



Canada-United States-Ontario-Michigan Border Transportation Partnership

Detroit River International Crossing Environmental Assessment Study

**Preliminary Construction Cost Estimate Report for
Practical Alternatives
(Access Road and Inspection Plaza)**

Appendices B, C and D

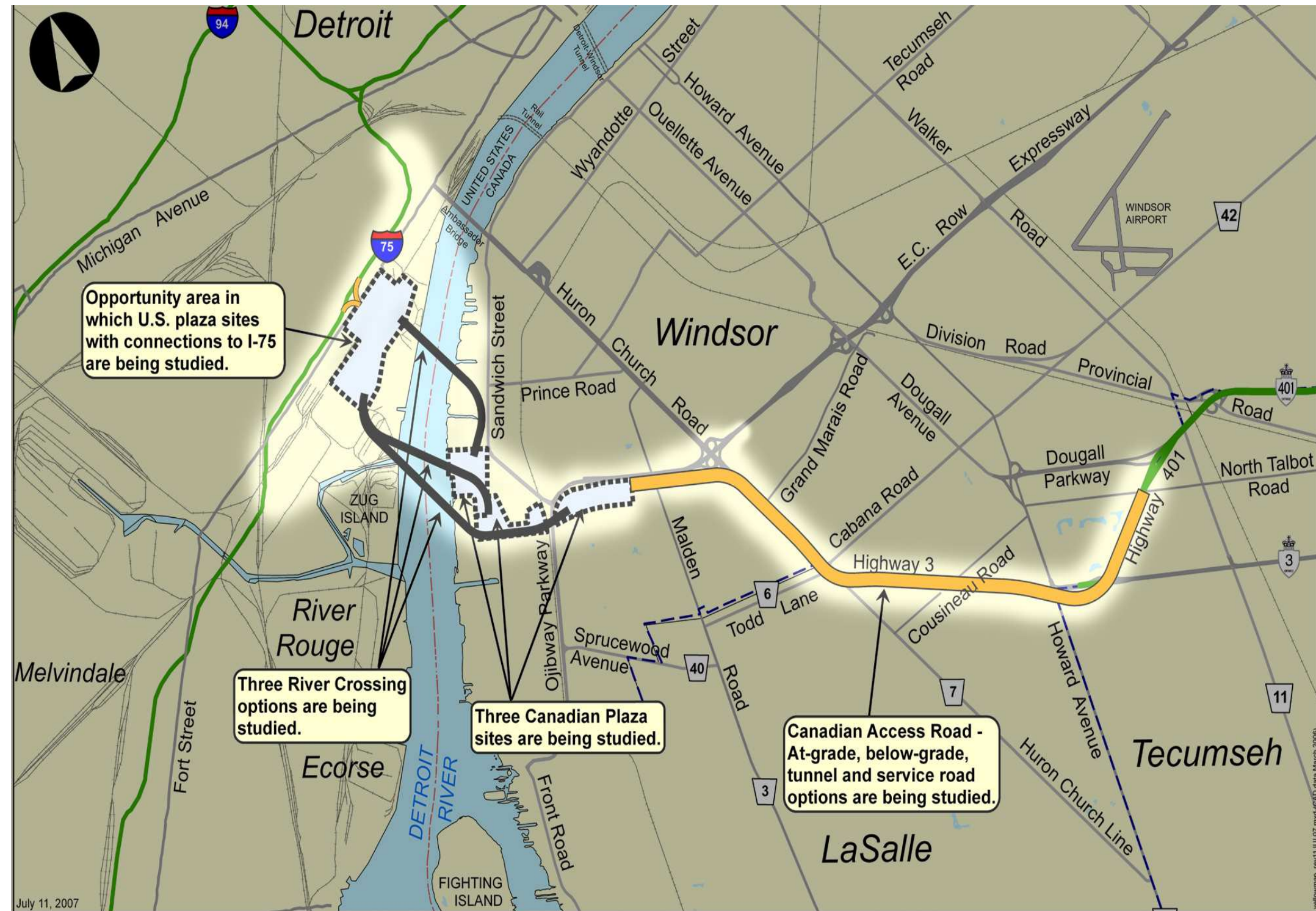
APPENDIX B

**Conceptual Design Drawings for
Access Road and Inspection Plaza
Practical Alternatives**

Crossing, Plaza & Access Road Practical Alternatives

Practical Alternative Drawings – November 2006

Refinements have been incorporated into the Practical Access Road Alternatives since Public Information Open House #3 held in March 2006. The refinements are based on comments received from members of the public as well as from stakeholders, such as the Municipalities. Key objectives of the refinements include reducing overall impacts and providing additional access to and from the freeway and across the freeway.



Date: August 16, 2006 (Revised November 9, 2006)

To: File

From: Tim Soroichinsky

c.c. Murray Thompson, Len Kozachuk, George Katic, Colin Wong, Roger Ward, Kevin DeVos

Reference: Detroit River International Crossing (DRIC) Environmental Assessment Study

Subject: Summary of Refinements to Access Road Alternatives

This memo provides a summary of refinements, which were incorporated into the Practical Access Route Alternatives since PIOH3. The refinements are based on comments received from members of the public and stakeholders (such as the Municipalities). Key objectives of the refinements include reducing impacts and providing additional access to and from the Freeway, and across the Freeway.

Alt 1A – One-Way Service Roads on Either Side of 6-Lane Freeway, At-grade (Option 1)

- Connection added between Lamont Ave and 7th Street;
- Connection added between Lambton Road and Grand Marais Road over Freeway and Service Roads, including access from Lambton Road to southbound Service Road, and from Grand Marais Road to northbound Service Road;
- Freeway profile lowered between Labelle Street to north of Turkey Creek;
- Both Huron Church Road ramp profiles modified with Freeway profile change;
- 150m wide 'land bridge' added at Todd Lane / Cabana Road West; Freeway profile modified accordingly;
- 150m 'land bridge' added at Cousineau Road; Freeway profile modified accordingly.

Alt 1A – One-Way Service Roads on Either Side of 6-Lane Freeway, At-Grade (Option 2)

- Same modifications as described in Alternative 1A Option 1 discussion.
- Slip on/off ramps (4) added between Freeway and Service Roads at St. Clair College.

Alt 1B - One-Way Service Roads on Either Side of 6-Lane Freeway, Below-Grade (Option 1)

- Start of transition from depressed Freeway to at-grade Freeway begins south of Spring Garden Road;
- At-grade connection added between Bethlehem Avenue and Labelle Street over depressed Freeway;
- Short Freeway tunnel section added under Grand Marais Drain/Turkey Creek;
- Pulford Street extended over depressed Freeway to southbound Service Road;
- Slip on/off ramps (2) from Freeway to Service Roads added between Pulford Street and Todd Lane/Cabana Road;
- 150 m 'land bridge' added at Todd Lane/Cabana Road West;
- Huron Church Line realigned and extended over depressed Freeway to northbound Service Road (replaces Service Road connection to Todd Lane);
- 150 m 'land bridge' added at Cousineau Road;
- Montgomery Drive extended over depressed Freeway to northbound Service Road.

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Alt 1B – One-Way Service Roads on Either Side of 6-Lane Freeway, Below-Grade (Option 2)

- Same modifications as described in Alternative 1B Option 1 discussion.
- Slip on/off ramps (4) added between Freeway and Service Roads at St. Clair College.

Alt 2A – Six Lane Freeway at-grade, Along Side Huron Church/Highway 3 (Options 1 and 2)

- Spring Garden Road extended over depressed Freeway to Huron Church Road;
- Connection added between Lambton Road and Grand Marais Road over Freeway and Huron Church Road, including access from Grand Marais Road to Huron Church Road;
- Freeway profile lowered between Bethlehem Avenue to north of Turkey Creek;
- Both Huron Church Road ramp profiles modified with Freeway profile change;
- North limit of West Service Road changed from Lambton Road to Gratiot Street (formerly, West Service Road was provided from Lambton Road to Todd Lane).

Alt 2B - Six Lane Freeway Below-Grade, Along Side Huron Church/Highway 3 (Options 1 and 2)

- Spring Garden Road extended over depressed Freeway to Huron Church Road;
- Short Freeway tunnel section added under Grand Marais Drain/Turkey Creek;
- Montgomery Road extended over depressed Freeway to Highway 3.

Alt 3 – Cut & Cover Tunnel Below Rebuilt Huron Church/Highway 3 Corridor

- No change.

ALL ACCESS ROAD ALTERNATIVES

The following note was added to all alternatives:

"Maintain Pathway along Grand Marais Drain/Turkey Creek"

Description of Options:

Option 1: Maintain Right-of-Way limit on west side of Highway 3 from St. Clair College to north of Howard Avenue.

Option 2: Maintain Right-of-Way limit on east side of Highway 3 from St. Clair College to north of Howard Avenue.

KEY ROADWAY MODIFICATIONS AT PLAZAS

Plaza A Alternative: Matchette Road realigned along the west end of Plaza A.

All Plaza Alternatives: Add ramp from Malden Road to Freeway westbound (to new international bridge) and add ramp from Freeway eastbound (from bridge) to Malden Road.

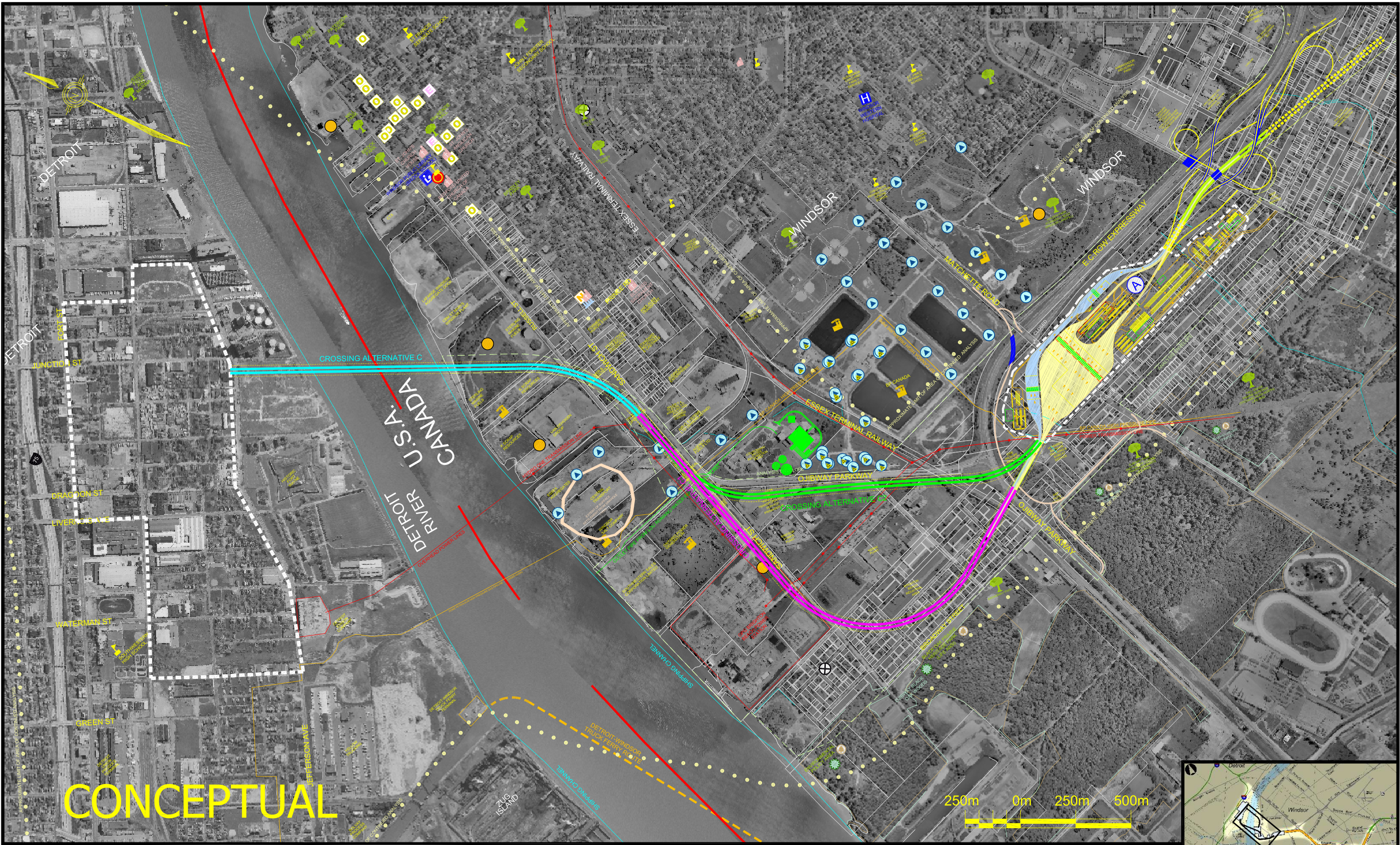
LEGEND

- REQUIRED RIGHT-OF-WAY
- HIGHWAY 401 AT GRADE
- HIGHWAY 401 ABOVE GRADE
- HIGHWAY 401 BELOW GRADE
- |||| HIGHWAY 401 TUNNEL
- - - HIGHWAY 401 GRADE TRANSITION
- MUNICIPAL ROAD
- MUNICIPAL ROAD
- PROPOSED STRUCTURE
- PROPOSED LAND BRIDGE
- CROSSING ALTERNATIVE A
- CROSSING ALTERNATIVE B
- CROSSING ALTERNATIVE C
- CROSSING ALTERNATIVE C1
- CROSSING ALTERNATIVE C2
- - - POTENTIAL PLAZA BOUNDARY
- Ⓐ PLAZA IDENTIFIER
- ▒ U.S. BOUND TRAFFIC
- ▒ CANADA BOUND TRAFFIC

- AQUATIC HABITAT
- - - MUNICIPAL BOUNDARIES
- ● APPROXIMATE LIMIT OF AREA OF CONTINUED ANALYSIS
- - - ANALYSIS ENVELOPE
- ANSI AREA
- ENVIRONMENTALLY SENSITIVE AREA
- WETLANDS AREA

- 🏫 SCHOOL
- 🏠 PLACE OF WORSHIP
- 🌳 PARK OR RECREATIONAL AREA
- 🚶 TRAIL
- 🏛️ MUSEUM
- 📍 NATIONAL HERITAGE SITE
- 🚰 AIR MONITORING STATION
- 🌿 ENVIRONMENTALLY SENSITIVE AREA
- 🌲 ANSI
- 🏠 SENIORS RESIDENCE/ EXTENDED CARE FACILITY
- ⚠️ MOE WELL
- 🔍 BRINE WELL
- 🏭 INDUSTRY RESOURCE SITE
- 🗑️ CLOSED LANDFILL

Plaza Alternative A



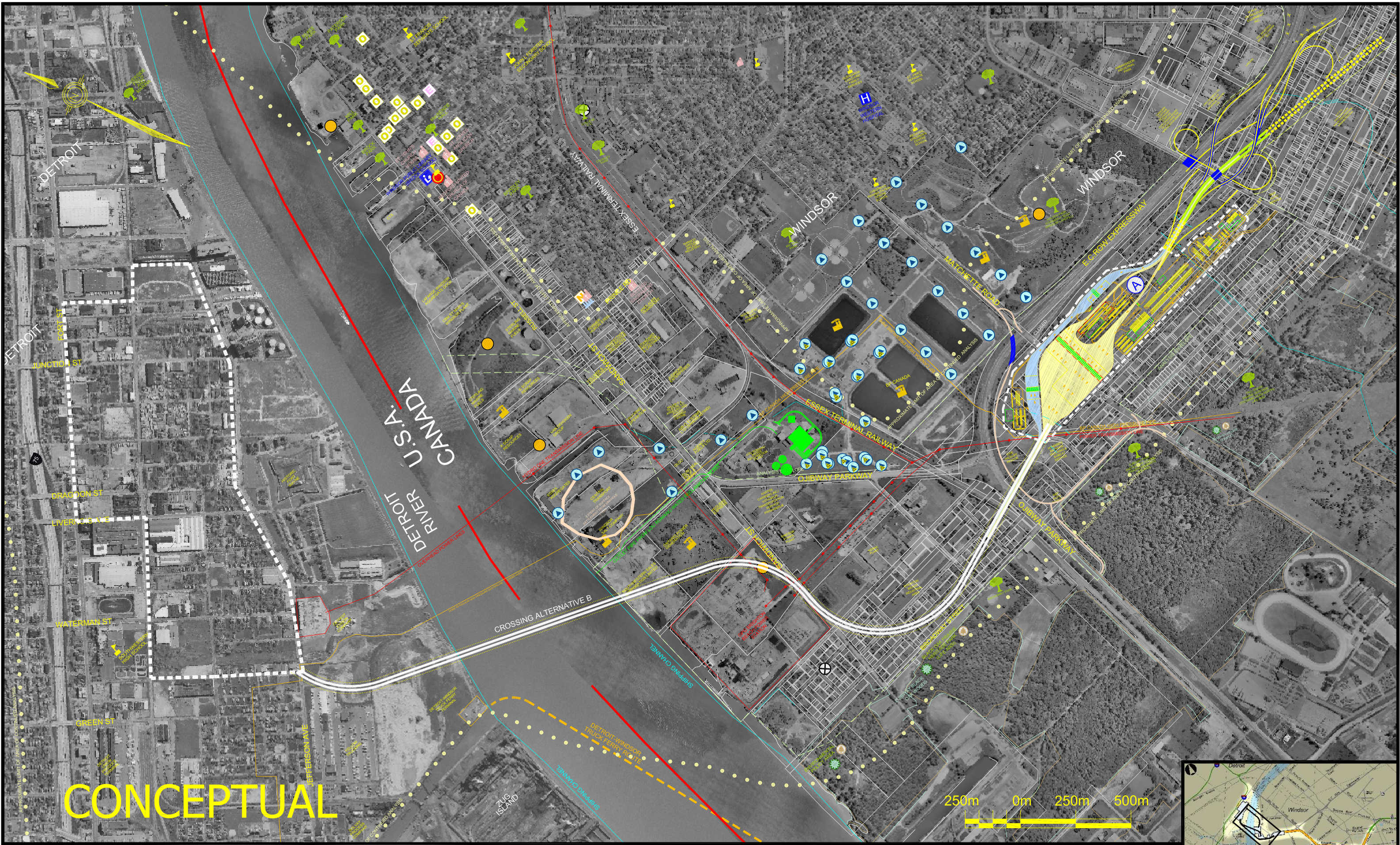
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PLAZA A - CROSSING C

SCALE 1:15 000

NOVEMBER 2006





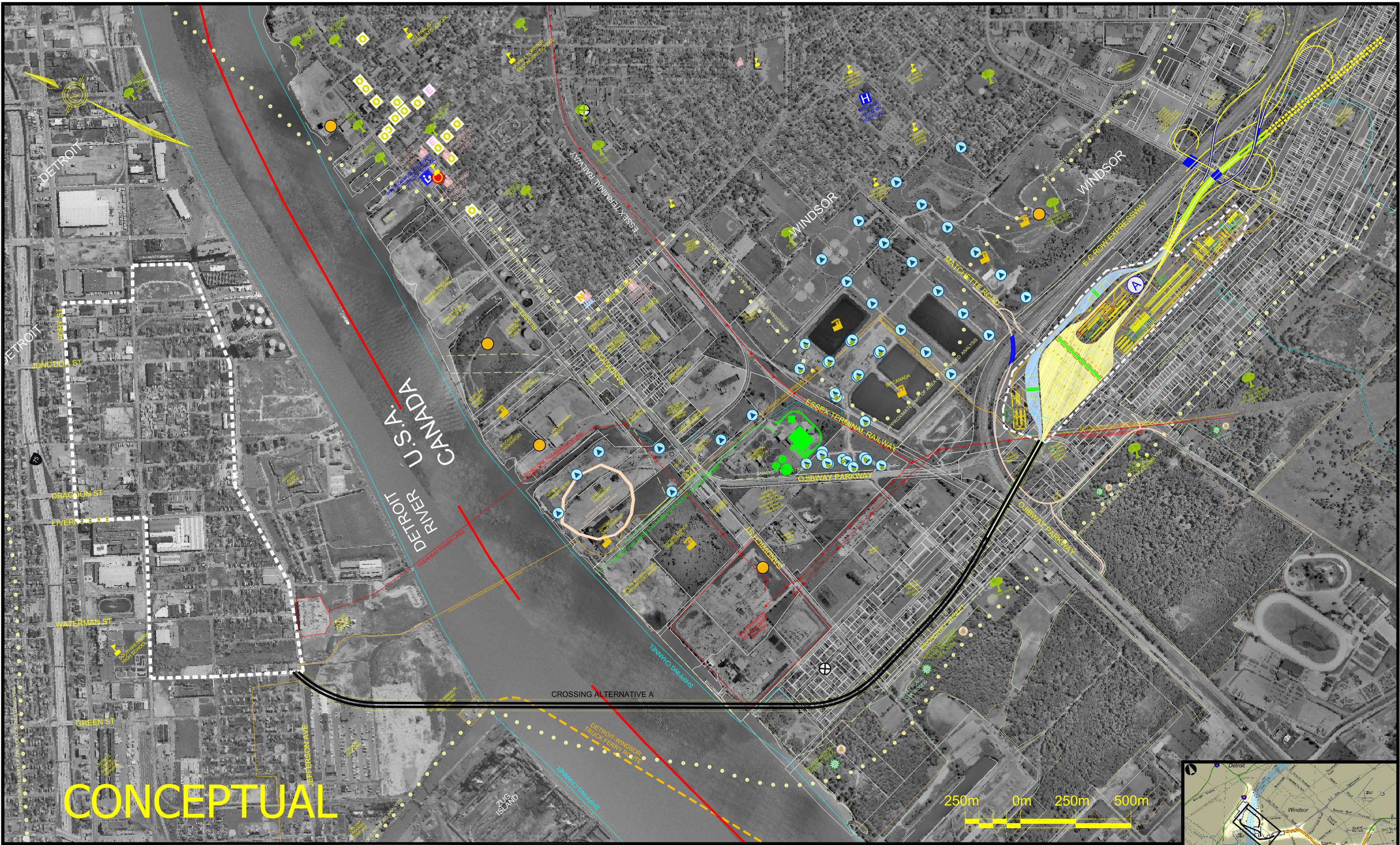
CONCEPTUAL

PLAZA A - CROSSING B

SCALE 1:15 000

NOVEMBER 2006



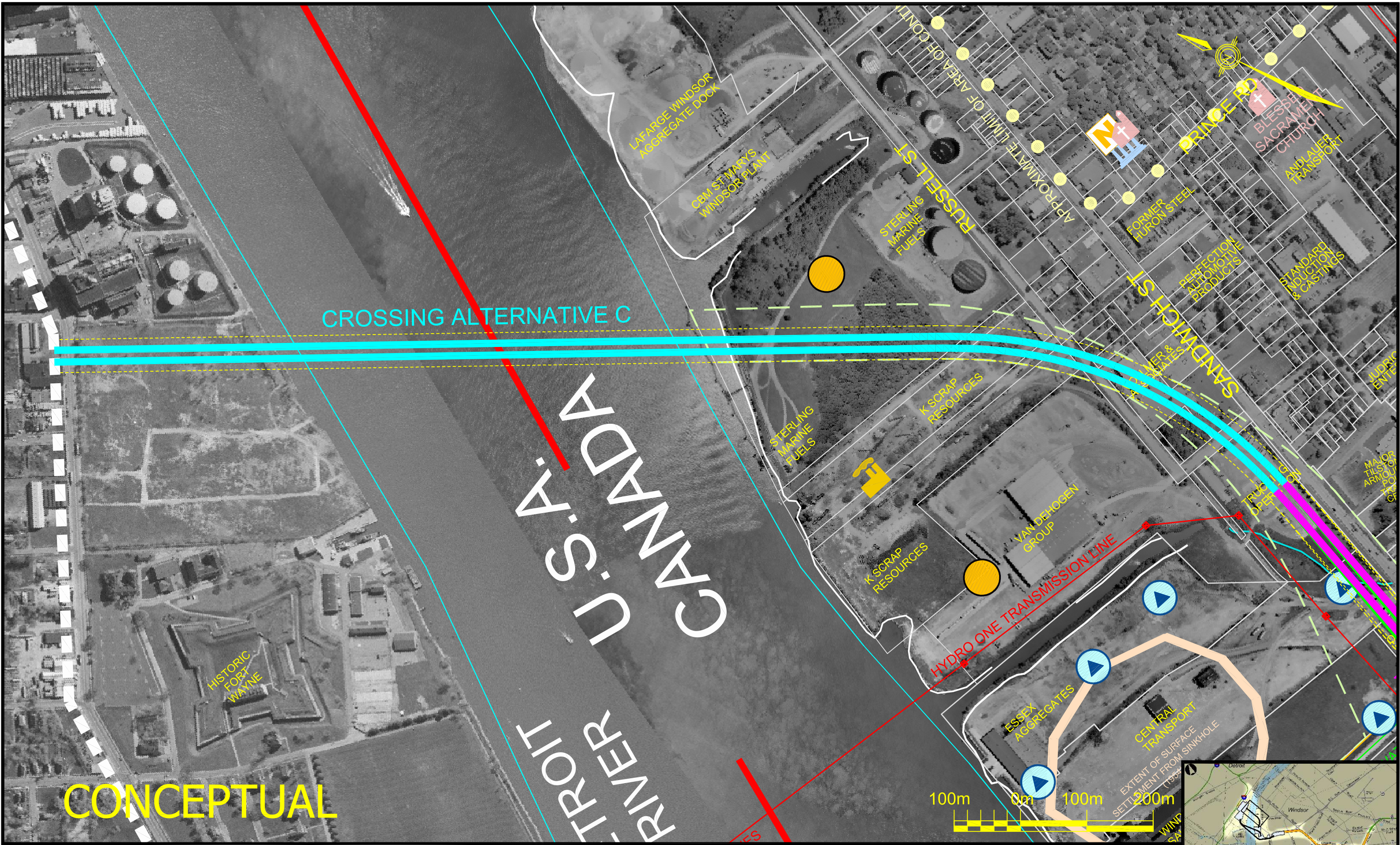


CONCEPTUAL

PLAZA A - CROSSING A

SCALE 1:15 000 NOVEMBER 2006





CONCEPTUAL

CROSSING ALTERNATIVE C

TRILLIUM RIVER
D.S.A.A
CANADA

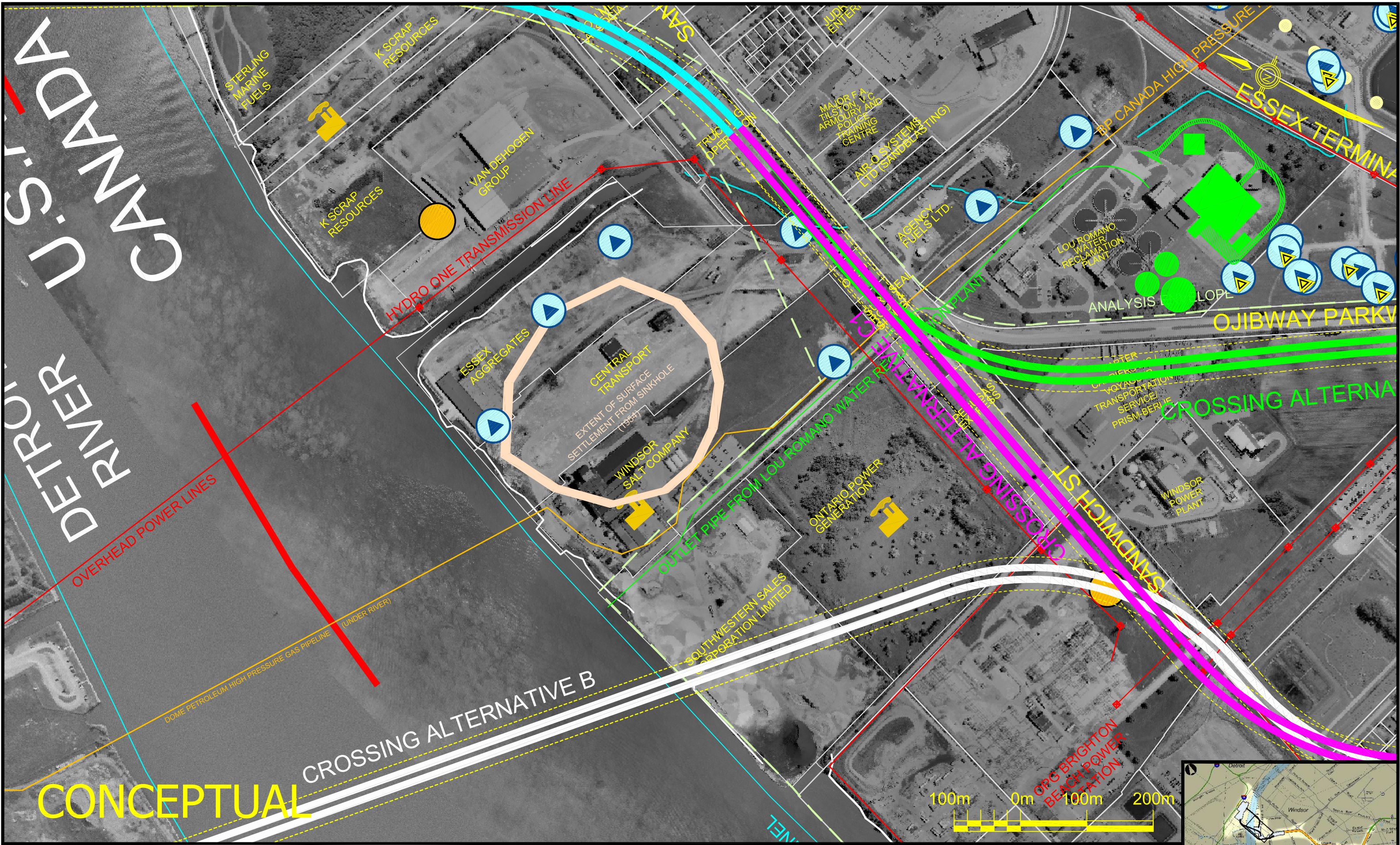


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NOVEMBER 2006

PLAZA A - CROSSING C





DETROIT RIVER
 CANADA
 U.S.A

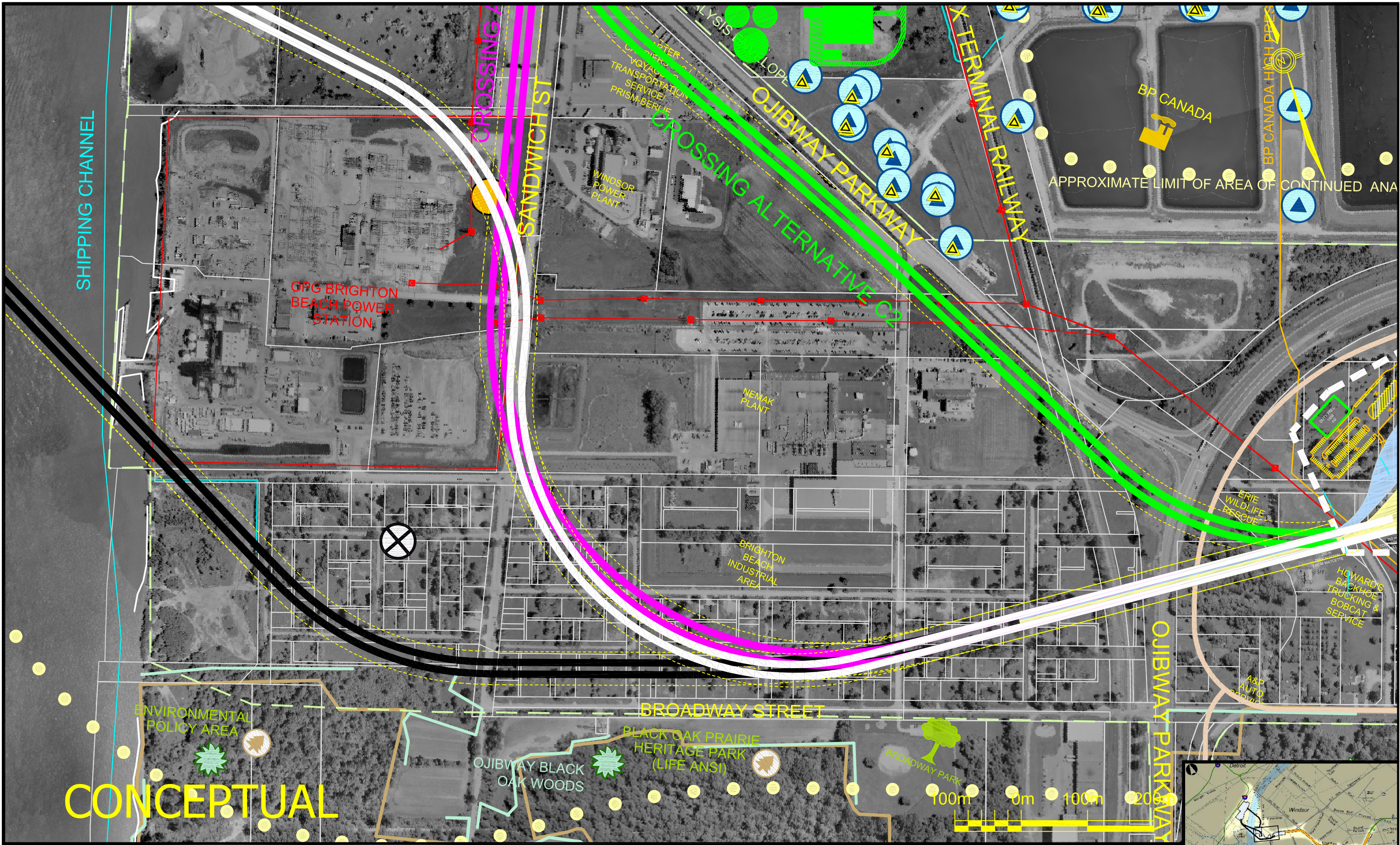
CONCEPTUAL

PLAZA A - CROSSINGS B & C

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NOVEMBER 2006





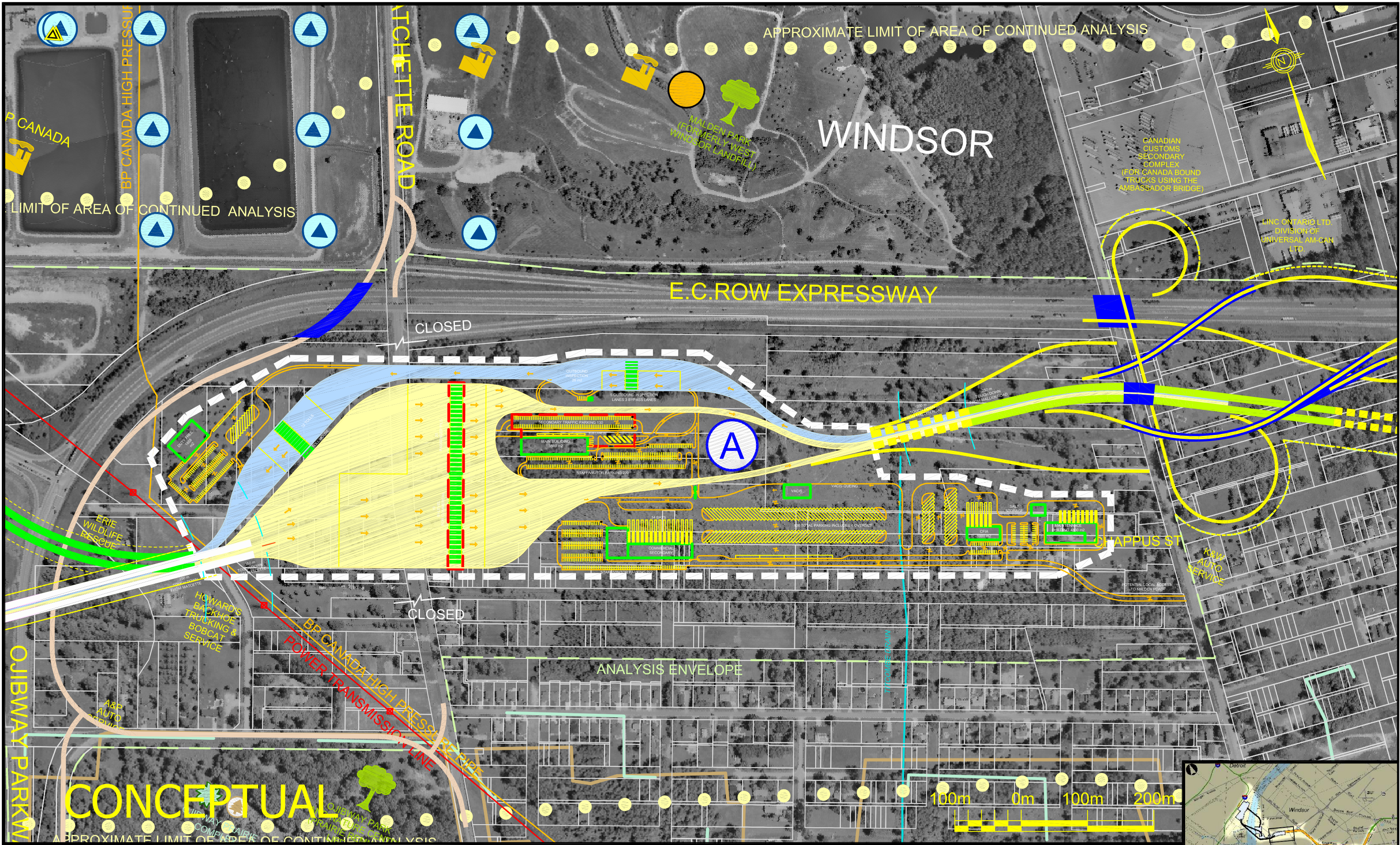
CONCEPTUAL

PLAZA A - CROSSINGS A, B & C

SCALE 1:5000

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CONCEPTUAL

PLAZAA

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APPROXIMATE LIMIT OF AREA OF CONTINUED ANALYSIS

WINDSOR

E.C.ROW EXPRESSWAY

A

STAPPUS ST

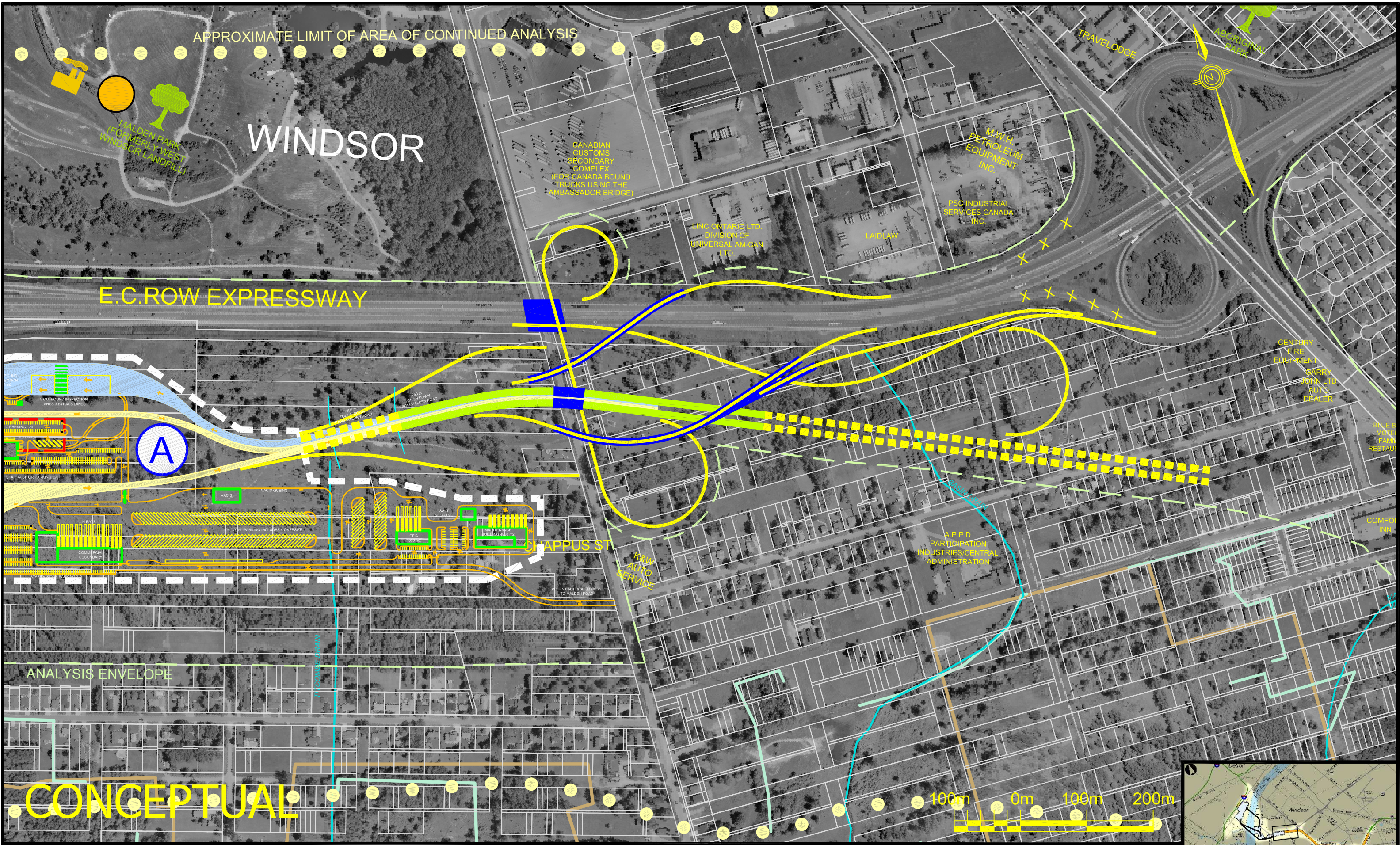
ANALYSIS ENVELOPE

CONCEPTUAL

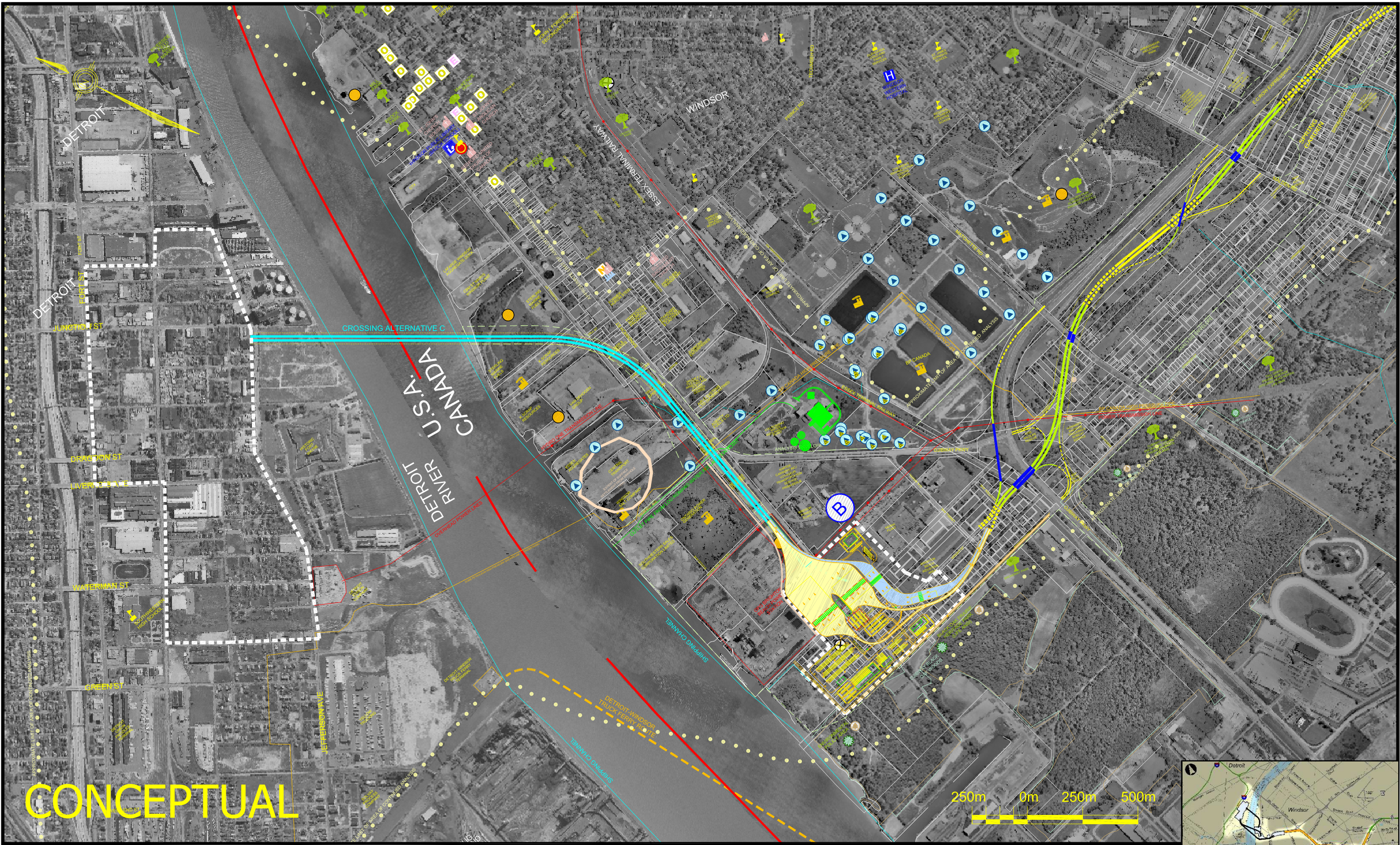
PLAZA A

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Plaza Alternatives B & B1



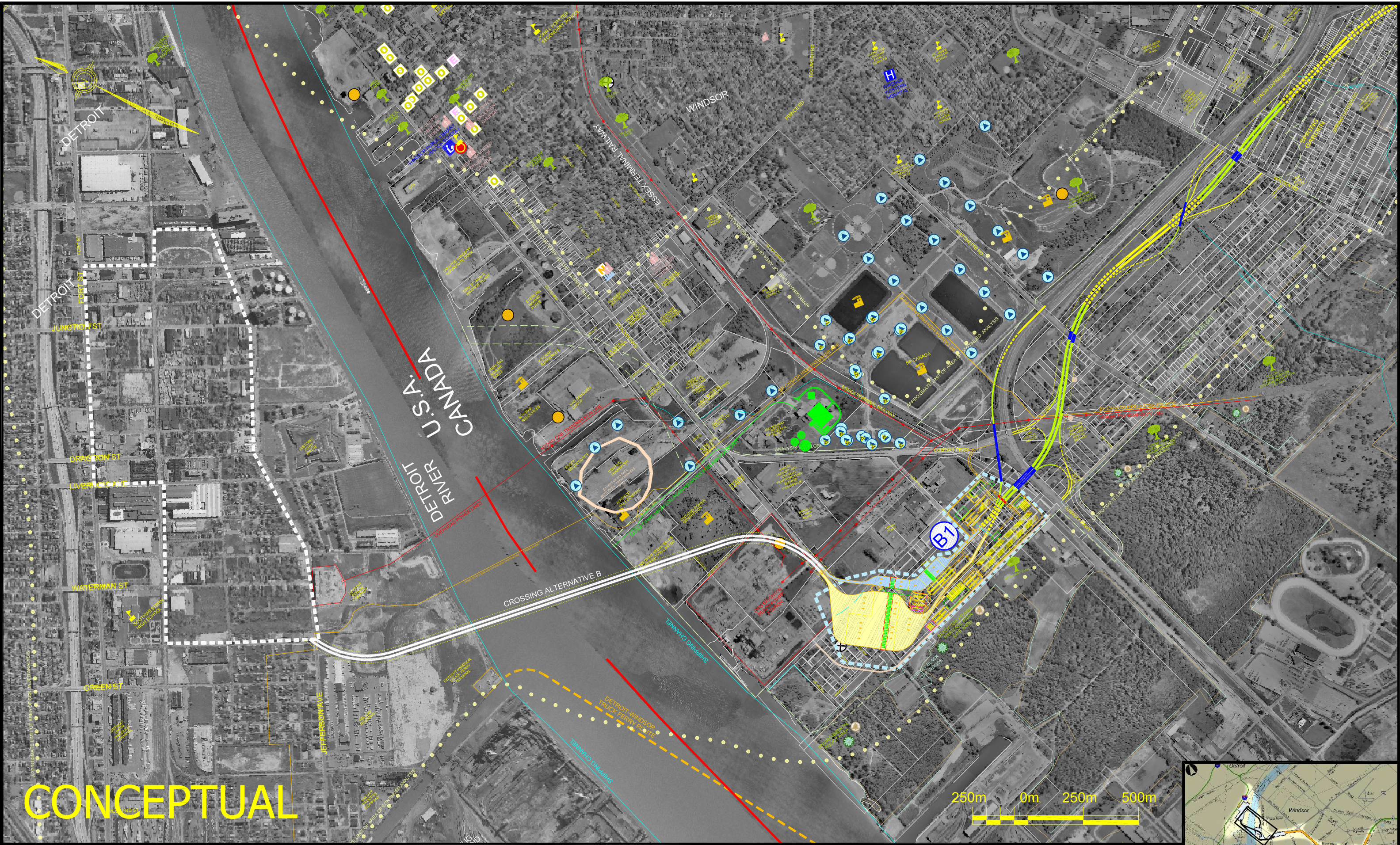
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PLAZA B - CROSSING C

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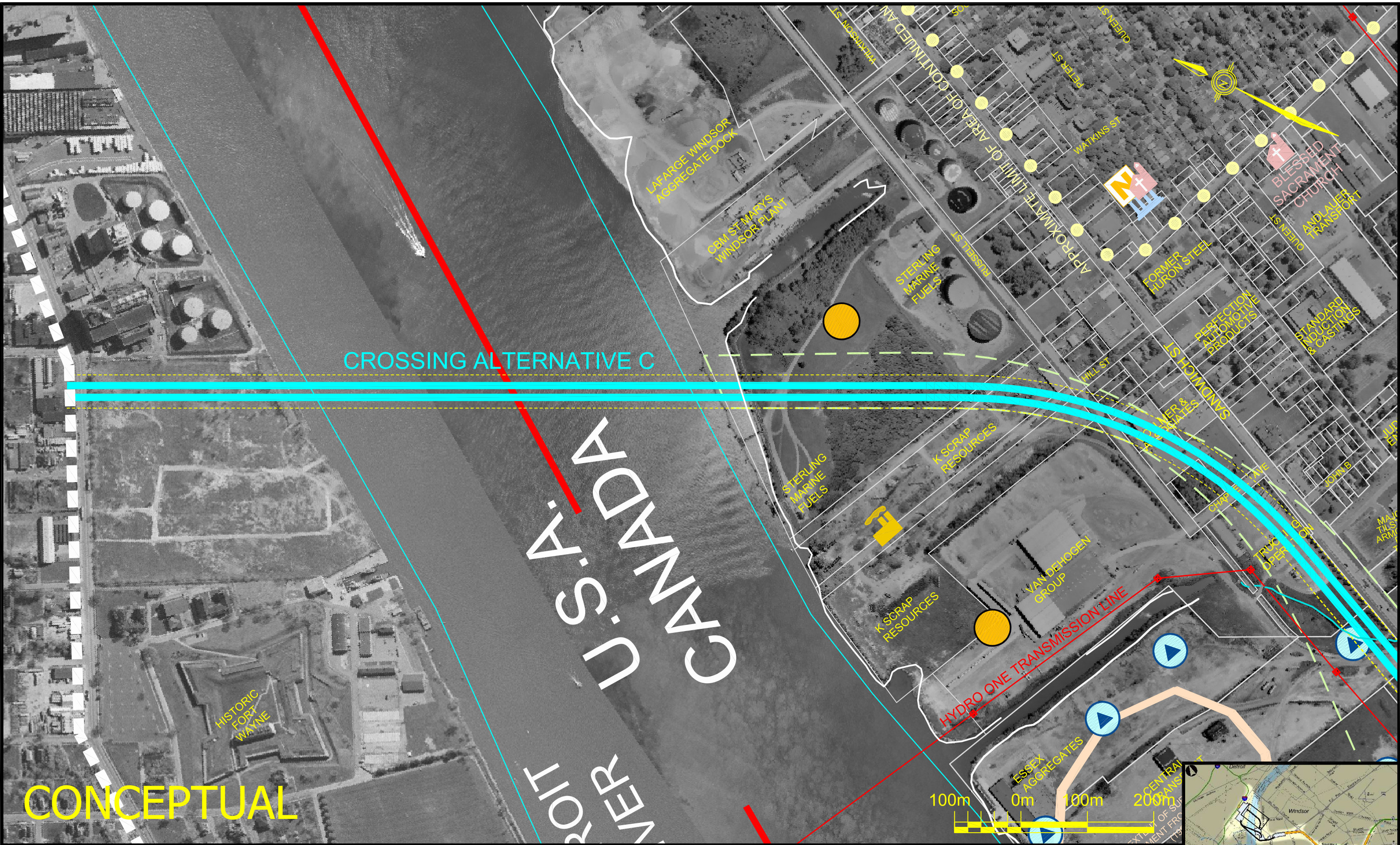
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PLAZA B1 - CROSSING B

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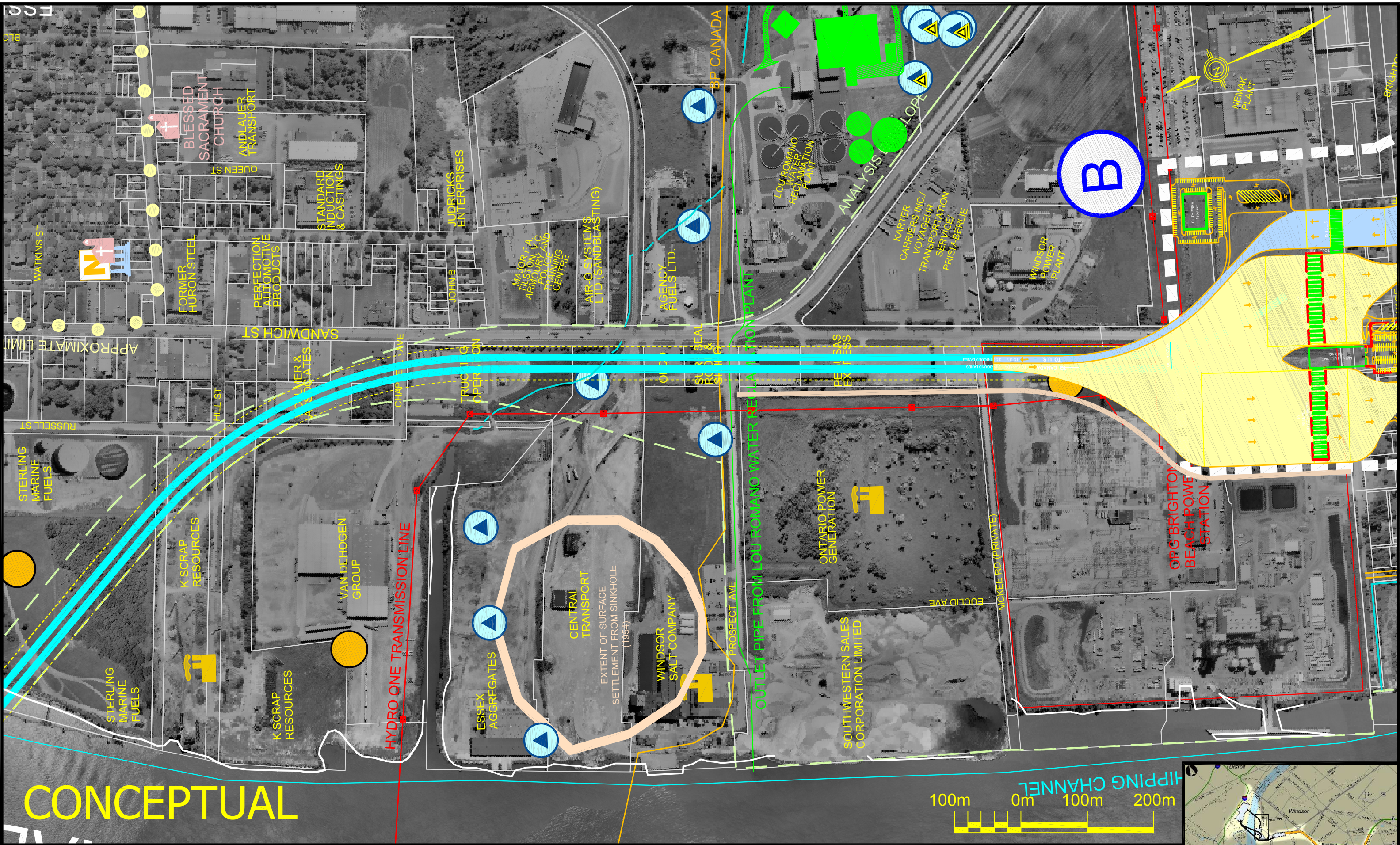
CONCEPTUAL

PLAZA B - CROSSING C

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CONCEPTUAL

PLAZA B - CROSSING C

SCALE 1:5000

NOVEMBER 2006



SHIPPING CHANNEL

EUCLEID AV

MCKEE RD (PRIVATE)

OPG BRIGHTON BEACH POWER STATION

B

WINDSOR POWER PLANT

OFFICE CARRIERS INC / VOYAGEUR TRANSPORTATION SERVICE / PRISM-BERLIE

NEMAK PLANT

FERMINAL RAILWAY

APPROXIMATE LIMIT OF AREA OF CO

BP CANADA

BP CANADA HIGH

OJIBWAY PKWY

LINSSELL AVE

SCOTTEN AVE

ERIE WILDLIFE RESCUE

BRIGHTON BEACH INDUSTRIAL AREA

WRIGHT ST

BROADWAY ST

OJIBWAY

ENVIRONMENTAL POLICY AREA

OJIBWAY BLACK OAK WOODS

BLACK OAK PRAIRIE HERITAGE PARK (LIFE ANSI)

BROADWAY PARK

CONCEPTUAL

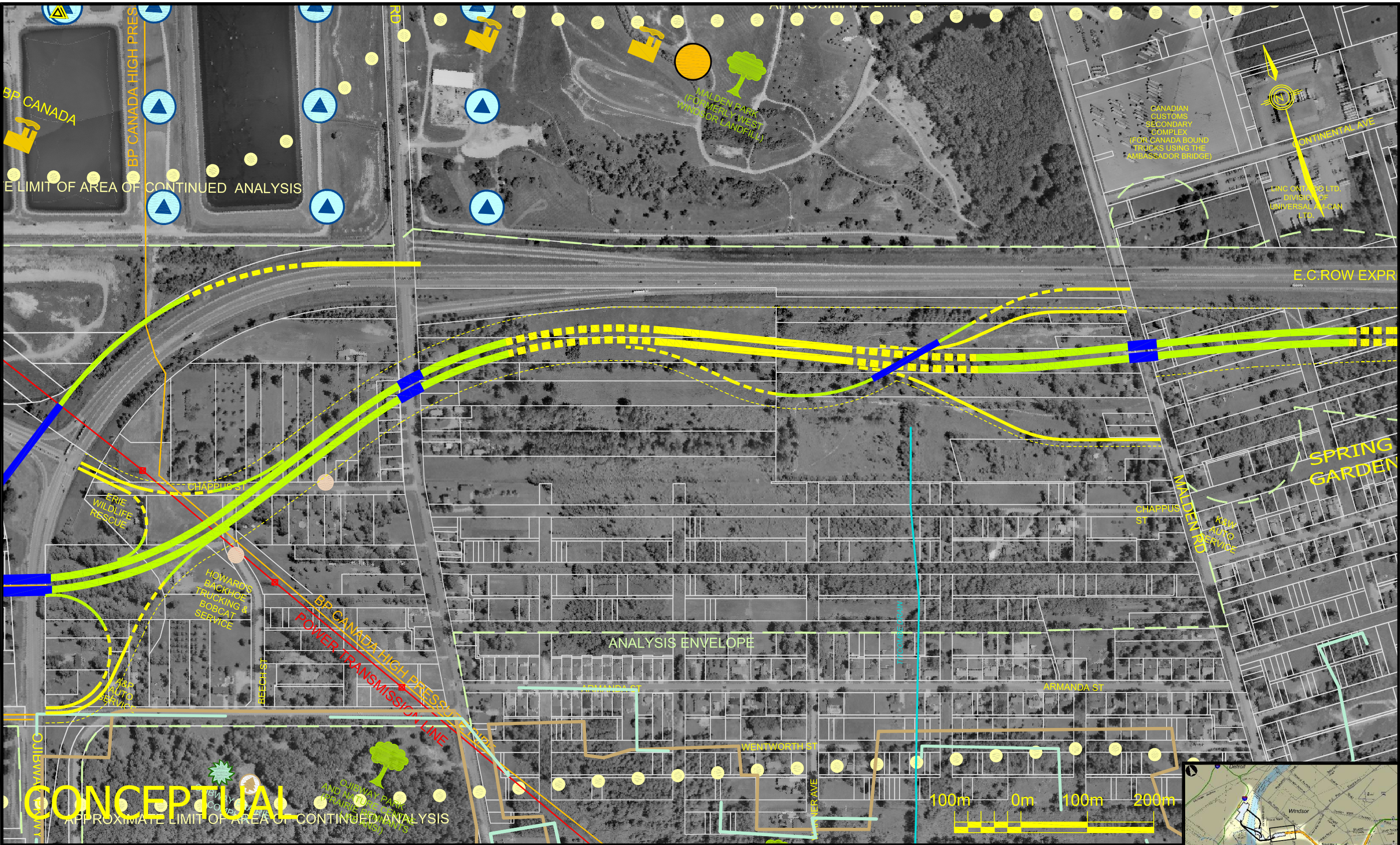
100m 0m 100m 200m



PLAZA B

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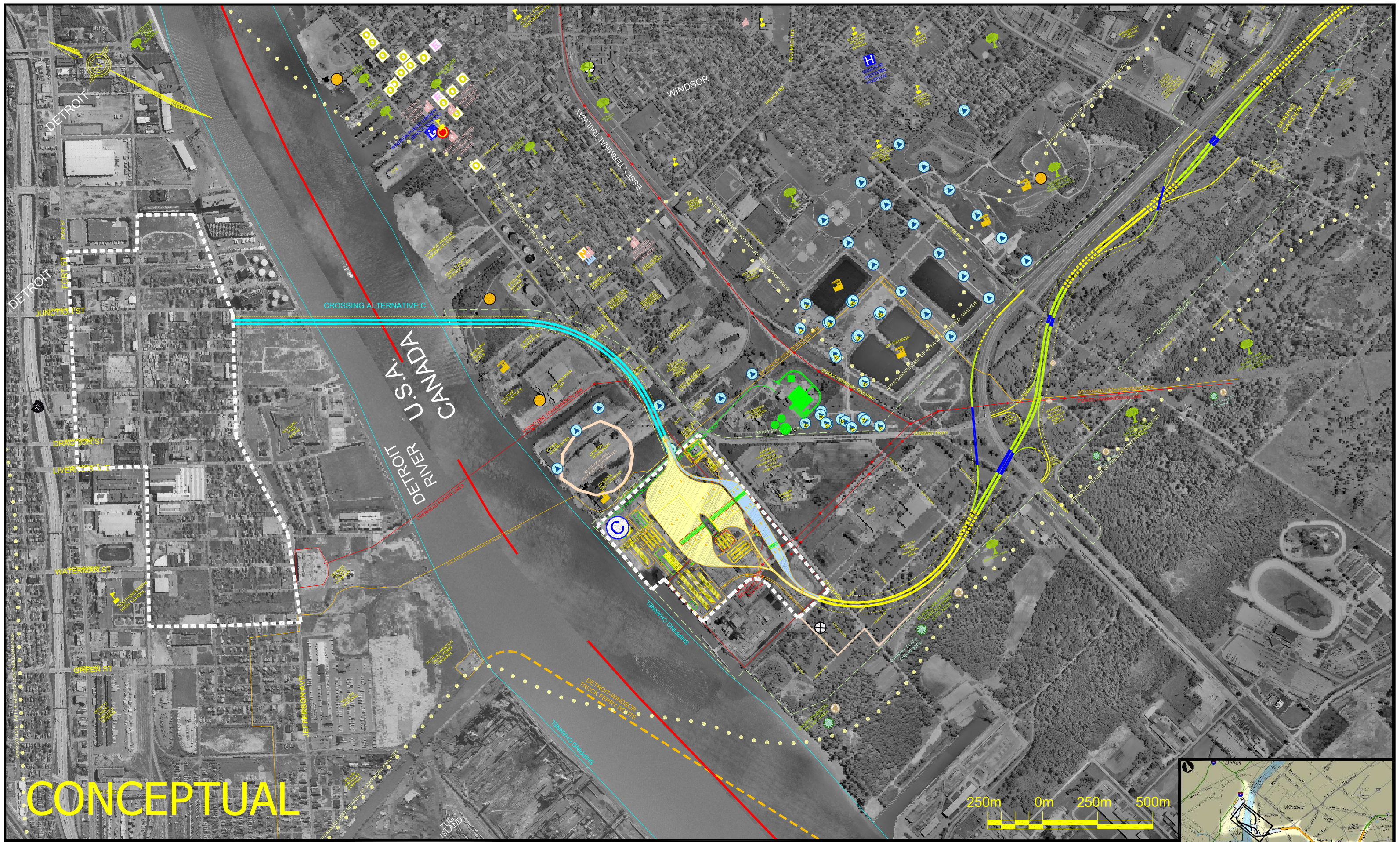
PLAZA B & B1

SCALE 1:5000

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Plaza Alternative C



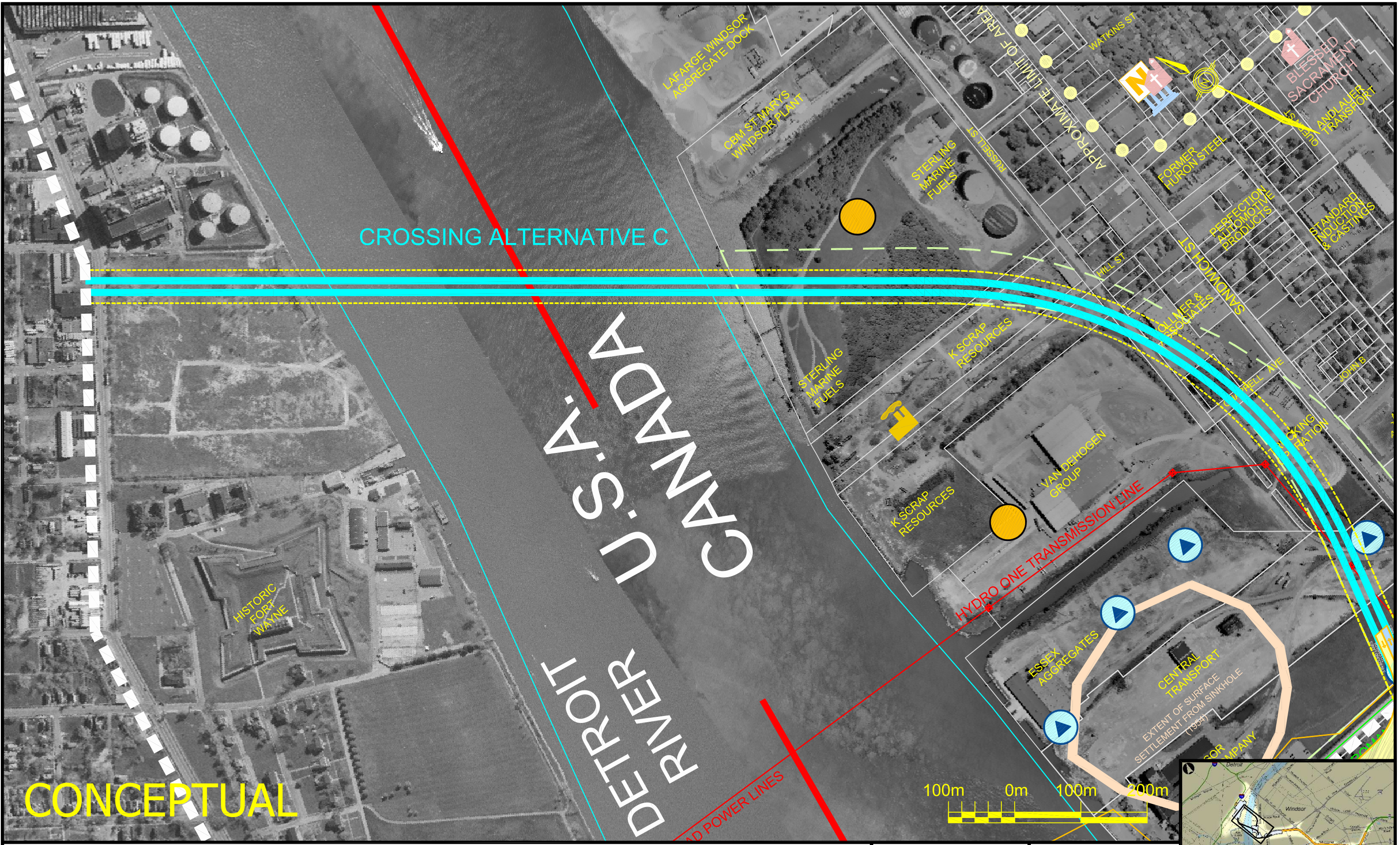
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PLAZA C - CROSSING C

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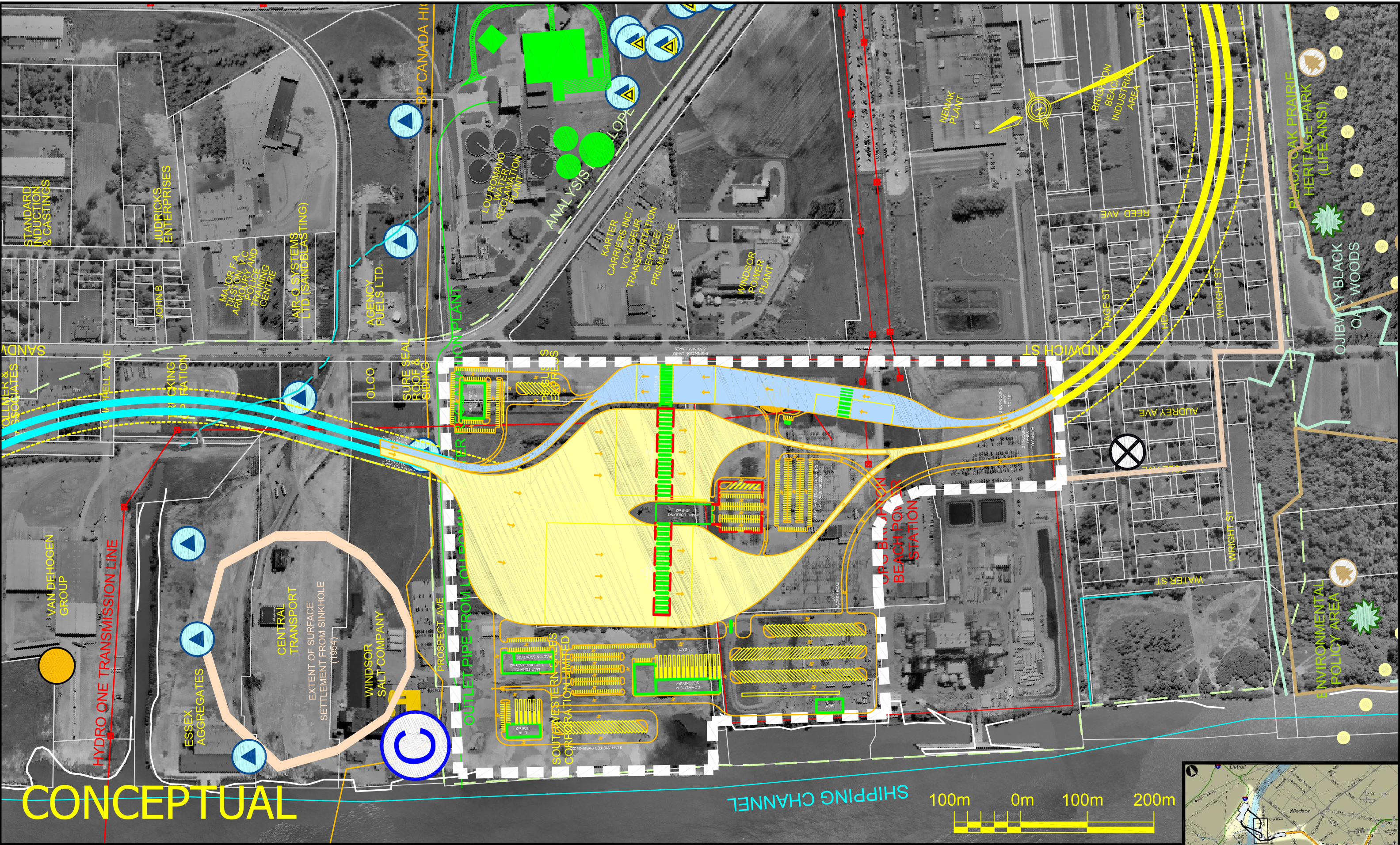
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PLAZA C - CROSSING C

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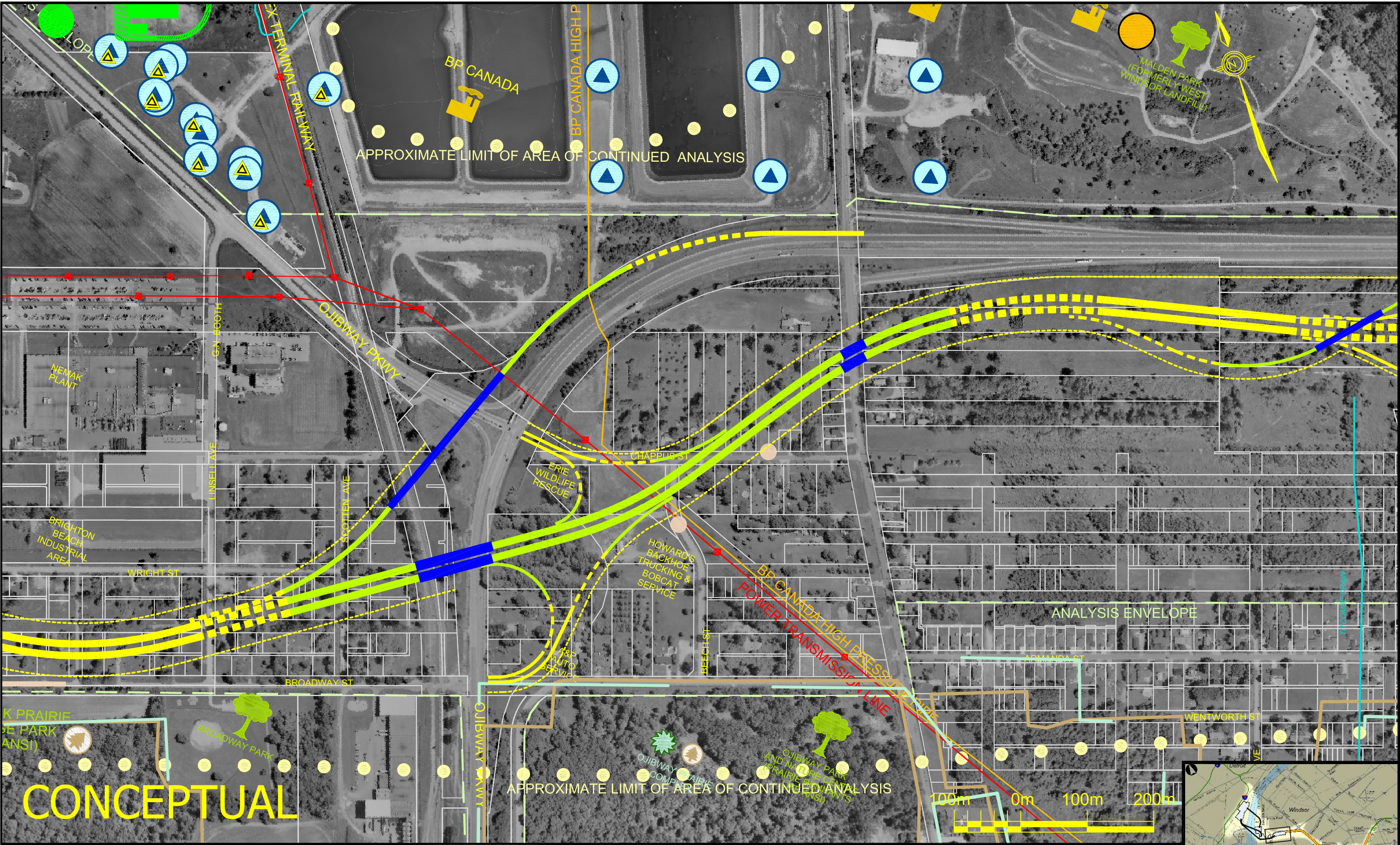
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PLAZA C

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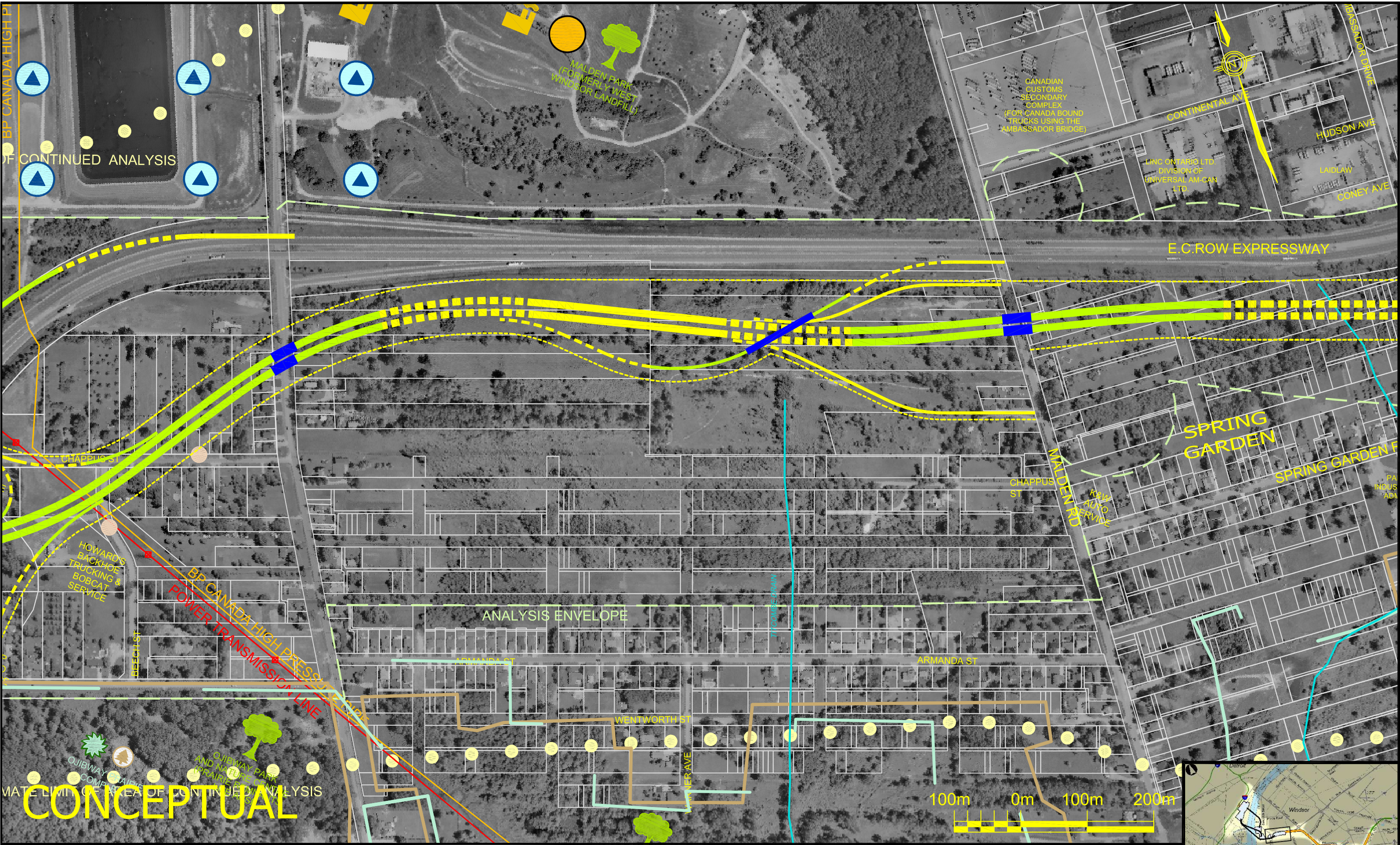


PLAZA C

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PLAZA C

SCALE 1:5000

NOVEMBER 2006



CONCEPTUAL

AREA OF CONTINUED ANALYSIS

ANALYSIS ENVELOPE

BP CANADA HIGH PRESSURE POWER TRANSMISSION LINE

E.C. ROW EXPRESSWAY

SPRING GARDEN

MALDEN PARK (FORMERLY WEST WINDSOR LANDFILL)

CANADIAN CUSTOMS SECONDARY COMPLEX (FOR CANADA BOUND TRUCKS USING THE AMBASSADOR BRIDGE)

LING ONTARIO LTD. DIVISION OF UNIVERSAL AM-CAN LTD.

HOWARD'S BACKHOE TRUCKING & BOBCAT SERVICE

OUTER LIMIT OF AREA OF CONTINUED ANALYSIS

BP CANADA HIGH PRESSURE POWER TRANSMISSION LINE

AMBASSADOR DRIVE

CONTINENTAL AVE

HUDSON AVE

LIDLAW

CONEY AVE

CHAPPUS ST

MALDEN DR

SPRING GARDEN F

ARMANDA ST

ARMANDA ST

WENTWORTH ST

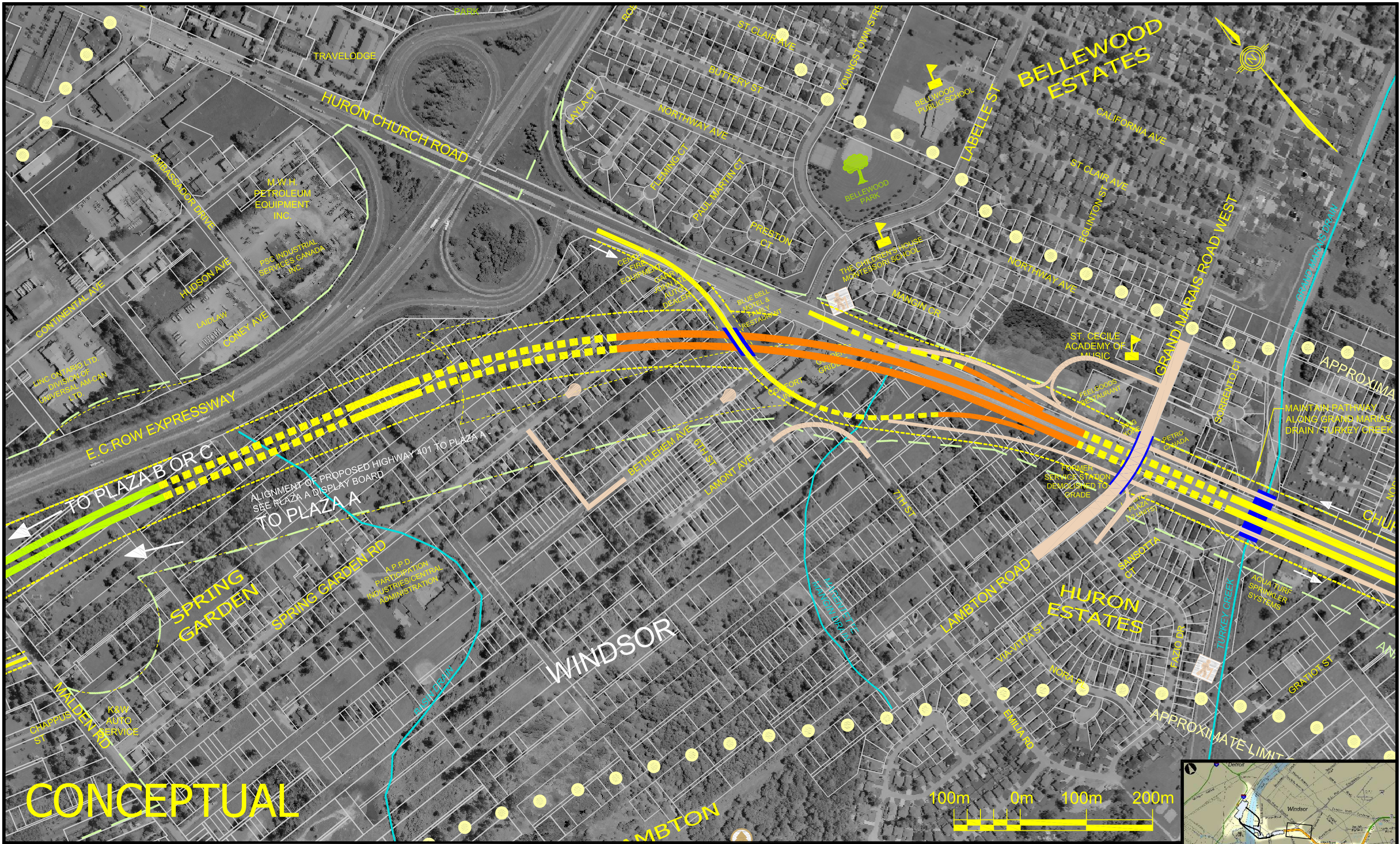
WENTWORTH ST

BEECH ST

TACUMSEH

100m 0m 100m 200m

Access Road Alternative 1A

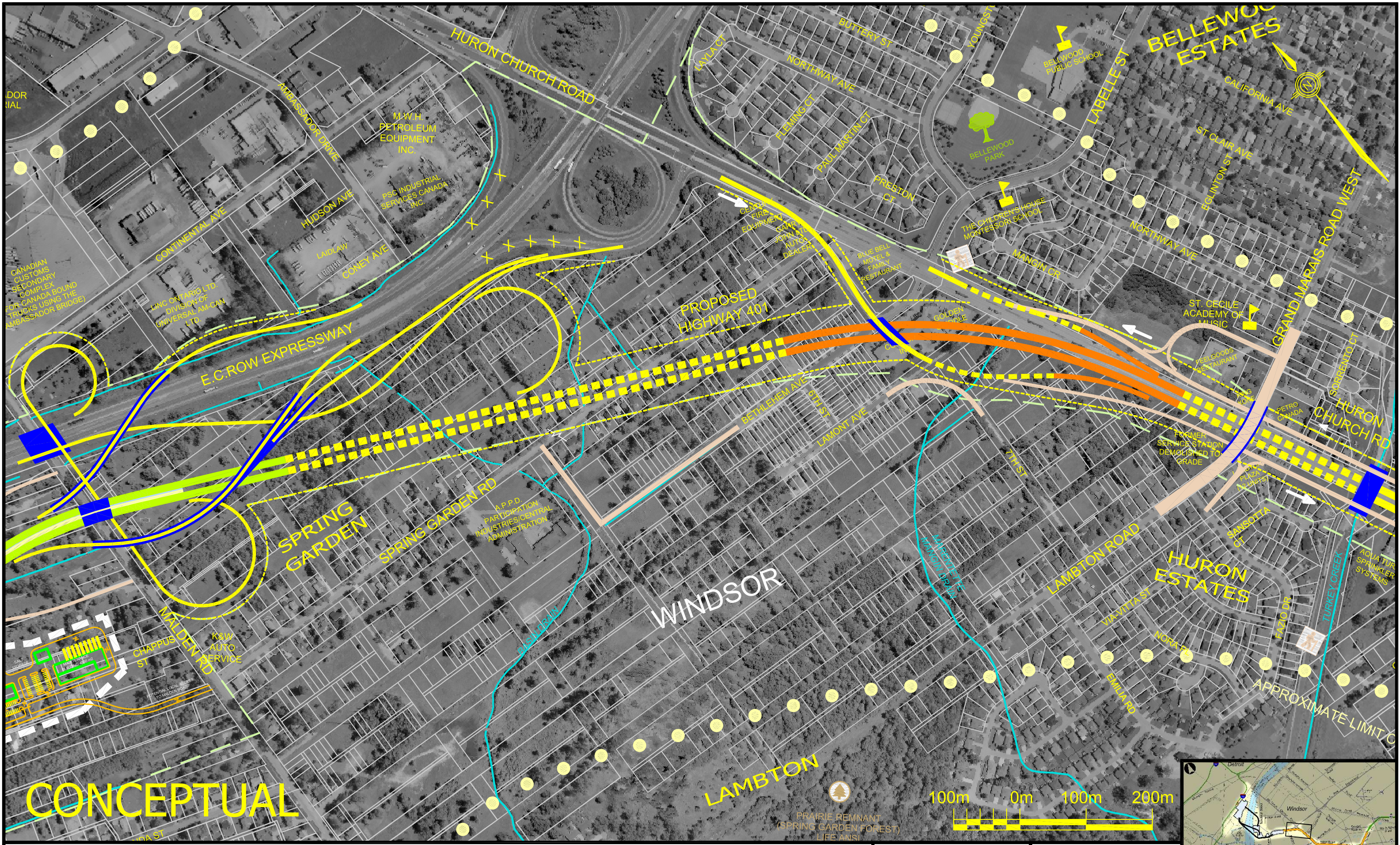


ACCESS ROAD ALTERNATIVE 1A

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NOVEMBER 2006





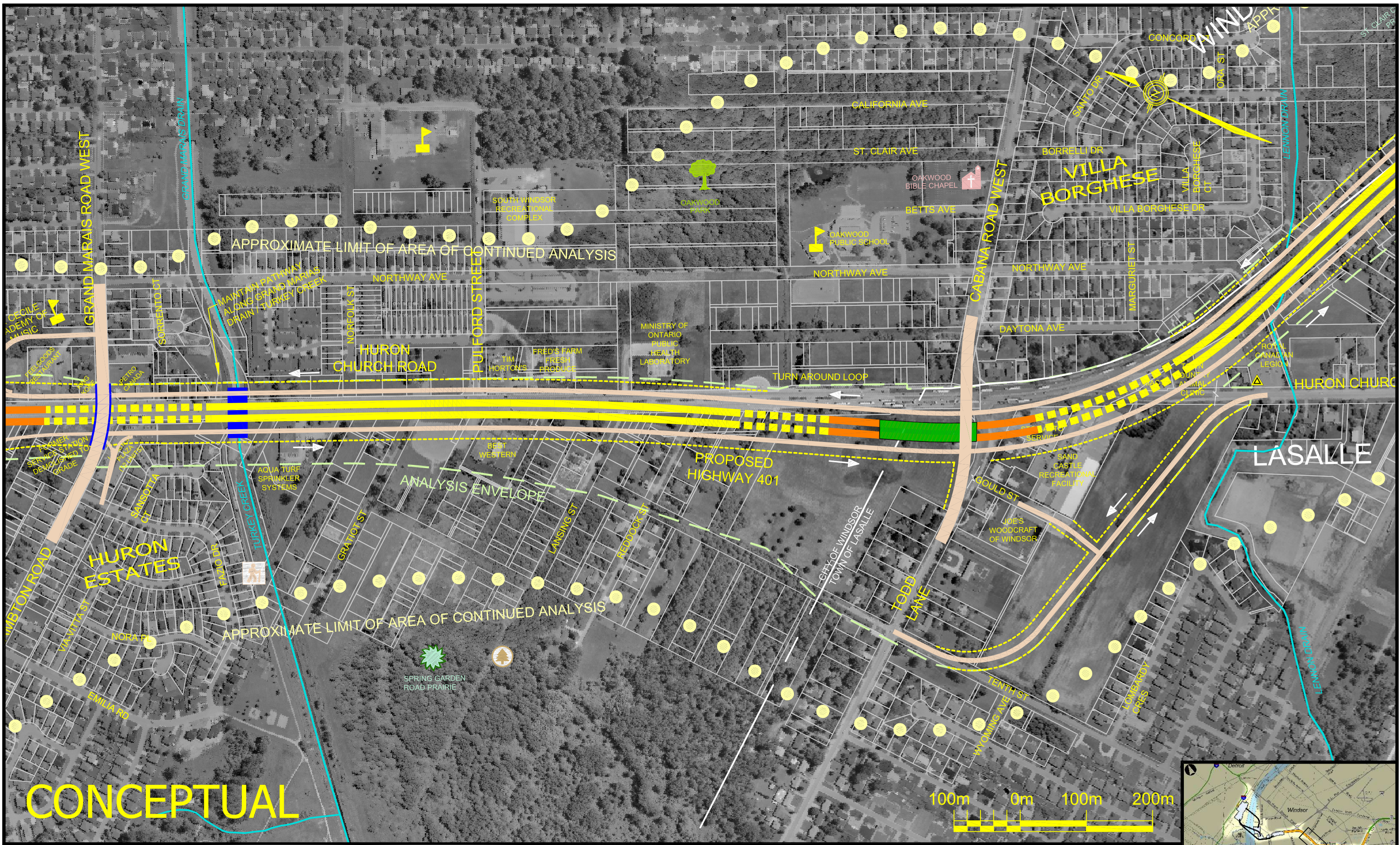
CONCEPTUAL

PLAZA A - ACCESS ROAD ALTERNATIVE 1A

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NOVEMBER 2006





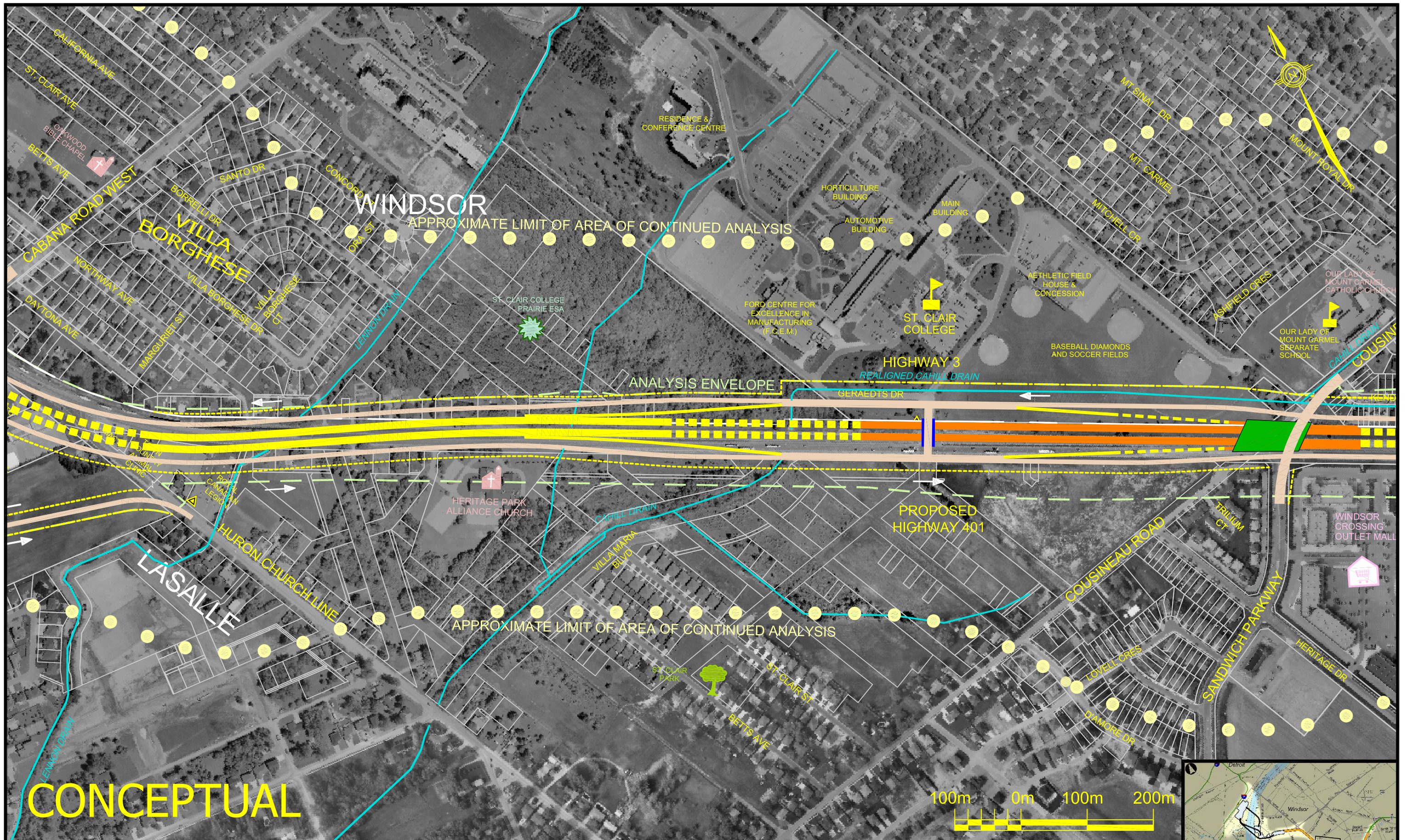
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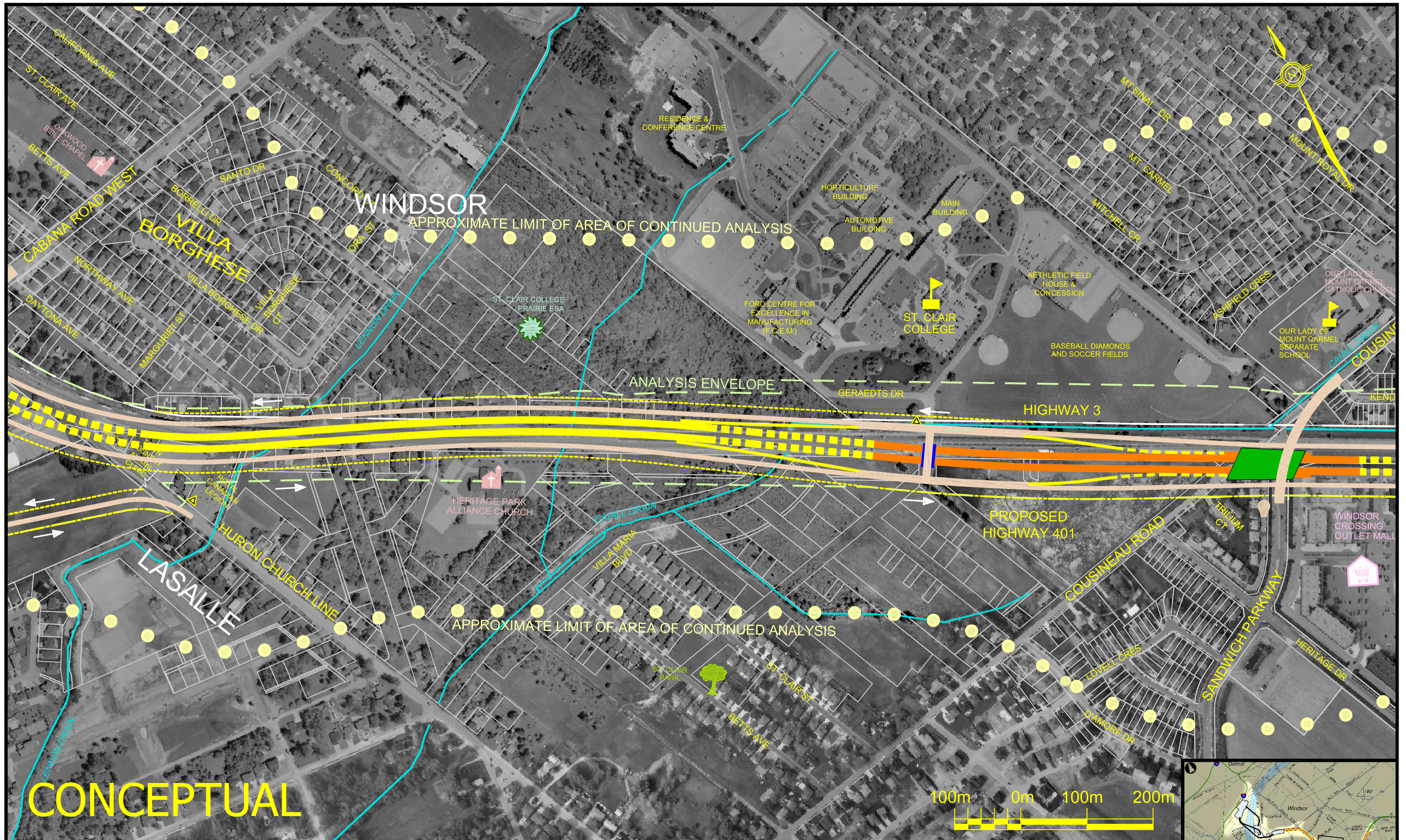


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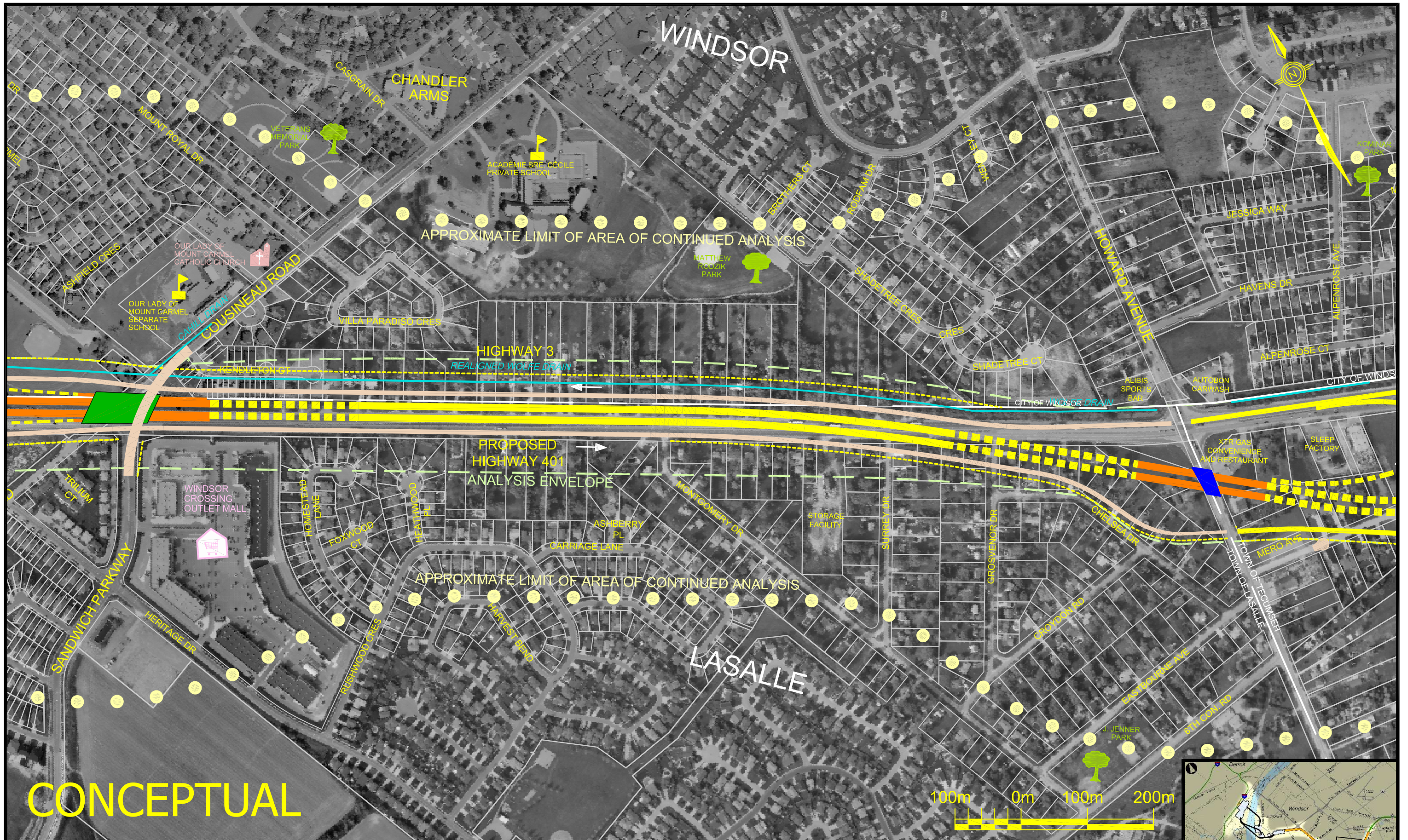
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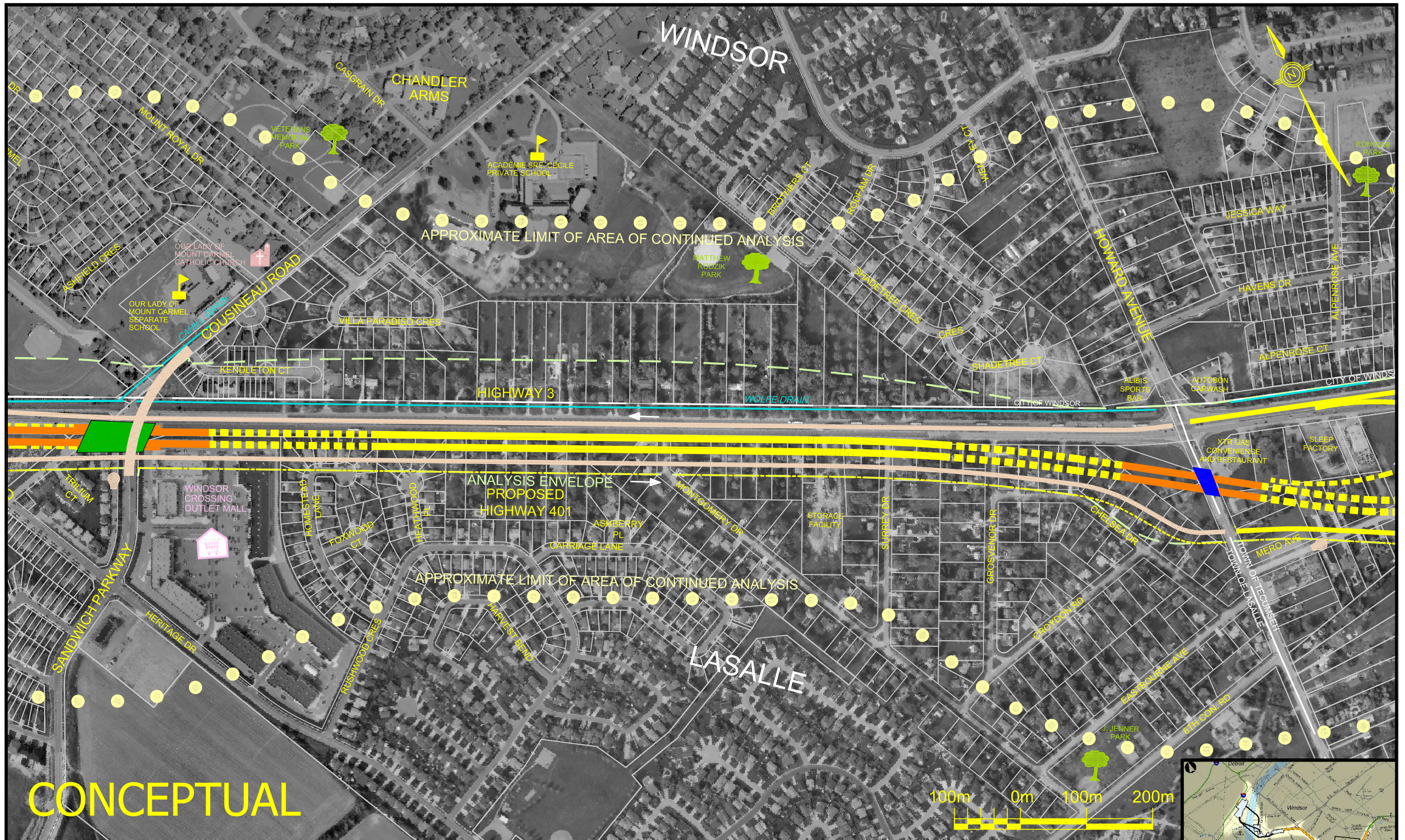


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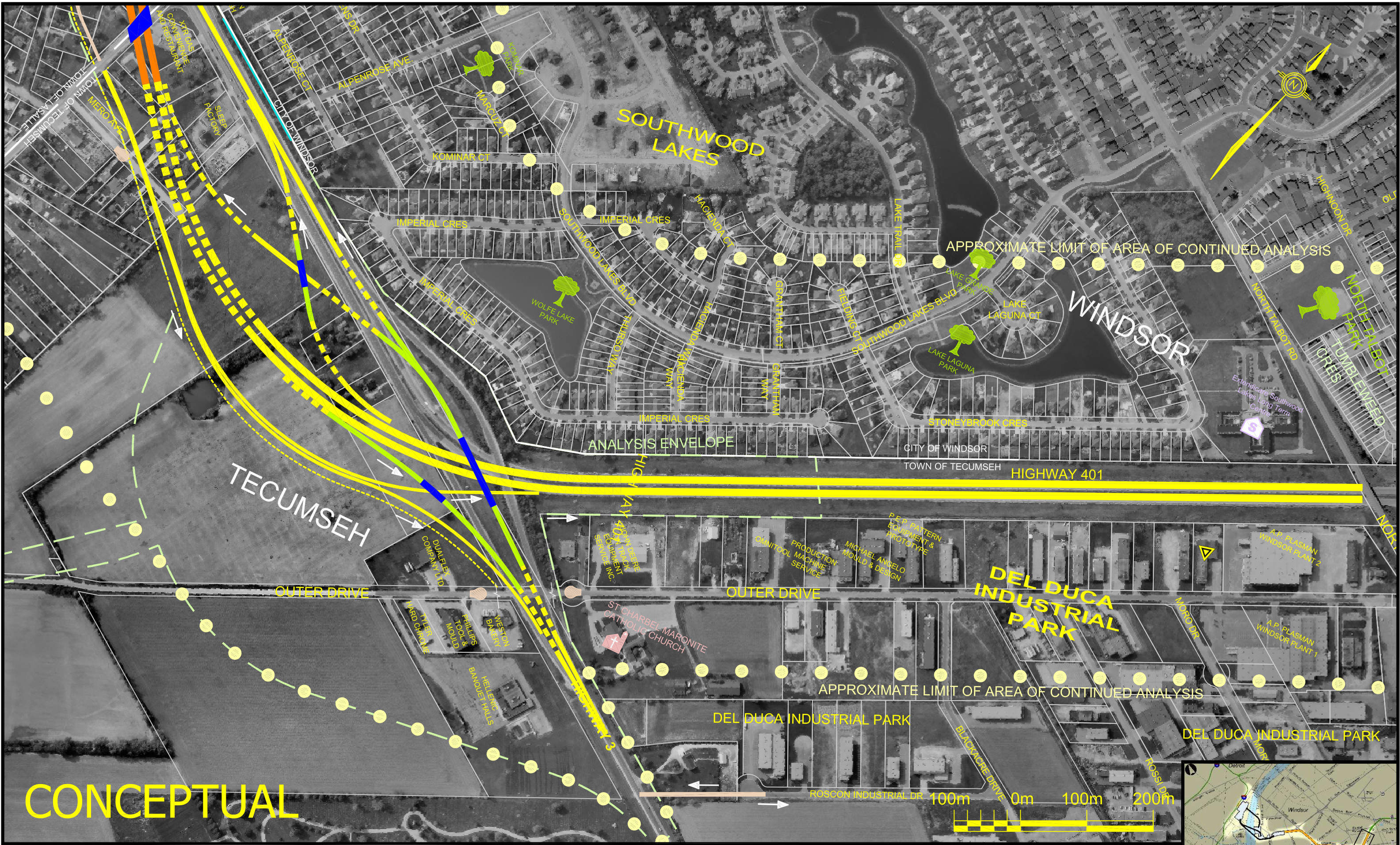


ACCESS ROAD ALTERNATIVE 1A - OPTION 2

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ACCESS ROAD ALTERNATIVE 1A

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Access Road Alternative 1B



ACCESS ROAD ALTERNATIVE 1B

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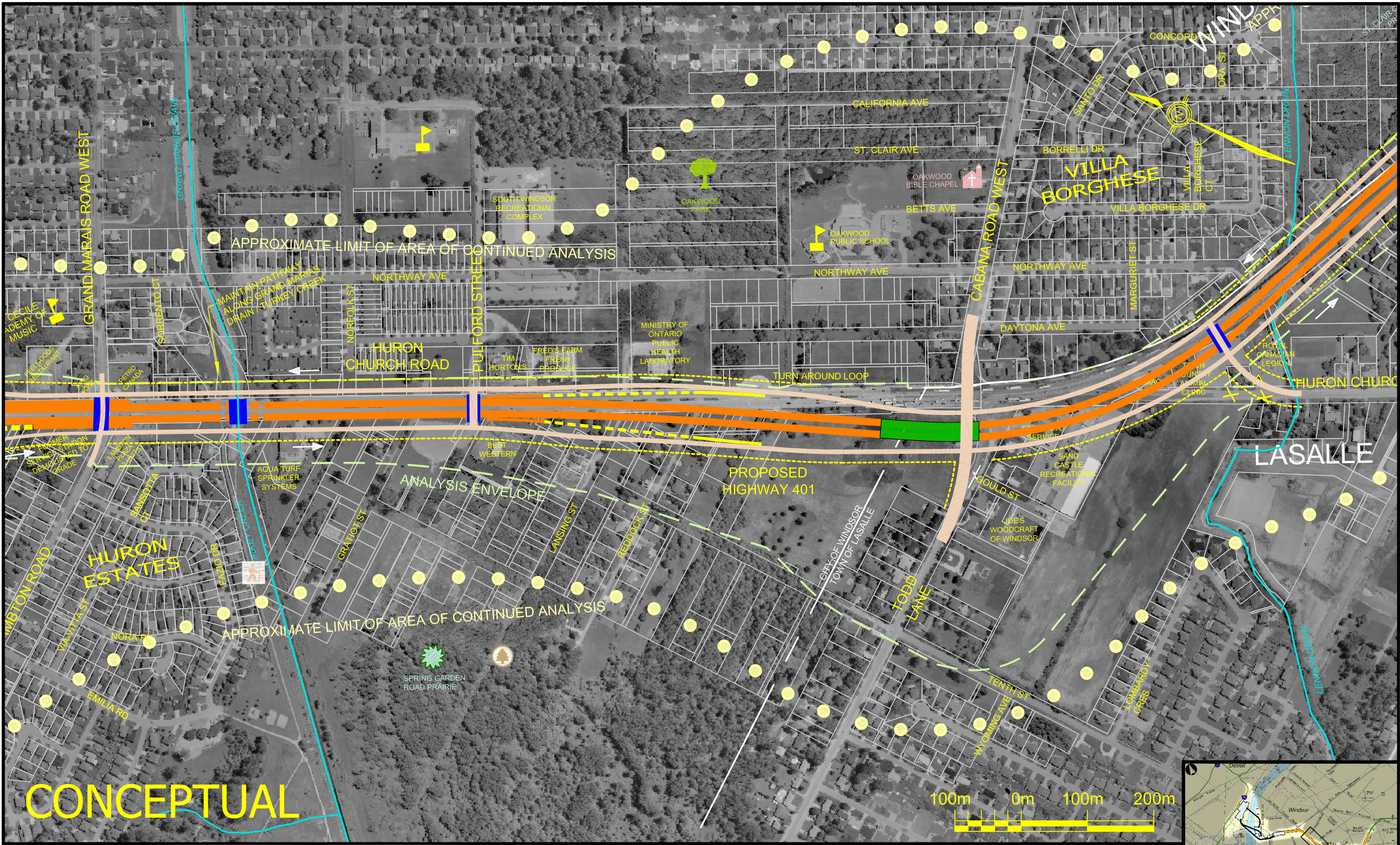
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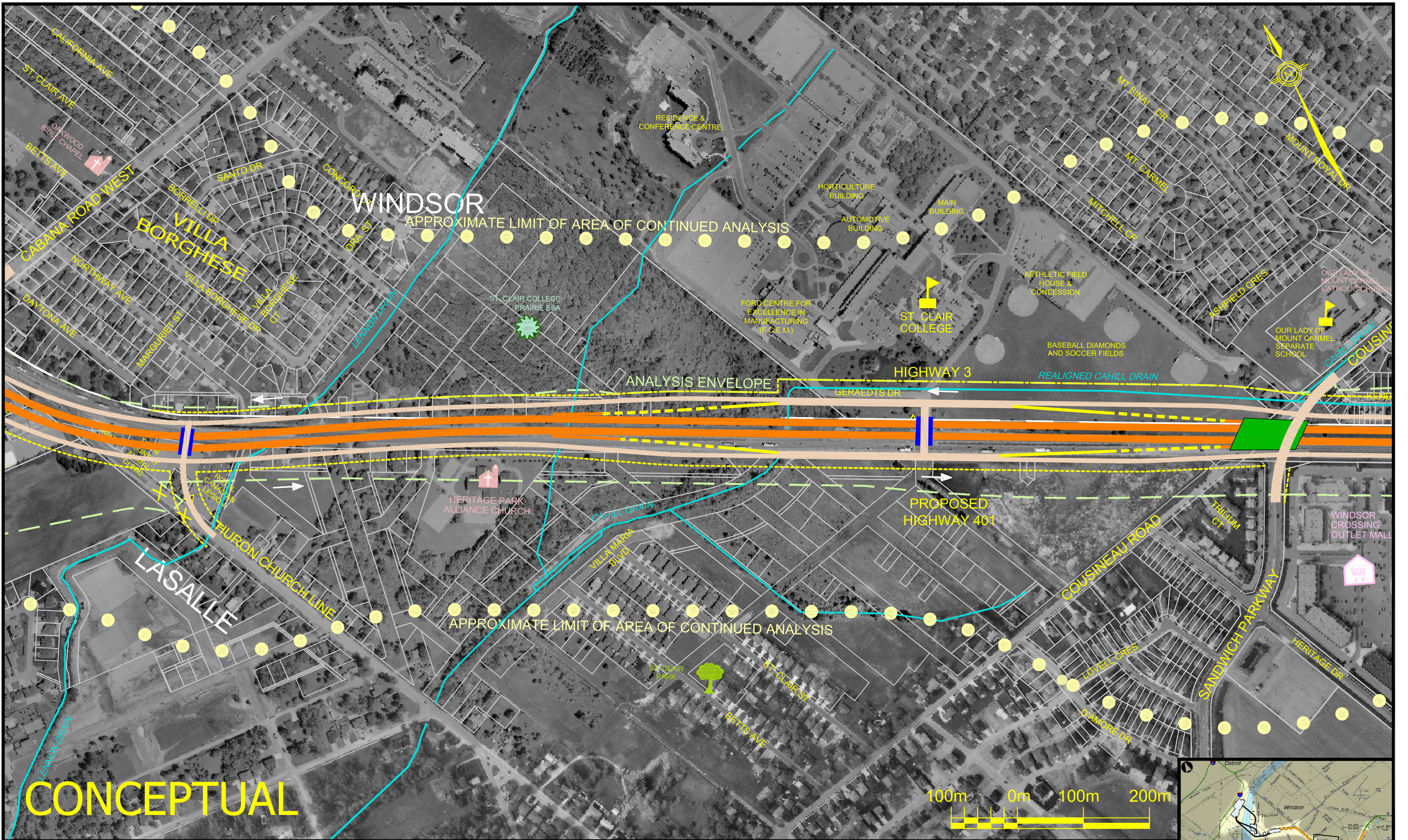


ACCESS ROAD ALTERNATIVE 1B

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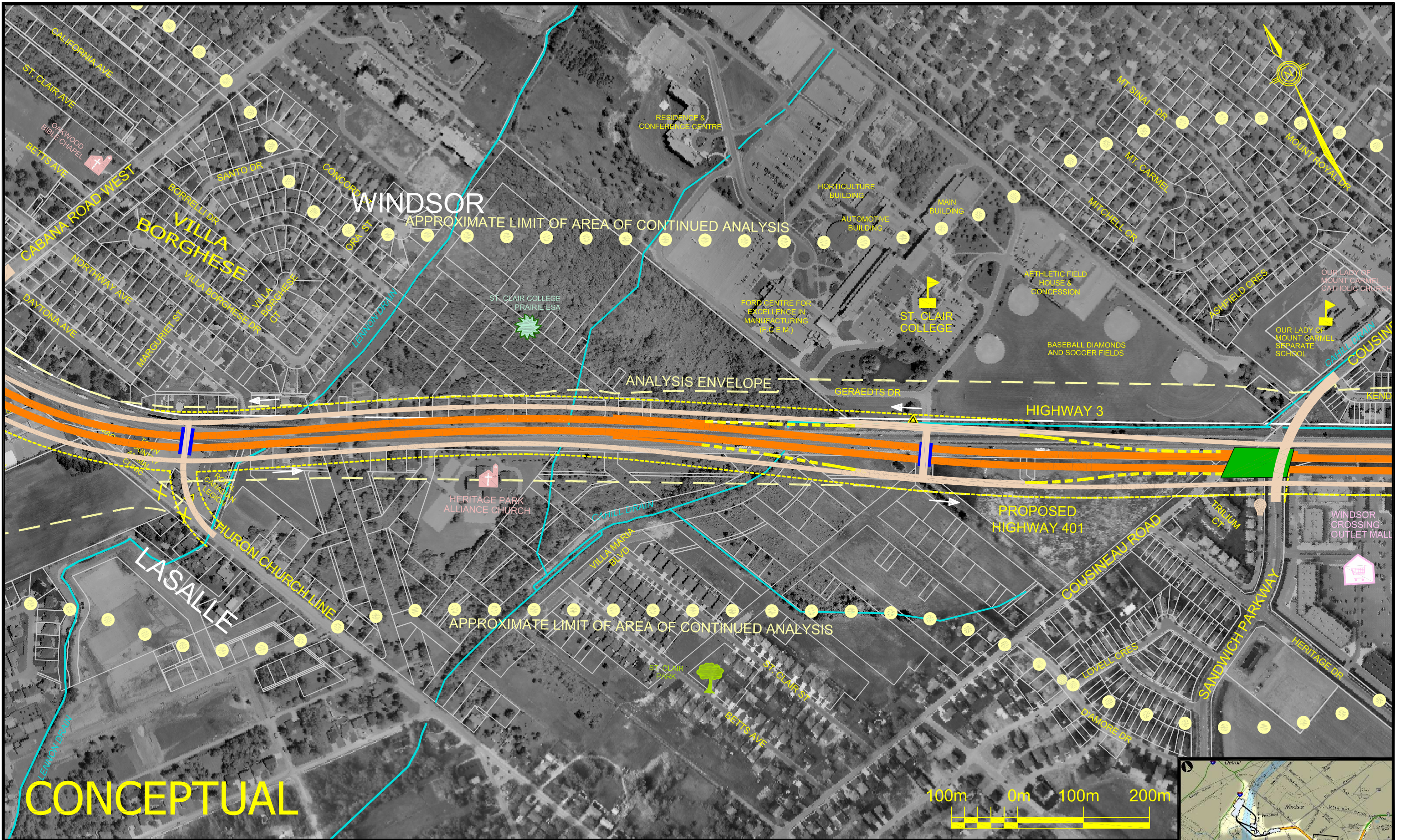
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NOVEMBER 2006





CONCEPTUAL

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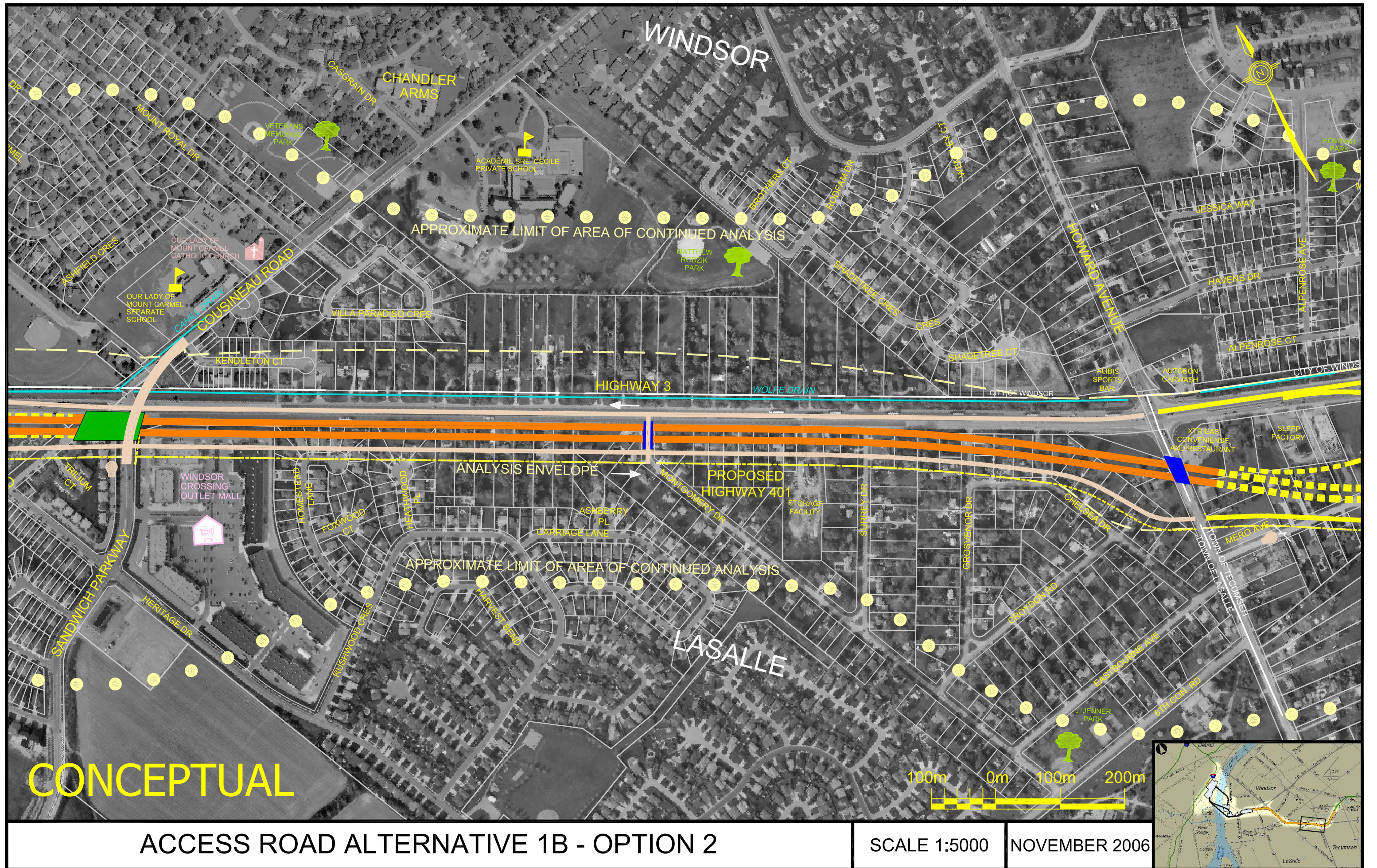
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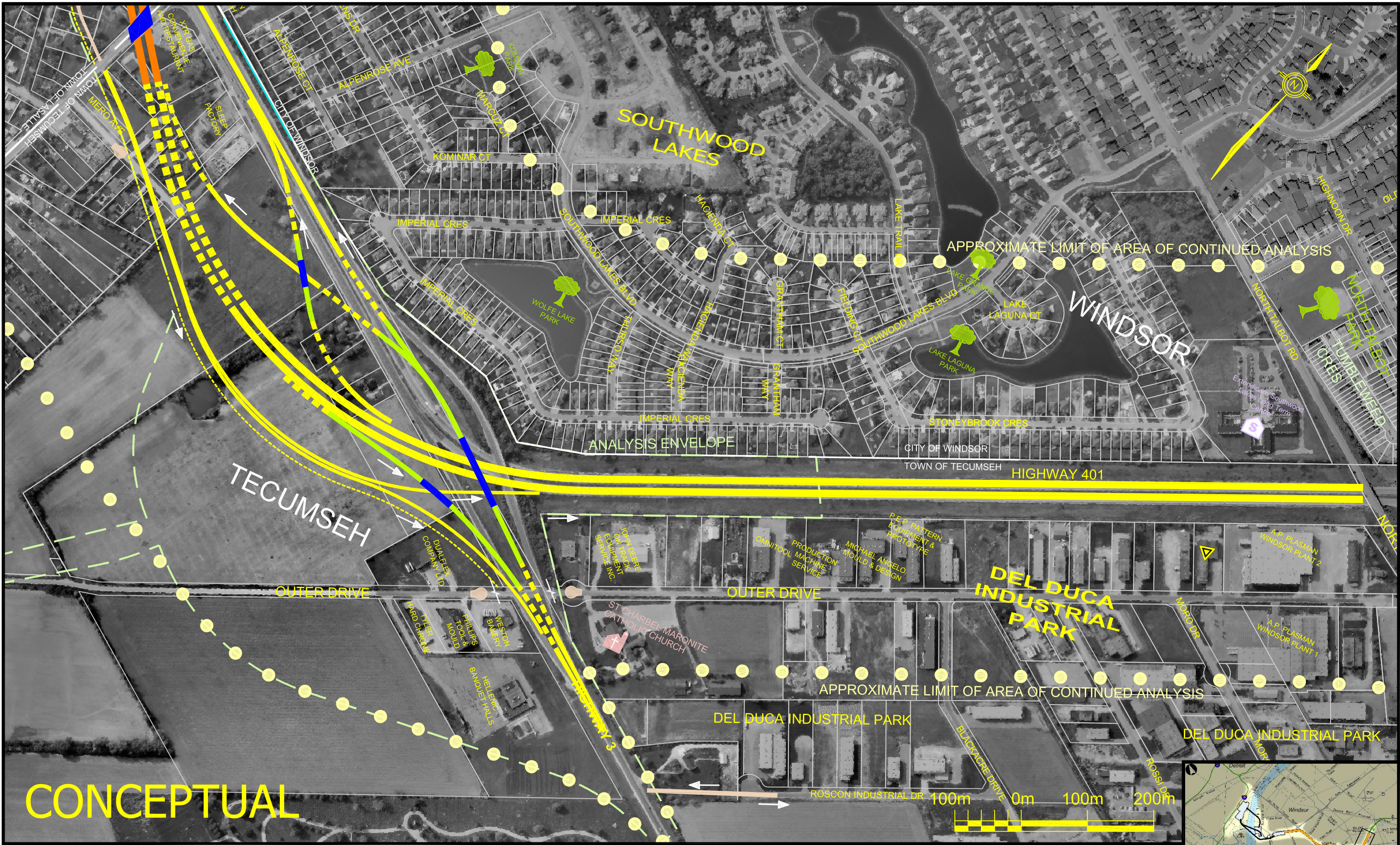
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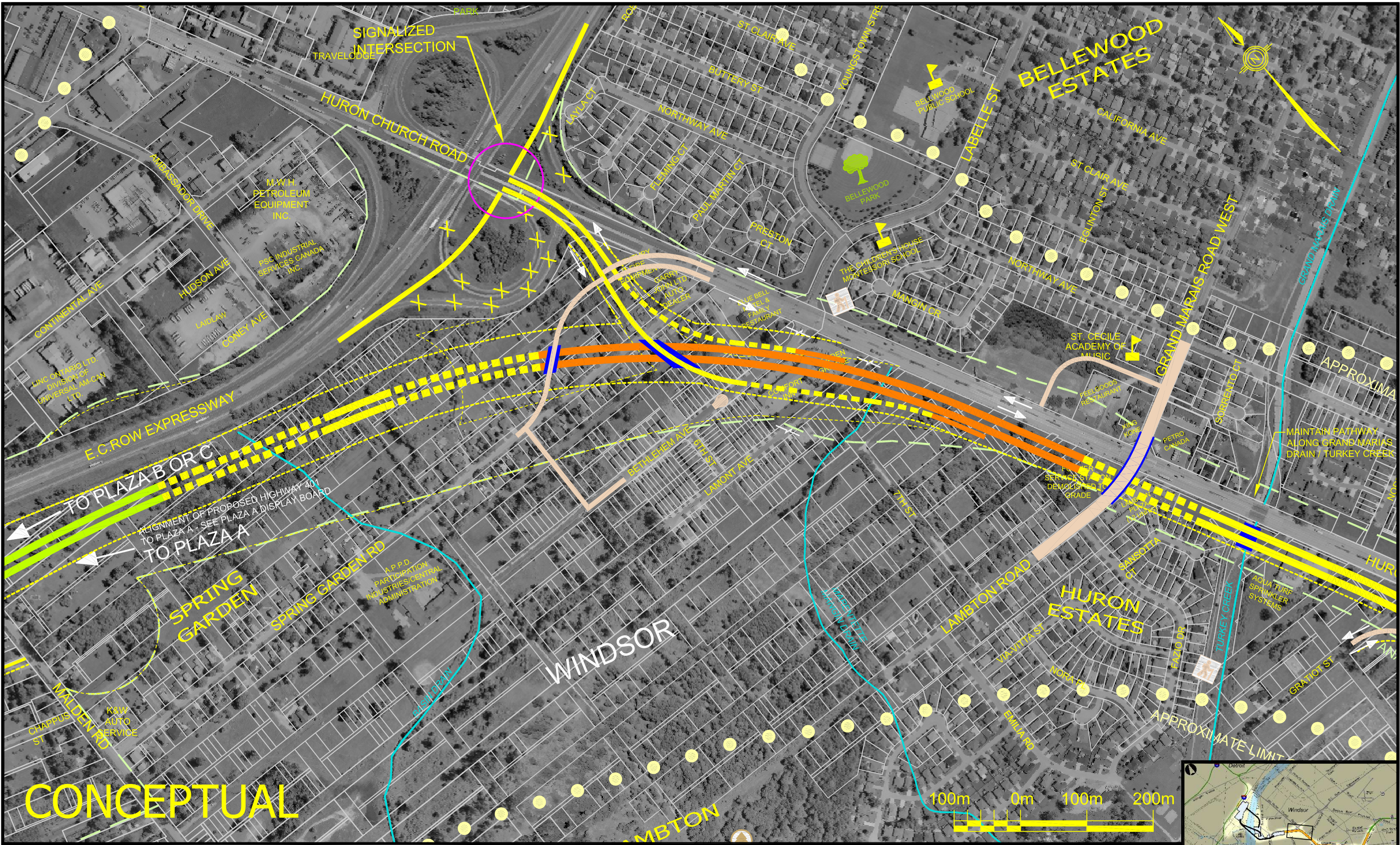
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Access Road Alternative 2A

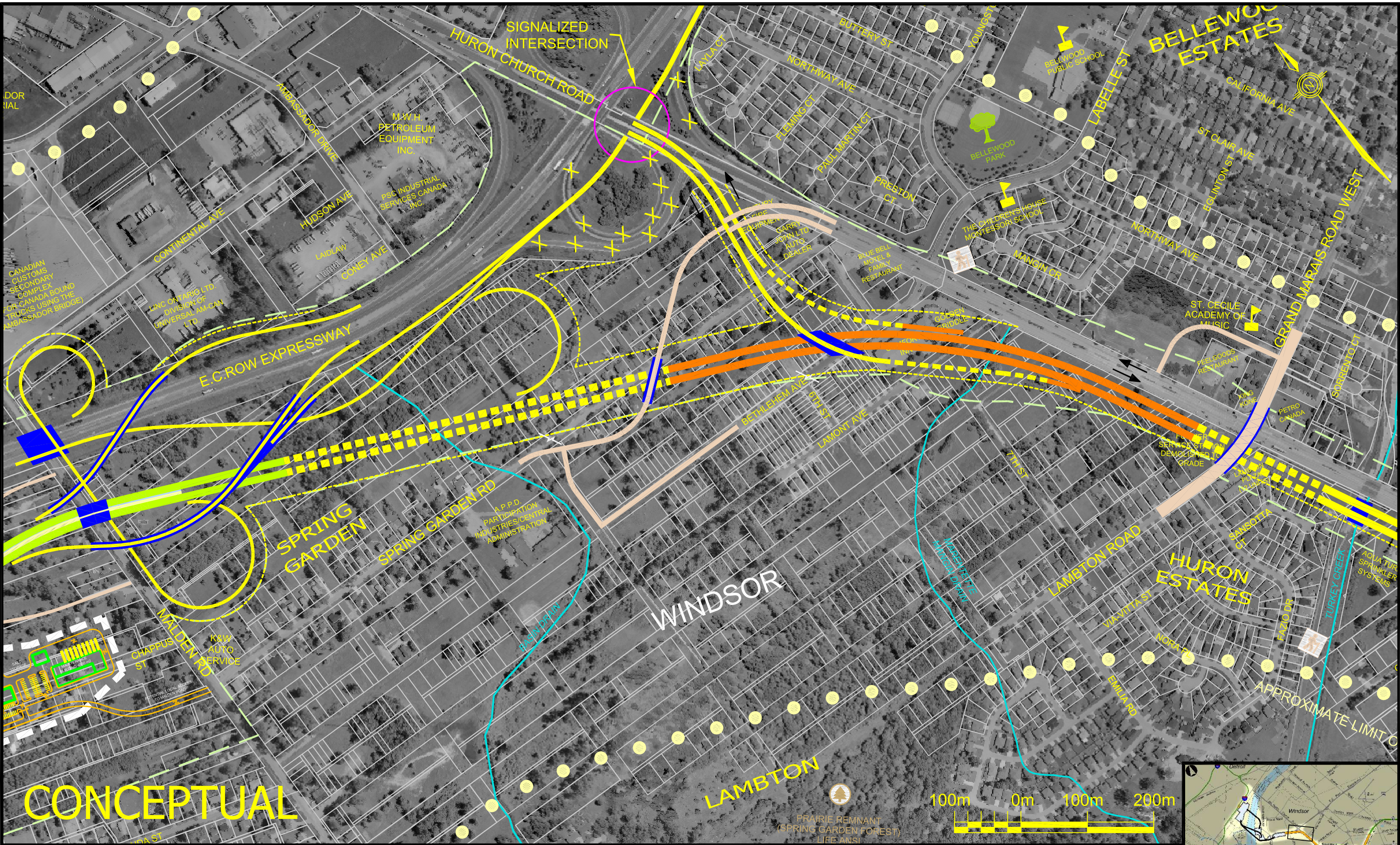


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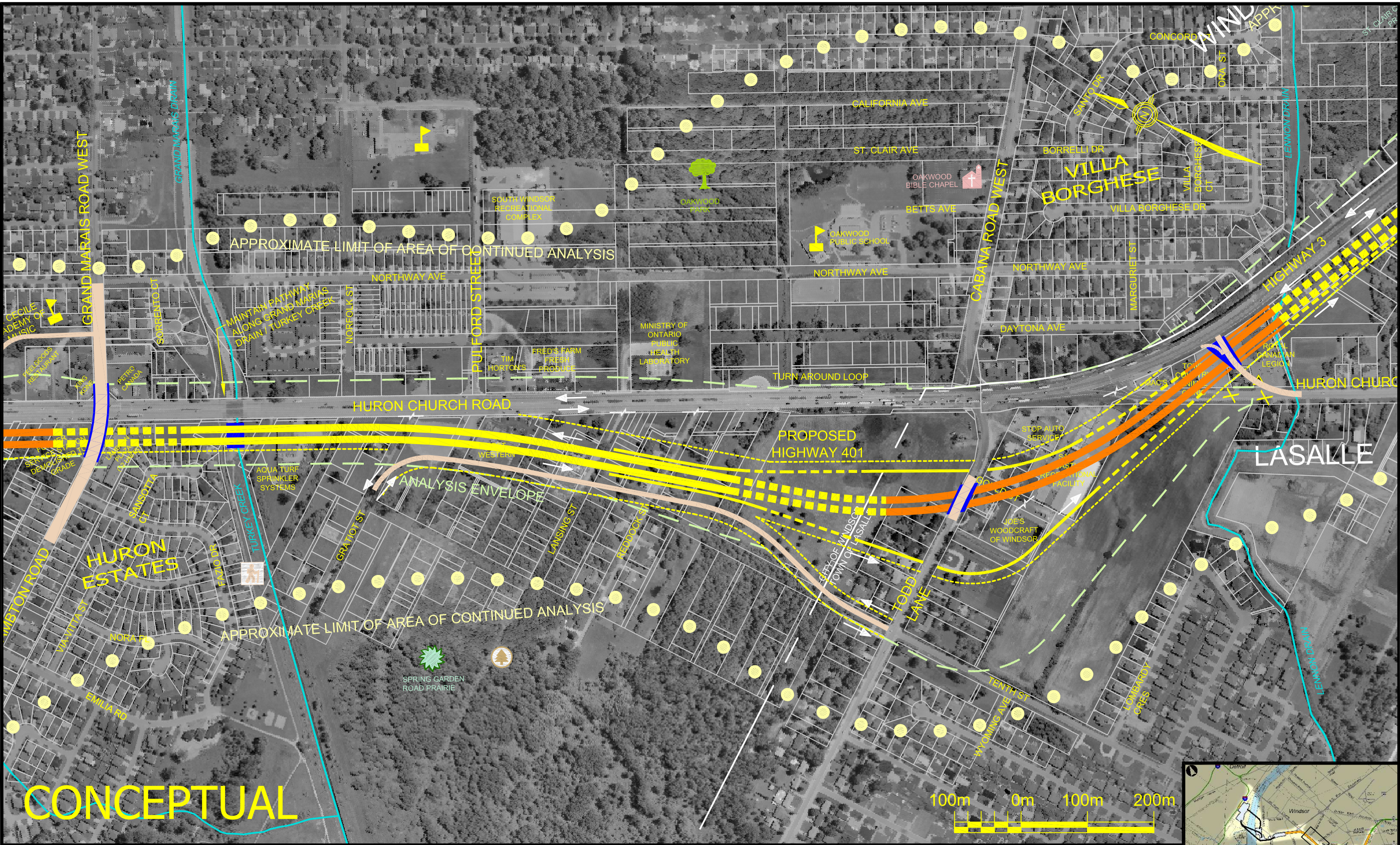
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NOVEMBER 2006



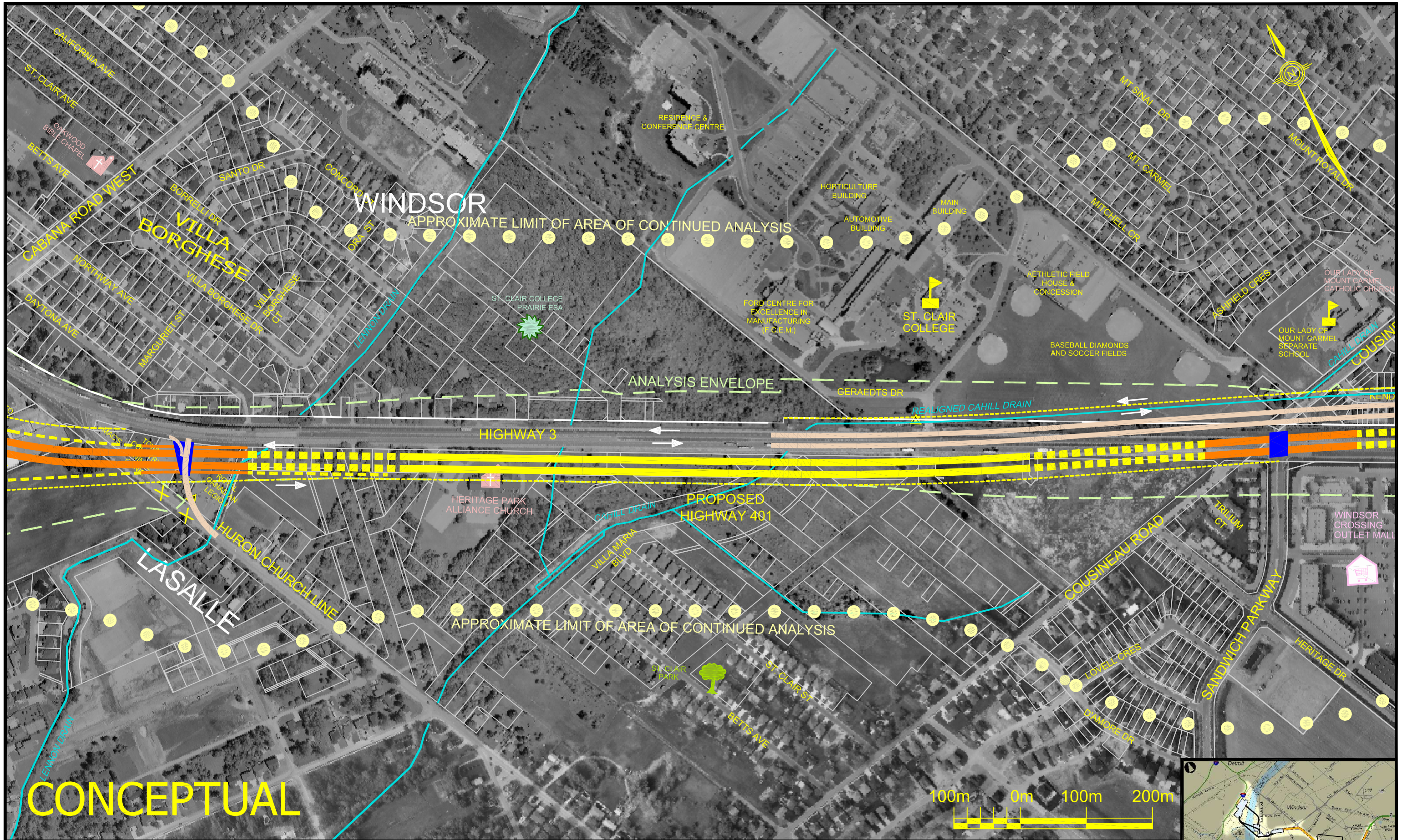


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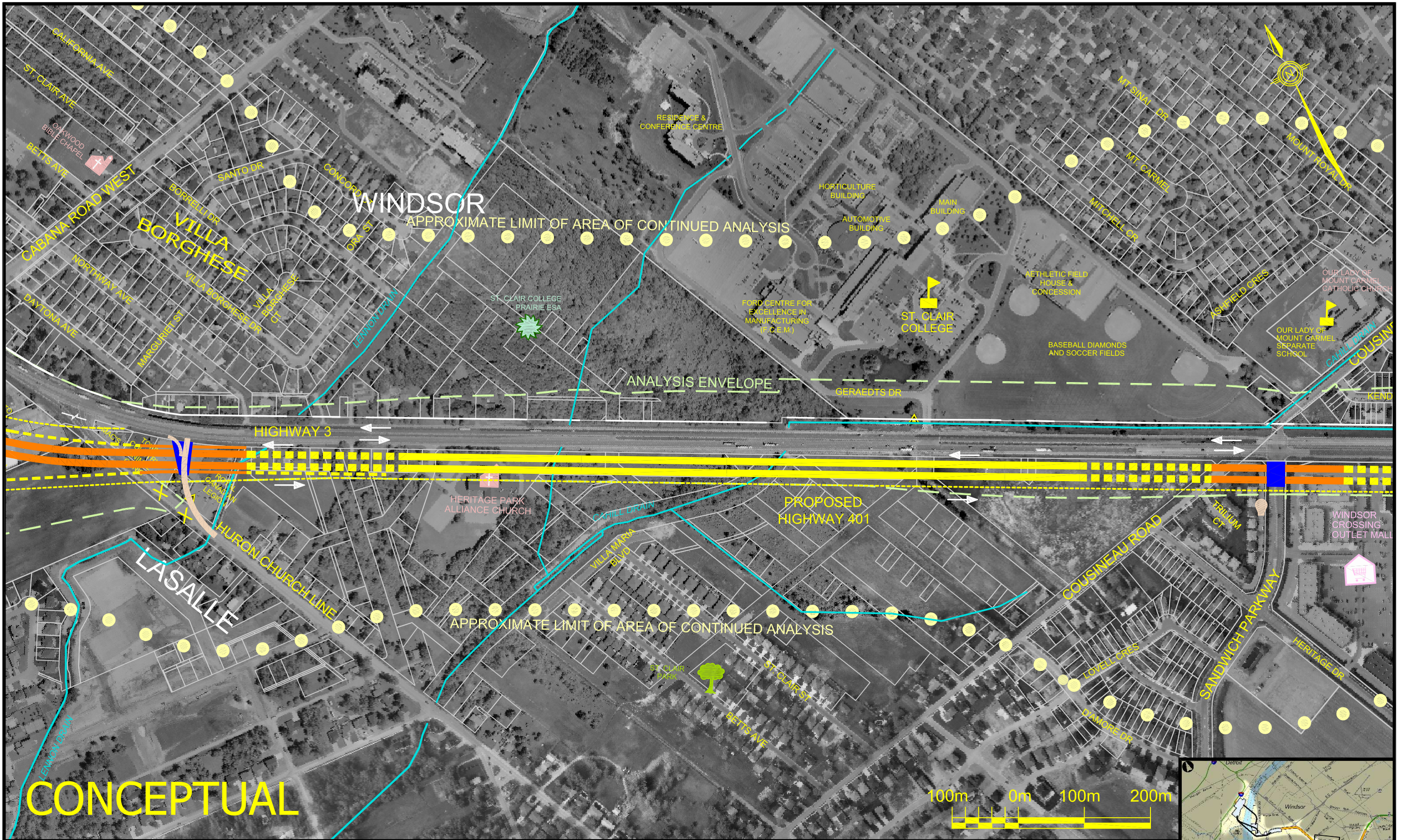
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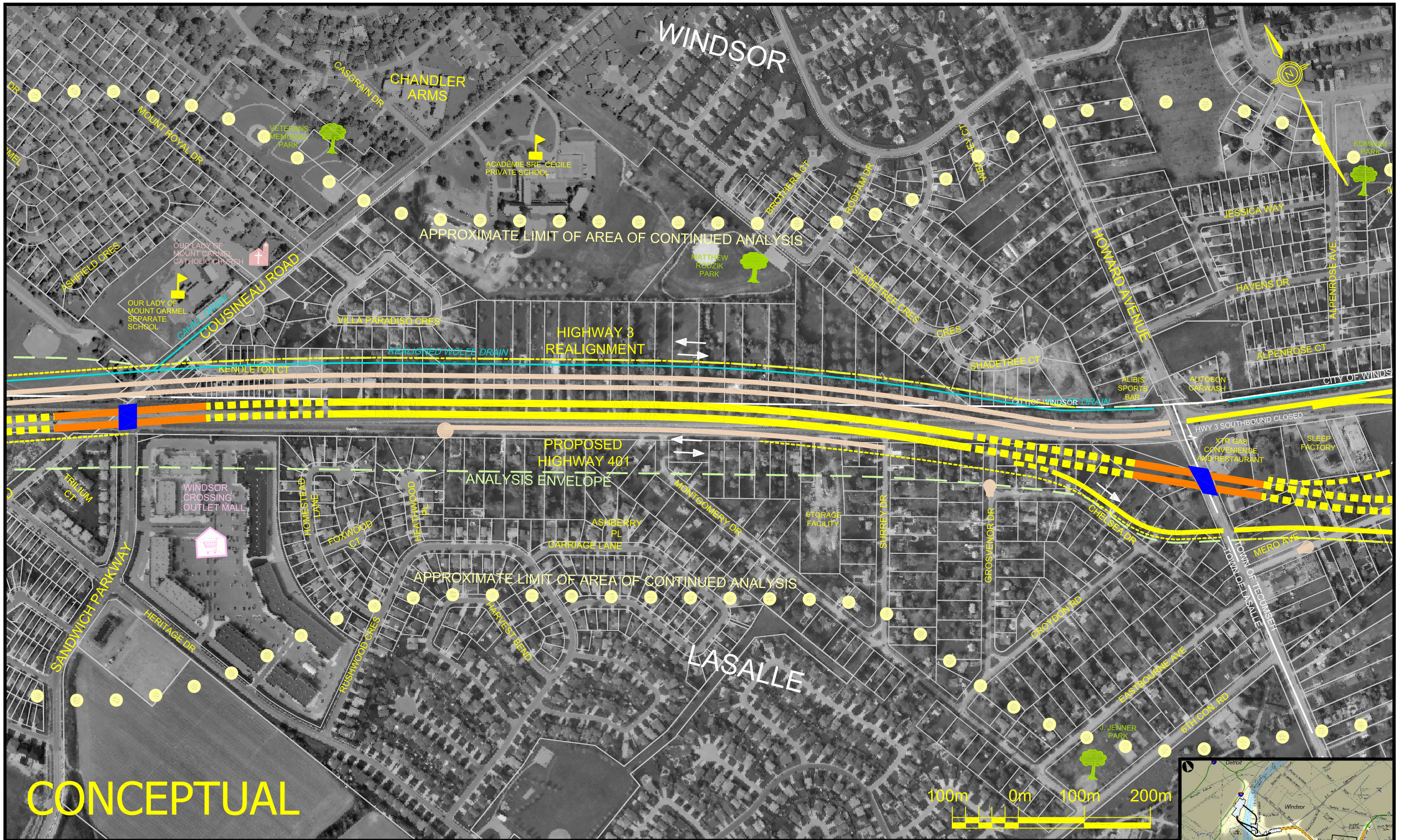
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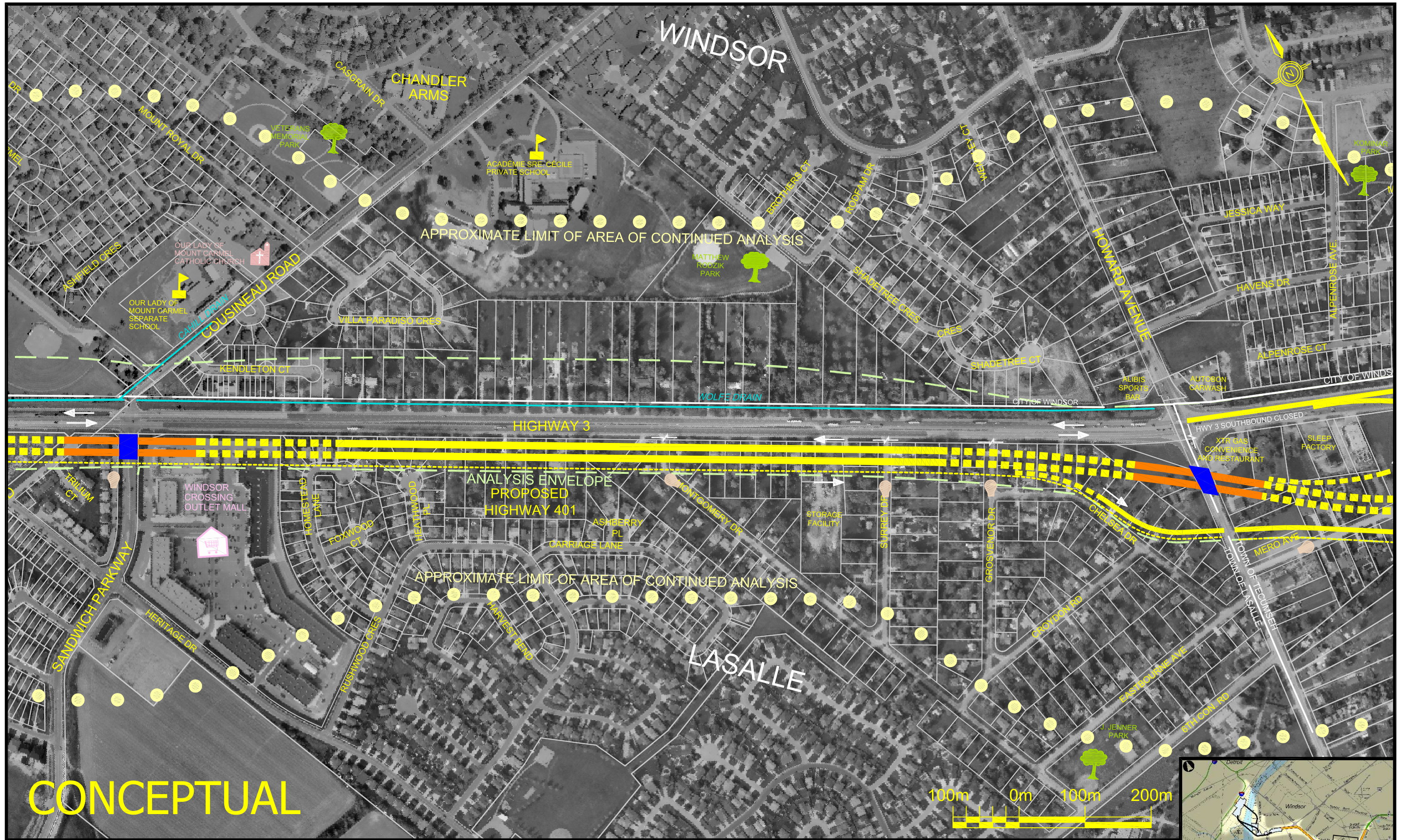
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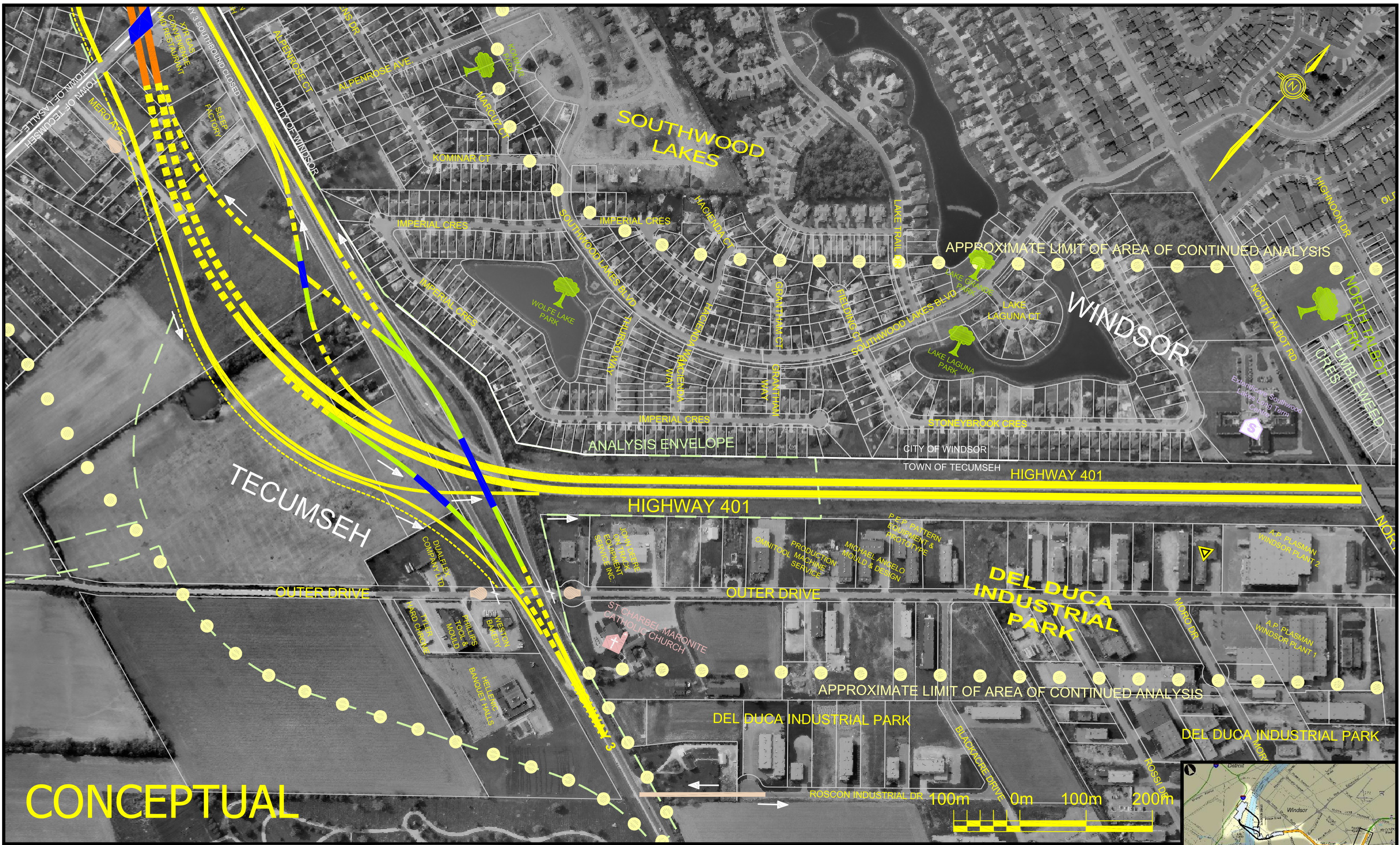
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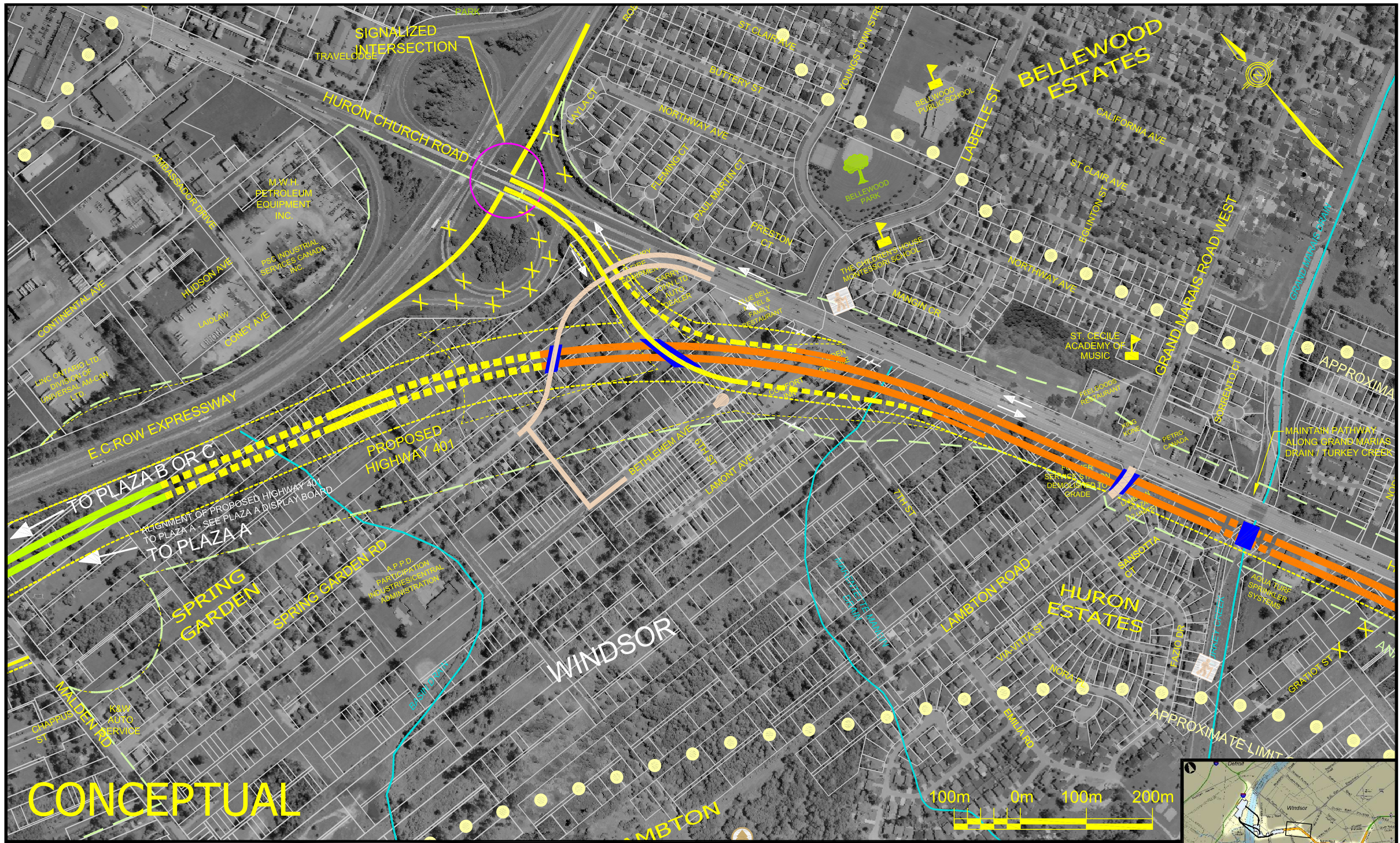
ACCESS ROAD ALTERNATIVE 2A

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Access Road Alternative 2B



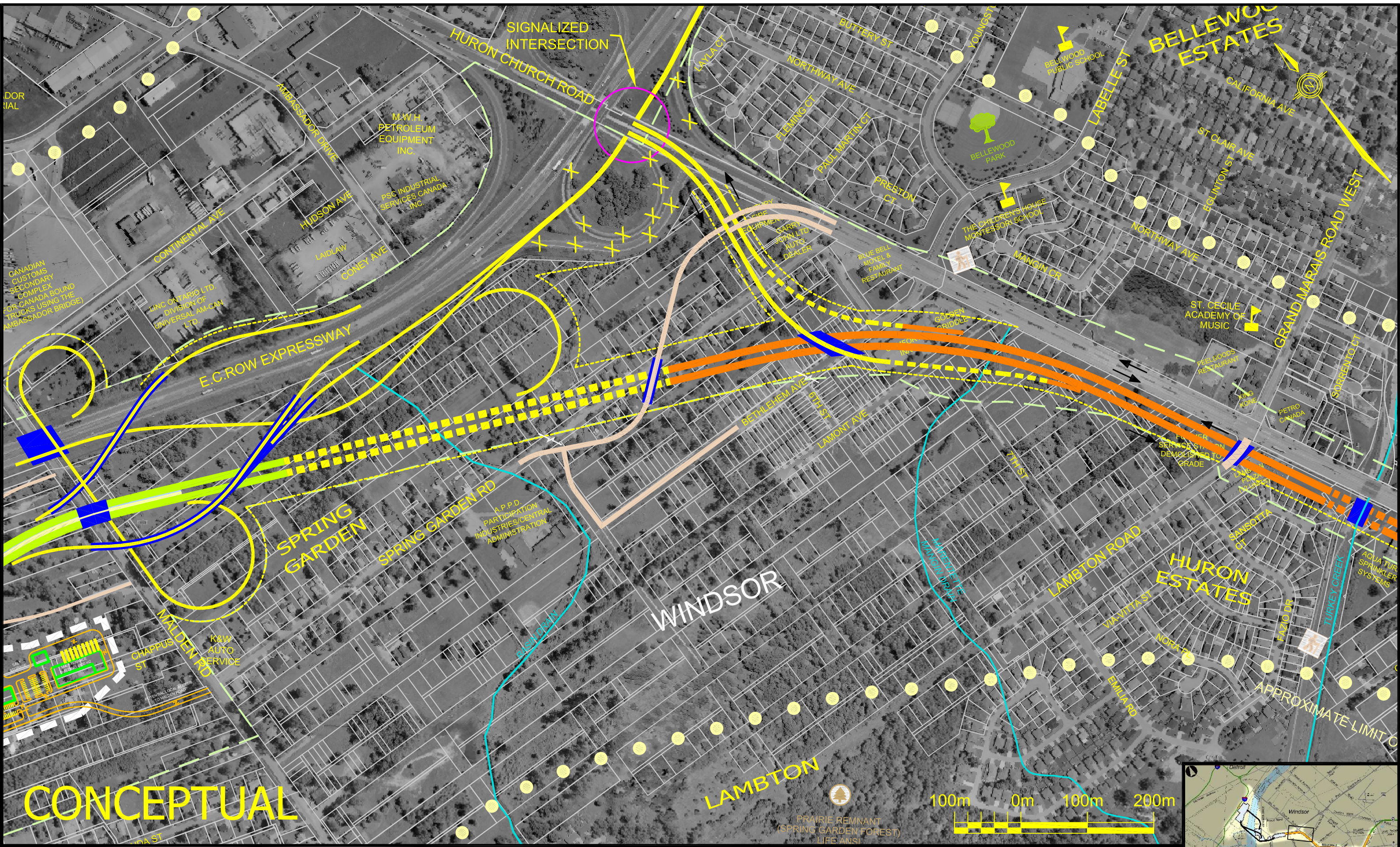
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ACCESS ROAD ALTERNATIVE 2B

SCALE 1:5000

NOVEMBER 2006





CONCEPTUAL

PLAZA A - ACCESS ROAD ALTERNATIVE 2B

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NOVEMBER 2006





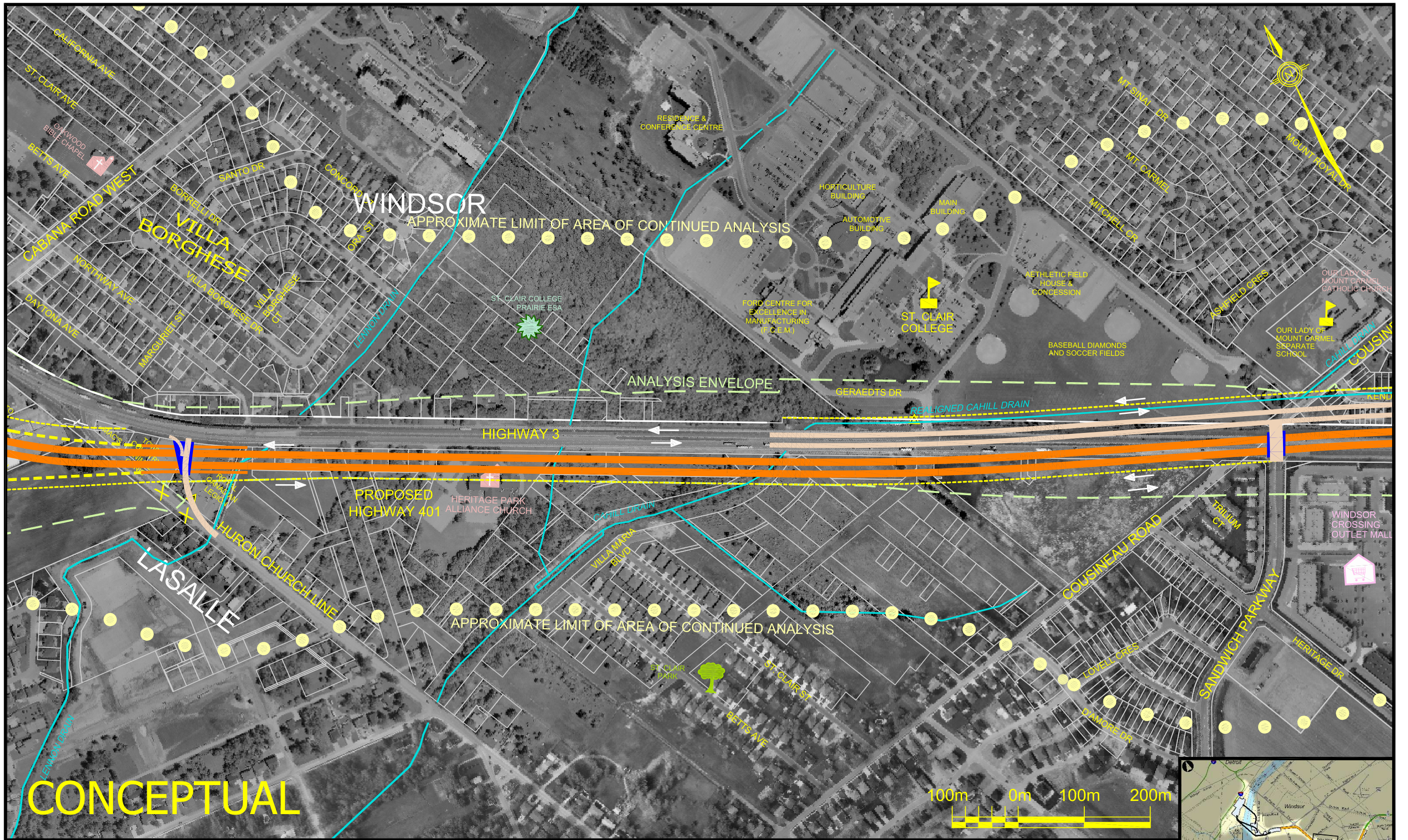
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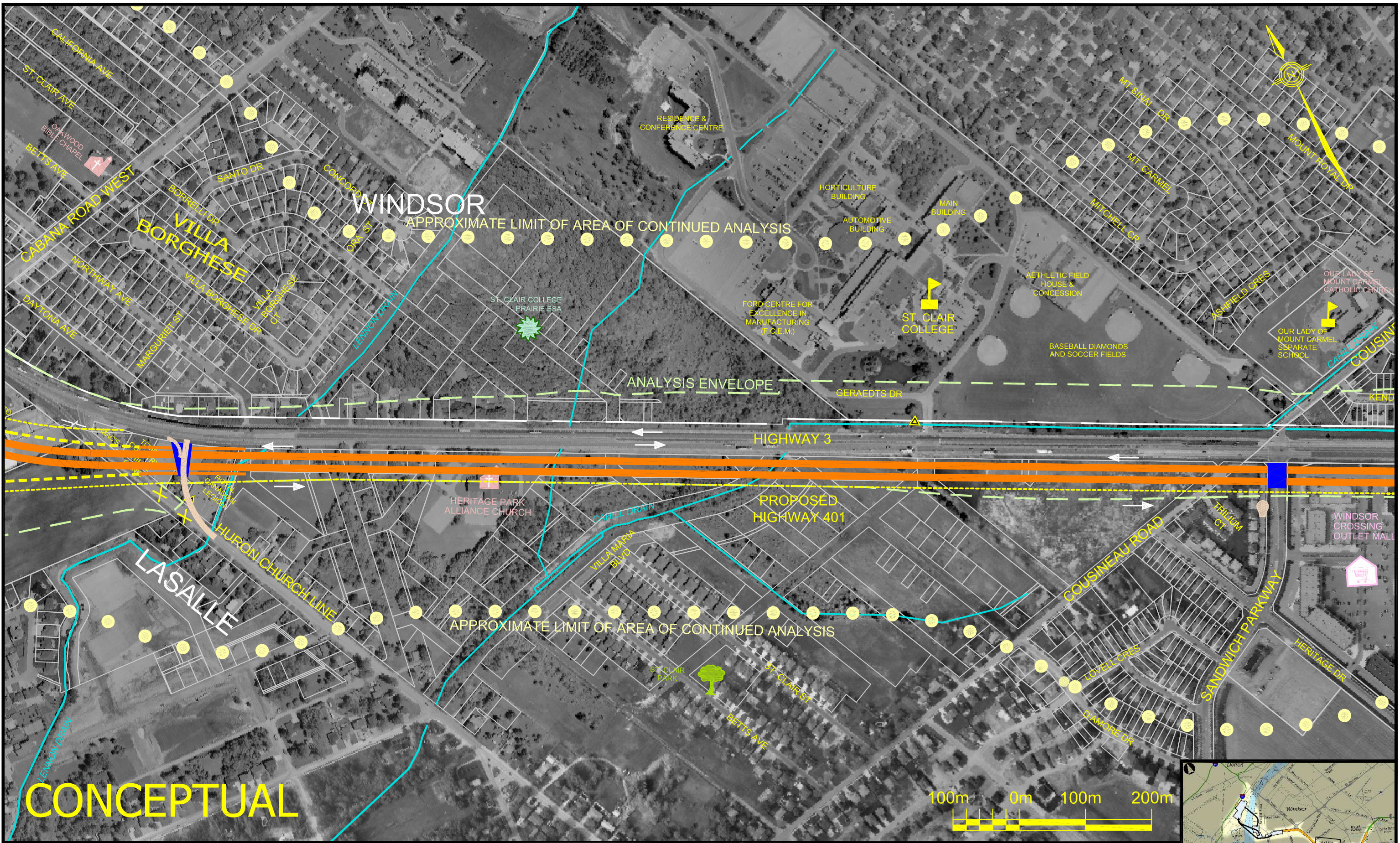


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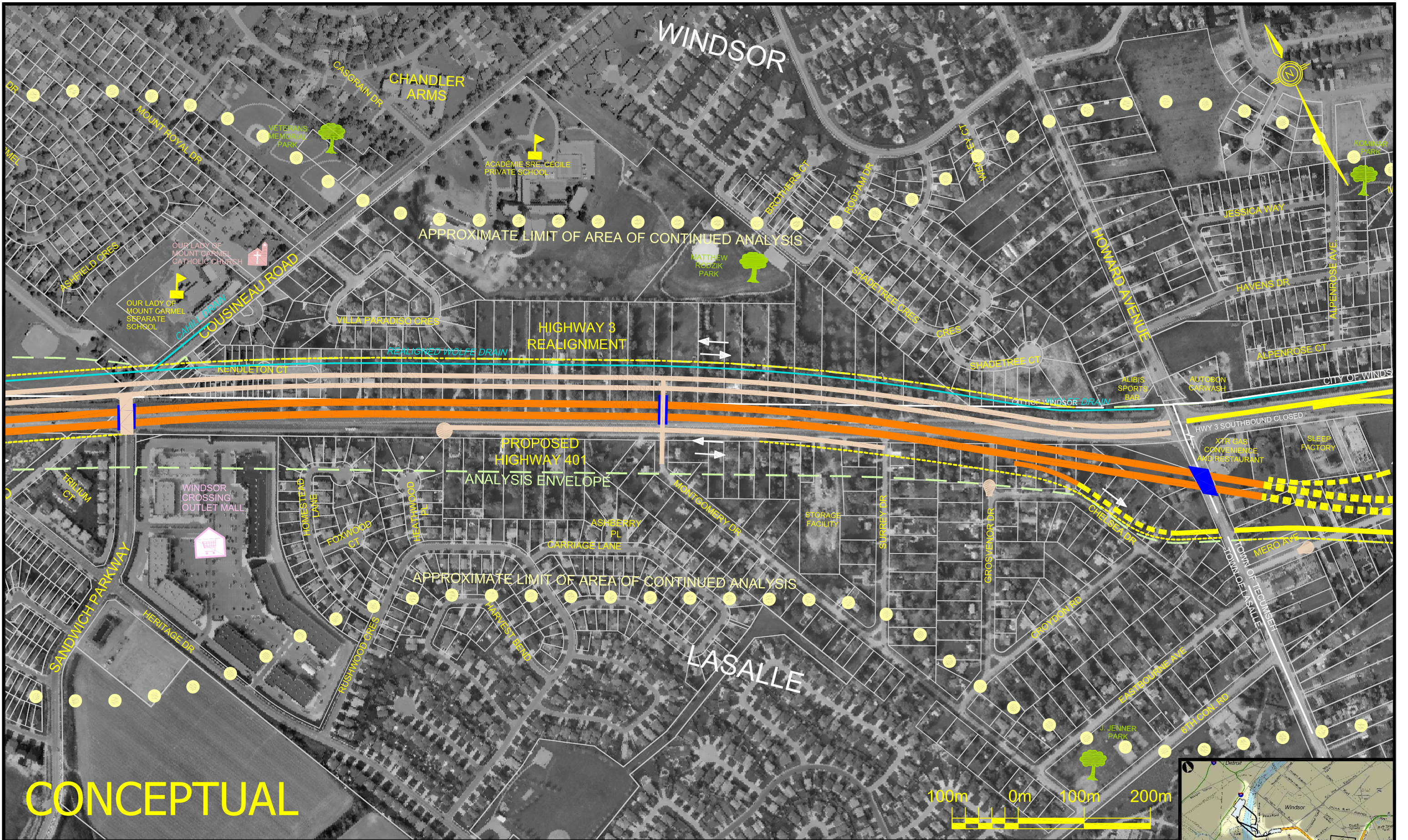
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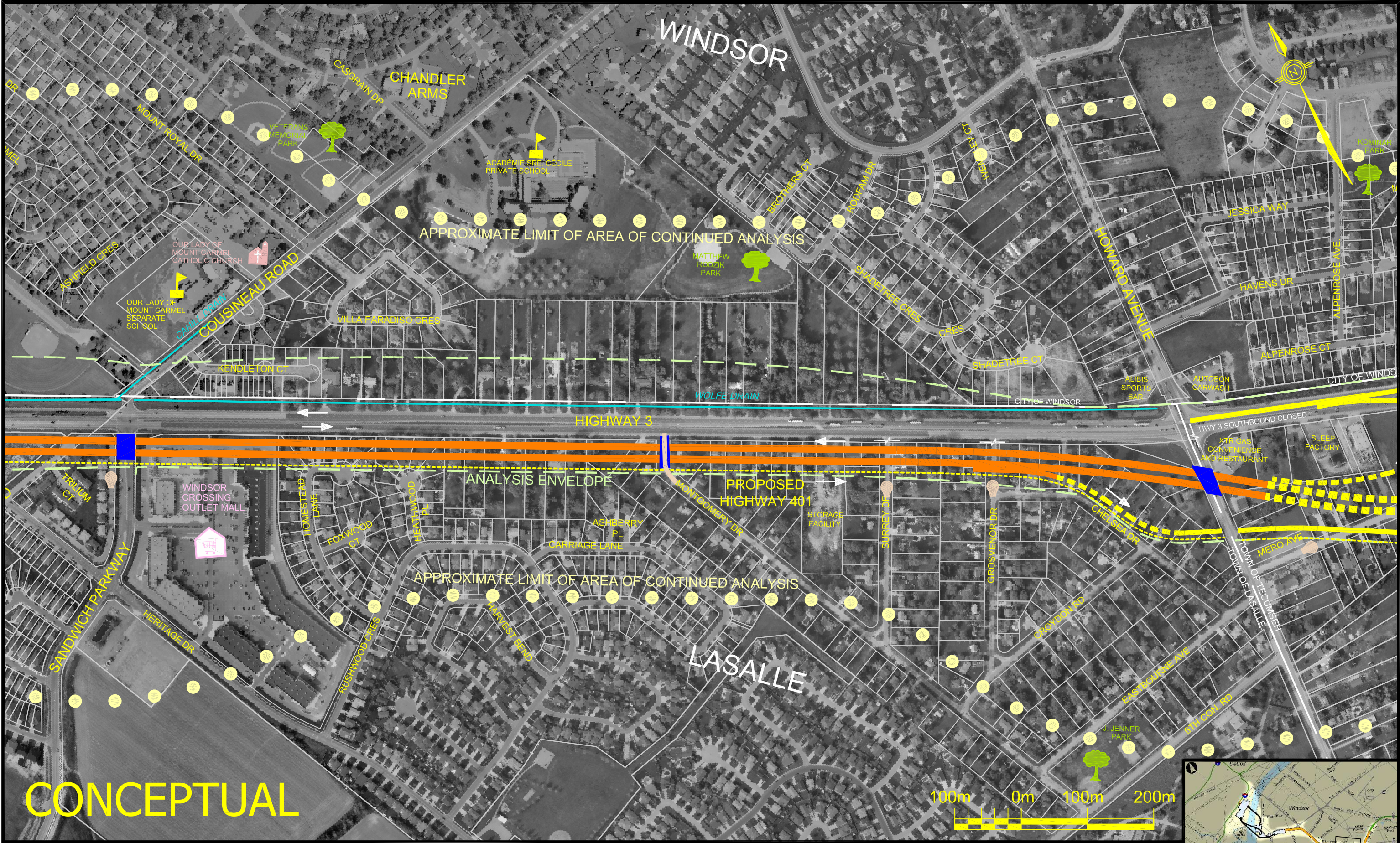
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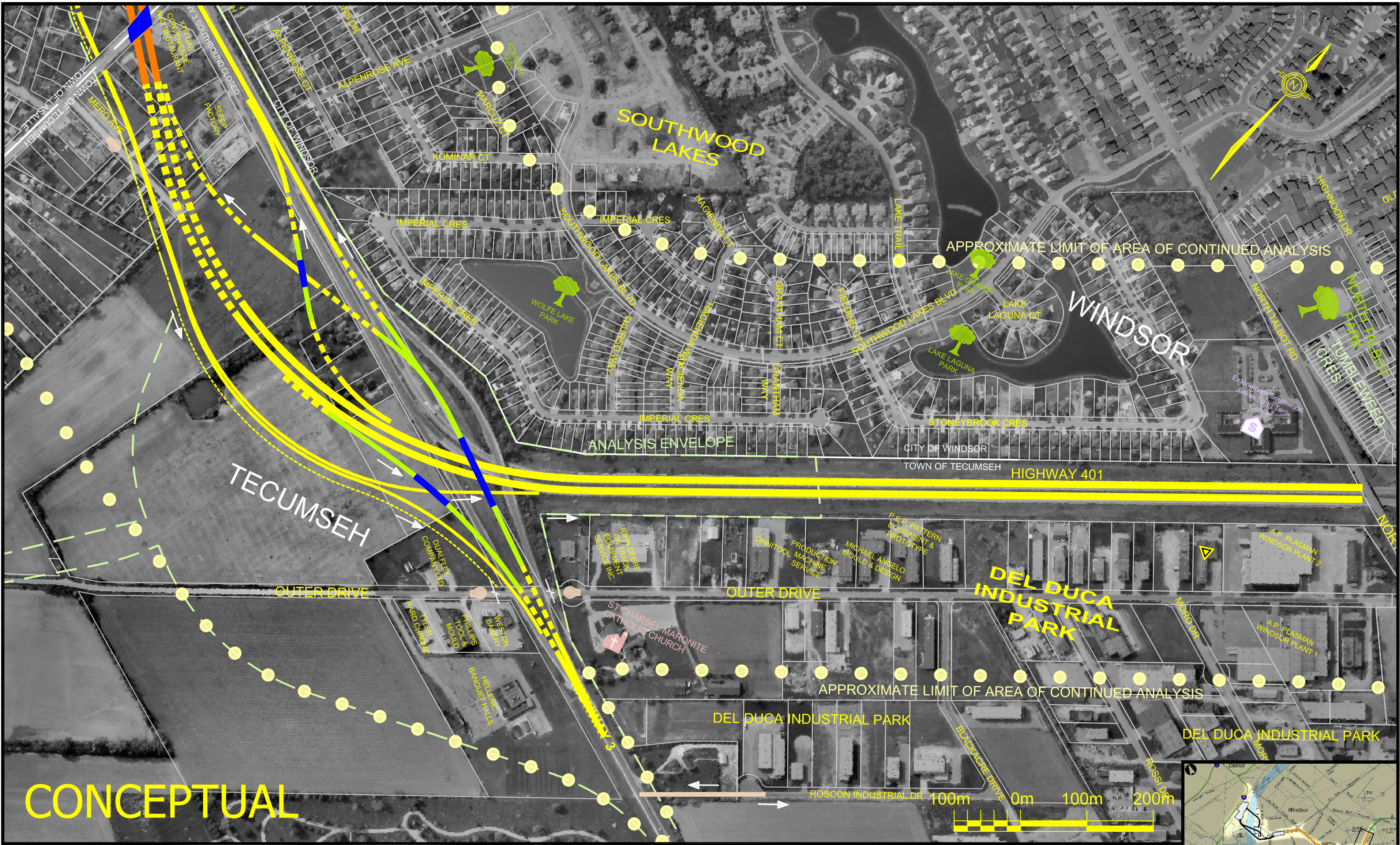
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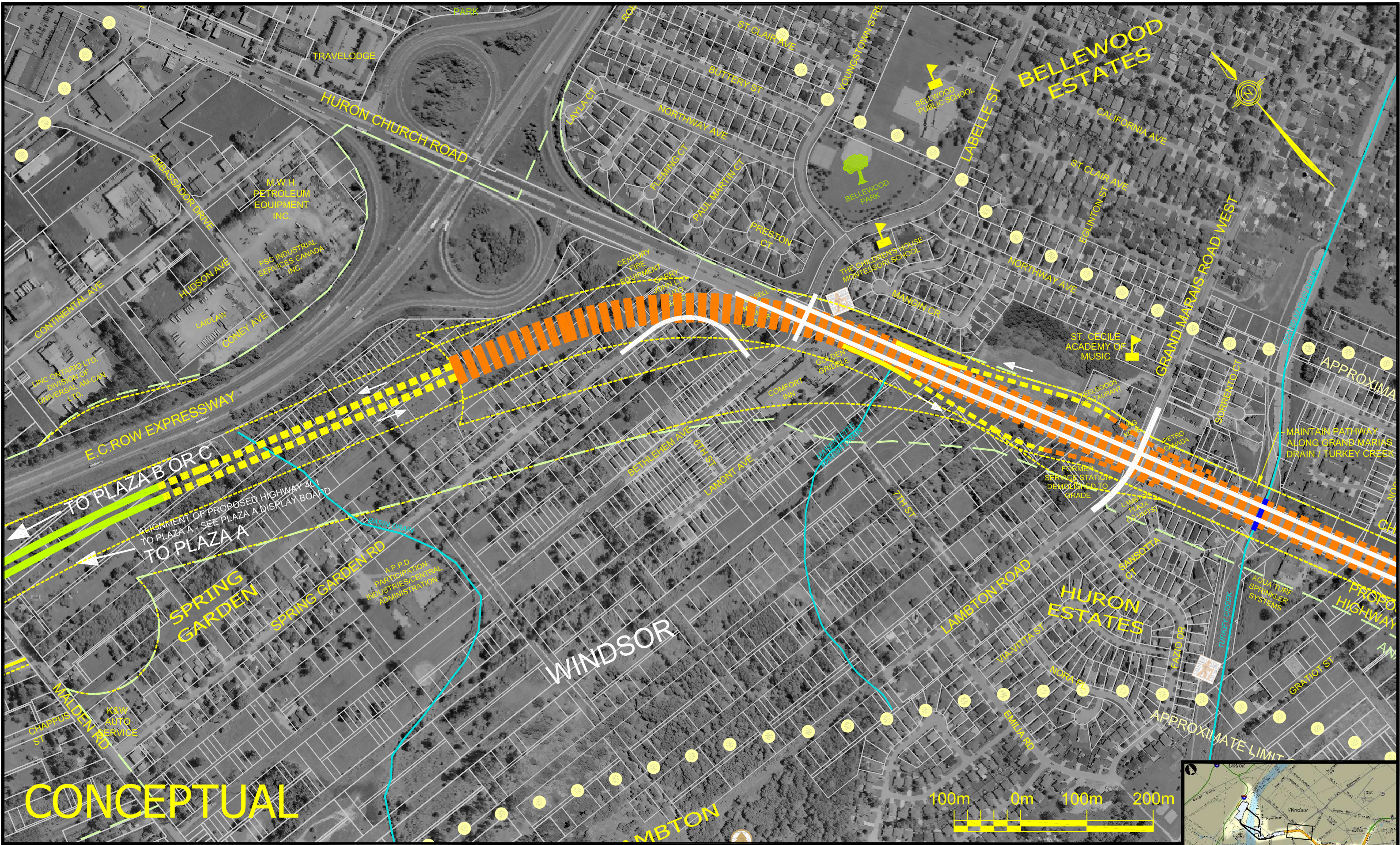
ACCESS ROAD ALTERNATIVE 2B

SCALE 1:5000

NOVEMBER 2006



Access Road Alternative 3

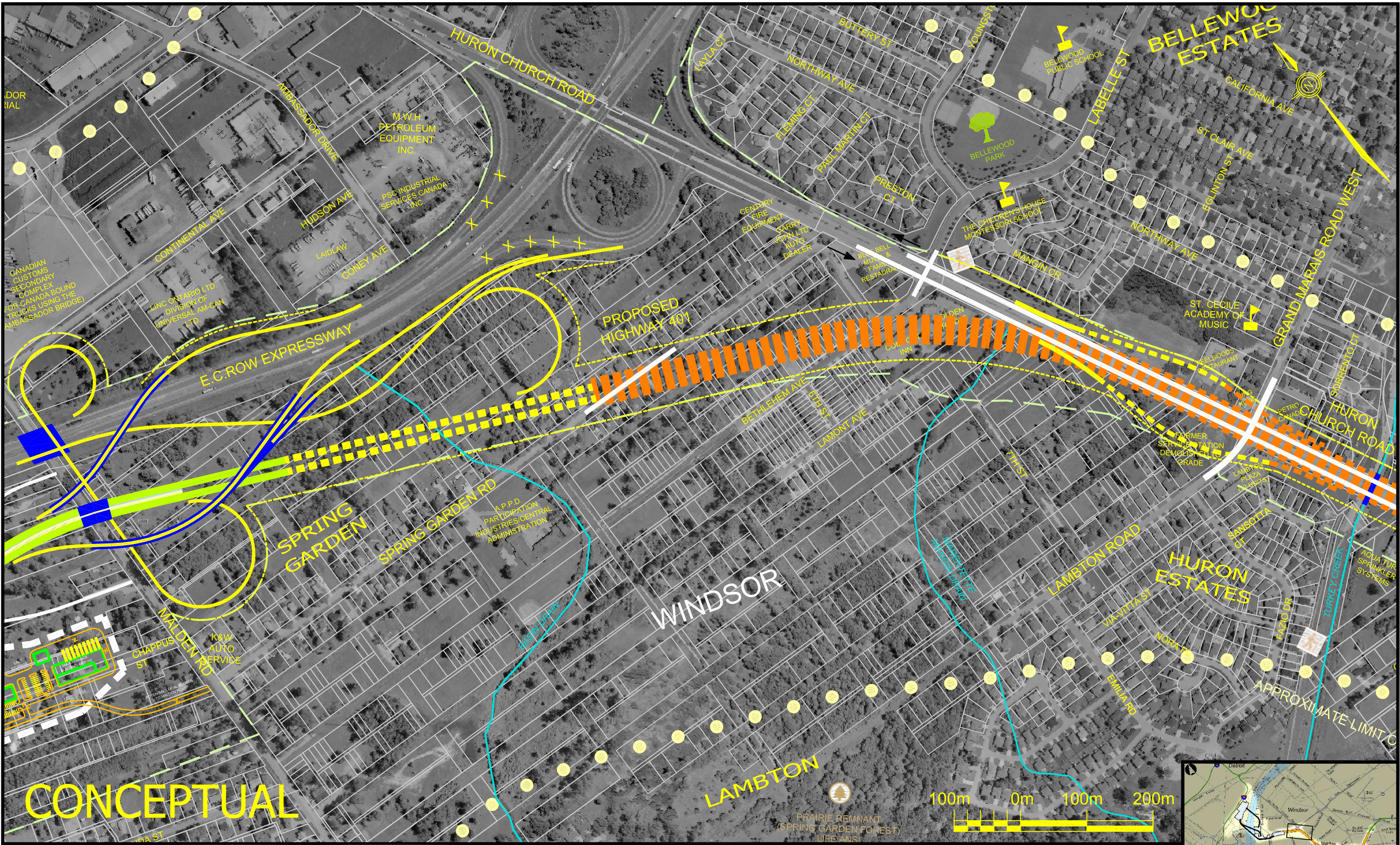


ACCESS ROAD ALTERNATIVE 3

SCALE 1:5000

NOVEMBER 2006





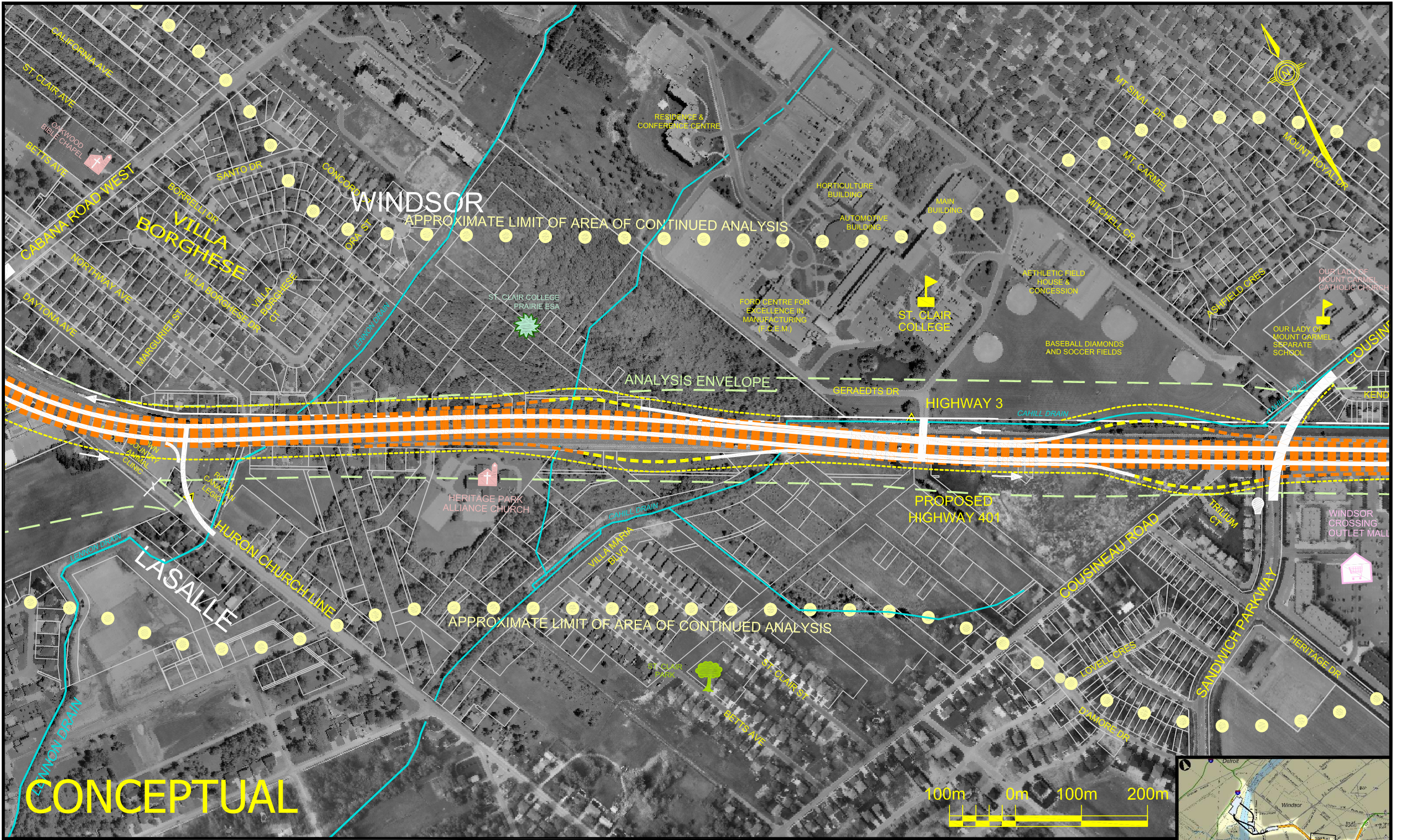
CONCEPTUAL

PLAZA A - ACCESS ROAD ALTERNATIVE 3

SCALE 1:5000

NOVEMBER 2006



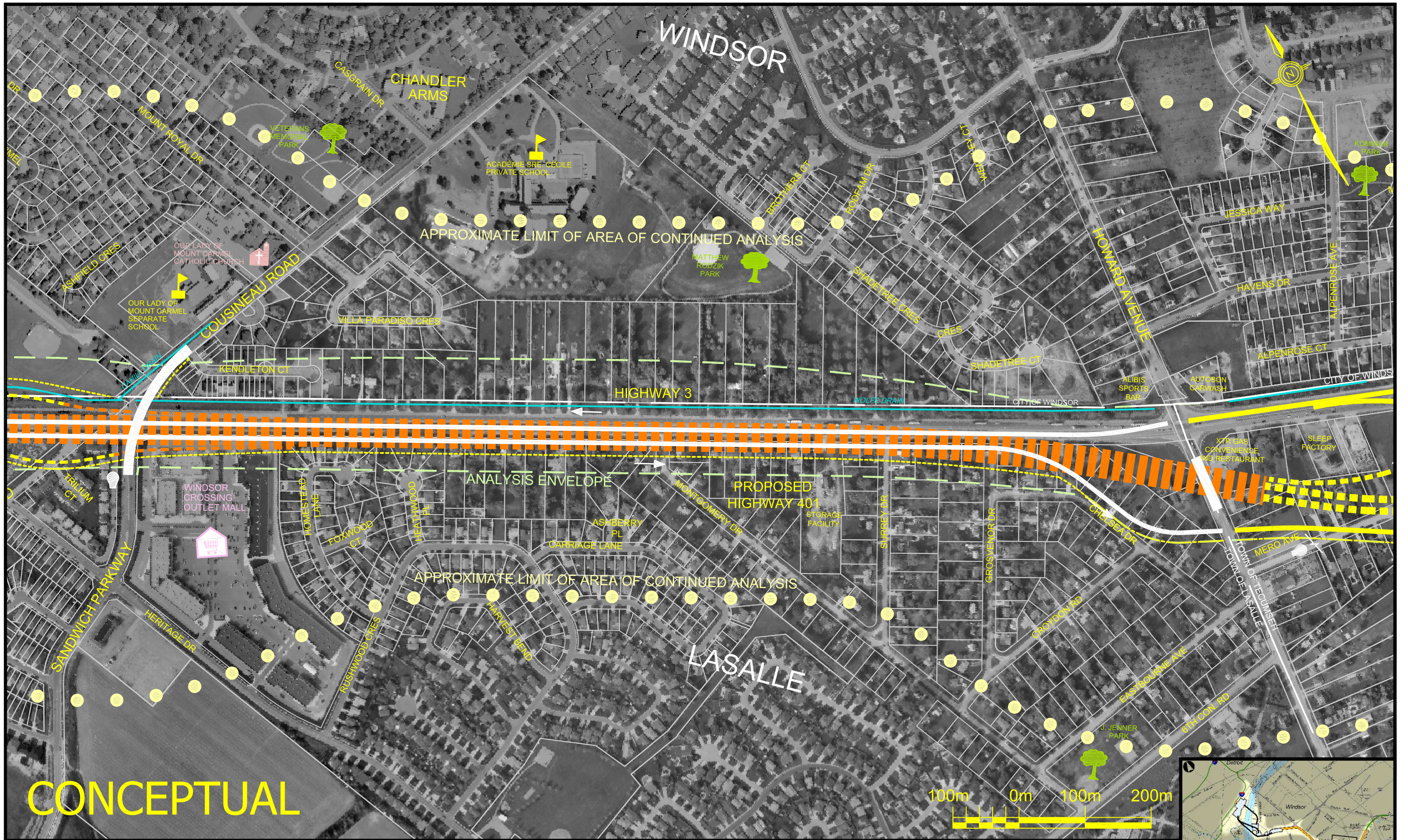


ACCESS ROAD ALTERNATIVE 3

SCALE 1:5000

NOVEMBER 2006



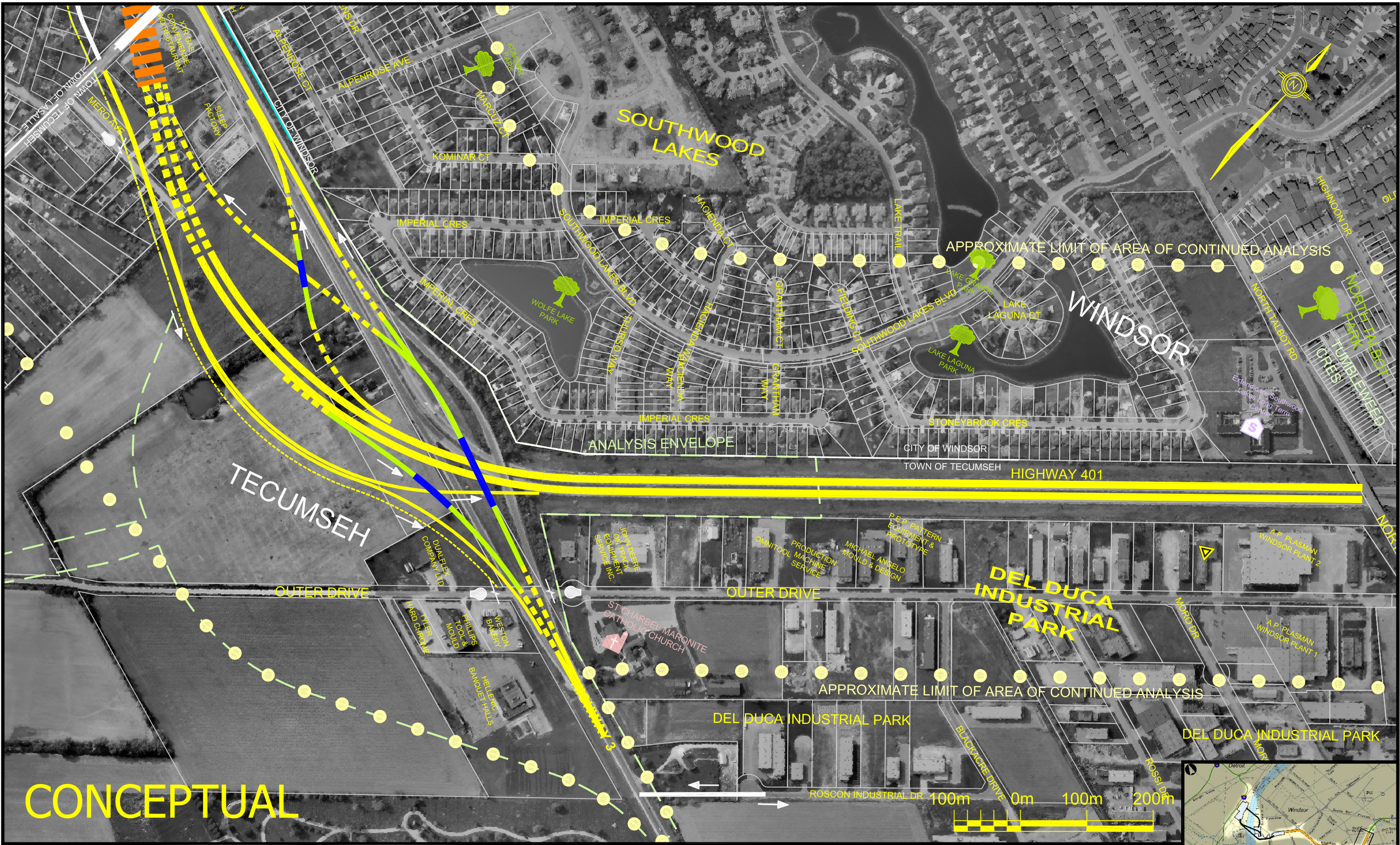


ACCESS ROAD ALTERNATIVE 3

SCALE 1:5000

NOVEMBER 2006





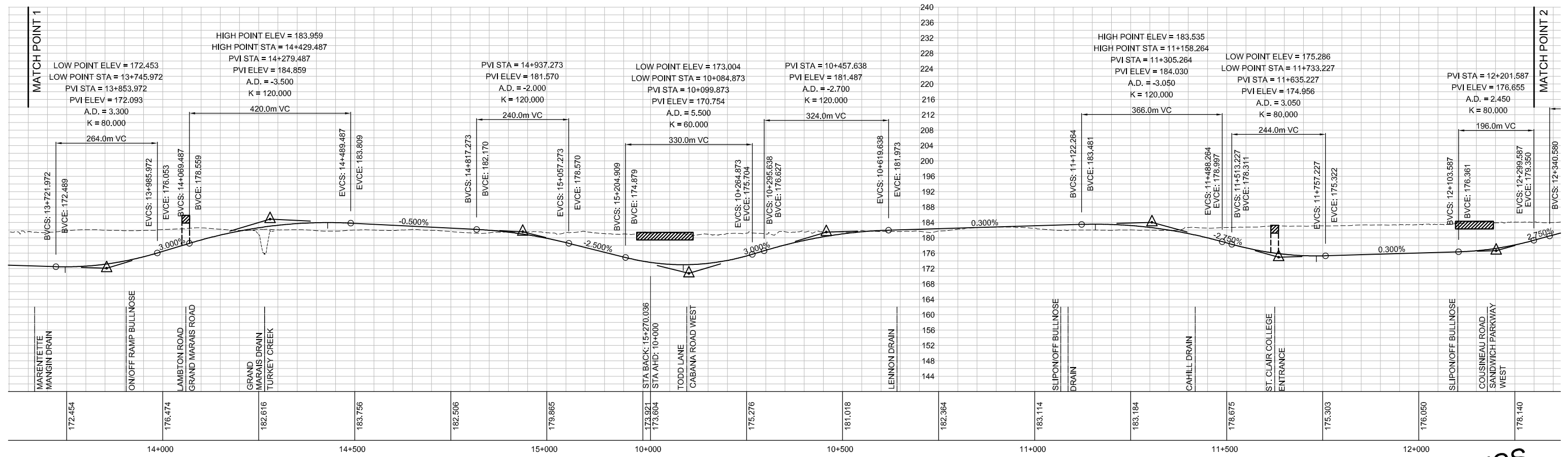
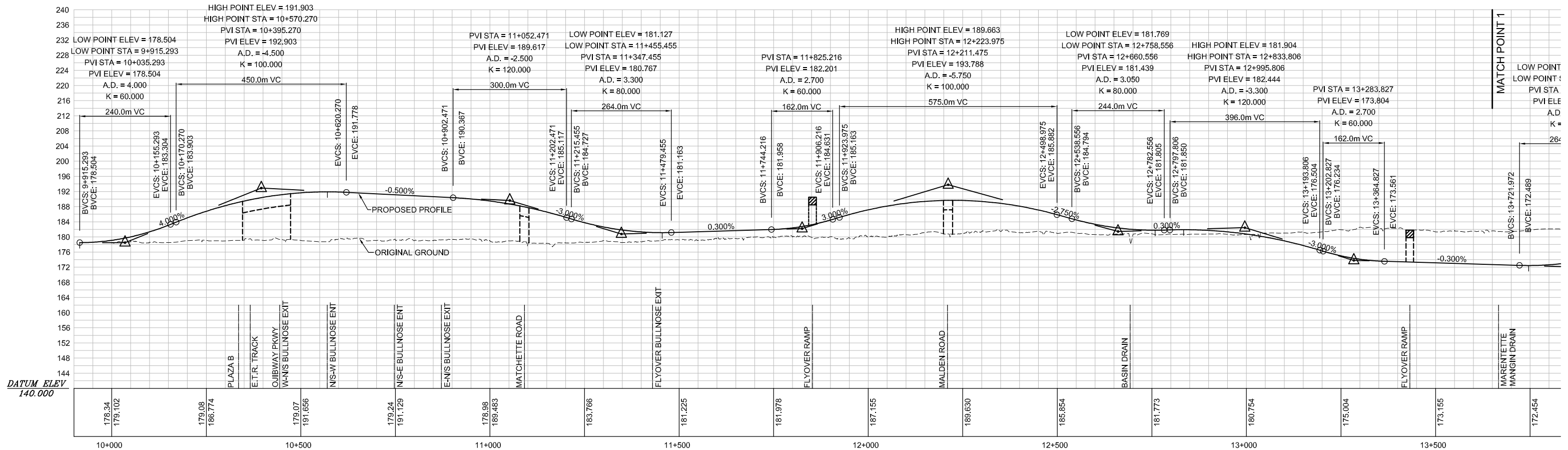
CONCEPTUAL

ACCESS ROAD ALTERNATIVE 3

SCALE 1:5000

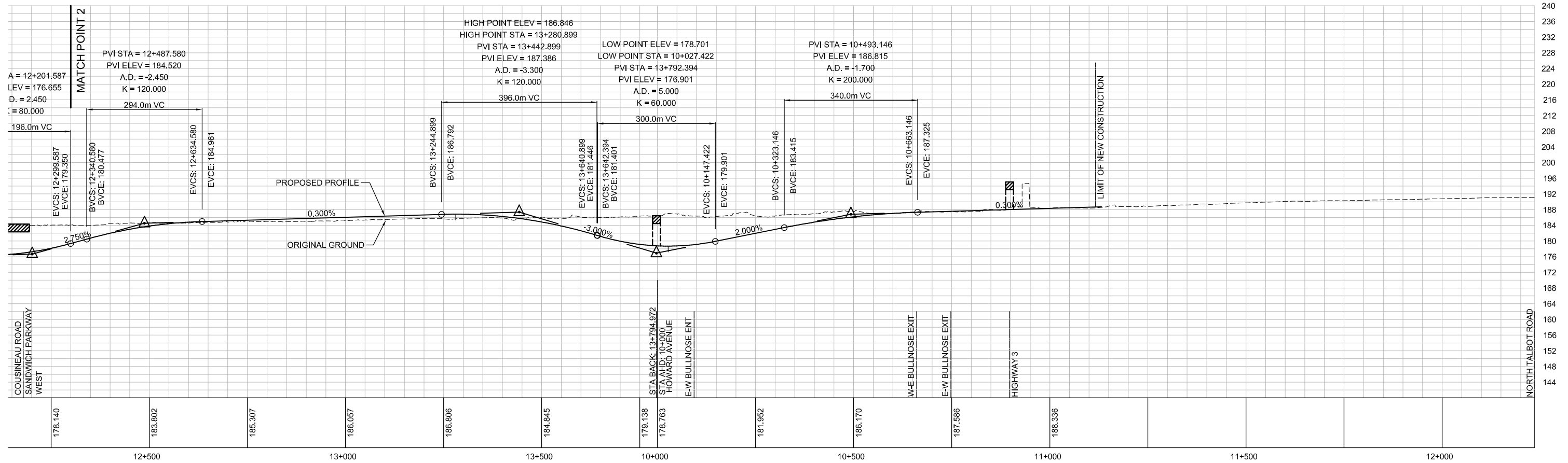
NOVEMBER 2006





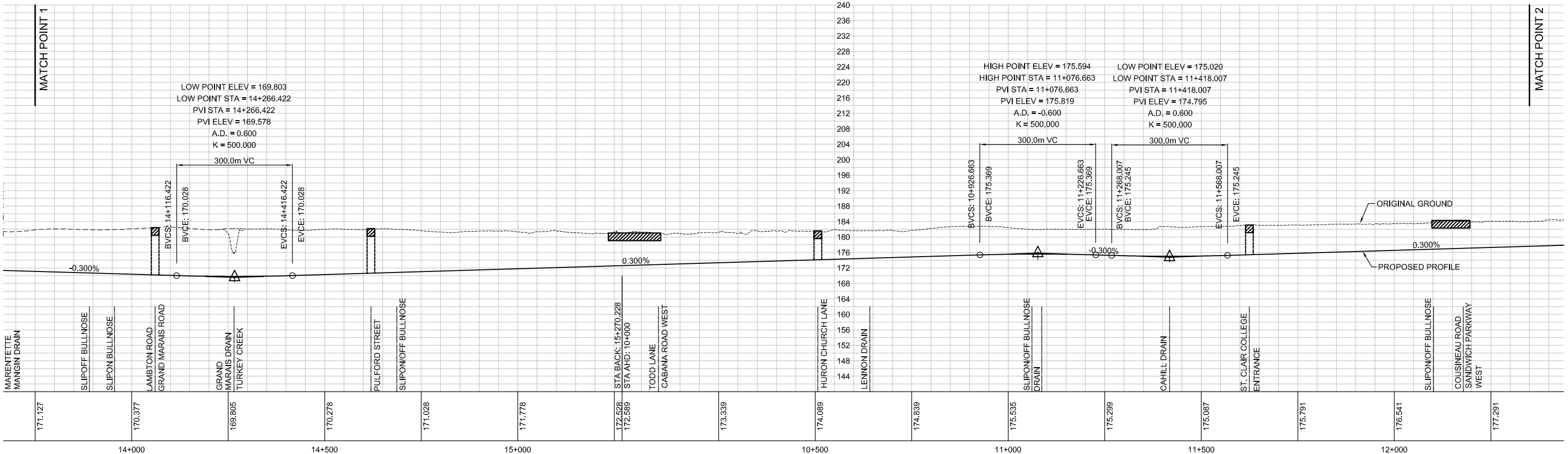
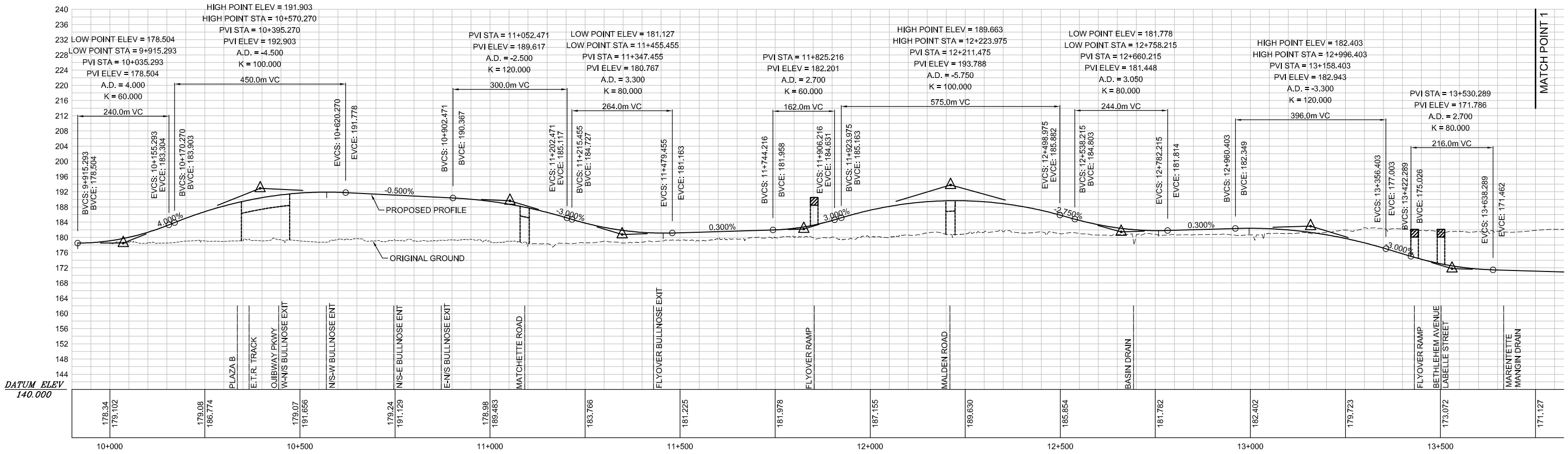
PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 1A TO PLAZA B - AT GRADE
 SCALE 1:10000/1000

WORK IN PROGRESS



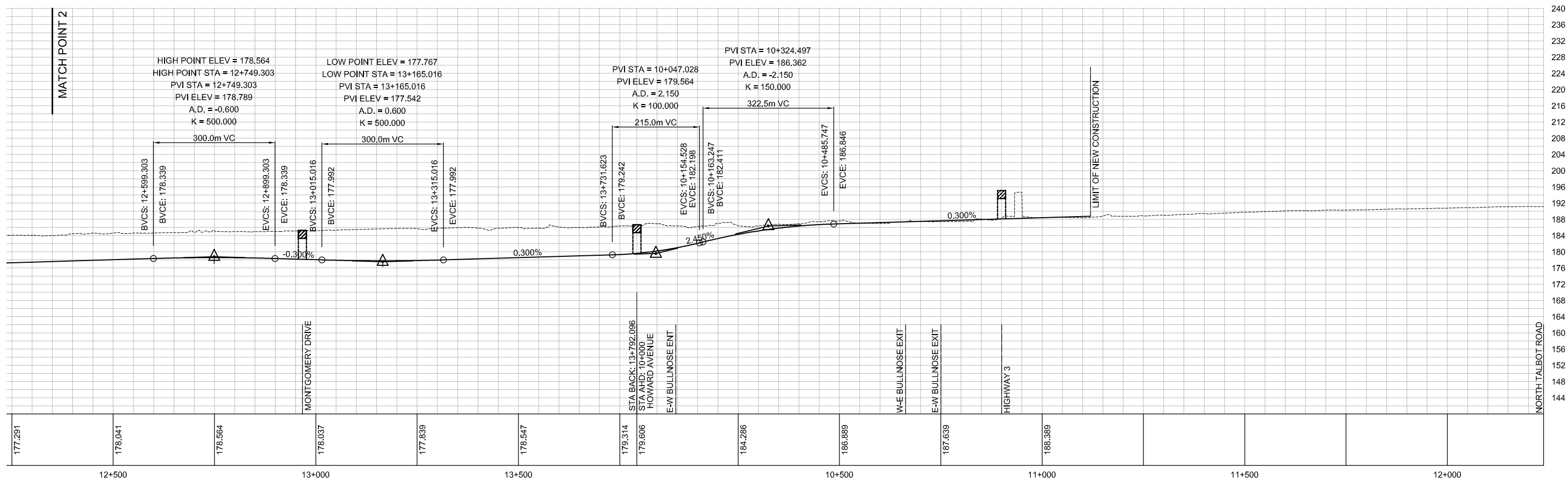
PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 1A TO PLAZA B - AT GRADE
 SCALE 1:10000/1000

WORK IN PROGRESS



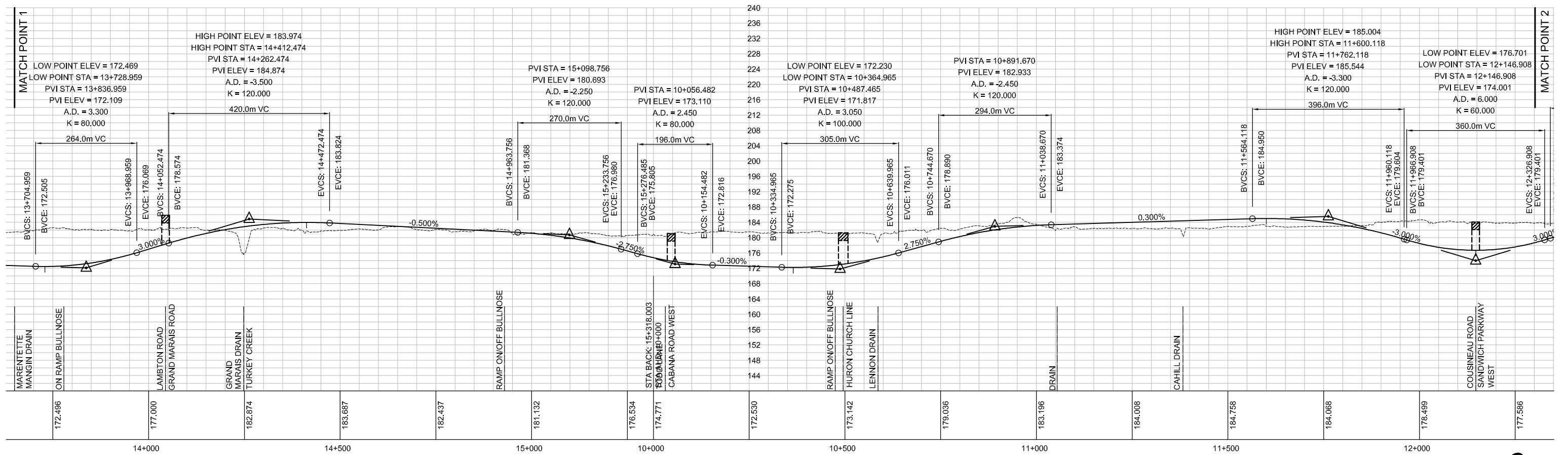
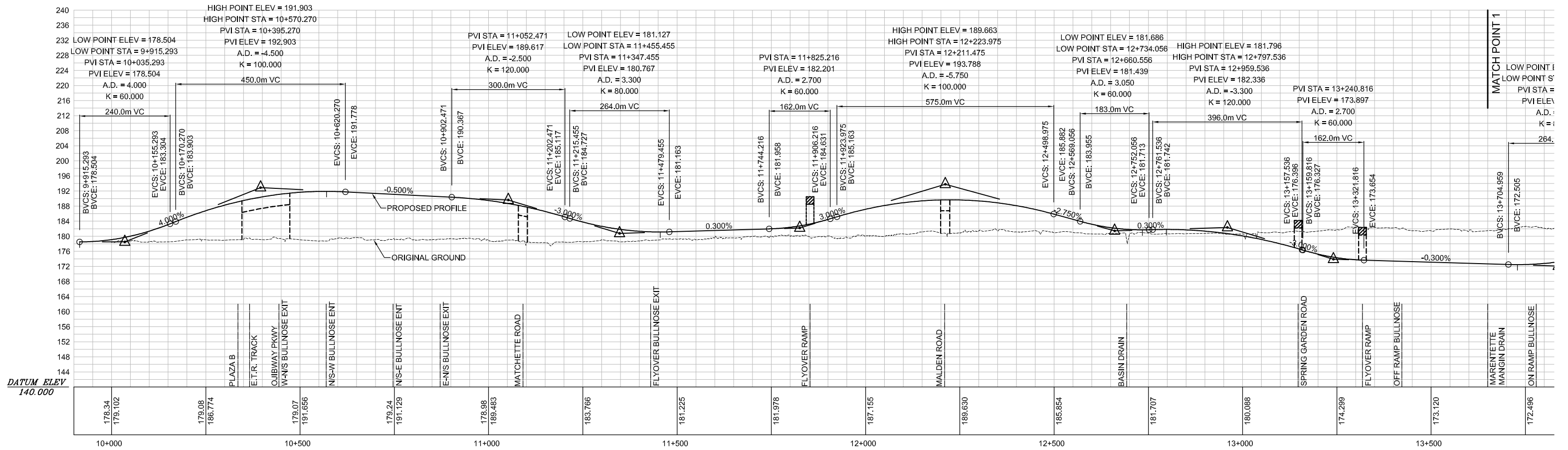
PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 1B TO PLAZA B - BELOW GRADE
 SCALE 1:10000/1000

WORK IN PROGRESS



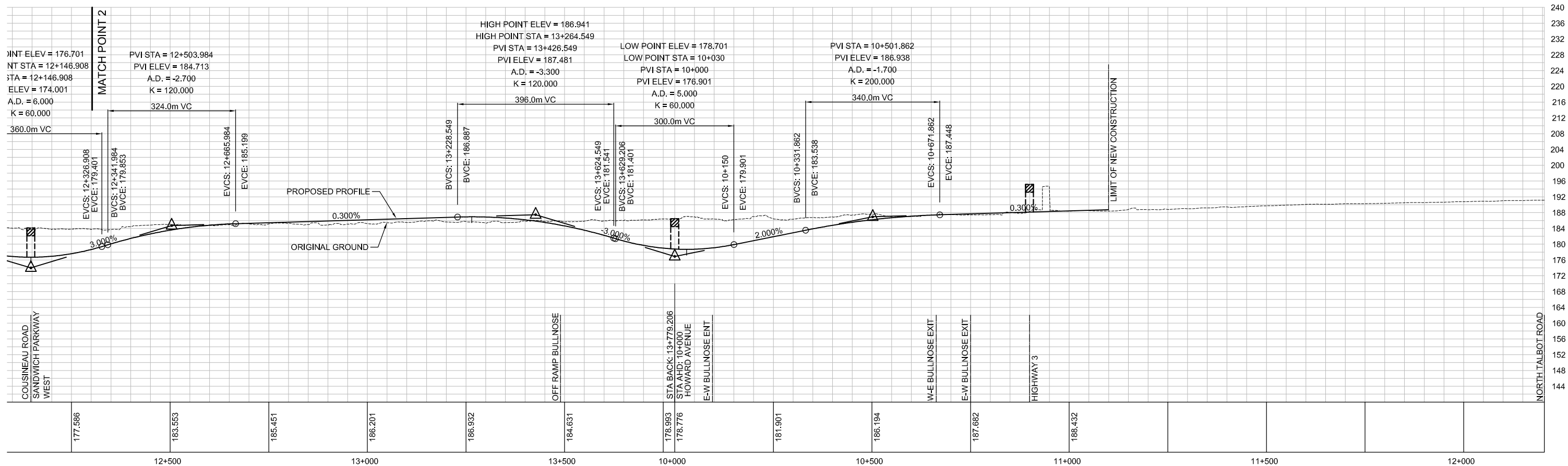
PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 1B TO PLAZA B - BELOW GRADE
 SCALE 1:10000/1000

WORK IN PROGRESS



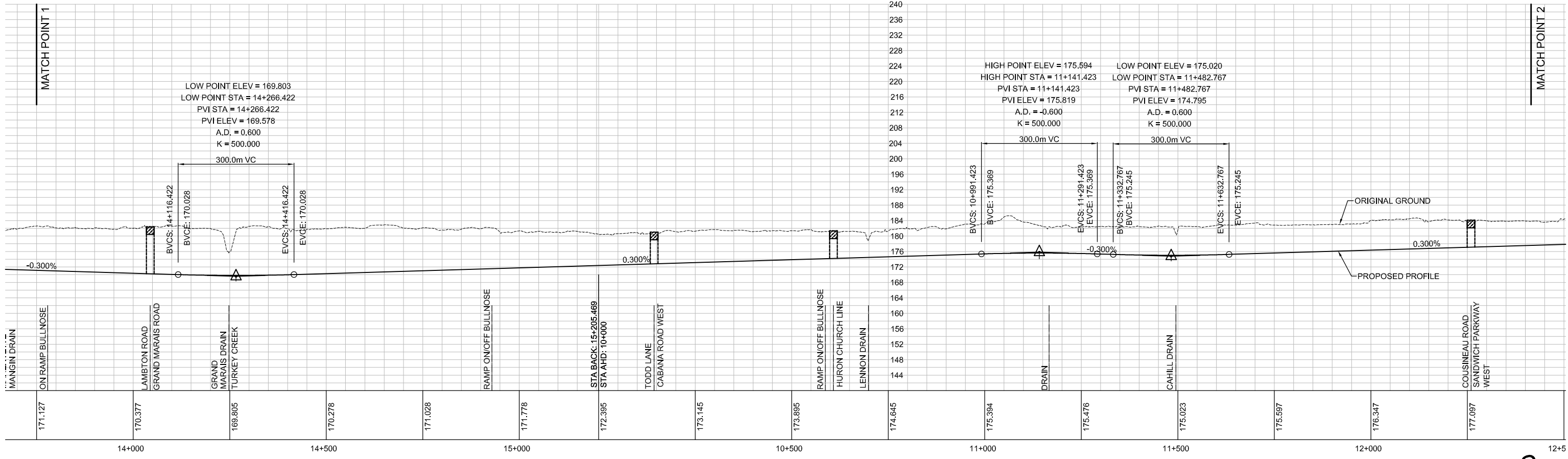
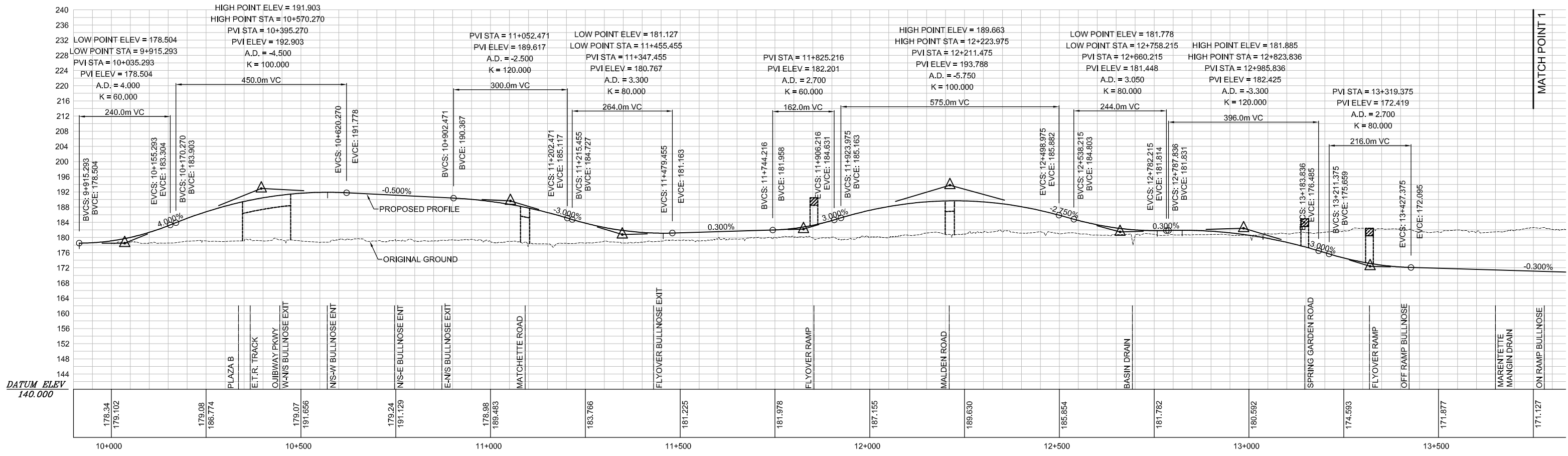
PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 2A TO PLAZA B - AT GRADE
 SCALE 1:10000/1000

WORK IN PROGRESS



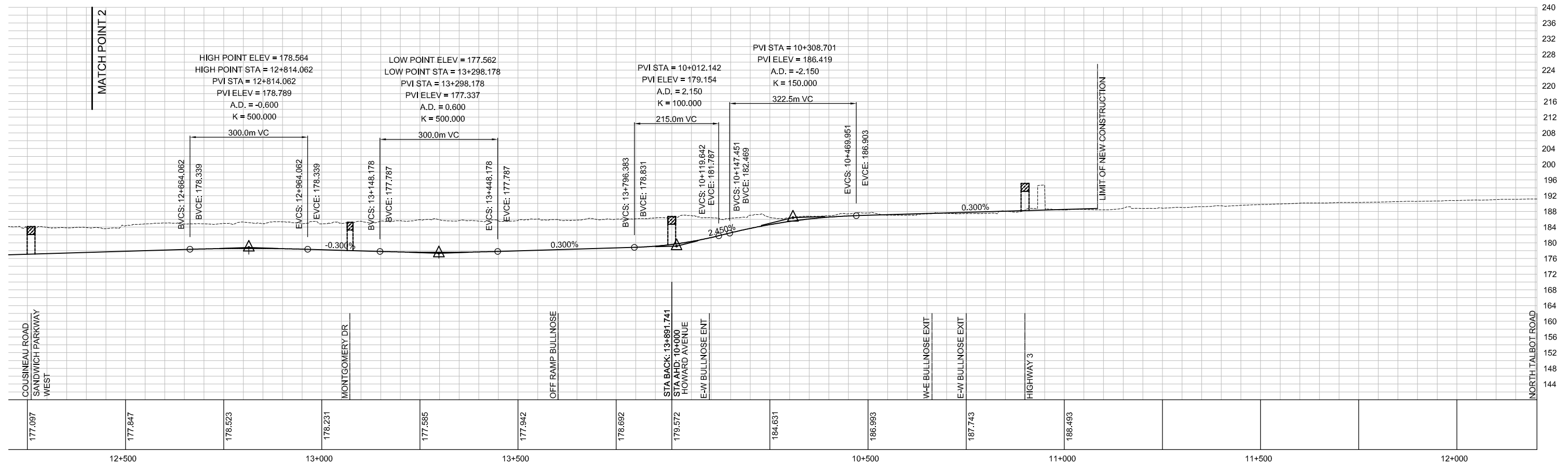
PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 2A TO PLAZA B - AT GRADE
 SCALE 1:10000/1000

WORK IN PROGRESS



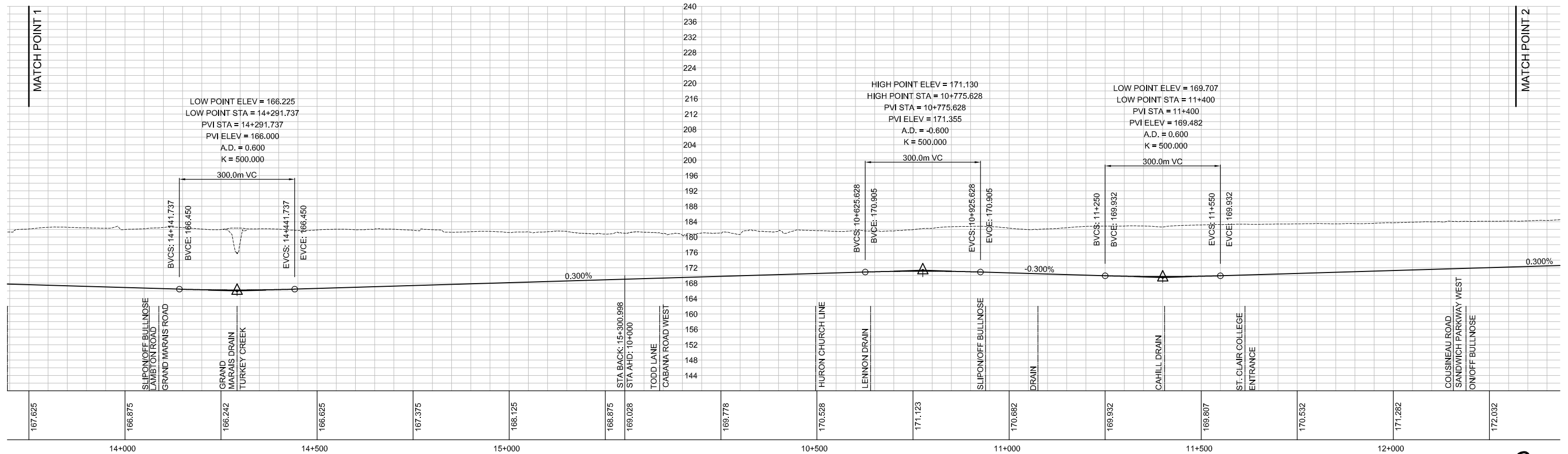
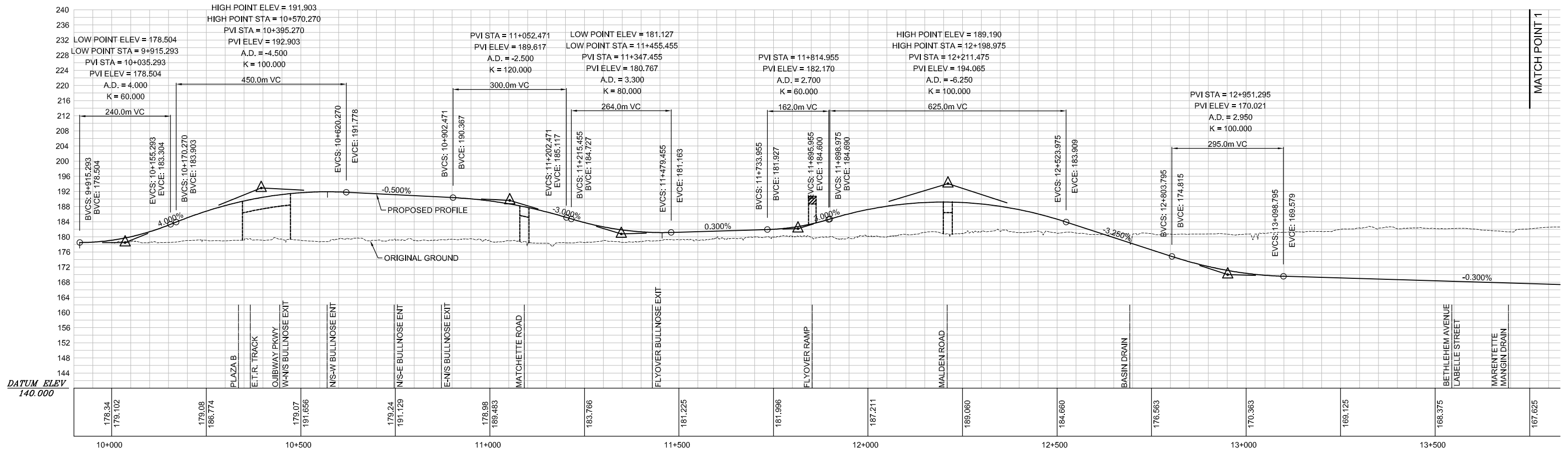
PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 2B TO PLAZA B - BELOW GRADE
 SCALE 1:10000/1000

WORK IN PROGRESS



PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 2B TO PLAZA B - BELOW GRADE
 SCALE 1:10000/1000

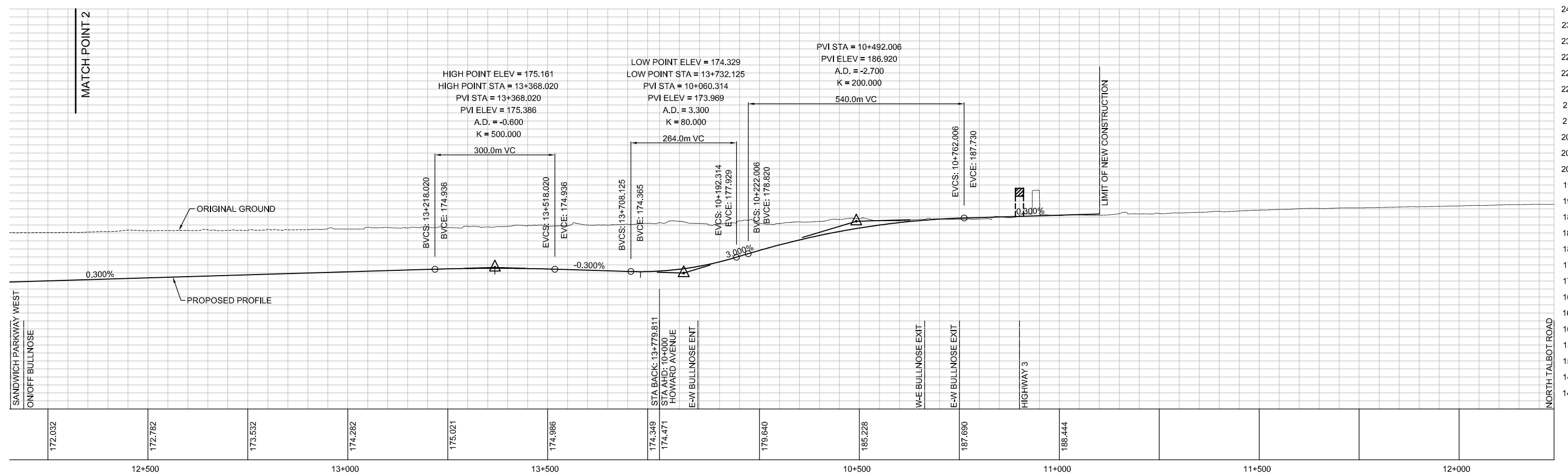
WORK IN PROGRESS



PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 3 TO PLAZA B - TUNNEL

SCALE 1:10000/1000

WORK IN PROGRESS



PROFILE OF HIGHWAY 401 ACCESS ROAD ALTERNATIVE 3 TO PLAZA B - TUNNEL
SCALE 1:10000/1000

WORK IN PROGRESS