

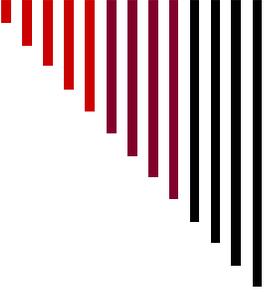
MAIN STREET MARKHAM

Highway 407 to Future Donald Cousens Parkway

Class EA Study

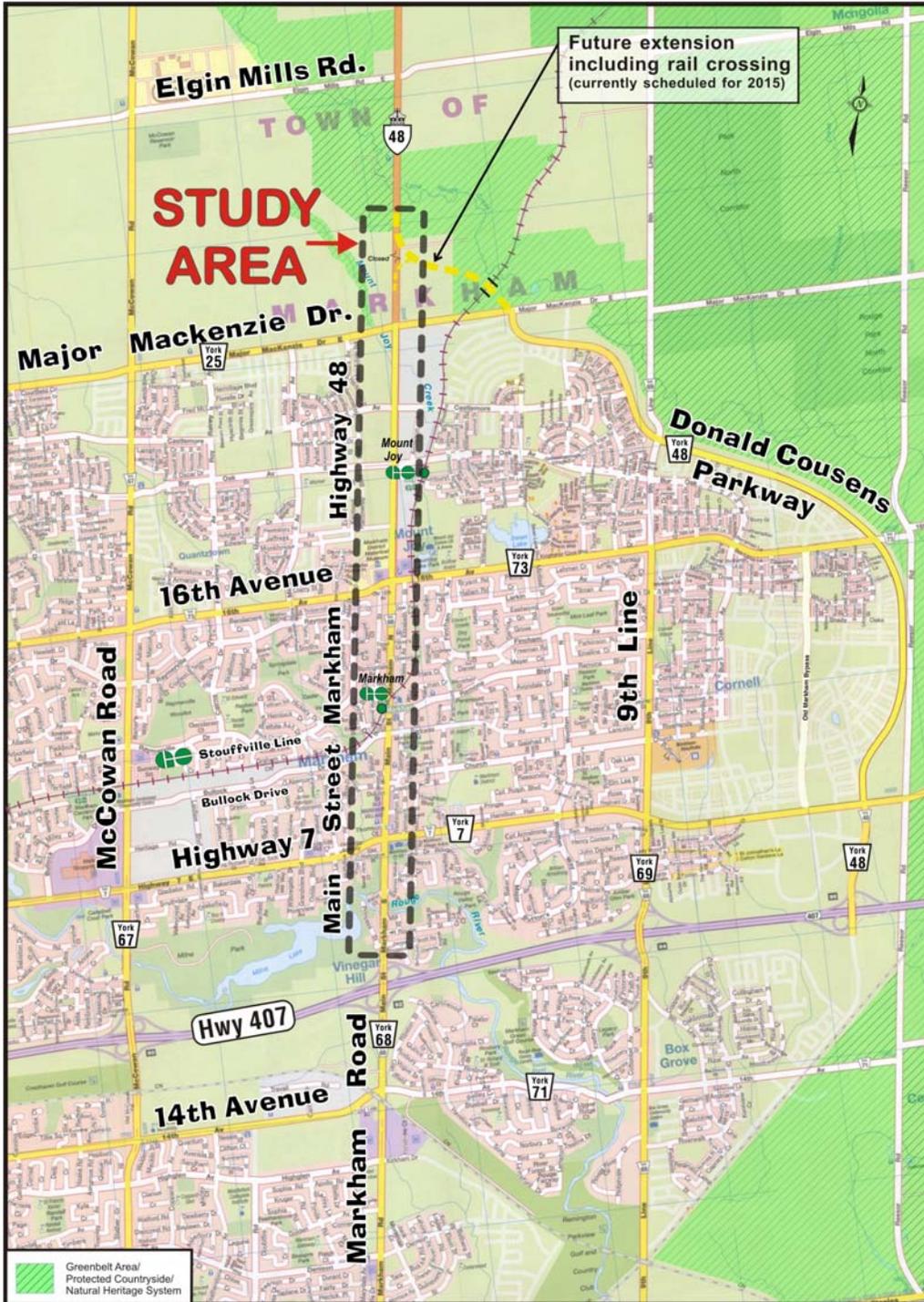
Development Services Committee

April 27, 2010

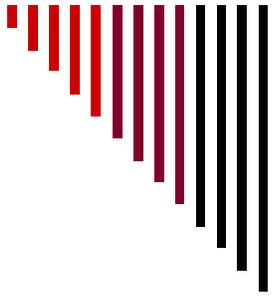


Purpose of Presentation

- Provide overview of work carried out to date prior to Public Information Centre
 - Alternatives considered
 - Summary of analysis and evaluation
 - Support from Advisory Group



STUDY AREA



MAIN STREET MARKHAM

- Historical north-south Main Street through the Town of Markham
- Original Markham Village developed at Main Street Markham / Hwy 7 intersection
- Early 1990's - studies undertaken for proposed Markham Bypass (now Donald Cousens Parkway), which was subsequently constructed between Major Mackenzie Dr. and Highway 407
- Main Street Markham Streetscape and Traffic Management Study



MAIN STREET MARKHAM

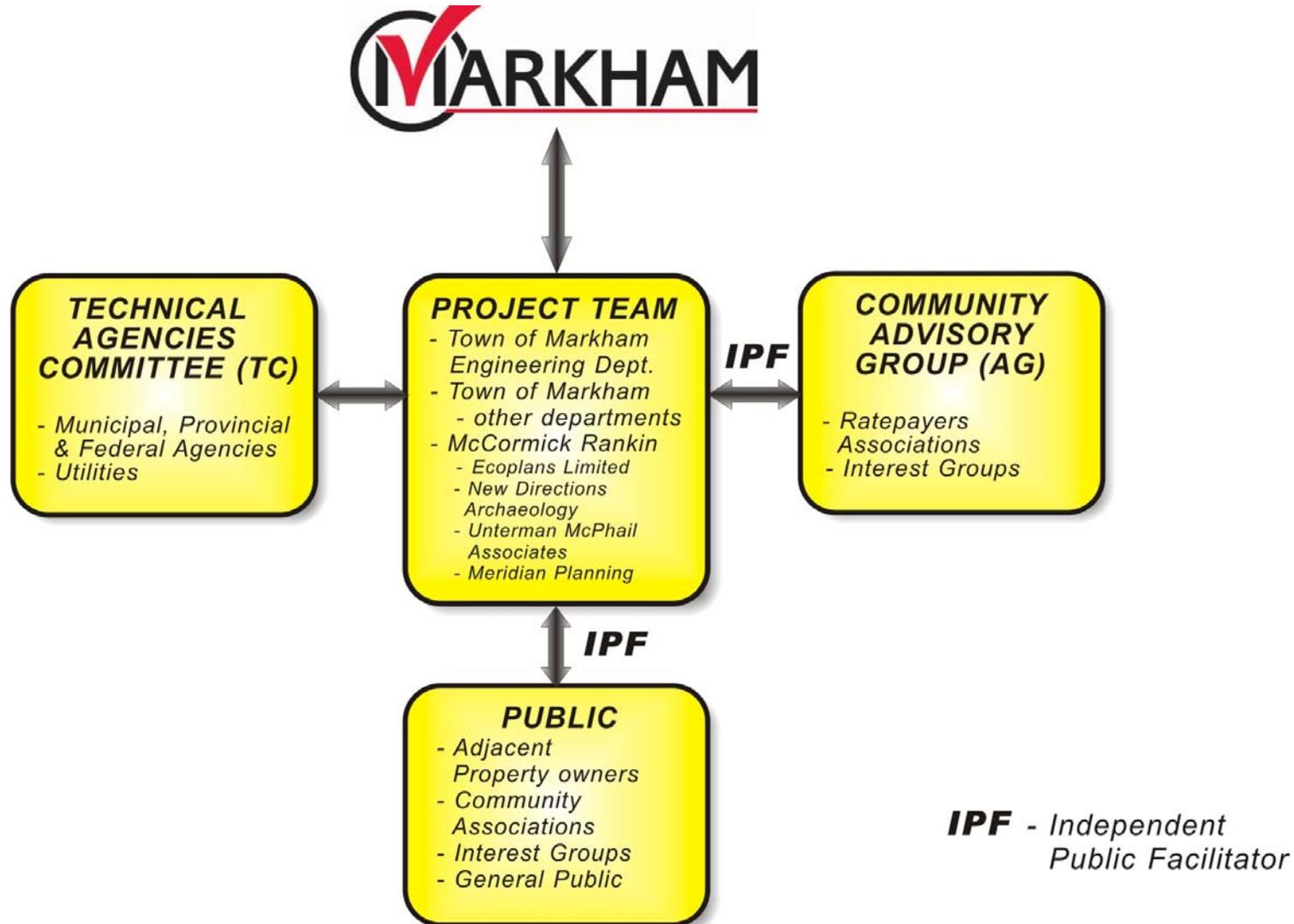
- Multi-functional
- Major north-south roadway
- Pedestrian orientation / 'Main Street'
- Access to local businesses
- Located within the Heritage Conservation District
- Interchange with Highway 407
- Major intersection with Highway 7

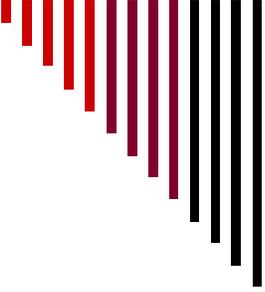


PROBLEMS AND OPPORTUNITIES BEING ADDRESSED

The Town is addressing existing and future needs for Main Street Markham to enhance community character, support commercial activities, respect and protect heritage, social and natural environmental features, and address transportation needs within the study area.

STUDY ORGANIZATION





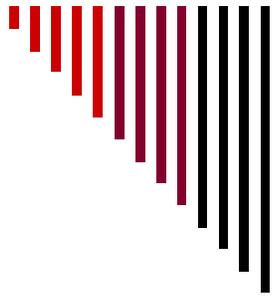
STUDY APPROACH

- In accordance with the Municipal Class Environmental Assessment process
- Approved process under the Ontario Environmental Assessment Act
- Consultation
- Types of Projects
- Part II Order request – appeal process



PUBLIC CONSULTATION

- Community Advisory Group
- Public Information Centres
- Filing of Environmental Study Report
- Study Contacts



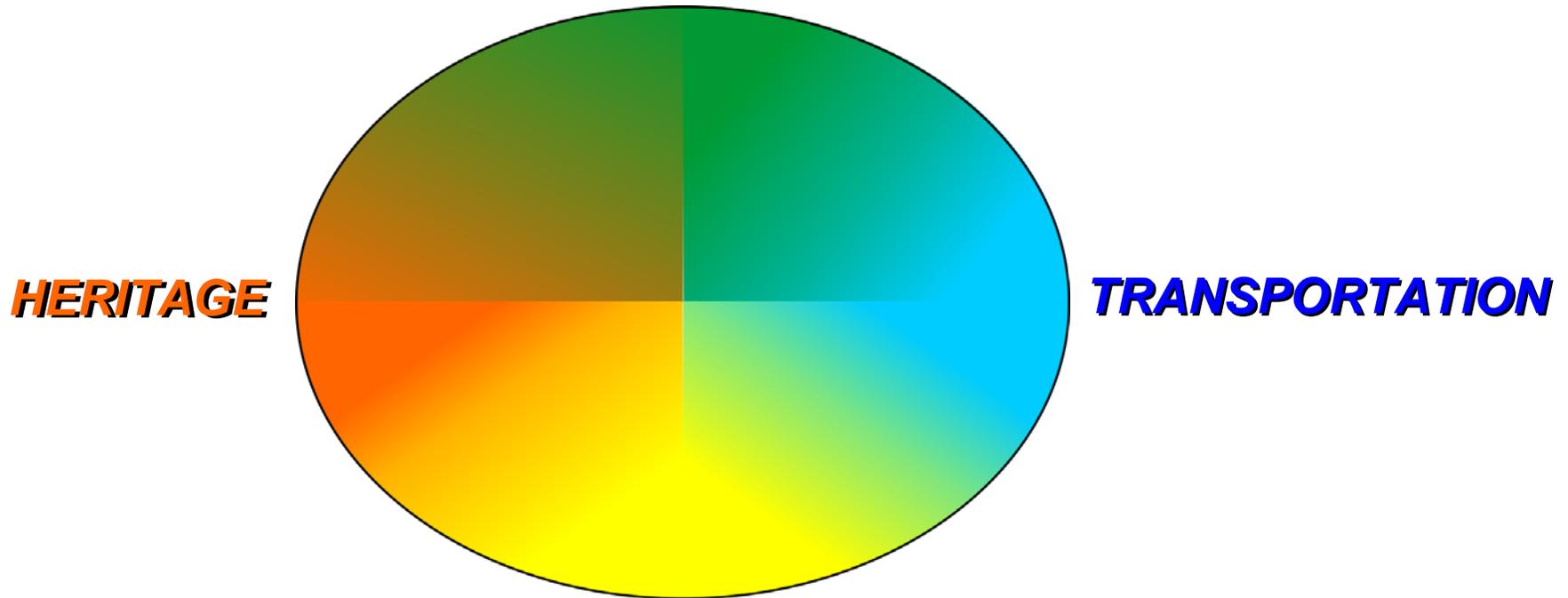
EXISTING AND FUTURE CONDITIONS

- Related Studies/ Background reports
- Existing and Future Land Use
- Social Environment
- Cultural Environment - Heritage Features, Archaeology
- Natural Environment
- Transportation Network / traffic analysis
- Utilities

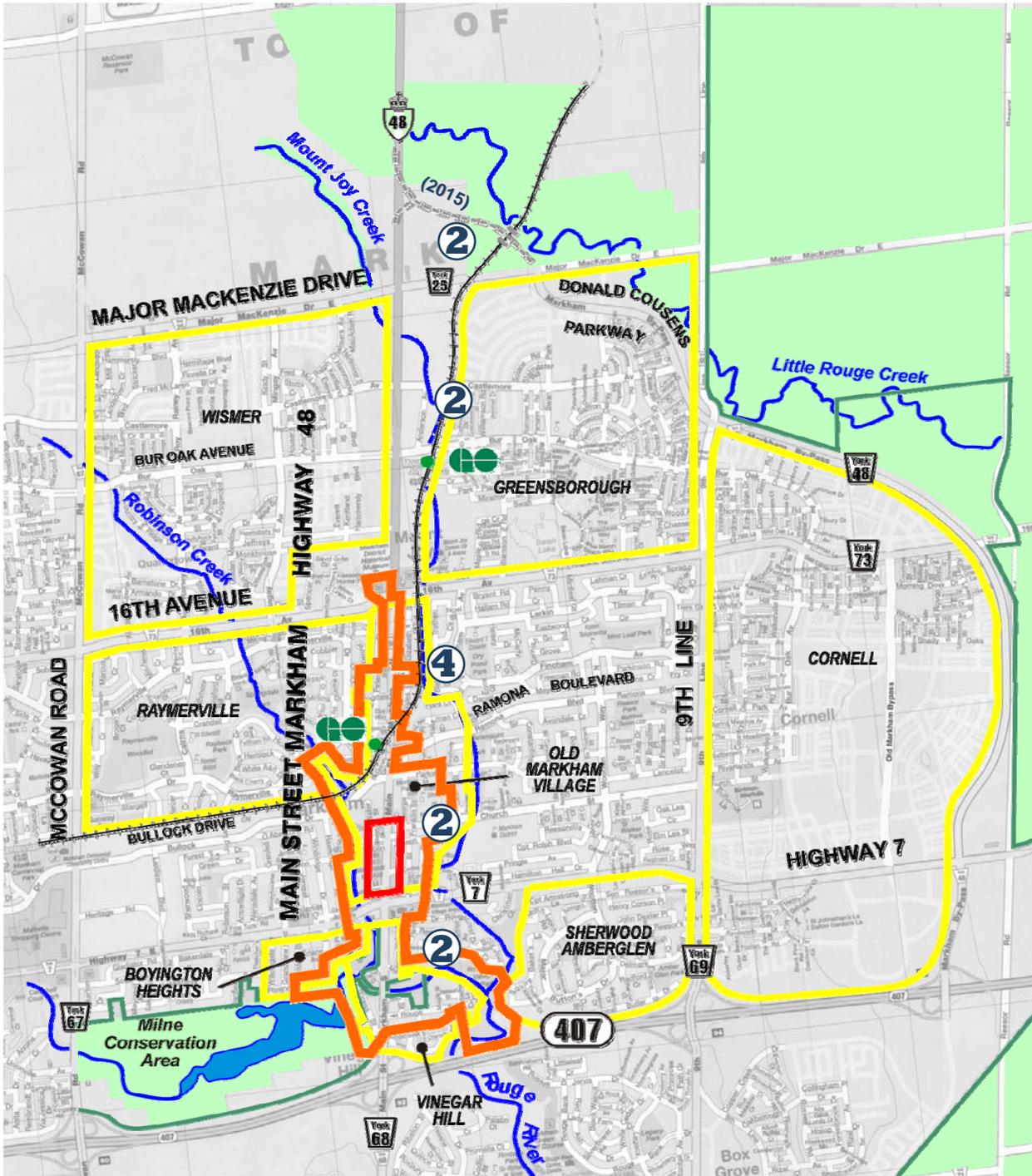
MEASURES AND VALUES

2 LANES COMBINATION OF 4 LANES
2/4 LANES

**NATURAL
ENVIRONMENT**

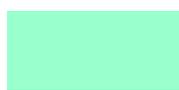


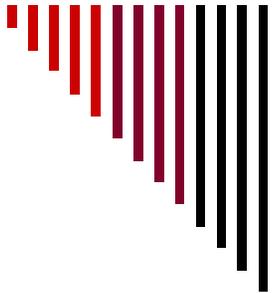
**SOCIAL
ENVIRONMENT**



KEY CONSIDERATIONS

LEGEND

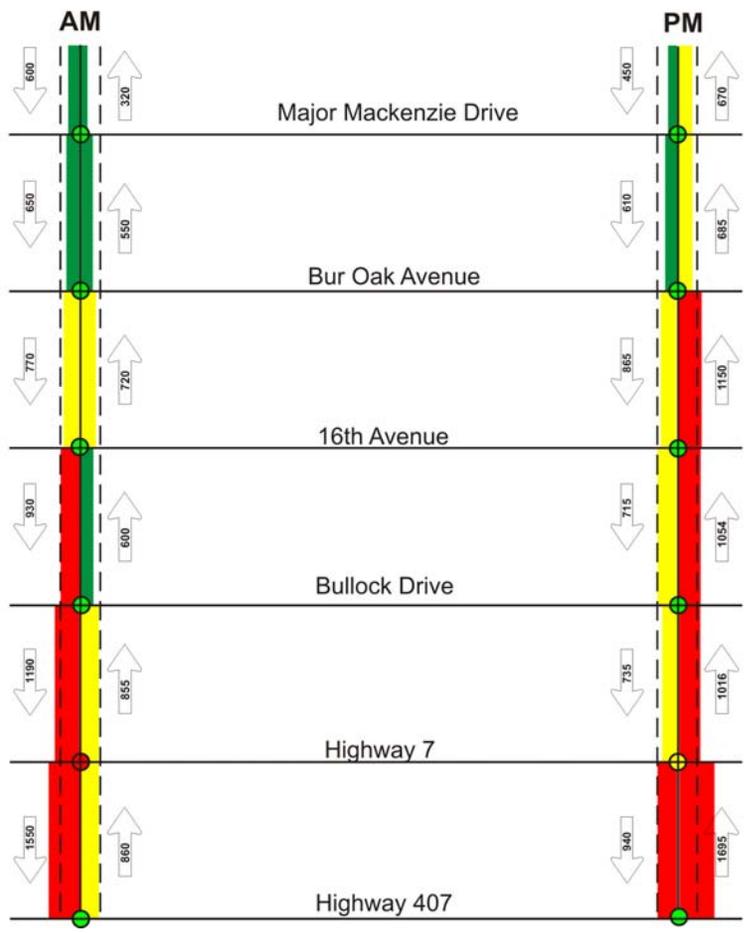
-  Heritage Conservation District
-  Residential Communities
-  Business Improvement Area
-  Greenbelt Area/
Protected Countryside/
Natural Heritage
-  Rouge Park
-  Rouge River/
Creeks
-  4
No. of Existing Lanes



EXISTING TRAFFIC OPERATIONS

EXISTING PEAK HOUR

EXISTING PEAK HOUR



LEGEND

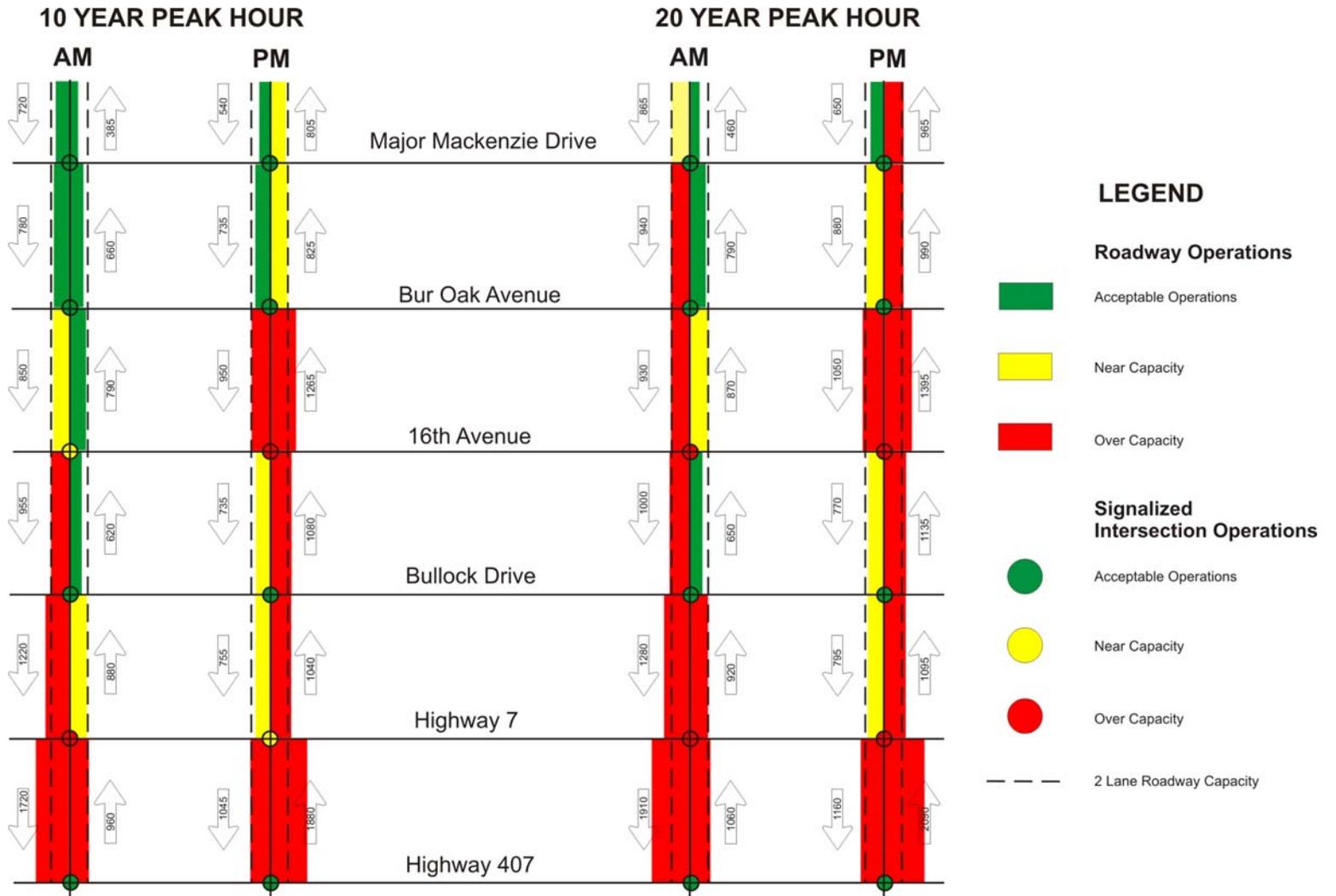
Roadway Operations

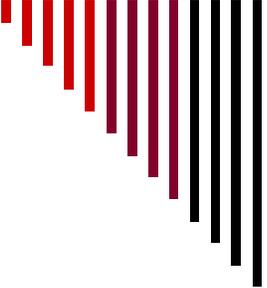
- Acceptable Operations
- Near Capacity
- Over Capacity

Signalized Intersection Operations

- Acceptable Operations
- Near Capacity
- Over Capacity
- 2 Lane Roadway Capacity

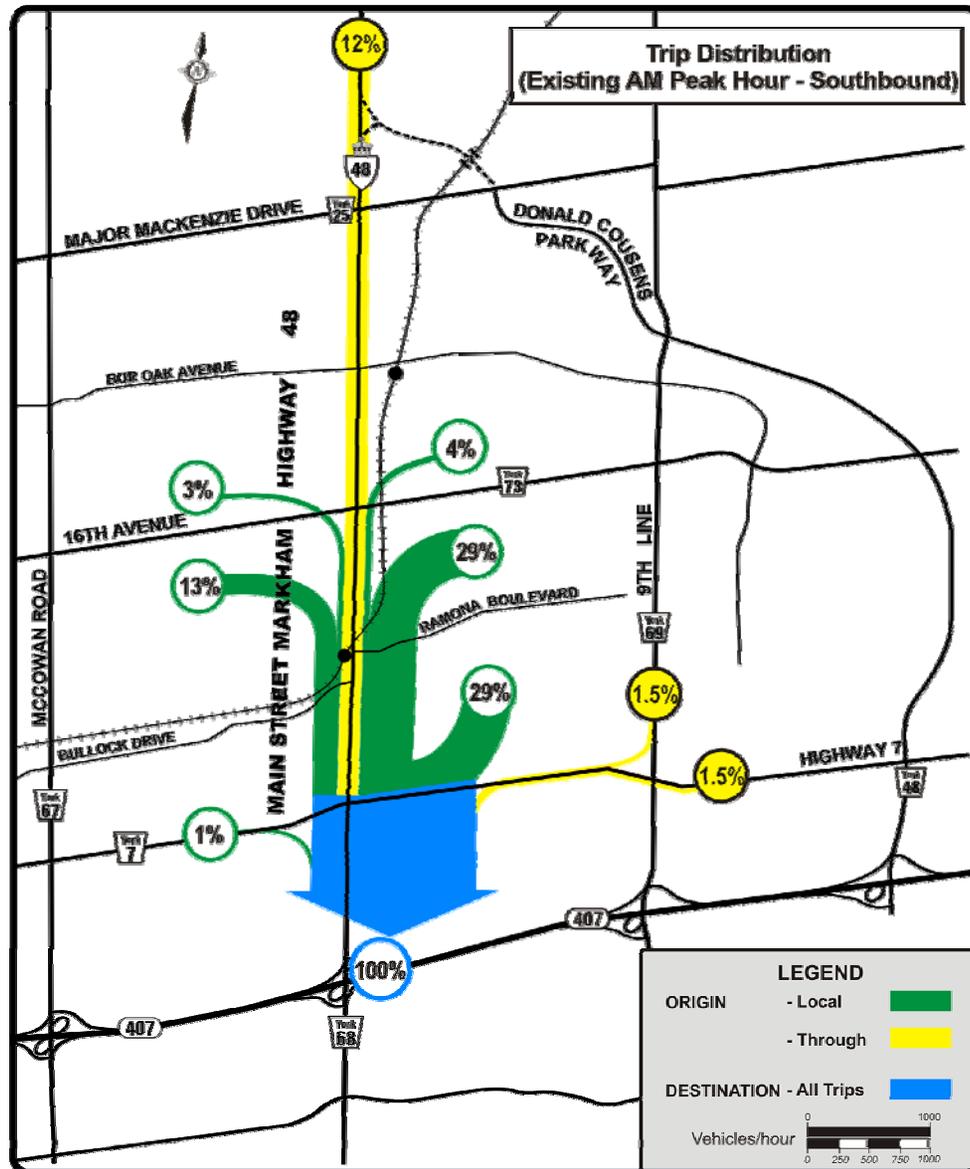
FUTURE TRAFFIC OPERATIONS





FUTURE TRAFFIC CONDITIONS

- Future growth in Markham, York Region and GTA continue to place demands on transportation network
- Travel demand on Main Street are forecast to be beyond capacity between Highway 407 and Major Mackenzie Dr.
- Metrolinx draft RTP
 - Full GO Service
 - North-South BRT (corridor east of Hwy 404)
 - Hwy. 7 BRT
- Future transportation initiatives will be transit oriented
- Modal split assumption (20-25%)
- Long Term
 - Main Street will serve mostly local traffic (more than 85%)
 - Through traffic served by Donald Cousens Parkway
 - Additional lanes are for local residents
 - Land use intensification north of 16th Avenue



Who is using Main Street Markham between Hwy. 407 and Hwy. 7 ?

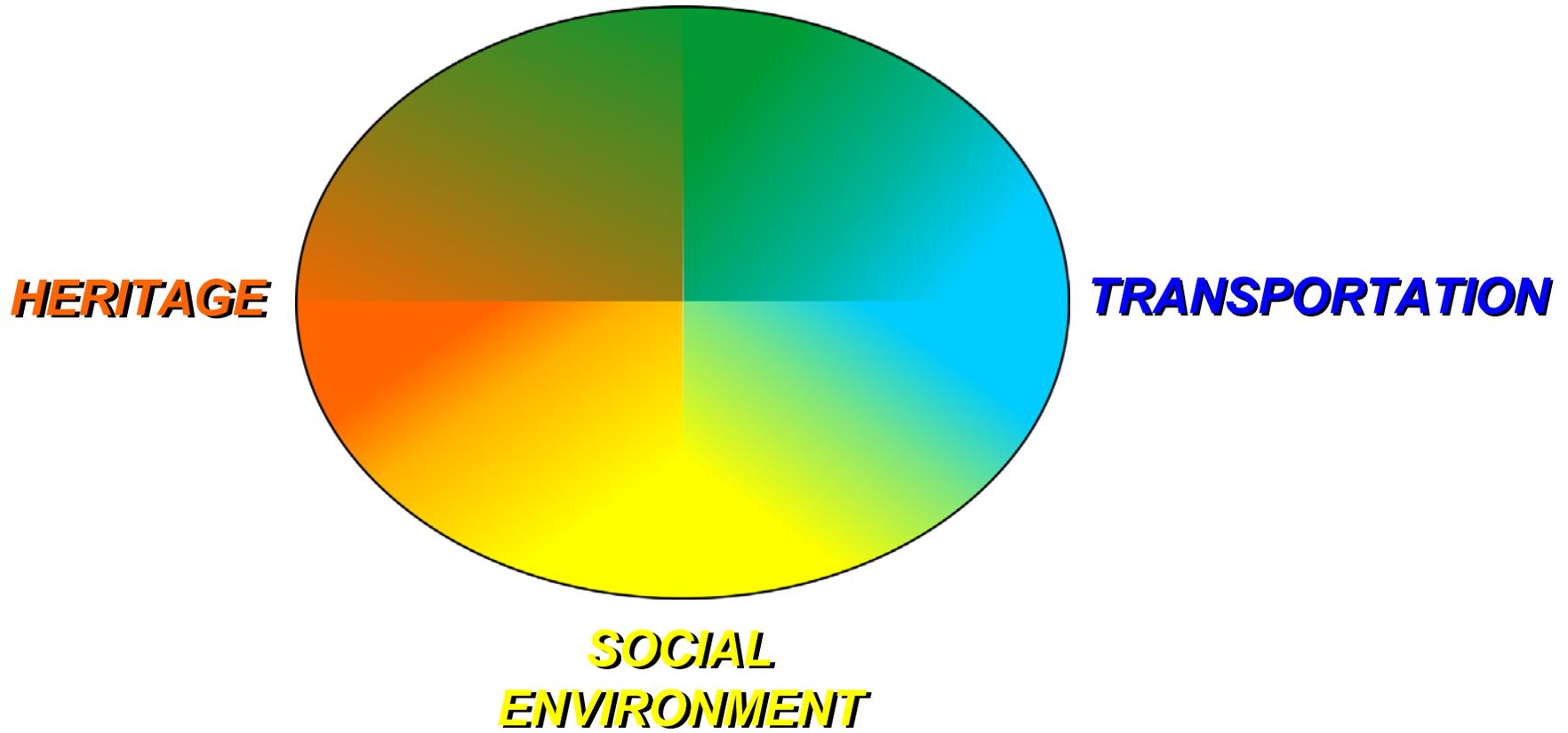
- 85% of users are from local area
- 12 % of users are from north of Major Mackenzie Drive
- 3% are from the east
- existing demand is equivalent to 4 lanes

MEASURES AND VALUES

2 LANES COMBINATION OF 4 LANES
2/4 LANES



**NATURAL
ENVIRONMENT**



PRELIMINARY FACTORS FOR ANALYSIS

LAND USE

- effects to existing land use
- effects to future land use

SOCIAL ENVIRONMENT

- overall effects on residential communities
- noise levels
- provision for pedestrians
- provision for cyclists
- recreational facilities

CULTURAL ENVIRONMENT

- Markham Village-Heritage Conservation District (HCD)
- built heritage resources
- cultural heritage landscapes
- archaeological resources

NATURAL ENVIRONMENT

- upland vegetation
- wetlands
- fisheries and aquatic habitat
- wildlife
- designated natural environmental features/areas (locally significant areas, Greenbelt Plan, Rouge North Management Plan, etc)
- surface water / drainage
- stormwater management

ECONOMIC ENVIRONMENT

- Main Street Markham BIA
- other businesses
- on-street parking

TRANSPORTATION

- traffic operations (future conditions)
- minimize through traffic on Main Street
- minimize traffic on N-S local roads adjacent to Main St.
- ability to accommodate existing/future traffic demands
- access to GO Stations
- transit opportunities
- emergency services

STREETSCAPING/URBAN DESIGN

- opportunities for streetscaping/urban design
- entrance features to HCD

PRELIMINARY COST ESTIMATE

- estimated construction cost

RELATIONSHIP TO “VISION” FOR MAIN STREET MARKHAM

- 1999 “Vision”
- 2003 Streetscaping Study
- 2005 Urban Design Study

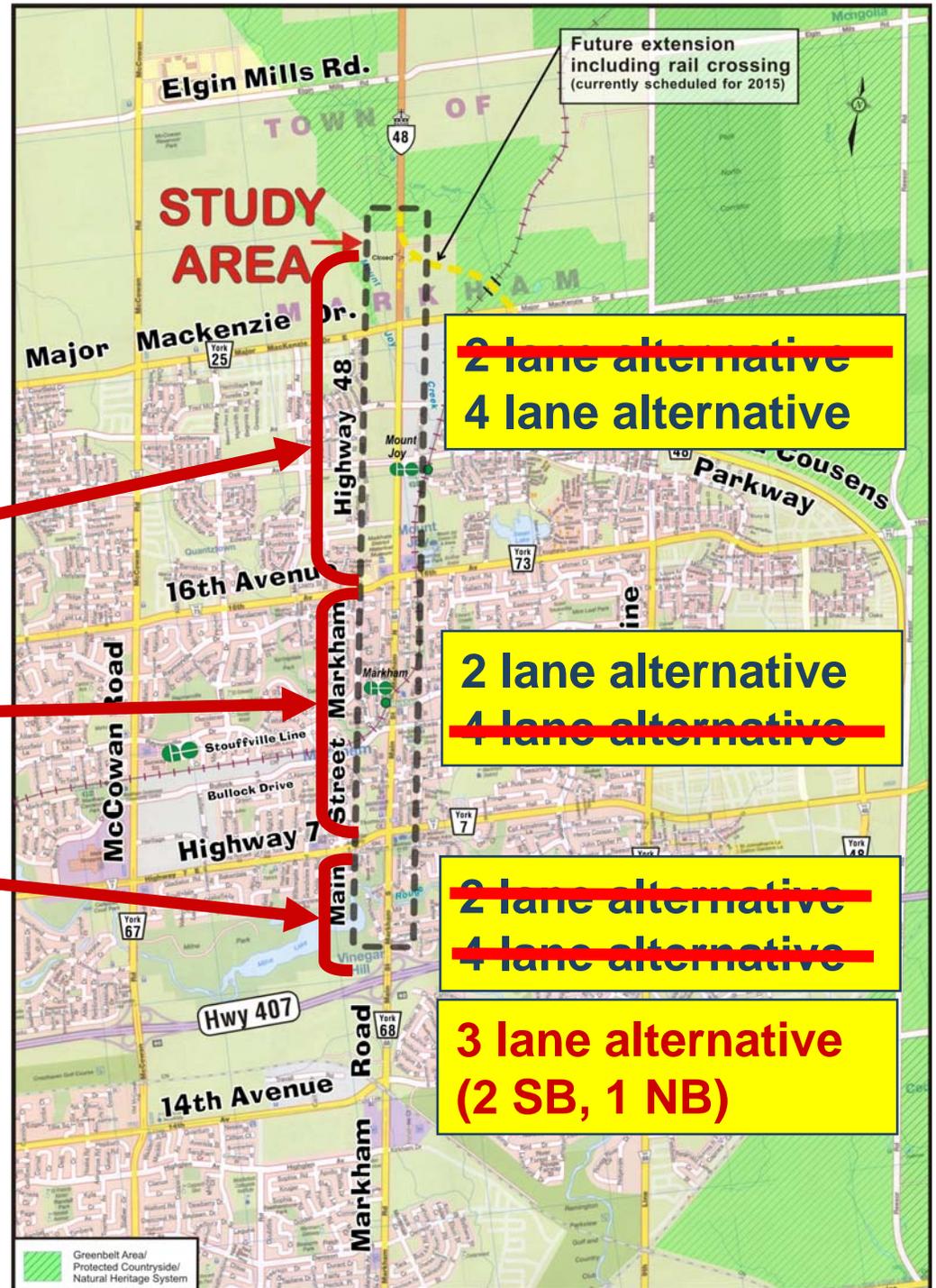
ANALYSIS OF ALTERNATIVES

ANALYSIS FACTORS	ALTERNATIVES				
	Highway 407 to Highway 7			Highway 7 to 16 th Avenue	16 th Avenue northerly
	2 lanes	3 lanes	4 lanes	2 lanes	4 lanes
Land Use					
Social Environment					
Cultural Environment					
Natural Environment					
Economic Environment					
Transportation					
Streetscaping/ Urban Design					
Preliminary Cost Estimate					
Relationship to Vision for MSM					

APPROACH TO ALTERNATIVES

Divide study area into three major sections

- 16th Avenue northerly
- Highway 7 to 16th Avenue
- Highway 407 to Highway 7



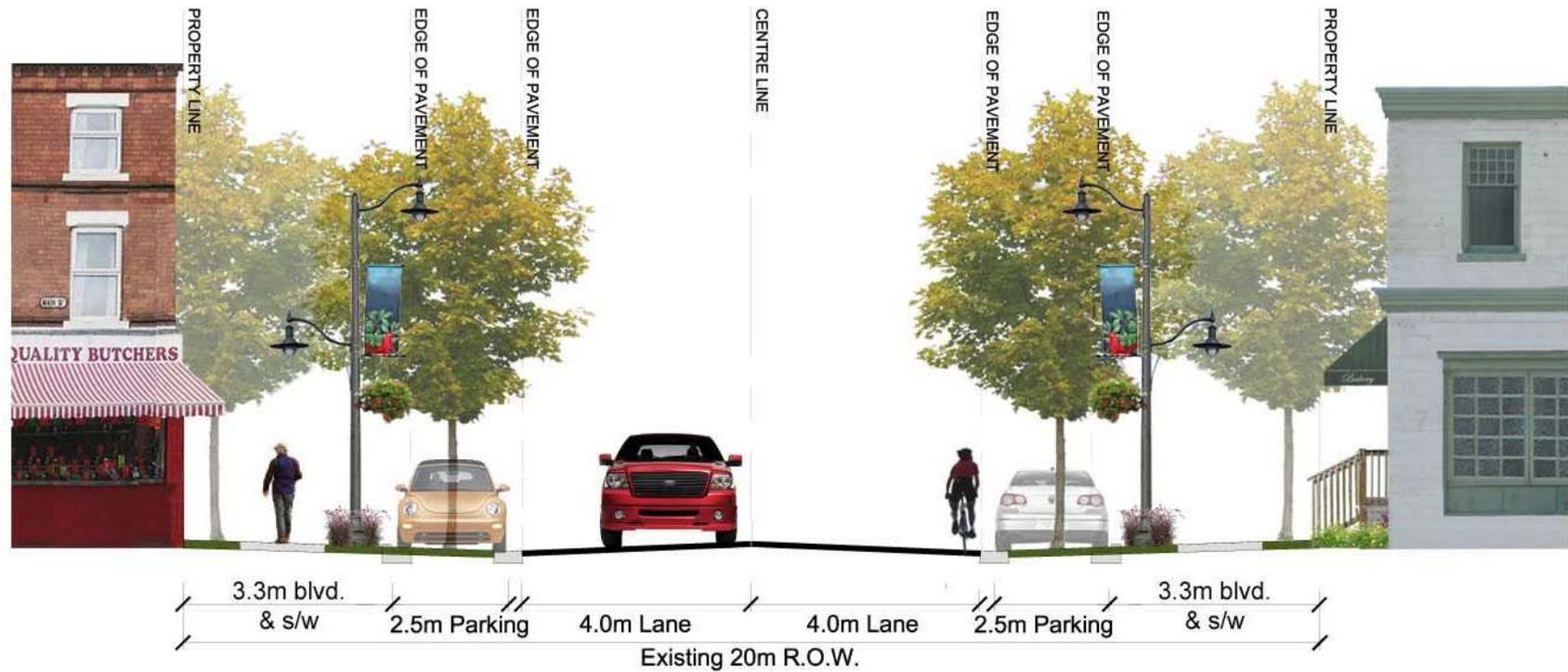


PRELIMINARY SCREENING OF ALTERNATIVES

- Highway 7 to 16th Avenue
 - Based on recommendations from previous studies, as well as input collected to date, the 2-lane alternative from Highway 7 to 16th Avenue is preferred.
 - Streetscape features and additional boulevard areas create a more pedestrian friendly environment to support businesses in Markham Village and enhance heritage / community character.

**2 LANES
PREFERRED**

2 LANE OPTION (Highway 7 to Bullock Drive)



2 LANE OPTION (Bullock Drive to 16th Avenue)

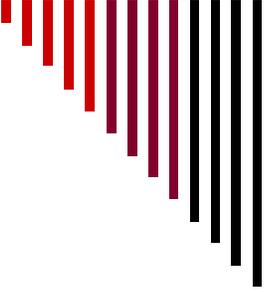




MAIN STREET MARKHAM CLASS EA

NORTH OF HIGHWAY 7 THROUGH MARKHAM VILLAGE CORE - ILLUSTRATIVE ELEVATION

SEPTEMBER 2009



PRELIMINARY SCREENING OF ALTERNATIVES

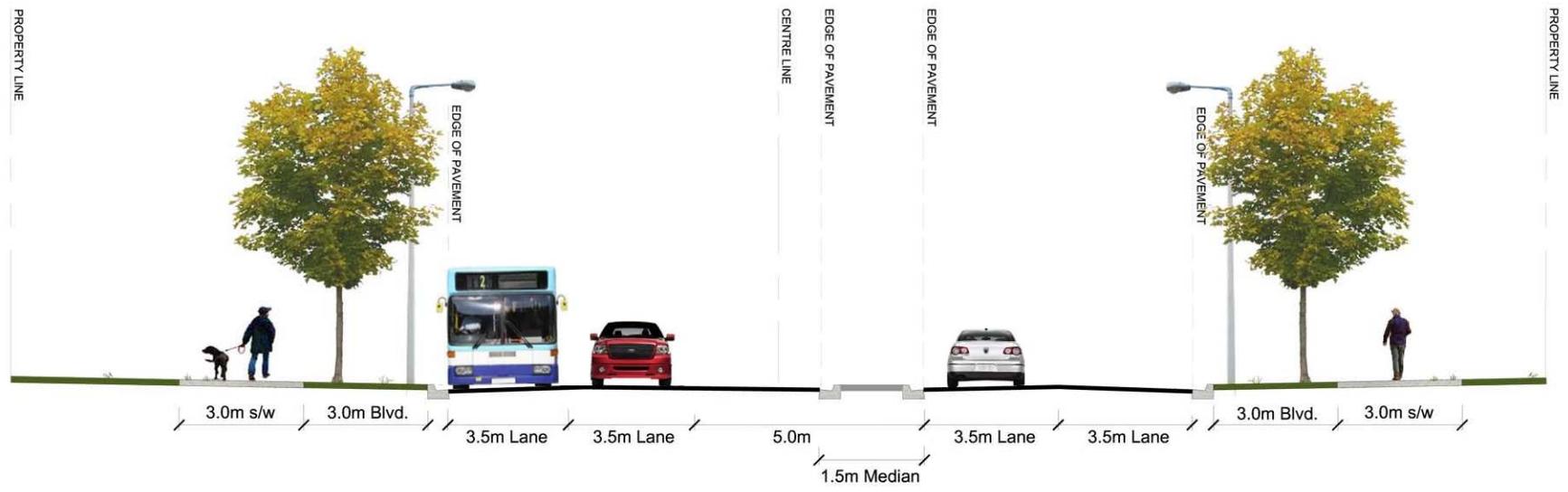
- 16th Avenue to Future Donald Cousens Parkway
 - Based on recommendations from previous studies, as well as input collected to date, the 4-lane alternative from 16th Avenue to future Donald Cousens Parkway is preferred and would support future development within the community.

**4 LANES
PREFERRED**

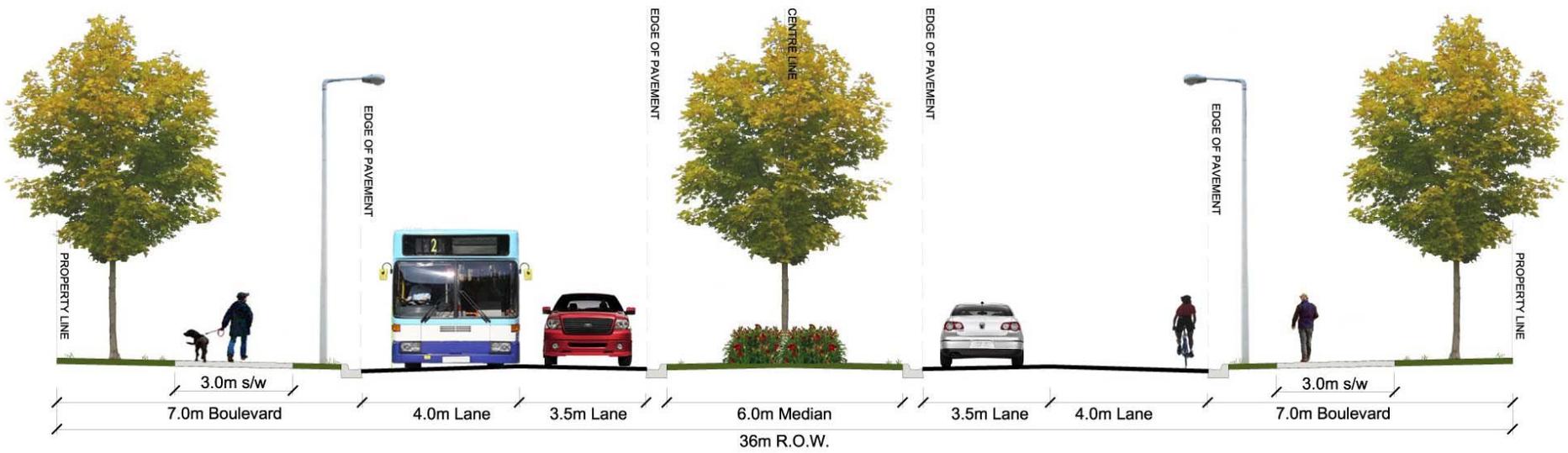


16th Avenue in Proximity to Markham Museum

4 LANE OPTION



4 LANE OPTION







HIGHWAY 407 TO HIGHWAY 7 – 4 Lanes Alternative

- Best address future transportation need
- However, this alternative would have:
 - significant impact to cultural environment
 - impact to adjacent properties
 - limited opportunity for enhancement of landscape and streetscape features
- Not consistent with the Main Street Markham Vision

NOT PREFERRED



HIGHWAY 407 TO HIGHWAY 7 – 2 Lanes Alternative

- Most preferred in terms of cultural environment and socio-economic environment since follow existing right of way
- Provide the most opportunity for landscape and streetscape features
- However, does not address future transportation needs

NOT PREFERRED

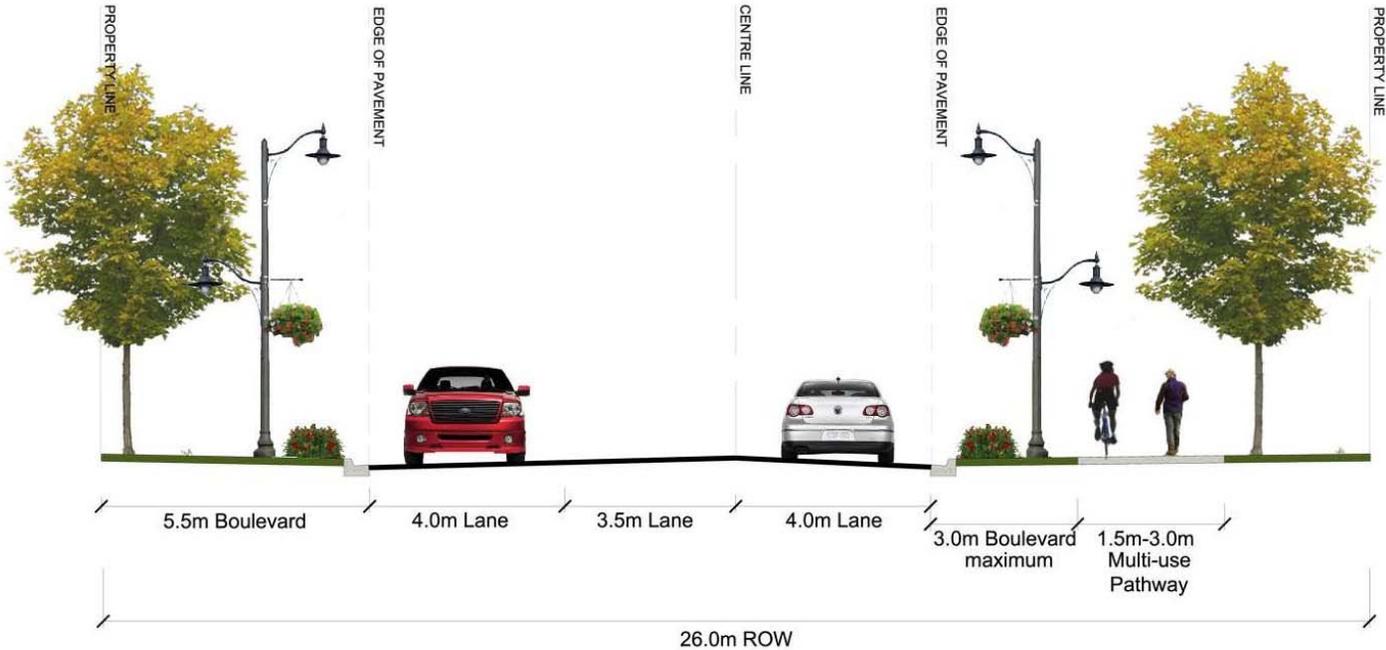


HIGHWAY 407 TO HIGHWAY 7 – 3 Lanes Alternative

- Overall, slightly greater impact than 2 lanes Alternative, but less impact than 4 lanes alternative to adjacent properties and cultural environment
- Footprint at the Princess Street / Main Street Markham intersection (i.e. “entrance” to Markham Village) remain the same
- Adequate spacing in boulevard to allow landscape and streetscape features
- Address future transportation needs by providing an additional southbound lane to address AM peak
- Achieve balance between cultural environment, socio-economic environment, natural environment and transportation need

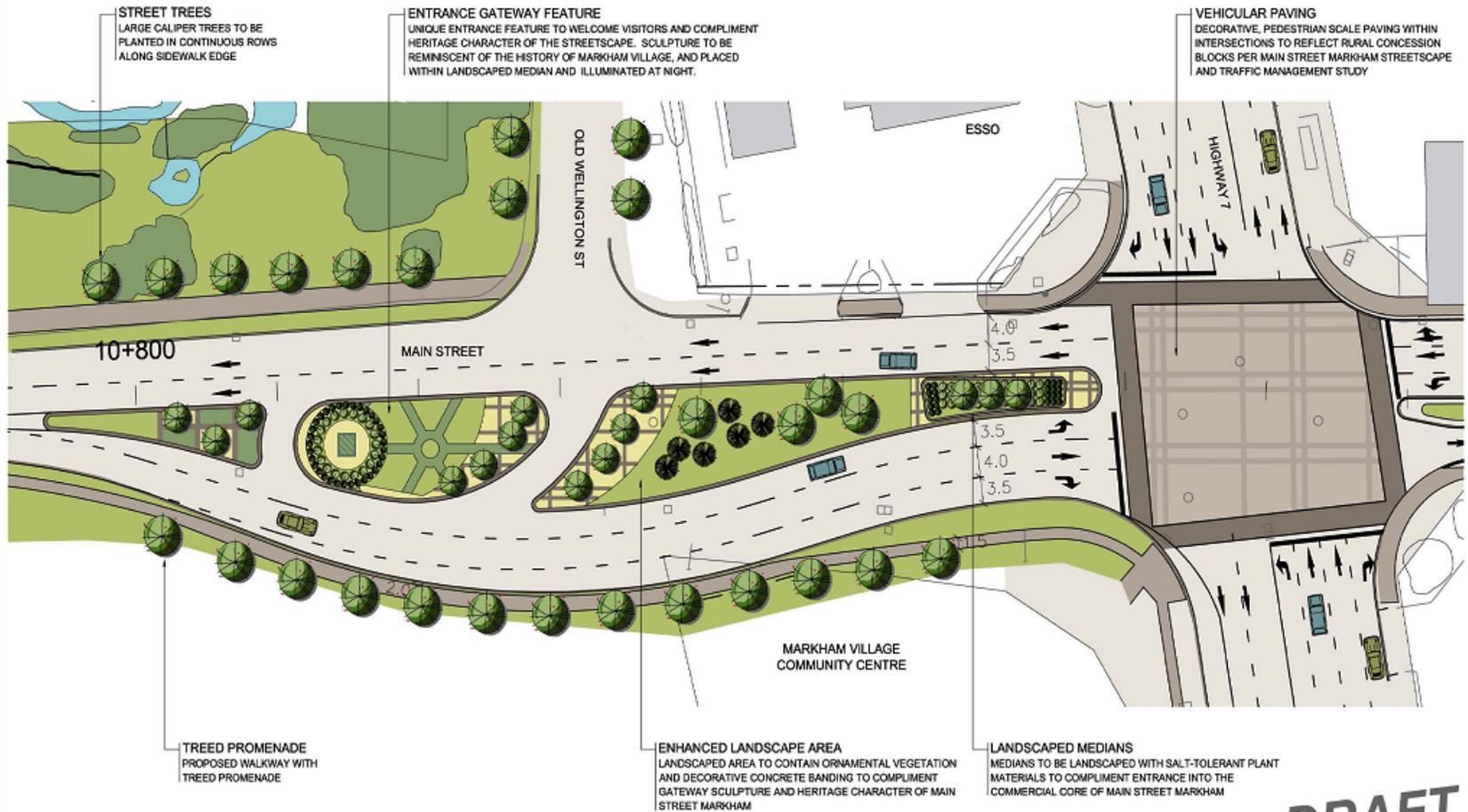
PREFERRED

3 LANE OPTION



Gateway Feature at Highway 7

THESE PLANS ARE TO BE READ IN CONJUNCTION WITH THE MAIN STREET MARKHAM STREETScape AND TRAFFIC MANAGEMENT STUDY (MAY 2003) AND THE MAIN STREET MARKHAM STREETScape GUIDELINES (APRIL 2001)



DRAFT



MAIN STREET MARKHAM CLASS EA

VIEW NORTH AT MAIN STREET AND PRINCESS STREET INTERSECTION (OPTION 2) - ILLUSTRATIVE ELEVATION

DECEMBER 2009



MAIN STREET MARKHAM CLASS EA

VIEW NORTH AT MAIN STREET AND ROUGE STREET INTERSECTION (OPTION 2) - ILLUSTRATIVE ELEVATION

DECEMBER 2009



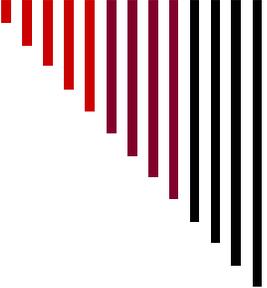
TECHNICALLY PREFERRED ALTERNATIVE

- Landscaping and streetscape features – conceptual only; comprehensive plans to be developed during detail design
- Highway 407 to Highway 7
 - 3 lanes – 2 southbound lane and 1 northbound lane
 - Sidewalk / Multi-use path on east side
 - Lineal park leading to future connection to Rouge Park
 - Wide curb lane for on-street cyclists and transit



TECHNICALLY PREFERRED ALTERNATIVE

- Highway 7 to 16th Avenue
 - 2 lanes
 - On-street parking, bump-out
 - Landscape and streetscape features
- 16th Avenue to Future Donald Cousens Parkway
 - 4 lanes
 - Wide curb lane for on-street cyclists and transit
 - Sidewalk / Multi-use path on both sides
 - Wide planted median



NEXT STEPS

- Second Public Information Centre (late May)
- Incorporate comments and report back to Council (late June 2010)
- Prepare and file Environmental Study Report (Summer 2010)
- EA Approval Fall 2010
- Design start late 2010
 - Highway 7 to Church Street
 - 16th Avenue to Major Mackenzie Drive