




1. FOR GENERAL NOTES SEE DWG G-3.
2. FOR DETAILS OF BUFFER SEE DWG. S-6.
3. ALL BOLTS SHALL BE 22 ($\frac{7}{8}$ ") ϕ A325M
UNLESS OTHERWISE NOTED.
4. WORK THIS DRAWING WITH S-5.

NOTE:
BUFFER NOT SHOWN FOR CLARITY

2	REVISED DATE OF REVISION 1	2015/12/01
1	ISSUED FOR CONSTRUCTION	2015/11/25
revision	description	date

 A Detail No.
No. du détail

B drawing no. — where detail required
dessin no. — où détail exigé

C drawing no. — where detailed
dessin no. — où détaillé

BUFFERS REPLACEMENT

drawn by
dessine par

designed by conc par	J. KEYT
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approved by	approuvé par
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Bid soumission	project manager administrateur de projets
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project date	
date du projet	2015-11-25

project no. no. du projet	R.079892.001
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drawing no.
dessine no. S-4

Professional Engineers
Ontario

Temporary Licensee

Name: Jeffrey Douglas Key
Number: 100215529-01

Limitations: Mechanical engineering for Le Saffre Bridge in Kingston, Ontario for Public Works General Services Canada.

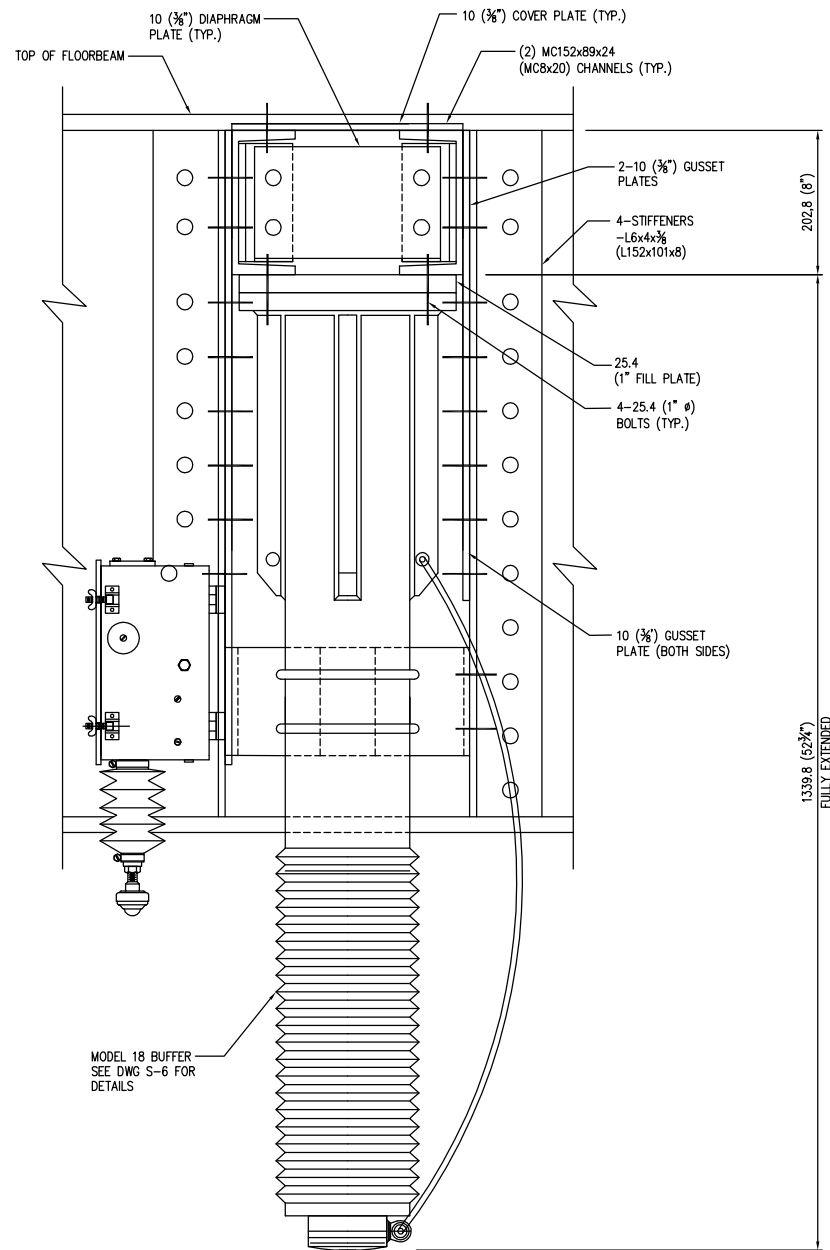
Collaborator: Sylvain Montminy, P.Eng.
Expiry Date: July 31, 2016
Association of Professional Engineers of Ontario

Professional Engineers
Ontario

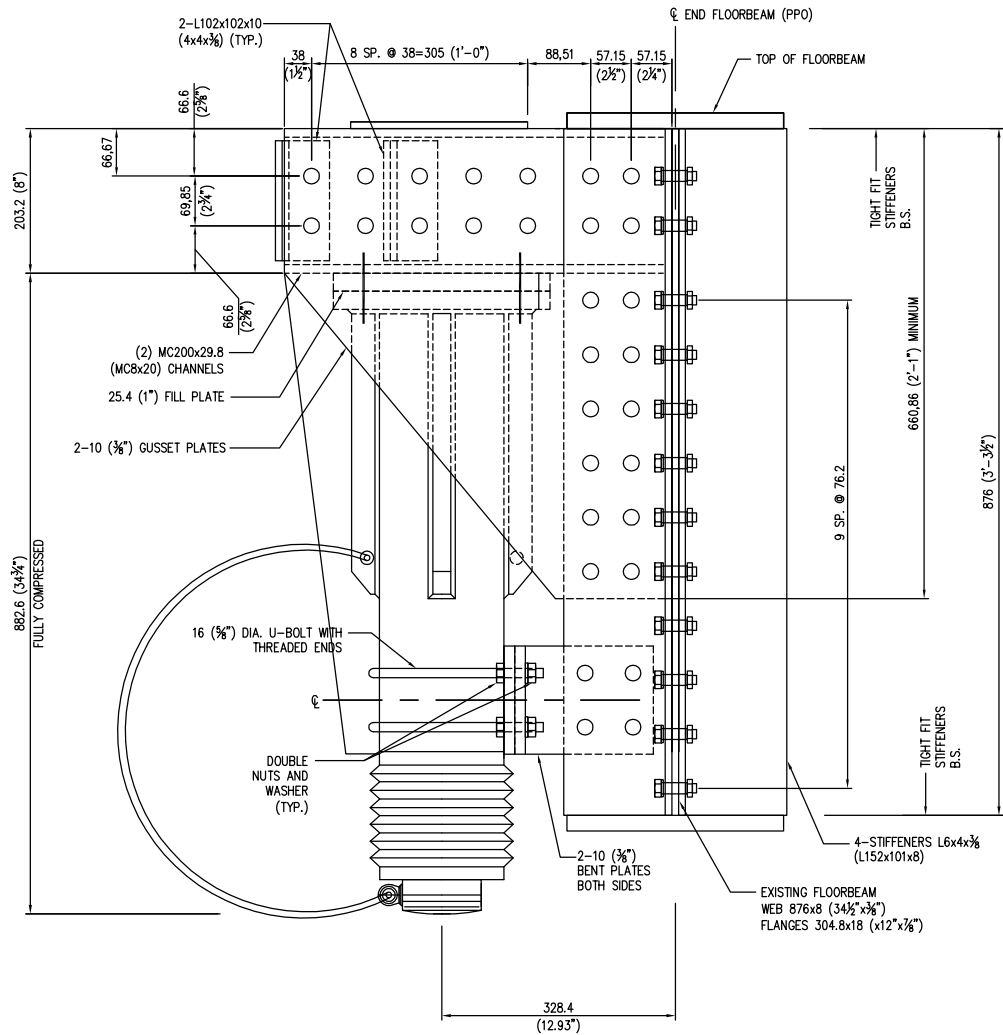
Temporary Licensee

Name: John Schmid
 Number: 100215526
 Limitations: Structural Engineering for La Salle Bridge
 in Kingston, Ontario for Public Works Government
 Services Canada.

Collaborator: Edward Li, P.Eng.
Expiry Date: March 31, 2016
Association of Professional Engineers of Ontario



FRONT VIEW - NEW BUFFER

C
3 5

**Professional Engineers
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Temporary Licensee
Name: Jeffrey Douglas Keyt
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Limitations: Mechanical engineering for La Salle
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Services Canada.

Collaborator: Sylvain Montminy, P.Eng.
Expiry Date: July 31, 2016
Association of Professional Engineers of Ontario

**Professional Engineers
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Temporary Licensee
Name: John Schmid
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Limitations: Structural engineering for La Salle Bridge
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Collaborator: Edward Li, P.Eng.
Expiry Date: March 31, 2016
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Région de l'Ontario

revision	description	date
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Do not scale drawings. Verify all dimensions and
conditions on site and immediately notify the
Departmental Representative of all discrepancies.



- A Detail No.
No. du détail
B drawing no. - where detail required
dessin no. - où détail exigé
C drawing no. - where detailed
dessin no. - où détaillé

project title
titre du projet
**KINGSTON ONTARIO
LASALLE CAUSEWAY
BASCULE BRIDGE**

BUFFERS REPLACEMENT

drawing title
titre du dessin
**FRONT VIEW AND SECTIONS
OF BUFFER MODEL 5 X 18
ATTACHED TO FLOORBEAM**

drawn by
dessiné par
G. TAYLOR

designed by
conçu par
J. KEYT

approved by
approuvé par

Bid
soumission
project manager
administrateur
de projets

project date
date du projet
2015-11-25

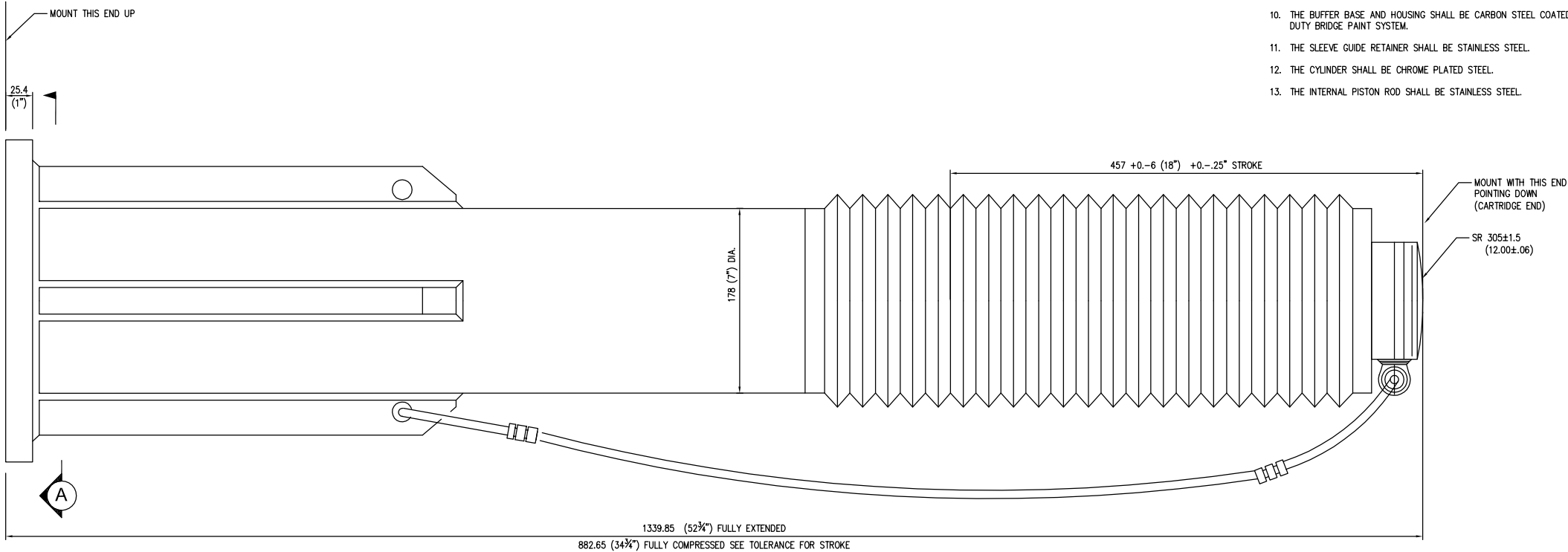
project no.
no. du projet
R.079892.001

drawing no.
dessiné no.
S-5

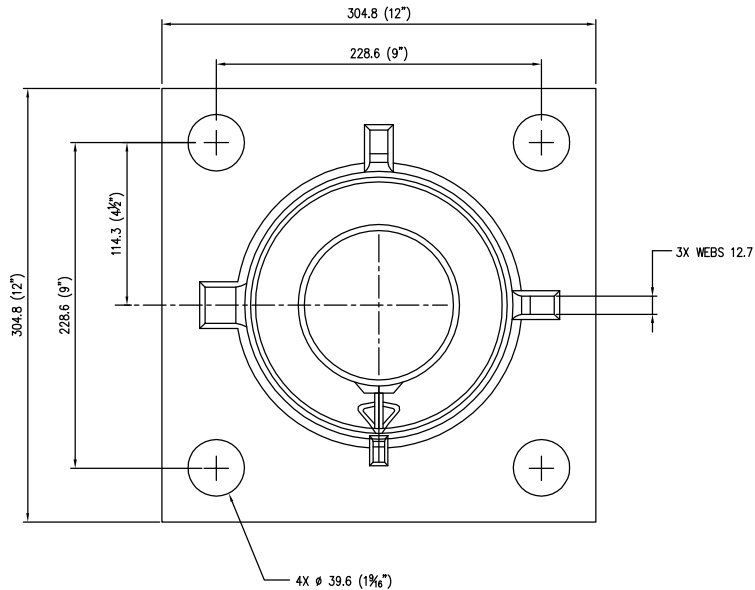
- NOTES:
1. UNIT TYPE: COMPRESSION ACTING HYDRAULIC SHOCK ABSORBER.
 2. UNIT TO HAVE INTERNAL COIL SPRING RESET AND QUICK RETURN VALVE.
 3. NOMINAL INTERNAL SPRING FORCES: 445 KN (100 LB.) AT FULL EXTENSION (SHOWN), 1.13 KN (255 LB.) WHEN FULLY COMPRESSED
 4. UNIT TO ABSORB 61012 NM (540,000 IN.-LB.) OF ENERGY
 5. ALL EXTERNAL SURFACES TO BE CORROSION PROTECTED.
 6. BACKUP STRUCTURE TO BE DESIGNED FOR 222.4 KN (50,000 LB.)
 7. APPROXIMATE BUFFER WEIGHT: 125 kg (275 LB.)
 8. BUFFER TO REACT WITH 222.4 KN (50,000 LB.) FORCE AT AN IMPACT VELOCITY OF 150 (6") PER SECOND.
 9. BUFFER TO BE MOUNTED WITH THE CARTRIDGE POINTING IN THE DOWNWARD DIRECTION, (MOUNTING HOLE END UP), FOR RESET PURPOSES. THE BUFFER IS EQUIPPED WITH A COIL SPRING TO AID IN RESET, BUT IF MOUNTED VERTICALLY, WITH MOUNTING HOLE END DOWN, BUFFER MAY NOT RESET.
 10. THE BUFFER BASE AND HOUSING SHALL BE CARBON STEEL COATED WITH A 3 PART HEAVY DUTY BRIDGE PAINT SYSTEM.
 11. THE SLEEVE GUIDE RETAINER SHALL BE STAINLESS STEEL.
 12. THE CYLINDER SHALL BE CHROME PLATED STEEL.
 13. THE INTERNAL PISTON ROD SHALL BE STAINLESS STEEL.

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ELEVATION - MODEL 18 BUFFER



SECTION A-A

 Professional Engineers Ontario
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Collaborator: Sylvain Montminy, P.Eng.
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Temporary Licensee
Name: John Schmid
Number: 100215526
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Collaborator: Edward Li, P.Eng.
Expiry Date: March 31, 2016
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- A Detail No.
No. du détail
B drawing no. - where detail required
dessin no. - où détail exigé
C drawing no. - where detailed
dessin no. - où détaillé

project title
titre du projet
KINGSTON ONTARIO
LASALLE CAUSEWAY
BASCULE BRIDGE

BUFFERS REPLACEMENT

drawing title
titre du dessin
ELEVATION AND SECTION
OF BUFFER
MODEL 5 X 18

drawn by
dessiné par G. TAYLOR

designed by
conc par J. KEYT

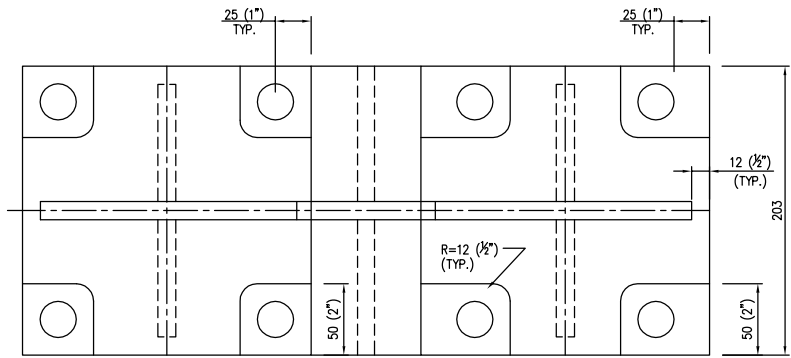
approved by
approuvé par

Bid soumission project manager
administrateur de projets

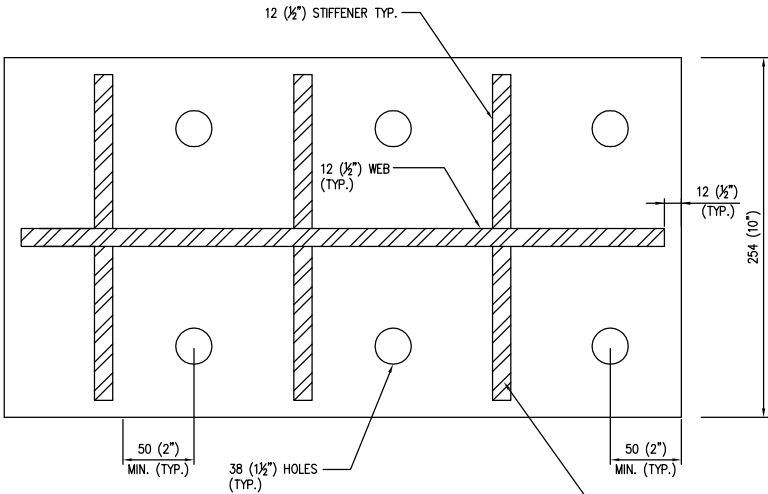
project date
date du projet 2015-11-25

project no.
no. du projet R.079892.001

drawing no.
dessiné no. S-6

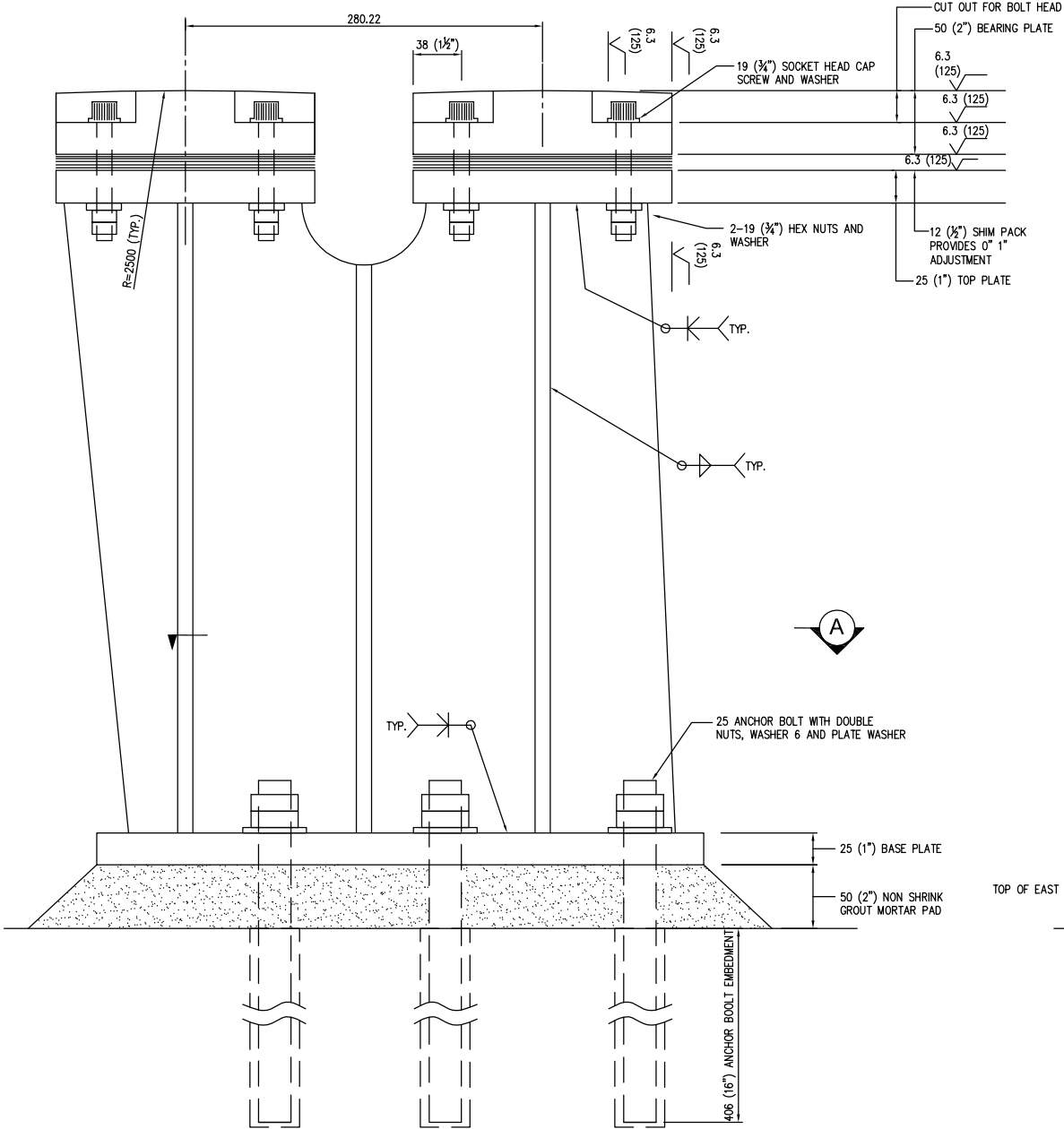


PLAN - PEDESTAL

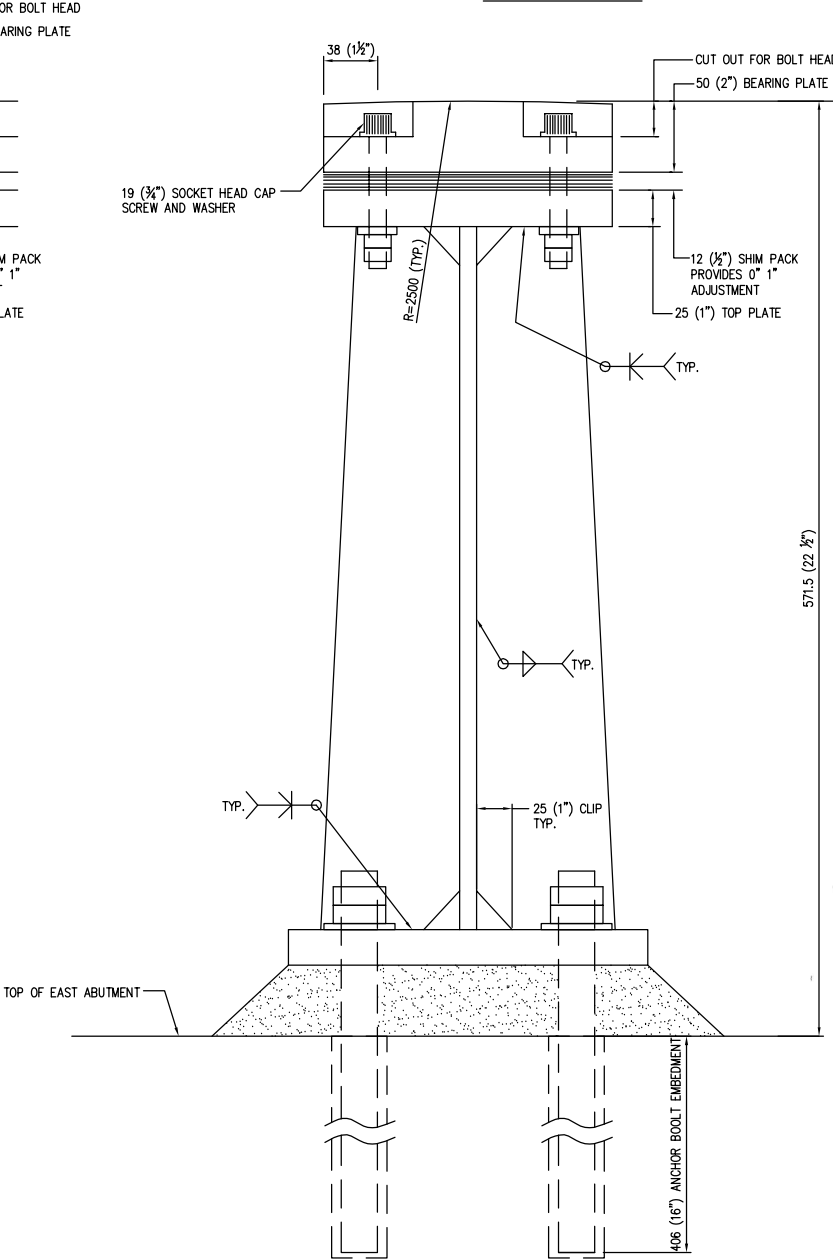


SECTION A-A

NOTES:
1. ALL FILLET WELDS ARE 10mm.



ELEVATION - PEDESTAL



END VIEW - PEDESTAL

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A	Detail No.
B	drawing no. - where detail required
C	drawing no. - where detailed

project title
titre du projet
KINGSTON ONTARIO
LASALLE CAUSEWAY
BASCULE BRIDGE

BUFFERS REPLACEMENT

drawing title
titre du dessin
PLAN, ELEVATION
AND SECTION OF PEDESTAL

drawn by
dessiné par
G. TAYLOR

designed by
conçu par
J. KEYT

approved by
approuvé par

Bid
soumission
project manager
administrateur
de projets

project date
date du projet
2015-11-25

project no.
no. du projet
R.079892.001

drawing no.
dessiné no.
S-7

Professional Engineers
Ontario
Temporary Licensee
Name: Jeffrey Douglas Keyt
Number: 100215529-01
Limitations: Mechanical engineering for La Salle
Bridge in Kingston, Ontario for Public Works General
Services Canada.
Collaborator: Sylvain Monstrey, P.Eng.
Expiry Date: July 31, 2016
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Professional Engineers
Ontario
Temporary Licensee
Name: John Schmid
Number: 100215526
Limitations: Structural engineering for La Salle Bridge
in Kingston, Ontario for Public Works Government
Services Canada.
Collaborator: Edward L. P.Eng.
Expiry Date: March 31, 2016
Association of Professional Engineers of Ontario