



Markham Centre Transportation Study Update



September 25, 2012

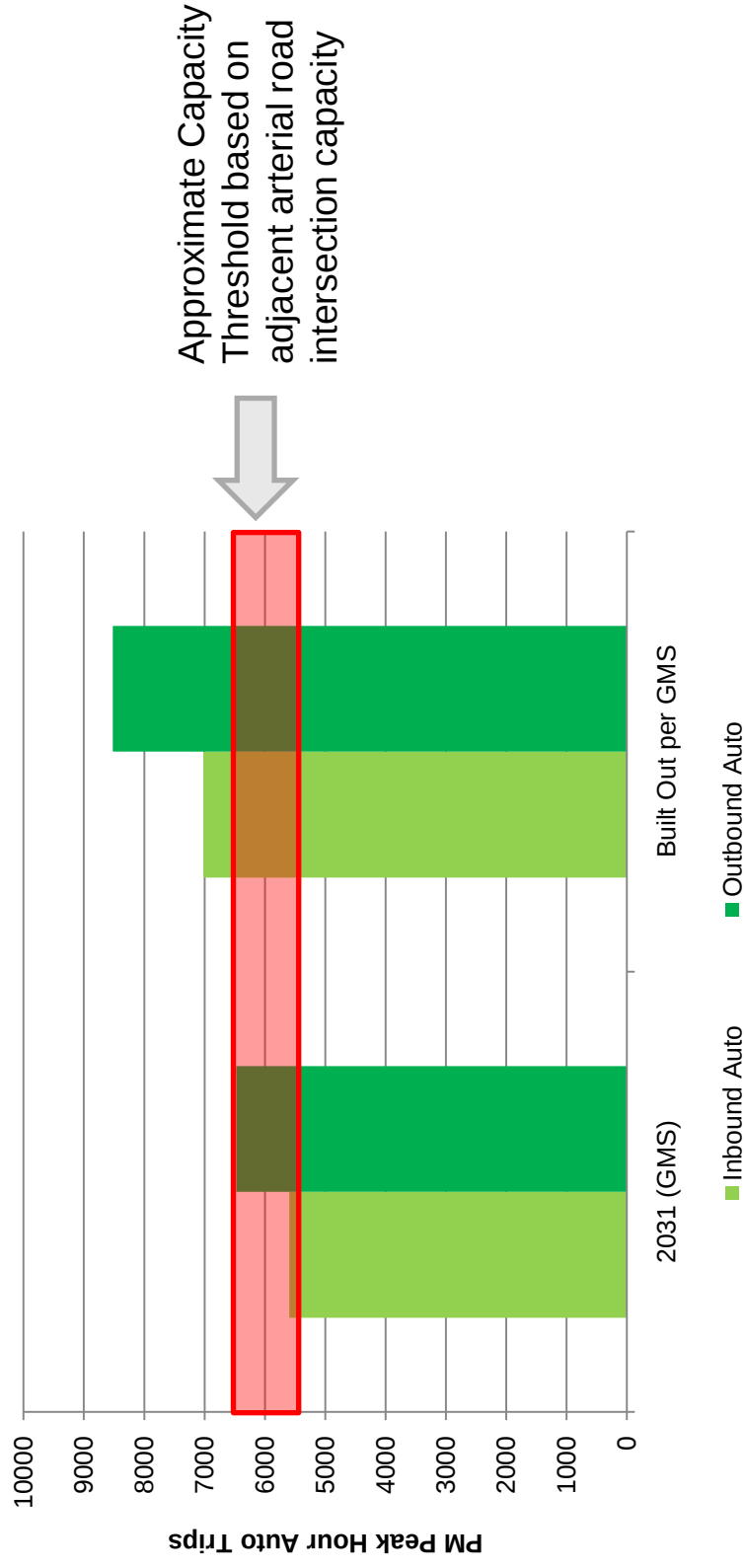
- Study Assumptions
- Transportation Analysis of 2031 and post 2031 land use projections
- Recap of Findings and Supporting Infrastructure
- Thresholds
- Next Steps

- Prepared analysis using 2031 (Growth Management Strategy**) land use
- Projected transportation impact of post 2031 land use
- Special event traffic is assessed by a separate study by Genivar
- Base transportation network includes all road and transit capacity improvements to 2031, except longer term extension of Miller Avenue
- Assumed combined “transit + walk + cycle + auto passenger” mode split will be 50% by 2031 (i.e. 50% auto driver)
 - (2006 mode split was 67% for auto driver and 33% for non-auto driver)

** Refers to the landuse assumptions consistent with Council Endorsed Growth Alternative to 2031 (approved May 2010)

Horizon Year	Growth Scenario	Basis for Assumptions	Markham Centre Proper
2031	2031 (Growth Management Strategy)	Base GMS** (2031)	Res. Units: 14,800 Pop: 28,700 Emp: 22,100
Beyond 2031	Built Out per GMS	Base GMS** (Beyond 2031)	Res. Units: 20,400 Pop: 39,200 Emp: 39,900

** Estimated based on land use designation from the approved Markham Centre Secondary Plan (1997) and incorporating subsequent development approvals.

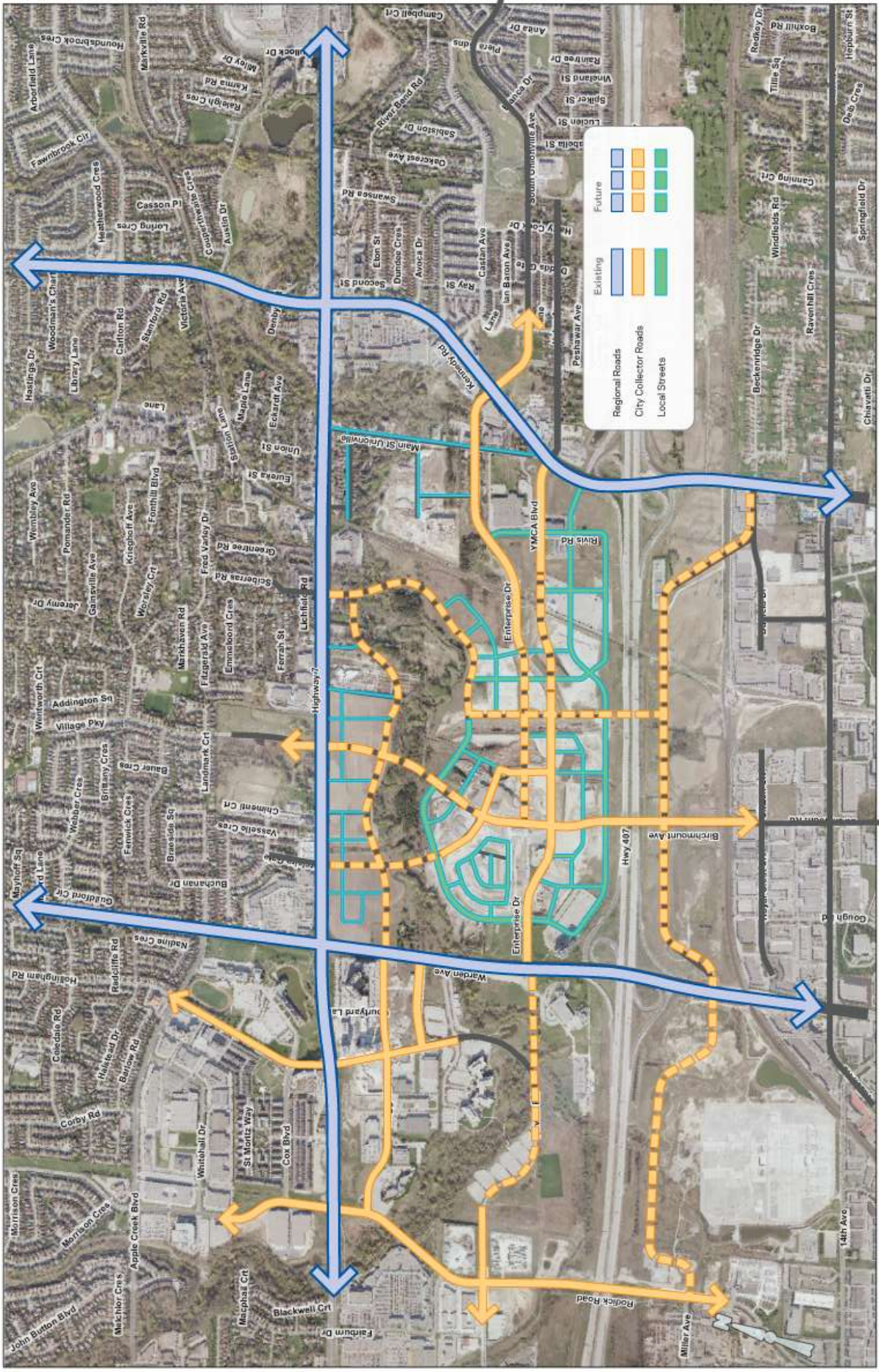


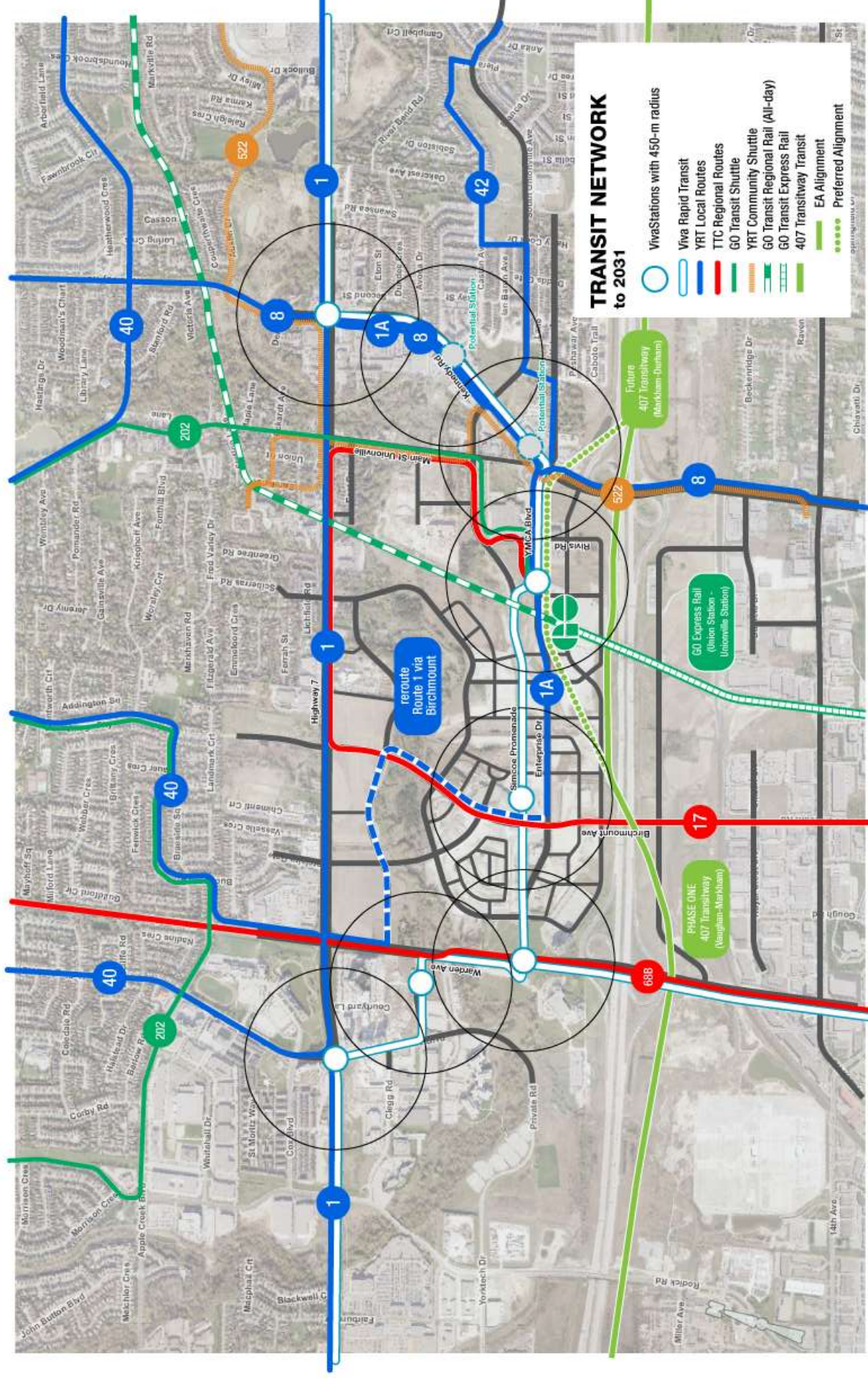
- Analysis indicates that road network capacity will be reached under “2031 (GMS)” demand and supply assumptions under the PM Peak Hour condition.

- “Built Out per GMS” scenario can only be accommodated if:
 - Non-auto mode shares are increased to 60%-65%
 - Other modes of rapid transit are provided beyond committed improvements (e.g. I-METRO-E on Stouffville Line or RT on McCowan Rd) to increase transit modal split
 - Additional road infrastructure not currently anticipated/feasible is achieved (e.g. new 407 crossing and connections) to increase the road capacity threshold
 - Markham-wide traffic is reduced/diverted from downtown Markham to reduce background traffic
 - Live-work (internal trips) percentage is maximized to reduce external trips
- All of these are possible in the long term, but represent significant investment and change from current travel trends and lifestyles

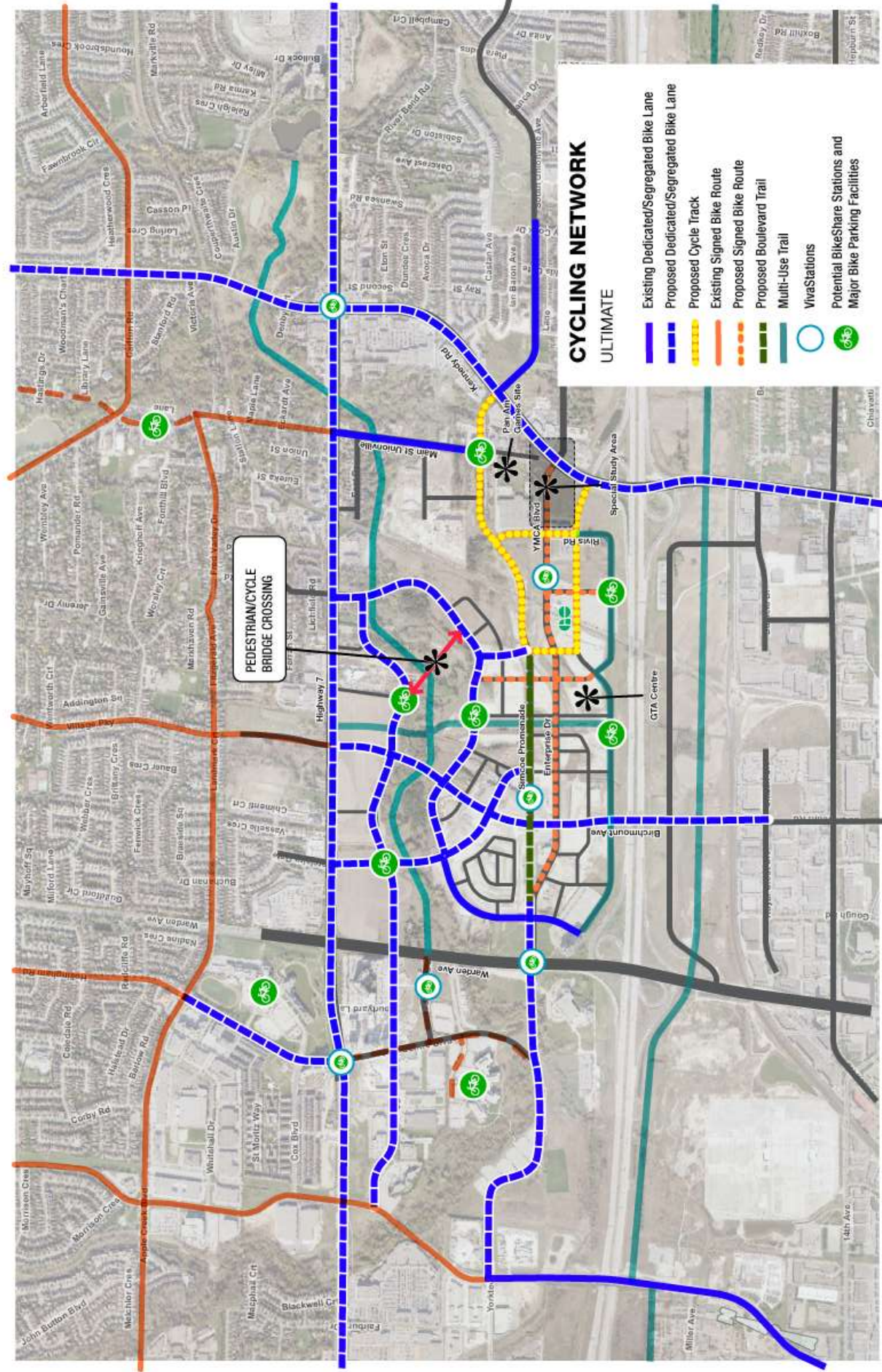
- The analysis shows that the proposed road network, in association with all the transit and other transportation improvement projects, is sufficient to support the 2031 level of development.
- Arterial road capacity (i.e. Warden, Highway 7, Kennedy and 14th Avenue) is the constraint for further increase in density of Markham Centre.
- Simcoe Promenade provides another crossing of Tributary 4 and its cross-section is being finalized to provide transit service, cyclist/pedestrian movement and some vehicular movement.

Proposed Road Network





Proposed Local Cycling Network



CYCLING NETWORK ULTIMATE

- Existing Dedicated/Segregated Bike Lane
- Proposed Dedicated/Segregated Bike Lane
- Proposed Cycle Track
- Existing Signed Bike Route
- Proposed Signed Bike Route
- Proposed Boulevard Trail
- Multi-Use Trail
- VivaStations
- Potential BikesShare Stations and Major Bike Parking Facilities

- Ultimate parking supply for Markham Centre needs to support the following objectives:
 - Ability to construct parking while meeting urban form objectives
 - Future mode split targets
 - Financial realities given the cost of parking
 - Capacity of road network
- Based on current market trends, 2031 GMS of 14,800 units and 22,100 employees would suggest a demand for some 25,000 parking spaces.
- Markham Centre parking strategy will:
 - Ensure compatibility between parking supply with available road capacity
 - Maximize opportunities for shared parking
 - Encourage remote parking for special events
 - Implement paid parking to reflect true costs

- **Challenge:** Current travel behaviour (i.e. non-auto modal splits) and transit infrastructure differ from end state conditions which will be required to support ultimate development densities
- **Proposed Approach:** Identify targets and triggers that must be achieved prior to commencing each stage/phase of development (i.e. development phasing)
- **Proposed Targets and Triggers include:**
 - Sustainable travel mode shares (walking, cycling, transit, auto passenger)
 - Maximum parking supply rates and shared use parking
 - Rapid transit infrastructure (Enhanced GO service or LRT, 407 Transitway)
 - Shuttle services
 - Road Improvements and other connections
 - Walking and cycling improvements
 - Supporting measures (car-sharing, bike-sharing, TDM)

Phasing Thresholds – Transit & Road Infrastructure

Transit Improvements	Road Improvements
YRT Service on Birchmount	Birchmount Road Rouge River Crossing
Dedicated rapidway on Enterprise Drive	Verclaire Gate Rouge River Crossing
Dedicated rapidway on Warden Avenue	Sciberras Road Rouge River Crossing
All day GO Rail Service	Enterprise Drive Extension to Rodick
BRT or LRT in Highway 407 corridor	Miller Avenue Extension – Warden to Birchmount
Rapid transit connection to Scarborough (e.g. I-METRO-E or on McCowan Road)	Miller Avenue Extension –Birchmount to Kennedy

- Finalize transportation study reports for Markham Centre and GTA Centre
- Finalize Markham-wide parking strategy and Markham Centre parking business plan
- Present final Markham Centre Transportation Plan to Council
- Prepare Consolidated Precinct Plan in order to validate and integrate landuse and transportation assumptions
- Implement development phasing through the development approval process consistent with a transportation strategy
- Continue to advance transit and road initiatives to support Markham Centre
- Work with developers, Region and other service providers to implement supporting measures
- Continue dialogue on transportation issues with Advisory Committee/ Transportation Committee