METRIC

DIMENSIONS ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE SHOWN

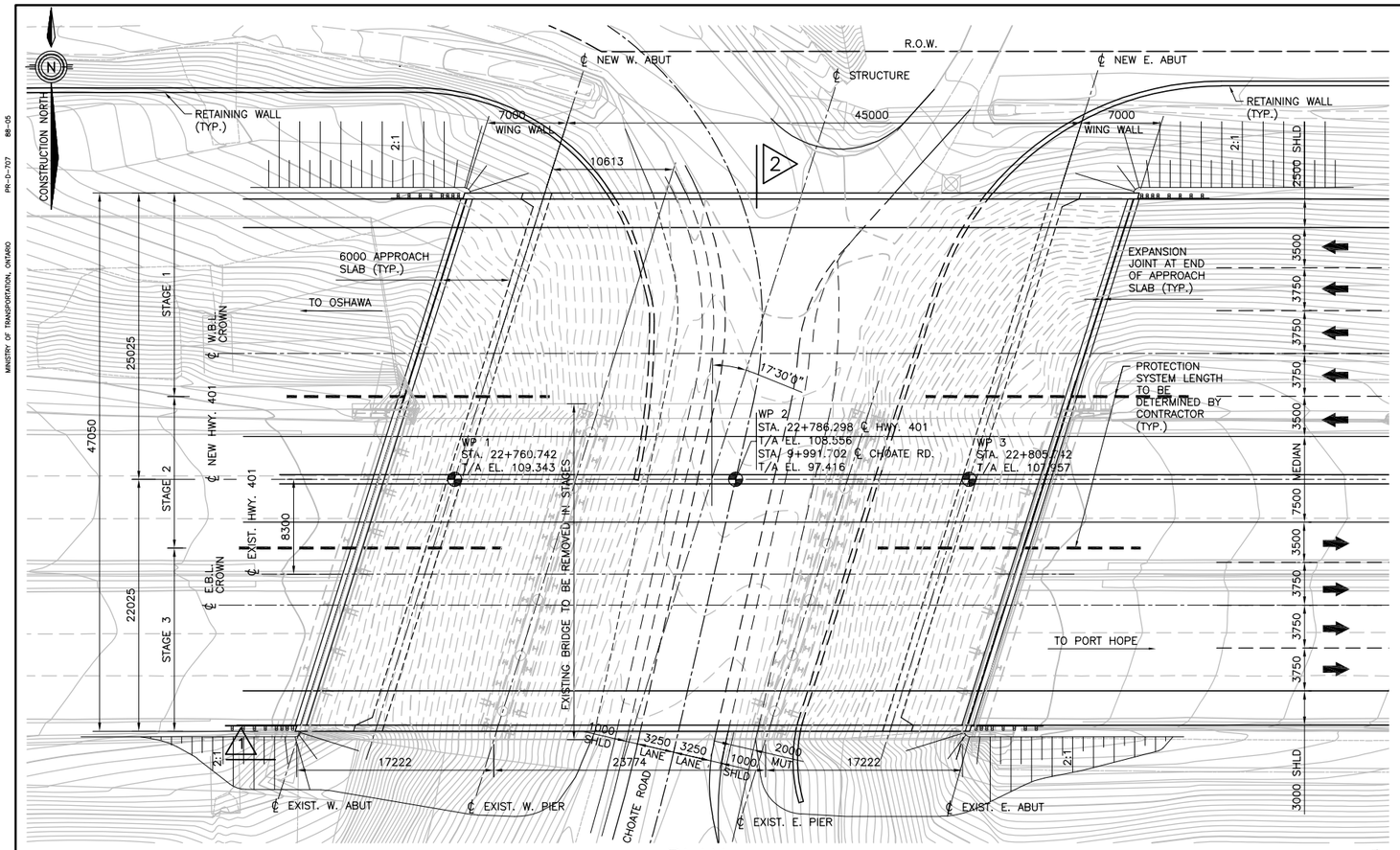
HWY. 401
CONT No
WP No

CHOATE ROAD OVERPASS BRIDGE REPLACEMENT

GENERAL ARRANGEMENT

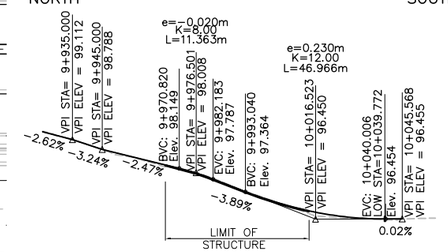
SHEET —

LEA McINTOSH PERRY Joint Venture

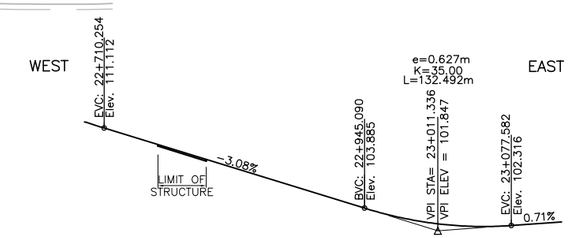


PLAN
1:250

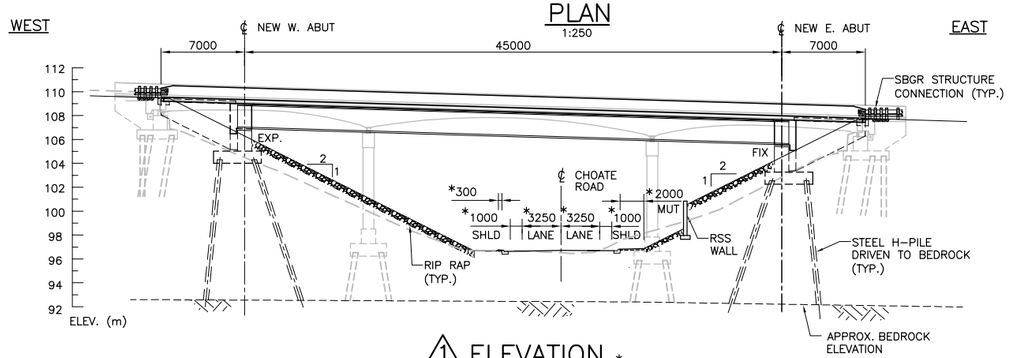
COORDINATES OF WORK POINTS			
WP #	STATION	NORTH COORDINATE	EAST COORDINATE
1	22+760.742	4870634.437	401402.339
2	22+786.298	4870637.996	401426.669
3	22+805.742	4870640.950	401446.865



PROFILE OF CHOATE ROAD
N.T.S.

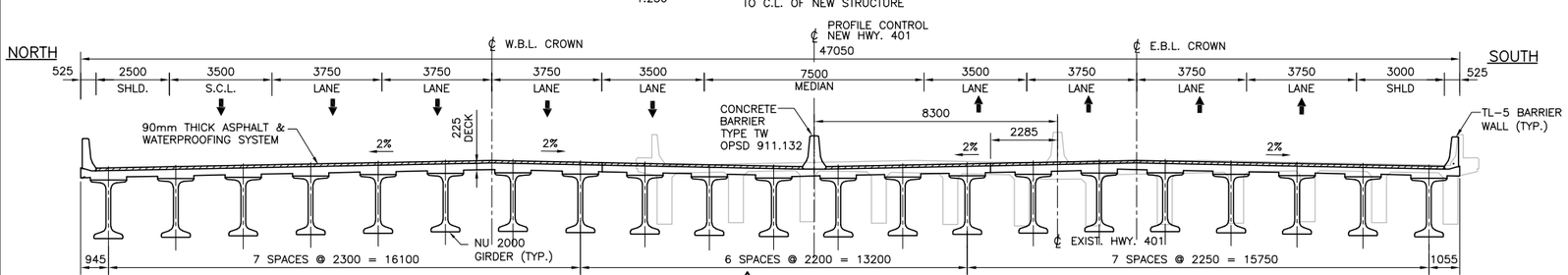


PROFILE OF HWY 401
N.T.S.



1 ELEVATION
1:250

* DIMENSION MEASURED PERPENDICULAR TO C.L. OF NEW STRUCTURE



2 SECTION
1:100

GENERAL NOTES:

CLASS OF CONCRETE

GIRDERS .....60 MPa

REMAINDER .....30 MPa

CLEAR COVER TO REINFORCING STEEL

DECK TOP.....70 ± 20
BOTTOM.....40 ± 10

FOOTINGS .....100 ± 25

GIRDERS: SEE PRESTRESSED GIRDER DWGS.

REMAINDER (UNLESS NOTED OTHERWISE) .....70 ± 20

REINFORCING STEEL

REINFORCING STEEL SHALL BE GRADE 500W UNLESS OTHERWISE SPECIFIED.

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

GLASS FIBRE REINFORCED POLYMER REINFORCING BARS SHALL BE GRADE III AS SPECIFIED IN THE CONTRACT DRAWINGS. THE NOMINAL DIAMETER, TENSILE MODULUS OF ELASTICITY AND GUARANTEED MINIMUM TENSILE STRENGTH SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS.

BAR MARKS WITH SUFFIX "S" DENOTE STAINLESS STEEL REINFORCEMENT. STAINLESS REINFORCING STEEL SHALL BE TYPE 316LN OR DUPLEX 2205 AND HAVE MINIMUM YIELD STRENGTH OF 500 MPa.

BAR MARKS WITH THE PREFIX GIII DENOTE GRADE III GLASS FIBRE REINFORCED POLYMER BARS.

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.

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 ENDS HAVE BEEN CONSTRUCTED AND HAVE ATTAINED COMPRESSIVE STRENGTH OF 25 MPa.
3. BACKFILL SHALL BE PLACED SIMULTANEOUSLY BEHIND BOTH ABUTMENTS KEEPING THE HEIGHT OF THE BACKFILL APPROXIMATELY THE SAME. AT NO TIME SHALL THE DIFFERENCE IN ELEVATION BE GREATER THAN 500mm.
4. THE CONTRACTOR SHALL ENSURE THE STABILITY OF THE GIRDERS, UNTIL THE DECK IS CONSTRUCTED AND HAS ATTAINED A COMPRESSIVE STRENGTH OF 25 MPa.

LIST OF ABBREVIATIONS:

T/A	– TOP OF ASPHALT (FINISHED ELEV.)
WP	– WORKING POINT
T/FTG.	– TOP OF FOOTING
BRGS.	– BEARINGS
CONC.	– CONCRETE
TYP.	– TYPICAL
EL.	– ELEVATION
ABUT.	– ABUTMENT
W.L.	– WATER LEVEL
℄	– CENTRE LINE
STA.	– STATION

APPLICABLE STANDARD DRAWINGS:

OPSD– 912.430	GUIDE RAIL SYSTEM, STEEL BEAM STRUCTURE CONNECTION
OPSD–3101.150	WALLS ABUTMENT, BACKFILL MINIMUM GRANULAR REQUIREMENT
OPSD–3102.100	WALLS ABUTMENT BACKFILL DRAIN
OPSD–3370.100	DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE WITH PROTECTION BOARD
OPSD–3419.100	DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE AT ACTIVE CRACKS GREATER THAN 2mm WIDE AND CONSTRUCTION JOINT

LIST OF DRAWINGS

1. GENERAL ARRANGEMENT
2. BOREHOLE LOCATIONS AND SOIL STRATA
3. SOIL STRATA
4. CONSTRUCTION STAGING
5. FOUNDATION LAYOUT AND DETAILS
6. ABUTMENTS
7. WINGWALLS
8. PRESTRESSED NU GIRDERS AND BEARINGS NU 2000 (STEEL REBAR)
9. PRESTRESSED NU GIRDERS DETAILS
10. DECK DETAILS AND SCREED ELEVATIONS
11. DECK REINFORCING
12. BARRIER WALL W/O RAILING, TL–5
13. 6000mm APPROACH SLAB.
14. EXPANSION JOINT (TYPE C) AND SLEEPER SLAB
15. STANDARD DETAILS

DRAWING NOT TO BE SCALED
100 mm ON ORIGINAL DRAWING

REVISIONS		
DATE	BY	DESCRIPTION

DESIGN PC	CHK RTK	CODE CHBDC S6–19	LOAD ONT CL–625	DATE NOV 2021			
DRAWN DT	CHK PC	SITE 21X–0230/B0	STRUCT –	SCHEME –	DWG 1		

MINISTRY OF TRANSPORTATION, ONTARIO PR–D–707 88–05

DRAWING NAME: F:\18374\Assignment #13 – Hwy 401 Port Hope PD\4. Bridge (Structural)\4-5 Drafting\Drawings for SDRs\Choate Road Overpass GA–S01.dwg
CREATED: MAY 2021 MODIFIED: Dec 14, 2021–2:08pm

METRIC

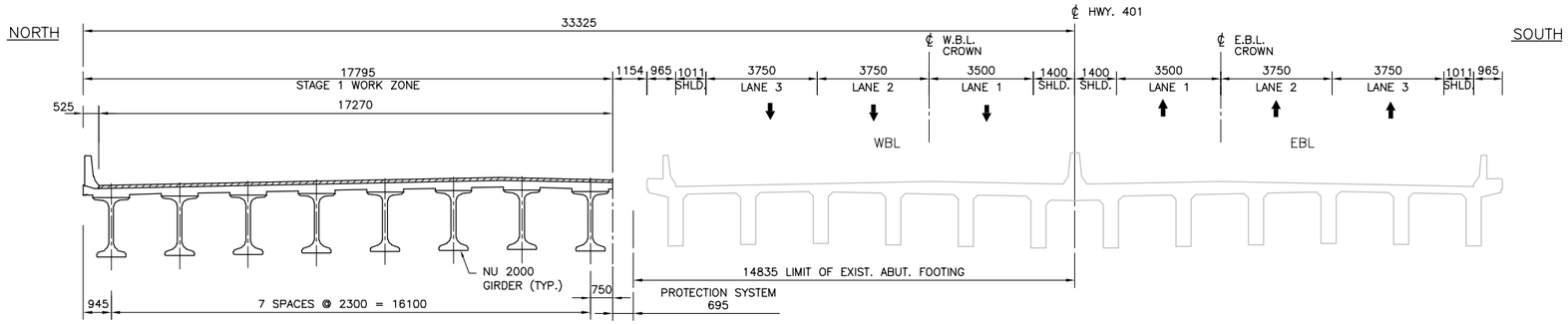
DIMENSIONS ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE SHOWN

CONT No
WP No

CHOATE ROAD OVERPASS
BRIDGE REPLACEMENT
CONSTRUCTION STAGING

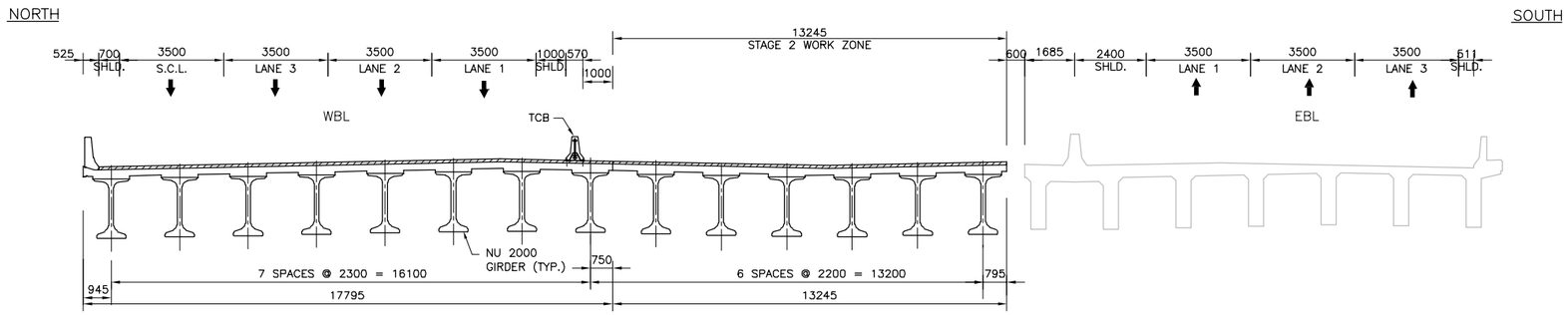
SHEET

McINTOSH PERRY
Joint Venture



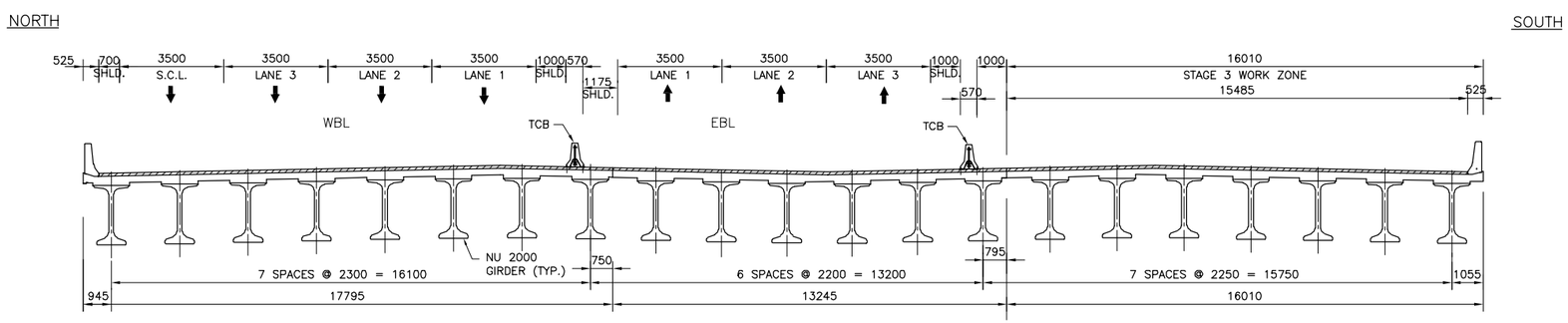
STAGE 1 – CHOATE ROAD OVERPASS

1:100



STAGE 2 – CHOATE ROAD OVERPASS

1:100



STAGE 3 – CHOATE ROAD OVERPASS

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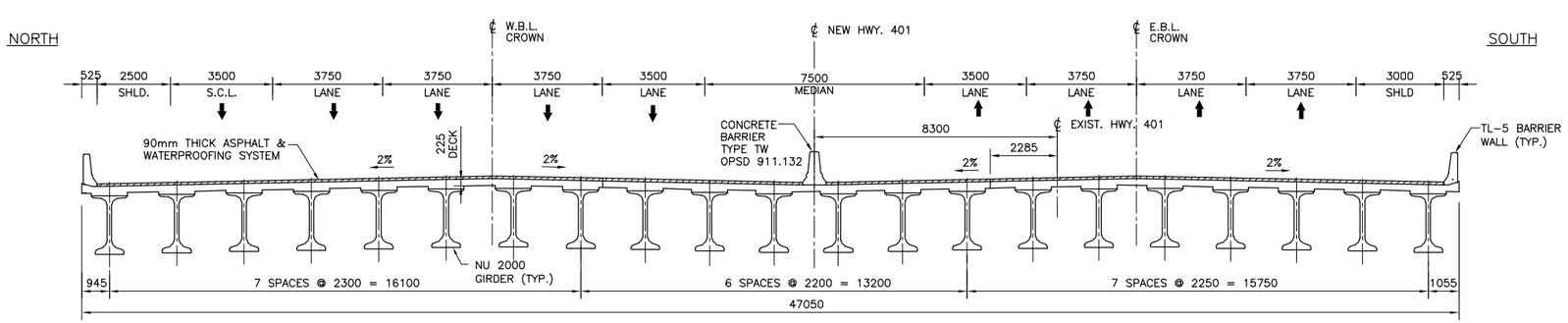


FINAL – CHOATE ROAD OVERPASS

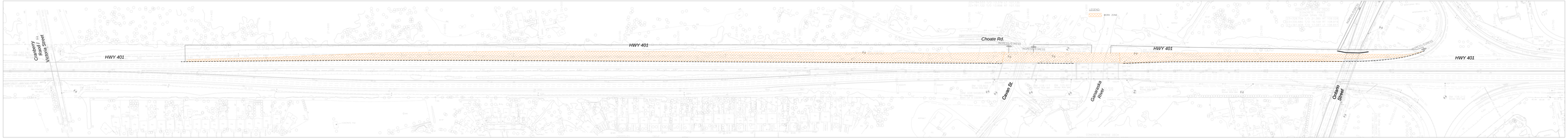
1:100

DRAWING NOT TO BE SCALED
100 mm ON ORIGINAL DRAWING

REVISIONS		
DATE	BY	DESCRIPTION

DESIGN PC	CHK RTK	CODE CHBDC S6-19	LOAD ONT CL-625	DATE NOV 2021			
DRAWN DT	CHK PC	SITE 21X-0230/B0	STRUCT –	SCHEME –	DWG 1		

DRAWING NAME: \\mor-fs01\active\18374\Assignment #13 – Hwy 401 Port Hope PD\4. Bridge (Structural)\4.5 Drafting\Drawings for SDRs\Staging CHO_Option 1A.dwg
CREATED: MAY 2007 MODIFIED: Nov 29, 2021-4:49pm
MINISTRY OF TRANSPORTATION, ONTARIO PR-D-707 88-05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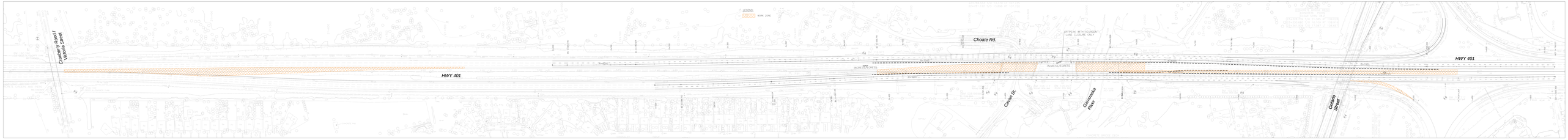
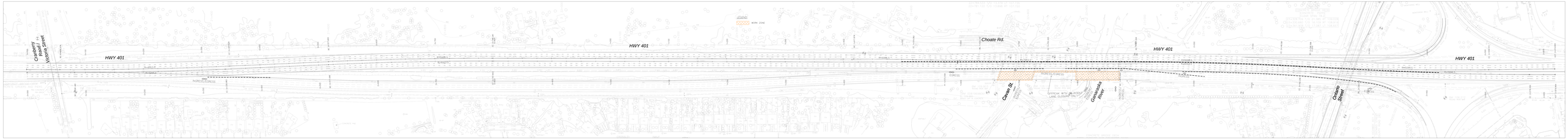
Victoria Street
HWY 401
HWY 401
Choate Rd.
HWY 401
HWY 401
Cavan St.
Gananoque River
Ontario Street


LEGEND
WORK ZONE
Cadberry Road / Victoria Street
HWY 401
Choate Rd.
OFFPEAK WITH ADJACENT LANE CLOSURE ONLY
WORKS CLOSED
WORKS CLOSED
Cavalli St.
Cataraqui River
Ontario Street
HWY 401


LEGEND
WORK ZONE
HWY 401
HWY 401
HWY 401
HWY 401
Choate Rd.
Victoria Street
Carson St.
Carson Street
Gananoque River
NORTHBOUND
SOUTHBOUND
NORTHBOUND
SOUTHBOUND
NORTHBOUND
SOUTHBOUND