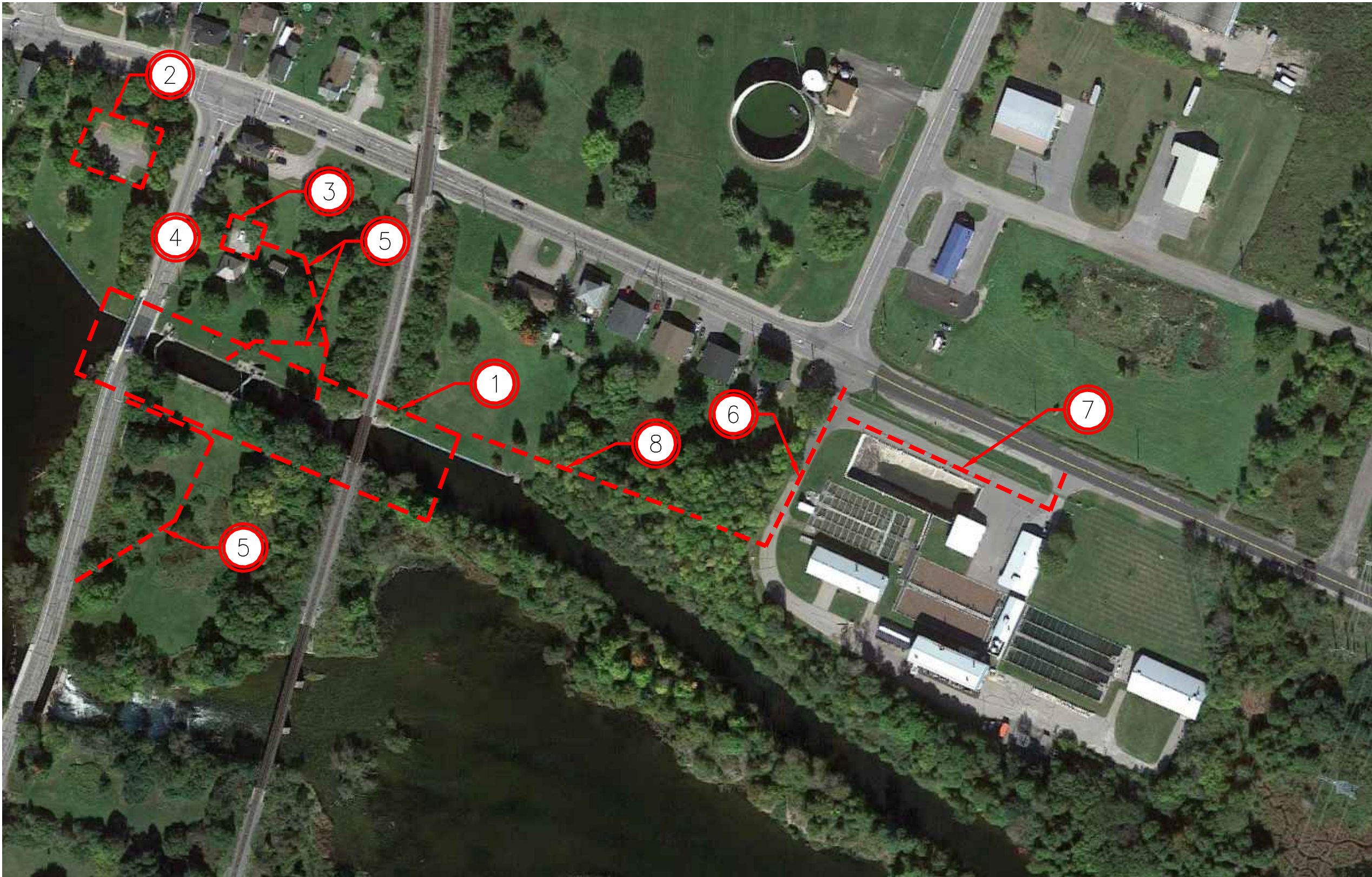


OLD SLYS LOCK 26 & 27
HERITAGE STONE MASONRY REPAIRS



NOTES

- 1

SITE. SEE 1/S01
- 2

ALTERNATIVE PAVED PARKING LOT FOR CONTRACTOR CONSTRUCTION YARD OR STORAGE YARD. SEE PHOTO 04/S00.
- 3

ENCLOSED CONTRACTOR CONSTRUCTION YARD. SEE PHOTO 03/S00.
- 4

MAIN SITE ACCESS.
- 5

TEMPORARY ACCESS ROAD TO STAGING AREA
- 6

MAIN ACCESS ROUTE
- 7

SECONDARY ACCESS ROUTE
- 8

NEW ACCESS ROAD ON PCA PROPERTY SEE 11/S10 FOR SECTION OF ROAD THROUGH BUSH. BASE WILL REMAIN IN PLACE ON COMPLETION OF THE WORK. RESTORE LAWN WITH SOD.

KEY LOCATION PLAN

SCALE: N.T.S.

01
S00

DRAWING LIST

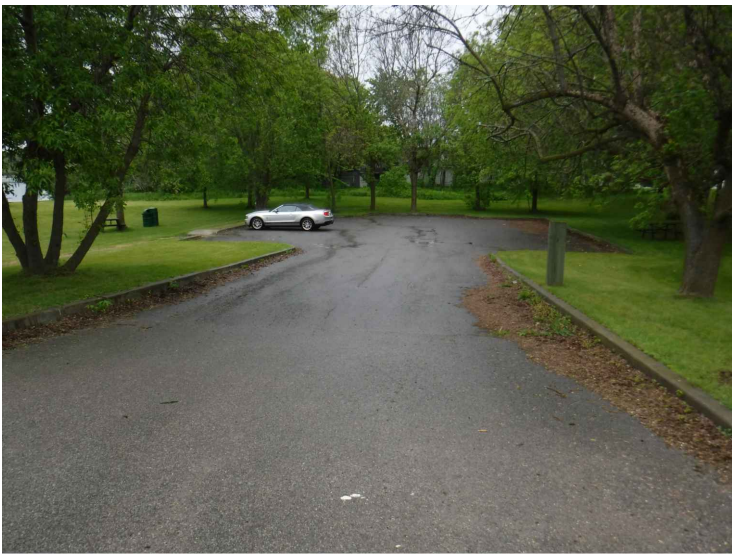
- S00 SITE STAGING AND ACCESS PLAN
- S01 GENERAL SITE OVERVIEW
- S02 PLAN UPPER LOCK 27
- S03 ELEVATIONS UPPER LOCK 27
- S04 PLAN LOWER LOCK 26
- S05 ELEVATIONS LOWER LOCK 26
- S06 SECTIONS AND DETAILS
- S07 SECTIONS AND DETAILS
- S08 LOCK 26 & 27 PHOTOGRAPHIC DETAILS
- S09 LOCK 26 & 27 PHOTOGRAPHIC DETAILS
- S10 LOCK 26 & 27 PHOTOGRAPHIC DETAILS



MAIN CAR PARK

SCALE: N.T.S.

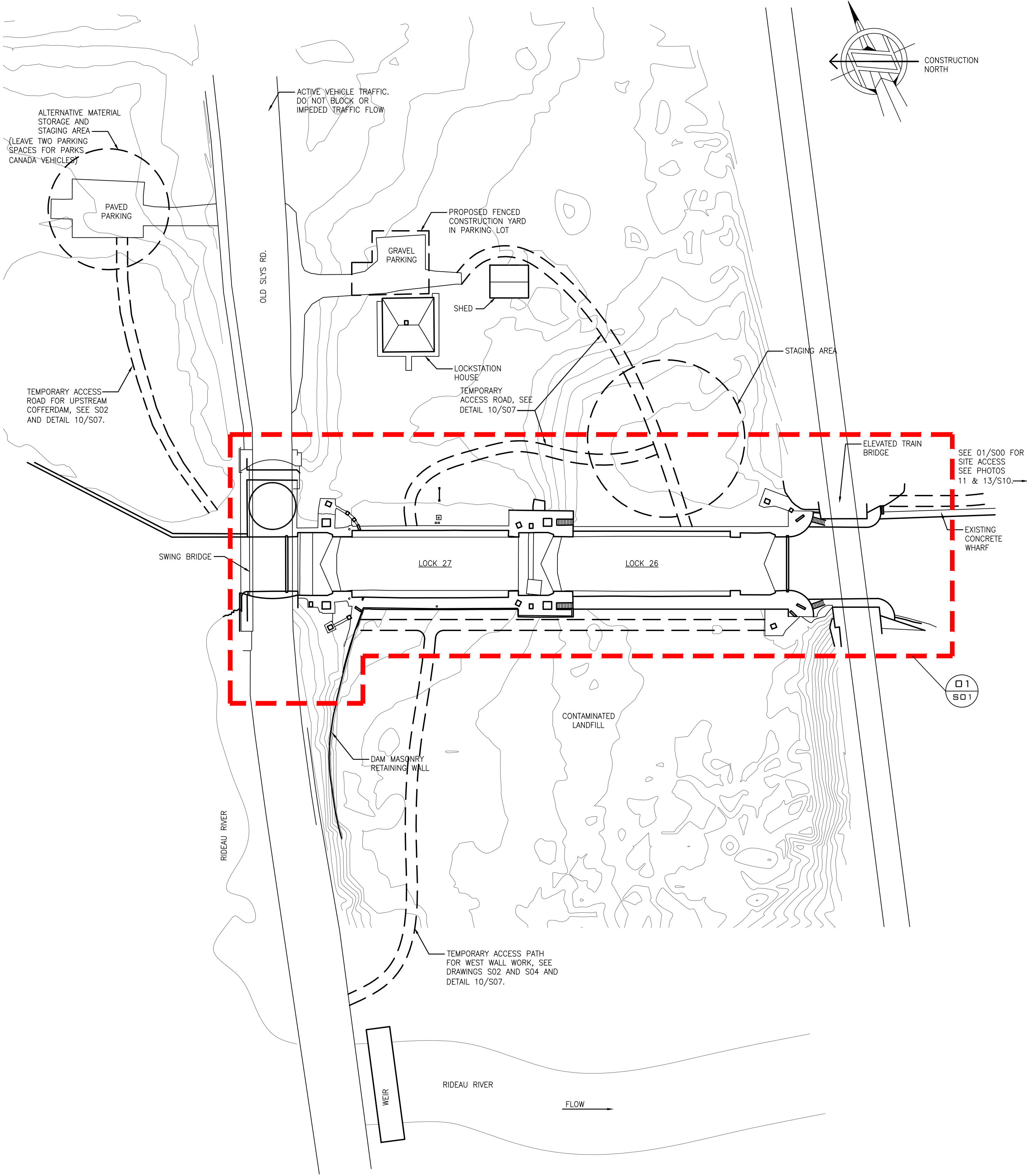
03
S00



ALTERNATIVE CAR PARK

SCALE: N.T.S.

04
S00



SITE STAGING AND ACCESS PLAN

SCALE: 1:500

02
S00

Canadä

JOHN G.

COOKE

& ASSOCIATES LTD.

CONSULTING ENGINEERS

17 FITZGERALD ROAD SUITE 200 OTTAWA, ONT. K2H 9G1

(613) 226-8718 FAX (613) 226-7424

E-MAIL mailbox@jgcooke.com

WEB SITE www.jgcooke.com

17019

17019-S00 DRAWING 1 OF 11

DRAWING NO. DRAWING NAME

REFERENCE DRAWINGS

NO.	DATE	DESCRIPTION	Drawn by	Approved
1	2017/08/01	ISSUED FOR BID	C.P.	P.C.

REVISIONS

NO.	DATE	DESCRIPTION	Drawn by	Approved
1	2017/08/01	ISSUED FOR BID	C.P.	P.C.

Linear dimensions in millimeters Dimensions lineaires en millimetres



PARCS CANADA
EASTERN ONTARIO FIELD UNIT

Type of Record /
Type d'enregistrement

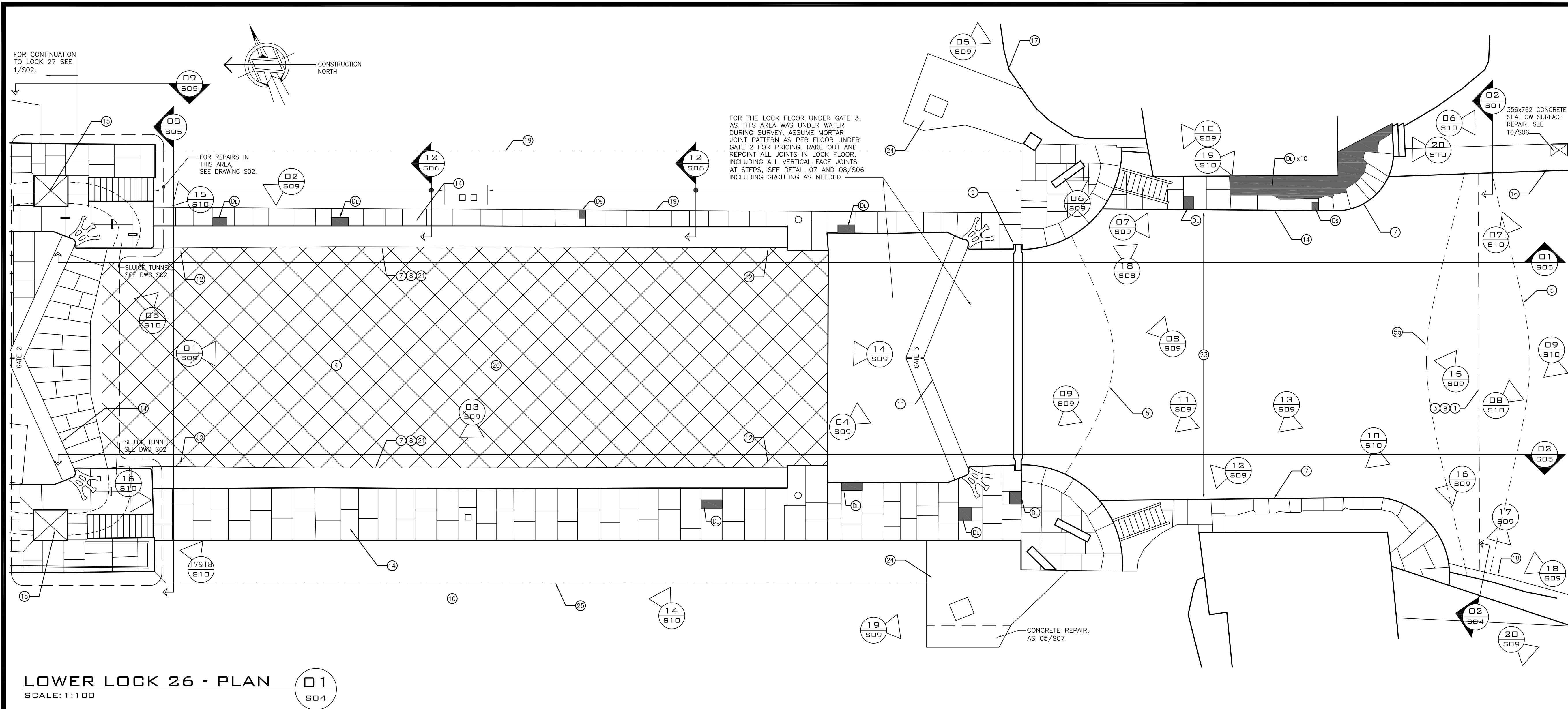
Project title / Titre du projet
OLD SLYS LOCK 26 & 27
HERITAGE STONE MASONRY REPAIRS

Drawing title / Titre du dessin

SITE STAGING AND
ACCESS PLAN

Plot Scale / Echelle 1:1 (Arch D 24x36 Plot Size)	Drawn by/ Dessine par C.P.	Date 2018/06/08
Field Recording by / Releve-Temoin par P.C. & L.M. & C.P.	Date 2018/06/08	
Approved by / Approuve par P.C.	Date 2018/08/01	
Checked by/ Verifie par J.C.	Date 2018/08/01	
Project No./ No. du projet 17019	Asset No. 17019-S00-R04	Sheet No./ Feuille No. S00

Parcs Canada Parks Canada					
Canada					
<div style="border: 2px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <div style="display: flex; justify-content: space-between;"> <div style="text-align: left;"> JOHN G. COOKIE & ASSOCIATES LTD. CONSULTING ENGINEERS 17 FITZGERALD ROAD SUITE 200 (613) 226-8718 E-MAIL WEB SITE </div> <div style="text-align: right;"> OTTAWA, ONT. K2H 9G1 FAX (613) 226-7424 mailbox@jgcookie.com www.jgcookie.com </div> </div> </div>					
17019					
17019-S03	DRAWING 4 OF 11				
DRAWING NO.	DRAWING NAME				
REFERENCE DRAWINGS					
1	2018/08/01	ISSUED FOR BID	C.P.	P.C.	
NO.	DATE	DESCRIPTION	Drawn by Dessiné par	Approved Approuvé	
REVISIONS					
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> A </div> <div>A Detail number</div> <div style="text-align: center;"> B </div> <div>B Sheet number</div> <div style="text-align: center;"> A </div> <div>A Numero de detail</div> <div style="text-align: center;"> B </div> <div>B Sur feuille numero</div> </div>					
Linear dimensions in millimeters			Dimensions lineaires en millimetres		
PARKS CANADA EASTERN ONTARIO FIELD UNIT					
Type of Record / Type d'enregistrement					
Project title / Titre du projet <div style="text-align: center; font-size: 1.5em; font-weight: bold;"> OLD SLYS LOCKS 26 & 27 HERITAGE STONE MASONRY REPAIRS </div>					
Drawing title / Titre du dessin <div style="text-align: center; font-size: 1.5em; font-weight: bold;"> ELEVATIONS UPPER LOCK 27 </div>					
Plot Scale / Echelle 1:1 (Arch D 24x36 Plot Size)					
Drawn by/ Dessiné par C.P.			Date 2018/06/08		
Field Recording by / Relevé-Terminé par N.J. & J.M.			Date 2018/06/08		
Approved by / Approuvé par P.C.			Date 2018/08/01		
Checked by/ Verifié par J.C.			Date 2018/08/01		
Project Re No./ No. du projet 17019		Asset No.		S03	
Drawing Re No./No. du Dessin 17019-S03-R04					



LOWER LOCK 26 - PLAN
SCALE: 1:100
01
S04

SCOPE OF WORK (BOTH PHASES U/N)

- PHASE 1 ONLY; INSTALL APPROVED COFFERDAM STRUCTURES UPSTREAM AND DOWNSTREAM BEYOND EXTENT OF STONE MASONRY AS REQUIRED, TO ALLOW WORK ON APPROACH WALLS TO PROCEED. COFFERDAM DESIGN AND INSTALLATION TO BE REVIEWED AND CERTIFIED BY AN ENGINEER RETAINED BY THE CONTRACTOR, WHO IS REGISTERED IN THE PROVINCE OF ONTARIO AND EXPERIENCED IN COFFERDAM DESIGN AND CONSTRUCTION. COFFERDAMS MUST BE LOCATED TO NOT IMPEDE MASONRY REPAIRS NO CLOSER THAN 600mm TO WALLS REQUIRING REPAIR. CONSTRUCT UPSTREAM COFFERDAM TO CREST AT 111.76m, AND DOWNSTREAM COFFERDAM TO CREST AT 106.71m. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL SITE CONDITIONS PRIOR TO DESIGN OF COFFERDAM.
- UPSTREAM COFFERDAM: CONSTRUCT BETWEEN CONCRETE BRIDGE ABUTMENTS. REFER TO BATHYMETRY SURVEY AND BOREHOLE LOG IN APPENDIX A. ASSUME REMOVAL OF 900mm OF RIVER BOTTOM SEDIMENT TO OBTAIN SEAL OF COFFERDAM.
- DOWNSTREAM COFFERDAM: THE LOCATION OF THE DOWNSTREAM COFFERDAM CAN BE AS SHOWN ON 1/S01. WHERE IT TIES INTO THE EXISTING CONCRETE RETAINING WALL OF THE WHARF ON THE NORTH SIDE, AND THE STONE RETAINING WALL AND THE STONE ON THE SOUTH SIDE. THE CONTRACTOR IS RESPONSIBLE FOR INVESTIGATING AND SEALING THE EDGE CONDITION FOR LEAKS. REFER TO BATHYMETRY SURVEY AND BOREHOLE LOG IN APPENDIX A. ASSUME REMOVAL OF 600mm IF RIVER BOTTOM SEDIMENT TO OBTAIN SEAL OF COFFERDAM.
- CONSTRUCT WINTER PROTECTION ENCLOSURE AS REQUIRED TO COMPLETE THE WORK WITHIN THE REQUIREMENTS OF THE PROJECT, SEE 01/S07.
- INSTALL UPSTREAM AND DOWNSTREAM TURBIDITY CURTAINS, PRIOR TO START OF WORK. INSTALL CURTAINS AT LEAST 1m BEYOND COFFERDAM. AFTER MARCH 14, RELOCATE 1 METRE BEYOND LOG GAINS.
- PHASE 1 ONLY; INSTALL SECOND TURBIDITY CURTAIN UPSTREAM OF PROPOSED DOWNSTREAM COFFERDAM TO CONFINE SILT DURING CONSTRUCTION OF DOWNSTREAM COFFERDAM, REMOVE AFTER COFFERDAM CONSTRUCTED.
- PHASE 1 ONLY; INSTALL THIRD TURBIDITY CURTAIN 20m DOWNSTREAM APPROX. FROM COFFERDAM, SO THAT WATER CONDITION CAN BE MONITORED CONTINUALLY. REMOVE AFTER DOWNSTREAM COFFERDAM IS REMOVED.
- INSTALL STOP LOGS IN STOP LOG GAIN TO COMPLETE THE WORK INSIDE THE LOCK, BETWEEN MARCH AND MAY DEADLINES FOR PHASE 1 WORK AND FOR FULL EXTENT OF PHASE 2 WORK. STOP LOGS TO BE INSTALLED PRIOR TO DISMANTLING COFFERDAMS. STOP LOGS TO BE PROVIDED TO THE CONTRACTOR, ON LOAN FROM PCA. CONTRACTOR IS RESPONSIBLE FOR ARRANGING DELIVERY OF STOP LOGS TO SITE, INSTALLING THEM, REMOVING THEM AND RETURNING THEM TO PCA. THE STOP LOGS MUST BE SEALED ON THE OUTSIDE FACE WITH A POLYSHEET OR OTHER MEANS TO PREVENT THE LOGS FROM LEAKING IF NOT SEALED. NOTE: STOP LOGS ARE MADE UP OF STEEL I-SECTIONS, STOP WOOD BEAMS AND STEEL PLATE.
- MASONRY REPAIRS ALONG LOCK MASONRY WALLS (ALL WALLS WITHIN OUTLINE SHOWN). SEE DRAWINGS S03 AND S05.
- GROUTING OF MASONRY WALLS, SEE 08/S06. ASSUME GROUTING IS REQUIRED ON 100% OF ALL WALLS, INCLUDING SLUICE TUNNELS AND VENT SHAFTS, AND ALL APPROACH WALLS.
- PHASE 1 ONLY; DISMANTLE COFFERDAM AFTER COMPLETION OF THE REPAIRS, BUT NO LATER THAN MARCH 14TH, 2019, WHICHEVER IS EARLIER.
- CONTAMINATED SOIL ON SOUTH SIDE OF LOCKS. FOR WORKING ON THIS SIDE OF LOCKS REFER TO SPECIFICATIONS FOR ENVIRONMENTAL REQUIREMENTS. LOCATE EXISTING GROUND WATER MONITORING WELLS AND PROTECT FOR DURATION OF WORK.
- LOCK GATES. NO WORK ON GATES IS INCLUDED IN SCOPE.
- EXISTING LADDER TO BE REMOVED AND DISPOSED OFF SITE. PROVIDE NEW STEEL LADDER, GALVANIZED AND PAINTED AS SPECIFIED. INSTALL AFTER MASONRY REPAIRS ARE COMPLETE. SEE DRAWINGS S03 AND S05.
- PARKS CANADA SIGNAGE AND MISCELLANEOUS FURNITURE AT THE EDGE OF THE LOCKS TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
- SKYWARD FACING JOINTS IN STONE/CONCRETE CAP INCLUDED IN SCOPE. REPOINT JOINTS AS PER 02/S06.
- SLUICE TUNNEL/SHAFT MASONRY TO BE REPAIRED. REFER TO DRAWINGS S02 TO S05.
- DOWNSTREAM CONCRETE WHARF, SEE 02/S01. N.I.C.
- STONE REPOINTING AND REPAIRS ON STONE RETAINING WALL. SEE ELEVATION 07/S05.
- STONE WALL. N.I.C.
- CAREFULLY EXCAVATE TO DEPTH OF 900mm ADJACENT TO WALL ALL ALONG SIDE OF LOCKS. REPOINT AS PER 08/S06 AND 12/S06.
- REMOVE ALL DEBRIS FROM FLOOR OF LOCK CHAMBER. ASSUME 40m³ TOTAL MATERIAL TO BE REMOVED, SEE SECTION 01/S07. SEE PHOTO 10/S08.
- PRIOR TO MASONRY WORK, USE LOW-PRESSURE CLEANING TO CLEAN ALL WALLS IN AREA OF WORK TO REMOVE ALL ZEBRA MUSSELS, PLANT LIFE AND DIRT.
- CONCRETE AND RAILING REPAIR ON RETAINING WALL, SEE SECTION 08/S07.
- PHASE 1 ONLY; WORK ON SECTIONS OF APPROACH WALLS, UPSTREAM OF GATE 1 ON LOCK 27, AND DOWNSTREAM OF GATE 3 ON LOCK 26 MUST BE COMPLETED, PRIOR TO REMOVAL OF COFFERDAMS. THIS INCLUDES LOCK FLOORS, SEE DRAWINGS S02 AND S04.
- CONCRETE/STONE APRONS UNDER LOCK HARDWARE. SEE DRAWINGS S02 AND S04 FOR LOCATION. SEE DETAIL 10/S06 AND 05/S07 FOR CONCRETE REPAIRS.
- CAREFULLY EXCAVATE CONTAMINATED MATERIAL BEHIND WEST WALL OF BOTH LOCKS, AND DISPOSE OFFSITE CONSOLIDATE MASONRY, BACKFILL AND RE-LANDSCAPE AS PER 09/S07.
- POWERLINES AT UPSTREAM END OF GATE 1, LOCK 27. SEE NOTE (E) ON DRAWING S03.

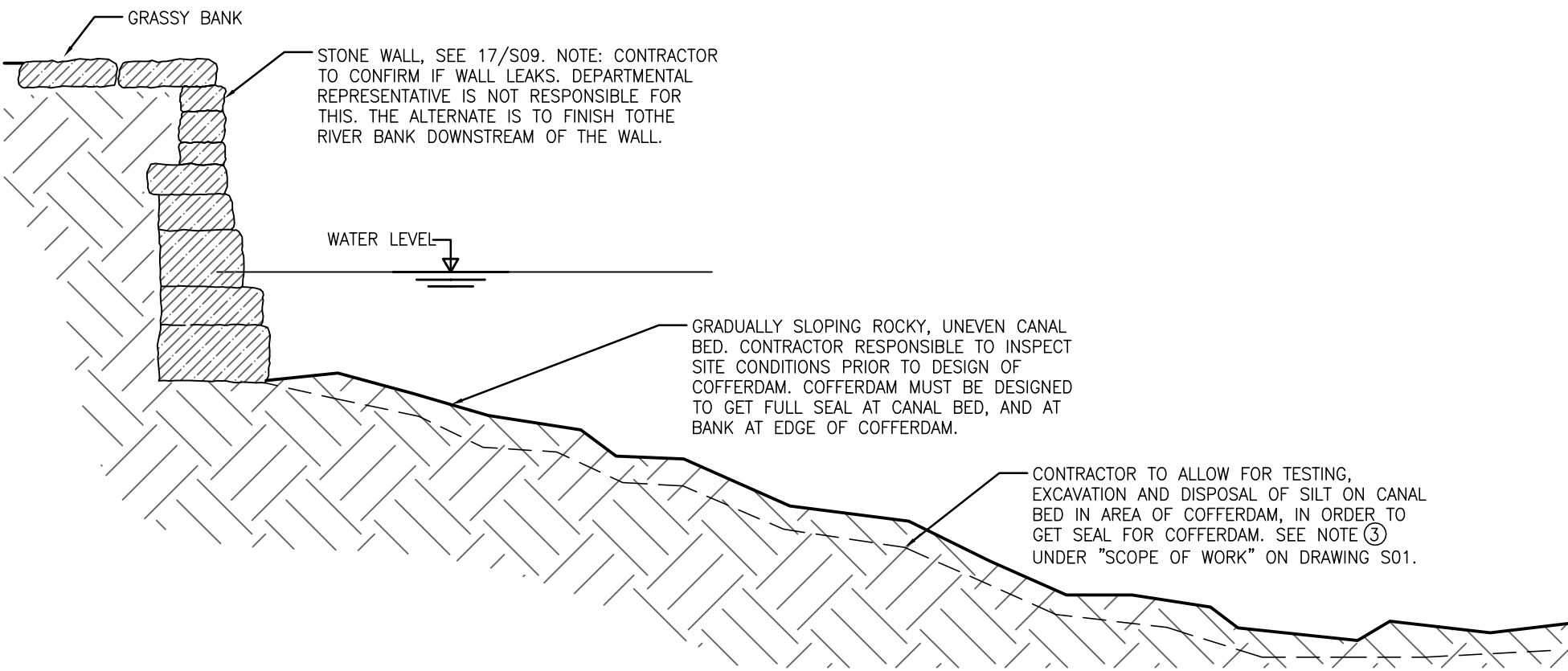
LEGEND OF MASONRY REPAIRS:

- LARGE DUTCHMAN REPAIR. SEE 05/S06. FOR PRICING, AVERAGE REPAIR IS 800mm by 450mm (0.36m²) by 200mm Dp. (*) (SPECIFICATIONS: SECTION 04 03 41, CLAUSE 3.8) TOOL FACE OF DUTCHMAN AS 02A/S07. WHERE STONE IS ROTATED, REALIGN NEW DUTCHMAN AS PER 07/S07.
- SMALL DUTCHMAN REPAIR. SEE 04/S06. FOR PRICING, AVERAGE REPAIR IS 450mm by 300mm (0.14m²) by 100mm Dp. (SPECIFICATIONS: SECTION 04 03 41, CLAUSE 3.8) TOOL FACE OF DUTCHMAN AS 02B/S07.
- FRACTURED STONE REPAIRED IN-SITU, SEE 01/S06 (SPECIFICATIONS: SECTION 04 03 41, CLAUSE 3.7)
- STEEL PIN INSERT REMOVAL. REMOVE EXISTING PIN REPAIR WITH STONE FILL.
- REMOVE EXISTING CONCRETE PATCH AND INSTALL STONE DUTCHMAN REPAIR. APPROXIMATE SIZE 800x450mm AS FOR (A) CARVE FACE OF DUTCHMAN TO MATCH EXISTING. SEE DETAIL 11/S07.
- NEW LARGE STONE. SEE 09/S06 SIMILAR. FOR RESET, SEE ALSO (B) FOR SIZE. TOOL FACE OF STONE AS 02A/S07. NEW STONE IS LIMESTONE ONLY.
- REMOVE AND RESET LARGE STONE. SEE 09/S06. ASSUME AVERAGE STONE SIZE OF 450x800x500dp/UNIT (0.36m²)
- EDGE DUTCHMAN REPAIRS. APPLY TO STONE ARRIS OF EXISTING STONE. TO REDUCE WIDTH OF MORTAR JOINT TO 35mm, SEE DETAIL 03/S07. AVERAGE SIZE 1500x100x125dp.
- (*) LARGE DUTCHMAN, REPAIRS FOR FLOOR STONES. 915x1020x150dp. IS ASSUMED SIZE FOR PRICING.

ADDITIONAL REPAIRS ON TOP OF LOCK WALLS AND ON FLOOR OF LOCKS FOR PRICING:

FOR PRICING, ALLOW THE FOLLOWING ADDITIONAL QUANTITIES BEYOND THOSE SHOWN ON PLAN ON DRAWING S04:

- ALLOW FOR ADDITIONAL 2m² OF STONE REMOVE AND RESET, LARGE
- ALLOW FOR ADDITIONAL 4m² OF LARGE DUTCHMAN REPAIR
- ALLOW FOR ADDITIONAL 2m² OF EDGE DUTCHMAN REPAIR
- ALLOW FOR 4m² SURFACE CONCRETE REPAIRS AS 10/S06
- ALLOW FOR 2m² DEEP SURFACE CONCRETE REPAIRS AS 05/S07
- ALLOW FOR 5 STEEL PIN INSERT REMOVALS



NATURAL CANAL BANK AT
DOWNSTREAM COFFERDAM
SCALE: 1:50
02
S04

Canadá

JOHN G.
COOKE
& ASSOCIATES LTD.
CONSULTING ENGINEERS
17 FITZGERALD ROAD OTTAWA, ONT.
SUITE 200 K2H 9G1
(613) 226-8718 FAX (613) 226-7424
E-MAIL: mailbox@jgcooke.com
WEB SITE: www.jgcooke.com

17019

17019-S04 DRAWING 5 OF 11

DRAWING NO. DRAWING NAME

REFERENCE DRAWINGS

1 2018/08/01 ISSUED FOR BID C.P. P.C.

NO. DATE DESCRIPTION Drawn by Approved
Dessine par Approuve

REVISIONS

A Detail number A Numero de detail
B Sheet number B Sur feuille numero

Linear dimensions in millimeters Dimensions lineaires en millimetres



PARKS CANADA
EASTERN ONTARIO FIELD UNIT

Type of Record /
Type d'enregistrement

Project title / Titre du projet

OLD SLYS LOCKS 26 & 27
HERITAGE STONE MASONRY REPAIRS

Drawing title / Titre du dessin

PLAN
LOWER LOCK 26

Plot Scale / Echelle
1:1 (Arch. D 24x36 Plot Size)

Drawn by/ Dessine par Date
C.P. 2018/06/08

Field Recording by /
Releve-Temoins par Date
P.C. & L.M. & C.P. 2018/06/08

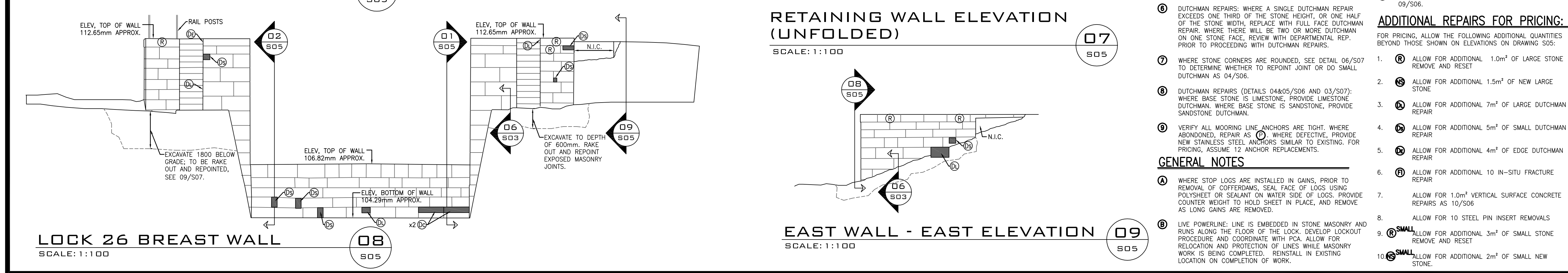
Approved by / Approuve par Date
P.C. 2018/08/01

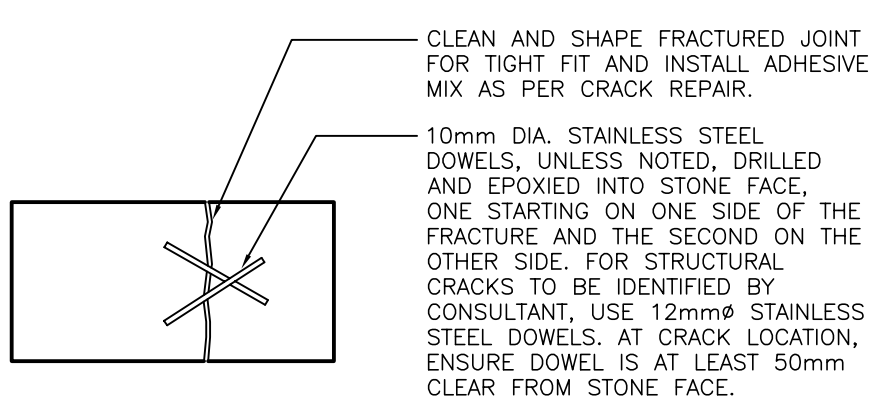
Checked by/ Verifie par Date
J.C. 2018/08/01

Project No./ No. du projet Asset No. Sheet No./
Feuille No.

17019 17019-S04-R04

S04



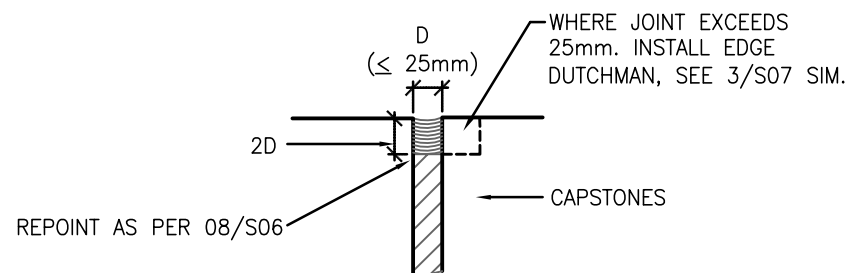


IN-SITU FRACTURED STONE REPAIR PROCEDURE:

- DRILL 11 OR 13mm Ø HOLES, SPACED AT 300 O.C. MAXIMUM, MINIMUM 2 ANCHORS PER STONE. EXTEND 60mm BEYOND FRACTURE. MINIMUM LENGTH OF HOLE TO BE 140mm.
- DRILL PORT HOLES Ø 100mm O.C. INTO CRACK TO INJECT ADHESIVE MIX INTO CRACK. NOTIFY DEP. REP. TO INSPECT BEFORE PROCEEDING TO NEXT STEP.
- INSERT 10 OR 12mm Ø STAINLESS STEEL DOWELS, 100mm LONG AND APPLY EPOXY ADHESIVE. LET SET FOR 24 HOURS MINIMUM.
- REPAIR SURFACE OF FRACTURE AND DOWEL HOLES WITH RESTORATION MORTAR TO MATCH THE SURROUNDING STONE, AND TOOL FOR TEXTURE.

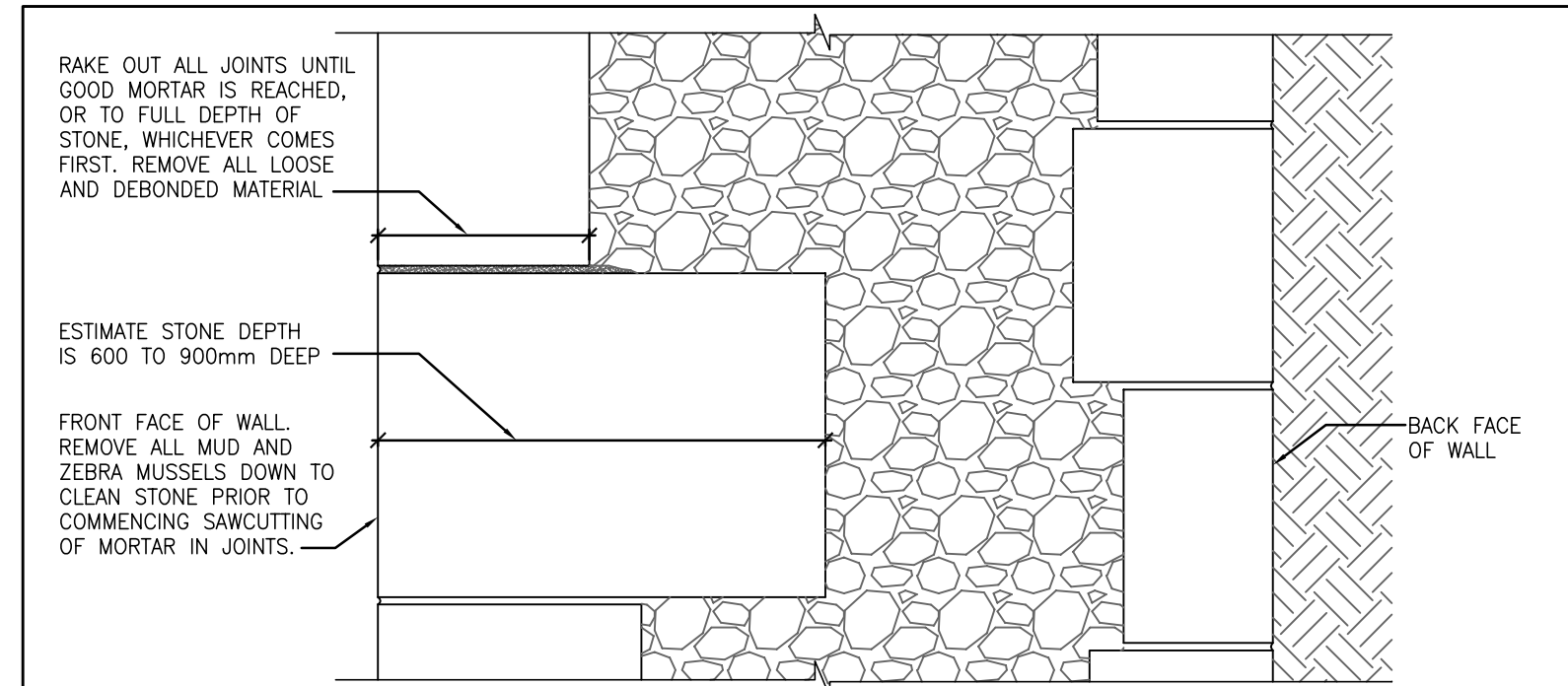
IN-SITU FRACTURED STONE REPAIR

SCALE: NTS



CAPSTONE VERTICAL AND HORIZONTAL JOINTS FOR LOCK WALLS

SCALE: NTS



RAKING OUT PROCEDURE:

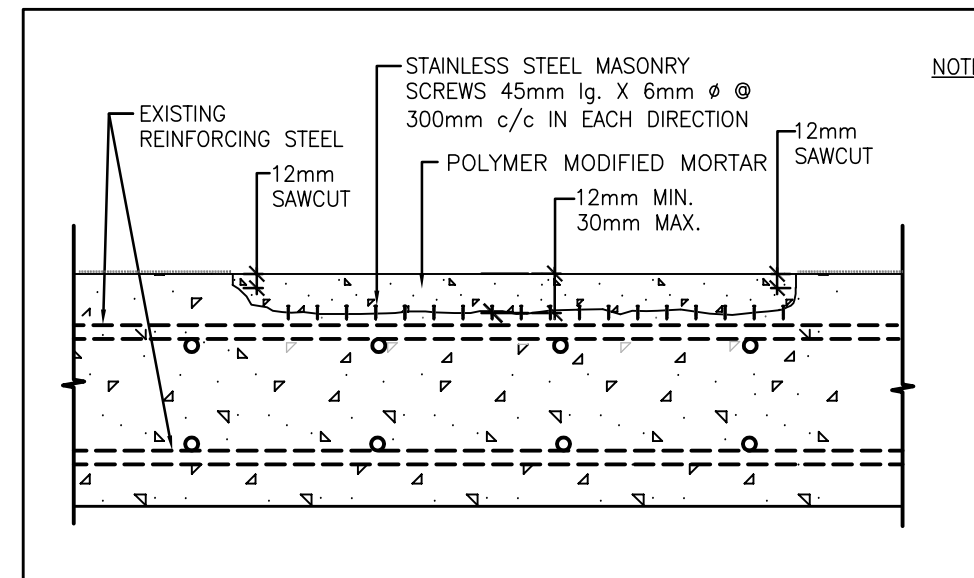
1. CLEAN STONE FACE
2. RAKE OUT EXISTING MORTAR SQUARE TO STONE.
3. REMOVE ALL RESIDUE FROM STONE FACE TO ALLOW NEW MORTAR TO BOND TO STONE.
4. DO NOT CHIP OR OTHERWISE DAMAGE EDGE OF STONE DURING REMOVALS.
5. GRINDERS OR SAW BLADES MUST NOT TOUCH STONE FACE. CUT CENTER OF JOINT CAREFULLY, WITHOUT MARKING STONE. REMOVE REMAINDER OF MORTAR USING HAND TOOLS.
6. ALL CRACKED MORTAR, MORTAR DEBONDED FROM STONE, OR DETERIORATED MORTAR, MUST BE REMOVED FROM JOINT PRIOR TO REPOINTING.
7. REMOVE ALL PORTLAND CEMENT BASED MORTAR FROM JOINTS. SOME OF THIS MORTAR IS DEBONDED. WHERE BONDED, REMOVE 75mm DEPTHS OF PORTLAND CEMENT MORTAR MIN. ASSUME AVERAGE DEPTH OF HARD MORTAR IS 150mm THICK.
8. 20% OF REMOVALS FOR VERTICAL JOINTS ARE IN THE ORDER OF 30 TO 50mm DEEP AND THE REMAINDER ARE FULL DEPTH REMOVALS.
9. 55% OF HORIZONTAL JOINTS ARE IN THE ORDER OF 30 TO 40mm DEEP AND THE REMAINDER ARE FULL DEPTH REMOVALS.
10. WHERE FULL DEPTH REMOVALS IN HORIZONTAL JOINTS ARE NECESSARY, THE CONTRACTOR MUST EXERCISE CAUTION SO AS NOT TO DESTABILIZE THE WALL. IN THIS CASE, REMOVE MORTAR IN ONLY SMALL PORTIONS OF THE WALL AND REPOINT EXCEPT FOR FINAL LAYER BEFORE PROCEEDING WITH REMOVALS. NOTE WHERE STONE BECOMES LOOSE, REMOVE STONE.
11. REMOVE ALL CAULKING, WHERE PRESENT IN JOINTS.
12. CLEAN OUT JOINT USING COMPRESSED AIR, OR WASH OUT JOINTS USING PRESSURIZED WATER, PRIOR TO REPOINTING.

FOR PRICING, ASSUME THE FOLLOWING:

1. AVERAGE DEPTH OF STONE AS NOTED ABOVE, FOR FULL EXTENT OF MASONRY WALLS.
2. ASSUME AVERAGE JOINT WIDTH IS 25mm.
3. ASSUME AVERAGE FULL DEPTH OF JOINT IS 750 MM DEEP, FOR PRICING PURPOSES.

TYPICAL RAKING OUT DETAIL

SCALE: NTS

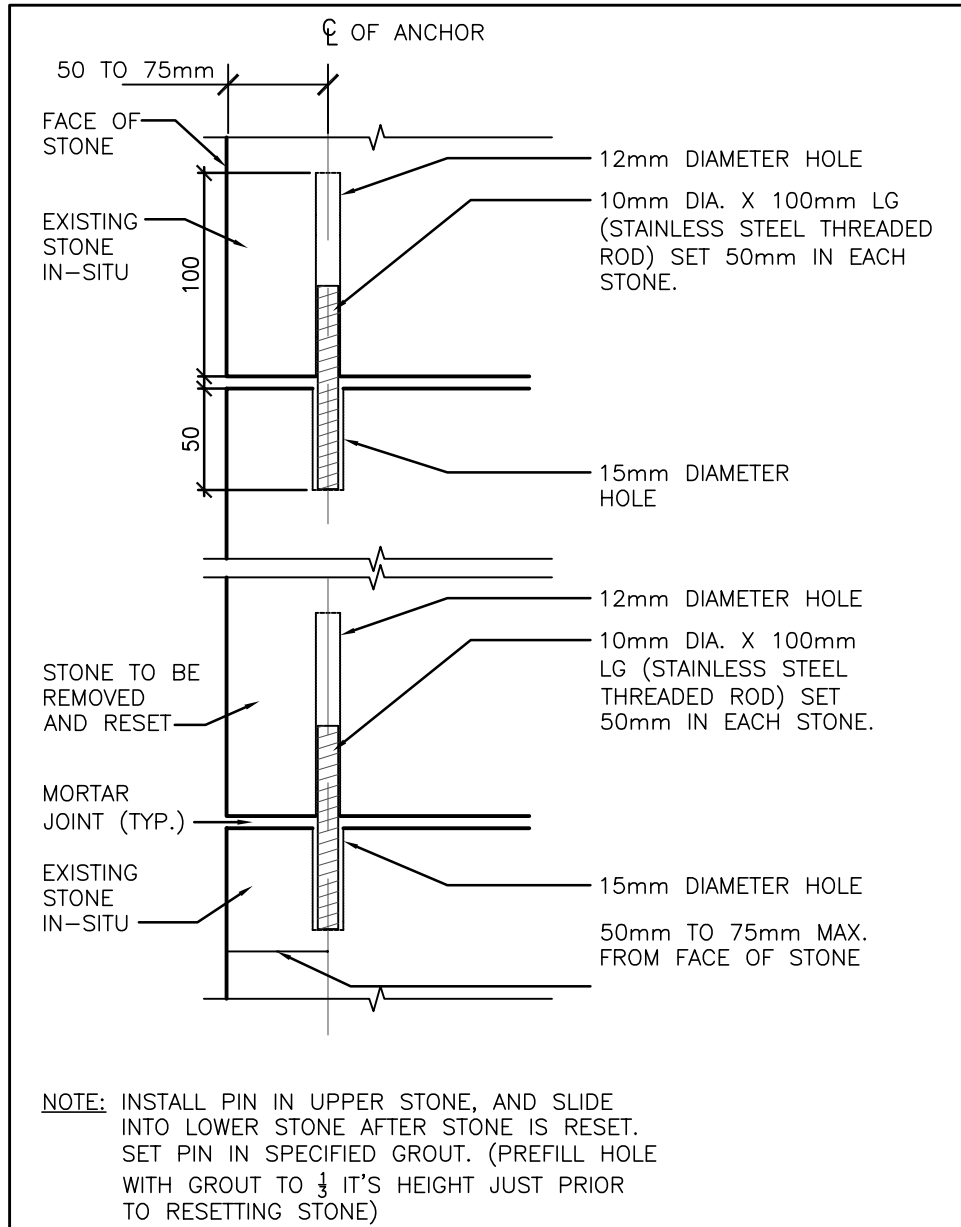


NOTES:

1. SAWCUT PERIMETER OF THE REPAIR AREA. (DO NOT CUT EXISTING BARS)
2. REMOVE ALL LOOSE & UNSOUND CONCRETE IN THE DELAMINATED AREA
3. IF THE BOND BETWEEN THE REINFORCING STEEL AND CONCRETE IS BROKEN OR WHERE MORE THAN ONE HALF OF THE PERIMETER OF ANY REINFORCING BAR IS EXPOSED, THE CONCRETE SURROUNDING THESE LOCALIZED BARS SHALL BE REMOVED AS INDICATED IN DEEP SURFACE DELAMINATION REPAIR. NOTIFY DEPARTMENTAL REPRESENTATIVE FOR REVIEW.
4. CLEAN CONCRETE AND EXPOSED REINFORCING STEEL BY GRIT-BLASTING.
5. INSTALL 45mm lg. X 6mm Ø STEEL SCREWS AT 300mm c/c IN EACH DIRECTION
6. APPLY BONDING AGENT TO CONCRETE SURFACE.
7. PLACE REPAIR MORTAR AS PER MANUFACTURER'S SPECIFICATIONS WITHIN 12 HOURS OF APPLICATION OF BONDING AGENT UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER.
8. FINISH AND CURE REPAIR MORTAR AS PER MANUFACTURERS RECOMMENDATIONS.

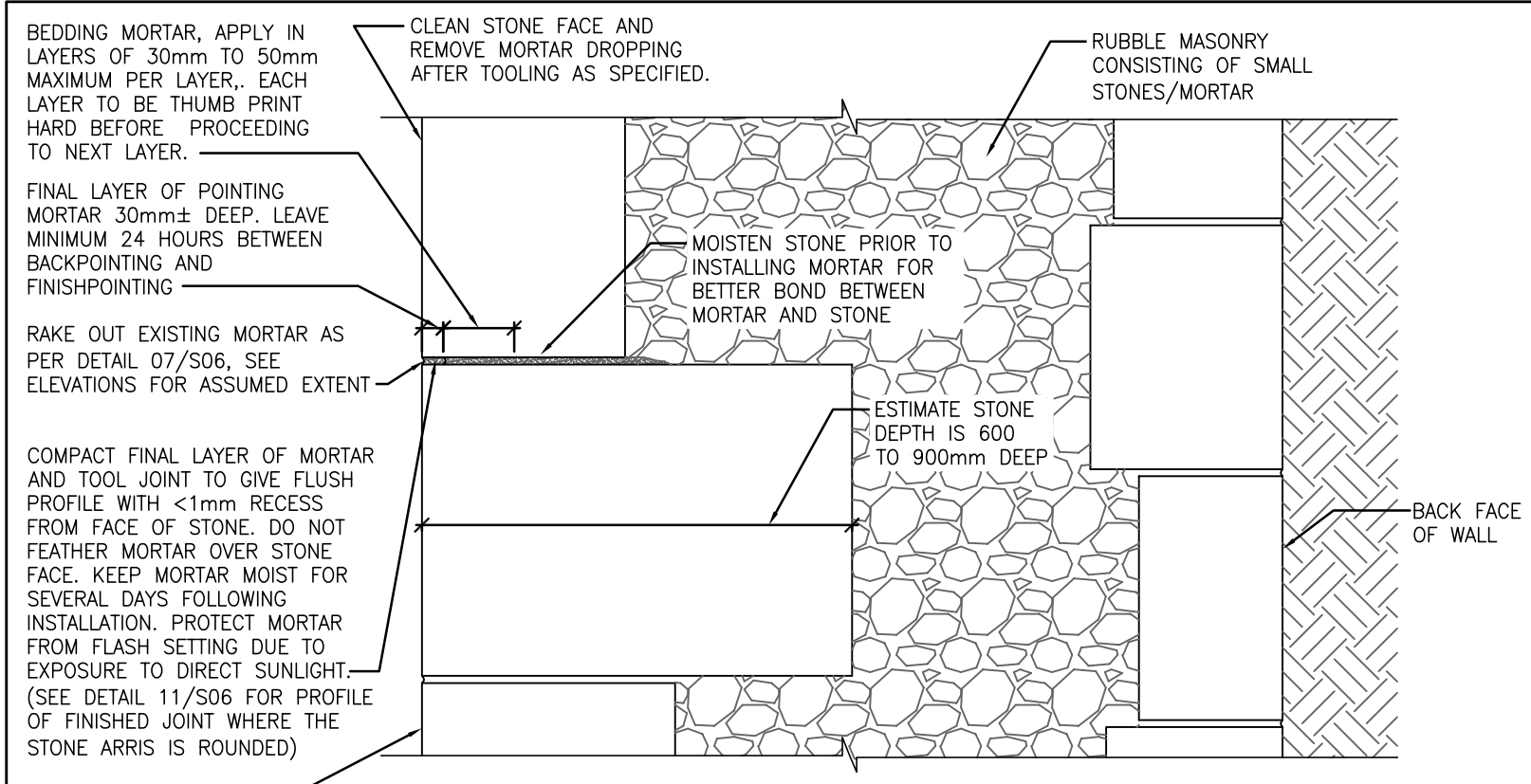
SHALLOW SURFACE CONCRETE REPAIRS (SKYWARD FACES)

SCALE: NTS



TYPICAL PIN DETAIL

SCALE: NTS



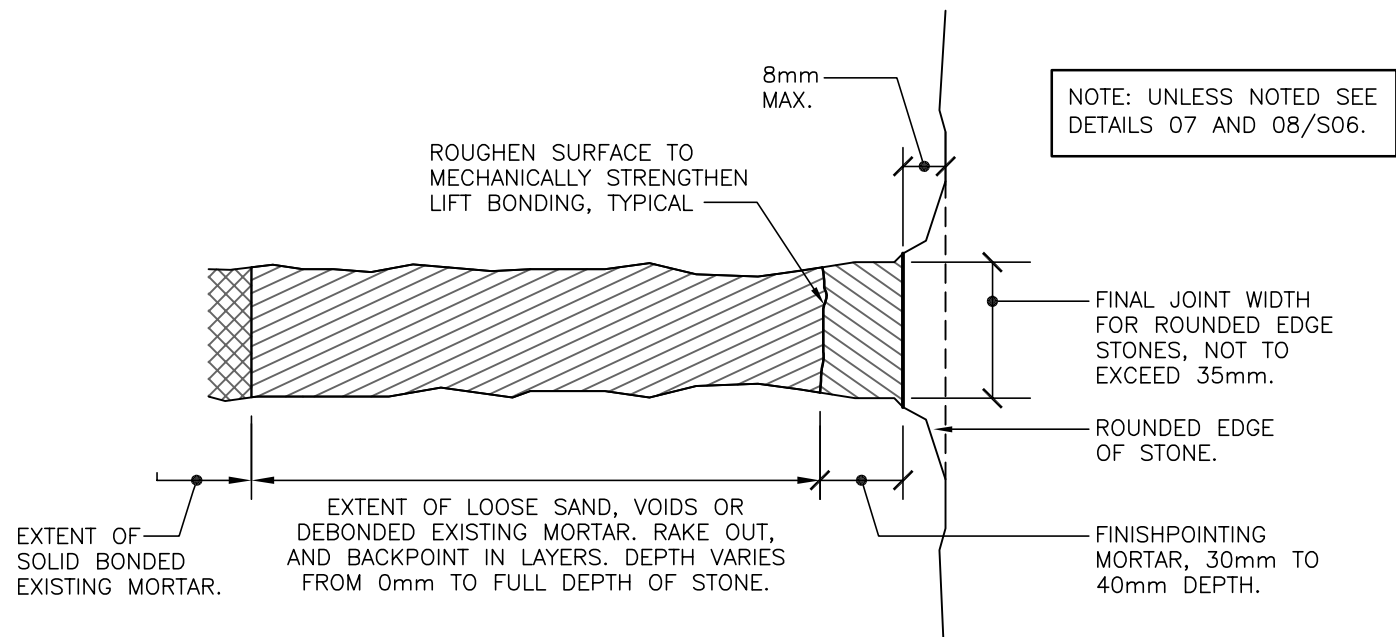
TYPICAL REPOINTING DETAIL

SCALE: NTS

- FOR PRICING ASSUME THE FOLLOWING:
1. AVERAGE DEPTH OF STONE: AS NOTED ABOVE, AND ON DETAIL 07/S06.
 2. BACKPOINTING: VERTICAL JOINTS: BACKPOINT DEEP VOIDS TO A DEPTH OF 400mm MIN. FROM FACE OF STONE. LEAVE DEEP VOIDS EMPTY. HORIZONTAL JOINTS: BACKPOINT DEEP VOIDS, IN LAYERS, TO FULL DEPTH OF RAKED OUT JOINT. DO NOT LEAVE VOIDS FOR GROUTING.
 3. WHERE BACKPOINTING IS DEEPER THAN 100mm, BACKPOINT TO 100mm FROM FACE STONE AND HAVE DEPARTMENTAL REPRESENTATIVE INSERT JOINTS PRIOR TO PROCEEDING WITH BACKPOINTING. ROUGHEN SURFACE OF PREVIOUS MORTAR PRIOR TO INSTALLING NEXT LAYER TO IMPROVE BOND.
 4. GROUTING FOR VOIDS DEEPER THAN 400mm, INSTALL GROUTING TUBES IN ALL VERTICAL WALLS, AT INTERVALS OF 600mm c/c EACH WAY AFTER BACKPOINTING AND REPAIRS ARE COMPLETE. GROUT WALL FROM BOTTOM UP IN 600mm LIFTS. ALLOW GROUT TO CONSOLIDATE PRIOR TO PROCEEDING. ALLOW FOR DRILLING GROUT HOLES TO AVERAGE DEPTH OF 1200mm TO INSTALL GROUT TUBES.

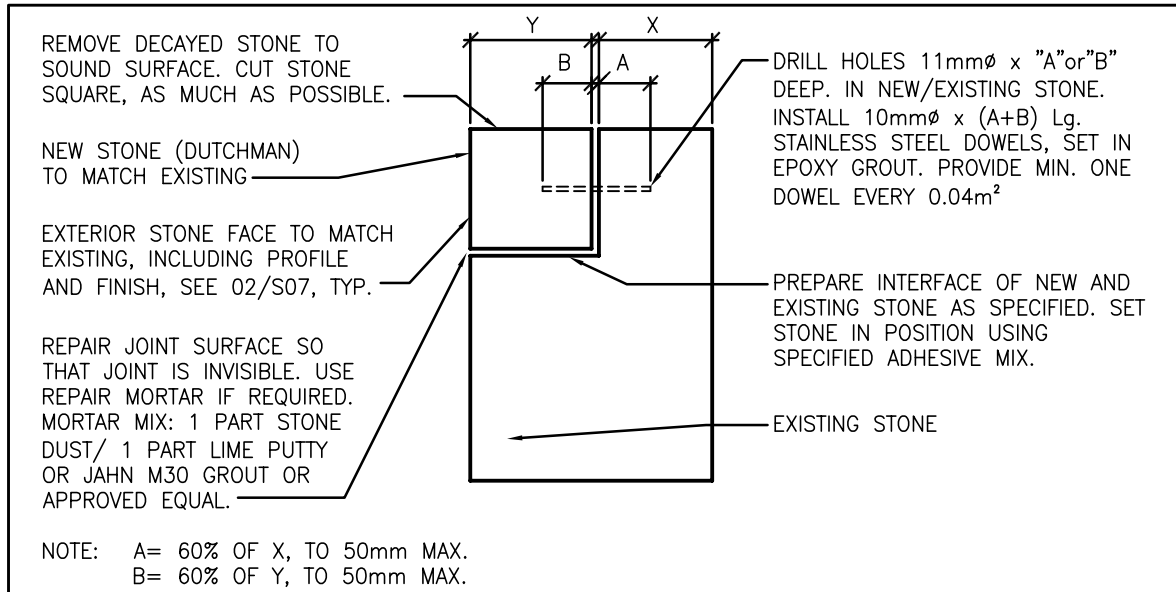
TYPICAL REPOINTING DETAIL

SCALE: NTS



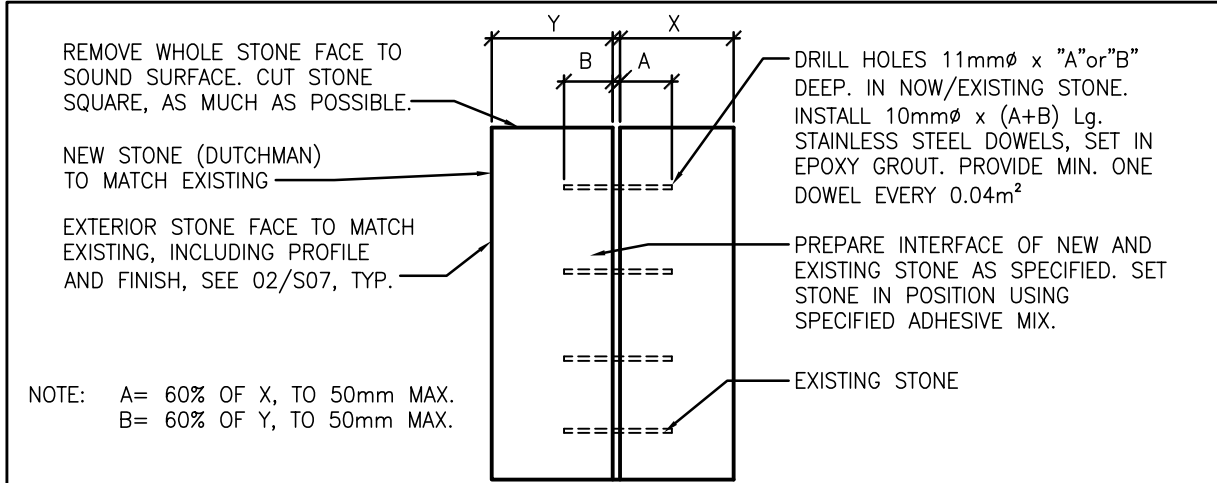
JOINT TREATMENT AT LOCATIONS WHERE STONE EDGES ARE ROUNDED

SCALE: NTS



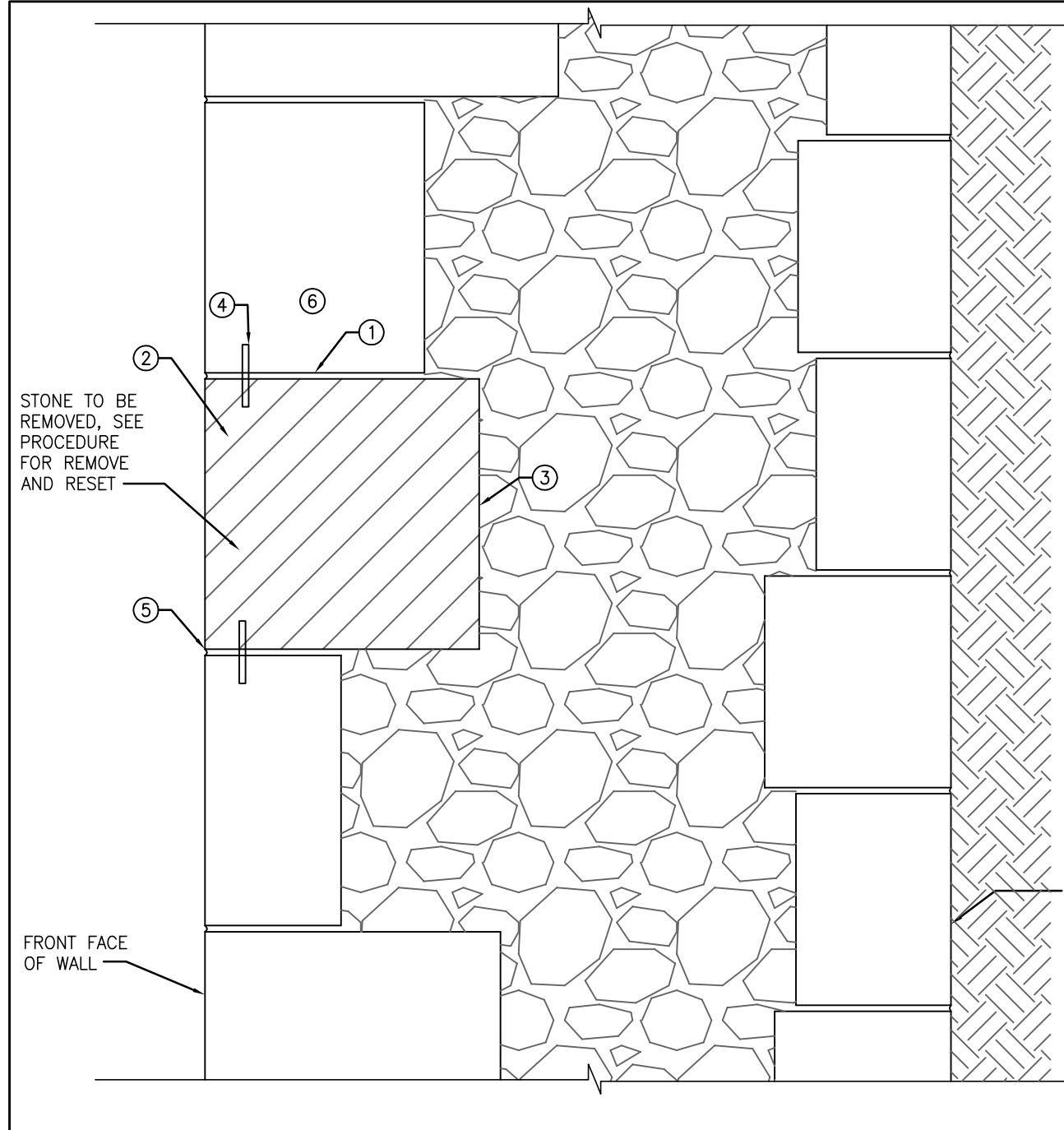
DUTCHMAN REPAIR DETAIL (SMALL)

SCALE: NTS



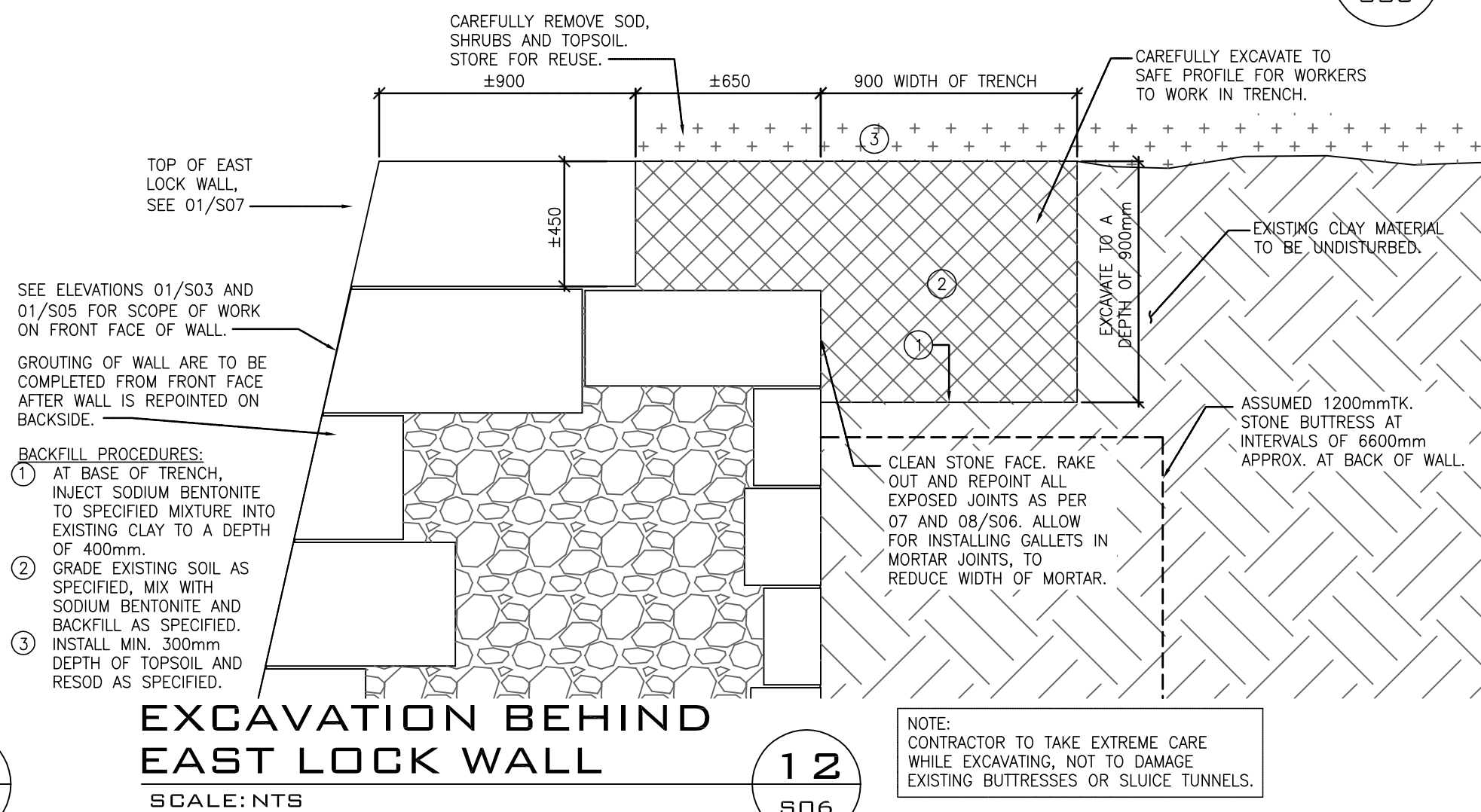
DUTCHMAN REPAIR DETAIL (LARGE)

SCALE: NTS



STONE REMOVAL AND RESETTING DETAIL

SCALE: NTS



CAREFULLY REMOVE SOD, SHRUBS AND TOPSOIL. STORE FOR REUSE.

TOP OF EAST LOCK WALL, SEE 01/S07

SEE ELEVATIONS 01/S03 AND 01/S05 FOR SCOPE OF WORK ON FRONT FACE OF WALL.

GROUTING OF WALL ARE TO BE COMPLETED FROM FRONT FACE AFTER WALL IS REPOINTED ON BACKSIDE.

BACKFILL PROCEDURES:

1. AT BASE OF TRENCH, INJECT SODIUM BENTONITE TO SPECIFIED MIXTURE INTO EXISTING CLAY TO A DEPTH OF 400mm.
2. GRADE EXISTING SOIL AS SPECIFIED, MIX WITH SODIUM BENTONITE AND BACKFILL AS SPECIFIED.
3. INSTALL MIN. 300mm DEPTH OF TOPSOIL AND RESOD AS SPECIFIED.

EXCAVATION BEHIND EAST LOCK WALL

SCALE: NTS

NOTE: CONTRACTOR TO TAKE EXTREME CARE WHILE EXCAVATING, NOT TO DAMAGE EXISTING BUTTRESSES OR SLICE TUNNELS.

millimeters



Parks Canada



Canada

JOHN G. COOKE & ASSOCIATES LTD.
CONSULTING ENGINEERS
17 FITZGERALD ROAD OTTAWA, ONT.
SUITE 200 K2H 9G1
(613) 226-8718 FAX (613) 226-7424
E-MAIL: mailbox@jgcooke.com
WEB SITE: www.jgcooke.com

17019

17019-S06 DRAWING 7 OF 11

DRAWING NO. DRAWING NAME

REFERENCE DRAWINGS

NO.	DATE	DESCRIPTION	Drawn by	Approved
1	2018/08/01	ISSUED FOR BID	C.P.	P.C.
			Dessine par	Approuve

REVISIONS

A	A Detail number	A Numero de detail
B	B Sheet number	B Sur feuille numero

Linear dimensions in Dimensions lineaires en millimetres



PARKS CANADA
EASTERN ONTARIO FIELD UNIT

Type of Record /
Type d'enregistrement

Project title / Titre du projet

OLD SLYS LOCKS 26 & 27 HERITAGE STONE MASONRY REPAIRS

Drawing title / Titre du dessin

SECTIONS AND DETAILS

Plot Scale / Echelle

1:1 (Arch. D 24x36 Plot Size)

Drawn by/ Dessine par Date

C.P. 2018/06/08

Field Recording by / Releve-Temoins par Date

P.C. & L.M. & C.P. 2018/06/08

Approved by / Approuve par Date

P.C. 2018/08/01

Checked by/ Verifie par Date

J.C. 2018/08/01

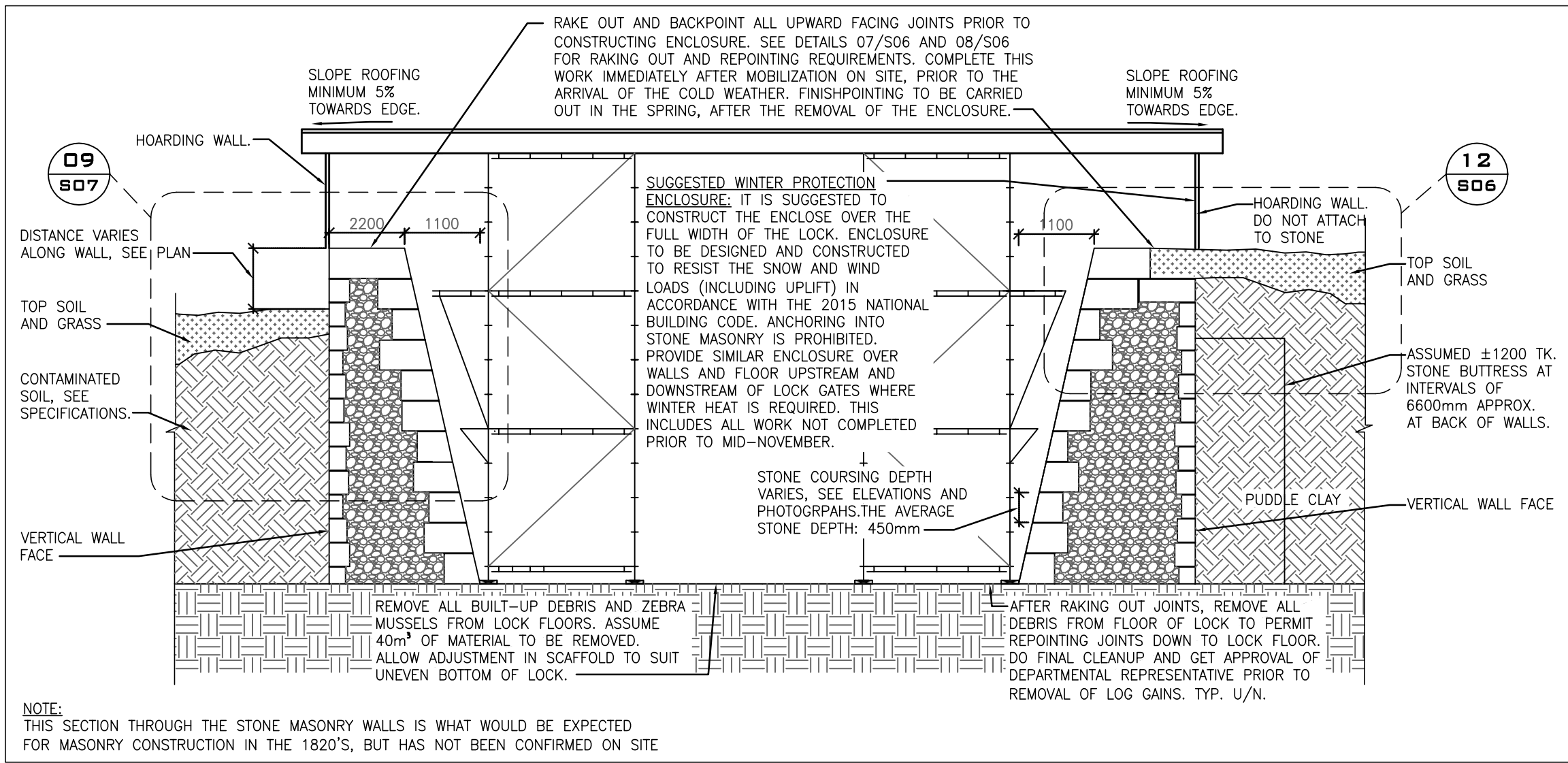
Project No./ No. du projet Asset No. Sheet No./ Feuille No.

17019

Drawing Re No./No. du Dessin

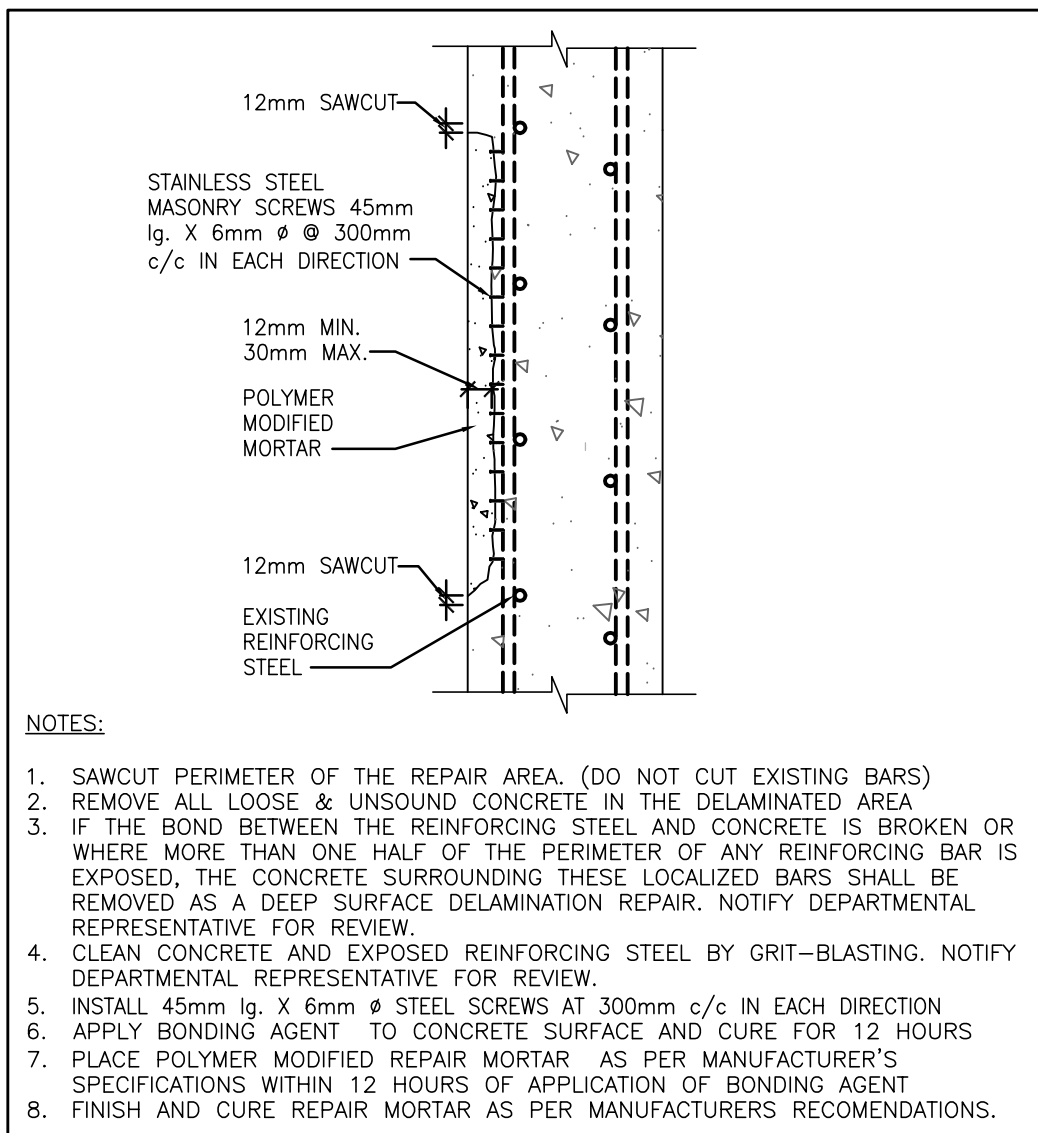
17019-S06-R03

S06



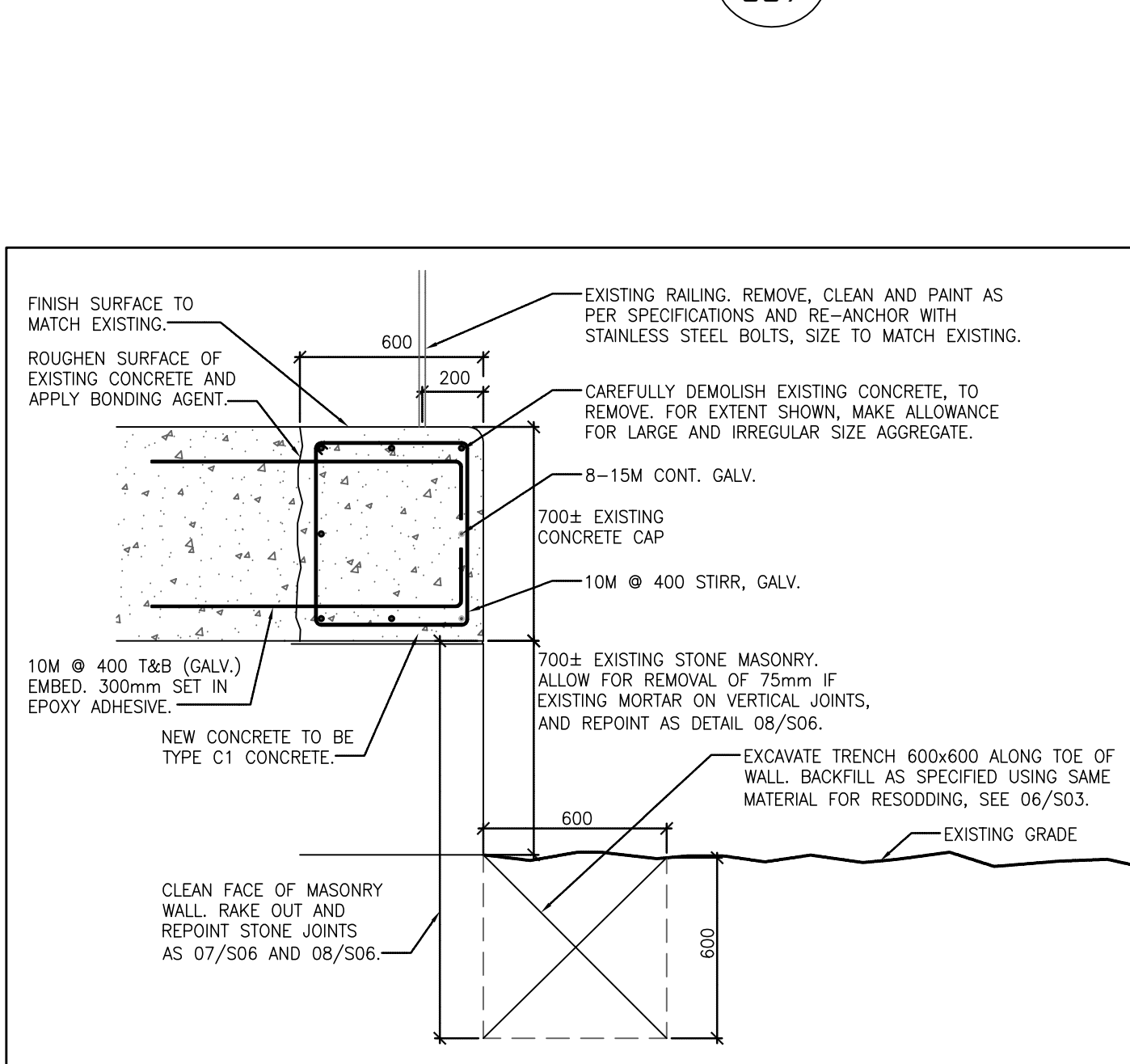
SUGGESTED ENCLOSURE - AT LOCK WALLS

SCALE: 1:75



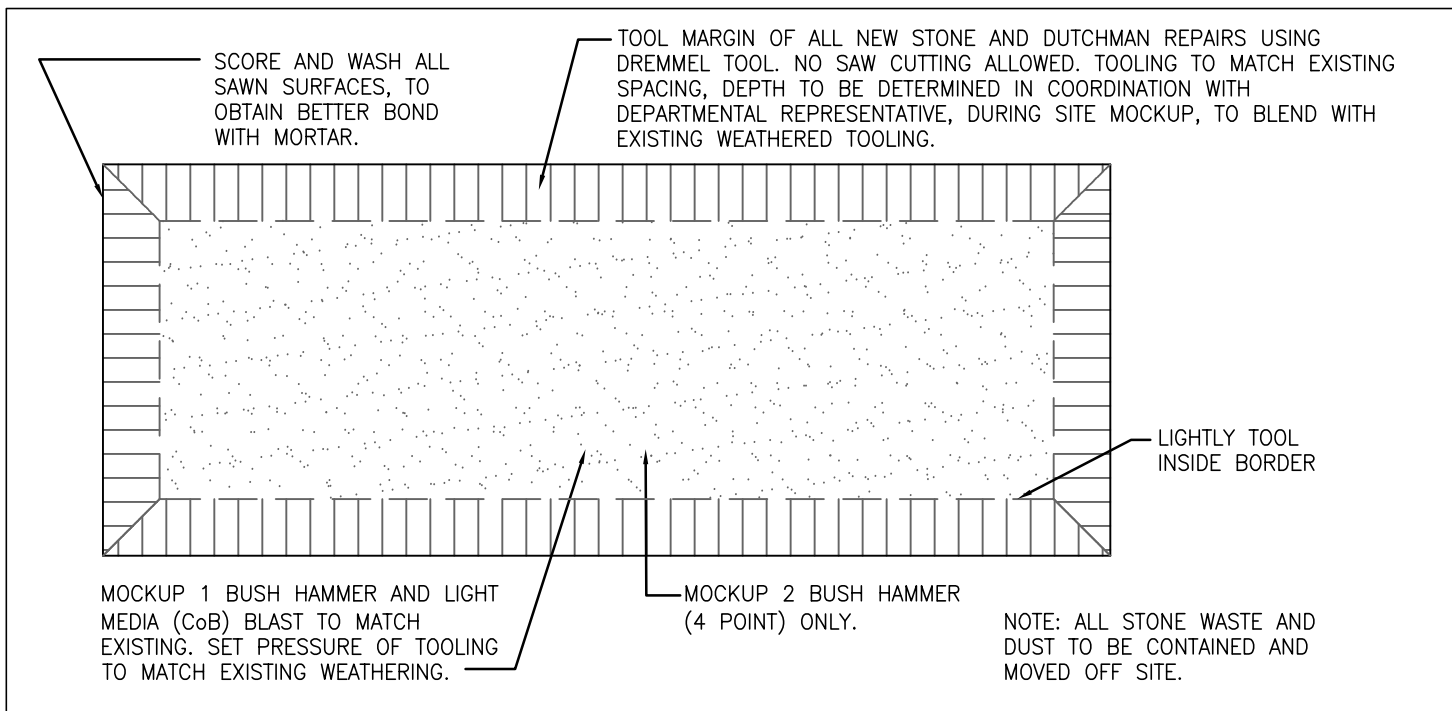
CONCRETE REPAIR ON WALL SURFACE

SCALE: NTS



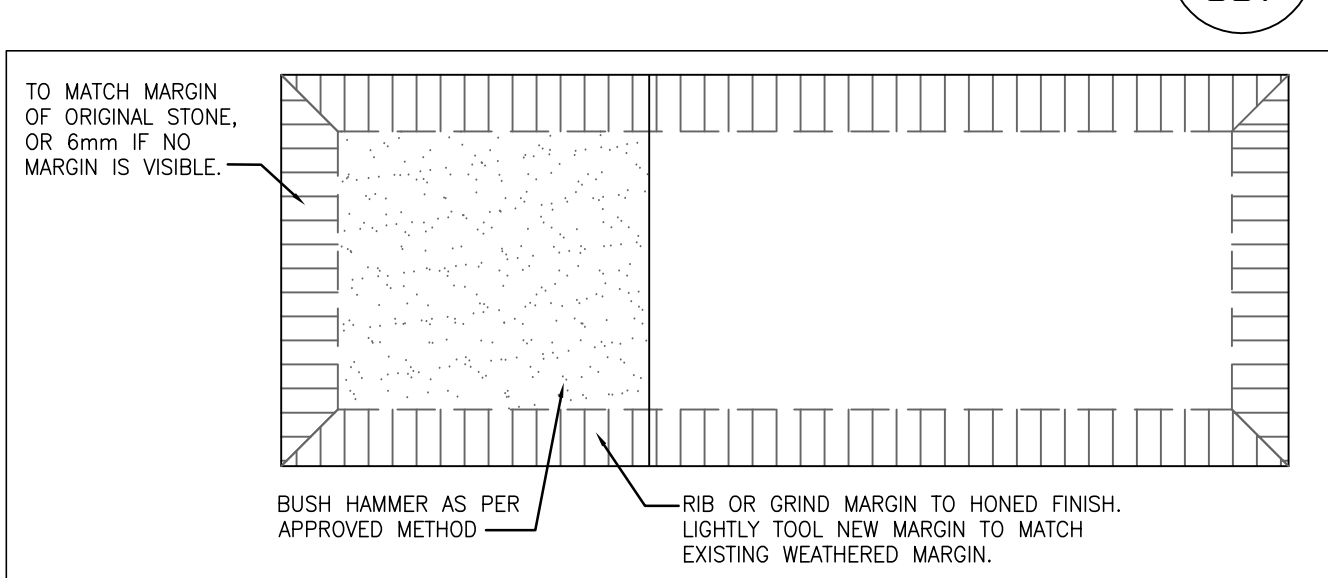
EXCAVATION BEHIND WEST WALLS

SCALE: NTS



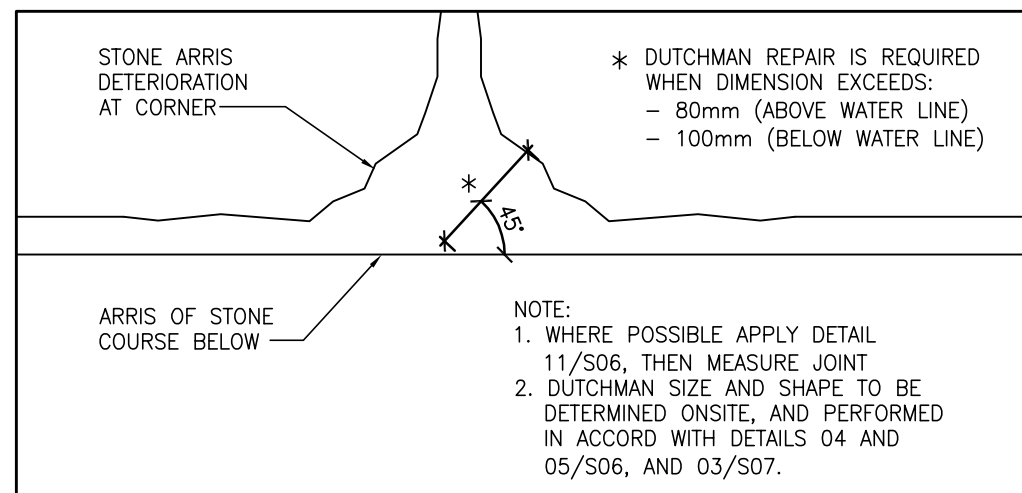
STONE EDGE FINISH FULL FACE REPLACEMENT

SCALE: NTS



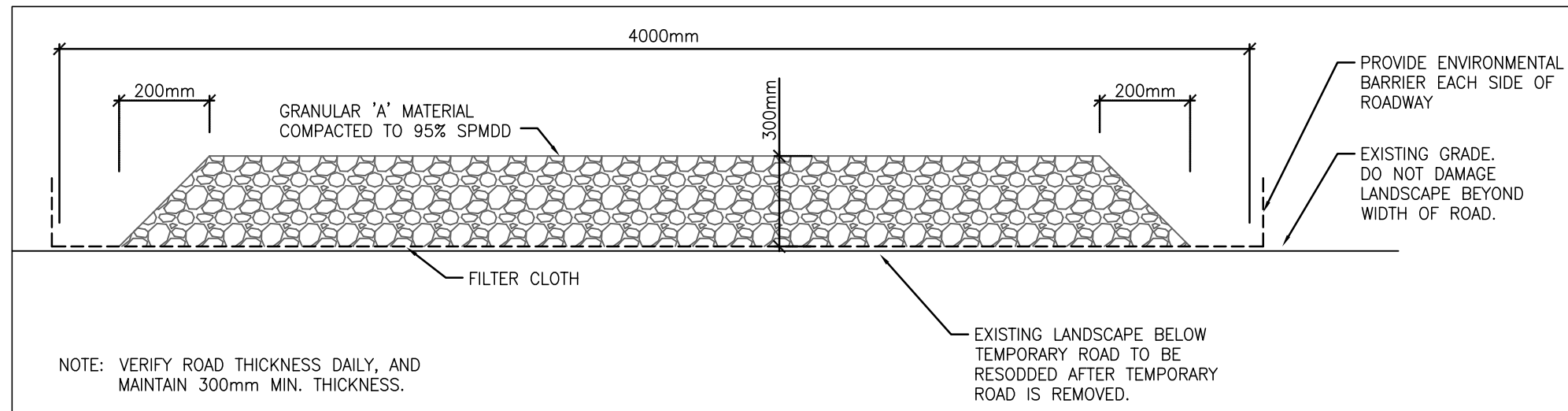
STONE EDGE FINISH PARTIAL FACE REPLACEMENT

SCALE: NTS



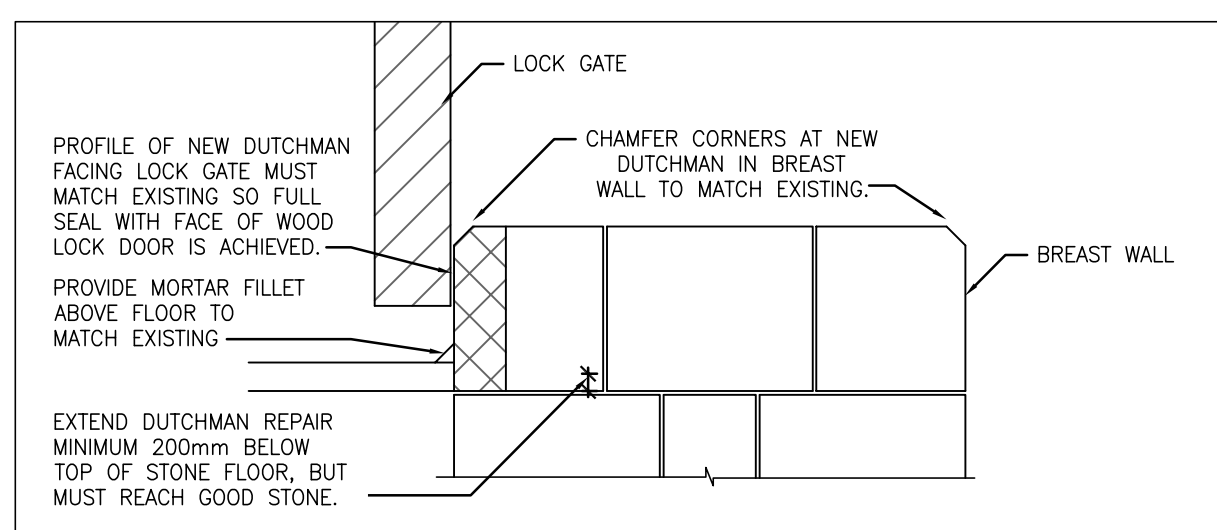
STONE CORNER DUTCHMAN REPAIR QUALIFICATION - ELEVATION

SCALE: NTS



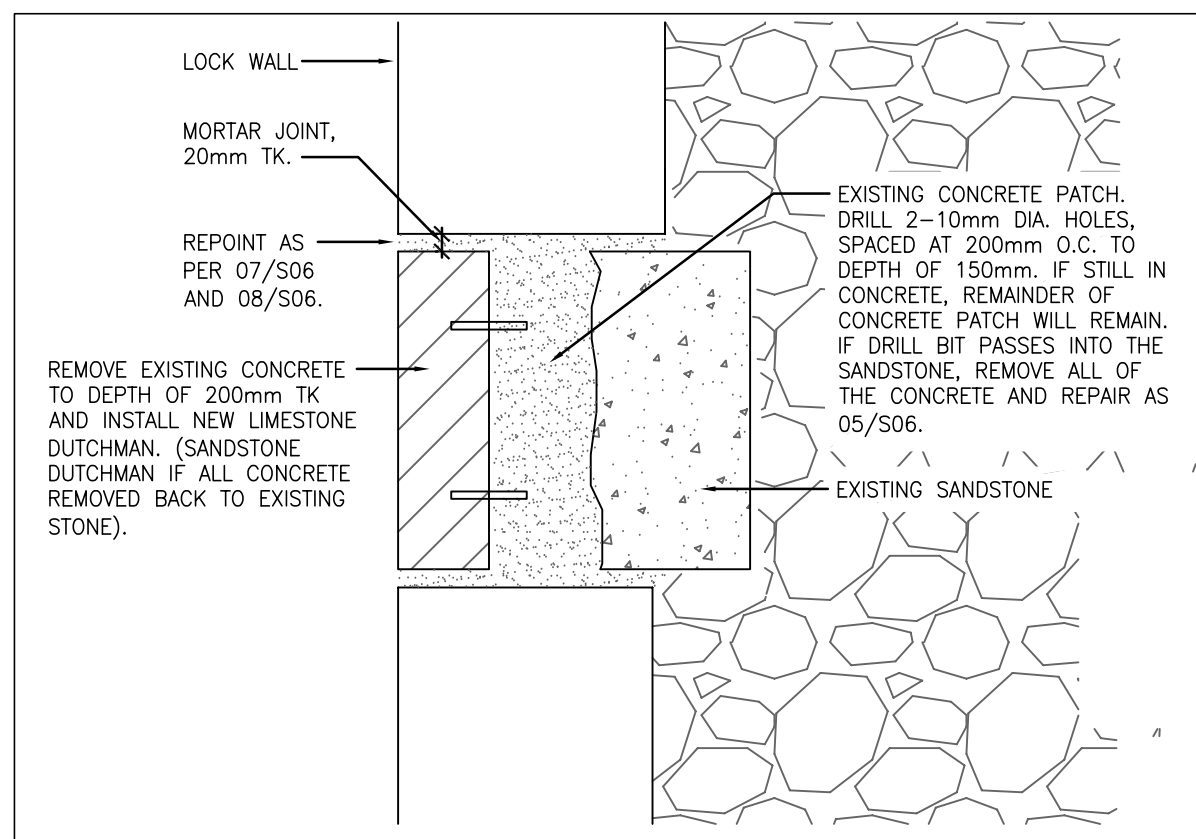
TEMPORARY GRAVEL ROAD

SCALE: 1:20



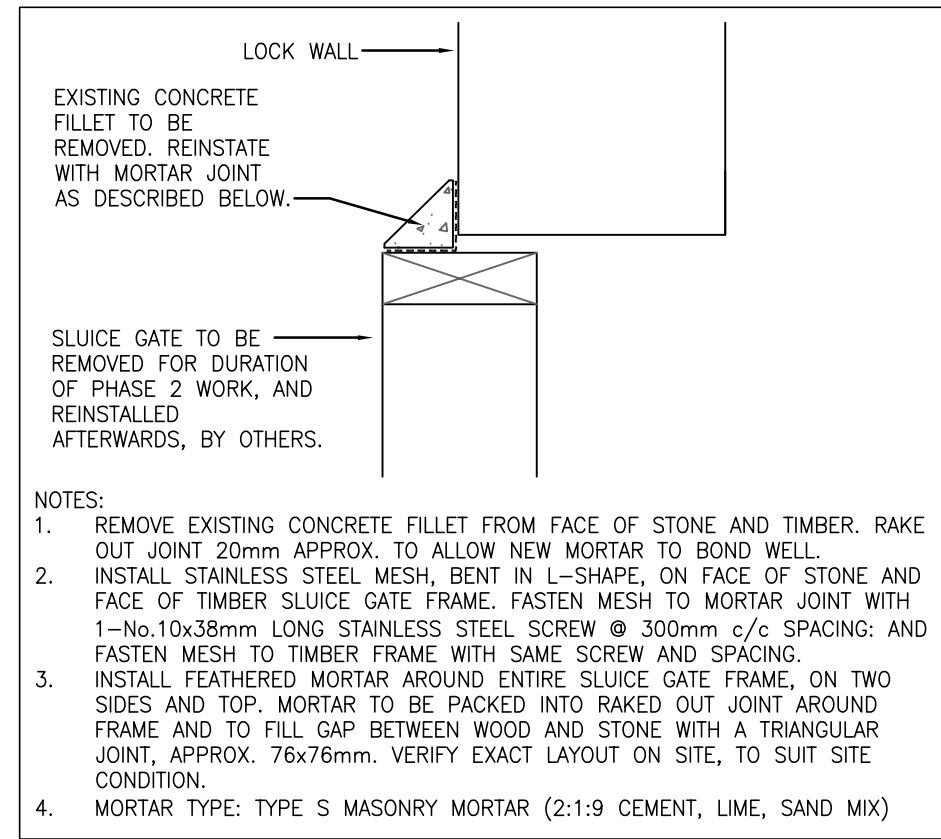
BREAST WALL DUTCHMAN REPAIRS

SCALE: 1:20



DUTCHMAN REPAIR AT CONCRETE PATCH (DC)

SCALE: 1:10



SLUICE GATE CONCRETE FILLET

SCALE: 1:10

NO.	DATE	DESCRIPTION	Drawn by	Approved
1	2018/08/01	ISSUED FOR BID	C.P.	P.C.

A	B	A Detail number	A Numero de detail
		B Sheet number	B Sur feuille numero

Linear dimensions in millimeters Dimensions lineaires en millimetres



PARKS CANADA
EASTERN ONTARIO FIELD UNIT

Type of Record /
Type d'enregistrement

Project title / Titre du projet

OLD SLYS LOCK 26 & 27 HERITAGE STONE MASONRY REPAIRS

Drawing title / Titre du dessin

SECTIONS AND DETAILS

Plot Scale / Echelle 1:1 (Arch. D 24x36 Plot Size)	
Drawn by/ Dessine par C.P.	Date 2018/06/08
Field Recording by / Releve-Temoins par P.C. & L.M. & C.P.	Date 2018/06/08
Approved by / Approuve par P.C.	Date 2018/08/01
Checked by/ Verifie par J.C.	Date 2018/08/01
Project No./ No. du projet 17019	Asset No.
Drawing Re No./No. du Dessin 17019-S07-R03	Sheet No./ Feuille No. S07



PHOTO 1
SCALE:NTS UPSTREAM APPROACH UNDER BRIDGE



PHOTO 2
SCALE:NTS UPSTREAM WEST APPROACH WALL

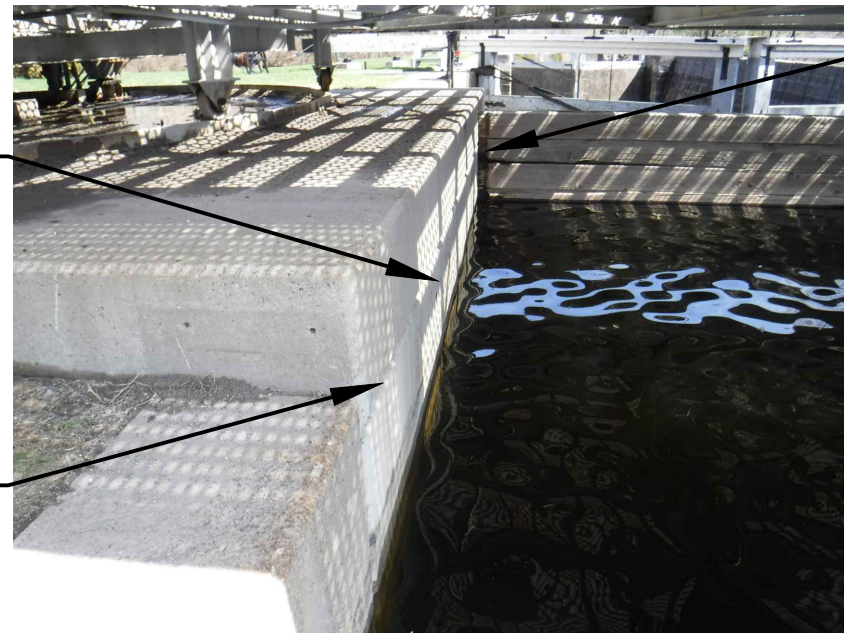


PHOTO 3
SCALE:NTS UPSTREAM EAST APPROACH WALL / STOP LOG GAINS UNDER BRIDGE



PHOTO 4
SCALE:NTS SLUICE TUNNEL GATE AND TRENCH, UPSTREAM LOCK 27 EAST WALL



PHOTO 5
SCALE:NTS UPSTREAM STOP LOG GAINS UNDER BRIDGE



PHOTO 6
SCALE:NTS SLUICE TUNNEL GATE AND TRENCH, UPSTREAM LOCK 27 WEST WALL



PHOTO 7
SCALE:NTS SLUICE TUNNEL SHAFT, UPSTREAM LOCK 27 WEST WALL



PHOTO 8
SCALE:NTS SKYWARD FACING JOINTS OF LOCK 27 BREAST WALL AT GATE 1



PHOTO 9
SCALE:NTS SLUICE TUNNEL ON SOUTH SIDE OF LOCK 27 BREAST WALL

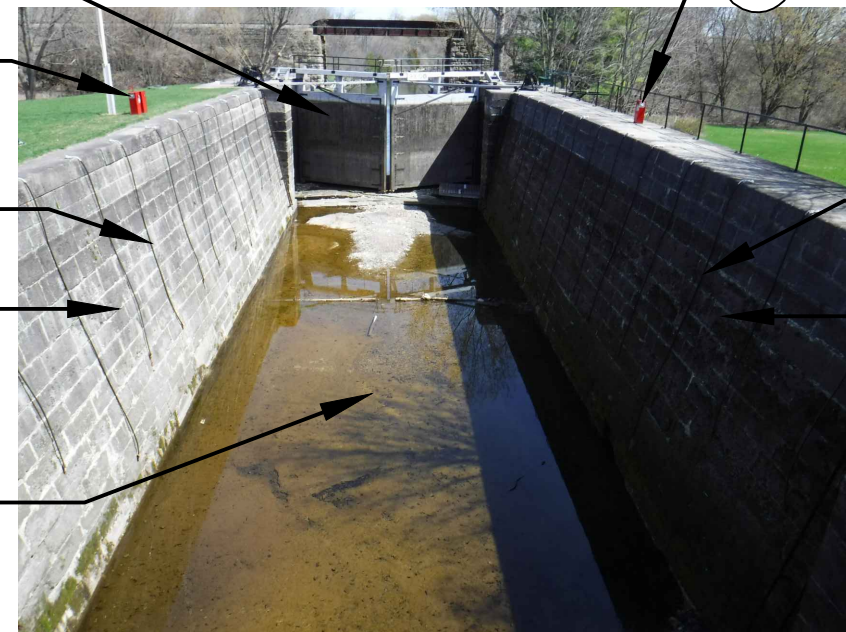


PHOTO 10
SCALE:NTS LOCK 27, LOOKING DOWNSTREAM

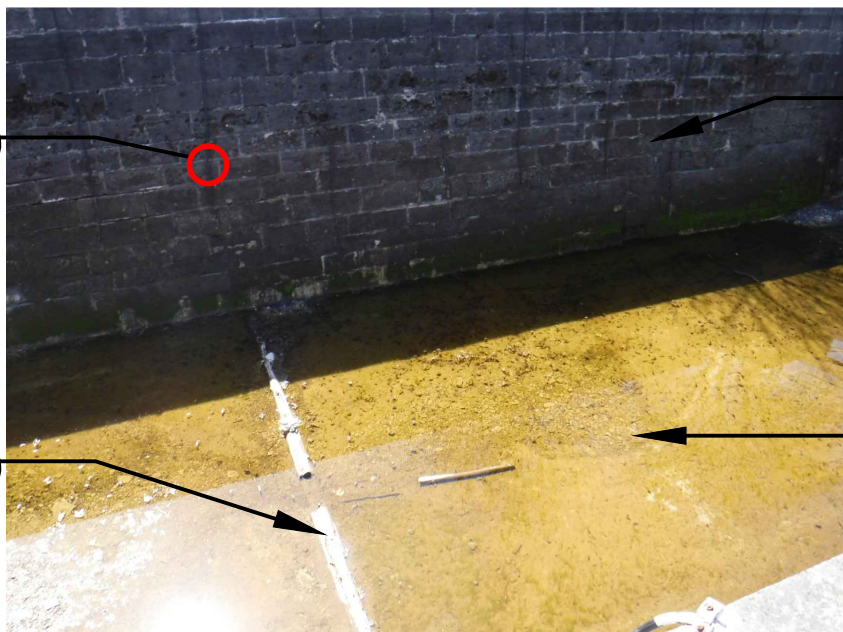


PHOTO 11
SCALE:NTS TIMBER IN LOCK 27 FLOOR



PHOTO 12
SCALE:NTS NORTH ELEVATION OF WEST WALL MONOLITH NORTH OF GATE 2

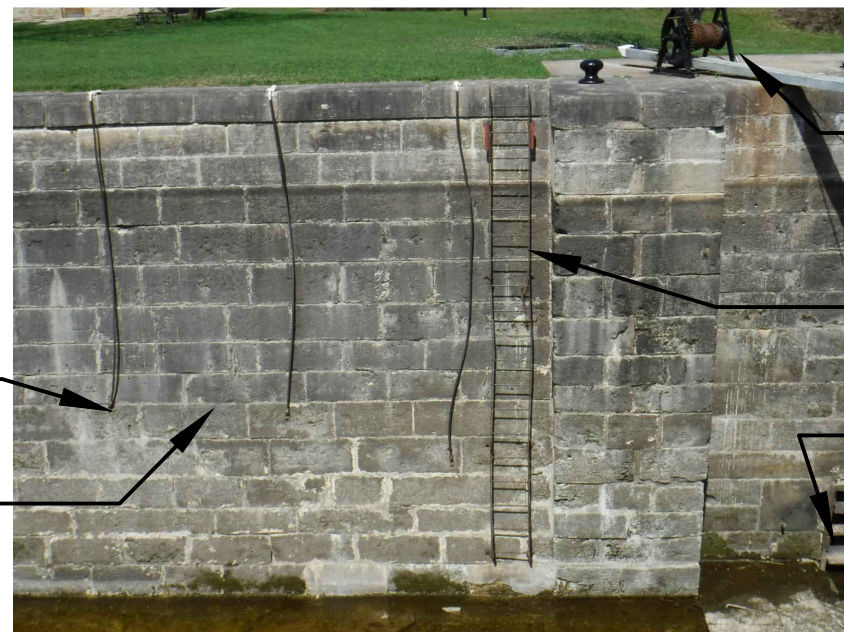


PHOTO 13
SCALE:NTS LADDER ON EAST WALL DOWNSTREAM LOCK 27, SEE NOTE ON 01/S03



PHOTO 14
SCALE:NTS EAST LOCK WALL, REMOVE AND REINSTALL ANCHOR CABLES FOR BOATS, RECORD LOCATION PRIOR TO REMOVAL



PHOTO 15
SCALE:NTS LOCK 27, LOOKING UPSTREAM



PHOTO 16
SCALE:NTS LOCK FLOOR NORTH OF GATE 2



PHOTO 17
SCALE:NTS LOOKING SOUTH TOWARDS GATE 2

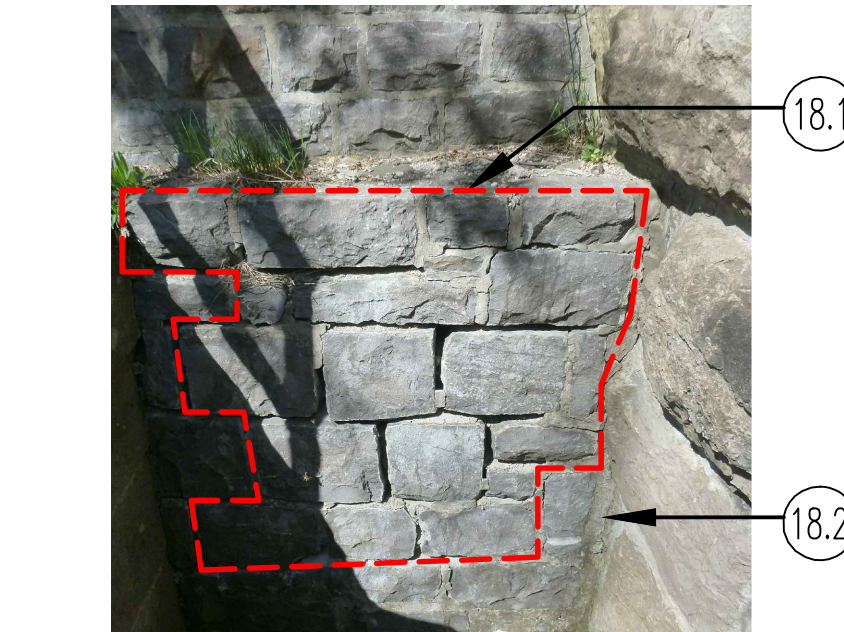


PHOTO 18
SCALE:NTS



PHOTO 19
SCALE:NTS



PHOTO 20
SCALE:NTS

PHOTOGRAPH NOTES:

- PHOTO 1
1.1 RECOMMENDED LOCATION OF UPSTREAM COFFERDAM, SEE NOTE ① ON DRAWING S02.
- PHOTO 2
2.1 UPSTREAM LOG GAINS, SEE NOTE ⑥ ON DRAWING S02.
2.2 MISC. CONCRETE/STONE REPAIRS BELOW WATERLINE, UPSTREAM OF LOG GAINS, SEE 04/S07.
- PHOTO 3
PHOTO 4
4.1 THIS SECTION OF WALL DOWNSTREAM OF LOG GAINS, EACH SIDE OF LOCK MUST BE COMPLETED AS PART OF PHASE 1.
4.2 SLUICE GATE: REMOVE AND RESET BY OTHERS AS PART OF PHASE 2. FOR CONCRETE FILLET AROUND GATE FRAME SEE 12/S07.
4.3 LOCK FLOOR: RAKE OUT AND REPOINT STONE JOINTS, AND STONE REPAIRS, SEE DRAWING S02.
4.4 POWER LINE: SEE NOTE ⑧ ON S03.

- PHOTO 5
PHOTO 6
6.1 LOCK GATES TO BE PROTECTED FOR DURATION OF WORK, TO COMPLETE WORK AT UPSTREAM EDGE OF BREAST WALL, GATES MUST BE OPEN.
- PHOTO 7
7.1 FOR CONCRETE REPAIRS AROUND LOCK WINCHES / TOP OF SHAFTS, SEE DRAWING S02.
7.2 SHAFT GRATING: REMOVE TO COMPLETE SHAFT MASONRY WORK. CLEAN AND PAINT. REINSTALL ON COMPLETION OF WORK.
7.3 LOCK GATE FURNITURE TO BE PROTECTED FOR DURATION OF PROJECT.
- PHOTO 8
8.1 BREAST WALL SKYWARD FACING SLAB. FOR MASONRY SCOPE SEE DRAWING S02, AND SECTION 13/S07.
8.2 LOCK FLOOR: REMOVE ALL DEBRIS, SEE DRAWING S02.
- PHOTO 9
9.1 SLUICE TUNNEL EXIT INTO LOCK. SEE DRAWING S03.
9.2 BREAST WALL, SEE ELEVATION 4/S03.

- PHOTO 10
10.1 GATE 2: SEE PHOTO 6, NOTE 6.1.
10.2 MOORING LINE ANCHORS, SEE DRAWING S03.
10.3 MASONRY WALL ELEVATION, SEE DRAWING S03.
- PHOTO 11
11.1 WOOD AT BASE OF LOCK TO BE PROTECTED, KEEP LOG WET.
- PHOTO 12
PHOTO 13
13.1 EXISTING STEEL LADDER. SEE DRAWING S03 FOR SCOPE, TYP.
- PHOTO 14
14.1 LOCK SIGNAGE / FURNITURE, SEE NOTE 13 ON DRAWING S01.
14.2 LOCKSTATION HOUSE, SEE 2/S00.
- PHOTO 15
PHOTO 16
PHOTO 17

- PHOTO 18
18.1 MARK STONE, REMOVE, ANCHOR AND REINSTALL STONE TO MATCH EXISTING.
18.2 RAKE OUT AND REPOINT ALL REMAINING JOINTS AS PER ELEVATION 5/S05.
- PHOTO 19
19.1 N.I.C.
19.2 SEE WALL ELEVATION 9/S05.
- PHOTO 20
20.1 EXCAVATE ADJACENT TO WALL TO EXTEND MASONRY REPOINTING 600mm BELOW GRADE, SEE 6/S03.



Canadä

JOHN G. COOKE & ASSOCIATES LTD. CONSULTING ENGINEERS
17 FITZGERALD ROAD SUITE 200 OTTAWA, ONT. K2H 9G1
(613) 226-8718 FAX (613) 226-7424
E-MAIL: mailbox@jgcooke.com
WEB SITE: www.jgcooke.com

17019

17019-S08 DRAWING 9 OF 10

DRAWING NO. DRAWING NAME

REFERENCE DRAWINGS

NO.	DATE	DESCRIPTION	Drawn by Dessine par	Approved Approuve
1	2018/08/01	ISSUED FOR BID	C.P.	P.C.

REVISIONS

A	A Detail number	A Numero de detail
B	B Sheet number	B Sur feuille numero

Linear dimensions in millimeters Dimensions lineaires en millimetres



PARCS CANADA
EASTERN ONTARIO FIELD UNIT

Type of Record /
Type d'enregistrement

Project title / Titre du projet

OLD SLYS LOCK 26 & 27
HERITAGE STONE MASONRY REPAIRS

Drawing title / Titre du dessin

LOCK 26 & 27
PHOTOGRAPHIC DETAILS

Plot Scale / Echelle

1:1 (Arch D 24x36 Plot Size)

Drawn by/ Dessine par C.P. Date 2017/06/26

Field Recording by /
Releve-Temoin par P.C. & L.M. & C.P. Date 2017/04/27

Approved by / Approuve par P.C. Date 2018/08/01

Checked by/ Verifie par J.C. Date 2018/08/01

Project No./ No. du projet 17019 Asset No. Sheet No./ Feuille No.

Drawing Re No./No. du Dessin
17019-S08-R01

S08



PHOTOGRAPH NOTES:

- PHOTO 1**
1.1 LOCK FLOOR. REMOVE ALL DEBRIS. SEE DRAWING S04.
1.2 MASONRY WALL ELEVATION, SEE DRAWING S05.
1.3 LOCK FURNITURE , SEE NOTE 13 ON DRAWING S01.
- PHOTO 2**
2.1 SEE WALL ELEVATION ON 8/S05.
2.2 LOCK GATE MUST BE PROTECTED FOR DURATION OF WORK. TO COMPLETE WORK AT UPSTREAM EDGE OF BREAST WALL, GATES MUST BE OPEN.
2.3 BREAST WALL SKYWARD FACING SLAB. FOR MASONRY SCOPE SEE DRAWING S02 AND SECTION 13/S07.
- PHOTO 3**
3.1 MOORING LINE ANCHORS, SEE DRAWING S05.
- PHOTO 4**
4.1 SEE WALL ELEVATION 07/S05.
4.2 RAILWAY BRIDGE ABUTMENT N.I.C.

- PHOTO 5**
5.1 MARK STONE, REMOVE, ANCHOR AND REINSTALL STONE TO MATCH EXISTING.
5.2 INSTALL NEW STONES, ANCHORED TO BACKUP. ASSUME STONES 400mmDp.
5.3 RAKE OUT AND REPOINT ALL REMAINING JOINTS AS PER ELEVATION 07/S05.
- PHOTO 6**
6.1 EXISTING RAILINGS. CLEAN AND PAINT AS SPECIFIED.
6.2 STONE SLAB AROUND GATE WINCHES. ALL VERTICAL JOINTS TO BE RAKED OUT AND REPOINTED, SEE 02/S06.
- PHOTO 7**
7.1 CONCRETE WHARF DOWNSTREAM, SEE 02/S01.
7.2 UPWARD FACING STONES AROUND RAILWAY BRIDGE ABUTMENT. FOR REPAIRS, SEE DRAWINGS S04 AND PHOTOS 19&20/S10.
7.3 WOOD STAIRS TO BE PROTECTED FOR DURATION OF THE PROJECT.
- PHOTO 11**
11.1 STONE MASONRY WALL N.I.C. COFFERDAM DOWNSTREAM TO BUTT INTO THIS WALL, OR IN THE NATURAL BANK DOWNSTREAM, SEE 02/S04.

- PHOTO 12**
12.1 SKYWARD FACING JOINTS TO BE RAKED OUT AND REPOINTED, SEE DRAWING S04 AND DETAIL 02/S06.
- PHOTO 19**
19.1 CONCRETE REPAIR AT WEST END OF CONCRETE PANEL UNDER GATE 3 WINCH ON WEST SIDE IF LOCK 26, SEE 05/S07.
- PHOTO 20**
20.1 ISLAND DOWNSTREAM OF RAILWAY ABUTMENT ON WEST SIDE OF CANAL, INLAND OF NATURAL EMBANKMENT, SEE DRAWING S04.

Parcs
Canada

Parks
Canada

17019

17019-S09

DRAWING NO.

DRAWING NAME

REFERENCE DRAWINGS

1

2018/08/01

ISSUED FOR BID

C.P.

P.C.

NO.

DATE

DESCRIPTION

Drawn by

Approved

Dessine par

Approuve

REVISIONS

A

B

A Detail number

B Sheet number

A Numero de detail

B Sur feuille numero

Linear dimensions in millimeters

Dimensions lineaires en millimetres

PARCS CANADA
EASTERN ONTARIO FIELD UNIT

Type of Record /
Type d'enregistrement

Project title / Titre du projet

OLD SLYS LOCK 26 & 27
HERITAGE STONE MASONRY REPAIRS

Drawing title / Titre du dessin

LOCK 26 & 27
PHOTOGRAPHIC DETAILS

Plot Scale / Echelle

1:1 (Arch D 24x36 Plot Size)

Drawn by/ Dessine par

Date

C.P.

2017/06/26

Field Recording by /
Releve-Temoin par

Date

P.C. & L.M. & C.P.

2017/04/27

Approved by / Approuve par

Date

P.C.

2018/08/01

Checked by/ Verifie par

Date

J.C.

2018/08/01

Project No./ No. du projet

Asset No.

Sheet No./
Feuille No.

17019

17019

Drawing Re No./No. du Dessin

17019-S09-R01

S09

