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Albany County Executive

ALBANY COUNTY *Cares* about our community

Watervliet Shaker Road (CR 157)
Highway Improvement Project Phase III

Public Information Meeting

Engineering and Land Surveying, P.C.

APRIL 14, 2021
7:00 PM

Introductions

Project Sponsor

Albany County

Lisa Ramundo, P.E., Commissioner of Public Works
Bill Anslow, Sr. Engineer, Dept. of Public Works
Jim Mearkle, P.E., Traffic Engineer, Dept. of Public Works

Consultant

MJ Engineering & Land Surveying, P.C.

Brian Cooper, P.E., Project Manager
Lisa Wallin, P.E., Sr. Transportation Engineer
Chad Schneider, P.E., Traffic Engineer
Andrew Gillcrist, Planner

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Meeting Agenda

- Zoom Webinar “How to”
- Purpose of Meeting
- Project Introduction and Objectives
- Summary of Existing Conditions
- Present Alternatives being Evaluated
- Project Schedule & Next Steps

Following Presentation

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Zoom Webinar "How To"

There will be several interactive polls during the presentation – please participate!

We will break to address questions at the end of the presentation

- To post a question, utilize the "Q & A" function in your Zoom Webinar panel
- Use the "Raise Hand' feature
  - If on a telephone, use *9 to Raise hand and *6 to mute/unmute

Following the webinar, written comments can be submitted to:

AlbanyCountyWSR@gmail.com

A recording of the webinar will be posted on the County website at:

www.albanycounty.com/dpw

Purpose of Meeting

- Introduce and define the project goals
- Project status and process
- Present information obtained to date
- Present the alternatives being considered
- Solicit public input on the existing conditions and alternatives being considered

Project Phasing Background

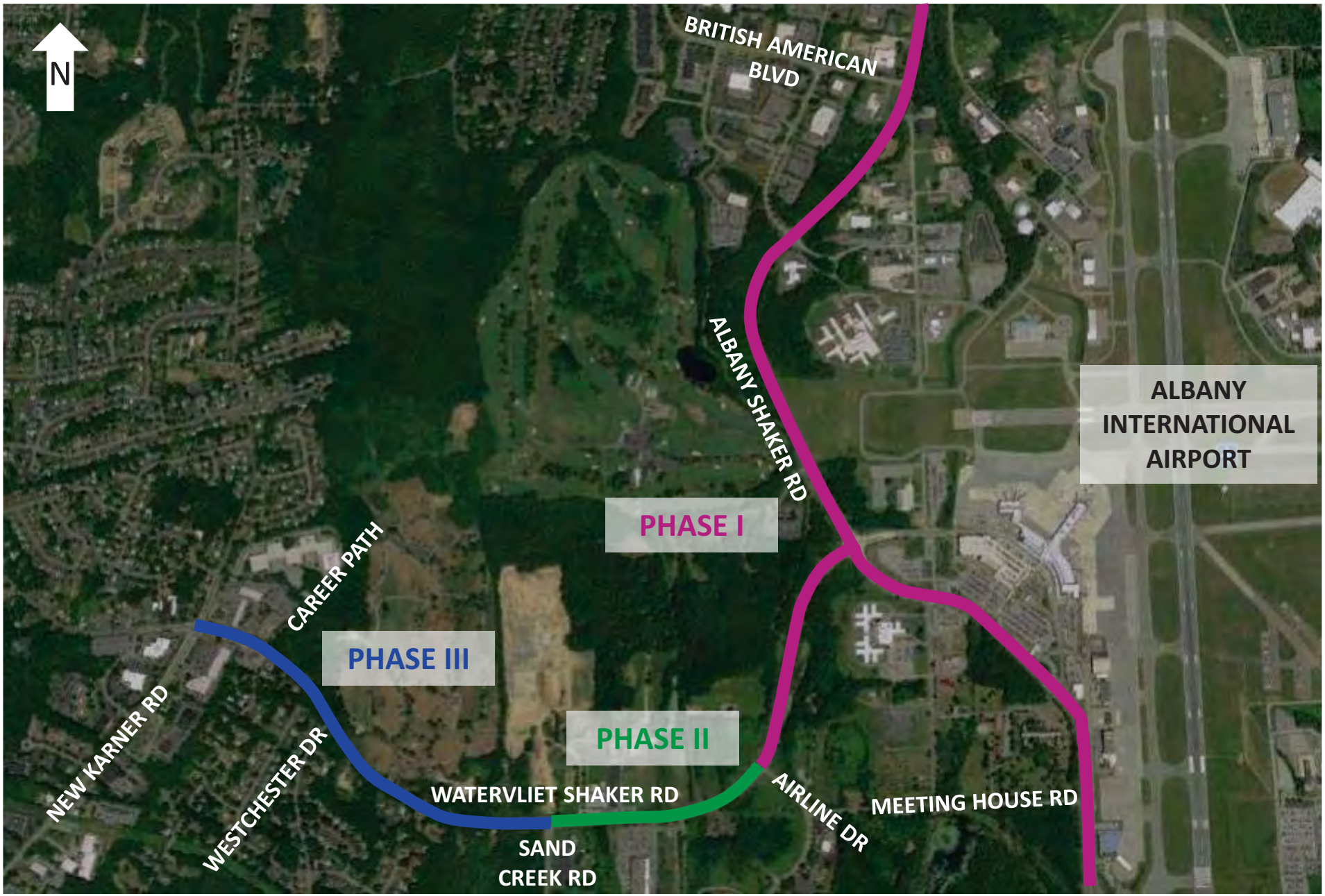
The project has been split into three (3) phases overall:

Phase I: **Albany Shaker Road Reconstruction**
From south of Meeting House Road to British American Boulevard
Completed in 2004

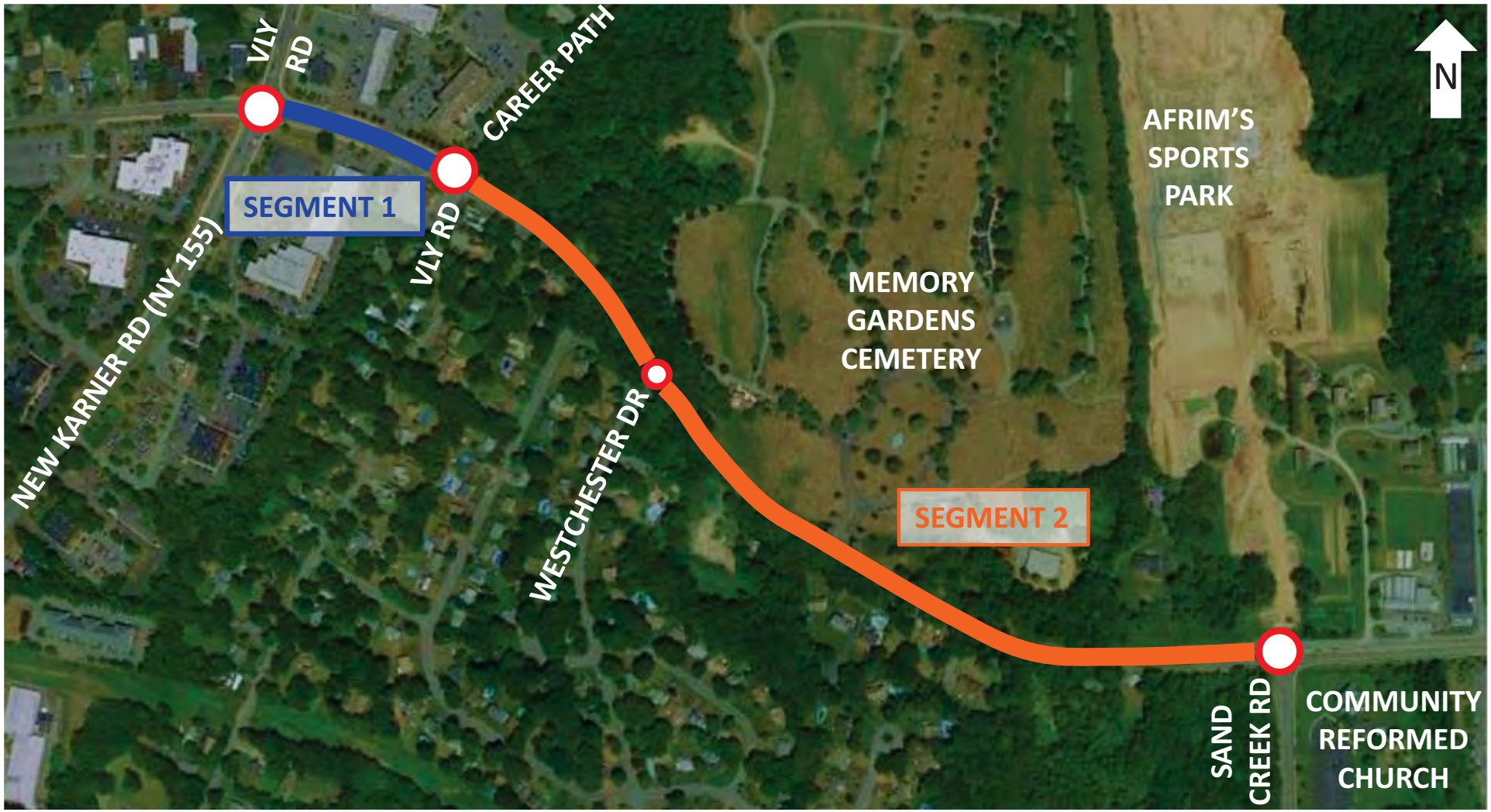
Phase II: **Watervliet Shaker Road Reconstruction**
From Sand Creek Road to Airline Drive
Completed in 2007

Phase III: **Watervliet Shaker Road Reconstruction**
From New Karner Road to Sand Creek Road
Anticipated Completion in 2022/2023

Project Phases I, II and III



Phase III Project Limits



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Audience Poll

- How would you best describe your association with the project area? Select all that apply.
  - Town Resident – 86%
  - Commuter – 19%
  - Business owner or store manager – 7%
  - Other – 24%
- Do you live within the project corridor?
  - Yes – 59%
  - No – 41%
- Do you feel that traffic along the project corridor is an issue?
  - Yes – 68%
  - No – 32%

Project Objectives

1. Improve traffic operations and safety
2. Address pavement conditions
3. Provide safe pedestrian and bicycle facilities
4. Improve stormwater collection and treatment

Project Objectives

1. Improve traffic operations and safety
   - Analyze intersection level of service at the following intersections:
     - New Karner Road / Vly Road
     - Career Path / Vly Road
     - Sand Creek Road / Afrim's Driveway

New Karner Rd / Vly Rd

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Project Objectives

2. Address pavement conditions
   - Preventative maintenance or reconstruction as required
   - Roadway widening for a two-way turn lane within Segment 2

Existing Pavement Conditions

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Project Objectives

3. Provide safe pedestrian and bicycle facilities
   - Safety upgrades and new accessible features
   - Provide a multi-use path along the project corridor

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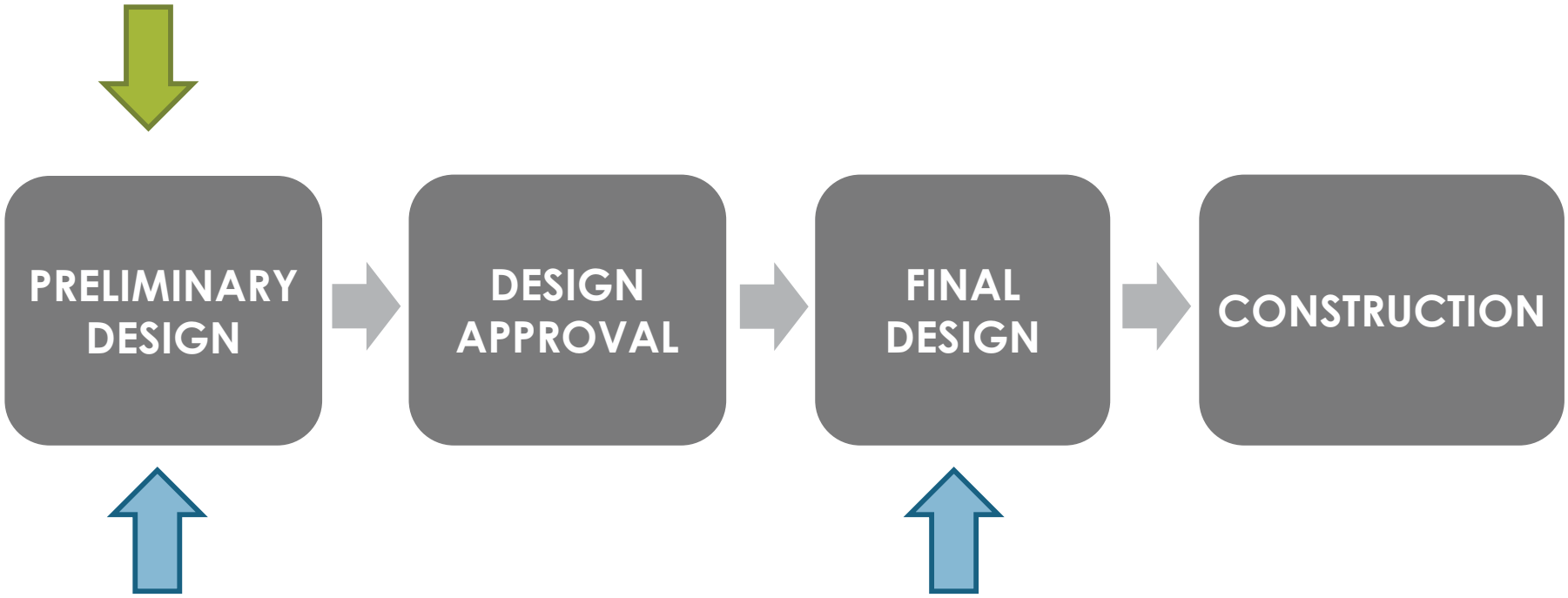
Project Objectives

4. Improve Stormwater Collection and Treatment
   - Efficient collection of stormwater runoff
   - Provide stormwater treatment in accordance with NYSDEC regulations
   - Evaluate stormwater runoff in relation to private properties

Project Steps

WE ARE HERE



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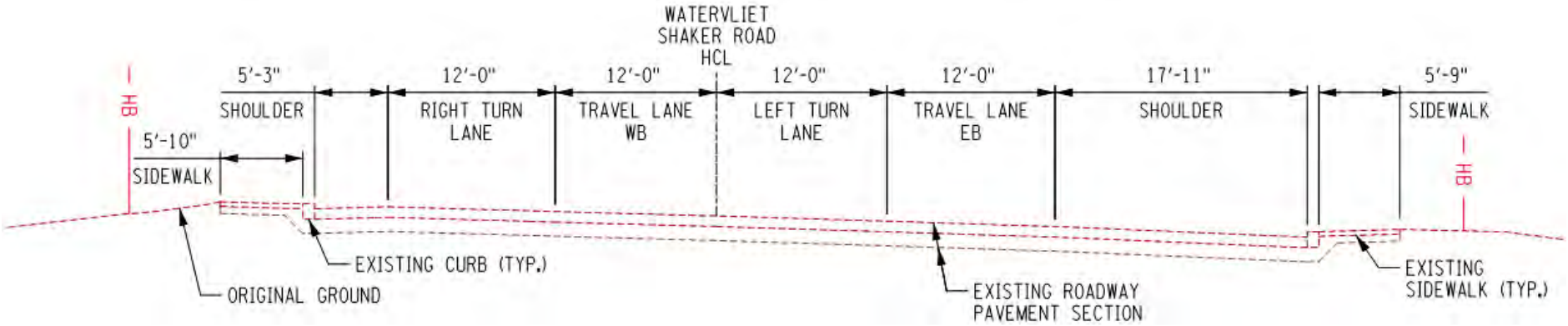
Audience Poll

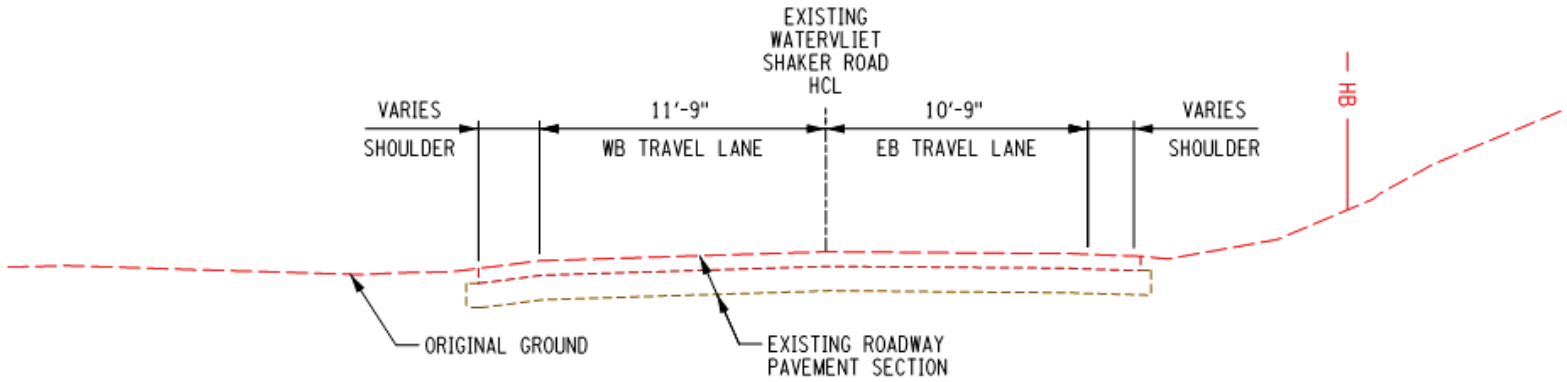
- Have you experienced any intersection delay within the project corridor?
  - No Delay – 27%
  - Some Delay – 56%
  - Significant Delay – 17%
- Do you perceive any issues with the lane configuration at the New Karner and Watervliet Shaker intersection?
  - No issues – 48%
  - Some issues – 40%
  - Significant issues – 12%
- Do you feel there are a large number of crashes along the corridor?
  - Yes – 7%
  - No – 62%
  - Not Sure – 31%
- Do you feel there are sufficient pedestrian accommodations throughout the corridor?
  - Yes – 2%
  - No – 91%
  - Not Sure – 7%

Existing Conditions: Roadway



Segment 1 Existing Section

Watervliet Shaker Road



Segment 2 Existing Section

Watervliet Shaker Road

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Existing Conditions: Roadway

- Aging pavement surfaces
- Misaligned through lanes at New Karner Rd intersection
- Narrow shoulders in Segment 2
- Lack of roadway and pedestrian-level lighting
- Lack of formal drainage collection system within Segment 2

Existing Conditions: Pedestrians

- Lack of pedestrian and bicycle facility connectivity
- Crossings, sidewalks and ramps do not meet current ADA standards
- Nonstandard pedestrian signals

Existing Conditions: Crashes

- Data from Accident Location Information System (ALIS)
- 2015 - 2020

CORRIDOR CRASH ANALYSIS SUMMARY			
Corridor	Crash Rate	Statewide Average	Primary Crash Type(s)
Watervliet Shaker Rd	1.19	2.23	Rear End (29%) Turning (25%)

(Crash rates reported in crashes per million vehicle miles)

Existing Conditions: Crashes

INTERSECTION CRASH ANALYSIS SUMMARY			
Intersection	Crash Rate	Statewide Average	Primary Crash Type(s)
New Karner Rd/Vly Rd	0.62	0.25	Rear End (46%) Turning (32%)
Career Path/Vly Rd	0.31	0.25	Rear End (25%) Turning (63%)
Westchester Dr	0.16	0.18	Rear End (50%) Turning (25%)
Sand Creek Rd	0.0	0.25	none reported

(Crash rates reported in crashes per million entering vehicles)

Existing Conditions: Traffic

Purpose

- Address Operational Delays at Three Major Intersections

Capacity Analysis

- Drives the Design Alternatives' Lane Configurations
- Follow Industry Methodologies and Standards
- Level of Service (LOS)
  - Measure of Effectiveness of Operational Conditions

Existing Conditions: Traffic

How did we adjust for the COVID Pandemic?

- Traffic Volumes and Patterns Changed throughout
  - Remote Working and Learning, Business Closures, Layoffs
  - Unknown When New Baseline Conditions Return
  - Could be years before New Baseline Conditions occur
- Industry Standard Published Guidance
- Guidance Includes:
  - Consensus is to use historic turning movement counts, if available
  - If not available, perform counts and develop adjustment factors
  - Adjustment Factors developed using historic data (24-hour)

Existing Conditions: Traffic

What Did We Do?

- Performed Counts in October 2020
  - Albany County Collected 24-hour Data (ATR)
  - MJ Collected Turning Movement Counts
- Requested Data from CDTC, Town of Colonie, Albany County
- Developed Adjustment Factors
  - Utilized 24-Hour data and Turning Movement Data
  - Factors Determined for EB and WB directions
  - Applied to Turning Movement Counts
  - Forecasted Adjusted Volumes Using CDTC supplied Growth Factors

Existing Conditions: Traffic

What Did We Do?

- Existing (2020) and No-Build Analysis
  - Determine Operational Baseline Conditions
  - Utilized Existing Lane Configurations
  - Utilized Industry Standard Software
    - Synchro© – Macroscopic Analysis and Optimization Application
    - Follows Methodology from the Highway Capacity Manual
  - One Model for Entire Project Area – Accounts for Progression
  - Model Adjusted for Known Future Development Traffic
- Design Years
  - Estimated Time of Completion – ETC (2023) and ETC+10 (2033)
- Growth Factors from CDTC
  - 0.4% per year up to 2023; 0.3% per year up to 2033

Existing Conditions: Traffic

Level of Service (LOS)

- Measure of Effectiveness of Operational Conditions
- Standards – Min LOS D (Urban); LOS C (Rural)

Signalized Intersections	
LOS	Delay (sec)
A	0-10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

Stop Control / Roundabout Intersections	
LOS	Delay (sec)
A	0-10
B	> 10-15
C	> 15-25
D	> 25-35
E	> 35-50
F	> 50

Existing Conditions: Traffic

Capacity Analysis Results – Existing and No-Build (Delay in Seconds)					
No.	Location	Approach	EXIST 2020	NO-BUILD ETC 2023	NO-BUILD ETC+10 2033
1	New Karner Rd & Vly Rd	Overall	C (34.3)	C (34.7)	D (35.5)
2	Vly Rd & Career Path	Overall	C (21.6)	C (24.1)	C (27.9)
3	Westchester Dr	Northbound	E (47.4)	E (47.9)	F (54.9)
		Westbound	A (9.2)	A (9.2)	A (9.3)
4	Sand Creek Rd & Afrim's Driveway	Overall	D (48.9)	D (51.5)	E (55.8)

Alternatives Considered

Maintenance Alternative	Resurface Roadway (Future Maintenance Only)
Alternative 1A	Signalized Intersection Upgrades
Alternative 1B	Signalized Intersection Upgrades with Geometric Improvements
Alternative 2	Roundabout Intersections

Common Alternative Elements

Alternatives 1A, 1B and 2:

- Roadway and multi-use path construction, Segment 2
- Work Zone Traffic Control
  - Alternating one-way traffic during paving operations
  - Access to residential and commercial properties maintained at all times
- Utility and Drainage Work
  - Multiple utility pole relocations
  - Segment 1 - Modifications to existing drainage system
  - Segment 2 - Implement formal drainage and stormwater treatment system
- Intersection and Pedestrian-Level Lighting

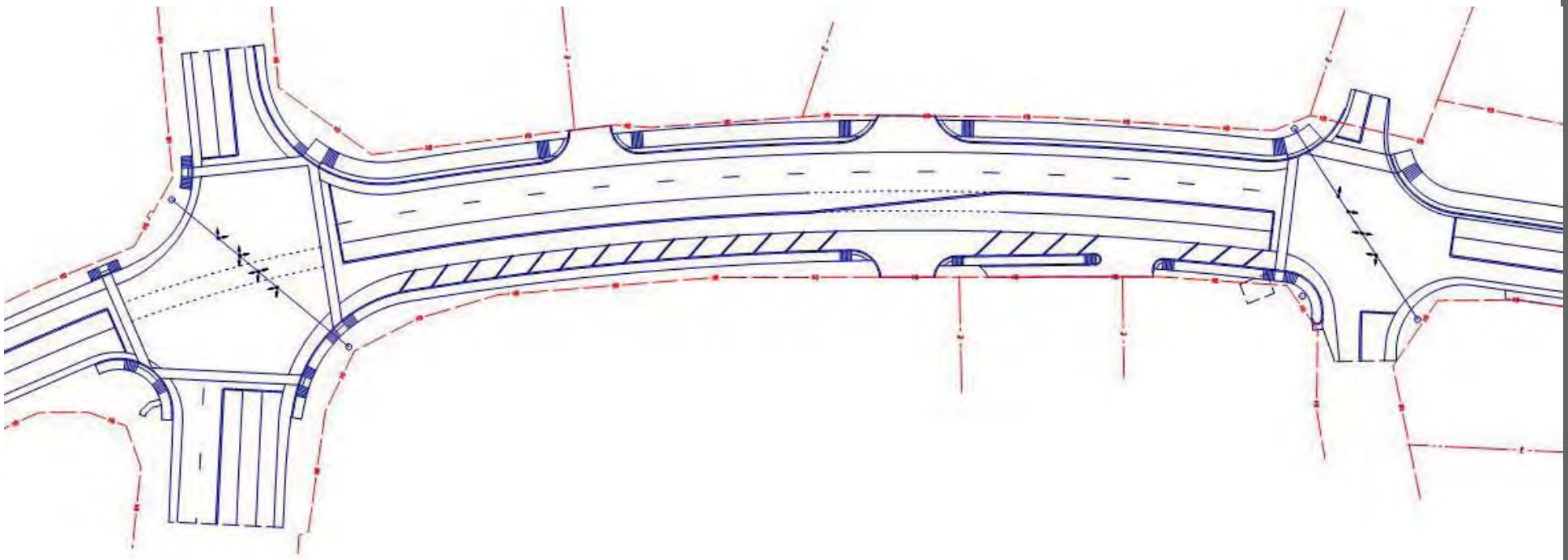
Alternative No. 1A

Signalized Intersection Upgrades

- New pavement
- Segment 2: Widen road for two-way left turn lane
- Improve intersection geometry at New Karner
- Traffic signal upgrades
  - New coordinated signals at New Karner Road and Career Path
  - New Pedestrian Signals and push buttons at New Karner, Career Path and Sand Creek (as needed)
  - Optimize signal operation at Sand Creek Road
- No anticipated property impacts

Alternative No. 1A

Signalized Intersection Upgrades at New Karner Road and Career Path (SEGMENT 1)



New Karner Road and
Watervliet Shaker Road

Career Path and
Watervliet Shaker Road

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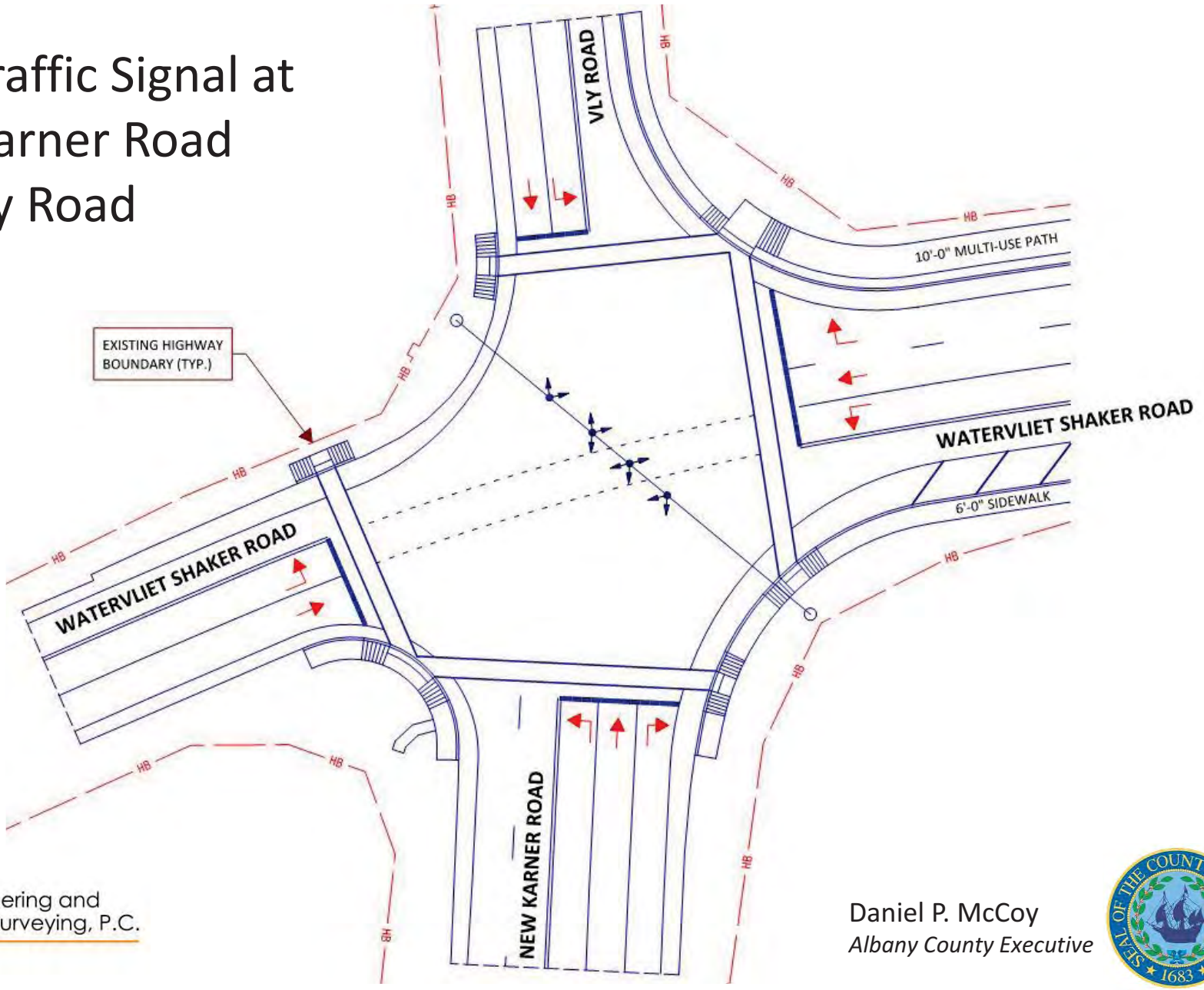
Alternative No. 1A

New Traffic Signal at
New Karner Road
and Vly Road



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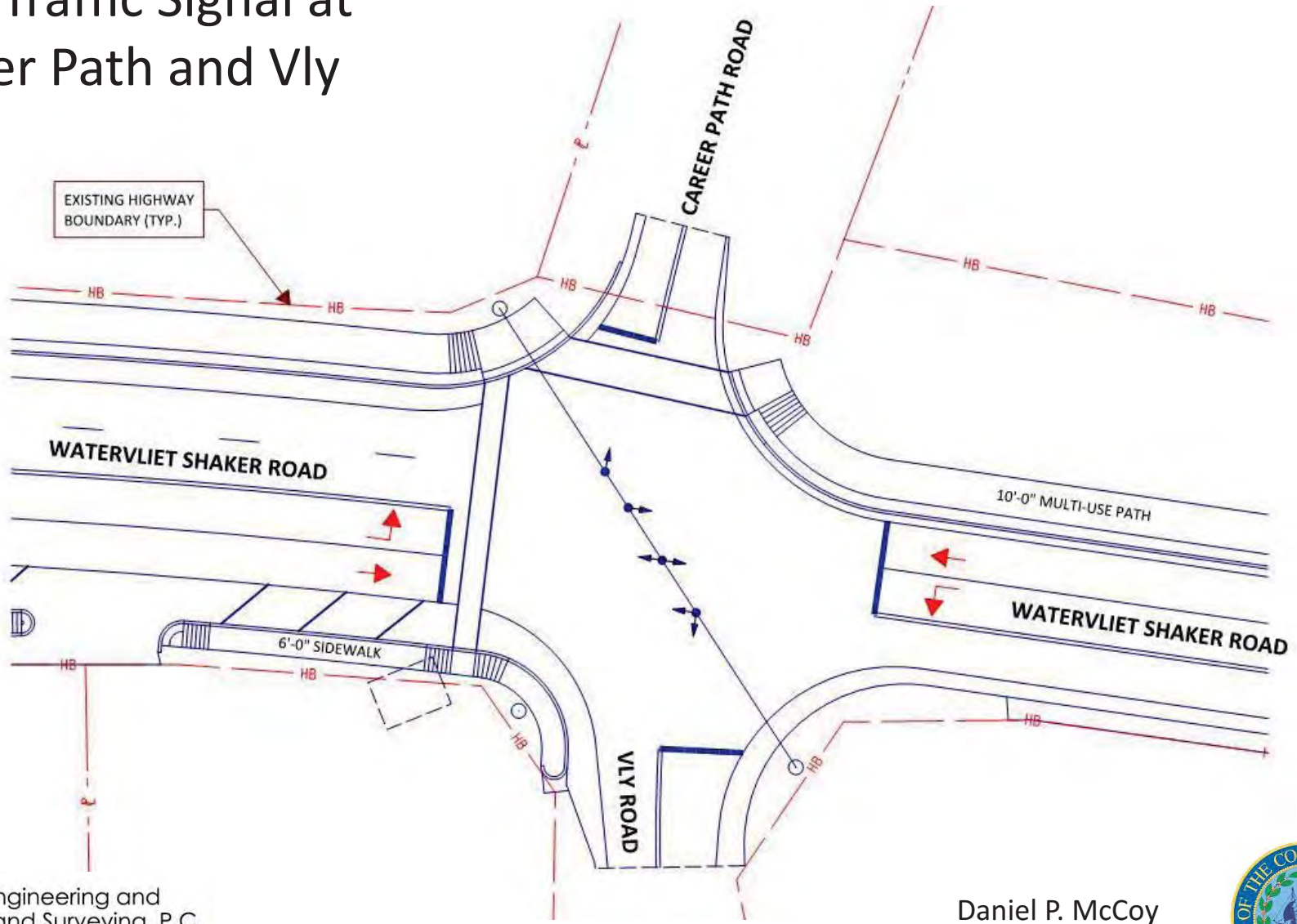
Alternative No. 1A

New Traffic Signal at Career Path and Vly Road



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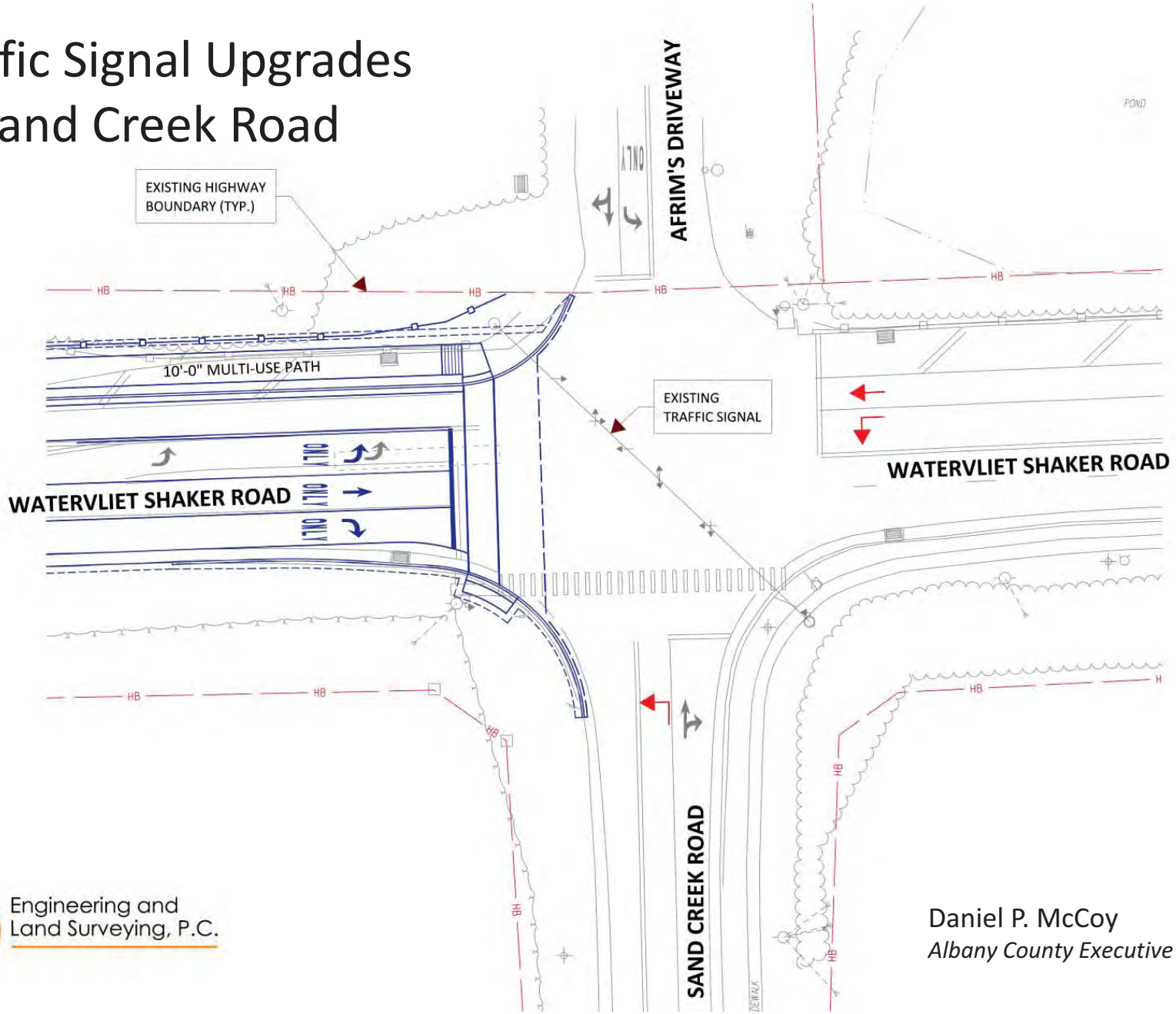
Alternative No. 1A

Traffic Signal Upgrades at Sand Creek Road



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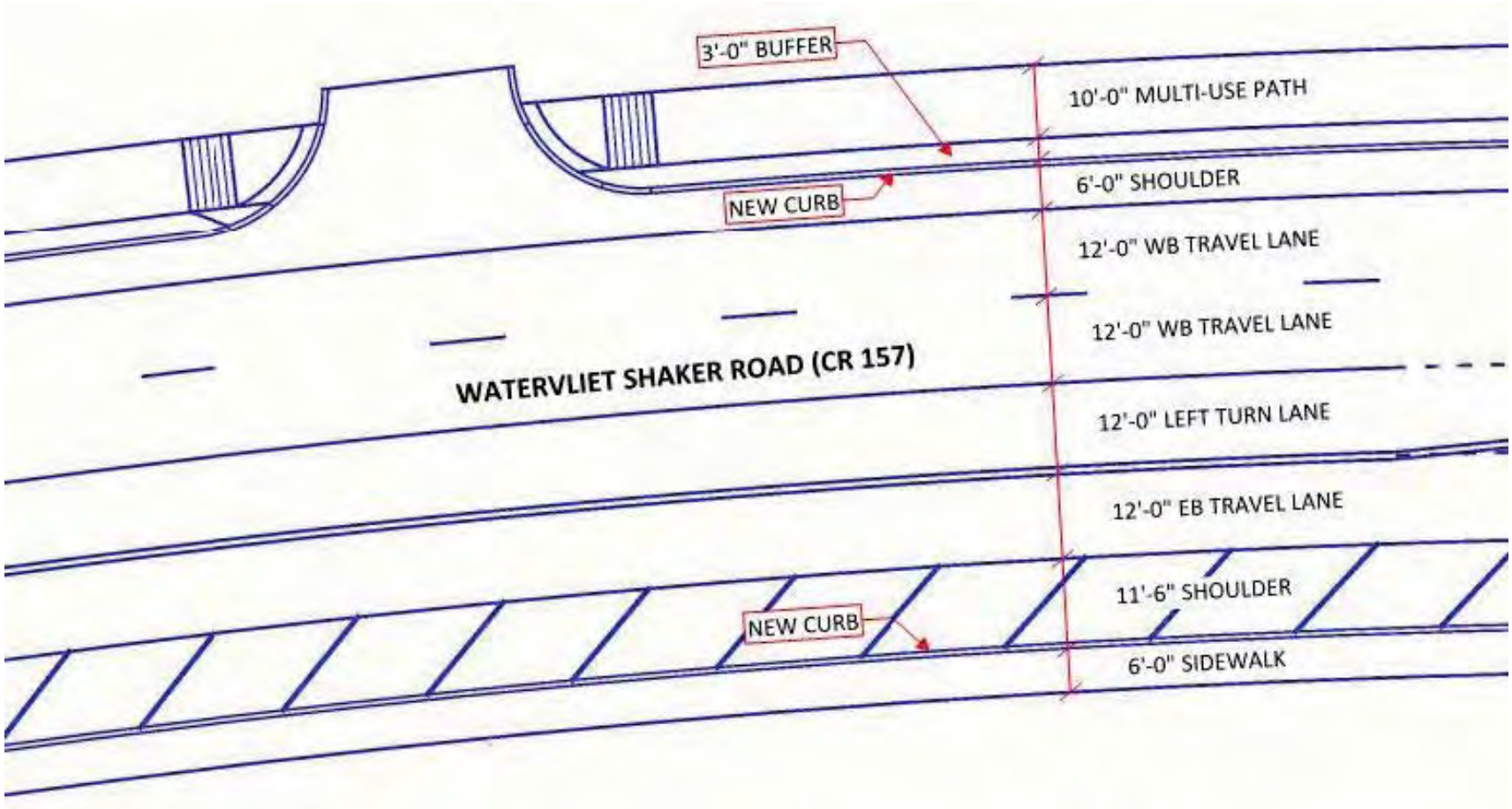
Alternative No. 1A

Segment 1 Roadway Layout: New Karner Road to Career Path



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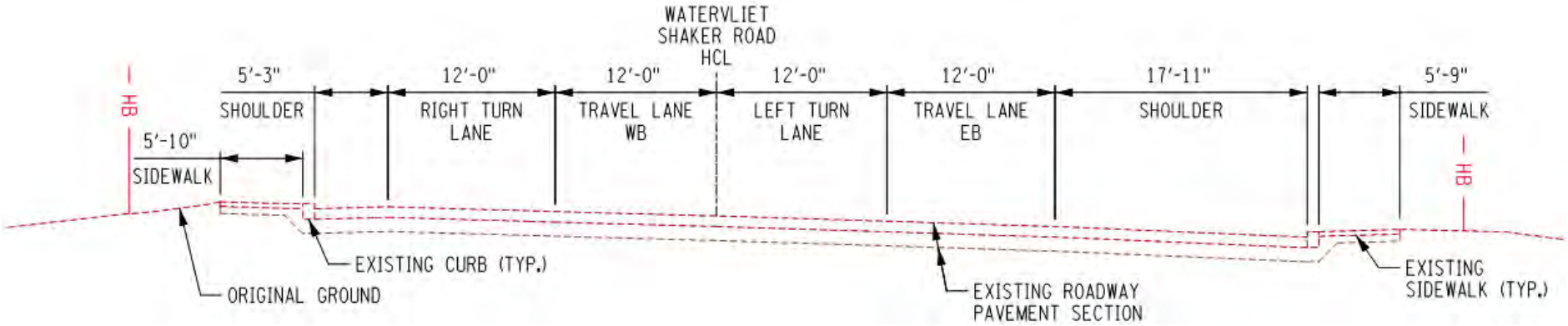
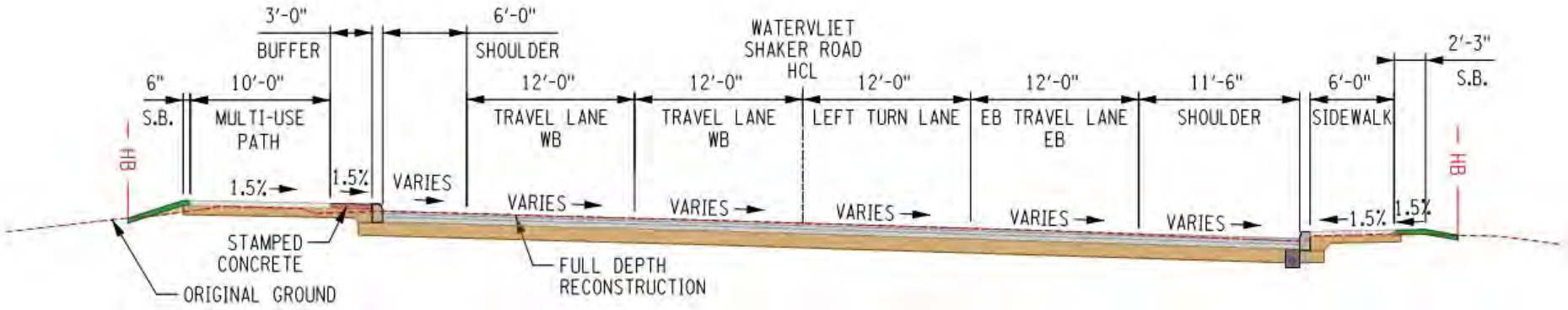
Alternative No. 1A

Segment 1 Roadway Section: New Karner Rd to Career Path



Segment 1 Existing Section

Watervliet Shaker Road



Segment 1 Alternative 1A Proposed Section

Watervliet Shaker Road

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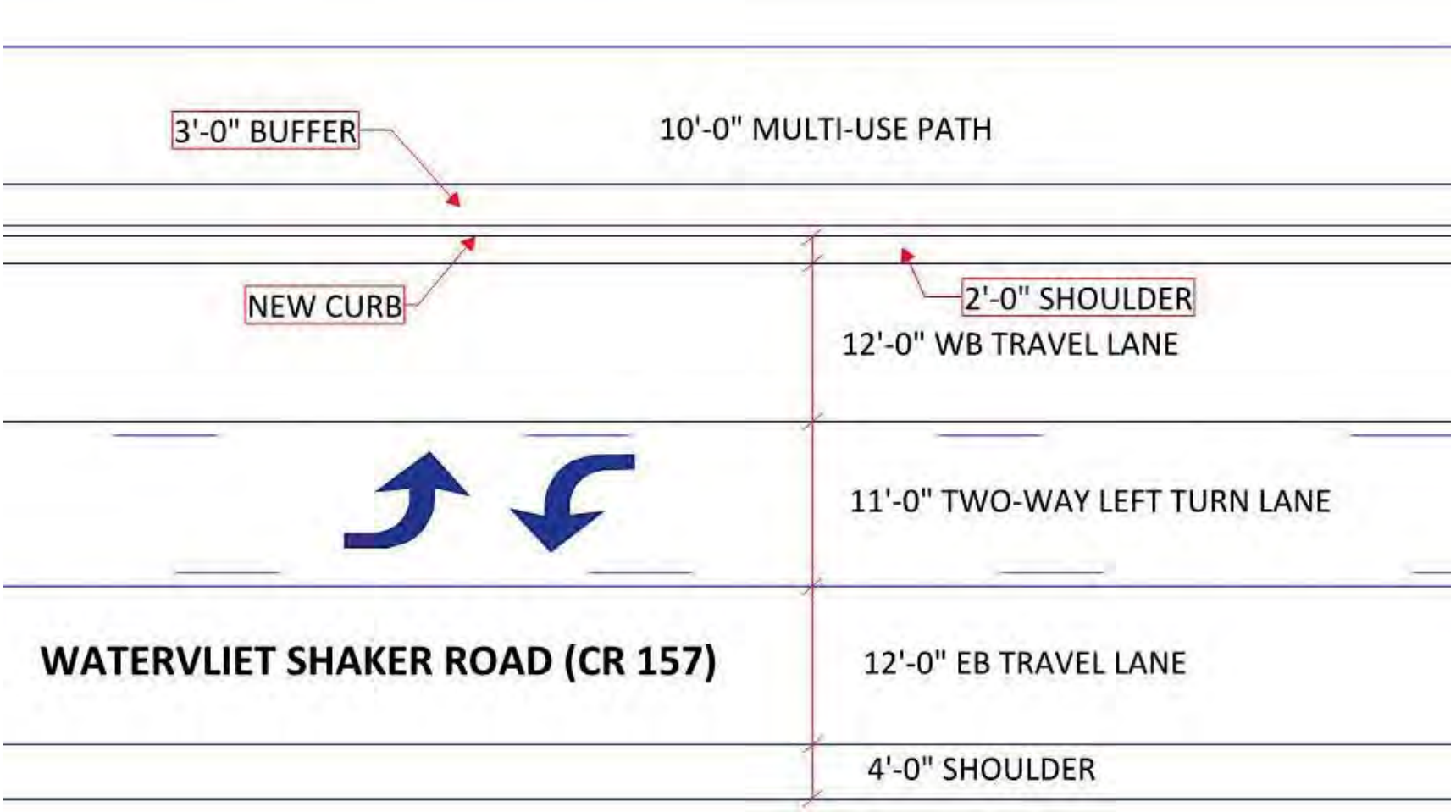
Alternative No. 1A

Segment 2 Roadway Layout: Career Path to Sand Creek Rd



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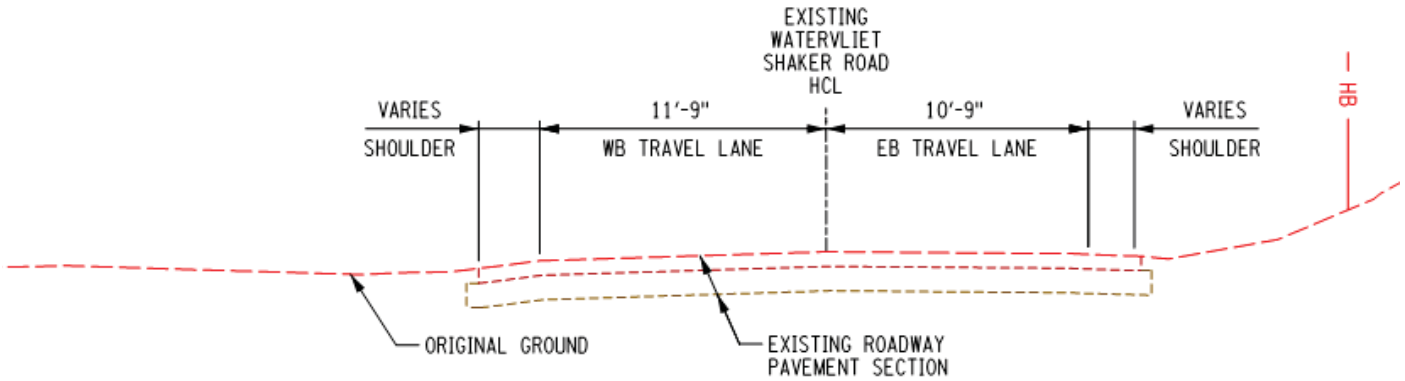
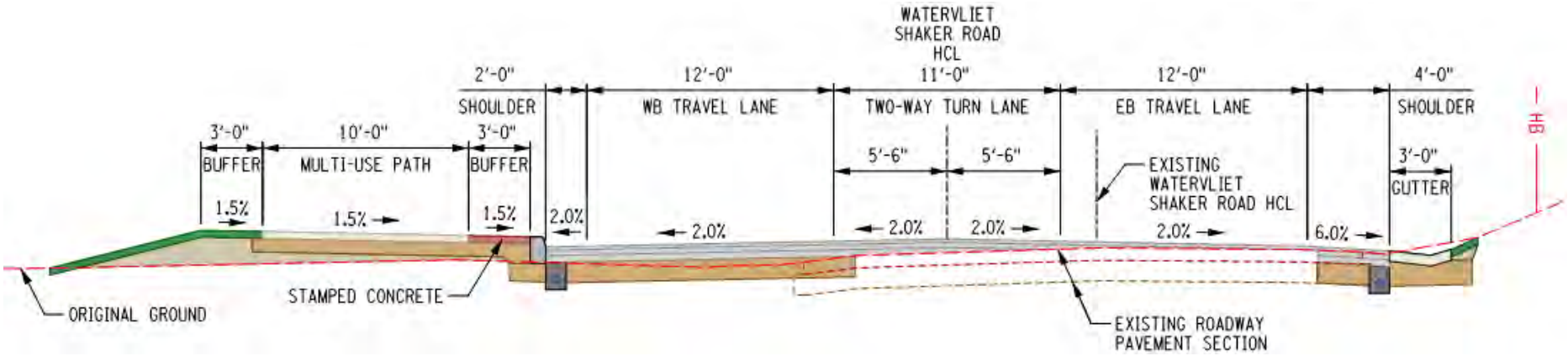
Alternative No. 1A

Segment 2 Roadway Section: Career Path to Sand Creek Rd



Segment 2 Existing Section

Watervliet Shaker Road



Segment 2 Alternative 1A Proposed Section

Watervliet Shaker Road

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Alternative No. 1B

Signalized Intersection Upgrades with Geometric Improvements

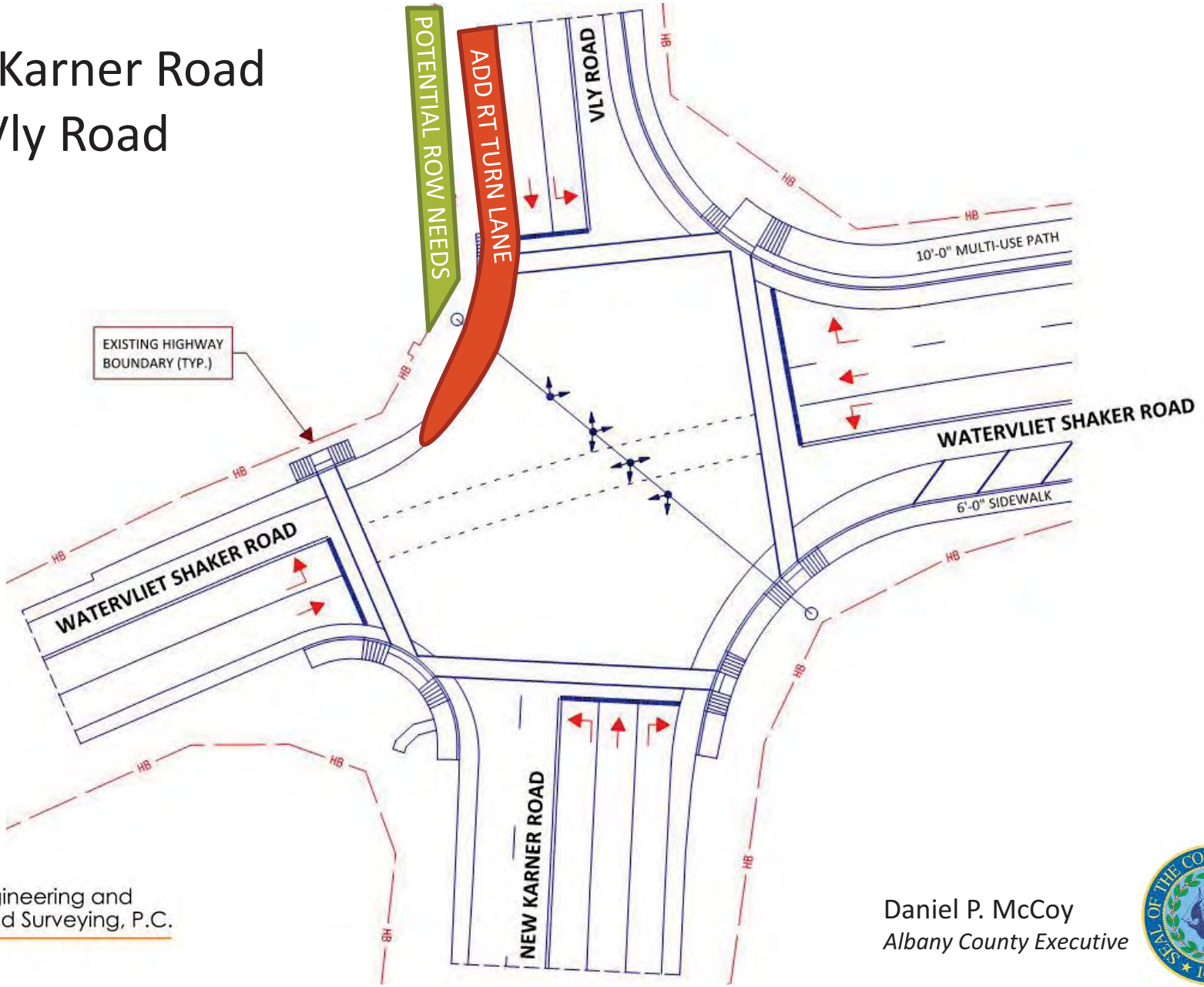
- Similar to Alternative 1A with lane configuration changes
- Improve level of service

Intersection	Improvements
New Karner Rd / Vly Rd	New right turn lane on Vly Rd
Career Path / Vly Rd	No geometric improvements proposed
Sand Creek Rd / Afrim's Driveway	New Traffic Signal Additional left turn lane at Sand Creek Rd Additional thru lane on Watervliet Shaker at Sand Creek

- Property impacts are anticipated

Alternative No. 1B

New Karner Road and Vly Road



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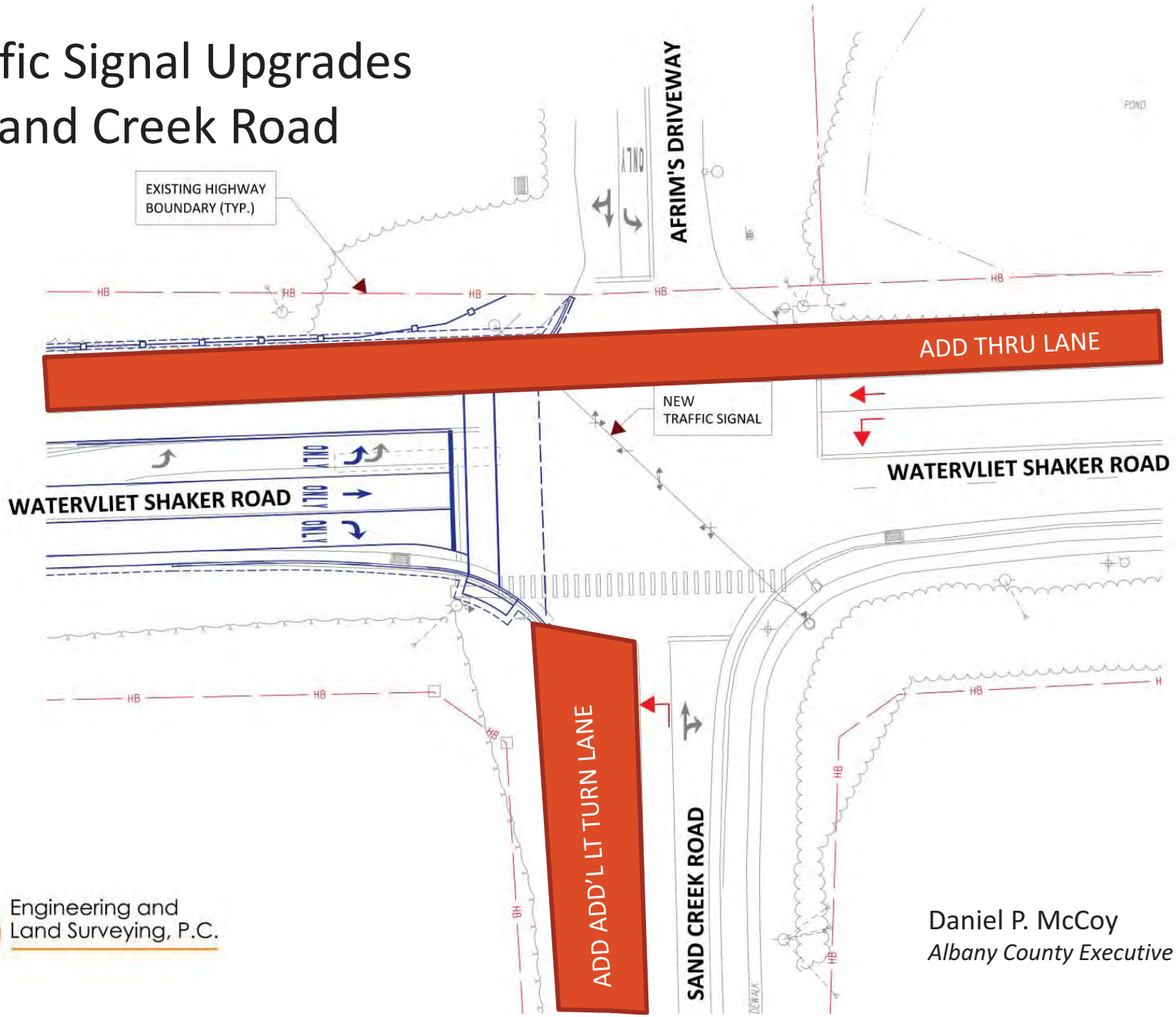
Alternative No. 1B

Traffic Signal Upgrades at Sand Creek Road



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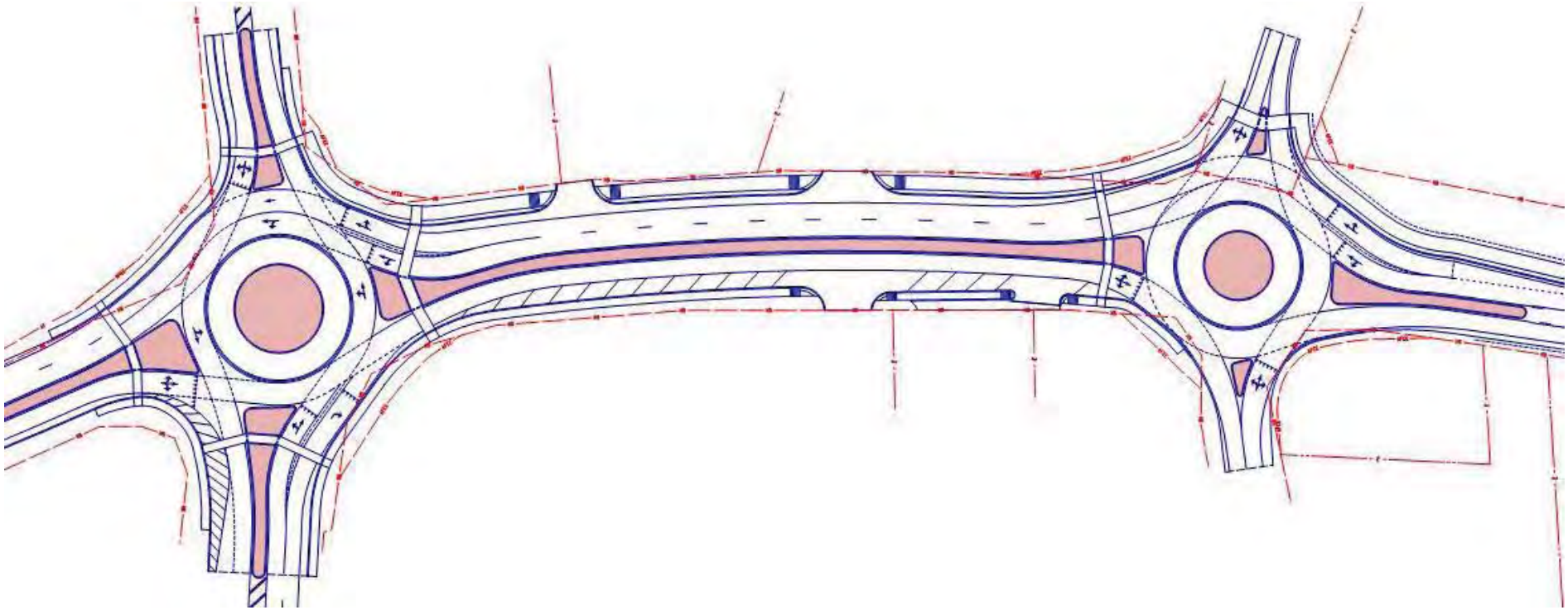
Alternative No. 2

Roundabout Intersections

- New pavement
- Segment 2: Widen road for two-way left turn lane
- Roundabout intersections at:
  - New Karner Road and Vly Road
  - Career Path and Vly Road
- Treatment at Sand Creek Road is TBD
  - New signal with lane configuration changes **OR**
  - Potential roundabout
- Property impacts are anticipated

Alternative No. 2

Roundabout Intersections at New Karner Road and Career Path (SEGMENT 1)



New Karner Road and
Watervliet Shaker Road

Career Path and
Watervliet Shaker Road

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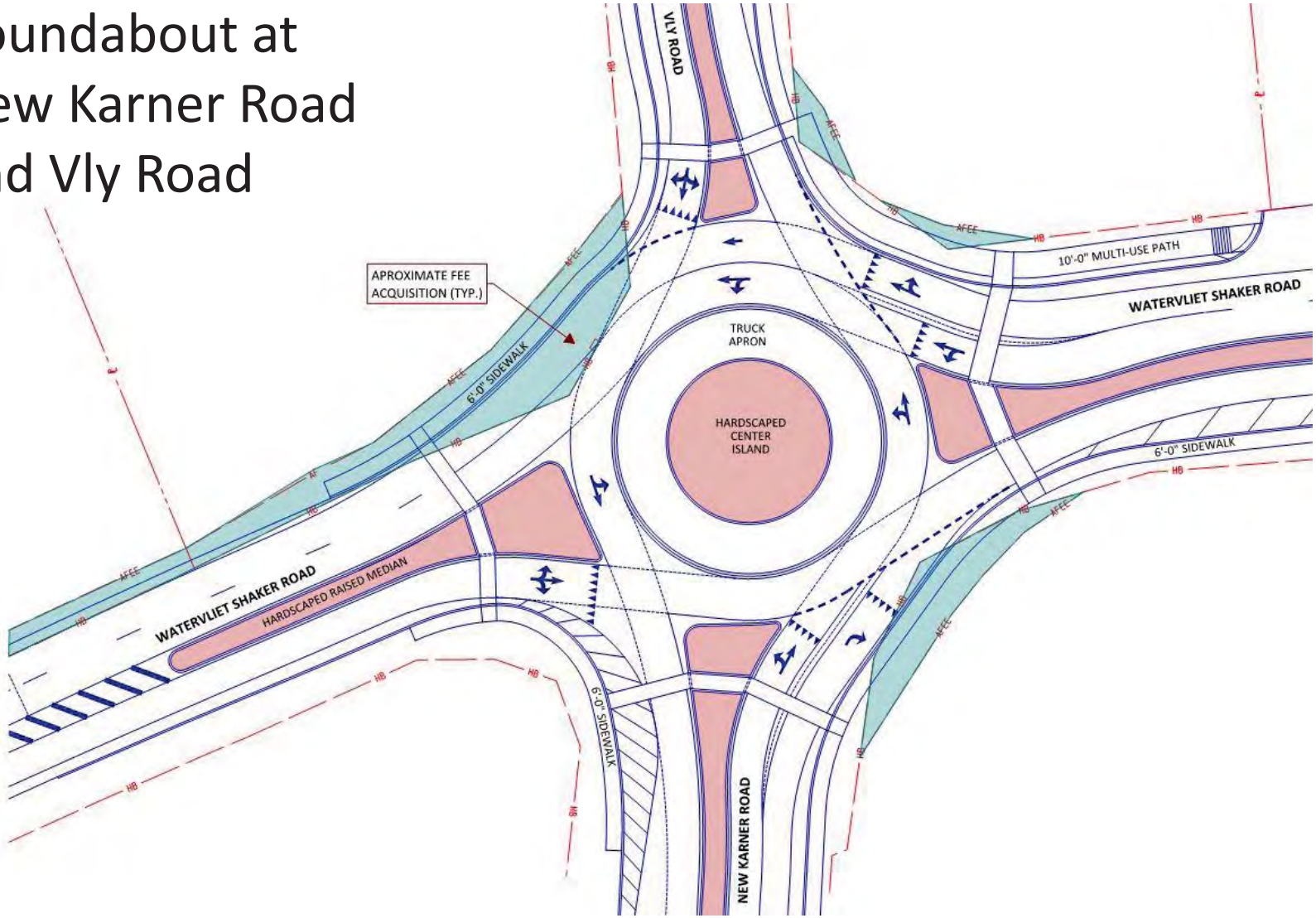
Alternative No. 2

Roundabout at New Karner Road and Vly Road



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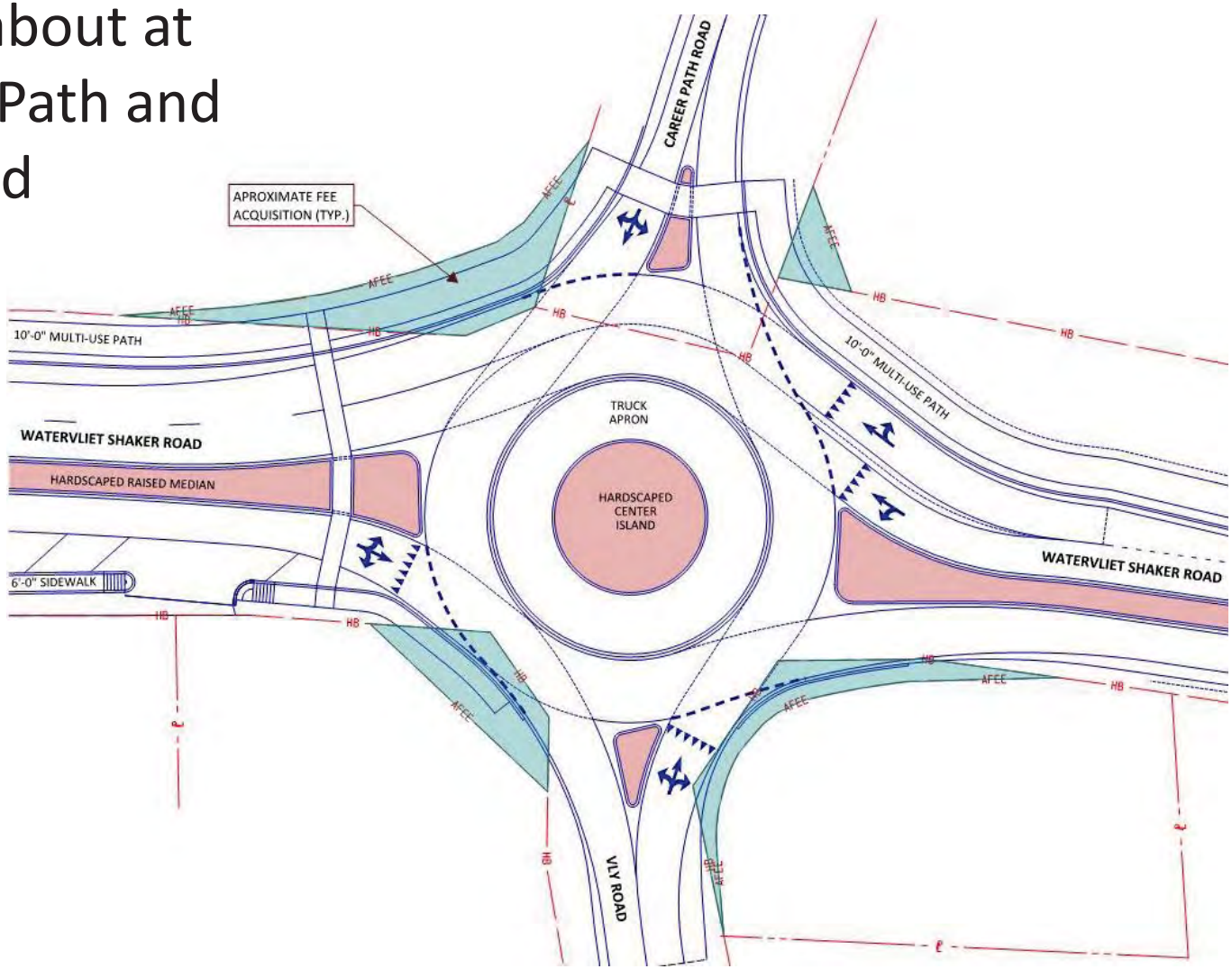
Alternative No. 2

Roundabout at Career Path and Vly Road



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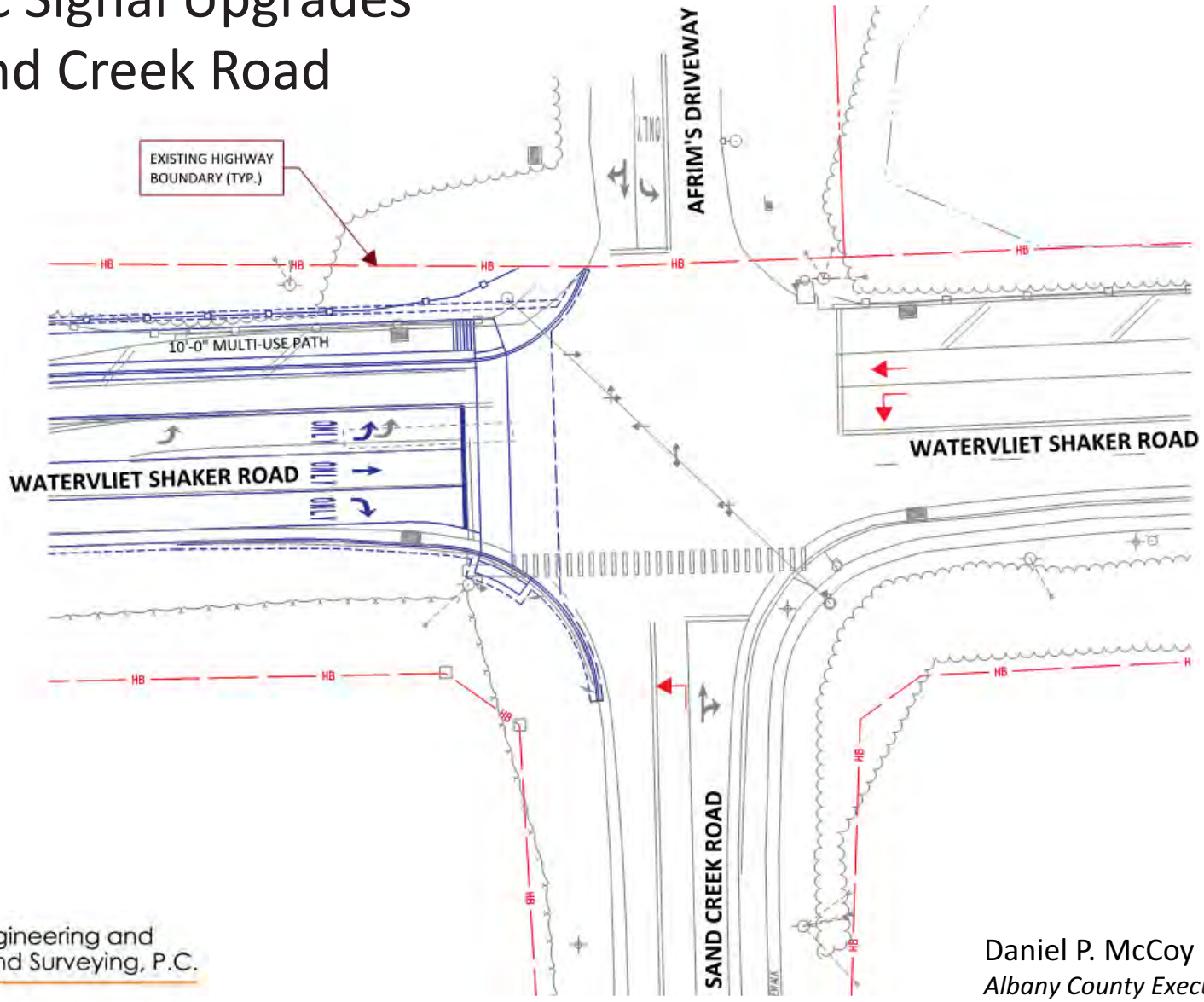
Alternative No. 2

Traffic Signal Upgrades at Sand Creek Road



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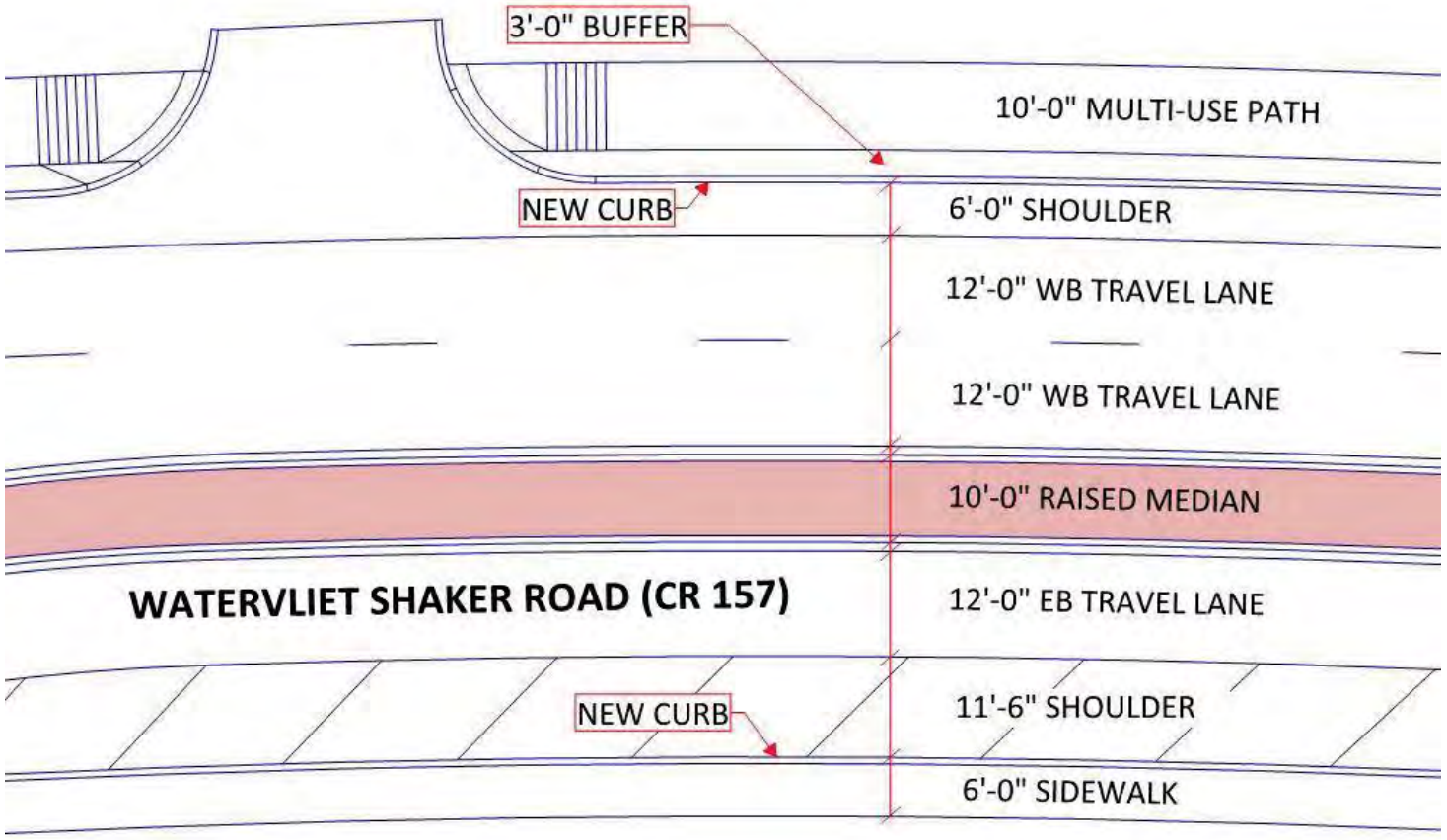
Alternative No. 2

Segment 1 Roadway Layout: New Karner Road to Career Path



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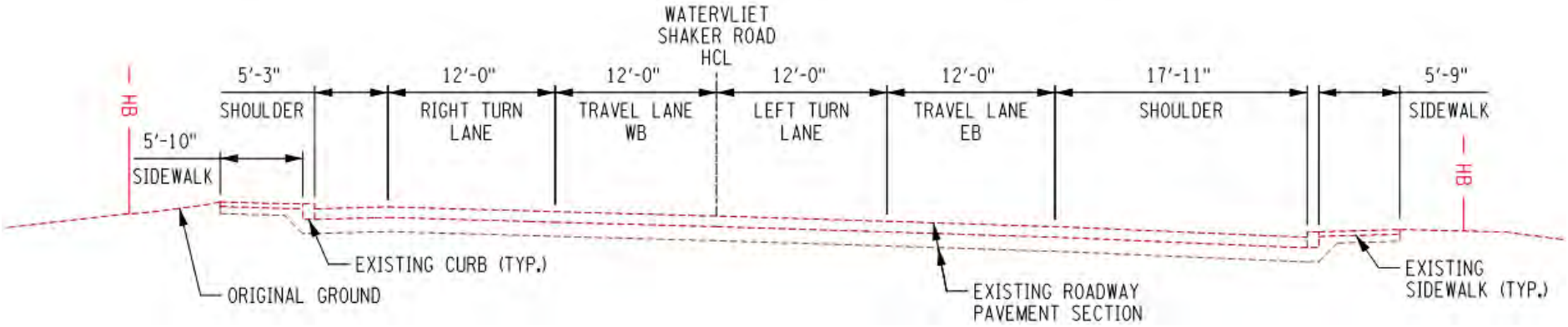
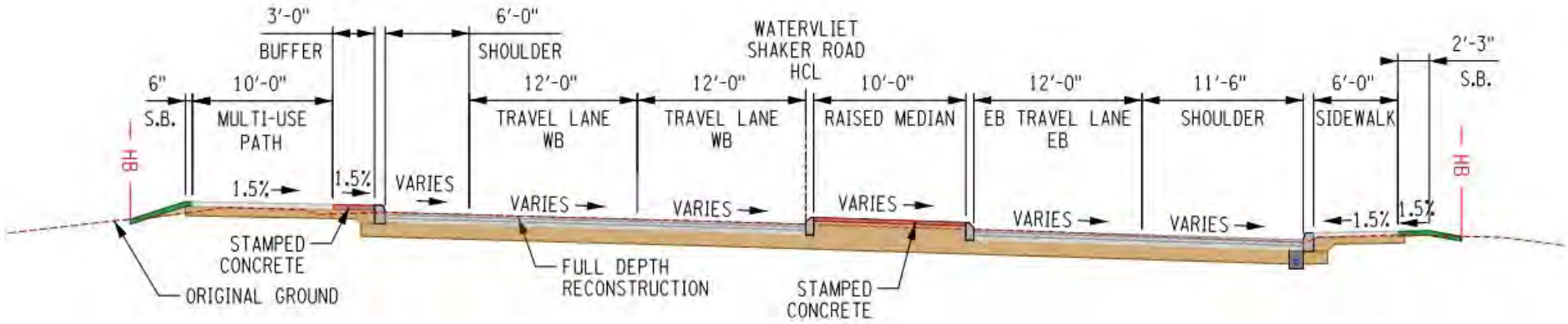
Alternative No. 2

Segment 1 Roadway Section: New Karner Rd to Career Path



Segment 1 Existing Section

Watervliet Shaker Road



Segment 1 Alternative 2 Proposed Section

Watervliet Shaker Road

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Future Build Traffic Analysis

- Alternative 1A – Traffic Signal Alternative
  - Existing Lane Configurations
- Alternative 1B – Traffic Signal Alternative
  - Explored Modified Lane Configurations
- Alternative 2 – Roundabout Alternative
  - Explored Approach Lane Configurations
- Design Years – ETC (2023) and ETC+10 (2033)
- Level of Service (LOS)
  - Compare to Baseline Conditions
  - Standards – Min LOS D (Urban); LOS C (Rural)

Future Conditions: Traffic

Capacity Analysis Results – Alternative Comparison
(Delay in Seconds)

No.	Location	Desc	EXIST 2020	NO-BUILD 2023	NO-BUILD 2033	ETC 2023	ETC+10 2033	ETC+10 IMP 2033	ETC 2023	ETC+10 2033
						Alt 1A	Alt 1A	Alt 1B	Alt 2	Alt 2
1	New Karner Rd & Vly Rd	All	C (34.3)	C (34.7)	D (35.5)	C (32.1)	C (33.8)	C (25.9)	B (13.9)	B (14.9)
2	Vly Rd & Career Path	All	C (21.6)	C (24.1)	C (27.9)	C (21.5)	C (24.1)	B (16)	A (8.5)	A (8.8)
3	Westchester Dr	NB	E (47.4)	E (47.9)	F (54.9)	E (45.1)	F (50.1)	F (50.1)	E (47.9)	F (54.9)
		WB	A (9.2)	A (9.2)	A (9.3)	A (9.2)	A (9.3)	A (9.3)	A (9.2)	A (9.3)
4	Sand Creek Rd & Afrim's	All	D (48.9)	D (51.5)	E (55.8)	D (36.4)	D (43.2)	C (20.8)	TBD	TBD

Comparison of Alternative Costs

	Maintenance Alternative	Alt. No. 1A	Alt. No. 1B	Alt. No. 2
Segment 1	$ 305,000	$ 1,720,000	$ 1,880,000	$ 3,800,000
Segment 2	$ 315,000	$ 2,380,000	$ 2,880,000	$ 2,880,000
Property Acquisition	None	None	TBD	TBD
Total Construction Cost	**$ 620,000**	**$ 4,100,000**	**$ 4,760,000**	**$ 6,680,000**

Note:
Alternative 2 Cost does not include a Roundabout at Sand Creek Road for Segment 2

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Audience Poll

- Do you prefer a roundabout or signalized intersection?
  - Roundabout – 51%
  - Traffic Signal – 49%
- Does delay time factor into your intersection preference?
  - Yes – 47%
  - No – 53%
- Does construction cost factor into your intersection preference?
  - Yes – 33%
  - No – 67%

Next Steps

- Address and incorporate initial public comments
- Complete Design Approval Document
- Albany County DPW will recommend a preferred alternative for design approval (Summer 2021)

Tentative Schedule

PROJECT TASK	Summer 2020	Fall 2020	Winter 2020-2021	Spring 2021	Summer 2021	Fall 2021	Winter 2021-2022
Data Collection							
Preliminary Design							
Public Meeting #1							
Final Design							★
Public Meeting #2							

Alternative 1A: Construction Spring 2022 (shown above)

Alternatives 1B & 2: ★ Property acquisition 9-12 months, likely construction start in Spring 2023

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Daniel P. McCoy
Albany County Executive

Where Can I Find Out More?

- Check for updates on the Albany County DPW website:

  https://www.albanycounty.com/departments/public-works

- Email Questions to:

  AlbanyCountyWSR@gmail.com

  By April 28, 2021

- Attend the second Public Engagement Event (Late 2021)

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Q & A Session

- To post a question, utilize the “Q & A” function in your Zoom Webinar panel
- Use the “Raise Hand’ feature
  - If on a telephone, use *9 to Raise hand and *6 to mute/unmute
- Following the webinar, written comments can be submitted to: AlbanyCountyWSR@gmail.com
- A recording of the webinar will be posted on the County website at: www.albanycounty.com/dpw

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