PELICAN ISLAND RESTORATION (BA 38-1) CWPPRA PROJECT

ENVIRONMENTAL PROTECTION PROVISIONS

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1. SCOPE

The Environmental Protection Provisions of the Contract Documents addresses CONTRACTOR responsibilities for the prevention of pollution and other environmental damage as the result of construction operations under the Contract Documents, including those measures set forth in the Technical Provisions. For the purpose of this specification, pollution and other environmental damages are defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; degrade the utility of the environment for aesthetic, cultural, and/or historical purposes; or unnecessarily damage/destroy environmental resources. The control of pollution and damage requires consideration of air, water, land, and the marine environment and includes management of construction activities, visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants. The CONTRACTOR shall fulfill these specifications at the CONTRACTOR'S expense.

2. QUALITY CONTROL

The CONTRACTOR shall establish and maintain quality control for environmental protection for all items set forth herein. The CONTRACTOR shall record on Daily Contractor Quality Control Reports any problems in complying with laws, regulations, and ordinances, as well as project permits and corrective action taken.

3. PERMITS

The CONTRACTOR shall comply with all requirements under the terms and conditions set out in all permits applicable to the Work. The GOVERNMENT has received the appropriate permits and approvals from the Louisiana Department of Natural Resources, the U.S. Army Corps of Engineers, and the Louisiana Department of Environmental Quality. These permits are included in Appendix I and Appendix II of the Environmental Protection Provisions and are part of the Contract Documents. Specifically, the CONTRACTOR will familiarize themselves with general and specific conditions contained in the Louisiana Department of Natural Resources permit, the U.S. Army Corps of Engineers permit, and the Louisiana Department of Environmental Quality permit. Any other licenses, easements, or approvals required, including, but not limited to, those which may be required by Plaquemines Parish or the GOVERNMENT, shall be secured and paid for by the CONTRACTOR.

The excavation of materials from the Sandy Point borrow areas and associated disposal of overburden are subject to the conditions of a Memorandum of Agreement (MOA) between the U.S. Minerals Management Service, the GOVERNMENT, and the Louisiana Department of Natural Resources (Appendix III of the Environmental Protection Provisions). The CONTRACTOR shall comply with all requirements of the MOA.

4. SUBCONTRACTORS

Assurance of compliance with all sections of the Contract by subcontractors shall be the responsibility of the CONTRACTOR, including compliance with all environmental and permit requirements.

5. NOTIFICATION

The GOVERNMENT will notify the CONTRACTOR of any known noncompliance with the aforementioned Federal, State, or Local laws or regulations, permits, and other elements of the CONTRACTOR'S Environmental Protection Plan. Nevertheless, it remains the sole responsibility of the CONTRACTOR to comply with all applicable Federal, State, and Local laws and regulations, permits, and all elements of the Environmental Protection Plan. If there is known non-compliance, the GOVERNMENT will determine what action will be taken and such response will be transmitted to the CONTRACTOR by the GOVERNMENT, which may include stopping construction of the project until the CONTRACTOR complies with the Environmental Protection Plan. It shall also be the CONTRACTOR'S responsibility that all subcontractors comply with all applicable laws, regulations, permit requirements, and all elements of the environmental protection plan.

6. PROTECTION OF ENVIRONMENTAL RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. To meet this requirement, the CONTRACTOR shall confine all activities to areas defined by the Plans and Specifications. The CONTRACTOR shall, at all times, maintain adequate stakes or other markers required to delineate and layout work areas, access areas and corridors, protected land or environmental resources, no entrance areas, and sensitive areas to ensure the protection of resources. The disturbance of lands and waters that are outside the limits of construction as marked on the Plans is prohibited, except as found necessary and approved by the GOVERNMENT. The CONTRACTOR shall conduct his work in such manner as to prevent the entry of fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials into streams, lakes, marshlands, bays, or the Gulf of Mexico. The CONTRACTOR shall also conduct his work in such manner as to prevent the placement of any fill material and the discharge of project-related discharges of turbid effluent and runoff into streams, lakes, marshlands, bays, or the Gulf of Mexico. All waterways shall be cleared as soon as practicable of false work, stakes, piling, debris, or other obstructions placed during construction operations and not a part of the finished work. Details regarding environmental protection shall be as stated in the following subparagraphs.

6.1 **<u>Protection of Land Resources</u>:** Prior to the beginning of any construction, and at the request of the CONTRACTOR, the GOVERNMENT shall identify land resources (if any) to be preserved within the CONTRACTOR'S work area. Unless indicated in the Plans or directed by the GOVERNMENT, the CONTRACTOR shall not remove, cut, deface, injure, or destroy land resources including sand dunes, marsh or berm vegetation, trees, shrubs, vines, grasses, topsoil, and landforms without direct written permission from the GOVERNMENT. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized by

the GOVERNMENT. Where such special emergency use is allowed, the CONTRACTOR shall provide effective protection for land and vegetation resources at all times as defined in the following paragraphs. The CONTRACTOR shall be responsible for the replacement of any damaged or destroyed vegetation outside the fill area and the restoration of any water bottoms and land forms to the satisfaction of the GOVERNMENT. Failure to replace damaged or destroyed vegetation or failure to restore damaged water bottoms and land forms outside the fill area by the CONTRACTOR may result in replacement by the GOVERNMENT; the cost of replacement may be deducted from any money due, or to become due, to the CONTRACTOR or may be recovered under their bond.

6.2 **Work Area Limits:** Isolated areas (if any) within the work area which are to be saved and protected shall also be identified by the GOVERNMENT and marked or fenced by the CONTRACTOR. All survey monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be made visible by lighting. The CONTRACTOR shall convey to all subcontractors and personnel the purpose of marking and/or protection for all necessary objects.

6.3 **Retardation and Control of Runoff:** Runoff from the construction site shall be controlled by the CONTRACTOR by the construction, maintenance, and operation of primary retention dikes, temporary water control structures or spillboxes, routing and temporary retention of effluent and discharge through fill areas to allow settlement of the fill and decanting of water to be discharged, use of turbidity control measures such as silt curtains, and active management of all effluent, discharge, and runoff. Dikes shall be constructed, as shown on the Plans and described in the Technical Provisions, or as required by permit documents, and maintained in continuous repair to allow settling of fine materials and prevent discharge or release of fill materials.

6.4 **Disposal of Solid Wastes:** Solid wastes (including cleared debris) and rubbish resulting from the CONTRACTOR'S activities shall be picked up daily and placed in containers. These containers shall be removed from the beach area and emptied on a regular schedule. The CONTRACTOR shall empty containers when three-quarters full and will avoid overflow conditions. The CONTRACTOR shall not burn any rubbish at the project site. Disposal of rubbish shall be at an approved off-site location and in a manner that complies with State and local laws and regulations. The CONTRACTOR shall be solely responsible for all costs associated with the collection, removal, and disposal of rubbish. All handling and disposal shall be conducted to prevent contamination. No steel, cables, wire, pipe, drums, or any other solid waste or debris shall be permitted to be disposed overboard into the waters of the Gulf of Mexico or any other water body. Disposal of solid wastes or debris in the Gulf of Mexico is a violation of State and Federal laws. If such debris is found, the debris shall be removed by the CONTRACTOR at his own cost. Failure to remove debris by the CONTRACTOR may result in removal by the GOVERNMENT. The

cost of removal may be deducted from any money due, or to become due, to the CONTRACTOR or may be recovered under their bond.

6.5 **Disposal of Chemical Waste:** Chemical waste shall be stored in corrosion resistant containers, removed from the work area, and disposed of in accordance with Federal, State, and Local regulations. The CONTRACTOR shall perform all maintenance of equipment, including but not limited to refueling, filter changes, and replacement of hydraulic lines in a manner so as not to contaminate soils, ground or surface waters, or any other natural resources.

6.6 **Disposal of Discarded Materials:** Discarded materials other than those which can be included in the solid waste category will be handled by the CONTRACTOR as directed by the GOVERNMENT.

6.7 **Use of Equipment:** The use of any wheeled or tracked vehicles outside the fill areas, as marked on the Plans, is prohibited. Any damage to wetland vegetation or change in the existing elevation (e.g., ruts, tracks, inappropriate excavation) greater than six inches in wetland areas, bay bottom, flats, etc. occurring on the site or adjacent property, as a result of construction operations, shall be repaired by the CONTRACTOR at no additional expense to the GOVERNMENT. The use of wheeled or tracked vehicles in the marsh fill areas shall be kept to the minimum required to accomplish the work and shall be avoided to the maximum extent practical.

6.8 **Siltation / Turbidity Control:** The CONTRACTOR shall conduct work in a manner that will not cause damaging siltation or pollution of any water bodies. All applicable Federal and State regulations of agencies and statutes relating to the prevention and abatement of pollution shall be complied with in the performance of the Contract.

6.9 **Protection of Water, Fish, and Wildlife Resources:** The CONTRACTOR shall keep construction activities under continued surveillance, management, and control to minimize interference with, disturbance to, and damage of water, fish, and wildlife resources. Species that require specific consideration, as well as measures for their protection, shall be addressed in the CONTRACTOR'S Environmental Protection Plan prior to the beginning of project construction.

6.10 **Protection of Commercial Fisheries:** The CONTRACTOR shall note that bays, water bottoms, creeks, and ponds in the vicinity of the project may include numerous publicly- and privately-issued leases for the cultivation and harvest of oysters and other commercial fishery resources. The locations of publicly-issued oyster leases in the vicinity of the project are depicted in Appendix IV of the Environmental Protection Provisions. The CONTRACTOR shall conduct all aspects of its operations to avoid any and all impacts to such leases.

6.11 **Water Discharge:** Discharge locations are detailed in the plans. The CONTRACTOR is required to discharge water from the discharge area into adjacent waters to avoid impoundment of water. The CONTRACTOR shall provide a Turbidity Control Plan, as required per Section 24.1 of the Technical Provisions, detailing means and methods for any discharge of water outside the project footprint. The plan must contain methods to limit turbidity and sedimentation in open water. Turbidity curtains shall be used at all outflow areas. The Turbidity Control Plan must be submitted to the GOVERNMENT at least seven (7) days prior to the pre-construction meeting.

6.11.1 The CONTRACTOR may use any design or number of water control structures for water discharge provided the structure is of sufficient size to discharge an appropriate volume of water. The rate of discharge shall be manually controllable with the ability to completely shut off discharge through the structure.

6.11.2 In the event that the GOVERNMENT observes signs of the discharge of turbid waters which form noticeable plumes outside the limits of the Work, the GOVERNMENT may, at its sole discretion, require that the CONTRACTOR immediately initiate twice daily turbidity sampling with reports submitted to the GOVERNMENT. No additional compensation shall be paid to the CONTRACTOR for this work.

6.12 **Protection of Air Resources:** The CONTRACTOR shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes, and work operated or performed by the CONTRACTOR in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Louisiana and all Federal emission and performance laws and standards.

6.13 **Dispensing of Fuel:** Secondary containment, which is capable of holding at minimum 110% of the tank contents, shall be provided by the CONTRACTOR for each fuel storage tank. Fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at the corners right below the bibb. The edges of the pans shall have an eight (8)-inch minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the CONTRACTOR shall immediately contain the spill and contact the GOVERNMENT and the appropriate local authorities. The CONTRACTOR shall be solely responsible for any fines, penalties, or other legal activities related to fuel spills.

6.14 **Temporary Sanitary Facility:** The CONTRACTOR shall furnish and maintain chemical toilets for use by its employees and the GOVERNMENT on the project site. Chemical toilets shall be cleaned on a regular basis to ensure that odor does not

become a nuisance. The CONTRACTOR shall be responsible to coordinate, maintain, and monitor a cleaning schedule that is appropriate for the number of CONTRACTOR personnel on site.

6.15 **Storage of Lubricants:** All lubricants and other potential liquid pollutants shall be stored in sealed, non-corrosive containers. Individual containers shall be stored in metal pans with borders banded up and welded at the corners right below the bibb. Pans shall be deep enough to prevent contamination of the ground. Pans shall be kept clean of all spillage or leakage.

7. SEA TURTLE PROTECTION REQUIRED FOR USE OF HOPPER DREDGES

In the event that a hopper dredge is utilized for sand excavation, the CONTRACTOR is required to provide all labor, materials, and equipment to meet the following requirements to ensure the protection of threatened and endangered sea turtles. At least seven (7) days prior to the pre-construction conference, the CONRACTOR shall submit a detailed plan which describes what personnel, equipment, and procedures will be used to meet the requirements of this section.

7.1 **NOAA Observers** The CONTRACTOR shall provide trained NOAA Fisheries-approved sea turtle observers onboard the dredge vessel(s) at all times during the excavation of overburden, fill, and other materials. NOAA Fisheries-approved observers are required on all hopper dredges to visually monitor the dredge area repeatedly prior to and during all hopper dredge operations for sea turtle presence in the area. Observers shall also monitor the hopper spoil, overflow, screening and dragheads for sea turtles and their remains. The CONTRACTOR shall provide NOAA Fisheries-approved observers with demonstrated ability to identify sea turtle species, starting immediately upon project commencement, to monitor for the presence of listed species and/or parts being entrained or present in the vicinity of dredge operations. In addition, NOAA Fisheries-approved observers will be present onboard the relocation trawler(s) required in Section 7.3 of the Environmental Protection Provisions (below), whenever relocation trawling is occurring. Flood lights will be installed on the dredge(s) and the relocation trawler(s) to allow observers to safely observe and monitor the baskets or screens.

If a sea turtle take occurs (either on the dredge or by the relocation trawler), the CONTRACTOR shall immediately contact the NOAA Fisheries Protected Resources Division at (727)-570-5312, Contracting Officer's Technical Representative (COTR), and onsite Inspector. A summary report must be submitted by the observers to Rachel Sweeney, National Marine Fisheries Service, c/o Louisiana State University, Military Science Bldg. Rm. 266, South Stadium Road, Baton Rouge, Louisiana 70803.

7.1.1 **Continuous Observation:** The CONTRACTOR shall provide NOAA Fisheries-approved observers with demonstrated ability to identify sea turtle species aboard any and all hopper dredge(s) being used, starting immediately

upon project commencement, to monitor for the presence of listed species and/or parts being entrained or present in the vicinity of dredge operations. Continuous, full time observation during any and all hopper dredging is required. NOAA Fisheries-approved observers with demonstrated ability to identify sea turtle species shall be placed aboard the dredge(s) being used starting immediately upon project commencement to monitor for the presence of listed species and/or parts being entrained or present in the vicinity of dredge operations.

7.1.2 Observer Inspection of Dredge Spoils: During the required inspection coverage, the trained NOAA Fisheries-approved observer shall inspect the galvanized screens and baskets at the completion of each loading cycle for evidence of sea turtles. The Endangered Species Observation Form shall be completed for each loading cycle, whether listed species are present or not (Appendix V of the Environmental Protection Provisions). If any whole turtles (alive or dead) or turtle parts are taken incidental to the project, NOAA Fisheries Protected Resources Division (727)-824-5312, Contracting Officer's Technical Representative (COTR), and onsite Inspector must be contacted within 24 hours of the take. An incident report for sea turtle take (Appendix VI of the Environmental Protection Provisions) should also be completed by the observer and sent to NOAA Fisheries Protected Resources Division (727) 570-824-5309 and Rachel Sweeney (225) 389-0506 via FAX within 24 hours of the take. Every incidental take (alive or dead) should be photographed. Weekly reports, including all completed load sheets, photographs, and relevant incident reports, as well as a final report, are to be submitted to the attention of David Bernhart, NOAA Fisheries, South East Regional Office, 263 13th Avenue, St. Petersburg, FL, 33701.

7.1.3 Information to be Collected: For each sighting of any endangered or threatened marine species, the following information will be recorded on the Endangered Species Observation Form (Appendix V of the Environmental Protection Provisions):

1) Date, time, coordinates of vessel
2) Visibility, weather, sea state
3) Vector of sighting (distance, bearing)
4) Duration of sighting
5) Species and number of animals
6) Observed behaviors (feeding, diving, breaching, etc.)
7) Description of interaction with the operation

7.2 Dredge Equipment and Operations: The CONTRACTOR shall ensure that all hopper dredge operations are conducted in accordance with the following conditions. The CONTRACTOR shall ensure that all equipment and pertinent personnel (i.e.,

dredge captain) are familiar with and capable of conducting operations in accordance with the following requirements.

7.2.1 Inflow and Overflow Baskets and/or Screening: Baskets and/or screening must be installed over the hopper inflows with openings no smaller than 4 inches by 4 inches to provide 100% coverage of all dredged material and shall remain in place during all dredging operations of any calendar year. Baskets/screening will allow for better monitoring by observers of the dredged material intake for sea turtles and their remains. The baskets or screening must be safely accessible to the observer and designed for efficient cleaning.

Complete (100%) inflow screening of dredged material is required. The hopper's inflow screens should have 4-inch by 4-inch screening. If the CONTRACTOR determines that the draghead is clogging and reducing production substantially, the CONTRACTOR may request GOVERNMENT approval to sequentially modify the required inflow screening by first increasing the screen mesh to 6-inch by 6-inch, then 9-inch by 9-inch, then 12-inch by 12-inch openings. The CONTRACTOR shall, in such request, include information and data to demonstrate that the required inflow screening is causing significant clogging of the draghead, reduced production rates, etc. The GOVERNMENT may elect to allow the CONTRACTOR to increase the required mesh size in sequential steps (i.e., to 6 inch, 9 inch); however, any such approved increase in inflow mesh size shall also require that the CONTRACTOR implement effective, 100% overflow screening. As part of any request to the GOVERNMENT to reduce inflow screening requirements, the CONTRACTOR shall include a description of the methods to be used to meet the 100% overflow screening performance standard.

7.2.2. Turtle Deflector Device: When hopper dredges are used, the dredges must be equipped with a rigid deflector draghead. Deflectors must be checked and/or adjusted by a designated expert prior to dredge operation to insure proper installment and operation during dredging. The deflector must be checked after every load throughout the dredge operation to ensure that proper installation is maintained. Since operator skill is important to the effectiveness of the draghead, operators must be properly instructed in its use. The hopper dredge will be operated in a manner that will reduce the risk of interaction with any sea turtles that might be present in the dredge area, as detailed in the following guidelines.

7.2.3. Draghead Operations: The CONTRACTOR shall ensure that the draghead of all hopper dredges is operated in accordance with the following requirements.

The draghead shall remain on the bottom at all times during a pumping operation, except when: 1) the dredge is not in a pumping operation, and the suction pumps are turned completely off; 2) the dredge is being re-oriented to the next dredge line during borrow activities; or 3) the vessel's safety is at risk (i.e., the draghead is trailing too far under the ship's hull).

At initiation of dredging, the draghead shall be placed on the bottom during priming of the suction pump. If the draghead and/or drag-arm become clogged during dredging activity, the pump shall be shut down, the drag-arms raised, and the draghead and/or drag-arm can be flushed out by trailing the drag-arm along side the ship. If plugging conditions persist, the draghead shall be placed on deck, whereby sufficient numbers of water ports can be opened on the draghead to prevent future plugging.

Upon completion of a dredge track line, the drag tender shall: 1) throttle back on the RPMs of the suction pump engine to an idling speed (e.g., generally less than 100 RPMs) prior to raising the draghead off the bottom, so that no flow of material is coming through the pipe into the dredge hopper. Before the draghead is raised, the vacuum gauge on the pipe should read zero, so that no suction exists both in the drag-arm and draghead, and no suction force exists that can impinge a turtle on the draghead grate; 2) hold the draghead firmly on the bottom with no flow conditions for approximately 10 to 15 seconds before raising the draghead; then, raise the draghead quickly off the bottom and up to a mid-water column level, to further reduce the potential for any adverse interaction with nearby turtles; 3) re-orient the dredge quickly to the next dredge line; and 4) re-position the draghead firmly on the bottom prior to bringing the dredge pump to normal pumping speed, and re-starting dredging activity.

7.2.4. <u>Intervals Between Dredging</u>: Sufficient time must be allotted between each dredging cycle for approved observers to inspect and thoroughly clean the baskets and screens for sea turtle and/or turtle parts and document findings. Between each dredging cycle, the approved observer should also examine and clean the dragheads and document findings.

7.3 <u>Relocation Trawling</u>: Relocation trawling shall be undertaken in addition to the use of turtle deflectors and visual observers to minimize the likelihood that a turtle take will occur.

7.3.1 <u>Mandatory Assessment Relocation Trawling</u>: The CONTRACTOR is REQUIRED to conduct continuous and repeated assessment relocation trawling repeatedly in the dredging area for 72 hours prior to commencing hopper dredging to assess the presence of protected sea turtles in the dredge area and to relocate any individuals that may be in the path of the trawler. In the event that any protected turtles are taken or observed during assessment

relocation trawling, relocation trawling shall continue concurrent with all hopper dredging operations. The relocation trawling shall occur continuously and concurrent with hopper dredging operations. In the event that no turtles are taken or observed over fourteen consecutive days of relocation trawling and hopper dredging operations, the CONTRACTOR may elect to discontinue relocation trawling, however, relocation trawling shall immediately resume in the event that either 1) two protected turtles are taken during a 24-hour period, or 2) a total of four (or more) protected turtles are taken during the execution of work under this contract.

7.3.2 **Relocation Trawling:** In the event that protected turtles are observed or taken during assessment relocation trawling, or in the event that event that either 1) two protected turtles are taken during a 24-hour period, or 2) a total of four (or more) protected turtles are taken during the execution of work under this contract, the CONTRACTOR is REQUIRED to resume continuous and complete relocation trawling during all hopper dredging operations. Such relocation dredging will occur continuously unless no turtles are taken or observed over fourteen consecutive days of relocation trawling and hopper dredging operations, at which time the CONTRACTOR may elect to discontinue relocation trawling. However, relocation trawling shall immediately resume in the event that either 1) two protected turtles are taken during a 24-hour period, or 2) a total of four (or more) protected turtles are taken during the execution of work under this contract.

7.3.3 **Relocation Trawling Requirements:** During any and all relocation trawling operations, continuous trawling should occur in front of the dredge vessel as it moves along the planned dredge track lines. In addition, NOAA Fisheries-approved observers will be present onboard the relocation trawler whenever relocation trawling is occurring. All trawling operations shall be conducted in conformance with the below requirements.

All sea turtles captured during relocation trawling will be handled solely by the NOAA Fisheries-approved observers and handled according to the Protected Resources Division's guidelines. The condition of captured turtles shall first be evaluated by the observers and resuscitation will be performed by the observers if necessary. Captured turtles will be scanned for existing tags. Untagged turtles will be fitted with the appropriate tag in accordance with Appendix VIII of the Environmental Protection Provisions, Sea Turtle Tagging Requirements. The location of released turtles will be noted and recorded.

7.3.3.1 **Trawl Tow Time:** Trawl tow-time duration shall be not longer than 42 minutes (doors in - doors out) and trawl speeds shall not exceed 3.5 knots.

7.3.3.2 Handling Captured Sea Turtles: Sea turtles captured pursuant to relocation trawling shall be handled in a manner designed to ensure their safety and viability, and shall be released over the side of the vessel, away from the propeller, and only after ensuring that the vessel's propeller is in the neutral, or disengaged, position (i.e., not rotating). Handling and resuscitation requirements are attached (Appendix VII of the Environmental Protection Provisions).

Captured turtles shall be kept moist, and shaded whenever possible, until they are released.

All turtles shall be measured (standard carapace measurements including body depth) and tagged, and weighed when safely possible, prior to release. Any external tags shall be noted and data recorded into the observer's log. Only NOAA Fisheries-approved observers or observer candidates in training under the direct supervision of a NOAA Fisheries-approved observer shall conduct the tagging/measuring/weighing operations.

Turtles shall be kept no longer than 12 hours prior to release.

7.3.3.3 Relocation of Captured Sea Turtles: Captured sea turtles shall be released not less than three nautical miles from the dredge site. If two or more released turtles are later recaptured, subsequent turtle captures shall be released not less than five nautical miles away. If it can be done safely, turtles may be transferred onto another vessel for transport to the release area to enable the relocation trawler to keep sweeping the dredge site without interruption.

7.4 Artificial Lighting: When night work is performed, all on-beach lighting associated with the project will be limited to the immediate area of active construction. Such lighting must consist of shielded, low pressure, sodium vapor lights to minimize illumination of the nesting beach and near shore waters. Red filters will be placed over vehicle headlights (i.e. bulldozers, front-end loaders). Lighting on offshore equipment will be similarly minimized through reduction, shielding, lowering, and appropriate placement of lights to avoid excessive illumination of the water, while meeting all U.S. Coast Guard and OSHA requirements. Shielded, low pressure, sodium vapor lights are highly recommended for use on offshore equipment when lighting cannot be eliminated. The beach will be inspected for turtle activity every hour during the night and construction within the vicinity of the nest halted if any turtle nesting activity is observed in the construction zone.

7.5 Reporting Requirements:

7.5.1 Weekly Reports: In addition to the notification requirements, the CONTRACTOR shall prepare weekly reports, including all completed load sheets, photographs, completed Endangered Species Observation Forms and relevant Incident Reports. The Weekly reports shall also describe the extent and nature of activities required under this section, including personnel, equipment, any visual sitings, and the results of all relocation trawling. Weekly reports shall be submitted to the GOVERNMENT and to the attention of David Bernhart, NOAA Fisheries, South East Regional Office, N263 13th Avenue, St. Petersburg, FL, 33701 no later than five calendar days after the close of the weekly reporting period.

7.5.2 Final Report: The CONTRACTOR shall submit a final report which summarizes all actions taken under this section, and shall include a complete set of all weekly reports, completed forms and notifications. The report is intended to serve as an independent comprehensive review and summary of all elements of the CONTRACTOR'S work in accordance with the provisions of this section. The final report shall be submitted within 45 days of the completion of activities required under this section to the GOVERNMENT and to the attention of Georgia Cranmore, NOAA Fisheries, South East Regional Office, 263 13th Avenue, St. Petersburg, FL, 33701.

7.5.3 Disposition of Parts: If any whole turtles (alive or dead) or turtle parts are taken incidental to the project, all whole dead sea turtles or turtle parts should be photographed and described in detail on the Incident Report of Sea Turtle Take (Appendix VI of the Environmental Protection Provisions) and submitted to the Government within 24 hours. The photographs and reports should be submitted to the Contracting Officer's Technical Representative (COTR), David Bernhart, NOAA Fisheries, South East Regional Office, 263 13th Avenue, St. Petersburg, FL, 33701 and Rachel Sweeney, National Marine Fisheries Service, c/o Louisiana State University, Military Science Bldg. Rm. 266, South Stadium Road, Baton Rouge, Louisiana 70803. Any dead Kemp Ridley sea turtles shall be photographed, placed in plastic bags, labeled with location, load number, date, and time taken, and placed in cold storage. Dead turtles or turtle parts will be further labeled as recent or old kills based on evidence such as fresh blood, odor, and length of time in water since death. Disposition of dead sea turtles will be determined by NOAA Fisheries. Other sea turtle species (loggerhead, leatherback, or green turtles) taken either whole or in parts, should be disposed of (after a photograph is taken and a reporting form has been completed) by attaching a weight to the animal and dumping the specimen at the dredge spoil disposal site. If the species is unidentifiable or if there are entrails that may have come from a turtle, the subject should be photographed, placed in plastic bags, labeled

with location, load number, date and time taken, and placed in cold storage. Dead Kemp Ridley or unidentifiable species or parts will be collected by NOAA Fisheries or NOAA Fisheries-approved personnel.

8 PROTECTION OF MIGRATORY AND OTHER PROTECTED BIRDS

8.1 Certain bird species are protected by the U.S. Fish and Wildlife Service and the Louisiana Department of Wildlife and Fisheries. Protected bird species most likely to be encountered include, but are not limited to, least terns, black skimmers, and brown pelicans. The CONTRACTOR is invited to employ personnel familiar with protected birds to allow for easy identification of birds encountered during the execution of work under this Contract.

8.2 The CONTRACTOR shall patrol twice daily Gulf-side beaches, associated sand flats and overwash areas, and island fill areas to identify any nesting birds between April 1st and September 15th. This effort includes not only existing beaches, dunes, and sand flats, but dunes, dune slopes, beach berms, and other areas of island fill created during the execution of the Work. The CONTRACTOR shall especially patrol unvegetated or sparsely vegetated sand flats, overwash areas, and island fill areas, such as the created dune, which are prime nesting habitat. The CONTRACTOR should note that created island habitat are premium nesting habitats; consequently, increased patrols of created island habitat may be required to preclude the initiation of nesting on these areas during grading and shaping, as-built surveys, data processing, review and acceptance and sand fence installation. Such patrols shall be conducted continuously from April 1 through September 15th throughout the period of construction, or until all work (including grading and shaping, sand fence installation, and access activities) is completed for acceptance segments. In the event that the CONTRACTOR discovers any evidence of nests or eggs of any protected bird species, the CONTRACTOR shall immediately cease work in the immediate vicinity of the nest and shall immediately notify the GOVERNMENT.

8.3 The CONTRACTOR shall include a description of daily patrols (personnel, locations, time), patrol results (any bird observations, species observed, location, behavior, nests found), and any actions taken as a result of such patrols or observations in the DAILY CONTRACTOR QUALITY CONTROL REPORT, Appendix IV of the General Conditions.

9. POST CONSTRUCTION CLEAN-UP

The CONTRACTOR shall clean-up any area used for construction as stated in General Conditions.

10. RESTORATION OF LANDSCAPE DAMAGE

The CONTRACTOR shall restore all landscape features, land resources, water resources, and fish and wildlife resources damaged or destroyed during construction operations that are outside the limits of the approved work areas. Such restoration shall be in accordance with a plan submitted for

approval by the GOVERNMENT. This work shall be accomplished at the CONTRACTOR'S expense. Final payment to the CONTRACTOR shall not occur until the GOVERNMENT is satisfied with the CONTRACTOR'S effort to restore landscape or any other damage caused by the CONTRACTOR or his subcontractors.

11. MAINTENANCE OF POLLUTION CONTROL FACILITIES

The CONTRACTOR shall maintain constructed facilities and portable pollution control devices for the duration of the Contract or for that length of time that construction activities create the particular pollutant.

12. TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION

The CONTRACTOR shall train all subcontractors and personnel in all phases of environmental protection. Personnel and subcontractors shall be familiar with permit requirements and with the necessity of protection of all habitats. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to insure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment and shall be thoroughly knowledgeable of Federal, State, and Local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the CONTRACTOR. Quality Control personnel shall be identified in the Quality Control Plan submitted in accordance with the General Conditions.

13. FUEL OIL TRANSFER OPERATIONS

In accordance with U.S. Coast Guard regulations (33 CFR 156.120, or as revised or updated), couplings used in fuel oil transfer operations on any vessel with a capacity of 250 or more barrels of oil (or fuel) shall be either a bolted or full-threaded connection, a quick-connect coupling approved by the Commandant, or an automatic back-pressure shutoff nozzle used to fuel the vessel. An executed fuel oil transfer (Declaration) form signed by the tanker man shall be completed for each refueling operation. The U.S. Coast Guard shall also be notified prior to any refueling.

14. SUBMITTALS

14.1 **Environmental Protection Plan:** At least seven (7) days prior to the pre-construction meeting, the CONTRACTOR shall submit in writing an Environmental Protection Plan to the GOVERNMENT. Approval of the CONTRACTOR'S plan will not relieve the CONTRACTOR of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. The Environmental Protection Plan shall include but may not be limited to the following:

14.1.1 Methods for protection of features and habitats to be preserved within authorized work areas. The CONTRACTOR shall prepare a listing of methods to protect resources needing protection (i.e. all vegetation, trees,

shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological and cultural resources, and environmental resources).

14.1.2 Procedures to be implemented by the CONTRACTOR to assure compliance with the environmental protection requirements of Section 6.1 of the Environmental Protection Provisions, Protection of Land Resources, and to comply with the applicable permits, laws, and regulations. The CONTRACTOR shall address each element of Environmental Protection described in Section 6.1 of the Environmental Protection Provisions. The CONTRACTOR shall also provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the Environmental Protection Plan.

14.1.3 Procedures to be implemented by the CONTRACTOR to assure compliance with the protection of water, fish, and wildlife resources, per the requirements of Section 6.9 of the Environmental Protection Provisions, and to comply with the applicable permits, laws, and regulations. The CONTRACTOR shall address each element of the protection of water, fish, and wildlife resources as described in Section 6.9 of the Environmental Protection Provisions. The CONTRACTOR shall also provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the Environmental Protection Plan.

14.1.4 A list of Federal, State, and Local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the CONTRACTOR'S proposed operations and the requirements imposed by those laws, regulations, and permits.

14.1.5 Drawings showing locations of any proposed temporary excavations or embankments for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.

14.1.6 Environmental monitoring plans for the jobsite, including land, water, air, and noise monitoring.

14.1.7 Turbidity Control Plan which describes measures to be taken by the CONTRACTOR to avoid the discharge of turbid, silt-laden water from the project area sufficient to ensure that water bodies, wildlife, and fisheries resources, including commercial fisheries resources, will not be damaged. The CONTRACTOR shall provide a Turbidity Control Plan detailing means and methods for any discharge of water outside the project footprint. The

plan must contain methods to limit turbidity and sedimentation in open water. Turbidity curtains shall be used at all outflow areas.

14.1.8 Oil spill prevention.

14.1.9 Oil spill contingency plan.

14.1.10 A protection plan for threatened and/or endangered species within the project area.

14.1.11 Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. The plan shall include measures for marking the limits of use areas.

14.1.12 The location of the solid disposal area.

14.1.13 A statement as to the person who will be responsible for implementation of the Environmental Protection Plan. The CONTRACTOR personnel responsible shall report directly to the CONTRACTOR'S top management and shall have the authority to act for the CONTRACTOR in all environmental protection matters.

14.1.14 A statement acknowledging that the CONTRACTOR is responsible for environmental protection, including all of the CONTRACTOR'S personnel and subcontractors.

14.1.15 The Environmental Protection Plan shall be dated and endorsed by the individual of top management in charge of the construction.

15. NOISE CONTROL

The CONTRACTOR shall comply with all Federal, state, and local sound control and noise level ordinances, regulations, and laws that apply to the project site. All hauling and excavating equipment, including dredges, used on this Work shall be equipped with satisfactory mufflers or other noise abatement devices. Booster pumps used on this Work shall be equipped with either or both satisfactory mufflers and other sound abatement devices to reduce engine noise. The GOVERNMENT may request the CONTRACTOR to construct a sound barrier landward of booster pumps in order to reflect noise waterward.

16. SCHEDULE OF DELIVERABLES

Pelican Island Restoration
Schedule of Environmental Protection Provisions Deliverables

TASK	DELIVERABLE	SUBMISSION
EP-6.11	Turbidity Control Plan	Seven (7) days prior to the pre-construction conference
EP-7	Sea Turtle Protection Plan	Seven (7) days prior to the pre-construction conference
EP-7.1	Endangered Species Observation Form	Daily by 2:00 p.m. the following day
EP-7.1	Sea Turtle Take Report	Immediately
EP-7.5.1	Sea Turtle Weekly Reports	Five (5) days after the close of the weekly reporting period.
EP-7.5.2	Sea Turtle Final Report	Forty-five (45) days after the completion of sea turtle activities
EP-7.5.3	Sea Turtle Disposition Reports	Twenty-four (24) hours after the incident
EP-14.1	Environmental Protection Plan	Seven (7) days prior to the pre-construction conference

APPENDIX I

USACE PROJECT PERMIT

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

APR 28 2011

Operation Division
Eastern Evaluation Section

SUBJECT: MVN-2010-2720-EFF
(Pelican Island BA-38 –Modification 1)

National Marine Fisheries Service
LSU, South Stadium Drive
Baton Rouge, Louisiana 70803
Attn: Mr. Rick Hartman

Revised drawings attached in twenty four sheets, furnished with your letter dated February 23, 2011, covering the inclusion of approximately 77 acres of additional marsh platform, retention dike modifications, additional borrow canal, decreased beach fill volume, modified beach and dune alignment, and tie-in at the Empire Waterway rock jetty; all for constructing the Pelican Island (BA-38) CWPPRA project, located east of the Empire Waterway on the Gulf of Mexico, near Empire, Louisiana, within Plaquemines Parish. These plats hereby supersede original drawings of your permit and are approved and will be included in your plans for the work authorized by the Secretary of the Army in the permit dated August 13, 2009, from the District Engineer at New Orleans, Louisiana.

The following special conditions are made supplemental to your authorization:

1. The applicant shall insure that the dredge contractor minimizes migration of dredge materials into the Empire Waterway, during construction of the project.

2. The applicant shall immediately contact and consult with the US Fish and Wildlife Service (USFWS) in the event that shorebird bird nesting is observed during construction activities.

3. Passive measures such as the placement of filter cloth or orange fencing material along the beaches shall be carried out, in order to attempt discouragement of shorebird nesting. If deemed unsuccessful, alternate measures such as dogs or continuous human presence should be attempted in order to deter nesting. More aggressive methods of hazing (i.e. cannons, flares) may also be applied, if found necessary.

4. Timing, persistence, organization, and diversity of abatement measures are crucial in deterring shorebirds from establishing active nesting colonies. Abatement measures shall be overseen and/or conducted by a certified wildlife biologist familiar with shorebird ecology and the proposed deterrence methods. Abatement techniques shall be coordinated with the USFWS and LA Department of Wildlife and Fisheries, prior to use.

5. To increase effectiveness of the nesting prevention program, it is recommended that a combination of abatement measures be employed. Additionally, the types of abatement measures as well as their special and temporal deployment should be varied frequently to reduce the chances of shorebirds becoming habituated to the deterrence methods.

6. Since this proposed activity occurs within an area impacted by the Deepwater Horizon Oil Spill, the permittee is required to contact the US Coast Guard, Unified Area Command Situation Cell (USCG) prior to commencement of work for the purpose of obtaining clearance to conduct any dredge and/or fill activities within affected areas as authorized by this permit action. Permittee should be prepared to provide location data and estimated duration of work activities when coordinating with the USCG. Telephone inquiries can be directed to **504-335-0957**.

All other conditions to which the work is made subject remain in full force and effect.

A copy of this permit approval letter must be conspicuously displayed at the project site. Also, you must keep a copy of this signed letter, with attached drawings, at the project site until the work is completed.

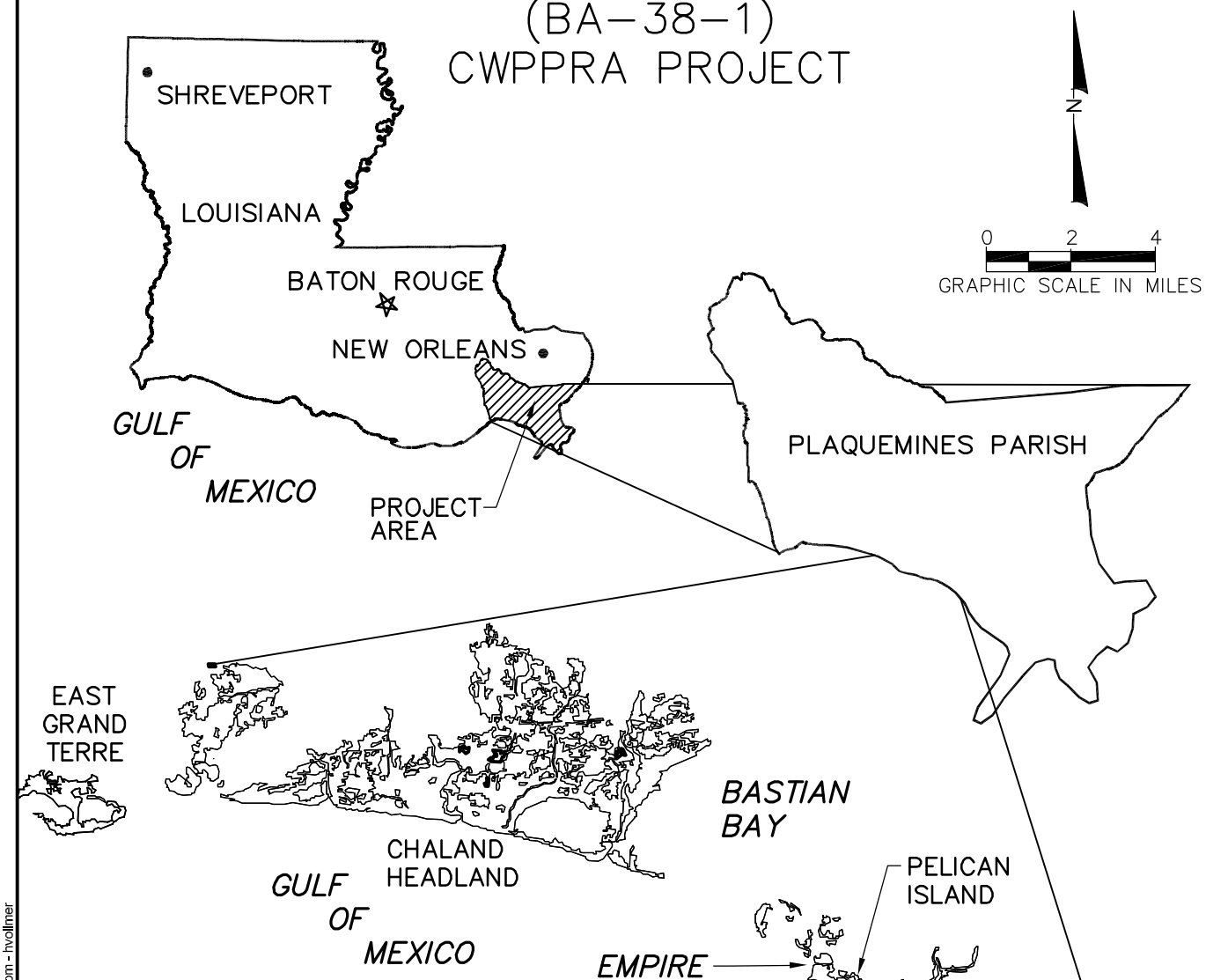
The New Orleans District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete and return the attached Customer Service Survey or go to the survey found on our web site at http://per2.nwp.usace.army.mil/survey.html.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Pete Serio
Chief, Regulatory Branch
for
Edward R. Fleming
Colonel, U.S. Army
District Commander

Enclosure

PELICAN ISLAND RESTORATION
(BA-38-1)
CWPPRA PROJECT



NOTE:

SOURCE OF MAP: LOUISIANA GIS CD;
A DIGITAL MAP OF THE STATE, 2 CD SET.

SHEET INDEX

REVISIONS		
DATE	BY	DESCRIPTION
2/10/05	DNR	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA
11/02/10	GT	UPDATED BEACH SECTION AND JETTY

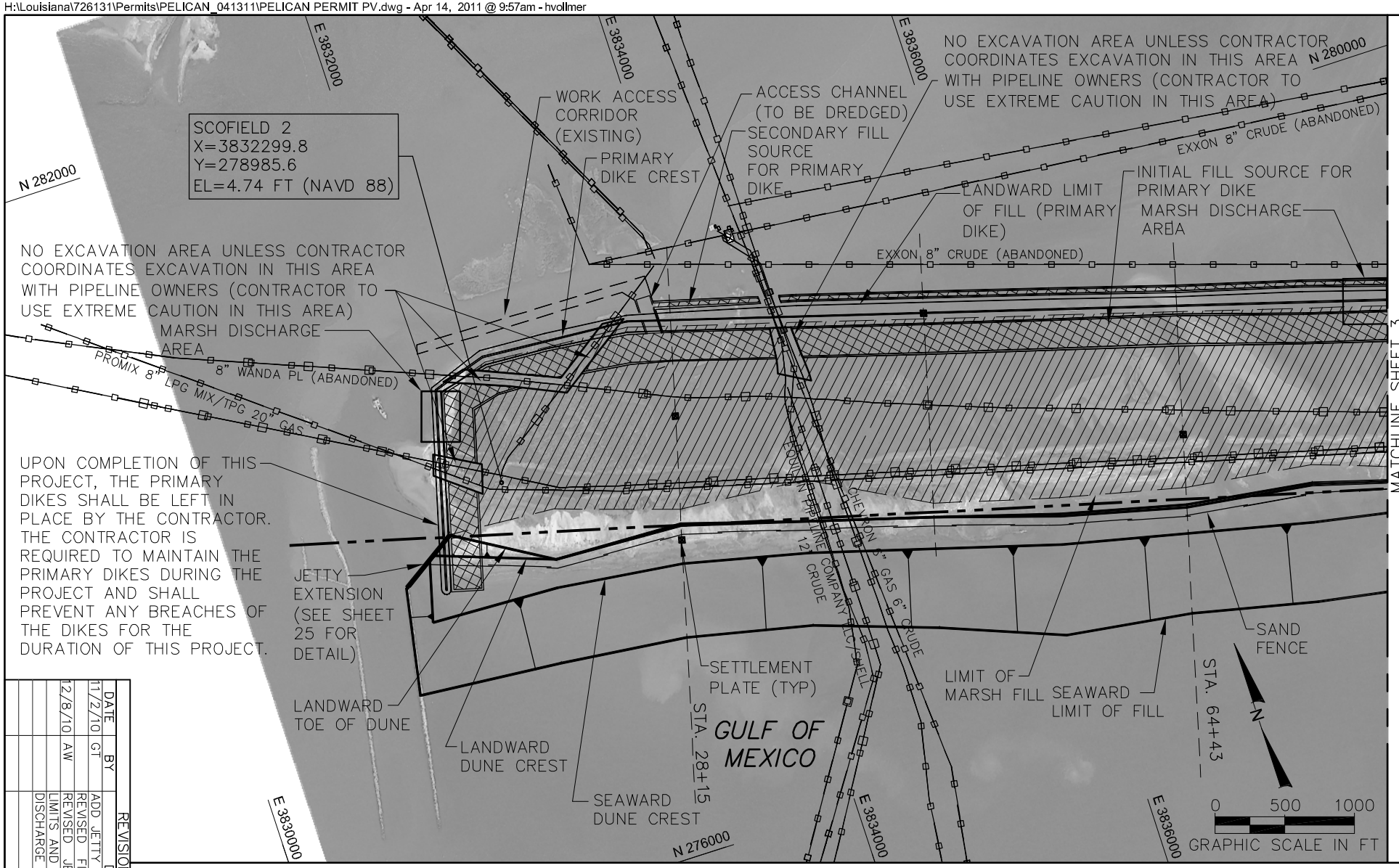
PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT LOCATION MAP

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-8102
FAX (561) 391-9116
C.O.A. FL. #4028
C.O.A. LA. #2531
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 1

H:\Louisiana\726131\Permits\PELICAN_041311\PELICAN LOCATION_MAP.dwg - Apr 13, 2011 @ 4:59pm - hvollmer

H:\Louisiana\726131\Permits\PELICAN_041311\PELICAN PERMIT PV.dwg - Apr 14, 2011 @ 9:57am - hvollmer



NOTES:

1. PHOTOGRAPH TAKEN IN 2008.
2. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
3. LAND EQUIPMENT/MARSH BUGGY ACCESS WILL BE RESTRICTED TO CONSTRUCTION AREAS ONLY. TRACKING THROUGH EXISTING MARSH OUTSIDE THE PROJECT AREA IS PROHIBITED.
4. MINOR ALIGNMENT CHANGES THAT DO NOT IMPACT VEGETATED WETLANDS MAY BE EXECUTED IN THE FIELD.

LEGEND:

- MARSH HYDRAULIC FILL
- FILL SOURCE FOR PRIMARY DIKE
- SETTLEMENT PLATE
- PROBABLE OIL & GAS INFRASTRUCTURE
- PROJECT BASELINE
- SAND FENCING

REVISIONS			
DESCRIPTION	BY	DATE
ADD JETTY, SECONDARY FILL	GT	11/2/10
REVISED FILL TEMPLATE	AW	12/8/10
REVISED JETTY EXCAVATION LIMITS AND ADDED MARSH DISCHARGE AREAS		

SHEET:	COMM NO.:	BY:	DATE:
2	7261.31	TM	11/5/07

COASTAL PLANNING & ENGINEERING, INC.
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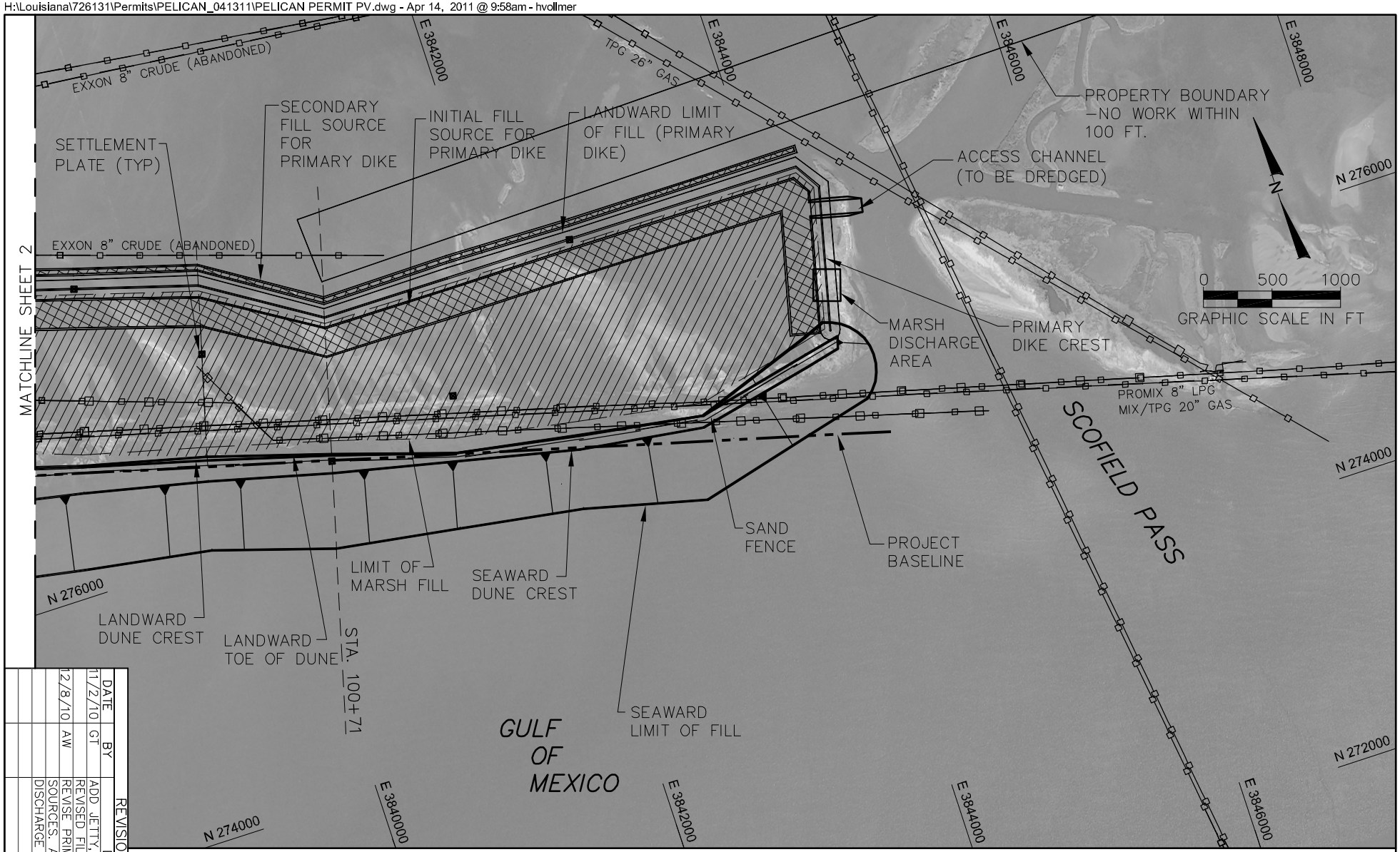
TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT PROJECT PLAN VIEW

H:\Louisiana\726131\Permits\PELICAN_041311\PELICAN PERMIT PV.dwg - Apr 14, 2011 @ 9:58am - hvollmer



REVISIONS		
DESCRIPTION	BY	DATE
ADD JETTY, SECONDARY FILL	GT	11/2/10
REVISED FILL TEMPLATE	AW	12/8/10
REVISE PRIMARY DIKE AND FILL SOURCES. ADDED MARSH DISCHARGE LOCATIONS		

NOTES:

1. PHOTOGRAPH TAKEN IN 2008.
2. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
3. LAND EQUIPMENT/MARSH BUGGY ACCESS WILL BE RESTRICTED TO CONSTRUCTION AREAS ONLY. TRACKING THROUGH EXISTING MARSH OUTSIDE THE PROJECT AREA IS PROHIBITED.
4. MINOR ALIGNMENT CHANGES THAT DO NOT IMPACT VEGETATED WETLANDS MAY BE EXECUTED IN THE FIELD.

LEGEND:

- MARSH HYDRAULIC FILL
- FILL SOURCE FOR PRIMARY DIKE
- SETTLEMENT PLATE
- PROBABLE OIL & GAS INFRASTRUCTURE
- PROJECT BASELINE
- SAND FENCING

SHEET:	COMM NO.:	BY:	DATE:
3	7261.31	TM	11/5/07

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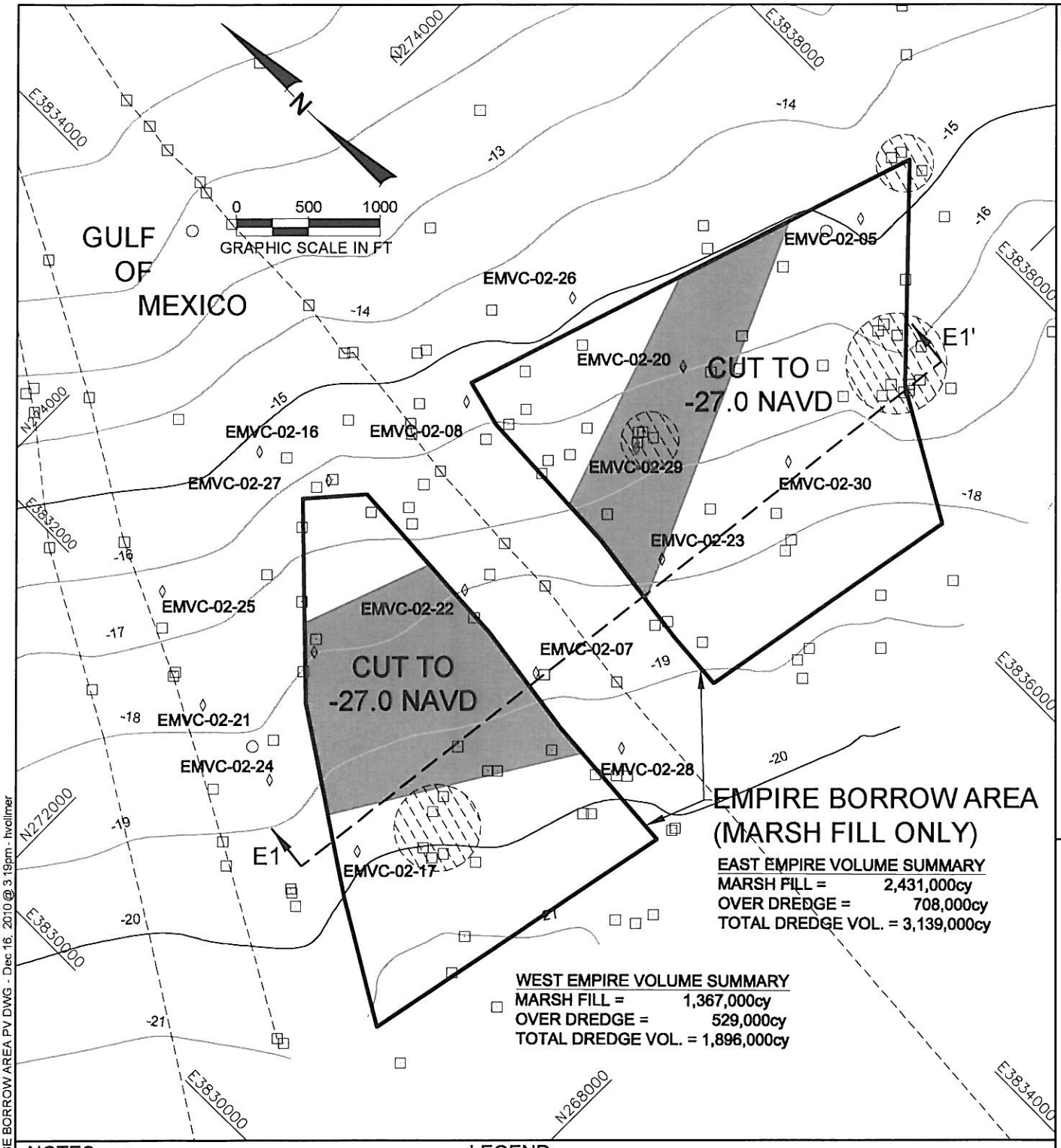
TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT PROJECT PLAN VIEW



EAST EMPIRE VOLUME SUMMARY

MARSH FILL =	2,431,000cy
OVER DREDGE =	708,000cy
TOTAL DREDGE VOL. =	3,139,000cy

WEST EMPIRE VOLUME SUMMARY

MARSH FILL =	1,367,000cy
OVER DREDGE =	529,000cy
TOTAL DREDGE VOL. =	1,896,000cy

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN HEREON ARE IN FEET AND DERIVED FROM THE BATHYMETRIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); LOUISIANA GIS CD: 4 DIGITIAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET BASED ON NAVD 88.

LEGEND:

- CPE 2002 VIBRACORE LOCATION
- 2002 MAGNETOMETER HIT
- BSS CORE LOCATIONS (FROM USGS FILE REPORT NO. 01-384, DATED SEPTEMBER 2001, APPENDIX B CD ROM)
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINE LOCATION
- PRIMARY DREDGE AREA (SILT/CLAY/SAND)
- -20 BATHYMETRIC CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
8/10/07	TDM	REVISED CUTS PER NOAA
11/2/10	GT	ADDED CUT VOLUMES

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT
EMPIRE BORROW AREA BATHYMETRY

COASTAL PLANNING & ENGINEERING, INC.
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FAX: (561) 391-6118
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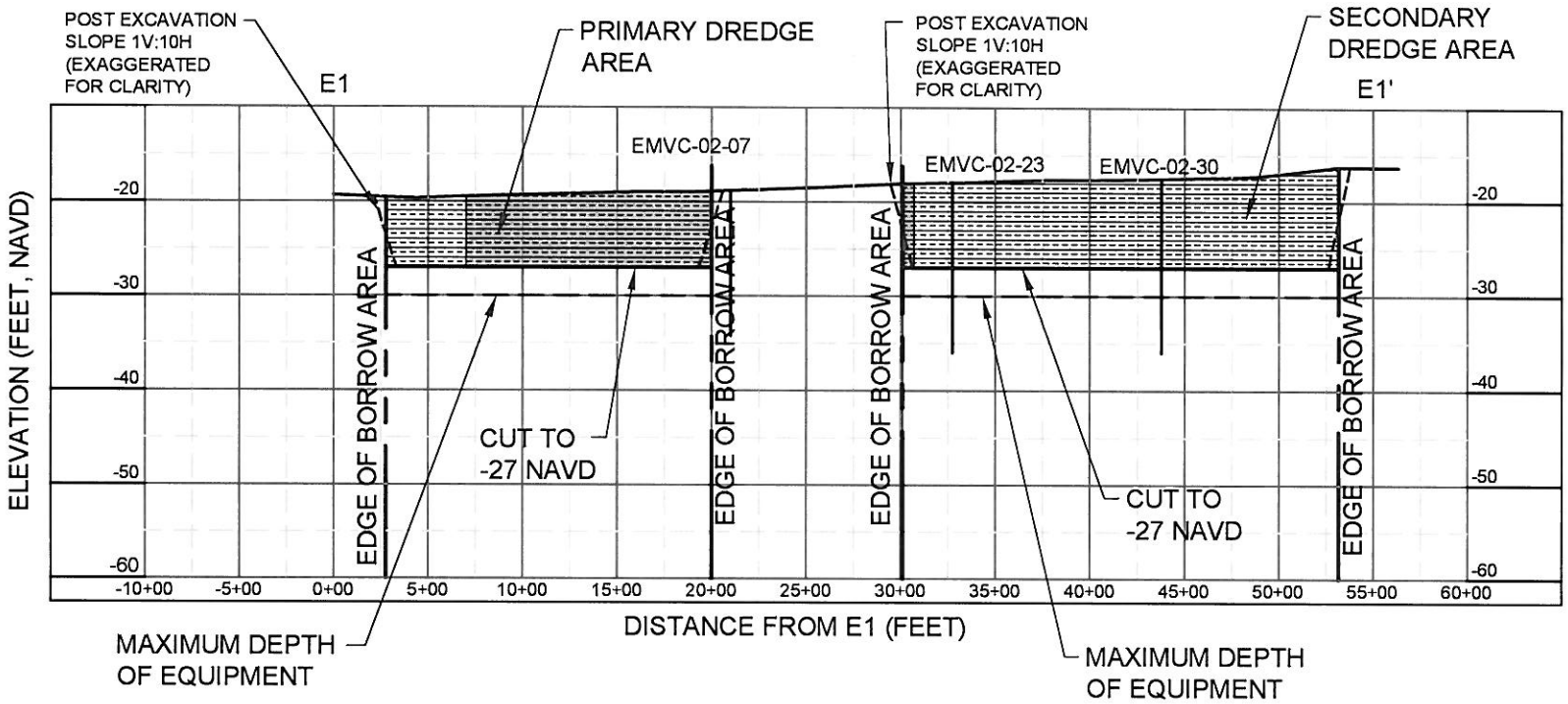
C.O.A. LA. #2551
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 4

H:\Louisiana\726131\Permits\PELICAN_121610\PELICAN SE BORROW AREA PV.DWG - Dec 16, 2010 @ 3:19pm - hvollmer

EMPIRE BORROW AREA
CROSS SECTION E1 - E1'



REVISIONS		
DESCRIPTION	BY	DATE
ADD MDE NOTE	GT	11/2/10

NOTE:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 4 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW THE DESIGN CUT DEPTH.

LEGEND:

EMVC-02-17 DENOTES CPE 2002 VIBRACORE LOCATION

SILT/CLAY/SAND (PRIMARY DREDGE AREA)

SILT/CLAY LAYER

SCALE: 1"= 1000' HORIZONTAL
1"=20' VERTICAL

SHEET:	COMM NO.:	BY:	DATE:
5	7261.31	JRC	11/17/03

COASTAL PLANNING & ENGINEERING, INC.
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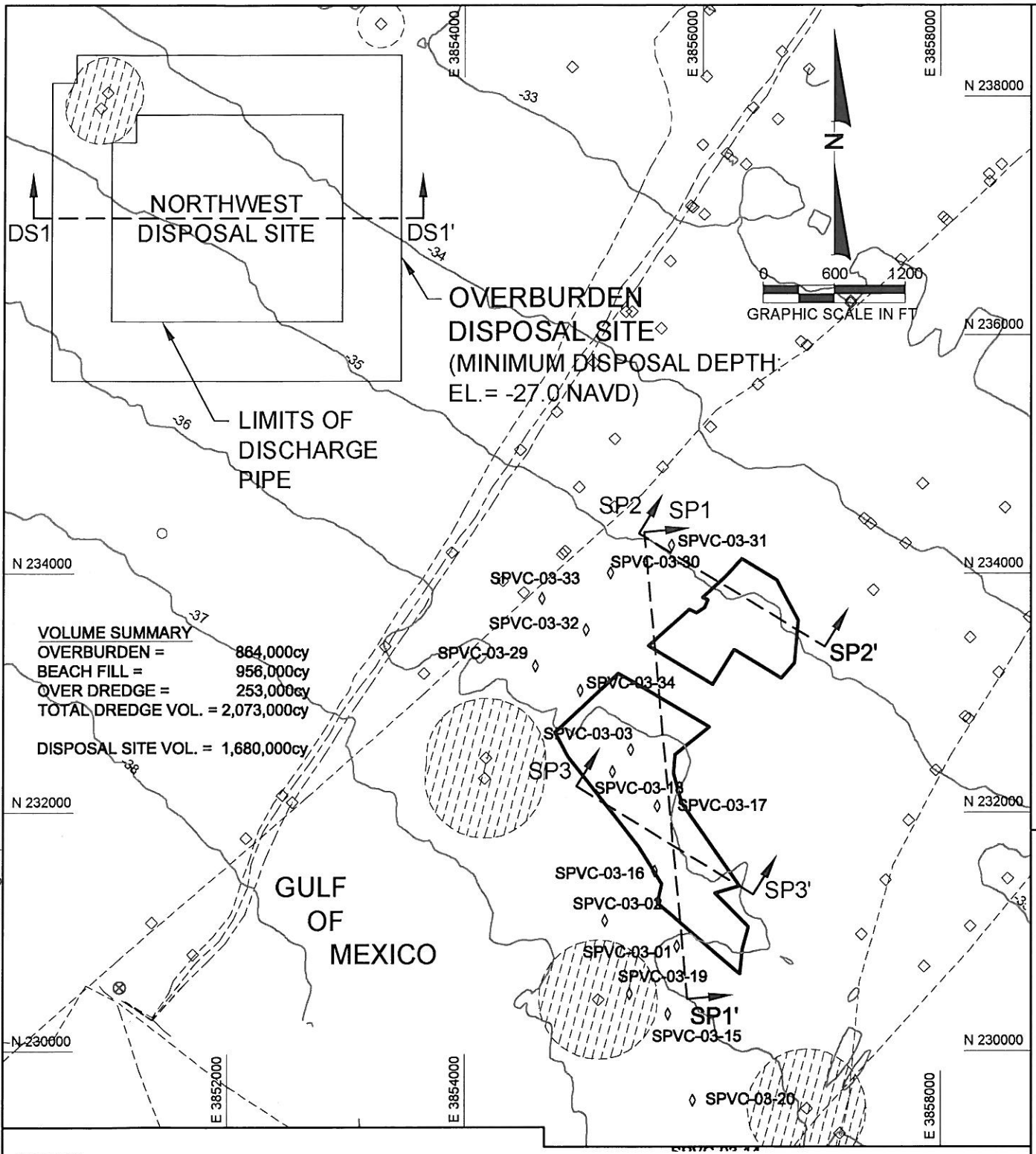
TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
EMPIRE BORROW AREA CROSS SECTION



PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA BATHYMETRY

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DERIVED FROM THE BATHYMETRIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET ; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- CPE 2003 VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -36 BATHYMETRIC CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
8/10/07	TDM	REVISED CUTS PER NOAA
8/29/07	JRC	REVISED BA SHAPE

COASTAL PLANNING & ENGINEERING, INC.
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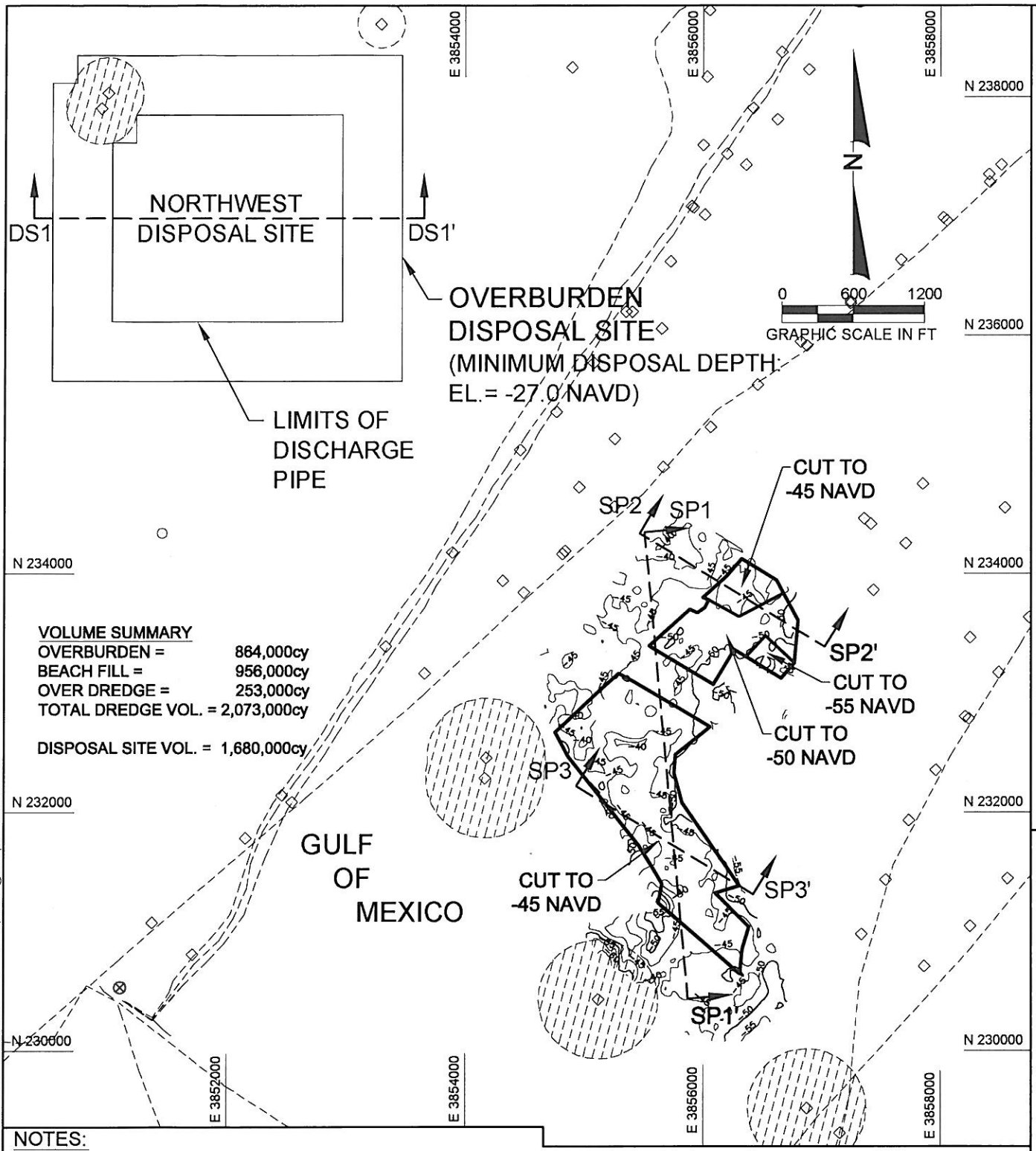
DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 6

H:\Louisiana\7261311\Permits\PELICAN_121610\PELICAN NW BORROW AREA PV DWG - Dec 16, 2010 @ 3:12pm - hvollmer



VOLUME SUMMARY

OVERBURDEN =	864,000cy
BEACH FILL =	956,000cy
OVER DREDGE =	253,000cy
TOTAL DREDGE VOL. =	2,073,000cy
DISPOSAL SITE VOL. =	1,680,000cy

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DEPICT THE FIRST SEISMIC REFLECTOR DERIVED FROM THE SEISMIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET ; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- ◇ MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- ---- PIPELINES
- -45 1ST SIESMIC REFLECTOR CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA OVERBURDEN CUTS

COASTAL PLANNING & ENGINEERING, INC.
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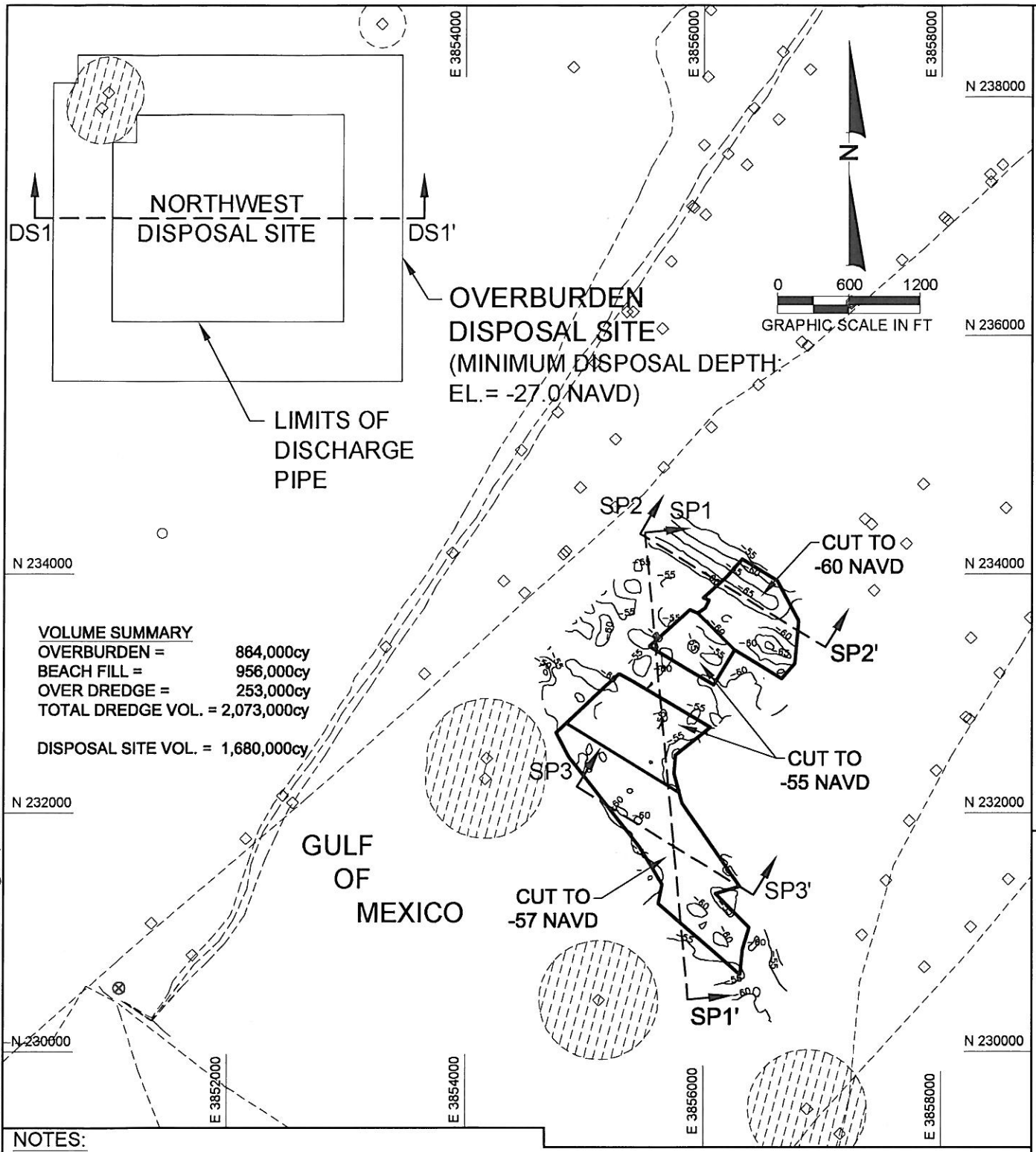
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 7



VOLUME SUMMARY

OVERBURDEN =	864,000cy
BEACH FILL =	956,000cy
OVER DREDGE =	253,000cy
TOTAL DREDGE VOL. =	2,073,000cy
DISPOSAL SITE VOL. =	1,680,000cy

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DEPICT THE ELEVATION OF THE SECOND SEISMIC REFLECTOR DERIVED FROM THE SEISMIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET ; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- ◇ MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- ---- PIPELINES
- -55 2ND SIESMIC REFLECTOR CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA DESIGN CUTS

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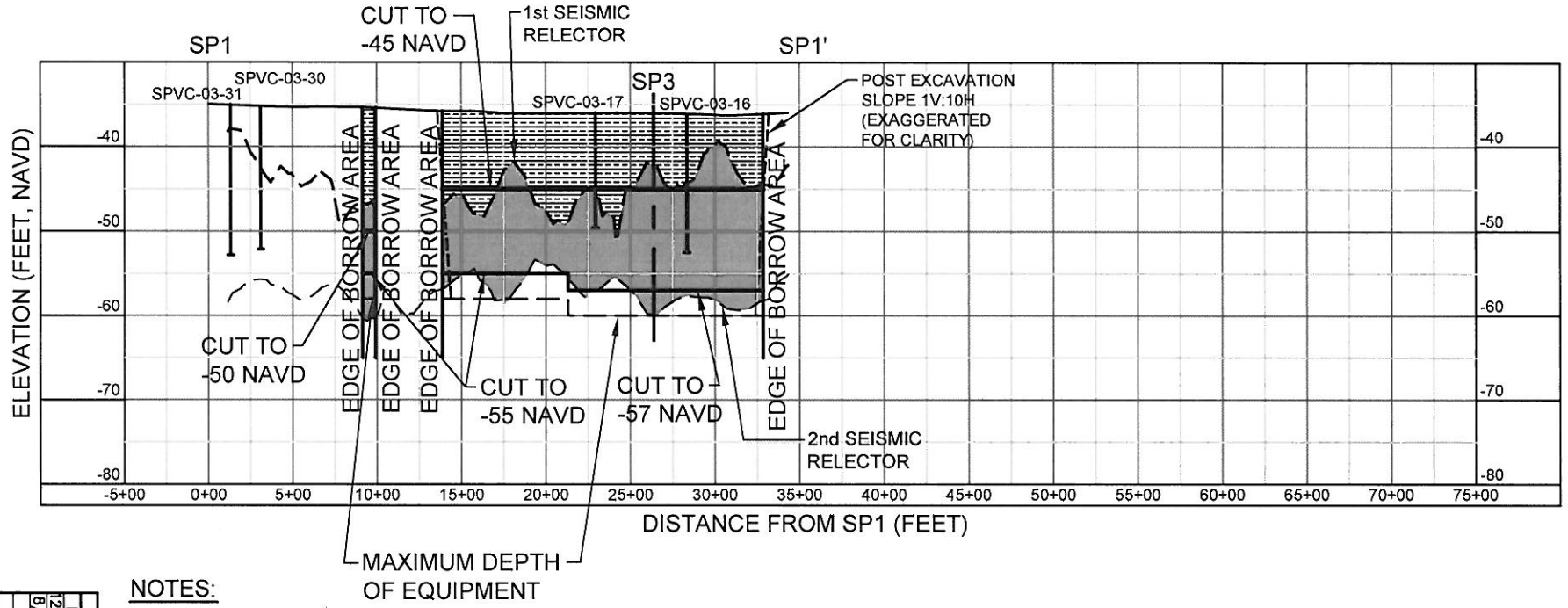
C.O.A. LA. #2931
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 8

SANDY POINT NW BORROW AREA
CROSS SECTION SP1-SP1'



NOTES:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 6-8 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. BEACH COMPATIBLE SEDIMENTS DELINEATED FROM VIBRACORES. ADDITIONAL COMPATIBLE SEDIMENTS MAY BE PRESENT BELOW THE INTERMITTENT ACOUSTIC REFLECTOR.
5. SEISMIC SURVEY CONDUCTED MAY 2003 BY CPE.
6. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW DESIGN CUT DEPTH.

LEGEND:

SPVC-03-03 DENOTES CPE 2003 VIBRACORE LOCATION

— — MAXIMUM DEPTH OF EQUIPMENT

BEACH COMPATIBLE SEDIMENTS

SURFACE SILT/CLAY LAYER

— — INTERMITTENT ACOUSTIC REFLECTOR WITHIN SAND DEPOSIT AS DELINEATED FROM SEISMIC SURVEY

SCALE: 1"= 1000' HORIZONTAL
1"= 20' VERTICAL

REVISIONS			
DESCRIPTION	BY	DATE
REVISED CUTS PER NOAA	TDM	8/10/07
REVISED CUTS	STR	12/17/03

SHEET: 9
COMM NO.: 7261.31
BY: JRC
DATE: 11/17/03

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
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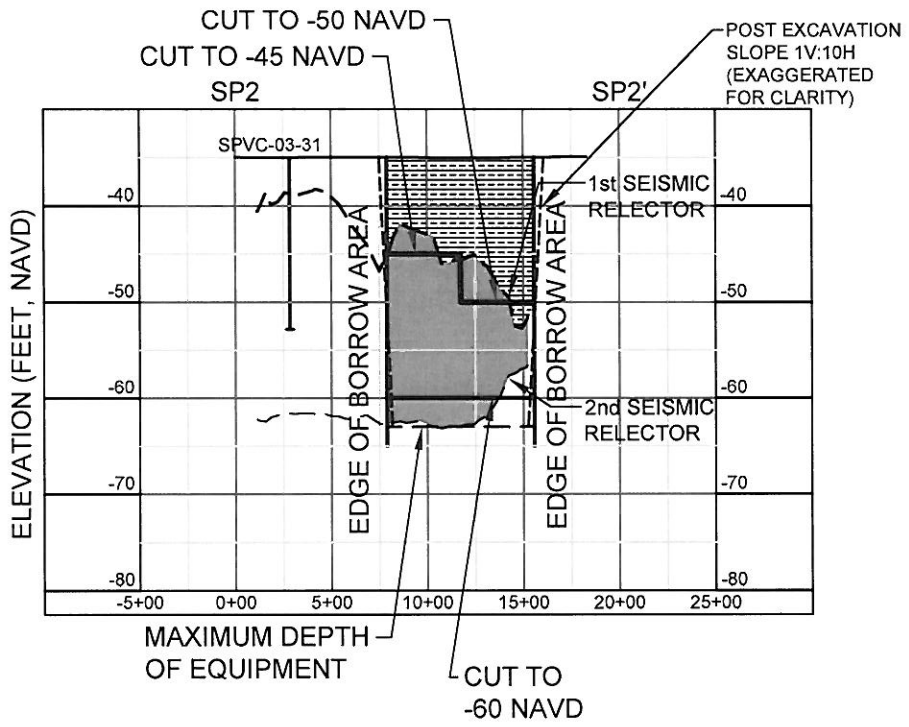
C.O.A. FL. #4028
C.O.A. LA. #2531
www.CoastalPlanning.net

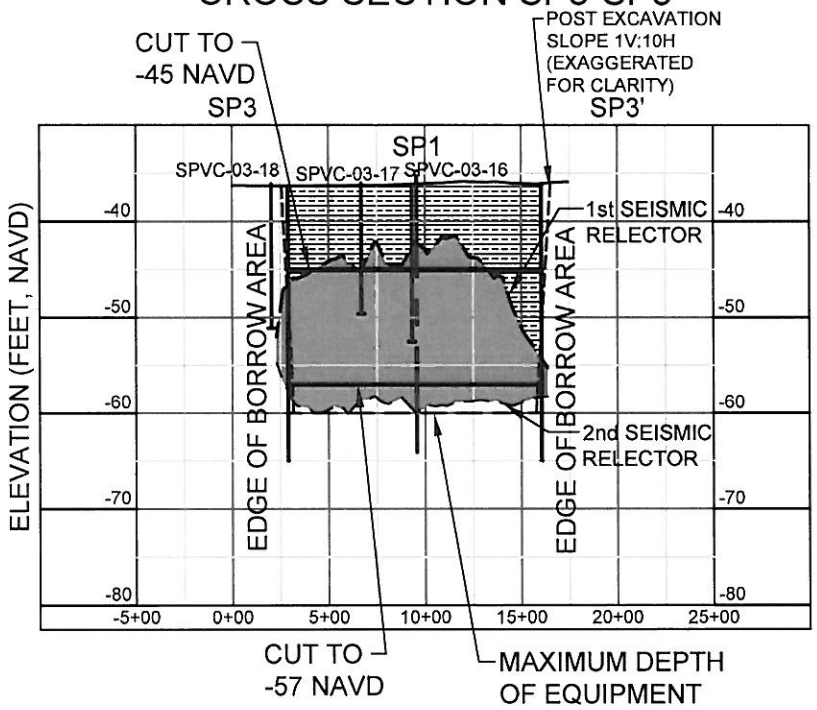
TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA CROSS SECTIONS

SANDY POINT NW BORROW AREA CROSS SECTION SP2-SP2'



SANDY POINT NW BORROW AREA CROSS SECTION SP3-SP3'



NOTES:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 6-8 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. BEACH COMPATIBLE SEDIMENTS DELINEATED FROM VIBRACORES. ADDITIONAL COMPATIBLE SEDIMENTS MAY BE PRESENT BELOW THE INTERMITTENT ACOUSTIC REFLECTOR.
5. SEISMIC SURVEY CONDUCTED MAY 2003 BY CPE.
6. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW DESIGN CUT DEPTH.

LEGEND:

SPVC-03-03 DENOTES CPE 2003 VIBRACORE LOCATION

— — MAXIMUM DEPTH OF EQUIPMENT

BEACH COMPATIBLE SEDIMENTS

SURFACE SILT/CLAY LAYER

INTERMITTENT ACOUSTIC REFLECTOR WITHIN SAND DEPOSIT AS DELINEATED FROM SEISMIC SURVEY

SCALE: 1"= 1000' HORIZONTAL
1"= 20' VERTICAL

REVISIONS			
DESCRIPTION	BY	DATE
REVISED CUTS	STR	12/17/03
REVISED CUTS PER NOAA	TDM	8/10/07

SHEET: 10
COMM NO.: 7261.31
BY: JRC
DATE: 11/17/03

COASTAL PLANNING & ENGINEERING, INC.
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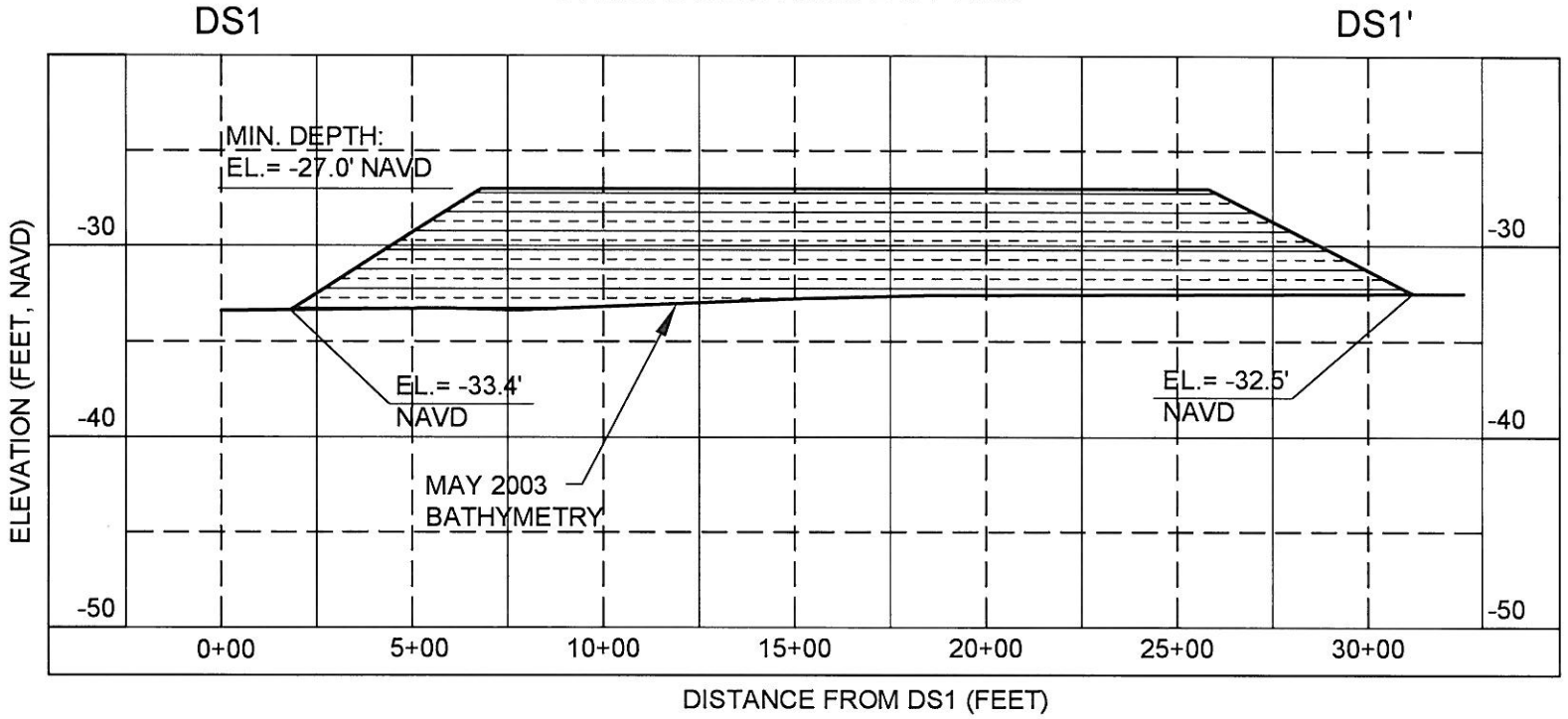
C.O.A. LA. #2531
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA CROSS SECTIONS

SANDY POINT NW DISPOSAL SITE
CROSS SECTION DS1-DS1'



REVISIONS		
DESCRIPTION	BY	DATE
NW SANDY POINT BA REMOVED	DNR	2/10/05
REVISED CUTS PER NOAA	TDM	8/10/07

NOTE:

1. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

OVERBURDEN DISPOSAL

SCALE: 1"= 500' HORIZONTAL
1"=10' VERTICAL

SHEET:	COMM NO.:	BY:	DATE:
11	7261.31	JRC	11/17/03

COASTAL PLANNING & ENGINEERING, INC.
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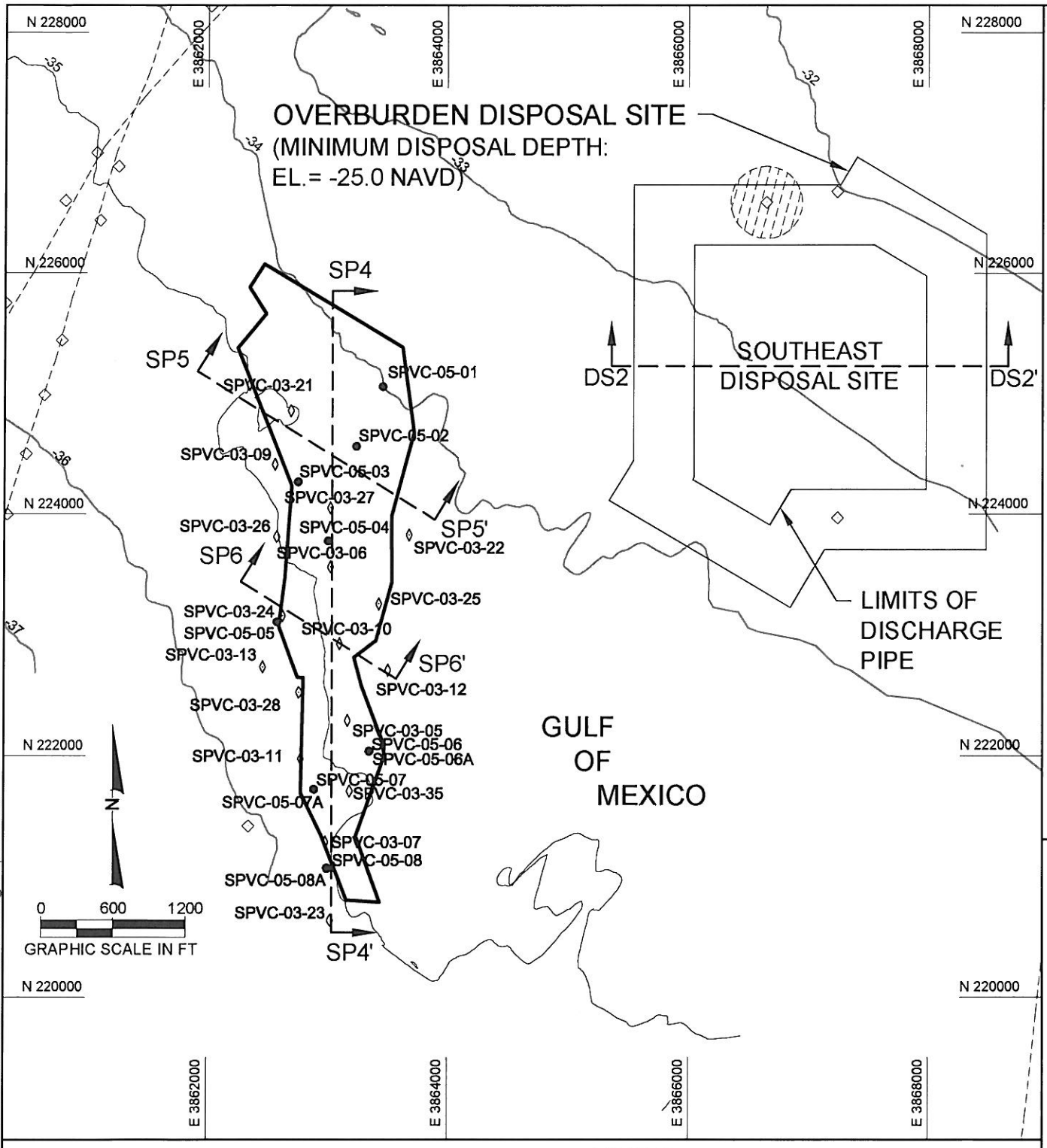
TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW DISPOSAL AREA CROSS SECTION



NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DERIVED FROM THE BATHYMETRIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET ; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- ◊ DENOTES CPE 2003 VIBRACORE LOCATION
- ● DENOTES CPE 2005 VIBRACORE LOCATION
- ◇ DENOTES MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -35 BATHYMETRIC CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
2/10/05	TDM	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA BATHYMETRY

COASTAL PLANNING & ENGINEERING, INC.
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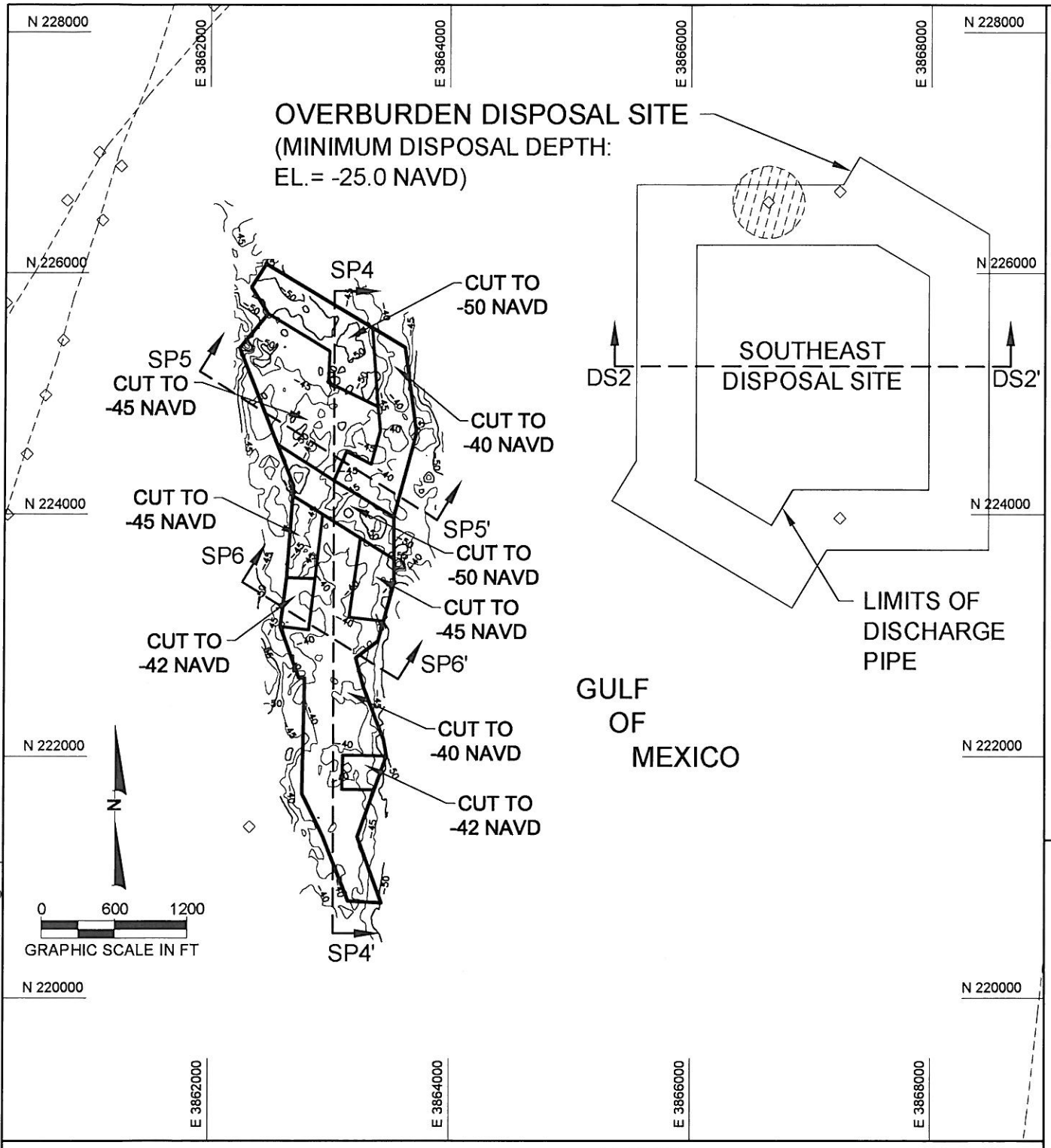
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 12



NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DEPICT THE FIRST SEISMIC REFLECTOR DERIVED FROM THE SEISMIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET ; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- ◊ DENOTES CPE 2003 VIBRACORE LOCATION
- ◇ DENOTES MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -45 1ST SIESMIC REFLECTOR CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
2/10/05	TDM	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA OVERBURDEN CUTS

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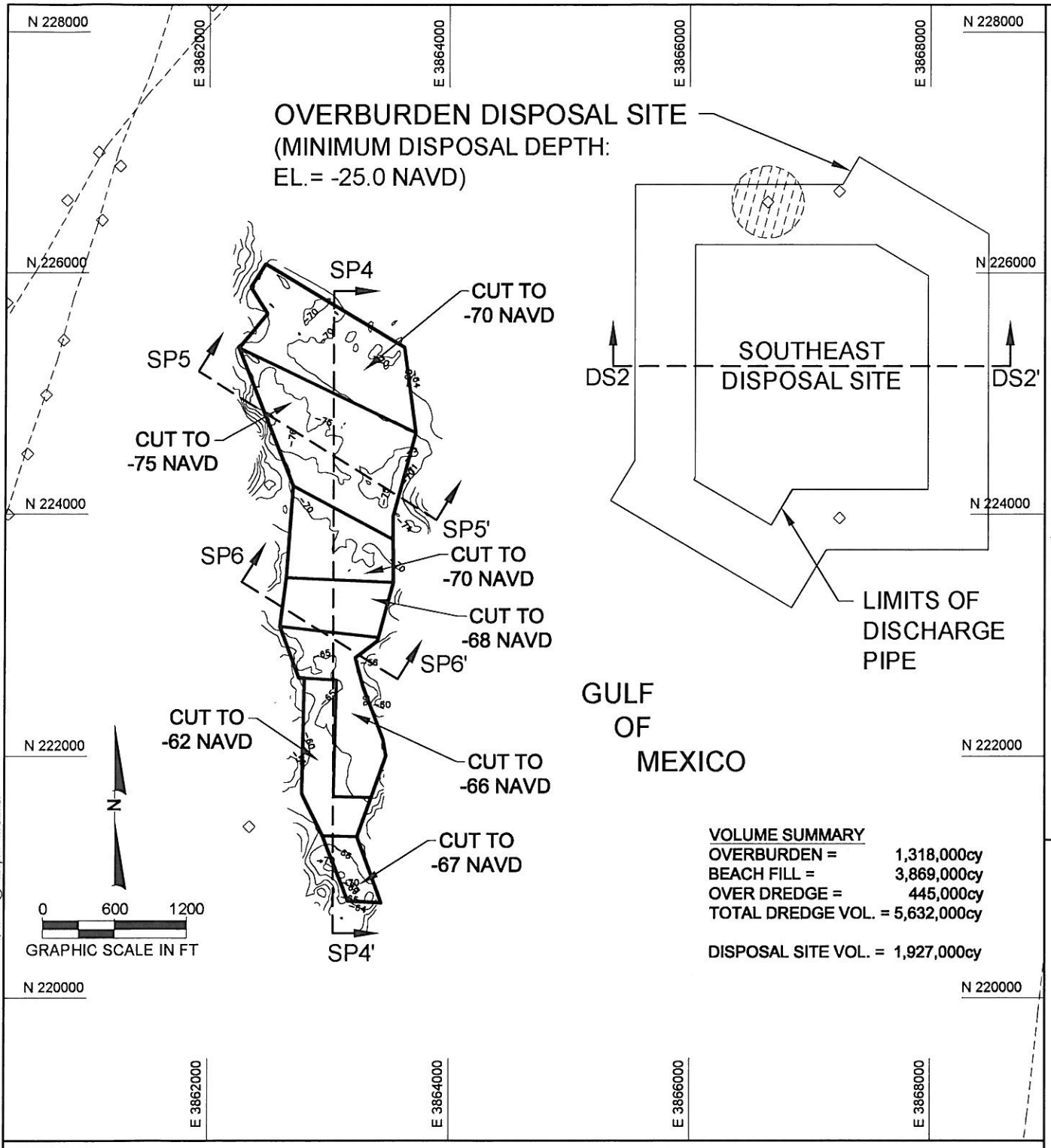
DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 13

H:\Louisiana\726131\Permits\PELICAN_121610\PELICAN SE BORROW AREA PV DWG - Dec 16, 2010 @ 3:20pm - hvollmer



VOLUME SUMMARY

OVERBURDEN =	1,318,000cy
BEACH FILL =	3,869,000cy
OVER DREDGE =	445,000cy
TOTAL DREDGE VOL. =	5,632,000cy
DISPOSAL SITE VOL. =	1,927,000cy

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DEPICT THE ELEVATION OF THE SECOND SEISMIC REFLECTOR DERIVED FROM THE SEISMIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET ; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- ◊ DENOTES CPE 2003 VIBRACORE LOCATION
- ◇ DENOTES MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- ----- PIPELINES
- -55 2ND SIESMIC REFLECTOR CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
2/10/05	TDM	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA DESIGN CUTS

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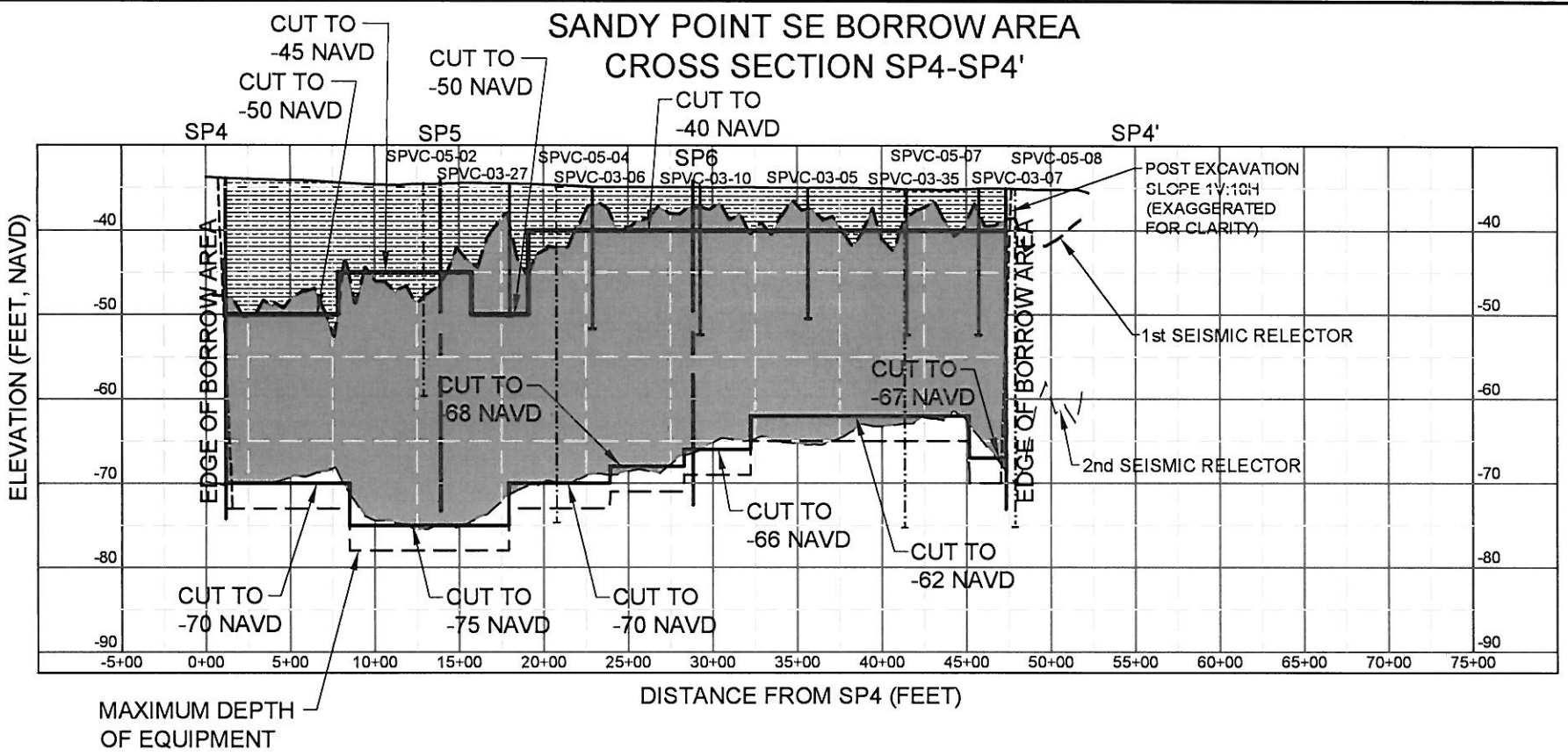
DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 14

H:\Louisiana\726131\Permits\PELICAN_121610\PELICAN SE BORROW AREA PV.DWG - Dec 16, 2010 @ 3:21pm - hvollmer

SANDY POINT SE BORROW AREA
CROSS SECTION SP4-SP4'



NOTES:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 12-14 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. BEACH COMPATIBLE SEDIMENTS DELINEATED FROM VIBRACORES. ADDITIONAL COMPATIBLE SEDIMENTS MAY BE PRESENT BELOW THE INTERMITTENT ACOUSTIC REFLECTOR.
5. SEISMIC SURVEY CONDUCTED MAY 2003 BY CPE.
6. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW DESIGN CUT DEPTH.

LEGEND:

SPVC-03-03 DENOTES CPE 2003 VIBRACORE LOCATION

SPVC-05-05 DENOTES CPE 2005 VIBRACORE LOCATION

MAXIMUM DEPTH OF EQUIPMENT

BEACH COMPATIBLE SEDIMENTS

SURFACE SILT/CLAY LAYER

INTERMITTENT ACOUSTIC REFLECTOR WITHIN SAND DEPOSIT AS DELINEATED FROM SEISMIC SURVEY

SCALE: 1"= 1000' HORIZONTAL
1"= 20' VERTICAL

REVISIONS			
DESCRIPTION	BY	DATE
REVSED CUTS	STR	12/17/03
NW SANDY POINT BA REMOVED	DNR	2/10/05
REVISED CUTS PER NOAA	TDM	8/10/07

SHEET: 15
COMM NO.: 7261.31
BY: JRC
DATE: 11/17/03

COASTAL PLANNING & ENGINEERING, INC.
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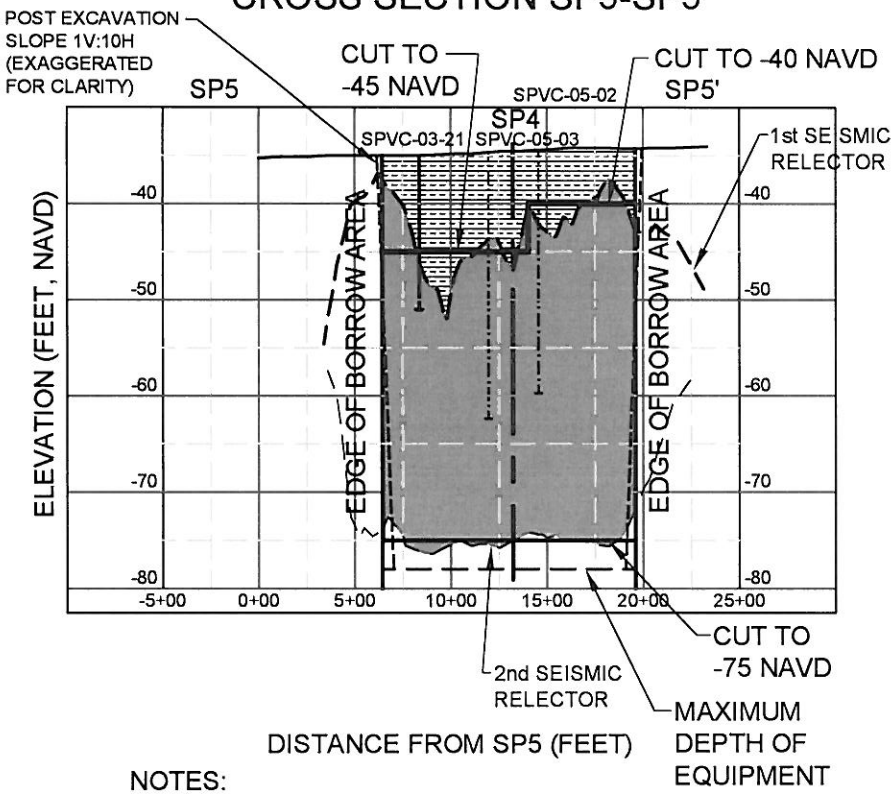
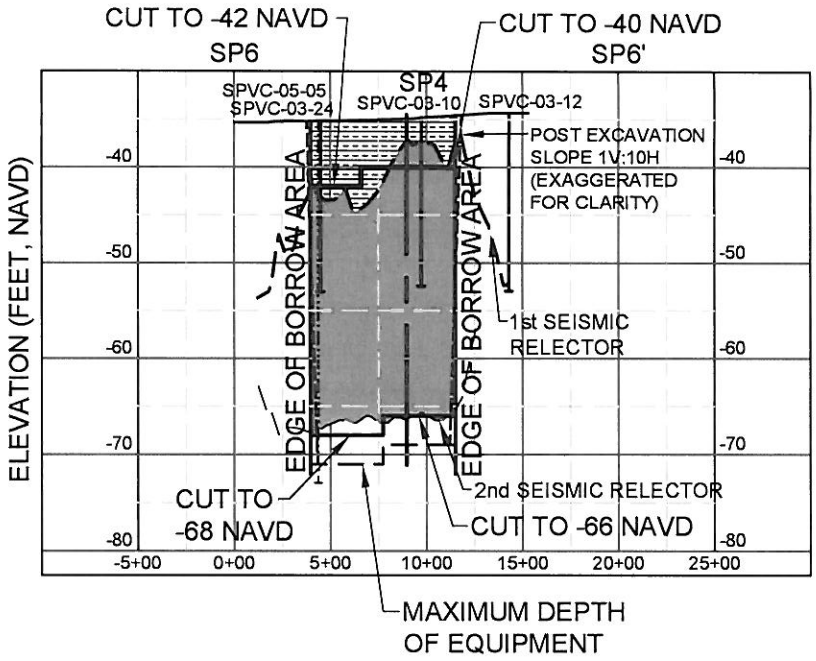
TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA CROSS SECTIONS

SANDY POINT SE BORROW AREA
CROSS SECTION SP5-SP5'



SANDY POINT SE BORROW AREA
CROSS SECTION SP6-SP6'



NOTES:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 12-14 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. BEACH COMPATIBLE SEDIMENTS DELINEATED FROM VIBRACORES. ADDITIONAL COMPATIBLE SEDIMENTS MAY BE PRESENT BELOW THE INTERMITTENT ACOUSTIC REFLECTOR.
5. SEISMIC SURVEY CONDUCTED MAY 2003 BY CPE.
6. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW DESIGN CUT DEPTH.

LEGEND:

SPVC-03-03 DENOTES CPE 2003 VIBRACORE LOCATION

SPVC-05-05 DENOTES CPE 2005 VIBRACORE LOCATION

— — MAXIMUM DEPTH OF EQUIPMENT

BEACH COMPATIBLE SEDIMENTS

SURFACE SILT/CLAY LAYER

INTERMITTENT ACOUSTIC REFLECTOR WITHIN SAND DEPOSIT AS DELINEATED FROM SEISMIC SURVEY

SCALE: 1"= 1000' HORIZONTAL
1"= 20' VERTICAL

REVISIONS		
DESCRIPTION	BY	DATE
REVISED CUTS	STR	12/17/03
NW SANDY POINT BA REMOVED	DNR	2/10/05
REVISED CUTS PER NOAA	TDM	8/10/07

COASTAL PLANNING & ENGINEERING, INC.
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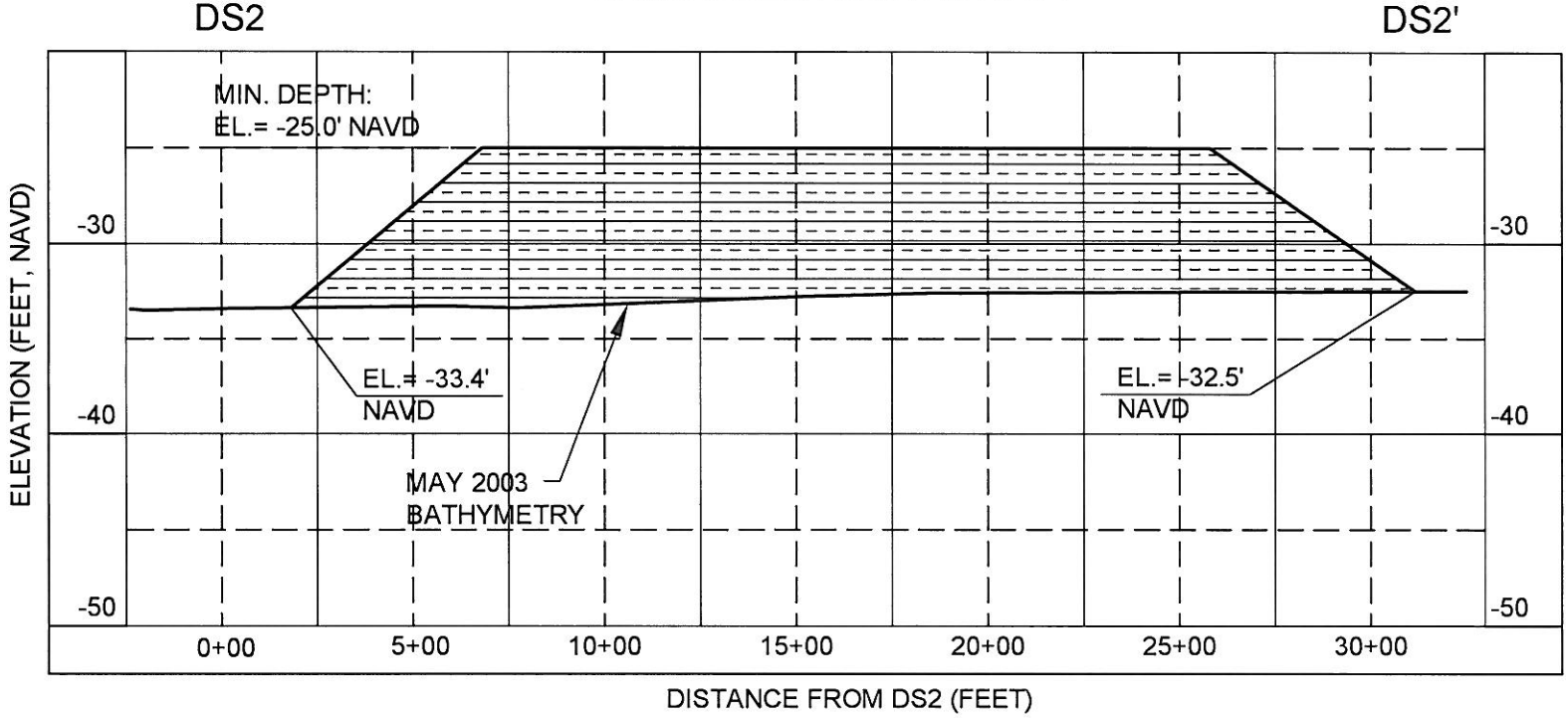
TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA CROSS SECTIONS

SHEET:	COMM NO.:	BY:	DATE:
16	7261.31	JRC	11/17/03

SANDY POINT SE DISPOSAL SITE
CROSS SECTION DS2-DS2'



REVISIONS		
DESCRIPTION	BY	DATE
NW SANDY POINT BA REMOVED	DNR	2/10/05
REVISED CUTS PER NOAA	TDM	8/10/07

NOTE:

1. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

OVERBURDEN DISPOSAL

SCALE: 1"= 500' HORIZONTAL
1"=10' VERTICAL

SHEET:	COMM NO.:	BY:	DATE:
17	7261.31	JRC	11/17/03

COASTAL PLANNING & ENGINEERING, INC.
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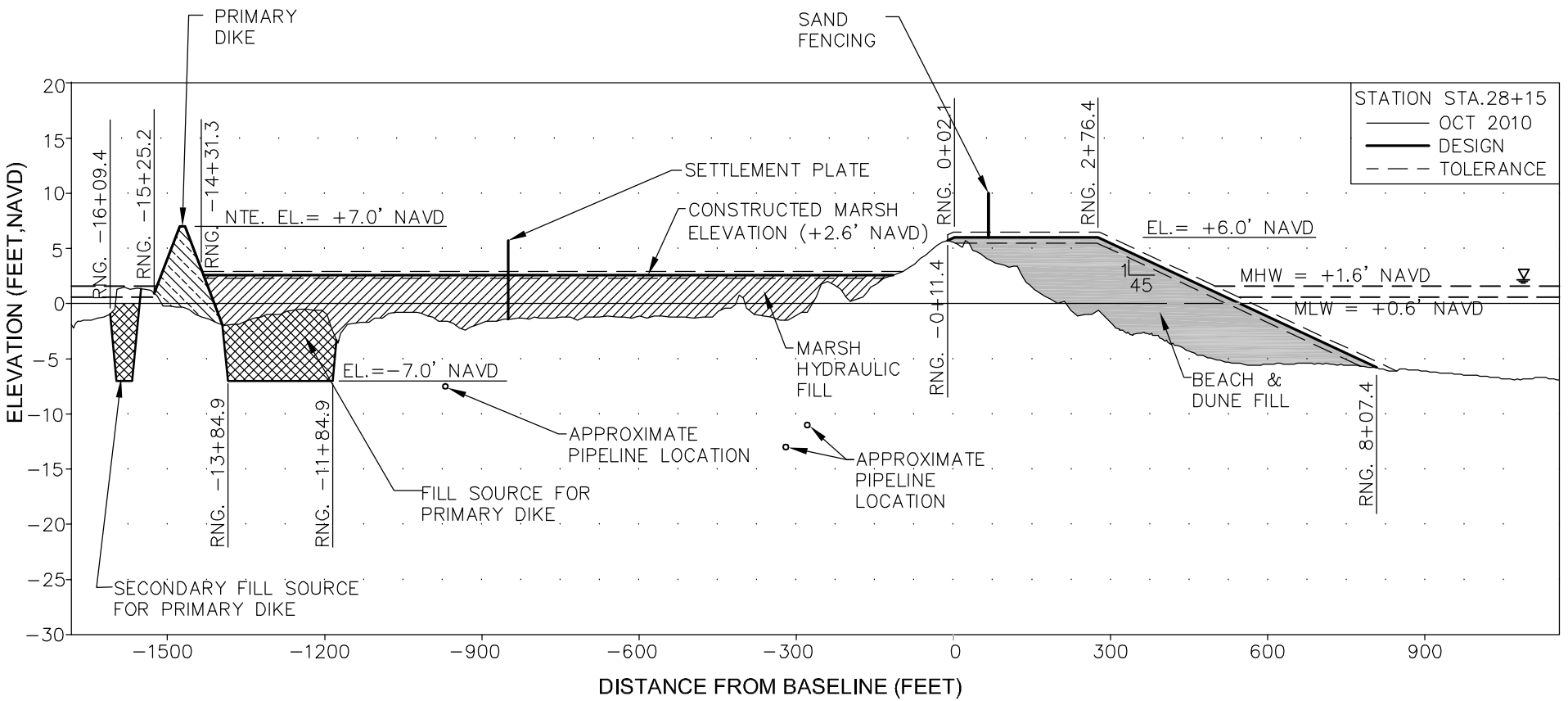
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT SE DISPOSAL AREA CROSS SECTION



REVISIONS		
DESCRIPTION	BY	DATE
ADD SECONDARY FILL	GT	11/2/10
REVISED FILL TEMPLATE		

NOTE:
ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- MARSH FILL
- BEACH & DUNE FILL
- PRIMARY DIKE
- FILL SOURCE FOR PRIMARY DIKE

SHEET:	COMM NO.:	BY:	DATE:
18	7261.31	TM	11/5/07

COASTAL PLANNING & ENGINEERING, INC.
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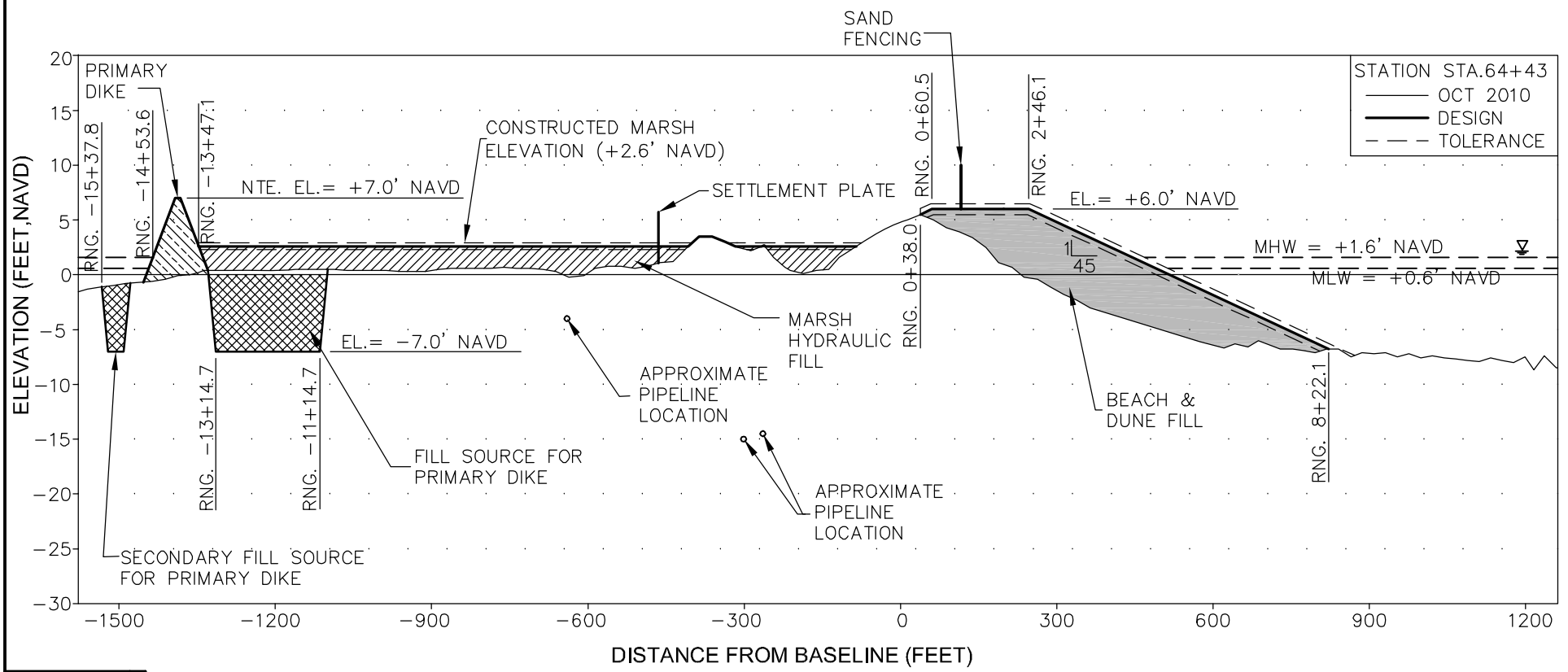
TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT FILL CROSS SECTIONS



NOTE:
ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- MARSH FILL
- BEACH & DUNE FILL
- PRIMARY DIKE
- FILL SOURCE FOR PRIMARY DIKE

REVISIONS		
DESCRIPTION	BY	DATE
ADD SECONDARY FILL REVISED FILL TEMPLATE	GT	11/2/10

SHEET: 19
COMM NO.: 7261.31
BY: TM
DATE: 11/5/07

COASTAL PLANNING & ENGINEERING, INC.
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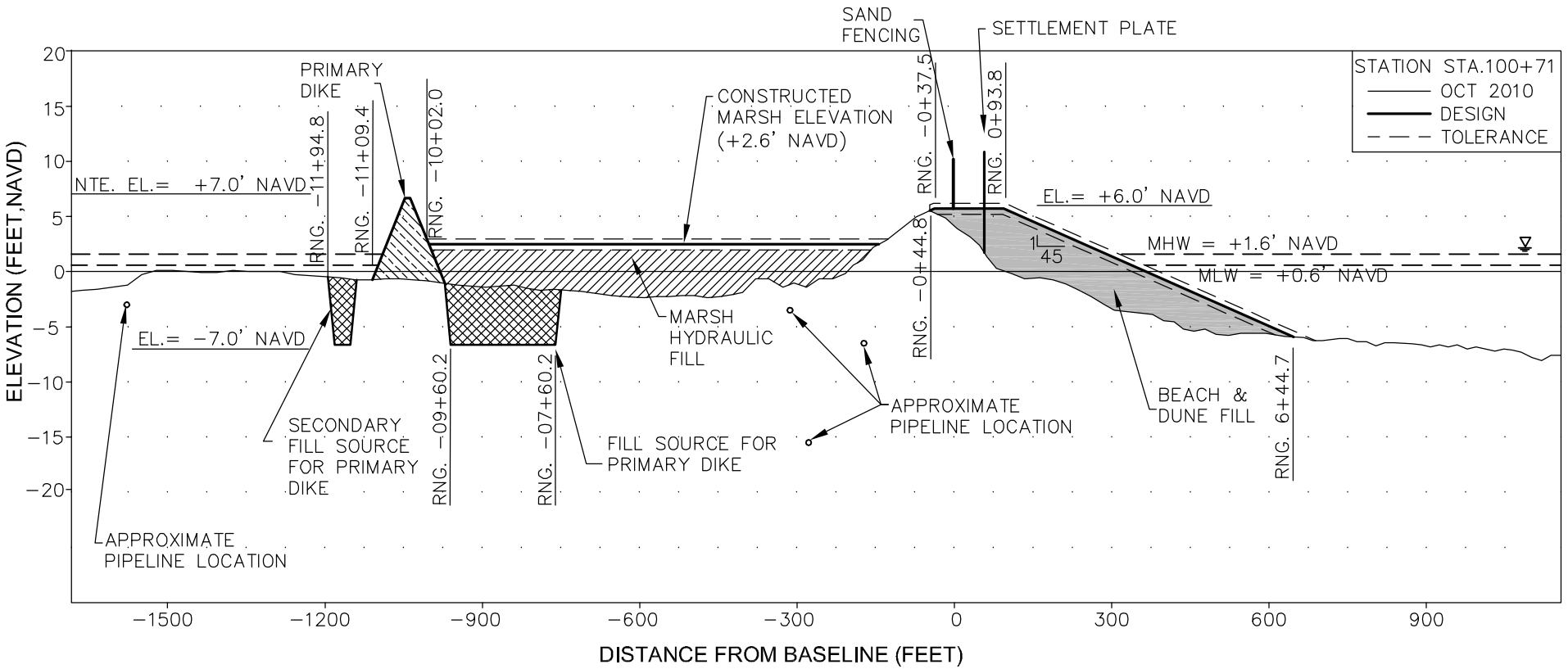
C.O.A. LA. #2531

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT FILL CROSS SECTIONS

H:\Louisiana\726131\Permits\PELICAN_041311\PELICAN PERMIT FILL X-SECTIONS.dwg - Apr 14, 2011 @ 9:07am - gkrystyniak



REVISIONS			
DESCRIPTION	BY	DATE	
ADD SECONDARY FILL	GT	11/2/10	
REVISED FILL TEMPLATE	AW	12/8/10	
REVISED CROSS SECTION TO AVOID LAND OWNER.			

NOTE:
ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- MARSH FILL
- BEACH & DUNE FILL
- PRIMARY DIKE
- FILL SOURCE FOR PRIMARY DIKE

SHEET: 20
COMM NO.: 7261.31
BY: TM
DATE: 11/5/07

COASTAL PLANNING & ENGINEERING, INC.
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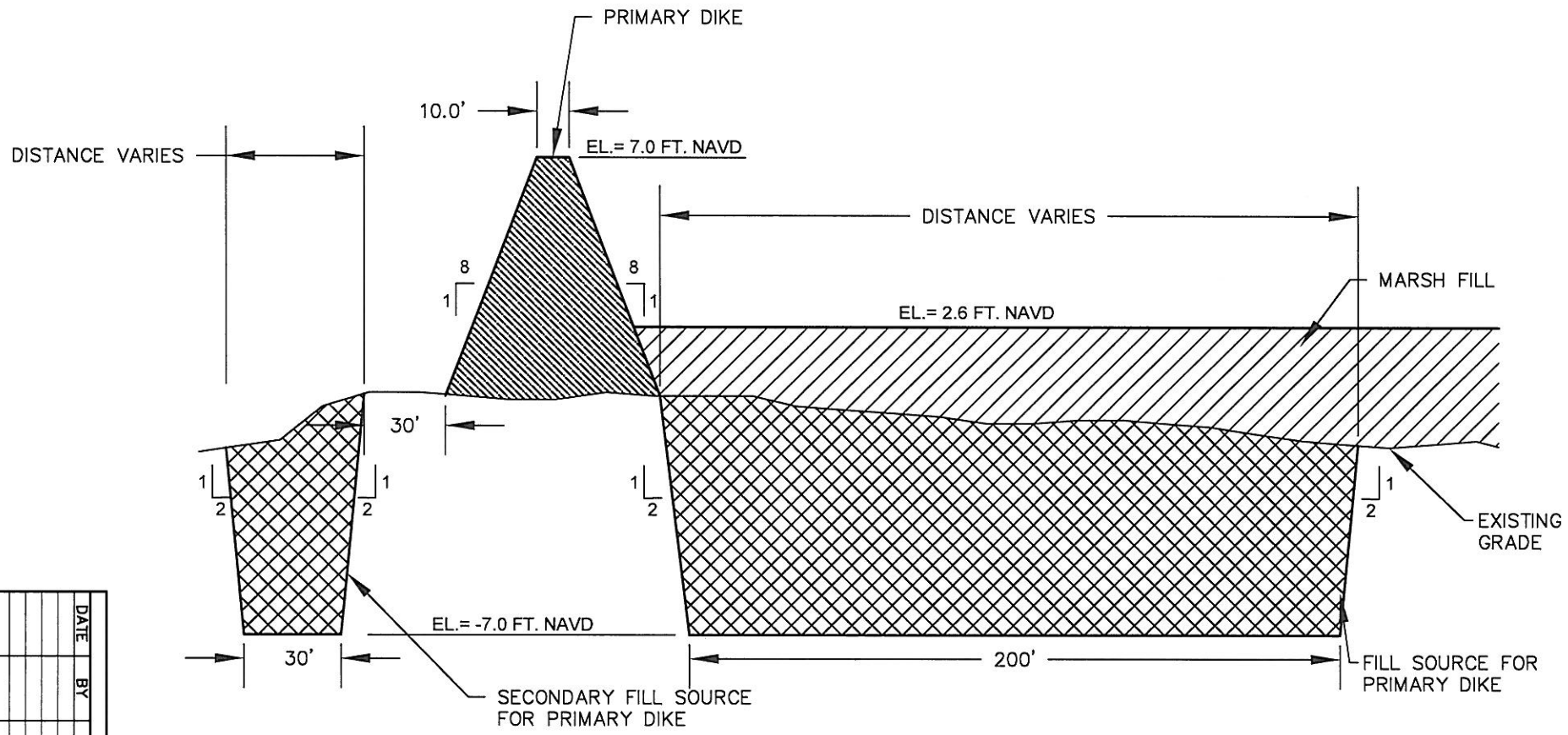
TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT FILL CROSS SECTIONS

TYPICAL FILL CROSS SECTION DETAIL



REVISIONS		
DESCRIPTION	BY	DATE

LEGEND:

- MARSH FILL
- PRIMARY DIKE
- FILL SOURCE FOR PRIMARY DIKE

SCALE: 1"= 50' HORIZONTAL
1"=5' VERTICAL

SHEET:	COMM NO.:	DATE:
21	7261.31	11/2/10

RG

COASTAL PLANNING & ENGINEERING, INC.
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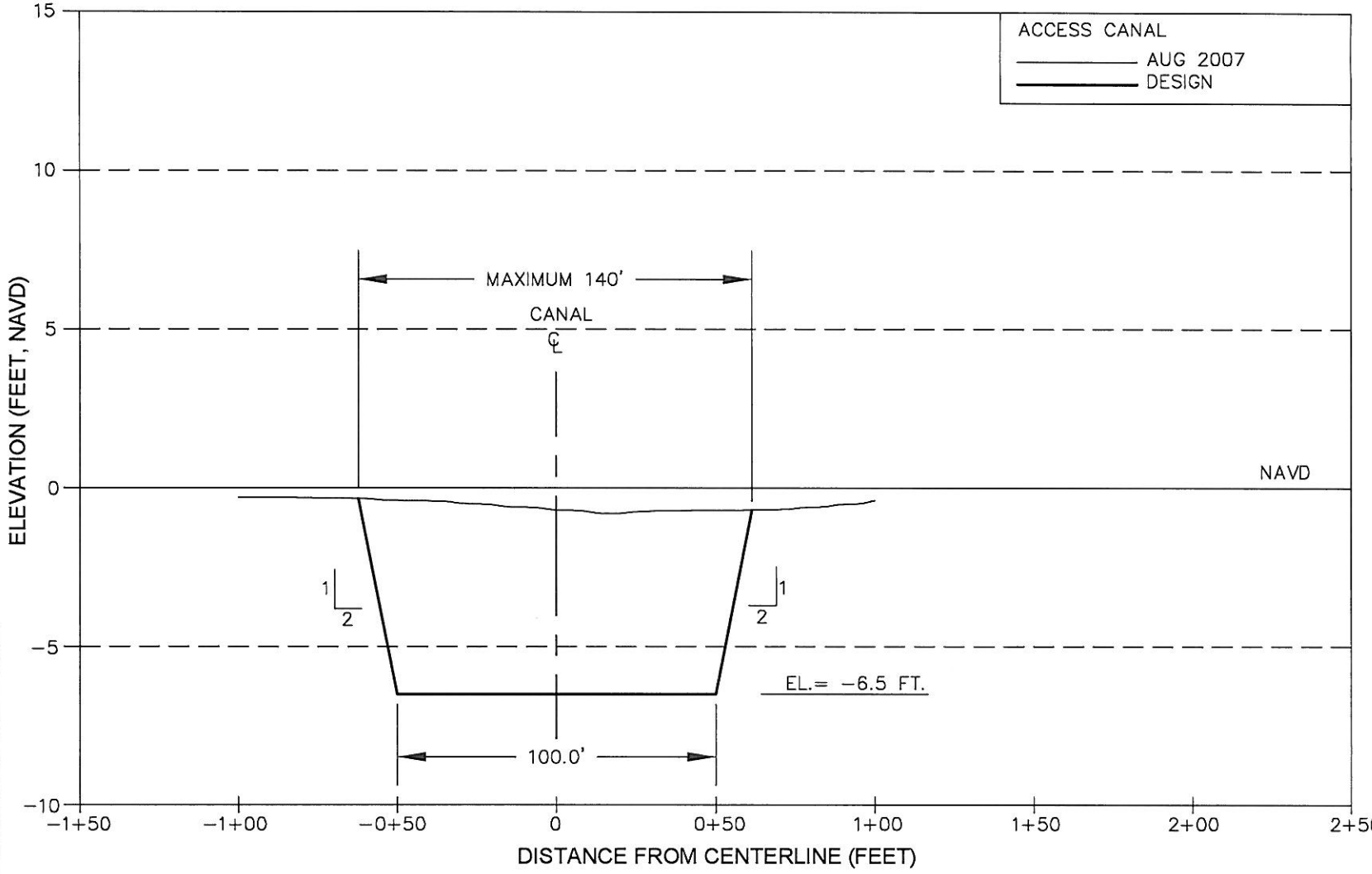
TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
TYPICAL FILL CROSS SECTION DETAIL

TYPICAL ACCESS CANAL CROSS SECTION



SCALE: 1"= 50' HORIZONTAL
1"=5' VERTICAL

REVISIONS		
DESCRIPTION	BY	DATE
REVISED CANAL WIDTH	GT	11/2/10

SHEET: 22

COMM NO.: 7261.31

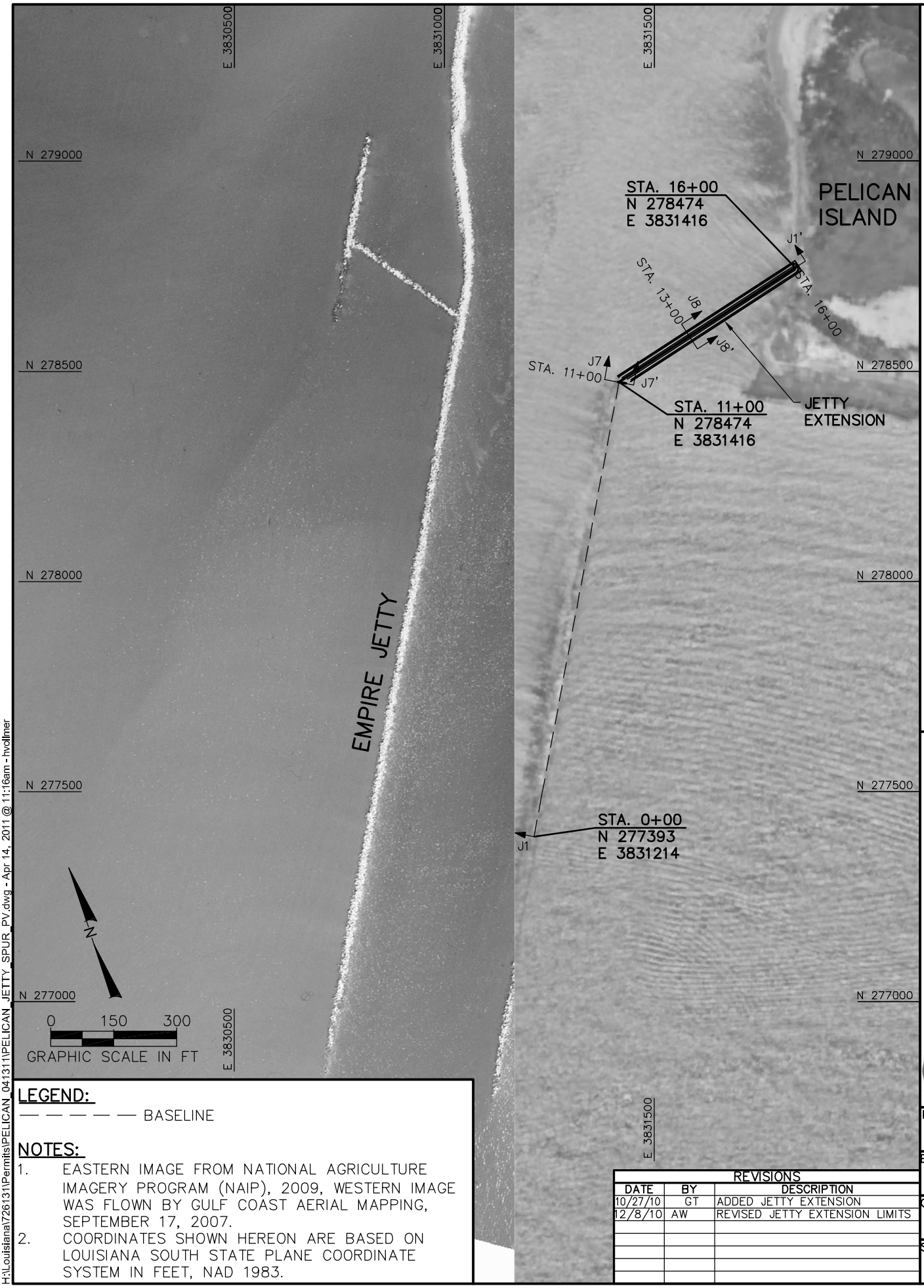
TM

DATE: 11/5/07

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-6102
FAX (561) 391-9116
C.O.A. FL. #4028
C.O.A. LA. #2531
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
ACCESS CANAL CROSS SECTION



LEGEND:

— — — — — BASELINE

NOTES:

1. EASTERN IMAGE FROM NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP), 2009, WESTERN IMAGE WAS FLOWN BY GULF COAST AERIAL MAPPING, SEPTEMBER 17, 2007.
2. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.

REVISIONS		
DATE	BY	DESCRIPTION
10/27/10	GT	ADDED JETTY EXTENSION
12/8/10	AW	REVISED JETTY EXTENSION LIMITS

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT
JETTY PLAN VIEW

COASTAL PLANNING & ENGINEERING, INC.
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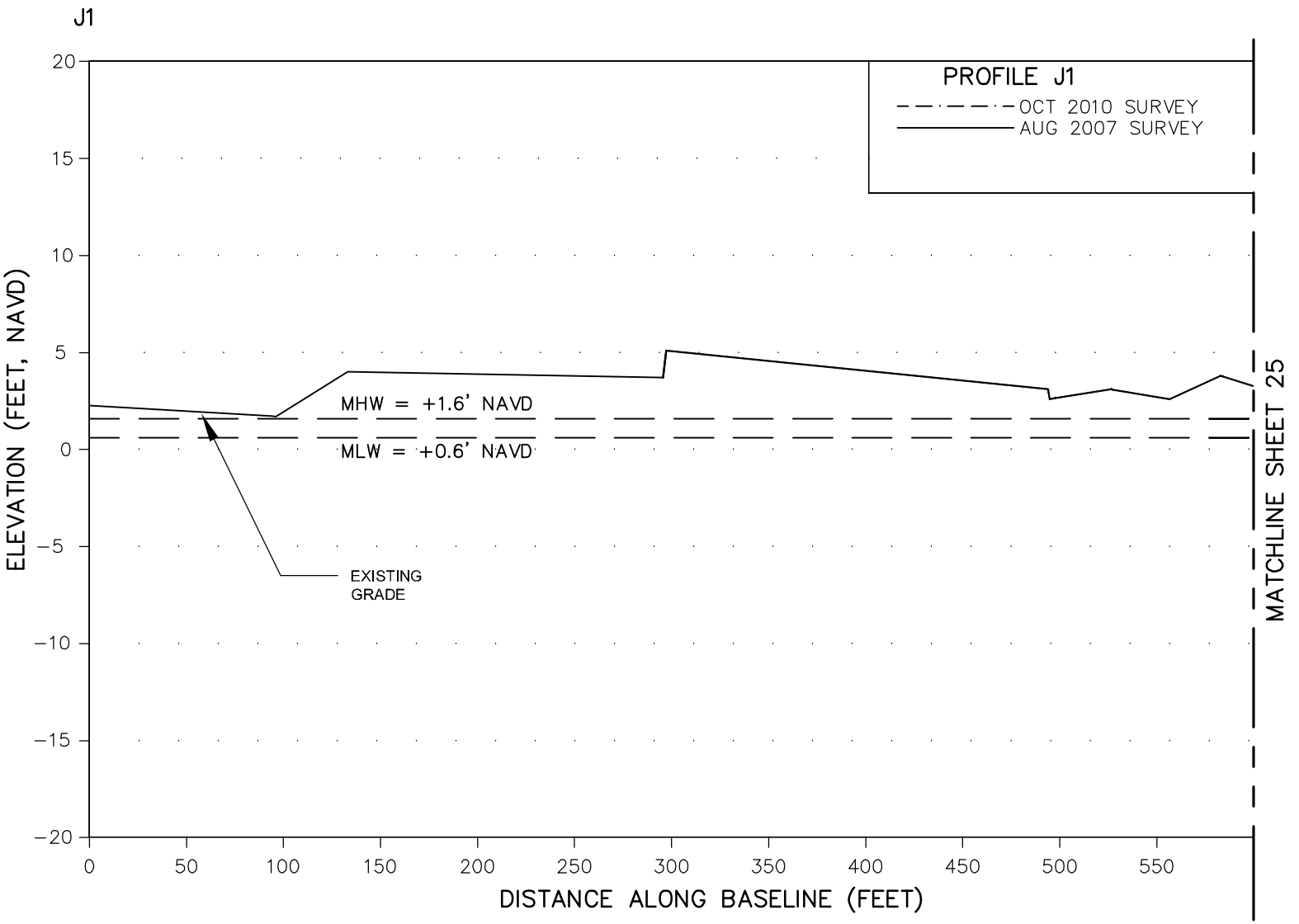
DATE: 10/8/07

BY: TDM

COMM NO.: 7261.31

SHEET: 23

H:\Louisiana\726131\Permits\PELICAN_041311\PELICAN_JETTY_SPUR_PV.dwg - Apr 14, 2011 @ 11:16am - hvollmer



NOTE:

1. CROSS SECTION J1 VIEWED LOOKING WEST. CROSS SECTION J8 VIEWED LOOKING NORTH.
2. EXISTING ELEVATIONS WERE COLLECTED AT DISCRETE LOCATIONS. ELEVATIONS BETWEEN DISCRETE ELEVATIONS ARE SHOWN AS LINEAR FEATURES. SOME VARIATIONS SHOULD BE EXPECTED.

REVISIONS		
DESCRIPTION	BY	DATE
REVISED NOTE 5.	AW	12/8/10

SHEET: 24
COMM NO.: 7261.31
BY: TDM
DATE: 10/8/07

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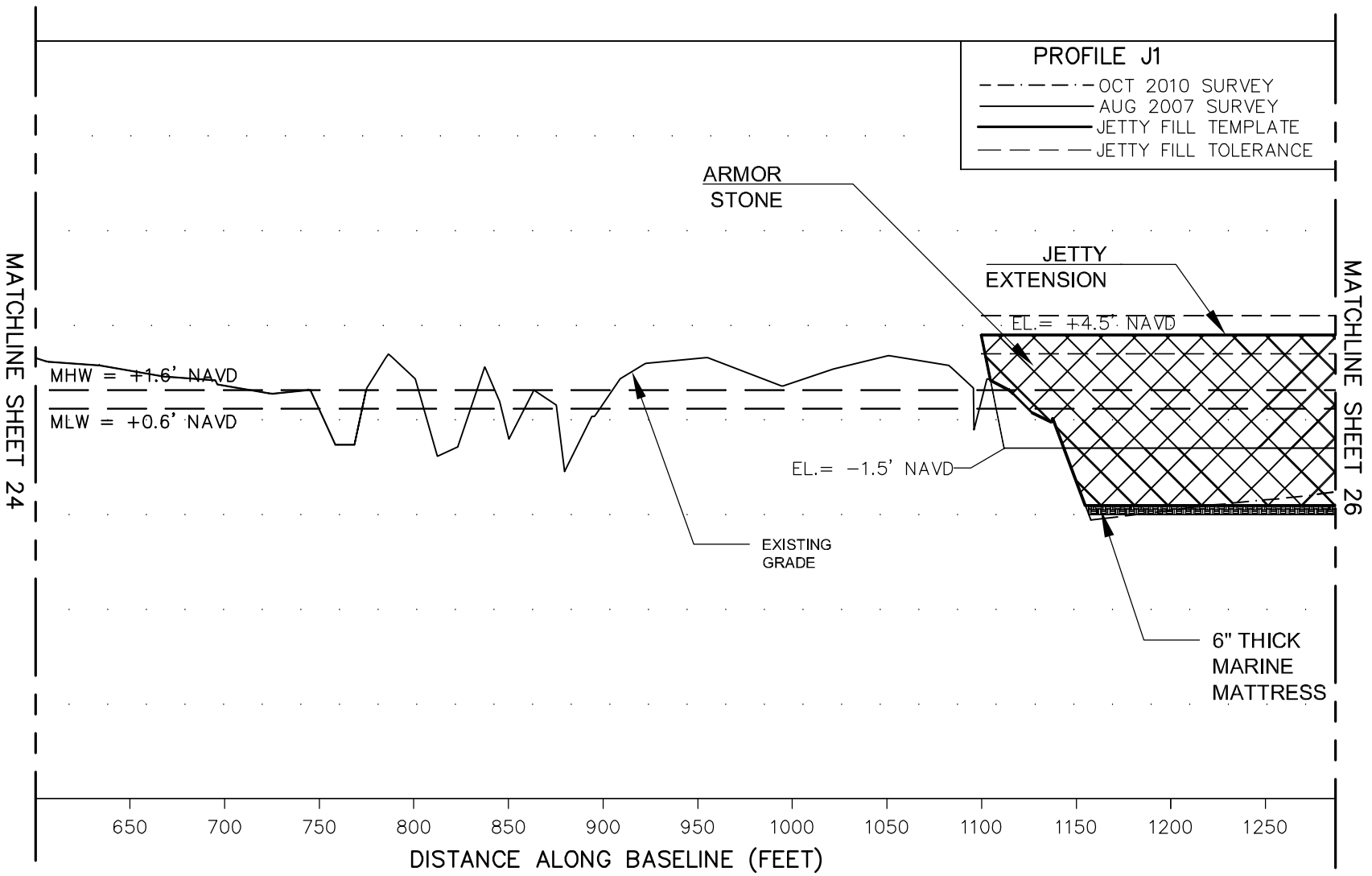
TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT JETTY CROSS SECTIONS



NOTE:

1. CROSS SECTION J1 VIEWED LOOKING WEST. CROSS SECTION J8 VIEWED LOOKING NORTH.
2. EXISTING ELEVATIONS WERE COLLECTED AT DISCRETE LOCATIONS. ELEVATIONS BETWEEN DISCRETE ELEVATIONS ARE SHOWN AS LINEAR FEATURES. SOME VARIATIONS SHOULD BE EXPECTED.
3. EXCAVATE EXISTING PROFILE AS NECESSARY TO PLACE ARMOR STONE AND FOUNDATION TO ACHIEVE THE SPECIFIC GRADE.
4. VERTICAL TOLERANCES ARE ±6 INCHES TO THE DESIGN SURFACE. HORIZONTAL TOLERANCES ARE ± 2 FEET.
5. ARMOR STONE ON THE JETTY RANGES FROM 1.7 TO 2.8 TONS.

REVISIONS		
DESCRIPTION	BY	DATE
ADDED JETTY EXTENSION	GT	11/2/10
REVISED NOTE 5.	AW	12/8/10

SHEET: 25
COMM NO.: 7261.31
BY: TDM
DATE: 10/8/07

COASTAL PLANNING & ENGINEERING, INC.
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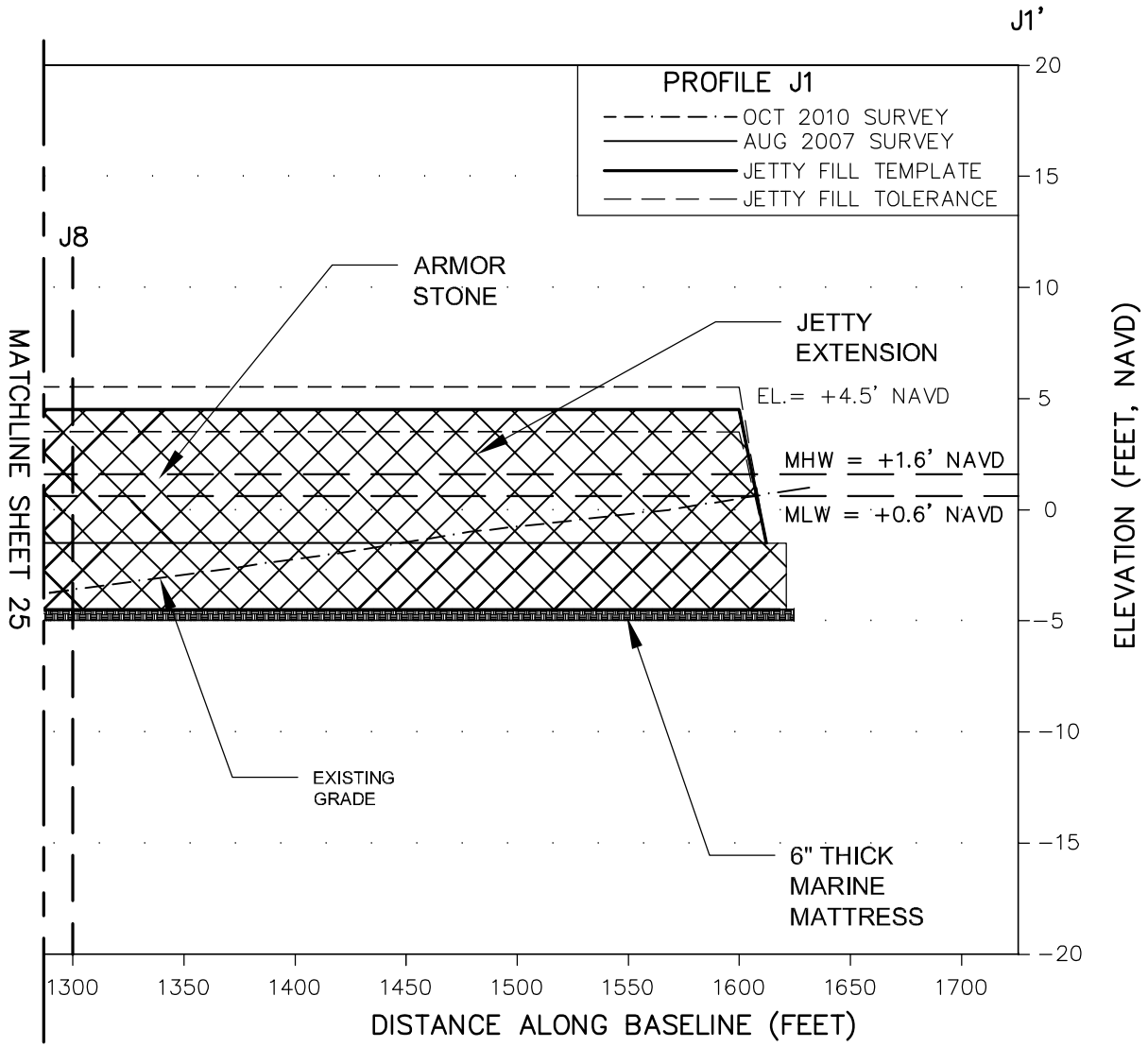
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT JETTY CROSS SECTIONS



NOTE:

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2. EXISTING ELEVATIONS WERE COLLECTED AT DISCRETE LOCATIONS. ELEVATIONS BETWEEN DISCRETE ELEVATIONS ARE SHOWN AS LINEAR FEATURES. SOME VARIATIONS SHOULD BE EXPECTED.
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5. ARMOR STONE ON THE JETTY RANGES FROM 1.7 TO 2.8 TONS.

REVISIONS		
DESCRIPTION	BY	DATE
ADDED JETTY EXTENSION	GT	11/2/10
REVISED NOTE 5.	AW	12/8/10

SHEET: 26
COMM NO.: 7261.31
BY: TDM
DATE: 10/8/07

COASTAL PLANNING & ENGINEERING, INC.
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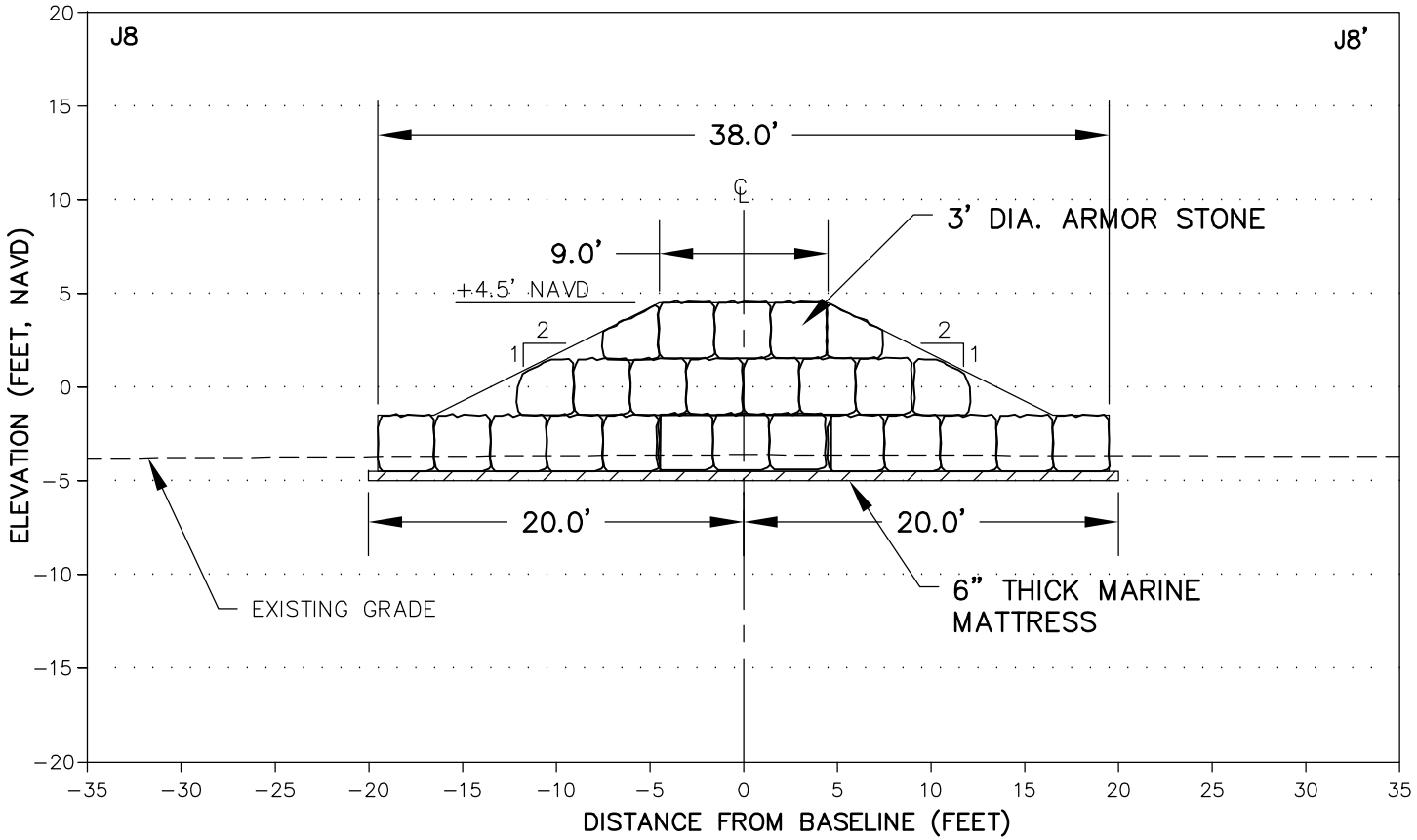
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
JETTY CROSS SECTIONS



NOTES:

1. CROSS SECTION VIEWED LOOKING NORTHEAST.
2. VERTICAL TOLERANCES ARE ± 6 INCHES TO THE DESIGN SURFACE. HORIZONTAL TOLERANCES ARE ±2 FEET.
3. BOULDERS DRAWN IN CROSS SECTION ARE FOR PICTORIAL PURPOSES ONLY. CONTRACTOR SHALL UTILIZE THE MATERIAL AND TOLERANCES SPECIFIED TO ACHIEVE THE LINES AND GRADES OF THE DESIGN.
4. ARMOR STONE ON THE JETTY RANGES FROM 1.7 TO 2.8 TONS.

REVISIONS		
DESCRIPTION	BY	DATE
REVISED NOTE 4.	AW	12/8/10

SHEET: 27
COMM NO.: 7261.38
BY: AMB
DATE: 10/26/10

COASTAL PLANNING & ENGINEERING, INC.
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C.O.A. FL. #4028

TITLE:

PELICAN ISLAND RESTORATION PROJECT
BA-38-1
JETTY EXTENSION TYPICAL CROSS SECTION

Site Copy

DEPARTMENT OF THE ARMY PERMIT

OCE

Permittee: National Marine Fisheries Services
Louisiana State University

Permit No. MVN-2004-0452-EFF

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Excavate material from the Empire and Sandy Point borrow areas, dispose of overburden materials at off shore locations, construct an access channel, construct temporary retaining dikes, install sand fencing, and deposit fill for shoreline stabilization and marsh creation, all to implement the Pelican Island Restoration Project (BA-38-1 CWPPRA), in accordance with the drawings enclosed in thirty sheets: sheets.1, 4, 5-17 dated November 17, 2003, sheets. 2, 3, 18, 19 &, 21 dated November 05, 2007 and sheets 22-30 dated October 08, 2007.

Project Location: On Pelican Island, in the Gulf of Mexico, approximately 48 miles south-southeast of New Orleans, Louisiana, within Plaquemines Parish

General Conditions:

1. The time limit for completing the work authorized ends on **August 31, 2014**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions: Page 4 and 5.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(x) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

(x) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

x Richard Hartman _____ x 8/10/09 _____

(PERMITTEE) (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Michael V. Farabee _____ August 13, 2009 _____

Michael V. Farabee, Chief Eastern Evaluation Section (DATE)

for Alvin B. Lee, District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ _____

(TRANSFEREE) (DATE)

SPECIAL CONDITIONS
MVN-2004-0452-EFF

7. The authorization does not obviate the permittee from obtaining other necessary approvals from pertinent federal, state, and/or local authorities.

8. This authorization allows for minor deviations in construction designs and project implementation. The permittee shall coordinate with this office prior to the initiation of any changes. Alterations or changes in scope of the proposed project which would have unwarranted impacts to jurisdictional waters and/or wetland areas not considered under this authorization may require permit modification or a separate Department of the Army permit review, prior to commencing that work. If minor deviations in project plans and/or design are allowed during construction, the applicant shall submit post-construction plats (as-built drawings) within 30-days of project completion.

9. The permittee shall provide this office with a copy of *any* generated post construction surveys, monitoring reports, post-ground photography, and/or post aerial photography, obtained after project completion.

10. In accordance with the permit drawings, dredge material deposited into existing vegetative wetland areas and/or tidal marsh shall be placed in a manner conducive to the re-establishment, nourishment, and/or enhancement of that habitat.

11. You shall notify this office in writing within five working days after construction has been completed.

12. The permittee shall assure that contractors, foremen, and/or workers associated with project implementation are equally cognizant of the conditions and restrictions associated with this approval.

13. If archaeological materials and/or human remains are discovered during ground disturbing activities you shall cease and desist all activities in the project area and contact this office and Mr. Philip Rivet of the Louisiana Office of Cultural Development, Division of Archaeology at (225) 342-8160.

14. The permitte is aware that future site visits and inspections may be conducted to the project area by this office and/or other resource agencies, to assess project compliance with this authorization and requirements associated herewith.

15. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

16. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

17. You must install and maintain, at your expense, any safety lights, signs and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on your authorized facilities.

18. If the proposed project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the U.S. Coast Guard so that a Notice to Mariners, if required, may be prepared. Notification, with a copy of your permit approval and drawings, should be mailed to the U.S. Coast Guard, Sector New Orleans Command Center, 201 Hammond Highway, Metairie, Louisiana 70005, about 1 month before you plan to start work. Telephone inquiries can be directed to (504) 846-5923.

19. Installation and removal of the dredge pipe and work over the levee is limited to when the stage of the Mississippi River is below elevation +11.0 feet on the Carrollton Gage, at New Orleans, Louisiana.

20. Any damage to the levee, batture, and/or bank resulting from the applicant's activities shall be repaired at the permittee's expense.

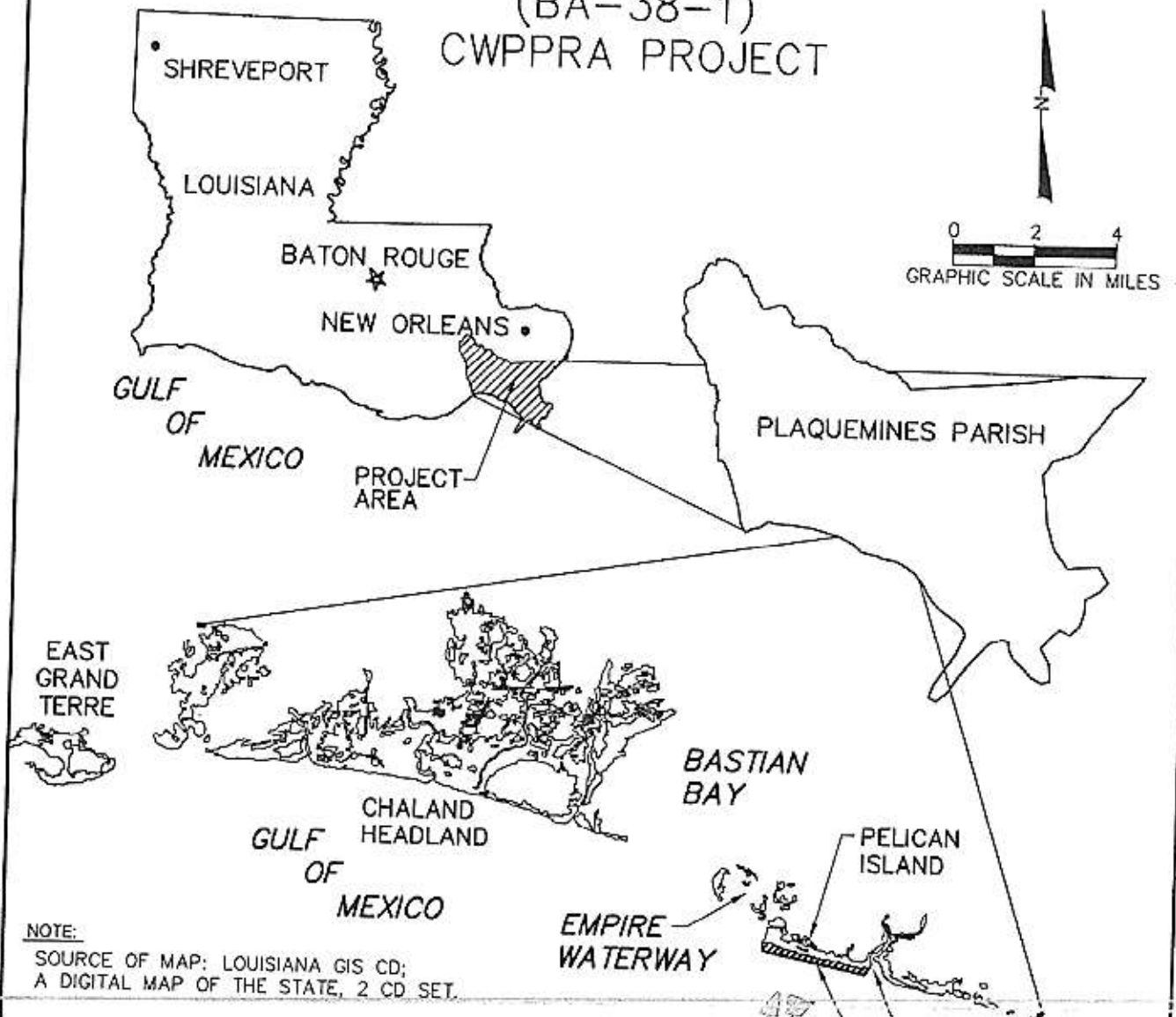
21. All disturbed areas on the levee crown and slopes shall be restored to its original condition and to the satisfaction of the West Bank Levee District.

22. The permittee shall assure that work does not impede or interfere with navigation on the Mississippi River and shall maintain ongoing coordination with the River Pilots Association and the United States Coast Guard.

23. The Chitimacha Tribe of Louisiana has stated that the project area is part of the aboriginal Chitimacha homelands. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the applicant will contact the Chitimacha Tribe of Louisiana at P.O. Box 661, Charenton, LA 70523, and the Army Corps of Engineers, New Orleans District (MVN) Regulatory Branch. MVN will initiate the required Federal, State, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.

24. The proposed activity results in the placement of over 2 million cubic yards of dredged material in the close proximity of the authorized Empire Waterway navigation channel. All efforts shall be taken by the applicant's dredging contractor to minimize migration of dredged materials into the Empire Waterway during construction of the project. The permitte shall assure that any contractors are mindful of this stipulation.

PELICAN ISLAND RESTORATION
(BA-38-1)
CWPPRA PROJECT



NOTE:
SOURCE OF MAP: LOUISIANA GIS CD;
A DIGITAL MAP OF THE STATE, 2 CD SET.

SHEET INDEX

REVISIONS		
DATE	BY	DESCRIPTION
2/10/05	DNR	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
LOCATION MAP

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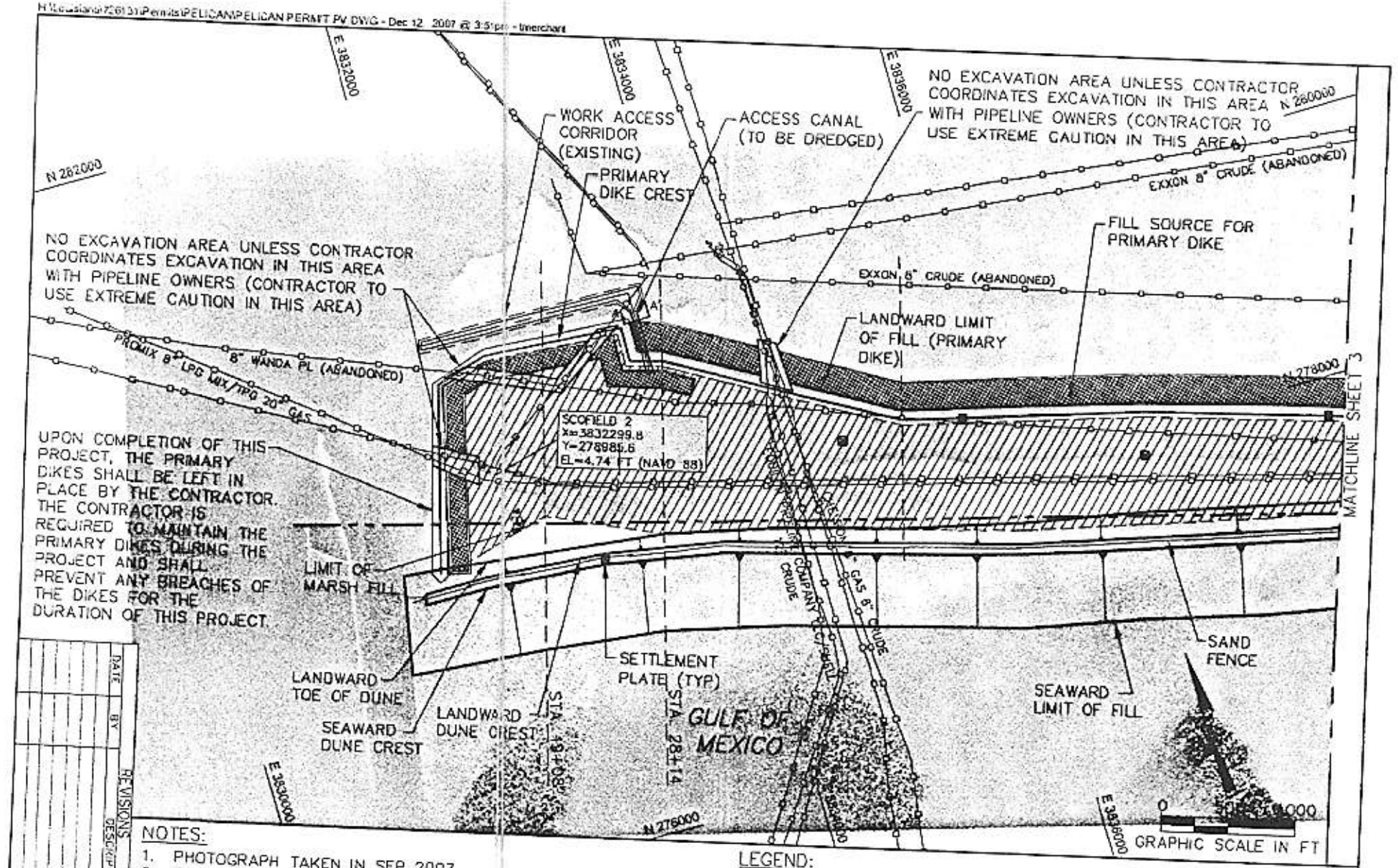
C.O.A. FL. #4625
C.O.A. LA. #521
www.CoastalPlanning.com

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 1

H:\Louisiana\7261\Permits\PELICAN\PELICAN LOCATION MAP.dwg - Dec 12, 2007 @ 9:53am - tmerchant



NOTES:

1. PHOTOGRAPH TAKEN IN SEP 2007.
2. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
3. LAND EQUIPMENT/MARSH BUGGY ACCESS WILL BE RESTRICTED TO CONSTRUCTION AREAS ONLY. TRACKING THROUGH EXISTING MARSH OUTSIDE THE PROJECT AREA IS PROHIBITED.

LEGEND:

- MARSH HYDRAULIC FILL
- FILL SOURCE FOR PRIMARY DIKE
- SETTLEMENT PLATE
- PROBABLE OIL & GAS INFRASTRUCTURE
- PROJECT BASELINE
- SAND FENCING

REVISIONS DESCRIPTION	BY	DATE

SHEET:	COMM NO.:	BY:	DATE:
2	7261.31	TM	11/5/07

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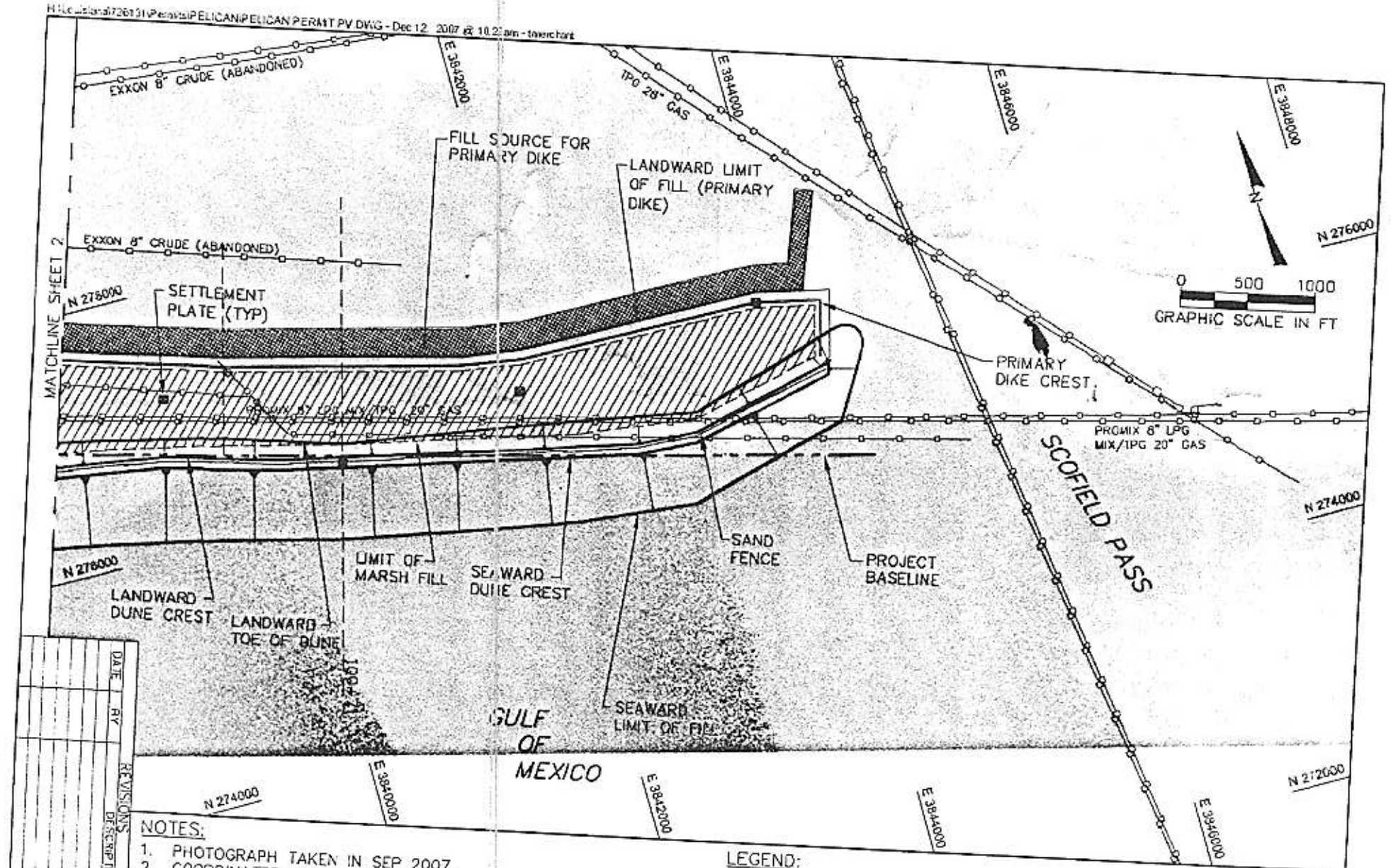
TITLE

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT PROJECT PLAN VIEW



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- PROJECT BASELINE
- SAND FENCING

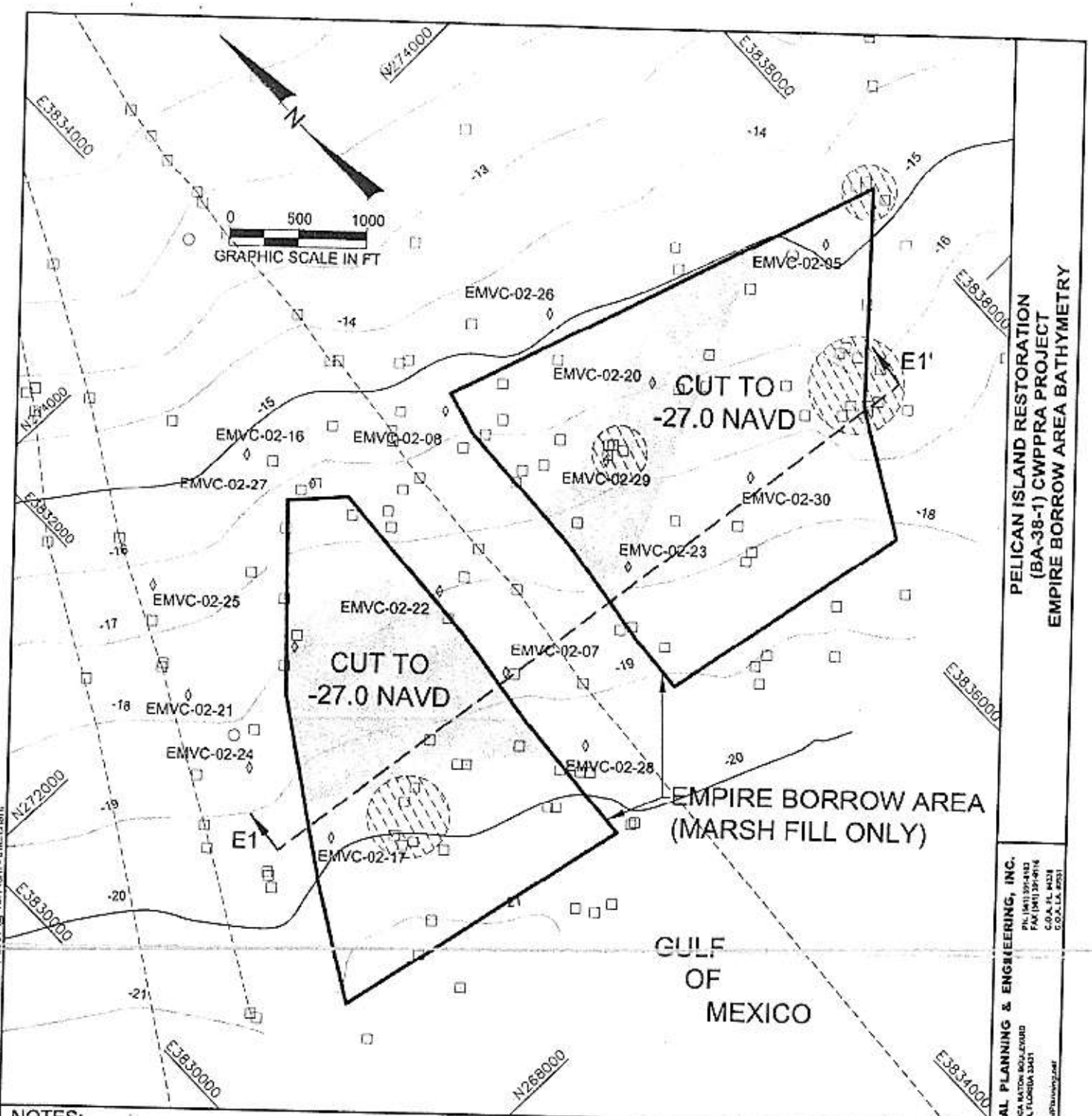
REVISIONS DESCRIPTION	BY	DATE

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
www.CoastalPlanning.com

DATE: 11/5/07
BY: TM
COMM NO.: 7261.31
SHEET: 3

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT PROJECT PLAN VIEW



PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
EMPIRE BORROW AREA BATHYMETRY

COASTAL PLANNING & ENGINEERING, INC.
2481 NW. BOCA RATON BOULEVARD
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C.O.A. LA. #2551
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NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN HEREON ARE IN FEET AND DERIVED FROM THE BATHYMETRIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); LOUISIANA GIS CD: 4 DIGITIAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET BASED ON NAVD 88.

LEGEND:

- ◊ CPE 2002 VIBRACORE LOCATION
- □ 2002 MAGNETOMETER HIT
- ○ USS CORE LOCATIONS (FROM USGS FILE REPORT NO. 01-384, DATED SEPTEMBER 2001, APPENDIX B CD ROM)
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINE LOCATION
- PRIMARY DREDGE AREA (SILT/CLAY/SAND)
- -20 BATHYMETRIC CONTOUR

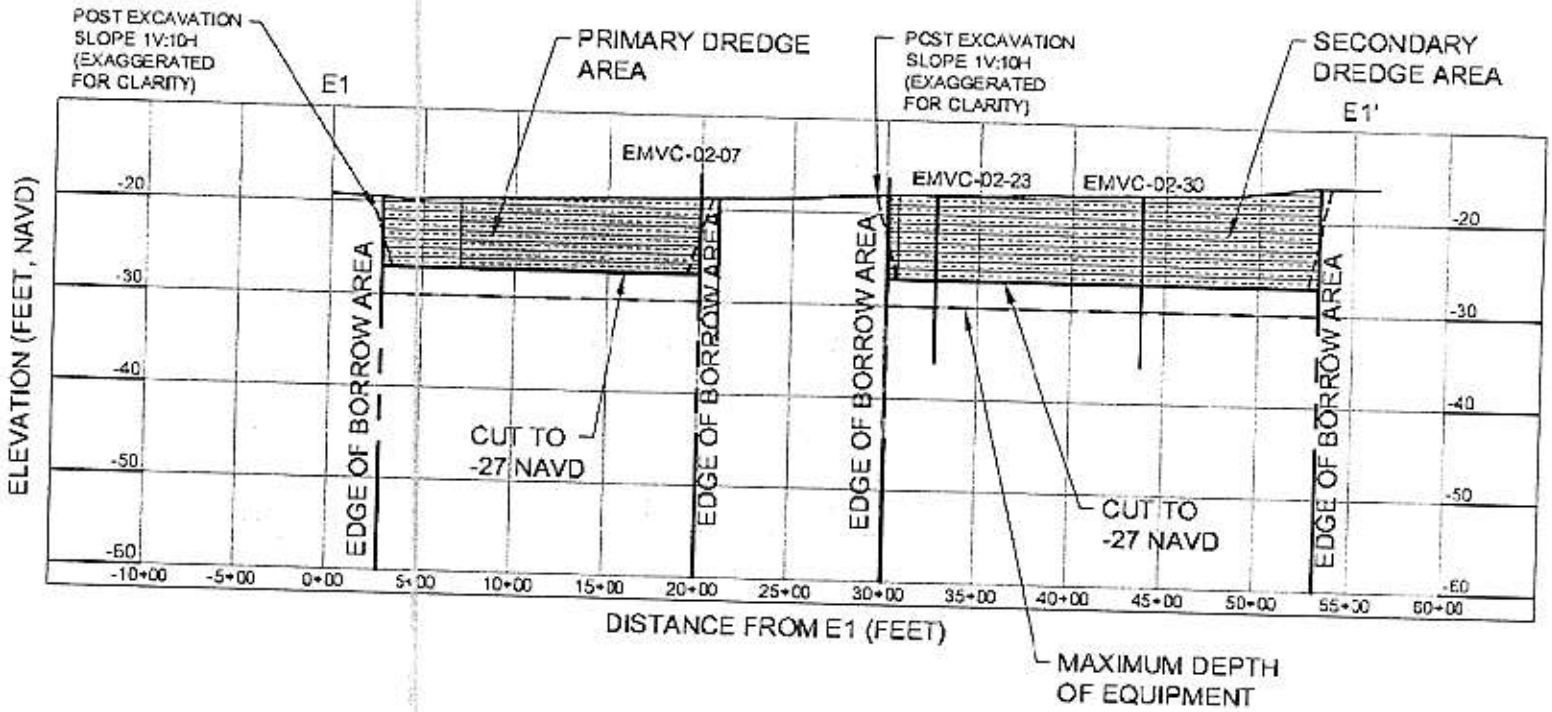
REVISIONS		
DATE	BY	DESCRIPTION
8/10/07	TDM	REVISED CUTS PER NOAA

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 4

H:\Louisiana\7261.31\Permits\PELICAN\PELICAN SE BORROW AREA.DWG - Dec 12, 2007 @ 10:11am - tmerchant

H:\Louisiana\726131\Permits\PELICAN\PELICAN SE BORROW AREA Cross Sections.DWG - Dec 12, 2007 @ 10:43am - tmerchant

EMPIRE BORROW AREA
CROSS SECTION E1 - E1'



REVISIONS		
DESCRIPTION	BY	DATE

NOTE:

1. VIBRACCRES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 4 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

EMVC-02-17 DENOTES CPE 2002 VIBRACORE LOCATION

SILT/CLAY/SAND (PRIMARY DREDGE AREA)

SILT/CLAY LAYER

SCALE: 1"= 1000' HORIZONTAL
1"=20' VERTICAL

SHEET:	COMM. NO.:	BY:	DATE:
5	7261.31	JRC	11/17/03

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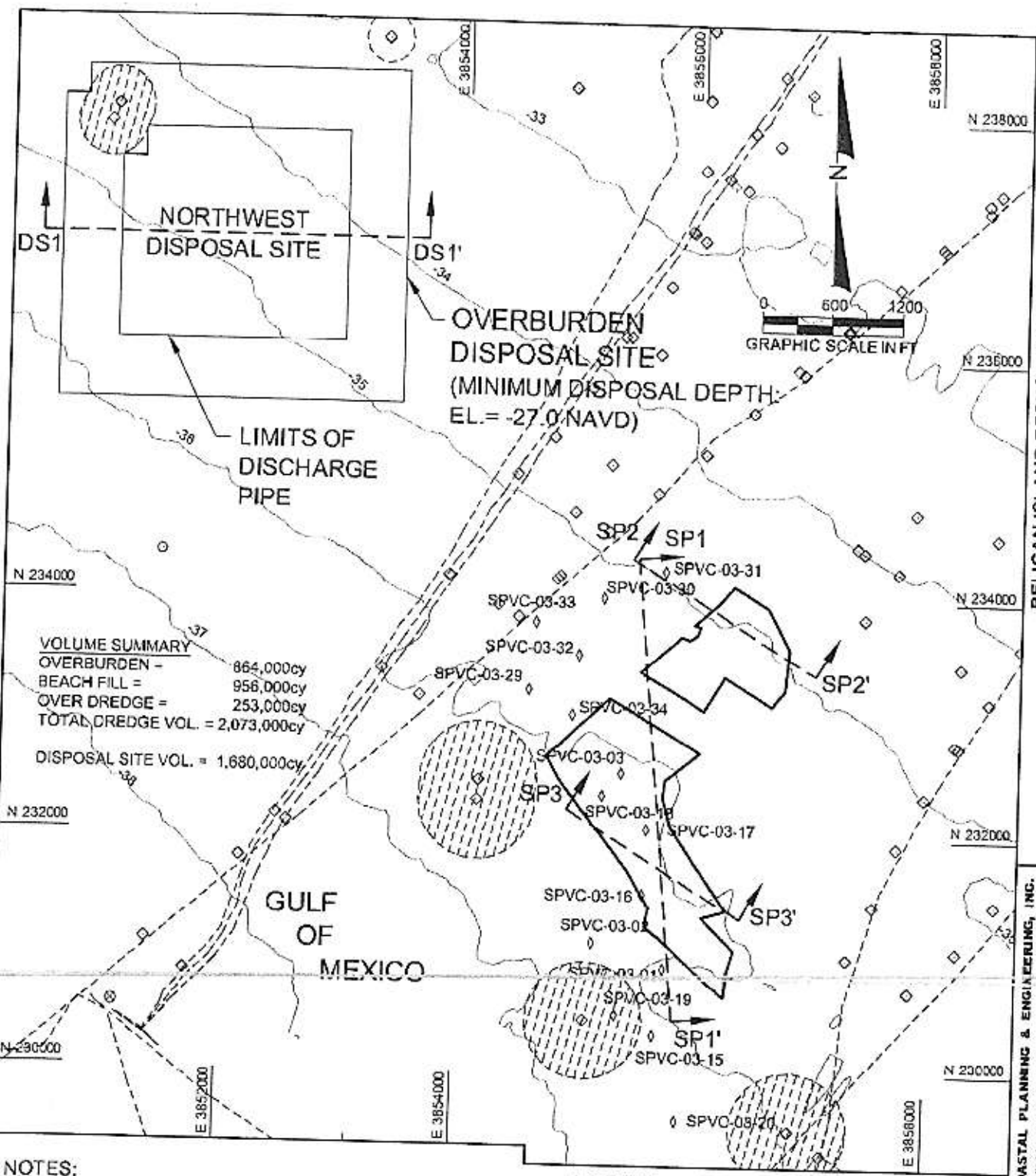
C.O.A. FL. #4225
C.O.A. LA. #0331

TITLE

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
EMPIRE BORROW AREA CROSS SECTION



VOLUME SUMMARY

OVERBURDEN =	865,000cy
BEACH FILL =	956,000cy
OVER DREDGE =	253,000cy
TOTAL DREDGE VOL. =	2,073,000cy
DISPOSAL SITE VOL. =	1,680,000cy

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DERIVED FROM THE BATHYMETRIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- CPE 2003 VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -36 BATHYMETRIC CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
6/10/07	TCM	REVISED CUTS PER NOAA
8/29/07	JRC	REVISED BA SHAPE

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA BATHYMETRY

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
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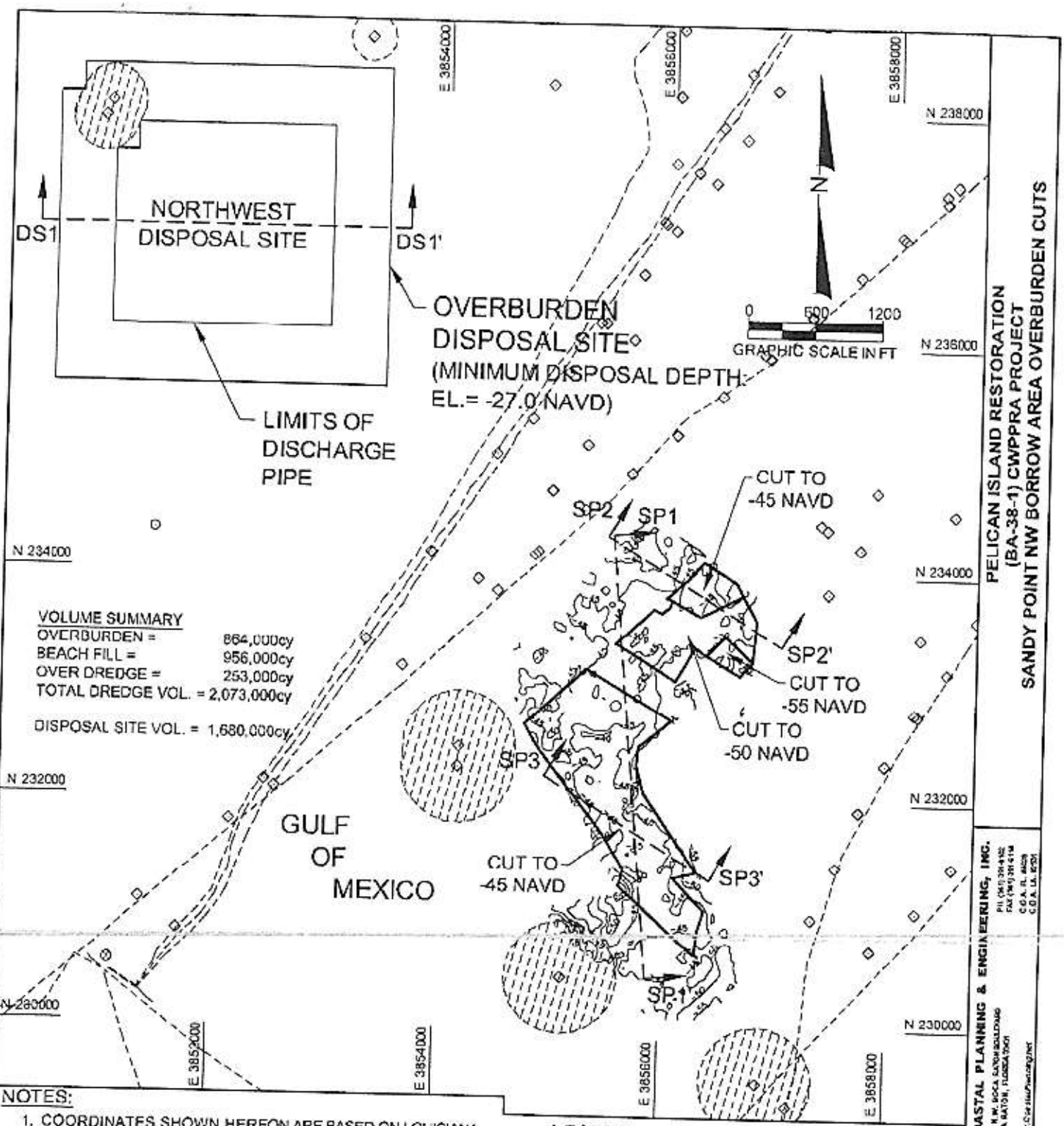
C.O.A. LA #231
www.CoastalEngineering.com

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 6

H:\Louisiana\7261\Permits\PELICAN\PELICAN NW BORROW AREA PV.DWG - Dec 12, 2007 @ 10:55am - tmerchant



PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA OVERBURDEN CUTS

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DEPICT THE FIRST SEISMIC REFLECTOR DERIVED FROM THE SEISMIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -45 1ST SIESMIC REFLECTOR CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
8/10/07	TDM	REVISED CUTS PER NOAA

COASTAL PLANNING & ENGINEERING, INC.
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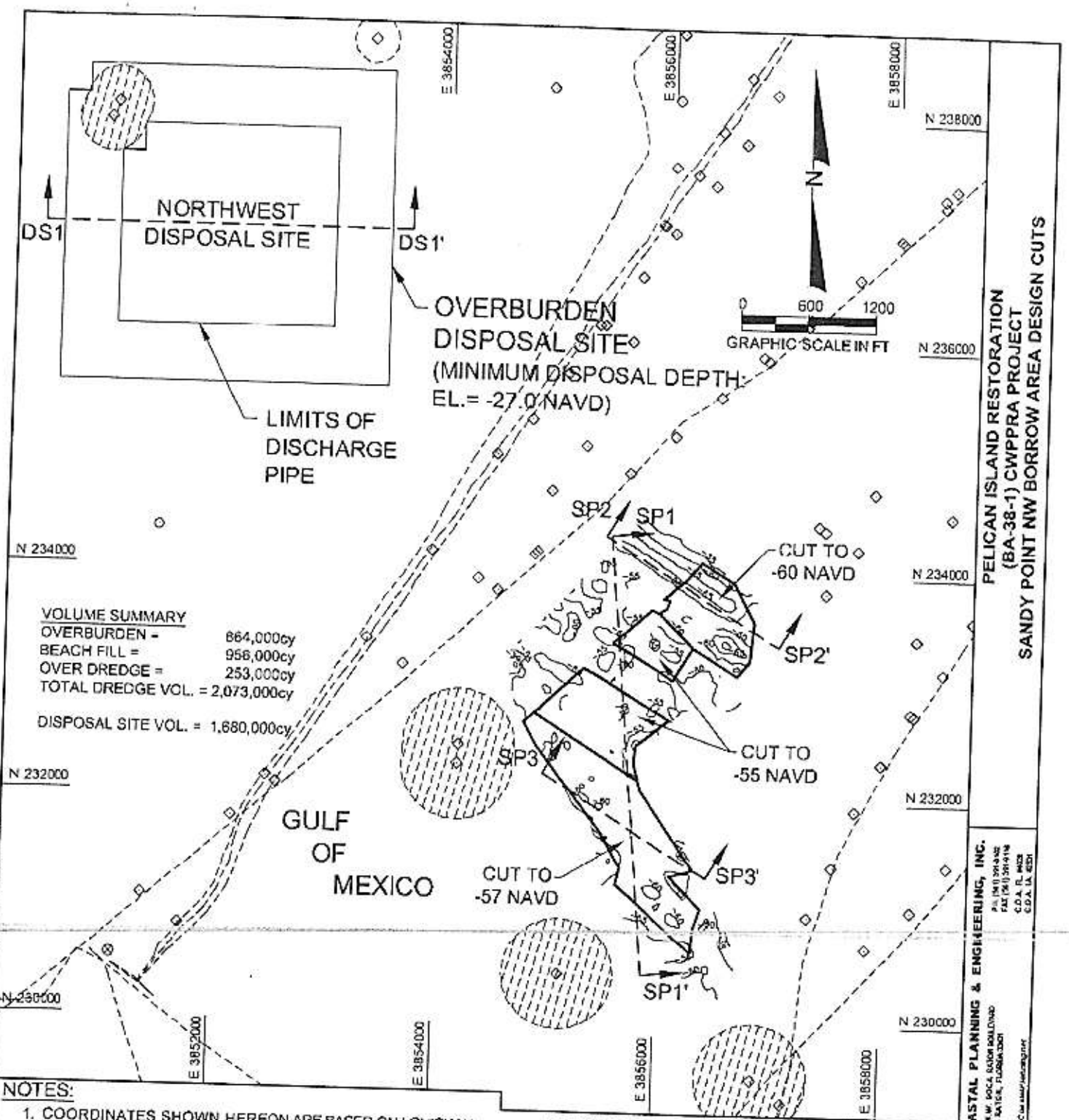
DATE: 11/17/03
BY: JRC
COMM. NO.: 7261.31
SHEET: 7

H:\Louisiana\7261\31\Permits\PELICAN\PELICAN NW BORROW AREA PV.DWG - Dec 12, 2007 @ 10:36am - lmerchant



VOLUME SUMMARY

OVERBURDEN =	864,000cy
BEACH FILL =	956,000cy
OVER DREDGE =	253,000cy
TOTAL DREDGE VOL. =	2,073,000cy
DISPOSAL SITE VOL. =	1,680,000cy

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DEPICT THE ELEVATION OF THE SECOND SEISMIC REFLECTOR DERIVED FROM THE SEISMIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -55 2ND SIESMIC REFLECTOR CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA DESIGN CUTS

COASTAL PLANNING & ENGINEERING, INC.
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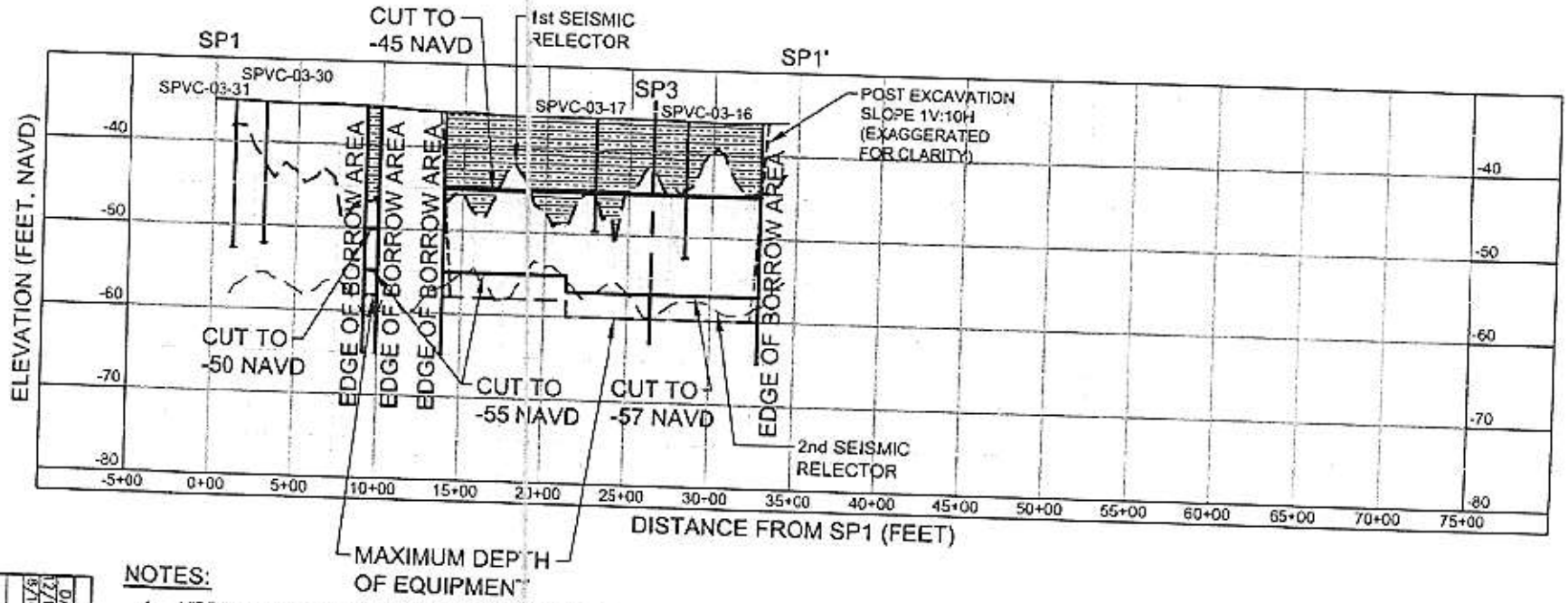
DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 8

H:\Louisiana\726131\Permits\PELICANPE\PELICAN NW BORROW AREA FV DWG - Dec 12, 2007 @ 2:13pm - tmeichart

SANDY POINT NW BORROW AREA
CROSS SECTION SP1-SP1'



NOTES:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 6-8 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. BEACH COMPATIBLE SEDIMENTS DELINEATED FROM VIBRACORES. ADDITIONAL COMPATIBLE SEDIMENTS MAY BE PRESENT BELOW THE INTERMITTENT ACOUSTIC REFLECTOR.
5. SEISMIC SURVEY CONDUCTED MAY 2003 BY CPE.
6. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW DESIGN CUT DEPTH.

LEGEND:

SPVC-03-03 DENOTES CPE 2003 VIBRACORE LOCATION

BEACH COMPATIBLE SEDIMENTS

SURFACE SILT/CLAY LAYER

INTERMITTENT ACOUSTIC REFLECTOR WITHIN SAND DEPOSIT AS DELINEATED FROM SEISMIC SURVEY

MAXIMUM DEPTH OF EQUIPMENT

SCALE: 1"= 1000' HORIZONTAL
1"= 20' VERTICAL

REVISIONS			
DESCRIPTION	BY	DATE
REVISED CUTS PER NOAA	TOM	12/17/03
REVISED CUTS	STR	8/10/07

COASTAL PLANNING & ENGINEERING, INC.
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DRAWN BY: JRC
DATE: 11/17/03
COMM NO.: 7261.31
SHEET: 9

TITLE

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA CROSS SECTIONS

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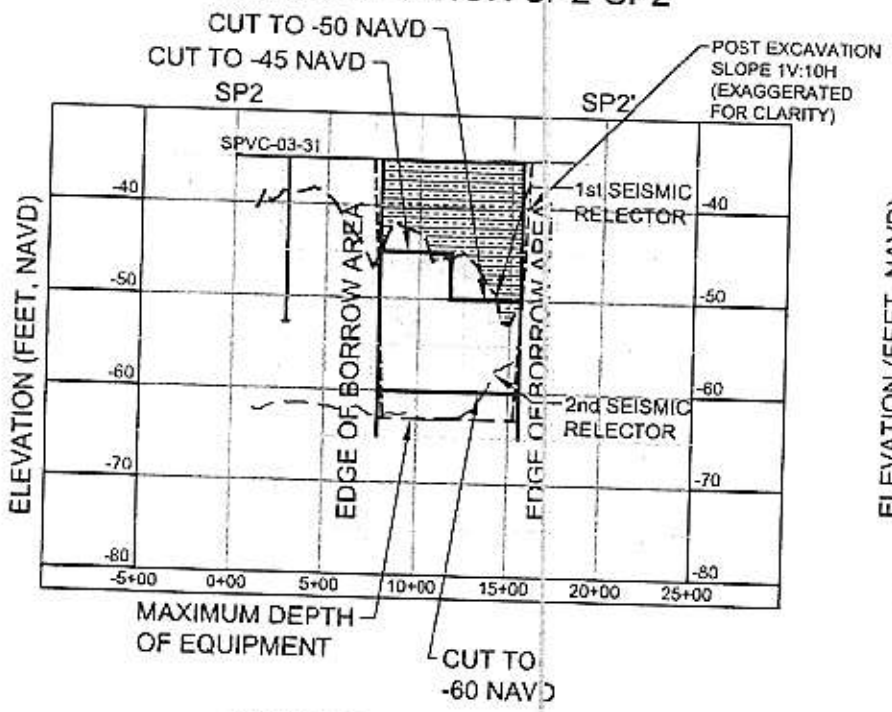
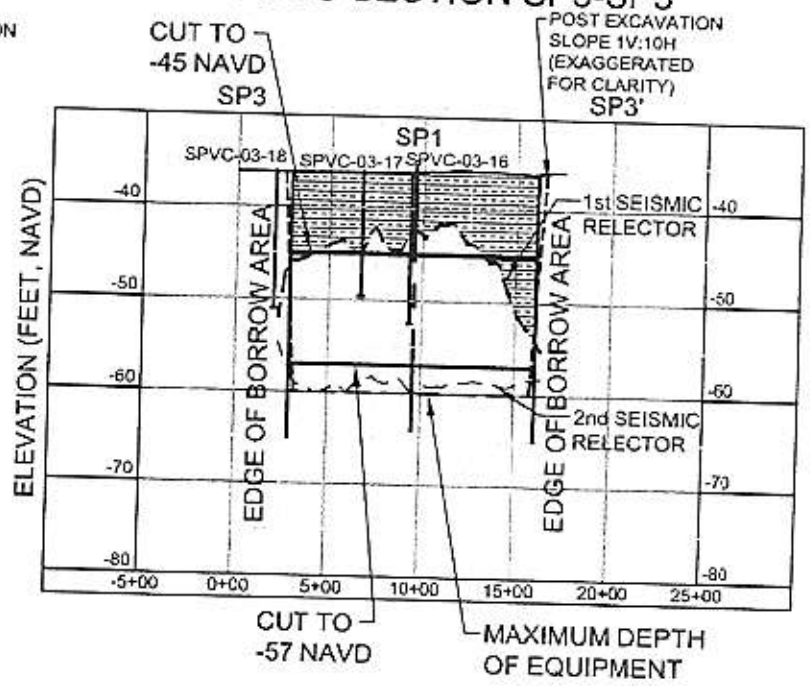
SANDY POINT NW BORROW AREA CROSS SECTION SP2-SP2'



SANDY POINT NW BORROW AREA CROSS SECTION SP3-SP3'



NOTES:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 6-8 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. BEACH COMPATIBLE SEDIMENTS DELINEATED FROM VIBRACORES. ADDITIONAL COMPATIBLE SEDIMENTS MAY BE PRESENT BELOW THE INTERMITTENT ACOUSTIC REFLECTOR.
5. SEISMIC SURVEY CONDUCTED MAY 2003 BY CPE.
6. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW DESIGN CUT DEPTH.

LEGEND:

SPVC-03-03 DENOTES CPE 2003 VIBRACORE LOCATION

BEACH COMPATIBLE SEDIMENTS

SURFACE SILT/CLAY LAYER

INTERMITTENT ACOUSTIC REFLECTOR WITHIN SAND DEPOSIT AS DELINEATED FROM SEISMIC SURVEY

MAXIMUM DEPTH OF EQUIPMENT

SCALE: 1"= 1000' HORIZONTAL
1"= 20' VERTICAL

REVISIONS	DESCRIPTION	BY	DATE
	REVISED CUTS PER NOAA	TDW	6/10/07
	REVISED CUTS	SJH	2/11/04

DATE:	BY:	COMM. NO.	SHEET:
11/17/03	JRC	7261.31	10

COASTAL PLANNING & ENGINEERING, INC.
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www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA CROSS SECTIONS

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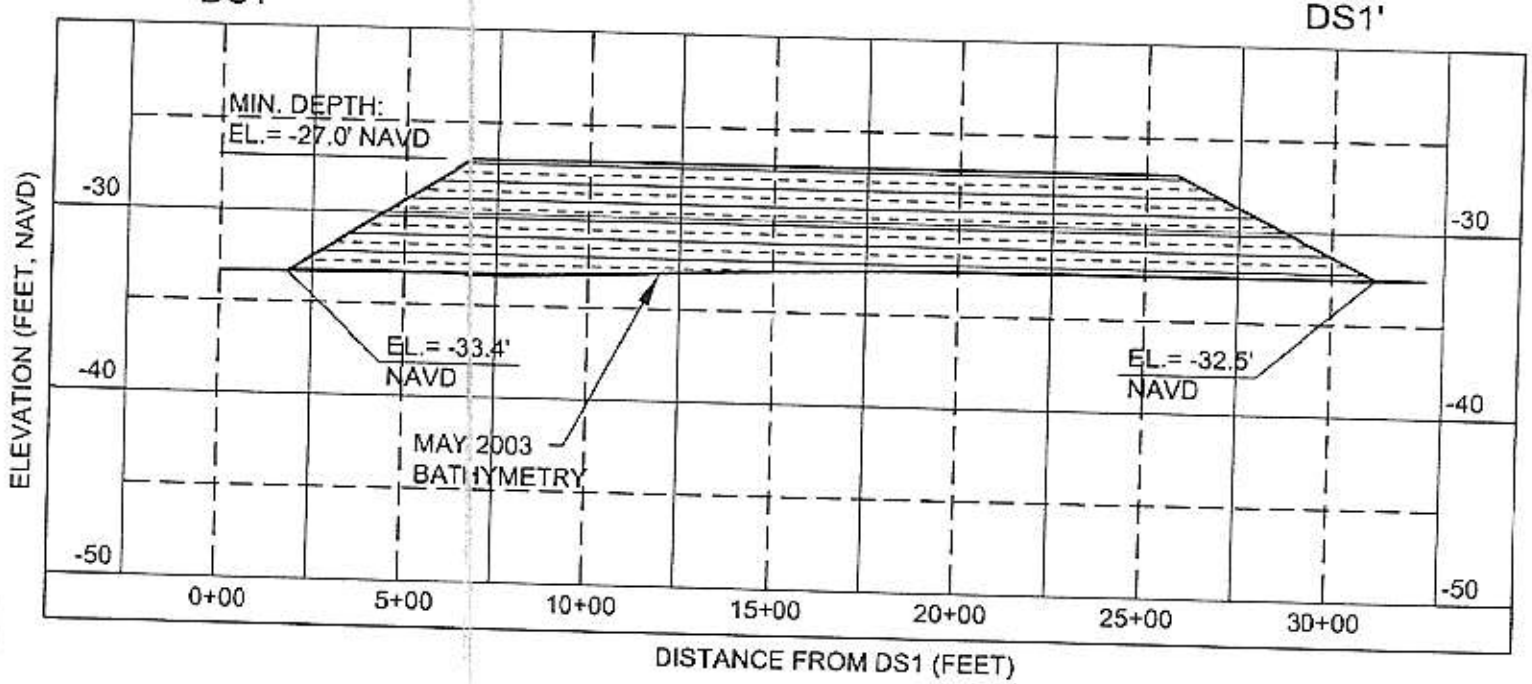
SANDY POINT NW DISPOSAL SITE
CROSS SECTION DS1-DS1'



REVISIONS			
DESCRIPTION	BY	DATE
NW SANDY POINT BA REMOVED	DNR	2/10/05
REVISED CUTS PER NOAA	TOM	8/10/07

NOTE:

1. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

OVERBURDEN DISPOSAL

SCALE: 1"= 500' HORIZONTAL
1"=10' VERTICAL

SHEET:	COMM. NO.:	BY:	DATE:
11	7261.31	JRC	11/17/03

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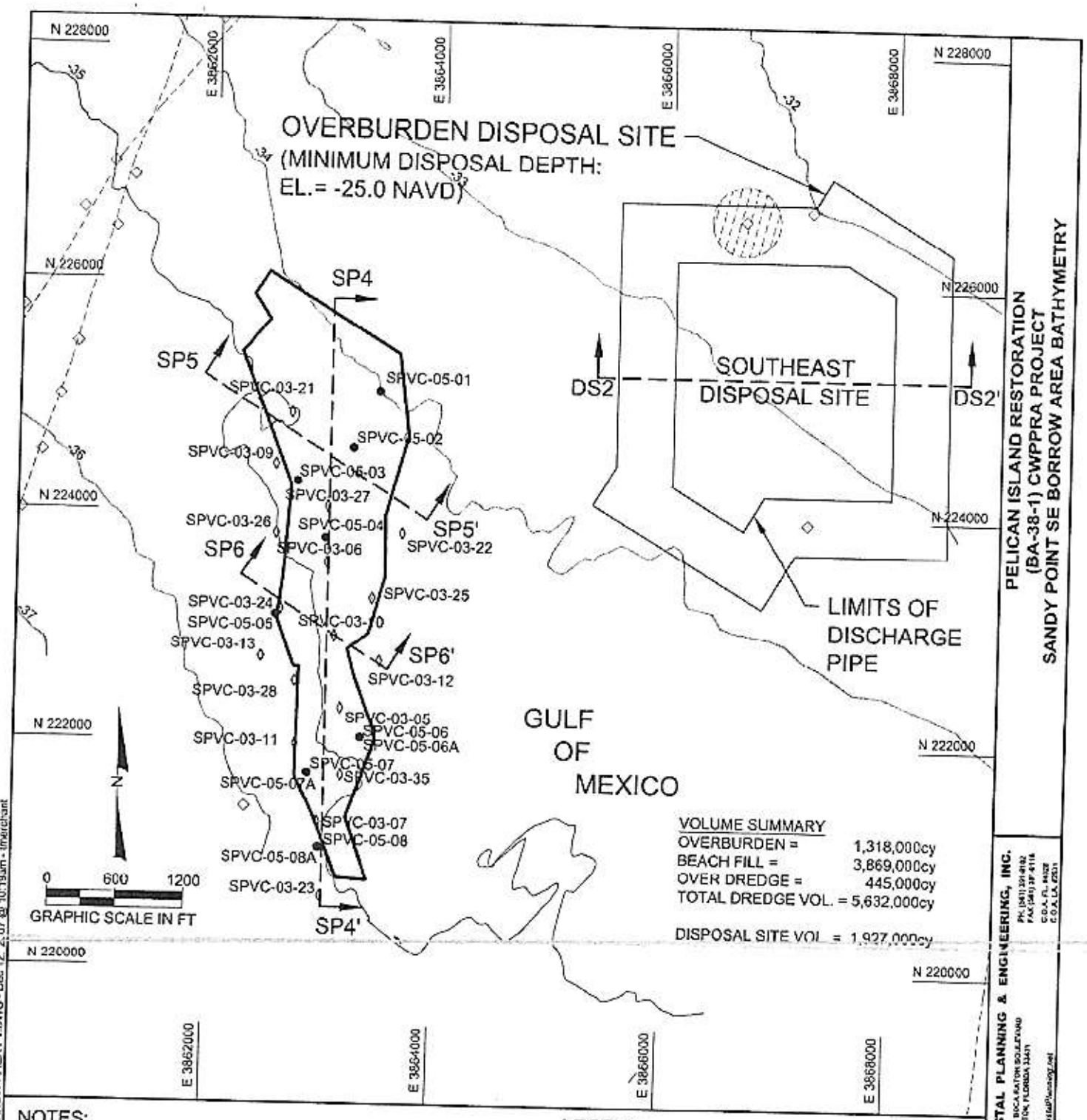
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW DISPOSAL AREA CROSS SECTION



VOLUME SUMMARY

OVERBURDEN =	1,318,000cy
BEACH FILL =	3,869,000cy
OVER DREDGE =	445,000cy
TOTAL DREDGE VOL. =	5,632,000cy
DISPOSAL SITE VOL. =	1,927,000cy

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DERIVED FROM THE BATHYMETRIC SURVEY CONDUCTED BY CPE, MAY 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- DENOTES CPE 2003 VIBRACORE LOCATION
- DENOTES CPE 2005 VIBRACORE LOCATION
- DENOTES MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -35 BATHYMETRIC CONTOUR

REVISIONS

DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
2/10/05	TDM	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA BATHYMETRY

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DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 12

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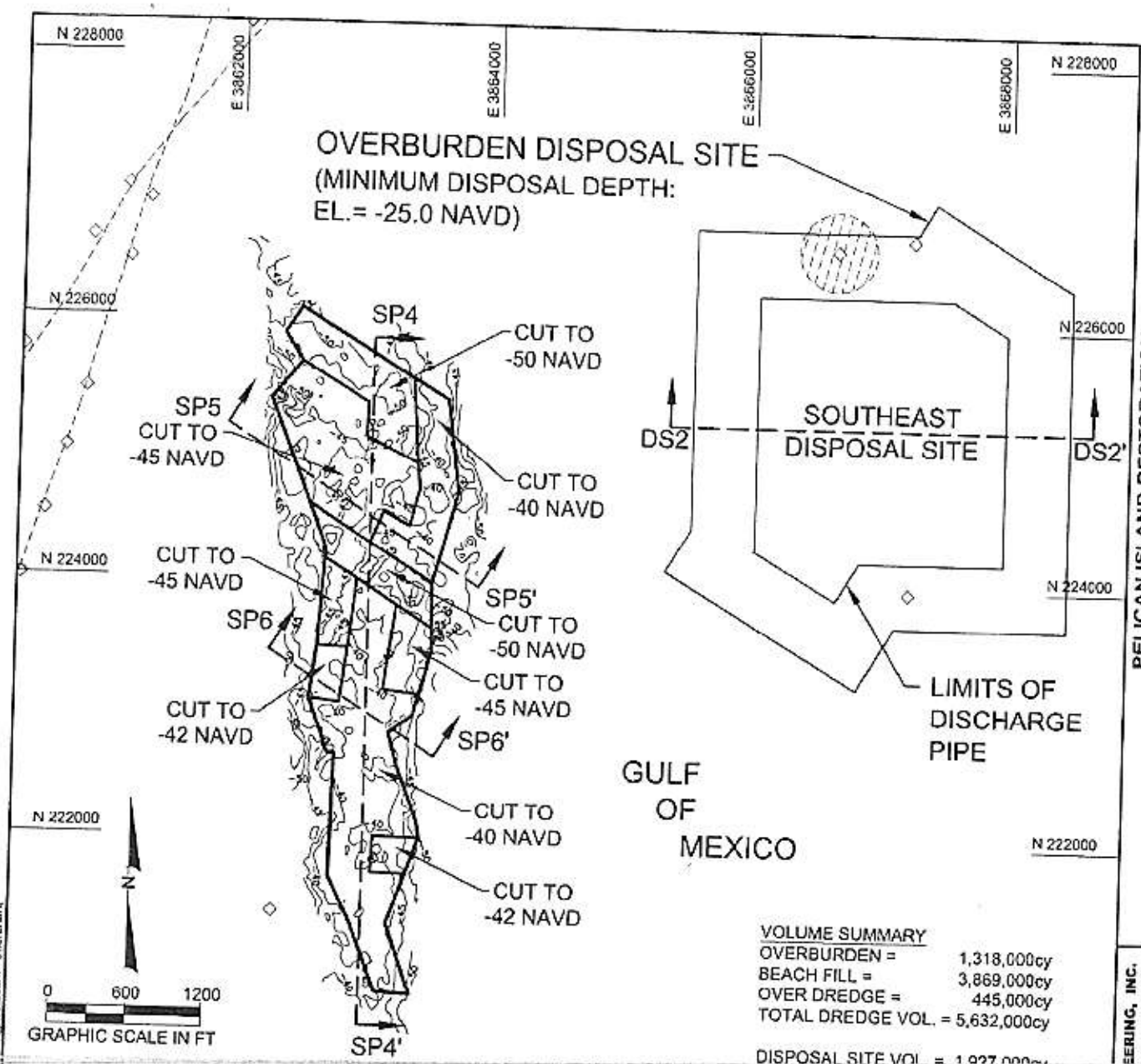

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4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- ◊ DENOTES CPE 2003 VIBRACORE LOCATION
- ◇ DENOTES MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -45 1ST SIESMIC REFLECTOR CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
2/10/05	TDM	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA OVERBURDEN CUTS

COASTAL PLANNING & ENGINEERING, INC.
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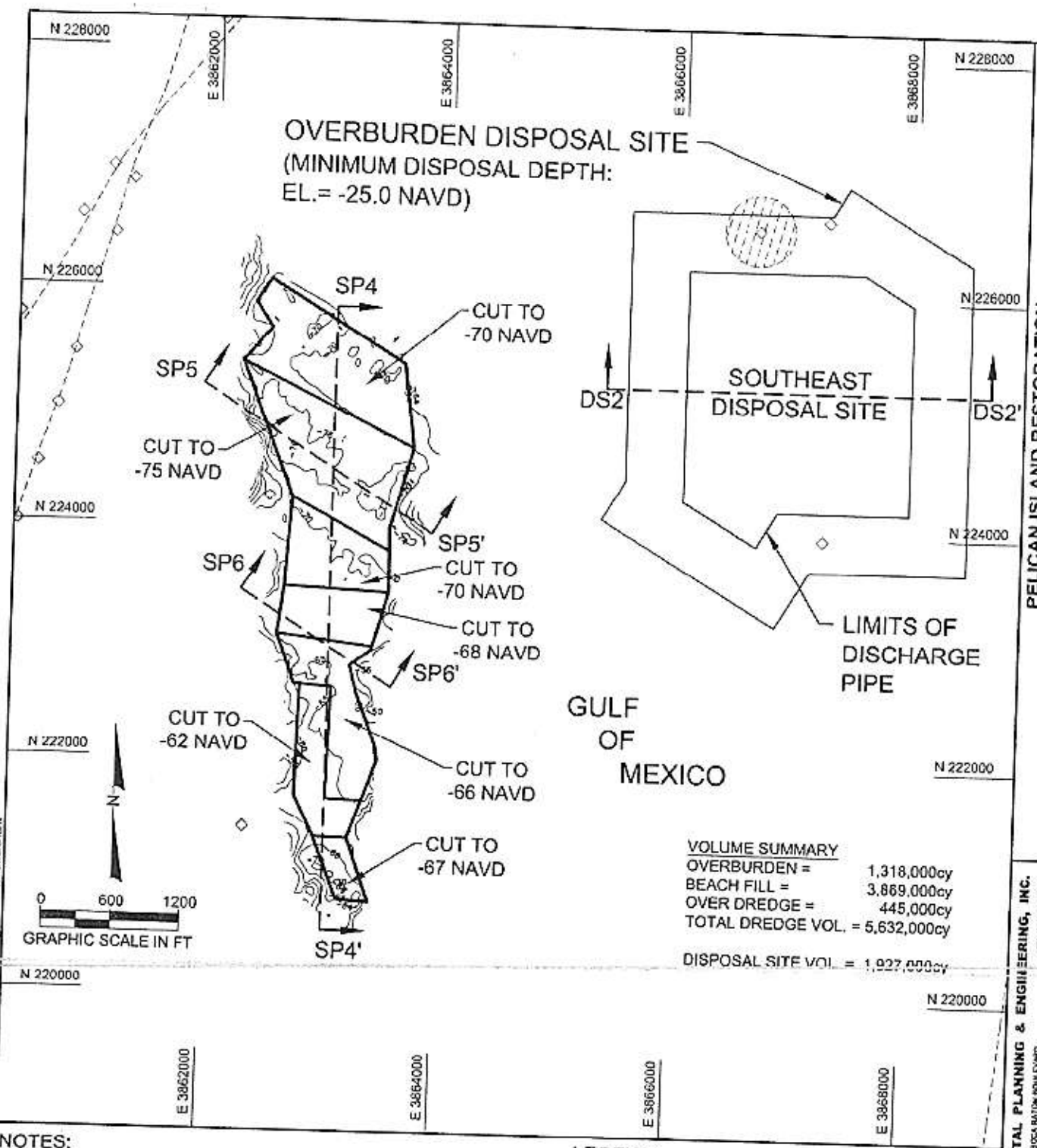
DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 13

H:\Louisiana\7261311\Permits\PELICAN\PELICAN SE BORROW AREA PV.DWG - Dec 12, 2007 @ 10:20am - tmerchant



VOLUME SUMMARY

OVERBURDEN =	1,318,000cy
BEACH FILL =	3,869,000cy
OVER DREDGE =	445,000cy
TOTAL DREDGE VOL. =	5,632,000cy
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NOTES:

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4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- ◊ DENOTES CPE 2003 VIBRACORE LOCATION
- ◇ DENOTES MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -55 2ND SIESMIC REFLECTOR CONTOUR

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
2/10/05	TDM	NW SANDY POINT BA REMOVED
9/10/07	TDM	REVISED CUTS PER NOAA

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA DESIGN CUTS

COASTAL PLANNING & ENGINEERING, INC.
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DATE: 11/17/03
BY: JRC
COMM NO.: 7261.31
SHEET: 1-4

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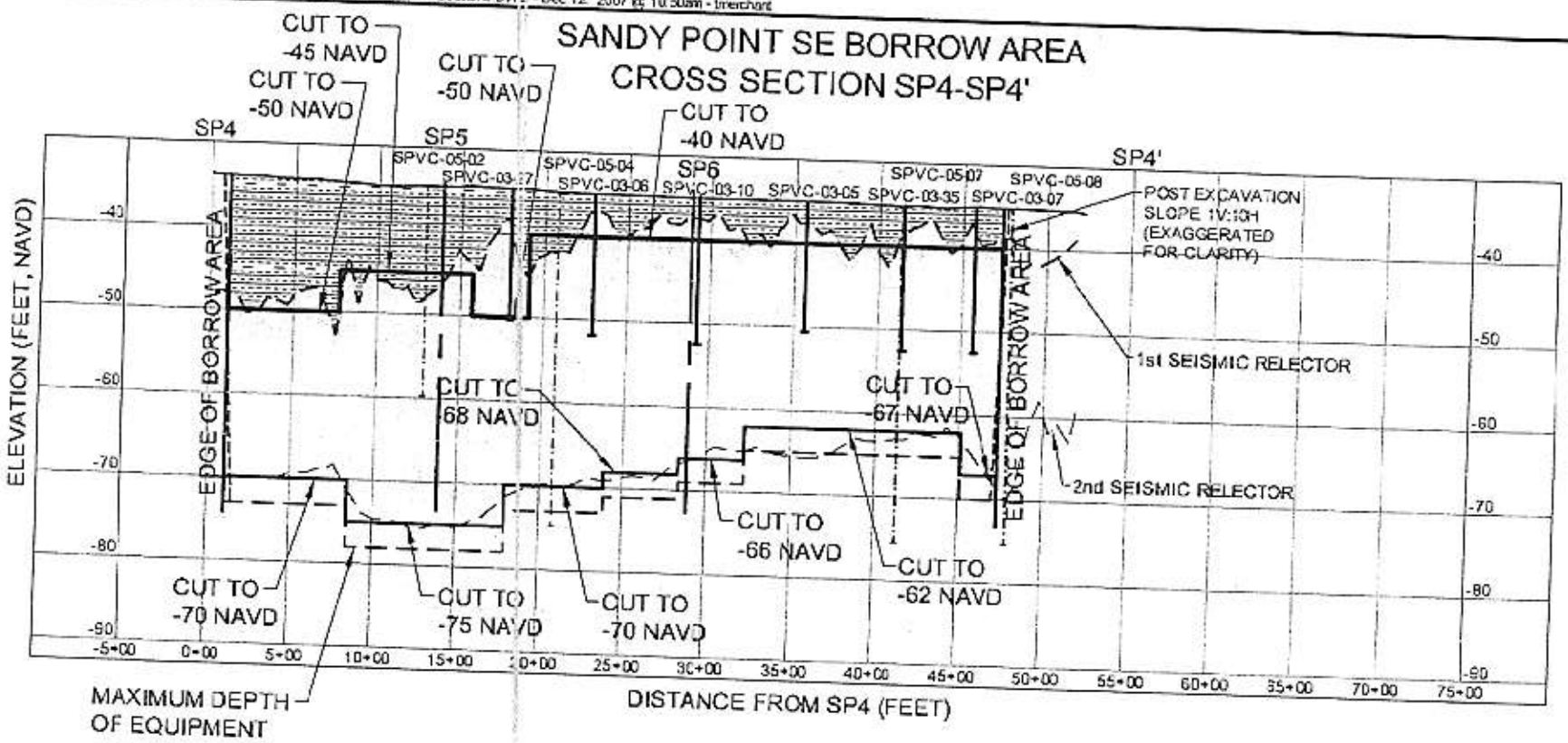
SANDY POINT SE BORROW AREA
CROSS SECTION SP4-SP4'



NOTES:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 12-14 FOR LOCATION OF CROSS SECTION LINES.
3. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. BEACH COMPATIBLE SEDIMENTS DELINEATED FROM VIBRACORES. ADDITIONAL COMPATIBLE SEDIMENTS MAY BE PRESENT BELOW THE INTERMITTENT ACOUSTIC REFLECTOR.
5. SEISMIC SURVEY CONDUCTED MAY 2003 BY CPE.
6. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW DESIGN CUT DEPTH.

LEGEND:

SPVC-03-03 DENOTES CPE 2003 VIBRACORE LOCATION

SPVC-05-05 DENOTES CPE 2005 VIBRACORE LOCATION

— — MAXIMUM DEPTH OF EQUIPMENT

BEACH COMPATIBLE SEDIMENTS

SURFACE SILT/CLAY LAYER

INTERMITTENT ACOUSTIC REFLECTOR WITHIN SAND DEPOSIT AS DELINEATED FROM SEISMIC SURVEY

BY	DATE	REVISIONS DESCRIPTION
BJ	12/7/07	
SLR	7/10/05	REVISED CUTS
DNR	8/10/07	NW SANDY POINT BA REMOVED
TDM		REVISED CUTS PER NOAA

SCALE: 1"= 1000' HORIZONTAL
1"= 20' VERTICAL

COASTAL PLANNING & ENGINEERING, INC.
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DRN:	DATE:	COMM. NO.	SHEET:
JRC	11/17/03	7261.31	15

TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT SE BORROW AREA CROSS SECTIONS

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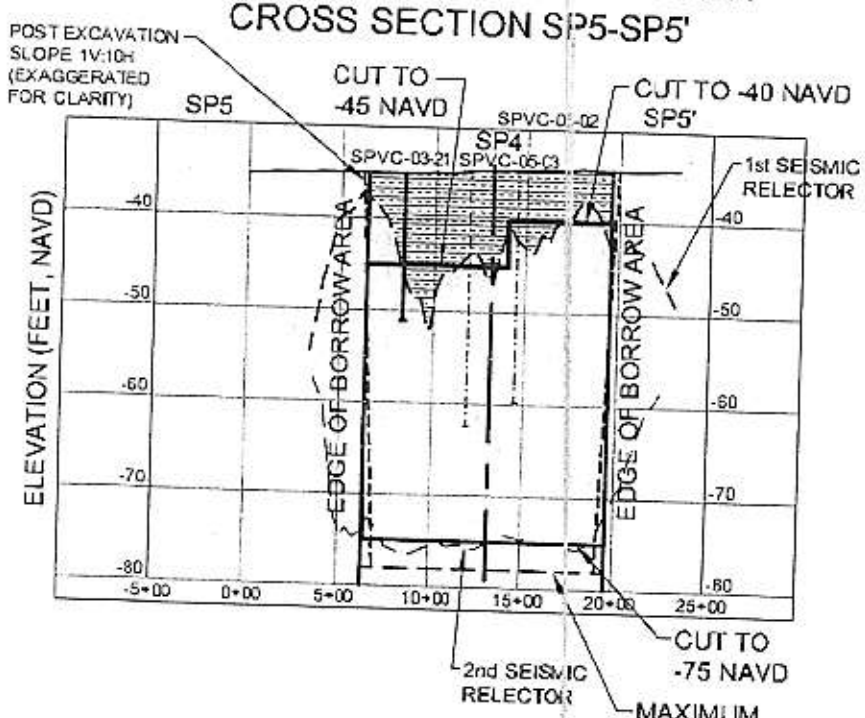
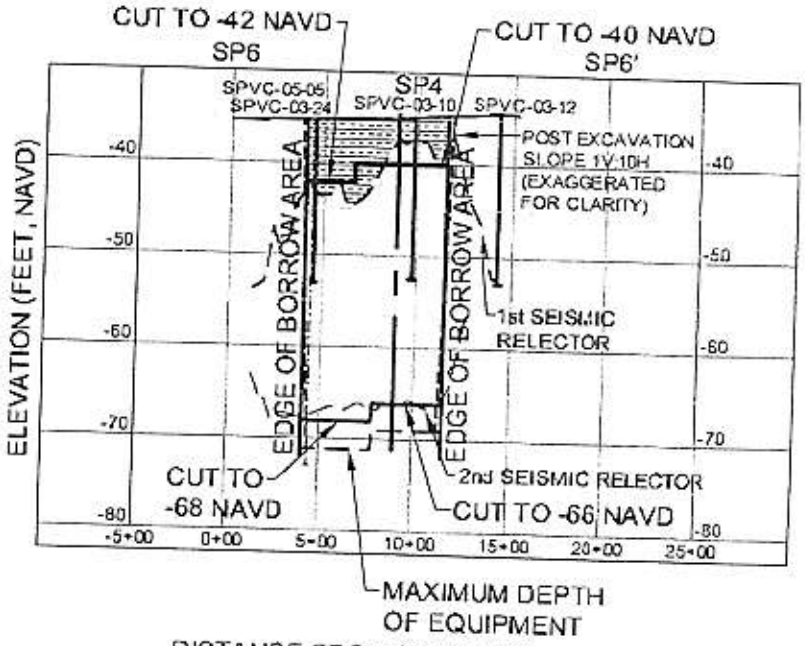
SANDY POINT SE BORROW AREA CROSS SECTION SP5-SP5'



SANDY POINT SE BORROW AREA CROSS SECTION SP6-SP6'



NOTES:

1. VIBRACORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. SEE SHEET 12-14 FOR LOCATION OF CROSS SECTION LINES.
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4. BEACH COMPATIBLE SEDIMENTS DELINEATED FROM VIBRACORES. ADDITIONAL COMPATIBLE SEDIMENTS MAY BE PRESENT BELOW THE INTERMITTENT ACOUSTIC REFLECTOR.
5. SEISMIC SURVEY CONDUCTED MAY 2003 BY CPE.
6. MAXIMUM DEPTH OF EQUIPMENT IS 3 FEET BELOW DESIGN CUT DEPTH.

LEGEND:

SPVC-03-03 DENOTES CPE 2003 VIBRACORE LOCATION

SPVC-05-05 DENOTES CPE 2005 VIBRACORE LOCATION

MAXIMUM DEPTH OF EQUIPMENT

BEACH COMPATIBLE SEDIMENTS

SURFACE SLT/CLAY LAYER

INTERMITTENT ACOUSTIC REFLECTOR WITHIN SAND DEPOSIT AS DELINEATED FROM SEISMIC SURVEY

REVISIONS	DESCRIPTION	BY	DATE
	REVISED CUTS	STR	12/7/07
	NW SANDY POINT BA REMOVED	DNR	7/10/03
	REVISED CUTS PER NOAA	JDM	6/20/07

SCALE: 1"= 1000' HORIZONTAL
1"= 20' VERTICAL

SHEET: 16
COMM NO.: 7261.31
BY: JRC
DATE: 11/17/03

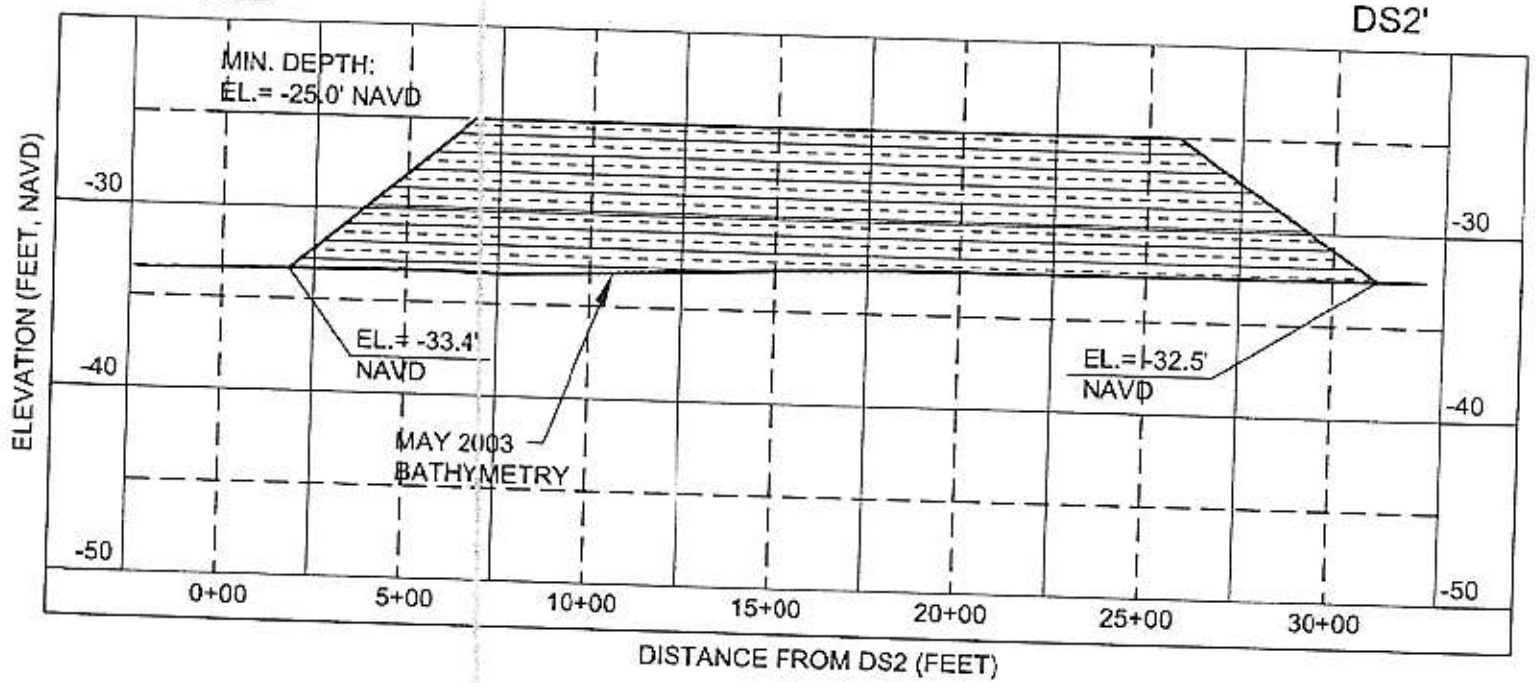
COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-9102
FAX (561) 391-9116
C.O.A. FL. #4328
C.O.A. LA. #2531
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT SANDY POINT SE BORROW AREA CROSS SECTIONS

H:\Louisiana\7261311\Permits\PELICAN\PELICAN SE DISPOSAL SITE X-SECTIONS.dwg - Dec 12, 2007 @ 11:15am - tmerchant

SANDY POINT SE DISPOSAL SITE
CROSS SECTION DS2-DS2'



REVISIONS		
DESCRIPTION	BY	DATE
N.W. SANDY POINT BA REMOVED	DNR	2/10/05
REVISED CUTS PER NOAA	TDM	8/10/07

NOTE:

1. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

OVERBURDEN DISPOSAL

SCALE: 1"= 500' HORIZONTAL
1"=10' VERTICAL

SHEET:	COMM NO.:	BY:	DATE:
17	7261.31	JRC	11/17/03

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-8102
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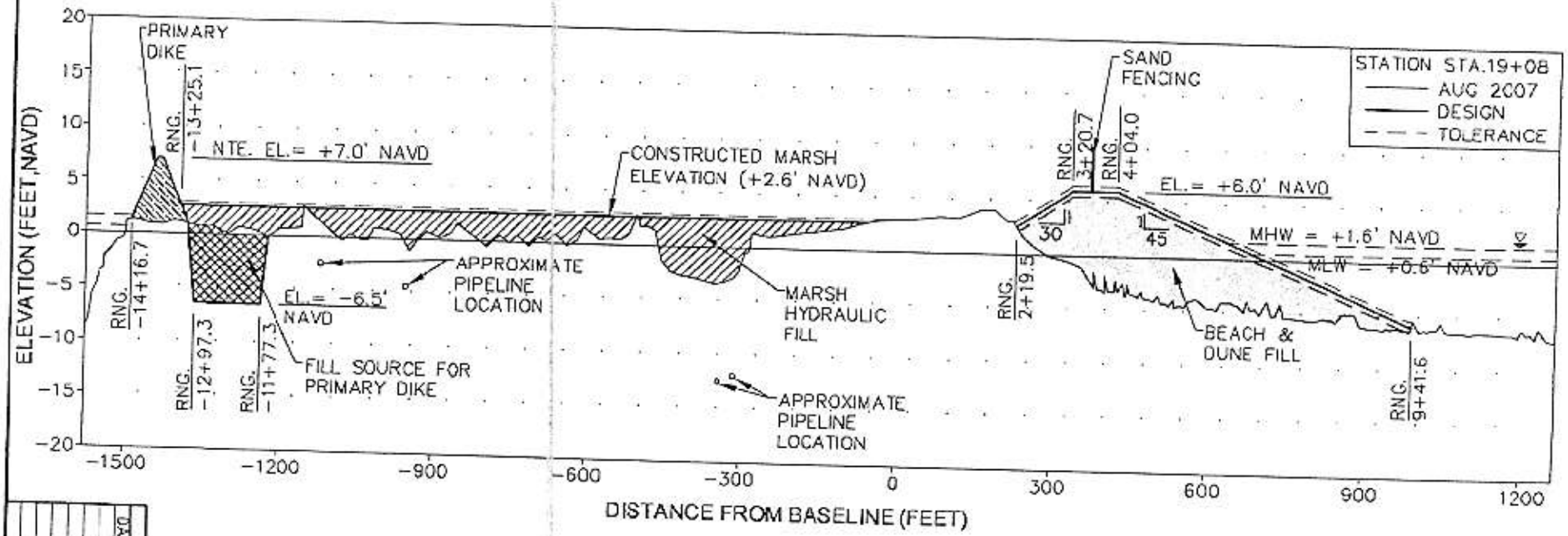
C.O.A. LA. #2531
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT SE DISPOSAL AREA CROSS SECTION

H:\Louisiana\726131\Permits\PELICAN\PELICAN PERMIT FILL X-SECTIONS.dwg - Dec 12, 2007 @ 1:50pm - tmerchant



NOTE:
ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- MARSH FILL
- BEACH & DUNE FILL
- PRIMARY DIKE
- FILL SOURCE FOR PRIMARY DIKE

DATE	BY	REVISIONS DESCRIPTION

SHEET: 18	COMM. NO.: 726.131	BY: TM	DATE: 11/5/07	COASTAL PLANNING & ENGINEERING, INC. 2481 N.W. BOCA RATON BOULEVARD BOCA RATON, FLORIDA 33431 PH (561) 391-8102 FAX (561) 391-9116 C.O.A. FL. #6628 C.O.A. LA. #0524 www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT FILL CROSS SECTIONS

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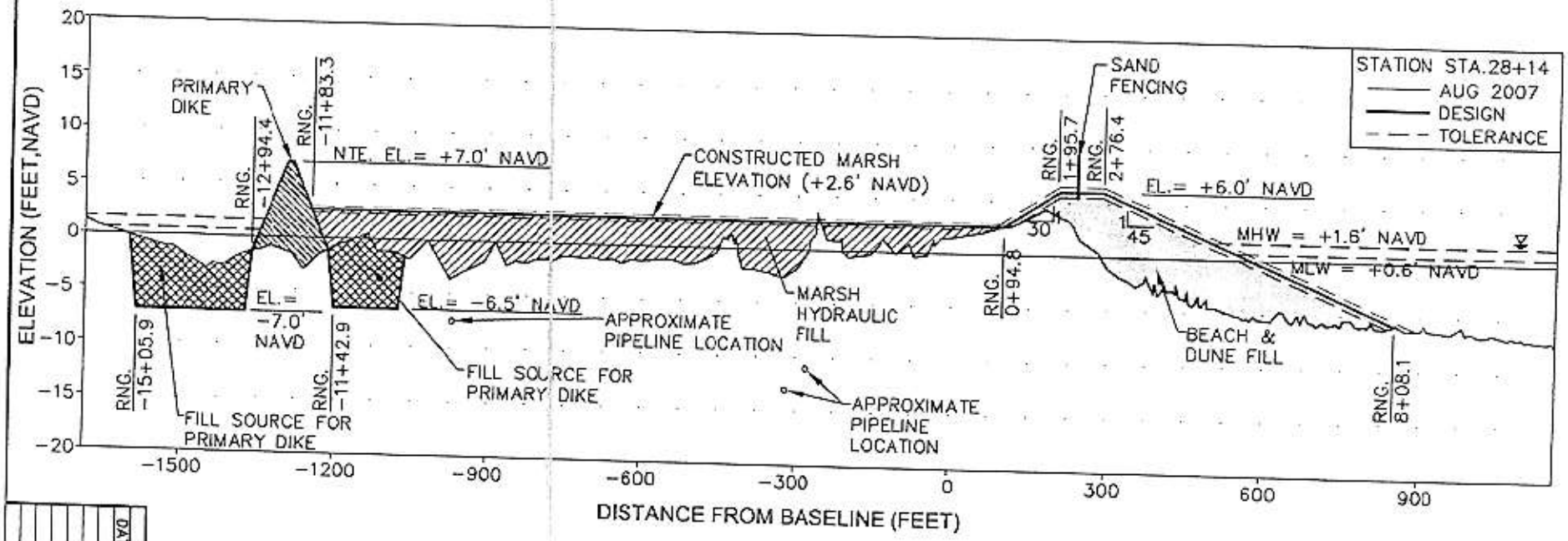

NOTE:
ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- MARSH FILL
- BEACH & DUNE FILL
- PRIMARY DIKE
- FILL SOURCE FOR PRIMARY DIKE

REVISIONS DESCRIPTION	BY	DATE

SHEET: 10 | COMM NO.: 7261.31 | BY: TM | DATE: 11/5/07

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
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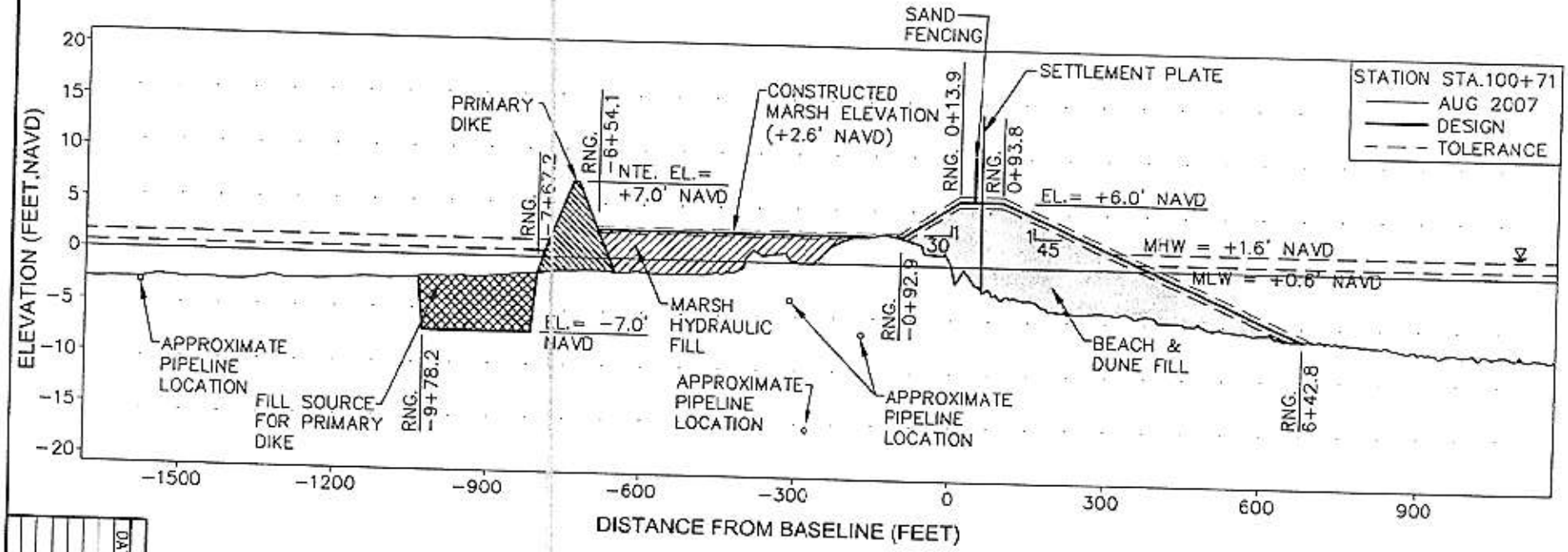
C.O.A. FL. #4328
C.O.A. LA. #1501

TITLE

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT FILL CROSS SECTIONS

H:\Louisiana\726131\Permits\PELICAN\PELICAN PERMIT FILL X-SECTIONS.dwg - Dec 12, 2007 @ 11:24am - tmerchant



NOTE:
ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- MARSH FILL
- BEACH & DUNE FILL
- PRIMARY DIKE
- FILL SOURCE FOR PRIMARY DIKE

DATE	BY	REVISIONS DESCRIPTION

SHEET: 20 | COMM NO.: 7261.31 | BY: TM | DATE: 11/5/07

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
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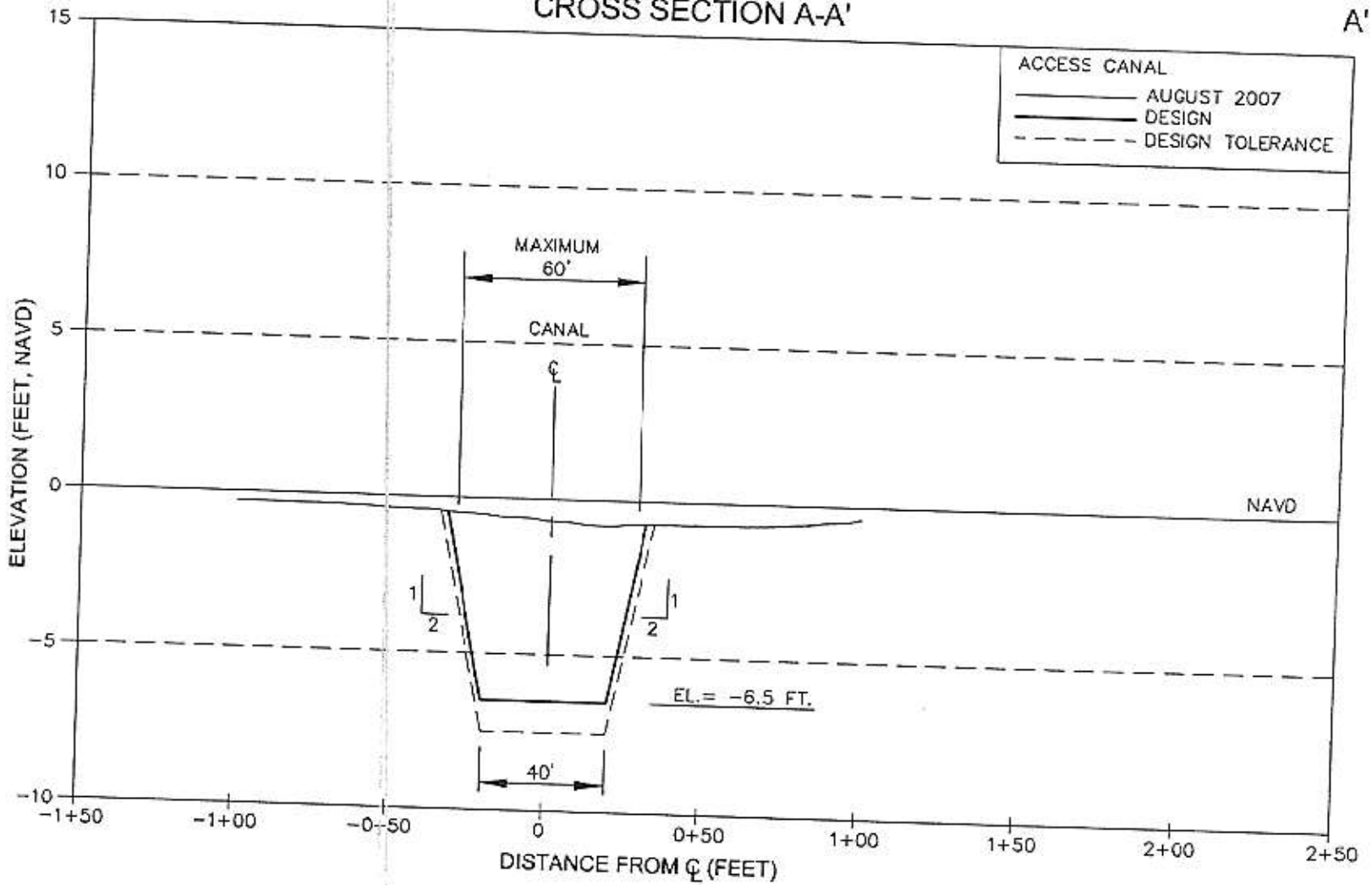
PH: (561) 391-8102
FAX: (561) 391-9116
C.O.A.-FL: 8625
C.O.A.-LA: 29531
www.CoastalPlanning.net

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT FILL CROSS SECTIONS

H:\Louisiana\7261.31\Permits\PELICAN\PELICAN CANAL X-SECTIONS.dwg - Dec 12, 2007 @ 11:31am - tmerchant

ACCESS CANAL
CROSS SECTION A-A'



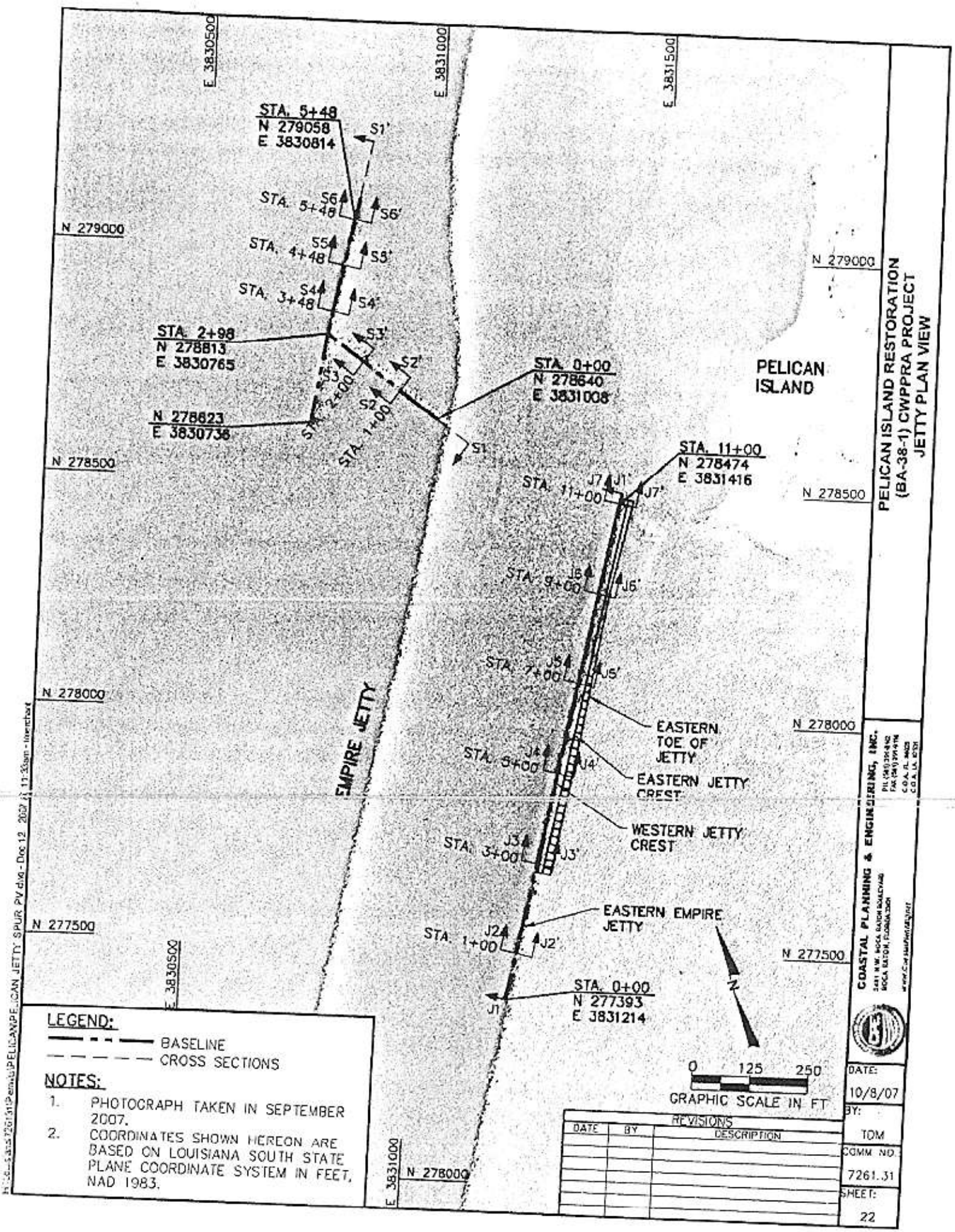
SCALE: 1"= 50' HORIZONTAL
1"=5' VERTICAL

DATE	BY	REVISIONS DESCRIPTION

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH: (561) 391-8102
FAX: (561) 391-8106
C.A. FL. #4628
C.A. LA. #2631
www.CoastalPlanning.net

DATE: 11/5/07
TM
COMM NO.: 7261.31
SHEET: 21

TITLE:
PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
ACCESS CANAL CROSS SECTION



LEGEND:

BASELINE

CROSS SECTIONS

NOTES:

1. PHOTOGRAPH TAKEN IN SEPTEMBER 2007.
2. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.

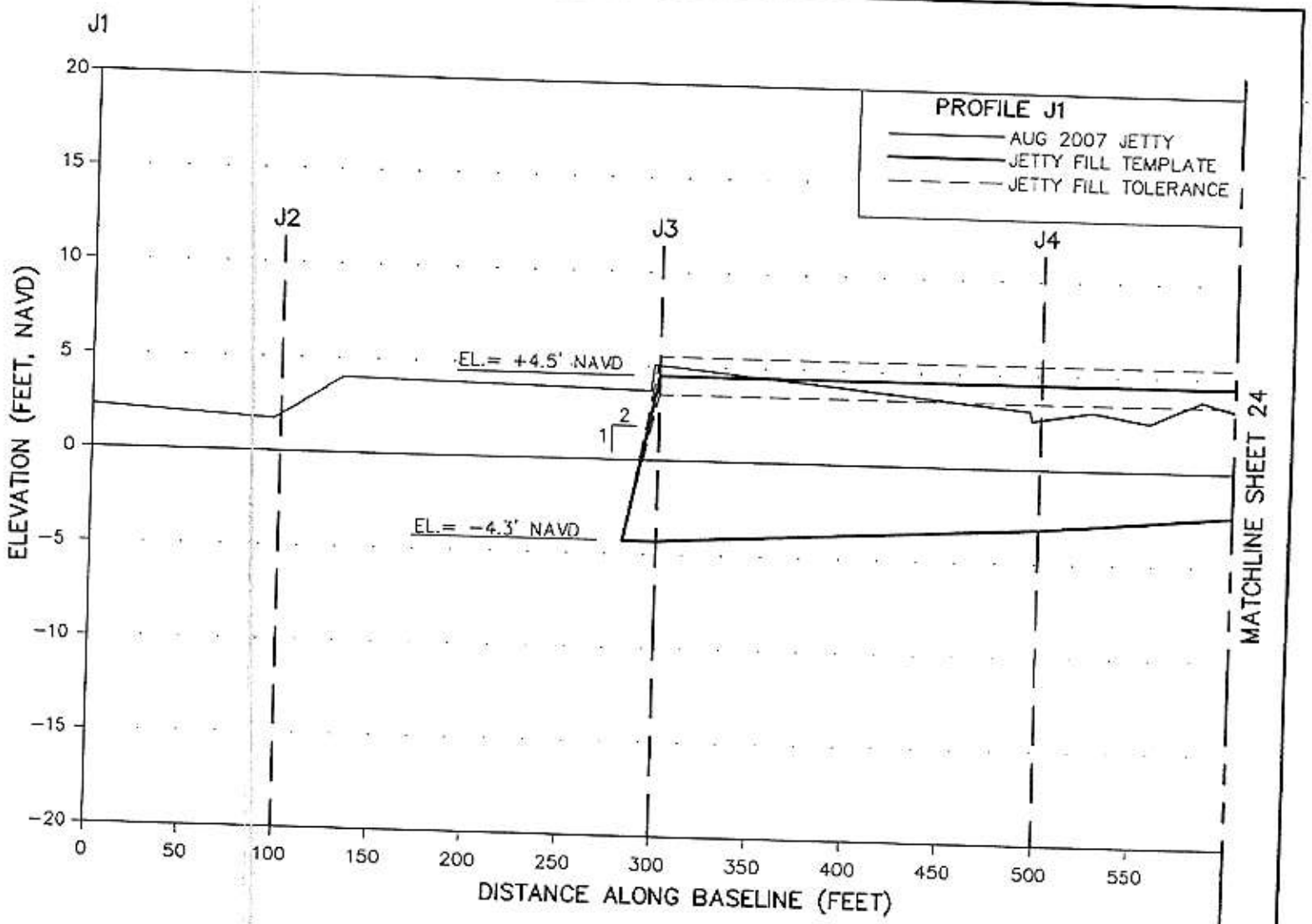
PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
JETTY PLAN VIEW

COASTAL PLANNING & ENGINEERING, INC.

REVISIONS		
DATE	BY	DESCRIPTION

DATE: 10/8/07
BY: TOM
COMM NO.: 7261.31
SHEET: 22

H:\Louisiana\726131\Permits\PELICAN\PELICAN_JETTY_SPUR_XS.dwg - Dec 12, 2007 @ 11:42am - tmerchant



NOTE:

1. CROSS SECTIONS J4 & J6 VIEWED LOOKING NORTH. CROSS SECTION J1 VIEWED LOOKING WEST.
2. EXISTING ELEVATIONS WERE COLLECTED AT DISCRETE LOCATIONS. ELEVATIONS BETWEEN DISCRETE ELEVATIONS ARE SHOWN AS LINEAR FEATURES. SOME VARIATIONS SHOULD BE EXPECTED.
3. EXCAVATE EXISTING PROFILE AS NECESSARY TO PLACE ARMOR STONE TO achieve THE SPECIFIC GRADE.

DATE	BY	REVISIONS DESCRIPTION

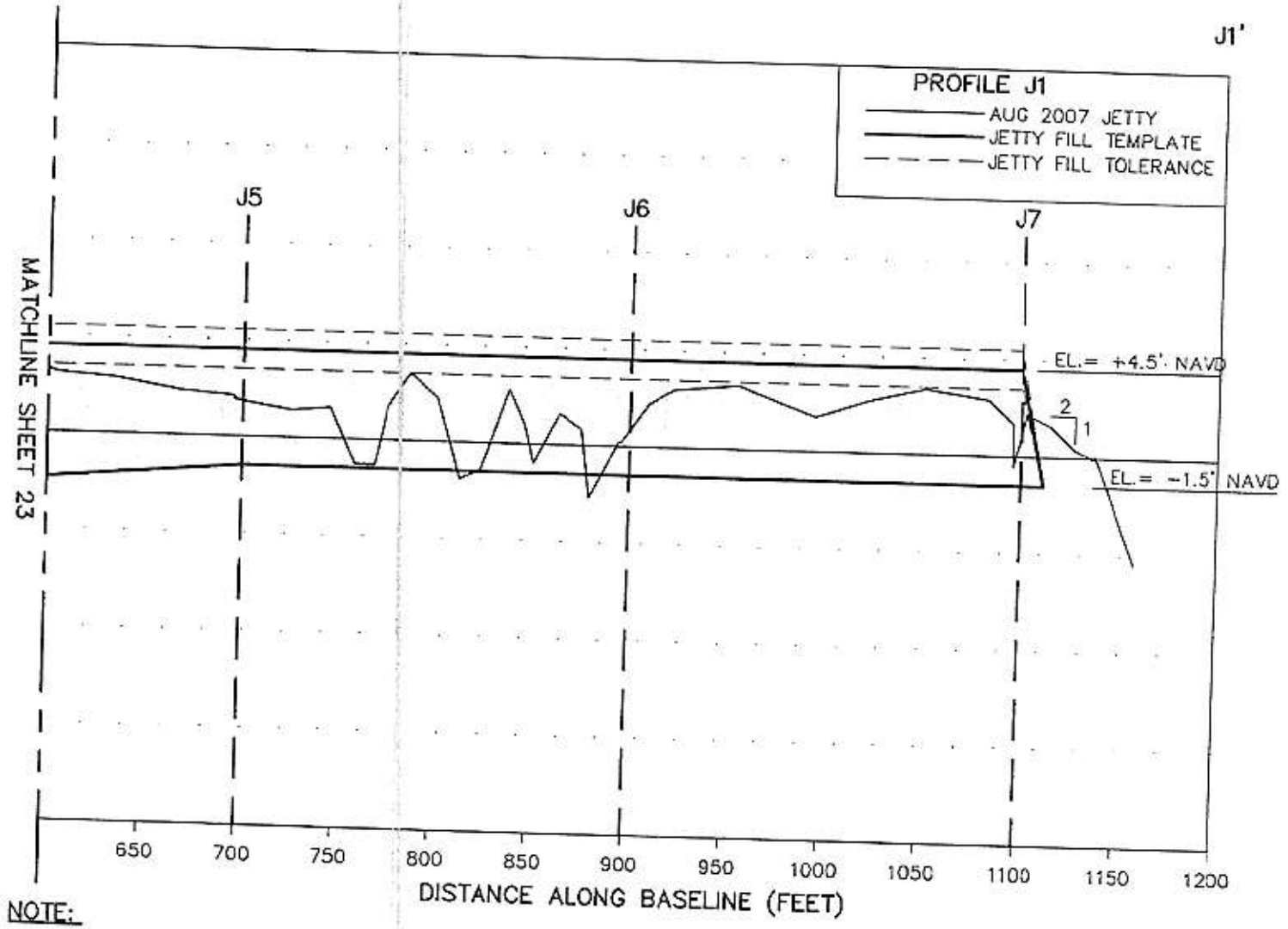
SHEET: 23 | COMM NO.: 7261.31 | BY: TDM | DATE: 10/8/07

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH: (561) 391-8102
FAX: (561) 391-9116
www.CoastalPlanning.net
C.O.A. FL: #4628
C.O.A. LA: #29151

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT JETTY CROSS SECTIONS

H:\Louisiana\726131\Permits\PELICAN\PELICAN_JETTY_SPUR_XS.dwg - Dec 12, 2007 @ 11:41am - tmerchant



NOTE:

1. CROSS SECTIONS J4 & J6 VIEWED LOOKING NORTH. CROSS SECTION J1 VIEWED LOOKING WEST.
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DATE	BY	REVISIONS DESCRIPTION

SHEET:	COMM NO.	BY:	DATE:
24	7261.31	TDM	10/8/07

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
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www.CoastalPlanning.net
C.O.A. FL. #4328
C.O.A. LA. #2531

TITLE

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT JETTY CROSS SECTIONS

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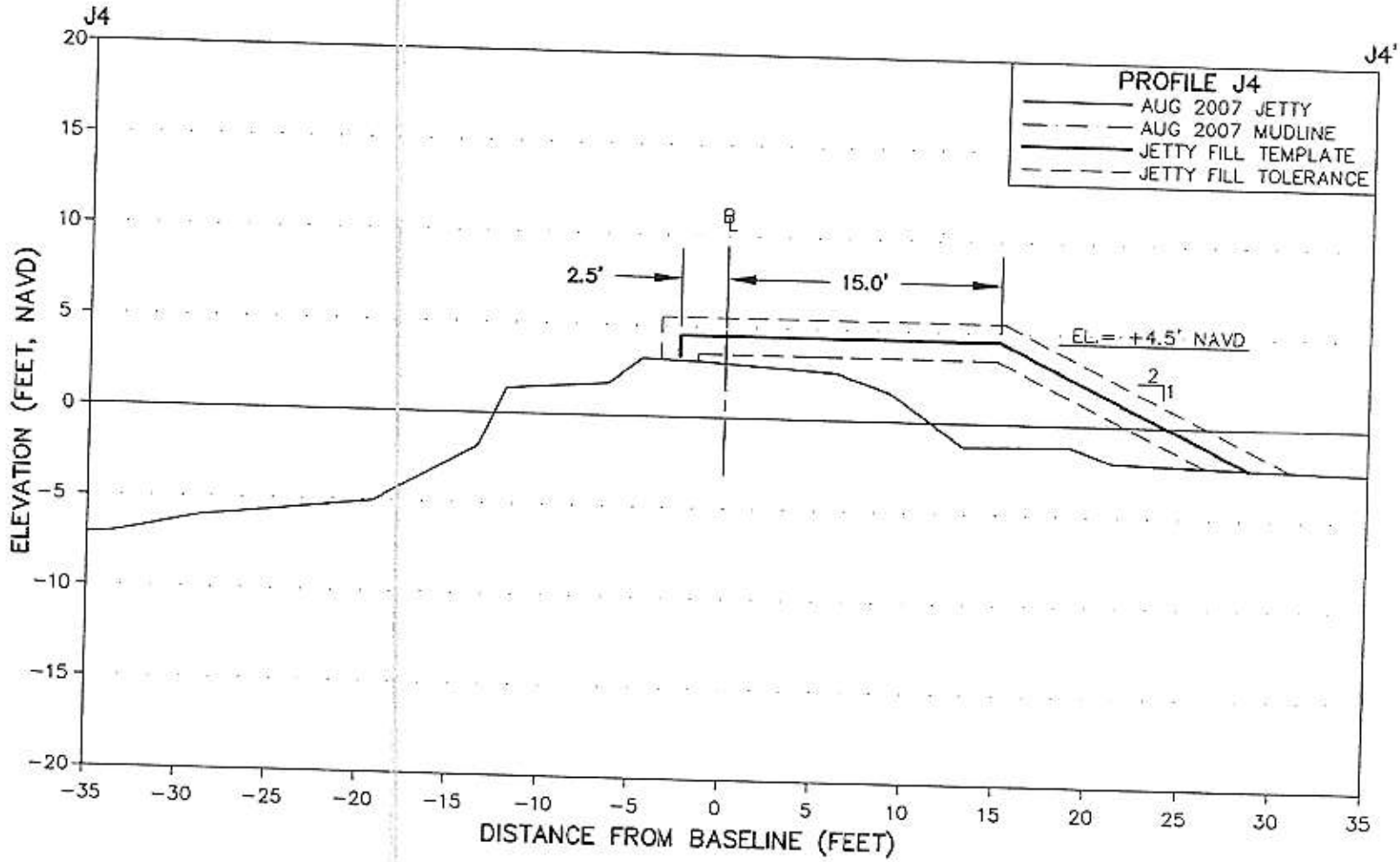

NOTE:

1. CROSS SECTIONS J4 & J6 VIEWED LOOKING NORTH. CROSS SECTION J1 VIEWED LOOKING WEST.
2. EXISTING ELEVATIONS WERE COLLECTED AT DISCRETE LOCATIONS. ELEVATIONS BETWEEN DISCRETE ELEVATIONS ARE SHOWN AS LINEAR FEATURES. SOME VARIATIONS SHOULD BE EXPECTED.
3. EXCAVATE EXISTING PROFILE AS NECESSARY TO PLACE ARMOR STONE TO ACHIEVE THE SPECIFIC GRADE.

DATE	BY	REVISIONS DESCRIPTION

SHEET:	COMM. NO.:	BY:	DATE:
25	7261.31	TDM	10/8/07

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-9102
FAX (561) 391-9116
www.CoastalPlanning.net
C.O.A. FL: 84028
C.O.A. LA: #2531

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT JETTY CROSS SECTIONS

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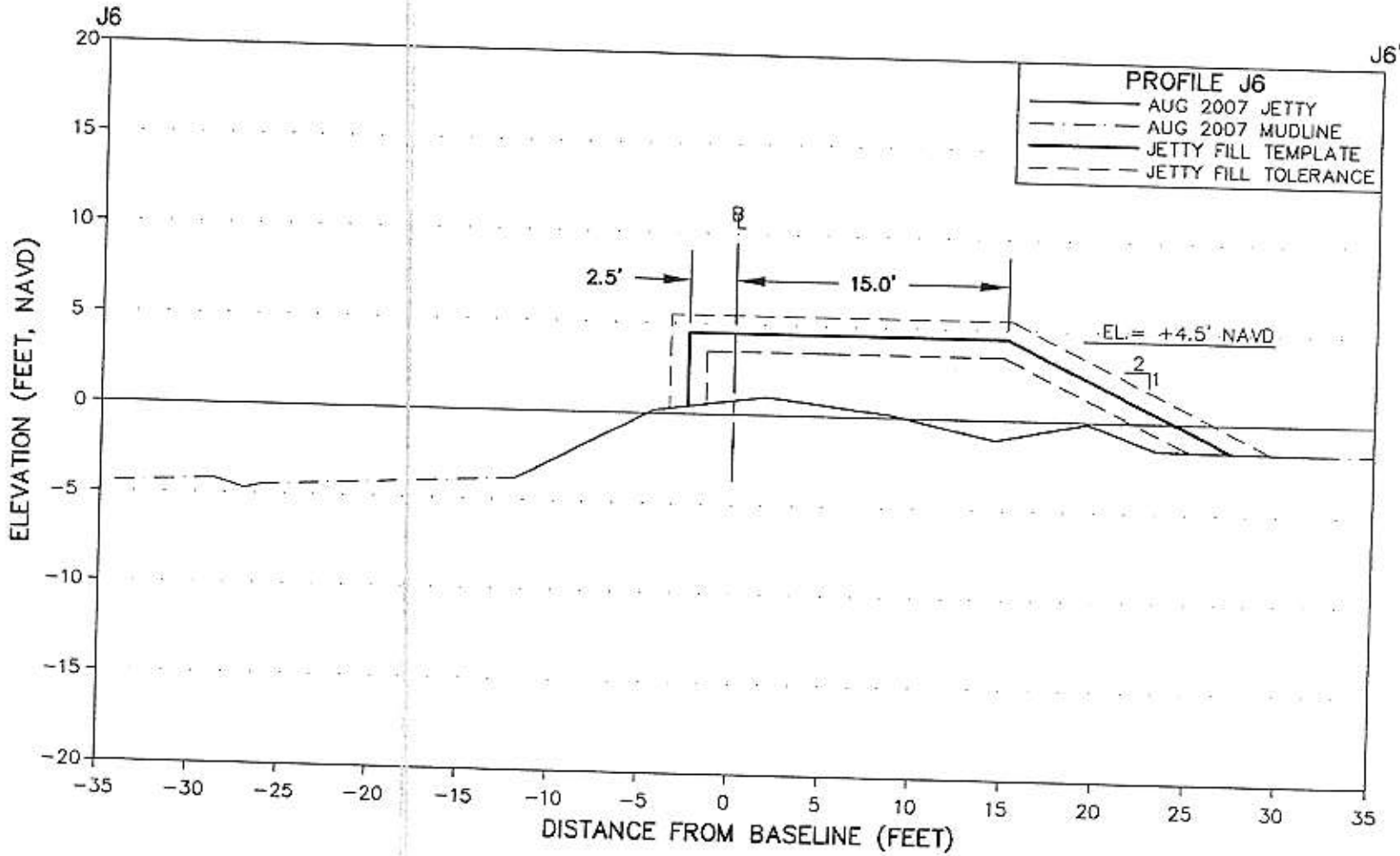

NOTE:

1. CROSS SECTIONS J4 & J6 VIEWED LOOKING NORTH. CROSS SECTION J1 VIEWED LOOKING WEST.
2. EXISTING ELEVATIONS WERE COLLECTED AT DISCRETE LOCATIONS. ELEVATIONS BETWEEN DISCRETE ELEVATIONS ARE SHOWN AS LINEAR FEATURES. SOME VARIATIONS SHOULD BE EXPECTED.
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DATE	BY	REVISIONS DESCRIPTION

DATE: 10/8/07
BY: TDM
COMM. NO.: 7261.31
SHEET: 26

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-8102
FAX (561) 391-8106
www.CoastalPlanning.net
C.O.A. FL #4628
C.O.A. LA #0551

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT JETTY CROSS SECTIONS

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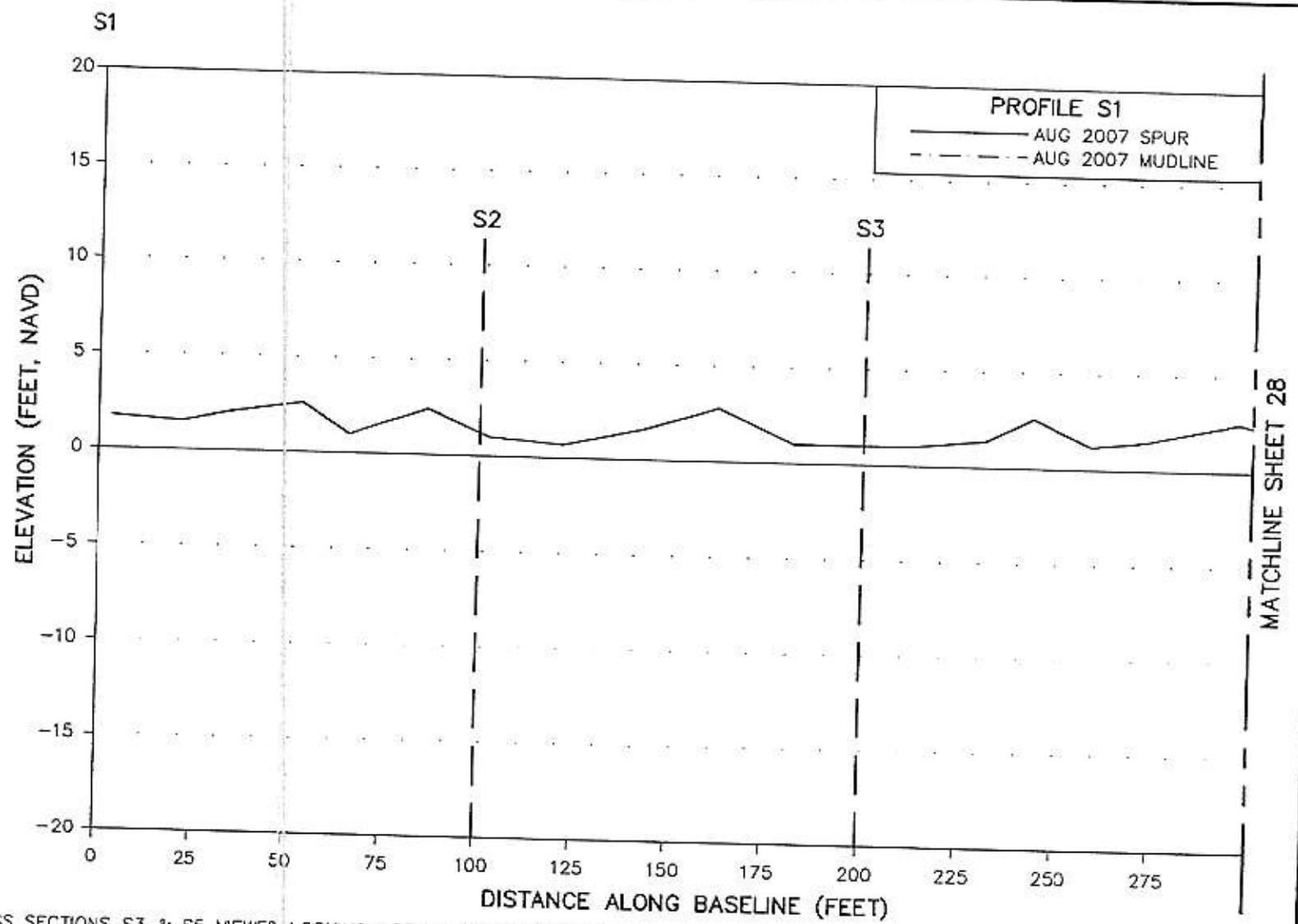


NOTE:

1. CROSS SECTIONS S3 & S5 VIEWED LOOKING NORTH. CROSS SECTION S1 VIEWED LOOKING WEST.
2. EXISTING ELEVATIONS WERE COLLECTED AT DISCRETE LOCATIONS. ELEVATIONS BETWEEN DISCRETE ELEVATIONS ARE SHOWN AS LINEAR FEATURES. SOME VARIATIONS SHOULD BE EXPECTED.
3. EXCAVATE EXISTING PROFILE AS NECESSARY TO PLACE ARMOR STONE TO ACHIEVE THE SPECIFIC GRADE.

REVISIONS		
DESCRIPTION	BY	DATE

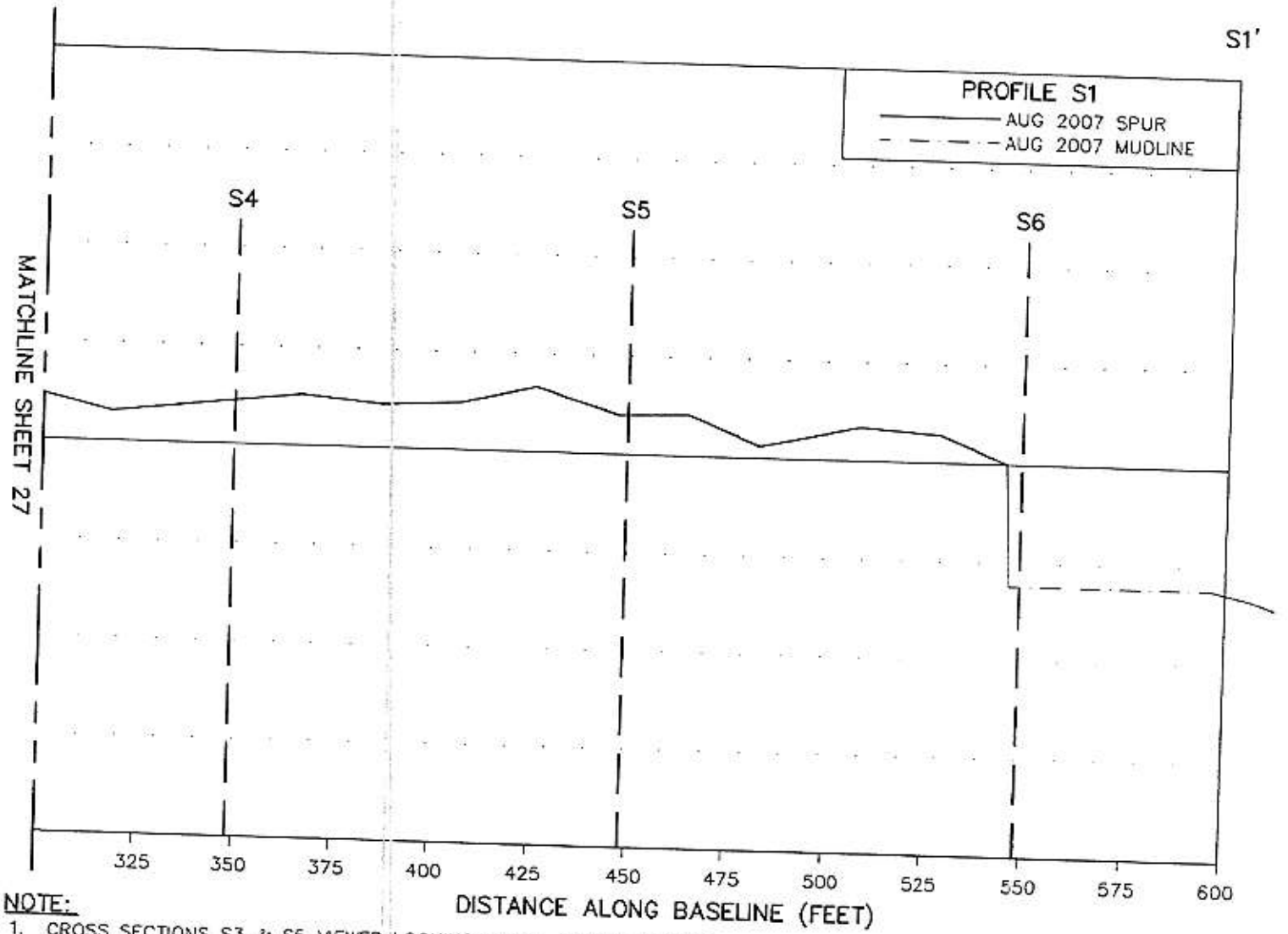
SHEET:	27
COMM NO.:	7261.31
BY:	TDM
DATE:	10/8/07

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-8102
FAX (561) 391-9116
www.CoastalPlanning.net
C.O.A. F.L. #6226
C.O.A. I.A. #8531

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT SPUR CROSS SECTIONS

N:\Louisiana\726131\Permits\PELICAN\PELICAN_JETTY_SPUR_XS.dwg - Dec 12, 2007 @ 11:39am - merchant



NOTE:

1. CROSS SECTIONS S3 & S5 VIEWED LOOKING NORTH. CROSS SECTION S1 VIEWED LOOKING WEST.
2. EXISTING ELEVATIONS WERE COLLECTED AT DISCRETE LOCATIONS. ELEVATIONS BETWEEN DISCRETE ELEVATIONS ARE SHOWN AS LINEAR FEATURES. SOME VARIATIONS SHOULD BE EXPECTED.
3. EXCAVATE EXISTING PROFILE AS NECESSARY TO PLACE ARMOR STONE TO ACHIEVE THE SPECIFIC GRADE.

DATE	BY	REVISIONS DESCRIPTION

SHEET: 28 | COMM NO.: 7261.31 | BY: TDM | DATE: 10/8/07

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH: (561) 391-8102
FAX: (561) 391-9116
www.CoastalPlanning.net
C.O.A. FL-
C.O.A. LA.

TITLE:

PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT SPUR CROSS SECTIONS

APPENDIX II

DEQ PERMIT AND COASTAL ZONE CONSISTENCY

BOBBY JINDAL
GOVERNOR

PEGGY M. HATCH
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL COMPLIANCE

JAN - 4 2011

National Marine Fisheries Service
Habitat Conservation Division
c/o Louisiana State University
Baton Rouge, LA 70808-7353

Attention: Richard Hartman

RE: Water Quality Certification (WQC 031027-01/AI 117907/CER 20100001)
Corps of Engineers Permit (MVN-2004-0452-EFF)
Plaquemines Parish

Dear Mr. Hartman:

The Louisiana Department of Environmental Quality (the Department) has reviewed your revised application to restore Pelican Island. This revision concerns the expansion of the marsh platform area, reduction of the beach fill area & extension of the eastern Empire Canal jetty.

Based on the information provided in the application, the Department made a determination that the requirements for a Water Quality Certification have been met and concludes that the placement of the fill material will not violate water quality standards of Louisiana as provided for in LAC 33:IX.Chapter 11. Therefore, the Department hereby issues a Water Quality Certification to the National Marine Fisheries Service.

If you have any questions, please call Jamie Phillippe at 225-219-3225.

Sincerely,

Melvin C. Mitchell, Sr.
Administrator
Water Permits Division

MCM/jjp

c: Corps of Engineers- New Orleans District

State of Louisiana

Department of Environmental Quality

M. J. "MIKE" FOSTER, JR.
GOVERNOR

L. HALL BOHLINGER
SECRETARY

January 5, 2004

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Habitat Conservation Division
c/o Louisiana State University
Baton Rouge, LA 70808-7535

Attention: Richard Hartman

RE: Water Quality Certification (TR 031027-01/AI 117907/CER 20030001)
Corps of Engineers Permit (EDD-20-040-0452)
Plaquemines Parish

Dear Mr. Hartman,

The Department has received an application to deposit fill material for shoreline stabilization and marsh creation for the Pelican Island Restoration Project, approximately 48 miles south-southeast of New Orleans, in Plaquemines Parish, Louisiana.

The requirements for Water Quality Certification have been met in accordance with LAC 33:IX.1507.A-E. Based on the information provided in your application, we have determined that the placement of the fill material will not violate the water quality standards of Louisiana provided for under LAC 33:IX.Chapter 11. Therefore, the Department has no objection to this project.

Sincerely,

Jodi G. Miller
Environmental Scientist Manager
Registrations and Certifications Section

JGM/tmr

c: Corps of Engineers, New Orleans, LA

BOBBY JINDAL
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

December 30, 2010

Richard Hartman
Team Leader
Baton Rouge Field Office
National Marine Fisheries Service
c/o Louisiana State University
Baton Rouge, Louisiana 70808-7353

RE: **C20030605** Modification 1
NMFS
Direct Federal Action
Pelican Island CWPPRA Project BA-38-1; modification to increase the marsh fill platform by about 77 acres, decrease beach fill by about 400,000 cu yds, and refurbishment work in the vicinity of the Empire Waterway jetties, **Plaquemines Parish, Louisiana**

Dear Mr. Hartman:

The above proposed modification has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The modification, as represented in this application, is consistent with the LCRP. If you have any questions concerning this determination please contact Brian Marcks of the Consistency Section at (225)342-7939 or 1-800-267-4019.

Sincerely,

Gregory J. DuCote
Administrator
Interagency Affairs/Field Services Division

GJD/bgm

cc: David Butler, LDWF
Darrell Barbara, NOD-COE
Frank Cole, CMD/FI
Kenneth Bahlinger, OCPR
Albertine Kimble, Plaquemines Ph.

State of Louisiana

M.J. "MIKE" FOSTER, JR.
GOVERNOR

JACK C. CALDWELL
SECRETARY

DEPARTMENT OF NATURAL RESOURCES

December 30, 2003

Richard Hartman
Chief, Baton Rouge Office
NOAA Fisheries
c/o Louisiana State University
Baton Rouge, Louisiana 70803-7535

RE: **C20030605,** Coastal Zone Consistency
NOAA Fisheries
Direct Federal Action
Pelican Island Restoration CWPPRA Project BA-38-1, **Plaquemines Parish, Louisiana**

Dear Dr. Hartman:

The above proposed project has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as represented in this application, is consistent with the LCRP.

If you have any questions concerning this determination please contact Brian Marcks of the Consistency Section at (225)342-7939 or 1-800-267-4019.

Sincerely,

David W. Frugé
Administrator

DWF/bgm

cc: Fred Dunham, LDWF
Ron Ventola, NOD-COE
Frank Cole, CMD/FI
Greg Grandy, CRD
Andrew McInnes, Plaquemeines Ph.

COASTAL MANAGEMENT DIVISION P.O. BOX 44487 BATON ROUGE, LOUISIANA 70804-4487
TELEPHONE (225) 342-7591 FAX (225) 342-9439
AN EQUAL OPPORTUNITY EMPLOYER

APPENDIX III

MINERALS MANAGEMENT SERVICE MEMORANDUM OF AGREEMENT

Amendment to MMS Negotiated Agreement No. OCS-G 25379 and NOAA Agreement No. HC-2007-184

A MEMORANDUM OF AGREEMENT AMONG THE MINERALS MANAGEMENT SERVICE OF THE DEPARTMENT OF THE INTERIOR AND THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION OF THE DEPARTMENT OF COMMERCE AND THE DEPARTMENT OF NATURAL RESOURCES OF THE STATE OF LOUISIANA REGARDING THE USE OF OUTER CONTINENTAL SHELF SAND RESOURCES FOR SHORE STABILIZATION AND MARSH CREATION ON PELICAN ISLAND, LOUISIANA

WHEREAS, on June 10, 2008, the Department of the Interior's Minerals Management Service (MMS), the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), and the State of Louisiana's Department of Natural Resources (LDNR) entered into Negotiated Agreement OCS-G-25379 through a three-party Memorandum of Agreement (MOA) which authorized NOAA to remove and set aside in two specified containment areas approximately 2,182,800 cubic yards of mud and fine sand overburden and extract up to 5,523,000 cubic yards of underlying sand, and placing up to 4,825,000 cubic yards of sand to stabilize the shoreline and reconstruct Pelican Island. The Outer Continental Shelf (OCS) sand resources will be extracted from the Sandy Point Southeast and Sandy Point Northwest Borrow Areas in West Delta Blocks 49 and 27 (herein after the "Project").

WHEREAS, the June 10, 2008, MOA will expire upon (1) NOAA sending written notice to Ms. Renee Orr, Chief, MMS Leasing Division, that NOAA has received sufficient sand to complete the Project, or (2) two (2) years from the date of execution of this MOA, whichever comes first.

WHEREAS, pursuant to Act 523 of the 2009 Regular Session, the Coastal Protection and Restoration Authority was assigned and subsumed all duties and responsibilities exercised by the Department of Natural Resources with regard to previously executed agreements and contracts for integrated coastal protection projects or programs, and was authorized to execute, sign, modify, amend, and renew any such agreement on behalf of the State of Louisiana.

WHEREAS, several major hurricanes including Gustav and Ike have passed over or near the proposed borrow areas since the last shallow hazards surveys were completed for the areas and may have resulted in movement of the pipelines closest to the borrow areas.

WHEREAS, on July 6, 2009, NOAA requested that the MOA be amended to permit the optional use of overburden material for additional marsh creation on Pelican Island instead of placement in the two containment areas on the OCS.

WHEREAS, on April 20, 2010 a major oil spill in Mississippi Canyon Block 252 (MC-252) occurred that has the potential to contaminate sand and overburden in the borrow areas shown in Attachments 1 and 2.

THEREFORE, all references to the Louisiana Department of Natural Resources (LDNR) are changed to the Louisiana Coastal Protection and Restoration Authority (CPRA).

And Title III (Project Description) is amended to:
Designated under CWPPRA as Federal Project Federal Number BA-38, the Project is intended to restore the proper ecological function of a barrier island and facilitate marsh restoration. NOAA anticipates removing approximately 2,182,800 cubic yards of mud and fine sand overburden, extracting underlying sand, and placing approximately 3,300,000 cubic yards of sand and finer material to stabilize the shoreline and reconstruct the barrier island. The OCS sand resources will be extracted from the Sandy Point Southeast and Northwest Borrow Areas, as designated and delineated on the attached maps (Attachments 1-2). The Sandy Point Southeast and Northwest Borrow Areas lie within West Delta Blocks 49 and 27. The mud and fine sand overburden may be placed within the marsh fill template if not set aside in overburden disposal sites identified on the attached maps (Attachments 1-2) (Southeast Disposal Site and the Northwest Disposal Site).

And Title IV(B) is amended to:
This MOA applies only to the initial extraction, transportation, and placement described above. The MOA shall terminate or expire upon (1) NOAA sending written notice to Ms. Renee Orr, Chief, MMS Leasing Division, 381 Elden Street, MS 4010, Herndon, Virginia 20170, that NOAA has received sufficient sand to complete the Project, or (2) two (2) years from the date of execution of this amendment to the MOA, whichever occurs first. The parties acknowledge that there may be a potential need for future OCS sand resources for periodic maintenance, augmentation or construction purposes. The MMS, NOAA, and CPRA may enter into subsequent agreements, as may be required in the future, consistent with each party's respective responsibilities under applicable law.

And Title IV(C)(4)(Paragraph 1) is amended to:
NOAA is the lead agency on behalf of the Federal Government to ensure the Project complies with applicable environmental laws. Prior to any extraction, transportation or placement of OCS sand resources from the Sandy Point Southeast and Northwest Borrow Areas, NOAA will ensure compliance with applicable provisions of the Clean Water Act and Marine Protection, Research and Sanctuaries Act through coordination and consultation with the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency. No material from the Sandy Point Southeast and Northwest Borrow

Areas will be extracted, transported or placed that does not meet applicable Federal requirements. Additionally, prior to any extraction, transportation, or placement of OCS sand resources, NOAA will coordinate with the Federal On-Scene Coordinator or the Coast Guard Incident Commander for the MC-252 oil spill to ensure that Project implementation activities will not interfere with spill response actions. The NOAA will comply with any communications schedule or reporting criteria established by the Federal On-Scene Coordinator or Coast Guard Incident Commander to ensure actions in the spill area are not incompatible with spill response actions.

And, Title IV(C)(9)(Paragraph 3) is amended to:
The MMS requires that a survey with towed magnetometer be performed over the pipeline corridors closest to the Sandy Point Southeast and Northwest Borrow Areas prior to dredging operations. This survey can be done in conjunction with the pre-dredging bathymetric survey required in Title IV(C)(5). MMS-recommended guidelines for hazards surveys in the Gulf of Mexico are provided in the Notice To Lessees No. 2008-G05, published May 1, 2008. The survey lines must be spaced no greater than 300 meters apart to allow for the detection of pipeline movement since the last pipeline surveys in the area.

Robert P. LaBelle
Associate Director for Offshore
Energy and Minerals Management
Minerals Management Service
Department of the Interior

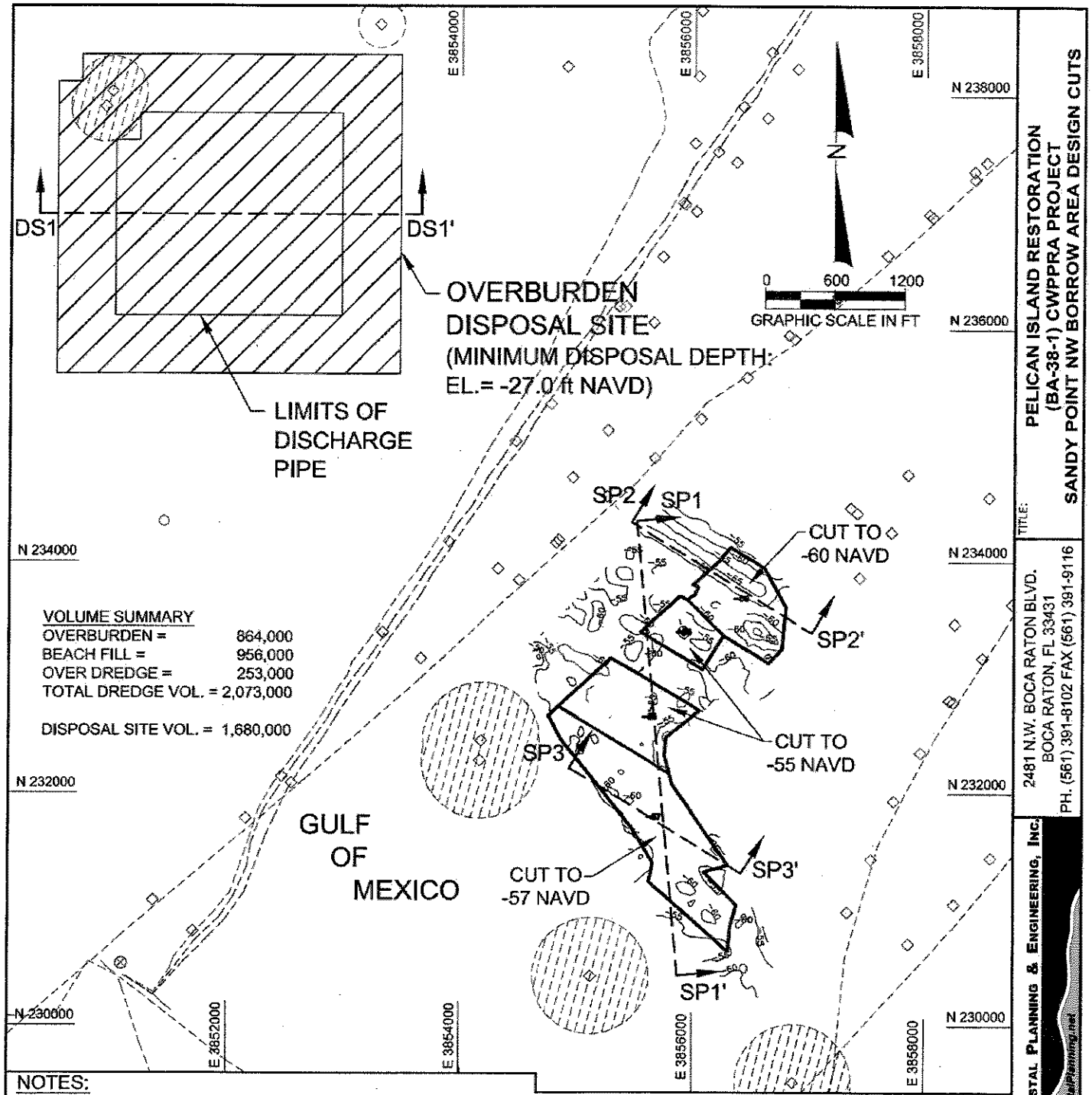
Date: JUN 10 2010

Patricia A. Montanio
Director, Office of Habitat
Conservation
National Marine Fisheries Service
National Oceanic and Atmospheric
Administration
Department of Commerce

Date: JUN 7 2010

Garret Graves
Chairman
Coastal Protection and Restoration
Authority of Louisiana
State of Louisiana

Date: 06/08/2010



VOLUME SUMMARY

OVERBURDEN =	864,000
BEACH FILL =	956,000
OVER DREDGE =	253,000
TOTAL DREDGE VOL. =	2,073,000
DISPOSAL SITE VOL. =	1,680,000

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DEPICT THE ELEVATION OF THE SECOND SEISMIC REFLECTOR DERIVED FROM THE SEISMIC SURVEY CONDUCTED BY CPE JULY, 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- DISPOSAL AREA
- -55 2ND SIESMIC REFLECTOR CONTOUR

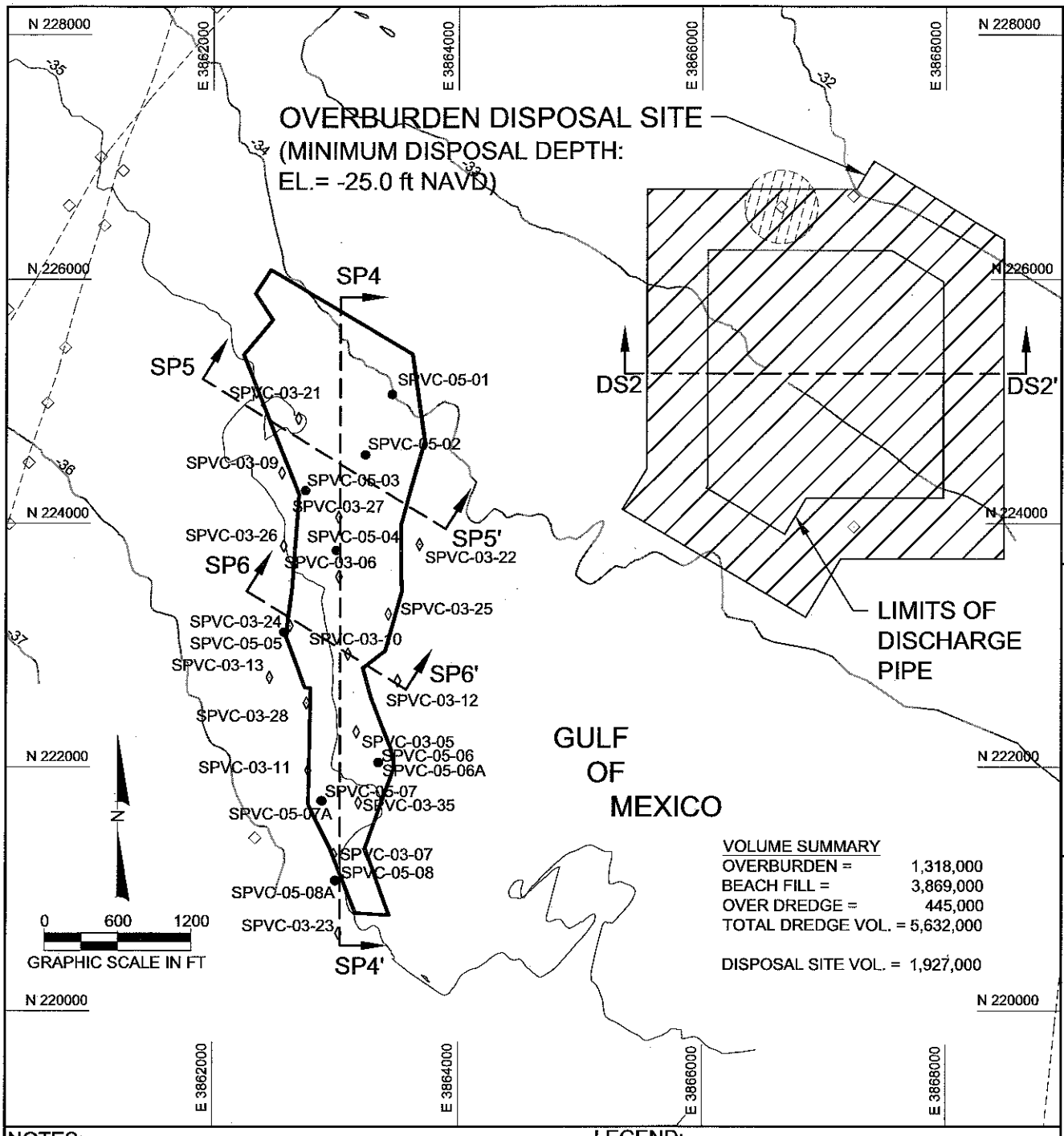
REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
8/10/07	TOM	REVISED CUTS PER NOAA

TITLE:
PELICAN ISLAND RESTORATION
(BA-38-1) CWPPRA PROJECT
SANDY POINT NW BORROW AREA DESIGN CUTS

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116
COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.07
SHEET: 8

Attachment 1



VOLUME SUMMARY

OVERBURDEN =	1,318,000
BEACH FILL =	3,869,000
OVER DREDGE =	445,000
TOTAL DREDGE VOL. =	5,632,000
DISPOSAL SITE VOL. =	1,927,000

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DERIVED FROM THE BATHYMETRIC SURVEY CONDUCTED BY CPE JULY, 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- DENOTES CPE 2003 VIBRACORE LOCATION
- DENOTES CPE 2005 VIBRACORE LOCATION
- DENOTES MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- DISPOSAL AREA
- -35 BATHYMETRIC CONTOUR

REVISIONS

DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
2/10/05	DNR	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA

TITLE: PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT SANDY POINT SE BORROW AREA BATHYMETRY

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.07
SHEET: 12

Attachment 2

MEMORANDUM OF AGREEMENT
AMONG
THE MINERALS MANAGEMENT SERVICE
OF THE DEPARTMENT OF THE INTERIOR
AND THE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
OF THE DEPARTMENT OF COMMERCE
AND THE
DEPARTMENT OF NATURAL RESOURCES
OF THE STATE OF LOUISIANA
REGARDING THE USE OF
OUTER CONTINENTAL SHELF SAND RESOURCES FOR SHORE STABILIZATION
AND MARSH CREATION ON PELICAN ISLAND, LOUISIANA

MMS Negotiated Agreement No. OCS-G 25379
NOAA Agreement No. HC-2007-184

Title I. Explanatory Recitals

A. Pursuant to the authority and in accordance with the requirements of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), 16 U.S.C. § 3951, *et seq.*, the Department of Commerce, acting through the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Habitat Conservation (NOAA), with the cooperation of the State of Louisiana, acting through the Department of Natural Resources (LDNR), are endeavoring to restore coastal wetlands and barrier islands along the shoreline of the Gulf of Mexico.

B. NOAA and LDNR have undertaken a project in furtherance of the abovementioned goals to stabilize shoreline and create marsh on Pelican Island in Plaquemines Parish, Louisiana, (herein referred to as the "Project"). The statutorily prescribed design life of the Project is limited to no more than twenty (20) years.

C. In accordance with the requirements of CWPPRA, the LDNR has procured servitudes, easements, and real covenants (herein, collectively referenced as "Land Rights") from upland landowners, other property right holders, public entities, and other persons and entities to allow LDNR to enter and construct devices and features to control erosion and manage water in order to stabilize shorelines and create ecologically sound wetlands. In furtherance of meeting its share of the Project's cost, the LDNR has executed and recorded conveyances assigning these Land Rights to NOAA.

D. The LDNR has fulfilled its Project obligations by procuring and assigning Land Rights of appropriate scope and duration.

E. NOAA, which is acting as the project manager for the Project, now seeks to obtain sand in a manner that minimizes costs and leverages Federal resources.

Title II. Purpose and Authority

A. The Department of the Interior (DOI), acting through the Minerals Management Service, (MMS), enters into this Memorandum of Agreement (MOA) with NOAA and LDNR providing for the use of up to 5,523,000 cubic yards of Outer Continental Shelf sand resources ("OCS sand resources") for the Project under the authority of Section 8(k)(2) of the Outer Continental Shelf Lands Act (OCSLA) (43 U.S.C. § 1337(k)(2)). The term, OCS sand resources, means the sediment deposits found on or below the surface of the seabed on the Outer Continental Shelf (OCS), as defined in Section 2(a) of the OSCLA (43 U.S.C. § 1331(a)). This MOA authorizes NOAA or LDNR, as appropriate, to use OCS sand resources from the Sandy Point Southeast and Northwest Borrow Areas, as designated and delineated in Table 1 and on the attached maps (Attachments 1-2), in accordance with the terms of this MOA. After removal of the sand resources from the OCS and placement of those resources as specified in this MOA, the MMS has no jurisdiction over those sand resources unless they return to the OCS.

Table 1: Sandy Point Southeast (SE) and Northwest (NW) Borrow Area Coordinates. Longitude and Latitude in Geographic Coordinate System NAD 1983. Easting and Northing in Louisiana South State Plane Coordinate System (ft) NAD 1983.

Longitude	Latitude	Easting	Northing	Area
89.51199	29.10893	3862472.9	226076.7	Sandy Point SE
89.50925	29.10745	3863355.3	225550.7	Sandy Point SE
89.5084	29.10699	3863629.7	225387.1	Sandy Point SE
89.50814	29.10503	3863724.1	224675.8	Sandy Point SE
89.50877	29.10313	3863534.3	223982.0	Sandy Point SE
89.50877	29.10261	3863536.7	223793.2	Sandy Point SE
89.50877	29.10216	3863538.8	223630.1	Sandy Point SE
89.50878	29.10163	3863541.3	223438.5	Sandy Point SE
89.50907	29.10075	3863452.4	223117.8	Sandy Point SE
89.5092	29.10038	3863414.4	222980.7	Sandy Point SE
89.50922	29.10030	3863406.8	222953.2	Sandy Point SE
89.5098	29.09992	3863224.4	222812.4	Sandy Point SE
89.50961	29.09927	3863288.8	222574.7	Sandy Point SE
89.5091	29.09806	3863457.7	222139.2	Sandy Point SE
89.50904	29.09768	3863481.0	222001.8	Sandy Point SE
89.50937	29.09692	3863379.9	221721.6	Sandy Point SE
89.50944	29.09674	3863356.7	221657.2	Sandy Point SE
89.50982	29.09586	3863242.1	221334.9	Sandy Point SE
89.50923	29.09434	3863438.9	220784.4	Sandy Point SE
89.51008	29.0944	3863165.4	220801.4	Sandy Point SE
89.51072	29.09589	3862953.6	221342.0	Sandy Point SE
89.51124	29.09686	3862782.4	221691.1	Sandy Point SE
89.51113	29.09949	3862801.0	222647.5	Sandy Point SE
89.51129	29.09950	3862752.1	222651.1	Sandy Point SE
89.51175	29.10067	3862597.1	223072.9	Sandy Point SE
89.51157	29.10178	3862647.8	223479.5	Sandy Point SE
89.51138	29.10365	3862697.1	224158.1	Sandy Point SE
89.51136	29.10387	3862703.0	224238.9	Sandy Point SE
89.51177	29.10482	3862568.2	224581.0	Sandy Point SE

89.51271	29.10703	3862252.7	225382.0	Sandy Point SE
89.51196	29.10780	3862489.0	225667.1	Sandy Point SE
89.51239	29.10841	3862347.5	225883.6	Sandy Point SE
89.51199	29.10893	3862472.9	226076.7	Sandy Point SE
89.53083	29.13132	3856327.5	234123.3	Sandy Point NW - N
89.52991	29.13081	3856624.7	233942.3	Sandy Point NW - N
89.52974	29.13052	3856681.3	233836.1	Sandy Point NW - N
89.52937	29.12988	3856804.3	233605.4	Sandy Point NW - N
89.52948	29.12891	3856772.5	233251.1	Sandy Point NW - N
89.52984	29.12856	3856660.8	233123.6	Sandy Point NW - N
89.53076	29.12907	3856364.8	233303.9	Sandy Point NW - N
89.53106	29.12924	3856266.1	233364.0	Sandy Point NW - N
89.53164	29.12844	3856086.4	233069.1	Sandy Point NW - N
89.53214	29.12871	3855925.8	233166.9	Sandy Point NW - N
89.53322	29.12930	3855577.9	233374.8	Sandy Point NW - N
89.53331	29.12935	3855547.0	233393.3	Sandy Point NW - N
89.53223	29.13018	3855888.7	233698.9	Sandy Point NW - N
89.53203	29.13009	3855951.3	233670.0	Sandy Point NW - N
89.53182	29.13021	3856017.5	233714.2	Sandy Point NW - N
89.53173	29.13039	3856047.0	233780.4	Sandy Point NW - N
89.53188	29.13044	3855999.8	233798.3	Sandy Point NW - N
89.53125	29.13092	3856195.3	233973.2	Sandy Point NW - N
89.53083	29.13132	3856327.5	234123.3	Sandy Point NW - N
89.53413	29.12873	3855291.3	233164.4	Sandy Point NW - S
89.53374	29.12854	3855415.8	233095.8	Sandy Point NW - S
89.53218	29.12770	3855918.7	232799.5	Sandy Point NW - S
89.53174	29.12746	3856059.3	232713.9	Sandy Point NW - S
89.53267	29.12684	3855768.2	232482.8	Sandy Point NW - S
89.53271	29.12641	3855756.9	232327.1	Sandy Point NW - S
89.53258	29.12597	3855799.6	232169.0	Sandy Point NW - S
89.53251	29.12572	3855824.0	232078.8	Sandy Point NW - S
89.53103	29.12379	3856308.8	231382.4	Sandy Point NW - S
89.53167	29.12364	3856104.0	231324.6	Sandy Point NW - S
89.5308	29.12284	3856386.5	231039.7	Sandy Point NW - S
89.53098	29.12233	3856331.5	230851.4	Sandy Point NW - S
89.53105	29.12177	3856312.8	230647.2	Sandy Point NW - S
89.53113	29.12181	3856287.4	230662.7	Sandy Point NW - S
89.53164	29.12221	3856123.1	230805.8	Sandy Point NW - S
89.53281	29.12313	3855744.6	231135.5	Sandy Point NW - S
89.53318	29.12343	3855623.2	231241.3	Sandy Point NW - S
89.53307	29.12387	3855656.9	231400.3	Sandy Point NW - S
89.53334	29.12427	3855566.3	231547.6	Sandy Point NW - S
89.53366	29.12474	3855463.5	231714.7	Sandy Point NW - S
89.53549	29.12683	3854868.0	232466.0	Sandy Point NW - S
89.53582	29.12740	3854758.6	232671.1	Sandy Point NW - S
89.53555	29.12761	3854844.2	232751.0	Sandy Point NW - S
89.5355	29.12765	3854859.0	232764.9	Sandy Point NW - S
89.53477	29.12823	3855088.7	232979.2	Sandy Point NW - S
89.53444	29.12850	3855193.5	233077.0	Sandy Point NW - S
89.53413	29.12873	3855291.3	233164.4	Sandy Point NW - S

B. The MMS, under the authority delegated by the Secretary of the Interior, is authorized, pursuant to Section 8(k)(2) of the OCSLA (43 U.S.C. § 1337 (k)(2)) to enter into this MOA concerning the potential use of OCS sand resources.

The MMS has determined that the Project meets the requirements of Section 8(k)(2)(A)(i) of the OCSLA. Therefore, in accordance with Section 8(k)(2), and subject to the terms and conditions as contained herein, the MMS hereby authorizes the use of OCS sand resources identified in Table 1 for the construction of the Project. The parties acknowledge that under the terms of Section 8(k)(2)(B), the MMS will not assess any fee against NOAA or LDNR for the use of the OCS sand resources described herein.

Nothing in this MOA is intended to abrogate or diminish the Secretary of the Interior's authority under the OCSLA to oversee and regulate the removal of OCS sand resources.

C. NOAA, which is undertaking this project pursuant to authority granted to it in accordance with CWPPRA, enters into this MOA in compliance with requirements of section 8(k)(2)(D) of the OCSLA. The LDNR, who has procured and assigned Land Rights of appropriate scope and duration to facilitate the Project, enters into this MOA in compliance with requirements of section 8(k)(2)(A)(i) of the OCSLA.

Nothing in this MOA is intended to impede or hinder NOAA's or LDNR's ability to complete the Project or abrogate or diminish either's authority or responsibilities under applicable law, including but not limited to CWPPRA, National Environmental Policy Act (NEPA), Endangered Species Act (ESA), Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), Marine Mammal Protection Act (MMPA), National Historic Preservation Act (NHPA), or the Coastal Zone Management Act (CZMA). Furthermore, nothing in this MOA is intended to affect the National Marine Fisheries Service's, National Ocean Service's, or any other unit of NOAA's authority to oversee or regulate applicable aspects of the ESA, MSFCMA, MMPA, and CZMA. Unless otherwise required by law, all contract work undertaken by NOAA shall be governed by NOAA policies and procedures.

Title III. Project Description

Designated under CWPPRA as Federal Project Federal Number BA-38, the Project is intended to restore the proper ecological function of a barrier island and facilitate marsh restoration. NOAA anticipates removing and setting aside approximately 2,182,800 cubic yards of mud and fine sand overburden, extracting up to 5,523,000 cubic yards of underlying sand, and placing up to 4,825,000 cubic yards of sand to stabilize the shoreline and reconstruct the barrier island. The OCS sand resources will be extracted from the Sandy Point Southeast and Northwest Borrow Areas, as designated and delineated on the attached maps (Attachments 1-2). The Sandy Point Southeast and Northwest Borrow Areas lie within West Delta Blocks 49 and 27.

Title IV. Provisions

A. The MMS authorizes the use of OCS sand resources from the Sandy Point Southeast and Northwest Borrow Areas, as described in Title II, above (herein, "Sandy Point"). NOAA or its contractor(s) shall extract, transport, and place such sand from Sandy Point in accordance with the terms and conditions set forth below. The parties agree that all other aspects of the Project's execution and completion remain solely under the control of NOAA.

B. This MOA applies only to the initial extraction, transportation, and placement described above. The MOA shall terminate or expire upon (1) NOAA sending written notice to Ms. Renee Orr, Chief, MMS Leasing Division, 381 Elden Street, MS 4010, Herndon, Virginia 20170, that NOAA has received sufficient sand to complete the Project, or (2) two (2) years from the date of execution of this MOA, whichever occurs first. The parties acknowledge that there may be a potential need for future OCS sand resources for periodic maintenance, augmentation or construction purposes. The MMS, NOAA, and LDNR may enter into subsequent agreements, as may be required in the future, consistent with each party's respective responsibilities under applicable law.

C. The MMS, NOAA, and LDNR recognize that planning and coordination among the three parties will ensure that responsibilities under the OCSLA, other applicable Federal laws, and this Congressionally-authorized Project are carried out and accommodated in an efficient and timely manner so that the project schedule will not be unnecessarily delayed or compromised. All parties recognize that MMS, as a bureau in the DOI, has certain responsibilities for the orderly, timely, and efficient recovery of OCS minerals using the best available technology while ensuring environmental stewardship and compliance. Moreover, the parties further recognize that NOAA has certain stewardship and environmental compliance responsibilities that are separate and distinct from the responsibilities of the MMS. To these ends, and with respect to the Project, the MMS, NOAA, and LDNR agree to the following terms:

1. Notification of Activity in or near the Borrow Areas

NOAA will notify MMS at dredgeinfo@mms.gov of the commencement and termination of operations at Sandy Point immediately after it receives such notification from its contractor(s) for the Project. The MMS will notify NOAA in a timely manner of any OCS activity within the jurisdiction of the DOI that may adversely affect NOAA's ability to use the OCS sand resources for the Project.

2. Plans and Performance Requirements

NOAA will provide MMS with a copy of the Project's "Construction Solicitation and Specifications Plan" (herein referred to as the "Plan"). Notwithstanding any other provision of this MOA, no activity or operation authorized by the MOA at Sandy Point shall be carried out until MMS has determined that each activity or operation described in the Plan will be conducted in a manner that is in compliance with the provisions and requirements of the MOA. Any modifications to the Plan that affect Sandy Point must be approved by MMS prior to implementation of the modification. NOAA will ensure that all operations at Sandy Point shall

be conducted in accordance with the final approved Plan and all terms and conditions in this MOA, as well as all applicable regulations, orders, guidelines, and directives specified or referenced herein.

NOAA will require its contractor to: (1) maintain all operations within Sandy Point in compliance with regulations, orders, guidelines, and directives specified or referenced herein, and (2) allow prompt access, at the site of any operation subject to safety regulations, to any authorized Federal inspector and shall provide MMS any documents and records that are pertinent to occupational or public health, safety, or environmental protection as may be requested.

3. Responsibility for Damages

The MMS does not warrant that the OCS sand resources used in this project are suitable for the purpose for which they are intended.

4. Environmental Compliance and Studies

NOAA is the lead agency on behalf of the Federal government to ensure the Project complies with applicable environmental laws.

All applicable requirements of NEPA have been met, including those NEPA requirements engendered by DOI's stewardship responsibilities for mineral resources under its jurisdiction and its specific responsibilities under Section 20 of the OCSLA (43 U.S.C. § 1346). NOAA and MMS, as cooperating Federal agencies, completed an environmental assessment in March 2004. NOAA made a Finding of No Significant Impact on April 5, 2004. The MMS made a Finding of No Significant Impact on November 29, 2006.

NOAA will instruct its contractor to implement the mitigation terms, conditions, and measures required by the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and MMS pursuant to OCSLA, NEPA, ESA, MMPA, FCMA, NHPA, and CZMA. The required mitigation terms, conditions, and measures are reflected in Biological Opinions, Conservation Recommendations, the Consistency Determination, and this MOA.

NOAA has provided MMS with all non-privileged documents which contain environmental information and analyses with respect to the Project. NOAA will provide MMS with copies of all correspondence and information pertaining to ESA, MMPA, and FCMA, including but not limited to observer reports that are provided to other concerned and involved agencies.

5. Pre- and Post-Bathymetry Surveys

NOAA will provide MMS with pre- and post-dredging bathymetric surveys of Sandy Point. The pre-dredging survey will be conducted within 30 days prior to dredging. The post-dredging survey will be conducted within 30 days after the completion of dredging. Additional bathymetry surveys are recommended at 1 year and 3 years following the completion of dredging.

Hydrographic surveys will be performed in accordance with the U.S. Army Corps of Engineers Hydrographic Surveying Manual EM 1110-2-1003 unless specified otherwise. Survey lines will be established at no greater than 50 m intervals perpendicular to a baseline. Three equidistant cross-tie lines will be established parallel to the same baseline. Survey lines will extend at least 350 m beyond the edge of the borrow areas. All data shall be collected in such a manner that post-dredging bathymetry surveys are compatible with the pre-dredging bathymetric survey data to enable the latter to be subtracted from the former to calculate the volume of sand removed, the shape of the excavation, and nature of post-dredging bathymetric change.

Copies of pre-dredging hydrographic data will be submitted to MMS before the initiation of dredging. Post-dredging hydrographic data will be submitted to MMS within thirty (30) days after each survey is completed. The delivery format for data submission is an ASCII file containing x,y,z data. The horizontal data will be provided in the North American Datum of 1983 (NAD '83) Louisiana State Plane South Zone, U.S. survey feet. Vertical data will be provided in the North American Vertical Datum of 1988 (NAVD '88), U.S. survey feet. An 8.5x11" plan view plot of the pre- and post-construction data will be provided showing the individual survey points, as well as contour lines at appropriate elevation intervals. These plots will be provided in PDF format. All data will be submitted to dredgeinfo@mms.gov.

6. Electronic Positioning of Dredge

During all phases of the Project conducted at Sandy Point, NOAA will ensure that the dredge is equipped with an onboard global positioning system (GPS) capable of maintaining and recording the location of the dredge within an accuracy range of no more than plus or minus 3 meters. NOAA will immediately notify MMS at dredgeinfo@mms.gov if dredging occurs outside of the approved borrow areas.

7. Ordinance Reporting Requirement Plan

If any ordinance is encountered while conducting dredging activities at Sandy Point, NOAA will report the discovery in a timely manner to Ms. Renee Orr, Chief, MMS Leasing Division, at (703) 787-1215 and dredgeinfo@mms.gov.

8. Archaeological Resources

An archaeological and hazard survey was conducted at the Sandy Point borrow areas and disposal sites during the periods May 23-25, 2003, and August 5-8, 2003. The survey data were used to conduct an assessment of the potential for both historic and prehistoric resources within the Sandy Point Southeast (SE) and Northwest (NW) Borrow Areas and Disposal Sites.

Historic Resources

A total of nine unidentified magnetic anomalies were recorded within the areas surveyed for the project: one within the area surveyed for the SE Borrow Area, three within the area surveyed for the NW Borrow Area, three within the area surveyed for the SE Disposal Site, and two within the area surveyed for the NW Disposal Site.

The unidentified magnetic anomaly recorded during the survey of the SE Borrow Area lies west of the boundary of the borrow area. The signature characteristics of this anomaly suggest it is isolated modern debris, therefore, no avoidance is recommended. The three unidentified magnetic anomalies recorded during the survey of the NW Borrow Area may represent historic shipwreck debris; however, these anomalies fall between 600 and 1,000 feet outside the proposed boundary of the borrow area; therefore, dredging activities should not impact the sources of these anomalies. Two of the three unidentified magnetic anomalies recorded during the survey of the SE Disposal Site have signature characteristics indicative of isolated modern debris; therefore, no avoidance or further investigation is recommended. The third unidentified magnetic anomaly (SEDS2) recorded along the northern boundary of the SE Disposal Site could represent historic shipwreck debris. The discharge pipeline should not be placed within 300 feet of this anomaly during disposal activities. The two anomalies recorded during the survey of the NW Disposal Site lie along the northwestern border of the proposed disposal area and appear to relate to the same magnetic source. These anomalies (NWDS1 and NWDS2) have signature characteristics indicative of historic shipwreck debris. During disposal activities, the discharge pipeline should not be placed within 300 feet of the central point of these two anomalies, described in Table 2.

A total of four unidentified side-scan sonar contacts were recorded within the four survey areas: two within the area surveyed for the SE Borrow Area, and two within the area surveyed for the NW Borrow Area. Target 2-2 lies along the western boundary of the SE Borrow Area. This target is described as a group of linear objects measuring 5.8 by 1.8 by 2.4 feet. There was no magnetic anomaly associated with this target. The location of this unidentified sonar target, described in Table 2, should be avoided by a minimum distance of 300' during dredging activities.

If NOAA determines that the anomalies and side-scan sonar target listed in Table 2 cannot be avoided by dredging and dredge disposal operations, NOAA shall notify MMS, and NOAA, subject to the availability of appropriations and in accordance with the requirements of applicable law, may conduct further investigations to assess the significance of the objects producing the signatures in accordance with the criteria at 36 CFR section 60.4, "Criteria for evaluation," and National Register Bulletin No. 20, "*Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places.*"

The proposed investigation procedures must be discussed with the MMS archaeologist prior to commencing fieldwork. At a minimum, this assessment must include an analysis of the age, physical composition, and structural integrity of the object (*i.e.*, wood or metal, intact or dispersed). Measured drawings and/or underwater video or still photographs of the feature shall be made for documentation and submitted with the final "Report of Findings." A "Report of Findings" prepared in accordance with the archaeological report writing standards specified in the MMS Notice To Lessees (NTL) 2005-G07 must be submitted to MMS for approval within ten work days of the completion of fieldwork.

Prehistoric Resources

The subbottom profiler data indicate the presence of paleochannels in the Sandy Point area. These channels downcut from depths of 3-13 feet below the seafloor. The sample subbottom profiler records included in the report indicate that the upper margins of these channels have been severely eroded by marine processes. According to Frazier (Frazier, David E., 1967, *Recent Deltaic Deposits of the Mississippi River: Their Development and Chronology*, Transactions of the Gulf Coast Association of Geological Societies, Vol. XVII), the surficial sedimentary deposits within the project area are part of the modern Plaquemines Delta Complex of the Mississippi River, deposited within the last several hundred years. The relatively recent and highly eroded relict channels recorded within the project area would have little potential for containing preserved prehistoric archaeological deposits. Therefore, no special mitigation measures are required for the protection of potential prehistoric resources within Sandy Point.

Chance Finds Clause

In the event that the dredge operators, or those working on their behalf, discover any archaeological resource while conducting dredging operations in Sandy Point, NOAA shall require that dredge operations will be halted immediately within the borrow area. NOAA shall then immediately report the discovery to Ms. Renee Orr, Chief, MMS Leasing Division, at (703) 787-1215. If investigations determine that the resource is significant, the parties shall together determine how best to protect it.

Table 2: Archaeological avoidance areas.

Anomaly or Target Number	Area/Block	Amplitude/ Duration (ft) Description	La. So. SP. Coordinates (NAD 83, ft)	Cutterhead/Disposal Pipe Avoidance Radius
SEDS2	SE Disposal WD 26	24/247 Monopole	X=386645 Y= 226592	300' min. radius
NWDS1	NW Disposal WD 27	4/134 Monopole	X=3850991 Y=238035	300' min. radius centered at: X=3850958 Y=237983 *
NWDS2	NW Disposal WD 27	6/92 Monopole	X=3850933 Y=237903	300' min. radius centered at: X=3850958 Y=237983 *
2-2	SE Borrow WD 49	group of linear targets 5.8' x 1.8' x 2.4'	X=3862321 Y=224854	300' min. radius

*This avoidance radius encompasses anomalies 1 and 2 which appear to be related to the same magnetic source.

9. Avoidance of Oil and Gas Infrastructure

Oil and gas infrastructure are present in the immediate vicinity of Sandy Point. The MMS has provided NOAA the best available information delineating the post-Katrina/Rita locations of oil and gas pipelines, based on survey documentation provided to MMS by neighboring pipeline operators.

Venice Gathering System LLC (Chevron U.S.A. Inc.) has requested that NOAA and MMS provide warning to Chevron U.S.A., Inc. prior to the commencement of dredging operations, so

that Chevron U.S.A., Inc. may take precautions to mark their pipeline Segment No. 10793 if it chooses to do so. At least two weeks prior to the commencement of dredging, NOAA will notify Mr. Greg Barbier, Chevron U.S.A., Inc. at (504) 592-6197, Ms. Maureen Bodron, Chevron U.S.A., Inc. at (504) 592-6324, and Ms. Renee Orr, Chief, MMS Leasing Division, at (703) 787-1215, of the dredging schedule.

The MMS recommends a hazards survey be performed within and around Sandy Point prior to dredging operations. MMS-recommended guidelines for hazards surveys in the Gulf of Mexico are provided in the Notice To Lessees No. 2007-G01, published February 15, 2007. The MMS recommends that survey lines, spaced no greater than 300 m, extend at least 350 m beyond the edge of the borrow areas to allow for the detection of proximal oil and gas infrastructure.

During all dredging operations, NOAA shall require its contractor to observe a minimum "no dredge" setback distance of 300 meters from existing pipelines and all other oil and gas-related infrastructure. NOAA will immediately notify Ms. Renee Orr, Chief, MMS Leasing Division, at (703) 787-1215, if any oil and gas infrastructure on the OCS is disturbed during the course of the project.

The MMS reserves the right to require additional pre-dredging shallow hazards surveys to locate the position of existing pipelines and other seabed infrastructure in the wake of a severe storm event. Subject to the availability of funds and in accordance with applicable law, NOAA, its designee, or contractor may perform such survey or assessments; if no funds are available, any further activity under this MOA must be approved by MMS.

10. National Oil and Hazardous Substances Pollution Contingency Plan

NOAA will require its contractors and subcontractors to prepare for and take all necessary precautions to prevent discharges of oil and releases of hazardous materials. In the event of an occurrence, notification and response will be in accordance with 40 C.F.R. Part 300. NOAA will notify MMS of any occurrences and remedial actions, and provide copies of reports of the incident and resultant actions at dredgeinfo@mms.gov.

11. Submittal of Production and Volume Information

NOAA, in cooperation with the dredge operator, shall submit to MMS and LDNR on a biweekly basis a summary of the dredge head track lines, outlining any deviations from the original Plan. A color-coded plot of the cutterhead or drag arms will be submitted, showing any horizontal or vertical dredge violations. This map will be provided in PDF format. NOAA will provide a biweekly update of the construction progress including estimated volumetric production rates to MMS and LDNR. The biweekly deliverables will be provided electronically to dredgeinfo@mms.gov. The project completion report, as described in paragraph 12 below, will also include production and volume information.

12. Project Completion Report

A project completion report will be submitted by NOAA to MMS within 90 days following completion of the activities authorized under this MOA. This report and supporting materials should be sent to Ms. Renee Orr, Chief, MMS Leasing Division, 381 Elden Street, MS 4010, Herndon, Virginia 20170 and dredgeinfo@mms.gov. The report shall contain, at a minimum, the following information:

- the names and titles of the project managers overseeing the effort (for NOAA, the engineering firm, and the contractor), including contact information (phone numbers, mailing addresses, and email addresses);
- the location and description of the project, including the final total volume of material extracted from Sandy Point and the volume of material actually placed on the beach or shoreline (including a description of the volume calculation method used to determine these volumes);
- ASCII files containing the x,y,z and time stamp of the cutterhead or drag arm locations;
- a narrative describing the final, as-built features, boundaries, and acreage, including the restored beach width and length;
- a table, an example of which is illustrated below, showing the various key project cost elements;

	Project Cost Estimate ($)	Cost Incurred as of Construction Completion ($)
Construction		
Engineering and Design		
Inspections/Contract Administration		
Total		

- a table, an example of which is illustrated below, showing the various items of work construction, final quantities, and monetary amounts;

Item No.	Item	Estimated Quantity	Unit	Unit Price	Estimated Amount	Final Quantity	Bid Unit Price	Final Amount	% Over/ Under
1	Mobilization and Demobilization								
2	Beach Fill								
3	Any beach or offshore hard structure placed or removed								

- a listing of construction and construction oversight information, including the prime and subcontractors, contract costs, etc.;

- a list of all major equipment used to construct the project;
- a narrative discussing the construction sequences and activities, and, if applicable, any problems encountered and solutions;
- a list and description of any construction change orders issued, if applicable;
- a list of any pipelines or other oil/gas-related infrastructure in the project area, the owners, and any contacts made;
- a list and description of any safety-related issues or accidents reported during the life of the project;
- a narrative and any appropriate tables describing any environmental surveys or efforts associated with the project and costs associated with these surveys or efforts;
- a table listing significant construction dates beginning with bid opening and ending with final acceptance of the project by NOAA and LDNR;
- digital appendices containing the as-built drawings, beach-fill cross-sections, and survey data; and
- any additional pertinent comments.

13. Sharing of Information

Consistent with the purpose stipulated by the parties in Title II, NOAA, LDNR, and MMS agree to: (1) share all information needed for or generated from the Project, including the sharing of implementation and other applicable schedules; (2) provide such information to the requesting agency as expeditiously as possible; and (3) work to ensure that all required completion report information is received.

14. Resolution of Disputes

The parties agree to make every attempt to settle any disputes regarding this MOA at the lowest operational level. In the case of a (1) substantial disagreement between MMS and LDNR or between MMS and NOAA with respect to any aspect of the MMS's authorization of the use of OCS sand resources in accordance with the terms and conditions as specified or (2) any alleged breach by a party of the terms and conditions as specified herein, the undersigned will designate a senior management official in their respective agencies to state the area(s) of disagreement or alleged breach in writing and present such statement to the other party for consideration. If resolution is not reached within 60 days, the undersigned shall request the active participation of their respective Chief Financial Officers (CFOs). If resolution is not reached within 60 days from such request, the parties' CFOs shall request a final decision be rendered by the CFOs Council's Intragovernmental Dispute Resolution Committee established for this purpose. The parties agree to abide by the terms of such decision.

15. Miscellaneous

This MOA shall not affect any pre-existing or independent relationships or obligations among the Departments of Interior and Commerce and LDNR, including any other relationships or obligations between MMS and NOAA, or any other units of such Departments.

Nothing herein is intended to conflict with current NOAA, LDNR, or MMS directives. If the terms of this MOA are inconsistent with existing directives of any of the parties entering into this MOA, then those portions of this agreement which are determined to be inconsistent shall be invalid, but the remaining terms and conditions not affected by the inconsistency shall remain in full force and effect. At the first opportunity for review of the MOA, all necessary changes will be accomplished either by an amendment to this MOA or by entering into a new MOA, whichever is deemed expedient to the interest of the parties.

Chris C. Oynes
Associate Director for
Offshore Minerals Management
Minerals Management Service
Department of the Interior

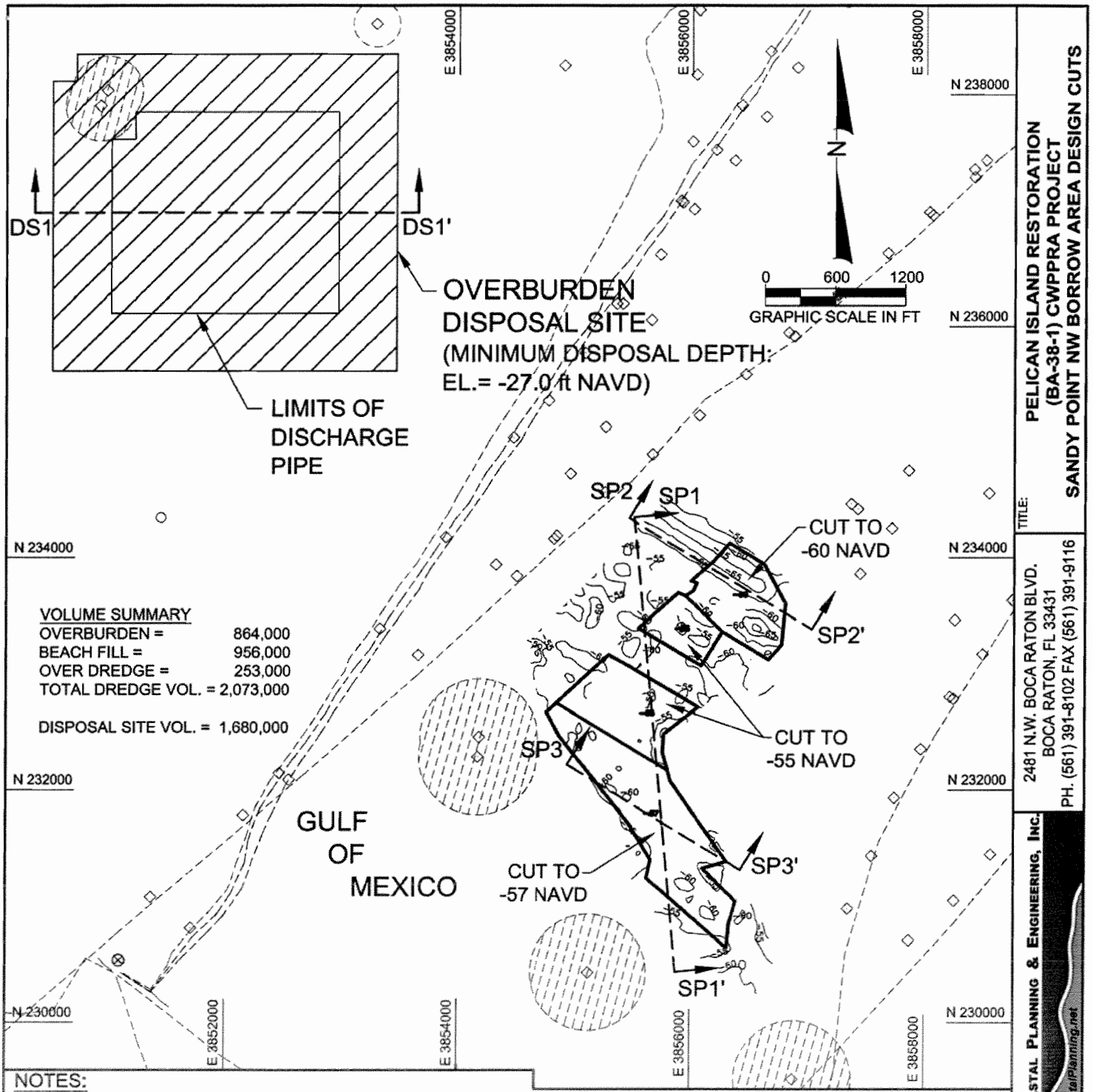
Date: 6/10/08

Patricia A. Montanio
Director, Office of Habitat Conservation
National Marine Fisheries Service
National Oceanic and Atmospheric
Administration
Department of Commerce

Date: 5/30/08

Scott A. Angelle
Secretary
Department of Natural Resources
State of Louisiana

Date: 6/9/08



NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DEPICT THE ELEVATION OF THE SECOND SEISMIC REFLECTOR DERIVED FROM THE SEISMIC SURVEY CONDUCTED BY CPE JULY, 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- DISPOSAL AREA
- -55 2ND SIESMIC REFLECTOR CONTOUR

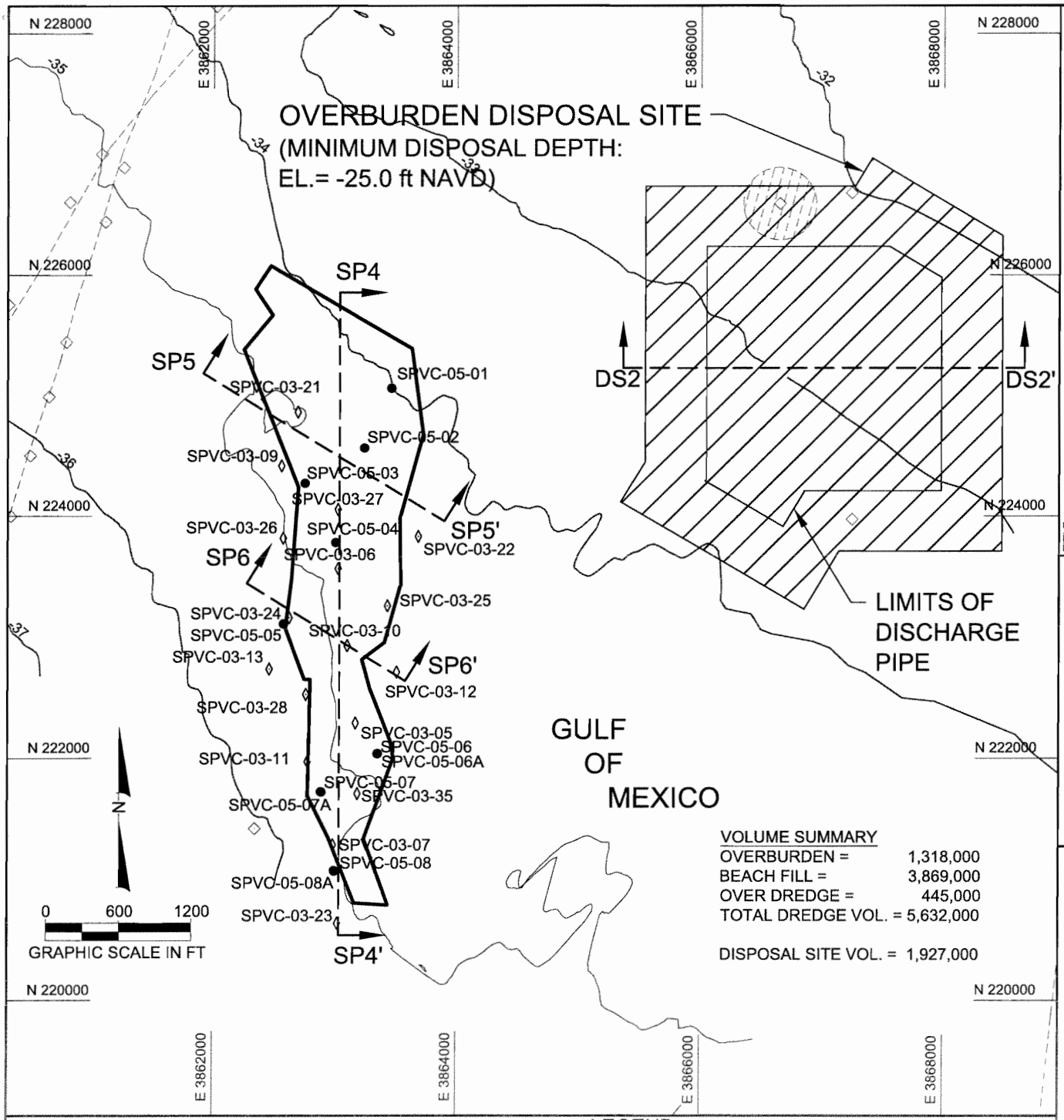
REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
8/10/07	TDM	REVISED CUTS PER NOAA

TITLE: PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT SANDY POINT NW BORROW AREA DESIGN CUTS

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.07
SHEET: 8

Attachment 1



NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. CONTOURS SHOWN ARE IN FEET AND DERIVED FROM THE BATHYMETRIC SURVEY CONDUCTED BY CPE JULY, 2003.
3. PIPELINE LAYOUTS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, BY OILFIELD PUBLICATIONS LIMITED (OPL); THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET; AND GROUND TRUTHING BY CPE.
4. ELEVATIONS SHOWN ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- DENOTES CPE 2003 VIBRACORE LOCATION
- DENOTES CPE 2005 VIBRACORE LOCATION
- DENOTES MAGNETIC ANOMALY
- MAGNETIC ANOMALY WITH BUFFER RECOMMENDED FOR INVESTIGATION OR AVOIDANCE
- PIPELINES
- -35 BATHYMETRIC CONTOUR
- DISPOSAL AREA

REVISIONS		
DATE	BY	DESCRIPTION
12/17/03	STR	REVISED CUTS
2/10/05	DNR	NW SANDY POINT BA REMOVED
8/10/07	TDM	REVISED CUTS PER NOAA

TITLE: PELICAN ISLAND RESTORATION (BA-38-1) CWPPRA PROJECT SANDY POINT SE BORROW AREA BATHYMETRY

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

DATE: 11/17/03
BY: JRC
COMM NO.: 7261.07
SHEET: 12

Attachment 2

APPENDIX IV

OYSTER LEASES IN PROJECT VICINITY

All lease areas within the 150' direct impact area were extinguished.

150' DIRECT IMPACT AREA

PROJECT FOOTPRINT

OYSTER LEASES

GULF OF MEXICO

NOTES:

DATE	REVISIONS	DRAWN BY	APPROVED BY
	REVISIONS		

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

SCALE IN FEET
1,000' 500' 0 1,000'

FILE NAME:	BASEMAP
TBS NO.:	2010.0693
DATE:	05-02-11
PLOT SCALE:	1"=1,000'
DRAWN BY:	RML
APPROVED:	KJK
MAP NO.	

COASTAL PROTECTION AND RESTORATION AUTHORITY OF LOUISIANA

OYSTER LEASE BASEMAP
BA-38 COASTAL RESTORATION PROJECT
LOCATED IN PLAQUEMINES PARISH
LOUISIANA

SHEET NO. 1 OF 1

BA-38 150' Direct Impact Buffer Point Table (State Plane LA S NAD83)																	
Point #	Easting	Northing	21	3,844,819.780	276,814.838	41	3,842,024.234	275,330.693	61	3,834,061.089	277,124.949	81	3,831,231.888	278,542.470	101	3,831,877.576	280,217.103
1	3,833,916.555	280,033.594	22	3,844,812.296	276,805.110	42	3,841,323.563	275,435.845	62	3,833,197.426	277,316.812	82	3,831,250.247	278,586.313	102	3,831,896.600	280,240.478
2	3,834,154.529	279,985.258	23	3,844,788.917	276,783.687	43	3,840,455.292	275,576.929	63	3,832,128.977	277,448.912	83	3,831,277.981	278,621.684	103	3,831,919.201	280,260.421
3	3,840,016.505	278,265.103	24	3,844,762.197	276,766.611	44	3,840,452.649	275,573.119	64	3,831,914.458	277,463.867	84	3,831,300.287	278,640.352	104	3,831,944.761	280,276.388
4	3,840,800.888	277,775.489	25	3,844,732.930	276,754.394	45	3,840,263.746	275,607.306	65	3,831,886.509	277,467.947	85	3,831,316.185	278,650.808	105	3,831,972.594	280,287.953
5	3,844,532.810	277,720.430	26	3,844,701.996	276,747.403	46	3,839,616.057	275,795.056	66	3,831,249.188	277,515.639	86	3,831,568.294	278,814.530	106	3,832,001.949	280,294.798
6	3,844,534.512	277,519.102	27	3,844,676.836	276,746.168	47	3,839,355.087	275,878.202	67	3,831,232.875	277,524.547	87	3,831,729.484	279,411.755	107	3,832,026.131	280,296.360
7	3,844,665.831	277,308.181	28	3,844,583.703	276,749.665	48	3,838,661.942	275,995.641	68	3,831,216.862	277,533.983	88	3,831,851.871	279,865.213	108	3,833,769.288	280,256.369
8	3,844,676.416	277,287.733	29	3,844,551.918	276,616.866	49	3,837,668.930	276,170.691	69	3,831,201.165	277,543.936	89	3,831,860.332	279,888.485	109	3,833,828.259	280,233.622
9	3,844,685.517	277,260.211	30	3,844,472.649	276,302.565	50	3,837,668.878	276,170.723	70	3,831,185.802	277,554.397	90	3,831,875.795	279,915.552	110	3,833,853.929	280,214.984
10	3,844,690.028	277,232.432	31	3,844,463.704	276,262.063	51	3,837,575.830	276,183.968	71	3,831,170.788	277,565.354	91	3,831,880.247	279,920.956	111	3,833,876.002	280,192.199
11	3,844,782.961	277,189.550	32	3,844,515.485	276,207.491	52	3,836,682.342	276,381.704	72	3,831,156.141	277,576.796	92	3,831,873.138	279,927.803	112	3,833,906.616	280,137.600
12	3,844,804.834	277,177.057	33	3,844,579.329	276,070.580	53	3,836,336.154	276,431.656	73	3,831,141.874	277,588.710	93	3,831,855.075	279,952.133	113	3,833,916.556	280,082.875
13	3,844,829.250	277,156.819	34	3,844,602.201	276,021.533	54	3,836,264.183	276,450.771	74	3,831,128.005	277,601.083	94	3,831,841.267	279,979.101	114	3,833,916.555	280,033.594
14	3,844,849.812	277,132.677	35	3,844,612.981	275,825.623	55	3,835,780.719	276,516.974	75	3,831,114.547	277,613.902	95	3,831,832.091	280,007.979			
15	3,844,865.906	277,105.355	36	3,844,513.536	275,591.185	56	3,835,009.677	276,810.956	76	3,831,106.037	277,704.362	96	3,831,827.797	280,037.975			
16	3,844,875.102	277,080.860	37	3,844,390.160	275,478.940	57	3,834,909.587	276,841.039	77	3,831,099.288	277,776.114	97	3,831,828.504	280,068.269			
17	3,844,889.413	277,053.733	38	3,843,519.795	275,255.167	58	3,834,699.769	276,905.678	78	3,831,223.592	278,440.335	98	3,831,833.022	280,091.910			
18	3,844,881.270	277,002.599	39	3,842,965.747	275,103.167	59	3,834,501.109	276,983.087	79	3,831,227.392	278,475.523	99	3,831,854.340	280,168.464			
19	3,844,879.690	276,992.678	40	3,842,341.069	275,245.670	60	3,834,120.572	277,107.835	80	3,831,225.469	278,499.295	100	3,831,862.637	280,190.923			
20	3,844,858.948	276,862.427															

APPENDIX V
ENDANGERED SPECIES OBSERVATION FORM
Daily Report

Date:_____ Geographic Site: _____
Location: Lat/Lon _____
Vessel Name _____
Weather Conditions: _____
Water Temperature: Surface _____ Below mid-water (if known)_____

INSPECTION OF DREDGE SPOILS (to be completed for **each** hopper dredge loading cycle, use additional sheets as needed)

Load Number: _____ Time: _____
Were the screens and baskets inspected? (circle) YES NO
Condition of screening apparatus: _____
_____

Load Number: _____ Time: _____
Were the screens and baskets inspected? (circle) YES NO
Condition of screening apparatus: _____
_____

Load Number: _____ Time: _____
Were the screens and baskets inspected? (circle) YES NO
Condition of screening apparatus: _____
_____

Load Number: _____ Time: _____
Were the screens and baskets inspected? (circle) YES NO
Condition of screening apparatus: _____
_____

Were there any incidents involving endangered or threatened species? (Circle) YES NO
(If "YES", fill out Incident Report of Sea Turtle Mortality)

Comments (Type of material, biological specimens, unusual circumstances, etc.): _____
_____
_____

BRIDGE WATCH SUMMARY (report of visual monitoring dredge area)

Time	Coordinates of Vessel	Vector of sighting (distance and bearing)	Duration of sighting	Species and number of animals	Observed behavior	Description of interaction with operations

Observer's Name_____

Observer's Signature_____

APPENDIX VI

INCIDENT REPORT OF SEA TURTLE TAKE

Species _____ Date _____ Time of take _____

Geographic Site _____
Location: Lat/Lon _____
Vessel Name _____ Load #_____
Load time: Start _____ Finish_____
Dump time: Start _____Finish_____

Sampling Method _____
Condition of screening _____
Location where specimen recovered_____
_____

Draghead used? YES NO Rigid deflector draghead? YES NO
Condition of deflector _____

Weather conditions _____
_____
Water Temperature: Surface _____Below mid-water (if known)_____

Species Information: (Please designate cm/m or inches)
Head Width _____ Plastron Length_____
Straight carapace length (or total length)_____Straight carapace width_____
Curved carapace length _____ Curved carapace width_____
Condition of specimen/description of animal (Please complete attached diagram) _____
_____
_____

Turtle tagged: YES NO *Please record tag numbers* TAG # _____
Photograph attached: YES NO
(Please label *species*, *date*, *geographic site*, and *vessel name* on back of photo)

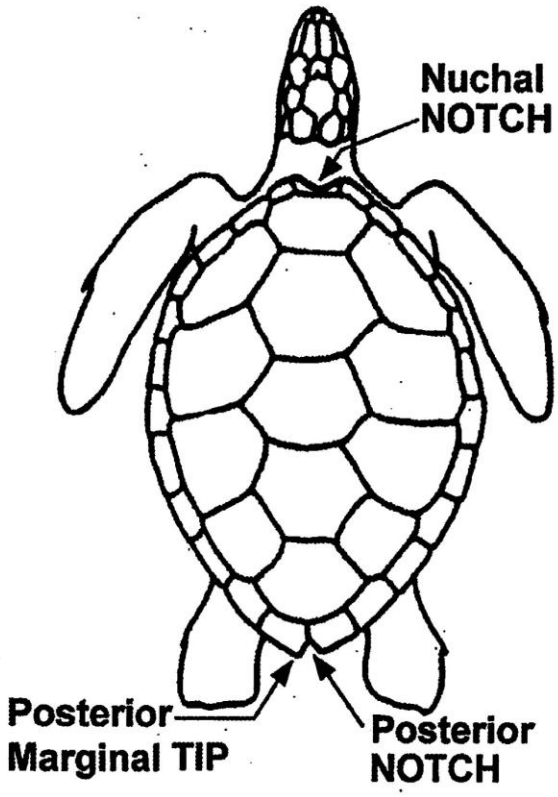
Comments/other (include justification on how species was identified) _____
_____
_____
_____

Observer's Name_____

Observer's Signature_____

Incident Report of Sea Turtle Take

Draw wounds, abnormalities, tag locations on diagram and briefly describe below.



Description of animal:

APPENDIX VII

SEA TURTLE HANDLING AND RESUSCITATION GUIDELINES

Any sea turtles taken incidentally during the course of fishing or scientific research activities must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water according to the following procedures:

1. Sea turtles that are actively moving or determined to be dead (as described in paragraph (B)(4) below) must be released over the stern of the boat. In addition, they must be released only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.

2. Resuscitation must be attempted on sea turtles that are comatose or inactive by placing the turtle on its bottom shell (plastron) so that the turtle is right side up and elevating its hindquarters at least 6 inches (15.2 cm) for a period of 4 to 24 hours. The amount of elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Periodically, rock the turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (7.6 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.

3. Sea turtles being resuscitated must be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a turtle moist.

4. Sea turtles that revive and become active must be released over the stern of the boat only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels. Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) must be returned to the water in the same manner as that for actively moving turtles.

5. A turtle is determined to be dead if the muscles are stiff (rigor mortis) and/or the flesh has begun to rot; otherwise, the turtle is determined to be comatose or inactive and resuscitation attempts are necessary.

Any sea turtle so taken must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

These guidelines are adapted from 50 CFR § 223.206(d)(1). Failure to follow these procedures is therefore a punishable offense under the Endangered Species Act.

APPENDIX VIII

SEA TURTLE TAGGING REQUIREMENTS

Flipper-tagging: All sea turtles captured by relocation trawling shall be flipper-tagged prior to release with external tags which shall be obtained prior to the project from the University of Florida's Archie Carr Center for Sea Turtle Research.

PIT tag scanning: All sea turtles captured by relocation trawling (or dredges) shall be thoroughly scanned for the presence of PIT tags prior to release using a scanner powerful enough to read dual frequencies (125 and 134 kHz) and read tags deeply embedded deep in muscle tissue (e.g., manufactured by Biomark or Avid). Turtles which scans show that they have been previously PIT tagged shall never-the-less be externally flipper tagged. The data collected (PIT tag scan data and external tagging data) shall be submitted to NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149. All data collected shall be submitted in electronic format within 60 working days to Lisa.Belskis@noaa.gov.

CMTTP: External flipper tag and PIT tag data generated and collected by relocation trawlers shall also be submitted to the Cooperative Marine Turtle Tagging Program (CMTTP), on the appropriate CMTTP form, at the University of Florida's Archie Carr Center for Sea Turtle Research.

PIT tagging is not required or authorized for, and shall not be conducted by, ESO's who do not have 1) section 10 permits authorizing said activity and 2) prior training or experience in said activity; however, if the ESO has received prior training in PIT tagging procedures and is also authorized to conduct said activity by a section 10 permit, then the ESO **must** PIT tag the animal prior to release (in addition to the standard external flipper tagging). PIT tagging must then be performed in accordance with the protocol detailed at NOAA Fisheries' Southeast Science Center's webpage: http://www.sefsc.noaa.gov/seaturtlefisheriesobservers.jsp. (See Appendix C on SEC's "Fisheries Observers" webpage). PIT tags used must be sterile, individually wrapped tags to prevent disease transmission. PIT tags should be 125 kHz, glass-encapsulated tags - the smallest ones made. Note: If scanning reveals a PIT tag and it wasn't difficult to find, then **do not** insert another PIT tag; simply record the tag number and location, and frequency, if known. If for some reason the tag is difficult to detect (e.g., tag is embedded deep in muscle, or is a 400 mHz tag), then insert one in the other shoulder.

Other sampling procedures: All other tagging and external or internal sampling procedures (e.g., PIT tagging, blood letting, laparoscopies, anal and gastric lavages, mounting satellite or radio transmitters, etc.) performed on live sea turtles are **not permitted unless** the observer holds a valid sea turtle or sturgeon research permit (obtained pursuant to section 10 of the ESA, from the NOAA Fisheries' Office of Protected Resources, Permits Division) authorizing the activity, either as the permit holder, or as designated agent of the permit holder.

Handling fibropapillomatose turtles: ***Observers handling sea turtles infected with fibropapilloma tumors shall either: 1) clean all equipment that comes in contact with the turtle (tagging equipment, tape measures, etc.) with mild bleach solution, between the processing of each turtle or 2) maintain a separate set of sampling equipment for handling animals displaying fibropapilloma tumors or lesions. Tissue/tumor samples shall be sent within 60 days of capture to: NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149. All data collected shall be submitted in electronic format within 60 working days to Lisa.Belskis@noaa.gov. This Opinion serves as the permitting authority for all NOAA Fisheries-approved endangered species observers aboard a relocation trawler or hopper dredge to tissue-sample fibropapilloma-infected sea turtles without the need for a section 10 permit.***