

Update on Downtown Intersection Project

DATE: August 21, 2019
TO: Mayor and Board of Commissioners
FROM: Susan Habina-Woolard, PE – Town Engineer

Background/Issue

- The goal of this project is to improve the pedestrian crossings at N Trade St and Matthews Station St, per Town Board direction in 2017.
- 2018 Planning Conference item #18 is to, “Discuss plan to combine driveway access to close driveway entrance in front of Brakeman’s to improve pedestrian crossing.”
- At the October 22, 2018 Board meeting, a motion was approved for “...surveying and preliminary design work, and add a phasing plan with the priority of life safety first, and authorize staff to enter into a contract with Alta Planning and Design.”
 - Funds were appropriated in February this year, survey work completed in June.
- The design team coordinated with the Downtown Mobility and Parking Study team (same firm).

Proposal/Solution

Alta Planning + Design will present their findings and draft Preliminary Design at the Board meeting. The concept includes more elements of a raised intersection at N Trade St/Matthews Station St as well as lighting solutions and shifting one of the crosswalks to improve ADA compliance while enabling both driveways across Matthews Station St to remain and operate independently. Signage and aesthetic improvements are included in the concept.

The draft Preliminary Plan does not preclude designs for the Downtown Mobility Project and the N Trade Streetscape Project. Alta design team prepared two visualizations which show improvements in just the intersection and also the intersection improvements along with a portion of sidewalk that will be proposed with the Downtown Mobility Plan to close an existing sidewalk gap to Town Hall.

The Town’s Development Review Team (representing Planning, Parks, Police, Fire and Public Works Departments) reviewed the draft Preliminary Plan on 8/19/19; staff recommends accepting the draft Preliminary Plan and moving to the next plan phase as well as submitting the full project (intersection plus sidewalk gap) for STBG-DA funds from CRTPO.

Financial Impact

This work is not in the current budget. Moving to the next design phase will be approximately \$30,000. A 20% match for CRTPO grant would be approximately \$250,000.

Related Town Goal(s) and/or Strategies

- To identify, plan, design, fund and build transportation facilities that efficiently and effectively serve the community in a cost-effect and environmentally-sensitive manner.
- To maintain our small-town identity by providing a vibrant downtown, pedestrian friendly community, extensive greenspace system, and recreational and cultural activities.
- To innovatively provide a well-planned, well-maintained and aesthetically pleasing infrastructure, that adds long-term value and offers efficient access to the Town and surrounding communities.
- Four 2019 Vision Statements: Well-planned, multimodal transportation system; Vibrant pedestrian-friendly downtown; Walkable and bikeable community; Community dedicated to public safety.

Recommended Motion/Action

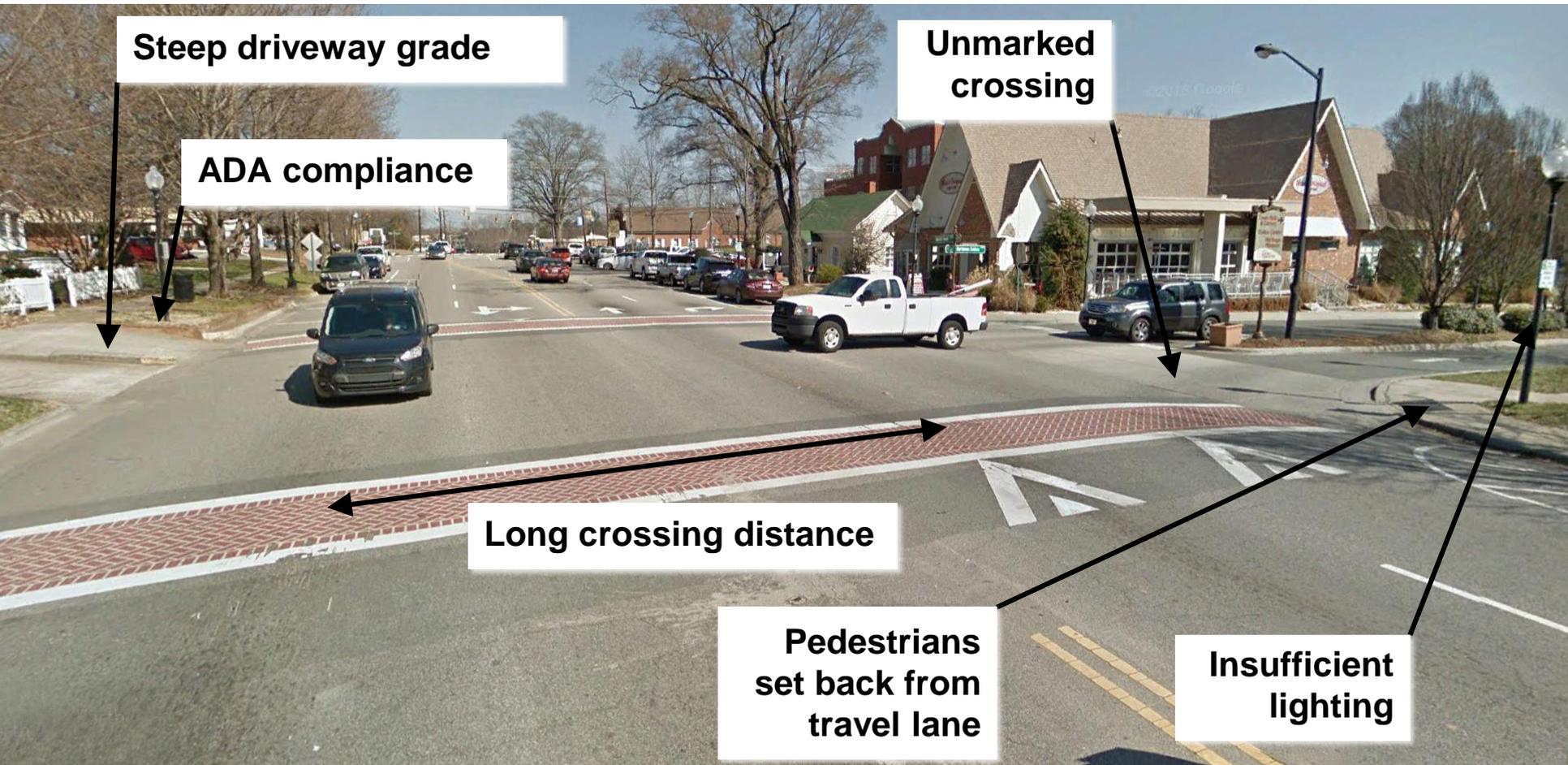
- Authorize the Town Manager to extend contract with current design firm to complete final construction plans, not to exceed \$30,000 using exemption complying with G.S. 143-64.32, appropriated from the General Fund.
- Direct staff to pursue STBG-DA grant funding for both the construction of the intersection and the design and construction of sidewalk in the right-of-way extending down Matthews Station St to existing sidewalk, with the Town's required match of approximately \$250,000 coming from the General Fund.

Attachments: Budget Calcs, Preliminary Concepts Visualizations, Draft Implementation Phasing Options

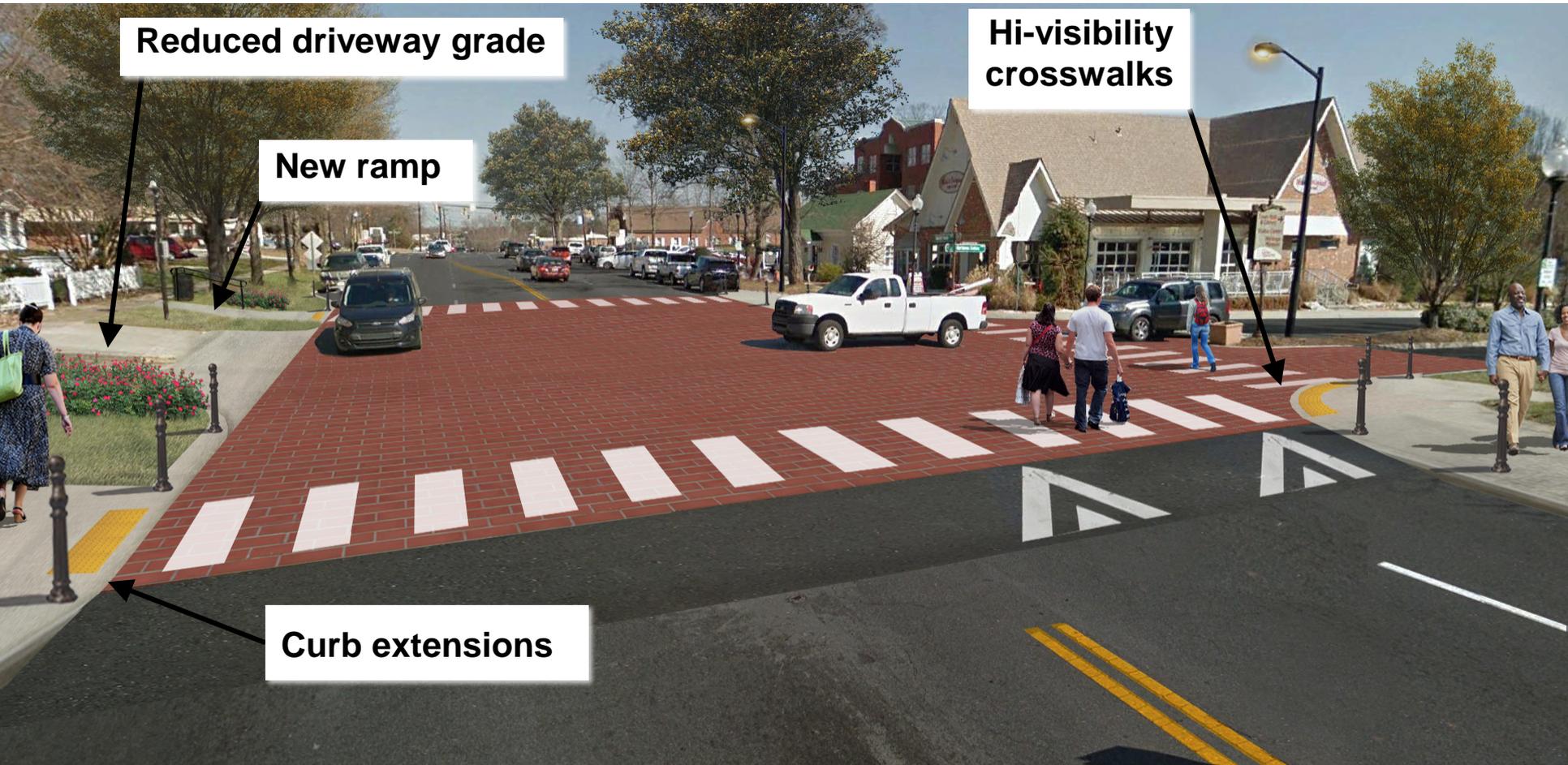
Project Budget Calculations – two estimates and a total:

Downtown Intersection Project - N Trade St/Matthews Station St intersection with 25% plans				
<i>CRTPO Discretionary Funding guidelines budget worksheet (2018)</i>				
1a	Estimated construction cost (CON)	\$433,488	Construction expenses, including utilities relocation	25% design Engr Est = \$413,488 add \$20k utilities
1b	Estimated final engineering cost (PE)	\$30,000	25% plans completed	
1c	Estimated right-of-way cost (ROW)	\$0		all work within r/w
2	Contingency amount (30%)	\$139,046	30% of (CON + ROW + PE)	reduced amt for 25% design plans
3	CEI cost	\$86,698	20% of CON amount	Required in CRTPO worksheet
4	Total Project Budget - intersection	\$689,232	Sum of lines 1a-3	
Downtown Intersection Project - Matthews Station St sidewalk, no design plans				
<i>CRTPO Discretionary Funding guidelines budget worksheet (2018)</i>				
1a	Estimated construction cost (CON)	\$265,190	Construction expenses, including utilities relocation	incl 20k utilities
1b	Estimated final engineering cost (PE)	\$92,817	At least 25% of CON	used 35%
1c	Estimated right-of-way cost (ROW)	\$0		all work within r/w
2	Contingency amount (40%)	\$143,203	40% of (CON + ROW + PE)	
3	CEI cost	\$53,038	20% of CON amount	Required in CRTPO worksheet
4	Total Project Budget - sidewalk	\$554,247	Sum of lines 1a-3	
Downtown Intersection Project - Ultimate design				
<i>CRTPO Discretionary Funding guidelines budget worksheet (2018)</i>				
1a	Estimated construction cost (CON)	\$698,678		
1b	Estimated final engineering cost (PE)	\$122,817		
1c	Estimated right-of-way cost (ROW)	\$0		
2	Contingency amount (varies)	\$282,249		
3	CEI cost	\$139,736		
4	Total Project Budget - both	\$1,243,479		
	STBG-DA Request 80%	\$995,000		
	Town match 20%	\$250,000		

ISSUES



PROPOSED SOLUTION



LONG-TERM VISION



New sidewalk

Road diet and median islands

Implementation Phasing Options

Alta recommends that the full design shown on the Draft 25% Design Plans is implemented. If funding is not available to implement the full recommendations, the following options exist to phase implementation. Several project components could be implemented individually as funds become available.

- **East Crosswalk Shift** – A top priority for the improvements is the provision of an ADA-compliant crossing on the east leg of the intersection. The east leg crosswalk could be shifted to the east with the following associated improvements:
 - Curb extension on the north side with a pedestrian landing and curb ramp
 - Ramp on the north side from the higher sidewalk to the new landing
 - New curb ramp on the south side of the intersection
 - Removal of an existing parking spot on the north and south sides of the street
- **High-Visibility Crosswalk** – A high-visibility crosswalk could be striped across Matthews Station Street to better alert motorists to the potential presence of pedestrians on this crossing leg.
- **Lighting Relocations** – The two overhead light and decorative light relocations could be completed on their own with no other improvements. This would enhance pedestrian visibility at night.
- **Striped Curb Extensions** – Curb extensions could be installed with a pavement color coating product and vertical elements such as flexible delineators, traffic buttons, or planters. See the example from Memphis pictured below for an idea of low-cost materials that can be used to delineate pedestrian space. This option should only be implemented in combination with the east crosswalk shift so that a curb extension is not installed in front of the Brakeman’s driveway.



A low-cost curb extension in the Medical District of Memphis, TN uses epoxy gravel, traffic markers, planters, and detectable warning surfaces.