# IE18.1

#### Attachment 3 Stage 2 "Enhance Yonge Transform Beecroft" Alternative Solutions

To develop and assess an alternative option that would not reduce traffic capacity on Yonge Street, alternatives for cycling facilities on Beecroft Road and/or Doris Avenue were considered as part of the Stage 2 phase of work.

The work was carried out through a three step process:

- Step 1 Develop and evaluate alternative solutions to determine the preferred type of cycling facility and street design
- Step 2 Identify the preferred street for the preliminary preferred alternative (i.e. Beecroft Road, Doris Avenue or both)
- Step 3 Determine the preferred overall alternative (Stage 1 preliminary preferred "Transform Yonge" vs Stage 2 preferred)

Yonge Street will require a full reconstruction irrespective of what design is carried forward. A concept for Yonge Street that maintains six travel lanes and does not include cycling facilities was developed in conjunction with the Stage 2 phase of work.

The following describes the work carried out and conclusions for each step:

#### Step 1 - Develop and Evaluate Alternative Solutions

Four alternative solutions were developed for cycling facilities on Beecroft Road, Doris Avenue or both:

- 1. Modify: maintain existing curbs, bike lanes installed with painted buffer, two southbound lanes and one northbound lane on Beecroft Road and two northbound lanes and one southbound lane on Doris Avenue and maintain off-peak parking southbound on Beecroft Road and northbound on Doris Avenue
- 2. Transform 1: full road reconstruction with curbs relocated, raised cycle tracks adjacent to the curb, maintain existing number of traffic lanes, off-peak parking maintained, trees replaced if there are impacts and public realm improvements and widened sidewalks, where feasible
- 3. Transform 2: full road reconstruction with curbs relocated, bidirectional cycling path in west boulevard of Beecroft Road and/or east boulevard of Doris Avenue, maintain existing number of traffic lanes, off-peak parking maintained, trees replaced if there are impacts and public realm improvements and widened sidewalks, where feasible
- 4. Transform 3: full road reconstruction with curbs relocated, cycling paths in boulevards, two southbound lanes and one northbound lane on Beecroft Road and two northbound lanes and one southbound lane on Doris Avenue, maintain off-peak parking southbound on Beecroft Road and northbound on Doris Avenue,

trees replaced if there are impacts and public realm improvements and widened sidewalks, where feasible

Based on feedback received through Stage 1, the evaluation criteria were updated and refined to reflect the key issues identified and used to assess the advantages and disadvantages of each alternative solution.

Based on a comprehensive evaluation of the alternative solutions for Beecroft Road and/or Doris Avenue and input received from the public and other stakeholders, the preliminary preferred type of cycling facility identified as part of Stage 2 - Step 1 process was "Transform 1". This alternative accommodates traffic and parking while providing separated cycle tracks to enhance cycling safety and comfort. The pedestrian realm on Beecroft Road and/or Doris Avenue would be improved by wider sidewalks, where feasible.

## Step 2 - Select the preferred street for the preliminary preferred alternative "Transform 1"

The preliminary preferred type of cycling facility "Transform 1" was applied to both Beecroft Road and Doris Avenue to determine which street(s) should include cycling facilities. Based on a screening level evaluation, the preferred street for cycling facilities for "Transform 1" would be Beecroft Road. Compared to Doris Avenue, Beecroft Road can accommodate cycle tracks with fewer property impacts while better maintaining traffic operations. In addition, it has better long-term potential connections for cycling facilities to Steeles Avenue and across Highway 401 and can be built at a lower cost.

With the preliminary preferred type of cycling facility "Transform 1" on Beecroft Road, a concept for Yonge Street was developed that maintains six travel lanes and does not include cycling facilities, as shown in Figure 1.





Based on the above, the Stage 2 - Step 2 preliminary preferred alternative for cycling facilities on Beecroft Road and/or Doris Avenue is "Enhance Yonge and Transform Beecroft".

### Step 3 - Determine the preferred overall alternative

The "Enhance Yonge and Transform Beecroft" alternative solution was compared with the Stage 1 preliminary preferred alternative solution "Transform Yonge" to determine the preferred overall alternative:

- 1. Transform Yonge: full reconstruction of Yonge Street reduction of travel lanes from six lanes to four lanes from Sheppard Avenue to Hendon Avenue/Bishop Avenue, wider boulevards, enhanced landscaped median, introduction of cycle tracks, integration with public spaces, wider sidewalks and enhanced pedestrian crossings to improve safety
- Enhance Yonge and Transform Beecroft: full reconstruction of Yonge Street and Beecroft Road - addition of cycle tracks on Beecroft Road and reconstruction of Yonge Street with six travel lanes and some improvements to the sidewalks and road safety

Please review Attachment 4 for details on the comparison of Step 3.