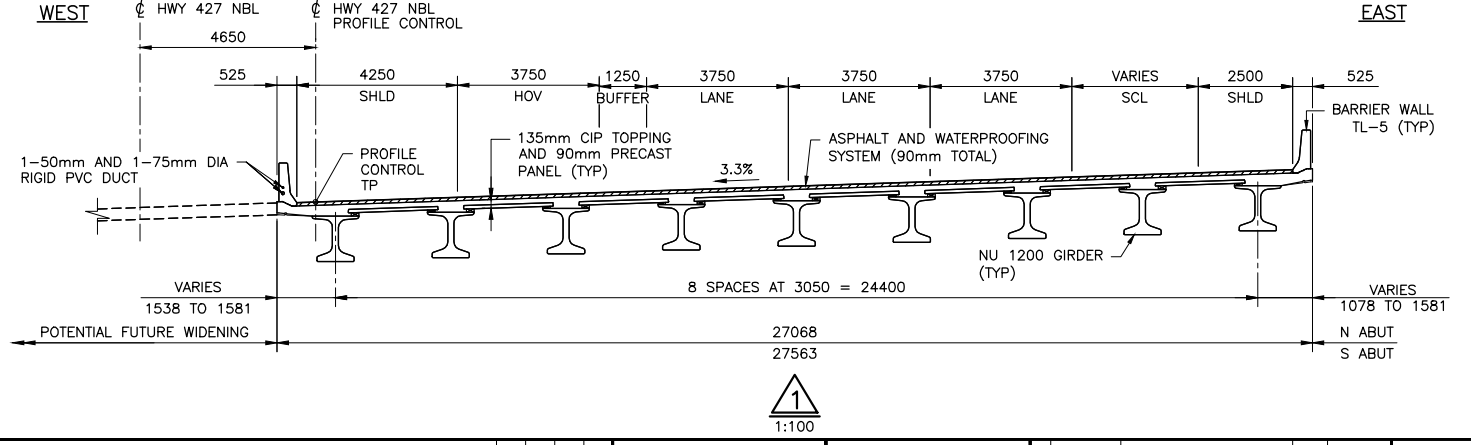
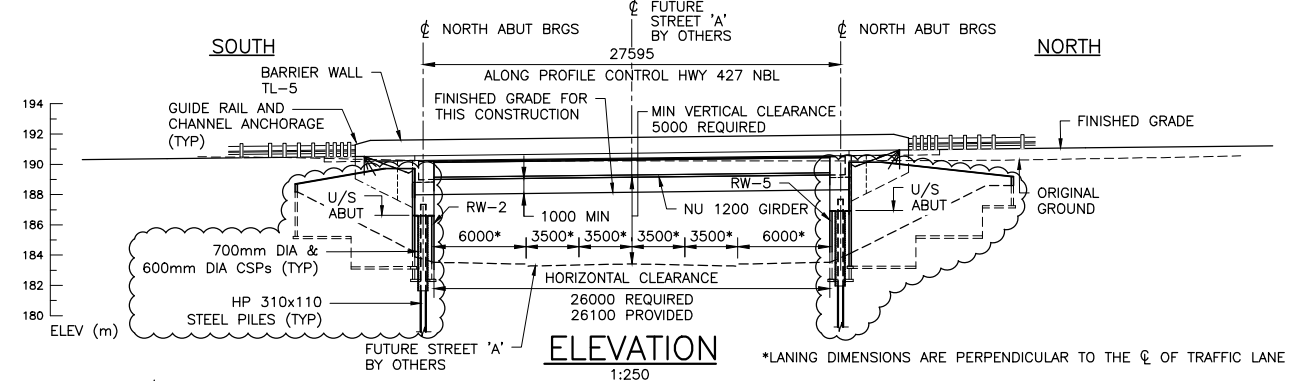
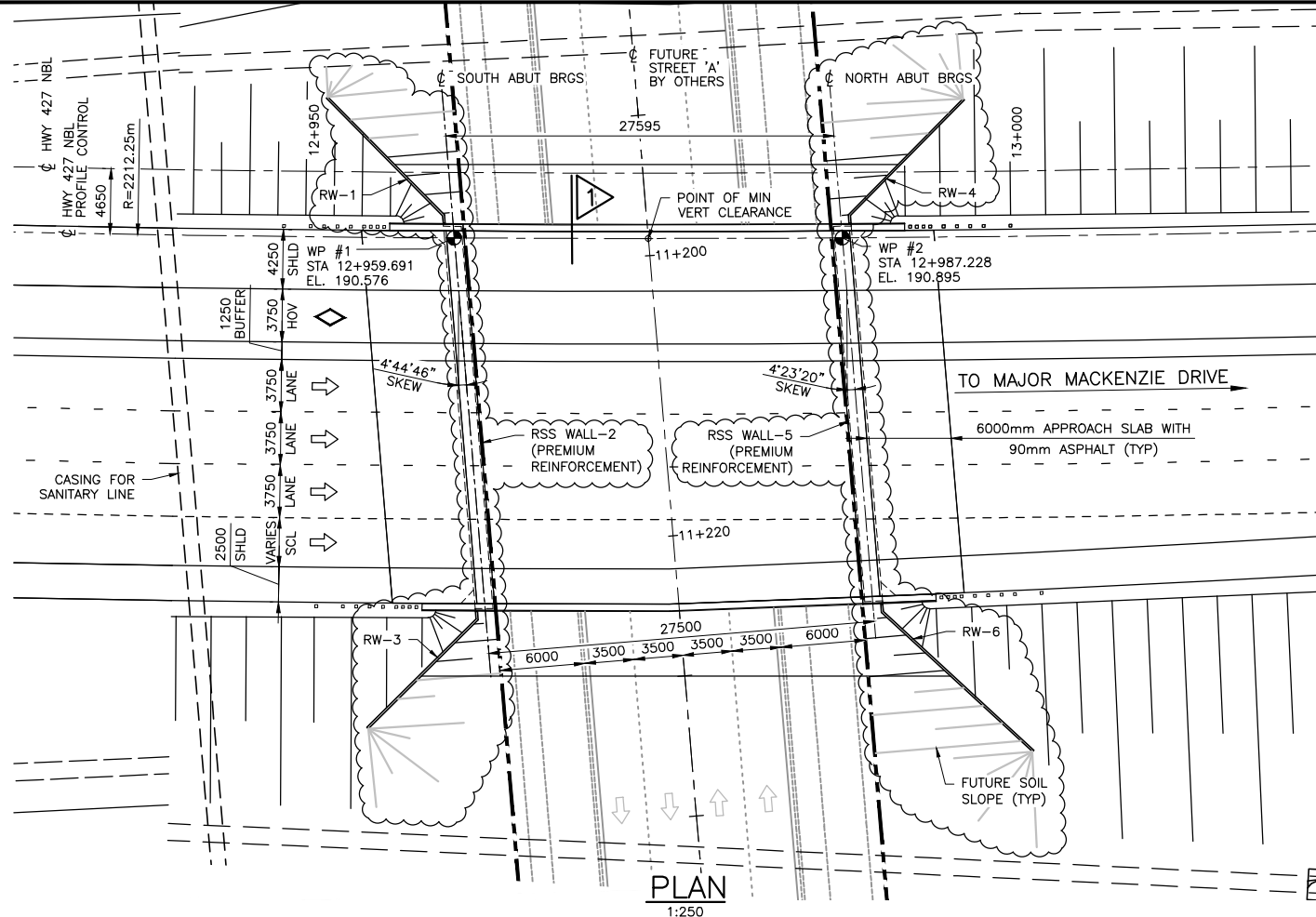


ATTACHMENT 3



APPLICABLE STANDARD DRAWINGS:

- OPSD 3000.100 FOUNDATION PILES - STEEL H-PILE DRIVING SHOE
- OPSD 3101.150 WALLS - ABUTMENT, BACKFILL MINIMUM GRANULAR REQUIREMENTS
- OPSD 3370.100 DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE WITH PROTECTION BOARD
- OPSD 3370.101 DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE AT ACTIVE CRACKS GREATER THAN 2mm WIDE AND CONSTRUCTION JOINTS
- OPSD 3419.100 BARRIERS AND RAILINGS - STEEL GUIDE RAIL AND CHANNEL ANCHORAGE
- OPSD 3941.200 FIGURES IN CONCRETE - SITE NUMBER AND DATE LAYOUT
- OPSD 3950.100 JOINTS, CONCRETE EXPANSION AND CONSTRUCTION ON STRUCTURE
- OPSD 3329.100 DECK, REINFORCEMENT, SUPPORTS FOR REINFORCING STEEL FOR SLAB DEPTHS 300 mm OR LESS

LIST OF DRAWINGS:

- 500 GENERAL ARRANGEMENT
- 501 BOREHOLE LOCATIONS AND SOIL STRATA
- 502 FOUNDATION LAYOUT
- 503 FOUNDATION DETAILS
- 503 NORTH ABUTMENT DETAILS AND REINFORCEMENT
- 504 SOUTH ABUTMENT DETAILS AND REINFORCEMENT
- 505 WINGWALLS
- 506 RETAINED SOIL SYSTEM WALL LAYOUT
- 507 PRESTRESSED NU GIRDERS AND BEARINGS (NU 1200)
- 508 PRESTRESSED NU GIRDER - DETAILS
- 509 DECK LAYOUT & SCREED ELEVATIONS
- 510 PRECAST DECK PANEL LAYOUT
- 511 PRECAST DECK PANELS FOR CONCRETE GIRDERS - DETAIL I
- 512 PRECAST DECK PANELS FOR CONCRETE GIRDERS - DETAIL II
- 513 DECK REINFORCEMENT
- 514 BARRIER WALL W/O RAILING, TL-5 (GFRP REBAR WITH ANCHOR HEAD)
- 515 6000 mm APPROACH SLABS
- 516 STANDARD AND MISCELLANEOUS DETAILS
- 517 ELECTRICAL EMBEDDED WORK
- 518 PILE DRIVING CONTROL

LIST OF ABBREVIATIONS:

- WP WORKING POINT
- CIP CAST IN PLACE
- U/S UNDER SIDE
- P/C PROFILE CONTROL
- T/P TOP OF PAVEMENT

GENERAL NOTES:

- DESIGN STANDARDS AND CODES:
 - SCHEDULE 15-1 AND SCHEDULE 15-2: PROJECT AGREEMENT
 - DESIGN CODE: CAN/CSA-S6-14
 - MINISTRY OF TRANSPORTATION OF ONTARIO STRUCTURAL MANUAL
 - ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (OPSS)
- LIVE LOAD: CL-625-ONT.
- CLASS OF CONCRETE

PRECAST GIRDERS	60 MPa (HPC)
PRECAST DECK PANELS	40 MPa
CONCRETE FILLER-CAISSON	7 MPa
REMAINDER	30 MPa
- CLEAR COVER TO REINFORCING STEEL

FOOTINGS AND CAISSONS	100 ± 25
DECK	
TOP	70 ± 20
BOTTOM	40 ± 10
REMAINDER UNLESS OTHERWISE NOTED	70 ± 20
- REINFORCING STEEL

REINFORCING STEEL SHALL BE GRADE 400W UNLESS OTHERWISE SPECIFIED.

BAR MARKS WITH PREFIX 'S' DEONTE STAINLESS STEEL BARS.

STAINLESS REINFORCING STEEL SHALL BE TYPE 316 LN OR DUPLEX 2205 AND HAVE A MINIMUM YIELD STRENGTH OF 500 MPa, UNLESS OTHERWISE SPECIFIED.

UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES SHALL BE CLASS B.

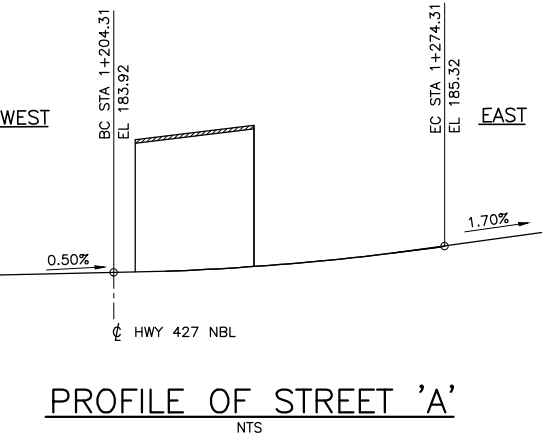
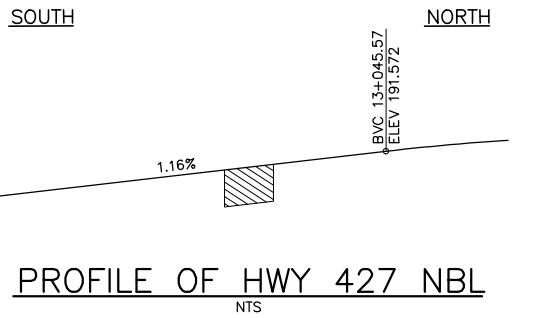
BAR HOOKS SHALL HAVE STANDARD HOOK DIMENSIONS USING MINIMUM BEND DIAMETERS, WHILE STIRRUPS AND TIES SHALL HAVE MINIMUM HOOK DIMENSIONS. ALL HOOKS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL STANDARD DRAWINGS SS12-1 UNLESS INDICATED OTHERWISE.
- GLASS FIBRE REINFORCED POLYMER (GFRP)

GLASS FIBRE REINFORCED POLYMER (GFRP) REINFORCING BARS SHALL BE GRADE I, GRADE II OR GRADE III AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE NOMINAL DIAMETER, TENSILE MODULUS OF ELASTICITY AND GUARANTEED MINIMUM TENSILE STRENGTH SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS.

BAR MARKS WITH THE PREFIX GI DENOTE GRADE I GFRP BARS, BAR MARKS WITH THE PREFIX GII DENOTE GRADE II GFRP BARS AND BAR MARKS WITH THE PREFIX GIII DENOTE GRADE III GFRP BARS.
- ROADWAY CLASSIFICATION: TO BE DETERMINED BY OTHERS.
- ALL DIMENSIONS ARE IN MILLIMETERS ALL ELEVATIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
- RETAINED SOIL SYSTEM (RSS) SHALL HAVE THE FOLLOWING ATTRIBUTES:

APPLICATION:	FALSE ABUTMENT, WALL/SLOPE
PERFORMANCE:	HIGH
APPEARANCE:	HIGH



CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL ESTABLISH THE BEARING SEAT ELEVATIONS BY DEDUCTING THE ACTUAL BEARING THICKNESSES FROM THE TOP OF BEARING ELEVATIONS. IF THE ACTUAL BEARING THICKNESSES ARE DIFFERENT FROM THOSE GIVEN WITH THE BEARING DESIGN DATA, THE CONTRACTOR SHALL ADJUST THE REINFORCING STEEL TO SUIT.
- BACKFILL SHALL NOT BE PLACED BEHIND THE ABUTMENTS UNTIL THE DECK SLAB IS IN PLACE AND HAS REACHED 70% OF ITS DESIGN STRENGTH.
- BACKFILL SHALL BE PLACED SIMULTANEOUSLY BEHIND BOTH ABUTMENTS KEEPING THE HEIGHT OF BACKFILL APPROXIMATELY THE SAME. AT NO TIME SHALL THE DIFFERENCE IN ELEVATION BE GREATER THAN 500mm.
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- ALL EXPOSED EDGES TO RECEIVE A 20x20 CHAMFER.
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LEGEND:

- ⊕ BOREHOLE
- ROCK PROTECTION AND MEANDER LIMIT HATCH
- PRECAST CONCRETE PANEL
- NEW ASPHALT AND WATERPROOFING

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 DATE PLOTTED: 2/28/2020 3:22:22 PM BY: MEDEMA, JENNIFER

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B	20/02/28	STRUCTURE TYPE REVISED - 100% SUBMISSION TO CA	T.G.	H.O.A.	T.O.	P.B.
A	19/11/12	100% SUBMISSION TO CA	Z.L.	H.O.A.	T.O.	P.B.

NOT FOR CONSTRUCTION

PROFESSIONAL ENGINEER

H. AZIMI
100166369
2020-02-28
PROVINCE OF ONTARIO

NOT FOR CONSTRUCTION

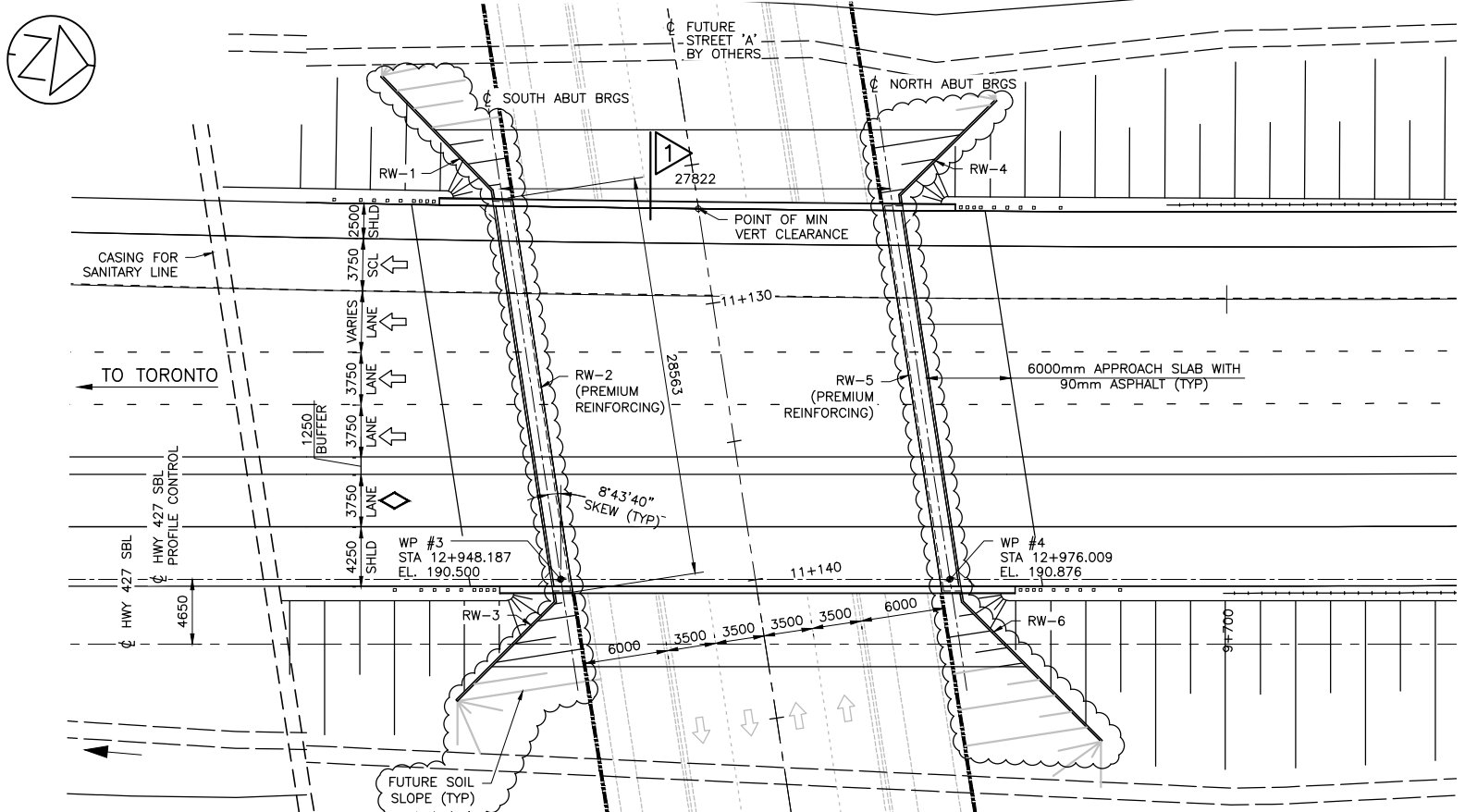
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Q.LIU
100513507
2020-02-28
PROVINCE OF ONTARIO

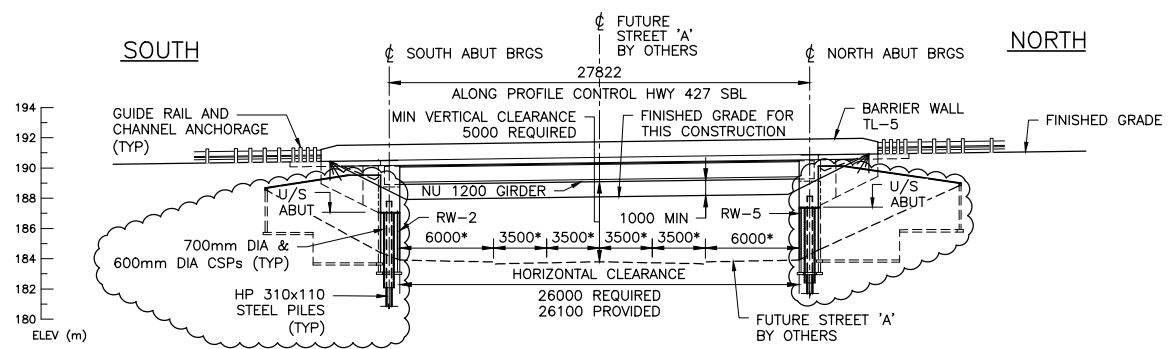
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DRAWN	JENNIFER MEDEMA	J.M.	20/02/28
CHECKED	HOSSEN AZMI	H.O.A.	20/02/28
APPROVED LEAD ENGR.	TATIANA QJALA	T.O.	20/02/28
APPROVED PROJ. MANAGER	PETER BAMFORTH	P.B.	20/02/28



TITLE							
HWY 427 EXPANSION							
HWY 427 NBL OVER STREET 'A'							
SITE 37X-2431/B1							
GENERAL ARRANGEMENT							
PROJECT ID.	STAGE IDENTIFIER	DESIGN PACKAGE NUMBER	DISCIPLINE	STRUCTURE NUMBER	DOCUMENT TYPE	DRAWING NUMBER	REVISION NUMBER
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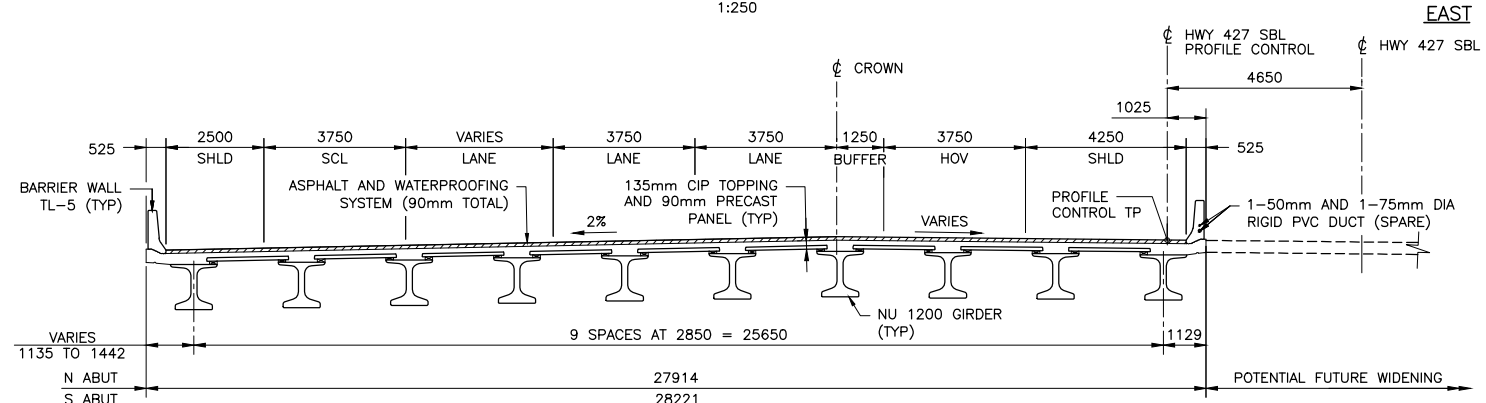


PLAN
1:250



ELEVATION
1:250

* LANING DIMENSIONS ARE PERPENDICULAR TO THE Q OF TRAFFIC LANE



1
1:100

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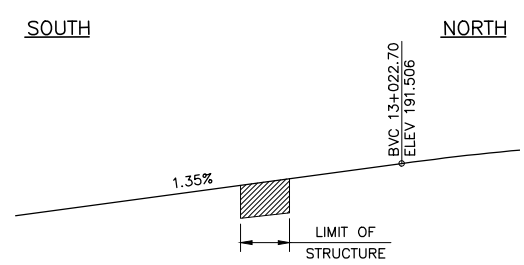
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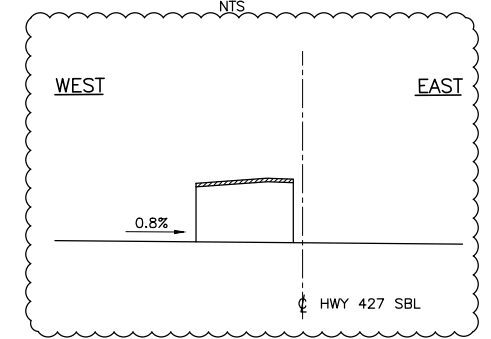
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PERFORMANCE:	HIGH
APPEARANCE:	HIGH



PROFILE OF HWY 427 SBL



PROFILE OF STREET 'A'

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- PRECAST CONCRETE PANEL
- NEW ASPHALT AND WATERPROOFING

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NO.	DATE	REVISIONS	BY	CHK	LEAD	PROJ. MGR.
B	20/02/28	STRUCTURE TYPE REVISED - 100% SUBMISSION TO CA	T.G.	H.O.A.	T.O.	P.B.
A	19/11/12	100% SUBMISSION TO CA	T.G.	H.O.A.	T.O.	P.B.

NOT FOR CONSTRUCTION

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100166369
2020-02-28
PROVINCE OF ONTARIO

NOT FOR CONSTRUCTION

Q.LIU
100513507
2020-02-28
PROVINCE OF ONTARIO

DESIGNED	TOM GILOT	T.G.	20/02/28
DRAWN	KRYSTAL DEGEN	K.D.	20/02/28
CHECKED	HOSSEN AZMI	H.O.A.	20/02/28
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APPROVED PROJ. MANAGER	PETER BAMFORTH	P.B.	20/02/28
NAME (PRINT)		INIT.	DATE



GENERAL ARRANGEMENT							
PROJECT ID.	STAGE IDENTIFIER	DESIGN PACKAGE NUMBER	DISCIPLINE	STRUCTURE NUMBER	DOCUMENT TYPE	DRAWING NUMBER	REVISION NUMBER
H427-D	H	7	STR	B14B	DWG	600	B