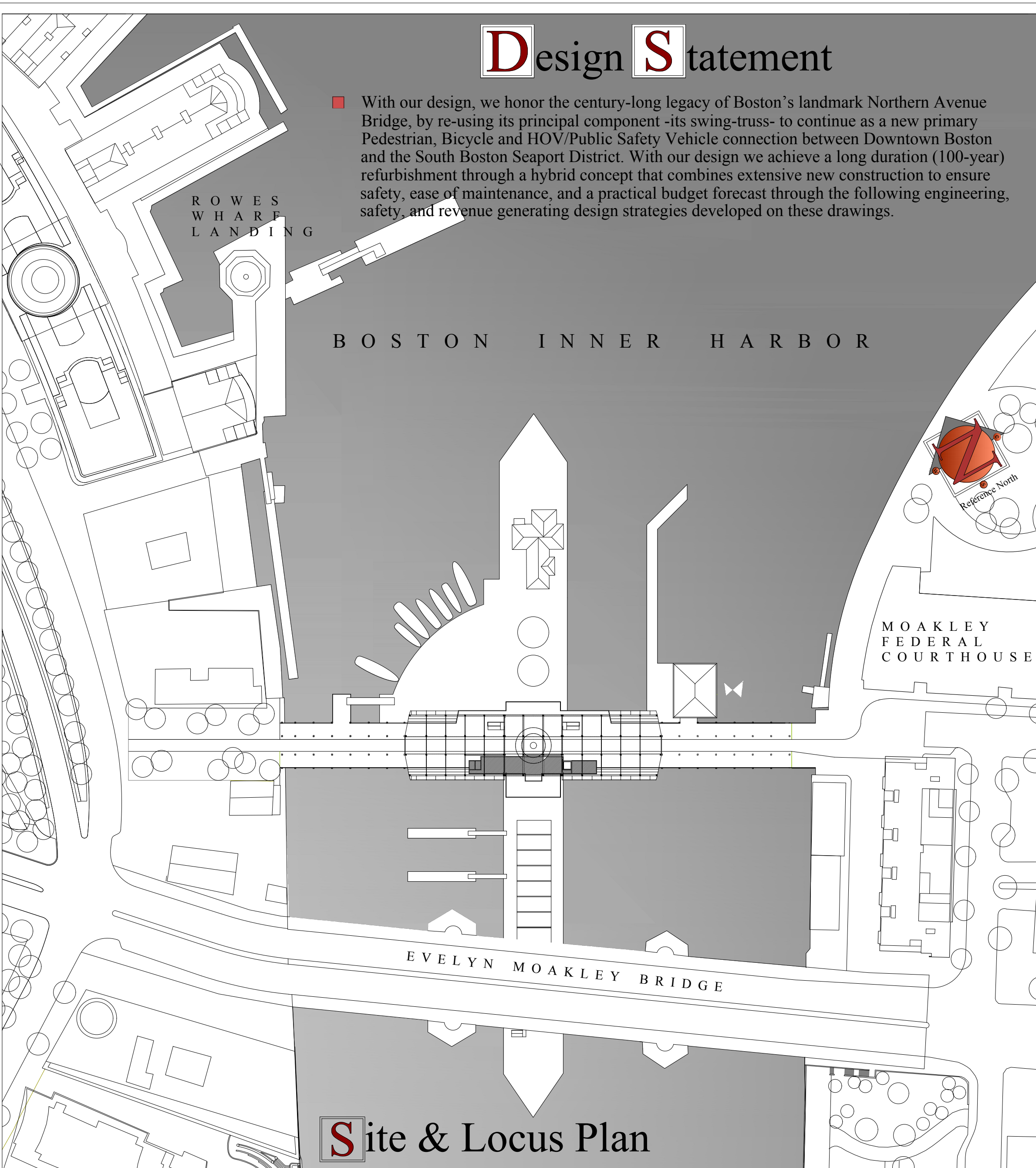


# Design Statement

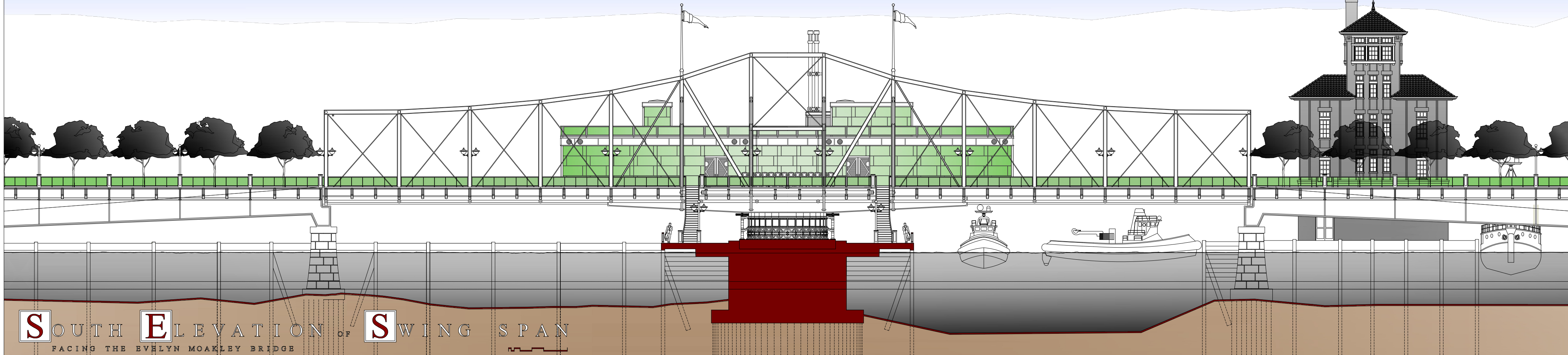
With our design, we honor the century-long legacy of Boston's landmark Northern Avenue Bridge, by re-using its principal component -its swing-truss- to continue as a new primary Pedestrian, Bicycle and HOV/Public Safety Vehicle connection between Downtown Boston and the South Boston Seaport District. With our design we achieve a long duration (100-year) refurbishment through a hybrid concept that combines extensive new construction to ensure safety, ease of maintenance, and a practical budget forecast through the following engineering, safety, and revenue generating design strategies developed on these drawings.



Site & Locus Plan

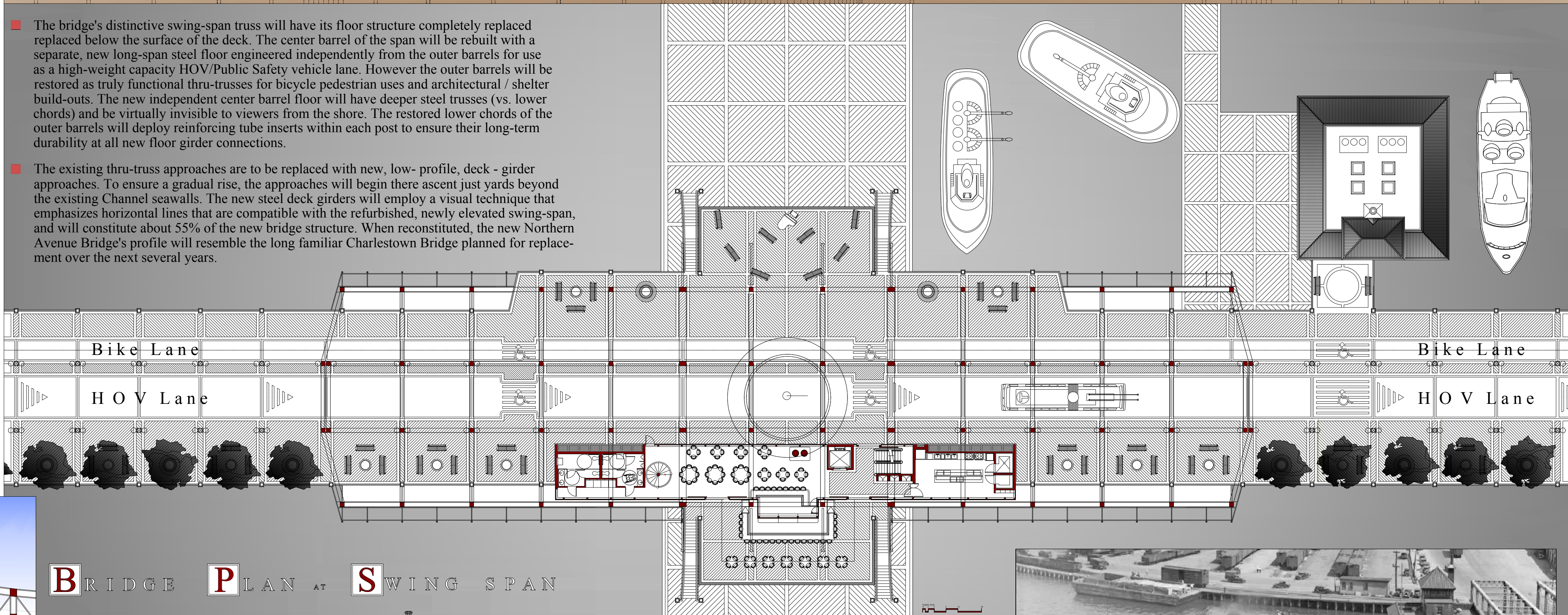
# NEW NORTHERN AVENUE BRIDGE

## FORT POINT CHANNEL BOSTON HARBOR



SOUTH ELEVATION OF SWING SPAN  
FACING THE EVELYN MOAKLEY BRIDGE

- The bridge's distinctive swing-span truss will have its floor structure completely replaced replaced below the surface of the deck. The center barrel of the span will be rebuilt with a separate, new long-span steel floor engineered independently from the outer barrels for use as a high-weight capacity HOV/Public Safety vehicle lane. However the outer barrels will be restored as truly functional thru-trusses for bicycle pedestrian uses and architectural / shelter build-outs. The new independent center barrel floor will have deeper steel trusses (vs. lower chords) and be virtually invisible to viewers from the shore. The restored lower chords of the outer barrels will deploy reinforcing tube inserts within each post to ensure their long-term durability at all new floor girder connections.
- The existing thru-truss approaches are to be replaced with new, low-profile, deck - girder approaches. To ensure a gradual rise, the approaches will begin there ascent just yards beyond the existing Channel seawalls. The new steel deck girders will employ a visual technique that emphasizes horizontal lines that are compatible with the refurbished, newly elevated swing-span, and will constitute about 55% of the new bridge structure. When reconstituted, the new Northern Avenue Bridge's profile will resemble the long familiar Charlestown Bridge planned for replacement over the next several years.



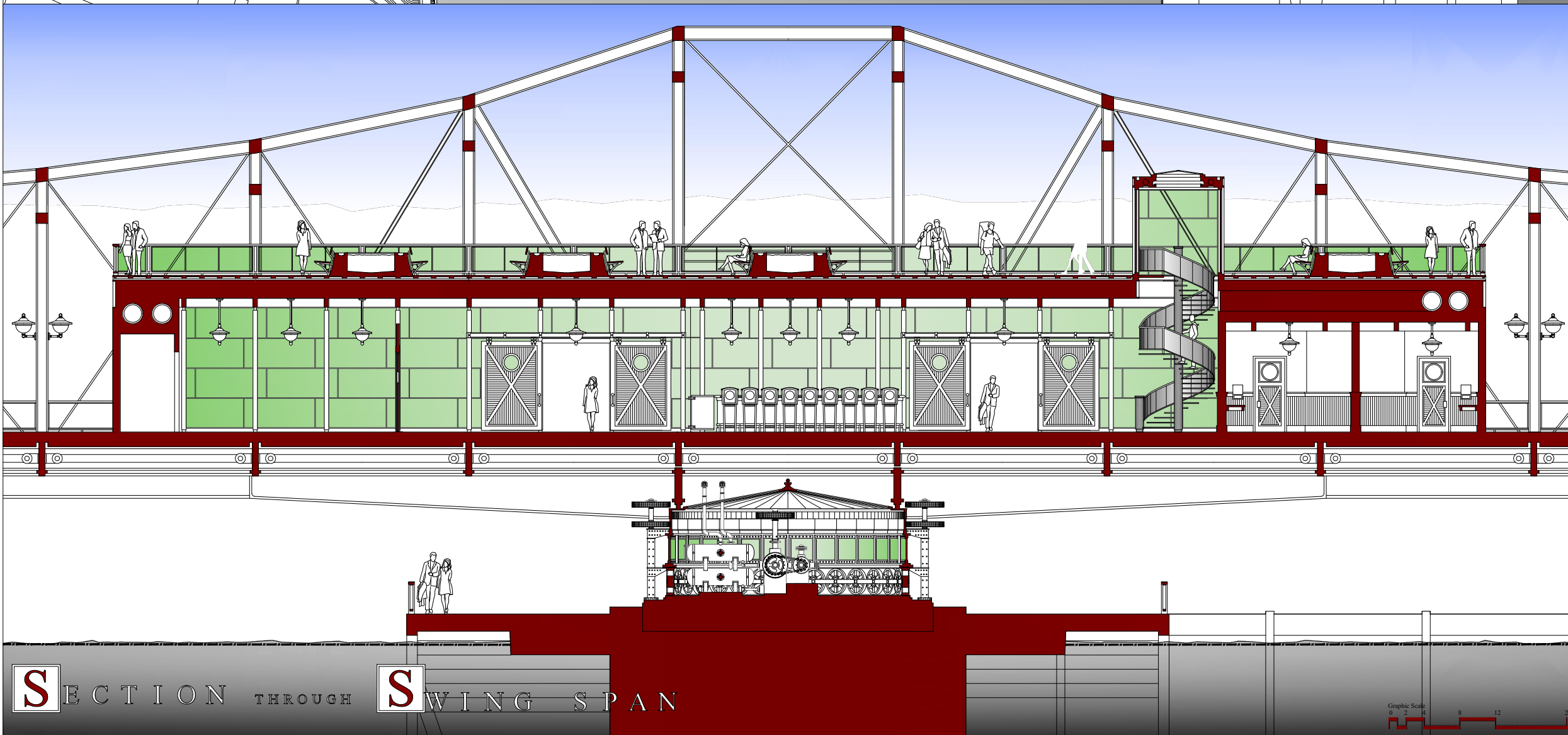
BRIDGE PLAN AT SWING SPAN



Original Swing Span Photo



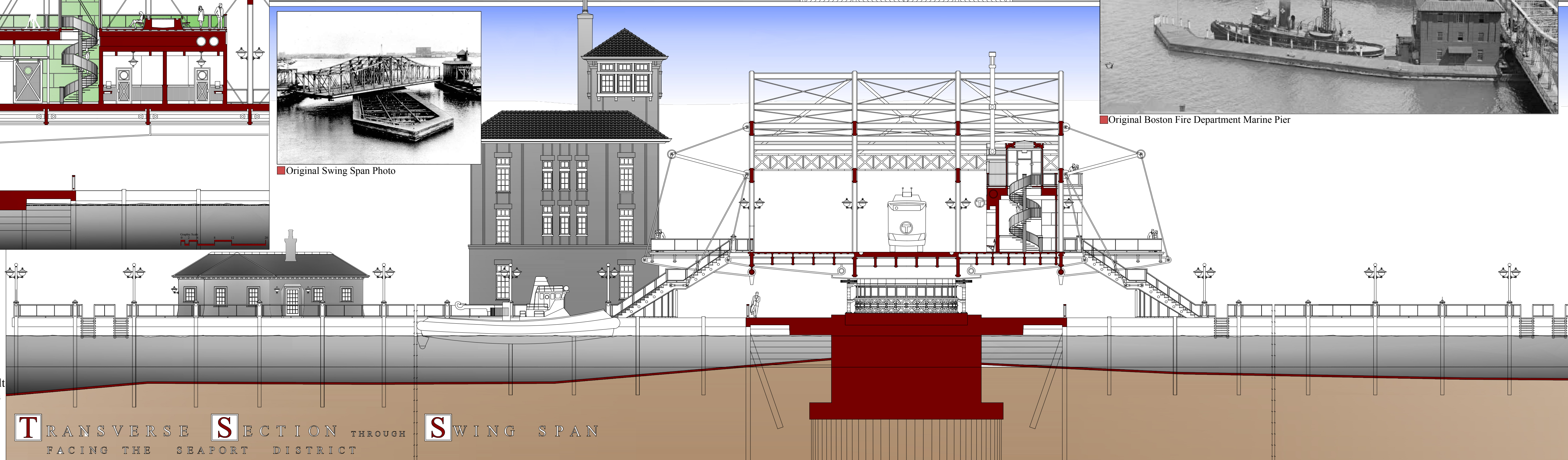
Original Boston Fire Department Marine Pier



SECTION THROUGH SWING SPAN

The newly elevated New NABridge will allow pedestrians to access a large deck within the footprint of a completely new, rebuilt wood fender system. Visitors will be able to access the underside of the bridge to view the bridge's pivot drum, rollers and mechanisms for the first time unhindered. Accessible from this new deck/fender system (essentially a new public boardwalk surrounded by water) is the former tender's house. The Tender's House will be rebuilt to house suitable passive recreational program, a gallery, cafe, or maritime interpretive center.

In addition, and for the primary purpose of revenue generation for long-term maintenance of the historic swing-span truss, the concept also includes a complete reconstruction of the former Boston Fire Department Marine Pier as a boat-landing and/or ferry terminal (see archival images). The rebuilt facility will be large enough to include a large restaurant of tenant space. The cafe and or beer garden envisioned will also contribute substantial revenue.



TRANSVERSE SECTION THROUGH SWING SPAN  
FACING THE SEAPORT DISTRICT