Sausalito Fishing Pier Rehabilitation Project: Final Programmatic Report (AMENDED)

Recipient Organization/Agency: City of Sausalito
Date Submitted: 7/18/2014 (Resubmitted: 8/29/2014)
Project Period: 6/01/2013 to 5/01/2014
Award Amount: $160,000
Matching Contributions: $10,000
Total Disbursement: $57,147.95
Project Number: #8006.12.033349

1. Summary of Accomplishments

The Project has been designed, permits have been received (with one minor exception, the San Francisco Bay Conservation and Development Commission permit application is pending final design), and bids have been solicited in conformance with the California Public Contract Code. Unfortunately, the lowest bid received from a responsive and responsible contractor exceeds the funds available for construction.

The City is engaged in value-engineering for the purpose of reducing the cost of construction, as well as attempting to raise additional funds for the project. The National Fish and Wildlife Foundation has offered to increase the total contribution from the Cosco Busan Oil Spill Settlement Recreational Use Grant Program to cover a portion of the additional funding necessary, provided that those additional funds will be sufficient to complete the Project. The City expects to execute another agreement in order to deliver all of the benefits intended to be delivered by the Project.

2. Project Activities & Outcomes

The City retained W. B. Clausen Structural Engineers, Inc. as the designer the Project and Prunuske-Chatham, Inc. ("PCI") for assistance in resource agency permitting of the Project.

Plans for the Project were submitted along with an Administrative Permit Application to the San Francisco Bay Conservation and Development Commission on September 27, 2013 supported by a Summary of Biological Surveys dated August 29, 2013 prepared by PCI that addressed sensitive biological resources in the Project Area. No suitable habitat for eelgrass (*Zostera marina*, a vascular, perennial marine plant that grows in large colonies or beds in soft-bottomed bays and estuaries) was found in the Project Area. Eelgrass typically occurs in shallow waters from 0 to 6 feet below mean low tide (Jepson Interchange 2011 cited by PCI).

PCI also evaluated the Project Area with respect to potential occurrence of federal or special-status species. PCI found that the resources and species of concern are jurisdictional tidal waters (regulated by several resource agencies) and marine animals. Specifically, these include marine mammals (*i.e.*, harbor seals, sea lions) and both commercially important and listed marine fish (i.e., Pacific herring, green sturgeon, EFH-managed fisheries). On this basis PCI concluded the following with regard to Project activities with the potential to affect sensitive marine resources: "(i)mpact avoidance measures should be in place to protect marine communities during construction. Work will not occur within the water; however, protection measures should include on-going oversight during construction by a qualified biologist, a preconstruction worker education meeting, and environmentally sensitive design. Specific attention should be paid to avoiding the spawning season for Pacific herring, which are known to breed along the Sausalito shoreline. Work should occur from March 1 through November 30 to avoid impacts on spawning herring and their offspring."

In addition, on September 27, 2013 a Notice of Exemption from the application of the California Environmental Quality Act was filed on the basis that the Project constitutes replacement or reconstruction of an existing facility with no change in capacity or use.

Inasmuch as the Project is a public enhancement project, the City submitted an application for Design Review and Non-Conformity Permits to its Planning Commission for consideration at its October 16, 2013 meeting.

On the basis of the findings in the Summary of Biological Surveys dated August 29, 2013 prepared by PCI, the City requested and was approved for a revised end date of May 1, 2014 to allow avoidance of the spawning season for Pacific herring, which are known to breed along the Sausalito shoreline.

The City's process for approval of the required Design Review and Non-Conformity Permits required several iterations of re-design and ultimately resulted in denial of those discretionary permits. The primary obstacle to approval by the Planning Commission was the requirements that as a piling-supported structure, the elevation of the lowest horizontal structural framing member is required to be at or above the Base Flood Elevation ("BFE") promulgated by the Federal Emergency Management Agency ("FEMA"). With an extensive study of coastal flooding being performed at the time, FEMA indicated that the BFE to be promulgated shortly after the Project was scheduled to be constructed would be one (1) foot higher than the current and effective BFE at the time. The designer and the City Engineer insisted that the Project be designed to comply with that expected regulation for protection of the investment and lives and property in the vicinity of the Project. Compliance with the expected BFE requires that the walking surface of the pier will be 2-1/2 feet higher than the walking surface on the original pier was. The City Engineer appealed the Planning Commission's denial to the City Council and the City Council granted the permits on appeal.

The plans and specifications for the Project were issued with Notice Inviting Bids and bids were opened and publically read. The lowest bid from a responsive and responsible bidder exceeded the amount of the funds available for construction and the bids were therefore rejected by the City Council with direction to perform value-engineering for the purpose of reducing the cost of construction as well as attempting to raise additional funds for the project.

3. The Future

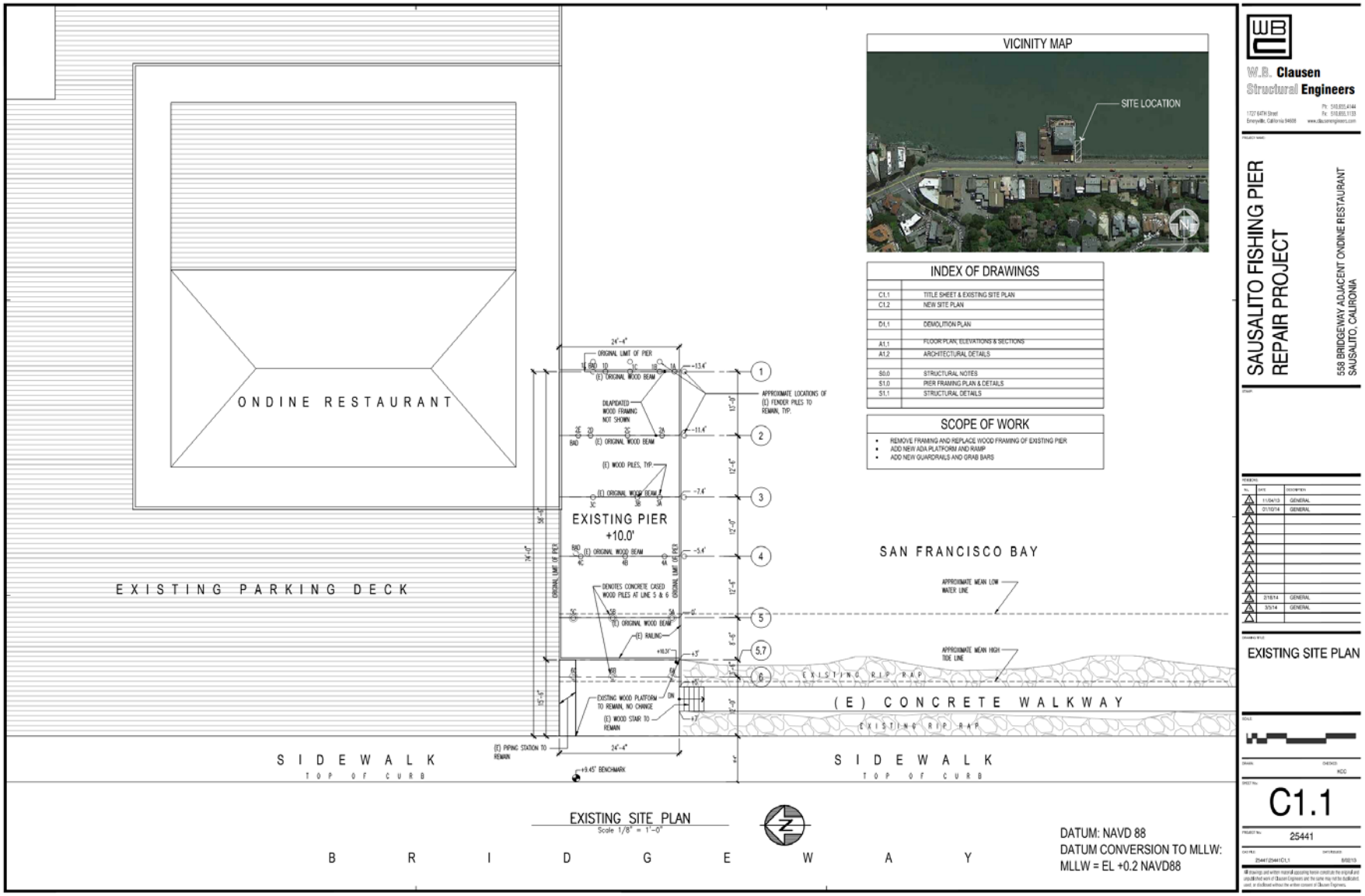
The **National Fish and Wildlife Foundation** has offered to increase the total contribution from the Cosco Busan Oil Spill Settlement Recreational Use Grant Program to cover a portion of the additional funding necessary, provided that those additional funds will be sufficient to complete the Project. The City expects to execute another agreement in order to deliver all of the benefits intended to be delivered by the Project.

4. Lessons Learned

The grant application was predicated on a construction cost estimate. Not only was the estimate too low (despite being based on a recent, similar project), but the estimate did not adequately account for the costs associated with multiple passes through the design review process.

5. Project Documents

- Plans and additional documents are attached



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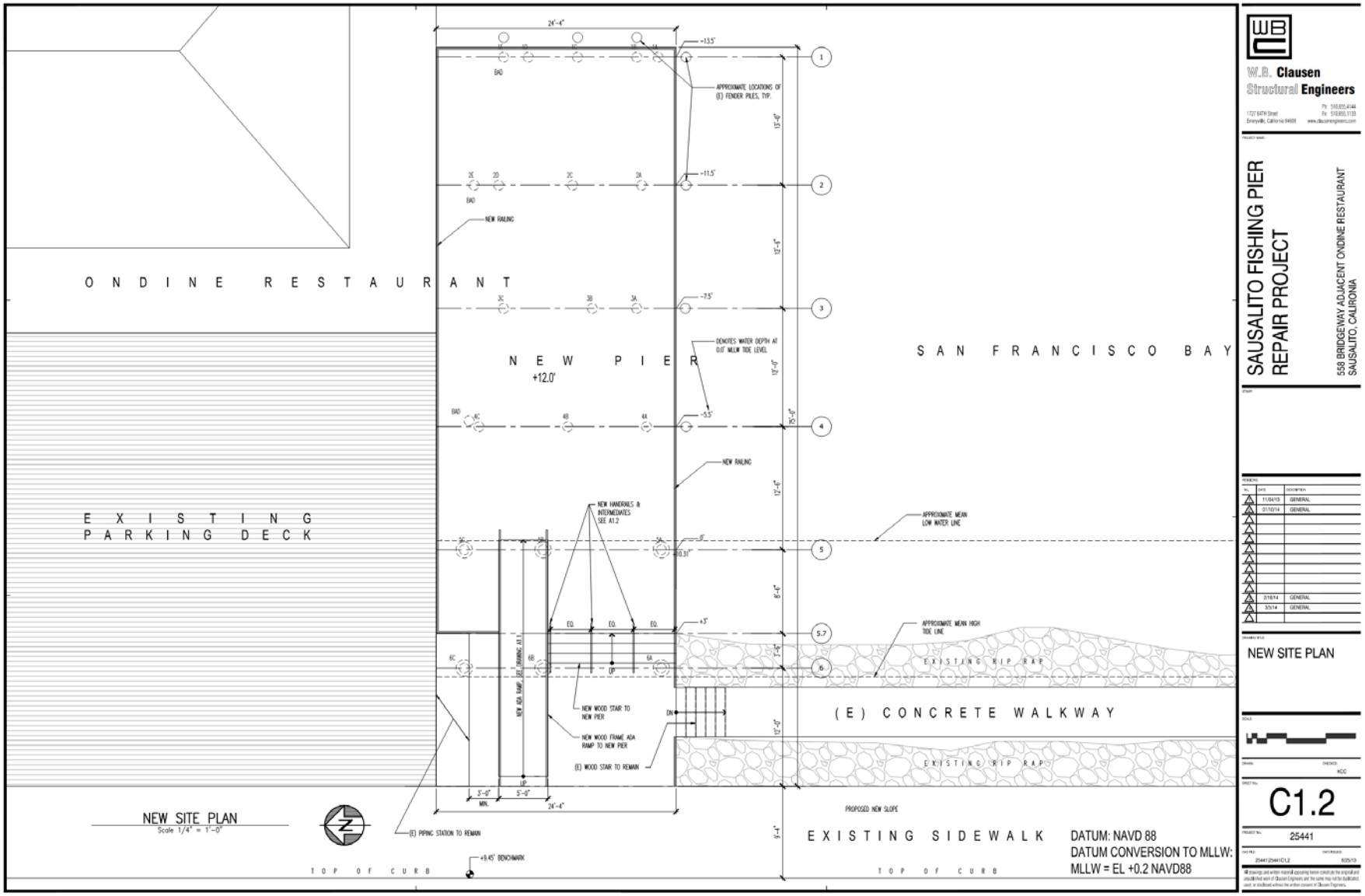

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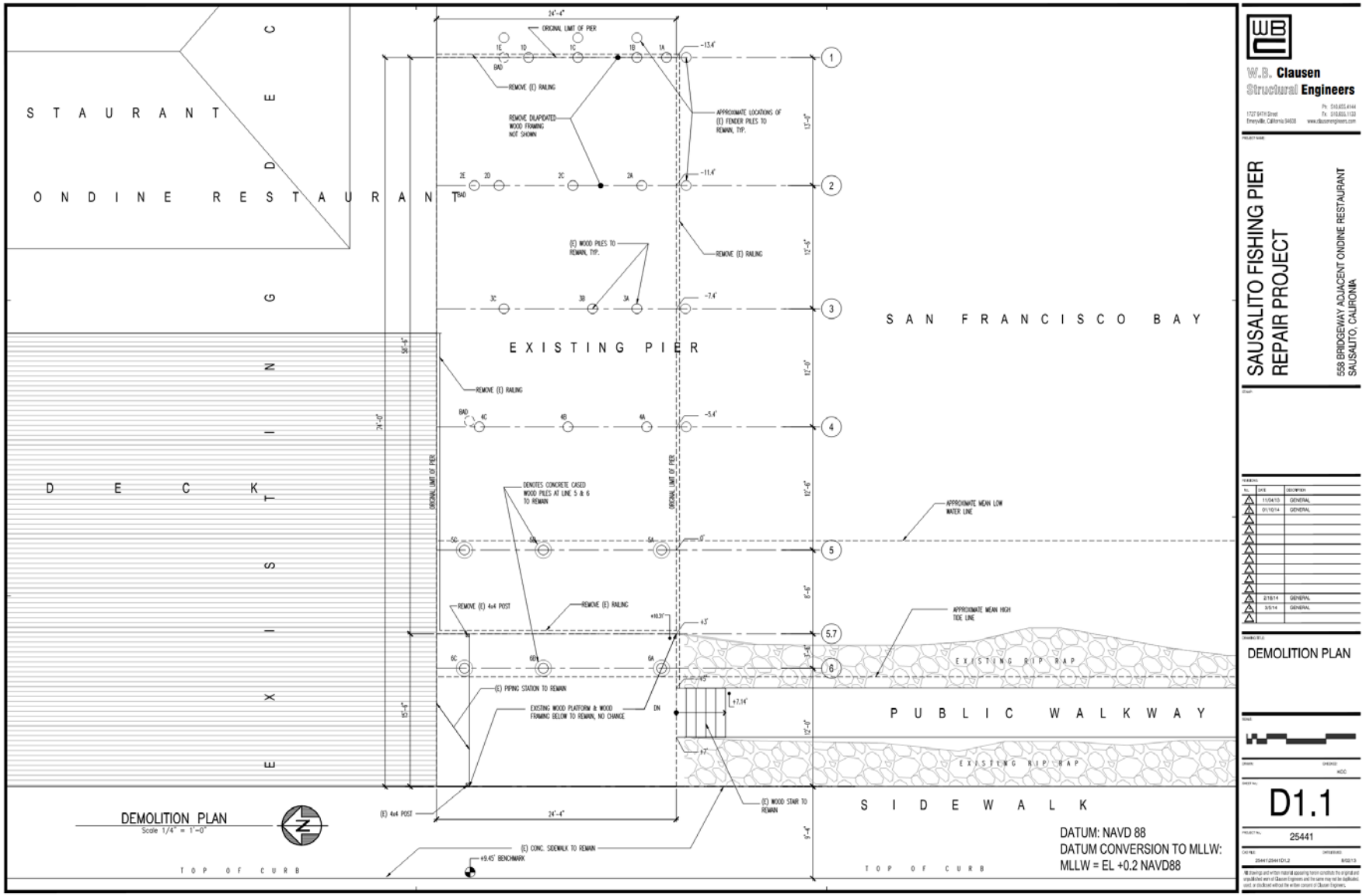

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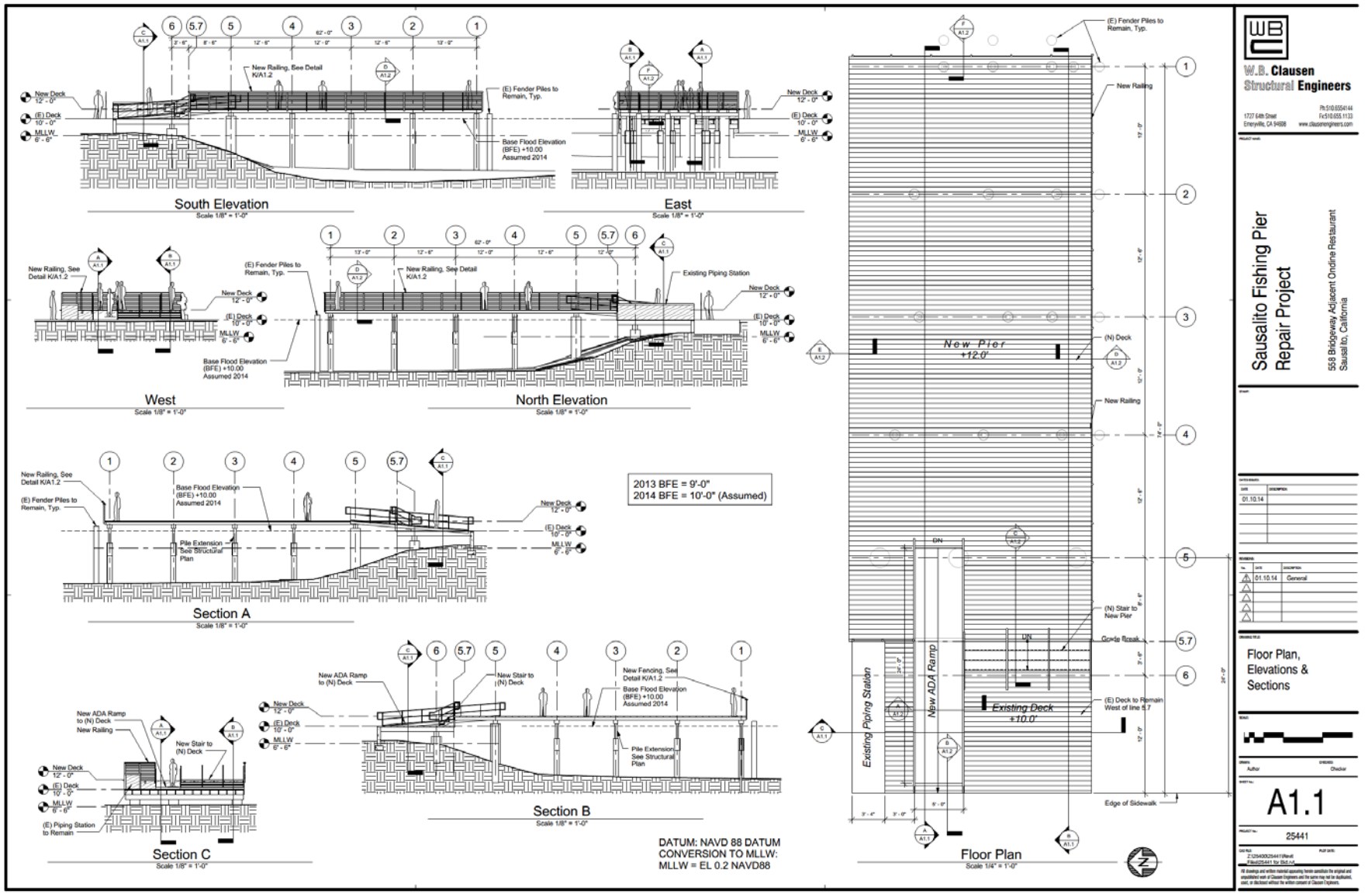

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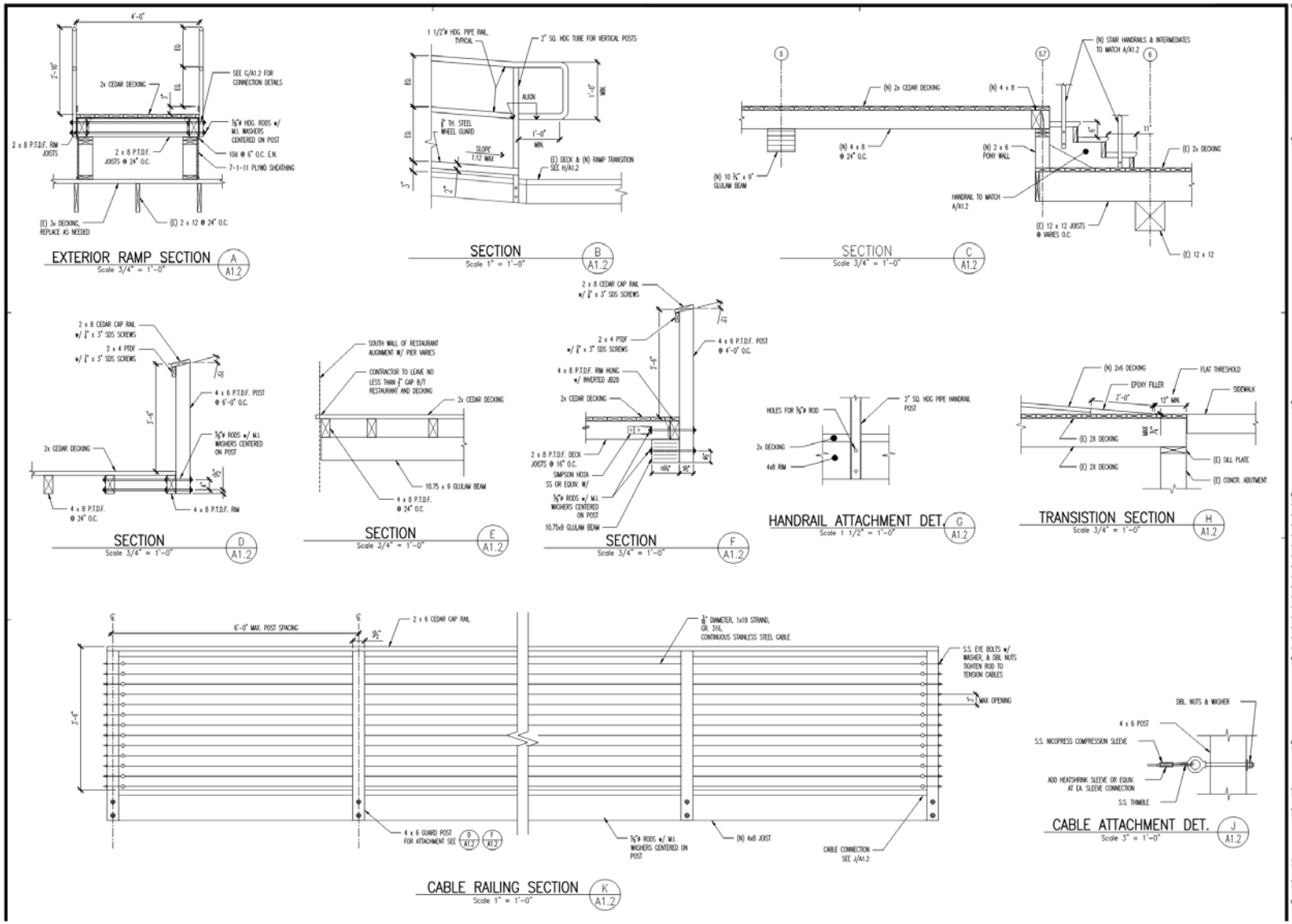

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GENERAL NOTES

01000 GENERAL

1. MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE CALIFORNIA BUILDING CODE, 2013 EDITION (IBC 2009 AMENDED), ASCE 7-10, AND ALL LOCAL ORDINANCES.

2. GRAVITY DESIGN IS BASED UPON THE REFERENCED CODE, USING AN ALLOWABLE STRESS LOADS AS FOLLOWS:
DECK LIVE LOAD OF 100 PSF

3. SEISMIC DESIGN IS BASED UPON THE REFERENCED CODE AND ASCE 7-10 USING EQUIVALENT LATERAL FORCE PROCEDURES, ASSUMING OCCUPANCY CATEGORY II, SITE CLASS D, WITH IMPORTANCE FACTOR OF 1. V = 0.30 x W (ALLOWABLE STRESS DESIGN).

4. WIND DESIGN IS IN ACCORDANCE WITH THE REFERENCED CODE USING THE SIMPLIFIED PROCEDURE (METHOD 1) WITH BASIC WIND SPEED (3 SECOND GUST) VALUE OF 85 M.P.H., IMPORTANCE FACTOR OF 1.0, EXPOSURE CATEGORY B, HEIGHT AND EXPOSURE ADJUSTMENT COEFFICIENT OF 1.0.

5. THE CONTRACTOR SHALL VERIFY EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND SPECIFICATIONS AND VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. ANY DEVIATIONS BETWEEN DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER (ARCHITECT) PRIOR TO SUBMITTING BID PROPOSAL.

6. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR PROJECT SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY.

7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE BRACING AND SUPPORT OF ALL TEMPORARY CONSTRUCTION AND PARTIALLY COMPLETED PORTIONS OF THE WORK. SUCH BRACING, SHORING, AND SUPPORT SHALL INSURE THE SAFETY OF THE STRUCTURE AND ALL PERSONS WHO COME IN CONTACT WITH THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ALL SHORING, BRACING, AND DEMOLITION PROCEDURES.

8. INFORMATION REGARDING EXISTING CONSTRUCTION IS BASED ON SITE INSPECTIONS. THIS INFORMATION IS BELIEVED TO BE CORRECT BUT IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS, AND FIELD VERIFY ALL DIMENSIONS, AND EXISTING JOB CONDITIONS AND CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF EXISTING JOB CONDITIONS AND/OR CONSTRUCTION IS NOT AS SHOWN ON THE DRAWINGS.

9. ALL WORK SHALL CONFORM TO THESE NOTES AND DRAWINGS IN ALL RESPECTS. NO CHANGES SHALL BE ALLOWED WITHOUT WRITTEN AUTHORITY FROM THE ENGINEER, AND APPROVAL OF THE BUILDING DEPARTMENT.

10. ALL DEMOLITION MATERIAL SHALL BE REMOVED FROM THE SITE. ALL HAZARDOUS MATERIALS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL EPA, STATE AND LOCAL STANDARDS AND ORDINANCES. NO MATERIALS SHALL DROP INTO THE BAY WITHOUT RETRIEVAL.

11. CONTRACTOR SHALL COORDINATE ALL METHODS OF OPERATIONS AND THE TIME IN WHICH WORK SHALL BE PERFORMED WITH THE OWNER PRIOR TO STARTING PROJECT.

05000 STEEL

1. UNLESS INDICATED OTHERWISE, STEEL COMPONENTS AND HARDWARE SHALL BE 316 STAINLESS.

06000 WOOD

1. WOOD JOISTS, STRUCTURAL BLOCKING, AND STRUCTURAL FRAMING SHALL BE PRESSURE TREATED DOUGLAS FIR.

2. REFER TO C.B.C. TABLE NO. 2304.9.1 FASTENING SCHEDULE FOR TYPICAL NAILING CONDITIONS NOT OTHERWISE SPECIFIED ON THE NAILING SCHEDULE ON THESE DRAWINGS.

3. NAILS USED TYPICALLY ON PROJECT SHALL BE "COMMON WIRE NAILS" WITH ROUND HEAD (P-NAILS) WITH THE FOLLOWS MINIMUM SHANK DIAMETERS: 8D HAVE 0.131" SHAFT WITH 1.57" MIN. EMBEDMENT, 10D HAVE 0.148" SHAFT WITH 1.78" MIN. EMBEDMENT, 16D HAVE 0.162" SHAFT WITH 1.94" MIN. EMBEDMENT, AND 20D HAVE 0.192" SHAFT WITH 2.30" MIN. EMBEDMENT. TABULATED DIAMETERS APPLY TO FASTENERS BEFORE APPLICATION OF ANY PROTECTIVE COATING. GALVANIZED NAILS SHALL BE USED AT ALL LOCATIONS FASTENING PRESSURE TREATED LUMBER, ALL PLYWOOD ROOF AND EXTERIOR WALL SHEATHING FASTENING, AND WHERE EXPOSED TO WEATHER OR DAMP ENVIRONMENT. UN-COATED OR COATED NAILS MAY BE USED ELSEWHERE. BORED HOLES ARE REQUIRED IN SEASONED LUMBER TO PREVENT SPLITTING OF WOOD, AND HOLE SHALL NOT EXCEED 75% OF THE NAIL DIAMETER. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF APPROXIMATELY 30 DEGREES WITH THE MEMBER AND START APPROXIMATELY 1/3 THE LENGTH OF THE NAIL FROM THE MEMBERS END.

4. JOIST HANGERS AND FRAMING CONNECTORS / HARDWARE SHALL SHALL BE 316 STAINLESS STEEL.

5. ALL FRAMING SHALL CONFORM TO MINIMUM STANDARDS ESTABLISHED IN CHAPTER 23 IN THE CALIFORNIA BUILDING CODE, NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION PUBLISHED BY AMERICAN FOREST & PAPER ASSOCIATION, AND GUIDES PUBLISHED BY THE AMERICAN PLYWOOD ASSOCIATION. STRUCTURAL FRAMING, BLOCKING, AND MEMBERS WITH DEFECTS SUCH AS SPLITS, KNOTS, CHECKS, OR SHAKES THAT MAY EFFECT THE PERFORMANCE OF THE PARTICULAR MEMBER SHALL NOT BE USED. SHALL SPLITS DEVELOP DURING INSTALLATION OR WITH SEASONING, THE MEMBER SHALL BE REMOVED AND REPLACED. ALL LUMBER AND TIMBER PRODUCTS DELIVERED TO PROJECT SITE SHALL BEAR GRADE AND TRADEMARK CERTIFICATION OF COMPLIANCE, AND SHALL REMAIN WITH MAIN FRAMING MEMBERS WITHIN THE BUILDING.

6. WIRE ROPE FOR GUARDRAIL SHALL BE $\frac{1}{8}$" DIAMETER, 1x19 STRAND, GRADE 316 STAINLESS STEEL. ALL TENSIONING DEVICES, SWAGING, AND OTHER COMPONENTS SHALL BE 316 STAINLESS STEEL.

W.B. Clausen
Structural Engineers
1727 64TH Street
Emeryville, California 94608
Ph: 510.655.4144
Fx: 510.655.1133
www.clausenengineers.com

PROJECT NAME

SAUSALITO FISHING PIER
REPAIR PROJECT

558 BRIDGEWAY ADJACENT ONDINE RESTAURANT
SAUSALITO, CALIFORNIA

STAMP

No.	DATE	DESCRIPTION
1	1/10/14	GENERAL
2	2/18/14	GENERAL
3	3/5/14	GENERAL

DRAWING TITLE

STRUCTURAL
NOTES

SCALE

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PROJECT No.
25441

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DATE ISSUED
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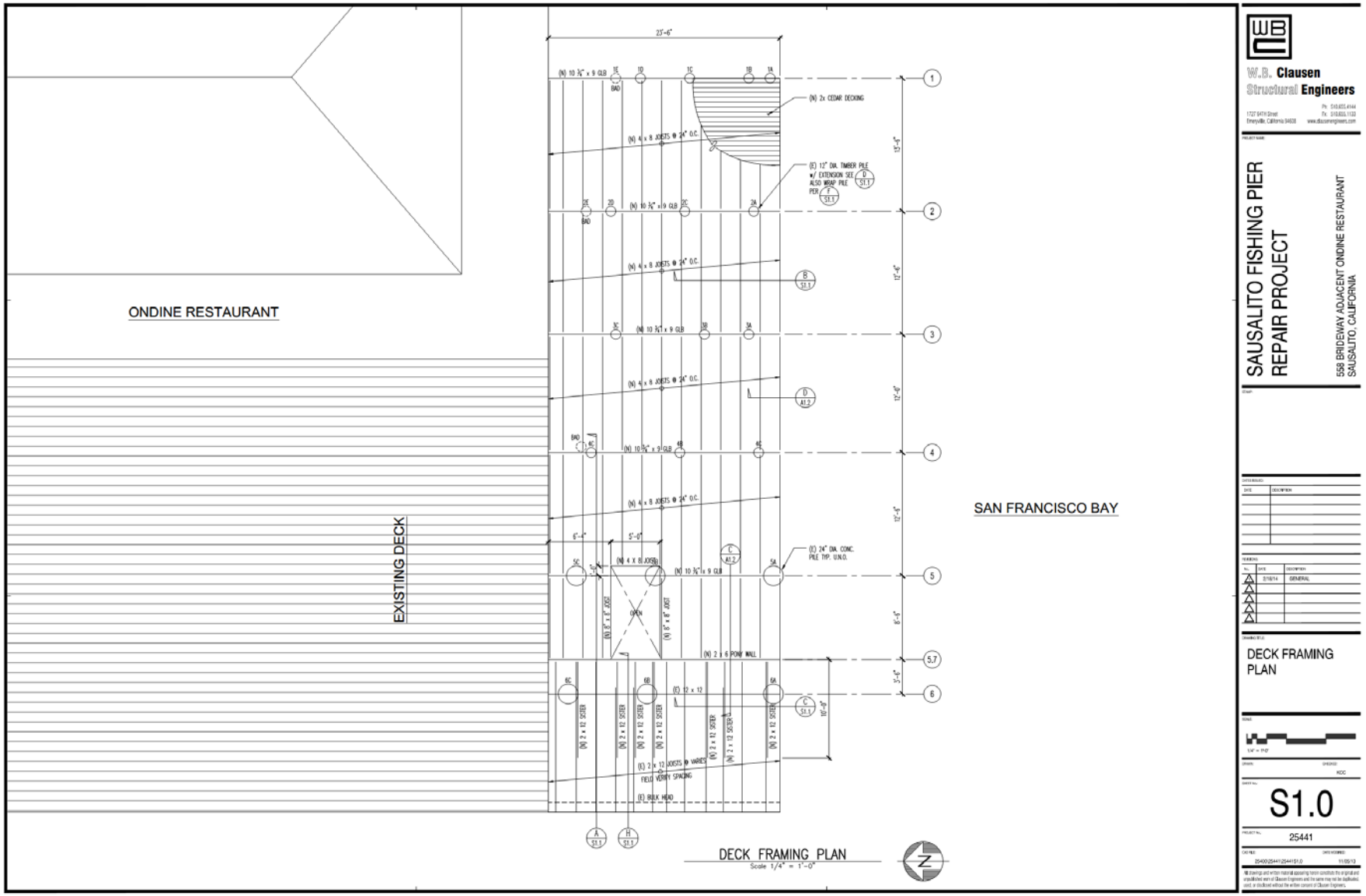

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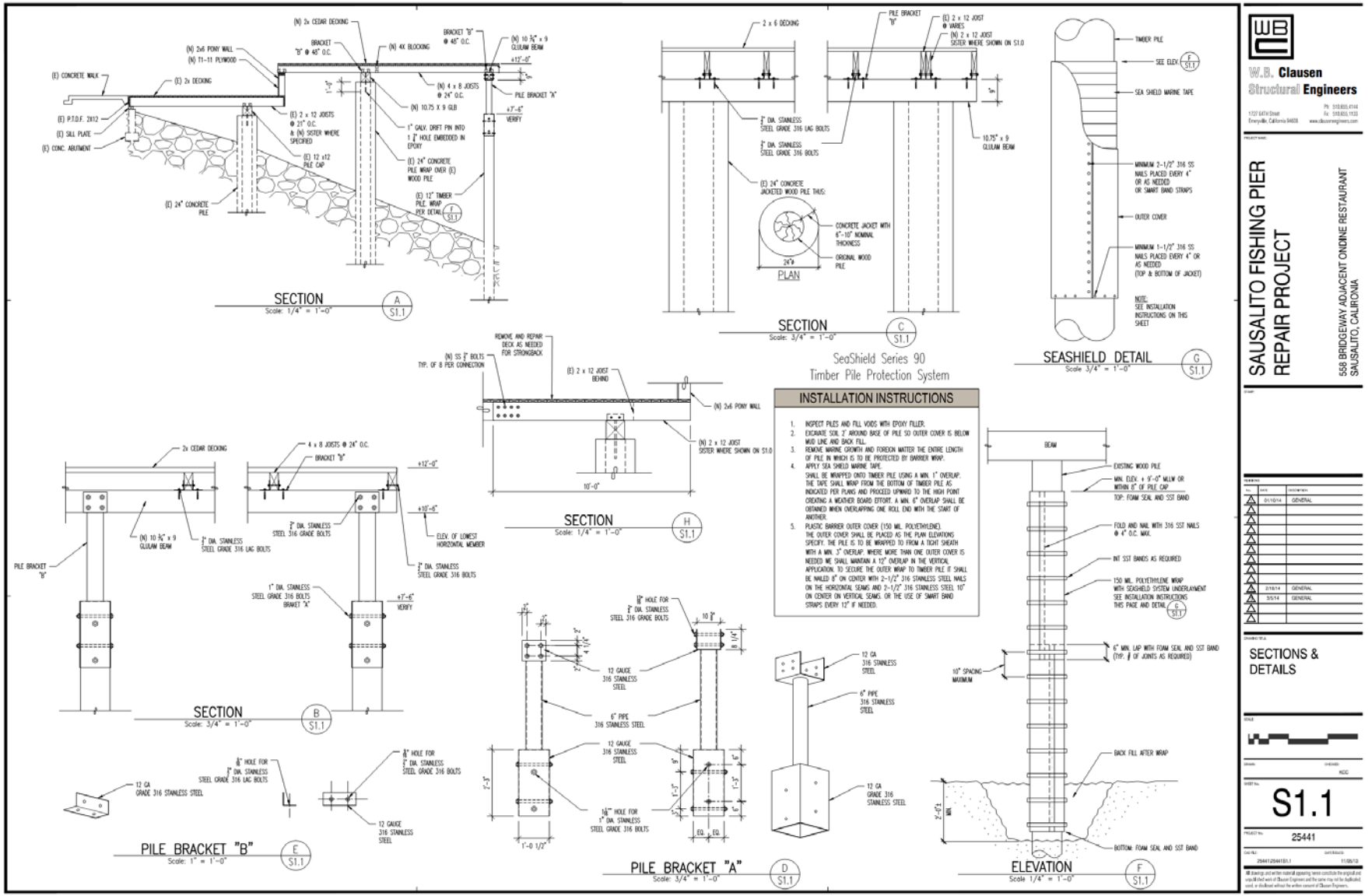

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Photo 1: Current Condition of Sausalito Pier (Google Earth Street View 2013)

Photo 2: Rendering of Proposed Project Plans for Sausalito Pier (W.B. Clausen Structural Engineers)