TRAFFIC SIGNAL CONSTRUCTION PROJECT
SOUTHERN ARTERY (ROUTE 3A) AT MCGRATH HIGHWAY/
FIELD STREET/MORRISON STREET
IN THE CITY OF
QUINCY
NORFOLK COUNTY
FINAL SUBMISSION

NOTES:

1. EXISTING SURVEY BASED ON GIS AERIAL MAPPING AND EXISTING RECORD PLANS.
2. ALL PROPOSED PAVEMENT MARKINGS SHALL BE EPOXY.
3. ALL PROPOSED PAVEMENT MARKINGS AND SIGNS SHALL BE IN COMPLIANCE WITH THE 2009 MUTCD, 2012 MA AMENDMENTS TO MUTCD, AND MASSDOT STANDARDS.
4. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
5. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
6. THE MINIMUM MOUNTING HEIGHT OF POST MOUNTED SIGNS, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB OR SIDEWALK SHALL BE 7 FEET UNLESS OTHERWISE SPECIFIED.
7. EXISTING CONDITION AND INFORMATION OBTAINED FROM RECORD PLAN.
8. SEE SHEET #7 FOR TRAFFIC SIGNAL DATA.
9. ALL TS EQUIPMENT, CONDUIT AND LOOP DETECTORS ARE EXISTING, AND TO REMAIN. ALL REMOVED EQUIPMENT SHALL BE DELIVERED TO A LOCATION SPECIFIED BY THE CITY.
10. THE LOCATION OF TRAFFIC SIGNAL APPURTENANCES (STANDARDS, SIGNS, AND LIGHTS, SHOWN APPEARS APPROXIMATE ONLY. THE EXACT LOCATION OF TS POST FOUNDATIONS SHALL BE FIELD LOCATED BY THE CONTRACTOR WITH APPROVAL BY THE CITY TRAFFIC ENGINEER PRIOR TO INSTALLATION. FOUNDATIONS IN OR ADJACENT TO SIDEWALKS SHALL BE VERIFIED TO MEET ADA PEDESTRIAN ACCESS ROUTE REQUIREMENTS.
11. WHEELCHAIR RAMPS AT APPROXIMATE LOCATIONS SHOWN SHALL BE DESIGNED BY THE CONTRACTOR BASED ON FIELD CONDITIONS, AND IN ACCORDANCE WITH THE RELEVANT ADA/AAB STANDARDS. CONTRACTOR SHALL REFERENCE MASSDOT STANDARD CONSTRUCTION DETAILS SECTION EXIT FOR GUIDANCE. RAMPS SHALL INCLUDE A DETECTABLE WARNING PANEL, LEVEL LANDING AREA, AND TRANSITION LENGTHS AS SHOWN.
12. PROPOSED WHEELCHAIR RAMPS SHALL HAVE RED DETECTABLE WARNING STRIPS, PER CITY OF QUINCY STANDARDS.

SCALE: 1" = 20'
### Conceptual Plans - 2 of 2

#### Major Items Required

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
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#### EXISTING PREFERENTIAL PHASING SEQUENCE

![Diagram of existing preferential phasing sequence]

#### SEQUENCE AND TIMING NOTES

1. **IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALL PHASE, THE SIGNAL SCHEDULE FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE BEYOND THE CHANGE INTERVALS LISTED.**
2. **THE RIGHT OF WAY MAY BE ASSIGNED TO ANY PHASE OR COMBINATION OF PHASES TO SERVICE MOVEMENTS.**
3. **MODIFY EXISTING CONTROLLER.**
4. **CONTRACTOR TO REMOVE EXISTING PULLBOX AND EXTEND EXISTING CONDUIT RUN TO NEW PULLBOX.**
5. **CONTRACTOR TO INSTALL PROPOSED PEDESTRIAN SIGNAL AND PUSH BUTTON ON EXISTING POLE ATTACHED TO THE TOP OF ALL MAST ARM FOUNDATIONS IN SIDEWALK AREAS SHALL BE FLUSH WITH SIDEWALK.**
6. **VIDEO DETECTION ZONES ARE TO BE FIELD ADJUSTED AND ARE SUBJECT TO APPROVAL BY THE ENGINEER.**
7. **ALL TS EQUIPMENT IS NEW EXCEPT AS NOTED.**
8. **Plus all necessary duct, cable, labor, miscellaneous material and equipment to complete the installation.**
9. **ALL PEDESTRIAN SIGNALS SHALL BE COUNTDOWN TYPE.**
10. **ALL PEDESTRIAN SIGNAL HEADS SHALL BE RIGID MOUNTED.**
11. **The assessment of right of way shall be in accordance with the preferential phase sequence.**
12. **All signs shall be field adjust as needed.**
13. **MODIFY EXISTING CONTROLLER.**
14. **The signal schedule for that traffic movement will not change beyond the change intervals listed.**
15. **Display the appropriate clearance intervals.**
16. **All preemption signal head shall be rear mounted.**
17. **All preemption signals shall be led preemption type.**
# TRAFFIC SIGN SUMMARY

<table>
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<tr>
<th>LOCATION</th>
<th>SIGN NUMBER</th>
<th>WIDTH</th>
<th>HEIGHT</th>
<th>TEXT</th>
<th>LETTERS</th>
<th>MOUNTING INTERNAL</th>
<th>EXTERNAL</th>
<th>INTERNAL MOUNTING</th>
<th>EXTERNAL MOUNTING</th>
<th>NUMBERS</th>
<th>SMALL</th>
<th>LARGER</th>
<th>YT</th>
<th>FT</th>
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<tr>
<td>PRO-I-20</td>
<td>30&quot; x 30&quot;</td>
<td>24&quot;</td>
<td>24&quot;</td>
<td>2</td>
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<td>6.25</td>
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01 UNLESS OTHERWISE NOTED, ALL POSTS TO BE 7'6".
03 THE MINIMUM MOUNTING HEIGHT OF POST MOUNTED SIGNS MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE GROUND, SHALL BE 7 FEET UNLESS OTHERWISE SPECIFIED ON THE PLANS.
NOTE:
A CLEAR GROUND SPACE SHALL CONSIST OF A STABLE AND FIRM AREA, COMPLYING WITH 521 CMR 6.5 (FORWARD REACH) OR 521 CMR 6.5 (SIDE REACH) AND SHALL BE PROVIDED AT EACH OF THE PEDESTRIAN PUSH BUTTONS.

a. WHERE A FORWARD APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL ABUT AND BE CENTERED ON THE CLEAR GROUND SPACE.

b. WHERE A PARALLEL APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL BE WITHIN 10 INCHES (10") HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE.

PEDESTRIAN PUSH BUTTON CLEAR ZONE NOT TO SCALE
NOT TO SCALE

**SECTION A-A**

**SECTION B-B**

**NOT TO SCALE**

**LEGEND**

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<tr>
<td>HSL</td>
<td>1 in 12 side transition length (R6E 107.2A)</td>
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<tr>
<td>W</td>
<td>Sidewalk width</td>
</tr>
<tr>
<td>CC</td>
<td>Cem. conc.</td>
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**NOTES:**

1. Wheelchair ramps shall be constructed in conformance with the latest Massachusetts Department of Transportation (MassDOT) regulations, and the ADA accessibility guidelines.

2. All detectable warning panels shall be installed using epoxy paving marking material.

3. Front line and side line markings shall consist of 12" transverse solid white lines and 24" longitudinal solid white lines, except as noted on the drawing plan.

4. Wheelchair ramp entrances shall be located in the crosswalk between curbs.

5. Wheelchair ramp entrances shall be designed to be centered in the crosswalk between curbs.

6. The entrance of a wheelchair ramp shall be flush with the roadway.

7. Wheelchair ramps that are constructed as a "cast-in-place & replaceable" type shall be red-colored.

**WHEELCHAIR RAMPS LESS THAN 12'-4" SIDEWALK**

**NOT TO SCALE**

**WHEELCHAIR RAMPS FOR ONE CONTINUOUS DIRECTION OF TRAVEL**

**NOT TO SCALE**

**CROSSWALK DETAILS**

**NOT TO SCALE**

**YIELD LINES**

**NOT TO SCALE**

**NOTES:**

1. Crosswalk markings shall consist of 12" transverse solid white lines and 24" longitudinal solid white lines, except as noted on the drawing plan.

2. Crosswalk in 8' width shall be at least 20' wide, as noted on the drawing plan.

3. Crosswalk lines shall extend across the full width of pavement or to the edge of the roadway.

4. Crosswalk markings shall be installed using epoxy paving marking material.

5. Crosswalk markings shall be installed using epoxy paving marking material.
NOTES:
1. All temporary traffic control work shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices (MUTCD)" and all revisions, unless superseded by these plans.
2. All signs, legends, borders, and mounting shall be in accordance with the MUTCD.
3. Temporary construction signage and all other traffic control devices shall be in place prior to the start of any work.
4. Temporary construction signage, barricades, and all other necessary work zone traffic control devices shall be removed from the highway or covered when they are not required for control of traffic.
5. Signs and Mounting Supports located on or near the traveled way, channelizing devices, barriers, and crash attenuators must pass the criteria set forth in NCHRP Report 328: "Recommended Procedures for the Safety Performance Evaluation of Highway Features" and/or "Manual for Assessing Safety Hardware" (MASH).
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 of a taper shall be mounted with type A lights.
8. The advisory speed limit, if required, shall be determined by the engineer.
9. Distances are a guide and may be adjusted in the field by the Engineer.
10. Minimum spacing of traffic devices in a taper (drums or cones) is equal in feet to the speed limit in mph.
11. The minimum lane width is to be 11 feet unless otherwise shown. Minimum lane width to be measured from the maximum spacing of traffic devices in a taper (drums or cones) is equal in feet to the speed limit in mph.
12. All signs shall be mounted on their own standard sign supports.
13. The sizes of all temporary signs shall be per the latest MUTCD.

FORMULAS FOR DETERMINING TAPER LENGTHS

\[
T = \frac{S}{L} \quad \text{where} \quad T = \text{taper length} \quad S = \text{speed limit} \quad L = \text{maximum spacing of traffic devices in a taper (drums or cones)}
\]

LENST ADJUSTER (PEDESTRIAN) AND CURB IN SIDEWALK

LEGEND:

- STREET
- SIDEWALK
- PEDESTRIAN DETOUR
- TEMPORARY TRAFFIC CONTROL PLAN
- TEMPORARY HANDING FOR DECISIONAL LINES (CROSS-WALKING OPTIONAL)
- TEMPORARY HANDING CONCRETE LINES
- TEMPORARY HANDING PEDESTRIAN LINES
- PEDESTRIAN CROSSING
- PEDESTRIAN DETOUR
- PEDESTRIAN HOME"