

COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, DISTRICT 5
1000 COUNTY STREET TAUNTON, MA 02780

TOWN: SANDWICH
LOCATION: ROUTE 130

DATE: JULY 29, 2022 Permit No.: 5-2022-XXXX

NSTAR Electric Company d/b/a Eversource Energy
Energy Facilities Siting Board
EFSB 19-06/D.P.U. 19-142/19-143
Compliance Letter- Attachment C
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TEMPORARY TRAFFIC CONTROL PLANS GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. ALL TEMPORARY PEDESTRIAN PATHWAY CROSSINGS WITH EQUIPMENT SHALL BE CONTROLLED BY POLICE DETAILS AT ALL TIMES. NO PEDESTRIAN PATHWAY ACCESS SHALL BE RESTRICTED LONGER THAN 5 MINUTES UNLESS OTHERWISE APPROVED BY THE DISTRICT TRAFFIC ENGINEER. .
3. WORK HOURS THAT IMPACT THE PUBLIC WAY SHALL NOT AFFECT TRAFFIC PATTERNS DURING PEAK TRAFFIC PERIODS. PEAK TRAFFIC PERIODS ARE DEFINED AS MONDAY THRU FRIDAY 7:00AM-9:00AM AND 3:00PM-7:00PM. WORK WITHIN THE PUBLIC WAY WILL NOT BE ALLOWED DURING PEAK PERIODS.
4. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY ON STATE RECOGNIZED HOLIDAYS UNLESS OTHERWISE APPROVED BY THE DISTRICT PERMITS ENGINEER.
5. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
6. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
7. NON-APPLICABLE TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
8. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
9. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
10. SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN.
11. REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
12. CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
13. ALL DRUMS OUTSIDE TAPER AREAS SHALL BE SET AT: 20' ON CENTER MAX. ON LOCAL ROADWAYS AND 40' ON ROUTE 130 UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
14. ALL DRUMS ON TAPERS SHALL BE SET AT: 10' ON CENTER MAX. ON LOCAL ROADWAYS AND 20' ON ROUTE 130 UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
15. ALL DRUMS AND/OR CONES SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
16. CONTRACTOR SHALL SECURE WORK AREAS TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
17. THE FIRST 10 DRUMS ON TAPERS SHALL BE REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS FOR WORK OCCURRING BETWEEN DUSK AND DAWN.
18. THERE ARE NO DESIGNATED BICYCLE LANES ON THE ROADWAY WITHIN THE PROJECT LIMITS. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC WHERE PERMITTED TO DO SO.
19. AREAS DISTURBED BY THE CONTRACTORS ACTIVITIES SHALL BE RESTORED IN ACCORDANCE WITH MASSDOT STANDARDS UNLESS OTHERWISE APPROVED BY THE DISTRICT PERMITS ENGINEER.
20. ACTUAL NUMBER OF POLICE DETAILS TO BE DETERMINED BY AGENCY WITH JURISDICTION OVER THE ROADWAY. "P" SYMBOL DENOTES SUGGESTED POLICE DETAIL LOCATIONS TO KEEP INTERSECTIONS CLEAR AT ALL TIMES.
21. CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:
 - 4' IF POSTED SPEED IS LESS THAN 35 MPH
 - 8' IF POSTED SPEED IS 35 MPH
 - 15' IF POSTED SPEED IS 40 MPH
 - 20' IF POSTED SPEED IS 45 MPH
 - 25' IF POSTED SPEED IS 55 MPH
 - 30' IF POSTED SPEED IS GREATER THAN 55 MPH

BUFFER SPACING

SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

LANE TAPER LENGTH FORMULAS

L= TAPER LENGTH IN FEET	
W= WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET	
S= POSTED SPEED LIMIT IN MPH	
POSTED SPEED	
40 MPH OR LESS	GREATER THAN 40 MPH
$L = \frac{WS^2}{60}$	$L = WS$













ADVANCE SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS (FEET)			
	A	B	C	D
LOCAL	100	50	100	100
MINOR ARTERIAL	500	250	500	500

NOTE:

1. FOR THE PURPOSES OF THIS PROJECT:
MINOR ARTERIAL: ROUTE 130
LOCAL ROADWAYS: ALL OTHER ROADS

LEGEND

	POLICE OFFICER (SEE NOTE 20)
	REFLECTORIZED DRUM
	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS (SEE NOTE 17)
	TEMPORARY CONSTRUCTION SIGN
	TRAFFIC CONE
	TYPE III BARRICADE
	ARROW BOARD (AB) (RIGHT OR LEFT)
	ARROW BOARD (AB) (DOUBLE)
	ARROW BOARD (AB) (CAUTION)
	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRAFFIC FLOW
NTS	NOT TO SCALE
DYL	DOUBLE YELLOW LINE

EVERSOURCE

MID-CAPE RELIABILITY PROJECT

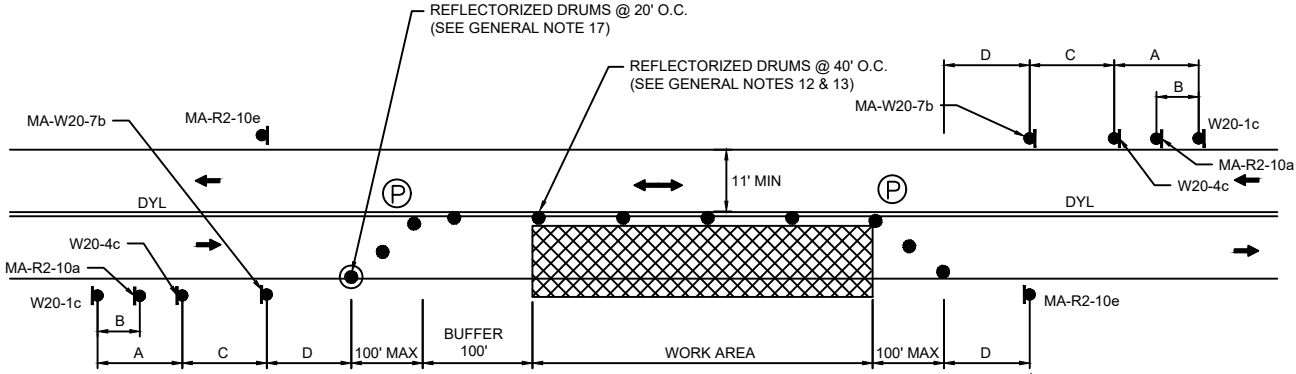
OVERHEAD LINE CONSTRUCTION TEMPORARY TRAFFIC CONTROL PLANS GENERAL NOTES, LEGEND AND TYPICAL DETAILS SANDWICH, MASSACHUSETTS

SCALE:	NTS	DATE:	7/29/2022
DRAWN BY:	RN	SHEET:	1 OF 3
APPROVED:	MS	JOB #:	N/A



OPERATIONAL SIGNING

LANE CLOSURES SHOWN ARE FOR TEMPORARY CONSTRUCTION.
ALL DRUMS AND SIGNS ARE SHOWN AS THEY SHOULD APPEAR
DURING THE WORKING DAY, OR WHILE OPERATING IN THE WORK ZONE.

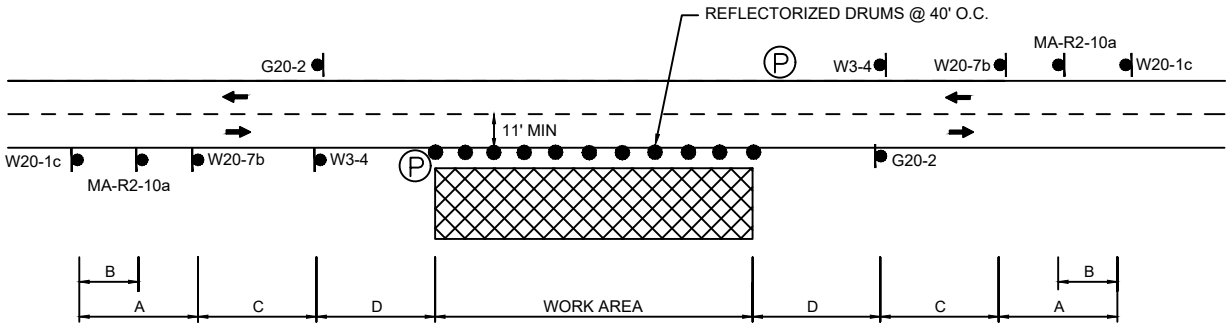


NOTES:

1. SEE TAPER LENGTH FORMULA ON TTCP GENERAL NOTES & LEGEND SHEET.
2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
3. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
4. SEE TTCP GENERAL NOTES & LEGEND SHEET FOR ADDITIONAL INFORMATION.
5. MAINTAIN EXISTING PEDESTRIAN CROSSING LOCATED NORTH OF KIAHS WAY.
6. CONTRACTOR SHALL ADD W20-1c, MA-R2-10a AND MA-W20-7b SIGNS AT LOCAL ROAD SPACING ON THE FOLLOWING ROADWAYS:
SAMOSET ROAD, CHAPAQUOIT WAY, WOODRIDGE ROAD, KIAHS WAY, COURTLAND DRIVE

TYPICAL TWO-WAY STREET LANE CLOSURE - ALTERNATING TRAFFIC

SCALE: NTS



NOTES:

1. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
2. SEE TTCP GENERAL NOTES & LEGEND SHEET FOR ADDITIONAL INFORMATION.

TYPICAL WORK BEYOND THE SHOULDER WITH POLICE DETAIL

SCALE: NTS

Attachment C







TYPICAL DETAILS
SHEET 1 OF 2



Northeast Traffic Control Services, Inc.






Eversource 7/29/22

Mid-Cape Reliability Project
Overhead Line Construction
Temporary Traffic Control Plan
Sandwich Route 130

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY									
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK- GROUND	LEGEND	BORDER
MA-R2-10a	48"	36"		AS PER MASSDOT STANDARD			FLUOR- ESCENT ORANGE	BLACK	BLACK
MA-R2-10e	36"	48"		↓			WHITE FLUOR- ESCENT ORANGE	BLACK	BLACK
W1-4L	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			ORANGE	BLACK	BLACK
W1-4R	36"	36"					ORANGE	BLACK	BLACK
W3-4	36"	36"					ORANGE	BLACK	BLACK
W5-1	36"	36"		↓			ORANGE	BLACK	BLACK

NOTES:

- HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
- ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY									
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK- GROUND	LEGEND	BORDER
W20-1c	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			ORANGE	BLACK	BLACK
W20-4c	36"	36"					ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"					ORANGE	BLACK	BLACK
W21-5aR	36"	36"					ORANGE	BLACK	BLACK
W21-5cR	36"	36"		↓			ORANGE	BLACK	BLACK

Attachment C

SIGN SUMMARY



Northeast Traffic Control Services, Inc.

Eversource 7/29/22

Mid-Cape Reliability Project
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