SALEM, MA
BRIDGE STREET RECONSTRUCTION PROJECT

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JUNE 2017
PROJECT NUMBER: 179410455
PRELIMINARY DESIGN SUBMISSION
GENERAL NOTES:

1. PLANS PREPARED ARE BASED ON SURVEY PROVIDED BY WORKING AND MARKING CONTRACTOR. THE LOCATION OF UTILITIES IS BASED ON EXISTING PRESSES, DUCTS, CONDUITS AND OTHER UNDERGROUND STRUCTURES. SHOWN ON THE DRAWINGS ARE NOT INTENDED TO BE EXACT. EXACT LOCATION IS TO BE DETERMINED BY THE CONTRACTOR. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES IN WRITING AND BY CALLING DIG SAFE 1-888-822-1161 PRIOR TO EACH EXCAVATION. CONTRACTOR TO BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO ERECTION OF THE ENTIRE CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE COMPANY OFFICE OF THE LOCATION OF ANY NEWLY INSTALLED UTILITIES.

2. PROPERTY LINE INFORMATION IS COMPILED FROM FIELD OBSERVATIONS, CITY LAYOUT PLANS, CURB MANHOLE PLANS, AND PLANS RECORDED AT THE MIDDLESEX COUNTY REGISTRY OF DEEDS.

3. THE BEARING SYSTEM FOR THIS PLAN IS BASED UPON MASSACHUSETTS STATE PLANE OR AS REQUIRED BY ENGINEER.

4. VERTICAL DATUM NORTH AMERICAN GERAD 1889 (NAD83) IS TO BE USED FOR ALL WORK.

5. HORIZONTAL DATUM NORTH AMERICAN G2002 (NAD92) IS TO BE USED FOR ALL WORK.

6. ALL BASELINE TIES FOR CORNERS AND RADIUS OF CURB OR EDGE ARE TO THE P.C.'S 0.366 FT MINIMUM. ALL STRAIGHT LINES TO BE 0.366 FT MINIMUM. ALL CURVATURE TIES ARE TO BE� 0.366 FT MINIMUM.

7. ALL AREAS OUTSIDE OF THE LIMIT OF WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT ADDITIONAL COST TO THE OWNER.


9. ALL EXISTING "D" GRATES FOR CATCH BASINS SHALL BE REPLACED WITH CITY STANDARD CATCH BASIN.

10. ALL FLUSH CURB ENCOUNTERED AT DRIVEWAYS SHALL BE REMOVED AND RE-USED.

11. THE CONTRACTOR SHALL VERIFY ALL OUTLET GRADES OF DRAINAGE STRUCTURES PRIOR TO CONSTRUCTING ANY DRAINAGE MODIFICATIONS. CONTRACTOR TO CONFIRM LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED BY THE CONTRACTOR TO ARRANGE FOR INSPECTION OF ALL WORK ON UTILITIES WITH THE COMPANY OFFICE.

12. CONTRACTOR SHALL REVIEW PROJECT SPECIFICATIONS AND SECTION 06000 RELATED TO MASONRY DEPICTED THEREIN, AND SPECIFICATIONS INCLUDED IN THIS CONTRACT.

13. ALL PAVEMENT MARKING SYMBOLS (BIKE LANE SYMBOLS, ETC) SHALL BE PAVEMENT MARKING TAPE. ALL OTHER MARKINGS SHALL BE THERMOPLASTIC.

14. CONTRACTOR SHALL INSTALL AND MAINTAIN MAJOR DRAINAGE MODIFICATIONS TO MEET CITY REQUIREMENTS.

15. ALL EXISTING CATCH BAMS SHALL BE REPLACED WITH CITY STANDARD CATCH BASIN.

16. CONTRACTOR SHALL REMOVE ALL EXISTING CATCH BASINS WITH BRICK MASONRY NOT LESS THAN 8" IN THICKNESS, CONSISTENT WITH MASSDOT TYPICAL WHEELCHAIR RAMP BETWEEN DECEMBER 30, 2016 & JANUARY 25, 2017.

17. A MINIMUM 36" PATH OF TRAVEL (EXCLUDING CURB) SHALL BE MAINTAINED PAST ALL BUILDINGS, BUILDING ENTRANCES, UTILITY STRUCTURES, ETC. IF THERE IS A CONFLICT, THE INFORMATION SHALL BE FURNISHED TO THE ENGINEER FOR RESOLUTION PRIOR TO SIDEWALK LOCATION.

18. ALL EXISTING "O" GRADES FOR CATCH BASINS SHALL BE REPLACED WITH CITY STANDARD CATCH BASIN.

19. CONTRACTOR SHALL PROVIDE A STAKED LAYOUT FOR THE ENGINEER TO REVIEW PRIOR TO COMMENCING SIDEWALK WORK. THE CONTRACTOR SHALL PROVIDE ALL CUT AND FILL AMOUNTS AT ALL BACK OF SIDEWALK, STEPS, WALLS, DRIVEWAYS, WALKWAYS, BUILDING ENTRANCES, UTILITY STRUCTURES, ETC.

20. CONTRACTOR SHALL PROVIDE A STAKED LAYOUT FOR THE ENGINEER TO REVIEW PRIOR TO COMMENCING SIDEWALK WORK. THE CONTRACTOR SHALL PROVIDE ALL CUT AND FILL AMOUNTS AT ALL BACK OF SIDEWALK, STEPS, WALLS, DRIVEWAYS, WALKWAYS, BUILDING ENTRANCES, UTILITY STRUCTURES, ETC.

21. CONTRACTOR SHALL NOTIFY THE COMPANY OFFICE OF THE LOCATION OF ANY NEWLY INSTALLED UTILITIES.

22. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS REQUIRED TO PERFORM THE WORK. INCLUDING ALL PERMITS REQUIRED BY THE CITY OF CAMBRIDGE DEPARTMENT OF PUBLIC WORKS AND/OR WATER DEPARTMENT.

23. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE ANY UTILITY LOCATIONS WITH THE CITY OF CAMBRIDGE DEPARTMENT OF PUBLIC WORKS. CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL CHARGES REQUIRED TO BE PAID TO ALL UTILITIES BY THE CONTRACTOR, AND THE CONTRACTOR SHALL BEAR THE COST OF ANY JANUARY 2017.

24. CONTRACTOR SHALL NOTIFY THE COMPANY OFFICE OF THE LOCATION OF ANY NEWLY INSTALLED UTILITIES.

25. CONTRACTOR SHALL PERFORM ALL WORK WITHIN THE LIMITS OF WORK. CONTRACTOR SHALL PROVIDE A STAKED LAYOUT FOR THE ENGINEER TO REVIEW PRIOR TO COMMENCING SIDEWALK WORK. THE CONTRACTOR SHALL PROVIDE ALL CUT AND FILL AMOUNTS AT ALL BACK OF SIDEWALK, STEPS, WALLS, DRIVEWAYS, WALKWAYS, BUILDING ENTRANCES, UTILITY STRUCTURES, ETC.

26. CONTRACTOR SHALL PROVIDE A STAKED LAYOUT FOR THE ENGINEER TO REVIEW PRIOR TO COMMENCING SIDEWALK WORK. THE CONTRACTOR SHALL PROVIDE ALL CUT AND FILL AMOUNTS AT ALL BACK OF SIDEWALK, STEPS, WALLS, DRIVEWAYS, WALKWAYS, BUILDING ENTRANCES, UTILITY STRUCTURES, ETC.

27. CONTRACTOR SHALL PROVIDE A STAKED LAYOUT FOR THE ENGINEER TO REVIEW PRIOR TO COMMENCING SIDEWALK WORK. THE CONTRACTOR SHALL PROVIDE ALL CUT AND FILL AMOUNTS AT ALL BACK OF SIDEWALK, STEPS, WALLS, DRIVEWAYS, WALKWAYS, BUILDING ENTRANCES, UTILITY STRUCTURES, ETC.

28. NO WORK SHALL TAKE PLACE ON PRIVATE PROPERTY WITHOUT A SIGNED RIGHT OF ENTRY AGREEMENT BETWEEN THE PROPERTY OWNER AND THE CITY.
TYPICAL SECTION - BRIDGE STREET
STA. 101+50± TO STA. 103+75±
(LOOKING EASTERLY)

TYPICAL SECTION - BRIDGE STREET (SUPERELEVATED)
STA. 104+60± TO STA. 106+00±
(LOOKING EASTERLY)

11'-0" TRAVEL LANE

2'-0" SHLD.

40'-0" BL CONSTRUCTION

APPROX CITY LAYOUT WIDTH - 65.00'±

PUBLIC STORAGE BUILDING
NORTH RIVER CANAL
GATEWAY CENTER DEVELOPMENT

SHARED-USE PATH
BIKE LANE

6" (TYP) PROP 4" CEM CONC SIDEWALK (TYP)
SIDEWALK (TYP) PROP 8" GRAVEL SUBBASE (TYP)

R&R EXIST GRAN CURB (TYP)

NOTES:
1. MEET EXISTING ELEVATIONS AT BACK OF SIDEWALK WHERE POSSIBLE WHILE MAINTAINING ADA COMPLIANCE. EXISTING AND PROPOSED ELEVATIONS ARE SHOWN ON THE GRADING PLANS WHERE BACK OF SIDEWALK ELEVATIONS ARE NOT MET.

PAVEMENT NOTES:

PAVEMENT RECLAMATION (GOODHUE STREET):
SURFACE: 2" HOT MIX ASPHALT TOP COURSE 12.5 (SSC-12.5) OVER 3" HOT MIX ASPHALT INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER SUBBASE: 5" MIN.* RECLAIMED BASE COURSE MATERIAL (SUPPLEMENT WITH DENSE GRADED CRUSHED STONE IF NECESSARY)

RECLAIM: 12" DEPTH

PAVEMENT MILL AND HMA OVERLAY (BRIDGE STREET):
SURFACE: 2" HOT MIX ASPHALT TOP COURSE 12.5 (SSC-12.5) OVER MILLING: 2" MICROMILL

PAVEMENT MILL AND HMA OVERLAY (FLINT STREET):
SURFACE: 1.75" HOT MIX ASPHALT TOP COURSE 12.5 (SSC-12.5) OVER MILLING: 1.75" MICROMILL

PAVEMENT MILL AND HMA OVERLAY (BOSTON STREET):
SURFACE: 1.75" HOT MIX ASPHALT TOP COURSE 12.5 (SSC-12.5) OVER MILLING: 1.75" MICROMILL

ASPHALT EMULSION FOR TACK COAT:
ASPHALT EMULSION FOR TACK COAT SHALL BE PLACED ON ALL MILLED SURFACES (APPLICATION RATE = 0.07 GAL/SY) AND BETWEEN ALL NEW PAVEMENT LAYERS (APPLICATION RATE = 0.05 GAL/SY).

Pavement Notes:
NOTES:
1. MEET EXISTING ELEVATIONS AT BACK OF SIDEWALK WHERE POSSIBLE WHILE MAINTAINING ADA REQUIREMENTS. EXISTING ELEVATIONS ARE SHOWN ON THE GRADING PLANS WHERE BACK OF SIDEWALK ELEVATIONS ARE NOT MET.
2. OVER EXCAVATION WILL BE REQUIRED AT THE FOLLOWING STATION RANGES TO MEET THE MINIMUM RECLAIMED BASE COURSE MATERIAL DEPTHS (SEE GRADING PLANS FOR LOCATIONS AND DETAILS):
   - STA. 23+00± TO STA. 25+55±
   - 6" (TYP)
   - PROP 4" CEM Conc Sidewalk (TYP)
   - PROP 8" Gravel Subbase (TYP)
3. HOT MIX ASPHALT TOP COURSE
4. HOT MIX ASPHALT DENSE INTERMEDIATE COURSE
5. MIN. RECLAIMED BASE COURSE
6. SIDEWALK (TYP)
7. PROP 4" CEM Conc Sidewalk (TYP)
8. PROP 8" Gravel Subbase (TYP)
9. 1.75" MICROMILL AND 1.75" SUPERPAVE SURFACE COURSE OVERLAY
10. R&R EXIST GRAN CURB (TYP)
11. R&R EXIST GRAN CURB (TYP)
12. 2" HOT MIX ASPHALT TOP COURSE
13. 3" HOT MIX ASPHALT DENSE INTERMEDIATE COURSE
14. 7" MIN. RECLAIMED BASE COURSE
15. PROP 4" CEM Conc Sidewalk (TYP)
16. PROP 8" Gravel Subbase (TYP)
17. NOTES:
TYPICAL SECTION - BOSTON STREET
STA. 2+80± TO STA. 5+00± (LOOKING NORTHERLY)

NOTES:
1. MEET EXISTING ELEVATIONS AT BACK OF SIDEWALK WHERE POSSIBLE WHILE MAINTAINING ADA REQUIREMENTS. EXISTING AND PROPOSED ELEVATIONS ARE SHOWN ON THE GRADING PLANS WHERE BACK OF SIDEWALK ELEVATIONS ARE NOT MET.
Typical Section - Flint Street

(LOOKING SOUTHERLY)

**NOT SCALE**

Typical Section - Goodhue Street

(LOOKING WESTERLY)

Notes:

1. Meet existing elevations at back of sidewalk where possible while maintaining ADA compliant sidewalk elevations. Existing and proposed elevations are shown on the grading plans. Where back of sidewalk elevations are not met, over excavation will be required.

2. Meet the minimum reclaim base course material depth (see grading plans for locations and details).

**SCALE: 1" = 1'-0"**

Project No. 193-009

Sheet No. 12 of 33
8.71' 37.76' 5.00' 31.24' 7.87' 3.50' 7.30' 35.00' 2.00' 8.00' 5.00' 10.00' 12.00' 113+03.09

PROP SAWCUT MATCH EXISTING

PROP SAWCUT

PROP GRAN CURB (TYP)
PROP LOAM & SEED (TYP)
PROP CEM CONC SIDEWALK (TYP)
PROP CEM CONC SHARED USE PATH (TYP)
PROP LOAM & SEED (TYP)
PROP BRIDGE STREET CONSTRUCTION

BRIDGE STREET CONSTRUCTION

200+00 FLINT ST (NORTH) = 113+77.18 BRIDGE STREET
300+00 FLINT ST (SOUTH) = 113+85.36 BRIDGE STREET

SCALE: 1" = 20'

LIMIT OF WORK
STA 201+59.67
N3015598.9019
E816269.7152

LIMIT OF WORK
STA 300+83.37
N3015469.6014
E816476.9233

LIMIT OF WORK
STA 114+42.96
N3015560.2211
E816450.9898

05 0100 17

CONSTRUCTION PLAN SHEET 5
NOTES:
1. FOR CONSTRUCTION PLAN SEE SHEET 13, 15, 16, AND 17.

BRIDGE STREET PROFILES PART 1

CONTINUED ABOVE

CONTINUED BELOW

SHEET NO. 19
NOTES:
1. FOR CONSTRUCTION PLAN SEE SHEETS 13, 15, 16, AND 17.
<table>
<thead>
<tr>
<th>IDENTIFICATION NUMBER</th>
<th>SIZE OF SIGN</th>
<th>SIGN</th>
<th>LEGEND DIMENSIONS</th>
<th>NUMBER OF SUPPORT AND NUMBER REQUIRED</th>
<th>COLOR</th>
<th>AREA IN SQUARE FEET</th>
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<tr>
<td>R1-1 (BHG)</td>
<td>18&quot; x 18&quot;</td>
<td>SEE MUTED</td>
<td>SEE MUTED</td>
<td>SEE MUTED</td>
<td>SEE MUTED</td>
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<tr>
<td>R3-1L</td>
<td>30&quot; x 30&quot;</td>
<td>SEE MUTED</td>
<td>SEE MUTED</td>
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<td>R3-7R</td>
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<td>SEE MUTED</td>
<td>SEE MUTED</td>
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<td>R3-6b</td>
<td>30&quot; x 30&quot;</td>
<td>SEE MUTED</td>
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<td>R6-7</td>
<td>24&quot; x 33&quot;</td>
<td>SEE MUTED</td>
<td>SEE MUTED</td>
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<tr>
<td>R10-1L</td>
<td>24&quot; x 24&quot;</td>
<td>SEE MUTED</td>
<td>SEE MUTED</td>
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<td>SEE MUTED</td>
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<tr>
<td>MA-R10-12a</td>
<td>30&quot; x 30&quot;</td>
<td>SEE MUTED</td>
<td>SEE MUTED</td>
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<td>R10-22</td>
<td>12&quot; x 18&quot;</td>
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<td>W11-2</td>
<td>30&quot; x 30&quot;</td>
<td>SEE MUTED</td>
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<td>W11-3yR</td>
<td>24&quot; x 12&quot;</td>
<td>SEE MUTED</td>
<td>SEE MUTED</td>
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<tr>
<td>TRAFFIC SIGNAL CONTROLLER (TS-2, TYPE 1) TYPE 8DW W/ 8DW CABINET, &amp;</td>
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<tr>
<td>4 8 FT TRAFFIC SIGNAL POST, ORNAMENTAL BASE &amp; CEM CONC FOUNDATION</td>
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<tr>
<td>1-WAY, 3 SECTION SIGNAL HEAD, 12&quot; L.E.D. LENS (W/ VISORS)</td>
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<tr>
<td>5&quot; NON-LOUVERED BACKPLATES WITH 3&quot; RETROREFLECTIVE YELLOW BORDER</td>
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<tr>
<td>PEDESTRIAN SIGNAL HEAD, L.E.D., WITH COUNTDOWN DISPLAY</td>
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<tr>
<td>ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON ASSEMBLY (INCL. SIGN &amp; SADDLE)</td>
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<td>SERVICE CONNECTION (UNDERGROUND - ELECTRIC)</td>
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<tr>
<td>2 10 FT TRAFFIC SIGNAL POST, BASE &amp; CEM CONC FOUNDATION</td>
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<tr>
<td>1 PRE-EMPTION PHASE SELECTOR</td>
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<tr>
<td>1 EMERGENCY PRE-EMPTION CONFIRMATION STROBE</td>
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<td>3 EMERGENCY PRE-EMPTION RECEIVERS</td>
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<tr>
<td>MALFUNCTION MANAGEMENT UNIT (CAPABLE OF FLASHING YELLOW ARROW)</td>
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<tr>
<td>1 30 FT MAST ARM (STEEL) WITH R10-12a SIGN, INCLUDE BASE AND CEM CONCRETE FOUNDATION</td>
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<td></td>
<td></td>
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<tr>
<td>1 35 FT MAST ARM (STEEL)</td>
<td>1</td>
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</tr>
<tr>
<td>1 40 FT MAST ARM (STEEL)</td>
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</tbody>
</table>
NOTE:
1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A CLEAR SPACE OF 54 IN. MINIMUM, A MINIMUM OF 60 IN. SHALL BE PROVIDED WHEN THE CURB RAMPS AND TRANSITION ARE IN THE SAME PLANE.
2. WHEN THE CURB RAMP OR LANDINGS ARE IN THE SAME PLANE, A MINIMUM CLEARANCE OF 48 IN. MINIMUM SHALL BE PROVIDED. ON CURB RAMPS OR LANDINGS, A MINIMUM CLEARANCE OF 48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
3. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) SLOPE INTO THE GUTTER.
4. BYPASS IS TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS REQUIRED BY THE ENGINEER.
5. THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THIS WALKWAY IS TO BE USED BY PEDESTRIANS, A WORK ZONE AREA (CLOSED) THEN THE DETAIL SHOWN ABOVE IS TO BE USED.
6. PROVIDE TEMPORARY RAMPS TO ALLOW TRAVEL TO/FROM WALKWAY ON ROADWAY.

PROTECTIVE EDGE

EMERGENCY ESCAPE EMBANKMENT

WORK ZONE TO BE ENCLOSED BY FENCING

PEDESTRIAN PATH

CROSS SECTION VIEW

NOTE: * THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND-TRAILED EDGE AND ITS SUPPORT. THE GAP BETWEEN THE TOP OF THE BOTTOM RAIL AND THE SURFACE MUST BE CLEAR TO PROVIDE DRAINAGE.

PEDESTRIAN DETOUR PLAN

NOTE: * PEDESTRIAN DETOUR ROUTE SHALL BE TYPICAL PEDESTRIAN PATH.

PEDESTRIAN CHANNELIZING DEVICE

NOTE: * PEDESTRIAN CHANNELIZING DEVICE FOR TEMPORARY PEDESTRIAN FACILITY WHEN THE OUTER LANE IS CLOSED. THE DOUBLE YELLOW CENTERLINE AND/OR LANE LINES SHOULD BE REMOVED BETWEEN THE CROSSWALK LINES.

TEMPORARY PEDESTRIAN WALKWAY

NOTE: * TEMPORARY PEDESTRIAN WALKWAY LEVELS AND CROSSHATCHING OPTIONAL.

PEDESTRIAN PATH

NOTE: * PEDESTRIAN DETOUR ROUTE SHALL BE ADJUSTABLE TO PROVIDE DRAINAGE.

WORK ZONE TO BE ENCLOSED BY FENCING

PEDESTRIAN PATH

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PEDESTRIAN PATH

NOTE: * PEDESTRIAN DETOUR ROUTE SHALL BE TYPICAL PEDESTRIAN PATH.

PEDESTRIAN CHANNELIZING DEVICE

NOTE: * PEDESTRIAN CHANNELIZING DEVICE FOR TEMPORARY PEDESTRIAN FACILITY WHEN THE OUTER LANE IS CLOSED. THE DOUBLE YELLOW CENTERLINE AND/OR LANE LINES SHOULD BE REMOVED BETWEEN THE CROSSWALK LINES.

NOTE: * PEDESTRIAN DETOUR ROUTE SHALL BE ADJUSTABLE TO PROVIDE DRAINAGE.

WORK ZONE TO BE ENCLOSED BY FENCING

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NOTES:
1. ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE 2009 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, THE MASSACHUSETTS AMENDMENTS TO THE 2009 MUTCD, AND MASSDOT STANDARDS.
2. ALL SIGN LEGENDS, BORDERS AND MOUNTING SHALL BE IN ACCORDANCE WITH THE 2009 MUTCD, THE MASSACHUSETTS AMENDMENTS TO THE 2009 MUTCD, AND MASSDOT STANDARDS.
3. TEMPORARY CONSTRUCTION SIGNS AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
4. CONSTRUCTION SIGNS, BARRIEAGES AND ALL OTHER NEEDED WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE ROADWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OR TRAFFIC.
5. SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVEL WAYS AND REFLECTORIZED PLASTIC DRUMS WITH LIGHTING DEVICES MOUNTED ON THEM, MUST PASS THE CRITERIA SET FORTH IN NPCHP REPORT 281, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES."
6. CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
7. THE FIRST FIVE PLASTIC DRUMS IN A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
8. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
9. MAXIMUM SPACING OF TRAFFIC DEVICES (IN A TAPER (DRUMS OR CONES) IS EQUAL, IN FEET TO THE SPEED LIMIT IN MPH.
10. MINIMUM LANE WIDTH IS TO BE 15 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
11. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
12. ALL TEMPORARY SIGNAGES SHALL MEET ADA GUIDELINES.
13. DETAILS SHOWN ON THIS PLAN ARE NOT TO SCALE.
14. ADA COMPLIANT PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES, INCLUDING PEDESTRIAN GUIDANCE SYSTEMS AT WORK ZONES.
15. DISTANCES A AND B SHOULD BE 500 FT ALONG NEEDHAM STREET AND 350 FT ALONG OAK STREET AND CHRISTINA STREET.

<table>
<thead>
<tr>
<th>TYPE OF TAPER</th>
<th>TAPER LENGTH (L)</th>
<th>SPEED LIMIT (S)</th>
<th>TAPER LENGTH (L)</th>
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<tbody>
<tr>
<td>Merging Taper</td>
<td>AT LEAST L</td>
<td>40 MPH OR LESS</td>
<td>L = WS</td>
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<tr>
<td>Shifting Taper</td>
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<td>40 MPH OR LESS</td>
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<tr>
<td>Shoulder Taper</td>
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<td>One-Lane, Two-Way Taper</td>
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<tr>
<td>Downstream Taper</td>
<td>100 FT PER LANE</td>
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FORMULAS FOR DETERMINING TAPER LENGTHS