

BEACON STREET DEMONSTRATION SAFETY PROJECT



Central Massachusetts Regional Vision Zero Action Plan



Beacon Street – Preliminary Design

City of Worcester
Department of Transportation & Mobility



March 19, 2026

Why a Demonstration Project?

- Demonstration projects allow the City to install traffic calming and other safety measures temporarily and evaluate their effectiveness.
- Project is a collaboration between the City and the Central Massachusetts Regional Planning Commission (CMRPC)
- CMRPC received a Federal Safe Streets for All (SS4A) grant for a Regional Safety Action Plan and for the City to implement a demonstration project.
- Beacon Street corridor is a local road and was identified in the City's Vision Zero Plan as a High Injury Corridor
- Demonstration Project will be in place for one year
- The project requires evaluation to assess its effectiveness
- Subsequent permanent installations would need separate funding

Demonstration projects are *highly* recommended by the US Department of Transportation as an effective means of testing safety countermeasures

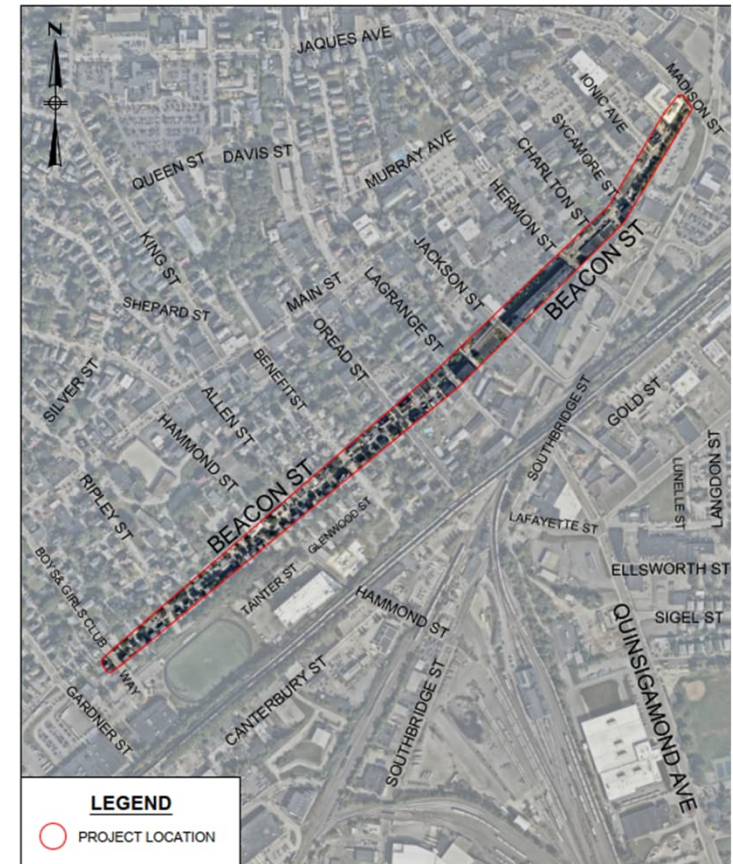


Beacon Street Existing Conditions

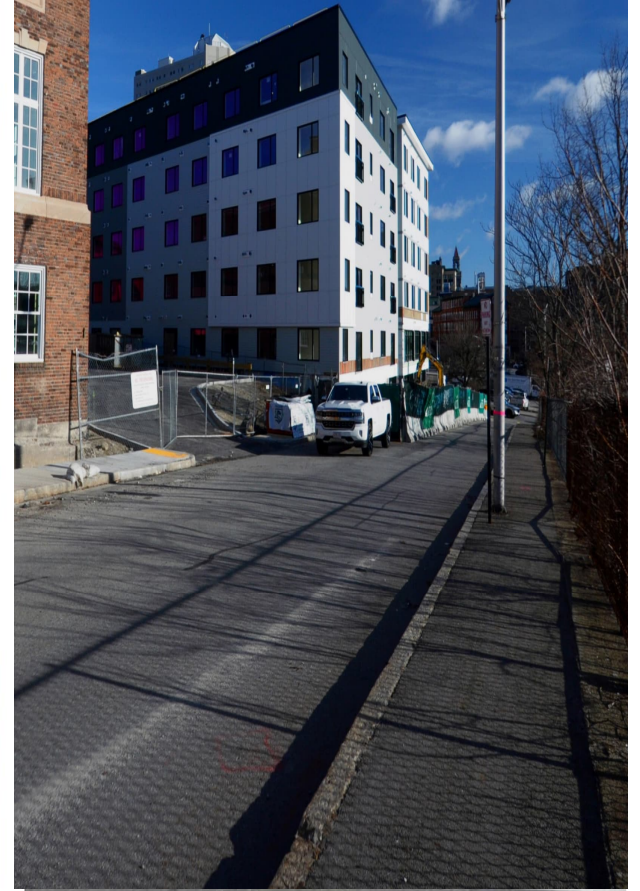
Project Limits: Madison Street to Boys & Girls Club Way – 4,200+/- Feet

Existing Conditions

- Mix of repurposed industrial buildings and residential
- Two lane/two-way Madison Street to Hammond Street
 - Experiences cut-through traffic
- One-way SB Hammond Street to Boys & Girls Club Way
- 26-foot pavement width
- Sidewalks on both sides
- On-street parking
- Speed Limit 25 MPH – citywide statutory speed limit
- Limited sight distance at most intersections



Beacon Street Environments



Beacon Street Crash History

Crash History – 5-year period

- *Corridor*
 - 158 crashes = 32 crashes/year
 - Higher than the statewide average for similar corridors
- *Intersections*
 - Beacon St at Hammond St - 31 crashes
 - Beacon St at Oread St – 18 crashes
 - Higher than MassDOT District 3 average for similar intersections

Traffic Volume

- Highest Average Daily Traffic (ADT) – 2,811 vehicles/day (Lagrange St to Jackson St)

Speed

- Beacon St – 85th Percentile = 25 MPH
- Hammond St (WB) – 85th percentile = 28 MPH

Beacon Street Deficiencies

Deficiencies

- No speed limit signs, although the City of Worcester has a statutory 25 MPH city-wide speed limit
- Sight distance is limited at intersections due to parked cars
- All-way stop at Oread Street is newly installed, but drivers often roll through stop signs
- Parking near intersections obstructs visibility and creates conflict points.
- Lack of 'No Parking' signs to enforce the restriction on parking within 20 feet of the intersection
- Pavement & sidewalk conditions vary from fair to poor
- Stop signs are obstructed by vegetation or parked cars; some signs are misaligned.
- Vertical curves and steep grades may exacerbate safety risks during snow and ice conditions



Beacon Street Improvement Process

- Public Engagement

- Neighborhood meeting/workshop
- Walk audit

- Countermeasures

- *Existing*

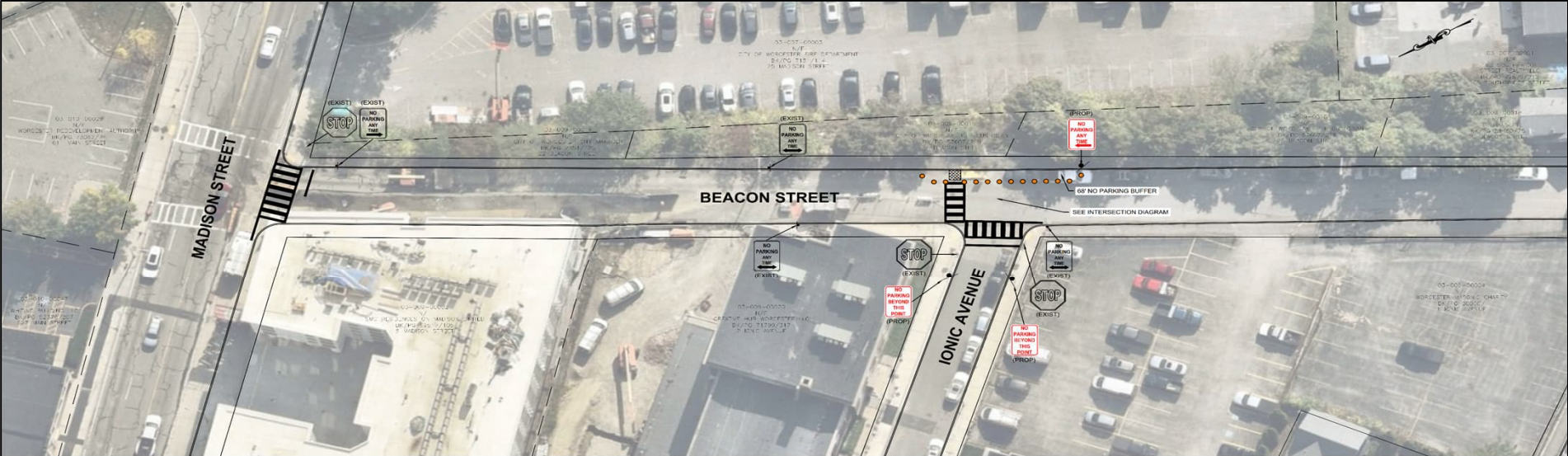
- All Way Stop
 - Beacon at Oread – recently installed
- Speed humps – two installed in December 2025

- *Proposed*

- Daylighting Crosswalks/Curb extensions to define parking restrictions
- High Visibility Crosswalks & Raised Crosswalk
- Rapid Rectangular Flashing Beacon
- Hammond Street Chicane
- Improved signage
 - Flashing pedestrian signs
 - All Way stop plaques
- Improved pavement markings

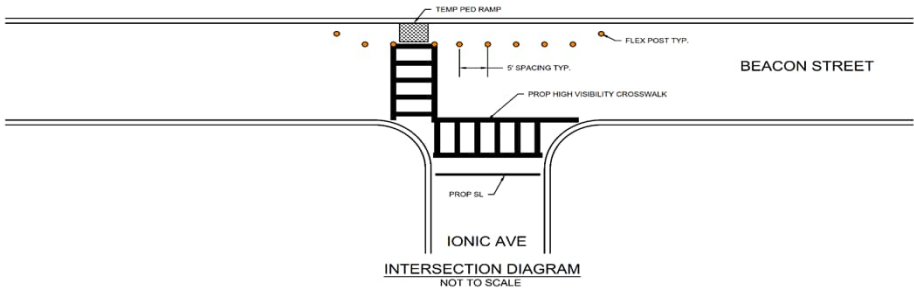


Beacon Street Demonstration Project



PROPOSED

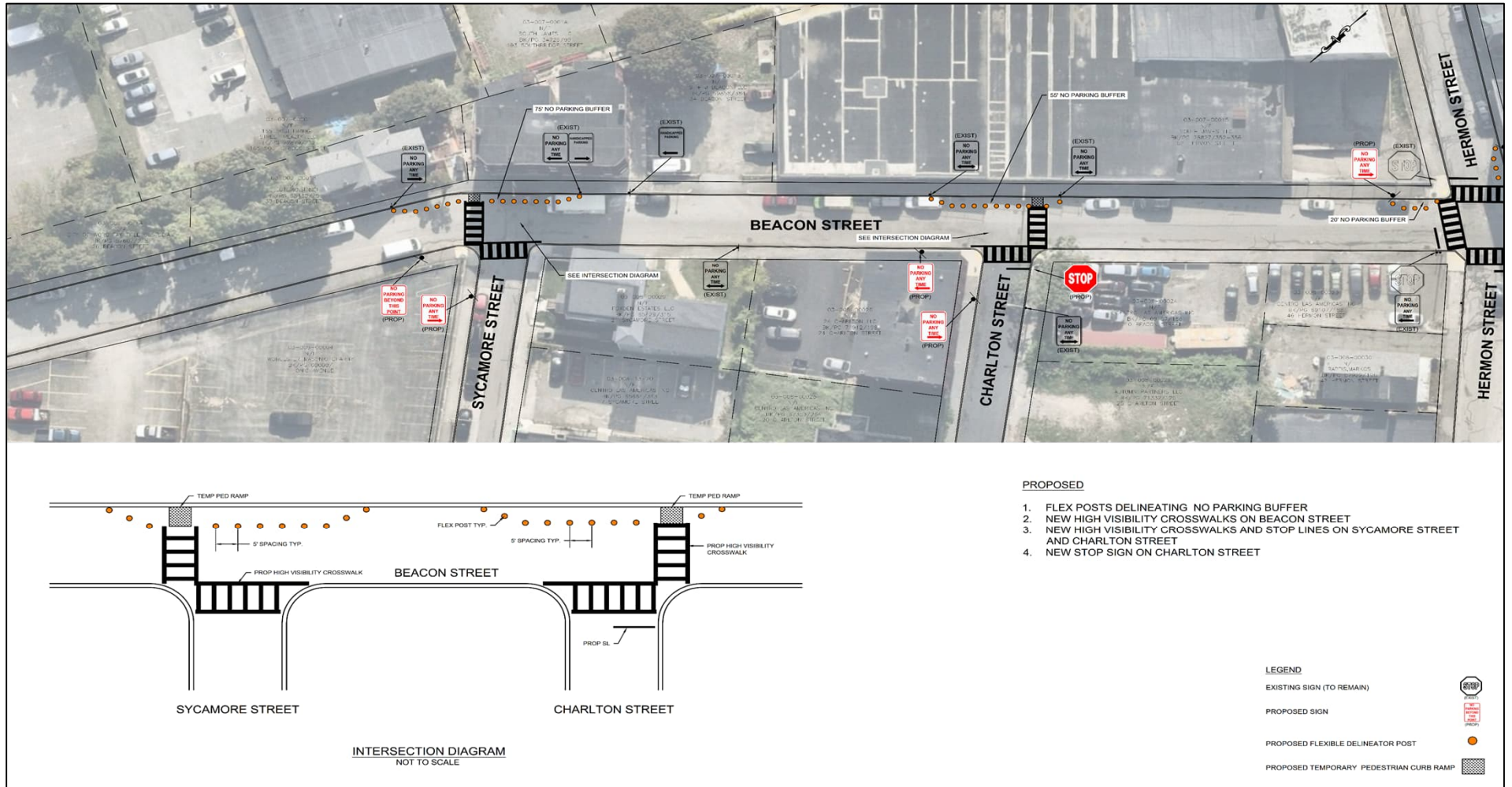
1. NEW HIGH VISIBILITY CROSSWALK ON BEACON STREET
2. NEW HIGH VISIBILITY CROSSWALK AND STOP LINE ON IONIC AVENUE
3. NO PARKING BUFFER



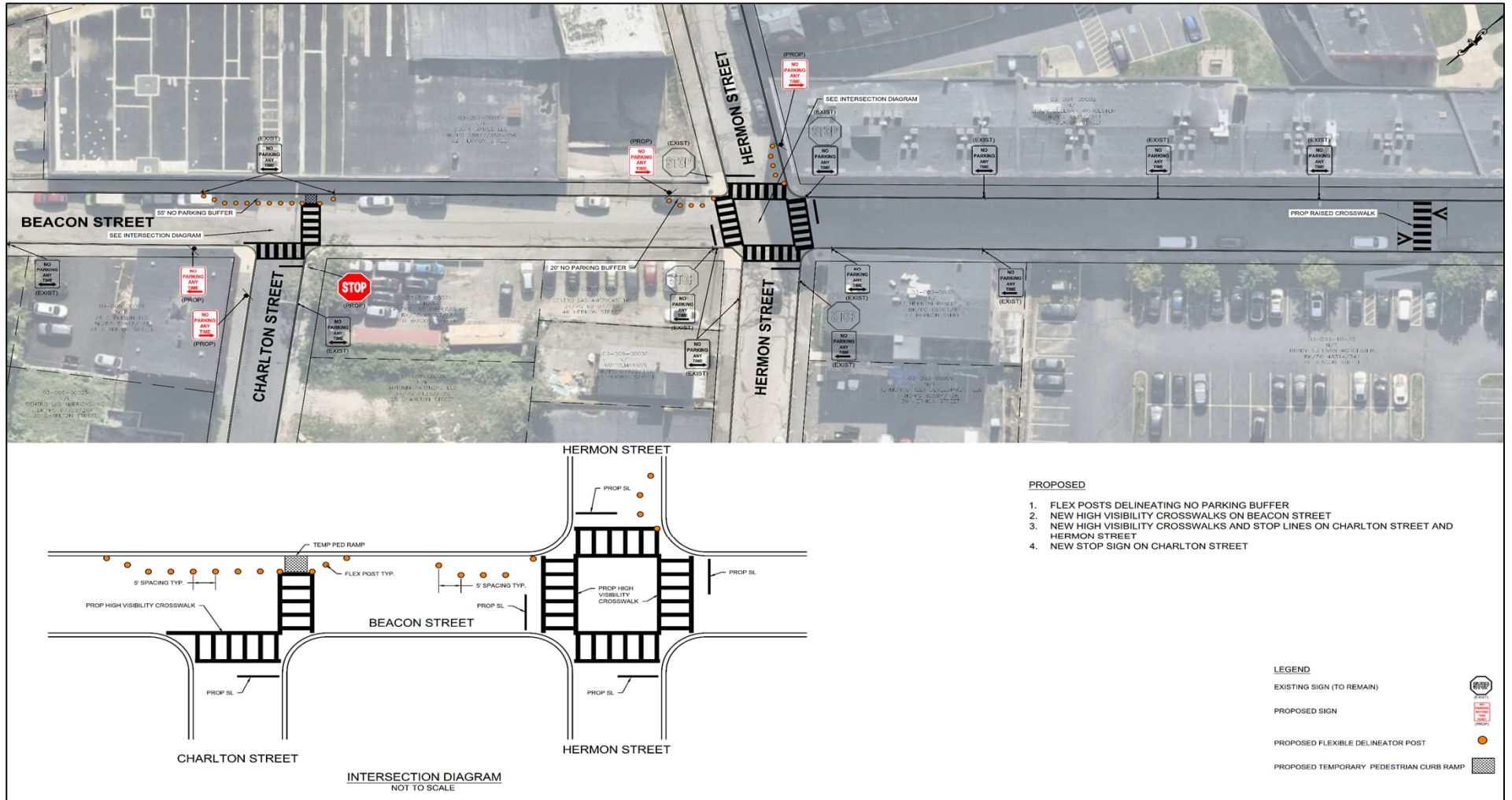
LEGEND

EXISTING SIGN (TO REMAIN)	
PROPOSED SIGN	
PROPOSED FLEXIBLE DELINEATOR POST	
PROPOSED TEMPORARY PEDESTRIAN CURB RAMP	

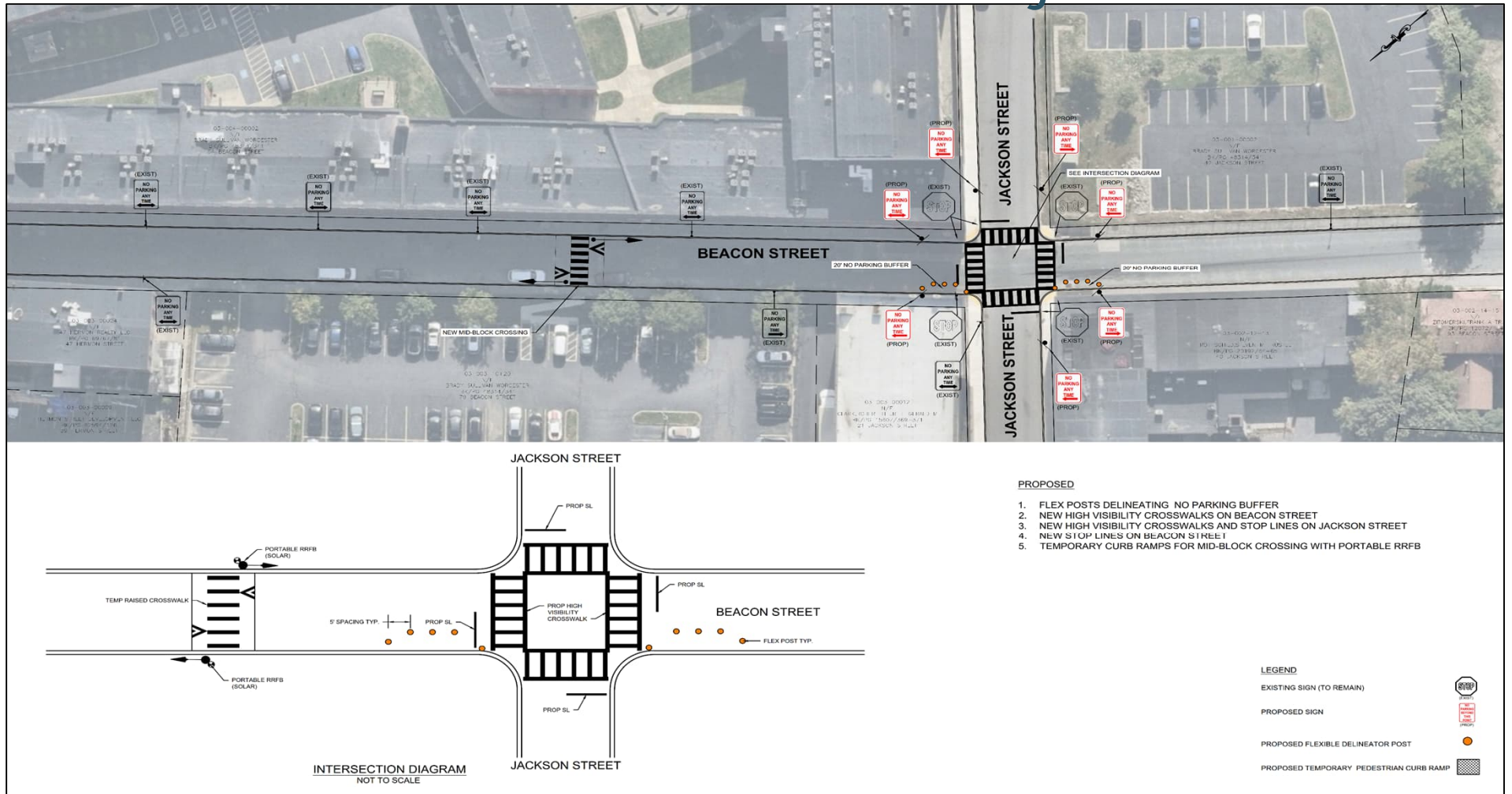
Beacon Street Demonstration Project



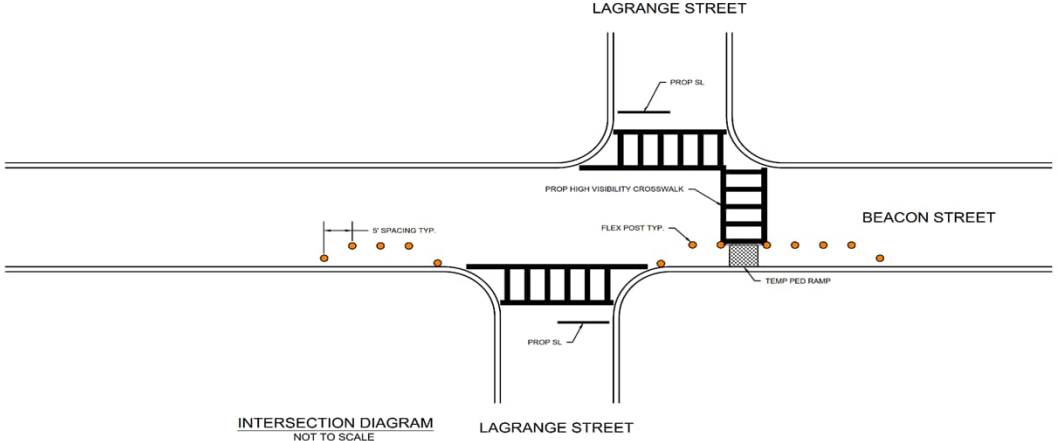
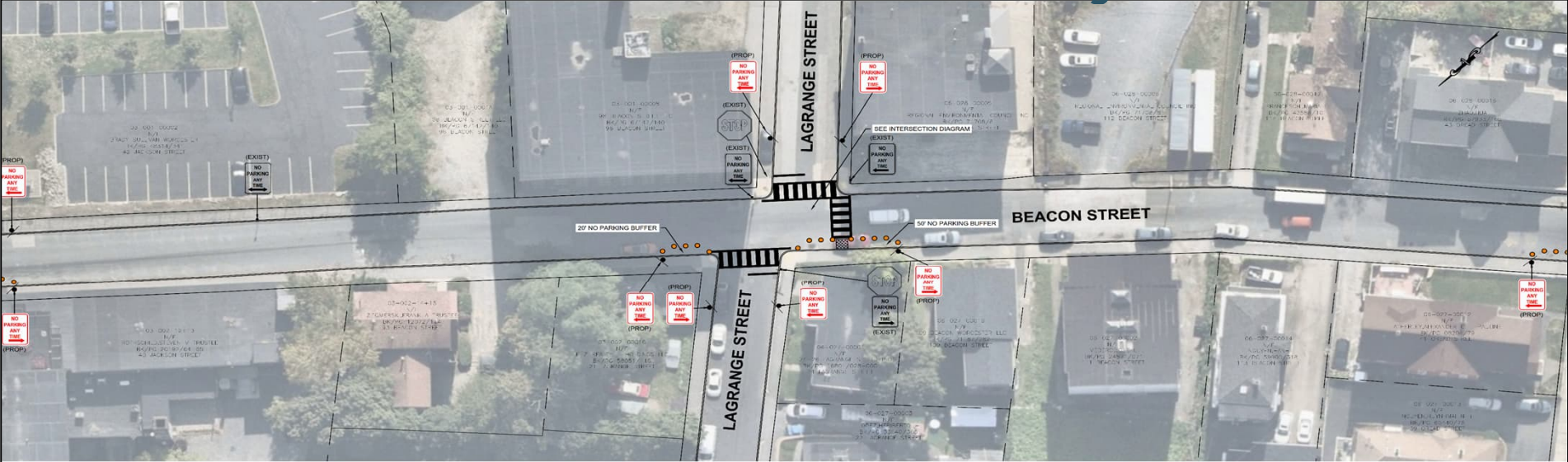
Beacon Street Demonstration Project



Beacon Street Demonstration Project



Beacon Street Demonstration Project

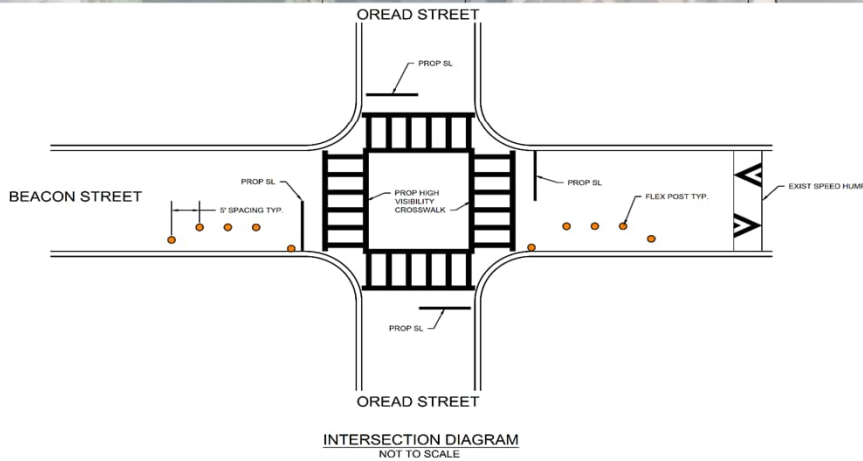
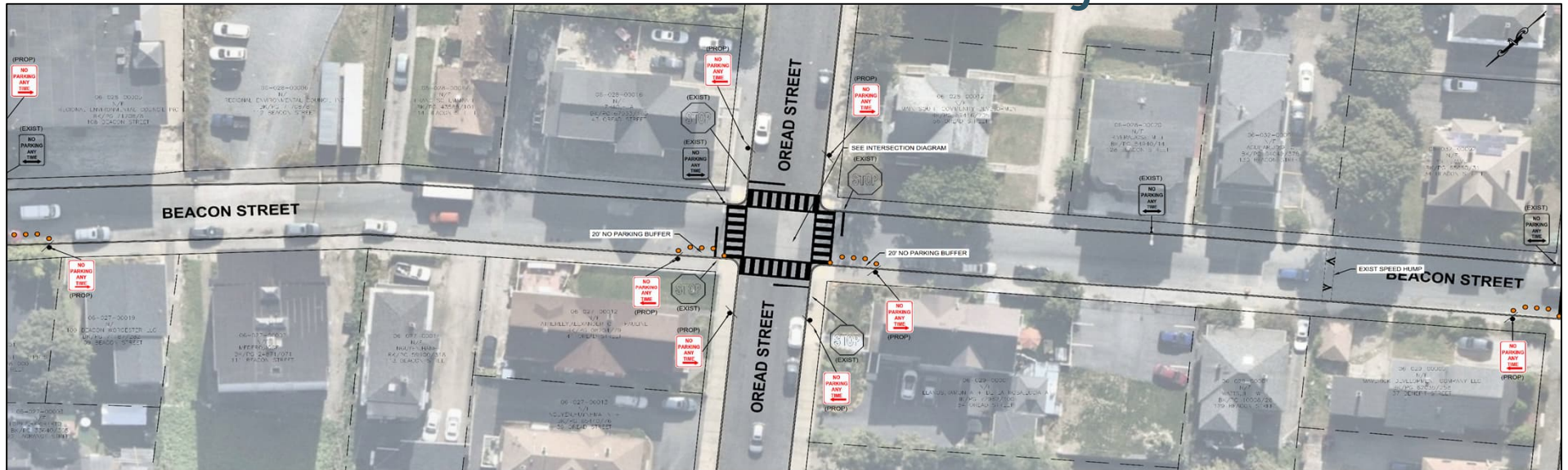


- PROPOSED**
1. FLEX POSTS DELINEATING NO PARKING BUFFER
 2. NEW HIGH VISIBILITY CROSSWALK ON BEACON STREET
 3. NEW HIGH VISIBILITY CROSSWALKS AND STOP LINES ON LAGRANGE STREET
 4. IDENTIFY KEY AREAS TO INSTALL FLEX POSTS TO DISCOURAGE PARKING ON THE

LEGEND

- EXISTING SIGN (TO REMAIN)
- PROPOSED SIGN
- PROPOSED FLEXIBLE DELINEATOR POST
- PROPOSED TEMPORARY PEDESTRIAN CURB RAMP

Beacon Street Demonstration Project



PROPOSED

1. FLEX POSTS DELINEATING NO PARKING BUFFER
2. RETAIN ALL WAY STOP
3. NEW HIGH VISIBILITY CROSSWALKS ON BEACON STREET
4. NEW HIGH VISIBILITY CROSSWALKS AND STOP LINES ON OREAD STREET

LEGEND

EXISTING SIGN (TO REMAIN)

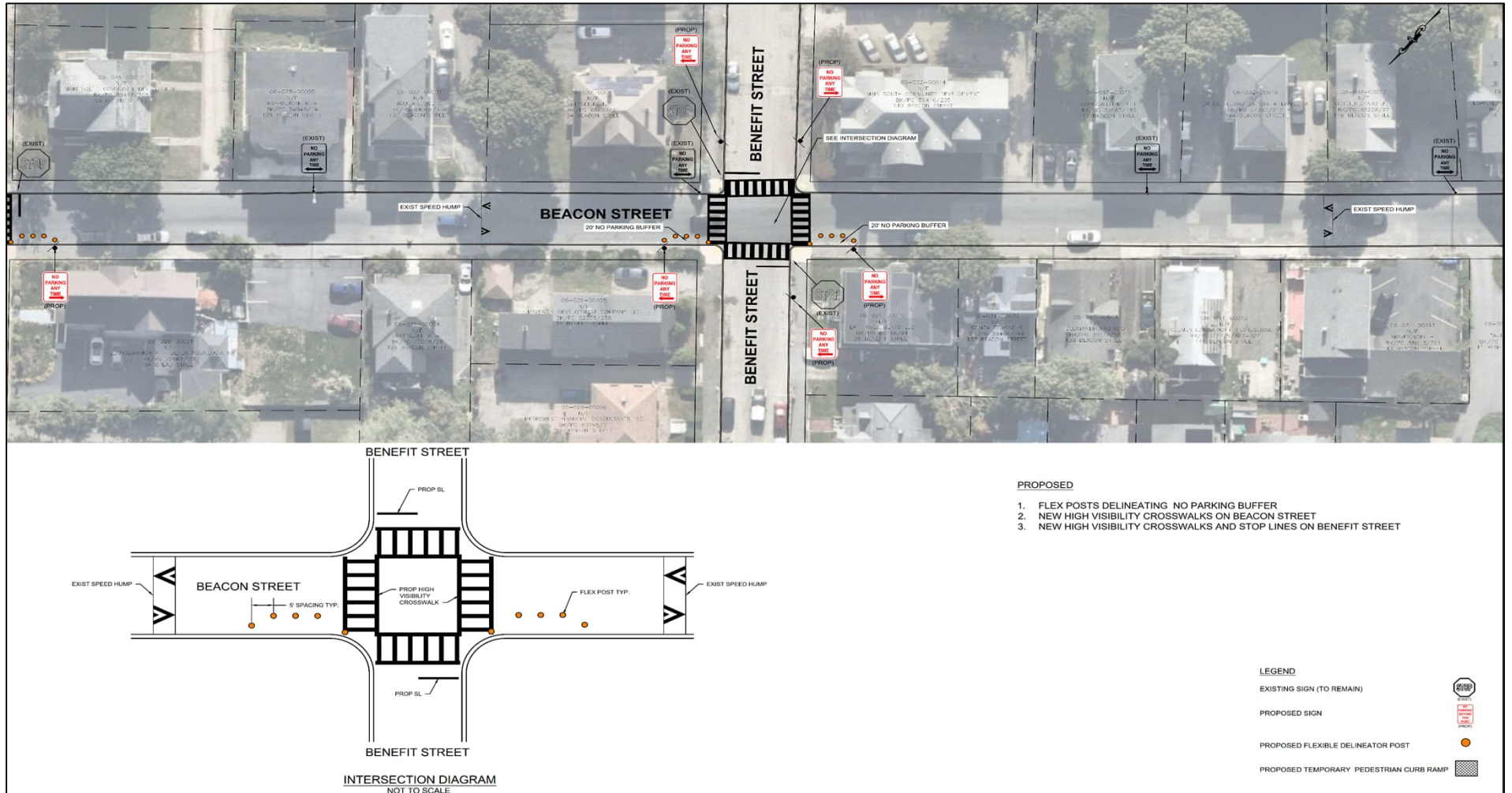
PROPOSED SIGN

PROPOSED FLEXIBLE DELINEATOR POST

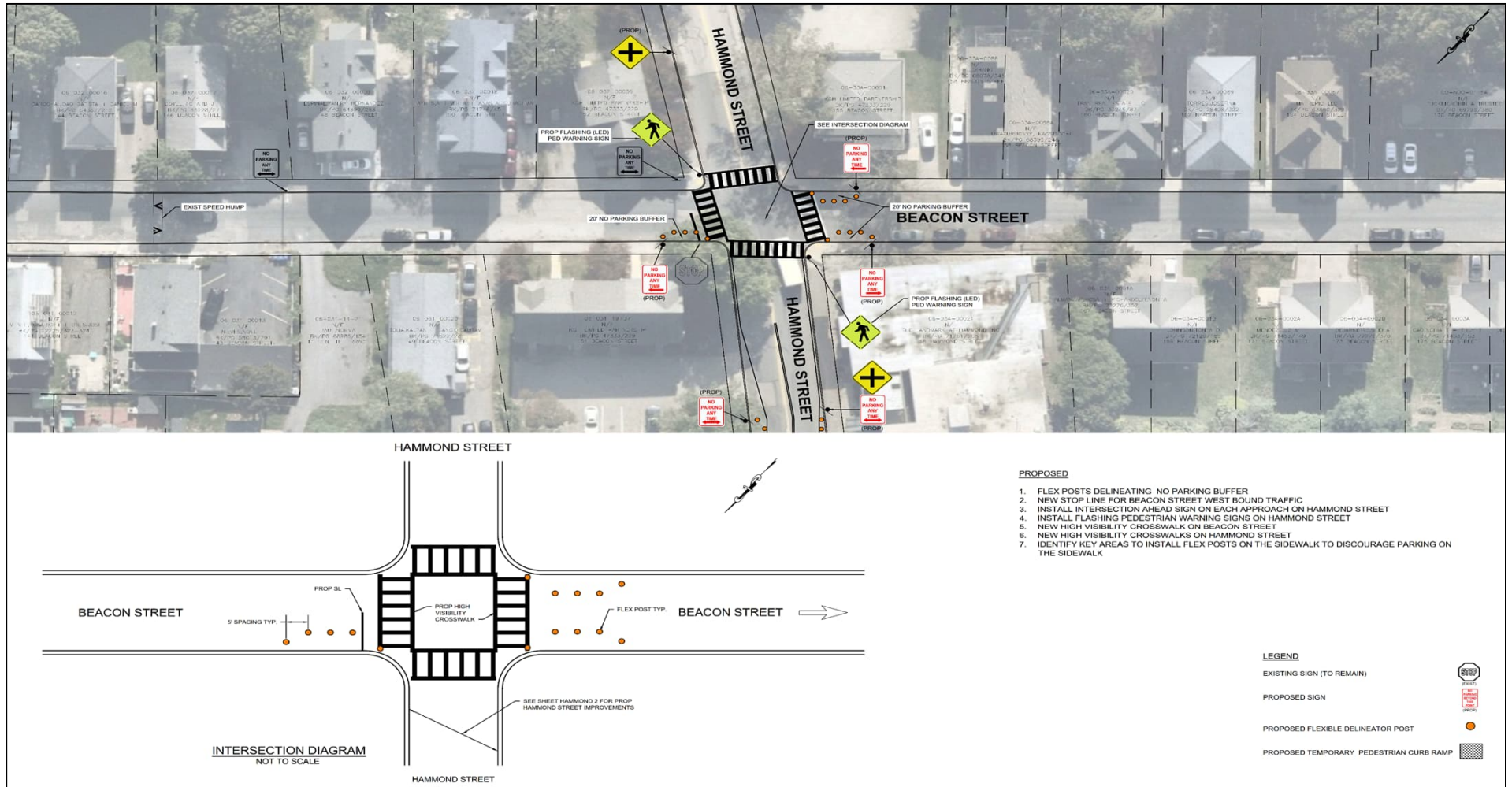
PROPOSED TEMPORARY PEDESTRIAN CURB RAMP



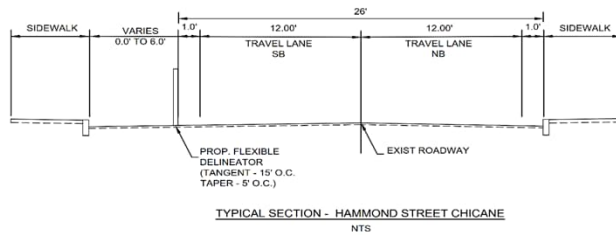
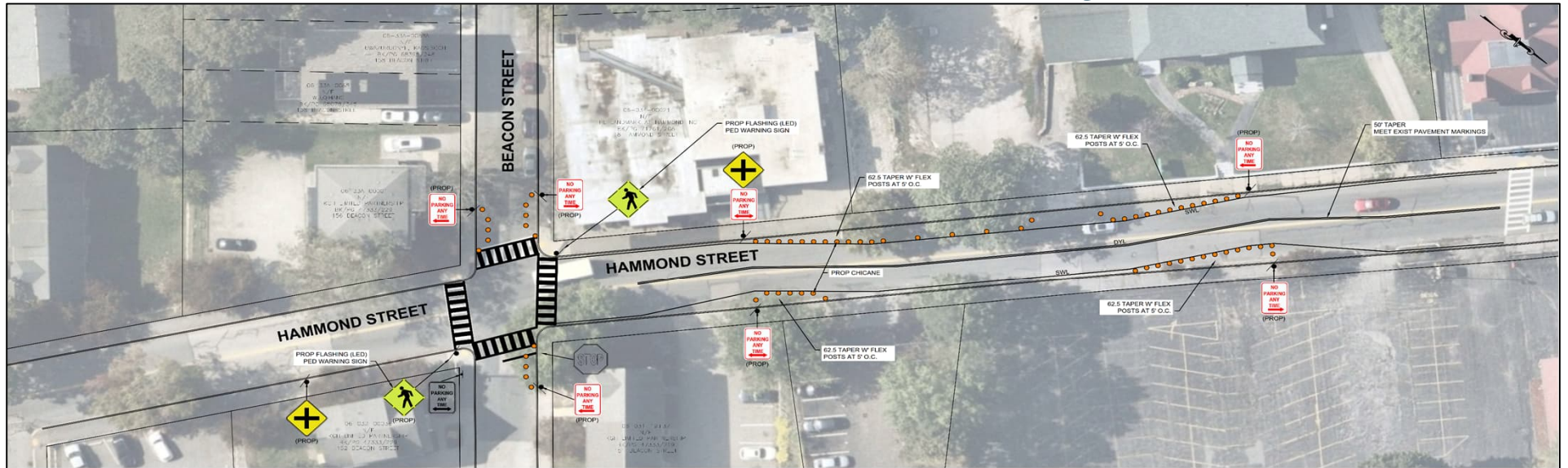
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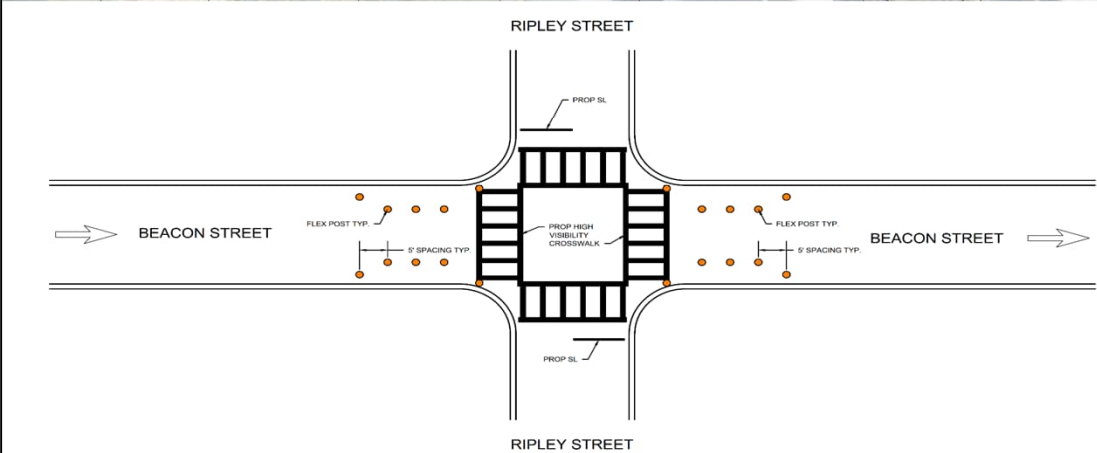
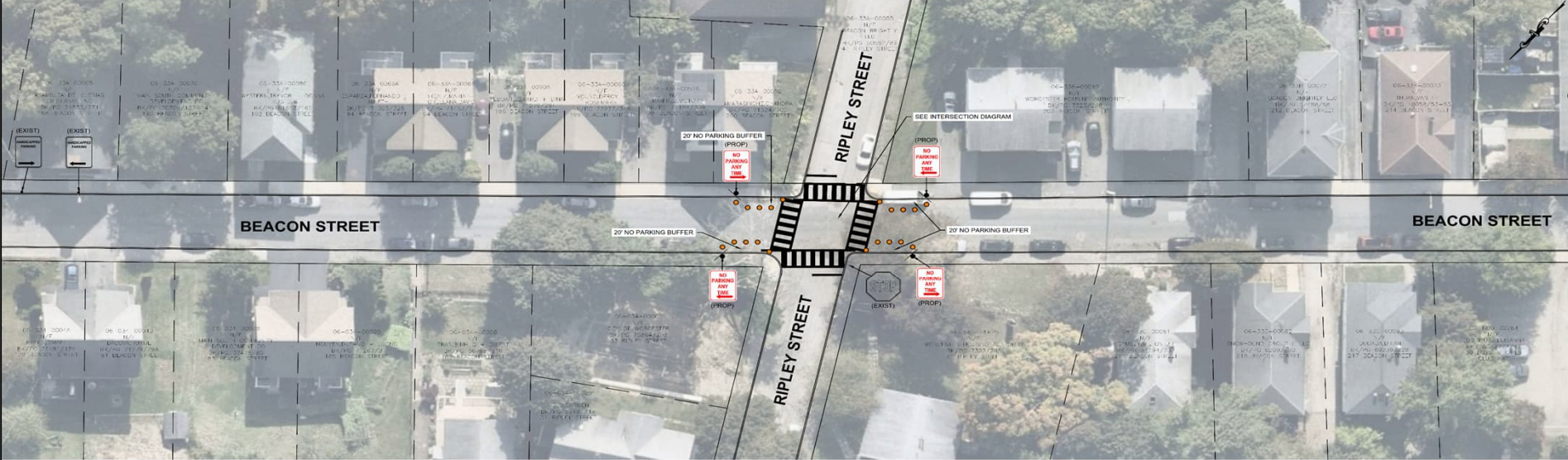
PROPOSED

1. PROP CHICANE ON HAMMOND STREET NORTH OF BEACON

LEGEND

- EXISTING SIGN (TO REMAIN)
- PROPOSED SIGN
- PROPOSED FLEXIBLE DELINEATOR POST
- PROPOSED TEMPORARY PEDESTRIAN CURB RAMP

Beacon Street Demonstration Project



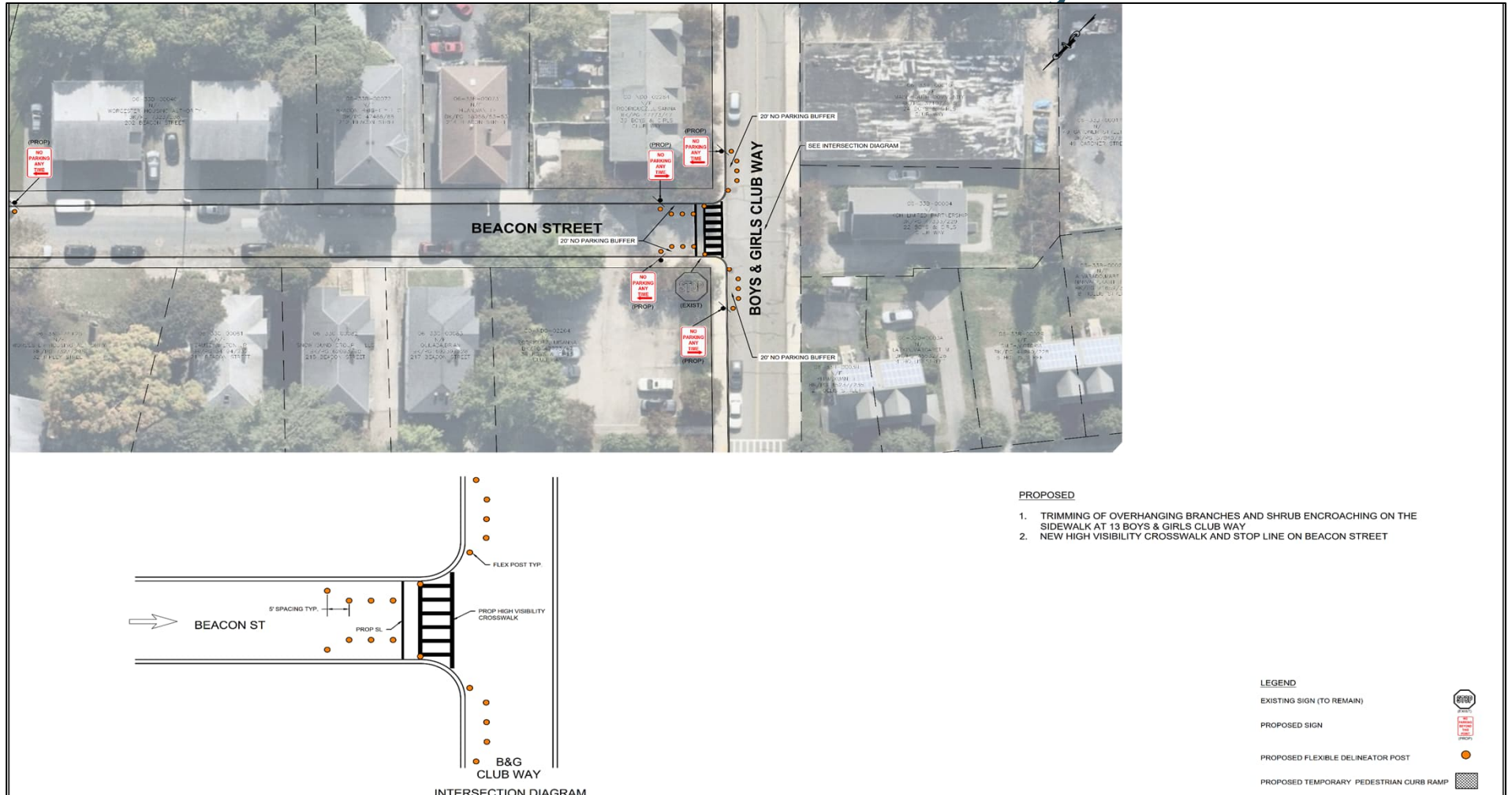
- PROPOSED**
1. FLEX POSTS DELINEATING NO PARKING BUFFER
 2. NEW HIGH VISIBILITY CROSSWALKS ON BEACON STREET
 3. NEW HIGH VISIBILITY CROSSWALKS & STOP LINES ON RIPLEY STREET
 4. TRIMMING OF OVERHANGING BRANCHES AND SHRUB ENCROACHING ON THE SIDEWALK
 5. IDENTIFY KEY AREAS TO INSTALL FLEX POSTS ON THE SIDEWALK TO DISCOURAGE PARKING ON THE SIDEWALK

LEGEND

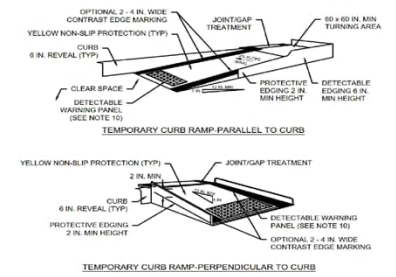
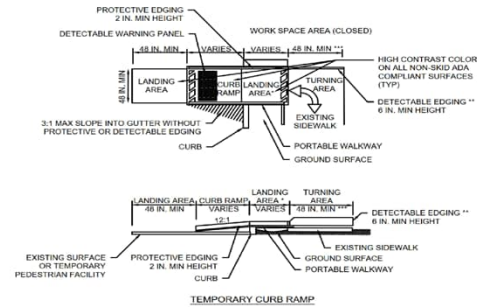
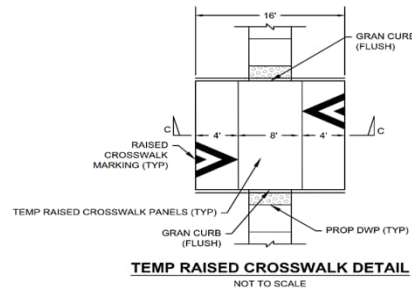
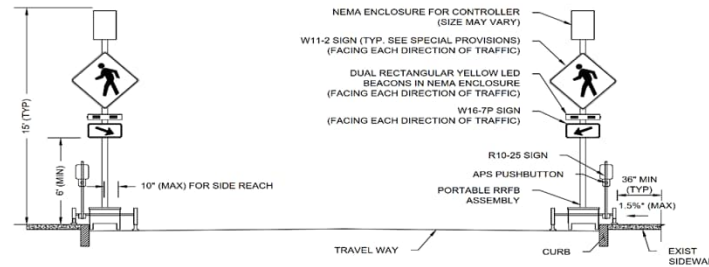
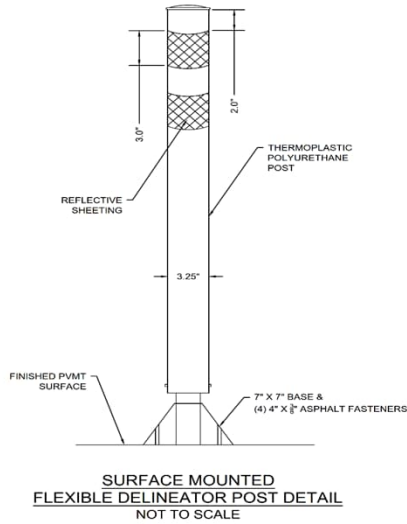
- EXISTING SIGN (TO REMAIN)
- PROPOSED SIGN
- PROPOSED FLEXIBLE DELINEATOR POST
- PROPOSED TEMPORARY PEDESTRIAN CURB RAMP



Beacon Street Demonstration Project



Beacon Street Demonstration Project



- * LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES.
- ** DETECTABLE EDGING REMOVED IF A CONTINUOUS SIDEWALK.
- *** 60 IN. MINIMUM IF AN OBSTRUCTION IS AT BACK OF SIDEWALK.

NOTES:

1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE, AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
3. DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK. CURB RAMPS AND LANDINGS SHOULD HAVE A 1.50 (2%) MAXIMUM CROSS-SLOPE.
5. CLEAR SPACE OF 48 x 48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
7. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
8. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. HEIGHT.
9. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PANEL MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A DETECTABLE WARNING PANEL SHALL NOT BE INSTALLED ON THE RAMP.

TEMPORARY CURB RAMP
NOT TO SCALE