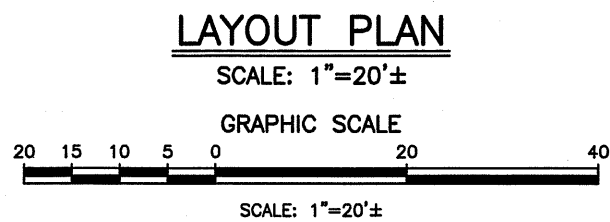




0 BOLLARDS @ 6' O.C. BOLLARD INSTALLATION DETAILS SAME AS SECTION A-A  
EXTEND PEDESTRIAN RAIL TO SOUTHERN LIMIT OF SIDEWALK. LEAVE NO MORE THAN A 4" GAP TO FENCE ON ADJACENT PROPERTY.



REMOVE 430 L.F.± EXISTING PEDESTRIAN RAIL. MORTAR POST HOLES LEFT IN CONCRETE SIDEWALK FLUSH WITH TOP OF WALK. INSTALL 430 L.F.± PROPOSED PEDESTRIAN RAIL FROM SOUTHERN TO NORTHERN LIMIT OF SIDEWALK. SEE DETAILS THIS SHEET.

EXTEND PEDESTRIAN RAIL TO NORTHERN LIMIT OF SIDEWALK.

#### PROJECT NOTES

- In General, Lower Case Text Identifies Existing Features/Conditions.
- IN GENERAL, **UPPER CASE OBLIQUE TEXT IDENTIFIES PROPOSED FEATURES/CONDITIONS** UNLESS OTHERWISE SPECIFIED.
- FOR LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE, GAS, CABLE TV AND OTHER FACILITIES OF PUBLIC UTILITY COMPANIES, INQUIRE OF "CALL BEFORE YOU DIG, INC." AT 1-800-922-4455 PRIOR TO EXCAVATING.
- Aerial photo shown was obtained from Google Earth and is dated March 2012. This photo pre-dates Storm Sandy which damaged the area in October 2012. Therefore this photo is not a completely accurate representation of existing conditions. Bidder shall inspect site prior to bidding to become fully aware of existing conditions. No additional compensation (time of money) will be made to the Contractor as a result of his unfamiliarity with existing conditions prior to bidding.

#### TECHNICAL SPECIFICATIONS

##### General

Where these Specifications refer to the "Standard Specifications", it shall mean the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction Form 816, 2004 as amended to date. Unless otherwise noted, only those parts of the Standard Specifications that are referred to in the "Materials" and/or "Construction Methods" portion of those Standard Specifications shall apply, including such supplements or amendments included herein. For the purposes of this Project, wherein the Standard Specifications the term "Commissioner", "Department" or "State" are used it shall mean "Owner".

Furnish and install rail posts and bollards in dug or drilled holes as appropriate, plumb and true, at locations and to the elevations as may be shown on the Drawing. Dug holes shall be adequately sized to allow compaction of backfill. Remove surplus and unsuitable material from the site, and legally dispose of off-site.

The Contractor shall be solely responsible for construction methods, means, techniques and for construction site safety precautions. Conduct construction operations in conformance with all applicable local, state and federal safety laws, rules, regulations and codes.

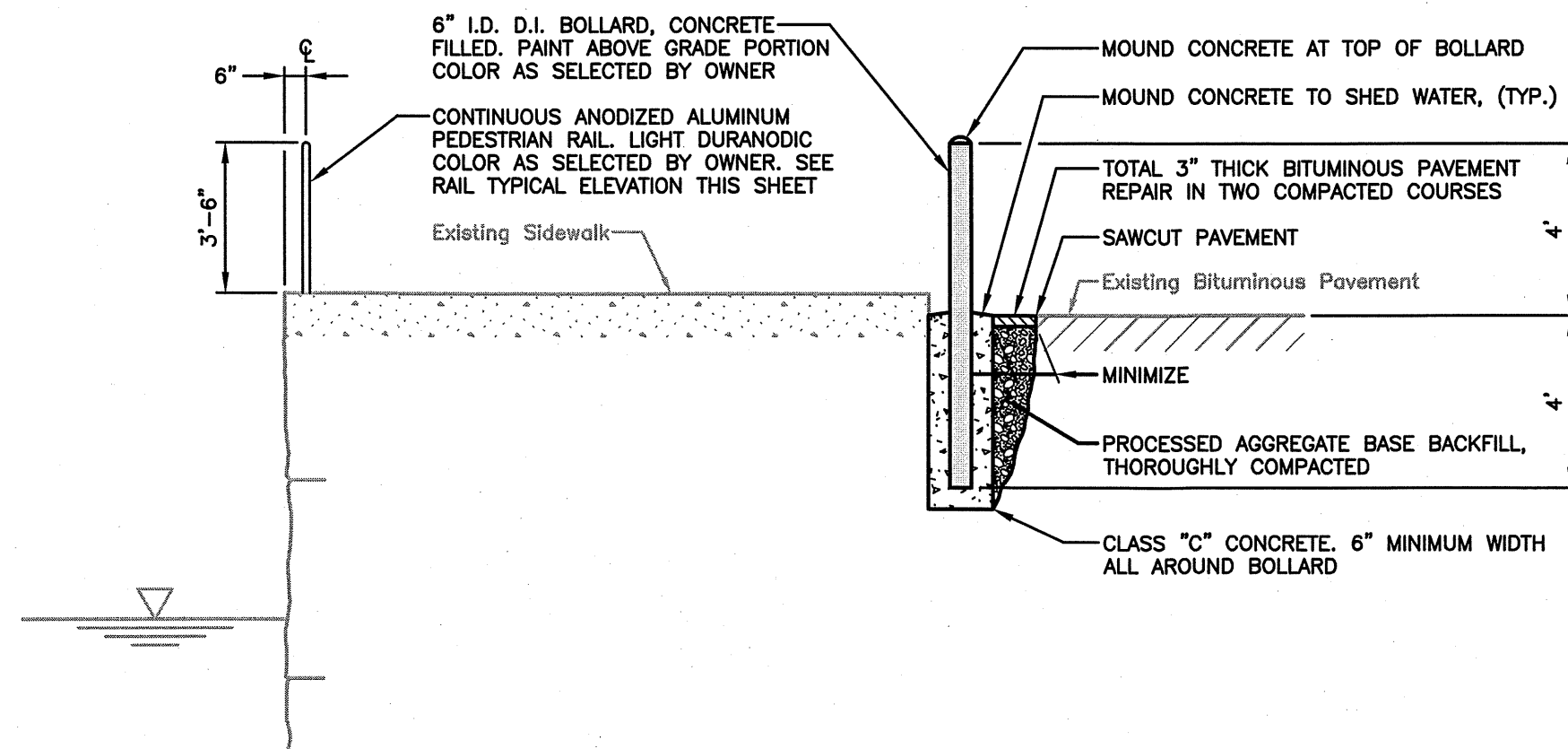
- Oil Absorbent Spill Response Booms and Pads - SPC510 Booms and SPC100 Pads as manufactured by Sorbent Products Co., Inc., as distributed by Atlantic Environmental Corporation, Trumbull, CT or accepted substitution. Continuously provide and maintain on site forty (40) linear feet of new oil absorbent boom and two-hundred twenty-four (224) square feet of new oil absorbent pads for the duration of the construction. As booms and pads are used during the construction, the supply shall be continuously replaced, at all times maintaining the required quantity specified herein.
- Sedimentation Control System - conform to the Standard Specifications, Section 2.19.
- Maintenance and Protection of Traffic - conform to the Standard Specifications, Section 9.71, including the "Description" portion of that Section.
- Processed Aggregate Base - conform to the Standard Specifications, Section 3.04, except that the gradation shall be as follows:

Sieve Size	Percent Passing By Weight
Pass 1/2"	100
Pass 1"	90 - 100
Pass 3/4"	75 - 100
Pass 3/8"	30 - 60
Pass #40	5 - 25
Pass #100	3 - 12

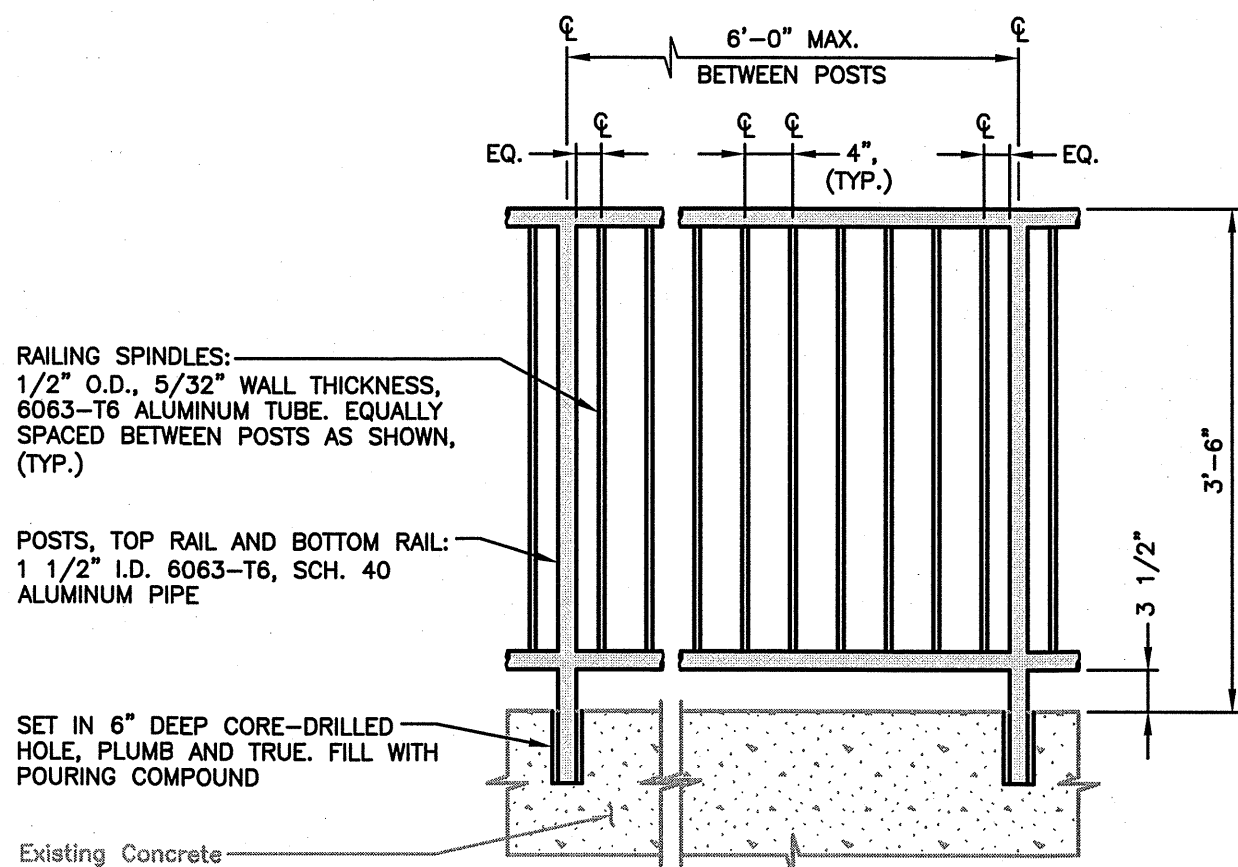
- Cast-In-Place Concrete - conform to the Standard Specifications, Section 6.01 for the mixture class shown on the Drawing. Submit mix design for approval.
- Bituminous Concrete - Conform to the Standard Specifications, Section 4.06 for Class 2 material. Thickness of pavement replacement shall be 3", thoroughly compacted. Pavements to be removed shall be sawcut. Prior to paving, clean face of existing pavement and paint with liquid bitumen.
- Painted Pavement Markings - Conform to the Standard Specifications, Section 12.09 for hot-applied waterborne pavement marking paint. Replace pavement markings disturbed by construction activities.
- Ductile Iron Bollard
  - Pipe - ANSI Specification A21.51, thickness Class 52.
  - Surface Preparation for Painting - sandblast off-site to remove outside coating, and wash off-site with trisodium phosphate detergent.
  - Painting - follow recommendations of painting manufacturer.
  - Concrete - as specified elsewhere herein.

#### 9. Aluminum Rail.

- Quality of Work
  - Fabricator specializing in performing the Work of this Section shall have minimum five (5) years documented experience.
  - Welder shall be qualified within previous twelve (12) months in accordance with AWS D1.1 and AWS D1.4, latest issue.
  - All manufactured items included under this section shall be installed in full conformity with manufacturer's installation drawings and instructions. Workmanship shall be first-class, executed by skilled mechanics. Nothing herein shall be construed as relieving the Contractor of his responsibility for this portion of the Work.
- Verification of Conditions
  - Verify all dimensions prior to submission of Shop Drawings, and make any and all adjustments to work to conform to said dimensions, subject to approval of the Owner.
- Submittals
  - Before any fabrication is begun, submit Shop Drawings, catalog cuts, design details, manufacturer's literature and technical data for all products and materials appurtenant to the construction specified herein. Shop Drawings shall show sizes of metal, method of assembly, hardware and anchorage or connection with other work. Approval will not cover detail fabrication dimensions.
  - Prior to applying the anodic finish to the handrail, the color and degree of color match shall be approved by the Owner by the submission of color range samples established from production material.
- Material
  - Aluminum pipe shall be 6063-T6 alloy, Schedule 40. Extrusions shall have standard on-eighth (1/8) inch maximum radius rounded corners.
  - Splice and reinforcing sleeves shall be aluminum. Brackets, end caps, and other fittings shall be machined from a one-piece extrusion to final shape.
  - Rivets, self-tapping screws, machine bolts, and expansion anchors shall be stainless steel, as supplied by the handrail manufacturer.
  - Aluminum welding rods and electrodes shall be consistent with the aluminum alloy and desired finish, conforming with AWS A5.10, as revised.
  - Anodic finish shall be in conformance with Aluminum Association Duraanodic process, color as selected by Owner.
- Execution
  - Rail elements shall be erected to produce a smooth, continuous rail, installed square, plumb, straight and true, as shown on the Drawings. Top rail shall consist of a single continuous pipe and shall be welded to posts. Lower rail and any rail returns shall be welded to posts.
  - Posts shall be set in sleeves and fastened by means of pouring compound, unless otherwise shown on the Drawing. Sleeves for posts shall be firmly embedded in concrete to the depth shown on the Drawing. Seal the annular space between the pipe and the sleeve to prevent water from entering, as shown on the Drawing, as approved by the Owner.
  - All joints shall be welded accurately and neatly, all welding shall be done by experienced and qualified welders. Joints shall be finished smooth; no rough or sharp projections shall be permitted. All cuts shall be squared and free of burrs. Grind exposed edges, surfaces smooth.
  - Where possible, work shall be fitted and shop assembled, ready for erection.
  - Jointings and intersections shall be accurately made and tight fitting; and made in true planes, with adequate fasteners.
  - Bolted works shall be screwed up tight, and threads nicked to prevent loosening. Exposed bolts, rivets, etc. on finished work shall be countersunk and finished flush, except where otherwise shown or approved.
  - Unlike metals in contact shall be insulated from one another by approved methods and materials to prevent corrosion.
  - All work shall be made and erected square, plumb, straight and true; adequately reinforced and anchored in place.
  - Neatly finish all work. Minimize projecting bolts, etc. Make all joints accurately, neatly. Install filter plates to close all openings, provide finished work.
  - Protect components against scratches, dents and other damage during shipment, storage and installation and be solely responsible for all costs associated with replacement of damaged components to the satisfaction of the Owner.
- Field Casting
  - Unlike metals in contact shall be insulated from one another by approved methods and materials to prevent corrosion. Paint all metal surfaces in contact with concrete or masonry with one (1) coat of approved bituminous paint, in the event that such surfaces have not received a protective coating by the manufacturer or fabricator, as approved by the Owner.



SECTION A-A  
SCALE: 1/4" = 1'-0"



TYPICAL ELEVATION  
42" HIGH ALUMINUM RAIL  
N.T.S.

#### PROGRESS PRINT

DO NOT USE FOR CONSTRUCTION  
☐ FOR PRELIMINARY REVIEW  
☐ FOR FINAL REVIEW  
☒ FOR INFORMATION  
DATE ISSUED *April 15, 2013*  
NATHAN L. JACOBSON & ASSOCIATES

TOWN OF  
OLD SAYBROOK,  
CONNECTICUT

## SAYBROOK POINT RAIL AND BOLLARDS

### LAYOUT PLAN AND DETAILS

#### CONSTRUCTION DRAWING

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J. HOWARD FROMMER, P.E.  
CT REGISTRATION No. 15871

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REVISIONS		
No.	DESCRIPTION	DATE

DATE: APRIL 12, 2013	SHEET No.:
SCALE: AS NOTED	
PROJECT No.: 07470034	
CADD FILE: 07470013SP	
DESIGNED: JHP	
DRAWN: AJG	
CHECKED: -	

1 OF 1