

Sea Street Pump Station Force Main No.3

Nantucket, MA

DPW Requested Improvements and Surface
Restoration

June 4, 2021

DAVID GRAY
SEWER DEPARTMENT
DIRECTOR



ZIAD F. KARY,
P.E.
Senior
PRINCIPAL

ENVIRONMENTAL
 PARTNERS

FRANK AYOTTE,
P.E.
VICE PRESIDENT

Hazen

DPW Improvements Requested based on 60% Review:

Sidewalks	Cobble	Crosswalks	Drainage	Bike Path	Bit Conc Restoration
Sea St			Lilly		
Lilly St			Liberty		
Liberty St			Atlantic		
Winter St	Winter St				
Pleasant St(parking lot Restoration)					Pleasant St
Atlantic Ave		Liberty St			
		India St			
		Hussey Lane		Surfside	

Sidewalk Extension on Sea Street

FIGURE 1 - SEA STREET SIDEWALK CONNECTIVITY

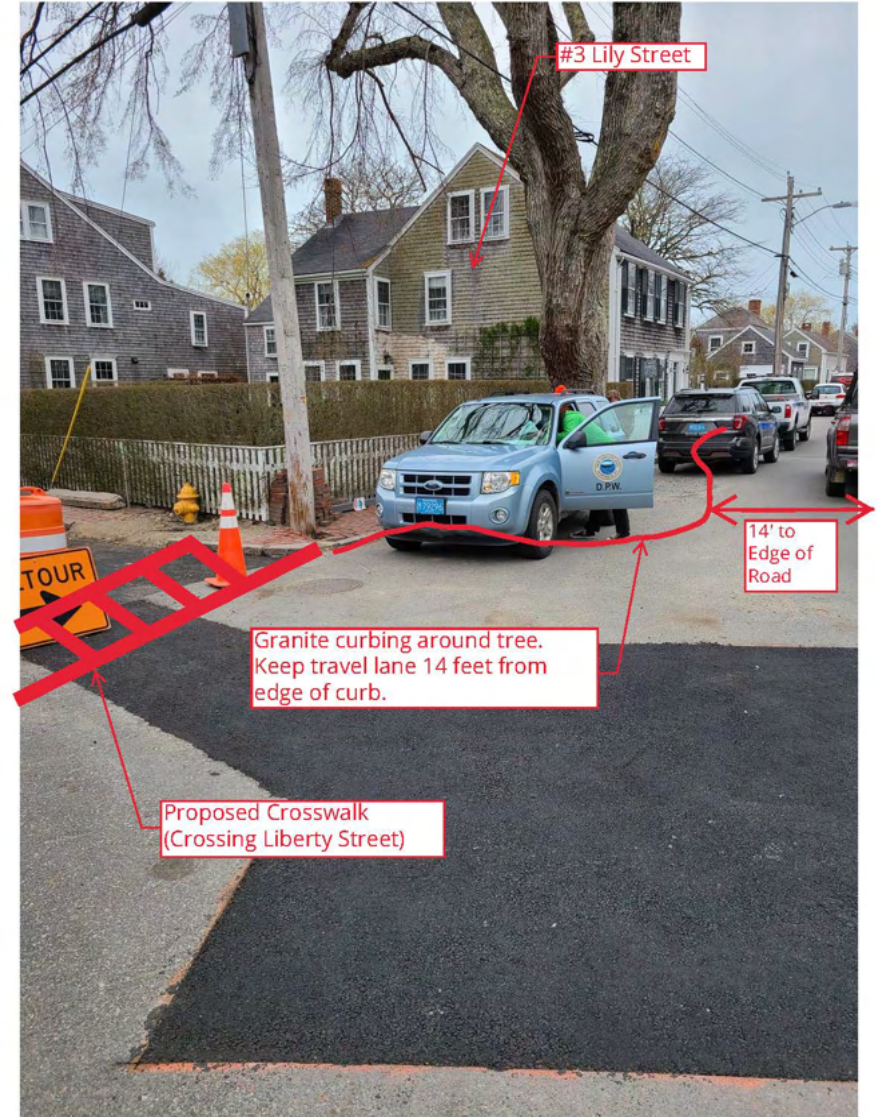
- Sidewalk:
 - #5 Sea St to #13 N. Water Street
 - 67 square yards
 - 120 feet of reclaimed granite curbing
 - Remove and reset granite curbing 180 feet
 - Brick R&R 67 square yards
 - Brick sidewalk(using like kind material) 67 square yards



Sidewalk on Lily Street

- Additions:
 - 33 square yards of brick sidewalk
 - 55 feet of reclaimed granite curbing

FIGURE 2 - LILY STREET RECONFIGURATION OF SIDEWALK AND GRANITE CURBING FOR TREE PROTECTION. KEEP TRAVEL LANE 14-FEET FROM THE CURB



** Reconfiguration of sidewalk and granite curbing for tree protection. Travel lane is 14 feet from curb*

Liberty Street Sidewalk Realignment

FIGURE 3 - LIBERTY STREET SIDEWALK REALIGNMENT

- Additions:
 - Sidewalks: 44 square yards
 - New granite curb: 200 feet
 - Storm drain pipe: 250 feet
 - Epoxy line paint: 255 feet



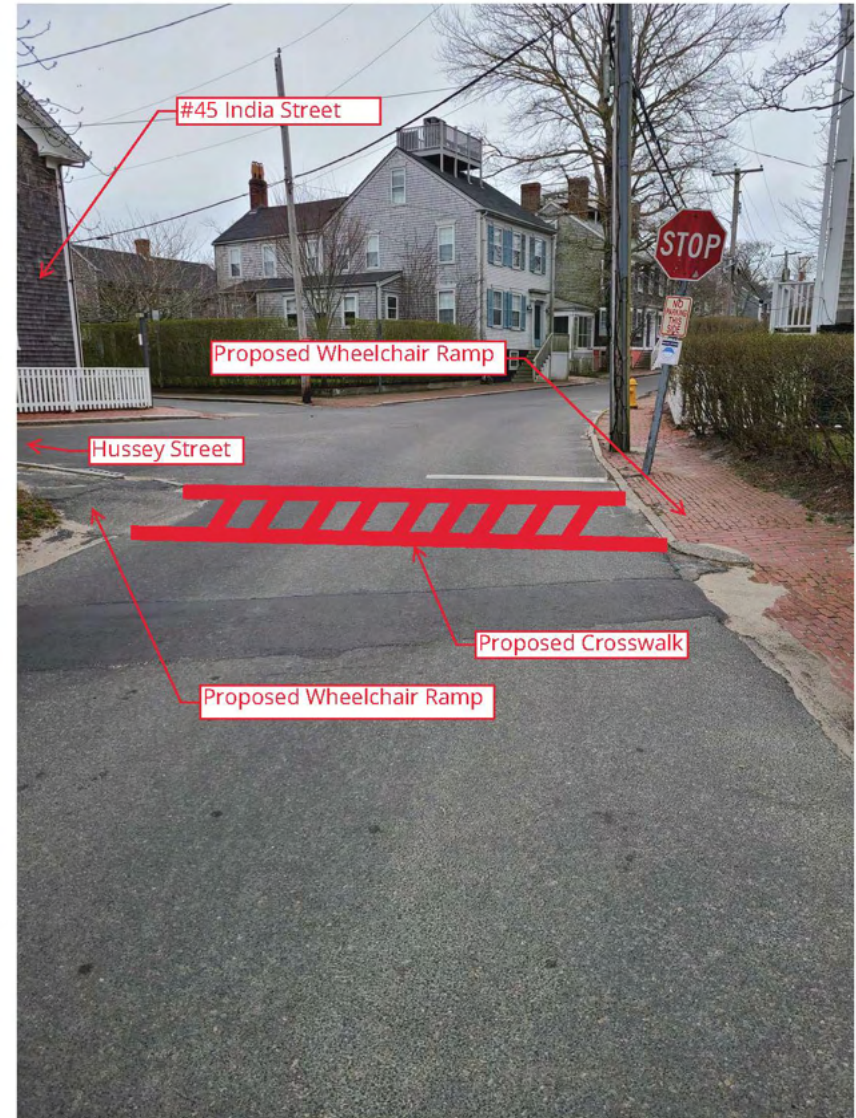
Lily Street and Liberty Street Intersection

Proposed Sidewalk Realignment. Install Vertical Granite Curbing.

Liberty Street Crosswalks

- Additions:
 - Wheelchair ramps: 4 each
 - Crosswalks

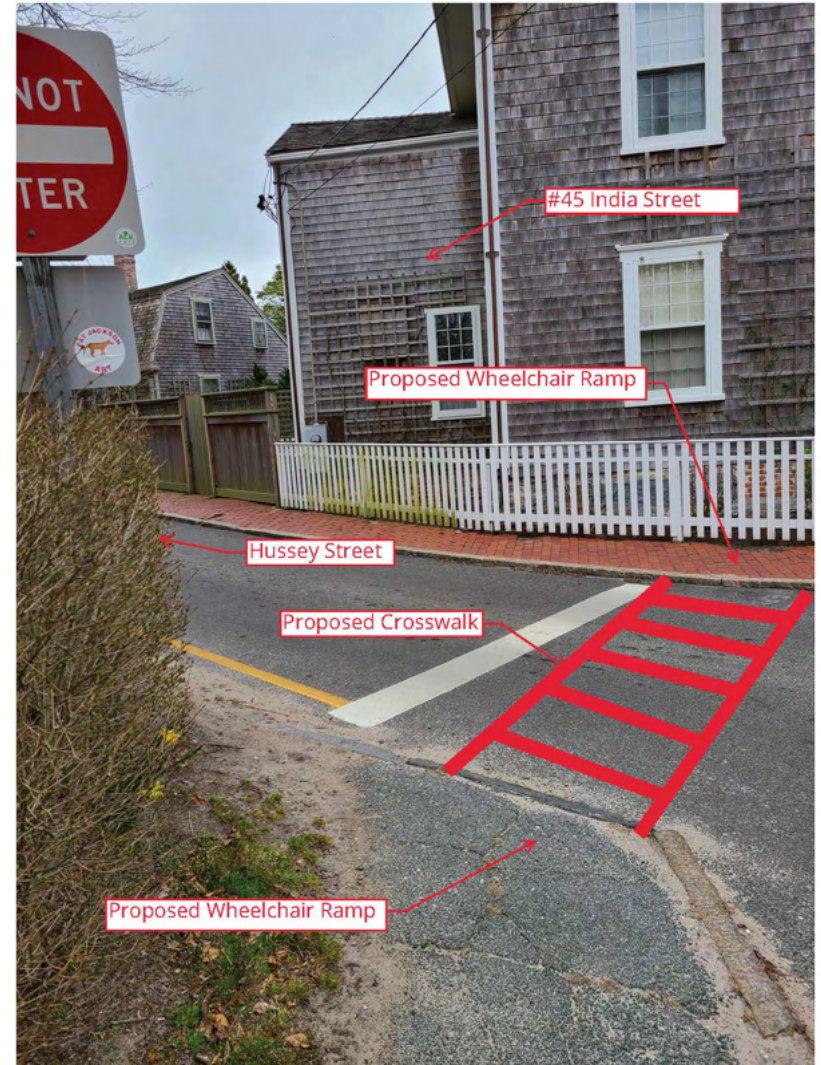
FIGURE 4A - LIBERTY STREET AND HUSSEY STREET CROSSWALK 1



Liberty Street/Hussey Street/India Street

- Additions:
 - Crosswalks at Hussey St (2) each
 - Wheelchair ramps (2) each
 - Brick sidewalks

FIGURE 4B - LIBERTY STREET AND HUSSEY STREET CROSSWALK 2



Liberty Street Drainage

- Additions:
 - Drain pipe: 250 feet
 - DMH/CB structures: 2 each

FIGURE 5 - LIBERTY STREET DRAINAGE



Winter Street Cobblestone

- Additions:
 - Cobblestone: 518 square yards

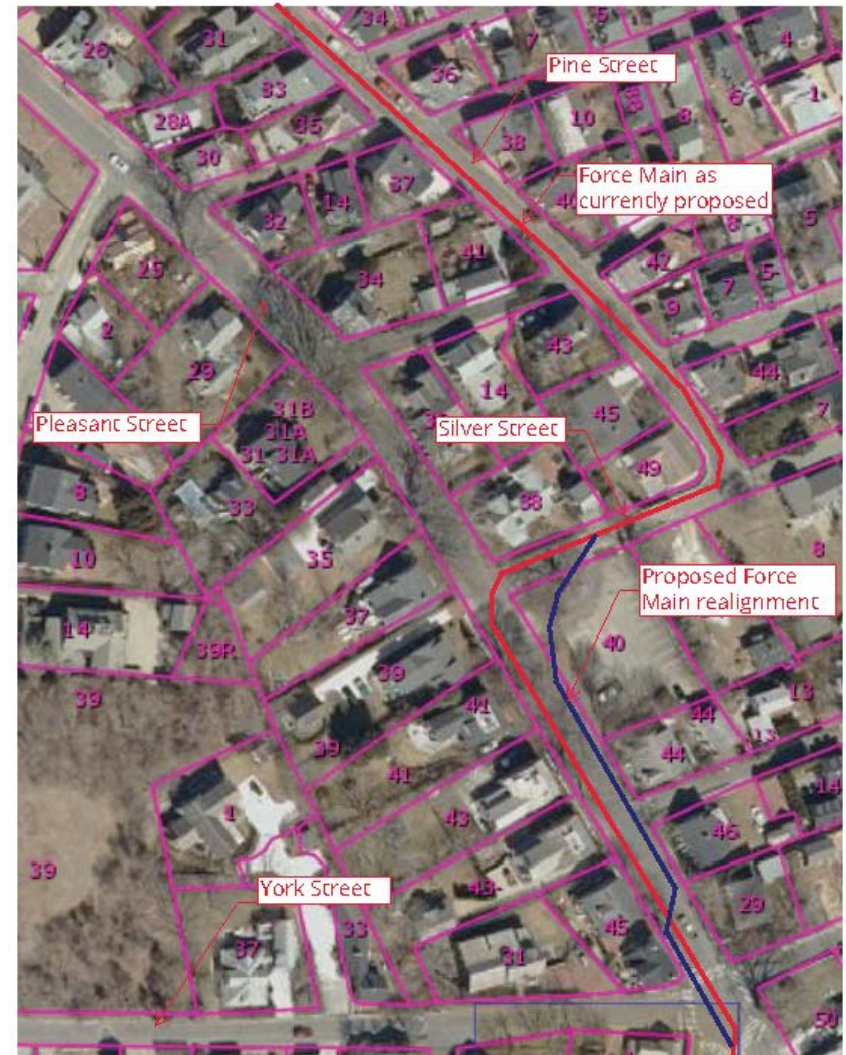


Pleasant St Force Main Realignment and Parking Lot Restoration

- Additions

- Bituminous concrete sidewalks: 128 square yards
- Granite curb R&R: 230 feet
- Loam restoration: 51 square yards
- Reclaimed granite curbing: 30 feet
- Parking lot restoration: 1,100 square yards

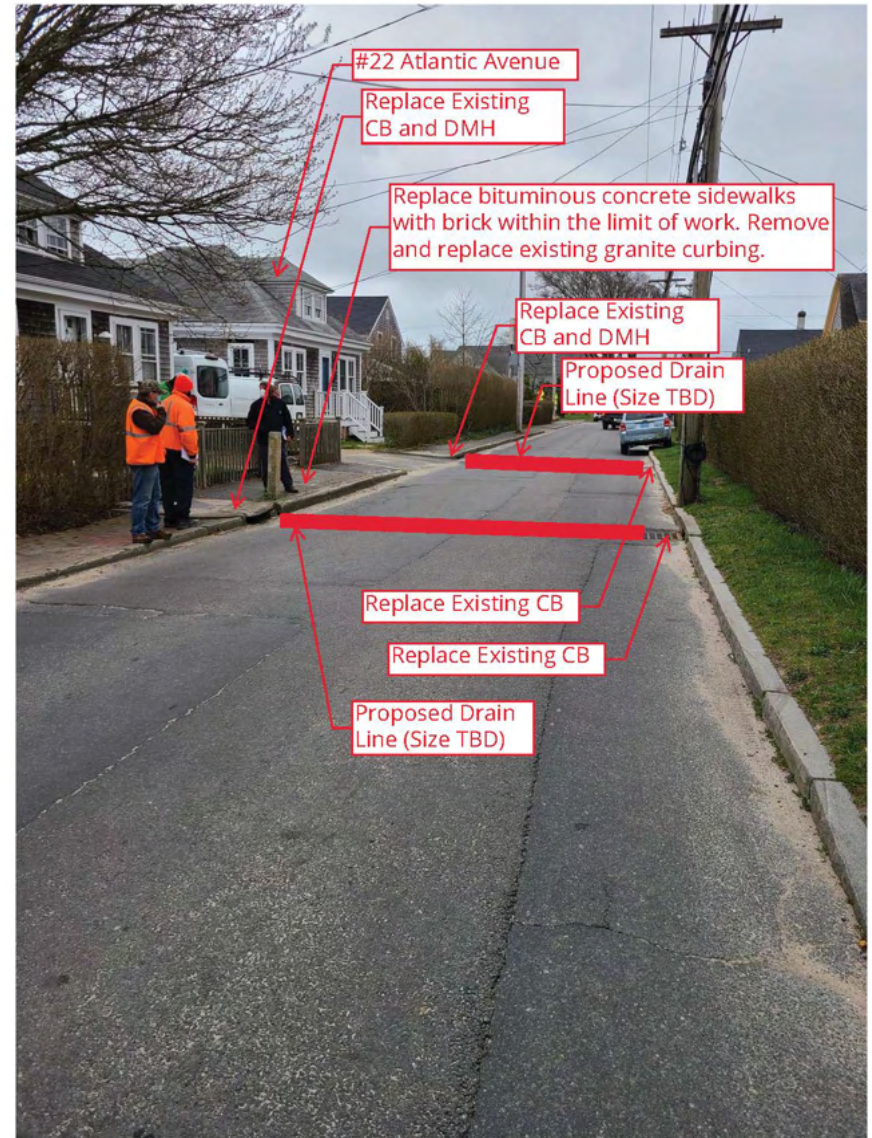
FIGURE 6 - PLEASANT STREET FORCE MAIN REALIGNMENT



Atlantic Ave Drainage & Sidewalk Replacement

- Additions:
 - Brick sidewalks: 25 square yards
 - Reclaimed granite curb: 60 feet
 - Loam restoration: 50 square yard
 - Drainpipe: 50 feet
 - Drainage structures: 6 each

FIGURE 7 - ATLANTIC AVENUE DRAINAGE AND SIDEWALK REPLACEMENT



Surfside Bike Path

- Additions:
 - Bike path widening: 318 square yards
 - Loam restoration: 318 square yards

FIGURE 8 - SURFSIDE ROAD BIKE PATH EXPANSION



Restoration Legend

LEGEND



FULL DEPTH RECLAMATION



REMOVE AND RESET BRICK SIDEWALK



REMOVE AND RESET COBBLESTONE



BRICK SIDEWALK USING LIKE KIND MATERIAL



LANDSCAPE RESTORATION



BIKE PATH RESTORATION

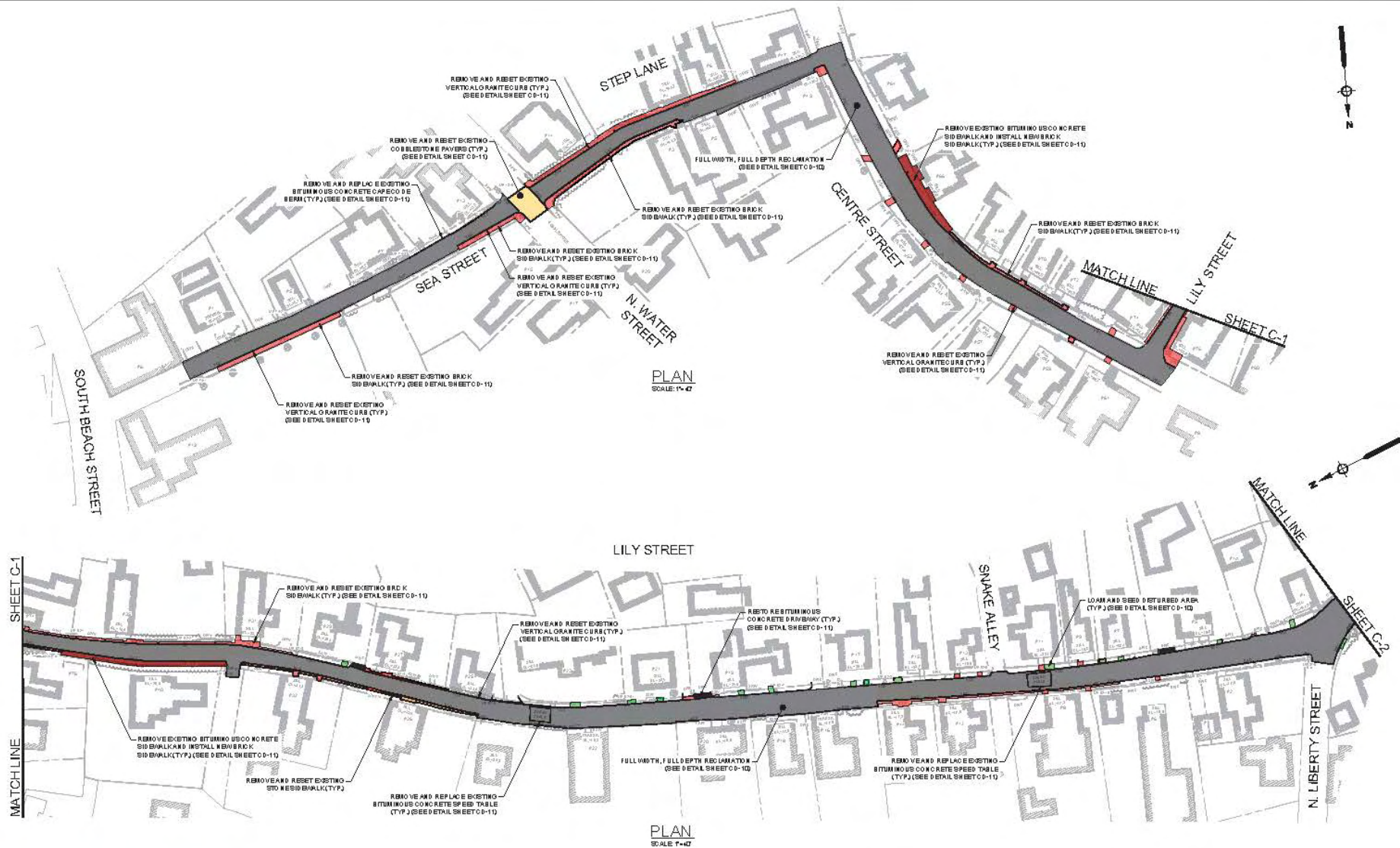


PERMANENT TRENCH PAVEMENT



BITUMINOUS DRIVEWAY RESTORATION

Sea St; Step Lane; Center St Lilly Street



ENVIRONMENTAL PARTNERS

Scale	AS NOTED
Date	MAY 2021
Job No.	360-2001
Designed by	FJB
Drawn by	FJB
Checked by	RJR/PCM
Approved by	ZJK

THIS LINE IS ONE INCH
10' HORIZONTAL PLOTTED AT
FULL SCALE IN A 22" X
34" DRAWING

SEA STREET PUMP STATION FORCE MAIN NO.3
TOWN OF NANTUCKET, MA

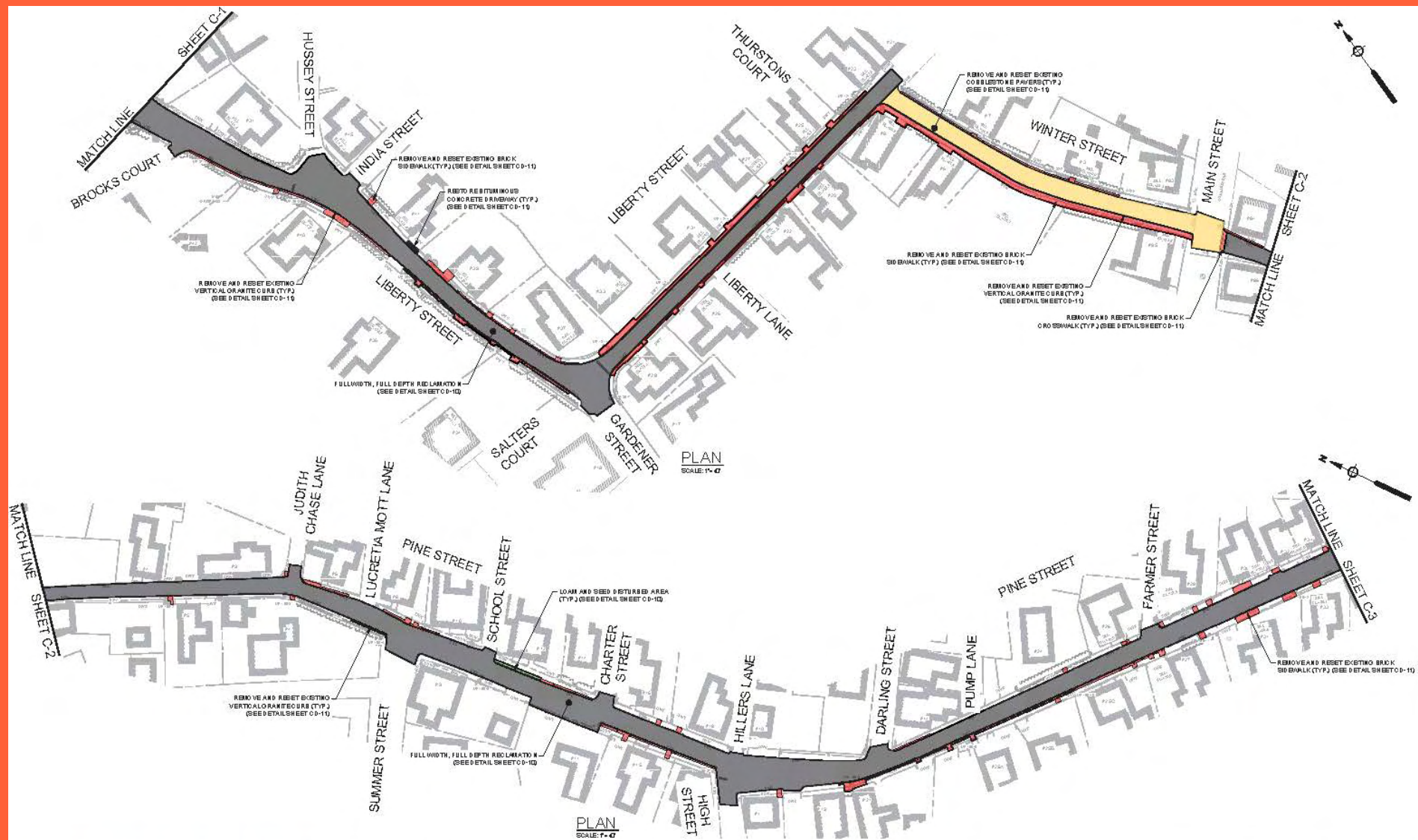
SEA STREET, STEP LANE, CENTRE STREET, AND LILLY STREET
SURFACE RESTORATION PLAN

75% DESIGN & EVELOPMENT

Sheet No.

C-35

Liberty St; Winter St & Pine Street



ENVIRONMENTAL
 **PARTNERS**

			Scale	AS NO TED
			Date	MAY/2021
			Job No.	360/2020
			Designed by	FJB
			Drawn by	FJB
			Checked by	RJR/PCM
MARK	DATE	DESCRIPTION	Approved by	ZFK

Scale	AS NO TED
Date	MAY 2021
Job No.	360-2001
Designed by	FJB
Drawn by	FJB
Checked by	RJR/PCM
Approved by	TEK

THIS LINE IS ONE INCH
LONG WHEN PLOTTED.
FULL SCALE ON A ZZZ
34" DRAWING

SEA STREET PUMP STATION FORCE MAIN NO.3
TOWN OF NANTUCKET, MA

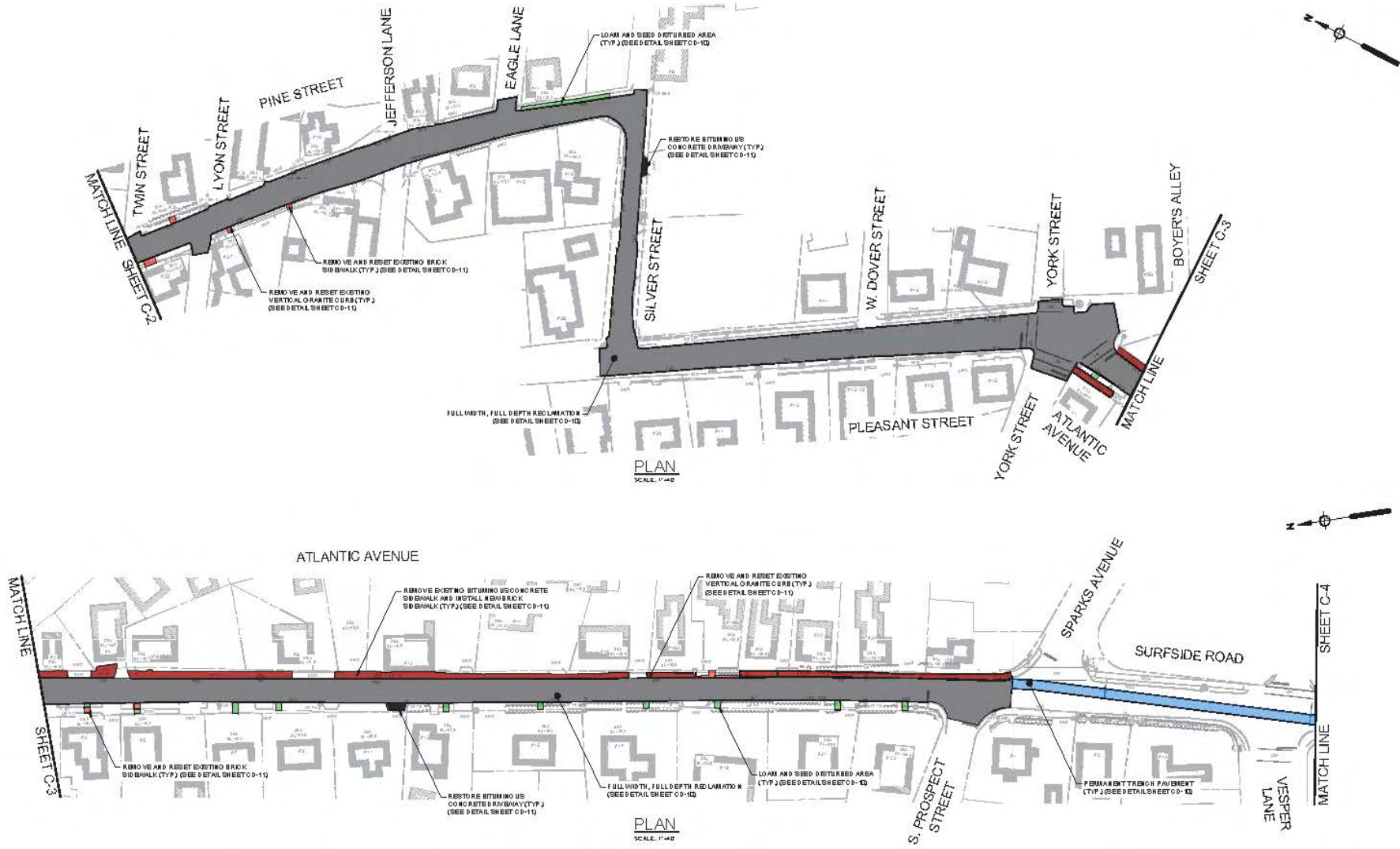
LIBERTY STREET, WINTER STREET, AND PINE STREET
SURFACE RESTORATION PLAN

75% DESIGN DEVELOPMENT

Reg. No.

C-36

Pine Street; Silver Street; Atlantic Ave;& Surfside



ENVIRONMENTAL PARTNERS

Scale:	AS NOTED
Date:	MAY 2021
Job No.:	360-2001
Designed by:	JLB
Drawn by:	JLB
Checked by:	KJ/PCW
Approved by:	ZFK

THIS LINE IS TO BE PLOTTED AT FULL SCALE OF A 22" X 34" DRAWING

SEA STREET PUMP STATION FORCE MAIN NO.3
TOWN OF NANTUCKET, MA

PINE STREET, SILVER STREET, PLEASANT STREET, ATLANTIC AVENUE,
AND SURFSIDE ROAD SURFACE RESTORATION PLAN

75% DESIGN DEVELOPMENT
Sheet No.
C-37

Surfside Road



**ENVIRONMENTAL
PARTNERS**

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MAY 2021
Job No.	360-200N
Designed by	FJB
Drawn by	FJB
Checked by	RJR/PCM
Approved by	ZFK

THIS LINE IS ONE INCH
IS NO WIDER PLOTTED AT
FULL SCALE IN A22 X
34" DRAWING

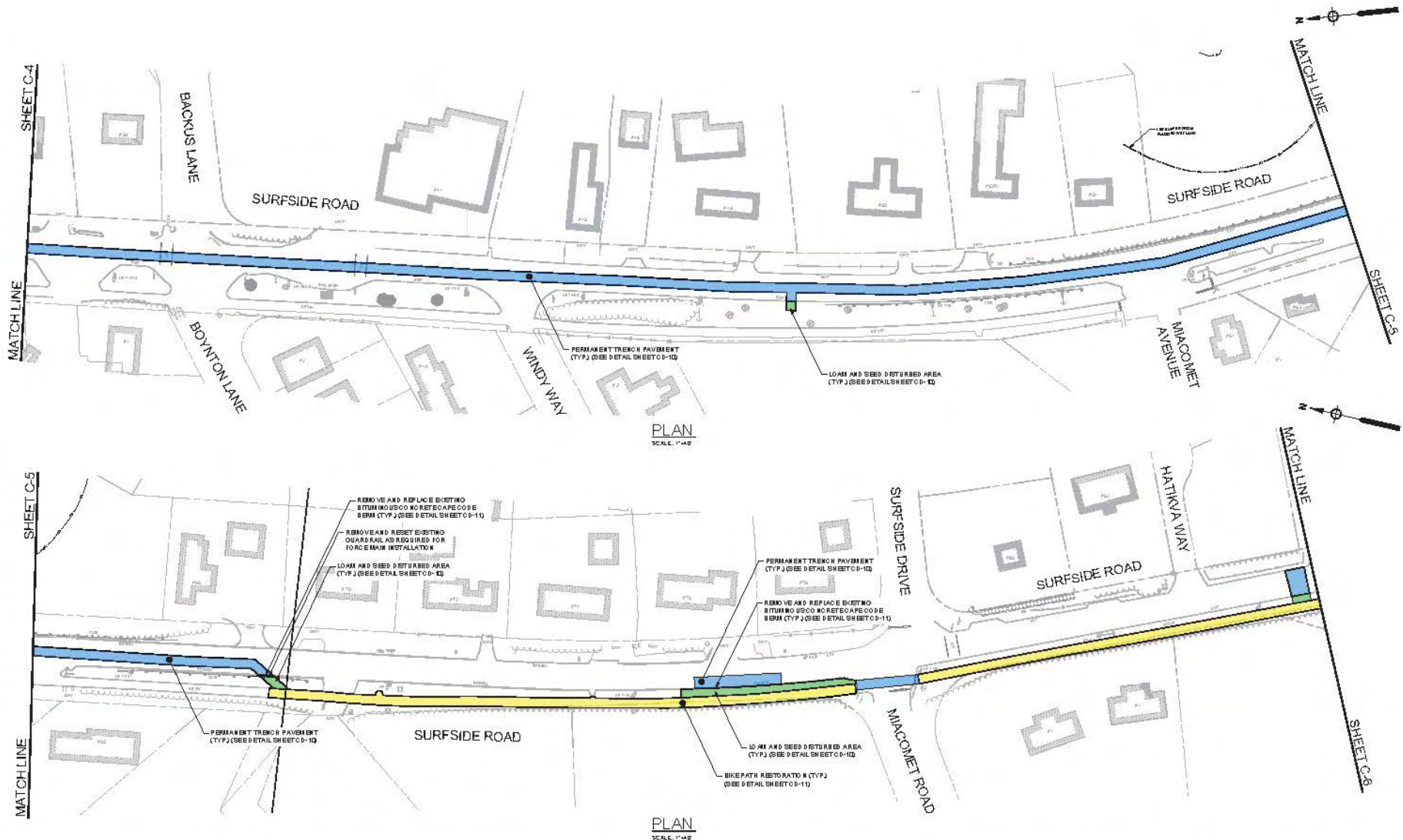
SEA STREET PUMP STATION FORCE MAIN NO.3
TOWN OF NANTUCKET, MA

SURFSIDE ROAD
SURFACE RESTORATION PLAN

75% DESIGN DEVELOPMENT
Sheet No.

C-38

Surfside Road



**ENVIRONMENTAL
PARTNERS**

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MAY 2021
Job No.	3ND-2001
Designed by	FJB
Drawn by	FJB
Checked by	RJ/RFCM
Approved by	ZFK

THIS LINE IS TO BE REINFORCED WITH 10' x 10' x 10' HOLE
FULL SCALE ON A 22" x 34" DRAWING

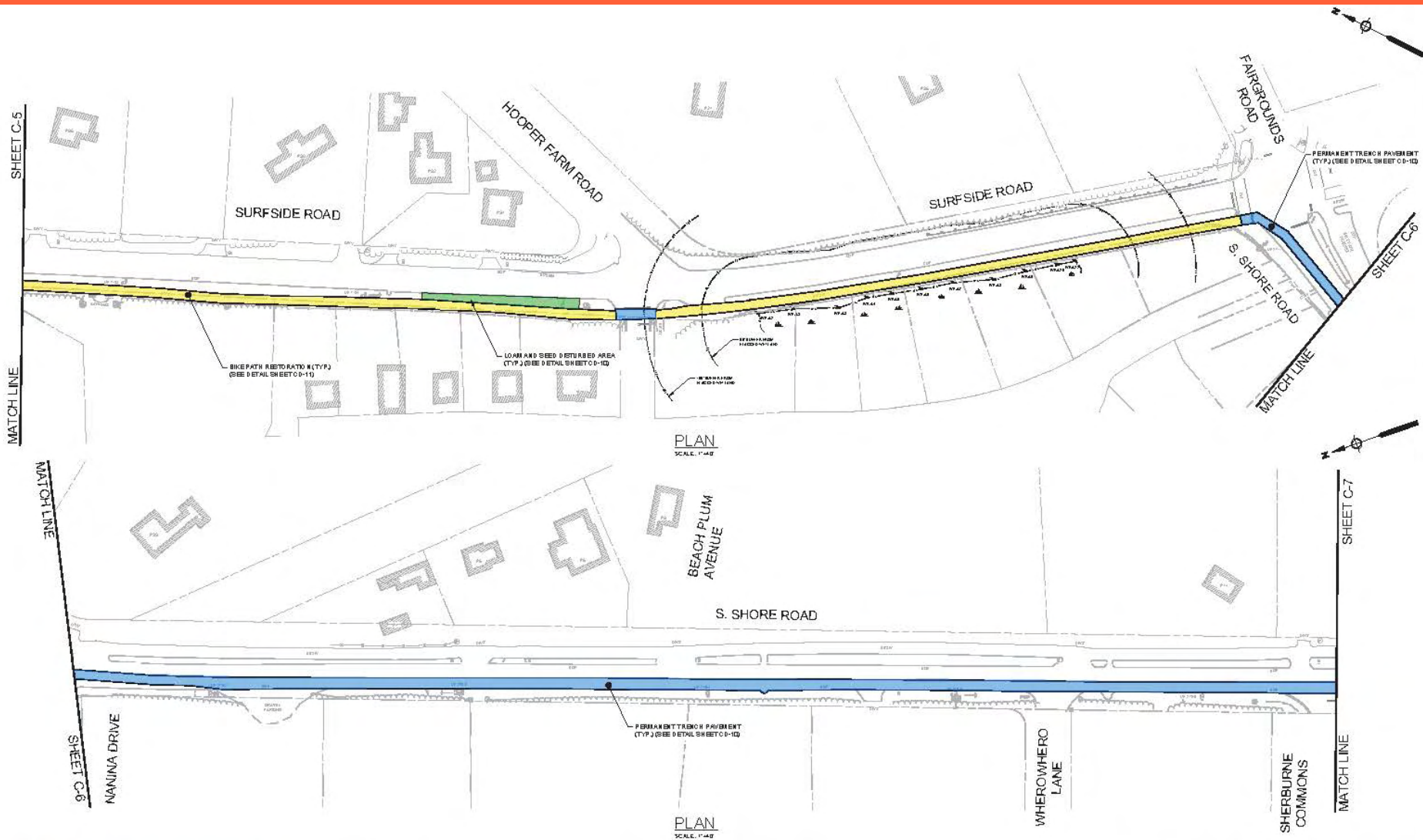
SEA STREET T PUMP STATION FORCE MAIN NO.3
TOWN OF NANTUCKET, MA

SURFSIDE ROAD
SURFACE RESTORATION PLAN

75% DESIGN & BIDDING
Sheet No.

C-39

Surfside Rd. & S. Shore Road



**ENVIRONMENTAL
PARTNERS**

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MAY 2021
Job No.	360-2021
Designed by	FJB
Drawn by	FJB
Checked by	RJAPOR
Approved by	ZFK

THIS LINE IS TO BE USED
TO NO WORK PLOTTED AT
FULL SCALE OR A 22" X
34" DRAWING

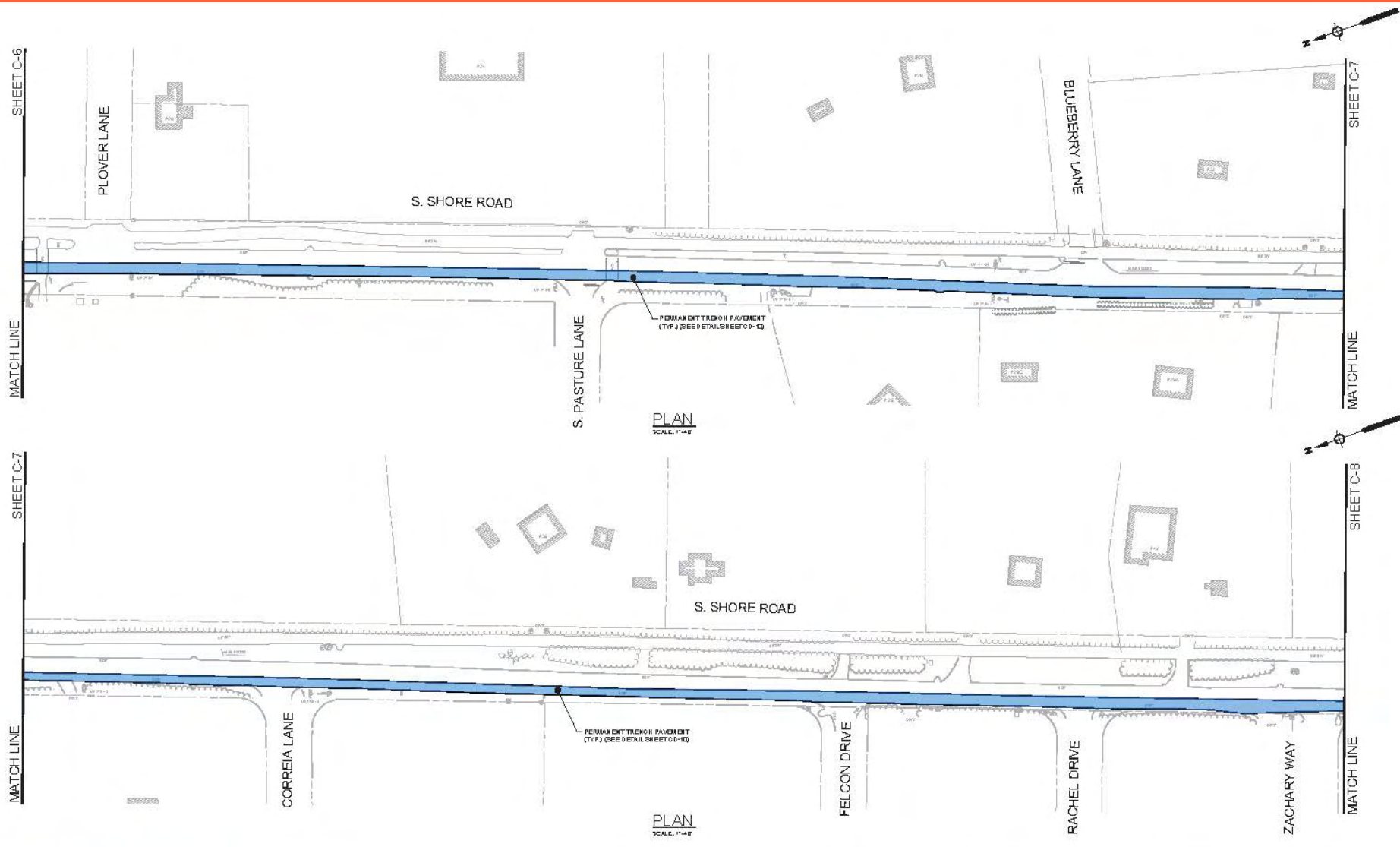
SEA STREET PUMP STATION FORCE MAIN NO.3
TOWN OF NANTUCKET, MA

SURFSIDE ROAD AND S. SHORE ROAD
SURFACE RESTORATION PLAN

15% DESIGN & DEVELOPMENT
Sheet No.

C-40

S. Shore Road



**ENVIRONMENTAL
PARTNERS**

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MAY 2021
Job No.	360-2001
Designed by	FJB
Drawn by	FJB
Checked by	RJAPCM
Approved by	ZFK

THE LINE DRAWING IS NOW PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

SEA STREET PUMP STATION FORCE MAIN NO.3
TOWN OF NANTUCKET, MA

S. SHORE ROAD
SURFACE RESTORATION PLAN

75% DESIGN REVIEW SHEET

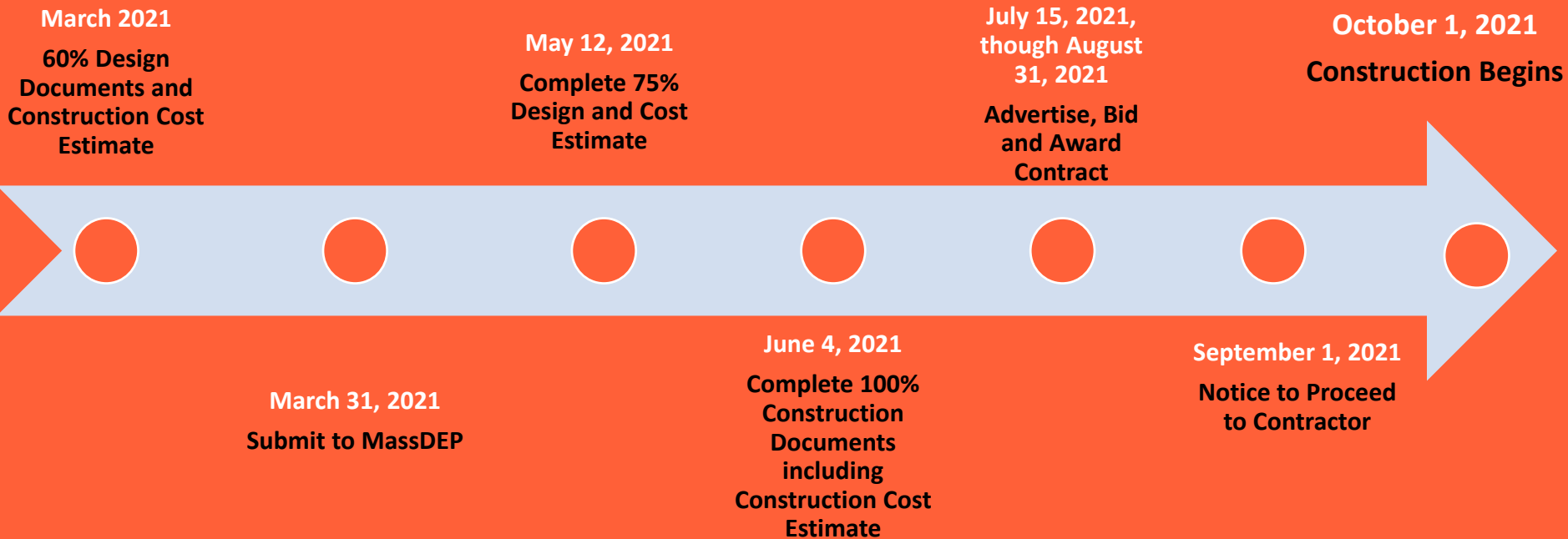
Sheet No.

C41

Project Schedule



Future Tasks and Schedule



Action Items

- Submit 60% design to MassDEP for review (completed 3-16-2021)
- Complete 75% design (May 12, 2021)
- Complete 100% design (July 15, 2021)
- Submit Construction Documents to MassDEP for review
- Permission to Advertise by MassDEP
- Advertise/Bid/Award
- Signed Contract
- Construction Starts October 1, 2021



THANK
YOU



ENVIRONMENTAL
 PARTNERS

Hazen

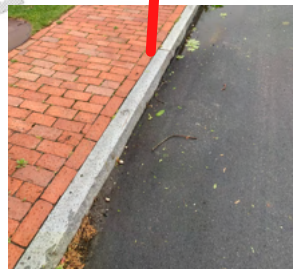
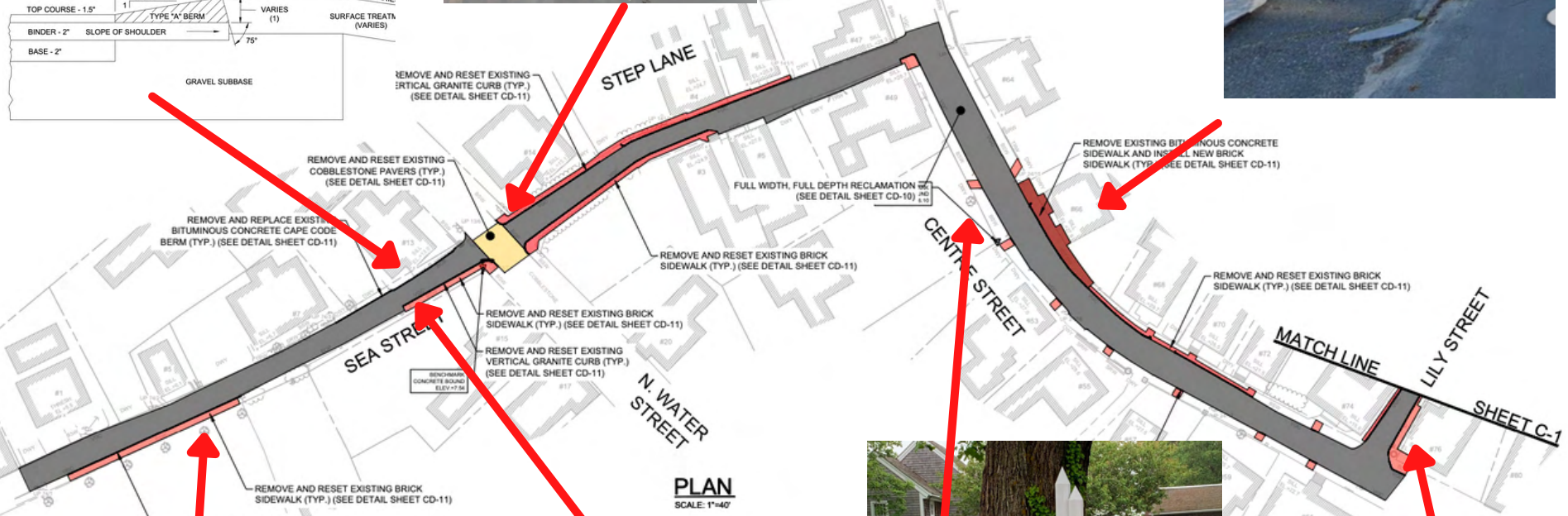
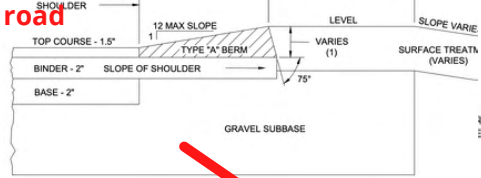
Nantucket Historical Commission

Observations and comments on the route

To be discussed



Berm treatment is preferable to other type seen on Milestone road



Example of New Sidewalk

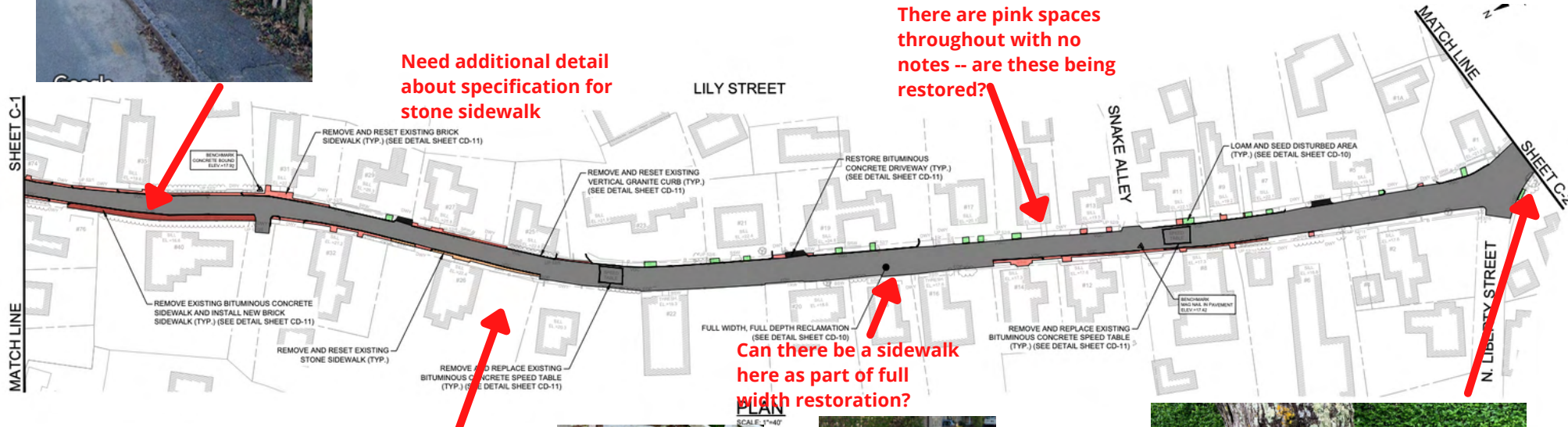


Concrete bollards to remain



Need additional detail about specification for stone sidewalk

There are pink spaces throughout with no notes -- are these being restored?

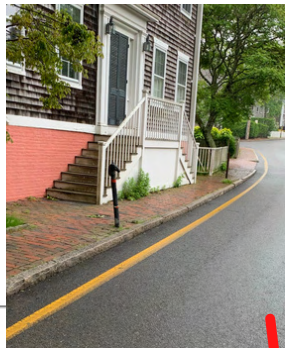


Stone: dry set vs. cement; ADA concern? Placement.

very large important tree, wrapped around curb



resolve awkward crossing for pedestrians?



This area is narrow and congested with obstacles. Negotiate an easement?



This section of Liberty has 1st generation curbs. Note older brick on house lot.



Concrete gate post



consistently driven on



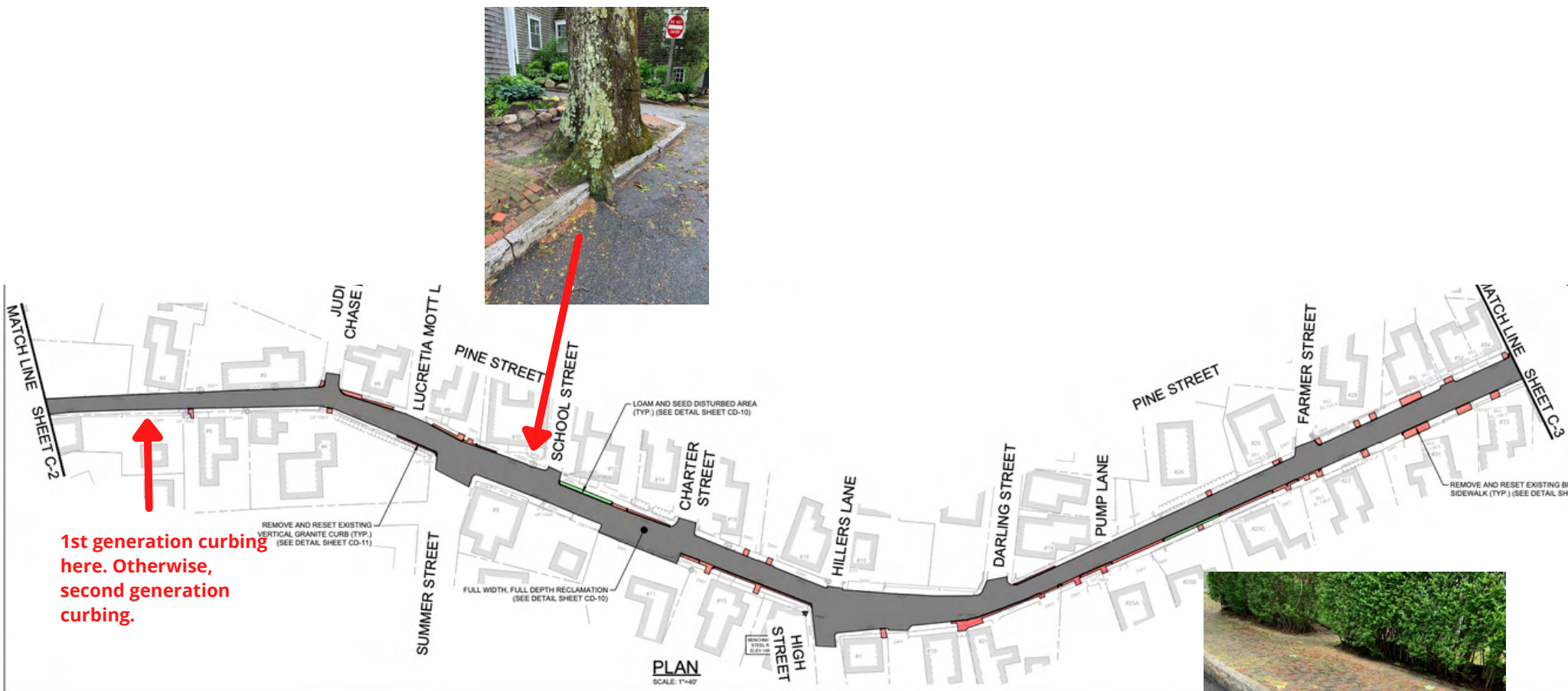
Reconstruct driveway apron?



Liberty Street has 1st generation, 2nd generation, new granite, and concrete curbing. Different heights.



Winter Street has both first and second generation curb.

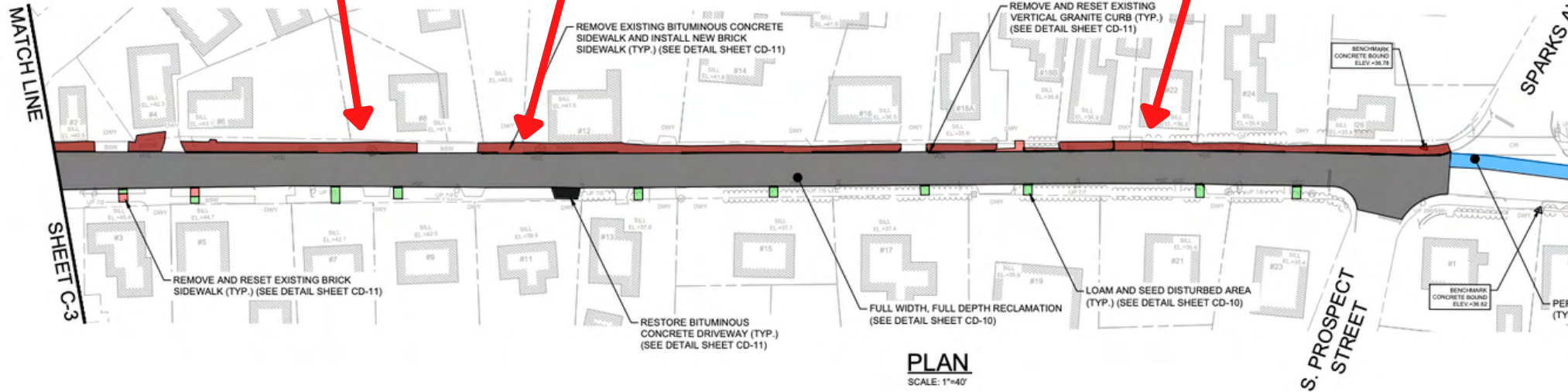


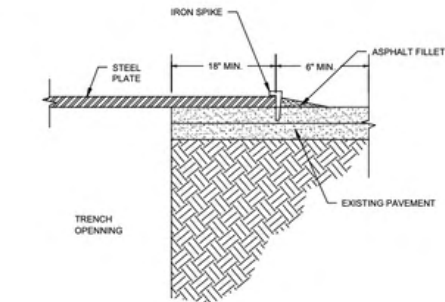


Would this area benefit from rehabilitation?
Surface change?



ATLANTIC AVENUE



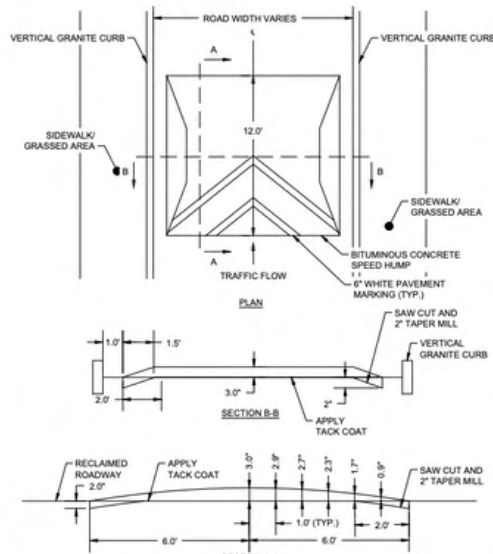


SCALE: N.T.S.

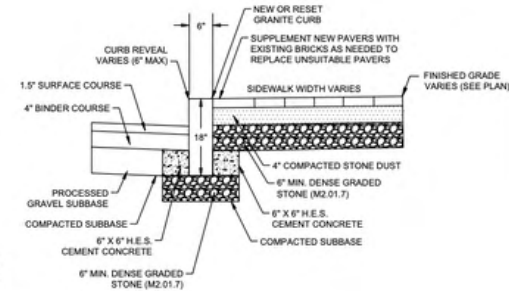
- NOTES:** (TYPE B)
1. MATCH EXISTING SLOPE (MIN 3/16"/FT)
 2. SEE VERTICAL CURB DETAIL FOR METHODS OF SETTING CURBS.
 3. MATCH EXISTING SIDEWALK WIDTH. THE ENTIRE WIDTH OF ANY DISTURBED SIDEWALK SHALL BE RESTORED.

1. USE OF STEEL PLATES ALLOWED ON A CASE BY CASE BASIS, PENDING WRITTEN APPROVAL BY TOWN.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES OR CLAIMS RESULTING FROM THE USE OF STEEL PLATES.
3. MUTCO COMPLIANT RETROREFLECTIVE ORANGE CONSTRUCTION WARNING SIGNS (48"x48" WITH WORKING "STEEL PLATE AHEAD" SHALL BE INSTALLED IN ADVANCE OF STEEL PLATE INSTALLATION.
4. THE CONTRACTOR SHALL DESIGN AND UTILIZE STEEL PLATES OF ADEQUATE DIMENSIONS AND THICKNESS FOR INTENDED USE AND VEHICLE LOADING. MAXIMUM ALLOWABLE DEFLECTION SHALL BE 0.02". NON SPIKE FASTENERS SHALL BE INSTALLED AROUND THE PERIMETER OF THE STEEL PLATE.

SCALE: N.T.S.



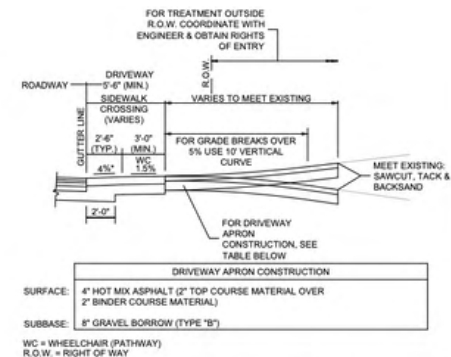
SCALE-POINTS



SCALE: N.T.S.

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5%.
2. MAINTAIN A MINIMUM OF 3 FEET CLEAR AT ANY PERMANENT OBSTACLE IN ACCESS ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
3. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5'X5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.

SCALE: N.T.S.



SCALE-NTS.

- NOTES:**
1. MATCH EXISTING SLOPE (MIN 3/16"/FT)
 2. MATCH EXISTING BIKE PATH WIDTH. THE ENTIRE WIDTH OF ANY DISTURBED BIKE PATH SHALL BE RESTORED.

SCALE: NT 1

- NOTES:
1. FOR MODIFIED BERMS THE SLOPE REMAINS CONSTANT AT 1 (V) TO 12 (H)
 2. THIS DIMENSION VARIES WITH THE THICKNESS OF THE TOP COURSE AND SLOPE OF BINDER

SCALE: NT 9

- DRIVEWAY APRONS SHALL BE CONSTRUCTED OF HOT MIX ASPHALT UNLESS PRIOR WRITTEN APPROVAL IS GRANTED BY DPW.