

Clearwater Marina District Boardwalk Design Guidelines and Specifications

General Information:

The Clearwater Marina District Boardwalk Design Guidelines and Specifications, adopted by Ordinance No. 8438-13, should be considered a supplemental document to the City of Clearwater's special area plan *Beach by Design: A Preliminary Design for Clearwater Beach and Design Guidelines*. It shall guide construction of the public boardwalk along Clearwater Harbor from Baymont Street south to the southern boundary of the District terminating at a public plaza adjacent to the public parking lot north of Memorial Causeway.

This document provides specific requirements regarding the design and construction of the public boardwalk on private property, as well as the public entrances to be constructed by the City of Clearwater at Papaya and Baymont Streets and the public plaza to be constructed by the City of Clearwater adjacent to the public parking lot north of Memorial Causeway.

Where feasible the boardwalk should be constructed completely over the water rather than on uplands. Exceptions may be granted on properties adjacent to the public entrances at Papaya and Baymont Streets or when a hardship prevents construction over the water.

Public entrances and sidewalks should incorporate all required streetscaping standards identified within the Beach by Design document. The sidewalk along East Shore Drive and the sidewalk from the public plaza to the east/west sidewalk at Memorial Causeway should be provided as indicated herein.

The boardwalk and sidewalk shall be compliant with all governing codes and regulations including compliance with the Florida American with Disabilities Act Accessibility Guidelines.



Figure 1 - Scope of Boardwalk & Sidewalk Guidelines

Property owners required to construct the new public boardwalk as a result of the development approval process are responsible for constructing a continuous portion of public boardwalk along the length of their property as indicated herein. Property owners adjacent to public entrances to the public boardwalk must also address, integrate and transition to the public entrances. Public boardwalk and transitions requiring environmental engineering for permitting will be the responsibility of the property owner. Environmental engineering required for the public plazas will be the City's responsibility.

Private property transitions including any and all stairs, ramps, railings, or continuation of decking from or transitioning to the public boardwalk or public entrances shall be accessible. All work shall be consistent with these guidelines and must be consistent in fit and finish, complementary to the new public boardwalk and its entrances. All phases of design documents shall be submitted to the City of Clearwater for review, comment and approval by the City's Parks & Recreation Department.

The City of Clearwater - Parks and Recreation Department shall be responsible for maintaining the constructed public boardwalk up to the private property owners adjacent property upon acceptance the boardwalk is constructed to the satisfaction of the Parks & Recreation Department and after the one year warranty construction period is completed and walk through acceptance by the City of Clearwater - Parks and Recreation Department.

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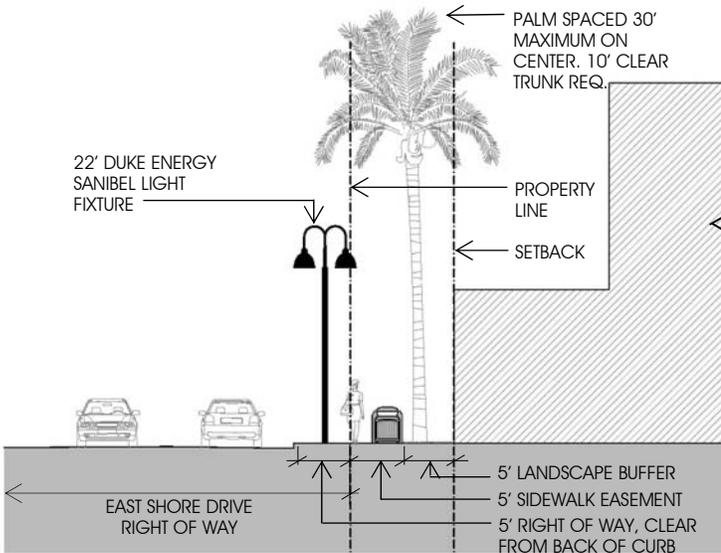


Figure 2 - East Shore Drive Sidewalk Section Diagram

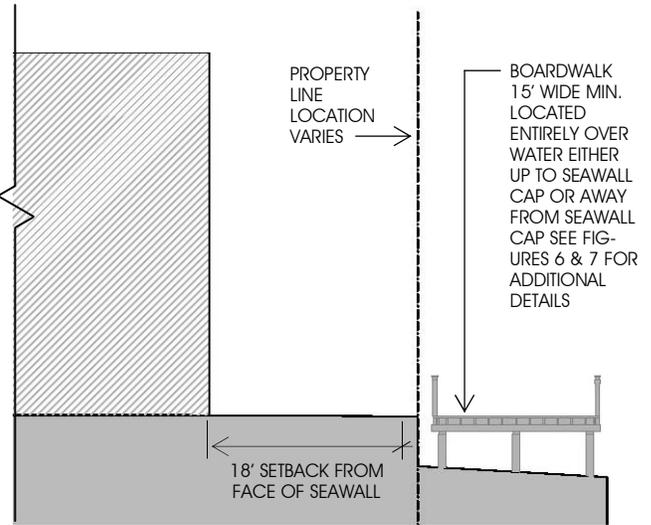


Figure 3 - Boardwalk Section Diagram

Sidewalk Requirements: (East Shore Drive)

As shown in Figure 1 & 2 and as stated within the Beach by Design guidelines, a 10 foot wide (clear and starting from the street curb) pedestrian sidewalk along East Shore Drive shall be provided. An easement shall be required as necessary to provide this distance. The following sidewalk improvements shall be provided, including street lighting, trash receptacles, landscaping & hardscaping material. All improvements shall not interrupt pedestrian movement along the sidewalk.

Sidewalk finish material: coquina shell topping surface
Provide gray concrete sidewalk with broadcast coquina shell topping

Lighting: Duke Energy's 22' Sanibel Light Fixture

Duke Energy's High Pressure Sodium 100 watt, 9500 lumens Sanibel Light Fixture, mounted 22 feet high and spaced maximum 60 feet on center.

Trash receptacles: Bright Ideas Shop, FP6095-P—Jumbo Waste Series

Provide trash receptacles along the sidewalk spaced 75' on center and within the 5 foot sidewalk easement.

Landscaping:

Provide palm trees spaced at a maximum of 30' on center with 10' of "clear trunk" base minimum. Acceptable palm trees include *Butia Capaitata* (Pindo Palm) or *Butiagrus nabonnandii* (Mule Palm)

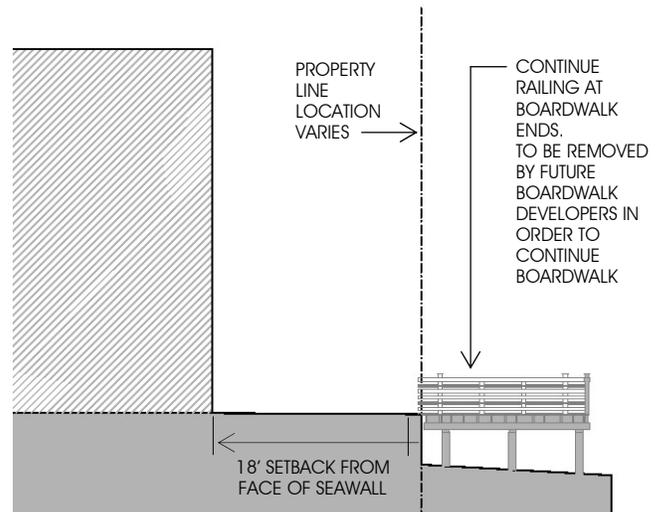


Figure 4 - Boardwalk Section Diagram with ends

Boat Dock Transitions: (to & from public boardwalk)

Any and all private or public boat docks, transitioning to or from the public boardwalk shall be compliant with all governing codes and regulations including compliance with the Florida American with Disabilities Act Accessibility Guidelines, the Pinellas County Water & Navigation Code, including Section 166-325 Boardwalk and Observation Platforms on Commercial & Multi-Use properties & Section 166-332 Minimum Construction Specification for all dock construction.

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Public Entrance Requirements: (At Papaya & Baymont Streets, drop off areas shall be provided)

There will be three public pedestrian oriented park plaza accesses to the boardwalk. Two located east of East Shore Drive at Papaya Street and Baymont Streets. These street ends shall be converted from streets to public entry pedestrian plazas to the boardwalk with vehicular drop off areas. At the southern end of the boardwalk a public pedestrian access plaza shall be created east of the public parking lot and this plaza will connect to the sidewalk running east / west along the Memorial Causeway Boulevard. Other improvements shall include sidewalk pathways leading to the boardwalk entrances, lighting, seating areas, trash receptacles, bicycle racks, water fountains, collapsible bollards, and landscaping & hardscaping. All improvements shall not interrupt pedestrian pathways.

Sidewalk finish material: coquina shell topping surface

Provide gray concrete sidewalk with broadcast coquina shell topping

Lighting: Duke Energy's 22' Sanibel Light Fixture

Provide lighting suitable for pedestrian pathways and seating areas.

Benches:

Provide benches at seating areas.

Trash receptacles: Bright Ideas Shop, FP6095-P—Jumbo Waste Series

Provide trash receptacles spaced equally and within 75' of each other

Bicycle Racks: Bikeparking.com WCR02-SF Welle Circular surface mount. Color: Match existing bicycle racks.

Provide bicycle racks secured in accordance with manufacturer's specifications. All bicycle rack materials including fasteners shall be stainless steel 316 grade. Bike racks are not to be provided along East Shore Drive.

Water fountains: Manufacturer, Most Dependable Fountains, Mostdependablefountains.com, 10135 SMSS Chrome

Provide water fountains in accordance with manufacturer's requirements. Fountain materials, including fasteners shall be stainless steel 316 grade. Provide 3' diameter dry well 2' deep adjacent to fixture for water fountain drainage.

Bollards:

Provide powder coated, stainless steel 316 grade collapsible bollards at vehicular drop off areas to limit vehicular access to pedestrian areas. Provide powder coating color sample to City of Clearwater for approval.

Landscaping:

Provide plant material at each public entry to the public boardwalk. All plant material shall meet Florida Grade #1 or better. Planting shall be performed in accordance with the Florida Nurserymen's and Grower's Landscape Association approved practices.

Acceptable landscape material:

a. Tree / Palms

- i. 10' *Butia Capitata* (Pindo Palm)
- ii. 10' *Butiagrus nabonnandii* (Mule Palm)
- iii 10' *Ligustrum japonicum*

b. Shrub types

- i. *Muhlenbergia lindheimeri* 3 gallon containers 18"-24" height planted 3' on center
- ii. *Podocarpus macrophylla* 3 gallon containers 18"-24" height planted 3' on center
- iii. *Ilex species* 3 gallon containers 18"-24" height planted 3' on center
- iiii. *Grass species* 3 gallon containers 18"-24" height planted 3' on center

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Landscaping: (Continued)

c. Ground cover species

- I. *Trachelosperum asiaticum* variegated – Variegated Asian Jasmine 1 gallon containers 10"-12" spread planted 1' on center
- II. *Trachelosperum asiaticum* green – Green Asian Jasmine 1 gallon containers 10"-12" spread planted 1' on center
- III. *Arachis glabrata* - Perennial Peanut 1 gallon containers 10"-12" spread planted 1' on center

Boardwalk Material Requirements:

This section contains the requirements related to boardwalk materials, including pile bents (wood pilings & piles caps), wood piles, pile caps, wood stringers, composite decking, railings, lighting, and fasteners. Boardwalk must accommodate a 2000 lb vehicular live load. Furthermore requirements herein are meant to be consistent with Pinellas County Water & Navigation Code, including Section 166-325 Boardwalk and Observation Platforms on Commercial & Multi-Use properties & Section 166-332 Minimum Construction Specification for all dock construction. Where discrepancies occur the more restrictive requirements shall govern.

Boardwalk Timber Piles:

Provide Southern Yellow Pine piles in accordance with ASTM D 25. Piles shall be round timber that are unused, clean peeled, and in one piece from butt to tip. Piles shall be pressure treated according to AWWA C3 and AWWA C18 standards for marine service conditions. Structural member sizes shall be determined by the applicant and/or applicant's representative, piles shall not be less than 8 inches in diameter and piles shall be penetrated not less than 8' below mud line. Piles should be terminated below finished decking material not to exceed 10 feet above mean high water levels.

Pile Wrapping:

All piles shall be wrapped with .060 mil/LF High Density Polyethylene pile wrapping material. Pile wrapping shall extend continuously from mud line to 2' above mean high water line.

Pile Bents: (Pile and Pile cap)

Pile bents spacing should be determined by the applicant and/or applicant's representative, not exceed 12' on-center. All pile bents shall have at a minimum 2" x 8" pile caps, bearing stringers to support deck joists. All intersections shall be bolted.

Pile Caps:

Pile caps shall be at a minimum 2" x 8" pressure treated lumber. All intersections shall be bolted.

Stringers:

Outside stringer systems shall be doubled 2" x 8" pressure treated lumber or greater. Provide 5/8" diameter stainless steel bolts or greater to attach stringers to pilings. Intermediate stringers shall be single 2" x 8" pressure treated lumber or greater spaced not less than 16" O.C. to accommodate light vehicular traffic. Not to exceed a live load of 2000 lbs. All structural member sizing, spacing and fastening requirements must be determined by the applicant and/or applicant's representative.

All Timber/Lumber:

Shall be pressure treated and rated for ground contact. All wood members, including pressure treated wood members and all concealed wood members clad with Trex Transcend composite decking material, shall be finished at all surfaces with Sikkens Cetol Waterborne SRD Translucent Wood Finish in accordance with manufacturer's requirements. Pressure treated lumber must be fully cured (6 weeks) prior to receiving Sikkens treatment.

Fasteners:

All metal fasteners, including but not limited to, bolts, screws, and nails, etc. shall be stainless steel 316 grade. Only 316 grade stainless steel will be accepted. All bolts shall extend no further than 3 or 4 threads beyond nut fastener.

Decking: Trex Transcend 2" x 6" composite decking material. Deck Color 1: Gravel Path; Deck Color 2: Rope Swing. Install in accordance with manufacturer's requirements. Decking should be cut to length and shall not extend to outside stringer not to exceed more than 2" beyond. See sections and drawing diagrams contained within this document.

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Boardwalk Material Requirements: (Continued)

Railing: Trex Transcend 2" x 6" composite decking material. Deck Color 1: Gravel Path; Deck Color 2: Rope Swing
Provide railings configured in accordance with sections, elevations, and details contained within this document. Only provide railings where required by applicable codes. Top rails shall not be less than 42" above finished walkway surface.

Benches: Trex Transcend 2" x 6" composite decking material. Deck Color 1: Gravel Path
Provide benches at public boardwalk configured in accordance with sections and details contained within this document. Provide benches spaced every 40'-0" along the length of boardwalk walkway.

Lighting: Post mounted Stonelight, LED light fixtures. Color: Requires approval by City of Clearwater Parks & Recreation Department. At Boardwalk walkways provide LED light fixtures integrally mounted to railing posts and as indicated at railing elevation and section drawings. Provide LED light fixtures spaced every 12' on center along both sides of boardwalk. Provide infrastructure as required.

Trash Receptacles: Bright Ideas Shop, FP6095-P - Jumbo Waste Series. Color: Match existing receptacles.
At Boardwalk walkways provide trash receptacles spaced every 120' on center along boardwalk adjacent to benches and as dimensioned. Provide trash receptacles where indicated, see diagram contained within. All trash receptacles to receive a 316 stainless steel plate provided by the City of Clearwater - Parks & Recreation Department and shall be screwed onto the top cap of trash receptacles to prevent cigarette burns.



Mostdependablefountains.com, 10135 SMSS Chrome, for use at entry nodes



Bright Ideas Shop, Trash Receptacle FP6095-P, for use at sidewalks, entry nodes, & at boardwalk



Butia Capitata Pindo Palm



Bikeparking.com, WCR02-SF bicycle racks, for use at entry nodes



Butiagrus nabonnandii Mule Palm



Stonelight LED light fixture



Ligustrum japonicum

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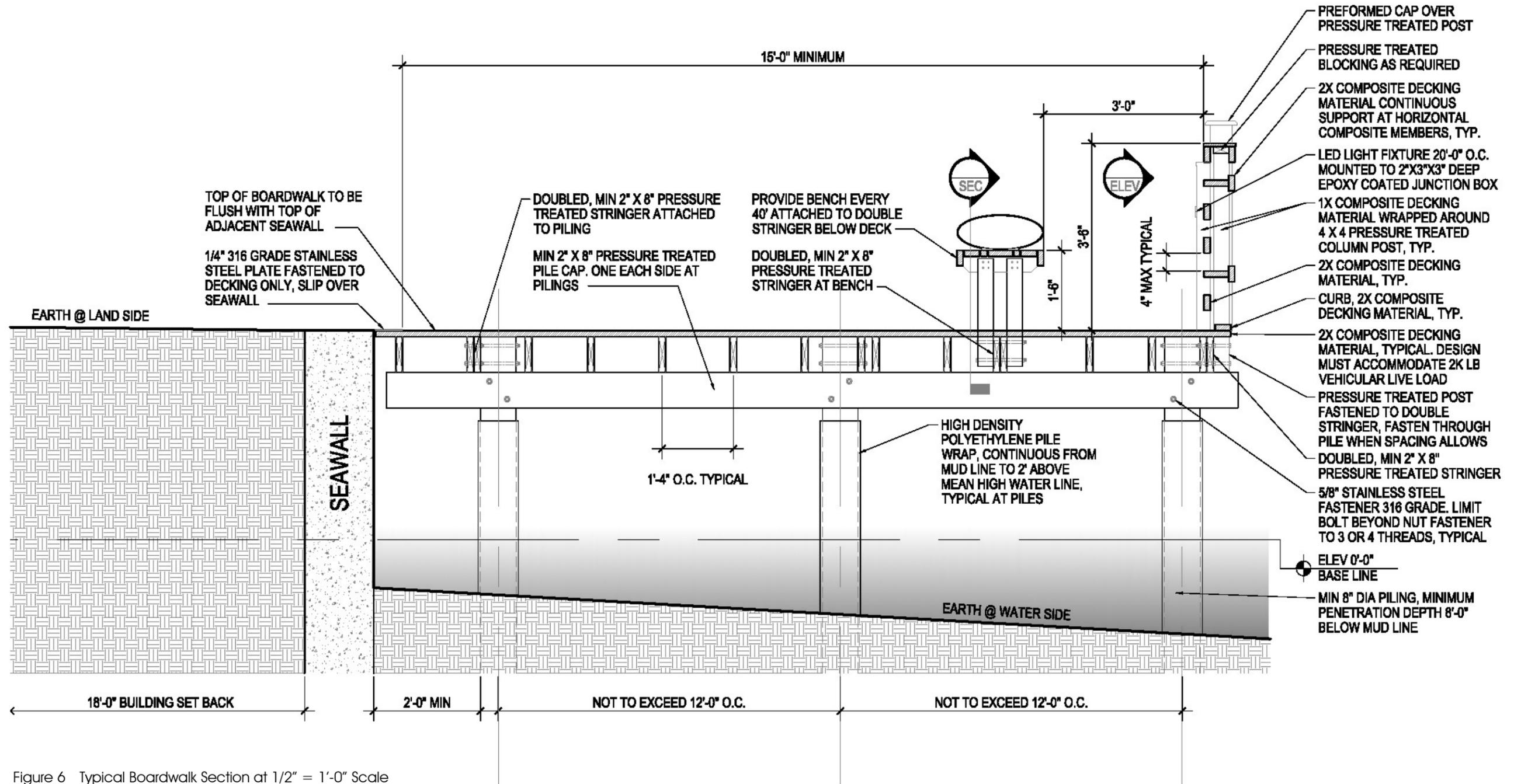


Figure 6 Typical Boardwalk Section at 1/2" = 1'-0" Scale
Detail indicates when boardwalk engages seawall providing continuous walkway

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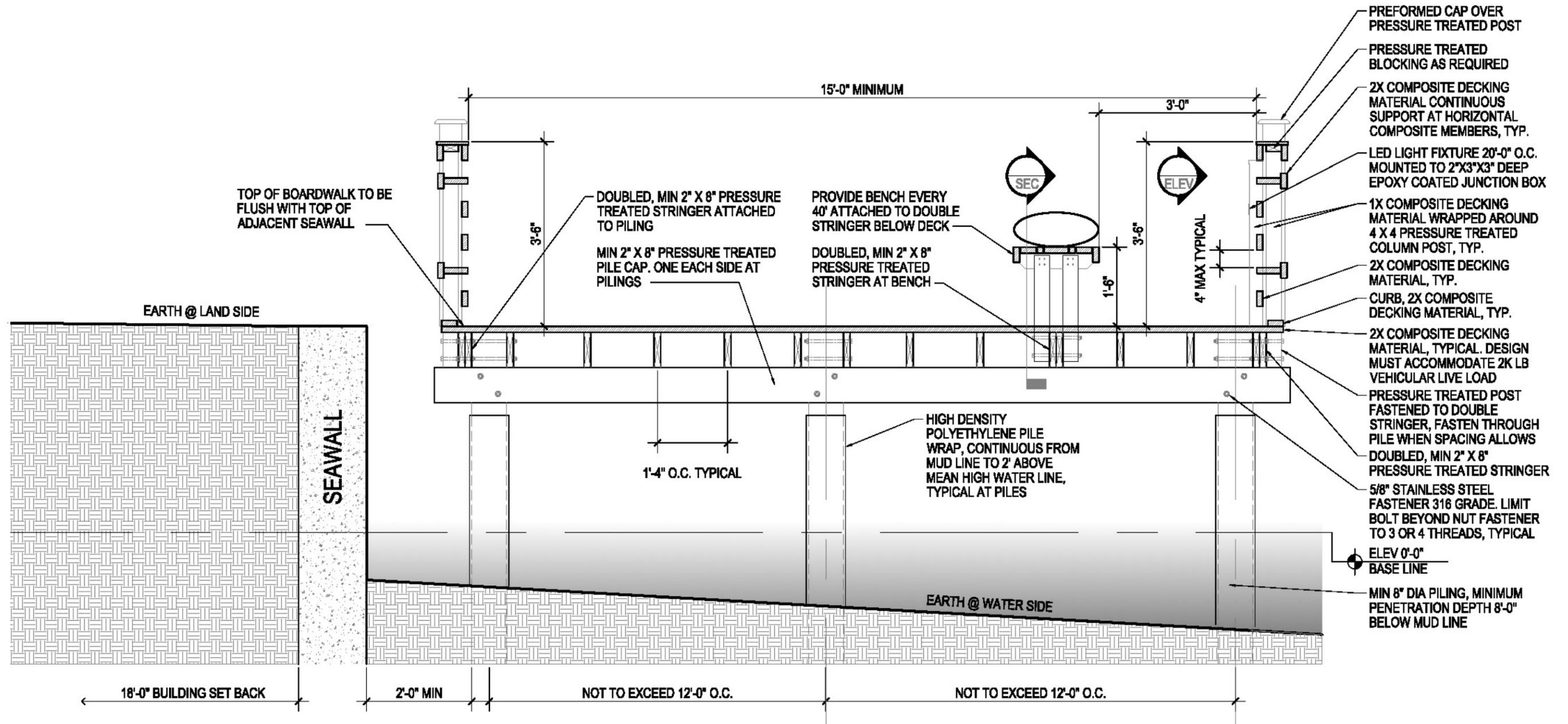


Figure 7 Typical Boardwalk Section at 1/2" = 1'-0" Scale
Detail indicates when boardwalk is separated from seawall requiring railing at each side

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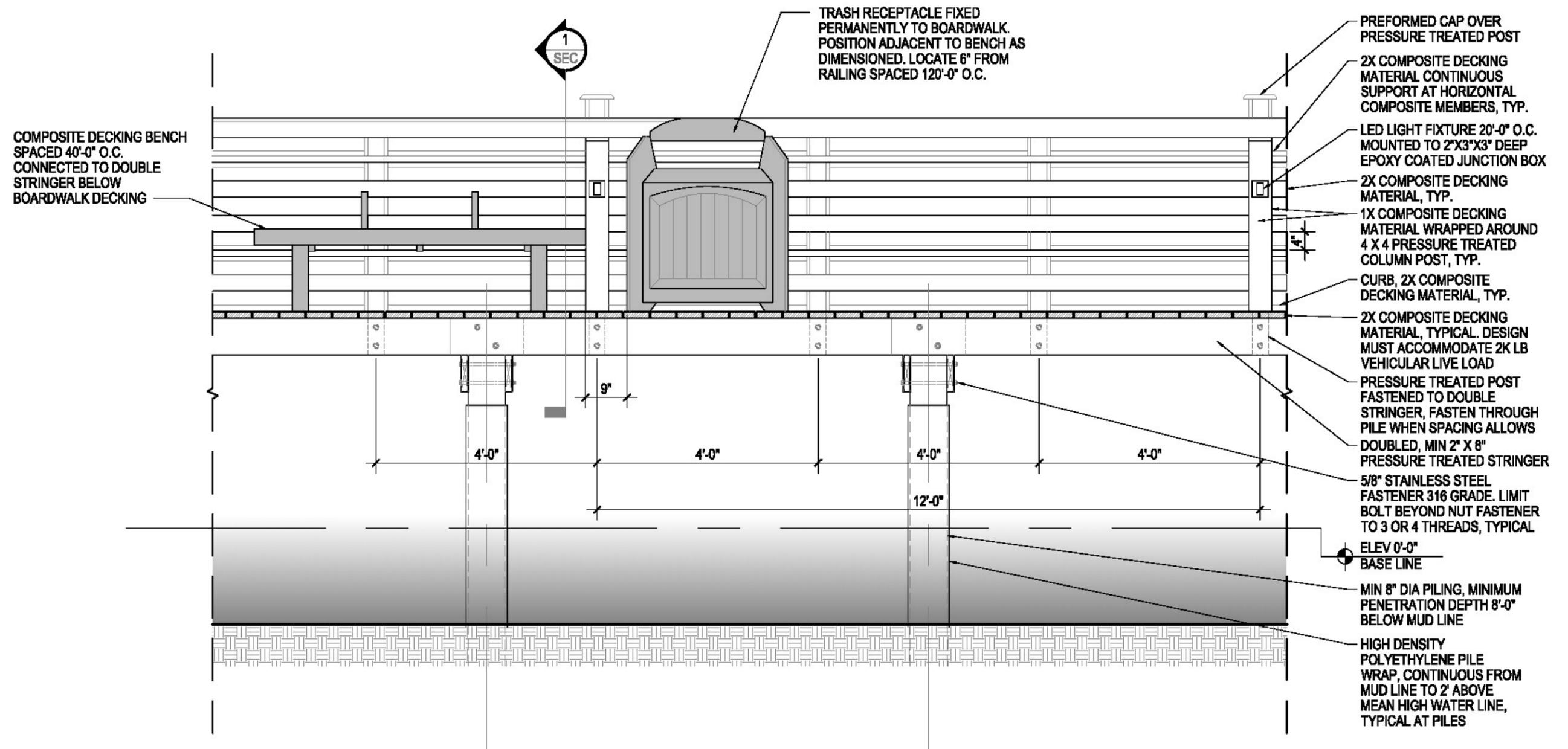


Figure 8 Typical Boardwalk Railing Elevation at 1/2" = 1'-0" Scale

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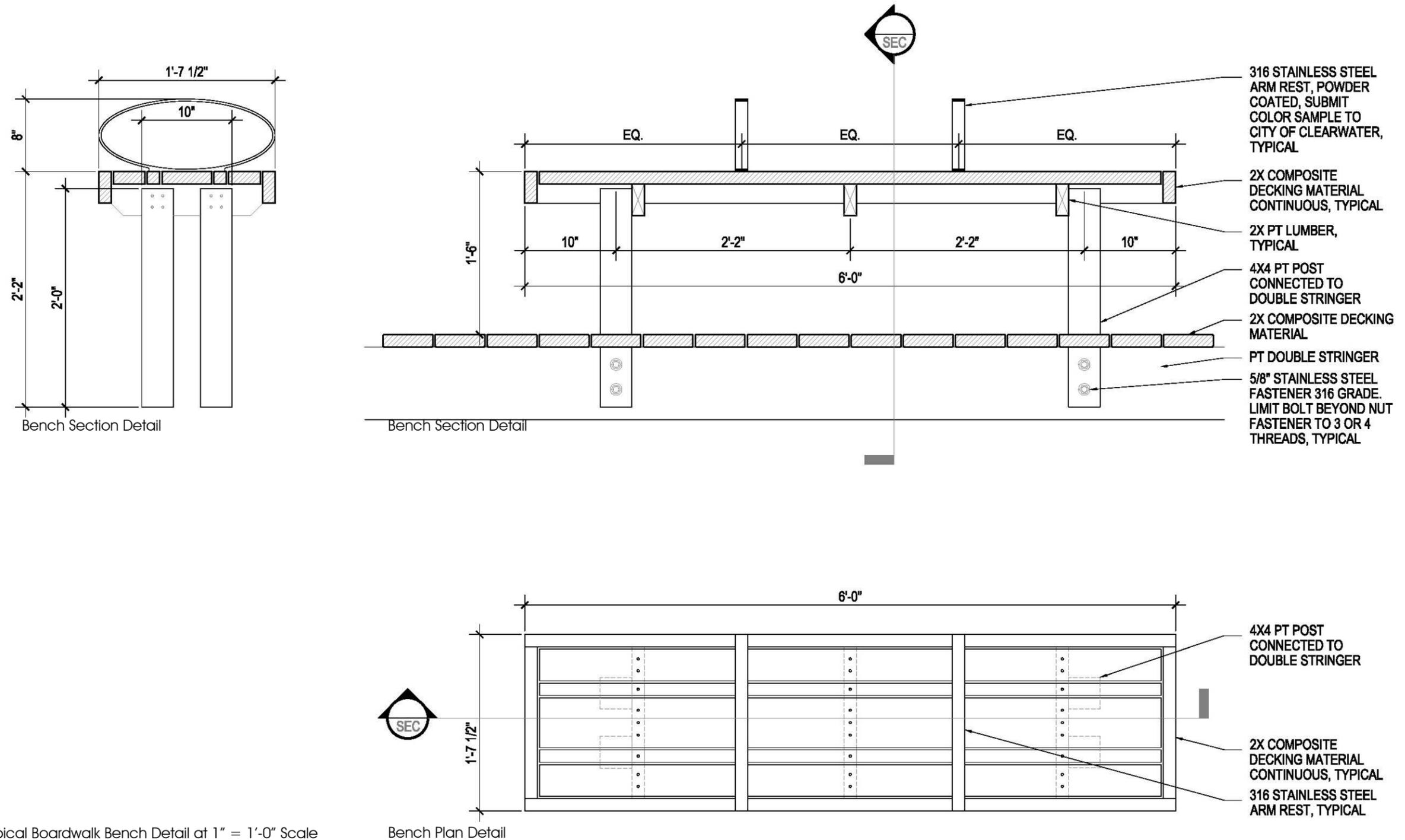


Figure 9 Typical Boardwalk Bench Detail at 1" = 1'-0" Scale