SR161 Corridor Study

I-71 to Cleveland Avenue

April 27th – Public Meeting

THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR
DEPARTMENT OF PUBLIC SERVICE

DLZ

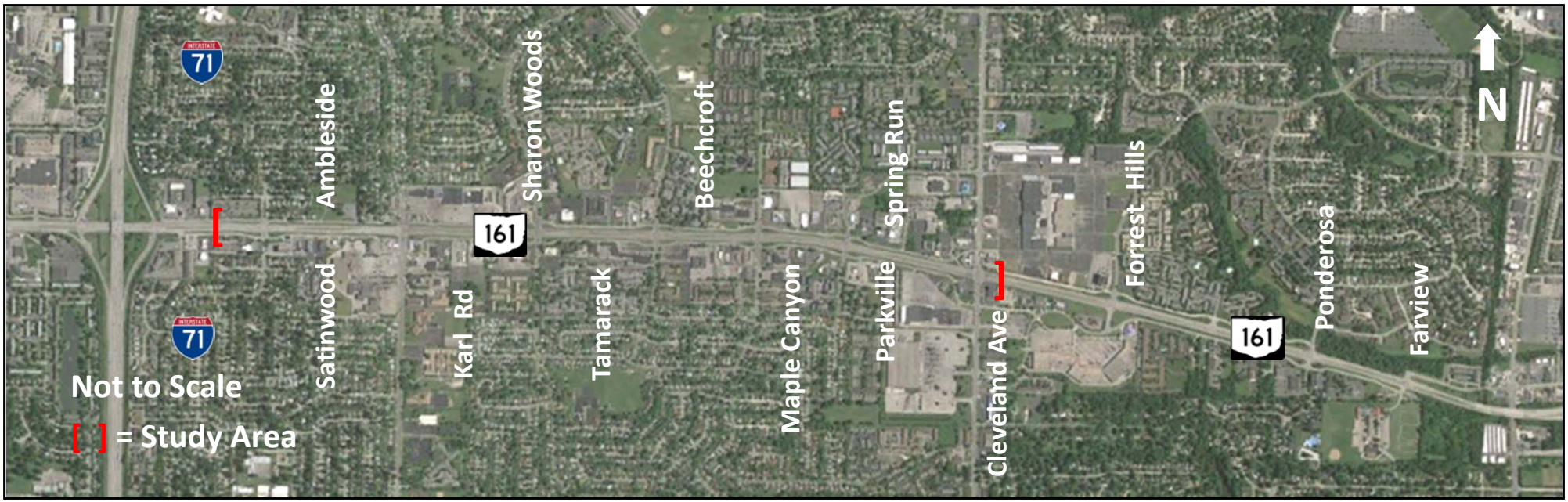
Agenda

- Presentation on Overall Study (5:30 PM)
  - Process used – How did we arrive at the alternatives presented?
  - Review alternatives considered
- Open House Format (5-5:30PM, 6:00-7:00PM)
  - Review alternatives up close
  - Ask questions
  - Complete comment sheets (Questionnaire)

Purpose

- Provide an overview of the existing operations and issues within the study area
- Share the alternatives considered with the community
- Gain feedback on the long term alternatives presented
  - Please fill out the Questionnaire to help document any comments and feedback you may have on the alternatives.

Study Area



THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR
DEPARTMENT OF PUBLIC SERVICE

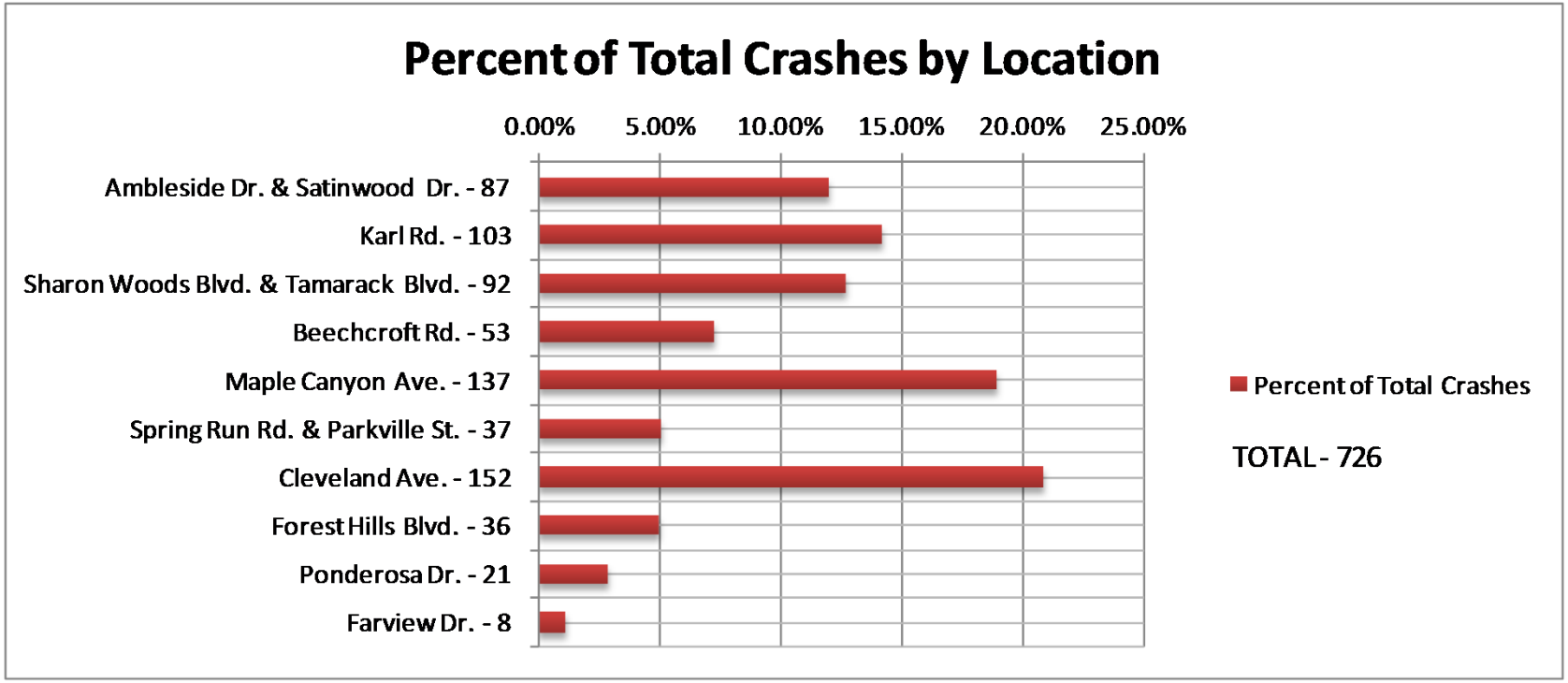
DLZ

Existing Conditions – Crash Summary

- There were three intersections in the 2014 MORPC Top-40 intersection crash list:
  - #2 161 @ Maple Canyon
  - #5 161 @ Cleveland Avenue
  - #39 161 @ Sharon Woods Blvd / Tamarack Blvd
- The September 2015 rankings are:
  - #3 161 @ Maple Canyon
  - #4 161 @ Cleveland Avenue
- The September 2016 rankings are:
  - #3 161 @ Maple Canyon
  - #9 161 @ Cleveland Avenue
  - #19 161 @ Karl Road

Type of Crash	No.	%
Rear End	**269**	37.1%
Angle	**209**	28.8%
Left Turn	**95**	13.1%
Sideswipe - Passing	**69**	9.5%
Fixed Object	**31**	4.3%
Backing	**15**	2.1%
Sideswipe - Meeting	**11**	1.5%
Pedestrian	**8**	1.1%
Head On	**7**	1.0%
Parked Vehicle	**4**	0.6%
Pedalcycles	**3**	0.4%
Other Non-Collision	**2**	0.3%
Animal	**2**	0.3%
Unknown	**1**	0.1%
Grand Total	**726**	**100.0%**

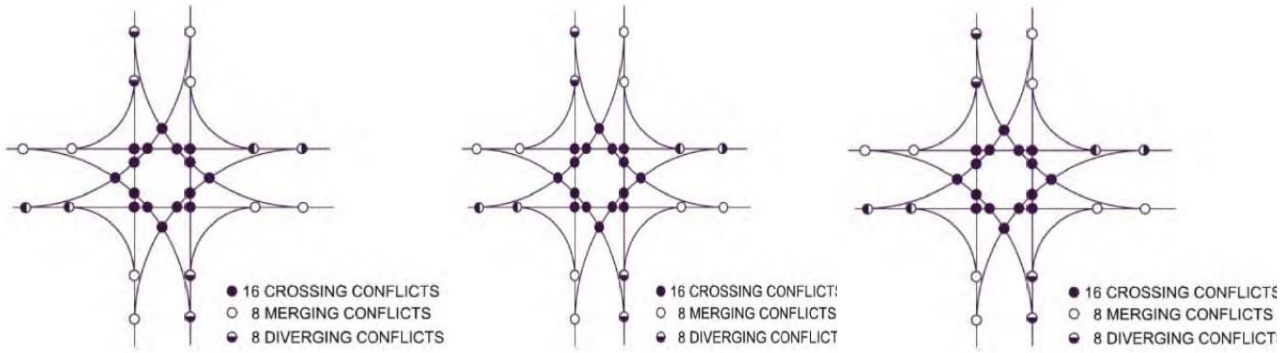
Existing Conditions – Crash Summary (2011-2013)



Existing Conditions – Conflict Points

Typical 4-leg Intersection – 32 conflict points

With Service Roads – 96 conflict points



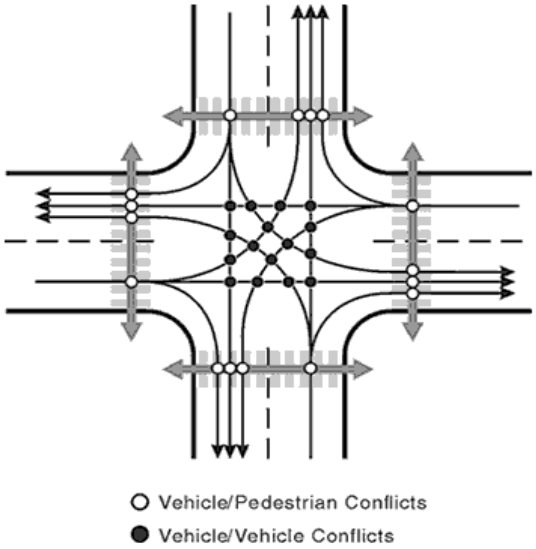


Figure 9. Pedestrian conflicts at signalized intersections.

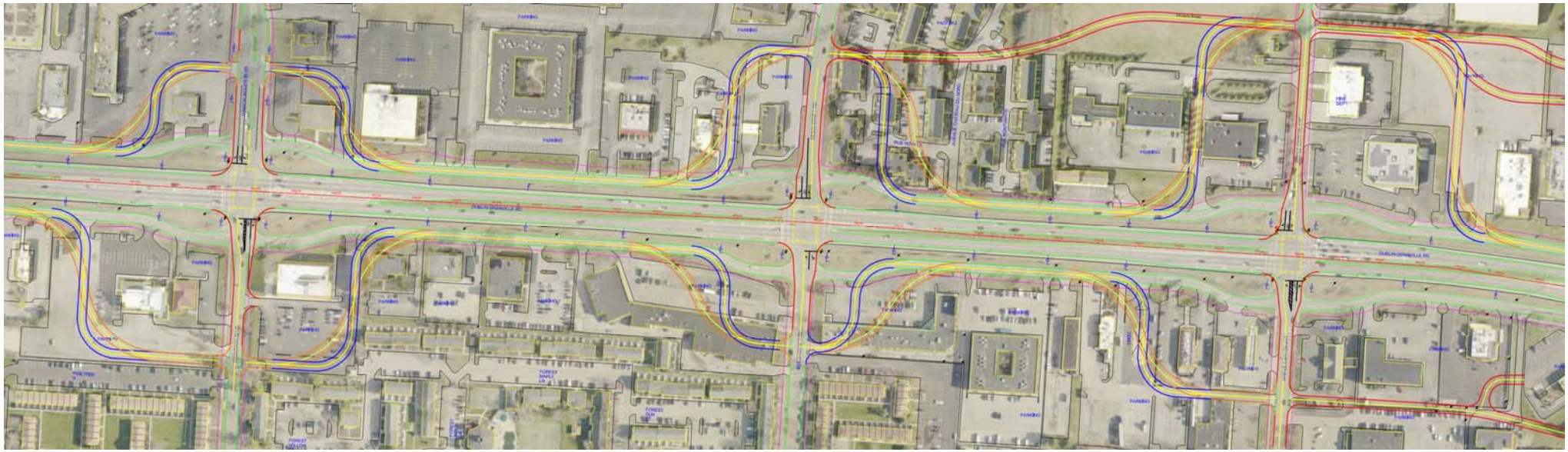
Alternatives

- **Short Term Alternatives** – Lower cost options that help to mitigate specific crash problems. Generally implemented quickly compared to long term alternatives.
- **Long Term Alternatives** – Higher cost options aimed at improving crash rates throughout the corridor, with a long service life.

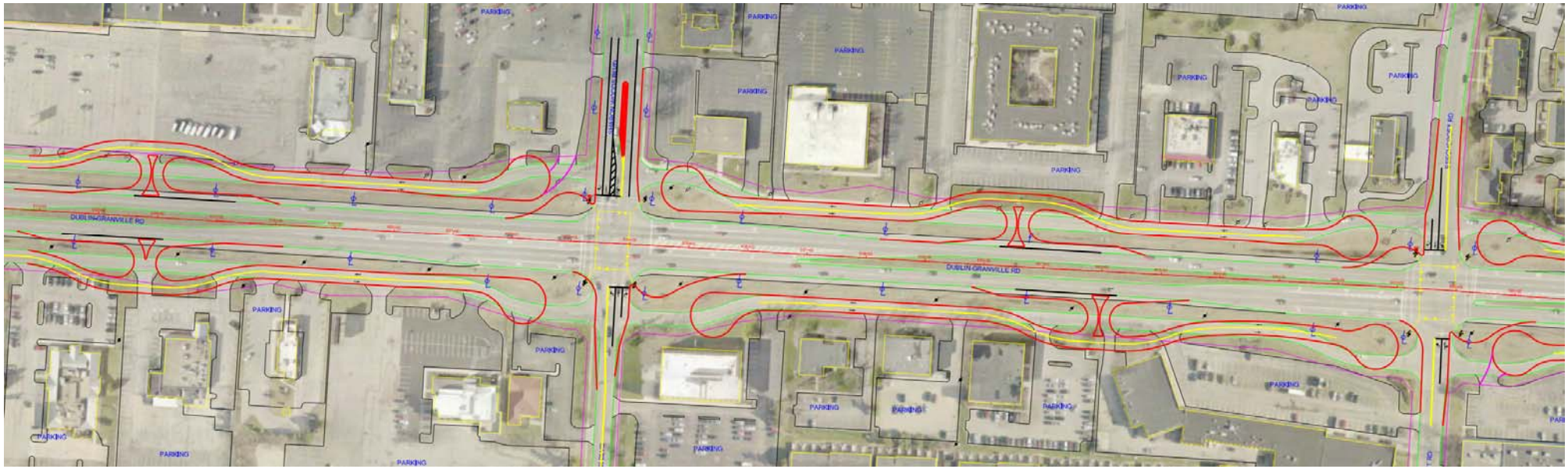
Long Term Alternatives Considered but Not Recommended for Advancement

- Moving Service Roads
- Cul-de-sac the Service Roads
- Convert the Service Roads to One-Way Same Direction Flow
- Traditional Super Street Concept
- Modified Super Street Concept

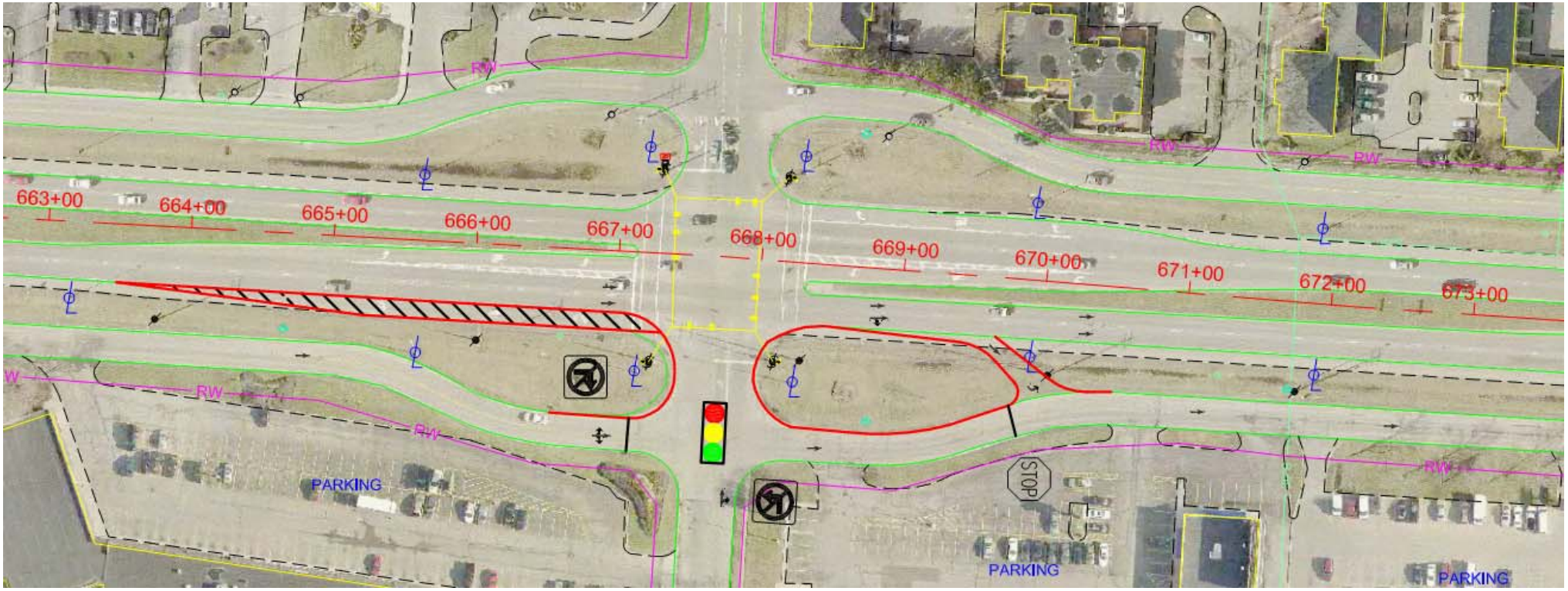
Moving Service Roads



Cul-de-sac the Service Roads



Convert Service Roads to One-way Same Direction

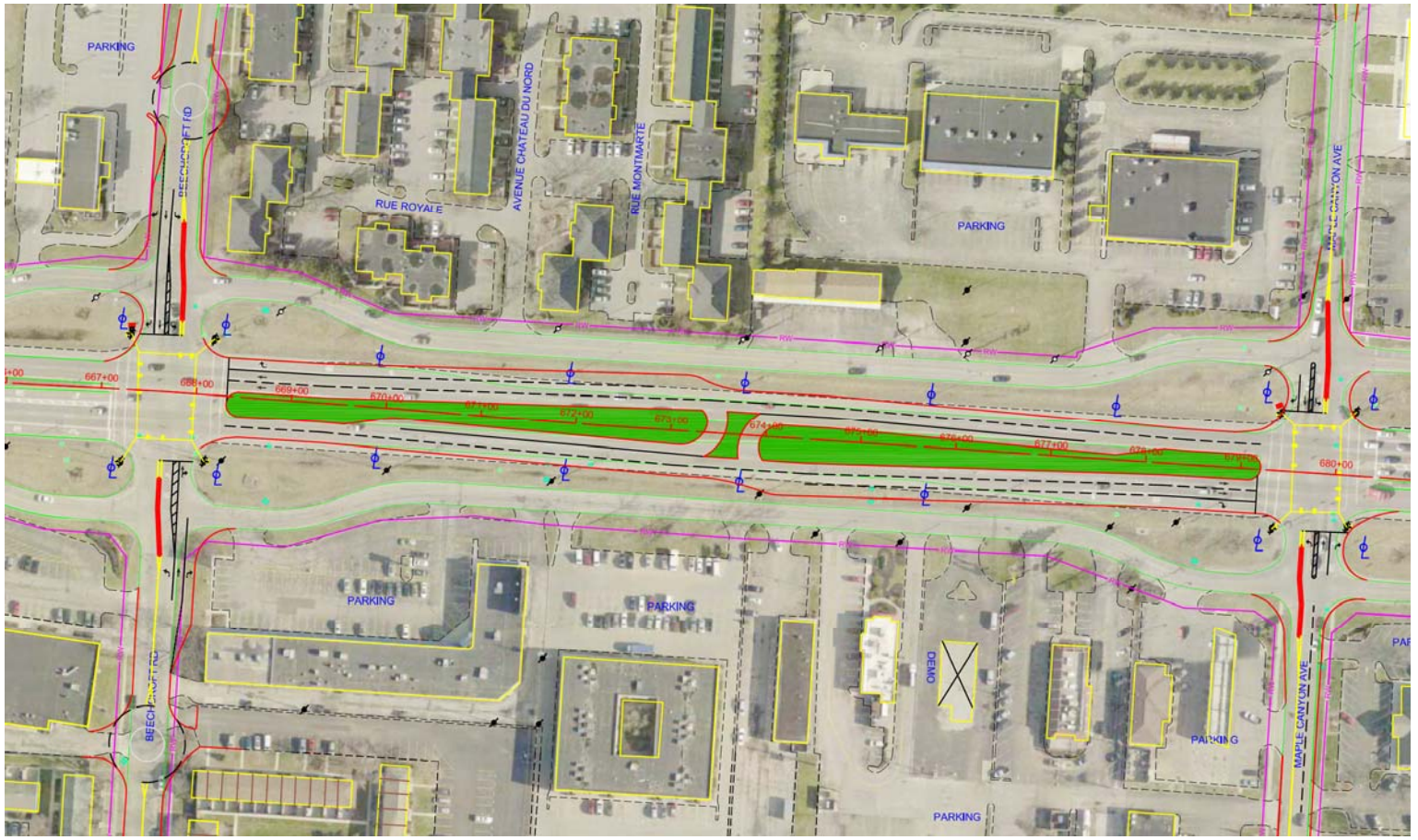


THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR
DEPARTMENT OF PUBLIC SERVICE

DLZ

Traditional Super Street

Modified Super Street



THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR
DEPARTMENT OF PUBLIC SERVICE

DLZ

Alternatives Recommended for Further Consideration

Long Term

- Alternative 1 – Contra Flow with Medians on Side Streets
- Alternative 2 – Medians on the Side Streets with Roundabouts
- Alternative 3 – Traditional Arterial

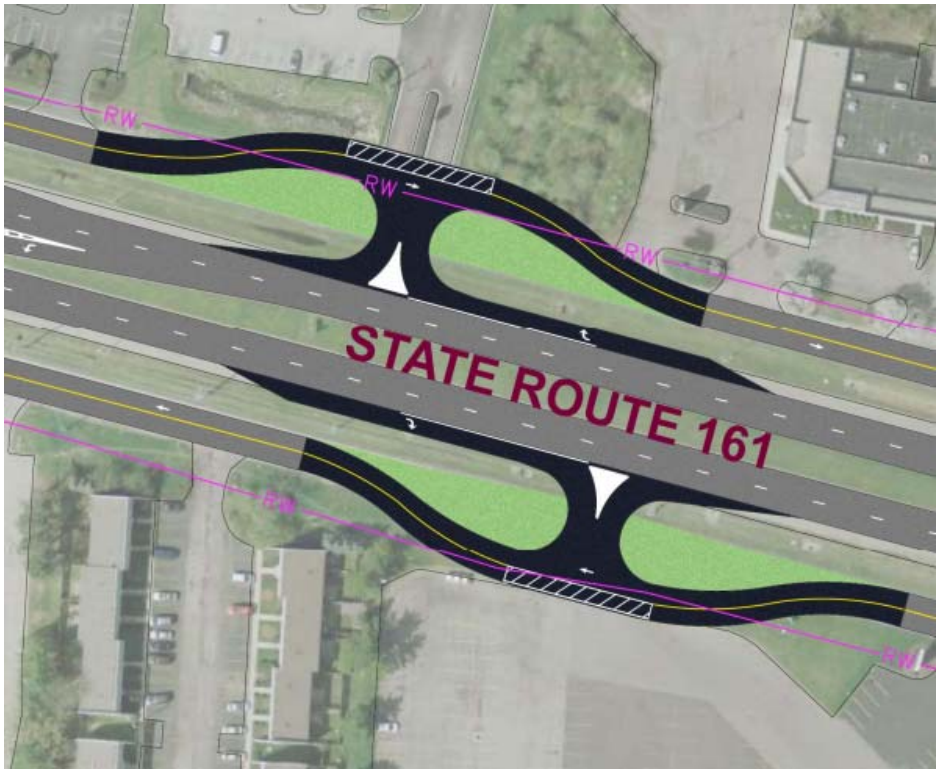
Short Term

- Alternative 4 – SR-161 North Service Road at Cleveland Avenue Southbound Traffic Signal
- Alternative 5 – “Do Not Block the Box”
- Alternative 6 – Protected lefts

Alternative 1 – Contra Flow with Medians on Side Street

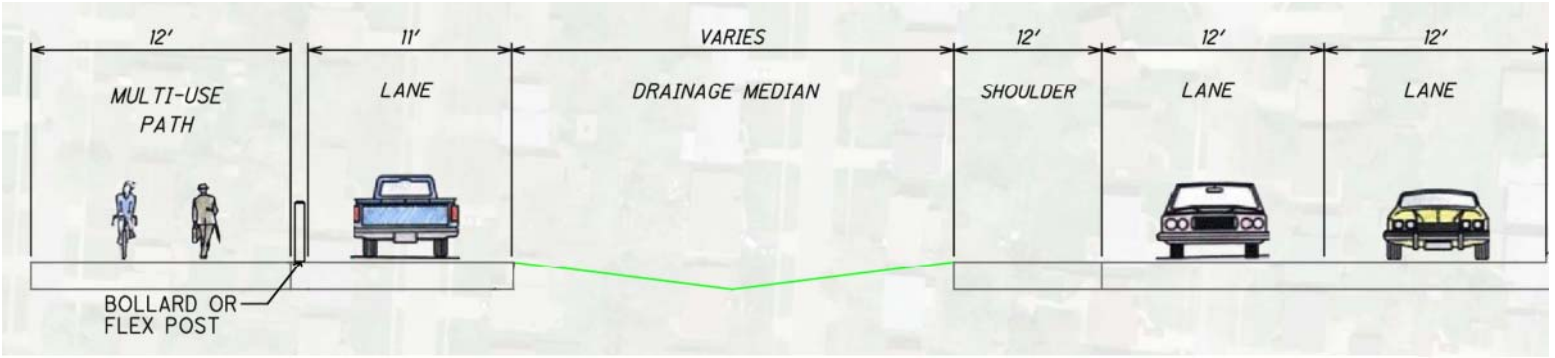
Alternative 1 – Contra Flow with Medians on Side Street

- Service roads converted to one-way operation in the opposite direction of the adjacent lanes on SR-161.
- Raised medians installed along the centerlines of the side streets on both sides of SR-161.
  - These medians will prevent left turns and through movements at the intersection of the service road and the side street
- Adds right-in/right-out access to the service road between the signalized intersections for select segments.



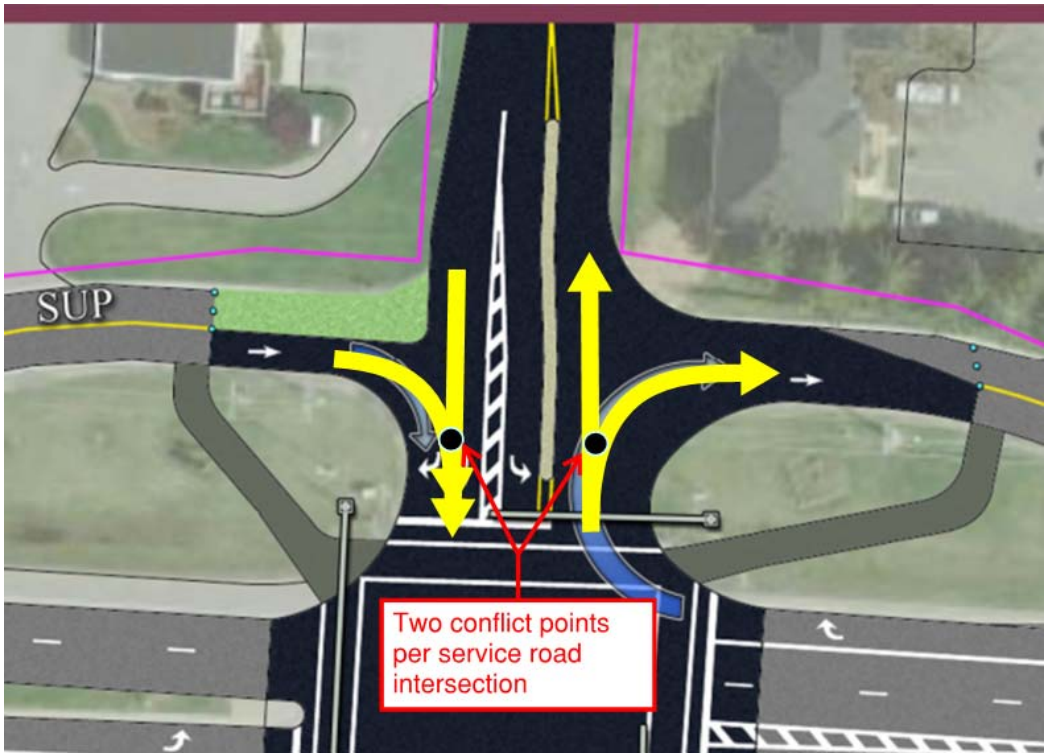
Alternative 1 – Contra Flow with Medians on Side Street

- Replace all 9 signals with mast arm supports
- Provides separated pedestrian and bicycle movement along SR-161 utilizing half of the existing service road pavement (multi-use path).
  - Vehicular portion of the service road would be separated from the ped/bike portion by bollards or flex posts
  - Pedestrians and bicyclists using the shared use path would be directed to the signalized intersections to cross SR-161 or the side streets. Additional marked crossing may be required where crossing the service road.

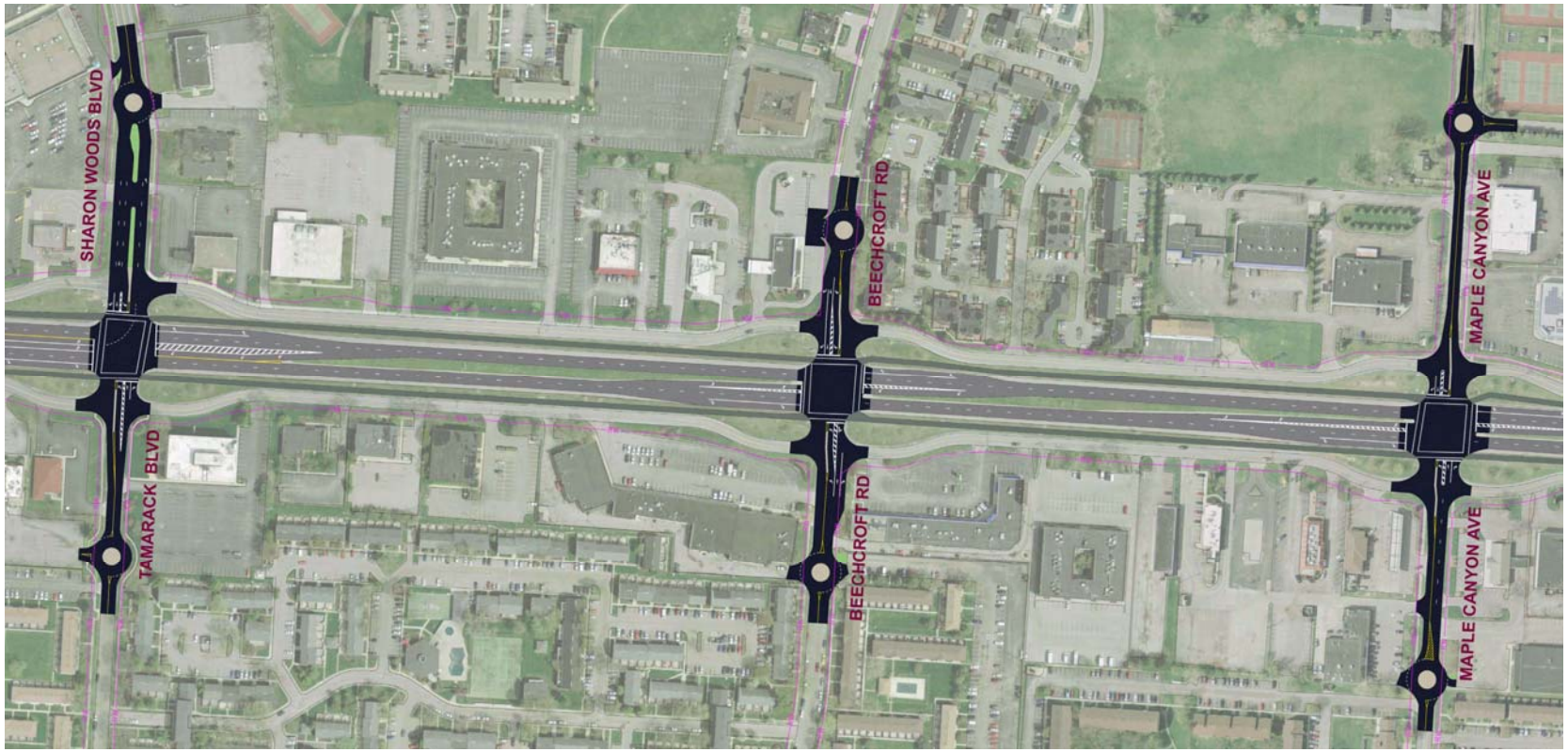


Alternative 1 – Contra Flow with Medians on Side Street

- Crash issue(s) addressed by this improvement:
  - Angles and Left-Turns at Side Street/Service Road
  - Rear-Ends on all approaches (Signals are upgraded)
- Unimproved – 96 Conflict points
- 36 Conflict points after improvement
  - Side Street/Service Road intersection conflict points drop from 32 to 2 each. (Shown in the diagram to the right)



Alternative 2 – Medians on the Side Streets with Roundabouts



Alternative 2 – Medians on the Side Streets with Roundabouts

- Raised medians installed along the centerlines of the side streets on both sides of SR-161.
  - These medians will prevent left turns and through movements at the intersection of the service road and the side street
- Service roads remain two-way
- Replace all 9 signals with mast arm supports
- This alternative can be implemented at select intersections to help with specific crash issues on side street intersections with the service road without implementing corridor-wide
- Installs pedestrian and bicycle facilities along the length of the project corridor.

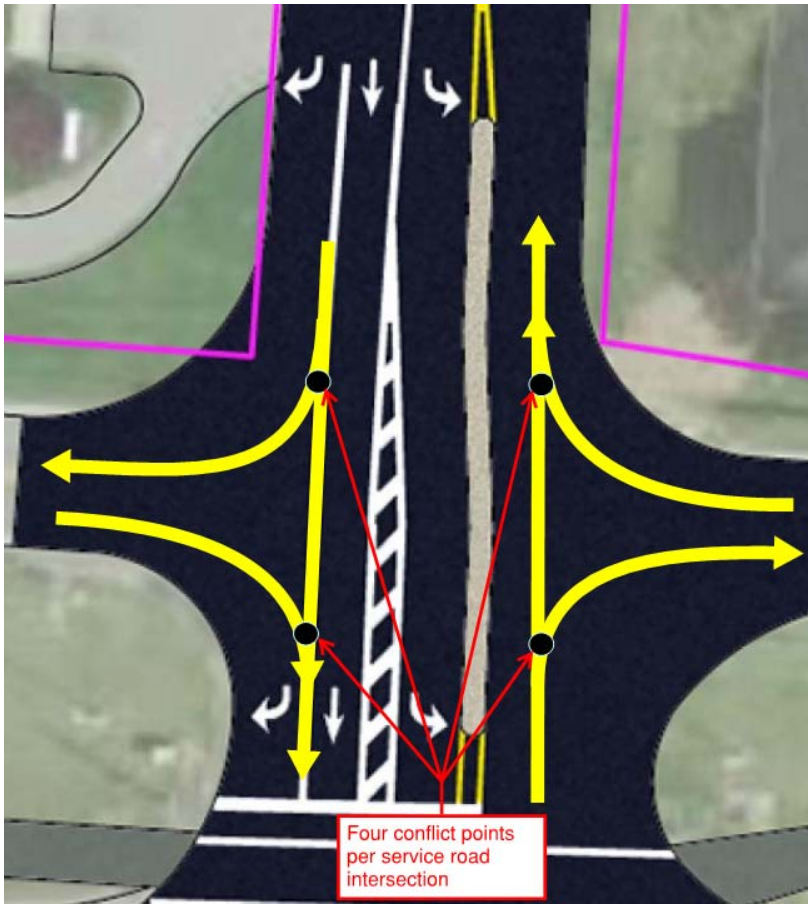
Example of a raised median on Karl Road

Alternative 2 – Medians on the Side Streets with Roundabouts

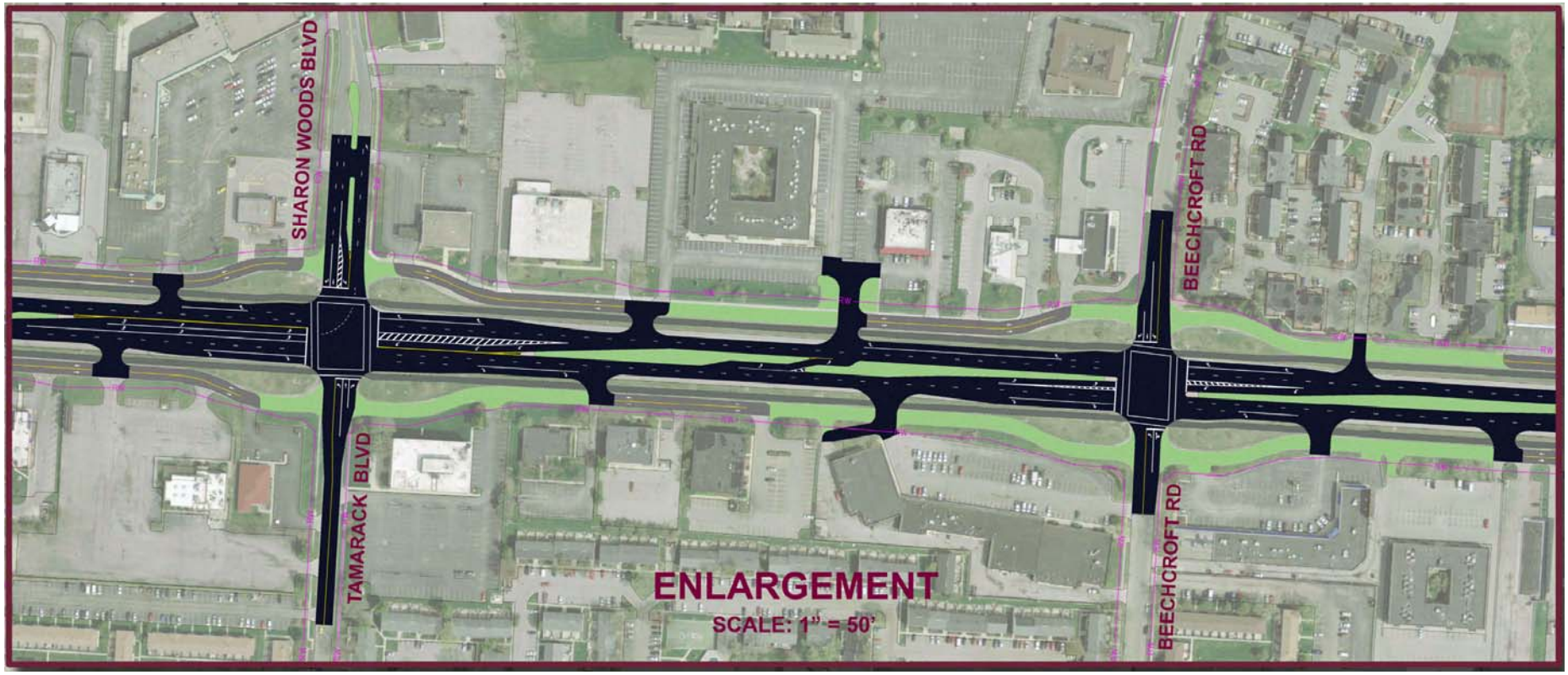
- Urban roundabouts are installed along the side streets to provide easy, legal means for performing a U-turn movement to access service roads.
  - All roundabouts would be single-lane urban roundabouts.
  - Center islands for the roundabouts would be traversable by buses and larger vehicles to accommodate COTA and emergency vehicles.
  - Roundabouts are aligned with public streets or private intersections.

Alternative 2 – Medians on the Side Streets with Roundabouts

- Crash issue(s) addressed by this improvement:
  - Angle & Left-Turns at Side Street/Service Roads
  - Rear-Ends on all approaches (Includes signals upgrade)
- Unimproved – 96 Conflict points
- 40 Conflict points after improvement
  - Side Street/Service Road intersection conflict points drop from 32 to 4 each. (Shown in the diagram to the right)



Alternative 3 – Traditional Arterial



THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR
DEPARTMENT OF PUBLIC SERVICE

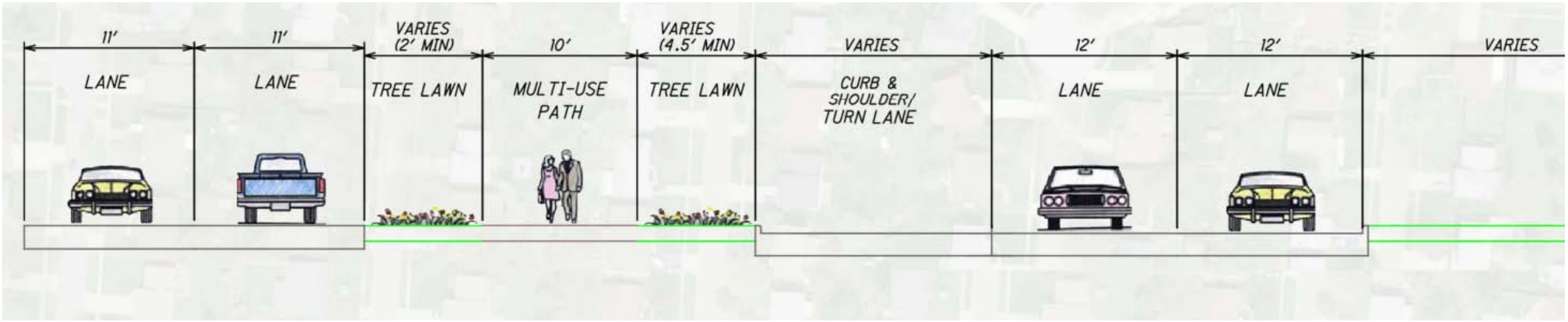
DLZ

Alternative 3 – Traditional Arterial

- Service road intersections are eliminated from the side street and driveways are installed along mainline SR-161. Driveways may be shared or provide access to portions of the service roads to remain.
- Loons are installed at each intersection to provide adequate space for U-turns.
- Right turn lanes are provided to give drivers adequate space to exit the travel lane to make a right turn into a shared drive.
- Mid-block left turns provided through medians where feasible.

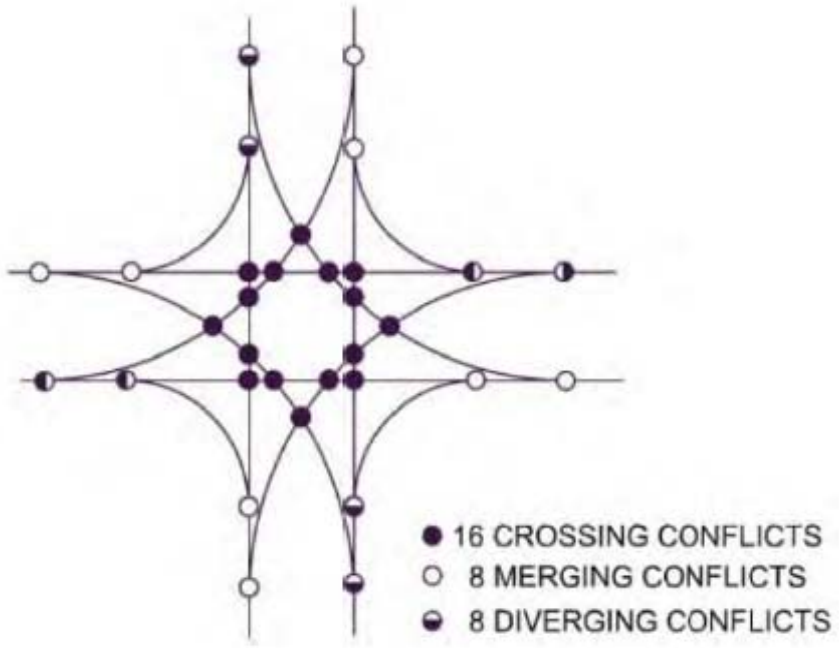
Alternative 3 – Traditional Arterial

- Speed limit reduced.
  - Change in street character provides an opportunity to evaluate a change in the speed limit.
- Replace all 9 signals with mast arm supports.
- Installs pedestrian and bicycle facilities along the length of the project corridor.
- Minimal right-of-way takes.

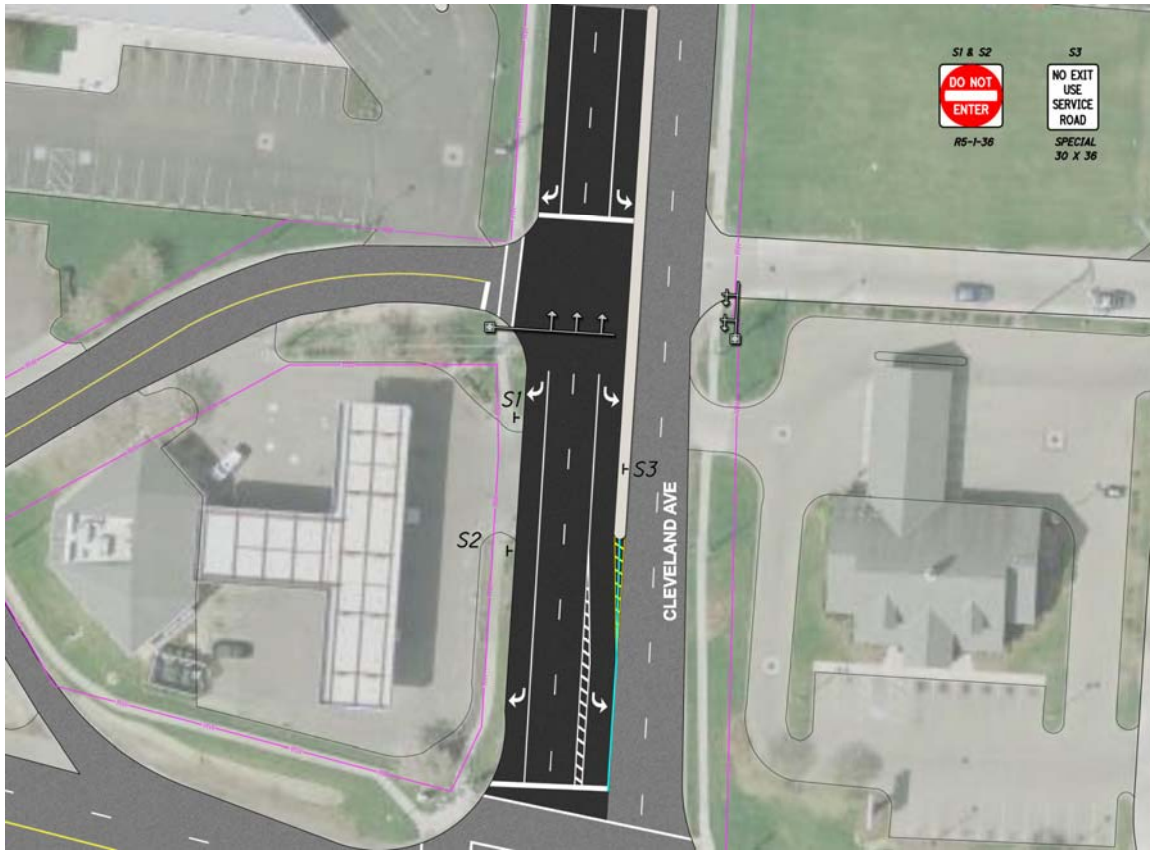


Alternative 3 – Traditional Arterial

- Crash issue(s) addressed by this improvement:
  - Angle & Left-Turns at Side Street/Service Roads
  - Rear-Ends on all approaches (Includes signals upgrade)
- 32 conflict points after improvement
- Additional conflict points are added at driveway locations along the mainline.



Alternative 4 – SR-161 North Service Road at Cleveland Avenue Southbound Traffic Signal

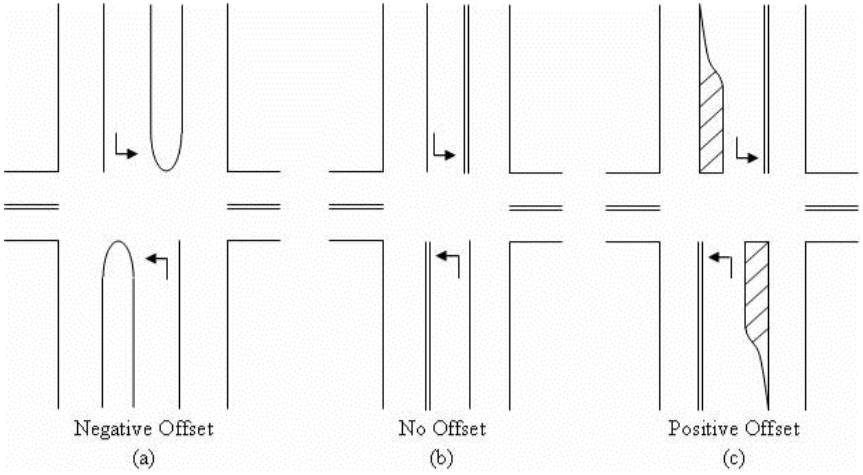


THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR
DEPARTMENT OF PUBLIC SERVICE

DLZ

Alternative 4 – SR-161 North Service Road at Cleveland Avenue Southbound Traffic Signal

- Removes a portion of the raised concrete median to install reboundable posts along the centerline to no offset for the northbound and southbound left turn lanes.
- Installs a traffic signal to stop southbound vehicles on Cleveland Avenue at the service road.
- Crash issue(s) addressed by this improvement:
  - North-South Left Turns at SR-161
  - Angle Crashes from the Service Road & Speedway Drive to SB Left-Turn Lane
- ODOT has approved safety funding; design to start soon



https://www.fhwa.dot.gov/publications/research/safety/09035/

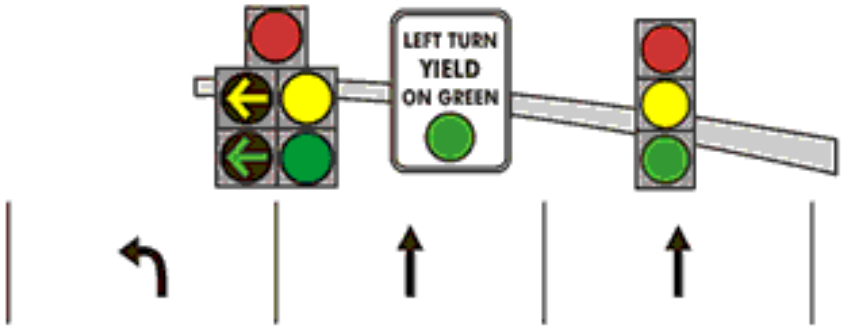
Alternative 5 - “Do Not Block the Box”

Alternative 5 – “Do Not Block the Box”

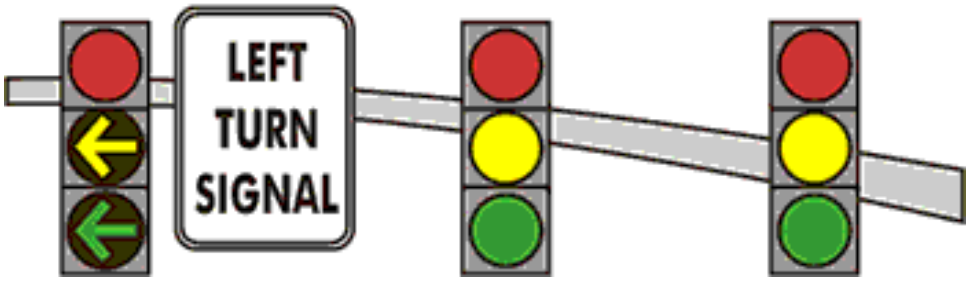
- Installs striping and signage at the intersection of the service road and the side street.
- Four locations have been identified as candidates for this treatment:
  - Maple Canyon at the North and South Service Roads
  - Sharon Woods at the North Service Road
  - Parkville at the South Service Road

Alternative 6 - Protected Left Turn Signals

Existing condition: Protected-Permitted



Proposed condition: Protected-Only



https://www.fhwa.dot.gov/publications/research/safety/04091/04.cfm

Alternative 6 - Protected Left Turn Signals - High Crash Locations

- In order to ensure the intersection continues to operate efficiently, a timing study would be necessary to determine the appropriate phase durations for each intersection to receive this treatment.
- Depending on the location, signal loading calculations may need to be performed to ensure the existing signal can accommodate signal head modifications.
- Left turn crash locations and movements that would be considered for this treatment are as follows:
  - Karl Road (Northbound)
  - Maple Canyon (Eastbound)
  - Forest Hills (Eastbound)

Public Meeting – Next Steps

- **Alternative 4 – Cleveland Avenue at the SR-161 North Service Road (ODOT safety funds awarded)**
  - Develop detailed engineering plans
  - Right-of-way coordination
  - Utility coordination/relocation
  - Construction
- **Long Term Alternatives**
  - Receive feedback from the public meeting
  - Analyze feedback and identify a preferred alternative
  - Apply for external funding for the preferred alternative
  - Once funding is secured, the project would proceed through the engineering/environmental phases before entering the right-of-way/utility coordination phase and conclude with construction of the improvements

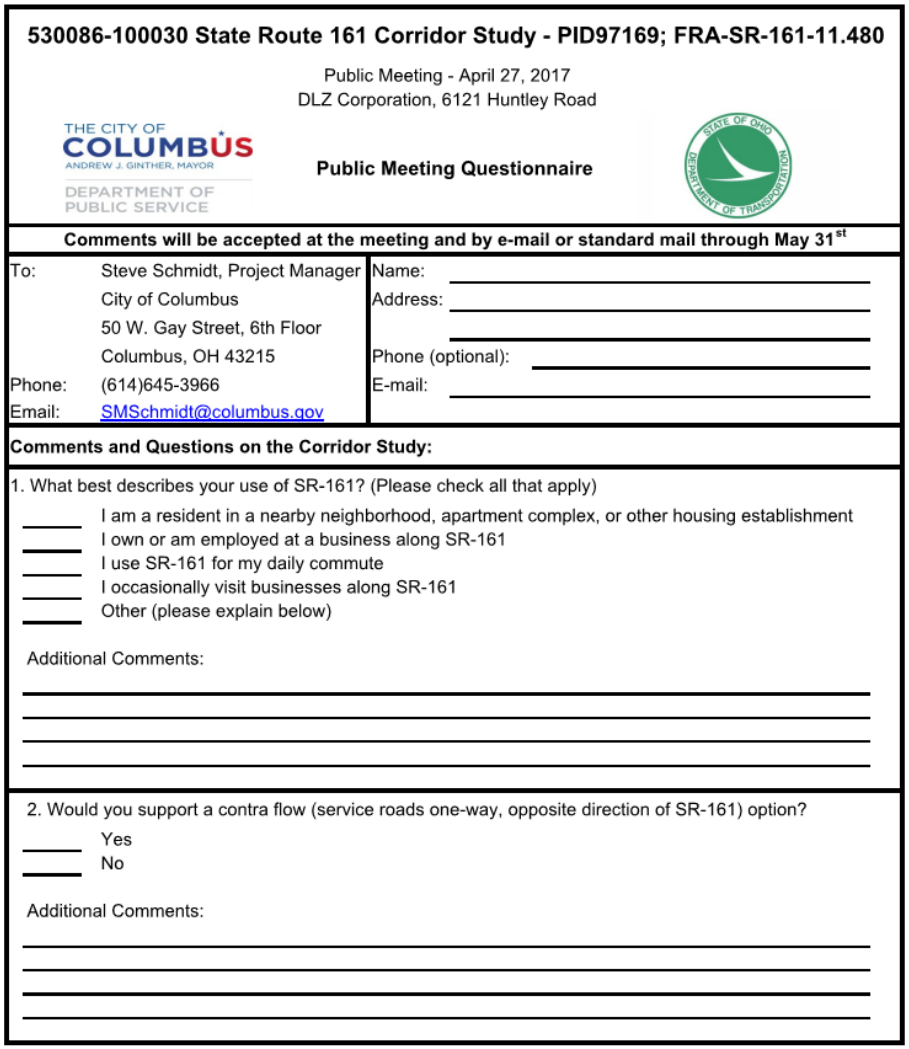
Public Meeting – Next Steps

Please fill out the Questionnaire!

The questionnaire will provide documented feedback on the concepts presented.

Hard copies are available at the meeting today. If preferred, a digital version is also available.

Comments will also be accepted via email or standard mail until May 31st.



530086-100030 State Route 161 Corridor Study - PID97169; FRA-SR-161-11.480

Public Meeting - April 27, 2017
DLZ Corporation, 6121 Huntley Road

THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR
DEPARTMENT OF PUBLIC SERVICE

Public Meeting Questionnaire

Comments will be accepted at the meeting and by e-mail or standard mail through May 31st

To: Steve Schmidt, Project Manager
City of Columbus
50 W. Gay Street, 6th Floor
Columbus, OH 43215
Phone: (614)645-3966
Email: SMSchmidt@columbus.gov

Name: _____
Address: _____
_____
Phone (optional): _____
E-mail: _____

Comments and Questions on the Corridor Study:

1. What best describes your use of SR-161? (Please check all that apply)

_____ I am a resident in a nearby neighborhood, apartment complex, or other housing establishment
_____ I own or am employed at a business along SR-161
_____ I use SR-161 for my daily commute
_____ I occasionally visit businesses along SR-161
_____ Other (please explain below)

Additional Comments:
_____
_____
_____
_____

2. Would you support a contra flow (service roads one-way, opposite direction of SR-161) option?

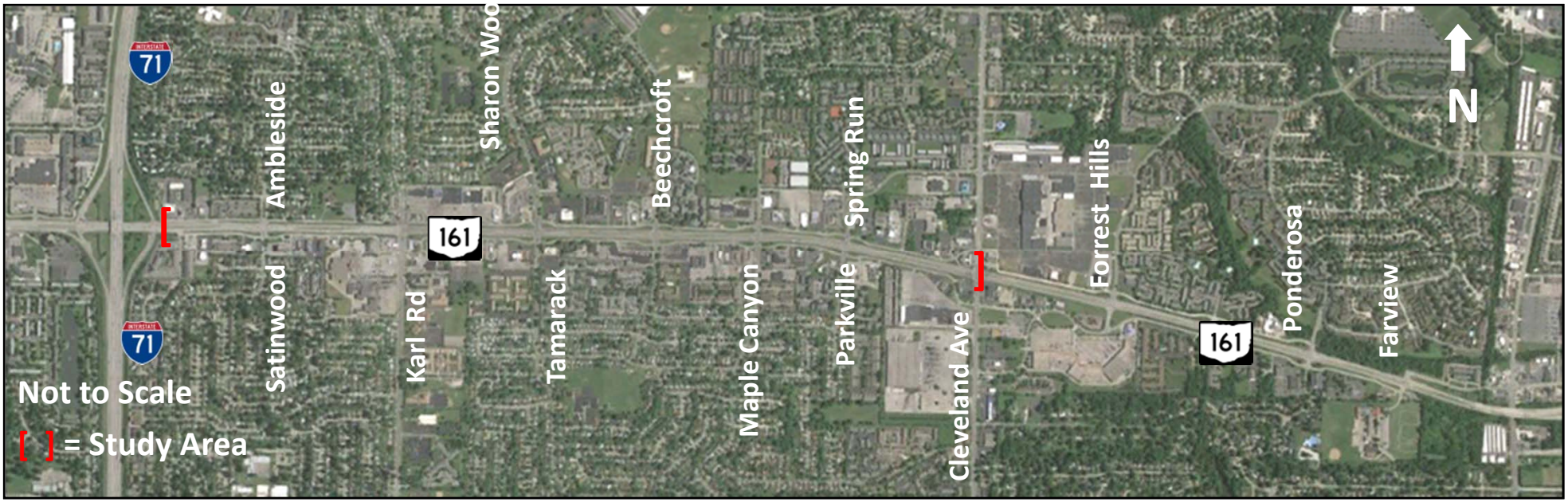
_____ Yes
_____ No

Additional Comments:
_____
_____
_____
_____

THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR
DEPARTMENT OF PUBLIC SERVICE

DLZ

Questions?


71
Ambleside
Sharon Woo
Beechcroft
Spring Run
Forrest Hills
Ponderosa
Farview
N
161
Satinwood
Karl Rd
Tamarack
Maple Canyon
Parkville
Cleveland Ave
71
161
Not to Scale
[ ] = Study Area