C&W Diving Services, Inc.

A Service Disabled Veteran-Owned Business
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C&W Diving Services, Inc. (C&W) and West Diving Services, Inc. (union side) is a San Diego Bay based marine contractor with a reputation for providing professional personnel, quality performance and value engineering in performance of commercial marine engineering, construction and vessel services. C&W continues in business with an experienced cadre of long time employed management and administrative staff, as well as, production personnel.

Incorporated in 1979, C&W is a Service Disabled Veteran-Owned Business. C&W’s owner and president, Frederick West served in the United States Navy as a Seal Team 1 Operative and formerly the President of the San Diego Oceans Foundation.

C&W has over 33 years of experience supporting the US Navy, US Coast Guard, Military Sealift Command and MSR within our Ship Husbandry Division; The US Bureau of Reclamation, Army Corps of Engineers, and local, state and federal municipalities throughout the United States within our Civil/Inland Division; Beta Offshore (formerly Pacific Energy Resources), SCE (San Onofre Nuclear Generating Facility), SDG&E and several other companies in the offshore and oil and gas industry.

**EXCELLENCE UNDER PRESSURE!**

C&W has extensive experience working on the water providing vessel support services. C&W’s vessel fleet is deployed along the West Coast of the United States and it’s crews have experienced all weather and sea conditions. In San Francisco Bay, C&W is providing all Tug and Crew/Supply Boat Services during the construction of the Caltrans new Oakland/ San Francisco Bay Bridge. This massive project requires daily scheduling and coordination between C&W Vessel Captains and the many contractors working on the Bridge, Caltrans Engineers and the US Coast Guard. C&W has performed to the satisfaction of all parties and continues to operate with no accidents or lost time incidents.
C&W provides underwater inspection, maintenance, construction and technical support services to customers around the world. Whether serving the offshore oil and gas industry, the US military, or customers in the inland waterways, our services are designed to suit the needs of your specific industry.

**DIVING SERVICES & SYSTEMS**
- Surface Air Diving (shallow) 0-80 fsw
- Surface Air Diving (deep) 80-170 fsw
- Surface Mixed-Gas Diving (He02) 170-300 fsw
- Penetration Diving to 2200 feet (point of entry)
- HAZMAT Diving (positive pressure and Decon)
- High Altitude Diving (+10,000 feet elevation)
- Cold Weather Diving (sub-zero regions)
- FADS (Fly-Away Dive Systems)
- DSV’s (Dive Support Vessels)
- ROV (Remote Operated Vehicle) Systems

**INSPECTION SERVICES**
- ABS Certified and Lloyd’s Registered
- Level I, II, and III Underwater Inspections
- In-house NDT Facilities
- Cathodic Protection Surveys
- Bathymetric Surveys
- ROV (Remote Operated Vehicle) Services
- Pile Inspections
- LNG Pipeline Inspections
- Vessel Inspections
- Outfall Inspections

**MAINTENANCE & REPAIR SERVICES**
- Ultra-high Pressure Cleaning
- Diver-operated Dredging and Debris Removal
- Trash Rack Cleaning and Repairs
- Propeller Polishing
- Mechanical Hull Cleaning
- Pile Jackets and Encasements
- Pipe Clamps
- Structure Concrete Repairs (cracks, spalls)
- Anode Replacements
- Cofferdam (patch, open-top, dry-environment)
- Coatings
- Quaywall and Sheet Pile Repairs
- Dewatering Support (bulkhead installations)
- Pipeline Repairs

**CONSTRUCTION & REHABILITATION SERVICES**
- Design-Build/Turnkey Services
- Underwater Salvage and Recovery Services
- Bridge and Dam Retrofits
- Sluice Gate Installations
- Subsea Articulating Mats Placement
- Cofferdam Design, Fabrication and Installation
- Underwater and Marine Demolition
- Wire Saw Cutting (Underwater and topside)
- Concrete Form Installation
- Underwater Concrete and Grout Placement
- Bulkhead Design, Fabrication and Installation
- Ultrathermic Cutting (Broco) and Wet Welding
C&W Diving Services is more than just a diving company. Many projects C&W works on are one-of-a-kind requiring development and implementation of innovative construction procedures. These projects often require the use of specially designed equipment and project components to complete jobs safely and to specification.

Project management teams from C&W are technically oriented to utilize newly engineered underwater operation applications. C&W has the experience and knowledge to provide solutions to seemingly impossible situations.

Certified engineers are on call and utilized whenever a project specifications requires the use of components or procedures that could present a safety hazard or effect the reliability or usability of a component or system installed by C&W.

The procedures to install underwater structures with tight tolerance specification are common aspects of the underwater projects undertaken by C&W. The company’s engineering team has designed numerous installation aids, including rigging, templates, survey systems, guide wires and spreader frames. The engineering team has performed barge stability and mooring analyses and crane.

The C&W engineering team provides the latest in engineering design of a variety of marine structures for river, lake and offshore ocean environments. Recent engineering projects include: design of mooring structures; bulkhead engineering and structural assessment; marine outfall repair component design; cooling water intake head design; marine structure abandonment and removal; marine installation planning and engineering; marine structural integrity assessment; and modification of pier and floating dock design.

The engineering oriented problem solving capabilities set C&W apart from other diving companies by providing its customers with solutions at lower cost.
C&W Diving Services has a long-standing reputation as the premier provider of underwater ship husbandry services. The engineering and diving company has been providing cofferdam and extensive underwater repairs for the U.S. Navy and commercial vessels since 1978.

With a large inventory of standard cofferdams, C&W is available to respond immediately, 24-hours a day to a customers' call for assistance. C&W designs and fabricates engineer-certified custom cofferdams to accommodate any special situation.

C&W has passed the very stringent qualifications of NAVSEA and ABS and can perform underwater welding on the hull and running gear of both Navy and commercial ships. Welding repairs can be performed either underwater or in a dry habitat chamber. C&W's NDT Certified Level II Inspector with diving qualifications enables the company to offer in-water NDT testing of ship hulls. Considerable savings is gained by using C&W's expertise in making repairs while a vessel is in the water.

C&W has extensive experience working with underwater coatings that insure preservation of areas repaired.

Automated hull scrubbing units allow C&W to quickly and economically clean a ship while in the water. This saves tremendously on fuel costs and dry docking expenses, plus adding to a ship’s hull life.

Inspection services are provided by C&W for brokering, insurance (appraisals, claims) and pre-maintenance scheduling. Inspections are accompanied by written reports, technical drawings and illustrations, and underwater still photos and video. The C&W video services allow top-side personnel a real-time view of underwater conditions and of surveys being performed.

- Ship Husbandry
- NAVSEA and ABS Certified Underwater and Dry Habitat Welding
- Design, Fabrication and Installation of Cofferdams
- Advanced Underwater Painting and Coating System
- Zinc Replacements
- Underwater Inspection Services, Including NDT
- Photo and Video Inspection
- Documentation and Report Preparation
- Hull Blanks
C&W Diving Services has extensive experience in a wide range of marine related heavy civil construction projects. The company customer list includes the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, U.S. Coast Guard, and State Agencies throughout North America. The extensive field experience C&W has in engineering facilitates careful planning during the design and development stages of projects and results in savings of time and money.

LOCKS, DAMS, RESERVOIRS, CANALS & POWERPLANT SERVICES

- Trash rack inspection and repairs
- Bulkhead design, fabrication and installation
- Debris Removal
- Sluice Gate installation
- Intake Structure inspections and repairs
- Dewatering
- Canal lining repairs
- Concrete demolition and removal
- Excavation and dredging
- Articulating (subsea) concrete mat placement
- Stop log installation and removal
- Desalination projects
- HAZMAT, potable water diving
- Tunnel inspection and repairs

- Lake Mead, NV Intake No. 1
- Folsom Dam, CA Temperature Control Device
- Pit River, CA Upstream Modifications
- California Aqueduct, CA Canal Lining Repairs
- Olivenhain Dam, CA Trash Rack Modifications
- Green Mountain, CO Bulkhead and Tailrace
- Sugar Loaf Dam, CO Spillway Repairs
- Puddingstone Dam, CA Sluice gate
- Platoro Dam, CO Bulkhead Installation
- Nimbus Dam, CA Radial Gate Repairs
- Redondo Beach, CA Desalination
- SONGS (San Onofre Nuclear) Diving contractor
- Oakley, CA Fish Screens
- Pt. Loma, CA Sewer Channel Repairs
C&W Diving Services is a premier provider of marine construction and commercial diving services to the offshore oil and gas industry, utility services providers, military, and other water municipalities throughout the United States and overseas.

C&W's inventory of offshore-ready diving systems includes:

- Surface Air Diving (shallow) 0-80 fsw
- Surface Air Diving (deep) 80-170 fsw
- Surface Mixed Gas Diving 170-300 fsw

**OFFSHORE OPERATIONS**

- Marine Outfalls and Intakes
- Salvage
- Bridge Inspections and Repairs
- Reballasting Support
- Platform Inspection, Maintenance & Repairs
- Pipeline Inspection, Maintenance & Repairs
- Mooring Installation and Repairs
- NDT Inspection Services
- Search & Recovery
- Bathymetric Surveys
- Diver-operated Dredging
- Deep water dredging (Toyo 150B)
- ROV Inspections
- Shuttle Capsule Recoveries

**COASTAL & HARBOR OPERATIONS**

- Pile Inspections and Repairs
- Pile Jackets and Encasements
- Pile Driving
- Pile Cutting
- Excavation
- Sheet pile Inspection and Repairs
- Vessel Assist
- Pier Inspection
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**CREW / PASSENGER BOATS**

- United States Coast Guard Inspected Vessels
- Tier II and Tier III Compliant Vessels
- Vessels up to 49 passengers
- Up to 1360 HP
- Between 37-55 foot vessels
- Certified boat captains and deck hands

**BARGE TENDER ANCHOR HANDLING TUG BOATS**

- United States Coast Guard Inspected Vessels
- Tier II Compliant Vessels
- Pullmaster H50 winches
- Up to 2000 HP
- Certified boat captains and deck hands

**ADDITIONAL SUPPORT VESSELS**

- DSV’s (Dive Support Vessels)
- Single-screw truckable push/tug
- Causeway Barges
- Truckable modular barges
MARINE CONSTRUCTION

CONCRETE PILE CAP INSTALLATIONS

SHORING

DIAMOND WIRE SAW CUTTING

SLUICE GATE INSTALLATIONS

DAM CONSTRUCTION

INTAKES & PENSTOCKS

Underwater Engineering & Construction
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