Target Offsite Improvements
Hudson, NH

TRAFFIC CONTROL PLAN

The following are considered to be part of the Traffic Control Plan:

1. Sections 618 and 619 of the NH DOT Standard Specifications
2. NH DOT Work Zone Traffic Control Standard Plans
3. Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition
4. NH DOT Flagger and Uniformed Officer Use in Work Zones Policy and Guidelines

The Contractor shall provide necessary traffic control devices to ensure the safety of the workers, traveling public, and property on this project. The above referenced specifications, guidelines, and provisions herein provide minimum requirements; the Contractor may expand upon the Traffic Control Plan if conditions warrant.

All signs, channelizing devices and arrow boards as required by the Manual on Uniform Traffic Control Devices (MUTCD), including part six, as amended, and the above Standard Sheets shall be in place prior to moving any equipment onto the pavement.

The Contractor shall provide trained personnel, including Uniformed Officers and Flaggers in accordance with NH DOT Standard Specification Section 618, to be responsible for the maintenance of traffic and traffic control.

The Contractor will submit a construction schedule prior to starting work.

Lane closures shall take place Monday through Thursday, 10:00pm -5:00am & 9:00am – 3:00pm. No closures will be allowed Friday through Sunday. Exceptions may be permitted by the District Engineer prior to work commencing.

MAINTENANCE OF TRAFFIC

1. All work shall be prosecuted so that vehicular and pedestrian access is maintained within the public right of way at all times, and access to private residences and businesses shall be maintained at all times.

2. The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs and other traffic control devices and shall take all necessary precautions for the protection of the work and safety of the public, as well as providing safe and passable traffic accommodations for public travel. Effective barricades shall protect roadway areas closed to traffic. Obstructions shall be illuminated during hours of darkness. Suitable warning signs shall be provided to control and direct traffic in a proper manner.

3. Flaggers and Police shall be utilized, as needed, to direct construction vehicles entering and leaving the construction access locations, and to provide coverage at intersections, drives and for traffic shifts.

4. Secure approval prior to any implementation of temporary lane or shoulder closures. Short term one-lane and/or shoulder closures will be allowed with approval. Maintain full lanes during all non-work hours.

5. Shoulder and lane closures shall conform to the latest version of MUTCD and attached NHDOT Standard Plans.

6. Maintain traffic on pavement having a minimum width of 11-foot travel lanes and 2-foot shoulders. Short duration lane shifts on unpaved (crushed gravel or reclaimed base material) surfaces shall be subject to the approval of the Engineer.

7. Road plates shall not be permitted. Trenches in the traveled ways or shoulders shall be backfilled at the end of the workday/workshift.

8. Permanent Construction Signage and/or Portable Changeable Message Signs (Item 619.25) shall be used on the Circumferential Highway EB Off ramp for advance notice of construction activities.

9. Use reflectorized drums (barrels) for all channelizing tapers. Use 28" (minimum) cones (with 6" and 4" reflectorized bands) or 42" Tubular Marker (with three 4" wide reflectorized bands) for channelizing tangent sections. Banding shall be in compliance with the current MUTCD.

NOTIFICATION REQUIREMENTS FOR CHANGES IN TRAFFIC CONTROL

The Contractor shall notify and provide information regarding traffic control operations to the area emergency services noted below. Particularly this includes instances such as ramp closures, resetting of granite curb on ramps, and other operations that may block traffic flow temporarily through the work zone:

Emergency Service Contacts:

Town of Hudson -
Elvis Dhima, Town Engineer, (603-886-6008)
Tad Dionne, Police Chief, (603-886-6011)
Scott Tice, Fire Chief, (603-886-6021), and
Jason Twardosky, Department of Public Works Director (603-886-6018).

NH DOT -
Zak Roller, NHDOT District 5, Assistant District Engineer, (603-396-0966)
Sam Newsom, NH Turnpikes Bureau, Civil Engineer, (603-485-3806)

PROHIBITION OF UNNECESSARY TRAFFIC OBSTRUCTION

Work will be performed in such a way that does not adversely affect traffic from both sides of the travel way at any location at the same time.

VARIATION FROM THE TRAFFIC CONTROL PLAN

If the Contractor feels improvements can be made to the Traffic Control Plan for this project, the Contractor shall submit a written proposal to the Engineer with any necessary plans for consideration and approval.

JOBSITE CONTACT INFORMATION

A list of key job personnel, including the on-site supervision and emergency contacts will be provided prior to the start of construction. This list will include but not limited to:

1. Project Manager – Ryan Charbonneau (603-370-0140)
2. Site Superintendent – Rick Baer (603-370-0150)
3. Emergency Services – 9-1-1

OVERALL SUMMARY OF CONSTRUCTION

Construction for the off-site improvement phase of the project will be conducted from road work at the outer limits (NB & SB shoulders) before proceeding with the median improvements.

This work will be completed during daytime hours in as much as possible and utilize phased construction to minimize traffic disruption and maintain traffic flow and public right of way at all times. The major utility crossing work will be followed by shoulder widening, median construction and minor utility installation that will be completed during daytime hours, on both NB and SB of the road concurrently. After all utility work and road alignment improvements have been completed, final paving operations and installation of final signal equipment & signage commence.

SUPPLEMENTAL SEQUENCING INFORAMTION

A separate signal phasing plan will be submitted to the Town of Hudson prior to adjusting signal configurations.

Traffic Signal Installation
1) New traffic signal work will be completed while the existing signals are active in as much as possible. Temporary signals maybe required to accommodate temporary shifts in traffic alignment and/or construction phasing.
2) Install conduit & foundations per traffic management plans outlined below. Conduit crossings will be completed at night. Foundations to be completed during day shifts.
3) Install proposed traffic signals & cover until put into operation. Mast arms will be installed during days where allowable, and nights in locations as needed.
4) Provide VMB to warn vehicular traffic of new traffic pattern.
5) Remove old/temporary lights and uncover new.

Overhead Sign Structure
1) Foundation installation will make use of shoulder closing per traffic management plan outlined below.
2) Steel cable will be installed at night, traffic will be 1 lane in each direction, and lane traffic will be stopped periodically to pull cable.
3) Permanent signage will be installed using traffic management plans outlined below.

TRAFFIC MANAGEMENT OPERATIONS

Scenario #1 – Shoulder Work
1) Work will take place during daylight hours from 7:00AM to 3:30PM.
2) Work zones & lane closure will conform to all NH DOT & MUTCD (2009 Edition) standards.
3) Work will be completed parallel to the flow of traffic.
4) Shoulder and a portion of the adjacent travel lane will be closed – traffic maintained via lane shifts
5) Length of shoulder & lane closure will vary as needed to maintain safe working conditions.
6) Appropriate taper type & length shall be determined using the criteria shown in Tables 6C-3 & 6C-4 from the MUTCD Standards.
7) Where applicable within the existing roadway, trench patch will be installed at the end of the workday, allowing all lanes to be reopened for traffic.

Scenario #2 – Median Work
1) Work will take place during daylight hours from 7:00AM to 3:30PM.
2) Work zones & lane closure will conform to all NH DOT & MUTCD (2009 Edition) standards.
3) Work will be completed parallel to the flow of traffic.
4) Lane shifts on either side of the median may be required, some intermittent closures will be required for isolated work.
5) Length of shoulder & lane closure will vary as needed to maintain safe working conditions.
6) Appropriate taper type & length shall be determined using the criteria shown in Tables 6C-3 & 6C-4 from the MUTCD Standards.
7) Where applicable within the existing roadway, trench patch will be installed at the end of the workday, allowing all lanes to be reopened for traffic.

Scenario #3 – Work Crossing Multiple Lanes (Primary Roads)
1) Work will take place during night hours from 8:00PM to 5:00AM.
2) Work zones & lane closure will conform to all NH DOT & MUTCD (2009 Edition) standards.
3) Work will be completed perpendicular to the flow of traffic.
4) Traffic will be limited to a minimum of one lane in each direction for the duration of the work shift.
5) Roadway with 3 lanes will have 2 closed, and roadway with 2 lanes will have 1 closed.
6) Traffic will be controlled via NH DOT approved flagger or Police Detail.
7) Where applicable within the existing roadway, trench patch will be installed at the end of the workday, allowing all lanes to be reopened for traffic.

Scenario #4 – Work Crossing Two Lane (Secondary Roads)

1) Work will take place during night hours from 8:00PM to 5:00AM.
2) Work zones & lane closure will conform to all NH DOT & MUTCD (2009 Edition) standards.
3) Work will be completed perpendicular to the flow of traffic.
4) Traffic will be limited to one lane alternating traffic for the duration of the work shift.
5) Single lane will be closed.
6) Traffic flow will be controlled via NH DOT approved flagger or Police Detail.
7) Where applicable within the existing roadway, trench patch will be installed at the end of the workday, allowing all lanes to be reopened for traffic.

Lowell - Wason

Barrels

Cones

Traffic Flow

Wason Rd

Wason Rd

Wason Rd

Wason Rd

WORK ZONE

225-A-H

3A

Lowell Rd

Lowell Rd

Lowell Rd

227

3A

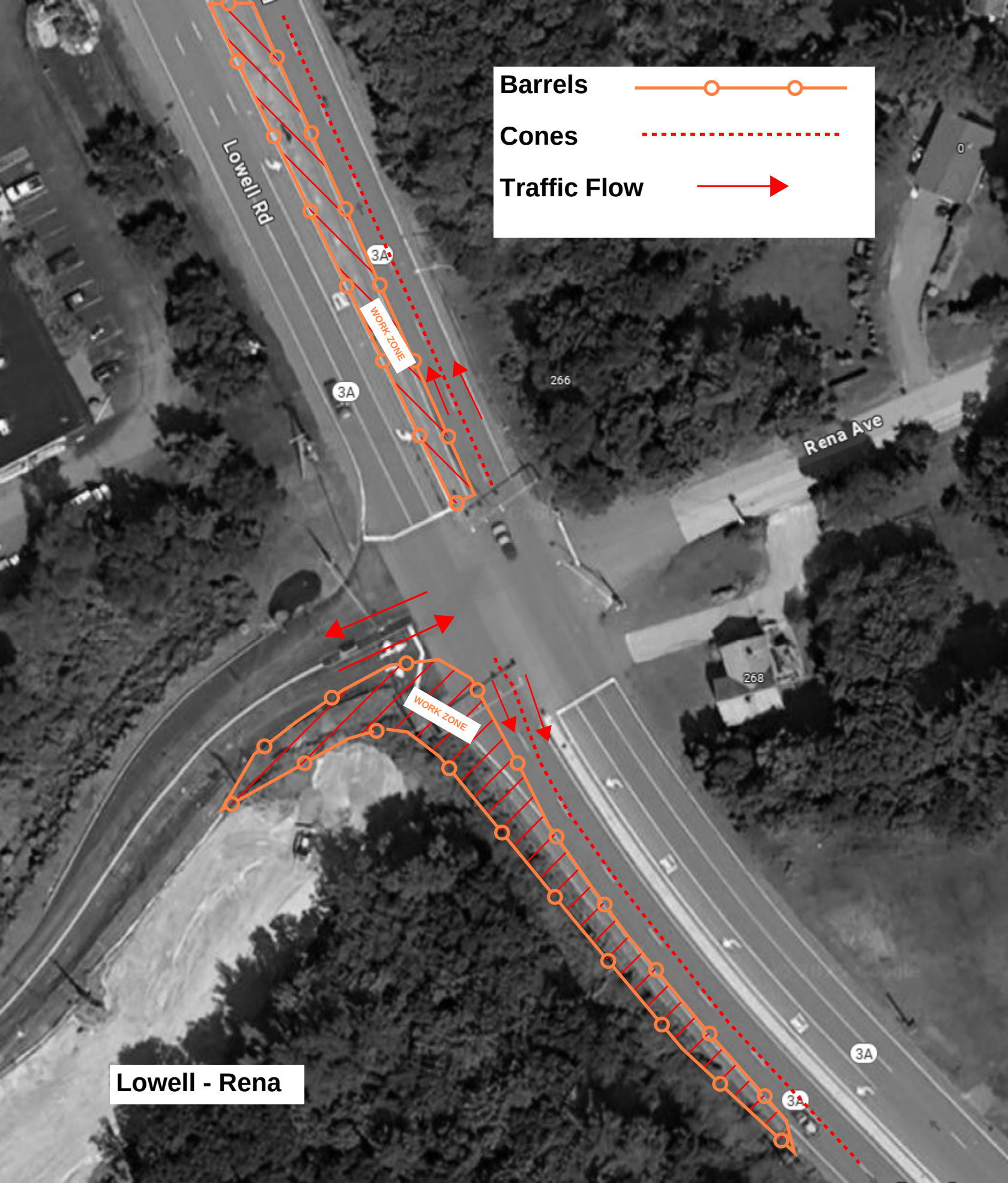
3A

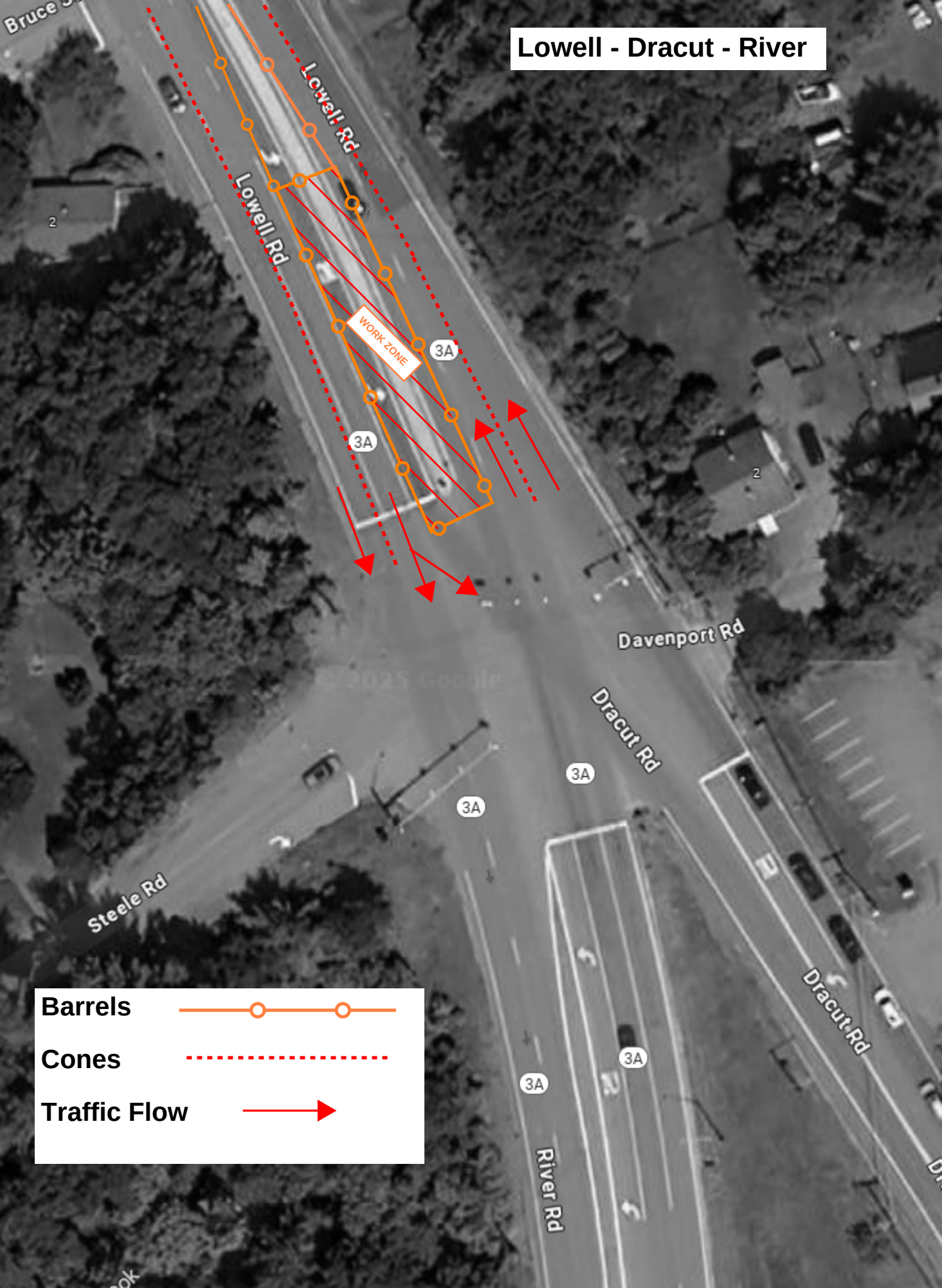
3A

Google


Barrels
Cones
Traffic Flow
Lowell Rd
WORK ZONE
Circumferential Hwy
WORK ZONE
Circumferential Hwy
WORK ZONE
WORK ZONE
Lowell Rd
Lowell - Circumferential
Google


Barrels
Cones
Traffic Flow
Lowell - Walmart
Lowell Rd
Walmart Blvd
3A
WORK ZONE
McDonald's
Fast Food
Coinstar
Hudson Veterinary Care
257
254
Google


Barrels
Cones
Traffic Flow
Lowell Rd
Rena Ave
3A
WORK ZONE
266
268
Lowell - Rena


Lowell - Dracut - River
Lowell Rd
Lowell Rd
WORK ZONE
3A
3A
Davenport Rd
Dracut Rd
3A
3A
Steele Rd
Dracut Rd
3A
3A
River Rd
Barrels
Cones
Traffic Flow

AMENDMENTS TO PART VI OF THE MUTCD (2009 EDITION)

NOTE: Revised Standards TC-1 through TC-8 amend Part VI of the 2009 Edition of the MUTCD by superseding or supplementing certain Sections. They shall be used in conjunction with the MUTCD and the Specifications for work zone traffic control on all projects.

1. Section 6C.04, Table 6C-1 and Section 6H-01, Table 6H-3. "Urban (low speed)" shall be defined as those roadways with regulatory speed limits of 30 mph or less; "Urban (high speed)" shall be defined as those roadways with regulatory speed limits

2. Section 6F.03, Sign Placement. Add the following paragraph as a **"Standard"** heading:

   01a Actual placement of temporary traffic control signs shall be carefully considered to avoid obstructing existing signs or allowing existing signs, vegetation or other physical features to obstruct or limit visibility to temporary traffic control signs. Temporary traffic control signs shall also be placed at locations that avoid overwhelming motorists with information when combined with existing signs.

3. Section 6F.17 Positioning of Advanced Warning Signs. Add the following sentence as *"Guidance"* and "Option", respectively after sentence 07:

   Guidance:

   08 *When multiple operations are occurring in the same area, duplication of the advance warning signs, e.g. ROAD WORK AHEAD, ROAD WORK ½ MILE, etc., should be avoided.*

   Option:

   09 In cases where room for advance warning signage is severely limited, some of the general advanced warning signs (e.g. ROAD WORK AHEAD) may be eliminated in order to provide adequate space for driver to see and comprehend the warning signs requiring driver action, e.g. LANE ENDS MERGE LEFT, FLAGGER AHEAD, etc.

4. Section 6F.64, Cones. Add the following to the **"Standard"**:

   01a Cones shall not be used at night as the primary channelization device, except during work hours.

5. Section 6F.65, Tubular Markers. Replace paragraphs 01 and 02 of the **"Standard"** section with the following:

   01 Tubular markers shall be predominately orange and shall not be less than 42 inches high and 3 inches wide when facing road users. They shall be made of material that can be struck without causing damage to the impacting vehicle. Refer to MUTCD 6F-65 Paragrah 3 for delineation color and type.

6. Section 6F.67, Drums. Add the following sentences after Sentence number 01:

   Standard:

   01a Drums shall be the primary delineation device on divided highways for all tapers and tangents.

   Option:

   01b Cones or tubular markers may be used, only in the tangent sections of the lane closure, when inadequate width, geometric constraints or the duration of the operation (short-duration or mobile, see 6G.02 for Work Duration definitions) necessitates the use of a narrower or more easily moved channelizing device.

7. Section 6F.78 – Temporary Markings. Add to the **"Standard"** the follow sentences:

   05a All temporary markings on divided highways shall be 6-inch removable tape or paint conforming to MUTCD Chapter 3, Section 3A.

   05b All temporary markings shall be offset 1-foot from the final striping location.

   05c All temporary white broken-line pavement markings for traffic moving in the same direction shall be retroreflectorized paint or tape. Temporary paint or tape markings shall have a cycle length of 40 feet long with minimum 4-foot long skip and 36-foot long gap. Temporary tape shall be removed prior to any overlays and after permanent pavement markings have been applied.

   05d Stop lines shall be installed during temporary conditions and shall be retroreflectorized paint or tape.

   Replace *"Guidance"* paragraph 03 with:

   03 *Edge lines, channelizing lines, lane reduction transitions, gore markings, and non-longitudinal lines (e.g., railroad crossings, crosswalks, words, symbols, etc.) are usually not required for temporary situations. Their use should be evaluated on a project by project basis based on field conditions, relative traffic speeds and volumes, and the use of other traffic control devices. When used, temporary markings for these types of longitudinal and non-longitudinal lines shall be retroreflectorized paint or tape and conform to MUTCD Part 3 Chapters 3A and 3B.*

8. Section 6F.85 – Temporary Traffic Barriers. Add the following to the **"Standard"** paragraph 06:

   06a Temporary end treatments in the form of sand barrels and water filled arrays shall not be used from November 1st through April 15th unless they are greater than ten feet from the travelway (measured to the face) or specifically approved in writing by the Engineer. If approved by the Engineer for winter use, the sand or water shall be treated in accordance with the manufacturer's recommendations to prevent freezing.

   06b Impact attenuators shall be marked with a Type 3 Object Marker per Section 2C.63 Object Marker Design and Placement Height paragraph 02.

9 Section 6G.05 – Work Affecting Pedestrian and Bicycle Facilities. Add the following to the "Support" paragraph 01:

   01a R4-11 (Bike May Use Full Lane) sign should be used when the clear width of a single lane and shoulder is less than 14', except when the existing lane and shoulder in the general vicinity of the work provides less than 14' clear. This sign is optional where operational controls are used, and during mobile, short duration, and short term stationary work durations as defined by Section 6G.02. This sign shall not be used when the speed limit is over 40 mph.

10 Section 6H.01, Typical Applications. Add the following paragraph to the Option heading:

   08 Many diagrams show ROAD WORK (W20-1_), ROAD WORK NEXT XX MILES (G20-1__), and END ROAD WORK (G20-2a) signs being used for the activities. These signs may be omitted if the activity is being performed within the limits of a larger project and the Advance Warning and/or Termination Signs for the larger project provide reasonable warning to the motorist for the activity.

11 Section 6H.01, Figure 6H-14. The diagram for the unsignalized crossing of a Haul Road shows interim tape and a NO PASSING ZONE (W-14-3) sign to deter passing maneuvers. In lieu of interim tape, cones may be placed along the centerline, using a maximum spacing of 40-feet.

   In both diagrams, add a TRUCK CROSSING (W8-6) sign at a distance "B" in advance of the DO NOT PASS (R4-1) sign. Show the ROAD WORK AHEAD (W20-1a) sign at a distance "C" in advance of the TRUCK CROSSING sign. (See Table 6H-3 for distance

12 Section 6H.01, Figure 6H-36. Make the following revisions:

   a. Use REVERSE CURVE (W1-4 series) signs which show side-by-side arrows, one arrow for each open lane, at each location that the sign is shown.

WORK ZONE TRAFFIC CONTROL

AMENDMENTS TO PART VI MUTCD (2009)

STANDARD NO. TC-1

REVISION DATE
08-03-2004
03-16-2017
11-28-2018
05-17-2019
04-20-2022
12-12-2023
11-22-2024

*.DGN FILE NAME
STD-TC-1-11222024

STANDARD PLANS

New Hampshire DOT Department of Transportation

STANDARD NO. TC-1

UNIFORMED OFFICER AND FLAGGER USE GUIDELINES

Flaggers shall be used to the greatest extent possible for "dynamic" traffic control operations. Uniformed Officers may be utilized for their specific authority above and beyond that of a flagger, such as assistance in speed control and traffic law enforcement. The use of Uniformed Officers may be necessary in some instances. However, Officer use is not a requirement. Their use must be preapproved by NHDOT.

Examples of traffic control operations where **Uniformed Officers and flaggers are typically not** needed:

1. Shoulder work.
2. Work behind barrier.

Examples of traffic control operations where **flaggers** should be used include:

1. Alternating 1-way traffic (stop/slow paddles must be used).
2. Directing traffic through low volume intersections.
3. Assisting trucks and equipment in and out of work areas.
4. Providing coverage at side roads and driveways during mobile operations(e.g. paving, striping, etc.).
5. Directing pedestrians and bicyclists through the work zone.

Examples of traffic control operations where **Uniformed Officers** may be used include:

1. Directing traffic through complex intersections, especially where signals are being overridden.
2. Assisting construction vehicles and equipment in and out of work areas on high speed(> 45 mph), high volume facilities(> 15000 vpd). Note: If an access area is anticipated to be in place for an extended period of time and it is determined that assistance is required for the safe exit and entry of construction vehicles, then a cost analysis should be completed to determine if stationary measures (e.g. signals) would be more cost effective than officers or flaggers.
3. Rolling roadblock operations on interstate and turnpike facilities and other multi-lane L.A.R.O.W. highways.
4. If a uniformed officer is already on site for other needs (enforcement or presence), then the officer may be asked to supplement these duties by providing limited duration traffic control that would otherwise be covered by a flagger. However, the officer must be adequately trained for the flagger operation to be performed and must use appropriate equipment and techniques (which may include the use of stop/slow paddles).
5. If approved, officers may be hired as a speed deterrent and/or to increase driver awareness through a work zone under the following conditions:
   a. The work zone has a posted speed of 45 mph or higher and an average daily traffic (ADT) volume of 15,000 vpd or greater; and
   b. The work zone presents a unique safety issue, such as a high rate of crashes, vehicles traveling at excessive speeds, poor highway geometrics, excessive East-West sun glare; workers exposed to traffic; and/or construction equipment frequently entering and exiting the work zone.
6. In rare cases, a presence officer may be approved for use on low speed (< 45 mph) or low volume (< 15,000 vpd) roads if a unique safety issue exists and other speed deterrent or driver awareness measures are proven ineffective.
7. The use of law enforcement may be considered for nighttime operations. When used at night the use of the blue lights and positioning should be carefully considered. Excessive use of police vehicles with lights at night, or inappropriate positioning of these vehicles may actually detract from the positive guidance the work zone traffic control devices provide. When used for nighttime work, blue lights should be dimmed and headlights should be off.

See complete Flagger and Uniformed Officer guidelines at this link:

https://mm.nh.gov/files/uploads/dot/remote-docs/flagger-police-use%20guidelines.pdf

UNIFORMED OFFICER PLACEMENT IN THE WORK ZONE

If Uniformed Officer with Vehicle use has been approved for presence, cruiser placement is recommended as follows:

1. Park in the shoulder or median, not in the travel lane.
2. Do not park behind the Truck Mounted Attenuator (TMA).
3. Do not park in the buffer zone. If buffer zone presence is needed, then consideration should be given to installing a truck TMA instead.
4. Do not park in the taper.
5. Locate the police cruiser between the 1st and 2nd signs (from the taper).
   a. Urban (Low </= 30 mph) 150' from the taper.
   b. Urban (High >/= 35 mph) 525' from the taper.
   c. Rural = 750' from the taper.
   d. Expressway/Freeway = 1750' from the taper.
6. Consider having the cruiser face traffic for stationary operations.
   a. Recommended cruiser positioning for moving operations:
      I. Less than 5 mph face traffic (e.g. crack seal).
      II. Greater than 5 mph face work (e.g. striping, rumble strips).
7. Stay ¼ mile in front of queue.
8. If a second Officer is used for enforcement, and there is no queue, the enforcement officer should be immediately after the work zone. If there is a traffic queue then the enforcement officer should be several miles before the backup queue and presence Officer.
9. Hands free and cell phone use should be only for work zone activity.
10. Headlights off, dim blue lights at night if possible.

WORK ZONE TRAFFIC CONTROL

UNIFORMED OFFICERS AND FLAGGERS

STANDARD NO. TC-2

REVISION DATE
03-16-2017
11-09-2023

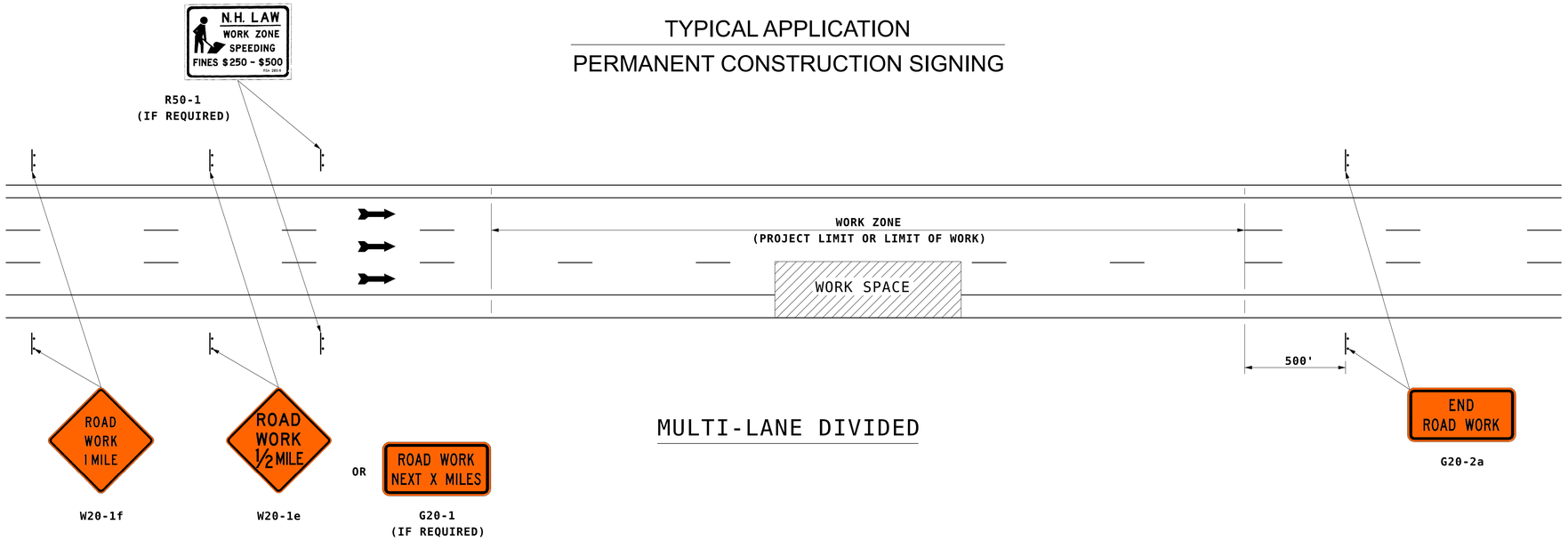
*.DGN FILE NAME
STD-TC-2-11092023

STANDARD PLANS

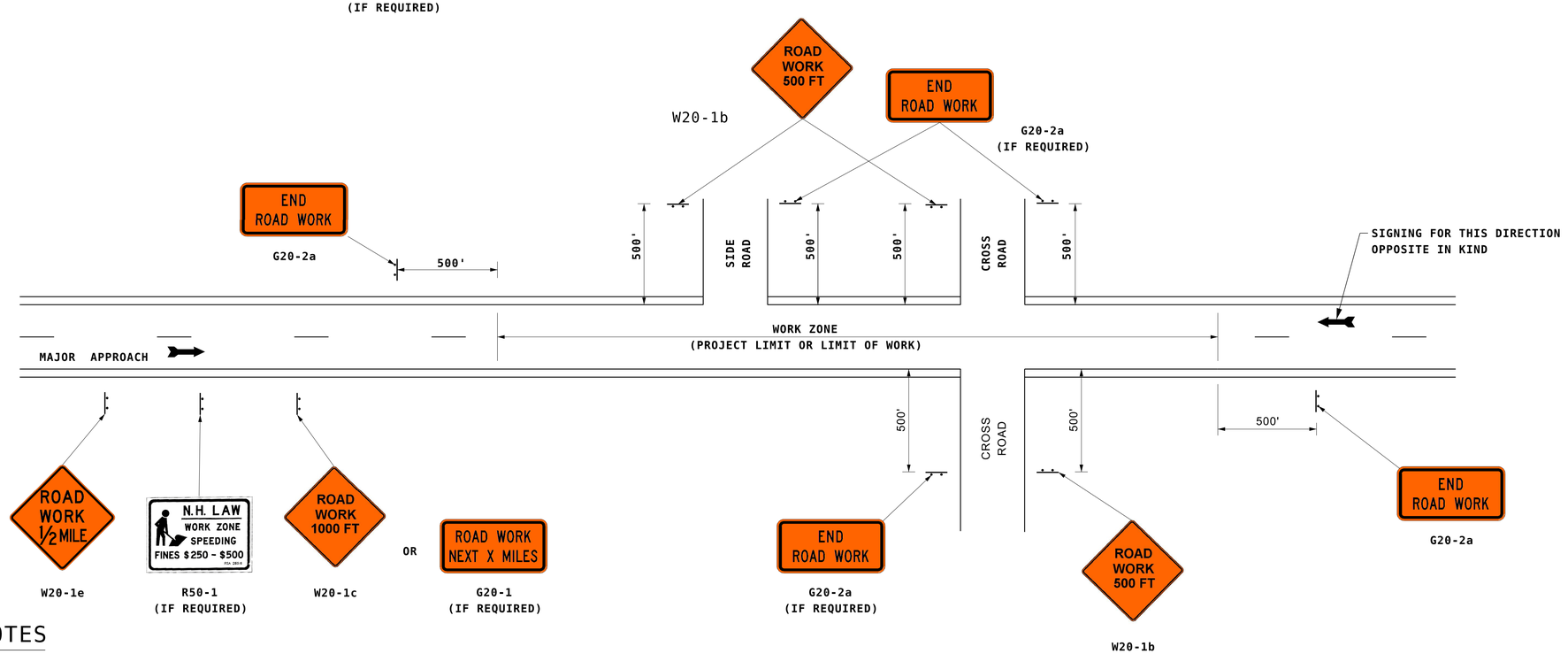
New Hampshire DOT Department of Transportation

STANDARD NO. TC-2

TYPICAL APPLICATION
PERMANENT CONSTRUCTION SIGNING



MULTI-LANE DIVIDED



TWO LANE UNDIVIDED

GENERAL NOTES

1. SIGNS SHOWN INDICATE TYPICAL INSTALLATIONS. ACTUAL NUMBER OF SIGNS MAY VARY TO FIT INDIVIDUAL PROJECT NEEDS.
2. ALL CONSTRUCTION SIGNS SHOWN ON THIS SHEET SHALL BE FLUORESCENT ORANGE.
3. REFER TO TYPICAL APPLICATIONS FOR SIGNING OF INTERMEDIATE WORK AREAS.

NOT TO SCALE

STANDARD NO. TC-3

REVISION DATE
08-03-2004
03-16-2017
11-22-2024

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STANDARD PLANS

New Hampshire DOT Department of Transportation

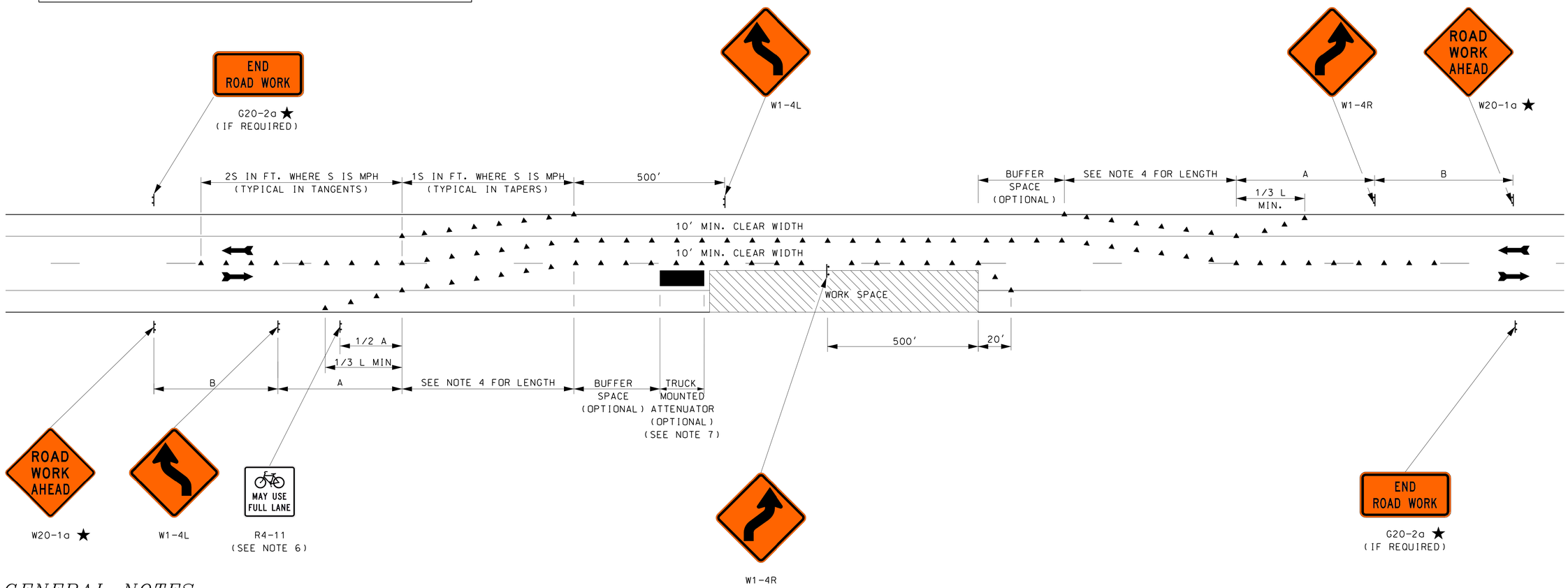
WORK ZONE TRAFFIC CONTROL

PERMANENT CONSTRUCTION SIGNING

STANDARD NO. TC-3

TYPICAL APPLICATION
TWO WAY TRAFFIC LANE SHIFT

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING TABLE 6-1C FROM MUTCD (2009 EDITION)			
ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (≤ 30 MPH)	100′	100′	100′
URBAN (≥ 35 MPH)	350′	350′	350′
RURAL	500′	500′	500′
EXPRESSWAY / FREEWAY	1000′	1500′	2640′



GENERAL NOTES

★ SEE AMENDMENT NO. 10 ON TC-1.

1. FOR OPERATIONS WHERE TWO-WAY TRAFFIC LANE SHIFT CAN BE MAINTAINED ON TWO 10′ MIN. CLEAR WIDTH LANES.
2. FOR LONG-TERM STATIONARY OR INTERMEDIATE-TERM STATIONARY WORK, PAVEMENT MARKINGS INDICATING NO PASSING SHALL BE USED. DO NOT PASS SIGNS (R4-1) MAY BE REQUIRED.
3. FOR TAPER LENGTH (L) CRITERIA, SEE MUTCD TABLES 6C-3 AND 6C-4.
4. FOR SPEEDS > 50 MPH, LENGTH = L. FOR SPEEDS ≤ 50 MPH LENGTH = 1/2L.
5. FOR BUFFER SPACE CRITERIA, SEE STOPPING SIGHT DISTANCE, MUTCD TABLE 6C-2.
6. INSTALL ON ALL APPROACHES IF THE CRITERIA IN AMENDMENT NO. 9 ON TC-1 APPLIES.
7. THE SPACE BETWEEN THE TRUCK MOUNTED ATTENUATOR (TMA) AND THE WORK SPACE SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

NOT TO SCALE

LEGEND
- ▲ CHANNELIZING DEVICES
- ▬ TMA (OPTIONAL)

WORK ZONE TRAFFIC CONTROL

TWO WAY TRAFFIC LANE SHIFT

STANDARD NO. TC-4

REVISION DATE
08/03/2004
03/16/2017
11/28/2018
05/17/2019
04/20/2022

*.DGN FILE NAME
TC-4

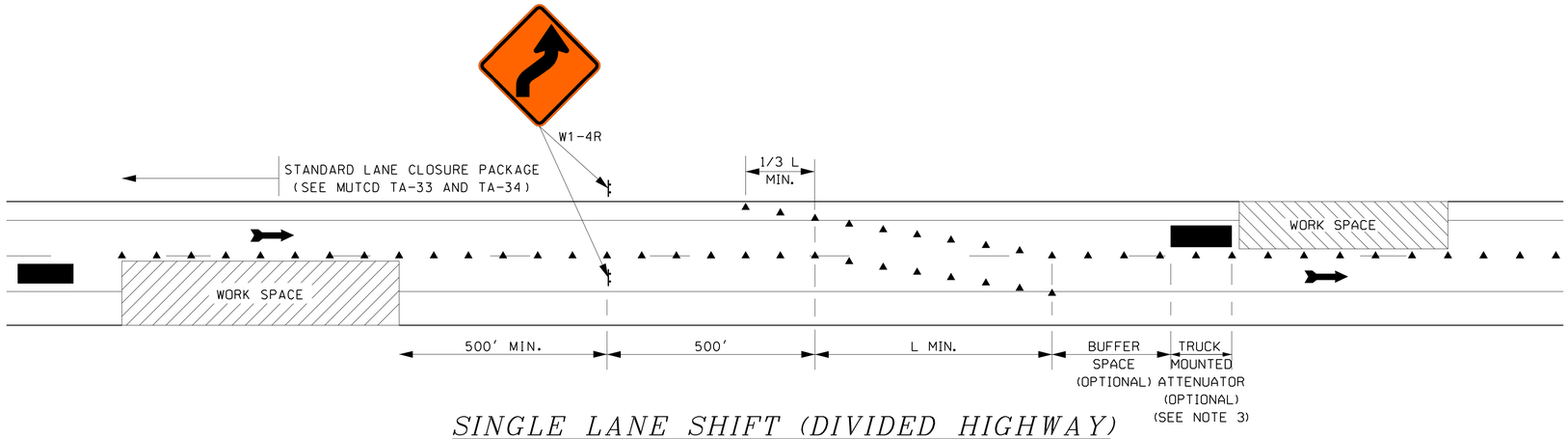
STANDARD PLANS

New Hampshire DOT Department of Transportation

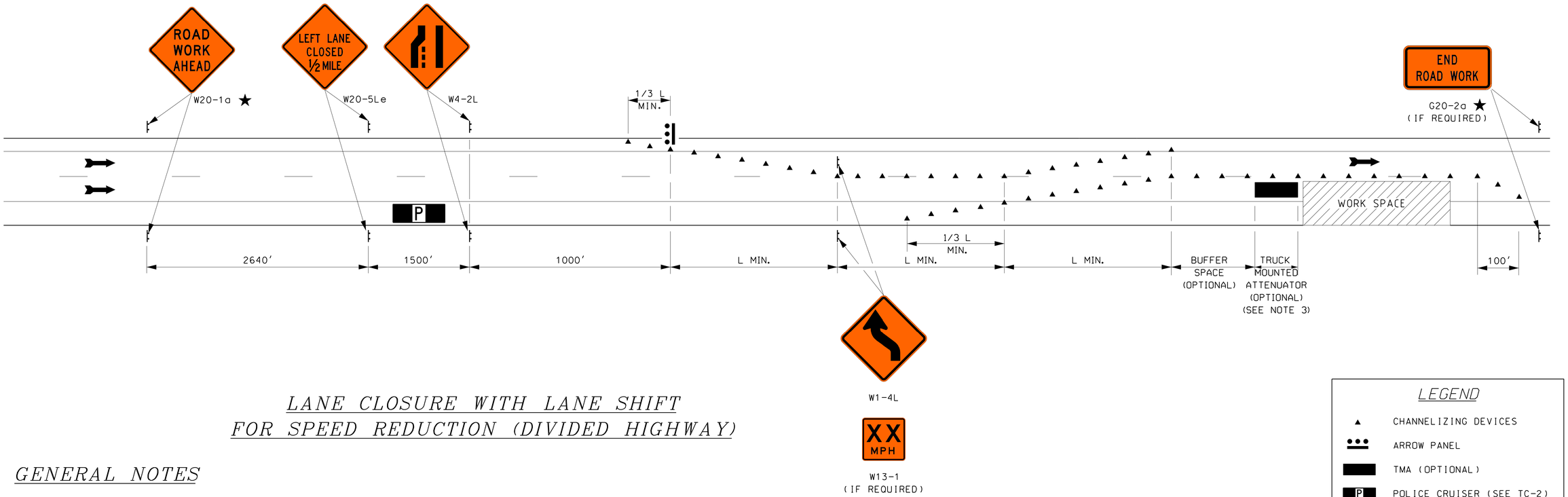
STANDARD NO. TC-4

TYPICAL APPLICATION

LANE SHIFTS - DIVIDED HIGHWAYS



SINGLE LANE SHIFT (DIVIDED HIGHWAY)



LANE CLOSURE WITH LANE SHIFT
FOR SPEED REDUCTION (DIVIDED HIGHWAY)

LEGEND

- ▲ CHANNELIZING DEVICES
- ARROW PANEL
- TMA (OPTIONAL)
- P POLICE CRUISER (SEE TC-2)

GENERAL NOTES

★ SEE AMENDMENT NO. 10 ON TC-1.

1. FOR TAPER LENGTH (L) CRITERIA, SEE MUTCD TABLES 6C-3 AND 6C-4.
2. FOR BUFFER SPACE CRITERIA, SEE STOPPING SIGHT DISTANCE, MUTCD TABLE 6C-2.
3. THE SPACE BETWEEN THE TRUCK MOUNTED ATTENUATOR (TMA) AND THE WORK SPACE SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

NOT TO SCALE

WORK ZONE TRAFFIC CONTROL

LANE SHIFTS
DIVIDED HIGHWAYS

STANDARD NO. TC-6

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03/16/2017
11/28/2018
04/20/2022

*.DGN FILE NAME
TC-6

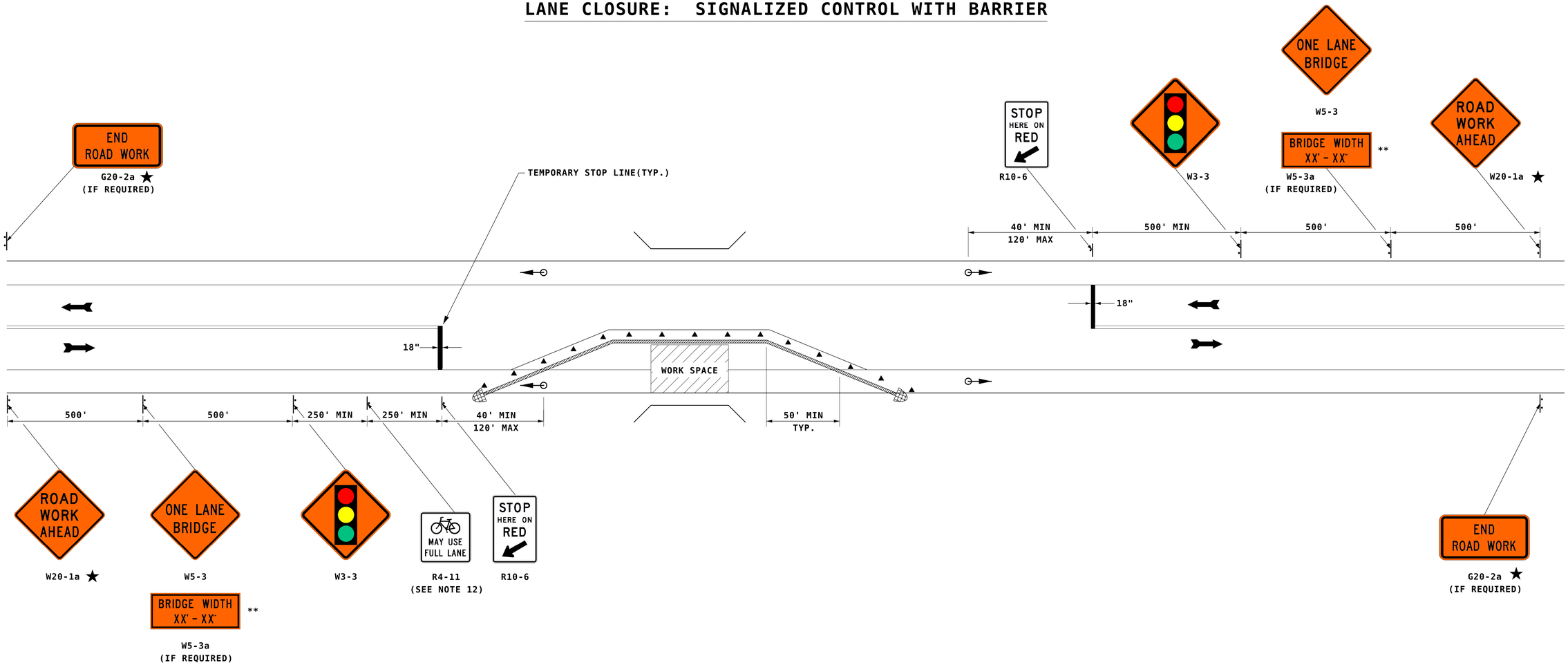
STANDARD PLANS

New Hampshire DOT Department of Transportation

STANDARD NO. TC-6

TYPICAL APPLICATION

LANE CLOSURE: SIGNALIZED CONTROL WITH BARRIER



GENERAL NOTES

★ SEE AMENDMENT NO. 10 ON TC-1.

** POSTED BRIDGE WIDTH SHALL BE 1 FOOT LESS THAN ACTUAL WIDTH.

1. TEMPORARY TRAFFIC SIGNALS ARE PREFERABLE TO FLAGGERS FOR LONG-TERM PROJECTS AND OTHER ACTIVITIES THAT WOULD REQUIRE FLAGGERS AT NIGHT.
2. THE MAXIMUM LENGTH OF THE ACTIVITY AREA FOR ONE-WAY TRAFFIC SIGNAL CONTROL IS DETERMINED BY THE CAPACITY REQUIRED TO HANDLE THE PEAK HOUR DEMAND. SIGNAL TIMING SHALL BE ESTABLISHED BY QUALIFIED PERSONNEL.
3. SIGNALS SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF PART IV OF THE MUTCD. TEMPORARY TRAFFIC CONTROL SHALL MEET THE PHYSICAL DISPLAY AND OPERATIONAL REQUIREMENTS OF CONVENTIONAL TRAFFIC SIGNALS.
4. ADEQUATE AREA ILLUMINATION SHALL BE PROVIDED TO CLEARLY IDENTIFY THE TRANSITION AREAS AT NIGHT FOR LONG-TERM OPERATIONS.
5. STOP LINES 18 INCHES WIDE SHALL BE INSTALLED. ADD "NO-PASSING" LINES WHEN NECESSARY. REMOVABLE PAVEMENT MARKINGS MAY BE USED. CONFLICTING PAVEMENT MARKINGS BETWEEN THE ACTIVITY AREA AND THE STOP LINES SHALL BE REMOVED.
6. HAZARD IDENTIFICATION BEACONS OR TYPE A FLASHING WARNING LIGHTS MAY BE MOUNTED WITH WARNING SIGNS, IF WARRANTED.
7. THE VERTICAL ALIGNMENT OF THE ROADWAY MAY REQUIRE ADJUSTMENTS IN THE HEIGHT OF THE SIGNAL HEADS.
8. WHEN THE SIGNAL IS CHANGED TO A FLASH CONDITION EITHER MANUALLY OR AUTOMATICALLY, ALL APPROACHES SHALL FLASH RED.
9. THE USE OF BARRIER IS ANTICIPATED FOR MOST SITUATIONS REQUIRING APPLICATION OF THIS LANE CLOSURE. REQUIRED BARRIER PROTECTION SHALL BE DETERMINED AS DESCRIBED IN THE MOST CURRENT EDITION OF THE ROADSIDE DESIGN GUIDE AS ADOPTED BY THE DEPARTMENT TAPER RATES FOR BARRIER ARE FOUND ON THE PORTABLE CONCRETE BARRIER STANDARD (GR-23).
10. FOR TEMPORARY TRAFFIC BARRIER CRITERIA, SEE SECTION 6F.85 OF THE MUTCD.
11. CRASH CUSHIONS SHALL BE DELINEATED WITH TYPE 3 OBJECT MARKERS. SEE MUTCD FIGURE 2C-13.
12. INSTALL ON ALL APPROACHES IF THE CRITERIA IN AMENDMENT NO. 9 ON TC-1 APPLIES.

NOT TO SCALE

LEGEND

- PORTABLE BARRIER
- SIGNAL HEAD
- IMPACT ATTENUATOR
- ▲ CHANNELIZING DEVICES

WORK ZONE TRAFFIC CONTROL

LANE CLOSURE: SIGNALIZED CONTROL WITH BARRIER

STANDARD NO. TC-7

REVISION DATE
08-03-2004
03-16-2017
11-28-2018
05-17-2019
07-11-2022
11-22-2024

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STD-TC-7-11222024

STANDARD PLANS

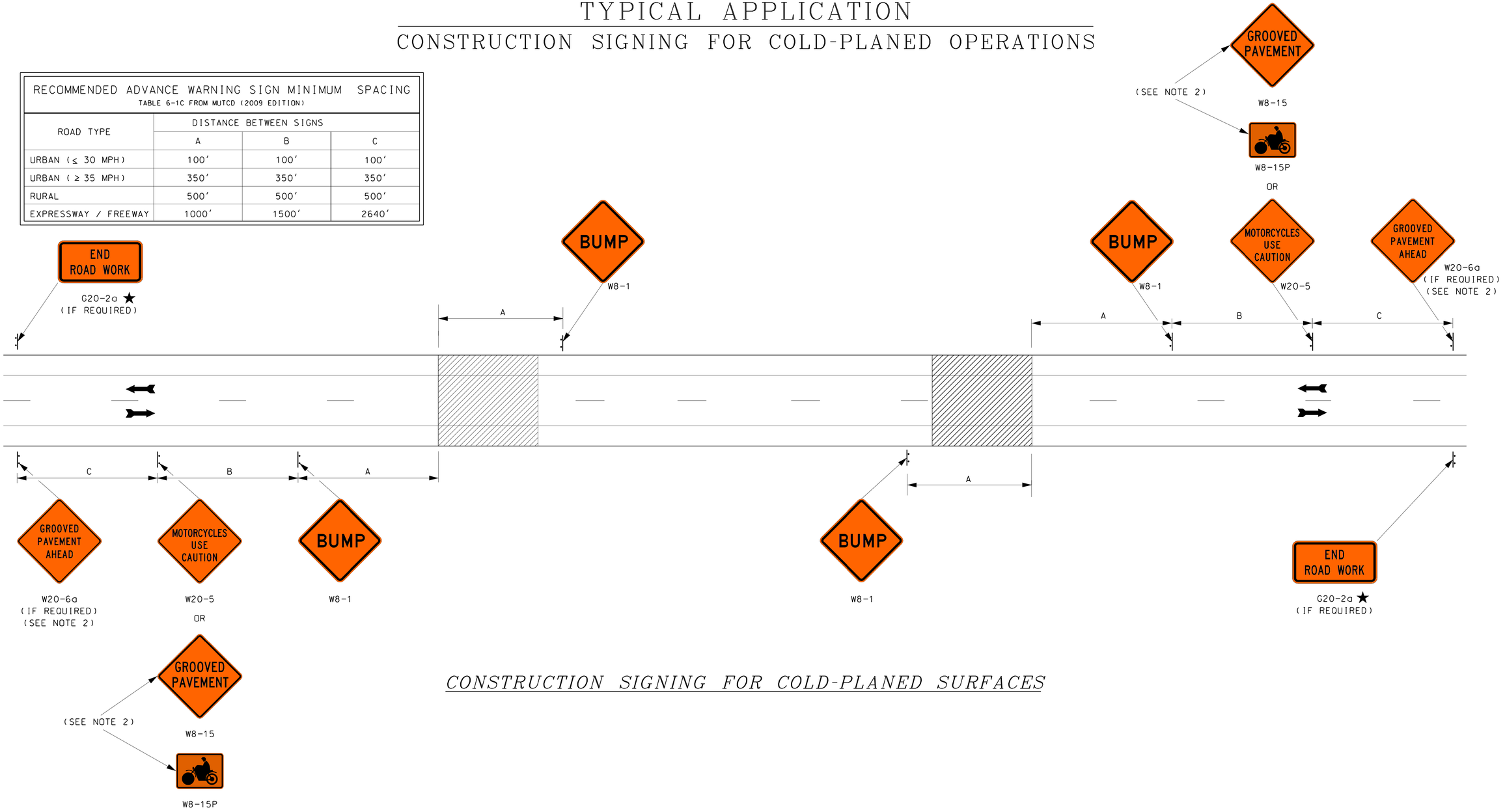
New Hampshire DOT Department of Transportation

STANDARD NO. TC-7

TYPICAL APPLICATION

CONSTRUCTION SIGNING FOR COLD-PLANED OPERATIONS

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING TABLE 6-1C FROM MUTCD (2009 EDITION)			
ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (≤ 30 MPH)	100′	100′	100′
URBAN (≥ 35 MPH)	350′	350′	350′
RURAL	500′	500′	500′
EXPRESSWAY / FREEWAY	1000′	1500′	2640′



CONSTRUCTION SIGNING FOR COLD-PLANED SURFACES

GENERAL NOTES

★ SEE AMENDMENT NO. 10 ON TC-1.

1. THE ABOVE DIAGRAM ILLUSTRATES COLD-PLANED SURFACES FOR PAVEMENT MATCHES. THIS SAME SIGN PACKAGE SHALL BE USED FOR ANY COLD-PLANED SURFACE WITHIN THE LIMITS OF THE TRAVELED WAY. SEE PAVEMENT MATCH TYPICAL INCLUDED IN THE PLANS FOR LENGTH OF PAVEMENT MATCH, FILLET DETAIL, ETC.

2. THE GROOVED PAVEMENT AHEAD (W20-6a) SIGN MAY BE ELIMINATED FOR RELATIVELY SHORT PAVEMENT MATCHES AT THE DISCRETION OF THE ENGINEER. IF W20-6a IS NOT USED W8-15 & 18-15P MUST BE PLACED.

NOT TO SCALE

LEGEND

COLD-PLANED SURFACE

WORK ZONE TRAFFIC CONTROL

CONSTRUCTION SIGNING FOR COLD-PLANED OPERATIONS

STANDARD NO. TC-8

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STANDARD PLANS

New Hampshire DOT Department of Transportation

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