

**THE CORPORATION OF THE CITY OF WINDSOR
OFFICE OF THE CITY ENGINEER- OPERATIONS**



MISSION STATEMENT:

“Our City is built on relationships – between citizens and their government, businesses and public institutions, city and region – all interconnected, mutually supportive, and focused on the brightest future we can create together.”

LiveLink REPORT #: 18030	Report Date: November 4, 2015 PW#5082-11/24/15:eb
Author’s Name: Mark Winterton	Date to Council: December 7, 2015
Author’s Phone: 255-6247 ext. 6356	Classification #:
Author’s E-mail: mwinterton@citywindsor.ca	

To: Mayor and Members of City Council

Subject: Response to CQ46-2015 Impact of New Hospital on City Road Network and Cabana Road Active Transportation Project

1. RECOMMENDATION: City Wide: Ward(s): _____

THAT the report *CQ46-2015 – Impact of New Hospital on City Road Network and Cabana Road Active Transportation Project* **BE RECEIVED** for information and that Council provide **DIRECTION** regarding any amended or additional decisions regarding the Cabana/Division Rd. Corridor, failing which the previously approved project will be carried out promptly.

EXECUTIVE SUMMARY:

As a result of the announcement of the acute care health center and the certain impact on local infrastructure including the road network, administration is recommending that Council consider reprioritizing the capital budget to begin the phased construction of the full Environmental Assessment preferred design for Cabana Road.

Council has previously approved the construction of active transportation facilities, including sidewalks and bike lanes on Cabana Road at a total budget of \$6.8M. The active transportation facilities will improve quality of life issues along Cabana corridor, however, it will not address current and future capacity issues.

Should Council choose to reprioritize the budget, administration is recommending the following:

In order to proceed with construction of the Cabana Road East from west of Provincial Road to east of Howard Avenue as per Cabana/Division Road Corridor EA preferred design option: THAT the City Engineer BE AUTHORIZED to proceed with the Request for Proposal process as per the Purchasing Bylaw for the design and contract administration of the Cabana Road Environmental Assessment implementation.

2. BACKGROUND:

Council Question:

At the August 4, 2015 meeting of Council, the following Council Question was put forward:

CQ46-2015

Asks considering that the Acute Care Health Centre AKA “Mega-Hospital” will be located at 9th Concession and County Road 42; how will this affect the Cabana Road, Provincial Road and Division Road EA Study and modifications as recommended recently.

In addition, in late August, 2015, Mayor Dilkens requested cost and phasing information regarding the full Cabana Road corridor work. This information is presented herein.

Introduction:

There are several approved municipal road project Environmental Assessments in the vicinity of the Acute Care Health Centre and these are illustrated in **Figure 1**.

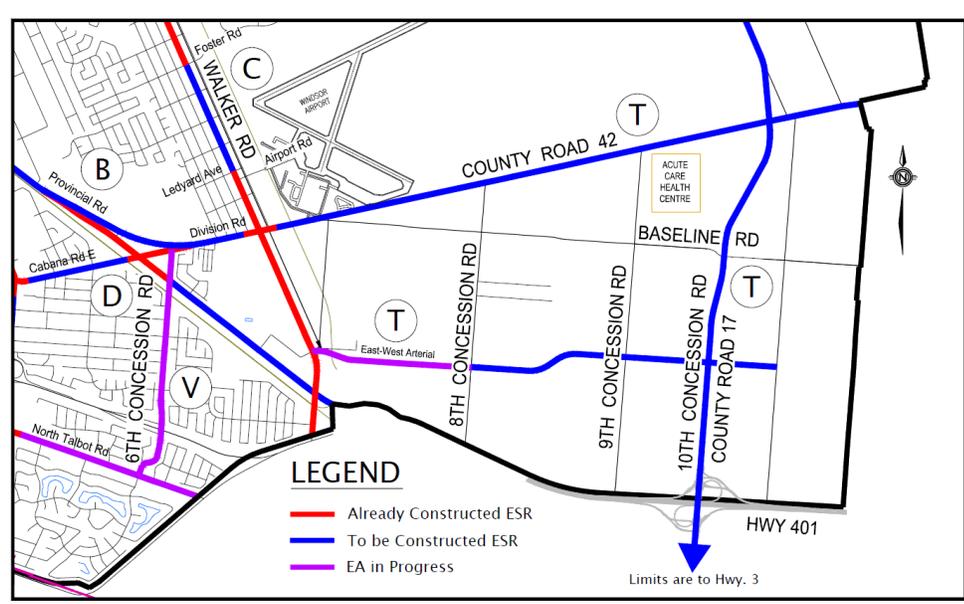


Figure 1: Excerpt from Environmental Study Report (ESR) Status Map - 2015

B – Provincial/Division Rd. ESR (2007)

Provincial Road (City limits, to the junction with Division Rd. near Marentette Ave., continuing along Division Rd. to Howard Ave.) Division Rd (Cabana Rd. through Marentette Ave.)

C- Walker Rd. ESR (2001)

Walker Road Corridor (Riverside Drive East to the City Limits) and Grand Marais Road East Corridor (Walker Road to Central Avenue)

D – Cabana/Division Road Corridor ESR (2009)

Huron Church Road to Walker Road

T – Lauzon Parkway ESR (2014)

Lauzon Parkway (EC Row to Hwy 401), County Road 42 (Walker Rd. to City limits) and East-West Arterial Addendum

- East-West Arterial Addendum (2015)

V – Sixth Concession Rd. /North Talbot Rd. ESR (Draft 2015)

Sixth Concession Rd. (Cabana Rd. E. to North Talbot Rd.), North Talbot Rd. (Howard Ave. to east City limits)

The location of the proposed Acute Care Health Centre was announced publically in July 2015, in the Windsor Star and is illustrated in Figure 1. Therefore, the EA's discussed above did NOT take this proposed development specifically into consideration at the time these reports were completed. The following topics are discussed for the Environmental Assessments individually in the attached (Appendices A-F):

- general details about the technically preferred alternative identified and
- progress on implementation including:
 - related Council Direction,
 - sections constructed and
 - committed future capital funding for planned detailed design and construction works.

At its meeting held on July 6, 2015 Council approved (M245-2015) applying for a grant under the Ontario Municipal Cycling Infrastructure Program (OMCIP) for up to \$325,000. The City of Windsor is currently short listed for this grant. If received, this grant would be applied against the Cabana Road project. The application is intended to be flexible enough for Council depending on the action related to this report.

Part of the intent of the interim active transportation facilities was to enhance the Windsor Loop. This project, when completed, will be a 42.5 km circular loop of cycling facilities around the city as well as connecting to the Trans Canada Trail.

3. DISCUSSION:

Current Official Plan Land Use Designations for Proposed Mega Hospital Site

As per the Official Plan, the current land use designations for the proposed Acute Care Health Centre site are Future Urban Area and Future Employment area and the zoning is Agricultural, as seen in **Figure 3**. A number of planning approvals (particularly zoning, official plan amendments and site plan) are expected to be requested in the course of time for the subject site prior to development. No planning applications have been submitted to date except for a land severance application.



Figure 3: Schedule D - Land Use



At the time of development, the Municipality will determine the appropriate studies related to servicing, transportation, stormwater management, and secondary plan approval as required by the City of Windsor Official Plan.

The City will require a traffic impact study and a secondary plan as part of infrastructure and planning development approval processes. Additional supporting studies and information that can be requested are discussed in the section *10.2 Support Studies and Information* of the Official Plan. All support studies shall be prepared by qualified professionals to the satisfaction of the Municipality in consultation with relevant public agencies and affected parties.

Impacts to Adopted ESRs

2,523 hectares of land were transferred to the City and includes the location of the Acute Care Health Centre. This change in jurisdiction did not affect the validity of the ESRs completed in 2001 (Cabana/Division and Walker Road). Even when these transfer lands were not part of the City, they were included as part of the study area and development on these lands was reflected in traffic forecasts.

The Environmental Assessments described in the Appendices A-F are planning documents undertaken to identify future transportation network solutions for generally a 20yr study horizon. In addition to traffic growth trends, population and employment data and their projections are used to inform the study traffic analysis. As noted above, although the current zoning for the site is Agricultural, the current land use designation in the Official Plan is Future Growth Areas/ Future Employment. Therefore, the approved designs for ultimate conditions from the Cabana/Division Road, Walker Road, and Lauzon Parkway/County Road 42 EAs already reflect relatively high trip generation for the lands now identified for the Acute Care Health Centre.

For interim conditions, the Lauzon Parkway/County Road 42 ESR includes volume thresholds to identify when key transportation network improvements are warranted. Therefore, while the Acute Care Health Centre may cause changes in the timing of when these improvements are needed, the recommendations of this ESR for interim conditions prior to full build-out of the road network will remain valid.

The off-site improvements required to mitigate the impact of this proposed development will be identified in the appropriate related studies required through the development application process as outlined in the Official Plan in section 10.2.

The main anticipated impact of this application on the City's transportation network will be consideration to re-prioritize capital budget allocations to construct network capacity improvements in the vicinity of the Acute Care Health Centre and adjust the EA recommended construction sequences accordingly as appropriate.

Capacity Impacts in Anticipation of the Acute Care Health Centre

Cabana Rd. is currently experiencing capacity strains at certain locations at certain times of the day as illustrated in Figure 6.

Resolution CR65/2009 as fully described in Appendix D states in part:

*“...and, that subsequent to completion of the intersection improvements, that traffic studies **BE COMPLETED** to afford City Administration and the Minister to consider a three lane option for Cabana Road,
and further, that residents **BE ENGAGED** in the design process at each phase.....”*

Figures 6 through 8 were prepared for the Cabana/Division Rd. Corridor ESR, and depict existing and projected traffic volumes on the current 2 lane cross section (Fig. 6) as well as the 4 lane preferred alternative (Fig. 7) and the 3 lane cross section (Fig. 8). The sections are coloured codes to readily communicate capacity concerns.

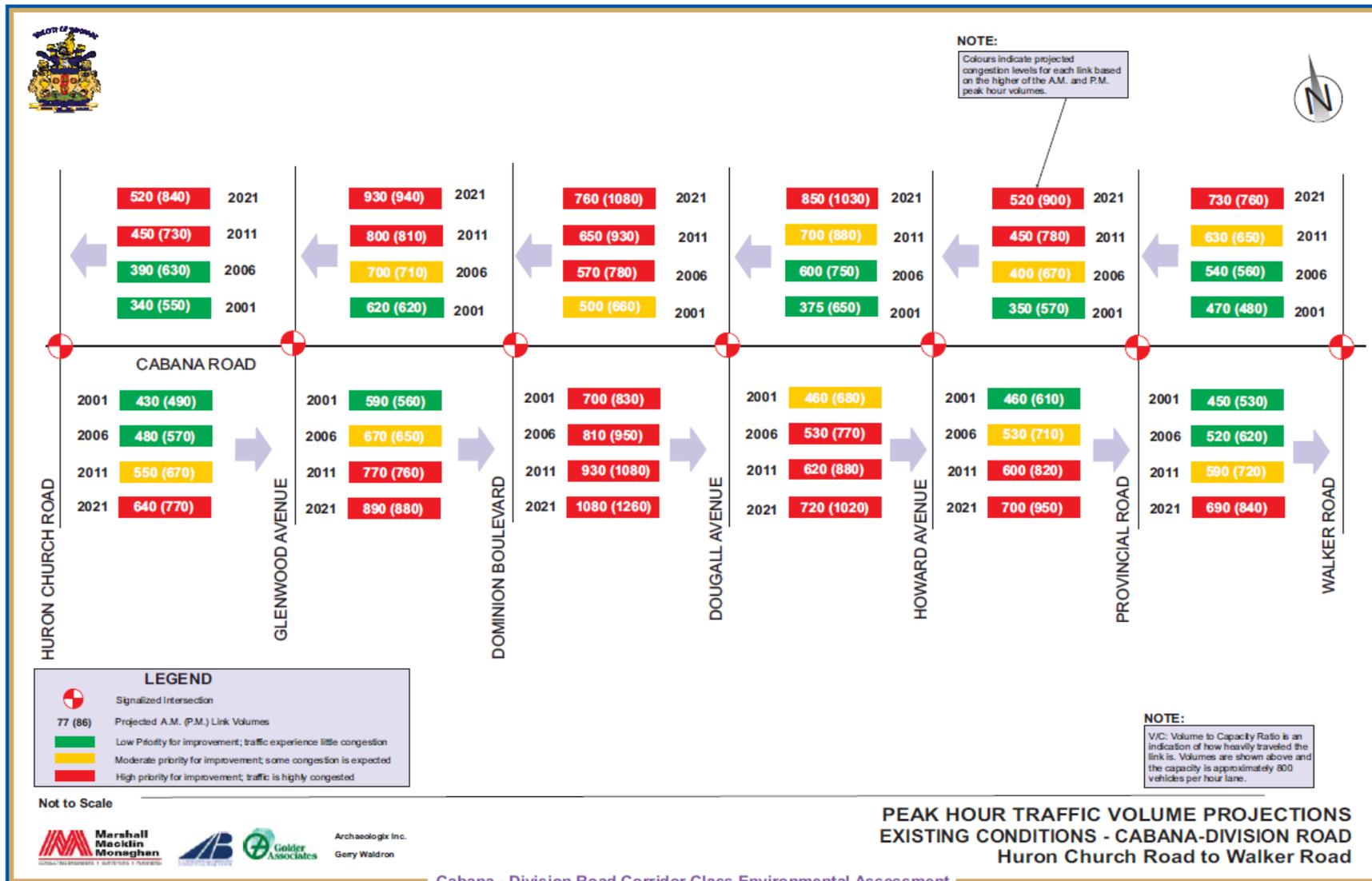
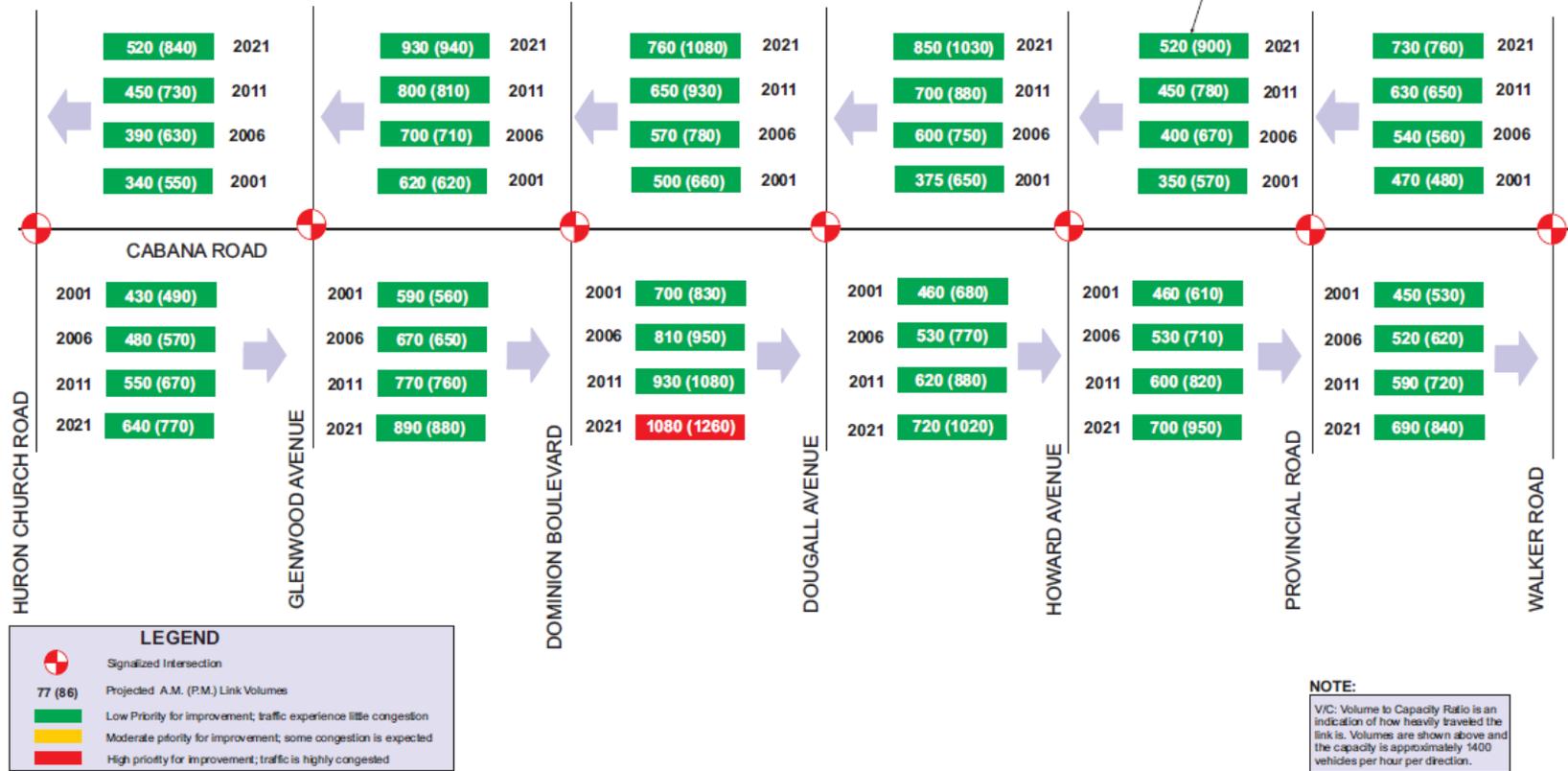


Figure 6: Peak Hour Traffic Volume Projections – Existing Conditions (Source: Cabana-Division Road Corridor Class EA)



FOUR LANE ROADWAY CROSS SECTION

NOTE:
Colours indicate projected congestion levels for each link based on the higher of the A.M. and P.M. peak hour volumes.



LEGEND

- Signalized Intersection
- 77 (86) Projected A.M. (P.M.) Link Volumes
- Low Priority for improvement; traffic experiences little congestion
- Moderate priority for improvement; some congestion is expected
- High priority for improvement; traffic is highly congested

NOTE:
V/C: Volume to Capacity Ratio is an indication of how heavily traveled the link is. Volumes are shown above and the capacity is approximately 1400 vehicles per hour per direction.

Not to Scale



PEAK HOUR TRAFFIC VOLUME PROJECTIONS

Huron Church Road to Walker Road

Cabana - Division Road Corridor Class Environmental Assessment

Figure 7: Four Lane Roadway Cross-Section (Source: Cabana-Division Road Corridor Class EA)



THREE LANE ROADWAY CROSS SECTION (One Lane Per Direction With Two-Way Centre Left Turn Lane)

NOTE:
Colours indicate projected congestion levels for each link based on the higher of the A.M. and P.M. peak hour volumes.



LEGEND

- Signalized Intersection
- 77 (86) Projected A.M. (P.M.) Link Volumes
- Good Level of Service (V/C less than 0.80)
- Fair Level of Service (V/C between 0.80 and 0.90)
- Poor Level of Service (V/C greater than 0.90)

NOTE:
V/C: Volume to Capacity Ratio is an indication of how heavily traveled the link is. Volumes are shown above and the capacity is approximately 900 vehicles per hour per direction (an increase of 100 vehicles per hour per direction based on the addition of a two-way centre left turn lane to the existing condition).

Not to Scale



PEAK HOUR TRAFFIC VOLUME PROJECTIONS

Huron Church Road to Walker Road

Cabana - Division Road Corridor Class Environmental Assessment

Figure 8: Three Lane Roadway Cross-Section – (One Lane per Direction with Two-Way Centre Left Turn Lane) (Source: Cabana-Division Road Corridor Class EA)

As shown in Figure 8, the 3-lane cross section analysis shows that it would not support the current traffic demand. At the limit of the study in 2021, the 3-lane cross-section would fail at 9 of 12 segments and be severely limited at the remaining 3 segments. The 3-lane cross-section is NOT recommended as it will not address capacity issues.

Cabana Road Cycling Facilities

Bike lanes have been identified on the full length of Cabana Road (Huron Church Road to Walker Road) both in the Bicycle Use Master Plan (BUMP) as well as in the Cabana / Division Road Corridor Environmental Study Report.

On August 25, 2014 and as noted in the CR209/2014 Council directed the funding and construction of separated bike lanes from Northway Avenue to Walker Road. The first phase of the Cabana road Cycling Facilities between Walker and Provincial was completely designed, and advertised August 29th 2015, however the tender was cancelled due to questions that arose following the news of the location of the new hospital.

Due to the expected demand on infrastructure that the new Hospital would generate, completing the approved Cabana EA may be considered of higher priority.

Implementation & Staging of Cabana/Division Corridor EA Recommended Solutions

As per Cabana/Division Corridor EA recommendation, the first stage of construction should focus on improvements to major signalized intersections. Howard Ave./Cabana Rd. intersection and Provincial Rd./Cabana Rd. intersection have been constructed as per EA recommended solutions. The Dougall and Cabana intersection was reconstructed as per the Dougall Avenue EA.

Given consideration that the remaining important signalized intersections such as Dominion Boulevard and Glenwood Avenue intersection cannot be constructed prior to the trunk storm sewer outlet being in place, advancing the subsequent phases of construction between major intersections in a manner that optimizes costs and minimizes traffic impacts due to the construction would be a practical approach.

The Cabana/Division Rd. Corridor ESR recommended a four-lane cross section with bike lanes, curbs and gutters, as seen in Figure 5.

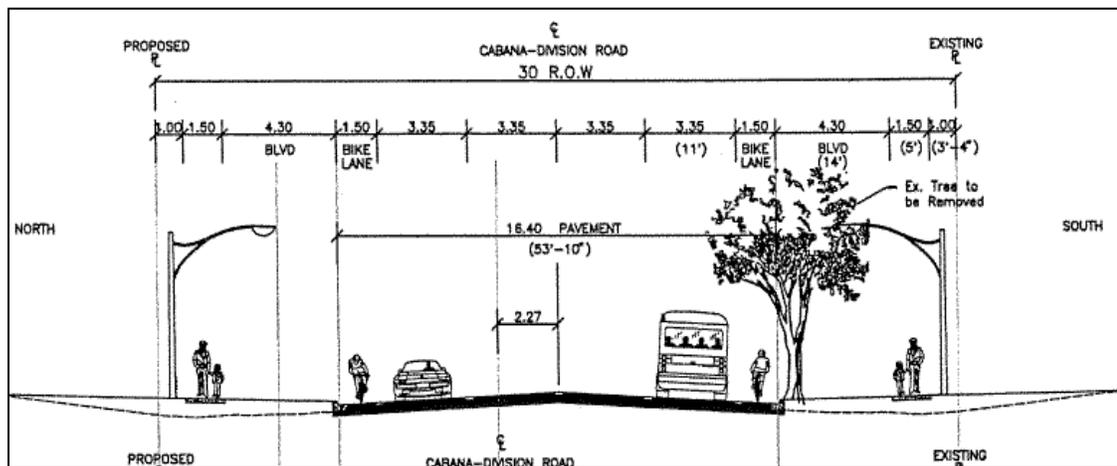


Figure 5: Preferred Cross Section

Based on the analysis above, advancing the construction of Cabana Road East between Provincial Road and Howard Avenue as per EA recommended option would assist with alleviating traffic congestion within this section of the corridor. Windsor Utilities Commission (WUC) has planned watermain upgrades at this location. This joint effort would maximize the benefit of the construction to the tax payers with optimized costs. Land acquisition and a possible road closure are recommended in the EA for this section of Cabana Road East as well, which have to be implemented with private & public consultation.

Ontario Traffic Manual (OTM) Book 18 Cycling Facilities is a newly developed standard which supports separated/buffered bike lanes on the preferred alternative for the Cabana Rd. cross section.

The following motion is submitted to Council for consideration and direction:

In order to proceed with construction of the Cabana Road East from west of Provincial Road to east of Howard Avenue as per Cabana/Division Road Corridor EA preferred design option: THAT the City Engineer BE AUTHORIZED to proceed with the Request for Proposal process as per the Purchasing Bylaw for the design and contract administration of the Cabana Road Environmental Assessment implementation.

The future construction phasing in the Cabana/Division corridor including bike lanes would be reprioritized in future Capital Budgets. Estimates are summarized in the attached **Appendix G**.

Based on speed and volume data, separated/buffered bike lanes are recommended on Cabana Road per OTM guidelines. This would be recommended for either option.

If approved, it is anticipated that the first phase of construction would commence in 2016.

4. RISK ANALYSIS:

As noted the Cabana Road corridor is approaching capacity at certain peak times. Building the bike lanes only, while addressing some safety concerns, will not address any capacity issues. The new acute care hospital as well as any adjacent ancillary uses, will be a significant traffic generator. Should the bike lane option proceed it is unlikely that City Council would dedicate additional funding for a period of 10-15 years in order to justify the interim works. A build out of the full Cabana EA would require a further 6 years (phases) to complete beyond that period.

As with any project, there is a risk of cost overrun. All projects are now classified and analyzed to help to mitigate the risk. It should be noted that currently no funding for the full build out of the recommended EA solution is contained in the 5 year capital budget. As such, funding for this project would require a level of reprioritization of existing projects or a significant influx of funds from another source (i.e. senior government grants).

The new acute care hospital has not been approved, nor has funding been confirmed. While the warrants for the full build out exist now, if the hospital were not approved, the Cabana road project may have been viewed as “jumping the queue”. Building the temporary bike lanes only might be viewed as short sighted given the existing traffic pressures are known and the impact of the hospital, while unknown, will be significant, thus adding additional pressure to the road capacity.

Should Council authorize proceeding with the phased full EA construction, land acquisition would be required. As with all land acquisition, expropriation and the associated costs may be needed to expedite the project.

Bike Lane Safety

A question related to rumble strips arose and based on Ontario Traffic Manual (OTM) Book 18 Cycling Facilities standards, a buffered bike lane is warranted. A buffered bike lane can be accommodated at no additional cost by adjusting lane or boulevard widths within the existing cross section. Rumble strips are suited for signed bicycle routes with paved shoulders. The following info is from the OTM Book 18 pertaining to rumble strips:

“A **Rumble Strip** is a grooved pattern separating the travelled portion of the roadway from the paved shoulder.

Rumble strips are typically implemented as a road safety measure to benefit motorists. They alert drivers through sound and vibrations to the fact that they are drifting out of the travel lane onto the shoulder. However, from the cyclist’s perspective, there are safety issues associated with rumble strips on rural roadways designated as bicycle routes.

At best, rumble strips will cause discomfort for cyclists riding over them. At worst, they may compromise a cyclist’s control of the bicycle, which is particularly dangerous where cyclists are travelling alongside a busy arterial roadway. Similarly, by restricting manoeuvrability around obstacles on the paved shoulder, rumble strips may cause cyclists to veer into the travel lane or off the edge of the paved roadway.

If rumble strips are proposed for a road that is designated as a bicycle route, their design should consider that most cyclists will use the bike lane. Accordingly, a rumble strip with a skip pattern should be implemented. The skip pattern allows cyclists to manoeuvre in and out of the bike lane to pass stopped cars and other cyclists, as well as to avoid debris in the bike lane. Periodic gap lengths of 3.6 m should be provided between each 18.3 m minimum set of shoulder rumble strips to provide cyclists with enough room to exit or enter the paved shoulder without riding over the rumble strip.” Pg. 56

Since rumble strips create noise when cars drive over them it is not our practice to use them on streets with residential frontages. The City Engineer is Not Recommending rumble strips for Cabana Road.

A full project risk matrix indicates the risk of both options for Cabana Road:

1. status quo, build the active transportation only, and
2. full build out of the Environmental Assessment preferred design.

Risk Description	Impacted Objective(s)	Risk Level	Mitigating Strategy / Status	Responsibility
Actual costs for roadway construction projects can vary from estimates due to fluctuations in input costs (materials, labour, equipment, etc.)	<ul style="list-style-type: none"> • Improve Financial Success 	Significant	As part of the budgeting process, update cost estimates and reprioritize projects based on available funding.	<ul style="list-style-type: none"> • Updating cost estimates: City Engineer • Budgeting and reprioritization: Council and Corporate Leadership Team
The amount of any contributions or cost-sharing from other agencies (e.g. the Province) for the infrastructure needed to support the Acute Care Health Centre has not yet been determined.	<ul style="list-style-type: none"> • Improve Financial Success 	Significant	Communicate and collaborate with other agencies regarding funding and cost-sharing.	Council and Corporate Leadership Team
Impacts (including transportation impacts) of the Acute Care Health Centre on the surrounding area are uncertain.	<ul style="list-style-type: none"> • Stay Safe • Make Transportation Efficient and Convenient • Strengthen the Social Fabric • Develop Responsibly 	Significant	As part of the development application process, require the applicant to identify impacts and mitigation through appropriate studies, including a transportation impact study.	City Planner and City Engineer
The Acute Care Health Centre could be operational before appropriate roadway improvements are in place.	<ul style="list-style-type: none"> • Stay Safe • Make Transportation Efficient and Convenient • Strengthen the Social Fabric • Develop Responsibly 	Significant	<ul style="list-style-type: none"> • Maintain contact with appropriate Provincial ministries and agencies to remain up-to-date on the status of the Acute Care Health Centre Project. • As part of the budgeting and capital planning process, schedule major road works in advance to meet anticipated timelines for the Acute Care Health Centre. 	Council and Corporate Leadership Team
Construction of the Acute Care Health Centre could be delayed or cancelled. Infrastructure that was built in advance for the Acute Care Health Centre would be underutilized for a period of time.	<ul style="list-style-type: none"> • Make Transportation Efficient and Convenient 	Moderate	Maintain contact with appropriate Provincial ministries and agencies to remain up-to-date on the status of the Acute Care Health Centre Project.	Council and Corporate Leadership Team

5. FINANCIAL MATTERS:

Council may wish to construct the preferred design in the Cabana/Division Road Corridor EA and the following phasing is proposed:

- Phase 1 (2016/2017) - Provincial Road to Howard Avenue
- Phase 2 (2018) – Howard Avenue to Dougall Avenue
- Phase 3 (2019/2020) – Dougall Avenue to Dominion Boulevard
- Phase 4 (2021) – Dominion Boulevard to Glenwood Avenue/Geraedts Drive
- Phase 5A (2022/2023) – Provincial Road to Walker Road
- Phase 5B (2023) – Glenwood Avenue to Huron Church Road

The entire Cabana road expansion project is estimated at \$46.36M. There is also a requirement that the Provincial Corridor drainage project, approximately \$9M, must be completed prior to the Provincial to Walker Road phase of the Cabana Road project starting. The funding for that project is currently in the 2016 5 year Capital Budget, Project ID ECP-002-08.

Funding for the \$46.36M for the Cabana road expansion project is recommended to come from following various sources:

- Pay as you Go funding
- Development charges – Roads & Related (fund 115)
- Development charges – Storm and Drains (fund 117)
- Elimination of current 5 year capital funding for Walker Road (ECP-004-07)
- Currently planned 5 year capital funding for Cabana (ECP-003-09)
- Sewer Surcharge

The recommended funding sources do not align with the required funding by year. As such some years will run deficits until funding is available, presuming spending on the projects is as projected. In those cases there will be minor interest charges for the project. It should also be noted that a pre-commitment of funds would be required for Public Works to commence work on the various phases of the project.

The Roadway Improvement Construction Cost Estimates are available in **Appendix G**. A recommended funding source breakdown for Cabana road based on the timing of the various phases is included in **Appendix H**.

As mentioned, Council endorsed \$1.8 million and \$5 million in the 2013 and 2014 enhanced capital budgets to complete the Cabana Cycling Facilities and Windsor Loop. If council decides to proceed with the phased preferred design of the Cabana/Division Road Corridor EA, administration will identify and report back to council on other opportunities to construct cycling infrastructure in the City with the previously committed funds.

6. CONSULTATIONS:

Infrastructure and Geomatics
Planning and Building Services
Asset Planning

7. CONCLUSION:

The off-site infrastructure improvements required to mitigate the impact of the proposed Acute Care Health Centre will be identified in the appropriate related studies required through the development application process as outlined in the Official Plan in section 10.2.

The main anticipated impact of this application on the City's transportation network will be consideration to re-prioritize capital budget allocations to construct network capacity improvements in the vicinity of the Acute Care Health Centre and adjust the EA recommended construction sequences accordingly as appropriate.

As stated in the report, Administration is in favour of advancing the construction of Cabana Road East between Provincial Road and Howard Avenue as per EA recommended option as this would assist with alleviating traffic congestion within this section of the corridor. This would require Council to rescind CR209/14 as shown in Appendix A. Windsor Utilities Commission (WUC) has planned watermain upgrades at this location. This joint effort would maximize the benefit of the construction to the tax payers with optimized costs.

Future plans would be considered as part of a reprioritized capital budget as detailed in Appendix H.

Mark Winterton
City Engineer and Corporate Leader
Environmental Protection and
Transportation

Onorio Colucci
Chief Financial Officer/City Treasurer
and Corporate Leader Finance and
Technology

Helga Reidel
Chief Administrative Officer

APPENDICES:

Appendix A – Cabana Road Council Direction
Appendix B – Provincial/Division Road ESR
Appendix C – Walker Road ESR
Appendix D – Cabana/Division Road Corridor ESR
Appendix E – Lauzon Parkway ESR
Appendix F – 6th Concession Road/North Talbot Road ESR
Appendix G – Roadway Improvement Construction Estimates
Appendix H – Funding Source

DEPARTMENTS/OTHERS CONSULTED:

Name: _____ **Phone #:** 519 _____ **ext.** _____

NOTIFICATION :

Name	Address	Email Address	Telephone	FAX

Council adopted the following resolution at its meeting held August 25, 2014 related to the “Additional Information to Report #17147 – Cabana Road Active Transportation Facilities for the Windsor Loop and CQ 28-2013 Feasibility of Constructing a Pilot Segregated Cycle Lane” Memo.

CR209/2014

*I. That Council **SUPPORT** widening the existing pavement on Cabana Road from Northway Avenue to Walker Road for the construction of separated bike lanes including the incorporation of a 0.5m buffer with physical barriers or additional turning capacity into the design where appropriate at key intersections (e.g.: McGraw, Longfellow, Casgrain) as confirmed by a Consultant peer review as a first project in completing the Windsor LOOP; and,*

*II. That the estimated cost of \$4,290,000 plus HST to **BE FUNDED** from 007-5410-1790-WLOOP-7111031; and,*

*III. That in light of the recent commitment for active transportation on Cabana Road, City Council **REQUEST** the MTO to extend appropriate connections for the Rt. Hon. Herb Gray Parkway 20 km trail network to the east limits of the MTO jurisdiction at approximately Northway Avenue;*

and further,

*IV. That Administration **INVESTIGATE** the possibility of coloured cycle lanes in addition to coloured lines, as well as alternatives to bollards and **REPORT BACK** to Council.*

Additional funding was allocated at the May 4, 2015 Council date, as per CR92/2015, as a result of Report # 17663 CR209/2014 – Cabana Road Cycling Facilities, as shown below.

CR92/2015

*I. That report 17663, pertaining to CR209/2014 – Cabana Road Cycling Facilities from the City Engineer **BE RECEIVED** for information; and*

*II. That Council **SUPPORT** the design for the active transportation facilities on Cabana Road from Northway Avenue to Walker Road; and*

*III. That the **estimated** cost of \$319,000 plus HST to **BE FUNDED** from 007-5410-1790-WLOOP-7111031 for the design refinements to the active transportation facilities in the Peer Review report submitted by MMM Group, in addition to the previously approved funds received in CR209/2014; and*

*IV. That the estimated cost of \$200,000 plus HST **BE FUNDED** from 007-5410-1790-WLOOP-7111031 potential controlled crossings at Sixth Concession Rd. on Cabana Road and on Division Road, contingent on the results of the warrant studies as per Ontario Traffic Manual (OTM) Book 12 Traffic Signals, in addition to the previously approved funds received in CR209/2014; and*

- V. *That the estimated cost of \$500,000 plus HST for storm sewer construction in Phase I Cabana Road Cycling Facility project on Division between Provincial Road and Walker Road to **BE FUNDED** from the following accounts:*
- a. *\$400,000 from 007-5410-1790-02942-7121017 Cross/Baby Street Sewer Rehabilitation*
 - b. *\$100,000 from 007 5410 1790 02942 7121018 Hall Avenue Sewer Rehabilitation; and*
- VI. *That future Capital Budget submissions for Traffic Operations **INCLUDE** an estimated cost of \$110,000 every five years for the maintenance of pavement markings pertaining to the active transportation facilities on Cabana Rd. until full implementation of the Cabana/Division Road Corridor Environmental Study Report cross-section.*

The tender for the Cabana Road bike lane project (Phase 1) had been developed over the summer and the City Engineer was prepared to issue this tender in late August/early September of 2015. At approximately the same time, Mayor Dilkens requested information in regard to the costs of a full redevelopment of Cabana Road and a recommended phasing plan in light of the new hospital development out of concern that the hospital development would create a need to accelerate development of the road network leading to the selected County Road 42 site.

It is noted that the funding required for the new hospital and the final approval for the hospital is not yet confirmed.

B. Provincial/Division Road ESR - Preferred Design (Report Date January 2007)

On January 29, 2007 Council rendered CR35/2007 respecting Report 12570 Provincial/Division Road Class Environmental Assessment, Environmental Study Report.

CR35/2007

*THAT the Provincial/Division Road Class Environmental Assessment, Environmental Study Report, **BE TABLED** with the City Clerk for the mandatory thirty (30) day period; and*

*THAT the Executive Director of Operations **BE AUTHORIZED** to advertise the Notice of Completion of the Environmental Study Report for Provincial/Division Road in accordance with the Ontario Environmental Assessment Act (OEAA).*

Subsequent to Report 12570 and in accordance with CR35/2007, the Notice of Study Completion for the Provincial/Division Class Environmental Assessment (EA) was posted on Feb. 3, 2007 for the mandatory 30 day review period, during which time a Part II Order was requested. The requestor's concerns were resolved and the Part II Order was withdrawn on July 17, 2007 in accordance with the Municipal Class EA document and acknowledged by the Environmental Assessment and Approvals Branch office on August 01, 2007. In short, the Provincial/Division Class EA was completed and is an approved document.

Based on the problem being addressed, existing and future conditions, evaluations of alternatives, potential environmental impacts and associated mitigation, and input from the public, property owners, and stakeholders, the following is the preferred design:

- The widening of Division Road to five lanes (four through lanes and one continuous two-way left turn lane) from north of Sydney Ave. to Marentette Ave.
- The widening of Provincial Road to five lanes from the junction with Division Road near Marentette Ave. to Walker Road.
- The widening of Cabana Road East from two lanes to four from the DRTP rail to Barracuda Ave.
- The improvement of Division Road from Cabana Road East to Marentette Ave.
- The improvement of Sixth Concession between the DRTP rail and Cabana Road East.
- Improvement to all intersections within the study area.
- Providing bike lanes and sidewalks on both sides of the roadway throughout the corridors.

The required drainage study was completed and adopted by City Council under M144/2011. The recommended drainage work needs to be done prior to or at the same time while constructing the roads as per ESR recommendations.

Constructed to ESR Cross-Section

- Provincial Rd. – Clarke Dr. to north of 6th Concession Rd.
- Provincial Rd. and Cabana Rd. E intersection

Not Constructed to ESR Cross-Section

- Provincial Rd. from north of 6th Concession Rd. to Walker Rd.
- Provincial Road from Division Road to Clarke Dr.
- Division Road from Howard Avenue to Provincial Road;
- Division Road from Provincial Road to Sixth Concession and
- Division Road from Sixth Concession to Devonwood Dr.

It should be noted that the remaining portion of the approved design for Provincial Road south of Cabana Road cannot be constructed without first completing the expansion and upgrades to the North Roseland pond, pump station and related sewer infrastructure.

As per the approved 2015 Capital budget 5-year plan the following is the financial allocation for the works which could change in future years if projects/costs are reprioritized;

2016: Engineering/Property Acquisition for the N. Roseland Stormwater Facility - \$1.569M

2017: Improvements to the N. Roseland Stormwater Facility - \$1.5M

2020+: Improvements to N. Roseland Storm water facility \$3.85M, Provincial / 6th Concession Intersection \$7M, Provincial, 6th Concession to Legacy Park \$8.7M, Phased Construction \$41.491M

C. Walker Rd. ESR – Preferred Design (Report Date March 2001)

By Resolution CR689/2001, City Council adopted Walker Road Corridor Riverside Drive East to Provincial Road (City Limit) and Grand Marais Road East, Walker Road to Central Avenue, Environmental Study Report (Dillon 2001) at the June 11, 2001 Council meeting.

CR689/2001

I. That Council ADOPT as a planning document the Walker Road Corridor Riverside Drive East to Provincial Road (City Limits) and Grand Marais Road East, Walker Road to Central Avenue Environmental Study Report (Dillon, 2001), save and except for the Foster Road connection to the Walker Industrial Park.

II. That consistent with the provisions of the Class Environmental Assessment Act, a meeting(s) with the residents of Riberdy Road BE HELD in an attempt to resolve the outstanding issues and further, that Administration REPORT back to Council with the outcome.

The approved design from the EA includes a 5-lane cross-section on Walker Road from Grand Marais Road East to Division Road, including intersection improvements and sidewalks.

Constructed to ESR Cross-Section

- Ledyard Ave. to the south City limits
- Walker Rd. and Division Road intersection
- Foster Rd intersection to Grand Marais Rd

The majority of the preferred ESR cross-sections are completed for Walker Rd. There is only one section remaining, as indicated below.

Not Constructed to ESR Cross-Section

- Walker Rd. from Foster Rd. to Ledyard Ave.:

As per the approved 2015 Capital budget 5-year plan the following is the financial allocation for the works which could change in future years if projects/costs are reprioritized;

2015: Phased Construction/Utility relocation - \$0.45M

2016: Phased Construction/Utility relocation - \$1.785M

2017: Phased Construction/Foster Ave. to Airport Rd. - \$3.184M

2018: Phased Construction/Foster Ave. to Airport Rd. - \$2.428M

2019: Phased Construction/Foster Ave. to Airport Rd. - \$3.346M

2020+: Phased Construction \$4.806M

Engineering and Construction - Temple Drive extension - \$3.2M

D- Cabana/Division Road Corridor ESR – Preferred Design (Report Date November 2005)

On March 02, 2009, Council rendered CR65/2009 respecting Report 13913 Cabana/Division Road Corridor Environmental Study Report, Huron Church Road to Walker Road –Ministers Decision regarding the Part II Order Requests.

CR65/2009

That Council REFER consideration of funding of the intersection improvements only to the Capital Budget deliberations as outlined in the report of the General Manager of Public Works dated January 19, 2009 entitled “Cabana/Division Road Corridor Environmental Study Report, Huron Church Road to Walker Road –Ministers Decision regarding the Part II Order Requests” with the first order of business being the intersection at Provincial Road followed by consideration of intersections at Glenwood, Dominion and in the area of Southwood School and, that subsequent to completion of the intersection improvements, that traffic studies BE COMPLETED to afford City Administration and the Minister to consider a three lane option for Cabana Road,

and further that residents BE ENGAGED in the design process at each phase, and that Council REITERATES the policy or its intent that Cabana Road remains off limits to truck traffic.

The preferred design was found to be a four lane cross-section with bike lanes, sidewalks and curb and gutters including intersection improvements.

Required drainage study was completed and adopted by City Council under M144/2011. The drainage work needs to be done prior to or at the same time while constructing the road as per the ESR recommendations.

Cabana Road Active Transportation Facilities- Council Direction

The Council Resolutions related to the active transportation facilities on Cabana Road between Northway Avenue and Walker Road directed Administration to infill the sidewalk gaps and construct a combination of buffered bike lanes, cycle tracks, sharrows, and multi-use trail. Specific wording and report number references are provided below.

Constructed to ESR Cross-Section

- Cabana Rd. E & Provincial Rd. intersection was constructed as a part of the Provincial/Division Road EA ESR
- Cabana Rd. E. & Howard Ave intersection was constructed as part of the Cabana/Division Road Corridor ESR.
- Cabana Rd. E. & Dougall Road intersection was constructed as part of the Dougall road EA

Not Constructed to ESR Cross-Section

- Huron Church to Dominion
- Dominion to Dougall
- Dougall to Howard
- Howard to Provincial
- Provincial to Walker
- Cabana/Glenwood intersection
- Cabana/Dominion intersection
- Cabana/Holburn intersection

It should be noted that the remaining portion of the approved design for Provincial Road south of Cabana Road cannot be constructed without first completing the expansion and upgrades to the North Roseland pond, pump station and related sewer infrastructure.

As per the approved 2015 Capital budget 5-year plan (ECP-003-09) the following is the financial allocation for the works:

2015: Engineering - \$0.125M

2016: Engineering - \$0.125M

2020+: Construction- Cabana/Mount Royal Intersection - \$6.011M Land Acquisition & Phased Construction - \$43.7M

Funding for the proposed solution for interim active transportation facilities on Cabana Rd was allocated in the 2013 and 2014 enhanced capital budgets; Council respectively endorsed \$1.8 million to construct the Cabana Road cycling facilities and \$5.0 million to complete the Windsor Loop. Specific Council decision respecting this item has been provided herein.

T- Lauzon Parkway Improvements ESR – Preferred Design (Report Date January 2014)

The Ontario Ministry of Transportation, the City of Windsor and the County of Essex completed a Class Environmental Assessment (EA) Study to address the future transportation needs within the study area. This environmental assessment (EA) resulted in a technically preferred design for Lauzon Parkway, County Road 42, and the East-West Arterial. The Notice of Study Completion was filed on January 20, 2014 and was approved by the Minister of the Environment and Climate Change. An addendum for a portion of the East-West Arterial (Walker Road to 8th Concession) is currently in progress was filed and a Part II Order Request is under review by Minister of the Environment and Climate Change.

The Recommended Plan for Lauzon Parkway between E.C. Row Expressway and Highway 401 includes the following:

- E.C. Row Expressway Interchange improvements;
- improvements to the existing Lauzon Parkway to an interim 4 lane, and ultimate 6 lane urban cross-section from E.C. Row Expressway to County Road 42 including a 6 m landscaped/hard-surface median;
- re-alignment of the existing Lauzon Parkway at County Road 42;
- extension of Lauzon Parkway from County Road 42 to Highway 401 with an interim 4 lane, and ultimate 6 lane urban cross-section including a 6 m landscaped/hard surface median;
- a new interchange at Highway 401;
- improvements to existing and new intersections;
- active transportation facilities incorporated within the transportation corridor – sidewalk and multi-use path; and
- a new active transportation crossing of Highway 401.

The Recommended Plan for County Road 42 between Walker Road and the City/County Boundary includes the following:

- widening of County Road 42 from 2 to 4 lanes;
- active transportation facilities within the corridor – multi-use trail, buffer-separated bike lanes, and sidewalks; and
- improvements to existing and new intersections.

A short section from Lauzon Road to the City/County Boundary also includes a two-way-left turn- lane.

Constructed to ESR Cross-Section

There are no sections of roadway that have been reconstructed to the technically preferred design in the ESR.

As per the approved 2015 Capital budget 5-year plan the following is the financial allocation for the works;

2019: Engineering (County Road 42) \$500k

2020+: County Road 42 phased engineering and construction \$43.7m Lauzon Parkway phased engineering and construction \$76.5M East/West Arterial phased construction \$30.2M

Lauzon Parkway Improvements ESR – Summary of Transportation Needs

Lauzon Parkway - Existing Conditions

The existing traffic volumes on Lauzon Parkway are operating at or near its capacity north of County Road 42. Walker Road (via Provincial Road/County Road 46) and County Road 19 (Manning Road) are also operating at an ‘Unstable-Flow’ condition. Walker Road (via Provincial Road/County Road 46) and County Road 19 (Manning Road) are the only two north south links with interchanges at Highway 401 and E.C. Row Expressway. This results in traffic from other road networks being attracted to these two corridors. **These two links are already operating near capacity, supporting the need for a new interchange with Highway 401 to meet future traffic demand in the study area.**

County Road 42

County Road 42 is a key east-west arterial in the study area. It provides continuous connection between the City of Windsor, Town of Tecumseh and Town of Lakeshore. In general, this corridor is currently operating at an acceptable level-of-service. However, during peak hours, the roadway is approaching capacity in the vicinity of the Lauzon Parkway and 10th Concession Road / County Road 17 intersections. In addition, there are movements (i.e. through traffic, left turns and right-turns) at key intersections (such as Walker Road, Lauzon Parkway, 10th Concession Road / County Road 17, County Road 43 (Banwell Road), Lesperance Road and County Road 19 (Manning Road) that are approaching capacity during peak hours.

Based on the projected growth within the study area, there is a need for the widening of County Road 42. **The transportation assessment concluded that County Road 42 from Walker Road to County Road 19 (Manning Road) will need to be widened to 4 lanes (expected to be around 2018).**

Future Travel Demand Analysis

The improvements being recommended as part of this study are:

Improvement Requirements by 2021:

Lauzon Parkway:

- *From E.C. Row Expressway to County Road 42:* Widening from 2 lanes to 4 lanes of arterial (Class I) capacity will be required when the volume in the peak direction reaches approximately 800 vph;
- *From County Road 42 to Highway 401:* Southerly extension to Highway 401 with 4 lanes of arterial (Class I) capacity and a new full interchange at Highway 401;
- *From Highway 401 to Highway 3:* Further extension to Highway 3 with 4 lanes of arterial capacity.

County Road 42:

- *From Walker Road to County Road 19 (Manning Road):* Widening from 2 lanes to 4 lanes of arterial (Class II) capacity will be required when the volume in the peak direction reaches approximately 700 vph (expected to be around 2018);
- *From County Road 19 (Manning Road) to County Road 25 (E. Puce Road):* 2-lanes of arterial capacity without lane widening.

Additional improvement requirements by 2031:

Lauzon Parkway:

- *From E.C. Row Expressway to Highway 401:* Widening from 4 lanes to 6 lanes of arterial (Class I) capacity will be required when the volume in the peak direction reaches approximately 1600 vph (expected to be around 2025).

County Road 42:

- *From County Road 19 (Manning Road) to County Road 25 (E. Puce Road):* Widening from 2 lanes to 4 lanes of arterial (Class II) capacity. The need and timing for widening for this segment would be dependent upon the pace of development in the Town of Lakeshore and traffic congestion on County Road 22 between 2021 and 2031. Hence, the County of Essex is recommended to review periodically the traffic operations on County Road 42 after 2021 (widening will be required when volume in the peak direction reaches approximately 700 vph).

Regardless of the proposed Acute Care Health Centre development, these improvements need to be completed with the assistance of upper level funding assistance.

V - 6th Concession Rd. / North Talbot Rd. ESR – Preferred Draft Design (Draft Report)

On June 1, 2015, Council rendered resolution CR106/2015 respecting Report 17728 6th Concession Road/North Talbot Road Environmental Assessment (EA) –Filing the Notice of Study Completion.

CR106/2015

*That Administration **BE DIRECTED** to finalize the 6th Concession Road/North Talbot Road Environmental Assessment with recommendations supporting the Preferred Alternative identified by Dillon Consulting (the City of Windsor’s project Consultant); and further,*

*That Administration **BE DIRECTED** to issue the Notice of Study Completion for the Sixth Concession Road/North Talbot Road Environmental Assessment as per the Municipal Class Environmental Assessment Planning Process to commence the 30-day review period immediately following finalizing the Environmental Assessment; and further,*

*That the City Engineer **BE DIRECTED** to report back on:*

- *The possibility of an accelerated construction schedule for the section of the Sixth Concession from the Dougall Parkway to Division Road in light of the current safety deficiencies for pedestrians and cyclists on this section;*
- *The feasibility of providing traffic calming measures on Ducharme from Holburn to the Sixth Concession following reconstruction of the Sixth Concession; and further,*

*That bike lanes for this project **MIRROR** the physical attributes for those being used for Cabana Road.*

The draft preferred alternative for 6th Concession Road includes the following:

- 1.8 m bike lanes on both sides of the road
- 1.5 m sidewalks on both sides of the road
- Two 3.3 m travel lanes
- Mini roundabout at Ducharme Street
- Roundabouts at 6th Concession Road /North Talbot Road & Holburn Street/6th Concession Road
- Urban cross section
- Street lighting

The draft preferred alternative for North Talbot Road includes the following:

- 1.8 m bike lanes on both sides of the road
- 1.5 m sidewalks on both sides of the road
- Two 3.3 m travel lanes

- Mini roundabouts at Southwood Lakes Blvd West, Northwood Lakes Drive & Goldenwood Drive
- Left turn lanes at Old West Ave South (Eastbound)
- Roundabout at 6th Concession Road/North Talbot Road
- Urban cross section
- Street lighting

Constructed to ESR Cross-Section

Since a preferred DRAFT design is currently available there are no sections of roadway that have been reconstructed to the technically preferred design in the ESR.

The cross-section of the intersection of 6th Concession Rd. and Provincial Rd. will be based on the technically preferred design in the finalized version of the ESR.

Roadway Improvement Construction Estimates	2015 \$'s Millions
Cabana/Division Corridor: *3	
Huron Church to Dominion	\$6.30
Dominion to Dougall	\$8.70
Dougall to Howard	\$4.06
Howard to Provincial *4	\$6.02
Provincial to Walker *1	\$6.86
Cabana/Glenwood intersection	\$4.48
Cabana/Dominion intersection	\$5.88
Cabana/Holburn intersection	\$4.06
Total Cost	\$46.36
Walker Rd:	
Foster to Airport	\$16.38
Provincial/Division Corridor: *3	
N. Roseland Pond and associated sewers	\$10.70
Provincial/6th Concession intersection *1	\$8.82
Howard to Clarke *5	\$20.28
South of 6th Concession to North of Walker Rd	\$13.92
Total Cost	\$53.72
Lauzon Parkway/County Road 42/ East-West Arterial: *2	
Lauzon Parkway	\$127.30
County Road 42	\$55.50
East-West Arterial	\$32.00
Total Cost	\$214.8
Notes:	
*1 - No improvements can occur in this section without first completing the expansion and upgrades to the North Roseland Pond, pump station, and related sewer infrastructure.	
*2 - Upper Little River SWM Facility costs not included.	
*3 - Costs for utility relocations, land acquisition, or any works related to railway crossings are anticipated to be covered by the contingency allowance built in to each project budget.	
*4 – Cabana/Holburn intersection must precede or be included in this phase.	
*5 - Does not include costs to reconstruct the Howard/Division intersection.	

Potential Phasing and Funding Sources for Cabana Road												
Approximate Timing of Improvements												
Location of Improvement	Total by Project	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Howard to Provincial	\$ 6,020,000	\$ 3,612,000	\$ 2,408,000									\$ 6,020,000
Cabana & Holburn (Intersection)	\$ 4,060,000		\$ 4,060,000									\$ 4,060,000
Dougall to Howard	\$ 4,060,000			\$ 4,060,000								\$ 4,060,000
Dominion to Dougall	\$ 8,700,000				\$ 4,014,140	\$ 4,685,860						\$ 8,700,000
Cabana & Dominion (intesection)	\$ 5,880,000					\$ 5,880,000						\$ 5,880,000
Dominion to Glenwood	\$ 3,150,000						\$ 3,150,000					\$ 3,150,000
Cabana and Glenwood (Intersection)	\$ 4,480,000						\$ 4,480,000					\$ 4,480,000
Provincial to Walker	\$ 6,860,000							\$ 3,430,000	\$ 3,430,000			\$ 6,860,000
Glenwood to Huron Church	\$ 3,150,000								\$ 3,150,000			\$ 3,150,000
	\$ 46,360,000											\$ -
Funding Needed by year		\$ 3,612,000	\$ 6,468,000	\$ 4,060,000	\$ 4,014,140	\$ 10,565,860	\$ 7,630,000	\$ 3,430,000	\$ 6,580,000	\$ -	\$ -	\$ 46,360,000

Recommended Funding Sources	Timing Of Funding											
Pay as you Go funding							\$ 3,175,370	\$ 3,175,370	\$ 3,175,370	\$ 3,175,370	3175351	\$ 15,876,831
Development charges - roads and related	\$ 2,568,000	\$ 5,649,000	\$ 1,042,675	\$ 140,325								\$ 9,400,000
Cabana Road Improvements ECP-003-09	\$ 125,000											\$ 125,000
Walker Road Improvement ECP-004-07	\$ 700,000	\$ 750,000	\$ 2,477,325	\$ 3,690,000	\$ 3,850,000							\$ 11,467,325
Sewer Surcharge					\$ 2,469,675	\$ 2,881,372	\$ 1,369,690	\$ 677,190	\$ 590,610	\$ 674,308		\$ 8,662,844
Development charges - storm and drains	\$ 219,000	\$ 69,000	\$ 540,000									\$ 828,000
												\$ -
Potential Funding Total	\$ 3,612,000	\$ 6,468,000	\$ 4,060,000	\$ 3,830,325	\$ 6,319,675	\$ 6,056,742	\$ 4,545,060	\$ 3,852,560	\$ 3,765,980	\$ 3,849,659	\$ 3,849,659	\$ 46,360,000
Funding Deficit/surplus	\$ (0)	\$ (0)	\$ -	\$ (183,815)	\$ (4,246,185)	\$ (1,573,258)	\$ 1,115,060	\$ (2,727,440)	\$ 3,765,980	\$ 3,849,659	\$ 3,849,659	\$ (0)
Running total Deficit / Surplus	\$ (0)	\$ (0)	\$ (0)	\$ (183,816)	\$ (4,430,000)	\$ (6,003,259)	\$ (4,888,199)	\$ (7,615,639)	\$ (3,849,659)	\$ (0)	\$ (0)	\$ (0)