AMENDMENT #1

September 16, 2021

Invitation for Bids (IFB) Number
PCCD-21-PCW2Upgrade-03, 9/2/2021

Issued by
Plum Creek Conservation District
Lockhart, Texas

The above numbered IFB hereby is amended as set forth below. The hour and date specified for receipt of offers is not changed.

PURPOSE OF AMENDMENT

1. To transmit pen-and-ink changes to the IFB drawings and specifications, and to provide meeting minutes (including Questions and Answers), and attendance list for the 9/14/2021 Pre-bid Conference/Site Showing.
2. To remind bidders that oral explanations or instructions given before the award of the contract will not be binding. See PART I, Subpart B, Instructions to Bidders, Section 6.

Offerors ***must acknowledge receipt of this Amendment*** no later than the hour and date specified in the IFB for receipt of sealed bids by one of the following methods:

(1) Make appropriate notations on Exhibit A, Offer form (PART I, Subpart C, page GP-8).

(2) Complete and return form below. Form must be mailed or hand-carried to the address designated for receipt of bids, and be made to the attention of Daniel Meyer, Contracting Officer, clearly noting "Acknowledgment of Receipt of Amendment No. 1, IFB No. PCCD-21-PCW2Upgrade-03" on the envelope. Fax, electronic, or telegraphic acknowledgments of receipt are not allowed.

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ACKNOWLEDGMENT OF RECEIPT

Amendment No. 1 (9-16-2021)
IFB PCCD-21-PCW2Upgrade-03 (Site 2 Upgrade)

Bidder's Signature: ______________________________

Bidder's Name: ______________________________

Bidder's Title: ______________________________

Date Signed: ______________________________

Company Name: ______________________________

PEN-AND-INK CHANGES

PART IV – CONSTRUCTION & MATERIAL SPECIFICATIONS

CSpec 7 – Construction Survey

Section 9.a.(4). DELETE this paragraph and insert new paragraphs (see below).

Section 9.a. ADD the following new paragraphs:

(4) In Section 3, Quality of Work, electronic models created for the purpose of aiding the Contractor in stakeout and/or quantity computations, as well as field layout and staking shall be prepared and/or performed by a Professional Engineer (PE) or Registered Public Land Surveyor (RPLS) licensed in the state of Texas.

(5) In Section 5, Construction Surveys, the surveys conducted by the Contractor shall include but not be limited to:

(a) Those required to check all excavation and earthfill slopes as work progresses to ensure such slopes are maintained at those specified.

(b) Earthfill slopes shall be checked at least each five feet of vertical interval and corrected to planned slope.

(c) Those necessary to set “bluetops” for subgrades and finished grades of all excavations, earthfills, and appurtenances to the works.

(6) The Contractor shall install two (2) Permanent Reference Markers (PRM) at locations to be determined by the Engineer.

(a) This establishment of the PRMs shall consist of all work and materials (except the benchmark caps) required for installation of permanent reference markers. The aluminum caps for the PRM will be furnished by the Contracting Officer prior to casting/pouring the concrete.

(b) Two (2) PRMs shall be required. The locations of the markers shall be determined by the Engineer.

(c) Markers shall be cast in place, non-reinforced, concrete cylinders or precast, non-reinforced, concrete cylinders installed flush with the ground line and with a standard benchmark cap mounted on the top.

(d) The concrete cylinder shall have a minimum diameter of 10 inches and depth of 2 feet, except a lesser depth may be approved by the Engineer where rock is encountered. Earth forming will be permitted for cast-in-place markers. The proportions of the aggregates shall be such as to produce a concrete mixture that works readily into the excavated hole but does not segregate or exude free water during consolidation.

(e) No surface finish will be required for that portion of the marker which will be below ground. If precast markers are used, backfill shall be thoroughly tamped in 4-inch layers.

(f) Separate payment will not be made for this item. Compensation for this item will be included in the payment for the bid item Construction Surveys.

CSpec 11 – Removal of Water

Section 9.a. ADD the following new paragraph:

(8) There is no guarantee that the slide gate on the principal spillway tower will function to dewater the site. Therefore, pumping and siphoning of the site should be included in contractor's sequence of work. Refer to Construction Specification 11 for additional information.

CSpec 21 – Excavation

Section 10, 1st paragraph. Change "Section 5" to read "Section 4".

Section 10, 2nd paragraph. Change "Section 6" to read "Section 5".

Section 10, 3rd paragraph. Change "Section 7" to read "Section 6".

Section 9.a. ADD the following new paragraphs:

(g) Separate payment will not be made for this item. Compensation for this item will be included in the payment for the bid item Construction Surveys.

CSpec 401 – Geotechnical Instrumentation

Section 2, last paragraph. Change "*Stated*" to read "*States*".

PART II – GENERAL CONDITIONS

Article 20 – Workweek/Construction Schedule

Change paragraph (d) to read as follows:

(d) The maximum workweek that will be approved is:

- Monday through Saturday, up to **11** hours per day **not to exceed** 60 hours per week.
- Work is permitted during "daylight" hours only.

DESIGNATIONS / ITEMS STAKED

ITEMS DESIGNATED VERBALLY/MARKED AT SITE SHOWING

See attached Site Visit Exhibit (1 page)

Construction Spec 2, Clearing and Grubbing

Locations for buried materials (Section 7, 3rd paragraph)

- Locations for buried materials shall be designated at the time of the showing of the site to prospective bidders (shown as waste areas in exhibit).

Actual limits of required clearing and grubbing [7.a.(2)]

- The actual limits of required clearing and grubbing will be as designated or staked at the time of the showing the site to prospective bidders (includes waste areas, auxiliary spillway, RCC spillway, and principal spillway outlet locations in exhibit).

Existing brush piles and downed debris to be disposed [7.a.(3)]

  - Existing brush piles and downed debris shall be disposed as specified above and shall be designated at the time of the showing the site to prospective bidders.

- **CSpec 3, Structure Removal**
- Actual limits of fences required to be removed [7.a.(2)]
  - The limits of fences to be removed shown on the drawings are approximate. Additionally, some fences may exist within the construction areas that are not delineated on the drawings. The actual limits of fences required to be removed will be marked on the site at the time of the showing of the site to prospective bidders.

- **Drawing Sheet 5, Note 3 - Final location will be designated at site showing:**
  - Access Road
  - Construction Campsite
  - Stockpile Area
  - Borrow Area
  - Waste Areas (2 on drawings)

QUESTIONS AND ANSWERS

1) Question: Are there any provisions for dust control / road sweeper requirements in the specifications?
Response: The contractor should include dust control and street cleanliness in the Storm Water Pollution Protection Plan (SWPPP) submitted for review to the Engineer.

2) Question: What are the responsibilities for QA/QC for owner/ contractor?
Response: Responsibilities are delineated in Construction Specification 94.

3) Question: Has a SWPPP been included in the plans?
Response: Page 70 & 71 of the plan set should be used as guidance for development of the SWPPP. Contractor to submit final SWPPP to Engineer for approval prior to commencement of work. Reference Construction Specification 5 for additional information.

4) Question: Can the contractor use the alley that was used for the site visit during construction?
Response: No, the only site access will be as indicated in the plans (off Lehman Road).

5) Question: Is there any impact to the existing wastewater mains on the north side of the property?
Response: No, the proposed construction is not anticipated to interfere with the 2-12" wastewater mains in proximity to the auxiliary spillway.

6) Question: For Construction Surveying, are there any requirements for use of a Registered Professional Land Surveyor (RPLS)?
Response: Refer to additions to Construction Spec 7, Section 9.a included in Amendment #1.

7) Question: Will electronic surveying information be provided to the contractor during bid advertisement? What about after award of the contract?
Response: No electronic surveying information will be provided during bid advertisement. After award of the contract, certain CAD and GIS files will be released to the contractor for their use after receipt of required AECOM waiver.

8) **Question:** What specification outlines the installation of a coffer dam?
Response: All removal/ diversion of surface and ground water techniques are outlined in Construction Specification 11.

9) **Question:** What makes Type A & B soil unacceptable for this project?
Response: Soil types and applications are defined in Construction Specification 23. The geotechnical report is available to the contractor to assist in identifying what soil types are available onsite.

10) **Question:** Where is the mixing plant to be located?
Response: The mixing plant is to be located on-site and to be approved by the Engineer prior to construction.

11) **Question:** Who is required to review/ approve the Traffic Control Plan (TCP)?
Response: The TCP must be reviewed by the Engineer prior to start of construction. Contractor to verify if any other local governmental agencies will need to approve the TCP.

12) **Question:** What other permits will be required?
Response: A US Army Corps of Engineers (USACE) Section 404 Permit has been secured for this project and will be available to the contractor at award of bid. All other permits applicable to performance of the work will need to be secured by the contractor for the entirety of work to be performed under the contract.

13) **Question**: What are the requirements for Site Security / Public Accessibility?
Response: Site security and protection of equipment, materials, and persons are the responsibility of the contractor. Contractor is responsible to determine the measures needed to provide this protection (e.g., temporary fencing, signage, etc.) and provide them at Contractor's expense.

14) **Question:** For the purpose of dewatering utilizing the slide gate, can the bottom gate elevation be provided?
Response: The contractor should review the available as-built drawings to determine any existing conditions.

15) **Question:** Is the **a**rea of the watershed for the detention basin available?
Response: Refer to the Cover Sheet of the plans for information regarding the drainage area and total storage capacity of the facility.

16) **Question:** What is the use and/or need for the existing pipe fencing and cattle guard located near the proposed borrow area?
Response: These existing pipe fences were old site access fencing, there is no requirement to remove and/or protect this fencing.

17) **Question:** What is the requirement for onsite Owner office space?
Response: Refer to Construction Specification 8 for Field Office requirements.

18) **Question:** What is the size of the existing sanitary sewer mains at the end of the proposed auxiliary spillway?

Response: There are two – 12" diameter lines with approximate 5' depth of bury. Refer to the plans for approximate location. Exact location and depth should be verified by the contractor prior to proceeding with construction related activities in their proximity.

19) **Question:** Is the Roller Compacted Concrete (RCC) spillway to be constructed in continuous lifts upstream / downstream?
Response: Yes, refer to Construction Specification 36 for additional information regarding the RCC.

20) **Question:** Is there a construction entrance detail?
Response: Reference Detail 3 on sheet 71 for the stabilized construction entrance detail. Reference Construction Specification 8 for additional information regarding the primary site access.

21) **Question:** Is aquatic species relocation required?
Response: Per the USACE Section 404 Permit, no aquatic species relocation is required.

22) **Question:** Is there an MS4 Discharge permit?
Response: Contractor to verify what permits are required for construction. All required permits will need to be secured by the contractor for the entirety of work to be performed under the contract.

23) **Question:** Are there any Disadvantaged Business Enterprise (DBE) Program requirements for this project?
Response: No.

24) **Question:** Will the storage container near the construction access road and campsite be relocated?
Response: Yes, according to an email received from the City of Kyle's Park Director, Mariana Espinoza, the storage trailer will be relocated prior to commencement of work.

25) **Question:** Do you know if there are cattle located on adjacent properties in which the fencing is to be removed?
Response: Adjacent landowners have confirmed that if they do bring cattle to their property during the construction period, there are existing property fences that will prevent cattle from entering the worksite.

9/14/2021 SITE SHOWING / PRE-BID CONFERENCE MINUTES

Note: Some items contained in the IFB were pointed out and are not included in these meeting minutes for purpose of brevity. However, this Amendment No. 1 contains information necessary for bidders to submit bids and all information where the lack thereof would be prejudicial to uninformed bidders.

WELCOME / INTRODUCTIONS

The Contracting Local Organization for this project is Plum Creek Conservation District (PCCD), Lockhart, TX. The Contracting Officer (CO) for this project will be Daniel Meyer (PCCD Executive Manager) and the Alternate CO will be Matt Shaw (PCCD Staff Member). AECOM will provide a full time Inspector (Joe Owen) and a Project Engineer (Bobby Mengden). Jean Ann Maynard will serve as contracting consultant to the PCCD for the project. The project is receiving funds from the Texas State Soil and Water Conservation Board and PCCD. See Attachment A for a listing of all attendees.

The conference commenced at 9:30 a.m., and Daniel Meyer welcomed attendees, made introductions, and provided a brief history of the project. Questions and Answers from the conference and site visit are listed in this Amendment #1 as well as photographs of Site 10.

DISCUSSION WITH CITY OF KYLE

Question: The City of Kyle Engineer, Mr. Jeff Prato, had asked about the work schedule during the Pie in the Sky Hot Air Balloon Festival?

Response: Mr. Prato stated the Pie in the Sky festival is planned for Labor Day weekend 2022 (Thursday thru Monday) adjacent to the construction site. Mr. Meyer, PCCD executive manager, indicated that Labor Day and the preceding Sunday would be a holiday in which there would be "no work" allowed.

Question: Will a traffic plan need to be submitted to the City of Kyle for approval?

Response: The City of Kyle Engineer stated that it was not necessary to submit a traffic control plan. As the Contractor is responsible for obtaining any required permit, it is advisable to confirm this with the City. He also suggested that it would be best if incoming traffic to Lehman Road and the construction site come from FM 150 (less residential) rather than from Bunton Lane.

ADMINISTRATIVE PRESENTATION

This material was presented by Jean Ann Maynard. Administrative matters not contained in the IFB along with items in the IFB that were emphasized are as follows:

General Information

Sign-In Sheet. Be sure you signed in.

The IFB was published on 9/2/21. Printed copies of the bid documents are not being distributed. If you want a copy of the Invitation for Bids (IFB) package, any future amendments to them, and the Plan Holder Registration Form, you must download the files from the PCCD website as stated in the Bid Notice.

Amendment No. 1 will be issued after this Site Showing. It will include today's meeting minutes, the questions/answers, an attendance list, and all pen-and-ink changes to the original bid package. All registered planholders will be advised by email when it is available online. In order to receive notification, you must submit a Plan Holder Registration Form. **Very important to register.** No hard copies of any Amendments will be mailed or emailed – you will need to download them from the District website.

Reminder: You must submit your acknowledgment of receipt of EACH Amendment (either on the Amendment cover sheet form or on bid form, Offer, Exhibit A). Failure to acknowledge receipt of an amendment may result in rejection of a sealed bid.

Performance Time (PT). Original time is 376 calendar days. Additional days will be added for eligible weather delays and any change orders that warrant more time, as needed. PT begins day after receipt of Notice to Proceed. The PT was computed to include 20 calendar days move-in time and working the maximum allowed workweek of 6 days per week, 10 hours per day. [*See Amd. #1 pen-and-ink change made to maximum workweek.]* It also includes Sundays and the holiday shutdowns listed in Part II, Article 20.

Sealed Bids are DUE (and will be publicly opened).
(a) Thursday, September 30: 10:00 AM
(b) Must hand carry or mail. No Fax or Telegraphic bids are allowed.
(c) NOTE: Deliver or mail bid to this PCCD office.

Engineer's Cost Estimate. This will NOT be disclosed until after bids have been opened. The Estimated Price Range is: between $5,000,000 and $7,000,000.

IFB/Contract Terms & Conditions. As a local contract, various requirements from Texas codes and statutes govern the basic contract. There is no Federal funding so there are no Federal clauses.

Instructions to Bidders (PART I – General Provisions, Subpart B)
Encouraged to ***carefully read***.

Section 2 – Conditions Affecting the Work. To view site (other than today) you need to make an appointment with Daniel Meyer and you must be escorted to the site with an authorized person. Note that no digging or taking of core samples will be allowed.

Section 3 – Bid Must Contain (Original + 1 copy) ***SEE Part I, Subpart C, Bid Forms***

(a) Exhibit A - Offer. Sign in ink (must have legal Authority to contractually bind the company).

(b) Exhibit B – Bid Schedule. Offer must be valid for minimum of 30 days.

(c) Exhibit C. References.

(d) Exhibit D – Bid Bond
  (i) Bid Guarantee: 5% of TOTAL bid price.
  (ii) Certified or cashier's check (responsible TX bank). --- OR ---
  (iii) Bid bond. (1) Must use Exhibit D form (original + 1 copy). (2) Must meet all Bid Bond Requirements for surety as stated in Section 8. READ THIS CAREFULLY. NOTE surety must be U.S. Treasury listed.

(e) Exhibit E – Bidder Certifications. Three sections you need to "circle" appropriate answer and write in surety information on one.

Section 4 – Preparation of Bid

(a) IFB documents and Plan Holder Registration Form must be obtained using the District website as outlined in the Public Bid Notice. Printed copies of the IFB packages are not available. The official printed hard copy shall take precedence over an electronic media copy. This official file hard copy of each IFB may be viewed at the PCCD office.

(b) Submit offer in DUPLICATE (original + 1 copy of all documents).

(c) Bidders are entitled to EXCLUDE exempted taxes in bid price. Contractor will be performing a contract for an exempt organization. The District will issue an Affidavit to the Contractor. Contractor must issue a Tax Exempt Certificate to each supplier. Contractor is responsible to know and follow all Texas Codes regarding this. [Details in Part II, General Conditions, Article 29]

(d) Bid Schedule (Exhibit B). One award will be made for the Total Bid Items (there are 2 pages). Failure to price each item in the Bid Schedule is a basis to reject bid.

Section 6 – Explanation to Bidders / Inquiries. NO verbal explanations or instructions given before award of the contract will be binding. ALL questions regarding the meaning or interpretation of any bid document must be submitted IN WRITING to Daniel Meyer (via Email or Fax is allowed). The deadline to submit written questions is noon on 9/21/21. If the answer requires interpretation of a bid document, it will be given in writing to all planholders via an Amendment to the IFB. Please send all inquiries through Daniel. If an Engineer's input is needed, he will do so [please don't contact Engineer Shane Ice directly].

Section 8 – Bid Bond Requirements. All bids require a bid guarantee in the amount of not less than 5% of Total Bid Price. Bonds must be on the form provided in the bid package.

Section 11 and 12 – Qualification/Disqualification of Bidders. Carefully note these requirements. In order to be awarded the contract, the low bid must meet two requirements. First, bid documents are reviewed to determine if the bid is "responsive"—meets essential elements of the IFB requirements. Then, the "responsibility" of the bidder is determined. Technical and financial references are carefully checked to ensure bidder is qualified, etc. These clauses list what will be considered in determining the "responsibility" of the bidder.

Section 20 – Records. This lists documents available at the PCCD office for viewing by interested parties. There is a large set of drawings along with a printed copy if the IFB package. There is also a copy of 2 Soil

Mechanics Reports and 2 Geologic Investigation Reports and the as-built plans from original dam construction, but those items are for your information and won't become a part of the awarded contract. All of these documents also are available to view/download at the PCCD website.

Anticipated Schedule / Contracting Procedure

Bid Opening (September 30): Publicly open sealed bids. Declare apparent low bidder and meet with their representative.

Issue Notice of Award. PCCD Board will meet on October 5 to approve award. Notice will be issued on October 6 or 7, if possible. You will have 5 workdays to submit your 1st post-award documents [See Part III – Supplemental Conditions, Article 4 for a LIST]. You are encouraged to review these now and be prepared to submit on time (or your bid security could be forfeited and the PCCD would move on to 2nd low bid).

2nd Post-award Documents. These will be requested at same time as Notice of Award and will be due about October 21 (such as construction schedule, safety plan, etc.).

The Preconstruction Conference, will be held about October 27. If everything is in order, the Notice to Proceed will be issued on Monday, November 1 and Day #1 of performance time would be Nov. 2.

General Conditions (PART II)

Exceeding Time in Contract [Article 5]. If you do not complete work within performance time and it is deemed in best interest of District to allow Contractor to complete the work (vs. terminate for default), will assess actual damages. NO liquidated damages clause.

Actual damages will not be assessed for lost revenue and/or taxes. Actual damages will be based upon the additional costs incurred by the Contracting Local Organization (CLO) and the Grantor Agency (Texas State Soil and Water Conservation Board) resulting from the Contractor not completing the work within the allowable performance period. These costs include but are not limited to personnel costs (Inspector, Engineer, Contracting Officer and related personnel), travel costs (lodging, per diem, mileage, etc.), additional supplies, etc. Your bonding company can contact the District if it has additional questions about this clause.

The clause also allows for an extension of performance time (without terminating the Contractor's right to proceed or charging Contractor with actual damages) if a delay in completion of the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Note that TIME only is allowed (no costs are allowed).

Per current conditions, a segment entitled "Delays Due to COVID-19" is included in this clause. PCCD shall follow guidelines of OSHA, CDC, and TX Department of State Health Services in determining if/when work would need to be suspended and resumed. Each incident will be handled on a case-by-case basis and will consider guidelines in effect at that time.

Payments / Invoicing Requirements [Article 7]. Progress payments will be made monthly. Per Texas Water Code, District shall retain 10 percent of progress payments on the first 50 percent of work completed (without paying interest). Please note that the payment due date for the District is within 45 days of receipt of "proper" invoice. The District will strive to pay sooner than 45 days if possible.

Per paragraph (h), Contractor and Subcontractors must follow TX Government Code 2251 rules for paying others for goods, services, etc. related to performing the work.

Superintendence [Article 10]. Must have full-time superintendent acceptable to CO. You will be asked to propose an Alternate superintendent for approval so that you have a backup in place to serve in the absence of the regular superintendent.

Permits and Responsibilities [Article 11] and Other Contracts [Article 13]. The Contractor is responsible to determine all Federal, State, and municipal laws, codes and regulations that apply to this project and comply with them. Also, Contractor is required to obtain all necessary licenses and permits at own

expense. The Contractor is responsible for all materials delivered and work performed until completion and acceptance of the entire construction work.

Real Property Rights [Article 16].

(a) The District has acquired all landrights to perform the work and the Construction Work Limits are shown on the drawings.

(b) Contractor shall obtain owner's advance written approval if he/she plans to enter, remove, or otherwise make use of adjacent property, roads, utility lines, fences, and other improvements not included within the real property rights provided by the Contracting Local Organization. A copy of the written approval must be submitted to the Contracting Officer. Any associated costs are Contractor's responsibility. Any changes to items already designated in the contract (e.g., site entrance, campsite, etc.) must be approved by the Contracting Officer at his sole discretion.

Water [Article 19]. Contractor is responsible to provide and maintain at own expense an adequate supply of water needed to perform the work. Contractor must locate and arrange for adequate water source(s) and obtain any required permits to take/use water and a copy of those permits will need to be submitted to the Contracting Local Organization.

Workweek - Construction Schedule [Article 20].

(a) Requires written schedule prior to commencement of work (CO must approve).

(b) Maximum Work Week: Monday – Saturday (10 hours per day). *(See Amd. #1 pen-and-ink change.)*

(c) Work may be performed during daylight hours only.

(d) Holidays: Project will be shut down (and days are included in the performance time) for dates specified in this clause. The clause also lists dates for holidays/breaks where no work will be allowed if/when performance time extends beyond the original performance time.

Subcontractors [Article 21]. All require CO written approval (prior to signing a subcontract).

Surveys [Article 22], Shop Drawings [Article 30], and Layout of Work [Article 35]. Some general information. AECOM will discuss contract requirements more thoroughly in his technical presentation.

Suspension of Work [Article 23]. Contractor is eligible to recover damages for any unreasonable delays as specified in this clause. Includes additional performance time and damage costs (excluding profit).

Weather [Article 26]. PT does not include any adverse weather delays. PT will be extended if warranted by weather or its effects. Allows TIME only (not costs or damages).

Quantity Variations [Article 28]. 25% clause for estimated quantities in bid schedule. Variations within 25% are paid at the bid price and there is no adjustment in performance time. If variation exceeds 25% (over or under), the contract price/time is equitably adjusted for the quantity that exceeds 25% (over or under). [This differs from Article 3 regarding "Changes". If any new work is added to the contract (or any work is deleted), this is not a Quantity Variation and Contractor is entitled to an equitable adjustment in the contract price and performance time.]

Accident Prevention and Safety [Article 41]. Includes Supplement to OSHA regulations with many requirements. Shane Ice will cover later. VERY important – will monitor and enforce safety.

Supplemental Conditions (PART III)

Insurance Requirements [Articles 1-3]. Read carefully. Due 5 workdays after receipt of Notice of Award. If approved subcontractors are not covered on prime contractor's insurance policies, proof that subcontractor carries the same types/levels of coverage is required. NOTE that most policies require District to be listed as additional named insured and all policies must include a waiver of subrogation.

Post-Award Information [Article 4]. Lists items you must submit within 5 workdays after receipt of Notice of Award. Be prepared to do this!

Performance of Work [Article 5]. The prime contractor must perform at least 20% of work with own forces.

Commencement, Prosecution, and Completion of Work [Article 6]. You must commence work within 20 calendar days of date you receive written Notice to Proceed (mobilization does not qualify).

Wage Rates [Article 8]. Because construction, must pay prevailing wage rates for laborers and mechanics. Rates in PART VI. Weekly certified payrolls are not required.

Ethics / Conflicts of Interest [Article 9]. Per State requirements, Contractor will be required to complete online Form 1295, Certificate of Interested Parties.

Performance/Payment Bonds [Article 13]. Gives specific requirements. (a) Due 5 workdays from date receive Notice of Award. (b) Penal sum: 100% of contract award price.

Special State Requirements [Articles 14 & 15]. Covers EEO and debarment and suspension.

TECHNICAL PRESENTATION

This material was presented by AECOM Design Engineer Luis Alday and Project Engineer Bobby Mengden. Technical matters not contained in the IFB and additional items emphasized are as follows:

SECTION II – GENERAL CONDITIONS

Article 8 – Material and Workmanship
Certificates and test data shall be submitted to show compliance of materials and construction equipment specified in the contract requirements. Materials or equipment for which samples, certifications or test data are required shall not be used in the work until approved in writing by the Project Engineer (PE) with copies to the Contractor and Contracting Officer.

Article 18 – Materials to be Furnished by the Contractor
Materials which require material certifications are:

- Aggregates for Drainfill and Filters
- Aggregates for Portland Cement Concrete Aggregates for Roller Compacted Concrete Rock for Riprap
- Portland Cement
- Supplementary Cementitious Material
- Chemical Admixtures for Concrete Concrete Curing Compound
- Preformed Expansion Joint Filler Sealing Compound for Joints in Concrete and Concrete PipeNonmetallic Waterstops
- Steel Reinforcement (For Concrete) Reinforced Concrete Pressure Pipe
- Ductile Iron Pipe
- Plastic Pipe
- Slide Gate
- Metal (Principal Spillway Metal Work, Rodent Guard, Cleanout Cover, Mounting Brackets, Stile)
- Galvanizing
- Field Fencing materials
- Silt fence/Geotextile
- Vegetative establishment materials
- Chain Link materials

Article 41 – Accident Prevention and Safety & Supplement to OSHA Part 1926 and 1910 Construction Industry Standards and Interpretations

The Contractor shall comply with all applicable OSHA safety standards. All or part of the work may be suspended for noncompliance. The PE and Inspector will have delegated authority to suspend work for

any noncompliance posing a serious or imminent danger to the health or safety of the Contractor's employees or others such as employees of the CLO or AECOM and the public.

The Supplement to OSHA 1910 and 1926 emphasizes specific safety items which must be understood by the Contractor prior to bidding this job. Among these items are the requirements for:

1. Written plan for accident prevention and safety (CO must approve prior to beginning work)
2. First Aid Training certificates
3. First aid facilities – on site
4. Safety Meetings, weekly "tool box" and monthly
5. Dust control
6. Rollover protective structures
7. Backup alarms
8. Restroom Facilities
9. Scaffolding and Fall Protection

Hard hats must be worn on the job site at all times.

Equipment must be outfitted with working backup alarms, seat belts, and approved roll-over protective structures (ROPS). All equipment will be inspected at the job site by the Construction Inspector prior to use on the project.

DRAWINGS

Drawing, Cover + Sheets 1 thru 71 for Plum Creek Site 2 were reviewed.

SECTION IV – SPECIFICATIONS

There are two types of specifications in this contract: (1) Construction Specifications and (2) Material Specifications. The construction specifications are composed of two parts. The first part is called the closed specification and is the standard NRCS construction specification that begins with the SCOPE and ends with MEASUREMENT AND PAYMENT or PAYMENT. The second part is called the open specification and consists of the ITEMS OF WORK AND CONSTRUCTION DETAILS that are written specifically for this job.

The following construction specifications are summarized, in part, to aid in preparing a competitive bid. However, all language of the specifications apply to the contract.

2 – CLEARING AND GRUBBING

Bid Item 1, Clearing and Grubbing

This item shall consist of all clearing and grubbing and disposal within the work limits. The actual limits of required clearing and grubbing will be as designated or staked at the time of the showing the site to prospective bidders. The entire area shall be reasonably free of abrupt mounds, dips and windrows to provide a clear area for construction staking.

Disposal, all materials removed from the cleared and grubbed areas shall be chipped and used on-site for mulch, or disposed of at an offsite disposal area of the Contractor's own choosing in accordance with state and local regulations, or buried at areas designated or approved by the Engineer. Buried material shall have a minimum earthfill cover of not less than 2 feet. The finished surface of the disposal area shall be uniformly graded to prevent ponding of water.Compensation for this item is to be included in **Bid Item 1 – Clearing and Grubbing**.

3 – STRUCTURE REMOVAL

In Section 2, Marking, Method 1 shall apply. Disposal shall be at off-site locations in compliance with local codes.

In Section 6, Measurement and Payment, Method 2 shall apply.

Bid Item 2 – Structure Removal, Fences

This item shall consist of the removal and disposal of all designated fences in the construction area. The limits of fences to be removed shown on the drawings are approximate. Additionally, some fences may exist within the construction areas that are not delineated on the drawings. The actual limits of fences required to be removed will be marked on the site at the time of the showing of the site to prospective bidders.

In Section 3, Removal, Method 2 shall apply. The fences shall be removed to the bottom of the footing and/or post.

Bid Item 3 – Structure Removal, Existing Principal Spillway Inlet

This item shall consist of removing and disposing of the existing principal spillway inlet structure, specified segments of the existing reinforced concrete pipe, concrete cradle, and removing and disposing of all miscellaneous metalwork and equipment including, but not limited, to: concrete reinforcement, metal grating, and trash racks.

The existing principal spillway conduit shall be used for dewatering and shall remain open until the new principal spillway system, including inlet, conduit, impact basin, and outlet channel are constructed and fully operational, and the dam is reconstructed to the full design cross-section over the conduit.

In Section 3, Removal, Method 1 shall apply. The limits of removal shall be as shown on the drawings.**5**

5 – POLLUTION CONTROL

This construction site is greater than five (5) acres in area and is subject to the Texas Pollutant Discharge Elimination System (TPDES) requirements administered by the Texas Commission on Environmental Quality (TCEQ). Rules for the TPDES process relative to construction sites are contained in the TPDES General Permit NO. TXR150000. A copy of General Permit No. TXR150000 may be found at the TCEQ website.In conformance with TPDES General Permit TXR150000, a Storm Water Pollution Prevention Plan (SWP3) is required for the construction site. A SWP3 is provided. The Contractor shall review the SWP3, and shall amend the plan with a detailed work sequence outline which defines and delineates the proposed construction operation. The amended SWP3 shall be signed by the Contractor and submitted to the Contracting Officer prior to issuance of the Notice to Proceed. A copy of the approved SWP3, as amended, will be maintained at the construction site by the Contractor. A copy of the permit shall be attached to the SWP3. All applicable TCEQ rules and regulations concerning the TPDES and the SWPPP must be followed.

TPDES also requires an NOI and Notice of Termination (NOT) to be filed with TCEQ. The Contractor will be responsible for submitting the Contractor's copy of the NOI to the Engineer at least five business days before work begins. When the contract is completed, the Contractor shall provide the Project Engineer a copy of the NOT that he/she will file with the TCEQ.

Bid Item 4 – Pollution Control

This item shall consist of all works required to implement the Storm Water Pollution Prevention Plan, installation and maintenance of the rock filter dam, stabilized construction entrance and maintenance of sediment filters, but not the installation of the fabric sediment filters.

Rock filter dam and silt fence and shall be removed when the site is completely stabilized. The stabilized construction entrance shall remain in place at end of construction except remove the rock riprap and smooth and level the disturbed area.

In Section 7, Measurement and payment, Method 3 shall apply.

Bid Item 5 – Silt Fence

This item shall consist of furnishing and installing silt fence to the lengths and locations designated on the drawings and otherwise needed to control sediment from leaving the construction site.

In Section 3, Erosion and sediment control measures and works, Sediment filters shall be limited to geotextile sediment filters.

Silt fence material shall meet the requirements of MS 592 and installed according to ASTM D6462.

In Section 7, Measurement and Payment, Method 1 shall apply and will be made to the nearest linear foot installed as specified.

> Special Note: Payment includes providing and installing the sediment filters and not maintaining them. Maintenance falls under Bid Item 4 – Pollution Control.

6 – SEEDING, SPRIGGING, AND MULCHING

Bid Item 6 – Vegetation, Sprigging

This item shall consist of preparing the seedbed and furnishing and applying sprigs, straw mulch, tackifer and fertilizer to all areas on which topsoil is designated to be placed and other disturbed areas except those located below the lowest ungated outlet (elevation 640.4) on the upstream side of the dam.

Sprigs shall be Coastal Bermudagrass applied at 48 bushel or 60 CF per acre and be obtained from a source within a radius of 100 miles. Not more than 30 hours shall elapse between the initial harvest and planting of the sprigs. February 15 and May 1 sprigging window.

Straw mulch shall consist of coastal Bermudagrass or a native bluestem mix, be applied at a rate of 2 ½ tons per acre and be stabilized by a non-asphaltic tackifier.

Fertilizer shall be of the pelleted form and applied at a pure nutrient rate of 30lb (N) 40lb (P) 0lb (K).

In Section 6, Measurement and Payment, Method 1 shall apply and will be made to nearest 0.1 acre at the bid unit price.

Bid Item 7 – Irrigation System

This consists of furnishing and installing a temporary solid set sprinkler irrigation system to irrigate the sprigged areas.

A written proposed plan for the system shall be furnished 30 days prior to installing the system.

All equipment, operators, maintenance, operating supplies, and materials needed to install the system shall be furnished. In addition, an in-line, propeller type water meter with volumetric calibration shall be furnished so that all water applied for the irrigation of grasses under the contract will be metered.

The system shall be removed upon completion of all irrigation applications.

In Section 6, Measurement and Payment, Method 2 shall apply and will be made at the contract lump sum price.

Bid Item 8 – Irrigation Water

This item shall consist of applying irrigation water to the areas designated in this spec Section 7.a. as needed to irrigate the areas sprigged. It includes the cost of water and labor.

The Contractor shall obtain a source of water for irrigation and obtain any necessary use permits if required.

The watering efficiency shall not be less than 85% (uniform distribution).

In Section 6, Measurement and Payment, Method 1 shall apply and will be made at 1000-gallon units and measured to the nearest 1000 gallons based on the applied volume determined from the readings of an in-line water meter(s).

7 – CONSTRUCTION SURVEYS

Bid Item 9 – Construction Surveys

See IFB Amendment #1 for pen-and-ink changes made to this specification.

In Section 5, Construction surveys, Method 2 shall apply. Earthfill and excavation slopes shall be checked and corrected to planned slope as work progresses. Finish grades of these surfaces shall be "bluetopped" at least at each 5-foot vertical interval.

The Contractor must submit to the CO in writing the names, qualifications and experience of the surveyor personnel for approval prior to commencement of work. The Contractor is responsible for the layout of all the work and for checking all work.

In Section 7, Records, the original field notebooks and other records shall be provided to and become the property of the owner before final payment and acceptance of all work.

In Section 8, Payment, Method 2 shall apply with payment made as the work proceeds with progress payment amounts determined as a percentage of the total work planned as projected from the Contractor’s approved construction schedule.

Initial and final surveys for determinations of final quantities will be performed by the Contracting Local Organization (CLO). All surveys shall proceed from benchmarks; reference points and/or stakes set or established by the CLO. The benchmarks are shown on the drawings.

8 – MOBILIZATION AND DEMOBILIZATION

Bid Item 10 – Mobilization and Demobilization

Primary access to the work area shall be off of Lehman Road as shown on the drawings. Road base or rock, approved by the Contracting Officer, shall be placed on the access road from Lehman Road to the construction campsite. The access road shall be a minimum of 14 feet wide and be graded and smoothed to provide a surface which can be easily traversed by automobiles. The road shall be maintained in a smooth rut-free condition throughout the contract period. A Stabilized Construction Entrance shall be built as shown on the drawings. The Stabilized Construction Entrance shall be constructed without modification to the existing curb on Lehmann Road. Any damage to the existing curb shall be reconstructed per City of Kyle Public Works requirements including but not limited to sawcut asphalt and concrete curb and full reconstruction matching the existing construction. Grading of Stabilized Construction Entrance shall not impede the drainage on the shoulders of Lehmann Road. Any existing culverts within 100 feet upstream and downstream of the Stabilized Construction Entrance along Lehmann Road shall be protected and maintained to pass stormwater flows.

As a part of this bid item the Contractor shall furnish a facility at the construction campsite suitable for use as a Field Office for the Contracting Local Organization. The facility shall contain not less than 240 square feet (8-ft-wide by 30-ft-long) having a minimum 7-ft-high ceiling. The facility shall meet all additional requirements contained within this specification. The facility shall be securely anchored or tied-down to provide maximum possible stability against overturning by high winds.

The facility shall be enclosed by a 6-ft-high chain link fence placed to provide a minimum of 6 feet clearance between the fence and the outside walls of the facility. One gate 4 feet in width shall be installed in the fence.

The Contractor shall furnish and install electrical service to the facility. The electrical service provided shall meet the requirements of the latest National Electric Code for providing electric service to the construction trailer. The service shall be adequate to address all anticipated electrical loads and meet the minimum voltage and amperage requirements indicated by the selected trailer and recommended by the trailer manufacturer. If a portable generator is used to supply electrical power, the Contractor shall be responsible for the complete operation and maintenance of the generator.

The facility and all utilities shall be in place at the worksite prior to the start of work requiring continuous inspection and no later than 15 days after receipt of the Notice to Proceed. Recreational Facilities including but not limited to buildings, foot paths, playgrounds and fishing docks are located in the vicinity of the construction work area. Contractor shall protect Recreational Facilities and in case of damage restore them into as-new condition.

As part of demobilization, All debris, trash, tires, equipment, equipment parts, chains, cables, and other such items resulting from the construction operation shall, at the Contractor's expense, be removed from the work site and be salvaged by the Contractor, or disposed of in an appropriate manner which meets all Federal, State and Local Regulations. All disturbed areas shall be bladed or smoothed to blend the area with the surrounding land surface. The bladed or smoothed surface shall be free of abrupt mounds, windrows, depressions or other irregularities that would prevent the safe operation of ordinary farm equipment thereon. The finished surface shall prevent diversion of surface runoff and shall prevent standing or ponding water. All traffic control devices, warning signs, barricades and any other material used for traffic control shall be removed. All buildings, trailers, chain link fence, storage sheds, sanitary facilities and other such items shall be removed from the worksite when construction work is completed. All utilities shall be removed from the site as required by the owner of the utility after construction work is completed. The access road shall be bladed to be smooth and shall be left in a rut-free condition. The road base/rock used on the access road shall remain in place for use by the landowner and the CLO. The Stabilized Construction Entrance shall be left in place at the end of construction with the exception of removing the riprap and smoothing and leveling the area disturbed.

9 – TRAFFIC CONTROL

Subsidiary Item – Traffic Control

The Contractor shall furnish a written plan showing the proposed method of signing, barricading for traffic control, use of flaggers, etc. to be approved by the appropriate governmental authority, as well as this contract's Engineer.

Compensation for this item is to be included in **Bid Item 10 – Mobilization and Demobilization**.

11 - REMOVAL OF WATER

Bid Item 11 – Removal of Water

See IFB Amendment #1 for pen-and-ink addition to this specification.

Written sealed plans and specs for diverting surface waters and for dewatering the site are required. The Contractor's plans for diverting surface waters and dewatering the site shall be submitted to the Engineer prior to the start of construction operations. Use of a well-point system for dewatering the site shall be acceptable so long as the well-point system is designed and sealed by a Professional Engineer licensed in Texas.

The new principal spillway conduit installation area shall be protected from the entry of water from the reservoir until the dam is reconstructed to the full design cross-section over the conduit. Water will not be permitted to enter the new principal spillway conduit until the new principal spillway system, including inlet, conduit, impact basin, and outlet channel are constructed and fully operational.

A coffer dam shall be required to prevent transport of sediment from the reservoir and to protect the new principal spillway and RCC chute structure from reservoir water. It shall be designed complete with plans and specification, and sealed by a Professional Engineer licensed in Texas. The level of protection shall be the Contractor's choice and responsibility. The plans shall be submitted to the Engineer prior to start of construction operations.

The contractor shall provide dewatering capacity sufficient to maintain a water level which allows excavation in the borrow area to the grades specified on the drawings during periods of low flow. Additional dewatering capacity to draw the water level down to this level within 10 days shall be provided in the event of flooding which inundates the borrow area.

Excavation for installation of RCC chute, concrete outlet structure, and rock riprap lined outlet shall be kept free of water during placement of RCC, concrete, rock, and/or backfilling. The water table at a concrete structure location shall be kept 2 feet below the subgrade of the concrete during and for a minimum of 7 days after concrete placement or until backfilling around the concrete structure is complete, whichever is longer. The water table at a backfill or rock riprap location shall be maintained a minimum of 2 feet below the backfill/rock riprap surface until completion of fill placement activities in the area.

In Section 7, Measurement and payment, Method 1 shall apply. Payment will be made prorated into monthly amounts based on length of contract period.

21 - EXCAVATION

In Section 5, Use of excavated material, Method 1 shall apply. There is no guarantee that materials obtained from the specified excavations may be used directly in specified fill areas. Separate stockpiling of selected materials, based on their engineering properties, to ensure their availability for use in specific zones of fill areas may be required. Stockpiling shall be conducted within waste area and borrow area shown on the construction drawings or as approved by the Engineer.

In Section 6, Disposal of waste materials, Method 1 shall apply. The disposal of the excavated materials shall include transporting, depositing, and spreading the materials to and on the designated waste areas as shown on the drawings or as approved by the Engineer.

In Section 7, Excavation Limits, a qualified Representative of the Engineer will inspect all exposed subgrade surfaces upon which structures, drainfill, or embankment fill will be placed. The Representative shall conduct visual inspection and/or testing to confirm the subgrade is suitable for the intended design purpose, and if necessary, will direct the Contractor to perform additional overexcavation and replacement if conditions warrant.

In Section 9, Measurement and payment, Method 3 shall apply. The neat lines and grades shown on the drawings shall be considered the true surface of the completed excavation unless otherwise approved by the Engineer.

Bid Item 12 – Excavation, Common

This item shall consist of all excavation required for reconstruction of the embankment, including all wet excavation along the upstream slope and inlet channel; and installation of the new principal spillway riser,

48-inch I.D. principal spillway pipe, RCC spillway, vegetated auxiliary spillway, rock riprap lined principal spillway and auxiliary spillway outlet, and outlet channels as shown on the drawings.

Prior to performing designated excavations, the ground surface shall be stripped of vegetation and topsoil. The depth of this stripping shall be sufficient to remove soil containing significant vegetative or organic matter. The depth of stripping is estimated to be 12 inches, on average. The upper limit for pay limit determination (Method 3) shall be the ground surface as it exists prior to stripping the surface vegetation and topsoil.

Suitable materials resulting from the required excavations shall be used to construct the specified fills except materials suitable for topsoil shall be stockpiled at the location designated by the Engineer. Unsuitable materials shall be placed in the waste area shown on the drawings.

Subsidiary Item – Excavation, Common, Foundation Stripping

This item shall consist of removing weeds, grass, roots and soils containing significant vegetative or organic material from the ground surface (including any waste areas) prior to placing earthfill in required areas. The depth of stripping shall be sufficient to remove the vegetative material and soil containing significant organic matter and is estimated to be 3 to 12 inches (on average). The total required volume of stripping shall not exceed that obtained by assuming a depth of 6 inches.

Compensation for this item is to be included in **Bid Item 12 – Excavation, Common.**

Subsidiary Item – Excavation, Common, Borrow

This item shall consist of all excavation from within the borrow areas required to complete the specified earthfills as designated on the drawings. All excavated slopes within the limits of borrow areas shall be maintained to be no steeper than five horizontal to one vertical.

All borrow areas shall be maintained to provide positive drainage to natural and constructed drainage ways. Borrow areas shall be maintained to be contiguous with no berms, ridges or mounds remaining that extend more than two feet above the lowest point in adjacent borrow areas. All berms, ridges, and mounds shall be removed to meet this height limitation.

Separate payment will not be made for this item. Compensation for this item will be included in the payment for the respective bid items for Material Type C (**Bid Item 15 – Earthfill, Material Type C, On-site Fill)**, Material Type D (**Bid Item 16 – Earthfill, Material Type D, On-site Fill)** and Material Type E (**Bid Item 17 – Earthfill, Material Type E, On-site Fill)**, as appropriate.

Subsidiary Item – Excavation, Common, Drainfill, Fine Filter

This item includes all excavation, outside the limits of other designated excavation, required for the installation of the drainage systems as shown on the drawings.

Compensation for this item is to be included in **Bid Item 18 – Drainfill, Fine Filter.**

Subsidiary Item – Excavation, Common, Drainfill, Coarse Filter

This item includes all excavation, outside the limits of other designated excavation, required for the installation of the drainage systems as shown on the drawings.

Compensation for this item is to be included in **Bid Item 19 – Drainfill, Coarse Filter.**

Subsidiary Item – Excavation, Common, Concrete Structures

This item includes all excavation, outside the limits of other designated excavation, required for the installation of the principal spillway system and appurtenances including the principal spillway outlet structure.

Compensation for this item is to be included in **Bid Item 21 – Concrete, Structural; Bid Item 22 – Concrete, Pipe Cradle.**

Subsidiary Item – Excavation, Common, Rock Riprap and Riprap Bedding

This item shall consist of all excavation required for the installation of the rock riprap as shown on the drawings.

Compensation for this item is to be included in **Bid Item 28 – Rock Riprap; Bid Item 29 – Riprap Bedding.**

Subsidiary Item – Excavation, Common, Structure Removal

This item shall consist of all excavation required for removing the existing principal spillway intake tower and portions of the existing principal spillway conduit designated for removal, as shown on the drawings.

Compensation for this item is to be included in **Bid Item 3 – Structure Removal, Existing Principal Spillway.**

Subsidiary Item – Excavation, Common, Flexbase

This item shall consist of all excavation required for the installation of the flexbase as shown on the drawings .

Compensation for this item is to be included in **Bid Item 38 – Flexbase**.

23 - EARTHFILL

This item shall consist of all earthfill required for fill and backfill. Where embankment fill is placed against excavated and constructed slopes which have a gradient equal to or steeper than 5 horizontal to 1 vertical (5H:1V), the slope shall be benched such that the vertical height of each bench shall be approximately 1 foot with a horizontal width of no less than 2 feet. Benching shall extend beyond the limits of previously completed foundation excavation. The benched material shall receive the same compaction effort as the lift of fill that is placed adjacent to each bench.

All surfaces to receive fill shall be closely examined immediately prior to the placement of all earthfills and backfills. All materials that exhibit drying cracks, slaking, or other evidences of being unstable or unsuitable, shall be removed or reworked by scarification, wetting, and compaction to the affected depths prior to the placement of fill. Additional compensation will not be made for removing or reworking the foundation or fill materials to meet the requirements herein specified.

In Section 9, Measurement and payment, Method 4 and 6 shall apply.

Bid Item 13 – Earthfill, Material Type A, Imported Fill

This item shall consist of all fill and backfill necessary for the completion of the embankment adjacent to RCC Spillway as shown on the drawings. This item shall include all costs required to locate off-site borrow source, to verify that material meets specifications and to supply material to the project site.

In Section 6, Compaction, Class A compaction shall apply. In-place dry density of materials being placed shall not be less than specified on the drawings during tests performed in accordance with the procedures contained in ASTM D698 (Laboratory Compaction Characteristics of Soil Using Standard Effort) using Method A or B, as appropriate. Moisture at the time of compaction shall be as shown on the drawings as determined from the above test. The moisture content of the materials being placed shall be adjusted as necessary to meet these requirements.

The foundation on which earthfill is to be placed that has not had previous excavation performed shall be properly prepared as outlined in Section 3 of this specification.

Bid Item 14 – Earthfill, Material Type B, Imported Fill

This item shall consist of all fill and backfill necessary for the completion of the embankment under the RCC spillway as shown on the drawings. This item shall include all costs required to locate off-site borrow source, to verify that material meets specifications and to supply material to the project site.

In Section 6, Compaction, Class A compaction shall apply. In-place dry density of materials being placed shall not be less than specified on the drawings during tests performed in accordance with the procedures contained in ASTM D698 (Laboratory Compaction Characteristics of Soil Using Standard Effort) using Method A or B, as appropriate. Moisture at the time of compaction shall be as shown on the drawings as determined from the above test. The moisture content of the materials being placed shall be adjusted as necessary to meet these requirements.

The foundation on which earthfill is to be placed that has not had previous excavation performed shall be properly prepared as outlined in Section 3 of this specification.

Bid Item 15 – Earthfill, Material Type C, On-site Fill

This item shall consist of all fill and backfill necessary for the completion of the interior zone of the embankment as shown on the drawings.

In Section 6, Compaction, Class A compaction shall apply. In-place dry density of materials being placed shall not be less than specified on the drawings during tests performed in accordance with the procedures contained in ASTM D698 (Laboratory Compaction Characteristics of Soil Using Standard Effort) using Method A or B, as appropriate. Moisture at the time of compaction shall be as shown on the drawings as determined from the above test. The moisture content of the materials being placed shall be adjusted as necessary to meet these requirements.

The foundation on which earthfill is to be placed that has not had previous excavation performed shall be properly prepared as outlined in Section 3 of this specification.

The Item of work subsidiary to this bid item is Excavation, Common, Borrow, as specified in Construction Specification 21.

Bid Item 16 – Earthfill, Material Type D, On-site Fill

This item shall consist of all fill and backfill necessary for the completion of the outer zone of the embankment as shown on the drawings.

In Section 6, Compaction, Class A compaction shall apply. In-place dry density of materials being placed shall not be less than specified on the drawings during tests performed in accordance with the procedures contained in ASTM D698 (Laboratory Compaction Characteristics of Soil Using Standard Effort) using Method A or B, as appropriate. Moisture at the time of compaction shall be as shown on the drawings as determined from the above test. The moisture content of the materials being placed shall be adjusted as necessary to meet these requirements.

The foundation on which earthfill is to be placed that has not had previous excavation performed shall be properly prepared as outlined in Section 3 of this specification.

The Item of work subsidiary to this bid item is Excavation, Common, Borrow, as specified in Construction Specification 21.

Bid Item 17 – Earthfill, Material Type E, On-site Fill

This item shall consist of all fill and backfill necessary for the completion of the vegetated auxiliary spillway as shown on the drawings.

In Section 6, Compaction, Class A compaction shall apply. In-place dry density of materials being placed shall not be less than specified on the drawings during tests performed in accordance with the procedures contained in ASTM D698 (Laboratory Compaction Characteristics of Soil Using Standard Effort) using Method A or B, as appropriate. Moisture at the time of compaction shall be as shown on the drawings as determined from the above test. The moisture content of the materials being placed shall be adjusted as necessary to meet these requirements.

The foundation on which earthfill is to be placed that has not had previous excavation performed shall be properly prepared as outlined in Section 3 of this specification.

The Item of work subsidiary to this bid item is Excavation, Common, Borrow, as specified in Construction Specification 21.

Subsidiary Item – Earthfill, Structure Removal

This item shall consist of earthfill as required to backfill to original or existing adjacent grades the overexcavations required for removing the existing principal spillway intake tower and portions of the existing principal spillway conduit designated for removal, as shown on the drawings.

Compensation for this item is to be included in **Bid Item 3 – Structure Removal, Existing Principal Spillway**.

24 - DRAINFILL

The work consists of furnishing, placing, and compacting drainfill required in the construction of structure drainage systems.

In Section 2, Material, Method 1 shall apply. The percentage of drainfill materials that is finer than the No. 200 U.S. Standard Sieve Size (0.074 millimeter) shall be as shown on the drawings when determined in accordance with the procedures contained in ASTM C117.

In Section 5, Control of moisture, Fine Filter drainfill shall be in wet or near saturated condition when placed. Each layer of Fine Filter drainfill shall be saturated immediately prior to compaction. No control of moisture is required for Coarse Filter drainfill.

In Section 6, Compaction, for Fine Filter drainfill, Class A compaction with the following exceptions shall apply:

The compacted dry density shall be a minimum of 98% of the maximum dry density as determined by the method in ASTM D698.

The ASTM D698 test procedure shall be modified to consist of a 1-point test performed on a representative sample of oven-dried drainfill. The procedure shall be repeated three times to obtain an average value for the maximum dry density.

Compaction shall be achieved using a suitable vibratory compactor.

In Section 6, Compaction, for Coarse Filter drainfill, Class I compaction shall apply.

In Section 8, Measurement and payment, Method 1 shall apply. A deduction in volume will not be made for embedded conduits.

Bid Item 18 – Drainfill, Fine Filter

This item shall consist of furnishing and installing fine-graded filter material required for the principal spillway filter diaphragm, impact basin drain and filter, the filter blanket for the RCC auxiliary spillway and the filter diaphragm for the decommissioned existing principal spillway conduit.

Fine filter shall be placed in such a manner as to prevent segregation of particle sizes.

Bid Item 19 – Drainfill, Coarse Filter

This item shall consist of furnishing and installing coarse-graded filter material required for the impact basin drain and filter, and the filter blanket for the RCC auxiliary spillway.

Coarse filter gradation requirements are shown on the drawings.

Coarse filter shall be placed in such a manner as to prevent segregation of particle sizes.

Bid Item 29 – Riprap Bedding

This item shall consist of furnishing and installing bedding material required beneath riprap as shown on the drawings.

Riprap Bedding shall be placed in such a manner as to prevent segregation of particle sizes.

Bid Item 38 – Flexbase

This item shall consist of furnishing and installing Flexbase (Flexible Base) material Texas Department of Transportation (TxDOT) Item 247 required beneath Principal Spillway Inlet and Impact Basin as shown on the drawings.

Flexbase aggregate shall be Type A, Grade 1-2 as per TxDOT Item 247 Table 1. Flexbase shall be placed in such a manner as to prevent segregation of particle sizes.

Flexbase shall be placed in maximum loose lift thickness of 9 inches.

Flexbase shall be compacted to a minimum of 100% of maximum dry density per ASTM D698. Compaction moisture shall be between -2% and +2% of optimum moisture per ASTM D698.

26 - TOPSOILING

Bid Item 20 – Topsoiling

This item shall consist of salvaging of approved topsoil from required excavations; from the stripping operations; and from borrow areas and placing and spreading it on all designated earthfills, waste areas, and exposed excavated slopes as indicated on the drawings. The depth of topsoil for the embankment earthfills, subsidiary earthfills, and waste areas shall be 12 inches normal to the slope. The depth of topsoil for exposed cut slopes in the outlet channel, as well as exposed cut slopes for the embankment subgrade, shall be 6 inches.

In Section 3, Furnishing, Method 1 shall apply. Topsoil shall be salvaged from designated surfaces that will be disturbed by construction activities.

In Section 5, Spreading, Method 1 shall apply. Spreading shall not be conducted when the ground or topsoil is frozen, excessively wet, or otherwise in a condition detrimental to uniform spreading operations. Surfaces designated to receive a topsoil application shall be lightly scarified just before the spreading operation.

In Section 6 – Measurement and Payment, Method 1 shall apply and computed to the nearest square yard.

31 – Concrete for Major Structures

In Section 3, Concrete mix design, Method 1 shall apply. All concrete shall equal or exceed Class 4000.

In Section 13, Construction joints, Method 1 shall apply.

In Section 24, Measurement and payment, Method 1 shall apply.

Bid Item 21 – Concrete, Structural

This item shall consist of furnishing and placing all concrete required for construction of the concrete principal spillway inlet and outlet structure, and the auxiliary spillway concrete baffle blocks, stilling basin end sill, and upstream and downstream cut off walls, as shown on the drawings.

All concrete surfaces that will be exposed to air and water shall be finished by a complete carborundum stone rubbing or by treatment with a Builder Solutions (Engineer to approve coating material). Many additional requirements are stated in the specification.

Bid Item 22 – Concrete, Pipe Cradle

This item shall consist of furnishing and placing all concrete required for the construction of the principal spillway conduit cradle as shown in the construction drawings .

34 – STEEL REINFORCEMENT

Bid Item 23 – Reinforcing Steel

This item shall consist of furnishing and placing all steel reinforcement required for the construction of all reinforced concrete works under this contract.

In Section 5, Splicing bar reinforcement, Method 1 shall apply.

In Section 7, Placing, if during the placement of the concrete any reinforcement is displaced more than ½ inch from its designated position, that reinforcement shall be entirely removed and placed in proper position. Inspection and approval of the reinforcement by the Engineer will not relieve the Contractor of the responsibility of ensuring the reinforcement is held in place and is not displaced during the placement of the concrete.

In Section 9, Measurement and payment, Method 1 shall apply.

36 – ROLLER COMPACTED CONCRETE

This item shall consist of furnishing all materials, tools, equipment, and mixing plant and performing all labor for the mixing, transporting, forming, placing, compacting, and curing of roller compacted concrete (RCC) as required to install the structure(s) as shown on the drawings .

In Section 5, RCC mix design, the minimum compressive strength shall be 3000 psi at 28 days.

In Section 6, Test section, the location of the test section shall be the floor of the stilling basin as shown in the drawings.

In Section 10, Weather, Hot weather placement, the maximum temperature of the RCC at time of placement shall be 85ºF.

In Section 11, Foundation preparation, the earthen foundation upon which RCC will be placed and has not been previously compacted shall be compacted with four (4) complete passes of the compacting equipment. The final excavated surface of the foundation area shall be examined and approved by the Engineer prior to placement of any RCC.

In Section 15, Lift joints, Treatment Method I shall be used for fresh joints, intermediate joints and cold joints throughout the entire structure.

In Section 17, Vertical surfaces, the Contractor shall provide a written plan for constructing the specified vertical surfaces to the Contracting Officer for approval 60 days prior to start of construction of Vertical surfaces.

Bid Item 24 – Roller Compacted Concrete (RCC)

This item shall consist of furnishing and placing all roller compacted concrete (RCC) required for the construction of the RCC auxiliary spillway as shown on the drawings.

The Contractor shall provide a drawing showing the layout of the mixing plant for the RCC. The layout shall be located on-site within the work limits designated on the drawings. The drawing shall designate a temporary disposal area(s) for segregated or contaminated aggregates; non-uniform, initial batch mixes; and/or rejected RCC materials as required in Section 2, Section 8, and Section 20. Prior to construction completion, the materials in these temporary area(s) shall be removed and disposed of at an off site location in compliance with state and local laws. All state and local laws pertaining to mixing or batching plants shall be adhered to.

The RCC auxiliary spillway shall be constructed in 12-inch-thick lifts (after compaction).

The Contractor shall remove and replace damaged or defective RCC. The Engineer will determine the required extent of removal, replacement or repair and advise the Contractor, in writing, of this determination. Approval of the Contractor's repair shall not be considered a waiver of Engineer's right to require complete removal of defective work if the completed work does not produce RCC of the required quality and appearance.

Bid Item 25 – Cementitious Material

This item shall consist of furnishing and handling the cement and pozzolan required for the production of RCC required for the auxiliary spillway..

41 – REINFORCED CONCRETE PRESSURE PIPE

Bid Item 26 – Concrete Pressure Pipe, C301, 48" ID

This item shall consist of furnishing and installing the 48-inch I.D. conduit for the new principal spillway as shown on the drawings..

As indicated on the drawings, the pipe conduit shall meet the specified requirements of AWWA C-301 and MS 541.

In Section 3, Laying the pipe, Method 1 shall apply. The joint shall be connected by sliding the bell over the spigot or by sliding the spigot into the bell and applying a pulling or jacking force in a manner that will allow the spigot to enter squarely into the bell.

In Section 5, Pressure testing, Method 1 shall apply. Pressure testing of the completed conduit is not required.

In Section 6, Measurement and payment, Method 2 shall apply. The quantity of each size, type, and class of pipe is determined as the sum of the nominal laying lengths of the pipe sections used.

45 – PLASTIC PIPE

Bid Item 27 – Plastic Pipe, PVC 6" I.D.

This item shall consist of furnishing and installing the 6-inch diameter slotted and non-perforated PVC and the 6-inch diameter ductile-iron pipes along with all necessary fittings, couplings, and all other items and appurtenances necessary and incidental to completion of the work including but not limited to excavation, pipe bedding, backfill, earthwork and protection for outlets, as shown on the drawings. The item also consists of all 6-inch I.D. plastic pipe required for the principal spillway drainage system, RCC underdrains, foundation toe drains and principal spillway filter diaphragm outlet pipe as shown on the drawings.

In Section 2, Material, the P.V.C. plastic pipe shall be either AWWA C900, pressure class 150; ASTM D1785, Schedule 80; or ASTM D2241, SDR 17.

In Section 6, Pipe embedment, earth bedding and pipe encased in drainfill shall apply. In addition to the details stated in Section 6 for bedding of P.V.C. pipe, the bedding shall be as shown on the drawings.

In Section 7, Backfill:

a. Initial backfill of P.V.C. pipe shall be as shown on the drawings and as specified in Section 6, Pipe embedment.

b. Final backfill of P.V.C. pipe shall be as shown on the drawings and as specified in Section 6, Pipe embedment.

c. Compaction of the initial and final backfill shall be as specified in Construction Specification 24 for drainfill and Construction Specification 23 for earth backfill.

In Section 10, Fittings, fittings shall be P.V.C. and shall have a design pressure rating and external load-carrying capacity equal to or exceeding that specified for the pipe to which it is attached. P.V.C. fittings shall be one-piece injection molded or fabricated from P.V.C. pipe and one-piece injection molded P.V.C. fittings.

In Section 12, Pressure testing, Method 1 shall apply.

In Section 13, Measurement and payment, Method 3 shall apply. The quantity of each kind, size, and class of pipe is determined to the nearest foot by measurement of the laid length along the crown centerline of the conduit.

In Material Specification 547, Section 3, Perforations, item c. shall not apply. Slotted pipe shall be used. Slot dimensions and geometry shall be as shown on the drawings.

53 – DUCTILE-IRON PIPE

Subsidiary Item – Ductile-Iron Pipe

This item shall consist of furnishing and installing the two, ten (10) feet long, 6-inch I.D. ductile-iron pipes as the termination for the 6-inch I.D. P.V.C. filter diaphragm drain outfall line as described in the drawings.

Separate payment will not be made for this item of work. Compensation for this item is to be included in **Bid Item 27 – Plastic Pipe, PVC 6” I.D.**

61 – ROCK RIPRAP

Bid Item 28 – Rock Riprap

This item shall include furnishing and placing the rock riprap to construct the upstream wave protection, rock lined principal spillway outlet channel, rock lined auxiliary spillway outlet channel, the rock scour apron upstream, and the scour pad on the sides of the RCC auxiliary spillway as shown on the drawings.

Rock for use as riprap shall comply with the requirements of Material Specification 523, Rock Type 1.

The gradation requirements for rock placed at each location are shown on the construction drawings.

Riprap delivery shall be made only during scheduled working hours. See the spec for requirements for sample load and other requirements.

Riprap may be equipment placed. Placement shall be accomplished by equipment capable of controlling the drop. The maximum drop is 3 feet and shall avoid damage to the geotextile. Equipment shall not be allowed on the rock during or after placement.

In Section 7, Measurement and payment, Method 1 shall apply and is computed to the nearest ton by actual weight. A statement of delivery ticket showing the weight to the nearest 0.1 ton is required.

71 – WATER CONTROL GATES

Bid Item 30 – Water Control Slide Gate, 12” x 12”

This item shall consist of furnishing and installing the 12" x 12" slide gate on the principal spillway inlet including the wall thimble, gate, stem, stem guides, lift pedestal, hand wheel, wedges, and all associated appurtenances.

The gate shall conform to the requirements of Material Specification 571 for Type MHS-2, and shall be Class 55-20, Square Opening.

Anchor bolts shall be stainless steel.

The gate frame shall be of the flat back or flange back type.

The gate stem shall be the rising type and shall be stainless steel and be of sufficient diameter as recommended by the manufacturer to withstand the thrusts encountered in operation of the specified type and class gate.

Stem guides shall be adequately spaced and of sufficient number as recommended by the manufacturer to properly support the stem during operation of the gate.

The wall bracket shall be as recommended by the manufacturer.

Hoist or lift shall be of the handwheel type as recommended by the manufacturer.

The gate shall be designed to operate satisfactorily at any degree of opening.

The wall thimble shall be of cast iron and shall be Type F, 12 inches in length and shall have a square opening.

All bolts shall be furnished with flat washers and lock washers or with flat washers and double nuts for lock nuts. All washers and nuts shall be of the same materials and have the same coatings as the bolts on which applied.

Payment for furnishing and installing each type, size, and class of gate shall be made at the contract unit price for that type, size, and class of gate. Such payment constitutes full compensation for all labor, equipment, material, and all other items necessary and incidental to the completion of the work including furnishing and installing anchor bolts and all specified appurtenances and fittings.

81 – METAL FABRICATION AND INSTALLATION

Bid Item 31 – Metal Fabrications

This item shall consist of furnishing, fabricating, and installing metal works for the Trash rack for the new principal spillway inlet; Manhole frame and cover for the new principal spillway inlet; Metal frames and covers for the RCC drainage system cleanouts, including concrete completion; Rodent guards for drain outfalls through principal spillway impact basin and outfalls on RCC spillway.

All metal parts shall be galvanized after fabrication, with the exception of the manhole and cleanout frames and covers and any stainless steel hardware.

See Spec 81 for additional requirements for these items.

In Section 6, Measurement and payment, Method 1 shall apply. Payment for this bid item shall include full compensation for the concrete required for the foundation cleanout covers as shown in the construction drawings.

Subsidiary Item, Fence Stiles

This item shall consist of furnishing, fabricating, galvanizing, and installing the fence stile as shown on the drawings.

Compensation for this item is to be included in **Bid Item 33 – Fence, Barbed Wire**

Subsidiary Item – Chain Link Fence Post Base Plates

This item shall consist of furnishing, fabricating, galvanizing, and installing the chain link fence post base plates as shown on the drawings..

Compensation for this item is to be included in **Bid Item 32 – Fence, Chain Link**

91 – CHAIN LINK FENCE

Bid Item 32– Fence, Chain Link

This item shall consist of furnishing all materials required and all work necessary for installation of the chain link fence for the principal spillway impact basin and auxiliary spillway sidewalls as shown on the drawings.

In Section 2, Material, chain link fence fabric shall be Galvanized only and not PVC coated.

Contractor shall have been in fence installation business for at least 2 years and shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

In Section 5, Measurement and Payment, Method 1 shall apply. The length of fence is measured to the nearest 0.1 foot along the fence, including any gates.

92 – FIELD FENCE

Bid Item 33 – Fence, Barbed Wire

Field fence consists of furnishing all materials required and constructing fences of the type designated on the drawings. This item shall include (7) gates in locations shown on drawings. The approximate location of the fences to be constructed is shown on the construction drawings. The final location of the fences (including corners, gates, pull and brace panels, stiles and special anchorage) shall be as staked by the Engineer.

In Section 10, Measurement and Payment, Method 1 shall apply and measured to the nearest foot along the profile of the fence, including any gate openings.

94 – CONTRACTOR QUALITY CONTROL

Bid Item 34 – Contractor Quality Control

The work consists of developing, implementing, and maintaining a quality control system to ensure that the specified quality is achieved for all materials and work performed.

Daily QC reports are required to be submitted to the Engineer.

It is the Contractor's responsibility to perform tests to prove and ensure that all work performed meets the contract requirements. Any testing done by the CLO is for the sole benefit of the CLO. All tests must be conducted in accordance with the appropriate ASTM method and with equipment that meets the requirements of the specified ASTM test method.

In Section 3, Quality control system, Method 2 shall apply, except that the written plan shall be submitted to the Contracting Officer within 10 calendar days after notice of award. The Contractor shall not proceed with any construction activity that requires inspection until the written plan is approved by the Contracting Officer.

In Section 4, Quality control personnel, Method 2 shall apply.

Section 10.a.(8) lists items of work that require CQC and the degree of inspection each requires (periodic, full time, or continuous).

Section 10.a.(9) lists the skills, knowledge, and abilities that are required for CQC personnel.

Per Section 10.a.(10) Contractor is required to maintain a record of progress with photographs and to submit to Contracting Officer no later than date of final invoice.

In Section 9, Measurement and Payment, Method 2 shall apply and paid in equal amounts on each monthly estimate.

95 – GEOTEXTILE

Bid Item 35 – Geotextile

This item shall consist of furnishing and placing the geotextile for the rock riprap located along the upstream wave protection, rock lined principal spillway outlet channel, rock lined auxiliary spillway outlet channel, and the rock scour apron upstream of the auxiliary spillway as shown on the drawings.

Placing the geotextile for the rock riprap includes all excavation, fill and backfill required for keying geotextile into the slope, as shown on the drawings.

Geotextiles shall be non-woven Class I and meet Material Specification 592.

In Section 5, Placement, Method 2 shall apply. The geotextile shall be joined by overlapping a minimum of 18" and secured against the underlying foundation material.

In Section 6, Measurement and payment, Method 1 shall apply. The quantity is determined to the nearest SY of the covered surfaces only, disregarding that required for anchorage, seams, and overlaps.

99 – CONDUIT ABANDONMENT

Bid Item 36 – Conduit Abandonment

This item consists of filling the existing principal spillway conduit designated to be abandoned with the job mix as specified in Section 5.

At least 14 days before filling the conduit, furnish the Engineer a written plan for the operation. Include evidence satisfactory to the Engineer that the cellular concrete will be installed by a contractor having completed a minimum of 10 cellular concrete installations that are similar in nature to that specified.

In Section 8, Grouting, the maximum grout pressure shall not exceed 4 psi.

Payment will be made at the contract lump sum price and will constitute full compensation for all items necessary and incidental to the completion of the work.

VISIT TO PROJECT SITE

STOP 1:
- Gas line location was identified at south end of the detention basin

STOP 2:
- Old (remove 24") and new riser (48") locations identified
- New plunge pool and impact basin locations identified
- Fence removal identified for new plunge pool
- It was noted that some areas of the top of the dam have settled, will need to raise 1' – 2' due to settlement
- Monitoring station was identified, Hays County installed it and will remove it
- Rain gauge was identified, line to dam toe that measures water level will be removed
- New wave protection riprap area was identified

STOP 3:
- New RCC Spillway location was identified
- Stockpile area was identified (clear and grub area)
- Borrow area was identified, it was noted that the existing windmills are not in borrow area
- Fence to be removed was identified

STOP 4:
- New auxiliary spillway location was identified
- Existing wastewater lines (2 of them) was identified, 5' depth of bury (proposed work should not affect it)
- Fence to removed was identified

STOP 5:
- Construction entrance was identified
- Camp site location was identified

ATTACHMENTS:
- Site Visit Exhibit – Areas Designated at Site Showing (1 page)
- A: 9/14/2021 Site Showing Attendance list (1 page)

DISTRIBUTION:

To be posted on PCCD website. All registered plan holders and 9/14/21 site showing attendees will be advised via email (or otherwise) when Amendment #1 is available for downloading from **www.pccd.org/ (Job Bids tab)**

"Internal" personnel, via email 9/16/2021

FILECODE: IFB Tab 4A (Site Showing)

Plum Creek Dam #2 – Site Visit Exhibit from Pre-Bid Site Meeting

PRE-BID CONFERENCE ATTENDANCE (9/14/21)

Plum Creek Conservation District Personnel

Daniel Meyer, Contracting Officer and Executive Manager
Matt Shaw, Alternate Contracting Officer and Staff Member
Alan Burklund, Staff Member
Karen Bassett, Secretary
Jean Ann Maynard, PCCD Contracting Consultant

AECOM

Luis Alday, Design Engineer and Alternate Project Engineer
Bobby Mengden, Project Engineer
Joe Owen, Construction Inspector

Others

Jerdon Enterprise, LP, San Antonio, TX (James Tennant)
Patin Construction, Taylor, TX (Jeff Birkhead, Zach Hughes)
MAC, Inc., Austin, TX (Elias Anderson)
Capital Excavation, Buda, TX (Ryan Gaddy)
Texas Sterling Construction, San Antonio, TX (Dan Miller)
Jeff Prato, Engineer, City of Kyle, TX