MUNICIPALITY OF LAMBTON SHORES

CLASS EA TO ADDRESS TRAFFIC CONGESTION ALONG THE ONTARIO STREET CORRIDOR GRAND BEND

WELCOME

PUBLIC INFORMATION MEETING
AUGUST 24, 2016

Lambton Shores

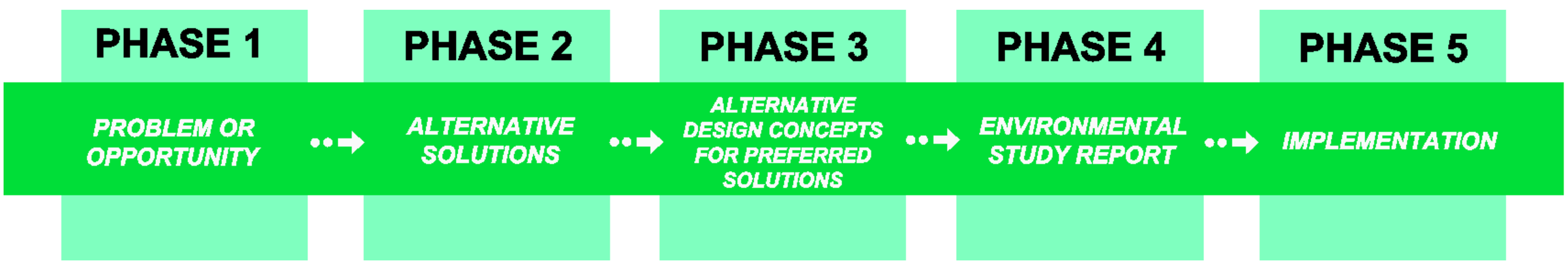
BMROSS
engineering better communities

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

SUMMARY OF CLASS EA PROCESS:

- PLANNING AND DESIGN PROCESS FOR MUNICIPAL WATER, WASTEWATER, AND ROAD PROJECTS
- CONDUCTED TO EVALUATE THE POTENTIAL IMPACTS OF THE PROJECT ON THE NATURAL, CULTURAL, SOCIAL, ECONOMIC, AND BUILT ENVIRONMENTS

STUDY PHASES:



SCOPE OF THIS STUDY:

- RECONSTRUCTION OF A ROAD OR WATER CROSSING WHERE THE RECONSTRUCTED FACILITY WILL NOT BE FOR THE SAME PURPOSE, USE, CAPACITY OR AT THE SAME LOCATION (CAPACITY REFERS TO EITHER HYDRAULIC OR ROAD CAPACITY)
  - SCHEDULE B PROJECTS APPROVED SUBJECT TO COMPLETION OF PHASES 1 AND 2 OF THE CLASS EA PROCESS (
- GENERAL STUDY COMPONENTS:
  - DEFINE PROBLEM / OPPORTUNITY;
  - IDENTIFICATION OF ALTERNATIVE SOLUTIONS;
  - CONSULTATION WITH THE PUBLIC / REVIEW AGENCIES;
  - SELECTION OF A PREFERRED ALTERNATIVE;
  - EVALUATION OF ALTERNATIVES / IMPACT MITIGATION;
  - PREPARATION OF ENVIRONMENTAL SCREENING REPORT ; AND
  - FINAL PUBLIC NOTIFICATION.

CLASS EA STUDY PROCESS (PHASES 1 & 2)

DEFINE PROBLEM OR OPPORTUNITY

↓

IDENTIFY ALTERNATIVE SOLUTIONS

↓

INVENTORY THE ENVIRONMENTAL SETTING

↓

IDENTIFY IMPACT OF ALTERNATIVE SOLUTIONS AND MITIGATING MEASURES

↓

CONSULT WITH PUBLIC AND REVIEW AGENCIES TO IDENTIFY ISSUES OF CONCERN

WHERE WE ARE TODAY

↓

EVALUATE ALTERNATIVE SOLUTIONS

↓

DOCUMENT STUDY FINDINGS AND PRESENT EVALUATIONS TO COUNCIL

↓

COUNCIL SELECTS PREFERRED ALTERNATIVE

↓

PREPARE PROJECT FILE AND PUBLISH NOTICE OF COMPLETION

↓

ADDRESS OUTSTANDING CONCERNS

↓

FINALIZE PROJECT FILE AND PROCEED TO DESIGN PHASE

CLASS EA INVESTIGATION

STUDY PURPOSE:

- TO IDENTIFY ALTERNATIVES TO ADDRESS CURRENT TRAFFIC CONGESTION ISSUES AFFECTING ONTARIO STREET CORRIDOR IN GRAND BEND;
- EXAMINE CONDITION OF BRIDGE ON HWY 21, AND ADJACENT PROPERTIES, IN ORDER TO EVALUATE OPTIONS ASSOCIATED WITH POSSIBLE WIDENING OF THE STRUCTURE TO ACCOMMODATE MORE TRAFFIC LANES;
- CONSIDER OTHER MODIFICATIONS TO THE CORRIDOR INCLUDING LANE CONFIGURATION/BIKE LANES/ETC.
- DEFINE ANY POTENTIAL IMPACTS WITH THE PROPOSED ALTERNATIVES AND EVALUATE MEASURES TO MITIGATE ANY IDENTIFIED CONCERNS; AND
- SELECT A PREFERRED ALTERNATIVE (INCLUDING DEFINING ANY REQUIRED MITIGATION).

CLASS EA ALTERNATIVES:

1) BUILD A NEW BRIDGE WITH GREATER CAPACITY
2) CONSTRUCT A BYPASS ROUTE AROUND GRAND BEND
3) WIDEN THE EXISTING BRIDGE TO ACCOMMODATE MORE LANES OF TRAFFIC
4) MODIFY LANE CONFIGURATION ALONG CORRIDOR
5) DO NOTHING

PROJECT TIMELINES

MARCH 2015 – PROJECT INITIATED

SEPTEMBER 2015 – GRANT APPLICATION

- GRANT FUNDING APPLICATION SUBMITTED TO ONTARIO COMMUNITY INFRASTRUCTURE FUND – OCIF

WINTER 2015/16 – PRELIMINARY ENGINEERING

- INSPECT EXISTING BRIDGE STRUCTURE ON 21
- SURVEY PROPERTIES ADJACENT TO BRIDGE/INTERSECTION
- CREATE PRELIMINARY LIST OF ALTERNATIVES

FEBRUARY 2016 – TRAFFIC STUDY

- EVALUATE OPERATIONS OF INTERSECTION
- TRAFFIC COUNTS COMPLETED
- PRELIMINARY REPORT PREPARED

JUNE 28, 2016 – COUNCIL PRESENTATION

- PRESENTED RESULTS OF TRAFFIC STUDY
- REVIEWED PRELIMINARY LIST OF ALTERNATIVES

JULY 2016 – MEETING WITH MTO

- REVIEWED SCOPE OF PROJECT
- EXPANDED SCOPE PROPOSED TO ADDRESS CORRIDOR

AUGUST 24, 2016 – PUBLIC MEETING

TRAFFIC OPERATIONS STUDY

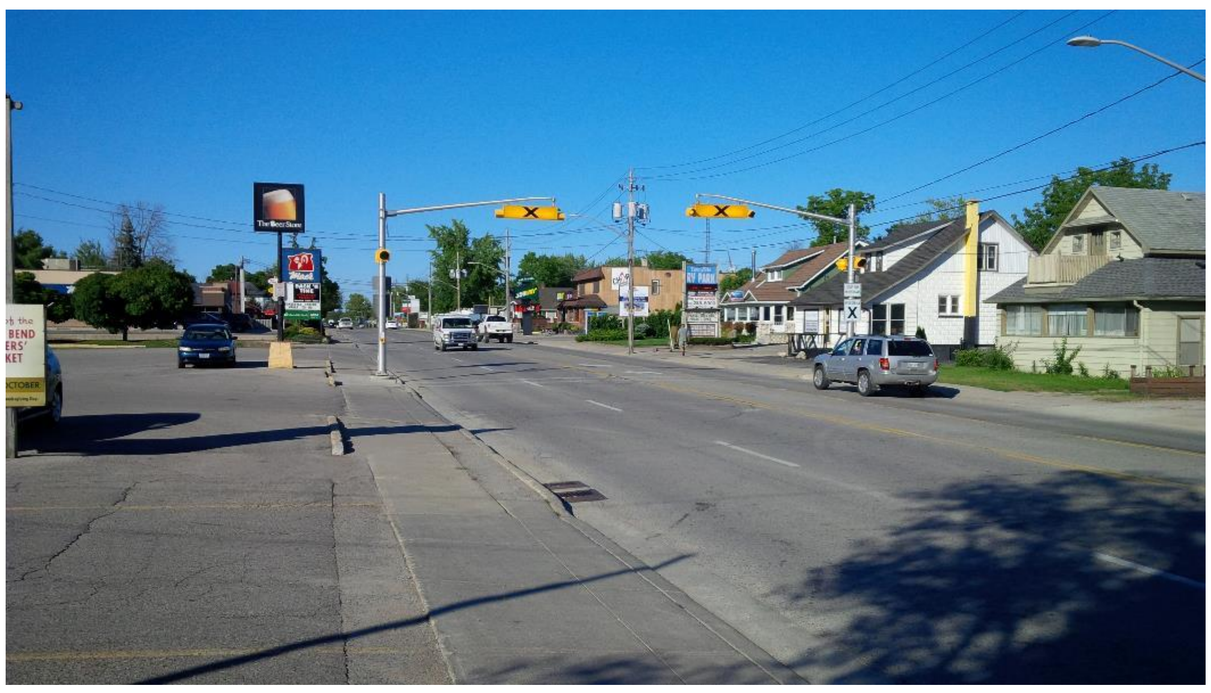
PURPOSE

- ANALYSE TRAFFIC OPERATIONS AT INTERSECTION OF ONTARIO STREET AND MAIN STREET IN GRAND BEND
- COMPLETE TRAFFIC & PEDESTRIAN COUNTS DURING PEAK PERIODS, INCLUDING DURING SUMMER LONG WEEKENDS
- ANALYSE IMPACTS OF VARIOUS LANE MODIFICATIONS ON TRAFFIC FLOW AND VOLUME
- PROVIDE INPUT TO PROJECT TEAM REGARDING ALTERNATIVES

METHODOLOGY

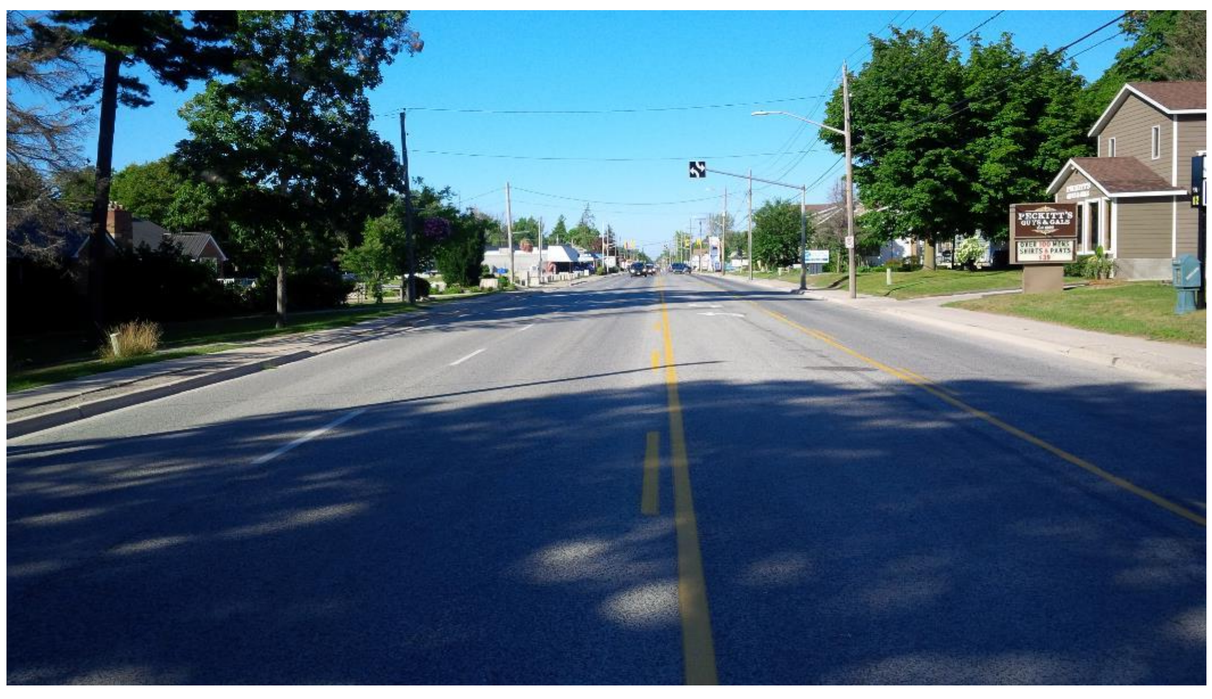
- CONDUCT SITE VISITS
- CONDUCT COMPREHENSIVE TRAFFIC COUNTING PROGRAM IN VICINITY OF INTERSECTION
- TURNING MOVEMENT VOLUMES COUNTED AT INTERSECTION
  - Weekday in June 2015
  - Victoria Day Long Weekend
  - Canada Day Long Weekend
- PERFORM OPERATIONAL ANALYSIS
- PREPARE DEMAND FORECASTS FOR A 5 YEAR (2020) HORIZON
- COMPLETE TRAFFIC SIGNAL WARRANTS FOR HIGHWAY 23 AND COUNTY ROAD 86 INTERSECTION
- EVALUATE ALTERNATIVES AS NECESSARY
- DOCUMENT STUDY

ONTARIO STREET CORRIDOR



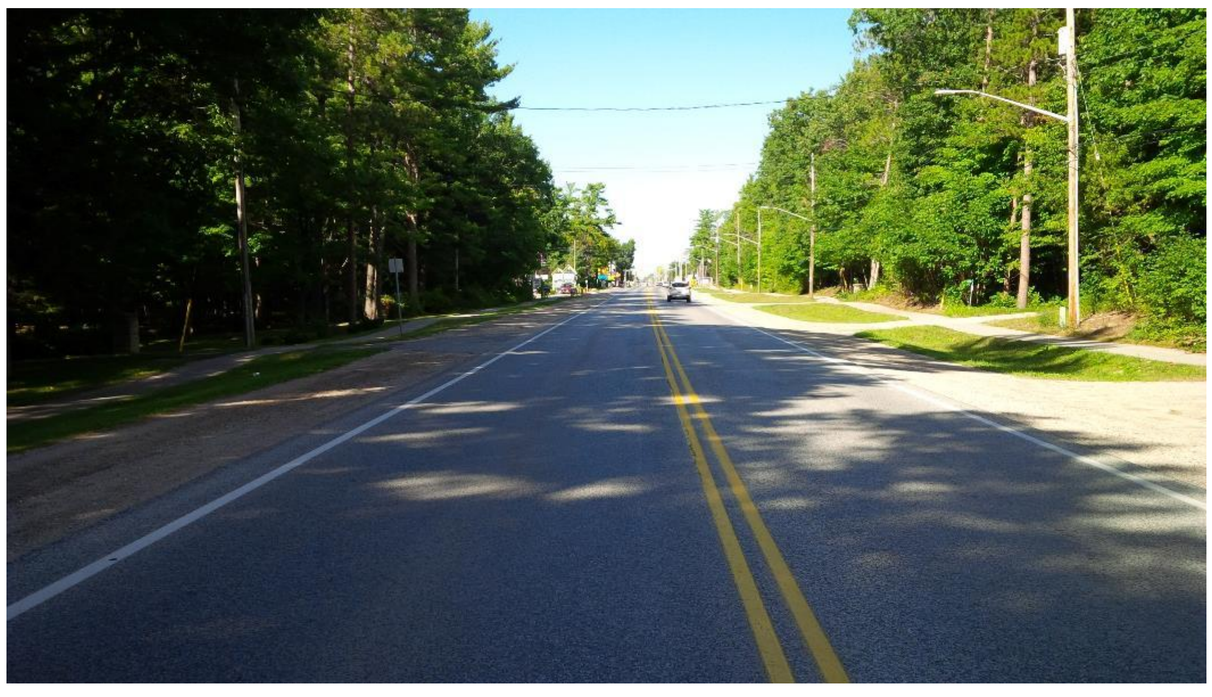
Crosswalk north of Intersection

Corridor adjacent to Oakwood



Corridor north of No Frills

Crosswalk at No Frills

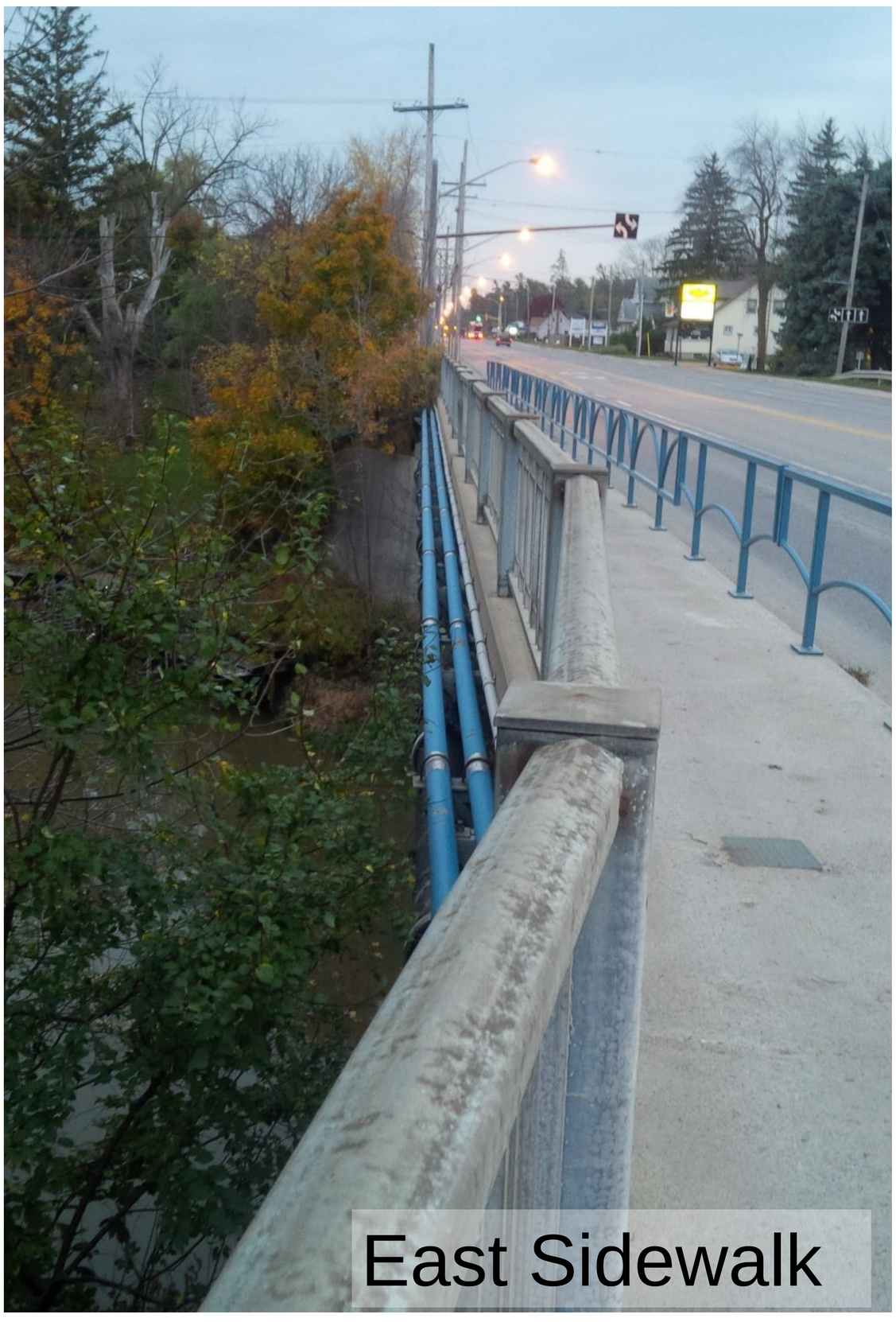


Corridor north of Merrywood Drive

Corridor north of Pinedale Road

HIGHWAY 21 BRIDGE

Traffic Queuing at Intersection



East Sidewalk

West Sidewalk

TRANSPORTATION STUDY

PEDESTRIAN COUNTS

EXISTING CONDITIONS (2015)

PEDESTRIAN VOLUMES WERE COLLECTED AT THE INTERSECTION OF MAIN STREET AND ONTARIO STREET DURING THREE EVENTS; WEEKDAY IN JUNE, MAY LONG WEEKEND AND JULY 4TH LONG WEEKEND.

Weekday Counts

Date	Time	Main St West Leg	Main St East Leg	Ontario South Leg	Ontario North Leg
June 3-4 (Wed & Thur)	3 – 6:00 pm & 7 am – 1:00 pm	46	49	69	54
June 3, 2015 Wednesday	3:00 – 4:00 pm (Peak Hour Data)	6	10	12	14
June 4, 2015 Thursday	9:00 – 10:00 am (Peak Hour Data)	10	7	0	6
June 4, 2015	11am – 12pm (Peak Hour Data)	0	14	0	0
June 4, 2015	12:00 – 1:00 pm (Peak Hour Data)	6	4	14	7

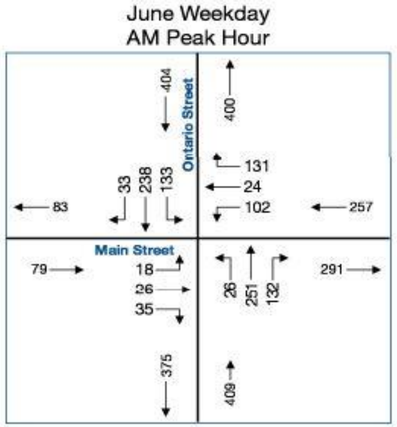
Weekend Counts

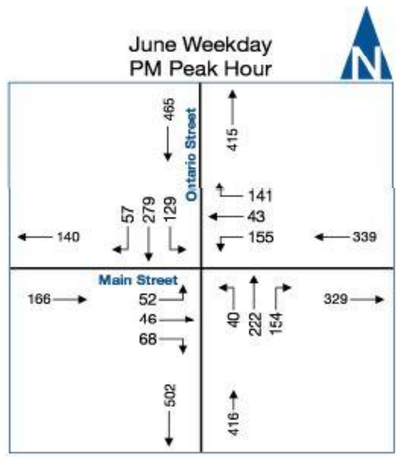
Date	Time	Main St West Leg	Main St East Leg	Ontario South Leg	Ontario North Leg
May 16, 2015 (Saturday)	10am – 5:15 pm (Total Day Count)	396	189	429	373
May 16, 2015	11am – 12:00 pm (Peak Hour Data)	39	10	28	38
May 16, 2015	12:30 – 1:30 pm (Peak Hour Data)	65	32	72	56
July 4, 2015 (Saturday)	10am – 5:15 pm (Total Day Count)	679	235	758	859
July 4, 2015	11am – 12:00 pm (Peak Hour Data)	43	32	40	61
July 4, 2015	12:30 – 1:30 pm (Peak Hour Data)	111	26	151	114

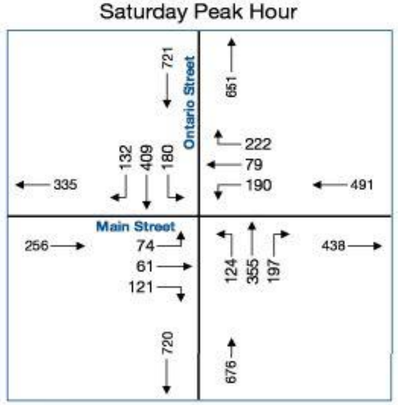
TRAFFIC COUNTS

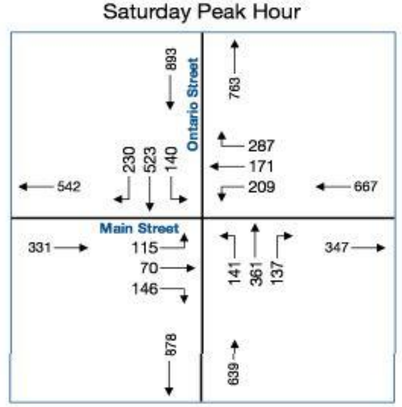
EXISTING CONDITIONS (2015)

THE CURRENT CONFIGURATION OF THE SIGNALIZED INTERSECTION AT ONTARIO STREET AND MAIN STREET IS INSUFFICIENT TO HANDLE THE TRAFFIC VOLUMES SEEN BY SUMMER WEEKEND VOLUMES, PARTICULARLY ON HOLIDAY WEEKENDS, WITH THE 95TH PERCENTILE QUEUE BEING CALCULATED AS BEING OVER CAPACITY FOR THE NORTHBOUND THROUGH MOVEMENT.





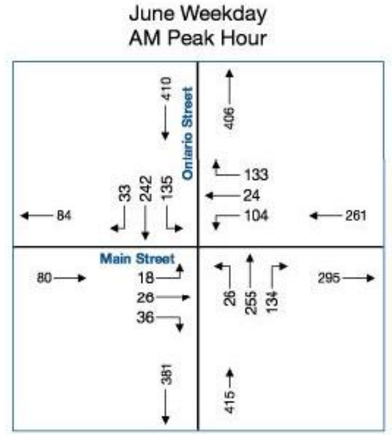


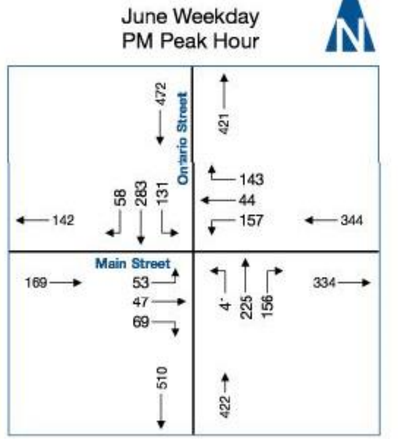


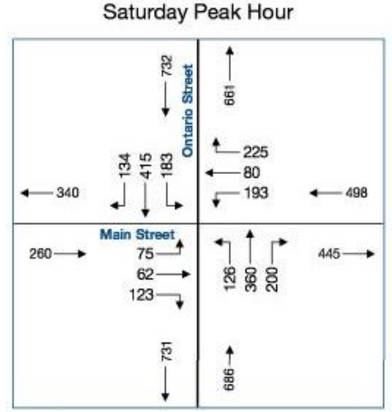
TRAFFIC COUNTS

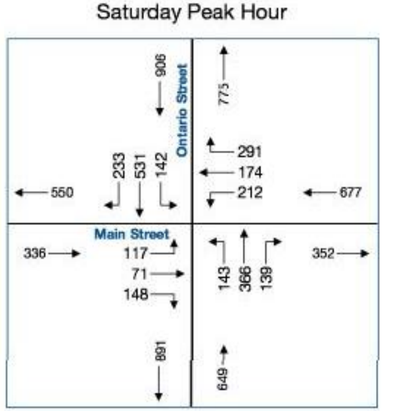
FUTURE OPERATIONS (2020)

GROWTH RATES WERE CALCULATED USING HISTORICAL VOLUME DATA PROVIDED BY MTO FOR AADT (ANNUAL AVERAGE DAILY TRAFFIC) AND SADT (SUMMER AVERAGE DAILY TRAFFIC). A GROWTH RATE OF 0.3% WAS DETERMINED FOR THE INTERSECTION, WHICH RESULTED IN LITTLE CHANGE FROM CURRENT CONDITIONS



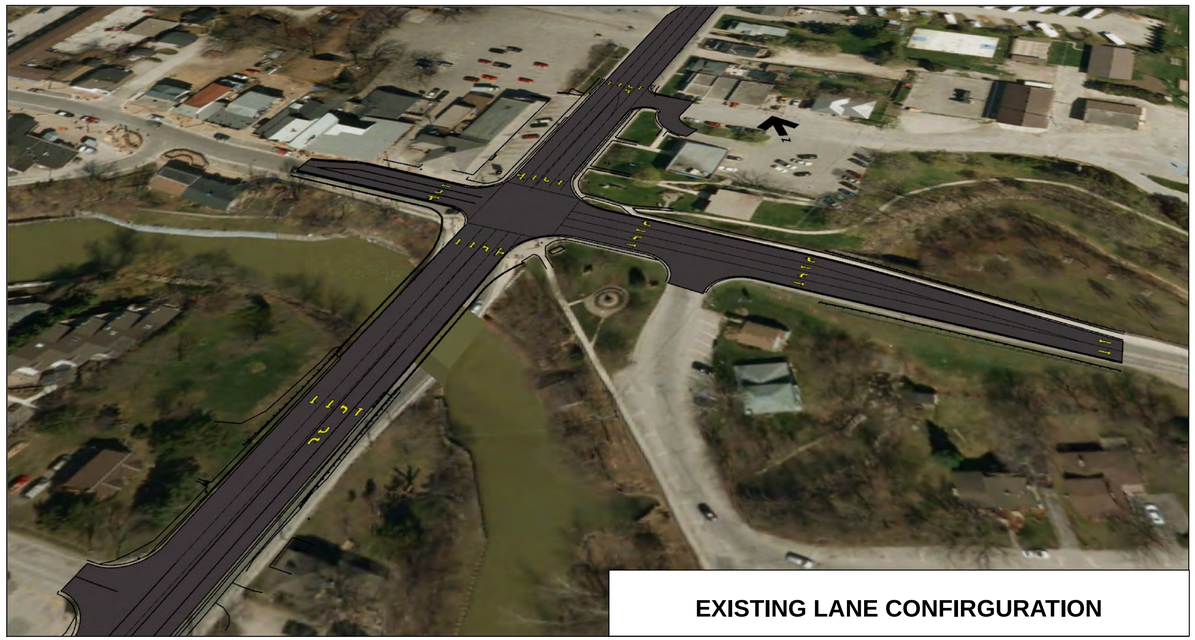






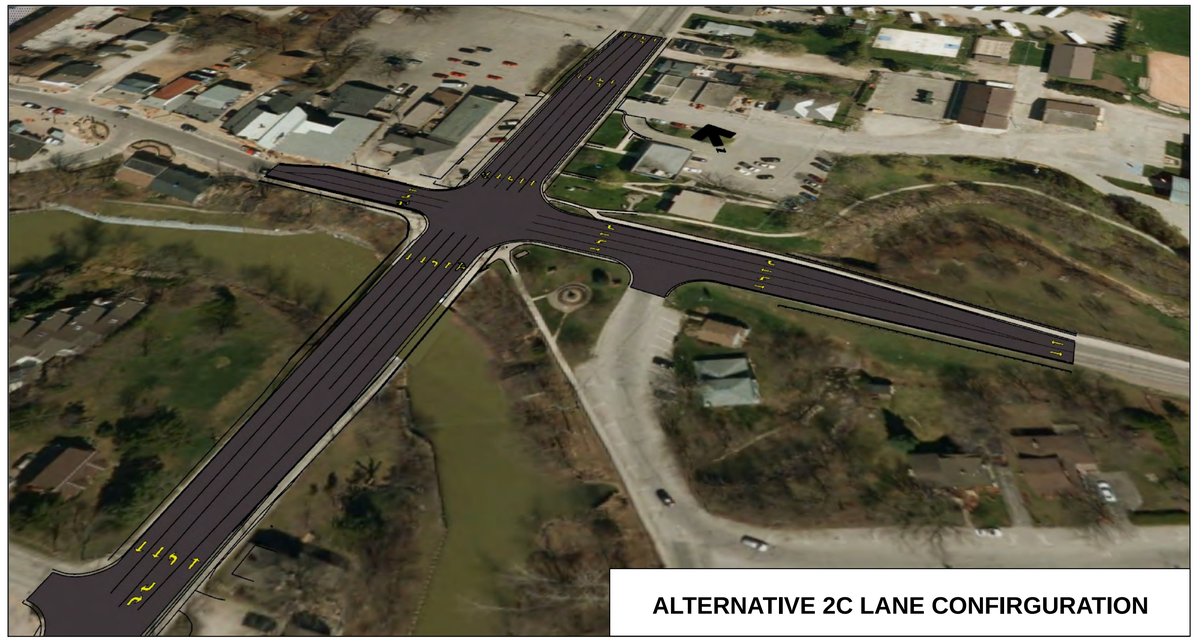
EXISTING AND PROPOSED LANE CONFIGURATIONS
WIDENING OF HIGHWAY 21 BRIDGE (COMMUNITY OF GRAND BEND)

EXISTING

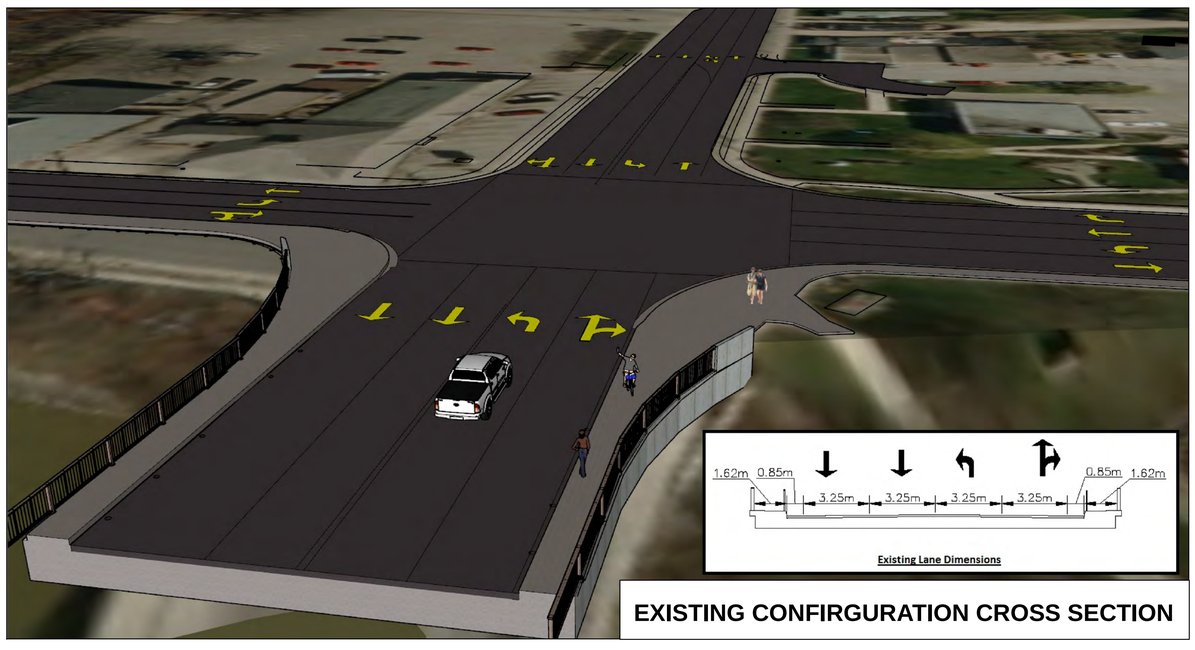


EXISTING LANE CONFIRGURATION

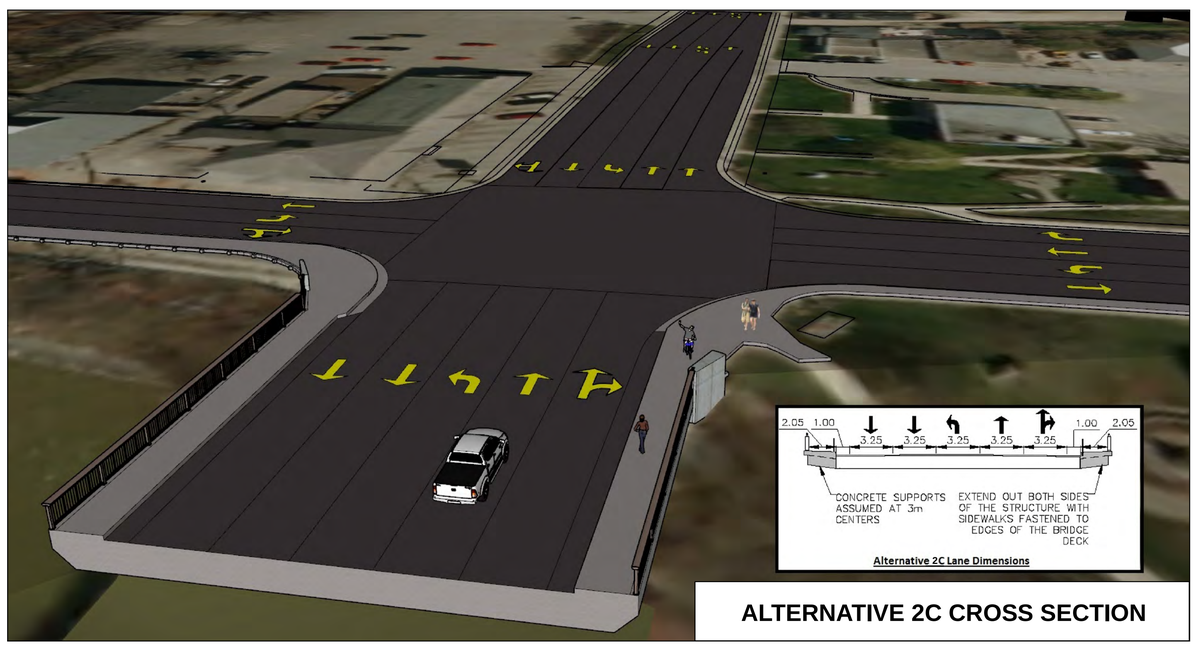
ALTERNATIVE 2C



ALTERNATIVE 2C LANE CONFIRGURATION



EXISTING CONFIRGURATION CROSS SECTION

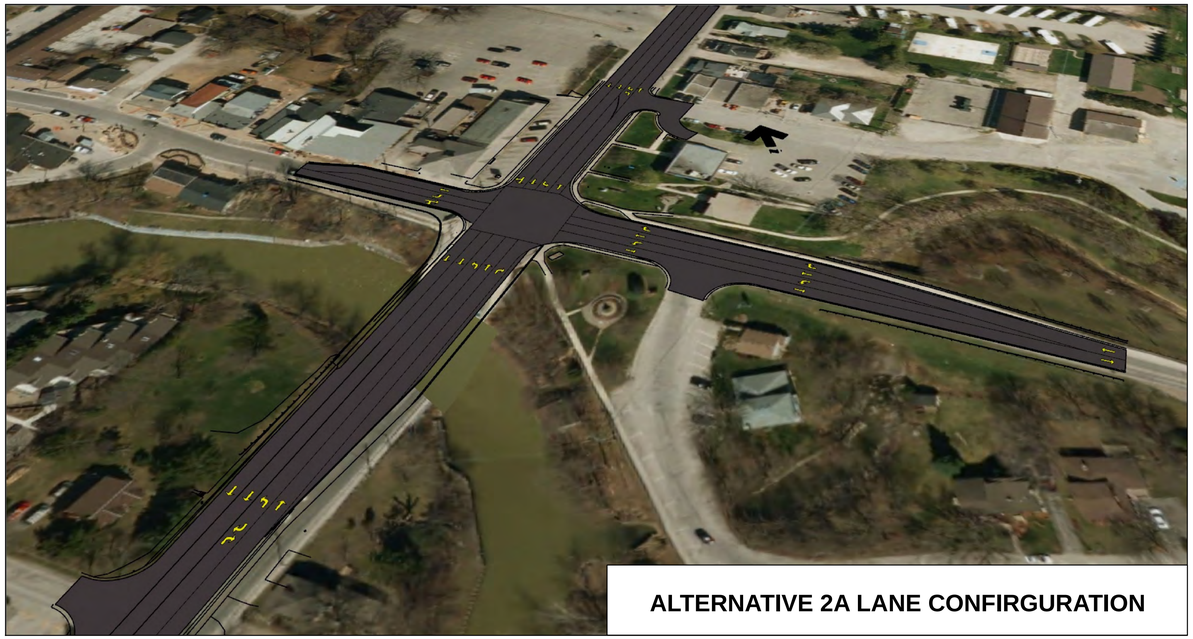


ALTERNATIVE 2C CROSS SECTION

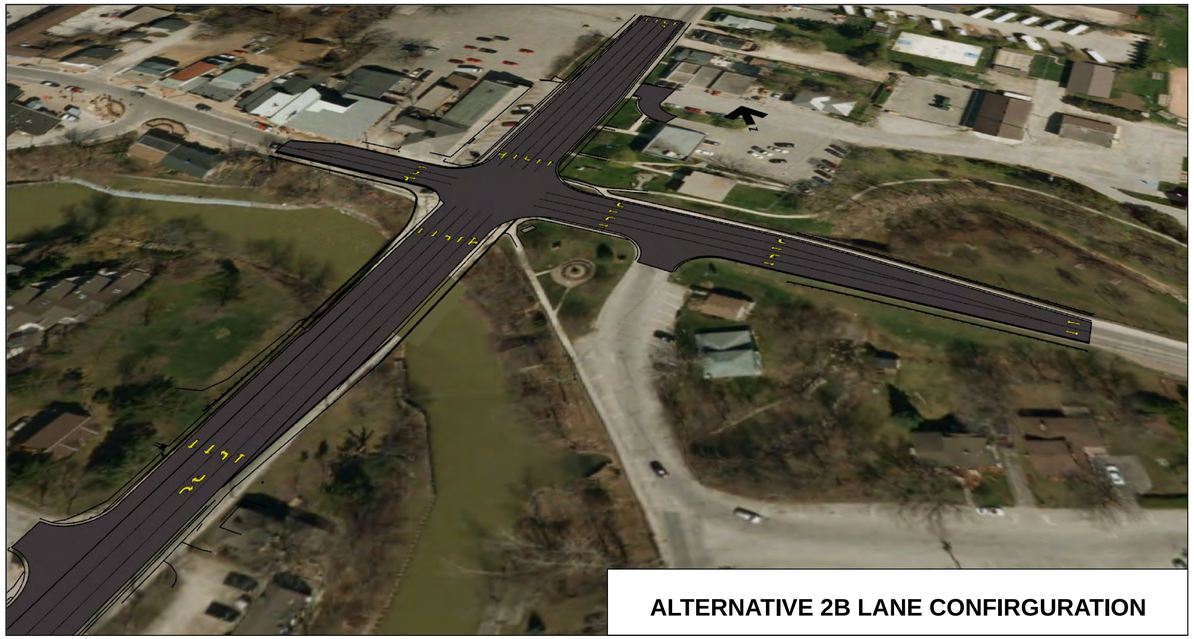
BMROSS
engineering better communities

EXISTING AND PROPOSED LANE CONFIGURATIONS
WIDENING OF HIGHWAY 21 BRIDGE (COMMUNITY OF GRAND BEND)

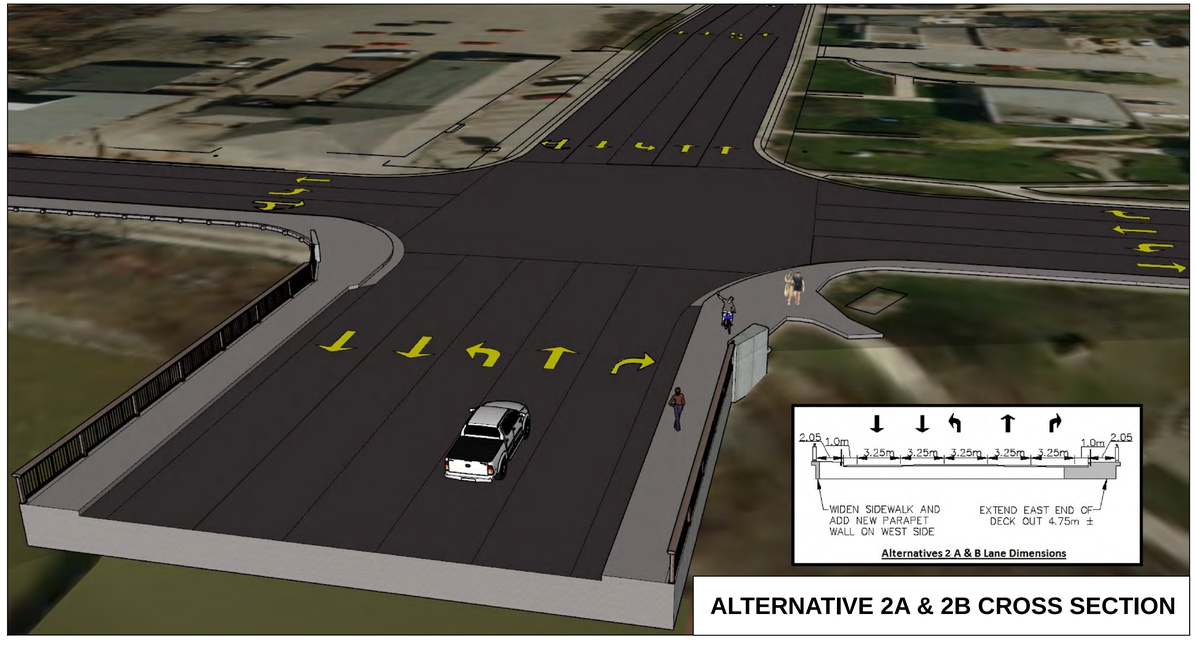
ALTERNATIVE 2A & 2B



ALTERNATIVE 2A LANE CONFIRGURATION



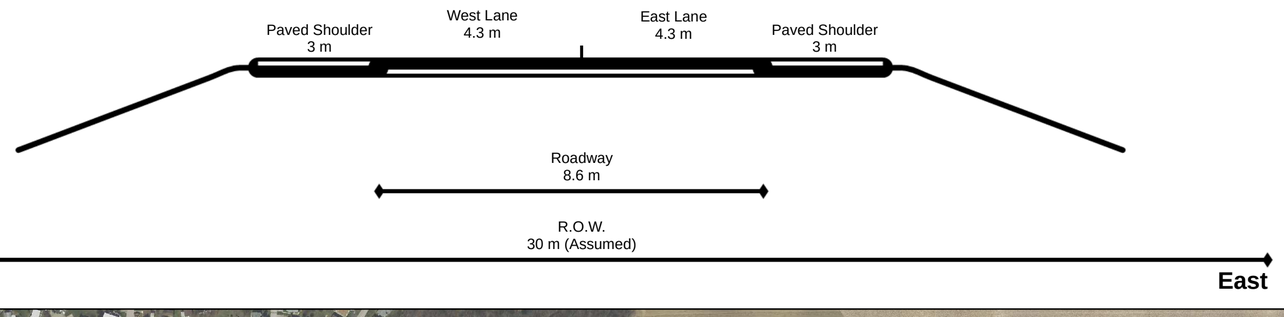
ALTERNATIVE 2B LANE CONFIRGURATION



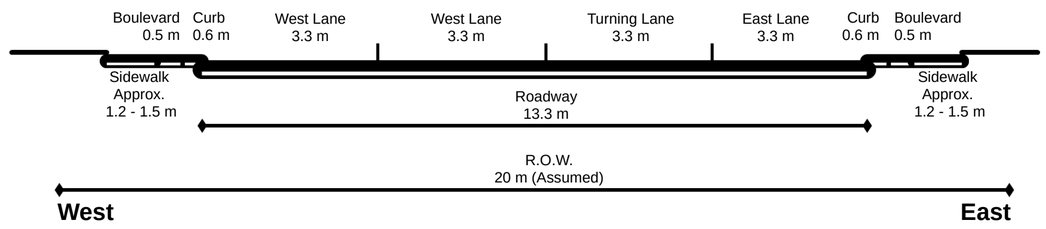
ALTERNATIVE 2A & 2B CROSS SECTION

BMROSS
engineering better communities

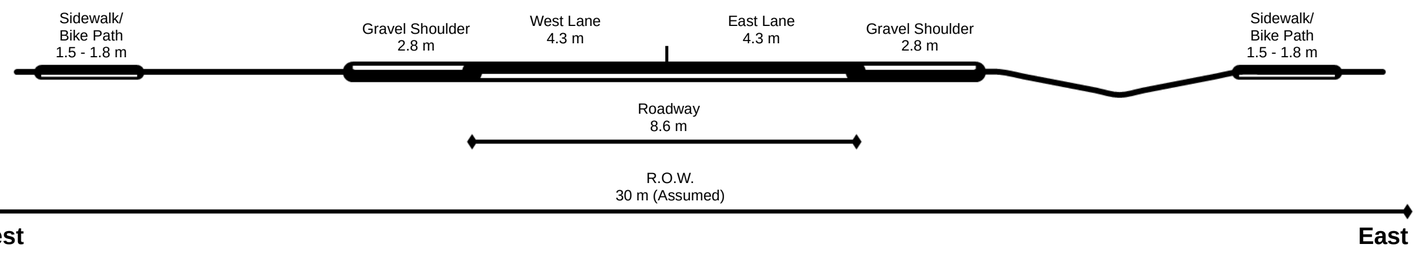
A Illustrated Cross-Section of Lane Configuration - Highway 21 north of Grand Bend



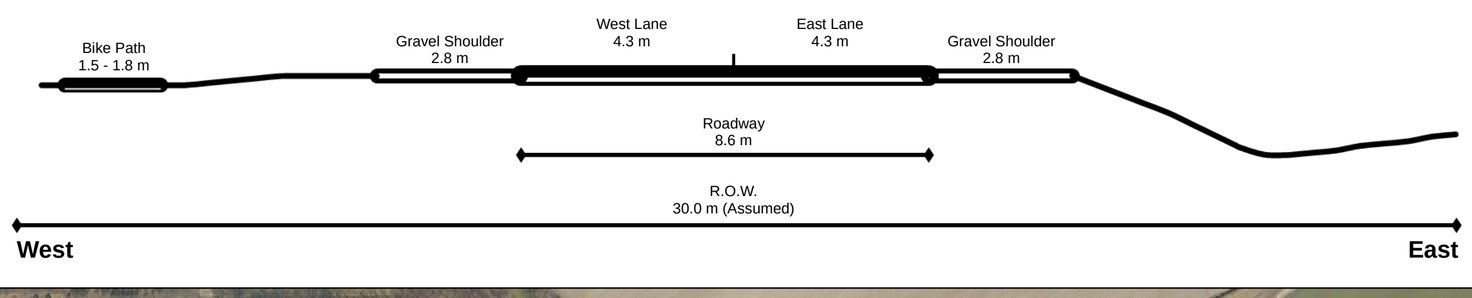
B Illustrated Cross-Section of lane Configuration - Ontario St through Grand Bend



C Illustrated Cross-Section of Lane Configuration - Merrywood to No Frills



D Illustrated Cross-Section of Lane Configuration - Merrywood South



EXISTING CORRIDOR LANE CONFIGURATION

BMROSS
engineering better communities

Extent of Affected Corridor

BMROSS
engineering better communities