Underwater Pile Encasement Subcontractor Experience in accordance with Question & Answer # 4.1

C&H Sugar Refinery, Waterfront Facilities Repairs – Bankers Apron/Driveway

SCOPE OF WORK:

Harbor Offshore Inc. (HOI) was contracted by The Dutra Group to perform pile repairs on over 160 timber and concrete piles on the deteriorating pier. C&H's facility is in the Carquinez Straight, where the entirety of the Sacramento/San Joaquin River Deltas' daily tidal cycles exchange water with currents in excess of 4 kts. The pile repairs consisted of utilizing Simpson's FX 70 Pile Jacket Repair System. This project proved to be challenging with regard to access onto the pier and work area. Construction equipment and materials were confined to a small laydown area on-site, but daily access to the pier's edge was limited to negotiating a hairpin turn through a 12-foot wide rollup door. Continued coordination with the client remained of upmost importance, as the Raw Sugar Wharf is in full operation, 24-7. Through the course of this project, HOI and Dutra were simultaneously conducting different tasks, all while achieving a high quality end product for the client, with HOI carrying out all pile repair operations, and Dutra conducting underdeck spall repairs, bull rail and deck replacement, and fender pile extraction. Prior to installation of the pile jackets, divers encountered and removed various debris consisting of abandoned 24-inch cast iron pipe, slope protection mixed with shotcrete, and a concoction of 130+ years' worth of accumulated construction debris.

HARBOR OFFSHORE INC

PROJECT REFERENCE SHEET

Tasks Performed and Equipment Used:

- FX 70 Pile Repair System
- Cast Iron Pipe Removal Utilizing a Hydraulic Powered Guillotine Saw
- Diver Assisted Fender Pile Extraction with Derrick Barge
- Slope Protection Removal
- Diver Installed Helical Pile
- Shallow Air Diving System

PROJECT DATA:

Performance Period:
October-December 2021

Project Location:
Crockett, CA

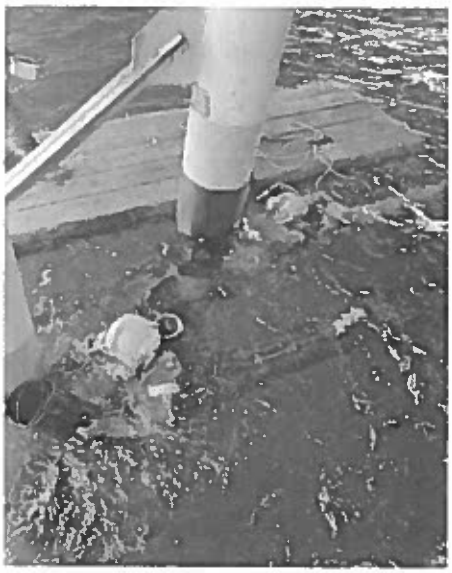
Owner/Engineer:
ASR Group/GHD Engineers
Satish Chilka
925-849-1019
Satish.chilka@ghd.com

Client:
The Dutra Group
Bryan OSullivan
415-258-6876
bosullivan@dutragroup.com

Contract Value:
$329,730.20

US-95 SANDPOINT LONG BRIDGE

Harbor Offshore, Inc. mobilized a 10-man dive and topside team, air/nitrox diving system, and a 60' x 40' x 20' T shaped modular pontoon barge equipped with 2 man lifts to Lake Pend Oreille Idaho. HOI installed Denso/SeaShield 2000HD series pile wrap system and 525 epoxy coating to 1455 piles and associated cross bracing from mudline to pile cap totaling 49,779 LF of pile wrap and 22,149 SF of epoxy coating. To date this, this is the largest Denso/SeaShield 2000HD and 525 epoxy coating project worldwide and was completed in 6 months, incident and injury free.



HARBOR OFFSHORE INC

PROJECT REFERENCE SHEET

Tasks Performed and Equipment Used:

- Air and Nitrox Diving System
- Articulating boom man lifts
- Underwater pneumatic tooling
- Crane Barge
- 2000HD DENSO Pile Wraps
- DENSO 525 Epoxy Repairs

PROJECT DATA:

Performance Period:
2020

Project Location:
Lake Pend Oreille, ID

Owner:
Idaho D.O.T.

Prime:
McMillen Jacobs and Associates
Jared Townsend- PM
208-651-0528
townsend@mcmjac.com

Contract Value:
$1.1 Million

HARBOR OFFSHORE INC

PROJECT REFERENCE SHEET

Tasks Performed and Equipment Used:

- Air and Nitrox Diving System
- Articulating boom man lifts
- Underwater pneumatic tooling
- Crane Barge
- 2000HD DENSO Pile Wraps
- DENSO 525 Epoxy Repairs

US-95 SANDPOINT LONG BRIDGE

Harbor Offshore, Inc. mobilized a 10-man dive and topside team, air/nitrox diving system, and a 60' x 40' x 20' T shaped modular pontoon barge equipped with 2 man lifts to Lake Pend Oreille Idaho. HOI installed Denso/SeaShield 2000HD series pile wrap system and 525 epoxy coating to 1455 piles and associated cross bracing from mudline to pile cap totaling 49,779 LF of pile wrap and 22,149 SF of epoxy coating. To date this, this is the largest Denso/SeaShield 2000HD and 525 epoxy coating project worldwide and was completed in 6 months, incident and injury free.

PROJECT DATA:

Performance Period:
March 2021-August 2021

Project Location:
Lake Pend Oreille, ID

Owner:
Idaho D.O.T.

Prime:
McMillen Jacobs and Associates
Jared Townsend- PM
208-651-0528 Ph
townsend@mcmjac.com

Contract Value:
$1,124,870.50

Date: June 14, 2018

Attn: Aaron Everett
Co: Harbor Offshore, Inc.

To Whom It May Concern,

RE: Certified Denso SeaShield Applicator/Installer

This letter serves to confirm that Harbor Offshore, Inc is a certified installer for our SeaShield Marine Systems. Harbor Offshore has been trained in the application of many of our SeaShield Marine Systems including: Series 2000HD, Series 100 and Series 500 Systems. They have installed our SeaShield Pile Protection Systems on several projects over the past 15 years.

Denso highly recommends the use of an approved and qualified Contractor for the application of our SeaShield Systems. Proper application of our materials is paramount to the long-term service they will provide. Harbor Offshore and their personnel have proven over the years to be a qualified and experienced applicator for our SeaShield Marine Systems.

Should you have any questions or require any additional information, please do not hesitate to call me at 281-821-3355.

Sincerely,

Steve Baker

Steve Baker
Regional Manager
NACE CIP Level 2 #8158

Denso North America • 9747 Whithorn Drive • Houston, TX 77095
Tel: 281-821-3355 • Fax: 281-821-0304 • info@densona.com

July 23rd, 2018

RE: Approved FX-70 Installer – Harbor Offshore, Inc

This letter shall serve as confirmation that the company listed below has received the required training to qualify as an approved applicator of the Simpson Strong-Tie FX-70, Structural Pile Repair and Protection Systems.

Harbor Offshore, Inc.
4411 Dupont Court, Suite 130
Ventura, CA 93003
(805)-639-2205

If you have any questions regarding this information, please contact myself or the Engineering Department of Simpson Strong-Tie at 1-800-999-5099.

Sincerely,

Thomas J. Klisiewicz
Senior RPS Technical Representitive
Concrete Construction Products
Simpson Strong-Tie Company
Office (209)944-1020
Cell (925) 852-7206
tklisiewicz@strongtie.com

dca

CONTRACTORS
STATE LICENSE BOARD
ACTIVE LICENSE

License Number 742617 Entity CORP

Business Name HARBOR OFFSHORE INC

Classification(s) A

Expiration Date 11/30/2023 www.cslb.ca.gov

Department of Industrial Relations
STATE OF CALIFORNIA

APPLICATION FOR
PUBLIC WORKS CONTRACTOR REGISTRATION

Registration Information

Type: Public Works

Period: 07/01/2021 06/30/2022

Contractor Information

Contractor Name: HARBOR OFFSHORE INC

Trade Name: HARBOR OFFSHORE INC

License Type Number: 1000030945

Contractor Physical Address

Physical Business Country: United States of America

Physical Business City/ Province: VENTURA

Physical Business Address: 4411 DUPONT SUITE 130

Physical Business State: CA

Physical Business Postal Code: 93003

Contractor Mailing Address

Mailing Country: United States of America

Mailing City /Province: VENTURA

Mailing Address: 4411 DUPONT SUITE 130

Mailing State: CA

Mailing Postal Code: 93003

Contact Info

Daytime Phone:

Daytime Phone Ext.:

Mobile Phone:

Business Email: dhutchinson@harboroffshoreinc.com

Applicant's Email: pacosta@harboroffshoreinc.com

Workers' Compensation

Professional Employer Organization (PEO)

Do you lease employees through Professional Employer Organization? No

Workers' Compensation Overview

Carrier: GREAT AMERICAN INSURANCE COMPANY OF NEW YORK

Inception Date: 05/15/2021

Policyholder Name: HARBOR OFFSHORE INC

Expiration Date: May 15, 2022

Policy Number: WC429312306

Certification

Yes I certify that I do not have any delinquent liability to an employee or the state for any assessment of back wages or related damages, interest, fines, or penalties pursuant to any final judgment, order, or determination by a court or any federal, state, or local administrative agency, including a confirmed arbitration award

I certify that the contractor is not currently debarred under Section 1777.1 or under any other federal or state law providing for the debarment of contractors from public works.

Yes I certify that one of the following is true: (1) I am licensed by the Contractors State License Board (CSLB) in accordance with Chapter 9 (commencing with Section 7000) of the Business and Professions Code; or (2) my business or trade is not subject to licensing by the CSLB.

I understand refunds are not authorized

I, Patricia A Acosta, the undersigned, am , HARBOR OFFSHORE INC with the authority to act for and on behalf of the above named contractor. I certify under penalty of perjury that all of the above information provided is true and correct. I further acknowledge that any untruthful information provided in this application could result in the certification being canceled.

I certify this on: 4:44 PM

Legal Entity Information

Legal Entity Type: Corporation

Name: HARBOR OFFSHORE INC

Port of LONG BEACH
The Green Port

Small Business Enterprise Program

www.polb.com/sbe

Certified Small Business Enterprise

Vendor Account Number: 250866
Sharmi Layne
Harbor Offshore, Inc.
4411 Dupont Court # 130
Ventura, CA 93003

Thank you for submitting your Vendor Application seeking Small Business Enterprise recognition with the Port of Long Beach (Port). Per our evaluation of the information you provided in your application and the North American Industry Classification System codes you identified, your status as a Small Business Enterprise (SBE) has been approved.

The Port is pleased to issue this SBE Certificate subject to the terms and conditions identified below:

NAICS code(s) for which SBE status is recognized: 237990,237110,237130,237310,332420
SBE Certificate Effective Date: 12/17/19
SBE Certificate Expiration Date: 12/17/22

Work Performed by your firm that falls within the above-mentioned NAICS code(s) will be counted as SBE participation for work performed on contracts procured by the above Port.

The Port reserves the right to withdraw this certification if at any time it is determined that certification was knowingly obtained by false, misleading or incorrect information and reserves the right to audit all statements. If any firm attempts to falsify or misrepresent information to obtain certification, the firm may be disqualified from participation in any contracts for a period of up to five years.

SBE Certification is valid for a period of three (3) years. To maintain SBE status, firms must update their existing SBE Vendor Application on or before the expiration date stated above. All information is subject to verification.

If there are any changes in your status that may impact your certification, you are required to update your account information online. A copy of your information can be viewed by logging into your Vendor Profile, and visiting the Small Business Certification tab.

Sincerely,
Sashi Muralidharan
SBE Administrator
Port of Long Beach

415 W. Ocean Blvd, Long Beach, CA 90802 Telephone (562) 283-7598 email: sbeprogram@polb.com

Relevant Prime Contractor Experience

Abhe & Svoboda, Inc Project

Company/Owner:	State of Hawaii Department of Transportation – Harbors Division
Address:	79 South Nimitz Highway, Honolulu, HI 96813
Contact Name:	Andy Chan, P.E.
Telephone:	808-587-1867
Email:	andy.chan@hawaii.gov
Project Title:	Electrical and Structural Repairs at Pier 37 Honolulu, Oahu, HI Project No. H.C. 10519R
Project Description:	Structural repairs on Pier 37 at Honolulu Harbor include spall repairs on beam, pile cap, pile and curbs. The work also includes demolition of existing wood bull rail and replace with new concrete bull rail, remove and replace existing mooring cleats, installation of new eyebolts and fender chains.
Work Performed by:	All of the work was performed in-house by ASI
Project Start Date:	October 2014
Contract Completion Date:	March 2015
Contract Value:	$479,075.00

Company/Owner:	Structural Repairs to Broadway Pier
Address:	San Diego, CA
Contact Name:	Angela Charles
Telephone:	619-686-6439
Email:	acharles@portofsandiego.org
Project Title:	Structural Repairs to Broadway Pier-1
Project Description:	Scope of work includes: Furnish all labor, materials and equipment to: A. Repair damage to 30" square concrete pile encasements B. Repair spalls at 36" diameter concrete piles C. Repair damage to concrete encased steel beams D. Repair damage to concrete deck soffit E. Epoxy inject repair of cracks in 46" pile encasements F. Furnish underpier scaffolding to access work areas
Work Performed by:	All of the work was performed in-house by ASI
Project Start Date:	July 2017
Contract Completion Date:	March 2018
Contract Value:	$571,321.00

Relevant Experience – Work in Confined Space and Cofferdam Install Sealing & Dewatering	1. PROJECT NUMBER: 4	
2. TITLE AND LOCATION: **Lock & Dam 27 Embedded Metal Repairs, Granite City IL**	3. FIRM WORK COMPLETED	
	PRIME OR SUB: Prime	% WORK BY FIRM: 60%

4. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER & ADDRESS	b. POINT OF CONTACT NAMES & PHONE	c. EMAIL
U.S. Army Corp of Engineers Central Area Office 301 Riverlands Way West Alton, MO 63386	Robert Schiffer, CO (636) 899-0062 Paul Dierker, COR (314) 650-4974	Robert.j.schiffer@usace.army.mil

5. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT

The work requires the use of a mobile cofferdam that was dewatered to gain access below the water line to repair the lock walls. The following items were in the scope of work on the contract:

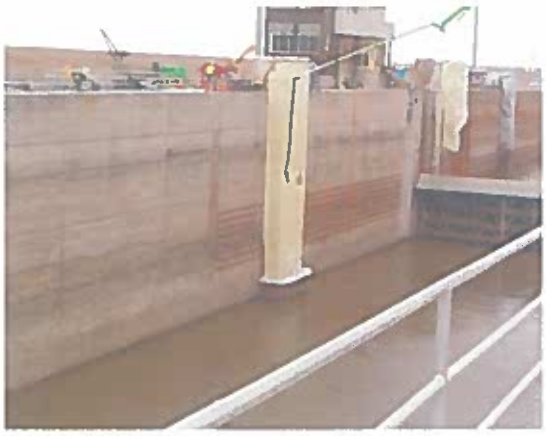
- This project involved localized dewatering of navigation lock wall areas using special designed and fabricated cofferdams
- Divers were utilized to assist in the setting of the cofferdams and to survey areas of work.
- Concrete saw cutting
- Concrete removal and replacement with Self Consolidating Concrete (SCC) including drilling and epoxy concrete anchors and reinforcement installation
- Removal and replacement of structural steel armoring
- Grinding of concrete
- Touch up Coatings

Relevance to this Contract:

- ☑ Marine Structure and Work from a Barge
- ☑ Replacement of Steel Armoring
- ☑ Work in an Active Lock
- ☑ Strict Safety Regulations / Procedures
- ☑ Use of Cofferdams and Dewatering
- ☑ Marine Subaquatic Construction
- ☑ Diving and Underwater Work
- ☑ Work from a Barge
- ☑ Underwater Concrete Work

Main Lock areas Repaired: Bulkhead Recesses Monoliths 2E, 2I, 44E, and 41I

Floating Mooring Bit Recesses: 4E, 5I, 41E and 38I, and Repaired Mooring Hooks at Monolith 9U.



Auxiliary Lock areas Repaired: Bulkhead Recesses Monoliths 3I-n , 3I-s, 1W, 2W, 28I, and 22W.

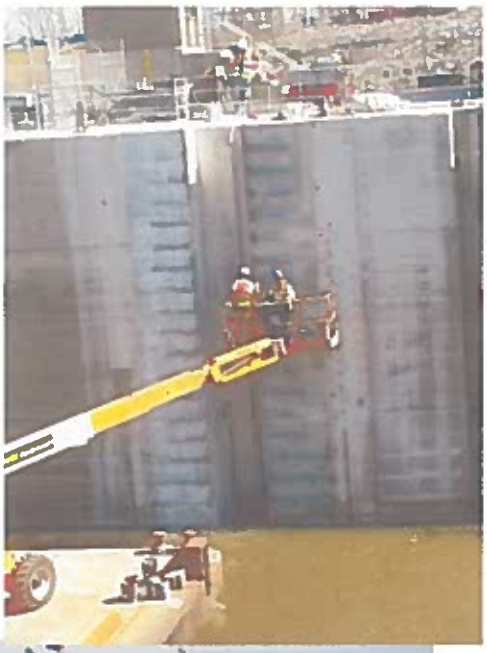
Auxiliary Lock Extra Work areas Repaired: Walkway Bridge Recesses Monoliths 5I and 3W, Downstream Lift Gate Recess Monoliths 4I and 2W. Note, all the extra work in the Auxiliary Lock was performed while the Lock was completely dewatered.

Completion Dates: Work within Main Lock: Shutdown 1/4/12 to 3/15/12

Work in Auxiliary Lock: Shutdown 3/15/12 to 5/29/12, extended to 6/15/12 for high water. Extra Work in Auxiliary Lock : 6/17/12 to 8/22/12

Construction Management: The work requires use of US Army Corps of Engineers, US Coast Guard, and the State of Missouri and Illinois Regulations. The lock is a very busy navigational water way and the shutdown required a 24/7 working schedule to complete the work.

Construction Contract Award Amount:	$4,969,475.00
Construction Start Date:	January 2012
Construction Finish Date:	August 2012
Construction Contract Final Amount	$6,925,872.61



Relevant Experience – Hazardous Coating Removal & Work in a Marine Environment	1. PROJECT NUMBER: 2	
2. TITLE AND LOCATION	3. FIRM WORK PERFORMED	
Contract W912EK-18-C-0034, Lock & Dam 15 Service Bridge Repair, Davenport, IA	PRIME / SUB	% WORK BY FIRM
	Prime	98%

4. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER & ADDRESS	b. POINT OF CONTACT NAMES & PHONE	c. EMAIL
US Army Engineer District, Rock Island 1910 E. Kimberly Rd #105, Davenport, IA 52807	Rick Stebens, COR Ph: (563) 506-2018	Ricky.l.stebens@usace.army.mil

5. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT

This was a project that involved the repair and painting of Eleven (11) – 115'-0" long Dam Service Bridge Spans. Original award included Seven (7) Spans of the Service Bridge, the Options and remaining work were awarded.

Relevance to this Project:
- ☑ Similar Structure - Hydraulic
- ☑ Steel Repairs
- ☑ Sand Blasting/Paint Removal
- ☑ Coating Application
- ☑ Strict Safety Regulations / Procedures
- ☑ Similar Environmental Control Systems
- ☑ River/Marine/Navigable Waterway

The work required is summarized as follows:

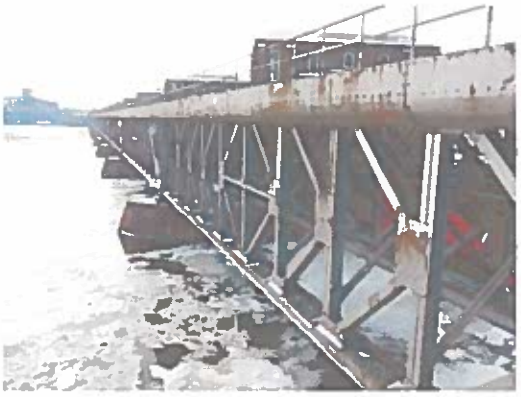
- Rig, Contain, Abrasive Blast and Paint Eleven (11) Service Bridge Spans.
- Jack each Span, remove the existing expansion bearings and replace with new Elastomeric Bearings (22 each) and side retainer brackets.
- Remove and Re-install the Service Bridge grating
- Remove and Replace corroded Rivets with bolts.
- Protect and or Remove the existing electrical 480V Bus-Bar system used to operate an existing bulkhead lifter trolley.
- Concrete rehab work on three (3) dam piers at the roller gate rack locations.
- Coordinate with the USACE operations for the movement and positioning of the roller gate bulkheads, bulkhead lifter trolley, and service bridge crane.

Blast Cleaning & Application of Paint Systems: The abrasive blast cleaning method used to prepare the steel surfaces is SSPC-SP 6, Commercial Blast with a recyclable steel grit abrasive. The paint system that will be spray applied to all the steel surfaces of the Service Bridge: Sherwin Williams, Corothane 1-Galvapac Zinc Primer, and two coats of Corothane 1- MIO Aluminum

Containment / Environmental Control System: The Bridge steel will be rigged for access and containments by utilizing QuikDeck® suspended platforms and Etobicoke ® System Scaffolding.

Equipment Staging: All the required equipment is able to be staged on land on the west end of the bridge. All power, air, and equipment lines were run on the bridge from this staging area. The use of a barge was not required to repaint and repair Lock & Dam 15's Service Bridge.

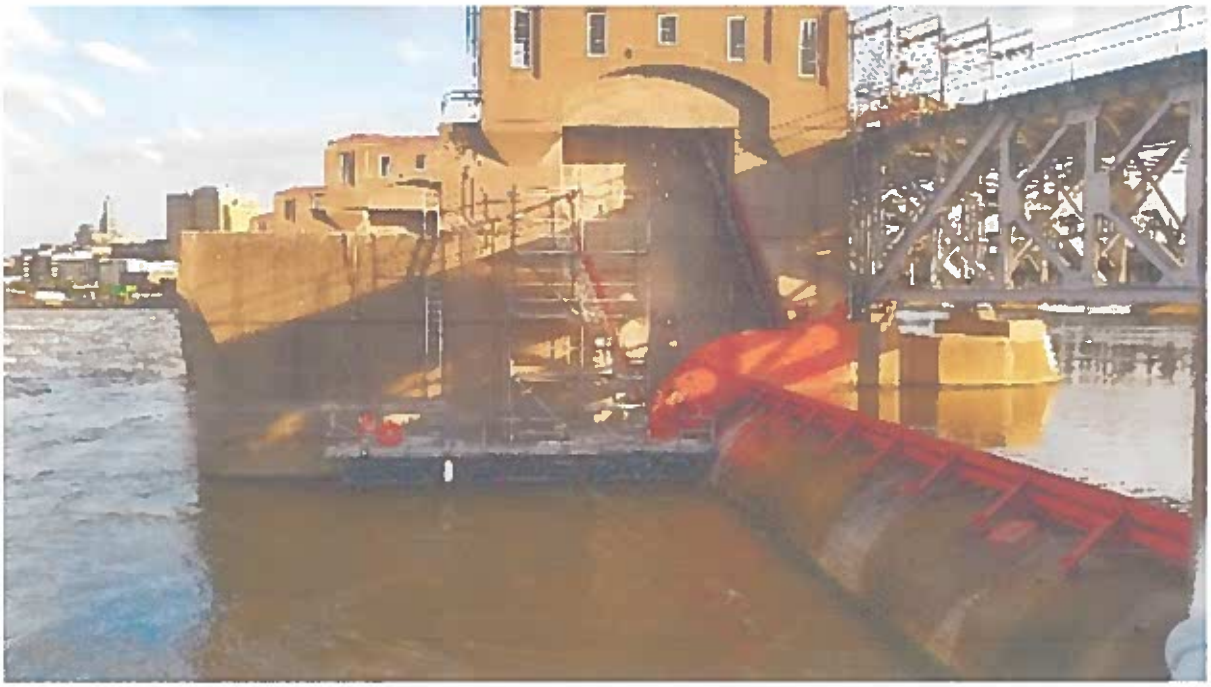
SSPC Certification Requirement: The SSPC QP-1 and QP-2



L & D 15 Service Bridge

L & D 15 Service with Suspended Platform

Construction Contract Award Amount:	$ 10,529,858.00
Construction Start Date:	March 15, 2019
Original Contracted Finish Date / Actual Finish Date:	November, 2020
Final Contract Amount:	$ 14,950,454.00



Work on Roller Gate Rack without use of a barge

Inside Containment during abrasive blasting (hazardous/lead based paint) and coating operations

Connecticut Department of Transportation- PREQUALIFICATION REFERENCE

SECTION I: TECHNICAL PROPOSAL – (a) Experience / Reference Projects	1. PROJECT NUMBER
	10

2. TITLE AND LOCATION	3. FIRM WORK PERFORMED	
Reed's Island Bridge Structural Rehabilitation	PRIME / SUB	% WORK BY FIRM
	Prime	75%

4. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER & ADDRESS	b. POINT OF CONTACT NAMES & PHONE	c. EMAIL
County of Hawaii, Department of Public Works 101 Pauahi Street, Suite 7, Hilo, HI 96720	Robert Yanabu (808) 961-8586 Cres Rambayon (808) 961-8926	ryanabu@co.hawaii.hi.us crambayon@co.hawaii.hi.us

5. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT — FIRM FIXED PRICE CONTRACT

The project involved rehabilitating the existing bridge built in 1899 to strengthen the bridge to meet current truck and lateral seismic design loads as prescribed by the Federal Highway Administration. Scaffolding for access, rebar scanning, demolition of two existing wooden piers, demolition of bridge deck down to the concrete piers, removal of existing steel rod cross bracing and grading were all completed prior to any production work. The bridge is a concrete pier/bent and sway truss type system over a ravine & stream.

Superstructure: A total of 160,000 lbs of new galvanized & coated steel were installed on the superstructure of the bridge. The new steel included upper and lower transverse sway frames, longitudinal diagonal frames, upper and lower lateral bracing, connection brackets, upper and lower longitudinal beams, deck beams, diaphragm framing, diaphragm connections, deck beam splices and railing shoes. Repairs consisted of replacing the bridge deck in its entirety which included concrete repair to the existing piers, new elastomeric bearing pads, new deck steel (Beams, diaphragm framing & railing shoes), new steel grating, new 2x6 decking and new timber railings. Additional repairs consisted of concrete spall repairs, new north and south abutment walls, new lava rock veneer,

Substructure: (65) Micropiles & (11) Rock Anchors were placed in the existing foundations. Retrofits were made to all foundations which consisted of increasing the spread footings size and/or the addition of a tie beam making the spread footings into a combined footing.

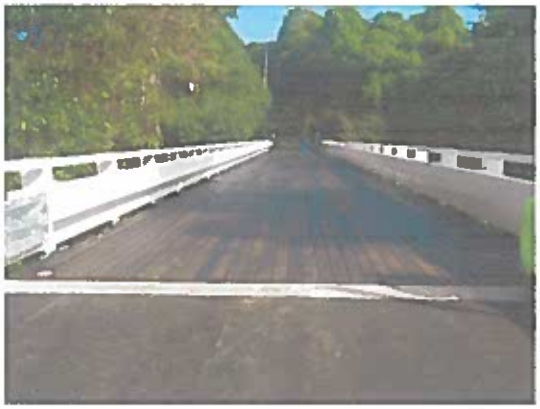
Subcontractors: Micropiles & rock anchors, concrete reinforcement, advisory & work signs, guardrails, fencing, lava rock veneer and Asphalt Concrete pavement work were performed by Subcontractors. All other work was self-performed.

Application of Paint Systems: Coating system was shop applied, with field touch-ups. Shop two-coat system consisted of Wasser: Prime: MC Miomastic 100, Stripe: MC Miomastic 100 and Finish: MC Luster 100. The inside of the railing shoes received Wasser: Prime: MC Miomastic 100, Intermediate: MC Tar 100 and Finish: MC Tar 100. Coating system was spray-applied to all steel surfaces, with the exception of the MC Tar 100. Field touch-ups were a similar system to the shop applied system. If the galvanizing happened to be damaged, Wasser MC Miozinc 100 was used. ASI Quality control was administered to maintain compliance with the specifications.

Relevance to this Project:

- ☑ Major Bridge Type Structure
- ☑ Strict Safety & Environmental Regulations
- ☑ Federal Contract
- ☑ Structural Steel Repairs
- ☑ Fracture Critical Repair
- ☑ Removal of Decking
- ☑ Installation of Grid Deck
- ☑ Installation of Timber Decking
- ☑ Concrete Repairs & CIP Concrete
- ☑ Constructed New Abutments
- ☑ Removal & Reinstall Railing
- ☑ Access & Containment System
- ☑ Difficult Terrain/Access
- ☑ Strict Schedule Requirements
- ☑ SSPC – QP1 & QP-3

SSPC Certification Requirement: SSPC QP-1 & SSPC QP-3 requirement applied to this contract.



Construction Contract Award Amount:	$6,392,990.00
Construction Start Date:	December 2012
Original Contracted Finish Date / Actual Finish Date:	May 2014
Final Contract Amount:	$6,403,208.00

Challenges: This was a difficult access project as the center to center spacing between piers was 19 ft and 14.5 ft between columns at the piers. When choosing drill rigs for installation of the micropiles and rock anchors, the choices were limited, as we had to place the equipment in these tight spaces. Steep slopes and a stream running across the center of the bridge presented more challenges and limits. A temporary bridge was built across the stream for equipment crossing.

Connecticut Department of Transportation- PREQUALIFICATION REFERENCE

SECTION C: PAST PERFORMANCE	1. PROJECT NUMBER
	11

2. TITLE AND LOCATION	3. FIRM WORK PERFORMED	
	PRIME / SUB	% WORK BY FIRM
Contract No 092-0612 Rehabilitation of Bridges I-91 over US 5, Amtrak and Ferry Street, New Haven CT	Prime	90

4. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER & ADDRESS	b. POINT OF CONTACT NAMES & PHONE	c. EMAIL
CT Department of Transportation 2800 Berlin Turnpike Newington, CT 06111	Mohammad Masoud (203)785-8082 Project Engineer	Mohammad.Masoud@ct.gov

5. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT

Description: The project involved abrasive blasting and painting the two parallel structures measuring 650 ft and 850 ft. Approximately 349,000 sf of steel surfaces required surface preparation and coating. The project also involved concrete deck restoration, paving, concrete substructure restoration, steel repairs, bridge bearing replacement, and beam heat straightening.

Application of Paint Systems: The paint system that was spray applied to all the steel surfaces of the bridges was: Carboline's 859 Organic Zinc Rich Primer, Carboguard 888 Epoxy intermediate coat and a coat of 133 LH Polyurethane. All edges and irregular surfaces were stripe coated with both the primer and intermediate coat. All aspects of surface preparation and coatings application was inspected and documented for the owner by ASI's in-house NACE III Certified Inspector.

Blast Cleaning: The abrasive blast cleaning method used to prepare the steel surfaces was SSPC-SP 10, Near White Metal Blast with recyclable steel grit abrasive. A 1.5-2.5 mil profile was required on the Project.

SSPC QP-2 & Containment System: SSPC Class 1A containment systems were constructed and operated using system scaffolds, containment tarp materials, air lock entry vestibules and dust collection / ventilation equipment. The SSPC QP-2 certification was required by contract, since there was hazardous paint on the bridge members. ASI performed the project in accordance with the specifications compliance with all safety and environmental regulations as required.

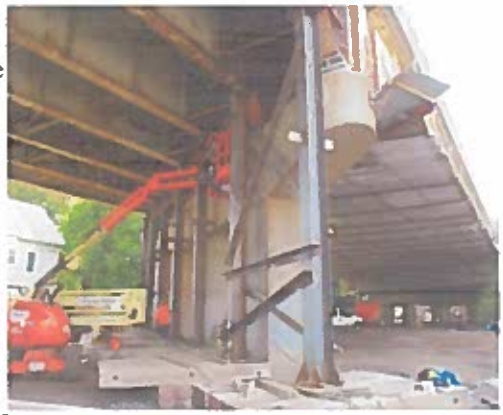
Structure Rehabilitation Work: The concrete bridge decks required extensive rehabilitation. Approximately 4,500 cf of partial depth repairs and 45 cy of full depth repairs were performed on the bridge deck utilizing hydro-demolition prior to paving with an asphalt overlay, and installing silicone bridge deck joints. Approximately 348 cy of deteriorated concrete on the substructures was also repaired. Steel components of the bridge were reinforced with over 121,000 lbs of new steel plates and members. Beams required heat straightening to bring them back into plum in order to comply with the bridge rating. Bridges were jacked at multiple locations and steel rocker bearings were replaced on both structures with elastomeric expansion bearings. Bridge also required the replacement of a splice plate and required a jacking/shoring plan to complete.

Work Subcontracted:

Hydro-demolition, asphalt paving, heat straightening, structural steel rehab.

Relevance to this Project:

- ☑ Similar Type Structure
- ☑ Structural Steel Repairs & Replacement
- ☑ Shoring of Bridge During Repairs
- ☑ Fracture Critical Repairs
- ☑ Sand Blasting/Paint Removal
- ☑ Strict Safety Regulations / Procedures
- ☑ Complex Scaffolding & Rigging
- ☑ Structure Rehabilitation Work
- ☑ Concrete Work to Deck



Construction Contract Award Amount:	$13,597,418.00
Construction Start Date:	June 2014
Original Contracted Finish Date / Actual Finish Date:	July 2016
Final Contract Amount:	$ 15,863,892.00