



Hoosick Hillside Study

Technical Appendices

Prepared for:



November 2020

By:



Creighton
Manning



PLACE
alliance



RIVER STREET
PLANNING & DEVELOPMENT

Appendix A – Environmental Justice

Appendix B – Public Involvement

Appendix C – Traffic Calculations

Appendix D – Traffic Signal Inventory

Appendix E – Cost Estimates

Appendix A - Environmental Justice

Environmental Justice

Introduction

Per federal requirements, the Capital District Transportation Committee (CDTC) undertakes an analysis of Environmental Justice in all Community and Transportation Linkage Planning Program (Linkage Program) initiatives to evaluate if transportation concepts and recommendations impact Environmental Justice populations. Impacts may be defined as those that are positive, potentially negative and neutral as described in CDTC's Environmental Justice Analysis document, dated March 2020. The goal of this analysis is to ensure that both the positive and negative impacts of transportation planning conducted by CDTC and its member agencies are fairly distributed and that defined Environmental Justice populations do not bear disproportionately high and adverse effects.

This goal has been set to:

- Ensure CDTC's compliance with Title VI of the Civil Rights Act of 1964, which states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance,"
- Assist the United States Department of Transportation's agencies in complying with Executive Order 12898 stating, "Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."
- Address FTA C 4702.1B TITLE VI REQUIREMENTS AND GUIDELINES FOR FEDERAL TRANSIT ADMINISTRATION RECIPIENTS, which includes requirements for MPOs that are some form of a recipient of FTA, which CDTC is not.

Data and Analysis

CDTC staff created demographic parameters using data from the 2013-2017 American Community Survey (ACS). Threshold values were assigned at the census tract level to identify geographic areas with significant populations of minority or low-income persons. Tracts with higher than the regional average percentage of low-income or minority residents are identified as Environmental Justice populations.

Minority residents are defined as those who identify themselves as anything but white only, not Hispanic or Latino. Low-income residents are defined as those whose household income falls below the poverty line.

The transportation patterns by race/ethnicity, income, age, English ability, disability status, and sex in CDTC's planning area are depicted in table III-2 through III-7, using the commute to work as a proxy for all travel. The greatest difference between the defined minority and non-minority population is in the Drive Alone and Transit categories: The minority population is almost 20% less likely to drive alone, 11% more likely to take transit, and is also more likely to walk and carpool. The defined low-income

population and the non-low-income population follow the same trend, with the low-income population 20% less likely to drive alone, 10% more likely to commute via transit, and more likely to walk and carpool. Other categories showed a lesser difference.

Table 1: Commute Mode by Race/Ethnicity

By Race/Ethnicity	Drive Alone	Carpool	Transit	Other	Walk	Work at Home
All Workers (16+)	80.0%	7.6%	3.7%	1.2%	3.4%	4.1%
White Not Hispanic or Latino	83.3%	6.9%	1.8%	1.0%	2.7%	4.2%
Minority	63.8%	11.0%	12.9%	2.0%	7.0%	3.3%

Table 2: Commute Mode by Income

By Income	Drive Alone	Carpool	Transit	Other	Walk	Work at Home
At/Above 100% Poverty Level	81.8%	7.4%	3.2%	1.1%	2.6%	3.9%
Below 100% Poverty Level	61.3%	11.3%	13.2%	2.4%	8.8%	3.0%

Table 3: Commute Mode by Age

By Age	Drive Alone	Carpool	Transit	Other	Walk	Work at Home
16-19 Years	59.9%	16.2%	4.3%	2.9%	13.0%	3.8%
20-64 Years	80.8%	7.4%	3.7%	1.1%	3.1%	3.9%
65+ years	80.7%	5.0%	2.9%	1.3%	2.5%	7.6%

Table 4: Commute Mode by English Ability

By English Ability	Drive Alone	Carpool	Transit	Other	Walk	Work at Home
Speak English Very Well	70.3%	11.7%	4.8%	1.8%	7.0%	4.4%
Speak English Less than Very Well	65.6%	14.3%	8.3%	1.2%	7.4%	3.2%

Table 5: Commute Mode by Disability

By Disability Status*	Drive Alone	Carpool	Transit	Other	Walk	Work at Home
Without any Disability	80.7%	7.4%	3.5%	1.1%	3.4%	4.0%
With a Disability	71.1%	11.2%	6.7%	2.4%	4.3%	4.3%

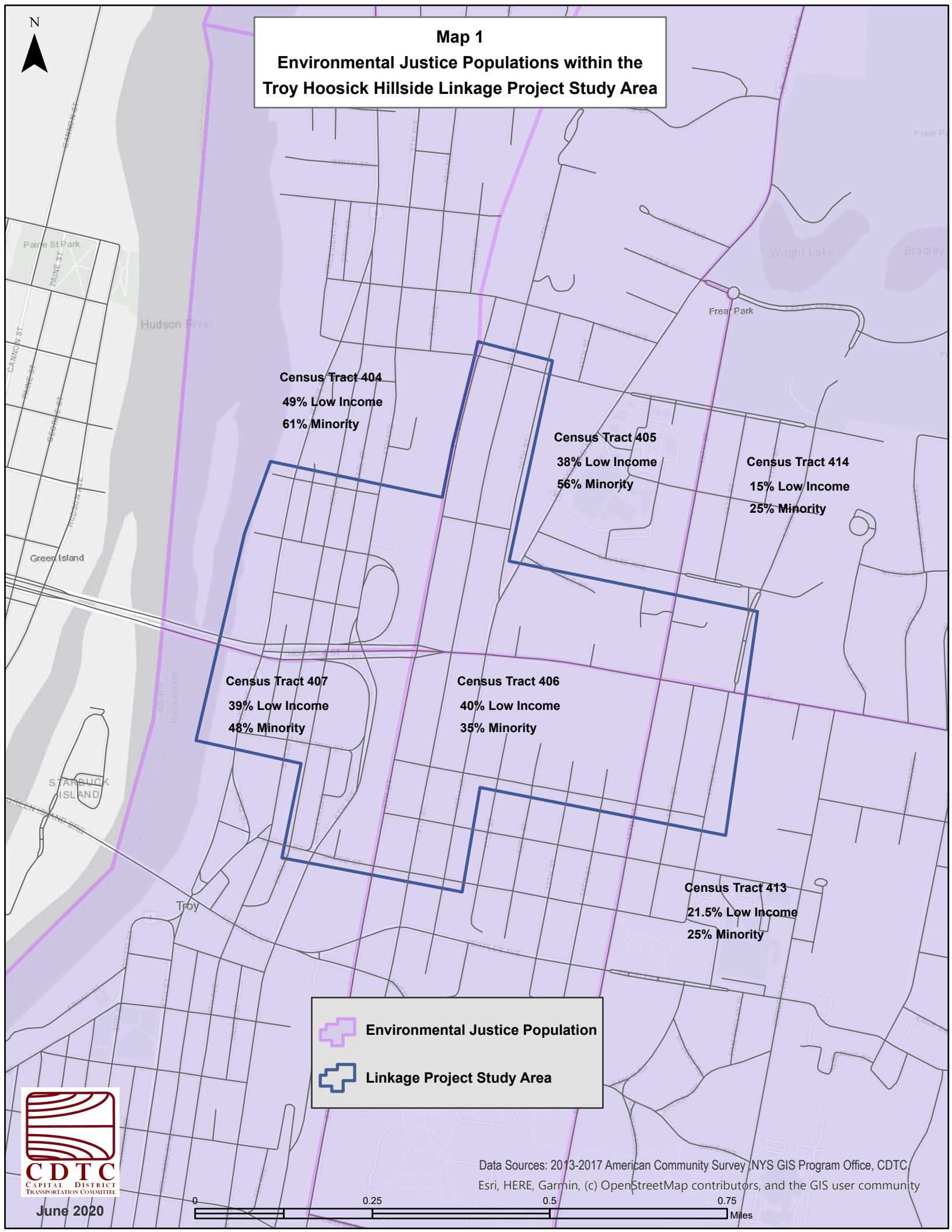
Table 6: Commute Mode by Sex

By Sex*	Drive Alone	Carpool	Transit	Other	Walk	Work at Home
Male	80.1%	7.5%	3.4%	1.5%	3.7%	3.9%
Female	80.2%	7.8%	3.9%	0.9%	3.1%	4.3%

Data is from the American Community Survey 2017 5-year estimates, tables S0802, B08105H, B08101, B08122, S0801, B08113, and S1811. Other includes taxi, motorcycle, and bicycle. *Data for sex and disability status include all people in Albany, Rensselaer, Saratoga, and Schenectady Counties.

Map 1 provides an overview of the Hoosick-Hillside Study project area. The Hoosick-Hillside Study project area is included in the Environmental Justice area based on the project area Census Tracts having a higher than regional average percentage of minority and low income residents.

Map 1
Environmental Justice Populations within the
Troy Hoosick Hillside Linkage Project Study Area



Consideration for including low-income and minority populations in the planning process was given in the following ways:

- Efforts were made to create a Study Advisory Committee that included neighborhood residents and community groups that serve low-income and minority groups.
- Information about how to participate in the development of this study was posted on the City of Troy website and a dedicated study website.
- Social media was used to notify the public of engagement opportunities, in partnership with multiple neighborhood community organizations.
- Two formal in-person public participation opportunities were provided. One specifically targeted neighborhood residents while the other focused on business and property owners. The meeting that focused on resident input was held after normal work hours, offered snacks and childcare, and was in a conveniently-located community center frequented by minority and low-income residents.
- Outreach to notify the public on opportunities to provide input included posting fliers at local businesses and non-profit organizations, dropping fliers door-to-door, and placing large-format posters in multiple prominent public locations throughout the study area.
- An additional stakeholder meeting was held at the request of a community group. Additional residents were able to raise specific issues that were not covered in the other input meetings.
- Public comment was encouraged and accepted throughout the study process.
- A postcard notification was sent to all postal addresses in the study area to announce the release of an input survey and a pre-recorded video presentation of the draft project alternatives.
- Final products will be posted to CDTC's website, the City of Troy website, with links on social media. They will also be shared with the partner community organizations and emailed to the project stakeholder contact list.

Conclusion

CDTC defines plans and projects with a primary or significant focus on transit, bicycling, walking, or carpooling as being "positive." As the primary purpose of the Hoosick-Hillside Study is to improve pedestrian and bicycle connections between the Hillside North and Hillside South neighborhoods, and between the two neighborhoods and local destinations such as River Street, downtown Troy and Hoosick Street, it has been determined that the Hoosick-Hillside Study will have a positive impact on the affected populations. The Study makes recommendations for traffic calming, pedestrian and bicycle safety improvements, additional pedestrian and bicycle connections, public space amenities, and a complete streets connection. The study determined that some minor decreases in traffic level of service were acceptable in favor of significant improvements to pedestrian and bicycle connections and safety. The only recommendation that adds automobile traffic capacity involves the extension of Rensselaer Street from 8th Ave to River Street, the distance of one short block. This recommendation was favored slightly over a pedestrian-only connection option in the public input. Although the recommendation would create a street for cars, it would provide a pedestrian and bicycle connection that does not currently exist. It also has the benefit of allowing for ADA-compliant access that would not have been possible with a pedestrian-only connection, which would require stairs due to the steep terrain.

Environmental Mitigation

Introduction

Per federal requirements, the Capital District Transportation Committee (CDTC) undertakes an Environmental Features Scan in all Community and Transportation Linkage Planning Program (Linkage Program) initiatives. The Environmental Features Scan identifies the location of environmentally sensitive features, both natural and cultural in relation to project study areas. Although the conceptual planning stage is too early in the transportation planning process to identify specific potential impacts to environmentally sensitive features, the early identification of environmentally sensitive features is an important part of the environmental mitigation process. It should also be noted here that as specific projects advance through the project development process, the applicable NEPA and SEQRA regulations requiring potential environmental impact identification, analysis and mitigation will be followed by the implementing agencies as required by federal and state law. CDTC is not an implementing agency.

Data and Analysis

CDTC staff relies on data from several state and federal agencies to maintain an updated map-based inventory of both natural and cultural resources. The following features are mapped and reviewed for their presence within each study area as well as within a quarter mile buffer of the defined study area boundary.

- sole source aquifers
- aquifers
- reservoirs
- water features (streams, lakes, rivers and ponds)
- wetlands
- watersheds
- 100 year flood plains
- rare animal populations
- rare plant populations
- significant ecological sites
- significant ecological communities
- state historic sites
- national historic sites
- national historic register districts
- national historic register properties
- federal parks and lands
- state parks and forests
- state unique areas
- state wildlife management areas
- county forests and preserves
- municipal parks and lands
- land trust sites
- NYS DEC lands
- Adirondack Park
- agricultural districts
- NY Protected Lands
- natural community habitats
- rare plant habitats
- Class I & II soils

Map 2 provides an overview of the environmentally sensitive (cultural and natural) features located within the Hoosick-Hillside Study project area as well as within a quarter mile buffer of the defined study area boundary.

Map 2
Troy Hoosick Hillside Linkage Study:
Environmental Features within 0.25 miles



Legend

- Road
- 0.25 Mile Buffer
- Project Study Area
- Building Footprints
- Water Feature
- Protected Open Space
- National Register Historic Districts & Properties
- Significant Ecological Communities/ Natural Community Habitat
- Rare Animal Habitat
- 100 Year Floodplain
- 500 Year Floodplain
- Class I & II Soils
- Aquifer

Data Sources: CDTC, CIESIN, FEMA, Microsoft, NYSDEC, USDA, NYSDOT, NYS GIS Program Office, NYSPRHP

0 0.25 0.5 0.75 1 Miles



June 2020

Conclusion

The project study area and its immediate vicinity encompass the 100-year flood plain, rare animal habitat, an aquifer and a portion of the Hudson River. The Hudson River itself includes significant ecological communities and/or natural community habitat. The area outside the project area but within one quarter mile of its boundary includes a portion of the 500-year floodplain. Several National Register historic districts or properties are also inside the project area and within one quarter mile of its boundary. Finally, a portion of the project area and its immediate vicinity include Class I and II soils.

The Hoosick-Hillside Study recommends adding complete street elements, bicycle and pedestrian safety elements, recreational amenities and streetscape improvements such as improved lighting and street trees to the project area. If implemented, these alterations will have no known impact on the environmentally sensitive features in the study area.

Appendix B - Public Involvement

DRAFT HOOSICK HILLSIDE STRATEGY PARTICIPATION PLAN – 9-1-19

The Troy Hillside North and South Study (Hoosick-Hillside) will make recommendations to improve bicycle and pedestrian infrastructure, traffic flows for neighborhoods separated by Hoosick Street, possible gateways, traffic calming at 8th St., improved connectivity to River St., under the Collar City Bridge, to the future River Corridor BRT, among others. The **Participation Plan** identifies key partners and forums and outreach mechanisms to engage interested persons. Event outreach methods include web posting, save the date card (online and paper), flyers, posters, email-blast, etc. and others. The likely location for community events is Oakwood Church, 260 Oakwood Ave, Troy, NY 12182 subject to schedule review. Options for childcare are being evaluated at this time.

PARTICIPATION TASKS									
TASK	DESCRIPTION	#	AUDIENCE	EST. DATE	PARTICIPANTS				OUTCOMES/NOTES
					TEAM	CITY	CDTC	SAC	
Study Advisory Cty.	Five SAC Meetings Planned	5	SAC Members	Ongoing	Yes	Yes	Yes	Yes	Guidance, input, document review, outreach approaches, etc.
Website / Social Media	Website at www.hoosick-hillside-study.com updated regularly with approved content.		Ongoing	Ongoing	Yes	Yes	Yes	PC	Comment, complete surveys, review documents and PPT's notes, event invites
Participant/Stakeholder Database	Excel database of groups, individuals, agencies, participants for invites and info.	1	Ongoing	Ongoing	Yes	Yes	Yes	Yes	Face to face contact participants and add to overall contact database for the City
Workshop 1: Businesses (Target Hoosick Street & 6 th Avenue)	Intro., scope, goals, educational material, past work, conditions, schedule, outcomes. Group discussion, brainstorming/ including “wild ideas”, Q & A, next steps	1	Businesses in the study area and nearby serving nbhd. residents	10/2019	Yes	PC	PC	PC	Understand physical, social, market opportunities/ constraints. ID through groups, City assessment data
Workshop 2: Residents (Target Hillside North & South Neighborhoods)	Presentation (like businesses), large group discussion of needs, concerns, outcomes & opportunities. Small Group breakouts on topics/focus areas with team, partners and SAC	1	Nbhd. residents, groups, advocates, elected officials	10/2019	Yes	Yes	Yes	Yes	Work with TRIP and Nbhd groups on direct outreach. Mail/email to City. Media and email blast to organizations, pastors, etc.
Public Meeting (Open House)	3-hr. open house. Stations display draft final design and staffed by team, core partners and SAC members	1	Residents, groups, businesses, stakeholders, officials	9/2020	Yes	Yes	Yes	Yes	Final input on recommendations/ designs, build consensus to speed implementation
DOT Meeting	Discuss/ draft recommendations and concepts and seek agreement on projects and proprieties	1	City, CDTC, Team members	Spring 2020	Yes	Yes	Yes	NA	DOT input and consent to designs and recommendations
Interviews/Focus	Meet/Contact stakeholders identified by City, SAC, neighborhood groups as necessary	TBD	To be determined; Ongoing	Ongoing	AN	PC	PC	NA	Interviews/ groups to be scheduled as needed as approved by partners and SAC
COMMUNITY ORGANIZATION PUBLIC ENGAGEMENT (WITH CME TEAM MEMBERS WHO CHOOSE TO VOLUNTEER)									
Direct Engagement	TRIP outreach staff to distribute flyers & outreach materials; surveys; photos of people/ problem points; quotes. River Street liaison to project. Scope 9/2019	NA	Nbhd. residents, groups, & businesses	Ongoing	TBD	PC	PC	PC	Coordination with Hilary Lamishaw. Outreach workers have most time in the Fall so a push early is important

Team: CME, River Street Planning, PLACE Alliance N.E.; LandArt Studio Abbreviations: SAC=Study Advisory Committee; AR = As requested; AN = As necessary; NA=Not Applicable; PC = Participant choice

Executive Summary

Neighborhood Workshops Round #1

Hoosick-Hillside Study

October 23, 2019 and October 29, 2019

The first neighborhood workshop for the Hoosick-Hillside Study was held on Wednesday, October 22, 2019, at the Oakwood Community Center in the Hillside North Neighborhood. The meeting was well advertised and attended by over 60 residents, elected officials, City staff, stakeholders, CDTC staff, and Study Advisory Committee members. The meeting began with an introduction by Steve Strichman, City of Troy Commissioner of Planning & Economic Development An overview of complete streets was presented by Jesse Vogl, (Creighton Manning), followed by a facilitated discussion by Margaret Irwin (River Street Planning).

The second workshop targeted to local businesses was held on Tuesday October 29, 2019 at Troy City Hall and followed a similar format. There were twenty people in attendance including residents, business owners, property owners, developers, nonprofit leaders, City staff, CDTC staff and Study Advisory Committee Members. See Attachment A for meeting materials including sign-in sheets, the PowerPoint presentation, and the survey and outreach materials.

The purpose of these public workshops was to orient the neighborhoods and local business owners about:

- The scope of this transportation and community planning study
- Opportunities to provide comments,
- Build understanding of the existing conditions and need
- Obtain input regarding neighborhood connectivity issues and ideas (problems and solutions) that should be considered as the study progresses.



Meeting attendees had several opportunities to provide input, ask questions, and offer comments including a survey with open ended response questions (included in Attachment A); a facilitated discussion session; and a mapping exercise where facilitators interacted with the public to solicit specific issues, concerns, and ideas for the study area. Post-it notes, aerial map mark-ups, and station facilitator notes were used to record the public input received. There were three map stations (all alike) to provide good access for the large number of attendees. A single station was available at the second workshop. The project website address was shared (www.Hoosick-Hillside-Study.com) and participants to review the material on the website and provide comments via the project email hoosickhillsidestudy@gmail.com.

The following summary groups comments received by overall theme. Raw meeting notes from the facilitated discussion and mapping exercise are included in Attachment B and C.



Problems

- **Poor connectivity limits access to goods and services.** Residents in the Hillside Neighborhoods indicated that, if possible, they would change their destination (i.e. shop at Walmart in Latham rather than Troy) because of difficulty traveling in and around the study area. Business owners indicated a desire for better connections to attract a broader customer base.
- **Traffic safety is a concern.** People do not feel comfortable walking, biking, or driving in parts of the study area. Traffic volumes, speeds, and turning traffic were noted as concerns. Some people indicated they feel it is safer to cross neighborhood streets mid-block away from Hoosick Street.
- **Hoosick Street acts as a barrier for all users.** Crossing Hoosick Street is difficult for pedestrians, bicyclists and motorists and congestion makes it difficult to access the Hillside neighborhoods.
- **People avoid Hoosick Street, using alternative routes rather than navigating the busy corridor.** Commuters reportedly cut through the Hillside Neighborhoods rather than wait in traffic when the streets are congested.

Solutions

- **Streetscape enhancements should be considered to calm traffic.** Street trees and planted medians may be desirable elements that will make the neighborhoods more inviting and slow traffic by signaling to motorists that they are traveling on a City roadway as opposed to a highway.
- **Specific pedestrian / bicycle linkages were suggested.** A north-south connection was proposed involving a pedestrian bridge, and east-west connections suggested at or near where foot-paths currently exist. Pedestrian crossing enhancements were proposed at traffic signals, which do not currently have pedestrian signals or marked crosswalks. Bicycle accommodations were proposed on 6th Avenue.
- **Consider active space, roadway changes and/or a multi-use path under the Collar City Bridge.**

Attachment A
Meeting Materials

HOOSICK-HILLSIDE STUDY NEIGHBORHOOD MEETING 10/23/19		
NAME	AFFILIATION	
Adams, Deasia	TRIP	
Ashe McPherson Kim	Community	
Bankstm, Corine ???		
Baumstein, Jen		
Bell, Tim	Resident	
Bissember, David	Troy City Council	
Bullinger, Roberta	Resident	
Burneson, Audrey	NYS DOT R1 Planning	
Carter, Billy	Kingdom Ministries	
Corey, John	Mental Rental	
Cummings, Anasha	Troy City Council/Resident	
Daniels, Queen	School 2 - ???	
Gardo, Luis???		
Garrett, Debra	City Council	
Gatto, Thomas		
Halloran, Amy		
Harvey, John	resident	
Hicks, Alfonzo	Hillside North	
Higgitt Jr., Paul J	Vets of Lansingburgh	
Holmes, Penny	One Troy - CEO	
Keels, Charlena		
Kirch, Brian	NYS DOT PLNG	
Lee, Caroline		
Lewis McCann, Sandra	TRIP	
Lyles, Dan		
Lynn, Andrew	Neighbor	
Magai, Felix		
Magai, Francis		
Mantello, Carmella	Troy City Council Prez/Resident	
Maybeck, Frank L.	North Central Community Solidarity Group, Inc.	
McEwen, Dawn	Neighbor	
McEwen, Dennis	Neighbor	
McKoy, Tarasha	Troy DFCC	
Nolin?, Chris	RPI	
O'Shaughnessy, Brian	Resident	
Ortiz, Taisha	TRIP	
Pastor Peace	I Give You Peace	
Press, Elizabeth (EP)	Resident	
Rodriguez, Liza	Neighborhood	
Stinney, Stephanie	School 2	
Sweeney, Mary	Community	
Vegele, Brittany	Community	
Voss, Betsy	TRIP	
Winters, Kaleb	Upper Hudson Green Party	
STAFF & CONSULTANTS		
Kreshik, Andrew	City of Troy	
Sargent, Mark	CME	
Irwin, Margaret	RSPD	
Bauer, Chris	CDTC	

HOOSICK-HILLSIDE STUDY BUSINESS OWNERS MEETING 10/29/19				
NAME	AFFILIATION			
Betle, Nathaniel	First Columbia			
Burneson, Audrey	NYS DOT R1 Planning			
Corey, John	Mental Rental			
Flower, Dave	Roos Value			
Holmes, Penny	One Troy - CEO			
Kirch, Brian	NYS DOT PLNG			
Lamishaw, Hilary	TRIP			
MacDowell, Calvin	Capital Roots			
Nolin?, Chris	RPI			
O'Grady, Mary	CEO			
Steele, Sue	THA/City Council candidate			
STAFF & CONSULTANTS				
Franchini, Michael	CDTC			
Kreshik, Andrew	City of Troy			
Sargent, Mark	CME			

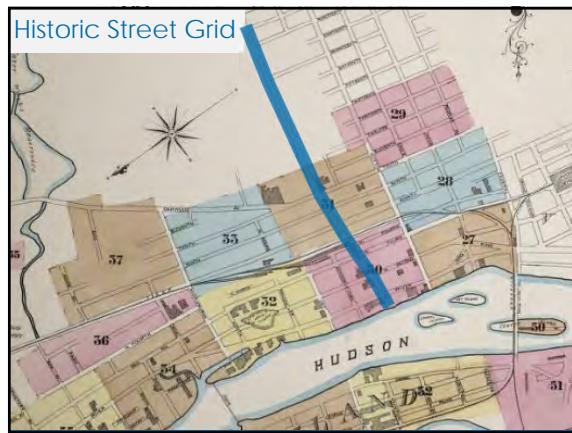
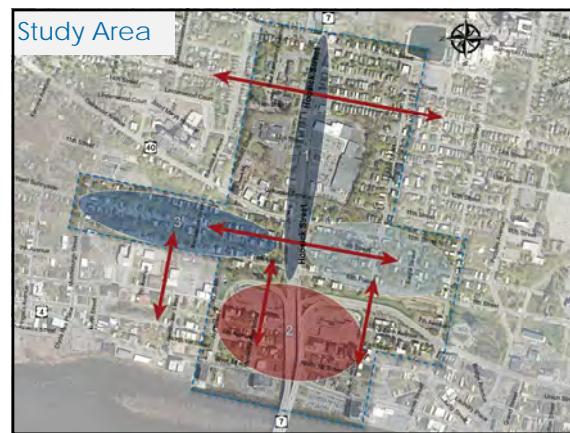

Hoosick-Hillside Neighborhood Meeting
 October 23, 2019



Creighton Manning   

Welcome/Purpose of Meeting

- Introduce Study
- Existing Conditions
- Feedback Exercise
 - Group discussion
 - Notes recorded on screen
 - Map for annotation

Project Scope – 12 Month Study

1. Initiation and Data Gathering
2. Existing Conditions Analysis
3. **Public Workshops (Neighborhood and Business)**
4. Draft Design Concepts
5. Public Meeting #3
6. Report and Implementation Strategy

Purpose and Need

- Improve **quality of life** in the Hillside North and South Neighborhoods
- Create **safe and convenient** pedestrian and bicycle connections:
 - Hillside Neighborhoods
 - River Street
 - Downtown
- Minimize the negative impacts of traffic in neighborhoods
- Maintaining traffic operations on Hoosick Street

What are Complete Streets?



Complete Streets are streets for everyone, no matter their ability or how they travel.



What are Complete Streets?



National Complete Streets Coalition

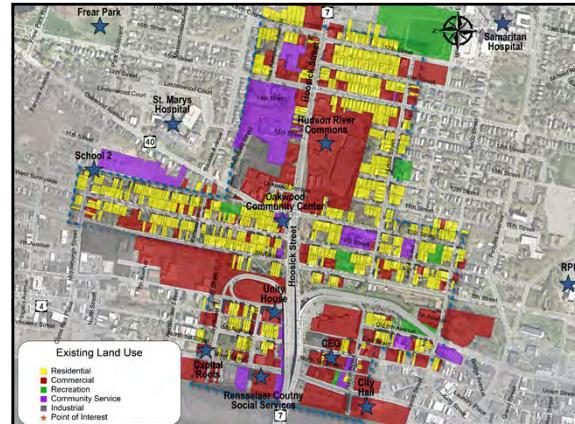
What are Complete Streets ?

“There is no one design prescription for complete streets. Ingredients that may be found on a complete street include . . . ” ~ *National Complete Streets Coalition*

- Sidewalks / Crossings
- Bike lanes
- Medians
- Curb extensions
- and more



Existing Conditions



Collar City Bridge Characteristics

- Roadway Noise
- Uninviting Hardscape
- Underutilized Space

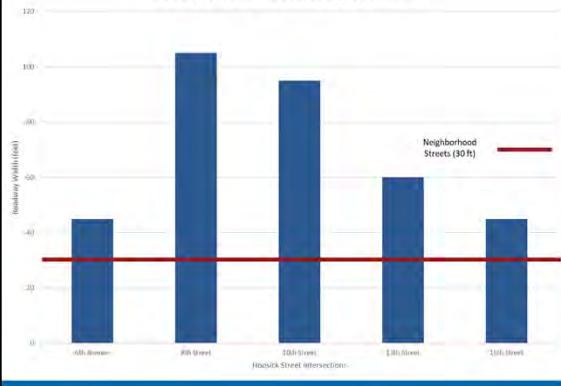


Hoosick Street Roadway Characteristics

- 3 Lanes west of 8th Street
- 7 Lanes between 8th Street and 10th Street
- 4 Lanes East 10th Street



Study Area Roadway Widths



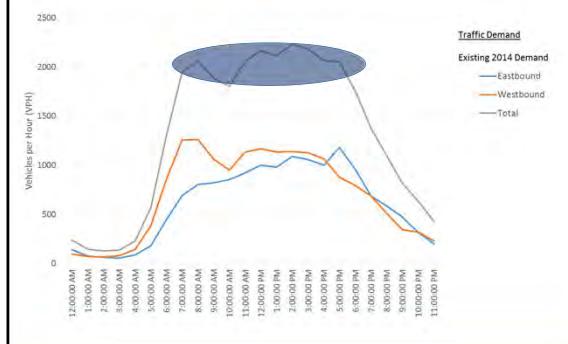
Hoosick Street/8th Street Intersection



Traffic Volumes vs Area Roads

Volume	Roadway	City	Lanes
43,000	I-787 near NYS Thruway	Albany	6
42,000	Hoosick Street (8 th to 10 th Street)	Troy	7
37,200	Central Avenue near Everett Road	Albany	5
31,300	Wolf Road near Colonie Center	Colonie	5
29,000	Hoosick Street (10 th to 15 th Street)	Troy	4
26,500	Erie Boulevard near Rivers Casino	Schenectady	5

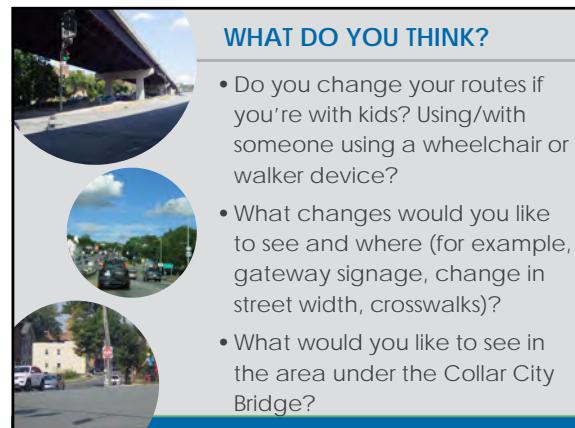
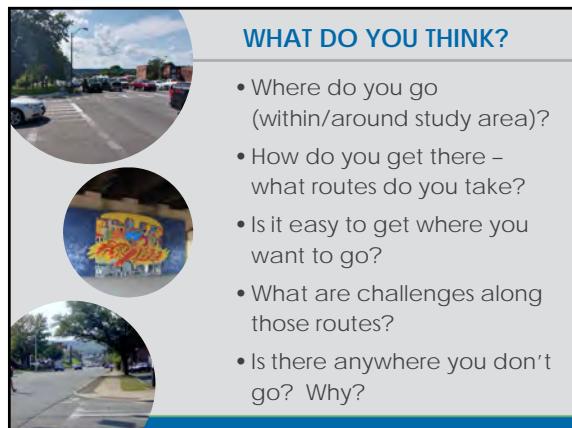
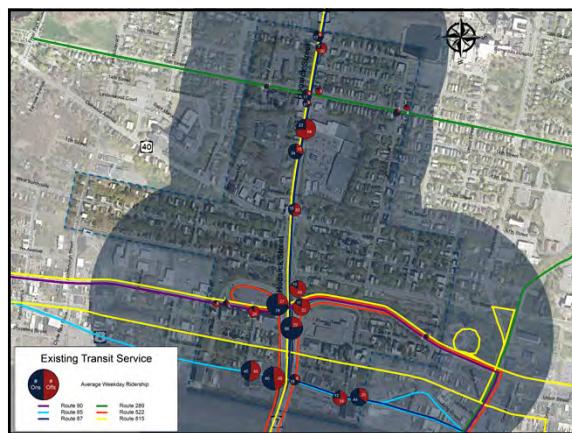
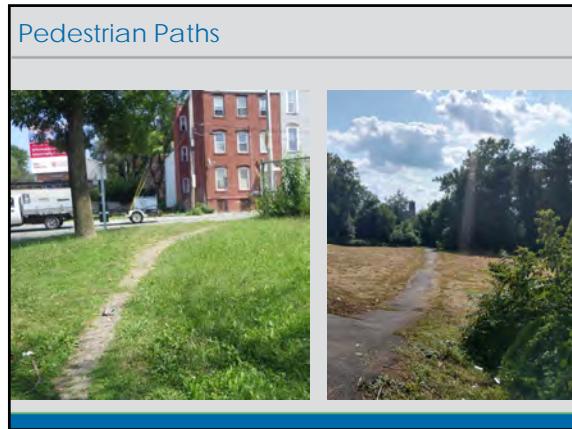
Hourly Traffic Variations (Typical Weekday) Hoosick Street West of 13th Street



Traffic Volumes vs Area Roads			
Volume	Roadway	Location	Lanes
9,400	6 th Avenue	North of Hoosick Street	2
1,600		North of Hoosick Street	1
5,700	8 th Street	South of Hoosick Street	2
2,600	9 th Street	North of Hoosick Street	1
300		South of Hoosick Street	1
700	10 th Street	North of Hoosick Street	1
2,000		South of Hoosick Street	2
2,000	Hutton Street	Between 10 th Street and 8 th Street	2
700	Rensselaer Street	Between 10 th Street and 8 th Street	2

Neighborhood Traffic Characteristics			
<ul style="list-style-type: none"> Highest traffic volumes observed on 6th Avenue and 8th Street south of Hoosick Street <ul style="list-style-type: none"> Direct access to NY Route 7 Higher than average speeds observed on 8th Street south of Hoosick Street <ul style="list-style-type: none"> Wide street with open space and clear sight lines 			
			
			
<h3>Hoosick Street/6th Avenue Intersection</h3>			







Schedule/Next Steps

- Public Input – Fall 2019
- Draft Design Concepts – Winter 2019
- Public Input on Design Concepts – Spring 2020
- Final Report – Summer 2020

Thank You!

Website: www.Hoopsick-Hillside-Study.com

Email: HoosickHillsideStudy@gmail.com

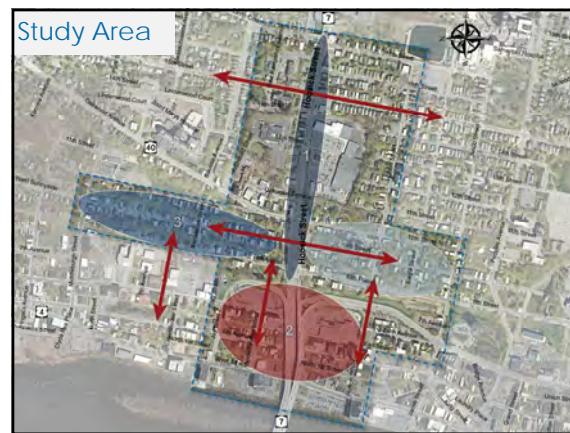

Hoosick-Hillside Business Owner Meeting
 October 29, 2019



Creighton Manning  PLACE  RIVER STREET 

Welcome/Purpose of Meeting

- Introduce Study
- Existing Conditions
- Feedback Exercise
 - Group discussion
 - Notes recorded on screen
 - Map for annotation

Project Scope – 12 Month Study

1. Initiation and Data Gathering
2. Existing Conditions Analysis
3. **Public Workshops (Neighborhood and Business)**
4. Draft Design Concepts
5. Public Meeting #3
6. Report and Implementation Strategy

Purpose and Need

- Improve **quality of life** in the Hillside North and South Neighborhoods
- Create **safe and convenient** pedestrian and bicycle connections:
 - Hillside Neighborhoods
 - River Street
 - Downtown
- Minimize the negative impacts of traffic in neighborhoods
- Maintaining traffic operations on Hoosick Street

What are Complete Streets?



Complete Streets are streets for everyone, no matter their ability or how they travel.



What are Complete Streets?



National Complete Streets Coalition

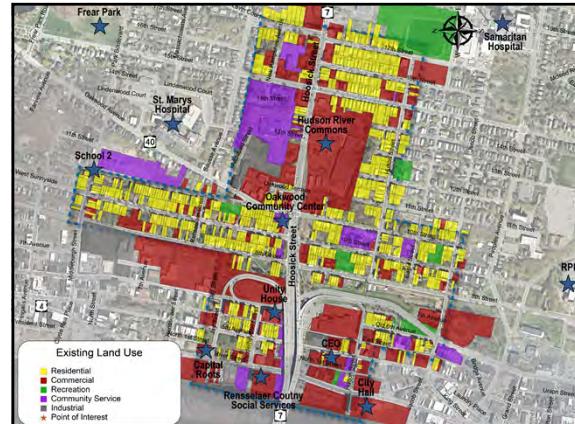
What are Complete Streets ?

“There is no one design prescription for complete streets. Ingredients that may be found on a complete street include . . . ” ~ *National Complete Streets Coalition*

- Sidewalks / Crossings
- Bike lanes
- Medians
- Curb extensions
- and more



Existing Conditions



Collar City Bridge Characteristics

- Roadway Noise
- Uninviting Hardscape
- Underutilized Space

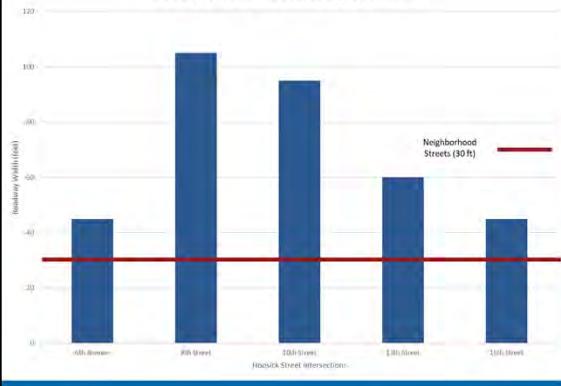


Hoosick Street Roadway Characteristics

- 3 Lanes west of 8th Street
- 7 Lanes between 8th Street and 10th Street
- 4 Lanes East 10th Street



Study Area Roadway Widths



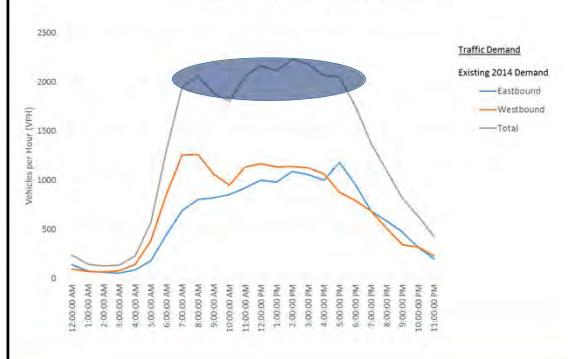
Hoosick Street/8th Street Intersection



Traffic Volumes vs Area Roads

Volume	Roadway	City	Lanes
43,000	I-787 near NYS Thruway	Albany	6
42,000	Hoosick Street (8 th to 10 th Street)	Troy	7
37,200	Central Avenue near Everett Road	Albany	5
31,300	Wolf Road near Colonie Center	Colonie	5
29,000	Hoosick Street (10 th to 15 th Street)	Troy	4
26,500	Erie Boulevard near Rivers Casino	Schenectady	5

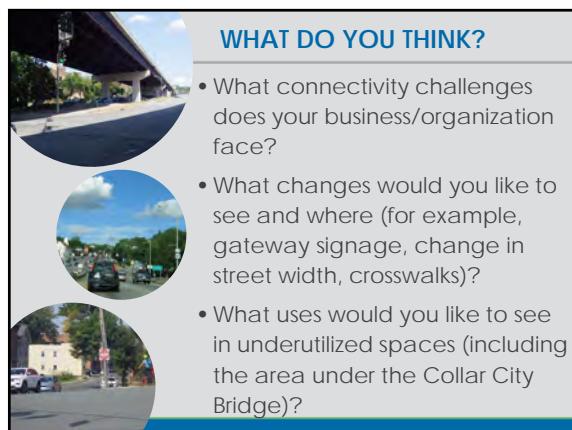
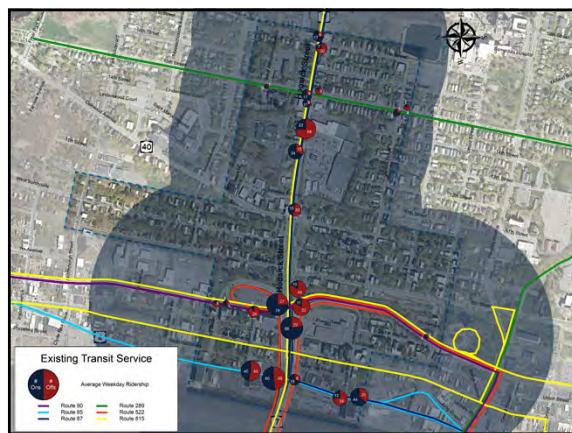
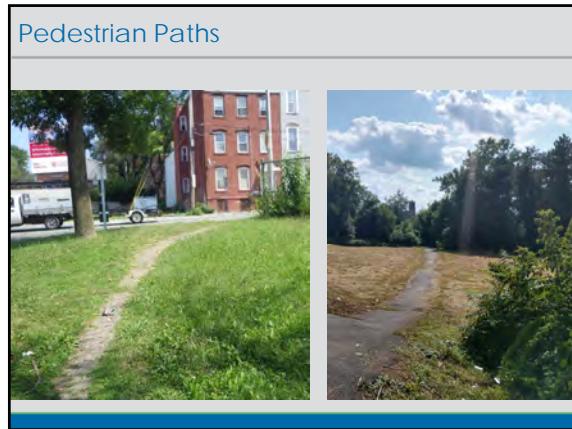
Hourly Traffic Variations (Typical Weekday) Hoosick Street West of 13th Street



Traffic Volumes vs Area Roads			
Volume	Roadway	Location	Lanes
9,400	6 th Avenue	North of Hoosick Street	2
1,600		North of Hoosick Street	1
5,700	8 th Street	South of Hoosick Street	2
2,600	9 th Street	North of Hoosick Street	1
300		South of Hoosick Street	1
700	10 th Street	North of Hoosick Street	1
2,000		South of Hoosick Street	2
2,000	Hutton Street	Between 10 th Street and 8 th Street	2
700	Rensselaer Street	Between 10 th Street and 8 th Street	2

Neighborhood Traffic Characteristics			
<ul style="list-style-type: none"> Highest traffic volumes observed on 6th Avenue and 8th Street south of Hoosick Street <ul style="list-style-type: none"> Direct access to NY Route 7 Higher than average speeds observed on 8th Street south of Hoosick Street <ul style="list-style-type: none"> Wide street with open space and clear sight lines 			
			
			
			





Schedule/Next Steps

- Public Input – Fall 2019
- Draft Design Concepts – Winter 2019
- Public Input on Design Concepts – Spring 2020
- Final Report – Summer 2020

Thank You!

Website: www.Hoosick-Hillside-Study.com

Email: HoosickHillsideStudy@gmail.com



CITY OF TROY HOOSICK-HILLSIDE STUDY

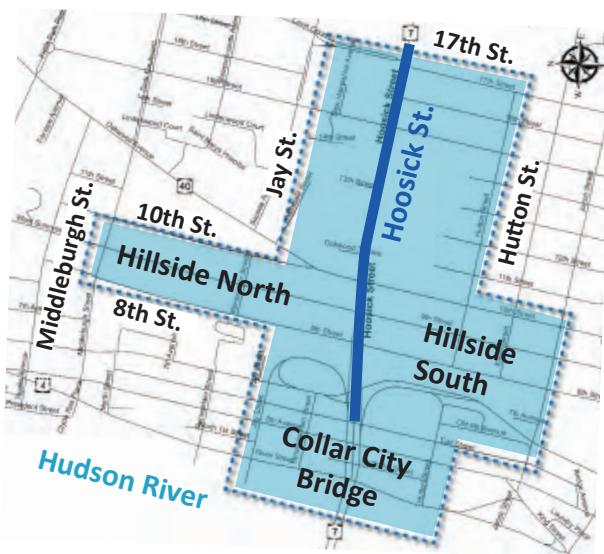
Hillside North & South NEIGHBORHOOD MEETING

Wednesday, October 23 | 6:30 pm - 8:00 pm
Oakwood Community Center, 313 10th St., Troy, NY 12180

SHARE
YOUR
IDEAS!



The focus is on these areas:

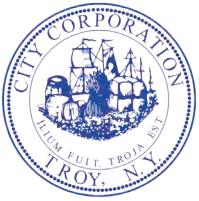


Bring your ideas to connect the Hillside North & South neighborhoods to Hoosick Street and downtown. Let's make the neighborhoods great places to live:

- Easy & safe to go wherever you want, including stores, schools and services
- Comfortable for walkers, bike riders, people using mobility aids, bus riders, and drivers
- Improved intersections, sidewalks and paths
 - New uses for vacant buildings, lots and land under the bridge
- OTHER IDEAS?

Look for updates and take a **SHORT SURVEY** on the website: www.hoosick-hillside-study.com & feel free to email HoosickHillsideStudy@gmail.com

This work is supported by
CDTC
CAPITAL DISTRICT
TRANSPORTATION COMMITTEE



CITY OF TROY HOOSICK-HILLSIDE STUDY

Meeting with NEIGHBORHOOD BUSINESS OWNERS

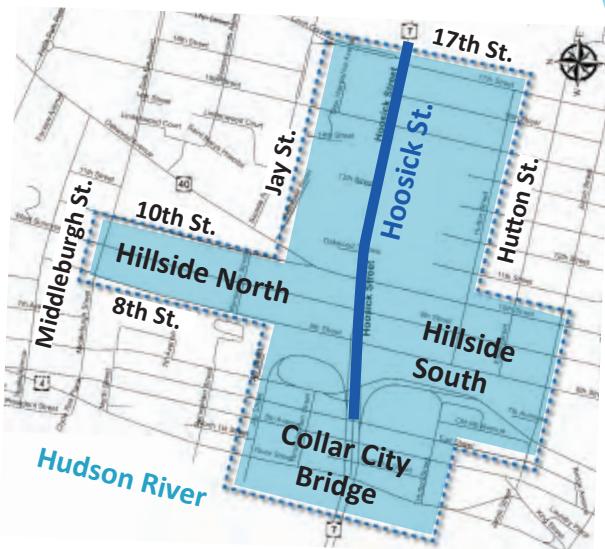
Tuesday, October 29 | 6:30 pm - 8:00 pm

City Hall Council Chambers, 433 River St., Troy, NY 12180

SHARE
YOUR
IDEAS!



Focus is on the Hillside North and South Neighborhoods and Hoosick Street



Look for updates on the website:
www.hoosick-hillside-study.com
& feel free to email HoosickHillsideStudy@gmail.com

Help identify ways to make
our streets safer for your
patrons and employees.

- Design a better place to do business
- Make it easy and safe for residents to shop and access services
- Be comfortable for walkers, bike riders, people with disabilities, bus riders and drivers
- Improved intersections, sidewalks and paths
 - Find new uses for vacant buildings, lots and land under the bridge
- OTHER IDEAS?

This work is supported by
 C D T C
CAPITAL DISTRICT
TRANSPORTATION COMMITTEE



CITY OF TROY HOOSICK-HILLSIDE STUDY Community Survey

SHARE
YOUR
IDEAS!

Please feel free to complete the survey online at: www.hoosick-hillside-study.com

The City wants to hear from you about how to make connections between the Hillside North and South neighborhoods, improve local streets and connect them to River Street and downtown for everyone: walkers, bike riders, people with disabilities and bus riders. The focus is on the areas on the map to the right.

Please return completed survey to TRIP offices at 378 10th Street or 415 River Street, 3rd floor; e-mail a picture of the survey to HoosickHillsideStudy@gmail.com; or bring it with you to the neighborhood meeting on October 23.



Note: Use back of paper if needed for your responses.

Where do you live?

North Central Frear Park Neighborhood The Hill
 Downtown Somewhere else: _____

What nearby shops and services do you use?

How do you get to these places?

Walk Bus Bike Drive Other

Is it easy to get to these places?

Yes No If not, why not? _____

Are there streets or locations where you don't feel safe traveling? Where and why?

How can these locations be made safer and more convenient for travel? Where should these improvements be?

What connections can we make to reunite the Hillside North and South neighborhoods?

What links can we make to River Street and Downtown?

What would you like to see in the area under the Collar City Bridge?

Do you have any questions or comments?

If you want project updates, please give us your email or mailing address:

Thank you!

Visit www.hoosick-hillside-study.com or email HoosickHillsideStudy@gmail.com for more information.

Attachment B
Facilitated Discussion Notes

Hoosick Hillside Neighborhood Workshop – 10/23/2019

- Where do you go?
 - Stewarts
 - Downtown from 9th Street
 - Supermarket
 - The Plaza
 - Oakwood Community Center
 - In front of house (traffic impacts)
 - Use Hoosick to get to Albany (automobile)
 - Church – downtown Troy
 - Trying to get to Walmart
 - Difficult by car (congestion)
 - Frear Park to avoid Hoosick Street traffic
 - Use Latham Walmart
 - Frear park for recreation
 - Gym on 3rd
 - Businesses on Hoosick (SEFCU, DD, McDonalds)
- Where do you bike?
 - Eastbound Detroit and path through woods to Josephs
 - Bike lane in Brunswick
 - Bike rescue up to 9th (hill on Congress)
 - HVCC
- Challenging places to get to?
 - Walmart – traffic
 - South side to downtown use pedestrian paths
 - Hutton through hole in fence on hill – could be place for staircase
 - Too steep/risky as it is
 - Anything across Hoosick Street is difficult to get to (both sides)
- Where do you go instead of crossing Hoosick Street?
 - Can't walk under on-ramp around 7th
 - Not Lit
 - Come up Hoosick Street
 - Difficult to get to Clifton Park to get to Price Chopper (no sidewalks) 125th and 2nd
 - Dangerous to walk.
 - Oakwood Ave to Lansingburgh to avoid Hoosick
 - 50 mph Traffic on Hutton – needs traffic calming
 - 10th Street used as cut through to Melrose
 - Hutton used as cut through to Hospital – speeds and volumes
 - Straight stop, no stop signs
 - 9th Street high speeds
 - 6th Avenue is dead zone from Middleburgh to Hoosick. Long sight distances and high speed
 - 6th Avenue anywhere north is difficult because of steep grade

- DD drive through difficult because people stop suddenly. Car focused design
- Illegal turns – restrictions are not enforced
- Crossing 9th Street on Hoosick is easier out of crosswalk. Vehicles don't look for Bike/Ped only focused on traffic.
 - Same on 8th at Hoosick
- 8th and Jacob dangerous because stop sign is only in 2 directions.
- Poor air quality on 8th because of traffic congestion. 8th faster than 6th even though 6th designed for higher speeds.
 - Freight traffic on 8th
- 6th from Hoosick south to Federal treated like a highway (come off ramp and don't realize it's a local road)
- People use 8th rather than 6th because 8th Street/Hoosick Street intersection is slow.
- New crosswalks put in on 8th Street and signs were run over (high speeds)
- Anti-walking mentality on Hoosick and spills into neighborhood streets. What kind of physical changes can be made?
 - Compare 87 as it enters Guilderland. People slow down sooner and it works.
Here if you slow down it is dangerous.
 - Engineering, Education, Enforcement
 - Narrow roadway to calm traffic
- 65 mph Route 7 causes high traffic volumes. Crosswalk improvements have made a difference.
- Northbound left turn from Hoosick to 10th is dangerous. No signage or striping about upcoming merge.
- 8th Street to Rensselaer St road condition is poor but slows people down
- Oakwood Community Center is key to neighborhood.
- Greenspace in neighborhood is important.
- Other ways to access 7 for freight. Signage is useful but will not change behavior.
- No sidewalk on Rensselaer. Schoolbus takes up entire block, nowhere for kids to stand.
- 8th to downtown conflicting traffic with oncoming traffic (confusing intersection)
- Concern over air quality. Slowing traffic will have emissions impacts. New trees can have benefits. Shade tolerant plantings underneath bridge.
- 6th Avenue under the bridge should have well placed bus shelters to protect from weather
- Freight on 9th through neighborhoods. Difficult with parked cars.
- Other neighborhoods need community centers too. North Central outside of study area. Oakwood is great, but can extend beyond the area.
- Hutton and 10th dangerous – lots of crashes.
- Crosswalks on 8th Street made a huge difference (easier to cross). Every crossing should have crosswalk in neighborhoods.
- More students from RPI coming down the hill. Walk and will use crosswalks.
- Community push for skateboard and bicycle park. Underneath bridge is prime location.
- Community center is important in winter. Should be local so no need to travel. Needs to be affordable.
- What will be the end result of study. Plan that can be used to pursue funding.

- Kids need to travel to 6th and 7th to get to community centers. Need to provide safety for kids crossing Hoosick.
- Teach kids about design and have them get involved in process.
- Save-A-Lot Plaza looks depressing. Plant trees and partner with city to make it nicer.
- Pocket park on 10th but people don't feel safe hanging out there.
- Odor from industrial uses. Trash underneath the bridge (thrown out of windows from bridge)
- Less Expensive short term project
 - Skateboard park
 - Pedestrian bridge around 10th Street (possibly higher cost)
 - Safe crosswalks and pedestrian paths
 - Hoosick Street reduced to 2 lanes with a green median and roundabout
 - Similar to 787 to Cohoes
 - Crossing guards to help people cross.
 - Painted median on Hoosick Street should be raised.
 - Pedestrian lighting missing on south side. Trees block cobra head lights

Hoosick Hillside Business Workshop – 10/29/2019

- Good people live in neighborhood. Traffic is a constant problem. Merge after turn onto 10th. High crash location.
- Pollution is problem.
- No easy way to walk from south side into shopping plaza.
- Difficult to cross 15th Street (high volume and speed). Restaurants are destination.
- Beautify 15th street to encourage walking.
- RPI directs visitors away from Hoosick Street, but GPS still uses Hoosick.
- Why is there no pedestrian access to plaza at 11th
- Don't be on Hoosick Street during lunch because of traffic.
- Middle of day traffic continues past 10th while commuter traffic turns onto 10th continuing north.
- Safety is huge pedestrian concern. Cannot cross the street. People do not yield to pedestrians.
 - Pedestrian bridge could separate peds.
- Seniors and mothers in area that can't cross. Use stewarts, walgreens, CVS as supermarkets. Avoid crossing Hoosick by any means possible.
- Dimly lit streets (driving/pedestrian level). Difficult to see pedestrians in crosswalks at night.
 - Existing lights are not in good shape (maintenance)
- 6th Ave NB to Hoosick has long queues, from traffic turning right onto Hoosick.
- Hoosick can queue back into 6th and block intersection.
- Buses at Hoosick/6th impact traffic operations at intersection.
- Businesses in Hillside North would like to see students as customers (Capital Roots, Copper Pot).
- New residential south of Hoosick should be connected to North.
- From RPI funneled to 8th Ave/6th Ave intersection.
- RPI Shuttle to Headley Building
- Riverfront as part of neighborhood. Opportunity to make more inviting to draw people and create a destination.
- Area beneath bridge has direct access to River. Could be a good place for connection.
- Flooding was previously issue under bridge. New zoning considering uses.
- Could make recreation destination under bridge.
- Turn Hoosick Street into a plaza underneath bridge.
- Easier to cross under bridge than to cross traffic on Hoosick East of 8th
- No good crossings in the area of the Massry Center
 - 10th or Plaza entrance were best options. (turning movements are least complicated)
- Hillside North has no outlet on 8th and 10th. Divert traffic.
- Steep hill impacts how far people are willing to walk to/from transit. Could add steps and platforms to make it easier to get uphill.
- Not a lot of bicycling in the neighborhood. No bike lanes, need to be comfortable in traffic.
- Only place to bike in the area is along River St (most comfortable because highest level of infrastructure)
- Lots of CDPHP bike share on 15th Street (high RPI use) and on south side of Hoosick. Some on Hoosick east of 15th, but not on north side.

- What people do is limited by the environment. Creating a safe place could make it easier for people to do what they want.
- People may not be aware of bike share opportunities.
- Ride bikes on sidewalks or walk in street because sidewalks are in poor condition.
- Difficult to ride bike out of Hillside North neighborhood.
- Want walk/bike connection from Hoosick/10th to downtown
- Speeds on 6th and 8th south of Hoosick could be calmed by narrowing or adding bike lane
- Other cities have park benches and gathering spaces with good lighting and amenities (trash cans, wider sidewalks). Can help with community cohesion.
- Entryways can change driver mentality and signal that the neighborhood is not a highway.
 - Raised crosswalks
 - Access management at 9th (left turn crossing 3 lanes)
- Should 8th and 9th be through street at Hoosick or should they be diverted to prevent cut through traffic.
 - Could reduce number of turning conflicts with pedestrians and shorten traffic signal cycle length.
- Opportunity to adjust traffic pattern where bridge lands (at 8th).
 - Right turn from NY 7 to 8th Street is highly used. If restricted could use 6th Ave ramp.
- Capital Roots farm on 8th near Hutton. Dirt path indicates pedestrian desire between 6th and 8th.
- People use downtown ramp and use Hutton to avoid lower Hoosick. Also use Peoples to get to Burdette
- Older family members do not use Hoosick (use Middleburgh which is very steep). Dangerous because there is no lighting. Likely use the dirt paths.
 - Have moved out of the area because it is too busy and wide. Need to run across and people just won't do it. Used to be able to cross Hoosick.
- High speeds on 8th and 9th are dangerous near School 2 when kids are walking. Sidewalks are in poor condition/narrow and kids walk in road.
- Can Troy use camera to enforce speed on Hoosick and generate revenue.
- Success on 787 towards Cohoes (30 mph and raised intersections). We should be able to change Hoosick Street.
 - Grassy median, pedestrian refuge
- Speeding not uphill, but happens downhill
 - Jockeying for position approaching bridge.
- Automated tickets in school zones, but needed State authorization. Potential for expanding?
- Individual streets can be posted 25 mph. Area wide must be 30 mph or get special authorization.
- Long cycle lengths contribute to drivers running through red lights.
- Hoosick/Lake traveling through Brunswick is 3 lane section and backs up.
- Don't want to be in left lane and get stuck behind vehicle turning left.
- Sidewalks in S. Troy are a success. People love it and have been walking more. Added stop signs also helped.
- DOT license land under Bridge to City who sub-licenses to other users. Can have temporary uses but DOT to auction in future. (One year lease)

- Vacant parcels on South Side of Hoosick between 9th and 10th are looking to be developed. (Building front 9th and parking lot to front 10th)
- Pedestrian connection on 11th to west side of plaza (bridge).
- Want to activate space along the River. Lucky to have access (no railroads or barriers). Opportunity
- Is there opportunity to create development on east side of 6th? Would be nice if it were not a highway. Used to be a trolley.
- Raised sidewalk on 6th Ave to separate peds from roadway.
- Can rumble strips be added to ramps to slow traffic entering the City.
- Convert 6th Ave ramp to one lane or reconfigure to slow traffic.
- Trees and plantings to slow traffic and signal to drivers that they are in the City.
- Don't want vehicles using 9th Street to avoid 10th Street.
- Can there be a way to get from 10th Street out without having to use Hoosick. Rensselaer dead end on 8th Street used to have wooden bridge to 6th.
- Can 15th be re-designated NY 40 instead of 10th?

Attachment C
Mapping Exercise Notes

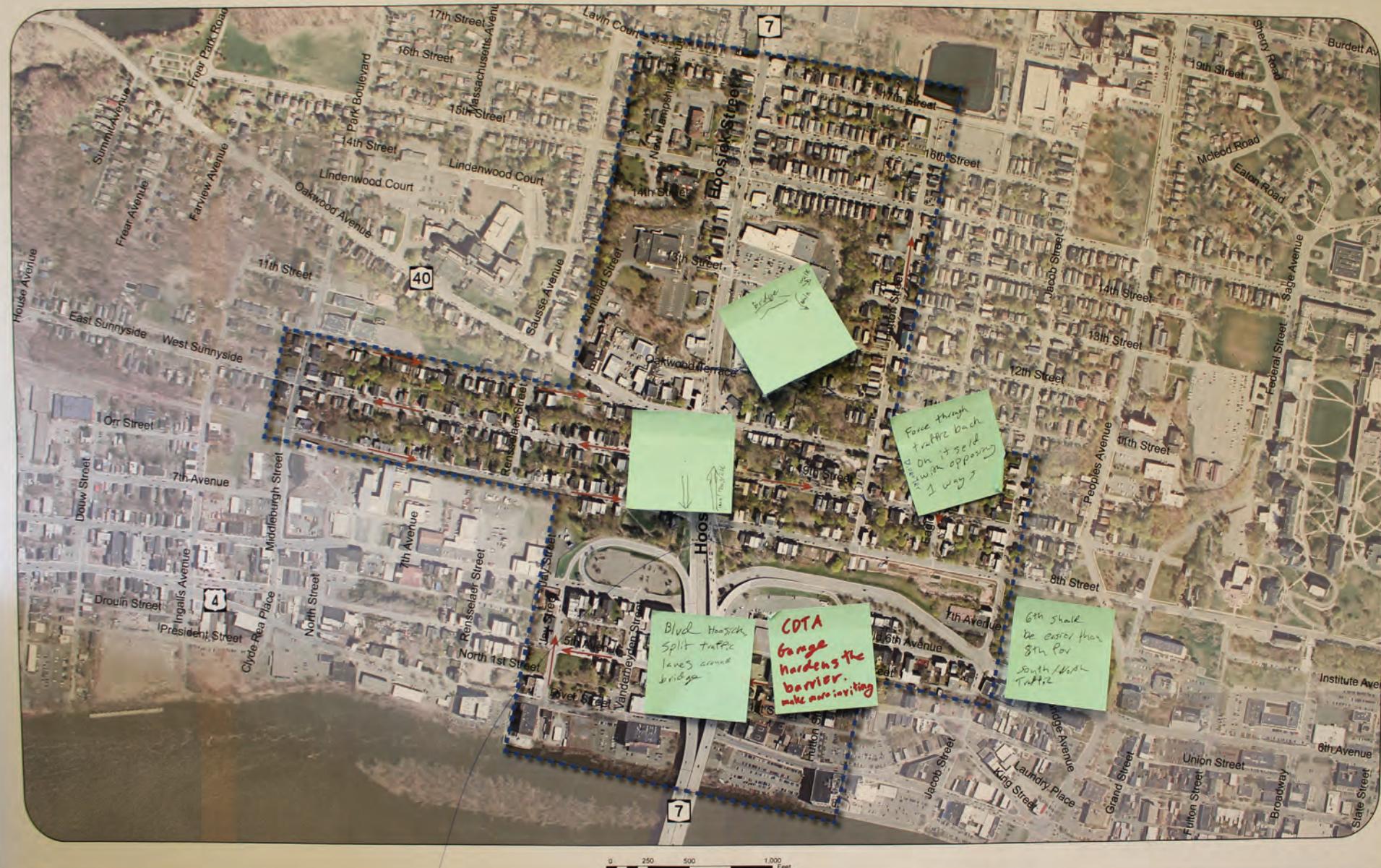
Public Workshop
Identified Transportation Issues and Ideas
Summarized by Map

Breakout Group/ Comment #	Location	A-Map #1 B-Map #2 C-Map #3 D-Map #4
ID#	Comment	
A1	Hillside North	Consider N. Central Community Center near 6th Ave/Smith Ave
A2	Hillside North	Traffic Calming Mid-Block at School 2
A3	Hillside North	Use part of Johnstone Supply property (parking area) for community center
A4	Hillside North	Consider 1 way traffic on Rensselaer Street
A5	Under Collar City Bridge	Drivers are not paying attention
A6	Under Collar City Bridge	Difficult to walk/bike because traffic does not slow
A7	Regional	Get NYSDOT to reduce speed to 55 mph on NY 7 between Northway and I-787
A8	Under Collar City Bridge	Improve lighting
A9	Hoosick Street	Signalized Intersection Needed at Hoosick St/9th St intersection
A10	Hillside South	5th Ave is dangerous for kids trying to get to corner store on King
A11	Hillside South	Difficult to get to the Salvation Army/Food Pantry on River St
B1	Hoosick Street	EB Right turns do not yield to peds at Hoosick St/8th St
B2	Under Collar City Bridge	Boulevard Hoosick and split traffic lanes around bridge
B3	Hoosick Street	Construct pedestrian bridge over Hoosick St to plaza at 13th St
B4	Hillside South	Force through traffic back on itself with opposing one-ways
B5	Under Collar City Bridge	CDTA garage hardens barrier. Make more inviting
B6	Hillside South	6th Ave should be easier than 8th St for north/south traffic
C1	Hoosick Street	Restrict EB Left turns at Hoosick St/Lavin Ct
C2	Under Collar City Bridge	Need parking underneath the bridge for Unity House
C3	Regional	Consider truck bypass
C4	General	Improve snow removal on sidewalks and bike lanes
C5	General	Keep scale of development to 2-stories
C6	Hillside South	It feels safer to cross 6th Avenue midblock rather than at the Hoosick/6th Intersection because of turning vehicles
C7	Under Collar City Bridge	Pedestrian path between 8th Street south of Hoosick and Unity House
C8	Hillside South	Improve pedestrian connections to the Plaza

Public Workshop
Identified Transportation Issues and Ideas
Summarized by Map

C9	Hillside South	Improve pedestrian connections to Middle and High School. Kids from Hillside North have to cross Hoosick Street if they miss the bus.
D1	Hoosick Street	Add raised median with Jersey barrier on Hoosick Street between 13th St and 15th St
D2	Hoosick Street	Restrict left turns into Speedway and McDonalds
D3	Hoosick Street	Dunkin Donuts drive-thru is a problem. No more drive-thrus
D4	Hoosick Street	Construct pedestrian bridge over Hoosick St to plaza at 13th St
D5	Hoosick Street	Get rid of right turn lane at Hoosick St/10th St
D6	Hoosick Street	Alignment is a problem at Hoosick St/10th St
D7	Hillside South	High speeds on 9th Street and Hutton Street
D8	Hillside South	Eagle Street is wide
D9	Hillside South	Construct dog park and playground near Peoples Ave/12th St.
D10	Hoosick Street	Mark diagonal crosswalks at Hoosick St/10th St (scramble)
D11	Hoosick Street	Turn lanes at Hoosick/10th look like you can go straight but late merge
D12	Under Collar City Bridge	Add greenery and skate park under bridge
D13	Under Collar City Bridge	Improve crosswalks under the bridge
D14	Hillside North	Extend Jay Street between 6th Ave and 8th St







Hoosick Hillside Neighborhood Study

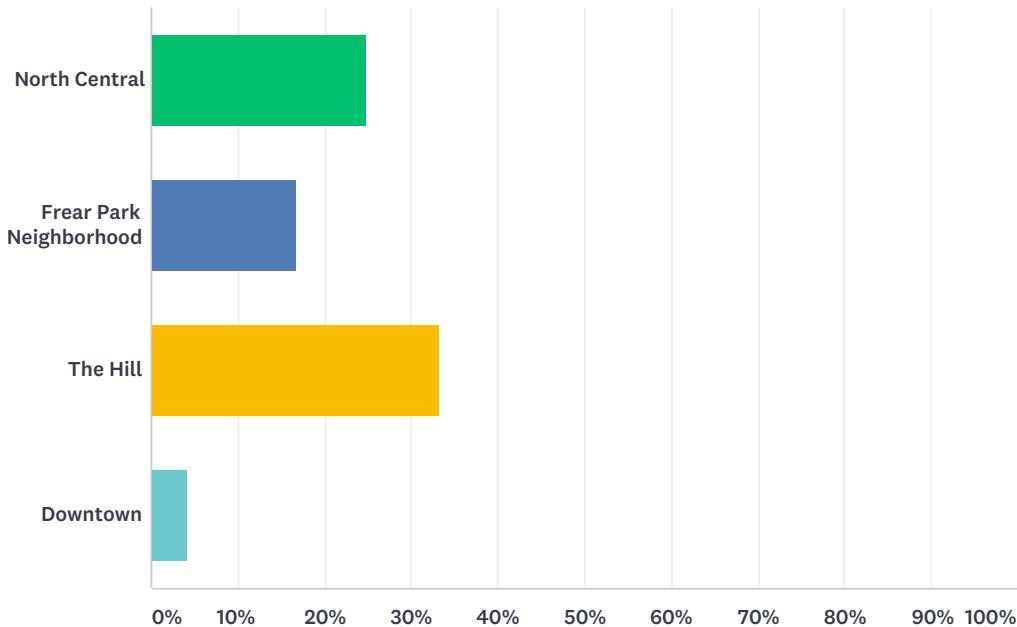




Attachment D
Survey Summary

Q1 Where do you live?

Answered: 24 Skipped: 0



ANSWER CHOICES		RESPONSES	
North Central		25.00%	6
Frear Park Neighborhood		16.67%	4
The Hill		33.33%	8
Downtown		4.17%	1
TOTAL			24

#	SOMEWHERE ELSE:	DATE
1	450 2nd st south troy ny 12180	10/20/2019 4:42 AM
2	Hoosick and Lake - Conway Court	10/19/2019 3:49 AM
3	Oakwood Ave near Oakwood Cemetery, near the apartment construction project	10/18/2019 7:04 PM
4	Burdett Avenue	10/18/2019 6:18 PM
5	Burdett Ave	10/18/2019 6:12 PM

Q2 What nearby shops and services do you use?

Answered: 23 Skipped: 1

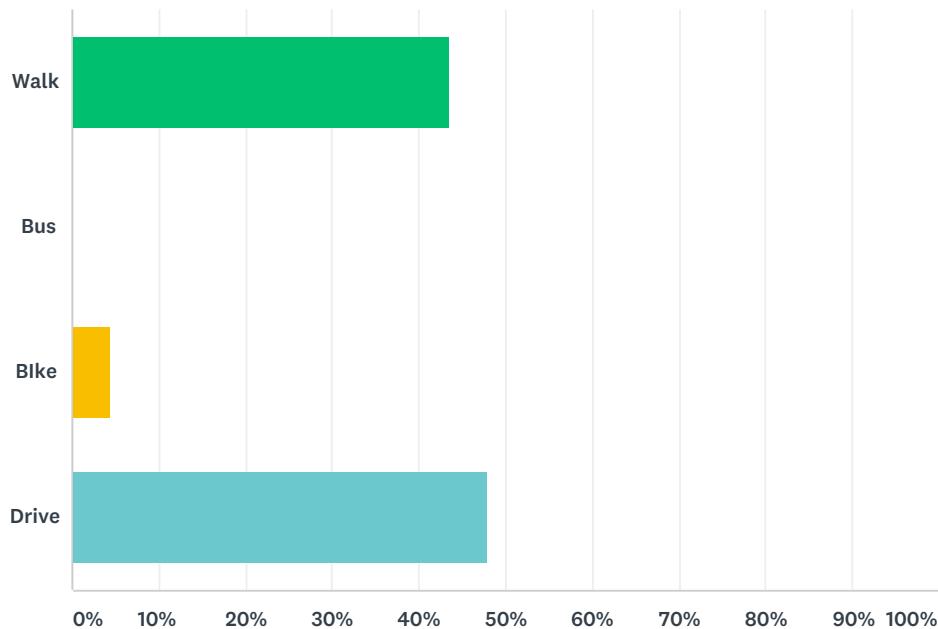
#	RESPONSES	DATE
1	Art galleries and events, bars, vegan restaurants, grocery stores	10/31/2019 2:14 AM
2	River Street Market, Stacks Espresso Bar, Starbucks, Stewarts, McDonald's, Brown's Brewing Co.	10/30/2019 7:33 PM
3	Rpi, Stewart's, Oakwood community center, Sanctuary for Independent Media, downtown	10/25/2019 4:15 AM
4	Save a lot plaza, Stewart's, downtown Troy	10/24/2019 2:10 PM
5	Stewarts at Hoosick St	10/23/2019 4:43 PM
6	Save a Lot grocery store, Great Clips, Hoosick Street Discount beverages, Hoosick Street Wine Cellar, SEFCU, Popeyes, Speedway, Sonic.	10/22/2019 10:28 PM
7	The Big Lots on Hoosick Street, the Copper Kettle, the new food court and Bela Napoli.	10/22/2019 8:35 PM
8	Troy Plaza (a.k.a. Hudson River Commons) Speedway Notty Pine Ali Baba Corner store at 15th and Hutton Stewart's	10/21/2019 7:08 PM
9	work @ the Hilton shop @ liquor store on hoosick	10/21/2019 2:51 PM
10	Stewart's shop - walk Big lots + Save-a-lot - walk Restaurants in the hillside - walk Various downtown restaurants - usually bike, but sometimes walk or drive. HVCC - usually bike	10/20/2019 11:02 PM
11	Stewarts, AIB Computers, Capitol Roots & 8th Street VeggieMobile plus downtown: library, post office, farmers market, eateries, shops	10/20/2019 10:32 PM
12	stewarts, defazio, market 32 taco bell wendys post office st joseph church	10/20/2019 4:42 AM
13	Corner store @ 9th & Middleburgh St.----- Stewarts @ Hoosick & 10th.	10/19/2019 5:28 PM
14	The residents of THA Conway Court walk to Walgreen's, Mr. Sub and the stores attached to the gas stations. Some of us drive to the Price Chopper and Walmart plazas, others take uber or taxi.	10/19/2019 3:49 AM
15	I Frequent Oakwood Community Center , Troy Plaza shops and I commute by car from Troy to Clifton Park either traveling vi alternative Rt 7. the intersection of 8th and Hoosick is too dangerous and the light is more than 5 minutes long causing a back up on 8th st Drivers coming East into Troy (especially trucks) speed thru the lights and intersections 30 mph is too high a limit. they are going faster, need pedestrian warnings on the bridge Also I have many times been destracted and have NOT seen walkers because of the new LED excessive commercial lights. They are TOO bright and cause a halo effect limiting your vision while you are driving, they do not light up the sidewalks or parking lots properly but light up and outward and cause glare and distraction. The RPI fieldhouse lights are set so high above Tree line they are extremely distracting from the road as you drive down Alt Rt 7 east from the Boght Rd overpass. Its too much light pollution. CODE needs to regulate the brightness , size color and height of new lights . they are terrible and I think causing more accidents than people realize. I have swirved out of lane many times because of them, they are hurtful to your eyes and are like prison lights. You are forced to look away off the road to be able to see and drive ahead of you - its not normal and not better light for visibility The Sonic plaza has them and many other intersections downtown are blinded by these new lights and security lights on buildings bec they shed light up and all around like a halo and not just on the ground . the orangy lights are actually better for visibility of seeing people. the excessive glare effect is so much worse when raining. I have come close to hitting people because of too much glare and because people tend to wear dark clothes and walk out in the road assuming you see them.	10/18/2019 11:44 PM
16	Recovery room, liquor store, rite aid, price chopper, downtown	10/18/2019 11:02 PM
17	Stewarts on Hoosick, Starbucks on Hoosick	10/18/2019 7:04 PM
18	Speedway, Stewarts, Starbucks, Sonic	10/18/2019 6:50 PM
19	None in the north central, nothing around but corner stores	10/18/2019 6:24 PM

Hoosick-Hillside Community Survey

20	June's hair dresser Alibaba restaurant SEFCU Hudson River Plaza stores RPI Hirsch Observatory RIP Library RPI Student Union Hoosick St. Wines Seton Internal Medicine, 147 Hoosick St. Stewarts Shop, 10th & Hoosick	10/18/2019 6:18 PM
21	SEFCU; Rite-Aid; Dunkin' Donuts; Starbucks; Dollar Store; Friendly's; attorney in medical arts bldg in SEFCU plaza; Stewart's on 10th St.; RPI; Samaritan Hospital;	10/18/2019 6:12 PM
22	frear park and park pub, starbucks and other shops in that plaza, downtown shops and restaurants, bella napoli	10/18/2019 6:08 PM
23	I like to walk downtown to the farmer's market. Sometimes I'll use the Troy plaza. I like being able to walk there. Super love the produce project market on Tues 4-6. Stewart's on 10th I get my gas.	10/18/2019 6:00 PM

Q3 How do you get to these places?

Answered: 23 Skipped: 1



ANSWER CHOICES		RESPONSES	
Walk		43.48%	10
Bus		0.00%	0
Bike		4.35%	1
Drive		47.83%	11
TOTAL			23

#	OTHER (PLEASE SPECIFY)	DATE
1	Combo of walk & drive	10/30/2019 7:33 PM
2	Walk bike or drive	10/25/2019 4:15 AM
3	walk or drive depending on circumstances	10/22/2019 10:28 PM
4	Varies - walk in neighborhood, but drive for Hoosick St destinations	10/21/2019 7:08 PM
5	get a ride from family or friend	10/20/2019 4:42 AM
6	Neighbor goes to Stewarts for me	10/19/2019 5:28 PM
7	Can't mark more than one. = See above	10/19/2019 3:49 AM
8	Wal & Bus	10/18/2019 6:18 PM
9	except for frear park, which I walk to	10/18/2019 6:08 PM
10	With baby stroller and dog usually	10/18/2019 6:00 PM

Q4 Are there streets or locations where you don't feel safe traveling? Where and why?

Answered: 23 Skipped: 1

#	RESPONSES	DATE
1	yes. Hoosick.	10/31/2019 2:14 AM
2	Would not cross Hoosick Street east of Sixth Avenue.	10/30/2019 7:33 PM
3	Hoosick street is difficult because of the big semis and trucks and cars moving very fast - combined with people trying to cross the street and people with disabilities and parent's with strollers and babies walking right next to all of this dangerous traffic.	10/27/2019 7:00 PM
4	It is next to impossible to safely get from my house to the Uncle Sam bike lane to get to north Troy. hard to cross to downtown anywhere. Easier now with crosswalk at 8th and Jacob but still hard.	10/25/2019 4:15 AM
5	The path under the on ramp for the Collar City bridge at night.	10/24/2019 2:10 PM
6	Walking across Hoosick is safer at the bottom of the hill.	10/23/2019 4:43 PM
7	8th Street intersection with Hoosick. Traffic is a mess. Also turning left from 10th street heading north onto Hoosick westbound always seems like an accident waiting to happen. I generally avoid driving on Hoosick from the bridge to Burdett. I go down to 6'th and cross under the bridge and take the 787 on ramp if going west, or go up to Peoples then up to Burdett if going east.	10/22/2019 10:28 PM
8	River, Middleburg and 8,9, 10th are all pretty dark at night. In general the neighborhood needs more lighting and less blighted buildings.	10/22/2019 8:35 PM
9	The farther down the hill, the less safe I feel. that's only when walking though. Always feel safe in my car.	10/21/2019 7:08 PM
10	hoosick street is unsafe for cyclists & pedestrians	10/21/2019 2:51 PM
11	Generally no, although sections of 4th and 3rd are really potholey.	10/20/2019 11:02 PM
12	crossing Hoosick Street	10/20/2019 10:32 PM
13	2nd st & taylor st full of gang's & drug dealers, i been jumped and robbed 2 times, one day i was with grand kids at school 12 park 1st & taylor st and some body got shot 2nd & taylor st	10/20/2019 4:42 AM
14	Anywhere on Middleburgh St. especially from 10th to River St.	10/19/2019 5:28 PM
15	The corner of Conway and North Lake has vegetation near the corners that make it difficult to see when driving. The people that live in the house on that same corner park close to the corner and it becomes difficult to see to enter the roadway. The holes that need patching were small in the spring but have grown that makes it difficult to walk and drive on Conway Court. We are a forgotten building of seniors. We are given discounts for the farmer's market but no way to easily get there and if we park, it is a long walk to see one vendor. We understand buses have taken residents of other facilities but are unable to stop at our facility on the way up the hill to Price Chopper.	10/19/2019 3:49 AM
16	see above. newer lights (white led) are not illuminating the actual road but causing too much glare and too much distracted driving . It feels like Prison lights. not a good image for Troy to have either. many business are putting these obnoxious lights at their entrance which are blinding-I actually cant go shop there . I was told Troy liquor across from Josephs House that they chose them to keep people from congregating in front of their shop. well they are keeping me out as a shopper as well. they should be banned. The soft warm tea lights come in LED and are inviting and don't cause glare and distraction when driving by. Bella Napoli put them up so I don't go there anymore after dark either.The lights are making Troy ugly and prison like feel.	10/18/2019 11:44 PM
17	Yes! Hoosick.	10/18/2019 11:02 PM

Hoosick-Hillside Community Survey

18	I like to walk to the cemetery but there aren't any sidewalks there and everyone drives so fast. I see people walking by my house all the time, and they are walking on the street since the sidewalk ends at Eddy's lane. I'm so worried someone's going to get hurt. And the sidewalk between Eddy's Lane and Frear Park is always so overgrown with giant plants that you can't even use the sidewalk in summer. I also don't like walking to Frear park because it means crossing the street and the intersection there is insane. There's no turning lanes anymore since it was repaved, and it never feels safe to cross the street to get to the park.	10/18/2019 7:04 PM
19	Entire area. Last shooting was 3 blocks from my home. Street lighting in general is poor where there is lighting	10/18/2019 6:24 PM
20	I walk the entire area south of Hoosick Street it is all currently ugly, but safe for me (male over 65).	10/18/2019 6:18 PM
21	Hoosick Street, from 6th ave to Burdett. Traffic is moving very fast, it's "competitive" - drivers jockeying for position, to make traffic lights, etc. At one bus stop a tractor trailer truck just barely missed the bus shelter.....anyone standing slightly apart from the shelter would've been crushed between the trailer and the concrete retaining wall (yikes!). Fumes from traffic are very unpleasant, to say nothing of unhealthy. Walk light buttons are not always working.	10/18/2019 6:12 PM
22	I drive because I don't want to walk across hoosick street and there is no safe and convenient way to walk or bike to downtown.	10/18/2019 6:08 PM
23	I don't feel safe where I park as cars fly down the hill and I am trying to unbuckle my baby from the carseat as this happens. Many drivers seem confused by the one ways and why only the lateral streets have stop signs. People who are not already very familiar with the neighborhood are at risk of causing accidents. 10th Street is too narrow for two lane traffic with all the parked cars, although it usually makes traffic go the speed limit, but occasionally you get someone who likes to play "chicken" and not yeild. Most unsafe****The intersection at 10th/ rt 40 and Hoosick is the worst for drivers because of the lane changes and lane shifts. *** The sidewalks are lumpy and broken up, some blocks don't have any. It makes it hard for the lesser-abled and for children to practice riding tricycles or for strollers to be pushed. Cars speed up and down Hoosick and though I'll be on the sidewalk I do worry about an accident jumping the curb.	10/18/2019 6:00 PM

Q5 How can these locations be made safer and more convenient for travel? Where should these improvements be made?

Answered: 24 Skipped: 0

#	RESPONSES	DATE
1	PEDESTRIAN BRIDGES over Hoosick. At reasonable intervals. Definitely one at or near 15th, but why not more.	10/31/2019 2:14 AM
2	Need to slow down thru-traffic on Hoosick once vehicles exit from Collar City Bridge. Also need better speed enforcement on River Street between Hoosick and Federal Streets during the evening.	10/30/2019 7:33 PM
3	pedestrian overpass(es) truck traffic diverted from shopping and pedestrian areas	10/27/2019 7:00 PM
4	Slow traffic on 8th. Make complete street???? Add bike lane. Bidirectional even. Foot bike bridge to cross Hoosick at 8th. And/or add protected bike lanes on 6th. North of Hoosick on 6th is terrifying on a bike with 7 ramp there and bus stop. There is already a traffic light at 8th and people's - why not add pedestrian signal. And/or a four way stop at Jacob and 8th	10/25/2019 4:15 AM
5	Crosswalk at 8th street across Hoosick and that can connect to sidewalks surrounding Hoosick to go downtown. The path under the bridge is dangerous. Poorly lit (not at all). No vehicular traffic.	10/24/2019 2:10 PM
6	Maybe a walking bridge can be built so people can cross more safely on Hoosick and 10th St.	10/23/2019 4:43 PM
7	Better sidewalks and/or separated bike lanes. Anything to make things less skeevy looking.	10/22/2019 10:28 PM
8	The main travel issues are on Hoosick Street. It gets backed up because it is a main route to VT, so it needs better exits, traffic lights and turning lanes. There's not much pedestrian infrastructure near Hoosick heading up from River St. There's some trails that you can walk to go up the Hill, but they are not well lit, marked or necessarily safe.	10/22/2019 8:35 PM
9	Better lighting at the pedestrian level.	10/21/2019 7:08 PM
10	bike lanes? proper signage on bike way (there is no sign saying no motor vehicles)	10/21/2019 2:51 PM
11	Repave the streets.	10/20/2019 11:02 PM
12	Coordinated Pedestrian lighting (like at 10th & Hoosick) and pedestrian islands in center of street	10/20/2019 10:32 PM
13	get drug dealers off of streets	10/20/2019 4:42 AM
14	I have no idea. You never know when there is going to be a shooting.	10/19/2019 5:28 PM
15	If the vegetation on the corners of Conway Court and North Lake were properly trimmed, it would be easier to see traffic, whether walking or driving. If we walk up to the traffic light to cross the street, we still have to be careful of cars taking the corner or just trying to get through the light before it changes.	10/19/2019 3:49 AM
16	consider glass covered overpass from 9th to Oakwood Community Center also the buttons to cross never work !! if you press the button the lights should all turn red so a person can safely cross. Cars are making right turns off of hoosick- even though people are in the cross walk and have the OK to cross because they still have green light. all lights should go red when someone presses the button to cross.	10/18/2019 11:44 PM
17	Speed bumps and more crosswalks. Protection on sidewalk(bushes?) from fast moving vehicles and trucks. More police patrols of speed. More lights. I walk my dog but am afraid to just go a block on Hoosick. More cuts through frear park so Hoosick street isn't necessary For walking. There are many streets connected to the park that aren't accessible to walkers.	10/18/2019 11:02 PM
18	Sidewalks need to be added further along both sides of Oakwood Ave, the sidewalks that exist need to be repaired and properly maintained, and clearly labeled crosswalks should be added in more locations.	10/18/2019 7:04 PM
19	Improvements to traffic flow and also better markings showing where lanes and parking on 10th street are	10/18/2019 6:50 PM

Hoosick-Hillside Community Survey

20	1. Better street lighting. 2. More code involvement with landlords and home owners to correct problems. Absentee landlords should be required to pay the city a security deposit like they do with their tenants. If there is a code violation, the amount is immediately taken from their account. That will be a attention getter. The system know is backwards, If the city wants their money they have to go to court. Most of the time the landlord doesnt show or postpones. Court requires the code officer to appear. The city should be reimbursed that cost also as it takes code people from the field where they are needed. If the system worked that way, the city would recoup their money quicker for violations and the absentee landlords would take notice. The current system doesnt not work. 3. More police presence. Occassionally getting out of their cars and walking. Same walking presence should be done by code and elected officials. Even one block at a time, it wont get better overnight, but eventually it will. 4. Assign nuisance points to businesses for issues. Fine them and close them if they dont abide by laws. 5. Enforce the curfew. I understand the amount of man power it requires is a juvenile is detained. Im not saying detain them, but if they are out after hours. They should be stopped, questioned, searched and identity obtained. This would give the police name and face recognition and also would provide a pattern. After a certain number of detentions for the curfew violations, the juvenile could be issued a appearance ticket for the continued curfew violations and be mandated to appear in court with his or her parents. Anything is better than the current system being used now, which it total ignorance of the situation. With the colder weather coming it is the perfect opportunity to start it. If they are out on the streets in the cold weather, they are up to no good.	10/18/2019 6:24 PM
21	Better sidewalks and curb cuts for corners and driveways. Reduced abrupt up & down at curbs and driveways. Better snow clearing, defined snow deposit areas separating pedestrian walks from driving lanes, this to reduce street slush and salt from obstructing and ruining pedestrian walks. More separation of pedestrians and vehicular traffic.	10/18/2019 6:18 PM
22	Somehow need a system that monitors walk light fixtures to discern which ones aren't functioning so repairs can be made faster than now would help pedestrians. I don't know how to "calm" traffic — there's so much in this corridor that the infrastructure carrying-capacity is overwhelmed.	10/18/2019 6:12 PM
23	what about a pedestrian/bike overpass for hoosick st?	10/18/2019 6:08 PM
24	less cars on the road? Better public transportation, or having a ride share that actually had other users. Turn arrows to turn left (south)onto 10th from westbound Hoosick. Left arrow for 10th northbound to turn onto Hoosick Westbound. Actual enforcement, too few officers in this jurisdiction, and I often see speeding, drug deals, wrong-way driving and it doesn't matter when I call these in bc the police get the location wrong/are late/ don't care. Sidewalks--In NYC each property owner is responsible for upkeep of the sidewalk. If left icy, or a trip hazard owners are fined by the city.	10/18/2019 6:00 PM

Q6 What connections can we make to reunite the Hillside North and South neighborhoods?

Answered: 19 Skipped: 5

#	RESPONSES	DATE
1	PEDESTRIAN BRIDGES! There should NOT be all those congested, crazy, dangerous, concussion lanes full of confused, harried drivers between one side and the other. It's wit all just trying to DRIVE Hoosick, much less trying to walk it on foot. It's the worst place to walk in all of Troy.	10/31/2019 2:14 AM
2	Formally establishing the Uncle Sam Trail along the renovated seawall along the Hudson River between Monument Square downtown and the Ingalls Ave launch/Federal Lock in North Central. Also a pedestrian bridge across Hoosick St at entrance to Hudson River Commons.	10/30/2019 7:33 PM
3	walkable bridges/parks, hide the street/create a tunnel or bridge for the street	10/27/2019 7:00 PM
4	Same as above. Ped /bike bridge around 8th -10th street. Community center.	10/25/2019 4:15 AM
5	Narrow Hoosick and put in more crosswalks	10/24/2019 2:10 PM
6	Pedestrian/bike bridge around the Hudson River Commons with proper bike/pedestrian connections to the streets that have been cut-off behind the Commons like 12 or 13'th	10/22/2019 10:28 PM
7	Maybe some of the old style elevated walking bridges over Hoosick could be helpful in reconnecting the two. Moving the on ramp for 787 further up Hoosick Street would also be helpful as the big circle creates a gaping hole between the two.	10/22/2019 8:35 PM
8	I think that ship has mostly sailed.	10/21/2019 7:08 PM
9	Better pedestrian crossing at 8th & Hoosick, 6th & Hoosick (like the one at 10th & Hoosick) Put all wiring underground; use nicer lighting poles (like downtown) - makes street trees possible and increases walkability Pocket parks and/or off-street parking on vacant & condemned property lots	10/20/2019 10:32 PM
10	church , parks, cummunity effents, sports game's between north & south	10/20/2019 4:42 AM
11	Build and overpass for pedestrians and cyclists @ 10 St,(aka Oakwood Ave) and another where McDonalds is.	10/19/2019 5:28 PM
12	Although we are above the 17th Street cutoff, we are not sure what neighborhood we are supposed to be included. Some might attend events, meetings, etc. if there was transportation. Our facility has a large community room that could be used for a meeting, and we also have parking.	10/19/2019 3:49 AM
13	Do one of those raised walking bridges that goes over the road. I generally drive in that area, rather than walking, but I see people jay-walking there all the time and it's TERRIFYING. Very often people don't even cross at the light, they just dash across five lanes of traffic in any old place. It scares the bajeebus out of me.	10/18/2019 7:04 PM
14	I would like to see a walking bridge or some sort of pedestrian connection over Hoosick because when the 10th Street light has to be crossed it really messes with traffic flow and when the 8th street light and 10th street light get out of sync it causes massive delays and leads to vehicles performing dangerous acts like blocking the box and crossing over the double yellow and making blind turns	10/18/2019 6:50 PM
15	Find out who the community leaders and volunteers are and engage them	10/18/2019 6:24 PM
16	Better, safer, easier to use pedestrian crossing of Hoosick Street. Walk lights activation buttons are not regularly checked. Often the poles walk buttons are on are destroyed by vehicles.	10/18/2019 6:18 PM
17	Until Hoosick Street is "solved" I don't think any bridge over or tunnel under the traffic will be effective in reuniting the North and South neighborhoods.	10/18/2019 6:12 PM
18	ditto walk/bike overpass	10/18/2019 6:08 PM
19	The crossing light at 10th is a great start. No great ideas.....	10/18/2019 6:00 PM

Q7 What links can we make to River Street and Downtown?

Answered: 17 Skipped: 7

#	RESPONSES	DATE
1	oh PLEASE do this. More green spaces between here and there, pleasant trails to walk down, and hey why not a free trolley like they have in Albany?	10/31/2019 2:14 AM
2	Lighting the sidewalks under the Collar City Bridge to bring pedestrians down to River Street safely from Hillside North & South.	10/30/2019 7:33 PM
3	Reopen Jacob street And River street that has been closed for a year or sometime to work on a private building. Better bike ways	10/25/2019 4:15 AM
4	If there is a way to connect Riverfront Park to the area under the bridge, that would help. We have all that riverfront and it looks like the apocalypse down there. The new hotel helped.	10/24/2019 2:10 PM
5	Proper bike/pedestrian route north of Jacob down the hill. Also better pedestrian access at Peoples and 8th Ave. A sidewalk on the North side of Federal up to 8'th.	10/22/2019 10:28 PM
6	If you mean linking the neighborhood to River and Downtown, you'd need to move the bridge and divert the traffic off of Hoosick Street entirely. Perhaps moving the locations of the on and off ramps for 787 further up Hoosick or in a more linear less looping fashion could better connect the neighborhood to the rest of the city. The topography of the steep hill is going to always be a challenge for pedestrian or bike traffic, though.	10/22/2019 8:35 PM
7	I think this connection disappeared with the interchange intersection at Hoosick and 6th Ave/8th St.	10/21/2019 7:08 PM
8	same as above #6	10/20/2019 10:32 PM
9	shcools church events sports	10/20/2019 4:42 AM
10	Don't know.	10/19/2019 5:28 PM
11	Not sure what you are implying with the question. What is the meaning of a link in this sentence?	10/19/2019 3:49 AM
12	A safe walking zone. Bike access. More crosswalks with lights. Easy transport via bus up the hill with bikes or walking. Extend bus stops to increase workforce for group homes and home health aids.	10/18/2019 11:02 PM
13	Make the underpass area under the route 7 bride less creepy. Maybe more lighting, and find some way to incentivise companies to renovate all the abandoned buildings in that area.	10/18/2019 7:04 PM
14	Improved CDTA Route 286. Re-route through traffic (going to VT and suburban locations). County needs to restrict development outside, to East of, Troy. County needs to contribute to finding solutions. If county can not restrict development then the county and development needs to contribute financially to solutions to improve this area.	10/18/2019 6:18 PM
15	Sage and People's Avenues are lovely alternatives to Hoosick Street (for walkers, at least!). CDTA buses are frequent, and help get people east/west.	10/18/2019 6:12 PM
16	walk/bike path along river - I believe this is already in progress, but regardless, the lack of easy access the city's residents have to the waterfront (particularly grassy/pleasant waterfront that is enjoyable to walk and well-maintained) is odd considering the primacy of the hudson for the city.	10/18/2019 6:08 PM
17	The walk light at people's and 6th doesn't work. I have reported it.still doesn't work. So working crosswalk lights is a start. I find it easier to walk downtown than cross Hoosick.	10/18/2019 6:00 PM

Q8 What would you like to see in the area under the Collar City Bridge?

Answered: 18 Skipped: 6

#	RESPONSES	DATE
1	GREEN spaces. Even little shops. NOT more industry. That was so yesterday. This isn't the 1800s. Stop encouraging industry. Reclaim the waterfront for US.	10/31/2019 2:14 AM
2	Pocket parks, improved parking for access to River Street amenities, renovated park space/kayak access at Hudson River waterfront area.	10/30/2019 7:33 PM
3	YMCA or other recreation/public use building with services/ free day care / adult care services - like a greatly expanded Unity House	10/27/2019 7:00 PM
4	Skate park. Public art. An installation that absorbs some sound.	10/25/2019 4:15 AM
5	Just make it brighter and add some green space. 8th street and east north of Hoosick is so cut off from River Street and downtown. You either have to go off into the woods or walk north to Middleburgh to get to River St. The space under the bridge needs to be better cleaned too. There is trash everywhere and it diminishes walkability.	10/24/2019 2:10 PM
6	more lighting	10/23/2019 4:43 PM
7	Multi-use walk/bike route that connects from up the hill to the river front. Park amenities to make the area more people friendly. How about just painting the undersides and pillars something bright so it looks less like a rat infested zombie horror flick location.	10/22/2019 10:28 PM
8	A REAL grocery store, food coop or market stalls. Public art installations, event spaces, rock walls.	10/22/2019 8:35 PM
9	Looks fine as is, but maybe with some better lighting.	10/21/2019 7:08 PM
10	A redesigned and more inviting park on either side of Hoosick Street below 8th.	10/20/2019 11:02 PM
11	park & marina & farmers market	10/20/2019 4:42 AM
12	Dog park! Open area safe for children.	10/18/2019 11:02 PM
13	Public skatepark! There was briefly an art project there with a halfpipe, but there's tons of room there for something nicer. Or a little park that's got some low-light plants like hostas and some nice sitting areas and lots of lights for at night. Or do some kind of community art installation, and get local artists to do sculptures and murals. It could be swapped out for new artists every few weeks or months to keep it nice (and not covered in graffiti or rundown). Troy is such a creative city, there's definitely a way to turn that area into a cool art installation, or pop-up festival space, or something along those lines.	10/18/2019 7:04 PM
14	Skateboard / Rollerblade park please! (with lighting)	10/18/2019 6:50 PM
15	Year round local resident sports and play sites.	10/18/2019 6:18 PM
16	I like the murals that've been tried over the years — they're interesting, relate-able to the demographics of the area. Like the basketball courts - a positive energy outlet. Would love to see addition of something more park-like, but if it's created, it needs to be meticulously maintained - to present a positive (calming?) impression to drivers, a welcoming respite to walkers. Big issue in this area and all along Hoosick Street corridor is litter — it's a never-ending maintenance issue, and it affects people's impression of Troy as a "livable" city, in addition to affecting the minds of people who use this corridor - makes people feel dirty, disrespected, hopeless.	10/18/2019 6:12 PM
17	well-maintained parks?	10/18/2019 6:08 PM
18	Park and Ride with security Skate Park Tamale truck	10/18/2019 6:00 PM

Q9 Do you have any questions or comments?

Answered: 10 Skipped: 14

#	RESPONSES	DATE
1	PLEASE start seeing this city as a part of a vibrant ecosystem, and help us to take better care of this beautiful region. From the waterfront we need to reclaim from centuries of industrial abuse, to the awe inspiring super murder of crows, this place is FILLED with miraculous natural treasures that have been abused beyond measure by the ignorance and short -sightedness of your predecessors and mine. We NEED TO DO BETTER.	10/31/2019 2:14 AM
2	Thanks!	10/22/2019 8:35 PM
3	It would be nice if there were some access to the Troy Plaza other than by car from Hoosick St. The last time I went there on foot from 12th Street, it was kind of scary - both because of the steepness and the darkness. The Plaza seemed to have some good stores for a while, but the vacancy rate is picking up again. The drive-in for the Dunkin Donuts at the corner of Hoosick and 16th is a horrible idea. This should never have been built. I am all in favor of removing the pick up window. The McDonalds at the corner of Hoosick and 15th is a mess as well. Posted restrictions for left turns (onto and off of Hoosick St) should be enforced.	10/21/2019 7:08 PM
4	None as of now.	10/19/2019 5:28 PM
5	On Hoosick Street, the crosswalks need to be marked and possibly a sign to show where people can cross. If it is a full stop for all traffic, then the crisscross can also be marked. Those that are walking see that traffic is stopped and attempt to cross the street in the middle of the block. Cars going west on Hoosick will stop traffic to turn left to go into McDonalds. Cars leaving McDonalds will stop traffic to go west (left). Either the cement turns need to be made to be a problem if not entering/exiting properly or the entrance/exit should be blocked and all traffic can only enter/exit from 15th Street. There is no signage to discourage people to not enter/exit properly. This has been a problem since McDonald's opened. Please have someone from the NYS transportation department attempt to travel Hoosick Street to/from River Street/to-from/Walmart plaza in the morning and evening to see how the lights are not coordinated properly. Because people are leaving 5-10 feet between them and the car in front of them, cars are unable to travel up or down the road in a easy commute. An example of the lights not properly coordinated for the large trucks is the area from the light when they descend from the Alternate 7 bridge up the hill which costs them extra fuel and more exhaust is sent into the air. There are lights on Hoosick Street that have not been working properly for a long time. One pole was laying on the sidewalk east of the Stewart's Store for a couple of months. Putting a orange cone near it does not take care of the situation. Why does it take so long to get the lights to be replaced and working? Is that a NYS challenge or a Troy challenge? This is a problem on Hoosick Street in many places. The residents of Conway Court used to have fresh fruits and vegetables delivered weekly by one of the churches under the Salvation Army distribution. That was halted over 2 years ago and we are still attempting to get fresh fruit and vegetables. It is not easy to go to the farmer's market as many need their walkers to walk and there is no easy place to park to allow them access to the market. We have not been able to get the Veggie Mobile as they don't have any place on their schedule to come to us, even once a month. If anyone is able to locate a group that would deliver to Conway Court, even once a month, it would be greatly appreciated. We feel we are forgotten up on the hill.	10/19/2019 3:49 AM
6	Why doesn't Troy have a dog park? Kinloch park isn't a dog park. It is a small muddy field with broken fence that dogs cant use. Everyone from troy commutes to Albany for the dog park.	10/18/2019 11:02 PM
7	A few walking bridges over Hoosick at 8th and 10th would make a world of difference. The amount of jaywalking (often done at night, where you can barely spot the person until you're driving up close!) is horrifyingly dangerous. I know it's going to be a big expense, but it'll be worth it in the long term for the safety of the community.	10/18/2019 7:04 PM
8	Unrelated, but who could I talk to about possibly getting a sidewalk installed on Oakwood between Frear Park and Oakwood Cemetery? The sidewalk stops just before the King apartments but with the new development going in across the street, it would make more sense to expand the sidewalk to the Cemetery. People walk on the grass or on the road all of the time and it's dangerous.	10/18/2019 6:50 PM

Hoosick-Hillside Community Survey

9	Through vehicular traffic is the major contributor to Hoosick Street being as bad as it is today. Rensselaer county officials have allowed development far beyond all the local road capacities, and the loss of very good farm lands (Rts. 7 & 2, Peoples Av., Hoosick St., Congress St., Ferry St., 8th Av., 10 St., 15th St., Burdett Av., etc.)	10/18/2019 6:18 PM
10	Starbucks chose the wrong side of the street to catch commuter traffic.	10/18/2019 6:00 PM

Executive Summary

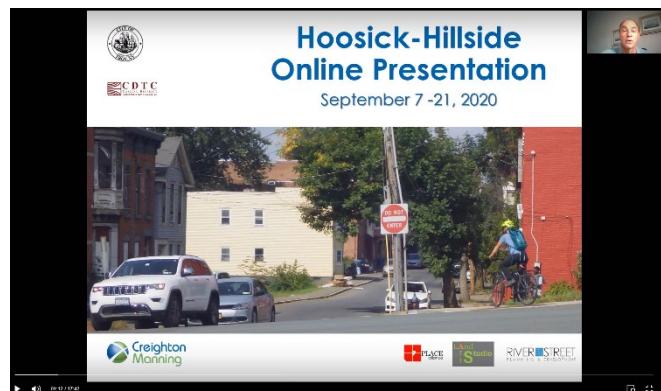
Public Workshops Round #2

Hoosick-Hillside Study

September 7, 2020 thru September 21, 2020

The second public workshop for the Hoosick-Hillside Study was held online as a “Join at Your Own Pace” presentation due to limitations on public gatherings resulting from the Covid-19 Pandemic. The online presentation was available for review and public comment on the study website www.hoosick-hillside-study.com from Monday September 7, 2020 through Monday, September 21. The meeting was well advertised by a direct mailing to study area addresses, email blast, and press-release; and was attended with over 508 unique visits to the site. The online presentation began with an introduction by Steve Strichman, City of Troy Commissioner of Planning & Economic Development, and Michael Franchini, CDTA Executive Director. An overview of the study goals, analysis, and draft recommendations was presented by Jesse Vogl (Creighton Manning).

The purpose of the public workshop was to update the public about the concepts developed for the study area, and to receive input from the public about the study recommendations to connect Hillside North and South neighborhoods with Hoosick Street and downtown Troy.



Meeting attendees had several opportunities to provide input and offer comments including a survey with open ended response questions (included in Attachment A) and a comment section on the project website. The project website address was shared (www.Hoosick-Hillside-Study.com) and participants were encouraged to review the material on the website and provide additional comments via the project email hoosickhillsidestudy@gmail.com.

Survey Responses

The online presentation as well as advertising materials directed the public to complete an online survey to provide input on the draft recommendations. As of this writing (September 25, 2020), 58 surveys were completed. The raw survey results are included in Attachment B. In general, 83% of survey respondents felt that the draft recommendations accomplished the study goal of making it easier/safer/more comfortable to travel around the neighborhood, while 75% of respondents indicated that the draft recommendations accomplished the study goal of making it easier/safer/more comfortable to travel to/from downtown. Likewise, a review of each recommendation indicates that on average, 90% of respondents approved of the recommendation as is or with minor changes, with every recommendation receiving at least 80% support. When asked which recommendations respondents were most excited about the Hoosick Street median and Hoosick Street Path &

Collar City Bridge Park were the two favorites followed by Complete Streets improvements on 6th Avenue, as shown in Figure 1.

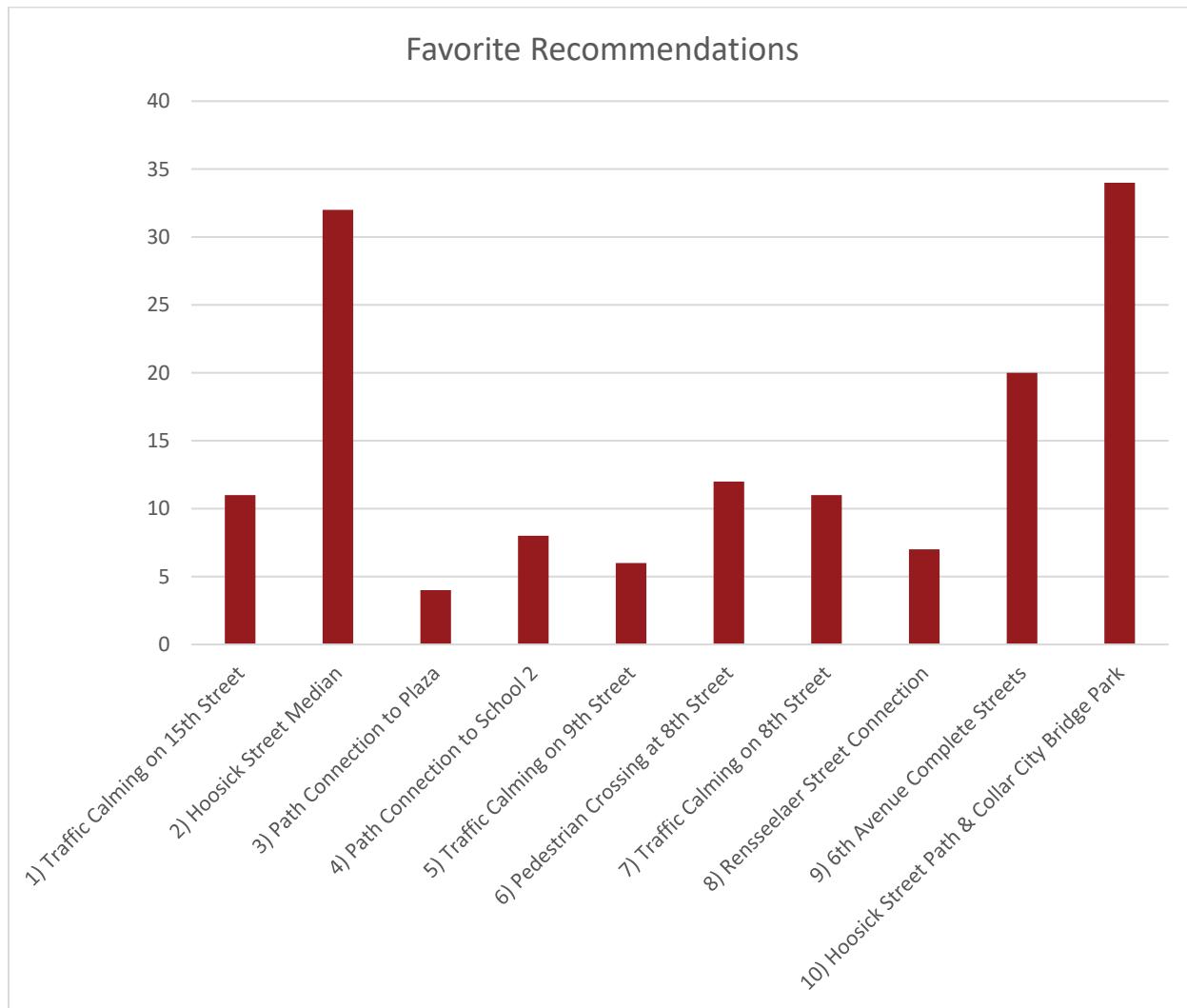


Figure 1: Favorite Recommendations

In addition to the overall study goals and prioritization of recommendations, the survey also provided respondents an opportunity to indicate their preference for draft recommendations in which multiple alternatives were presented, namely the Hoosick Street Median and Rensselaer Pedestrian Connection which each provided two options. Figures 2 and 3 show the responses and indicate that in general, either alternative would be acceptable with a slight favor towards Alternative 1 (continuous median and Rensselaer Street connection) in both instances.

Which of the median options do you prefer?

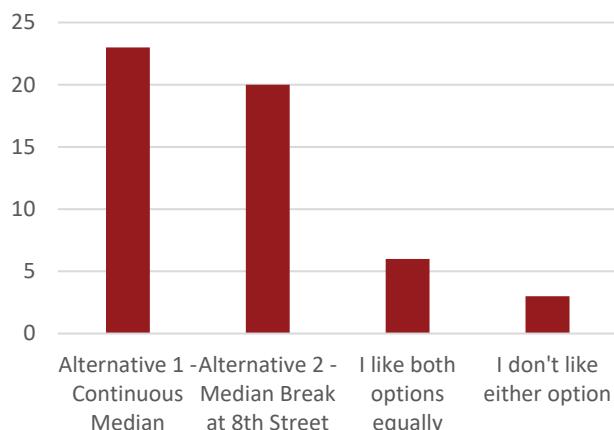


Figure 2 – Median Alternative Input

Which of the Rensselaer Street Connection Options do you Prefer?

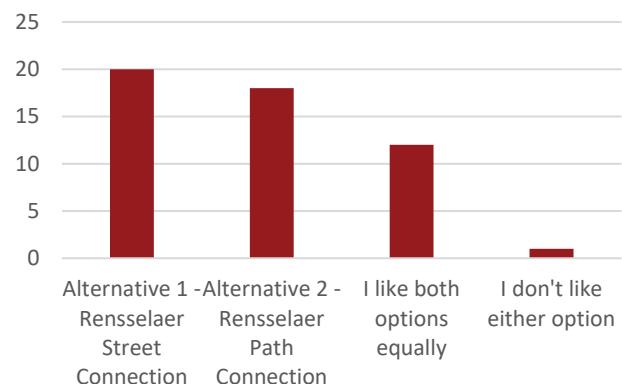


Figure 3 – Rensselaer Street Alternative Input

Written Comments

As of this writing (September 25, 2020) one week after the close of the public comment period, over 250 comments have been received through the survey and project website. A detailed list of comments as well as directed responses from the project team are included in Attachment C. A synopsis of the comments shows the following themes:

- In general, the public opposes two-way traffic on 9th Street and would rather traffic calming measures such as the Hoosick Street Median or vertical traffic calming elements such as raised crosswalks.
- While the public supports additional pedestrian connections, there is a concern that it could lead to increased crime including drug use and gun violence. Proper design and adequate lighting was strongly emphasized.
- Traffic calming on 10th Street and an increase in traffic resulting from the Hoosick Street Median was cited as a public concern.
- Public opinion of the two median alternatives is mixed with a slight preference towards the continuous median (Alternative 1). Likewise, public opinion of the two Rensselaer Street alternatives is mixed with a slight preference for the street connection (Alternative 1).
- The public supports complete streets improvements on 6th Avenue and encourages further enhancement including a pedestrian connection at Hutton Street with a controlled pedestrian crossing.

Attachment A
Meeting Materials

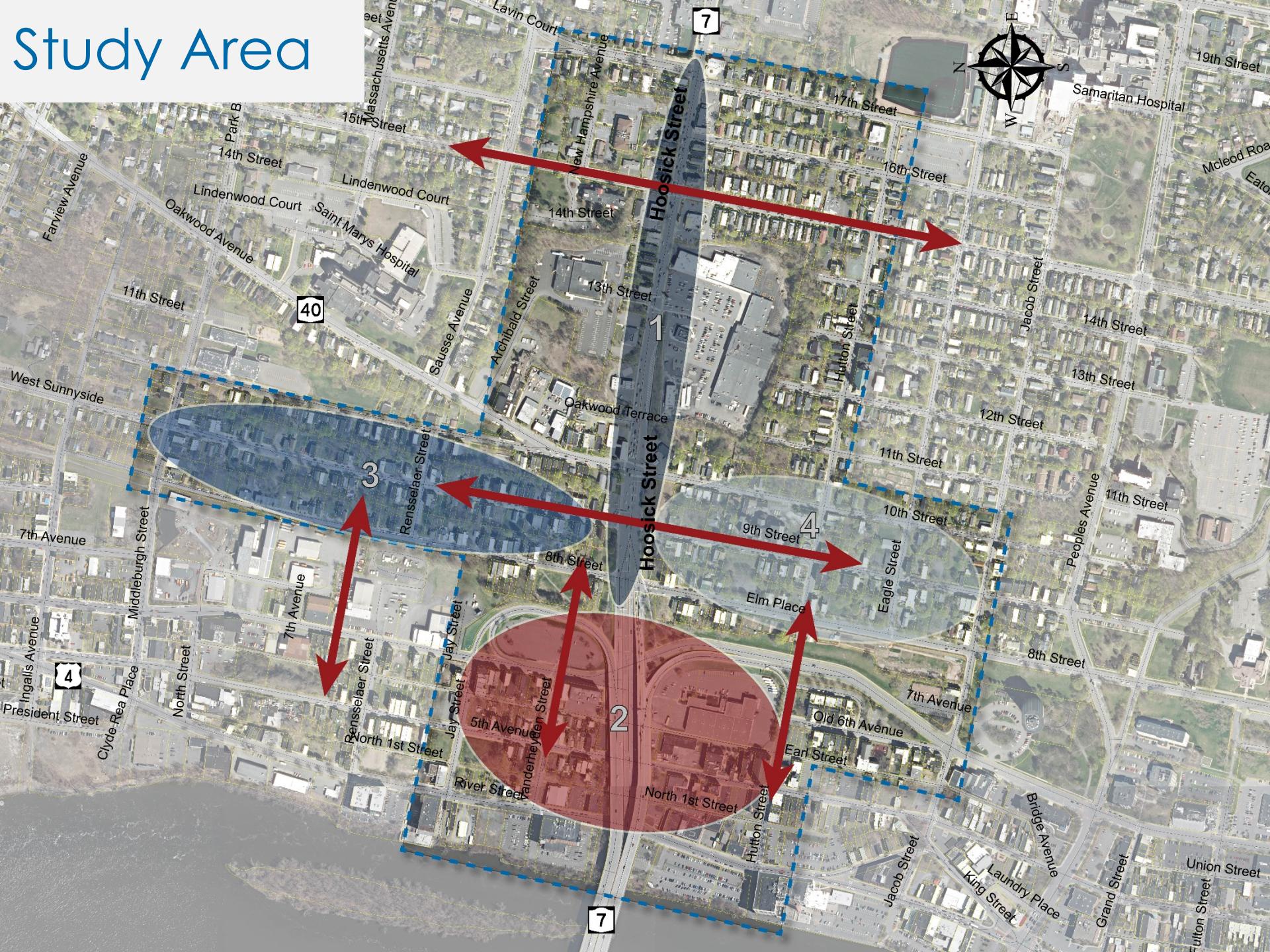


Hoosick-Hillside Online Presentation

September 7 -21, 2020



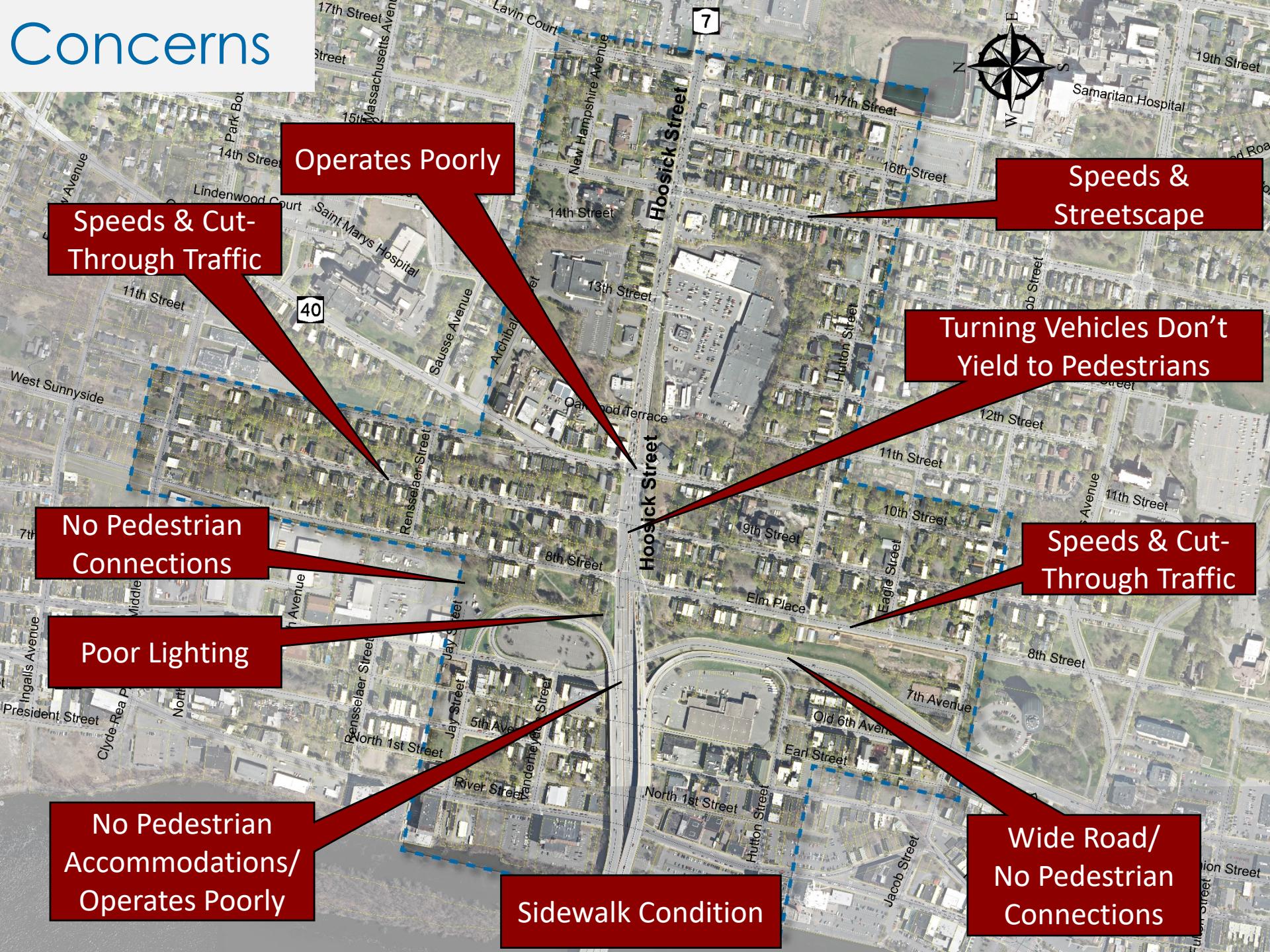
Study Area



Purpose and Need

- Improve **quality of life** in the Hillside North and South Neighborhoods
- Create **safe and convenient** pedestrian and bicycle connections:
 - Hillside Neighborhoods
 - River Street
 - Downtown
- Minimize the negative impacts of traffic in **neighborhoods**
- Maintaining traffic operations on Hoosick Street

Concerns

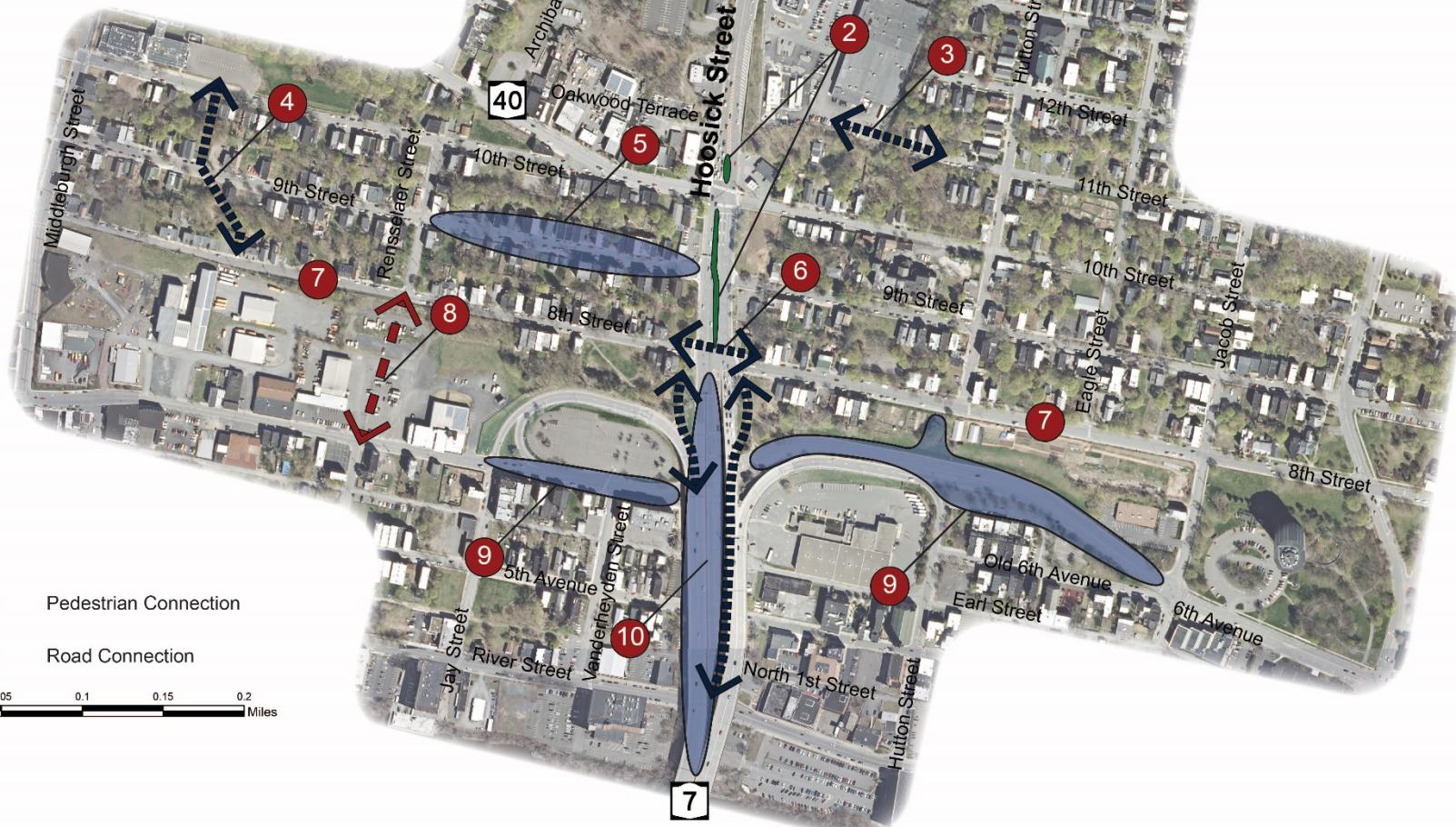


DISCLAIMER

This study was funded in part through a grant from the Federal Highway Administration, U.S. Department of Transportation. The views and opinions of the authors [or agency] expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation. This report was prepared in cooperation with the City of Troy, the Capital District Transportation Committee (CDTC), Rensselaer Polytechnic Institute (RPI), the Capital District Regional Planning Commission (CDRPC), the Capital District Transportation Authority (CDTA), and the New York State Department of Transportation (NYSDOT). The contents do not necessarily reflect the official views or policies of these agencies.

The recommendations are conceptual in nature and are presented to characterize the types of improvements that are desirable, and that may be implemented as part of future land use and transportation improvement projects. All transportation concepts will require further engineering evaluation and review and do not commit the City of Troy, NYSDOT, or Rensselaer Polytechnic Institute to the proposed project(s). Undertaking additional engineering or other follow up work will be based upon funding availability.

1 Traffic Calming on 15th Street



Traffic Calming on 15th Street



2

Hoosick Street Median







2

Hoosick Street Median – Alt 2



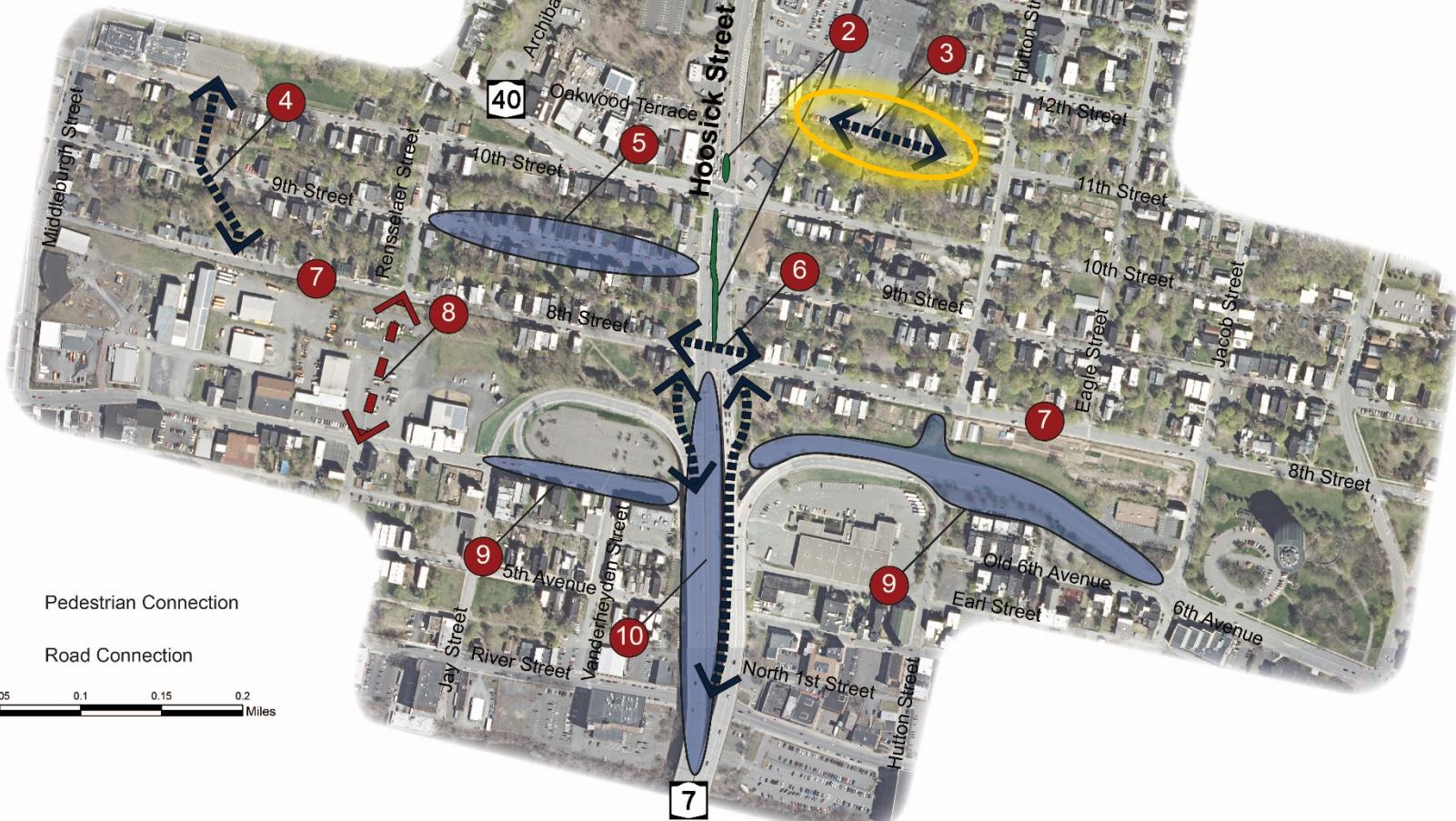
Overall Level of Service Summary

	AM Peak Hour		PM Peak Hour			
	Existing	Alt 1	Alt 2	Existing	Alt 1	Alt 2
Hoosick Street/6 th Avenue	B	B	B	B	C	C
Hoosick Street/8 th Street/NY Route 7	C	B	C	D	B	D
Hoosick Street/10 th Street	C	D	C	C	D	C

- Calms Traffic
- Improves Lane Balance
- Provides Pedestrian Crossing

3

Path Connection to Plaza

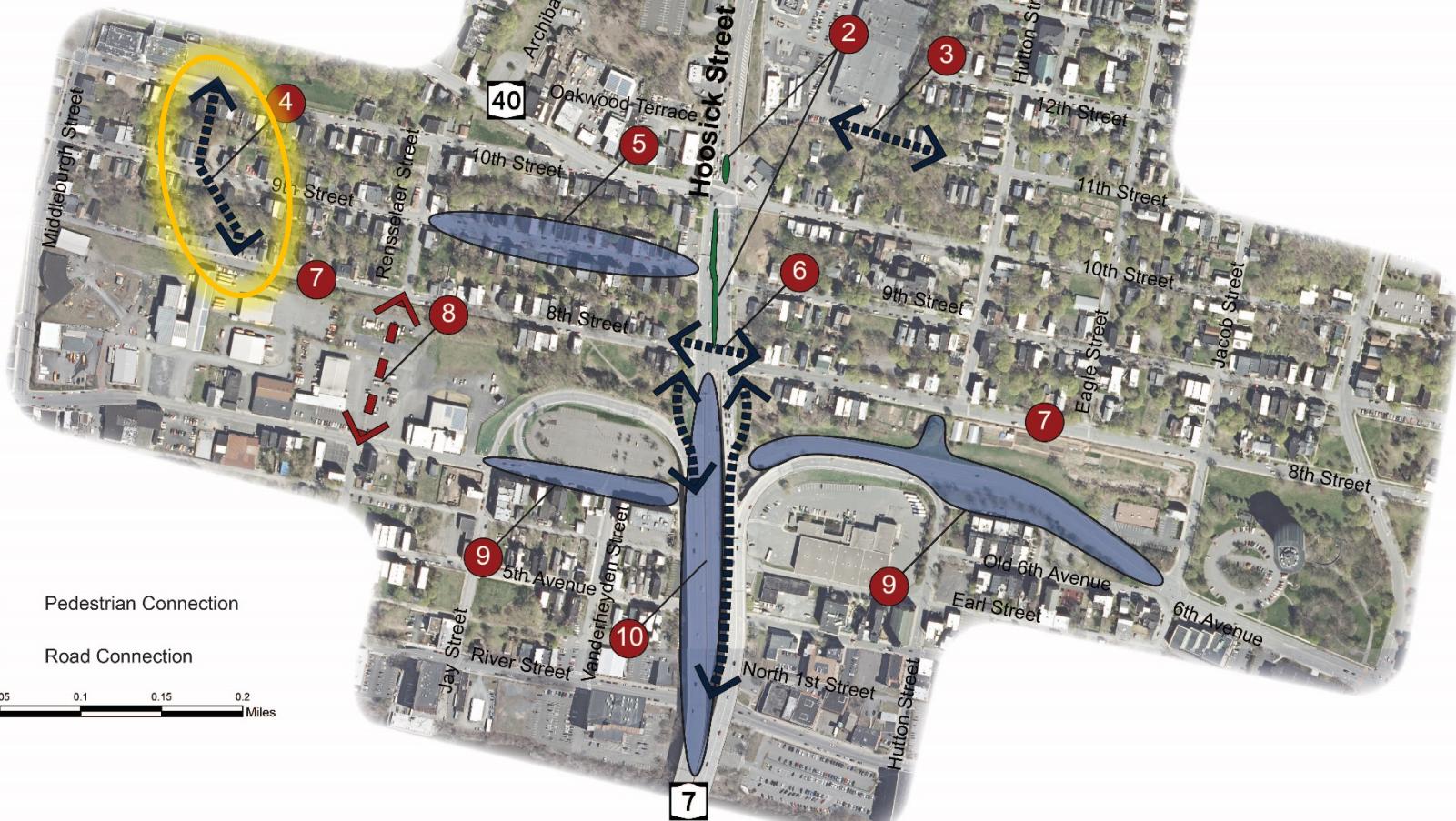
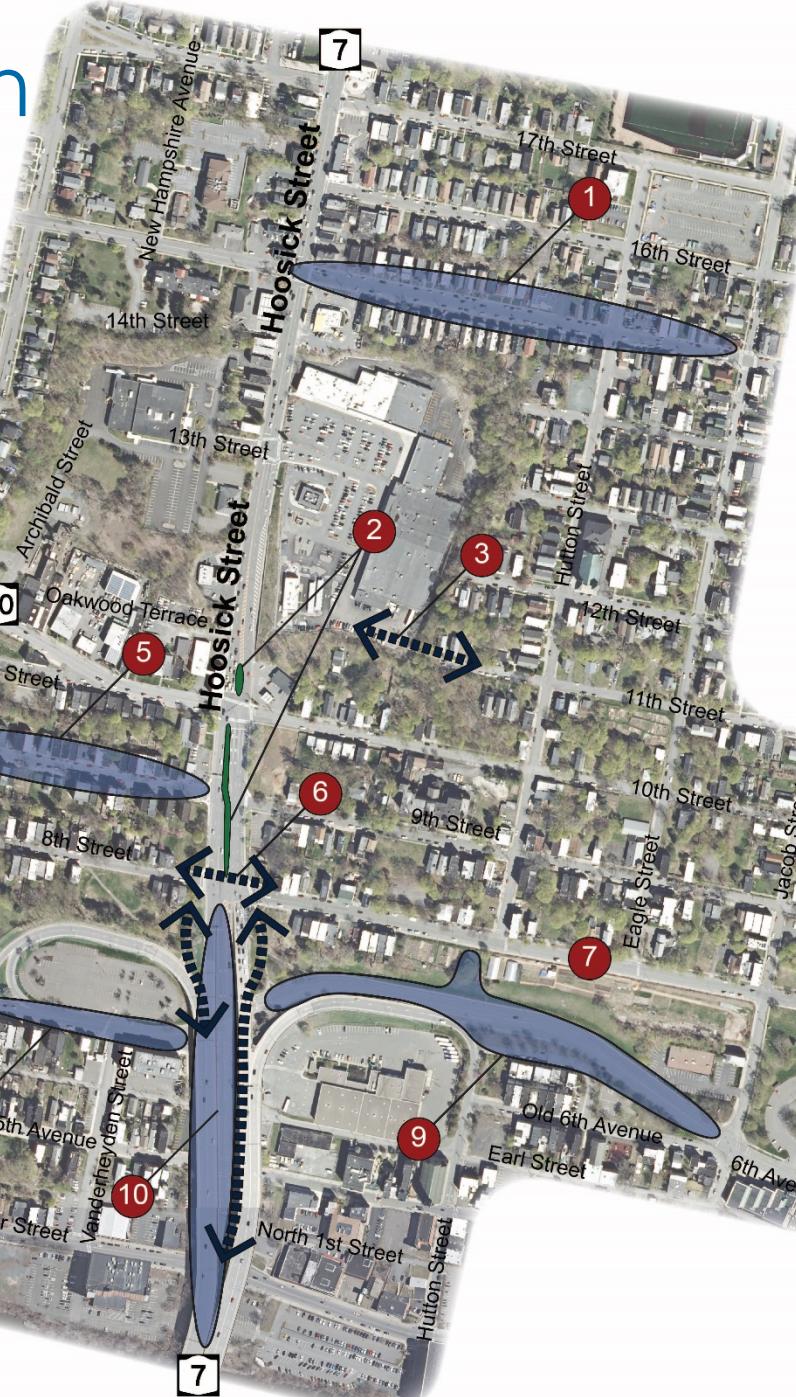


Potential Stair Connections



4

Path Connection to School 2



4

Path Connection to School 2



Green Alley



14 Foot Path with 28 Foot ROW

Commercial Alley

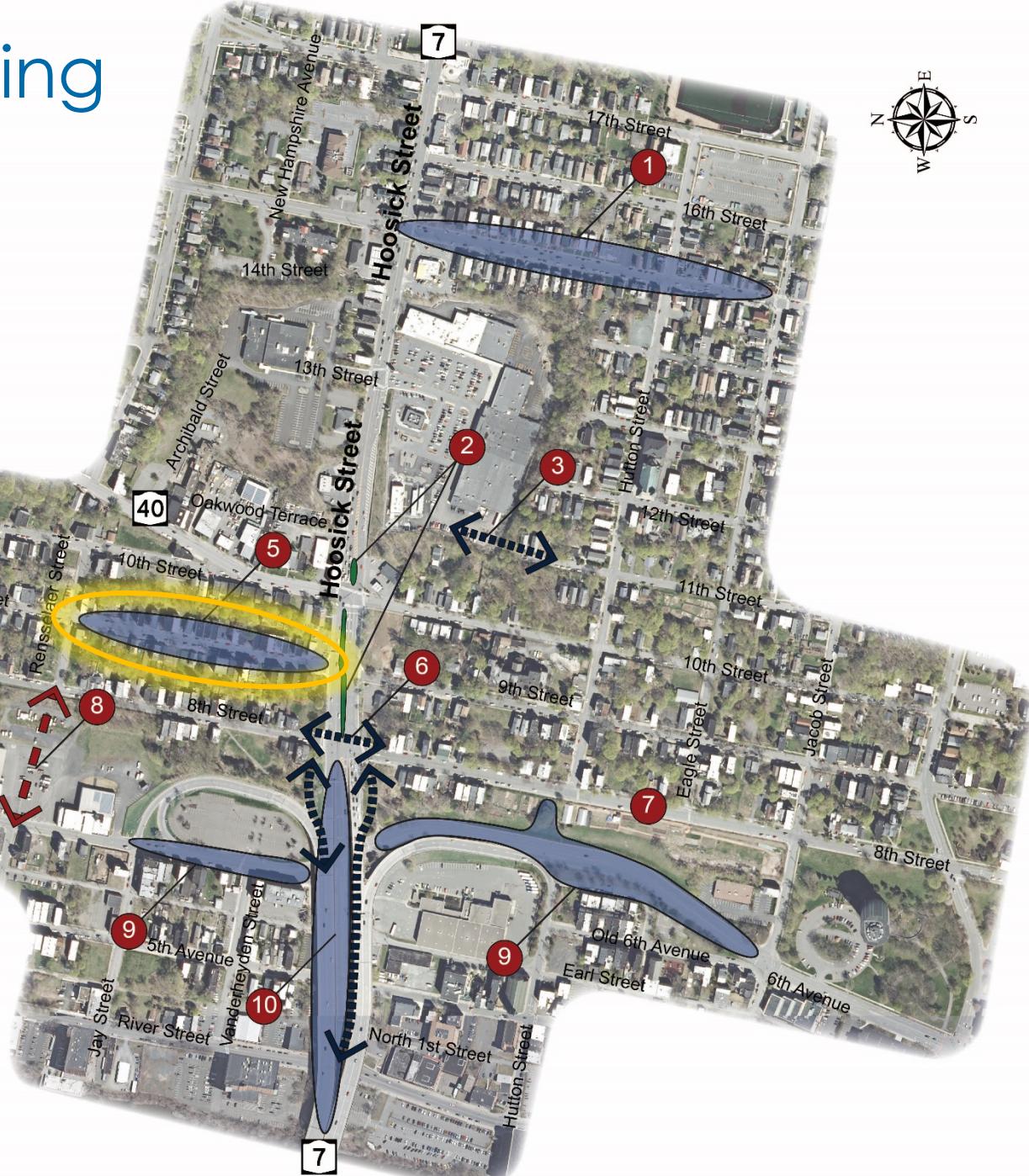


10 Foot Path with 20 Foot ROW

- Path with Clear Space on Either Side
- Provide Adequate Lighting
- Raise Intersections Where Appropriate

5

Traffic Calming on 9th Street

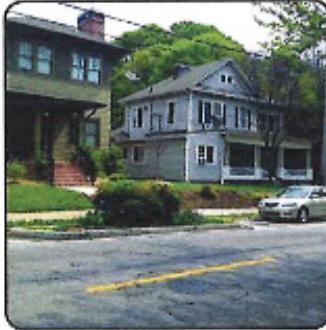


Traffic Calming on 9th Street

Select Traffic Calming Tools



Street Trees



Curb Extension



Alternate Side Parking



Raised Crosswalk*



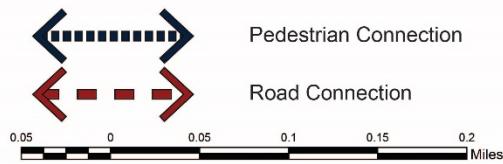
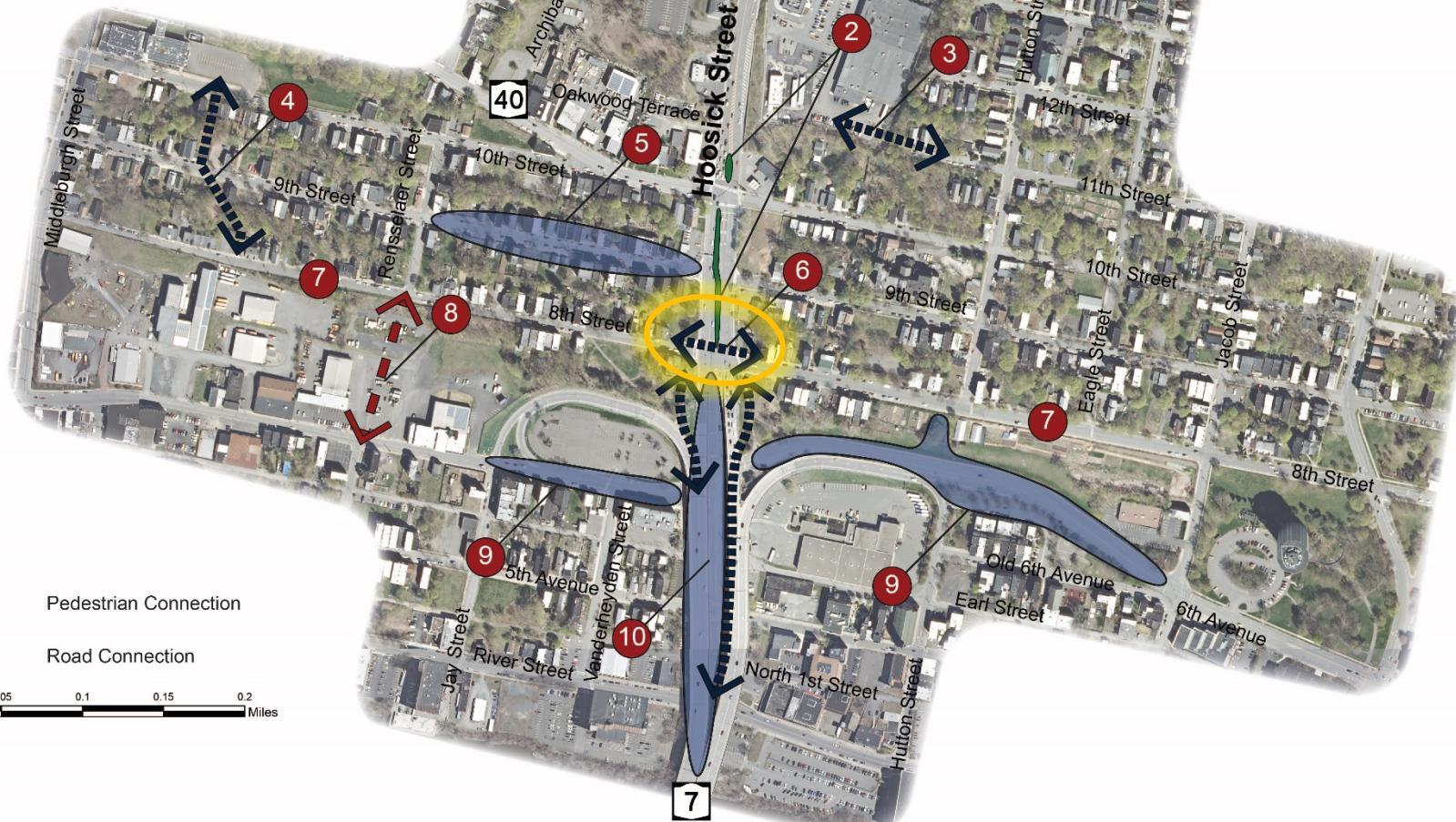
Raised Intersection*

*Not recommended in Hillside South Neighborhood on 8th Street or 15th Street per NYSDOT Traffic Calming Techniques.

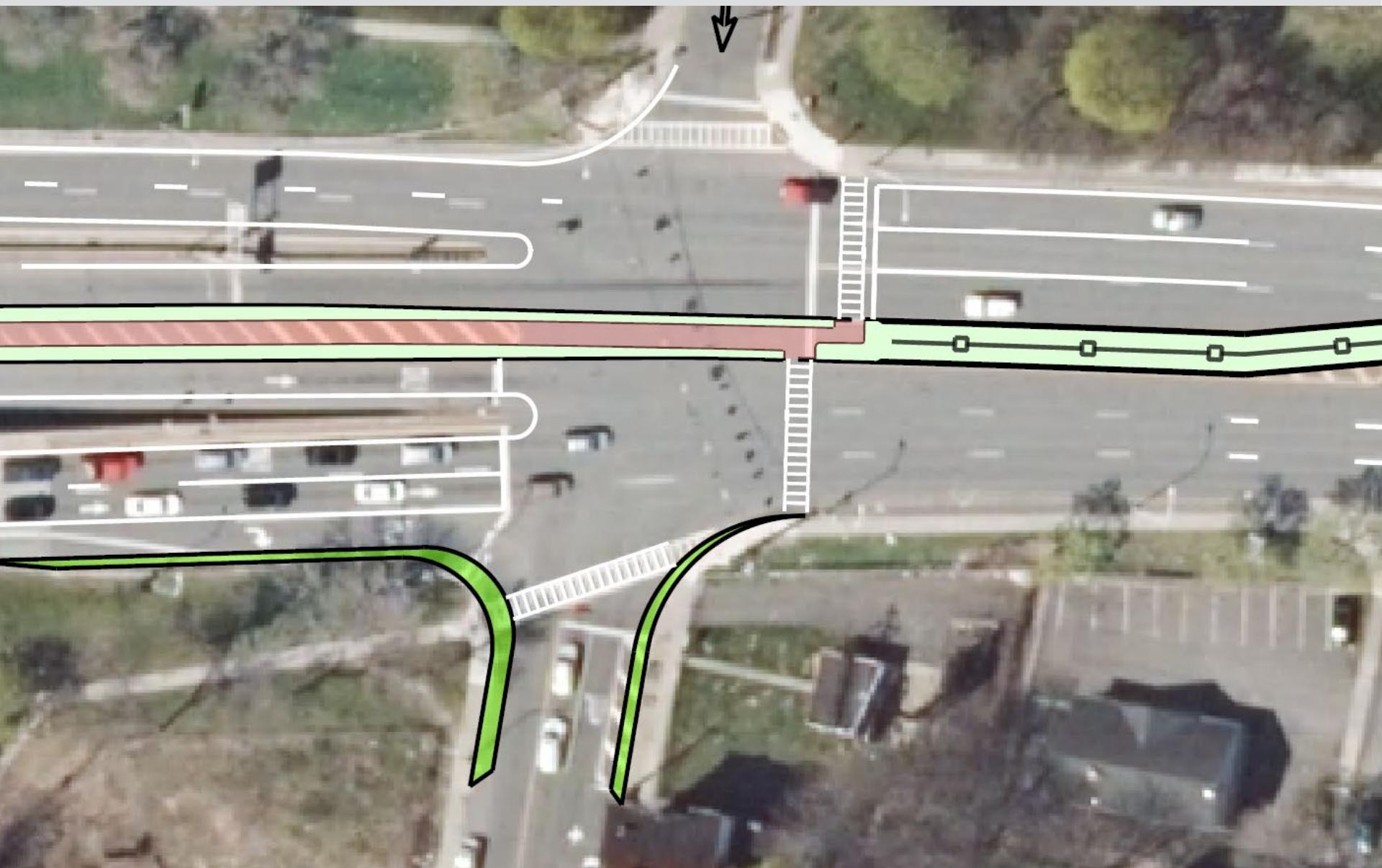
- Median to Reduce Cut-Through Traffic
- Two-Way Roadway Calms Traffic
- Apply Select Traffic Calming Tools

6

Pedestrian Crossing at 8th Street

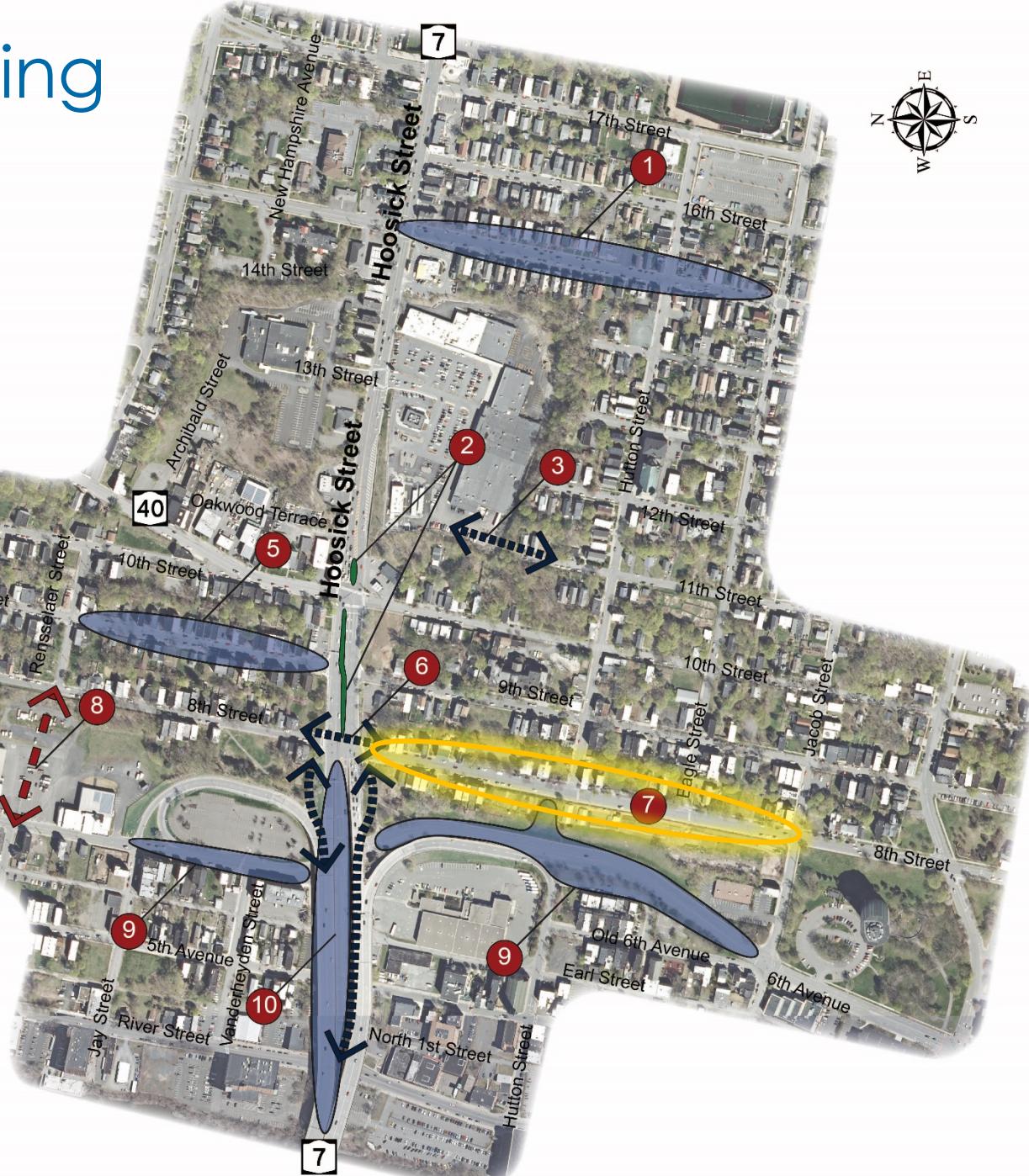


Pedestrian Crossing at 8th Street



7

Traffic Calming on 8th Street



Traffic Calming on 8th Street



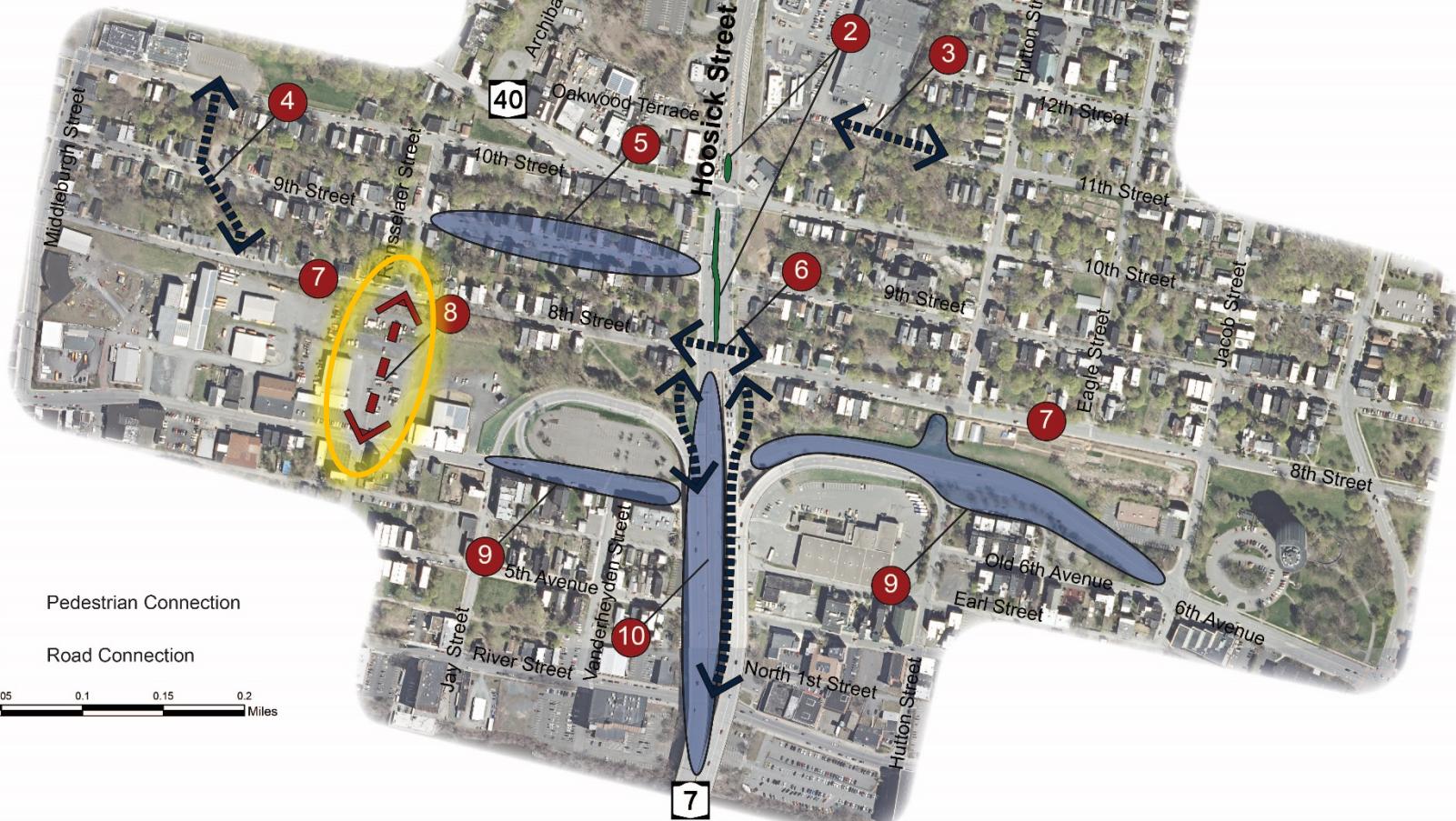
Traffic Calming on 8th Street

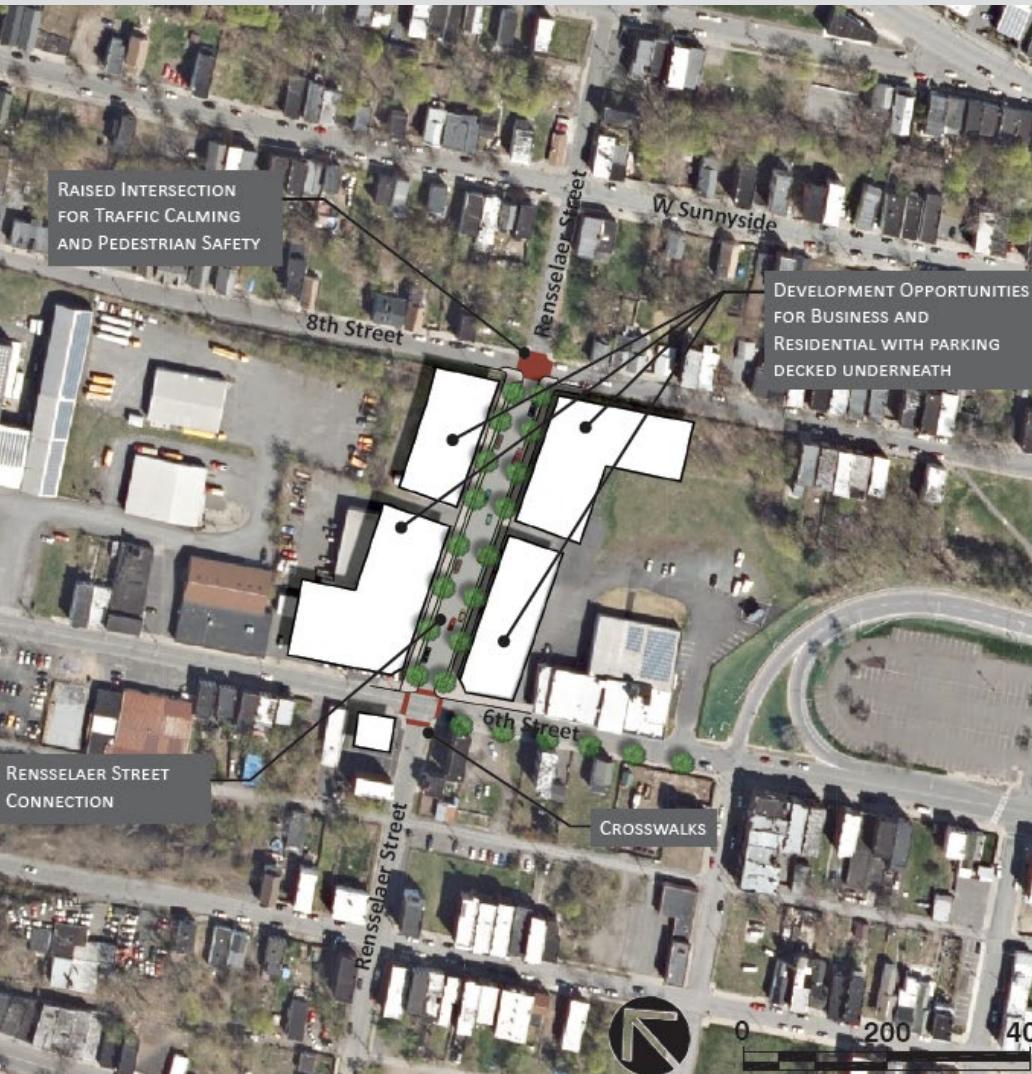


8th Street Redevelopment
RILEY PARK GATEWAY



Rensselaer Street Connection



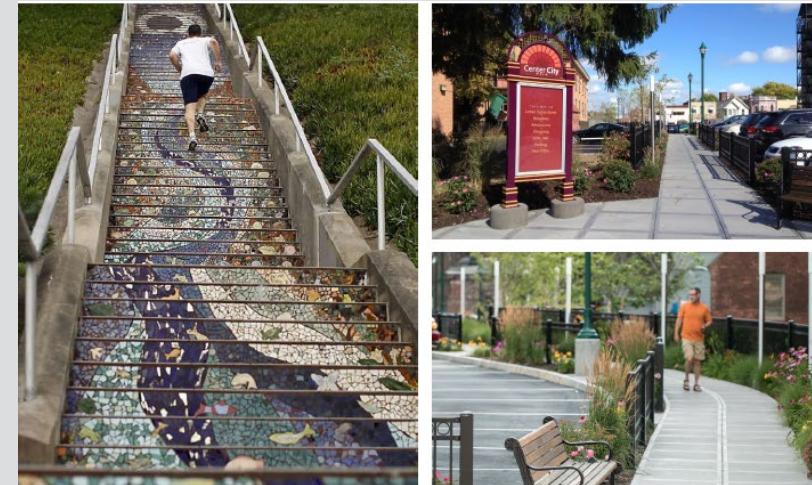


- Pedestrian & Vehicle Connection
- Housing & Business Opportunity





- Improves Pedestrian Access
- Less Impact to Private Property



9

6th Avenue Complete Streets



6th Avenue Complete Streets

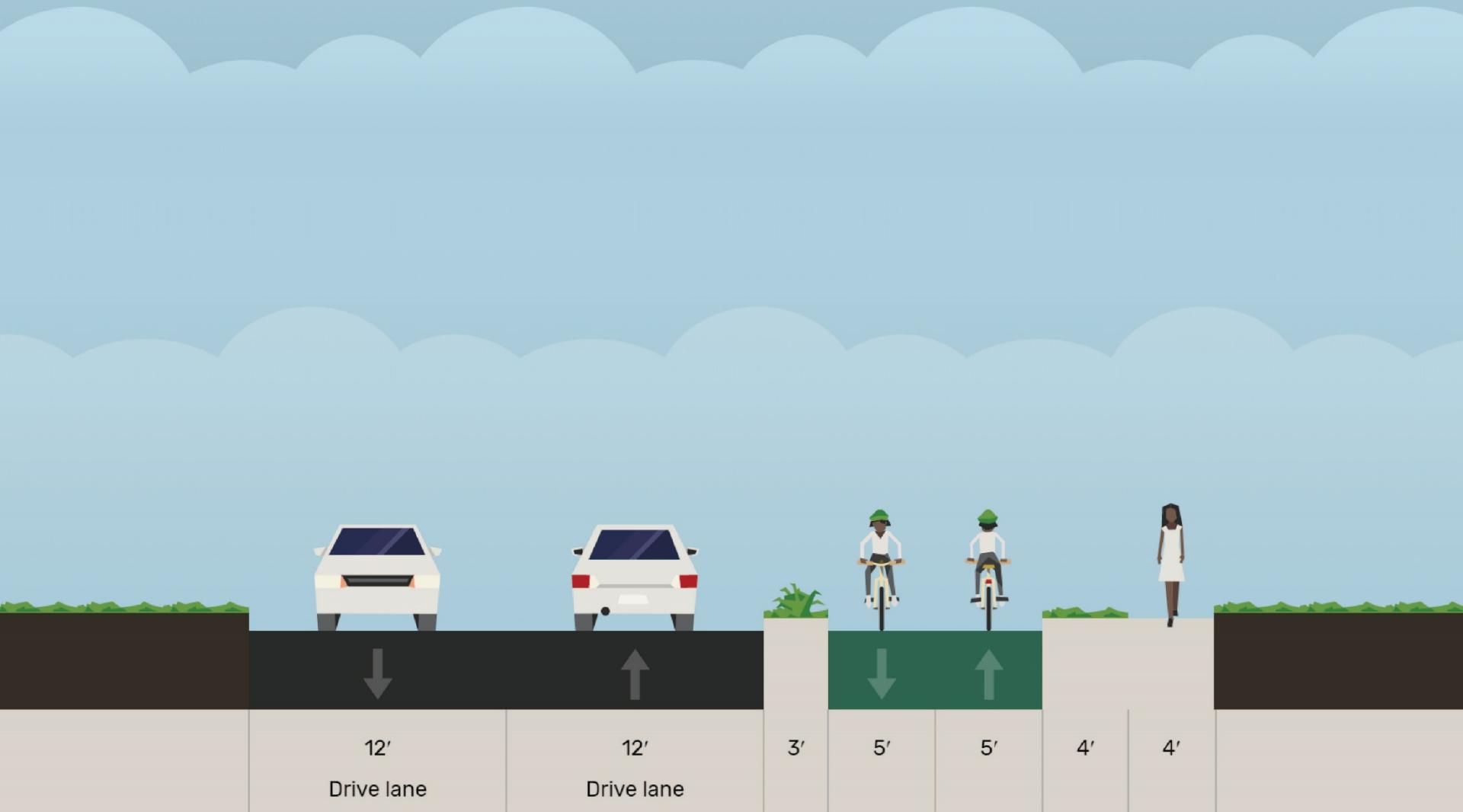


6th Avenue Complete Streets



DRAFT - For discussion purposes only

6th Avenue Complete Streets

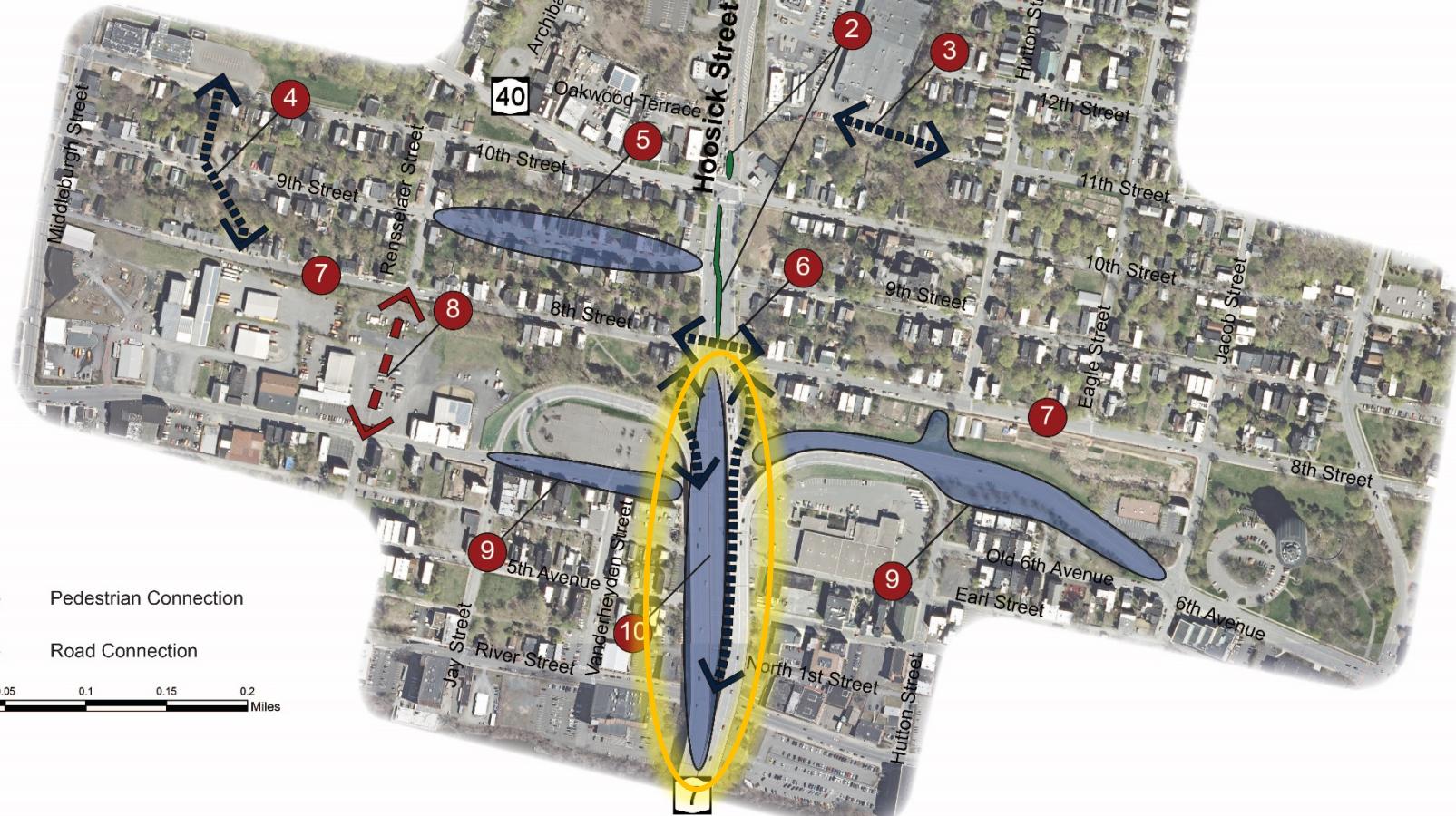


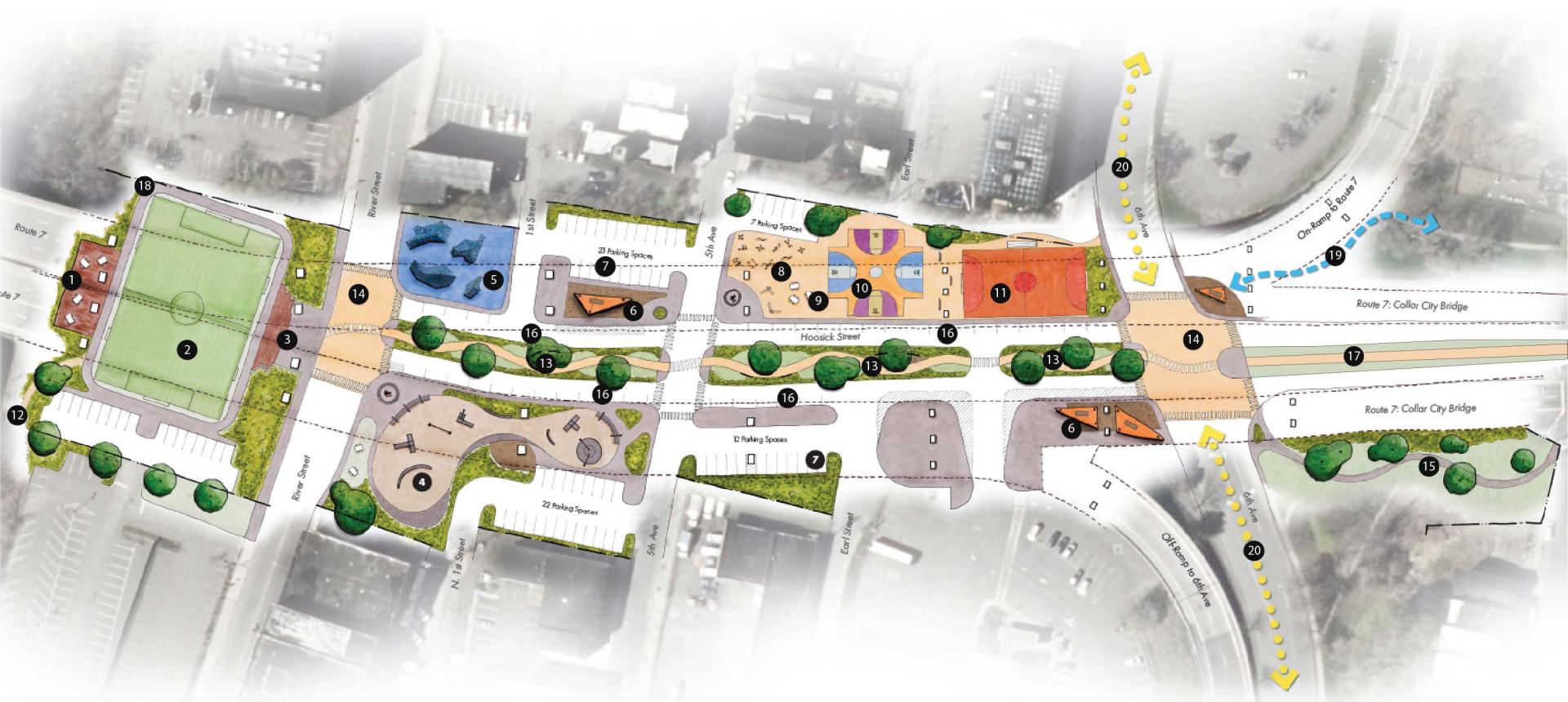
6th Avenue Complete Streets



10

Hoosick Street Path & Collar City Bridge Park

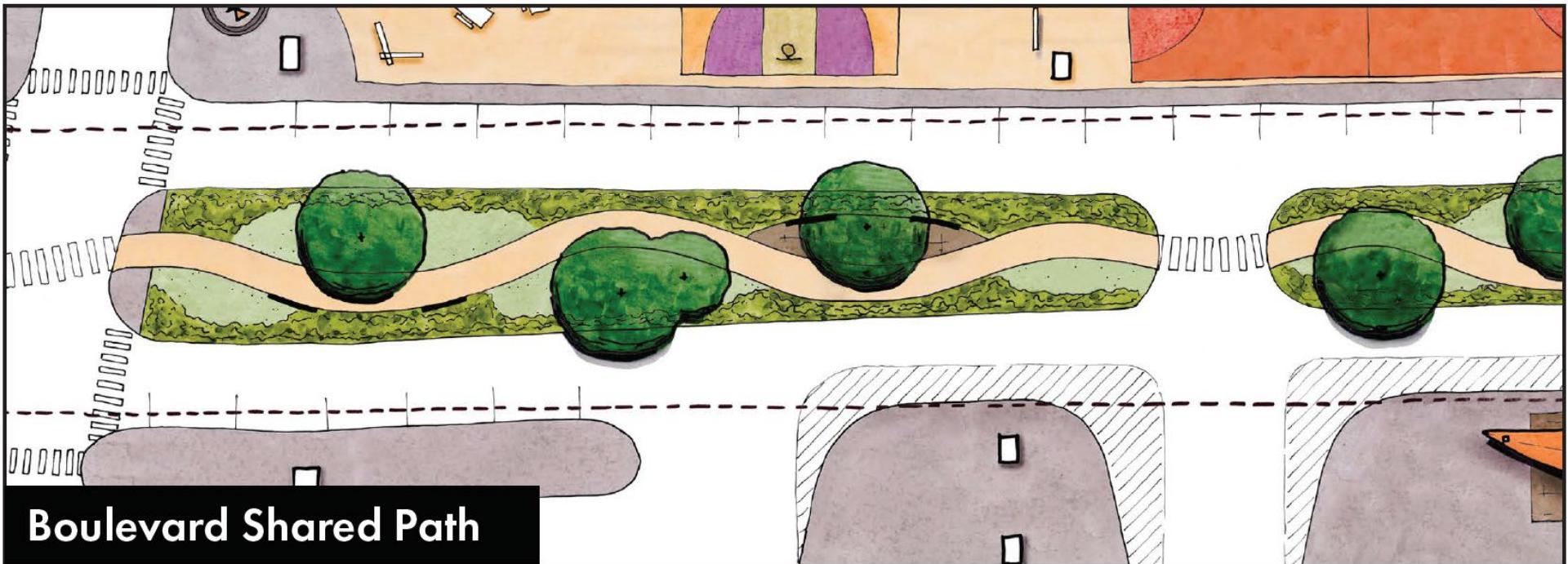


**PLAN KEY**

- 1. RIVER OVERLOOK PLAZA
- 2. MIXED-USE/SOCCER SYNTHETIC TURF FIELD
- 3. STADIUM/BLEACHER SEATING
- 4. SKATE PARK
- 5. ROCK CLIMBING STRUCTURES
- 6. LANDMARK STRUCTURES WITH CDTA BUS SHELTERS
- 7. PUBLIC PARKING
- 8. OUTDOOR WORKOUT AREA
- 9. FLEX SPACE WITH PARK SEATING OPPORTUNITIES
- 10. (2) FULL/ (4) HALF-COURT BASKETBALL COURTS
- 11. FUTSAL HARD COURT
- 12. RIVERWALK CONNECTION
- 13. 10' MIXED-USE PATH WITH MIXED PLAZA/SEATING OPPORTUNITIES
- 14. RAISED INTERSECTION
- 15. PARK CONNECTOR PATH TO 8TH STREET
- 16. ON STREET PARKING
- 17. OPTIONAL PATH
- 18. 8' WALKING/RUNNING PERIMETER PATH
- 19. ENHANCED CONNECTION BETWEEN 6TH AVE AND 8TH STREET
- 20. PROPOSED COMPLETE STREETS IMPROVEMENTS

PROPOSED PARKING TOTALS

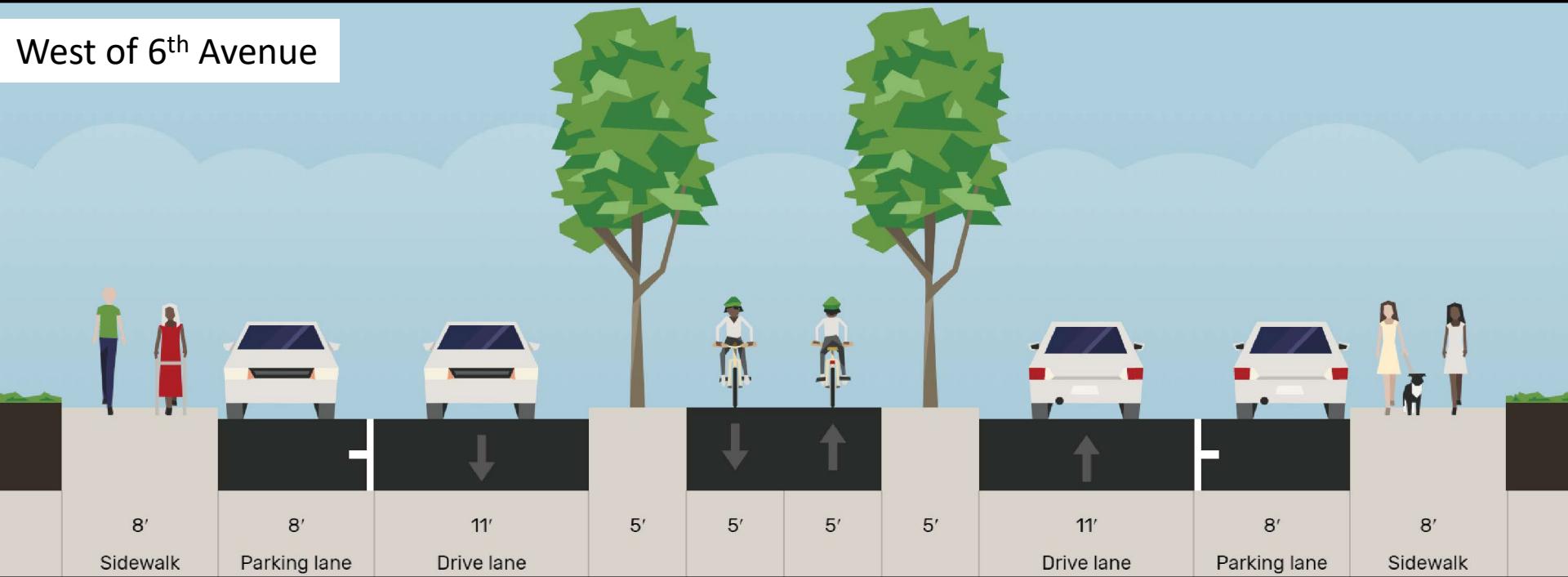
PROPOSED PARKING TOTAL: **64**
 PROPOSED ON STREET PARKING TOTAL: **40**
 APPROX. NET PARKING: **-4**



10

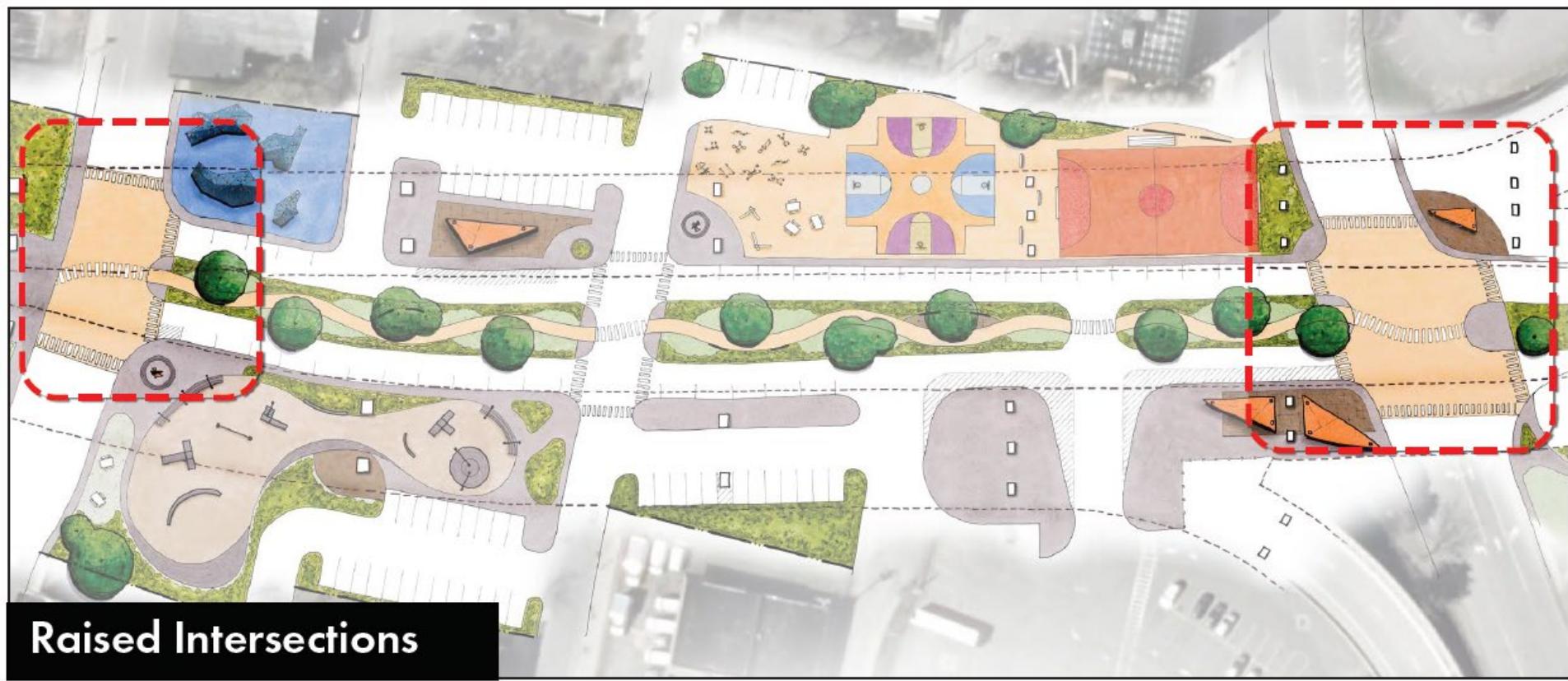
Hoosick Street Path

West of 6th Avenue



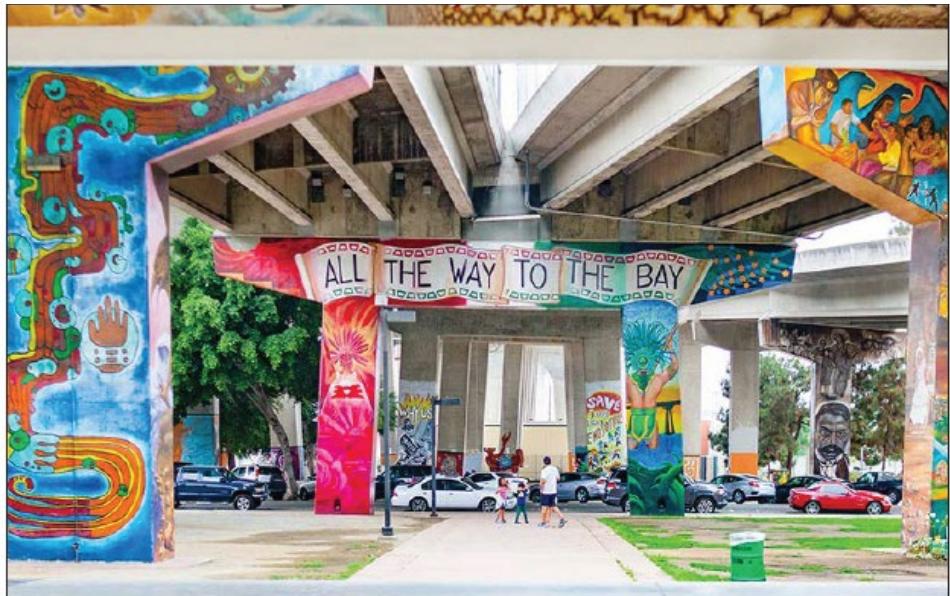
East of 6th Avenue





Raised Intersections



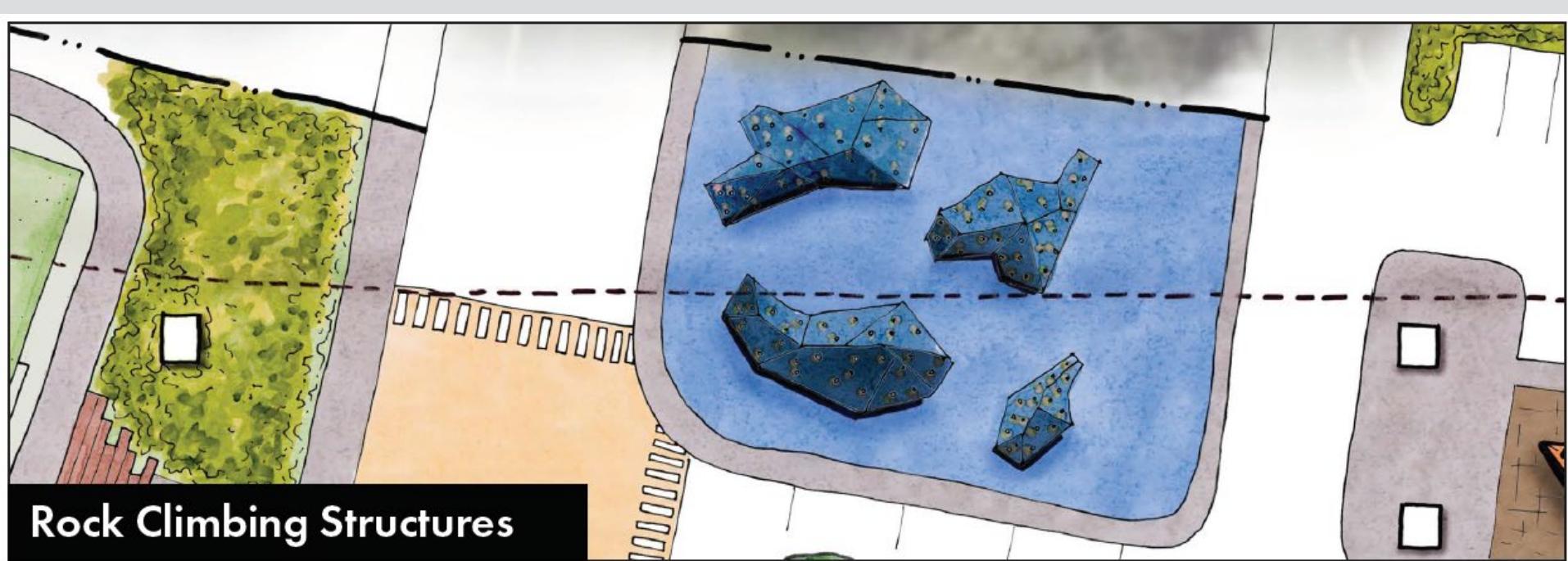




Mixed-Use Synthetic Turf Field

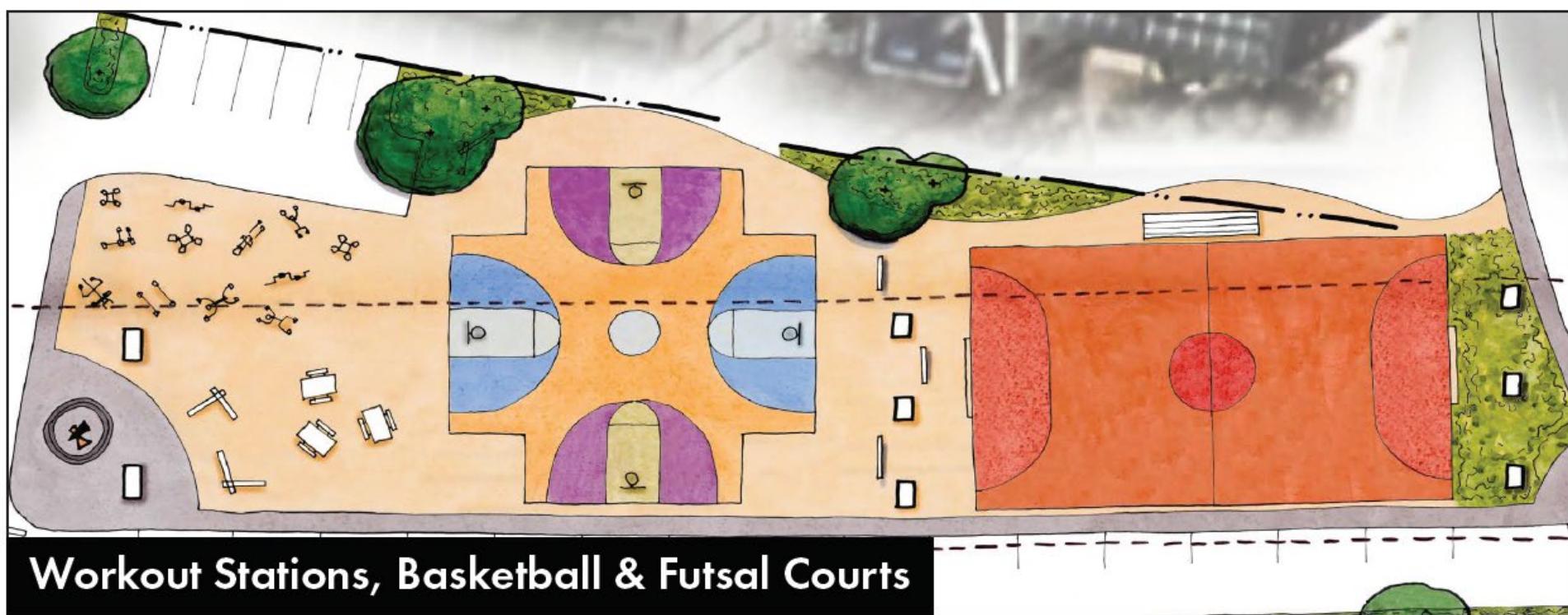






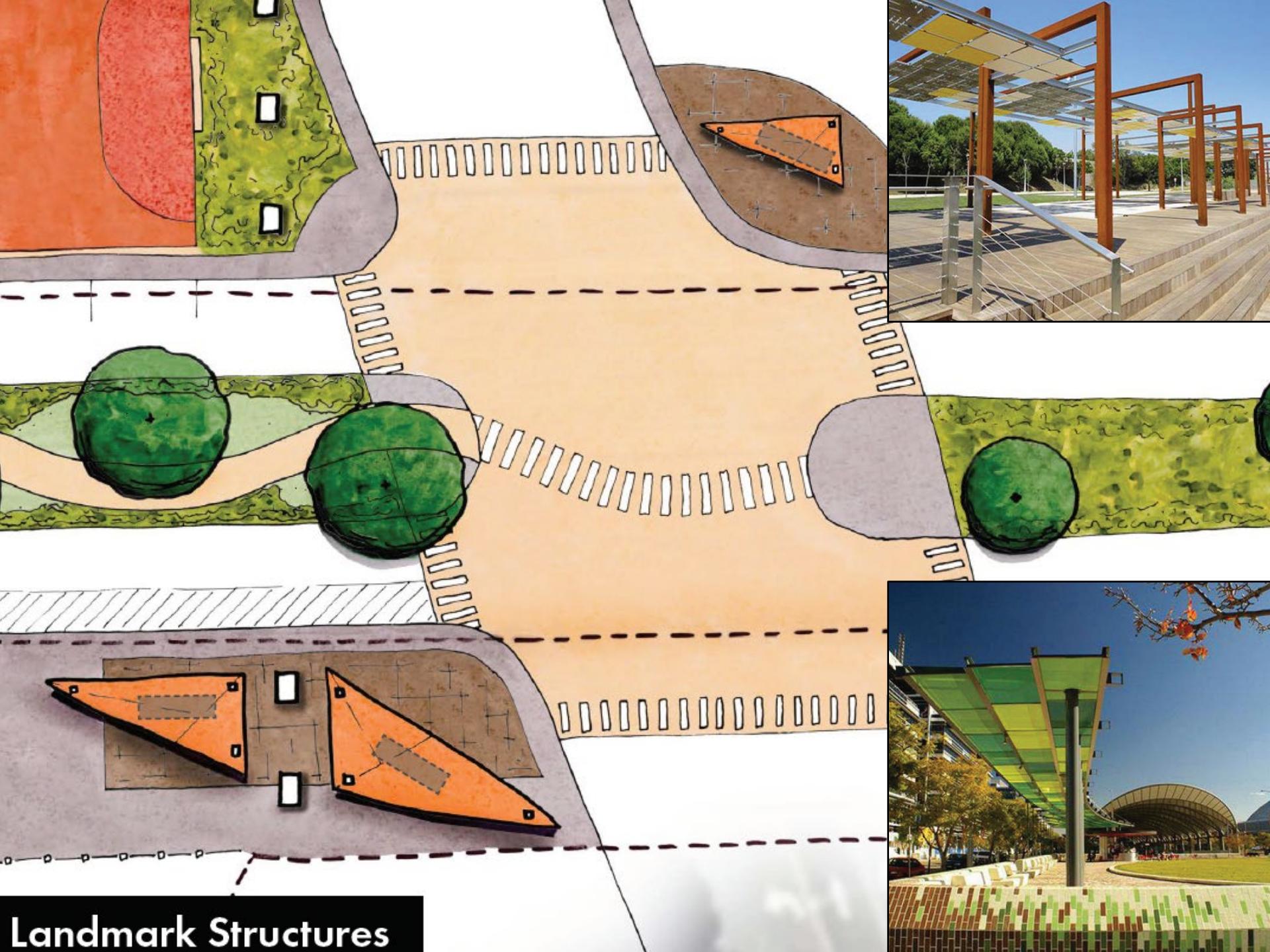
Rock Climbing Structures





Workout Stations, Basketball & Futsal Courts





Landmark Structures



Area Wide Concepts

- Upgrade traffic signals to provide state of the practice pedestrian accommodations.
- Upgrade sidewalks and curb ramps per current ADA guidance.



G Area Wide Concepts

Pedestrian Infrastructure Recommendations									
# Location	Roads Intersecting	Jurisdiction	Ped Signal Type	Button	Button Type	Ped Cross walk type	Condition	Comments	Recommendation
1	Hoosick st	River St	City	Hand/Man w/timer	Y	Mech	Parallel	Faded	3 way not sure it has timer New ped signals (6) Restripe CW (3)
2	Hoosick st	6th Ave	City	No Signal	N	None	Parallel	Faded	4 way New ped signals (8) Restripe CW (4)
3	Hoosick st	8th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Good	Ped CW cross NB & WB lanes only Add new ped signals (2) & CW (1) for WB lane cross
4	Hoosick st	10th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way Restripe CW (4)
5	Hoosick st	13th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way Restripe CW (4)
6	Hoosick st	15th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way Restripe CW (4)
7	Hutton St	15th St	City	No Signal	N	None	No CW path		New ped signals (8) New CW (4)
8	Jacob St	6th Ave	City	No Signal	N	None	Parallel	Faded	Ped CW cross NB & WB lanes only New ped signals (8) Restripe CW (2)
9	Hutton St	5th Ave	City	No Signal	N	None	Parallel	Good	Ped CW cross NB & WB lanes only New ped signals (8) New CW (2)
10	Hutton St	River St	City	Hand/Man w/timer	Y	Mech	Ladder Bar	Faded	4 way Restripe CW (2)
11	Jay St	6th Ave	City	No Signal	N	None	No CW path		

Intersection #1
Hoosick Street/River Street



Intersection #8
6th Avenue/Jacob Street



Intersection #4
Hoosick Street/8th Street





Bicycle Level of Traffic Stress

Road	Segment	Existing	Proposed
Hoosick Street	River St to 8th St	LTS 3	LTS 1
	8th St to 10th St	LTS 4	LTS 4
	10th St to 15th St	LTS 4	LTS 4
6th Avenue	Jacob St to Hoosick St	LTS 3	LTS 1
	Hoosick St to Jay St	LTS 3	LTS 1
	Jay St to Middleburgh St	LTS 3	LTS 3
8th Street	Hoosick St to Middleburgh St	LTS 3	LTS 3
	Hoosick St to Jacob St	LTS 3	LTS 3
15th Street	Hoosick St to Sausse Ave	LTS 3	LTS 3
	Hoosick St to Jacob St	LTS 3	LTS 3

Tell us what you think!

Visit the Project Website

<https://www.hoosick-hillside-study.com/>

Take the Survey

<https://www.surveymonkey.com/r/HoosickHillside2>

Attachment B
Survey Responses

	Like as is	Would like with changes	Do not like	Total
How do you feel about the curb extensions on 15th Street?	18	34	4	56
How do you feel about a continuous median on Hoosick Street?	17	28	9	54
How do you feel about a median with a break at 8th Street?	17	26	10	53
How do you feel about the connection to the plaza?	17	30	5	52
How do you feel about the above path?	24	27	2	53
How do you feel about traffic calming?	20	29	3	52
How do you feel about the above pedestrian crossing at 8th Street?	15	32	6	53
How do you feel about traffic calming on 8th Street?	26	23	4	53
How do you feel about the Rensselaer Street Extension?	22	27	4	53
How do you feel about the path connection?	17	26	8	51
How do you feel about the above option?	22	29	2	53
How do you feel about the Hoosick Street Path?	23	27	1	51
How do you feel about the Collar City Bridge Park?	25	24	1	50

	Alternative 1 Continuous Median	Alternative 2 Median Break at 8th Street	I like both options equally	I don't like either option	
Which of the above median options do you prefer?	23	20	6	3	
	Alternative 1 - Rensselaer Street Connection	Alternative 2 - Rensselaer Path Connection	I like both options equally	I don't like either option	
Which of the above connection options do you prefer?	20	18	12	1	

	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Total
The proposed recommendations will make it easier/safer/more comfortable for me to get around the neighborhood.	30	13	4	3	2	52
The proposed recommendations will make it easier/safer/more comfortable for me to get to/from downtown.	24	15	8	3	2	52

Which recommendations are you most excited about?	Count
1) Traffic Calming on 15th Street	11
2) Hoosick Street Median	32
3) Path Connection to Plaza	4
4) Path Connection to School 2	8
5) Traffic Calming on 9th Street	6
6) Pedestrian Crossing at 8th Street	12
7) Traffic Calming on 8th Street	11
8) Rensselaer Street Connection	7
9) 6th Avenue Complete Streets	20
10) Hoosick Street Path & Collar City Bridge Park	34

Attachment C
Written Comments

Responses to Comments – Online Public Meeting

Project: Hoosick Hillside Study	
Meeting Date: September 7, 2020 thru September 21, 2020	Reviewer: Various

Comment #	Comment	Response
Survey Question #1 Curb Extensions on 15th Street		
A	Add roundabouts at Hutton-15th and Hoosick-15th. Make McDonalds enter and exit onto Hoosick only.	Roundabouts are an excellent choice for many intersections and can be effective gateways, that slow traffic and have a good safety record. In this case however, a roundabout would have significant impacts to private property at Hutton/15th, and is not considered feasible at Hoosick/15 due to volume. The McDonalds access to Hoosick Street is right-in/out only while the driveway on 15th Street provides access for westbound traffic.
B	The lighting is inconsistent from at streetlights, seeing people at 15th and Hutton is especially difficult.	Curb extensions at the 15th Street/Hutton Street intersection will provide pedestrians with improved sight lines and make them more visible to motorists before they cross the street.
C	We must be careful though, two way traffic on some of the streets are not wide enough for it and parked cars them loosing a parking space with the extension	15th Street has an approximate width of 40 feet. Guidance provided by National Association of City Transportation Officials (NACTO) indicates that 8-foot wide parking lanes and 10-foot wide vehicle travel lanes are optimal in an urban environment. Thus, two-way traffic and parking on both sides of 15th Street would account for 36 out of 40 feet of available pavement width. A small number of on-street parking spaces may be lost due to the curb extensions and as a trade-off for traffic calming and shorter pedestrian crossings.
D	Anywhere that street trees could be added, even ones that won't grow tall - would be great! This stretch could really use them.	Agreed and comment noted.

Comment #	Comment	Response
E	Seems pretty good as is, but seems a little "bolted on" is there a way to calm the traffic more naturally. Like not speed bumps or aggressive speed restrictions. Or things that drivers could crash into. If not, I am pretty happy with the curb extensions	Curb extensions calm traffic by visually and physically narrowing the roadway. Curb extensions are particularly applicable on 15th Street as they serve as a visual cue to drivers that they are entering a neighborhood street/area. Vertical traffic calming elements such as speed humps are not recommended on 15th Street as part of this study.
F	I see traffic calming measures for 8th, 9th and 15th st. Why not 10th and why not Hutton? The chart in the report shows that 10th and Hutton get considerably more traffic than 9th st!	Recommendations for traffic calming were based on comments and needs identified early in the study. The area wide traffic calming concepts may be applied to other City streets by the City as appropriate.
G	This street is very congested already with large trucks and vehicles, so that is the only concern where it comes to deliveries to the various businesses there.	The design of any curb extensions will consider existing vehicle mix so as not to interfere with heavy vehicle traffic.
H	I often walk west on Hoosick Street along the west side with my kids. The short corner on Hoosick & 15th street is always very uncomfortable for me as I approach it with my 4 year old.	Comment noted.
I	I like this idea.	Comment noted.
J	Curb extensions can provide less dramatic driveway curb cut inclines if the driveway incline is extended into the curb extension. Curb cuts that cause steep inclines in the driveway elevation and are in the pedestrian way can cause injury to pedestrians.	The proposed curb extensions are positioned so as to avoid changes to existing driveways.
K	I think the change from a light to stop signs at Hutton has already significantly improved this issue	Comment noted.
L	Requires more traffic calming than curb extensions. Raised crosswalks or diverters?	Comment noted, however raised CW are not recommended at this time
M	The new stop signs on 15th are also very welcome.	

Comment #	Comment	Response
N	I live next door to McDonalds on 15th St. It is already very difficult to get out of my driveway which is directly next to the exit from McDonalds . Cars exiting do not even see me exiting my driveway because they are intent on getting out into the street where traffic is frequently lined up . If a curb extension is placed directly in front of my home as is pictured , gettin out will be even more difficult. My suggestion is to close off that exit from McDonalds. Traffic will then be minimized greatly right near that intersection with Hoosick St. Speeding is also a big concern on 15th St and anything to slow it down is helpful. The traffic light which was removed from 15th and Hutton should be replaced as a means of slowing speed.	Comment noted. See response to comment 1a regarding McDonalds access. See response to comment 1e regarding curb extensions and traffic calming. It is noted that traffic signals are not a method of traffic calming but rather traffic control and must meet one of eight signal warrants as outlined in the Federal Manual on Uniform Traffic Control Devices (MUTCD).
O	I think the only way to fix the crossing of Hoosick street is to make an overhead walkway so people will not walk out in front of traffic day and night.	A pedestrian bridge across Hoosick Street was considered and ruled out earlier in the study process due to the fact that they would require out of direction pedestrian travel and therefore likely would not be used.
P	We like as is, but are unsure about if the curb extension gateway with trees is beneficial or simply creating a more desirable aesthetic.	Comment noted.
Q	Believes that curb extensions should reduce crossing distance across Hoosick and Hutton St as well as across 15th St	This would be looked at during design. Our experience is that curb extensions on all legs of an intersection can be too restrictive to turning traffic, and that having them on two legs is preferred.
R	is that enough?	See response to comment 1e regarding curb extensions and traffic calming.
S	The answer options are confusing. Am I saying I like the proposal, or saying I like the current condition of 15th street? I like the proposed curb extensions.	The answer options refer to the draft recommendations. Each question asks how you feel about a particular recommendation.
Survey Question #2 Continuous Median		
A	While a continuous median restricts my vehicle access to 9th street--I live in the first block of 9th north of Hoosick--I feel this is the best alt. for pedestrians. I would walk places more with this option.	Comment noted

Comment #	Comment	Response
B	but what will be done with the near intersection of Hoosick and 10th? The crossing delay of 30 seconds was a big help but the two lanes into one-merge onto 10th from Hoosick needs much more. The merge off Hoosick needs VERY CLEAR MARKING as does the next merge as Oakwood Ave. begins.	Comment noted. An engineering study would be needed to determine crash patterns and if additional signs or markings are needed for the merge.
C	A green median should be added along all of Hoosick. Lanes should be reduced to 2 with bike lanes, and roundabouts should be added at all intersections.	The median proposal does include landscaping between 8th Street and 10th Street and maintains two thru lanes on Hoosick Street. See response to comment 1a regarding roundabouts.
D	In the winter during snow events, cars are almost always sliding down sideways across the lanes between 9th and entrance to highway. They also get stuck going up to 9th street. This seems to be a summer only solution.	Comment noted. The median will improve pedestrian safety year-round.
E	prefer Alt 2 - for residents of 8th St the median would present a lot of looping to get anywhere via vehicle	Comment noted.
F	the traffic on Hoosick st is bad enough from 6th to Walmart. Not sure a median is going to better. Rush hour especially.	Congestion on Hoosick Street is typically experienced at the intersections. The proposed median generally maintains the intersection geometry and does not reduce capacity.
G	This is the most effective change proposed for improving pedestrian safety and overall function at this critical intersection. And it will look better, too.	Comment noted.
H	I am not a walker in this area so I am not the best one to answer.	Comment noted.

Comment #	Comment	Response
I	<p>I like lots because I think it would reduce cut through on 8th st, where my property is (and thus fewer speeding cars) but realistically, how will cars get onto the bridge? Through 10th st? That seems like a lot of additional cut through traffic for my neighbors. If the Hutton st cut through were built (proposed later in the presentation), I think that would be great, so cars could get down to 6th Av, and then use that to get on the bridge. I think that's the amazing solution. I would say it needs to be made such that there is an easy way (and plenty of signs!!) for a car on 8th st to make it down to 6th to go under the bridge, take the clover leaf and get on the bridge. A note about the median generally. This intersection is a war zone. The median wide enough to be comfortable, and should feel fortified. Maybe with some trees and some vegetation, and some barriers around. For comparison, think NYC's broadway between 70th and 90th, more than NYC's mcguiness av.</p>	<p>Traffic diversions were estimated and considered in the analysis. Traffic destined across the bridge will access NY Route 7 via 10th Street as well as the 6th Avenue on-ramp.</p>
J	<p>WAIT - WHAT? There would be no turning traffic from eighth onto the bridge? This is CRZY!! It would mean we pick up a ton of traffic on Tenth St. NO!!! NO!!! NO!!! Did you actually study how traffic moves through the streets in our neighborhood? To avoid 8th cars come up Hutton to 10th for access to Oakwood/Hoosick. End of day traffic on 8th is all for bridge access. If you stop the bridge access you will force all those cars up to 10th St!!! NO!!! WTF...</p>	<p>Yes. Diversions were studied.</p>
K	<p>It is scary to drive on this street with pedestrians trying to cross. Anything we can do to make that more safe for all is welcome!</p>	<p>Comment noted.</p>
L	<p>Need to improve left turn lanes</p>	<p>Construction of a median on Hoosick Street will restrict left turns at 8th Street and 9th Street as well as provide an opportunity to lengthen the storage length of the eastbound left turn lanes at 10th Street.</p>
M	<p>I love the idea but only if there's a barrier between the median and the street.</p>	<p>Comment noted.</p>

Comment #	Comment	Response
N	Would this increase traffic conflicts on 10th st. intersection, as more people would be turning left to get on Rt. 7 westbound? Please consider crosswalks on the west side of 8th street in addition to the ones on the east side.	Traffic diversions were considered in the traffic analysis and do result in a slight increase to the northbound left turn movement from 10th Street to Hoosick Street westbound. A crosswalk on the west side of the Hoosick Street/8th Street intersection was considered and is not feasible under the existing traffic signal phasing due to the need to accommodate eastbound vehicles from Hoosick Street and NY Route 7. Changes to the existing traffic signal operations were considered but result in significant increases to vehicle delay.
O	this will only make Hoosick Street a bigger nightmare.	The traffic analysis indicates that the median alternative will have little impact to traffic operations on Hoosick Street.
P	I take this survey as a driver on Hoosick st several times a day. I live off upper hoosick.my comments reflect what I think might help traffic and safety	Comment noted.
Q	The brute fact of high-volume traffic on Hoosick may make this impractical? A 4-lane expressway ends (and begins) at Hoosick, which as a result becomes the main regional artery for east-west traffic, including NY-VT. That won't change. Some of these measures therefore seem cosmetic or at best guaranteed to create further traffic nightmares.	See response to comment 2f.
R	Agree with median but concerned inability to turn left off bridge onto 8th or 9th would congest traffic already backed up turning left into Rte 40	The left turn movement from the bridge onto 8th Street is already restricted and remains unchanged. While the median through 9th Street will prevent left turns from Hoosick Street eastbound to 9th Street northbound and result in additional left turning volumes at 10th Street, the median also provides the opportunity to lengthen the storage length and provide more orderly traffic flow.
S	Really like the continuous median. 8th street is already the worst option for residents to enter west bound Hoosick.	Comment noted.

Comment #	Comment	Response
T	I like that this plan would prevent left turns from 8th Street. However, as a resident of 9th Street, between Hoosick & Rensselaer, I have concerns about how I would get home from the Collar City Bridge. The only way I could see this working is if 9th Street became a two way and 10th Street becomes a two way street where it splits with Oakwood. This would allow 9th Street residents to turn down Rensselaer instead of having to take Oakwood all the way to Middleburgh. Rensselaer would need major upgrades for this to happen as it can't even handle the minuscule amount of traffic that the convenience store on 9th & Rensselaer attracts. I also have concerns about the parking situation on 9th if it's made into a 2 way. Many residents of two and three family homes do not have access to driveways so parking is very limited, especially if the Community Center is holding an event.	Comments noted. Under the median alternative, vehicles destined for the Hillside North neighborhood can turn left at 10th Street and access the neighborhood via Middleburgh Street. Although this route is circuitous, it is a tradeoff for improving pedestrian safety and walkability as well as providing traffic calming in the neighborhood.
Survey Question #3 Median Break		
A	I do not think this sufficiently solves the problem.	Comment noted.
B	A green median should be added along all of Hoosick. Lanes should be reduced to 2 with bike lanes, and roundabouts should be added at all intersections.	See response to comment 2c.
C	In the winter during snow events, cars are almost always sliding down sideways across the lanes between 9th and entrance to highway. They also get stuck going up to 9th street. This seems to be a summer only solution.	See response to comment 2d.
D	But: with no access to 9th St travelling west to east, those of us who live on 9th will have to approach from the west. While alternate routes (involving going up then down) are possible, it would help if the 10th street light had a turn arrow only for Northbound vehicles, to turn west on Hoosick (then north on 9th). Since at present southbound vehicles travelling from 10th to a right turn on hoosick are a steady stream, it is difficult to leave from Stewarts via 10th Nbound, left on Hoosick and all the way to the right lane, involving an elaborate car dance and weave.	See response to comment 2t.

Comment #	Comment	Response
E	the traffic on hoosick st is bad enough from 6th to Walmart. Not sure a median is going to be better. Rush hour especially. Unless we widen the streets and have alteritive to sidewalks	See response to comment 2f.
F	see note above -same here.	Comment noted.
G	I worry neighbors will feel like is disconnecting the two neighborhoods even more.	Comment noted.
H	This is not as good as the prior option if alternative routes can be found to the highway bridge, but would be acceptable if not. Having the median will be much better. A note about the median generally. This intersection is a war zone. The median wide enough to be comfortable, and should feel fortified. Maybe with some trees and some vegetation, and some barriers around. For comparison, think NYC's broadway between 70th and 90th, more than NYC's mcguiness av.	Comment noted.
I	YES!!! Do not limit bridge turning traffic from 8th onto the bridge!!!	Comment noted.
J	This wording is confusing. Do you mean "Like as is" - meaning the way the street is currently configured or "Like as is" - meaning the way it is proposed in the study? I would be very wary of these survey results because of this poor wording.	See response to comment 1s.
K	There are so many accidents here. I think care needs to be put into how traffic will change in flow if lefts can't be made.	See response to comment 2i
L	I love the idea but only if there's a barrier between the median and the street.	See response to comment 2m.
M	This is a better alternative compared to the first one since it does NOT restrict traffic from 8th street trying to merge onto Route 7 West.	Comment noted.

Comment #	Comment	Response
N	This would increase conflicts if there are pedestrians using the median, particularly if they are proceeding to 10th street from River St. Also, this would greatly reduce use of the median from 8th to 10th, almost to the point where that section doesn't make sense to build.	Please note that under this alternative, the median does not provide a path between 6th Avenue and 10th Street. Instead, pedestrians would be accommodated between 6th Avenue and 8th Street with new paths on the outside of the bridges, and between 8th Street and 10th Street using the existing sidewalks.
O	pedestrian connections to 6th Ave. from 8th St. must have good lighting and be maintained (snow plowed) in the winter	Comment noted.
Survey Question #4 Which Median Option is Preferred		
A	A green median should be added along all of Hoosick. Lanes should be reduced to 2 with bike lanes, and roundabouts should be added at all intersections.	See response to comment 2c.
B	It does not seem to address a year round solution, it does not provide enough protection for pedestrians, and makes the area more esthetically cold with more hard concrete. I would rather see a boulevard that makes it more like part of neighborhood, and not part of a separate highway.	Comment noted.
C	It is hard to see this on a small screen	Additional information is available in the draft report which can be found on the project website.
D	above	Comment noted.
E	A slight preference, but I wonder if it will result in a lot of traffic that currently turns left onto route 7 west from 8th st (south of Hoosick) turning right onto Hoosick and doing a U-turn at 10th, or if they will go down to 6th Ave and take the on-ramp that loops around.	See response to comment 2i regarding traffic diversions.
F	No to the continuous median!!!! DUMB IDEA!!! This will force bridge traffic deeper into our neighborhood.	Comment noted.
G	Hard to decide. We live at the top of the hill and it is scary to drive thru this area let alone if we had to walk or bike through. Restricting traffic is important. Again though, how that affects 10th and 6th streets will need to be considered.	Comment noted.

Comment #	Comment	Response
H	Stop 8th street cross traffic. Restrict access to NY Rt. 7 to a fewer number of cross streets.	Comment noted.
I	I think removing the left turn onto Hoosick from 8th street is not ideal, but the rest of the improvements are very good.	Comment noted.
Survey Question #5 Plaza Connection		
A	This connection should be ADA compliant. A continuous ramp.	ADA connections to the plaza are maintained at the Hoosick Street/13th Street entrance.
B	Indifferent to this solution.	Comment noted.
C	Concentrate on snow cleared sidewalks along Hoosick Street.	Comment noted.
D	We all like a quicker way to get A to B. Having said that i can't say i don't like or i do like i think trees bring crime. make it visible from the ground up	Comment noted. As stated in the presentation, the connection design would provide clear space on either side and include lighting .
E	Great Idea! Is there a way to make it accessible, with a ramp? The THA Martin Luther King Apartments have a new very long ramp down to the Uncle Sam Bikeway, and it turned out nice - maybe something like that?	See response to comment 5a.
F	Who will be responsible for cleaning and snow removal on this stair?	An agreement between the property owner and City will determine maintenance responsibilities after construction of the proposed improvement.
G	Love it. Stairs should feel safe and well lit. (low lantern street lamps NOT(!!!) high overhead phone poll lamps. Also some psychological connection to the plaza should occur like opening up some more commercial at the top of the stairs, or maybe a small park, etc. It is a LONG way to walk through the empty parking lot around to the front of the stores. Even a picnic table in the back corner could be great. I bet the enterprise rental workers would use that in the summer.	Comment noted.

Comment #	Comment	Response
H	yeah, OK, but HRC doesn't want people going in and out this way. It is the parking lot for enterprise rent a car and the loading docks for Big Lots. If the mall would support it then sure - but I am pretty sure they prefer the fence...	The City would need to work with property owners to implement the plan.
I	Did anyone ask Troy Plaza about this? They think this is one of the main routes for robberies. they recently installed the fence shown in picture.	See response to comment 5h.
J	yes! But make sure it's well-lit for safety. The stairs with a side path is best so it can accommodate bicycles.	Comment noted.
K	However, how would this impact people with handicap	See response to comment 5a.
L	This is one I particularly like. Up until last year it was possible to access the shopping plaza by walking down the hill from 11th street but a fence was built that stopped people from doing that. Opening this back up and adding a staircase would be something I would like. People would be able to get to the shopping plaza more easily.	Comment noted.
M	stairways are not wheelchair compliant; is there a way to allow wheelchairs with this connection?	See response to comment 5a.
N	The Hudson River Commons is a very poor design. Failure to include hillside access to this plaza over the current life of the plaza has been bad for retailers and residents. Access at 11th St. is a first and minimum step. This path needs to allow emergency vehicle access with automatic gates. Less than that is unsafe. Stairs do not accommodate wheelchairs.	Comment noted. See response to comment 5a.
O	Looks too steep to be useful, ex. Elderly,baby strollers. I see limited benefit	See response to comment 5a.
P	Really convenient and helpful for walkers	Comment noted.
Q	love the idea of connection. Would it be possible for strollers to use?	Comment noted. See response to comment 5a.

Survey Question #6 TRIP Path

Comment #	Comment	Response
A	I don't like the idea of mid-block connection. There was a mid-block connection between 8th/9th (north of Rensselaer St) where the Community Garden is. Before the fence was installed, the path was mostly trouble. At night it was a hangout spot where it was easy for illegal activity to take place. It was a headache for neighbors that had to constantly clean the broken glass and garbage. Providing additional pedestrian outlets will not calm down the area.	Comment noted. As stated in the presentation, design of the path would include clear space and lighting.
B	A nice idea Gun violence prevention along Route 7 matters for safety of neighborhood children and use	Comment noted.
C	maybe - but could also be a trouble path and another litter hazard (like green swath from 8th to 6th just north of Hoosick	Comment noted. See response to comment 6a.
D	must have vision because some of our little ones come alone. (crime)	Comment noted. See response to comment 6a.
E	not much insight or opinion here, as I rarely am in the area across Hoosick, and have rarely been there. That road is MAJOR barrier. As we know :)	Comment noted.
F	good idea	Comment noted.
G	I like this idea.	Comment noted.
H	Again, question about access for people with wheelchairs; how would that work? Also, are raised intersections going to be a problem with snow plows?	As design of the path progresses ADA access will be considered. Raised intersections have been constructed in other northeast cities that receive snow and do not pose a significant issue.
I	I like the idea, though I have concerns about maintenance and the potential for it to become another little used path that falls into disrepair.	Comment noted.
J	don't know about to really suggest changes	Comment noted.
Survey Question #7 Traffic Calming on 9th		
A	I would not like a two way on 9th St. It was a two way years ago.	Comment noted.

Comment #	Comment	Response
B	I like the median on Hoosick, do not like two-way on 9th. I think this is overkill and create parking problems for residents by taking away both-side of street parking. Hoosick median is enough to calm traffic IMO	Comment noted.
C	much needed	Comment noted.
D	I am not sure how this helps if 3 or 4 of the 5 recommendations can not be used?	Inclusion of any number of the traffic calming tools will result in improved pedestrian safety/comfort within the neighborhood.
E	#Slowthecars and pay attention to drug/gun trafficking too.	Comment noted.
F	Hoosick St median creates access problems but I/we can live with that. Center median on 9th might work with two-way traffic, but I fear neither would be possible in winter unless City commits to rapid snow removal. Also, there would need to be median cut-outs for those of us with off-street parking. Single side parking also not possible without a parking lot somewhere - most buildings are 3 unit and usually at least 3 cars each, plus visitors, so parking is already tight using both sides. (I have off-street parking on my property and am frequently blocked.) A few strategic curb extensions might be ok. But, big YES to STREET TREES! The single biggest improvement would be to put overhead wires underground on 9th, use attractive street lights (like downtown) and plant a lot of trees. Also, not sure we need 8' wide sidewalks here, maybe some of that could be torn up for tree or shrub planting.	Traffic calming on 9th Street would be provided by the median on Hoosick Street which would prevent eastbound left turns which was noted as a source of cut-through traffic. Medians are not proposed on 9th Street due to the relatively narrow width of the roadway.
G	keep one way with curb ext or raised crosswalk	Comment noted
H	I like all these measures, especially street trees and curb extensions.	Comment noted

Comment #	Comment	Response
I	<p>Let's have some traffic calming love on 10th St!!! We have WAY MORE traffic than on 9th St. Tenth also widens as it approaches Hoosick. This leads to cars thinking they have enough room to pass each other based on the wider street near Hoosick but then running into each other or hitting parked cars as the street narrows. Why was this not studied? Cars come up Hutton and turn onto Tenth. If you really want to reduce traffic in the neighborhood that connector from 6th ave to Hoosick needs major improvement. The slow timing of the lights is such that people prefer to go through the neighborhood. They zoom all the way across 8th from Congress, turn right on Hutton and left on Tenth. They see the light from the top of the hill on 10th and gun it to make the light. We need MAJOR TRAFFIC CALMING ON TENTH ST!!! A comprehensive plan for traffic calming should look at the speed of lights and wait times at intersections that were originally created to take burden off the neighborhood streets. Get in your car and try to go from 6th to Hoosick. It sucks!!</p>	<p>See response to comment 1f.</p>
J	<p>Do not like the fact that it will increase traffic at 10th street which is already a problem.</p>	<p>Comment noted.</p>
K	<p>I like this idea.</p>	<p>Comment noted.</p>
L	<p>I don't really have an opinion on this one</p>	<p>Comment noted.</p>
M	<p>I don't understand how changing the street to 2-way traffic would calm traffic. It's a one block stretch of road that currently makes it impossible for cars to drive through to Hoosick. It also is a block with a school on one side and a playground on the other (I visit the playground often with my toddler). Every person that currently crosses the street and only looks one way for cars would be put at higher risk. Setting an official 20 MPH speed limit seems worthwhile. I think the ones in my neighborhood around 9th St are neighborhood-sourced.</p>	<p>According to the Federal Highway Administration (FHWA) one-way roadways typically experience higher speeds than two-way roadways and as such a one-way to two-way conversion will generally reduce speeds. A reduction in speed limit below 30-mph is not recommended for the City as part of this study.</p>

Comment #	Comment	Response
N	I would have major concerns regarding alternate side parking. There is already an issue with parking on 9th Street, especially during Community Center events. Curb extensions and more trees I believe would be more beneficial. Only downside I could see is roots having a negative effect on already damaged sidewalks. I also mentioned concerns with the lack of ability to make a left turn onto 9th Street from Hoosick and turning 9th into a two way. I think 10th Street would also have to become a two way if that were the case.	Comment noted.
Survey Question #8 Ped Crossing at 8th		
A	Remove median at 8th. Add a green median along all of Hoosick. Lanes should be reduced to 2 with bike lanes, and roundabouts should be added at all intersections.	See response to comment 2c.
B	It does not seem to address a year round solution, it does not provide enough protection for pedestrians (we become hidden in line with a wall), and makes the area more esthetically cold with more hard concrete. I would rather see a boulevard that makes it more like part of neighborhood, and not part of a separate highway.	See response to comment 4b.
C	We need trees in the middle.	Comment noted.
D	YES! excellent access idea. Does this work only with Alt 1, or can it also be used with (preferred) Alt 2/no median at crossing?	The pedestrian crossing can be included with both median alternatives.
E	without median and lets not forget wheelchairs	Comment noted.
F	Yes, much needed	Comment noted.
G	will there be stop-all lighting controls like those installed at 10th? Without those, this crossing will remain dangerous for pedestrians.	The proposed signal phasing includes a two stage projected crossing, where pedestrians would cross half way to the median, then from the median to the far side with no vehicle conflicts.
H	I would like the rendering to clearly mark where people will walk.	Comment noted.

Comment #	Comment	Response
I	<p>See my prior comment on the median. This looks like a good solution. Make the space defensive, but still inviting. Again like broadway in upper manhattan. I don't think there will be anyone wanting to sit on a bench here, but at least it can feel like you are not standing on a strip of land surrounded by sharks shooting by in all directions, and if you slip, you slip to your death. Want to avoid that feeling. Walls and barriers in the center are important, but again should feel comfortable.</p>	<p>Comment noted.</p>
J	<p>NO CONTINUOUS MEDIAN ON 8TH ST!!! BAD IDEA!!!! Please think more holistically about how traffic moves. Think of it as water. If you plug up flow in one spot it has to move to another spot. This is not thought through!!</p>	<p>Comment noted.</p>
K	<p>you need more traffic going up through that connector from 6th to Hoosick this would reduce neighborhood traffic</p>	<p>Comment noted.</p>
L	<p>As we drive through those areas it is harrowing to see bicyclists and pedestrians move through these intersections. And there are constantly accidents. It's too complicated for drivers (apparently). Anything to make this safer is welcome!</p>	<p>Comment noted.</p>
M	<p>I do NOT like this idea because it chokes off traffic from merging onto Route 7 West. The proposed crossing that allows people to cross Hoosick St. safely is a good idea, however. It is already possible to access 6th Ave. from 8th St. on either side of Hoosick St. I would recommend better lighting along the two paths in the above photo on either side of the entrance to the Route 7 bridge so it is safer and easier to traverse. I do like the curb extensions along 8th St. South of Hoosick St. however.</p>	<p>Comment noted.</p>
N	<p>Please add crosswalks on the west side of 8th.</p>	<p>See response to comment 2n.</p>
O	<p>this would be a very good improvement</p>	<p>Comment noted.</p>

Comment #	Comment	Response
P	Lane width reductions to further decrease crossing distance?	Hoosick Street generally provides 12-foot wide lanes. Narrowing the lanes to 11-feet may be considered during design.
Q	Nothing will make this crossing any less than terrifying. On second thought, maybe a pedestrian overpass would.	See response to comment 1q.
R	There should be curb extensions across 8th St to reduce crossing distance going east to west on both sides of Hoosick St, taking up the current channelized areas, and reducing turning radii	The recommendation for traffic calming on 8th Street includes curb extensions at the Hoosick Street intersection to reduce curb radii.
S	Love it	Comment noted
T	would like to see bike crossing added as well.. Would also love to see 8th street north have a bi directional bike lane on it for the 2-3 blocks to the Uncle Sam bike lane.	Bicycles can utilize the crosswalk to cross Hoosick Street. Additional north/south bicycle accommodations are included in the 6th Avenue recommendations since 6th Avenue is classified as a Primary Bikeway in the Troy Bicycle Plan. Per the Troy Bicycle Plan, 8th Street north of Hoosick Street is classified as a Neighborhood Bikeway and as such would not warrant a bi-directional bike lane.
Survey Question #9 Traffic Calming on 8th Street		
A	A green median should be added. Lanes should include bike lanes, and roundabouts should be added at all intersections.	8th Street is approximately 44-feet wide including an 13-foot wide travel lane in each direction and 9-foot wide parking lanes on both sides of the roadway. A center median would result in significant parking impacts. Roundabouts are an excellent intersection configuration where appropriate. Roundabouts would have substantial impacts to private property in a street grid like this part of Troy and are generally not considered practical here.
B	Creative crosswalk	Comment noted.
C	heavy rush hour traffic don't need any deterrent	Comment noted.
D	absolutely!	Comment noted.
E	I think this is a great idea.	Comment noted.

Comment #	Comment	Response
F	Ways should be found to encourage more traffic to sixth ave and then onto Hoosick St. That would be the best way to calm traffic on 8th. If you slow traffic on 8th it will force more cars up Hutton to 10th...	Comment noted.
G	how about some traffic calming on tenth st! it has way more traffic than ninth street	See response to comment 1f.
H	People drive like bandits on this road. make it more residential please	Comment noted.
I	I like this idea.	Comment noted.
J	I see this as less of an issue compared to other proposed changes, but could be nice	Comment noted.
K	Requires a lot more than curb extensions for traffic calming - raised crosswalks and potential traffic diversion. Traffic calming should also be implemented on 10th	Comment noted. Traffic diversions were considered as a result of the Hoosick Street median. See response to comment 1f regarding traffic calming on 10th Street.
L	Definitely needed to calm traffic speed down. Great for the students working at the Urban farm.	Comment noted.
M	would love to see a (bi-directional) bike lane on it. maybe on west side! This weekend there was another crash at 8th and Jacob - There are regular crashes here. I would love to see the Hutton and Eagle st traffic calming make it down to Jacob. or 4 way traffic stop would be even better! This is one of the only connections between between hillside south and downtown. Can you make that connection easier for pedestrians?	The Troy bicycle plan indicates that 9th Street south of Hoosick Street is classified as a Secondary Bikeway, and as such a two-way cycle track would not be appropriate. Additional bicycle infrastructure is proposed for 6th Avenue to improve north/south connections. The existing condition analysis does not indicate any bicycle or pedestrian crashes on 8th Street south of Hoosick Street within the most recent five years of available data.
Survey Question #10 Rensselaer Street Extension		
A	this is desperately needed asap	Comment noted.
B	Habitat for Humanity Repopulate	Comment noted.
C	not much insight or opinion here, as I rarely am in the area across Hoosick, and have rarely been there. That road is MAJOR barrier. As we know :)	Comment noted.

Comment #	Comment	Response
D	Nice. I like this.	Comment noted.
E	If you explore adding real estate please work closely with neighborhood residents. Further, please make the builders do a modern, contemporary look to the facade. The new construction in other parts of Troy is lame. We're not the suburbs and a mix of old and new architecture is awesome.	Comment noted.
F	I like this idea. It is similar to the bridge that existed here when the Boston and Maine Railroad went through Troy.	Comment noted.
G	No need for vehicle traffic, as buildings would have rear access, it seems. And it would just encourage a cut-through for cars coming south on Rt. 40 and going to Rt. 7 or downtown. If it was made a walking/biking path, it would be a great connector to the Uncle Sam bike trail from 6th Ave.!	Comment noted.
H	Like a tree-lined street with parking under businesses.	Comment noted.
I	This potential building site needs to have all the amenities designed into and approved to attract developers.	Comment noted.
J	Too grandiose.	Comment noted.
Survey Question #11 Rensselaer Path		
A	lighting lighting	Comment noted.
B	Could a ramp also be incorporated for accessibility?	Yes. This Path concept would be accessible.
C	not much insight or opinion here, as I rarely am in the area across Hoosick, and have rarely been there. That road is MAJOR barrier. As we know :)	Comment noted.
D	Can't read the text on the picture above. Way too small...	Comment noted. Additional information is available in the draft report which can be found on the project website.
E	Anything to support residential and active movement of pedestrians and bicyclists should be prioritized.	Comment noted.

Comment #	Comment	Response
F	Though this is also a good idea, I think a full street would be better since it allows for vehicle and pedestrian access as well as residential and commercial development.	Comment noted.
G	Provide a bikeable path! Maybe an "S" ramp if the slope is extreme. Again, this would make a great connector from the Uncle Sam bike path to 6th Ave.	Comment noted.
H	This option does not seem to beautify the rather unsightly area on either side of the path. Also, would the path be accessible to people in wheelchairs?	See response to comment 11b.
I	Not a real reason to put a pedestrian crossing here, especially if the continuous one is made from under the bridge up Hoosick Street. Prefer with the business improvements as well.	Comment noted.
J	why cant the stair/path option have businesses and buildings alongside it?	Businesses/buildings would likely require vehicle access and for emergency services and as such would require the frontage provided by the roadway connection.
Survey Question #12 6th Which Connection is Preferred?		
A	Not sure	Comment noted.
B	re-connecting Rensselaer St., bringing in appropriate commercial/NPO development (with parking, yay!) and making it all bike-pedestrian friendly would do a lot to integrate this neighborhood with downtown and neighborhoods across Hoosick.	Comment noted.
C	just don't forget handicap and too many trees bring crime/littering. lighting	Comment noted.
D	Whichever is chosen, it should also include an extension to the Uncle Sam Bikeway that currently ends at Middleburgh and 8th.	Comment noted.
E	obviously...	Comment noted.
F	hands down!	Comment noted.

Comment #	Comment	Response
G	How can you combine both? That's what I recommend	The roadway connection (Alternative 1) would include sidewalks and provide a pedestrian connection similar to the stair connection in Alternative 2.
H	why cant the stair/path option have businesses and buildings alongside it?	See response to comment 11j.
I	I feel that Alternative 2 would be seldom used and would fall into disrepair. Alternative 1 could provide an east-west corridor for people who do not need to use Hoosick.	Comment noted.
Survey Question #13 6th Avenue Complete Streets		
A	A green median should be added. Lanes should be reduced to 2 with multiuse path, and roundabouts should be added at all intersections.	The Troy Bicycle Plan classifies 6th Avenue as a Primary Bikeway and as such bicycle infrastructure was prioritized over a median. See response to comment 1b regarding roundabouts on multi-lane roadways.

Comment #	Comment	Response
B	<p>You ignored Old 6th Avenue. We need Remediation of neighborhood disruption around the Collar City Bridge in Troy, NY. Center on the most affected people and areas impacted by drug trafficking and gun violence. Include the Old 6th Ave neighbors and listen to the long time residents that live too close to the deadly parking lots behind CDTA bus garage and the Collar City Bridge. Only the drug dealers know the traffic patterns around Old 6th Ave. That is how they can speed up for a drive by shooters job to be done. After 5 years the memorials became the drug dealing death shrines that are part of the danger in the Hedley First Columbia parking lot. We also need to talk about the children that have died from stray bullets at night in our city while school was remote in Lansingburgh and Troy. #AyshawnDavis #DonovanClayton There is a terrible cost to closed school buildings in the time of Coronavirus. Our students need their teachers, it is a tragedy that grief services are virtual by making an appointment in Lansingburgh now. Trauma needs healing. At these repeating times of grief, neighborhood people led and connected services have never been more vital. I am thinking about the neighbors that live around and play under the #CollarCity Bridge. How do we reconnect our City of #Troy and these neighborhoods. #LifeIsGrand #Old6thAve #UnderTheBridge #Remediation #enjoytroy #slowthecars #IronPipeline #HoosickStreet #TroyNY</p>	<p>Many of these issues are beyond the scope of this traffic planning study. Pedestrian connections recommended in this Study will improve pedestrian safety. The City of Troy is committed to public safety.</p>
C	don't know what i'm seeing. is this an old picture?	The image shows the recommendation to remove the slip ramp from 6th Avenue onto westbound NY Route 7 and add parking and bicycle lanes north of Hoosick Street. South of Hoosick Street, the image shows a two-way cycle track.
D	Any chances for more tree planting?	The 6th Avenue complete streets concept eliminates several slip ramps which could provide an opportunity for additional tree plantings.
E	See note above about integration with extension to Uncle Sam Bikeway - applies here, too, and together.	Comment noted.

Comment #	Comment	Response
F	I could be won over, as I am a huge fan of bike lanes, but I would rather see 6th av as the major north-south corridor for car traffic. That said, it could probably still be this way. I don't want to see it be the horrible barrier that Hoosick st has become. I just want to make sure all these uses can happen together. So maybe a narrower/more diverse use on the street can be good. I favor the hutton st extension as well, which would change this here I think.	Comment noted.
G	How about some pedestrian crossings on 6th?	The 6th Avenue complete streets concept includes pedestrian crossings at Jay Street, Vanderheyden Street, and Hoosick Street. It is noted that the proposed improvements shorten each of these crossings and will make pedestrians more visible to motorists. Uncontrolled mid-block pedestrian crossings are not recommended on 6th Avenue south of Hoosick Street.
H	Yes please! Also liked the option of adding the 2-way for Hutton street with a light and connectivity for 6th and 8th streets. That's a GREAT idea.	Comment noted.
I	I like this idea. I also like the idea of making Hutton Street accessible to 8th Street and placing a stop light here. This would allow for better access to downtown Troy.	Comment noted.
J	If the bike lanes were on separate sides of 6th, with a light at Hutton St., this would eliminate the need for cyclists to perform a difficult (and unexpected by motorists!) traverse of the the intersection at Hoosick St and 6th Ave. Or put a stop sign at the bottom of the off-ramp from Rt 7! Traffic is never that high there. A 2-way cycle track for a small section of 6th is asking for conflicts (bike-bike, bike-ped, and bike-motorist) where the track begins and ends.	The two-way cycle track is proposed on the east side of 6th Avenue so as not to conflict with the NY Route 7 off-ramp. While it does create a need for southbound cyclists to cross 6th Avenue at Hoosick Street, the proposed improvements to this intersection as part of the Hoosick Street path and Collar City Bridge Park will make this more safe/comfortable for cyclists and match driver expectations.
K	this area is very UNfriendly to pedestrians now; this would be a good improvement	Comment noted.
L	Love it and is so needed!!!! So important to add.	Comment noted.

Comment #	Comment	Response
M	Bike path should be 6ft each, with car lanes being 11ft, make road lanes consistant	Comment noted. The lane widths presented are intended to illustrate the concept and would be further evaluated if funded and as the design progresses.
Survey Question #14 Hoosick Street Path		
A	Appropriate lighting would need to looked at and improved. Does Hoosick Street even need to that wide in this area?	Comment noted. Although the recommendation to include a path on Hoosick Street widens the overall foot-print of the roadway, the total pavement width is considerably less and promotes a more pedestrian friendly environment.
B	It seems both optimistic and expensive to do all this rehab in what essentially is a forbidding and/or scary space (under the highway), but I would be happy to support it, especially if the entire Hillside North neighborhood put all overhead wires underground and planted lots of residential-looking street trees.	Comment noted.
C	This would be a great improvement!	Comment noted.
D	Looks wonderful!	Comment noted.
E	Too much to evaluate here, but looks interesting! Keep it clean and safe and make it EASY to get it, and yes see if we can encourage small commercial development around these places. If there is not at least one late hours deli ("bodega", 7/11, etc) nearby these parks will fail. And also it should not feel like people have to go through a car wasteland to get here. No one will come. Need easy access from both sides of hoosick, and from 8th st and river st.	Comment noted.
F	No median for connector with Hoosick. Nothing to slow traffic or discourage traffic from using this route. This poor connection is one of the main reasons we get extra traffic on 8th and 10th in Hillside South.	Comment noted.
G	PLEASE DO ALLLLL OF THIS! It's amazing and inspiring and would transform North Troy. it's also people-centric which brings the same energy to North Troy that downtown has.	Comment noted.
H	Great idea.	Comment noted.

Comment #	Comment	Response
I	this area is currently very ugly and not inviting; the improvements look generally good; it must have good lighting and maintenance	Comment noted.
J	should include bike lanes and walking, like Queens Blvd or Allen St in NYC	The recommendation is to design the path as a multi-use path to accommodate bicycles and pedestrians.
K	I would just like to emphasize how important improved pedestrian connectivity between 8th Street and 6th Avenue is. The current path is not well lighted and is off the road where no one can see. I love the proposal to have the 8th Street crosswalk connect with a path leading to River Street from the center of Hoosick.	Comment noted.

Survey Question #15 Collar City Bridge Park

A	great idea!	Comment noted.
B	great idea!	Comment noted.
C	Love this!	Comment noted.
D	Under the Bridge Basketball Troy Look needs space	Comment noted.
E	As above - It seems both optimistic and expensive to do all this rehab in what essentially is a forbidding and/or scary space (under the highway), but I would be happy to support it, especially if the entire Hillside North neighborhood put all overhead wires underground and planted lots of residential-looking street trees.	Comment noted.
F	Community center needed also . maybe both	Comment noted.
G	Cool!	Comment noted.
H	Looks wonderful! Will the underbridge park grow there?	The Collar City Bridge Park accounts for the shadow of the bridge by placing active uses under the bridge piers while plantings are located in the center median between the bridges to provide sunlight.
I	Too much to evaluate here, but looks interesting! See comment above. Mixed use!! Maybe even a little snack kiosk in the park?	See response to comment 14f.

Comment #	Comment	Response
J	How can we give proper feedback with these little pictures... c'mon people... what are you working on big CAD computers and you forget that people are on their laptops or phones trying to make sense of this? Sure - love the idea. Can actually see it well though...	See response to comment 11d.
K	LOVE THIS. PLEASE DO ALL OF THIS! LOVE THE INTEGRATION OF ART, OUTDOOR SPACES, RECREATION, AND NATURE!	Comment noted.
L	Great idea, especially the rock climbing and workout areas.	Comment noted.
M	Really like the public art aspect	Comment noted.
N	This area feels so barren right now, anything that makes it feel better would be great,	Comment noted.
O	Less parking	It is noted that the proposal results in a net parking reduction of four spaces.
Survey Question #16 Overall Neighborhood Connectivity		
A	Crossing Hoosick is scary and time consuming even with a crosswalk button. What about a pedestrian bridge? Additionally speeding and driving the wrong way up one ways are pretty bad, can there be random speed traps to discourage?	See response to comment 1q regarding a pedestrian bridge.
B	A green median should be added along all of Hoosick and 8th (south of Hoosick). Lanes should be reduced to 2 with bike lanes, and roundabouts should be added at all intersections.	See response to comment 1a.
C	More biking, walking on Federal Street too. We live on Grand Street and bike	Comment noted. Federal Street is beyond the scope of the study area.
D	If all proposed changes were enacted for 9th Street, it would definitely create parking wars, which would make it less of all those (easier/safer/more comfortable).	Making 9th Street two-way would not necessary reduce parking. Allowing alternating one-way traffic around parked vehicles can be acceptable on low volume neighborhood streets, and serve as a traffic calming measure.

Comment #	Comment	Response
E	<p>Eh, to be honest this seems like a pretty incomplete study. Why didn't you take a street-by-street approach? Look at the whole street, look where the traffic flows, talk to more residents (we know where the traffic comes from) and then map out a holistic traffic flow chart for both neighborhoods. Try changes here and there and see what it does to the whole SYSTEM. This is a piece-meal plan which, given the funds and the number of people involved, honestly seems pretty lame. Sorry to be negative - but we've seen these studies before. Some agency gets some money. They do a mediocre study (day job). They show their bosses they did work. They have a survey like this one... Nothing changes on the street... I don't even see any mention of the Hoosick St. Overlay and how that impacts quality of life. Look, for example, at the new Urgent Care facility on 9th and Hoosick. NO connection to 9th st. No entrance on 9th. Building out of scale with the block. Dangerous driveway with no sight lines onto 9th st... Why is there no consideration for how buildings are built in this area? I know you people can do much better!!!! This is a very lacking study.</p>	<p>The primary goal of the study is neighborhood connectivity to improve connections between the Hillside North and South neighborhoods and downtown Troy, not a street by street traffic plan. Numerous connections are identified to achieve these goals, based on substantial input from neighborhood residents, businesses and other stakeholders. The Plan also includes an assessment of all signalized pedestrian crossings with recommendations for pedestrian safety upgrades.</p>
F	<p>This study doesn't seem very complete. I was looking for a street-by-street plan. This is very piecemeal</p>	<p>See response to 16d</p>
G	<p>I might actually consider walking across Hoosick Street if these changes were made. I might even finally buy a bike b/c I won't worry about being run over by the drivers.</p>	<p>Comment noted.</p>
H	<p>A few things that there wasn't a place to comment before: #G: Yes, very important to make crosswalks ADA compliant; Bicycle LTS: I don't bike around Troy much because the traffic and construction obstacles make it difficult/unsafe. Would appreciate reducing traffic stress for biking. #9: making Hutton 2-way: bad because it will increase traffic cutting through the neighborhood, especially with increased population from new housing construction within a couple of blocks (444 River Lofts, Kings Landing).</p>	<p>Comment noted.</p>
I	<p>Troy can be a walking city if sidewalk widths are not done as minimums.</p>	<p>Comment noted.</p>

Comment #	Comment	Response
J	I want to make a suggestion. New signage just west of 15th westbound telling traffic to stay to the right lane for Rt 7 and 787. accidents happen because cars start to cut in west of 10th. Also is there anything in the plan to prevent pedestrians from crossing north to south between troy plaza and 15th. happens often, trying to get to mc Donald's. They don't use crosswalk at 15t.	The proposed median alternative reduces the number of westbound travel lanes on Hoosick Street from three to two at 10th Street. This results in improved lane alignment with both lanes approaching the NY Route 7 Bridge, thus reducing the need for lane changes.
K	We've begun walking a lot more for necessities since being home. Safer pedestrian walkways are needed.	Comment noted.
L	Working cameras should be put on intersections and pot holes and need to be filled	Comment noted.
Survey Question #17 Overall Downtown Connectivity		
A	A green median should be added along all of Hoosick and 6th. Lanes should be reduced to 2 with bike lanes, and roundabouts should be added at all intersections.	See response to comment 1a.
B	HUTTON STREET CONNECTION ACROSS THE PARK AREA (extending the actual road down the hill thru the current woods area and across 6th) AND HUTTON ST TURNED INTO 2-WAY TRAFFIC. This will enable access to the brewery area, the docks, and the other shops and restaurants there.	Extending Hutton St to 6th is not part of the plan, but a pedestrian connection is part of the long term option here.
C	I like the park down Hoosick under the bridge. Good idea. Does little for the overall Hillside North and South neighborhoods and seems disproportionately weighted in a supposed study about those neighborhoods - but it seems pleasant to walk through...	It is envisioned that a signature feature like this will create a prominent connection to the neighborhoods, while implementing part of the City's bicycle Master Plan.
D	I am at the southern end of the area, so these do not affect my trip downtown.	Comment noted.
E	I live in Hillside South on 9th st, so I think the traffic calming on 8th street would apply to me.	Comment noted.
F	Downtown is already accessible to us easily via People's Avenue.	Comment noted.

Comment #	Comment	Response
G	pedestrian crossing and traffic signal at peoples and 8th would help me get downtown. or better crossing at Jacob and 8th	Curb extensions could be considered at 8th/Jacob similar to 8th/Eagle and 8th/Hutton. Peoples is outside the study area, but traffic calming and pedestrian safety measures can be applied other City streets by the City as appropriate
H	Working comes should be put on intersections and pot holes need to be filled	Comment noted.
Website Comment #1		
A	Our business has been located here for 75 years. I have suggestions and rendition drawings to offer.	Comment noted.
Website Comment #2		
	I want to know more about this project. Add me to information lists.	Comment noted.
Website Comment #3		
	I think this is absolutely needed	Comment noted.
Website Comment #4		
	I would like to be on the project list for the Hoosick-Hillside Study since my husband and I own a house on 9th St. I look forward to seeing the plans.	Comment noted. This is a Planning Study. The intent of the study is to conceptually identify improvements to improve connectivity in the Hoosick-Hillside neighborhoods, and to enable the City to prioritize improvements, pursue funding and develop more specific plans for implementation in the future.
Website Comment #5		
	COMMENTS PRIOR TO LAUNCH: I am writing to be on the mailing list and join the project as a resident of the Burdett Avenue & Beman Park area; I am a neighbor to this study area, living on Burdett Av. one block from Hoosick St. We walk extensively in the Hillside and Beman Park neighborhoods. NEW COMMENTS: Sidewalk widths. My transportation is primarily by foot. I find side walks of less than 5 foot width are unpleasant and uncomfortable to walk or pass others. The 3 foot sidewalks near Samaritan Hospital on Burdett Ave. are not in any way acceptable. This causes walking in the parking and traffic lanes.	Comment noted. Burdett Avenue and Samaritan Hospital are outside of the study area for this project, but the need for adequate sidewalks is consistent with the goals of this study.
Website Comment #6		

Comment #	Comment	Response
	<p>COMMENTS 1: I realize these aren't the main topic for this project but they definitely affect the quality of life , speaking now of Hoosick/15th St area. Speeding and loud car/ motorcycle/truck traffic is a big problem here. Hoosick and 15 th St is like a raceway. Noise and disturbance from McDonalds all night drive thru is very disturbing. I appreciate any and all consideration given to my concern. COMMENTS 2:QUALITY OF LIFE: I see that improving quality of life is a goal of this project. Aside from the traffic and pedestrian concerns there is the subject of noise affecting the Hoosick /15th St area. Cars, trucks and motorcycles with very loud mufflers speed up Hoosick St and 15th St at all hours day and night. McDonalds all night drive thru also creates a terrible disturbance very late at night. Cars are lined up there sometimes for a half hour without getting through the line, all the while revving those loud mufflers, car radios and base blasting, people yelling, and horns tooting if service is not fast enough. This definitely makes for poor quality of life for myself living closely next door and for others living close by. I feel this should be addressed when considering quality of life.</p>	<p>Comment noted. Street noise is a part of urban living.</p>
Website Comment #7		
	<p>Please add me to the list. I'm excited to help beautify and connect the neighborhood!</p>	<p>Comment noted.</p>
Website Comment #8		
	<p>Please add me to the project list.</p>	<p>Comment noted.</p>
Website Comment #9		
	<p>The existence of Redemption Christian Academy, several churches and large buildings in this study area demand that multi-family housing be an allowed use.</p>	<p>Comment noted. The study area zoning is included in the existing conditions chapter of the report. The zoning consists primarily of commercial and two-family residential uses.</p>
Website Comment #10		
	<p>No longer a Troy resident but always interested in what's going on there. My roots go back to the late 1800s on Ninth Street where my Grandfather and G-Grandfather both served as Aldermen in the Tenth Ward.</p>	<p>Comment noted.</p>

Comment #	Comment	Response
Website Comment #11		
	<p>Subject: Lavin Court & Hoosick Street. Love this study and all the work that this committee has put into it. I live on Lavin Court and have emailed City Council about implementing some sort of a traffic device at the Lavin Court & Hoosick Street intersection. What happens too often is traffic from 15th street backs up past Lavin Court and the north most lane (nearest Lavin Court) leaves a space for cars to enter Hoosick Street from Lavin Court. In some cases, people are trying to make a left (east) onto Hoosick and because they can't see the second lane of oncoming traffic, there are frequent accidents there. This happens multiple times a year, with my wife being in one such accident a few years ago. A simple suggestion would be a "stop here on red" sign (or better yet a light!) that leaves a wide enough gap for cars to better manage their entrance to Hoosick Street. Another simple suggestion would be a "No left turn between the hours of [busy hours] sign on Lavin Court so that folks won't be tempted to make the turn. As it stands, we're now accustomed to going Lavin > Sausse > 15th > Hoosick when we want to head East which just is a small inconvenience but one that could be resolved with some simple safety devices.</p>	<p>An engineering study would be needed to assess traffic operations and crashes at the Lavin Court/Hoosick Street intersection, and determine if mitigation is needed, which is beyond the scope of this Planning Study. The comment is noted.</p>
Website Comment #12		
	<p>I was told by the mayor three years ago that they were going to put lights street lights that is on eighth Street between Rensselaer and Hoosick street I was just wondering if that's still on the table. Every third house on eighth street is selling drugs there is never ever a police presence on Our street when there is they drive very fast down our street as if they were in a hurry. Wish the police would have a presence on eighth street so we the neighborhood wouldn't get to know the community police and they wouldn't know us. Thank you in advance I hope someone is listening to our concerns. Charlena Keels 386-8th Troy,</p>	<p>Comment noted. Streetlights are not currently planned on Eighth Street but the City will investigate options for appropriately scaled LED lights as they take over ownership from National Grid.</p>
Website Comment #13		

Comment #	Comment	Response
	Addition to survey: Re. making Hutton 2-way at 6th Ave.: It will not be helpful to make Hutton 2-way; that will increase traffic cutting through the neighborhood of 5th Ave. near River between Federal and Hoosick; especially with the increased population from the new construction at 444 River Lofts and Kings Landing.	Comment noted.
Website Comment #14		
	<p>Remediation of deadly Hedley parking lot: We need Remediation of neighborhood disruption around the Collar City Bridge in Troy, NY. Center on the most affected people and areas impacted by drug trafficking and gun violence. Include the Old 6th Ave neighbors and listen to the long time residents that live too close to the deadly parking lots behind CDTA bus garage and the Collar City Bridge. Only the drug dealers know the traffic patterns around Old 6th Ave. That is how they can speed up for a drive by shooters job to be done. After 5 years the memorials became the drug dealing death shrines that are part of the danger in the Hedley First Columbia parking lot. We also need to talk about the children that have died from stray bullets at night in our city while school was remote in Lansingburgh and Troy. #AyshawnDavis #DonovanClayton There is a terrible cost to closed school buildings in the time of Coronavirus. Our students need their teachers, it is a tragedy that grief services are virtual by making an appointment in Lansingburgh now. Trauma needs healing. At these repeating times of grief, neighborhood people led and connected services have never been more vital. I am thinking about the neighbors that live around and play under the #CollarCity Bridge. How do we reconnect our City of #Troy and these neighborhoods. #LifeIsGrand #Old6thAve #UnderTheBridge #Remediation #enjoytroy #slowthecars #IronPipeLine #HoosickStreet #TroyNY</p>	<p>Many of these issues are beyond the scope of this traffic planning study. Pedestrian connections recommended in this Study will improve pedestrian safety. The City of Troy is committed to public safety.</p>

Website Comment #15		
	<p>Hello Hoosick-Hillside Study,</p> <p>Thank you for the opportunity to send feedback on your study. I'm not sure how this fits into *your* work on *this* project, but there are two general considerations that I would love to see addressed somehow, by somebody with planning authority:</p> <ol style="list-style-type: none"> 1. Cars do not respect pedestrians and cyclists, in part because... 2. Maintenance of pedestrian and bike infrastructure is poor. <p>If you have any advice for how I might address those things, please let me know.</p> <p>Thanks,</p> <p>Dan</p>	<p>Addressing these concerns is consistent with the goals of this study. Pedestrian upgrades recommended in this study, and Systemic improvements Statewide under the Pedestrian Safety Action Plan are raising awareness about pedestrian safety and implementing multimodal infrastructure.</p>
Website Comment #16		
	<p>Subject: public art in the underpass. We are administering the grant for public art on the pillars.</p>	Comment noted.
Website Comment #17		
	<p>Subject: speeding. Something HAS to be done with excess speed on ALL city streets-cars doing 55mph on Hoosick St and Tibbits Ave is unacceptable . Drivers run red lights and do not stop before turning right on red. Driving behavior is really beyond belief; it's obnoxious, truthfully.</p>	<p>The existing conditions analysis indicates that average speeds within the Hillside North and South neighborhoods are generally at or below the posted speed limit. However, the study recommends traffic calming to further reduce speeds and improve pedestrian safety/comfort.</p>
Website Comment #18		
	<p>Subject: Join Project List</p>	Comment noted.
Website Comment #19		
	<p>Please add me to the updates list for this project. Thanks.</p>	Comment noted.
Website Comment #20		
	<p>Subject: Join Contact list. Hi, this study is great! I would love to see these things get built. Please add me to the contact list. Thanks!</p>	Comment noted.
Website Comment #21		
	<p>PLEASE CONSIDER EXPANDING YOUR AREA. I LIVE ON INGALLS AVE BETWEEN OAKWOOD AND 11TH STREET. THE ROADS AND SIDEWALKS ARE NOT SAFE FOR PEOPLE WALKING UP THE HILL.</p>	<p>Comment noted. The study area was set by the Study Advisory Committee early on in the process, but the need for adequate pedestrian accommodations is consistent with the goals of this study.</p>

SUMMARY OF MEETING



ENGINEERS
PLANNERS
SURVEYORS

This meeting summary represents the writer's understanding of the major issues discussed. If you wish to suggest edits or additions, please contact the undersigned.

DATE: December 4, 2019

PROJECT: Hoosick Hillside Study

PLACE: TRIP – 378 10th Street

TIME: 5:30 p.m.

PURPOSE: **The purpose of this meeting was to discuss the study with TRIP and the Hillside North community and obtain their input on transportation problems and solutions in the area.**

ATTENDEES:

<u>Name</u>	<u>Title/Representing</u>	<u>Telephone Number</u>
-------------	---------------------------	-------------------------

See attached attendance sheet

SUMMARY:

1. Hilary Lamishaw welcomed the group and introduced the study, highlighting the importance of improving quality of life in the neighborhood by improving walkability and safe connections. Mark Sargent then provided a brief overview of comments heard at the first two public workshops, before opening discussion. The following topics were discussed:
 - a. Sidewalk Condition – Sidewalk conditions in the neighborhood vary. Because it is the property owner's responsibility to maintain the sidewalk some segments have fallen into disrepair. TRIP noted that during new construction, sidewalks that are in poor condition are generally replaced. In addition to sidewalk maintenance, snow removal was cited as a concern, as un-shoveled segments act as barriers and cause pedestrians to walk in the roadway.
 - b. New Connections – The group reviewed potential connections identified in the 2014 Hillside-North Neighborhood Plan and discussed the following:
 - i. Rensselaer Street Extension – It was suggested that Rensselaer Street be extended through the Johnstone Supply property to connect 8th Street to 6th Avenue. This connection could be a full access roadway, multi-use path, or sidewalk.
 - ii. 9th Street to Oakwood Avenue – A path was identified from 9th Street through the 10th Street Park and up the Hill to Oakwood Avenue. It was noted that TRIP owns part of the property on 9th Street necessary for the connection, although there may not be sufficient width due to the proximity of an adjacent carport. Residents stated that people often cut through the property south of the TRIP office to get from 10th Street to Oakwood Avenue.
 - iii. 8th Street to Public School 2 – It was noted that this is an important connection to provide access to and from the school. The path previously identified should be re-examined for feasibility.
 - c. Safety on paths – The group discussed the importance of safety on paths. It was noted that any new paths should be well lit and maintained so that people feel safe using them. Current paths in the neighborhood such as the one from 8th Street to the Hoosick Street/6th Avenue intersection currently lack lighting and maintenance and do not feel

SUMMARY OF MEETING

safe at night. It was also noted that new paths should have a sufficient buffer from existing houses.

- d. Lighting – The group discussed lighting in the neighborhood and noted that there are places that are not adequately lit at night, which contributes to a perceived lack of safety. It is unclear whether the lack of lighting is due to insufficient lighting or if existing fixtures are not working. The City noted that they are purchasing the light fixtures from National Grid and upgrading to LEDs.
- e. 10th Street Park – The park on 10th Street is currently below street level and is sometimes referred to as the “Fish Bowl”. Due to the elevation change, the park is not visible from the roadway which contributes to a perceived lack of safety and deters some residents from using the park. In the summer, the park is used for basketball. The group discussed enhancing the park, or potentially relocating the park across the street which could be better suited for public space.
- f. Street Amenities – It was noted that the neighborhood would benefit from streetscape improvements and amenities. Benches were identified as a way to provide pedestrians a place to rest after walking uphill. It was also suggested that outdoor exercise equipment be considered along new paths or park connections. The group acknowledged that amenities would need to be maintained.
- g. Green Infrastructure – Some areas of the neighborhood experience drainage issues and sewage backups. Green infrastructure could be considered to improve drainage and manage storm water, and could also provide a pedestrian buffer and traffic calming.
- h. Cut-Through Traffic and Speeds – The group noted that traffic in the neighborhood has increased due to some new commercial uses. Motorists also use 9th Street as a cut-through from Hoosick Street to Middleburgh Street. Residents noted that the neighborhood could benefit from traffic calming measures including speed tables, raised crosswalks, RRFB's, and driver feedback signs.
- i. Traffic Circulation Changes – The group discussed some potential overall changes to traffic circulation to reduce cut-through traffic. Specifically, dead ending 8th Street and 9th Street at Hoosick Street while maintaining pedestrian cross-connections and creating an east-west access road between the two was discussed as a potential idea.
- j. Crossing Hoosick Street – It was noted that Hoosick Street is a barrier for pedestrians and people do not feel safe walking along or crossing Hoosick Street. The Hoosick Street/8th Street intersection does not provide a marked pedestrian crossing across Hoosick Street. Regardless, some pedestrians walk up Hoosick Street (eastbound) and cross rather than use the path underneath the overpass. Potential improvements for Hoosick Street include a median/pedestrian refuge and improved streetscaping and buffers along sidewalks.

The meeting concluded at 7:30 p.m.

Jesse Vogl, AICP
Project Planner

cc: Attendees
 File

Hillside N. Study

Outreach Intakes/Names	Address/Phone #	Email Address	Voter's Registrations
Bew Hickman	714 P DT		Yes.
Mark Sargent	Creighton Manning 518-689-1837	msargent@comcast.net	Y.
Steve Strichman	914		
Jesse Vogl	Leighton Minic 518-689-1867	mag@comcast.net	
Debrae Bennett	Trep TOT		
Edosia Wheeler	415 River St. 4th Flr	Sodasia.Troy@comcast.net	Yes
Margaret Town	4 Ridge Rd 109-1212	Margie@christianstreet.org.	Yes

ONE TROY

Date: 12/5/19

Outreach Intakes/Names	Address/Phone #	Email Address	Voter's Registrations
Timothy. Fowler	175 9th St 341-941-5588	ytutwnt. relwof @ gmail.com	
Kim Mazer	417 10th St (518) 526-4345	Kimnieoftray @ gmail.com.	
Theresa Newton	4161 P		
Joseph Thomas (Resident)	342. 9th St		
Rima Shaniel	407 C		

ONE TROY

Date: 12/04/2019

SUMMARY OF MEETING

This meeting summary represents the writer's understanding of the major issues discussed. If you wish to suggest edits or additions, please contact the undersigned.

DATE: July 7, 2020

PROJECT: Hoosick Hillside Study

PLACE: Zoom Video Conference

TIME: 1:00 pm

PURPOSE: **The purpose of this meeting was to review the draft alternatives and recommendations with NYSDOT and receive their input.**

ATTENDEES:

<u>Name</u>	<u>Title/Representing</u>	<u>Telephone Number</u>
-------------	---------------------------	-------------------------

See attached attendance sheet

SUMMARY:

1. Welcome – Rima Shamieh welcomed the group and provided a brief overview of the study. Mark Sargent stated that key objectives for this meeting included reviewing the draft report with NYSDOT and receiving input on the potential alternatives and study recommendations.
2. Review and NYSDOT Input – CM provided a brief overview of the alternatives analysis and draft recommendations that pertain to NYSDOT jurisdiction. This primarily focused on the NY Route 7 on/off ramps on 6th Avenue and Hoosick Street from 8th Street eastward. The following was noted during the discussion:
 - a. The draft report recommends bicycle accommodations on 6th Avenue in the vicinity of the NY 7 eastbound off-ramp. Alternative 1 proposes a two-way cycle track on the east side of 6th Avenue, with no modification to the off-ramp. Alternative 2 is a larger scale intervention that proposes to develop the east-side of 6th Avenue and realign the roadway to add bicycle lanes, while converting Hutton Street to two-way traffic and creating a new signalized intersection.
 - i. Mark Pyskadlo noted that a new traffic signal would need to meet the signal warrants as outlined in the MUTCD.
 1. Mark Sargent responded that this alternative requires further study.
 - ii. Mike Fenley requested a cross-section for the cycle-track under Alternative 1.
 1. Mark Sargent responded that the cycle-track is at grade and provides a 5' bicycle lane in each direction with 3' buffer. **Action: CM to add cross-section for cycle track.**
 - b. The draft report recommends adding bicycle lanes to 6th Avenue north of Hoosick Street, by removing right turn lane and associated ramp onto NY Route 7 eastbound, accommodating that movement at the existing traffic signal.
 - i. It was noted that the signal is currently under City jurisdiction, while the ramp itself is under NYSDOT jurisdiction.
 - ii. Steve Strichman asked if the current road work on the ramp will impact the slip-lane.
 1. Mark Pyskadlo responded that the current work does not plan to modify the ramp.
 - c. The draft report recommends a median on Hoosick Street between 6th Avenue and 10th Street. It was noted that a median was proposed previously as part of the earlier Hoosick Street study, so the idea for a median is not new. Alternative 1 proposes a median break at 8th Street, allowing left turns from 8th

SUMMARY OF MEETING

Street onto NY 7 and through movements on 8th Street. In contrast, Alternative 2 would provide a continuous median. From a vehicle standpoint, both median alternatives would restrict the westbound left turn from Hoosick Street onto 8th Street, as well as left turns at the Hoosick Street/9th Street intersection. From a pedestrian standpoint, both median alternatives would provide a pedestrian refuge and signalized crossing on the east intersection leg. Likewise, both alternatives reduce the number of westbound through lanes at 10th Street from three to two in order to achieve better lane balance.

- i. Mike Fenley asked if the traffic analysis accounted for the redistribution of traffic as a result of turn restrictions.
 - 1. Mark Sargent responded that traffic was redistributed and generally results in a minimal increase at the 6th Avenue and 10th Street intersections.
- ii. It was noted that NYSDOT would not maintain a median on Hoosick Street. Currently Hoosick Street is under a shared service agreement, and a median would need to be incorporated into this agreement.
- iii. The group discussed the competing needs of pedestrians and vehicles on Hoosick Street. Specifically, previous additions of pedestrian phases has resulted in increased vehicle delay and impacts to signal coordination.
 - 1. Mark Sargent reviewed the LOS tables included in the alternatives analysis and indicated that the tradeoffs for a pedestrian crossing at 8th are relatively minimal due to other operational changes afforded by the median (i.e. restricted left turns).
- iv. Mike Fenley asked if it was possible to convert 8th Street to one-way traffic away from Hoosick Street.
 - 1. Rima Shamieh responded that the alternatives were developed based on the existing conditions analysis and public comment and that additional one-way conversions were ruled out earlier in the planning process.
- v. Mark Sargent reviewed additional traffic analysis associated with the removal of the eastbound NY 7 right turn lane onto 8th Street. It was noted that public comments indicated that 8th Street was difficult to cross in that area due to perceived fast moving right turning vehicles. Removing the right turn lane would improve this pedestrian condition with some increases to delay.

3. Recap/Next Steps – Mark Sargent asked for any final comments from NYSDOT. The following was noted:

- a. Mark Pyskallo asked if any of the alternatives discussed were supported with construction funds.
 - i. Mark Sargent responded that this is a planning study and that the improvements are conceptual at this point.
- b. It was noted that in general the recommendations are acceptable, subject to further engineering study. There is still concern to balance vehicle delay with pedestrian improvements.

The meeting concluded at 2:30 p.m.

Jesse Vogl, AICP
Project Planner

cc: Attendees
 File

SUMMARY OF MEETING



This meeting summary represents the writer's understanding of the major issues discussed. If you wish to suggest edits or additions, please contact the undersigned.

DATE: June 25, 2019

PROJECT: Hoosick Hillside Study

PLACE: Troy City Hall – Department of Planning Conference Room

TIME: 10:00 am

PURPOSE: **The purpose of this meeting was to kick-off the project with the Study Advisory Committee (SAC) and review the scope of work and project goals.**

ATTENDEES:

<u>Name</u>	<u>Title/Representing</u>	<u>Telephone Number</u>
-------------	---------------------------	-------------------------

See attached attendance sheet

SUMMARY:

1. Welcome – Steve Strichman welcomed the group and introduced the study, highlighting the importance of improving quality of life in the Hillside neighborhoods by promoting safe connections to and from neighborhoods. Rima Shamieh added that this study will build on the previous Hoosick Street studies, focusing on the bicycle and pedestrian neighborhood connections. Mark Sargent stated that key objectives for this meeting included reviewing the scope of work, study goals, and data collection plan.
2. Scope/Schedule Overview – Creighton Manning (CM) reviewed the scope of work with the group including study area boundaries, project schedule, and public outreach.
 - a. The following four focus areas were identified within the study area: (1) Hoosick Street Corridor, (2) Hillside North Neighborhood, (3) Hillside South Neighborhood, and (4) Under the Collar City Bridge.
 - b. The project schedule is approximately 12 months with the first round of public workshops planned in the fall after the existing conditions analysis has been completed, and the second round of workshops in the winter during development of design concepts.
3. Project Goals – CM opened discussion on critical success factors, asking members of the SAC to share what they would like to see from the project.
 - a. Steve Strichman stated that the study area map with the four focus areas provided a good summary of critical areas. He also added that 6th Avenue functions as a downtown highway that separates the Hillside neighborhoods from downtown.
 - b. John Corey noted the effectiveness of past improvements at the Hoosick Street/10th Street intersection. Although the intersection is safer, it still is not comfortable for pedestrians to cross due to the width. Removal of turn lanes or a pedestrian bridge to the north were suggested as possible alternatives.
 - c. Christine Nealon stated that the Hillside North neighborhood lacks pedestrian access due to steep grades and fenced areas. Traffic speeds on side streets are also a concern due to the long-straight nature of the roadways. The idea of a gateway or neighborhood branding as a way to signal that motorists are in an urban environment is appealing.
 - i. John Corey added that changing the traffic signal at Hoosick Street/8th Street from a span wire to a decorative mast arm could help achieve this gateway vision.

SUMMARY OF MEETING

- d. Chris Nolin emphasized that Hoosick Street and 15th Street are typically the first thing RPI students and visitors see when arriving on campus and therefore it is important that they provide a safe and attractive environment.
- e. Turn restrictions from Hoosick Street onto side streets were discussed as a method to improve traffic operations at intersections and minimize traffic impacts to the Hillside neighborhoods.
- f. Linda von der Heide noted that there are no marked pedestrian crossings between 10th Street and 6th Avenue. Likewise, 6th Avenue south of Hoosick Street does not have a sidewalk. This study should address pedestrian connectivity by filling gaps in the sidewalk network and providing safe crossing opportunities.
- g. James Rath stated that Freer Park is just outside of the study area but can be a significant pedestrian and bicycle trip generator. However, it is currently difficult to access as there are limited bike/ped connections.
 - i. John Corey added that the Riverfront Bikeway/Walkway plans to connect Freer Park to the riverfront.
- h. It was noted that traffic operations at the Hoosick Street/6th Avenue intersection are poor which causes traffic to divert to 8th Street. The width of the Hoosick Street/6th Avenue intersection also makes the intersection uncomfortable for pedestrians.
- i. Brent Irving indicated that congestion in the corridor impacts transit travel times. If traffic signal improvements are considered, transit signal priority (TSP) should also be examined.
- j. Andrew Kreshik stated that westbound traffic queues extend from 6th Avenue to 10th Street during peak hours which causes unsafe weaving conditions. Signage and natural wayfinding measures should be examined to improve this condition.
- k. It was noted that Hoosick Street is an important freight corridor and the heavy vehicles influence perception of the corridor.
- l. Martin Daley noted that previous studies on Hoosick Street did not adequately address bicycle infrastructure and that this study should explore alternate bicycle routes to connect the Hillside neighborhoods to the riverfront.
- m. Rima Shamieh stated that the plan should provide actionable items with clear steps for implementation. It is also critical that the neighborhoods and stakeholders support the plan.
- n. CM presented a draft purpose and need statement to the group. The following was noted.

Action: CM to update Purpose and Need Statement.

- i. The draft statement assumes high speeds on Hoosick Street. The study should seek to calm traffic.
- ii. The study goals promote complete streets which should be incorporated into the purpose and need statement.
- iii. The statement should include mention of a gateway and streetscape improvements.
- iv. The statement should focus on positive improvements rather than existing negatives.

4. Summary of Previous Studies – Jesse Vogl presented previous studies in the corridor as well as the key takeaways and past improvements. The following studies were discussed:

- a. Hoosick Street Corridor Study (CHA, 2000)
- b. Hoosick Street Phase II Corridor Plan (Saratoga Associates, 2004)
- c. Transaction Screen Report prepared for Crog Realty (URS Corp., 2004)
- d. Hoosick Street Corridor (MapInfo – Thompson, 2004)
- e. Hoosick Street Rezoning (2005)
- f. TRIP Community that works Study (2017)
- g. NY Route 7 Comprehensive Pedestrian Safety Study (2017)
- h. Troy Bicycle Connections Plan (2018)
- i. Realize Troy Comprehensive Plan (2018)
- j. On-Going Studies

SUMMARY OF MEETING

- i. CDTA Bus Rapid Transit (BRT)
- ii. Pedestrian Safety Action Plan (PSAP)
- iii. Riverfront Bikeway/Walkway
- iv. City of Troy Zoning

5. Data/Performance Measures – CM discussed the data collection plan with the SAC. It was noted that a comparison of traffic counts from 2013 to more recent 2017 counts indicate that volumes have not changed significantly, and therefore the 2013 count data is still applicable. The following new data collection was proposed:

- a. Peak hour turning movement counts at the Hoosick Street/6th Avenue intersection
- b. Automatic Traffic Recorders located on:
 - i. 9th Street between Hoosick Street and Rensselaer Street
 - ii. 8th Street between Hoosick Street and Rensselaer Street
 - iii. 8th Street between Jacob Street and Eagle Street
- c. The National Performance Management Research Data Set (NPMRDS) will be used to determine travel times on Hoosick Street. **Action: CDTA to provide NPMRDS data.**
- d. Parcel and land use data will be provided by the City. **Action: City to provide GIS data.**

6. Public Involvement – Margaret Irwin briefly discussed the importance of authentic public engagement. The following was discussed regarding public involvement:

- a. Public meetings sometimes have a negative connotation and do not work for all stakeholders.
- b. Pop-up events may provide an effective means to interact with the public by bringing the information to them.
- c. There may be opportunities to coordinate public engagement with other ongoing projects/studies within the city.
- d. **Action: CM/Margaret Irwin to provide draft public participation plan.**

7. Recap Schedule/Next Steps

- a. An optional field walk will be scheduled with interested members of the SAC to walk the study area and to begin to identify issues and improvement ideas. It was suggested that the field walk be scheduled for a Wednesday afternoon in July with a tentative rain date of the following Thursday. **Action: CM / CDTA to facilitate field walk**

Summary of Actions:

Consultant Team

1. **CM to update purpose and need statement.**
2. **CM/Margaret Irwin to provide draft public participation plan.**
3. **CM/CDTA to facilitate field walk.**

Advisory Committee

1. **CDTA to provide NPMRDS data.**
2. **City to provide GIS data.**

The meeting concluded at 12:00 p.m.

Jesse Vogl, AICP
Project Planner

cc: Attendees
 File



Hoosick Hillside Study

Project Initiation/Kick-off Meeting

Troy City Hall – Main Conference Room
Tuesday, June 25, 2019
10:00 a.m.

Name	Representing	Email
Margaret Trosin Christine Nealon Rima Shamieh	Concord. Restrect Planning TRIP CDTC	christine@trip.org rshamieh@cdtcmpo.org
Linda von der Heide Brent Steckley	Peninsulae Planning (sovereign Hillsides N. Hood) PLACE Alliance Van Loon	linda@placealliance.com linda@vanloon.org linda@vanloon.org brent@steckley.com
James Keith Andrew Kreshik	City of Troy City of Troy Chris Nolin Steve Stachon	James.Keith@troy.ny.gov Andrew.Kreshik@troy.ny.gov Chris.Nolin@troy.ny.gov Steve.Stachon@troy.ny.gov
		2021 / TROY CITY





Hoosick Hillside Study

Project Initiation/Kick-off Meeting

Troy City Hall – Main Conference Room
Tuesday, June 25, 2019
10:00 a.m.

Name	Representing	Email
Mark Sargeant	Creation Meaning	mark.sargeant@comcast.net
Brian Kirch	NYSDOT - Reg 1 PLNG	brian.kirch@dot.ny.gov
Audrey Dunson	NYSDOT - Region 2 Planning	audrey.burneson@dot.ny.gov
John Correy	Business on I-9000	je@coreyshome.net
Brent Leving	CDTA	brenti@cdta.org
Martin Daley	DRPC	Martin.Daley@drpc.org
Curtis Bauer	CDTC	CRAUER@CDTC.ORG
Mary Moore Wallinger	Land Art Studio	mwallinger@landartstudiony.com



This summary represents the writer's understanding of the major issues discussed. If you wish to suggest edits or additions, please contact the undersigned.

DATE: August 1, 2019

PROJECT: Hoosick Hillside Study

PLACE: Hoosick Hillside Study Area

TIME: 2:00 pm

PURPOSE: The purpose of the walk was to become familiar with the study area and to identify initial issues and ideas to be addressed as part of the study.

ATTENDEES:

Name	Title/Representing	Name	Title Representing
Martin Daley	CDRPC	Steve Strichman	City of Troy
Brent Irving	CDTA	Michael Frederick	Place Alliance
Christine Nealon	TRIP	Ian Law	Place Alliance
Audrey Burneson	NYSDOT	Mary Moore Wallinger	LANDArt Studio
Linda VonDerHeide	Rensselaer County	Rima Shamieh	CDTC
Chris Nolin	RPI	Mark Sargent	Creighton Manning
James Rath	City of Troy	Jesse Vogl	Creighton Manning
Andrew Kreshik	City of Troy		

SUMMARY:

Attendees met at Troy City Hall, walked to the River Street/Hoosick Street intersection and continued up the hill on Hoosick Street before turning south onto 8th Street and looping through the Hillside South Neighborhood via Hutton Street and 10th Street. The group then crossed Hoosick Street at the 10th Street intersection and continued through the Hillside North Neighborhood to Rensselaer Street before returning to River Street via 8th Street. The field walk route is included in Attachment A. The following comments and suggestions were noted:

1. NYSDOT owns the land on either side of Hoosick Street (excluding the Hoosick Street ROW owned by the City) underneath the Collar City Bridge. The City of Troy has a license to use and maintain the land, which it sub-licenses to First Columbia. The lease/maintenance agreement is nearing the end of its term, which could present an opportunity for a new arrangement that encourages investment in the area. The potential to create a destination underneath Collar City Bridge was discussed, with ideas including expansion of existing parking lots, creation of a potential food truck area, and conversion of Hoosick Street to greenspace with a pedestrian path and creating one-way east and one-way west streets under the bridge piers. It was noted that the area underneath the bridge is loud which could detract from the sense of place and pose a barrier to creating a destination. Further, the lack of pedestrian accommodations, such as push buttons at the River Street/Hoosick Street and Hoosick Street/6th Avenue intersections, as well as the wide curb radius at the Hoosick Street/Earl Street intersection and slip right turn lane at the Hoosick Street/6th Avenue intersection could pose a barrier to pedestrian connectivity. Reconnecting the 1st Street alley was proposed as a way to enhance pedestrian and bicycle connectivity. Lighting underneath the bridge is predominantly automobile oriented and there may be a need for better



pedestrian scale lighting. Without the pedestrian traffic, food trucks may not be successful. However, more active uses such as a skate park could be encouraged. It was noted that at one point, a half pipe existed and was used occasionally by skateboarders and roller bladers, before falling into disrepair and being destroyed. It was also noted that one of the parking lots serves as a basketball court in the evening. Embracing the hardscape and public art on the bridge abutments could help create a new sense of place. There is investment taking place in the area, with a new restaurant on 5th Avenue and additional housing on 6th Avenue. It was noted that a flea market may also locate underneath the ramp from 6th Avenue to NY Route 7.

2. Transitioning from the area underneath the Collar City Bridge to the Hillside South Neighborhood, it was noted that the sidewalk on Hoosick Street transitions to snow storage near the merge with NY Route 7. Several worn foot paths were observed to the south, indicating the pedestrian desire lines to and from 8th Street. It was noted that these paths could be formalized and signage could support pedestrian wayfinding.
3. Observations at the Hoosick Street/8th Street intersection indicate that there are no pedestrian crossings across Hoosick Street. The intersection is wide and lacks driver guidance. Drivers were observed hesitating in the intersection due to multiple turning movement options and conflict points. It was noted that there is a desire to place the building in the northeast quadrant of the intersection on the National Register of Historic Places and convert it into a museum. The southwest quadrant of the intersection is vacant and could present an opportunity to encourage pedestrian connections.
4. As the group continued along 8th Street, it was noted that the roadway is wide and feels like a thoroughfare. Parking is permitted on both sides, although utilization varies. The question was raised as to what the identity of 8th Street should be (i.e. should it be more pedestrian friendly or automobile and business oriented). It was noted that 8th Street's identity could be tied to 6th Avenue, which is designed more like a thoroughfare, but has similar traffic volumes. Creating a "T" intersection at the NY Route 7 off-ramp/6th Avenue intersection was proposed as a method of calming traffic on 6th Avenue. A worn pedestrian path was observed on the steep embankment connecting 8th Street and 6th Avenue through the RPI property. It was noted that Capital Roots owns and maintains a public garden opposite Hutton Street, adjacent to the RPI property. In addition to numerous brownstones on 8th Street and 10th Street notable land uses include a Church at the 10th Street intersection that functions as a community center and a convent north of Hutton Street. An abandoned staircase was observed on the east side of 10th Street, possibly connecting to 11th Street at one time.



5. The group crossed to the Hillside North Neighborhood at the Hoosick Street/10th Street intersection. It was noted that although there is an exclusive pedestrian phase, pedestrians must wait a long time since the current signal timing favors traffic on Hoosick Street. North of Oakwood Avenue, the character of 10th Street changes to a quieter neighborhood with less traffic. A small park was observed on the west side of 10th Street. It is noted that the park is below street level and a steep grade makes it difficult to access. Residents have requested steps or terraces on the embankment leading to the basketball court. At the far end of the park, there is a former public right of way that used to connect to 9th Street, but is now overgrown and closed with a locked gate. It was noted that the Uncle Sam Trail along US Route 4 and River Street is four blocks west of the Rensselaer Street/8th Street intersection. Rensselaer Street used to connect to 6th Avenue, but is now private property. Residents on 8th Street indicated that due to the straight nature of the roadway, speeding is perceived as an issue. Speed bumps or chicanes could be considered to reduce speeds. A neighbor commented that it is easy to get downtown from 8th Street by way of the informal path to 6th Avenue. Ownership of this property should be examined to determine if the path can be formalized, maybe as part of a public park. Another alternative could examine the south end of the Johnstone Supply property in order to create another pedestrian connection.

6. It was noted that there are a lot of ash trees in the study area. The City is treating them to withstand the emerald ash borer.



The Field Walk concluded around 4:00 p.m.

Jesse Vogl, AICP
Project Planner

cc: File

N:\Projects\2019\119-047 CDTC - Hoosick St\Working\Correspondence\Meetings\20190801 Field Walk\119047_Field Walk Summary_20190815.docx



Hoosick Street Parkway Implementation Study

RIVER STREET
PLANNING & DEVELOPMENT
LAND
Studio

Creighton
Manning
PLACE
alliance

SUMMARY OF MEETING



This meeting summary represents the writer's understanding of the major issues discussed. If you wish to suggest edits or additions, please contact the undersigned.

DATE: October 3, 2019

PROJECT: Hoosick Hillside Study

PLACE: Troy City Hall – Department of Planning Conference Room

TIME: 10:00 am

PURPOSE: **The purpose of this meeting was to review the Public Participation Plan with the SAC, present the draft materials for the upcoming public workshops, and receive feedback/comments on the existing conditions profile.**

ATTENDEES:

<u>Name</u>	<u>Title/Representing</u>	<u>Telephone Number</u>
-------------	---------------------------	-------------------------

See attached attendance sheet

SUMMARY:

1. Welcome – Mark Sargent welcomed the group and stated that key objectives for this meeting included reviewing the public participation plan, approach to the upcoming public workshops, and comments on existing conditions profile.

2. Public Participation Plan – Margaret Irwin provided an overview of the public participation plan, including description of the project website, outreach materials for the public workshops, and draft intercept survey. Jesse Vogl then presented that approach to the public workshops, including draft presentation. The following action items were discussed: Abbreviations are listed at the end of this document.
 - a. CM/RSPD to update draft flyer for TAC review/sign-off (meetings open to general public but focused on neighborhood/business issues)
 - b. Flyer to be distributed at Troy 100 meeting on Monday (emailed to City for distribution by City)
 - c. RSPD to send list of business owners / agencies to TAC, then finalize list for direct mailing.
 - d. RSPD/TRIP to canvas neighborhoods with flyer and residential save the date
 - e. RSPD/TRIP to post flyer in public places (bus stops, community centers, social services, etc.)
 - f. CDTA to look into distributing flyer through travel trainers
 - g. TAC to finalize survey
 - h. Rima to send Outlook appointment to SAC to attend public workshops
 - i. Updates to Public Workshop Presentation (CM)
 - i. Reason for study should emphasize neighborhood connections and quality of life impacts caused by traffic volumes
 - ii. Explain how study fits into process of constructing improvements and obtaining funding
 - iii. Break Purpose and Need statement into bullet points
 - iv. Add points of interest to land use map (change color of star to blue)

SUMMARY OF MEETING

- v. Visualize roadway widths (create infographic)
- vi. Describe traffic volumes on Hoosick in terms of other roadways
- vii. Show LOS on map rather than table
- viii. Update color scheme on crash graphic
- ix. Split pedestrian infrastructure figure into 2 maps (infrastructure, desire lines and barriers)
- x. Add context to bike plan slide
- xi. Add walkshed to transit map (simplify graphic)
- xii. Refine question prompts and activity with TAC (ie map desire lines activity)
- xiii. Replace schedule graphic with bullets of important milestones.

3. Existing Conditions Profile – The group was instructed to send comments on the existing conditions profile to Rima Shamieh and include CM and the City on correspondence. Comments should be received by 10/11. The following edits to the existing conditions profile were discussed:

- a. Traffic volumes at Hoosick Street/10th Street may have been transposed on the figure.
CM to review count data and update figure as necessary.
- b. Bicycle LOS was not presented in the existing conditions profile. BLOS will be evaluated as alternatives are developed.
 - i. A visual preference survey, prepared by CDTc to calibrate the regions level of traffic stress model, will be included as part of the public engagement.
- c. There should be additional discussion on neighborhood traffic characteristics.
 - i. **CM to conduct peak hour turning movement count at 9th Street/Hutton Street.**

The meeting concluded at 12:00 p.m.

Jesse Vogl, AICP
Project Planner

cc: Attendees
 File

List of Abbreviations

CM	Creighton Manning
RSPD	River Street Planning and Design
TRIP	Troy Rehabilitation and Improvement Program
CDTA	Capital District Transportation Authority
TAC	Technical Advisory Committee
SAC	Study Advisory Committee



Hoosick Hillside Study

SAC Meeting #2

Troy City Hall – Main Conference Room
Thursday, October 03, 2019
10:00 a.m.

Name	Representing	Email
Martin Daley James Rath	CDRPC City C-W - Troy	Mitchell.Godtfredsen@james.rath@troy.ny.gov mrg@cdrpc.org
Mark Sargent		msargent@comcast.com
Andrew Kresnik		Andrew.Kresnik@troy.ny.gov
Chris Martin	APT	christopher.martin@apt1000.com
Beth Steckley	TAP/Hudson Woods COTC	bsteckley@hudsonwoods.com cota@contempo.org
Chris Bauer		chris.bauer@lunderheiدهrensco.com
Linda von der Heide	Pensacola County	Linda.von.der.Heide@pensacolacounty.org
Audrey Burreson	NYS DOT R1 Planning	Audrey.Burreson@dot.ny.gov
Brim Kirch	NYS DOT R1 Planning	Brim.Kirch@dot.ny.gov



Hoosick Hillside Study

SAC Meeting #2

Troy City Hall – Main Conference Room
Thursday, October 03, 2019
10:00 a.m.

Name	Representing	Email
Rima Shamieh Margot Main	CDTC Rider Street (west) margot@riderstreet.ca	—

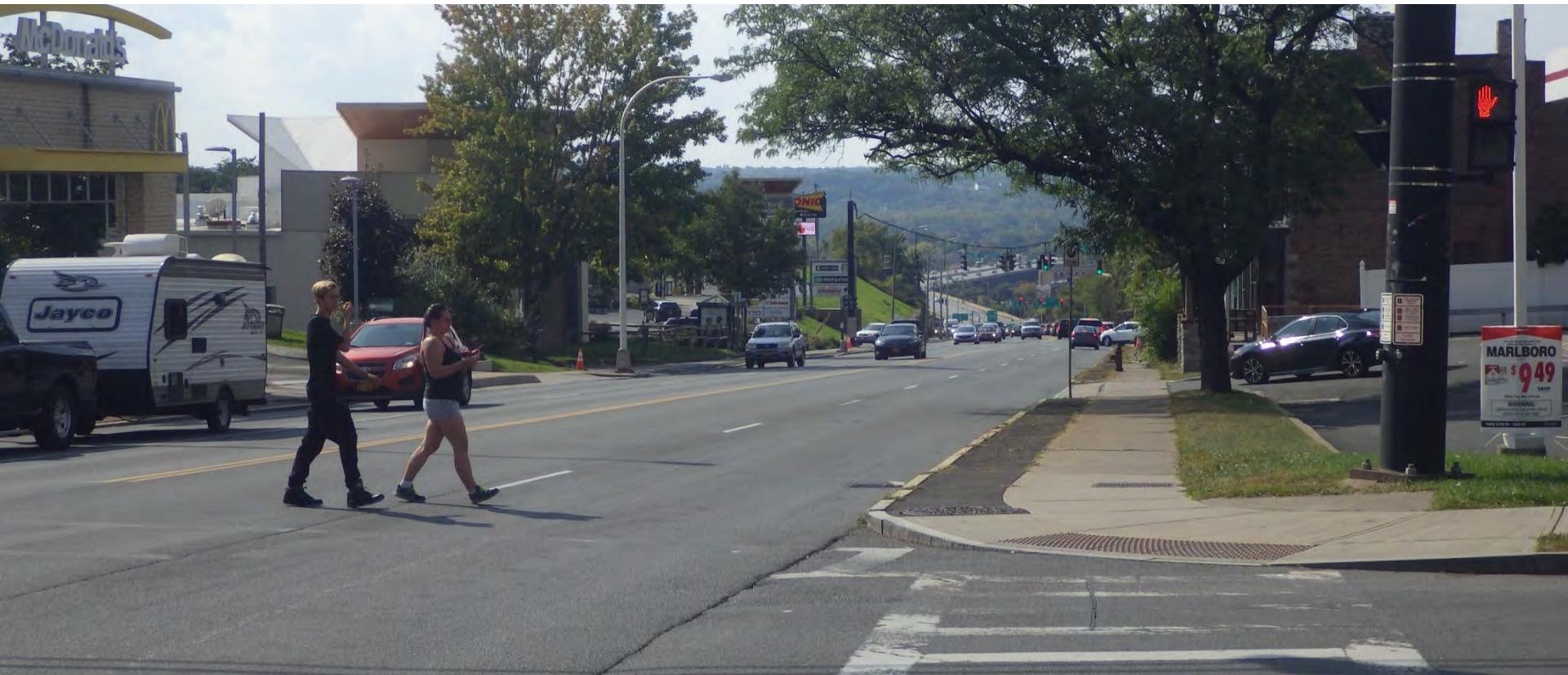




SAC Meeting #2

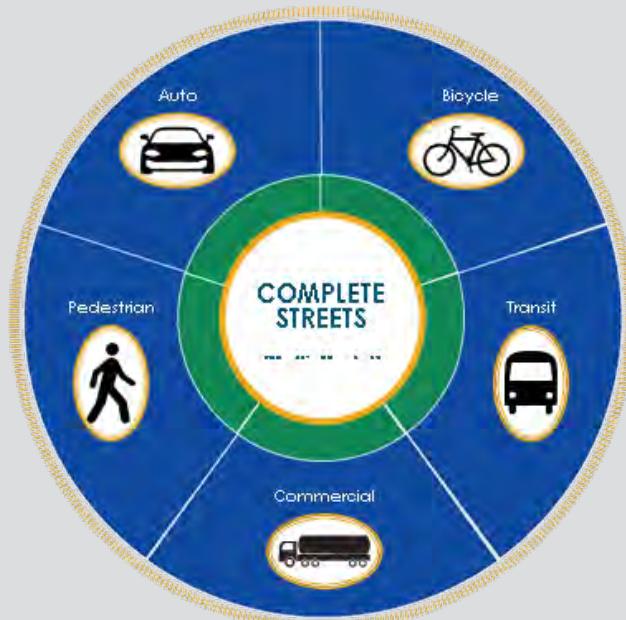


October 03, 2019



Agenda

1. Welcome/Introductions
2. Public Participation Approach
3. Review Existing Conditions Profile
4. Schedule/Next Steps



Public Participation Plan

- Resident Workshop
 - Wednesday 10/23 6:30-8:30 p.m.
 - Oakwood Community Center
- Business Workshop
 - Tuesday 10/29 6:30-8:30 p.m.
 - Troy City Hall, Council Chambers
- Direct engagement: TRIP outreach staff to distribute flyers, surveys, photos of people/problem points





CITY OF TROY, NY
HOOSICK-HILLSIDE STUDY

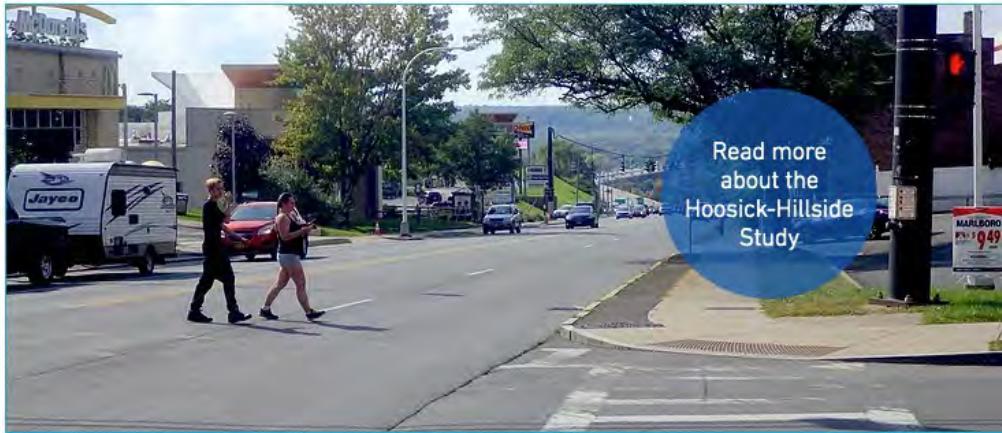


HOME

ABOUT THE STUDY

MEETINGS & EVENTS

GIVE FEEDBACK



Save the dates!

Meet our
PROJECT TEAM



Learn about
UPCOMING EVENTS:
Community Meeting
Wed., October 23, 2019



Local Businesses Meeting
Tues., October 29, 2019

Take a short
SURVEY



Please join the [CONTACT LIST](#) to stay involved and up to date!

- Project Description, Scope, Study Area
- List of Project Team/SAC members
- Meeting updates
- Survey link
- Comment form for public input
- Project documents (PPTs, drawings)

INTERCEPT SURVEY

- Draft survey questions to be review by the City and CDTc
- Posted to project website
- Available at public meetings and in local area (e.g., churches)
- Filled out in person with TRIP staff



Hoosick-Hillside Community Survey

The City wants to hear from you about safety around the Hoosick Bridge and Hoosick Street to ask for money to improve the area. Thank you for being part of this study!

1. Where do you live?

- Hillside?
- North Central?
- Somewhere else?

Where?

2. What stores, services or organizations do you use each week?

3. How do you get to these places? Do you walk, drive, bike? Another way?

4. Do you have to cross Hoosick Street?

- Yes
- No

If yes, where do you cross?

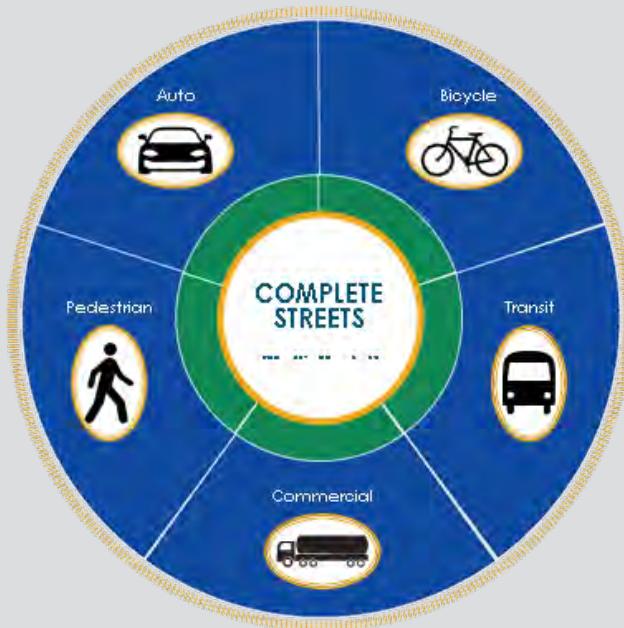
Plan for Public Workshops

- Introduce Study
 - Purpose and Need
 - Goals/Objectives
 - Complete Streets Education Material
- Overview of Existing Conditions
- Feedback Exercise
 - Group discussion
 - Notes recorded on screen
 - Map of each focus area for annotation

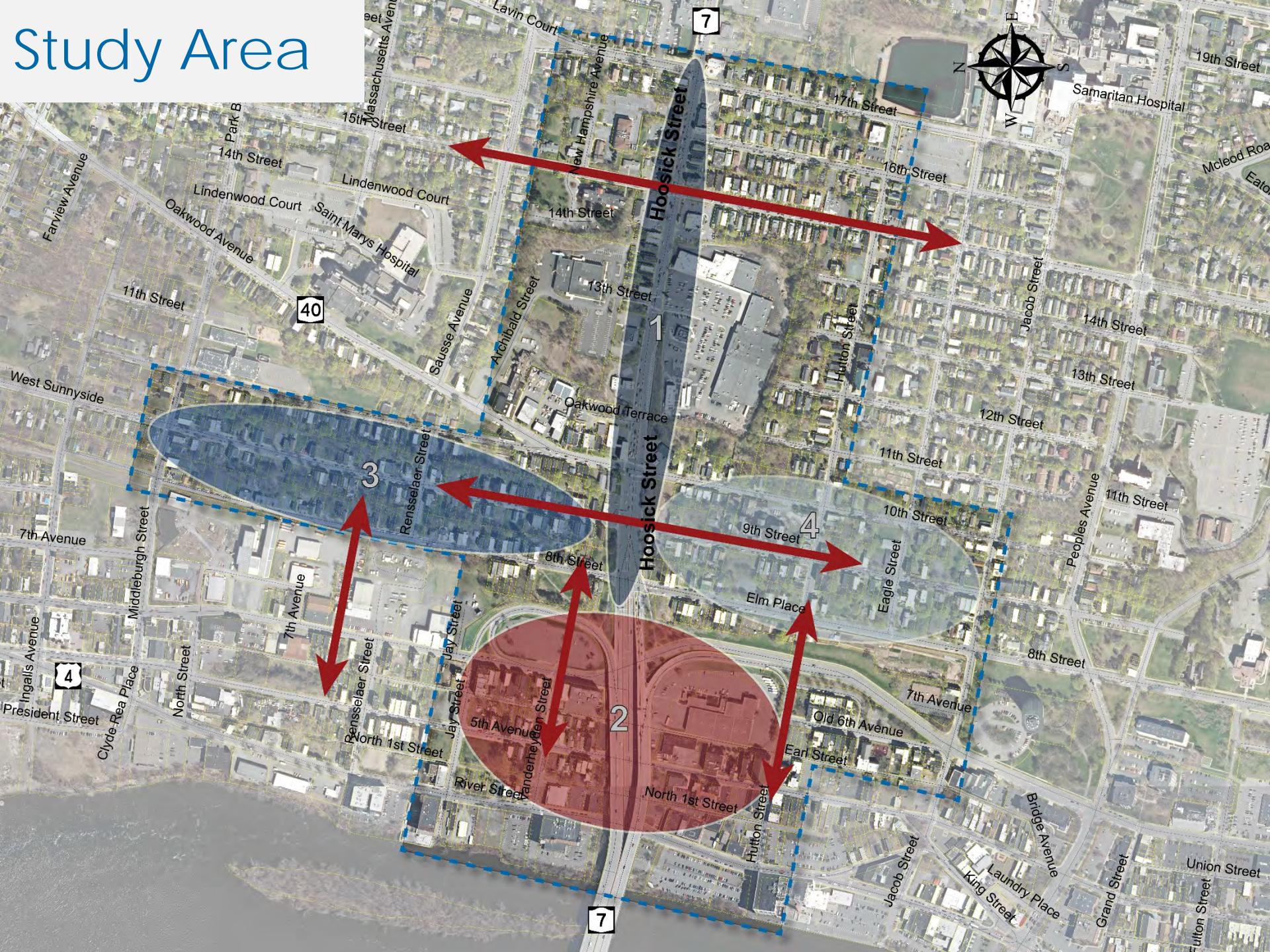


Welcome/Purpose of Meeting

- Introduce Project
- Get Your Input



Study Area



Why this Study?

- Competing Needs on Hoosick Street
 - Local vs. Regional Transportation Network
 - Motorized vs. Non-motorized users
- Previous Studies
 - Phase I and II Corridor Studies (2000 and 2005)
 - TRIP Reimagining Hillside North (2014)
 - Route 7 Comprehensive Pedestrian Safety Study (2017)
- On-Going Efforts
 - River Corridor BRT
 - PSAP

Project Scope – 12 Month Study

1. Initiation and Data Gathering
2. Existing Conditions Analysis
3. Public Workshops #1-2
4. Draft Design Concepts
5. Public Meeting #3
6. Report and Implementation Strategy

Purpose and Need

- The purpose of this study is to improve quality of life in the Hillside North and South Neighborhoods through streetscape enhancements and the fostering of safe and convenient pedestrian and bicycle connections to, from, and between the Hillside North and South neighborhoods and surrounding areas including River Street and Downtown, while maintaining traffic operations on Hoosick Street, using a complete streets approach.

Purpose and Need

- Due to the large volume of high-speed traffic on Hoosick Street, there is a need to minimize the negative impacts of traffic in neighborhoods and provide safe and convenient pedestrian and bicycle crossings throughout the study area.



What are Complete Streets?



Complete Streets are streets for everyone, no matter their ability or how they travel.



National Complete Streets Coalition

What are Complete Streets?



National Complete Streets Coalition

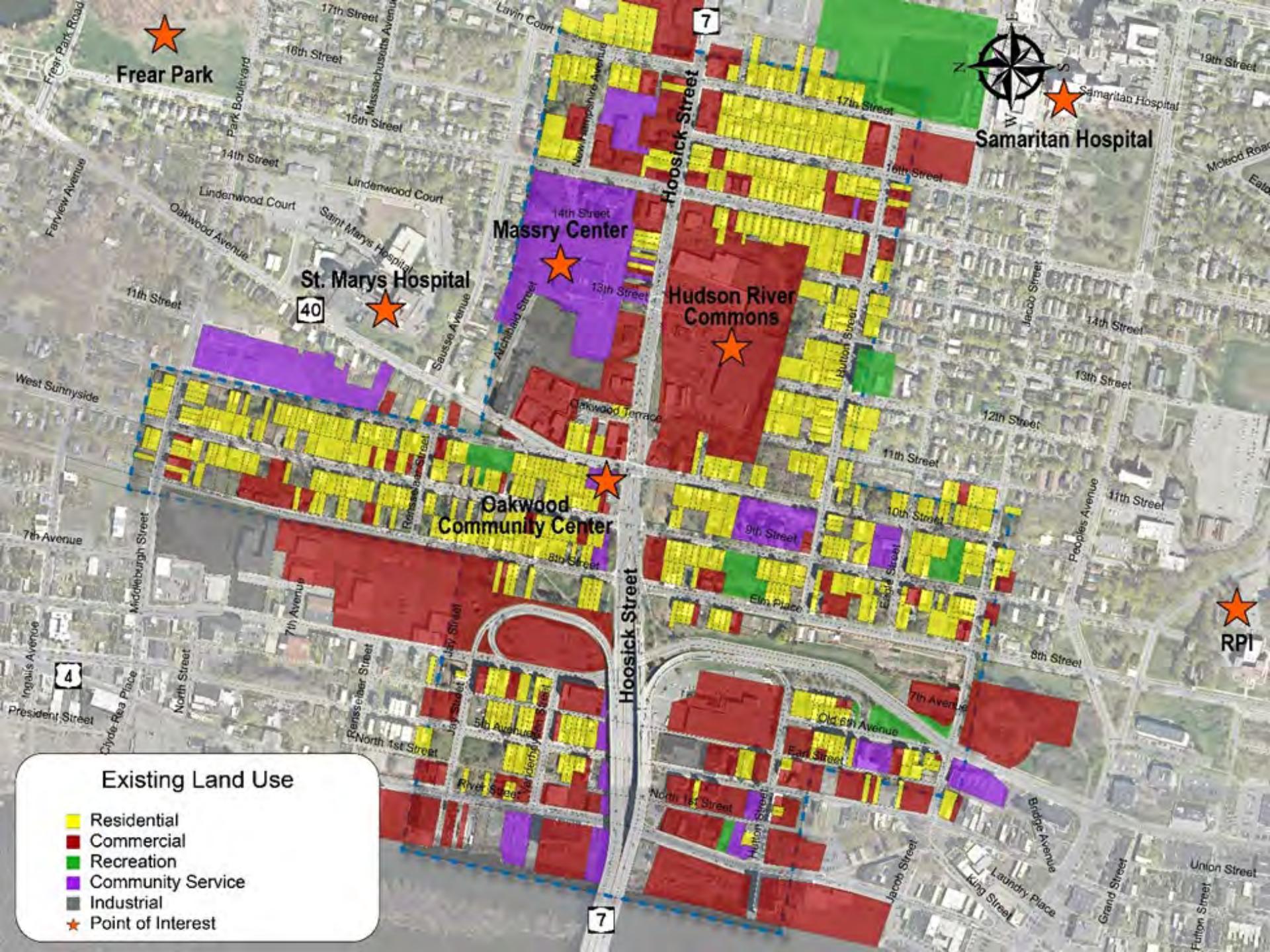
What are Complete Streets ?

“There is no one design prescription for complete streets. Ingredients that may be found on a complete street include . . . ” ~ *National Complete Streets Coalition*

- Sidewalks / Crossings
- Bike lanes
- Medians
- Curb extensions
- and more



Existing Conditions



Existing Land Use

- Residential
- Commercial
- Recreation
- Community Service
- Industrial
- Point of Interest

Hoosick Street Roadway Characteristics

- 3 Lanes west of 8th Street
- 7 Lanes between 8th Street and 10th Street
- 4 Lanes East 10th Street



Hourly Traffic Variations (Typical Weekday)

Hoosick Street West of 13th Street



Hoosick Street Traffic Characteristics

Intersection	2019 Existing Overall Intersection LOS	
	AM Peak Hour	PM Peak Hour
Hoosick Street/6 th Avenue	B (16.1)	B (17.0)
Hoosick Street/8 th Street/NY Route 7	C (31.3)	F (106)
Hoosick Street/ 10 th Street	C (24.1)	C (25.2)
Hoosick Street/13 th Street	A (9.0)	A (8.6)
Hoosick Street/15 th Street	C (28.7)	C (21.1)

Neighborhood Traffic Characteristics

- Highest traffic volumes observed on 6th Avenue and 8th Street south of Hoosick Street
 - Direct access to NY Route 7
- Higher than average speeds observed on 8th Street south of Hoosick Street
 - Wide street with open space and clear sight lines





Bicycle and Pedestrian Crashes (3/1/2013 to 2/28/2019)

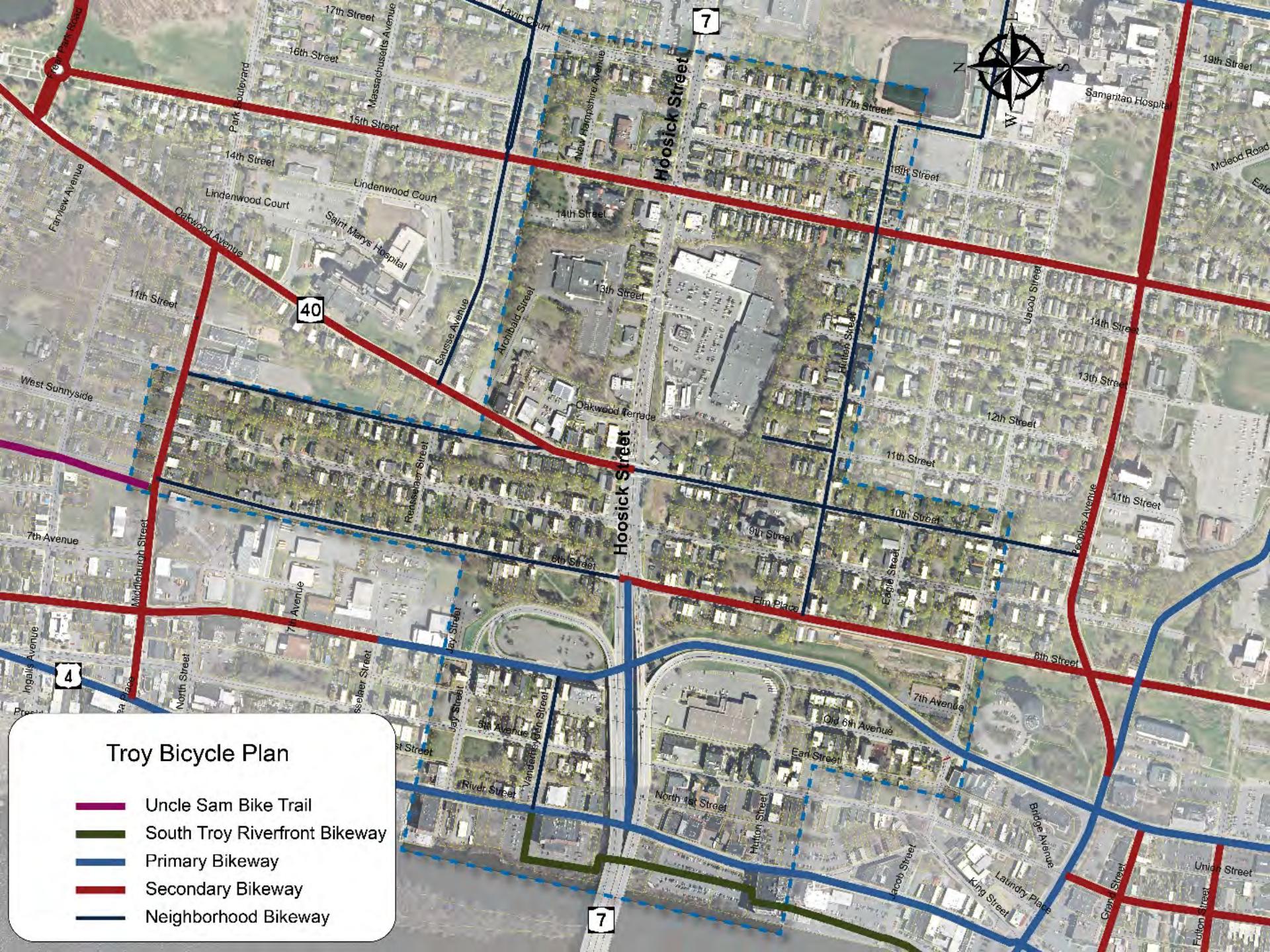
- Pedestrian Crash
- Bicyclist Crash

Source: NYSDOT, CDTC

Disclaimer: Crash data provided by the NYS Department of Transportation's Accident Location Information System (ALIS)

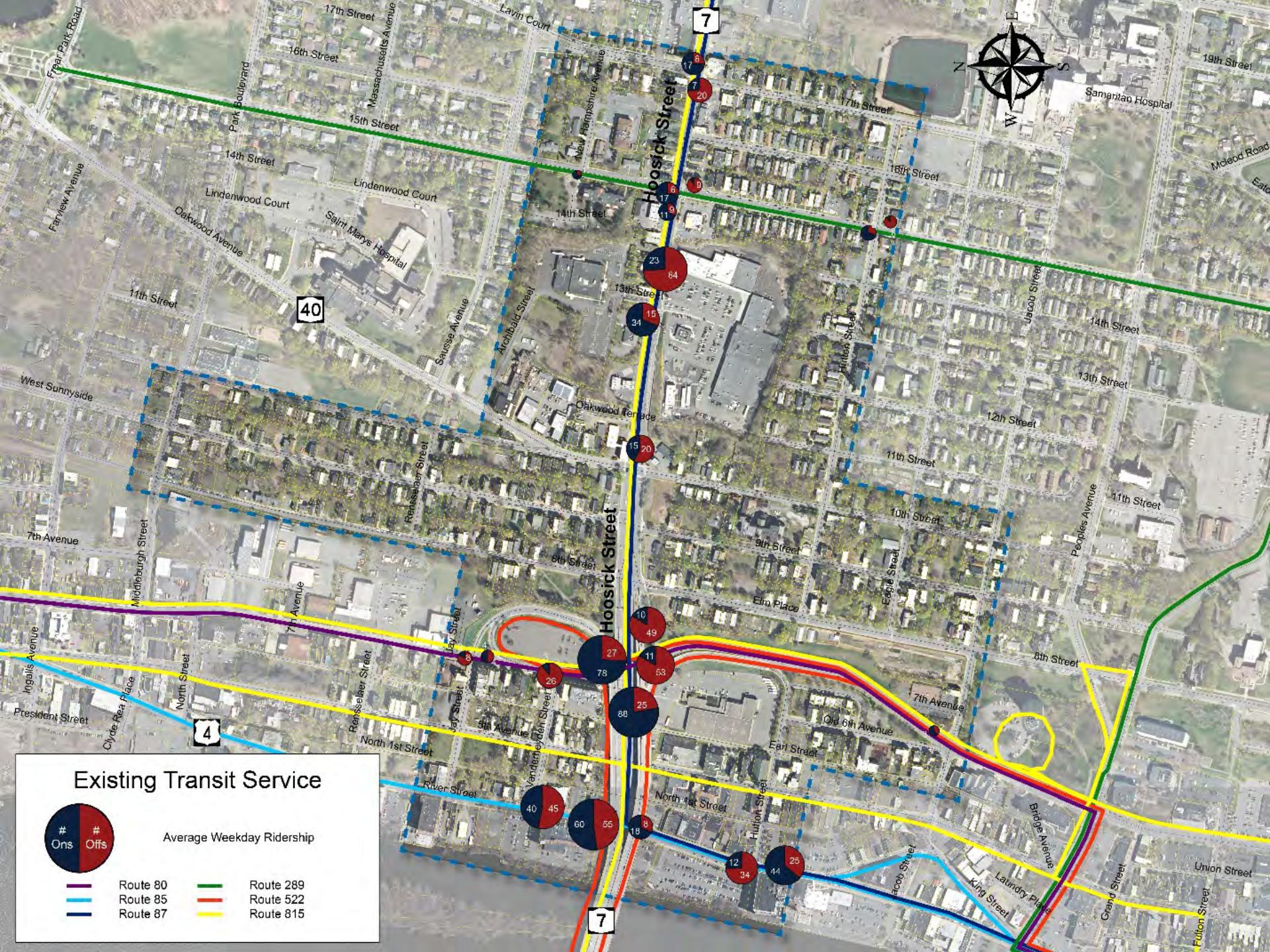


Existing Pedestrian Infrastructure



Troy Bicycle Plan

- Uncle Sam Bike Trail
- South Troy Riverfront Bikeway
- Primary Bikeway
- Secondary Bikeway
- Neighborhood Bikeway



Existing Transit Service



Average Weekday Ridership

Route 80  Route 289
Route 85  Route 522
Route 87  Route 815

River Corridor Bus Rapid Transit



7

7

7

WHAT DO YOU THINK?

- Where do you go (within/around study area)?
- How do you get there – what routes do you take?
- Is it easy to get where you want to go?
- What are challenges along those routes?
- Is there anywhere you don't go?

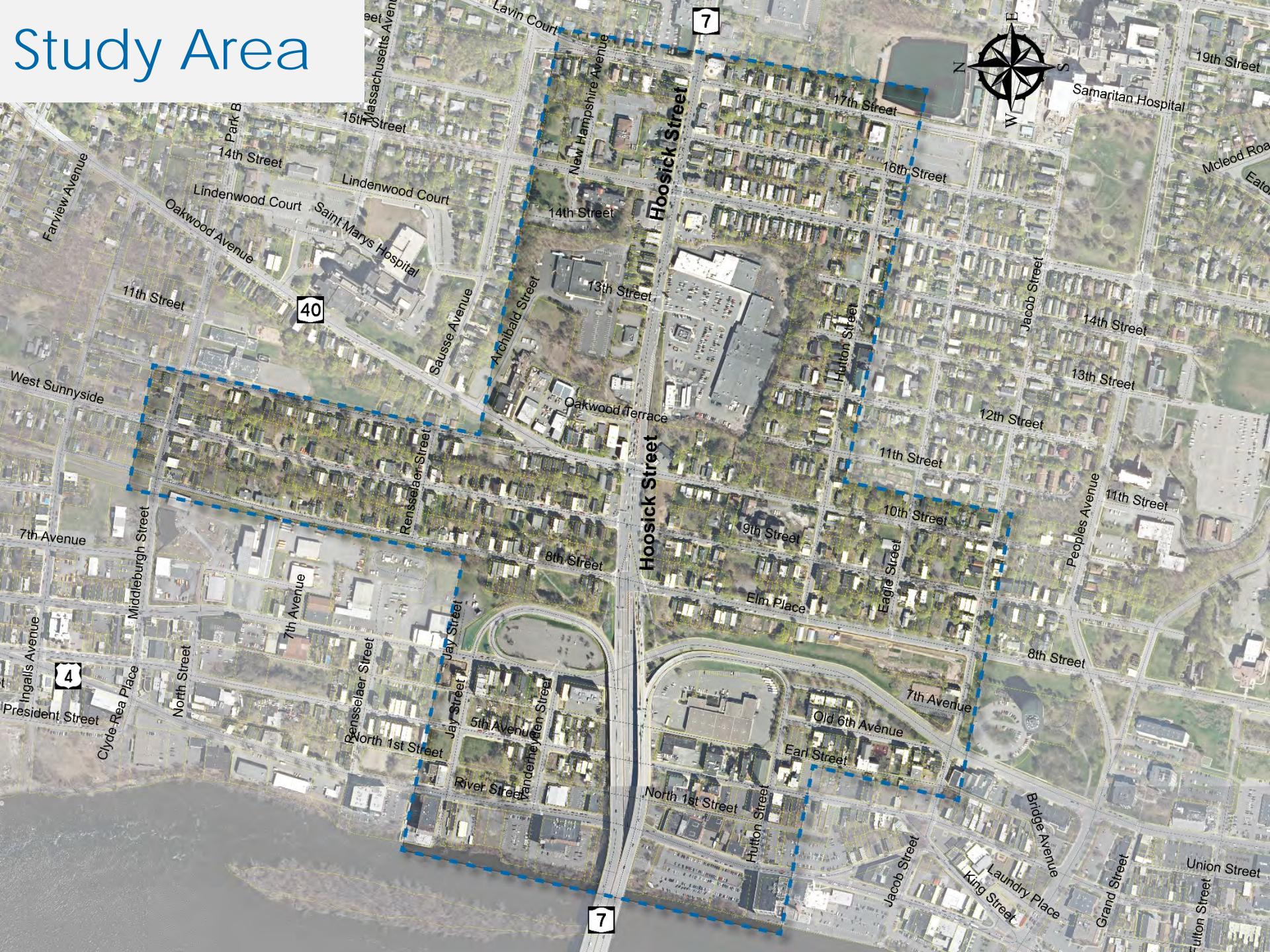


WHAT DO YOU THINK?

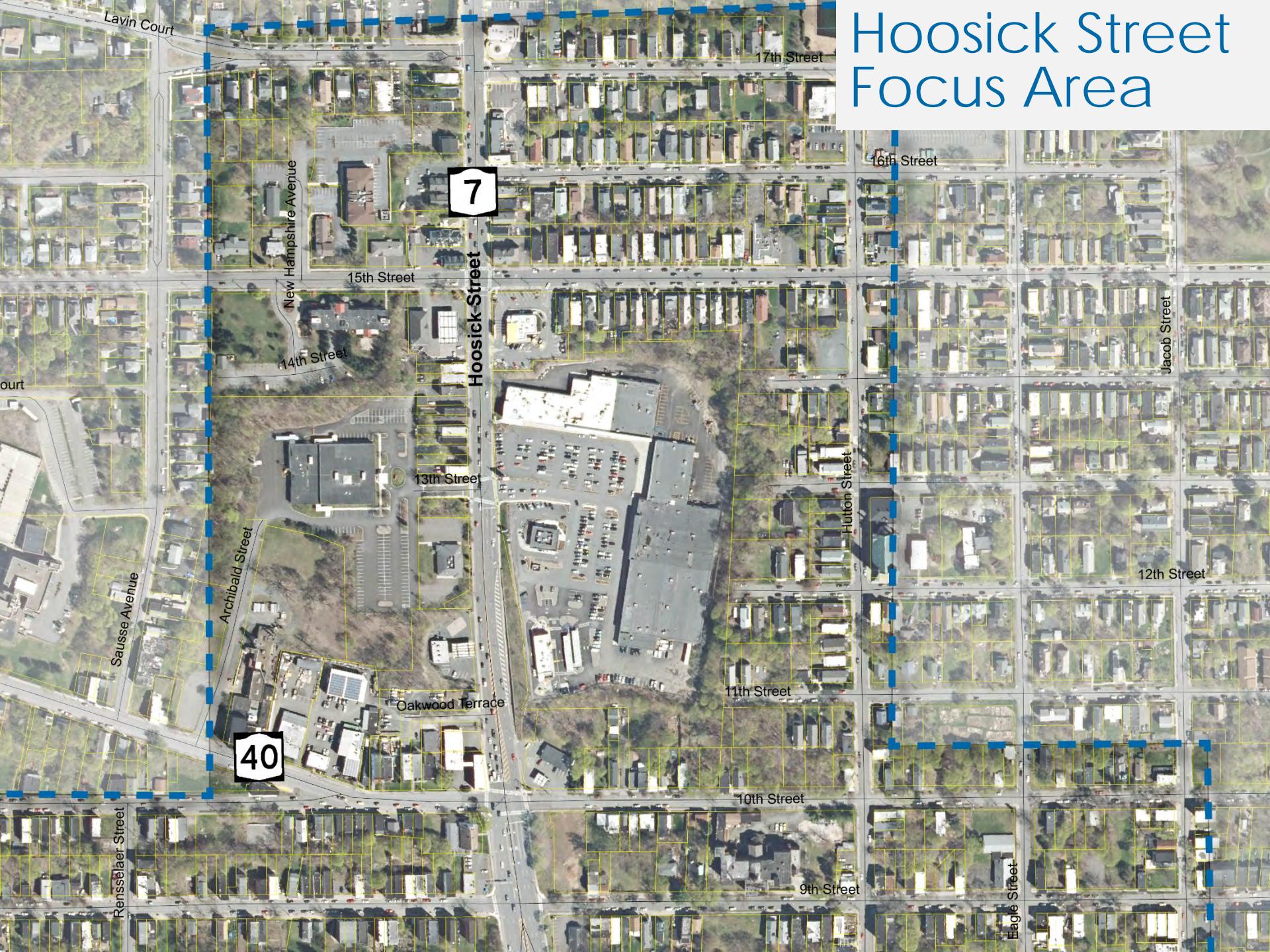
- Do you change your routes if you're with kids? Using/with someone using a mobility device?
- What changes would you like to see and where (for example, gateway signage, change in street width, crosswalks)?
- What would you like to see in the area under the Collar City Bridge?



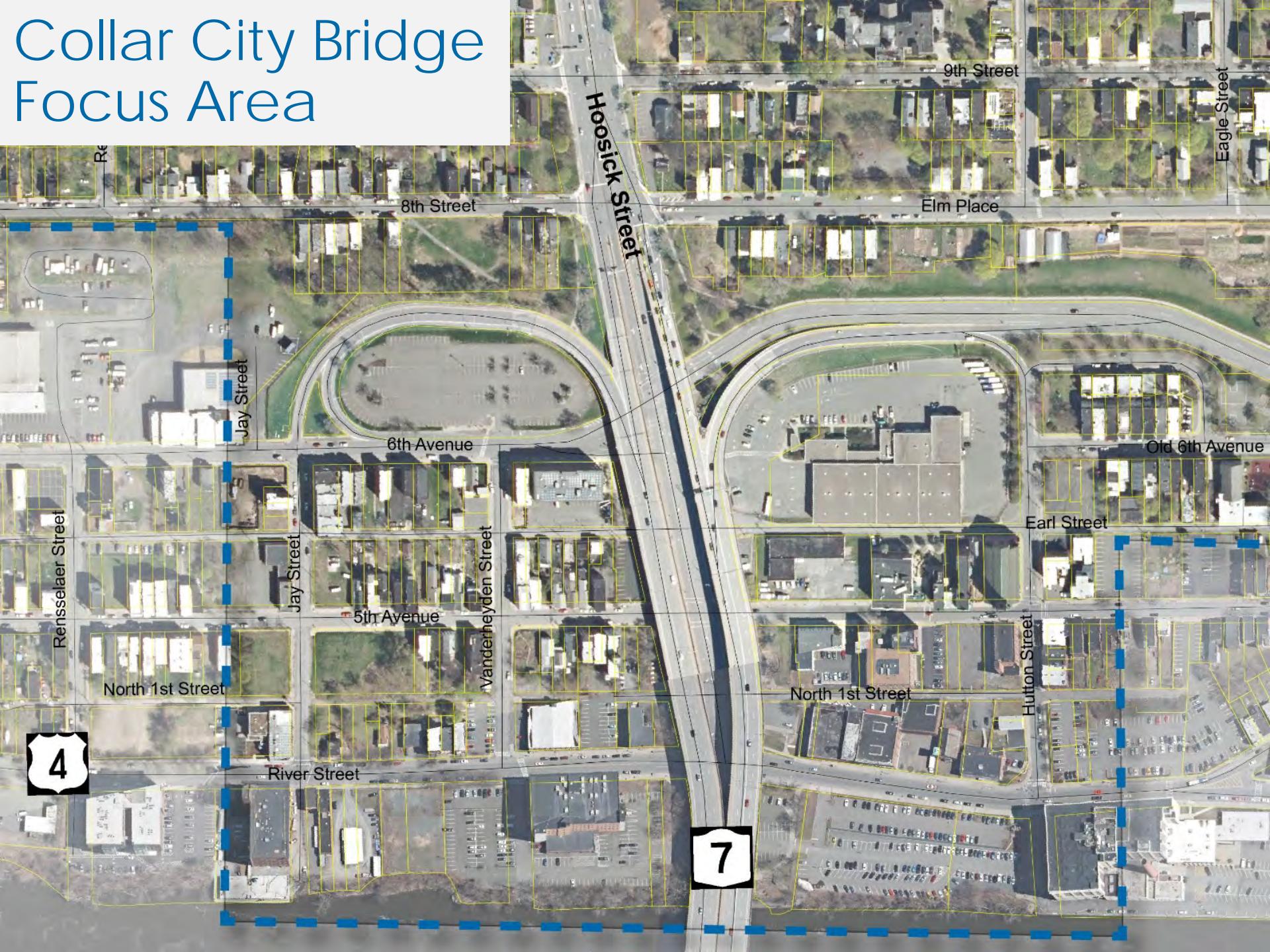
Study Area



Hoosick Street Focus Area

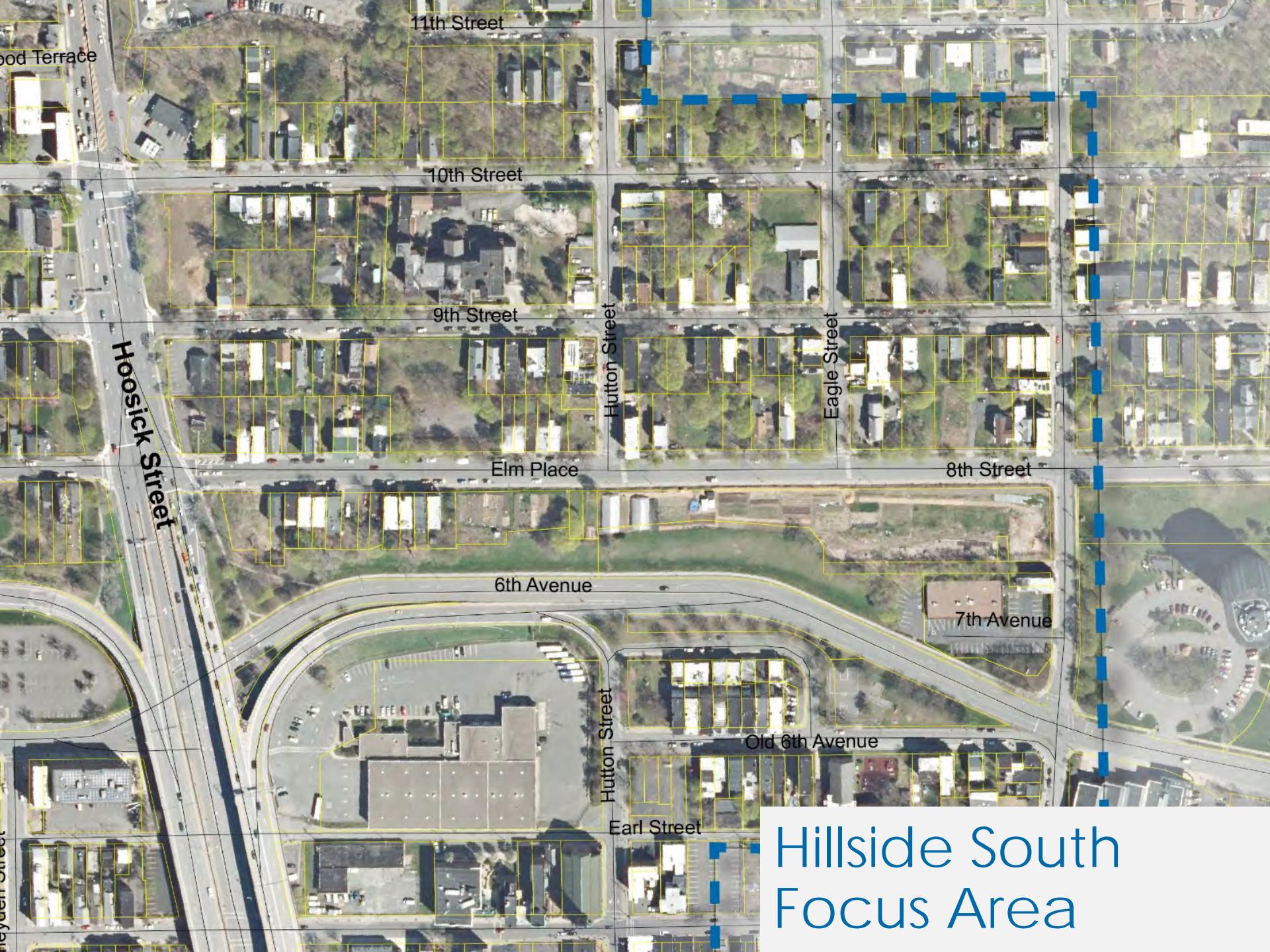


Collar City Bridge Focus Area

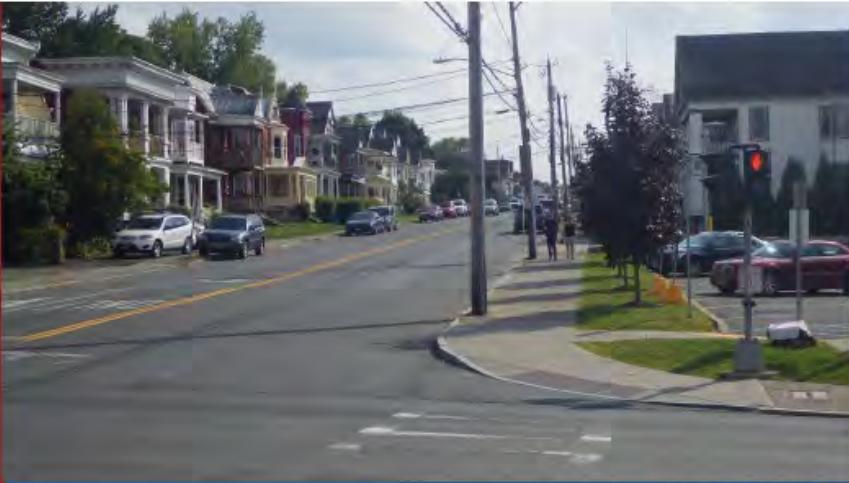


Hillside North Focus Area





Hillside South
Focus Area



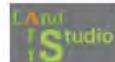
Hoosick Hillside Study Draft Existing Conditions Profile

Prepared for:



September 2019

By:



Comments on Existing Conditions Profile

SUMMARY OF MEETING



This meeting summary represents the writer's understanding of the major issues discussed. If you wish to suggest edits or additions, please contact the undersigned.

DATE: December 16, 2019

PROJECT: Hoosick Hillside Study

PLACE: Troy City Hall – Department of Planning Conference Room

TIME: 2:00 pm

PURPOSE: **The purpose of this meeting was to review the Public Workshop Summaries and brainstorm draft design concepts with the Study Advisory Committee (SAC).**

ATTENDEES:

<u>Name</u>	<u>Title/Representing</u>	<u>Telephone Number</u>
-------------	---------------------------	-------------------------

See attached attendance sheet

SUMMARY:

1. Welcome – Rima Shamieh welcomed the group and provided a brief overview of the study. Mark Sargent stated that key objectives for this meeting included reviewing the public input received to date and brainstorming draft design concepts to be carried forward.
2. Review Public Input – CM provided a brief overview of the public comments received at the first two public workshops and stakeholder meeting with Hillside North and TRIP. Concerns included poor connectivity and access, traffic safety, and the perception that Hoosick Street is a barrier that people avoid. Potential solutions from the public included streetscape enhancements, traffic calming, pedestrian and bicycle linkages, and ideas to activate the space underneath the Collar City Bridge.
 - a. Rima Shamieh asked if the summary of public comments included those received from the intercept survey posted online and distributed by TRIP.
 - i. CM responded that the comments received through the survey reiterated themes from the public workshops. **Action: CM to add survey results to public workshop summary.**
 - b. Chris Nolin asked if comments regarding 15th Street were included in the public meeting summary. It was noted that speeds on 15th Street are a concern and that the area could benefit from streetscape enhancements to make it more welcoming, similar to treatments on Burdett Avenue.
 - i. CM responded that the public involvement summary did not specifically identify 15th Street; however, public comments in the detailed meeting notes did pertain to 15th Street. These included streetscape enhancements and CDPHP Cycle usage.
3. Brainstorm Draft Design Concepts – CM presented an overview of preliminary design concepts for the group to consider. The following is a summary of the group brainstorming activity organized by focus area:
 - a. Hillside North – Elements considered in the Hillside North neighborhood included traffic calming and pedestrian connections within the neighborhood as well as from the neighborhood to 6th Avenue.

SUMMARY OF MEETING

- i. It was noted that traffic calming on 8th Street and 9th Street should be explored, although traffic calming on 9th Street may be less significant if changes are made to Hoosick Street to reduce cut-through traffic.
- ii. The group discussed a previous concept to separate 8th Street and 9th Street from Hoosick Street with an access road connecting 8th and 9th Street. The group agreed that this would result in major circulation changes to the neighborhood that would further separate the neighborhood from the surrounding areas, and therefore should not be pursued.
- iii. Discussion on the potential pedestrian connections noted that the paths connecting 8th Street to 6th Avenue (5e and 5f) are functionally different from the other paths internal to the neighborhood and should therefore be prioritized. It was also noted that path 5a provides an important connection to Public School 2 and should also be pursued. While the other paths may not be examined in detail, this study can provide design guidelines for future development of these paths.
- iv. The group discussed reconnecting Rensselaer Street between 6th Avenue and 8th Street and agreed that a roadway is preferable to a pedestrian path if possible. It was also noted that an alternative could be to possibly extend Jay Street between 6th Avenue and 8th Street, although this would require modification to the NY 7 on Ramp.

b. Hillside South – Elements considered in the Hillside South neighborhood included traffic calming on 8th Street, pedestrian connections between 8th Street and 6th Avenue, and a road diet with bicycle accommodations on 6th Avenue and modification of the 6th Avenue/Hutton Street intersection.

- i. Discussion regarding the pedestrian path between 8th Street and 6th Avenue at Hutton Street (7b) indicated that the path might not be practical due to the grade and lack of pedestrian friendly land uses on 6th Avenue and Hutton Street. An alternative path was proposed on the south and east sides of the Troy Housing Authority (THA) property.
 - 1. It was noted that providing a path at Hutton Street would provide better access to the new CDTA Bus Rapid Transit Stop located at the River Street/King Street intersection. Further, potential changes to 6th Avenue and Hutton Street as part of this study could improve the pedestrian experience in the area.
 - 2. Chris Nolin stated that RPI has plans for the property on 8th Street and that this study should not consider a path through that property.
 - 3. The idea of an alternate path from Jacob Street to 8th Street through the Capital Roots farm was discussed. The group agreed that this was not preferable to the proposed THA path.
- ii. The group discussed traffic calming and the identity of 8th Street. It was noted that parking on the west side of the street is generally underutilized and that the roadway could likely be narrowed. Curb bump-outs or chicanes are possible ideas to explore. High visibility crosswalks and possibly RRFBs could be considered on 8th Street as well.
- iii. The group agreed that this study should examine a road diet on 6th Avenue between Hoosick Street and Jacob Street, including bicycle accommodations or a multi-use path. Modification of the 6th Avenue/Hutton Street intersection should be considered as well as potentially converting Hutton Street to two-way traffic if appropriate.

SUMMARY OF MEETING

- c. Under the Collar City Bridge – NYSDOT controls an extensive amount of land in the area underneath the Collar City Bridge and extending along 6th Avenue. Due to the complex nature of this area, the group considered a lower impact and a higher impact strategy. The lower impact strategy could include traffic calming measures on Hoosick Street, additional pedestrian improvements, and expanded park areas and green space under the bridge. The higher impact strategy could include a multi-use path and relocation of Hoosick Street.
 - i. The group indicated that this study should progress both options – a lower cost enhancements option that could be implemented in the short term, and a longer-term vision option.
- d. Hoosick Street – Ideas for the Hoosick Street focus area included a pedestrian bridge and path east of Oakwood Terrace and potential medians on Hoosick Street.
 - i. The group agreed that the pedestrian bridge would likely not attract pedestrians from the west due to the grade changes, and that enhanced street level crossings are preferable. A path should connect 11th Street to the Plaza.
 - ii. The group agreed that this study should further examine medians on Hoosick Street.

4. Recap/Next Steps – Mark Sargent stated that in the coming months, the consultant team will further develop the design concepts discussed. After design concepts have been progressed, they will be shared with the committee at the next SAC meeting, which will be scheduled for late February/March.

The meeting concluded at 4:00 p.m.

Jesse Vogl, AICP
Project Planner

cc: Attendees
 File



Hoosick Hillside Study

SAC Meeting #3

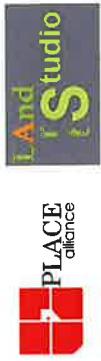
Troy City Hall – Main Conference Room
Monday, December 16, 2019
2:00 p.m.



Hoosick Hillside Study

SAC Meeting #3

Troy City Hall – Main Conference Room
Monday, December 16, 2019
2:00 p.m.





SAC Meeting #3

December 16, 2019



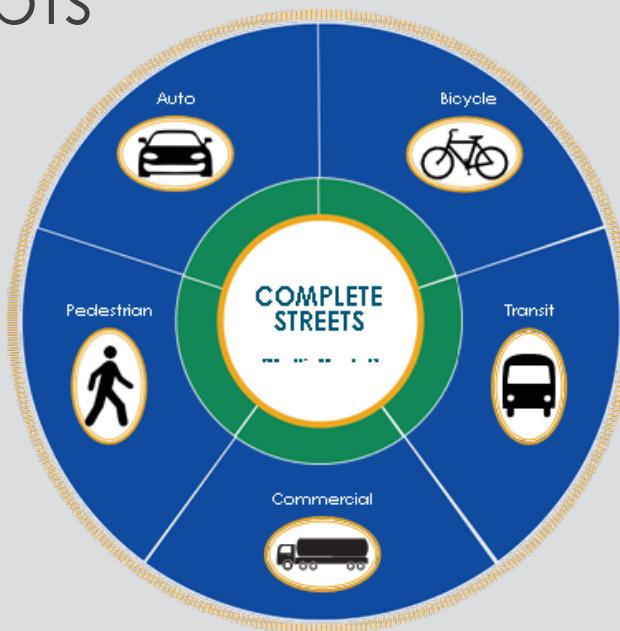
Agenda

1. Review Public Input

- Neighborhood Workshop – October 23
- Business owner Workshop – October 29
- TRIP Stakeholder Meeting – December 4

2. Brainstorm Draft Design Concepts

3. Recap Schedule/Next Steps



Themes from Public Workshops

- Poor connectivity limits access to goods and services
- Traffic safety is a concern
- Hoosick Street acts as a barrier for all users
- People avoid Hoosick Street

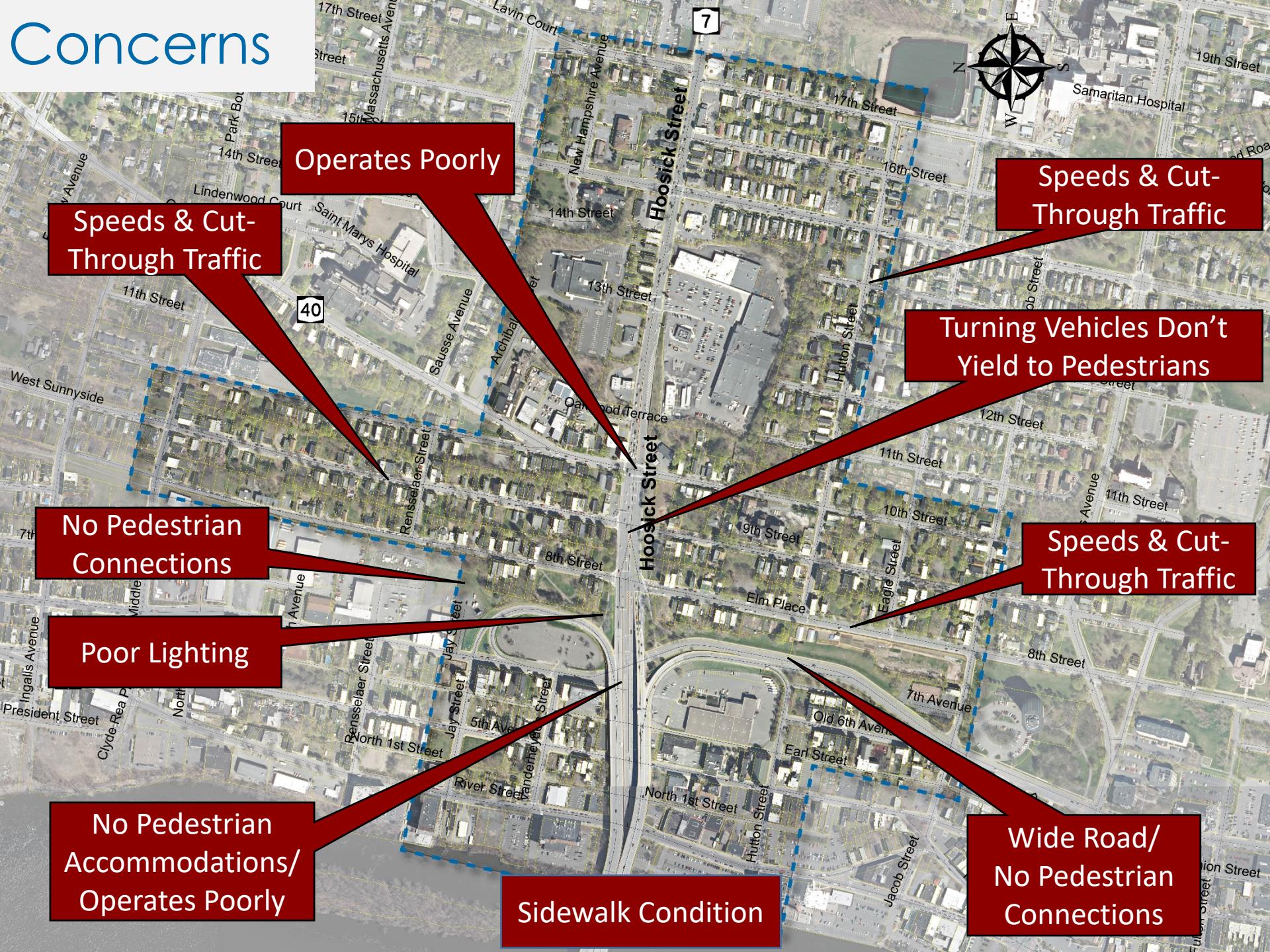


Themes from Public Workshops

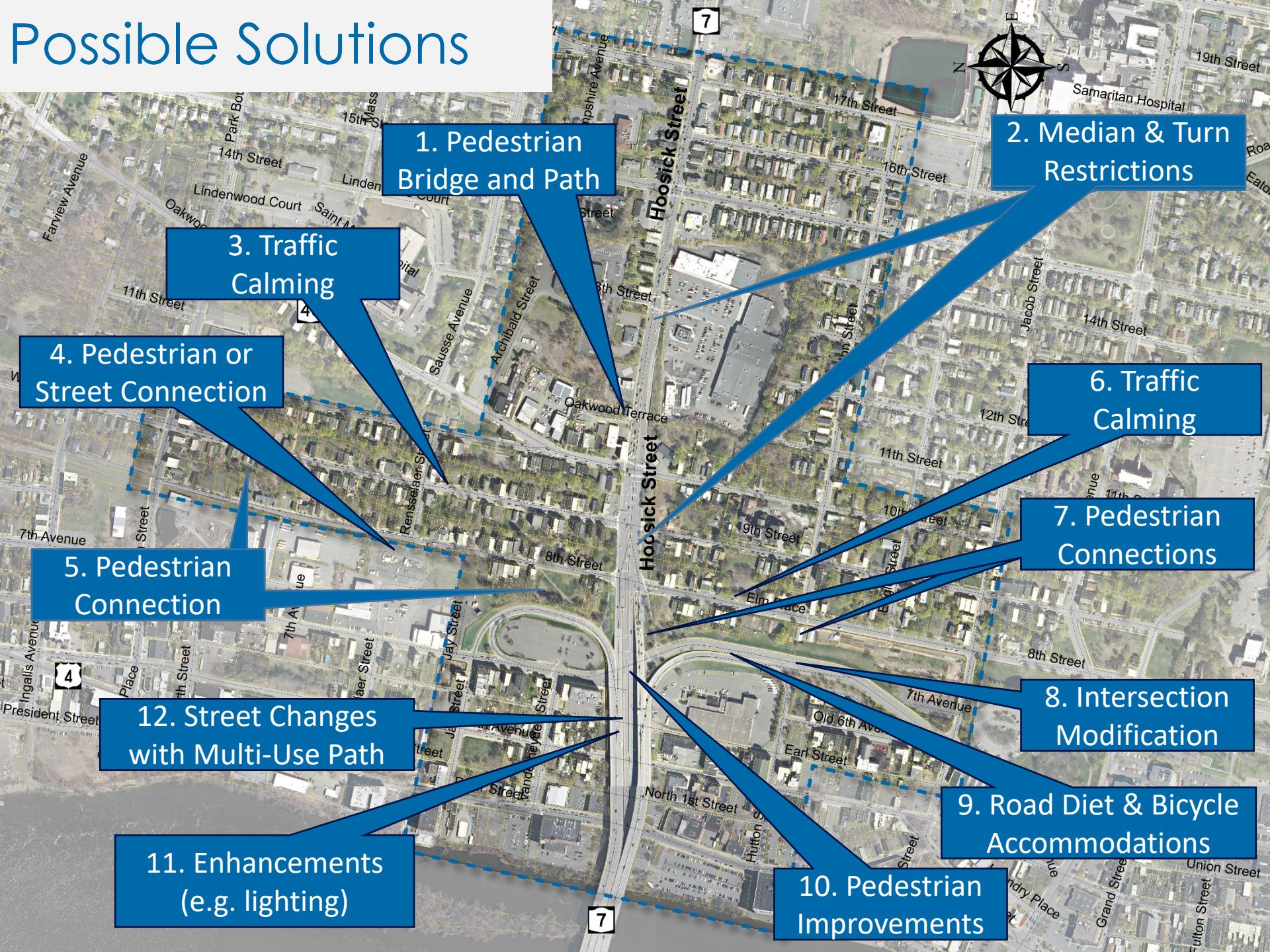
- Streetscape Enhancements
- Traffic Calming
- Pedestrian/Bicycle Linkages
- Under Collar City Bridge
 - Active Space
 - Roadway Changes
 - Multi-use Path



Concerns

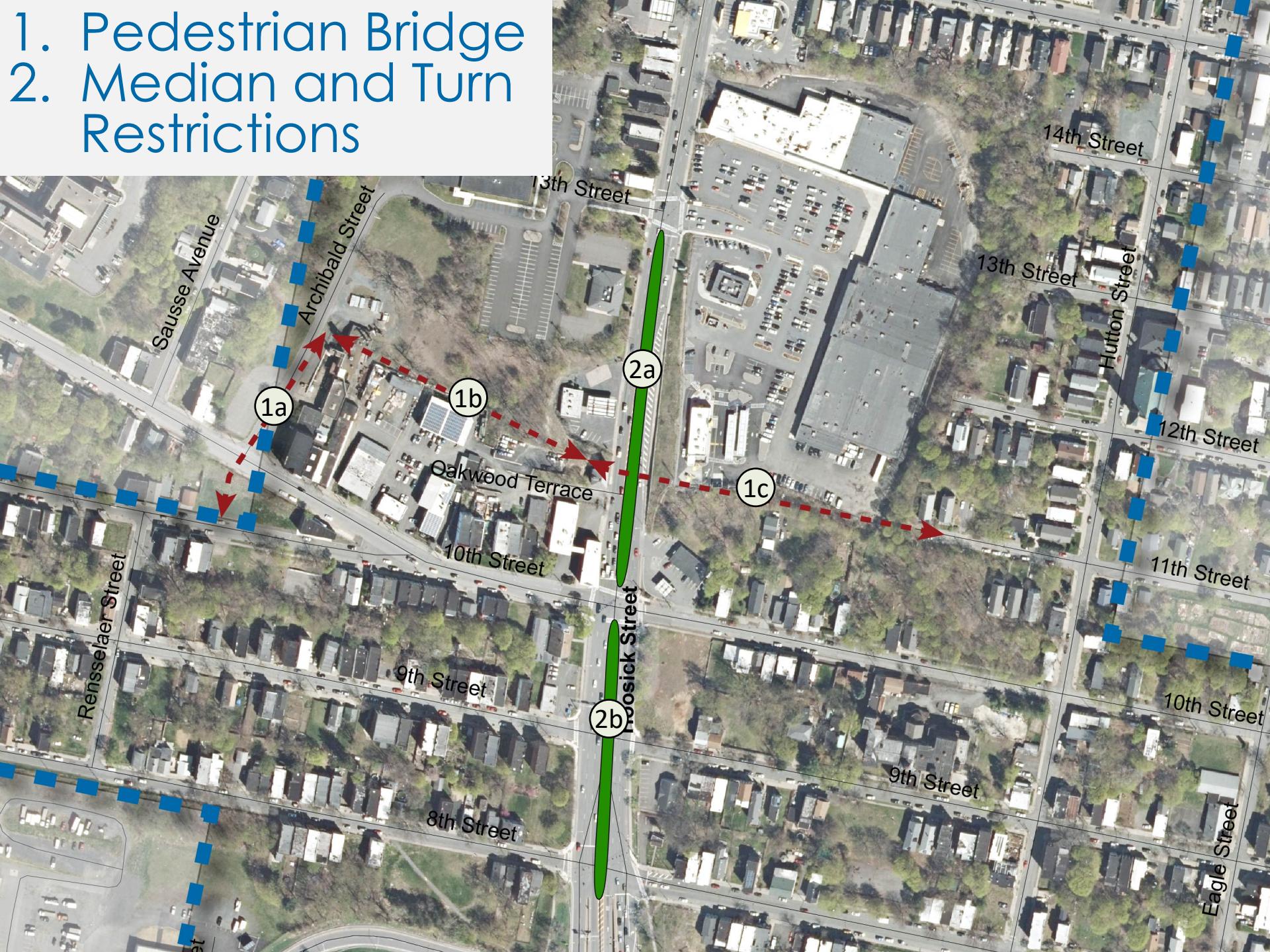


Possible Solutions



1. Pedestrian Bridge

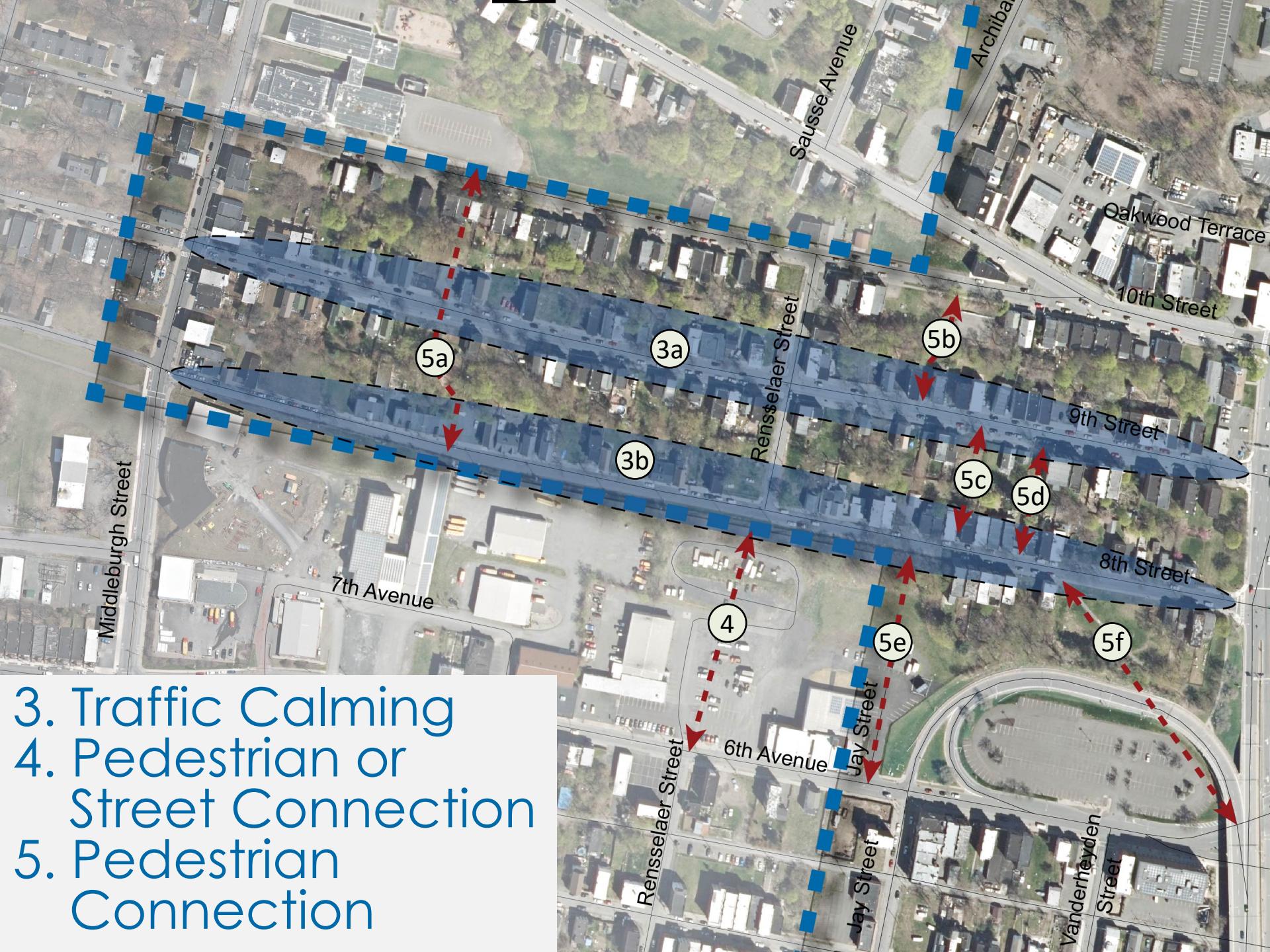
2. Median and Turn Restrictions



Possible Medians



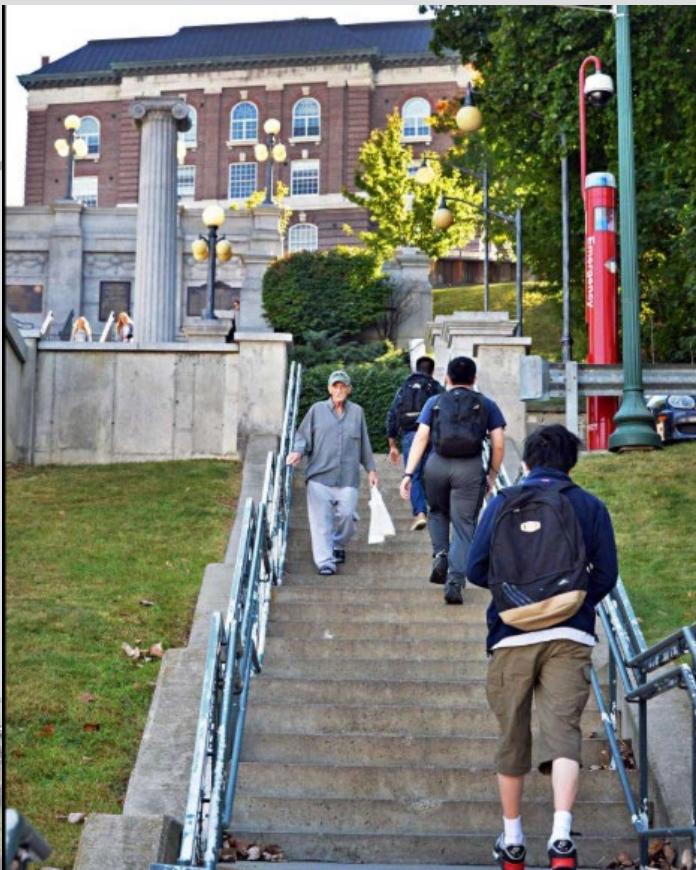
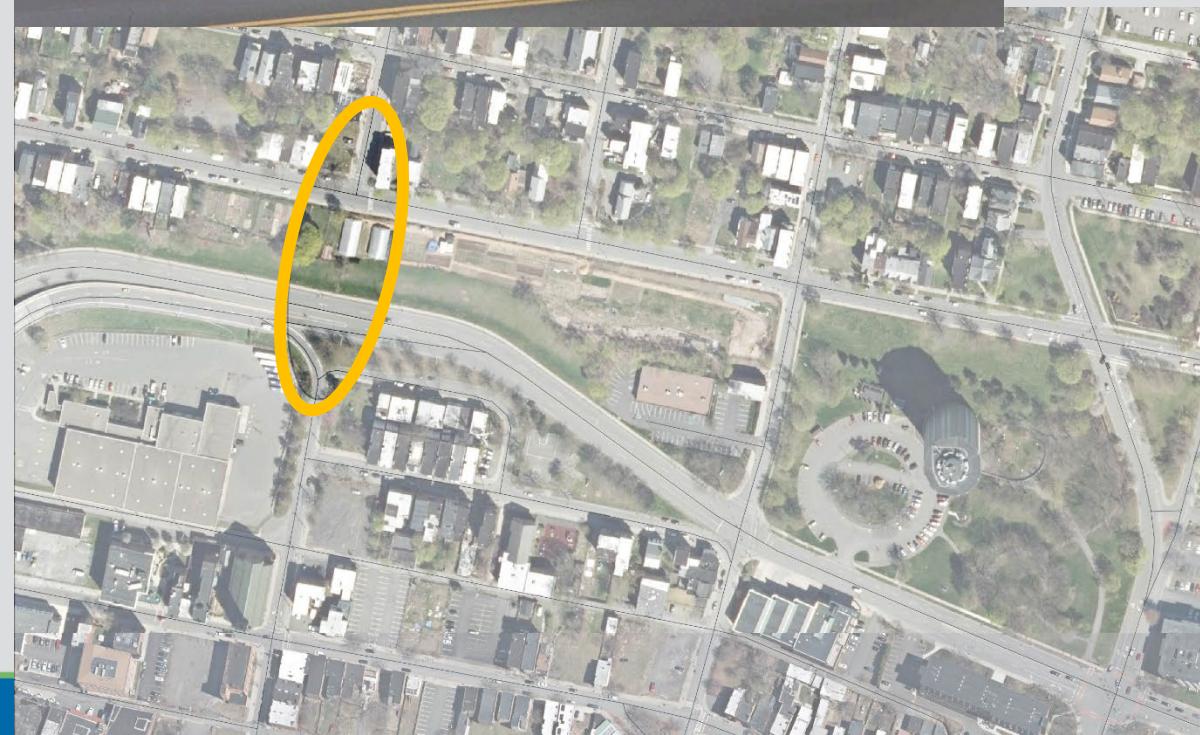
- 3. Traffic Calming
- 4. Pedestrian or Street Connection
- 5. Pedestrian Connection



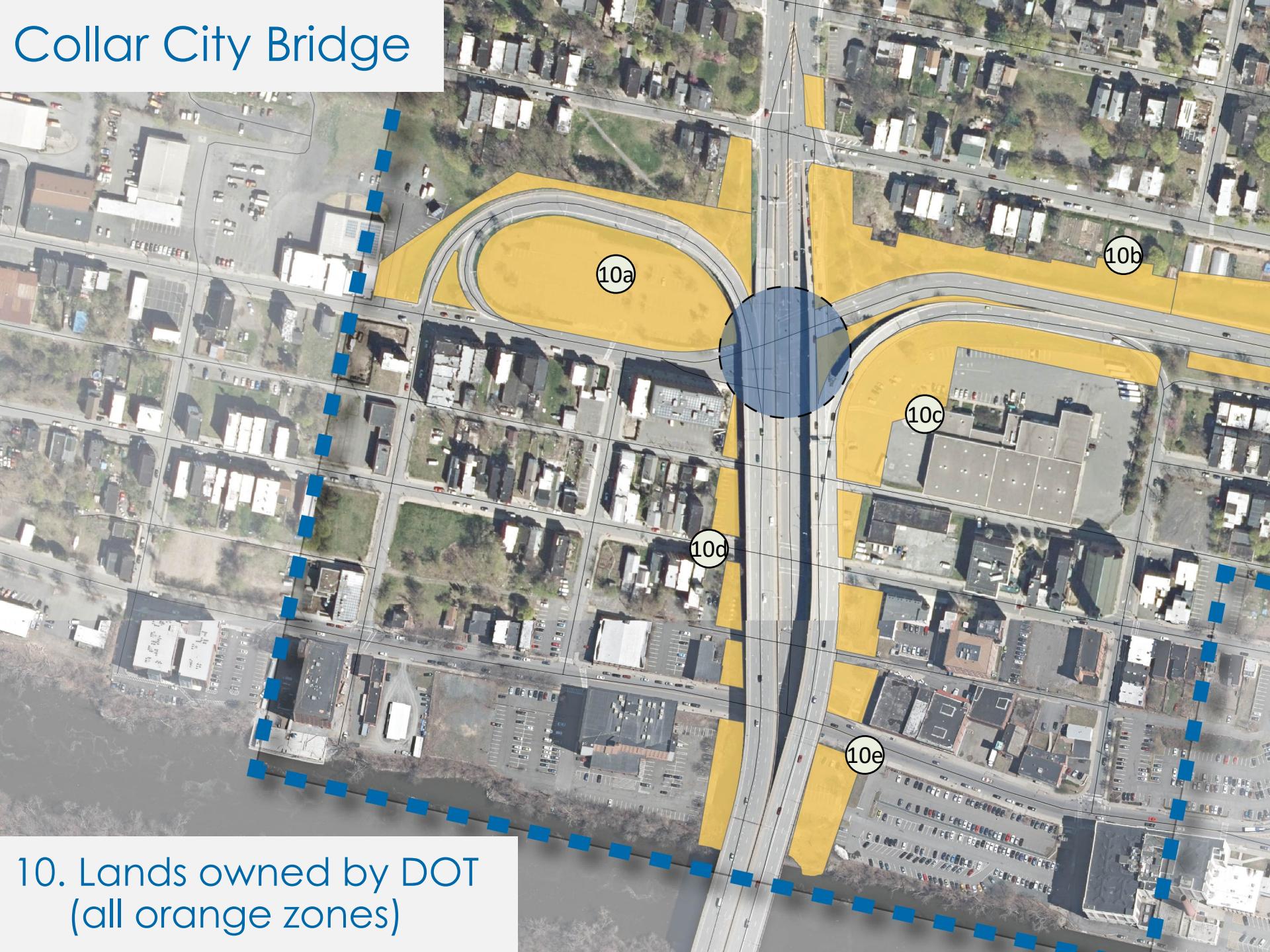


6. Traffic Calming
7. Pedestrian Connections
8. Intersection Modification
9. Road Diet & Bicycle Accommodation

Pedestrian Connection

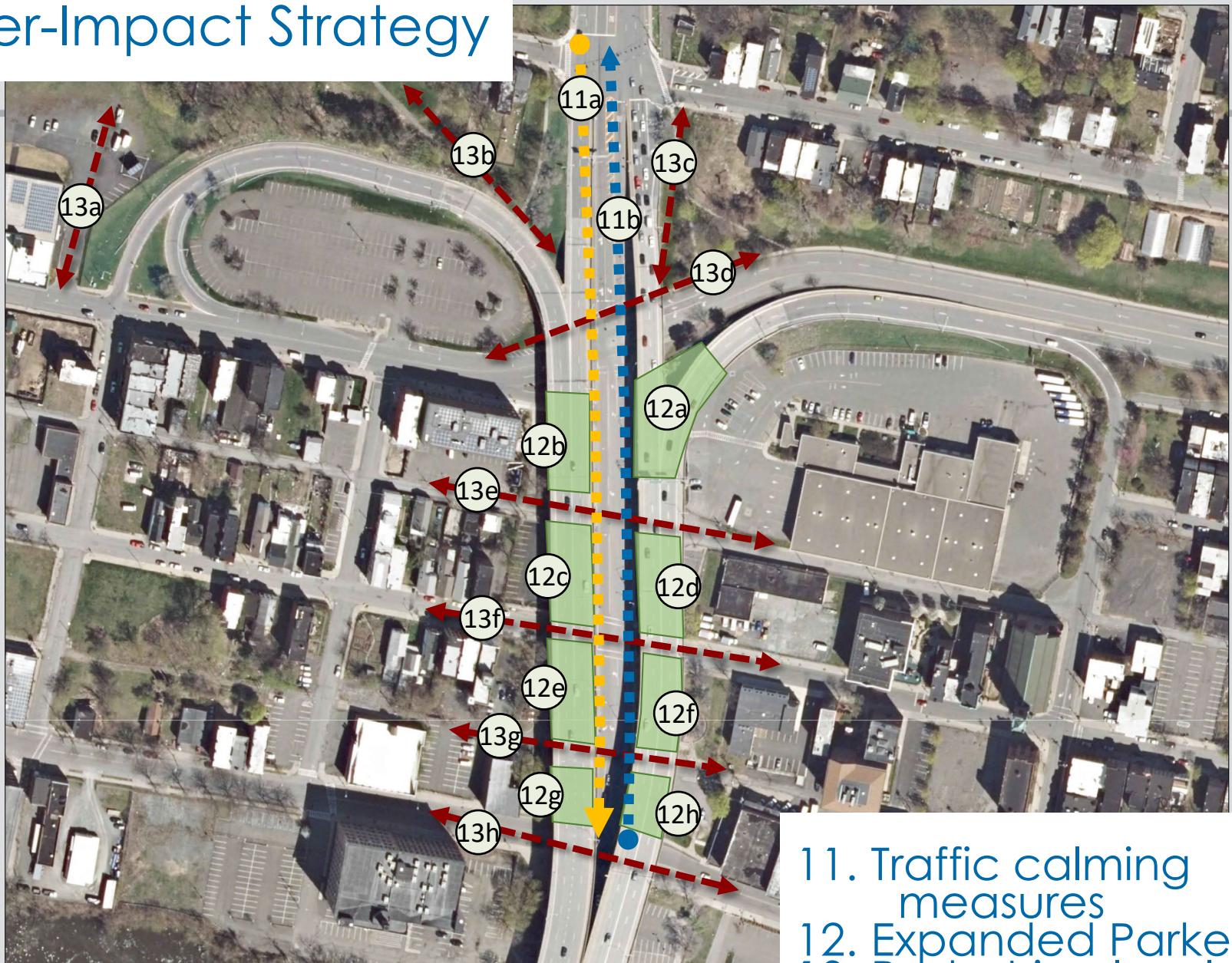


Collar City Bridge



10. Lands owned by DOT
(all orange zones)

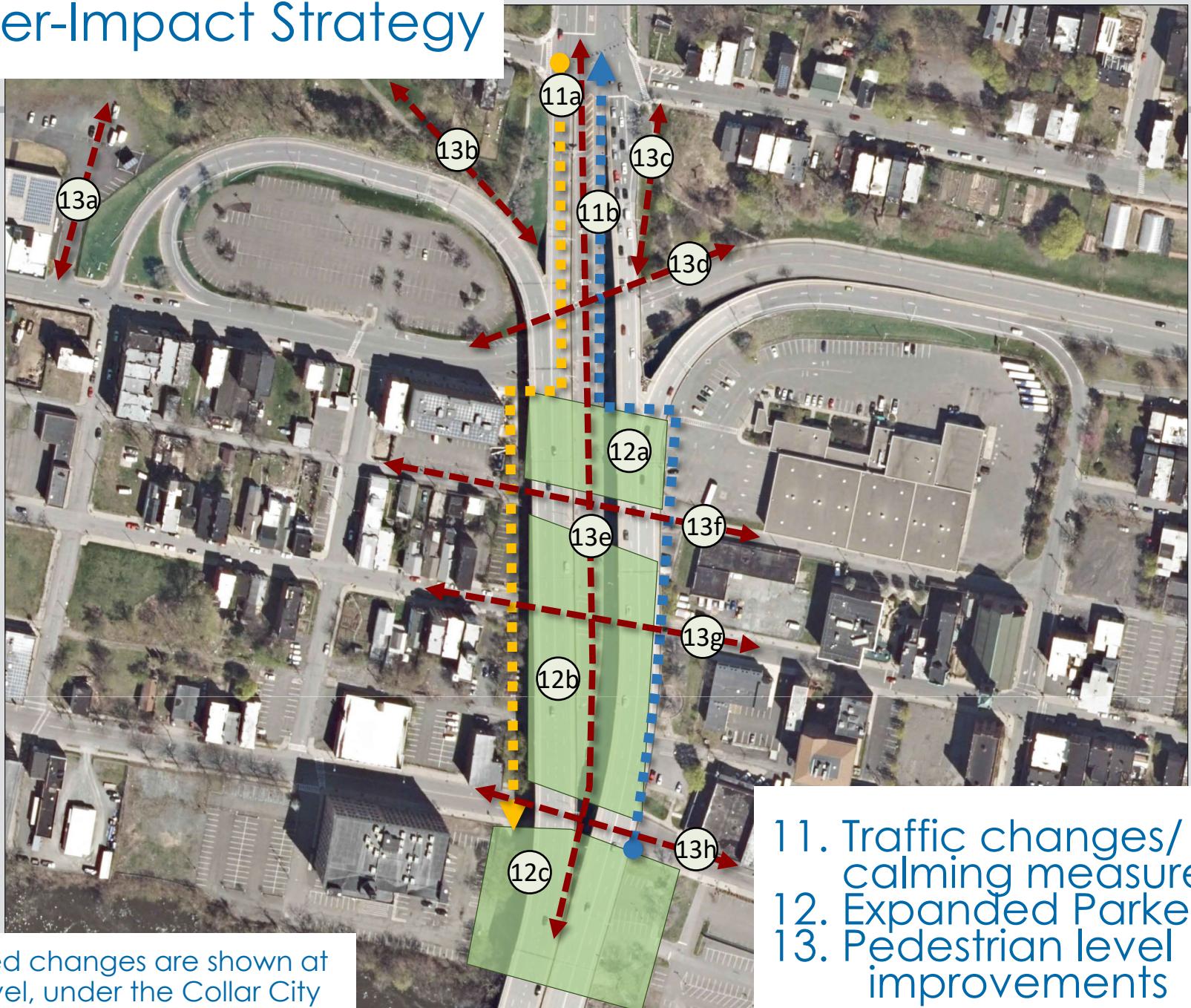
Lower-Impact Strategy



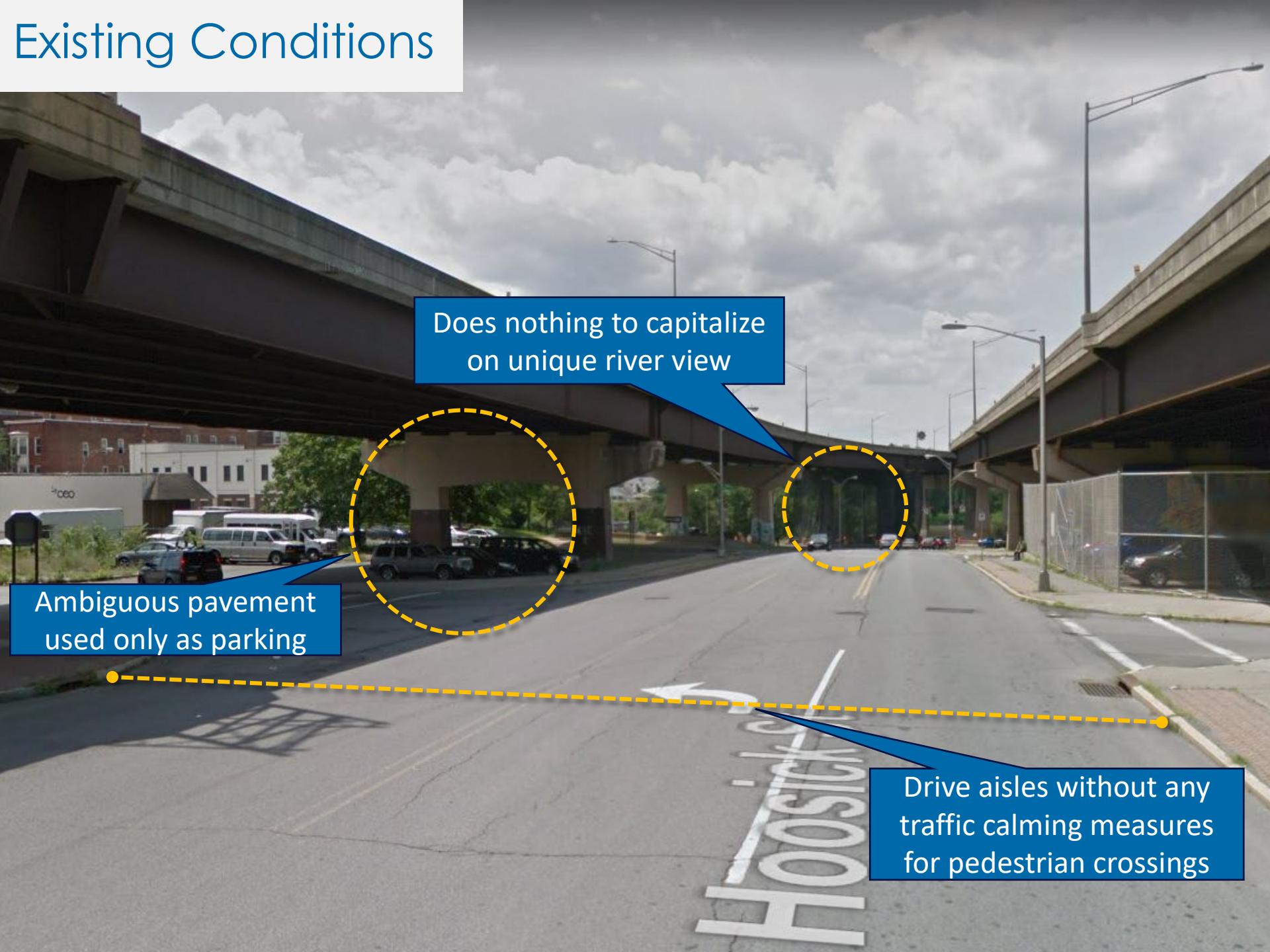
(Proposed changes are shown at street level, under the Collar City Bridge)

11. Traffic calming measures
12. Expanded Parkettes
13. Pedestrian level improvements

Higher-Impact Strategy



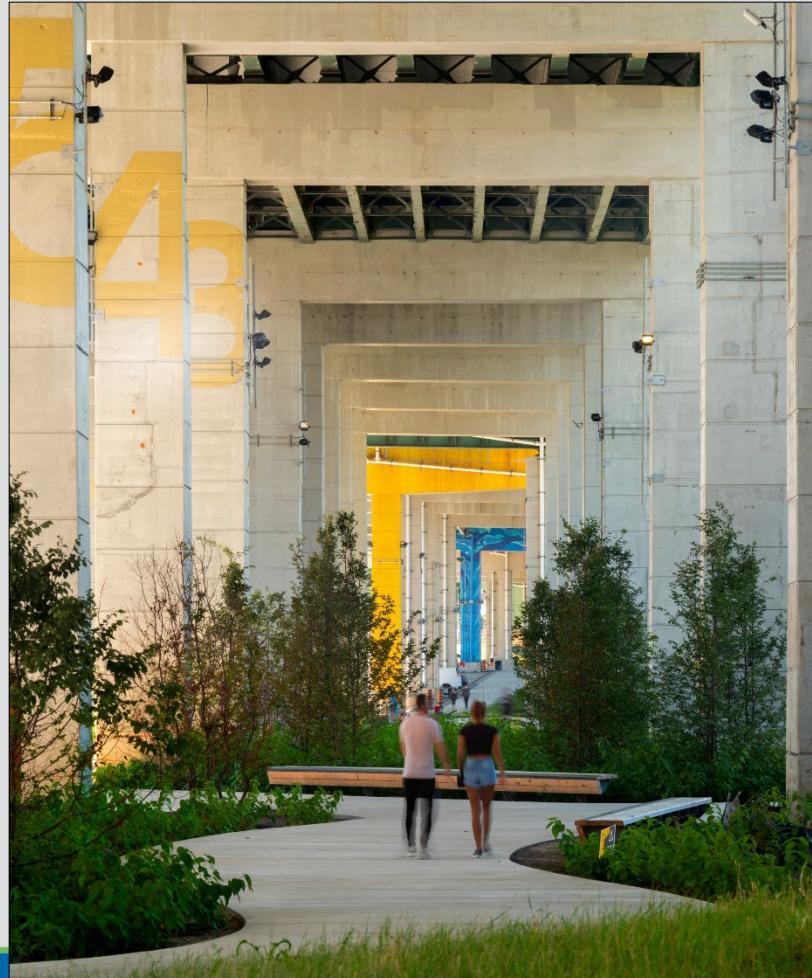
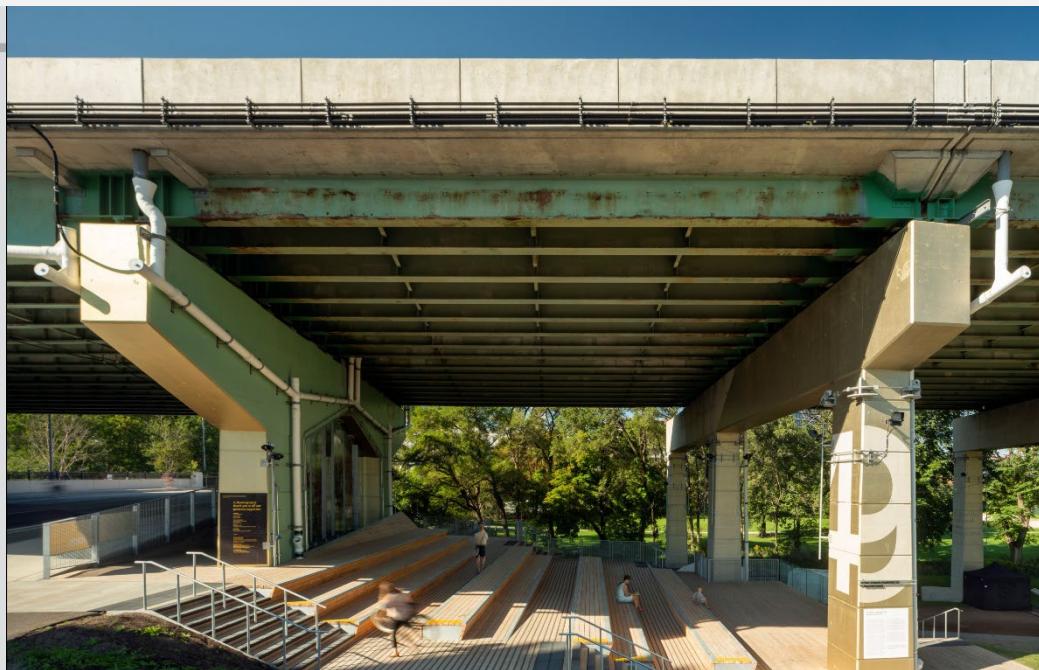
Existing Conditions



Parkette – Active Recreation



Parkette – Passive Recreation



Opportunities for Public Art/Lighting



Underpass Greenery



Schedule/Next Steps

Project Schedule

Hoosick Hillside Study

CM No. 119-047

Task	Description	Week	Month													
			June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July
1	Initiation and Data Gathering		S													
2	Existing Conditions Analysis															
3	Public Workshops 1-2						S	PP		M	S					
4	Draft Design Concepts											S				
5	Public Workshop #3											P	M		S	
6	Report and Implementation															

S Study Advisory Committee Meeting

M Stakeholder Meeting

P Public Meeting

SUMMARY OF MEETING



This meeting summary represents the writer's understanding of the major issues discussed. If you wish to suggest edits or additions, please contact the undersigned.

DATE: August 12, 2020

PROJECT: Hoosick Hillside Study

PLACE: Zoom Video Conference

TIME: 2:00 pm

PURPOSE: **The purpose of this meeting was to review the draft design concepts and approach to the upcoming public workshop with the Study Advisory Committee (SAC).**

ATTENDEES:

<u>Name</u>	<u>Title/Representing</u>
Beth Steckley	Hillside South Neighborhood
Chris Nolin	RPI
Linda Vonderheide	Rensselaer County
Christine Nealon	TRIP
Audrey Burneson	NYSDOT
Andrew Kreshik	City of Troy
James Rath	City of Troy
Rima Shamieh	CDTC
Chris Bauer	CDTC
Mark Sargent	Creighton Manning
Jesse Vogl	Creighton Manning
Margaret Irwin	RSPD
Christina Snyder	RSPD

SUMMARY:

1. Welcome – Rima Shamieh welcomed the group and provided a brief overview of the study. Mark Sargent stated that key objectives for this meeting included reviewing the draft design concepts and approach to the upcoming public workshop.
2. Review Draft Design Concepts – CM provided a PowerPoint overview of the material planned for the upcoming Public Workshop which included a recap of the study objectives, public comments received to date, and draft design concepts to improve connectivity between the Hillside North and South Neighborhoods as well as River Street and Downtown. The following comments were made during the discussion:
 - a. Linda Vonderheide noted that a median pedestrian path on Hoosick Street in the approximate 6 lane section between 8th Street and 10th Street would be unpleasant due to vehicle emissions.
 - i. CM clarified that the median path is proposed west of 8th Street and that the median between 8th Street and 10th Street would not include a path.
 - b. Beth Steckley stated that she likes the idea of a continuous median at 8th Street in order to calm traffic and reduce left turn conflicts at the Hoosick Street/8th Street intersection.

SUMMARY OF MEETING

- i. It was noted that traffic diversions under the continuous median alternative could be a concern.
 - 1. CM responded that the traffic analysis considered the diversions and resulted in a slight increase in delay at the Hoosick Street/6th Avenue intersection. Adequate capacity will still be provided. Further, the continuous median improves traffic operations at 8th Street by restricting left turns and reallocating green time.
- c. Christine Nealon stated that the median between 8th Street and 10th Street will create a barrier between the Hillside North and South neighborhoods and prevent pedestrian crossings at 9th Street. Specifically, a treatment similar to Colonie Center with a vertical fence would be less preferable than a planted median.
 - i. CM responded that although pedestrian crossings at 9th Street would be restricted, the median includes a new protected crossing opportunity at 8th Street which can better connect the neighborhoods.
 - ii. It was noted that the median should include a pedestrian refuge at 10th Street. **Action: CM to update median concept with pedestrian refuge at 10th Street.**
 - iii. Audrey Burneson stated that NYSDOT likely would not object to plantings in the median if maintenance becomes the City's responsibility.
- d. The group discussed the potential connections at Rensselaer Street and agreed that although the street connection is preferred, a path would be better than nothing.
 - i. Linda Vonderheide asked if the stair connection could be funded despite not being ADA compliant?
 - 1. CM responded that depending on the funding source, and ADA path may not be required as long as an alternate route is accessible. Regardless, the design should consider making the connection ADA compliant.
 - ii. It was noted that bicyclists have worn a path on The Approach by RPI and that design of a stair connection at Rensselaer Street should consider bicycle use.
- e. Beth Steckley noted that Hutton Street between 8th Street and 10th Street is a major cut through route. The Hillside South Neighborhood has considered including bump-outs on 8th Street at Riley Park to create a gateway. **Action: CM to incorporate Riley Park Gateway Concept into presentation.**

3. Approach to Public Workshop – CM and RSPD presented an overview of the approach to public involvement including direct mailers, standalone posters to be displayed within the study area, and a pre-recorded “Join at Your Own Pace” virtual workshop. The following comments were made during the discussion:

- a. It was noted that internet access may be a barrier to public involvement. Although TRIP has installed a wi-fi hotspot at their office on 10th Street, alternative options should be considered.
 - i. It was noted that there may be an opportunity to use the existing technology at School 2 to promote better access to the meeting material. Likewise the Stewarts at the Hoosick Street/10th Street intersection has screens which may be able to share the pre-recorded workshop.
- b. The following locations were discussed as potential locations to place informational posters:
 - i. Oakwood Community Center
 - ii. Unity House
 - iii. Bus Stop at Hoosick Street/6th Avenue
 - iv. American Deli on Rensselaer Street

SUMMARY OF MEETING

- v. TRIP Office on 10th Street
- vi. DSS building near the River Street/Hoosick Street intersection.

4. Recap/Next Steps – CM reviewed the project schedule with the group.

- a. The public workshop will be recorded the first week in September and posted to the project website on September 7.

Summary of Actions:

- 1. **CM to update median concept with pedestrian refuge at 10th Street.**
- 2. **CM to incorporate Riley Park Gateway Concept into presentation.**

The meeting concluded at 3:30 p.m.

Jesse Vogl, AICP
Project Planner

cc: Attendees
 File

N:\Projects\2019\119-047 CDTC - Hoosick St\Working\Correspondence\Meetings\SAC Meeting 4\119047_SAC Meeting 4 Summary_20200820.docx



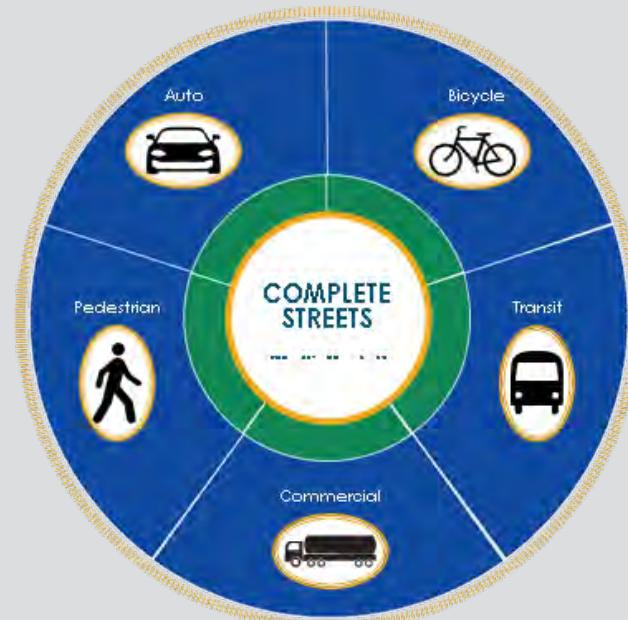
Hoosick-Hillside SAC Meeting 4

August XX, 2020

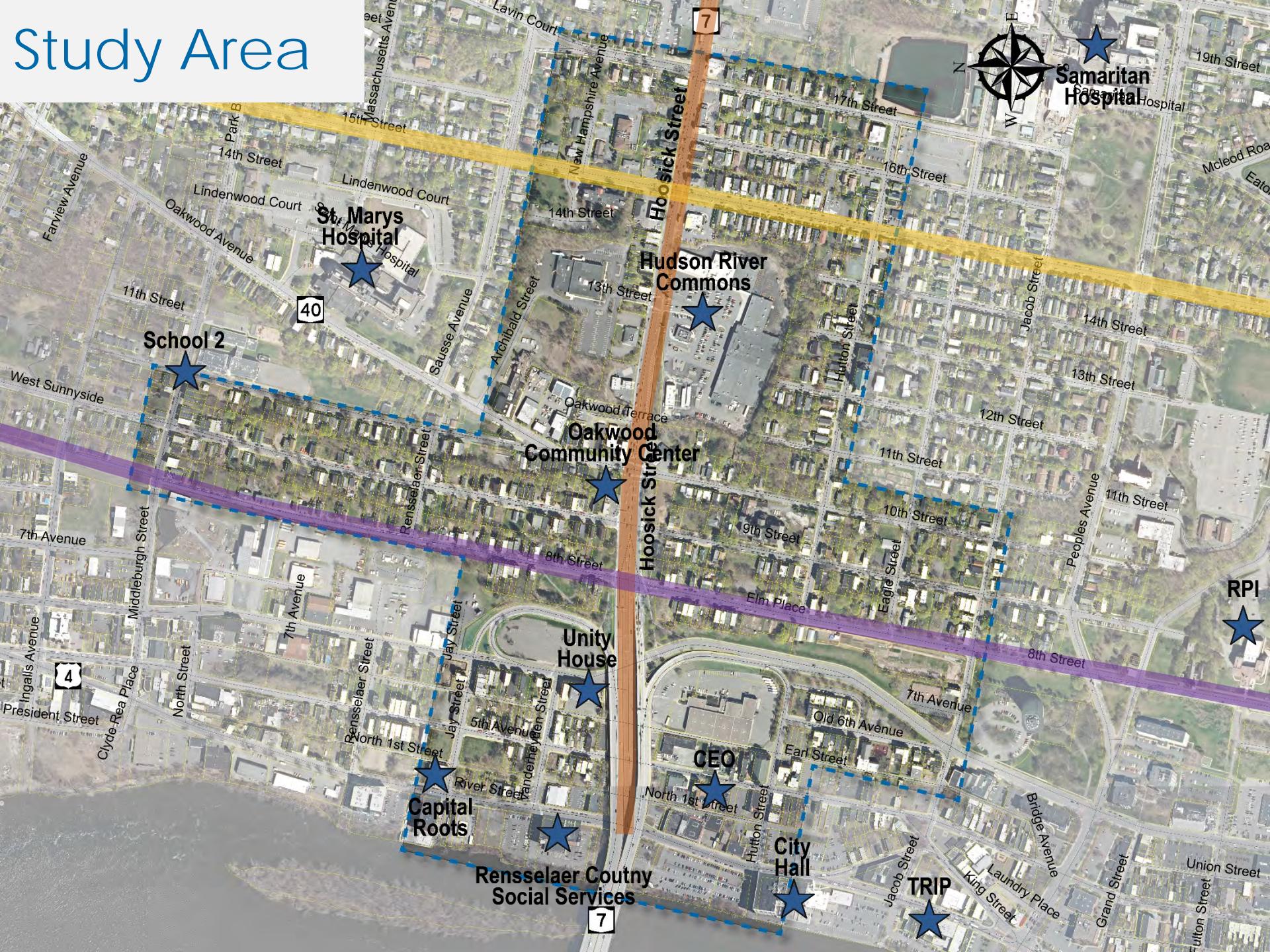


Agenda

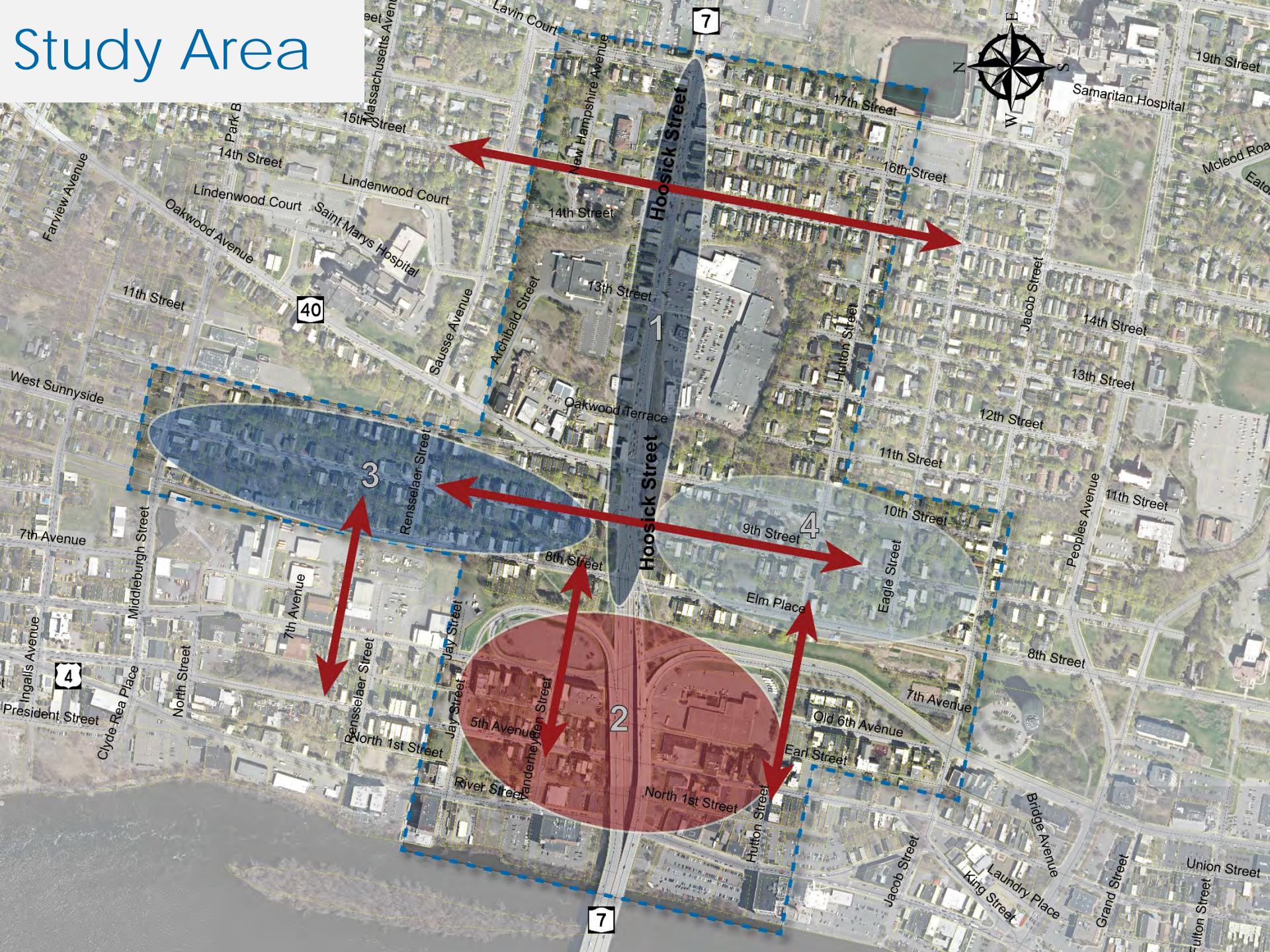
1. Provide update and receive committee input about the concepts developed for the study area
2. Discuss Public Meeting #3 Approach
3. Recap Schedule/Next Steps



Study Area



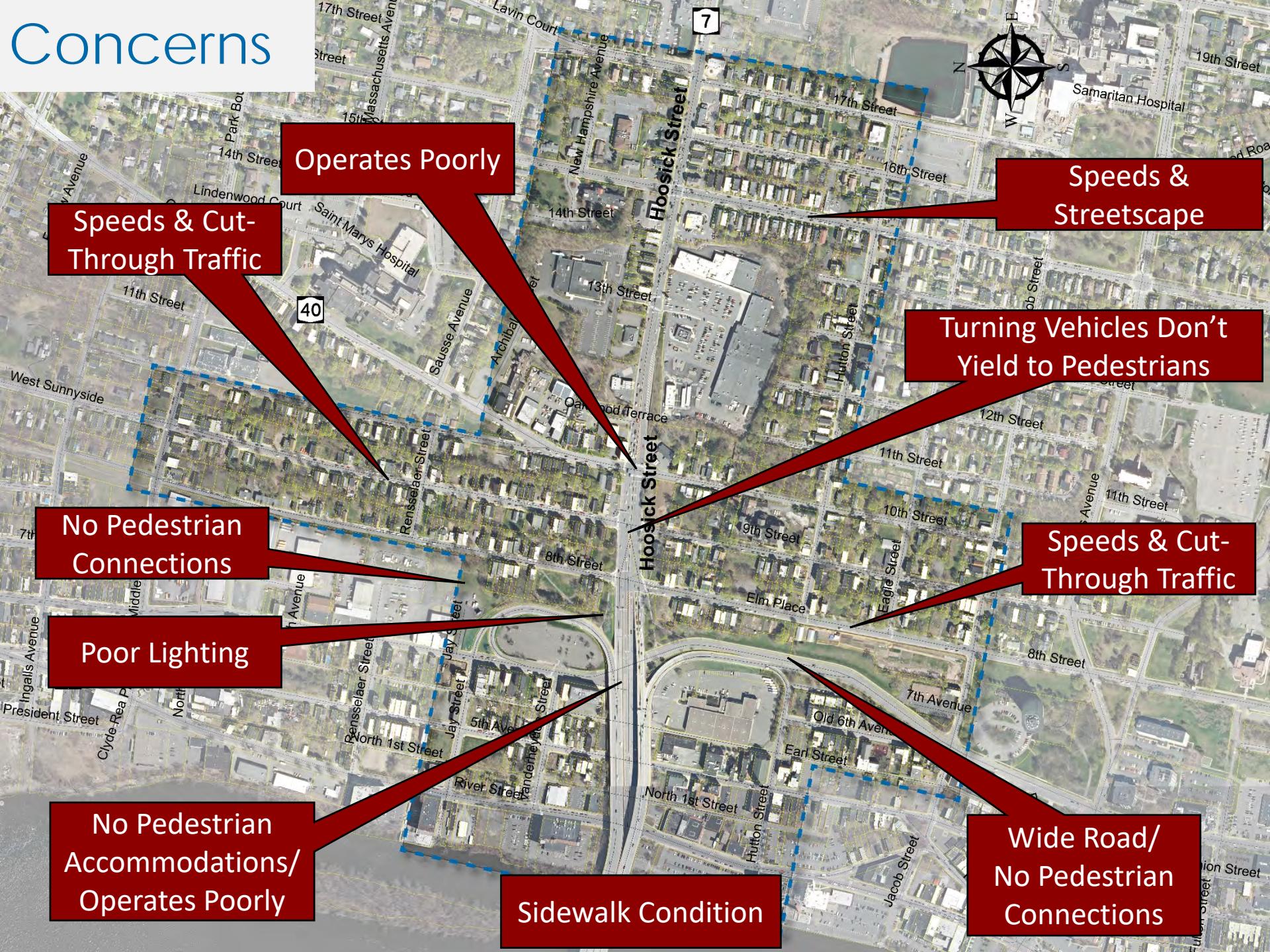
Study Area



Purpose and Need

- Improve **quality of life** in the Hillside North and South Neighborhoods
- Create **safe and convenient** pedestrian and bicycle connections:
 - Hillside Neighborhoods
 - River Street
 - Downtown
- Minimize the negative impacts of traffic in **neighborhoods**
- Maintaining traffic operations on Hoosick Street

Concerns



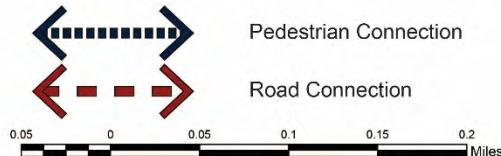
DISCLAIMER

This study was funded in part through a grant from the Federal Highway Administration, U.S. Department of Transportation. The views and opinions of the authors [or agency] expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation. This report was prepared in cooperation with the City of Troy, the Capital District Transportation Committee (CDTC), Rensselaer Polytechnic Institute (RPI), the Capital District Regional Planning Commission (CDRPC), the Capital District Transportation Authority (CDTA), and the New York State Department of Transportation (NYSDOT). The contents do not necessarily reflect the official views or policies of these agencies.

The recommendations are conceptual in nature and are presented to characterize the types of improvements that are desirable, and that may be implemented as part of future land use and transportation improvement projects. All transportation concepts will require further engineering evaluation and review and do not commit the City of Troy, NYSDOT, or Rensselaer Polytechnic Institute to the proposed project(s). Undertaking additional engineering or other follow up work will be based upon funding availability.

1

Traffic Calming on 15th Street

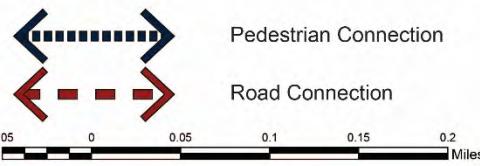
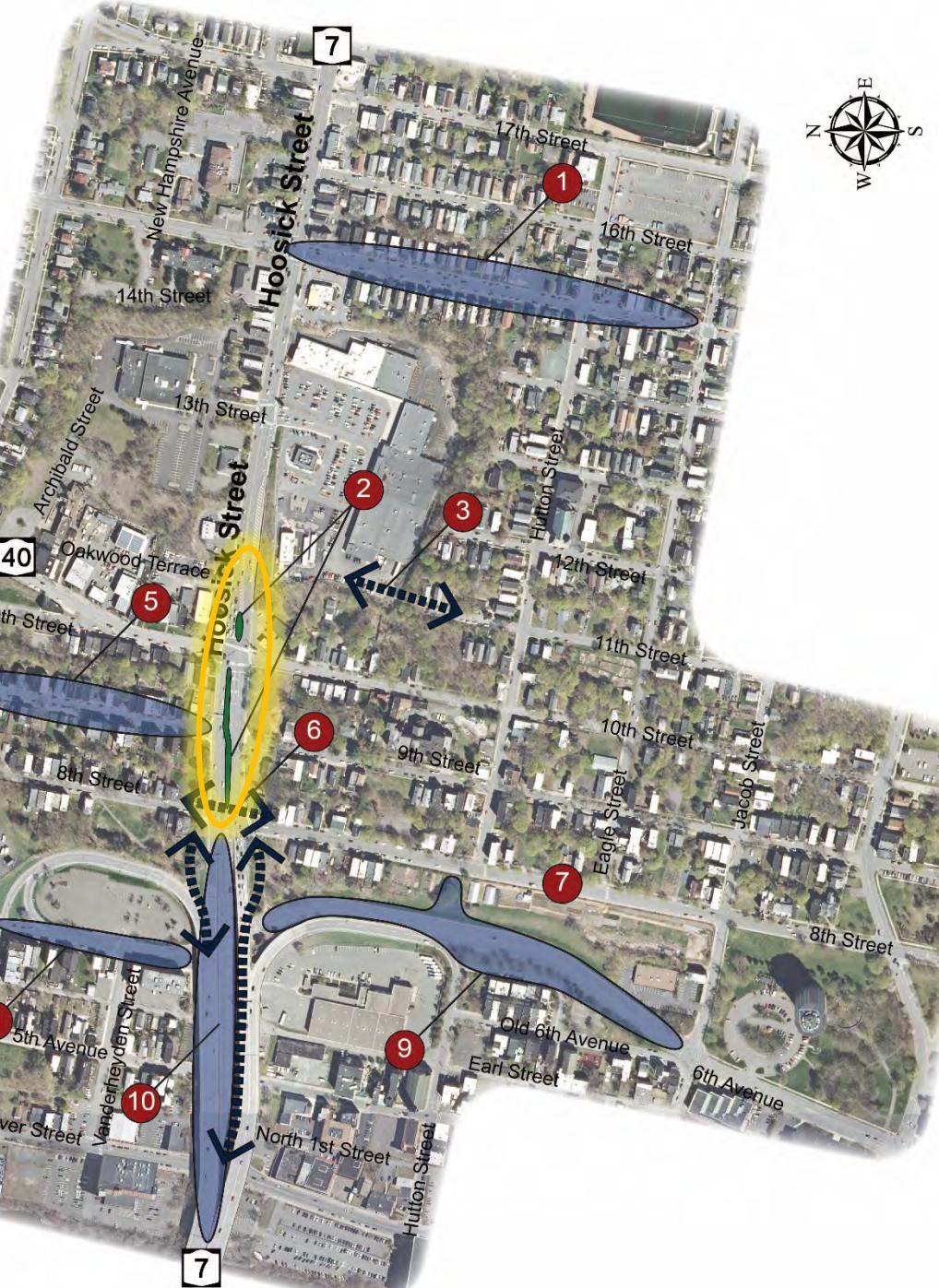


Traffic Calming on 15th Street



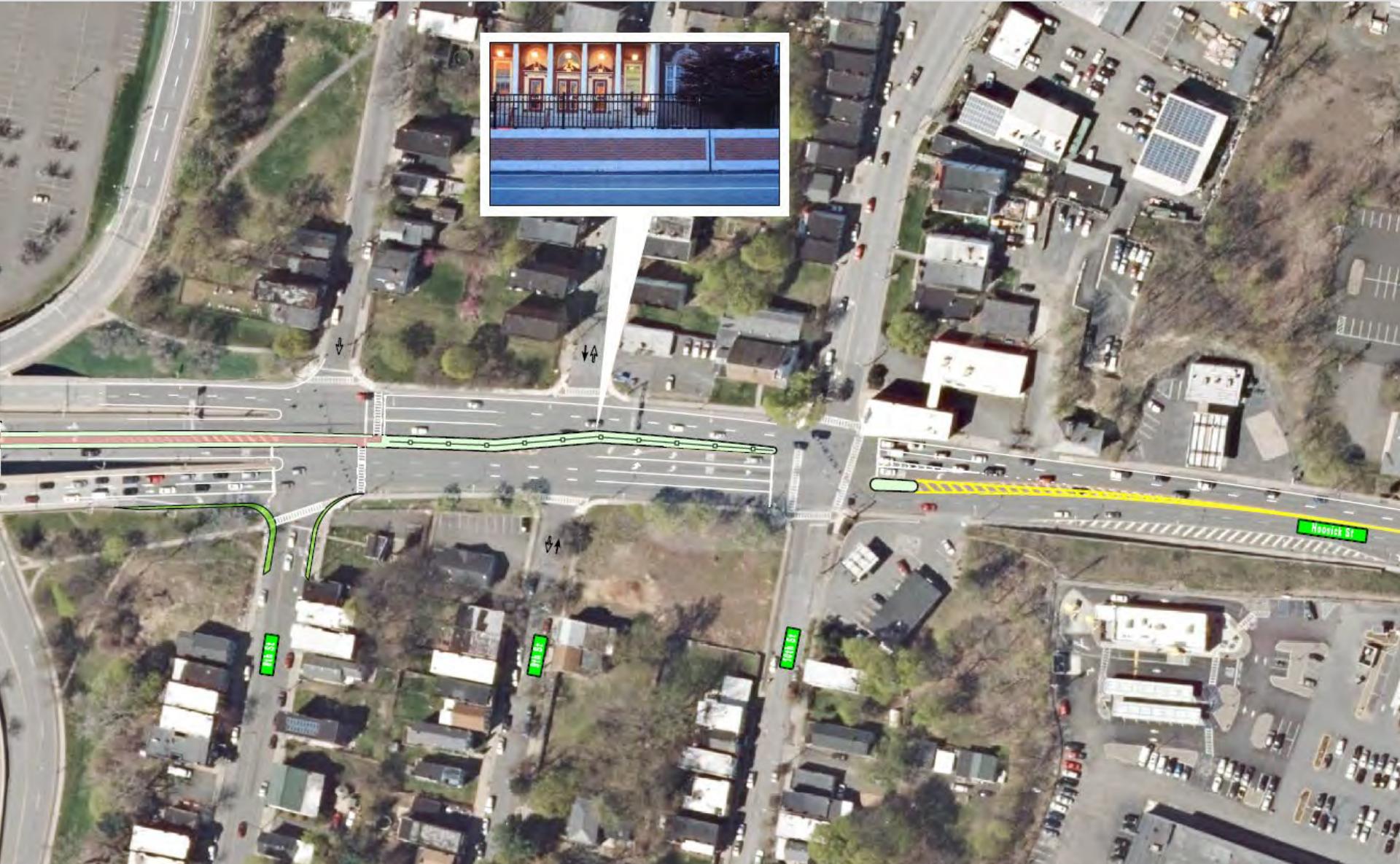
2

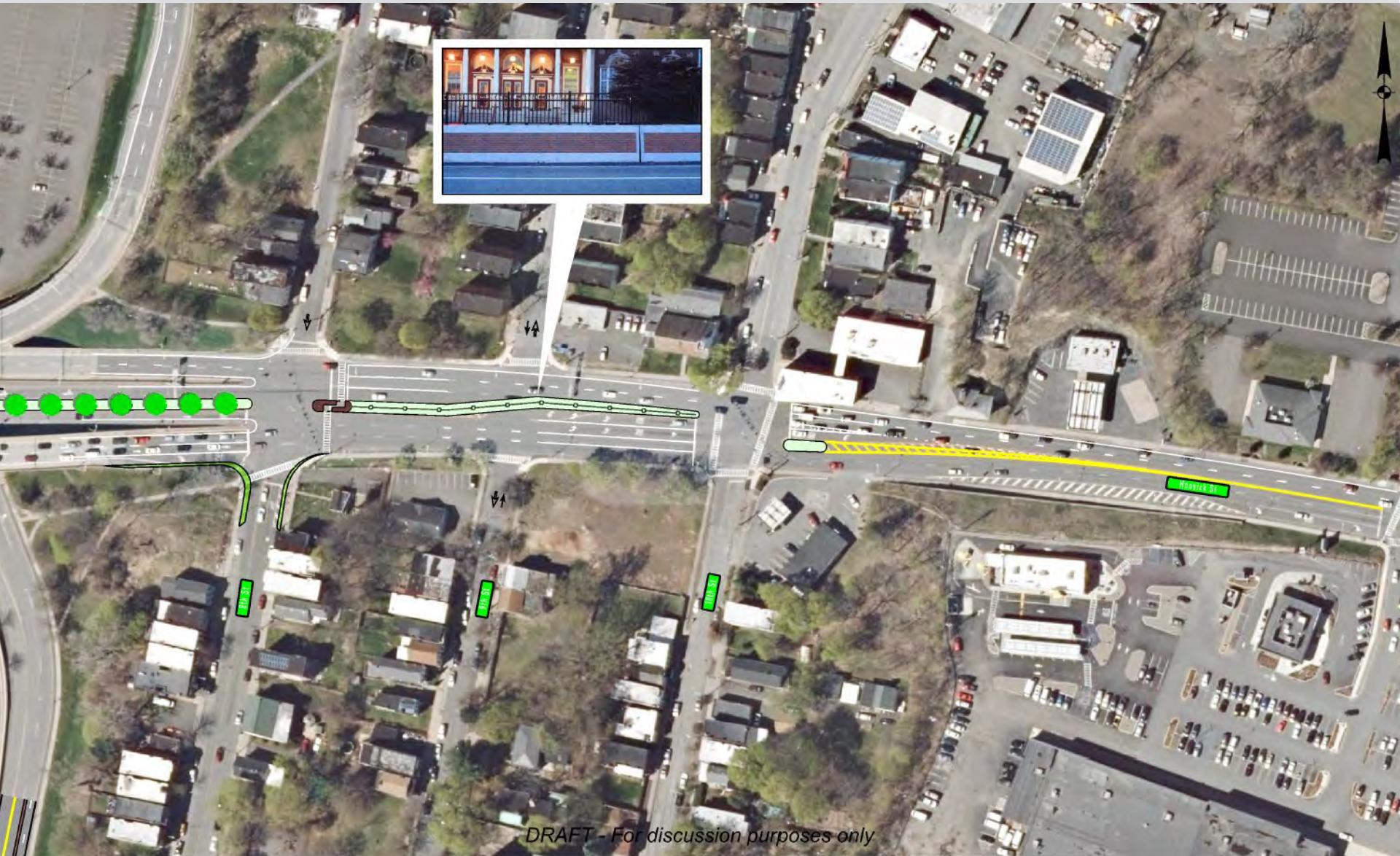
Hoosick Street Median



2

Hoosick Street Median – Alt 1





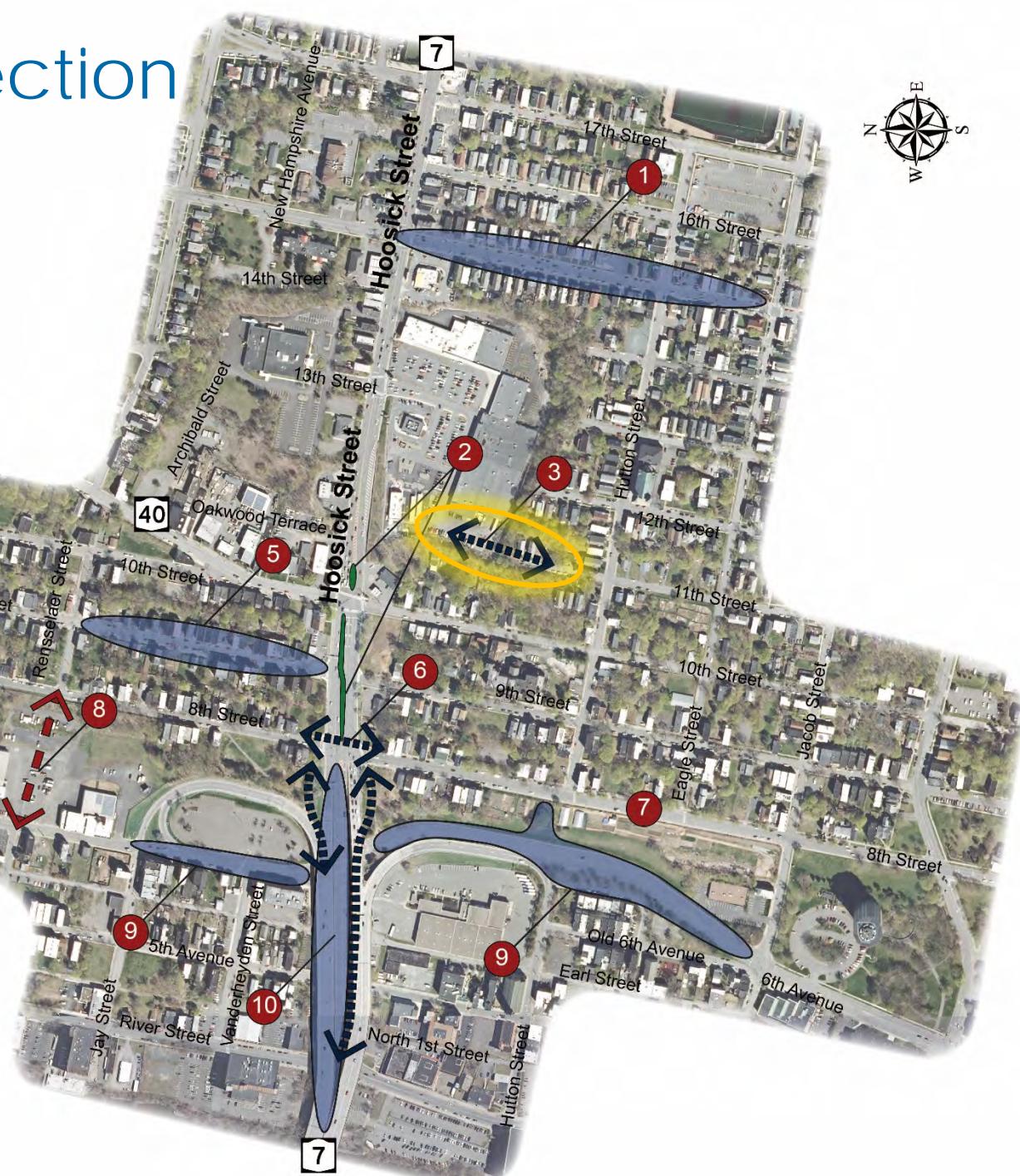
Overall Level of Service Summary

	AM Peak Hour		PM Peak Hour			
	Existing	Alt 1	Alt 2	Existing	Alt 1	Alt 2
Hoosick Street/6 th Avenue	B	B	B	B	C	C
Hoosick Street/8 th Street/NY Route 7	C	C	B	D	D	B
Hoosick Street/10 th Street	C	C	D	C	C	D

- Calms Traffic
- Improves Lane Balance
- Provides Pedestrian Crossing

3

Path Connection to Plaza



3 Path Connection to Plaza

Potential Stair Connections



4

Path Connection to School 2



4

Path Connection to School 2



Path Connection to School 2

Green Alley



14 Foot Path with 28 Foot ROW

Commercial Alley

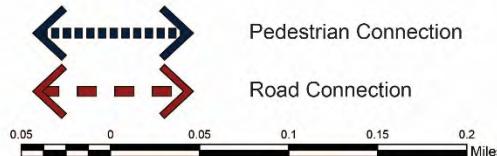
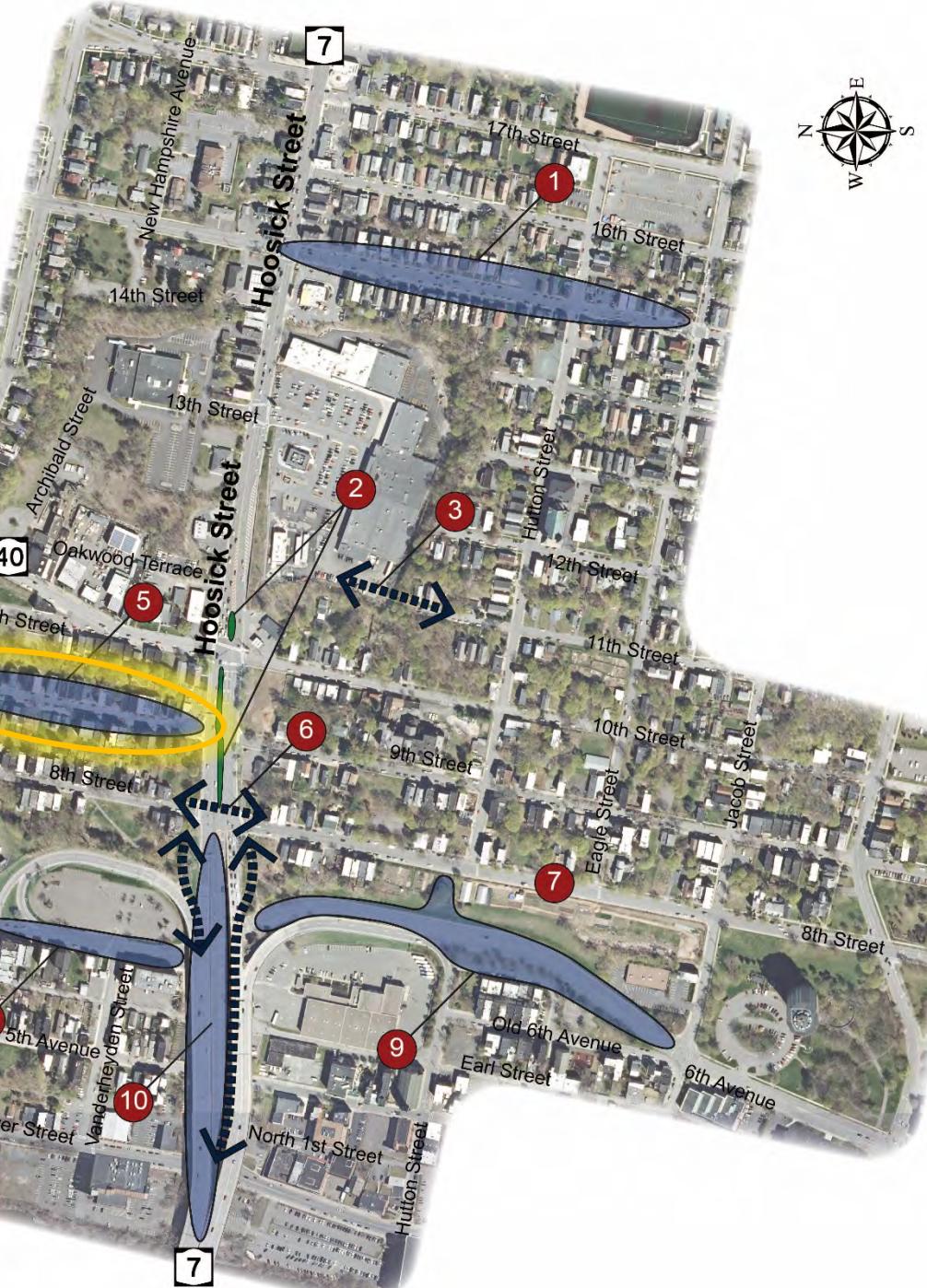


10 Foot Path with 20 Foot ROW

- Path with Clear Space on Either Side
- Provide Adequate Lighting
- Raise Intersections Where Appropriate

5

Traffic Calming on 9th Street



Traffic Calming on 9th Street

Select Traffic Calming Tools



Street Trees



Curb Extension



Alternate Side Parking



Raised Crosswalk*



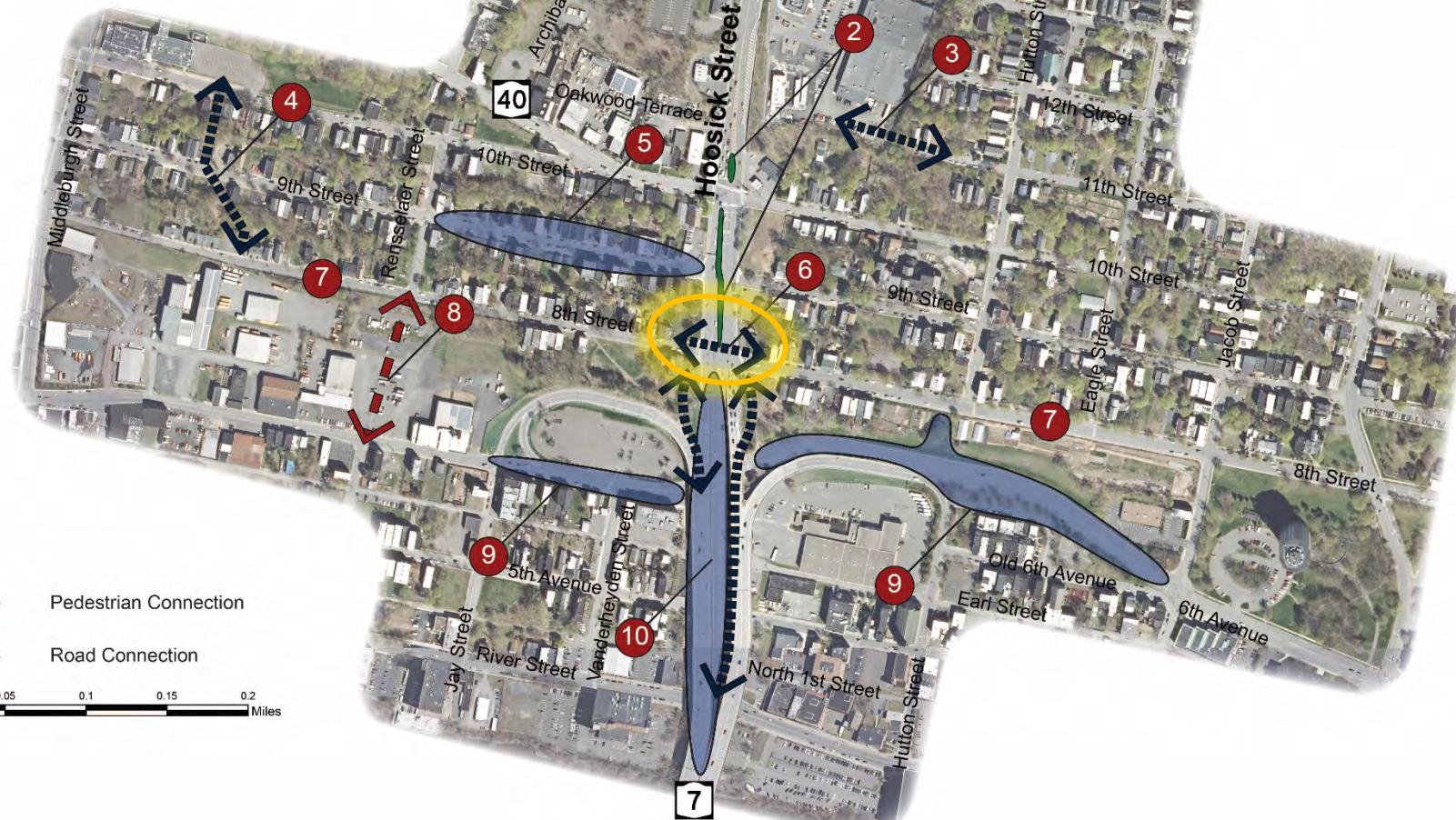
Raised Intersection*

*Not recommended in Hillside South Neighborhood on 8th Street or 15th Street per NYSDOT Traffic Calming Techniques.

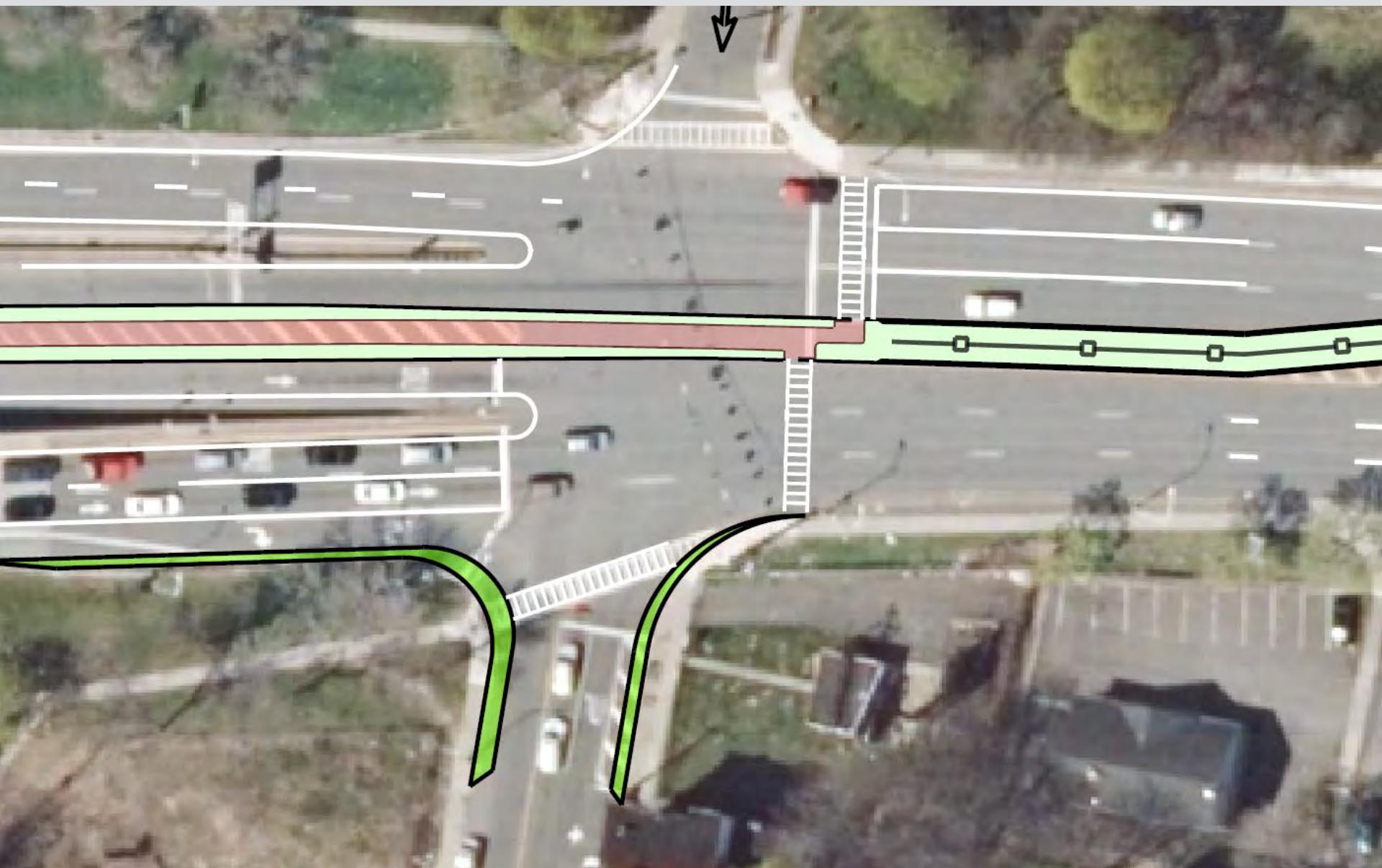
- Median to Reduce Cut-Through Traffic
- Two-Way Roadway Calms Traffic
- Apply Select Traffic Calming Tools

6

Pedestrian Crossing at 8th Street

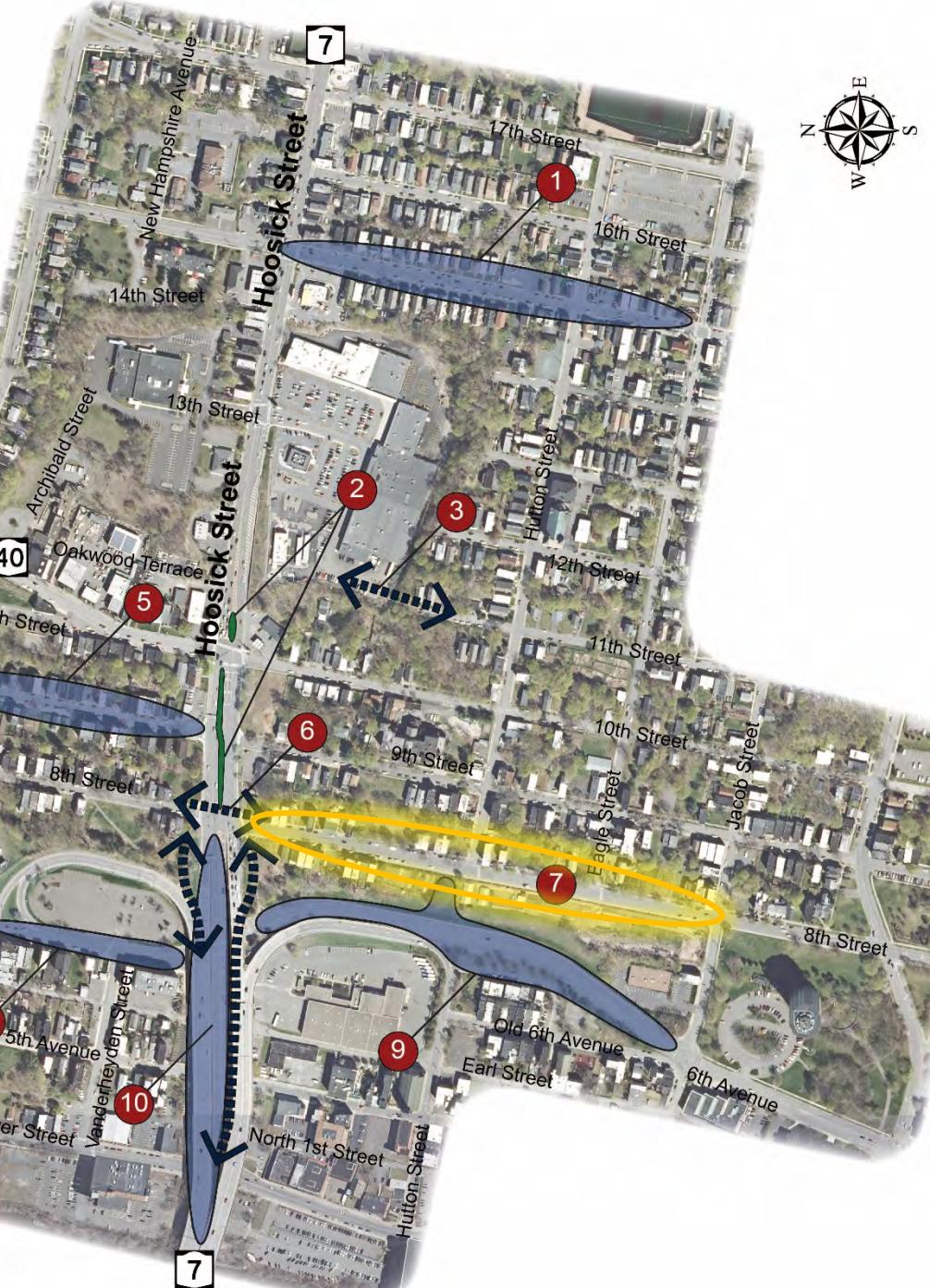


Pedestrian Crossing at 8th Street



7

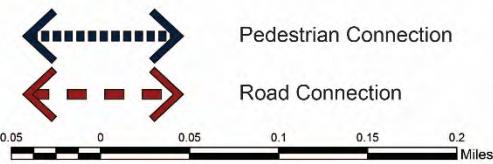
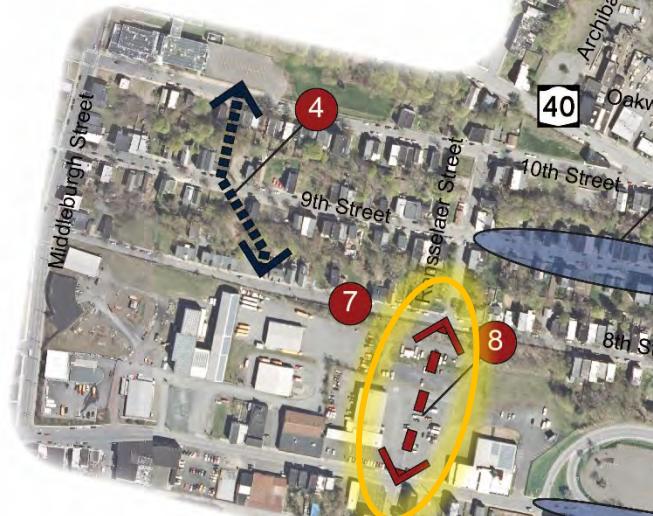
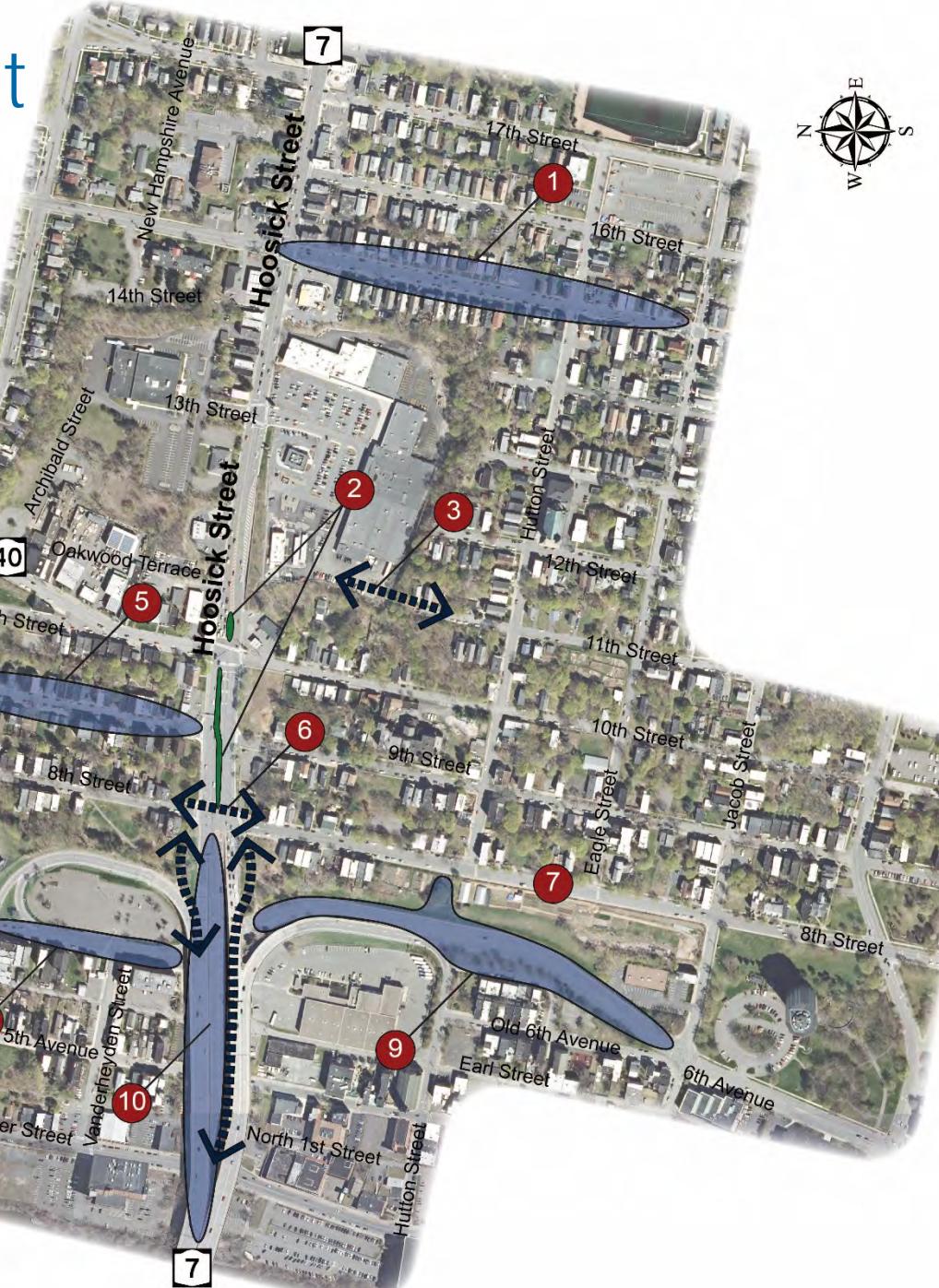
Traffic Calming on 8th Street

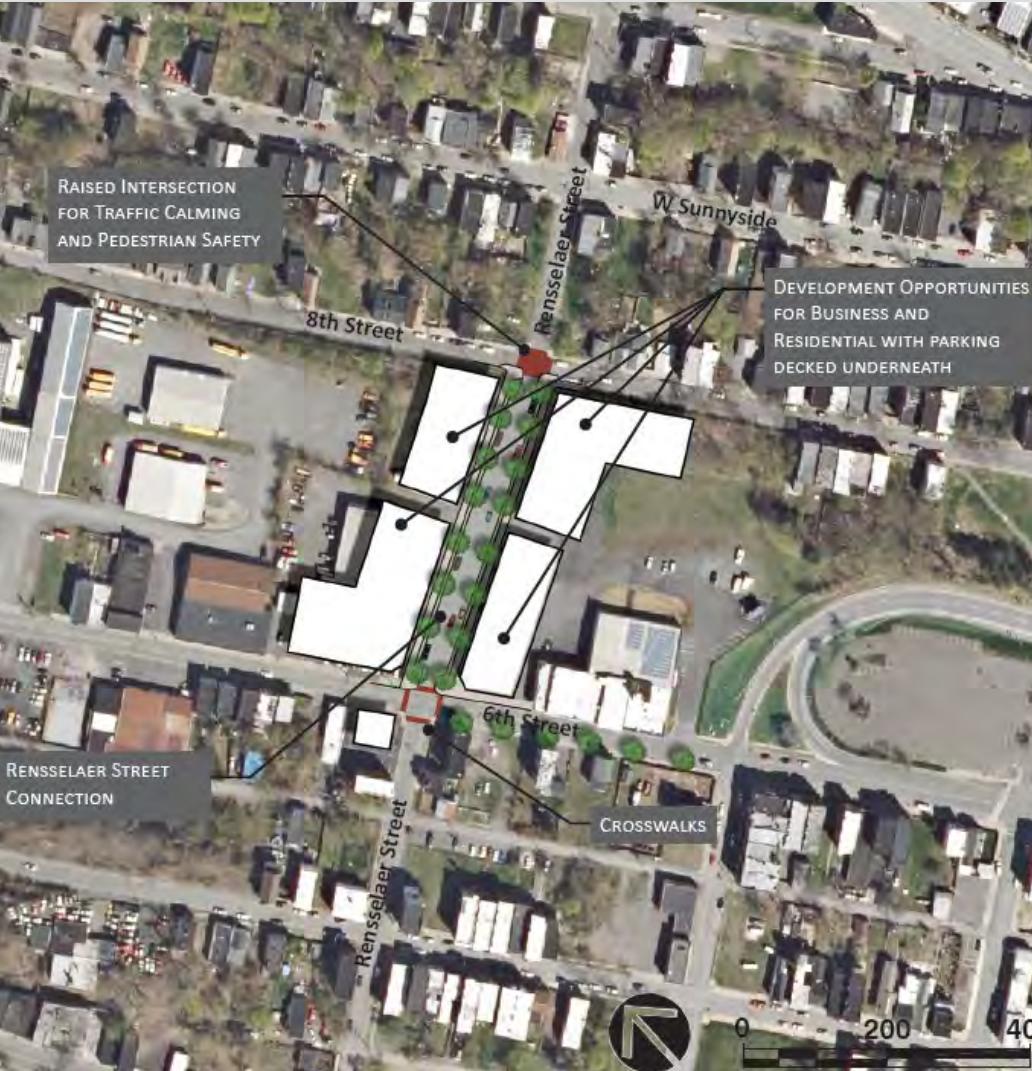


Traffic Calming on 8th Street



Rensselaer Street Connection



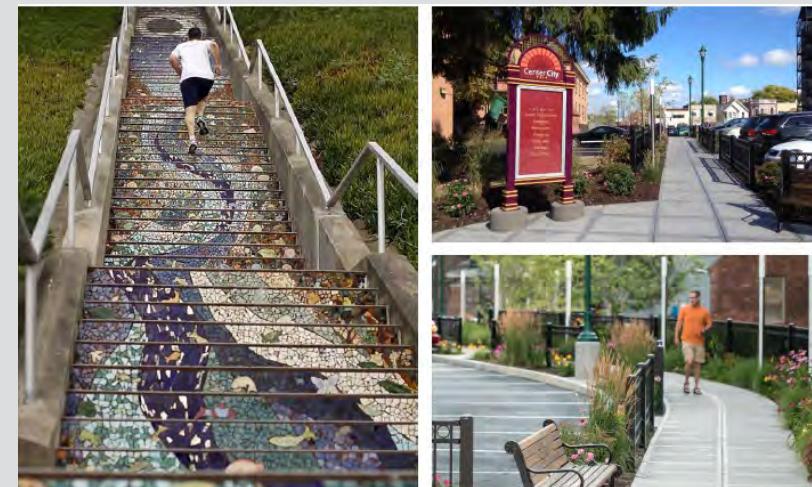


- Pedestrian & Vehicle Connection
- Housing & Business Opportunity





- Improves Pedestrian Access
- Less Impact to Private Property



9

6th Avenue Complete Streets



Pedestrian Connection



Road Connection

0.05 0 0.05 0.1 0.15 0.2 Miles

6th Avenue Complete Streets

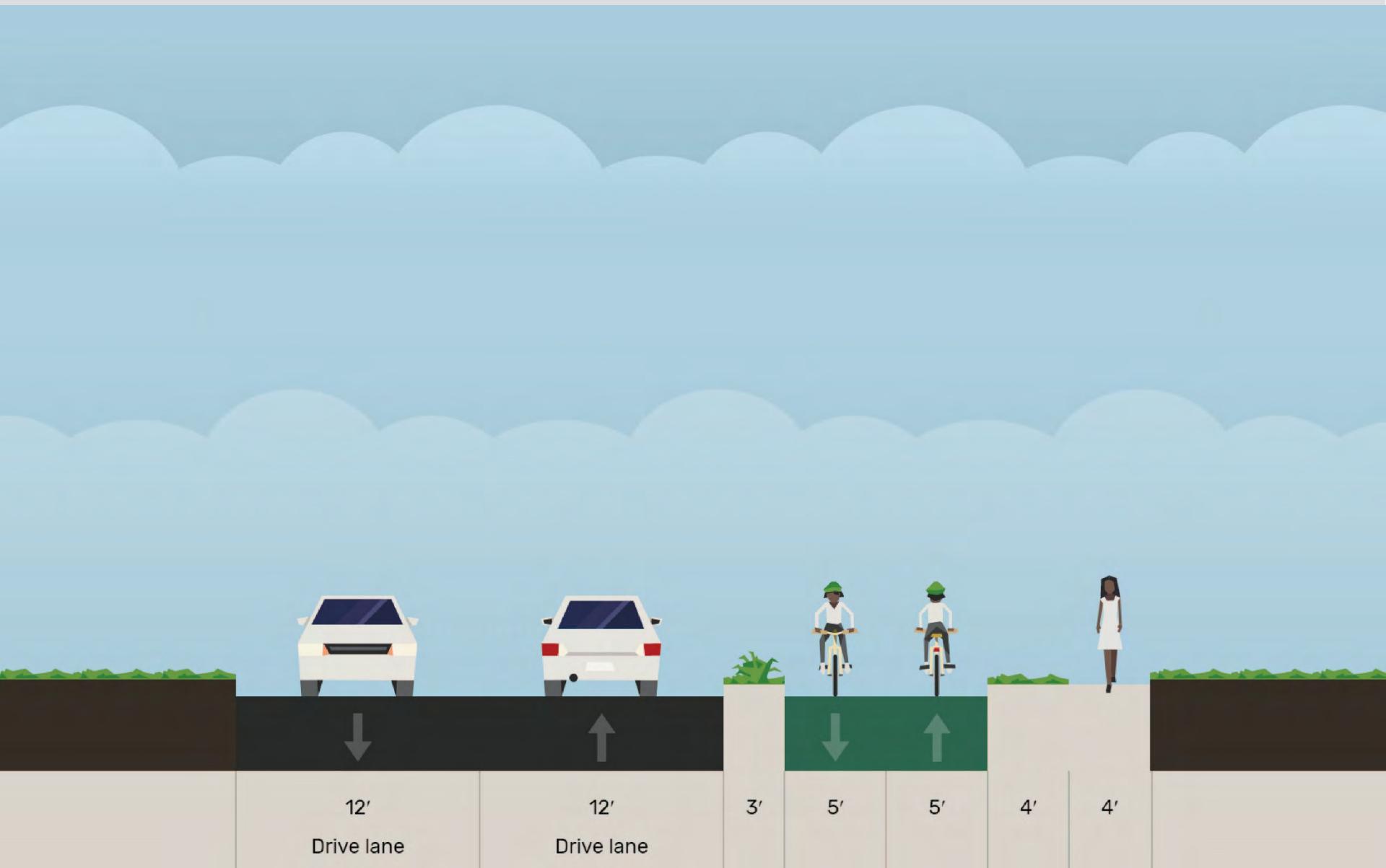


6th Avenue Complete Streets



DRAFT - For discussion purposes only

6th Avenue Complete Streets

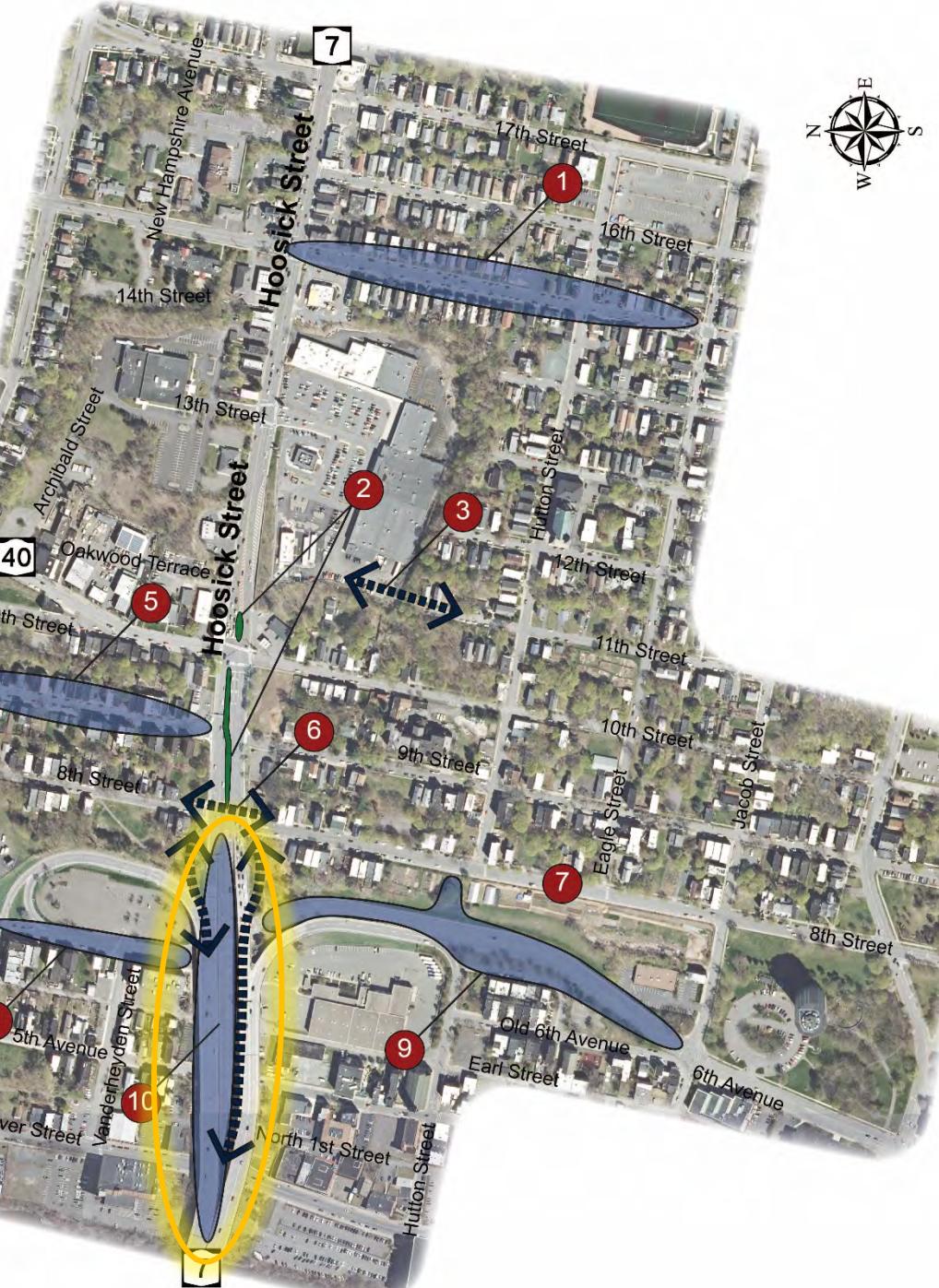


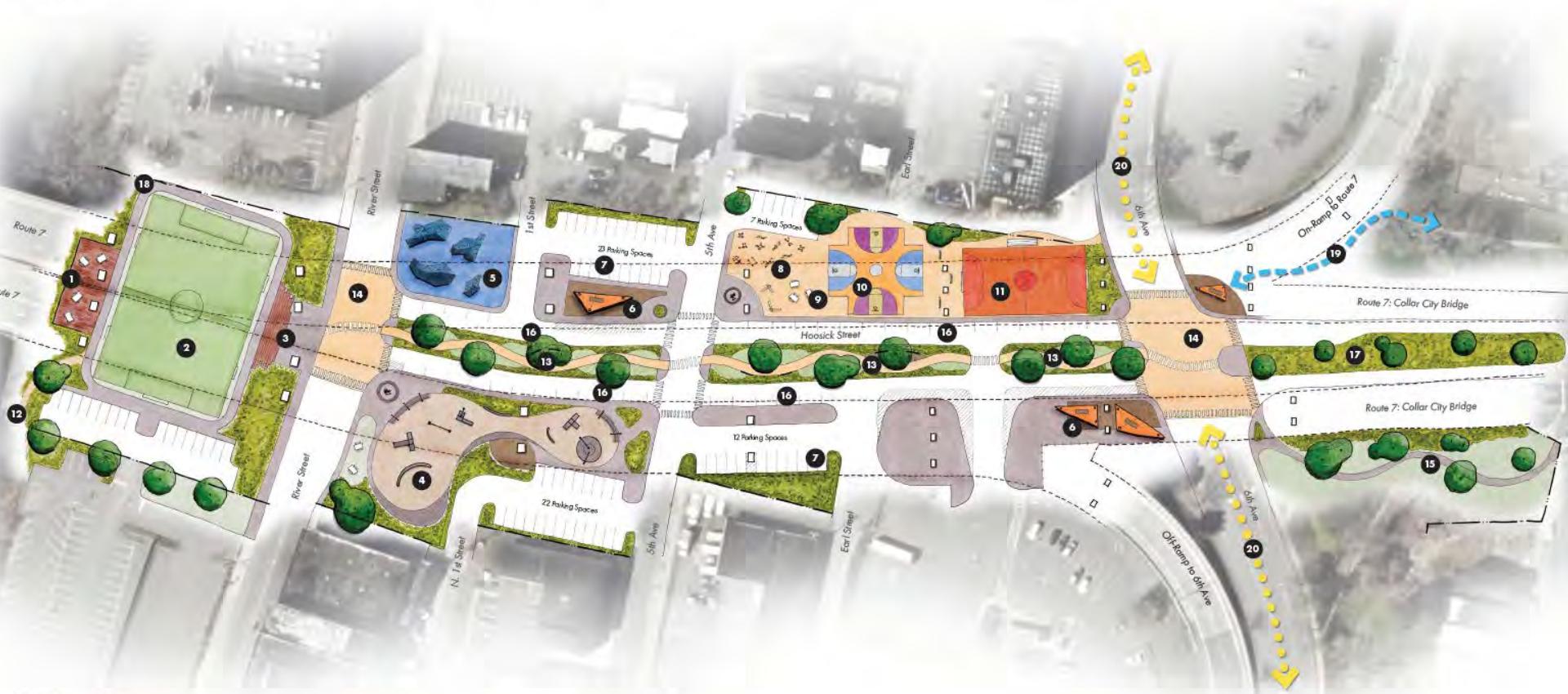
6th Avenue Complete Streets



10

Hoosick Street Path & Collar City Bridge Park

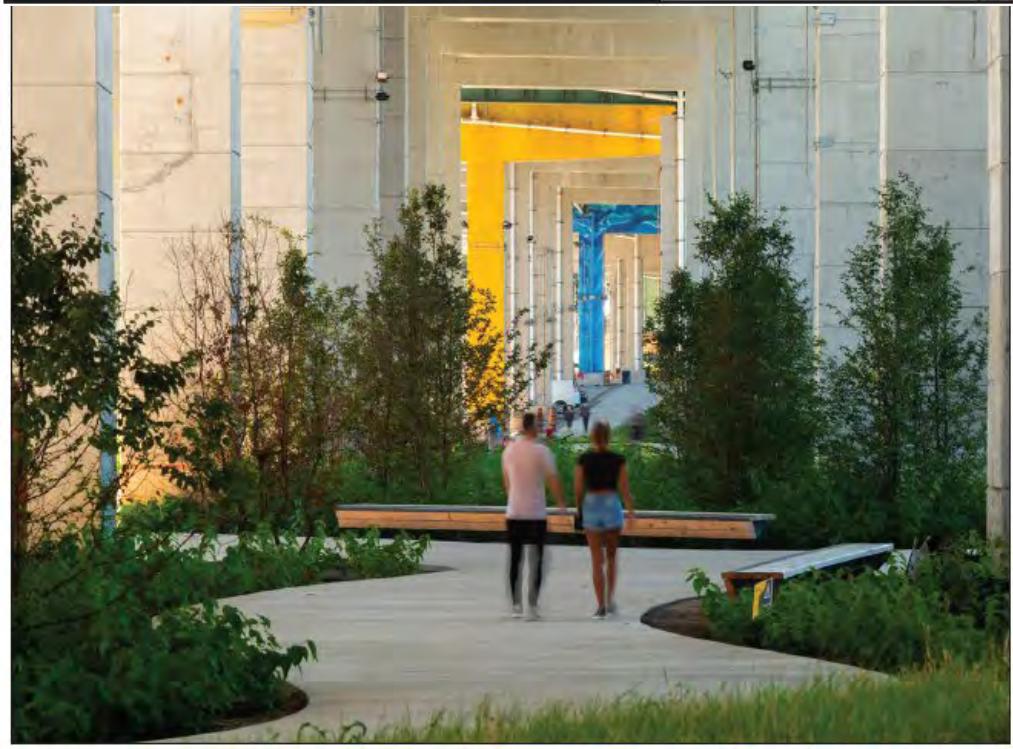
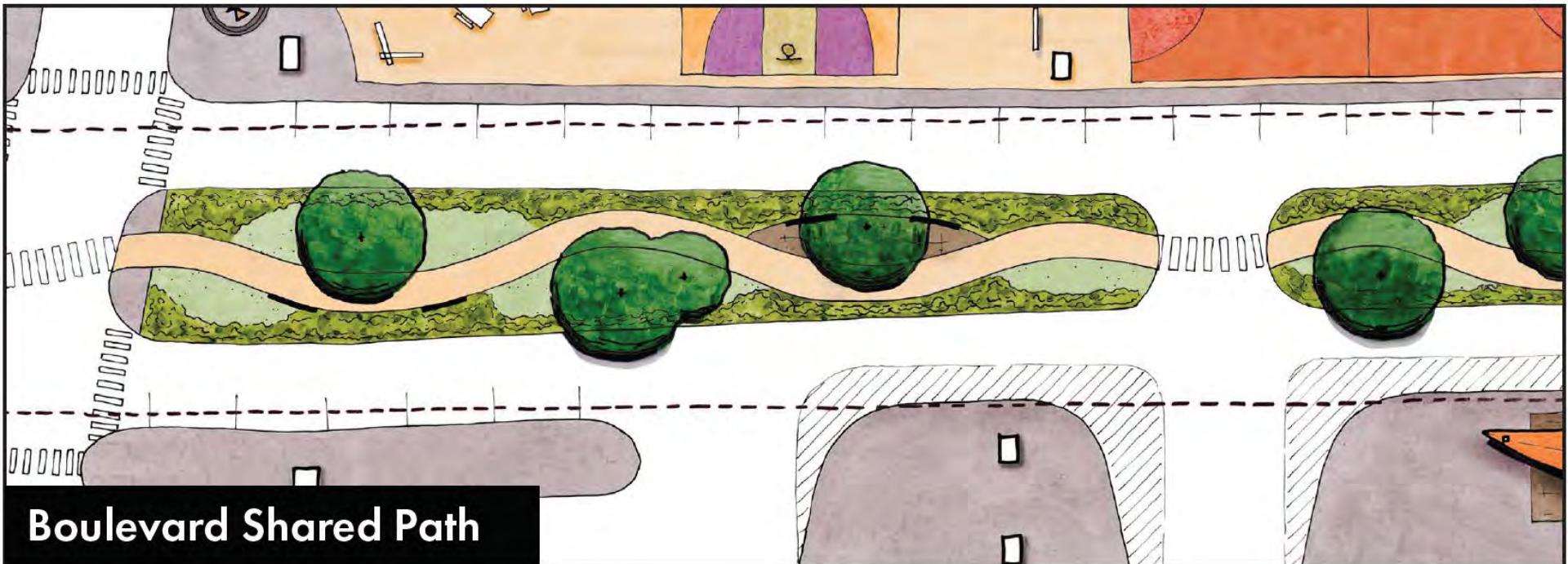


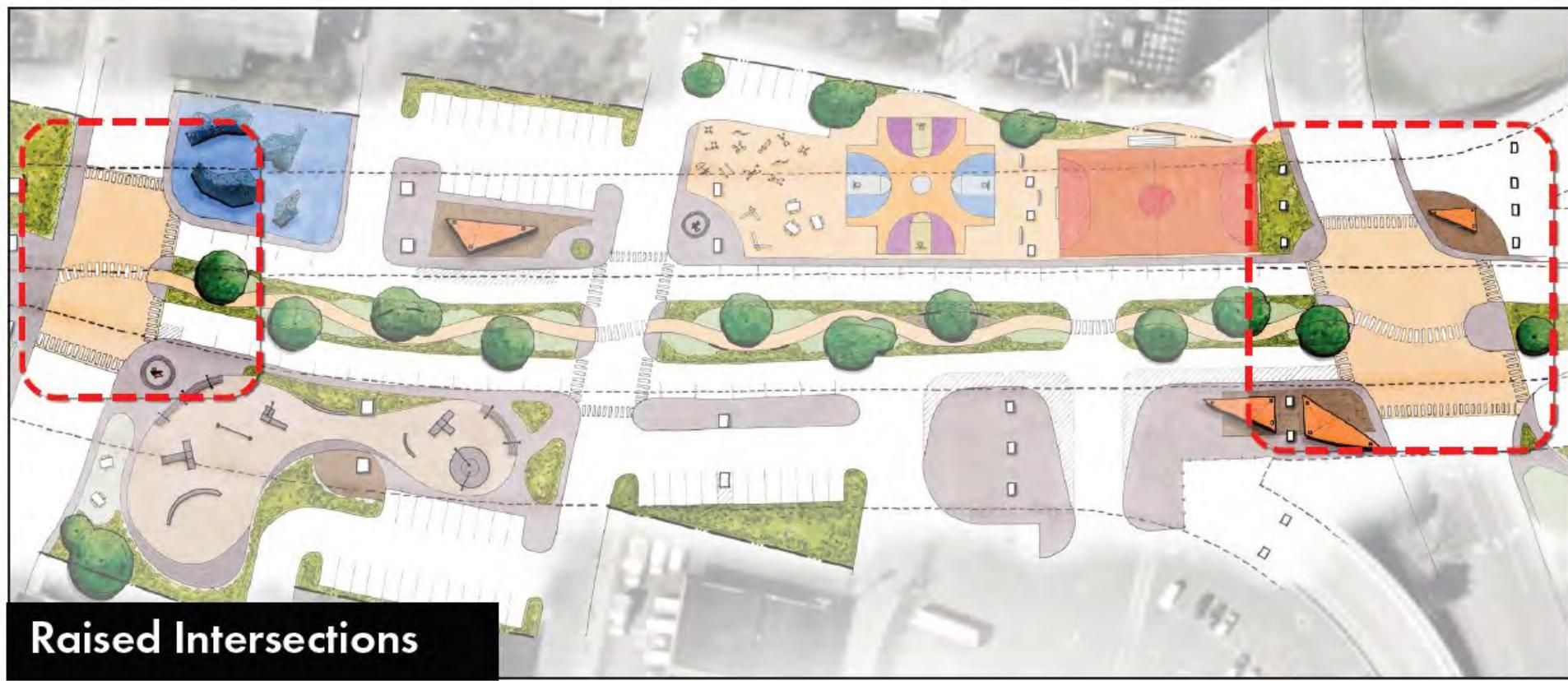
**PLAN KEY**

- 1. RIVER OVERLOOK PLAZA
- 2. MIXED-USE/SOCCER SYNTHETIC TURF FIELD
- 3. STADIUM/BLEACHER SEATING
- 4. SKATE PARK
- 5. ROCK CLIMBING STRUCTURES
- 6. LANDMARK STRUCTURES WITH CDTA BUS SHELTERS
- 7. PUBLIC PARKING
- 8. OUTDOOR WORKOUT AREA
- 9. FLEX SPACE WITH PARK SEATING OPPORTUNITIES
- 10. (2) FULL/ (4) HALF-COURT BASKETBALL COURTS
- 11. FUTSAL HARD COURT
- 12. RIVERWALK CONNECTION
- 13. 10' MIXED USE PATH WITH MIXED PLAZA/SEATING OPPORTUNITIES
- 14. RAISED INTERSECTION
- 15. PARK CONNECTOR PATH TO 8TH STREET
- 16. ON STREET PARKING
- 17. VEGETATED GATEWAY ISLAND
- 18. 8' WALKING/RUNNING PERIMETER PATH
- 19. ENHANCED CONNECTION BETWEEN 6TH AVE AND 8TH STREET
- 20. PROPOSED COMPLETE STREETS IMPROVEMENTS

PROPOSED PARKING TOTALS

PROPOSED PARKING TOTAL: **64**
 PROPOSED ON STREET PARKING TOTAL: **40**
 APPROX. NET PARKING: **-4**





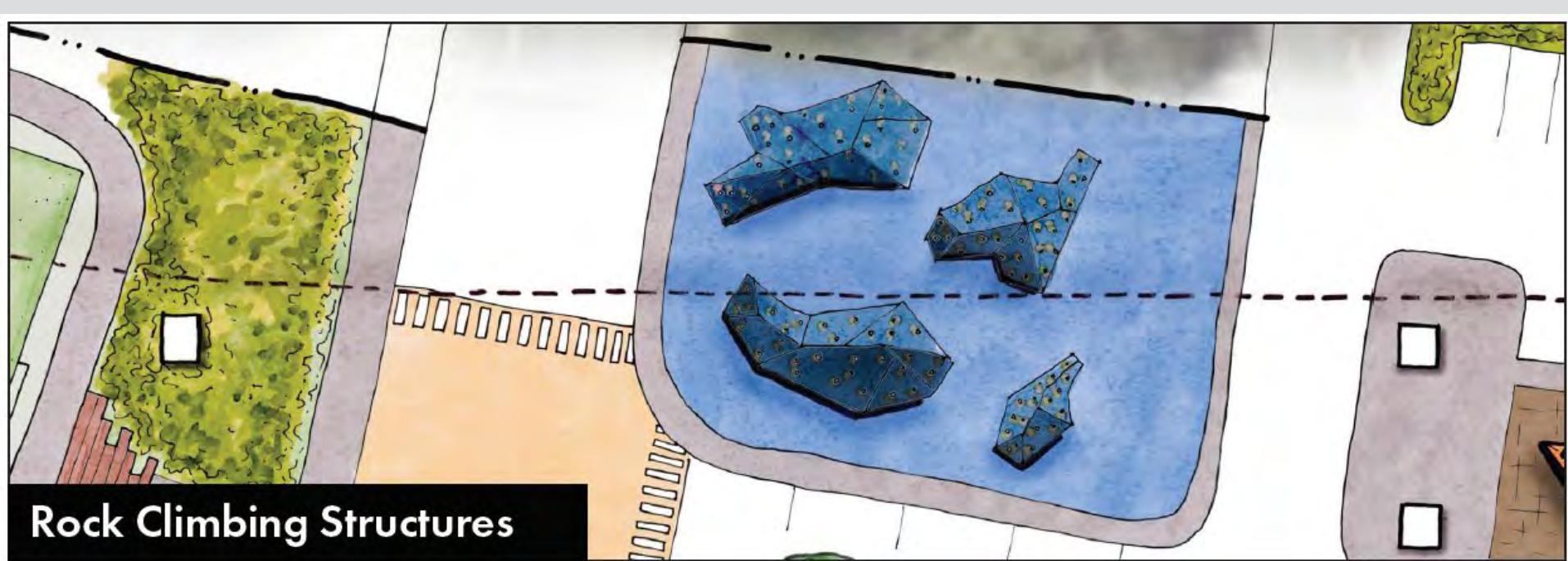




Mixed-Use Synthetic Turf Field

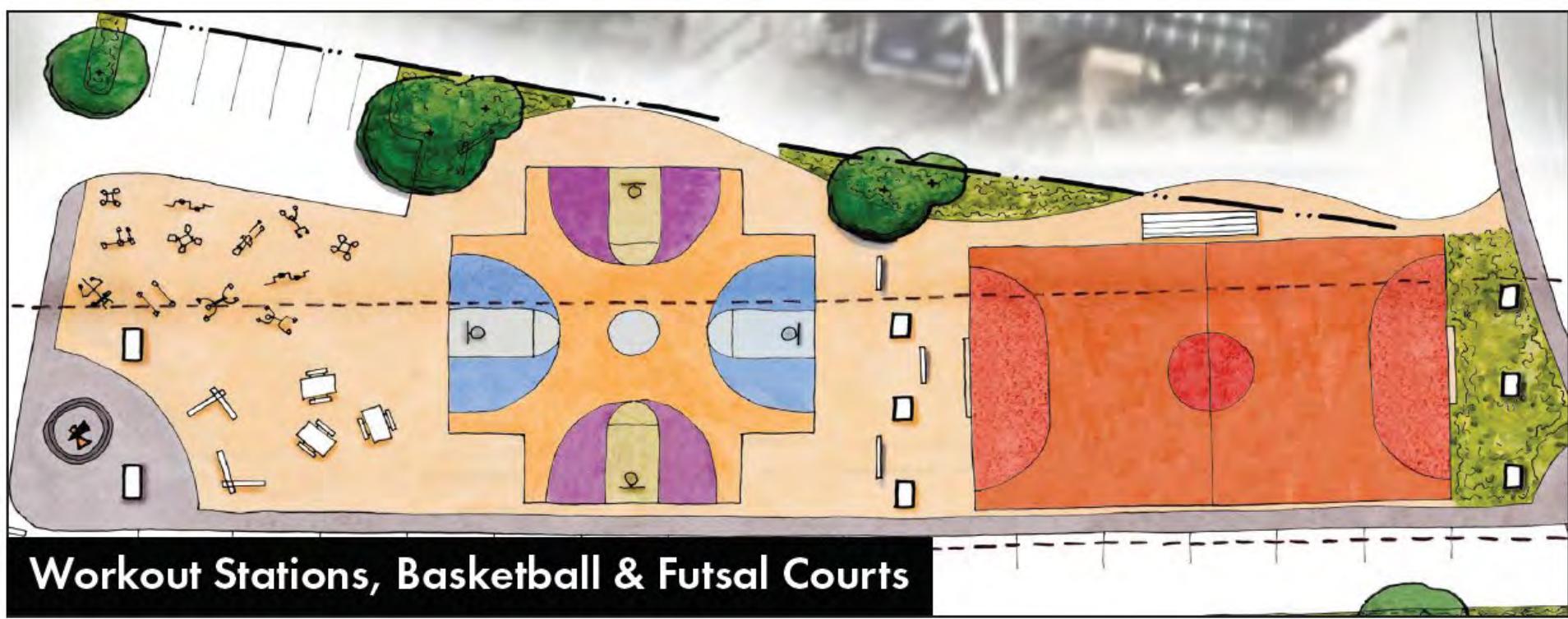






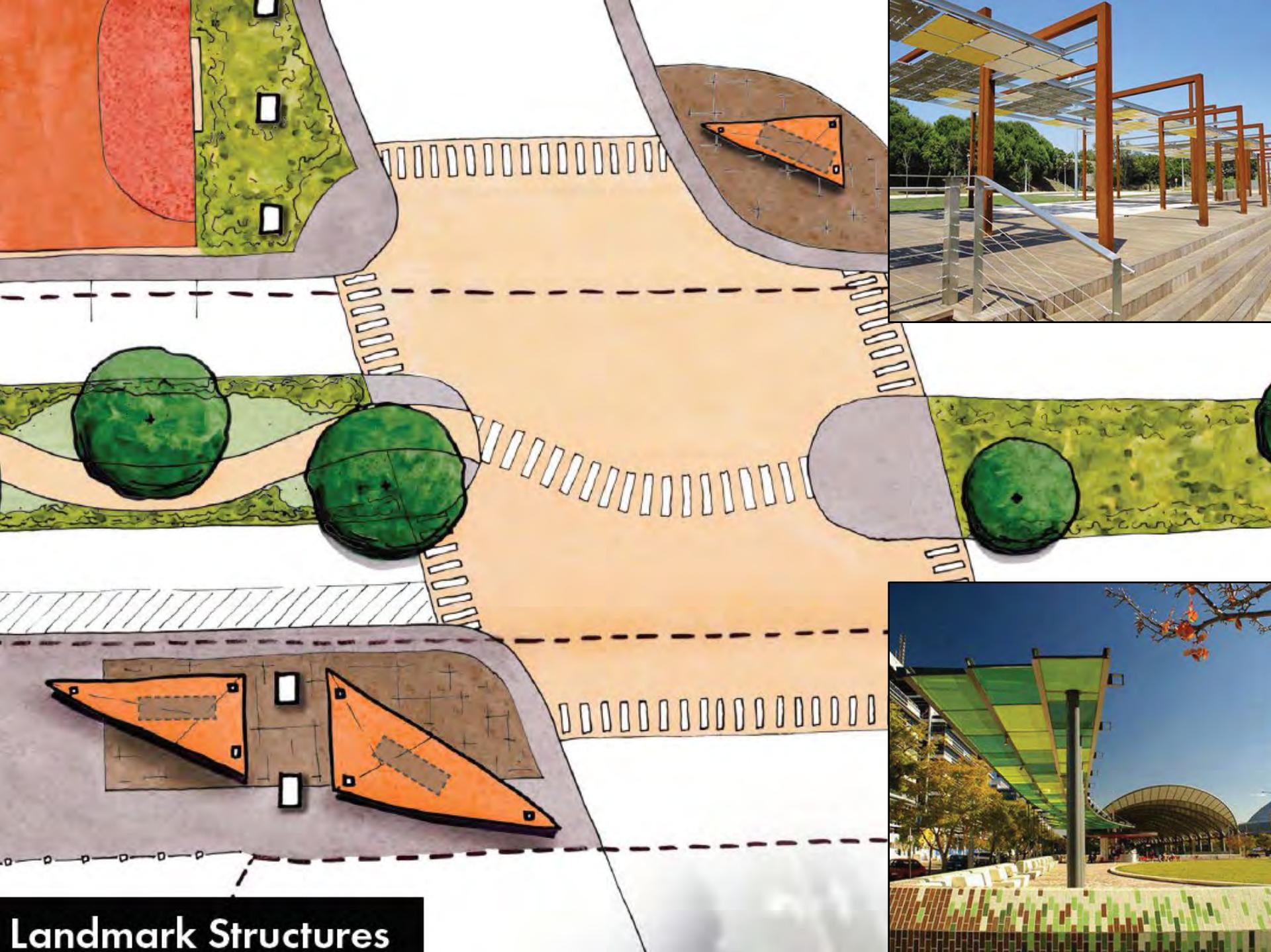
Rock Climbing Structures





Workout Stations, Basketball & Futsal Courts





- Upgrade traffic signals to provide state of the practice pedestrian accommodations.
- Upgrade sidewalks and curb ramps per current ADA guidance.



Area Wide Concepts

Pedestrian Infrastructure Recommendations									
#Location	Roads Intersecting	Jurisdiction	Ped Signal Type	Button	Button Type	Ped Cross walk type	Condition	Comments	Recommendation
1	Hoosick St	River St	City	Hand/Man w/timer	Y	Mech	Parallel	Faded	3 way not sure it has timer
2	Hoosick St	6th Ave	City	No Signal	N	None	Parallel	Faded	4 way
3	Hoosick St	8th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Good	Ped CW cross NB & SB lanes only
4	Hoosick St	10th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way
5	Hoosick St	13th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way
6	Hoosick St	15th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way
7	Hutton St	15th St	City	No Signal	N	None	No CW path		New ped signals (8) New CW (4)
8	Jacob St	6th Ave	City	No Signal	N	None	Parallel	Faded	Ped CW cross NB & WB lanes only
9	Hutton St	5th Ave	City	No Signal	N	None	Parallel	Good	Ped CW cross NB & WB lanes only
10	Hutton St	River St	City	Hand/Man w/timer	Y	Mech	Ladder Bar	Faded	4 way
11	Jay St	6th Ave	City	No Signal	N	None	No CW path		New ped signals (8) New CW (2)

Intersection #1
Hoosick Street/River Street

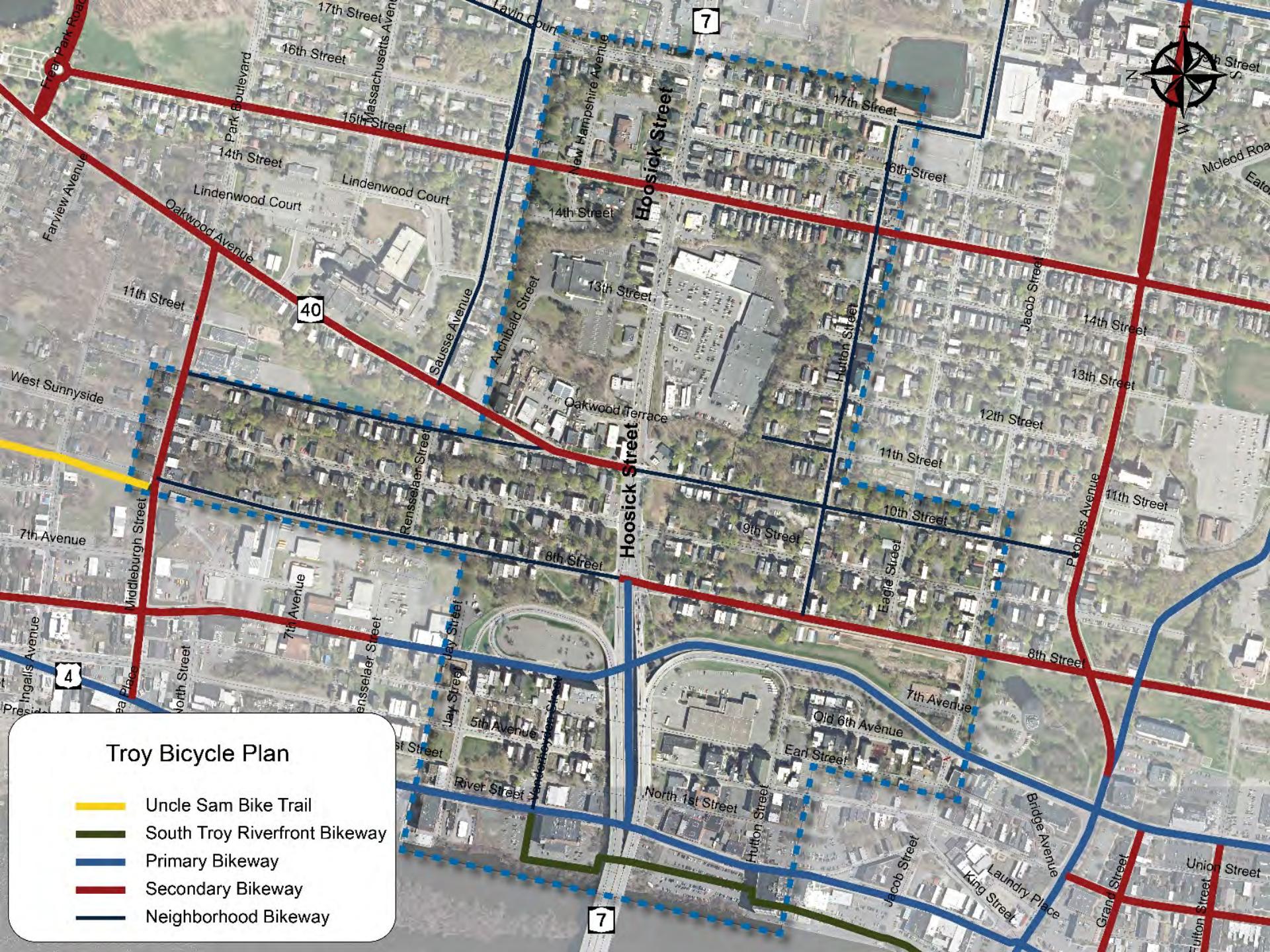


Intersection #8
6th Avenue/Jacob Street



Intersection #4
Hoosick Street/8th Street





Bicycle Level of Traffic Stress

Road	Segment	Existing	Proposed
Hoosick Street	River St to 8th St	LTS 3	LTS 1
	8th St to 10th St	LTS 4	LTS 4
	10th St to 15th St	LTS 4	LTS 4
6th Avenue	Jacob St to Hoosick St	LTS 3	LTS 1
	Hoosick St to Jay St	LTS 3	LTS 1
	Jay St to Middleburgh St	LTS 3	LTS 3
8th Street	Hoosick St to Middleburgh St	LTS 3	LTS 3
	Hoosick St to Jacob St	LTS 3	LTS 3
15th Street	Hoosick St to Sausse Ave	LTS 3	LTS 3
	Hoosick St to Jacob St	LTS 3	LTS 3

Public Engagement

- Direct Mailing
- Pre-recorded Presentation
- Comment Period
- Survey

Potential Survey Questions

- The proposed recommendations will make it easier/safer/more comfortable for me to get around the neighborhood.
 - Agree
 - Somewhat Agree
 - Neutral
 - Somewhat Disagree
 - Disagree
- The proposed recommendations will make it easier/safer/more comfortable for me to get to/from downtown.
 - Agree
 - Somewhat Agree
 - Neutral
 - Somewhat Disagree
 - Disagree

Potential Survey Questions

- Which recommendations are you most excited about?
- Are there any recommendations you don't like?
- How do you feel about each recommendation
 - Like as is
 - Would like with changes
 - Do not like

Schedule/Next Steps

- Early September - Public Engagement
- Late September – Draft Report
- Early October – Final SAC Meeting
- Late October – Final Report

SUMMARY OF MEETING



This meeting summary represents the writer's understanding of the major issues discussed. If you wish to suggest edits or additions, please contact the undersigned.

DATE: October 30, 2020

PROJECT: Hoosick Hillside Study

PLACE: Zoom Video Conference

TIME: 1:30 pm

PURPOSE: **The purpose of this meeting was to review input received during the online Public Workshop and edits to the draft final report with the Study Advisory Committee (SAC).**

ATTENDEES:

Name	Representing	Name	Representing
Jesse Vogl	CM	Mark Sarteng	CM
Rima Shamieh	CDTC	Andrew Kreshik	City of Troy
James Rath	City of Troy	Audrey Burneson	NYSDOT
Linda von der Heide	Rensselaer County	Christopher Nolin	RPI
Beth Steckley	Hillside South Neighborhood	Nathaniel Bette	First Columbia
Gail Padalino	TRIP	Martin Daley	CDRPC

SUMMARY:

1. Welcome – Rima Shamieh welcomed the group and thanked the SAC for their input. Mark Sargent stated that key objectives for this meeting included reviewing the public input on the draft plan and discussing any comments on the draft final report.
2. Discussion on Public Input and Report – CM provided a brief overview of the public comments received from the online public workshop and subsequent report edits. In general, the public feels that the plan will improve pedestrian connectivity/safety between the Hillside Neighborhoods and Downtown. Survey results indicate that the public is most excited about the Hoosick Street median concepts as well as the Hoosick Street path and Collar City Bridge Park. Likewise, public opinion is fairly evenly split on the median and Rensselaer Street connection alternatives with a slight preference towards the continuous median thru 9th Street and Rensselaer Street extension. The draft final report includes updates to reflect the preferred alternatives for the median and Rensselaer Street connection. The following was discussed:
 - a. Mark Sargent noted that in addition to the specific recommendations in the report, the plan includes a general recommendation of upgrading existing pedestrian infrastructure at intersections to include pedestrian signals and crosswalks.
 - i. James Rath asked if the report included the inventory of existing pedestrian infrastructure. CM responded that the inventory will be included in a technical appendix. **Action: CM to compile technical appendices.**

SUMMARY OF MEETING

- b. Linda von der Heide stated that the continuous median concept will result in traffic diversions to 10th Street and asked if 10th Street should be made one-way to accommodate future traffic.
 - i. CM responded that traffic diversions were considered in the operations analysis and that they will not significantly impact 10th Street. In addition to 10th Street, traffic is expected to divert to 15th Street and 6th Avenue, thus distributing the traffic volume changes across several routes.
 - ii. Mark Sargent added that two-way streets typically provide better access, and that converting a City street to a one-way traffic pattern could be done if there is a crash history with two-way traffic.
- c. Rima Shamieh asked if the City received input on the plan as it relates to circulation changes from emergency responders. Beth Steckley agreed that it would be good to get the fire department's input in case the recommendations would restrict access.
 - i. James Rath responded that the City will share the report with the police and fire departments to receive their input. However, the goal of the plan is to improve connectivity between the neighborhoods and therefore input from the police and fire department should be based on their ability to maintain access.
- d. Christopher Nolin stated that he still has reservations about the continuous median through 8th Street and questions whether or not it will be utilized.
 - i. CM responded that the median provides the opportunity to add a pedestrian crossing at 8th Street which does not currently exist. The data and public input suggest that this new crossing will be utilized and result in improved connectivity between the neighborhoods. Likewise, the decorative barrier between 8th Street and 10th Street will channelize pedestrians to the protected crossings, thus improving safety.
- e. Martin Daley noted that the Hoosick Street path concept includes raised intersections at River Street and 6th Avenue where traffic crosses the path, but these elements are not included at 5th Avenue.
 - i. CM responded that the raised elements are included at either end of Hoosick Street to act as a gateway. Right of way and intersection control on the path will need to be further evaluated during design.
- f. Nathaniel Bette asked about parking impacts from the Collar City Bridge Park.
 - i. CM responded that the plan shows a net reduction of four parking spaces. This number seems low given the impacts to the parking lot at the west end. **Action: CM to confirm parking impacts.**
- g. Nathaniel Bette noted that businesses on 1st Street currently access loading docks via Hoosick Street and therefore that access should be maintained.
 - i. CM responded that the park concept is intended to show the types of uses that would be desirable underneath the bridge and how they could be configured. Access and changes to the roadway network will be confirmed as part of the design process.
- h. James Rath requested that the report elaborate on the impacts of urban renewal and the construction of the Collar City Bridge in order to emphasize the need to implement the study recommendations. **Action: CM to expand intro text.**
- i. James Rath requested that additional Complete Streets information be included in the report.
 - i. CM responded that the report does provide an overview of complete streets and provides examples of types of treatments. This report is not intended to be a complete streets guide and therefore readers wanting to learn more about complete streets should further examine the resources identified in the report.

SUMMARY OF MEETING

3. Recap/Next Steps – CM stated that the next step is to update the report per the above comments and compile the technical appendices to create a final document. Any additional text edits/comments should be sent to Rima Shamieh as soon as possible.

Summary of Actions:

1. **CM to compile technical appendices.**
2. **CM to confirm parking impacts.**
3. **CM to expand intro text.**

The meeting concluded at 2:40 p.m.

Jesse Vogl, AICP
Project Planner

cc: Attendees
 File

Appendix C

Traffic Calculations

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
2019 Existing _AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Future Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	0.92		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1582		1805	1699		1752	1845	1615	1504	1759	1568
Flt Permitted	0.66	1.00		0.67	1.00		0.65	1.00	1.00	0.38	1.00	1.00
Satd. Flow (perm)	1225	1582		1274	1699		1192	1845	1615	602	1759	1568
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	125	62	72	77	123	23	44	388	16	11	176	69
RTOR Reduction (vph)	0	37	0	0	10	0	0	0	10	0	0	45
Lane Group Flow (vph)	125	98	0	77	136	0	44	388	6	11	176	24
Heavy Vehicles (%)	3%	11%	10%	0%	10%	5%	3%	3%	0%	20%	8%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	NA	Perm	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	34.5	34.5		34.5	34.5		24.5	24.5	24.5	24.5	24.5	24.5
Effective Green, g (s)	34.5	34.5		34.5	34.5		24.5	24.5	24.5	24.5	24.5	24.5
Actuated g/C Ratio	0.49	0.49		0.49	0.49		0.35	0.35	0.35	0.35	0.35	0.35
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lane Grp Cap (vph)	603	779		627	837		417	645	565	210	615	548
v/s Ratio Prot		0.06			0.08			c0.21			0.10	
v/s Ratio Perm	c0.10			0.06			0.04		0.00	0.02		0.02
v/c Ratio	0.21	0.13		0.12	0.16		0.11	0.60	0.01	0.05	0.29	0.04
Uniform Delay, d1	10.0	9.6		9.6	9.8		15.4	18.7	14.8	15.1	16.4	15.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.3		0.4	0.4		0.5	4.1	0.0	0.5	1.2	0.2
Delay (s)	10.8	9.9		10.0	10.2		15.9	22.8	14.9	15.5	17.6	15.2
Level of Service	B	A		A	B		B	C	B	B	B	B
Approach Delay (s)		10.4			10.1			21.9			16.9	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		16.1					HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		70.0					Sum of lost time (s)			11.0		
Intersection Capacity Utilization		52.6%					ICU Level of Service			A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

2: Hoosick & 8th St & Hoosick Street
2019 Existing _AM Peak

Movement	EBT	WBL2	WBT	NBL	NBT	NBR	SBL	SBT	SBR2	NER	NER2
Lane Configurations	↑	↑	↑↑↑	↑	↑			↑	↑	↑↑	↑
Traffic Volume (vph)	137	5	1931	231	0	36	9	23	284	980	267
Future Volume (vph)	137	5	1931	231	0	36	9	23	284	980	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	10	12	12	12	12	14
Grade (%)	4%		-4%		0%			0%			
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00			1.00	1.00	0.88	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.99	1.00	0.90
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	1.00	1.00	0.85			1.00	0.85	1.00	0.85
Fl _t Protected	1.00	0.95	1.00	0.95	1.00			0.99	1.00	1.00	1.00
Satd. Flow (prot)	1844	1780	5187	1752	1561			1821	1577	3121	1486
Fl _t Permitted	1.00	0.95	1.00	0.73	1.00			0.94	1.00	1.00	1.00
Satd. Flow (perm)	1844	1780	5187	1356	1561			1732	1577	3121	1486
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	146	5	2054	246	0	38	10	24	302	1043	284
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	77	0	61
Lane Group Flow (vph)	146	5	2054	246	8	0	0	34	225	1043	223
Confl. Peds. (#/hr)			21						1		21
Heavy Vehicles (%)	1%	0%	2%	3%	0%	0%	0%	4%	1%	5%	2%
Parking (#/hr)						0					
Turn Type	NA	Prot	NA	D.Pm	NA		Perm	NA	Perm	Prot	Perm
Protected Phases	1	4	1 2 4					3		2	
Permitted Phases				3	3		3		3		2
Actuated Green, G (s)	30.0	8.5	98.5	27.5	27.5			27.5	27.5	50.0	50.0
Effective Green, g (s)	30.0	8.5	98.5	27.5	27.5			27.5	27.5	50.0	50.0
Actuated g/C Ratio	0.22	0.06	0.72	0.20	0.20			0.20	0.20	0.37	0.37
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0	2.0	3.0	3.0
Lane Grp Cap (vph)	406	111	3756	274	315			350	318	1147	546
v/s Ratio Prot	0.08	0.00	c0.40							c0.33	
v/s Ratio Perm				c0.18	0.00			0.02	0.14		0.15
v/c Ratio	0.36	0.05	0.55	0.90	0.02			0.10	0.71	0.91	0.41
Uniform Delay, d1	44.9	59.9	8.6	52.9	43.5			44.1	50.5	40.8	32.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.1	0.2	28.6	0.0			0.0	5.8	12.1	2.3
Delay (s)	45.4	60.0	8.7	81.4	43.5			44.2	56.3	53.0	34.3
Level of Service	D	E	A	F	D			D	E	D	C
Approach Delay (s)	45.4		8.8		76.4			55.1			
Approach LOS	D		A		E			E			
Intersection Summary											
HCM 2000 Control Delay			31.3			HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.82								
Actuated Cycle Length (s)			136.0			Sum of lost time (s)			20.0		
Intersection Capacity Utilization			90.4%			ICU Level of Service			E		
Analysis Period (min)			15								
c Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

3: 10th St & Hoosick
2019 Existing _AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑↑			↑	↑		↑	↑
Traffic Volume (vph)	292	690	30	6	1398	14	68	34	11	24	32	577
Future Volume (vph)	292	690	30	6	1398	14	68	34	11	24	32	577
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	11	12	10	10	10	11	11	13
Grade (%)						-7%			0%			0%
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	0.97	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		0.99	1.00
Fr _t	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	1.00
Satd. Flow (prot)	3017	3270		1733	4934			1666	1347		1647	1620
Fl _t Permitted	0.95	1.00		0.38	1.00			0.76	1.00		0.85	1.00
Satd. Flow (perm)	3017	3270		685	4934			1316	1347		1425	1620
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	295	697	30	6	1412	14	69	34	11	24	32	583
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	9	0	0	242
Lane Group Flow (vph)	295	726	0	6	1425	0	0	103	2	0	56	341
Confl. Peds. (#/hr)	4		14	14		4		7	7			
Heavy Vehicles (%)	12%	6%	0%	0%	5%	7%	0%	9%	9%	8%	9%	3%
Turn Type	Prot	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	1			6			8			3	5
Permitted Phases			6			8			8	3		3
Actuated Green, G (s)	21.3	72.0		45.7	45.7			15.6	15.6		15.6	36.9
Effective Green, g (s)	21.3	72.0		45.7	45.7			15.6	15.6		15.6	36.9
Actuated g/C Ratio	0.20	0.67		0.43	0.43			0.15	0.15		0.15	0.35
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0			2.0	2.0		2.0	3.0
Lane Grp Cap (vph)	602	2206		293	2113			192	196		208	636
v/s Ratio Prot	0.10	0.22			c0.29							c0.11
v/s Ratio Perm			0.01					0.08	0.00		0.04	0.10
v/c Ratio	0.49	0.33		0.02	0.67			0.54	0.01		0.27	0.54
Uniform Delay, d1	37.9	7.3		17.6	24.5			42.2	38.9		40.5	28.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	0.1		0.0	0.9			1.4	0.0		0.3	0.9
Delay (s)	38.5	7.4		17.6	25.5			43.6	38.9		40.7	28.9
Level of Service	D	A		B	C			D	D		D	C
Approach Delay (s)		16.4			25.4			43.2			29.9	
Approach LOS		B			C			D			C	

Intersection Summary

HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	106.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

4: 13th St & Hoosick
2019 Existing _AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	704	87	60	1236	24	61	8	80	12	11	28
Future Volume (vph)	23	704	87	60	1236	24	61	8	80	12	11	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	10	10	10	15	15	15
Grade (%)	5%				-5%			0%			0%	
Total Lost time (s)	5.0	5.0			5.0		5.0	5.0			5.0	
Lane Util. Factor	0.95	1.00			0.95		0.95	0.95	1.00		1.00	
Frpb, ped/bikes	1.00	0.95			1.00		1.00	1.00	0.99		0.99	
Flpb, ped/bikes	1.00	1.00			1.00		0.99	1.00	1.00		1.00	
Fr _t	1.00	0.85			1.00		1.00	1.00	0.85		0.93	
Fl _t Protected	1.00	1.00			1.00		0.95	0.96	1.00		0.99	
Satd. Flow (prot)	3261	1423			3427		1515	1511	1475		1887	
Fl _t Permitted	0.87	1.00			0.86		0.74	0.77	1.00		0.91	
Satd. Flow (perm)	2844	1423			2968		1187	1209	1475		1734	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	23	711	88	61	1248	24	62	8	81	12	11	28
RTOR Reduction (vph)	0	0	20	0	0	0	0	0	72	0	26	0
Lane Group Flow (vph)	0	734	68	0	1333	0	35	35	9	0	25	0
Confl. Peds. (#/hr)	5		8	8		5	3		5	5		3
Heavy Vehicles (%)	0%	8%	5%	0%	4%	0%	5%	13%	1%	0%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	6	2			1	5			7	1		3
Permitted Phases	2		2	5			7		7	3		
Actuated Green, G (s)	105.4	105.4			118.4		7.6	7.6	15.6			7.6
Effective Green, g (s)	105.4	105.4			118.4		7.6	7.6	15.6			7.6
Actuated g/C Ratio	0.78	0.78			0.87		0.06	0.06	0.11			0.06
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0	5.0			5.0
Vehicle Extension (s)	4.0	4.0			4.0		2.0	2.0	4.0			2.0
Lane Grp Cap (vph)	2204	1102			2610		66	67	223			96
v/s Ratio Prot					c0.03				0.00			
v/s Ratio Perm	0.26	0.05			c0.41		c0.03	0.03	0.00			0.01
v/c Ratio	0.33	0.06			0.51		0.53	0.52	0.04			0.26
Uniform Delay, d1	4.6	3.6			2.1		62.5	62.4	53.6			61.5
Progression Factor	1.00	1.00			1.85		1.00	1.00	1.00			1.00
Incremental Delay, d2	0.0	0.1			0.2		4.0	3.4	0.1			0.5
Delay (s)	4.7	3.7			4.0		66.5	65.8	53.7			62.0
Level of Service	A	A			A		E	E	D			E
Approach Delay (s)	4.6				4.0			59.4				62.0
Approach LOS	A				A			E				E

Intersection Summary

HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

5: 15th St & Hoosick
2019 Existing _AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	625	71	27	1063	32	104	106	16	101	190	90
Future Volume (vph)	51	625	71	27	1063	32	104	106	16	101	190	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	11	12	10	10	10
Grade (%)	5%				-5%				0%		0%	
Total Lost time (s)	5.0				5.0			5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.95				0.95			1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	0.99				1.00			1.00	1.00	1.00	0.99	
Flpb, ped/bikes	1.00				1.00			1.00	1.00	0.99	1.00	
Fr _t	0.99				1.00			1.00	0.98	1.00	0.95	
Fl _t Protected	1.00				1.00			0.95	1.00	0.95	1.00	
Satd. Flow (prot)	3238				3453			1779	1640	1659	1631	
Fl _t Permitted	0.74				0.92			0.28	1.00	0.61	1.00	
Satd. Flow (perm)	2390				3164			520	1640	1058	1631	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	53	651	74	28	1107	33	108	110	17	105	198	94
RTOR Reduction (vph)	0	4	0	0	1	0	0	5	0	0	16	0
Lane Group Flow (vph)	0	774	0	0	1167	0	108	122	0	105	276	0
Confl. Peds. (#/hr)	2		9	9		2	5		3	3		5
Heavy Vehicles (%)	0%	7%	4%	4%	3%	0%	1%	8%	19%	1%	4%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	1			6			7			3	
Permitted Phases	1			6			7			3		
Actuated Green, G (s)	96.2				81.2		29.8	29.8		29.8	29.8	
Effective Green, g (s)	96.2				81.2		29.8	29.8		29.8	29.8	
Actuated g/C Ratio	0.71				0.60		0.22	0.22		0.22	0.22	
Clearance Time (s)	5.0				5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	4.0				2.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	1752			1889			113	359		231	357	
v/s Ratio Prot	c0.03							0.07			0.17	
v/s Ratio Perm	0.28			c0.37			c0.21			0.10		
v/c Ratio	0.44			0.62			0.96	0.34		0.45	0.77	
Uniform Delay, d1	8.5			17.5			52.4	44.8		46.1	49.9	
Progression Factor	1.51			1.00			1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1			1.5			70.5	0.8		1.9	10.6	
Delay (s)	12.8			19.0			122.9	45.6		48.0	60.5	
Level of Service	B			B			F	D		D	E	
Approach Delay (s)	12.8			19.0				81.1			57.2	
Approach LOS	B			B				F			E	

Intersection Summary

HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	97.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
2019 Existing _PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Future Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	1724		1770	1767		1805	1881	1615	1805	1881	1615
Flt Permitted	0.64	1.00		0.68	1.00		0.66	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)	1198	1724		1261	1767		1257	1881	1615	581	1881	1615
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	136	56	39	449	27	44	150	52
RTOR Reduction (vph)	0	19	0	0	21	0	0	0	18	0	0	34
Lane Group Flow (vph)	263	106	0	75	171	0	39	449	9	44	150	18
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	NA	Perm	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	34.5	34.5		34.5	34.5		24.5	24.5	24.5	24.5	24.5	24.5
Effective Green, g (s)	34.5	34.5		34.5	34.5		24.5	24.5	24.5	24.5	24.5	24.5
Actuated g/C Ratio	0.49	0.49		0.49	0.49		0.35	0.35	0.35	0.35	0.35	0.35
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lane Grp Cap (vph)	590	849		621	870		439	658	565	203	658	565
v/s Ratio Prot		0.06			0.10			c0.24			0.08	
v/s Ratio Perm	c0.22			0.06			0.03		0.01	0.08		0.01
v/c Ratio	0.45	0.13		0.12	0.20		0.09	0.68	0.02	0.22	0.23	0.03
Uniform Delay, d1	11.5	9.6		9.6	10.0		15.3	19.4	14.9	16.0	16.1	15.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.3		0.4	0.5		0.4	5.7	0.1	2.4	0.8	0.1
Delay (s)	14.0	9.9		10.0	10.5		15.7	25.1	14.9	18.4	16.9	15.1
Level of Service	B	A		A	B		B	C	B	B	B	B
Approach Delay (s)		12.7			10.3			23.8			16.8	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		17.0					HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio		0.54										
Actuated Cycle Length (s)		70.0					Sum of lost time (s)			11.0		
Intersection Capacity Utilization		62.6%					ICU Level of Service			B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

2: Hoosick & 8th St & Hoosick Street
2019 Existing _PM Peak

Movement	EBT	WBL2	WBT	NBL	NBT	NBR	SBL	SBT	SBR2	NER	NER2
Lane Configurations	↑	↑	↑↑↑	↑	↑			↑	↑	↑↑	↑
Traffic Volume (vph)	134	1	1482	263	0	98	12	19	49	1555	82
Future Volume (vph)	134	1	1482	263	0	98	12	19	49	1555	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	10	12	12	12	12	14
Grade (%)	4%		-4%		0%			0%			
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00			1.00	1.00	0.88	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.99	1.00	0.90
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	1.00	1.00	0.85			1.00	0.85	1.00	0.85
Fl _t Protected	1.00	0.95	1.00	0.95	1.00			0.98	1.00	1.00	1.00
Satd. Flow (prot)	1844	1780	5187	1805	1546			1864	1562	3245	1500
Fl _t Permitted	1.00	0.95	1.00	0.73	1.00			0.90	1.00	1.00	1.00
Satd. Flow (perm)	1844	1780	5187	1396	1546			1707	1562	3245	1500
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	147	1	1629	289	0	108	13	21	54	1709	90
RTOR Reduction (vph)	0	0	0	0	84	0	0	0	42	0	56
Lane Group Flow (vph)	147	1	1629	289	24	0	0	34	12	1709	34
Confl. Peds. (#/hr)			21						1		21
Heavy Vehicles (%)	1%	0%	2%	0%	0%	1%	0%	0%	2%	1%	1%
Parking (#/hr)						0					
Turn Type	NA	Prot	NA	D.Pm	NA		Perm	NA	Perm	Prot	Perm
Protected Phases	1	4	1 2 4					3		2	
Permitted Phases				3	3		3		3		2
Actuated Green, G (s)	28.1	6.2	96.2	29.8	29.8			29.8	29.8	51.9	51.9
Effective Green, g (s)	28.1	6.2	96.2	29.8	29.8			29.8	29.8	51.9	51.9
Actuated g/C Ratio	0.21	0.05	0.71	0.22	0.22			0.22	0.22	0.38	0.38
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0	2.0	3.0	3.0
Lane Grp Cap (vph)	381	81	3669	305	338			374	342	1238	572
v/s Ratio Prot	0.08	0.00	c0.31							c0.53	
v/s Ratio Perm				c0.21	0.02			0.02	0.01		0.02
v/c Ratio	0.39	0.01	0.44	0.95	0.07			0.09	0.03	1.38	0.06
Uniform Delay, d1	46.5	62.0	8.5	52.3	42.1			42.3	41.8	42.0	26.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.0	0.1	37.0	0.0			0.0	0.0	176.3	0.2
Delay (s)	47.2	62.0	8.6	89.4	42.1			42.3	41.8	218.4	26.8
Level of Service	D	E	A	F	D			D	D	F	C
Approach Delay (s)	47.2		8.6		76.5			42.0			
Approach LOS	D		A		E			D			
Intersection Summary											
HCM 2000 Control Delay			106.0			HCM 2000 Level of Service			F		
HCM 2000 Volume to Capacity ratio			1.02								
Actuated Cycle Length (s)			136.0			Sum of lost time (s)			20.0		
Intersection Capacity Utilization			112.3%			ICU Level of Service			H		
Analysis Period (min)			15								
c Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

3: 10th St & Hoosick
2019 Existing _PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑↑			↑	↑		↑	↑
Traffic Volume (vph)	561	1105	17	8	1037	30	38	95	33	41	33	346
Future Volume (vph)	561	1105	17	8	1037	30	38	95	33	41	33	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	11	12	10	10	10	11	11	13
Grade (%)						-7%			0%			0%
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	0.97	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		1.00	1.00
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		0.99	1.00
Fr _t	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00			0.99	1.00		0.97	1.00
Satd. Flow (prot)	3313	3406		1727	4972			1742	1412		1727	1582
Fl _t Permitted	0.95	1.00		0.24	1.00			0.88	1.00		0.62	1.00
Satd. Flow (perm)	3313	3406		429	4972			1560	1412		1109	1582
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	597	1176	18	9	1103	32	40	101	35	44	35	368
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	30	0	0	197
Lane Group Flow (vph)	597	1194	0	9	1134	0	0	141	5	0	79	171
Confl. Peds. (#/hr)	7		32	32		7	7		11	11		7
Heavy Vehicles (%)	2%	2%	0%	0%	4%	0%	0%	0%	3%	2%	3%	5%
Turn Type	Prot	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	1			6			8		8	3	5
Permitted Phases			6			8			8	3		3
Actuated Green, G (s)	36.8	78.0		36.2	36.2			15.8	15.8		15.8	52.6
Effective Green, g (s)	36.8	78.0		36.2	36.2			15.8	15.8		15.8	52.6
Actuated g/C Ratio	0.32	0.69		0.32	0.32			0.14	0.14		0.14	0.46
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0			2.0	2.0		2.0	3.0
Lane Grp Cap (vph)	1074	2340		136	1585			217	196		154	802
v/s Ratio Prot	c0.18	0.35			c0.23							0.07
v/s Ratio Perm			0.02					c0.09	0.00		0.07	0.04
v/c Ratio	0.56	0.51		0.07	0.72			0.65	0.02		0.51	0.21
Uniform Delay, d1	31.6	8.5		26.9	34.1			46.2	42.2		45.3	18.1
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	0.3		0.3	1.7			5.0	0.0		1.2	0.1
Delay (s)	32.2	8.8		27.2	35.8			51.2	42.2		46.5	18.3
Level of Service	C	A		C	D			D	D		D	B
Approach Delay (s)		16.6			35.7			49.4			23.2	
Approach LOS		B			D			D			C	

Intersection Summary

HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	113.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

4: 13th St & Hoosick
2019 Existing _PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	1102	110	60	983	6	81	13	72	12	10	17
Future Volume (vph)	6	1102	110	60	983	6	81	13	72	12	10	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	10	10	10	15	15	15
Grade (%)	5%				-5%			0%			0%	
Total Lost time (s)	5.0	5.0		5.0		5.0	5.0	5.0		5.0		5.0
Lane Util. Factor	0.95	1.00		0.95		0.95	0.95	1.00		1.00		1.00
Frpb, ped/bikes	1.00	0.85		1.00		1.00	1.00	1.00		0.98		0.99
Flpb, ped/bikes	1.00	1.00		1.00		0.98	0.99	1.00		1.00		1.00
Fr _t	1.00	0.85		1.00		1.00	1.00	1.00		0.85		0.94
Fl _t Protected	1.00	1.00		1.00		0.95	0.97	1.00		0.98		0.98
Satd. Flow (prot)	3450	1346		3428		1542	1583	1482		1904		
Fl _t Permitted	0.95	1.00		0.77		0.82	0.83	1.00		0.88		
Satd. Flow (perm)	3276	1346		2649		1331	1363	1482		1697		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	6	1172	117	64	1046	6	86	14	77	13	11	18
RTOR Reduction (vph)	0	0	18	0	0	0	0	0	63	0	17	0
Lane Group Flow (vph)	0	1178	99	0	1116	0	50	50	14	0	25	0
Confl. Peds. (#/hr)	10		32	32		10	8		7	7		8
Heavy Vehicles (%)	0%	2%	0%	2%	4%	0%	2%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	6	2			1	5			7	1		3
Permitted Phases	2		2	5				7		7	3	
Actuated Green, G (s)	105.8	105.8			117.2		8.8	8.8	15.2		8.8	
Effective Green, g (s)	105.8	105.8			117.2		8.8	8.8	15.2		8.8	
Actuated g/C Ratio	0.78	0.78			0.86		0.06	0.06	0.11		0.06	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0	5.0		5.0	
Vehicle Extension (s)	4.0	4.0			4.0		2.0	2.0	4.0		2.0	
Lane Grp Cap (vph)	2548	1047		2319		86	88	220		109		
v/s Ratio Prot				c0.02					0.00			
v/s Ratio Perm	0.36	0.07		c0.39		c0.04	0.04	0.01		0.01		
v/c Ratio	0.46	0.09		0.48		0.58	0.57	0.06		0.23		
Uniform Delay, d1	5.2	3.6		2.2		61.8	61.8	54.0		60.4		
Progression Factor	1.00	1.00		0.89		1.00	1.00	1.00		1.00		
Incremental Delay, d2	0.0	0.2		0.2		6.3	4.9	0.2		0.4		
Delay (s)	5.3	3.8		2.2		68.1	66.7	54.2		60.8		
Level of Service	A	A		A		E	E	D		E		
Approach Delay (s)	5.2			2.2			61.7			60.8		
Approach LOS	A			A			E			E		
Intersection Summary												
HCM 2000 Control Delay		8.6			HCM 2000 Level of Service				A			
HCM 2000 Volume to Capacity ratio		0.51										
Actuated Cycle Length (s)		136.0			Sum of lost time (s)				15.0			
Intersection Capacity Utilization		82.7%			ICU Level of Service				E			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

5: 15th St & Hoosick
2019 Existing _PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	981	69	19	829	49	132	164	48	67	100	66
Future Volume (vph)	70	981	69	19	829	49	132	164	48	67	100	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	11	12	11	12	10	10	10
Grade (%)	5%				-5%				0%			0%
Total Lost time (s)	5.0				5.0			5.0	5.0	5.0		5.0
Lane Util. Factor	0.95				0.95			1.00	1.00	1.00		1.00
Frpb, ped/bikes	1.00				1.00			1.00	0.99	1.00		0.98
Flpb, ped/bikes	1.00				1.00			0.97	1.00	0.99		1.00
Fr _t	0.99				0.99			1.00	0.97	1.00		0.94
Fl _t Protected	1.00				1.00			0.95	1.00	0.95		1.00
Satd. Flow (prot)	3400				3408			1730	1750	1621		1598
Fl _t Permitted	0.78				0.91			0.47	1.00	0.35		1.00
Satd. Flow (perm)	2663				3105			853	1750	604		1598
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	71	991	70	19	837	49	133	166	48	68	101	67
RTOR Reduction (vph)	0	2	0	0	2	0	0	10	0	0	23	0
Lane Group Flow (vph)	0	1130	0	0	903	0	133	204	0	68	145	0
Confl. Peds. (#/hr)	12		12	12		12	21		7	7		21
Heavy Vehicles (%)	1%	2%	0%	0%	4%	2%	1%	1%	0%	3%	3%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	1			6			7			3	
Permitted Phases	1			6			7			3		
Actuated Green, G (s)	102.5				87.5		23.5	23.5		23.5	23.5	
Effective Green, g (s)	102.5				87.5		23.5	23.5		23.5	23.5	
Actuated g/C Ratio	0.75				0.64		0.17	0.17		0.17	0.17	
Clearance Time (s)	5.0				5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	4.0				2.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	2061				1997		147	302		104	276	
v/s Ratio Prot	c0.04							0.12			0.09	
v/s Ratio Perm	c0.37				0.29		c0.16			0.11		
v/c Ratio	0.55				0.45		0.90	0.68		0.65	0.52	
Uniform Delay, d1	7.0				12.2		55.2	52.7		52.5	51.2	
Progression Factor	0.45				1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1				0.7		47.5	6.4		15.2	2.3	
Delay (s)	3.3				12.9		102.6	59.1		67.6	53.5	
Level of Service	A				B		F	E		E	D	
Approach Delay (s)	3.3				12.9			75.8			57.6	
Approach LOS	A				B			E			E	

Intersection Summary

HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
2019 Existing _AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Future Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	0.92		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1582		1805	1699		1752	1845	1615	1504	1759	1568
Flt Permitted	0.66	1.00		0.67	1.00		0.65	1.00	1.00	0.38	1.00	1.00
Satd. Flow (perm)	1225	1582		1274	1699		1192	1845	1615	602	1759	1568
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	125	62	72	77	123	23	44	388	16	11	176	69
RTOR Reduction (vph)	0	37	0	0	10	0	0	0	10	0	0	45
Lane Group Flow (vph)	125	98	0	77	136	0	44	388	6	11	176	24
Heavy Vehicles (%)	3%	11%	10%	0%	10%	5%	3%	3%	0%	20%	8%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	NA	Perm	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	34.5	34.5		34.5	34.5		24.5	24.5	24.5	24.5	24.5	24.5
Effective Green, g (s)	34.5	34.5		34.5	34.5		24.5	24.5	24.5	24.5	24.5	24.5
Actuated g/C Ratio	0.49	0.49		0.49	0.49		0.35	0.35	0.35	0.35	0.35	0.35
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lane Grp Cap (vph)	603	779		627	837		417	645	565	210	615	548
v/s Ratio Prot		0.06			0.08			c0.21			0.10	
v/s Ratio Perm	c0.10			0.06			0.04		0.00	0.02		0.02
v/c Ratio	0.21	0.13		0.12	0.16		0.11	0.60	0.01	0.05	0.29	0.04
Uniform Delay, d1	10.0	9.6		9.6	9.8		15.4	18.7	14.8	15.1	16.4	15.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.3		0.4	0.4		0.5	4.1	0.0	0.5	1.2	0.2
Delay (s)	10.8	9.9		10.0	10.2		15.9	22.8	14.9	15.5	17.6	15.2
Level of Service	B	A		A	B		B	C	B	B	B	B
Approach Delay (s)		10.4			10.1			21.9			16.9	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		16.1					HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		70.0					Sum of lost time (s)			11.0		
Intersection Capacity Utilization		52.6%					ICU Level of Service			A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
2019 Existing _PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Future Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	1724		1770	1767		1805	1881	1615	1805	1881	1615
Flt Permitted	0.64	1.00		0.68	1.00		0.66	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)	1198	1724		1261	1767		1257	1881	1615	581	1881	1615
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	136	56	39	449	27	44	150	52
RTOR Reduction (vph)	0	19	0	0	21	0	0	0	18	0	0	34
Lane Group Flow (vph)	263	106	0	75	171	0	39	449	9	44	150	18
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	NA	Perm	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	34.5	34.5		34.5	34.5		24.5	24.5	24.5	24.5	24.5	24.5
Effective Green, g (s)	34.5	34.5		34.5	34.5		24.5	24.5	24.5	24.5	24.5	24.5
Actuated g/C Ratio	0.49	0.49		0.49	0.49		0.35	0.35	0.35	0.35	0.35	0.35
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lane Grp Cap (vph)	590	849		621	870		439	658	565	203	658	565
v/s Ratio Prot		0.06			0.10			c0.24			0.08	
v/s Ratio Perm	c0.22			0.06			0.03		0.01	0.08		0.01
v/c Ratio	0.45	0.13		0.12	0.20		0.09	0.68	0.02	0.22	0.23	0.03
Uniform Delay, d1	11.5	9.6		9.6	10.0		15.3	19.4	14.9	16.0	16.1	15.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.3		0.4	0.5		0.4	5.7	0.1	2.4	0.8	0.1
Delay (s)	14.0	9.9		10.0	10.5		15.7	25.1	14.9	18.4	16.9	15.1
Level of Service	B	A		A	B		B	C	B	B	B	B
Approach Delay (s)		12.7			10.3			23.8			16.8	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		17.0					HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio		0.54										
Actuated Cycle Length (s)		70.0					Sum of lost time (s)			11.0		
Intersection Capacity Utilization		62.6%					ICU Level of Service			B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
2-Lanes_AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Future Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Fr _t	1.00	0.92		1.00	0.98		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1582		1805	1699		1752	1836		1504	1707	
Flt Permitted	0.66	1.00		0.67	1.00		0.61	1.00		0.42	1.00	
Satd. Flow (perm)	1225	1582		1274	1699		1119	1836		658	1707	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	125	62	72	77	123	23	44	388	16	11	176	69
RTOR Reduction (vph)	0	45	0	0	8	0	0	1	0	0	11	0
Lane Group Flow (vph)	125	90	0	77	138	0	44	403	0	11	234	0
Heavy Vehicles (%)	3%	11%	10%	0%	10%	5%	3%	3%	0%	20%	8%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	12.9	12.9		12.9	12.9		21.3	21.3		21.3	21.3	
Effective Green, g (s)	12.9	12.9		12.9	12.9		21.3	21.3		21.3	21.3	
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	284	367		295	394		428	703		252	653	
v/s Ratio Prot		0.06			0.08			c0.22			0.14	
v/s Ratio Perm	c0.10			0.06			0.04			0.02		
v/c Ratio	0.44	0.25		0.26	0.35		0.10	0.57		0.04	0.36	
Uniform Delay, d1	18.3	17.4		17.5	17.9		11.0	13.6		10.8	12.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.1	0.4		0.5	0.5		0.1	1.1		0.1	0.3	
Delay (s)	19.4	17.7		17.9	18.4		11.1	14.7		10.8	12.6	
Level of Service	B	B		B	B		B	B		B	B	
Approach Delay (s)		18.5			18.2			14.3			12.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			15.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			55.6				Sum of lost time (s)			13.0		
Intersection Capacity Utilization			53.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
2-Lanes_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Future Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Fr _t	1.00	0.96		1.00	0.96		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	1724		1770	1767		1805	1866		1805	1813	
Flt Permitted	0.62	1.00		0.68	1.00		0.63	1.00		0.31	1.00	
Satd. Flow (perm)	1173	1724		1261	1767		1194	1866		580	1813	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	136	56	39	449	27	44	150	52
RTOR Reduction (vph)	0	14	0	0	14	0	0	2	0	0	10	0
Lane Group Flow (vph)	263	111	0	75	178	0	39	474	0	44	192	0
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.4	22.4		22.4	22.4		27.8	27.8		27.8	27.8	
Effective Green, g (s)	22.4	22.4		22.4	22.4		27.8	27.8		27.8	27.8	
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	363	534		390	547		459	717		223	697	
v/s Ratio Prot		0.06			0.10			c0.25			0.11	
v/s Ratio Perm	c0.22			0.06			0.03			0.08		
v/c Ratio	0.72	0.21		0.19	0.32		0.08	0.66		0.20	0.28	
Uniform Delay, d1	22.2	18.4		18.3	19.1		14.2	18.4		14.8	15.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.0	0.2		0.2	0.3		0.1	2.3		0.4	0.2	
Delay (s)	29.2	18.6		18.6	19.5		14.2	20.7		15.3	15.5	
Level of Service	C	B		B	B		B	C		B	B	
Approach Delay (s)		25.8			19.2			20.2			15.5	
Approach LOS		C			B			C			B	
Intersection Summary												
HCM 2000 Control Delay			20.7				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			72.3				Sum of lost time (s)			13.0		
Intersection Capacity Utilization			64.0%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
N-S Turn Lanes_AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Future Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Fr _t		0.96			0.99		1.00	0.99		1.00	0.96	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1671			1737		1752	1836		1504	1707	
Flt Permitted		0.74			0.81		0.58	1.00		0.38	1.00	
Satd. Flow (perm)		1269			1437		1069	1836		595	1707	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	125	62	72	77	123	23	44	388	16	11	176	69
RTOR Reduction (vph)	0	14	0	0	4	0	0	1	0	0	12	0
Lane Group Flow (vph)	0	246	0	0	219	0	44	403	0	11	233	0
Heavy Vehicles (%)	3%	11%	10%	0%	10%	5%	3%	3%	0%	20%	8%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		20.0			20.0		22.9	22.9		22.9	22.9	
Effective Green, g (s)		20.0			20.0		22.9	22.9		22.9	22.9	
Actuated g/C Ratio		0.31			0.31		0.36	0.36		0.36	0.36	
Clearance Time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		394			446		380	653		211	607	
v/s Ratio Prot								c0.22			0.14	
v/s Ratio Perm		c0.19			0.15		0.04			0.02		
v/c Ratio		0.62			0.49		0.12	0.62		0.05	0.38	
Uniform Delay, d1		18.9			18.0		13.9	17.1		13.6	15.4	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.1			0.9		0.1	1.7		0.1	0.4	
Delay (s)		22.0			18.9		14.0	18.8		13.7	15.8	
Level of Service		C			B		B	B		B	B	
Approach Delay (s)		22.0			18.9			18.3			15.8	
Approach LOS		C			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		18.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		64.3			Sum of lost time (s)			13.0				
Intersection Capacity Utilization		55.3%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
N-S Turn Lanes_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Future Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Fr _t		0.99			0.97		1.00	0.99		1.00	0.96	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1772			1775		1805	1866		1805	1813	
Flt Permitted		0.63			0.82		0.58	1.00		0.18	1.00	
Satd. Flow (perm)		1152			1475		1104	1866		351	1813	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	136	56	39	449	27	44	150	52
RTOR Reduction (vph)	0	3	0	0	8	0	0	2	0	0	11	0
Lane Group Flow (vph)	0	385	0	0	259	0	39	474	0	44	191	0
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		35.9			35.9		25.5	25.5		25.5	25.5	
Effective Green, g (s)		35.9			35.9		25.5	25.5		25.5	25.5	
Actuated g/C Ratio		0.42			0.42		0.30	0.30		0.30	0.30	
Clearance Time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		486			622		331	559		105	543	
v/s Ratio Prot								c0.25			0.11	
v/s Ratio Perm		c0.33			0.18		0.04			0.13		
v/c Ratio		0.79			0.42		0.12	0.85		0.42	0.35	
Uniform Delay, d1		21.3			17.2		21.6	27.9		23.8	23.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		8.6			0.5		0.2	11.4		2.7	0.4	
Delay (s)		29.9			17.7		21.7	39.4		26.5	23.7	
Level of Service		C			B		C	D		C	C	
Approach Delay (s)		29.9			17.7			38.0			24.2	
Approach LOS		C			B			D			C	
Intersection Summary												
HCM 2000 Control Delay		29.6			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.69										
Actuated Cycle Length (s)		85.0			Sum of lost time (s)			13.0				
Intersection Capacity Utilization		73.3%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
No Turn Lanes_AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Future Volume (vph)	110	55	63	68	108	20	39	341	14	10	155	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5			5.5			5.5	
Lane Util. Factor		1.00				1.00			1.00		1.00	
Fr _t		0.96				0.99			1.00		0.96	
Flt Protected		0.98				0.98			1.00		1.00	
Satd. Flow (prot)		1671				1737			1829		1705	
Flt Permitted		0.73				0.80			0.95		0.98	
Satd. Flow (perm)		1243				1409			1739		1669	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	125	62	72	77	123	23	44	388	16	11	176	69
RTOR Reduction (vph)	0	14	0	0	4	0	0	1	0	0	10	0
Lane Group Flow (vph)	0	246	0	0	219	0	0	447	0	0	246	0
Heavy Vehicles (%)	3%	11%	10%	0%	10%	5%	3%	3%	0%	20%	8%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4				8			2			6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		19.5			19.5			28.1			28.1	
Effective Green, g (s)		19.5			19.5			28.1			28.1	
Actuated g/C Ratio		0.28			0.28			0.40			0.40	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		348			394			702			673	
v/s Ratio Prot												
v/s Ratio Perm		c0.20				0.16			c0.26		0.15	
v/c Ratio		0.71				0.56			0.64		0.37	
Uniform Delay, d1		22.5				21.4			16.7		14.5	
Progression Factor		1.00				1.00			1.00		1.00	
Incremental Delay, d2		6.4				1.7			1.9		0.3	
Delay (s)		28.9				23.0			18.6		14.9	
Level of Service		C				C			B		B	
Approach Delay (s)		28.9				23.0			18.6		14.9	
Approach LOS		C				C			B		B	
Intersection Summary												
HCM 2000 Control Delay		20.9			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.56										
Actuated Cycle Length (s)		69.6			Sum of lost time (s)			13.0				
Intersection Capacity Utilization		62.2%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
No Turn Lanes_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Future Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Fr _t		0.99			0.97			0.99			0.97	
Flt Protected		0.97			0.99			1.00			0.99	
Satd. Flow (prot)		1772			1775			1863			1818	
Flt Permitted		0.63			0.82			0.96			0.74	
Satd. Flow (perm)		1152			1475			1798			1354	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	136	56	39	449	27	44	150	52
RTOR Reduction (vph)	0	3	0	0	8	0	0	1	0	0	8	0
Lane Group Flow (vph)	0	385	0	0	259	0	0	514	0	0	238	0
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		35.9			35.9			25.5			25.5	
Effective Green, g (s)		35.9			35.9			25.5			25.5	
Actuated g/C Ratio		0.42			0.42			0.30			0.30	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		486			622			539			406	
v/s Ratio Prot												
v/s Ratio Perm		c0.33			0.18			c0.29			0.18	
v/c Ratio		0.79			0.42			0.95			0.59	
Uniform Delay, d1		21.3			17.2			29.2			25.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		8.6			0.5			27.2			2.2	
Delay (s)		29.9			17.7			56.4			27.4	
Level of Service		C			B			E			C	
Approach Delay (s)		29.9			17.7			56.4			27.4	
Approach LOS		C			B			E			C	
Intersection Summary												
HCM 2000 Control Delay		36.8			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.73										
Actuated Cycle Length (s)		85.0			Sum of lost time (s)			13.0				
Intersection Capacity Utilization		70.0%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

2: Hoosick & 8th St & Hoosick Street
2019 Existing _AM Peak

Movement	EBT	WBL2	WBT	NBL	NBT	NBR	SBL	SBT	SBR2	NER	NER2
Lane Configurations	↑	↑	↑↑↑	↑	↑			↑	↑	↑↑	↑
Traffic Volume (vph)	137	5	1931	231	0	36	9	23	284	980	267
Future Volume (vph)	137	5	1931	231	0	36	9	23	284	980	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	10	12	12	12	12	14
Grade (%)	4%		-4%		0%			0%			
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00			1.00	1.00	0.88	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.99	1.00	0.90
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	1.00	1.00	0.85			1.00	0.85	1.00	0.85
Fl _t Protected	1.00	0.95	1.00	0.95	1.00			0.99	1.00	1.00	1.00
Satd. Flow (prot)	1844	1780	5187	1752	1561			1821	1577	3121	1486
Fl _t Permitted	1.00	0.95	1.00	0.73	1.00			0.94	1.00	1.00	1.00
Satd. Flow (perm)	1844	1780	5187	1356	1561			1732	1577	3121	1486
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	146	5	2054	246	0	38	10	24	302	1043	284
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	77	0	49
Lane Group Flow (vph)	146	5	2054	246	8	0	0	34	225	1043	235
Confl. Peds. (#/hr)			21						1		21
Heavy Vehicles (%)	1%	0%	2%	3%	0%	0%	0%	4%	1%	5%	2%
Parking (#/hr)						0					
Turn Type	NA	Prot	NA	D.Pm	NA		Perm	NA	Perm	Prot	Perm
Protected Phases	1	4	1 2 4					3		2	
Permitted Phases				3	3		3		3		2
Actuated Green, G (s)	20.4	1.0	98.5	27.5	27.5			27.5	27.5	67.1	67.1
Effective Green, g (s)	20.4	1.0	98.5	27.5	27.5			27.5	27.5	67.1	67.1
Actuated g/C Ratio	0.15	0.01	0.72	0.20	0.20			0.20	0.20	0.49	0.49
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0	2.0	3.0	3.0
Lane Grp Cap (vph)	276	13	3756	274	315			350	318	1539	733
v/s Ratio Prot	0.08	0.00	c0.40							c0.33	
v/s Ratio Perm				c0.18	0.00			0.02	0.14		0.16
v/c Ratio	0.53	0.38	0.55	0.90	0.02			0.10	0.71	0.68	0.32
Uniform Delay, d1	53.4	67.2	8.6	52.9	43.5			44.1	50.5	26.2	20.7
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	1.8	6.8	0.2	28.6	0.0			0.0	5.8	2.4	1.2
Delay (s)	55.2	74.0	8.7	81.4	43.5			44.2	56.3	28.6	21.9
Level of Service	E	E	A	F	D			D	E	C	C
Approach Delay (s)	55.2		8.9		76.4			55.1			
Approach LOS	E		A		E			E			
Intersection Summary											
HCM 2000 Control Delay			24.7			HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.74								
Actuated Cycle Length (s)			136.0			Sum of lost time (s)			20.0		
Intersection Capacity Utilization			90.4%			ICU Level of Service			E		
Analysis Period (min)			15								
c Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

3: 10th St & Hoosick
2019 Existing _AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑↑			↑	↑		↑	↑
Traffic Volume (vph)	292	690	30	6	1398	14	68	34	11	24	32	577
Future Volume (vph)	292	690	30	6	1398	14	68	34	11	24	32	577
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	11	12	10	10	10	11	11	13
Grade (%)						-7%			0%			0%
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	0.97	0.95		1.00	*0.78			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		0.99	1.00
Fr _t	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	1.00
Satd. Flow (prot)	3017	3270		1734	4229			1666	1346		1647	1620
Fl _t Permitted	0.95	1.00		0.38	1.00			0.76	1.00		0.85	1.00
Satd. Flow (perm)	3017	3270		685	4229			1316	1346		1423	1620
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	295	697	30	6	1412	14	69	34	11	24	32	583
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	9	0	0	247
Lane Group Flow (vph)	295	726	0	6	1425	0	0	103	2	0	56	336
Confl. Peds. (#/hr)	4		14	14		4		7	7			
Heavy Vehicles (%)	12%	6%	0%	0%	5%	7%	0%	9%	9%	8%	9%	3%
Turn Type	Prot	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	1			6			8			3	5
Permitted Phases			6			8		8		3		3
Actuated Green, G (s)	21.8	78.3		51.5	51.5			15.9	15.9		15.9	37.7
Effective Green, g (s)	21.8	78.3		51.5	51.5			15.9	15.9		15.9	37.7
Actuated g/C Ratio	0.19	0.69		0.45	0.45			0.14	0.14		0.14	0.33
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0			2.0	2.0		2.0	3.0
Lane Grp Cap (vph)	579	2255		310	1918			184	188		199	609
v/s Ratio Prot	0.10	0.22			c0.34							c0.11
v/s Ratio Perm			0.01					0.08	0.00		0.04	0.10
v/c Ratio	0.51	0.32		0.02	0.74			0.56	0.01		0.28	0.55
Uniform Delay, d1	41.1	7.0		17.1	25.5			45.5	42.0		43.7	31.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	0.1		0.0	1.7			2.1	0.0		0.3	1.1
Delay (s)	41.8	7.1		17.1	27.3			47.6	42.0		44.0	32.1
Level of Service	D	A		B	C			D	D		D	C
Approach Delay (s)		17.1			27.2			47.1			33.1	
Approach LOS		B			C			D			C	

Intersection Summary

HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	113.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	WBT	NBR	SBR2	NER	NER2
Lane Configurations	↑	↑↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	137	1979	36	284	980	267
Future Volume (vph)	137	1979	36	284	980	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	12	12	14
Grade (%)	4%	-4%				
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.88	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	0.89
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.86	0.86	1.00	0.85
Fl _t Protected	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1844	5187	1381	1604	3121	1474
Fl _t Permitted	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1844	5187	1381	1604	3121	1474
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	146	2105	38	302	1043	284
RTOR Reduction (vph)	0	0	15	198	0	31
Lane Group Flow (vph)	146	2105	23	104	1043	253
Confl. Peds. (#/hr)				1		21
Heavy Vehicles (%)	1%	2%	0%	1%	5%	2%
Parking (#/hr)			0			
Turn Type	NA	NA	Perm	Perm	Prot	Perm
Protected Phases	1	1 2			2	
Permitted Phases			2	3		2
Actuated Green, G (s)	20.6	114.6	89.0	17.4	89.0	89.0
Effective Green, g (s)	20.6	114.6	89.0	17.4	89.0	89.0
Actuated g/C Ratio	0.14	0.77	0.60	0.12	0.60	0.60
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	2.0	3.0	3.0
Lane Grp Cap (vph)	256	4016	830	188	1876	886
v/s Ratio Prot	0.08	c0.41			c0.33	
v/s Ratio Perm			0.02	c0.07		0.17
v/c Ratio	0.57	0.52	0.03	0.55	0.56	0.29
Uniform Delay, d1	59.6	6.3	12.0	61.6	17.7	14.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.1	0.1	2.0	1.2	0.8
Delay (s)	62.6	6.5	12.0	63.7	18.9	15.0
Level of Service	E	A	B	E	B	B
Approach Delay (s)	62.6	6.5				
Approach LOS	E	A				
Intersection Summary						
HCM 2000 Control Delay			16.9	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio			0.54			
Actuated Cycle Length (s)			148.0	Sum of lost time (s)		17.0
Intersection Capacity Utilization			88.4%	ICU Level of Service		E
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

3: 10th St & Hoosick
2-Lanes_AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑			↑	↑		↑	↑
Traffic Volume (vph)	364	690	30	10	1394	14	111	34	11	33	55	577
Future Volume (vph)	364	690	30	10	1394	14	111	34	11	33	55	577
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	11	12	10	10	10	11	11	13
Grade (%)						-7%			0%			0%
Total Lost time (s)	5.0	5.0			5.0	5.0			5.0	5.0		5.0
Lane Util. Factor	0.97	0.95			1.00	*0.97			1.00	1.00		1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00			1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			0.99	1.00			1.00	1.00		1.00
Fr _t	1.00	0.99			1.00	1.00			1.00	0.85		1.00
Fl _t Protected	0.95	1.00			0.95	1.00			0.96	1.00		0.98
Satd. Flow (prot)	3017	3270			1735	3506			1673	1348		1654
Fl _t Permitted	0.95	1.00			0.38	1.00			0.67	1.00		0.74
Satd. Flow (perm)	3017	3270			686	3506			1160	1348		1249
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	368	697	30	10	1408	14	112	34	11	33	56	583
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	9	0	0	250
Lane Group Flow (vph)	368	726	0	10	1422	0	0	146	2	0	89	333
Confl. Peds. (#/hr)	4		14	14		4			7	7		
Heavy Vehicles (%)	12%	6%	0%	0%	5%	7%	0%	9%	9%	8%	9%	3%
Turn Type	Prot	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	1			6			8			3	5
Permitted Phases			6			8			8	3		3
Actuated Green, G (s)	25.4	107.9		77.5	77.5			24.2	24.2		24.2	49.6
Effective Green, g (s)	25.4	107.9		77.5	77.5			24.2	24.2		24.2	49.6
Actuated g/C Ratio	0.17	0.71		0.51	0.51			0.16	0.16		0.16	0.32
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0			2.0	2.0		2.0	3.0
Lane Grp Cap (vph)	501	2310		348	1779			183	213		197	579
v/s Ratio Prot	c0.12	0.22			c0.41							0.10
v/s Ratio Perm			0.01					c0.13	0.00		0.07	0.11
v/c Ratio	0.73	0.31		0.03	0.80			0.80	0.01		0.45	0.58
Uniform Delay, d1	60.4	8.4		18.8	31.1			61.9	54.1		58.2	42.8
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	5.5	0.1		0.0	2.8			19.8	0.0		0.6	1.4
Delay (s)	66.0	8.6		18.8	33.9			81.7	54.1		58.8	44.2
Level of Service	E	A		B	C			F	D		E	D
Approach Delay (s)		27.9			33.8			79.7			46.1	
Approach LOS		C			C			E			D	

Intersection Summary

HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	152.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

2: Hoosick & 8th St & Hoosick Street
2-Lanes_AM Peak

Movement	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR2	NER	NER2
Lane Configurations	↑	↑↑↑	↑	↑			↑	↑	↑↑	↑↑
Traffic Volume (vph)	137	1936	231	0	36	9	23	284	980	267
Future Volume (vph)	137	1936	231	0	36	9	23	284	980	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	14
Grade (%)	4%	-4%		0%			0%			
Total Lost time (s)	5.0	5.0	5.0	5.0			5.0	5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	1.00			1.00	1.00	0.88	
Frpb, ped/bikes	1.00	1.00	1.00	1.00			1.00	0.99	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00			1.00	1.00	1.00	
Fr _t	1.00	1.00	1.00	0.85			1.00	0.85	1.00	
Fl _t Protected	1.00	1.00	0.95	1.00			0.99	1.00	1.00	
Satd. Flow (prot)	1844	5187	1752	1561			1821	1577	3140	
Fl _t Permitted	1.00	1.00	0.73	1.00			0.94	1.00	1.00	
Satd. Flow (perm)	1844	5187	1356	1561			1731	1577	3140	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	146	2060	246	0	38	10	24	302	1043	284
RTOR Reduction (vph)	0	0	0	31	0	0	0	180	31	0
Lane Group Flow (vph)	146	2060	246	7	0	0	34	122	1296	0
Confl. Peds. (#/hr)								1		21
Heavy Vehicles (%)	1%	2%	3%	0%	0%	0%	4%	1%	5%	2%
Parking (#/hr)					0					
Turn Type	NA	NA	D.Pm	NA		Perm	NA	Perm	Prot	
Protected Phases	1	1 2					3		2	
Permitted Phases			3	3		3		3		
Actuated Green, G (s)	20.6	103.1	28.9	28.9			28.9	28.9	77.5	
Effective Green, g (s)	20.6	103.1	28.9	28.9			28.9	28.9	77.5	
Actuated g/C Ratio	0.14	0.70	0.20	0.20			0.20	0.20	0.52	
Clearance Time (s)	5.0		5.0	5.0			5.0	5.0	5.0	
Vehicle Extension (s)	3.0		2.0	2.0			2.0	2.0	3.0	
Lane Grp Cap (vph)	256	3613	264	304			338	307	1644	
v/s Ratio Prot	0.08	c0.40							c0.41	
v/s Ratio Perm			c0.18	0.00			0.02	0.08		
v/c Ratio	0.57	0.57	0.93	0.02			0.10	0.40	0.79	
Uniform Delay, d1	59.6	11.3	58.6	48.2			48.9	51.9	28.6	
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00	1.00	
Incremental Delay, d2	3.1	0.2	36.9	0.0			0.0	0.3	3.9	
Delay (s)	62.6	11.5	95.5	48.2			48.9	52.3	32.5	
Level of Service	E	B	F	D			D	D	C	
Approach Delay (s)	62.6	11.5		89.2			51.9			
Approach LOS	E	B		F			D			
Intersection Summary										
HCM 2000 Control Delay			28.6		HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.77							
Actuated Cycle Length (s)			148.0		Sum of lost time (s)			17.0		
Intersection Capacity Utilization			92.3%		ICU Level of Service			F		
Analysis Period (min)			15							
c Critical Lane Group										

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

3: 10th St & Hoosick
2-Lanes_AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑			↑	↑		↑	↑
Traffic Volume (vph)	364	690	30	10	1394	14	68	34	11	24	32	577
Future Volume (vph)	364	690	30	10	1394	14	68	34	11	24	32	577
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	11	12	10	10	10	11	11	13
Grade (%)							-7%		0%			0%
Total Lost time (s)	5.0	5.0			5.0	5.0			5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95			1.00	*0.97			1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00			1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00			1.00	1.00	0.99	1.00
Fr _t	1.00	0.99			1.00	1.00			1.00	0.85	1.00	0.85
Fl _t Protected	0.95	1.00			0.95	1.00			0.97	1.00	0.98	1.00
Satd. Flow (prot)	3017	3270			1735	3506			1666	1341	1646	1620
Fl _t Permitted	0.95	1.00			0.38	1.00			0.76	1.00	0.79	1.00
Satd. Flow (perm)	3017	3270			686	3506			1316	1341	1336	1620
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	368	697	30	10	1408	14	69	34	11	24	32	583
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	10	0	0	266
Lane Group Flow (vph)	368	726	0	10	1422	0	0	103	1	0	56	317
Confl. Peds. (#/hr)	4		14	14		4			7	7		
Heavy Vehicles (%)	12%	6%	0%	0%	5%	7%	0%	9%	9%	8%	9%	3%
Turn Type	Prot	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	1			6			8			3	5
Permitted Phases			6			8			8	3		3
Actuated Green, G (s)	24.3	107.2		77.9	77.9			16.0	16.0		16.0	40.3
Effective Green, g (s)	24.3	107.2		77.9	77.9			16.0	16.0		16.0	40.3
Actuated g/C Ratio	0.17	0.75		0.54	0.54			0.11	0.11		0.11	0.28
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0			2.0	2.0		2.0	3.0
Lane Grp Cap (vph)	510	2441		372	1901			146	149		148	511
v/s Ratio Prot	c0.12	0.22			c0.41							c0.10
v/s Ratio Perm			0.01					0.08	0.00		0.04	0.09
v/c Ratio	0.72	0.30		0.03	0.75			0.71	0.01		0.38	0.62
Uniform Delay, d1	56.4	5.9		15.3	25.3			61.5	56.7		59.2	45.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	5.0	0.1		0.0	1.8			11.9	0.0		0.6	2.3
Delay (s)	61.4	6.0		15.3	27.0			73.4	56.8		59.8	47.3
Level of Service	E	A		B	C			E	E		E	D
Approach Delay (s)		24.6			27.0			71.8			48.4	
Approach LOS		C			C			E			D	

Intersection Summary

HCM 2000 Control Delay	31.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	143.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

2: Hoosick & 8th St & Hoosick Street
2019 Existing _PM Peak

Movement	EBT	WBL2	WBT	NBL	NBT	NBR	SBL	SBT	SBR2	NER	NER2
Lane Configurations	↑	↑	↑↑↑	↑	↑			↑	↑	↑↑	↑
Traffic Volume (vph)	134	1	1482	263	0	98	12	19	49	1555	82
Future Volume (vph)	134	1	1482	263	0	98	12	19	49	1555	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	10	12	12	12	12	14
Grade (%)	4%		-4%		0%			0%			
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00			1.00	1.00	0.88	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.99	1.00	0.90
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	1.00	1.00	0.85			1.00	0.85	1.00	0.85
Fl _t Protected	1.00	0.95	1.00	0.95	1.00			0.98	1.00	1.00	1.00
Satd. Flow (prot)	1844	1780	5187	1805	1546			1864	1562	3245	1500
Fl _t Permitted	1.00	0.95	1.00	0.73	1.00			0.90	1.00	1.00	1.00
Satd. Flow (perm)	1844	1780	5187	1396	1546			1707	1562	3245	1500
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	147	1	1629	289	0	108	13	21	54	1709	90
RTOR Reduction (vph)	0	0	0	0	84	0	0	0	42	0	47
Lane Group Flow (vph)	147	1	1629	289	24	0	0	34	12	1709	43
Confl. Peds. (#/hr)			21						1		21
Heavy Vehicles (%)	1%	0%	2%	0%	0%	1%	0%	0%	2%	1%	1%
Parking (#/hr)						0					
Turn Type	NA	Prot	NA	D.Pm	NA		Perm	NA	Perm	Prot	Perm
Protected Phases	1	4	1 2 4					3		2	
Permitted Phases				3	3		3		3		2
Actuated Green, G (s)	20.4	1.0	96.2	29.8	29.8			29.8	29.8	64.8	64.8
Effective Green, g (s)	20.4	1.0	96.2	29.8	29.8			29.8	29.8	64.8	64.8
Actuated g/C Ratio	0.15	0.01	0.71	0.22	0.22			0.22	0.22	0.48	0.48
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0	2.0	3.0	3.0
Lane Grp Cap (vph)	276	13	3669	305	338			374	342	1546	714
v/s Ratio Prot	0.08	0.00	c0.31							c0.53	
v/s Ratio Perm				c0.21	0.02			0.02	0.01		0.03
v/c Ratio	0.53	0.08	0.44	0.95	0.07			0.09	0.03	1.11	0.06
Uniform Delay, d1	53.4	67.0	8.5	52.3	42.1			42.3	41.8	35.6	19.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	0.9	0.1	37.0	0.0			0.0	0.0	57.5	0.2
Delay (s)	55.4	68.0	8.6	89.4	42.1			42.3	41.8	93.1	19.3
Level of Service	E	E	A	F	D			D	D	F	B
Approach Delay (s)	55.4		8.6		76.5			42.0			
Approach LOS	E		A		E			D			
Intersection Summary											
HCM 2000 Control Delay			53.5			HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.97								
Actuated Cycle Length (s)			136.0			Sum of lost time (s)			20.0		
Intersection Capacity Utilization			112.3%			ICU Level of Service			H		
Analysis Period (min)			15								
c Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

3: 10th St & Hoosick
2019 Existing _PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑↑			↑	↑		↑	↑
Traffic Volume (vph)	561	1105	17	8	1037	30	38	95	33	41	33	346
Future Volume (vph)	561	1105	17	8	1037	30	38	95	33	41	33	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	11	12	10	10	10	11	11	13
Grade (%)						-7%			0%			0%
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	0.97	0.95		1.00	*0.75			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		1.00	0.99
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		0.99	1.00
Fr _t	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00			0.99	1.00		0.97	1.00
Satd. Flow (prot)	3313	3406		1729	4098			1742	1412		1727	1581
Fl _t Permitted	0.95	1.00		0.24	1.00			0.88	1.00		0.61	1.00
Satd. Flow (perm)	3313	3406		430	4098			1561	1412		1080	1581
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	597	1176	18	9	1103	32	40	101	35	44	35	368
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	30	0	0	204
Lane Group Flow (vph)	597	1194	0	9	1134	0	0	141	5	0	79	164
Confl. Peds. (#/hr)	7		32	32		7	7		11	11		7
Heavy Vehicles (%)	2%	2%	0%	0%	4%	0%	0%	0%	3%	2%	3%	5%
Turn Type	Prot	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	1			6			8			3	5
Permitted Phases			6			8			8	3		3
Actuated Green, G (s)	37.7	86.3		43.6	43.6			17.0	17.0		17.0	54.7
Effective Green, g (s)	37.7	86.3		43.6	43.6			17.0	17.0		17.0	54.7
Actuated g/C Ratio	0.31	0.70		0.35	0.35			0.14	0.14		0.14	0.44
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0			2.0	2.0		2.0	3.0
Lane Grp Cap (vph)	1015	2389		152	1452			215	195		149	767
v/s Ratio Prot	c0.18	0.35			c0.28							0.07
v/s Ratio Perm			0.02					c0.09	0.00		0.07	0.04
v/c Ratio	0.59	0.50		0.06	0.78			0.66	0.02		0.53	0.21
Uniform Delay, d1	36.1	8.4		26.2	35.4			50.2	45.8		49.3	21.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.9	0.2		0.2	3.0			5.4	0.0		1.8	0.1
Delay (s)	37.0	8.7		26.4	38.4			55.6	45.9		51.1	21.1
Level of Service	D	A		C	D			E	D		D	C
Approach Delay (s)		18.1			38.3			53.7			26.4	
Approach LOS		B			D			D			C	

Intersection Summary

HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	123.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	WBT	NBR	SBR2	NER	NER2
Lane Configurations	↑	↑↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	134	1482	98	49	1555	82
Future Volume (vph)	134	1482	98	49	1555	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	12	12	14
Grade (%)	4%	-4%				
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.88	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	0.89
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.86	0.86	1.00	0.85
Fl _t Protected	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1844	5187	1367	1589	3245	1488
Fl _t Permitted	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1844	5187	1367	1589	3245	1488
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	147	1629	108	54	1709	90
RTOR Reduction (vph)	0	0	40	49	0	24
Lane Group Flow (vph)	147	1629	68	5	1709	66
Confl. Peds. (#/hr)				1		21
Heavy Vehicles (%)	1%	2%	1%	2%	1%	1%
Parking (#/hr)			0			
Turn Type	NA	NA	Perm	Perm	Prot	Perm
Protected Phases	1	1 2			2	
Permitted Phases			2	3		2
Actuated Green, G (s)	20.6	118.8	93.2	13.2	93.2	93.2
Effective Green, g (s)	20.6	118.8	93.2	13.2	93.2	93.2
Actuated g/C Ratio	0.14	0.80	0.63	0.09	0.63	0.63
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	2.0	3.0	3.0
Lane Grp Cap (vph)	256	4163	860	141	2043	937
v/s Ratio Prot	c0.08	0.31			c0.53	
v/s Ratio Perm			0.05	c0.00		0.04
v/c Ratio	0.57	0.39	0.08	0.03	0.84	0.07
Uniform Delay, d1	59.6	4.2	10.7	61.6	21.4	10.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.1	0.2	0.0	4.3	0.1
Delay (s)	62.7	4.3	10.9	61.6	25.7	10.8
Level of Service	E	A	B	E	C	B
Approach Delay (s)	62.7	4.3				
Approach LOS	E	A				
Intersection Summary						
HCM 2000 Control Delay			17.5	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio			0.69			
Actuated Cycle Length (s)			148.0	Sum of lost time (s)		17.0
Intersection Capacity Utilization			108.6%	ICU Level of Service		G
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

3: 10th St & Hoosick
2-Lanes_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑			↑	↑		↑	↑
Traffic Volume (vph)	641	1105	17	18	1027	30	90	95	33	53	52	346
Future Volume (vph)	641	1105	17	18	1027	30	90	95	33	53	52	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	11	12	10	10	10	11	11	13
Grade (%)									0%			0%
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	0.97	0.95		1.00	*0.98			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	0.99
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Fr _t	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.98	1.00
Satd. Flow (prot)	3313	3406		1729	3569			1725	1426		1740	1577
Fl _t Permitted	0.95	1.00		0.24	1.00			0.73	1.00		0.64	1.00
Satd. Flow (perm)	3313	3406		430	3569			1293	1426		1135	1577
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	682	1176	18	19	1093	32	96	101	35	56	55	368
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	27	0	0	194
Lane Group Flow (vph)	682	1194	0	19	1124	0	0	197	8	0	111	174
Confl. Peds. (#/hr)	7		32	32		7	7		11	11		7
Heavy Vehicles (%)	2%	2%	0%	0%	4%	0%	0%	0%	3%	2%	3%	5%
Turn Type	Prot	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	1			6			8		8	3	5
Permitted Phases			6			8			8	3		3
Actuated Green, G (s)	36.1	94.7		53.6	53.6			35.2	35.2		35.2	71.3
Effective Green, g (s)	36.1	94.7		53.6	53.6			35.2	35.2		35.2	71.3
Actuated g/C Ratio	0.24	0.63		0.36	0.36			0.23	0.23		0.23	0.47
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0			2.0	2.0		2.0	3.0
Lane Grp Cap (vph)	795	2144		153	1271			302	333		265	800
v/s Ratio Prot	c0.21	0.35			c0.31							0.05
v/s Ratio Perm			0.04					c0.15	0.01		0.10	0.06
v/c Ratio	0.86	0.56		0.12	0.88			0.65	0.02		0.42	0.22
Uniform Delay, d1	54.7	15.9		32.6	45.5			52.1	44.4		48.9	23.2
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	9.1	0.4		0.5	7.8			3.8	0.0		0.4	0.1
Delay (s)	63.8	16.3		33.1	53.3			55.9	44.4		49.3	23.3
Level of Service	E	B		C	D			E	D		D	C
Approach Delay (s)		33.5			53.0			54.2			29.4	
Approach LOS		C			D			D			C	

Intersection Summary

HCM 2000 Control Delay	40.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	150.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

2: Hoosick & 8th St & Hoosick Street
2-Lanes_PM Peak

Movement	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR2	NER	NER2
Lane Configurations	↑	↑↑↑	↑	↑			↑	↑	↑↑	↑↑
Traffic Volume (vph)	134	1482	263	0	98	12	19	49	1555	82
Future Volume (vph)	134	1482	263	0	98	12	19	49	1555	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	14
Grade (%)	4%	-4%		0%			0%			
Total Lost time (s)	5.0	5.0	5.0	5.0			5.0	5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	1.00			1.00	1.00	0.88	
Frpb, ped/bikes	1.00	1.00	1.00	1.00			1.00	0.99	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00			1.00	1.00	1.00	
Fr _t	1.00	1.00	1.00	0.85			1.00	0.85	1.00	
Fl _t Protected	1.00	1.00	0.95	1.00			0.98	1.00	1.00	
Satd. Flow (prot)	1844	5187	1805	1546			1864	1561	3245	
Fl _t Permitted	1.00	1.00	0.73	1.00			0.90	1.00	1.00	
Satd. Flow (perm)	1844	5187	1396	1546			1704	1561	3245	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	147	1629	289	0	108	13	21	54	1709	90
RTOR Reduction (vph)	0	0	0	85	0	0	0	43	32	0
Lane Group Flow (vph)	147	1629	289	23	0	0	34	11	1767	0
Confl. Peds. (#/hr)								1		21
Heavy Vehicles (%)	1%	2%	0%	0%	1%	0%	0%	2%	1%	1%
Parking (#/hr)					0					
Turn Type	NA	NA	D.Pm	NA		Perm	NA	Perm	Prot	
Protected Phases	1	1 2					3		2	
Permitted Phases			3	3		3		3		
Actuated Green, G (s)	20.6	101.0	31.0	31.0			31.0	31.0	75.4	
Effective Green, g (s)	20.6	101.0	31.0	31.0			31.0	31.0	75.4	
Actuated g/C Ratio	0.14	0.68	0.21	0.21			0.21	0.21	0.51	
Clearance Time (s)	5.0		5.0	5.0			5.0	5.0	5.0	
Vehicle Extension (s)	3.0		2.0	2.0			2.0	2.0	3.0	
Lane Grp Cap (vph)	256	3539	292	323			356	326	1653	
v/s Ratio Prot	c0.08	0.31							c0.54	
v/s Ratio Perm			c0.21	0.01			0.02	0.01		
v/c Ratio	0.57	0.46	0.99	0.07			0.10	0.03	1.07	
Uniform Delay, d1	59.6	10.9	58.3	46.9			47.2	46.6	36.3	
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00	1.00	
Incremental Delay, d2	3.1	0.1	49.2	0.0			0.0	0.0	43.1	
Delay (s)	62.7	11.0	107.5	47.0			47.2	46.6	79.4	
Level of Service	E	B	F	D			D	D	E	
Approach Delay (s)	62.7	11.0		91.1			46.8			
Approach LOS	E	B		F			D			
Intersection Summary										
HCM 2000 Control Delay			51.8		HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.94							
Actuated Cycle Length (s)			148.0		Sum of lost time (s)			17.0		
Intersection Capacity Utilization			107.7%		ICU Level of Service			G		
Analysis Period (min)			15							
c Critical Lane Group										

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

3: 10th St & Hoosick
2-Lanes_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑			↑	↑		↑	↑
Traffic Volume (vph)	641	1105	17	18	1027	30	38	95	33	41	33	346
Future Volume (vph)	641	1105	17	18	1027	30	38	95	33	41	33	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	11	12	10	10	10	11	11	13
Grade (%)									0%			0%
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	0.97	0.95		1.00	*0.98			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		1.00	0.99
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		0.99	1.00
Fr _t	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00			0.99	1.00		0.97	1.00
Satd. Flow (prot)	3313	3406		1730	3569			1742	1411		1727	1581
Fl _t Permitted	0.95	1.00		0.24	1.00			0.88	1.00		0.60	1.00
Satd. Flow (perm)	3313	3406		430	3569			1561	1411		1059	1581
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	682	1176	18	19	1093	32	40	101	35	44	35	368
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	30	0	0	210
Lane Group Flow (vph)	682	1194	0	19	1124	0	0	141	5	0	79	158
Confl. Peds. (#/hr)	7		32	32		7	7		11	11		7
Heavy Vehicles (%)	2%	2%	0%	0%	4%	0%	0%	0%	3%	2%	3%	5%
Turn Type	Prot	NA		Perm	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	1			6			8			3	5
Permitted Phases			6			8			8	3		3
Actuated Green, G (s)	37.5	91.1		48.6	48.6			17.6	17.6		17.6	55.1
Effective Green, g (s)	37.5	91.1		48.6	48.6			17.6	17.6		17.6	55.1
Actuated g/C Ratio	0.29	0.71		0.38	0.38			0.14	0.14		0.14	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0			2.0	2.0		2.0	3.0
Lane Grp Cap (vph)	966	2414		162	1349			213	193		145	739
v/s Ratio Prot	c0.21	0.35			c0.31							0.06
v/s Ratio Perm			0.04					c0.09	0.00		0.07	0.04
v/c Ratio	0.71	0.49		0.12	0.83			0.66	0.02		0.54	0.21
Uniform Delay, d1	40.6	8.4		26.0	36.3			52.6	48.0		51.7	23.1
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	2.4	0.2		0.4	4.8			5.9	0.0		2.2	0.1
Delay (s)	43.0	8.6		26.4	41.0			58.5	48.0		53.9	23.2
Level of Service	D	A		C	D			E	D		D	C
Approach Delay (s)		21.1			40.8			56.4			28.7	
Approach LOS		C			D			E			C	

Intersection Summary

HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	128.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
2-Lanes_AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (vph)	110	55	63	68	92	20	55	427	14	10	155	61
Future Volume (vph)	110	55	63	68	92	20	55	427	14	10	155	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Fr _t	1.00	0.92		1.00	0.97		1.00	1.00		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1582		1805	1695		1752	1838		1504	1707	
Flt Permitted	0.67	1.00		0.67	1.00		0.61	1.00		0.35	1.00	
Satd. Flow (perm)	1245	1582		1274	1695		1119	1838		548	1707	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	125	62	72	77	105	23	62	485	16	11	176	69
RTOR Reduction (vph)	0	47	0	0	9	0	0	1	0	0	10	0
Lane Group Flow (vph)	125	88	0	77	119	0	63	500	0	11	235	0
Heavy Vehicles (%)	3%	11%	10%	0%	10%	5%	3%	3%	0%	20%	8%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	12.0	12.0		12.0	12.0		27.6	27.6		27.6	27.6	
Effective Green, g (s)	12.0	12.0		12.0	12.0		27.6	27.6		27.6	27.6	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.45	0.45		0.45	0.45	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	241	307		247	329		499	820		244	762	
v/s Ratio Prot		0.06			0.07			c0.27			0.14	
v/s Ratio Perm	c0.10			0.06			0.06			0.02		
v/c Ratio	0.52	0.29		0.31	0.36		0.13	0.61		0.05	0.31	
Uniform Delay, d1	22.3	21.3		21.4	21.6		10.0	13.0		9.7	11.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	0.5		0.7	0.7		0.1	1.4		0.1	0.2	
Delay (s)	24.2	21.8		22.1	22.3		10.1	14.4		9.7	11.2	
Level of Service	C	C		C	C		B	B		A	B	
Approach Delay (s)		22.9			22.2			13.9			11.1	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.5				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			61.8				Sum of lost time (s)			13.0		
Intersection Capacity Utilization			53.2%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
N-S Turn Lanes-9th Median_AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	55	63	68	62	20	55	427	14	10	155	61
Future Volume (vph)	110	55	63	68	62	20	55	427	14	10	155	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Fr _t		0.96			0.98		1.00	1.00		1.00	0.96	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1671			1741		1752	1838		1504	1707	
Flt Permitted		0.78			0.75		0.59	1.00		0.31	1.00	
Satd. Flow (perm)		1332			1329		1083	1838		484	1707	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	125	62	72	77	70	23	62	485	16	11	176	69
RTOR Reduction (vph)	0	15	0	0	6	0	0	1	0	0	11	0
Lane Group Flow (vph)	0	245	0	0	164	0	63	500	0	11	234	0
Heavy Vehicles (%)	3%	11%	10%	0%	10%	5%	3%	3%	0%	20%	8%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.7			18.7		28.1	28.1		28.1	28.1	
Effective Green, g (s)		18.7			18.7		28.1	28.1		28.1	28.1	
Actuated g/C Ratio		0.27			0.27		0.41	0.41		0.41	0.41	
Clearance Time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		362			361		442	750		197	697	
v/s Ratio Prot								c0.27			0.14	
v/s Ratio Perm		c0.18			0.12		0.06			0.02		
v/c Ratio		0.68			0.45		0.14	0.67		0.06	0.34	
Uniform Delay, d1		22.4			20.8		12.8	16.5		12.3	14.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.0			0.9		0.1	2.3		0.1	0.3	
Delay (s)		27.3			21.7		12.9	18.8		12.4	14.2	
Level of Service		C			C		B	B		B	B	
Approach Delay (s)		27.3			21.7			18.1			14.2	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay		19.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.56										
Actuated Cycle Length (s)		68.8			Sum of lost time (s)			13.0				
Intersection Capacity Utilization		57.1%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
No Turn Lanes-8th Median_AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	55	63	68	92	20	55	427	14	10	155	61
Future Volume (vph)	110	55	63	68	92	20	55	427	14	10	155	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)						5.5			5.5			5.5
Lane Util. Factor		1.00				1.00			1.00			1.00
Fr _t		0.96				0.98			1.00			0.96
Flt Protected		0.98				0.98			0.99			1.00
Satd. Flow (prot)		1671				1738			1829			1705
Flt Permitted		0.74				0.78			0.93			0.97
Satd. Flow (perm)		1274				1385			1716			1661
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	125	62	72	77	105	23	62	485	16	11	176	69
RTOR Reduction (vph)	0	14	0	0	4	0	0	1	0	0	10	0
Lane Group Flow (vph)	0	246	0	0	201	0	0	563	0	0	246	0
Heavy Vehicles (%)	3%	11%	10%	0%	10%	5%	3%	3%	0%	20%	8%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4				8			2			6
Permitted Phases	4				8			2			6	
Actuated Green, G (s)		19.2				19.2			28.1			28.1
Effective Green, g (s)		19.2				19.2			28.1			28.1
Actuated g/C Ratio		0.28				0.28			0.41			0.41
Clearance Time (s)		5.5				5.5			5.5			5.5
Vehicle Extension (s)		3.0				3.0			3.0			3.0
Lane Grp Cap (vph)		352				383			695			673
v/s Ratio Prot												
v/s Ratio Perm		c0.19				0.14			c0.33			0.15
v/c Ratio		0.70				0.52			0.81			0.37
Uniform Delay, d1		22.4				21.2			18.2			14.4
Progression Factor		1.00				1.00			1.00			1.00
Incremental Delay, d2		5.9				1.3			7.1			0.3
Delay (s)		28.4				22.5			25.4			14.7
Level of Service		C				C			C			B
Approach Delay (s)		28.4				22.5			25.4			14.7
Approach LOS		C				C			C			B
Intersection Summary												
HCM 2000 Control Delay		23.4				HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio		0.64										
Actuated Cycle Length (s)		69.3				Sum of lost time (s)			13.0			
Intersection Capacity Utilization		71.0%				ICU Level of Service			C			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
2-Lanes_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (vph)	221	74	31	63	110	47	37	481	23	37	126	44
Future Volume (vph)	221	74	31	63	110	47	37	481	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Fr _t	1.00	0.96		1.00	0.96		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	1724		1770	1765		1805	1869		1805	1813	
Flt Permitted	0.63	1.00		0.68	1.00		0.63	1.00		0.18	1.00	
Satd. Flow (perm)	1187	1724		1261	1765		1195	1869		335	1813	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	131	56	44	573	27	44	150	52
RTOR Reduction (vph)	0	15	0	0	15	0	0	1	0	0	10	0
Lane Group Flow (vph)	263	110	0	75	172	0	44	599	0	44	192	0
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.2	22.2		22.2	22.2		27.9	27.9		27.9	27.9	
Effective Green, g (s)	22.2	22.2		22.2	22.2		27.9	27.9		27.9	27.9	
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.39	0.39		0.39	0.39	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	364	530		387	542		461	722		129	700	
v/s Ratio Prot		0.06			0.10			c0.32			0.11	
v/s Ratio Perm	c0.22			0.06			0.04			0.13		
v/c Ratio	0.72	0.21		0.19	0.32		0.10	0.83		0.34	0.27	
Uniform Delay, d1	22.3	18.5		18.4	19.2		14.1	20.0		15.7	15.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.9	0.2		0.2	0.3		0.1	7.8		1.6	0.2	
Delay (s)	29.2	18.7		18.7	19.5		14.2	27.8		17.2	15.4	
Level of Service	C	B		B	B		B	C		B	B	
Approach Delay (s)		25.8			19.3			26.9			15.7	
Approach LOS		C			B			C			B	
Intersection Summary												
HCM 2000 Control Delay			23.5				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			72.2				Sum of lost time (s)			13.0		
Intersection Capacity Utilization			65.4%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
N-S Turn Lanes-8th Median_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	74	31	63	110	47	37	481	23	37	126	44
Future Volume (vph)	221	74	31	63	110	47	37	481	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Fr _t		0.99			0.97		1.00	0.99		1.00	0.96	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1772			1774		1805	1869		1805	1813	
Flt Permitted		0.62			0.82		0.60	1.00		0.14	1.00	
Satd. Flow (perm)		1137			1478		1139	1869		257	1813	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	131	56	44	573	27	44	150	52
RTOR Reduction (vph)	0	3	0	0	8	0	0	1	0	0	10	0
Lane Group Flow (vph)	0	385	0	0	254	0	44	599	0	44	192	0
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		31.7			31.7		29.6	29.6		29.6	29.6	
Effective Green, g (s)		31.7			31.7		29.6	29.6		29.6	29.6	
Actuated g/C Ratio		0.37			0.37		0.35	0.35		0.35	0.35	
Clearance Time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	424			551			397	651		89	632	
v/s Ratio Prot								c0.32			0.11	
v/s Ratio Perm		c0.34			0.17		0.04			0.17		
v/c Ratio		0.91			0.46		0.11	0.92		0.49	0.30	
Uniform Delay, d1		25.2			20.1		18.7	26.5		21.8	20.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		22.7			0.6		0.1	18.1		4.3	0.3	
Delay (s)		47.9			20.7		18.9	44.6		26.0	20.4	
Level of Service		D			C		B	D		C	C	
Approach Delay (s)		47.9			20.7			42.8			21.4	
Approach LOS		D			C			D			C	
Intersection Summary												
HCM 2000 Control Delay		36.9			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.78										
Actuated Cycle Length (s)		84.9			Sum of lost time (s)			13.0				
Intersection Capacity Utilization		74.7%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
No Turn Lanes-8th Median_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	74	31	63	110	47	37	481	23	37	126	44
Future Volume (vph)	221	74	31	63	110	47	37	481	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Fr _t		0.99			0.97			0.99			0.97	
Flt Protected		0.97			0.99			1.00			0.99	
Satd. Flow (prot)		1772			1774			1866			1818	
Flt Permitted		0.61			0.82			0.96			0.77	
Satd. Flow (perm)		1122			1484			1801			1414	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	131	56	44	573	27	44	150	52
RTOR Reduction (vph)	0	3	0	0	8	0	0	1	0	0	8	0
Lane Group Flow (vph)	0	385	0	0	254	0	0	643	0	0	238	0
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		29.6			29.6			31.7			31.7	
Effective Green, g (s)		29.6			29.6			31.7			31.7	
Actuated g/C Ratio		0.35			0.35			0.37			0.37	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		391			517			672			527	
v/s Ratio Prot												
v/s Ratio Perm		c0.34			0.17			c0.36			0.17	
v/c Ratio		0.98			0.49			0.96			0.45	
Uniform Delay, d1		27.4			21.7			25.9			20.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		41.0			0.7			24.2			0.6	
Delay (s)		68.4			22.5			50.1			20.7	
Level of Service		E			C			D			C	
Approach Delay (s)		68.4			22.5			50.1			20.7	
Approach LOS		E			C			D			C	
Intersection Summary												
HCM 2000 Control Delay		45.3			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.83										
Actuated Cycle Length (s)		84.9			Sum of lost time (s)			13.0				
Intersection Capacity Utilization		75.8%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

2: Hoosick & 8th St & Hoosick Street
N-S Turn Lanes_AM Peak

Movement	→	←	↖	↑	↗	↙	↓	↖	↗	↖
Lane Configurations	↑	↑↑↑	↑	↑			↑	↑↑	↑↑	↑
Traffic Volume (vph)	137	1931	231	0	36	9	23	284	980	267
Future Volume (vph)	137	1931	231	0	36	9	23	284	980	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	14
Grade (%)	4%	-4%		0%			0%			
Total Lost time (s)	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.91	1.00	1.00			1.00	1.00	0.88	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00			1.00	0.99	1.00	0.89
Flpb, ped/bikes	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	1.00	0.85			1.00	0.85	1.00	0.85
Fl _t Protected	1.00	1.00	0.95	1.00			0.99	1.00	1.00	1.00
Satd. Flow (prot)	1844	5187	1752	1561			1821	1577	3121	1474
Fl _t Permitted	1.00	1.00	0.73	1.00			0.94	1.00	1.00	1.00
Satd. Flow (perm)	1844	5187	1356	1561			1731	1577	3121	1474
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	146	2054	246	0	38	10	24	302	1043	284
RTOR Reduction (vph)	0	0	0	31	0	0	0	180	0	37
Lane Group Flow (vph)	146	2054	246	7	0	0	34	122	1043	247
Confl. Peds. (#/hr)								1		21
Heavy Vehicles (%)	1%	2%	3%	0%	0%	0%	4%	1%	5%	2%
Parking (#/hr)					0					
Turn Type	NA	NA	D.Pm	NA		Perm	NA	Perm	Prot	Perm
Protected Phases	1	1 2					3		2	
Permitted Phases			3	3		3		3		2
Actuated Green, G (s)	20.6	103.1	28.9	28.9			28.9	28.9	77.5	77.5
Effective Green, g (s)	20.6	103.1	28.9	28.9			28.9	28.9	77.5	77.5
Actuated g/C Ratio	0.14	0.70	0.20	0.20			0.20	0.20	0.52	0.52
Clearance Time (s)	5.0		5.0	5.0			5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		2.0	2.0			2.0	2.0	3.0	3.0
Lane Grp Cap (vph)	256	3613	264	304			338	307	1634	771
v/s Ratio Prot	0.08	c0.40							c0.33	
v/s Ratio Perm			c0.18	0.00			0.02	0.08		0.17
v/c Ratio	0.57	0.57	0.93	0.02			0.10	0.40	0.64	0.32
Uniform Delay, d1	59.6	11.3	58.6	48.2			48.9	51.9	25.2	20.2
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.2	36.9	0.0			0.0	0.3	1.9	1.1
Delay (s)	62.6	11.5	95.5	48.2			48.9	52.3	27.1	21.3
Level of Service	E	B	F	D			D	D	C	C
Approach Delay (s)	62.6	11.5		89.2			51.9			
Approach LOS	E	B		F			D			
Intersection Summary										
HCM 2000 Control Delay			26.5		HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.68							
Actuated Cycle Length (s)			148.0		Sum of lost time (s)			17.0		
Intersection Capacity Utilization			82.9%		ICU Level of Service			E		
Analysis Period (min)			15							
c Critical Lane Group										

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

1: 6th Ave & Hoosick Street
N-S Turn Lanes_PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Future Volume (vph)	221	74	31	63	114	47	33	377	23	37	126	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Fr _t		0.99			0.97		1.00	0.99		1.00	0.96	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1772			1775		1805	1866		1805	1813	
Flt Permitted		0.63			0.82		0.58	1.00		0.18	1.00	
Satd. Flow (perm)		1152			1475		1104	1866		351	1813	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	263	88	37	75	136	56	39	449	27	44	150	52
RTOR Reduction (vph)	0	3	0	0	8	0	0	2	0	0	11	0
Lane Group Flow (vph)	0	385	0	0	259	0	39	474	0	44	191	0
Heavy Vehicles (%)	1%	5%	6%	2%	4%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		35.9			35.9		25.5	25.5		25.5	25.5	
Effective Green, g (s)		35.9			35.9		25.5	25.5		25.5	25.5	
Actuated g/C Ratio		0.42			0.42		0.30	0.30		0.30	0.30	
Clearance Time (s)		5.5			5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		486			622		331	559		105	543	
v/s Ratio Prot								c0.25			0.11	
v/s Ratio Perm		c0.33			0.18		0.04			0.13		
v/c Ratio		0.79			0.42		0.12	0.85		0.42	0.35	
Uniform Delay, d1		21.3			17.2		21.6	27.9		23.8	23.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		8.6			0.5		0.2	11.4		2.7	0.4	
Delay (s)		29.9			17.7		21.7	39.4		26.5	23.7	
Level of Service		C			B		C	D		C	C	
Approach Delay (s)		29.9			17.7			38.0			24.2	
Approach LOS		C			B			D			C	
Intersection Summary												
HCM 2000 Control Delay		29.6			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.69										
Actuated Cycle Length (s)		85.0			Sum of lost time (s)			13.0				
Intersection Capacity Utilization		73.3%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
119-047 Hoosick Hillside Study

2: Hoosick & 8th St & Hoosick Street
N-S Turn Lanes_PM Peak

Movement	→	←	↖	↑	↗	↙	↓	↖	↗	↖
Lane Configurations	↑	↑↑↑	↑	↑			↑	↑↑	↑↑	↑
Traffic Volume (vph)	134	1482	263	0	98	12	19	49	1555	82
Future Volume (vph)	134	1482	263	0	98	12	19	49	1555	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	14
Grade (%)	4%	-4%		0%			0%			
Total Lost time (s)	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.91	1.00	1.00			1.00	1.00	0.88	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00			1.00	0.99	1.00	0.89
Flpb, ped/bikes	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	1.00	0.85			1.00	0.85	1.00	0.85
Fl _t Protected	1.00	1.00	0.95	1.00			0.98	1.00	1.00	1.00
Satd. Flow (prot)	1844	5187	1805	1546			1864	1561	3245	1488
Fl _t Permitted	1.00	1.00	0.73	1.00			0.90	1.00	1.00	1.00
Satd. Flow (perm)	1844	5187	1396	1546			1704	1561	3245	1488
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	147	1629	289	0	108	13	21	54	1709	90
RTOR Reduction (vph)	0	0	0	85	0	0	0	43	0	32
Lane Group Flow (vph)	147	1629	289	23	0	0	34	11	1709	58
Confl. Peds. (#/hr)								1		21
Heavy Vehicles (%)	1%	2%	0%	0%	1%	0%	0%	2%	1%	1%
Parking (#/hr)					0					
Turn Type	NA	NA	D.Pm	NA		Perm	NA	Perm	Prot	Perm
Protected Phases	1	1 2					3		2	
Permitted Phases			3	3		3		3		2
Actuated Green, G (s)	20.6	101.0	31.0	31.0			31.0	31.0	75.4	75.4
Effective Green, g (s)	20.6	101.0	31.0	31.0			31.0	31.0	75.4	75.4
Actuated g/C Ratio	0.14	0.68	0.21	0.21			0.21	0.21	0.51	0.51
Clearance Time (s)	5.0		5.0	5.0			5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		2.0	2.0			2.0	2.0	3.0	3.0
Lane Grp Cap (vph)	256	3539	292	323			356	326	1653	758
v/s Ratio Prot	c0.08	0.31							c0.53	
v/s Ratio Perm			c0.21	0.01			0.02	0.01		0.04
v/c Ratio	0.57	0.46	0.99	0.07			0.10	0.03	1.03	0.08
Uniform Delay, d1	59.6	10.9	58.3	46.9			47.2	46.6	36.3	18.5
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.1	49.2	0.0			0.0	0.0	31.4	0.2
Delay (s)	62.7	11.0	107.5	47.0			47.2	46.6	67.7	18.7
Level of Service	E	B	F	D			D	D	E	B
Approach Delay (s)	62.7	11.0		91.1			46.8			
Approach LOS	E	B		F			D			
Intersection Summary										
HCM 2000 Control Delay			45.5		HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.92							
Actuated Cycle Length (s)			148.0		Sum of lost time (s)			17.0		
Intersection Capacity Utilization			104.8%		ICU Level of Service			G		
Analysis Period (min)			15							
c Critical Lane Group										

Movement	EBT	WBT	NBR	SBR2	NER	NER2
Lane Configurations	↑	↑↑↑	↑	↑	↑↑	
Traffic Volume (vph)	137	1979	36	284	980	267
Future Volume (vph)	137	1979	36	284	980	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	12	12	14
Grade (%)	4%	-4%				
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.88	
Frpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Fr _t	1.00	1.00	0.86	0.86	1.00	
Fl _t Protected	1.00	1.00	1.00	1.00	1.00	
Satd. Flow (prot)	1844	5187	1381	1604	3140	
Fl _t Permitted	1.00	1.00	1.00	1.00	1.00	
Satd. Flow (perm)	1844	5187	1381	1604	3140	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	146	2105	38	302	1043	284
RTOR Reduction (vph)	0	0	15	198	26	0
Lane Group Flow (vph)	146	2105	23	104	1301	0
Confl. Peds. (#/hr)				1		21
Heavy Vehicles (%)	1%	2%	0%	1%	5%	2%
Parking (#/hr)			0			
Turn Type	NA	NA	Perm	Perm	Prot	
Protected Phases	1	1 2			2	
Permitted Phases			2	3		
Actuated Green, G (s)	20.6	114.6	89.0	17.4	89.0	
Effective Green, g (s)	20.6	114.6	89.0	17.4	89.0	
Actuated g/C Ratio	0.14	0.77	0.60	0.12	0.60	
Clearance Time (s)	5.0		5.0	5.0	5.0	
Vehicle Extension (s)	3.0		3.0	2.0	3.0	
Lane Grp Cap (vph)	256	4016	830	188	1888	
v/s Ratio Prot	0.08	c0.41			c0.41	
v/s Ratio Perm			0.02	c0.07		
v/c Ratio	0.57	0.52	0.03	0.55	0.69	
Uniform Delay, d1	59.6	6.3	12.0	61.6	20.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.1	0.1	0.1	2.0	2.1	
Delay (s)	62.6	6.5	12.0	63.7	22.2	
Level of Service	E	A	B	E	C	
Approach Delay (s)	62.6	6.5				
Approach LOS	E	A				
Intersection Summary						
HCM 2000 Control Delay		18.3		HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio		0.63				
Actuated Cycle Length (s)		148.0		Sum of lost time (s)	17.0	
Intersection Capacity Utilization		97.8%		ICU Level of Service	F	
Analysis Period (min)		15				
c Critical Lane Group						

Movement	EBT	WBT	NBR	SBR2	NER	NER2
Lane Configurations	↑	↑↑↑	↑	↑	↑↑	
Traffic Volume (vph)	134	1482	98	49	1555	82
Future Volume (vph)	134	1482	98	49	1555	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	12	12	14
Grade (%)	4%	-4%				
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.88	
Frpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Fr _t	1.00	1.00	0.86	0.86	1.00	
Fl _t Protected	1.00	1.00	1.00	1.00	1.00	
Satd. Flow (prot)	1844	5187	1367	1589	3245	
Fl _t Permitted	1.00	1.00	1.00	1.00	1.00	
Satd. Flow (perm)	1844	5187	1367	1589	3245	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	147	1629	108	54	1709	90
RTOR Reduction (vph)	0	0	40	49	24	0
Lane Group Flow (vph)	147	1629	68	5	1775	0
Confl. Peds. (#/hr)				1		21
Heavy Vehicles (%)	1%	2%	1%	2%	1%	1%
Parking (#/hr)			0			
Turn Type	NA	NA	Perm	Perm	Prot	
Protected Phases	1	1 2			2	
Permitted Phases			2	3		
Actuated Green, G (s)	20.6	118.8	93.2	13.2	93.2	
Effective Green, g (s)	20.6	118.8	93.2	13.2	93.2	
Actuated g/C Ratio	0.14	0.80	0.63	0.09	0.63	
Clearance Time (s)	5.0		5.0	5.0	5.0	
Vehicle Extension (s)	3.0		3.0	2.0	3.0	
Lane Grp Cap (vph)	256	4163	860	141	2043	
v/s Ratio Prot	c0.08	0.31			c0.55	
v/s Ratio Perm			0.05	c0.00		
v/c Ratio	0.57	0.39	0.08	0.03	0.87	
Uniform Delay, d1	59.6	4.2	10.7	61.6	22.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.1	0.1	0.2	0.0	5.3	
Delay (s)	62.7	4.3	10.9	61.6	27.7	
Level of Service	E	A	B	E	C	
Approach Delay (s)	62.7	4.3				
Approach LOS	E	A				
Intersection Summary						
HCM 2000 Control Delay		18.9		HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio		0.71				
Actuated Cycle Length (s)		148.0		Sum of lost time (s)	17.0	
Intersection Capacity Utilization		111.4%		ICU Level of Service	H	
Analysis Period (min)		15				
c Critical Lane Group						

Appendix D

Signal Inventory

Pedestrian Infrastructure Recommendations

# Location	Roads Intersecting	Jurisdiction	Ped Signal Type	Button	Button Type	Ped Cross walk type	Condition	Comments	Recommendation
1	Hoosick st	River St	City	Hand/Man w/timer	Y	Mech	Parallel	Faded	3 way not sure it has timer New ped signals (6) Restripe CW (3)
2	Hoosick st	6th Ave	City	No Signal	N	None	Parallel	Faded	4 way New ped signals (8) Restripe CW (4)
3	Hoosick st	8th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Good	Ped CW cross NB & SB lanes only Add new ped signals (2) & CW (1) for WB lane cross
4	Hoosick st	10th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way Restripe CW (4)
5	Hoosick st	13th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way Restripe CW (4)
6	Hoosick st	15th St	State	Hand/Man w/timer	Y	Latching	Ladder Bar	Faded	4 way Restripe CW (4)
7	Hutton St	15th St	City	No Signal	N	None	No CW path		New ped signals (8) New CW (4)
8	Jacob St	6th Ave	City	No Signal	N	None	Parallel	Faded	Ped CW cross NB & WB lanes only New ped signals (8) Restripe CW (2)
9	Hutton St	5th Ave	City	No Signal	N	None	Parallel	Good	Ped CW cross NB & WB lanes only New ped signals (8) New CW (2)
10	Hutton St	River St	City	Hand/Man w/timer	Y	Mech	Ladder Bar	Faded	4 way Restripe CW (4)
11	Jay St	6th Ave	City	No Signal	N	None	No CW path		



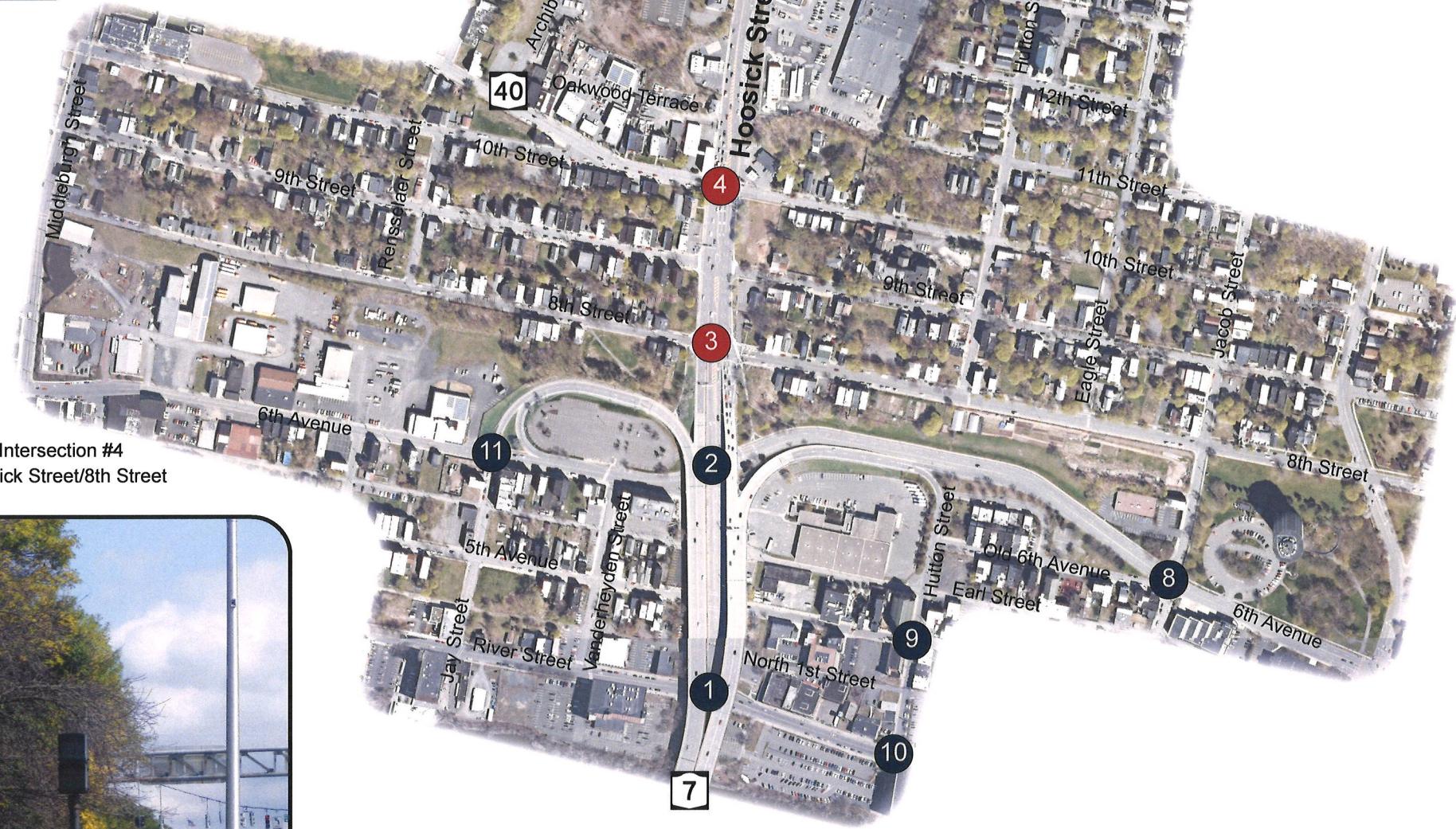
Intersection #1
Hoosick Street/River Street



Intersection #8
6th Avenue/Jacob Street



Intersection #4
Hoosick Street/8th Street



● City Signal

● NYSDOT Signal

0.05 0 0.05 0.1 0.15 0.2 Miles

Appendix E

Cost Estimates

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:
CURB BUMP OUTS ALONG 15TH STREET

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00	120	\$1,800
SIDEWALKS	SF	\$8.75	1600	\$14,000
GRANITE CURB	LF	\$35.00	300	\$10,500
LANDSCAPING (INCLUDING TOPSOIL, SEED AND TREES)	LS	\$2,000.00	1	\$2,000
SIGNING AND STRIPING	LS	\$2,000.00	1	\$2,000
DRAINAGE BASINS	EA	\$6,000.00	3	\$18,000
DRAINAGE PIPE	LF	\$60.00	70	\$4,200
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00	0.04	\$1,779
WORK ZONE TRAFFIC CONTROL	LS	8%	1	\$4,400
SURVEY AND STAKEOUT	LS	5%	1	\$2,800
MOBILIZATION	LS	4%	1	\$2,200
CONTINGENCY	LS	30%	1	\$16,300
CONSTRUCTION SUBTOTAL:				\$ 80,000
DESIGN ENGINEERING (10%)				\$ 8,000
CONSTRUCTION INSPECTION (20%)				\$ 16,000
ANTICIPATED ROW COST				\$ -
PROJECT TOTAL:				\$ 104,000

Assumptions

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:
RAISED MEDIAN ON HOOSICK STREET BETWEEN 6TH AVE AND 13TH STREET WITH BREAK AT 8TH STREET

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00	800	\$12,000
EMBANKMENT IN PLACE	CY	\$20.00	700	\$14,000
GRANITE CURB	LF	\$35.00	1850	\$64,750
LANDSCAPING (INCLUDING TOPSOIL AND SEED)	LS	\$10,000.00	1	\$10,000
SIGNING AND STRIPING	LS	\$50,000.00	1	\$50,000
BARRIER AND FENCE IN MEDIAN	LF	\$185.00	400	\$74,000
BARRIER END SECTIONS	EA	\$5,000.00	2	\$10,000
TRAFFIC SIGNALS MODIFICATIONS	EA	\$100,000.00	3	\$300,000
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00	0.23	\$10,000
WORK ZONE TRAFFIC CONTROL	LS	\$50,000.00	1	\$50,000
SURVEY AND STAKEOUT	LS	5%	1	\$27,300
MOBILIZATION	LS	4%	1	\$21,800
CONTINGENCY	LS	30%	1	\$163,500
CONSTRUCTION SUBTOTAL:				\$ 808,000
DESIGN ENGINEERING (10%)				\$ 80,800
CONSTRUCTION INSPECTION (20%)				\$ 161,600
ANTICIPATED ROW COST				\$ -
PROJECT TOTAL:				\$ 1,051,000

Assumptions

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:
PATH CONNECTION BETWEEN NORTH END OF 11TH STREET AND HUDSON RIVER COMMONS

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00	100	\$1,500
EMBANKMENT IN PLACE	CY	\$20.00	50	\$1,000
SIDEWALKS (CONCRETE FOR STAIRS)	SF	\$15.00	550	\$8,250
CLEARING AND GRUBBING	LS	\$5,000.00	1	\$5,000
HAND RAILINGS	LF	\$100.00	130	\$13,000
CHAIN LINK FENCING	LF	\$50.00	130	\$6,500
LANDSCAPING (INCLUDING TOPSOIL AND SEED)	LS	\$2,000.00	1	\$2,000
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00	0.03	\$1,377
EROSION CONTROL	LS	\$2,000.00	1	\$2,000
WORK ZONE TRAFFIC CONTROL	LS	8%	1	\$3,300
SURVEY AND STAKEOUT	LS	5%	1	\$2,100
MOBILIZATION	LS	4%	1	\$1,700
CONTINGENCY	LS	30%	1	\$12,200
CONSTRUCTION SUBTOTAL: \$				60,000
DESIGN ENGINEERING (10%) \$				6,000
CONSTRUCTION INSPECTION (20%) \$				12,000
ANTICIPATED ROW COST \$				-
PROJECT TOTAL: \$				78,000

Assumptions

ASSUMED EXTRA COST FOR SIDEWALKS SINCE MOST IF IT WOULD BE STAIRS

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:
PATH CONNECTION BETWEEN 8TH STREET TO SCHOOL 2

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00	500	\$7,500
EMBANKMENT IN PLACE	CY	\$20.00	200	\$4,000
SHARED USE PATH	SF	\$3.00	6000	\$18,000
SIDEWALKS	SF	\$8.75	400	\$3,500
GRANITE CURB	LF	\$35.00	80	\$2,800
CLEARING AND GRUBBING	LS	\$5,000.00	1	\$5,000
LANDSCAPING (INCLUDING TOPSOIL AND SEED)	LS	\$8,000.00	1	\$8,000
SIGNING AND STRIPING	LS	\$2,000.00	1	\$2,000
DRAINAGE BASINS	EA	\$6,000.00	10	\$60,000
DRAINAGE PIPE	LF	\$60.00	700	\$42,000
LIGHTING	LS	\$198,000.00	1	\$198,000
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00	0.40	\$20,000
EROSION CONTROL	LS	\$5,000.00	1	\$5,000
WORK ZONE TRAFFIC CONTROL	LS	8%	1	\$30,100
SURVEY AND STAKEOUT	LS	5%	1	\$18,800
MOBILIZATION	LS	4%	1	\$15,100
CONTINGENCY	LS	30%	1	\$112,800
CONSTRUCTION SUBTOTAL:				\$ 553,000

DESIGN ENGINEERING (10%)	\$ 55,300
CONSTRUCTION INSPECTION (20%)	\$ 110,600
ANTICIPATED ROW COST	\$ -

PROJECT TOTAL: \$ 719,000
Assumptions

ASSUMING 2 DRAINAGE BASINS AT EACH ROAD INTERSECTION, AND ONE
EVERY 250FT ALONG PATH ON EACH SIDE OF ROAD

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:
CURB BUMP OUTS ALONG 8TH STREET AND RAISED INTERSECTION AT 8TH STREET AND RENSSELAER STREET

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00	400	\$6,000
SIDEWALKS	SF	\$8.75	4400	\$38,500
GRANITE CURB	LF	\$35.00	850	\$29,750
SIGNING AND STRIPING	LS	\$5,100.00	1	\$5,100
DRAINAGE BASINS	EA	\$6,000.00	7	\$42,000
DRAINAGE PIPE	LF	\$60.00	140	\$8,400
HYDRANT RELOCATIONS	EA	\$5,000.00	1	\$5,000
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00	0.10	\$5,051
WORK ZONE TRAFFIC CONTROL	LS	8%	1	\$11,200
SURVEY AND STAKEOUT	LS	5%	1	\$7,000
MOBILIZATION	LS	4%	1	\$5,600
CONTINGENCY	LS	30%	1	\$42,000
CONSTRUCTION SUBTOTAL:				\$ 206,000
DESIGN ENGINEERING (10%)				\$ 20,600
CONSTRUCTION INSPECTION (20%)				\$ 41,200
ANTICIPATED ROW COST				\$ -
PROJECT TOTAL:				\$ 268,000

Assumptions

 ASSUMED DRAINAGE BASINS ALONG CURB LINES WITH BUMP OUTS WOULD NEED TO BE REPLACED
 ASSUMED HYDRANT RELOCATION AT ONE BUMP OUT

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:
NEW ROADWAY FOR PEDS AND VEHICLES CONNECTING 6TH AND 8TH STREET

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00	2000	\$30,000
EMBANKMENT IN PLACE (60wx400Lx15Hx 3 for embankment)/27	CY	\$20.00	40000	\$800,000
FULL DEPTH PAVEMENT AND SUBBASE	SF	\$8.00	17000	\$136,000
SIDEWALKS	SF	\$8.75	10000	\$87,500
GRANITE CURB	LF	\$35.00	920	\$32,200
CLEARING AND GRUBBING	LS	\$5,000.00	1	\$5,000
LANDSCAPING (INCLUDING TOPSOIL AND SEED)	LS	\$11,000.00	1	\$11,000
SIGNING AND STRIPING	LS	\$3,000.00	1	\$3,000
DRAINAGE BASINS	EA	\$6,000.00	8	\$48,000
DRAINAGE PIPE	LF	\$60.00	600	\$36,000
OVERHEAD UTILITY RELOCATIONS	EA	\$15,000.00	4	\$60,000
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00	0.60	\$30,073
EROSION CONTROL	LS	\$5,000.00	1	\$5,000
WORK ZONE TRAFFIC CONTROL	LS	8%	1	\$102,800
SURVEY AND STAKEOUT	LS	5%	1	\$64,200
MOBILIZATION	LS	4%	1	\$51,400
CONTINGENCY	LS	30%	1	\$385,200
CONSTRUCTION SUBTOTAL:				\$ 1,888,000

DESIGN ENGINEERING (10%)	\$ 188,800
CONSTRUCTION INSPECTION (20%)	\$ 377,600
ANTICIPATED ROW COST	\$ -

PROJECT TOTAL: \$ 2,455,000
Assumptions

NO GUIDERAIL MODIFICATIONS NEEDED

12 FT LANES, two 8 FT PARKING LANEs, ONE 4 FT SHOULDER

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:
COMPLETE STREETS ALONG 6TH AVENUE INCLUDING CONVERTING NB LANE TO TWO-WAY CYCLYE TRACK

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00	5000	\$75,000
EMBANKMENT IN PLACE	CY	\$20.00	3100	\$62,000
FULL DEPTH PAVEMENT AND SUBBASE	SF	\$8.00	10250	\$82,000
SIDEWALKS	SF	\$8.75	2600	\$22,750
GRANITE CURB	LF	\$35.00	3500	\$122,500
LANDSCAPING (INCLUDING TOPSOIL AND SEED)	LS	\$30,000.00	1	\$30,000
SIGNING AND STRIPING	LS	\$35,000.00	1	\$35,000
DRAINAGE BASINS	EA	\$6,000.00	5	\$30,000
DRAINAGE PIPE	LF	\$60.00	400	\$24,000
TRAFFIC SIGNAL MODIFICATIONS	LS	\$100,000.00	1	\$100,000
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00	0.33	\$16,357
EROSION CONTROL	LS	\$2,000.00	1	\$2,000
WORK ZONE TRAFFIC CONTROL	LS	8%	1	\$48,200
SURVEY AND STAKEOUT	LS	5%	1	\$30,100
MOBILIZATION	LS	4%	1	\$24,100
CONTINGENCY	LS	30%	1	\$180,500
CONSTRUCTION SUBTOTAL: \$				885,000
DESIGN ENGINEERING (10%) \$				88,500
CONSTRUCTION INSPECTION (20%) \$				177,000
ANTICIPATED ROW COST \$				-
PROJECT TOTAL: \$				1,151,000

Assumptions

FULL DEPTH PAVEMENT AREA ASSUMED TO BE FOR SHADED ARE AT INTERSECTION WITH JAY STREET (MAY NEED LESS IF ONLY WIDENING)
ASSUMED CURB LINE TO REMAIN ON WEST SIDE OF ROADWAY ON 6TH AVE
TRAFFIC SIGNAL MODIFICATION COSTS ASSUMED DUE TO ADDITION OF TURN AND BIKE LANE
ASSUMED 3FT EXCAVATION FOR CURBED MEDIAN ADJACENT TO PROPOSED 2 WAY BIKE LANE
ASSUEMD 2FT OF CONCRETE AREA FOR CURBED MEDIAN ON 6TH STREET FOR BIKE LANE
ASSUMED SOME DRAINAGE STRUCTRES AND LINES TO BE IMPACTED AND NEW DRAINAGE TO BE INSTALLED AT INTERSECTION WITH JAY

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:
PATH CONNECTION BETWEEN RIVER STREET AND 6TH STREET INCLUDING BOX OUT WIDENING AND RESURFACING

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00	2000	\$30,000
EMBANKMENT IN PLACE	CY	\$20.00	700	\$14,000
FULL DEPTH PAVEMENT AND SUBBASE	SF	\$8.00	9000	\$72,000
MILL AND FILL PAVEMENT	SF	\$3.00	23400	\$70,200
SHARED USE PATH	SF	\$3.00	9000	\$27,000
SIDEWALK	SF	\$8.75	11000	\$96,250
GRANITE CURB	LF	\$35.00	3600	\$126,000
CLEARING AND GRUBBING	LS	\$2,500.00	1	\$2,500
LANDSCAPING (INCLUDING TOPSOIL AND SEED)	LS	\$20,000.00	1	\$20,000
SIGNING AND STRIPING	LS	\$10,000.00	1	\$10,000
DRAINAGE BASINS	EA	\$6,000.00	12	\$72,000
DRAINAGE PIPE	LF	\$60.00	2100	\$126,000
SIGNALS	EA	\$150,000.00	2	\$300,000
OVERHEAD UTILITY RELOCATIONS	EA	\$15,000.00	6	\$90,000
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00	1	\$61,983
EROSION CONTROL	LS	\$5,000.00	1	\$5,000
WORK ZONE TRAFFIC CONTROL	LS	8%	1	\$89,900
SURVEY AND STAKEOUT	LS	5%	1	\$56,200
MOBILIZATION	LS	4%	1	\$45,000
CONTINGENCY	LS	30%	1	\$336,900
CONSTRUCTION SUBTOTAL:				\$ 1,651,000

DESIGN ENGINEERING (10%)	\$ 165,100
CONSTRUCTION INSPECTION (20%)	\$ 330,200
ANTICIPATED ROW COST	\$ -

PROJECT TOTAL: \$ 2,147,000
Assumptions

AVERAGED ROADWAY WIDTH AS 46FT, DESIGN WIDTH ASSUMED 56FT
ASSUMED TYPICAL SECTION WIDTHS IN WORK TAB

Hoosick Hillside Study
November 16, 2020
Description of Major Improvements:

New Construction XXX feet of roadway

Approximate ROW required:

ITEM DESCRIPTION	UNITS	SF	0.0000	Acres
UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$15.00		\$0
EMBANKMENT IN PLACE	CY	\$20.00		\$0
FULL DEPTH PAVEMENT AND SUBBASE	SF	\$8.00		\$0
MILL AND FILL PAVEMENT	SF	\$3.00		\$0
SIDEWALKS	SF	\$8.75		\$0
CONCRETE CURB	LF	\$30.00		\$0
GRANITE CURB	LF	\$35.00		\$0
CLEARING AND GRUBBING	LS	\$5,000.00		\$0
LANDSCAPING (INCLUDING TOPSOIL AND SEED)	LS	\$30,000.00		\$0
SIGNING AND STRIPING	LS	\$40,000.00		\$0
DRAINAGE BASINS	EA	\$6,000.00		\$0
DRAINAGE PIPE	LF	\$60.00		\$0
GUIDERAIL MODIFICATIONS	LS	\$15,000.00		\$0
TRAFFIC SIGNALS	LS	\$175,000.00		\$0
OVERHEAD UTILITY RELOCATIONS	EA	\$15,000.00		\$0
UNDERGROUND UTILITY RELOCATIONS	EA	\$25,000.00		\$0
STORMWATER MANAGEMENT (\$50,000 /acre)	AC	\$50,000.00		\$0
EROSION CONTROL	LS	\$40,000.00		\$0
WORK ZONE TRAFFIC CONTROL	LS	8%	1	\$0
SURVEY AND STAKEOUT	LS	5%	1	\$0
MOBILIZATION	LS	4%	1	\$0
CONTINGENCY	LS	20%	1	\$0

CONSTRUCTION SUBTOTAL: \$ -

DESIGN ENGINEERING (10%) \$ -

CONSTRUCTION INSPECTION (20%) \$ -

ANTICIPATED ROW COST \$ -

PROJECT TOTAL: \$ -

Assumptions

Collar City Bridge Park & Hoosick Street Shared-Use Path



Troy, New York

Date: 2020-09-08

Revision: _____

Estimated Construction Subtotal For All Projects (includes 20% contingency)	\$3,842,900.00
10% A/E Fees	\$384,300.00
GRAND TOTAL	\$4,227,200.00

Mixed-Use/Soccer Synthetic Turf Field

Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes	Rational
Pre-Construction Work							
Survey	1	Allowance	\$8,000.00	\$8,000.00		Survey (topo & bounds), layout	Based on past projects of similar size/location
Erosion and sediment control	1	Allowance	\$4,000.00	\$4,000.00		Silt fence or straw wattle, silt sacks in nearby catch basins	Means (2018) pg. 322, 31-25-14.16., 1000
Traffic ctrl & pedestrian safety	1	Allowance	\$15,000.00	\$15,000.00			
Permitting	1	Allowance	\$9,000.00	\$9,000.00	\$ 36,000.00	Anticipated	Based on past projects of similar size/location
General Site Preparation							
Selective removals	3259	SY	\$9.50	\$31,000.00		Hardscape, veg., and misc. features	Means (2018) pg. 27, 02-41-13.17, 5050
Grading rough	29333	SF	\$0.66	\$19,400.00		Slope grade	Means (2018) pg. 280, 31-22-13.20, 0140
Hauling	1000	LCY	\$10.55	\$10,600.00	\$61,000.00	Anticipated	Means (2018) pg. 299, 31-23-20, 0024
Synthetic Field							
Finished field	23857	SF	\$10.00	\$238,600.00		Includes base, drainage structures, layers, and synthetic turf	Based on past projects of similar size/location
Chain link fence 4-ft	332	LF	\$12.05	\$4,000.00		4-ft tall, 10-ft o.c., fence at east/west sides	Means (2018) pg. 273, 32-31-13.25, 0050
Chain link fence 10-ft	300	LF	\$38.50	\$11,600.00	\$254,200.00	10-ft tall, 10-ft o.c., fence at north/south sides	Means (2018) pg. 273, 32-31-13.26, 0900
Site Furnishings							
Information sign	1	EA	\$2,500.00	\$2,500.00		Post and panel (alum.) signage, 81x46, conc. Footings x2 posts	Means (2018) pg. 179, 10-14-26.10, 0150
Bench	4	EA	\$2,500.00	\$10,000.00			
Trash receptacle	1	EA	\$555.00	\$600.00	\$13,100.00	Alum. Frame, hardboard panel, steel drum base, 30 gal.	Means (2018) pg. 196, 12-93-23.10, 1020
Parking Lot Reconfiguration							
Curbing	440	LF	\$41.25	\$18,200.00			Means (2018) pg. 367, 32-16-13.43, 1100 & 1300 (avg.)
Asphalt patching	7178	SF	\$2.59	\$18,600.00			Means (2018) pg. 363, 32-12-16.14, 1120
Painted pavement markings	1000	LF	\$0.49	\$500.00	\$37,300.00		Means (2018) pg. 368, 32-17-23.13, 0200
8-Ft Walking/Running Perimeter Path							
Track perimeter	556	SY	\$67.00	\$37,300.00		Surface, latex rubber system, 1/2" thick, black	Means (2018) pg. 371, 32-18-23.33, 0020
Track base	185	CY	\$60.00	\$11,100.00	\$48,400.00	Underground base	Based on past projects of similar size/location
Utilities							
Stormwater piping connection	1	Allowance	\$50,000.00	\$50,000.00		Stormwater connection to City system	
Field Lighting	1	Allowance	\$100,000.00	\$100,000.00	\$150,000.00		
Mixed-Use/Soccer Synthetic Turf Field subtotal							
20% Contingency							
Mixed-Use/Soccer Synthetic Turf Field Grand Total							

Stadium/Bleacher Seating

Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes	Rational
Pre-Construction Work							
Survey	1	Allowance	\$1,500.00	\$1,500.00		Survey (topo & bounds), layout	Based on past projects of similar size/location
Erosion and sediment control	1	Allowance	\$1,000.00	\$1,000.00		Silt fence or straw wattle, silt sacks in nearby catch basins	Means (2018) pg. 322, 31-25-14.16., 1000
Traffic ctrl & pedestrian safety	1	Allowance	\$3,000.00	\$3,000.00			
Permitting	1	Allowance	\$5,000.00	\$5,000.00	\$ 10,500.00	Anticipated	Based on past projects of similar size/location
General Site Preparation							
Selective removals	191	SY	\$9.50	\$1,800.00		Hardscape, veg., and misc. features	Means (2018) pg. 27, 02-41-13.17, 5050
Grading rough	1721	SF	\$0.66	\$1,100.00		Slope grade	Means (2018) pg. 280, 31-22-13.20, 0140
Hauling	100	LCY	\$10.55	\$1,100.00	\$5,100.00	Anticipated	Means (2018) pg. 299, 31-23-20, 0024
Grading finished	1	Allowance	\$1,100.00	\$1,100.00		Anticipated	Based on past projects of similar size/location
Bleacher Seating Structure							
Granite seats	720	LF	\$55.00	\$39,600.00		Monolithic granite block seating 18"x18"x2"	
Subbase	50	CY	\$60.00	\$3,000.00		14" gravel	
Lighting	1	Allowance	\$9,300.00	\$9,300.00	\$56,900.00	15% of total	
Detailing	1	Allowance	\$5,000.00	\$5,000.00		Anticipated	Based on past projects of similar size/location
Stadium/Bleacher Seating subtotal							
20% Contingency							
Stadium/Bleacher Seating Grand Total							

River Overlook Plaza

Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes	Rational
Pre-Construction Work							
Survey	1	Allowance	\$3,000.00	\$3,000.00		Survey (topo & bounds), layout	Based on past projects of similar size/location
Erosion and sediment control	1	Allowance	\$5,000.00	\$5,000.00		12" straw wattle and silt fence	Means (2018) pg. 322, 31-25-14.16., 1000
Permitting	1	Allowance	\$4,000.00	\$4,000.00	\$ 12,000.00	Anticipated	Based on past projects of similar size/location
General Site Preparation							
Selective removals	338	SY	\$12.10	\$4,100.00		Hardscape, veg., and misc. features	Means (2018) pg. 28, 02-41-13.30, 4100
Grading rough	3040	SF	\$0.66	\$2,000.00		Slope grade	Means (2018) pg. 280, 31-22-13.20, 0140
Hauling	113	LCY	\$10.55	\$1,200.00	\$31,800.00	Anticipated	Means (2018) pg. 299, 31-23-20, 0024
Rip rap reinforced slope	338	SY	\$68.00	\$23,000.00		Machine placed for slope protection	Means (2018) pg. 329, 31-37-13, 0100
Grading finished	1	Allowance	\$1,500.00	\$1,500.00		Anticipated	Based on past projects of similar size/location
Structures							
Piers	10	CY	\$500.00	\$5,000.00		x15 24" concrete piers, 6" above grade & 48" below grade (54" total)	
Steel framing	65	TON	\$1,100.00	\$71,500.00		3040 SF with structural steel frame	https://archinect.com/
Trex decking	3040	SF	\$10.31	\$31,400.00	\$116,700.00	Durable all-weather decking surface	homeguide.com plus 25% for labor and O&P
Handrail	8	TON	\$1,100.00	\$8,800.00		Extension of steel frame plus top rail and cables on turnbuckles	PA Assumption
Site Furnishings & Lighting							
Information sign	1	EA	\$2,500.00	\$2,500.00		Post and panel (alum.) signage, 81x46, conc. Footings x2 posts	Means (2018) pg. 179, 10-14-26.10, 0150
Picnic table	6	EA	\$2,500.00	\$15,000.00		PA Assumption	
Trash receptacle	1	EA	\$555.00	\$600.00	\$45,000.00	Alum. Frame, hardboard panel, steel drum base, 30 gal.	Means (2018) pg. 196, 12-93-23.10, 1020
Exterior lighting							

Stairs	222	LF	\$100.00	\$22,200.00		Concrete monolithic stairs	
Rails and durable edging	708	LF	\$3.50	\$2,500.00		Steel edging for grinding	
\$323,500.00							
Landscape							
Grass	1007	SF	\$0.20	\$200.00		Grass seed	
Low grow prostrate beds	1650	EA	\$12.00	\$19,800.00		5788 SF with perennials planted 22" o.c.	
Trees	2	EA	\$400.00	\$800.00			
Loam	83	CY	\$55.00	\$4,600.00		loam soil (4 inches depth)	
Sign (rules)	1	EA	\$2,500.00	\$2,500.00			Means (2018) pg. 179, 10-14-26.10, 0150
				\$27,900.00			
Site Furnishings							
Picnic tables	2	EA	\$2,500.00	\$5,000.00			
Bench	4	EA	\$2,500.00	\$10,000.00			
Trash receptacle	1	EA	\$555.00	\$600.00		Alum. Frame, hardboard panel, steel drum base, 30 gal.	Means (2018) pg. 196, 12-93-23.10, 1020
				\$15,600.00			
Utilities							
Stormwater structures	2	EA	\$12,000.00	\$24,000.00			
Stormwater piping connection	300	LF	\$30.00	\$9,000.00		12" HDPE	Means (2018) pg. 489, 33-42-11.50, 1020
Lighting	1	Allowance	\$37,600.00	\$37,600.00			
				\$70,600.00			
Skate Park subtotal						\$514,500.00	
20% Contingency						\$102,900.00	
Skate Park Grand Total						\$617,400.00	

Landmark Structures with CDTA Bus Shelters							
Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes	Rational
Pre-Construction Work							
Survey	1	Allowance	\$5,000.00	\$5,000.00		Survey (topo & bounds), layout	Based on past projects of similar size/location
Erosion and sediment control	1	Allowance	\$1,000.00	\$1,000.00		Silt fence or straw wattle, silt sacks in nearby catch basins	Means (2018) pg. 322, 31-25-14.16., 1000
Traffic ctrl & pedestrian safety	1	Allowance	\$15,000.00	\$15,000.00			
Permitting	1	Allowance	\$5,000.00	\$5,000.00		Anticipated	Based on past projects of similar size/location
				\$ 26,000.00			
General Site Preparation (3 locations)							
Selective removals	779	SY	\$9.50	\$7,400.00		Hardscape, veg., and misc. features	Means (2018) pg. 27, 02-41-13.17, 5050
Grading rough	7010	SF	\$0.66	\$4,600.00			Means (2018) pg. 280, 31-22-13.20, 0140
Hauling	400	LCY	\$10.55	\$4,200.00		Anticipated	Means (2018) pg. 299, 31-23-20, 0024
Grading finished	1	Allowance	\$3,000.00	\$3,000.00		Anticipated	Based on past projects of similar size/location
				\$19,200.00			
Structure (3 locations)							
Foundation piers	23	CY	\$500.00	\$11,500.00		24 2-ft dia. Reinf. Conc. Piers 50-in tall (26 CF ea., 624 CF total)	Means (2018) pg. 27, 02-41-13.17, 5050
Steel framing	58	TON	\$1,100.00	\$63,800.00			
Roofing	2000	SF	\$12.00	\$24,000.00		Anticipated	
Detailing	1	Allowance	\$80,000.00	\$80,000.00		Anticipated	
Interior lighting	1	Allowance	\$30,900.00	\$30,900.00			
				\$210,200.00			
Site Furnishings							
Bench	8	EA	\$2,500.00	\$20,000.00			
Trash receptacle	3	EA	\$555.00	\$1,700.00		Alum. Frame, hardboard panel, steel drum base, 30 gal.	Means (2018) pg. 196, 12-93-23.10, 1020
				\$52,600.00			
Utilities (3 locations)							
Stormwater structures	3	EA	\$12,000.00	\$36,000.00			
Stormwater piping connection	300	LF	\$30.00	\$9,000.00		12" HDPE	Means (2018) pg. 489, 33-42-11.50, 1020
Exterior Lighting	1	Allowance	\$40,700.00	\$40,700.00			
				\$85,700.00			
Landmark Structures with CDTA Bus Shelters subtotal						\$393,700.00	
20% Contingency						\$78,700.00	
Landmark Structures with CDTA Bus Shelters Grand Total						\$472,400.00	

Public Parking (4 areas)							
Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes	Rational
Pre-Construction Work							
Survey	1	Allowance	\$8,000.00	\$8,000.00		Survey (topo & bounds), layout	Based on past projects of similar size/location
Erosion and sediment control	1	Allowance	\$3,000.00	\$3,000.00		Silt fence or straw wattle, silt sacks in nearby catch basins	Means (2018) pg. 322, 31-25-14.16., 1000
Traffic ctrl & pedestrian safety	1	Allowance	\$15,000.00	\$15,000.00			
Permitting	1	Allowance	\$5,000.00	\$5,000.00		Anticipated	Based on past projects of similar size/location
				\$ 31,000.00			
General Site Preparation							
Selective removals	2470	SY	\$9.50	\$23,500.00		Hardscape, veg., and misc. features	Means (2018) pg. 27, 02-41-13.17, 5050
Grading rough	22229	SF	\$0.66	\$14,700.00		Slope grade	Means (2018) pg. 280, 31-22-13.20, 0140
Hauling	800	LCY	\$10.55	\$8,400.00		Anticipated	Means (2018) pg. 299, 31-23-20, 0024
Grading finished	1	Allowance	\$6,000.00	\$6,000.00		Anticipated	Based on past projects of similar size/location
				\$52,600.00			
Parking Lot Construction							
Base	988	CY	\$60.00	\$59,300.00		Compacted gravel 12" depth + 20% compaction	
Curbing	1245	LF	\$41.25	\$51,400.00			Means (2018) pg. 367, 32-16-13.43, 1100 & 1300 (avg.)
Asphalt	550	TON	\$118.00	\$64,900.00		22229 sf/9/18x4 bit asphalt is 548 tons	
Painted pavement markings	1200	LF	\$0.49	\$600.00			Means (2018) pg. 368, 32-17-23.13, 0200
				\$176,200.00			
Utilities							
Stormwater structures	4	EA	\$12,000.00	\$48,000.00			
Stormwater piping connection	300	LF	\$30.00	\$9,000.00		12" HDPE	Means (2018) pg. 489, 33-42-11.50, 1020
Lighting	4	Allowance	\$68,700.00	\$274,800.00			
				\$331,800.00			
Public Parking (4 areas) subtotal						\$591,600.00	
20% Contingency						\$118,300.00	
Public Parking (4 areas) Grand Total						\$709,900.00	

Rock Climbing Structures							
Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes	Rational
Pre-Construction Work							
Survey	1	Allowance	\$3,000.00	\$3,000.00		Survey (topo & bounds), layout	Based on past projects of similar size/location
Erosion and sediment control	1	Allowance	\$1,000.00	\$1,000.00		Silt fence or straw wattle, silt sacks in nearby catch basins	Means (2018) pg. 322, 31-25-14.16., 1000</

\$ 24,000.00						
General Site Preparation						
Selective removals	608	SY	\$9.50	\$5,800.00		Hardscape, veg., and misc. features
Grading rough	5469	SF	\$0.66	\$3,600.00		Slope grade
Hauling	100	LCY	\$10.55	\$1,100.00		Anticipated
Grading finished	1	Allowance	\$1,100.00	\$1,100.00		Anticipated
					\$11,600.00	Based on past projects of similar size/location
Surfacing						
Rubber surfacing	608	SY	\$78.00	\$47,400.00		Surface, latex rubber system, 1/2" thick, yellow
Subbase	243	CY	\$60.00	\$14,600.00		Compacted gravel 12" depth + 20% compaction
					\$62,000.00	Means (2018) pg. 371, 32-18-23.33, 0020
Sports equipment, fencing, and amenities						
Workout equipment	12	EA	\$3,000.00	\$36,000.00		
Benches	4	EA	\$1,500.00	\$6,000.00		
Picnic tables	3	EA	\$2,500.00	\$7,500.00		
Trash receptacle	1	EA	\$555.00	\$600.00		Alum. Frame, hardboard panel, steel drum base, 30 gal.
					\$50,100.00	Means (2018) pg. 196, 12-93-23.10, 1020
Utilities						
Stormwater structures	1	EA	\$12,000.00	\$12,000.00		
Stormwater piping connection	200	LF	\$30.00	\$6,000.00		
Lighting	1	Allowance	\$21,000.00	\$21,000.00		
					\$39,000.00	Means (2018) pg. 489, 33-42-11.50, 1020
Outdoor Workout Area subtotal					\$186,700.00	
20% Contingency					\$37,300.00	
Outdoor Workout Area Grand Total					\$224,000.00	
Full & Half Basketball Courts						
Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes
Pre-Construction Work						
Survey	1	Allowance	\$3,000.00	\$3,000.00		Survey (topo & bounds), layout
Erosion and sediment control	1	Allowance	\$1,000.00	\$1,000.00		Silt fence or straw wattle, silt sacks in nearby catch basins
Traffic ctrl & pedestrian safety	1	Allowance	\$15,000.00	\$15,000.00		
Permitting	1	Allowance	\$5,000.00	\$5,000.00		Anticipated
					\$ 24,000.00	Based on past projects of similar size/location
General Site Preparation						
Selective removals	1088	SY	\$9.50	\$10,300.00		Hardscape, veg., and misc. features
Grading rough	9790	SF	\$0.66	\$6,500.00		Slope grade
Hauling	100	LCY	\$10.55	\$1,100.00		Anticipated
Grading finished	1	Allowance	\$2,000.00	\$2,000.00		Anticipated
					\$19,900.00	Based on past projects of similar size/location
Courts						
Basketball court surfacing	500	SY	\$20.00	\$10,000.00		Durable thick slip resistant sealant
Basketball court asphalt	100	TON	\$118.00	\$11,800.00		4336 sf/9/18x4 bit asphalt is 100 tons
Surrounding hardscape	4336	SF	\$8.50	\$36,900.00		Brushed concrete 4" depth
Subbase	435	CY	\$60.00	\$26,100.00		Compacted gravel 12" depth + 20% compaction
Basketball hoops	4	EA	\$4,000.00	\$16,000.00		In ground basket ball post, backboard, hoop/net set
Basketball fencing	323	LF	\$38.50	\$12,400.00		10-ft chain link fence perimeter
Fence transcom	4	EA	\$590.00	\$2,400.00		4-ft opening
					\$115,600.00	Means (2018) pg. 273, 32-31-13.26, 0900 Means (2018) pg. 371, 32-31-13.10, 4754
Site Furnishings						
Bench	6	EA	\$2,500.00	\$15,000.00		
Trash receptacle	2	EA	\$555.00	\$1,100.00		Alum. Frame, hardboard panel, steel drum base, 30 gal.
					\$16,100.00	Means (2018) pg. 196, 12-93-23.10, 1020
Utilities						
Stormwater structures	1	EA	\$12,000.00	\$12,000.00		
Stormwater piping connection	200	LF	\$30.00	\$6,000.00		
Lighting	1	Allowance	\$28,000.00	\$28,000.00		
					\$46,000.00	Means (2018) pg. 489, 33-42-11.50, 1020
Outdoor Workout Area subtotal					\$221,600.00	
20% Contingency					\$44,300.00	
Outdoor Workout Area Grand Total					\$265,900.00	
Futsal Hard Court						
Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes
General Site Preparation						
Selective removals	191	SY	\$9.50	\$1,800.00		Hardscape, veg., and misc. features
Grading rough	1721	SF	\$0.66	\$1,100.00		Slope grade
Hauling	100	LCY	\$10.55	\$1,100.00		Anticipated
Grading finished	1	Allowance	\$1,100.00	\$1,100.00		Anticipated
					\$5,100.00	Based on past projects of similar size/location
Court						
Subbase	299	CY	\$60.00	\$17,900.00		12" gravel base + 20% compaction
Under court asphalt	200	TON	\$118.00	\$23,600.00		3" asphalt below court
Futsal court surfacing	700	SY	\$20.00	\$14,000.00		
Futsal goals	2	EA	\$4,000.00	\$8,000.00		
Chain link fence 4-ft	343	LF	\$12.05	\$4,100.00		4-ft tall chain link fence
Surrounding concrete	2488	SF	\$8.50	\$21,100.00		4" brushed concrete
Concrete subbase	111	CY	\$60.00	\$6,700.00		12" gravel base + 20% compaction
Bleachers	2	EA	\$5,000.00	\$10,000.00		21-ft L 42 seat aluminum bleachers, see Belson Outdoors BLU-114
					\$105,400.00	
Utilities						
Stormwater structures	1	EA	\$12,000.00	\$12,000.00		
Stormwater piping connection	200	LF	\$30.00	\$6,000.00		
Lighting	1	Allowance	\$28,000.00	\$28,000.00		
					\$46,000.00	Means (2018) pg. 489, 33-42-11.50, 1020
Futsal Hard Court subtotal					\$156,500.00	
20% Contingency					\$31,300.00	
Futsal Hard Court Grand Total					\$187,800.00	
Park Connector Path to 8th Street						
Item	Quantity	Unit	Unit Cost	Subtotal	Total	Notes
General Site Preparation						
Selective removals	1148	SY	\$9.50	\$10,900.00		Hardscape, veg., and misc. features
Grading rough	10328	SF	\$0.66	\$6,800.00		Slope grade
Hauling	200	LCY	\$10.55	\$2,100.00		Anticipated
Grading finished	1	Allowance	\$4,000.00	\$4,000.00		Anticipated
					\$23,800.00	Based on past projects of similar size/location
Concrete Path						
Subbase	49	CY	\$60.00	\$2,900.00		8" subbase gravel
Concrete	2030	SF	\$8.50	\$17,300.00		4" concrete
					\$20,200.00	
Landscape						
Grass	8299	SF	\$0.20	\$1,700.00		8" subbase gravel
Trees	4	EA	\$400.00	\$1,600.00		4" concrete
					\$3,300.00	
Utilities						
Lighting	1	Allowance	\$7,500.00	\$7,500.00		
					\$7,500.00	
Park Connector Path to 8th Street subtotal					\$54,800.00	
20% Contingency					\$11,000.00	
Park Connector Path to 8th Street Grand Total					\$65,800.00	

Riverwalk Connection

*Does not include future Riverwalk Connection

10-Ft Mixed Use Path with Plaza

*Does not include future 10-ft Mixed Use Path

On-Street Parking

*Does not include On-Street Parking

Vegetated Gateway Island

*Does not include Vegetated Gateway Island

Enhanced Connection Between 6th Avenue & 8th Street

*Does not include Enhanced Connection Between 6th Ave. and 8th St.

Proposed Complete Streets Improvements

*Does not include Complete Streets Improvements