ECT ENGINEERS CONSTRUCTION, INC.

# **Submittal Cover Sheet**

| Submittal Title:                         | Traffic Control Plan & Temporary Pedestrian<br>Access Route |
|------------------------------------------|-------------------------------------------------------------|
| Project Name:                            | Williston STP 5500 (17)                                     |
| Date:                                    | March 14, 2025                                              |
| ECI Submittal Reference Number:          | 240265-08-Rev01                                             |
| Manufacturer / Supplier / Subcontractor: | N/A                                                         |
| Specification / Drawing References:      | 641.02                                                      |
| Submittal Prepared By:                   | Nathan Lougee                                               |

This submittal is not a proposed substitution or deviation from the Contract Documents.

This submission includes a proposed deviation from the Contract Documents as clearly identified in this submittal.

The undersigned attests that the undersigned has carefully examined this entire submission, and the requirements of the Contract Documents have been met.

# By: Nathan Lougee

Nathan Lougee

ECI Response to all VTRANS Comments Made in Williston STP 5500 (17) - TCP Rev.01 Submittal

|         |                                                          | Rejected        |                                   |  |
|---------|----------------------------------------------------------|-----------------|-----------------------------------|--|
| Comment |                                                          | Submittal       |                                   |  |
| No.     | VTRANS Comment/Question                                  | Section/Figure  | ECI Response                      |  |
|         | Does this submittal include ECI's Temporary              |                 | •                                 |  |
|         | Pedestrian Access Route (TPAR) plan or will it be        |                 |                                   |  |
|         | submitted under a separate cover. Plan is required as    |                 |                                   |  |
|         | part of Note 1 of 11 on sheet 209 of 215 of the          | Cover Sheet and | TPAR reference added to cover     |  |
| 1       | contract plans.                                          | Page 1 of 11    | sheet                             |  |
|         | There is no reference to the ramps to be constructed     |                 | Note added to Sheet 14 of 16 -    |  |
| 2       | at Sharon Drive and at Hillside.                         | Cover Sheet     | Additional info on TPAR plan      |  |
|         |                                                          |                 |                                   |  |
|         | The Contractor needs to clarify its intent in regards to |                 |                                   |  |
|         | the shoulder's status for pedestrian access during a     |                 |                                   |  |
|         | shoulder closure. Section 3 of the work zone guide       |                 |                                   |  |
|         | requires that a temporary facility should match or       |                 |                                   |  |
|         | exceed the level of accessibility that existed prior to  |                 |                                   |  |
|         | construction. Because an existing shared-use path and    |                 | Refer to TPAR plan sheets for     |  |
|         | sidewalks exist, channeling pedestrians and bicyclists   |                 | access relocation and crossing    |  |
| 3       | to a closed shoulder is not sufficient.                  | Cover Sheet     | areas.                            |  |
|         |                                                          |                 | Revised with Policy and Guidance  |  |
| 5       | Policy and Guidance (02/04/2021)                         | Page 3          | (February <mark>24</mark> , 2021) |  |
|         |                                                          |                 | Revised - Please note the VAOT    |  |
|         |                                                          |                 | 2024 Standard Specifications for  |  |
|         |                                                          | Page 3 & 11 of  | Construction references MUTCD     |  |
| 6       | 11th                                                     | 11              | 2009                              |  |
|         | Per Note 10 on Sheet 209 of 215 of the Contract plans    |                 |                                   |  |
|         | only allows lane closures during off-peak hours. No      |                 |                                   |  |
|         | lane closers during Peak hours. Sheet 151 of 215 of      |                 |                                   |  |
|         | the Contract plans provides the hours of Peak and off-   |                 |                                   |  |
| 7       | peak times                                               | Page 4          | Noted and revised                 |  |
| 8       | US                                                       | Page 4          | Revised as noted                  |  |
| 9       | Champlain Valley Expo                                    | Page 4          | Revised as noted                  |  |
|         | T-11 requires T-12                                       |                 |                                   |  |
|         | However T-11 and T-12 are for use with divided           |                 |                                   |  |
|         | highways not a conventions two-lane roadways like        |                 |                                   |  |
| 10      | VT Route 2A within the project limits.                   | Page 4          | Removed                           |  |
| 11      | G-1                                                      | Page 4          | Revised as noted                  |  |
|         | This is correct and it should be noted: Special          |                 |                                   |  |
|         | Provision 4 and no night work as defined in              |                 |                                   |  |
| 12      | Subsection 101.02.                                       | Page 5          | Added as noted                    |  |
|         | Will this occur at the point of merge/access and what    |                 |                                   |  |
|         | will the minimum spacing be between flaggers to          |                 | Revised to note minimized traffic |  |
| 13      | minimize traffic inturuptions.                           | Page 5          | interruptions                     |  |

| - |    |                                                          |               |                                   |
|---|----|----------------------------------------------------------|---------------|-----------------------------------|
|   |    | A UTO will be required on the signal end of the          |               |                                   |
|   |    | project. A UTO is the only entity that can override a    |               |                                   |
|   | 14 | traffic signal regulatory action.                        | Page 5        | Added as noted                    |
|   |    |                                                          | Page 5 & 8-10 |                                   |
|   | 15 | VT                                                       | of 11         | Revised as noted                  |
|   |    | Consider posting Bicycles symbol (W11-1) parent sign     |               |                                   |
|   |    | accompanied by an IN ROAD plaque (W16-1P) for            |               |                                   |
|   |    | areas where bicycle traffic is to occur and there are no |               |                                   |
|   |    | other options for bicyclist but to travel in the roadway |               | Added if necessary to MUTCD       |
|   | 17 | adjacent to vehicles                                     | Page 6        | typical application               |
|   |    | Lane Closures will only occur during off-peak hours      |               |                                   |
|   |    | per Note 10 on Sheet 209 of 215 of the contract plans    |               |                                   |
|   | 18 | (Тур)                                                    | Page 6        | Revised to note off-peak hours.   |
|   |    | Note 6 on Sheet 209 of 215 of the contract plans         |               |                                   |
|   | 19 | should be mentioned here as well.                        | Page 6        | Reference to note 6 added         |
|   |    |                                                          |               | G-1 reference added and T-12      |
|   |    | Refer to State Standard Drawing G-1 for delineator       |               | added for flare rates(Refer to T- |
|   |    | detail for use with temporary concrete barrier and T-    |               | 11 and T-12 comments on Page      |
|   | 20 | 12 for flare rates.                                      | Page 6        | 4)                                |
|   |    |                                                          |               |                                   |
|   |    | Messages shall be revised as necessary as changes in     |               |                                   |
|   |    | activities warrant. Any changes to the message to be     |               |                                   |
|   |    | displayed, and their proposed locations, shall be        |               |                                   |
|   |    | submitted to the Resident Engineer in advance for        |               |                                   |
|   |    | approval. Turn off or remove PCMS if messages do         |               |                                   |
|   |    | not convey any more information than static signs -      |               |                                   |
|   |    | coordinate with Resident engineer prior to turning off.  |               |                                   |
|   |    | Avoid displaying overly simplistic messages that add     |               |                                   |
|   |    | little value to other signs or devices used in the work  |               |                                   |
|   |    | zone. "USE CAUTION", "SLOW", even "ROAD WORK             |               |                                   |
|   |    | AHEAD" on a PCMS quickly become ignored by               |               |                                   |
|   |    | drivers, forcing PCMS to lose their effectiveness in     |               |                                   |
|   |    | changing driver behavior. Provide drivers with clear     |               |                                   |
|   |    | reasons for focusing their attention and changing their  |               |                                   |
|   |    | driving behaviors as they enter and drive through the    |               | Noted - Revised to defer to       |
|   |    | work zone - e.g., "WORKERS IN ROAD" or "LANE             |               | Resident Engineer on displayed    |
|   | 21 | NARROWS".                                                | Page 7        | message                           |
|   | 22 | Night work not allowed on this project                   | Page 7        | Class 3 and night work removed    |
|   |    | Note 6 on Sheet 209 of 215 of the contract plans         |               |                                   |
|   | 23 | should be mentioned here.                                | Page 7        | Note added                        |
|   |    | Access to residential properties shall be coordinated    |               |                                   |
|   |    | with the owner. Coordinate major work on                 |               |                                   |
|   |    | commercial or municipal access with the owner at         |               |                                   |
| L | 24 | least one week prior to starting the work.               | Page 7        | Revised as noted                  |
|   |    | and VTrans District 5, as they maintain this section of  |               |                                   |
|   | 25 | VT Route 2A.                                             | Page 8        | Revised as noted                  |

| 26 | Is this in reference to the Contract Plans?             | Page 8           | Revised to contract plans       |
|----|---------------------------------------------------------|------------------|---------------------------------|
|    | Strikethrough - Maintain the existing traffic signal    |                  |                                 |
| 28 | system in place.                                        | Page 8           | Removed                         |
|    | If the shoulder is under construction how is it         |                  | Revised to - Bicycles symbol    |
|    | maintained for bicyclist? One would assume that         |                  | (W11-1) parent sign             |
|    | bicyclist would be required to use the travel lane in   |                  | accompanied by an IN ROAD       |
| 30 | this phase of work.                                     | Page 9           | plaque (W16-1P)                 |
| 32 | on VT Route 2A?                                         | Page 10          | Revised as noted                |
|    | If the shoulder is under construction how is it         |                  | Revised to - Bicycles symbol    |
|    | maintained for bicyclist? One would assume that         |                  | (W11-1) parent sign             |
|    | bicyclist would be required to use the travel lane in   |                  | accompanied by an IN ROAD       |
| 33 | this phase of work or use the shared use path.          | Page 10 (2)      | plaque (W16-1P)                 |
| 35 | Chief Inspector Circled                                 | Page 11          | Revised to Bob Suckert          |
|    |                                                         |                  |                                 |
|    | T-12 and G-1 should be include due to referencing       |                  |                                 |
| 37 | temporary concrete barrier delineation and flare rates  | Page 11          | Revised as noted                |
|    | Typical Note - The Road Work Ahead (RWA) sign           |                  |                                 |
|    | should be placed in advance of the of the transition    |                  |                                 |
|    | area (tapers and the activity area). With lane closures |                  |                                 |
|    | the RWA sign should be placed in advance of the         |                  |                                 |
|    | merging taper. What is proposed in the following        |                  |                                 |
|    | sheets would not take taper lengths into                |                  |                                 |
| 38 | consideration.                                          | Plan 1 of 25     | Noted                           |
|    | why are cones blocking the entire roadway?              |                  |                                 |
|    |                                                         |                  |                                 |
|    | If a lane closure is to occur the see TA-10 narrative   |                  | Cones deleted - Not meant to be |
| 39 | and figure for approach signs and taper.lengths.        | Plan 1 & 3 of 25 | on drawing.                     |
|    | VT 2A speed limit is posted as 40 MPH. A PCMS           |                  |                                 |
|    | should be placed a minimum of 1000 ft upstream of       |                  |                                 |
| 41 | the decision point .                                    | Plan 5 of 25     | Spacing revised                 |

|    | The upstream location for the PMCS from the decision     |                 |                                    |
|----|----------------------------------------------------------|-----------------|------------------------------------|
|    | point depends on what type of action is required of      |                 |                                    |
|    | the motorist.                                            |                 |                                    |
|    |                                                          |                 |                                    |
|    | An example of a minor action is a lane change by the     |                 |                                    |
|    | motorist. A major action would be the motorist           |                 |                                    |
|    | having to make a detour from the current road.           |                 |                                    |
|    |                                                          |                 |                                    |
|    | For a minor action, the PCMS should be placed from       |                 |                                    |
|    | 500 ft to 1,000 ft upstream of the decision point,       |                 |                                    |
|    | regardless of speed.                                     |                 |                                    |
|    |                                                          |                 |                                    |
|    | For a major action, if the speed is less than or equal   |                 |                                    |
|    | 40 miles per hour (mph), the PCMS should be placed       |                 |                                    |
|    | at least 1,000 ft upstream of the decision point. If the |                 |                                    |
|    | speed is greater than or equal to 45 mph, then the       |                 |                                    |
|    | PCMS should be placed at least 1 mile upstream of        |                 | PCMS locations were selected       |
|    | the decision point.                                      |                 | based on Sheet 210 of 215 of       |
|    |                                                          |                 | the approved VTrans issued         |
|    | There should be a minimum spacing of at least 1,000      |                 | contract documents. PCMS           |
|    | ft between PCMS units or a PCMS and an arrow panel.      |                 | locations were revised to 1,000 ft |
|    | Multiple PCMS units should be placed on the same         |                 | upstream of the RWA signs.         |
| 42 | side of the roadway.                                     | Plan 5-8 of 25  | (Sheets 2 and 5 combined)          |
|    | Mountain View Road speed limit is posted as 40           |                 |                                    |
|    | MPH. A PCMS should be placed a minimum of 1000 ft        |                 |                                    |
| 43 | upstream of the decision point .                         | Plan 6 of 25    | Noted                              |
|    | Essex Road speed limit is posted as 40 MPH. A PCMS       |                 |                                    |
|    | should be placed a minimum of 1000 ft upstream of        |                 |                                    |
| 45 | the decision point .                                     | Plan 7 of 25    | Noted                              |
|    | Industrial Ave. speed limit is posted as 30MPH. A        |                 |                                    |
|    | PCMS should be placed a minimum of 1000 ft               |                 |                                    |
| 47 | upstream of the decision point .                         | Plan 8 of 25    | Noted                              |
|    |                                                          |                 | A key for each construction        |
| 10 | A legend or key to what each color is referencing        |                 | phase color was added to assist    |
| 49 | would be neipful.                                        | Plan 9 of 25    | with the phasing labels.           |
|    | Flagger symbols should be used in the approach sign      |                 |                                    |
| FO | and when Elaggers are assisting UTOs                     | Dian 10 of 25   | Callout (note added                |
|    |                                                          |                 |                                    |
|    | Typical Note - Temporary crosswalk markings              |                 |                                    |
|    | temporary detectable surfaces and temporary rames        |                 |                                    |
|    | shall be provided for temporary crossing                 |                 |                                    |
|    | Temporary facility shall not empty in the side road      | Plan 10 12-15   | Added crosswalk markings and       |
| 51 | travel lane but to the corner of the sidewalk facilities | 17-18 of 25     | note for ramp                      |
|    | Typical Note - These pedestrian signs shall be black on  | Plan 10, 12-13. | Added note for pedestrian sign     |
| 52 | fluorescent orange.                                      | 15-18 of 25     | colors                             |
|    | 5                                                        |                 | 1                                  |

| Г |     | TVDICAL NOTE The resumed speed limit sign shall be       |                  |                                   |
|---|-----|----------------------------------------------------------|------------------|-----------------------------------|
|   |     | TYPICAL NOTE - The resulted speed limit sign shall be    |                  |                                   |
|   |     | Installed 500 feet after the END ROAD WORK sign.         |                  |                                   |
|   |     | There fore this sign should be installed across from     |                  | END ROAD WORK signs moved         |
|   |     | the ROAD WORK 500 FT sign assembly to keep speeds        | Plan 10-13, 15-  | further away from work/flagger    |
|   | 53  | down until traffic passes the Flagger stations           | 20 of 25         | areas.                            |
|   |     | If a speed reduction is to be utilized than is shall be  |                  |                                   |
|   |     | reduced in 10 mph increments, a signed certificate       |                  |                                   |
|   |     | will be obtained and the temporary speed reduction       |                  | Noted - removed posted speed      |
|   | 54  | zone properly signed.                                    | Plan 10-18 of 25 | limits from plan                  |
|   |     |                                                          |                  |                                   |
|   |     | If roadway is to be reduced to a single lane than this   |                  | Callout note added for ONE LANE   |
|   | 55  | sign should be ONE LANE ROAD AHEAD (W20-4).              | Plan 11-13 of 25 | ROAD AHEAD (W20-4) sign           |
|   |     | Where do the pedestrians walk if the shoulder is         |                  | Added signs for pedestrian        |
|   | 68  | closed?                                                  | Plan 14 of 25    | detour                            |
|   |     | How will pedestrian and bicyclist on the shared use      |                  |                                   |
|   |     | path be protected from the work activity since there     |                  |                                   |
|   |     | is only a curb width between the roadway and the         |                  |                                   |
|   |     | shared use nath?                                         |                  | Refer to TPAR for pedestrial and  |
|   |     |                                                          |                  | hicyclist on the shared use nath  |
|   |     | IF the turn lane is to be closed additional signs and    |                  | Refer to intersection plans and   |
|   |     | traffic control devices will be required and the use of  |                  | $TA_27$ if closing turn lanes at  |
|   | 71  | a LITO at the signal directing traffic                   | Dian 15 of 25    | intersection                      |
|   | /1  | a OTO at the signal directing traffic.                   | Pidil 15 01 25   |                                   |
|   |     | built enus of the clear zero and the traffic side of the | Diam 15 19 20    | Deviced barrier peter to evaluin  |
|   | 70  | barrier requires deligestion                             | Plati 15-18, 20  | Revised barrier notes to explain  |
|   | /2  | barrier requires defineation                             | 0125             | now attenuators are used.         |
|   |     | How will pedestrian and bicyclist on the shared use      |                  |                                   |
|   |     | path be protected from the work activity since there     |                  |                                   |
|   |     | is only 10 ft between the edgeline and the roadway       |                  | Refer to TPAR for pedestrial and  |
|   | 78  | and the shared use path?                                 | Plan 16 of 25    | bicyclist on the shared use path. |
|   |     |                                                          |                  | Added ROAD CLOSED and Type 3      |
|   | 79  | Road Closed with Type 3 barricade                        | Plan 16 of 25    | Barricades                        |
|   | 84  | access required                                          | Plan 17 of 25    | Note added for access             |
|   |     |                                                          |                  | Cone location revised - Refer to  |
|   |     |                                                          |                  | Contract Plan Sheets 210-215 of   |
|   |     | This looks more like a lane closure than a shoulder      |                  | 215 for Mountain View Road        |
|   | 85  | closure                                                  | Plan 17 of 25    | Detour                            |
|   |     |                                                          |                  | Plan will utilize Detour provided |
|   |     |                                                          |                  | on Contract Plan sheets 210-215   |
|   |     |                                                          |                  | of 215 for Mountain View Road     |
|   | 87  | Detour should utilize State Routes not town              | Plan 17 of 25    | Detour                            |
| Γ |     |                                                          |                  |                                   |
|   | 96  | END ROAD WORK                                            | Plan 19-20 of 25 | Added END ROAD WORK sign          |
|   | 97  | merge taper = L                                          | Plan 19 of 25    | Revised taper length to 100'      |
|   | 98  | Flagger for drive                                        | Plan 19 of 25    | Added flagger for driveway        |
|   |     |                                                          |                  |                                   |
|   |     | A signed certificate will be need to be obtained and     |                  | Noted - removed posted speed      |
|   | 101 | the temporary speed reduction zone properly signed.      | Plan 19-20 of 25 | limits from plan                  |
| L |     |                                                          |                  | -                                 |

|     | Why One Lane Road Ahead?                                                                                                                                                                                                                                                |                           |                                                                                                            |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------|
| 103 | VT Route 2A work is noted as shoulder work.                                                                                                                                                                                                                             | Plan 20 of 25             | Revised sign to SHOULDER WORK                                                                              |
| 108 | END ROAD WORK                                                                                                                                                                                                                                                           | Plan 21 of 25             | Revised as noted                                                                                           |
| 109 | Drive access required.                                                                                                                                                                                                                                                  | Plan 21 of 25             | Revised as noted                                                                                           |
| 110 | Blunt ends of the barrier to be attenuated or flared<br>outside of the clear zone and the traffic side of the<br>barrier requires delineation                                                                                                                           | Plan 21 of 25             | Revised barrier notes to explain how attenuators are used.                                                 |
| 111 | TYPICAL NOTE - The resumed speed limit sign shall be<br>installed 500 feet after the END ROAD WORK sign.<br>There fore this sign should be installed across from<br>the ROAD WORK 500 FT sign assembly to keep speeds<br>down until traffic passes the Flagger stations | Plan 21 of 25             | END ROAD WORK signs moved<br>further away from work/flagger<br>areas.                                      |
| 113 | A signed certificate will be need to be obtained and the temporary speed reduction zone properly signed.                                                                                                                                                                | Plan 21-25 of 25          | Noted - removed posted speed<br>limits from plan.                                                          |
| 114 | Marking need to be refreshed for better delineation<br>for all pedestrians?                                                                                                                                                                                             | Plan 22 of 25             | Noted.                                                                                                     |
| 115 | Typical Note - These pedestrian signs shall be black on fluorescent orange.                                                                                                                                                                                             | Plan 22-25 of 25          | Added note for pedestrian sign<br>colors. Road Manager program<br>does not have black on orange<br>arrows. |
| 116 | Temporary crosswalk markings, temporary detectable<br>surfaces and temporary ramps shall be provided for<br>temporary crossing.<br>Temporary facility shall not empty in the side road<br>travel lane but to the corner of the sidewalk facilities.                     | Plan 22, 24 & 25<br>of 25 | Added crosswalk markings and note for ramp.                                                                |
| 118 | Sign will need to reflect roadway configuration if turn lane is closed.                                                                                                                                                                                                 | Plan 23 of 25             | Noted.                                                                                                     |
| 119 | The resumed speed limit sign shall be installed 500<br>feet after the END ROAD WORK sign. There fore this<br>sign should be installed across from the ROAD WORK<br>500 FT sign assembly to keep speeds down until traffic<br>passes the Flagger stations                | Plan 23-25 of 25          | END ROAD WORK signs moved<br>further away from work/flagger<br>areas.                                      |
| 120 | Will the turn lane need to be closed to accommodate<br>this pedestrian facility? If so additional signs and<br>traffic control devices will be required                                                                                                                 | Plan 23 of 25             | Noted.<br>Added Sidewalk Closed sign and                                                                   |
| 124 | Sidewalk Closed installed on type 3 barricade block<br>pedestrian route                                                                                                                                                                                                 | Plan 24 of 25             | type 3 Barricade - Revised plans<br>to be pedestrian specific.                                             |
| 127 | To be installed on Type 3 barricade blocking sidewalk<br>path. Locate immediate after crossing point. See TA-<br>29                                                                                                                                                     | Plan 24 of 25             | Added Type III barricade. Revised plans to be pedestrian specific.                                         |



# TRAFFIC CONTROL PLAN (TCP) & TEMPORARY PEDESTRIAN ACCESS ROUTE(TPAR)

Williston STP 5500 (17)

Williston, VT

Prepared for



# AGENCY OF TRANSPORTATION

By



# Engineers Construction, Inc.

Rev:00

Prepared by: Nathan Lougee Reviewed & Approved by: Mark Peloquin, PE March 14, 2025



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# **1.0 General Information**

• Purpose of this Traffic Control Plan:

Engineers Construction, Inc. (ECI) is presenting this Traffic Control Plan to give site-specific traffic control procedures for work zone traffic on the Vermont Agency of Transportation (VAOT) Williston STP 5500 (17) roadwork, utilities and drainage improvement project. During the work phase of the project, ECI will furnish, install, maintain, adjust, and remove all traffic control devices as necessary to give reasonable protection and advance warning to all traffic. In this plan, *traffic* refers to vehicles, pedestrians, bicyclists, and other users of the roadway.

This plan is intended to comply with all aspects of Traffic Control Requirements set forth by the Vermont Agency of Transportation Standard Drawings or the Project Plans, Work Zone Safety and Mobility Policy and Guidance (February 24, 2021), Appendix A, Manual on Uniform Traffic Control Devices for Streets and Highways 11th Edition (MUTCD), and AASHTO Roadside Design Guide (4<sup>th</sup> edition, 2011).

• Project Location:

Beginning in the Town of Williston on VT Route 2A (Essex Road) at station 244+15.00 extending north along VT Route 2A for a distance of 3570 ft (0.676 Miles) to station 279+85.00, 594.09 ft on Industrial Avenue from station 49+50.00 to station 55+44.05, and 554.00 ft of Mountain View Road from station 0+00.00 to 5+54.00.

• Scope of Work:

Work to be performed on this project includes:

- roadway widening of VT Route 2A, Industrial Avenue, and Mountain View Road
- drainage and stormwater improvements
- installation of new curb and sidewalk
- cold planning and re-paving, pavement markings and traffic signs

Williston STP 5500 (17) Page 3 of 15 - installation of new traffic signal system at the intersection of VT Route 2 and Industial Avenue - other highway-related items

## • Roadway Description:

This portion of VT Route 2A within the Town of Williston runs from east to west in a residential zoning area. Currently, there are two travel lanes of traffic with a traffic signal at the intersection of US Route 2A, Mountain View Road and Industrial Avenue. Turn lanes currently exist coming off from Industrial Ave and Mountain View Road onto VT Route 2A in the westerly and easterly direction. Current speed limit along VT Route 2A is 40 MPH within the area of the project intersection. The speed limit along Industrial Avenue is 30 MPH and Mountain View Road is 40 MPH. There are pedestrian paths along the north side of VT Route 2A to the east of the intersection and along both sides of VT Route 2A to the west of the intersection within the project area. There is a sidewalk along the east side of Industrial Avenue and now pedestrian access along Mountain View Road within the project area. Currently no bike lanes exists on VT Route 2A, but there is a multi-use path along the north side of VT Route 2A. Currently there are four bus stops on the Green Mountain Transit Orange Line 10 route located along VT Route 2A. Two of the stops are located along the southbound route and two along the northbound route of VT Route 2A.

• Work Restrictions During Peak Hours

Per the contract, one-lane alternating traffic shall be limited such that the travelling public is not delayed more than 10 minutes per work zone on VT Route 2A and Industrial Avenue during off-peak hours. Mountain View Road may be detoured along North Williston Road, Williston Road (US Route 2), and Essex Road (VT Route 2A). All milling, paving, and utility work must be performed during daytime work. To maintain free-flowing two-way traffic ECI will utilize roadway widenings, traffic channelizing devices and temporary lane markings with signage to temporarily shift the road alignment for daytime work for many aspects of the project.

## • Special events

The known special events that will overlap with construction is the Williston Fourth of July Parade on July 4<sup>th</sup> each year, Vermont Brewers Festival in July 2025, Champlain Valley Expo and Williston Film Festival in July 2025.

ECI understands that these event schedules are subject to change given potential future pandemics.

# 2.0 Work Zone

• Advance warning

All Project approach signs and PCMS will be in place and approved as shown on plan sheets 210 of the Green Construction Approach Signage Sheet 1 (Sheet 210 of 215), on the attached Traffic Control Plans sheets 1-8 of 21, and as shown per standards G-1 T-1, T-10, T-12, T-17, T-28, T-29, T-30, T-31, T-35, T-36,

Williston STP 5500 (17) Page 4 of 15 T-40, T-44, T-45, T-70, T-133 and T-134. All signs can be installed outside of roadway on the shoulder by trucks with a high-intensity rotating, flashing, oscillating, or strobe lights.

## • Vehicular Travel

The project is broken up into (7) primary Phases. Most Phases allow for continued 2-way traffic in similar patterns to the existing lane layout with a different alignment in each phase with the option to utilize flaggers for a lane closure as necessary. These layouts and alignments are detailed in the attached Traffic Control Phasing Plans. The detour layout is located in the attached Green International Affiliates Inc. Traffic Control Plan sheet 212 of 215. Temporary line striping will be placed to delineate each respective alignment as necessary.

- Pedestrians / Bicyclists
  - 1. There is currently a shared use path along the west side of VT Route 2A where pedestrians and occasional bicyclists are anticipated. US Route 2A currently has no bike lanes on either sides of the road. Refer to Temporary Pedestrian Access Plan for pedestrian access locations shown on ECI plan sheets 22-25 of 25.
- Night Work

Night work will not be permitted on this Contract per Special Provision 4 and no night work as defined in Subsection 101.02

• Trucks Entering

All trucks entering/existing the project limits will do so, as much as practical, from existing side roads and driveways. Highway Flaggers will be used to help trucks merge into and out of the the active travel lanes when/where required. Flagger spacing will be minimized to the area of excavation, equipment and truck staging required to complete the work along with the minimum required channelizing device tapers.

• Roadway Detour – Mountain View Road

Mountain View Road will periocially be closed to westbound traffic for utility work, roadway construction, paving and line striping near the intersection with VT Route 2A. Refer to the attached Mountain View Road Detour Plan sheet 212 and 215. A Uniformed Law Enforcement Officer(s) (UTO) and/or Highway Flagger(s) may be used to direct road users at both ends of the road closure, as needed. The closure will include portable work zone signs, cones, drums, and road closed signs mounted on type III barricades. A UTO will be required on the signal end of the project. A UTO is the only entity that can override a traffic signal regulatory action.

• MUTCD Typical Applications (TAs)

The following TAs will be utilized throughout the project limits as required for each specific work activity. Refer to the attached Traffic Control Phasing Plans which contain tables identifying the planned TAs to be used for all major work activities in each Phase. If necessary, use Bicycles symbol (W11-1)

Williston STP 5500 (17) Page 5 of 15 parent sign accompanied by an IN ROAD plaque (W16-1P) for areas where bicycle traffic is to occur and there are no other options for bicyclist but to travel in the roadway adjacent to vehicles

# • Work beyond the shoulder (TA-1):

Beyond the Shoulder work for this project may be utilized for some widening and cleanup activities on the job along VT Route 2A. Refer to the attached TA-1 diagram for additional details.

# • Work on shoulders (TA-3):

Shoulder work for this project will be utilized for most activities on the job along VT Route 2A as well as Industrial Avenue and Mountain View Drive. The shoulder closure will not have any encroachment on the travel lane. Refer to plan sheets 195-207 of the Green Internation Affiliates, Inc. Traffic Control Phasing Sheet Plans for details on the roadway width in areas of temporary widening. Refer to the attached TA-3 diagram for additional details.

# • Shoulder Work with Minor Encroachment (TA-6):

Work that can be performed off the road shoulder, but requires minor encroachments, will be performed using this Typical Application. 11-ft wide lanes with two-way free flowing traffic will be maintained during most instances of this TA. Slight "shifts" of traffic will be required. All traffic shifts will be delineated with cones, barrels or barriers, as required by the specific work activity. Refer to the attached TA-6 diagram for additional details.

# • Lane Closure on a Two-Lane Road Using Flaggers (TA-10):

Lane closures on this project will be contained to one lane on one side of the roadway during off-peak hours. All early warning temporary lane closure signs and channeling devices will be moved and set up before any work begins. Flagger stations will be located such that an errant vehicle has additional space to stop without entering the workspace. Lane closers will only be used as needed to complete the work within the a travel lane, and to provide additional protection of the workers. When work is complete in one area, the closure will be moved to the next designated work area to keep the work area length as short as practical. Refer to the attached TA-10 diagram for additional details.

# • Closure at the side of an Intersection (TA-27):

All work within the active travel / turn lanes and within approximately 200 feet of the intersection stopbars will be performed using TA-27. A Uniformed Law Enforcement Officer(s) (UTO) will be used to direct road users within the intersection. Highway Flaggers will also be utilized to hold traffic until the UTO is ready to release the lane. The intersection will always be controlled by the UTO. Refer to the attached TA-27 diagram for additional details. Refer to Note 6 on Sheet 209 of 215 of the Contract Plans.

# • Sidewalk Detour or Diversion (TA-28):

When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility. Refer to the attached TA-28 diagram for additional details.

# • Line Striping and Channelizing Devices

Line striping will be used to delineate main-line 2-way traffic flows after the roadway is widened and as alignments are shifted. Channelizing devices will be used to further delineate and/or separate active work zones from the travel lanes as required by any active TA and when/where drop-offs exist. Where longitudinal drop-offs exist, channelizing devices will be selected in accordance with Standard Detail Drawings T-35 and T-36. At a minimum, concrete barriers will be used where required by Standards T-35 and T-36. Additional utilization of barriers or other channelizing devices to increase worker safety and/or site security will be made at the discretion of the Project Superintendent. Concrete barrier side exposed to traffic to be delineated. Delineation color to match corresponding temporary pavement marking. Reflectors shall be mounted every 20 feet along the side of the barrier exposed to traffic, with yellow on the driver's left and white on the driver's right. Refer to State Standard Drawing G-1 for delineator-detail for use with temporary concrete barrier and T-12 for flare rates.

• Portable Changeable Message Signs (PCMS)

Portable Changeable Message Signs (PCMS) will be placed prior to work performed as shown in the attached Traffic Control Plan sheets 1-8 of 21. PCMS will be used throughout the duration of the project when there is active construction and will be updated as needed based on current work zone conditions. ECI will work with the Resident Engineer and other road projects in the area to determine the use and location of PCMS so not to overwhelm motorists with their ability to read and comprehend early warning messages. ECI will coordinate in advance with the Resident Engineer for approval to revise or turn off messages as necessary to convey the activities ahead.

Highway Flaggers

Highway Flaggers will be utilized during the construction process to ensure the safety of pedestrians, motorists, bicyclists, and workers on or near the work zone. Flagging personnel will have received all the necessary training and shall be certified prior to performing work on the project. Highway Flaggers shall use MUTCD compliant high visibility apparel with a minimum of Class 2 during daytime work.

At the discretion of the Project Superintendent and Resident Engineer, Highway Flaggers may be placed at active construction site entrances where vehicles cannot enter/exit the work area without interfering with traffic coming from the opposite direction.

All Highway Flaggers will have a pre-identified supervisor and be equipped with two-way radio communication.

## • Uniform Traffic Officers

At a minimum, a UTO will be utilized to control traffic at the VT Route 2A intersection with Industrial Avenue during planned signal system outages and to protect the traveling public and workers during construction operations taking place within or around the intersection under TA-27 operations. Refer to Note 6 on Sheet 209 of 215 of the contract plans.

## • Temporary Traffic Signal System

ECI will setup and maintain a temporary traffic signal system at the intersection of US Route 2 and Industrial Avenue for certain phases of the project. This signal system will temporarily replace the existing system and will be modified throughout the project Phases to ensure the proper signal alignment and timings are maintained in each traffic Phase.

### • Paved Travel Lanes

Any disturbed paved surfaces at pipe crossings open to traffic shall be temporarily paved or have compacted asphalt grindings applied at the end of work day.

• Emergency Vehicle Access through the Work Zone

ECI will always ensure access to all properties for emergency vehicles. Access to residential properties shall be coordinated with the owner. Coordinate major work on commercial or municipal access with the owner at least one week prior to starting the work.

During lanes closures, ECI and Highway Flaggers will accommodate emergency vehicles through the work zone. This effort will include identifying the emergency vehicle and adjusting traffic sequence or stopping all traffic to provide a clear path for the emergency vehicle(s) to pass.

## • Seasonal (winter) Closure

All paved surfaces, shoulders, line striping, guardrails, signs and delineators will be in place, whether temporary or permanent, prior to any winter shutdown. Prior to a shutdown, ECI will collaborate with the Town of Williston and VTrans District 5, as they maintain this section of VT Route 2A to ensure all paved surfaces are left in an acceptable condition for snow removal / plowing and that any additional measures needed are addressed. In addition, all excavations will be backfilled and stabilized, and all materials and equipment will be removed from the work areas. Any construction signs not relevant at the time of winter shut-down will be covered or removed as not to create complacency with motorist during the closure. Sign covering shall not damage the retro-reflectivity of the sign face. Also, the sign cover shall not deteriorate for the duration that the sign is covered.

# 3.0 Traffic Phasing

Main-line travel routes will follow the Phasing Plans as generally depicted in Contract Plan Sheets 196 to 207. The attached Phasing Plans further identify specific work activities to take place within each Phase, and additional measures (i.e. TAs) to be implemented during each respective Phase. Line striping will be masked and re-painted as required for each respective Phase and will serve as the primary travel route delineation for the project. Below is a general summary of each of the Phasing plans with respect to traffic alignment, signal systems, and bicyclists and pedestrian management.

# • Phase 1 A/B (STA 50+00 to 55+10 LT/RT)

- VT Route 2A Traffic will follow existing traffic patterns and line striping. Existing lines will be re-painted as needed.
- Industrial Avenue traffic will be squeezed and shifted to the south or north side of Industrial Avenue from STA 49+00 to STA 55+00. Cones will be utilized for alignment shifts during work on utilities and roadway widening.
- Shoulders to be maintained for bicyclists.
- Maintain the existing traffic signal system in place. Make minor adjustments to signal head locations facing Industrial Ave. traffic as required.
- Refer to Green Intersection Construction Intersection Phasing Plan Phase 1/2 for pedestrian access during work on Industrial Avenue.

# • Phase 2A/B (STA 244+60 to 259+50 LT)

- VT Route 2A Traffic will be shifted east as shown on attached plans 14-15 of 21 or Phases 2A and 2B. Existing pavement markings may be removed/covered prior to the roadway alignment shift as necessary if cones cannot be utilized.
- Industrial Avenue traffic will be shifted to the north side of Industrial Avenue against the new curb line from STA 200+00 to STA 209+00. Temporary lines will be painted if necessary prior to alignment shift.
- The existing traffic signal system will remain on-line.
- Shoulders to be maintained for bicyclists.
- Refer to Intersection Construction Phasing Plan and TCP Plans 14-15 of 21 for pedestrian access during Phase 2A/B.

# • Phase 3 A/B (STA 247+00 to 257+00RT)

- A Mountain View Drive detour will be utilized in this phase as shown on the Green Detour Plan 1 sheets 212 215.
- Traffic will be shifted north side of Mountain View Drive in Phase 3A as shown on TCP Sheet 16 of 21. Existing pavement markings will be removed/covered as necessary for the roadway alignment shift.
- Traffic will be shifted north side of Mountain View Drive in Phase 3B as shown on TCP Sheet 17 of 21. Existing pavement markings will be removed/covered as necessary for the roadway alignment shift.
- Industrial Avenue traffic alignment will adjust to match existing. Adjust as needed to suit any remaining shoulder and road widening work as needed.
- Temporary traffic signal head arrangements to match existing travel lane alignments.
- Shoulders to be maintained for bicyclists.
- Refer to Intersection Construction Phasing Plans and TCP sheets 16-17 of 21 for pedestrian access during Phase 3A/B.

## • Phase 4 (STA 257+00 to 265+30RT)

- Traffic will be shifted west side of VT Route 2A in Phase 4 as shown on TCP Sheet 18 of 21. Channelizing devices will be used as necessary for the daytime roadway alignment shift.
- VT Route 2A traffic will generally follow the existing alignment and pattern with flaggers to assist vehicles entering and exiting the jobsite. VT Route 2A will be reduced to one-lane with a TA-10 if necessary while installing the stormwater system. Most of the stormwater work in this widened area will be constructed under a TA-3 Work on Shoulders application.
- Temporary traffic signal head arrangements to match the existing travel lane alignments.
- Bicycles symbol (W11-1) parent sign accompanied by an IN ROAD plaque (W16-1P) when shoulder is under construction.
- Refer to Intersection Construction Phasing Plans for pedestrian access during Phase 4.

# • Phase 5 (Sewer line for Hillside Drive; STA 265+30 to 267+10)

- During this phase the sewer line will be installed on Hillside Drive. Traffic will be reduced to one-lane on Hillside Drive during this phase with 3 flaggers as shown in the attached ECI generated Phase 5 Plan.
- US Route 2A traffic will generally follow the existing alignment and pattern with flaggers to assist vehicles entering and exiting Hillside Drive. Temporary pavement markings will be maintained during this Phase traffic alignment shift. Route 2A will be reduced to one-lane with a TA-10 during the roadway crossing with the proposed sewer line.
- Shoulders to be maintained for bicyclists on VT Route 2A.
- Pedestrian access will be maintained on the shared use path during Phase 5.

## • Phase 6 (STA 267+10 to 271+80RT)

- During this phase a stormwater pond will be constructed near Bittersweet Circle along with the associated stormwater system as well as the remaining widening will be completed on the north end of the project.
- VT Route 2A traffic will generally follow the existing alignment and pattern with flaggers to assist vehicles entering and exiting the jobsite. VT Route 2A will be reduced to one-lane with a TA-10 if necessary while installing the stormwater system. Most of the stormwater work in this widened area will be constructed under a TA-3 Work on Shoulders application.
- Bicycles symbol (W11-1) parent sign accompanied by an IN ROAD plaque (W16-1P) when shoulder is under construction.
- Pedestrian access will be maintained on the shared use path during Phase 6. Refer to TPAR plan for additional information.

## • Phase 7 (STA 271+80 to 279+35RT)

- During this phase the remaining widening will be completed on the north end of the project.
- VT Route 2A traffic will generally follow the existing alignment and pattern with flaggers to assist vehicles entering and exiting the jobsite. VT Route 2A will be reduced to one-lane with a TA-10 if necessary while installing the stormwater system. Most of the stormwater work in this widened area will be constructed under a TA-3 Work on Shoulders application.
- Bicycles symbol (W11-1) parent sign accompanied by an IN ROAD plaque (W16-1P) when shoulder is under construction.
- Pedestrian access will be maintained on the shared use path during Phase 7. Refer to TPAR plan for additional information.

In general, all Phase changes will take place over a pre-planned 24-hour period. Typical Applications, as described above, will be utilized as needed to safely manage each respective Phase change.

# 4.0 Temporary Pedestrian Access Route (TPAR) Plan

# Purpose of this TPAR Plan

Engineers Construction, Inc. (ECI) is presenting this TPAR plan to give site-specific pedestrian control procedures throughout the work zone on the Vermont Agency of Transportation (VAOT) Williston STP 5500 (17) roadwork, utilities and drainage improvement project. During all phases of the project, ECI will furnish, install, maintain, adjust, and remove all pedestrian control devices as necessary to give reasonable protection and advance warning to all pedestrians.

This plan is intended to comply with all aspects of Traffic Control Requirements set forth by the Vermont Agency of Transportation Standard Drawings or the Project Plans, Work Zone Safety and Mobility Guidance Document, Appendix A, Manual on Uniform Traffic Control Devices for Streets and Highways 11th Edition (MUTCD), and AASHTO Roadside Design Guide.

# **Existing Conditions**

There are currently sidewalks and shared-use paths in the project area with pedestrian and bicycle traffic. Pedestrian traffic on VT Route 2A has been observed to be primarily along the VT Route 2A shared-use path. VT Route 2A also has four Green Mountain Transit (GMT) stops through the project area. Industrial Avenue currently has a sidewalk along the north side of the street within the project limits. Mountain View Avenue does not have pedestrian or bike access outside the existing roadway.

# Work Plan

#### Pedestrian Path –

A delineated temporary pedestrian path will be maintained throughout construction along VT Route 2A and Industrial Avenue as shown in the attached TPAR Plans. The intent of this pedestrian path is to provide safe access from the project's start / end points along VT Route 2A to the existing bus stops near STA 251+25, STA 255+25, STA 260+50 LT and STA 271+70 RT. This path will be routed around the active work areas as needed and will be modified according to each primary Phase of the project.

#### Pedestrian Crossing –

Temporary crossings will be identified / signed near STA 246+75, STA 249+95(if necessary), STA 50+00, and STA 261+20 to allow access the existing and temporary sidewalks during each phasing of construction. A temporary pedestrian pole will be installed at the northeast corner of VT Route 2A and Mountain View Road to allow crossing to a temporary pedestrian path on the east side of VT Route 2A during multiple phases of construction.

#### Pedestrian Path Interface with Active Work Zones -

Where re-routing of pedestrians around active work areas is not practical, pedestrians will be safely escorted through the work zone by an ECI employee. If requested by the Resident Engineer, a Highway Flagger will be assigned specifically to be an escort to pedestrians. In this case the Highway Flagger's sole responsibility will be to safely guide pedestrians through the active work zone.

#### **Bicycle Travel Routes –**

2-foot-wide shoulders with minimum 11-foot travel lane widths will be maintained through the project limits. This typical lane configuration should allow adequate space for bicyclists to safely pass through the project limits, traveling next to vehicular traffic. During flagging operations / alternating-traffic patterns, Highway Flaggers will be instructed to ensure adequate time is given to bicyclists passing through the work zone.

#### General Notes -

- All pedestrian / bicycle routes will be made up of gravel, pavement grindings and/or paved surfaces and will be maintained free from ruts, sand, and mud to prevent falls or crashes.
- Temporary pedestrian paths will be replaced with the permanent concrete sidewalks as soon as it is safe to do so.
- Line striping and/or channelizing devices will be used to further delineate and/or separate active work zones from the travel lanes as required. Additional utilization of barriers or other channelizing devices to increase pedestrian safety and/or site security will be made at the discretion of the Project Superintendent.
- At the discretion of the Project Superintendent and Resident Engineer, Highway Flaggers may be placed at active construction site entrances where vehicles cannot enter/exit the without interfering with pedestrian walkways.

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#### Seasonal (winter) Closure -

Prior to an interim project shutdown, ECI will collaborate with the Town of Williston to ensure all pedestrian surfaces are left in an acceptable condition for snow removal / plowing and that any additional measures needed are addressed. In addition, all excavations will be backfilled and stabilized, and all materials and equipment will be removed from the work areas.

# **Construction Phasing**

Refer to the attached TPAR Plans.

- Phase 1A
  - VT Route 2A Traffic will follow traffic alignment as outlined in the Traffic Control Plan.
  - Shoulders to be maintained for bicyclists.
  - Temporary pedestrian walkways will be constructed on the east side of VT Route 2A and the south side of Industrial Avenue as shown on TPAR plan sheet 17 of 21.
  - A temporary pedestrian signal pedestal will be installed on the northeast corner of the intersection of VT Route 2A and Mountain View Road.
  - Warning pedestrian crossing signs will be installed near STA 50+50 and STA 261+25 to allow access to the temporary pedestrian access routes. Both ends of the crossing area shall be ADA compliant and approaching routes are to be accessible, even when temporary.
  - Maintain the existing bus stop locations at STA 251+25 LT, STA 255+25 RT, STA 260+50 LT and STA 271+70 RT. Minor adjustments to be made to increase pedestrian protection from any work activities. ECI will coordinate with GMT if it is necessary to adjust a bus stop during some construction activities.

#### • Phase 1B

- VT Route 2A Traffic will follow traffic alignment as outlined in the Traffic Control Plan.
- Shoulders to be maintained for bicyclists.
- Temporary pedestrian walkways will still be constructed on the east side of VT Route 2A if use is necessary as shown on TPAR plan sheet 18 of 21.
- A temporary pedestrian signal pedestal will be installed on the northeast corner of the intersection of VT Route 2A and Mountain View Road. Pedestrian signals will be covered when not in use.
- Warning pedestrian crossing signs will be installed near STA 50+50, STA 246+00(if necessary) and STA 261+25 to allow access to the temporary pedestrian access routes. Both ends of the crossing area shall be ADA compliant and approaching routes are to be accessible, even when temporary.
- Maintain the existing bus stop locations at STA 251+25 LT, STA 255+25 RT, STA 260+50 LT and STA 271+70 RT. Minor adjustments to be made to increase pedestrian protection

from any work activities. ECI will coordinate with GMT if it is necessary to adjust a bus stop during some construction activities.

- Phase 2
  - VT Route 2A Traffic will follow traffic alignment as outlined in the Traffic Control Plan.
  - Shoulders to be maintained for bicyclists.
  - Temporary pedestrian walkways will be constructed on the east side of VT Route 2A and the south side of Industrial Avenue as shown on TPAR plan sheet 19 of 21.
  - A temporary pedestrian signal pedestal will be installed on the northeast corner of the intersection of VT Route 2A and Mountain View Road. Pedestrian signals will be covered when not in use.
  - Warning pedestrian crossing signs will be installed near STA 50+50, STA 246+00(if necessary) and STA 261+25 to allow access to the temporary pedestrian access routes. Both ends of the crossing area shall be ADA compliant and approaching routes are to be accessible, even when temporary.
  - Maintain the existing bus stop locations at STA 251+25 LT, STA 255+25 RT, STA 260+50 LT and STA 271+70 RT. Minor adjustments to be made to increase pedestrian protection from any work activities. ECI will coordinate with GMT if it is necessary to adjust a bus stop during some construction activities.
- Phase 3A
  - VT Route 2A Traffic will follow traffic alignment as outlined in the Traffic Control Plan.
  - Shoulders to be maintained for bicyclists.
  - Temporary pedestrian walkways will be constructed on the west side of VT Route 2A south of the intersection as shown on TPAR plan sheet 20 of 21.
  - Warning pedestrian crossing signs will be installed near STA 246+00 to allow access to the temporary pedestrian access routes. Both ends of the crossing area shall be ADA compliant and approaching routes are to be accessible, even when temporary.
  - Maintain the existing bus stop locations at STA 251+25 LT, STA 255+25 RT, STA 260+50 LT and STA 271+70 RT. Minor adjustments to be made to increase pedestrian protection from any work activities. ECI will coordinate with GMT if it is necessary to adjust a bus stop during some construction activities.

## • Phase 3B, 4, 5, 6 & 7

- VT Route 2A Traffic will follow traffic alignment as outlined in the Traffic Control Plan.
- Shoulders to be maintained for bicyclists.
- Pedestrians will use the existing shared-use path and areas shown as new sidewalk.
- Maintain the existing bus stop locations at STA 251+25 LT, STA 255+25 RT, STA 260+50 LT and STA 271+70 RT. Minor adjustments to be made to increase pedestrian protection from any work activities. ECI will coordinate with GMT if it is necessary to adjust a bus stop during some construction activities.

Williston STP 5500 (17) Page 14 of 15 • Utilize a hired flagger or ECI employee to escort pedestrians around the work at the intersection with Hillside Drive and Bittersweet Circle.

In general, all Phase changes will take place over a pre-planned 24-hour period. Notices on both ends of pedestrian will be posted 3 days prior of Phase changes.

# 5.0 Key Personnel Contact Information

- Josh Hulett: Resident Engineer, Cell Phone (802) 279-2794
- Chief Inspector, Bob Suckert Cell Phone (802) 279-0217
- Andrew Piper: ECI Project Superintendent, Cell Phone (802) 558-4462
- Eric Welcome: ECI Project Manager, Cell Phone (802) 343-0480
- Matt Cyganiewicz: ECI Traffic Signal System Coordinator, Cell Phone (802) 393-7620
- Ben Nelson : ECI Project Engineer, Cell Phone (603) 8448-2946
- Williston Police Department, Non-emergency (802) 878-6611
- Williston Fire Department, Non-emergency (802) 878-5622
- Williston Public Works Department (Highway) (802) 878-1239

# 6.0 Attachments

- TCP Overall Phasing Plan
- TCP Sheets 1-4 of 21 Project PCMS/Approach Sign Locations
- TCP Sheet 5-8 of 21 Intersection Phases
- TCP Sheet 9-10 of 21 Phase 2A/B
- TCP Sheet 11-12 of 21 Phase 3A/B
- TCP Sheet 13 of 21 Phase 4
- TCP Sheet 14 of 21 Phase 5
- TCP Sheet 15 of 21 Phase 6
- TCP Sheet 16 of 21 Phase 7
- TCP Sheet 17-21 of 21 TPAR Phases
- MUTCD Typical TA-1, TA-3, TA-6, TA-10, TA-27, and TA-28
- MUTCD Figure 6C-1, Figure 6F-1, Table 6H-2, Table 6H-3, Table 6H-4

# 7.0 References

- 11th Edition Manual on Uniform Traffic Control Devices
- AASHTO Manual for Assessing Safety Hardware
- AASHTO Roadside Design Guide, 4<sup>th</sup> edition 2011 or current edition
- VAOT plans for Williston STP 5500(17) sheets 1-215 of 215.
- VAOT Standards G-1, T-1, T-2, T-10, T-12, T-17, T-24, T-28, T-29, T-30, T-31, T-35, and T-36.



# **OVERALL PHASING PLAN**







| Plan #: 1 of 21   | Location:<br>Williston, VT |           |            |                                                                 |                  | Title:<br>Williston STP 550 | 00 (17)                |
|-------------------|----------------------------|-----------|------------|-----------------------------------------------------------------|------------------|-----------------------------|------------------------|
| Notes:            | /                          |           |            | On-Site Contact:<br>Ben Nelson<br>Site Induction:               | Date Drawn:      | 0                           | 100 200 300 400ft      |
| PCMS              | / APPF                     | ROACH     | SIGNS      |                                                                 |                  |                             | Scale 1:3431           |
|                   |                            |           |            | License #:                                                      | Drawn By:<br>NRL | 1                           | 2 <b>-1-1</b>          |
| Posted Speed:<br> | Reduced Speed:<br>         | Revision: | Signature: | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                  |                             | ENGINEERS CONSTRUCTION |



| Plan #: 2 of 21   | Location:<br>Williston, VT        |       |                                                                 |                                |                        | Title:<br>Williston STP 5500 (17)     |  |
|-------------------|-----------------------------------|-------|-----------------------------------------------------------------|--------------------------------|------------------------|---------------------------------------|--|
| Notes:            |                                   |       |                                                                 | On-Site Contact:<br>Ben Nelson |                        |                                       |  |
| PCMS              | / APPI                            | ROACH | SIGNS                                                           | Site Induction:                | Date Drawn:            | - 0 150 300 450 600ft<br>Scale 1:5022 |  |
|                   | , ,                               |       |                                                                 | License #:                     | Drawn By:<br>NRL       |                                       |  |
| Posted Speed:<br> | Isted Speed: Revision: Signature: |       | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                                | ENGINEERS CONSTRUCTION |                                       |  |

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|------|----------------|-------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|--------------|
|      |                | untital Ave | T COOL           | A AL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               | en Bloot  | BAR          |
| the  | Parents        |             |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |           |              |
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|      | t t            | Carlo A     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |           |              |
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|      |                |             |                  | Allen B.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MAR           |           |              |
|      | 3.20           |             |                  | No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |           |              |
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| lotes:             |                    | On-Site Contact:<br>Ben Nelson | Ben Nelson  |                                                              |                  |  |
|--------------------|--------------------|--------------------------------|-------------|--------------------------------------------------------------|------------------|--|
|                    | PCMS / APP         | Site Induction:                | Date Drawn: |                                                              |                  |  |
|                    |                    |                                |             | License #:                                                   | Drawn By:<br>NRL |  |
| Posted Speed:<br>- | Reduced Speed:<br> | Revision:                      | Signature:  | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2 | 026              |  |



liston STP 5500 (17)

0 50 100150200ft Scale 1:2981





| Notes:            |                    | On-Site Contact:<br>Ben Nelson |             |                                                                 |                  |
|-------------------|--------------------|--------------------------------|-------------|-----------------------------------------------------------------|------------------|
| PC                | MS / APPRO         | Site Induction:                | Date Drawn: |                                                                 |                  |
|                   |                    |                                |             | License #:                                                      | Drawn By:<br>NRL |
| Posted Speed:<br> | Reduced Speed:<br> | Revision:                      | Signature:  | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                  |

0 50 100150200ft Scale 1:2742





## TEMPORARY CROSSWALK MARKINGS AND TEMPORARY RAMPS SHALL BE PROVIDED

# UTO TO BE UTILIZED AS NECESSARY

1 7

Trinity Dr

9

350 ft.

ator C

Mountain Vier Rd

PEDESTRIAN SIGNS SHALL BE BLACK ON FLUORESCENT ORANGE.



Rook DT

50 ft

Hickory Hill Kd

Country Ln

ESSEX Rd

Ħ.

Meadowrun Rd

0 ft.

Industrial Ave

Hickory Hill Rd

.ft 0ð

320 ff.

50 ft.

Industrial Ave A Mountain View R

| Plan #:<br>2 | <sup>In #:</sup> 5 of 21 Location:<br>Williston, VT |                     |                    |                  |                                                                 |   |                                     | Mtn. View Dr.          |
|--------------|-----------------------------------------------------|---------------------|--------------------|------------------|-----------------------------------------------------------------|---|-------------------------------------|------------------------|
|              |                                                     |                     |                    |                  | On-Site Contact:<br>Ben Nelson                                  |   |                                     |                        |
|              |                                                     |                     |                    | Site Induction:  | Date Drawn:                                                     | 0 | 0 100 200 300 400ft<br>Scale 1:4079 |                        |
| PHASE        |                                                     |                     | License #:         | Drawn By:<br>NRL |                                                                 |   |                                     |                        |
| Posted S     | ipeed: F                                            | Reduced Speed:<br>- | Revision:<br>REV01 | Signature:       | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |   | 1                                   | ENGINEERS CONSTRUCTION |

UTILIZE FLAGGERS AS NECESSARY DEPENDING ON DAILY WORK AREA IF ROADWAY IS TO BE REDUCED TO A SINGLE LANE THEN USE SIGN - ONE LANE ROAD AHEAD (W20-4).

350 ft.

0

350 ft.

Miccurretto Www. Edit

IF ROADWAY IS TO BE REDUCED TO A SINGLE LANE THEN USE SIGN - ONE LANE ROAD AHEAD (W20-4).

.ft 08



(Assidearun Rd

Bittersweet Cir



Install Awa

FILES BUL

320 ff.

Mount-in Vi

| Plan #:<br>3  | 6 of 21 | Location:<br>Williston, VT |                           | Title:<br>RTE 2A/Ind. Ave/Mtn. View Dr. |                                                                 |                |                                     |
|---------------|---------|----------------------------|---------------------------|-----------------------------------------|-----------------------------------------------------------------|----------------|-------------------------------------|
|               |         |                            |                           |                                         | On-Site Contact:<br>Ben Nelson                                  |                |                                     |
|               |         |                            |                           |                                         | Site Induction:                                                 | Date Drawn:    | 0 100 200 300 400ft<br>Scale 1:4675 |
| PHASE Z       |         |                            |                           | License #:                              | Drawn By:<br>NRL                                                | 2 <b>364</b> 5 |                                     |
| Posted Sp<br> | eed:    | Reduced Speed:             | <b>Revision:</b><br>REV01 | Signature:                              | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                | ENGINEERS CONSTRUCTION              |

UTILIZE FLAGGERS AS NECESSARY DEPENDING ON DAILY WORK AREA

> TEMPORARY CROSSWALK MARKINGS AND TEMPORARY RAMPS SHALL BE PROVIDED

> > Rounitry

Industrial Ave

350 ft.

HILRA

IF ROADWAY IS TO BE REDUCED TO A SINGLE LANE THEN USE SIGN - ONE LANE ROAD AHEAD (W20-4).

350 ft.

IF ROADWAY IS TO BE REDUCED TO A SINGLE LANE THEN USE SIGN - ONE LANE ROAD AHEAD (W20-4).

350 ft.

Trinity Dr

Trinity Dr

UTO TO BE UTILIZED AS NECESSARY PEDESTRIAN SIGNS SHALL BE BLACK ON FLUORESCENT ORANGE.

350 ft.

Mountain View Rd

SOWEUR Rd

350 ft

Meadowrun Rd

Mountain Wew Rd

Hickory Hill RO



| Plan #: 7 of 2 | Location:<br>Williston, VT | Title:<br>RTE 2A/Ind. Ave/ | Mtn. View Dr. |                                                                 |             |                                     |                        |
|----------------|----------------------------|----------------------------|---------------|-----------------------------------------------------------------|-------------|-------------------------------------|------------------------|
| Notes:         |                            |                            |               | On-Site Contact:<br>Ben Nelson                                  |             |                                     |                        |
|                |                            |                            |               | Site Induction:                                                 | Date Drawn: | 0 100 200 300 400ft<br>Scale 1:4261 |                        |
| PHASE 3        |                            |                            | License #:    | Drawn By:<br>NRL                                                | E FF        |                                     |                        |
| Posted Speed:  | Reduced Speed:             | Revision:<br>REV01         | Signature:    | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |             |                                     | ENGINEERS CONSTRUCTION |



| Plan #:<br>5                                                                | 8 of 21 | Location:<br>Williston, VT | Title:<br>RTE 2A/Ind. Ave/Mtn. View Dr. |                                                                 |                                |                        |                                     |  |
|-----------------------------------------------------------------------------|---------|----------------------------|-----------------------------------------|-----------------------------------------------------------------|--------------------------------|------------------------|-------------------------------------|--|
|                                                                             |         |                            |                                         |                                                                 | On-Site Contact:<br>Ben Nelson |                        |                                     |  |
|                                                                             |         |                            |                                         |                                                                 | Site Induction:                | Date Drawn:            | 0 100 200 300 400tt<br>Scale 1:4806 |  |
|                                                                             | PHASE 4 |                            |                                         |                                                                 |                                |                        |                                     |  |
|                                                                             |         |                            |                                         |                                                                 | License #:                     | Drawn By:<br>NRL       | 5 <b></b>                           |  |
| Posted Speed:     Reduced Speed:     Revision:     Signature:         REV01 |         |                            | Signature:                              | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                                | ENGINEERS CONSTRUCTION |                                     |  |



| Plan #:<br>6  | 9 of 21  | Location:<br>Williston, VT |                    | Title:<br>RTE 2A/Ind. Ave/Mtn. View Dr. |                                                                 |                  |                                  |
|---------------|----------|----------------------------|--------------------|-----------------------------------------|-----------------------------------------------------------------|------------------|----------------------------------|
| Notes:        |          |                            |                    |                                         | On-Site Contact:<br>Ben Nelson                                  |                  |                                  |
|               | PHASE 2A |                            |                    |                                         | Site Induction:                                                 | Date Drawn:      | 0 50 100150200ft<br>Scale 1:3025 |
|               |          |                            |                    |                                         | License #:                                                      | Drawn By:<br>NRL |                                  |
| Posted Sp<br> | eed:     | Reduced Speed:             | Revision:<br>REV01 | Signature:                              | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                  | ENGINEERS CONSTRUCTION           |



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Revision:

REV01

Posted Speed:

Signature:

Date and Time of Project:

Start: 4/14/2025 - End: 10/16/2026

| 7 27        | <b>LJ</b>   |
|-------------|-------------|
| ENGINEERS C | ONSTRUCTION |



REFER TO TPAR PLAN FOR PEDESTRIAN AND BICYCLIST PROTECTION ON SHARED USE PATH



Meadowrun Rd

50 ft.

| <sup>Plan #:</sup> 11 of 21 | Location:<br>Williston, VT                                           |       | Title:<br>RTE 2A/Ind. Ave/Mtn. View Dr.      |                                |                  |                                     |
|-----------------------------|----------------------------------------------------------------------|-------|----------------------------------------------|--------------------------------|------------------|-------------------------------------|
| Notes:                      |                                                                      |       |                                              | On-Site Contact:<br>Ben Nelson |                  |                                     |
|                             | PHAS                                                                 | SE 3A |                                              | Site Induction:                | Date Drawn:      | 0 100 200 300 400ft<br>Scale 1:3536 |
|                             |                                                                      |       |                                              | License #:                     | Drawn By:<br>NRL | 2 <b>3-647</b> ;                    |
| Posted Speed:               | osted Speed: Reduced Speed: Revision: Signature:<br>REV01 Signature: |       | Date and Time of Pr<br>Start: 4/14/2025 - En | <b>oject:</b><br>d: 10/16/2026 |                  |                                     |



Trinity Dr

CONES OR BARRELS TO BE LIMITED TO WORKING AREA -DAILY LENGTH WILL VARY

350 ft.

Mountain View Rd

Meadowrun Rd

MAINTAIN OPENING FOR DRIVEWAY ACCESS

350 ft.

THULL DI

Whity Dr

MOUNTAIN VIEW DRIVE DETOUR TO BE UTILIZED DURING WORK NEAR INTERSECTION

50 ft.

Industrial Ave

Hillside Dr Essex

Industrial Ave

Hickory Hill Rd

Country Ln

Essex

Rd

Mountain View Rd

TEMPORARY CROSSWALK MARKINGS AND TEMPORARY RAMPS SHALL BE PROVIDED

Country Ln

360 ft.

Lea Dr

PEDESTRIAN SIGNS SHALL BE BLACK ON FLUORESCENT ORANGE.

1.7



Meadowrun Rd

| Plan #:<br>9 | 12 of 21 | Location:<br>Williston, VT |                    | Title:<br>RTE 2A/Ind. Ave | e/Mtn. View Dr.                                                 |                       |   |                                     |  |  |
|--------------|----------|----------------------------|--------------------|---------------------------|-----------------------------------------------------------------|-----------------------|---|-------------------------------------|--|--|
| Notes:       |          |                            |                    |                           | On-Site Contact:<br>Ben Nelson                                  |                       |   |                                     |  |  |
| PHASE 3B     |          |                            |                    |                           | Site Induction:                                                 | nduction: Date Drawn: |   | 0 100 200 300 400ft<br>Scale 1:3536 |  |  |
|              |          |                            |                    |                           | License #:                                                      | Drawn By:<br>NRL      | 1 |                                     |  |  |
| Posted S     | Speed:   | Reduced Speed:<br>         | Revision:<br>REV01 | Signature:                | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                       | 1 | ENGINEERS CONSTRUCTION              |  |  |

UTILIZE CONCRETE BARRIERS WITH DELINEATORS AND ATTENUATORS AS NECESSARY - MAINTAIN +/-50' OF BARRIERS ON SITE W/ ATTENUATORS FOR IMMEDIATE USE ON BLUNT ENDS OF THE BARRIER

Sharon Dr

Bec

andown(0)



320 ff.

PEDESTRIAN SIGNS SHALL BE BLACK ON FLUORESCENT ORANGE.



Thinity

Trinity Dr

**Julinity** 



Mountain Vier



350 ft.

Mountain View Rd

Bittersweet Cir

HIISHODT B

| Plan #: 13 of 21 | Location:<br>Williston, VT |                    | Title:<br>RTE 2A/Ind. Ave/Mtn. View Dr. |                                              |                           |                                     |
|------------------|----------------------------|--------------------|-----------------------------------------|----------------------------------------------|---------------------------|-------------------------------------|
| Notes:           | Notes:                     |                    |                                         |                                              |                           |                                     |
| PHASE 4          |                            |                    |                                         | Site Induction:                              | Date Drawn:               | 0 100 200 300 400ft<br>Scale 1:3532 |
|                  |                            |                    |                                         | License #:                                   | Drawn By:<br>NRL          | 2 <b>3-6-1</b> 5                    |
| Posted Speed:    | Reduced Speed:             | Revision:<br>REV01 | Signature:                              | Date and Time of Pr<br>Start: 4/14/2025 - Er | roject:<br>nd: 10/16/2026 | ENGINEERS CONSTRUCTION              |



| Plan #: 14 of 2 | 21 Location:<br>Williston, VT |                    | Title:<br>Williston STP 5500 (17) |                                                                 |                  |                                  |  |
|-----------------|-------------------------------|--------------------|-----------------------------------|-----------------------------------------------------------------|------------------|----------------------------------|--|
| Notes:          |                               |                    |                                   | On-Site Contact:<br>Ben Nelson                                  |                  |                                  |  |
|                 | PHA                           | SE 5               |                                   | Site Induction:                                                 | Date Drawn:      | 0 50 100150200ft<br>Scale 1:3030 |  |
|                 |                               |                    |                                   | License #:                                                      | Drawn By:<br>NRL | 2 <b>3</b> (                     |  |
| Posted Speed:   | Reduced Speed:                | Revision:<br>REV01 | Signature:                        | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                  | ENGINEERS CONSTRUCTION           |  |

UTILIZE FLAGGERS AS NECESSARY DEPENDING ON DAILY WORK AREA

Sundown Dr

Sundown Dr

Hillside Dr

River Cove Rd

CONES OR BARRELS TO BE LIMITED TO WORKING AREA -DAILY LENGTH WILL VARY

THE REAL PROPERTY OF

MOR

Stirrup Cir

Bittersy

Trinity Dr

UTILIZE CONCRETE BARRIERS WITH DELINEATORS AND ATTENUATORS AS NECESSARY - MAINTAIN +/-50' OF BARRIERS ON SITE W/ ATTENUATORS FOR IMMEDIATE USE ON BLUNT ENDS OF THE BARRIER

Trinity D?



ft.

SSEX

ATTLEIDO TO BEE

LINE LIDEE LIDEE

100 ft. 100 ft. 100 ft.

1 7

Bittersweet Cir

| Plan #:<br>12 15 of 21 | Location:<br>Williston, VT |                    |            |                                                        |                         | Title:<br>Williston STP 550 | 00 (17)                           |
|------------------------|----------------------------|--------------------|------------|--------------------------------------------------------|-------------------------|-----------------------------|-----------------------------------|
| Notes:                 |                            |                    |            | On-Site Contact:<br>Ben Nelson                         |                         | -                           |                                   |
|                        | PHASE                      | 6                  |            | Site Induction:                                        | Date Drawn:             | 0                           | 100 200 300 400ft<br>Scale 1:3637 |
|                        |                            |                    |            | License #:                                             | <b>Drawn By:</b><br>NRL | 1                           | 2 - C - C                         |
| Posted Speed:          | Reduced Speed:             | Revision:<br>REV01 | Signature: | Date and Time of Project<br>Start: 4/14/2025 - End: 10 | <b>:</b><br>0/16/2026   | 1                           | ENGINEERS CONSTRUCTION            |

UTILIZE FLAGGERS AS NECESSARY DEPENDING ON DAILY WORK AREA

Morgan Pkwy

CONES OR BARRELS TO BE LIMITED TO WORKING AREA -DAILY LENGTH WILL VARY

UTILIZE CONCRETE BARRIERS WITH DELINEATORS AND ATTENUATORS AS NECESSARY - MAINTAIN +/-50' OF BARRIERS ON SITE W/ ATTENUATORS FOR IMMEDIATE USE ON BLUNT ENDS OF THE BARRIER

UTILIZE FLAGGERS AS NECESSARY DEPENDING ON DAILY WORK AREA

James Brown Dr

Iver Cove Rd

Morgan Pkwy

BEER Rd

James Brown Dr

MAINTAIN OPENING FOR

DRIVEWAY ACCESS

ver Cove Rd



HODE BO

100 ft. 100 ft. 100 ft.

Bittler moet Gir

| Plan #:<br>13 16 of 2 | 1 Location:<br>Williston, VT |                    |            |                                            |                           | Title:<br>Williston STP 5500 (17)   |
|-----------------------|------------------------------|--------------------|------------|--------------------------------------------|---------------------------|-------------------------------------|
| Notes:                |                              |                    |            | On-Site Contact:<br>Ben Nelson             |                           |                                     |
|                       | PHA                          | SE 7               |            | Site Induction:                            | Date Drawn:               | 0 100 200 300 400ft<br>Scale 1:4029 |
|                       |                              |                    |            | License #:                                 | Drawn By:<br>NRL          | 2 <b>3-6-1</b> 5                    |
| Posted Speed:<br>     | Reduced Speed:<br>           | Revision:<br>REV01 | Signature: | Date and Time of P<br>Start: 4/14/2025 - E | roject:<br>nd: 10/16/2026 | ENGINEERS CONSTRUCTION              |



| Plan #:<br>15 | 17 of 21 | Location:<br>Williston, VT |           |            |                                                |                              | Title:<br>RTE 2A/Ind. Ave, | 'Mtn. View Dr.                   |
|---------------|----------|----------------------------|-----------|------------|------------------------------------------------|------------------------------|----------------------------|----------------------------------|
| Notes:        |          |                            |           |            | On-Site Contact:<br>Ben Nelson                 |                              | •                          |                                  |
|               | TP       | AR - Pł                    | HASE      | 1A         | Site Induction:                                | Date Drawn:                  | 0                          | 50 100 150 200ft<br>Scale 1:1993 |
|               |          |                            |           |            | License #:                                     | Drawn By:<br>NRL             |                            | 2 <b>-1-1</b> -1                 |
| Posted        | Speed:   | Reduced Speed:             | Revision: | Signature: | Date and Time of Pro<br>Start: 4/14/2025 - End | <b>ject:</b><br>: 10/16/2026 |                            | ENGINEERS CONSTRUCTION           |



| Plan #:<br>14 | 18 of 21 | Location:<br>Williston, VT |           |            |                                                        |                       | Title:<br>RTE 2A/Ind. Ave/ | Mtn. View Dr.                    |
|---------------|----------|----------------------------|-----------|------------|--------------------------------------------------------|-----------------------|----------------------------|----------------------------------|
| Notes:        |          |                            |           |            | On-Site Contact:<br>Ben Nelson                         |                       |                            |                                  |
|               | TF       | PAR - I                    | PHASE     | 1B         | Site Induction:                                        | Date Drawn:           | 0                          | 50 100 150 200ft<br>Scale 1:2011 |
|               |          |                            |           |            | License #:                                             | Drawn By:<br>NRL      |                            | 2 <b>-1-1</b> 7                  |
| Posted S      | Speed:   | Reduced Speed:             | Revision: | Signature: | Date and Time of Project<br>Start: 4/14/2025 - End: 10 | <b>:</b><br>)/16/2026 |                            | ENGINEERS CONSTRUCTION           |



| Plan #: 19 of | 21 Location:<br>Williston, VT |           |            |                                              |                                | Title:<br>RTE 2A/Ind. Ave/Mtn. View Dr. |
|---------------|-------------------------------|-----------|------------|----------------------------------------------|--------------------------------|-----------------------------------------|
| Notes:        |                               |           |            | <b>On-Site Contact:</b><br>Ben Nelson        |                                |                                         |
| -             | TPAR -                        | PHASE     | Ξ2         | Site Induction:                              | Date Drawn:                    | 0 50 100150200ft<br>Scale 1:2889        |
|               |                               |           |            | License #:                                   | Drawn By:<br>NRL               |                                         |
| Posted Speed: | Reduced Speed:                | Revision: | Signature: | Date and Time of Pr<br>Start: 4/14/2025 - En | <b>oject:</b><br>d: 10/16/2026 | Engineers construction                  |



| www.roadman      | DEVICES                                 |  |                                                                 |                                                                                                                              |                        | P<br>K                                  |  |  |
|------------------|-----------------------------------------|--|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------|--|--|
| Plan #: 20 of 21 | Location:<br>Williston, VT              |  |                                                                 |                                                                                                                              |                        | Title:<br>RTE 2A/Ind. Ave/Mtn. View Dr. |  |  |
| TPAR - PHASE 3A  |                                         |  |                                                                 | On-Site Contact:         Ben Nelson         Site Induction:       Date Drawn:         License #:       Drawn By:         NRL |                        | 0 25 50 75 100ft<br>Scale 1:1486        |  |  |
| Posted Speed:    | ed: Reduced Speed: Revision: Signature: |  | Date and Time of Project:<br>Start: 4/14/2025 - End: 10/16/2026 |                                                                                                                              | ENGINEERS CONSTRUCTION |                                         |  |  |



| Plan #: 2   | 1 of 21 | Location:<br>Williston, VT |           |            |                                              |                                | Title:<br>RTE 2A/Ind. Ave/Mtn. View Dr. |
|-------------|---------|----------------------------|-----------|------------|----------------------------------------------|--------------------------------|-----------------------------------------|
| Notes:      |         |                            |           |            | On-Site Contact:<br>Ben Nelson               |                                |                                         |
|             | ΤP      | PAR - F                    | PHASE     | E 3B       | Site Induction:                              | Date Drawn:                    | 0 25 50 75 100ft<br>Scale 1:1476        |
|             |         |                            |           |            | License #:                                   | Drawn By:<br>NRL               | <u>/-/-/</u>                            |
| Posted Spee | ed:     | Reduced Speed:<br>         | Revision: | Signature: | Date and Time of Pr<br>Start: 4/14/2025 - En | <b>oject:</b><br>d: 10/16/2026 | Engineers CUNSTRUCTION                  |



**Typical Application 1** 



**Typical Application 3** 





### Figure 6H-10. Lane Closure on a Two-Lane Road Using Flaggers (TA-10)



**Typical Application 10** 







#### Figure 6H-28. Sidewalk Detour or Diversion (TA-28)

**Typical Application 28** 

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.



Figure 6C-1. Component Parts of a Temporary Traffic Control Zone



#### Figure 6F-1. Height and Lateral Location of Signs—Typical Installations

Standard:

- <sup>09</sup> Where it has been determined that the accommodation of pedestrians with disabilities is necessary, signs shall be mounted and placed in accordance with Section 4.4 of the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)" (see Section 1A.11).
- 10 Signs mounted on barricades and barricade/sign combinations shall be crashworthy. *Guidance:*
- 11 *Except as provided in Paragraph 12, signs mounted on portable sign supports that do not meet the minimum mounting heights provided in Paragraphs 4 through 6 should not be used for a duration of more than 3 days.* Option:
- <sup>12</sup> The R9-8 through R9-11a series, R11 series, W1-6 through W1-8 series, M4-10, E5-1, or other similar type signs (see Figures 6F-3, 6F-4, and 6F-5) may be used on portable sign supports that do not meet the minimum mounting heights provided in Paragraphs 4 through 6 for longer than 3 days. Support:
- <sup>13</sup> Methods of mounting signs other than on posts are illustrated in Figure 6F-2. *Guidance:*
- <sup>14</sup> Signs mounted on Type 3 Barricades should not cover more than 50 percent of the top two rails or 33 percent of the total area of the three rails.

Standard:

<sup>15</sup> Sign supports shall be crashworthy. Where large signs having an area exceeding 50 square feet are installed on multiple breakaway posts, the clearance from the ground to the bottom of the sign shall be at least 7 feet.

#### Shadow vehicle Arrow board Arrow board support or trailer Sign (shown facing left) 0 (shown facing down) Changeable message sign or support trailer Surveyor Channelizing device Temporary barrier Crash cushion Temporary barrier with warning light Direction of temporary traffic detour Traffic or pedestrian signal Direction of traffic Truck-mounted attenuator Flagger Type 3 barricade High-level warning device (Flag tree) Warning light Longitudinal channelizing device Work space Luminaire Pavement markings that should be ///Work vehicle removed for a long-term project

#### Table 6H-2. Meaning of Symbols on Typical Application Diagrams

#### Table 6H-3. Meaning of Letter Codes on Typical Application Diagrams

| Deed Type            | Distance Between Signs** |            |            |  |  |
|----------------------|--------------------------|------------|------------|--|--|
| Road Type            | A                        | В          | С          |  |  |
| Urban (low speed)*   | 100 feet                 | 100 feet   | 100 feet   |  |  |
| Urban (high speed)*  | 350 feet                 | 350 feet   | 350 feet   |  |  |
| Rural                | 500 feet                 | 500 feet   | 500 feet   |  |  |
| Expressway / Freeway | 1,000 feet               | 1,500 feet | 2,640 feet |  |  |

\* Speed category to be determined by highway agency

\*\* The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

#### Table 6H-4. Formulas for Determining Taper Length

| Speed (S)      | Taper Length (L) in feet |
|----------------|--------------------------|
| 40 mph or less | $L = \frac{WS^2}{60}$    |
| 45 mph or more | L= WS                    |

Where: L = taper length in feet

- W = width of offset in feet
- S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph