

NASHUA GATEWAY OPTIONS WORKSHOP

AUGUST 15, 2018



Nashua
NEW HAMPSHIRE'S GATE CITY



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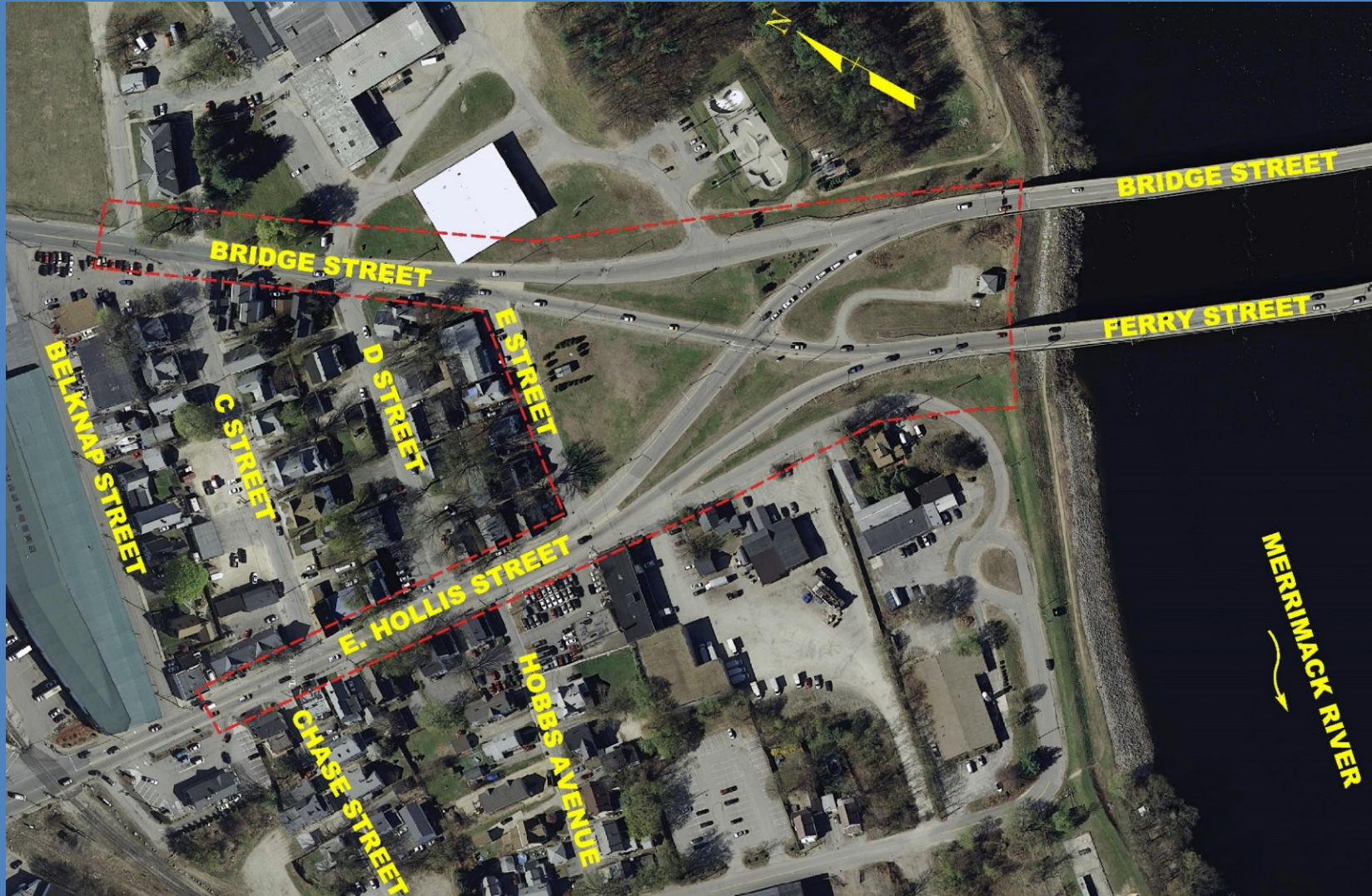
AGENDA

1. Project Overview
2. Role of the Steering Committee
3. Study Tasks & Status
4. Listening Session Feedback
5. Presentation of Alternatives
6. Rating of Alternatives
7. Project Schedule
8. Questions & Answers



East Hollis / Bridge Street Intersection Improvement Project

PROJECT OVERVIEW



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ROLE OF STEERING COMMITTEE

- Develop Project Goals / Vision ➡ Purpose and Need
- Act as a Conduit for Stakeholders
- Build Consensus
- Recommendation of Preferred Alternative



East Hollis / Bridge Street Intersection Improvement Project

STEERING COMMITTEE MEMBERS

CITY of NASHUA:

J. Graziano

Finance Manager

J. Vayo

Downtown Specialist

J. Caron

Ward 7 Alderman

P. Kohalmi

Deputy City Engineer

S. Marchant

Director Community Development

J. Chizmas

Transportation Planner

W. Husband

Senior Traffic Engineer

T. Cummings

Director of Economic Development

Peter Schaefer

Resident

Makelt Labs:

A. Shrey

SMC Management Corp:

S. Riley

TOWN of HUDSON:

E. Dhima

Town Engineer

S. Malizia

Town Administrator



PROJECT SCOPE / GOALS

- ✓ Address All Modes of Transportation
- ✓ Not Make Traffic Conditions Worse
- ✓ Not a Regional Traffic Project
- ✓ Build on Previous Planning Studies



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PROJECT DEVELOPMENT

NHDOT LPA PROGRAM

- A. Engineering Study 
- B. Preliminary Design
- C. Final Design
- D. Construction



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ENGINEERING STUDY

Study Tasks

- A. Information Gathering/Base Maps
- B. Detailed Survey
- C. Resource Identification
- D. Project Definition
- E. Alternatives Development
- F. Abstracting
- G. Public Involvement
- H. Utility Coordination



STUDY TASKS / STATUS

Public Involvement

- Project Steering Committee
- Public Listening Session (4/4/18)
- Alternatives Workshop (8/15/18)
- Public Informational Meeting
- Board of Aldermen & Board of Public Works Presentation
- Property Owner/Citizen Meetings
- Project Website: www.nashuagatewayproject.com
- Social Media



LISTENING SESSIONS

Safety

- Vehicles
- Pedestrians
- Bicycles
- Merging Issues

Traffic

- A lot of Traffic
- Side Road Cut-through
- Left Turns to Side Roads
- D Street Signal

Access

- Northern Development
- Crown St. Area
- River

Aesthetics

- Gateway
- Garden
- River walk
- Trees
- Green Space



PURPOSE & NEED STATEMENT



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PURPOSE

A vertical line with five white circles at the top, middle, and bottom, and two diagonal lines extending from the top and bottom circles. Each circle is connected to a horizontal bar of a different color.

Improve Mobility of All Users

Improve Access

Facilitate Land Use

Not Adversely Impact Traffic

Provide Aesthetically Pleasing Gateway



NEEDS

Daily Traffic Congestion, Queues, & Delay

Lack of Bike & Ped Accommodations

Merging Vehicles Creates Safety Concerns

Limited Access to Crown St. & New Development

Not a Welcoming Gateway Into the City



East Hollis / Bridge Street Intersection Improvement Project

PREVIOUS STUDIES



- East Hollis Street Area Plan
- 2015 STV Traffic Study

	Existing Conditions	No-Build	"Minimal" Build	4-Legged Roundabout	5-Legged Roundabout	Asymmetrical Circle	4-Legged Signal	5-Legged Signal	Twin Signals	One-Way Couplet
Delay (s)	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
Ferry Street										
Thru	15	12	20	26	15	13	25	25	25	24
Left	2	1	5	4	3	2	13	12	12	10
Right	25	19	31	41	21	21	35	36	44	34
Bancroft Street										
Thru							35	48	35	44
Left							13	12	15	10
Right										
Bridge Street										
Thru	15	50	19	30	17	16	32	35	27	37
Left							32	35	27	37
Right							39	40	32	54
E. Hollis Street										
Thru	1	1	1	1	4	9	19	43	27	37
Left							34	52	27	35
Right							34	52	39	56
Crown Street										
Thru							19	42	32	43
Left										
Right										
Intersection total	12	19	19	19	12	13	26	34	27	35
Access	Poor	Poor	Fair	Fair	Good	Good	Fair	Good	Good	Fair
Delay	Good	Good	Good	Poor	Poor	Poor	Fair	Fair	Fair	Fair
Footprint	Fair	Fair	Fair or good	Fair	Fair	Fair	Poor	Poor	Poor	Good
Notes	No access to Renaissance or Crown Street. Low delay except for Bridge St in PM Minimal hardcaping but creates dead space in interior	Same as existing with slight increase in overall delay.	Accommodates movements between Renaissance (west entrance) and E. Hollis. Low delay for all movements Minimal hardcaping. Possible to reduce dead space in interior.	Direct access to Renaissance. Not to Crown Street. Unacceptable delays. Moderate hardcaping, but creates dead space in interior	Provides access to Renaissance and Crown Street Unacceptable Delays Moderate hardcaping, but creates dead space in interior	Provides access to Renaissance and Crown Street Unacceptable Delays Moderate hardcaping, but creates dead space in interior	Provides access to Renaissance. Not to Crown Street Acceptable Delays Intensive hardcaping	Provides access to Renaissance and Crown Street Acceptable Delays Intensive hardcaping	Provides access to Renaissance and Crown Street Acceptable Delays Intensive hardcaping	Provides access to Renaissance and Crown Street, but increases travel distances. Low control delay from signals, but increased travel time for out-of-direction travel Minimal hardcaping Potential secondary impacts from conversion to one-way streets



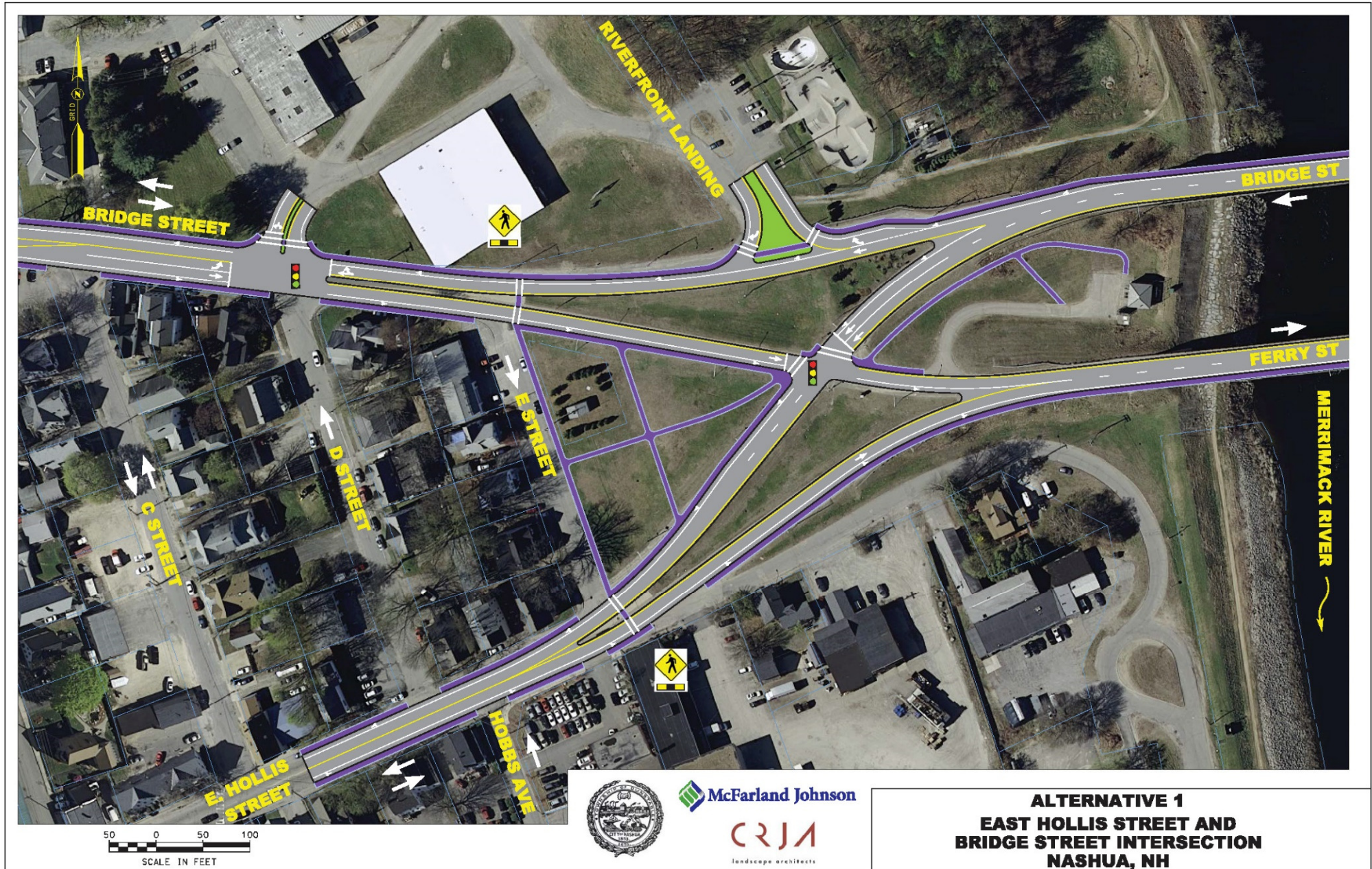
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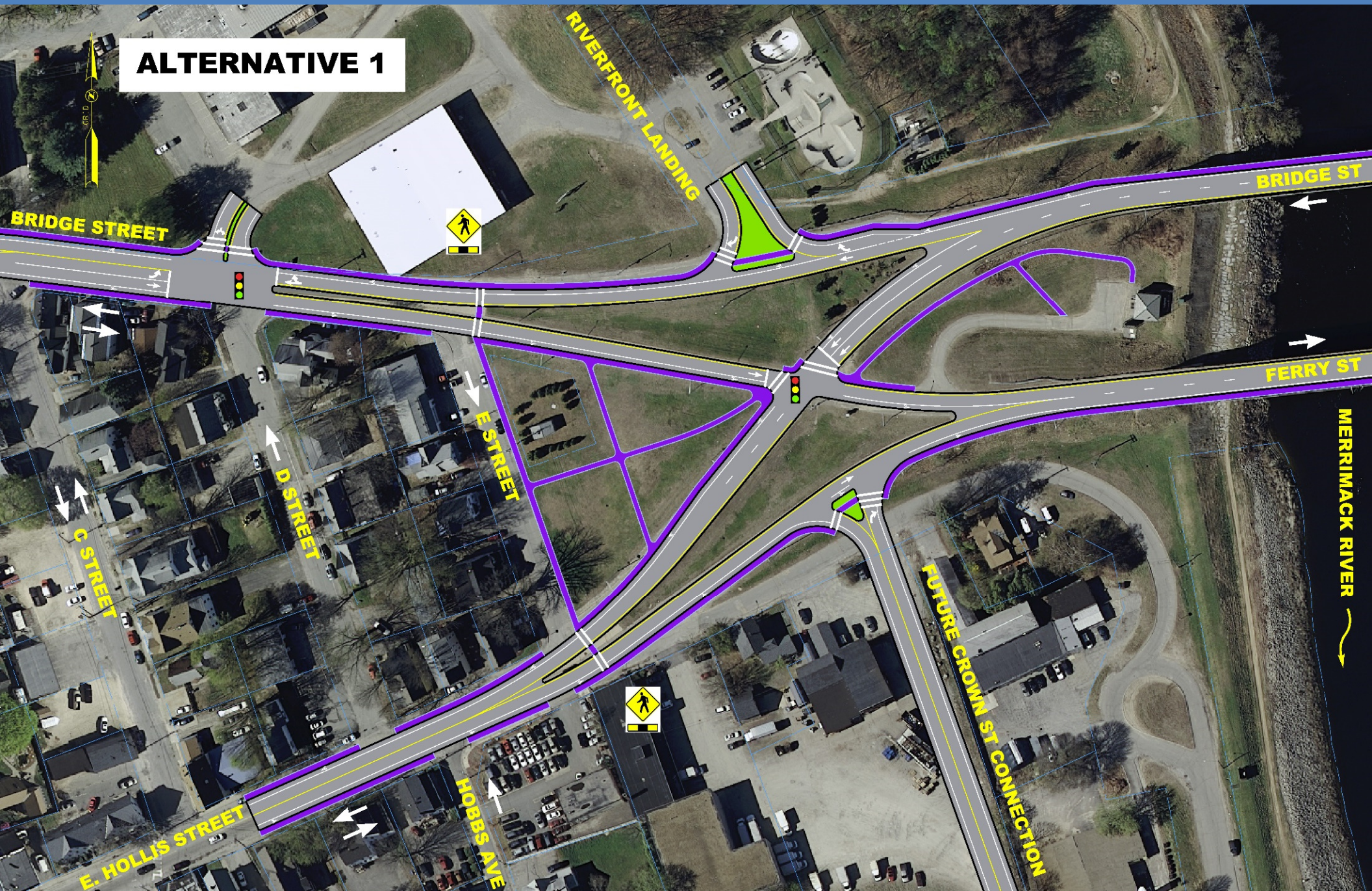
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ALTERNATIVE 1



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 PEDESTRIAN CROSSWALKS
- ⑥ TODDLER PLAYGROUND WITH FENCING



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LANDSCAPE CONCEPTUAL PLAN OPTION 1 - BASIC COSTS



COST INFORMATION: \$399,640 (BUDGET \$400,000+/-)

CITY COSTS: \$0

- SOFTSCAPE**
- 52 SHADE TREES
 - 0 FLOWERING
 - EARTHWORK
 - PLANTING
 - LOAM + SEED

COST
 \$900 EACH
 \$800 EACH
 \$30,000 ALLOWANCE
 \$0 ALLOWANCE
 \$1 /SF

TOTAL \$191,202

- SITE AMENITIES**
- 13 PEDESTRIAN LIGHT FIXTURES
 - 5 BENCHES
 - 2 TRASH RECEPTACLES
 - 1 FLAGPOLE

COST
 \$4,000 EACH
 \$2,500 EACH
 \$1,000 EACH
 \$5,000 EACH

TOTAL \$71,500

- COMMUNITY AMENITIES**
- CHILDREN'S PLAYGROUND
 - TODDLER PLAYGROUND
 - COMMUNITY GARDEN
 - GATEWAY ELEMENT

COST
 \$0 ALLOWANCE
 \$50,000 ALLOWANCE
 \$0 ALLOWANCE
 \$0 ALLOWANCE

TOTAL \$50,000

- HARDSCAPE**
- CONCRETE SIDEWALKS
 - BITUMINOUS

COST
 \$68,368
 \$18,570

TOTAL \$86,938



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LANDSCAPE CONCEPTUAL PLAN OPTION 1 - 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 PEDESTRAIN SIDEWALKS | ⑩ LANDSCAPED BERM WITH PLANTING TO HELP SCREEN TRAFFIC | ⑫ PEDESTRIAN CONNECTION TO THE MERRIMACK RIVER | ⑭ PEDESTRIAN CROSSWALKS | |



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LANDSCAPE CONCEPTUAL PLAN OPTION 1 - FULL BUILD COSTS



COST INFORMATION: \$1,020,354 (BUDGET \$400,000+/-)

SOFTSCAPE
• 145 SHADE TREES
• 49 FLOWERING
• EARTHWORK
• PLANTING
• LOAM + SEED

COST
\$900 EACH
\$800 EACH
\$30,000 ALLOWANCE
\$50,000 ALLOWANCE
\$1 /SF

TOTAL \$327,872

SITE AMENITIES
• 45 PEDESTRIAN LIGHT FIXTURES
• 10 BENCHES
• 3 TRASH RECEPTACLES
• 1 FLAGPOLE

TOTAL \$213,000

CITY COSTS: \$620,354 +/-

COST
\$4,000 EACH
\$2,500 EACH
\$1,000 EACH
\$5,000 EACH

COMMUNITY AMENITIES
• CHILDREN'S PLAYGROUND
• COMMUNITY GARDEN
• GATEWAY ELEMENT

TOTAL \$380,000

COST
\$200,000 ALLOWANCE
\$80,000 ALLOWANCE
\$100,000 ALLOWANCE

HARDSCAPE
• CONCRETE SIDEWALKS
• BITUMINOUS

COST
\$80,912
\$18,570

TOTAL \$99,482



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LANDSCAPE CONCEPTUAL PLAN OPTION 1 - FULL BUILD PERSPECTIVE

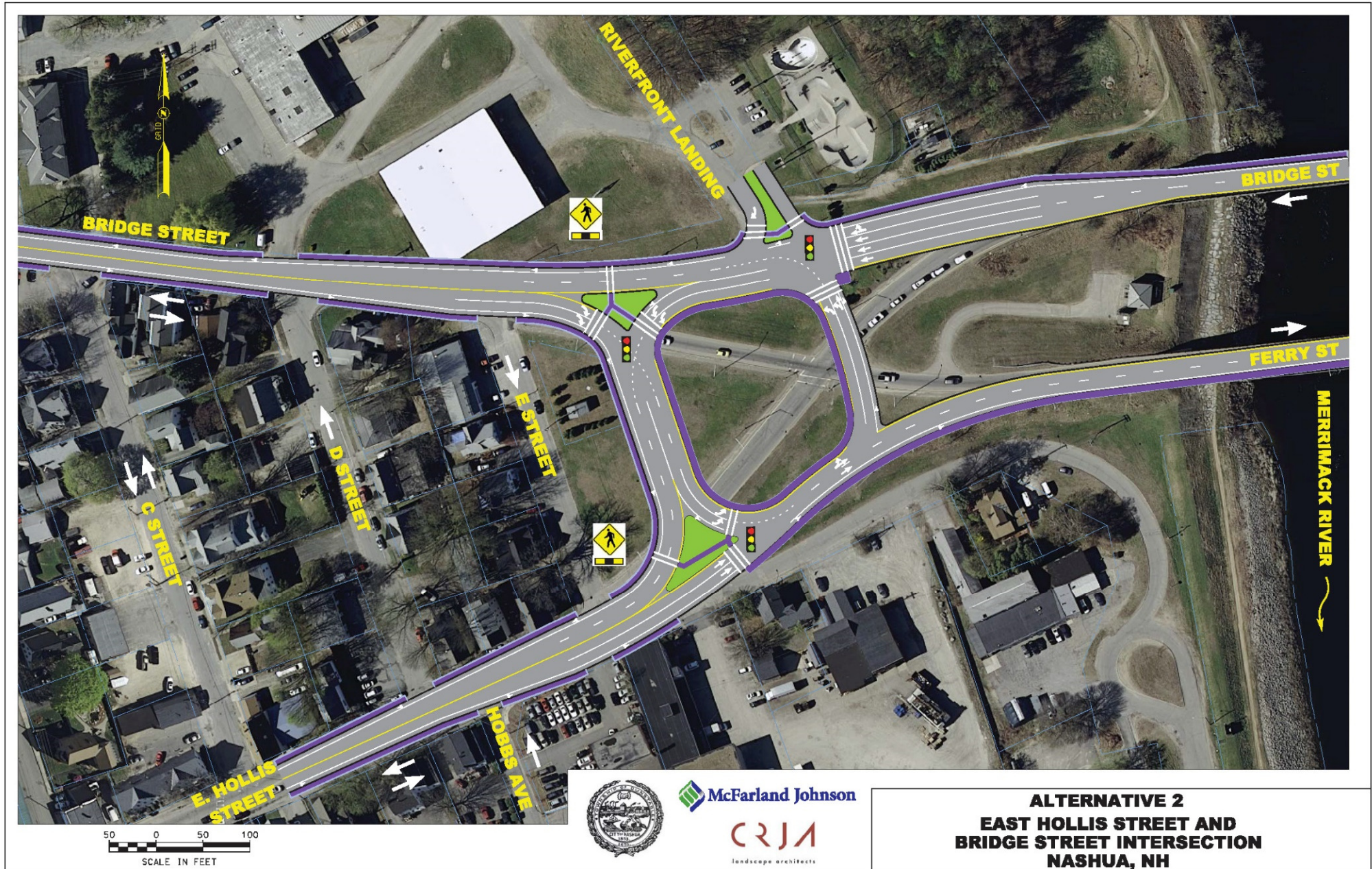


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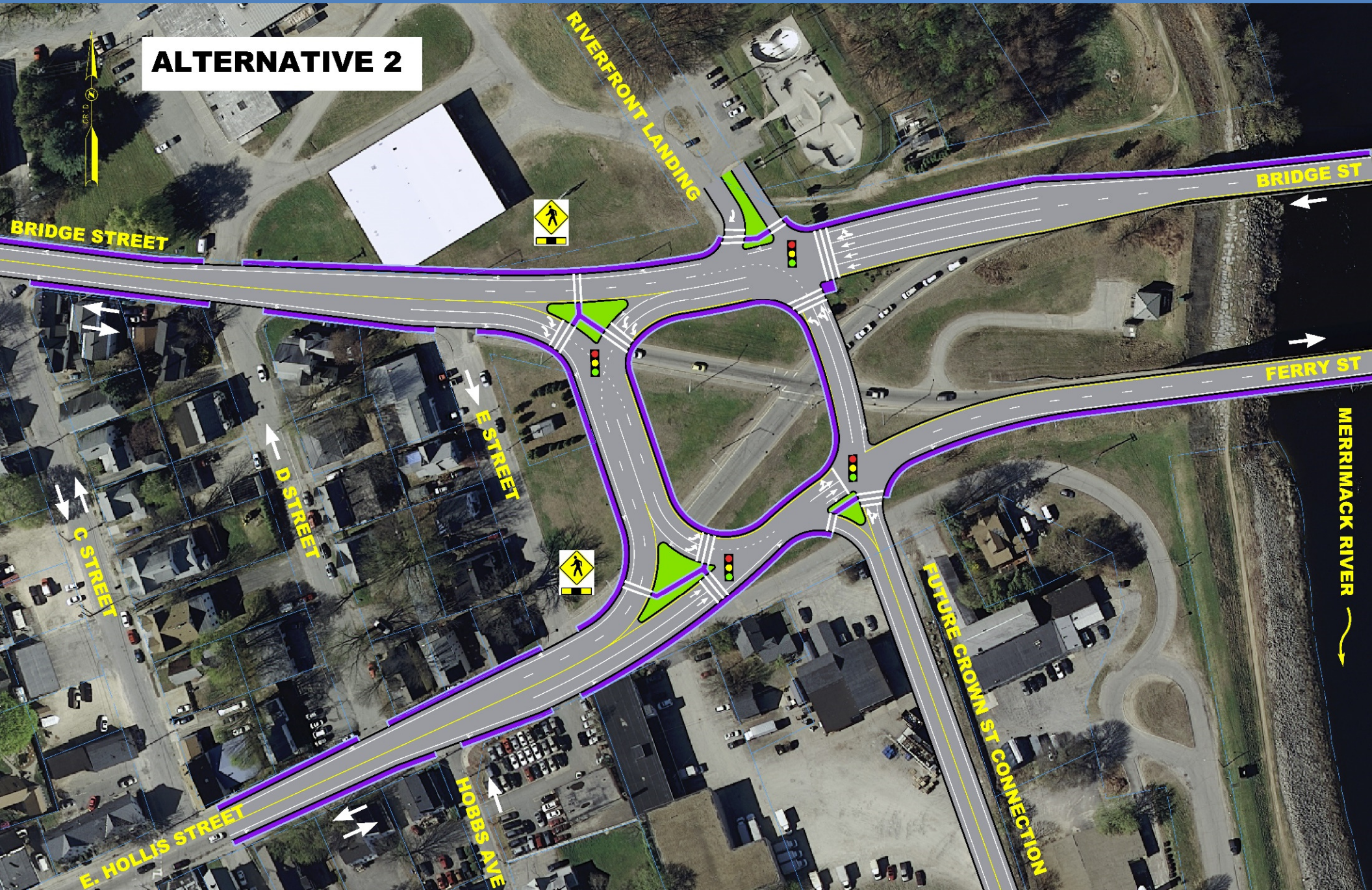
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ALTERNATIVE 2



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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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LANDSCAPE CONCEPTUAL PLAN OPTION 2 - BASIC COSTS



COST INFORMATION: \$182,128 (BUDGET \$100,000+/-)

SOFTSCAPE
 • 30 SHADE TREES
 • 0 FLOWERING
 • EARTHWORK
 • PLANTING
 • LOAM + SEED

COST
 \$900 EACH
 \$800 EACH
 \$30,000 ALLOWANCE
 \$0 ALLOWANCE
 \$1/SF

TOTAL \$162,798

SITE AMENITIES
 • 0 PEDESTRIAN LIGHT FIXTURES
 • 0 BENCHES
 • 0 TRASH RECEPTACLES
 • 0 FLAGPOLE

TOTAL \$0

CITY COSTS: \$82,128 +/-

COST
 \$4,000 EACH
 \$2,500 EACH
 \$1,000 EACH
 \$5,000 EACH

TOTAL \$0

COMMUNITY AMENITIES
 • CHILDREN'S PLAYGROUND
 • TODDLER PLAYGROUND
 • COMMUNITY GARDEN
 • GATEWAY ELEMENT

COST
 \$0 ALLOWANCE
 \$0 ALLOWANCE
 \$0 ALLOWANCE
 \$0 ALLOWANCE

TOTAL \$19,330

HARDSCAPE
 • CONCRETE SIDEWALKS
 • BITUMINOUS

COST
 \$0
 \$19,330



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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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LANDSCAPE CONCEPTUAL PLAN OPTION 2 - FULL BUILD COSTS



COST INFORMATION: \$987,657 (BUDGET \$100,000+/-)

SOFTSCAPE
• 124 SHADE TREES
• 33 FLOWERING
• EARTHWORK
• PLANTING
• LOAM + SEED

COST
\$900 EACH
\$800 EACH
\$30,000 ALLOWANCE
\$50,000 ALLOWANCE
\$1 /SF

TOTAL \$274,315

SITE AMENITIES
• 42 PEDESTRIAN LIGHT FIXTURES
• 11 BENCHES
• 3 TRASH RECEPTACLES
• 1 FLAGPOLE

TOTAL \$203,500

CITY COSTS: \$887,657 +/-

COST
\$4,000 EACH
\$2,500 EACH
\$1,000 EACH
\$5,000 EACH

COMMUNITY AMENITIES
• CHILDREN'S PLAYGROUND
• TODDLER PLAYGROUND
• COMMUNITY GARDEN
• GATEWAY ELEMENT

TOTAL \$430,000

COST
\$200,000 ALLOWANCE
\$50,000 ALLOWANCE
\$80,000 ALLOWANCE
\$100,000 ALLOWANCE

HARDSCAPE
• CONCRETE SIDEWALKS
• BITUMINOUS

COST
\$60,512
\$19,330

TOTAL \$79,842



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LANDSCAPE CONCEPTUAL PLAN OPTION 2 - FULL BUILD PERSPECTIVE

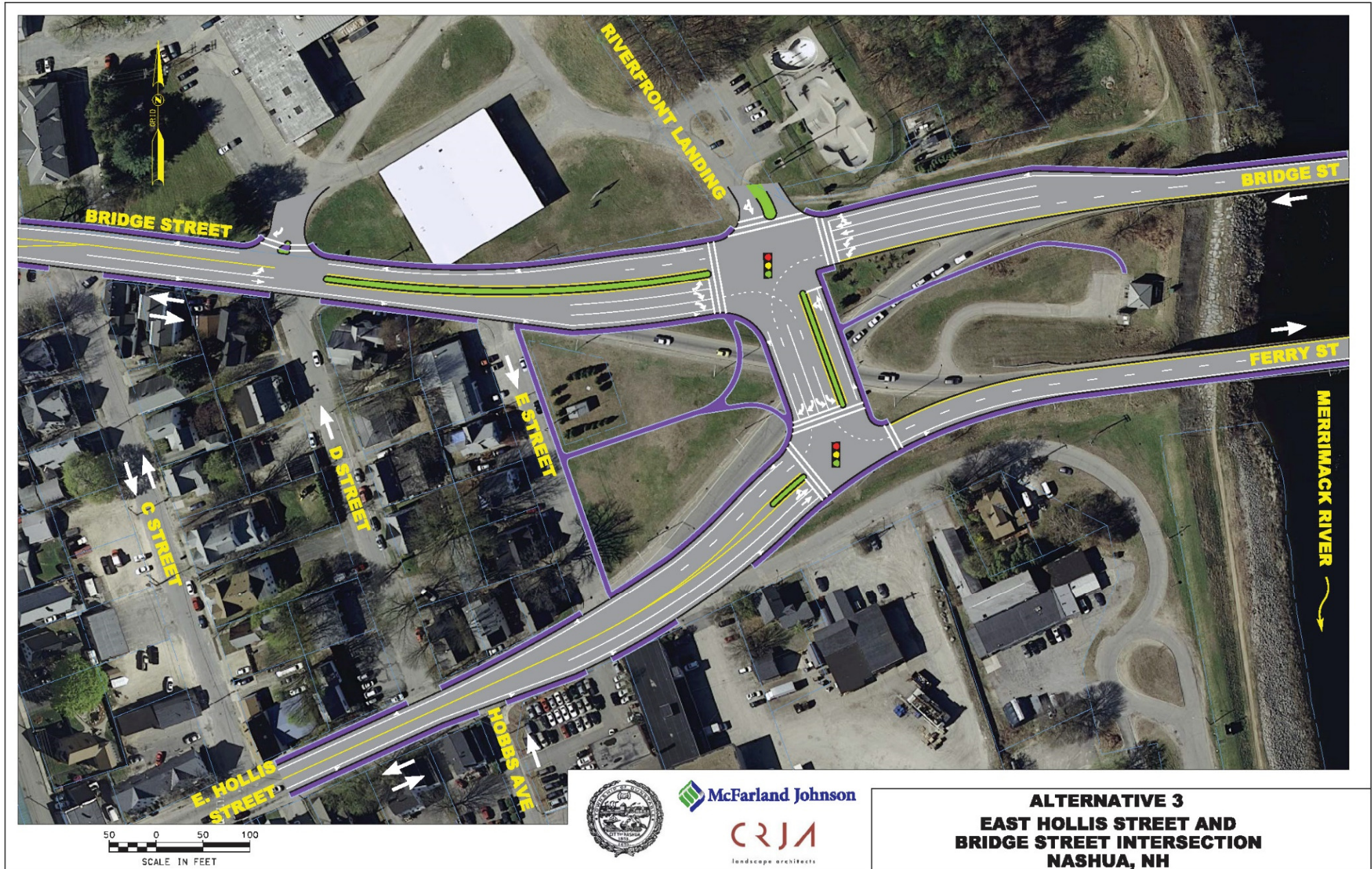


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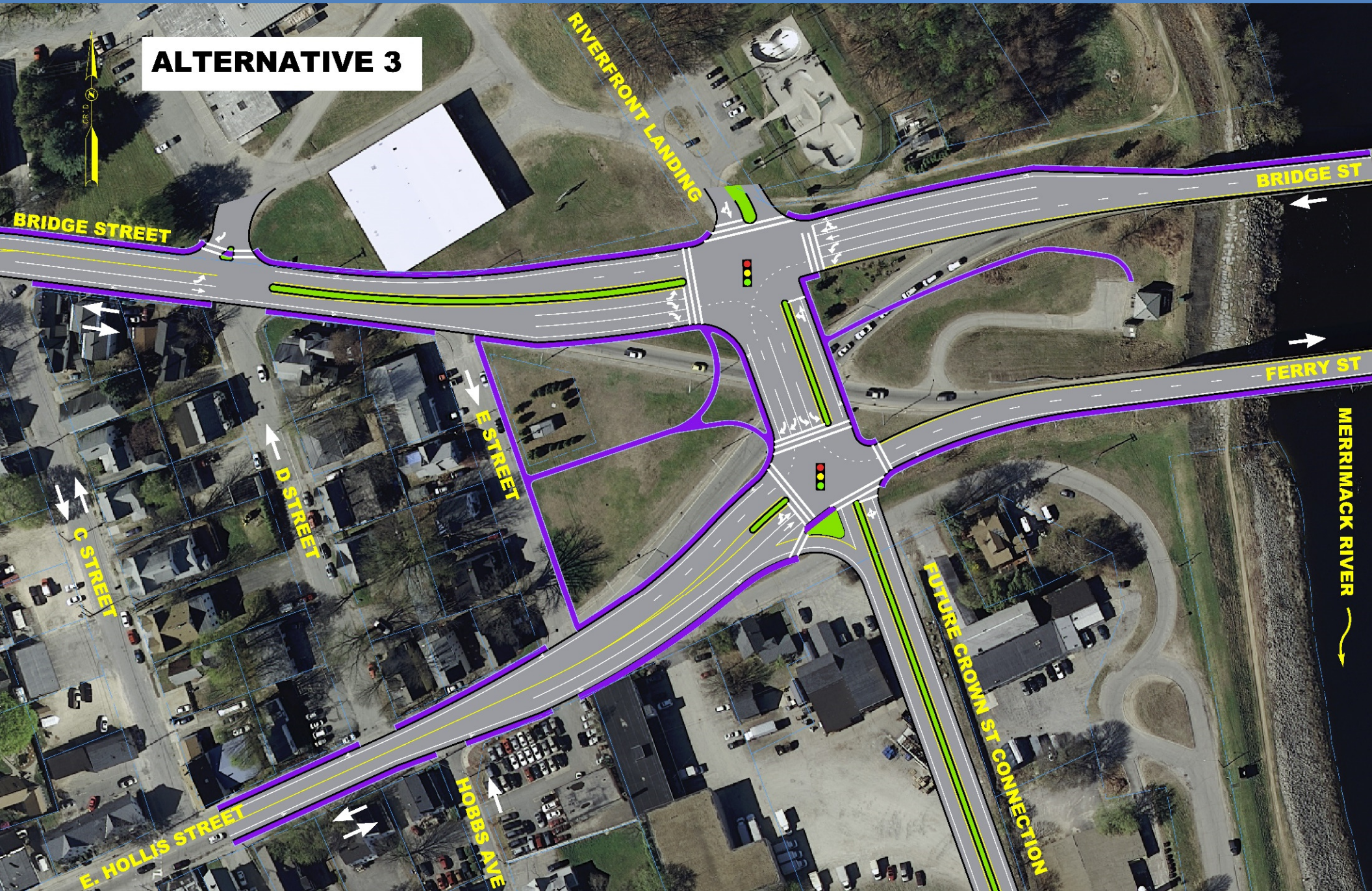
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ALTERNATIVE 3



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LANDSCAPE CONCEPTUAL PLAN OPTION 3 - BASIC DESIGN



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



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LANDSCAPE CONCEPTUAL PLAN OPTION 3 - BASIC COSTS



COST INFORMATION: \$302,994 (BUDGET \$300,000+/-)

SOFTSCAPE
 • 40 SHADE TREES
 • 0 FLOWERING TREES
 • EARTHWORK
 • PLANTING
 • LOAM + SEED

COST
 \$1,000 EACH
 \$800 EACH
 \$30,000 ALLOWANCE
 \$0 ALLOWANCE
 \$1.60/SF

TOTAL

\$171,152

SITE AMENITIES
 • 16 PEDESTRIAN LIGHT FIXTURES
 • 4 BENCHES
 • 2 TRASH RECEPTACLES
 • 1 FLAGPOLE

TOTAL

\$81,000

CITY COSTS: \$2,994 +/-

COST
 \$4,000 EACH
 \$2,500 EACH
 \$1,000 EACH
 \$5,000 EACH

TOTAL

\$0

COMMUNITY AMENITIES
 • CHILDREN'S PLAYGROUND
 • TODDLER PLAYGROUND
 • COMMUNITY GARDEN
 • GATEWAY ELEMENT

COST
 \$0 ALLOWANCE
 \$0 ALLOWANCE
 \$0 ALLOWANCE
 \$0 ALLOWANCE

TOTAL

\$50,842

HARDSCAPE
 • CONCRETE SIDEWALKS
 • BITUMINOUS

COST
 \$31,512
 \$19,330



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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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LANDSCAPE CONCEPTUAL PLAN OPTION 3 - FULL BUILD COSTS



COST INFORMATION: \$1,045,928 (BUDGET \$300,000+/-)

- SOFTSCAPE**
- 125 SHADE TREES
 - 33 FLOWERING TREES
 - EARTHWORK
 - PLANTING
 - LOAM + SEED

COST

- \$900 EACH
- \$800 EACH
- \$30,000 ALLOWANCE
- \$50,000 ALLOWANCE
- \$1.60/SF

TOTAL \$272,810

- SITE AMENITIES**
- 54 PEDESTRIAN LIGHT FIXTURES
 - 11 BENCHES
 - 3 TRASH RECEPTACLES
 - 1 FLAGPOLE

TOTAL \$251,500

CITY COSTS: \$745,928 +/-

COST

- \$4,000 EACH
- \$2,500 EACH
- \$1,000 EACH
- \$5,000 EACH

- COMMUNITY AMENITIES**
- CHILDREN'S PLAYGROUND
 - TODDLER PLAYGROUND
 - COMMUNITY GARDEN
 - GATEWAY ELEMENT

TOTAL \$430,000

COST

- \$200,000 ALLOWANCE
- \$50,000 ALLOWANCE
- \$80,000 ALLOWANCE
- \$100,000 ALLOWANCE

- HARDSCAPE**
- CONCRETE SIDEWALKS
 - BITUMINOUS

COST

- \$72,288
- \$19,330

TOTAL \$91,618



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LANDSCAPE CONCEPTUAL PLAN OPTION 3 - FULL BUILD PERSPECTIVE



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DECISION MATRIX DISCUSSION

Mobility

- Bicycle & Pedestrian Facilities Enhanced

Access

- Connections to North & South of Intersection

Land Use

- Improvements Support Future Vision

Traffic

- Impact to Delay, Queues, & LOS

Aesthetics

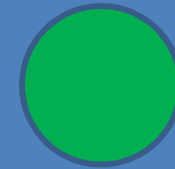
- Improved Gateway
- Additional Greenspace

Neighborhood

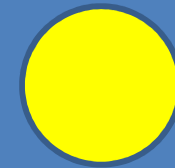
- Improvements Provide Amenities to Neighborhood

Cost

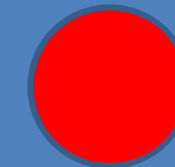
- What is Total Estimated Cost?
- Within Budget



High



Neutral



Low



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LANDSCAPE CONCEPTUAL DESIGN - SITE AMENITIES



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LANDSCAPE CONCEPTUAL DESIGN - GATEWAY ELEMENT



WHAT SHOULD IT BE / LOOK LIKE?



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PROJECT SCHEDULE

Spring

Today

May-July

Mid August

Mid September

Late September

October

Summer

Resource Identification & Traffic

Public Listening Session

Alternatives Development

(2 Steering Committee Meetings)

Alternatives Workshop

Steering Committee Meeting

Public Informational Meeting

BoA & BoPW Presentations

Survey



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QUESTIONS / COMMENTS

www.nashuagatewayproject.com



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