

# Detroit River International Crossing Environmental Assessment Study



## Draft Structural Planning Report for Practical Alternatives

## Preface

The Detroit River International Crossing (DRIC) Environmental Assessment Study is being conducted by a partnership of the federal, state and provincial governments in Canada and the United States in accordance with the requirements of the Canadian Environmental Assessment Act (CEAA), the Ontario Environmental Assessment Act (OEAA), and the U.S. National Environmental Policy Act (NEPA). In 2006, the Canadian and U.S. Study Teams completed an assessment of illustrative crossing, plaza and access road alternatives. This assessment is documented in two reports: *Generation and Assessment of Illustrative Alternatives Report - Draft November 2006* (Canadian side) and *Evaluation of Illustrative Alternatives Report (December 2006)* (U.S. side). The results of this assessment led to the identification of an Area of Continued Analysis (ACA) as shown in Exhibit 1.

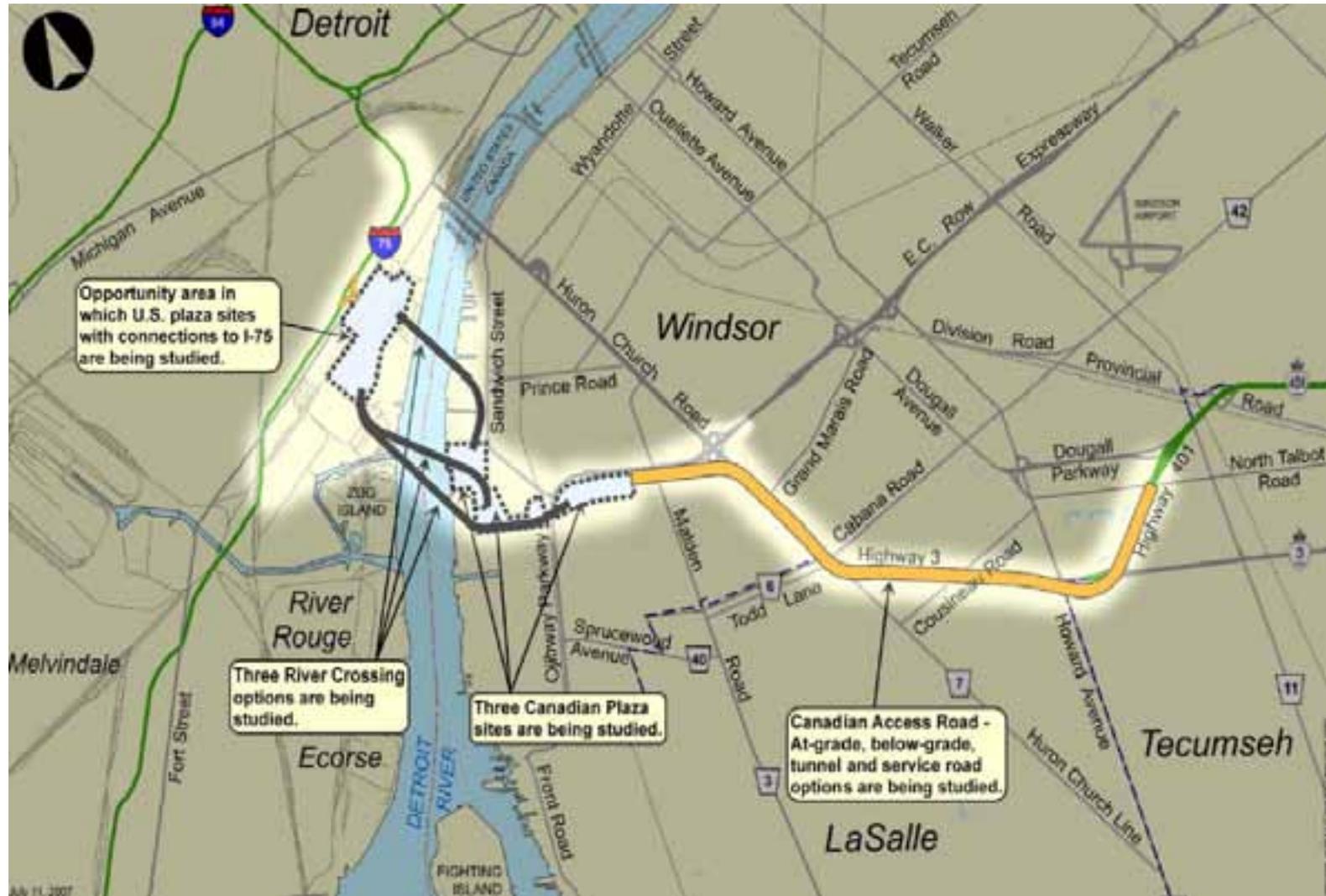
Within the ACA, practical alternatives were developed for the crossings, plazas and access routes alternatives. The evaluation of practical crossing, plaza and access road alternatives is based on the following seven factors:

- Changes to Air Quality
- Protection of Community and Neighbourhood Characteristics
- Consistency with Existing and Planned Land Use
- Protection of Cultural Resources
- Protection of the Natural Environment
- Improvements to Regional Mobility
- Cost and Constructability

This report pertains to the Cost and Constructability factor and is one of several reports that will be used in support of the evaluation of practical alternatives and the selection of the technically and environmentally preferred alternative. This report will form a part of the environmental assessment documentation for this study.

Additional documentation pertaining to the evaluation of practical alternatives is available for viewing/downloading at the study website ([www.partnershipborderstudy.com](http://www.partnershipborderstudy.com)).

EXHIBIT 1 – AREA OF CONTINUED ANALYSIS – PRACTICAL CROSSING, PLAZA AND ROUTE ALTERNATIVES



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# 1. Introduction

This report has been prepared to document the structures on the proposed Highway 401 along the Highway 3 corridor (Huron Church Road) from Highway 401/Highway 3 interchange to the Plaza. The Detroit River International Crossing (DRIC) Study is an Environmental Assessment Study undertaken by a joint partnership between the Ministry of Transportation Ontario (MTO), Transport Canada (TC), the Michigan Department of Transportation (MDOT) and the U.S. Federal Highway Administration (FHWA).

The project limits for this phase of the study are defined by the Area of Continued Analysis (ACA), which begins near the western terminus of Highway 401, and generally follows the alignments of Highway 3, Huron Church Road and E.C. Row Expressway. Approaching the Detroit River, the ACA includes area for three border plaza sites and three international bridge crossing alternatives. The ACA traverses through the Town of Tecumseh, Town of Lasalle and the City of Windsor. A key plan which identifies the ACA is presented in Exhibit 1.

The proposed Highway 401 will have 3-WB & 3-EB traffic lanes with a central median and shoulders on both sides. The Practical Alternative alignments and profiles considered for this portion of the Highway 401 consist of two at grade options, two below grade options, one tunnel option and The Parkway option.

A one page Structural Planning Sheet for each structure, Site Maps showing the location of each structure along Practical Alternative alignments are appended. Summary Tables giving structure identification number (ID), structure name, structure type, length, width, estimated cost of each structure and total costs of the structures for each alignment are appended. Aerial photographs of each site are appended.

## 2. Alignments and Profiles

The Alignments (Site Plans) and Profiles used for Practical Alternatives 1A, 1B, 2A, 2B and 3 are as they were in August 2006. The Alignments (Site Plans) and Profiles used for The Parkway are as they were in February 2008.

The profiles of the structures are based on providing a minimum clearance of 5.1 m at overpasses and underpasses and 7.2 m at railway overheads.

### 2.1. Alternative 1A: Highway 401 at Grade along Highway 3 Corridor (Huron Church Road) with Service Roads on Both Sides

The proposed Highway 401 for this alternative is at grade along the Highway 3 corridor (Huron Church Road). However it is below grade at its crossings with major cross roads. The existing Highway 3 corridor (Huron Church Road) will be replaced by WB and EB Service Roads of two lanes on each side of Highway 401. This alignment with the location of each structure is shown on Site Plan 1, Sheets 1 and 2, Appendix A1. The profile is shown on Profile 1, Sheets 1 to 7, Appendix B1.

### 2.2. Alternative 1B: Highway 401 Below Grade along Highway 3 Corridor (Huron Church Road) with Service Roads on Both Sides

The proposed Highway 401 for this alternative is below grade along the Highway 3 corridor (Huron Church Road). The existing Highway 3 corridor (Huron Church Road) will be replaced by WB and EB Service Roads of two lanes on each side of Highway 401. The profile of below grade Highway 401, in boat section, is typically 7 m below the existing ground level. This alignment with the location of each structure is shown on Site Plan 2, Sheets 1 and 2, Appendix A2. The profile is shown on Profile 2, Sheets 1 to 7, Appendix B2.

### 2.3. Alternative 2A: Highway 401 at Grade Parallel to Highway 3 Corridor (Huron Church Road)

The proposed Highway 401 for this alternative is at grade parallel to the existing Highway 3 corridor (Huron Church Road). However it is below grade at its crossings with major cross roads. This alignment with the location of each structure is shown on Site Plan 3,

Sheets 1 and 2, Appendix A3. The profile is shown on Profile 3, Sheets 1 to 5, Appendix B3.

#### 2.4. Alternative 2B: Highway 401 Below Grade Parallel to Highway 3 Corridor (Huron Church Road)

The proposed Highway 401 for this alternative is below grade parallel to the existing Highway 3 corridor (Huron Church Road). The profile of Highway 401, in boat section, is typically 7 m below the existing ground level. This alignment with the location of each structure is shown on Site Plan 4, Sheets 1 and 2, Appendix A4. The profile is shown on Profile 4, Sheets 1 to 6, Appendix B4.

#### 2.5. Alternative 3: Highway 401 in Tunnel along Highway 3 Corridor (Huron Church Road) with at Grade Service Roads

The proposed Highway 401 for this alternative is underground in a tunnel section along the Highway 3 corridor (Huron Church Road). The existing Highway 3 corridor (Huron Church Road) will be replaced by at grade WB and EB Service Roads above Highway 401 tunnel. The tunnel section will be a twin cell rectangular box. This alignment with the location of each structure is shown on Site Plan 5, Sheets 1 and 2, Appendix A5. The profile is shown on Profile 5, Sheets 1 to 7, Appendix B5.

#### 2.6. Alternative The Parkway: Highway 401 Below Grade along Highway 3 Corridor (Huron Church Road) with Service Roads and Tunnel Sections

The proposed Highway 401 for this alternative is below grade along the Highway 3 corridor (Huron Church Road). The existing Highway 3 corridor (Huron Church Road) will be replaced by WB and EB Service Roads of two lanes each on one side of Highway 401 and pedestrian trails on each side of Highway 401. Also Highway 401 is in tunnel sections as detailed in Section 3. The profile of below grade Highway 401 from east of Howard Avenue to west of Bethlehem Avenue near E.C Row Expressway varies from 7 m to 12 m below the existing ground level. This alignment with the location of each structure is shown on Site Plan 6, Sheets 1 and 2, Appendix A6. The profile is shown on Profile 6, Sheets 1 to 4, Appendix B6.

## 2.7. Connections from Plazas A, B and C to the International Bridge Crossings X10(A), X10(B) and X11(C)

Practical Alternative approach structures from Plazas A, B, C to the International Bridge crossings X10(A), X10(B) and X11(C) are reported separately.

## 3. Crossings

The number of traffic lanes at each crossing structure are based on City of Windsor Official Plan (March 2000) and consultations with the stakeholders. The lane widths are based on the Geometric Design Standards for Ontario Highways (GDSOH) and City of Windsor standards.

The Practical Alternatives of the proposed Highway 401 cross the following roads and water courses on structures:

- North Talbot Road
- Highway 3
- Ramps to Highway 3 and Highway 401
- Howard Avenue
- Montgomery Drive
- Cousineau Road / Sandwich Parkway
- St.Clair College Road
- Huron Church Line
- Cabana Road West / Todd Lane
- Turkey Creek
- Pulford Street
- Grand Marais West / Lambton Road
- Labelle Street / Bethlehem Avenue
- Pedestrian Plazas at some of the major road crossings
- Spring Garden Road
- Malden Road
- Malden Ramp
- Matchette Road
- Ojibway Parkway
- Essex Terminal Rail Track
- Cahill Drain
- Secondary Drain
- Lennon Drain

- Marentette Drain
- Basin Drain
- Titcombe Drain

The Parkway alternative of the proposed Highway 401 is located in the following tunnels:

- Tunnel at West of Howard Avenue Underpass (East & West side)
- Tunnel at Hearthwood (East & West side)
- Tunnel at Cousineau Road / Sandwich Parkway (East & West side)
- Tunnel at St. Clair College Road (East, Middle & West side)
- Tunnel at Huron Church Line (East, Middle & West side)
- Tunnel at Cabana Road West (East, Middle & West side)
- Tunnel at Reddock Street
- Tunnel at Pulford Street
- Tunnel at South of Grand Marais Road West (East & West side)
- Tunnel at South of Labelle Street (East, Middle & West side)
- Tunnel near E.C. ROW Expressway

## 4. Structural Planning Studies

The detailed planning study at each site includes review of structural surroundings, number of traffic lanes required on municipal roads at overpasses and underpasses, geometric alignments and profiles, horizontal and vertical structural clearances, site accessibility, environmental issues, foundation information where available, property requirements, traffic constraints, road detours, and temporary water course diversions. The design of the structures is in accordance with the CAN / CSA S6-06 Canadian Highway Bridge Design Code (CHBDC), MTO Structural Manual, MTO Structural Planning Guidelines and MTO Aesthetic Guidelines for Structures. Preference is given to open spans, low profile structures, short wingwalls and narrow piers. The most cost effective structural arrangement meeting all structural, highway design and environmental requirements is selected for each of the structures. The type of abutment is selected based on the skew angle of the crossing and foundation information available at each of these sites. Consideration is also given to durability of each of the alternatives, including materials and details to improve long-term durability of the structures, reduce maintenance costs and improve safety of the public.

The typical bridge deck consists of CPCI girders supporting a reinforced concrete deck slab with asphalt and waterproofing. Some of the bridge decks consist of voided slabs. The abutments will be either integral or semi-integral supported on HP piles.

Temporary supports of excavation (SOE) for the typical boat section comprises of HP piles and lagging or 1050mm diameter reinforced concrete caisson retaining walls. These SOEs with 500mm thick concrete facia on the exterior side will act as permanent walls of the boat sections. The types of SOEs depend of soil conditions, water table, bedrock level etc. They could also be either concrete diaphragm walls or temporary slurry walls. The base of these boat sections will have pavement road surface.

For Practical Alternative 3 the proposed Highway 401 tunnel will be a twin cell box section constructed by cut and cover (top down or bottom up) method in two stages, one for each cell. Temporary supports of excavation (SOE) will be HP piles and lagging or 1200mm diameter concrete caisson walls, depending on the depth of excavation. The types of SOEs depend of soil conditions, water table, bedrock level etc. They could also be either concrete diaphragm walls or temporary slurry walls. Each rectangular cell of reinforced concrete box section will be constructed after removing the soil between the support of excavations.

Foundation information considered for Practical Alternatives 1A, 1B, 2A, 2B and 3 is based on the Interim Foundations and Geotechnical Engineering Report, March 2005 by Golder Associates.

Foundation information considered for the Practical Alternative The Parkway is based on

Preliminary Foundations Investigation and Design Report, June 2006 by Golder Associates. In this report, Golder Associates advised that the depth of excavation should be limited to 7m with excavation being in open cut with 3:1 side-slopes. This advice refers to The Parkway section from east end to Todd Lane / Cabana Road. The depth of excavation should be limited to 5m with excavation being in open cut with 3:1 side-slopes for The Parkway section from Todd Lane / Cabana Road to E.C. Row Expressway. These Golder recommendations relate to "The Parkway" sections with enough room, within the proposed right-of-way, for maximum open cut permissible from geotechnical considerations as above. For the excavations deeper than such limits, there should be a combination of open cut and support of excavation walls placed on both sides. For other sections with more restricted right-of-way, there will be a need for shallower open cut with deeper support of excavation walls (Crossing Outlet Mall area). Preliminary construction cost estimate for The Parkway is based on the assumptions given above. There will be an opportunity during the Preliminary Design stage to further refine heights and lengths of support of excavation walls in order to optimize cost and efficiency. This could result in deeper sections of open cut with flatter side-slopes and shorter height of support of excavation walls.

## 4.1. Structural Planning Sheets

The Structure Planning Sheet for each structure contains the following information:

- Corridor and Route Identification
- Structure Identification Number (ID)
- Location
- Structure Description
- Bridge / Structure Type
- Elevation showing the span arrangement and length of bridge or depths for boat ramps and tunnel structures
- Cross section showing structure type, overall width, lane widths, shoulder widths, barriers and abutment types
- Skew angle
- Structural depth
- Span/Depth Ratio
- Vertical Clearance
- Overall length
- Overall width
- Unit price used for estimating structure cost

- Estimated cost of structure
- Comments summarizing special construction and design features

The Structural Planning Sheets for the Practical Alternatives are given in Appendix C.1 to C.6:

Appendix C.1: Structural Planning Sheets for Alternative 1A

Appendix C.2: Structural Planning Sheets for Alternative 1B

Appendix C.3: Structural Planning Sheets for Alternative 2A

Appendix C.4: Structural Planning Sheets for Alternative 2B

Appendix C.5: Structural Planning Sheets for Alternative 3

Appendix C.6: Structural Planning Sheets for The Parkway

## 4.2. Unit Costs

Unit costs considered in this report for Practical Alternatives are as follows:

### a) "Boat" Sections of Highway 401 (Alternatives 1A,1B,2A,2B and 3)

- \$30,000 / m: variable depth from 0 to 7 m
- \$45,000 / m: uniform depth of 7 m
- \$45,000 / m: variable depth from 0 to 12 m
- \$65,000 / m: uniform depth of 12 m
- \$65,000 / m: variable depth from 0 to 16 m and from 7 m to 12 m
- \$75,000 / m: variable depth from 12 m to 16 m

### b) Tunnel Sections of Highway 401 (Alternative 3)

Tunnel with Highway 401 profile control at approximately 12 m below ground

- \$75,000 / m: one lane ramp tunnel
- \$90,000 / m: two lanes ramp tunnel
- \$215,000 / m: Highway 401 with 3+3 Lanes tunnel
- \$255,000 / m: Highway 401 with 4+4 Lanes tunnel (with SCL on both sides)

Tunnel with Highway 401 profile control at approximately 16 m below ground

- \$135,000 / m: one lane ramp tunnel

- \$265,000 / m: Highway 401 with 3+3 Lanes tunnel

### c) Bridge Structures (All Alternatives)

- \$2000 / m<sup>2</sup>: with integral abutments
- \$2100 / m<sup>2</sup>: with integral abutments and RSS walls
- \$2100 / m<sup>2</sup>: with semi-integral abutments
- \$2200 / m<sup>2</sup>: with semi-integral abutments and RSS walls
- \$2300 / m<sup>2</sup>: post-tensioned bridge with semi-integral abutments
- \$2400 / m<sup>2</sup>: prestressed box girders with semi-integral abutments and RSS walls
- \$2500 / m<sup>2</sup>: with semi-integral abutments above ETR tracks

### d) The Parkway

#### d1) Full Height Retaining Walls

- \$15,000 / m: variable depth from 0 to 8 m (type 'BS1')
- \$32,500 / m: variable depth from 9 to 10 m (type 'BS3')

#### d2) Retaining Walls with Open Cut and Caisson Walls

- \$31,000/ m: variable depth from 7 to 12 m with 7 m open cut (type 'A')
- \$29,500/ m: variable depth from 7 to 10 m with 5 m open cut (type 'B')
- \$32,500/ m: variable depth from 7 to 12 m with 4 m open cut (type 'C')
- \$27,000/ m: variable depth from 8 to 9 m with 7 m open cut (type 'D')
- \$18,000/ m: variable depth from 0 to 10 m with 4 m open cut (type 'E')

#### d3) Tunnel Sections

- \$400 / m<sup>2</sup>: additional cost due to high embankment fills above the tunnel sections

## 4.3. Summary Tables

The summary table for each alignment alternative contains the structure ID, structure name, structure type, length, width and estimated cost of each structure and a total cost of all the structures for each alignment.

The summary tables are given in Appendix D.1 to D.6:

Appendix D.1: Table 1A for Alternative 1A  
Appendix D.2: Table 1B for Alternative 1B  
Appendix D.3: Table 2A for Alternative 2A  
Appendix D.4: Table 2B for Alternative 2B  
Appendix D.5: Table 3 for Alternative 3  
Appendix D.6: Table for The Parkway

#### 4.4. Photographs

The photographs at each structure location for the five Practical Alternatives are given in Appendix E.1 to E.6:

Appendix E.1: Photographs for Alternative 1A  
Appendix E.2: Photographs for Alternative 1B  
Appendix E.3: Photographs for Alternative 2A  
Appendix E.4: Photographs for Alternative 2B  
Appendix E.5: Photographs for Alternative 3  
Appendix E.6: Photographs for The Parkway

## 5. Utilities Crossing Highway 3 Corridor (Huron Church Road)

A number of utilities are located along the existing Highway 3 corridor (Huron Church Road) or cross it at Howard Avenue, Cousineau Road, Todd Lane / Cabana Road, Pulford Avenue, Lambton Avenue and Labelle Street. These utilities are:

- Bell Canada cables
- Gas pipelines
- Water mains
- Essex power cables
- Storm sewer
- Sanitary sewer
- MAXess fiber optics cables

These utilities are identified in the table in Appendix F.

According to Ontario Ministry of Transportation Structural Manual, fluid carrying pipe lines are not normally allowed to be carried through or under bridges, unless specifically approved by MTO. This includes oil and gas pipelines, sanitary and storm sewers and water mains. Electrical power lines may be carried through, under or over structures, provided the voltage does not exceeds 44 KV. Utilities are not allowed in sidewalks or to be directly supported from the deck slabs. They must not be placed in a location which prohibits routine inspection of structural components of the bridge. MTO Structural Manual gives approved details for the accommodation of non-MTO utilities on bridges.

Utilities crossings will be reviewed during the preliminary design stage by initiating negotiations with the utility companies. Suitable methods of carrying the utilities through or under the structures will be negotiated with the utility companies during detailed design stage.

## **Appendix A**

### **Site Plans with Structure ID Numbers for:**

- **Alternative 1A: Site Plan 1 (Sheets 1 & 2)**
- **Alternative 1B: Site Plan 2 (Sheets 1 & 2)**
- **Alternative 2A: Site Plan 3 (Sheets 1 & 2)**
- **Alternative 2B: Site Plan 4 (Sheets 1 & 2)**
- **Alternative 3: Site Plan 5 (Sheets 1 & 2)**
- **The Parkway: Site Plan 6 (Sheets 1 & 2)**

## **Appendix A.1**

### **Site Plan 1 (Sheets 1 & 2) for Alternative 1A**





## **Appendix A.2**

### **Site Plan 2 (Sheets 1 & 2) for Alternative 1B**



CONCEPTUAL

DRIC - ALTERNATIVE 1B : STRUCTURES ID NUMBERS

SCALE 1:7500

AUGUST 2006

SITE PLAN 2

SHEET 1 OF 2



CONCEPTUAL

## **Appendix A.3**

### **Site Plan 3 (Sheets 1 & 2) for Alternative 2A**



CONCEPTUAL



DRIC - ALTERNATIVE 2A : STRUCTURES ID NUMBERS

SCALE 1:7500

AUGUST 2006

SITE PLAN 3

SHEET 2 OF 2

## **Appendix A.4**

### **Site Plan 4 (Sheets 1 & 2) for Alternative 2B**



CONCEPTUAL

DRIC - ALTERNATIVE 2B : STRUCTURES ID NUMBERS

SCALE 1:7500

AUGUST 2006

SITE PLAN 4

SHEET 1 OF 2



DRIC - ALTERNATIVE 2B : STRUCTURES ID NUMBERS

SCALE 1:7500

AUGUST 2006

SITE PLAN 4

SHEET 2 OF 2

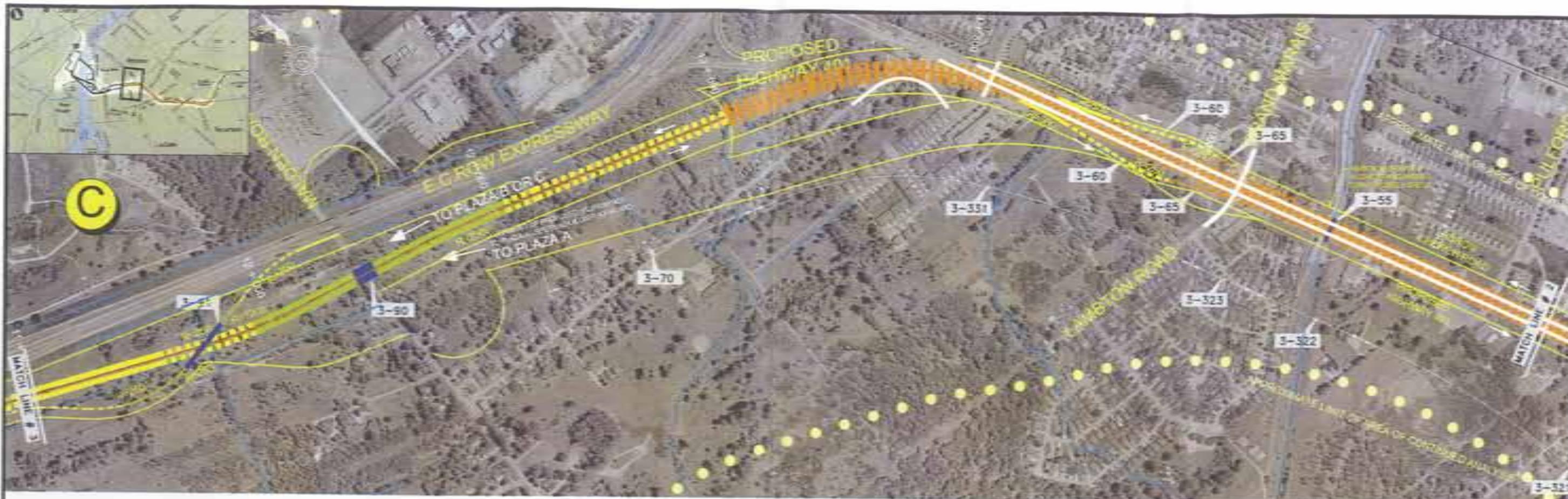
## **Appendix A.5**

### **Site Plan 5 (Sheets 1 & 2) for Alternative 3**



CONCEPTUAL





CONCEPTUAL



## **Appendix A.6**

### **Site Plan 6 (Sheets 1 & 2) for The Parkway**





## **Appendix B**

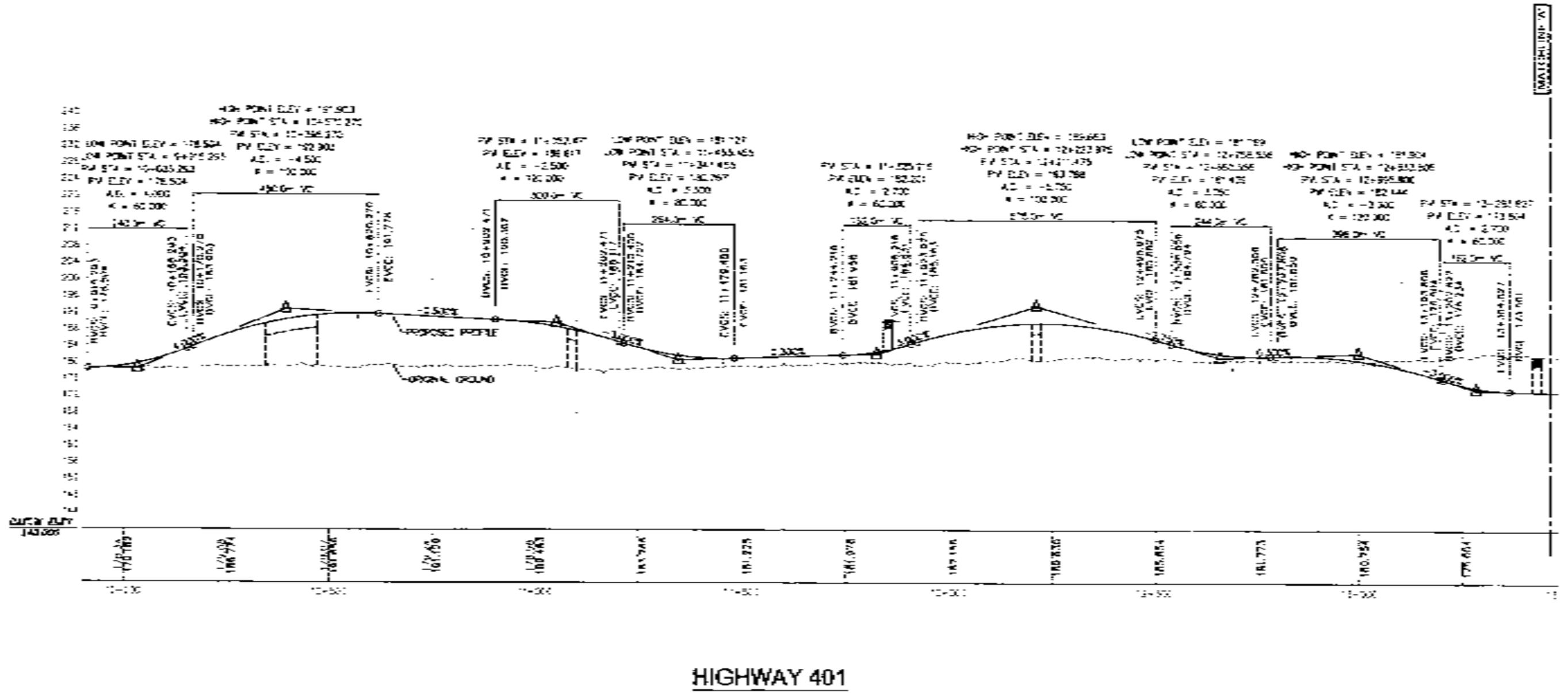
### **Profiles for:**

- **Alternative 1A: Profile 1 (Sheets 1 to 7)**
- **Alternative 1B: Profile 2 (Sheets 1 to 7)**
- **Alternative 2A: Profile 3 (Sheets 1 to 5)**
- **Alternative 2B: Profile 4 (Sheets 1 to 6)**
- **Alternative 3: Profile 5 (Sheets 1 to 7)**
- **The Parkway: Profile 6 (Sheets 1 to 4)**

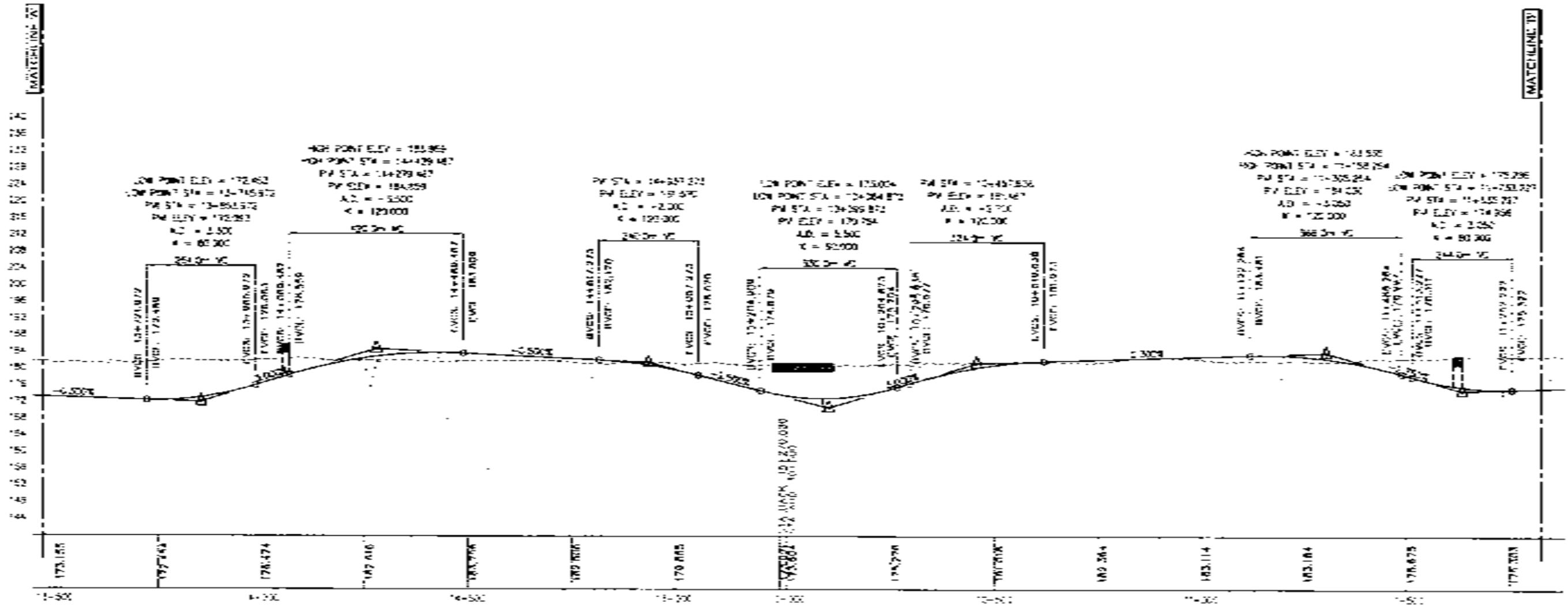
## **Appendix B.1**

### **Profile 1 (Sheets 1 to 7) for Alternative 1A**

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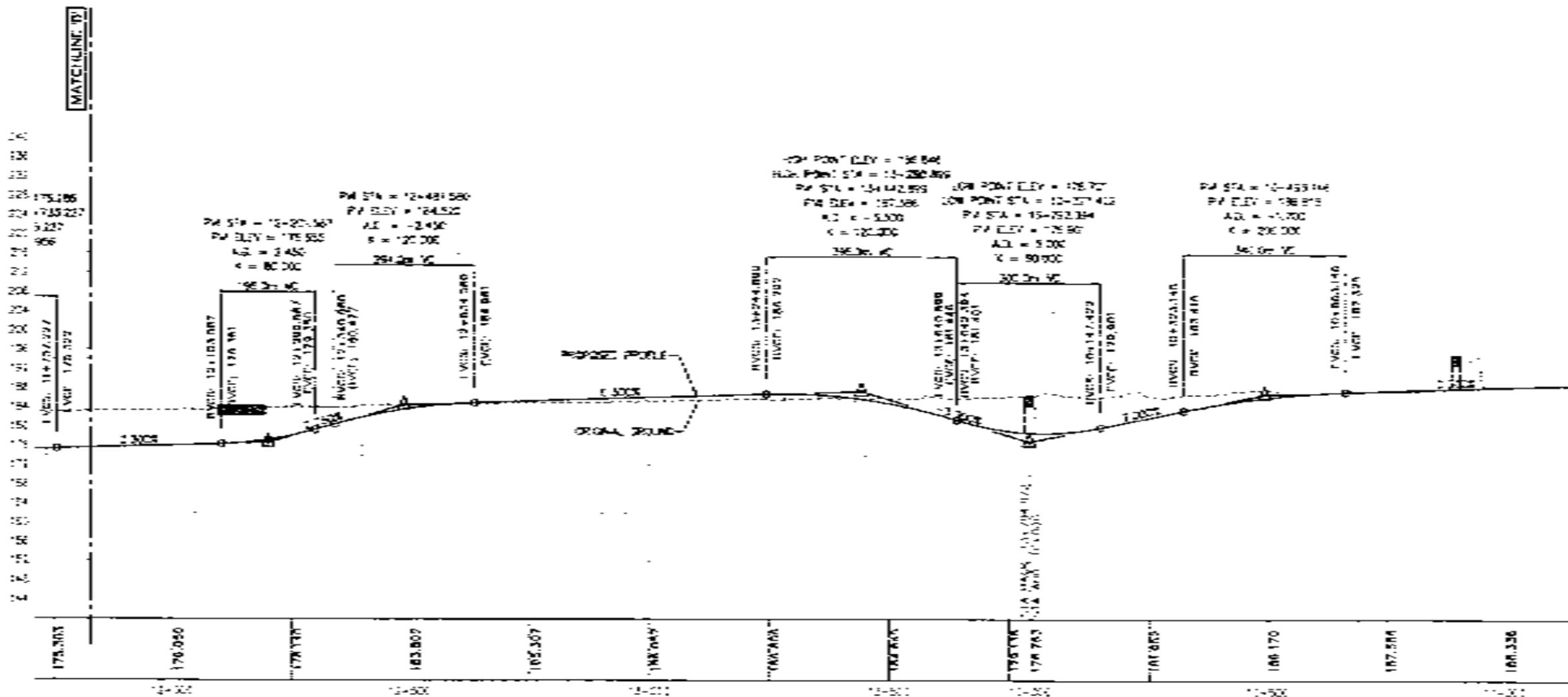


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HIGHWAY 401

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**HIGHWAY 401**





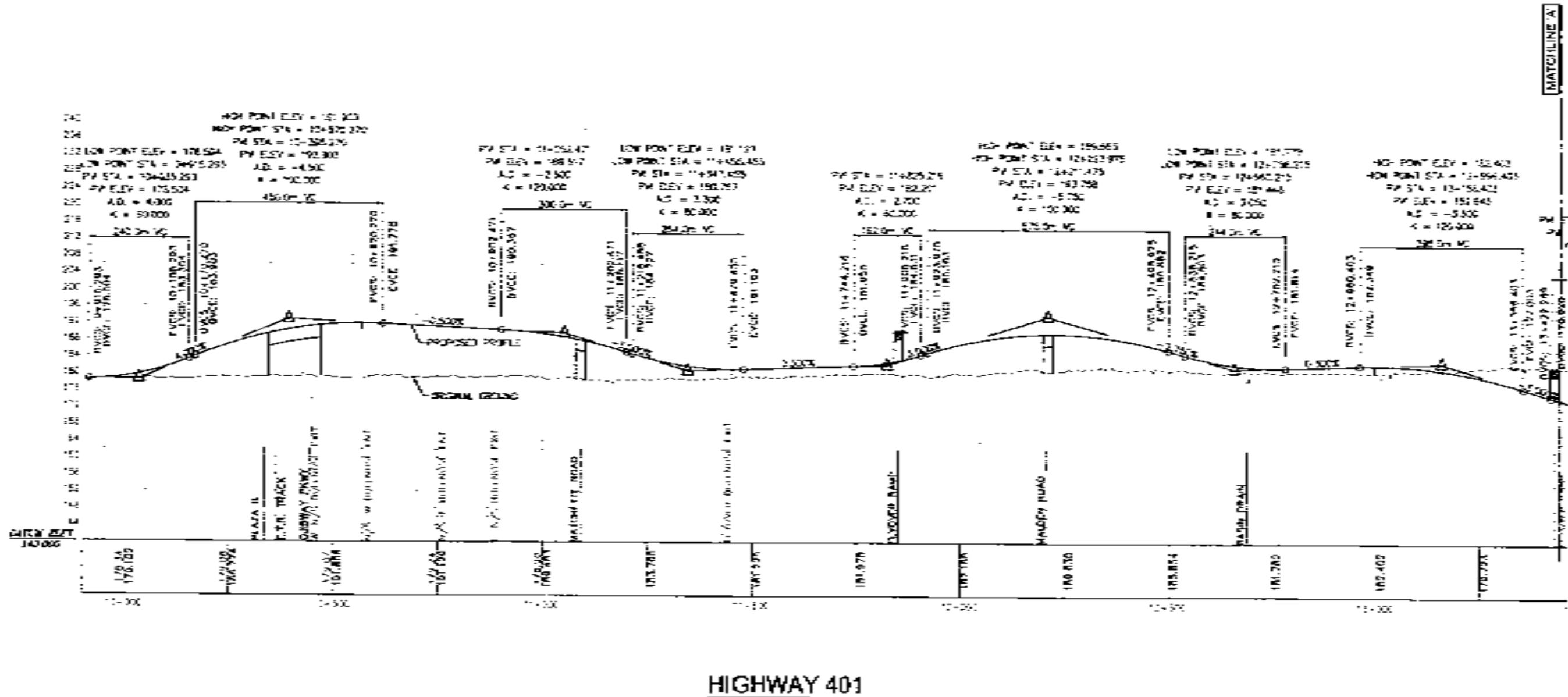




## **Appendix B.2**

### **Profile 2 (Sheets 1 to 7) for Alternative 1B**

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DRIC - ALTERNATIVE 1B : PROFILES

SCALE 1:1000/100

AUGUST 2006

PROFILE 2

SHEET 1 OF 7

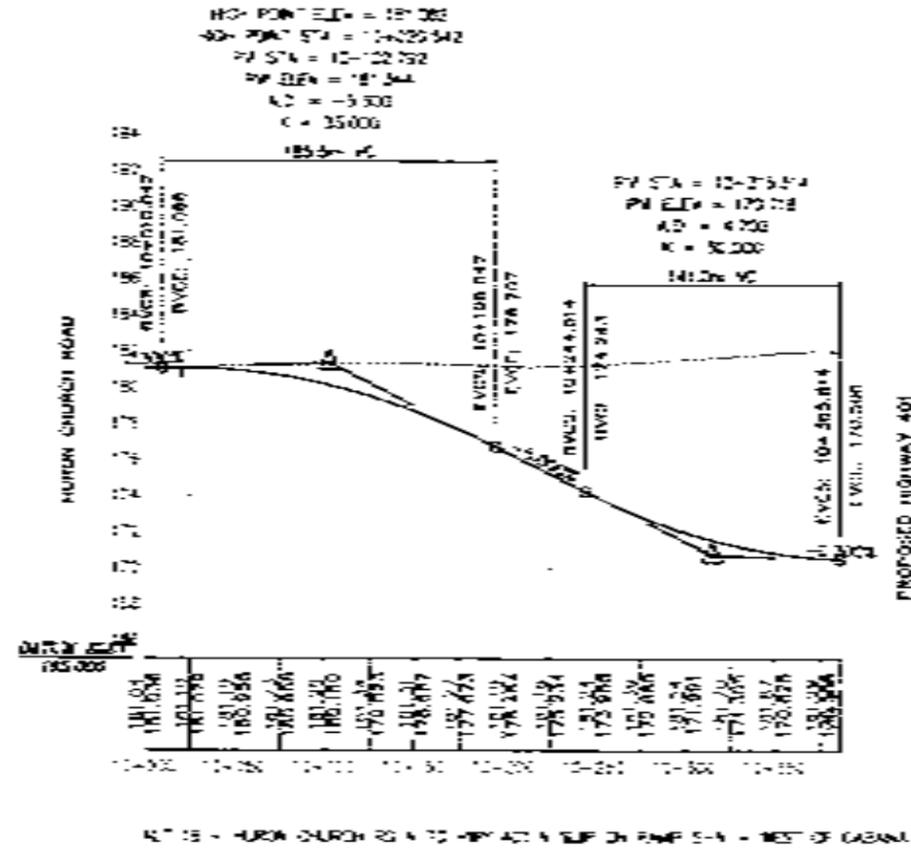








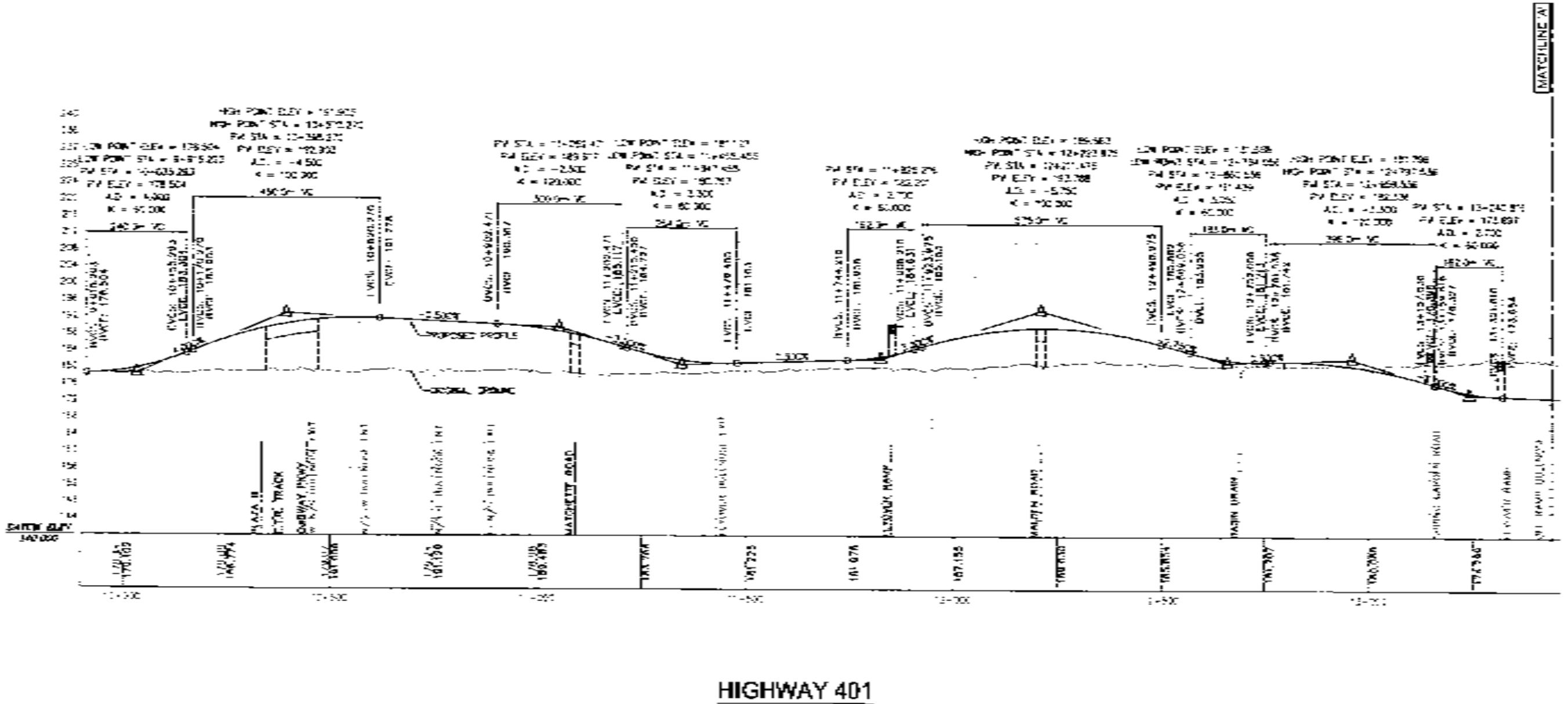




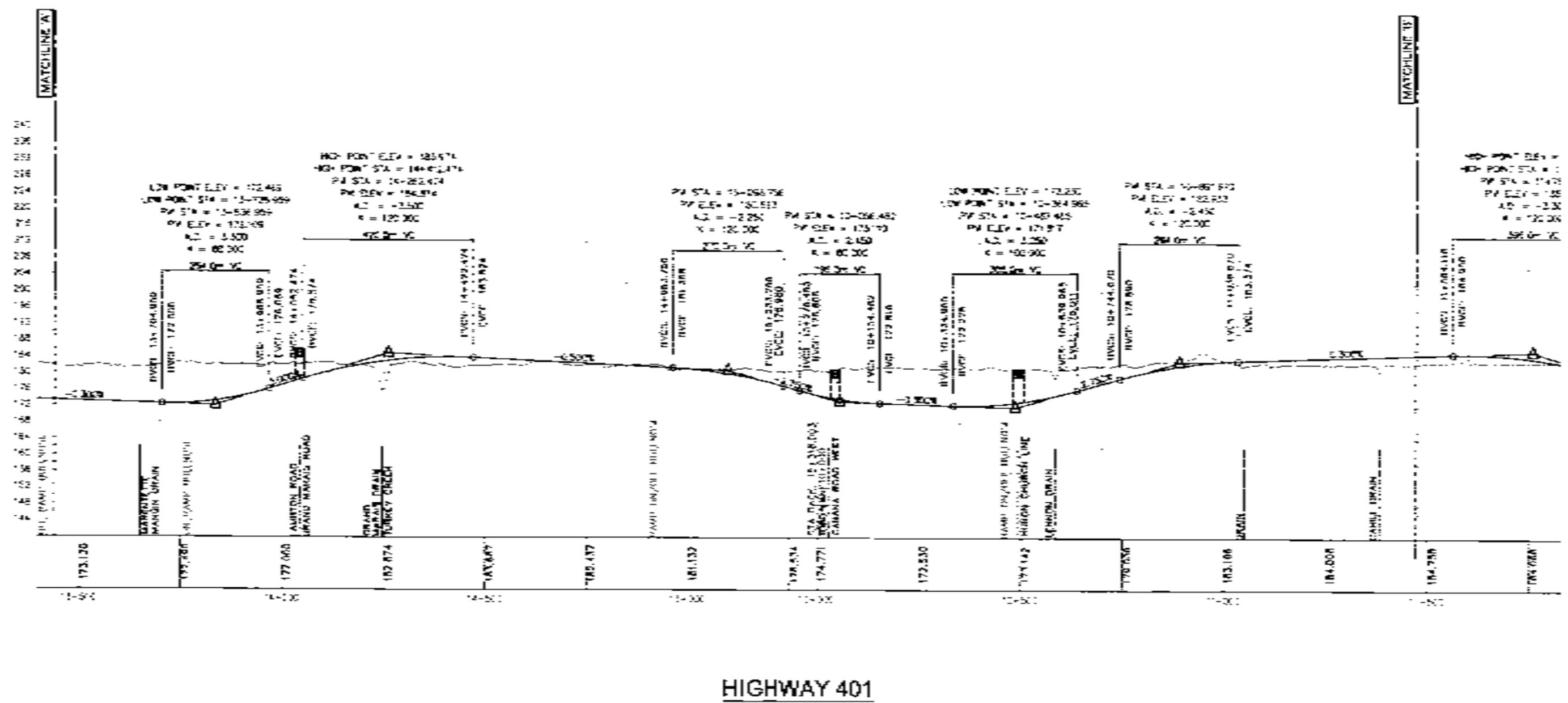
## **Appendix B.3**

### **Profile 3 (Sheets 1 to 5) for Alternative 2A**

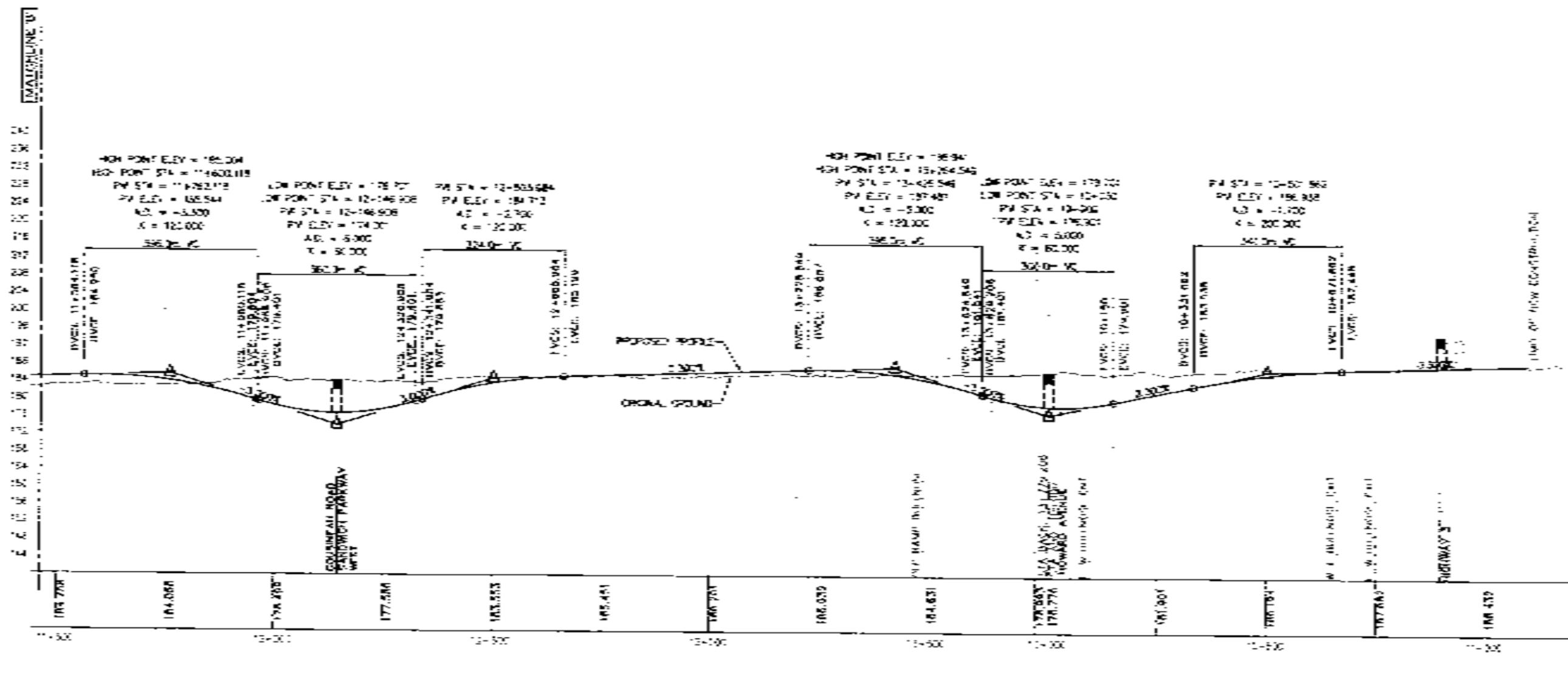
C:\pwworking\Autodesk\Projects\2006\08\08\DRIC - Alternative 2A.dwg Plot Date: 8/2/2006 10:42:42 AM



PROJECT: DRIC - ALTERNATIVE 2A, Station from 173,120 to 184,750, Profile 3, August 2006, Scale 1:1000/100, Sheet 2 of 5.



C:\Users\jgibson\Documents\Projects\DRIC\Documents\Profile3.dwg  
 August 2006  
 12/28/06



**HIGHWAY 401**





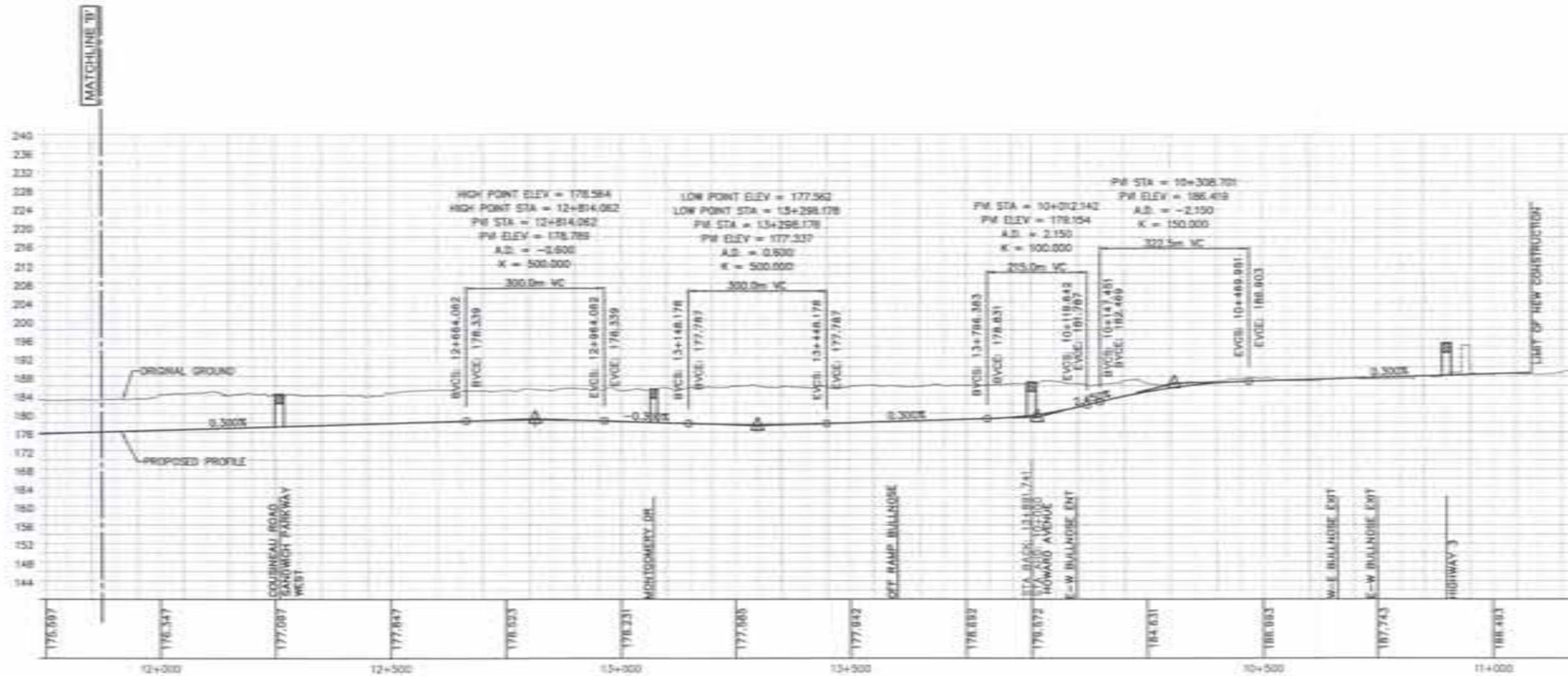
## **Appendix B.4**

### **Profile 4 (Sheets 1 to 6) for Alternative 2B**





C:\pwork\03\proj\14\_drisc\work\cadd\highway\Profile\_4.dwg Job: 0307 - Highway 401 - Access Road At 18 - Profile 4.dwg  
 PLOT: Aug 16, 2006 10:33am



HIGHWAY 401





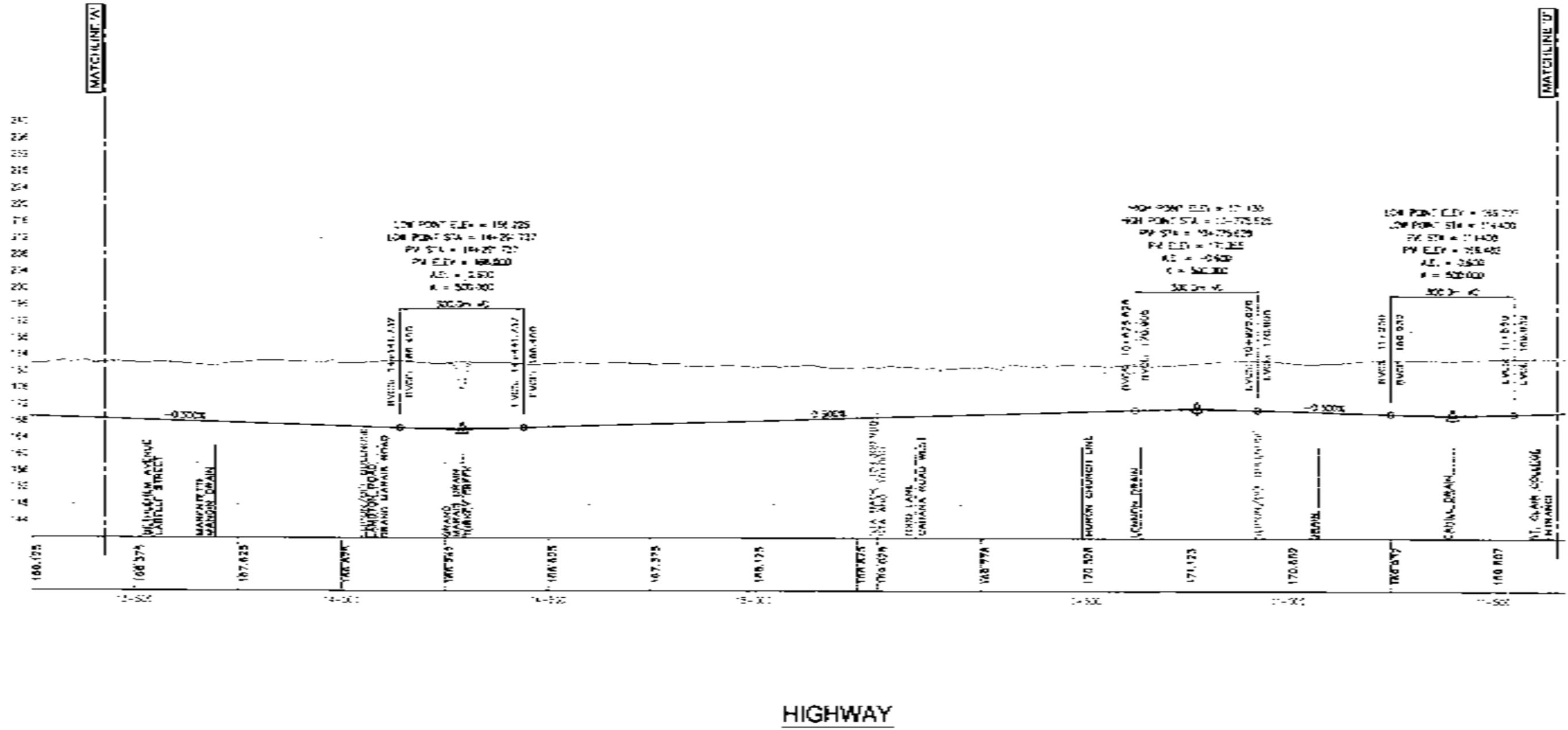


## **Appendix B.5**

### **Profile 5 (Sheets 1 to 7) for Alternative 3**



C:\Users\j\Documents\Projects\DRIC\DRIC.dwg 18/08/2006 10:00:00 AM



**DRIC - ALTERNATIVE 3 : PROFILES**

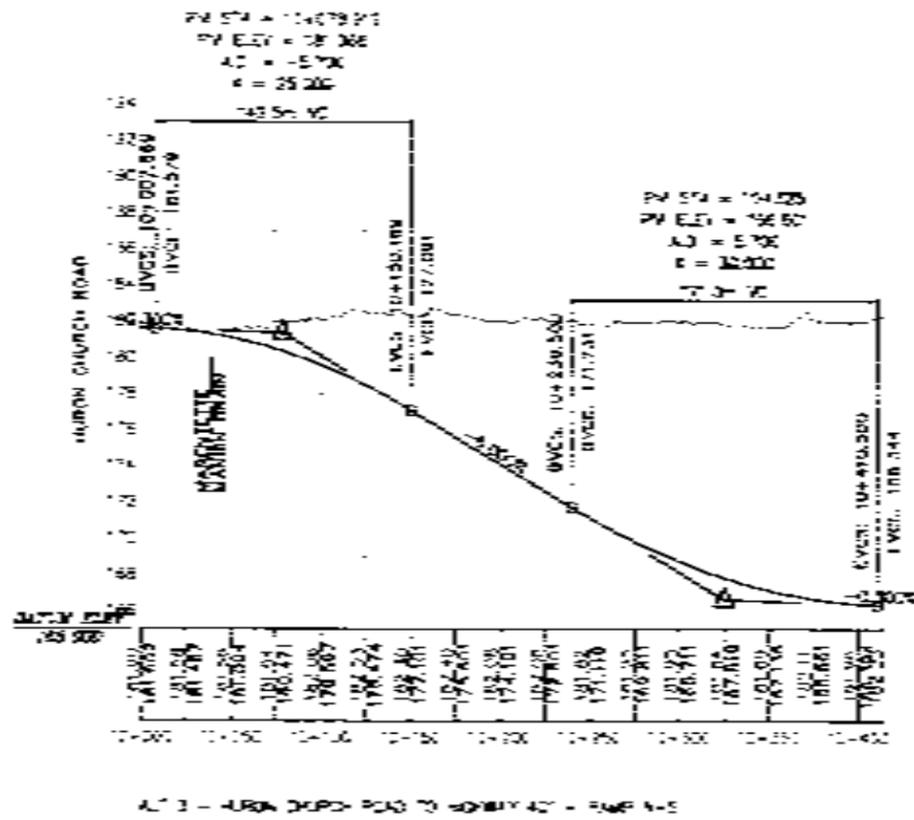
**SCALE 1:1000/100**

**AUGUST 2006**

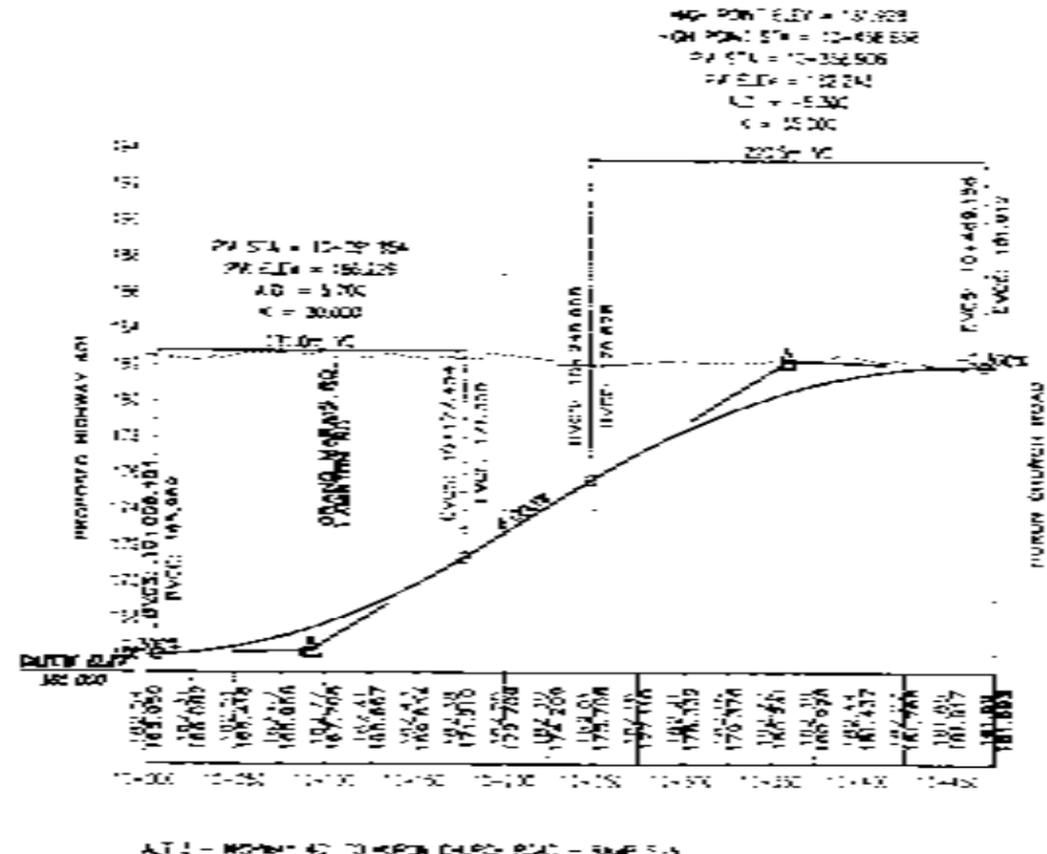
**PROFILE 5**

**SHEET 2 OF 7**





ALT 3 - FROM HIGHWAY 40 TO MARIETTA - RAMP 5.1



ALT 3 - MARIETTA TO FROM HIGHWAY 40 - RAMP 5.1







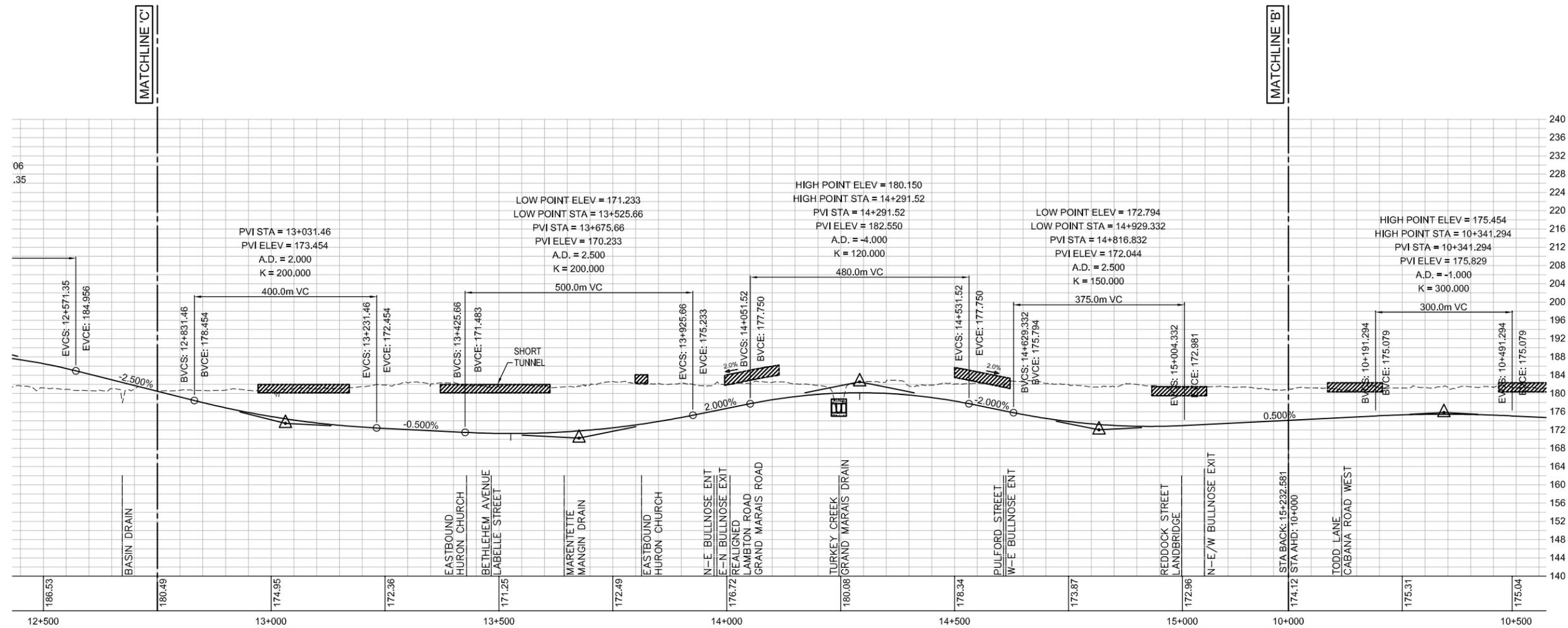
## **Appendix B.6**

### **Profile 6 (Sheets 1 to 4) for The Parkway**



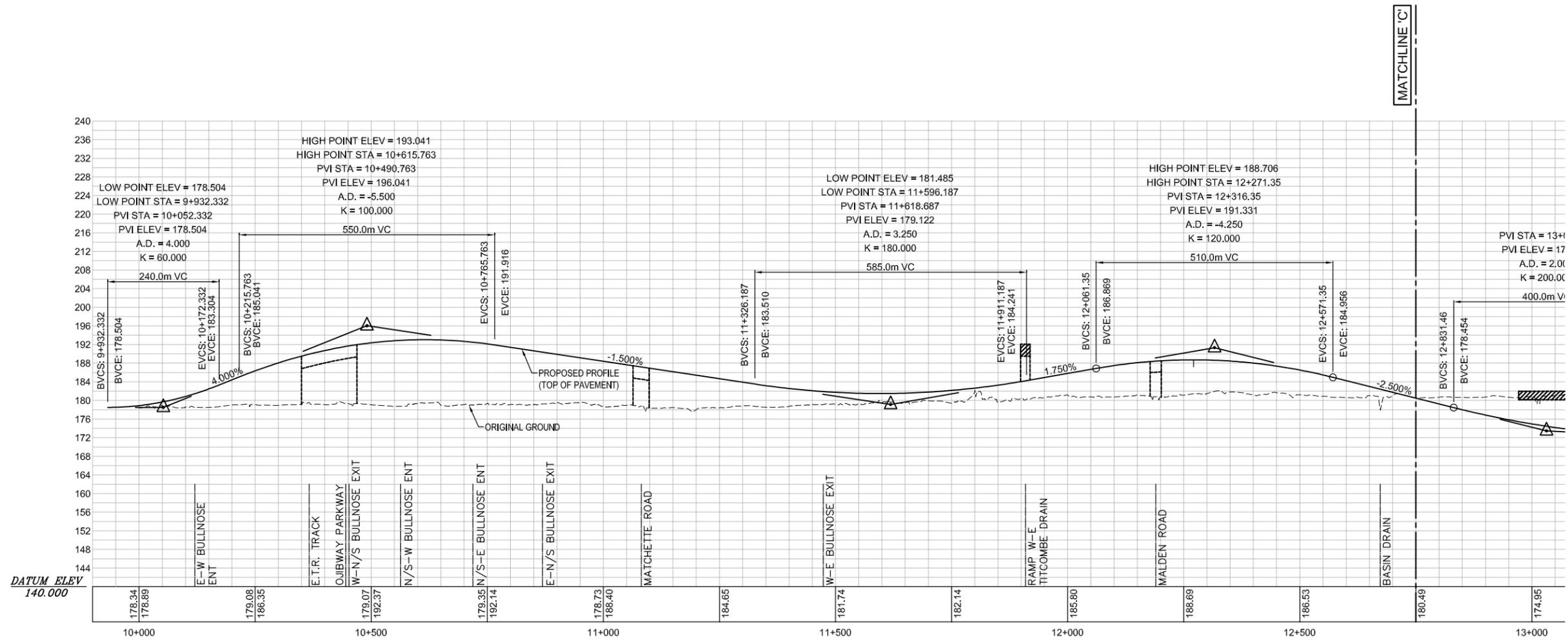


FILENAME: C:\DRIC\16\_Structural\CADD\Planning Sheets\Hwy Alternatives\2008\Bridge--Alt--05--2008\DRIC LAST REPORT\DRIC-CAD--LASTREPORT--05--05--2008\Parkway2C--v5.3 --JB.dwg  
 PLOTDATE: Jun 04, 2008 -- 1:52pm



**HIGHWAY 401**

FILENAME: G:\DRIC\16\_Structural\CADD\Planning Sheets\Hwy Alternatives\2008\Bridges\Alt-05-2008\DRIC-Last Report\DRIC-CAD-LASTREPORT-05-05-2008\parkway2C-v5.3 -JB.dwg  
 PLOTDATE: Jun 04, 2008 - 1:52pm



**HIGHWAY 401**

## Appendix C

### Structural Planning Sheets for Individual Structures:

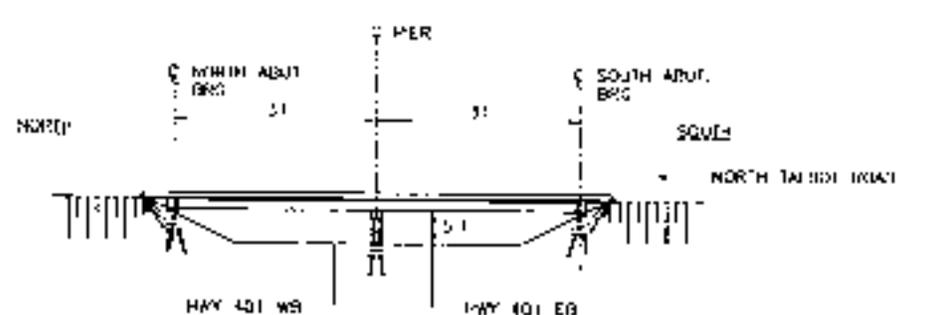
- Alternative 1A
- Alternative 1B
- Alternative 2A
- Alternative 2B
- Alternative 3
- The Parkway

# **Appendix C.1**

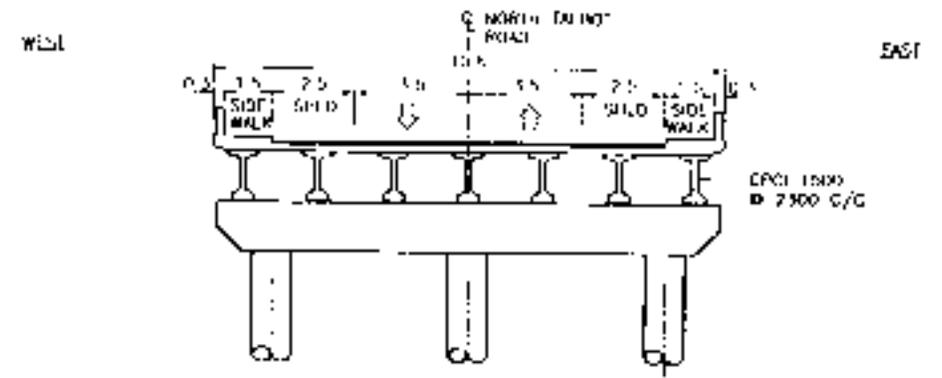
## **Structural Planning Sheets for Alternative 1A**

# STRUCTURAL PLANNING SHEET

W.O. NO.		CORRIDOR	HC	ROUTE	ALIGNMENT ALTERNATIVE 'A'
STRUCTURE I.D.	1A.5	SITE NO.		LOCATION	NORTH TAHOE ROAD ABOVE HWY 401
BRIDGE NAME	NORTH TAHOE ROAD UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> COVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPAN CONC. 1500 GRC/BS WITH SEMI-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

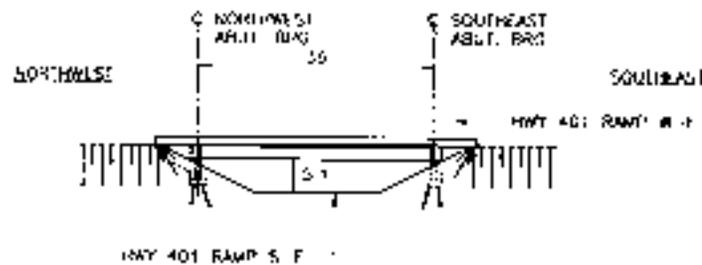
LENGTH (m)	62	WIDTH (m)	25.60
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	17
SKEW ANGLE	30°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,100 REHABILITATION	ESTIMATED COST (\$) 2,051,990	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- SEMI-INTEGRAL ABUTMENTS DUE TO 30° SKEW - EXISTING BRIDGE PIERS TO BE REMOVED - NORTH TAHOE ROAD NEEDS TO BE INVERTED DURING THE CONSTRUCTION PERIOD AFTER THE CONSTRUCTION OF THE NEW BRIDGE ON ADJACENT SITE		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

The undersigned hereby certifies that the above information is true and correct to the best of his knowledge and belief, and that he is a duly qualified and licensed Professional Engineer in the Province of Ontario.

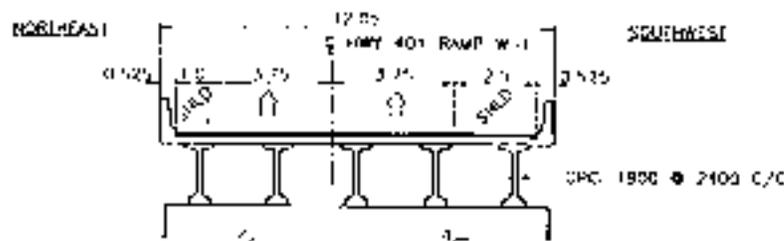


# STRUCTURAL PLANNING SHEET

W.O. NO.	-	CORRIDOR	PC-1	ROUTE	ALIGNMENT ALTERNATIVE 1A
STRUCTURE I.D.	1A-11	SECT. NO.		LOCATION	HWY 401 RAMP W-1 ONGR RAMP S-E
BRIDGE NAME	HIGHWAY 401 RAMP W-1 UNDERPASS			EXISTING	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE BRG
STRUCTURE DESCRIPTION	SINGLE SPAN SPCL 1900 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS			NEW	<input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	36	WIDTH (m)	12.05
STRUCTURAL DEPTH (m)	5.1	SPAN/DEPTH RATIO	7
SKEW ANGLE	50°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,100	ESTIMATED COST (\$)	911,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	REHABILITATION		
	SEMI-INTEGRAL ABUTMENTS DUE TO 50° SKEW		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC	DATE	MAY 2007

1. This drawing is the property of URS and is not to be used for any other project without the written consent of URS. 2. This drawing is not to be used for any other project without the written consent of URS. 3. This drawing is not to be used for any other project without the written consent of URS.





















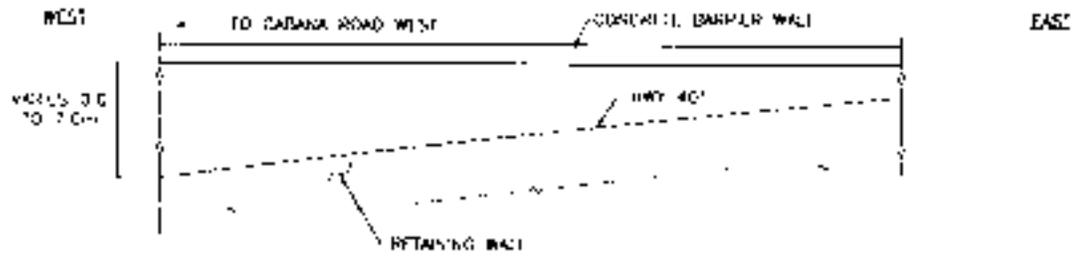




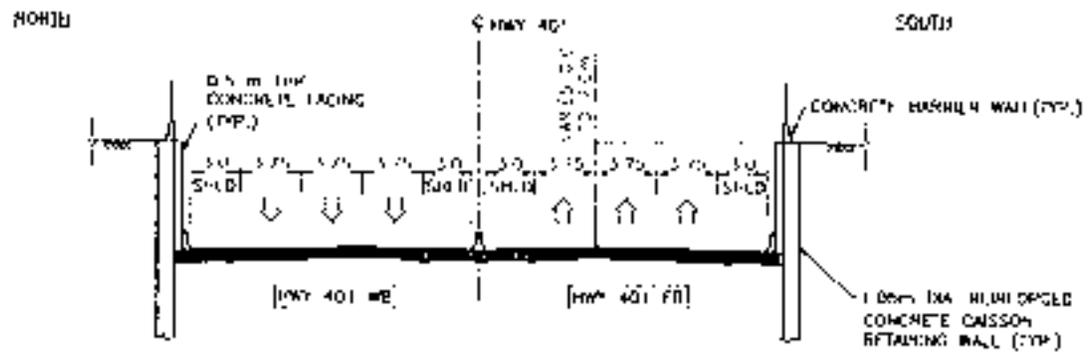


# STRUCTURAL PLANNING SHEET

W.O. NO.	----	CORRIDOR	HC 1	ROUTE	ALGUMENT ALTERNATIVE 1A
STRUCTURE I.D.	1A 40	SITE NO.	---	LOCATION	HWY 401 EAST OF CADANA ROAD WEST / WEST / 7000 LANE
STRUCTURE NAME	APPROACH RAMP OF HWY 401 AT EAST OF CADANA ROAD WEST			<input type="checkbox"/> EXISTING	<input type="checkbox"/> OVERPASS
STRUCTURE DESCRIPTION	ROAD SECTION WITH CASSON RETAINING WALLS OF VARIOUS HEIGHTS			<input checked="" type="checkbox"/> NEW	<input type="checkbox"/> BELOW GRADE HWY UNDERPASS
<input checked="" type="checkbox"/> APPROACH RAMP					



**ELEVATION SKETCH**  
1-400



**CROSS-SECTION SKETCH**  
1-400

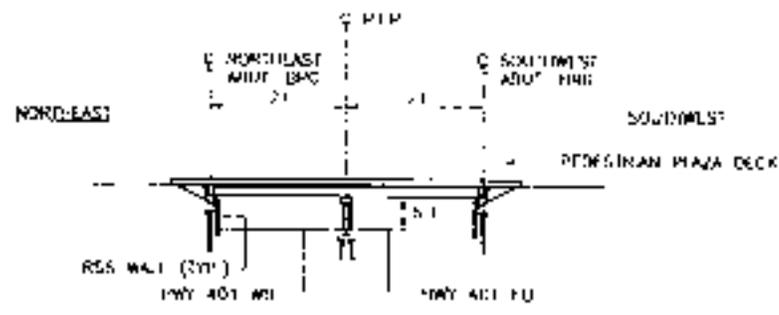
LENGTH (m)	4.0	WIDTH (m)	---
STRUCTURAL DEPTH (m)	---	SPAN/DEPTH RATIO	---
SKREW ANGLE	---	VERTICAL CLEARANCE (m)	---
UNIT PRICE (\$/m)	NEW STRUCTURE REHABILITATION	30,000 ---	ESTIMATED COST (\$) 12,300,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	UHS CANADA INC.	DATE	MAY 2007

CONSULTANT: UHS CANADA INC. (UHS) 1000 SHEPPARD AVENUE EAST, SUITE 100, SCARBOROUGH, ONTARIO M1S 1T7, CANADA  
 TEL: (416) 291-1111 FAX: (416) 291-1112  
 UHS CANADA INC. IS AN EQUAL OPPORTUNITY EMPLOYER.

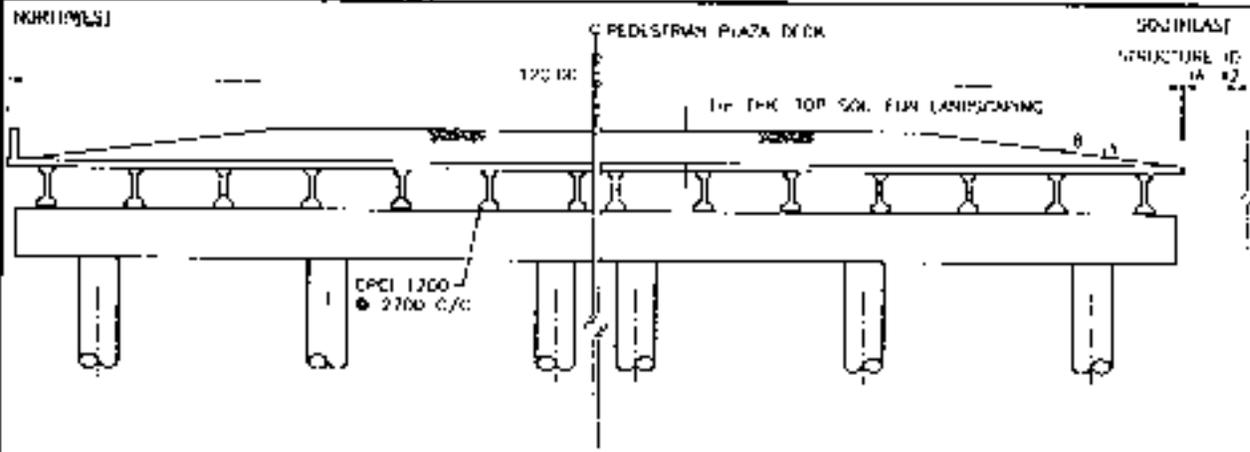


# STRUCTURAL PLANNING SHEET

W.D. NO.		CORRIDOR NO. 1	ROUTE	ALIGNMENT ALTERNATIVE 1A
STRUCTURE I.D.	1A-43	SECT. NO.	LOCATION	HWY 401 NEAR CALANA ROAD WEST / FOOD LANE (PEDESTRIAN PLAZA)
BRIDGE NAME	PEDESTRIAN PLAZA AT CALANA ROAD WEST			
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1200 GIRDERS ON INTEGRAL ABUTMENTS WITH RSS WALL			



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	42	WIDTH (m)	120
STRUCTURAL DEPTH (m)	1.5	SPAN/DEPTH RATIO	14
SKEW ANGLE	0°	VERTICAL CLEARANCE (m)	5.1

UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 7,100	ESTIMATED COST (\$)	10,504,000
	REHABILITATION		

**COMMENTS**  
(SPECIAL CONSTRUCTION & DESIGN FEATURES)

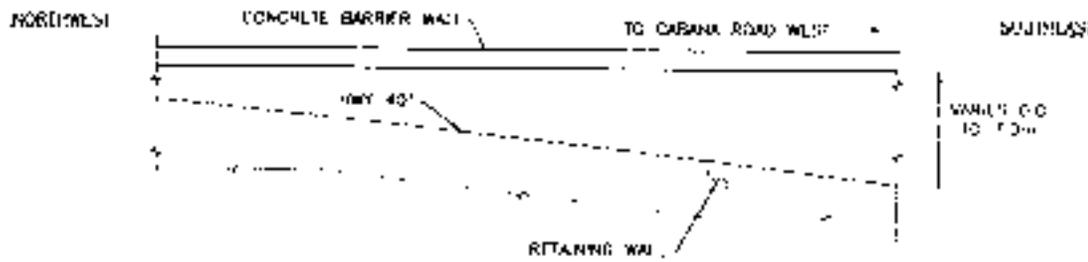
OUTER SURFACE RSS WALL OF ABUTMENTS TO MATCH THE RW OF DEPRESSED HWY 401 ON EITHER SIDE OF THE BRIDGE CROSSING

NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007
-----------------------------------	-----------------	------	----------

DRAWING NO. 1A-43-01 (REV. 01) DATE: 05/01/07  
 PROJECT: PEDESTRIAN PLAZA AT CALANA ROAD WEST  
 CLIENT: URS CANADA INC.

# STRUCTURAL PLANNING SHEET

W.O. NO.	-----	CORRIDOR	HWY 401	ROUTE	ALIGNED ALTERNATIVE 1A
STRUCTURE I.D.	1A 44	SITE NO.	-----	LOCATION	HWY 401 AT WEST OF CABANA ROAD WEST/ TRSD LANE
STRUCTURE NAME	APPROACH RAMP OF HWY 401 AT WEST OF CABANA ROAD WEST			EXISTING	<input type="checkbox"/> COVERPASS <input type="checkbox"/> BELOW GRADE (TR)
STRUCTURE DESCRIPTION	LOCAL SECTION WITH CANYON RETAINING WALLS OF VARIOUS HEIGHTS			NEW	<input checked="" type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP



**ELEVATION SKETCH**  
1/400



**CROSS-SECTION SKETCH**  
1/400

LENGTH (m)	375	WIDTH (m)	-----
STRUCTURAL DEPTH (m)	-----	SPAN/DEPTH RATIO	-----
SKREW ANGLE	-----	VERTICAL CLEARANCE (m)	-----
UNIT PRICE (\$/m)	NEW STRUCTURE REHABILITATION	30,000 -----	ESTIMATED COST (\$) 11,250,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	-----		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC	DATE	MAY 2007

1. Drawn by: [Name] 2. Checked by: [Name] 3. Approved by: [Name] 4. Date: [Date] 5. Scale: [Scale] 6. Project No: [Project No] 7. Drawing No: [Drawing No] 8. Revision: [Revision] 9. Status: [Status] 10. Notes: [Notes]







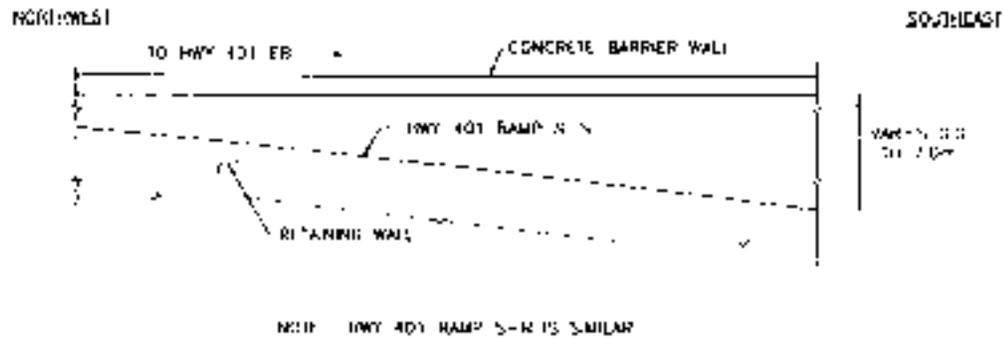




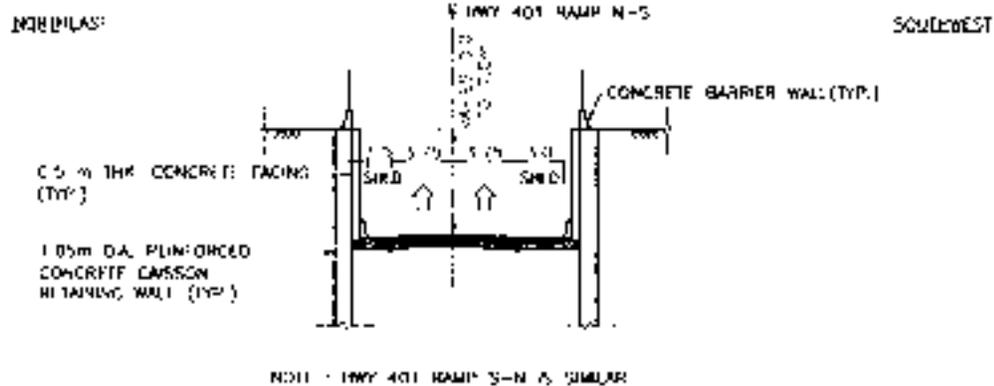


# STRUCTURAL PLANNING SHEET

W.O.N.H.	---	CORRIDOR	HC-F	ROUTE	ALIGNMENT ALTERNATIVE 1A
STRUCTURE I.D.	1A-05	SITE NO.	---	LOCATION	SIDE ROAD RAMP N-S TO HWY 401 AT SOUTH OF HURON CHURCH LINE
STRUCTURE NAME	RAMPS (N-S & S-N) TO HWY 401 AT EAST OF HURON CHURCH LINE		---	<input type="checkbox"/> EXISTING	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE JUMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH GASSON RETAINING WALLS OF VARIOUS HEIGHTS		---	<input checked="" type="checkbox"/> NEW	<input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP



**ELEVATION SKETCH**  
1:400



**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	420	WIDTH (m)	---
STRUCTURAL DEPTH (m)	---	SPAN/DEPTH RATIO	---
SKEW ANGLE	---	VERTICAL CLEARANCE (m)	---
UNIT PRICE (\$/m)	NEW STRUCTURE REHABILITATION	30,000 ---	ESTIMATED COST (\$) 12,600,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	JULY 2007

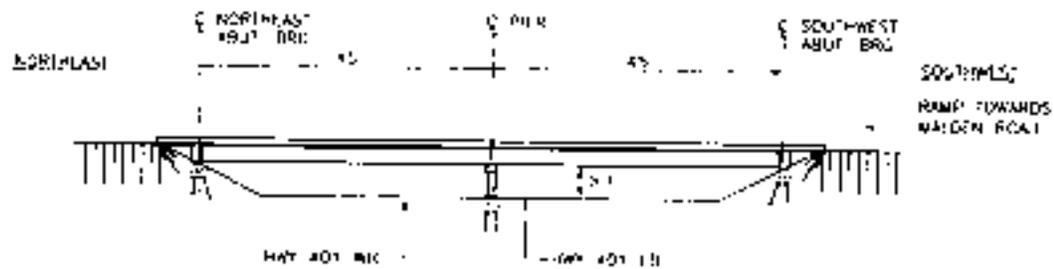
PROJECT: 03010101 - HWY 401 RAMP N-S AT EAST OF HURON CHURCH LINE  
 DRAWING NO.: 1A-05  
 DATE: JULY 2007  
 SCALE: 1:400



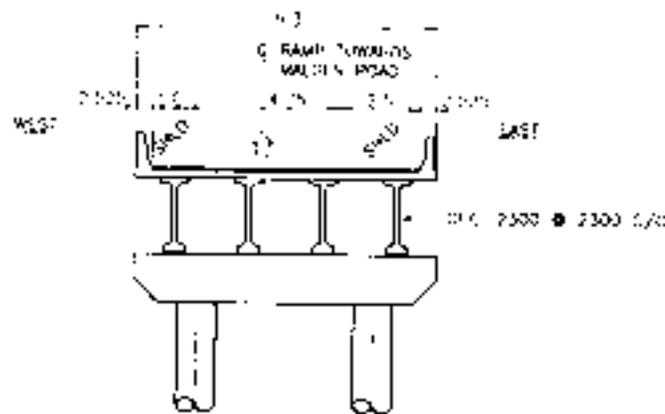


# STRUCTURAL PLANNING SHEET

W.O. NO.		CORRIDOR	NO. 1	ROUTE	ALIGNMENT ALTERNATIVE 1A
STRUCTURE I.D.	7A-97	SITE NO.	---	LOCATION	RAMP TOWARDS WALDEN ROAD ABOVE HWY 401
BRIDGE NAME	RAMP W-E UNDERPASS		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS OVER 2300 GIRDERS WITH SEM-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1/2000



**CROSS-SECTION SKETCH**  
1/2000

LENGTH (m)	90	WIDTH (m)	9.50
STRUCTURAL DEPTH (m)	2.6	SPAN/DEPTH RATIO	9
SKIEW ANGLE	90°	VERTICAL CLEARANCE (m)	5.7

UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE: 2,100	REHABILITATION	---	ESTIMATED COST (\$)	1,700,000
---------------------------------	----------------------	----------------	-----	---------------------	-----------

COMMENTS: SEM-INTEGRAL ABUTMENTS OVER 10% SKEW  
 SPECIAL CONSTRUCTION & DESIGN FEATURES:

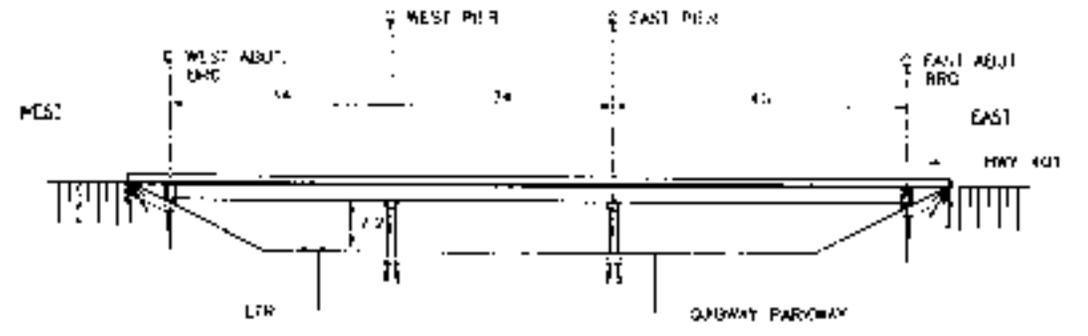
NAME OF CONSULTANT (FOR PLANNING): TRC CANADA INC. DATE: FEBRUARY 2007

11/2006: J. W. ...  
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 11/2008: ...  
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 11/2010: ...  
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 11/2012: ...  
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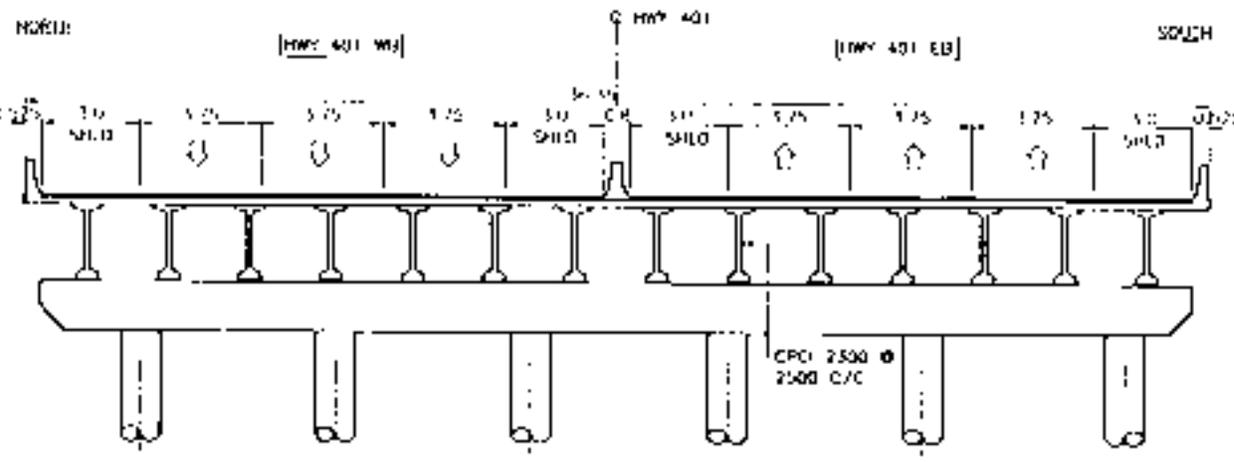


# STRUCTURAL PLANNING SHEET

T.O. NO.		CORRIDOR	HC-1	ROUTE	ALIGNMENT ALTERNATIVE 1A
STRUCTURE I.D.	1A-91	SITE NO.		LOCATION	HWY 401 OVER GURWAY PARKY & ETR TRACK
BRIDGE NAME	LUTWAY / ETR OVERPASS				
STRUCTURE DESCRIPTION	THREE SPANS (2PC 2500 MILLERS) WITH INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	113	WIDTH (m)	36.35
STRUCTURAL DEPTH (m)	2.6	SPAN/DEPTH RATIO	17
SKEW ANGLE	2.0° (GURWAY PARKY) or (ETR)	VERTICAL CLEARANCE (m)	7.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,500 REHABILITATION	ESTIMATED COST (\$)	10,265,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HWY 401 CROSSING ABOVE GURWAY PARKWAY NEAR NEW INTERCHANGE AT EG ROW PARKWAY AND ENDEX TERMINAL, HALLOWAY (ETR) TRACK.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC	DATE	MAY 2007

DRAWN BY: [Name], CHECKED BY: [Name], DATE: [Date], PROJECT NO.: [Number], SHEET NO.: [Number]





## **Appendix C.2**

### **Structural Planning Sheets for Alternative 1B**















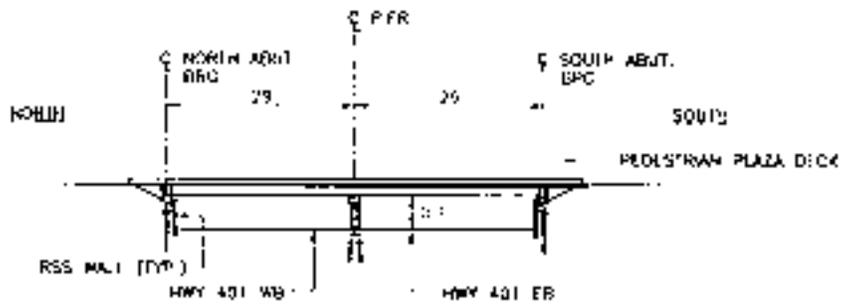




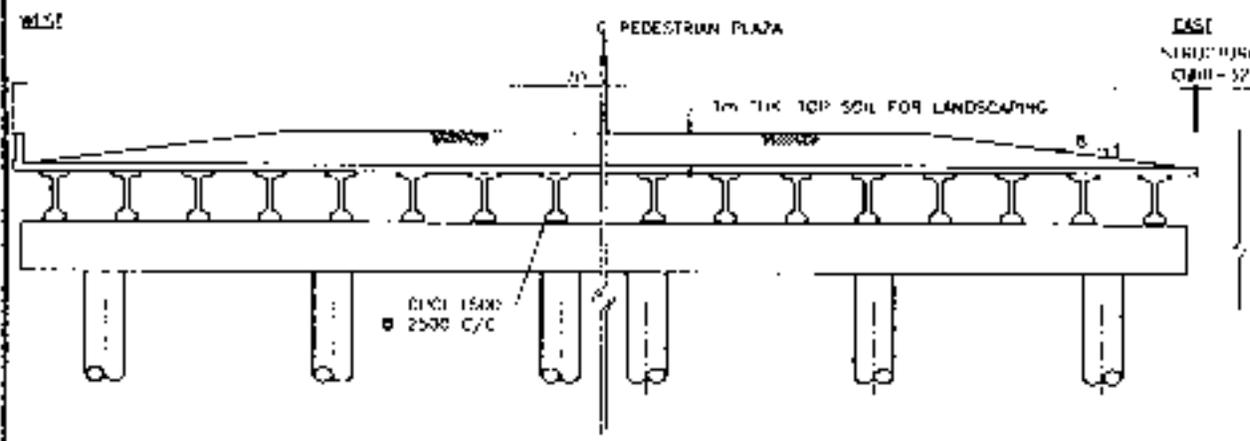


# STRUCTURAL PLANNING SHEET

W.O. NO.	----	CORRIDOR	HC-1	ROUTE	ALIGNMENT ALTERNATIVE (A)
STRUCTURE I.D.	111-33	SITE NO.		LOCATION	PEDESTRIAN DECK PLAZA CROSSING HWY 401 NEAR COLONIAL BLVD
BRIDGE NAME	PEDESTRIAN PLAZA AT COLONIAL BLVD			EXISTING	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY
STRUCTURE DESCRIPTION	TWO SPANS (C/S) 1500 MILLIM. ON INTEGRAL ALIGNMENTS WITH RSS WALL			NEW	<input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	58	WIDTH (m)	70
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	15
SKEW ANGLE	20	VERTICAL CLEARANCE (m)	5.1

UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100	ESTIMATED COST (\$)	1,212,000
	REHABILITATION			

**COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)**  
 OVER SURFACE RSS WALL OF ABUTMENTS TO MATCH THE HW OF DEPRESSED HWY 401 ON EITHER SIDE OF THE BRIDGE CROSSING

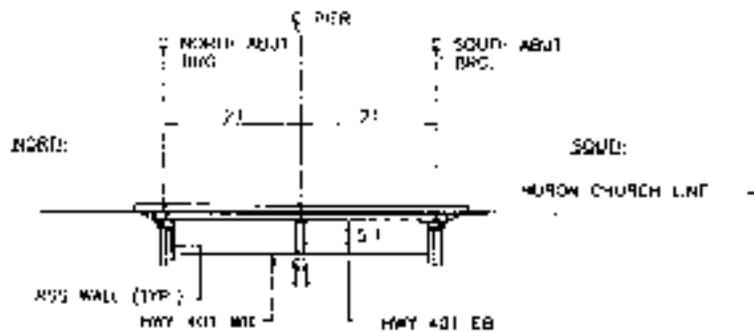
NAME OF CONSULTANT (PRELIMINARY)	URS CANADA INC.	DATE	FEBRUARY 2007
----------------------------------	-----------------	------	---------------

Approved by: [Signature] Date: [Date] [Title] [Company] [Address] [Phone] [Fax] [Email]

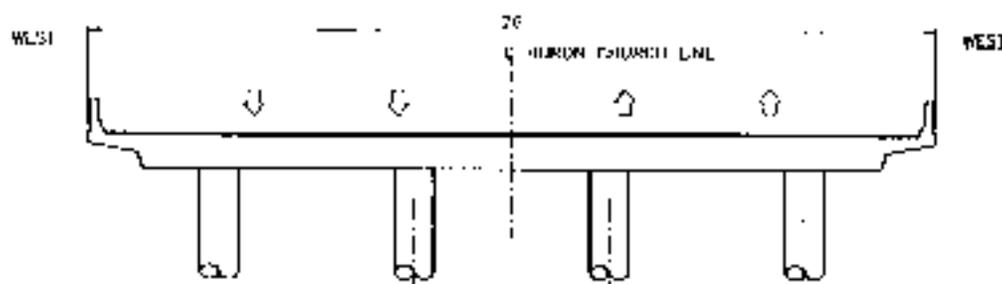


# STRUCTURAL PLANNING SHEET

W.O. NO.	114-37	CORRIDOR	114-1	ROUTE	ALIGNMENT ALTERNATIVE 1B
STRUCTURE ID	114-37	SITE NO.	114-1	LOCATION	HURON CHURCH LINE ROAD ABOVE HWY 401
BRIDGE NAME	HURON CHURCH LINE UNDERPASS			EXISTING	OVERPASS
STRUCTURE DESCRIPTION	TWO SPAN PRECAST-TENSIONED SLAB ON SEMI-INTEGRAL ABUTMENTS WITH RSS WALL			NEW	BELOW GRADE HWY
					UNDERPASS
					APPROACH RAMP



**ELEVATION SKETCH**  
1:1000



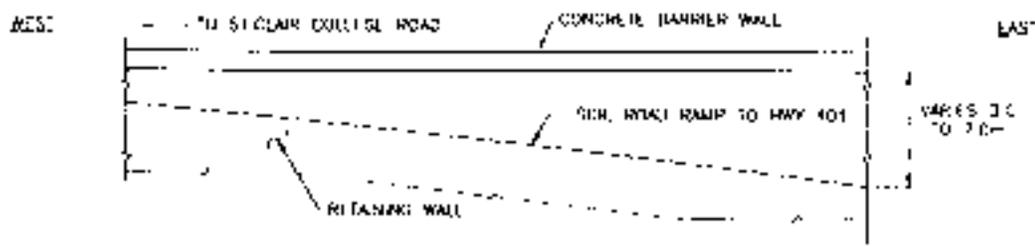
**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	42	WIDTH (m)	26
STRUCTURAL DEPTH (m)	1.1	SPAN/DEPTH RATIO	21
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	7,500	ESTIMATED COST (\$) 2,512,000
	REHAUSULATION		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	APPROX. WIDTH OF 26.0M IS CONSIDERED AS DETAILS OF INFRASTRUCTURE NOT AVAILABLE. OTHER SURFACE RSS WALL OF ABUTMENTS TO MATCH THE RM OF REFERENCED HWY 401 ON EITHER SOF OF THE BRIDGE CROSSING. SEMI-INTEGRAL ABUTMENTS, (ALL LARGE) VARIATION IN SLICK WORD.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	21/06/2007

CONSULTANT: URS CANADA INC. PROJECT NO.: 114-37-11-0001  
 DRAWING NO.: 114-37-11-0001-01  
 DATE: 21/06/2007  
 SCALE: AS SHOWN  
 PROJECT: HURON CHURCH LINE ROAD ABOVE HWY 401 UNDERPASS  
 SHEET NO.: 11 OF 11

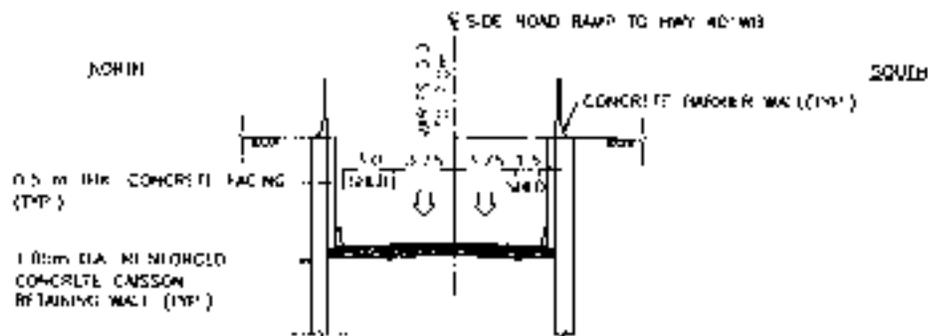
# STRUCTURAL PLANNING SHEET

W.O. NO.	---	CORRIDOR	HC-1	ROUTE	ALIGNMENT ALTERNATIVE TO
STRUCTURE I.D.	10-10	SITE NO.	---	LOCATION	SIDE ROAD RAMP TO HWY 401 NEAR STICLAR COLLEGE ROAD CROSSING (EAST SIDE)
STRUCTURE NAME	SIDE ROAD RAMP (E-W & W-E) ON EAST OF STICLAR COLLEGE ROAD			<input type="checkbox"/> ROOSTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> COVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BRIDGE GRADE HWY <input checked="" type="checkbox"/> APPROXIMATE RAMP
STRUCTURE DESCRIPTION	UNIT SECTION WITH CASSON RETAINING WALLS OF VARIOUS HEIGHTS				



NOTE: SIDE ROAD RAMP (E-W) TO HWY 401WB IS SHOWN.  
 SIDE ROAD RAMP (W-E) TO HWY 401EB IS SIMILAR WITH DIFFERENT ORIENTATION.

**ELEVATION SKETCH**  
1:400



NOTE: SIDE ROAD RAMP (E-W) TO HWY 401WB IS SHOWN.  
 SIDE ROAD RAMP (W-E) TO HWY 401EB IS SIMILAR WITH DIFFERENT ORIENTATION.

**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	560	WIDTH (m)	---
STRUCTURAL DEPTH (m)	---	SPAN/DEPTH RATIO	---
SKIEW ANGLE	---	VERTICAL CLEARANCE (m)	---

UNIT PRICE (\$/m)	NEW STRUCTURE	30,000	ESTIMATED COST (\$)	16,800,000
	REHABILITATION	---		

COMMENTS  
 (SPECIAL CONSTRUCTION & DESIGN FEATURES)

NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007
-----------------------------------	-----------------	------	---------------

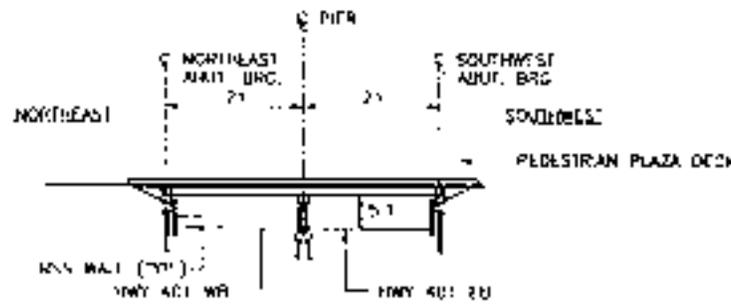
URS CONSULTANTS INC. 100 King Street West, Suite 1000, Toronto, Ontario M5X 1C4, Canada  
 TEL: 416-593-9000 FAX: 416-593-9001  
 URS CANADA INC. 100 King Street West, Suite 1000, Toronto, Ontario M5X 1C4, Canada  
 TEL: 416-593-9000 FAX: 416-593-9001



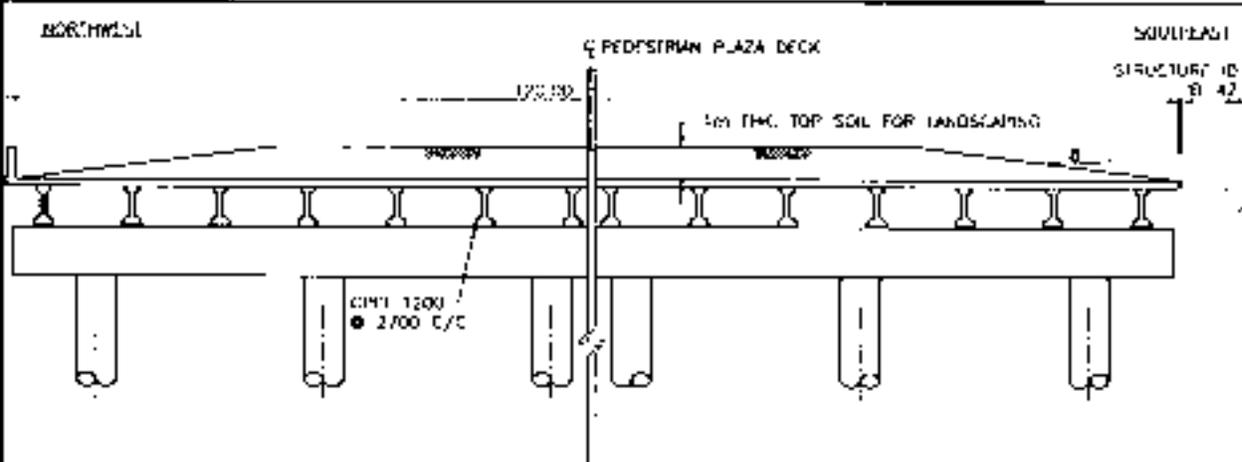


# STRUCTURAL PLANNING SHEET

W.O. NO.	-----	CORRIDOR NO.	-----	ROUTE	ALTERNATE ALTERNATIVE TO
STRUCTURE I.D.	1B-43	SITE NO.	-----	LOCATION	PEDESTRIAN OVER PLAZA CROSSING HWY 401 NEAR TODD LANE
BRIDGE NAME	PEDESTRIAN PLAZA AT CABANA ROAD WEST				<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS (CPI) 1200 CIRCLES ON INTERNAL ABUTMENTS WITH RSS WALLS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	42	WIDTH (m)	120
STRUCTURAL DEPTH (m)	1.5	SPAN/DEPTH RATIO	14
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1

UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100	ESTIMATED COST (\$)	10,504,000
	REHABILITATION	-----		

COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES): OUTER SURFACE OF RSS WALL OF ABUTMENTS TO MATCH THE NW SKI DEPRIVED HWY 401 ON EITHER SIDE OF THE BRIDGE CROSSING

NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007
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DRAWING NO. 1B-43-01 (REV. 02) DATE: 02/01/07  
 PROJECT: PEDESTRIAN PLAZA AT CABANA ROAD WEST  
 SHEET NO. 1 OF 1

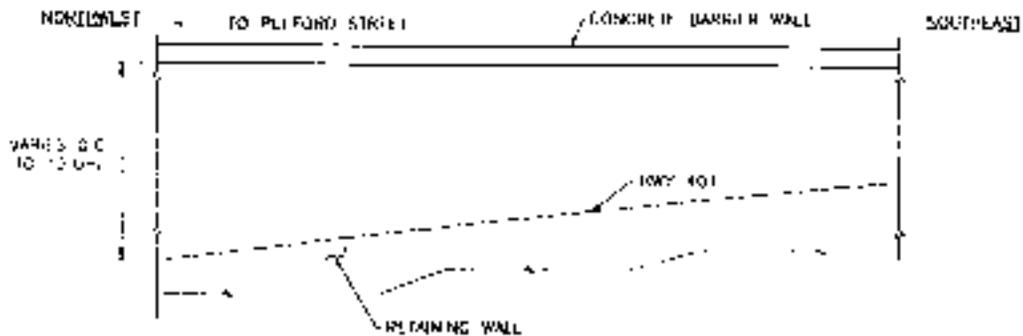






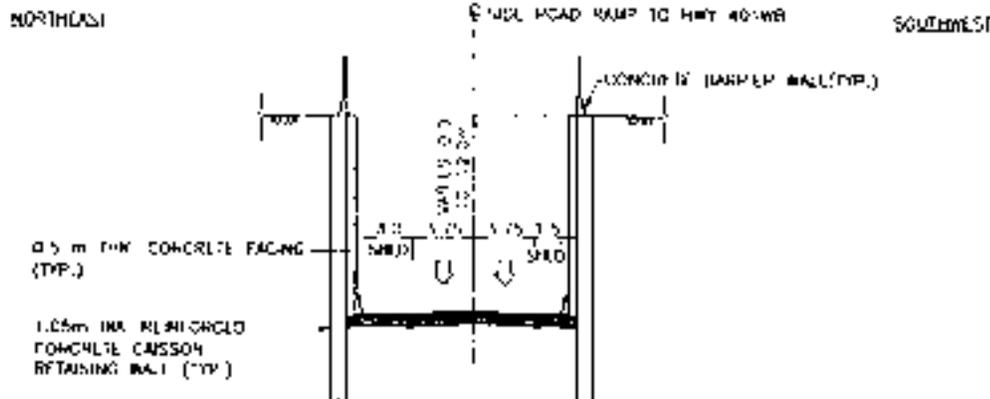
# STRUCTURAL PLANNING SHEET

W.O. NO.	--	CORRIDOR	HC 1	ROUTE	ALIGNMENT ALTERNATIVE 1E
STRUCTURE I.D.	III-50	SITE NO.	----	LOCATION	SIDE ROAD RAMP TO HWY 401 EAST SIDE OF PULFORD STREET
STRUCTURE NAME	SIDE ROAD RAMP (S-N & N-S) ON EAST OF PULFORD STREET			EXISTING	OVERPASS
STRUCTURE DESCRIPTION	BOX SECTION WITH CAISSON RETAINING WALLS OF VARIABLE HEIGHTS			NEW	BELOW GRADE HWY UNDERPASS
					APPROACH RAMP



NOTE: SIDE ROAD RAMP (S-N) TO HWY 401 (N-S) IS SHOWN  
SIDE ROAD RAMP (N-S) TO HWY 401 (S-N) IS SIMILAR WITH DIFFERENT ORIENTATION

**ELEVATION SKETCH**  
1:400



NOTE: SIDE ROAD RAMP (S-N) TO HWY 401 (N-S) IS SHOWN  
SIDE ROAD RAMP (N-S) TO HWY 401 (S-N) IS SIMILAR WITH DIFFERENT ORIENTATION

**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	670	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	--
SKIEW ANGLE	----	VERTICAL CLEARANCE (m)	----

UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$)	30,150,000
	REHABILITATION	----		

COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)  
THE BOX SECTION OF THESE RAMP ARE DEEPER AS THE BELOW GRADE HWY 401 UNDER ADJACENT TURKEY CREEK IS DEEPER

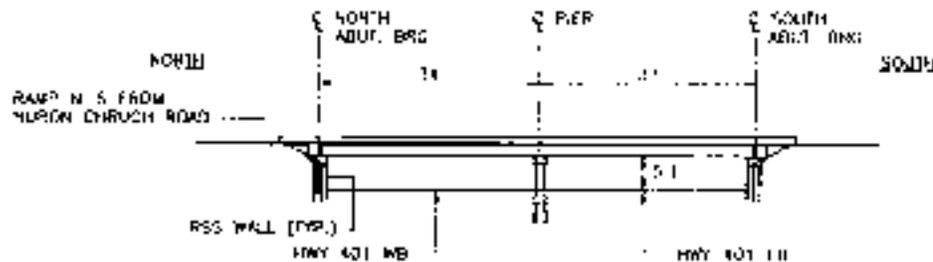
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007
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PULFORD ST. (S-N) TO HWY 401 (N-S) IS SHOWN  
 SIDE ROAD RAMP (N-S) TO HWY 401 (S-N) IS SIMILAR WITH DIFFERENT ORIENTATION  
 1:400

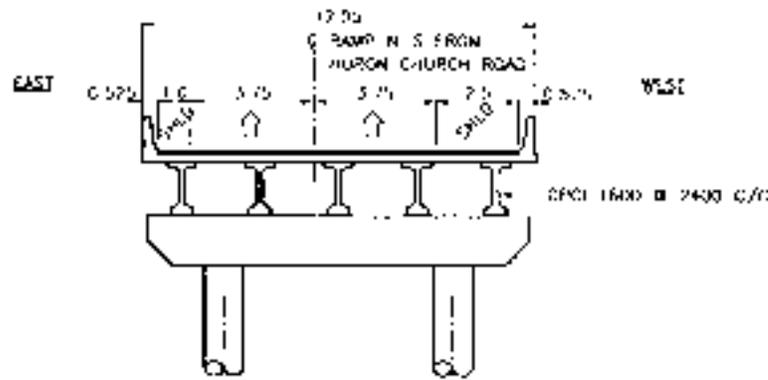


# STRUCTURAL PLANNING SHEET

W.O NO	----	CORRIDOR	HC T	ROUTE	ALIGNMENT ALTERNATIVE TO
STRUCTURE I.D.	1B-02	SITE NO.	---	LOCATION	HURON CHURCH ROAD RAMP N-S ONLY HWY 401
BRIDGE NAME	HURON CHURCH ROAD RAMP N-S UNDERPASS			<input type="checkbox"/> EXISTING	<input type="checkbox"/> OVERPASS <input type="checkbox"/> RAMP GRADE HWY
STRUCTURE DESCRIPTION	TWO SPANS CONC T-BOX GIRDERS ON SEMI-INTEGRAL ABUTMENTS WITH RSS WALL			<input checked="" type="checkbox"/> NEW	<input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	67	WIDTH (m)	12.05
STRUCTURAL DEPTH (m)	1.9	SPAN/DEPTH RATIO	18
SKW ANGLE	40°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,700	ESTIMATED COST (\$) 1,776,000
	REHABILITATION	---	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	OUTER SURFACE OF RSS WALL ON ABUTMENTS TO MATCH THE HW OF DEPRESSED HWY 401 ON EITHER SIDE OF THE BRIDGE CROSSING SEMI-INTEGRAL ABUTMENTS DUE TO 40° SKW		
NAME OF CONSULTANT (FOR PLANNING)	TRIS CANADA INC.	DATE	FEBRUARY 2007

1:20000 2:10000 3:5000 4:2500 5:1250 6:625 7:312.5 8:156.25 9:78.125 10:39.0625 11:19.53125 12:9.765625 13:4.8828125 14:2.44140625 15:1.220703125 16:0.6103515625 17:0.30517578125 18:0.152587890625 19:0.0762939453125 20:0.03814697265625 21:0.019073486328125 22:0.0095367431640625 23:0.00476837158203125 24:0.002384185791015625 25:0.0011920928955078125 26:0.00059604644775390625 27:0.000298023223876953125 28:0.0001490116119384765625 29:0.00007450580596923828125 30:0.000037252902984619140625 31:0.0000186264514923095703125 32:0.00000931322574615478515625 33:0.000004656612873077392578125 34:0.0000023283064365386962890625 35:0.00000116415321826934814453125 36:0.000000582076609134674072265625 37:0.0000002910383045673370361328125 38:0.00000014551915228366851806640625 39:0.000000072759576141834259033203125 40:0.0000000363797880709171295166015625 41:0.00000001818989403545856475830078125 42:0.000000009094947017729282379150390625 43:0.0000000045474735088646411895751953125 44:0.00000000227373675443232059478759765625 45:0.000000001136868377216160297393798828125 46:0.0000000005684341886080801486968994140625 47:0.00000000028421709430404007434844970703125 48:0.000000000142108547152020037174224853515625 49:0.0000000000710542735760100185871124267578125 50:0.00000000003552713678800500929355621337890625 51:0.000000000017763568394002504646778106689453125 52:0.0000000000088817841970012523233890533447265625 53:0.0000000000044408920985006261616945266723828125 54:0.00000000000222044604925031308084726333619140625 55:0.000000000001110223024625156540413166678095703125 56:0.0000000000005551115123125782702070833390478515625 57:0.000000000000277555756156289135103541669523928125 58:0.0000000000001387778780781445675517708347619640625 59:0.0000000000000693889390390722837758854173809765625 60:0.0000000000000346944695195361418879427086937890625 61:0.0000000000000173472347597680709439713543469453125 62:0.0000000000000086736173798840354719856771732265625 63:0.0000000000000043368086899420177359928388869453125 64:0.000000000000002168404344971008867996419442703125 65:0.0000000000000010842021724855044339982097221065625 66:0.0000000000000005421010862427522169991048610328125 67:0.000000000000000271050543121376108499552430640625 68:0.0000000000000001355252715606880542497762153203125 69:0.00000000000000006776263578034402712488810766015625 70:0.000000000000000033881317890172013562444053830078125 71:0.00000000000000001694065894508600678122220269140625 72:0.0000000000000000084703294725430033906111013453125 73:0.00000000000000000423516473627150169530555067265625 74:0.00000000000000000211758236813575084765277533640625 75:0.000000000000000001058791184067875423827887668203125 76:0.00000000000000000052939559203393771191394383340625 77:0.000000000000000000264697796016968855956971916703125 78:0.0000000000000000001323488980084844279784859583515625 79:0.00000000000000000006617444900424221398924297917578125 80:0.000000000000000000033087224502121106994621489587890625 81:0.0000000000000000000165436122510605534973107447939453125 82:0.0000000000000000000082718061255302767486553723969765625 83:0.0000000000000000000041359030627651383743276861983828125 84:0.000000000000000000002067951531382569187163843096940625 85:0.0000000000000000000010339757656912845935819215484703125 86:0.00000000000000000000051698788284564229679096077423515625 87:0.000000000000000000000258493941422821148395480387117578125 88:0.00000000000000000000012924697071141057419774019355890625 89:0.000000000000000000000064623485355705287098870096779453125 90:0.000000000000000000000032311742677852643549435048389765625 91:0.0000000000000000000000161558713389263217747175241948828125 92:0.00000000000000000000000807793566946316088735876209740625 93:0.000000000000000000000004038967834731554443679381048703125 94:0.0000000000000000000000020194839173657772218396905243515625 95:0.00000000000000000000000100974195868288861091984526217578125 96:0.0000000000000000000000005048709793414443054559726310890625 97:0.00000000000000000000000025243548967072215272798631554453125 98:0.000000000000000000000000126217744835361076363993157772265625 99:0.00000000000000000000000006310887241768053818199657888640625 100:0.000000000000000000000000031554436208840269090992789443203125

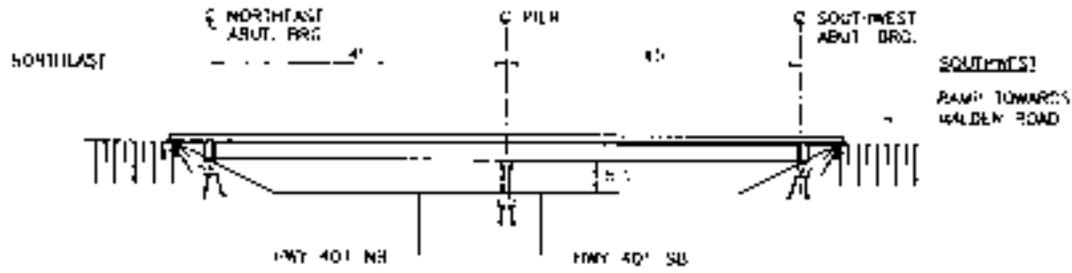




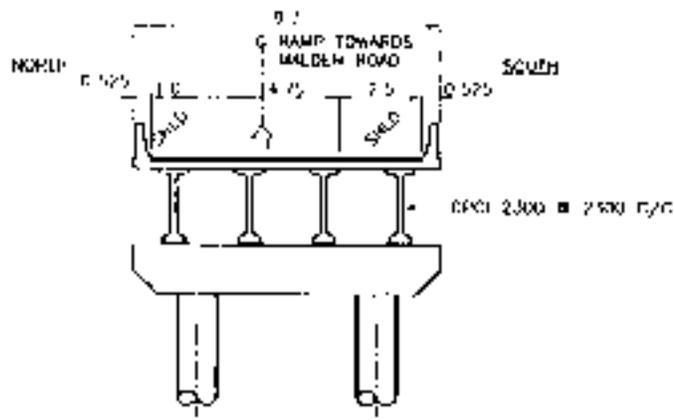


# STRUCTURAL PLANNING SHEET

W.O. NO.		CORRIDOR	HC-1	ROUTE	ALIGNMENT ALTERNATIVE 18
STRUCTURE I.D.	10-91	SITE NO.	----	LOCATION	RAMP TOWARDS WALDEN ROAD A/K/A HWY 40'
BRIDGE NAME	RAMP W L UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> JOYRHPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE BRTY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 2300 GIRDERS WITH SEMI-UNIFORM ALIGNMENTS				



ELEVATION SKETCH  
1/1000



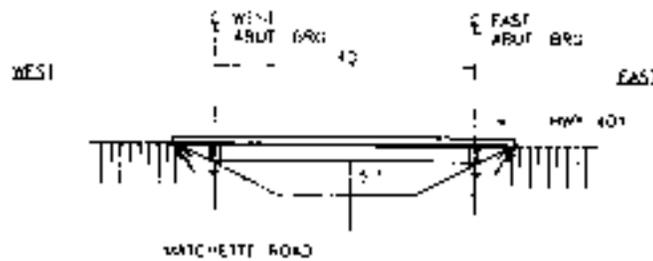
CROSS-SECTION SKETCH  
1/200

LENGTH (m)	99	WIDTH (m)	9.30
STRUCTURAL DEPTH (m)	2.6	SPAN/DEPTH RATIO	17
SKEW ANGLE	55'	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE REINFORCEMENT	2,100	ESTIMATED COST (\$) 1,758,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	SEMI-UNIFORM ALIGNMENTS DUE TO 55' SKEW		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC	DATE	FEBRUARY 2007

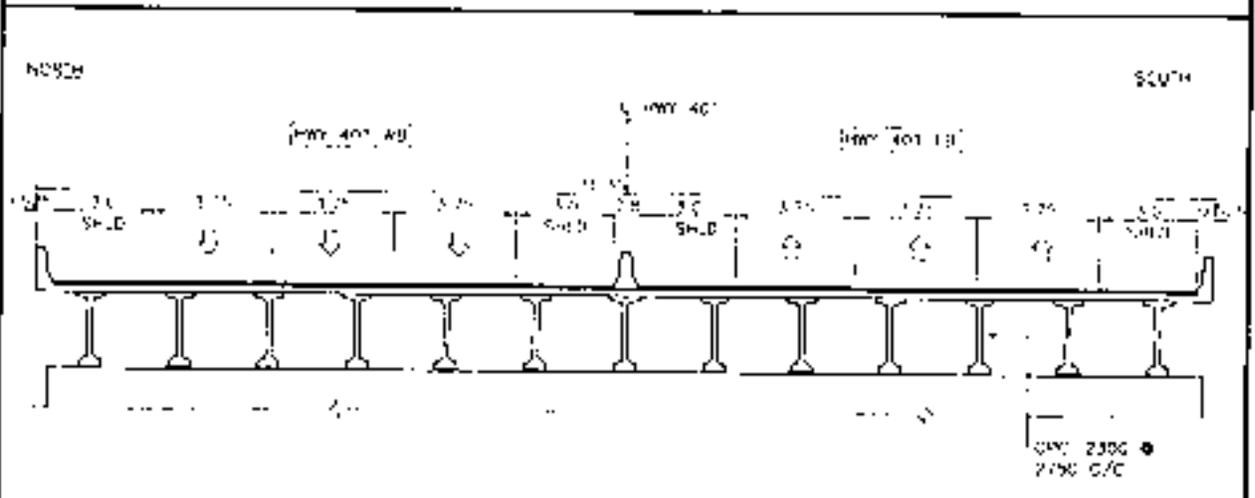
PLANS: C:\Users\j\Documents\Projects\10-91\10-91-01\10-91-01-01\10-91-01-01-01.dwg  
 DATE: 10/11/06  
 DRAWN BY: J  
 CHECKED BY: J

# STRUCTURAL PLANNING SHEET

W.O. NO.		CORRIDOR	HC	ROUTE	ALIGNMENT ALTERNATIVE 1B
STRUCTURE I.D.	14-99	SITE NO.		LOCATION	HWY 401 MATCHETT RD
BRIDGE NAME	MATCHETT ROAD OVERPASS		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGL SPAN CPC 2300 GRDINS WITH PULCHAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



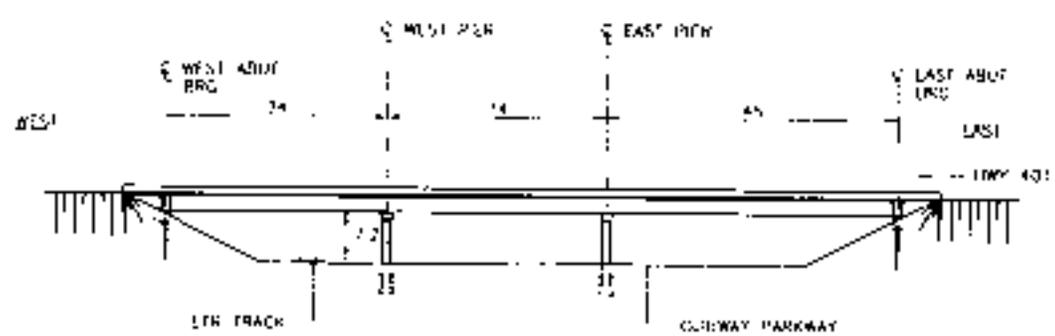
**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	40	WIDTH (m)	36.25
STRUCTURAL DEPTH (m)	2.6	SPAN/DEPTH RATIO	15
SKEW ANGLE	20°	VERTICAL CLEARANCE (m)	1.5
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE REHABILITATION	2000	ESTIMATED COST (\$) 2575000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HWY 401 CRASSES ABOVE MATCHETT ROAD ON NEW, HOWEVER HOLDING FOR UP 200' OVER 5' C&G DERIVED		
NAME OF CONSULTANT (FOR PLANNING)	JRS CANADA INC	DATE	MAY 1997

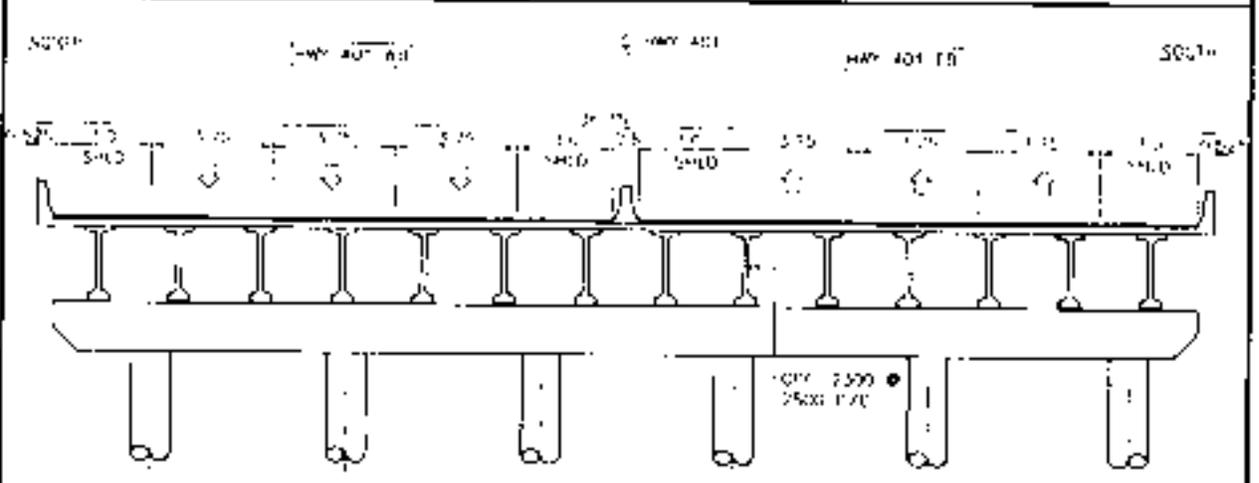
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# STRUCTURAL PLANNING SHEET

W.O. NO.	---	CORRIDOR	401-1	ROUTE	ALIGNED ALTERNATIVE 10
STRUCTURE I.D.	18-93	SITE NO.	---	LOCATION	Hwy 401 OVER GUYANA HWY & CTR TRACK
BRIDGE NAME	OUBWAY/CTR OVERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> RISEN GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	THREE SPANS @ 2500 GROUERS WITH NECESSARY ALIGNMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	115	WIDTH (m)	36.25
STRUCTURAL DEPTH (m)	2.6	SPAN/DEPTH RATIO	57
SKREW ANGLE	27° (OUBWAY 140°) 0° (CTR)	VERTICAL CLEARANCE (m)	7.1

UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2500	ESTIMATED COST (\$)	16,269,000
	REHABILITATION			

COMMENTS: (SPECIAL CONSTRUCTION & DESIGN FEATURES)  
 HWY 401 CROSSING AHEAD OF GUYANA HWY NEAR NEW STATION. AT 17 ROW PARKWAY AS 1  
 LANE 1 SERVICE RAILWAY 2 (NO) TRACK.

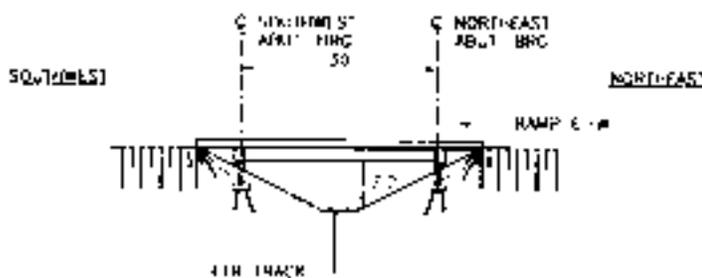
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007
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URS CONSULTANTS INC. 1000 SHEPPARD AVENUE EAST, SUITE 100, SCARBOROUGH, ONTARIO M1S 1W7, CANADA  
 TEL: (416) 291-4000 FAX: (416) 291-4001  
 URS CANADA INC. 1000 SHEPPARD AVENUE EAST, SUITE 100, SCARBOROUGH, ONTARIO M1S 1W7, CANADA  
 TEL: (416) 291-4000 FAX: (416) 291-4001

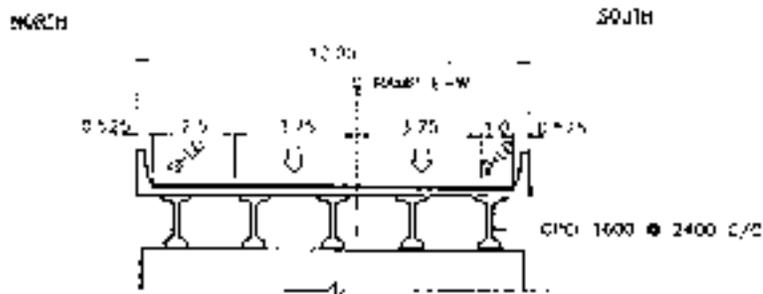


# STRUCTURAL PLANNING SHEET

W.O. NO.	10-95	CORRIDOR	HC 1	ROUTE	ALIGNMENT ALTERNATIVE 1B
STRUCTURE I.D.	10-95	SITE NO.		LOCATION	E-W RAMP OVER ETR TRACK
BRIDGE NAME	RAMP E-W AT ETR OVERPASS				
STRUCTURE DESCRIPTION	SINGLE SPAN CIRC 1600 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	30	WIDTH (m)	12.00
STRUCTURAL DEPTH (m)	1.9	SPAN/DEPTH RATIO	10
SKIEW ANGLE	35	VERTICAL CLEARANCE (m)	7.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,500 REHABILITATION	ESTIMATED COST (\$)	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	E-W RAMP CROSSING ABOVE EXISTING TERMINAL RAILWAY (ETR) TRACK ON SAWY HOLLOW RECTANGULAR INVERT DECK IS CONSIDERED - SEMI-INTEGRAL ABUTMENTS DUE TO 35° SKIEW		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC	DATE	FEBRUARY 2007

DRAWING BY: J. S. [unreadable] CHECKED BY: [unreadable] DATE: [unreadable]



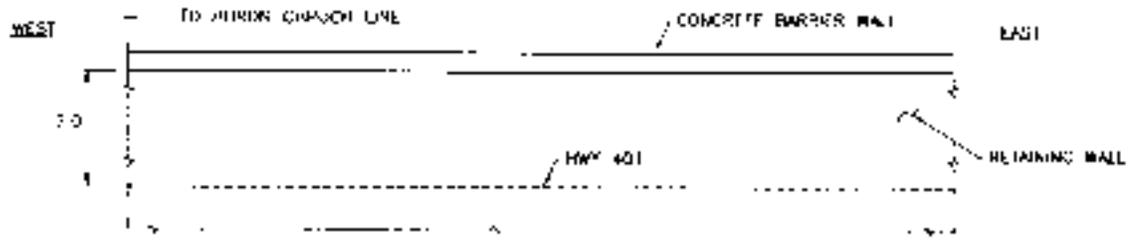




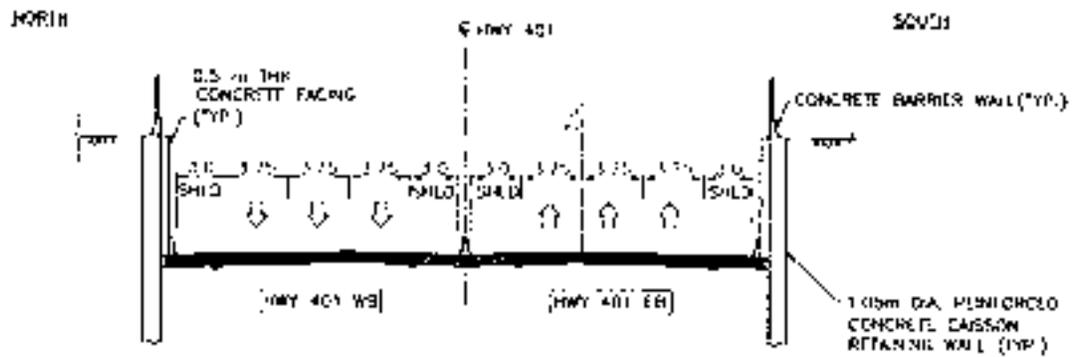


# STRUCTURAL PLANNING SHEET

W.O. NO.	----	CORRIDOR	HC 1	ROUTE	ALIGNMENT ALTERNATIVE 1B
STRUCTURE I.D.	RI-212	SITE NO.	----	LOCATION	HWY 401 AT WEST OF ST. LAM COLLEGE ROAD
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF ST. LAM			EXISTING	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY
STRUCTURE DESCRIPTION	COLLEGE ROAD			NEW	<input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CASSON RETAINING WALLS OF UNIFORM HEIGHTS				



**ELEVATION SKETCH**  
1-400



**CROSS-SECTION SKETCH**  
1-400

LENGTH (m)	4.75	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKREW ANGLE	--	VERTICAL CLEARANCE (m)	--

UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$)	14,125,000
	REHABILITATION	----		

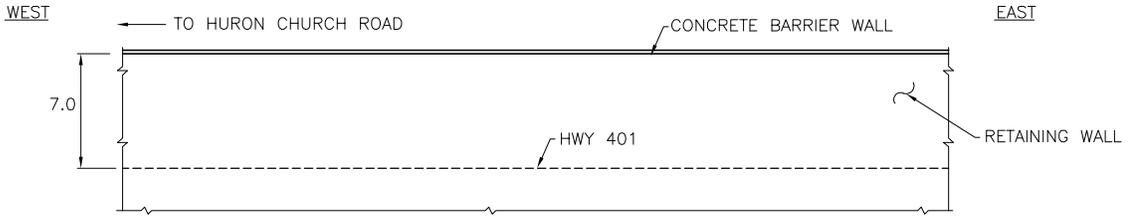
COMMENTS  
(SPECIAL CONSTRUCTION & DESIGN FEATURES)

NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007
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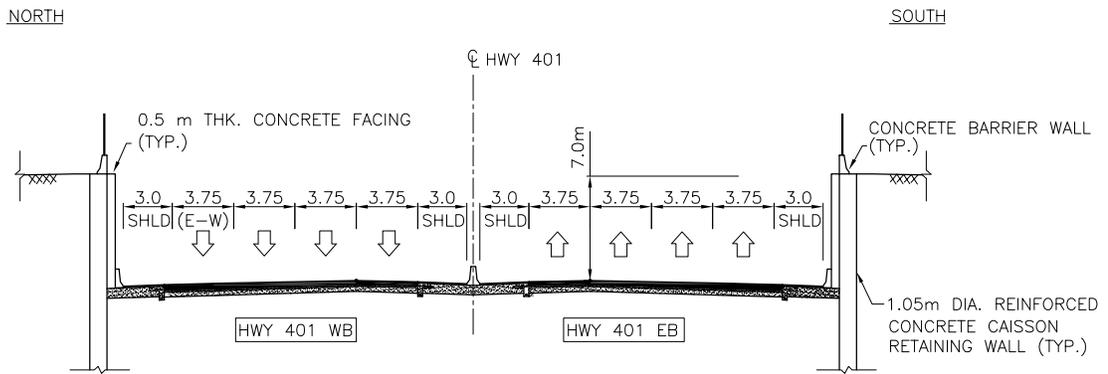
1. This drawing is the property of URS Canada Inc. and is not to be used for any other project without the written consent of URS Canada Inc. 2. This drawing is not to be used for any other project without the written consent of URS Canada Inc. 3. This drawing is not to be used for any other project without the written consent of URS Canada Inc.

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 1B
STRUCTURE I.D.	1B-213	SITE NO.	----	LOCATION	HWY 401 AT WEST OF ST.CLAIR COLLEGE ROAD
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF ST.CLAIR COLLEGE ROAD			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF UNIFORM HEIGHTS				



**ELEVATION SKETCH**  
1:400



**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	250	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- WIDER PORTION OF BELOW GRADE HWY 401 WITH RAMP E-W ON ONE SIDE.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

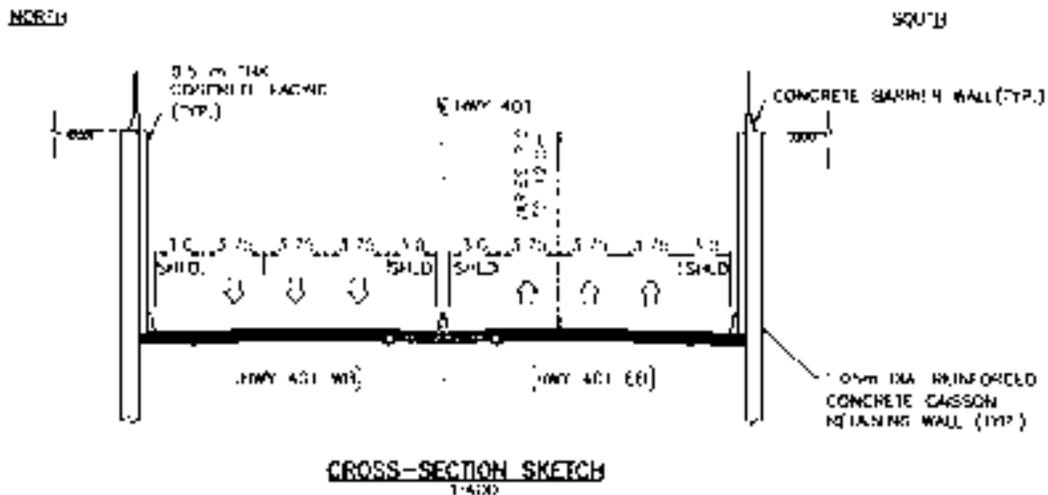
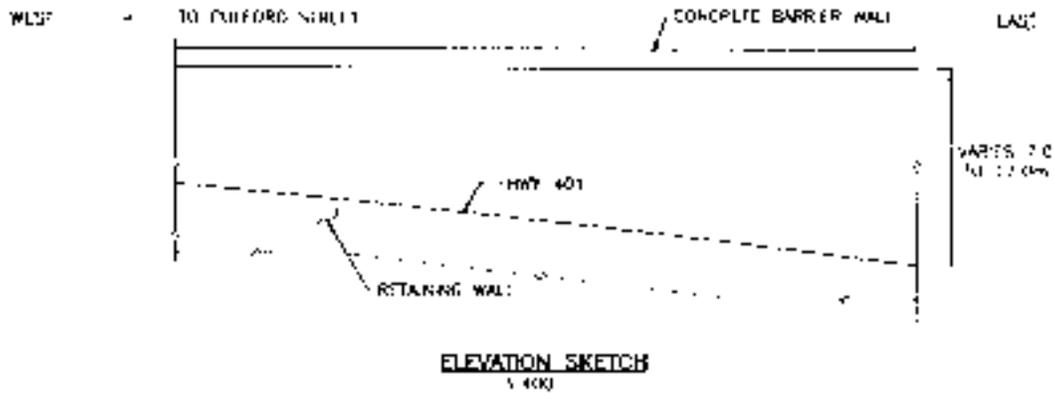
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 PLOTDATE: Jun 04, 2008 11:43am





# STRUCTURAL PLANNING SHEET

W.O. NO.		CORRIDOR	HC 1	ROUTE	ALIGNMENT ALTERNATIVE 1B
STRUCTURE I.D.	10 221	SITE NO.	----	LOCATION	HWY 401 AT WEST OF CALANA ROAD WEST / EXIST LANE
STRUCTURE NAME	IN-LANE GRADE HWY 401 AT WEST OF TOWN LAKE			<input type="checkbox"/> EXISTING	<input type="checkbox"/> OVERPASS
STRUCTURE DESCRIPTION	IN-LANE SECTION WITH CASSON RETAINING WALLS OF VARIABLE HEIGHTS			<input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> UNDER GRADE WITH APPROACH RAMP



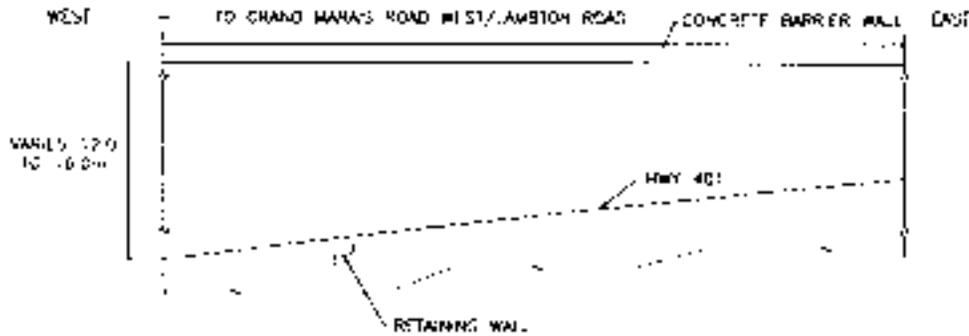
LENGTH (m)	400	WIDTH (m)	---
STRUCTURAL DEPTH (m)	---	SPAN/DEPTH RATIO	---
SKW ANGLE	---	VERTICAL CLEARANCE (m)	---
UNIT PRICE (\$/m)	NEW STRUCTURE : 65,000 REHABILITATION : ---	ESTIMATED COST (\$)	26,000,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	DEFER FINISH OF BELOW GRADE HWY 401		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

PROJECT: 20060118\_PlanStruct\_PlanStruct\_PlanStruct\_PlanStruct\_PlanStruct\_PlanStruct\_PlanStruct\_PlanStruct\_PlanStruct\_PlanStruct  
 DRAWING NO.: 10 221  
 DATE: 02/01/07



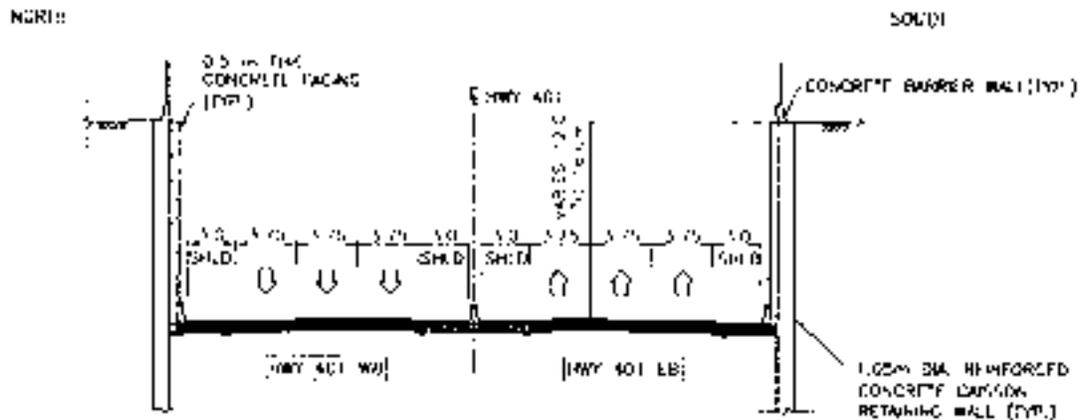
# STRUCTURAL PLANNING SHEET

W.O. NO.	----	CORRIDOR	HC 1	ROUTE	ALTERNATE ALTERNATIVE III
STRUCTURE I.D.	10 225	SITE NO.	----	LOCATION	HWY 401 AT WEST OF FULFORD STREET
STRUCTURE NAME	BLOW CHASE HWY 401 BETWEEN FULFORD STREET AND GRAND MARAS ROAD WEST/LAMBTON ROAD			EXISTING	OVERPASS
STRUCTURE DESCRIPTION	BOAT SECTION WITH GANSON RETAINING WALLS OF VARIABLE HEIGHTS			NEW	UNDERPASS
					APPROACH RAMP



**ELEVATION SKETCH**

1:400



**CROSS-SECTION SKETCH**

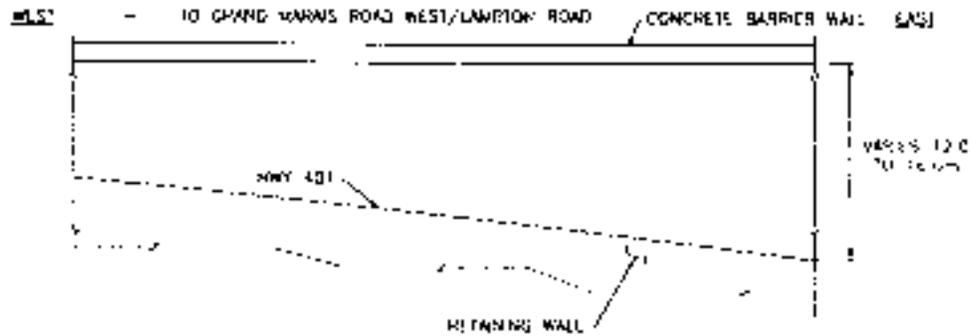
1:400

LENGTH (m)	375	WIDTH (m)	
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	75,000	ESTIMATED COST (\$) 24,375,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- DEEPER PORTION OF BLOW CHASE HWY 401		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

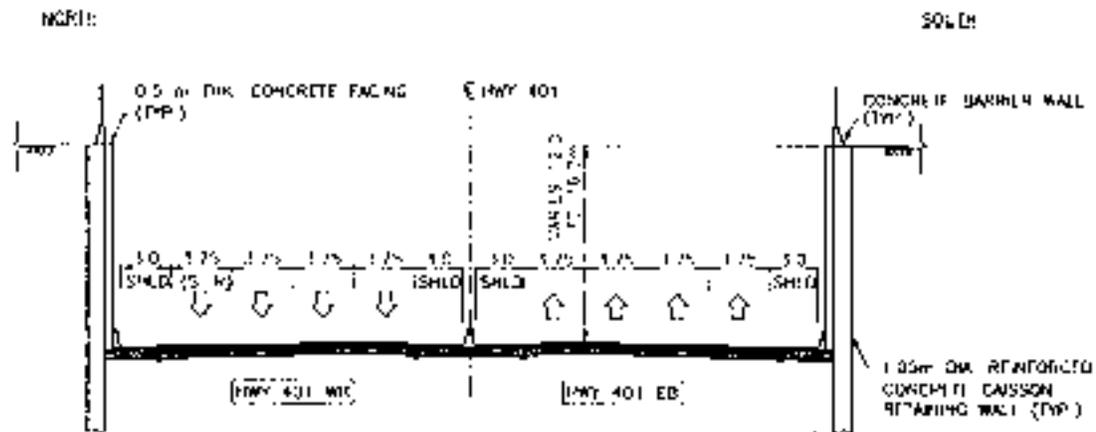
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# STRUCTURAL PLANNING SHEET

W.D. NO.	---	CORRIDOR	HC 1	ROUTE	ALIGNMENT ALTERNATIVE 1B
STRUCTURE I.D.	1B-224	SITE NO.		LOCATION	HWY 401 AT EAST OF GRAND MARSH ROAD WEST/LAMBTON ROAD
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF GRAND MARSH ROAD WEST/LAMBTON ROAD			EXISTING	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	ROAD SECTION WITH CASSON RETAINING WALLS OF VARIABLE HEIGHTS				



**ELEVATION SKETCH**  
1:400



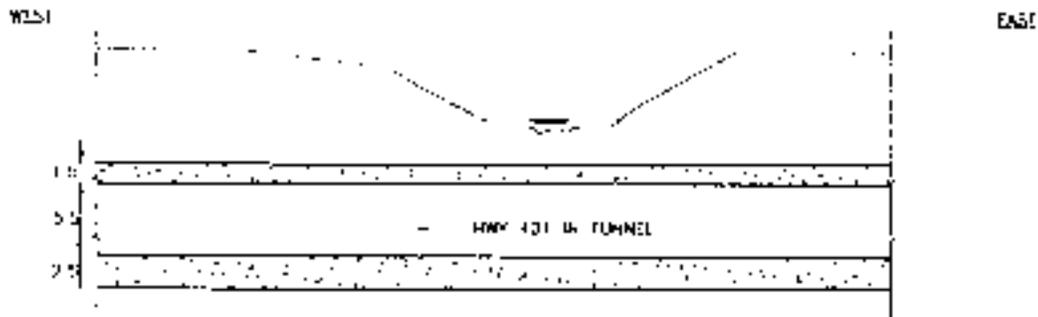
**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	125	WIDTH (m)	---
STRUCTURAL DEPTH (m)	---	SPAN/DEPTH RATIO	
SKREW ANGLE	---	VERTICAL CLEARANCE (m)	---
UNIT PRICE (\$/m)	NEW STRUCTURE 75,000 REHABILITATION ---	ESTIMATED COST (\$)	9,375,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	MID-PORTION OF BELOW GRADE HWY 401 DEEPEN WITH RAMP 1-4 ON ONE SIDE		
NAME OF CONSULTANT (FOR PLANNING)	LRS CANADA INC.	DATE	FEBRUARY 2007

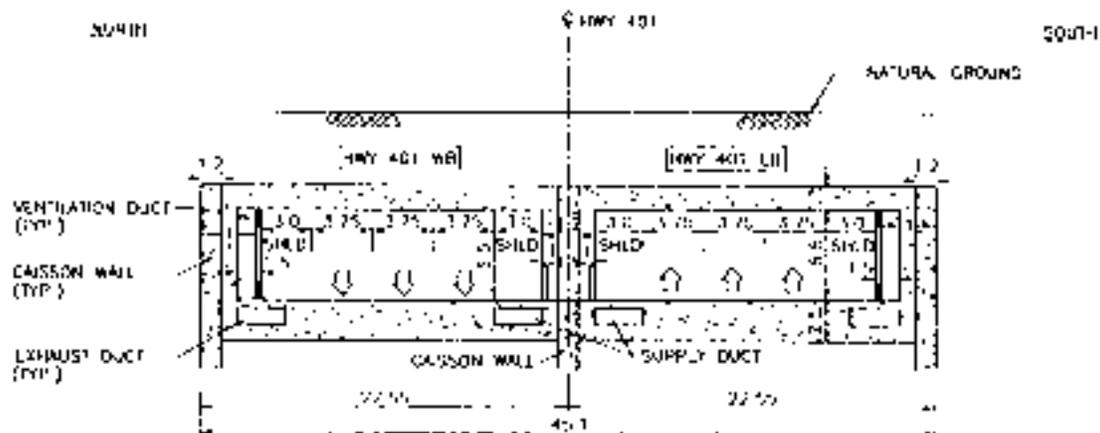
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.  
 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
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 9. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE SPECIFIED.  
 10. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE SPECIFIED.

# STRUCTURAL PLANNING SHEET

W.O. NO.		CORRIDOR	HC	ROUTE	ALIGNMENT ALTERNATIVE III
STRUCTURE I.D.	10-225	SITE NO.		LOCATION	HWY 401 CROSSING UNDER TURKEY CREEK
BRIDGE NAME	HIGHWAY 401 TUNNEL UNDER TURKEY CREEK			LI FINISHING	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CUT AND COVER TUNNEL				



ELEVATION SKETCH  
1:500



CROSS-SECTION SKETCH  
1:500

LENGTH (m)	100	WIDTH (m)	--
STRUCTURAL DEPTH (m)	--	SPAN/DEPTH RATIO	--
SKIEW ANGLE		VERTICAL CLEARANCE (m)	--
UNIT PRICE (\$/m)	NEW STRUCTURE REHABILITATION	215,000	ESTIMATED COST (\$) 21,500,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

Prepared by: URS | 100 King Street West, Suite 1000 | Toronto, Ontario M5X 1C4 | Canada  
 Project No.: 10-225 | Drawing No.: SP-10-225-01 | Date: February 2007







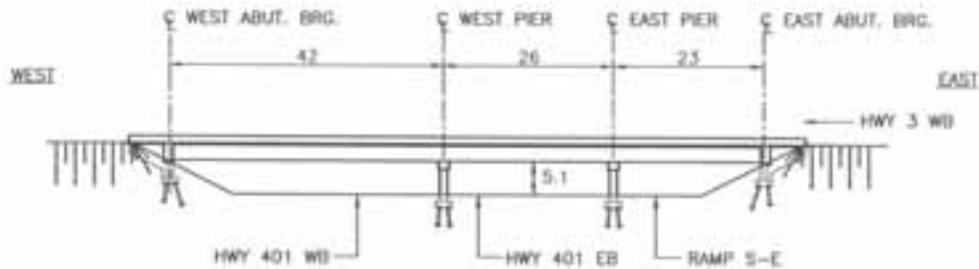
# Appendix C.3

## Structural Planning Sheets for Alternative 2A

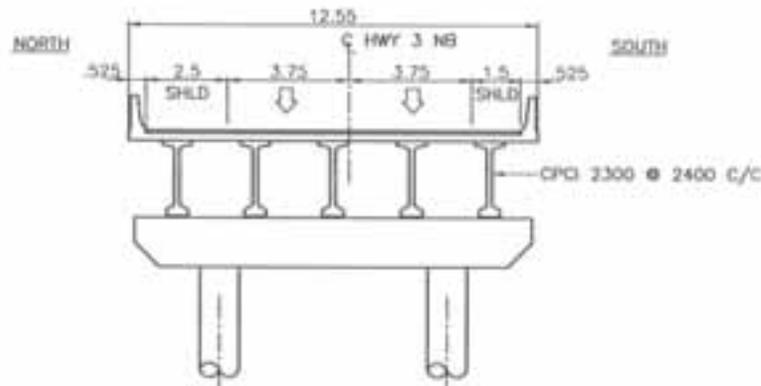


## STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-10	SITE NO.	----	LOCATION	HWY 3 OVER HWY 401
BRIDGE NAME	HIGHWAY 3 WB UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	THREE SPANS CPC 2300 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



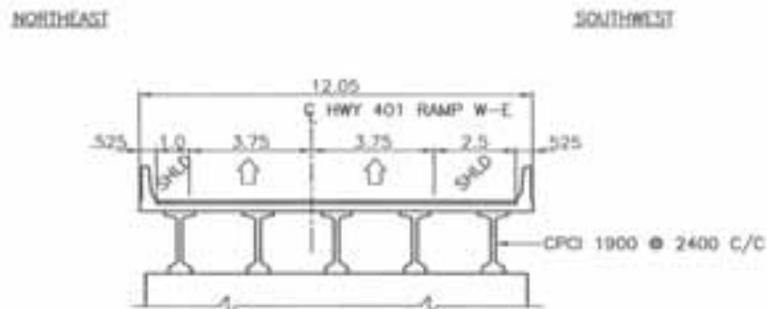
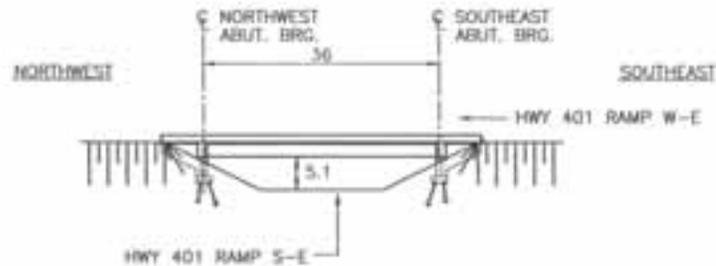
**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	91	WIDTH (m)	12.55	
STRUCTURAL DEPTH (m)	2.6	SPAN/DEPTH RATIO	16	
SKEW ANGLE	40'	VERTICAL CLEARANCE (m)	5.1	
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100	ESTIMATED COST (\$)	2,398,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	SEMI-INTEGRAL ABUTMENTS DUE TO 40' SKEW			
NAME OF CONSULTANT (FOR PLANNING)		URS CANADA INC.	DATE	FEBRUARY 2007

P:\Drawings\2007\Structural\2007\Planning Sheet\my\_structural\2007\bridge-40-47-1.dwg 18-02-2007 10:00:00 AM 18-Jul-07 10:00:00 AM

## STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-11	SITE NO.	----	LOCATION	HWY 401 RAMP W-E OVER RAMP S-E
BRIDGE NAME	HIGHWAY 401 RAMP W-E UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPC 1900 GRIDERS WITH SEMI-INTEGRAL ABUTMENTS				

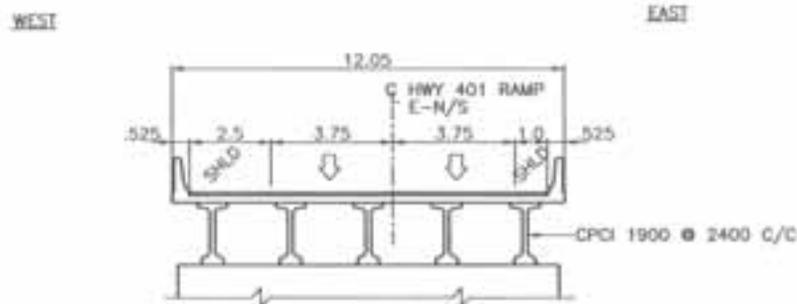
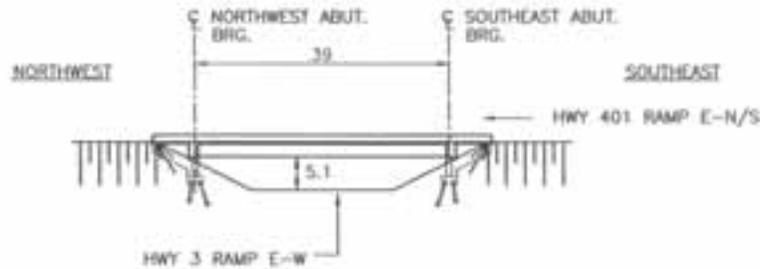


LENGTH (m)	36	WIDTH (m)	12.05
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	16
SKEW ANGLE	50°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100	ESTIMATED COST (\$) 911,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	SEMI-INTEGRAL ABUTMENT DUE TO 50° SKEW.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

P:\060201\060201\_14\_Structural\060201\_Planing\_Sheet.dwg    User: mrculmead, 2007-02-07 10:48:40    18-2027020201.dwg    2007-02-07 10:48:40

## STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-12	SITE NO.	----	LOCATION	HWY 401 RAMP E-N/S OVER HWY 3 RAMP E-W
BRIDGE NAME	HIGHWAY 401 RAMP E-N/S OVERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPCI 1900 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				

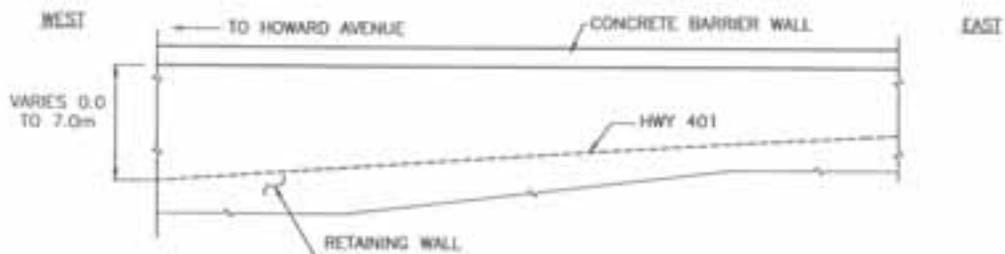


LENGTH (m)	39	WIDTH (m)	12.05
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	18
SKEW ANGLE	50°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	SEMI-INTEGRAL ABUTMENT DUE TO 50° SKEW.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

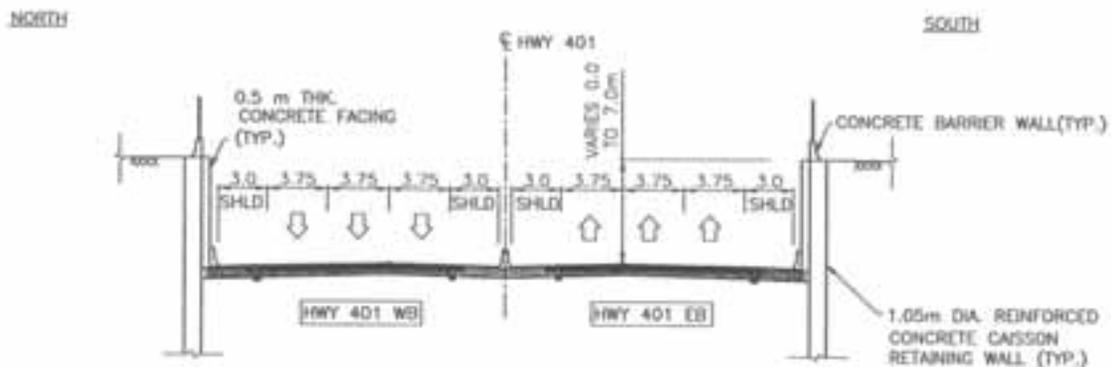


## STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-20	SITE NO.	----	LOCATION	HWY 401 AT EAST OF HOWARD AVENUE
STRUCTURE NAME	APPROACH RAMP OF HWY 401 AT EAST OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF VARIABLE HEIGHTS				



**ELEVATION SKETCH**  
1:400

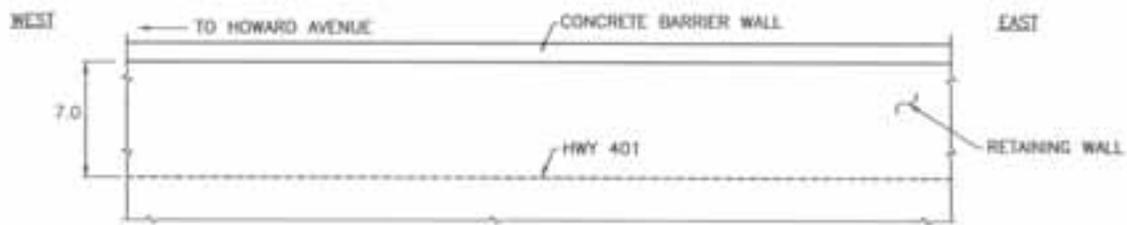


**CROSS-SECTION SKETCH**  
1:400

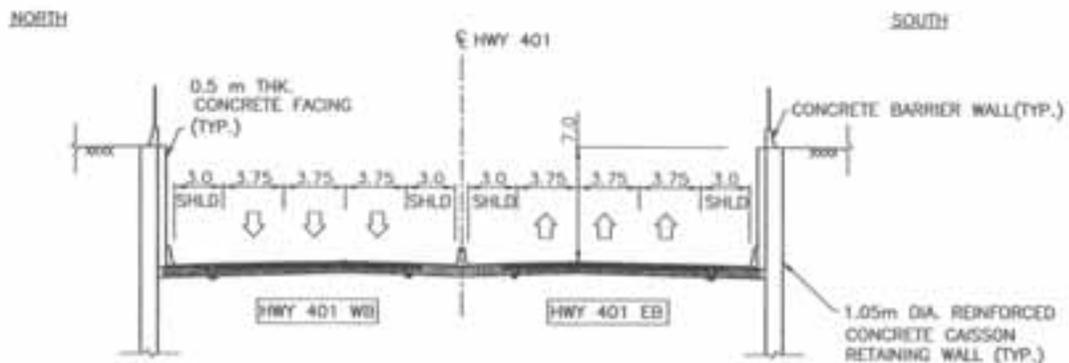
LENGTH (m)	500	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	30,000	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

## STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-21	SITE NO.	----	LOCATION	HWY 401 UNDER HOWARD AVENUE
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF UNIFORM HEIGHTS				



**ELEVATION SKETCH**  
1:400



**CROSS-SECTION SKETCH**  
1:400

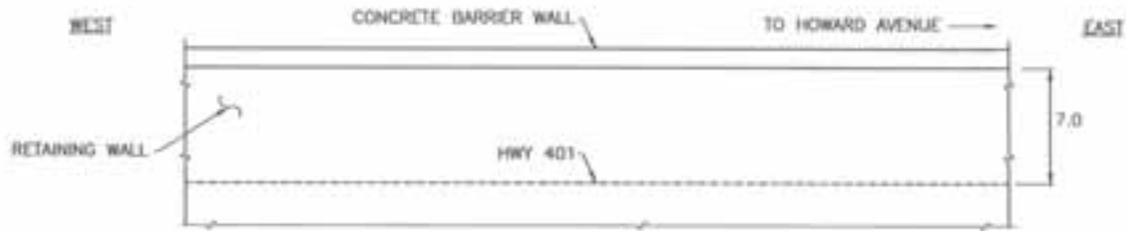
LENGTH (m)	90	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$)    4,050,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

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 PLOT DATE: 02/07/07 10:30:57 AM



## STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-23	SITE NO.	----	LOCATION	HWY 401 UNDER HOWARD AVENUE
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST SIDE OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF UNIFORM HEIGHTS				



LENGTH (m)	70	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$) 3,150,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

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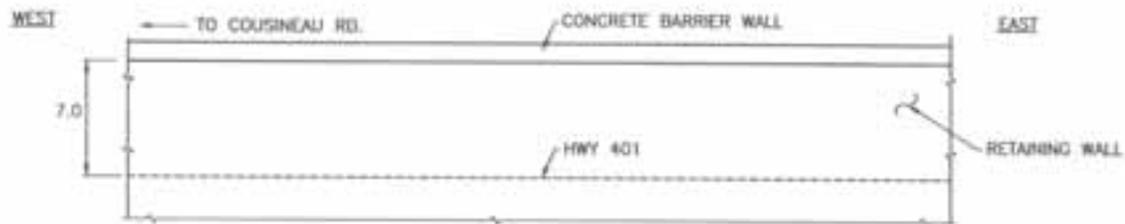




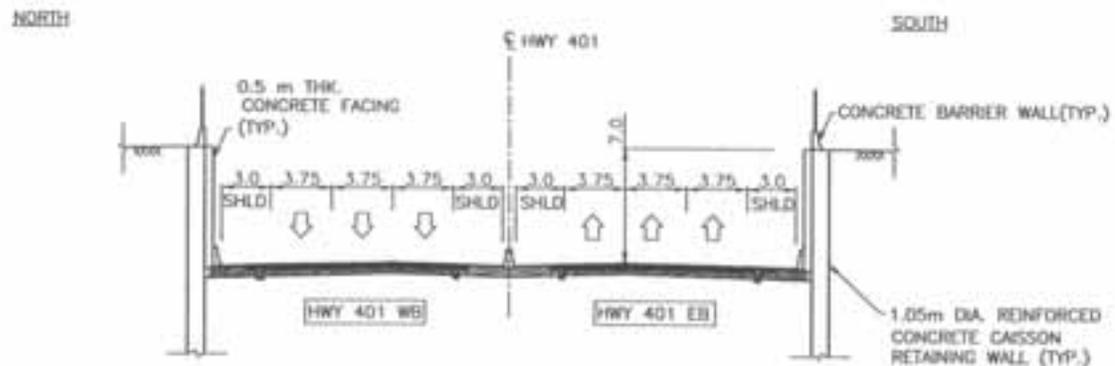


# STRUCTURAL PLANNING SHEET

W.O.NO.	-----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-31	SITE NO.	-----	LOCATION	HWY 401 NEAR COUSINEAU ROAD
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF COUSINEAU ROAD		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF UNIFORM HEIGHTS				



**ELEVATION SKETCH**  
1:400



**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	65	WIDTH (m)	-----
STRUCTURAL DEPTH (m)	-----	SPAN/DEPTH RATIO	-----
SKEW ANGLE	-----	VERTICAL CLEARANCE (m)	-----
UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$)
	REHABILITATION	-----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	-----		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

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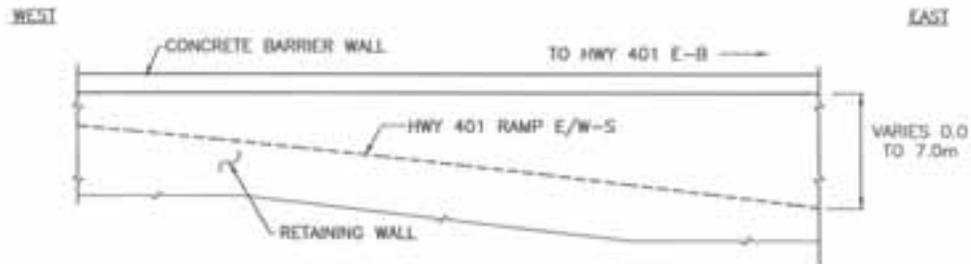




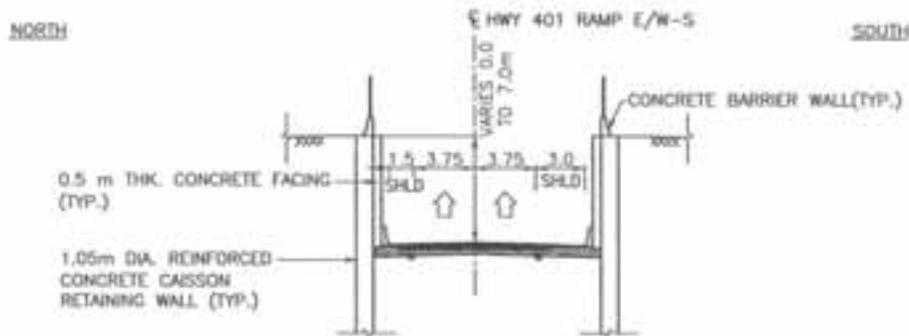


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-48	SITE NO.	----	LOCATION	SIDE ROAD RAMP E-W TO HWY 401 AT EAST OF CABANA ROAD WEST
STRUCTURE NAME	APPROACH RAMP OF HWY 401 RAMP E/W-S AT EAST OF CABANA ROAD WEST		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF VARIABLE HEIGHTS				



**ELEVATION SKETCH**  
1:400

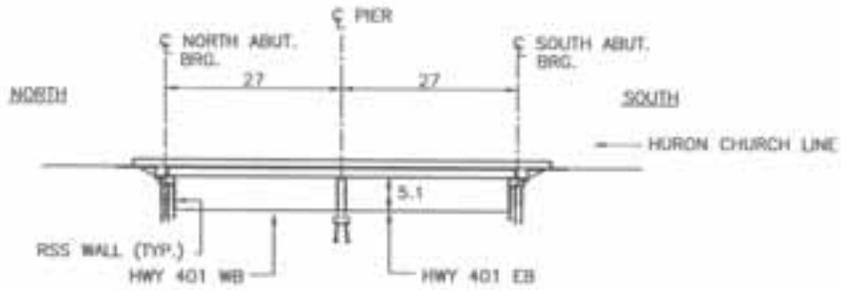


**CROSS-SECTION SKETCH**  
1:400

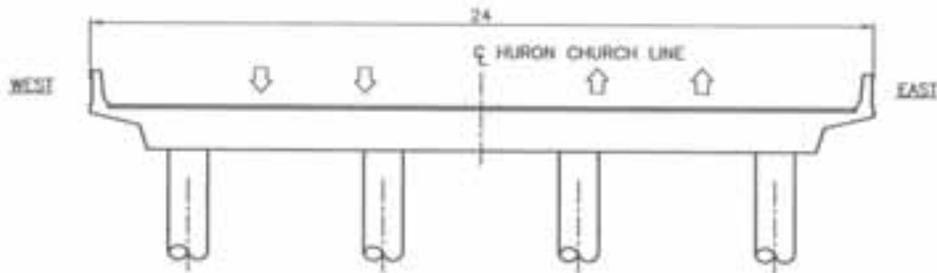
LENGTH (m)	340	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	30,000	ESTIMATED COST (\$) 10,200,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

## STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-49	SITE NO.	----	LOCATION	HURON CHURCH LINE ABOVE HWY 401
BRIDGE NAME	HURON CHURCH LINE UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPAN POST-TENSIONED ON SEMI-INTEGRAL ABUTMENT WITH RSS WALLS.				



**ELEVATION SKETCH**  
1:1000



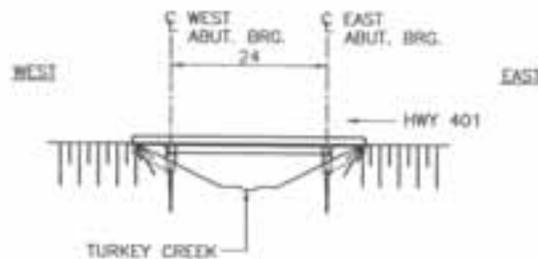
**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	54	WIDTH (m)	24
STRUCTURAL DEPTH (m)	1.25	SPAN/DEPTH RATIO	22
SKEW ANGLE	15°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,300	ESTIMATED COST (\$) 2,981,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	<ul style="list-style-type: none"> <li>- AVERAGE WIDTH OF HURON CHURCH LINE CROSS ROAD CONSIDERED.</li> <li>- SEMI-INTEGRAL ABUTMENTS DUE TO LARGE VARIATION IN DECK WIDTHS</li> </ul>		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

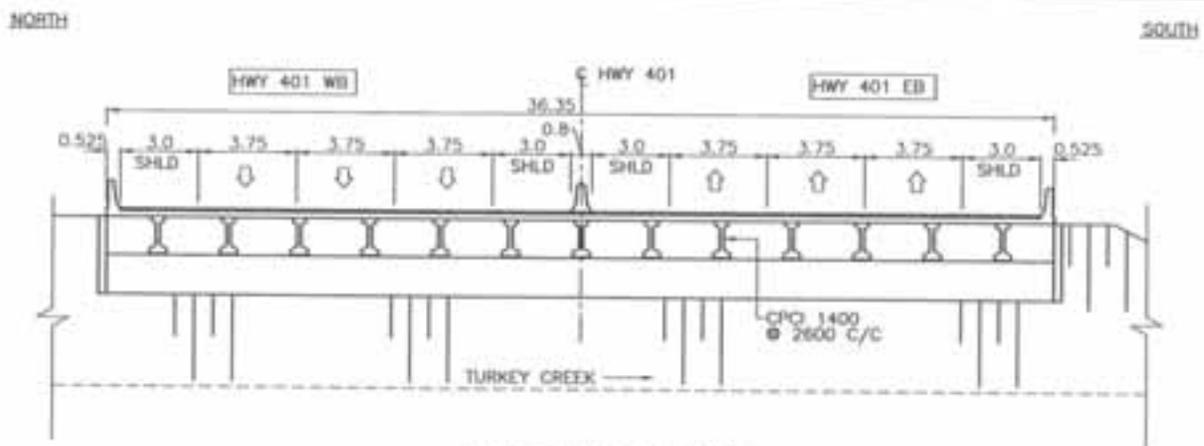
PLANNING SHEET: 2A-49 (Huron Church Line Underpass) - 2007 - 11/28/07  
 PROJECT NO.: 2A-49 (Huron Church Line Underpass) - 2007 - 11/28/07  
 DATE: 14-02-2007

# STRUCTURAL PLANNING SHEET

W.O.NO.	-----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-50	SITE NO.	-----	LOCATION	HWY 401 CROSSING OVER TURKEY CREEK
BRIDGE TYPE	TURKEY CREEK BRIDGE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPC 1400 GIRDERS WITH INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

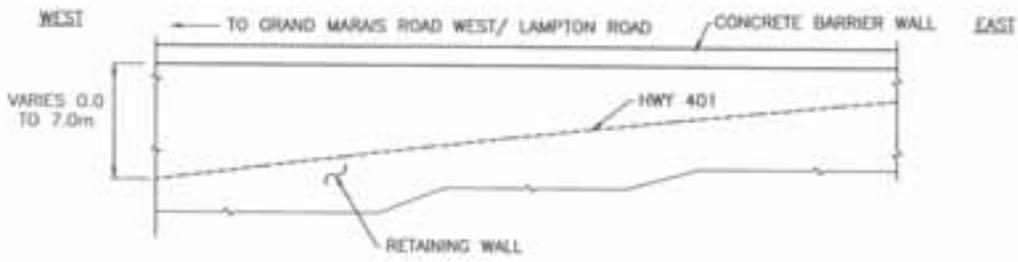
LENGTH (m)	24	WIDTH (m)	36.35
STRUCTURAL DEPTH (m)	1.7	SPAN/DEPTH RATIO	16
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	---
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,000	ESTIMATED COST (\$) 1,745,000
	REHABILITATION	-----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	CROSSING OVER TURKEY CREEK		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	JULY 2007

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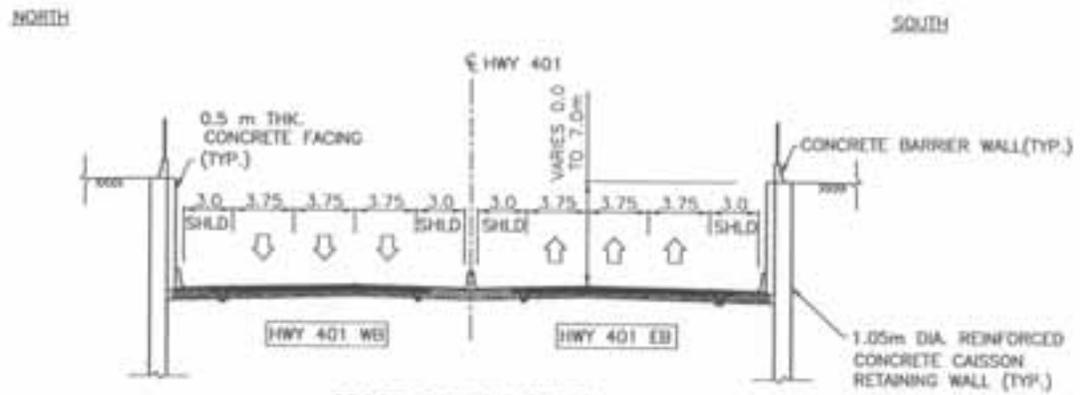


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-90	SITE NO.	----	LOCATION	HWY 401 AT GRAND MARAIS ROAD WEST/ LAMPTON ROAD
STRUCTURE NAME	APPROACH RAMP OF HWY 401 AT GRAND MARAIS ROAD WEST SIDE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALL OF VARIABLE HEIGHTS				



**ELEVATION SKETCH**  
1:400



**CROSS-SECTION SKETCH**  
1:400

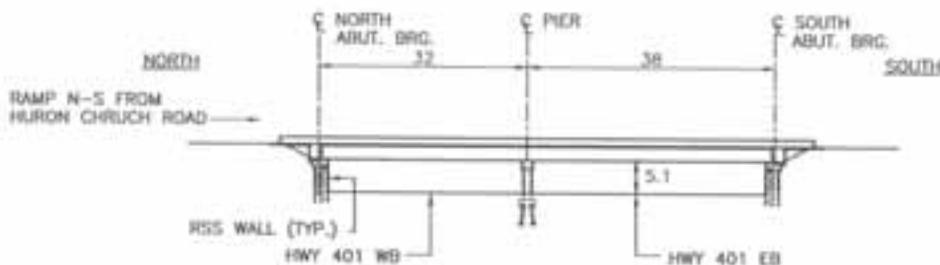
LENGTH (m)	273		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	30,000	ESTIMATED COST (\$)	8,190,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	----			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2007

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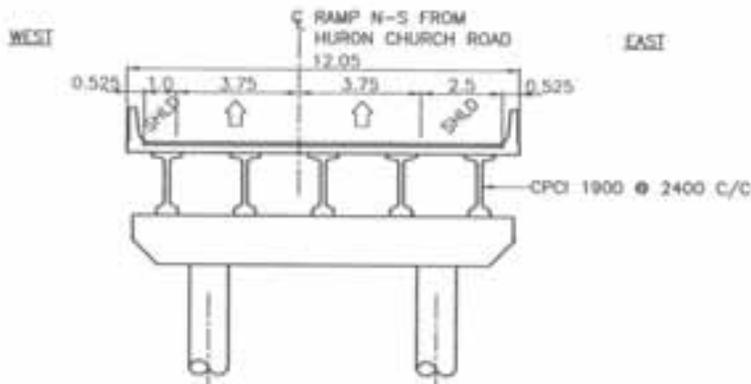


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-62	SITE NO.	----	LOCATION	HURON CHURCH ROAD RAMP N-S OVER HWY 401
BRIDGE NAME	HURON CHURCH ROAD RAMP N-S UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1900 GIRDERS ON SEMI-INTEGRAL ABUTMENTS WITH RSS WALL				



**ELEVATION SKETCH**  
1:1000



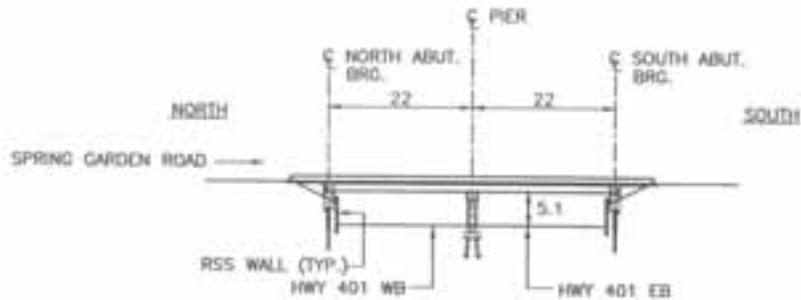
**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	70	WIDTH (m)	12.05	
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	17	
SKEW ANGLE	45°	VERTICAL CLEARANCE (m)	5.1	
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,200	ESTIMATED COST (\$)	1,856,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	<ul style="list-style-type: none"> <li>- OUTER SURFACE OF RSS WALL OF ABUTMENTS TO MATCH THE RW OF DEPRESSED HWY 401 ON EITHER SIDE OF THE BRIDGE CROSSING.</li> <li>- SEMI-INTEGRAL ABUTMENTS DUE TO 45° SKEW.</li> </ul>			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007	

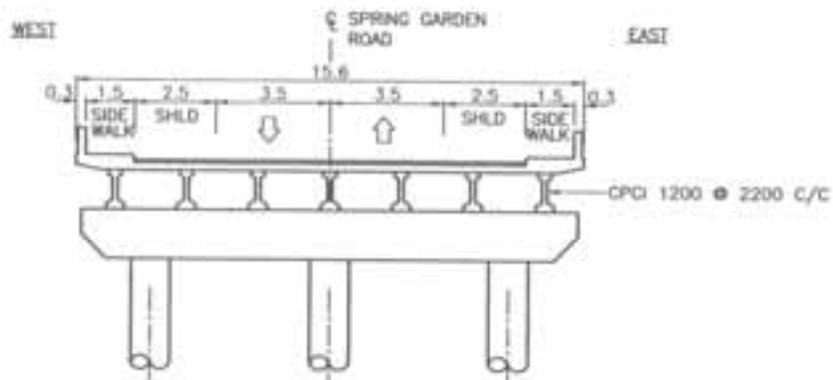
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# STRUCTURAL PLANNING SHEET

W.O.NO.	-----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-63	SITE NO.	-----	LOCATION	SPRING GARDEN ROAD ABOVE HWY 401
BRIDGE TYPE	SPRING GARDEN ROAD UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1200 GIRDERS ON SEMI-INTEGRAL ABUTMENTS WITH RSS WALL				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	44	WIDTH (m)	15.60
STRUCTURAL DEPTH (m)	1.5	SPAN/DEPTH RATIO	15
SKEW ANGLE	20'	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100	ESTIMATED COST (\$) 1,441,000
	REHABILITATION	-----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- OUTER SURFACE OF RSS WALL OF ABUTMENTS TO MATCH THE RW OF DEPRESSED HWY 401 ON EITHER SIDE OF THE BRIDGE CROSSING.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007

PLANNED TO BE USED FOR THE PURPOSES OF THE PROJECT ONLY. THIS DOCUMENT IS THE PROPERTY OF URS AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. URS CANADA INC. 2007. ALL RIGHTS RESERVED.











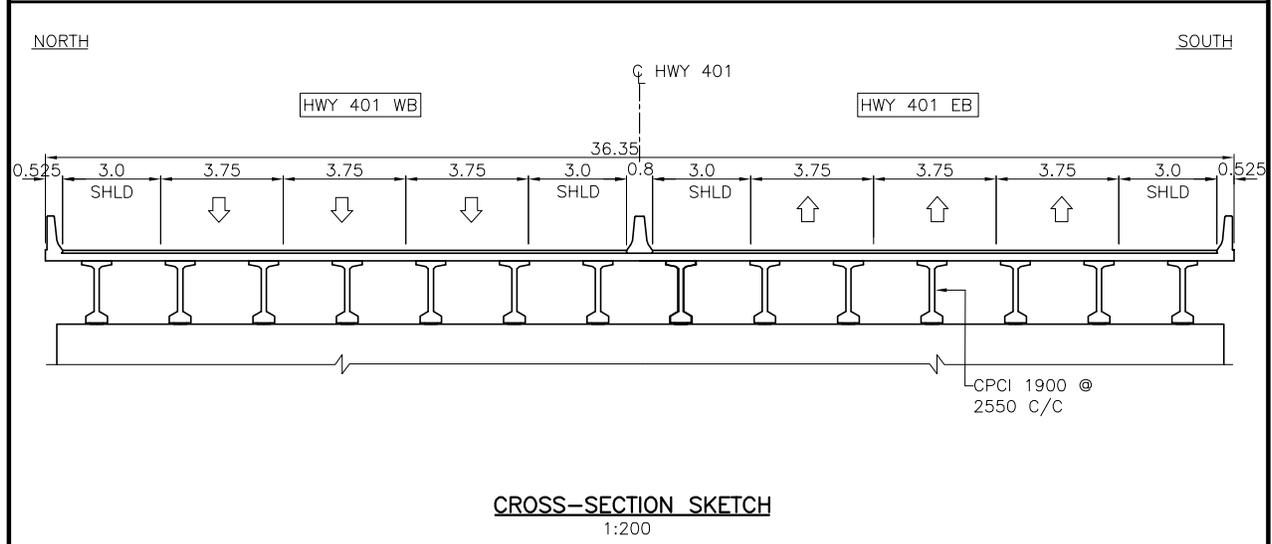
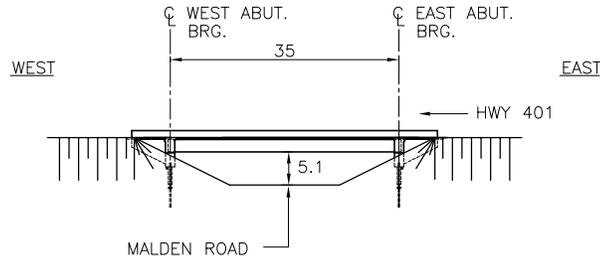






# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-90	SITE NO.	----	LOCATION	HWY 401 ABOVE MALDEN ROAD
BRIDGE NAME	MALDEN ROAD OVERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPCI 1900 GIRDERS WITH INTEGRAL ABUTMENTS				



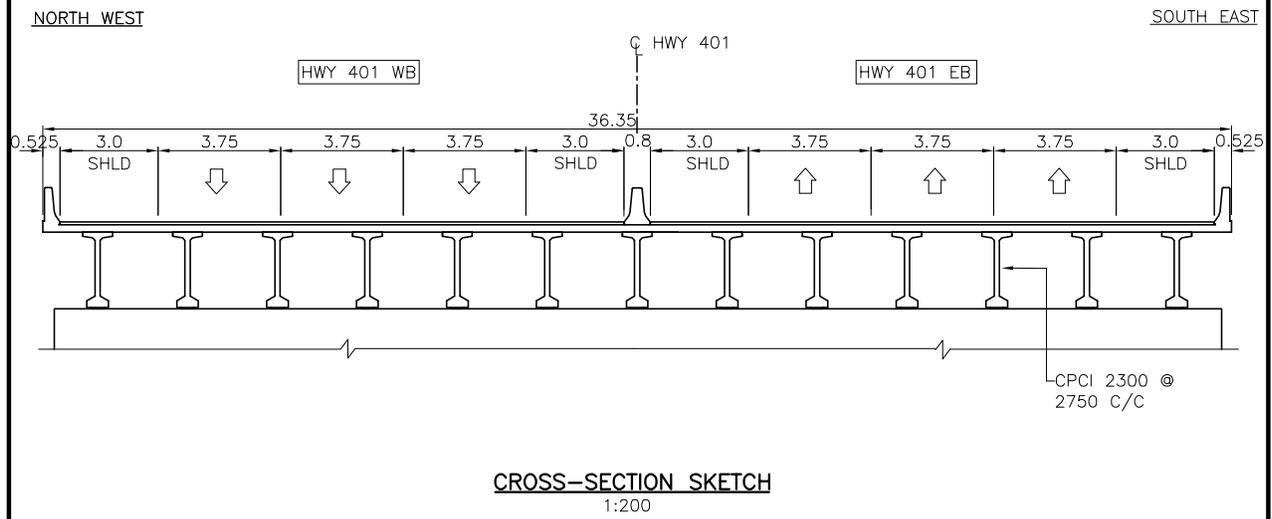
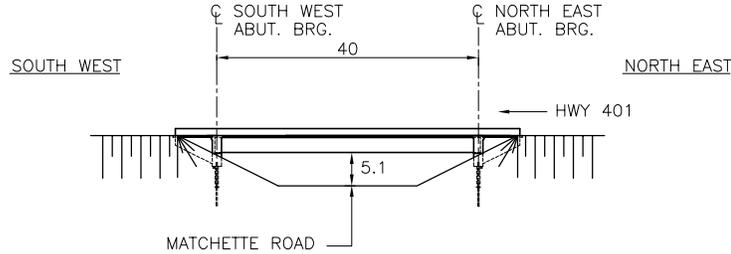
LENGTH (m)	35	WIDTH (m)	36.35
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	16
SKEW ANGLE	10°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,000	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HWY 401 CROSSES OVER MALDEN ROAD ON SKEW. HOWEVER THE RECTANGULAR BRIDGE DECK IS CONSIDERED.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

FILENAME: C:\DRG(C)\6\_Structure\1\_CADD\Planning Sheets\ Hwy Alternatives\2007\Bridges\Alternative-2A-May15-2007.dwg  
 PLOTDATE: Jun 04, 2008 9:23am



# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-92	SITE NO.	----	LOCATION	MATCHETTE ROAD OVER HWY 401
BRIDGE NAME	MATCHETTE ROAD OVERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPCI 2300 GIRDERS WITH INTEGRAL ABUTMENTS				



LENGTH (m)	40	WIDTH (m)	36.35
STRUCTURAL DEPTH (m)	2.6	SPAN/DEPTH RATIO	16
SKREW ANGLE	25°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,000 REHABILITATION ----	ESTIMATED COST (\$)	2,908,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HWY 401 CROSSES ABOVE MATCHETTE ROAD ON SKEW, HOWEVER RECTANGULAR BRIDGE DECK IS CONSIDERED.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

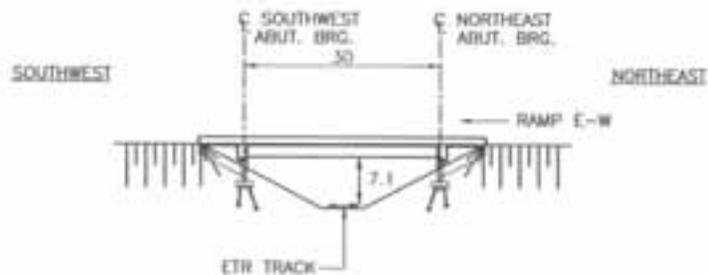
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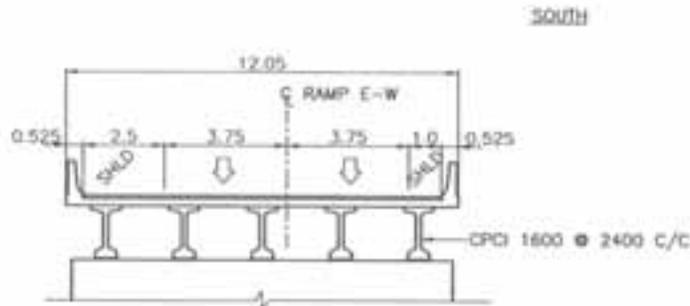


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2A
STRUCTURE I.D.	2A-95	SITE NO.	----	LOCATION	RAMP E-W OVER ETR TRACK
BRIDGE NAME	RAMP E-W AT ETR OVERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPCI 1600 GRIDERS WITH SEMI-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	30	WIDTH (m)	12.05	
STRUCTURAL DEPTH (m)	1.9	SPAN/DEPTH RATIO	17	
SKIEW ANGLE	30°	VERTICAL CLEARANCE (m)	7.1	
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,500	ESTIMATED COST (\$)	904,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	E-W RAMP CROSSES ABOVE ESSEX TERMINAL RAILWAY (ETR) TRACK ON SKEW. HOWEVER RECTANGULAR BRIDGE DECK IS CONSIDER.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007	

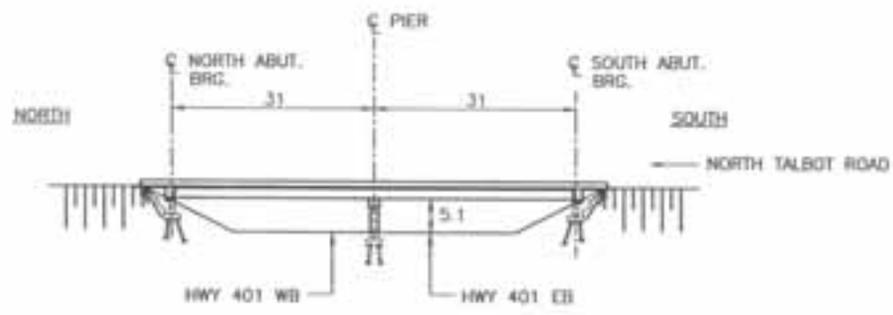
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# **Appendix C.4**

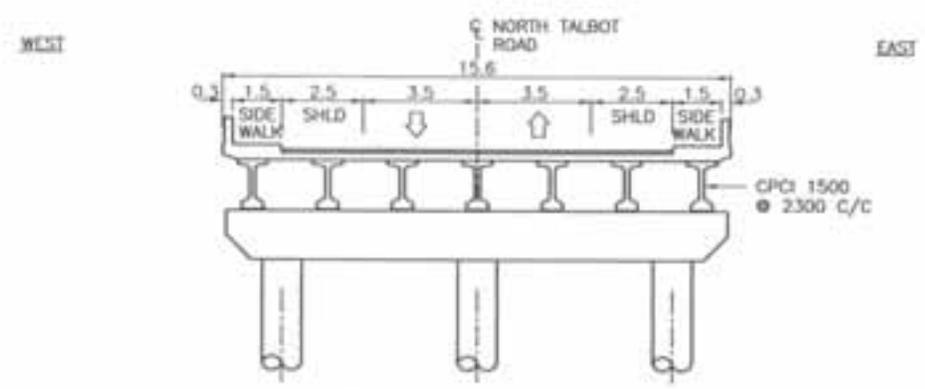
## **Structural Planning Sheets for Alternative 2B**

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-1	ROUTE	ALIGNMENT ALTERNATIVE 2B
STRUCTURE I.D.	2B-5	SITE NO.	----	LOCATION	NORTH TALBOT ROAD ABOVE HWY 401
BRIDGE NAME	NORTH TALBOT ROAD UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPC 1500 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	62	WIDTH (m)	15.60
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	17
SKEW ANGLE	30°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE REHABILITATION	2,100 ----	ESTIMATED COST (\$) 2,031,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	<ul style="list-style-type: none"> <li>- SEMI-INTEGRAL ABUTMENTS DUE TO 30° SKEW</li> <li>- EXISTING BRIDGE NEEDS TO BE REMOVED.</li> <li>- NORTH TALBOT ROAD NEEDS TO BE DIVERTED DURING THE CONSTRUCTION OR AFTER THE CONSTRUCTION OF THE NEW BRIDGE ON ADJACENT SITE.</li> </ul>		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

P:\Road\03\0301\15\_Structure\0301\_Planing\_Sheet.dwg - NorthTalbot.dwg - 28-July-18-10:07:00 AM  
 P:\Road\03\0301\15\_Structure\0301\_Planing\_Sheet.dwg - NorthTalbot.dwg - 28-July-18-10:07:00 AM

















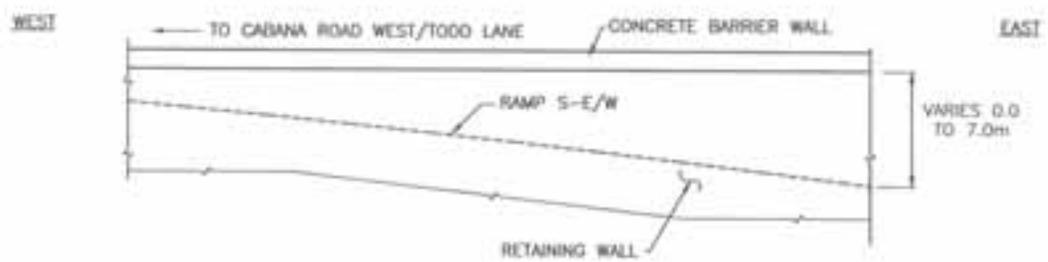






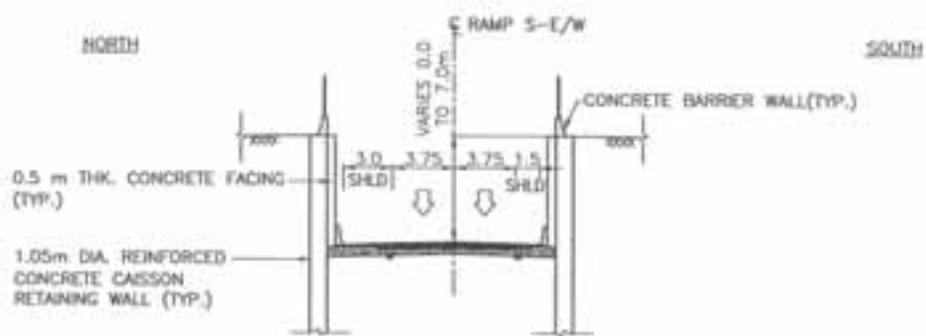
# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2B
STRUCTURE I.D.	2B-34	SITE NO.	----	LOCATION	HWY 401 RAMPS TO CABANA ROAD WEST/ TODD LANE
STRUCTURE NAME	RAMPS E/W-S AND S-E/W			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF VARIABLE HEIGHTS				



NOTE : RAMP S-E/W TO CABANA ROAD WEST/TODD LANE IS SHOWN.  
RAMP E/W-S TO HWY 401EB IS SIMILAR WITH DIFFERENT ORIENTATION.

**ELEVATION SKETCH**  
1:400



NOTE : RAMP S-E/W TO CABANA ROAD WEST/TODD LANE IS SHOWN.  
RAMP E/W-S TO HWY 401EB IS SIMILAR WITH DIFFERENT ORIENTATION.

**CROSS-SECTION SKETCH**  
1:400

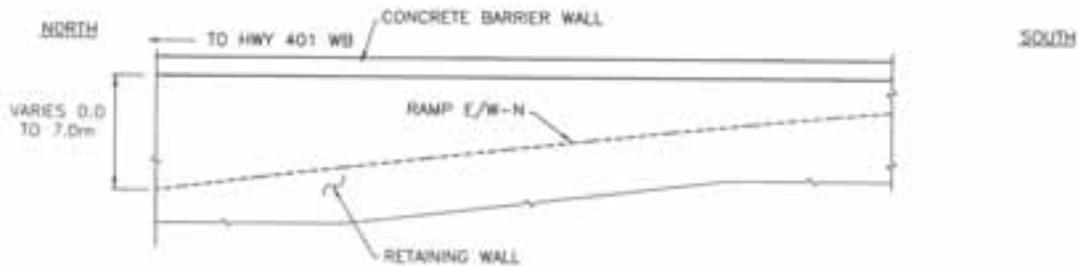
LENGTH (m)	800	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	30,000	ESTIMATED COST (\$) 24,000,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	RAMPS ON BOTH SIDES OF HWY 401 ARE INCLUDED.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

P:\2006\211905\18\_Revise\211905\Planning Sheet\New Structure\2007\Map\Map-40-47-July 14-2007\181905\Map\Map-40-47-July 14-2007\181905.dwg  
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# STRUCTURAL PLANNING SHEET

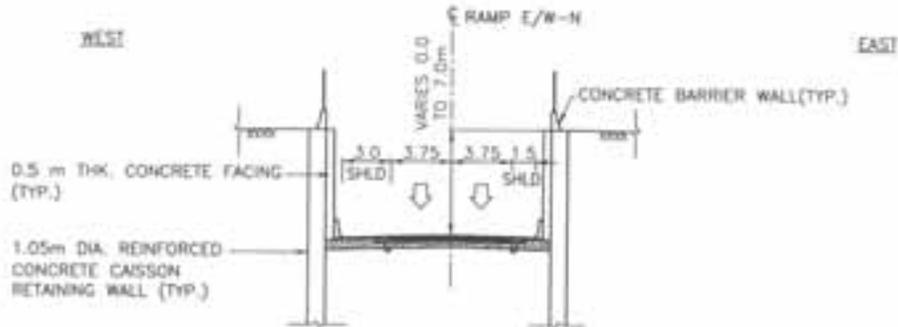
W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2B
STRUCTURE I.D.	2B-43	SITE NO.	----	LOCATION	SIDE ROAD RAMPS AT EAST OF CABANA ROAD WEST/TODD LANE
STRUCTURE NAME	RAMPS N-E/W AND E/W-N			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF VARIABLE HEIGHTS				



NOTE : RAMP E/W-N TO HWY 401 WB IS SHOWN  
RAMP N-E/W TO CABANA ROAD WEST/TODD LANE IS SIMILAR WITH DIFFERENT ORIENTATION.

**ELEVATION SKETCH**

1:400



NOTE : RAMP E/W-N TO HWY 401 WB IS SHOWN  
RAMP N-E/W TO CABANA ROAD WEST/TODD LANE IS SIMILAR WITH DIFFERENT ORIENTATION.

**CROSS-SECTION SKETCH**

1:400

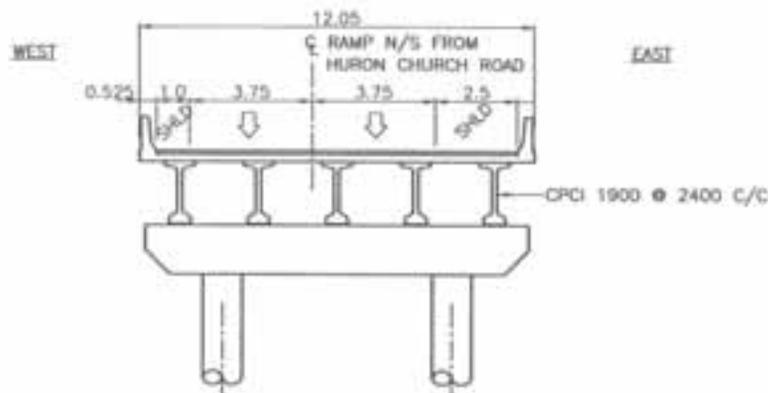
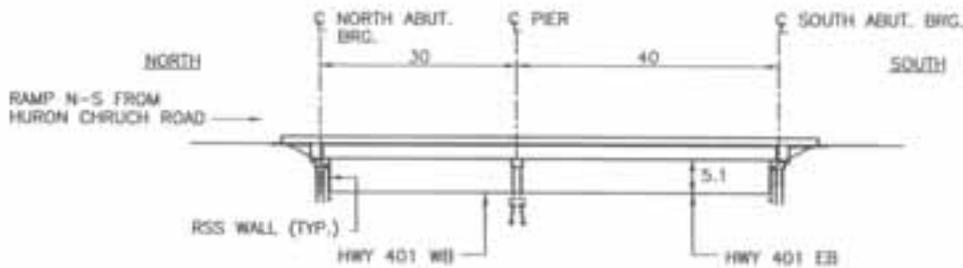
LENGTH (m)	400	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	30,000	ESTIMATED COST (\$) 12,000,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	RAMPS ON BOTH SIDES OF HWY 401 ARE INCLUDED.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2007





## STRUCTURAL PLANNING SHEET

W.O. NO.	-----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2B
STRUCTURE I.D.	2B-62	SITE NO.	-----	LOCATION	HURON CHURCH ROAD RAMP N-S OVER HWY 401
BRIDGE NAME	HURON CHURCH ROAD RAMP N-S UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPC 1600 GIRDERS ON SEMI-INTEGRAL ABUTMENTS WITH RSS WALLS				

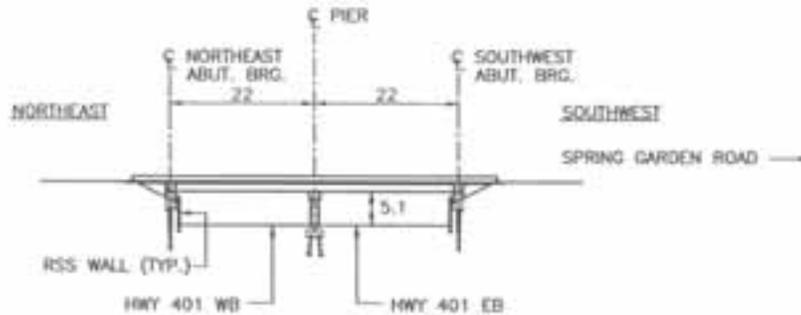


LENGTH (m)	70	WIDTH (m)	12.05
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	18
SKEW ANGLE	45°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,200	ESTIMATED COST (\$) 1,856,000
	REHABILITATION	-----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- OUTER SURFACE OF RSS WALL OF ABUTMENTS TO MATCH THE RW OF DEPRESSED HWY 401 ON EITHER SIDE OF THE BRIDGE CROSSING. - SEMI-INTEGRAL ABUTMENT DUE TO 45° SKEW.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

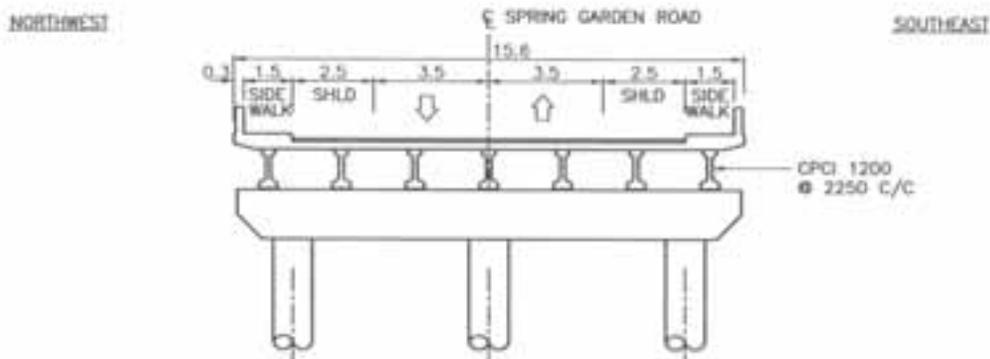
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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 20
STRUCTURE I.D.	28-63	SITE NO.	----	LOCATION	SPRING GARDEN ROAD ABOVE HWY 401
BRIDGE NAME	SPRING GARDEN ROAD UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1200 GIRDERS ON INTEGRAL ABUTMENTS WITH RSS WALL				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	44	WIDTH (m)	15.60
STRUCTURAL DEPTH (m)	1.5	SPAN/DEPTH RATIO	15
SKREW ANGLE	20'	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100	ESTIMATED COST (\$) 1,441,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- OUTER SURFACE OF RSS WALL OF ABUTMENTS TO MATCH THE RW OF DEPRESSED HWY 401 ON EITHER SIDE OF THE BRIDGE CROSSING.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

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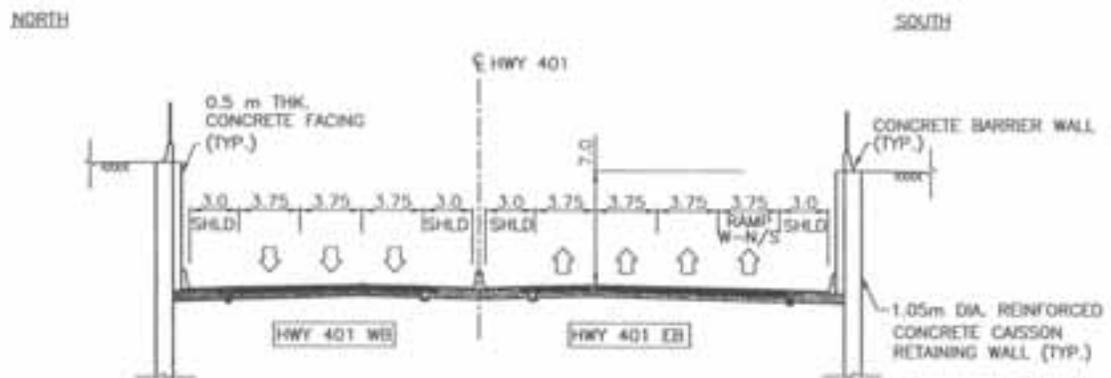
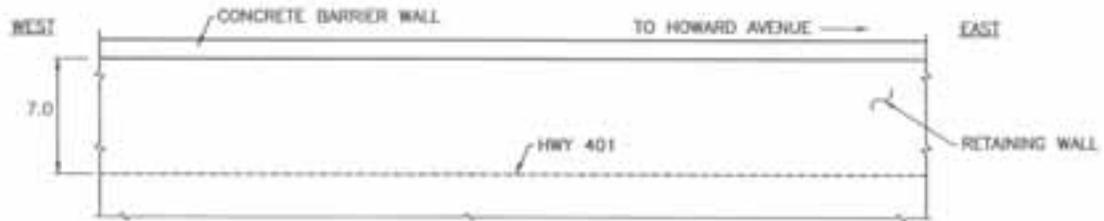






## STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2B
STRUCTURE I.D.	2B-202	SITE NO.	----	LOCATION	HWY 401 AT WEST OF HOWARD AVENUE
STRUCTURE NAME	BELOW GRADE HWY 401 WITH S.C.L. BETWEEN HOWARD AVENUE AND MONTGOMERY DRIVE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF UNIFORM HEIGHTS				



LENGTH (m)	250	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$) 11,250,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	----		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

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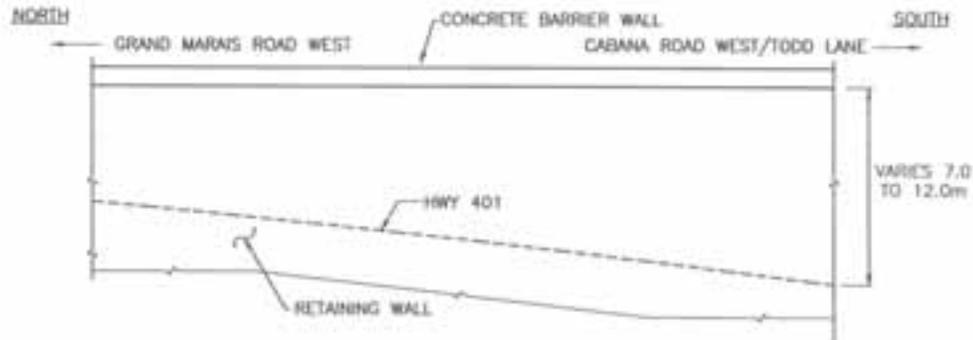




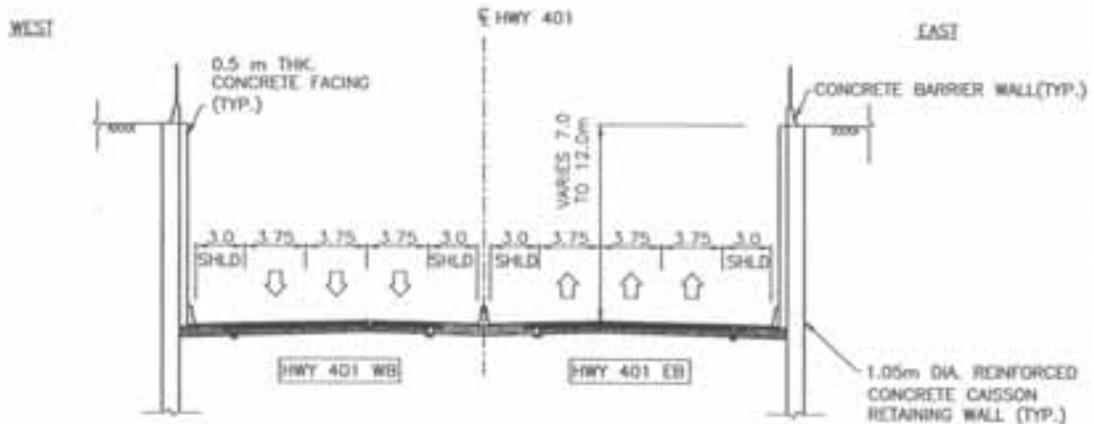


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2B
STRUCTURE I.D.	28-221	SITE NO.	----	LOCATION	HWY 401 AT WEST OF CABANA ROAD WEST/TODD LANE
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF CABANA ROAD WEST/TODD LANE		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF VARIABLE HEIGHTS				



**ELEVATION SKETCH**  
1:400



**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	100		WIDTH (m)	----	
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----	
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----	
UNIT PRICE (\$/m)	NEW STRUCTURE	65,000	ESTIMATED COST (\$)	6,500,000	
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	MAY 2007	

C:\nsd\01\2007\18\_Plan\28-221\28-221\_Plan\28-221\_Plan.dwg  
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 Plot Size: 11.00 x 17.00  
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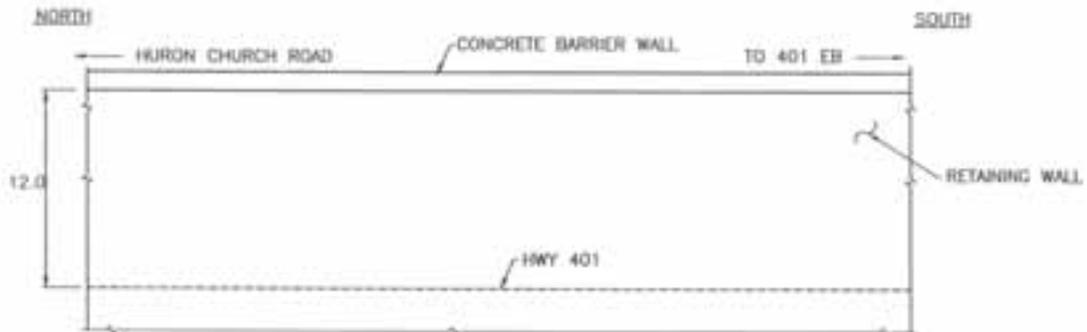




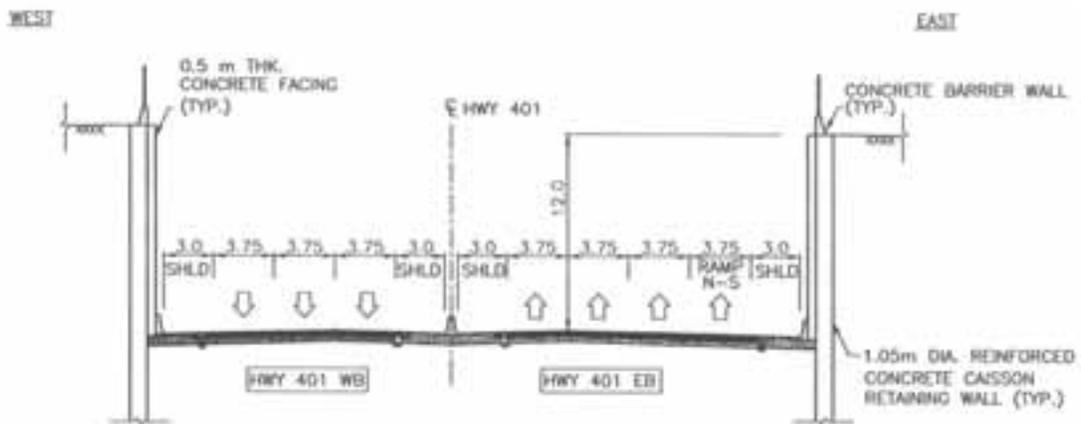


# STRUCTURAL PLANNING SHEET

W.O.NO.	-----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 2B
STRUCTURE I.D.	2B-232	SITE NO.	-----	LOCATION	HWY 401 AT WEST OF GRAND MARAIS ROAD WEST
STRUCTURE NAME	BELOW GRADE HWY 401 WITH RAMP AT WEST OF GRAND MARAIS ROAD WEST			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF UNIFORM HEIGHTS				



ELEVATION SKETCH  
1:400



CROSS-SECTION SKETCH  
1:400

LENGTH (m)	150		WIDTH (m)	-----
STRUCTURAL DEPTH (m)	-----		SPAN/DEPTH RATIO	-----
SKIEW ANGLE	-----		VERTICAL CLEARANCE (m)	-----
UNIT PRICE (\$/m)	NEW STRUCTURE	65,000	ESTIMATED COST (\$)	9,750,000
	REHABILITATION	-----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	-----			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	MAY 2007

Prepared at: URS, 15, Richmond Gate, Planning Division, 1500, King Street West, Toronto, Ontario M5V 2C4, Canada  
 Date: May 2007







# **Appendix C.5**

## **Structural Planning Sheets for Alternative 3**



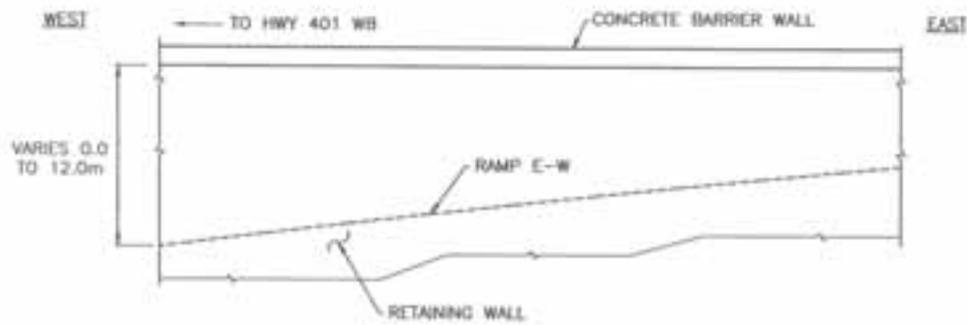




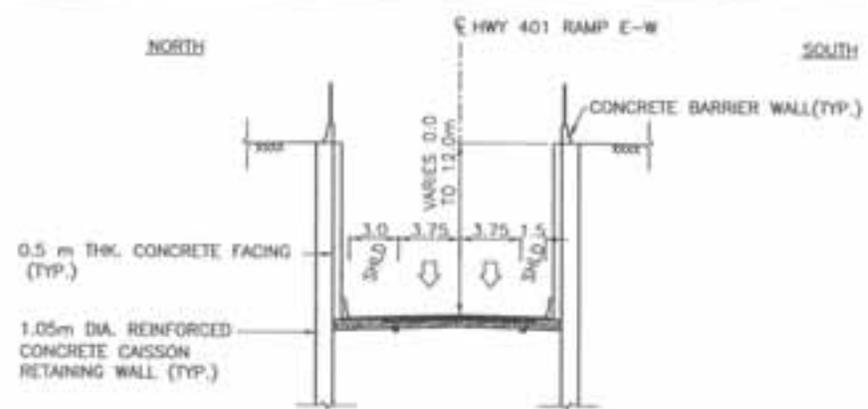


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-13	SITE NO.	----	LOCATION	HWY 401 AT EAST OF HOWARD AVENUE
STRUCTURE NAME	APPROACH RAMP OF HWY 401 RAMP E-W AT EAST OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF VARIABLE HEIGHTS				



**ELEVATION SKETCH**  
1:400



**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	425	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKIEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$) 19,125,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	----		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

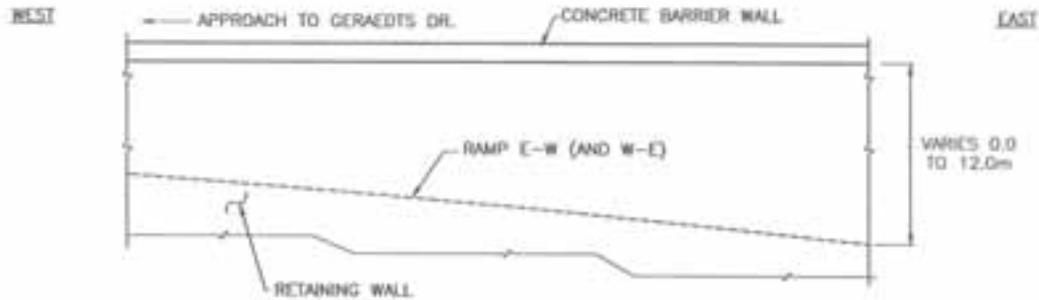
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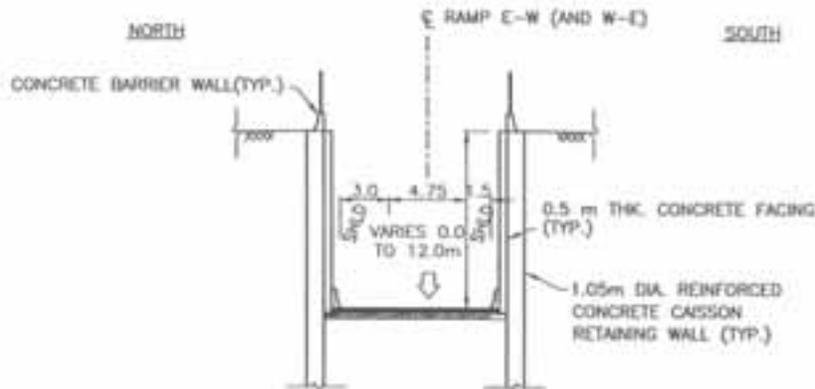
# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-30	SITE NO.	----	LOCATION	RAMP E-W&W-E TO HWY 401 NEAR COUSINEAU ROAD CROSSING
STRUCTURE NAME	RAMP E-W AND W-E			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	BOAT SECTION WITH CAISSON RETAINING WALLS OF VARIABLE HEIGHTS				



NOTE : APPROACH RAMP(E-W) TO EAST OF GERAEDTS DR. IS SHOWN.  
RAMP W-E IS SIMILAR WITH DIFFERENT ORIENTATION.

**ELEVATION SKETCH**  
1:400



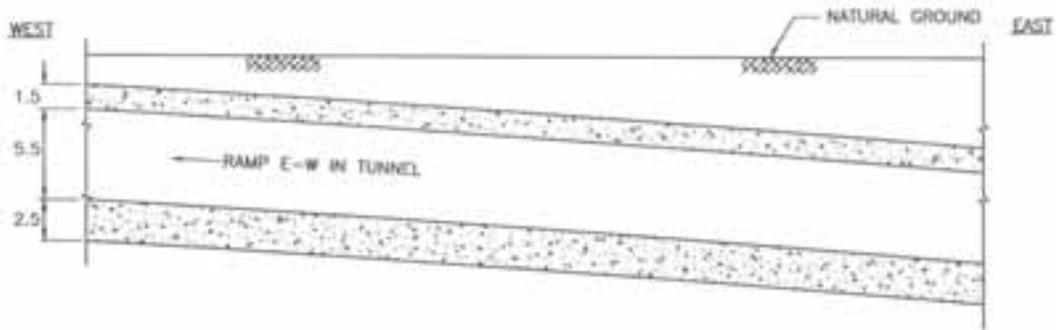
NOTE : APPROACH RAMP(E-W) TO EAST OF ST. CLAIR COLLEGE RD. IS SHOWN.  
RAMP W-E IS SIMILAR WITH DIFFERENT ORIENTATION.

**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	500	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	45,000	ESTIMATED COST (\$) 22,500,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	SEPERATE RAMPS E-W AND W-E OF SERVICE ROAD TO HIGHWAY 401.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

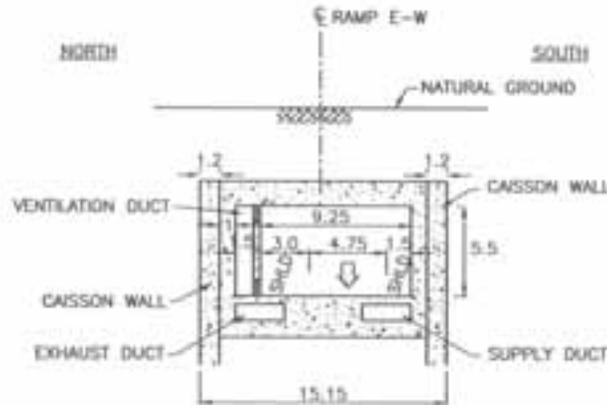
# STRUCTURAL PLANNING SHEET

W.O.NO.	-----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-35	SITE NO.	-----	LOCATION	RAMPS NEAR COUSINEAU ROAD
STRUCTURE NAME	RAMP E-W AND W-E TUNNELS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE <input type="checkbox"/> TUNNEL <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	NARROW CUT AND COVER TUNNEL				



NOTE: RAMP E-W IS SHOWN. RAMP W-E IS SIMILAR BUT IN DIFFERENT ORIENTATION.

**LONGITUDINAL SECTION SKETCH**  
1:400



NOTE: RAMP E-W IS SHOWN. RAMP W-E IS SIMILAR BUT IN DIFFERENT ORIENTATION.

**CROSS-SECTION SKETCH**  
1:400

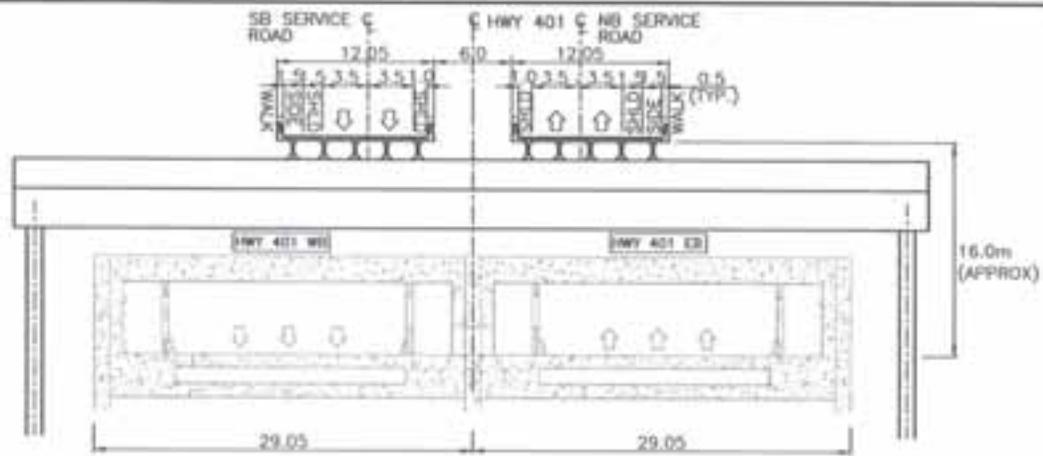
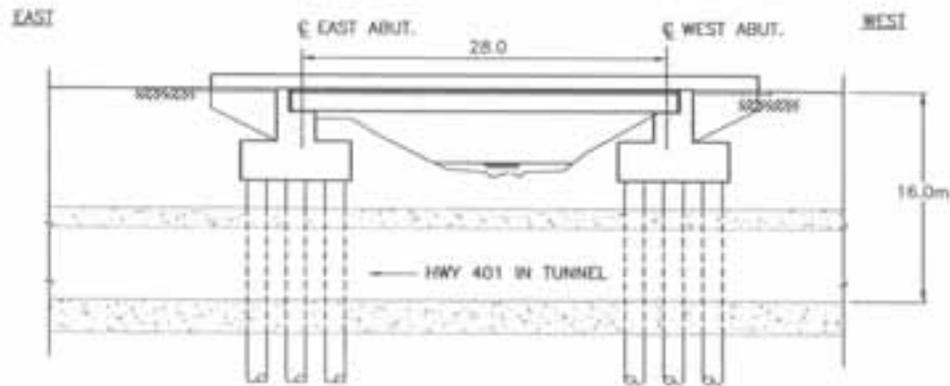
LENGTH (m)	225	WIDTH (m)	---
STRUCTURAL DEPTH (m)	---	SPAN/DEPTH RATIO	---
SKEW ANGLE	---	VERTICAL CLEARANCE (m)	---
UNIT PRICE (\$/m)	NEW STRUCTURE	75,000	ESTIMATED COST (\$) 16,875,000
	REHABILITATION	-----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	NARROW TUNNEL FOR RAMPS E-W & W-E (SIMILAR)		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007





# STRUCTURAL PLANNING SHEET

W.O.N.O.	----	CORRIDOR	HC-1	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-55	SITE NO.	----	LOCATION	HWY 401 CROSSING OVER TURKEY CREEK
BRIDGE NAME	TURKEY CREEK BRIDGE FOR SB AND NB SERVICE ROADS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPCI GRIDERS ON SEMI-INTEGRAL ABUTMENTS				



LENGTH (m)	28	WIDTH (m)	2NO OF 12.05m	
STRUCTURAL DEPTH (m)	1.7	SPAN/DEPTH RATIO	16	
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	---	
UNIT PRICE (\$/m)	NEW STRUCTURE	9,000	ESTIMATED COST (\$)	6,073,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS BRIDGE CROSSING OVER TURKEY CREEK IS TO SPAN ACROSS HIGHWAY TUNNEL, TO BE CONSTRUCTED IN STAGES. - THE COST INCLUDES THE STAGED CONSTRUCTION, TEMPORARY BRIDGE CONSTRUCTION & REMOVAL OF TEMPORARY BRIDGE FOR DIVERTED HURON CHURCH ROAD			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007	

P:\BRIDGE\03\000118\_Bridges\0300118\_Cross\Planning\_Broads\Draw\_Materials\0300118\_Bridge-01-28.dwg 18-May-07 14:00:00  
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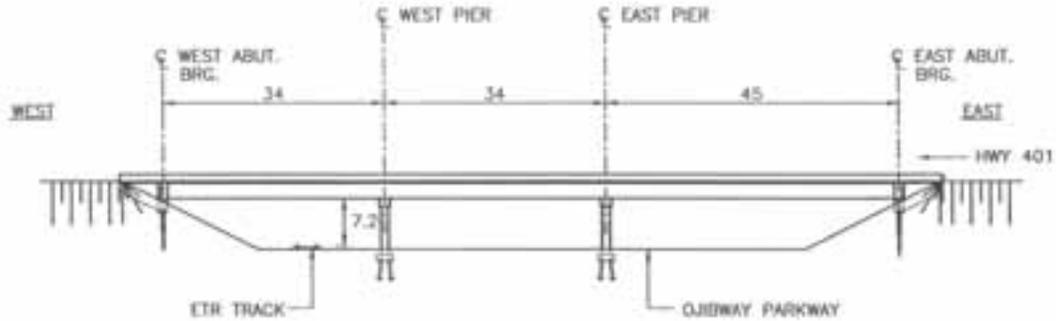




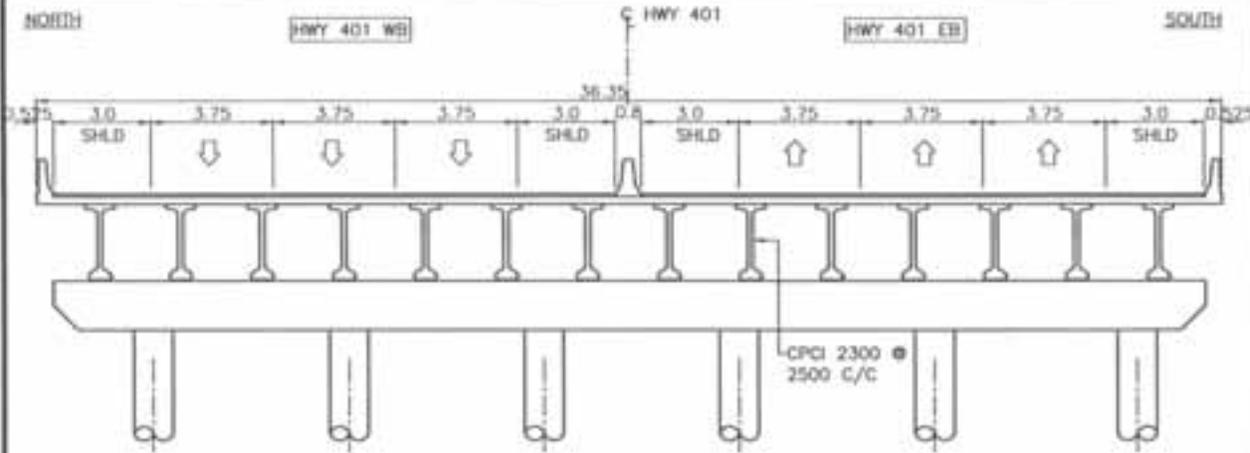


# STRUCTURAL PLANNING SHEET

W.O.NO.	-----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-93	SITE NO.	-----	LOCATION	HWY 401 OVER OJIBWAY PKWY & ETR TRACK
BRIDGE NAME	OJIBWAY/ETR OVERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	THREE SPANS CPCI 2300 GIRDERS WITH INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	11.3		WIDTH (m)	36.35	
STRUCTURAL DEPTH (m)	2.6		SPAN/DEPTH RATIO	17	
SKIEW ANGLE	20° (OJIBWAY PKWY) 0° (ETR)		VERTICAL CLEARANCE (m)	7.1	
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,500	ESTIMATED COST (\$)	10,269,000	
	REHABILITATION	-----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HWY 401 CROSSING ABOVE OJIBWAY PARKWAY NEAR NEW INTERCHANGE AT EC ROW PARKWAY AND ESSEX TERMINAL RAILWAY (ETR) TRACK.				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	MAY 2007	

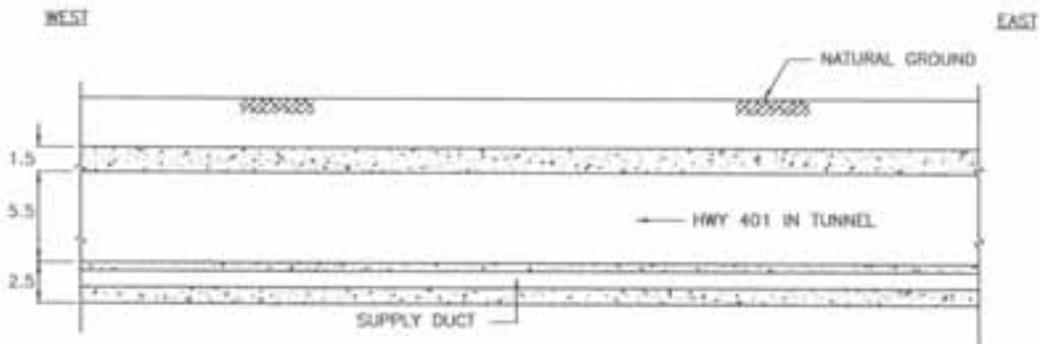
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 3-May-15-2007.dwg



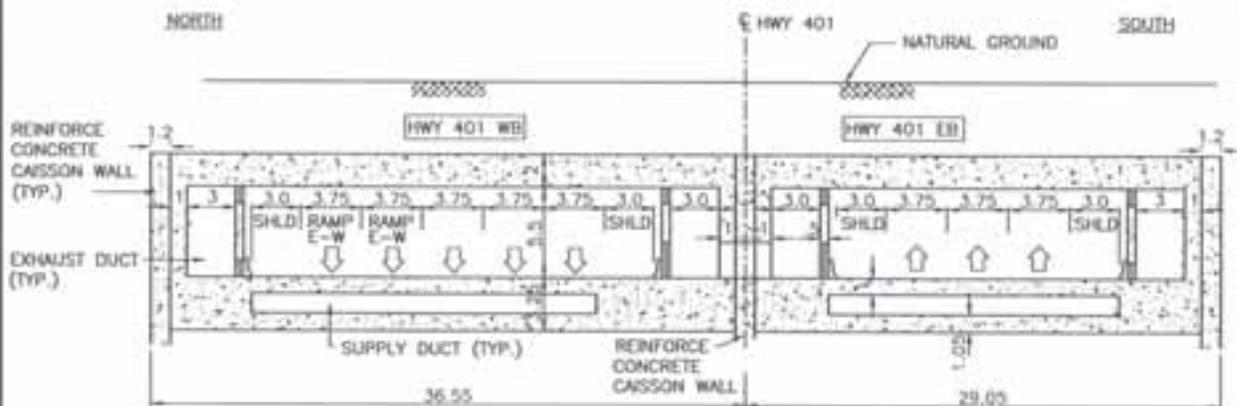


# STRUCTURAL PLANNING SHEET

W.O. NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-301	SITE NO.	----	LOCATION	HIGHWAY 401 IN TUNNEL SECTION FROM EAST TO WEST OF HOWARD AVENUE
STRUCTURE NAME	HIGHWAY 401 TUNNEL FROM EAST TO WEST OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY(TUNNEL) <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CLUT AND COVER TUNNEL				



LONGITUDINAL SECTION SKETCH  
1:400

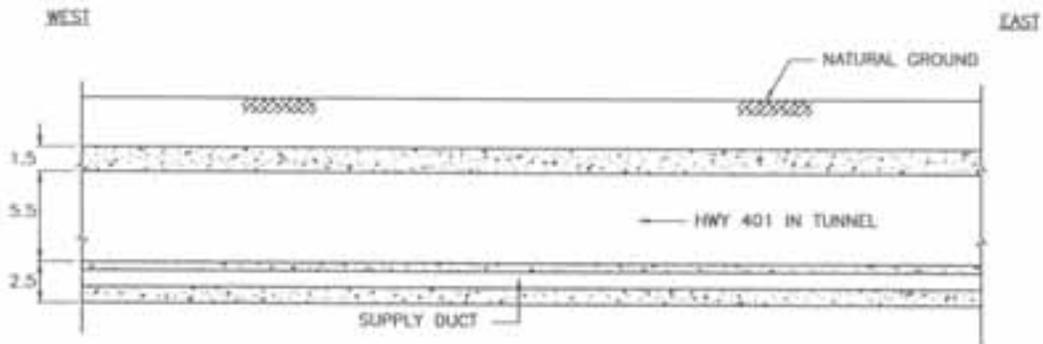


CROSS-SECTION SKETCH  
1:400

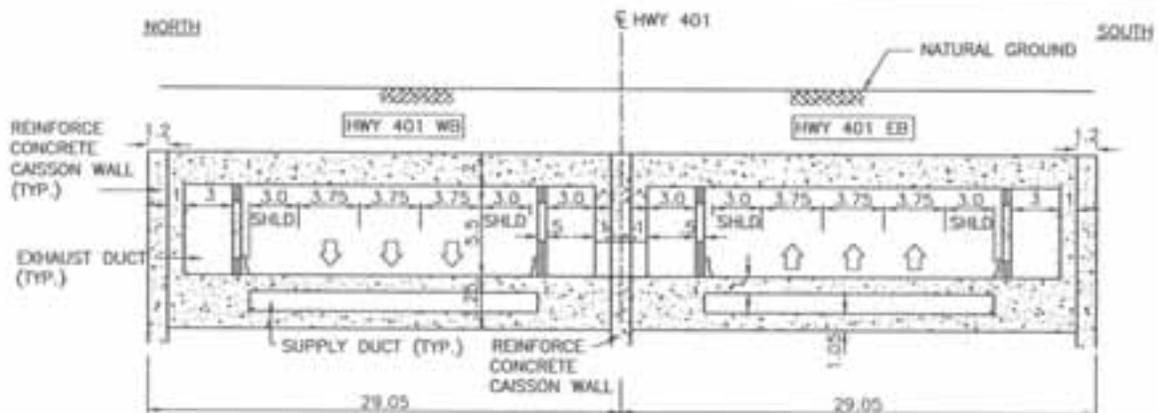
LENGTH (m)	175	WIDTH (m)	-
STRUCTURAL DEPTH (m)	-	SPAN/DEPTH RATIO	-
SKEW ANGLE	-	VERTICAL CLEARANCE (m)	-
UNIT PRICE (\$/m)	NEW STRUCTURE 255,000 REHABILITATION -	ESTIMATED COST (\$)	44,625,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- RAMPS E-W ARE INCLUDED.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

# STRUCTURAL PLANNING SHEET

W.O. NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-302	SITE NO.	----	LOCATION	HIGHWAY 401 IN TUNNEL SECTION BETWEEN HOWARD AVE. AND COUSINEAU ROAD
STRUCTURE NAME	HIGHWAY 401 TUNNEL BETWEEN HOWARD AVENUE AND COUSINEAU ROAD			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE (HT/TUNNEL) <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CUT AND COVER TUNNEL				



LONGITUDINAL SECTION SKETCH  
1:400



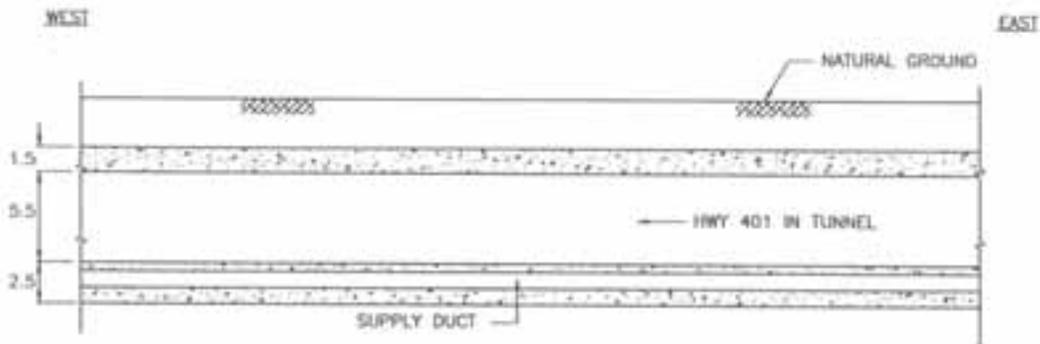
CROSS-SECTION SKETCH  
1:400

LENGTH (m)	1,175	WIDTH (m)	-
STRUCTURAL DEPTH (m)	-	SPAN/DEPTH RATIO	-
SKIEW ANGLE	-	VERTICAL CLEARANCE (m)	-
UNIT PRICE (\$/m)	NEW STRUCTURE	215,000	ESTIMATED COST (\$) 252,625,000
	REHABILITATION	-	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

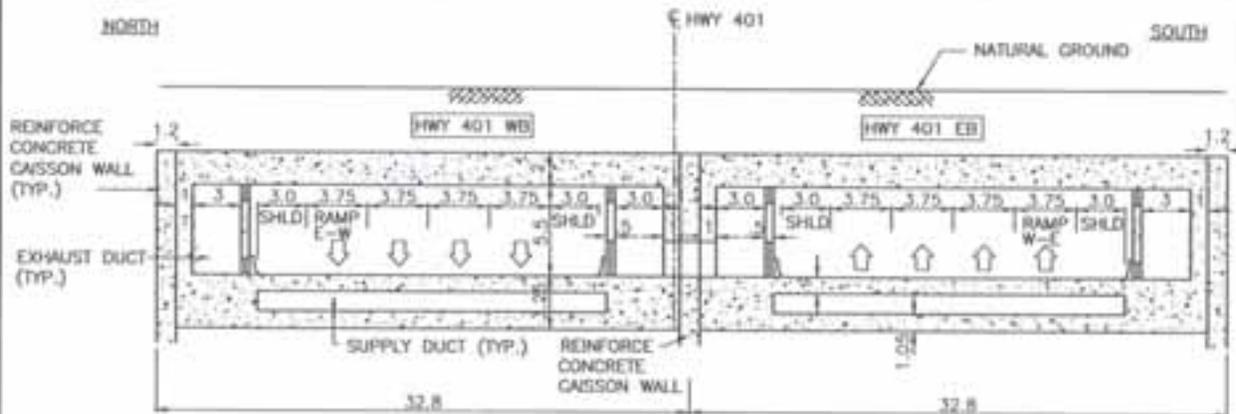
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# STRUCTURAL PLANNING SHEET

W.O. NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-303	SITE NO.	----	LOCATION	HIGHWAY 401 IN TUNNEL SECTION AT EAST OF COUSNEAU ROAD
STRUCTURE NAME	HIGHWAY 401 TUNNEL AT EAST OF COUSNEAU ROAD			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY/TUNNEL <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CUT AND COVER TUNNEL				



LONGITUDINAL SECTION SKETCH  
1:400

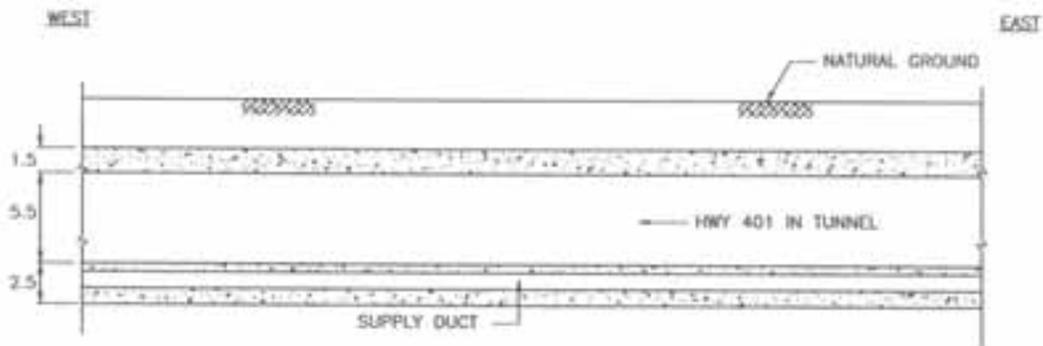


CROSS-SECTION SKETCH  
1:400

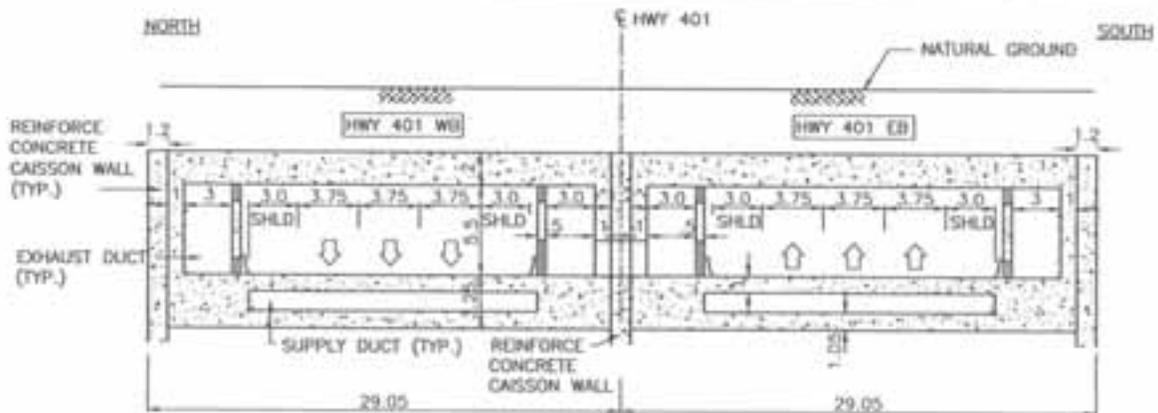
LENGTH (m)	175	WIDTH (m)	-
STRUCTURAL DEPTH (m)	-	SPAN/DEPTH RATIO	-
SKEW ANGLE	-	VERTICAL CLEARANCE (m)	-
UNIT PRICE (\$/m)	NEW STRUCTURE 255,000 REHABILITATION -	ESTIMATED COST (\$)	44,625,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- RAMPS E-W AND W-E ARE INCLUDED.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

# STRUCTURAL PLANNING SHEET

W.O.NO.	-----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-311	SITE NO.	-----	LOCATION	HIGHWAY 401 IN TUNNEL SECTION AT WEST OF COUSNEAU ROAD
STRUCTURE NAME	HIGHWAY 401 TUNNEL AT WEST OF COUSNEAU ROAD			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY(TUNNEL) <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CUT AND COVER TUNNEL				



LONGITUDINAL SECTION SKETCH  
1:400



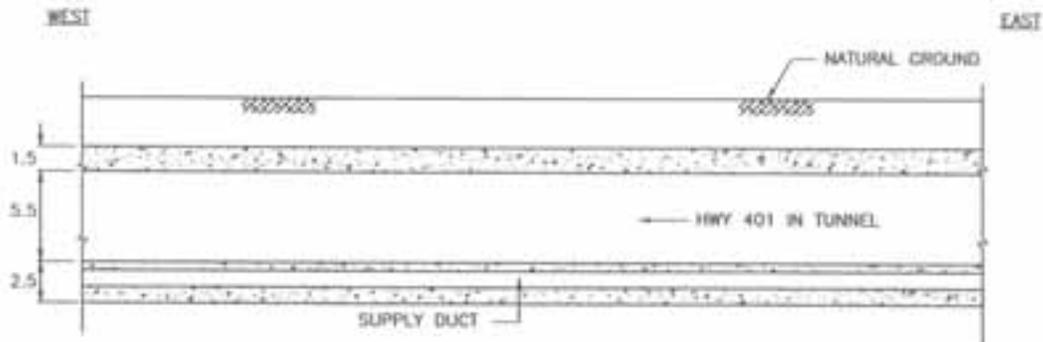
CROSS-SECTION SKETCH  
1:400

LENGTH (m)	1,450	WIDTH (m)	-
STRUCTURAL DEPTH (m)	-	SPAN/DEPTH RATIO	-
SKIEW ANGLE	-	VERTICAL CLEARANCE (m)	-
UNIT PRICE (\$/m)	NEW STRUCTURE 215,000 REHABILITATION -	ESTIMATED COST (\$)	311,750,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

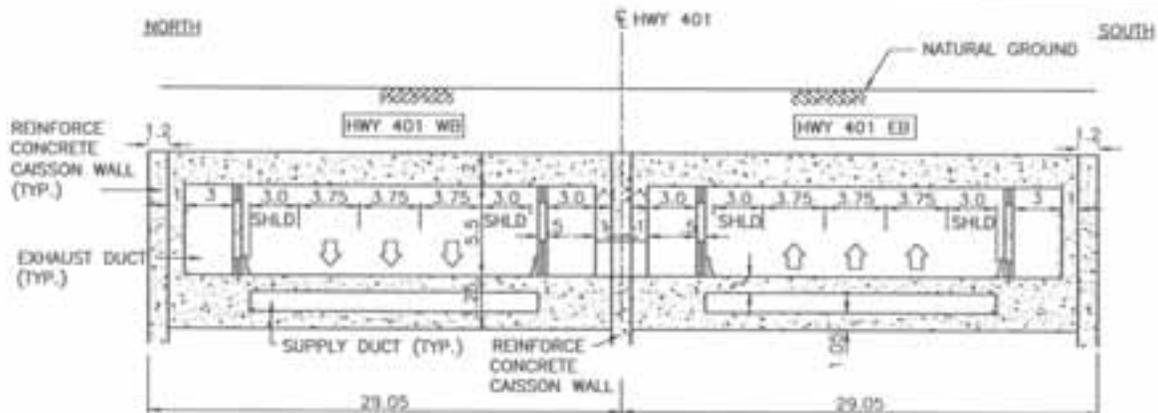


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-313	SITE NO.	----	LOCATION	HIGHWAY 401 IN TUNNEL SECTION AT EAST OF CABANA ROAD WEST/ TODD LANE
STRUCTURE NAME	HIGHWAY 401 TUNNEL AT EAST OF CABANA ROAD WEST/ TODD LANE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY(TUNNEL) <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CUT AND COVER TUNNEL				



LONGITUDINAL SECTION SKETCH  
1:400



CROSS-SECTION SKETCH  
1:400

LENGTH (m)	500	WIDTH (m)	-
STRUCTURAL DEPTH (m)	-	SPAN/DEPTH RATIO	-
SKIEW ANGLE	-	VERTICAL CLEARANCE (m)	-
UNIT PRICE (\$/m)	NEW STRUCTURE 215,000 REHABILITATION -	ESTIMATED COST (\$)	107,500,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	MAY 2007

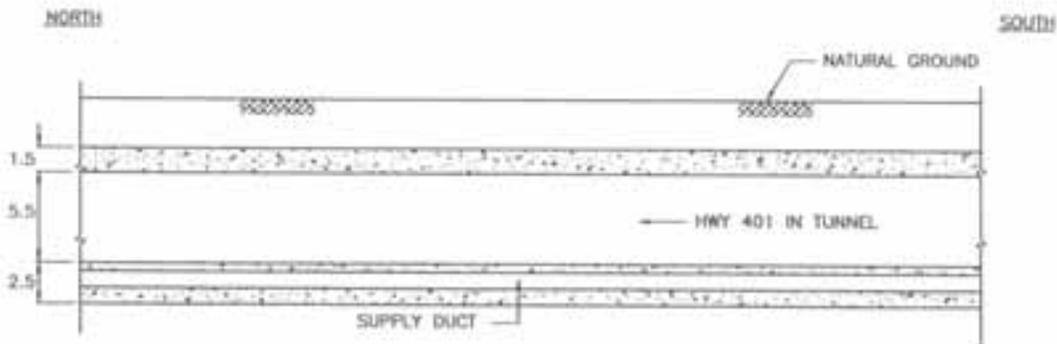




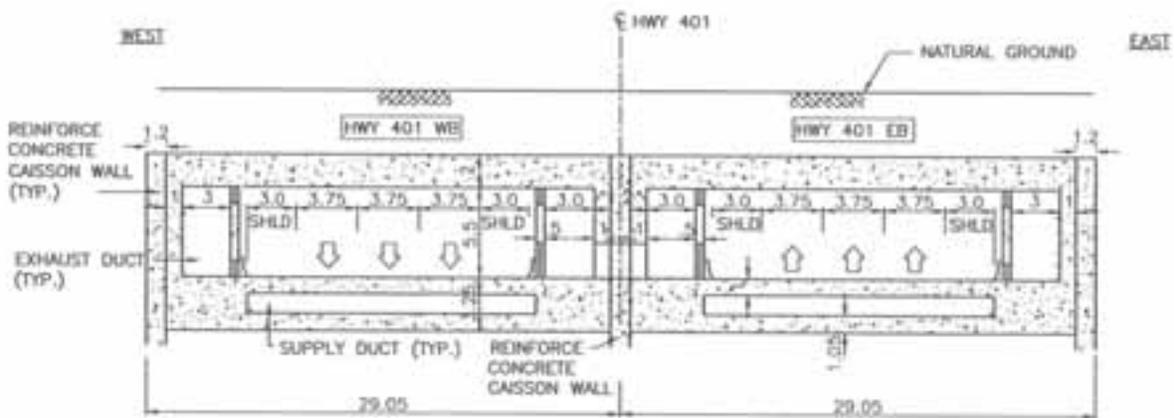


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 3
STRUCTURE I.D.	3-331	SITE NO.	----	LOCATION	HIGHWAY 401 IN TUNNEL SECTION AT WEST OF GRAND MARAIS ROAD WEST
STRUCTURE NAME	HIGHWAY 401 TUNNEL AT WEST OF GRAND MARAIS ROAD WEST			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY/TUNNEL <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CUT AND COVER TUNNEL				



LONGITUDINAL SECTION SKETCH  
1:400



CROSS-SECTION SKETCH  
1:400

LENGTH (m)	1,000		WIDTH (m)	-	
STRUCTURAL DEPTH (m)	-		SPAN/DEPTH RATIO	-	
SKEW ANGLE	-		VERTICAL CLEARANCE (m)	-	
UNIT PRICE (\$/m)	NEW STRUCTURE	215,000	ESTIMATED COST (\$)	215,000,000	
	REHABILITATION	-			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	MAY 2007	

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## **Appendix C.6**

### **Structural Planning Sheets for The Parkway**













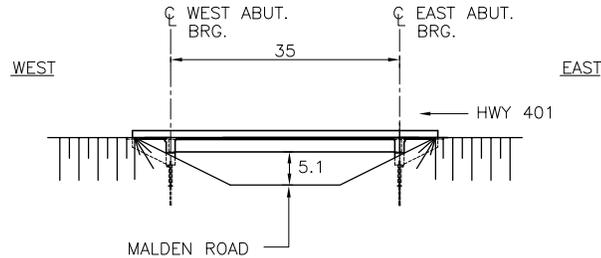




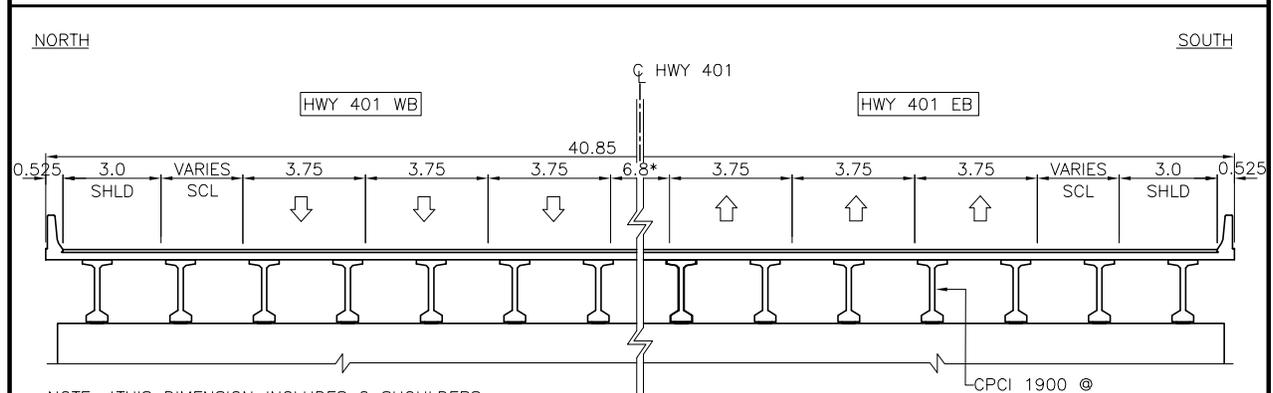


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	BR-10	SITE NO.	----	LOCATION	HWY 401 ABOVE MALDEN RD
STRUCTURE NAME	MALDEN ROAD OVERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input checked="" type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPCI 1900 GIRDERS WITH INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



NOTE: \*THIS DIMENSION INCLUDES 2 SHOULDERS OF 3m PLUS CONCRETE MEDIAN BARRIER WALL.

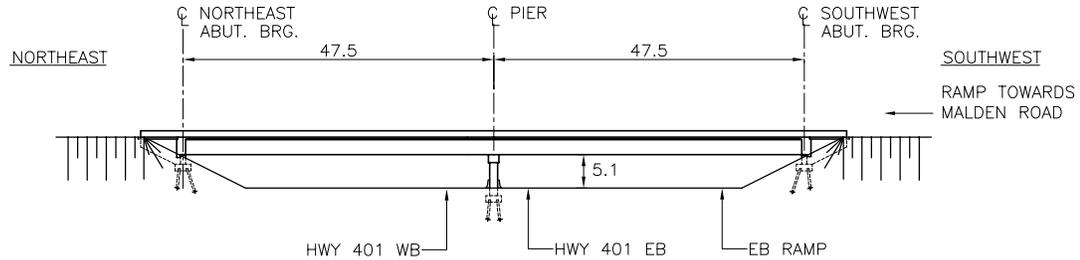
**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	35	WIDTH (m)	40.85	
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	16	
SKEW ANGLE	15°	VERTICAL CLEARANCE (m)	5.1	
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,000	ESTIMATED COST (\$)	2,860,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008	

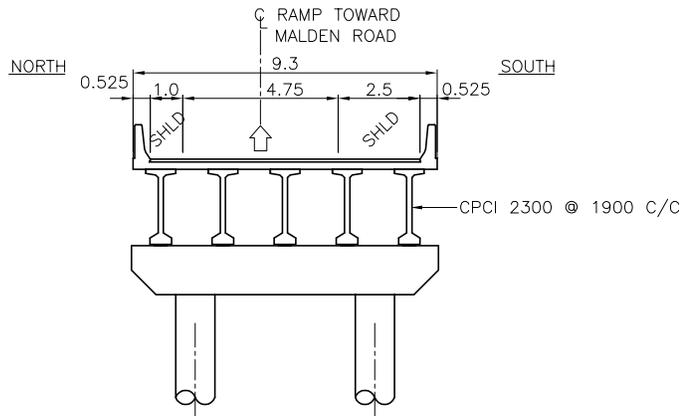
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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	BR-11	SITE NO.	----	LOCATION	RAMP TOWARDS MALDEN ROAD ABOVE HWY 401
STRUCTURE NAME	RAMP W-E UNDERPASS			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 2300 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	95	WIDTH (m)	9.30
STRUCTURAL DEPTH (m)	2.6	SPAN/DEPTH RATIO	17
SKEW ANGLE	60°	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,100	ESTIMATED COST (\$)	1,855,000
	REHABILITATION ----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	SEMI-INTEGRAL ABUTMENTS DUE TO 60° SKEW		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

FILENAME: C:\projects\01\BRIDGE\LAST REPORT\Ba-2C-REV-FE-BD\BridgeAlternative-2C-REV-Feb-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 2:52pm









# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-1	SITE NO.	----	LOCATION	TRAIL OVER HWY 3 AT WEST OF HOWARD AVENUE
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 3 AT WEST OF HOWARD AVENUE		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	26		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	1.05		SPAN/DEPTH RATIO	25	
SKEW ANGLE	NO		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	287,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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 PLOTDATE: Mar 17, 2008 3:55pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'PARKWAY-REVISED'
STRUCTURE I.D.	TB-3	SITE NO.	----	LOCATION	TRAIL OVER HWY 3 WEST OF COUSINEAU ROAD
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 3 AT WEST OF COUSINEAU ROAD			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	26		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	1.05		SPAN/DEPTH RATIO	25	
SKEW ANGLE	NO		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	287,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-4	SITE NO.	----	LOCATION	TRAIL OVER CONSINEAU ROAD AT SOUTH OF HWY 401
STRUCTURE NAME	TRAIL BRIDGE ABOVE CONSINEAU ROAD AT SOUTH OF HWY 401			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	22		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	0.95		SPAN/DEPTH RATIO	23	
SKEW ANGLE	NO		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	243,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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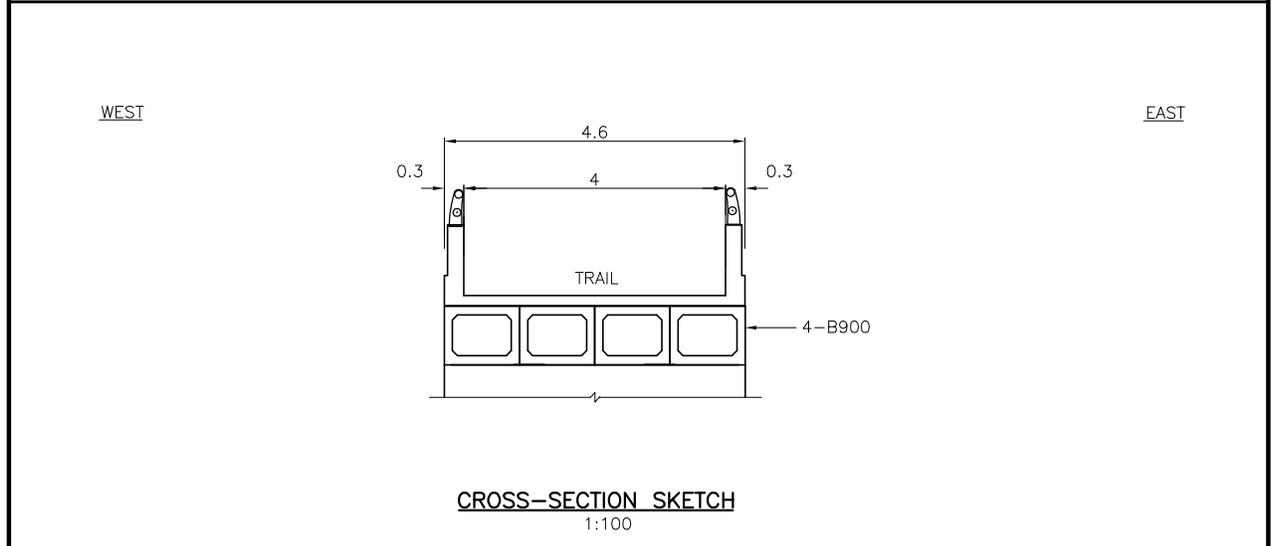
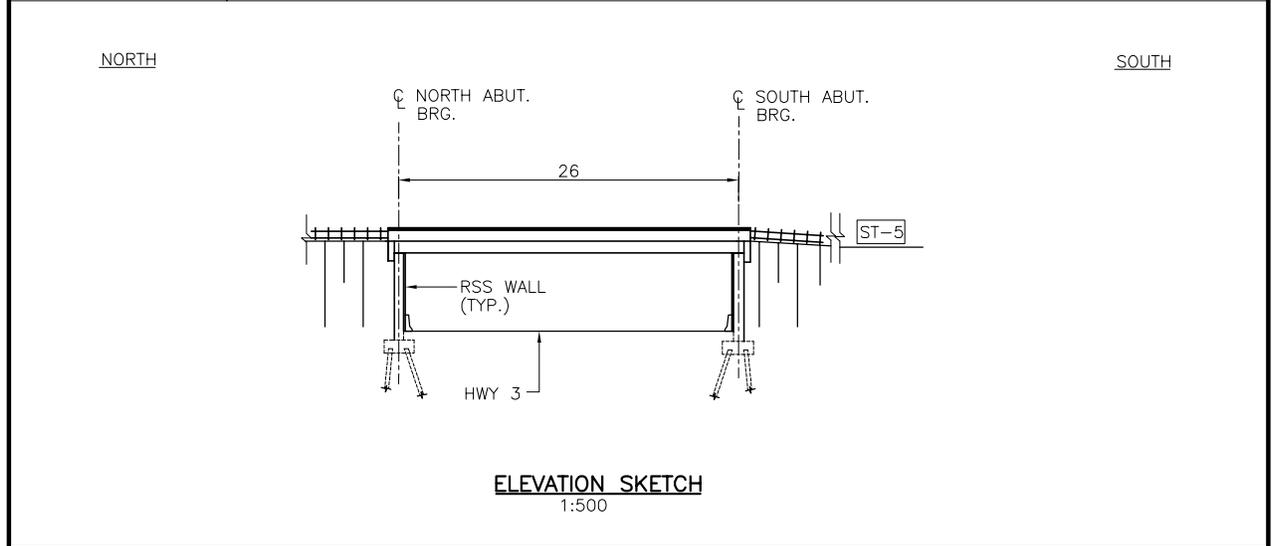
# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-6	SITE NO.	----	LOCATION	TRAIL OVER HWY 3 AT WEST OF ST. CLAIR COLLEGE ROAD
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 3 AT WEST OF ST. CLAIR COLLEGE ROAD			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	26		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	1.05		SPAN/DEPTH RATIO	25	
SKEW ANGLE	NO		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	287,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

FILENAME: C:\projects\CHL\DRG\_LAST REPORT\TRAIL-BRIDGES\Bridges\Alternative-2C-REV-Feb-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 4:03pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-7	SITE NO.	----	LOCATION	TRAIL OVER HWY 3 AT EAST OF HURON CHURCH LINE
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 3 AT EAST OF HURON CHURCH LINE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				

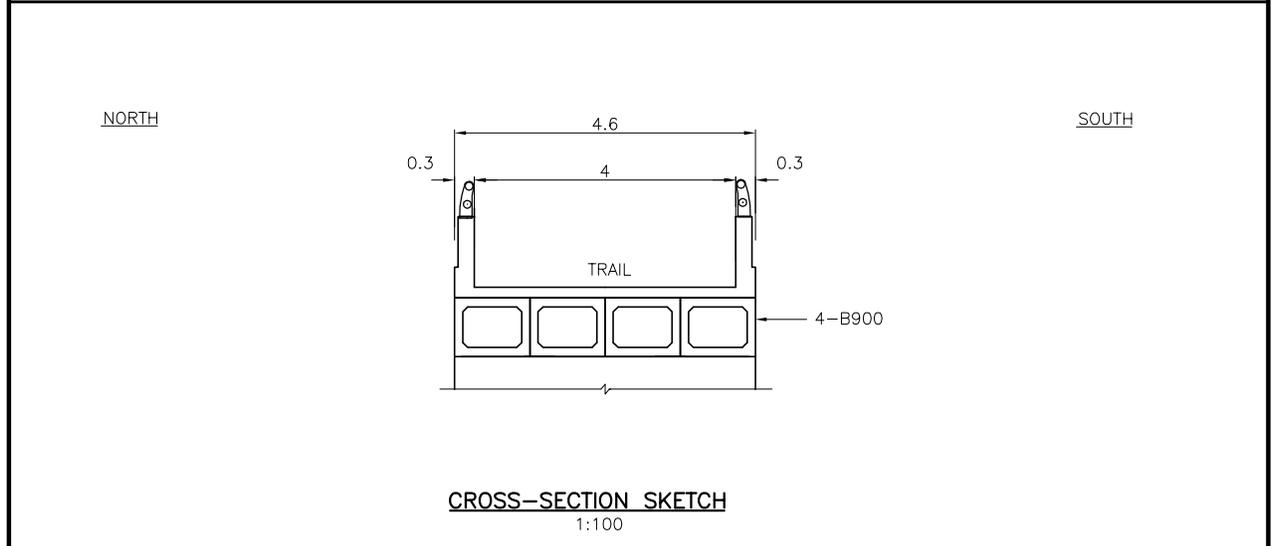
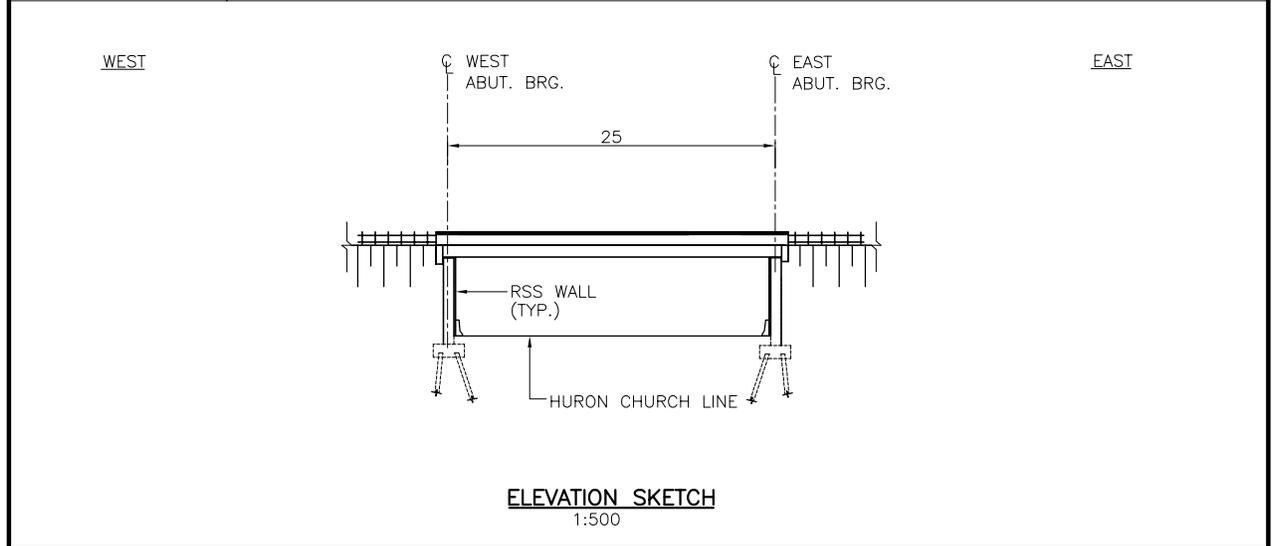


LENGTH (m)	26	WIDTH (m)	4.6
STRUCTURAL DEPTH (m)	1.05	SPAN/DEPTH RATIO	25
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.4
UNIT PRICE(\$/m2)	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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 PLOTDATE: Mar 17, 2008 4:03pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	TB-8	SITE NO.	----	LOCATION	TRAIL OVER HURON CHURCH LINE
STRUCTURE NAME	TRAIL BRIDGE ABOVE HURON CHURCH LINE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				



LENGTH (m)	25	WIDTH (m)	4.6
STRUCTURAL DEPTH (m)	1.05	SPAN/DEPTH RATIO	24
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.4
UNIT PRICE(\$/m2)	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

FILENAME: C:\projects\CHL\DRG\_LAST REPORT\TRAIL-BRIDGES\Bridges\Alternative-2C-REV-Feb-2008-BRIDGES.dwg  
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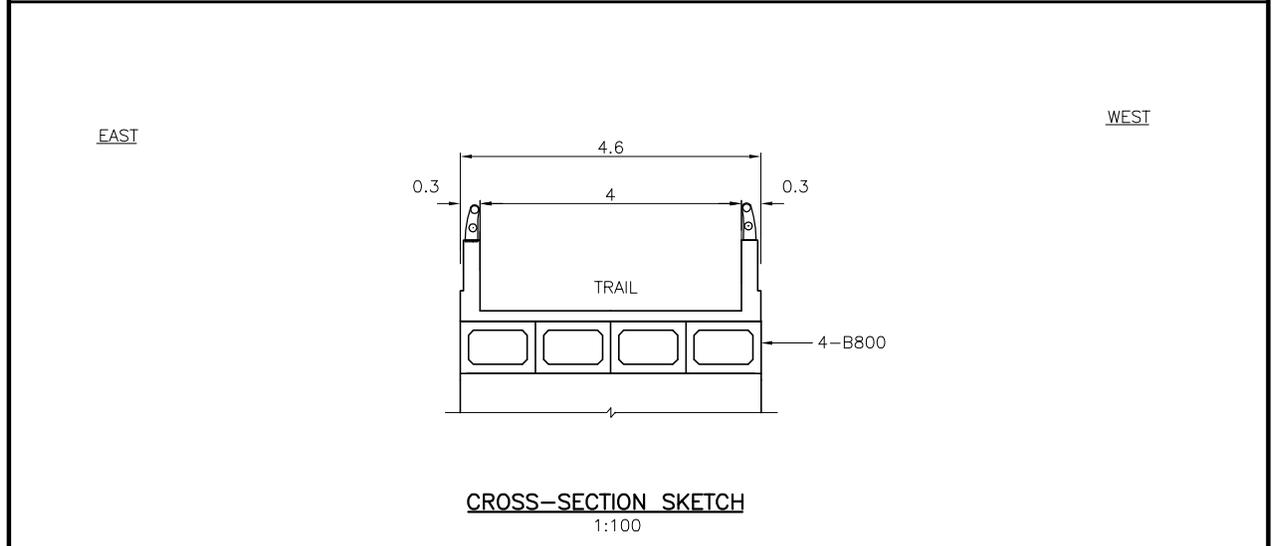
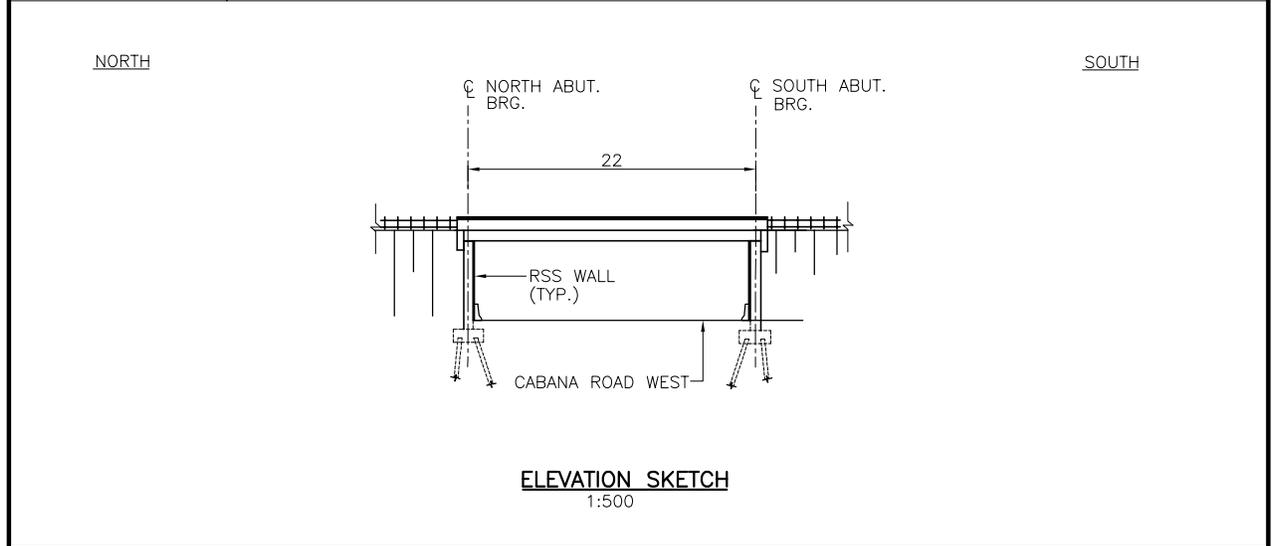
# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-9	SITE NO.	----	LOCATION	TRAIL OVER HWY 3 AT SOUTH OF CABANA ROAD WEST
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 3 AT SOUTH OF CABANA ROAD WEST			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN CPCI 1500 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	33		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	1.65		SPAN/DEPTH RATIO	20	
SKEW ANGLE	14°		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m2)	NEW STRUCTURE	2,200		ESTIMATED COST (\$)	334,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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 PLOTDATE: Mar 17, 2008 4:04pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-10	SITE NO.	----	LOCATION	TRAIL OVER CABANA ROAD WEST
STRUCTURE NAME	TRAIL BRIDGE ABOVE CABANA ROAD WEST			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				



LENGTH (m)	22	WIDTH (m)	4.6
STRUCTURAL DEPTH (m)	0.95	SPAN/DEPTH RATIO	23
SKREW ANGLE	11°	VERTICAL CLEARANCE (m)	5.4
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

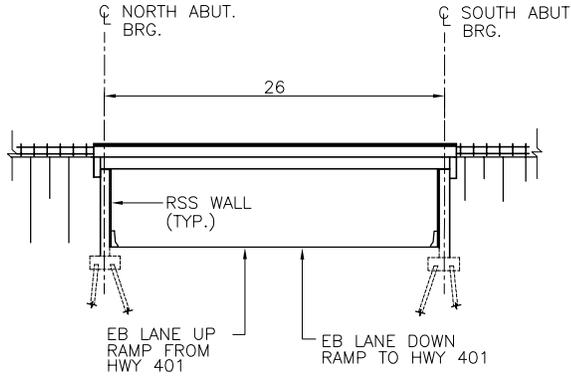
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 PLOTDATE: Mar 17, 2008 4:03pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	TB-11	SITE NO.	----	LOCATION	TRAIL OVER HWY 401 EB RAMP AT SOUTH OF REDDOCK ST.
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 401 EB LANE RAMP AT SOUTH OF REDDOCK STREET		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				

NORTHWEST

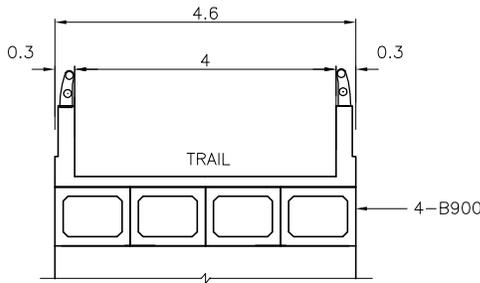
SOUTHEAST



**ELEVATION SKETCH**  
1:500

NORTHEAST

SOUTHWEST



**CROSS-SECTION SKETCH**  
1:100

LENGTH (m)	26	WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	1.05	SPAN/DEPTH RATIO	25	
SKEW ANGLE	30°	VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400	ESTIMATED COST (\$)	287,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008	

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 PLOTDATE: Mar 17, 2008 4:05pm

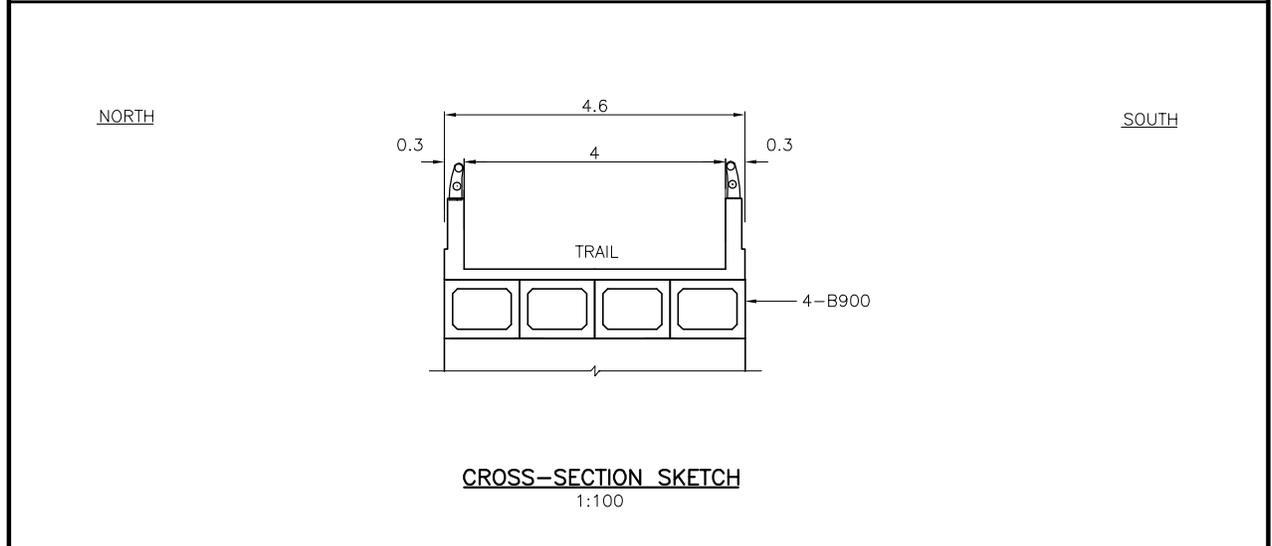
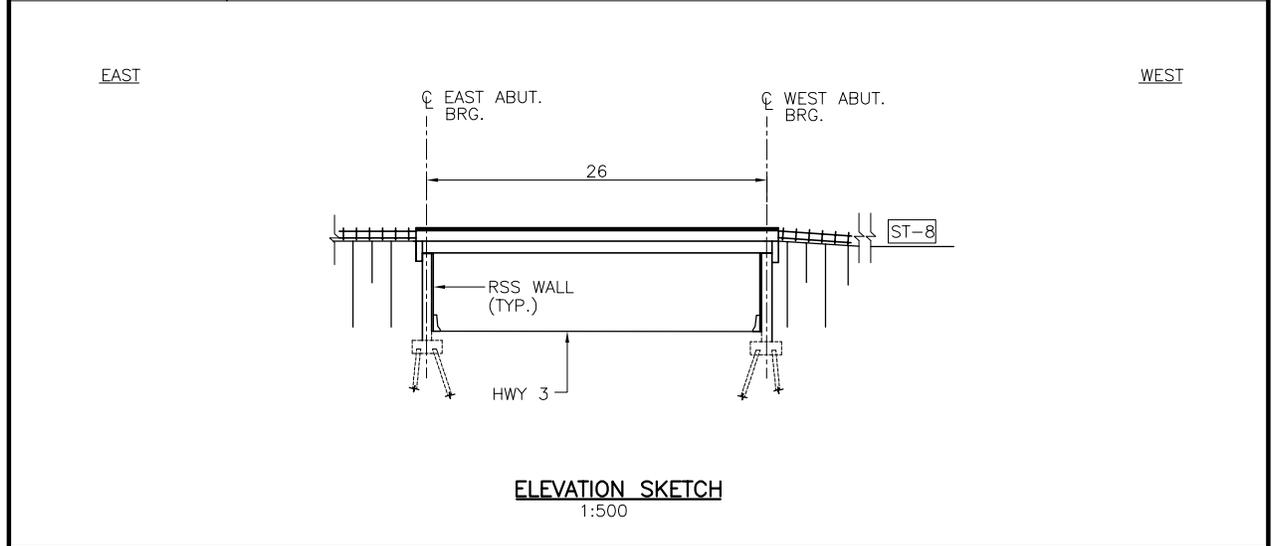
# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	TB-12	SITE NO.	----	LOCATION	TRAIL OVER PULFORD STREET
STRUCTURE NAME	TRAIL BRIDGE ABOVE PULFORD STREET			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p>NORTH <span style="float: right;">SOUTH</span></p> <p style="text-align: center;"><b>ELEVATION SKETCH</b> 1:500</p>					
<p>WEST <span style="float: right;">EAST</span></p> <p style="text-align: center;"><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	22		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	0.95		SPAN/DEPTH RATIO	23	
SKEW ANGLE	NO		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m2)	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	243,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

FILENAME: \\C:\projects\CH2DHC\_LAST REPORT\TRAIL-BRIDGES\Bridges\Alternative-2C-REV-Feb-2008-BRIDGES.dwg  
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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-13	SITE NO.	----	LOCATION	TRAIL OVER HWY 3 AT NORTH OF PULFORD STREET
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 3 AT NORTH OF PULFORD STREET			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				

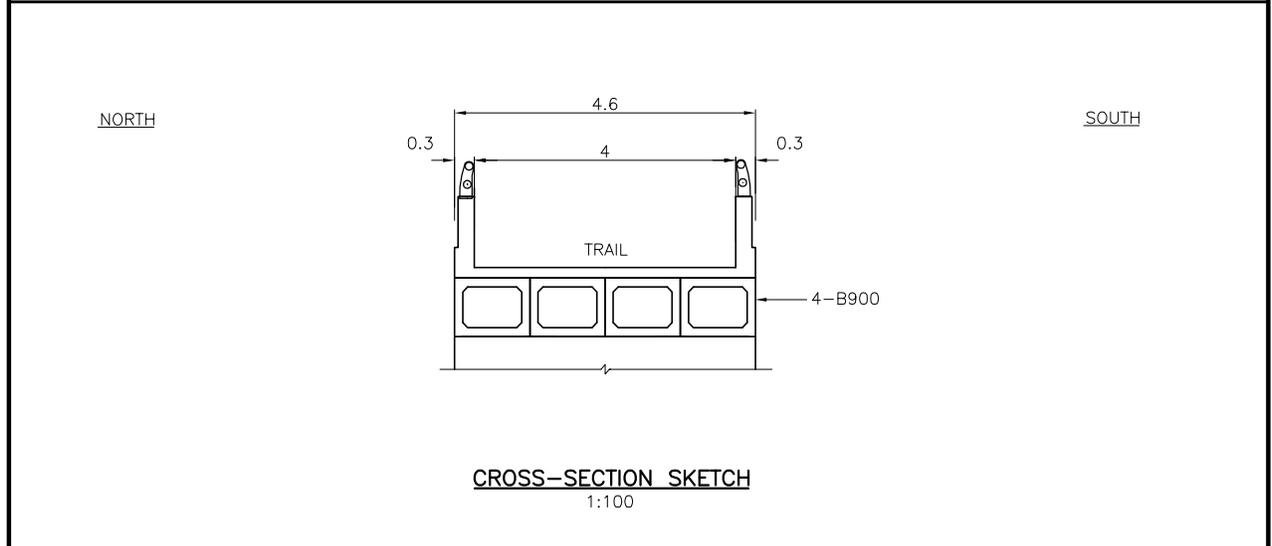
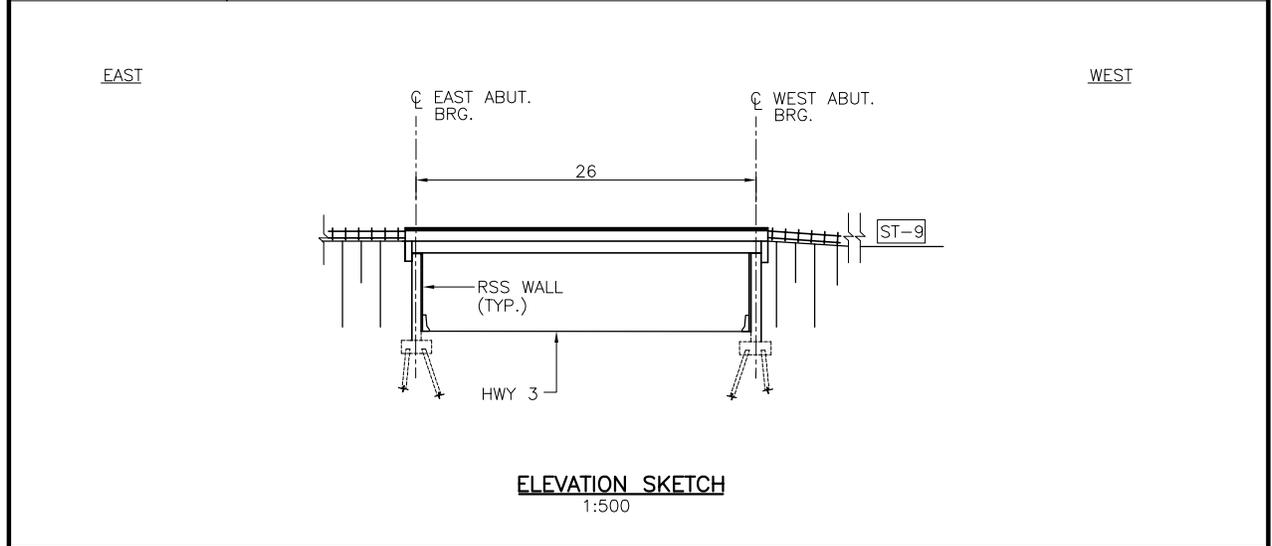


LENGTH (m)	26	WIDTH (m)	4.6
STRUCTURAL DEPTH (m)	1.05	SPAN/DEPTH RATIO	25
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.4
UNIT PRICE(\$/m2)	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	TB-14	SITE NO.	----	LOCATION	TRAIL OVER HWY 3 AT EAST OF GRAND MARAIS ROAD WEST
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 3 AT EAST OF GRAND MARAIS ROAD WEST			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				



LENGTH (m)	26	WIDTH (m)	4.6
STRUCTURAL DEPTH (m)	1.05	SPAN/DEPTH RATIO	25
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.4
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

FILENAME: \\C:\projects\CH\CH.DWG LAST REPORT: TRAIL-BRIDGES\Bridges\Alternative-2C-REV-1-Feb-2008-BRIDGES.dwg  
 PLOT DATE: Mar 17, 2008 4:08pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-15	SITE NO.	----	LOCATION	TRAIL OVER GRAND MARAIS ROAD WEST AT EAST OF HWY 401
STRUCTURE NAME	TRAIL BRIDGE ABOVE GRAND MARAIS ROAD WEST AT EAST OF HWY 401			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p>NORTH <span style="float: right;">SOUTH</span></p> <p><b>ELEVATION SKETCH</b> 1:500</p>					
<p>WEST <span style="float: right;">EAST</span></p> <p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	22		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	0.95		SPAN/DEPTH RATIO	2.3	
SKEW ANGLE	14°		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	243,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	TB-17	SITE NO.	----	LOCATION	TRAIL OVER HWY 3 AT SOUTH OF LABELLE STREET
STRUCTURE NAME	TRAIL BRIDGE ABOVE HWY 3 AT SOUTH OF LABELLE STREET			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	19		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	0.85		SPAN/DEPTH RATIO	22	
SKEW ANGLE	NO		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	210,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-18	SITE NO.	----	LOCATION	TRAIL OVER BETHLEHEM AVENUE
STRUCTURE NAME	TRAIL BRIDGE ABOVE BETHLEHEM AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	19		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	0.85		SPAN/DEPTH RATIO	22	
SKEW ANGLE	NO		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	210,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-19	SITE NO.	----	LOCATION	TRAIL OVER EB LANES OF HWY 3 AT EAST OF BETHLEHEM AVE.
STRUCTURE NAME	TRAIL BRIDGE ABOVE EB HWY 3 AT EAST OF BETHLEHEM AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	17		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	0.85		SPAN/DEPTH RATIO	20	
SKEW ANGLE	10°		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	188,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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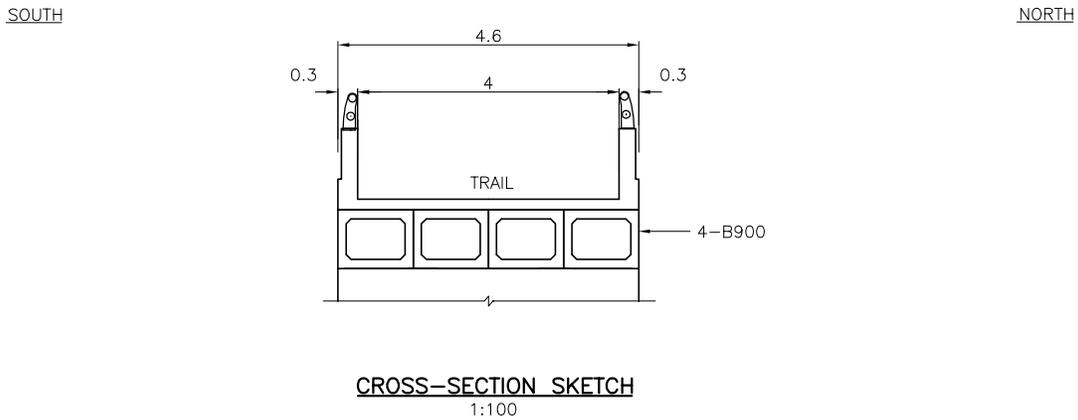
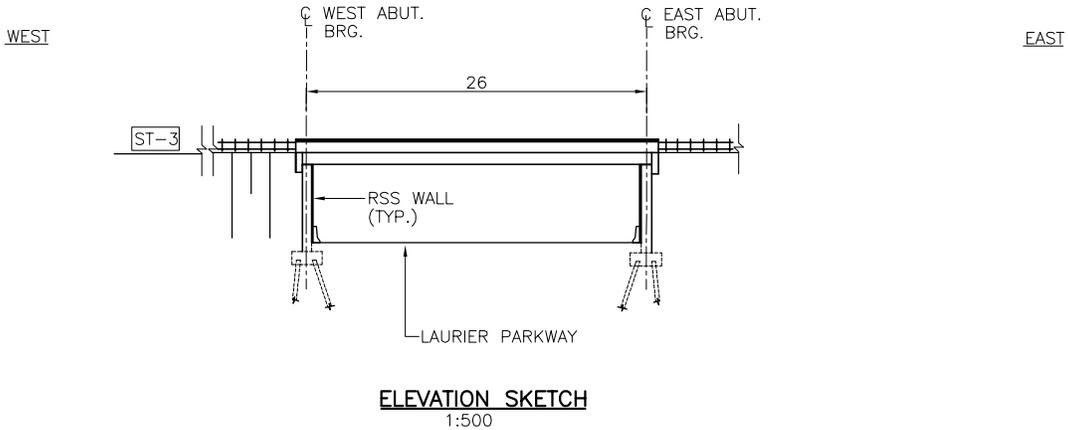
# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-20	SITE NO.	----	LOCATION	TRAIL OVER HOWARD AVENUE AT SOUTH OF HWY 401.
STRUCTURE NAME	TRAIL BRIDGE ABOVE HOWARD AVENUE AT SOUTH OF HWY 401		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS	<input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				
<p><b>ELEVATION SKETCH</b> 1:500</p>					
<p><b>CROSS-SECTION SKETCH</b> 1:100</p>					
LENGTH (m)	22		WIDTH (m)	4.6	
STRUCTURAL DEPTH (m)	0.95		SPAN/DEPTH RATIO	2.3	
SKEW ANGLE	28°		VERTICAL CLEARANCE (m)	5.4	
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400		ESTIMATED COST (\$)	243,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TB-21	SITE NO.	----	LOCATION	TRAIL OVER LAURIER PARKWAY CONNECTION AT SOUTH OF HWY 3
STRUCTURE NAME	TRAIL BRIDGE ABOVE LAURIER PARKWAY CONNECTION AT SOUTH OF HWY 3			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	SINGLE SPAN PRESTRESSED BOX GIRDERS WITH SEMI-INTEGRAL ABUTMENTS AND RSS WALLS				

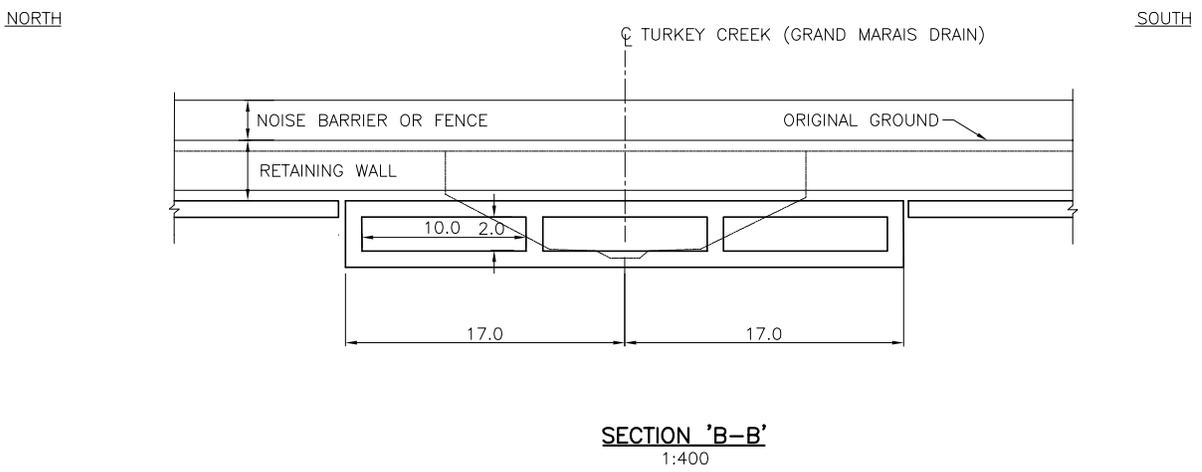
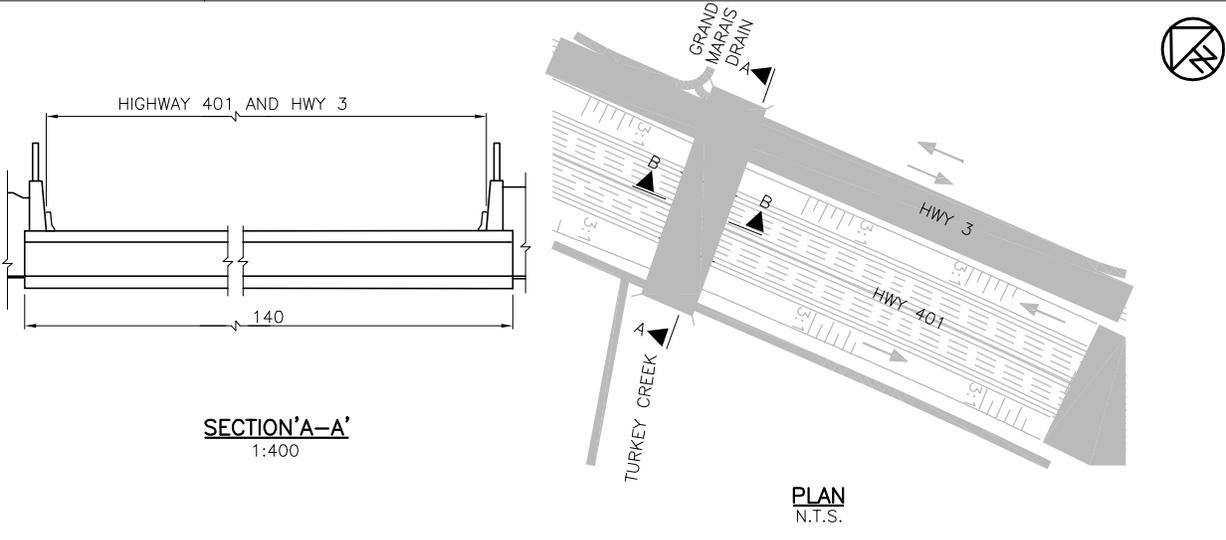


LENGTH (m)	26	WIDTH (m)	4.6
STRUCTURAL DEPTH (m)	1.05	SPAN/DEPTH RATIO	25
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.4
UNIT PRICE(\$/m <sup>2</sup> )	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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 PLOTDATE: Mar 17, 2008 4:08pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	TCC-1	SITE NO.	----	LOCATION	TURKEY CREEK
STRUCTURE NAME	TURKEY CREEK BOX CULVERT WITH HWY 401 AND HWY 3 ABOVE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	THREE CELLS BOX CULVERT				

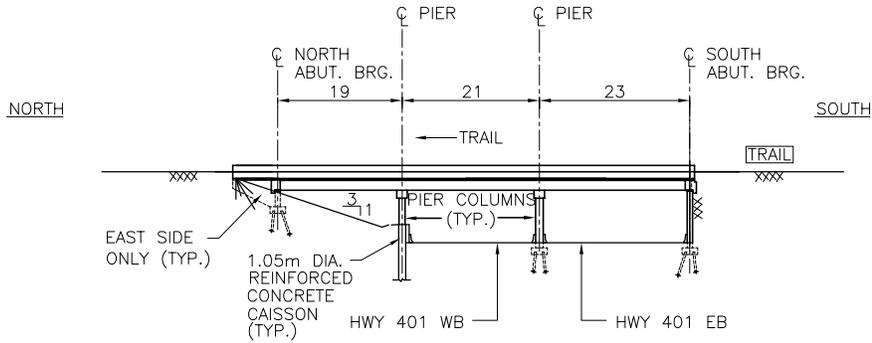


LENGTH (m)	140	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	120,000	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	INCLUDES REMOVAL OF EXISTING BRIDGE AND TEMPORARY TURKEY CREEK DIVERSION FOR STAGES OF BOX CULVERT CONSTRUCTION.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

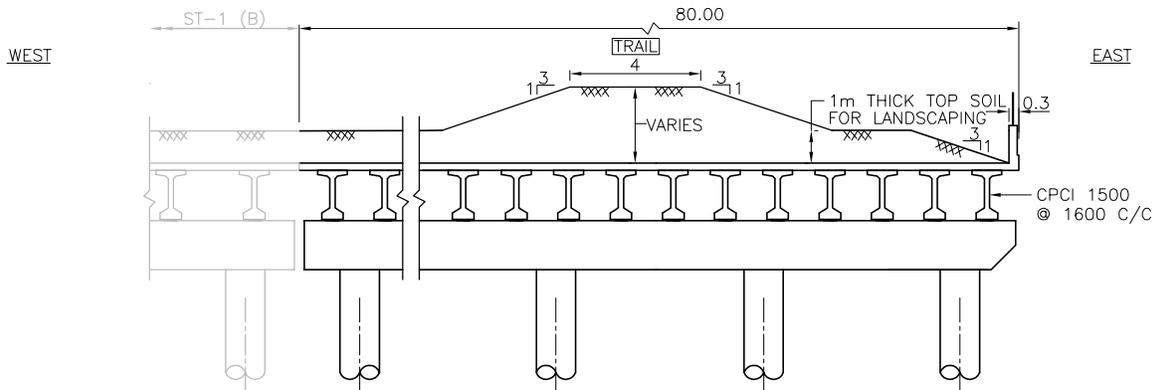
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 PLOTDATE: Mar 17, 2008 3:49pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-1 (A)	SITE NO.	----	LOCATION	WEST OF HOWARD AVENUE OVER HWY 401
STRUCTURE NAME	TUNNEL AT WEST OF HOWARD AVENUE UNDERPASS (EAST SIDE)		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	THREE SPANS CPCI 1500 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



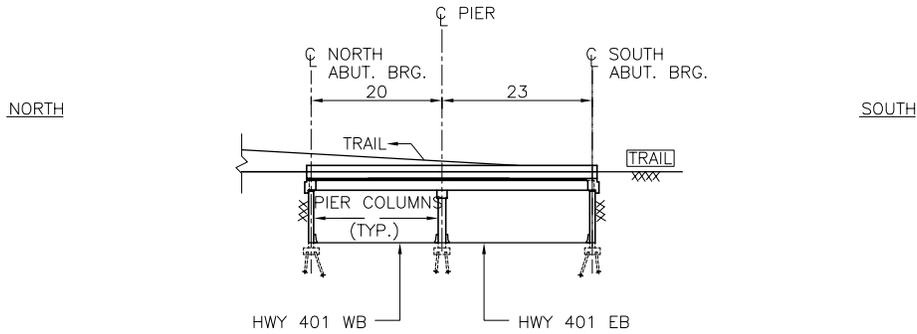
**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	63	WIDTH (m)	80
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	17
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2500	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

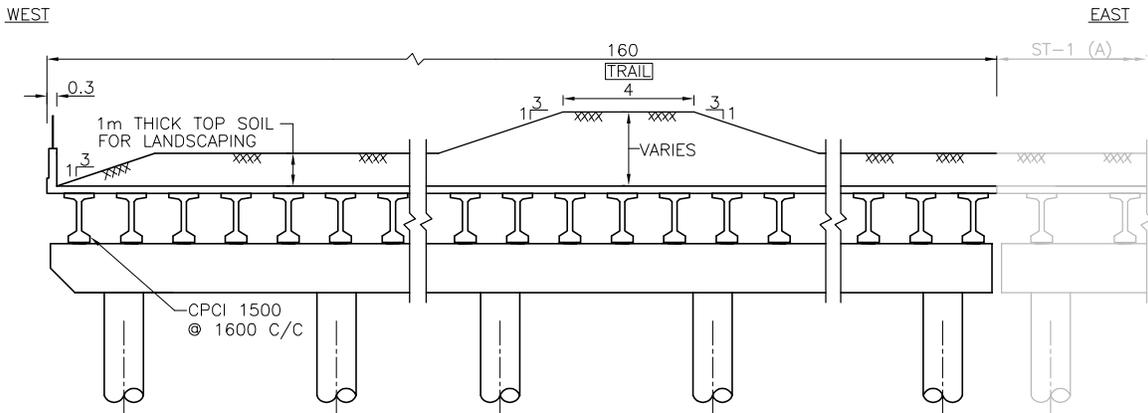
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 PLOTDATE: Jun 04, 2008 11:35:44am

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-1 (B)	SITE NO.	----	LOCATION	WEST OF HOWARD AVENUE OVER HWY 401
STRUCTURE NAME	TUNNEL AT WEST OF HOWARD AVENUE UNDERPASS (WEST SIDE)		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1500 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				



**ELEVATION SKETCH**  
1:1000



**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	43	WIDTH (m)	160
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	17
SKIEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,500	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

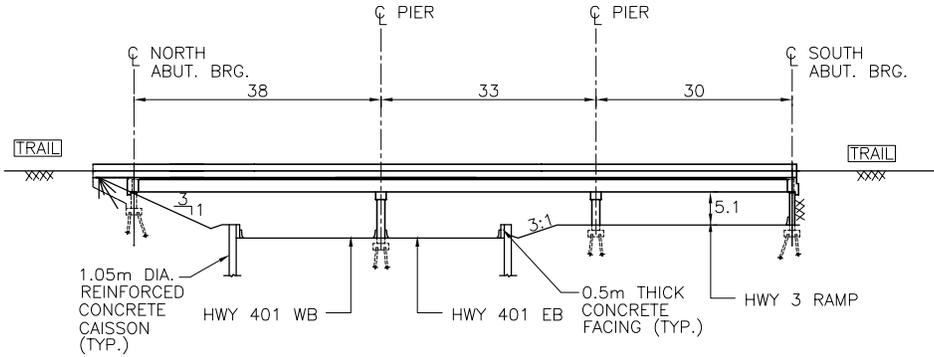
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 PLOTDATE: Jun 04, 2008 11:35:59am

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	ST-2 (A)	SITE NO.	----	LOCATION	NORTH OF HEARTHWOOD OVER HWY 401
STRUCTURE NAME	TUNNEL AT HEARTHWOOD (EAST SIDE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	THREE SPANS CPCI 1900 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				

NORTH

SOUTH

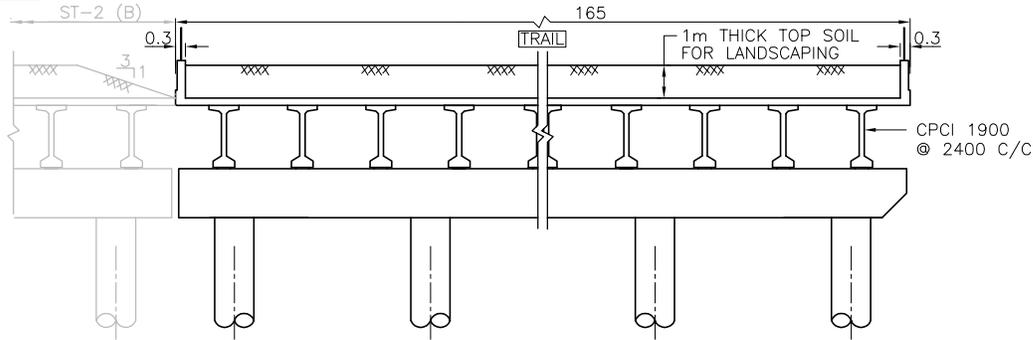


**ELEVATION SKETCH**

1:1000

WEST

EAST



**CROSS-SECTION SKETCH**

1:200

LENGTH (m)	101	WIDTH (m)	165
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	17
SKREW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,100 REHABILITATION ----	ESTIMATED COST (\$)	34,997,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- REFER STRUCTURAL PLANNING SHEET OF RW-15 FOR THIS BRIDGE LOCATION AND PLAN.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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 PLOTDATE: Jun 04, 2008 11:35:59am

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	ST-2 (B)	SITE NO.	----	LOCATION	NORTH OF HEARTHWOOD OVER HWY 401
STRUCTURE NAME	TUNNEL AT HEARTHWOOD (WEST SIDE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1900 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				
<p style="text-align: center;"><b>ELEVATION SKETCH</b> 1:1000</p>					
<p style="text-align: center;"><b>CROSS-SECTION SKETCH</b> 1:200</p>					
LENGTH (m)	71		WIDTH (m)	55	
STRUCTURAL DEPTH (m)	2.2		SPAN/DEPTH RATIO	17	
SKEW ANGLE	NO		VERTICAL CLEARANCE (m)	5.1	
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100		ESTIMATED COST (\$)	8,201,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- REFER STRUCTURAL PLANNING SHEET OF RW-15 FOR THIS BRIDGE LOCATION AND PLAN.				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

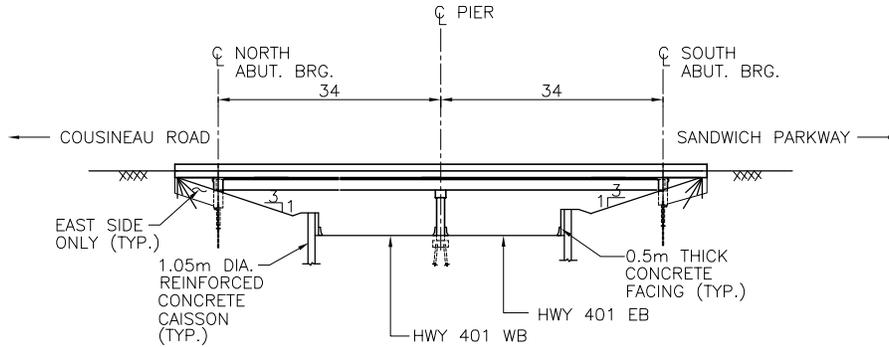
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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-3 (A)	SITE NO.	----	LOCATION	COUSINEAU ROAD OVER HWY 401
STRUCTURE NAME	TUNNEL AT COUSINEAU ROAD/ SANDWICH PARKWAY (EAST SIDE)		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1600 GIRDERS WITH INTEGRAL ABUTMENTS				

NORTH

SOUTH

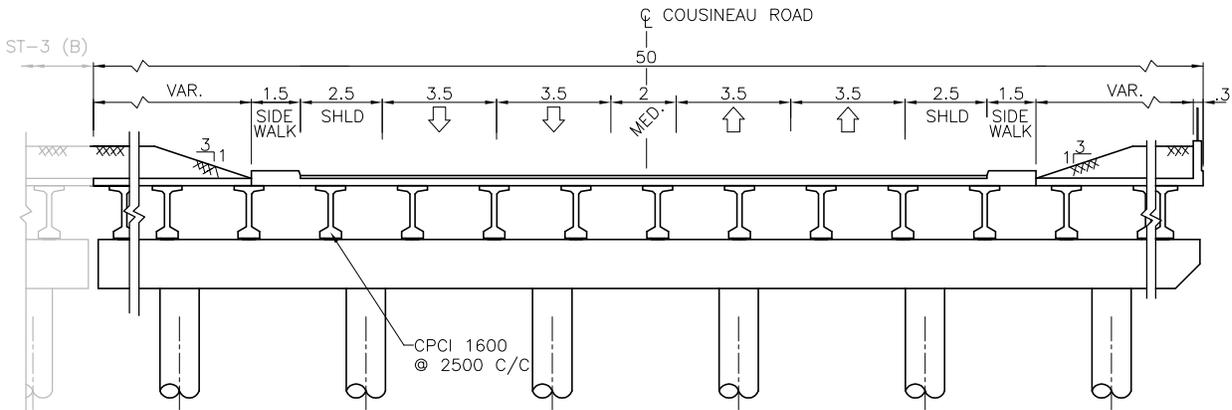


**ELEVATION SKETCH**

1:1000

WEST

EAST



**CROSS-SECTION SKETCH**

1:200

LENGTH (m)	68	WIDTH (m)	50
STRUCTURAL DEPTH (m)	1.9	SPAN/DEPTH RATIO	18
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,000 REHABILITATION ----	ESTIMATED COST (\$)	6,800,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

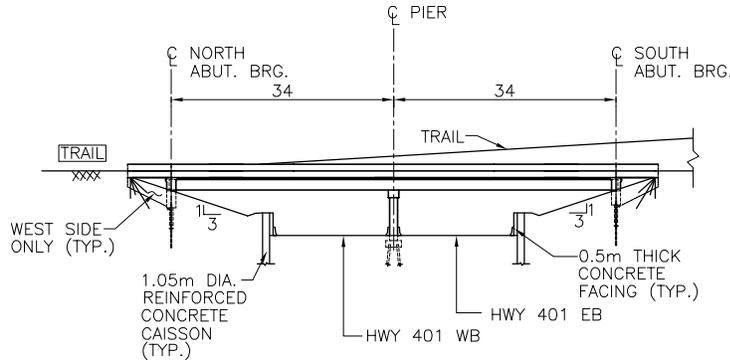
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 PLOTDATE: Jun 04, 2008 11:35:27am

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-3 (B)	SITE NO.	----	LOCATION	WEST OF COUSINEAU ROAD OVER HWY 401
STRUCTURE NAME	TUNNEL AT COUSINEAU ROAD/ SANDWICH PARKWAY (WEST SIDE)		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1600 GIRDERS WITH INTEGRAL ABUTMENTS				

NORTH

SOUTH

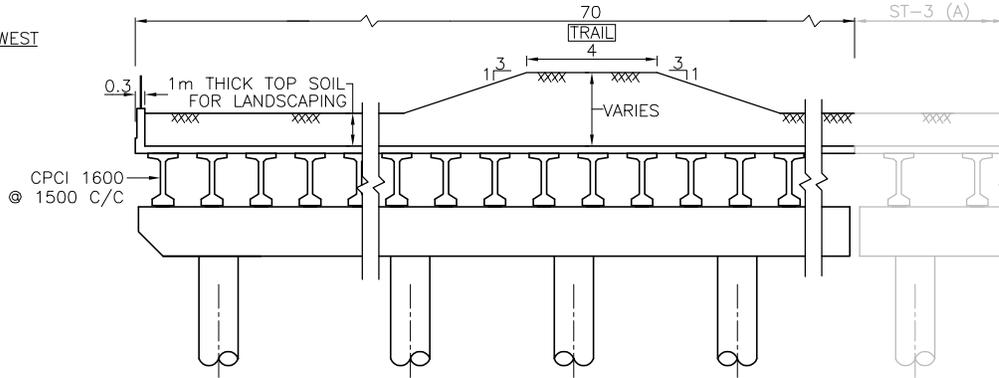


**ELEVATION SKETCH**

1:1000

WEST

EAST



**CROSS-SECTION SKETCH**

1:200

LENGTH (m)	68	WIDTH (m)	70
STRUCTURAL DEPTH (m)	1.9	SPAN/DEPTH RATIO	18
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

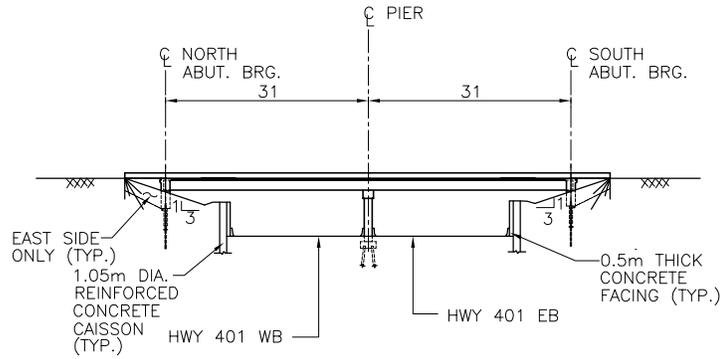
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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	ST-4 (A)	SITE NO.	----	LOCATION	EAST OF ST. CLAIR COLLEGE ROAD OVER HWY 401
STRUCTURE NAME	TUNNEL AT ST. CLAIR COLLEGE ROAD (EAST SIDE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1500 GIRDERS WITH INTEGRAL ABUTMENTS				

NORTH

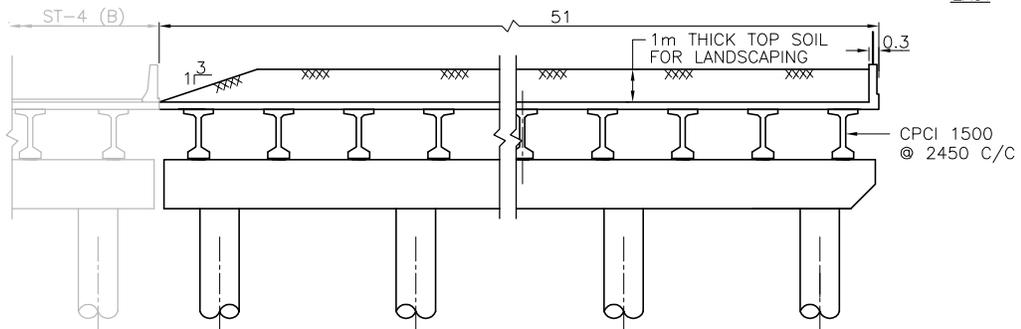
SOUTH



**ELEVATION SKETCH**  
1:1000

WEST

EAST



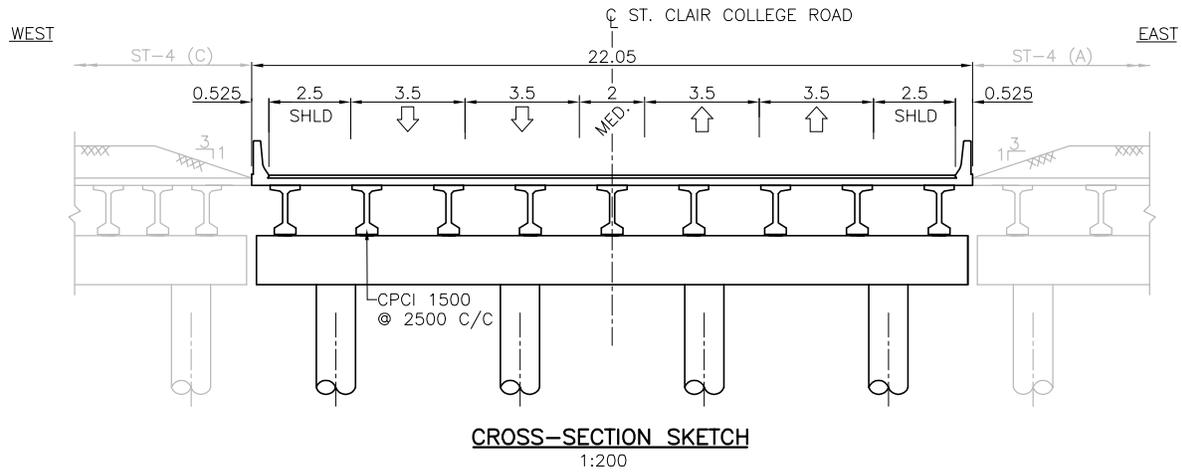
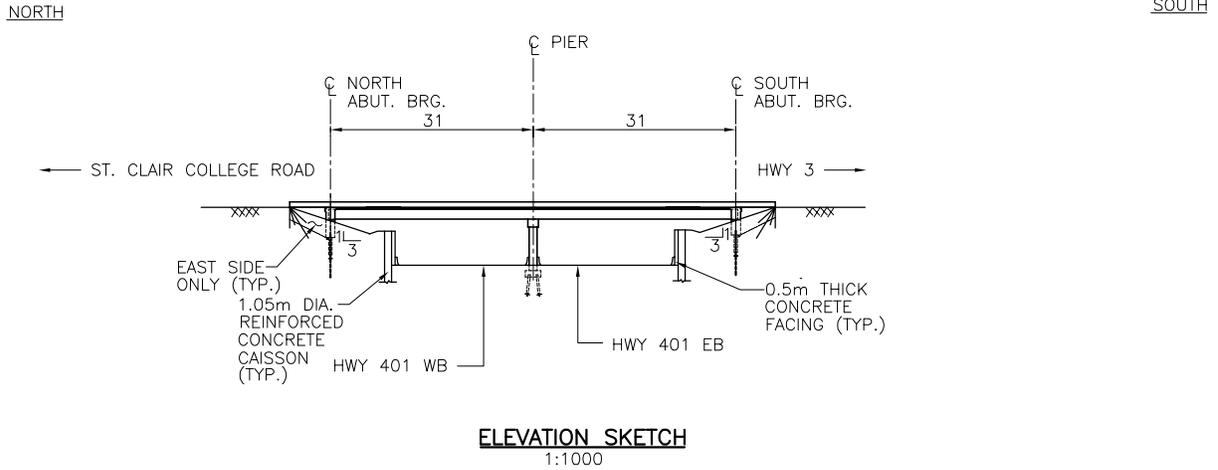
**CROSS-SECTION SKETCH**  
1:200

LENGTH (m)	62	WIDTH (m)	51
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	17
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,000	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-4 (B)	SITE NO.	----	LOCATION	ST. CLAIR COLLEGE ROAD OVER HWY 401
STRUCTURE NAME	TUNNEL AT ST. CLAIR COLLEGE ROAD (MIDDLE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1500 GIRDERS WITH INTEGRAL ABUTMENTS				



LENGTH (m)	62	WIDTH (m)	22.05
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	17
SKREW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE REHABILITATION	2,000 ----	ESTIMATED COST (\$) 2,734,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

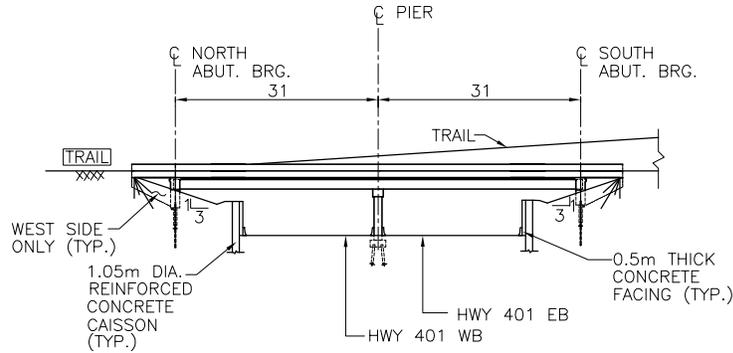
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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-4 (C)	SITE NO.	----	LOCATION	WEST OF ST. CLAIR COLLEGE ROAD OVER HWY 401
STRUCTURE NAME	TUNNEL AT ST. CLAIR COLLEGE ROAD (WEST SIDE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1500 GIRDERS WITH INTEGRAL ABUTMENTS				

NORTH

SOUTH

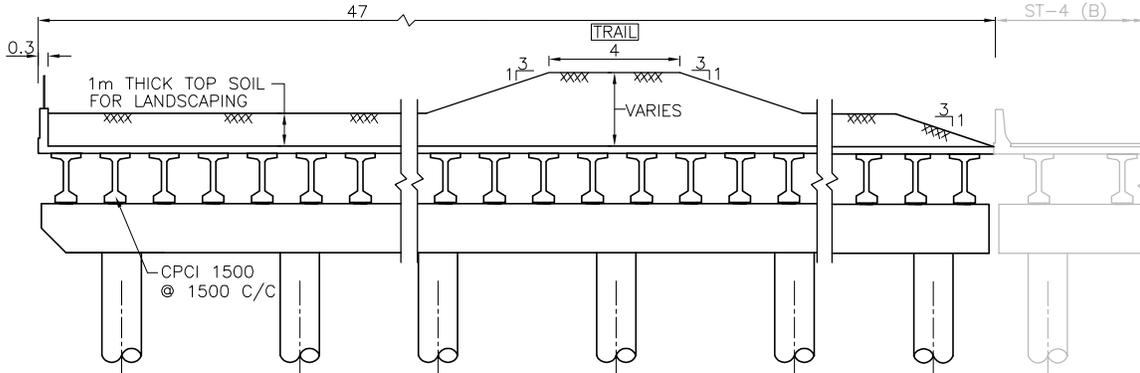


**ELEVATION SKETCH**

1:1000

WEST

EAST



**CROSS-SECTION SKETCH**

1:200

LENGTH (m)	62	WIDTH (m)	47
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	17
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE REHABILITATION	2,400 ----	ESTIMATED COST (\$) 6,994,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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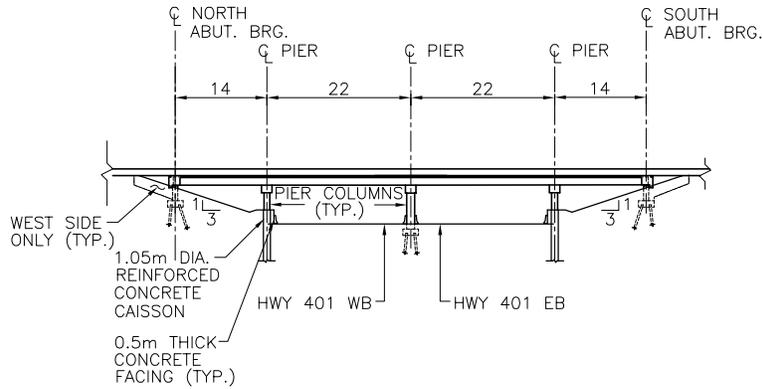


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	ST-5 (C)	SITE NO.	----	LOCATION	WEST OF HURON CHURCH LINE OVER HWY 401
STRUCTURE NAME	TUNNEL AT HURON CHURCH LINE (WEST SIDE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	FOUR SPANS CPCI 1200 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				

NORTH

SOUTH

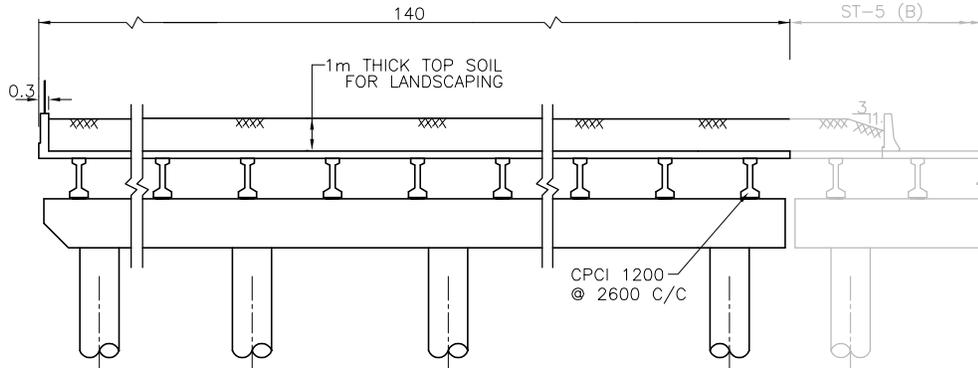


**ELEVATION SKETCH**

1:1000

WEST

EAST



**CROSS-SECTION SKETCH**

1:200

LENGTH (m)	72	WIDTH (m)	140
STRUCTURAL DEPTH (m)	1.5	SPAN/DEPTH RATIO	15
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,100	ESTIMATED COST (\$) 21,168,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	FOR BRIDGE LOCATION AND PLAN REFER TO STRUCTURAL PLANNING SHEET OF RW-32 & RW-29.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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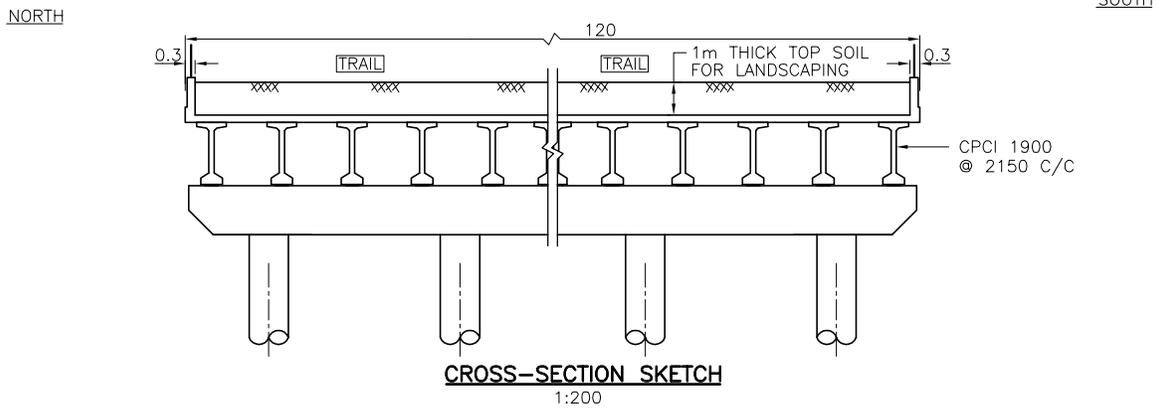
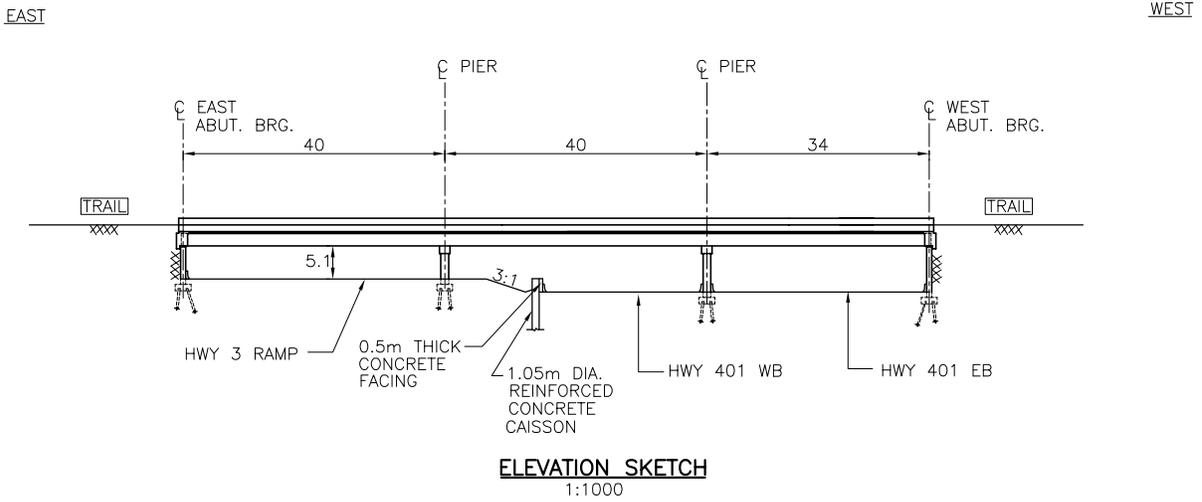






# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	ST-7	SITE NO.	----	LOCATION	EAST OF REDDOCK STREET OVER HWY 401
STRUCTURE NAME	TUNNEL AT REDDOCK STREET			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	THREE SPANS CPCI 1900 GIRDERS WITH SEMI-INTEGRAL ABUTMENTS				



LENGTH (m)	114	WIDTH (m)	120
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	18
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE 2,100 REHABILITATION ----	ESTIMATED COST (\$)	28,728,000
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

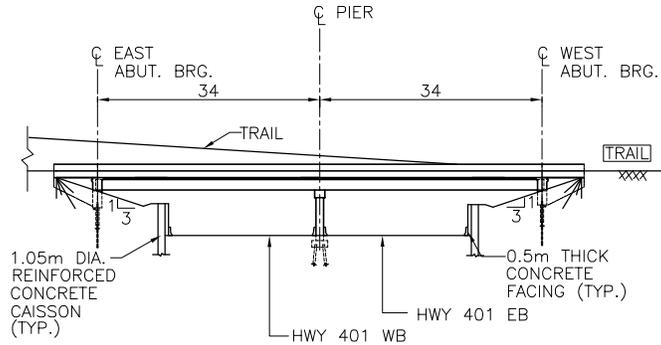
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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-8	SITE NO.	----	LOCATION	WEST OF PULFORD STREET OVER HWY 401
STRUCTURE NAME	TUNNEL AT PULFORD STREET			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1600 GIRDERS WITH INTEGRAL ABUTMENTS				

EAST

WEST

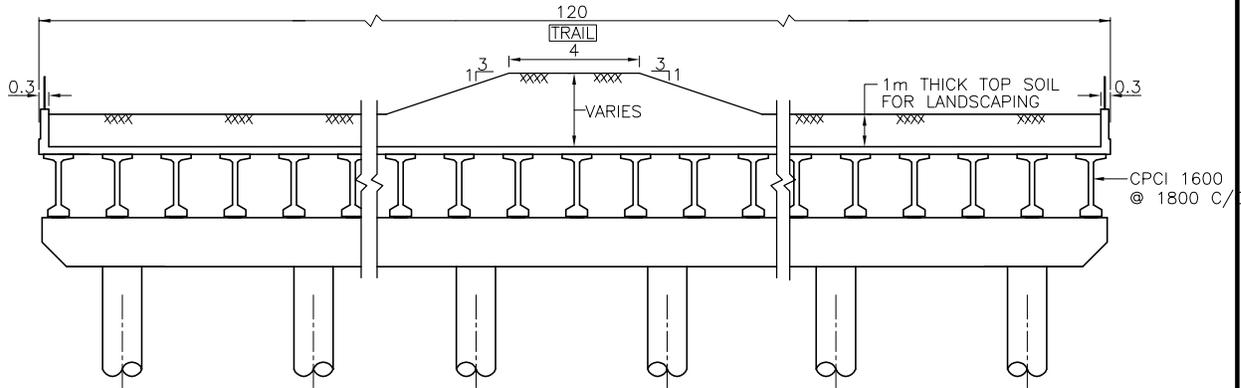


**ELEVATION SKETCH**

1:1000

NORTH

SOUTH



**CROSS-SECTION SKETCH**

1:200

LENGTH (m)	68	WIDTH (m)	120
STRUCTURAL DEPTH (m)	1.9	SPAN/DEPTH RATIO	18
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

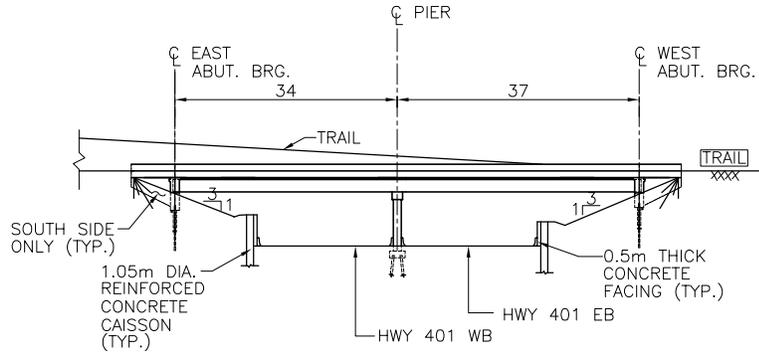
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 PLOTDATE: Jun 04, 2008 4:03pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-9 (A)	SITE NO.	----	LOCATION	SOUTH OF GRAND MARAIS ROAD WEST OVER HWY 401
STRUCTURE NAME	TUNNEL AT SOUTH OF GRAND MARAIS ROAD WEST (EAST SIDE)		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1900 GIRDERS WITH INTEGRAL ABUTMENTS.				

EAST

WEST

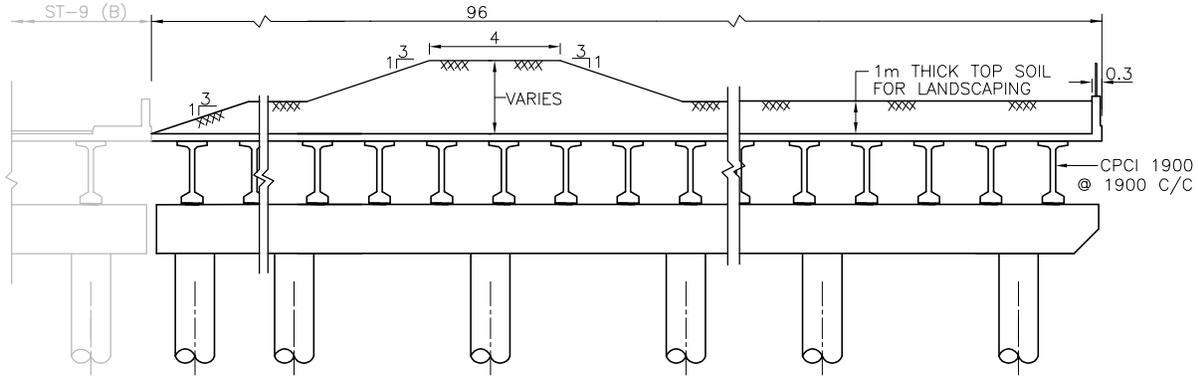


**ELEVATION SKETCH**

1:1000

NORTH

SOUTH



**CROSS-SECTION SKETCH**

1:200

LENGTH (m)	71	WIDTH (m)	96
STRUCTURAL DEPTH (m)	2.2	SPAN/DEPTH RATIO	17
SKREW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,400	ESTIMATED COST (\$)
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

FILENAME: C:\ORIC\16\_Structure\16\_Structure\CADD\Planning Sheets\Hwy Alternatives\2008\Bridge-Alt-05-2008\ORIC\_LAST\_REPORT\ORIC-CAD-LASTREPORT-05-05-2008\BridgeAlternative-2C-REV-Feb-2008-BRIDGES.dwg  
 PLOTDATE: Jun 04, 2008 4:03pm



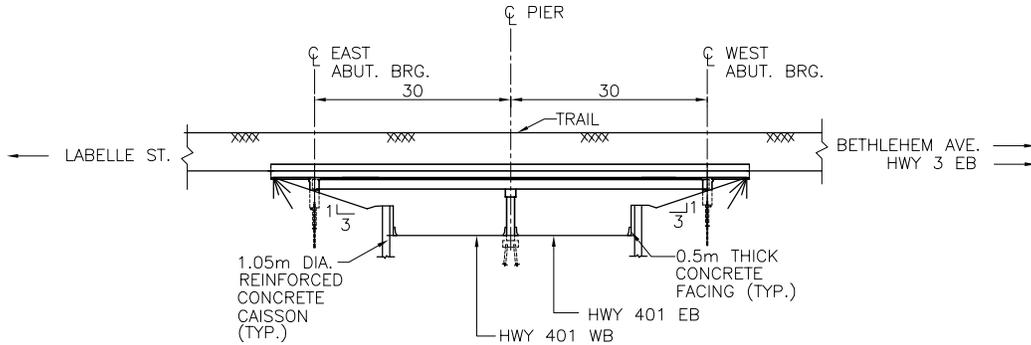


# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	ST-10 (B)	SITE NO.	----	LOCATION	LABELLE STREET AND HWY 3 OVER HWY 401
STRUCTURE NAME	TUNNEL AT SOUTH OF LABELLE STREET (MIDDLE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	TWO SPANS CPCI 1500 GIRDERS WITH INTEGRAL ABUTMENTS				

EAST

WEST

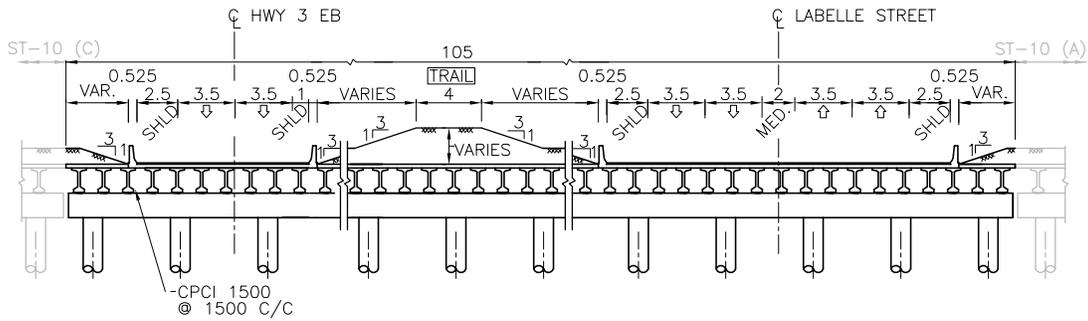


**ELEVATION SKETCH**

1:1000

NORTH

SOUTH



**CROSS-SECTION SKETCH**

1:400

LENGTH (m)	60	WIDTH (m)	105
STRUCTURAL DEPTH (m)	1.8	SPAN/DEPTH RATIO	17
SKEW ANGLE	NO	VERTICAL CLEARANCE (m)	5.1
UNIT PRICE (\$/m <sup>2</sup> )	NEW STRUCTURE	2,400	ESTIMATED COST (\$) 15,120,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	LANE AND SHOULDER WIDTHS SHOWN ARE PERPENDICULAR TO HWY 3 EB AND LABELLE STREET.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

FILENAME: C:\BRIC\16\_Structure\16\_CADD\Planning Sheets\Hwy Alternatives\2008\Bridge-Alt-05-2008\BRIC LAST REPORT\BRIC-CAD-LASTREPORT-05-05-2008\BridgeAlternative-2C-REV-Feb-2008-BRIDGES.dwg  
PLOTDATE: Jun 04, 2008 11:40:40am

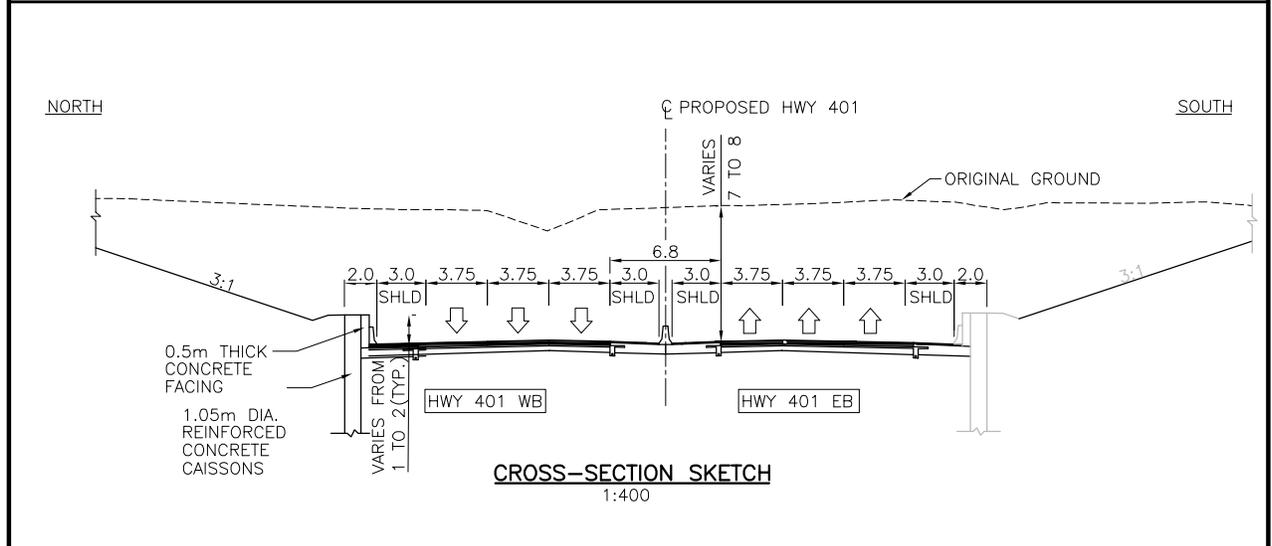
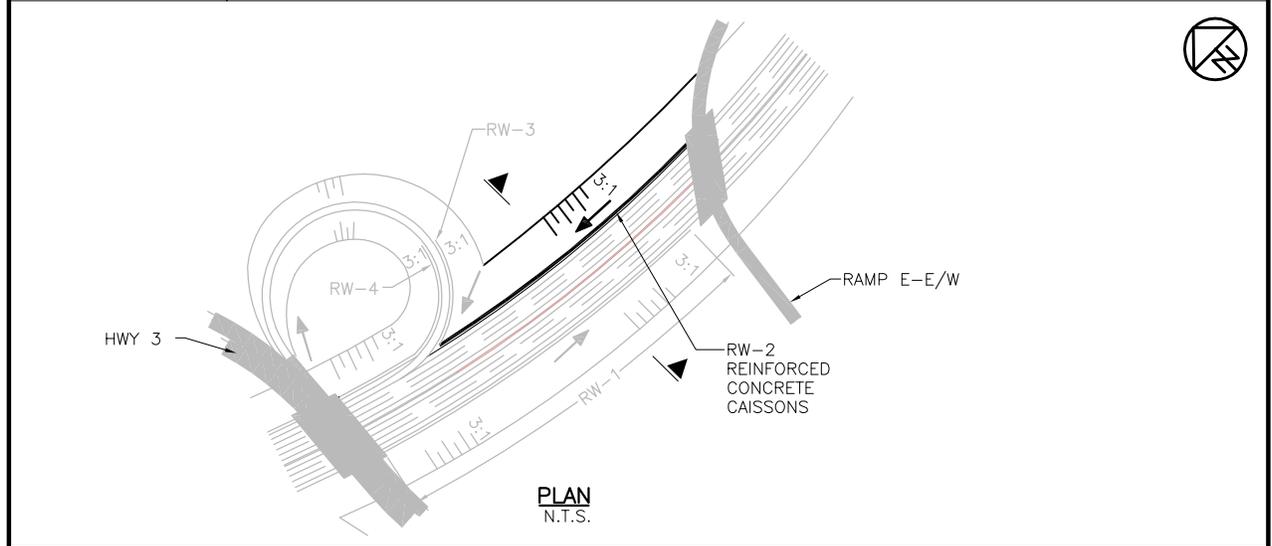






# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-2	SITE NO.	----	LOCATION	HWY 401 AT WEST OF RAMP E-E/W
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF RAMP E-E/W			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON NORTH SIDE				

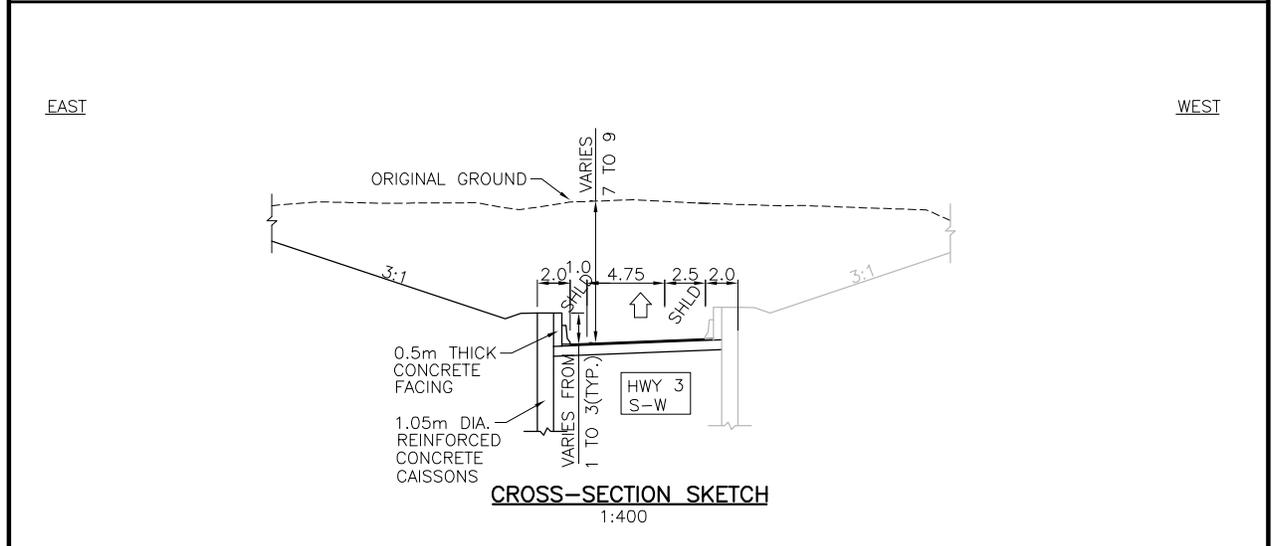
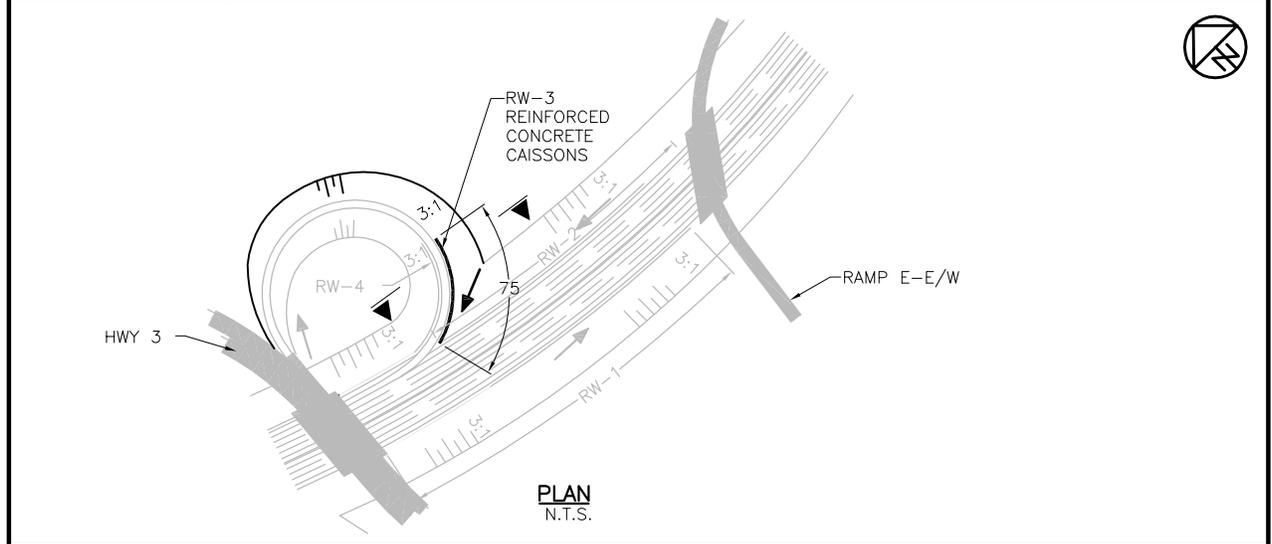


LENGTH (m)	170 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	4,590,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: C:\projects\2014\DRG\_LAST REPORT\BA-2C-REV-FEB-CAISSINWALL\BridgAltAlternative-2C-REV-FEB-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 3:19pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-3	SITE NO.	----	LOCATION	HWY 3 S-W BULLNOSE ENTRANCE AT EAST OF HOWARD AVE
STRUCTURE NAME	APPROACH RAMP OF HWY 3 S-W BULLNOSE ENTRANCE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON EAST SIDE				

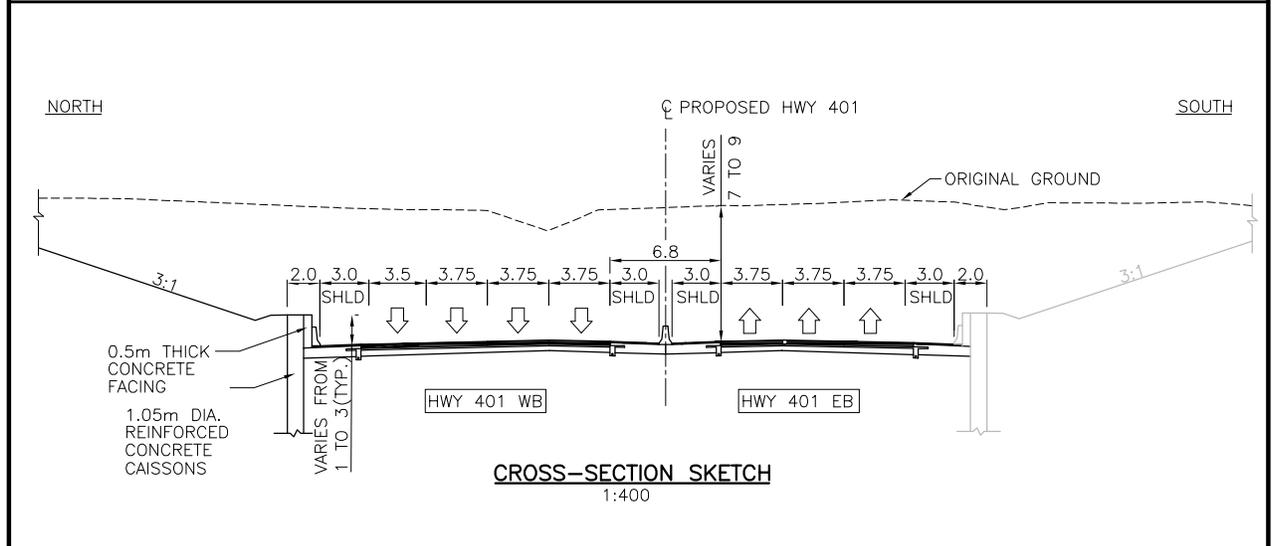
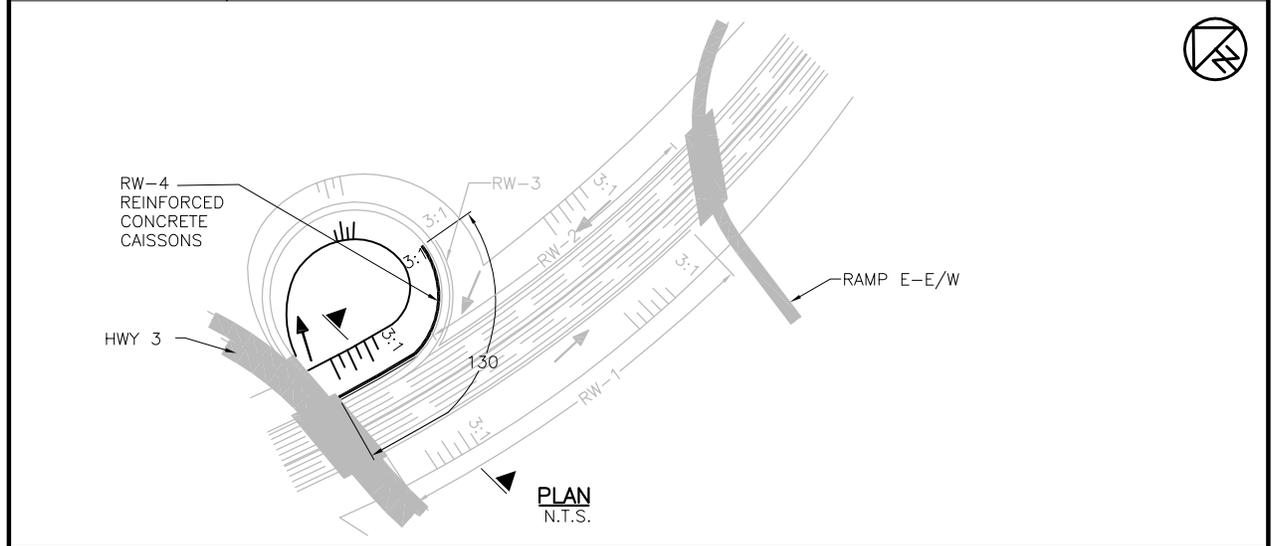


LENGTH (m)	75 EAST SIDE	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKREW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$) 2,025,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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PLOTDATE: Mar 17, 2008 3:13pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-4	SITE NO.	----	LOCATION	HWY 401 AT EAST OF HWY 3 CROSSING
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF HWY 3 CROSSING			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON NORTH SIDE				

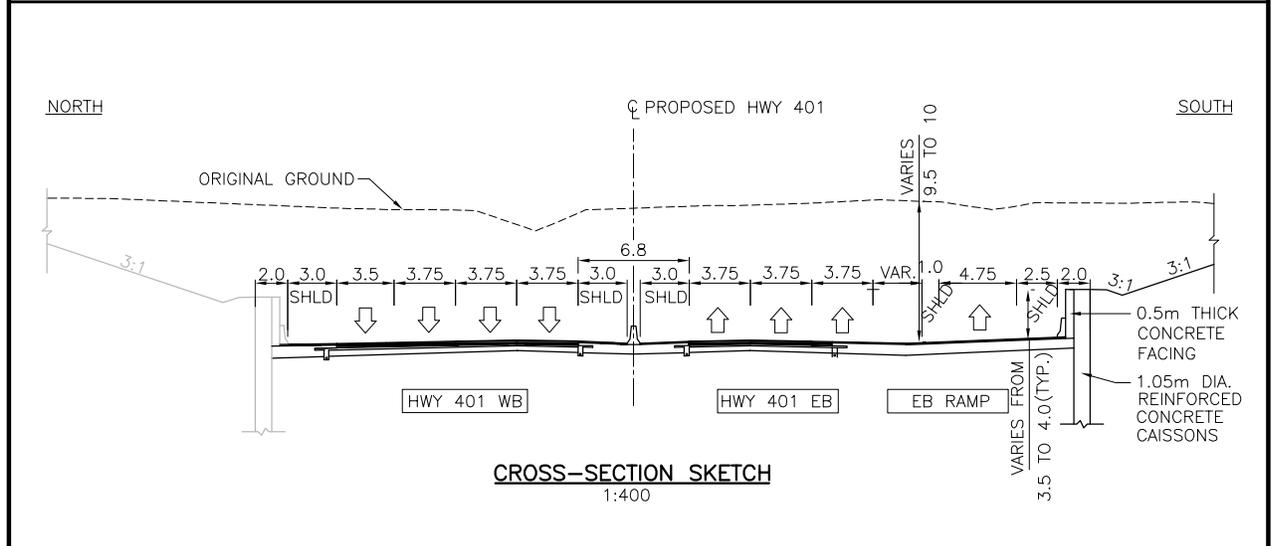
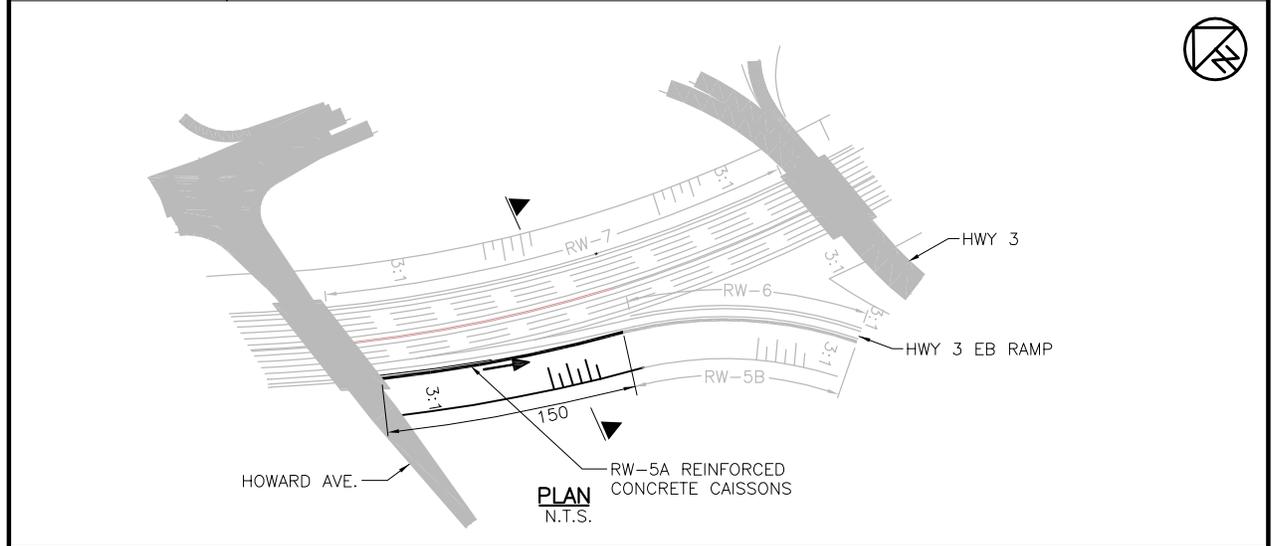


LENGTH (m)	130 NORTH SIDE		WIDTH (m)	----	
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----	
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----	
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	3,510,000	
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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 PLOT DATE: Mar 17, 2008 3:20pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-5A	SITE NO.	----	LOCATION	EAST OF HOWARD AVENUE
STRUCTURE NAME	BELOW GRADE HWY 401 WITH HWY 3 EB RAMP AT EAST OF HOWARD AVENUE (WEST SIDE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON SOUTH SIDE				

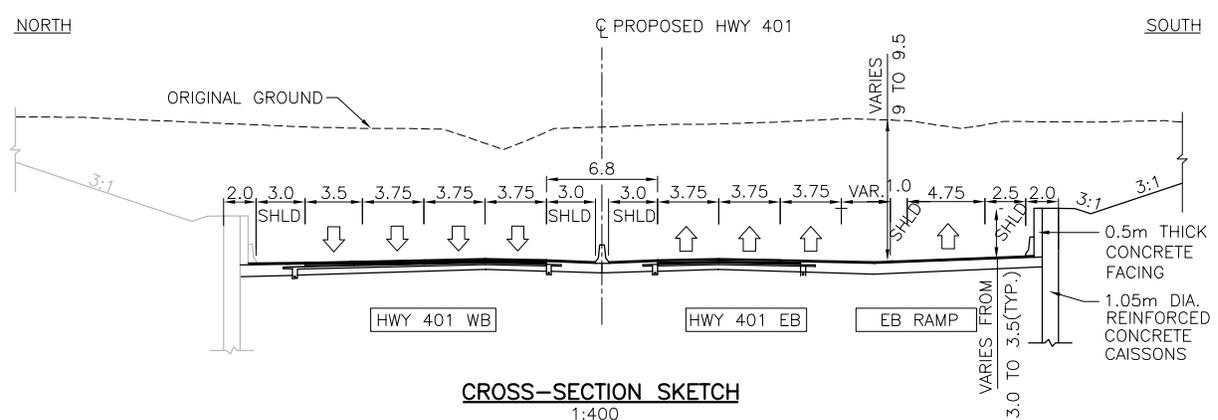
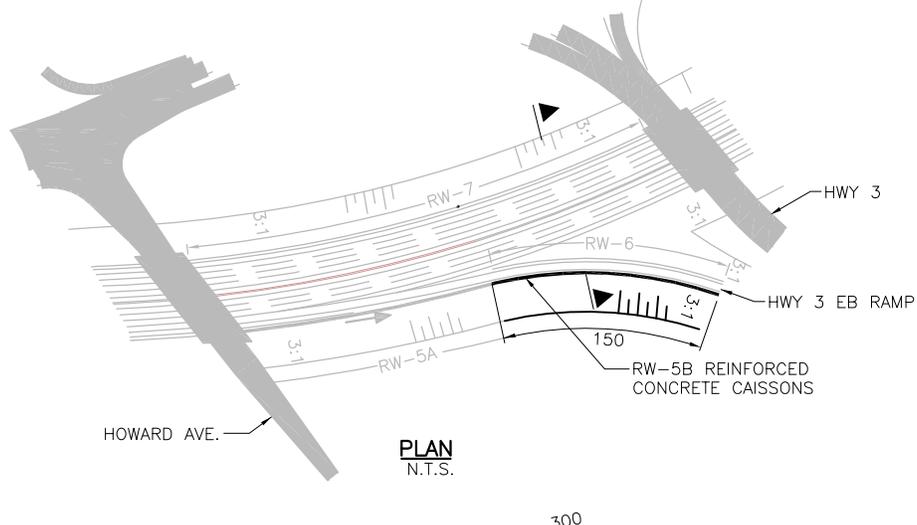


LENGTH (m)	150 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	4,050,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- HEIGHT OF THIS STRUCTURE MAY BE REDUCED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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PLOTDATE: Mar 17, 2008 3:21 pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-5B	SITE NO.	----	LOCATION	EAST OF HOWARD AVENUE
STRUCTURE NAME	BELOW GRADE HWY 401 WITH HWY 3 EB RAMP AT EAST OF HOWARD AVENUE (EAST SIDE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON SOUTH SIDE				

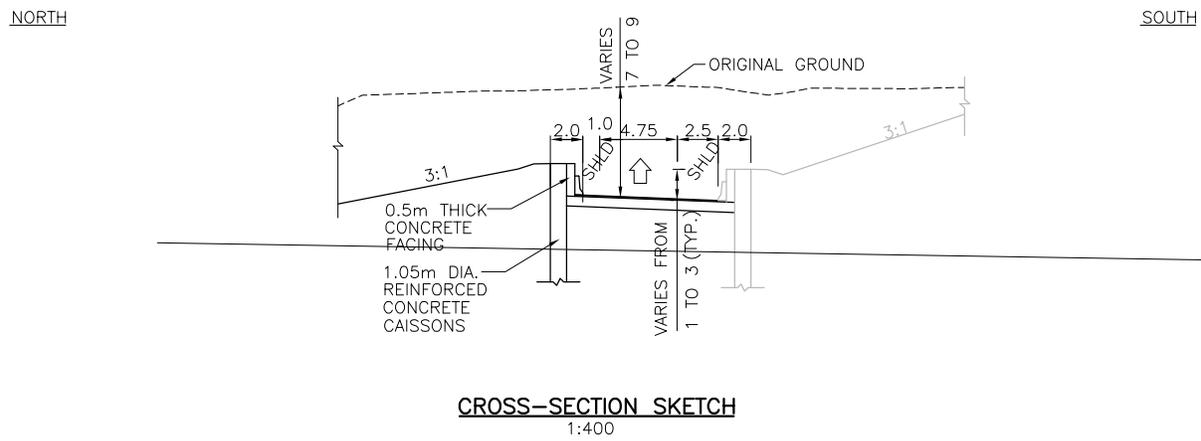
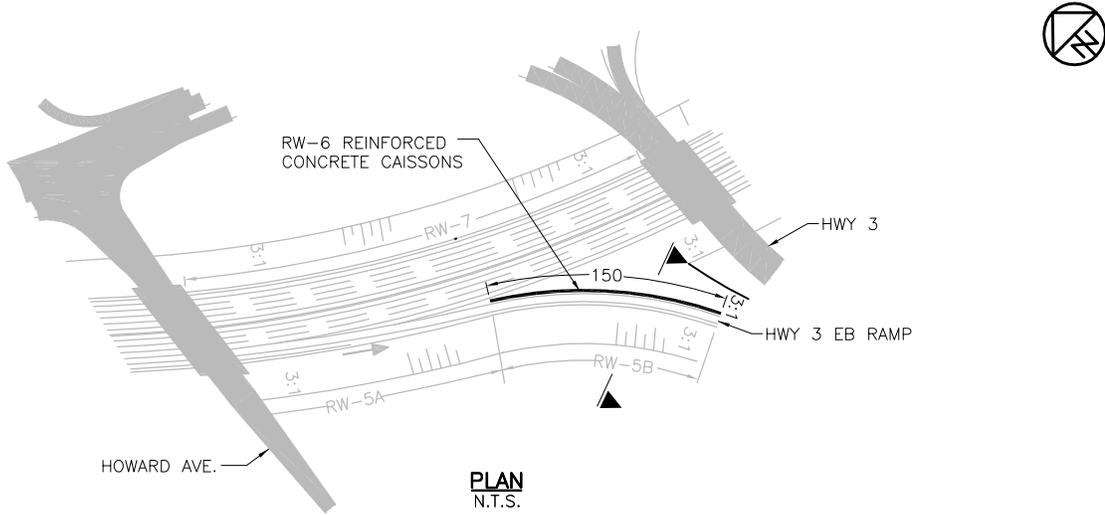


LENGTH (m)	150 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO		----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)		----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	4,050,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- HEIGHT OF THIS STRUCTURE MAY BE REDUCED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: \\Common\Oits\DRG\_LAST\_REPORT\BA-2C-REV-FEB-CAISSINWALL\BridgeAlternative-2C-REV-Feb-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 - 3:22pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-6	SITE NO.	----	LOCATION	EAST OF HOWARD AVENUE
STRUCTURE NAME	HWY 3 EB RAMP AT EAST OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON NORTH SIDE				

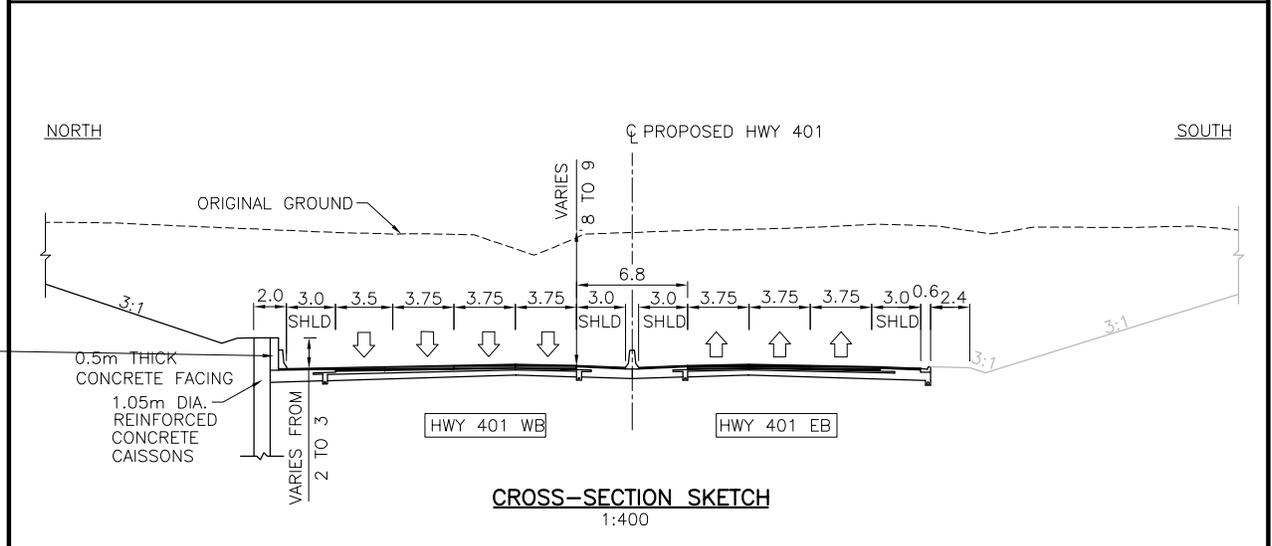
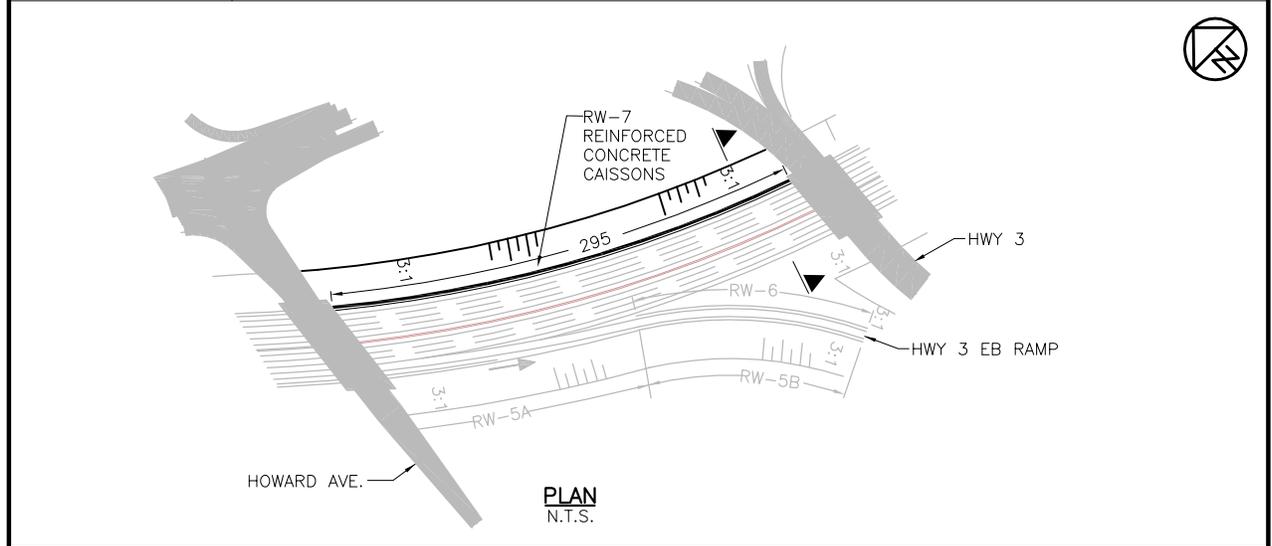


LENGTH (m)	150 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	4,050,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008	

FILENAME: \\Common\01ts\URC\_LAST\_REPORT\BA-2C-REV-FEB-CAISSONWALL\Bridges\Alternative-2C-REV-Feb-2008-BRIDGES.dwg  
 PLOT DATE: Mar 17, 2008 - 3:22pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-7	SITE NO.	----	LOCATION	WEST OF HWY 3 CROSSING
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON NORTH SIDE				

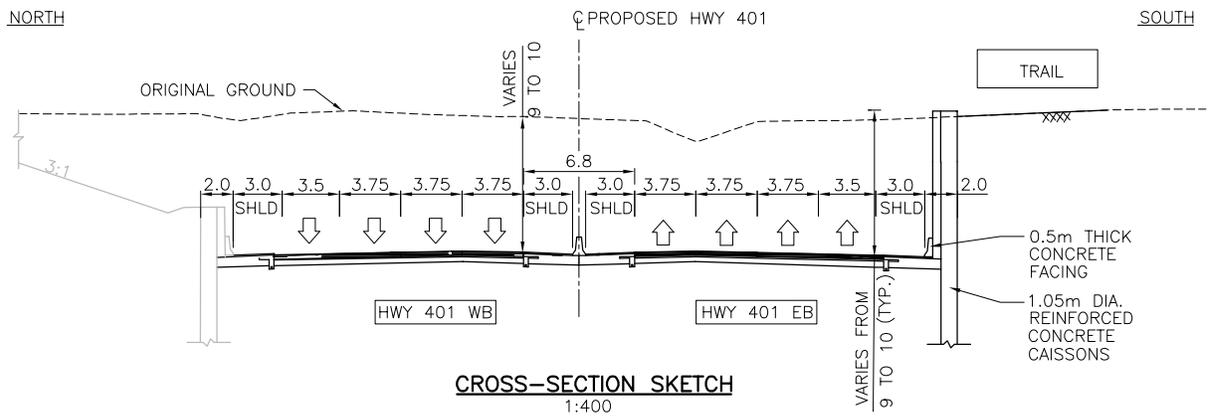
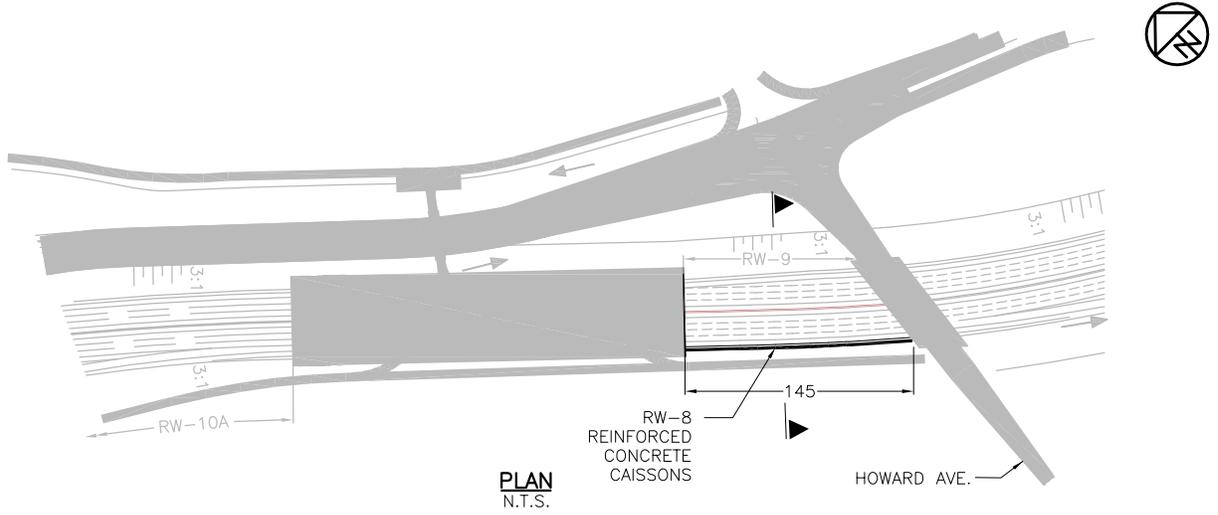


LENGTH (m)	295 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	7,965,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: C:\projects\2014\DRG\_LAST REPORT\BA-20-REV-FEB-CAISSINWALL\Bridges\Alternative-20-REV-FEB-2008-BRIDGES.dwg  
PLOTDATE: Mar 17, 2008 3:33 pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-8	SITE NO.	----	LOCATION	WEST OF HOWARD AVENUE
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "BS3") OF VARIABLE HEIGHT ON SOUTH SIDE				

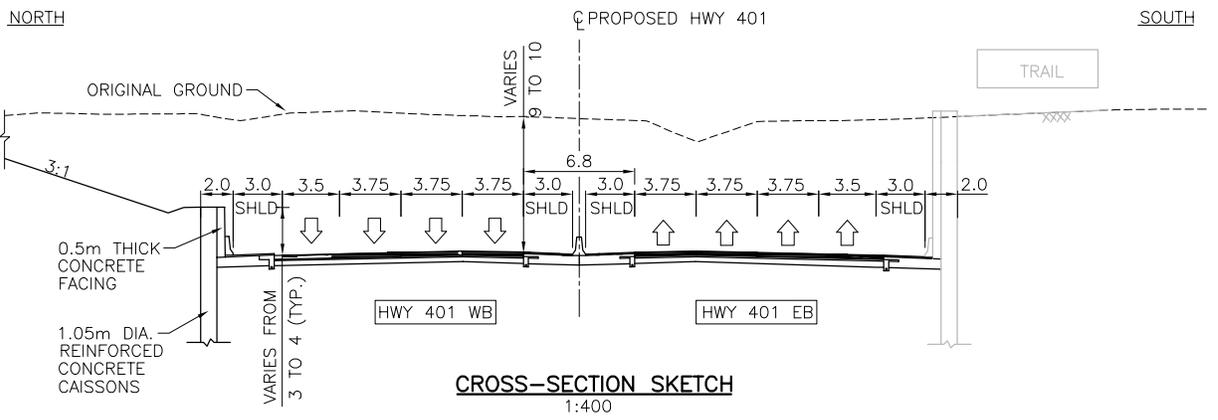
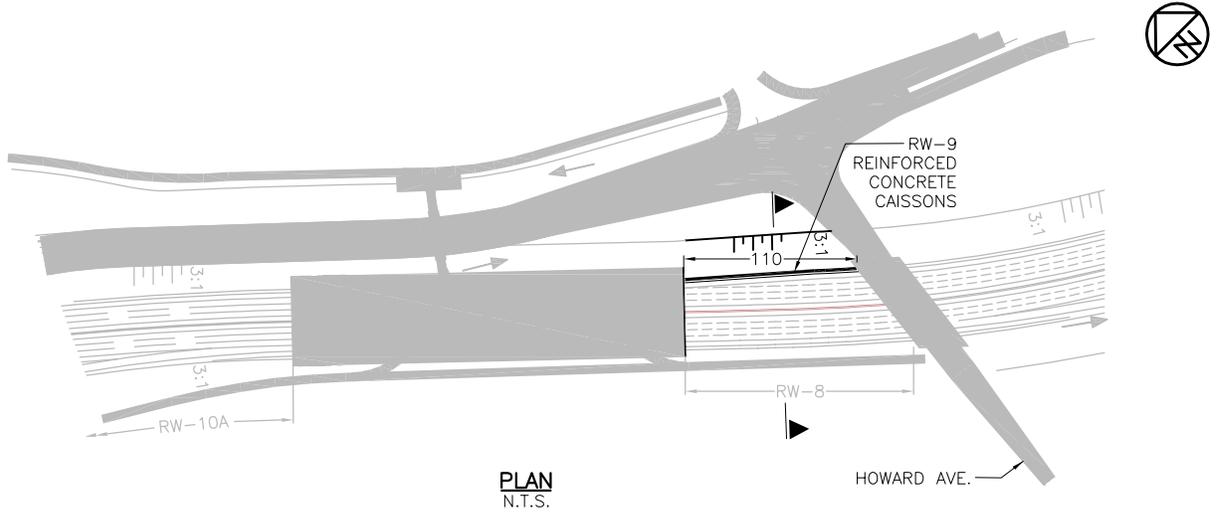


LENGTH (m)	145 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	32,500	ESTIMATED COST (\$)	4,712,500
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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 PLOT DATE: Mar 17, 2008 3:32pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-9	SITE NO.	----	LOCATION	WEST OF HOWARD AVENUE
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF HOWARD AVENUE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON NORTH SIDE				

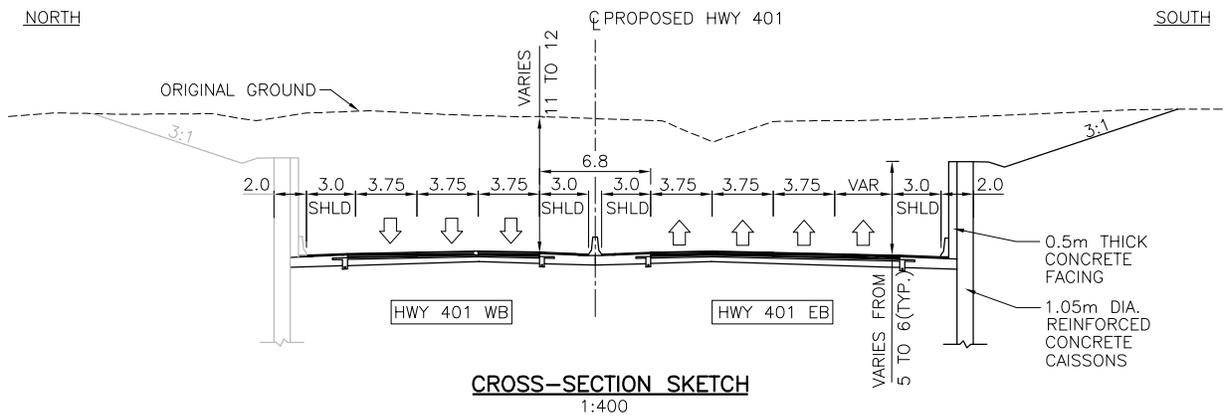
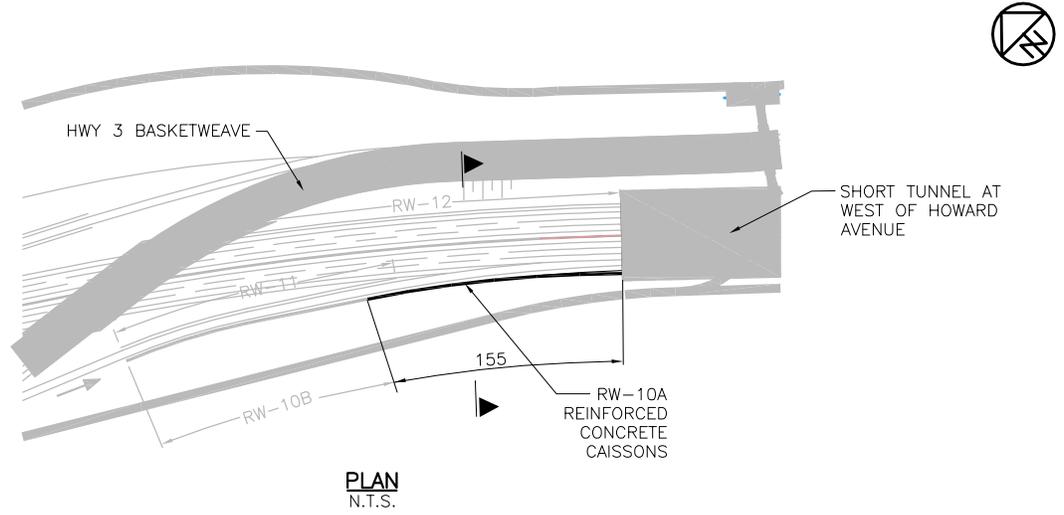


LENGTH (m)	110 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	2,970,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: C:\projects\2014\DRG\_LAST REPORT\BA-2C-REV-FEB-CAISSINWALL\Bridges\Alternative-2C-REV-FEB-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 3:32pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-10A	SITE NO.	----	LOCATION	EAST OF HWY3 BASKETWEAVE
STRUCTURE NAME	BELOW GRADE HWY 401 WITH EB LANE OF HWY 3 AT WEST OF HOWARD AVENUE (EAST SIDE)		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON SOUTH SIDE				

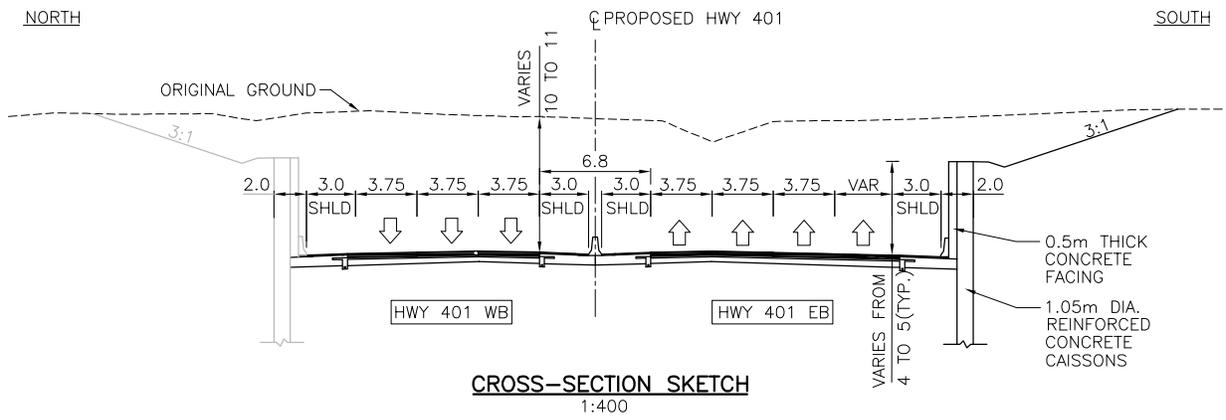
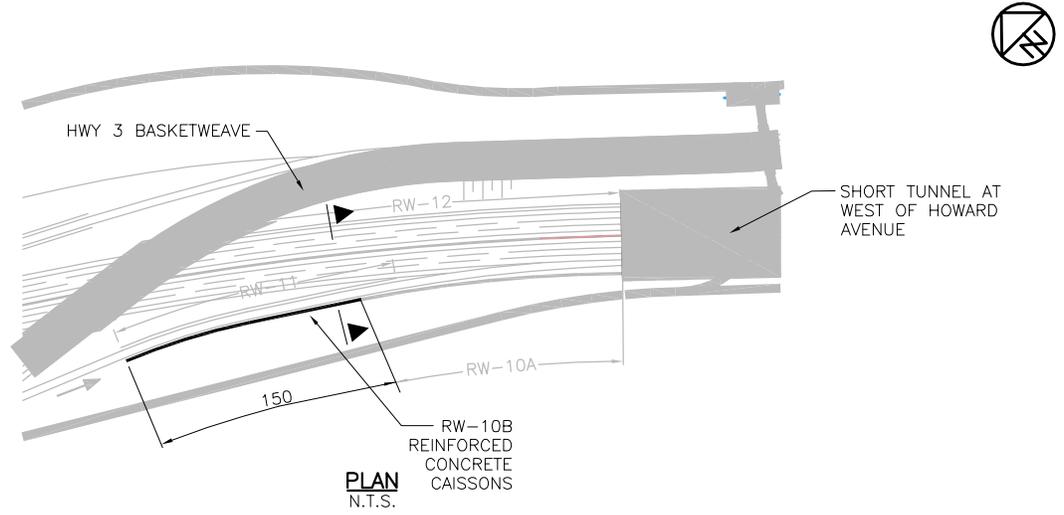


LENGTH (m)	155 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	4,805,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: C:\projects\2014\DRG\_LAST REPORT\BA-2C-REV-FEB-CAISSINWALL\BridgAlternative-2C-REV-Feb-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 3:33pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-10B	SITE NO.	----	LOCATION	EAST OF HWY3 BASKETWEAVE
STRUCTURE NAME	BELOW GRADE HWY 401 WITH EB LANE OF HWY 3 AT WEST OF HOWARD AVENUE (WEST SIDE)		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON SOUTH SIDE				

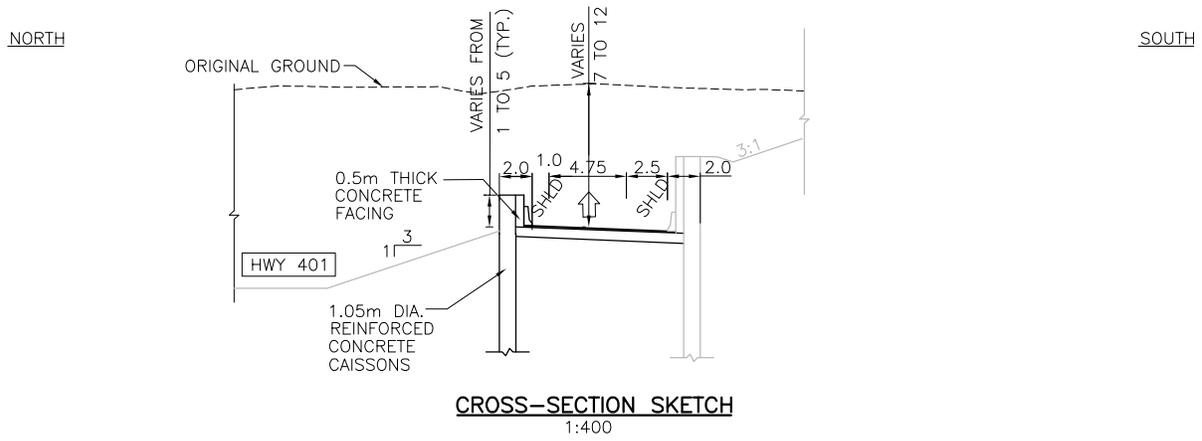
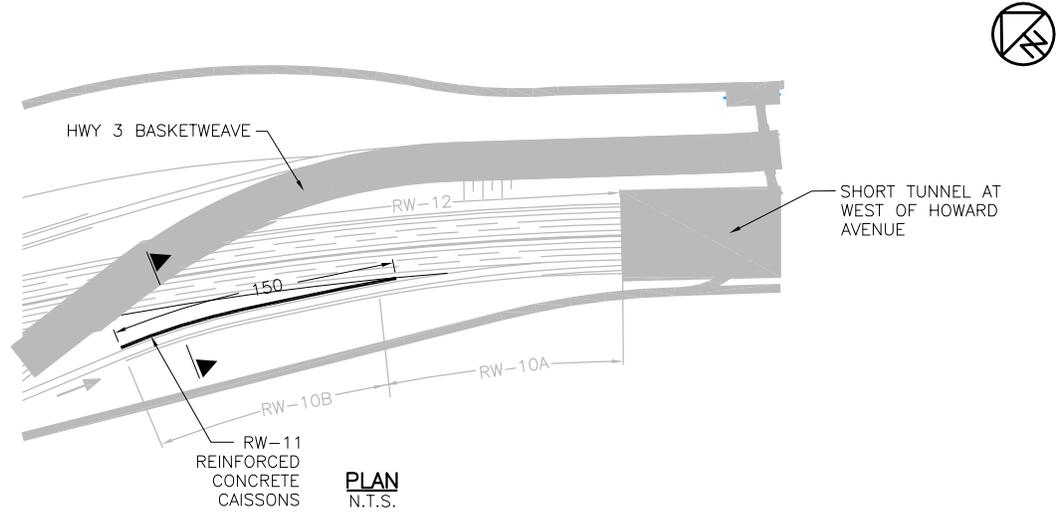


LENGTH (m)	150 SOUTH SIDE		WIDTH (m)	----	
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----	
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----	
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	4,650,000	
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008	

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 PLOTDATE: Mar 17, 2008 3:33pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-11	SITE NO.	----	LOCATION	EAST OF HWY 3 BASKETWEAVE
STRUCTURE NAME	APPROACH RAMP OF HWY 3 EB LANE AT EAST OF MONTGOMERY DRIVE		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW		<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON NORTH SIDE				

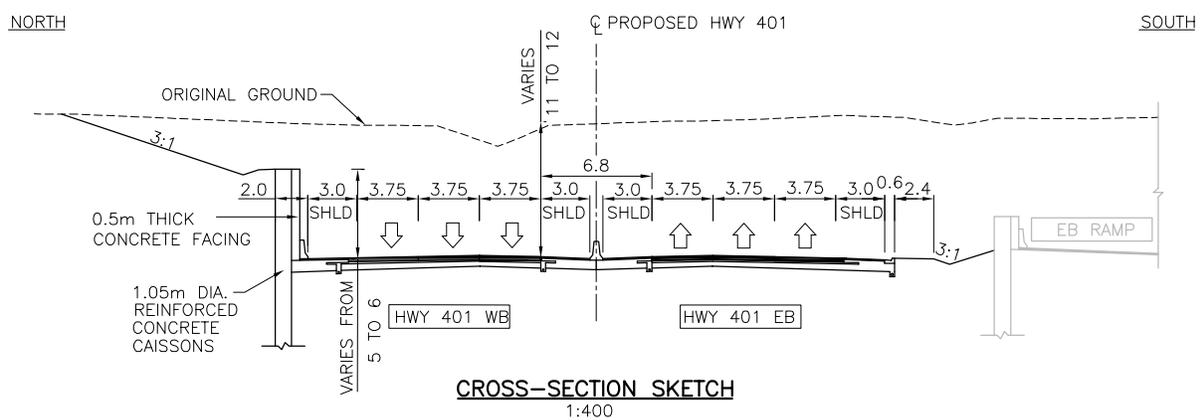
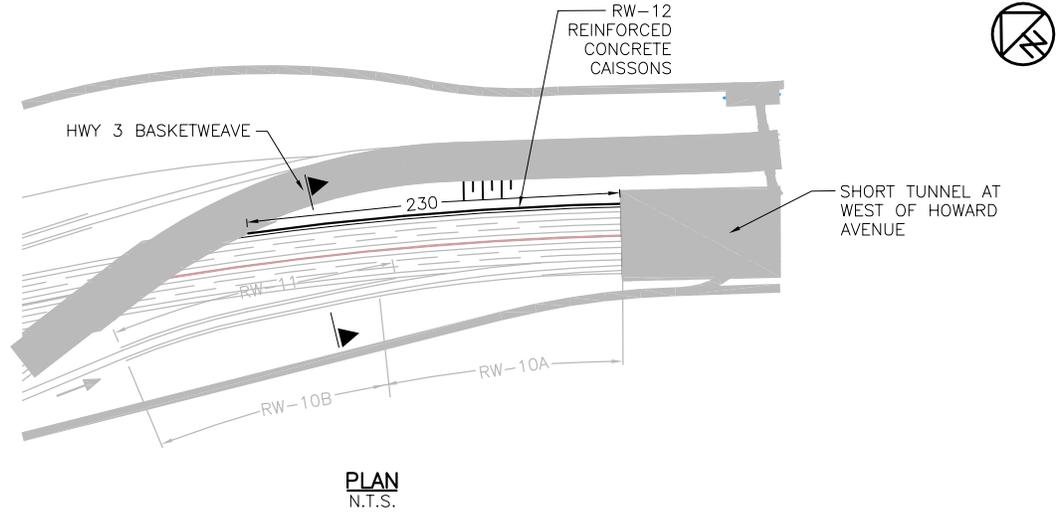


LENGTH (m)	150 NORTH SIDE	WIDTH (m)	----
STRUCTURAL DEPTH (m)	----	SPAN/DEPTH RATIO	----
SKEW ANGLE	----	VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$) 4,650,000
	REHABILITATION	----	
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.		
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008

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 PLOT DATE: Mar 17, 2008 3:34pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-12	SITE NO.	----	LOCATION	EAST OF HWY 3 BASKETWEAVE
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF HWY 3 CROSSING NEAR MONTGOMERY DRIVE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON NORTH SIDE				

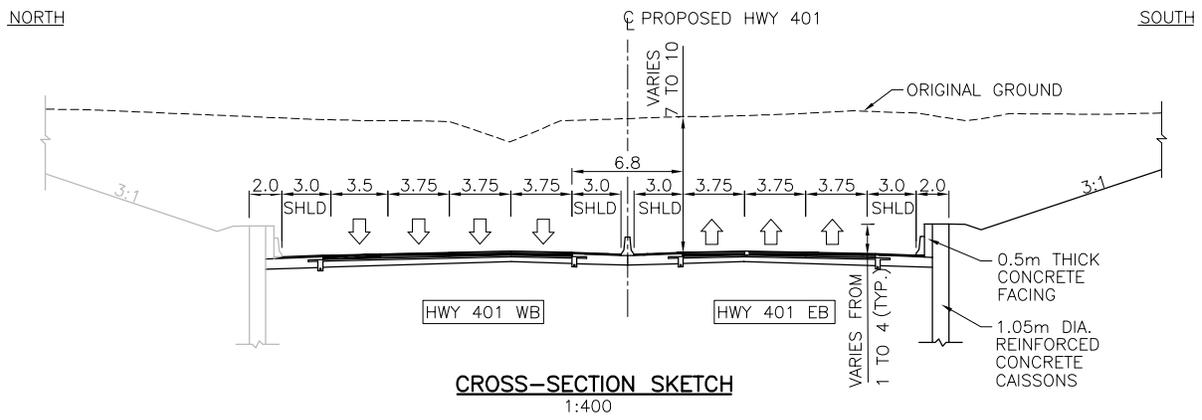
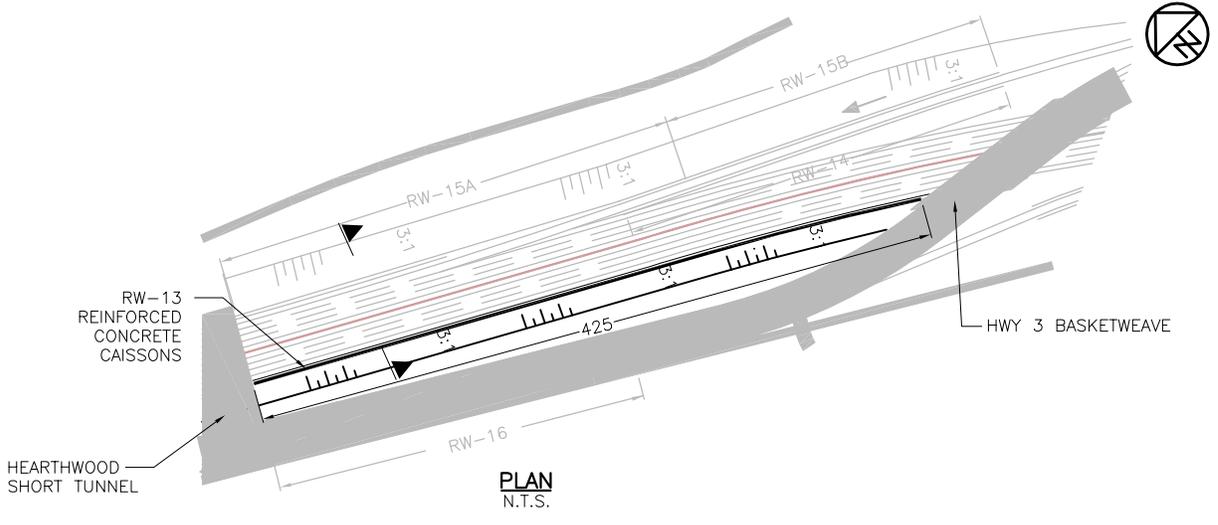


LENGTH (m)	230 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	7,130,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-13	SITE NO.	----	LOCATION	EAST OF HEARTHWOOD SHORT TUNNEL
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF HEARTHWOOD SHORT TUNNEL			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON SOUTH SIDE				

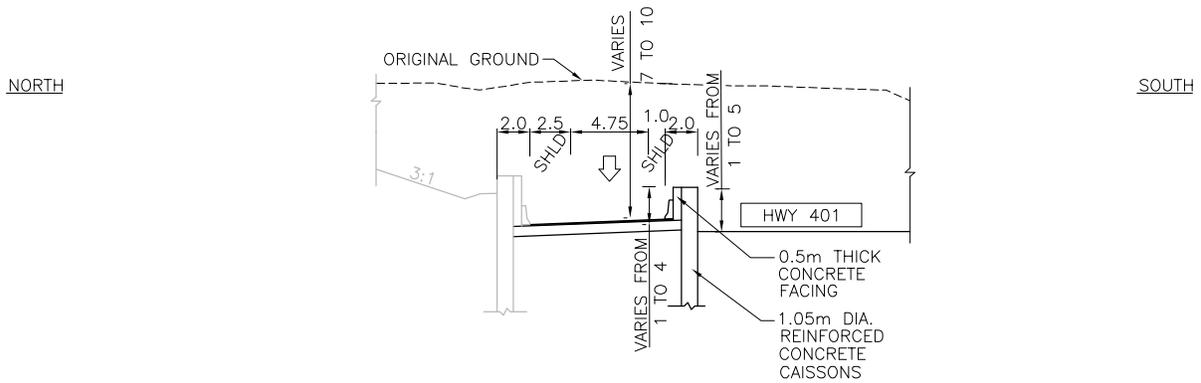
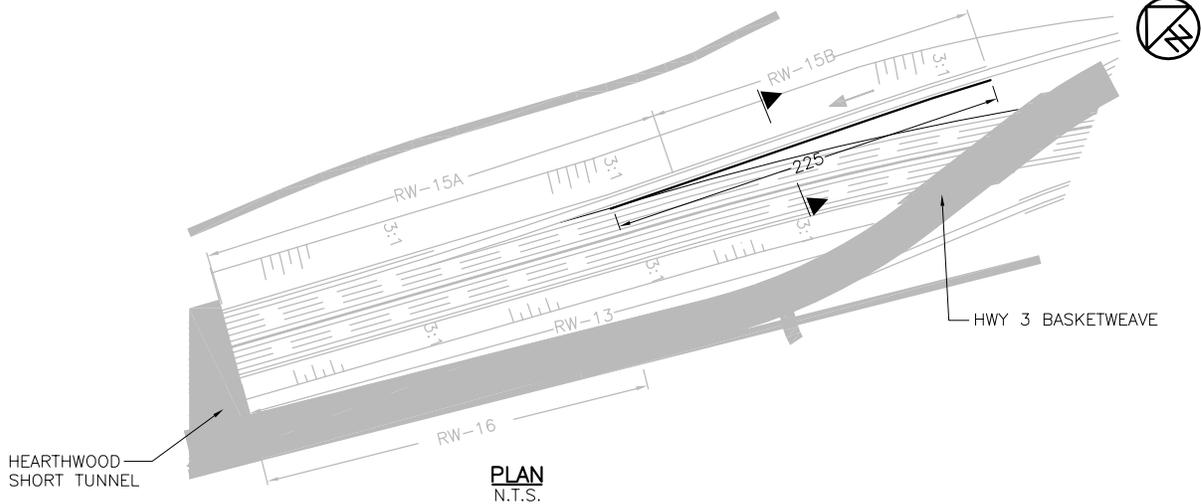


LENGTH (m)	425 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	13,175,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- CERTAIN LENGTH OF THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-14	SITE NO.	----	LOCATION	WEST OF HWY 3 BASKETWEAVE NEAR MONTGOMERY DRIVE
STRUCTURE NAME	APPROACH RAMP OF HWY 3 BASKETWEAVE WB LANE NEAR MONTGOMERY DRIVE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON SOUTH SIDE				

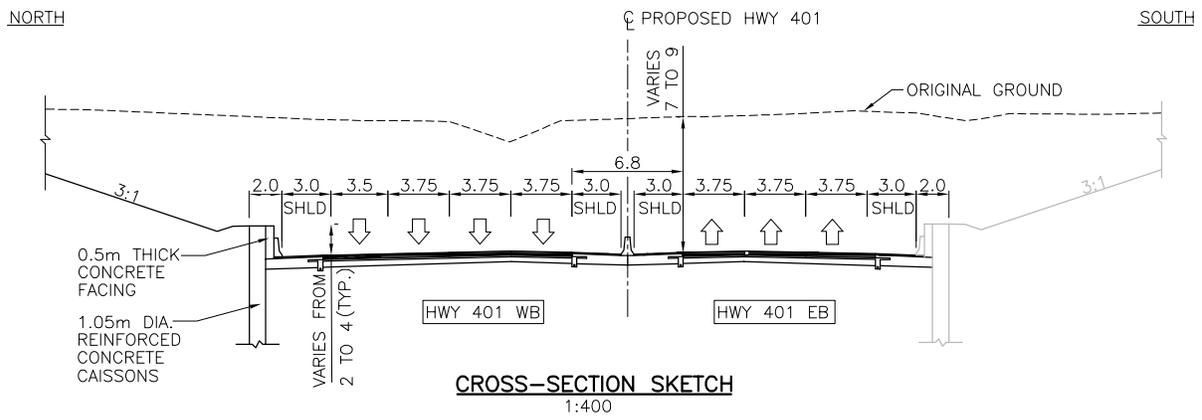
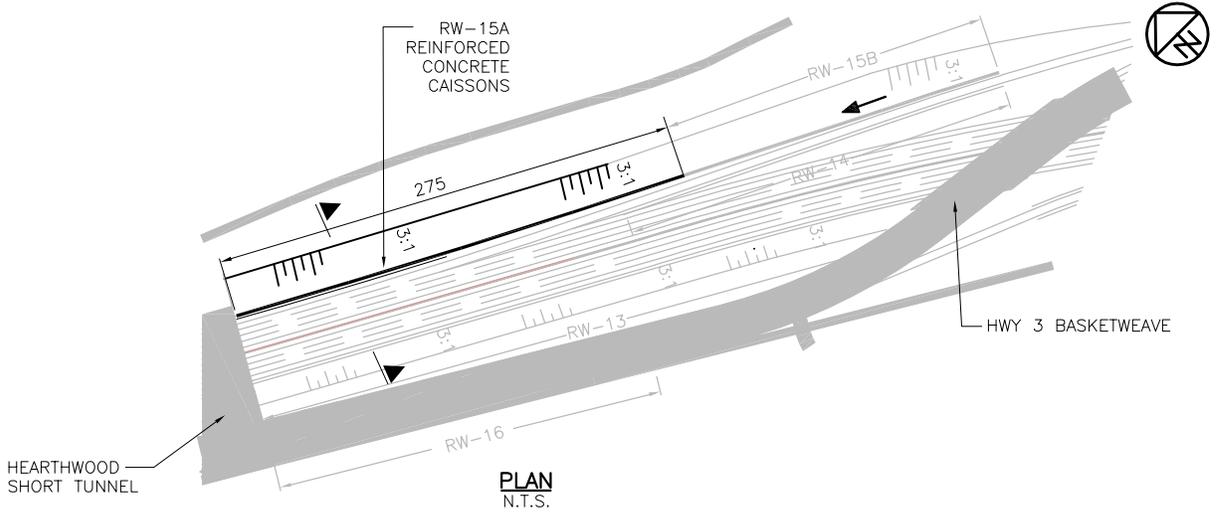


LENGTH (m)	225 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	6,975,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-15A	SITE NO.	----	LOCATION	EAST OF HEARTHWOOD SHORT TUNNEL
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF HEARTHWOOD SHORT TUNNEL (WEST SIDE)			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON NORTH SIDE				

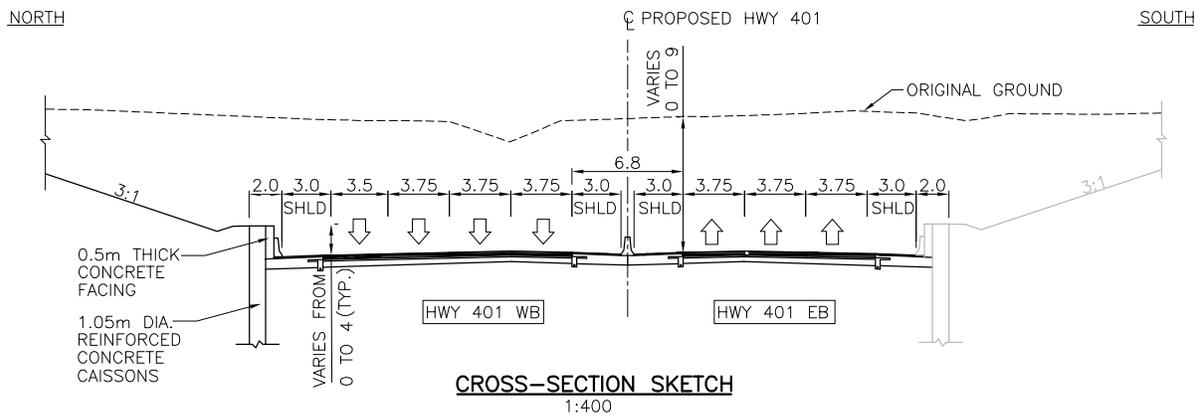
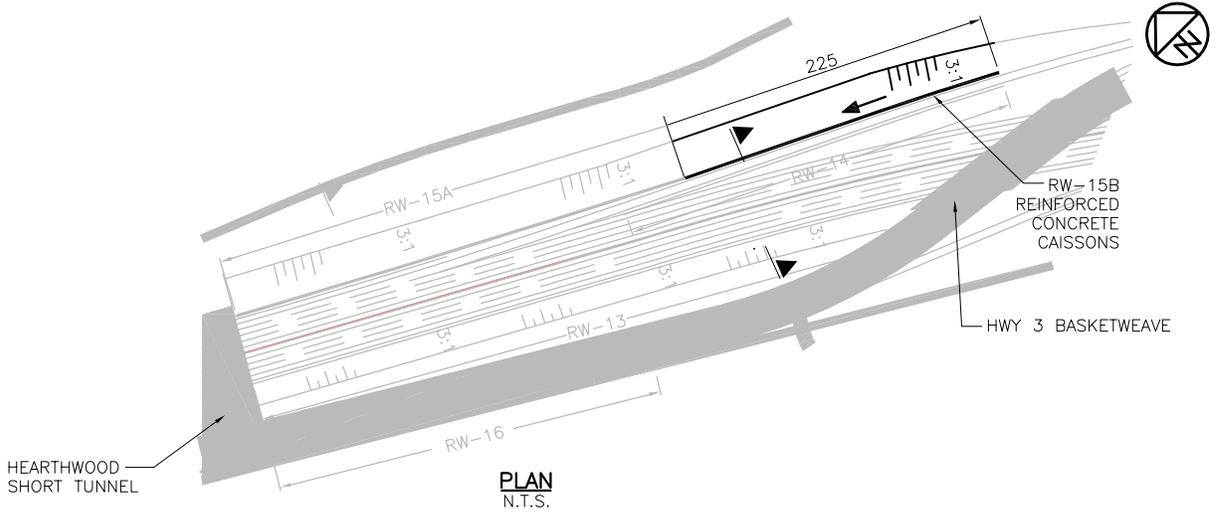


LENGTH (m)	275 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	8,525,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- CERTAIN PORTION OF THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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 PLOT DATE: Mar 17, 2008 3:35pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-15B	SITE NO.	----	LOCATION	EAST OF HEARTHWOOD SHORT TUNNEL
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF HEARTHWOOD SHORT TUNNEL (EAST SIDE)		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON NORTH SIDE				

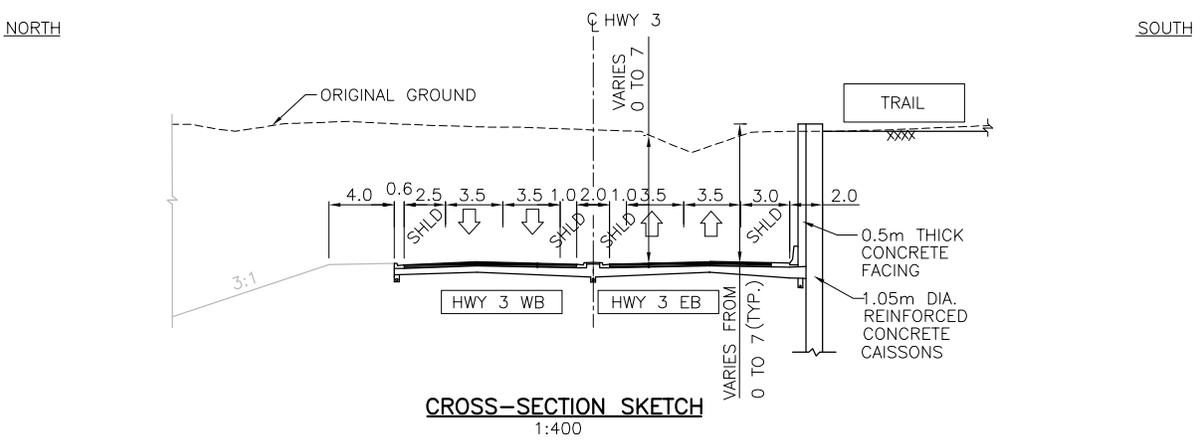
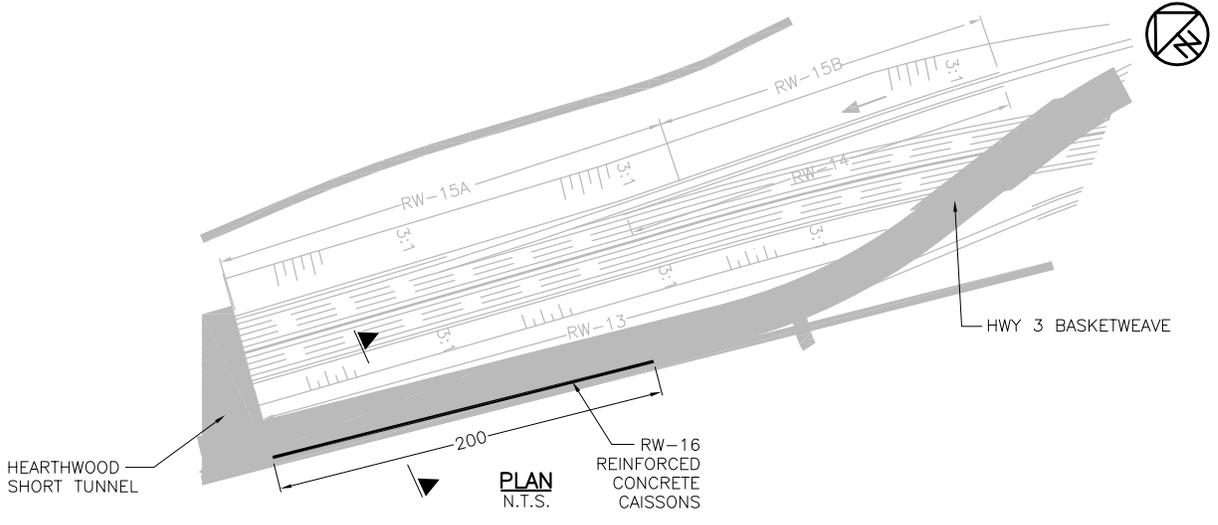


LENGTH (m)	225 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	6,975,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- CERTAIN PORTION OF THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-16	SITE NO.	----	LOCATION	EAST OF HEARTHWOOD SHORT TUNNEL
STRUCTURE NAME	RAMP OF HWY 3 AT EAST OF HEARTHWOOD SHORT TUNNEL			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "BS1") OF VARIABLE HEIGHT ON SOUTH SIDE				

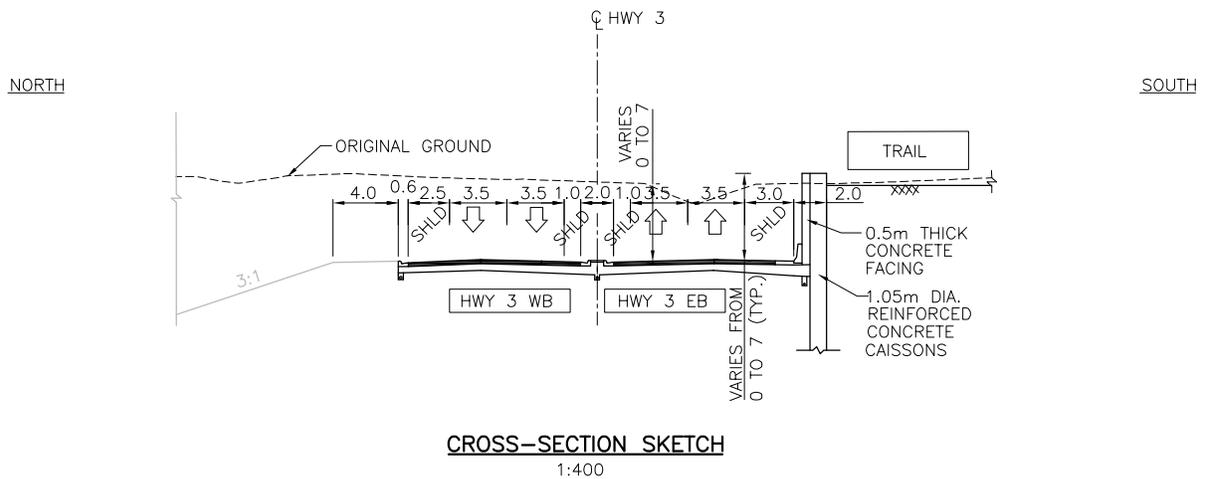
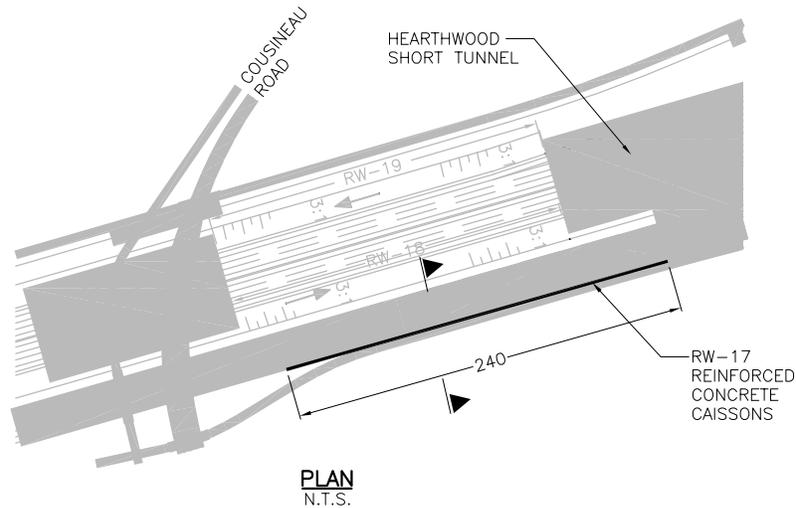


LENGTH (m)	200 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	3,000,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-17	SITE NO.	----	LOCATION	WEST OF HEARTHWOOD SHORT TUNNEL
STRUCTURE NAME	RAMP OF HWY 3 AT WEST OF HEARTHWOOD SHORT TUNNEL			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "BS1") OF VARIABLE HEIGHT ON SOUTH SIDE				

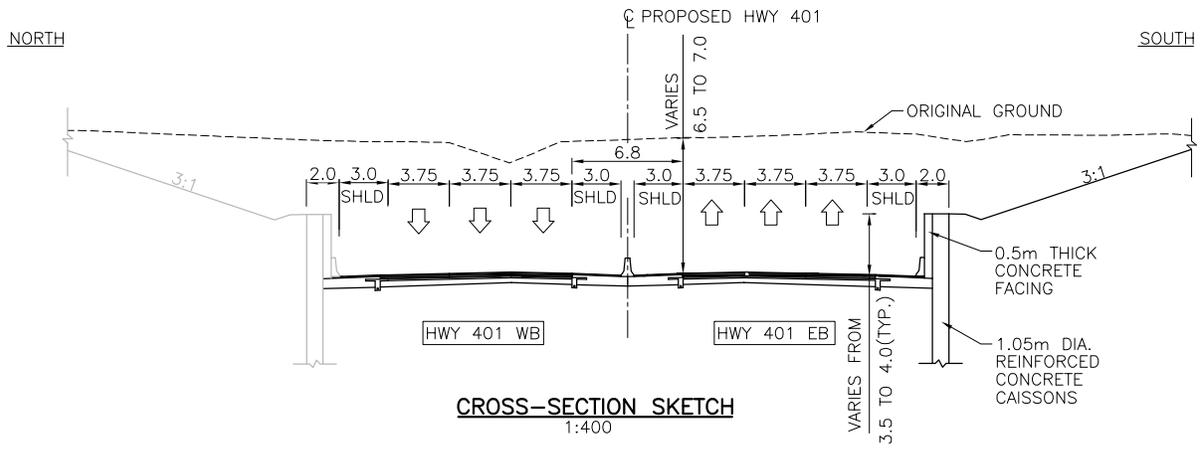
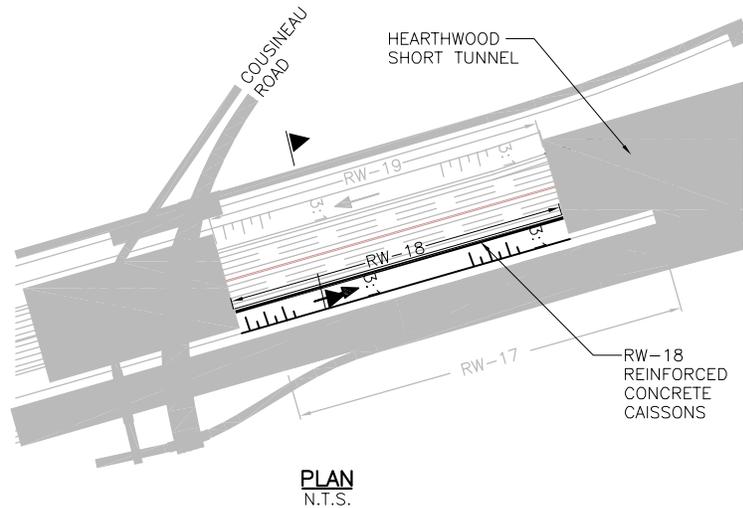


LENGTH (m)	240 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	3,600,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-18	SITE NO.	----	LOCATION	EAST OF COUSINEAU ROAD
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF COUSINEAU ROAD			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON SOUTH SIDE				

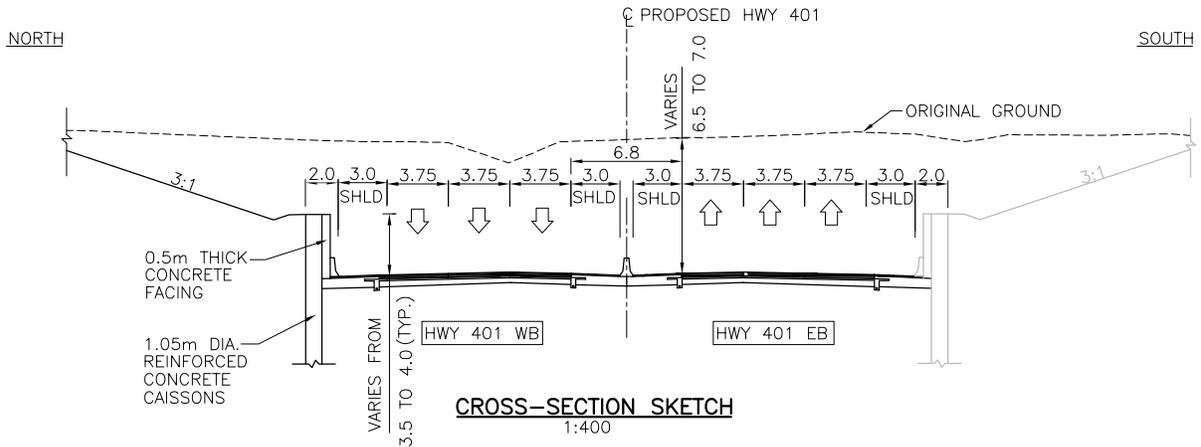
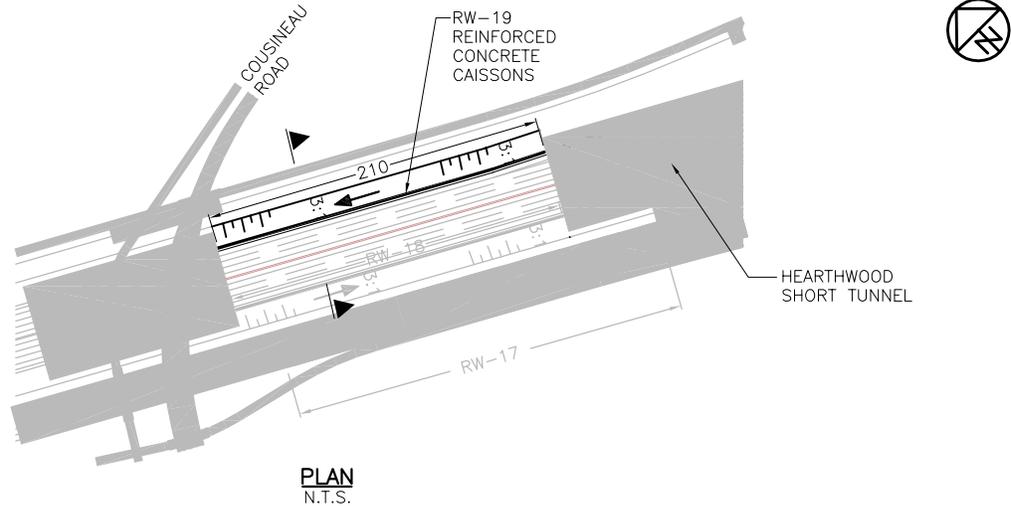


LENGTH (m)	210 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	5,670,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-19	SITE NO.	----	LOCATION	EAST OF COUSINEAU ROAD
STRUCTURE NAME	BELOW GRADE HWY 401 AT EAST OF COUSINEAU ROAD			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "D") OF VARIABLE HEIGHT ON NORTH SIDE				

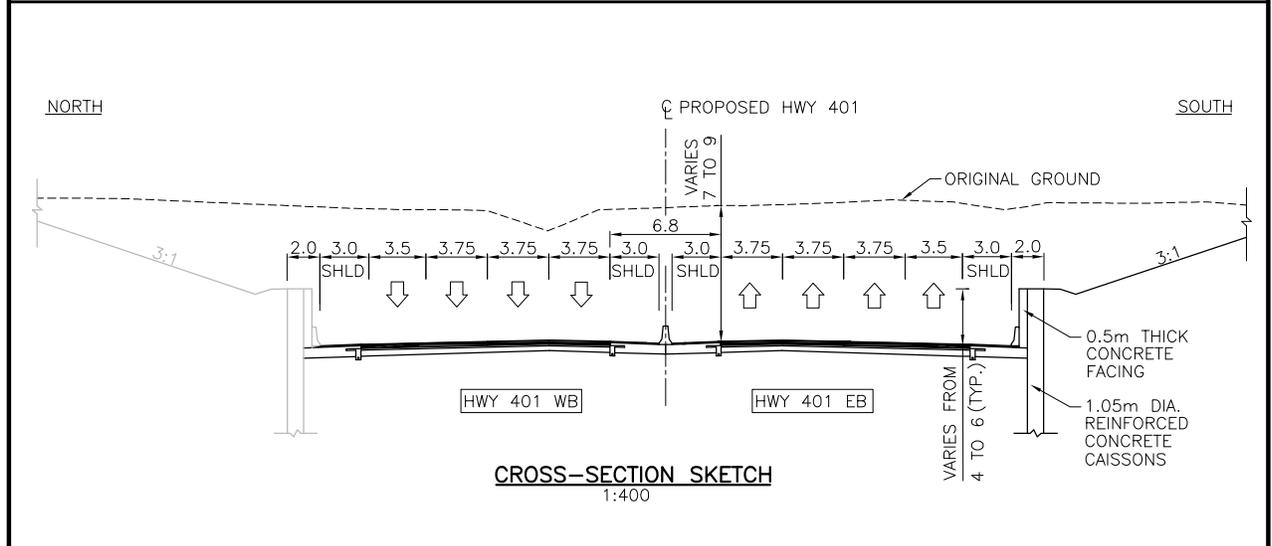
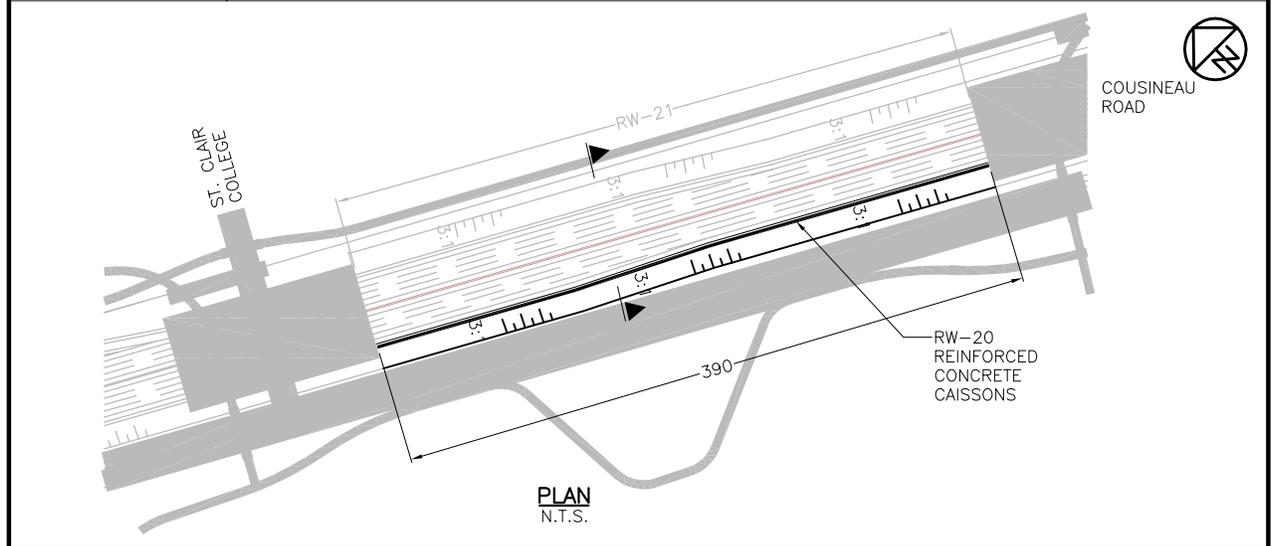


LENGTH (m)	210 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	27,000	ESTIMATED COST (\$)	5,670,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-20	SITE NO.	----	LOCATION	BETWEEN COUSINEAU ROAD AND ST. CLAIR COLLEGE
STRUCTURE NAME	BELOW GRADE HWY 401 BETWEEN COUSINEAU ROAD AND ST. CLAIR COLLEGE ENTRANCE		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "C") OF VARIABLE HEIGHT ON SOUTH SIDE				

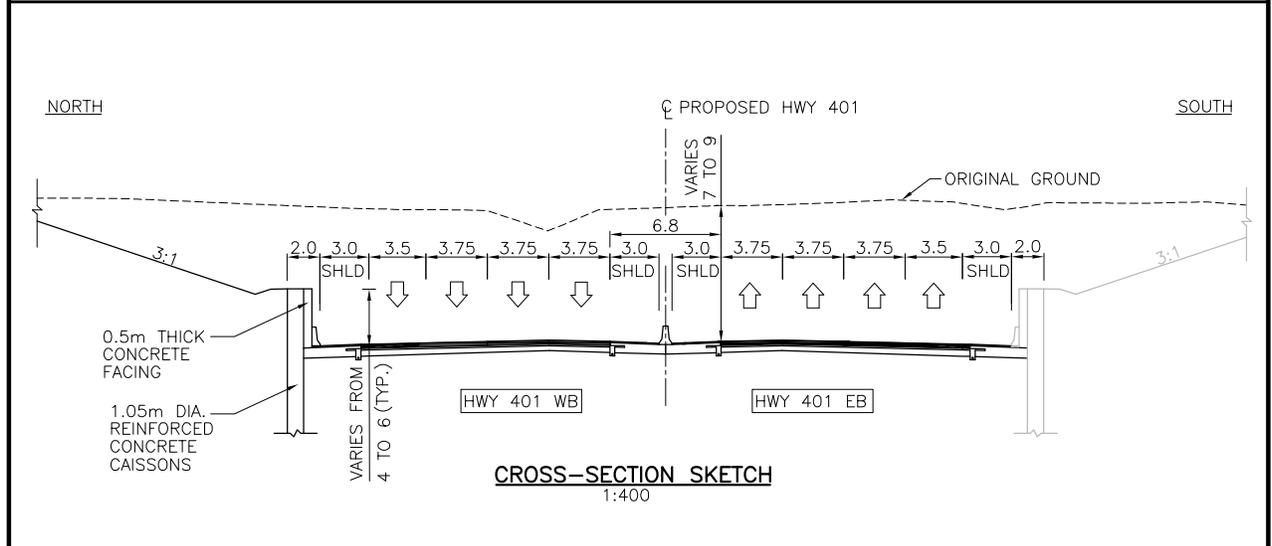
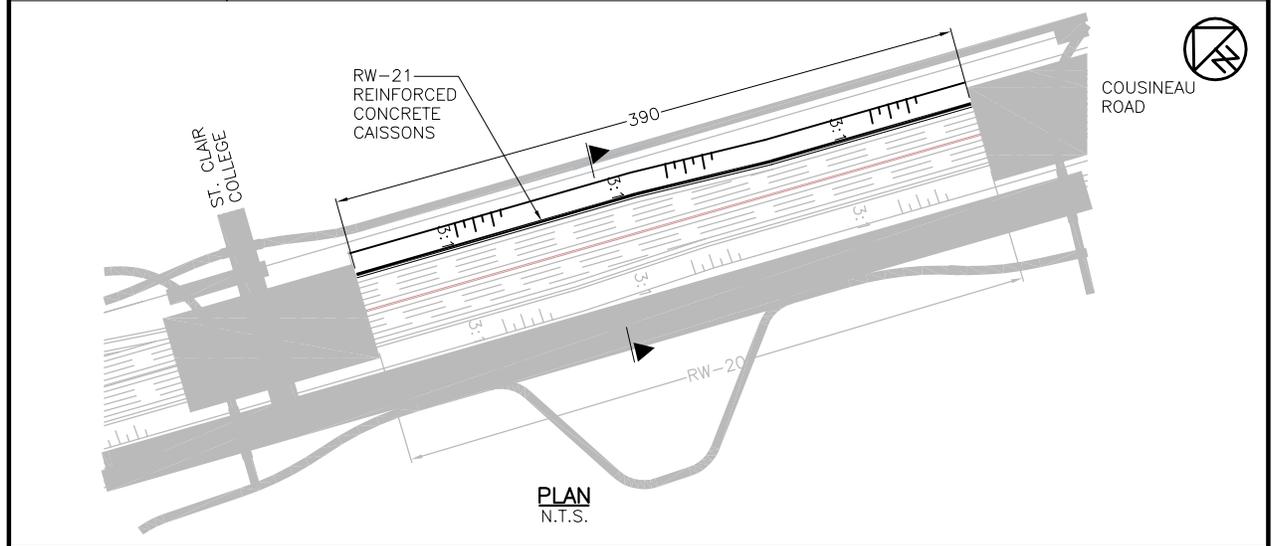


LENGTH (m)	390 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	32,500	ESTIMATED COST (\$)	12,675,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-21	SITE NO.	----	LOCATION	BETWEEN COUSINEAU ROAD AND ST. CLAIR COLLEGE
STRUCTURE NAME	BELOW GRADE HWY 401 BETWEEN COUSINEAU ROAD AND ST. CLAIR COLLEGE ENTRANCE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "C") OF VARIABLE HEIGHT ON NORTH SIDE				

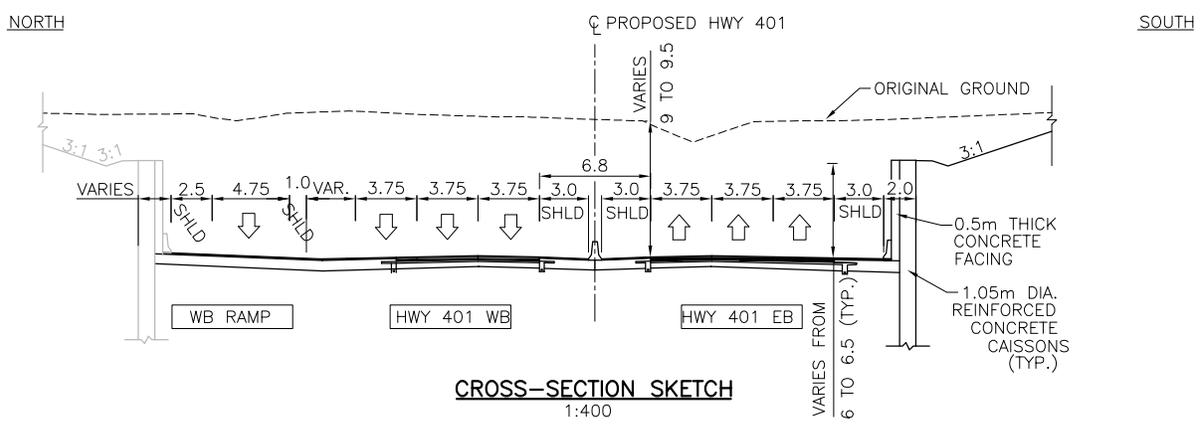
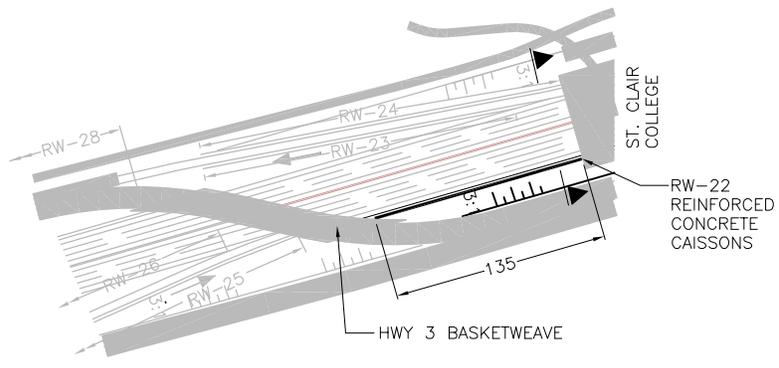


LENGTH (m)	390 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	32,500	ESTIMATED COST (\$)	12,675,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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 PLOTDATE: Mar 17, 2008 3:33pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-22	SITE NO.	----	LOCATION	WEST OF ST. CLAIR COLLEGE
STRUCTURE NAME	BELOW GRADE HWY 401 WITH WB RAMP OF W-E BULLNOSE AT WEST OF ST. CLAIR COLLEGE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "C") OF VARIABLE HEIGHT ON SOUTH SIDE				

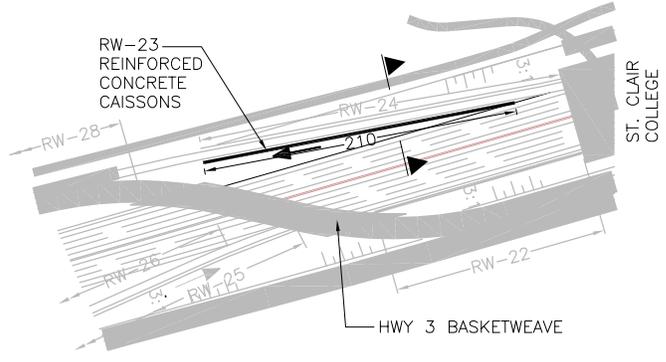


LENGTH (m)	135 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKIEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	32,500	ESTIMATED COST (\$)	4,387,500
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

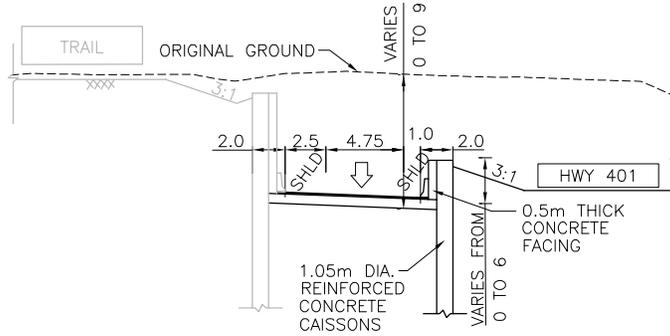
W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-23	SITE NO.	----	LOCATION	WEST OF ST. CLAIR COLLEGE
STRUCTURE NAME	WB LANE RAMP AT WEST OF ST. CLAIR COLLEGE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	RETAINING WALL (TYPE "E") OF VARIABLE HEIGHT ON SOUTH SIDE				



**PLAN**  
N.T.S.

NORTH

SOUTH



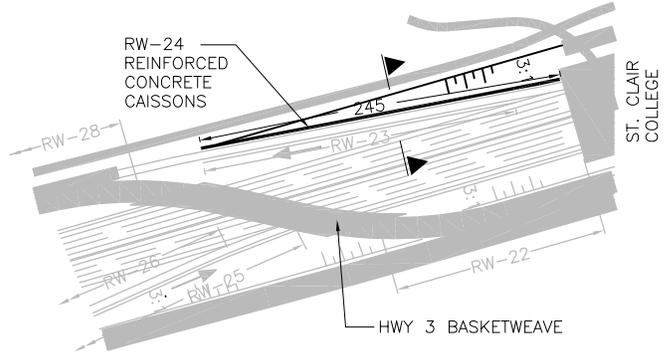
**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	210 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	18,000	ESTIMATED COST (\$)	3,780,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- HEIGHT OF CAISSON WALL MAY BE REDUCED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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PLOT DATE: Mar 17, 2008 3:40pm

# STRUCTURAL PLANNING SHEET

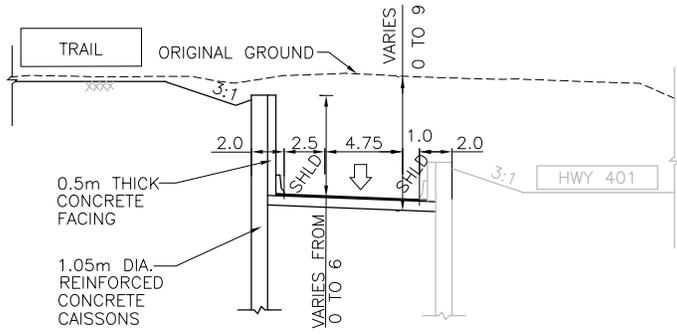
W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-24	SITE NO.	----	LOCATION	WEST OF ST. CLAIR COLLEGE
STRUCTURE NAME	WB LANE RAMP AT WEST OF ST. CLAIR COLLEGE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	RETAINING WALL (TYPE "E") OF VARIABLE HEIGHT ON NORTH SIDE				



**PLAN**  
N.T.S.

NORTH

SOUTH



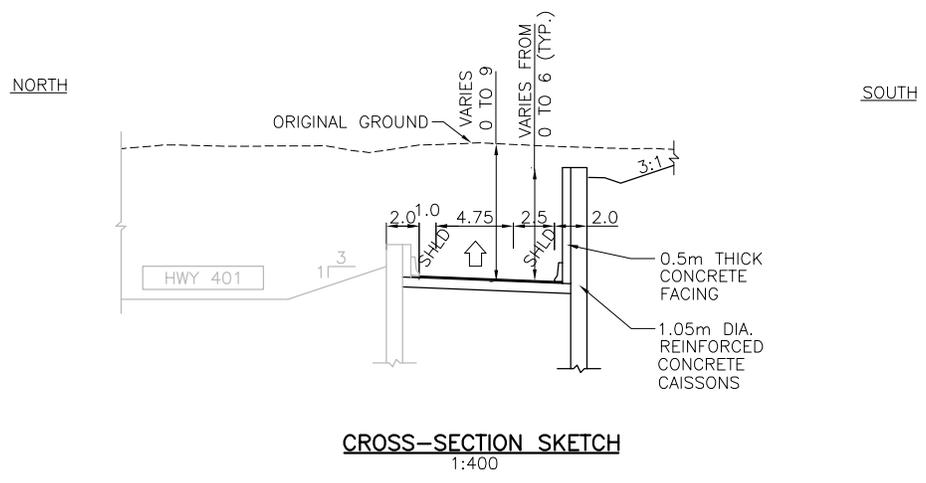
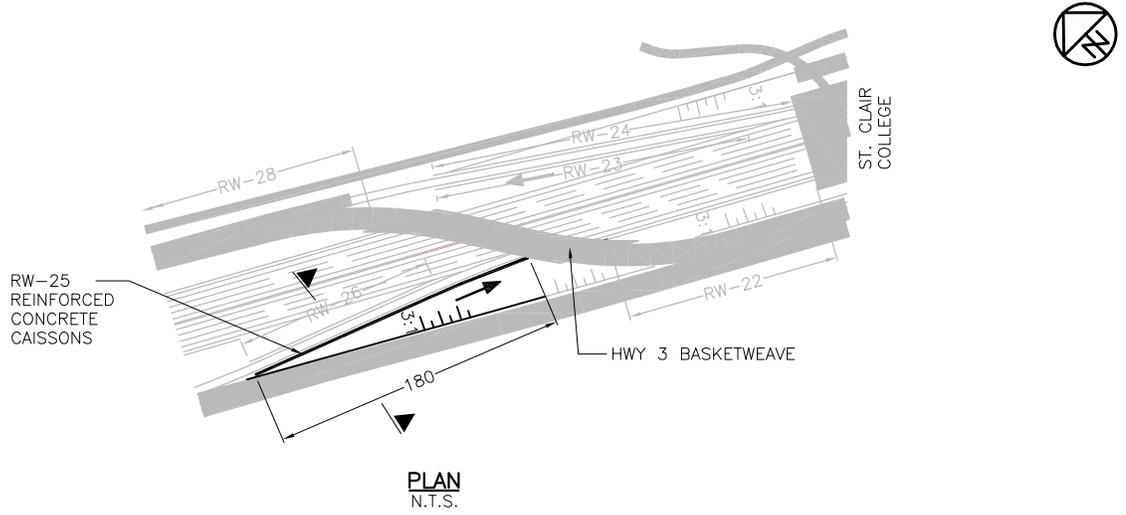
**CROSS-SECTION SKETCH**  
1:400

LENGTH (m)	245 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKIEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	18,000	ESTIMATED COST (\$)	4,410,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-25	SITE NO.	----	LOCATION	WEST OF CAHILL DRAIN CROSSING
STRUCTURE NAME	EB LANE RAMP AT WEST OF CAHILL DRAIN			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	RETAINING WALL (TYPE "E") OF VARIABLE HEIGHT ON SOUTH SIDE				

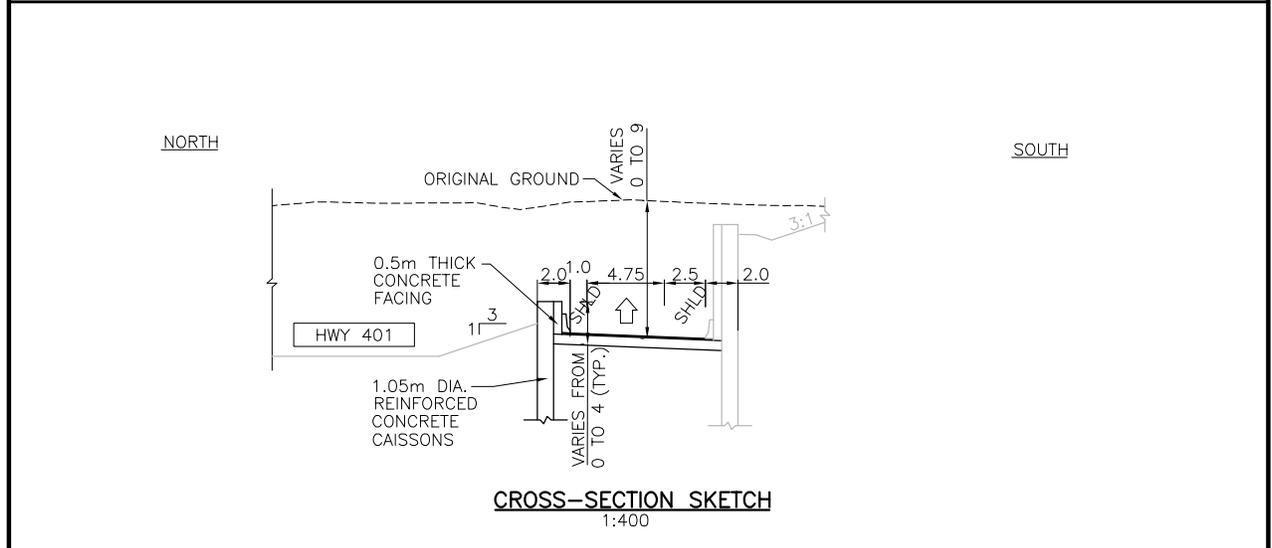
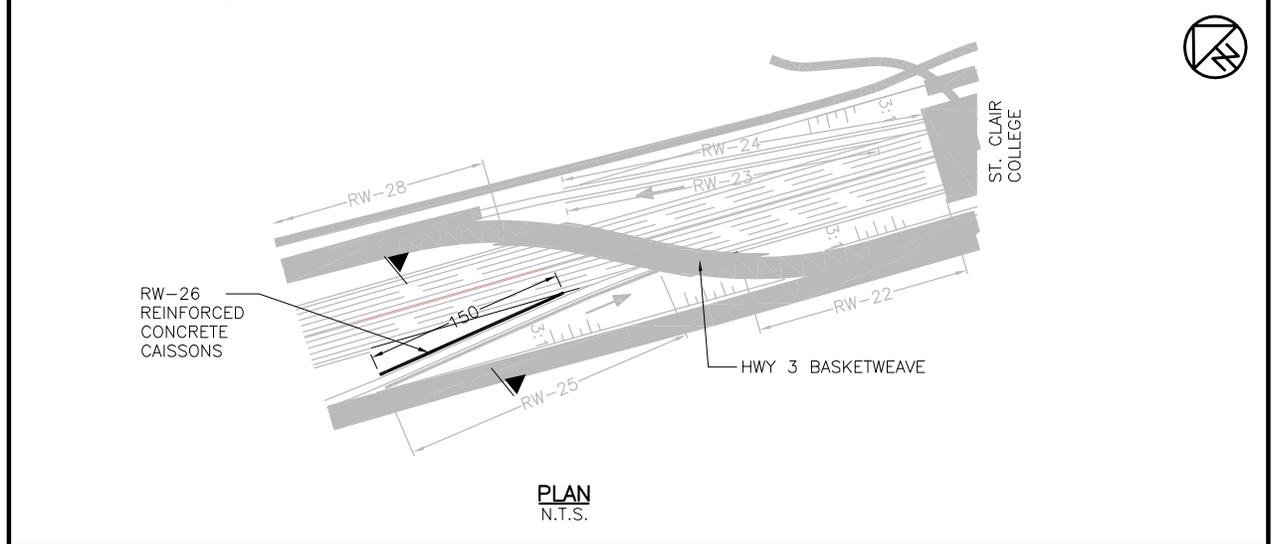


LENGTH (m)	180 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	18,000	ESTIMATED COST (\$)	3,240,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- HEIGHT OF CAISSON WALL MAY BE REDUCED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-26	SITE NO.	----	LOCATION	WEST OF CAHILL DRAIN CROSSING
STRUCTURE NAME	EB LANE RAMP AT WEST OF CAHILL DRAIN			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS
STRUCTURE DESCRIPTION	RETAINING WALL (TYPE "E") OF VARIABLE HEIGHT ON NORTH SIDE				

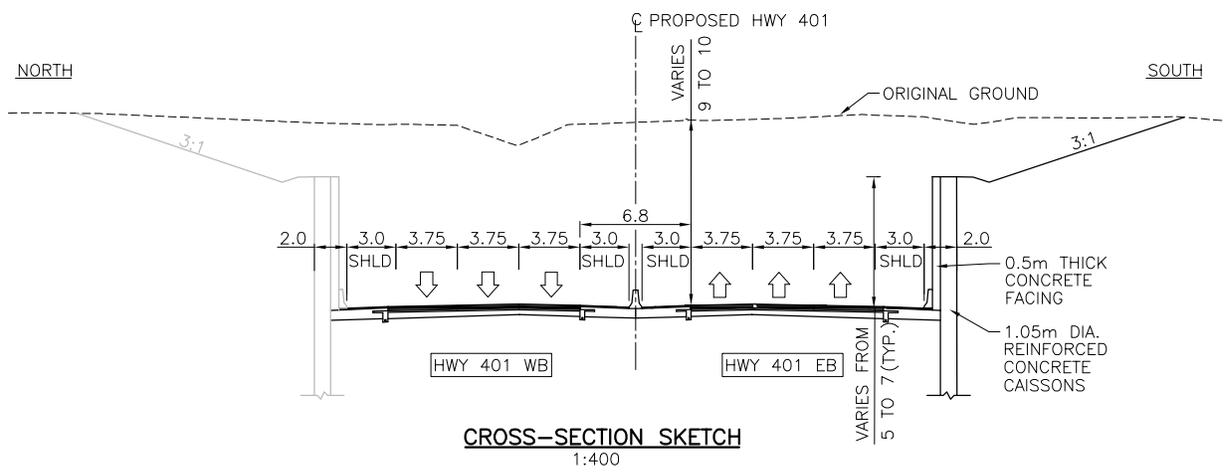
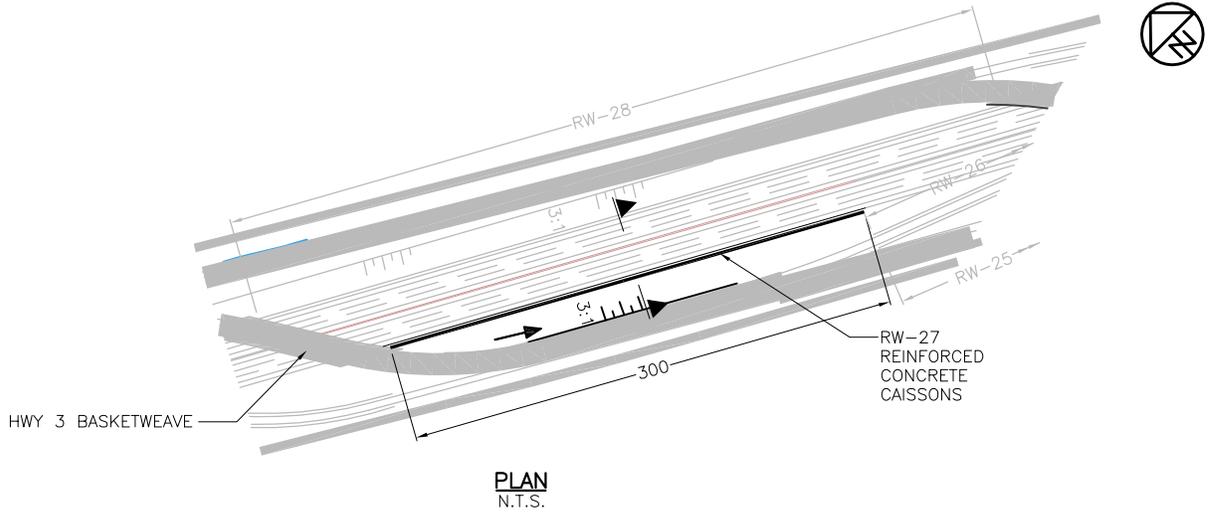


LENGTH (m)	150 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	18,000	ESTIMATED COST (\$)	2,700,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	- THIS STRUCTURE MAY BE DELETED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-27	SITE NO.	----	LOCATION	BETWEEN HURON CHURCH LINE AND CAHILL DRAIN CROSSING
STRUCTURE NAME	BELOW GRADE HWY 401 BETWEEN HURON CHURCH LINE AND CAHILL DRAIN CROSSING			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON SOUTH SIDE				

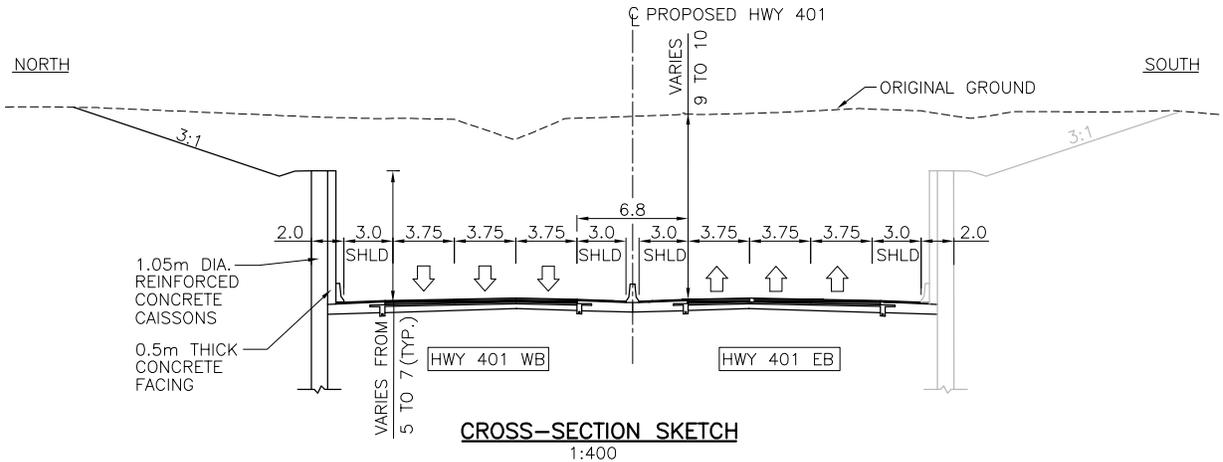
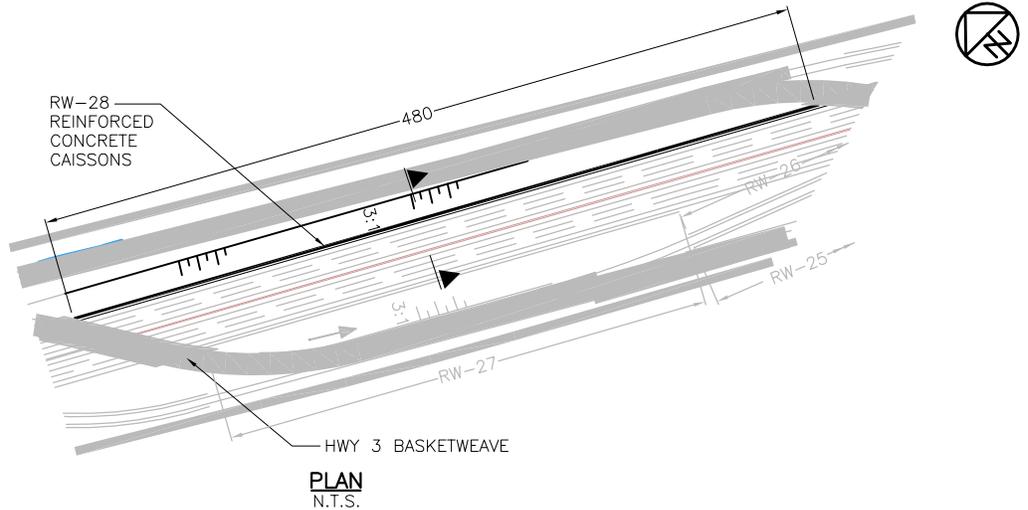


LENGTH (m)	300 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	9,300,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-28	SITE NO.	----	LOCATION	BETWEEN HURON CHURCH LINE AND CAHILL DRAIN CROSSING
STRUCTURE NAME	BELOW GRADE HWY 401 BETWEEN HURON CHURCH LINE AND CAHILL DRAIN CROSSING			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON NORTH SIDE				

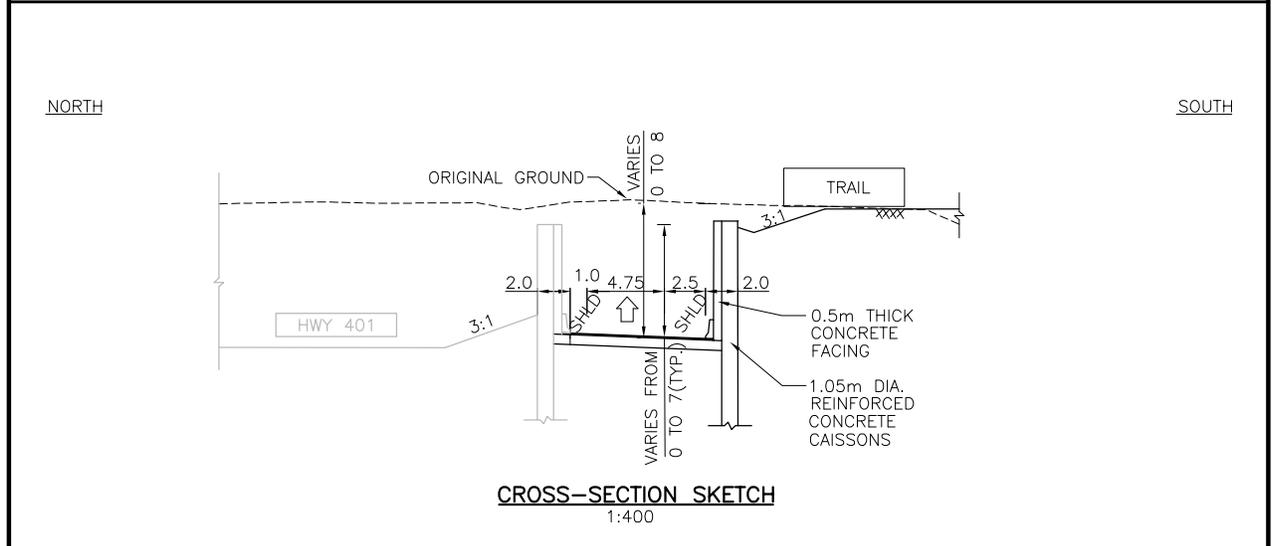
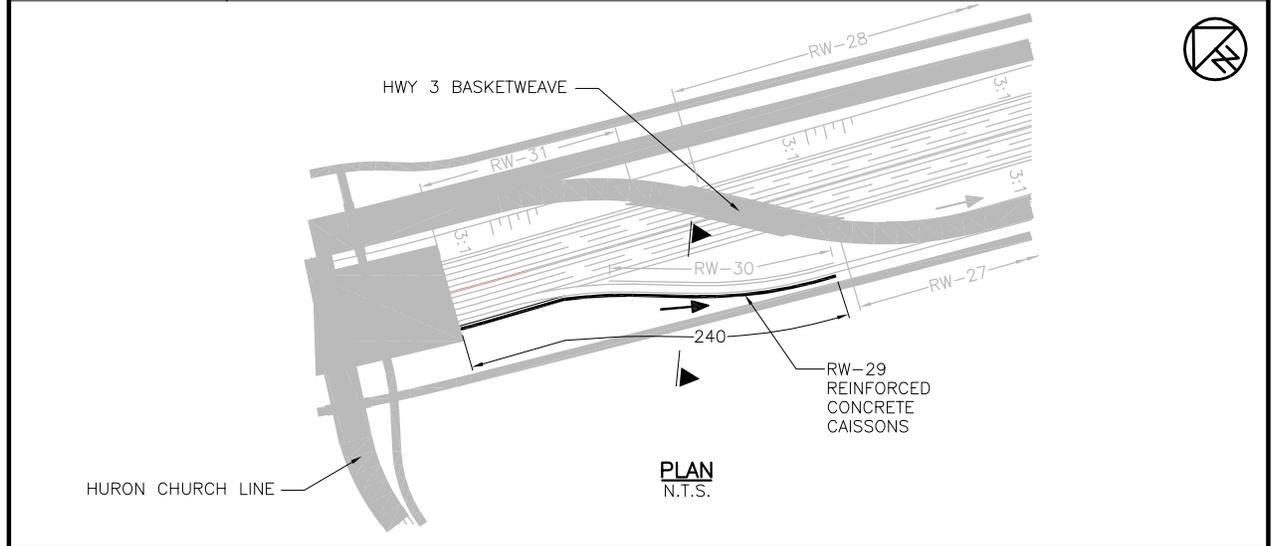


LENGTH (m)	480 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	14,880,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-29	SITE NO.	----	LOCATION	EAST OF HURON CHURCH LINE
STRUCTURE NAME	EB LANE RAMP AT EAST OF HURON CHURCH LINE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON WALL (TYPE "BS1") OF VARIABLE HEIGHT ON SOUTH SIDE				

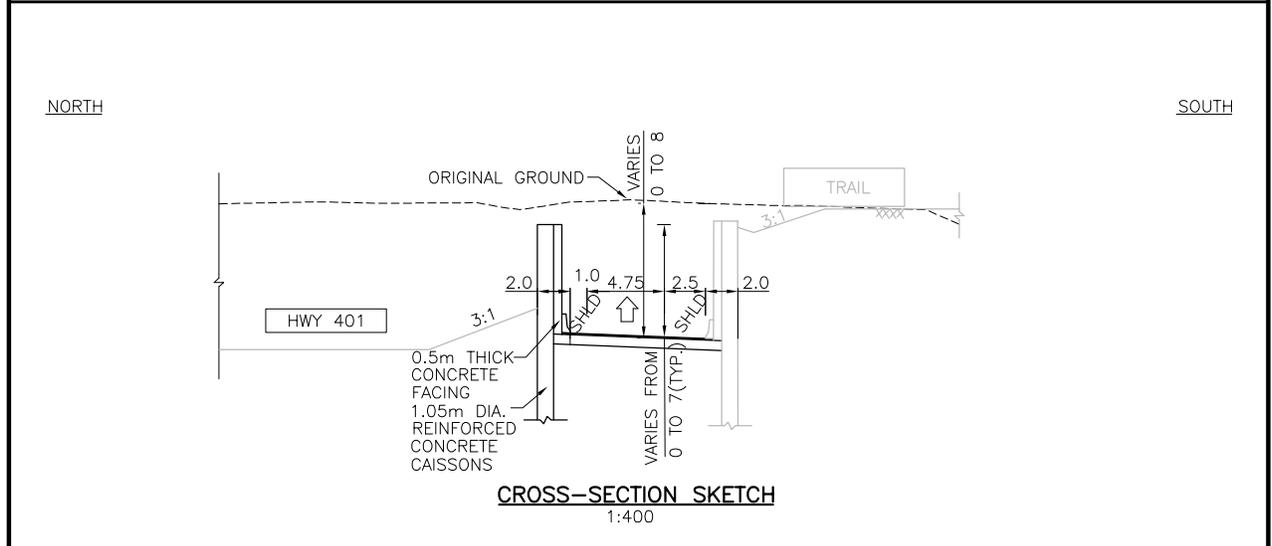
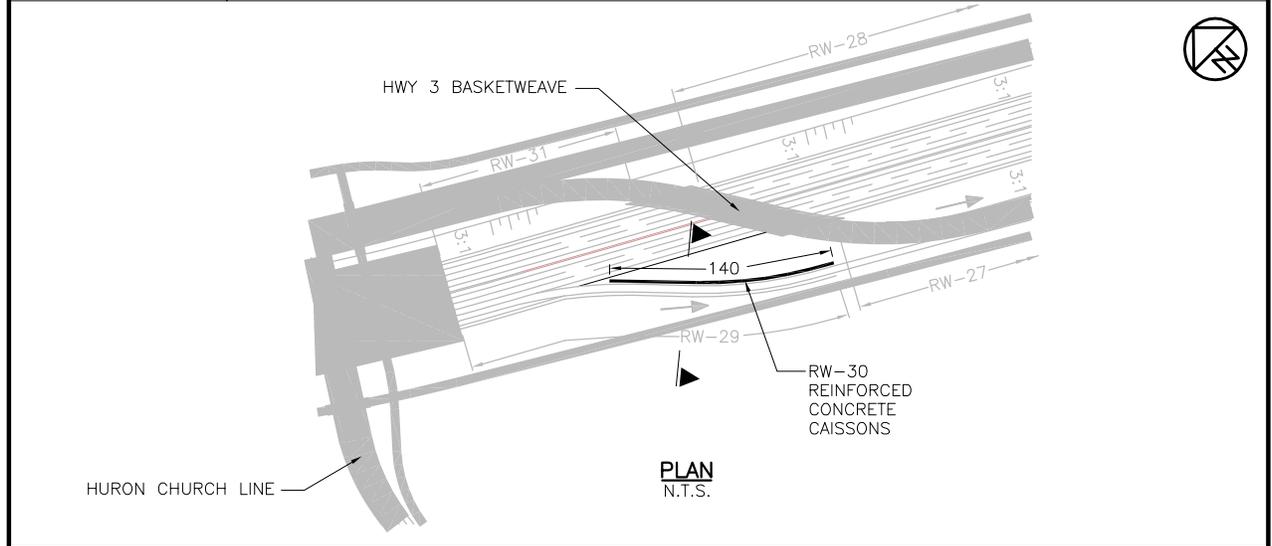


LENGTH (m)	240 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	3,600,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-30	SITE NO.	----	LOCATION	EAST OF HURON CHURCH LINE
STRUCTURE NAME	EB LANE RAMP AT EAST OF HURON CHURCH LINE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON WALL (TYPE "BS1") OF VARIABLE HEIGHT ON NORTH SIDE				

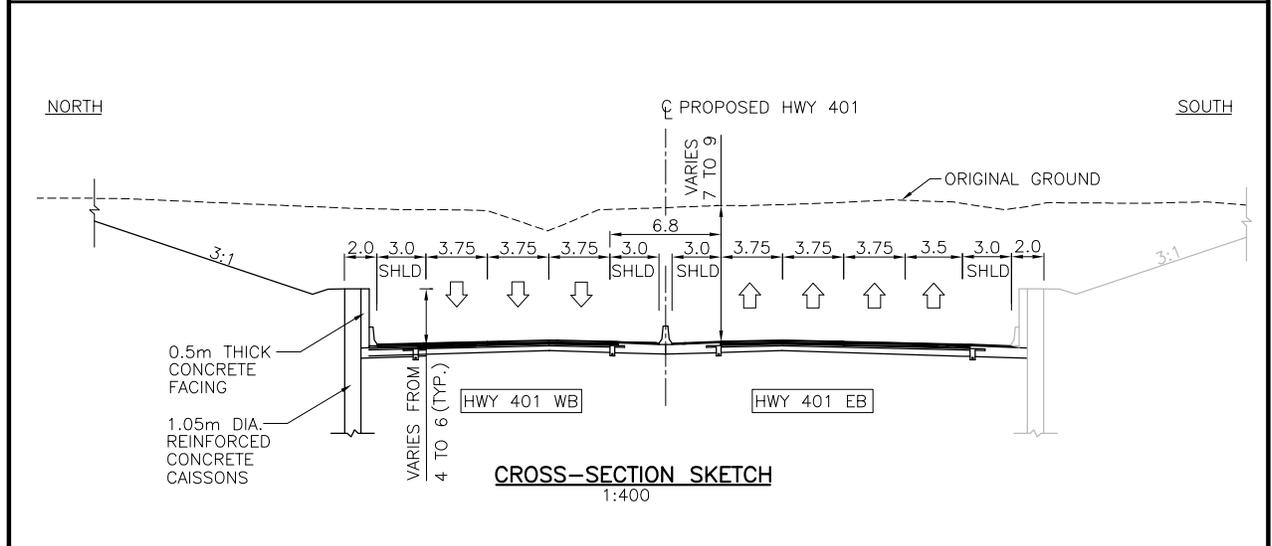
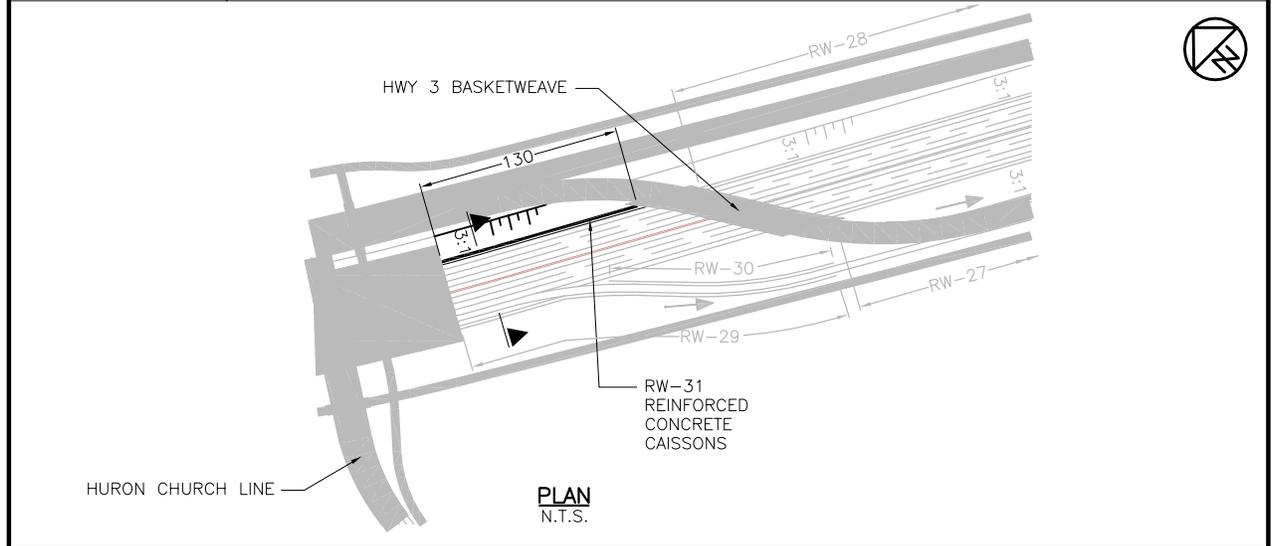


LENGTH (m)	140 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	2,100,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-31	SITE NO.	----	LOCATION	EAST OF HURON CHURCH LINE
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF HURON CHURCH LINE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON NORTH SIDE				

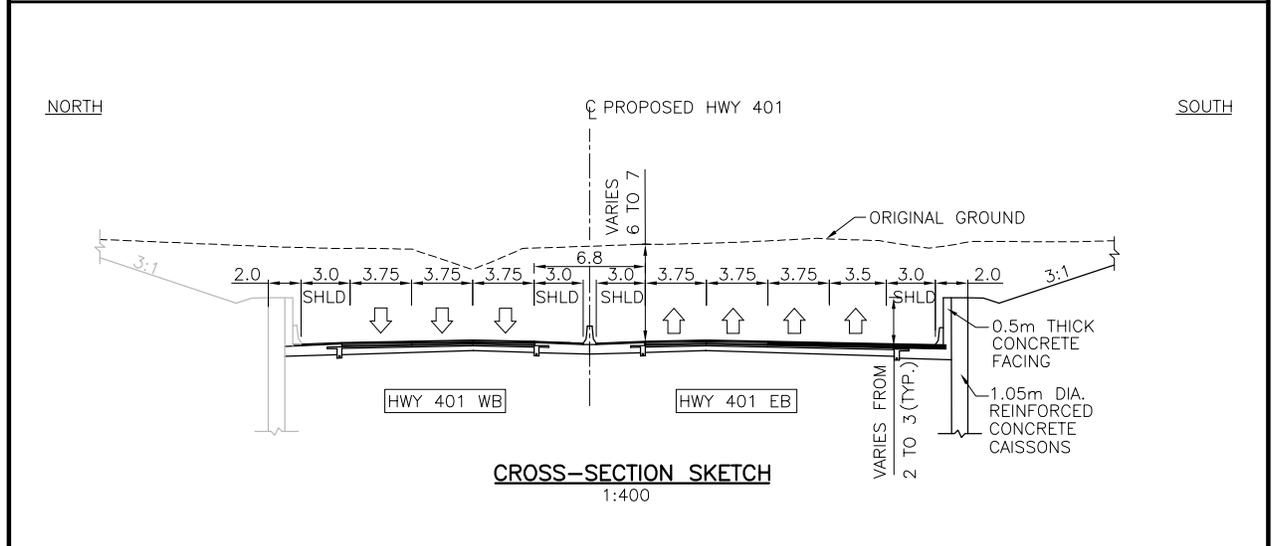
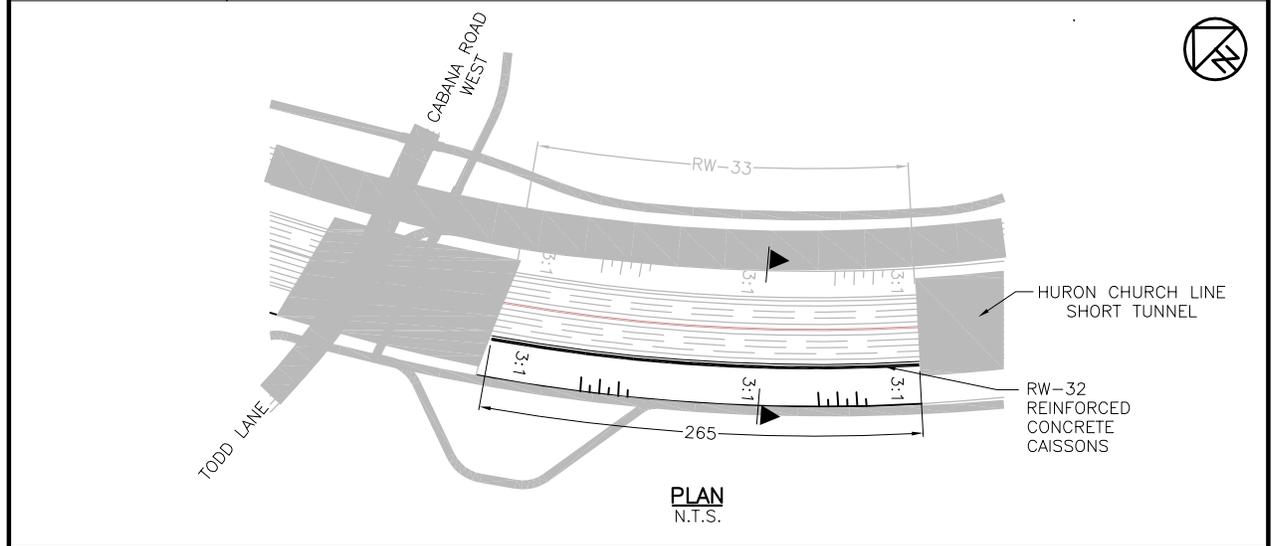


LENGTH (m)	130 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	4,030,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-32	SITE NO.	----	LOCATION	WEST OF HURON CHURCH LINE
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF HURON CHURCH LINE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "A") OF VARIABLE HEIGHT ON SOUTH SIDE				

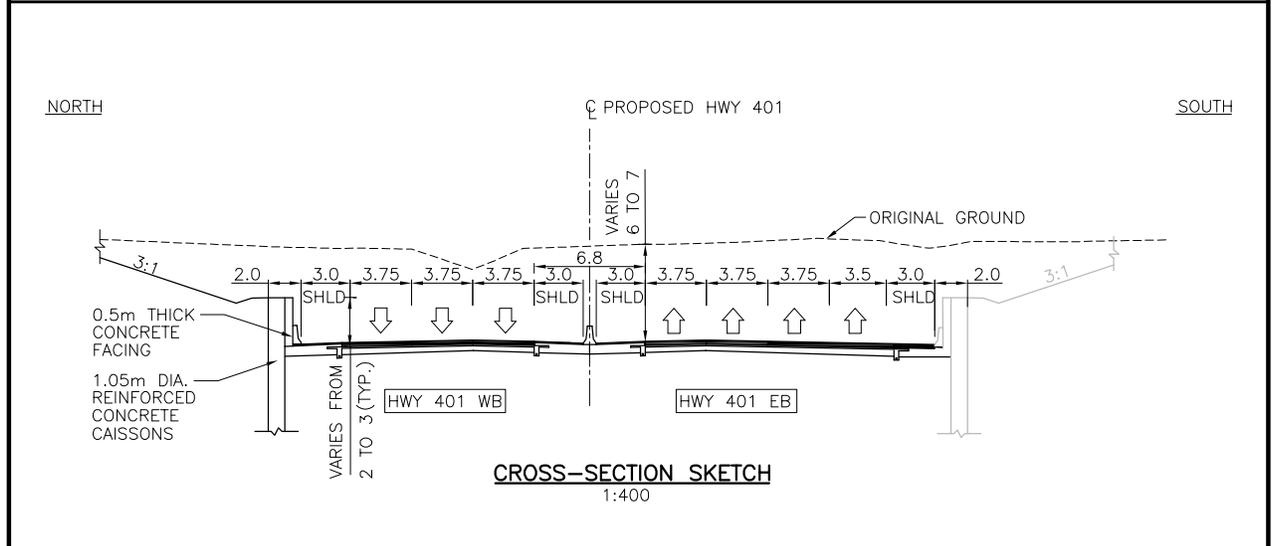
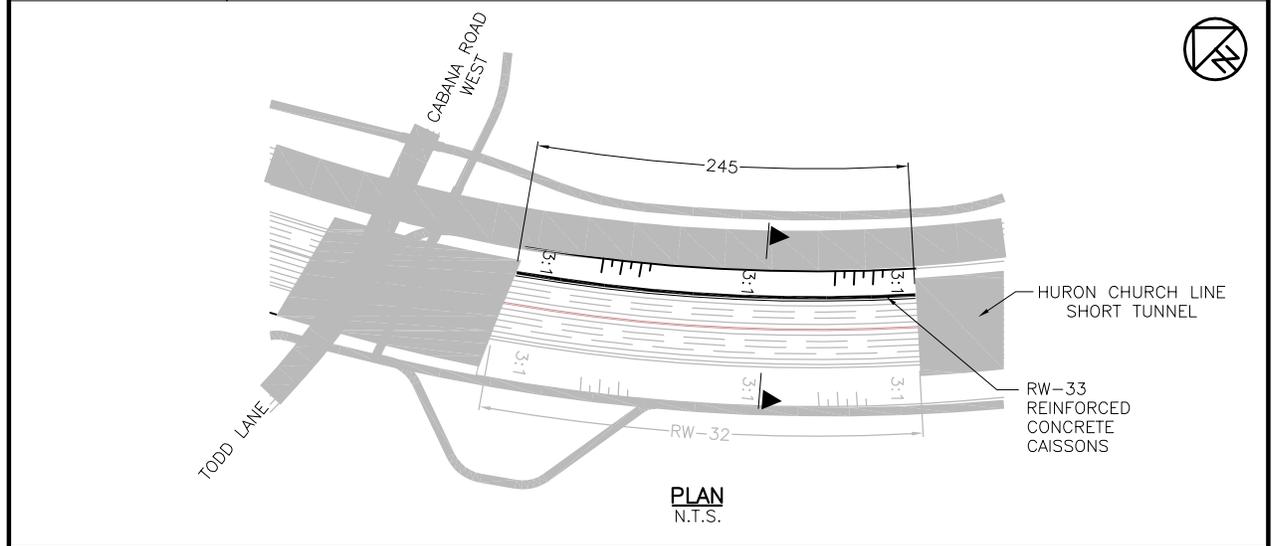


LENGTH (m)	265 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	31,000	ESTIMATED COST (\$)	8,215,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-33	SITE NO.	----	LOCATION	WEST OF HURON CHURCH LINE
STRUCTURE NAME	BELOW GRADE HWY 401 AT WEST OF HURON CHURCH LINE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON NORTH SIDE				

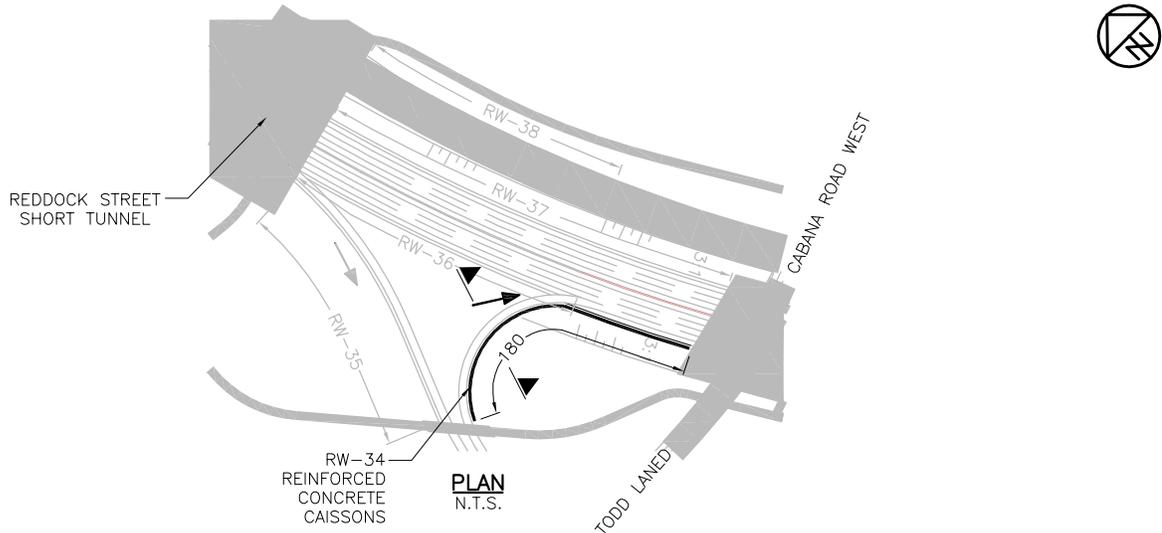


LENGTH (m)	245 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	7,227,500
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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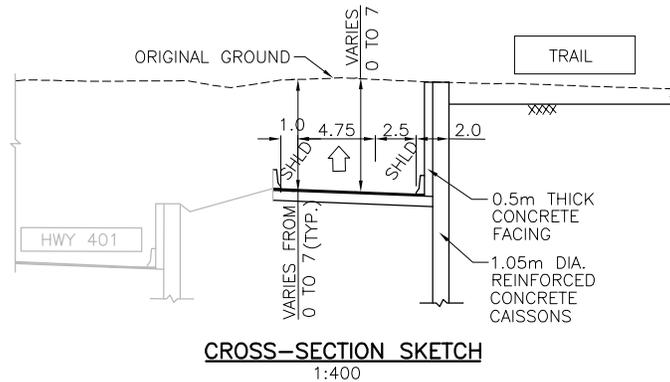
# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-34	SITE NO.	----	LOCATION	BETWEEN REDDOCK STREET AND CABANA ROAD WEST
STRUCTURE NAME	EB LANE RAMP FROM TODD LANE TO HWY 401 EB			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALLS (TYPE "BS1") OF VARIABLE HEIGHTS ON ONE SIDE				



NORTH

SOUTH

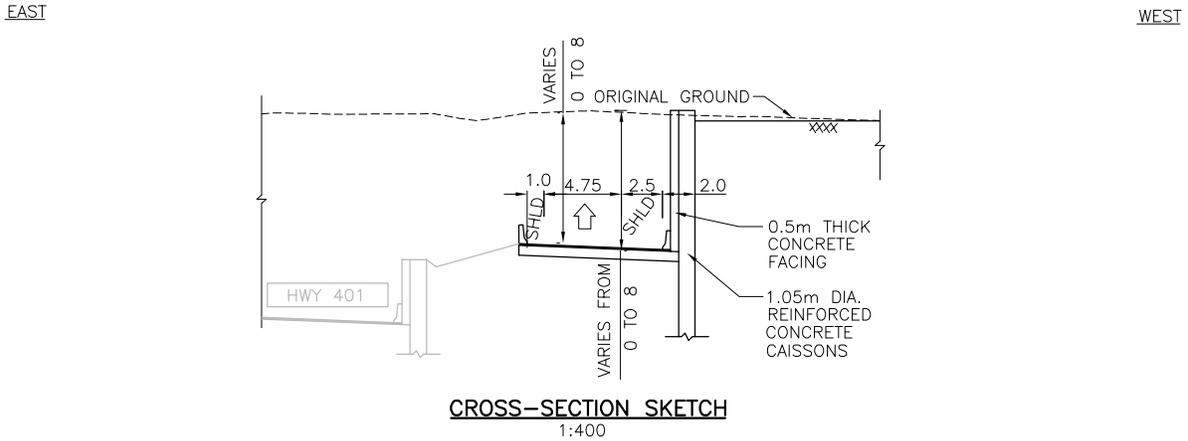
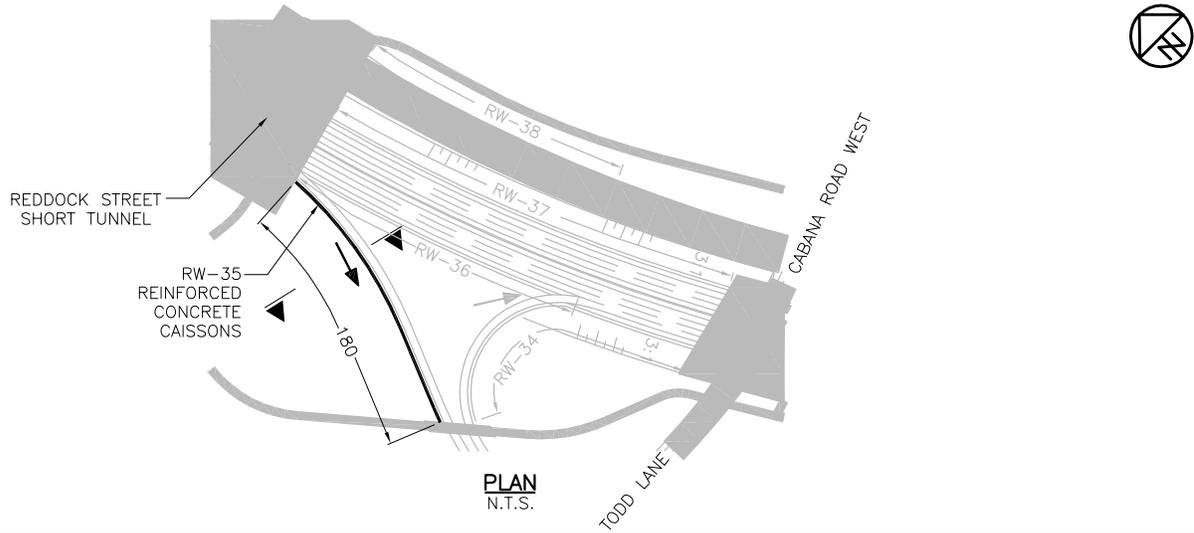


LENGTH (m)	180 SOUTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	2,700,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.	DATE	FEBRUARY 2008	

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PLOTDATE: Mar 17, 2008 3:47 pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-35	SITE NO.	----	LOCATION	BETWEEN REDDOCK STREET AND CABANA ROAD WEST
STRUCTURE NAME	EB LANE RAMP AT SOUTH OF REDDOCK STREET SHORT TUNNEL		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "BS1") OF VARIABLE HEIGHT ON WEST SIDE				

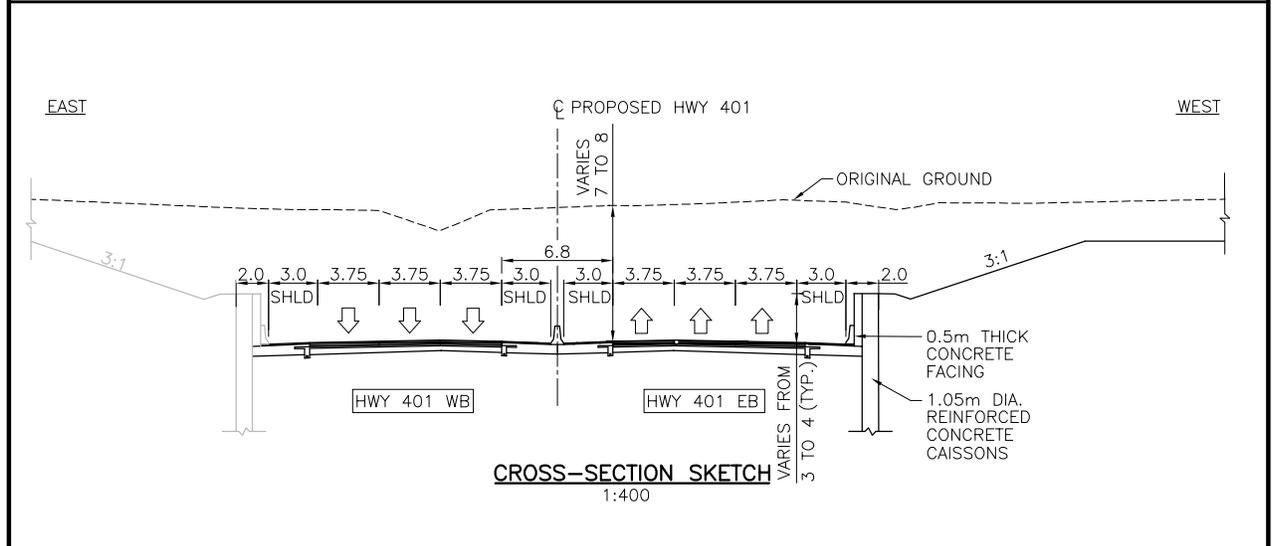
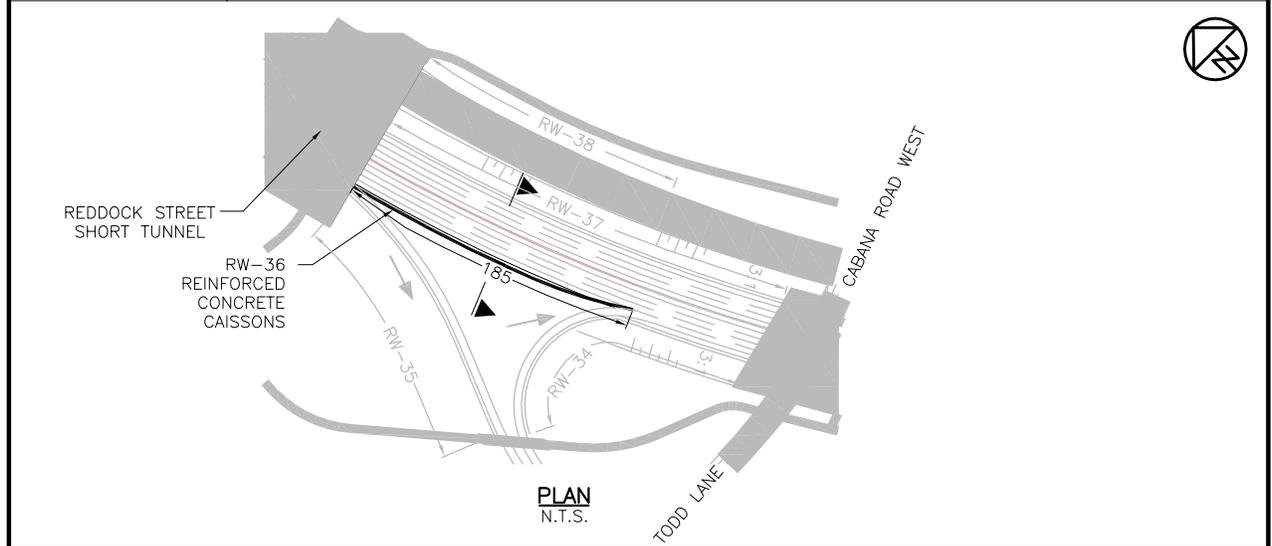


LENGTH (m)	180 WEST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	2,700,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-36	SITE NO.	----	LOCATION	SOUTH OF REDDOCK STREET
STRUCTURE NAME	BELOW GRADE HWY 401 AT SOUTH OF REDDOCK STREET SHORT TUNNEL		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON WEST SIDE				

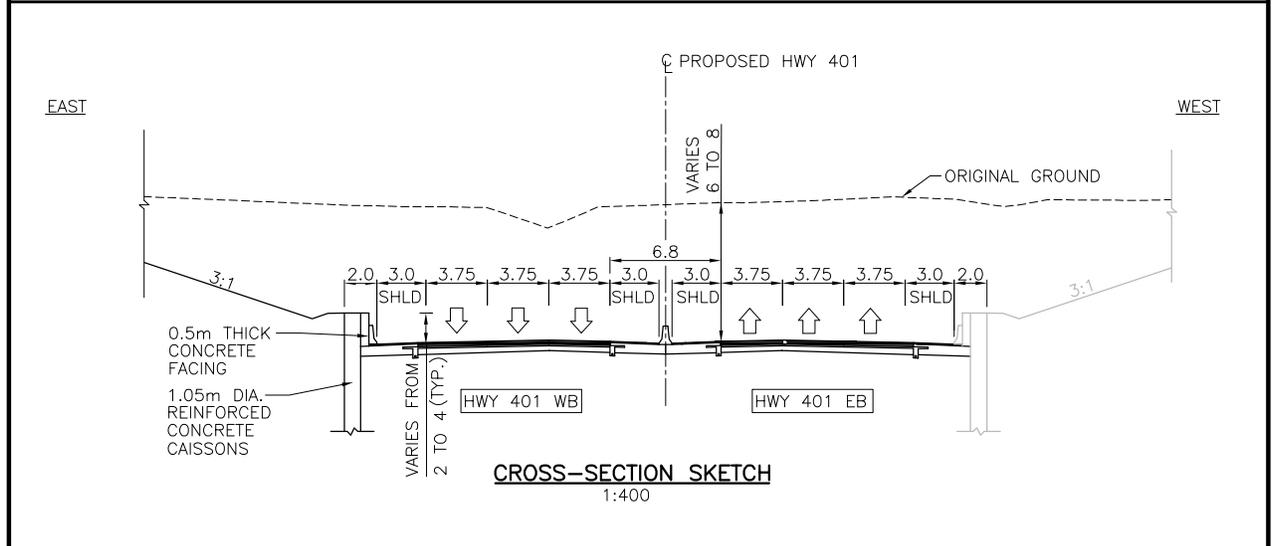
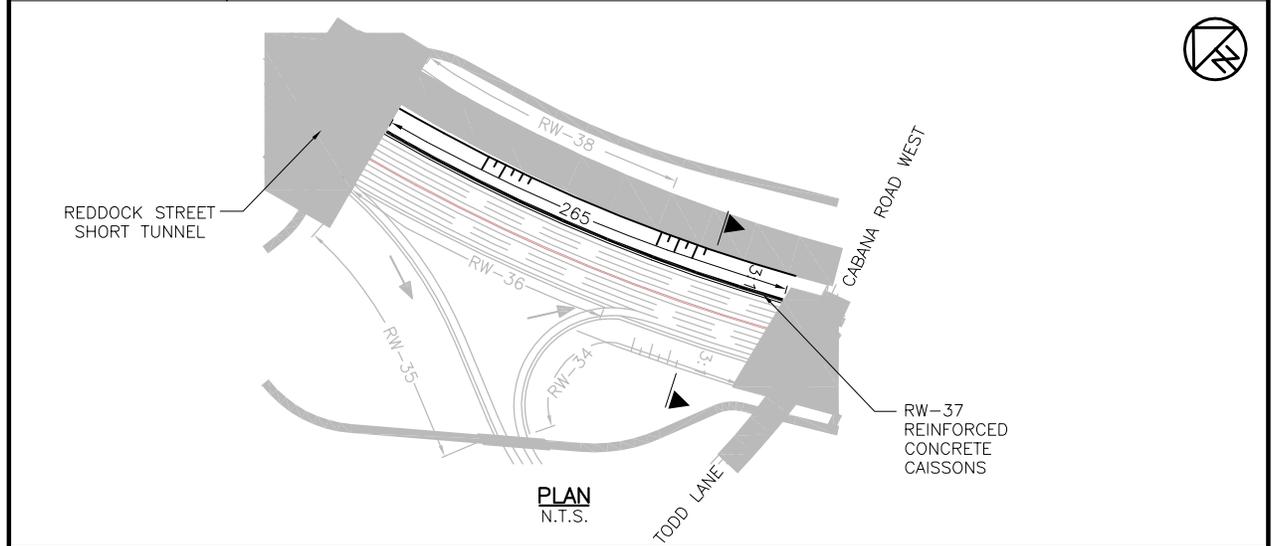


LENGTH (m)	185 WEST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	5,457,500
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-37	SITE NO.	----	LOCATION	NORTH OF CABANA ROAD WEST
STRUCTURE NAME	BELOW GRADE HWY 401 AT NORTH OF CABANA ROAD WEST/TODD LANE			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON EAST SIDE				

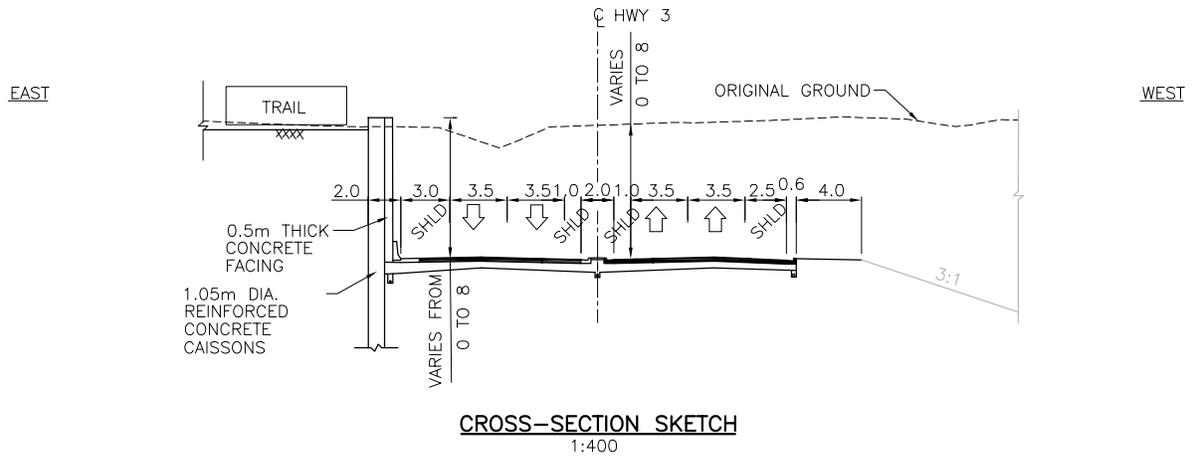
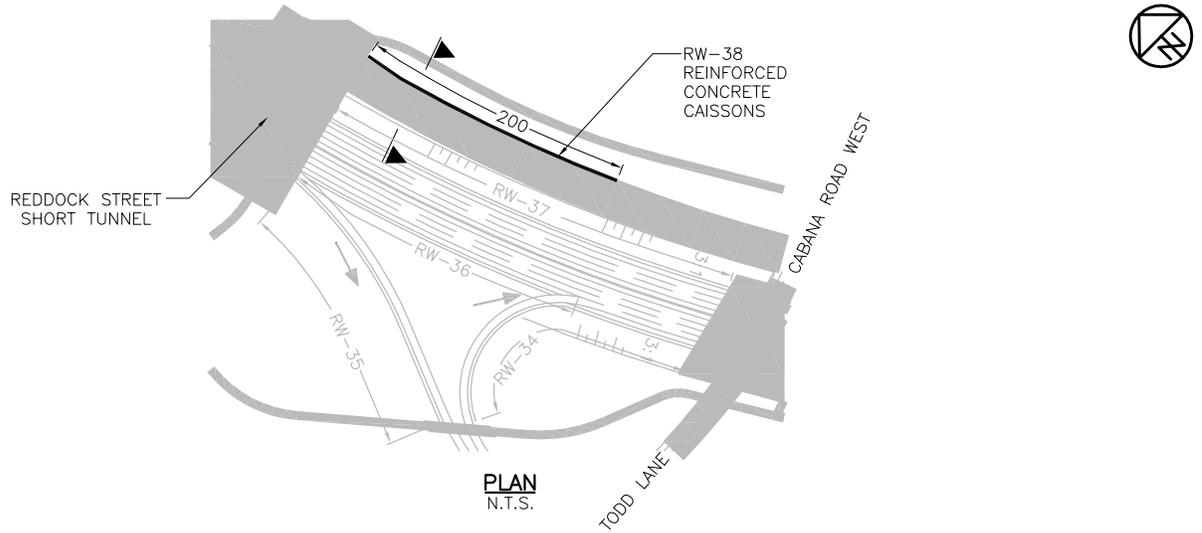


LENGTH (m)	265 EAST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	7,817,500
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-38	SITE NO.	----	LOCATION	SOUTH OF REDDOCK STREET
STRUCTURE NAME	RAMP OF HWY 3 AT SOUTH OF REDDOCK STREET SHORT TUNNEL		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "BS1") OF VARIABLE HEIGHT ON EAST SIDE				

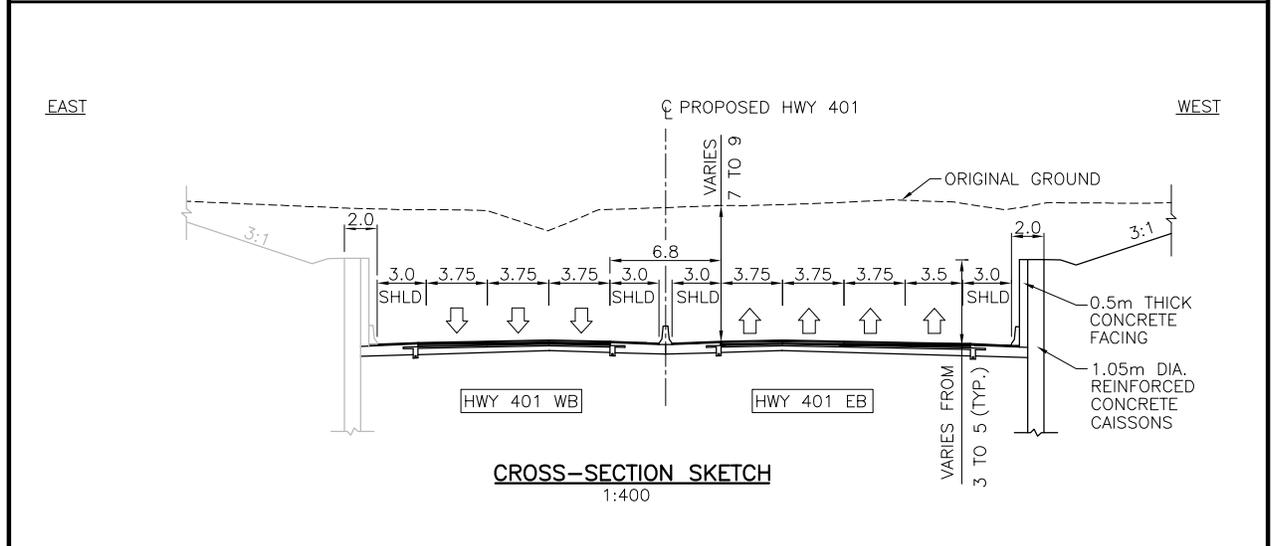
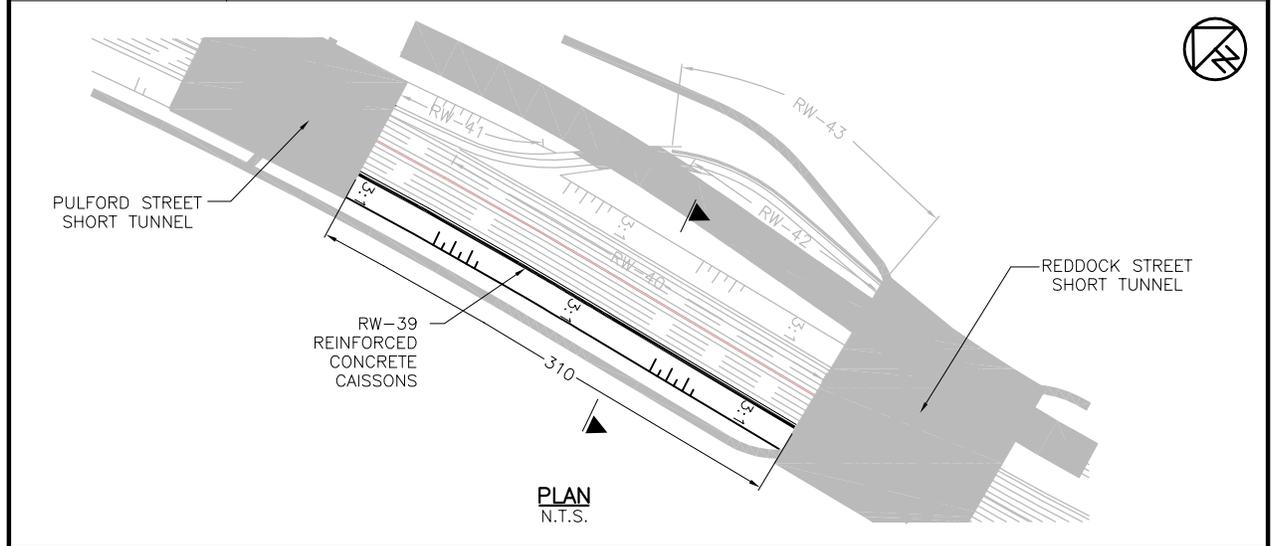


LENGTH (m)	200 EAST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	3,000,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-39	SITE NO.	----	LOCATION	NORTH OF REDDOCK STREET
STRUCTURE NAME	BELOW GRADE HWY 401 AT NORTH OF REDDOCK STREET SHORT TUNNEL		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON WEST SIDE				

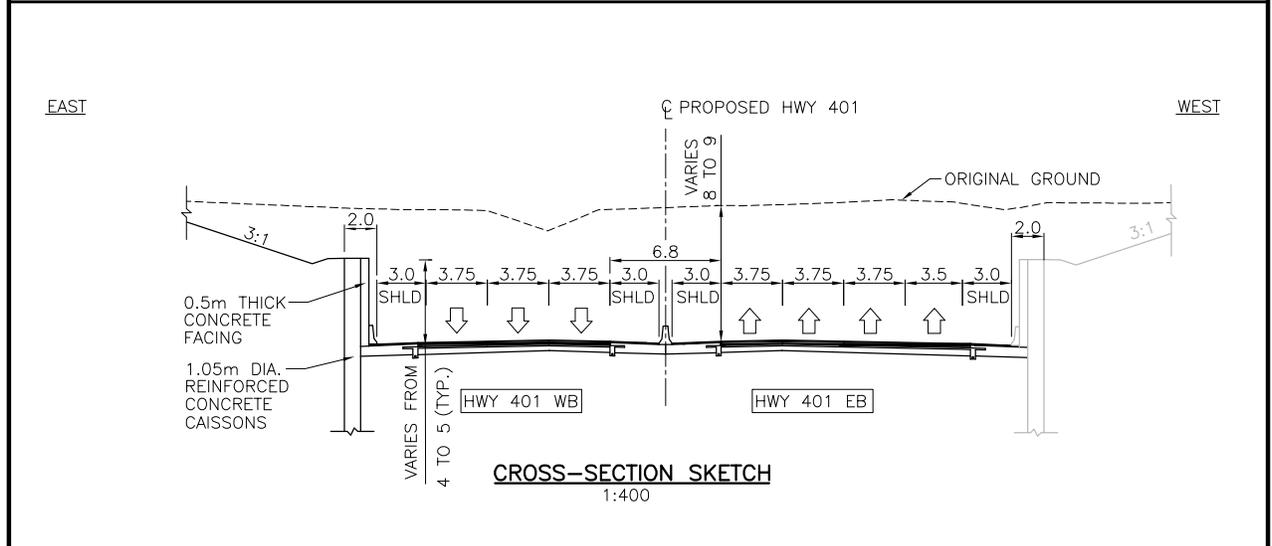
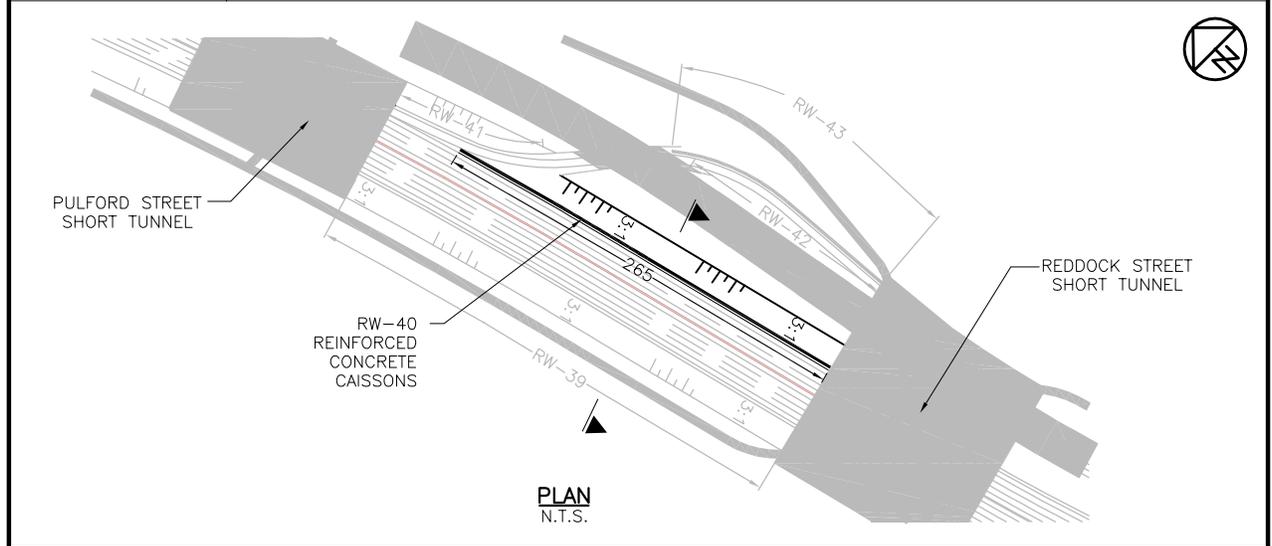


LENGTH (m)	310 WEST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	9,145,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HEIGHT OF CAISSON WALL MAY BE REDUCED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-40	SITE NO.	----	LOCATION	NORTH OF REDDOCK STREET
STRUCTURE NAME	BELOW GRADE HWY 401 AT NORTH OF REDDOCK STREET SHORT TUNNEL		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON EAST SIDE				

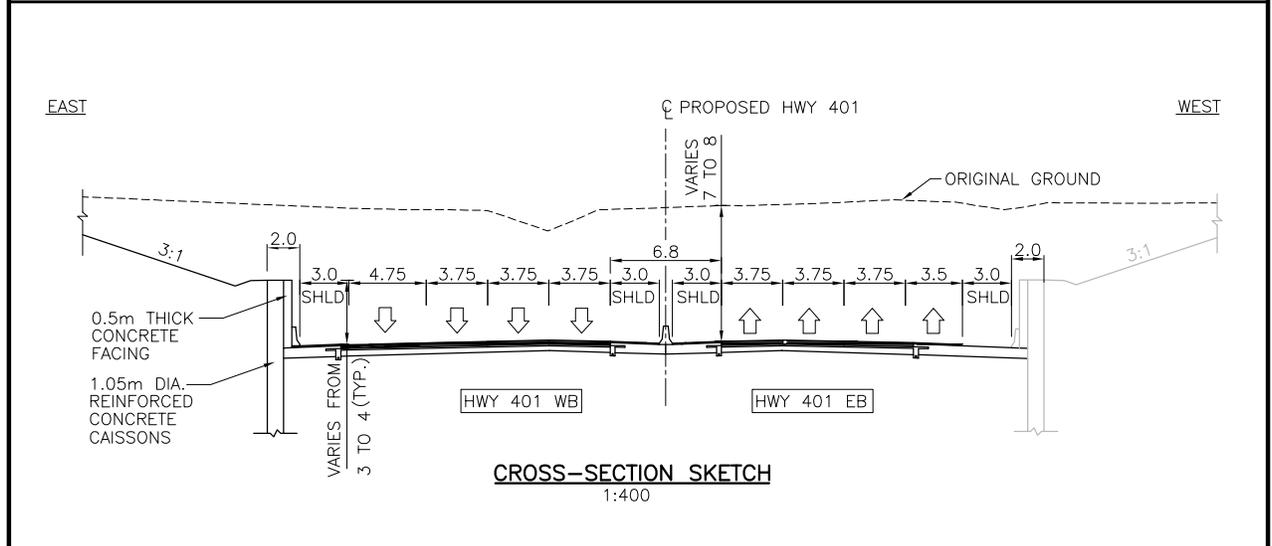
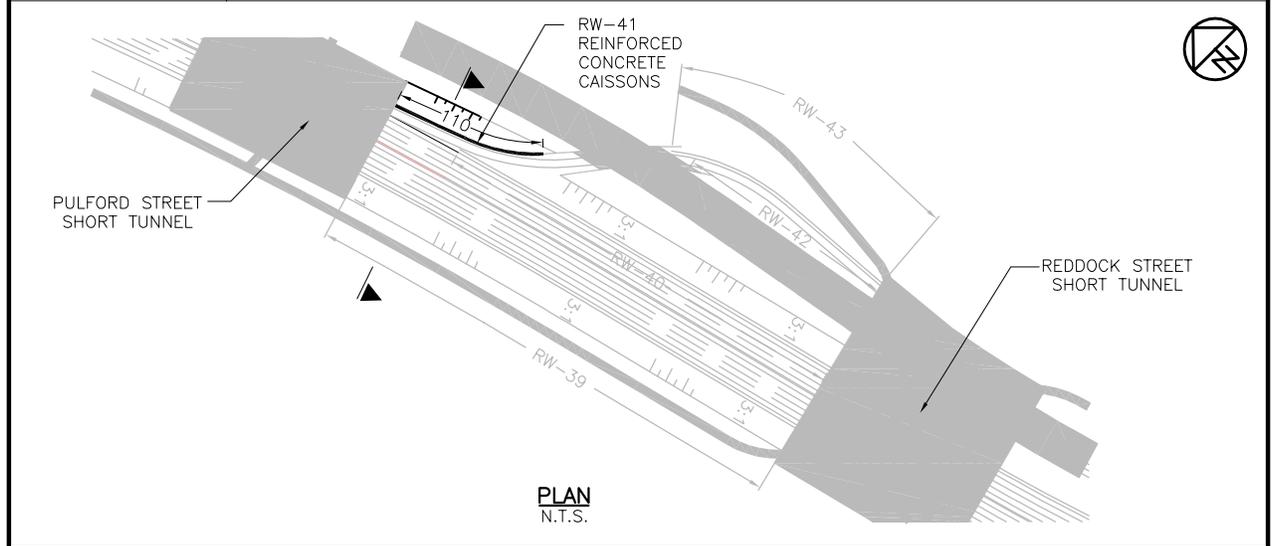


LENGTH (m)	265 EAST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	7,817,500
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HEIGHT OF CAISSON WALL MAY BE REDUCED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-41	SITE NO.	----	LOCATION	SOUTH OF PULFORD STREET
STRUCTURE NAME	BELOW GRADE HWY 401 WITH RAMP OF HWY 3 WB LANE AT SOUTH OF PULFORD STREET			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON EAST SIDE				

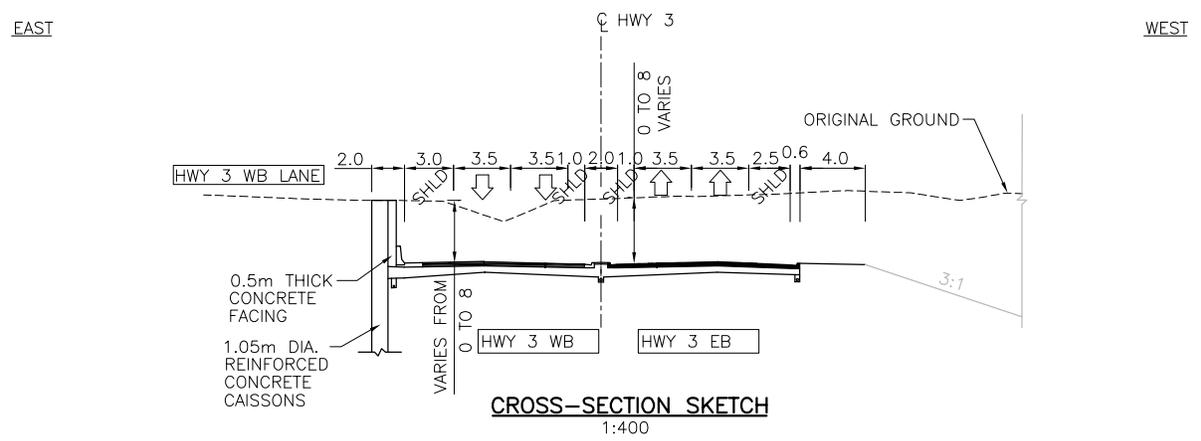
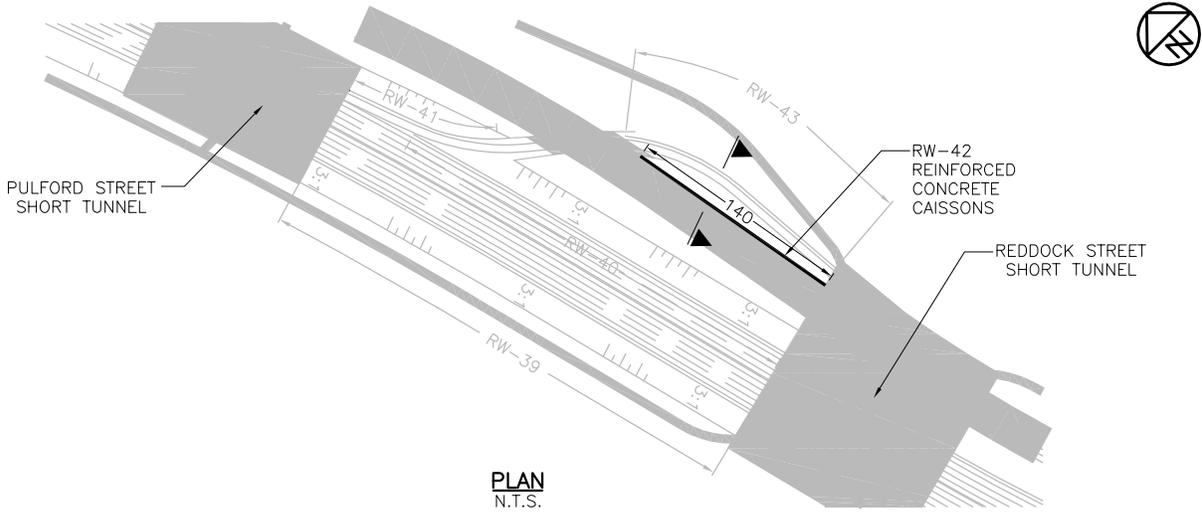


LENGTH (m)	110 EAST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	3,245,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HEIGHT OF CAISSON WALL MAY BE REDUCED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-42	SITE NO.	----	LOCATION	NORTH OF REDDOCK STREET
STRUCTURE NAME	RAMP OF HWY 3 AT NORTH OF REDDOCK STREET SHORT TUNNEL			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "BS1") OF VARIABLE HEIGHT ON EAST SIDE				

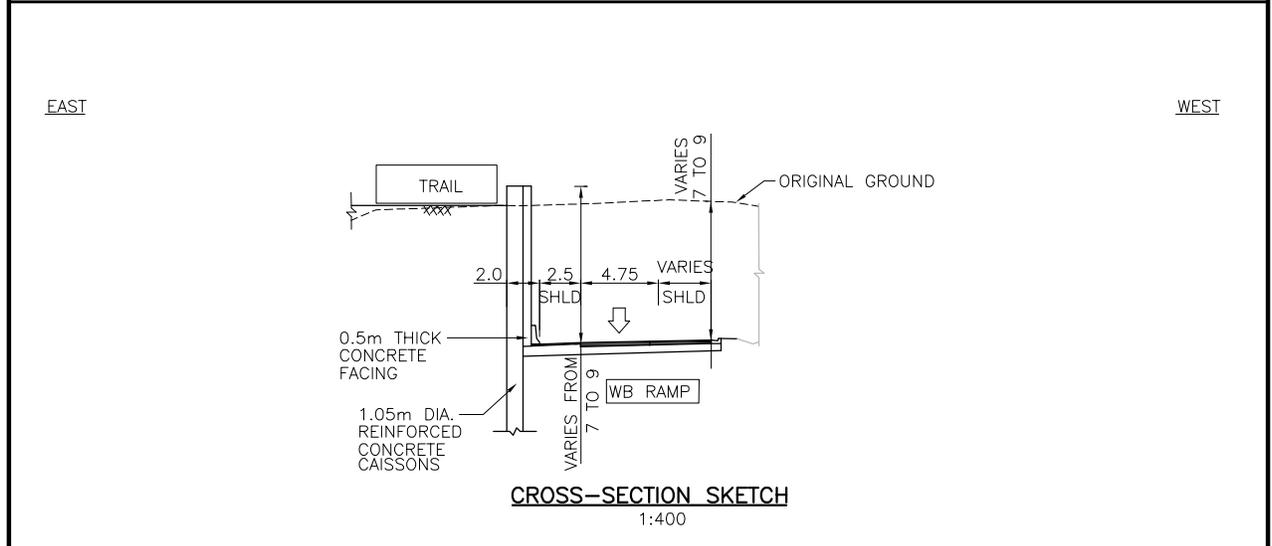
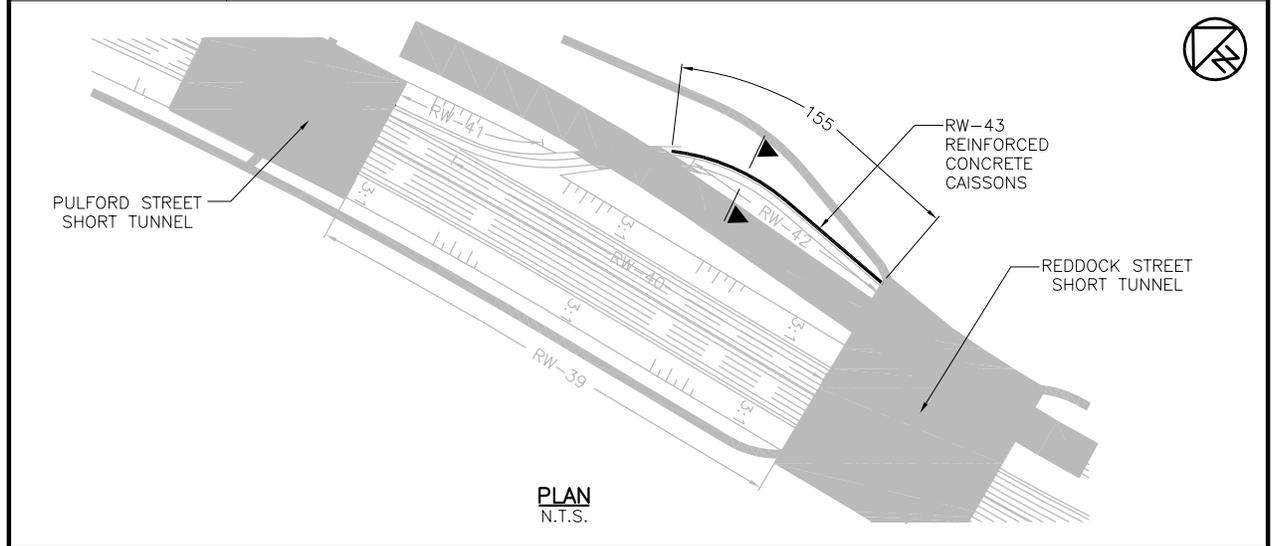


LENGTH (m)	140 EAST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	2,100,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-43	SITE NO.	----	LOCATION	NORTH OF REDDOCK STREET
STRUCTURE NAME	RAMP OF WB LANE OF HWY 3 AT NORTH OF REDDOCK STREET SHORT TUNNEL			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON EAST SIDE				

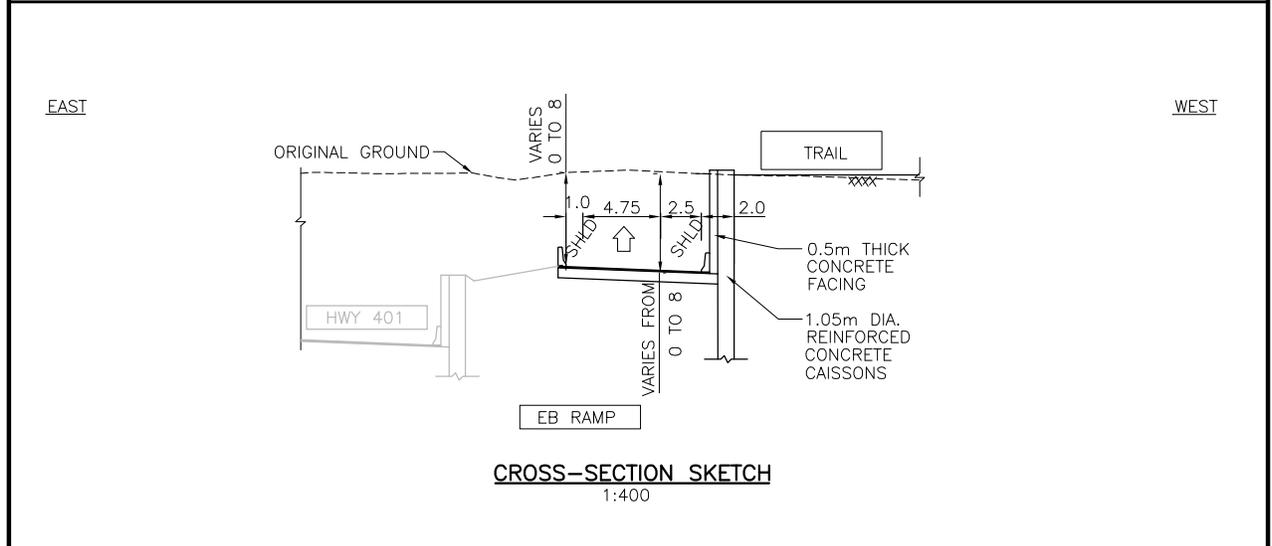
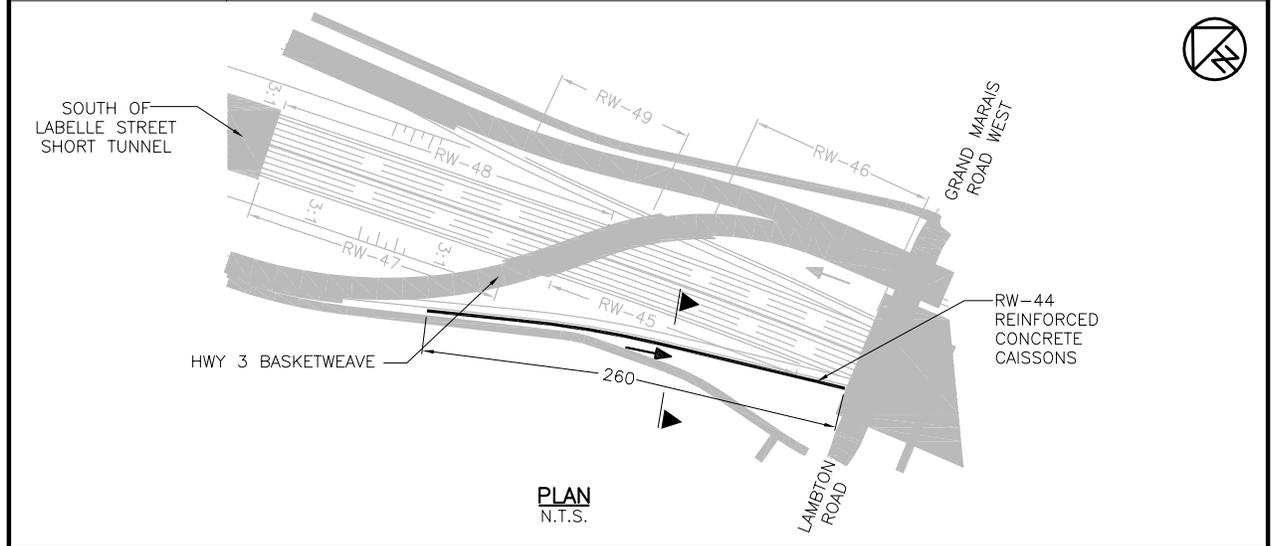


LENGTH (m)	155 NORTH SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	4,572,500
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-44	SITE NO.	----	LOCATION	NORTH OF GRAND MARAIS ROAD WEST
STRUCTURE NAME	EB LANE RAMP AT NORTH OF GRAND MARAIS ROAD WEST			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "BS1") OF VARIABLE HEIGHT ON WEST SIDE				

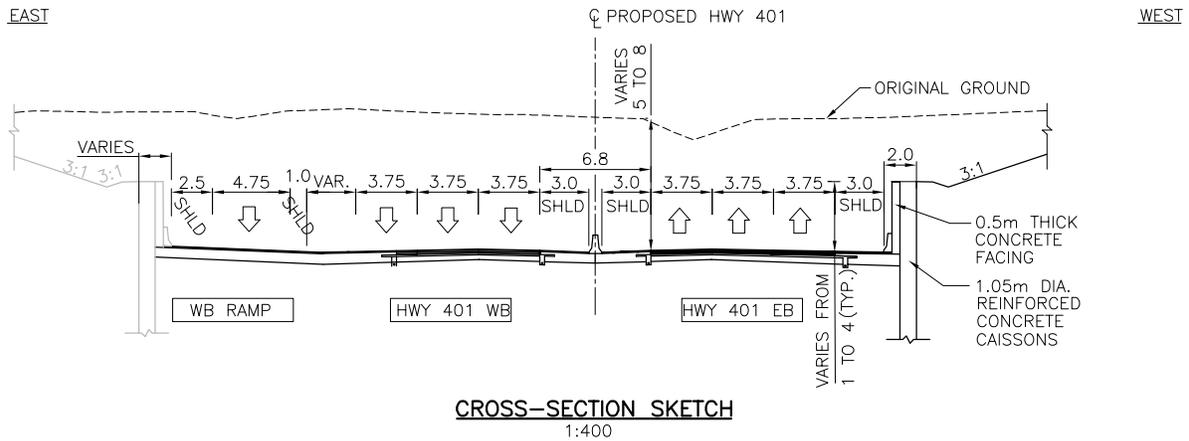
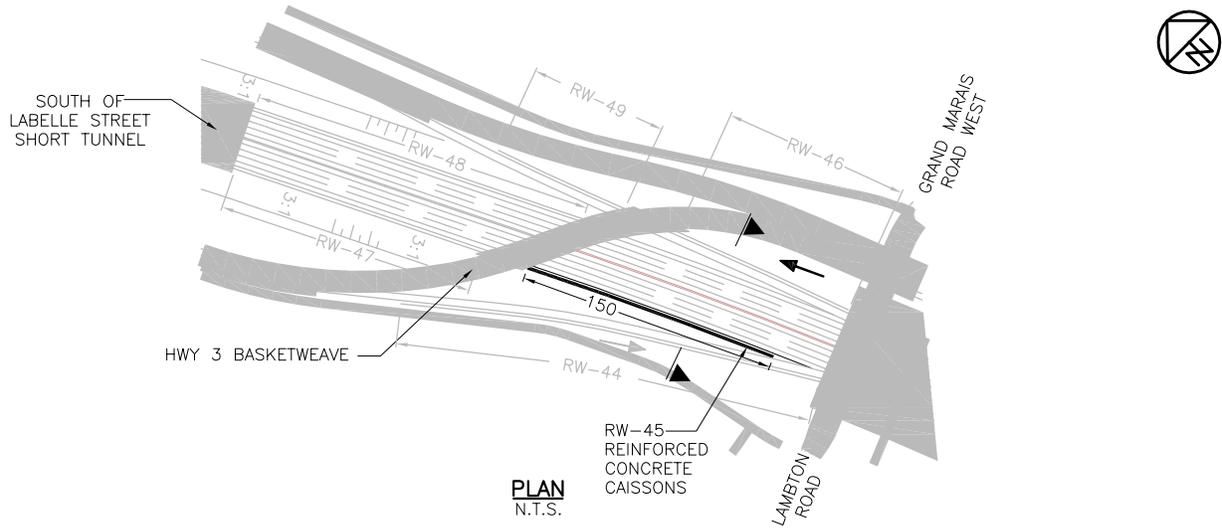


LENGTH (m)	260 WEST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000	ESTIMATED COST (\$)	3,900,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-45	SITE NO.	----	LOCATION	NORTH OF GRAND MARAIS ROAD WEST
STRUCTURE NAME	BELOW GRADE HWY 401 AT NORTH OF GRAND MARAIS ROAD WEST			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON WEST SIDE				

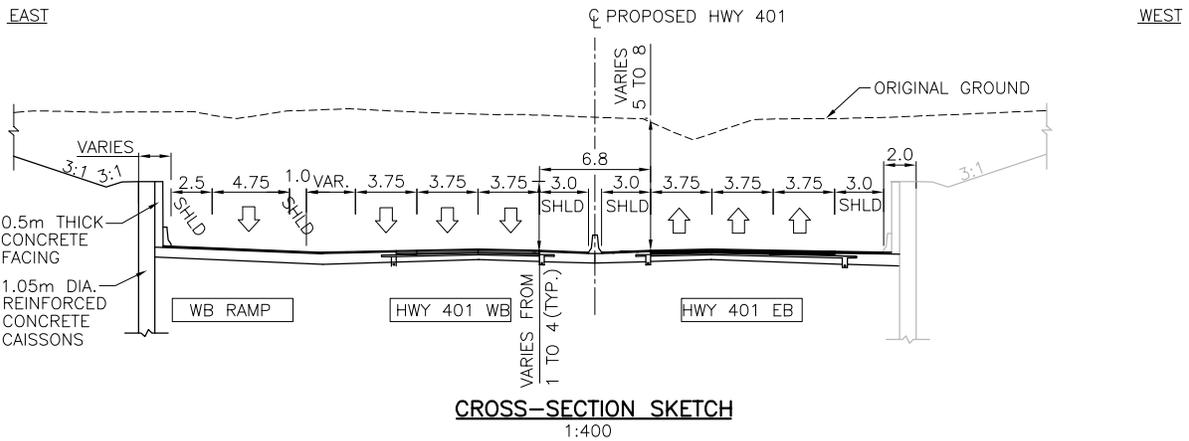
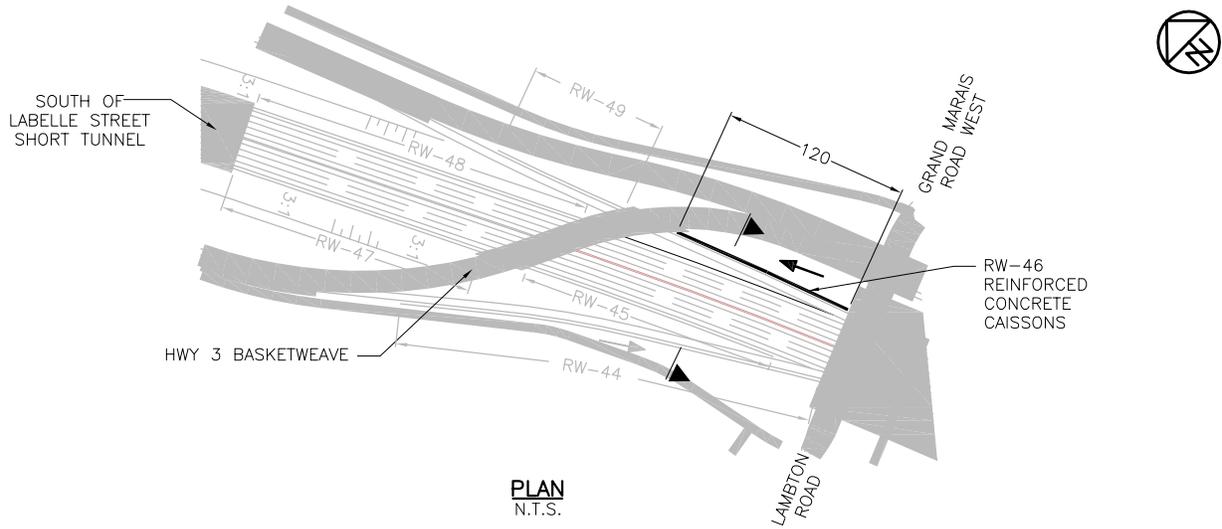


LENGTH (m)	150 WEST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	4,425,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-46	SITE NO.	----	LOCATION	NORTH OF GRAND MARAIS ROAD WEST
STRUCTURE NAME	BELOW GRADE HWY 401 AT NORTH OF GRAND MARAIS ROAD WEST			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON EAST SIDE				

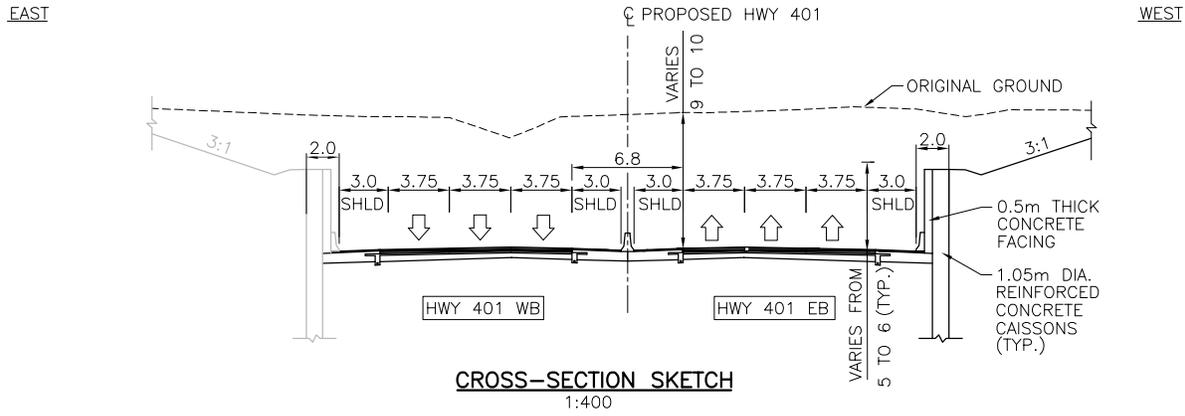
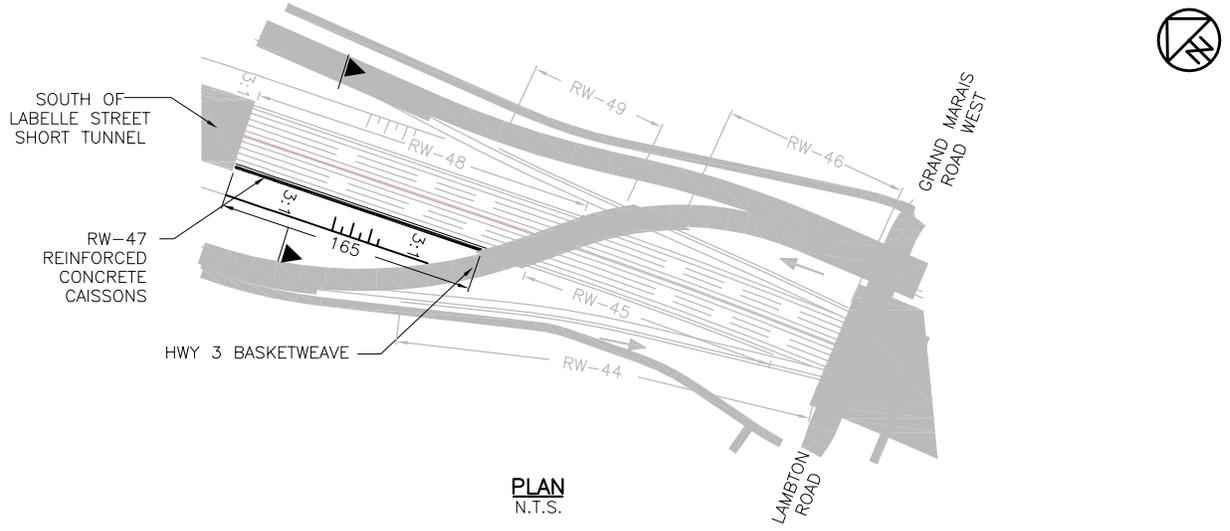


LENGTH (m)	120 EAST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	3,540,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-47	SITE NO.	----	LOCATION	SOUTH OF LABELLE STREET
STRUCTURE NAME	BELOW GRADE HWY 401 AT SOUTH OF LABELLE ST.		<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS	<input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON WEST SIDE				

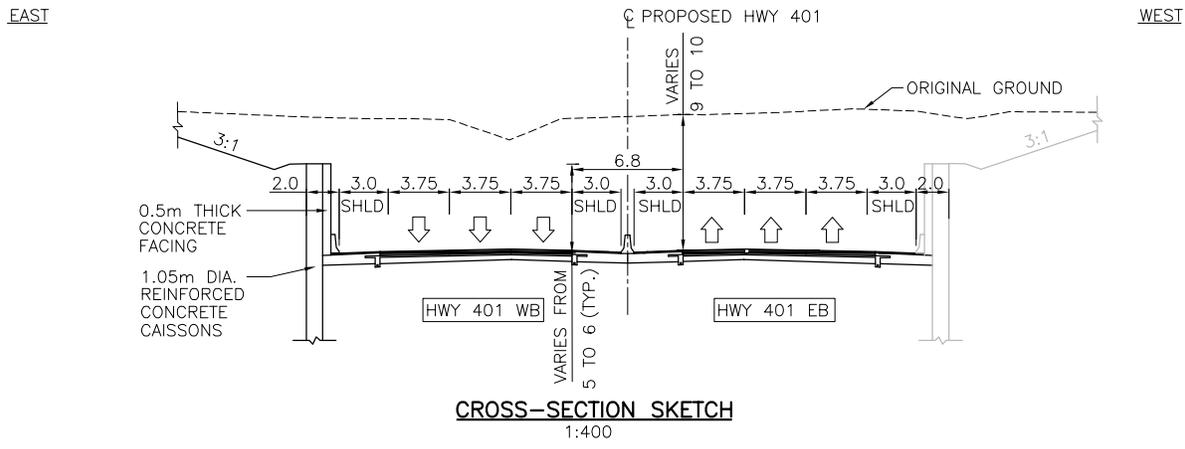
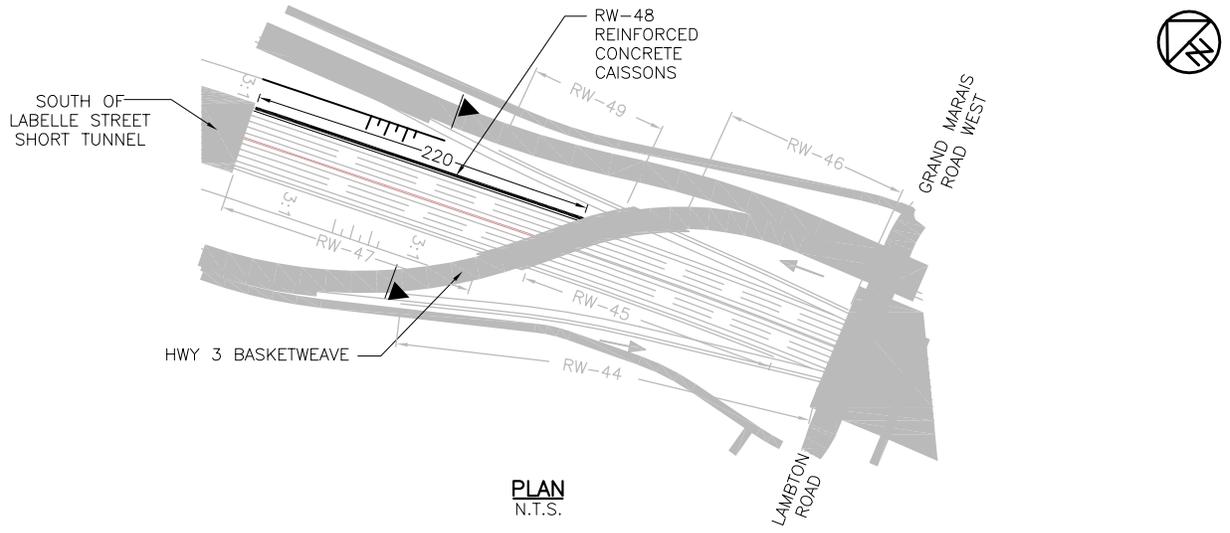


LENGTH (m)	165 WEST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	4,867,500
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)	HEIGHT OF CAISSON WALL MAY BE REDUCED AFTER DETAILED REVIEW AT NEXT STAGE OF DESIGN.			
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

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 PLOT DATE: Mar 17, 2008 3:52pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-48	SITE NO.	----	LOCATION	NORTH OF HWY 3 BASKETWEAVE AT SOUTH OF LABELLE STREET
STRUCTURE NAME	BELOW GRADE HWY 401 AT NORTH OF HWY3 BASKETWEAVE AT SOUTH OF LABELLE STREET			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON EAST SIDE				



LENGTH (m)	220 EAST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	6,490,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: C:\projects\2014\DRG\_LAST REPORT\BA-20-REV-FEB-CAISSINWALL\Bridges\Alternative-20-REV-FEB-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 3:51 pm

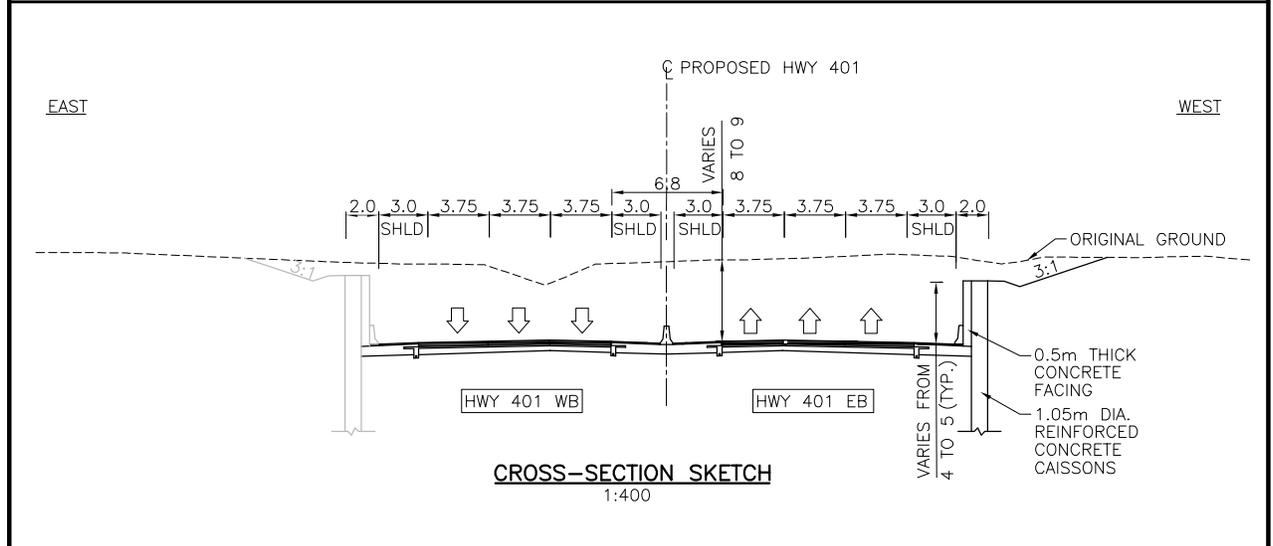
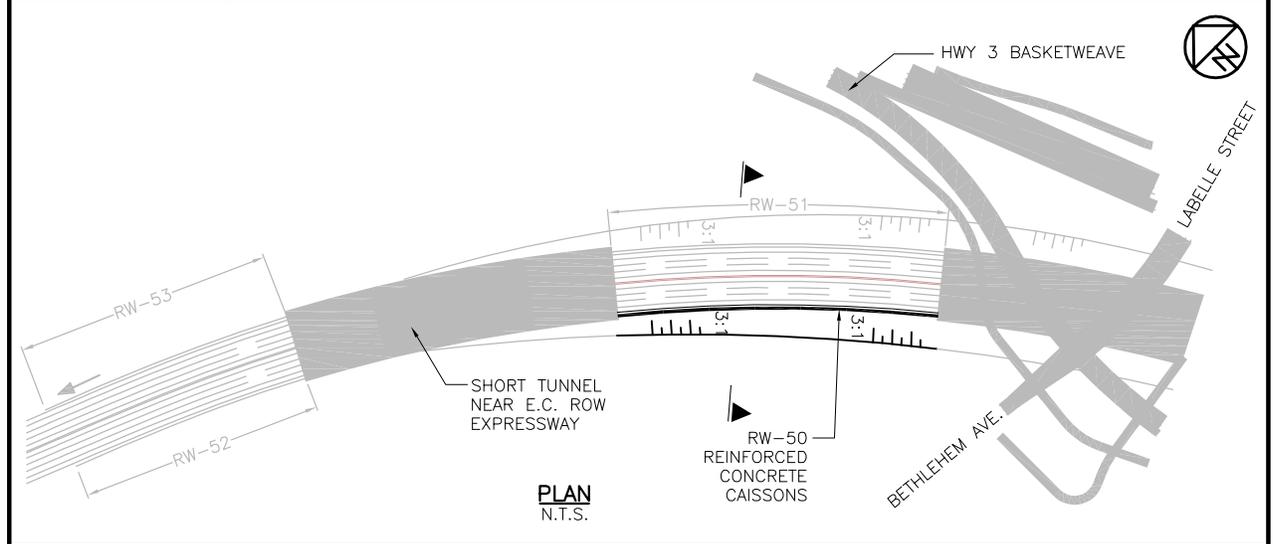
# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-49	SITE NO.	----	LOCATION	SOUTH OF LABELLE STREET
STRUCTURE NAME	WB LANE RAMP AT SOUTH OF LABELLE STREET			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input type="checkbox"/> BELOW GRADE HWY <input checked="" type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "BS1") OF VARIABLE HEIGHT ON EAST SIDE				
<p style="text-align: center;"><b>PLAN</b> N.T.S.</p>					
<p style="text-align: center;"><b>CROSS-SECTION SKETCH</b> 1:400</p>					
LENGTH (m)	80 EAST SIDE		WIDTH (m)		----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO		----
SKIEW ANGLE	----		VERTICAL CLEARANCE (m)		----
UNIT PRICE (\$/m)	NEW STRUCTURE	15,000		ESTIMATED COST (\$)	1,200,000
	REHABILITATION	----			
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)					
NAME OF CONSULTANT (FOR PLANNING)		URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: C:\projects\2014\DRIC\_LAST REPORT\BA-2C-REV-FEB-CAISSINWALL\Bridges\Alternative-2C-REV-FEB-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 3:51 pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE "THE PARKWAY"
STRUCTURE I.D.	RW-50	SITE NO.	----	LOCATION	NORTH OF LABELLE STREET
STRUCTURE NAME	BELOW GRADE HWY 401 AT NORTH OF LABELLE ST.			<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW	<input type="checkbox"/> OVERPASS <input type="checkbox"/> UNDERPASS <input checked="" type="checkbox"/> BELOW GRADE HWY <input type="checkbox"/> APPROACH RAMP
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON WEST SIDE				

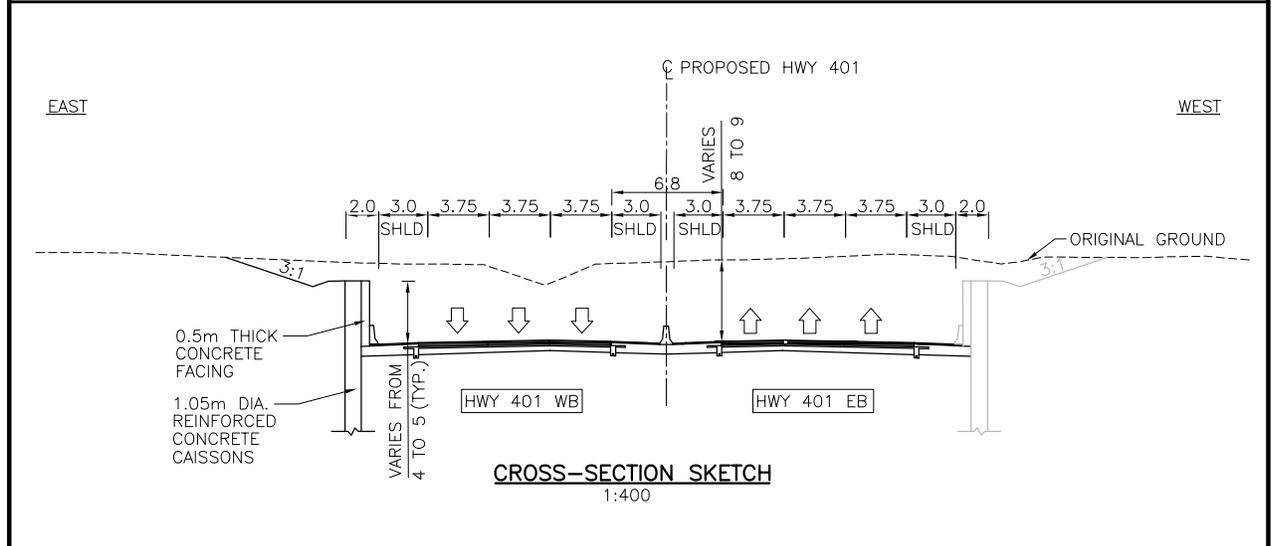
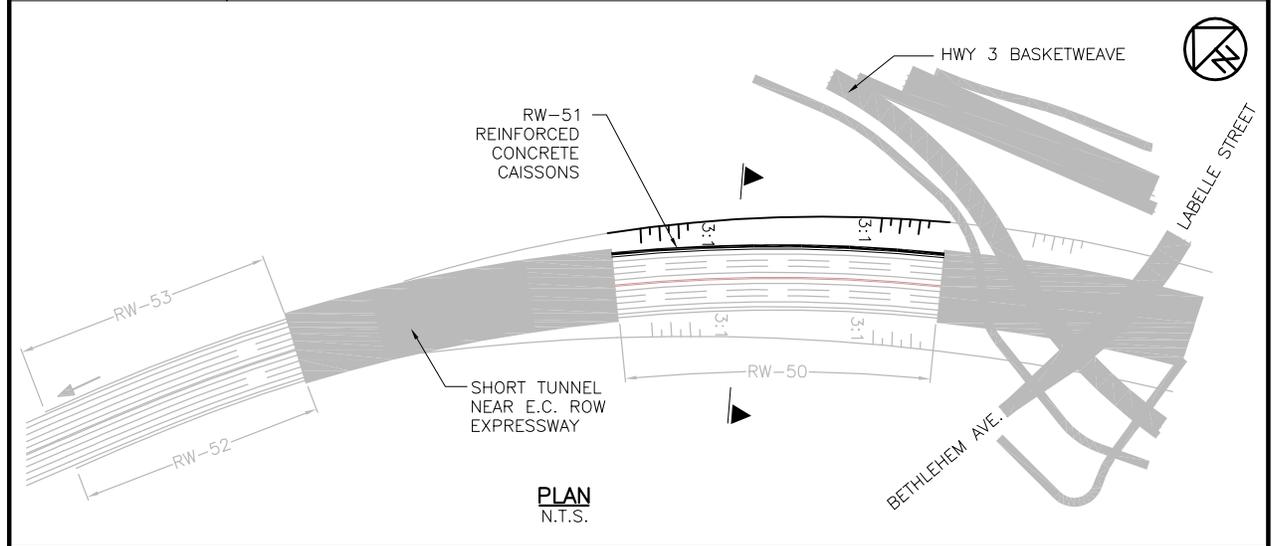


LENGTH (m)	200 WEST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKEW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	5,900,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: C:\projects\014\DRG\_LAST REPORT\BA-2C-REV-FEB-CASSINWALL\Bridges\Alternative-2C-REV-FEB-2008-BRIDGES.dwg  
 PLOT DATE: Mar 17, 2008 -- 3:52pm

# STRUCTURAL PLANNING SHEET

W.O.NO.	----	CORRIDOR	HC-T	ROUTE	ALIGNMENT ALTERNATIVE 'THE PARKWAY'
STRUCTURE I.D.	RW-51	SITE NO.	----	LOCATION	NORTH OF LABELLE STREET
STRUCTURE NAME	BELOW GRADE HWY 401 AT NORTH OF LABELLE ST.				<input type="checkbox"/> EXISTING <input checked="" type="checkbox"/> NEW
STRUCTURE DESCRIPTION	CAISSON RETAINING WALL (TYPE "B") OF VARIABLE HEIGHT ON EAST SIDE				



LENGTH (m)	200 EAST SIDE		WIDTH (m)	----
STRUCTURAL DEPTH (m)	----		SPAN/DEPTH RATIO	----
SKREW ANGLE	----		VERTICAL CLEARANCE (m)	----
UNIT PRICE (\$/m)	NEW STRUCTURE	29,500	ESTIMATED COST (\$)	5,900,000
	REHABILITATION	----		
COMMENTS (SPECIAL CONSTRUCTION & DESIGN FEATURES)				
NAME OF CONSULTANT (FOR PLANNING)	URS CANADA INC.		DATE	FEBRUARY 2008

FILENAME: C:\projects\2008\DRG\_LAST REPORT\BA-20-REV-FEB-CAISSINWALL\Bridges\Alternative-20-REV-FEB-2008-BRIDGES.dwg  
 PLOTDATE: Mar 17, 2008 3:53pm





## Appendix D

### Summary Tables of Structures with Preliminary Cost Estimates:

- Table for Alternative 1A
- Table for Alternative 1B
- Table for Alternative 2A
- Table for Alternative 2B
- Table for Alternative 3
- Table for The Parkway

## **Appendix D.1**

### **Table 1A for Alternative 1A**

**Table "1A": Alignment Alternative "1A" Practical at Grade Freeway  
Along Highway 3 Corridor (Huron Church Road) with Service Roads on Both Sides**

Structure I.D.	Structure Name	Structure Type	Length ( M )	Width ( M )	Unit Cost	Cost ( \$ )
1A - 5	North Talbot Road Underpass	Two Spans Bridge	31+31	15.6	\$2,100	\$2,031,000
1A - 10	Hwy 3 WB Underpass	Three Spans Bridge	42+26+23	12.55	\$2,100	\$2,398,000
1A - 11	Hwy 401 Ramp W-E Underpass	Single Span Bridge	36	12.05	\$2,100	\$911,000
1A - 12	Hwy 401 Ramp E-N/S Overpass	Single Span Bridge	39	12.05	\$2,100	\$987,000
1A - 13	Ramp E-W at West of Howard Avenue	Boat Section	400	Length	\$30,000	\$12,000,000
1A - 20	Approach Ramp of Hwy 401 at East of Howard Avenue	Boat Section	500	Length	\$30,000	\$15,000,000
1A - 21	Below Grade Hwy 401 at Howard Avenue	Boat Section	93	Length	\$45,000	\$4,185,000
1A - 22	Howard Avenue Underpass	Two Spans Bridge	26+32	24.6	\$2,200	\$3,139,000
1A - 23	Approach Ramp of Hwy 401 at West of Howard Avenue	Boat Section	300	Length	\$30,000	\$9,000,000
1A - 30	Approach Ramp of Hwy 401 at East of Cousineau Road	Boat Section	350	Length	\$30,000	\$10,500,000
1A - 31	Below Grade Hwy 401 at Cousineau Road	Boat Section	508	Length	\$45,000	\$22,860,000
1A - 32	Cousineau Road Underpass	Two Spans Bridge	27+30	24.6	\$2,200	\$3,085,000
1A - 33	Pedestrian Plaza at Cousineau Road	Two Spans Bridge	27+30	70	\$2,200	\$8,778,000
1A - 34	St.Clair College Road Underpass	Two Spans Bridge	26+26	15.6	\$2,100	\$1,704,000
1A - 35	Approach Ramp of Hwy 401 at West of St.Clair Collge Road	Boat Section	250	Length	\$30,000	\$7,500,000
1A - 37	Ramps E-W and W-E to Hwy 401 at West of Cousineau Road	Boat Section	480	Length	\$30,000	\$14,400,000
1A - 40	Approach Ramp of Hwy 401 at East of Cabana Road West	Boat Section	410	Length	\$30,000	\$12,300,000
1A - 42	Cabana Road West Underpass	Two Spans Bridge	21+21	24.6	\$2,100	\$2,170,000
1A - 43	Pedestrian Plaza at Cabana Road West	Two Spans Bridge	21+21	120	\$2,100	\$10,584,000
1A - 44	Approach Ramp of Hwy 401 at West of Cabana Road West	Boat Section	375	Length	\$30,000	\$11,250,000
1A - 50	Turkey Creek Bridge	Single Span Bridge	24	64.49	\$2,750	\$4,256,800
1A - 60	Approach Ramp of Hwy 401 at Grand Marais Road West side	Boat Section	350	Length	\$30,000	\$10,500,000
1A - 61	Below Grade Hwy 401 at South of Huron Church Road	Boat Section	637	Length	\$45,000	\$28,665,000
1A - 62	Huron Church Road Ramp N-S Underpass	Two Spans Bridge	36+33	12.05	\$2,200	\$1,829,000
1A - 63	Grand Marais Road West Underpass	Four Spans Bridge	20+23+23+23	22.6	\$2,000	\$4,023,000
1A - 64	Approach Ramp of Hwy 401 at just East of EC ROW Expressway	Boat Section	300	Length	\$30,000	\$9,000,000
1A - 65	Ramps N-S & S-N to Hwy 401 at East of Huron Church Line	Boat Section	420	Length	\$30,000	\$12,600,000
1A - 66	Below Grade Ramps S-N,N-S to Hwy 401 at East of Huron Church Line	Boat Section	150	Length	\$45,000	\$6,750,000
1A - 90	Malden Road Overpass	Single Span Bridge	35	36.35	\$2,000	\$2,545,000
1A - 91	Ramp W-E Underpass	Two Spans Bridge	45.0+45.0	9.3	\$2,100	\$1,758,000
1A - 92	Matchette Road Overpass	Single Span Bridge	40	36.35	\$2,000	\$2,908,000
1A - 93	Ojibway / ETR Overpass	Three Spans Bridge	34+34+45	36.35	\$2,500	\$10,269,000
1A - 94	Ramp E-W at Ojibway Parkway Overpass	Single Span Bridge	44	12.05	\$2,000	\$1,060,000
1A - 95	Ramp E-W at ETR Overpass	Single Span Bridge	30	12.05	\$2,500	\$904,000
1A - 110	Cahill Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1A - 120	Secondary Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000

**Table "1A": Alignment Alternative "1A" Practical at Grade Freeway  
Along Highway 3 Corridor (Huron Church Road) with Service Roads on Both Sides**

<b>Structure I.D.</b>	<b>Structure Name</b>	<b>Structure Type</b>	<b>Length ( M )</b>	<b>Width ( M )</b>	<b>Unit Cost</b>	<b>Cost ( \$ )</b>
1A - 130	Lennon Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1A - 140	Marentette Mangin Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1A - 150	Basin Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1A - 160	Titcombe Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
<b>TOTAL COST</b>						<b><u>\$253,649,800</u></b>
<p><b>Note:</b> Above Costs include only Structural Costs. These costs do not include Roadwork, Earthwork, Road &amp; Traffic Diversions, Roadway Protection etc; which are included in the Highway Costs</p>						

## Appendix D.2

### Table 1B for Alternative 1B

**Table "1B": Alignment Alternative "1B" Practical Below Grade Freeway  
Along Highway 3 Corridor (Huron Church Road) with Service Roads on Both Sides**

Structure I.D.	Structure Name	Structure Type	Length (M)	Width (M)	Unit Cost	Cost (\$)
1B - 5	North Tablot Road Underpass	Two Spans Bridge	31+31	15.6	\$2,100	\$2,031,000
1B - 10	Hwy 3 WB Underpass	Three Spans Bridge	42+26+23	12.55	\$2,100	\$2,398,000
1B - 11	Hwy 401 Ramp W-E Underpass	Single Span Bridge	36	12.05	\$2,100	\$911,000
1B - 12	Hwy 401 Ramp E-N/S Overpass	Single Span Bridge	39	12.05	\$2,100	\$987,000
1B - 13	Ramp E-W at East of Howard Avenue	Boat Section	540	Length	\$30,000	\$16,200,000
1B - 14	Approach Ramp of Highway 401 at East of Howard Avenue	Boat Section	400	Length	\$30,000	\$12,000,000
1B - 20	Hwy 401 with Ramp E-W at East of Howard Avenue	Boat Section	100	Length	\$30,000	\$3,000,000
1B - 22	Howard Avenue Underpass	Two Spans Bridge	23+27	24.6	\$2,200	\$2,706,000
1B - 23	Montgomery Drive Underpass	Two Spans Bridge	21+21	15.6	\$2,100	\$1,376,000
1B - 32	Cousineau Road/Sandwich Parkway Underpass	Two Spans Bridge	27+27	24.6	\$2,200	\$2,922,000
1B - 33	Pedestrian Plaza at Cousineau Road	Two Spans Bridge	29+29	70	\$2,100	\$8,526,000
1B - 34	St.Clair College Road Underpass	Two Spans Bridge	26+26	15.6	\$2,100	\$1,704,000
1B - 35	Huron Church Line Underpass	Two Spans Bridge	21+21	26	\$2,300	\$2,512,000
1B - 36	Ramps E-W & W-E on East of St.Clair College Road	Boat Section	560	Length	\$30,000	\$16,800,000
1B - 37	Ramps E-W & W-E on West of St.Clair College Road	Boat Section	600	Length	\$30,000	\$18,000,000
1B - 42	Cabana Road West / Todd Lane Underpass	Two Spans Bridge	21+21	24.6	\$2,100	\$2,170,000
1B - 43	Pedestrian Plaza at Cabana Road West	Two Spans Bridge	21+21	120	\$2,100	\$10,584,000
1B - 44	Pulford Street Underpass	Two Spans Bridge	26+26	15.6	\$2,100	\$1,704,000
1B - 51	Grand Marais West / Lampton Underpass	Two Spans Bridge	27+27	24.6	\$2,100	\$2,790,000
1B - 55	Turkey Creek Bridge for Service Roads (incl.staged const.,temp.bridge etc)	Single Span Bridge	24	23.65	\$8,000	\$4,541,000
1B - 60	Sideroad Ramps S-N & N-S on East of Pulford Street	Boat Section	670	Length	\$45,000	\$30,150,000
1B - 61	Sideroad Ramps S-N & N-S on East of Grand Marais Road	Boat Section	720	Length	\$45,000	\$32,400,000
1B - 62	Huron Church Road Ramp N-S Underpass	Two Spans Bridge	33+34	12.05	\$2,200	\$1,776,000
1B - 63	Labelle Street/Bethlehem Avenue Underpass	Two Spans Bridge	26+26	15.6	\$2,200	\$1,785,000
1B - 64	Approach Ramp of Highway 401 near EC ROW Expressway	Boat Section	350	Length	\$30,000	\$10,500,000
1B - 90	Malden Road Overpass	Single Span Bridge	35	36.35	\$2,000	\$2,545,000
1B - 91	Ramp W-E Underpass	Two Spans Bridge	45+45	9.3	\$2,100	\$1,758,000
1B - 92	Matchette Road Overpass	Single Span Bridge	40	36.35	\$2,000	\$2,908,000
1B - 93	Ojibway / ETR Overpass	Three Spans Bridge	34+34+45	36.35	\$2,500	\$10,269,000
1B - 94	Ramp E-W at Ojibway Parkway Overpass	Single Span Bridge	44	12.05	\$2,000	\$1,060,000
1B - 95	Ramp E-W at ETR Overpass	Single Span Bridge	30	12.05	\$2,500	\$904,000
1B - 202	Below Grade Hwy 401 bet.Howard Avenue & Montgomery Drive	Boat Section	800	Length	\$45,000	\$36,000,000
1B - 203	Below Grade Hwy 401 at West of Montgomery Drive	Boat Section	600	Length	\$45,000	\$27,000,000
1B - 204	Below Grade Hwy 401 with S.C.L.at East of Cousineau Road/Sandwich Pkwy	Boat Section	150	Length	\$45,000	\$6,750,000
1B - 211	Below Grade Hwy 401 bet. C.ousineau & St. Clair College Road	Boat Section	475	Length	\$45,000	\$21,375,000
1B - 212	Below Grade Hwy 401 at West of St. Clair College Road	Boat Section	425	Length	\$45,000	\$19,125,000

**Table "1B": Alignment Alternative "1B" Practical Below Grade Freeway  
Along Highway 3 Corridor (Huron Church Road) with Service Roads on Both Sides**

Structure I.D.	Structure Name	Structure Type	Length ( M )	Width ( M )	Unit Cost	Cost ( \$ )
1B - 213	Below Grade Hwy 401 with S.C.Lat West of St. Clair College Road	Boat Section	250	Length	\$45,000	\$11,250,000
1B - 214	Below Grade Hwy 401 at East of Huron Church Line	Boat Section	425	Length	\$45,000	\$19,125,000
1B - 215	Below Grade Hwy 401 bet. Huron Church Line & Cabana Rd. West/Todd Lane	Boat Section	400	Length	\$45,000	\$18,000,000
1B - 221	Below Grade Hwy 401 at West of Todd Lane	Boat Section	400	Length	\$65,000	\$26,000,000
1B - 222	Below Grade Hwy 401 with S.C.Lat East of Pulford Street	Boat Section	200	Length	\$65,000	\$13,000,000
1B - 223	Below Grade Hwy 401 bet. Pulford Street & Grand Marais Rd. West	Boat Section	325	Length	\$75,000	\$24,375,000
1B - 224	Below Grade Hwy 401 with S.C.Lat East of Grand Marais Rd. West/Lambton Rd.	Boat Section	125	Length	\$75,000	\$9,375,000
1B - 225	Hwy 401 in Tunnel under Turkey Creek	Cut & Cover Tunnel	100	Length	\$215,000	\$21,500,000
1B - 231	Below Grade Hwy 401 with S.C.L.at West of Grand Marais Rd.West/Lambton Road	Boat Section	125	Length	\$65,000	\$8,125,000
1B - 232	Below Grand Hwy 401 bet. Grand Marais Road and Labelle Street	Boat Section	400	Length	\$65,000	\$26,000,000
1B - 233	Below Grade Hwy 401 at West of Labelle Street/Belhehem	Boat Section	100	Length	\$65,000	\$6,500,000
1B - 110	Cahill Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1B - 120	Secondary Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1B - 130	Lennon Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1B - 140	Marentette Mangin Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1B - 150	Basin Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
1B - 160	Tilcombe Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
<b>TOTAL COST</b>						<b>\$503,186,000</b>
<p>Note: Above Costs include only Structural Costs. These costs do not include Roadwork, Earthwork, Road &amp; Traffic Diversions, Roadway Protection etc; which are included in the Highway Costs.</p>						

## **Appendix D.3**

### **Table 2A for Alternative 2A**

**Table "2A": Alignment Alternative "2A" Practical at Grade Freeway  
Parallel to Hwy 3 Corridor (Huron Church Road)**

Structure I.D.	Structure Name	Structure Type	Length (M)	Width (M)	Unit Cost	Cost (\$)
2A - 5	North Talbot Road Underpass	Two Spans Bridge	31+31	15.6	\$2,100	\$2,031,000
2A - 10	Hwy 3 WB Underpass	Three Spans Bridge	42+26+23	12.55	\$2,100	\$2,398,000
2A - 11	Hwy 401 Ramp W-E Underpass	Single Span Bridge	36	12.05	\$2,100	\$911,000
2A - 12	Hwy 401 Ramp E-N/S Overpass	Single Span Bridge	39	12.05	\$2,100	\$987,000
2A - 13	Ramp E-W at East of Howard Avenue	Boat Section	510	Length	\$30,000	\$15,300,000
2A - 20	Approach Ramp of Hwy 401 at East of Howard Avenue	Boat Section	500	Length	\$30,000	\$15,000,000
2A - 21	Below Grade Hwy 401 at East of Howard Avenue	Boat Section	90	Length	\$45,000	\$4,050,000
2A - 22	Howard Avenue Underpass	Two Spans Bridge	30+30	24.6	\$2,200	\$3,247,000
2A - 23	Below Grade Hwy 401 at West of Howard Avenue	Boat Section	70	Length	\$45,000	\$3,150,000
2A - 24	Approach Ramp of Hwy 401 at West of Howard Avenue	Boat Section	300	Length	\$30,000	\$9,000,000
2A - 25	Ramp W-N/S at West of Howard Avenue	Boat Section	300	Length	\$30,000	\$9,000,000
2A - 30	Approach Ramp of Hwy 401 at East of Cousineau Road	Boat Section	350	Length	\$30,000	\$10,500,000
2A - 31	Below Grade Hwy 401 at East of Cousineau Road	Boat Section	65	Length	\$45,000	\$2,925,000
2A - 32	Sandwich Parkway Underpass	Two Spans Bridge	20+20	24.6	\$2,100	\$2,066,000
2A - 34	Below Grade Hwy 401 at West of Cousineau Road	Boat Section	65	Length	\$45,000	\$2,925,000
2A - 35	Approach Ramp of Hwy 401 at West of Cousineau Road	Boat Section	270	Length	\$30,000	\$8,100,000
2A - 40	Approach Ramp of Hwy 401 at East of Cabana Road West	Boat Section	450	Length	\$30,000	\$13,500,000
2A - 41	Below Grade Hwy 401 at West of Cabana Road West	Boat Section	50	Length	\$45,000	\$2,250,000
2A - 42	Cabana Road West Underpass	Two Spans Bridge	26+25	24.6	\$2,200	\$2,760,000
2A - 43	Below Grade Hwy 401 at East of Cabana Road West	Boat Section	350	Length	\$45,000	\$15,750,000
2A - 44	Below Grade Hwy 401 at West of Huron Church Line	Boat Section	75	Length	\$45,000	\$3,375,000
2A - 45	Below Grade Wider Hwy 401 at East of Huron Church Line	Boat Section	100	Length	\$45,000	\$4,500,000
2A - 46	Approach Ramp of Hwy 401 at West of Cabana Road West	Boat Section	375	Length	\$30,000	\$11,250,000
2A - 47	Ramp N-E/W at East of Cabana Road West	Boat Section	340	Length	\$30,000	\$10,200,000
2A - 48	Ramp E/W-S at East of Cabana Road West	Boat Section	340	Length	\$30,000	\$10,200,000
2A - 49	Huron Church Line Underpass	Two Spans Bridge	27+27	24	\$2,300	\$2,981,000
2A - 50	Turkey Creek Bridge	Single Span Bridge	24	36.35	\$2,000	\$1,745,000
2A - 51	Grand Marais Road West Underpass	Three Spans Bridge	30+30+30	24.6	\$2,100	\$4,649,000
2A - 60	Approach Ramp of Hwy 401 at Grand Marais Road West side	Boat Section	273	Length	\$30,000	\$8,190,000
2A - 61	Below Grade Hwy 401 at just West of Grand Marais Road West	Boat Section	125	Length	\$45,000	\$5,625,000
2A - 62	Huron Church Ramp N-S Underpass	Two Spans Bridge	32+38	12.05	\$2,200	\$1,856,000
2A - 63	Spring Garden Road Underpass	Two Spans Bridge	22+22	15.6	\$2,100	\$1,441,000

**Table "2A": Alignment Alternative "2A" Practical at Grade Freeway  
Parallel to Hwy 3 Corridor (Huron Church Road)**

Structure I.D.	Structure Name	Structure Type	Length (M)	Width (M)	Unit Cost	Cost (\$)
2A - 64	Below Grade Hwy 401 with N-S Ramp at South of Huron Church Road	Boat Section	100	Length	\$45,000	\$4,500,000
2A - 65	Below Grade Hwy 401 at South of Huron Church Road	Boat Section	125	Length	\$45,000	\$5,625,000
2A - 66	Below Grade Hwy 401 with Ramp S-N at South of Huron Church Road	Boat Section	100	Length	\$45,000	\$4,500,000
2A - 67	Below Grade Hwy 401 South of Ramp N-S	Boat Section	125	Length	\$45,000	\$5,625,000
2A - 68	Below Grade Hwy 401 at North of Ramp N-S	Boat Section	110	Length	\$45,000	\$4,950,000
2A - 69	Approach Ramp S-N to Hwy 401 at South of Huron Church Road	Boat Section	250	Length	\$30,000	\$7,500,000
2A - 70	Approach Ramp N-S to Hwy 401 at South of Huron Church Road	Boat Section	250	Length	\$30,000	\$7,500,000
2A - 71	Approach Ramp of Hwy 401 at South of EC Row Expressway	Boat Section	275	Length	\$30,000	\$8,250,000
2A - 90	Malden Road Overpass	Single Span Bridge	35	36.35	\$2,000	\$2,545,000
2A - 91	Ramp W-E Underpass	Two Spans Bridge	45+45	9.3	\$2,100	\$1,758,000
2A - 92	Matchette Road Overpass	Single Span Bridge	40	36.35	\$2,000	\$2,908,000
2A - 93	Ojibway / ETR Overpass	Three Spans Bridge	34+34+45	36.35	\$2,500	\$10,269,000
2A - 94	Ramp E-W at Ojibway Parkway Overpass	Single Span Bridge	44	12.05	\$2,000	\$1,060,000
2A - 95	Ramp E-W at ETR Overpass	Single Span Bridge	30	12.05	\$2,500	\$904,000
2A - 110	Cahill Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2A - 120	Secondary Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2A - 130	Lennon Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2A - 140	Marentette Mangin Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2A - 150	Basin Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2A - 160	Tilcombe Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
	<b>TOTAL COST</b>					<b>\$261,556,000</b>
<p><b>Note:</b> Above Costs include only Structural Costs. These costs do not include Roadwork, Earthwork, Road &amp; Traffic Diversions, Roadway Protection etc; which are included in the Hwy Costs.</p>						

## **Appendix D.4**

### **Table 2B for Alternative 2B**

**Table "2B": Alignment Alternative "2B" Practical  
Below Grade Freeway Parallel to Hwy 3 Corridor (Huron Church Road)**

Structure I.D.	Structure Name	Structure Type	Length ( M )	Width ( M )	Unit Cost	Cost ( \$ )
2B - 5	North Talbot Road Underpass	Two Spans Bridge	31+31	15.6	\$2,100	\$2,031,000
2B - 10	Hwy 3 WB Underpass	Three Spans Bridge	42+26+23	12.55	\$2,100	\$2,398,000
2B - 11	Ramp W-E Underpass	Single Span Bridge	36	12.05	\$2,100	\$911,000
2B - 12	Hwy 401Ramp E-N/S Overpass	Single Span Bridge	39	12.05	\$2,100	\$987,000
2B - 13	Approach Ramp E-W of Hwy 401 at East of Howard Avenue	Boat Section	550	Length	\$30,000	\$16,500,000
2B - 14	Approach Ramp of Hwy 401 at East of Howard Avenue	Boat Section	500	Length	\$30,000	\$15,000,000
2B - 20	Approach Ramp of Hwy 401 at Howard Avenue	Boat Section	123	Length	\$30,000	\$3,690,000
2B - 22	Howard Avenue Underpass	Two Spans Bridge	23+30	24.6	\$2,200	\$2,868,000
2B - 23	Montgomery Road Underpass	Two Spans Bridge	21+21	15.6	\$2,100	\$1,376,000
2B - 24	Ramp W-N/S on West of Howard Avenue	Boat Section	400	Length	\$30,000	\$12,000,000
2B - 32	Cousineau Road / Sandwich Parkway Underpass	Two Spans Bridge	20+20	24.6	\$2,100	\$2,066,000
2B - 33	Huron Church Line Underpass	Two Spans Bridge	27+27	26	\$2,300	\$3,229,000
2B - 34	Ramps E/W-S and S-E/W	Boat Section	800	Length	\$30,000	\$24,000,000
2B - 42	Cabana Road West Underpass	Two Spans Bridge	25+25	24.6	\$2,200	\$2,706,000
2B - 43	Ramps N-E/W and E/W-N	Boat Section	400	Length	\$30,000	\$12,000,000
2B - 51	Grand Marais Road West / Lambton Underpass	Two Spans Bridge	30+30	24.6	\$2,200	\$3,247,000
2B - 52	Hwy 401 Ramps N-S & S-N	Deeper Boat Section	500	Length	\$65,000	\$32,500,000
2B - 62	Huron Church Line Ramp N-S Underpass	Two Spans Bridge	30+40	12.05	\$2,200	\$1,856,000
2B - 63	Spring Garden Road Underpass	Two Spans Bridge	22+22	15.6	\$2,100	\$1,441,000
2B - 64	Approach Ramp of Hwy 401 near Spring Garden Road	Deepr Boat Section	400	Length	\$30,000	\$12,000,000
2B - 90	Malden Road Overpass	Single Span Bridge	35	36.35	\$2,000	\$2,545,000
2B - 91	Ramp W-E Underpass	Two Spans Bridge	45+45	9.3	\$2,100	\$1,758,000
2B - 92	Matchette Road Overpass	Single Span Bridge	40	36.35	\$2,000	\$2,908,000
2B - 93	Ojibway / ETR Overpass	Three Spans Bridge	34+34+45	36.35	\$2,500	\$10,269,000
2B - 94	Ramp E-W at Ojibway Parkway Overpass	Single Span Bridge	44	12.05	\$2,000	\$1,060,000
2B - 95	Ramp E-W at ETR Overpass	Single Span Bridge	30	12.05	\$2,500	\$904,000
2B - 201	Below Grade Hwy 401 bet.Howard Avenue & Montgomery Dr.	Boat Section	200	Length	\$45,000	\$9,000,000
2B - 202	Below Grade Hwy 401 with S.C.L.bet.Howard Avenue & Montgomery Dr.	Boat Section	250	Length	\$45,000	\$11,250,000
2B - 203	Below Grade Hwy 401 at East of Montgomery Drive	Boat Section	325	Length	\$45,000	\$14,625,000
2B - 204	Below Grade Hwy 401 bet.Montgomery Dr.& Cousineau Road	Boat Section	800	Length	\$45,000	\$36,000,000
2B - 211	Below Grade Hwy 401 bet.Cousineau Road & Huron Church Line	Boat Section	1500	Length	\$45,000	\$67,500,000
2B - 212	Below Grade Hwy 401 with Ramps at East of Huron Church Line	Boat Section	150	Length	\$45,000	\$6,750,000
2B - 213	Below Grade Hwy 401 with Ramps at West of Huron Church Line	Boat Section	50	Length	\$45,000	\$2,250,000
2B - 214	Below Grade Hwy 401 bet.Huron Church Line & Cabana Road West/Todd Lane	Boat Section	400	Length	\$45,000	\$18,000,000
2B - 221	Below Grade Hwy 401 at West of Cabana Road West / Todd Lane	Deepr Boat Section	100	Length	\$65,000	\$6,500,000
2B - 222	Below Grade Hwy 401 with Ramps bet.Cabana Rd.West & Pulford St.	Boat Section	300	Length	\$65,000	\$19,500,000

**Table "2B": Alignment Alternative "2B" Practical  
Below Grade Freeway Parallel to Hwy 3 Corridor (Huron Church Road)**

Structure I.D.	Structure Name	Structure Type	Length ( M )	Width ( M )	Unit Cost	Cost ( \$ )
2B - 223	Below Grade Hwy 401 at East of Grand Marais Road West	Boat Section	800	Length	\$75,000	\$60,000,000
2B - 224	Hwy 401 in Tunnel under Turkey Creek	Cut & Cover Tunnel	100	Length	\$222,000	\$22,200,000
2B - 231	Below Grade Hwy 401 at West of Grand Marais Road West	Boat Section	150	Length	\$65,000	\$9,750,000
2B - 232	Below Grade Hwy 401 with Ramp N-S at West of Grand Marais Road West	Boat Section	150	Length	\$65,000	\$9,750,000
2B - 233	Below Grade Hwy 401 at West of Grand Marais Road West	Boat Section	150	Length	\$65,000	\$9,750,000
2B - 234	Below Grade Hwy 401 with Ramp S-N at West of Grand Marais Rd.West	Boat Section	100	Length	\$65,000	\$6,500,000
2B - 235	Below Grade Hwy 401 at South of Huron Church Road	Boat Section	175	Length	\$65,000	\$11,375,000
2B - 110	Cahill Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2B - 120	Secondary Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2B - 130	Lennon Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2B - 140	Marentette Mangin Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2B - 150	Basin Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
2B - 160	Titcombe Drain Culvert	Culvert	1	Nos.	\$300,000	\$300,000
<b>TOTAL COST</b>						<b>\$492,719,000</b>
<p>Note: Above Costs include only Structural Costs. These costs do not include Roadwork, Earthwork, Road &amp; Traffic Diversions, Roadway Protection etc; which are included in the Hwy Costs.</p>						

## **Appendix D.5**

### **Table 3 for Alternative 3**

**Table "3": Alignment Alternative "3" Practical - Wider Tunnel Option (Incorporating RWDI Comments)  
Hwy 401 Along Hwy 3 Corridor (Huron Church Road) with at Grade Service Roads**

Structure I.D.	Structure Name	Structure Type	Length ( M )	Width ( M )	Unit Cost	Cost ( \$ )
3 - 5	North Talbot Road Underpass	Two Spans Bridge	31+31	15.6	\$2,100	\$2,031,000
3 - 10	Hwy 3 WB Underpass	Three Spans Bridge	42+26+23	12.55	\$2,100	\$2,398,000
3 - 11	Ramp W-E Underpass	Single Span Bridge	36	12.05	\$2,100	\$911,000
3 - 12	Hwy 401 Ramp E-N/S Overpass	Single Span Bridge	39	12.05	\$2,100	\$987,000
3 - 13	Approach Ramp E-W at East of Howard Avenue	Deeper Boat Section	425	Length	\$45,000	\$19,125,000
3 - 20	Approach Ramp of Hwy 401 at East of Howard Avenue	Deeper Boat Section	750	Length	\$45,000	\$33,750,000
3 - 25	Ramp E-W Tunnel (Narrow)	Cut and Cover Tunnel	75	Length	\$90,000	\$6,750,000
3 - 30	Ramps E-W and W-E	Deeper Boat Section	500	Length	\$45,000	\$22,500,000
3 - 35	Ramp E-W and W-E Tunnels (Narrow)	Cut and Cover Tunnels	225	Length	\$75,000	\$16,875,000
3 - 40	Approach Ramps E-W and W-E	Deeper Boat Section	500	Length	\$45,000	\$22,500,000
3 - 45	Ramp E-W and W-E Tunnels (Narrow)	Cut and Cover Tunnels	275	Length	\$75,000	\$20,625,000
3 - 55	Turkey Creek Bridge for Service Roads (incl.staged const.,temp.bridge etc)	Single Span Bridge	28	24.1	\$9,000	\$6,073,000
3 - 60	Approach Ramps S-N & N-S	Deeper Boat Section	425	Length	\$65,000	\$27,625,000
3 - 65	Ramp S-N & N-S Tunnels (Narrow)	Deeper Cut & Cover Tunnels	350	Length	\$135,000	\$47,250,000
3 - 70	Approach Ramp of Hwy 401 near EC ROW Parkway	Deeper Boat Section	400	Length	\$45,000	\$18,000,000
3 - 90	Malden Road Overpass	Single Span Bridge	35	36.35	\$2,000	\$2,545,000
3 - 91	Ramp W-E Underpass	Two Spans Bridge	45+45	9.3	\$2,100	\$1,758,000
3 - 92	Matchette Road Overpass	Single Span Bridge	40	36.35	\$2,000	\$2,908,000
3 - 93	Ojibway / ETR Overpass	Three Spans Bridge	34+34+45	36.35	\$2,500	\$10,269,000
3 - 94	Ramp E-W at Ojibway Parkway Overpass	Single Span Bridge	44	12.05	\$2,000	\$1,060,000
3 - 95	Ramp E-W at ETR Overpass	Single Span Bridge	30	12.05	\$2,500	\$904,000
3 - 301	Hwy 401 Tunnel from East to West of Howard Avenue	Cut and Cover Tunnel	175	Length	\$255,000	\$44,625,000
3 - 302	Hwy 401 Tunnel between Howard Avenue & Cousineau Road	Cut and Cover Tunnel	1175	Length	\$215,000	\$252,625,000
3 - 303	Hwy 401 Tunnel at East of Cousineau Road	Cut and Cover Tunnel	175	Length	\$255,000	\$44,625,000
3 - 311	Hwy 401 Tunnel at West of Cousineau Road	Cut and Cover Tunnel	1450	Length	\$215,000	\$311,750,000
3 - 312	Hwy 401 Tunnel at West of Huron Church Line	Cut and Cover Tunnel	200	Length	\$255,000	\$51,000,000
3 - 313	Hwy 401 Tunnel at East of Cabana Road West/Todd Lane	Cut and Cover Tunnel	500	Length	\$215,000	\$107,500,000
3 - 321	Hwy 401 Tunnel at West of Cabana Road West/Todd Lane	Cut and Cover Tunnel	950	Length	\$215,000	\$204,250,000
3 - 322	Hwy 401 Tunnel below Turkey Creek (includes temp.diversions,staged construction)	Deeper Tunnel	300	Length	\$265,000	\$79,500,000
3 - 323	Hwy 401 Tunnel at East of Grand Marais Road West	Cut and Cover Tunnel	150	Length	\$255,000	\$38,250,000
3 - 331	Hwy 401 Tunnel at West of Grand Marais Road West	Cut and Cover Tunnel	1000	Length	\$215,000	\$215,000,000
<b>TOTAL COST</b>						<b>\$1,617,469,000</b>
<b>Tunnel Cost</b>						<b>\$1,349,125,000</b>
<p><b>Note:</b> Above Costs include only Structural Costs. These costs do not include Roadwork, Earthwork, Road &amp; Traffic Diversions, Roadway Protection etc; which are included in the Hwy Costs.</p>						

## **Appendix D.6**

### **Table for The Parkway**

**Table: The Parkway**  
**Below Grade Freeway Parallel to Hwy 3 Huron Church Road Corridor**

Structure I.D.	Structure Name	Structure Type	CassionWall Type	Length ( M )	Width ( M )	Unit Cost ( \$ )	Cost ( \$ )
<b>Bridges</b>							
BR - 1	North Talbot Road Underpass	Two Spans Bridge		31+31	15.6	\$2,350	\$2,273,000
BR - 2	Ramp E-E/W Underpass	Four Spans Bridge		16+30+23+16	9.3	\$2,300	\$1,818,000
BR - 3	Hwy 3 Underpass at East of Howard Avenue	Four Spans Bridge		18+24+20+18	24.05	\$2,000	\$3,848,000
BR - 4	Howard Avenue Underpass	Four Spans Bridge		19+30+30+21	24.6	\$2,100	\$5,166,000
BR - 5	Hwy 3 Underpass near Montgomery Street	Four Spans Bridge		20+48+48+20	24.05	\$2,300	\$7,523,000
BR - 6	Hwy 3 Underpass at East of Cahill Drain	Four Spans Bridge		30+47+50+30	11.55	\$2,300	\$4,171,000
BR - 7	Hwy 3 EB Underpass Crossing at East of Huron Church Line	Four Spans Bridge		30+47+40+30	11.55	\$2,300	\$3,905,000
BR - 8	Highway 3 Overpass at West of Reddock Street	Single Span Bridge		19	24.55	\$2,300	\$1,073,000
BR - 9	Hwy 3 Underpass at West of Grand Marais Road West	Five Spans Bridge		20+34+35+31+20	11.55	\$2,300	\$3,719,000
BR - 10	Malden Road Overpass	Single Span Bridge		35	40.85	\$2,000	\$2,860,000
BR - 11	Ramp W-E Underpass	Two Spans Bridge		47.5+47.5	9.3	\$2,100	\$1,855,000
BR - 12	Matchette Road Overpass	Single Span Bridge		40	40.85	\$2,000	\$3,268,000
BR - 13	Ojibway / ETR Overpass	Three Spans Bridge		34+34+45	43.55	\$2,500	\$12,303,000
BR - 14	Ramp E-W at Ojibway Parkway Overpass	Single Span Bridge		44	12.05	\$2,000	\$1,060,000
BR - 15	Ramp E-W at ETR Overpass	Single Span Bridge		30	12.05	\$2,500	\$904,000
	<b>Sub-Total : Bridges</b>						<b>\$55,746,000</b>

**Table: The Parkway**  
**Below Grade Freeway Parallel to Hwy 3 Huron Church Road Corridor**

Structure I.D.	Structure Name	Structure Type	CassionWall Type	Length ( M )	Width ( M )	Unit Cost ( \$ )	Cost ( \$ )
<b>Trail Bridges</b>							
TB - 1	Trail Bridge Above Hwy 3 at West of Howard Avenue	Single Span Bridge		26	4.6	\$2,400	\$287,000
TB - 2	Deleted						
TB - 3	Trail Bridge Above Hwy 3 at West of Cousineau Road	Single Span Bridge		26	4.6	\$2,400	\$287,000
TB - 4	Trail Bridge Above Cousineau Road at South of Hwy 401	Single Span Bridge		22	4.6	\$2,400	\$243,000
TB - 5	Trail Bridge Above St. Clair College Road	Single Span Bridge		22	4.6	\$2,400	\$243,000
TB - 6	Trail Bridge Above Hwy 3 at West of St. Clair College Road	Single Span Bridge		26	4.6	\$2,400	\$287,000
TB - 7	Trail Bridge Above Hwy 3 at East of Huron Church Line	Single Span Bridge		26	4.6	\$2,400	\$287,000
TB - 8	Trail Bridge Above Huron Church Line	Single Span Bridge		25	4.6	\$2,400	\$276,000
TB - 9	Trail Bridge Above Hwy 3 at South of Cabana Road West	Single Span Bridge		33	4.6	\$2,200	\$334,000
TB - 10	Trail Bridge Above Cabana Road West	Single Span Bridge		22	4.6	\$2,400	\$243,000
TB - 11	Trail Bridge Above Hwy 401 EB Lane Ramps at South of Reddock St.	Single Span Bridge		26	4.6	\$2,400	\$287,000
TB - 12	Trail Bridge Above Pulford Street	Single Span Bridge		22	4.6	\$2,400	\$243,000
TB - 13	Trail Bridge Above Hwy 3 at North of Pulford Street	Single Span Bridge		26	4.6	\$2,400	\$287,000
TB - 14	Trail Bridge Above Hwy 3 at East of Grand Marais Road West	Single Span Bridge		26	4.6	\$2,400	\$287,000
TB - 15	Trail Bridge Above Grand Marais Road West at East of Hwy 401	Single Span Bridge		22	4.6	\$2,400	\$243,000
TB - 16	Deleted						
TB - 17	Trail Bridge Above Hwy 3 at South of Labelle Street	Single Span Bridge		19	4.6	\$2,400	\$210,000
TB - 18	Trail Bridge Above Bethlehem Avenue	Single Span Bridge		19	4.6	\$2,400	\$210,000
TB - 19	Trail Bridge Above EB Hwy 3 at East of Bethlehem Avenue	Single Span Bridge		17	4.6	\$2,400	\$188,000
TB - 20	Trail Bridge Above Howard Avenue at South of Hwy 401	Single Span Bridge		22	4.6	\$2,400	\$243,000
TB - 21	Trail Bridge Above Laurier Parkway Connection at South of Hwy 3	Single Span Bridge		26	4.6	\$2,400	\$287,000
	<u>Sub-Total : Trail Bridges</u>						\$4,972,000
<b>Turkey Creek Crossing</b>							
TCC - 1	Turkey Creek Box Culvert with Hwy 401 above	Three Cell Box Culvert		140	Length	\$120,000	\$16,800,000
	<u>Sub-Total : Turkey Creek Culvert</u>						\$16,800,000

**Table: The Parkway**  
**Below Grade Freeway Parallel to Hwy 3 Huron Church Road Corridor**

Structure I.D.	Structure Name	Structure Type	CassionWall Type	Length ( M )	Width ( M )	Unit Cost ( \$ )	Cost ( \$ )
<b>Tunnels</b>							
ST - 1 (A)	Tunnel at West of Howard Avenue Underpass (East side)	Three Spans Bridge		19+21+23	80	\$2,500	\$12,600,000
ST - 1 (B)	Tunnel at West of Howard Avenue Underpass (West side)	Two Spans Bridge		20+23	160	\$2,500	\$17,200,000
ST - 2 (A)	Tunnel at Hearhwood (East side)	Three Spans Bridge		38+33+30	165	\$2,100	\$34,997,000
ST - 2 (B)	Tunnel at Hearhwood (West side)	Two Spans Bridge		38+33	55	\$2,100	\$8,201,000
ST - 3 (A)	Tunnel at Cousineau Road / Sandwich Parkway (East side)	Two Spans Bridge		34+34	50	\$2,000	\$6,800,000
ST - 3 (B)	Tunnel at Cousineau Road / Sandwich Parkway (West side)	Two Spans Bridge		34+34	70	\$2,400	\$11,424,000
ST - 4 (A)	Tunnel at St. Clair College Road (East side)	Two Spans Bridge		31+31	51	\$2,000	\$6,324,000
ST - 4 (B)	Tunnel at St. Clair College Road (Middle)	Two Spans Bridge		31+31	22.05	\$2,000	\$2,734,000
ST - 4 (C)	Tunnel at St. Clair College Road (West side)	Two Spans Bridge		31+31	47	\$2,400	\$6,994,000
ST - 5 (A)	Tunnel at Huron Church Line (East side)	Four Spans Bridge		14+22+22+14	60	\$2,500	\$10,800,000
ST - 5 (B)	Tunnel at Huron Church Line (Middle)	Four Spans Bridge		14+22+22+14	45	\$2,100	\$6,804,000
ST - 5 (C)	Tunnel at Huron Church Line (West side)	Four Spans Bridge		14+22+22+14	140	\$2,100	\$21,168,000
ST - 6 (A)	Tunnel at Cabana Road West (East side)	Two Spans Bridge		32+36	71	\$2,400	\$11,587,000
ST - 6 (B)	Tunnel at Cabana Road West (Middle)	Two Spans Bridge		32+36	28	\$2,000	\$3,808,000
ST - 6 (C)	Tunnel at Cabana Road West (West side)	Two Spans Bridge		32+36	15	\$2,000	\$2,040,000
ST - 7	Tunnel at Reddock Street	Three Spans Bridge		40+40+34	120	\$2,100	\$28,728,000
ST - 8	Tunnel at Pulford Street	Two Spans Bridge		34+34	120	\$2,400	\$19,584,000
ST - 9 (A)	Tunnel at South of Grand Marais Road West (East side)	Two Spans Bridge		34+37	96	\$2,400	\$16,358,000
ST - 9 (B)	Tunnel at South of Grand Marais Road West (West side)	Two Spans Bridge		34+37	24.6	\$2,000	\$3,493,000
ST - 10 (A)	Tunnel at South of Labelle Street (East side)	Two Spans Bridge		30+30	107	\$2,000	\$12,840,000
ST - 10 (B)	Tunnel at South of Labelle Street (Middle)	Two Spans Bridge		30+30	105	\$2,400	\$15,120,000
ST - 10 (C)	Tunnel at South of Labelle Street (West side)	Two Spans Bridge		30+30	32	\$2,400	\$4,608,000
ST - 11	Tunnel near E.C. ROW Expressway	Two Spans Bridge		30+30	200	\$2,000	\$24,000,000
	<b>Sub-Total : Short Tunnels</b>						<b>\$288,212,000</b>

**Table: The Parkway**  
**Below Grade Freeway Parallel to Hwy 3 Huron Church Road Corridor**

Structure I.D.	Structure Name	Structure Type	CassionWall Type	Length ( M )	Width ( M )	Unit Cost ( \$ )	Cost ( \$ )
<b>Retaining Walls</b>							
RW - 1	Below Grade Hwy 401at West of Ramp E-E/W (South Side - S)	C.W. with Open Cut	D	230	Length	\$27,000	\$6,210,000
RW - 2	Below Grade Hwy 401at West of Ramp E-E/W (North Side - N)	C.W. with Open Cut	D	170	Length	\$27,000	\$4,590,000
RW - 3	Approach Ramp of Hwy 3 S-W Bullnose Entrance (East Side - E)	C.W. with Open Cut	D	75	Length	\$27,000	\$2,025,000
RW - 4	Below Grade Hwy 401at East of Hwy 3 Crossing (N)	C.W. with Open Cut	D	130	Length	\$27,000	\$3,510,000
RW - 5A	Below Grade Hwy 401with Hwy 3 EB Ramp at East of Howard Avenue (West Side)	C.W. with Open Cut	D	150	Length	\$27,000	\$4,050,000
RW - 5B	Below Grade Hwy 401with Hwy 3 EB Ramp at East of Howard Avenue (East Side)	C.W. with Open Cut	D	150	Length	\$27,000	\$4,050,000
RW - 6	Hwy 3 EB Ramp at East of Howard Avenue (N)	C.W. with Open Cut	D	150	Length	\$27,000	\$4,050,000
RW - 7	Below Garde Hwy 401 at East of Howard Avenue (N)	C.W. with Open Cut	D	295	Length	\$27,000	\$7,965,000
RW - 8	Below Grade Hwy 401 at West of Howard Avenue (S)	Full Height C.W.	BS3	145	Length	\$32,500	\$4,712,500
RW - 9	Below Grade Hwy 401 at West of Howard Avenue (N)	C.W. with Open Cut	D	110	Length	\$27,000	\$2,970,000
RW - 10A	Below Grade Hwy 401 with EB lane of Hwy 3 at West of Howard Avenue (East Side)	C.W. with Open Cut	A	155	Length	\$31,000	\$4,805,000
RW - 10B	Below Grade Hwy 401 with EB lane of Hwy 3 at West of Howard Avenue (West Side)	C.W. with Open Cut	A	150	Length	\$31,000	\$4,650,000
RW - 11	Approach Ramp of EB Lane of Hwy 3 at East of Montgomery Drive (N)	C.W. with Open Cut	A	150	Length	\$31,000	\$4,650,000
RW - 12	Below Grade Hwy 401 at East of Montgomery Drive (N)	C.W. with Open Cut	A	230	Length	\$31,000	\$7,130,000
RW - 13	Below Grade Hwy 401 at East of Hearthwood Short Tunnel (S)	C.W. with Open Cut	A	425	Length	\$31,000	\$13,175,000
RW - 14	Approach Ramp of Hwy 3 WB Lane Near Montgomery Drive (S)	C.W. with Open Cut	A	225	Length	\$31,000	\$6,975,000
RW - 15A	Below Grade Hwy 401 at East of Hearthwood Short Tunnel (West Side)	C.W. with Open Cut	A	275	Length	\$31,000	\$8,525,000
RW - 15B	Below Grade Hwy 401 at East of Hearthwood Short Tunnel (East Side)	C.W. with Open Cut	A	225	Length	\$31,000	\$6,975,000
RW - 16	Ramp of Hwy 3 at East of Hearthwood Short Tunnel (S)	Full Height C.W.	BS1	200	Length	\$15,000	\$3,000,000
RW - 17	Ramp of Hwy 3 at West of Hearthwood Short Tunnel (S)	Full Height C.W.	BS1	240	Length	\$15,000	\$3,600,000
RW - 18	Below Grade Hwy 401 at East of Cousineau Road (S)	C.W. with Open Cut	D	210	Length	\$27,000	\$5,670,000
RW - 19	Below Grade Hwy 401 at East of Cousineau Road (N)	C.W. with Open Cut	D	210	Length	\$27,000	\$5,670,000
RW - 20	Below Grade Hwy 401 between Cousineau Road & St.Clair College (S)	C.W. with Open Cut	C	390	Length	\$32,500	\$12,675,000
RW - 21	Below Grade Hwy 401 between Cousineau Road & St.Clair College (N)	C.W. with Open Cut	C	390	Length	\$32,500	\$12,675,000
RW - 22	Below Grade Hwy 401 with WB Ramp at west of St.Clair College (S)	C.W. with Open Cut	C	135	Length	\$32,500	\$4,387,500
RW - 23	WB Lane Ramp at West of St.Clair College (S)	C.W. with Open Cut	E	210	Length	\$18,000	\$3,780,000
RW - 24	WB Lane Ramp at West of St.Clair College (N)	C.W. with Open Cut	E	245	Length	\$18,000	\$4,410,000
RW - 25	EB Lane Ramp at West of Cahill Drain Crossing (S)	C.W. with Open Cut	E	180	Length	\$18,000	\$3,240,000
RW - 26	EB Lane Ramp at West of Cahill Drain Crossing (N)	C.W. with Open Cut	E	150	Length	\$18,000	\$2,700,000
RW - 27	Below Grade Hwy 401 between Huron Church Line and Cahill Drain (S)	C.W. with Open Cut	A	300	Length	\$31,000	\$9,300,000
RW - 28	Below Grade Hwy 401 between Huron Church Line and Cahill Drain (N)	C.W. with Open Cut	A	480	Length	\$31,000	\$14,880,000
RW - 29	EB Lane Ramp at East of Huron Church Line (S)	Full Height C.W.	BS1	240	Length	\$15,000	\$3,600,000
RW - 30	EB Lane Ramp at East of Huron Church Line (N)	Full Height C.W.	BS1	140	Length	\$15,000	\$2,100,000
RW - 31	Below Grade Hwy 401 at West of Huron Church Line (N)	C.W. with Open Cut	A	130	Length	\$31,000	\$4,030,000
RW - 32	Below Grade Hwy 401 at West of Huron Church Line (S)	C.W. with Open Cut	A	265	Length	\$31,000	\$8,215,000

**Table: The Parkway**  
**Below Grade Freeway Parallel to Hwy 3 Huron Church Road Corridor**

Structure I.D.	Structure Name	Structure Type	CassionWall Type	Length ( M )	Width ( M )	Unit Cost ( \$ )	Cost ( \$ )	
<b>Retaining Walls (Continued)</b>								
RW - 33	Below Grade Hwy 401 at West of Huron Church Line (N)	C.W. with Open Cut	B	245	Length	\$29,500	\$7,227,500	
RW - 34	EB Lane Ramp From Todd Lane to Hwy 401 EB (S)	Full Height C.W.	BS1	180	Length	\$15,000	\$2,700,000	
RW - 35	EB Lane Ramp at South of Reddock St. Short Tunnel (S)	Full Height C.W.	BS1	180	Length	\$15,000	\$2,700,000	
RW - 36	Below Grade Hwy 401 at South of Reddock St. Short Tunnel (S)	C.W. with Open Cut	B	185	Length	\$29,500	\$5,457,500	
RW - 37	Below Grade Hwy 401 at North of Cabana Road West / Todd Lane	C.W. with Open Cut	B	265	Length	\$29,500	\$7,817,500	
RW - 38	Ramp of Hwy 3 at South of Reddock Street Short Tunnel (N)	Full Height C.W.	BS1	200	Length	\$15,000	\$3,000,000	
RW - 39	Below Grade Hwy 401 at North of Reddock St. Short Tunnel (S)	C.W. with Open Cut	B	310	Length	\$29,500	\$9,145,000	
RW - 40	Below Grade Hwy 401 at North of Reddock St. Short Tunnel (N)	C.W. with Open Cut	B	265	Length	\$29,500	\$7,817,500	
RW - 41	Ramp of WB Lane of Hwy 3 at South of Pulford St. (N)	C.W. with Open Cut	B	110	Length	\$29,500	\$3,245,000	
RW - 42	Ramp of Hwy 3 at North of Reddock Street Short Tunnel (N)	Full Height C.W.	BS1	140	Length	\$15,000	\$2,100,000	
RW - 43	Ramp of WB Lane of Hwy 3 at North of Reddock St. Short Tunnel (N)	C.W. with Open Cut	B	155	Length	\$29,500	\$4,572,500	
RW - 44	EB Lane Ramp at North of Grand Marais Road West (S)	Full Height C.W.	BS1	260	Length	\$15,000	\$3,900,000	
RW - 45	Below Grade Hwy 401 at North of Grand Marais Road West (S)	C.W. with Open Cut	B	150	Length	\$29,500	\$4,425,000	
RW - 46	Below Grade Hwy 401 at North of Grand Marais Road West (N)	C.W. with Open Cut	B	120	Length	\$29,500	\$3,540,000	
RW - 47	Below Grade Hwy 401 at South of Labelle St.	C.W. with Open Cut	B	165	Length	\$29,500	\$4,867,500	
RW - 48	Below Grade Hwy 401 at North of Hwy 3 Crossing at South of Labelle St.	C.W. with Open Cut	B	220	Length	\$29,500	\$6,490,000	
RW - 49	WB Lane Ramp at South of Labelle Street	Full Height C.W.	BS1	80	Length	\$15,000	\$1,200,000	
RW - 50	Below Grade Hwy 401at North of Labelle Street (S)	C.W. with Open Cut	B	200	Length	\$29,500	\$5,900,000	
RW - 51	Below Grade Hwy 401at North of Labelle Street (N)	C.W. with Open Cut	B	200	Length	\$29,500	\$5,900,000	
RW - 52	Hwy 401 Ramp at West of Short Tunnel near E.C.ROW Expressway (S)	Full Height C.W.	BS1	150	Length	\$15,000	\$2,250,000	
RW - 53	Hwy 401 Ramp at West of Short Tunnel near E.C.ROW Expressway (N)	Full Height C.W.	BS1	150	Length	\$15,000	\$2,250,000	
	<b>Sub-Total : Retaining Walls</b>						<b>\$301,455,000</b>	
<b>Culverts</b>								
CV - 1	Culvert at West of Howard Avenue	Twin Cell Box Culvert		15	Length	\$35,000	\$525,000	
CV - 2	Culvert at North of Hearthwood	Twin Cell Box Culvert		40	Length	\$35,000	\$1,400,000	
CV - 3	Culvert under Cousineau Road	Twin Cell Box Culvert		70	Length	\$35,000	\$2,450,000	
CV - 4	Culvert under St. Clair College Road	Twin Cell Box Culvert		65	Length	\$35,000	\$2,275,000	
	<b>Sub-Total : Culverts</b>						<b>\$6,650,000</b>	
	<b>TOTAL COST OF ALL STRUCTURES</b>							<b>\$673,835,000</b>
<p>Note: Above Costs include only Structural Costs. These costs do not include Roadwork, Earthwork, Road &amp; Traffic Diversions, Roadway Protection etc; which are included in the Hwy Costs.</p>								

## **Appendix E**

### **Photographs:**

- **Photographs for Alternative 1A**
- **Photographs for Alternative 1B**
- **Photographs for Alternative 2A**
- **Photographs for Alternative 2B**
- **Photographs for Alternative 3**
- **Photographs for The Parkway**

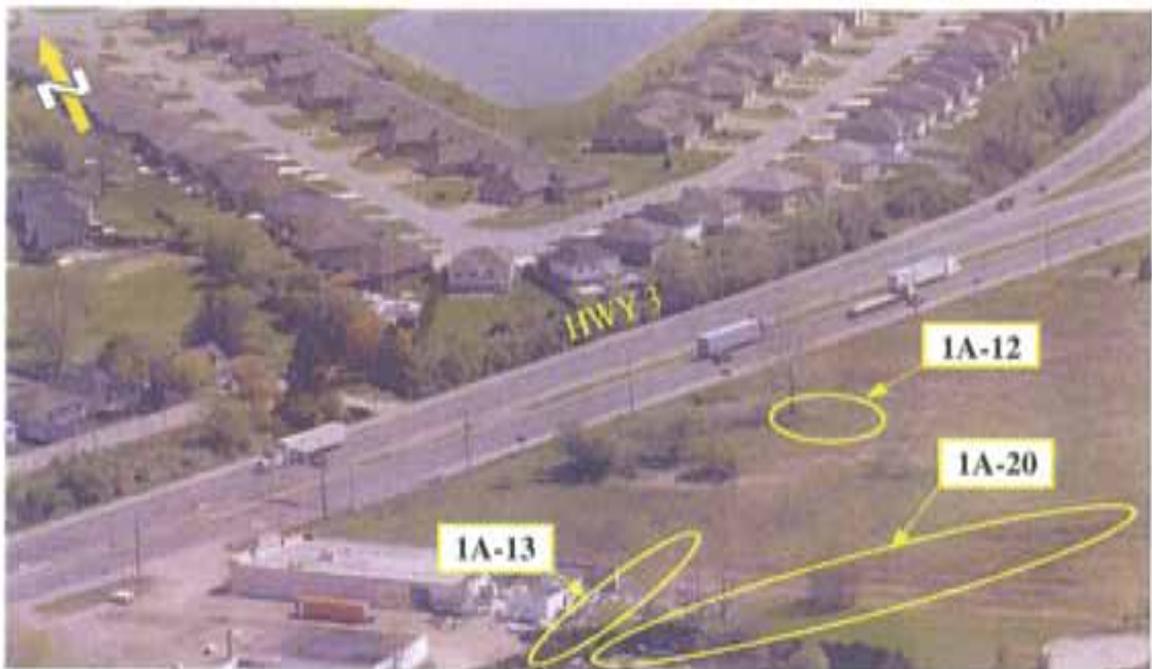
# **Appendix E.1**

## **Photographs for Alternative 1A**

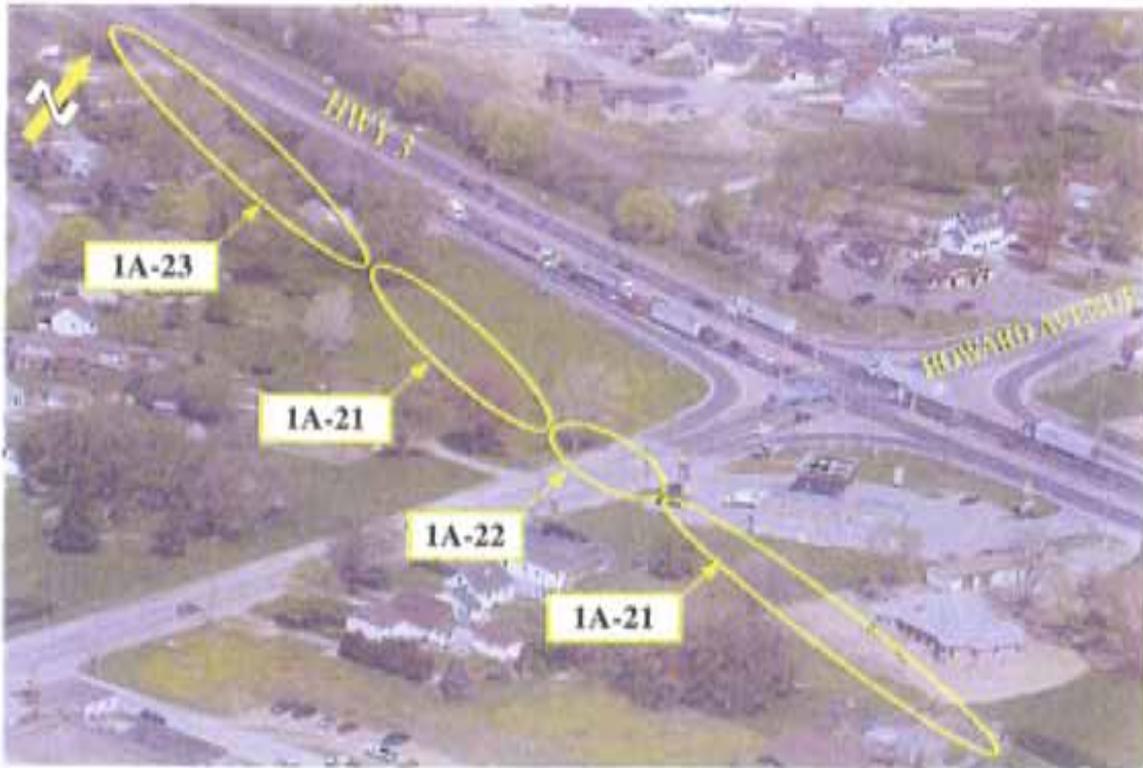
# Photographs for Alternative 1A



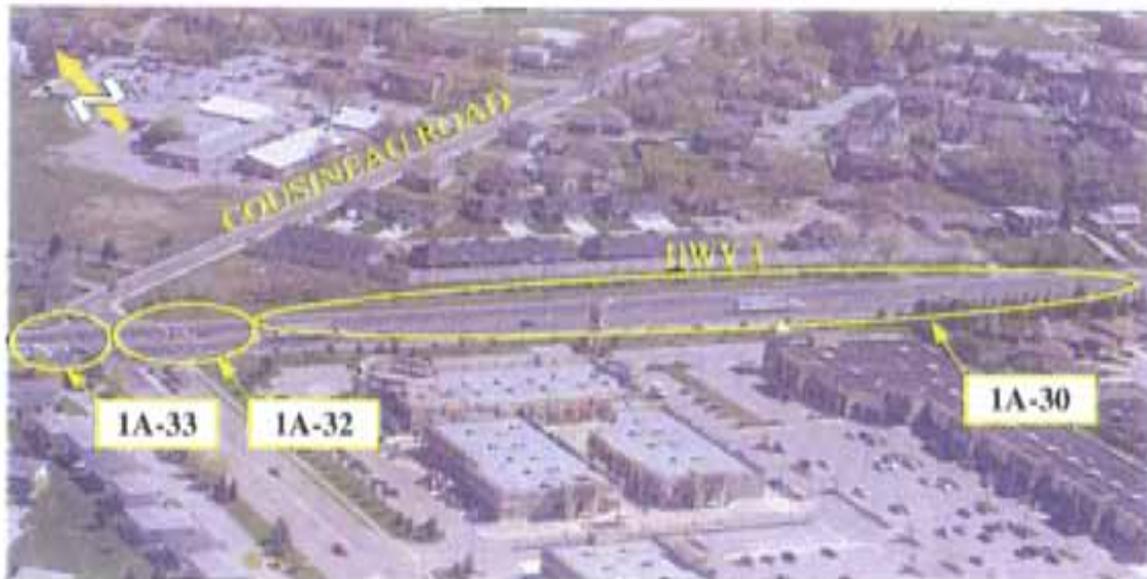
HWY 401 BETWEEN NORTH TALBOT RD. AND HWY 3



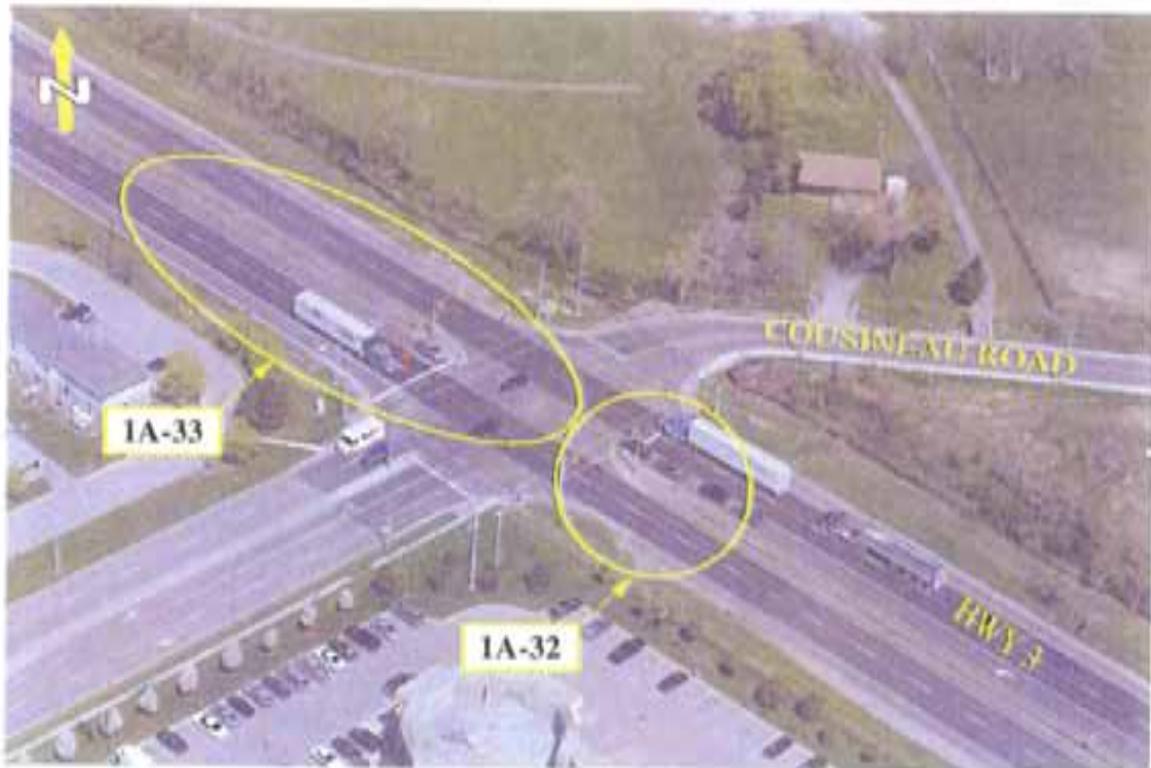
HWY 3 AT EAST OF HOWARD AVENUE



HWY 3 / HOWARD AVENUE



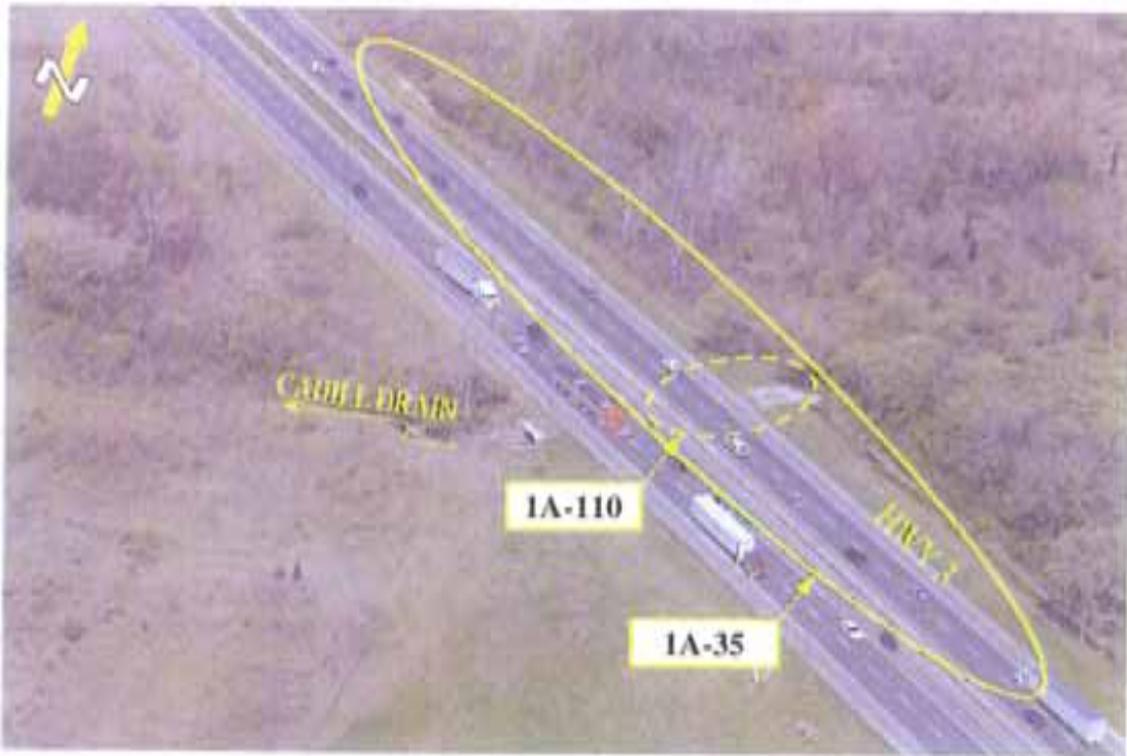
HWY 3 / COUSINEAU ROAD



HWY 3 / COUSINEAU ROAD



HWY 3 WEST OF COUSINEAU ROAD



HWY 3 - BETWEEN ST. CLAIR COLLEGE AND HURON CHURCH LINE



HWY 3 / CAHILL DRAIN - EAST OF HURON CHURCH LINE



HWY 3 / LENNON DRAIN - EAST OF HURON CHURCH LINE



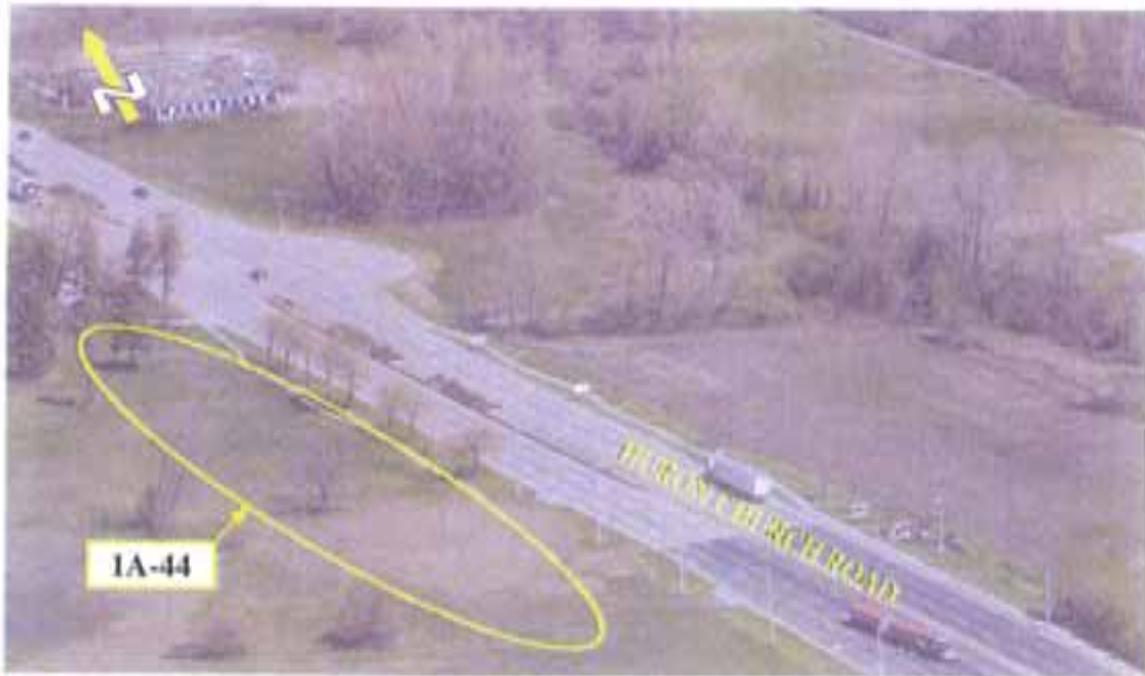
HWY 3 / HURON CHURCH LINE



HWY 3 - EAST OF CABANA ROAD WEST



HURON CHURCH ROAD / CABANA ROAD WEST



HURON CHURCH ROAD - WEST OF CABANA ROAD WEST



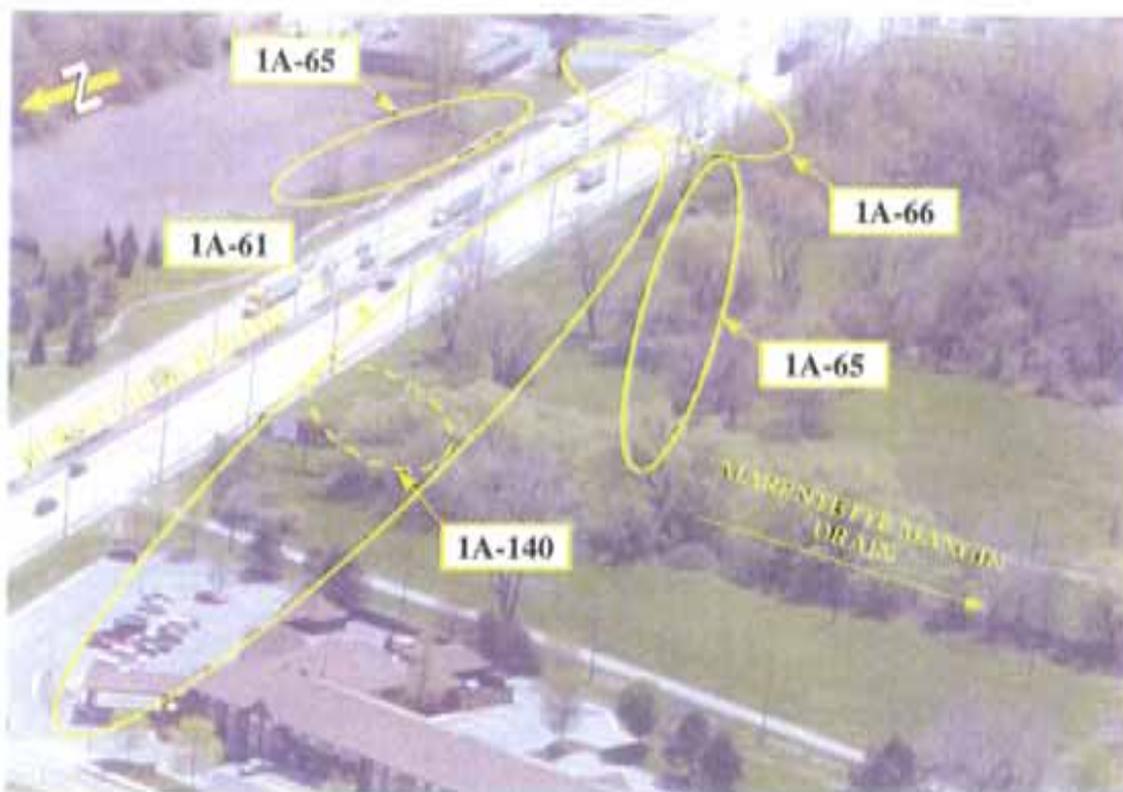
HURON CHURCH ROAD - TURKEY CREEK



HURON CHURCH ROAD BRIDGE OVER TURKEY CREEK



HURON CHURCH ROAD / GRAND MARAIS ROAD



HURON CHURCH ROAD / MARENTETTE MANGIN DRAIN



HURON CHURCH ROAD / LABELLE ST



HURON CHURCH ROAD - EAST OF E.C.ROW EXPRESSWAY



E.C.ROW EXPRESSWAY / BASIN DRAIN



E.C.ROW EXPRESSWAY / MALDEN ROAD



E.C.ROW EXPRESSWAY / MATCHETTE ROAD



E.C.ROW EXPRESSWAY / OJIBWAY PARKWAY

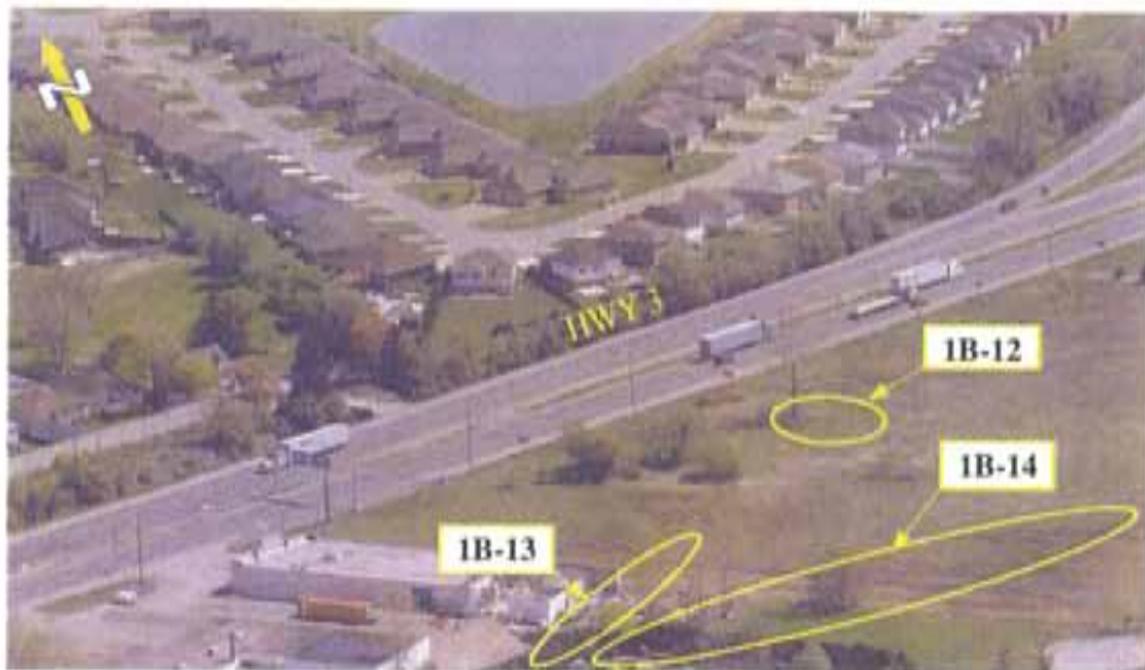
## **Appendix E.2**

### **Photographs for Alternative 1B**

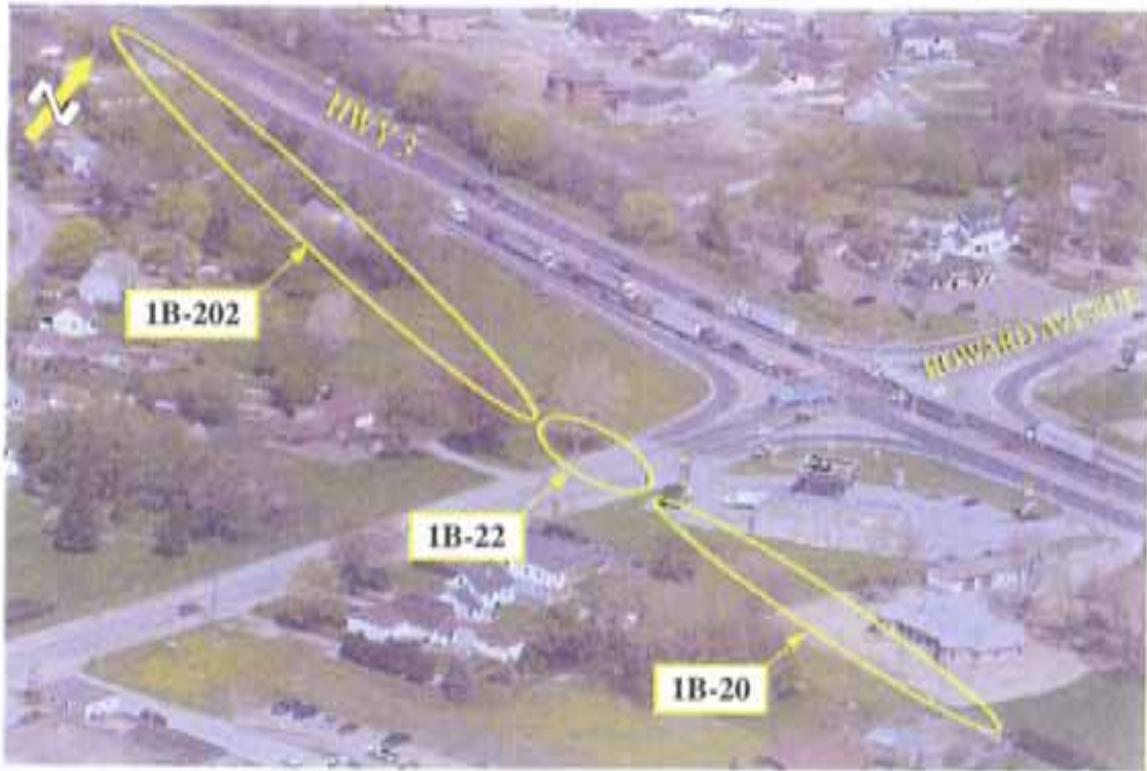
# Photographs for Alternative 1B



HWY 401 BETWEEN NORTH TALBOT RD. AND HWY 3



HWY 3 AT EAST OF HOWARD AVENUE



HWY 3 / HOWARD AVENUE



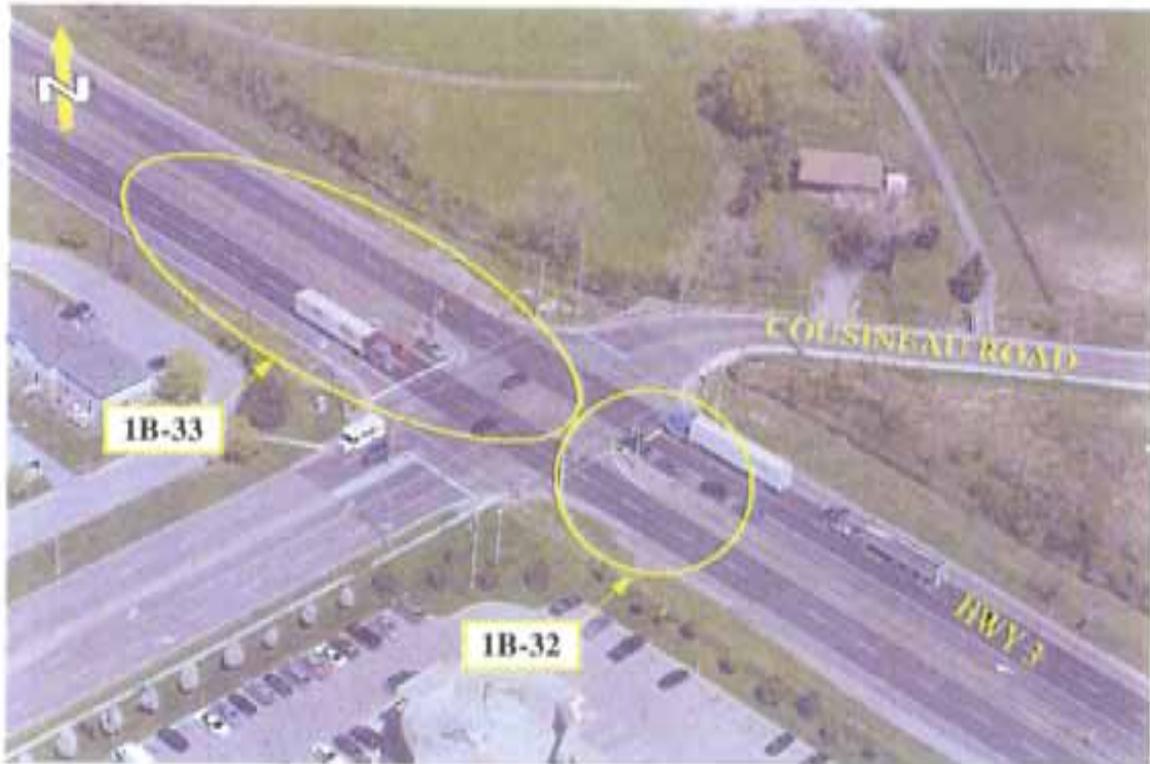
HWY 3 AT WEST OF HOWARD AVENUE



HWY 3 AT EAST OF COUSINEAU ROAD



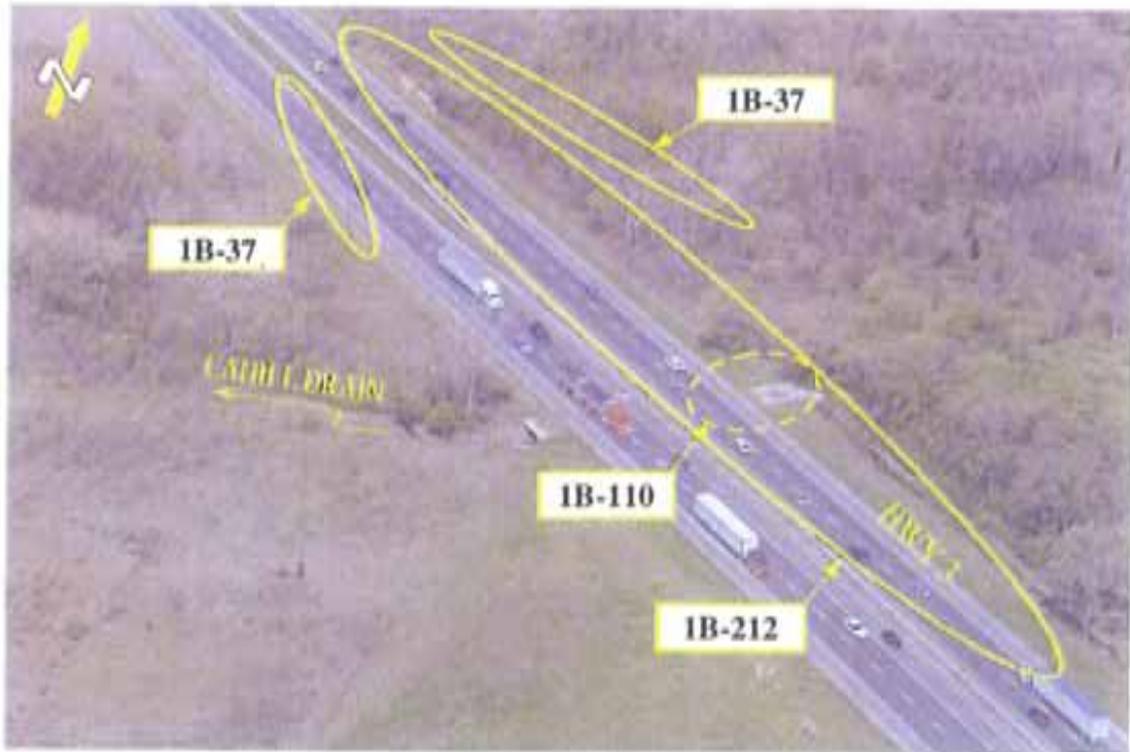
HWY 3 / EAST OF COUSINEAU ROAD



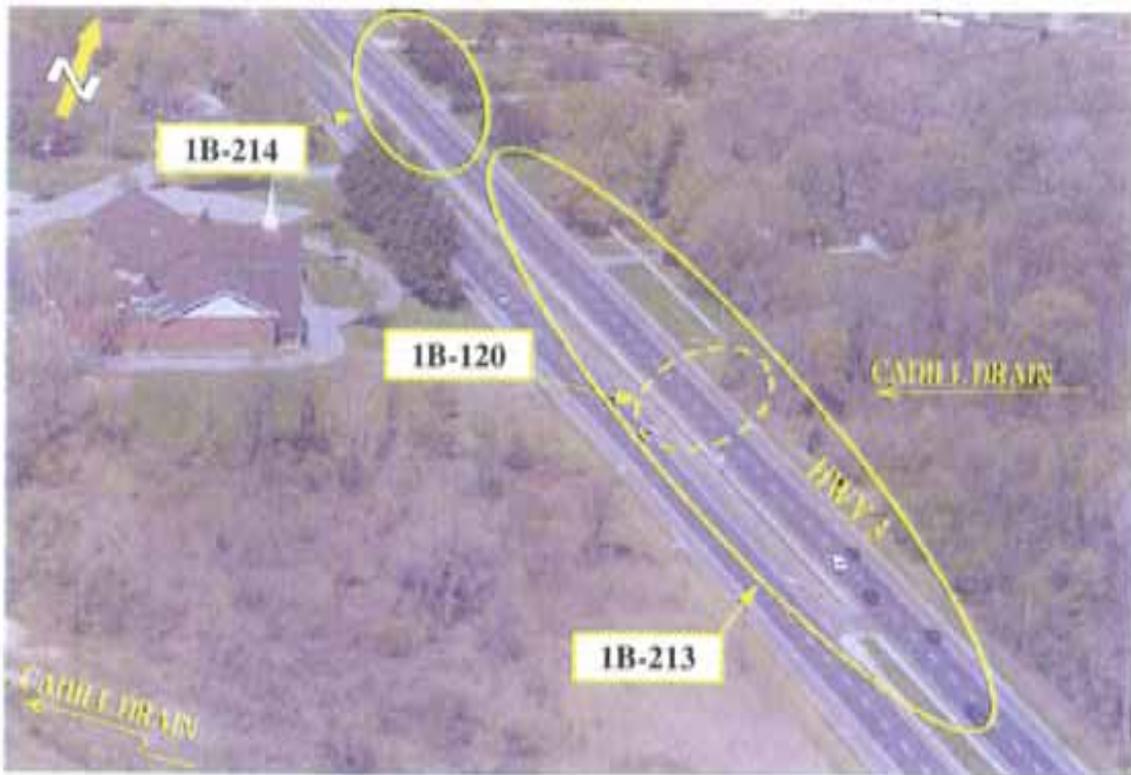
HWY 3 / COUSINEAU ROAD



HWY 3 WEST OF COUSINEAU ROAD



HWY 3 – BETWEEN ST.CLAIR COLLEGE AND HURON CHURCH LINE



HWY 3 / CAHILL DRAIN - EAST OF HURON CHURCH LINE



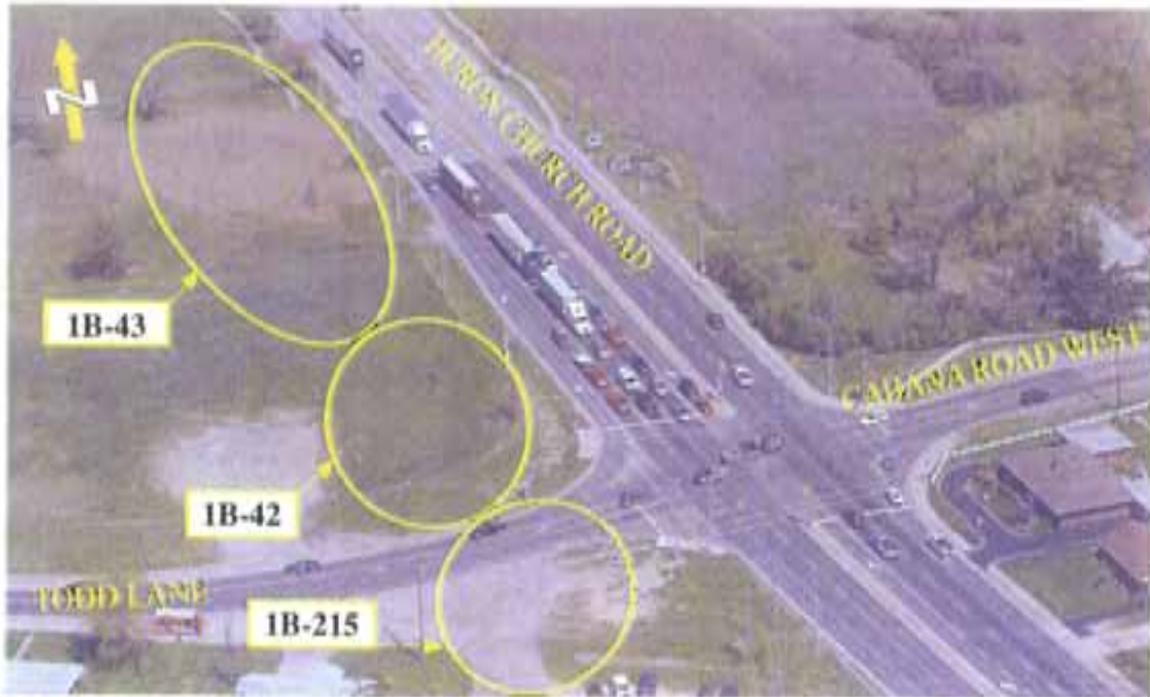
HWY 3 / LENNON DRAIN - EAST OF HURON CHURCH LINE



HWY 3 / HURON CHURCH LINE



HWY 3 – EAST OF CABANA ROAD WEST



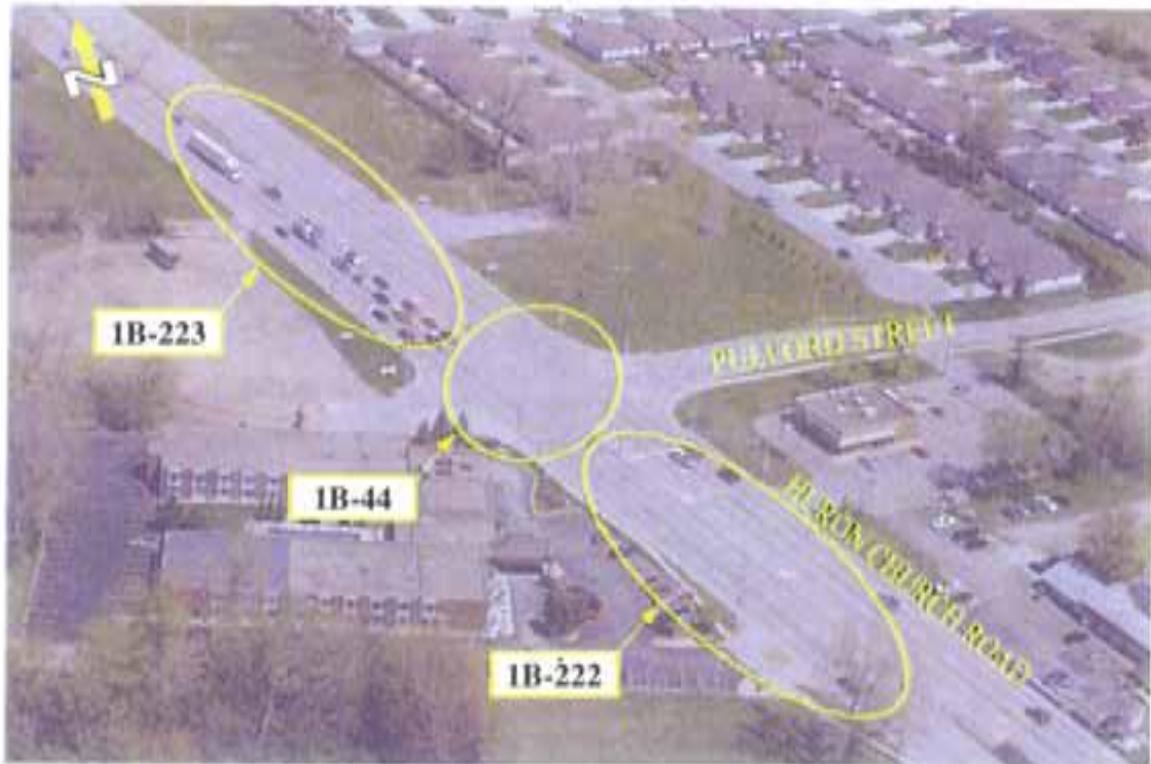
HURON CHURCH ROAD / CABANA ROAD WEST



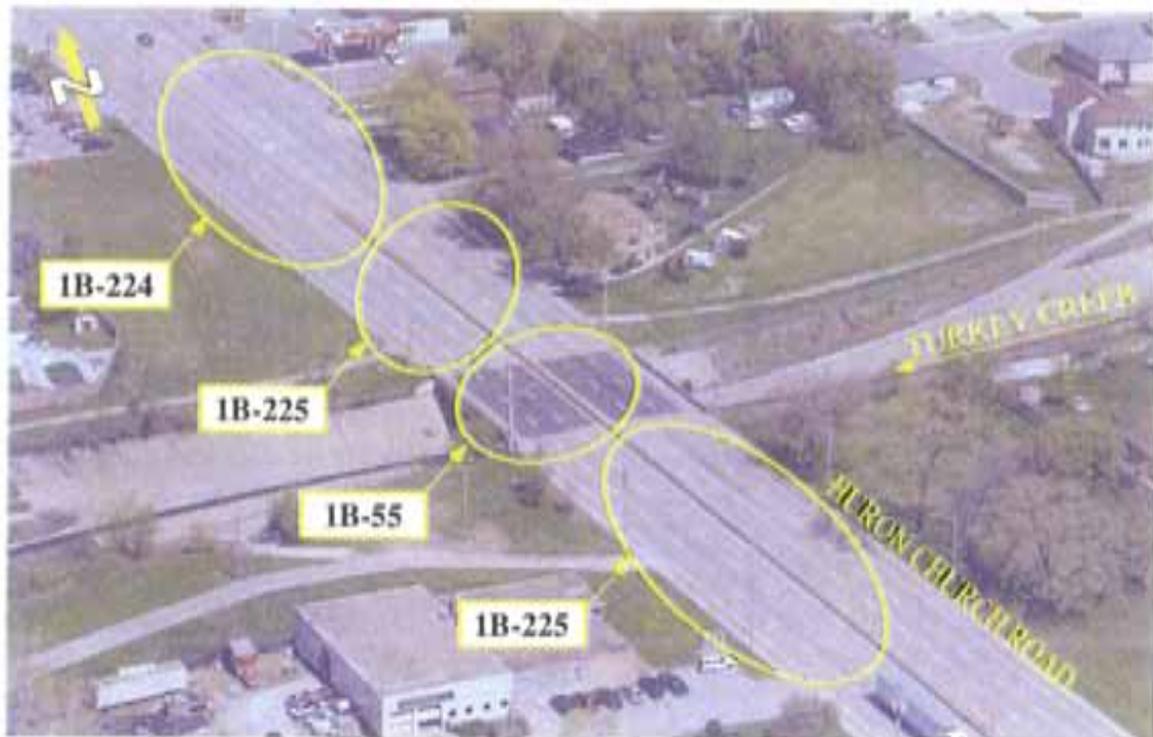
HURON CHURCH ROAD – WEST OF CABANA ROAD WEST



HURON CHURCH ROAD – WEST OF CABANA ROAD WEST



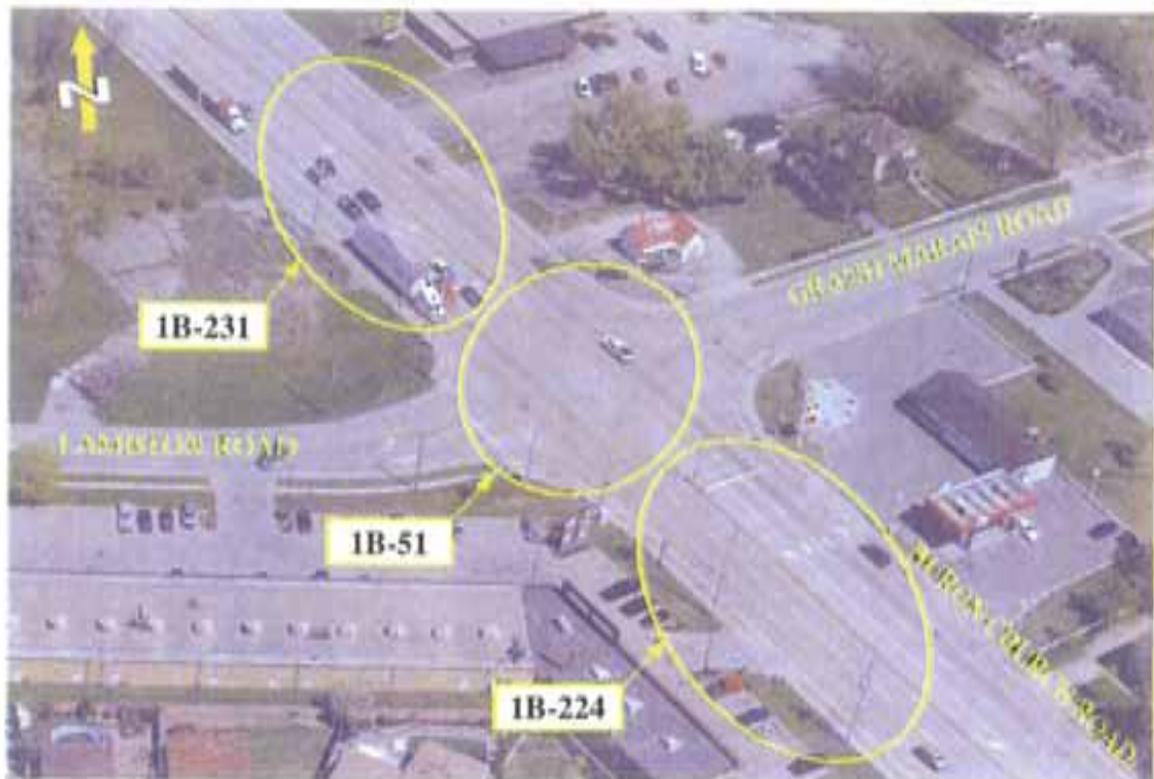
HURON CHURCH ROAD – PULFORD STREET



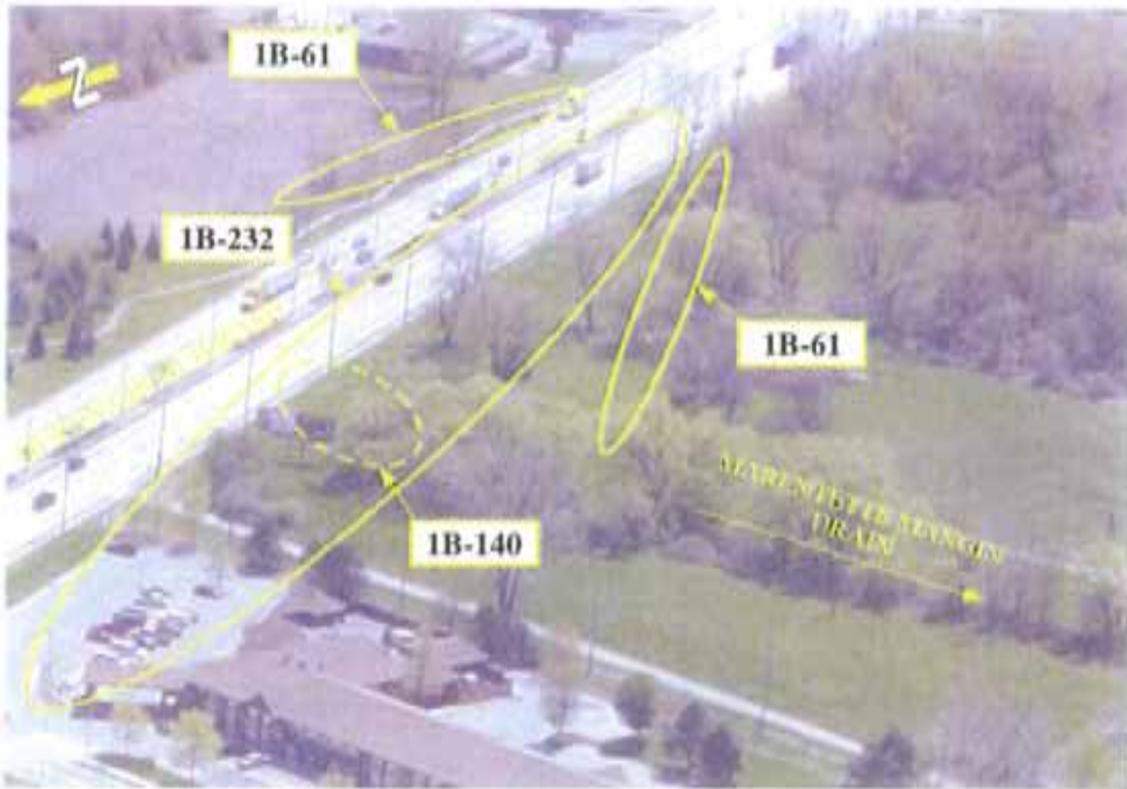
HURON CHURCH ROAD – TURKEY CREEK



HURON CHURCH ROAD BRIDGE OVER TURKEY CREEK



HURON CHURCH ROAD / GRAND MARAIS ROAD



HURON CHURCH ROAD / MARENTETTE MANGIN DRAIN



HURON CHURCH ROAD / LABELLE ST



HURON CHURCH ROAD – EAST OF E.C.ROW EXPRESSWAY



E.C.ROW EXPRESSWAY / BASIN DRAIN



E.C.ROW EXPRESSWAY / MALDEN ROAD



E.C.ROW EXPRESSWAY / MATCHETTE ROAD



E.C.ROW EXPRESSWAY / OJIBWAY PARKWAY

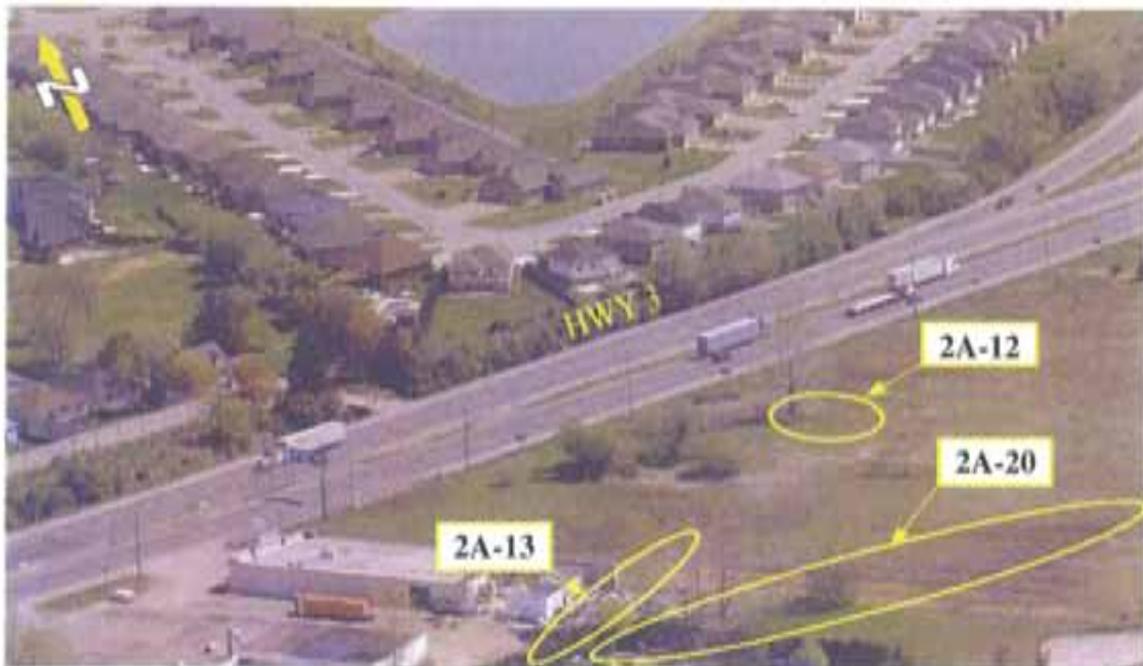
## **Appendix E.3**

### **Photographs for Alternative 2A**

# Photographs for Alternative 2A



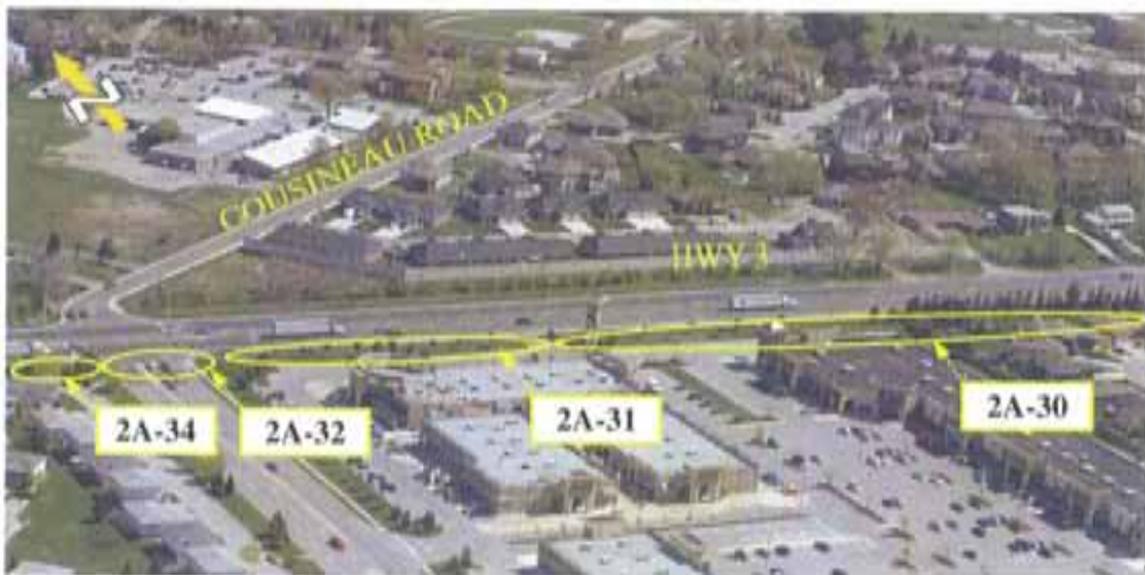
HWY 401 BETWEEN NORTH TALBOT RD. AND HWY 3



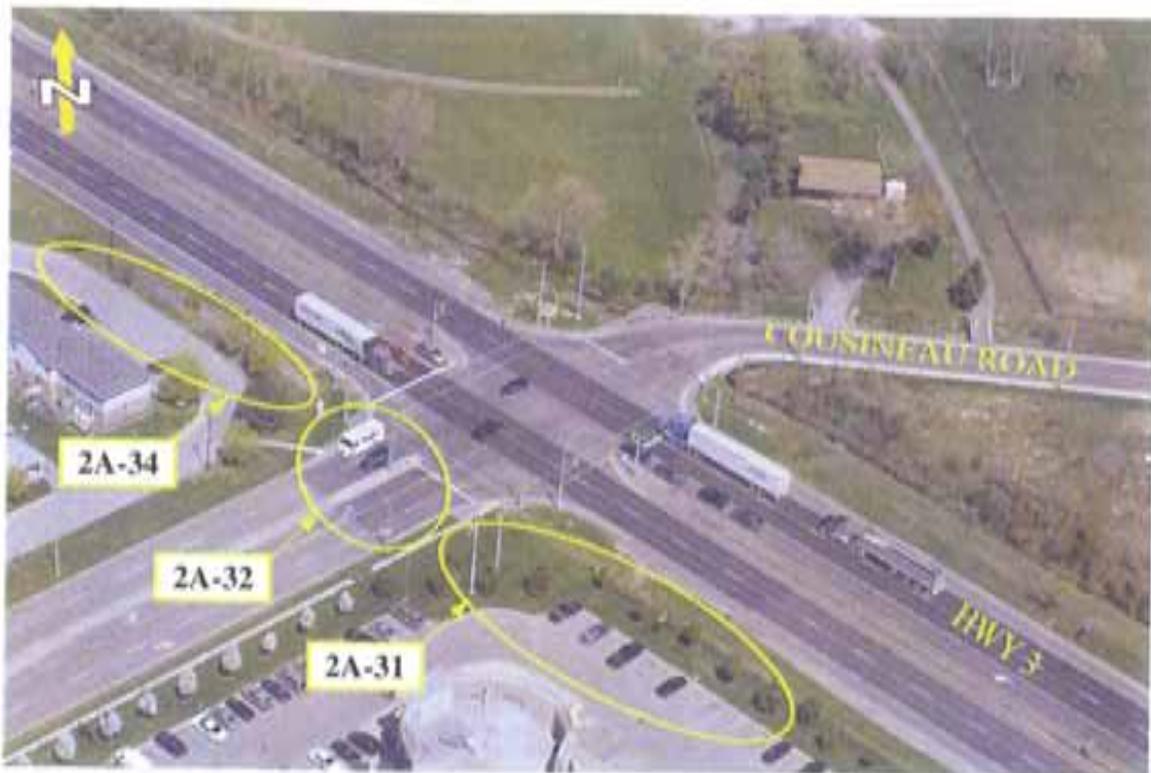
HWY 3 AT EAST OF HOWARD AVENUE



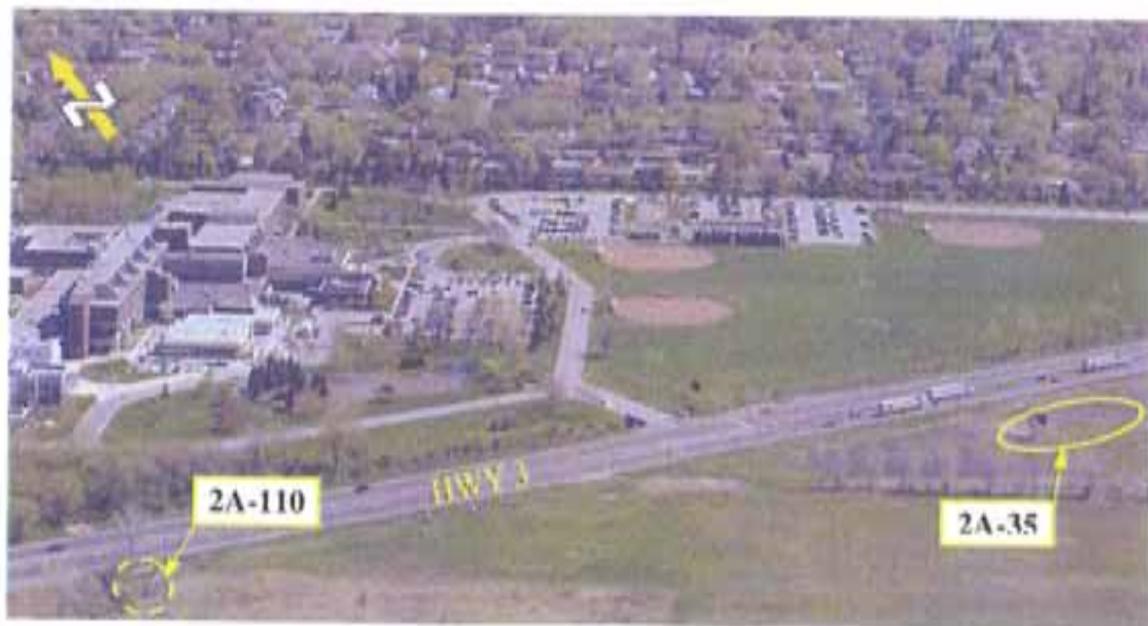
HWY 3 / HOWARD AVENUE



HWY 3 / EAST OF COUSINEAU ROAD



HWY 3 / COUSINEAU ROAD



HWY 3 WEST OF COUSINEAU ROAD



HWY 3 - BETWEEN ST. CLAIR COLLEGE AND HURON CHURCH LINE



HWY 3 / CAHILL DRAIN - EAST OF HURON CHURCH LINE



HWY 3 / LENNON DRAIN - EAST OF HURON CHURCH LINE



HWY 3 / HURON CHURCH LINE



HURON CHURCH ROAD / CABANA ROAD WEST



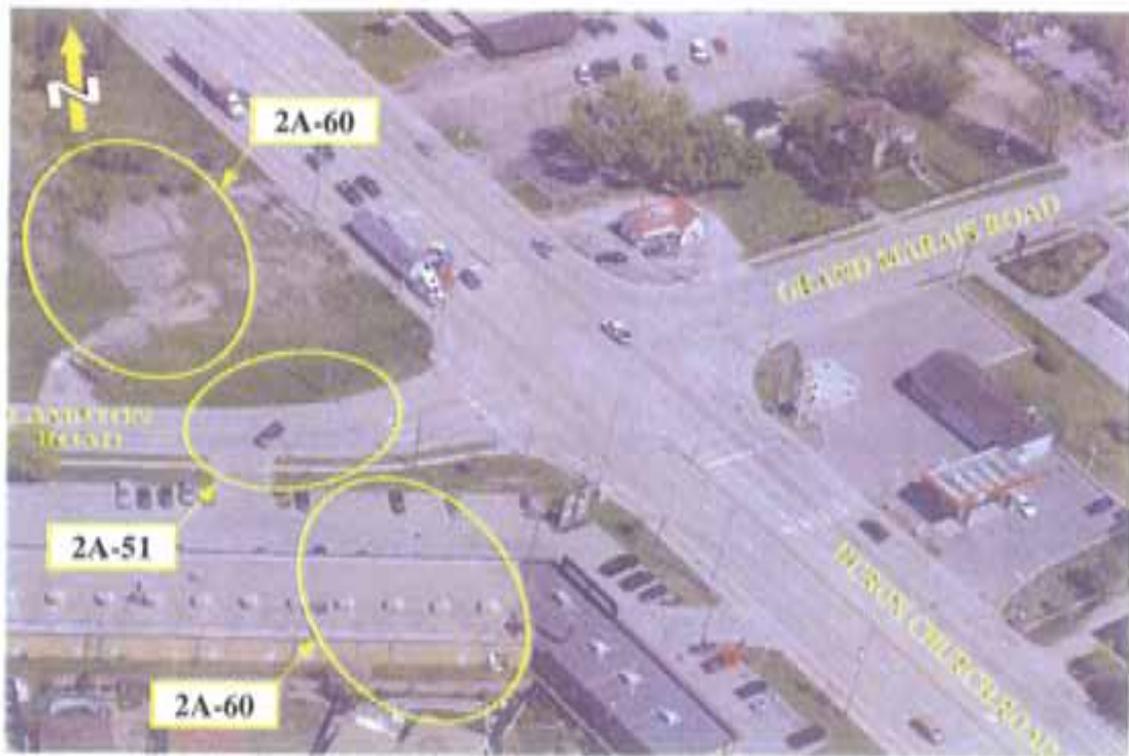
HURON CHURCH ROAD - WEST OF CABANA ROAD WEST



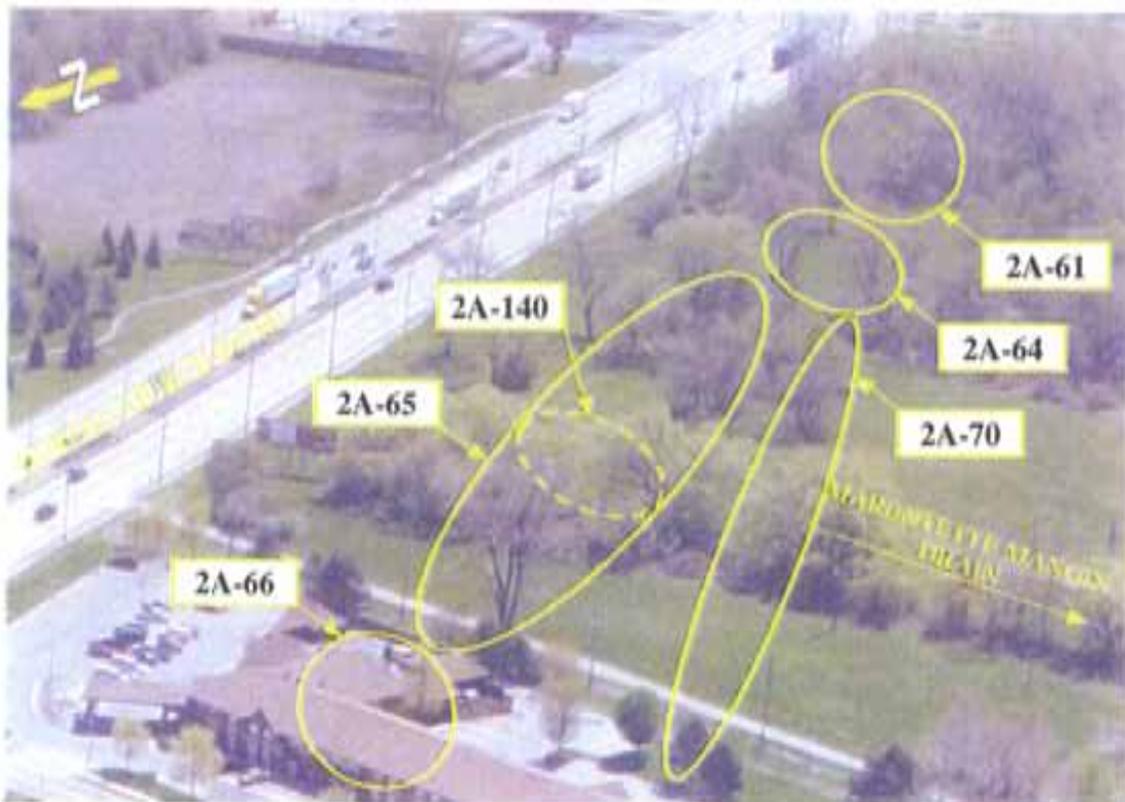
HURON CHURCH ROAD - TURKEY CREEK



HURON CHURCH ROAD BRIDGE OVER TURKEY CREEK



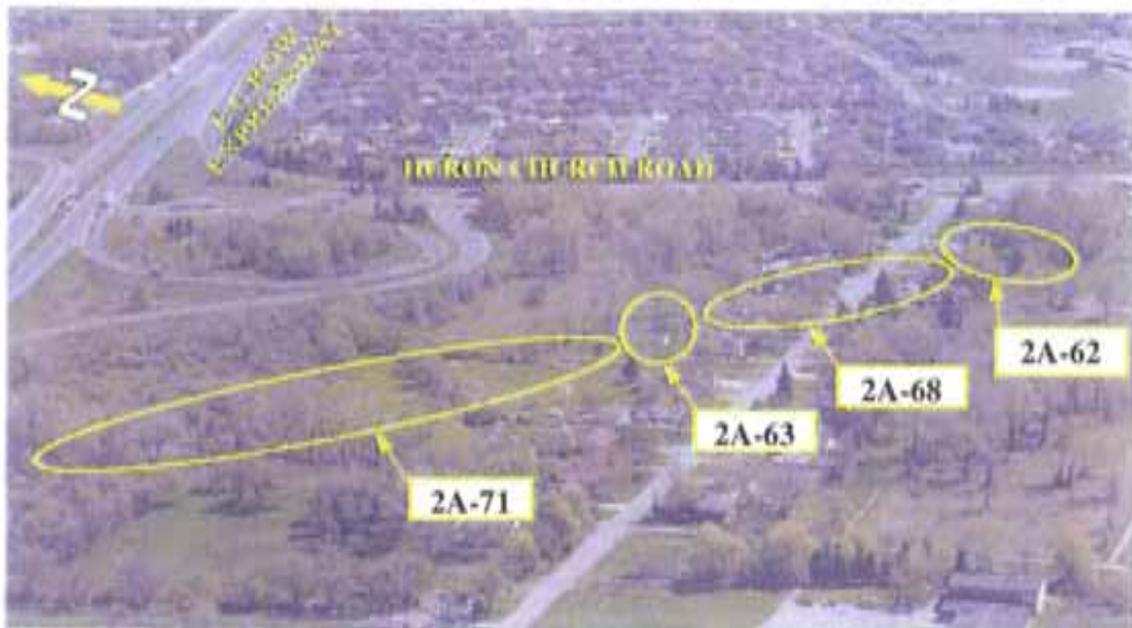
HURON CHURCH ROAD / GRAND MARAIS ROAD



HURON CHURCH ROAD / MARENTETTE MANGIN DRAIN



HURON CHURCH ROAD / LABELLE ST



HURON CHURCH ROAD - EAST OF E.C. ROW EXPRESSWAY



E.C. ROW EXPRESSWAY / BASIN DRAIN



E.C. ROW EXPRESSWAY / MALDEN ROAD



E.C.ROW EXPRESSWAY / MATCHETTE ROAD



E.C.ROW EXPRESSWAY / OJIBWAY PARKWAY

## **Appendix E.4**

### **Photographs for Alternative 2B**

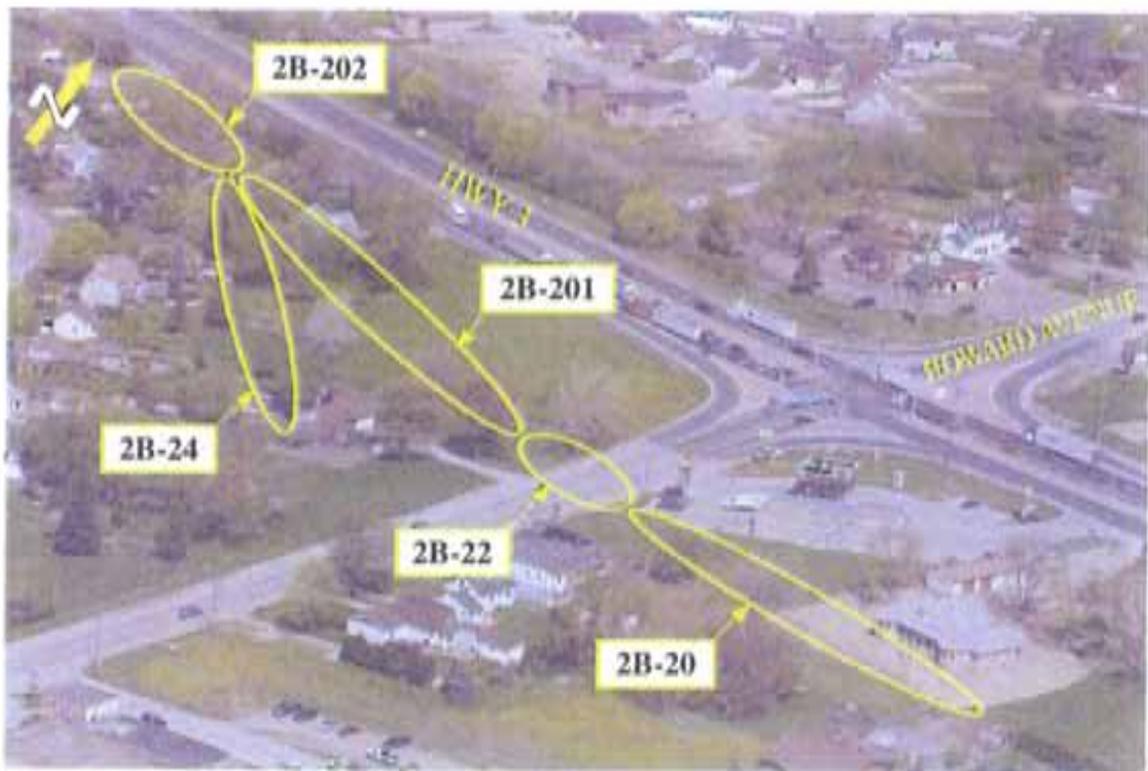
# Photographs for Alternative 2B



HWY 401 BETWEEN NORTH TALBOT RD. AND HWY 3



HWY 3 AT EAST OF HOWARD AVENUE



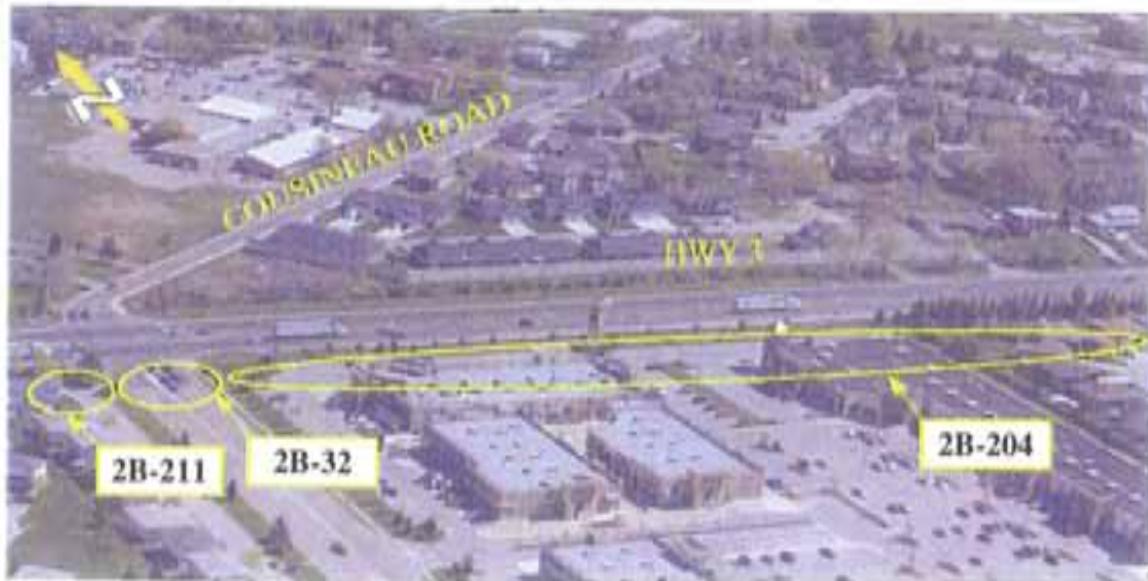
HWY 3 / HOWARD AVENUE



HWY 3 AT WEST OF HOWARD AVENUE



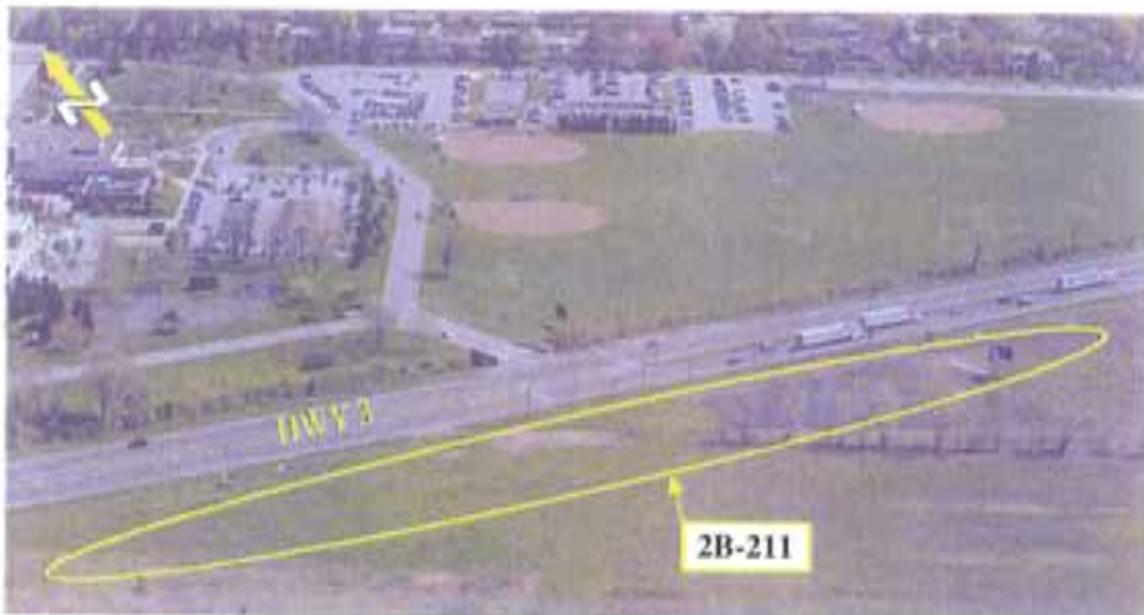
HWY 3 AT EAST OF COUSINEAU ROAD



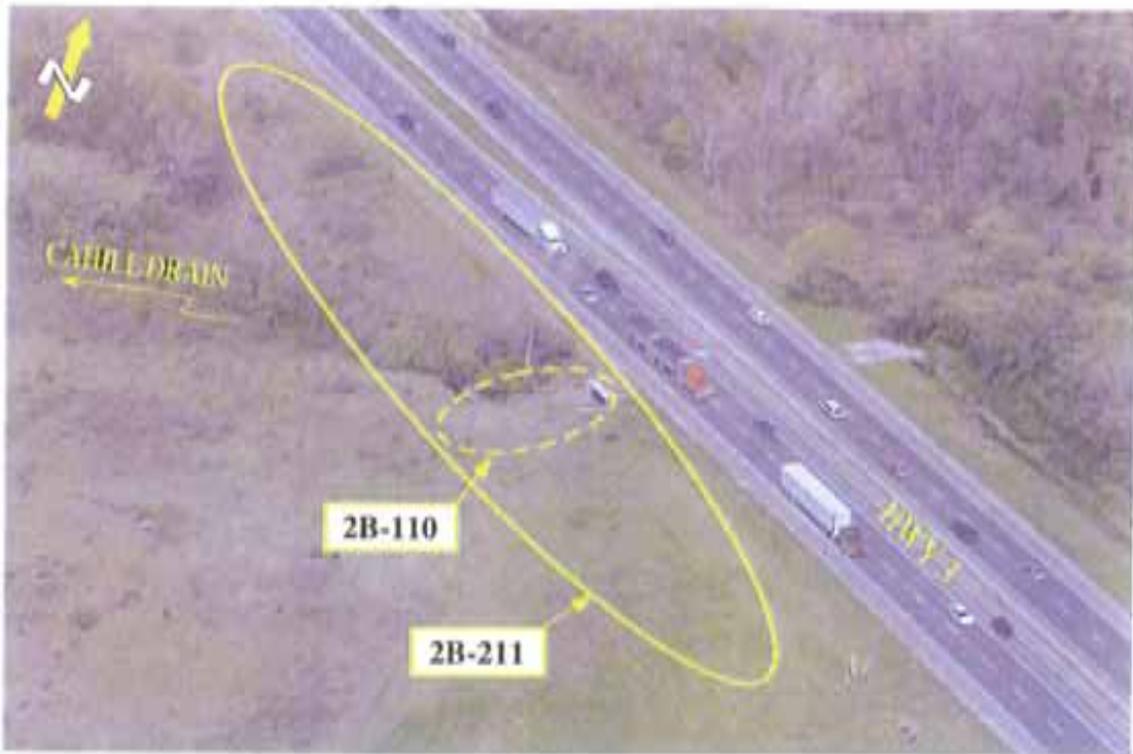
HWY 3 / EAST OF COUSINEAU ROAD



HWY 3 / COUSINEAU ROAD



HWY 3 WEST OF COUSINEAU ROAD



HWY 3 - BETWEEN ST. CLAIR COLLEGE AND HURON CHURCH LINE



HWY 3 / CAHILL DRAIN - EAST OF HURON CHURCH LINE



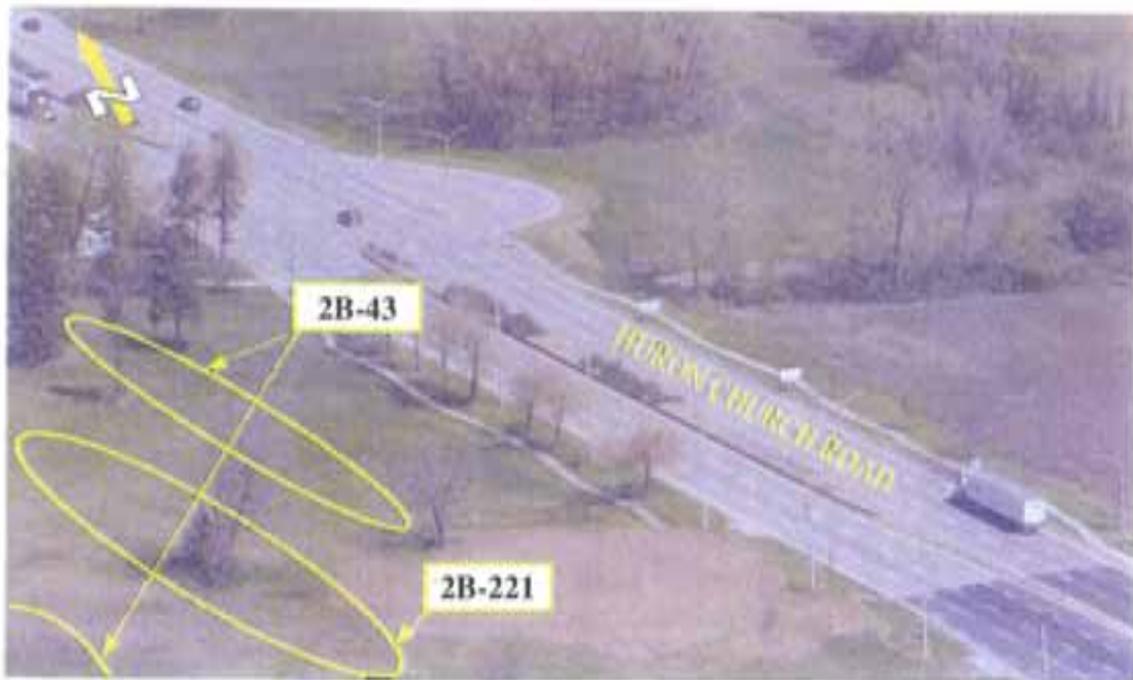
HWY 3 / LENNON DRAIN - EAST OF HURON CHURCH LINE



HWY 3 / HURON CHURCH LINE



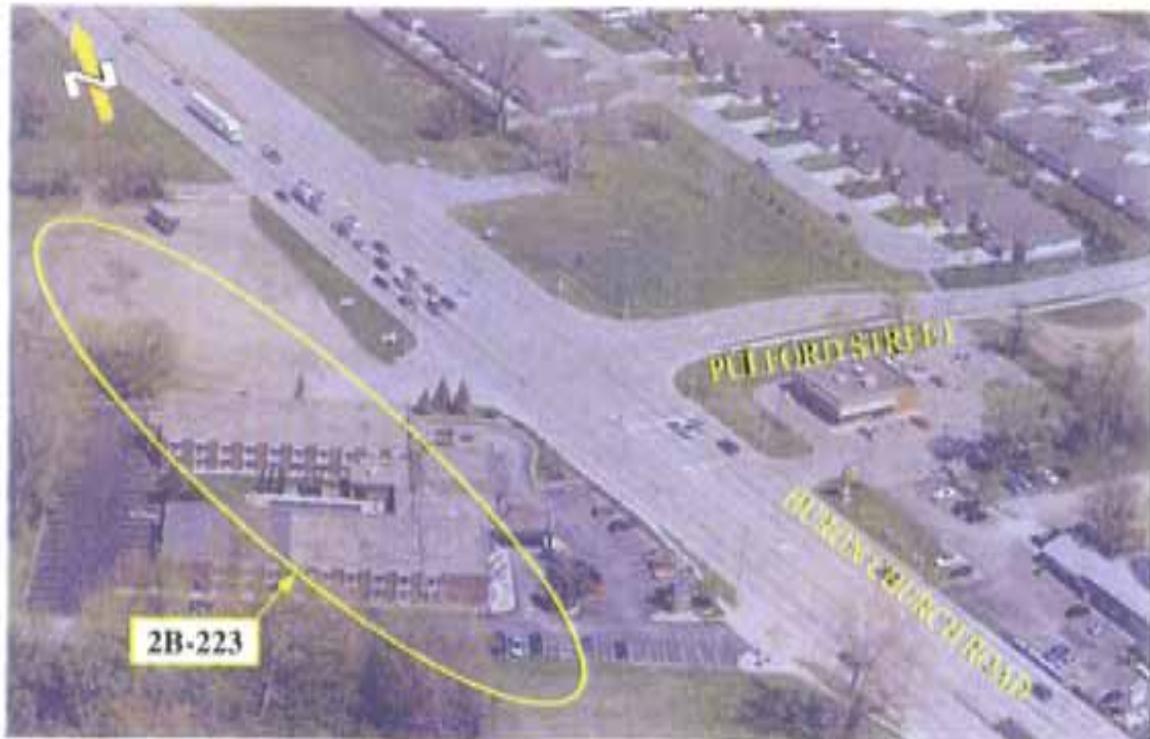
HURON CHURCH ROAD / CABANA ROAD WEST



HURON CHURCH ROAD - WEST OF CABANA ROAD WEST



HURON CHURCH ROAD - WEST OF CABANA ROAD WEST



HURON CHURCH ROAD - PULFORD STREET



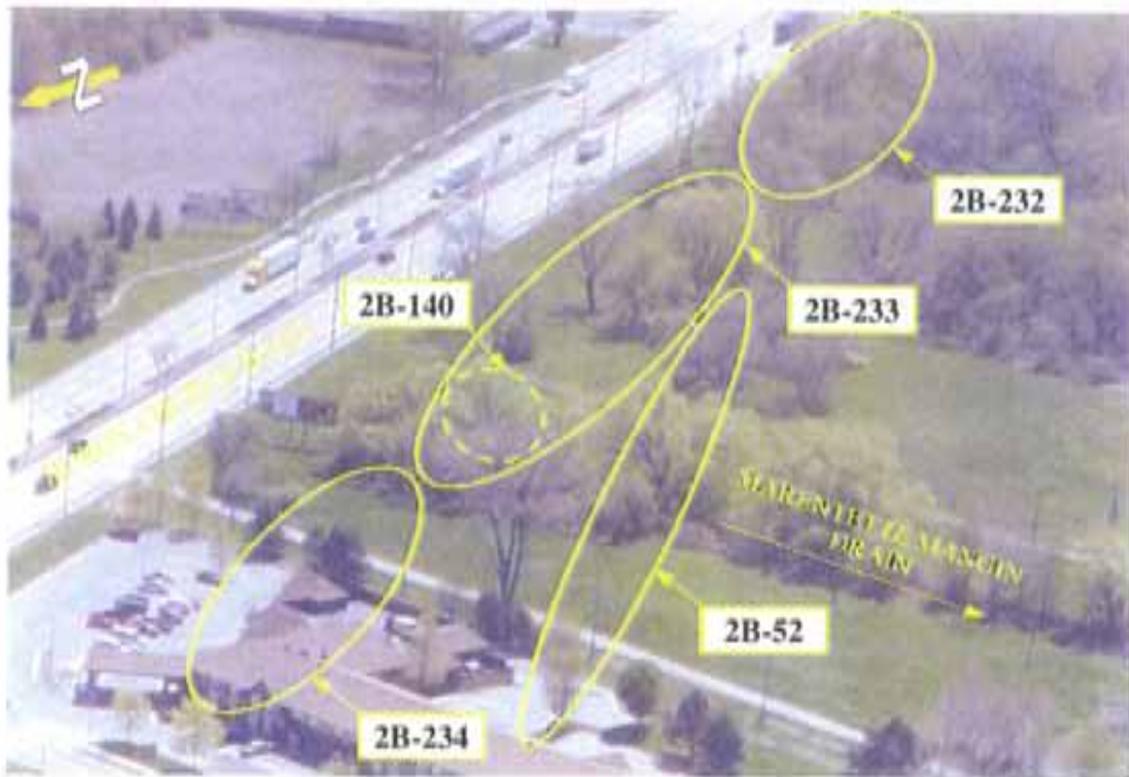
HURON CHURCH ROAD - TURKEY CREEK



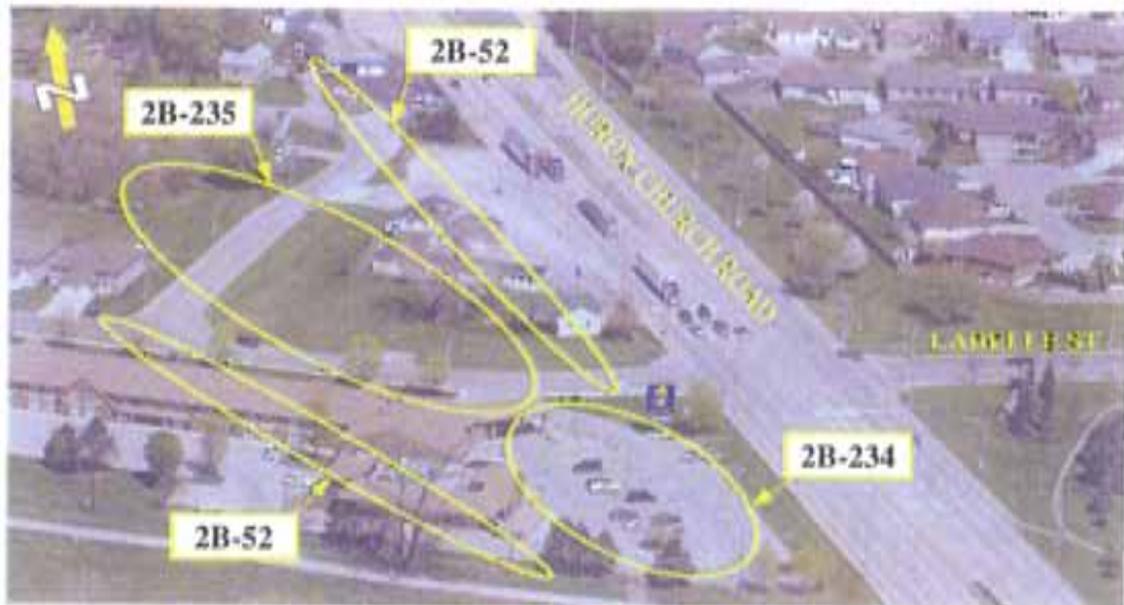
HURON CHURCH ROAD BRIDGE OVER TURKEY CREEK



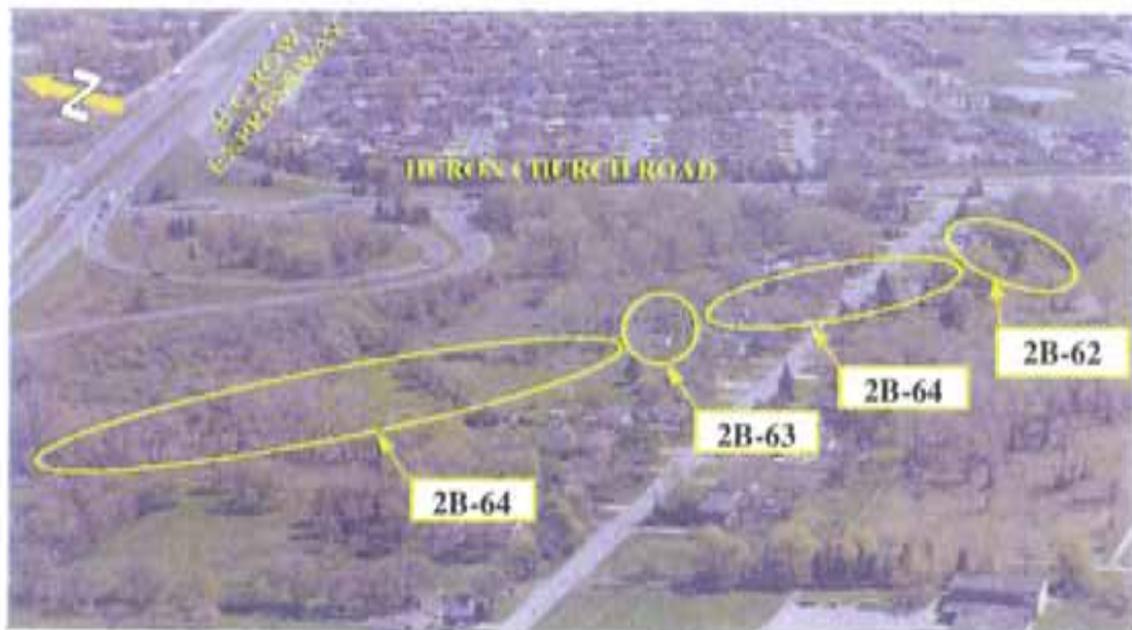
HURON CHURCH ROAD / GRAND MARAIS ROAD



HURON CHURCH ROAD / MARENTETTE MANGIN DRAIN



HURON CHURCH ROAD / LABELLE ST



HURON CHURCH ROAD - EAST OF E.C. ROW EXPRESSWAY



E.C.ROW EXPRESSWAY / BASIN DRAIN



E.C.ROW EXPRESSWAY / MALDEN ROAD



E.C. ROW EXPRESSWAY / MATCHETTE ROAD



E.C. ROW EXPRESSWAY / OJIBWAY PARKWAY

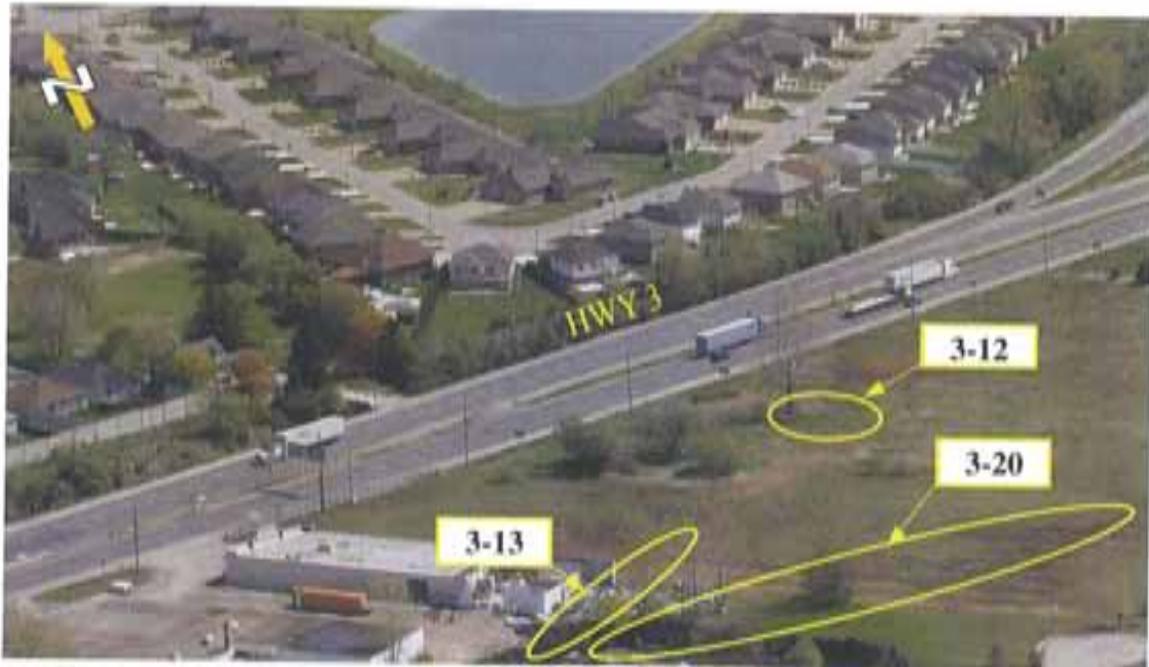
## **Appendix E.5**

### **Photographs for Alternative 3**

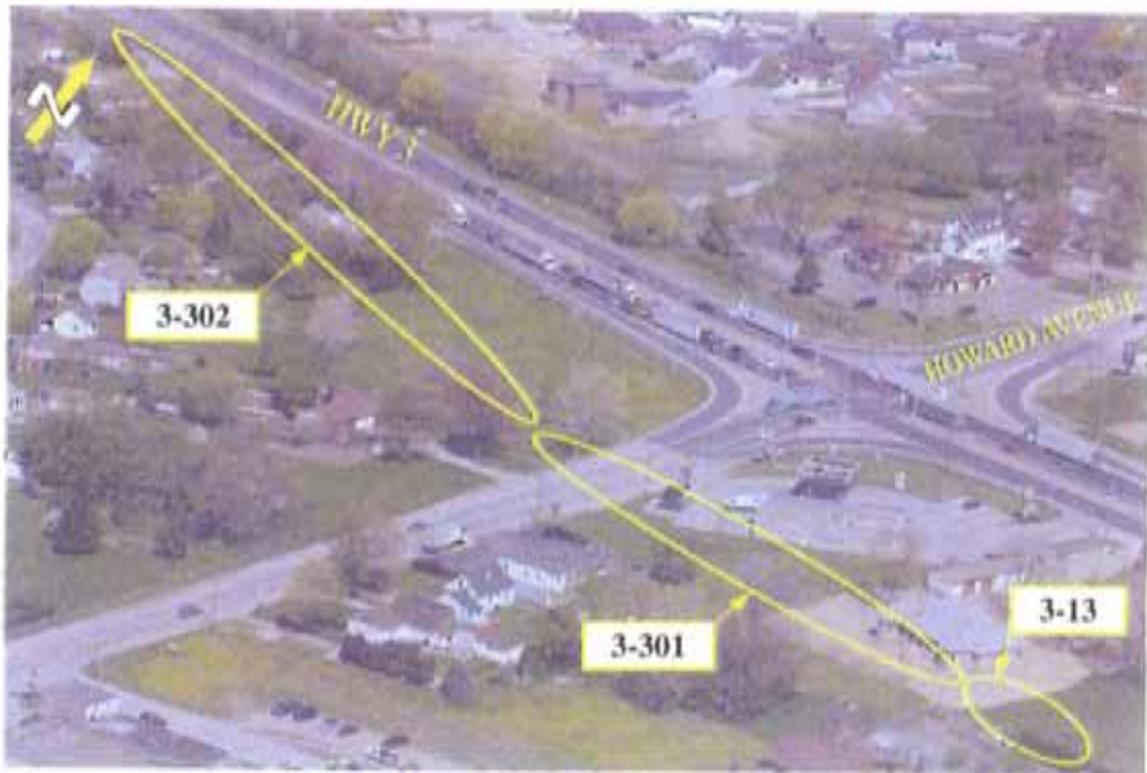
# Photographs for Alternative 3



HWY 401 BETWEEN NORTH TALBOT RD. AND HWY 3



HWY 3 AT EAST OF HOWARD AVENUE



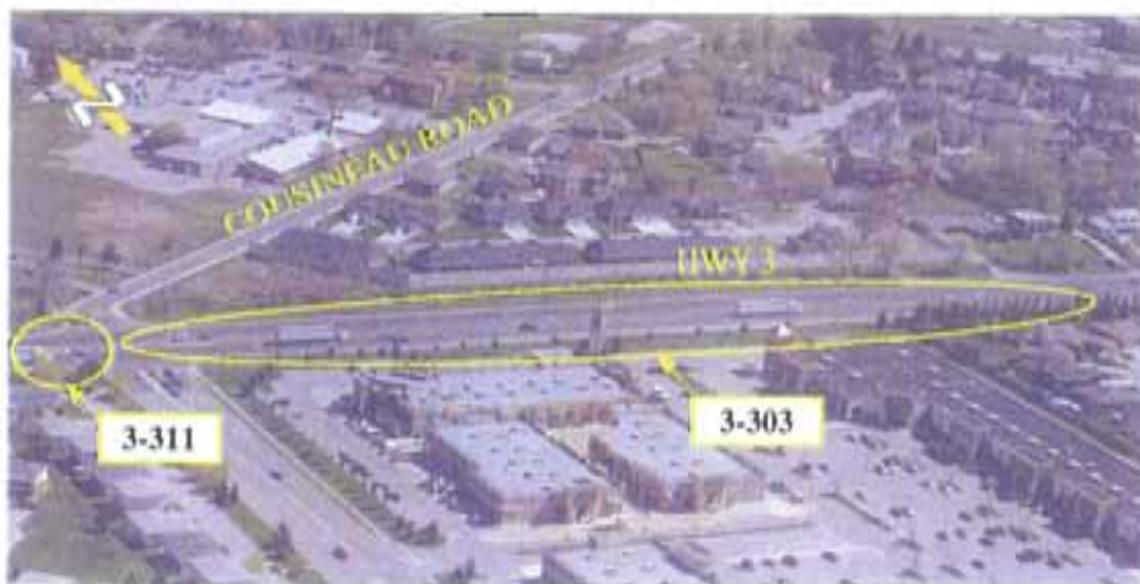
HWY 3 / HOWARD AVENUE



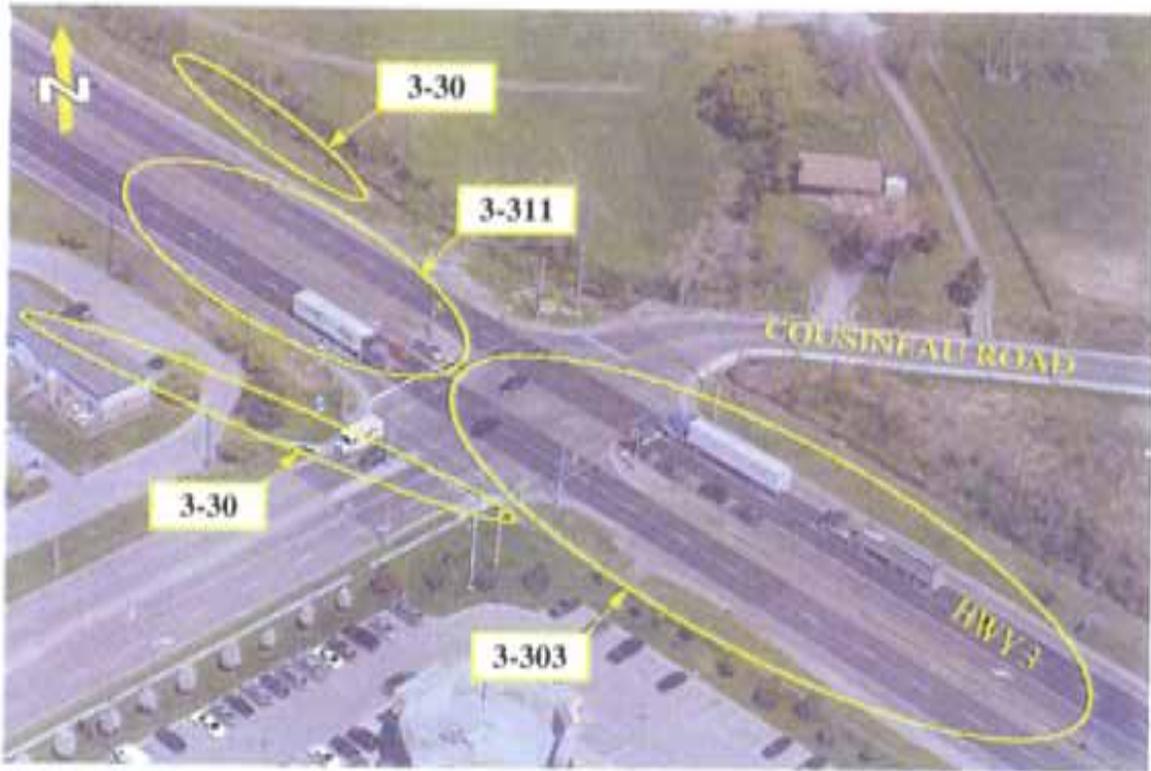
HWY 3 AT WEST OF HOWARD AVENUE



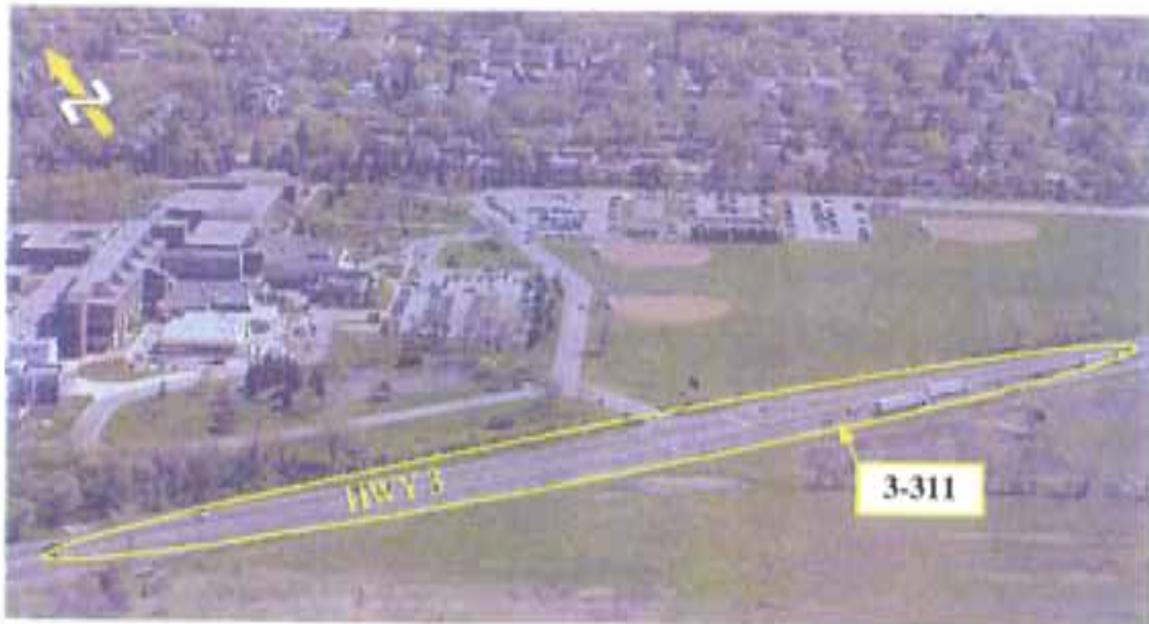
HWY 3 AT EAST OF COUSINEAU ROAD



HWY 3 / EAST OF COUSINEAU ROAD



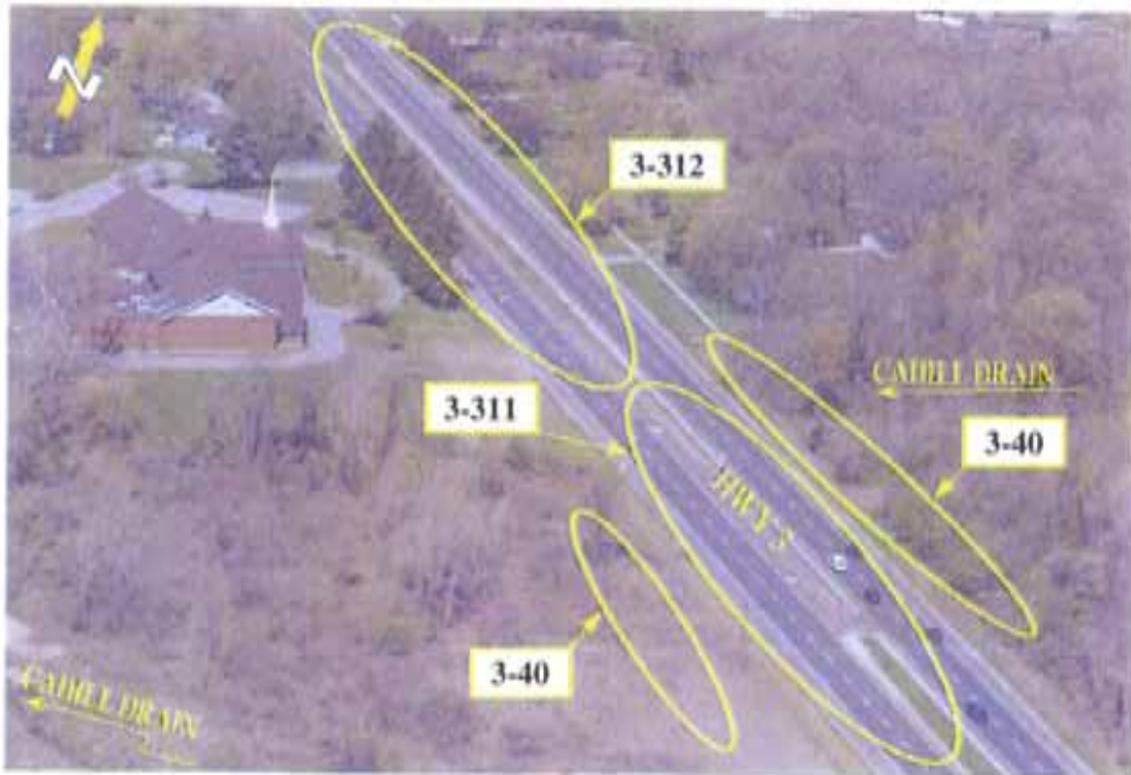
HWY 3 / COUSINEAU ROAD



HWY 3 WEST OF COUSINEAU ROAD



HWY 3 - BETWEEN ST. CLAIR COLLEGE AND HURON CHURCH LINE



HWY 3 / CAHILL DRAIN - EAST OF HURON CHURCH LINE



HWY 3 / LENNON DRAIN - EAST OF HURON CHURCH LINE



HWY 3 / HURON CHURCH LINE



HWY 3 – EAST OF CABANA ROAD WEST



HURON CHURCH ROAD / CABANA ROAD WEST



HURON CHURCH ROAD – WEST OF CABANA ROAD WEST



HURON CHURCH ROAD – WEST OF CABANA ROAD WEST



HURON CHURCH ROAD – PULFORD STREET



HURON CHURCH ROAD – TURKEY CREEK



HURON CHURCH ROAD BRIDGE OVER TURKEY CREEK



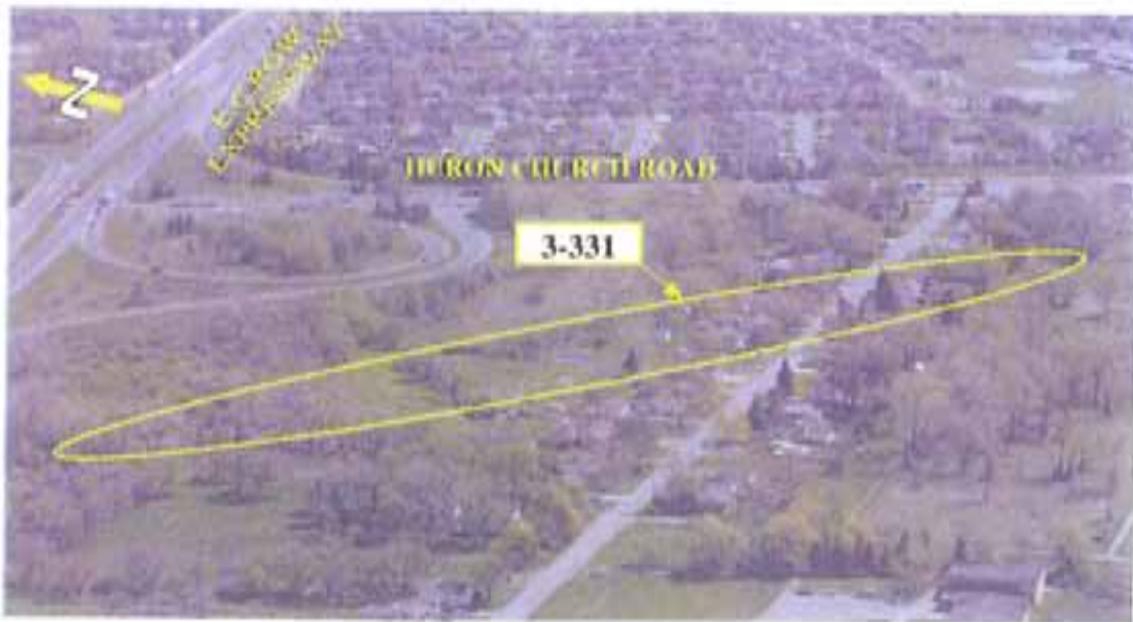
HURON CHURCH ROAD / GRAND MARAIS ROAD



HURON CHURCH ROAD / MARENTETTE MANGIN DRAIN



HURON CHURCH ROAD / LABELLE ST



HURON CHURCH ROAD - EAST OF E.C.ROW EXPRESSWAY



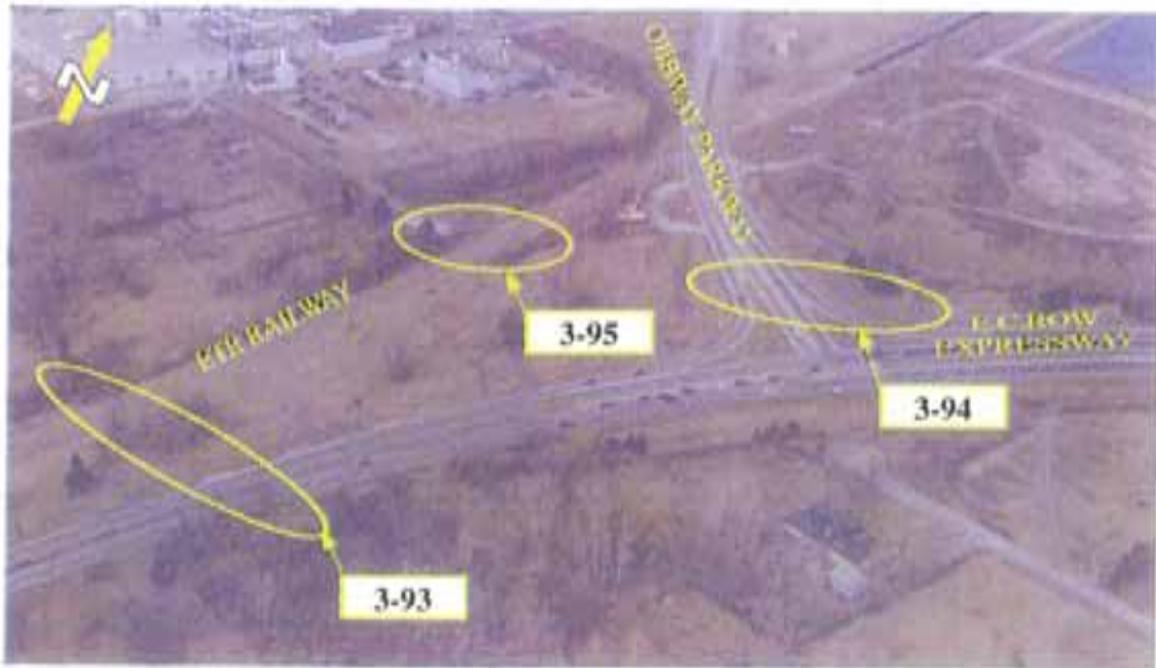
E.C.ROW EXPRESSWAY / BASIN DRAIN



E.C.ROW EXPRESSWAY / MALDEN ROAD



E.C.ROW EXPRESSWAY / MATCHETTE ROAD



E.C.ROW EXPRESSWAY / OJIBWAY PARKWAY

## **Appendix E.6**

### **Photographs for The Parkway**

# Photographs for Alternative The Parkway



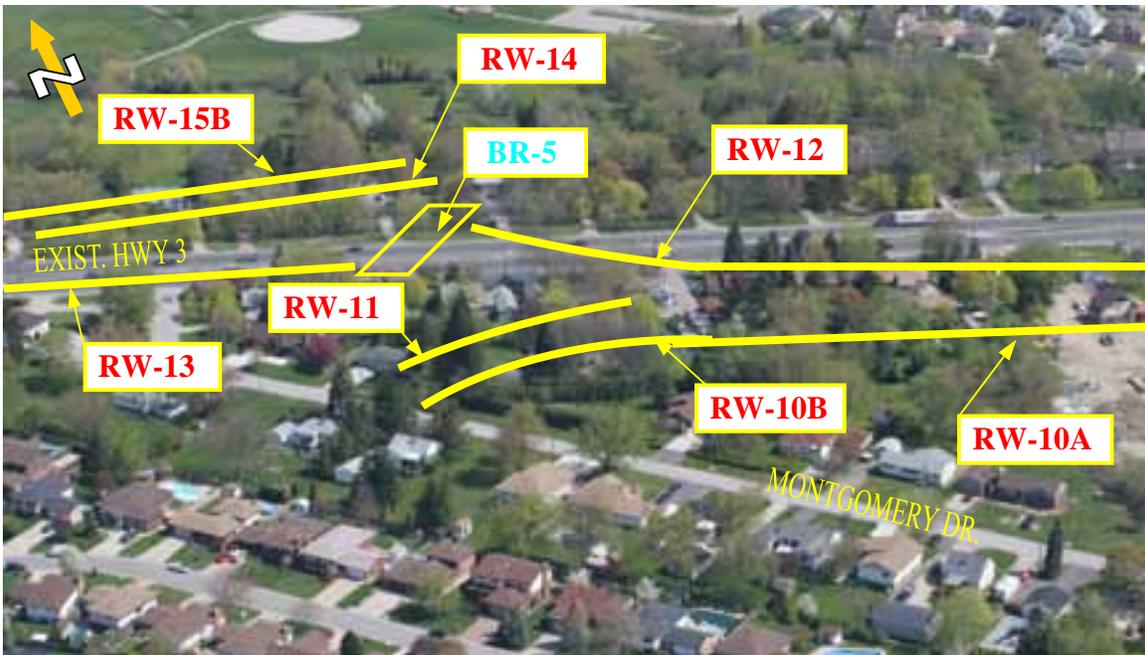
HWY 401 BETWEEN NORTH TALBOT RD. AND EXISTING HWY 3



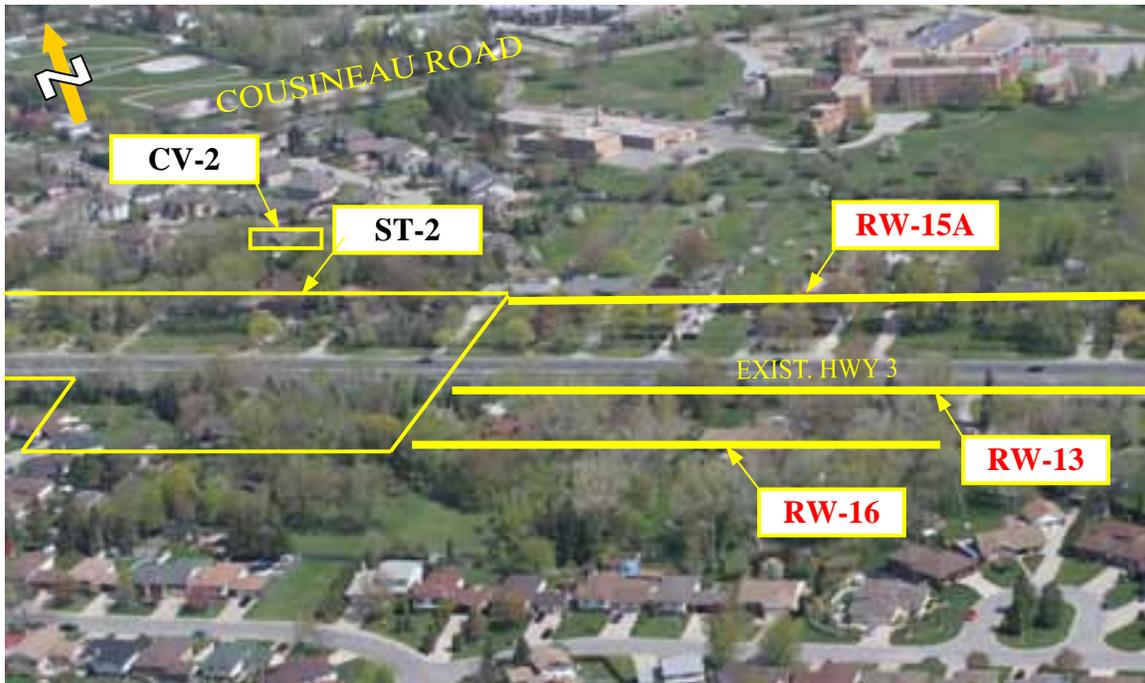
EXISTING HWY 3 AT EAST OF HOWARD AVENUE



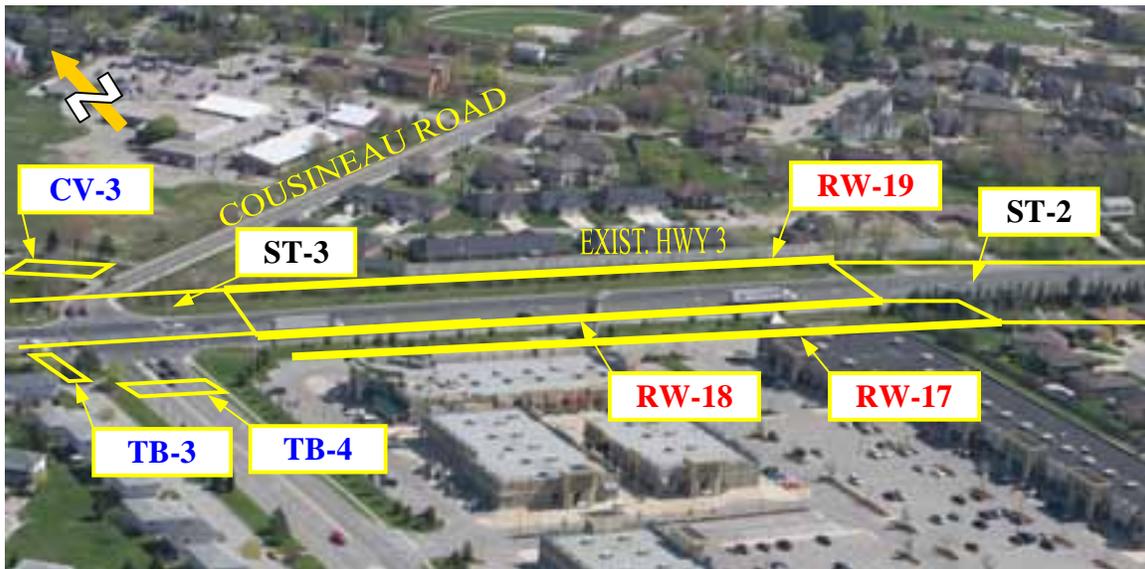
EXISTING HWY 3 / HOWARD AVENUE



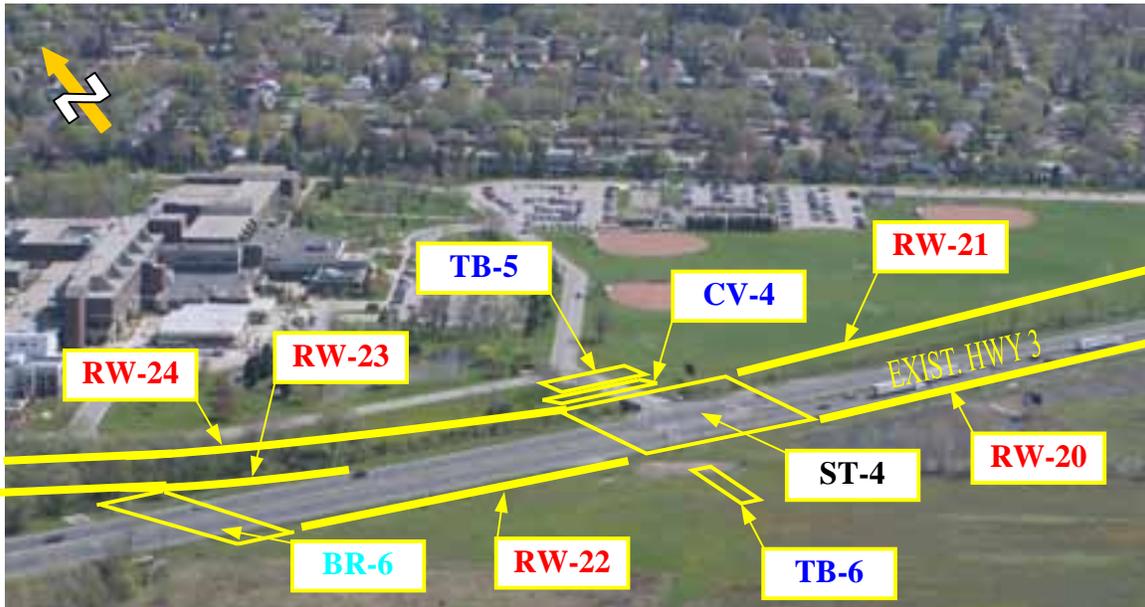
EXISTING HWY 3 AT WEST OF HOWARD AVENUE



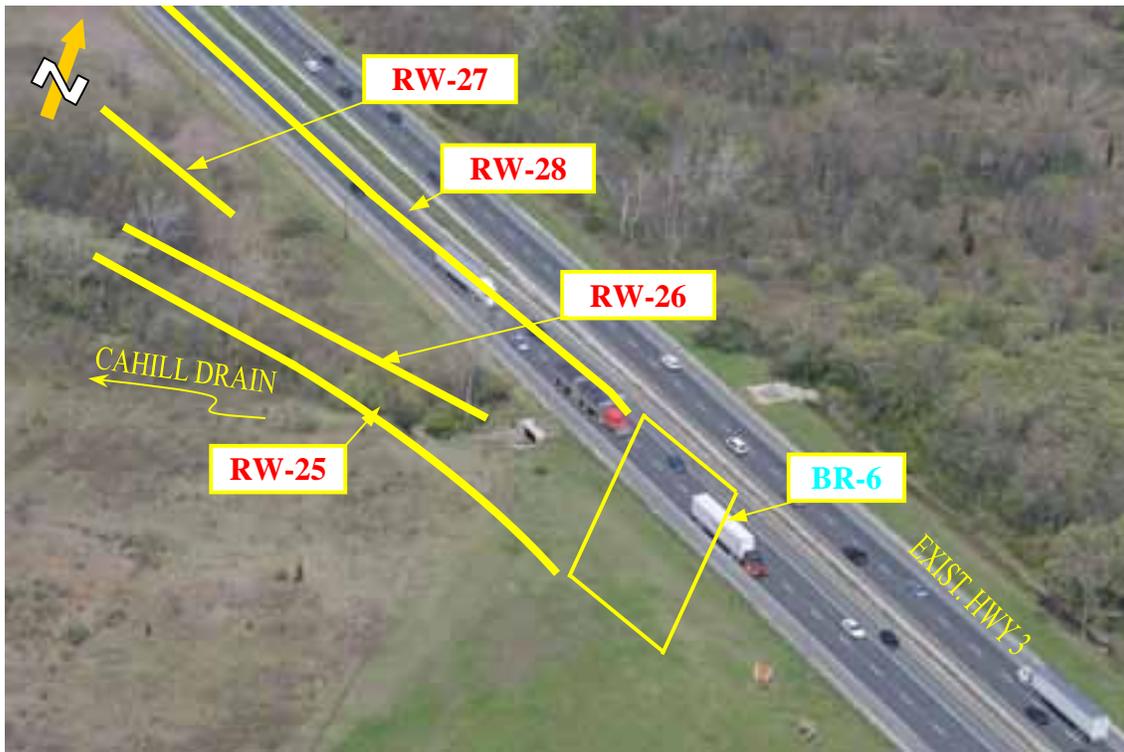
EXISTING HWY 3 AT EAST OF COUSINEAU ROAD



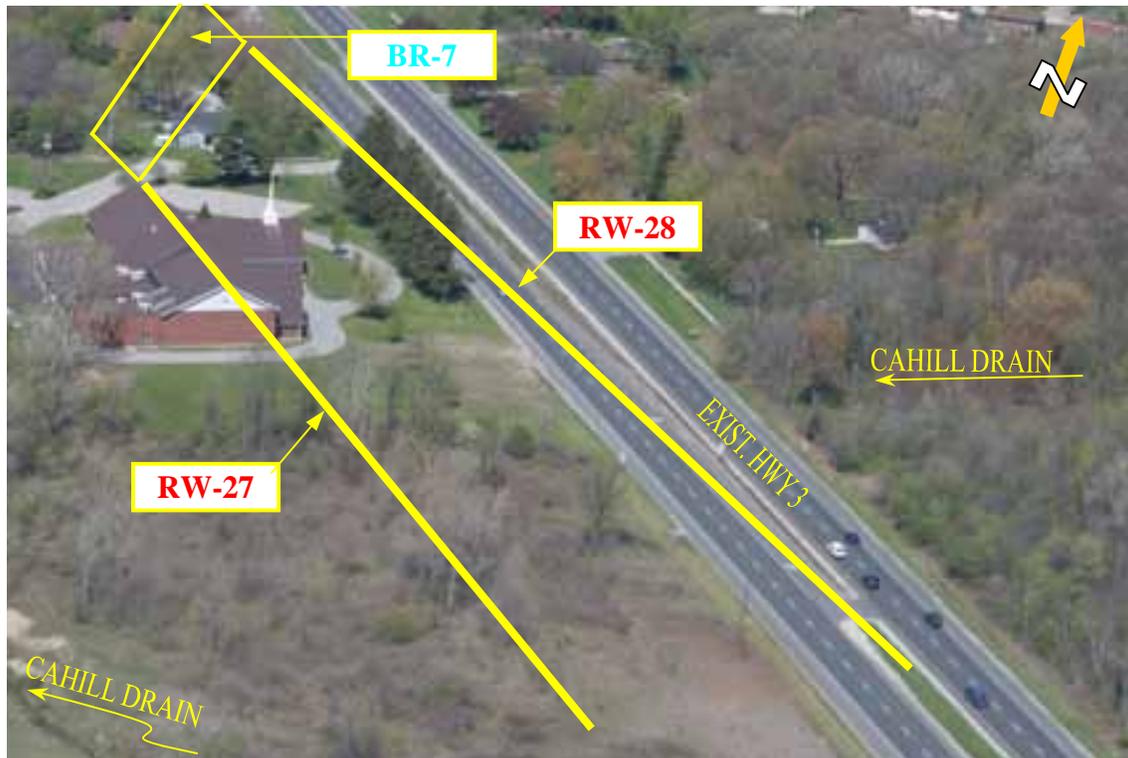
EXISTING HWY 3 / EAST OF COUSINEAU ROAD



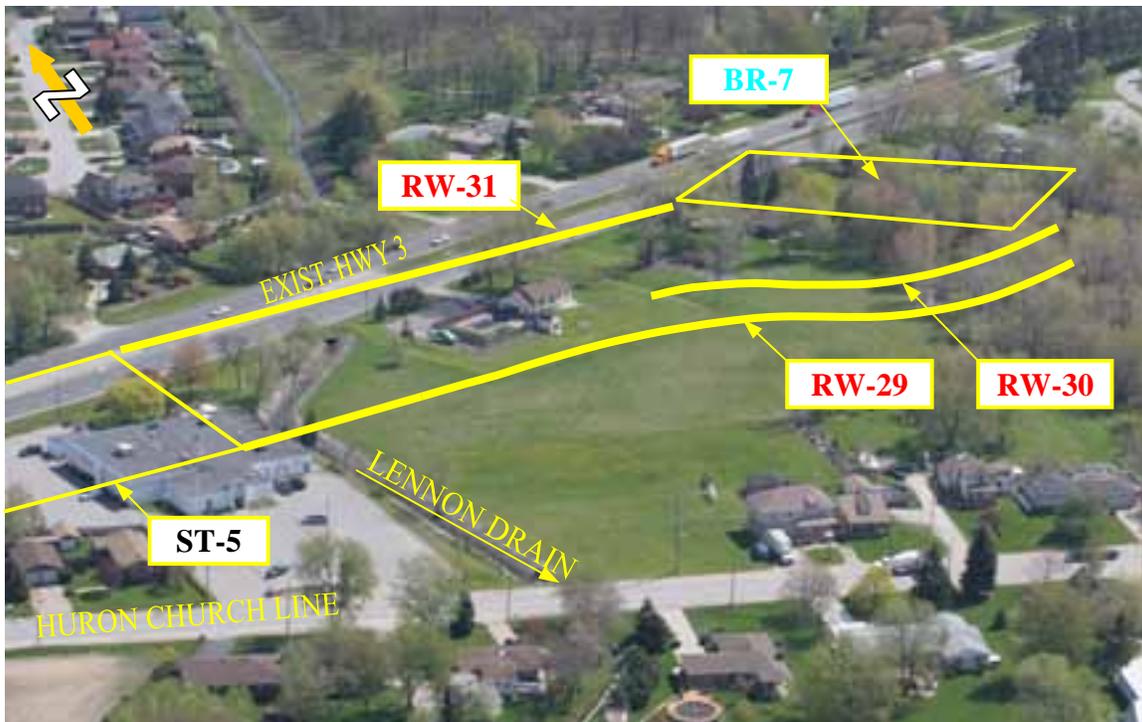
EXISTING HWY 3 – BETWEEN COUSINEAU ROAD AND WEST OF ST. CLAIR COLLEGE



EXISTING HWY 3 – BETWEEN ST. CLAIR COLLEGE AND HURON CHURCH LINE



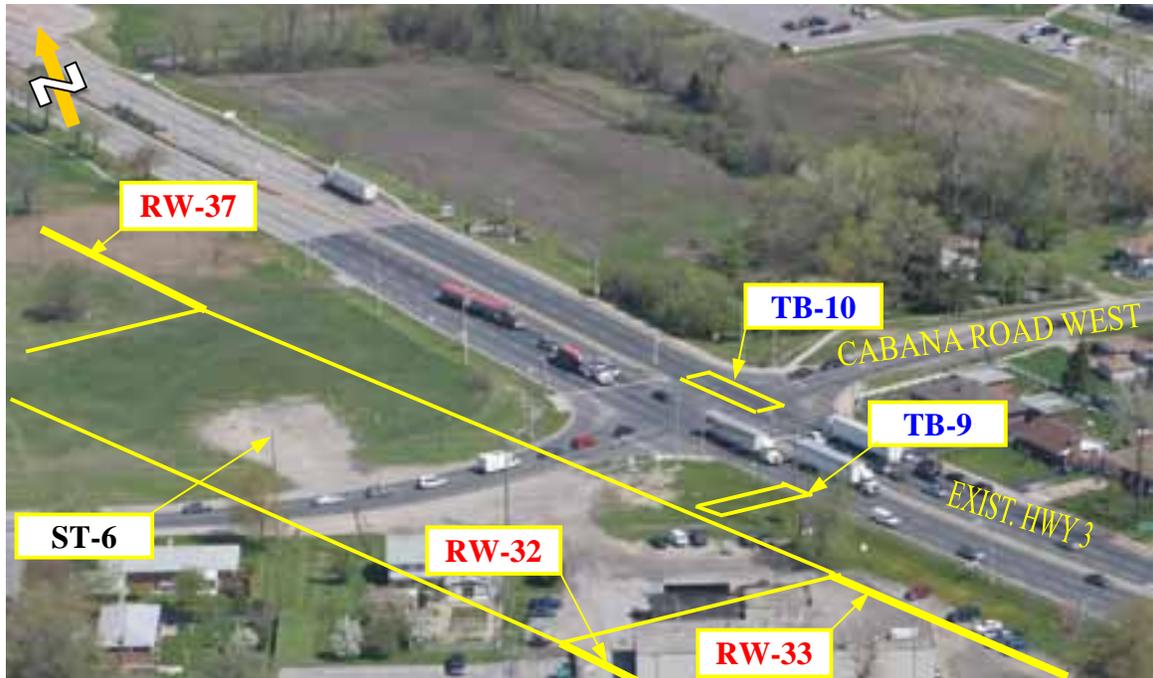
EXISTING HWY 3 / CAHILL DRAIN - EAST OF HURON CHURCH LINE



EXISTING HWY 3 / LENNON DRAIN - EAST OF HURON CHURCH LINE



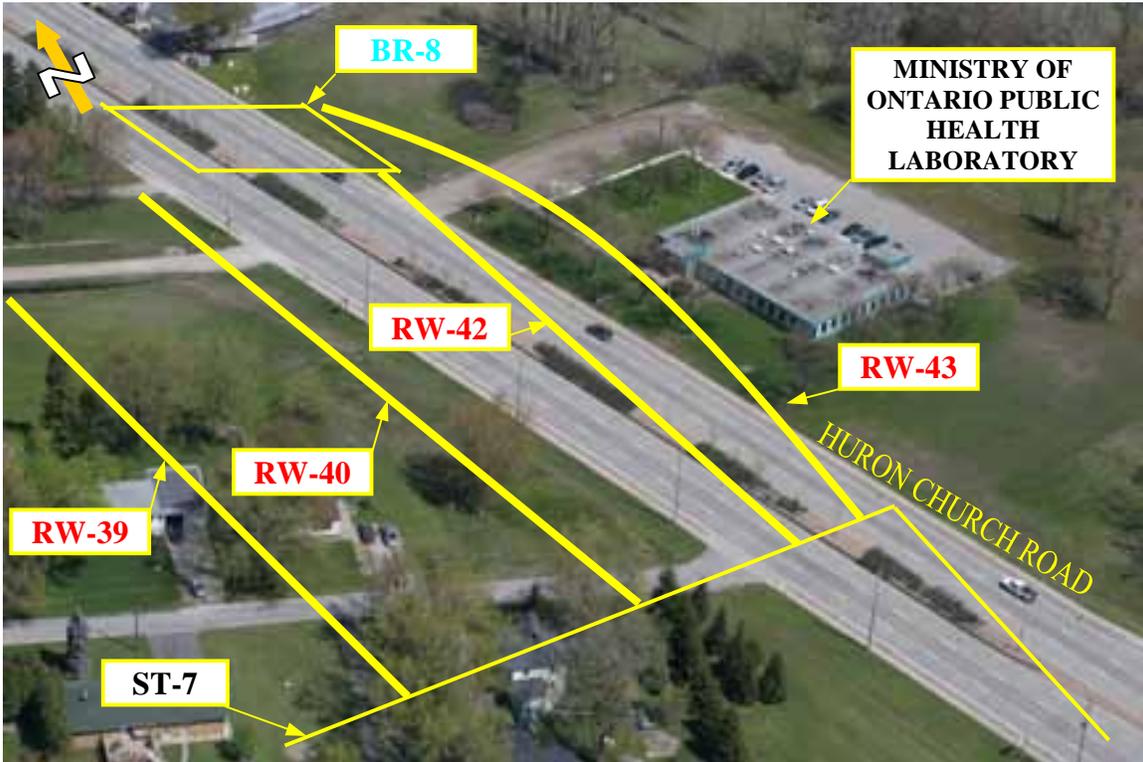
EXISTING HWY 3 / HURON CHURCH LINE



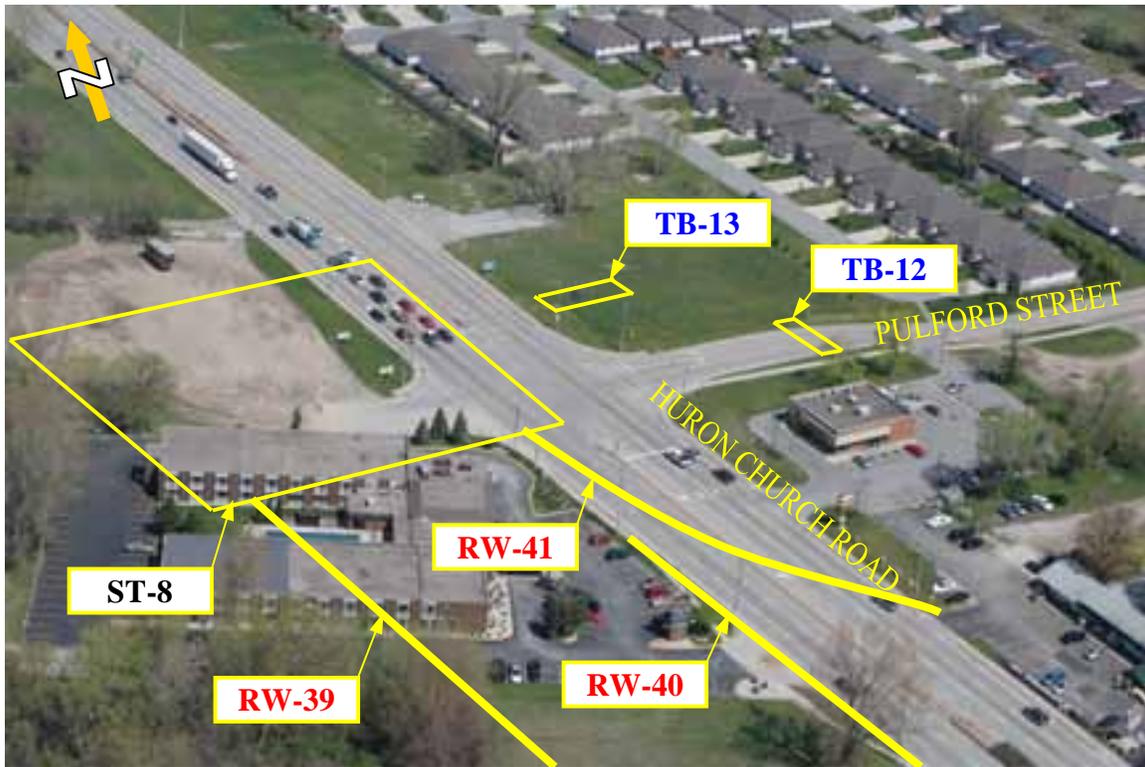
EXISTING HWY 3 – EAST OF CABANA ROAD WEST



HURON CHURCH ROAD – WEST OF CABANA ROAD WEST



HURON CHURCH ROAD – WEST OF CABANA ROAD WEST



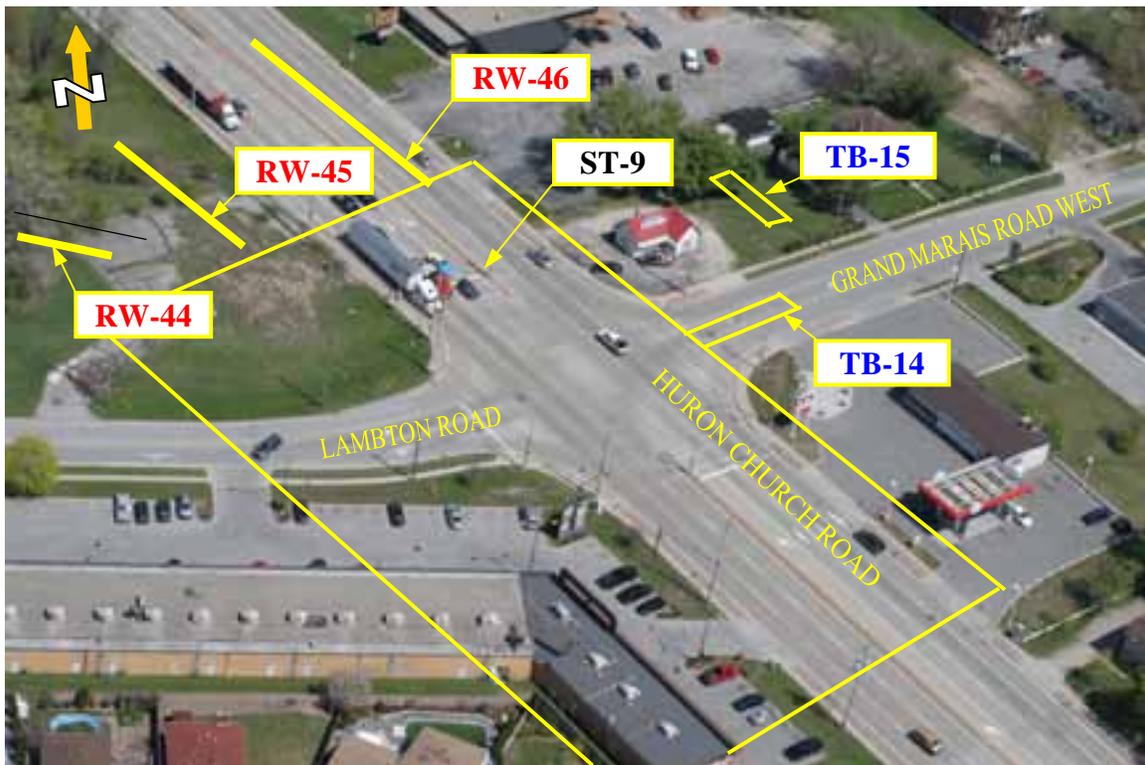
HURON CHURCH ROAD – PULFORD STREET



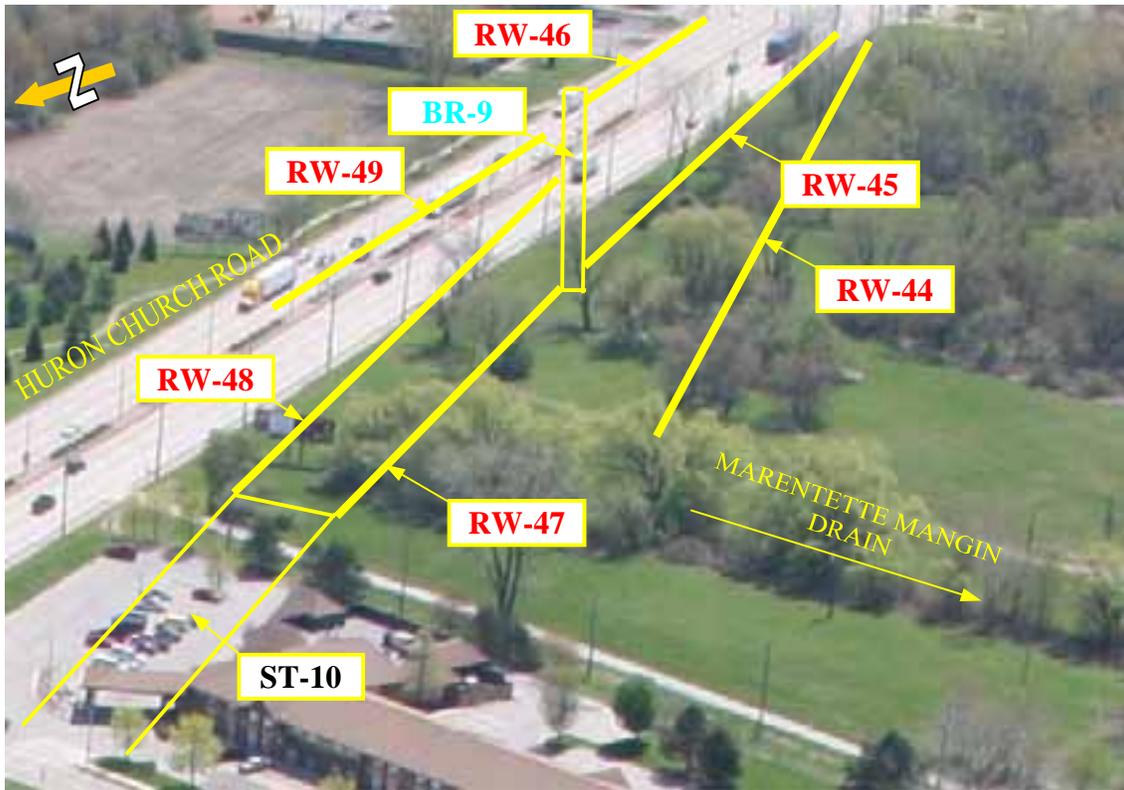
HURON CHURCH ROAD – TURKEY CREEK



EXISTING HURON CHURCH ROAD BRIDGE OVER TURKEY CREEK



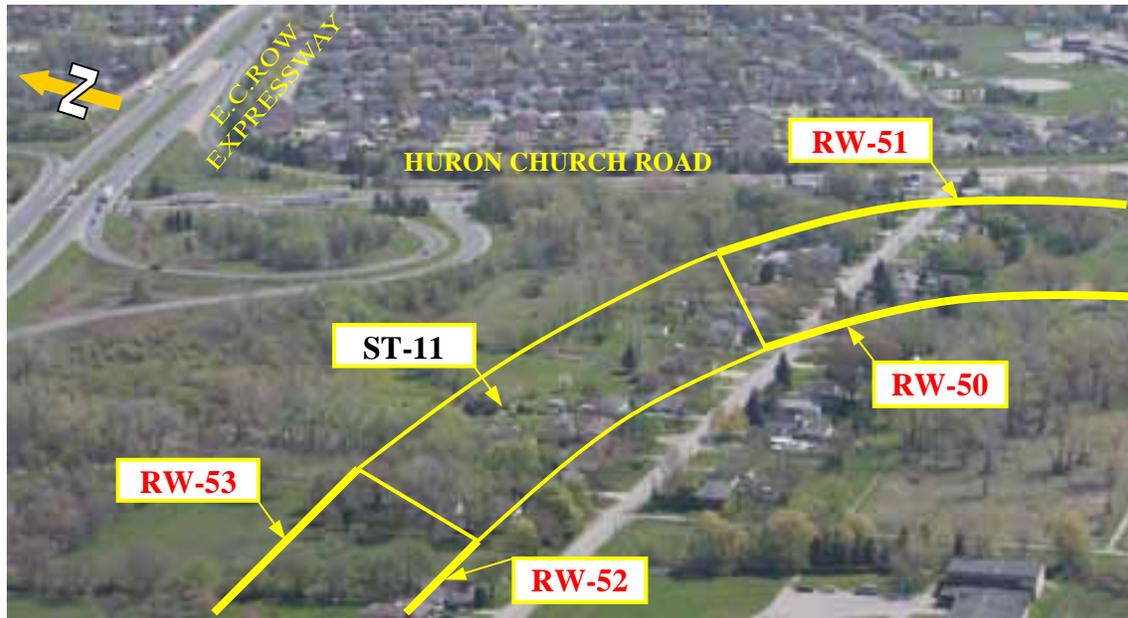
HURON CHURCH ROAD / GRAND MARAIS ROAD WEST



HURON CHURCH ROAD / MARENTETTE MANGIN DRAIN



HURON CHURCH ROAD / LABELLE ST



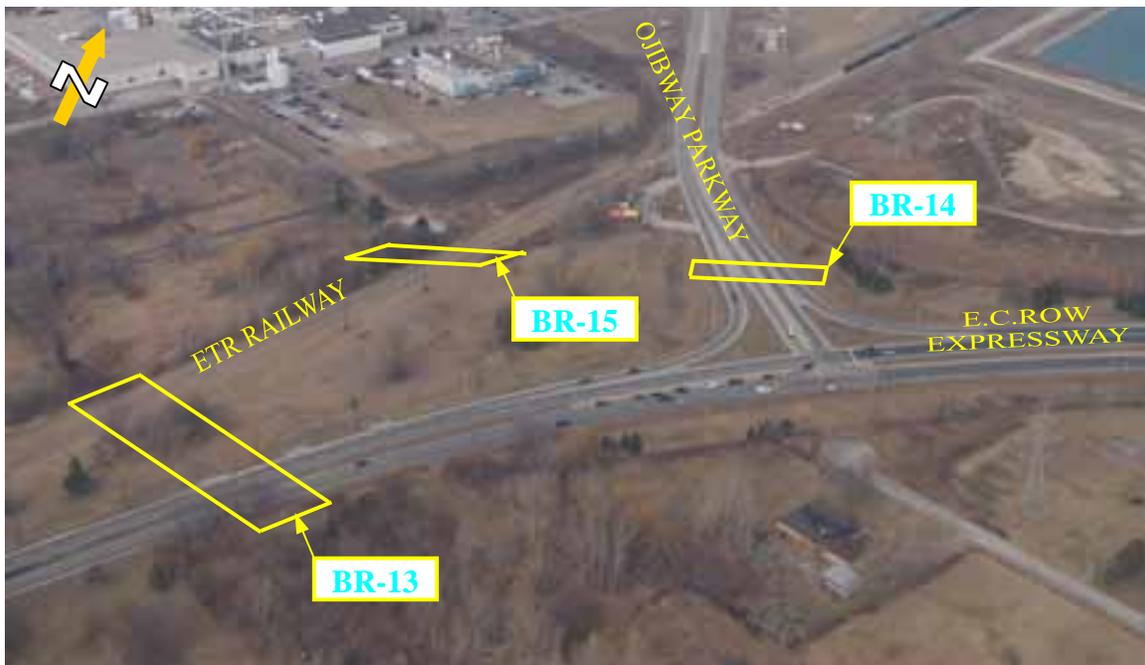
HURON CHURCH ROAD – EAST OF E.C.ROW EXPRESSWAY



E.C.ROW EXPRESSWAY / MALDEN ROAD



E.C.ROW EXPRESSWAY / MATCHETTE ROAD



E.C.ROW EXPRESSWAY / OJIBWAY PARKWAY

## **Appendix F**

### **Table of Utilities Crossing Highway 401 Along Talbot Road / Huron Church Road**

**Table of Utilities Crossing**  
**Highway 3 Huron Church Road Corridor**

Utility	Description	Side	Action
<b>Howard Avenue</b>			
Bell Canada	Underground	East - 2 Duct	Crossing
Bell Canada	Underground	Centre - 4 Duct	Crossing
Bell Canada	Underground	West - 8 Duct	Crossing
Bell Canada	Underground	Centre - 6 Duct	Crossing
Bell Canada	Underground	West - 8 Duct	Crossing
Bell Canada	Underground	West - 1 Duct	Crossing
Union Gas (Major)	Intermediate Pressure	East	Crossing
Union Gas (Major)	Intermediate Pressure	West	Crossing
Windsor Watermain	600mm	West of Crossing	Crossing
Tecumseh Watermain	150mm	East	Crossing
<b>Cousineau</b>			
Bell Canada	Underground	East - 2 Duct	Crossing
Union Gas (Major)	Intermediate Pressure	East	Crossing
<b>Todd Lane/Cabana Road</b>			
Bell Canada	Underground	West - 14 Duct	Crossing
Bell Canada	Major/Minor	East	Crossing
Bell Canada	Major/Minor Duct	East - 3 Duct	Crossing
Bell Canada	Major/Minor Buried	East	Relocate Along Highway 401
Bell Canada	Major/Minor Buried	East	Relocate Along Highway 401
Union Gas (Major)	Intermediate Pressure	West	Crossing
Union Gas (Major)	Intermediate Pressure	East	Relocate Along Highway 401
Enwin	Underground	West of Todd Lane	Crossing

**Table of Utilities Crossing**  
**Highway 3 Huron Church Road Corridor**

Utility	Description	Side	Action
Essex Power (Major)	Non EPL Overhead	East	Relocate Along Highway 401
Essex Power	HV Underground	West of Todd Lane	Crossing
<b>Existing Huron/Church Road</b>			
Bell Canada	Underground	East - 1 Duct	Crossing
<b>Pulford Ave</b>			
Storm Sewer	375 mm	East of Crossing	Crossing
Storm Sewer	250 mm	East of Crossing	Crossing
Union Gas (Major)	Intermediate Pressure	East of Crossing	Crossing
Windsor Watermain	200 mm	East of Crossing	Crossing
<b>Lambton Ave</b>			
Union Gas (Major)	High Pressure	East	Crossing
Union Gas (Major)	Intermediate Pressure	East	Crossing
Windsor Sanitary Sewer	300 mm	Centre	Crossing
Windsor Watermain	300 mm	West to East	Crossing
MAXess Fibre Optics		West to East	Crossing
<b>Labelle Street</b>			
Storm Sewer	525 mm	West	Crossing
Union Gas (Major)	Intermediate Pressure	East	Crossing
Watermain	250 mm	West to East	Relocate Along Highway 401
Bell Canada	Underground	East	Relocate Along Highway 401