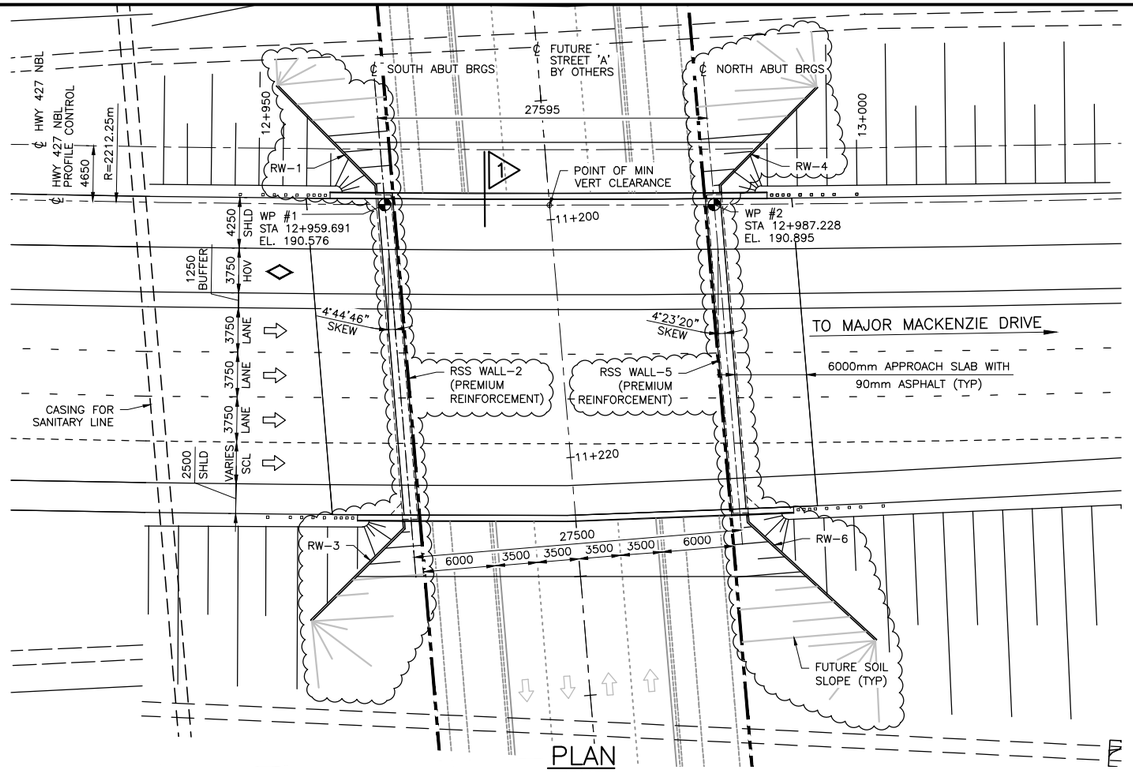
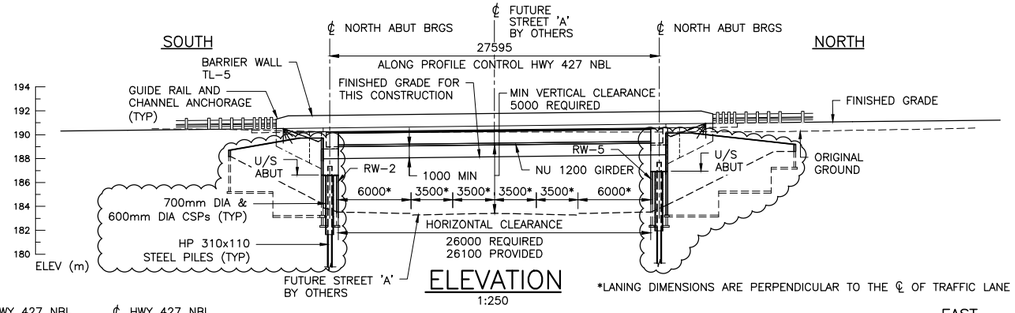
ATTACHMENT 3

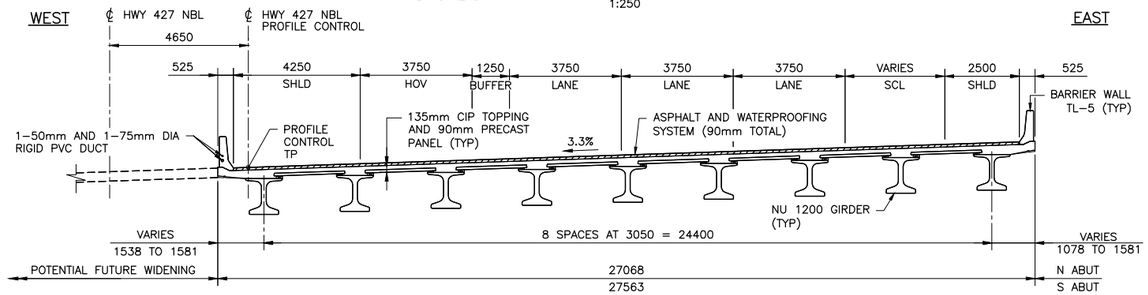


PLAN
1:250



ELEVATION
1:250

*LANING DIMENSIONS ARE PERPENDICULAR TO THE ℄ OF TRAFFIC LANE



1
1:100

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

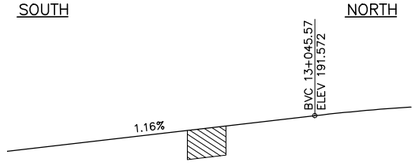
LIST OF DRAWINGS:

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

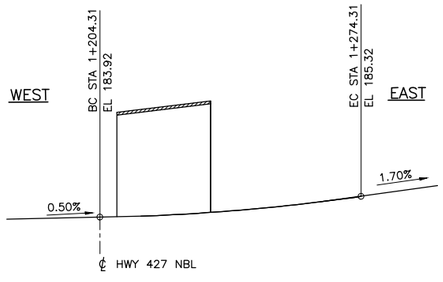
LIST OF ABBREVIATIONS:

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

SOUTH NORTH



PROFILE OF HWY 427 NBL
NTS



PROFILE OF STREET 'A'
NTS

GENERAL NOTES:

1. 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)
2. LIVE LOAD: CL-625-ONT.
3. CLASS OF CONCRETE

PRECAST GIRDERS	60 MPa (HPC)
PRECAST DECK PANELS	40 MPa
~~CONCRETE FILLER CAISSON~~	~~7 MPa~~
REMAINDER	30 MPa

4. CLEAR COVER TO REINFORCING STEEL

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

5. 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.

6. 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.

7. ROADWAY CLASSIFICATION: TO BE DETERMINED BY OTHERS.
8. ALL DIMENSIONS ARE IN MILLIMETERS ALL ELEVATIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
9. RETAINED SOIL SYSTEM (RSS) SHALL HAVE THE FOLLOWING ATTRIBUTES:

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

CONSTRUCTION NOTES:

1. 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.
2. BACKFILL SHALL NOT BE PLACED BEHIND THE ABUTMENTS UNTIL THE DECK SLAB IS IN PLACE AND HAS REACHED 70% OF ITS DESIGN STRENGTH.
3. 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.
4. CONSTRUCT ABUTMENTS TO THE BEARING SEAT ELEVATIONS. THE CONTRACTOR SHALL SUPPLY TEMPORARY LATERAL BRACINGS FOR ABUTMENTS. FORMWORK AND LATERAL BRACINGS SHALL NOT BE REMOVED UNTIL THE CONCRETE IN DECK HAS REACHED 70% OF ITS SPECIFIED 28-DAY STRENGTH.
5. ALL EXPOSED EDGES TO RECEIVE A 20x20 CHAMFER.
6. ALL GIRDERS SHALL BE BRACED INDIVIDUALLY BY ATTACHING EACH END TO THE RESPECTIVE SUB-STRUCTURE ELEMENT IMMEDIATELY UPON ERECTION.

LEGEND:

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

NO.	DATE	REVISIONS	BY	CHK	LEAD DISC.	PROJ. MAN.
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
LICENCE
H. AZIMI
100166369
2020-02-28
PROVINCE OF ONTARIO

NOT FOR CONSTRUCTION
PROFESSIONAL ENGINEER
LICENCE
Q.LIU
100513507
2020-02-28
PROVINCE OF ONTARIO

CONSULTANT

DESIGNED	TOM GUIOT	T.G	20/02/28
DRAWN	JENNIFER MIEDEMA	J.M.	20/02/28
CHECKED	HOSSEIN AZIMI	H.O.A	20/02/28
APPROVED LEAD ENG.	TATIANA OJALA	T.O	20/02/28
APPROVED PROJ. MANAGER	PETER BAMFORTH	P.B	20/02/28
	NAME (PRINT)	INIT.	DATE

Ontario

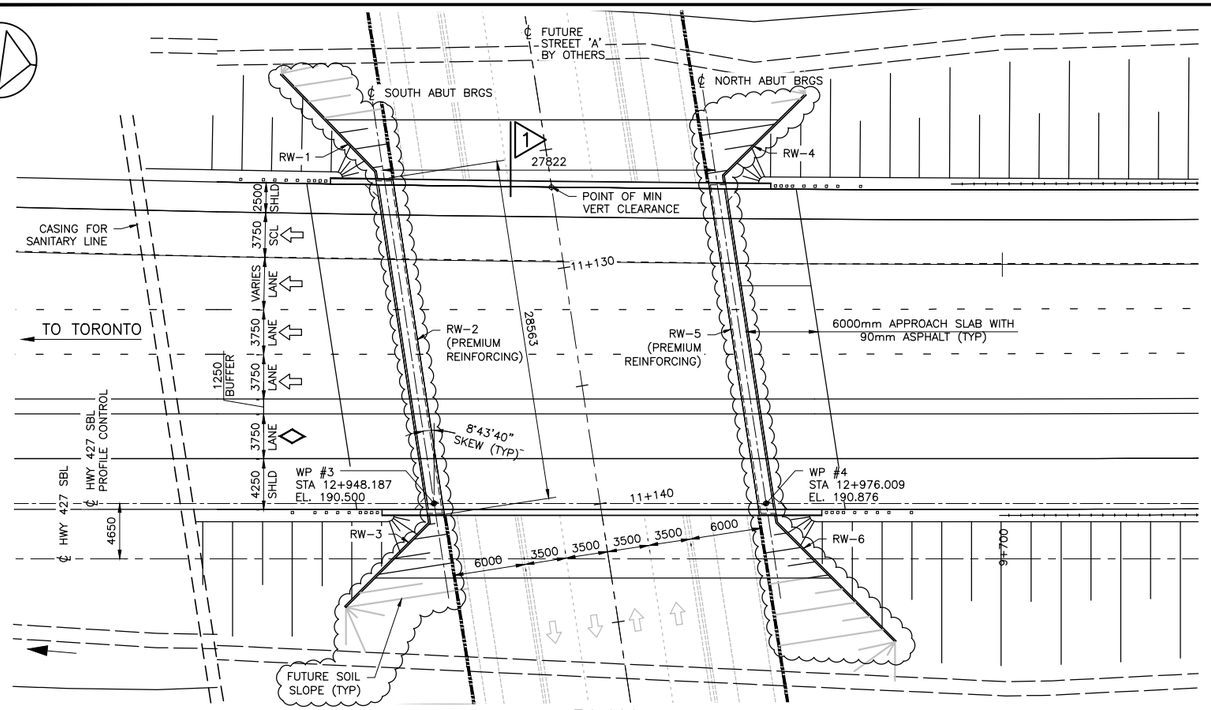
link427
LOCAL | INTEGRATED | NEIGHBOURLY | KNOWLEDGEABLE

TITLE
HWY 427 EXPANSION
HWY 427 NBL OVER STREET 'A'
SITE 37X-2431/B1

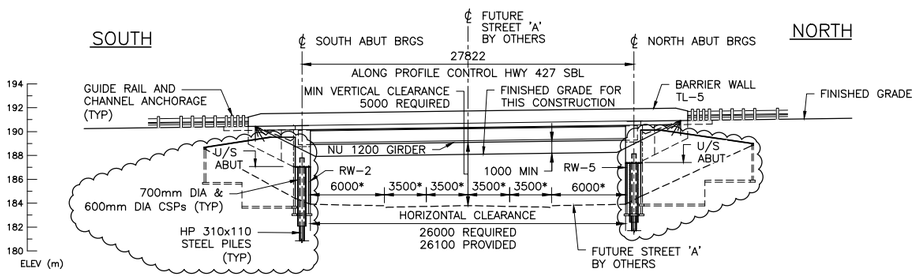
GENERAL ARRANGEMENT

PROJECT ID.	STAGE INDENTIFIER	DESIGN PACKAGE NUMBER	DISCIPLINE	STRUCTURE NUMBER	DOCUMENT TYPE	DRAWING NUMBER	REVISION NUMBER
H427-D	H	7	STR	B14A	DWG	500	B

CAD FILE LOCATION AND NAME: C:\PROJECTWISE\WSP-CA\JENNIFER.MIEDEMA\DMS05264\H427-00-7-STR-B14A-DWG-500A.DWG
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DATE PLOTTED: 2/28/2020 3:22:22 PM BY: MIEDEMA, JENNIFER

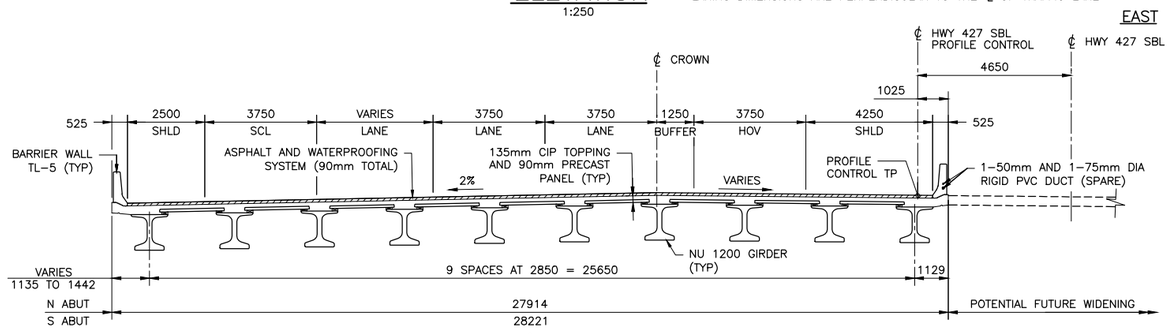


PLAN
1:250



ELEVATION
1:250

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1:100

APPLICABLE STANDARD DRAWINGS:

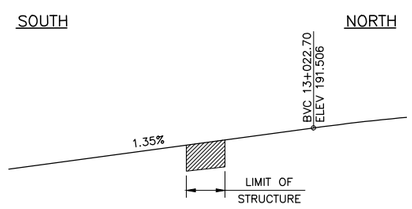
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LIST OF DRAWINGS:

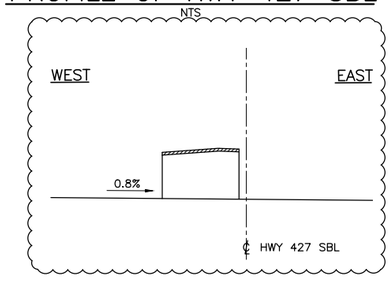
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LIST OF ABBREVIATIONS:

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U/S	UNDER SIDE
P/C	PROFILE CONTROL
T/P	TOP OF PAVEMENT



PROFILE OF HWY 427 SBL



PROFILE OF STREET 'A'
NTS

GENERAL NOTES:

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LEGEND:

- BOREHOLE
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NO.	DATE	REVISIONS	BY	CHK	LEAD DISC.	PROJ. MAN.
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
PROFESSIONAL ENGINEER LICENSED H. AZIMI 100166369 2020-02-28 PROVINCE OF ONTARIO

NOT FOR CONSTRUCTION
PROFESSIONAL ENGINEER LICENSED Q.LIU 100513507 2020-02-28 PROVINCE OF ONTARIO

CONSULTANT				
DESIGNED	TOM GUIOT	T.G	20/02/28
DRAWN	KRYSTAL DEGEN	K.D	20/02/28
CHECKED	HOSSEIN AZIMI	H.O.A	20/02/28
APPROVED LEAD ENG.	TATIANA OJALA	T.O	20/02/28
APPROVED PROJ. MANAGER	PETER BAMFORTH	P.B	20/02/28
	NAME (PRINT)	INIT.	DATE

Ontario

link427 LOCAL | INTEGRATED | NEIGHBOURLY | KNOWLEDGEABLE

TITLE

HWY 427 EXPANSION
HWY 427 SBL OVER STREET 'A'
SITE 37X-2431/B2

GENERAL ARRANGEMENT

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

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