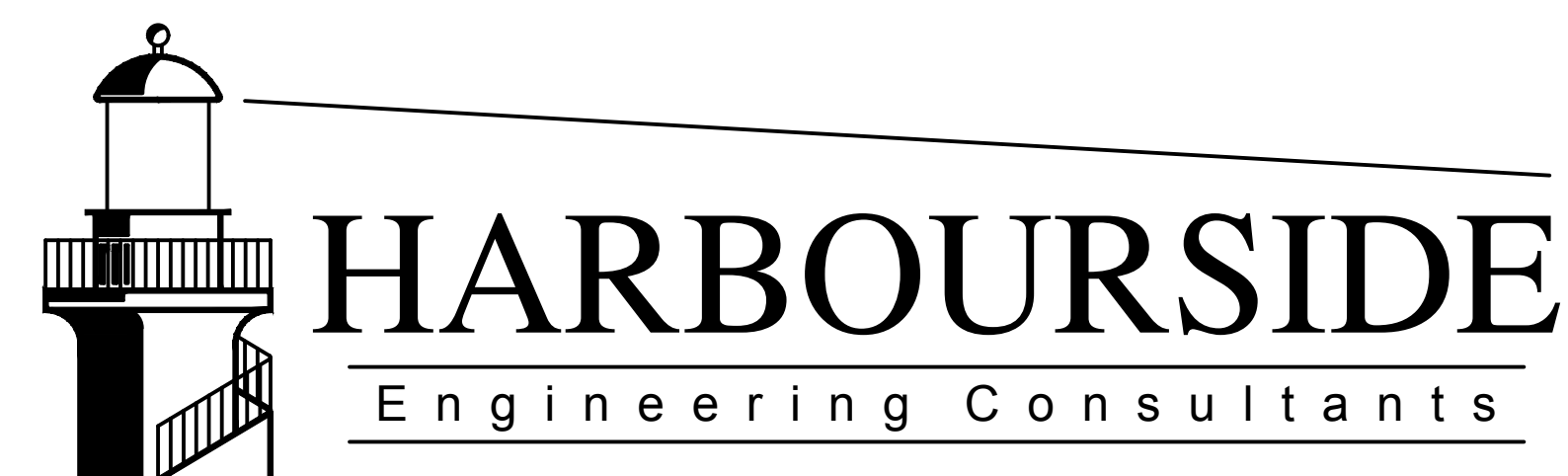


Parks
Canada

Parcs
Canada

DAUPHIN BRIDGE REPLACEMENT FORTRESS OF LOUISBOURG NATIONAL HISTORIC SITE LOUISBOURG, NS

PROJECT NO. 20170115



DRAWING LIST

S1	KEY PLAN, PARTIAL SITE PLAN AND STRUCTURE PHOTOGRAPH
S2	EXISTING STRUCTURE PLAN VIEW, ELEVATION AND SECTIONS
S3	EXISTING STRUCTURE DEMOLITION PLAN, ELEVATION, DETAILS AND SECTIONS
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S5	NEW STRUCTURE WEST ABUTMENT DETAIL AND SECTIONS
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S9	DRAWBRIDGE BASCULE PLAN, SIDE VIEW AND SECTIONS

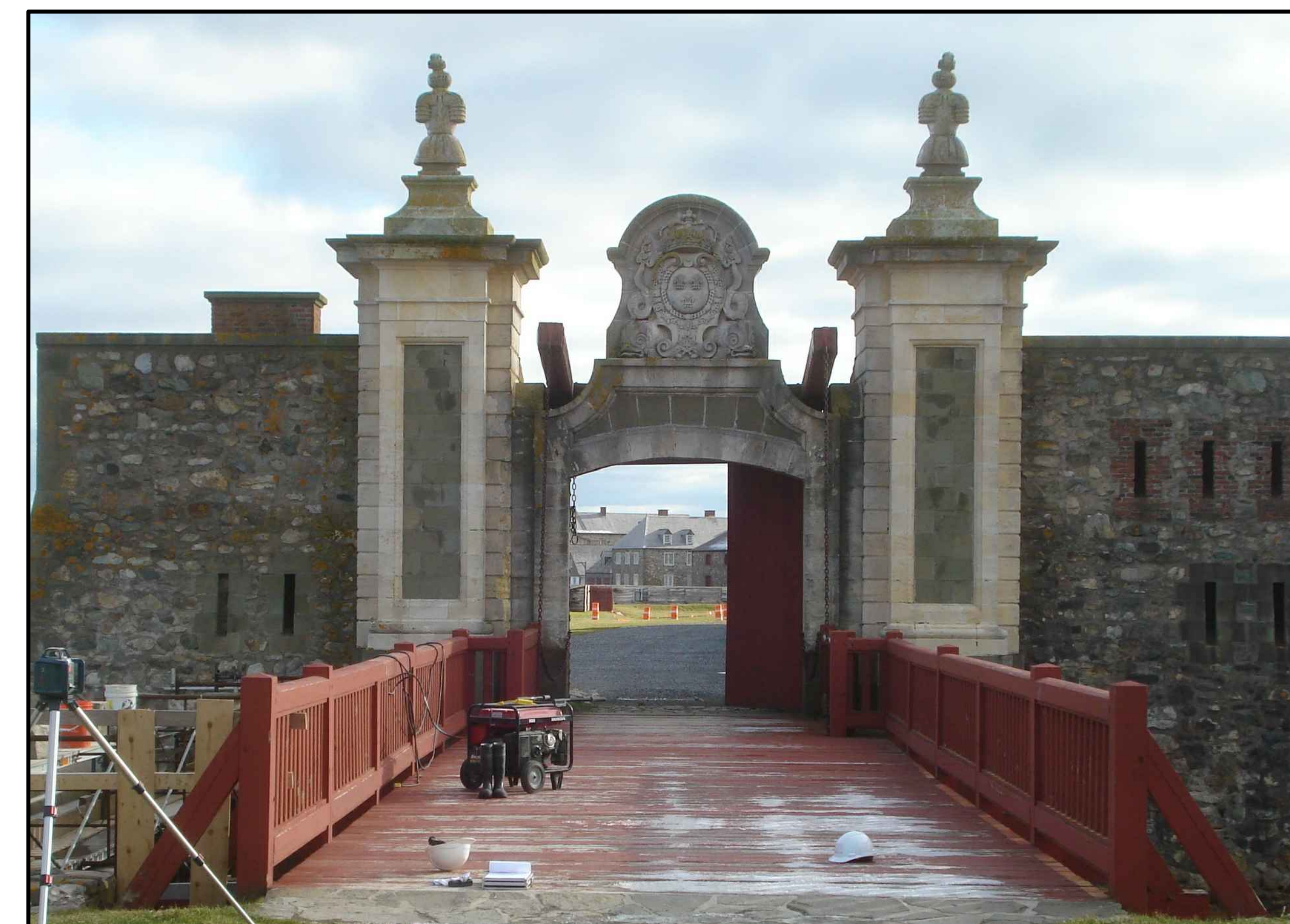
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KEY PLAN



PARTIAL SITE PLAN



**EXISTING STRUCTURE
LOOKING EAST**

GENERAL NOTES:

1. GENERAL REQUIREMENTS GOVERNING DESIGN, MATERIALS, AND CONSTRUCTION ARE AS FOLLOWS:
 - a. PEDESTRIAN LOADING AND GENERAL DESIGN TO CAN/CSA-S6-14, WITH LATEST REVISIONS. REQUIREMENT FOR DESIGN OF A PEDESTRIAN STRUCTURE BEYOND 3.0M IN WIDTH (DESIGN FOR MAINTENANCE VEHICLE) HAS BEEN WAIVED BASED ON SPECIFIED USE OF STRUCTURE (FROM OWNER).
 - b. PROJECT SPECIFICATION.
 - c. CONCRETE MATERIALS AND METHODS OF CONSTRUCTION TO CAN/CSA - A23.1., AND METHODS OF TESTING TO CAN3 - A23.2.
 - d. CONCRETE CLASS OF EXPOSURE IS C1 WITH A MINIMUM 28 DAY COMP. STRENGTH OF 35MPa.
 - e. REINFORCING STEEL TO CSA STANDARD G30.18-M92 400W.
 - f. ENGINEERING DESIGN IN WOOD TO CAN/CSA 086-14.
 - g. TIMBER SPECIES SPRUCE/PINE/FIR, GRADE NO. 1 OR 2.
 - h. BOLTS, LAG SCREWS, THREADED ROD TO ASTM A307 WITH COMPATIBLE NUTS AND WASHERS.
 - i. ALL HARDWARE TO BE HOT DIP GALVANIZED AS PER PROJECT SPECIFICATIONS.
 - j. ALL TIMBER TO BE PRESSURE TREATED (CCA) AS PER PROJECT SPECIFICATIONS. INCISING IS PROHIBITED TO MAINTAIN HISTORICAL CHARACTER.
 - k. ALL EXPOSED TIMBER SURFACES (WITH EXCEPTION TO THE UNDERSIDE OF THE DECKING) SHALL BE COATED WITH ACRYLIC RESIN STAIN WITH COLOUR MATCHING EXISTING. STAIN TO BE COMPATIBLE WITH CCA PRESERVATIVE. STAIN MAY BE APPLIED IN THE FIELD. COATING SHALL BE APPLIED AS PER THE MANUFACTURER'S RECOMMENDATIONS, INCLUDING MAXIMUM MOISTURE CONTENT OF THE WOOD.
 - l. COAT WROUGHT IRON PIECES WITH A RUST INHIBITING, ACRYLIC RESIN SPRAY PAINT PRIOR TO RE-INSTALLATION. PAINT COLOUR TO BE FLAT BLACK.
2. STRUCTURE IS DESIGNED FOR A PEDESTRIAN LOAD OF 4.0 kPa AS PRESCRIBED BY THE CAN/CSA-S6-14.
3. SPECIFIED SOIL BEARING RESISTANCE ULS: 350 kPa, SLS: 135 kPa, WITH A MAXIMUM SETTLEMENT OF 25mm FOR SLS CALCULATIONS.
4. FOOTING DESIGN BASED ON ADI LTD. GEOTECHNICAL INVESTIGATION, PROJECT No. L1161-060.1/2.2.5, DATED JANUARY 2010.
5. ALL DIMENSIONS SHOWN IN MILLIMETERS (mm).
6. ALL REFERENCED SPECIFICATION NOTES TO REFLECT THE LATEST EDITION.
7. CONCRETE COVERS AS INDICATED ON DRAWINGS.
8. EXCAVATED TRENCHES FOR FOOTINGS TO BE INSPECTED BY GEOTECHNICAL ENGINEER TO CONFIRM BEARING CAPACITY AS SPECIFIED.
9. CONSTRUCTION TO BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA-S6-14.
10. WATER LEVELS ARE TIDAL. WATER LEVELS SHOWN ON THE DRAWINGS ARE APPROXIMATE.
11. FOR STRUCTURE LAYOUT, REFER TO STRUCTURE LAYOUT NOTES ON DRAWING No. 54.
12. THERE IS AN EXISTING, INOPERABLE SLUICE GATE IN THE SEAWALL JUST NORTH OF THE BRIDGE. CONTRACTOR MAY DEVISE A METHOD TO BLOCK THE OPENING TO DEWATER THE WORK AREA DURING CONSTRUCTION. AS-BUILT INFORMATION ABOUT THE GATE IS PROVIDED ON DETAIL 3/S3. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF THE DEWATERING PROCEDURE.
13. AS-BUILT INFORMATION TAKEN DURING SITE VISIT ON DECEMBER 7, 2016 AND ORIGINAL DRAWINGS DATED 1976.
14. NOTCH DECKING AS REQUIRED OVER BOLT HEADS PROTRUDING ABOVE STRINGER AND HEADER BEAMS. ENSURE NOTCHING DOES NOT PROTRUDE THROUGH DECKING. IF BOLTS HEADS OR NUTS AND WASHERS PROTRUDE BEYOND THE THICKNESS OF THE DECKING, COUNTERSINK AS REQUIRED.
15. EXISTING WROUGHT IRON PIN CRADLES, PIVOT PIN ASSEMBLIES, DRAWBRIDGE LIFTING HOOKS, HEADER/STRINGER STRAPS AND BASCULE COMPONENTS SHALL BE REUSED. CARE SHALL BE TAKEN TO NOT DAMAGE THESE ITEMS DURING STRUCTURE DEMOLITION. CLEAN MEMBERS OF SURFACE RUST AND COAT (SEE NOTE 11. ABOVE) AND ENSURE BOLT HOLES ARE CLEANED TO THEIR ORIGINAL DIAMETER. CONTRACTOR TO USE RUBBER GASKETS UNDER WASHERS TO ALLEVIATE DISSIMILAR METALS.
16. BRIDGE SPAN BETWEEN GRID LINES 5 AND 6 IS AN OPERABLE LIFT SPAN CONNECTED TO CHAINS AND A BASCULE. CONTRACTOR TO ENSURE THE LIFT SPAN AND BASCULE ARE OPERABLE PRIOR TO FINAL COMPLETION AND DEMOBILIZATION. ADJUST/TRIM THE LIFT SPAN AS REQUIRED TO MAKE OPERABLE. LOCKING MECHANISMS ON THE BASCULE SHALL BE IN WORKING ORDER PRIOR TO DEMOBILIZATION.
17. CONTRACTOR TO PROVIDE NEW CHAINS FOR THE DRAWBRIDGE. CHAINS TO MATCH PERIOD CHAIN, AS BEST AS POSSIBLE. CONTRACTOR TO SUBMIT SAMPLE FOR REVIEW AND APPROVAL. MINIMUM WORKING LOAD LIMIT OF NEW CHAIN = 0.5 TONNES.
18. DECKING TO BE FULL LENGTH PIECES WITH NO BUTT JOINTS.
19. CONTRACTOR TO PROVIDE MOCKUPS AS PER SPECIFICATION SECTION 061000.

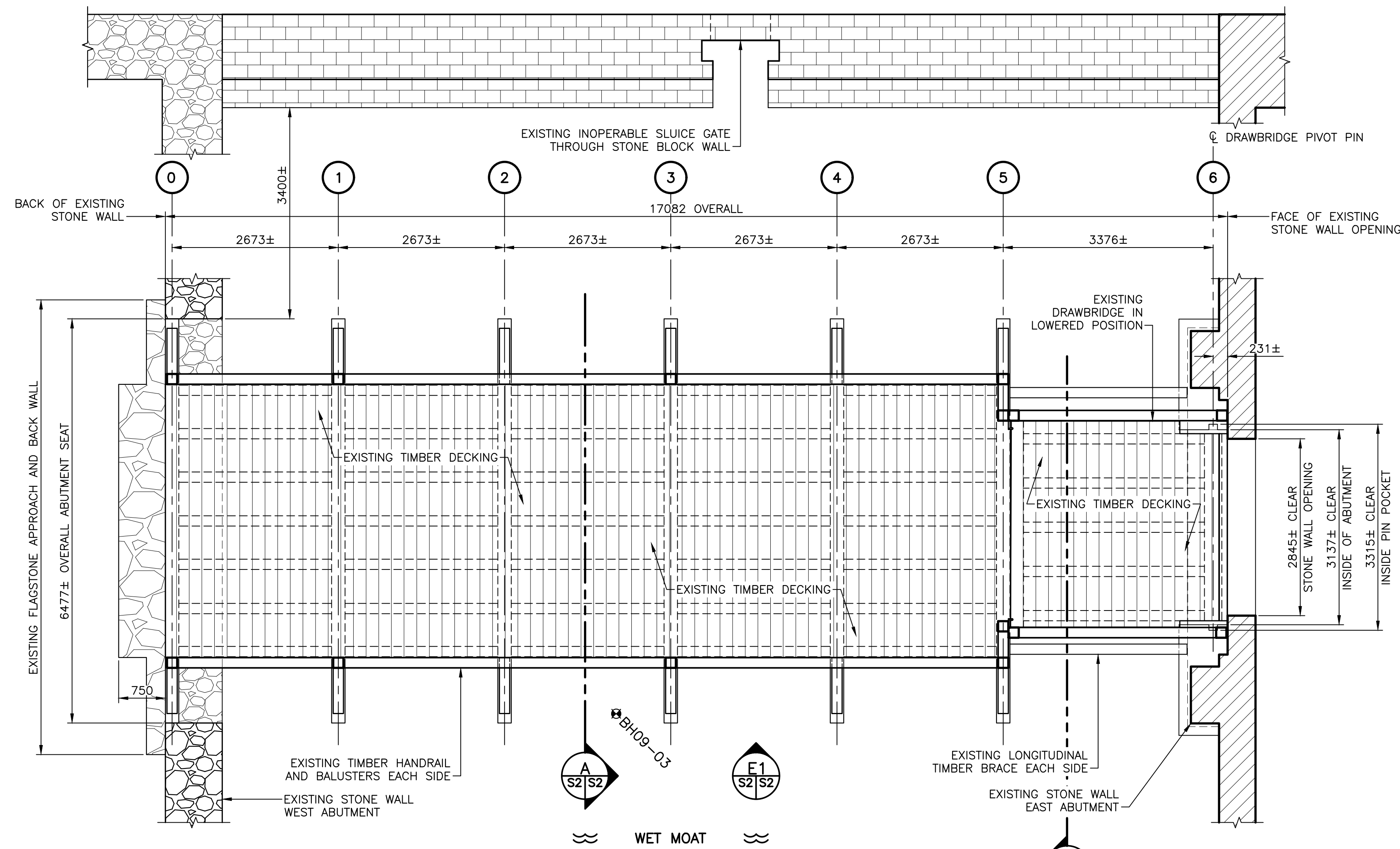


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revisions		date
project	DAUPHIN BRIDGE REPLACEMENT FORTRESS OF LOUISBOURG NATIONAL HISTORIC SITE LOUISBOURG, NS	
drawing	KEY PLAN, PARTIAL SITE PLAN AND STRUCTURE PHOTOGRAPH	
designed	R. KEEFE	conçu
date	DECEMBER 2016	
drawn	J. BENNETT	dessiné
date	DECEMBER 2016	
approved	G.L. MacDONALD	approuvé
date	JANUARY 2017	
Tender	Submission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
	20170115	
drawing no.	no. du dessin	
	S1	



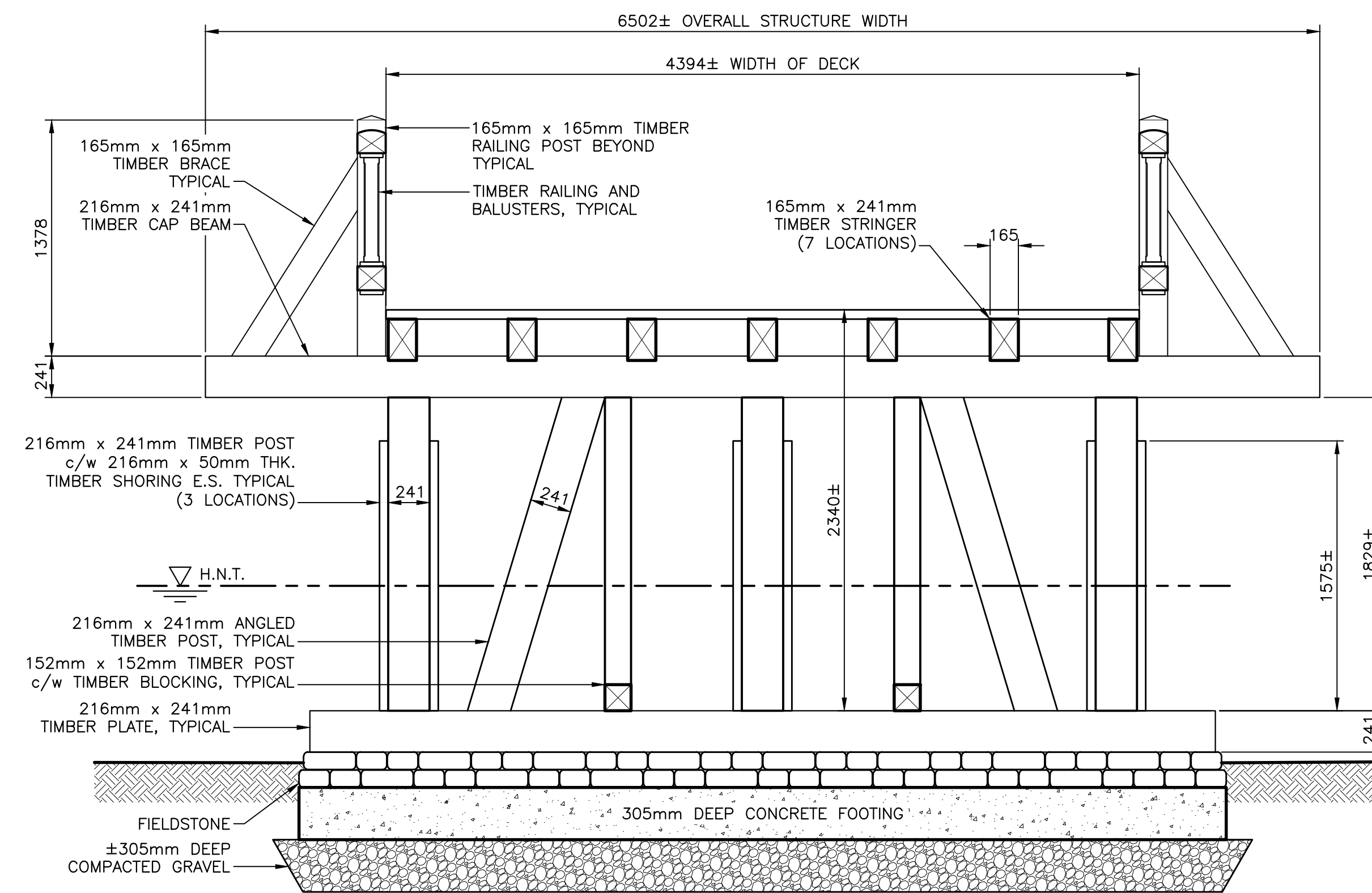
NORTH

LOUISBOURG HARBOUR



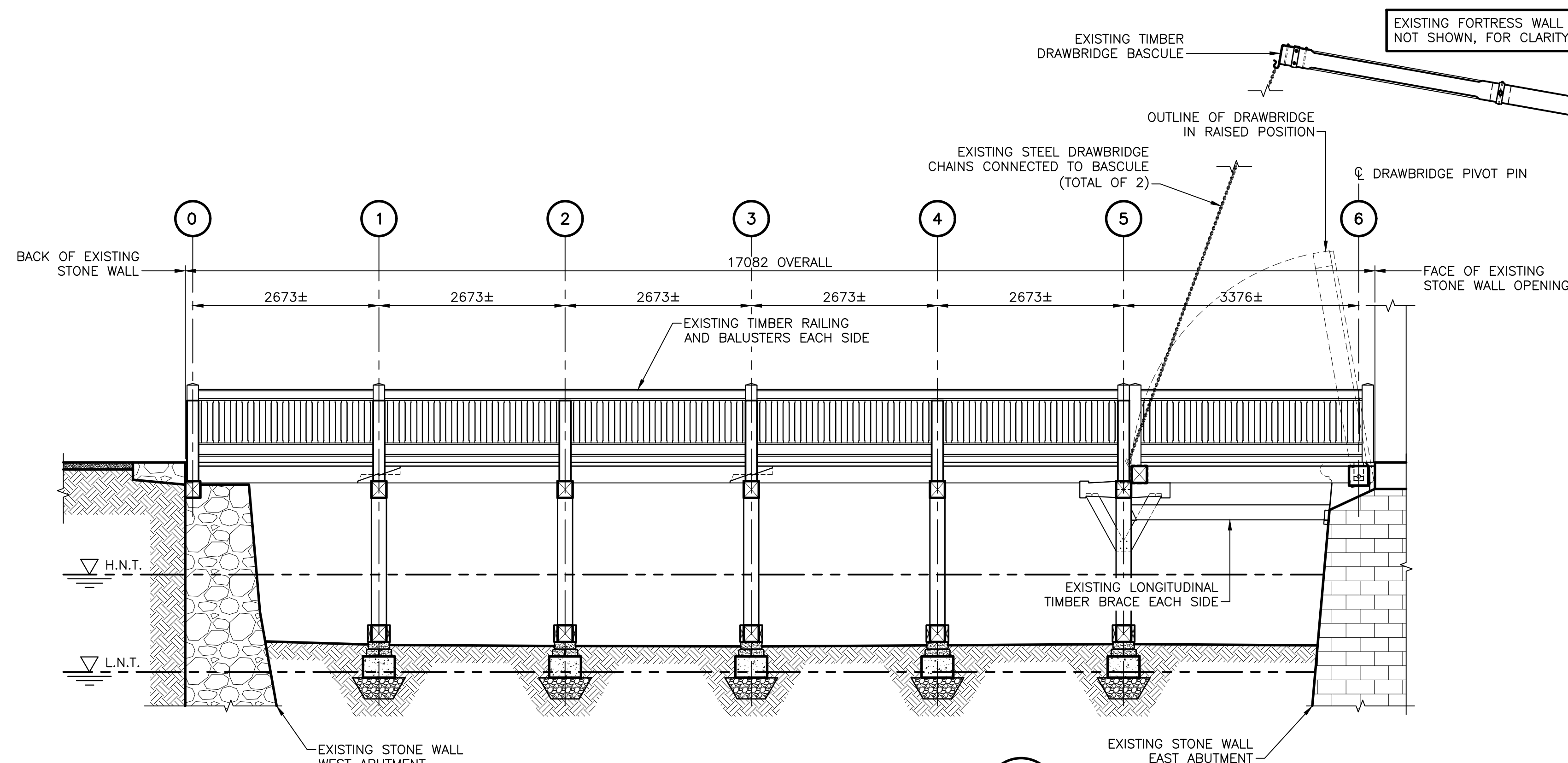
EXISTING STRUCTURE PLAN VIEW

SCALE : 1:50



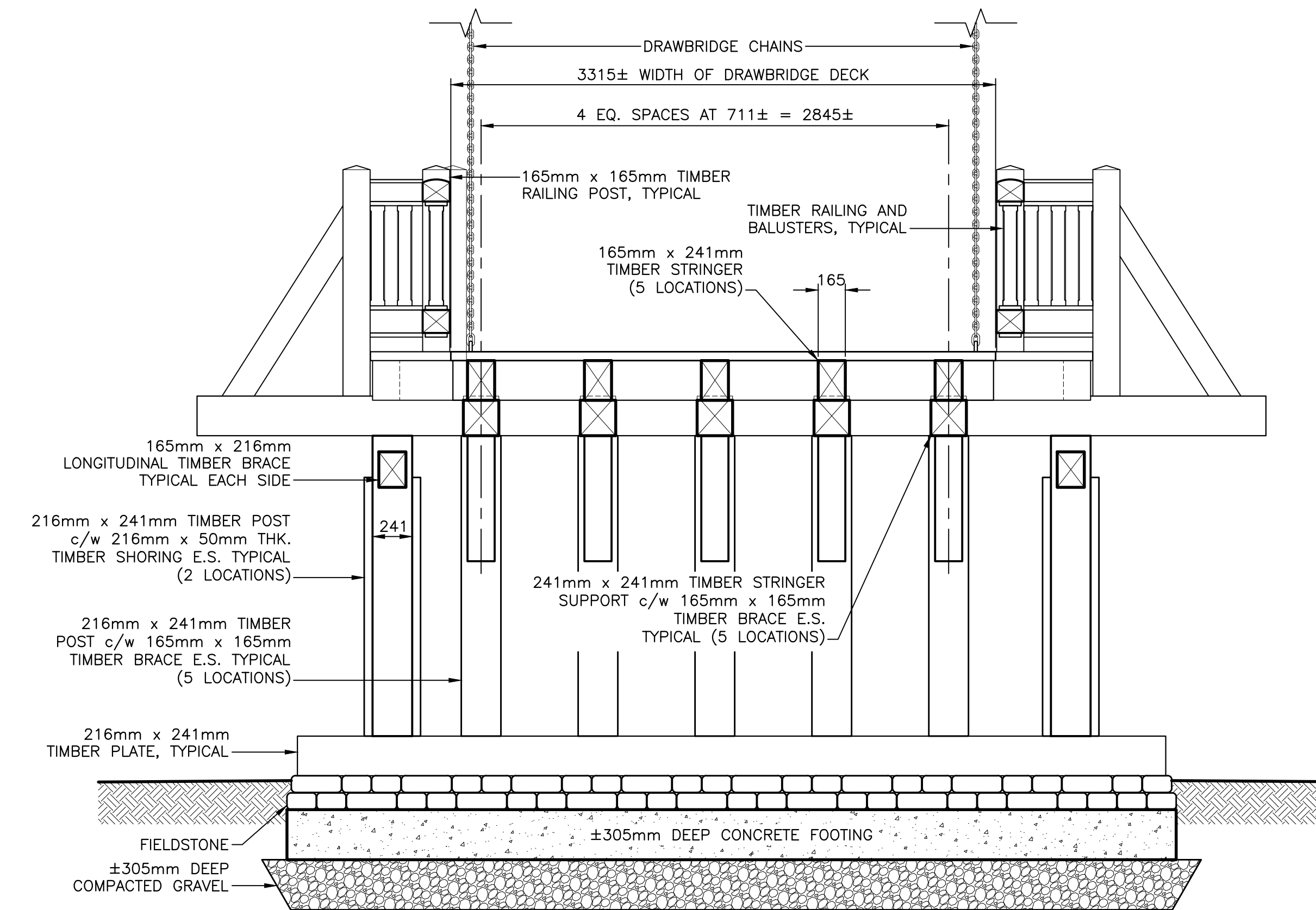
MAIN STRUCTURE SECTION

SCALE : 1:25
FOR GRIDLINES 1 TO 4



EXISTING STRUCTURE ELEVATION

SCALE : 1:50



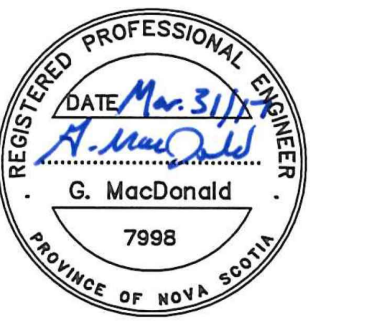
DRAWBRIDGE SECTION

SCALE : 1:25
FOR GRIDLINE 5



LEGEND

2009 BOREHOLE
BH09-03



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DAUPHIN BRIDGE REPLACEMENT
FORTRESS OF LOUISBOURG NATIONAL HISTORIC SITE
LOUISBOURG, NS

EXISTING STRUCTURE PLAN VIEW, ELEVATION AND SECTIONS

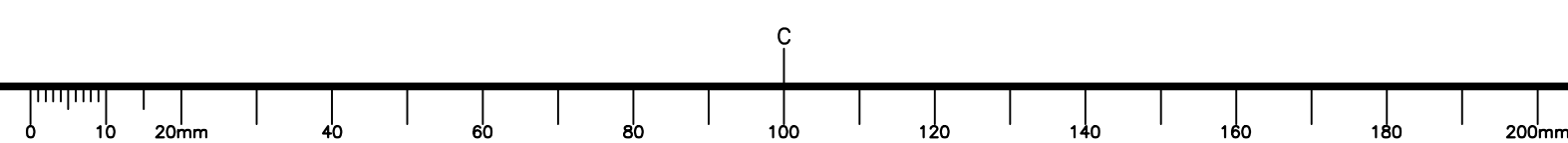
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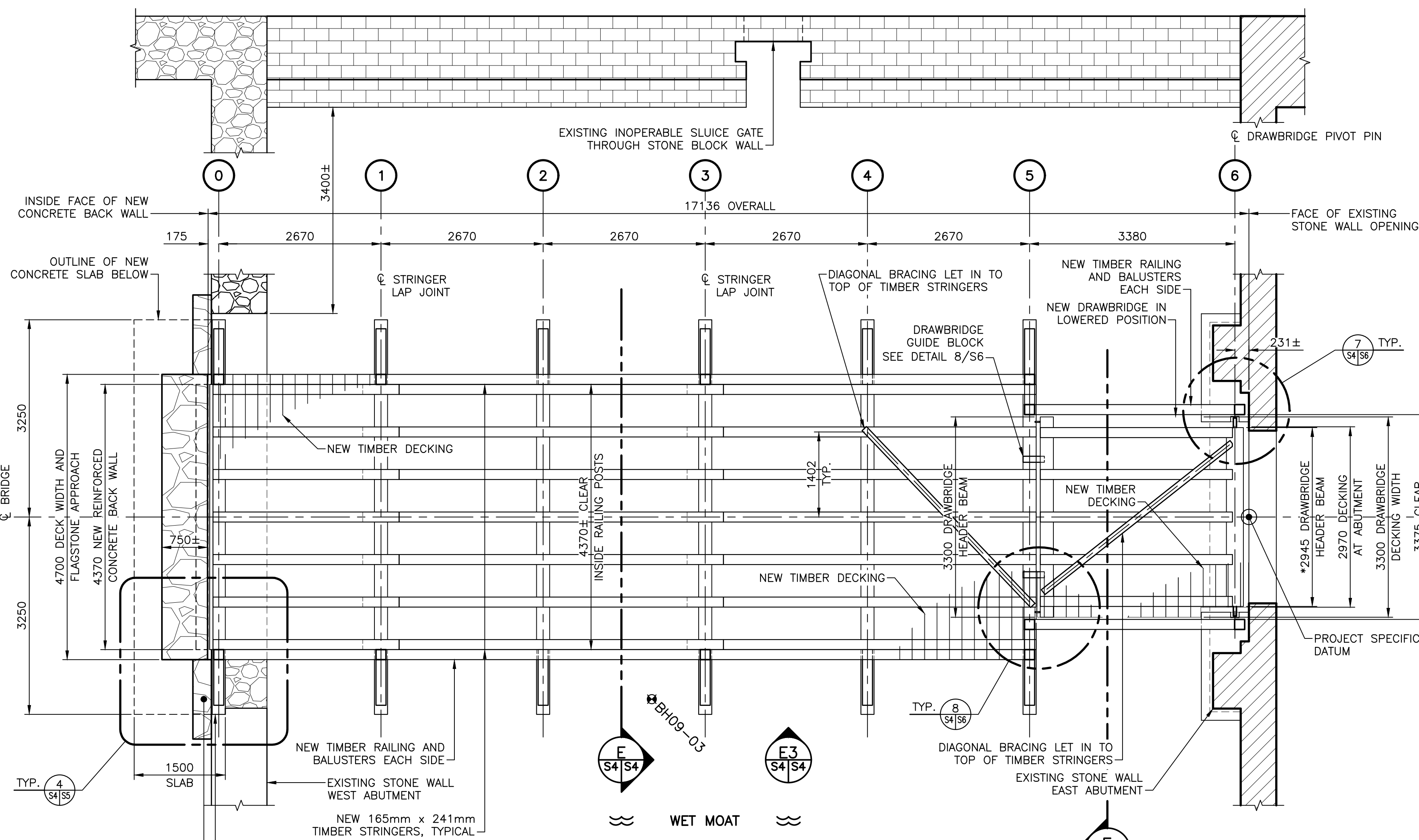
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NORTH

LOUISBOURG HARBOUR

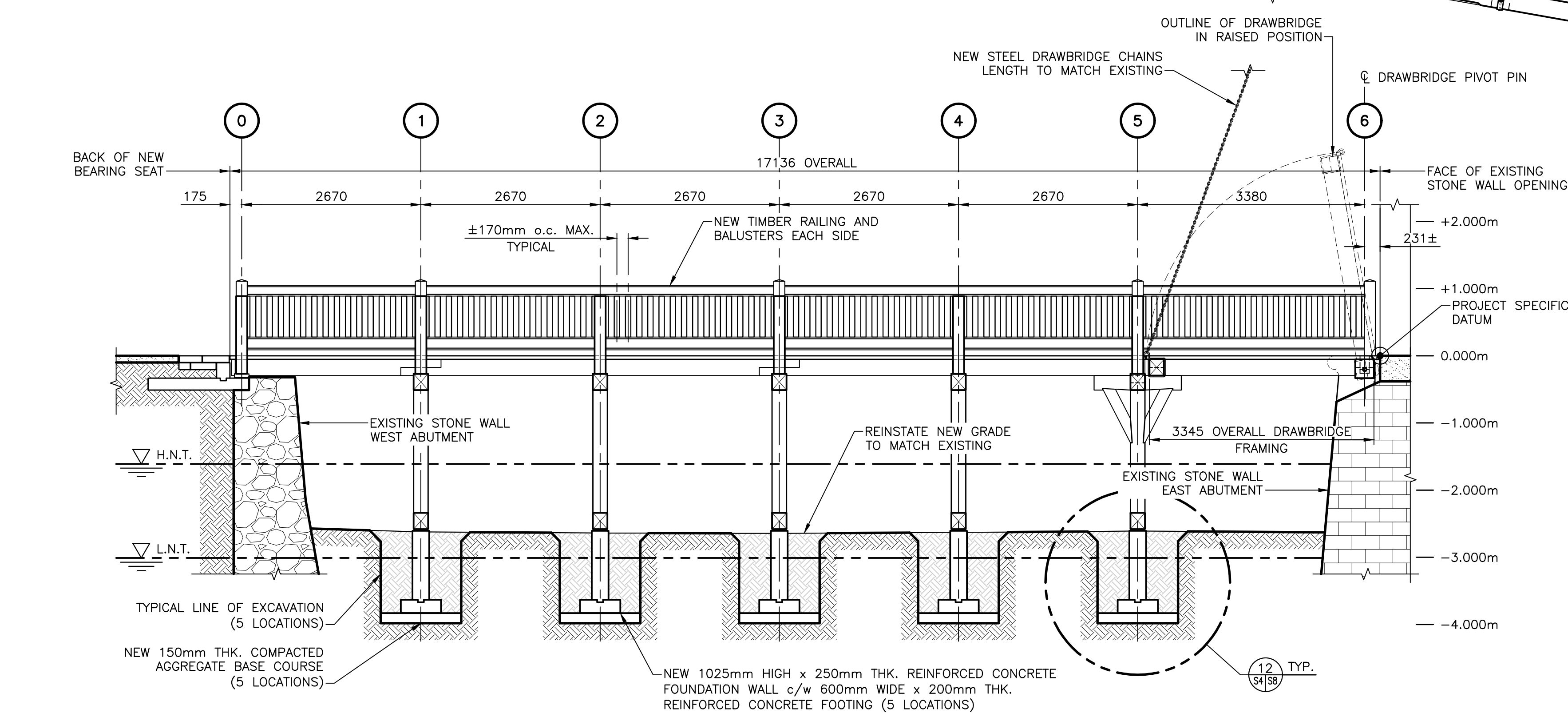
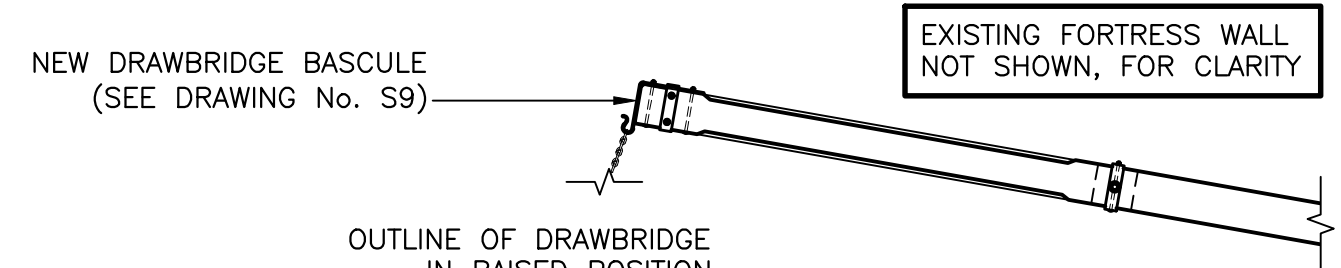


NEW STRUCTURE PLAN VIEW

SCALE : 1:150

STRUCTURE LAYOUT NOTES:

- CENTERLINE OF NEW BRIDGE STRUCTURE TO BE ESTABLISHED BY A LINE THAT IS CENTERED IN THE EXISTING STONE WALL OPENING AT THE EAST ABUTMENT AND PERPENDICULAR WITH THE CENTERLINE OF THE DRAWBRIDGE PIVOT PINS WHICH CAN BE LOCATED USING THE EXISTING PIVOT PIN CRADLES IN THE EAST ABUTMENT.
- ELEVATIONS ARE BASED ON A PROJECT SPECIFIC DATUM LOCATED AT THE CENTER OF THE EXISTING STONE WALL OPENING, ON THE EDGE OF THE THRESHOLD (EL. = 0.000m).

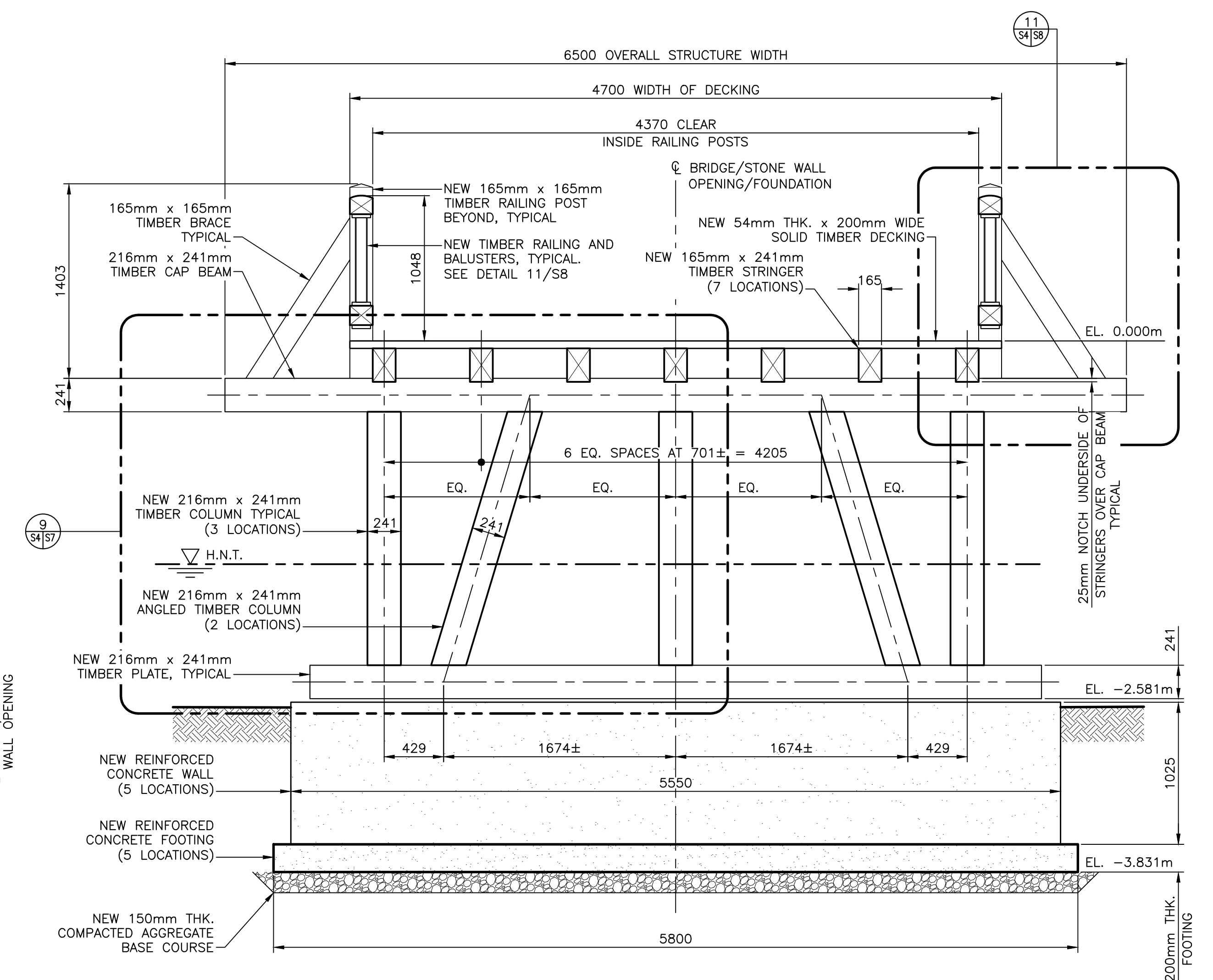


NEW STRUCTURE ELEVATION

SCALE : 1:150

*NOTE:

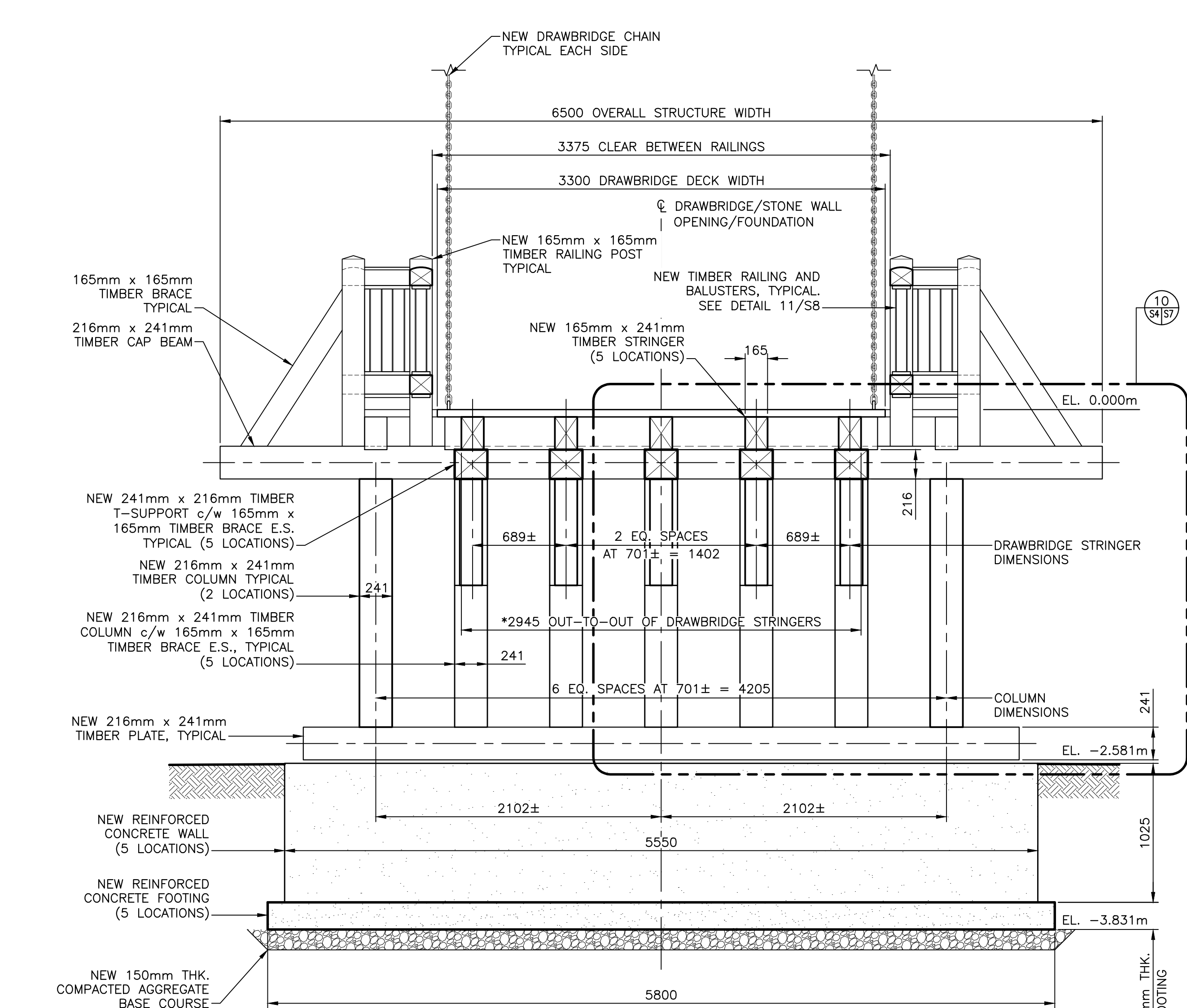
OVERALL WIDTH OF DRAWBRIDGE STRINGERS AND LENGTH OF HEADER BEAM AT EAST ABUTMENT TO MATCH EXISTING AND BE SUCH THAT THE REUSED WROUGHT IRON PIVOT PIN ASSEMBLY SHALL FIT SNUG WITH NEW HEADER BEAM AND THERE IS LITTLE PLAY IN THE EXISTING PIVOT PIN CRADLE. THE PIVOT PINS SHALL HAVE A MINIMUM BEARING (IN THE EXISTING PIVOT PIN CRADLE) OF 60mm. CONTRACTOR TO VERIFY OVERALL LENGTH OF THE HEADER BEAM ON SITE, PRIOR TO FABRICATION.



NEW MAIN STRUCTURE SECTION

SCALE : 1:25

FOR GRIDLINES 1 TO 4



NEW DRAWBRIDGE SECTION

SCALE : 1:25

AT GRIDLINE 5



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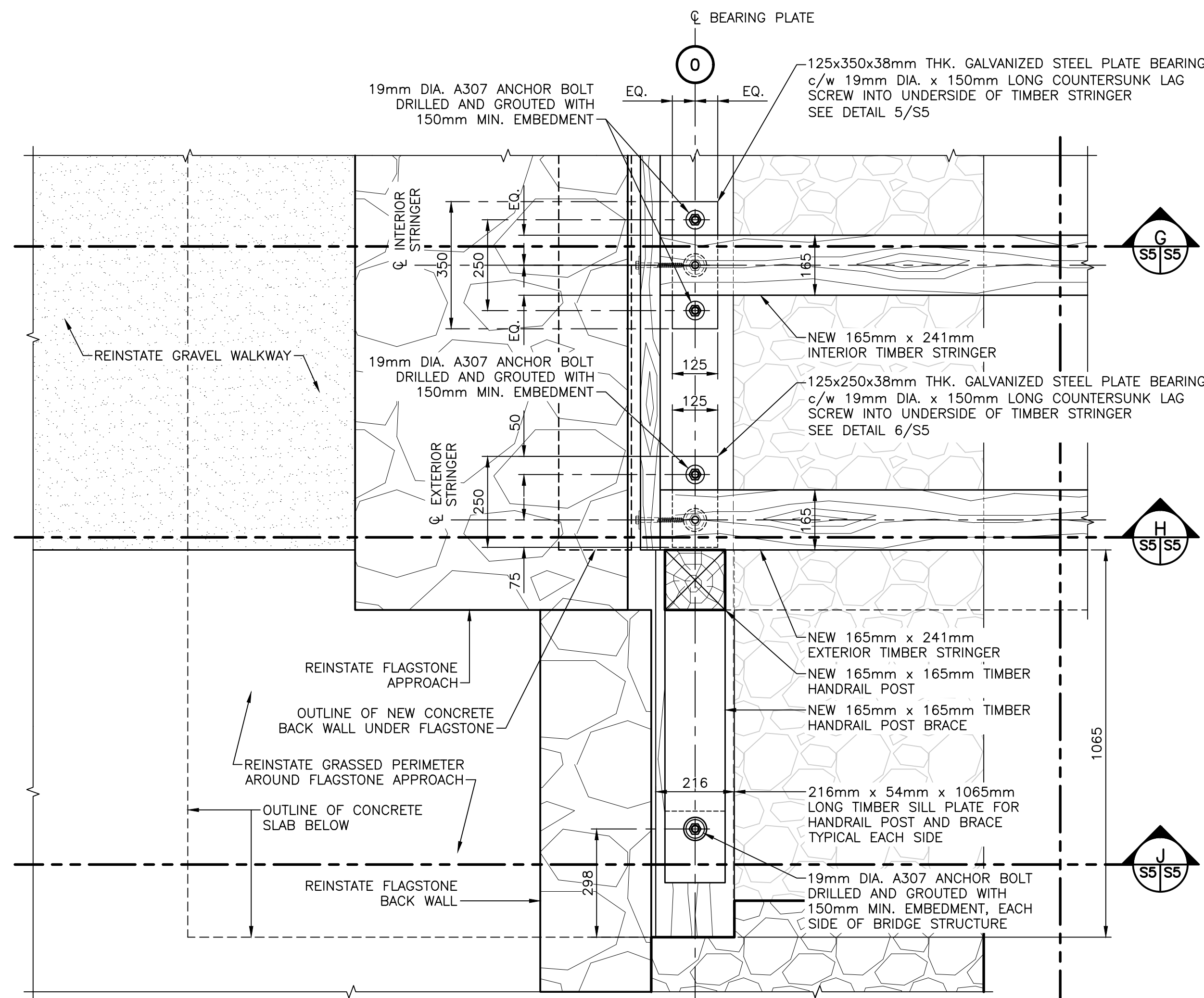
DAUPHIN BRIDGE REPLACEMENT
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NATIONAL HISTORIC SITE
LOUISBOURG, NS

NEW STRUCTURE
PLAN VIEW, ELEVATION
AND SECTIONS

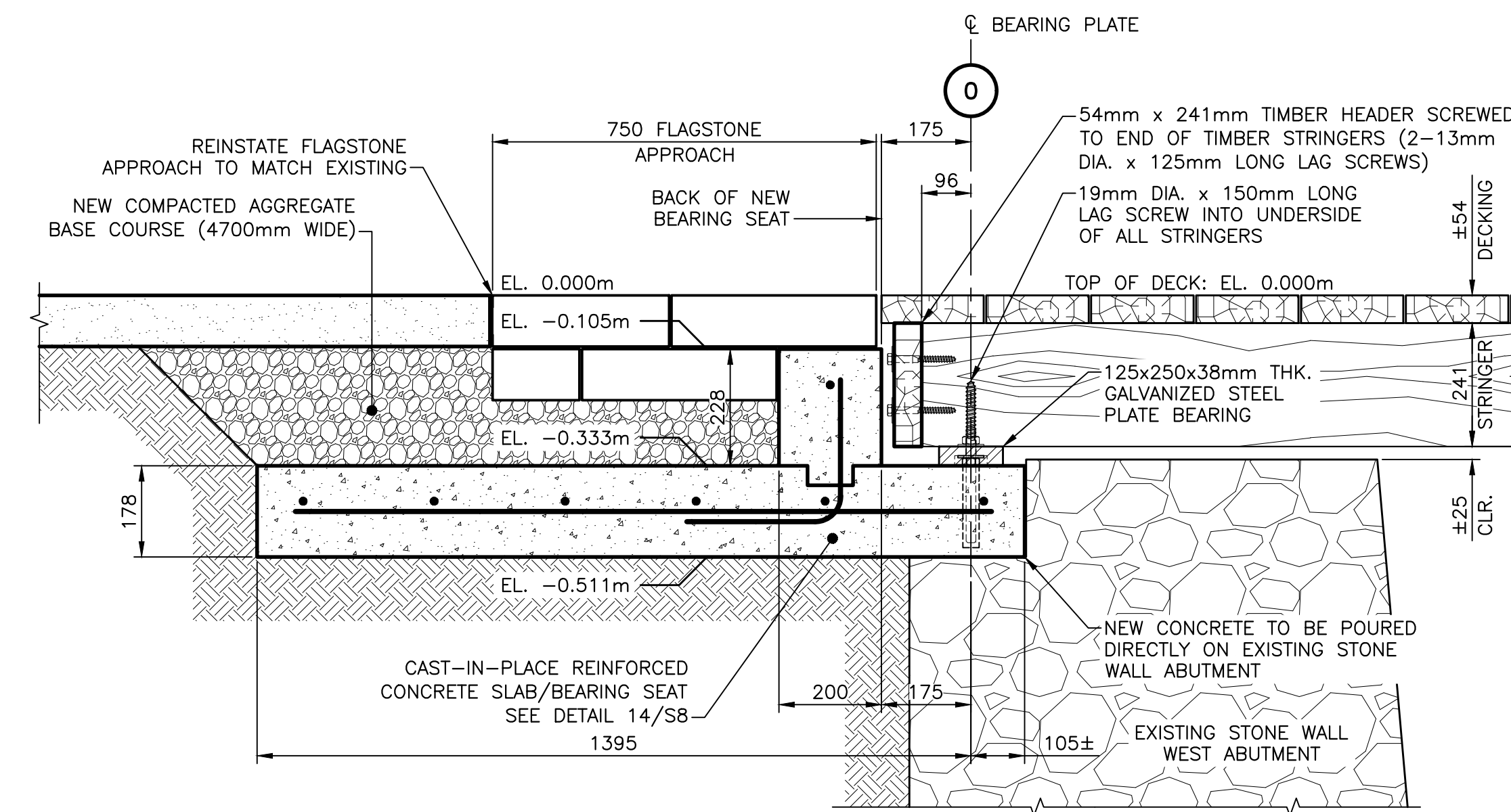
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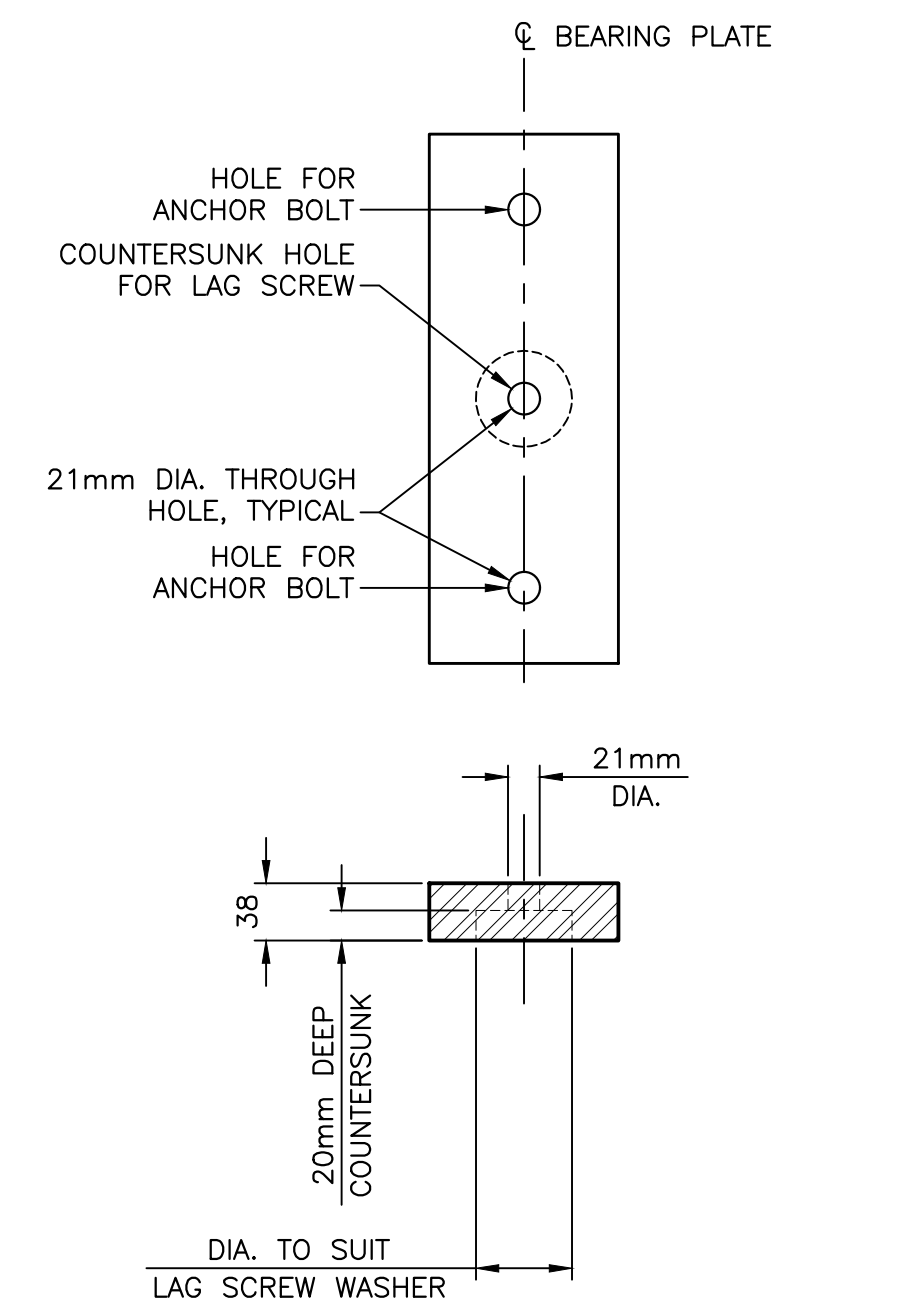
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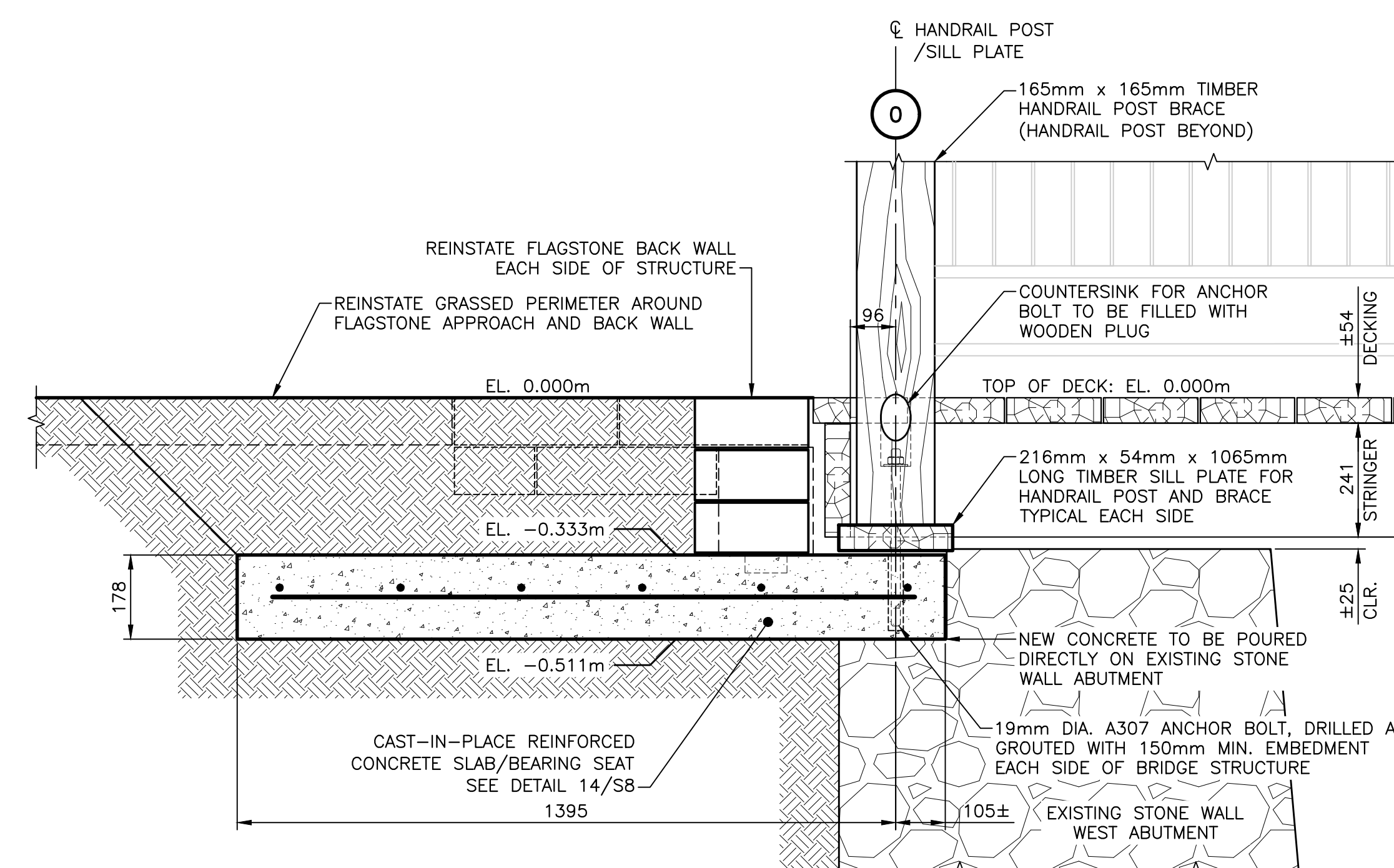
DETAIL AT WEST ABUTMENT
SCALE : 1:10
0mm 100 200 300 400 500 600 700 800 900 1000mm
TIMBER DECKING NOT SHOWN, FOR CLARITY



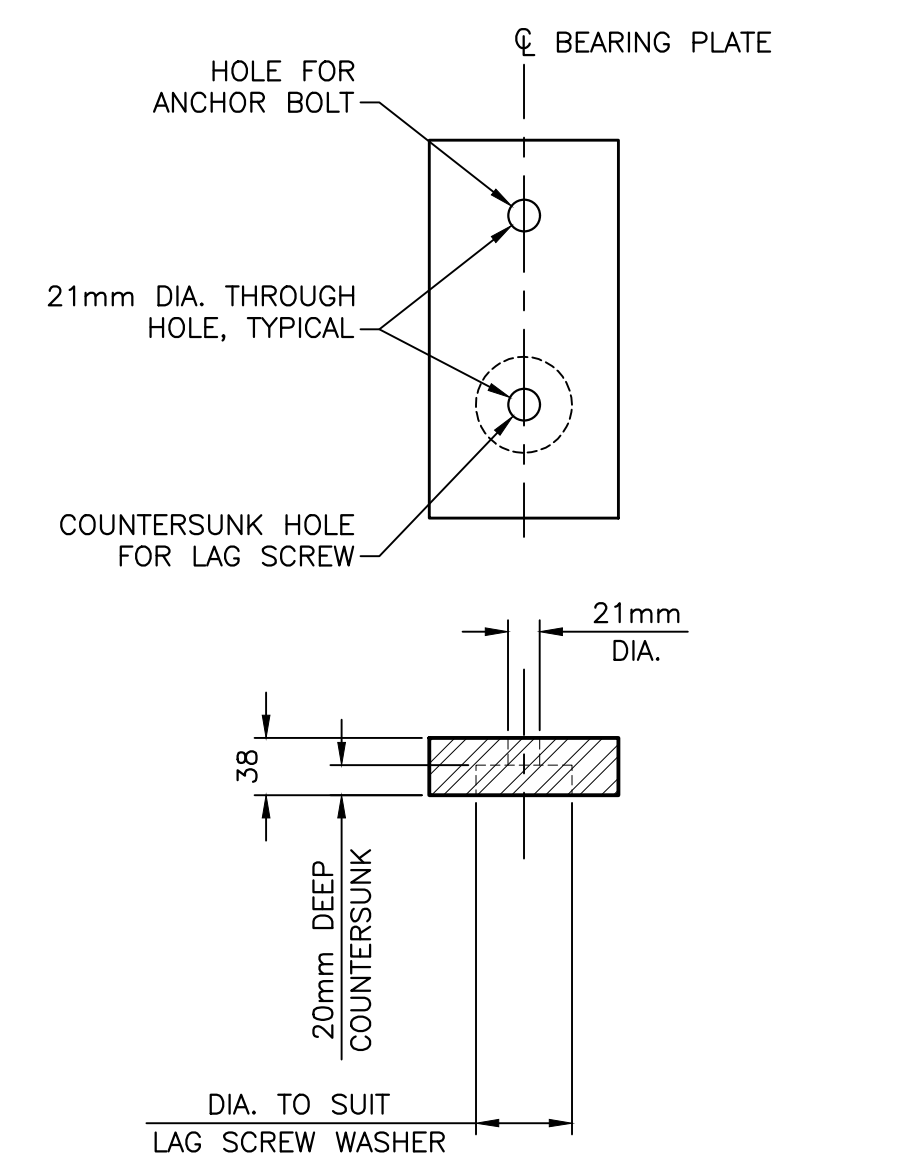
SECTION THROUGH EXTERIOR STRINGER
SCALE : 1:10
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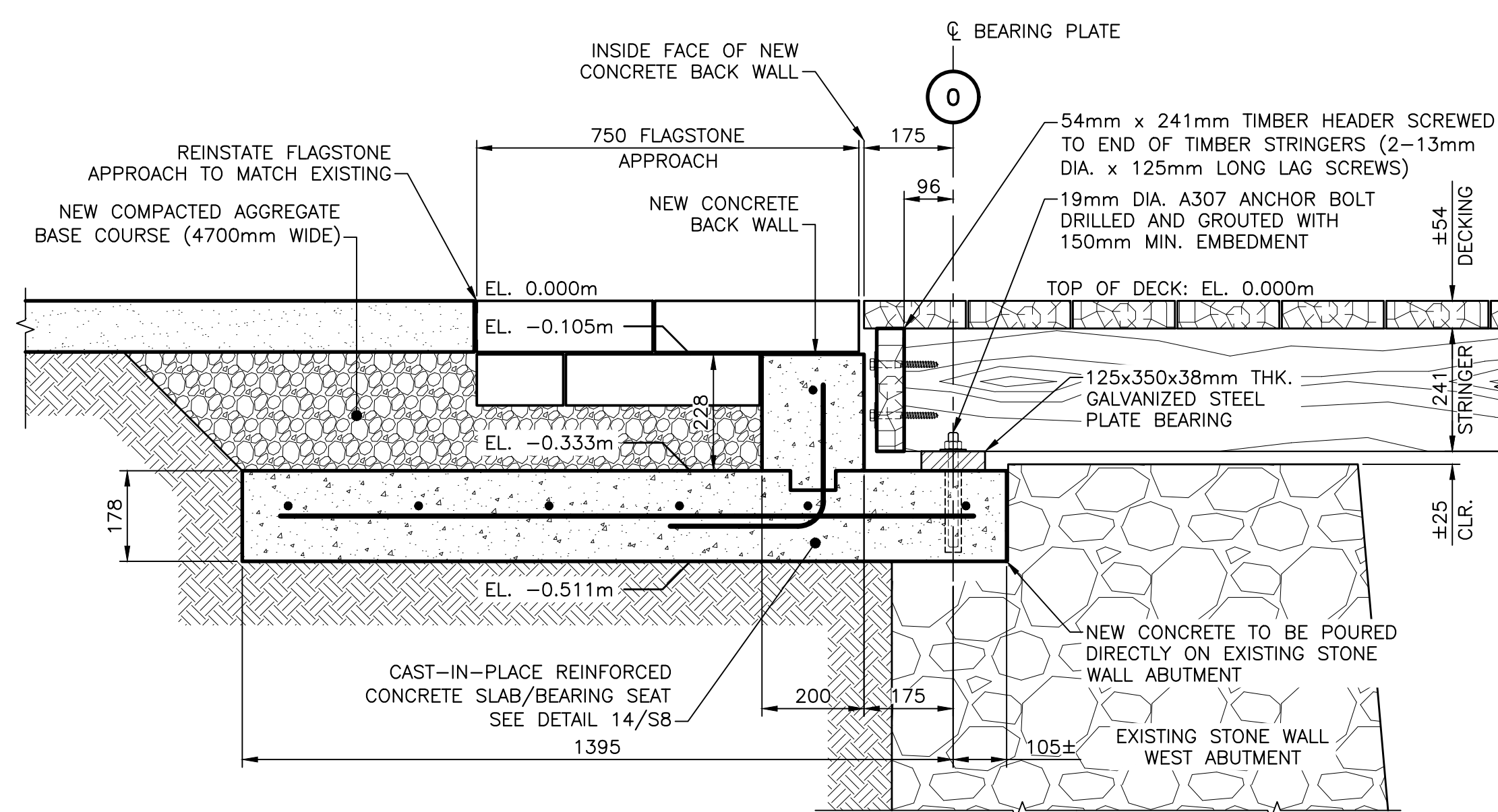
BEARING PLATE DETAIL 5
SCALE : 1:5
0mm 100mm 200mm 300mm 400mm 500mm



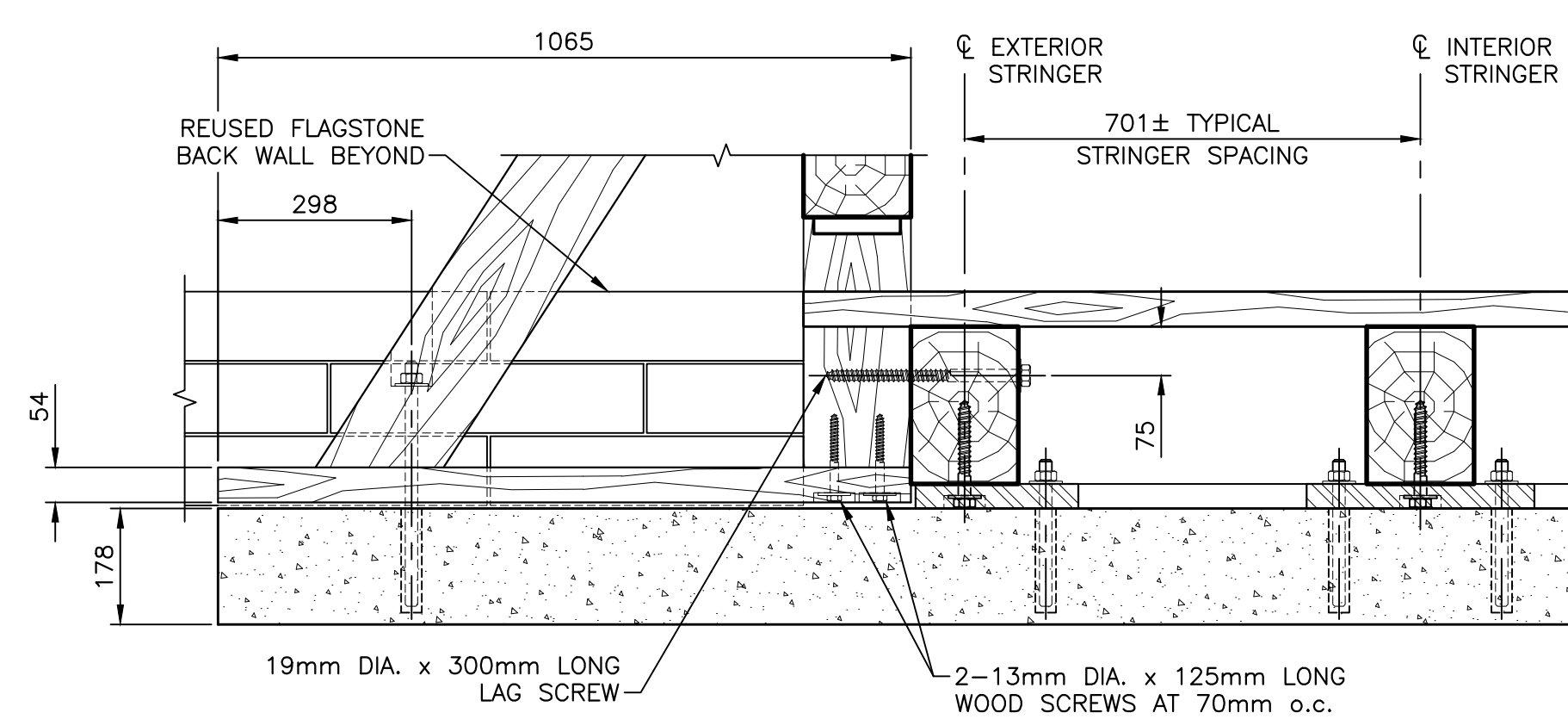
SECTION THROUGH ABUTMENT
SCALE : 1:10
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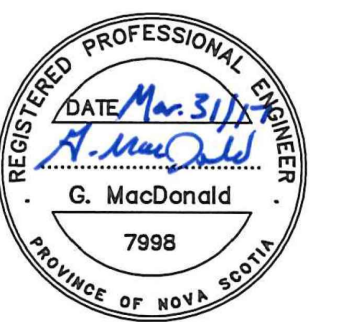
BEARING PLATE DETAIL 6
SCALE : 1:5
0mm 100mm 200mm 300mm 400mm 500mm



SECTION THROUGH INTERIOR STRINGER
SCALE : 1:10
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SECTION AT WEST ABUTMENT
SCALE : 1:10
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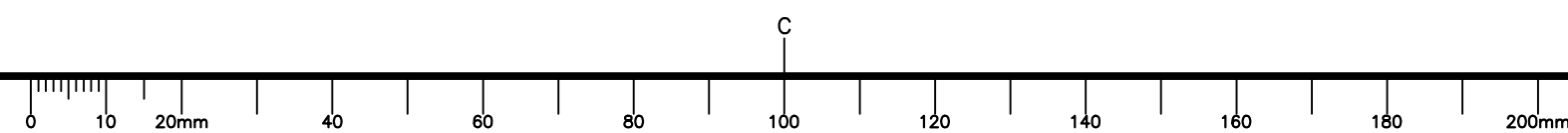


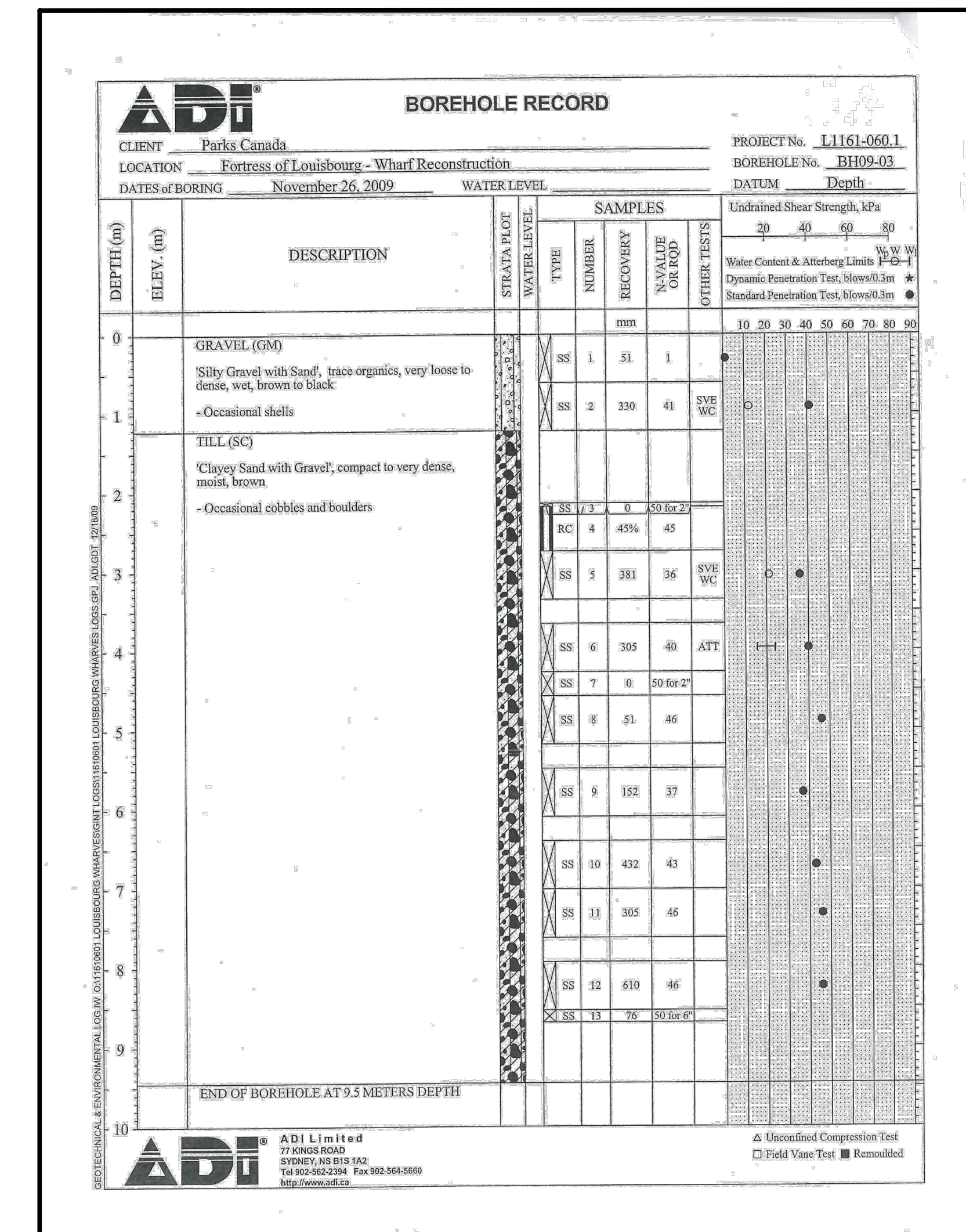
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drawing	design	

NEW STRUCTURE WEST ABUTMENT DETAIL AND SECTIONS

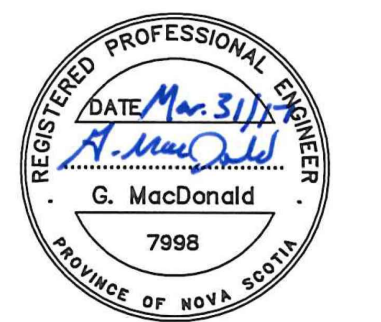
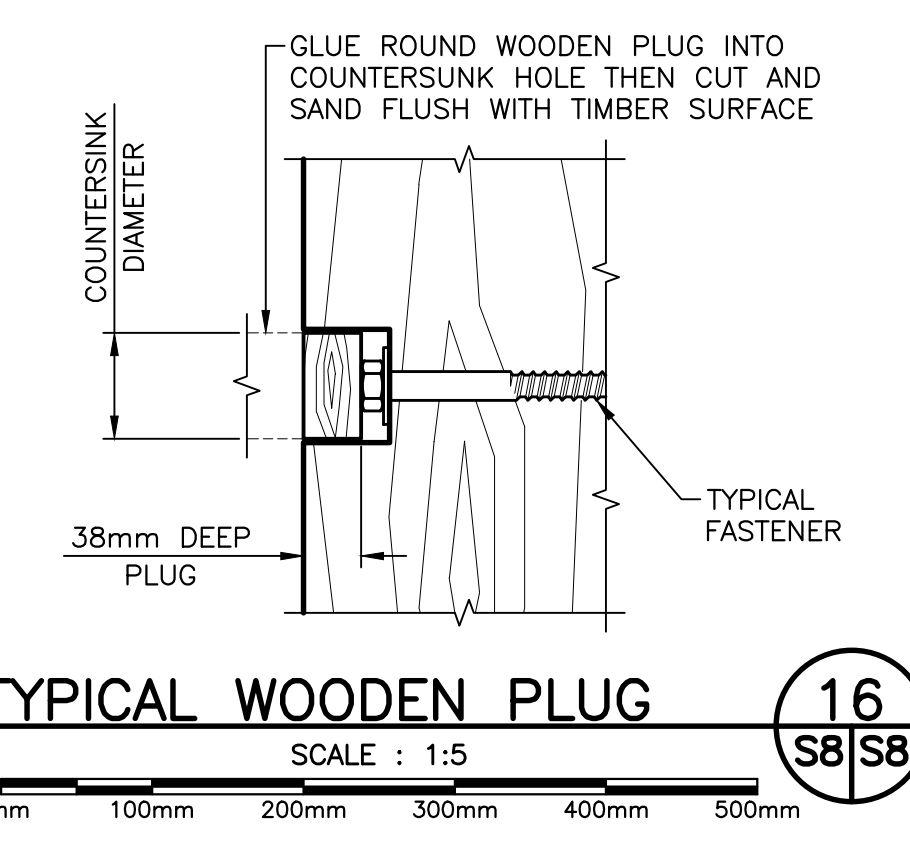
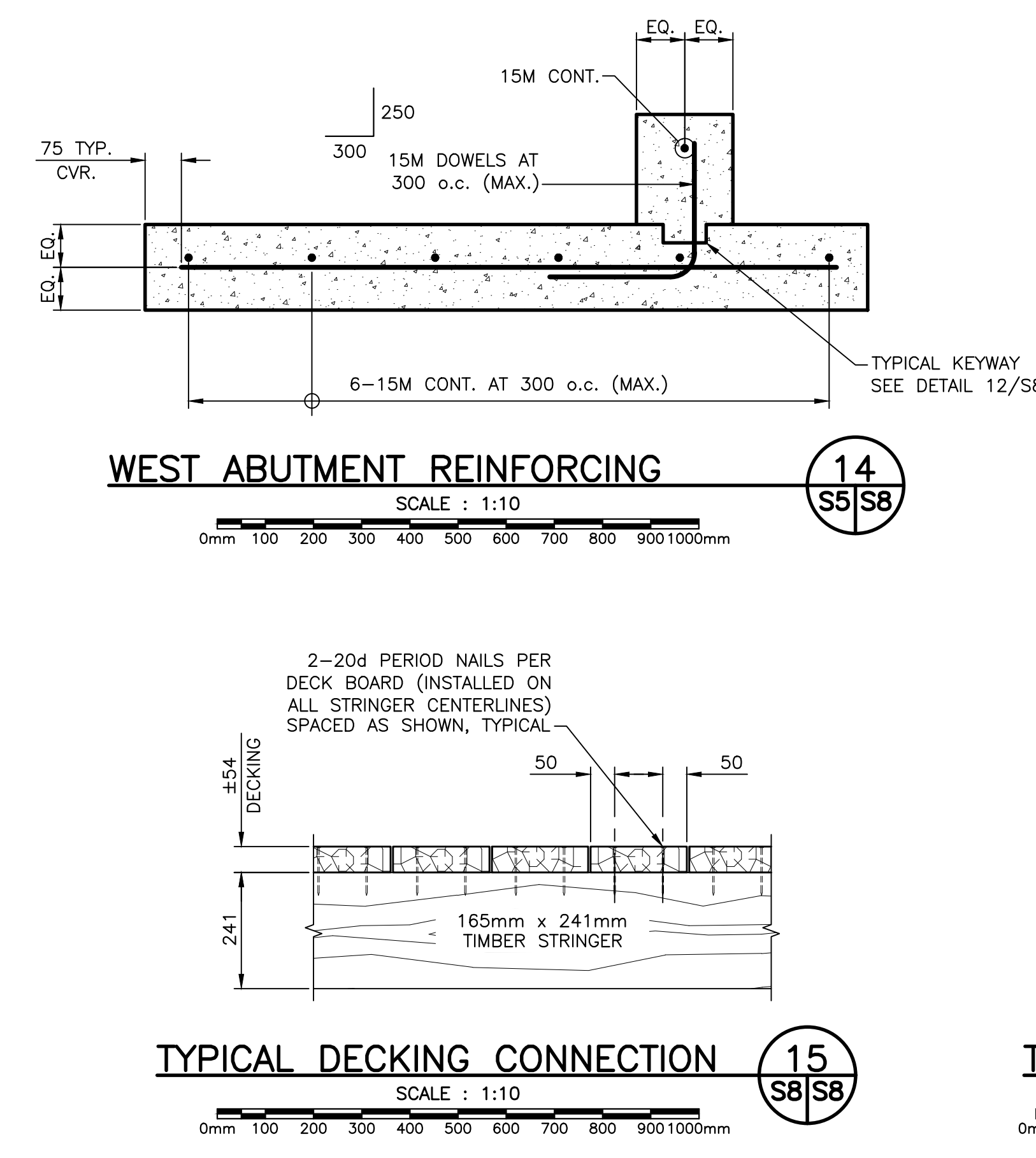
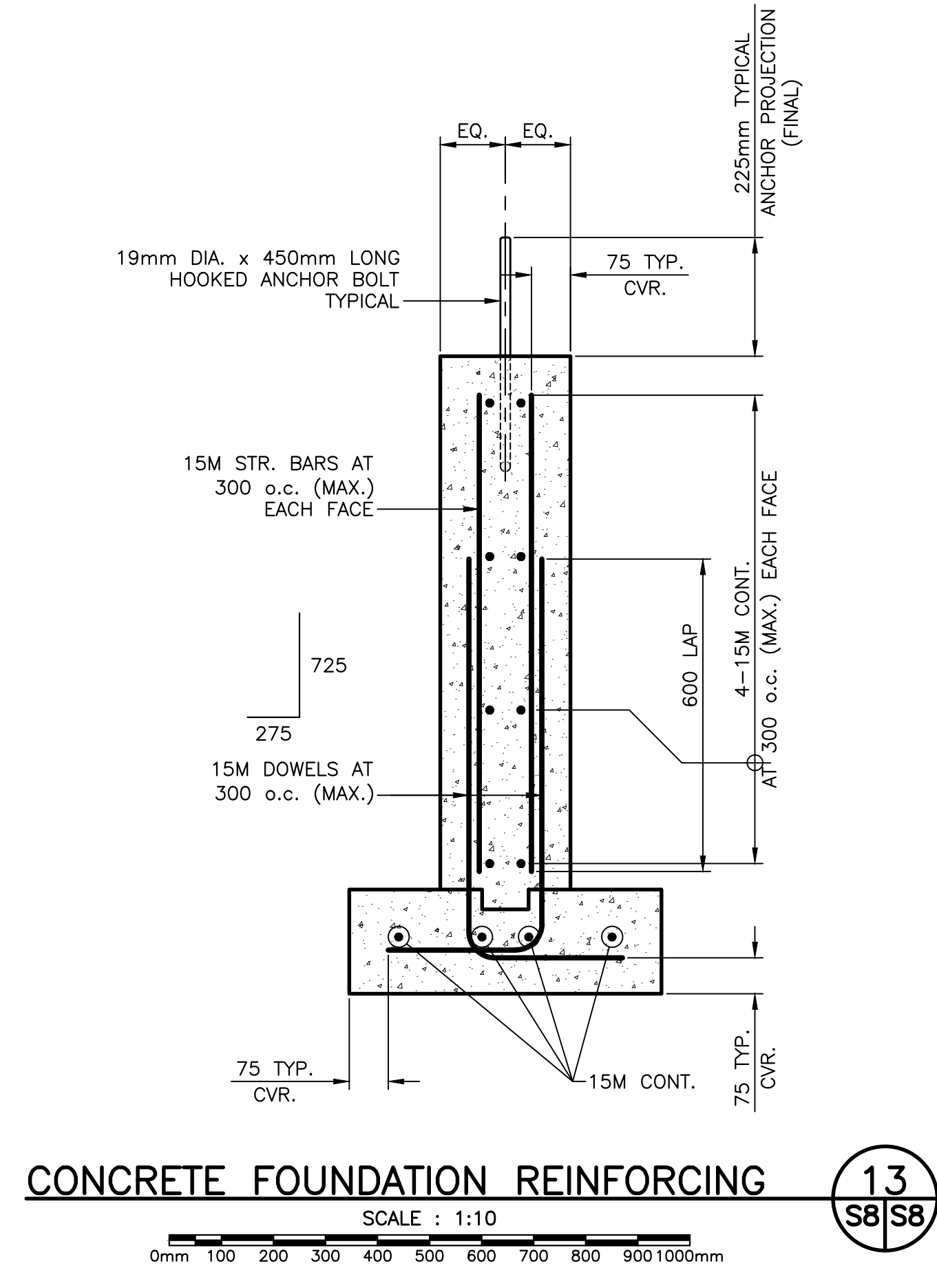
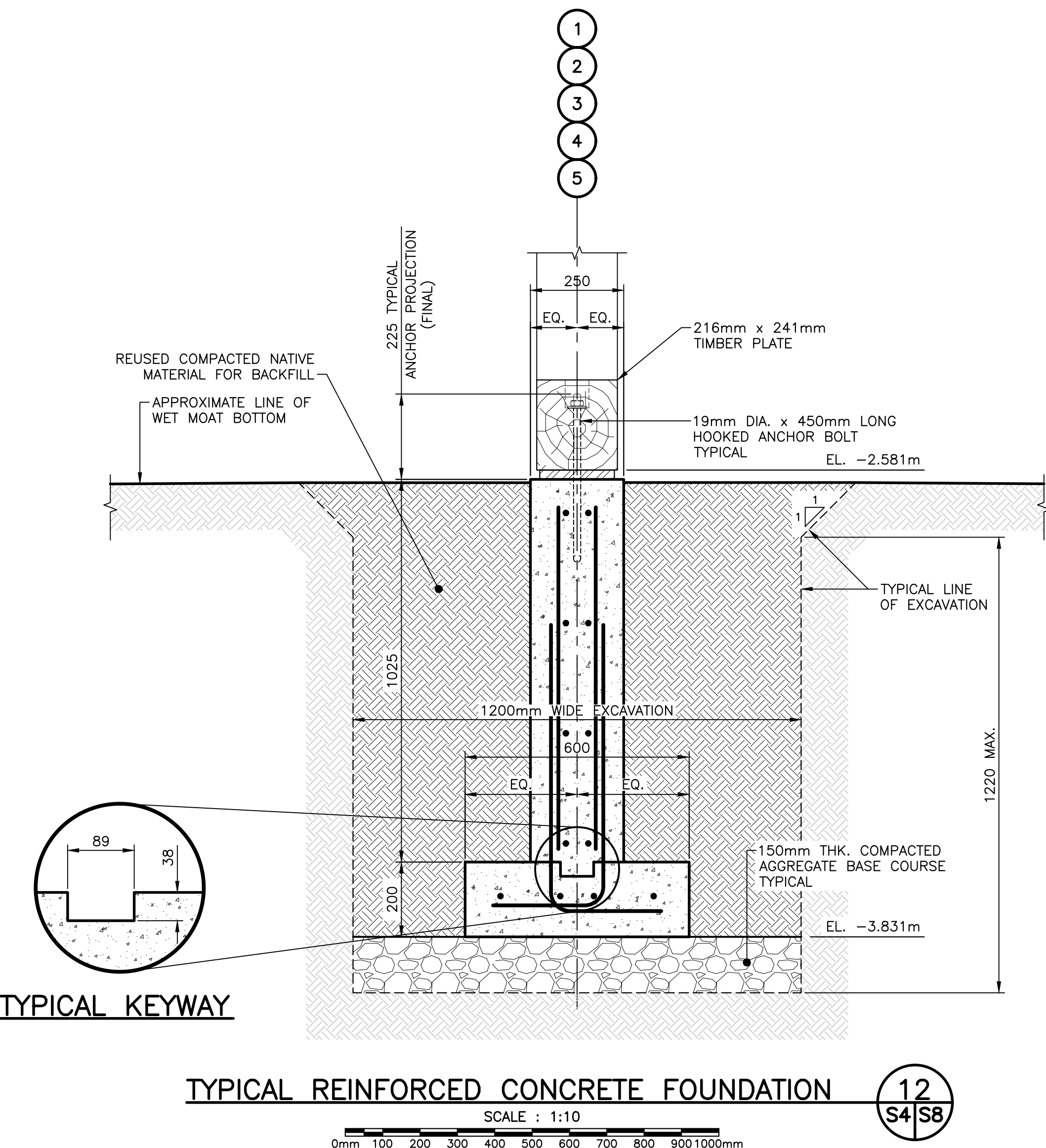
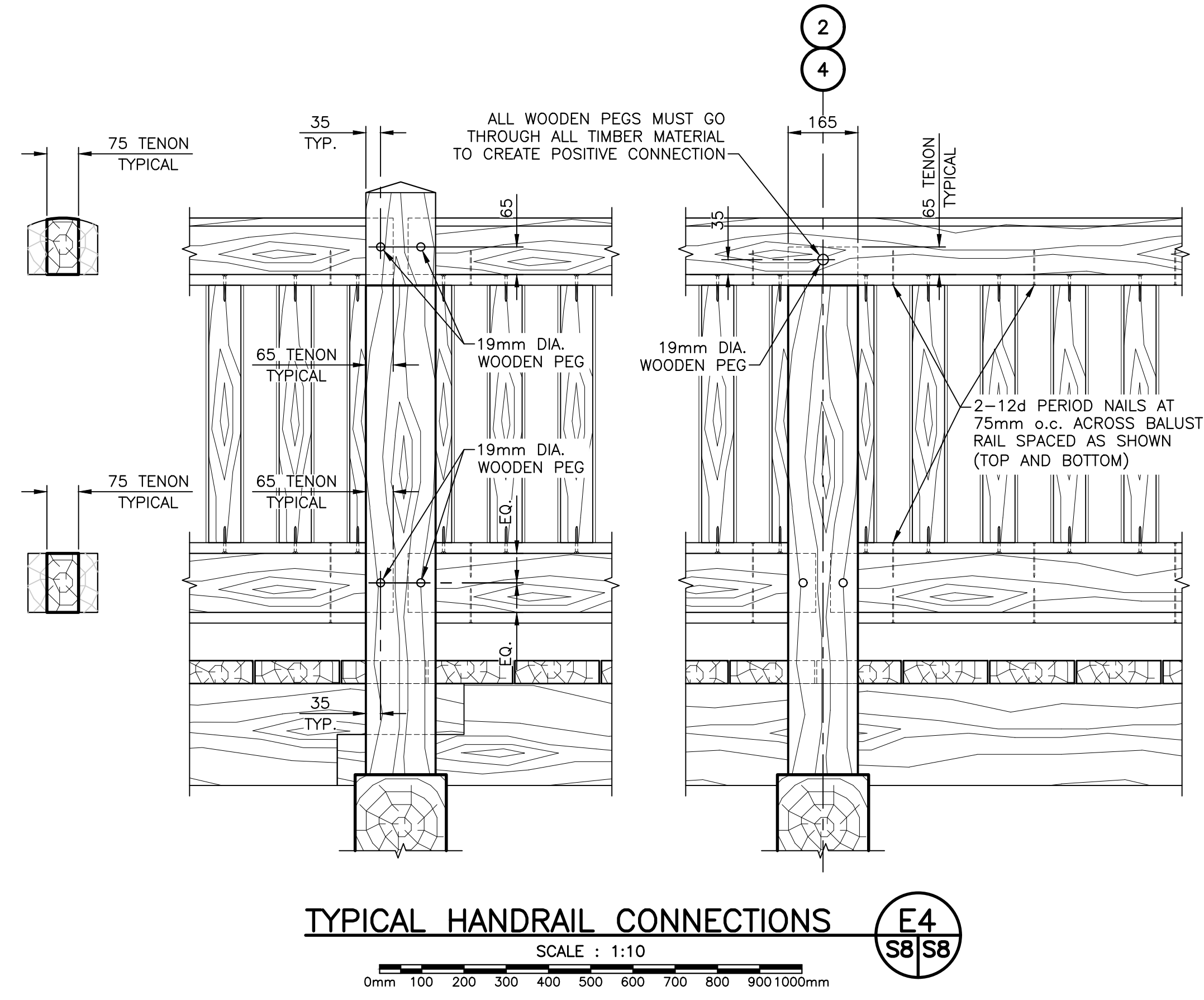
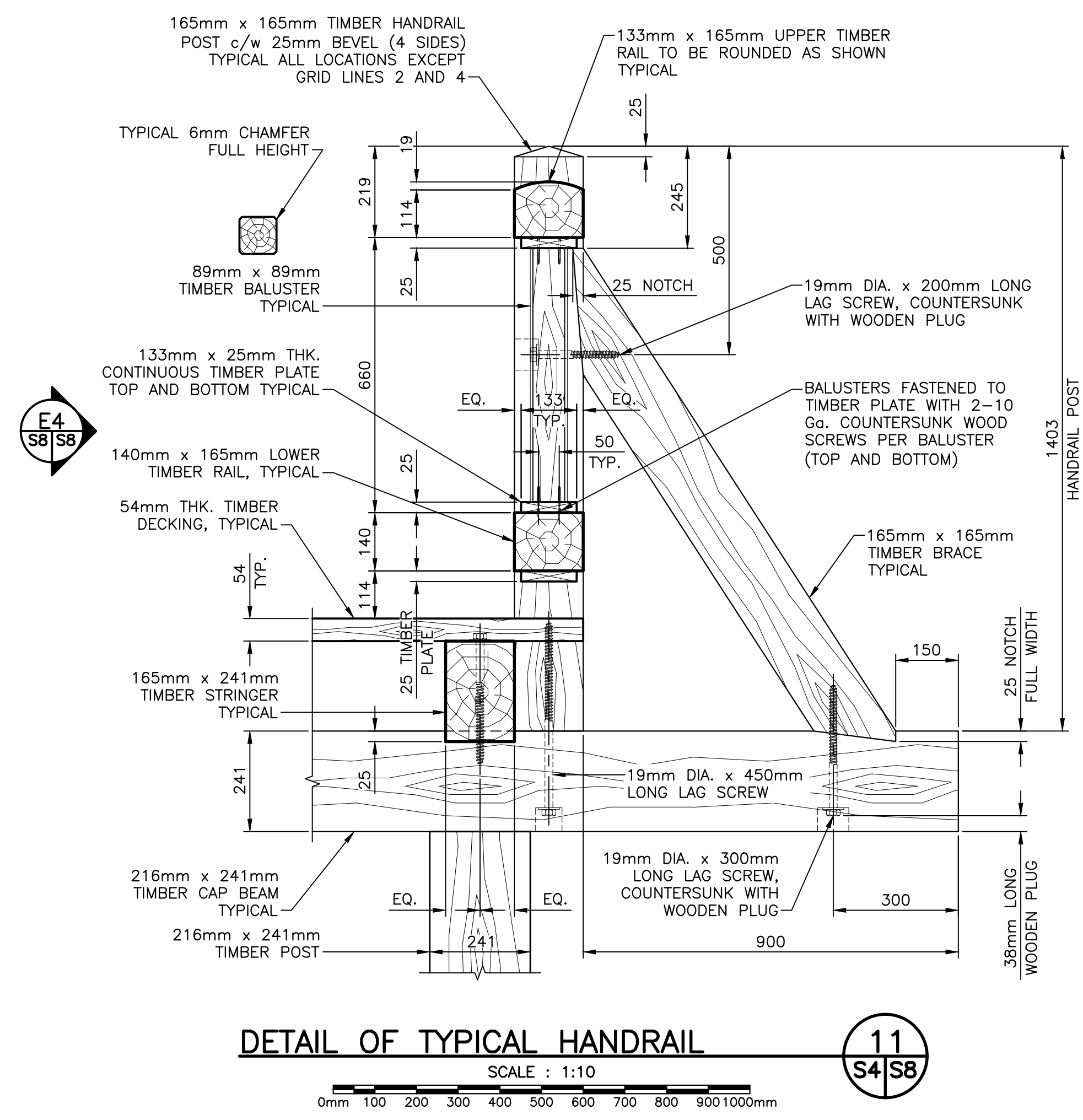
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BOREHOLE BH09-03



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PCA Project Manager	Administrateur de projets APC	
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	S8	

