

SECTION 01 00 50

TASK ORDER REQUIREMENTS FOR DESIGN-BUILD

PART 1 - GENERAL

1.1 OBJECTIVE

- 1.1.1. The objective of this solicitation is to furnish and provide all design, all materials, all labor, and all equipment necessary for approximately 14 miles of fence removal and placement of new primary bollard wall, roadway and drainage improvements according to the criteria set forth in the herein drawings and specifications, complete and usable and ready for use in order to facilitate the Office of Border Patrol's (OBP) mission to gain, maintain and extend control of the U.S./Mexico Border.
- 1.1.2. To assist in fulfilling the objective, the Design-Build Contractor shall remove existing primary fence consisting primarily of landing mat fence but also to include bollard fence, chain link, and any other deterrent type of structure and shall be replaced with Primary Pedestrian Bollard Wall (Type P-3). In addition to all other associated removals and construction associated with the primary fence replacement the Design-Build Contractor shall upgrade the drainage system as outlined in the 100% Design Drawings contained in Appendix A. A complete 100% final design shall be required from the Design-Build Contractor for all portions of the project that are not at a 100% final design. This shall include the primary bollard wall within the project limits and shall comply with the Department of Homeland Security Customs and Border Protection Facilities Management and Engineering Border Patrol Facilities and Tactical Infrastructure Design Standards (TI Design Standard) and bollard wall panel layout. A fiber optic communication line shall also be installed in proximity and parallel to the bollard wall alignment, see construction documents for additional information.

1.2 PROJECT DESCRIPTION

- 1.2.1. This project provides for removal of approximately 10.04 miles of Primary Pedestrian Fence (with OPTIONS for an additional 3.55 miles) consisting of landing mat fence and bollard fence with the construction of new primary pedestrian Type P-3 Bollard Wall along the US/Mexico International Border in San Diego, CA.
- a. The Base bid includes the design and construction of approximately 10.04 miles of P-3 Bollard Wall ranging from (b) (7)(E) in height. The project corridor extends from approximately 0.3 miles east of the Pacific Ocean at the Base Western End, (b) (7)(E) and terminates just west of the Otay Mesa Port of Entry (LPOE) at the Base Eastern End, (b) (7)(E). Within the project corridor, the fence alignment is broken into five segments.
1. Section 1: Station (b) (7)(E)
  2. Section 2: Station (b) (7)(E)
  3. Section 3: Station (b) (7)(E)
  4. Section 4: Station (b) (7)(E)
  5. Section 5: (b) (7)(E)

The Base bid includes the removal and replacement of fence and lighting along the north levee of the Tijuana River (Section 3) and the installation of fiber optic communication cable in proximity and parallel to the bollard wall for Sections 1, 2, and 3, as well as between Station (b) (7)(E). Directional drilling for the fiber optic cable will be required (b) (7)(E).

the (b) (7)(E), and other drainage structures that cross the wall alignment. Existing drainage crossings along the wall alignment will be upgraded per design shown in the Construction Plans contained in Appendix A.

- b. Option 1 includes the design and construction of approximately 107 feet of P-3 Bollard Wall within the fenced area immediately east of the San Ysidro LPOE, beginning at Option 1 Western End, (b) (7)(E) and terminating at Option 1 Eastern End, latitude (b) (7)(E)
- c. Option 2 includes design and construction of approximately 100ft of P-3 Bollard Wall with a (b) (7)(E) located approximately 440ft east of the San Ysidro LPOE, (b) (7)(E). The installation of the fiber optic communication cable in this area is included in the Base bid.
- d. Option 3 includes the design and construction of P-3 Bollard Wall ranging from (b) (7)(E) in height in two areas where the existing landing mat fence deviates from the International Border located near (b) (7)(E). The Option 3 alignments will follow the International Border in these areas, superseding the proposed alignment included in the Base bid and includes the design and construction of a (b) (7)(E) wide concrete patrol road adjacent to the fence. The installation of fiber optic communication cable in this area is included in the Base bid.
- e. Option 4 includes the design and construction of approximately 0.56 miles of P-3 Bollard Wall beginning on the east side of the Otay Mesa LPOE, (b) (7)(E) and terminating approximately 0.56 miles to the east, (b) (7)(E). Option 4 includes the installation of fiber optic communication cable in proximity and parallel to the bollard wall for the length of the Option.
- f. Option 5 includes the design and construction of approximately 0.58 miles of P-3 Bollard Wall beginning at the eastern end of Option 4, (b) (7)(E) and terminating approximately 0.58 miles to the east, (b) (7)(E). Option 5 includes the installation of fiber optic communication cable in proximity and parallel to the bollard wall for the length of the Option.
- g. Option 6 includes the design and construction of approximately 0.42 miles of P-3 Bollard Wall beginning at the eastern end of Option 5, (b) (7)(E) and terminating approximately 0.42 miles to the east, (b) (7)(E). Option 6 includes the installation of fiber optic communication cable in proximity and parallel to the bollard wall for the length of the Option.
- h. Option 7 includes the design and construction of approximately 0.59 miles of P-3 Bollard Wall beginning at the eastern end of Option 6, (b) (7)(E) and terminating approximately 0.59 miles to the east, (b) (7)(E). Option 7 includes the installation of fiber optic communication cable in proximity and parallel to the bollard wall for the length of the Option.
- i. Option 8 includes the design and construction of approximately 0.50 miles of P-3 Bollard Wall beginning at the eastern end of Option 7, (b) (7)(E) and terminating approximately 0.50 miles to the east, (b) (7)(E). Option 8 includes the installation

- of fiber optic communication cable in proximity and parallel to the bollard wall for the length of the Option.
- j. Option 9 includes the design and construction of approximately 0.50 miles P-3 Bollard Wall beginning at the eastern end of Option 8, (b) (7)(E) and terminating approximately 0.50 miles to the east, (b) (7)(E). Option 9 includes the installation of fiber optic communication cable in proximity and parallel to the bollard wall for the length of the Option.
  - k. Option 10 includes the design and construction of approximately 0.34 miles P-3 Bollard Wall beginning at the eastern end of Option 9, (b) (7)(E) and terminating approximately 0.34 miles to the east, (b) (7)(E). Option 10 includes the installation of fiber optic communication cable in proximity and parallel to the bollard wall for the length of the Option.
  - l. Option 11 includes the design and installation of new lighting and cameras along the project between Stations (b) (7)(E) and Stations (b) (7)(E).
  - m. Option 12 includes utility restoration between Stations (b) (7)(E).
  - n. Option 13 includes the excavation due to change in field conditions caused by removal of existing fence including excavation, demolition, hauling, borrow and grading as required to establish fence profile grade within the project limits including all materials, labor and equipment as outlined in this Request for Proposals. The quantity of this line item is an estimate.
  - o. Option 14 includes replacement of unsatisfactory material with backfill at fence locations including excavation, disposal of unsatisfactory material and backfill within the project limits including all materials, labor and equipment as outlined in this Request for Proposals. The quantity of this line item is an estimate.
  - p. Option 15 includes concrete placement due to change in field conditions caused by removal of existing fence including excavation, demolition, hauling, borrow and grading as required to establish fence profile grade within the project limits including all materials, labor and equipment as outlined in this Request for Proposals. The quantity of this line item is an estimate.
  - q. Option 16 includes the design and construction of a 12ft wide construction access road adjacent to the bollard wall along approximately 2.02 miles of Base bid Section 1. The construction access road will be FC-2 where slopes are less than 15% and concrete where slopes are greater than 15%.
- 1.2.2. The Base and each Option shall include all components necessary to complete the design, fabrication, and construction as outlined in this Request For Proposal, including all materials, labor, and equipment.
- 1.2.3. The fence replacement shall be constructed within the border easements as indicated on the construction plans. Coordinate all work at the LPOEs with the Corps of Engineers Contracting Officer's Representative (COR).

### 1.3 DESIGN-BUILD CONTRACTOR GENERAL RESPONSIBILITY

- 1.3.1. The Design-Build Contractor shall perform all management, supervision, and other administrative activities necessary to assure performance in strict compliance with the terms and conditions of this contract.

- 1.3.2. The Design-Build Contractor shall provide all labor, materials, equipment, supplies, permits, fees, and consultant services required to construct and install the bollard wall, roadway, drainage improvements, and the fiber optic communication cable. Drawings, details, specifications and criteria provided in this RFP package shall be used by the Design-Build Contractor to complete construction of the bollard wall, roadway, and drainage improvements.
- 1.3.3. The Design-Build Contractor shall be responsible for the professional quality, code compliance, technical accuracy and coordination of all designs, drawings, specifications, and other documents or publications upon which the construction is based. The Design-Build Contractor shall be responsible for the bollard wall foundation design and roadway design between drainage features and the installation of the fiber optic communication cable.
- 1.3.4. Final design drawings for the drainage improvements are provided in Appendix A. All drawings, details, specifications, and criteria provided shall be used by the Contractor to complete construction of the improvements and all other associated work.
- 1.3.5. Any discrepancies found in these RFP documents by the offeror shall be identified to the Corps of Engineers Contracting Officer's Representative (COR) before the submittal of the offeror's proposal. Prior to award, discrepancies or any other request for information should be directed to the Contracting Officer. The Design-Build Contractor, as A/E of Record, is solely responsible for the design intent, the accuracy of the content of the proposal and its compliance with all RFP requirements and all referenced codes and criteria.
- 1.3.6. All survey performed by the Design-Build Contractor, including but not limited to construction staking, topographic survey, and as-built drawings, during the design and construction shall be performed under the direction of a licensed professional Surveyor.
- 1.3.7. All construction required of the Design-Build Contractor to complete the construction of the bollard wall, drainage improvements, roadway, and fiber optic communication cable shall be in accordance with the criteria contained herein using industry standard materials and efficient practices. The materials selected shall be of high quality, durable and easily maintained.
- 1.3.8. Beginning on the date of Notice to Proceed (NTP) on this Task Order, the Design-Build Contractor shall be continuously available to the U.S. Army Corps of Engineers' representatives for response to requests for information, discussion of contract performance, and other contract administration activities such as billing or payment, etc.
- 1.3.9. FOR EMERGENCY CIRCUMSTANCES ONLY: the Design-Build Contractor shall provide the names, job titles, and contact information, to include telephone numbers (business, cell phones, facsimile, pager numbers, etc.) of a senior manager within the Design-Build Contractor's organization, and a minimum of one similarly qualified alternate to serve as continuously available liaison with the USACE. The Design-Build Contractor shall submit the above information to the Contracting Officer by email within two calendar days following receipt of the Task Order award. During the contract period, the Contracting Officer and the COR shall be notified immediately, by email, of any changes regarding the designated liaisons.
- 1.3.10. The Design-Build Contractor shall coordinate with IBWC through the COR for removal of materials, structures, and interferences with respect to the demolition of existing primary fence and associated foundation AND the installation of the new bollard wall and associated foundation within the limits of the project at no additional cost to the Government.

- 1.3.11. The Design-Build Contractor shall be responsible for the coordination of all Sub-Contractors required to complete construction.
- 1.3.12. No work shall be performed in Mexico. The Design-Build Contractor should take soils into account (for items such as trench protection, over excavation, etc) as well as construction means and methods so that at no time during construction, any workers, equipment, and/or materials cross into Mexican land or airspace.
- 1.3.13. Neither the Design-Build Contractor, nor the Design-Build Contractor's representatives, shall release any report, data, specification, photograph, cost estimate, nor other information in any form obtained or prepared under this contract without prior written approval of the Contracting Officer.
- 1.3.14. Upon completion of construction the Design-Build Contractor shall submit Final As-Built Drawings and Specifications in accordance with Section 01 78 00 Closeout Submittals. Other construction records, including RFI's and QA/QC documents, shall be submitted in Adobe Acrobat PDF format.

#### DESIGN REQUIREMENTS AND PROVISIONS

- 1.3.15. The Design-Build Contractor's design professionals shall be the Designers of Record for the entire project. They must take full responsibility for the design and must meet professional and regulatory standards. All work provided by the Design-Build Contractor's Designers of Record shall be prepared by or under the direct supervision of licensed professional Engineers. Final calculations, drawings and specifications shall be affixed with signed and dated professional seals of the Architect or Engineer of Record for each specific professional discipline. Design and preparation of construction documents shall conform to all applicable codes and standards including, but not limited to, those listed within the RFP documents. The Design-Build Contractor shall be responsible for the fence foundation design and roadway design between drainage features and the installation of the fiber optic communication cable.
- 1.3.16. Some applicable Federal, State and industry standards are referenced in this RFP. All applicable standards, including those that are not referenced or listed, constitute criteria for the execution of this task order. All Technical Specification sections provided in this RFP may not be required for this project, and designers of record shall provide all final specifications as necessitated by their final design or RFP requirements. Design-Build Contractor's Designers of Record must take full responsibility for the technical specifications of the project, and shall satisfy USACE that these sections are complete and suitable for the final design. The outline specification requirements shall be used as the basis for selection of construction materials, products, and systems. Design/Build Contractor's final specifications shall be developed from Unified Facilities Guide Specifications (UFGS).
- 1.3.17. The Design-Build Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved.
- 1.3.18. The Design-Build Contractor shall be responsible for the coordination of design, engineering and construction disciplines in order to fulfill the requirements of this contract and to provide for a complete, integrated and functional design. All below grade utility crossings or other above or below grade interferences shall be coordinated, with any conflicts resolved, by the Design/Build Contractor prior to start of construction.
- 1.3.19. Construction documents shall be sufficient to afford a clear understanding of the construction work required. The work shall be organized in a manner that will assure thorough coordination between the various details on the drawings and between the

drawings and the specifications. The Design-Build Contractor shall cross-check all work and certify that all conflicts have been reconciled.

- 1.3.20. Review and approval process is outlined in Section 01 33 16.00 10, DESIGN DATA (DESIGN AFTER AWARD), and defines the format and submittal requirements in which design and construction documents shall be prepared by the Design-Build Contractor. Construction documents shall comply with the AEC CAD Standards.
- 1.3.21. Upon completion of construction, the Design-Build Contractor shall submit Final As-Built Drawings and Specifications in accordance with Section 01 78 00 CLOSEOUT SUBMITTALS. Other construction records, including RFI's and QA/QC documents, shall be submitted in Adobe Acrobat PDF format.

#### 1.4 SECURITY

- 1.4.1. It shall be the Design-Build Contractor's responsibility to furnish their own security for personnel and to safeguard their equipment during the entire project lifecycle. This will include but not limited to actual project sites, and/or staging areas and storage facilities. The Customs and Border Patrol will not provide security for the Design-Build Contractor. The Border Patrol agents shall respond to routine security matters/threats if and when they occur. A call in number shall be provided for the USBP to be used in emergency situations. As part of the security requirement, the Design-Build Contractor shall be responsible for the development of a Security Plan in conjunction with the Health and Safety Plan. The detailed Security Plan shall address or reference within applicable plans written guidance on, but not limited to; protection of employees and assets, emergency communications, incident response, incident reporting, information and operations security, security communications, use of firearms, media interaction, security forces (total personnel, equipment, capability and experience etc) in the event of a hostile attack, "fall back positions", evacuation routines and methods, muster area, medical staff members/availability. This plan shall be reviewed by USACE Safety and Security Officers for inspection and final acceptance prior to activities. The Contractor shall bring three (3) copies of the security plan to the pre-construction conference.
- 1.4.2. The Design-Build Contractor will be responsible for the security of its own equipment, materials, and facilities.
- 1.4.3. Operations and Information Security: It is the Design-Build Contractor's responsibility to ensure employees are briefed on the protection of sensitive information pertaining to the project. Both Contractors and employees will sign a statement confirming they have been briefed on the use of personal electronic devices (PED) (Cell phones, Tablets, Laptops etc.) while operating under federal contract. The signing of this statement acknowledges that any sensitive project data and/or images contained within employee PEDs are the property of the federal government and subject to inspection at the government's discretion.
- 1.4.4. The Design-Build Contractor shall also be responsible for ensure that all employees assigned to the job site(s) shall have a criminal background check performed and properly vetted. These individuals shall be display a company picture ID badges complete with ID numbers and company logos for easy identification by agents from CBP. Furthermore, the Design-Build Contractor shall be responsible for submitting a list of all personnel required at the jobsites for verification by CBP prior to conducting activities. Activities include, but are not limited to; site investigations, surveys, and construction. Any personnel having questionable history/backgrounds shall be rejected and not authorized to enter the jobsite. This list marked "CONFIDENTIAL" shall be submitted to the Contracting Officer for validation purposes.
- 1.4.5. Personnel entering in or working on Federal property may be screened and checked for criminal history and proper immigration status. To facilitate the screening and checking of

each employee entering in or working on Federal property, the Design-Build Contractor shall submit:

- The individual's full name
- Company Name
- Date of Birth (DOB)
- Social Security Number
- Driver's Licenses and/or State Identification Number
- Place of Birth (POB)

## 1.5 SHOP DRAWINGS

- 1.5.1. The Design-Build Contractor shall prepare shop drawings in accordance with Section 00 73 00 Special Contract Requirements and Section 01 33 00 Submittal Procedures. Also see Paragraph 1.7.1 of this Section.

## 1.6 ENVIRONMENTAL DOCUMENTS

- 1.6.1. The San Diego Fence Replacement project is covered under the Environmental Waiver provided in Appendix E. Construction shall conform to the guidelines set forth within the Waiver. Any discrepancies between the plans and specifications and the Waiver shall be brought to the attention of the COR prior to the start of construction.
- 1.6.2. A list of the required Best Management Practices (BMPs) is provided in Paragraph 1.8 of this Section.
- 1.6.3. Section 01 57 20.00 10 Environmental Protection outlines additional BMP measures that the Design-Build Contractor shall be responsible for implementing.

## 1.7 GENERAL CONSTRUCTION REQUIREMENTS

### 1.7.1. Design-Build Contractor Submittals

Prior to start of construction, the Design-Build Contractor shall submit shop drawings and other such information to the COR for review and approval. The following list of shop drawings will be provided by the Design-Build Contractor and does not necessarily represent all required shop drawing submittals. The Design-Build Contractor shall also review the technical specifications for other miscellaneous submittal requirements.

Fiber Optic Communication Cable Contractor Experience Statement, G  
Security Plan, G  
Crane Plan, G

The Design-Build Contractor shall submit a proposed crane plan to the COR for review and approval. The crane plan shall show the proposed crane set up locations for all proposed crane activities and detail any required utility coordination. The crane plan shall demonstrate that the performance and operation of the cranes will be in accordance with Section 01 35 26 Governmental Safety Requirements and shall identify the specific model of each crane, the dimensions, wheel sizes, minimum wheel load and maximum outrigger load to be exerted during operations. The Design-Build Contractor shall allow at least 10 working days for acceptance/non-acceptance of the crane work plan. No crane operations shall begin prior to written acceptance of the crane work plan by the COR, who shall be the Government approving authority.

### 1.7.2. Staging

Two staging areas have been secured by USACE for construction of this project. See the Project Location Maps in Appendix B for a map depicting the location and Section 01 50 00 Temporary Construction Facilities and Controls for staging area requirements.

The Design-Build Contractor shall be responsible for repairing any damage to the staging area due to construction activities upon completion of construction at no additional cost to the government.

Any additional staging required by the Contractor shall be the responsibility of the Contractor to acquire.

#### 1.7.3. Access

##### Points of Ingress/Egress

Ingress/egress routes provided for this project are shown on the Project Location Maps in Appendix B. The Design-Build Contractor shall be responsible for repairing any damage at these points due to construction activities upon completion of the bollard wall construction. See paragraph 1.7.10 of this section for documentation requirements.

##### On-Site Access

The Design-Build Contractor shall use the existing Patrol road north of the existing fence as shown in the construction plans to traverse the construction site, unless specifically noted otherwise.

#### 1.7.4. Existing Site Conditions

The fence replacement project corridor begins approximately 0.30 miles to the east of the Pacific Ocean, near Friendship Park and continues approximately 13.6 miles east along the International Boundary south of San Diego, California. The project corridor crosses the Tijuana River and the San Ysidro and Otay Mesa LPOEs.

The site consists of areas of steep terrain with a moderate growth of scrub brush and low-lying grasses as well as relatively level/flat topography with sparse vegetation. Multiple trees are adjacent to the fence on both the north and south side. The western portion of the project corridor is generally underlain by shallow fills, topsoil and alluvial deposits within the Tijuana River and Otay Valley floodplains and the Tertiary-age San Diego Formation locally along the elevated highlands adjacent to and across Spooners Mesa. To the east across Otay Mesa, colluvial, slopewash, localized landslide deposits, and the tertiary-age Otay Formation underlie the project corridor, Crystalline granitic rock associated with the Peninsular Range batholith and netavolcanic rock associated with the Santiago Peak Volcanics form the moderate to steep slopes of the Peninsular Range within the eastern project corridor.

An earth and concrete levee exists along the north bank of the Tijuana River. An asphalt road runs along the top of the levee.

Multiple concrete drainage structures exist within and in proximity to the construction footprint. The existing fence on these structures shall be removed and the structures are to be protected in place, unless noted otherwise on the Construction Plans Portions of the existing landing mat fence extend into Mexico. The contractor is to remove the existing fence to the International Border, unless noted otherwise.

Various lighting systems with overhead and underground wiring exist within and in proximity to the construction footprint. The approximate locations of the lighting systems, based on aerial mapping and field survey research, are shown on the construction plans. The Design-Build Contractor shall coordinate with the local utility company on exact location of all utilities, see the General Notes sheet G1101 for additional information. The Design-Build Contractor shall be required to have all existing utilities and obstructions

located prior to start of construction. Any utility or obstruction conflicts, structures/obstructions on the south side of the fence including guy wires and electrical lines, presence of waste water in washes, existing camera towers and power source, barbed wire fence throughout that needs to remain intact, LPOE pedestrian walkways, fencing and gates that need to remain intact and operational, that interfere with construction, that are not otherwise denoted on the plans, shall be brought to the attention of the COR prior to continuing with construction in the vicinity of the conflict. The COR reserves the right to resolve any such conflicts prior to commencing construction in the vicinity of the conflict.

All existing structures within the project site not designated for removal within the project plans shall be protected in place. Should any of said utilities or structures be damaged or disturbed, it shall be the Design-Build Contractor's responsibility to restore to previous conditions or better.

#### 1.7.5. Existing Tunnel Procedures

In the case that an underground tunnel or void is discovered during excavation, the Design-Build Contractor shall immediately contact the COR and Border Patrol. The Design-Build Contractor shall then build a bulkhead to block the tunnel and continue the bollard wall construction. Refer to the technical specification 31 00 00 for additional information.

#### 1.7.6. Geotechnical Investigation

The Design-Build Contractor is responsible for developing all final geotechnical, foundation, and pavement parameters for use on the project including all site geophysical or geotechnical sub-surface investigations. Development of the preceding shall be overseen by a licensed professional engineer.

A Geotechnical Report for the project site has been provided in Appendix D for informational purposes only. Any additional geotechnical information required by the contractor shall be acquired at no additional cost to the Government.

#### 1.7.7. Drainage Report

A final drainage report addressing drainage crossings within the project corridor has been provided in Appendix E. The Design-Build Contractor is responsible for local drainage control design between the drainage crossings.

#### 1.7.8. Traffic Control

The Design-Build Contractor shall comply with all local traffic control codes including coordinating Border Patrol access through the site at all times. The Design-Build Contractor shall coordinate street/lane closures with the local authorities and Federal and private land owners when applicable.

#### 1.7.9. Erosion and Sediment Control Measures

The Design-Build Contractor shall be required to comply with the State of California Construction General Permit and will be required to submit a Notice of Intent (NOI) to the California State Water Resources Control Board. No physical work at the site shall begin prior to the Design-Build Contractor receiving written approval of the project SWPPP. The Design-Build Contractor shall be required to comply with the SWPPP as a part of its execution of the project.

The COR reserves the right to require the Design-Build Contractor to modify or revise the SWPPP to insure that all current measures to prevent offsite migration of pollutants,

including soils, are included in the SWPPP, or if the Contracting Officer determines that the storm water pollution prevention requirements are not being met.

#### 1.7.10. Construction Guidelines

The Design-Build Contractor, in the presence of the COR, shall document existing site conditions via video recording and photographs prior to start of construction. Documentation shall include condition of all existing roads (on-site and egress/ingress), structures, utilities and structures within and immediately adjacent to the project site. The COR will have the final approval that the documentation has been adequately completed. The Design-Build Contractor shall provide a copy of all documentation on CD(s) and/or DVD(s) to the COR for the project record.

The Design-Build Contractor shall take great care not to disturb any existing fence outside the limits of this project unless specifically called for in the plans. If the existing fence is disturbed, it shall be the Design-Build Contractor's responsibility to repair the fence so to restore it to previously existing conditions or replace it in-kind if damaged beyond repair. Should it be necessary to disturb the foundation of the existing fence, the Design-Build Contractor shall be responsible for providing all bracing or means of temporary shoring so to protect the existing fence in-place.

Throughout construction of the bollard wall, the Design-Build Contractor shall ensure all materials, equipment, vehicles, personnel and any other construction related items and/or activities be contained within existing roads adjacent to and generally parallel to the bollard wall alignment, ingress/egress roads and established staging area.

At the completion of each work day the Design-Build Contractor shall have permanent or temporary fence erected to effectively close off all gaps in the fence until work resumes the following day. Design-Build Contractor shall minimize the number of vulnerable areas within the project limits. A vulnerable area is defined as an area temporarily secured at night that does not have the existing primary fence in-place or the completed Type P-3 fence. The temporary fence must be approved by the resident engineer prior to construction.

The temporary fence shall meet the following criteria:

- (A) Height: Minimum - match the existing fence height. Maximum – the new proposed fence height.
- (B) Location: Fence shall be located such that there is (b) (7)(E) between existing and/or new proposed fence and the temporary fence.
- (C) Length: There is not a limit on length as long as the temporary fence criteria is met.
- (D) Fence Panel: It must not have a (b) (7)(E). A solid fence panel is acceptable.
- (E) Material: Existing fence material that is removed as part of this project and bollards for the new fence may be used as temporary fence material. Chain link fence, wood panels, plastic resin panels and/or similar like material are not an acceptable material for the temporary fence. Other materials may be considered.
- (F) Wind: Design for a pressure of 20 PSF.
- (G) Mockup: Submit for approval design drawings of the temporary fence to the COR for approval by the Resident Engineer. Once approved construct a sample mockup of temporary fence between 10 and 15 LF. The constructed mockup will establish standards by which the ensuring work can be judged. The approved mockup may be used as part of the temporary fence.

All egress/ingress access roads and on-site construction access roads where improvements are not called for in the plans shall be returned to existing conditions or better prior to final acceptance of the project. This shall include providing aggregate surface course needed to enable the access roads to be bladed in order to remove ruts, depressions, and/or pot-holes caused by construction activities.

Installed bollard wall panels, over the specified lengths shown in the plans, shall be constructed vertical with an allowable tolerance of 1-inch out of plumb over the entire height of the bollard wall. Bollard wall coordinates shall be surveyed to within 3-inches of the coordinates provided in the plans. Any discrepancies in dimensions, elevation, or alignment shall be brought to the attention of the COR prior to continuing with construction in the vicinity of the discrepancy. The COR reserves the right to resolve such discrepancy prior to commencing work within the vicinity of the discrepancy.

All bollard wall construction materials and accessories shall have the ability to survive temperatures applicable to the southwestern border of the U.S. including diurnal and seasonal extremes with temperature deltas in excess of 120 degrees Fahrenheit.

All bollard wall construction materials and accessories shall have a 30-year service life requiring planned maintenance to occur not earlier than every ten years.

All final grades adjacent the bollard wall location shall be finished so drainage flows away from the bollard wall so to prevent ponding of water at the bollard wall and bollard wall foundation location.

## 1.8 BEST MANAGEMENT PRACTICES

The Design-Build Contractor shall implement all BMPs as outlined in this section along with all other BMP required per provisions of this Request for Proposal. All BMPs shall be incorporated into the Design-Build Contractor's Environmental Protection Plan and the Storm Water Pollution Prevention Plan.

### 1.8.1. GENERAL CONSTRUCTION ACTIVITIES

Best management practices (BMPs) will be implemented as standard operating procedures during all construction activities, such as proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles would have drip pans during storage to contain minor spills and drips. Although it would be unlikely for a major spill to occur, any spill will be contained immediately and an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill. Large spills will be contained within an earthen dike or other suitable containment. Any spill of a reportable quantity of a hazardous or regulated substance will be reported immediately to on-site environmental personnel, who would notify appropriate Federal and state agencies.

Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in the on-site receptacles. Solid waste receptacles will be maintained and solid waste would be collected and disposed of and is the responsibility of the Design-Build Contractor.

### 1.8.2. SOILS

Vehicular traffic associated with the construction activities will remain on established roads to the maximum extent practicable. Areas with highly erodible or corrosive soils will be given special consideration when designing the fence replacement project to ensure incorporation of various BMPs, such as straw bales, aggregate materials, and wetting compounds, to decrease erosion. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared prior to construction activities, and BMPs described in the SWPPP will be implemented to reduce erosion.

### 1.8.3. BIOLOGICAL RESOURCES

Soil disturbance in temporarily impacted areas will be re-vegetated or landscaped. To minimize vegetation impacts, designated travel corridors will be marked with easily observed removable or biodegradable markers, and travel will be restricted to the corridor under most circumstances.

The Migratory Bird Treaty Act requires that Federal agencies coordinate with the U.S. Fish and Wildlife Service (USFWS) if a construction activity would result in any harm to a migratory bird, including breeding and nesting activities. If construction or clearing activities are scheduled during the nesting season (typically March 1-September 1) preconstruction surveys for migratory bird species to identify active nests would occur immediately prior to the start of any construction activity. If construction activities would result in the disturbance or harm of a migratory bird, then coordination with the USFWS and the California Department of Fish and Wildlife would occur. Buffer zones would be established around active nests until nestlings have fledged and abandoned the nest as required.

### 1.8.4. AIR QUALITY

Soil watering will be utilized to minimize airborne particulate matter created during construction activities. Bare ground will be covered with hay or straw to lessen wind erosion following construction. Additionally, all construction equipment and vehicles will be kept in good operating condition to minimize exhaust emissions.

The Design-Build Contractor shall comply with all California PM10 and Air Pollution Control District Regulations.

### 1.8.5. WATER RESOURCES

Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work will cease during heavy rains and will not resume until conditions are suitable for the movement of equipment and material. Because the impact area is greater than one acre, as part of the National Pollutant Discharge Elimination System (NPDES) permit process, a SWPPP and Notice of Intent will be submitted to the U.S. Environmental Protection Agency and the California State Water Resources Board to the start of construction. Sedimentation and pollution of surface waters by fuels, oils and lubricants will be minimized through the implementation of the SWPPP.

### 1.8.6. NOISE

During construction, short-term noise impacts are anticipated. All Occupational Safety and Health Administration (OSHA) requirements will be followed. To lessen noise impacts on the local communities, construction will only occur during daylight hours, whenever possible. All motor vehicles exhaust systems will be properly maintained to reduce the potential for vehicle-related noise.

### 1.8.7. TRANSPORTATION

To reduce impacts on local transportation in the surrounding communities, construction traffic on city streets will be coordinated with local authorities, and proper flagging, signage, and barricades will be used to direct local traffic around construction zones.

## 1.9. TEMPORARY FLOOD PROTECTION PLAN

High water season is typically May through October; however, floods could occur at any time of the year. During high water periods, the Contractor may be directed to seal and protect the levee

in areas where the levee embankment is exposed from levee wall construction operations. The Contractor shall submit an Emergency Flood Protection Plan to the Contracting Officer, or his/her representative, for review and approval prior to commencing work. The Contractor's Emergency Flood Protection Plan shall specify the resources, equipment, and people that he has on-site and what the capability is to seal and protect the levee. The plan shall specify how long it will take to get the emergency flood protection in place. This plan requires approval prior to the Contractor taking any actions to exceed the seasonal limits specified herein for opened up levee.

The Emergency Flood Protection Plan may be put into effect at any time during construction when a named storm enters the Gulf of Mexico, high water season, or at the direction of the Contracting Officer. The plan shall take into account deteriorating weather conditions that may occur before a storm event, which may make earthen material unsuitable for closure. The plan shall clearly demonstrate and/or include the following:

(1) The Contractor shall note that he is required as part of this project to maintain the flood protection to the existing elevations shown on the drawings and shall be allowed a maximum of 48 hours to seal and protect exposed levee embankment as affected by his operations.

(2) The Plan must clearly delineate the maximum length of levee open to construction at any one time and detail how that length can be secured against flooding within a maximum of 48 hours.

(3) It shall be mandatory that the Contractor maintain materials and equipment to provide immediate protection of all areas during inclement weather conditions, an impending and approaching hurricane, or as directed by the Contracting Officer. The Contractor shall note the type of equipment and materials and all details of his emergency procedures and sequence for providing flood protection. During emergency situations the Contractor shall be required to immediately repair, construct and /or replace all areas for completed flood protection.

(4) Temporary emergency closures may be allowable as part of the Emergency Flood Protection Plan and will be evaluated for approval in the Plan prior to commencement of construction.

(5) After the passing of a storm or as directed by the Contracting Officer, the Contractor shall remove all temporary flood protection, and repair or replace any permanent construction damaged by its installation. No separate measurement or payment will be made for maintaining materials, labor or equipment as required herein, or for any other cost associated with maintaining readiness to perform flood protection measures required by the emergency flood protection plan. Payment for all work required for the installation, maintenance, and removal of the required emergency flood protection during impending high water or storm tidal surges, and repair of permanent construction damaged by installation of the emergency flood protection will be made by an equitable adjustment per the Contract clause in Section 00700 entitled "Changes" (FAR 52.243-4).

#### XX. RIVER TEMPORARY FLOOD PROTECTION

At such time that the Rio Grande River is forecasted by the National Weather Service (NWS) to rise at or above flood stage at the any of the following gages: the Rio Grande River at Rio Grande City, Anzalduas Reservoir, or Mercedes, TX, all construction work shall cease until such time as the elevation subsides below flood stage at those gages. Updated information on gage readings and river forecasts may be obtained on the website of the NWS West Gulf River Forecast Center (<http://www.weather.gov/wgrfc>). Delays to the Contractor's operations from ceasing work when the Rio Grande elevation is above flood stage at these gages will be subject to the provisions of Section 00700, Contract Clause entitled "Default (Fixed-Price Construction)" (FAR 52.249-10).

-- END OF SECTION --