED
WATER LEVEL
1000
800

4	ISSUED FOR OC PERMIT	6SEPT12
3	ISSUED FOR CITY REVIEW	24AUG12
2	ISSUED FOR GEOTECH.	13AUG12
1	ISSUED FOR APPROVALS	27JULY12
	REVISIONS	

CITY OF PETERBOROUGH

CP RAIL BRIDGE WALKWAY REPLACEMENT

DWG. TITLE
ENVIRONMENTAL CONTROLS

PROJECT NO: SN0256	DRAWN BY:	S.K.
	DESIGNED BY:	Q.T. - L.S.
	CHECKED BY:	L.S.

DATE: **JULY 2012**

SCALE: AS SHOWN

DWG. NO.: **G2**