

# ATTACHMENT 1: CAMBRIDGE ROAD INTERSECTION DESIGN OPTIONS

## Intersection Option 1 - No Build

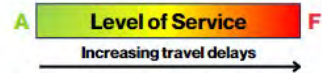


### Intersection Description:

- Minimal changes to existing intersection
- No changes to the service road
- Right turns onto Cambridge in advance of intersection

### Traffic Operations:

- Intersection Level of Service: **F**
  - **137 seconds** per vehicle
- Cambridge Road Level of Service: **F**
  - **197 seconds** per vehicle



### Safety:

- Similar conflicts as existing intersection
- Modest pedestrian improvements
- Conflict Points: **32** at Duke & **9** at Cambridge



*Conflict Point: Potential locations of where vehicle travel paths intersect and a collision risk occurs*

## Intersection Option 2 - Separated



### Intersection Description:

- One-way service road
- Eastbound left-turns and southbound right-turns relocated to new road connecting to Cambridge Rd.
- Right turns onto Cambridge Rd. in advance of intersection

### Traffic Operations:

- Intersection Level of Service: **F**
  - **87 seconds** per vehicle
- Cambridge Rd. Level of Service: **F**
  - **81 seconds** per vehicle



### Safety:

- Pedestrian refuge with less conflicting movement
- Conflict Points: **25** at Duke & **6** at Cambridge



*Conflict Point: Potential locations of where vehicle travel paths intersect and a collision risk occurs*

### Intersection Option 3 - The Through-cut

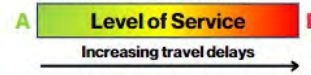


#### Intersection Description:

- Same as Option 2
- No southbound access from Cambridge to Roth (5 cars in peak)

#### Traffic Operations:

- Intersection Level of Service: **C**
  - 31 seconds per vehicle
- Cambridge Road Level of Service: **F**
  - 72 seconds per vehicle



#### Safety:

- Pedestrian refuge with less conflicting movement
- Minimal conflicts with all modes at service road
- Faster travel on Duke Street reduces cut-through traffic
- Conflict Points: **23** at Duke & **4** at Cambridge

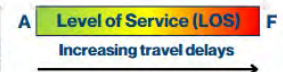


*Conflict Point: Potential locations of where vehicle travel paths intersect and a collision risk occurs*

## Recommendation: Option #3 (The Through-cut)

#### Safety

- Conflict Points reduce from 41 to 27
- Pedestrian refuge with less conflicting movement
- Minimal conflicts with all modes at service road
- Faster travel on Duke Street reduces cut-through traffic
- Potential for conflict free crossing of Duke Street



#### Traffic Operations

Intersection LOS **C**

- Delay: 31s from 181s

Cambridge LOS **F**

- Delay: 72s from 195s

**ATTACHMENT 2: PROPOSED SERVICE ROAD CONFIGURATION**

