

TOWNSHIP OF HAMILTON

TENDER PW-2018-04

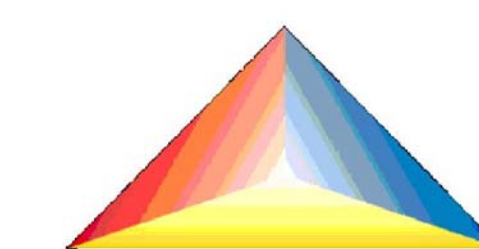
LANDER ROAD CULVERT REHABILITATION



DRAWING LIST:

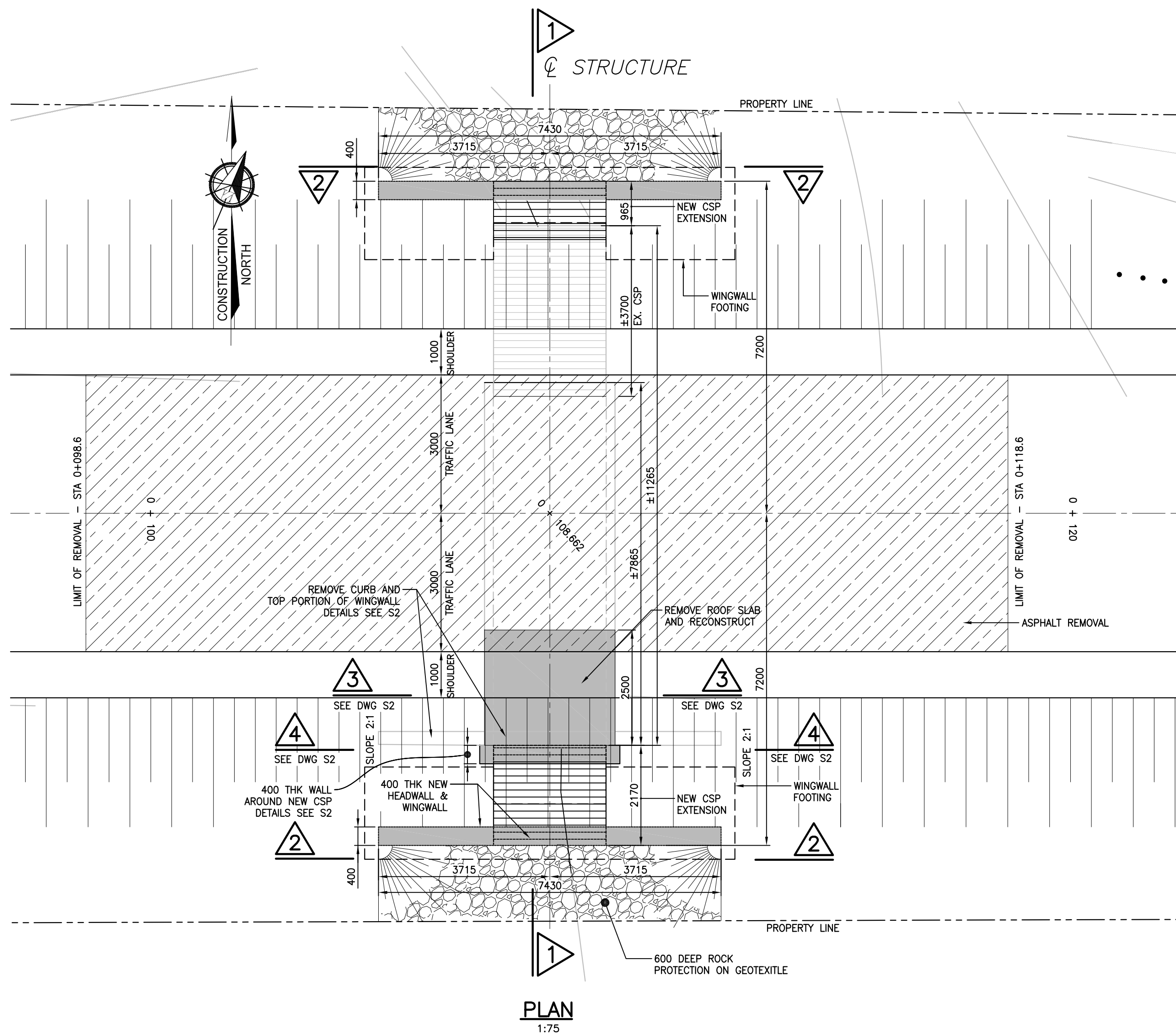
- S1 - GENERAL ARRANGEMENT
- S2 - REMOVAL & REHABILITATION



 **G.D. Jewell
ENGINEERING Inc.**
MUNICIPAL - CIVIL - TRANSPORTATION
CONSULTING ENGINEERS

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PLAN
1:75

GENERAL NOTES

- DESIGNED TO CHBDC CAN/CSA-S6-14 LIVE LOAD = CL-625-ONT TRUCK.
- DRAWING ARE NOT TO BE SCALED. WORK TO DIMENSIONS ONLY.
- ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE ALL ELEVATION ARE IN METERS.

FOUNDATIONS

- STRUCTURE TO BE FOUNDED ON NATURAL UNDISTURBED GROUND WITH AN ALLOWABLE BEARING CAPACITY:
FACTORED BEARING RESISTANCE @ 225 U.L.S.
ALLOWABLE BEARING REACTION @ 150 S.L.S.
GETECHNICAL ENGINEER TO VERIFY THE NATURE AND CHARACTER OF FOUNDING SURFACES PRIOR TO CONSTRUCT END WALL
- THE GETECHNICAL ENGINEER SHALL ALSO VERIFY THAT THAT THE FOUNDING SUBGRADE IS CAPABLE OF SUSTAINING THE ASSUMED DESIGN PRESSURES. IF THE FOUNDING SUBGRADE DOES NOT CONFORM TO THE ASSUMED CONDITIONS, THE FOUNDATION DESIGN WILL BE ADJUSTED ACCORDINGLY BY THE ENGINEER.

CONCRETE AND REINFORCING STEEL

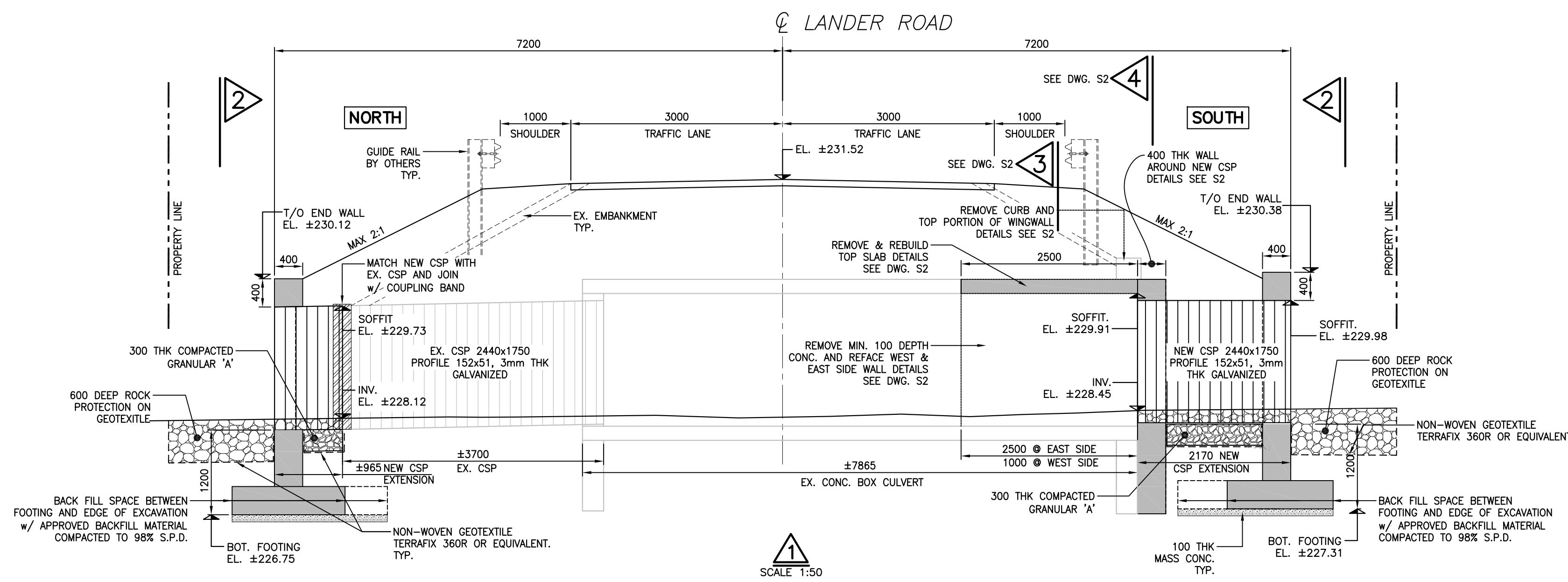
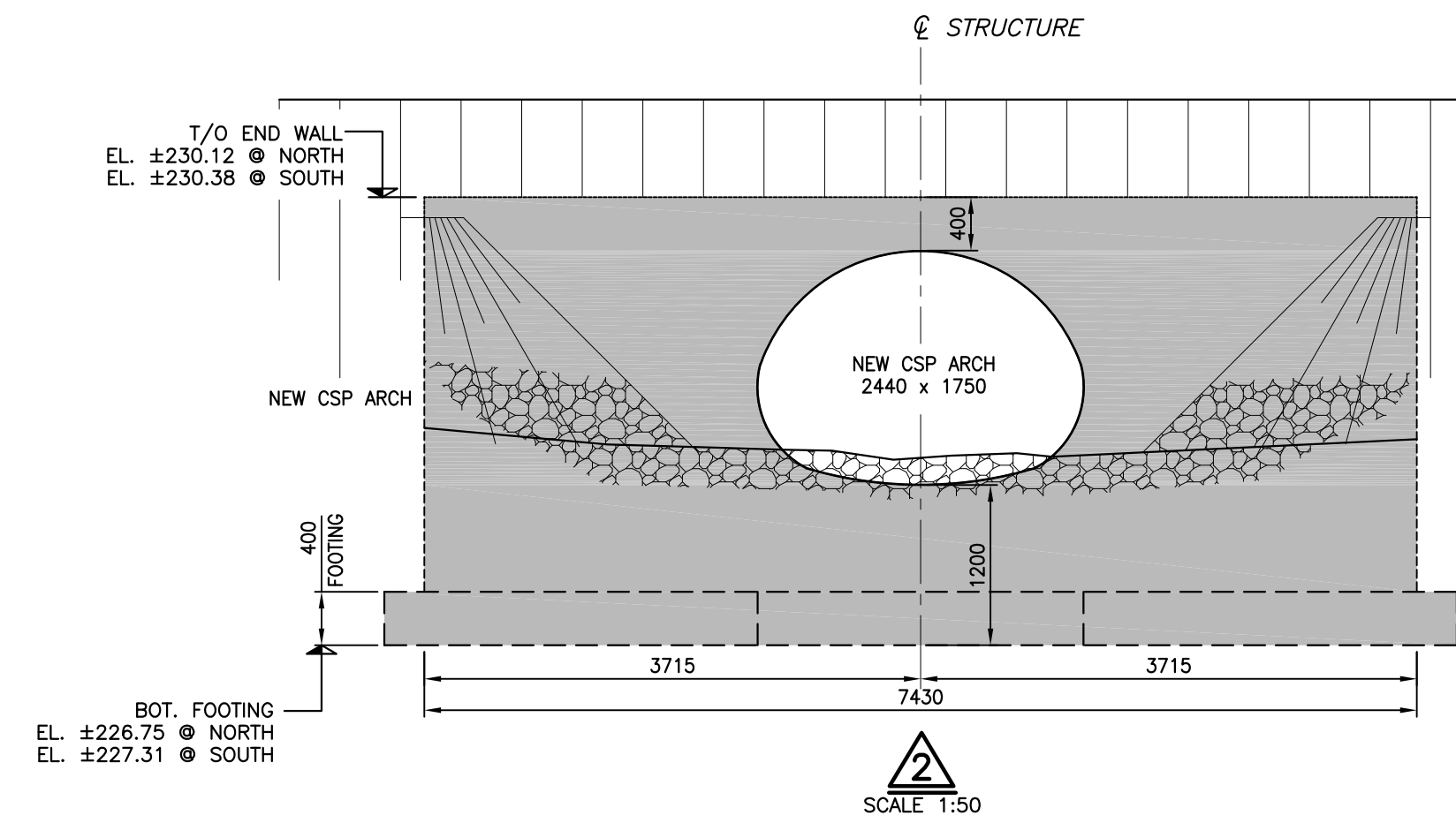
- CLASS OF CONCRETE: 30MPa, CLASS OF EXPOSURE: F-1 CONCRETE TO CONFORM TO OPSS 1350.
- REINFORCING STEEL TO BE DEFORMED BARS CONFORMING TO CSA G30.18, GRADE 400W.
- CLEAR CONCRETE COVER TO REINFORCING BARS TO BE AS FOLLOWS:
CONCRETE CAST AGAINST EARTH: 100 ± 25 mm
REMAINING: 70 ± 20 mm
- ALL SPLICES TO BE CLASS 'B' TENSION SPLICES UNLESS NOTED OTHERWISE.
- CHAMFER ALL EXPOSED EDGES 25 x 25.
- ADHESIVE FOR ANCHORING OF DOWELS TO BE HILTI HY200-A
- ANCHOR BOLTS TO BE CONFORM TO ASTM A307 AND BE HOT DIP GALVANIZED TO ASTM A123.

CONSTRUCTION NOTES:

- PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL BE SOLELY AND FULLY RESPONSIBLE FOR CONTACTING ALL APPLICABLE UTILITY COMPANIES FOR LOCATES AND OPERATIONAL CONSTRAINTS, AND FOR PROVIDING SUCH UTILITY COMPANIES WITH DETAILS OF WORK.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE EX. CONDITIONS AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE REPAIR WORK.
- ALL WORK TO BE CARRIED OUT IN DRY. CONTRACTOR TO MAKE OWN ASSESSMENT OF ANTICIPATED WATER LEVELS AND UNWATERING LEVEL REQUIRED.
- LOCATIONS FOR BOLTS SHALL BE FIELD ADJUSTED TO AVOID EXISTING REINFORCING STEEL
- ALL DEBRIS IS TO BE DISPOSED OFF SITE BY CONTRACTOR.

REHABILITATION NOTES:

- SAWCUTS SHALL BE 25mm DEEP OR TO FIRST LAYER OF REINFORCING STEEL, WHICHEVER IS LESS UNLESS OTHERWISE NOTED.
- THE EXTENT OF DETERIORATION IS SHOWN FOR INFORMATION ONLY. THE AREA OF PARTIAL AND FULL DEPTH CONCRETE TOP SLAB REMOVALS AND REPAIRS WILL BE DELINEATE IN THE FIELD BY THE CONTRACT ADMINISTRATOR
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE EXISTING CONDITIONS AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE REPAIR WORK.
- ABRASIVE BLAST CLEANING OF REINFORCING STEEL SHALL BE TO NEAR WHITE CONDITION.
- CHIPPING SHALL BE DONE USING AN AIR HAMMER OF 8kg OR LESS
- BURLAP AND WATER SHALL BE USED FOR CURING NEW CONCRETE
- REINFORCING IN CONCRETE REMOVAL AREAS WITH MORE THAN 10% SECTION LOSS IN ANY LOCAL AREA TO BE REPLACED OR LAPPED WITH NEW REINFORCING OF SIMILAR DIAMETER.
- LOCATIONS FOR BOLTS SHALL BE FIELD ADJUSTED TO AVOID EXISTING REINFORCING STEEL

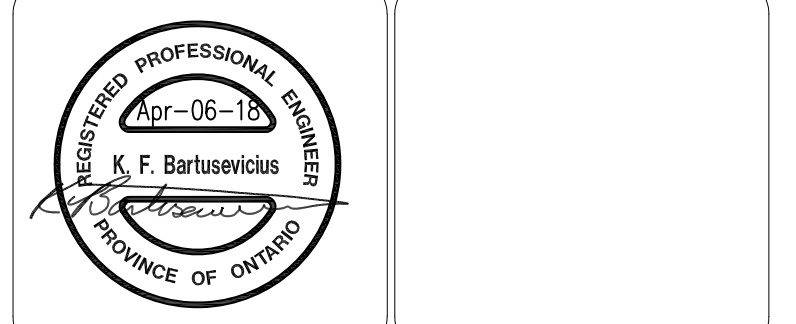


LEGEND

- BOT. - BOTTOM
- c/c. - CENTRE TO CENTRE
- CONT. - CONTINUOUS
- EL. - ELEVATION
- HORIZ. - HORIZONTAL
- INV. - INVERT
- TYP. - TYPICAL
- VERT. - VERTICAL
- 15M @ 300 - SIZE 15M BAR AT 300mm CENTRES
- [Grey Box] - NEW CONCRETE

GENERAL NOTES:
ALL INFORMATION TO BE VIEWED ON SITE PRIOR TO COMMENCING ANY WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTING ENGINEER.
ALL UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL CONFIRM THE LOCATION ON SITE AND ASSUME ALL LIABILITY FOR DAMAGE TO ALL UTILITIES.
EXCLUDING THE BENCHMARK AND OCCUPATION PROVIDED FOR THIS PROJECT, NO OTHER ELEVATIONS ARE TO BE USED AS A REFERENCE ELEVATION FOR ANY PURPOSE.
METRIC NOTE:
ALL DIMENSIONS SHOWN ARE IN METERS OR MILLIMETERS UNLESS OTHERWISE NOTED.
** DRAWINGS ARE NOT TO BE SCALED **

REVISIONS			
No.	Date	Description	By
1	11/03/17	ISSUED FOR APPROVAL	
2	04/06/18	ISSUED FOR TENDER	



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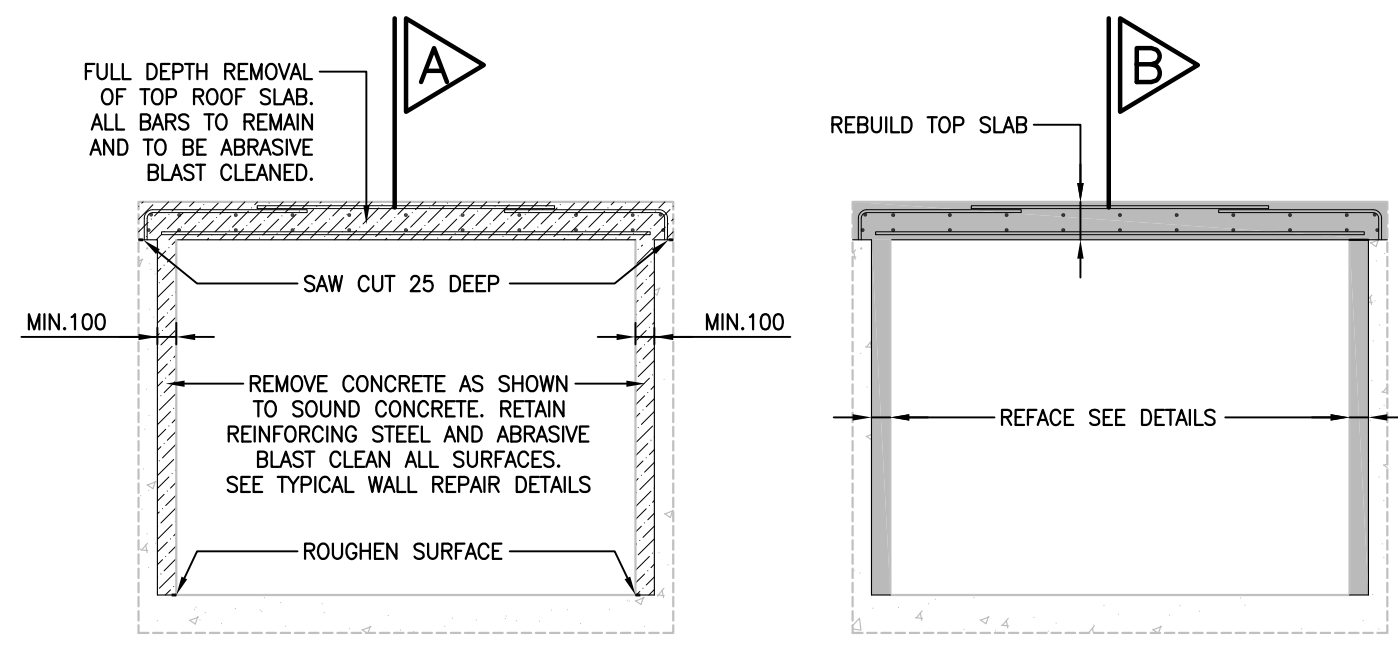
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TOWNSHIP OF HAMILTON
LANDER ROAD
CULVERT REHABILITATION

GENERAL ARRANGEMENT

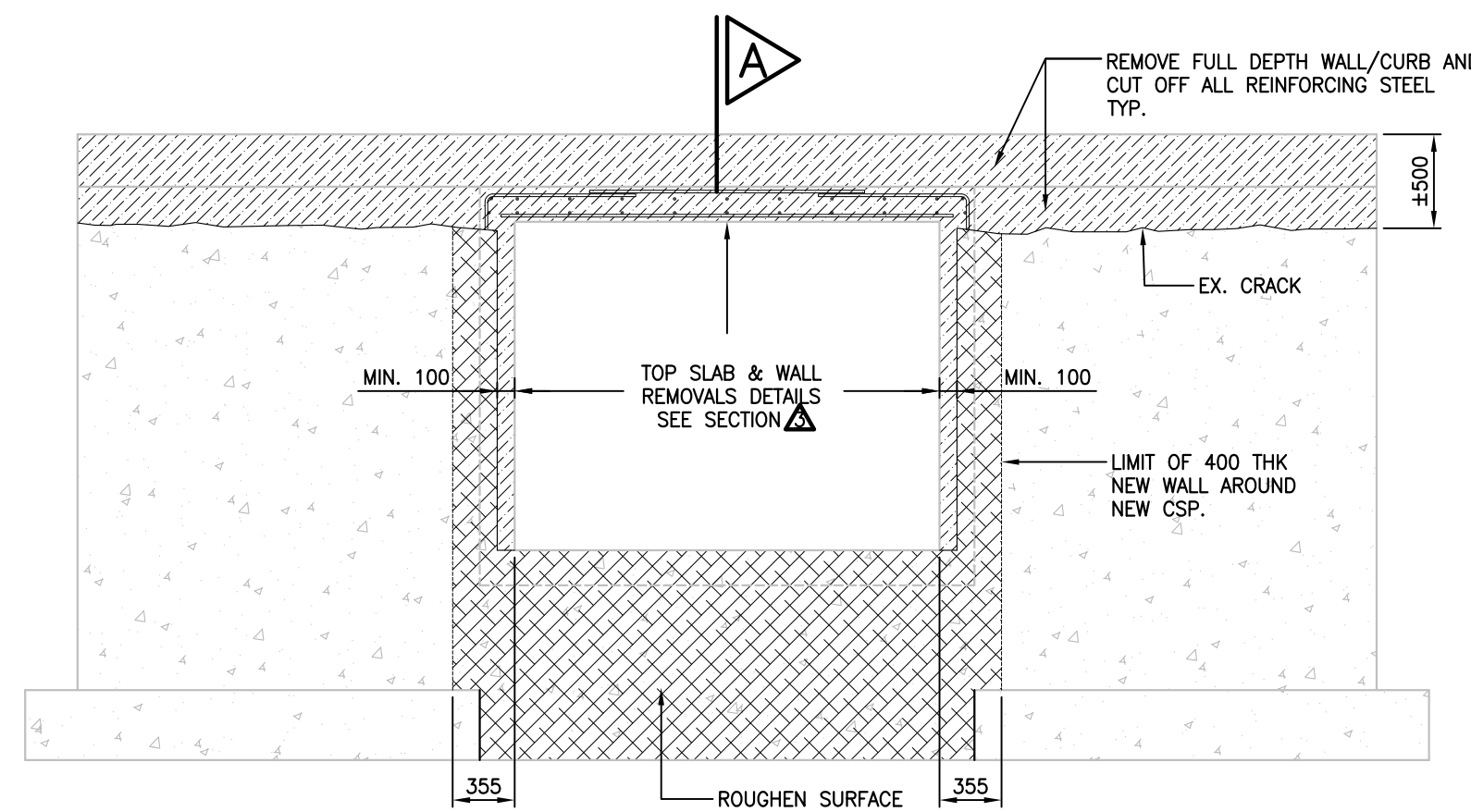
Drawn by: L.Y. Project No: 170-4157
Designed by: L.Y. Date: AUG 2017
Checked by: K.F.B. Scale - Hor: AS SHOWN
Approved by: Contract No: PW-2018-04 Drawing No: S1



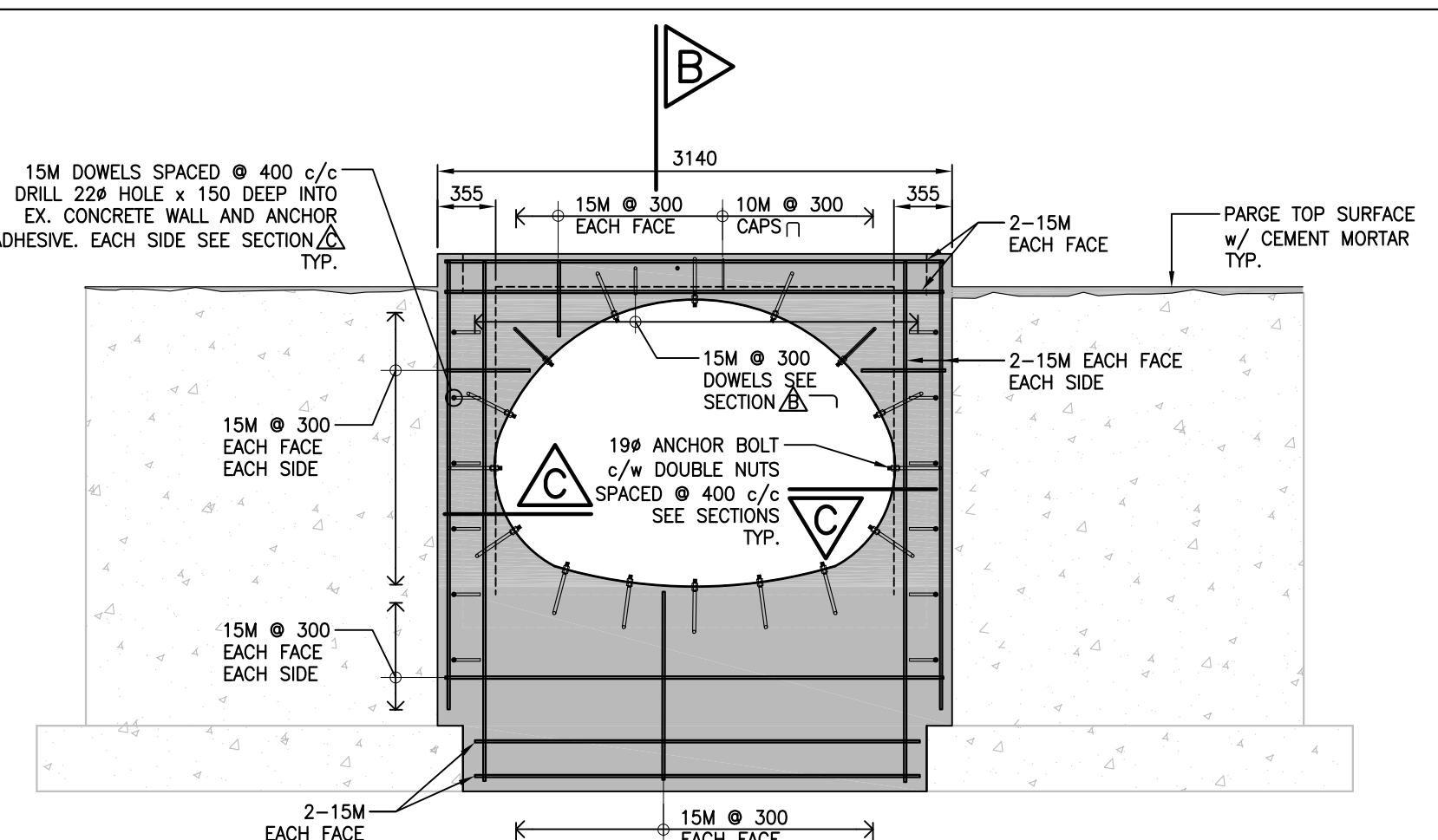
SHOWING REMOVAL **SHOWING REHABILITATION**

NOTE: END OF CULVERT TO BE EXPOSED FOR FULL HEIGHT PRIOR TO REMOVAL OF TOP SLAB

SCALE 1:40

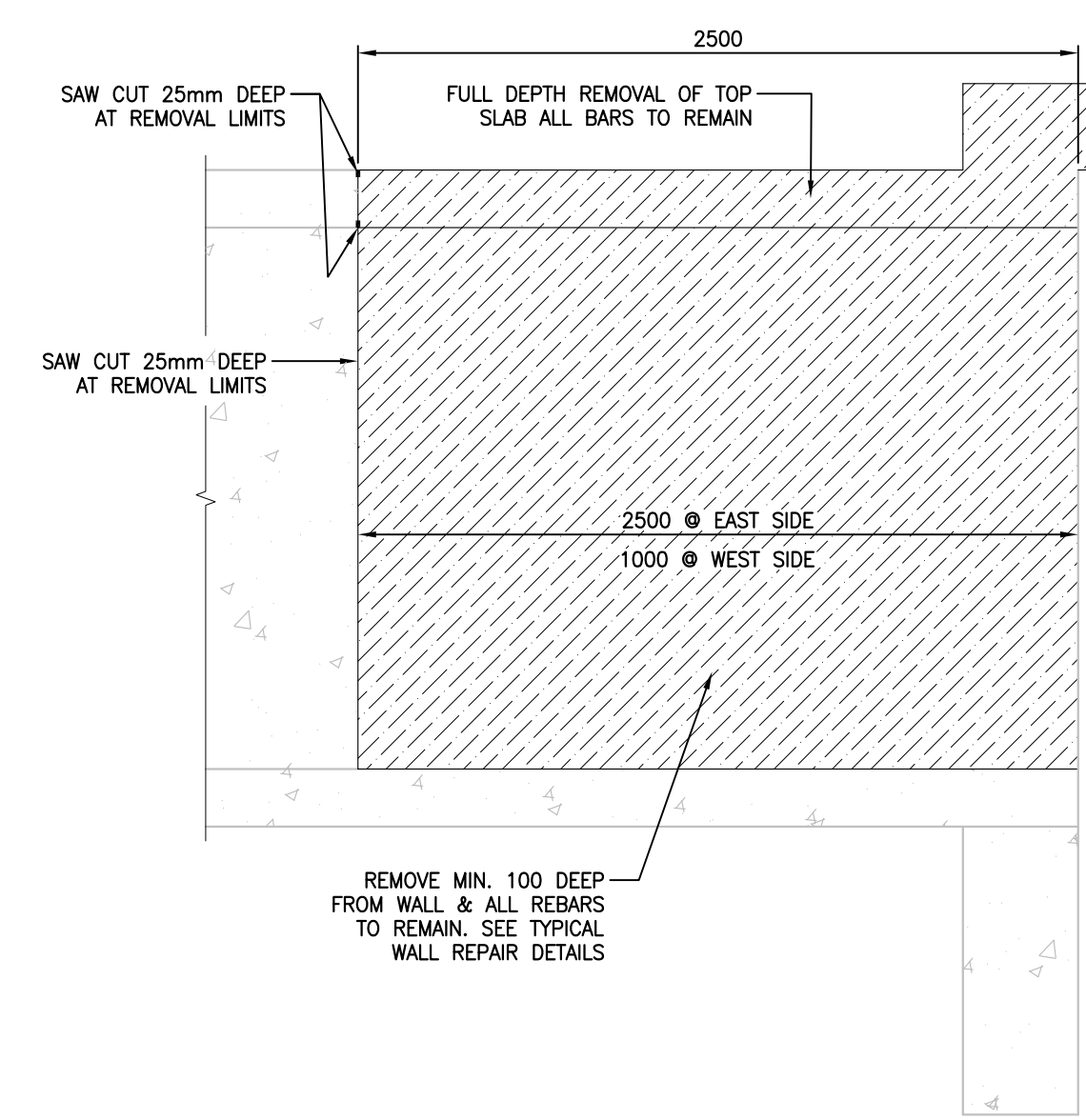


SHOWING REMOVAL



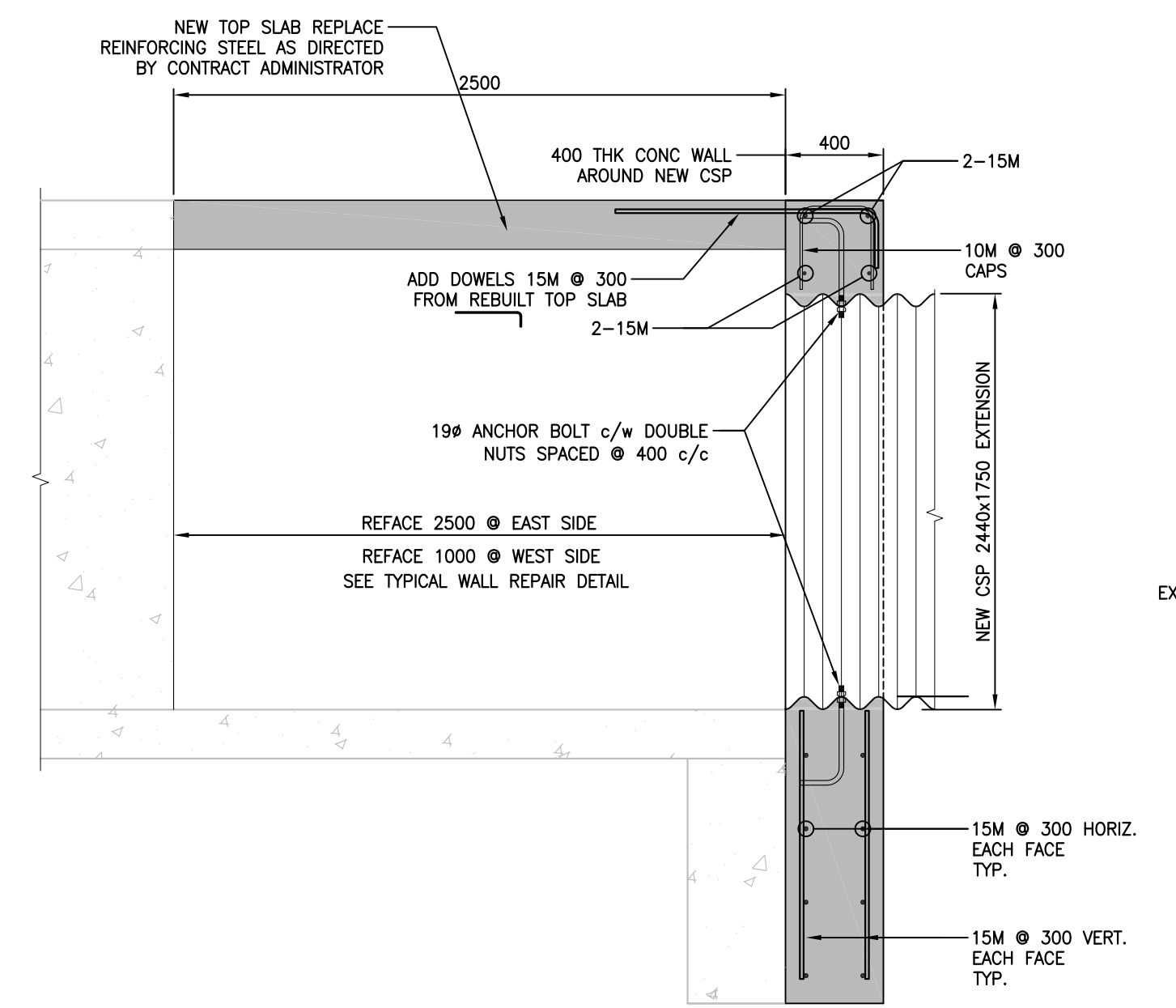
SHOWING REHABILITATION

SCALE 1:40



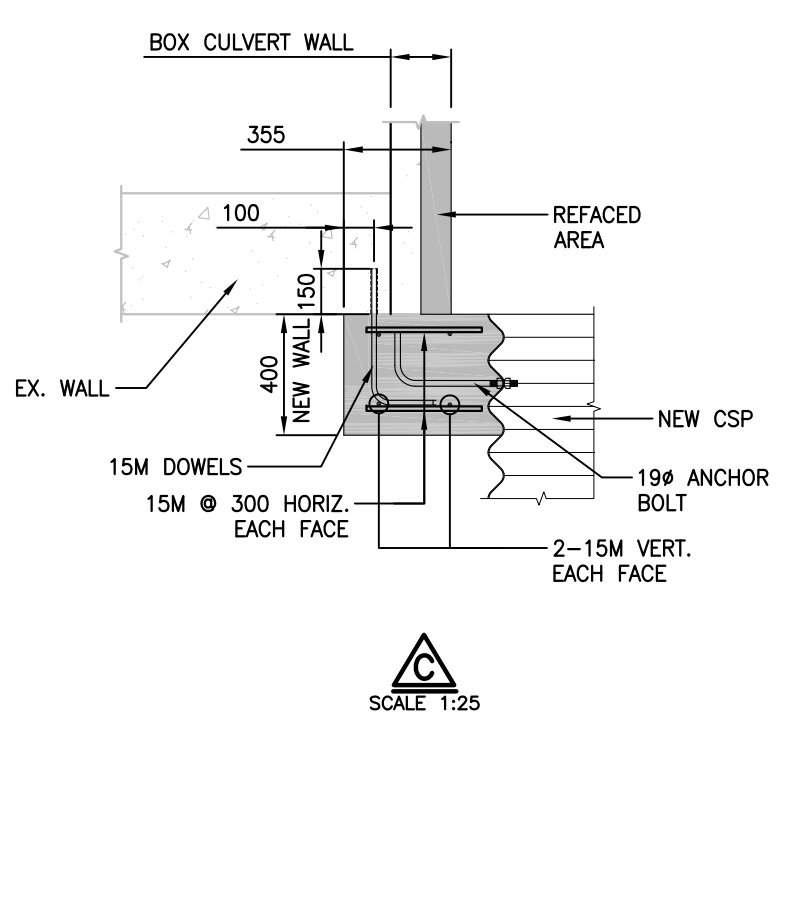
SHOWING REMOVAL

SCALE 1:25



SHOWING REHABILITATION

SCALE 1:25



REMOVALS FOR WALL REFACING

WALL REFACING SHOWING REHABILITATED CONDITION

NOTE: HOOK WEDGE ANCHOR TO BE MODEL HW 3844B BY UCAN FASTENING PRODUCTS (OR APPROVED EQUAL)

TYPICAL WALL REPAIR DETAIL

GENERAL NOTES:
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LEGEND:

	CONCRETE REMOVAL
	ROUGHEN SURFACE
	NEW CONCRETE
	EX. CONCRETE



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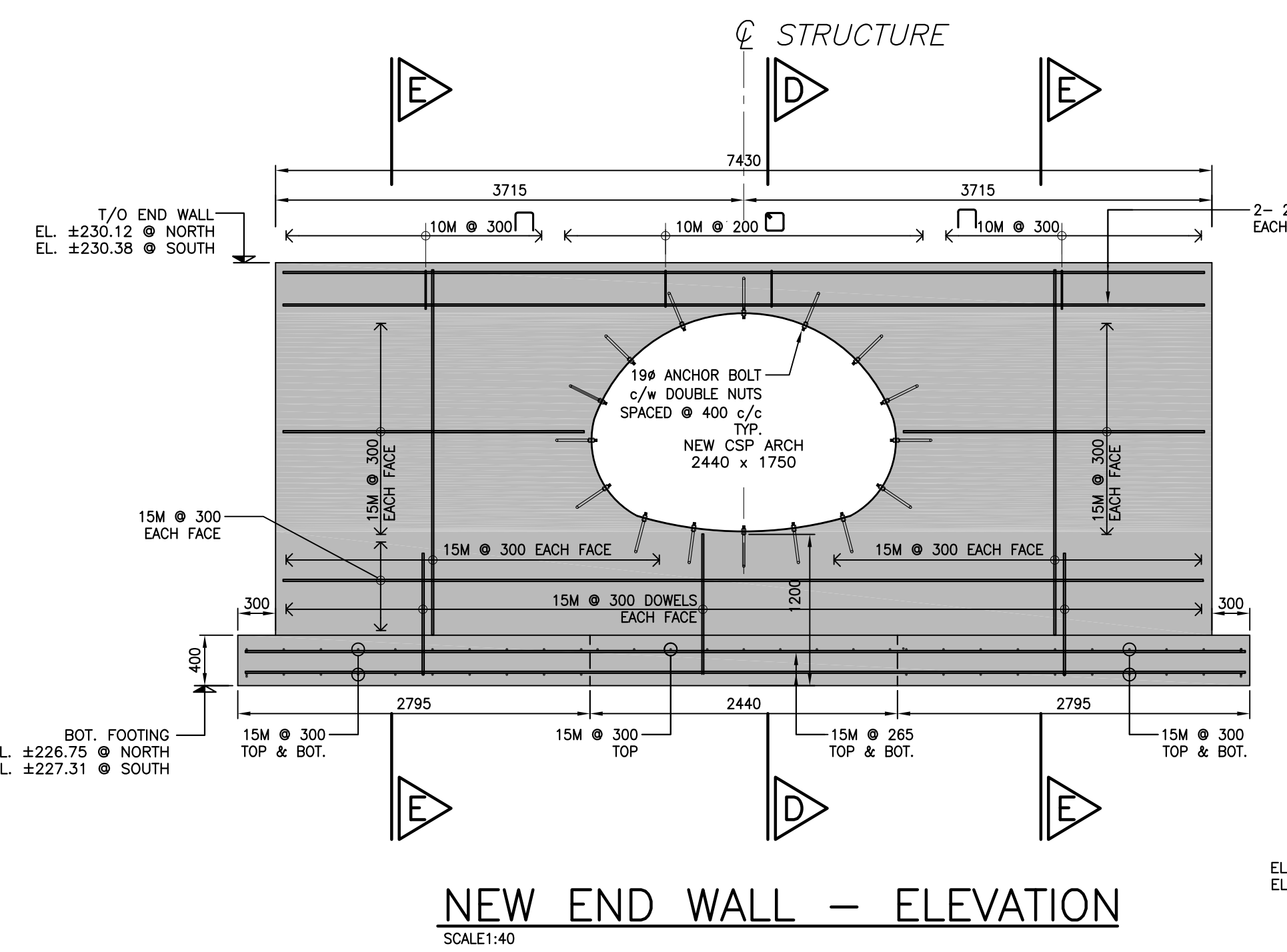
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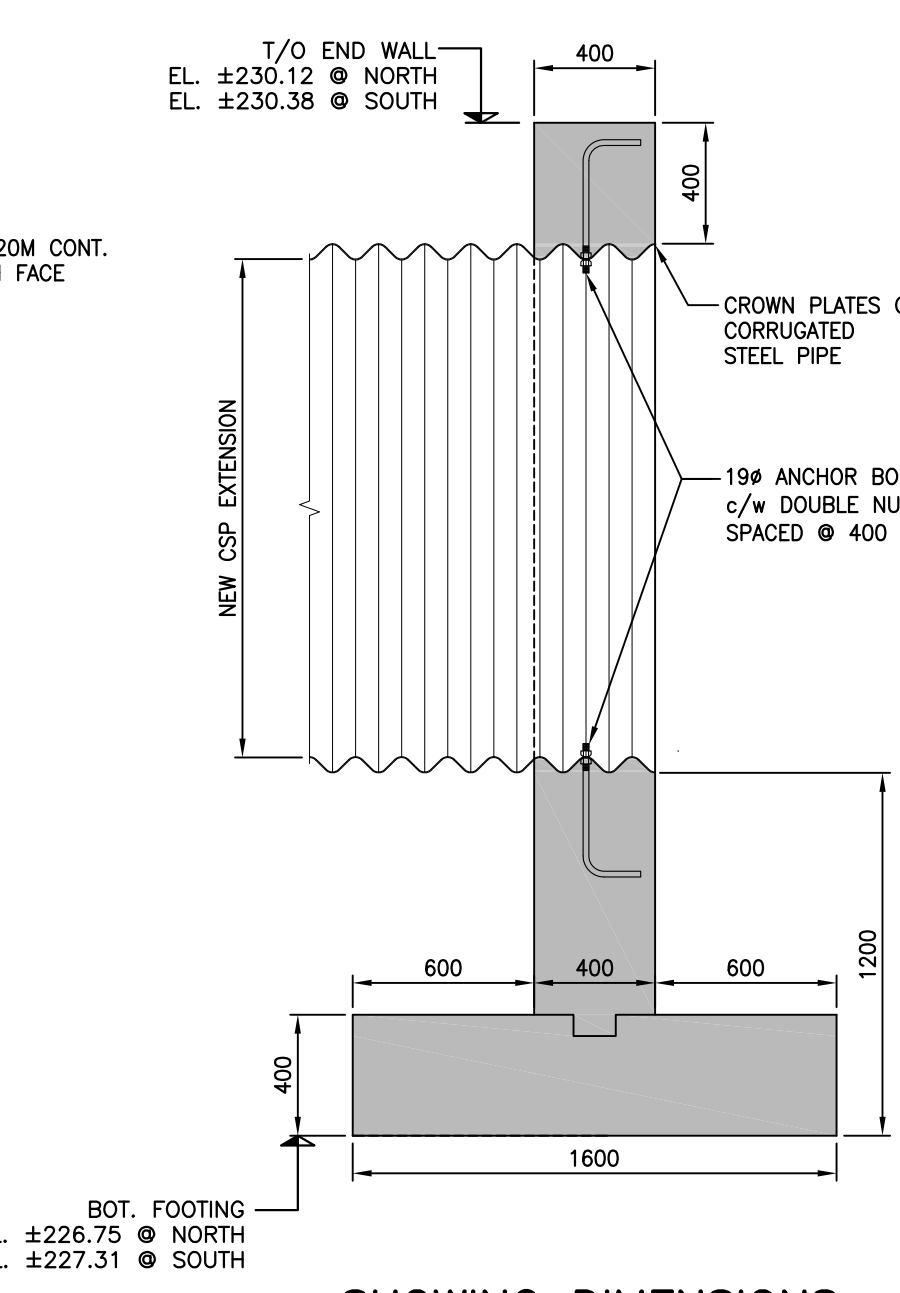
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 LANDER ROAD
 CULVERT REHABILITATION**

REMOVAL & REHABILITATION



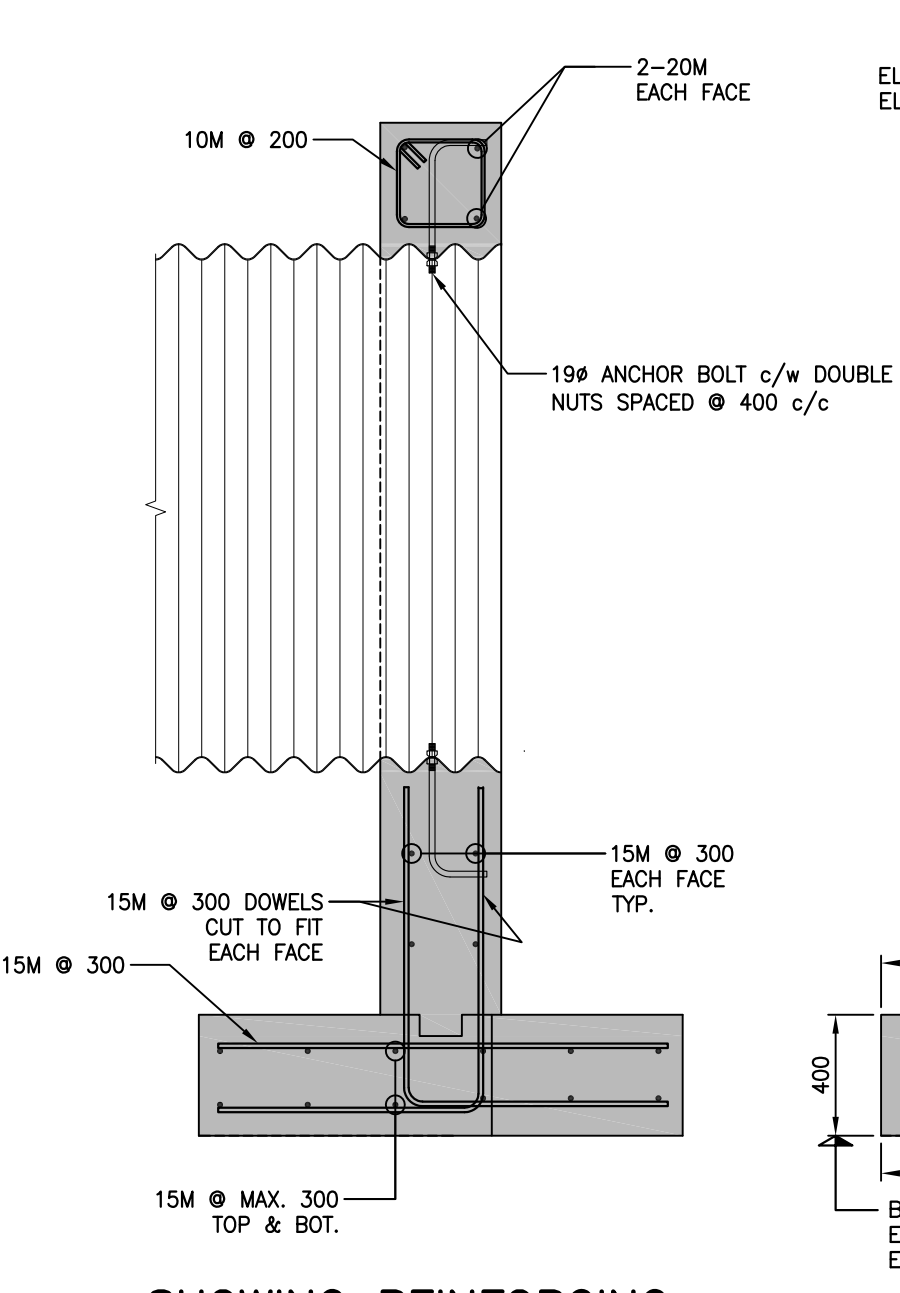
NEW END WALL - ELEVATION

SCALE 1:40

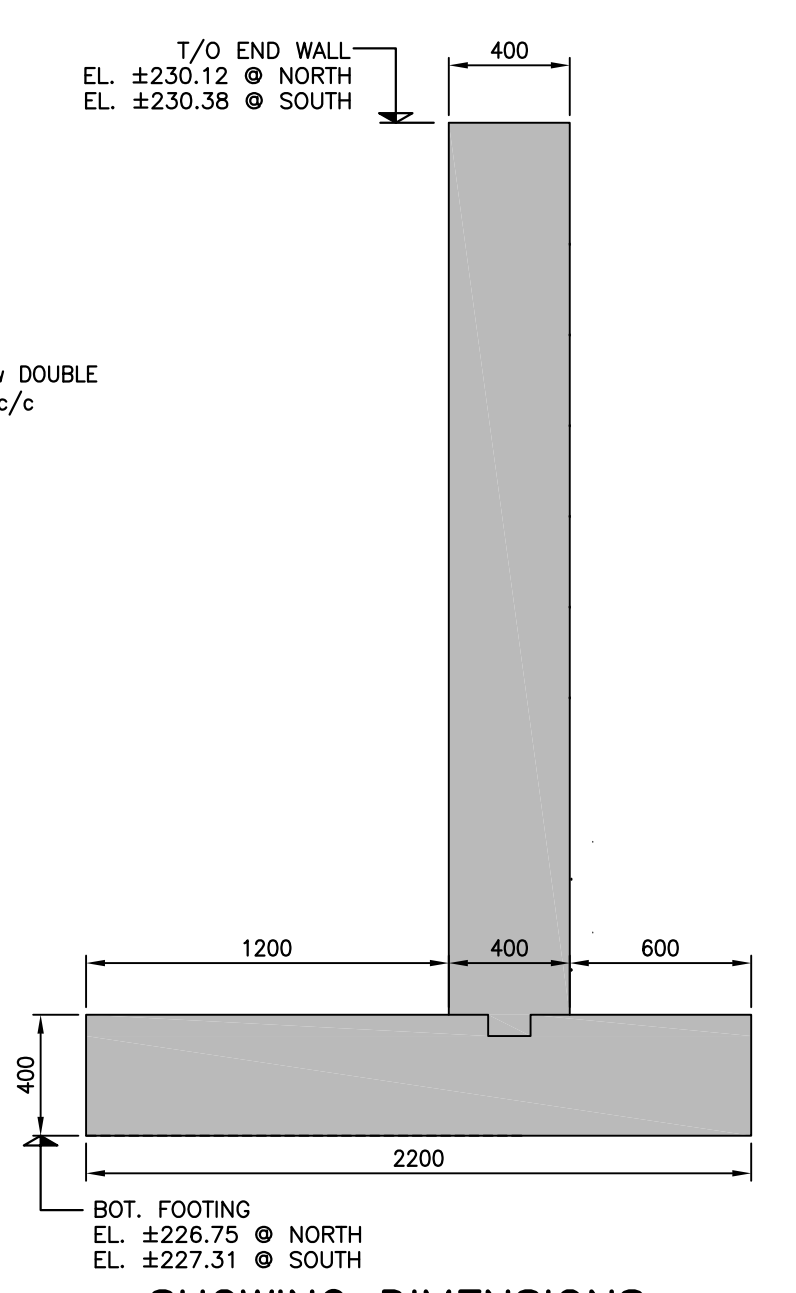


SHOWING DIMENSIONS

SCALE 1:25

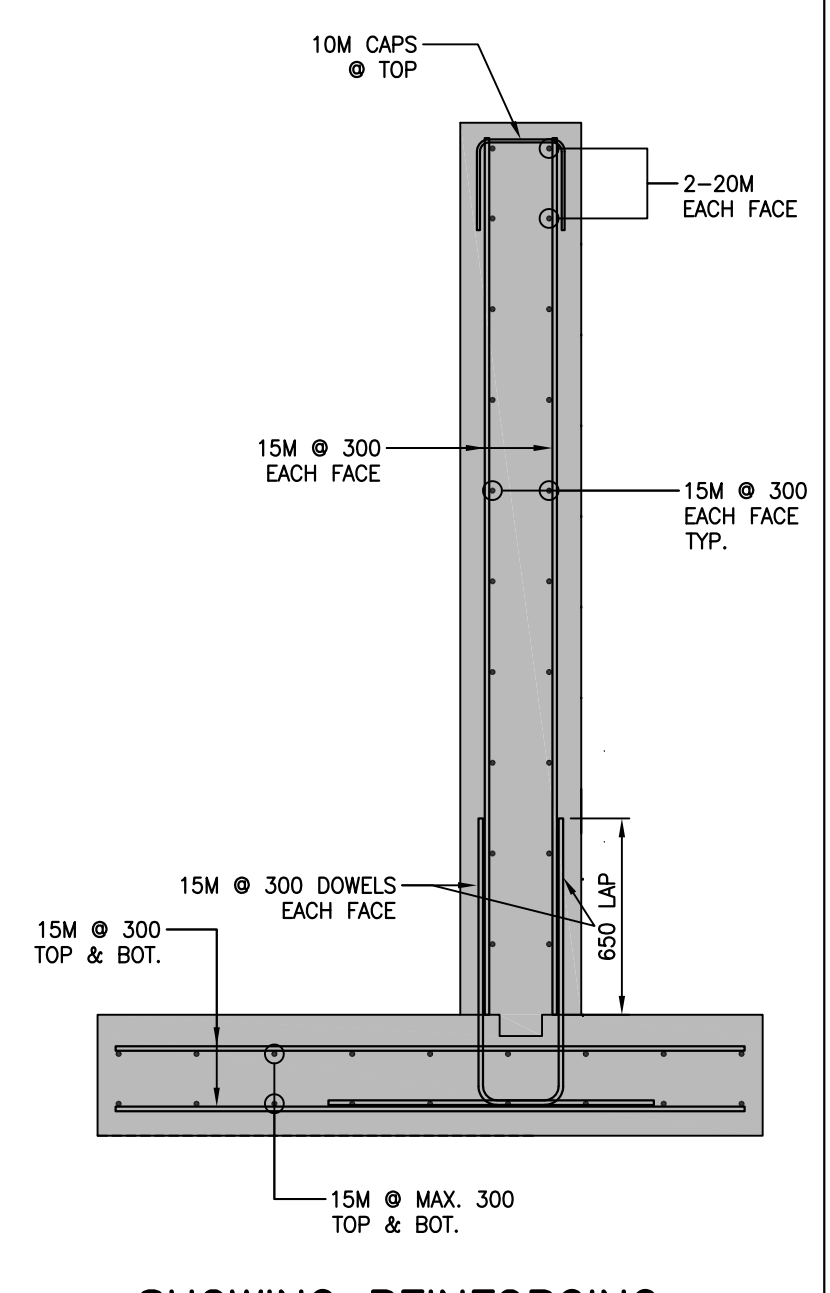


SHOWING REINFORCING



SHOWING DIMENSIONS

SCALE 1:25



SHOWING REINFORCING

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