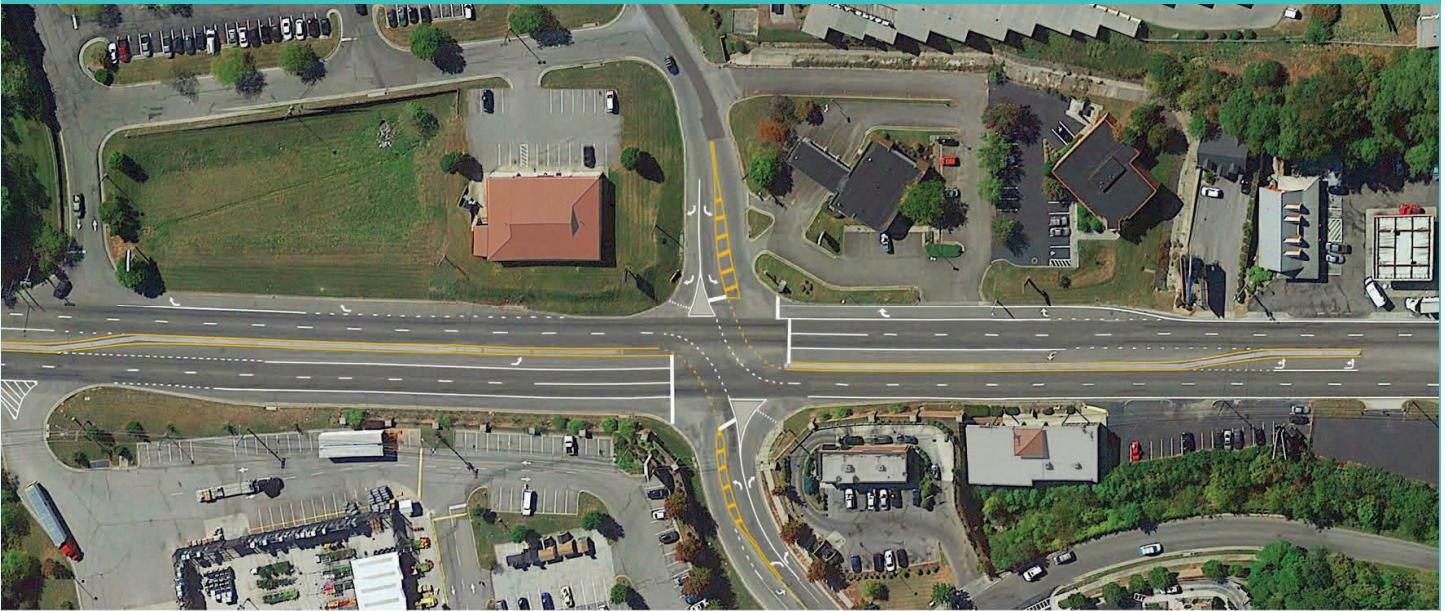


Thru-Cut



What is a Thru-Cut?

- Intersection design where side street through movements are redirected to left or right turns

When should a Thru-Cut be considered?

- At signalized intersections with very low side street through movements
- At signalized intersections with four legs

What are the benefits of a Thru-Cut?

- **Improve safety:** Reduces the number of points where vehicles cross paths and eliminates the potential for head-on crashes
- **Increased efficiency:** Reduction in vehicle queues and number of stops at intersections, and a reduction in travel times
- **Shorter wait times:** Reduces the number of signal phases from four-phases to three-phases
- **Cost-effective:** A thru-cut is more cost-effective than adding lanes to improve capacity

What are innovative intersections?

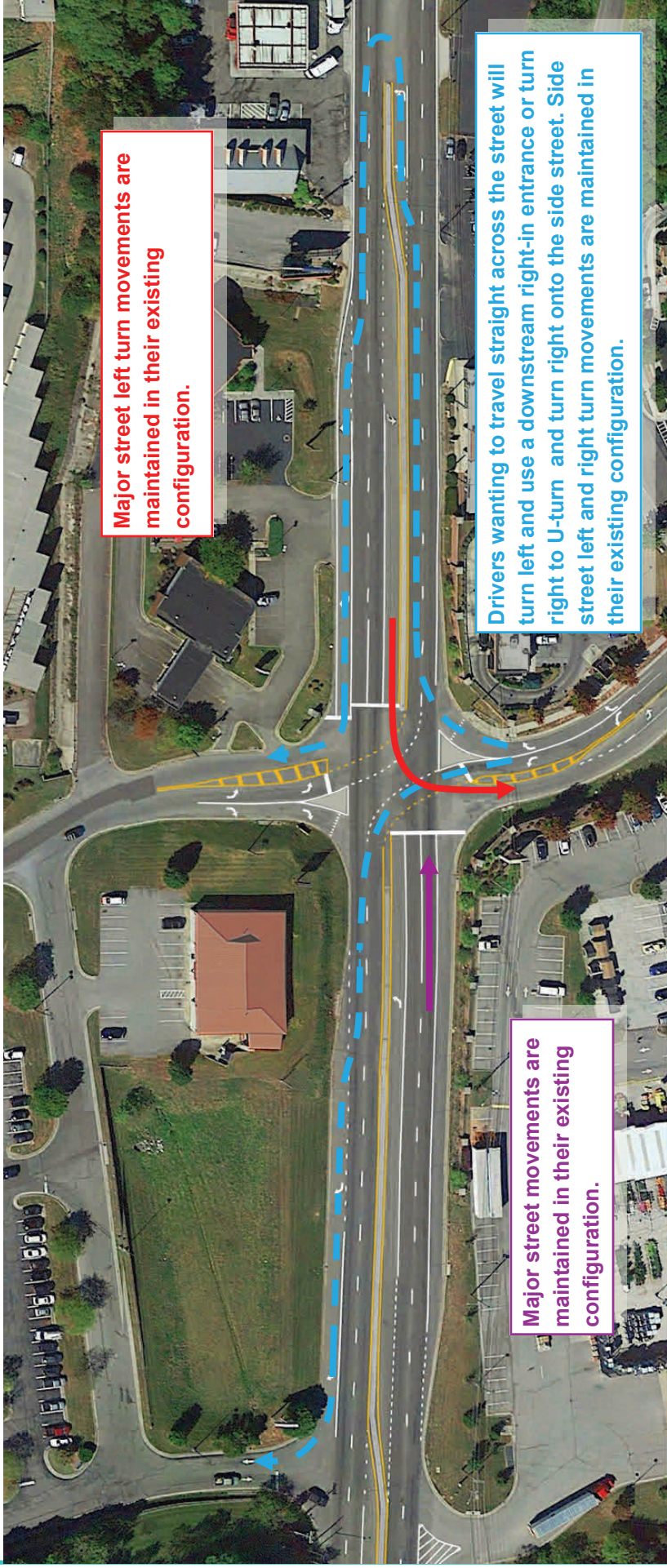
Intersection designs where traffic movements are modified to improve safety, reduce delay, and increase efficiency.

Visit www.virginiadot.org/innovativeintersections to learn more.



INNOVATIVE INTERSECTIONS

Navigating a Thru-Cut



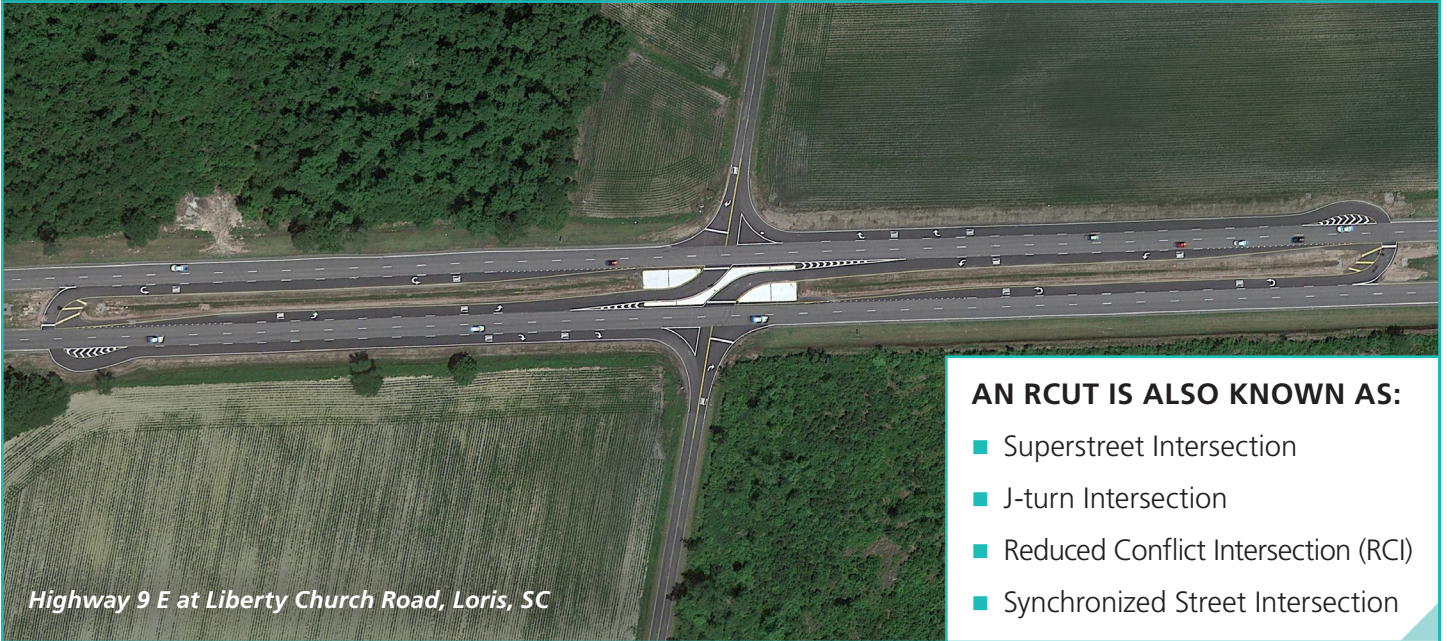
Note: For simplicity, not all directions of traffic are shown. Opposing traffic follows similar routes.

Visit www.virginiadot.org/innovativeintersections to learn more.





Restricted Crossing U-Turn (RCUT)



Highway 9 E at Liberty Church Road, Loris, SC

AN RCUT IS ALSO KNOWN AS:

- Superstreet Intersection
- J-turn Intersection
- Reduced Conflict Intersection (RCI)
- Synchronized Street Intersection

What is an RCUT?

- Intersection design where all side street movements begin with a right turn
- Side street left-turn and through vehicles turn right and make a u-turn at a dedicated downstream median opening to complete the desired movement
- Main intersection and median u-turns can be designed as signalized, stop controlled, or yield controlled

When should an RCUT be considered?

- On median-divided highways
- At intersections with heavy through and/or left-turn traffic volumes on the major street
- At intersections with low through and left-turn traffic volumes on the side street
- At intersections with three or four legs

What are the benefits of an RCUT?

- **Improved safety:** Reduces the number of points where vehicles cross paths and eliminates the potential for head-on crashes
- **Increased efficiency:** Each direction of the major street can operate independently creating two one-way streets and increasing the overall intersection capacity
- **Shorter wait times:** Fewer traffic signal phases means less stopping for mainline vehicles and right turns only from the side street vehicles means less time waiting
- **Cost-effective:** A RCUT can be more cost-effective than adding lanes to improve capacity

What are innovative intersections?

Intersection designs where traffic movements are modified to improve safety, reduce delay, and increase efficiency.


Visit www.virginiadot.org/innovativeintersections to learn more.








INNOVATIVE INTERSECTIONS


Navigating a Restricted Crossing U-Turn (RCUT)


 Depending on their level of comfort, cyclists may navigate the intersection using vehicle or pedestrian paths

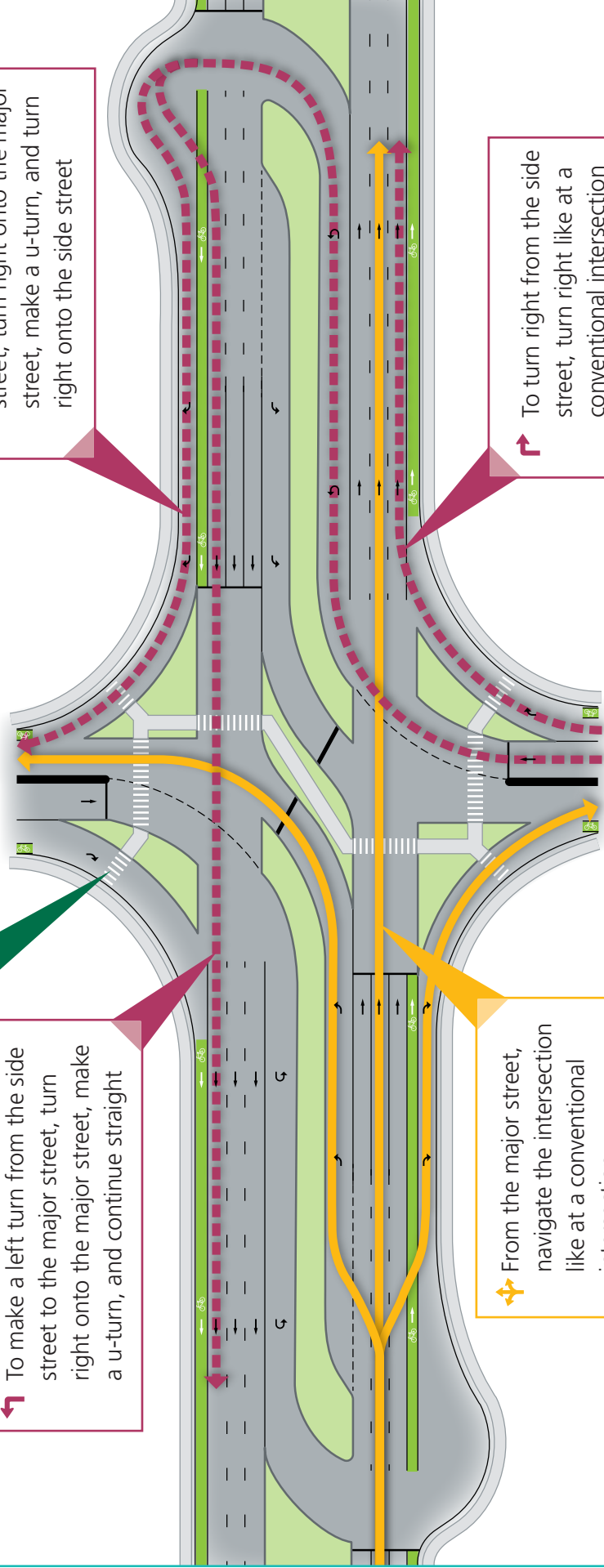
 Pedestrians use marked crosswalks to safely cross the intersection

 To make a left turn from the side street to the major street, turn right onto the major street, make a u-turn, and continue straight

 To continue straight on the side street, turn right onto the major street, make a u-turn, and turn right onto the side street

 From the major street, navigate the intersection like at a conventional intersection

 To turn right from the side street, turn right like at a conventional intersection



NOT TO SCALE

Note: For simplicity, only two directions of traffic are shown. Opposing traffic follows similar routes.

T

INNOVATIVE INTERSECTIONS

Continuous Green-T (CGT)



US 40 (Columbia Pike) at Rivers Edge Road, Columbia, MD

A CGT IS ALSO KNOWN AS:

- Turbo-T Intersection
- High-T Intersection
- Seagull Intersection

What is a CGT?

- Intersection design where one major street direction of travel (the top side of the "T") can pass through the intersection without stopping and the opposite major street direction of travel is typically controlled by a traffic signal
- Left-turn vehicles from the side street use a channelized receiving lane on the major street to merge onto the major street
- Intersection is typically signalized but can also be designed without a traffic signal

When should a CGT be considered?

- At intersections with three legs
- At intersections with heavy through traffic volumes on the major street
- At intersections with moderate to low left-turn traffic volumes on the side street
- At intersections where there are no driveways along the major street opposite the side street
- At intersections with a limited number of pedestrian crossings across the major street or with an alternative pedestrian crossing location nearby

What are the benefits of a CGT?

- **Improved safety:** Channelization of left-turn vehicles from the side street reduces the potential for angle crashes
- **Increased efficiency:** Because one direction of travel on the major street is free-flow, more green time can be provided to the other movements, reducing delay at the intersection
- **Free-flow in one direction:** One direction of travel on the major street never stops, which improves traffic signal synchronization and reduces corridor travel times


What are innovative intersections?

Intersection designs where traffic movements are modified to improve safety, reduce delay, and increase efficiency.


Visit www.virginia.gov/innovativeintersections to learn more.





Navigating a Continuous Green-T (CGT)

 Depending on their level of comfort, cyclists may navigate the intersection using vehicle or pedestrian paths


 To turn left from the side street, use the channelized lane to merge onto the major street

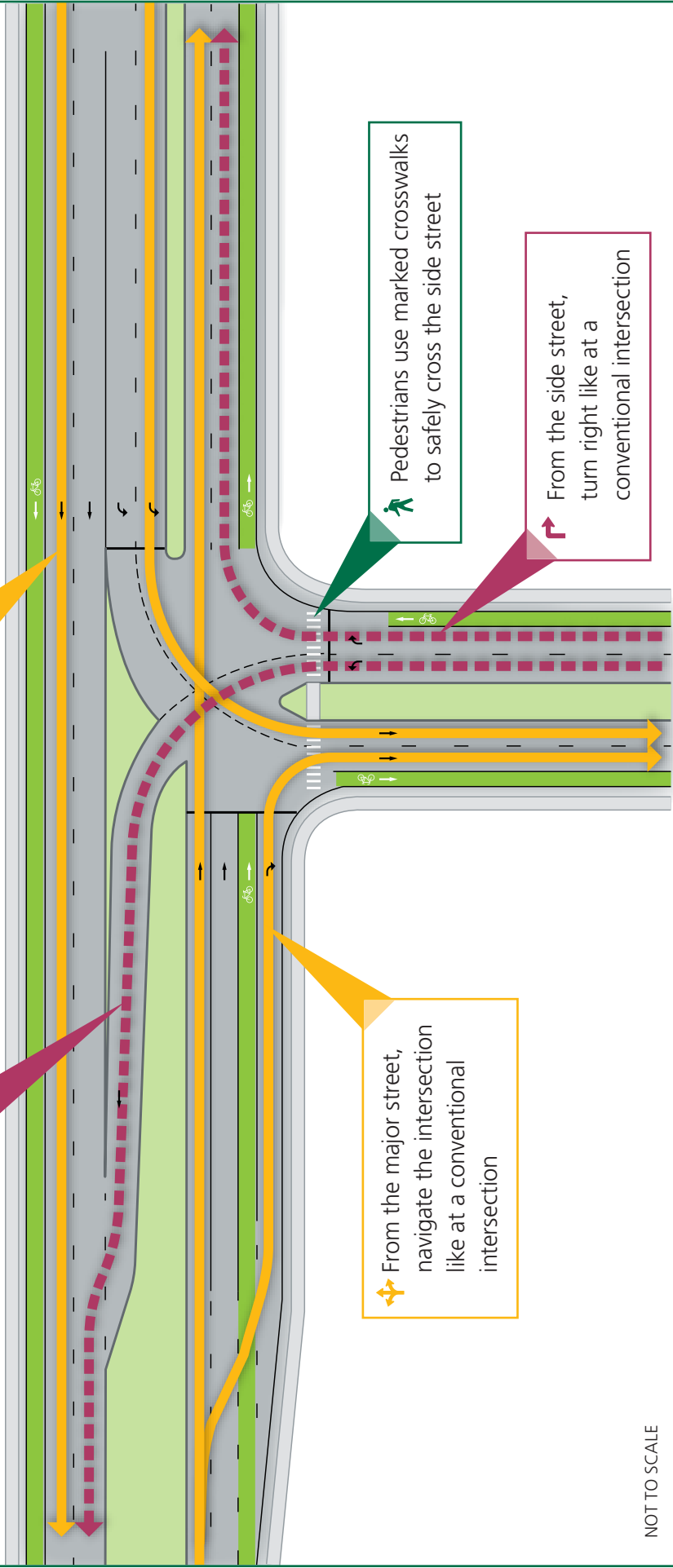
 To continue straight on the top of the "T", pass through the intersection

 At CGTs, crosswalks are not provided across the major street. To cross the major street, pedestrians may use the nearest marked crosswalk (not shown)

 From the major street, navigate the intersection like at a conventional intersection

 Pedestrians use marked crosswalks to safely cross the side street

 From the side street, turn right like at a conventional intersection



NOT TO SCALE