

53 Regional Drive  
Concord, NH 03313



**McFARLAND JOHNSON**

Established 1946

Tel: (603) 225-2978  
Fax: (603) 225-0095

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## MEETING NOTES

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**PROJECT:** NASHUA, NH – EAST HOLLIS STREET AND BRIDGE STREET INTERSECTION IMPROVEMENTS (NHDOT PROJECT NO. 16314) (MJ Project No: 18315.00) **DATE OF MEETING:** August 15, 2018

**LOCATION:** Norman Crisp Elementary School, Nashua, NH **TIME:** 6:00 PM – 8:00 PM

**SUBJECT:** Nashua Gateway Options Workshop

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### ATTENDED BY:

CITY of NASHUA:	S. Marchant	Director Community Development
	J. Chizmas	Transportation Planner
	T. Cummings	Director of Economic Development

MJ:	B. Colburn
	B. Patinskas
	J. Santacruce

CRJA:	J. Law
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Residents:	See attached sign in sheet
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### PURPOSE:

The purpose of this meeting was to present and receive feedback from the public on the three alternatives for the East Hollis Street and Bridge Street intersection project.

### PROJECT DISCUSSION:

B. Colburn began the meeting by giving an overview of the project. This project will only include East Hollis Street and Bridge Street from C Street to the west abutment of the bridges over the Merrimack River. Since the last public meeting, the steering committee has met multiple times to further develop the alternatives. The steering committee will meet again in a couple of weeks to make a recommendation for a preferred alternative based on feedback from the public. The goals of this project are to address all modes of transportation (pedestrians, bicycles, and vehicles), not make traffic worse, only focus on traffic at this intersection, and build on previous planning studies. This project will not improve the regional traffic.

This LPA project is currently in the engineering study phase. Preliminary design and final design will be next, followed by construction. The funding for this project will be 80% by NHDOT and 20% locally through turnpike toll credits.

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PLANNING, ENGINEERING AND CONSTRUCTION ADMINISTRATION CONSULTANTS

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One of the first goals of the steering committee was to develop a purpose and need statement. The purpose of this project is to improve mobility of all users, improve access, facilitate land use, not adversely impact traffic, and to provide aesthetically pleasing neighborhood amenities. The needs are daily traffic congestion, lack of bicycle and pedestrian accommodations, merging vehicles creates safety concerns, limited access to Crown Street and the new development, and it is not a welcoming gateway into Nashua. This statement was used to create the three alternatives being presented at this meeting.

The three alternatives chosen include traffic signals. Roundabouts were looked at, but it was determined that they would not function well for this intersection. The traffic volumes were too high on certain movements that caused vehicles to have difficulty entering the roundabout. This led to significantly longer queue lengths than what are out there today.

The traffic model created for the three alternatives used a design year of 2039. This assumed a traffic growth of 1% per year over what it is today. Existing traffic numbers come from traffic counts done at the site this year and numbers from the Nashua Regional Planning Commission. The traffic model does take the backup from Hudson into account.

An evaluation matrix has been created and filled in for the existing intersection and for the three alternatives (see attached document). This matrix is color coded to show the pros and cons of each alternative. The criteria being rated include mobility, vehicle access, land use, traffic operations, aesthetics, potential neighborhood amenities, and cost.

#### **ALTERNATIVE 1 (see attached for Alternatives 1-3)**

This alternative is the same design as the existing layout. Traffic will remain the same as it is today as geometric changes will be minimal. The merge from Hudson on to East Hollis Street will be moved closer to the signal. Sidewalks and bike lanes will be added on to what is existing in the area. Rapid Rectangular Flashing Beacons will be provided to make pedestrian crossings safer. These are similar to what is located at the East Hollis Street and C Street intersection. Under this alternative, the signal at D Street will need to be made permanent. This may be a benefit to some people and a negative impact for others. It will make turning onto Bridge Street easier for residents on D Street, but it will also cause more cut through traffic. This design is set up so that a future connection to Crown Street can be made with a right in/right out intersection on East Hollis Street.

The main attributes of the landscaping design include potential space for a dog park, garden, and community park. The garden and park could be located on the western side of the intersection while the dog park and access to the river could be located on the eastern side of the intersection. The parks, however, will not be funded by this project. The City of Nashua will have to pay for those extras. The project will pay for street trees, walkways, and lighting. The full build out for this landscape will cost the city \$620,000.

#### **ALTERNATIVE 2**

This alternative consists of a series of three signals controlling traffic around a one-way block. There is a possibility to introduce a fourth signal in the future to accommodate access to Crown Street. The main benefit of this option is that it provides full access to all of the properties in the area. Sidewalks and bike lanes are also shown throughout this alternative. Two different Rapid Rectangular Flashing Beacons will be needed for pedestrians to cross the street. The main drawback of this alternative has to do with traffic. This intersection layout will make delays worse for some movements due to the additional signals, but also make some movements better. The queue lengths will generally remain the same as they are for alternative 1.

Another drawback of this intersection design is the cost. Due to the number of signals, the cost of this alternative is high. This leaves very little money for landscaping. The city will have to pay to include pedestrian access to the river and street trees. Street trees are important as they have been shown to hold

drainage, increase property values, and slow traffic. The full build out of this alternative could include a dog park, community garden, children's playground and toddler playground.

### ALTERNATIVE 3

This alternative will utilize two signals and provide access to all properties. No new signals would be needed to provide access for a future road to Crown Street. Wait times for some traffic will increase due to the additional signal and signal phases, but also decrease for some traffic. The queue lengths will generally remain similar to alternative 1. Sidewalks and bike lanes have been added to all areas of the intersection to provide better access. One of the main drawbacks of this alternative is that pedestrians will have to cross five lanes of traffic at a time in some locations.

This alternative creates two large areas of greenspace. This project could cover the costs for street trees and a walkway to the river. The full build out of this alternative could include a dog park, community garden, children's playground and toddler playground. These could all be located on the same side of the intersection or spread out across the two. This could be a benefit as it could minimize the amount of traffic crossings for children to get to the playground. The city would be responsible for \$750,000 to complete the full build.

### PUBLIC FEEDBACK:

- Alternative 1
  - Positives
    - Traffic will remain the same as it is for the existing intersection.
    - The impacts from construction will be less than in the other two alternatives since the footprint will be the same for the road.
  - Negatives
    - D Street will continue to see cut-through traffic.
    - There is a lack of lighting shown.
- Alternative 2
  - Positives
    - None mentioned.
  - Negatives
    - There will be three signals needed for this alternative.
    - There will be more delay for vehicles coming from Hudson to Bridge Street and from East Hollis Street to Hudson.
    - There is a lack of lighting shown.
- Alternative 3
  - Positives
    - The amount of greenspace has been maximized.
    - The layout is somewhat similar to the existing intersection. This may minimize confusion when driving it.
  - Negatives
    - There will be more delay for vehicles coming from Hudson to Bridge Street and from East Hollis Street to Hudson.
    - There is a lack of lighting shown.
- Polling Results
  - People were split on the likelihood of walking or biking through the project area.
  - The best location for greenspace is next to the river.
  - A path to the river is important for the majority.
  - Votes were split between the use of contemporary lights and benches.
  - Trees are the most preferred gateway style.
  - A playground and community garden are the most important neighborhood amenities.

- The opinions were split on whether the traffic signal at D Street should remain.
- The majority attending the meeting are from Nashua.

**ACTION ITEMS:**

- MJ to investigate the existing parking on East Hollis Street and check what can be included in the alternatives.

Submitted by:

Brian E. Patinskas, PE  
McFarland Johnson, Inc.

cc: Attendees



# East Hollis Street and Bridge Street Intersection Improvement Project

Nashua Gateway Options Workshop  
August 15, 2018

## SIGN IN SHEET

Name	Address	E-Mail
JOEL BERKINMAN	13 WOODCREST DR.	JTB@MCCOMCAST.NET
DANIEL CINQUEAS	PO BOX 1153 Merrimack	—
Thomas W Levesque Sr	144. E Hollis St	CLIP 339 MSN.COM
Candette Duracher	158 Chas. Bancroft Hwy	
<del>Angela Rucker</del>	Witchfield, NH 03052	
Angela Rucker	156 E. Hollis Street Aptone	Angi11@yahoo.com
Glenn G. Levesque	135. Hollis St.	
Glenn Harrington	38 1/2 Bridge St	nashuafarmers@ myfairpoint.net
Dr. Cary SHAFER	154 E Hollis / 18-20" 0" St	
PETER SHAFER	15 E STREET	HPS55@COMCAST.NET
Mary Beth Restivo	51 G. Hollis St	mbrestivo@gmail.com
Carol + Kristy Spencer	423 Leonard St	carl@KHSeakes.com
Shauna P. Boy		shauna@riverfrontlandry.com
Caroline Lally	152 East Hollis St. Apt. 1	lallycjl1966@gmail.com
ELVIS DILLON	TOWN OFF HOLLIS ST	edh1m9@hudsonnh.gov
Quinn Clark	8 Hobbs Ave	

Nashua Gateway Options Workshop  
August 15, 2018

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# East Hollis Street and Bridge Street Intersection Improvement Project

# Nashua Gateway Options Workshop

August 15, 2018

# SIGN IN SHEET

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**EAST HOLLIS STREET & BRIDGE STREET INTERSECTION IMPROVEMENT PROJECT  
EVALUATION MATRIX – 8/15/18**

MOBILITY	CRITERIA	NO BUILD (DO NOTHING)		ALTERNATIVE 1		ALTERNATIVE 2		ALTERNATIVE 3	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
VEHICLE ACCESS	Bicycle Accommodations		None		5 FT Bicycle Lanes		5 FT Bicycle Lanes		5 FT Bicycle Lanes
	Pedestrian Accommodations		Limited		5 FT Sidewalks		5 FT Sidewalks		5 FT Sidewalks
	Connection to the River		None		Yes		Yes		Yes
LAND USE	Riverfront Landing		Right In/Right-Out at Bancroft St. Maintain Signal at D St.		Right In/Right-Out at Bancroft St. Maintain Signal at D St.		Full Access at Bancroft St. Signal at D St. Removed		Full Access at Bancroft St. Signal at D St. Removed
	Crown Street Area		Signals at Alds St. & Arlington St.		Right In/Right Out w/ New Future Road Signals at Alds St. & Arlington St.		Full Access with New Future Roadway		Full Access with New Future Roadway
	Emergency Vehicle Access		Uses Side Streets		Use Side Streets		Ability to Use New Intersections		Ability to Use New Intersections
TRAFFIC OPERATIONS LEVEL OF SERVICE (A – F)	Bridge Street to East Hollis Street		Neighborhood Streets		Neighborhood Streets		Through Main Intersection		Through Main Intersection
			Limited Future Potential		Limited Future Potential		Increased Future Potential		Increased Future Potential
	2039 Traffic Volumes								
AESTHETICS	East Hollis St. to Hudson	A	B	A	B	B/B	D/E	D	F
	Bridge St. to Hudson	D	F	D	F	D/A/B	D/E	C/C	D/F
	Hudson to Bridge St.	A	A	A	A	B/A	A/A	B	B
POTENTIAL NEIGHBORHOOD AMENITIES	Hudson to East Hollis St.	C	D	C	D	B/A	A/C	D/A	D/A
	Crown St. Access	-	-	F	F	D	F	D	F
	Riverfront Landing Driveway	D	F	D	F	A	B	D	D
COST	Reduces Neighborhood Street Traffic	No Change	No Change	No Change	No Change	Reduces Traffic on D St.	Reduces Traffic on D St.	Reduces Traffic on D St.	Reduces Traffic on D St.
	Gateway Views	Poor	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
	Greenspace	Underutilized	Underutilized	0.8 Acres Adjacent to E St. 0.8 Acres Surrounded by Roadways 1.0 Acres Adjacent to River	0.3 Acres Adjacent to E St. 0.7 Acres Surrounded by Roadways 1.2 Acres Adjacent to River	0.3 Acres Adjacent to E St. 0.7 Acres Surrounded by Roadways 1.2 Acres Adjacent to River	1.0 Acres Adjacent to E St. 1.3 Acres Adjacent to River	1.0 Acres Adjacent to E St. 1.3 Acres Adjacent to River	1.0 Acres Adjacent to E St. 1.3 Acres Adjacent to River
POTENTIAL NEIGHBORHOOD AMENITIES	Street Tree Plantings	None	None	152 Deciduous, 50 Flowering	132 Deciduous, 30 Flowering	132 Deciduous, 30 Flowering	140 Deciduous, 33 Flowering	140 Deciduous, 33 Flowering	140 Deciduous, 33 Flowering
	Site Amenities	None	None	10 Benches, 3 Trash Receptacles, Flag Pole, Gateway Element	13 Benches, 3 Trash Receptacles, Flag Pole, Gateway Element	13 Benches, 3 Trash Receptacles, Flag Pole, Gateway Element	9 Benches, 3 Trash Receptacles, Flag Pole, Gateway Element	9 Benches, 3 Trash Receptacles, Flag Pole, Gateway Element	9 Benches, 3 Trash Receptacles, Flag Pole, Gateway Element
	Street and Pedestrian Lighting	Traditional	Traditional	47 Pedestrian Lights	46 Pedestrian Lights	46 Pedestrian Lights	54 Pedestrian Lights	54 Pedestrian Lights	54 Pedestrian Lights
POTENTIAL NEIGHBORHOOD AMENITIES	Community Garden	-	-	Located on E St. for Best Connection to the Surrounding Neighborhood	Located on E St. for Best Connection to the Surrounding Neighborhood	Located on E St. for Best Connection to the Surrounding Neighborhood	Located on E St. for Best Connection to the Surrounding Neighborhood	Located on E St. for Best Connection to the Surrounding Neighborhood	Located on E St. for Best Connection to the Surrounding Neighborhood
	Dog Park	-	-	Located Adjacent to the River	Located Adjacent to the River	Located Adjacent to the River	Located Adjacent to the River	Located Adjacent to the River	Located Adjacent to the River
	Children's Playground	-	-	Located on E St. for Best Connection to the Surrounding Neighborhood. No Separate Toddler Lot.	Located on E St. for Best Connection to the Surrounding Neighborhood. No Separate Toddler Lot.	Located on E St. for Best Connection to the Surrounding Neighborhood. No Separate Toddler Lot.	Located on E St. for Best Connection to the Surrounding Neighborhood. No Separate Toddler Lot.	Located on E St. for Best Connection to the Surrounding Neighborhood. No Separate Toddler Lot.	Located on E St. for Best Connection to the Surrounding Neighborhood. No Separate Toddler Lot.
COST	(In New Green Space) (Not Included in Project Cost)			~ \$2.3 Million	~ \$2.7 Million	~ \$2.7 Million	~ \$2.7 Million	~ \$2.7 Million	~ \$2.7 Million

**Key**

Lowest Negative Value Rating
  Slight Negative Value Rating
  Neutral Value Rating
  Slight Positive Value Rating
  Highest Positive Value Rating

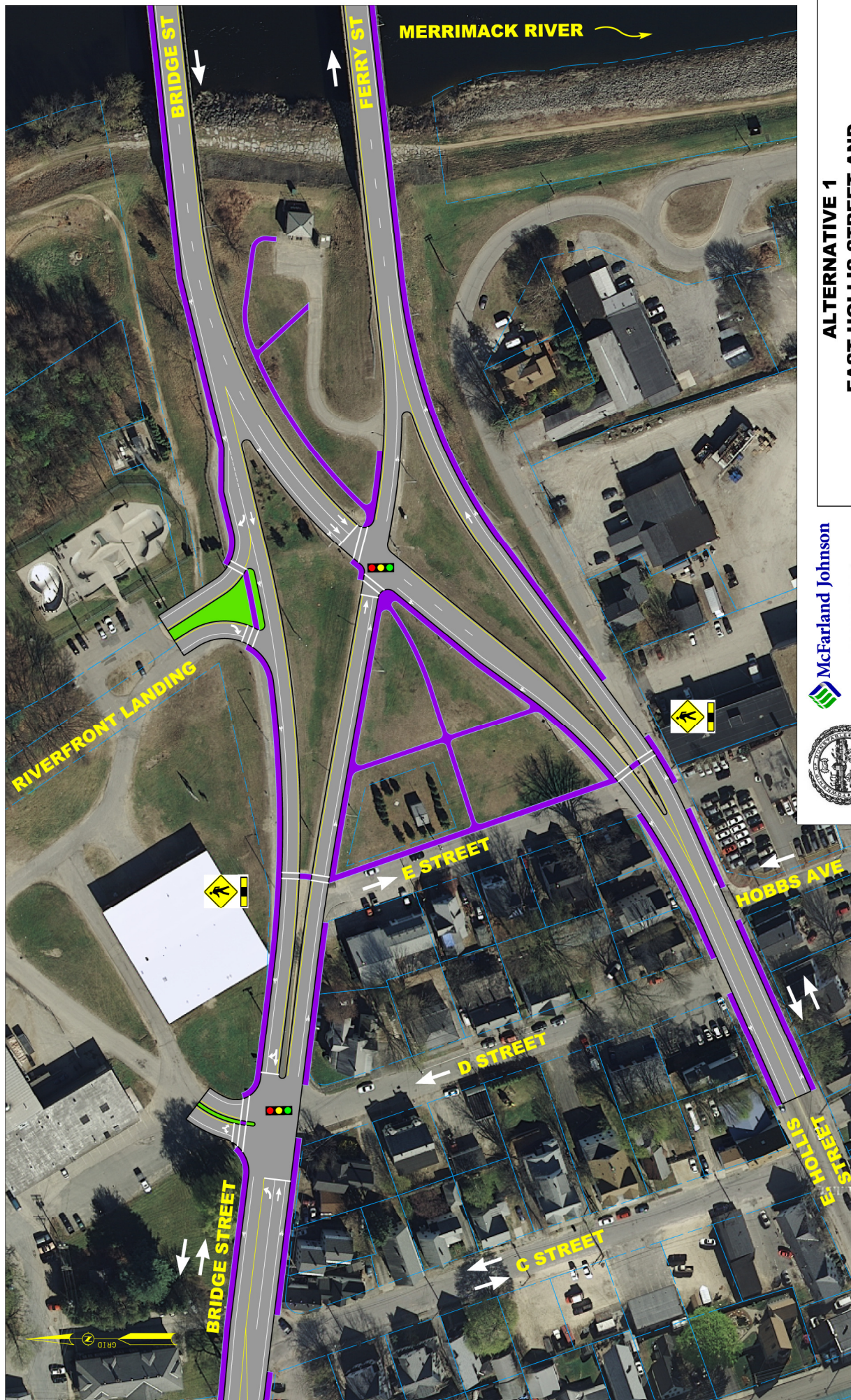


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**ALTERNATIVE 1  
EAST HOLLIS STREET AND  
BRIDGE STREET INTERSECTION  
NASHUA, NH**

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50 0 50 100  
SCALE IN FEET



# East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 1 - BASIC DESIGN



- 1 NEW STREET TREES
- 2 NEW PEDESTRIAN SIDEWALKS
- 3 OPEN GREEN SPACE
- 4 EXISTING BUILDINGS TO REMAIN
- 5 ACCESS DRIVE
- 6 TODDLER PLAYGROUND WITH FENCING
- 7 PEDESTRIAN CROSSWALKS



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# East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 1 - FULL BUILD DESIGN



- ① NEW STREET TREES
- ② GATEWAY STRUCTURE
- ③ BUFFER PLANTING
- ④ FLAG POLE
- ⑤ CHILDREN'S PLAYGROUND WITH FENCING
- ⑥ COMMUNITY GARDEN
- ⑦ OPEN GREEN SPACE
- ⑧ NEW PEDESTRAIN SIDEWALKS
- ⑨ EXISTING BUILDINGS TO REMAIN
- ⑩ LANDSCAPED BERM WITH PLANTING TO HELP SCREEN TRAFFIC
- ⑪ SCULPTED LAWN LAND FORM FOR GATHERING / PLAY
- ⑫ PEDESTRIAN CONNECTION TO THE MERRIMACK RIVER
- ⑬ ACCESS DRIVE
- ⑭ PEDESTRIAN CROSSWALKS
- ⑮ DOG PARK / OPEN GREEN SPACE

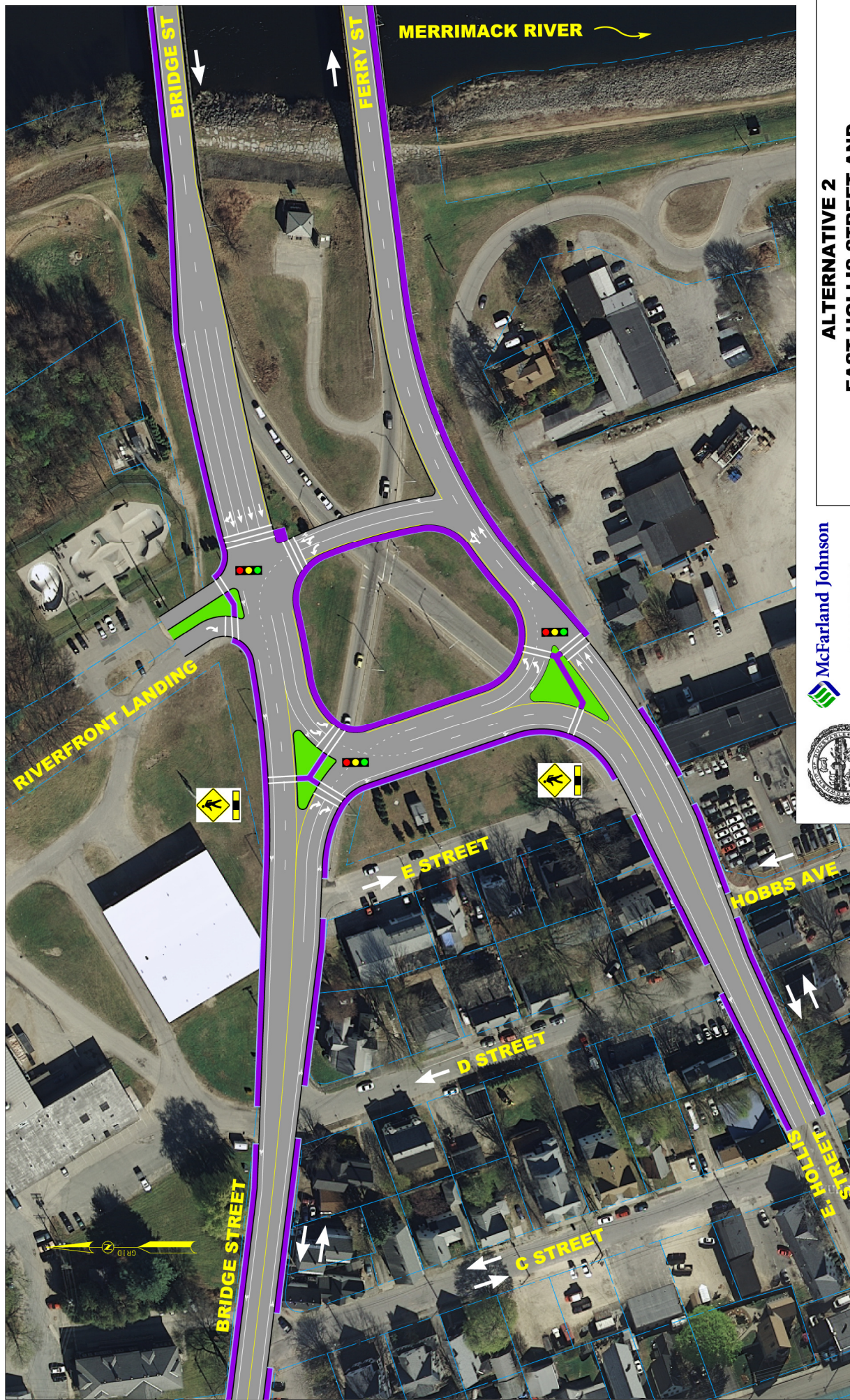


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**ALTERNATIVE 2  
EAST HOLLIS STREET AND  
BRIDGE STREET INTERSECTION  
NASHUA, NH**





# East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 2 - BASIC DESIGN



- 1 STREET TREES
- 2 NEW PEDESTRIAN SIDEWALKS
- 3 EXISTING BUILDINGS TO REMAIN
- 4 ACCESS DRIVE
- 5 PEDESTRIAN CROSSWALKS
- 6 OPEN GREEN SPACE



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# East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 2 - FULL BUILD DESIGN



- |                     |                   |                                      |                            |   |   |                          |                                    |
|---------------------|-------------------|--------------------------------------|----------------------------|---|---|--------------------------|------------------------------------|
| 1 NEW STREET TREES  | 3 BUFFER PLANTING | 5 CHILDREN'S PLAYGROUND WITH FENCING | 7 OPEN GREEN SPACE         | 9 EXISTING BUILDINGS TO REMAIN                          | 11 SCULPTED LAWN LAND FORM FOR GATHERING / PLAY | 13 ACCESS DRIVE          | 15 DOG PARK / OPEN GREEN SPACE     |
| 2 GATEWAY STRUCTURE | 4 FLAG POLE       | 6 COMMUNITY GARDEN                   | 8 NEW PEDESTRIAN SIDEWALKS | 10 LANDSCAPED BERM WITH PLANTING TO HELP SCREEN TRAFFIC | 12 PEDESTRIAN CONNECTION TO THE MERRIMACK RIVER | 14 PEDESTRIAN CROSSWALKS | 16 TODDLER PLAYGROUND WITH FENCING |

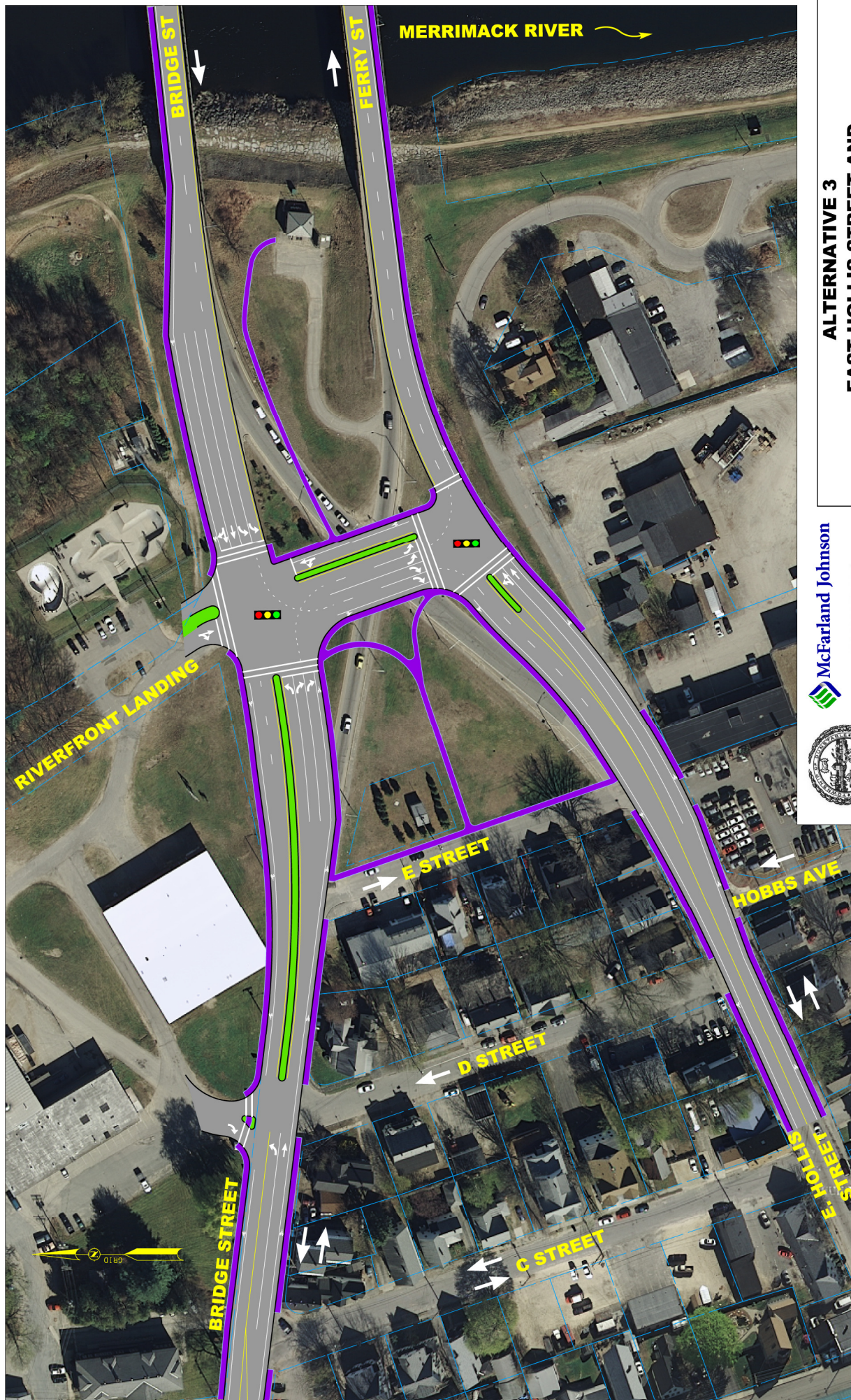


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**ALTERNATIVE 3  
EAST HOLLIS STREET AND  
BRIDGE STREET INTERSECTION  
NASHUA, NH**

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# East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 3 - BASIC DESIGN



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# East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 3 - FULL BUILD DESIGN



- |                     |                   |                                      |                            |   |   |                          |                                    |
|---------------------|-------------------|--------------------------------------|----------------------------|---|---|--------------------------|------------------------------------|
| 1 NEW STREET TREES  | 3 BUFFER PLANTING | 5 CHILDREN'S PLAYGROUND WITH FENCING | 7 OPEN GREEN SPACE         | 9 EXISTING BUILDINGS TO REMAIN                          | 11 SCULPTED LAWN LAND FORM FOR GATHERING / PLAY | 13 ACCESS DRIVE          | 15 DOG PARK / OPEN GREEN SPACE     |
| 2 GATEWAY STRUCTURE | 4 FLAG POLE       | 6 COMMUNITY GARDEN                   | 8 NEW PEDESTRIAN SIDEWALKS | 10 LANDSCAPED BERM WITH PLANTING TO HELP SCREEN TRAFFIC | 12 PEDESTRIAN CONNECTION TO THE MERRIMACK RIVER | 14 PEDESTRIAN CROSSWALKS | 16 TODDLER PLAYGROUND WITH FENCING |



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