

ATTACHMENT C
AUTHORIZATION OF CHANGE IN SERVICE

CONTRACT NUMBER / CONTRACT NAME:	215-314 San Marcos Water Treatment Plant Misc. Projects Design	
CITY REPRESENTATIVE:	Jon Clack, Asst Director of Public Services	
CONTRACTOR:	Jacobs Engineering Group, Inc. (formerly CH2MHill)	
CONTRACT EFFECTIVE DATE:	September 1, 2015	
THIS AUTHORIZATION DATE:	November 4, 2020	AUTHORIZATION NO.: 3

DESCRIPTION OF WORK TO BE ADDED TO OR DELETED FROM SCOPE OF SERVICES:

Per the attached the Scope and Fee dated September 29, 2020, for the detailed engineering efforts for the 2019 Miscellaneous Improvements Agreement for the City of San Marcos Wastewater Treatment Plant Project for the lump sum of \$732,129. The scope consists of eight miscellaneous improvement projects packaged into one design effort to provide updates and repairs to the wastewater treatment plant to provide fewer maintenance issues and long-term operability. This updated fee includes a deduction for the project management time to provide an integrated project, rather than individual projects, now includes our 3rd party subcontractor to provide subsurface utility engineering field services to verify yard piping for the new blower building and screen structure, and removal of the new drying bed design.

Original Contract Amount:		\$ 137,179.00
Previous Increases in Contact Amount:		\$ 212,451.55
This Increase in Contract Amount:		\$ 732,129.00
Revised Contract Amount:		\$ 1,081,759.55

CONTRACTOR: Jacobs Engineering, Inc.

Signature

Date

Print Full Name / Title (if not in individual capacity)

CITY: CITY OF SAN MARCOS, TX

Signature

Date

Bert Lumbreras, City Manager

Print Name / Title

City Department Use Only Below This Line (PM, etc.).

Account Number(s):	Amount	Date
#	\$	
#	\$	
#	\$	



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September 29, 2020

Attention: Jon Clack, Asst. Director of Public Services – W/WW Utility
City of San Marcos
630 East Hopkins
San Marcos, TX 78666

Project Name: San Marcos Wastewater Treatment Plant - Miscellaneous Projects – Detailed Design Phase
Project Number: WJXN1900
Contract Number: 215-314

Subject: San Marcos WWTP - Misc. Projects Scope and Fee

Dear Jon Clack,

Please find attached the Scope and Fee for the Detailed Engineering efforts for the 2019 Miscellaneous Improvements Project for the City of San Marcos Wastewater Treatment Plant Project for the lump sum of \$732,129. The scope consists of eight miscellaneous improvement projects packaged into one design effort to provide updates and repairs to the wastewater treatment plant to provide fewer maintenance issues and long-term operability. This updated fee includes a deduction for the project management time to provide an integrated project, rather than individual projects, now includes our 3rd party subcontractor to provide subsurface utility engineering field services to verify yard piping for the new blower building and screen structure, and removal of the new drying bed design. The detailed design will provide construction plans and specifications for use in bidding and construction.

We are excited to provide continued engineering services for the San Marcos Wastewater Treatment Plant and look forward to getting this next stage of design underway.

Sincerely

Ricky Villalobos, P.E.
Project Manager
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DETAILED DESIGN SERVICES SCOPE OF WORK FOR MISCELLANEOUS IMPROVEMENTS AT THE SAN MARCOS WASTEWATER TREATMENT PLANT, PHASE II

SUMMARY OF PROJECT DESCRIPTION

This scope of work describes the services to be rendered by Jacobs Engineering Group Inc. (Jacobs or Engineer) for the detailed design of the project elements as summarized in the January submittal of the *Miscellaneous Improvements at San Marcos WWTP, Phase 2* Technical Memorandum dated August of 2020. This study includes 30% conceptual design of the following sub elements to be included in the detailed design efforts:

- Addition of Primary Sludge Screen
- Replacement of Centrifuge CFG-702 and ancillary equipment
- Addition of Headworks Fine Screen
- Roof Replacement over Grit Classifiers
- New Blower Building Installation utilizing phased approach (Phase 1 only)
- Modification of existing Drying Beds
- Replacement of Sludge Processing Building Wall Panels
- Refurbishment of the Odor Control Towers

This work will be performed as a change order under the Terms and Conditions of the Master of Services Agreement between the City of San Marcos and CH2M HILL Engineers Inc. for professional services in connection with the Miscellaneous Improvements at the San Marcos Wastewater Treatment Plant Project, dated September 1, 2015.

DETAILED PROJECT DESCRIPTION

The Engineer will prepare the following project element documentation as follows:

1.1. General Layout

1.1.1. Create drawing showing overall site plan indicating limits of construction and potential staging areas and list of project elements

1.1.2. Create drawing showing overall electrical one-line diagram

1.2. Create demolition plans for the following facilities:

- 1.2.1. Roof replacement over headworks grit classifier and screenings handling canopy
- 1.2.2. Sludge Processing Building wall replacement
- 1.2.3. Centrifuge equipment demolition and replacement
- 1.2.4. Blower building
- 1.2.5. Modification of drying beds, and wall demolition
- 1.2.6. Detailed demolition extents on Headworks piping
- 1.2.7. Detailed demolition extents of Sludge Screen piping
- 1.2.8. Removal of existing water and instrument control panels at the Odor Control Towers
- 1.3. Headworks Fine Screen
 - 1.3.1. Develop initial layout drawing of screening equipment including mechanical and structural requirements
 - 1.3.2. Equipment design and quotes from up to three vendors
 - 1.3.3. Determine initial electrical feed and control panel requirements and modifications
 - 1.3.4. Determine whether the existing back-up generator will have the capacity to serve the new screen
 - 1.3.5. Develop process and instrumentation diagram (P&ID) drawing
 - 1.3.6. Recommend location for additional screenings disposal chute
- 1.4. Grit Classifier Roof Replacement
 - 1.4.1. Develop drawing of roof replacement details
- 1.5. Primary Sludge Screen
 - 1.5.1. Develop structural and mechanical site layouts
 - 1.5.2. Equipment design
 - 1.5.3. Determine initial electrical feed and control panel requirements and modifications
 - 1.5.4. Develop P&ID drawing
- 1.6. Sludge Drying Bed Rehabilitation
 - 1.6.1. Prepare ramp design and phased approach for ramp replacement of subsequent drying bed
- 1.7. Centrifuge Replacement

- 1.7.1. Develop initial mechanical and structural plan drawings for centrifuge replacement, include polymer feed, conveyor(s) replacement, and sludge feed pump for increased capacity
- 1.7.2. Perform calculations on sludge feed pumps and evaluate their condition to determine if replacement or rehabilitation is required
- 1.7.3. Perform calculations on polymer dosing/feed requirements
- 1.7.4. Perform calculations and analysis of conveyor sizing requirements
- 1.7.5. Perform calculations on centrifuge structural support requirements from equipment manufacturers
- 1.7.6. Determine electrical feed, control panel requirements and modifications
- 1.7.7. Develop P&ID drawing
- 1.8. Blower building
 - 1.8.1. Develop blower building location and connections to yard piping and building services. Prepare building access, grading, and drainage plans.
 - 1.8.2. Document architectural design concept and assign code classifications. Establish preliminary room sizes and functional requirements. Prepare preliminary building layouts.
 - 1.8.3. Establish foundation design, document structural design concepts, and prepare preliminary foundation, floor, and roof framing plans.
 - 1.8.4. Prepare initial HVAC sizing calculation and layout of major equipment. Determine building plumbing needs and locate fixtures.
 - 1.8.5. Update the treatment plant process model to determine air flow requirements. Model and analyze the blower system and prepare preliminary blower control strategy. Prepare new blower system sizing and layout including phased approach to work with existing blowers to relocate into new system and tie-in to existing pipe network
 - 1.8.6. Develop electrical service strategy and prepare load calculations. Prepare layout of major electrical equipment.
 - 1.8.7. Develop blower control philosophy and prepare P&ID drawing with equipment tags.
- 1.9. Sludge Processing Building Wall Panel Replacement
 - 1.9.1. Develop drawing of wall panel replacement details. Develop flashing details to prevent water accumulation on existing masonry to panel interface.
 - 1.9.2. Develop gutter extension requirements.
- 1.10. Odor Control Towers Refurbishment
 - 1.10.1. Develop layout drawing of refurbishment items to be replaced

- 1.10.2. Develop detailed installation details for panels to be replaced, which includes qty 3 water & nutrient control panels, and an instrumentation control panel
- 1.11. Develop initial draft specification list

WORK APPROACH

The objective of this project is to develop detailed design documents in preparation of bid documents and construction of the wastewater treatment repairs and equipment replacements.

Upon Notice to Proceed, the Engineer will commence detailed design of approved project elements for the preparation of clear and complete design drawings for construction. The detailed design will follow the typical design methodology of a 60% submittal, a 90% submittal, and a final 100% submittal as summarized below:

- 60% design drawings will be developed through evaluation of feasibility options, discussions with vendors, and with meetings with plant staff and management to evaluate design decisions. The 60% designs will take the 30% conceptual designs and progress the major decision work such that preliminary drawings are approved to commence the final detailed design efforts. It is the intent of approved 60% design drawings to have the scope refined such that no further major design changes occur. Changes in design scope after 60% tend to incur substantially more effort as drawings become more complex and extensive.
- 90% design drawings will encompass the 60% scope and will be progressed with sufficient design details to provide an encompassing scope of work for all disciplines. During the 90% design effort, the Engineer will develop a Guaranteed Maximum Price (GMP) for each project element.
- 100% design drawings will incorporate all final comments received from the previous reviews and will be the final deliverable of this contract.

The future scope of work would include preparing project specifications and bid documents in preparation of advertisement of construction and award. Bid preparation and construction engineering oversight are not included in this project scope.

2. Task 1 – Project Management

The Engineer will perform the following subtasks:

- 2.1. Staff Management and Task Coordination - Assemble a Project team comprised of Owner representatives, operations staff, and Engineer representatives. The Engineer will meet with the team to set the design and production schedule and parameters for all subsequent work, to verify the components within which all Project participants must perform, and to identify all parties and significant deadlines involved in the comprehensive schedule strategy. Based on this information, the Engineer will prepare a detailed schedule of its work for the Project, addressing

each component of the work to be done and indicating the points of involvement of all project participants. Prior to the construction phase, the Engineer will conduct coordination of project staff, conduct monthly project staff coordination meetings as required, document meeting decisions and action items, and assign activities to team members.

- 2.2. Monitor Project Progress - Monitor project progress, including work completed, work remaining, budget expended, schedule, estimated cost of work remaining, and estimated cost at completion. The Engineer will monitor project activities for potential changes; will anticipate changes when possible; and, with Owner approval, modify project tasks, budgets, and approach as needed.

3. Task 2 – 60% Design

The Engineer will:

- 3.1. Review the final Technical Memorandum and 30% design drawings with City of San Marcos management to agree on the project elements to be included in the 60%, 90% and 100% design set.
- 3.2. Conduct site visits with discipline leads to review the current conditions of the facilities being considered for improvement and to evaluate feasibility options that are required for design decision making.
- 3.3. Conduct monthly coordination meetings with plant staff and City of San Marcos management to review progress of design.
- 3.4. Prepare an OPCC (American Society of Professional Estimators (ASPE) Class III Cost Estimate) for the project elements to be included in the 60% plans.
- 3.5. Prepare a preliminary engineering report (PER) encompassing the feasibility options for each of the project elements and the recommended option to progress to 90% design. This PER shall include the Class III cost estimate for reference.
- 3.6. Perform continuous QC of deliverables and final internal QC review of design documents for all disciplines prior to deliverable submission
- 3.7. Perform constructability review of project elements
- 3.8. Lead a workshop where the Owner, Operations, and Engineer team review the 60 percent design, preliminary list of specifications and the 60 percent OPCC. The OPCC will be compared to available budget and the team will verify the priority ranking of each project element established in the project definition phase.

Assumptions:

- Class III estimates have an accuracy range of +30 percent, -20 percent.
- For the purposes of the level of effort estimated for this project, the Engineer assumed all project elements will be included in the 60 percent design.

Deliverables:

- Preliminary Engineering Report describing project elements, feasibility options and associated OPCC. PER will be delivered electronically in PDF format.
- Coordination meeting minutes, any workshop minutes and other decisions (as logged in a decision log) to be delivered electronically in PDF format or other approved format.
- Preliminary list of specifications.
- 60% design plans submitted electronically in PDF format and hard copy sets as needed.

4. Task 3 – 90% Design

The Engineer will:

- 4.1. Review the 60% workshop decisions and progress the 60% design drawings to a 90% detailed design set.
- 4.2. Conduct additional site visits with discipline leads to review the current conditions of the facilities to provide sufficient detail of installation.
- 4.3. Conduct monthly coordination meetings with plant staff and City of San Marcos management to review progress of design.
- 4.4. Prepare an OPCC (American Society of Professional Estimators (ASPE) Class II Cost Estimate) for the project elements to be included in the 90% plans.
- 4.5. Prepare first draft of technical specifications to accompany the design plans.
- 4.6. Perform continuous QC of deliverables and final internal QC review of design documents for all disciplines prior to deliverable submission.
- 4.7. Perform constructability review of project elements as needed.
- 4.8. Lead a workshop where the Owner, Operations, and Engineer team review the 90 percent design and specifications, and the 90 percent OPCC.

Assumptions:

- Class II estimates have an accuracy range of +20 percent, -15 percent.
- For the purposes of the level of effort estimated for this project, the Engineer assumed all project elements will be included in the 90 percent design.

Deliverables:

- Class II OPRR estimate
- 1st draft of technical specifications
- Coordination meeting minutes, any workshop minutes and other decisions (as logged in a decision log) to be delivered electronically in PDF format or other approved format.
- 90% design plans submitted electronically in PDF format.

5. Task 4 – 100% Design

The Engineer will:

- 5.1. Review the 90% workshop decisions and progress the 90% design drawings to a 100% final design set.
- 5.2. Conduct monthly coordination meetings with plant staff and City of San Marcos management to review progress of design.
- 5.3. Revise the OPCC (American Society of Professional Estimators (ASPE) Class II Cost Estimate) for the project elements with any changes made in the 100% plans.
- 5.4. Finalize the technical specifications to accompany the design plans.
- 5.5. Perform continuous QC of deliverables and final internal QC review of design documents for all disciplines prior to deliverable submission.
- 5.6. Submit letter to TCEQ for expected project improvements. If required by TCEQ, submit plan and specifications of proposed modifications for approval.

Assumptions:

- Class II estimates have an accuracy range of +20 percent, -15 percent.
- For the purposes of the level of effort estimated for this project, the Engineer assumed all project elements will be included in the 100 percent design.

Deliverables:

- Updated Class II OPRR estimate
- Final draft of technical specifications
- Coordination meeting minutes, any workshop minutes and other decisions (as logged in a decision log) to be delivered electronically in PDF format or other approved format.
- 100% design plans submitted electronically in PDF format. Paper copies to be submitted upon request.
- Coordination with TCEQ for project related improvements.

BASIS OF DESIGN SCOPE AND FEE DEVELOPMENT

The following key assumptions were made in the compilation of this scope of work and the estimation of the level of effort:

Design Assumptions

1. An overall hydraulic profile will not be included in the drawings. Only hydraulic assessments required for design of the new or modified facilities are included.

2. A process flow diagram or liquids/solids balance is not required.
3. One construction document package per milestone will be prepared. Multiple construction packages would be additional services.
4. No equipment pre-procurement or pre-negotiation will be completed. Pre-procurement or pre-negotiation packages would be additional services.
5. No work is included that would trigger existing facilities to be updated to current building codes.
6. No changes will be made to any existing fire suppression systems.
7. No additional electrical service is required. Existing backup power is adequate to handle any new loads, except for the headworks generator which will be analyzed to determine if it can support the new screen.
8. Standard details will be included on the drawings.
9. No environmental survey is required.
10. Any investigation and remediation of possible hazardous materials encountered is not included in the Scope of Work and will be considered an additional service.
11. The design will be based upon existing geotechnical reports developed for the wastewater treatment plant and supplied by the Owner. No additional geotechnical investigations are included in the scope.
12. Any land acquisition and identification of property owners will be managed by the Owner.
13. Application for any necessary construction and other required permits will be prepared and submitted by either Contractor or the Owner, e.g., storm water permits and erosion and sedimentation control plan and all other required permits. Submittal to TCEQ is included.
14. Jacobs master specifications will be used as the basis for all Division 1 and technical specifications.
15. Test pits to be provided by an underground utility location firm will be required to locate existing underground utilities, duct banks and site piping in the area of the work. Jacobs will use the information provided to develop the existing site utility drawings. A 3rd party subcontractor will provide underground utility locating services and pothole services. These services are included in the fee.
16. The drawings will follow the Owner's CAE/CAD standards. Microstation will be used to develop the drawings.
17. Software programming for the installation and operation of project components is anticipated to be provided by Jacobs as the integrator to the plant. Preliminary planning for the programming efforts are included in this detailed design phase, but actual programming and integration during construction to be included in a separate contract.

18. The adequacy of the existing primary power supply to handle any new loads will be evaluated as part of the design. If primary power supply modifications are needed, the effort to complete the associated design will be added by a change to this scope and fee.
19. The Owner's Standard Construction Notes will be utilized in developing the construction drawings.
20. Restoration will be seeding and sod and no special landscape design effort is required.
21. No regulatory involvement/approval is included beyond notifying regulators of the project.
22. Project specifications will begin with Division 01: General Requirements; Division 00 – Procurement Requirements that includes bidding documents, contract forms, advertising, etc. will not be included.
23. No bidding support or services during construction including submittal review, RFI response, or inspection will be completed as part of this scope of work.

Project Element Specific Assumptions

Headworks Fine Screen

- One fine screen to be installed
- Existing screen channel to be utilized with minimal modifications
- Screen is assumed to be installed similar to existing screens. No hydraulic analysis will be performed or hydraulic profile created
- Separate washer/compactor required for proposed fine screen
- Screen is 10 mm
- Separate conveyor and chute required for existing and new screen to disposal bin
- 304 stainless steel materials will be required on critical screening, washer/compactor, and conveyor equipment
- Equipment is located outdoors
- Onsite electrical feed is adequate
- Control and electrical panels to be located outdoors

Roof Replacement over Grit Classifier and Screenings Handling

- Steel roof decking is to be replaced
- Existing structural support members are adequate
- No coating of existing structural support members is assumed

Primary Sludge Screen

- Primary sludge screen to be redundant with existing unit; shared feed pump, piping, and air piping/compressor
- Primary sludge screen capacity is assumed equivalent in size and capacity to the existing; manufacturer will match existing
- Elevated platform to be extended to accommodate proposed unit adjacent to existing
- Existing conveyor to be utilized with modifications to accommodate second feed
- No upgrades to capacity, coatings, condition, mechanical components (motors, gears, etc.) will be included
- Existing conveyor condition and capacity are adequate to meet current needs
- Onsite electrical feed is adequate
- Control and electrical panels to be located outdoors
- Previous onsite geotechnical work will be utilized for platform design; no geotechnical work is assumed

Drying Bed Modifications

- Ramps to be installed to replace existing setup to allow for multiple truck usage.
- The ramps will be installed in phases, but design to encompass all ramps (final product)
- Profile drawings of the full alignment of the drying bed drainage system is not required

Centrifuge Replacement

- One existing centrifuge will be replaced (CFG-702)
- New centrifuges will be identical to the recently installed centrifuge; design will verify existing physical space will accommodate units
- Design includes shared access platform with new centrifuge
- Existing feed sludge pump will be replaced.
- Odor control capacity and piping is adequate to accommodate new units; minor modifications and tie ins to existing odor control ducting are assumed for piping connections
- Existing centrate handling systems can accommodate centrate flows from new units
- Non-potable water system feeding polymer units and centrifuges are adequate to meet needs of new equipment
- New polymer feed unit, replacing existing unit

- Upgrades to the existing solids conveying system are included; capacity will be upgraded to match proposed centrifuge capacities (new and existing). Conveyor capacity to be increased and assumes partial replacement of half of the existing conveyors. Conveyor will be upgraded to allow the two centrifuges that share one conveyor to be operated at the same time.
- Existing onsite electrical feed is adequate
- Existing electrical and control room has adequate space for proposed panels

Blower Building

- Structural design for the blower building will be based on existing geotechnical information. Additional geotechnical investigation would be completed under a separate scope of work.
- Blower building is assumed to be located in an area with current survey data. Additional survey would be completed under a separate scope of work.

Wall Replacement at Sludge Processing Building

- Sandwich ribbed siding is to be replaced for half of the front side of the building and the other half of the other side of the building.
- Existing structural support members are adequate
- No coating of existing structural support members is assumed

Odor Control Refurbishment

- The three odor control towers will be refurbished by a 3rd party contractor specialized in odor control tower refurbishment
- Jacobs will provide design for mechanical piping and instrumentation replacement panel tie-ins, nutrient system piping and mounting, and design for mounting of panels.

Construction Cost Estimate

The Engineer team will develop an OPCC at each major milestone. A summary of the OPCC will be transmitted to the Owner.

In providing estimates of cost, financial analyses, economic feasibility projections, and schedules for the project, Jacobs has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by third parties; quality, type, management, or direction of operating personnel; and other economic and operational factors that may materially affect the ultimate project cost and schedule. Therefore, Jacobs makes no warranty that the Owner's actual project costs, economic feasibility, or schedules will not vary from Jacobs' opinions, analyses, projections, or estimates.

Drawing List

Based upon Jacobs' understanding of the project, the level of effort has been developed assuming the following list of drawings (total of 97) will be required for final design.

SHEET NO.	DWG NO.	DESCRIPTION
	GENERAL	
1	00-G-01	Cover/Index
2	00-G-02	General Notes
3	00-G-03	Abbreviations
4	00-G-04	Civil Legend
5	00-G-05	Civil Legend
6	00-G-06	Structural Notes
7	00-G-07	Structural Notes
8	00-G-08	Mechanical Legend
9	00-G-09	Electrical Legend
10	00-G-10	I&C Legend
11	00-G-11	I&C Legend
12	00-G-12	General Site Layout
13	00-G-13	Overall Facility One-Line Diagram
14	00-G-14	Site Electrical Plan
	SLUDGE DRYING BEDS	
15	01-C-01	Concrete Dewatering Pad
16	01-C-02	Civil Details
17	01-D-01	Drying Bed Demolition
18	01-S-01	Drying Bed Modification - Plan
19	01-S-02	Drying Bed Modification - Section and Details
	HEADWORKS, PRIMARY	
20	02-E-01	Headworks Fine Screen - Electrical Site Plan
21	02-E-02	Headworks Fine Screen - One-Line Diagram
22	02-E-03	Primary Sludge Screen - Electrical Site Plan
23	02-E-04	Primary Sludge Screen - One-Line Diagram
24	02-E-05	Electrical Details
25	02-I-01	Headworks Fine Screen P&ID
26	02-I-02	Primary Sludge Screen P&ID
27	02-I-03	Instrumentation and Controls Details
28	02-M-01	Headworks Fine Screen - Plan
29	02-M-02	Headworks Fine Screen - Section
30	02-M-03	Primary Sludge Screen - Plan
31	02-M-04	Primary Sludge Screen - Section
32	02-M-05	Mechanical Details

SHEET NO.	DWG NO.	DESCRIPTION
33	02-S-01	Grit Classifier and Screen Disposal Roof Replacement - Plan
34	02-S-02	Grit Classifier and Screen Disposal Roof Replacement - Section
35	02-S-03	Primary Sludge Screen Platform - Plan
36	02-S-04	Primary Sludge Screen Platform - Section
37	02-S-05	Structural Details - Equipment Pads, Pipe Penetrations, Etc.
	SOLIDS HANDLING FACILITY	
38	03-D-01	Centrifuge Demolition
39	03-E-01	Centrifuge Replacement - Electrical Site Plan
40	03-E-02	Centrifuge Replacement - One-Line Diagram
41	03-E-03	Electrical Details
42	03-I-01	Centrifuge Replacement P&ID
43	03-I-02	Centrifuge Polymer Systems P&ID
44	03-I-03	Instrumentation and Controls Details
45	03-M-01	Centrifuge Replacement - Plan
46	03-M-02	Centrifuge Replacement - Section
47	03-M-03	Mechanical Details
48	03-S-01	Solids Handling Building Siding Replacement - Plan
49	03-S-02	Solids Handling Building Siding Replacement - Section
50	03-S-03	Centrifuge Replacement Support Structure - Plan and Section
51	03-S-04	Structural Details - Equipment Pads, Reinforcement details, Conveyor Wall connections, Etc.
	BLOWER BLDG	
52	04-A-01	Blower Building - Code Plan and Symbols
53	04-A-02	Blower Building - Floor Plan
54	04-A-03	Blower Building - Reflected Ceiling Plan
55	04-A-04	Blower Building - Roof Plan
56	04-A-05	Blower Building - Elevations
57	04-A-06	Blower Building - Sections
58	04-A-07	Blower Building - Interior Details
59	04-A-08	Blower Building - Exterior Details
60	04-A-09	Blower Building - Schedules
61	04-C-02	Blower Building Grading
62	04-C-03	Civil Details
63	04-C-03	Blower Building Details
64	04-C-1	Blower Building Utilities/Yard Piping
65	04-D-01	Blower Building Demolition
66	04-E-01	Blower Building - One-Line Diagram
67	04-E-01	Blower P&ID
68	04-E-02	Blower Building - Power Plan
69	04-E-03	Blower Building - Lighting and Receptacle Plan

SHEET NO.	DWG NO.	DESCRIPTION
70	04-E-04	Blower Building - Details
71	04-E-05	Blower Building - Control Diagrams
72	04-E-06	Blower Building - Schedules
73	04-E-07	Electrical Details
74	04-H-01	Blower Building - HVAC Plan
75	04-H-02	Blower Building - HVAC Sections/Details
76	04-H-03	Blower Building - HVAC Schedules
77	04-I-02	Instrumentation and Controls Details
78	04-M-01	Blower Building - Plan
79	04-M-02	Blower Building - Sections
80	04-M-03	Blower Building - Sections
81	04-M-04	Mechanical Details
82	04-P-01	Blower Building - Plumbing Plan
83	04-P-02	Blower Building - Plumbing Schedules/Details
84	04-S-01	Blower Building - Foundation and Floor Plan
85	04-S-02	Blower Building - Roof Framing Plan
86	04-S-03	Blower Building - Sections
87	04-S-04	Blower Building - Details
	ODOR CONTROL TOWERS REFURB	
88	05-M-01	Odor Control Tower Refurb – Mechanical Plan
89	05-M-02	Odor Control Tower Refurb – Mechanical Details
90	05-I-01	Odor Control Tower Refurb – Instrument Panel Plan
91	05-I-02	Odor Control Tower Refurb – Instrument Panel Details

Owner Responsibilities

The Owner will:

1. Provide full and accurate information to the Engineer regarding the Owner's requirements for the Engineer's services under this Agreement. In addition, the Owner will furnish the Engineer with copies of data and information in the Owner's possession needed by the Engineer pertinent to the Engineer's provision of services required under this Agreement at the Engineer's request. The Owners will provide this information and render decisions expeditiously for the orderly progress of the Engineer's services. Engineer will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by Owner.
2. Designate a competent employee from the Water/Wastewater or Engineering Division, as the Owner's authorized representative to act on the Owner's behalf with respect to this Agreement. The Owner will examine all documents and information submitted by the Engineer and promptly render responses to the Engineer on issues requiring a decision by the Owner.

3. Provide access to and make all necessary provisions for the Engineer to access Owner's personnel and to enter public and private property as required for the Engineer to perform its services under this Agreement.
4. Bear all costs incidental to this Article.

Proposed compensation and schedule information is provided in Appendix A.

APPENDIX A: COMPENSATION AND SCHEDULE

Basic Design Services

Compensation by the Owner to Jacobs for the Detailed Design Services described in this authorization will be for a total fee of \$732,129. Jacobs anticipates this work will be compensated on a firm fixed price basis, consistent with the previously executed contract. Invoices will be based upon the extent of work completed on a percentage basis.

Table 1 provides a summary of the fee by activity.

For the budget presented, Jacobs assumes that all project elements will be designed through the construction document phase. The budget can be revised if the Owner modifies design execution of the assumed list of project elements.

Table 1
San Marcos WWTP Engineering Design Fee Summary
Miscellaneous Improvements, Phase II

Project	Description of Services	Labor Hours	Fee
1	Primary Screen	488	\$79,541
2	Centrifuge Replace Option 1	930	\$166,746
3	Headworks Fine Screen	369	\$61,692
4	Grit Classifier Roof Placement	59	\$9,866
5	New Blower Bldg. Ph1	2,076	\$347,796
6	Existing Drying Bed Mods	124	\$20,505
7	Solids Processing Bldg. Siding Replacement	53	\$9,353
8	Odor Control Towers Refurbishment	140	\$23,275
	SUE Services	-	\$13,356
Total		4,500	\$732,129

Project Schedule

The engineer team anticipates that the contract period for design may be kicked off in late 2020. Jacobs assumes all detailed design work will be completed within approximately 12 months from notice to proceed. A detailed project schedule will be developed and submitted to the Owner for acceptance prior to beginning of Design activities. A summary of the schedule is provided in Table 2.

TABLE 2
 Estimated Delivery Schedule
Miscellaneous Improvements, Phase II

Task Name	Duration	Start	Finish
Notice to Proceed	1 day	Thu 10/15/20	Thu 10/15/20
Task 2 – 60% Design	100 days	Fri 10/16/20	Thu 3/2/21
Task 3 – 90% Design	100 days	Fri 3/3/21	Thu 7/22/21
Task 4 – 100% Design	50 days	Fri 7/23/21	Thu 9/30/21