

City of Alexandria, Minnesota



Evaluation Report

CONTENTS

Introduction	Page 2
Background	Page 2
Rationale	Page 2
Preliminary Data Collection.....	Page 3
Design.....	Page 3
Installation	Page 4
Post Installation Data Collection.....	Page 5
Safety	Page 6
Public Perceptions.....	Page 6
Conclusion	Page 7

Appendices

- Project Design "Concept B, Original Design"
- Project Design "Concept B, Final Revised Design"
- Project Design "Concept B, Summary of Design Changes"
- Missing Link Project Timeline
- Project Photos

INTRODUCTION

In the midsummer of 2016, a temporary pedestrian/non-motorized vehicle demonstration project was installed on Agnes Boulevard/North Broadway between Second Avenue and Third Avenue in Downtown Alexandria.

Called "The Missing Link" because of its intended result to fill the gap between Big Ole/Central Park (BO/CP) and Alexandria's historic downtown area approximately two blocks to the south, the project was installed as part of an effort to improve pedestrian and bike connectivity throughout the downtown and Greater Alexandria areas. Using experimental Tactical Urbanism techniques, City staff developed this pilot project to test possible permanent changes to this corridor. In addition, this project was designed to provide data to ongoing efforts by City staff to determine the relative benefits of an enhanced connection to the Central Lakes Trailhead, located at BO/CP. This report will describe the background and findings from the pilot project.

BACKGROUND

The Missing Link design was developed using Tactical Urbanism methodology. Tactical Urbanism is defined as "...a city and/or citizen-led approach to neighborhood building using short-term, low-cost, and scalable interventions to catalyze long-term change." (Street Plans Collaborative). These techniques have been used to great success in other cities across Minnesota, as well as throughout the nation including those of such various sizes as Dallas, Memphis, and Burlington, Vermont.

City staff, elected officials, regional bike and pedestrian advocacy groups, and local business owners convened under Horizon Public Health's Statewide Health Improvement Program (SHIP) in 2015 to learn about the methodology and identify possible pilot project types and locations in Alexandria. Consultants from Hoisington Koegler Group, Inc. (HKGi) were retained to assist in the design and communications roles, working carefully to define the techniques, materials, and rationale behind a Tactical Urbanism approach and led the group in site planning workshops.

RATIONALE

Participants of the 2015 discussion group identified a strategy of implementing lane width reductions and bicycle and pedestrian friendly treatments to create a clear connection between Alexandria's downtown and the Central Lakes Trail. A temporary, enhanced pedestrian/bicycle design was selected for the following reasons:

- To create a connection between the bike trail and the historic downtown, participants prioritized the creation of a direct route with dedicated lanes for both bicyclists and pedestrians. Separated bicycle and pedestrian lanes allow for clear and purposeful traffic flow for all users.

- Separated lanes have been shown to be safer for pedestrians, bicyclists, and vehicles. They are one of the Federal Highway Administrations Proven Safety Countermeasures because they can significantly reduce (by 78-82%) the number of crashes that result in injuries or fatalities.
- Separated bicycle and pedestrian lanes and narrowed vehicle lane widths reduce the number of conflict points in a block or at an intersection, lower the speeds of vehicles moving through the corridor, and allow for more efficient movement of traffic in all directions. All of these features improve the likelihood that pedestrians and bicyclists would use the Missing Link route to travel from the trail system to Alexandria's downtown.

PRELIMINARY AND PROJECT PERIOD DATA COLLECTION

Motorized vehicle data was collected via speed trailer before, during, and after the Missing Link installation (installation on July 11, and removal on August 19) with the intersection of Second Avenue and Agnes Boulevard/North Broadway temporarily configured as a three-way stop during the project.

During preliminary data collection (early June), it was determined that 32% of automobile drivers did not stop at the stop sign where Second Avenue enters onto Agnes Boulevard/North Broadway. Speed data was also collected and normal variances in speed were found, with approximately 0.39% of drivers exceeding the posted 30 mph limit. Speed ranged as high as 46-50 mph for northbound traffic, while southbound was generally slower, not exceeding 31-35 mph.

Data collected during the project period revealed considerably larger traffic volumes (perhaps due to the vacation time of year) and a nearly 25% reduction in average vehicle speeds, with a 79% reduction in the number of vehicles exceeding the limit.

Volunteers collected data on pedestrian and bicycle volumes during the week leading up to the installation. While hand-collected data is not always 100% reliable, the volumes involved are small enough that collection errors would be within tolerance.

Pedestrian daily average: 81	Northbound: 41%	Southbound: 59%
Bicycle daily average: 27	Northbound: 45%	Southbound: 55%

Additional data collection for pedestrian and bicycle users was provided by MnDOT's eco counter, using a laser beam counter for pedestrian traffic, and a pneumatic tube counter for bicycle traffic. The periods analyzed were August 2 through August 14 for the pedestrian counter, and August 2 through August 15 for the cyclist counter.

Pedestrian daily average: 142	Northbound: 49%	Southbound: 51%
Bicycle daily average: 56	Northbound: 30%	Southbound: 70%

Post Installation Data Collection is discussed on page 4.

DESIGN

The Missing Link was designed by the City of Alexandria in accordance with MUTCD guidelines for lane width, separated bicycle and pedestrian lanes, and three-way intersection design.

The City's experience with reducing vehicle travel lane width, increased pedestrian lane availability, and street amenities was greatly increased during the design and execution of the Broadway Reconstruction Project, a Complete Streets initiative undertaken between mid-May and November, 2014. Building on this previous project, staff designed a vertical component to attempt to improve visibility of the Missing Link components and increase compliance rates from motorists.

INSTALLATION

The corridor treatment was installed on July 11th, 2016.

Major components of the treatment, including the median, trees in planters, temporary curb barrier (using drain tile), painted separated bike lanes, street amenities such as benches and waste receptacles, painted temporary intersection crossing bump-outs (using high visibility polka-dot paint pattern for the horizontal element and plastic bollards for the vertical element, and the road signs, were installed by the City of Alexandria's Public Works Department. Members of the Department painted the white and green striping with equipment normally used to paint ball fields. The Department conducted outreach for the event and created stencils for the crosswalks and artwork. All materials and supplies were either on-hand or were reutilized for other ongoing Department functions. Cost for all materials was covered 100% by a grant from BCBS through Horizon Public Health.

POST-INSTALLATION DATA COLLECTION

During the installation, data collected showed that the compliance rate with posted signage was higher with the 3-way stop and other improvements in place than with the 2-way stop and wider-than normal driving lanes. Additionally, instances of speeding appeared to be less frequent with the corridor treatment. Data collected after the improvements were removed (late August) showed a reversion to the pre-installation speeds. Volumes remained constant (again perhaps attributable to the nature of vacation season traffic).

SAFETY

According to Alexandria Police Department records from 2011 to 2016 there were no automobile crashes and no crashes involving a pedestrian in the corridor.

There were no accidents in the corridor during the pilot project period.

No complaints regarding pedestrian or bicycle safety were made during the installation. The addition of the bump-outs and crosswalks, the addition of the stop condition for west-bound Second Avenue and the separation of pedestrians and bicyclists from automobiles appeared to have a positive impact on overall comfort and perceived pedestrian and bicycle safety.

PUBLIC PERCEPTION, SOCIAL MEDIA, MAINSTREAM MEDIA

City media releases regarding the project were issued in advance of the installation of the pilot project. Media coverage included articles in the Echo Press and the Voice of Alexandria, a radio segment on KXRA-AM local news, as well as social media attention. Signage was placed at both ends of the installation, soliciting feedback via email or telephone. There were 191 responses collected. 86% of respondents said that they most often drove when navigating the corridor before the pilot project while 6.5% walked and 6% ride a bicycle, contrasted with 74% driving, 9% walking and 17% biking during the life of the installation. Responses from walkers and cyclists were predominantly in favor of a permanent installation similar to the pilot project. Motorists' responses were more mixed with 41% of respondents indicating they felt the project was too tree-heavy, the driving lanes were too narrow, and the corridor was less safe. Many survey comments raised concerns about inconvenience to motorists, practicality of a median and bump-outs for this location, and a general lack of driver education about navigating standard lane width streets in Alexandria and the State of Minnesota.

"Some very important tourist spots are located via that stretch of street. I'm trying to imagine some of the vehicles I've seen visiting the museum, the chamber, Big Ole, pulling in and out of the liquor store....ie: motorhomes with boats behind, it's pretty tight quarters, pretty tight turns. However I kinda like the 3 way stop." ~motorist comment

"As a motorist: the driving lanes may have felt more snug than before, but I have to say that I enjoyed it because it forced you to slow down, be aware of your surroundings and enjoy the greenery and our wonderful Big Ole Park with the lake in the background. I especially liked the stop sign placed at Broadway and 2nd Ave. Made it very encouraging to walk around and cross the street with ease." ~motorist comment

"Concerned with snow removal, or making the corner with a boat and trailer..." ~motorist comment

"As a cyclist and an advocate for silent-sport-friendly (cycling, walking, hiking, skiing and paddle sports) infrastructure, I feel that the Missing Link Project will be a great addition to our City to promote some of these activities. It will be very inviting to visitors and make a very appealing area for the residents who frequent that area." ~cyclist comment

"...the old saying is ringing true: You Don't Know What You've Got Until It's Gone! I miss the demo already. Having all that greenery in place coupled with the pedestrian-focused design made it a very inviting atmosphere. Before I had the urge to look around, relax and enjoy. Now that it's gone the space itself disappears and becomes something to simply "get through" as opposed to "hang around and enjoy." ~pedestrian comment (received after the project was removed)

Thank you for the opportunity to comment. The improvements have made a noticeable difference in how I use the space as a pedestrian, cyclists, and motorist. The trees offer a presence and landscape different than pavement. The pavement only gave a sense of heat, dust, and utilitarian function. As a cyclist I feel that the markings and cones reinforce that our streets are a shared space. I feel more comfortable. As a motorist I am thankful for the three way stop at 2nd. It slows down the traffic next to the Central Lakes Trail and Parks. ~pedestrian, cyclist, motorist comment

CONCLUSIONS AND LESSONS LEARNED

The Missing Link pilot project succeeded in creating a short-term change to a corridor to help guide future street designs in Alexandria. Data collection before, during, and after the installation are allowing City staff to better understand how reduced lane widths and separated bike and pedestrian lanes could be used and optimized in the future.

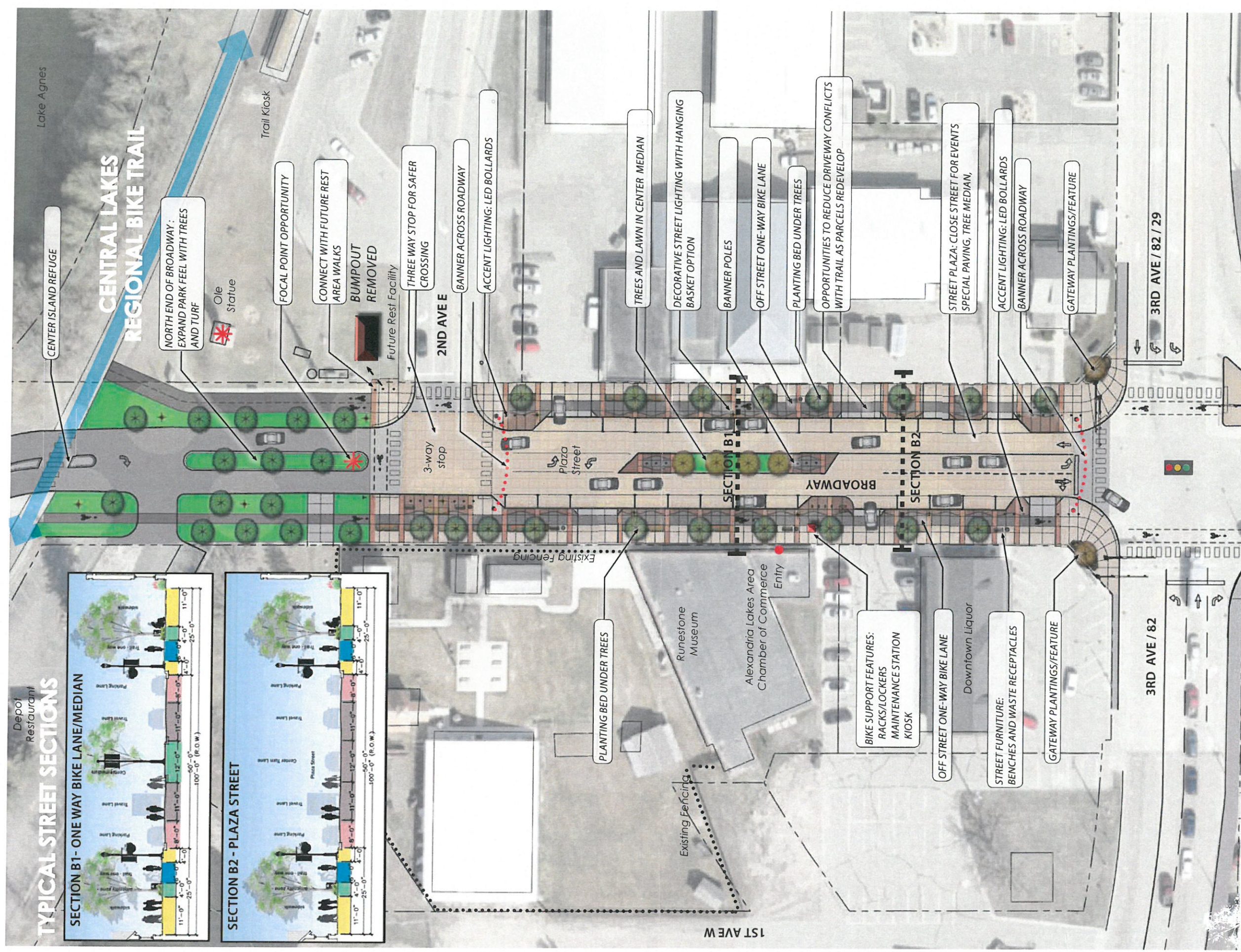
Compliance rates for all modes of transportation were improved over the 2-way stop condition, and motorist speeding decreased.

For bicyclists, the separated lanes appeared to improve ease of travel between the BO/CP and Historic Downtown. Comments from bicyclists were almost universally positive and bicyclist compliance with intersection design increased with the separated lane treatment.

In the intersection of Second Avenue and Agnes Boulevard/North Broadway, speeding motorists and general failure to stop or yield were virtually eliminated. The placement of traffic cones at the corners of the intersection to narrow the lanes and turning radiuses did serve as effective traffic calming to improve pedestrian comfort. Any future bicycle and pedestrian installation would take these findings into consideration. Additionally, median streetscapes (trees, flowers, curb islands) should be considered to provide added traffic calming and increase pedestrian comfort.

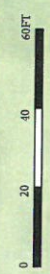
Future treatments may benefit from a more incremental or stepped process that includes evaluation of signage and paint with more intensive physical traffic controls added as needed.

Community interest in the project exceeded staff expectations and City staff have received a number of requests for similar installations such as mini-roundabouts, corner bump-outs, etc. To address the general interest in Tactical Urbanism and neighborhood-building projects, the City could consider developing a Tactical Urbanism permitting process to allow community-led pilot projects to demonstrate short-term improvements to the built environment.



ALEXANDRIA
Missing Link Study

-- DRAFT --



**CONCEPT B
ORIGINAL DESIGN**

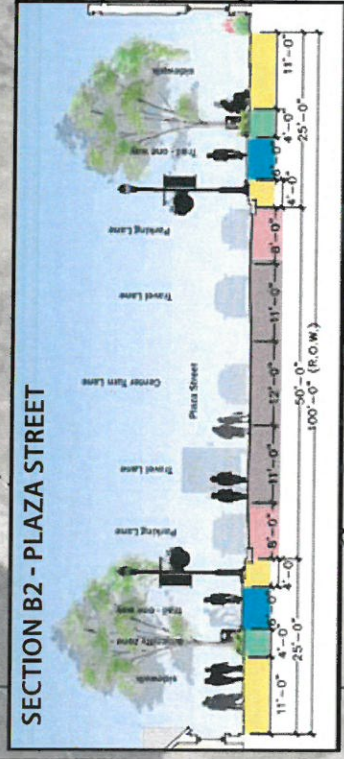
WISSETH SOLUTIONS
HOISINGTON KOEGLER GROUP INC.

Lake Agnes

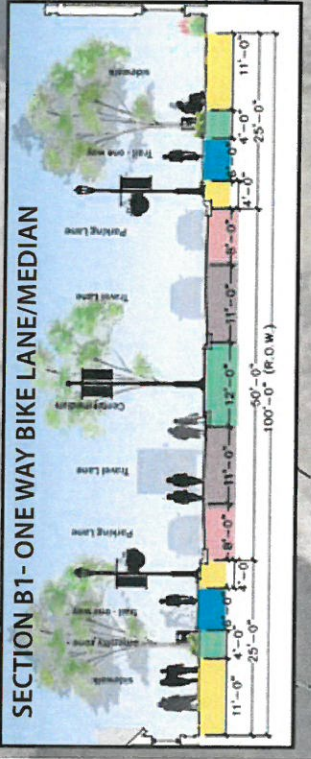
**CENTRAL LAKES
REGIONAL BIKE TRAIL**

NORTH END OF BROADWAY:
EXPAND PARK FEEL WITH TREES
AND TURF

SECTION B1 - ONE WAY BIKE LANE/MEDIAN



SECTION B2 - PLAZA STREET



Center Island Refuge
Trail Kiosk
Ole Statue
Future Rest Facility

FOCAL POINT OPPORTUNITY
CONNECT WITH FUTURE REST
AREA WALKS
BUMPOUT
REMOVED

THREE WAY STOP FOR SAFER
CROSSING

2ND AVE

BANNER ACROSS ROADWAY

ACCENT LIGHTING: LED BOLLARDS

3-way
stop

Plaza
Street

Existing Fencing

PLANTING BED UNDER TREES

Runestone
Museum
Alexandria Lakes Area
Chamber of Commerce
Entry

Existing Fencing

1ST AVE W

SECTION B1

BROADWAY

BIKE SUPPORT FEATURES:
RACKS/LOCKERS
MAINTENANCE STATION
KIOSK

OFF STREET ONE-WAY BIKE LANE

Downtown Liquor

STREET FURNITURE:
BENCHES AND WASTE RECEPTACLES

GATEWAY PLANTINGS/FEATURE

TREES AND LAWN IN CENTER MEDIAN

DECORATIVE STREET LIGHTING WITH HANGING
BASKET OPTION

BANNER POLES

OFF STREET ONE-WAY BIKE LANE

PLANTING BED UNDER TREES

OPPORTUNITIES TO REDUCE DRIVEWAY CONFLICTS
WITH TRAIL AS PARCELS REDEVELOP

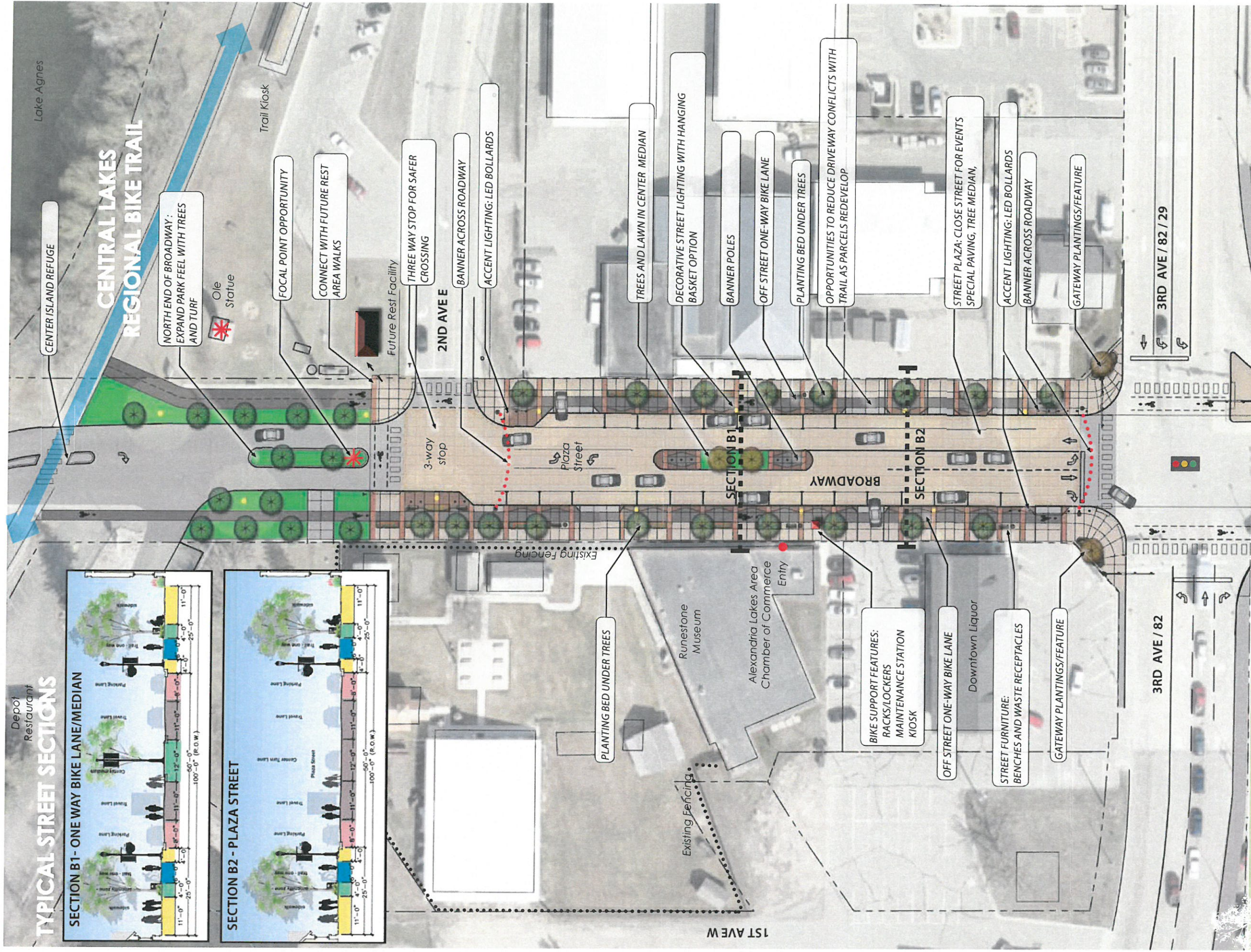
STREET PLAZA: CLOSE STREET FOR EVENTS
SPECIAL PAVING, TREE MEDIAN,

ACCENT LIGHTING: LED BOLLARDS
BANNER ACROSS ROADWAY

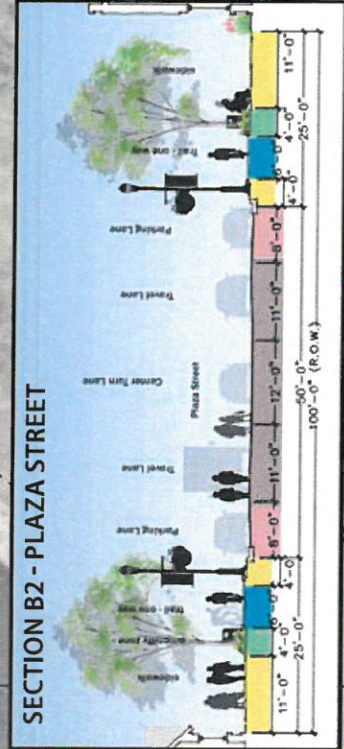
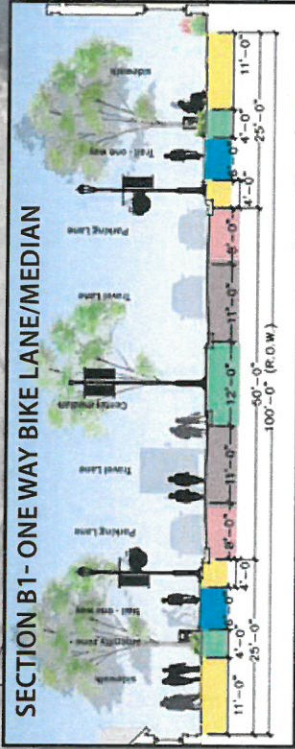
GATEWAY PLANTINGS/FEATURE

3RD AVE / 82

3RD AVE / 82 / 29



TYPICAL STREET SECTIONS



ALEXANDRIA
Missing Link Study

0 20 40 60 FT

-DRAFT-

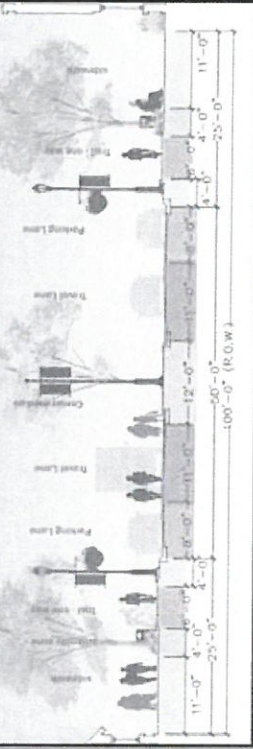
CONCEPT B
FINAL REVISED DESIGN



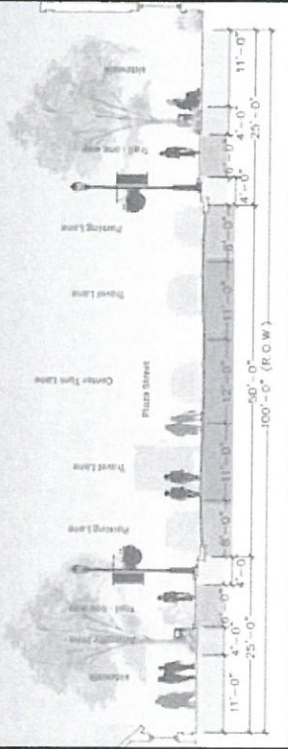
Depot
Restaurant

TYPICAL STREET SECTIONS

SECTION B1 - ONE WAY BIKE LANE/MEDIAN



SECTION B2 - PLAZA STREET



CENTER ISLAND
REFUGE REMOVED

BUMPOUT REMOVED

ENLARGED
DRIVEWAY RADIUS

SHORTENED ISLAND
(1 TREE REMOVED)

2ND AVE E

MOVE BUMPOUT
20 FEET NORTH

REMOVED SOUTH
CROSSWALK

SHORTENED ISLAND
(2 TREES REMOVED)

BUMPOUT REMOVED

WENT FROM TWO
LANES TO THREE LANES

BUMPOUTS REMOVED

Lake Agnes

CENTRAL LAKES
REGIONAL BIKE TRAIL

Ole
Statue

Trail Kiosk

Future Rest Facility

3-way
stop

Plaza
Street

SECTION B1

BROADWAY

SECTION B2

3RD AVE / 82

3RD AVE / 82 / 29



- DRAFT -

ALEXANDRIA

Missing Link Study

CONCEPT B
SUMMARY OF DESIGN CHANGES

WIDSETH SMITH
HOISINGTON KOEGLER GROUP INC.

Existing Fencing

Existing Fencing

Runestone
Museum

Alexandria Lakes Area
Chamber of Commerce
Entry

Downtown Liquor

Missing Link Project Timeline

July 11th - Project set up and fully functioning

July 15th – Project Planning Team meeting held

July 15th – Changes to the project made:

- Move bollards back on bump outs on corners of 3rd and Broadway to allow for greater turning radius.
- Sign the bus load/unload zone in front of the Runestone Museum to direct bus traffic to the parking lot on the south side of the building
- Move trees in front of the Chamber of Commerce to allow for better visibility of signs
- Reduce number of bollards by roughly half (except median islands) to allow for better visibility

Items to watch as time goes on:

- Median island location by Counselor Realty to allow for left hand turns out of parking lot heading south on Broadway
- Width of median island, may need to be narrowed

July 22nd – Project Planning Team meeting held

July 25th - Changes to the project made:

- Add a small trail stop sign on the north bound bike lane (east side) on the corner of 2nd Ave.
- Add a sign directing bike traffic to Hawthorne and Fillmore Street sharrows
- Narrow median islands (asphalt surface only) by 1 foot on each side
- Reduce bump out on 3rd and Broadway (west side only) to allow for greater turning radius

Items for future consideration:

- Fix an old ordinance for Hawthorne and Fillmore to welcome bikes to those streets
- Add a kiosk on Broadway with signs to both the Museum and Chamber
- Check into feasibility of adding bicycle lane stripping on Hawthorne and Fillmore

July 29th – Project Planning Team meeting held

July 29th – Changes to the project made:

- Reduce bump outs further on the north west corner of 3rd and Broadway to allow for better turning out of the liquor store parking lot
- Reduce the neck down on the west side of Broadway directly across the street from the 2nd Ave. intersection to allow for easier left turning movements entering Broadway off 2nd Ave.

August 5th – Project Planning Team meeting held (Mike Weber was only attendee)

No changes to the project made.

August 12th – Project Planning Team meeting held

Dane and team removing project materials. Intent to leave pavement markings on the ground to see if they wear off.

August 19th – Project Planning Team meeting held

Dane and team will remove pavement markings as motor vehicle drivers seem confused.





Missing Link Pilot Project



0:07 / 2:43



Missing Link Pilot Project



0:56 / 2:43



