

SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



ITEM: 3.34
(ID # 18282)

MEETING DATE:

Tuesday, October 04, 2022

FROM : TLMA - AVIATION:

SUBJECT: TRANSPORTATION AND LAND MANAGEMENT AGENCY/AVIATION: French Valley Airport North and Middle Apron Pavement Rehabilitation Design Services District 3. [\$538,331 Total Cost - Federal Aviation Administration Airport Improvement Grant funds 90%, Airport Budget Fund (22350) 5%, State Division of Aeronautics Fund 5%]

RECOMMENDED MOTION: That the Board of Supervisors:

1. **Find** that the French Valley Airport North and Middle Apron Pavement Rehabilitation Project is exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines Section 15301, Class 1 Existing Facilities Exemption; Section 15302 Replacement or Reconstruction; and Section 15061 (b)(3) "Common Sense" Exemption; and
2. **Approve** and authorize the Chair of the Board to execute the attached work order agreement for \$538,331 between the County of Riverside and C&S Engineer's, Inc. for the North and Middle Apron Pavement Rehabilitation Design Services at French Valley Airport.

ACTION:Policy

A blue ink signature of Charissa Leach, TLMA Director.

Charissa Leach, TLMA Director

9/12/2022

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Perez, seconded by Supervisor Jeffries and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Spiegel, Washington, Perez and Hewitt
Nays: None
Absent: None
Date: October 4, 2022
xc: TLMA-Aviation

Kecia R. Harper
Clerk of the Board
By: Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$ 538,331	\$ 0	\$ 538,331	\$ 0
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0
SOURCE OF FUNDS: Federal Aviation Administration Airport Improvement Funds 90%, Airport Budget Fund (22350) 5%, State Division of Aeronautics Fund 5%			Budget Adjustment: No	
			For Fiscal Year: 22/23	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

On February 25, 2020, The Board of Supervisors approved the five-year design and engineering services agreement with C&S Companies for airport engineering, architectural, planning, and environmental services which includes design, construction administration, construction inspection of projects, planning and environmental services for the County's five airports. The attached work order is for design services for the French Valley Airport North and Middle Apron Pavement Rehabilitation Project ("Project"). C&S Engineer's Inc. is a C&S company.

The purpose of this project is to design the North and Middle Apron areas currently exhibiting weathering and block transverse alligator cracking. The Middle Apron will be fully reconstructed, while the North Apron will receive rehabilitation by slurry sealing, crack filling, and pavement patches. No grading of shoulders or improvements outside of the existing pavement limits is anticipated, and no drainage improvements or BMP development is anticipated. The services to be provided by the Consultant shall include civil and geotechnical engineering services, as applicable, required to accomplish the design of this project.

The North and Middle Apron Pavement Rehabilitation Project is consistent with the Airport's Capital Improvement Program Master Plan. C&S Companies was selected by Request for Qualification as the County's Airport Project Consultant, per the Federal Aviation Administration's (FAA) five-year consultant selection criteria.

The proposed Project is categorically exempt from the provisions of CEQA (California Environmental Quality Act) according to the State CEQA Guidelines Section 15300.2 The Project will not cause any impact to an environmental resource of hazardous or critical concern, nor would the Project include unusual circumstances which would have a potentially significant effect on the environment. The Project is limited to the replacement of existing transportation related infrastructure at an existing airport.

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

Staff proposes to have C&S Companies provide design engineering services and recommend that the Board of Supervisors approve the necessary design work order agreement for the project. County Counsel has reviewed and approved the attached documents as to legal form.

Impact on Residents and Businesses

The North and Middle Apron Pavement Rehabilitation Project will improve the airport operations and enhance capacity and safety.

ATTACHMENTS:

Work Order Agreement
Notice of Exemption



Jason Farin, Principal Management Analyst 9/27/2022

Work Order Agreement

French Valley Airport North and Middle Apron Pavement Rehabilitation

1. **AUTHORIZATION REQUEST:**
In accordance with the Professional Service Agreement, dated February 25, 2020, (Master Agreement) between the County of Riverside, a political subdivision of the state of California, (COUNTY or SPONSOR) and C&S Engineers, Inc., a New York corporation, (CONSULTANT) for providing airport engineering, architectural, planning and environmental services, enclosed is work order agreement to furnish services in connection with the French Valley Airport, North and Middle Apron Pavement Rehabilitation Project (the "Project").
2. **DESCRIPTION OF SERVICES:**
Scope of Services are defined in Schedule A attached hereto.
3. **COUNTY'S RESPONSIBILITIES:**
COUNTY's responsibilities shall be as described in Schedule A.
4. **PERIOD OF SERVICES:**
Services are to be completed in accordance with Schedule A
5. **PAYMENTS:**
Payments shall be made in accordance with Section 3, Compensation, of the Master Agreement. The fee is defined in Schedule B, attached hereto. The total lump sum fee amount is \$538,331.48.
6. **GENERAL CONSIDERATIONS**
The CONSULTANT designates Brian Saull as the person who will be responsible for coordinating the services rendered by the CONSULTANT for the Project.
7. **SPECIAL PROVISIONS:**
None
8. **ATTACHMENTS:**
Schedule A: Scope of Services
Schedule B: Cost Summary & Work Summary
9. **NOTICES:**
All correspondence and notices required or contemplated by the Master Agreement or this work order agreement shall be delivered to the respective parties at the address set forth below and are deemed submitted one (1) day after their deposit in the United States Mail, postage prepaid:

AGENCY

Angela Jamison
County Airport Manager
Riverside County TLMA Aviation
4080 Lemon Street, 14th Floor
Riverside, CA 92501-3609

CONSULTANT

Brian C. Saull, PE
Managing Engineer
C&S Engineers, Inc.
2355 Northside Drive, Suite 350
San Diego, CA 92108

Execution of this work order agreement will signify approval of the terms and conditions of this request, which, together with the Master Agreement and Attachments identified above will constitute the complete work order, as well as authorization to proceed with the work.

This work order agreement may be executed in any number of counterparts, each of which will be an original, but all of which together will constitute one instrument. Each party to this work order agreement agrees to the use of electronic signatures, such as digital signatures that meet the requirements of the California Uniform Electronic Transactions Act ("CUETA") Cal. Civ. Code §§ 1633.1 to 1633.17), for executing this work order agreement. The parties further agree that the electronic signatures of the parties included in this work order agreement are intended to authenticate this writing and to have the same force and effect as manual signatures. Electronic signature means an electronic sound, symbol, or process attached to or logically associated with an electronic record and executed or adopted by a person with the intent to sign the electronic record pursuant to the CUETA as amended from time to time. The CUETA authorizes use of an electronic signature for transactions and contracts among parties in California, including a government agency. Digital signature means an electronic identifier, created by computer, intended by the party using it to have the same force and effect as the use of a manual signature, and shall be reasonably relied upon by the parties. For purposes of this section, a digital signature is a type of "electronic signature" as defined in subdivision (i) of Section 1633.2 of the Civil Code.

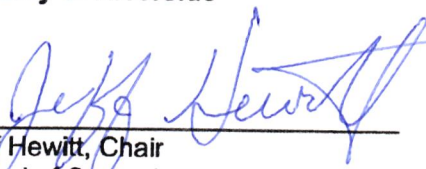
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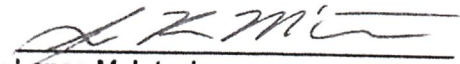
COUNTY

County of Riverside

CONSULTANT

C&S Engineers, Inc.


Jeff Hewitt, Chair
Board of Supervisors

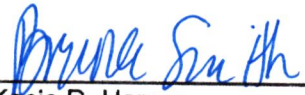

Lance McIntosh
Service Group Manager

10/4/22
Date

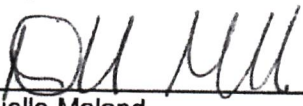
9/20/2022

Date

ATTEST:


Kécia R. Harper
Clerk of the Board

APPROVED AS TO FORM:
County Counsel

By: 
Danielle Maland
Deputy County Counsel

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SCHEDULE A
SCOPE OF SERVICES

Project Title: North and Middle Apron Pavement Rehabilitation
Airport Name: French Valley Airport
Services Provided: Design

Project Description:

The CONSULTANT shall provide required services to design the North and Middle Apron pavement rehabilitation project (the "Project"). The Project will be performed and constructed by the COUNTY with grant assistance from the Federal Aviation Administration (FAA) Airport Improvement Program (AIP). It is assumed this project will be environmentally cleared with a categorical exclusion. If any additional environmental work is required, it would be outside the scope of work and handled under a separate contract.

The North and Middle Apron areas currently exhibit weathering and cracking (block, transverse, and alligator). The Middle Apron (approximately 54,000 SY) will be fully reconstructed, while the North Apron (approximately 47,000 SY) will receive rehabilitation by slurry sealing, crack filling, and pavement patches. No grading of shoulders or improvements outside of the existing pavement limits is anticipated. No drainage improvements or BMP development is anticipated. Following paving or sealing of pavement, all markings will be restored.

Services to be provided by the CONSULTANT shall include civil and geotechnical engineering services, as applicable, required to accomplish the following items ("Basic Services"):

Assumptions used in preparation of this proposal are included on the last page.

PROJECT MANAGEMENT PHASE

The CONSULTANT shall aid the COUNTY by acting as its liaison and Project coordinator with FAA during the Project's design. In addition, the CONSULTANT shall assist the COUNTY in the preparation of paperwork required to secure funds for the Project. The specific services to be provided or furnished for this Phase of the Project are the following:

1. During the Design Phase, to aid the County by acting as its liaison and Project coordinator with the funding agencies.
2. The construction budget for the Project is \$5,840,000. The Consultant shall evaluate the feasibility of this budget, based upon the Consultant's experience as a design professional, and keep the County apprised during each phase of the Project of the results of such evaluation. The Consultant shall advise the County as to options available for reducing construction costs to stay within the budget, if it appears likely that contractor bid prices will exceed this budget.
3. Perform project management duties such as project planning, invoice preparation, schedule coordination and coordination of design team.
4. Provide to the COUNTY monthly project status reports.
5. Schedule coordination- consultant shall provide continued coordination so that project schedules are met for each phase of work included in this contract. Particular phases of design may be delayed by the FAA review process.

6. The design schedule is anticipated to be as follows:

	<u>Time from Receipt of NTP</u>	<u>Anticipated Completion Date</u>
Contract Execution		October 1, 2022
Notice to Proceed (NTP)		October 1, 2022
Schematic Design (30%)	135 days	February 13, 2023
Preliminary Design (60%)	74 days	April 28, 2023
Draft Final Design (90%)	60 days	June 27, 2023
Final Design	45 days	August 11, 2023

GRANT ADMINISTRATION PHASE

The CONSULTANT shall aid the COUNTY by acting as its liaison and Project grant coordinator with FAA during the Project's design. In addition, the CONSULTANT shall assist the COUNTY in the preparation of paperwork required to secure funds for the Project. The specific services to be provided or furnished for this Phase of the Project are the following:

1. Grant project set-up for Client, Federal Aviation Administration and State Agency.
2. Preparation of grant application packages for the single design phase of the project; coordination of their execution by the COUNTY; and submission to the funding agencies.
3. Prepare quarterly progress reports for submission to the FAA.
4. Preparation of reimbursement request packages; coordination of their execution by the COUNTY; and submission to the funding agencies.
5. Preparation of the FAA grant closeout package for the design portion this project.

SCHEMATIC DESIGN PHASE

The Schematic Design Phase is intended to identify and evaluate alternatives to provide cost-effective and practical solutions for the work items identified. The CONSULTANT will evaluate alternatives through contacts with local authorities, review of the pre-application, field investigations, and a practical design approach. The Project's design will take advantage of local knowledge and experience and will utilize expertise from recent construction projects in an effort to design a cost-effective Project. The specific services to be provided or furnished for this Phase of the Project are the following:

1. Schedule and conduct a pre-design meeting with the COUNTY, County stakeholders/operators, and FAA to review the scope of services and become familiar with the Project requirements and operational concerns during the Project's construction.
2. Acquire and review record documents (such as plans, specifications, reports, and studies) to become familiar with data that is available for the Project.
3. Perform a preliminary Project site inspection to further familiarize the design team with Project areas.
4. Prepare preliminary plans identifying required topographic field surveys, subsurface soils investigations, and other field investigative programs. Develop a schedule of completion of required surveys and investigations to minimize interference with airport and tenant operations. Coordinate schedule with COUNTY and supervise programs at the Project site as necessary.
5. Acquire the necessary topographic survey of and utility data for, the Project site, including related office computations and drafting. The scope of services assumes that the survey will not be required to follow FAA AC 150/5300-16, 17 and 18. If it is determined by FAA to be necessary, the cost of

these services is not included in the CONSULTANT's original Scope of Services and shall therefore be an Additional Service.

6. Acquire the necessary soils and existing pavement investigation data, including borings, pavement cores, and test pits, as well as field and laboratory tests, to identify existing pavement conditions and subsurface soil characteristics. This project will have approximately 12 pavement cores, 8 borings at 10 feet, and moisture and color photographs. Samples collected from the borings will have the following tests performed: mechanical sieve analysis, natural moisture content, specific gravity, atterberg limits, standard/modified proctor, and one-point laboratory CBR.
7. Analyze data obtained from subsurface soils and existing pavement investigation program and determine properties of existing pavement and soil materials. Document results of program, existing conditions, and recommendations in the design report.
8. Develop pavement design in accordance with FAA advisory circular 150/5320-6, latest edition. Pavement design to include no more than 2 alternatives for each of the full depth pavement, rehabilitation, and sealing options (6 total). Design will include documentation of traffic use of the pavement provided by the County and extrapolated for the 20-year design period. CONSULTANT will use FAA software FAARFIELD to perform design analysis.
9. Prepare life-cycle cost analysis for pavement design alternatives.
10. Develop schematic designs, including preliminary pavement horizontal geometric layouts, and limited inventory/identification of existing drainage features. Prepare roll plans displaying schematic designs.
11. Develop an outline list of general and technical specifications FAA AC 150/5370-10 or other sources as applicable.
12. Prepare preliminary opinion of probable construction costs for each major element of the Project.
13. Identify potential Modifications to FAA Standards as potentially applicable for specifications or other FAA Advisory Circulars.
14. Develop a draft construction safety phasing plan (CSPP) that endeavors to limit interference by the Project's construction with airport and tenant operations. The scope of services assumes that FAA will perform Safety Risk Management (SRM) review based on the draft CSPP, and that a Safety Risk Management Panel (SRMP) and safety risk mitigation will not be necessary. If SRMP is determined by FAA to be necessary, the cost of these services is not included in the CONSULTANT's original Scope of Services and shall therefore be an Additional Service.
15. Submit schematic design to the County, FAA for their review.
16. Schedule and conduct a schematic design review meeting with the COUNTY to review the schematic design and potential for Modifications to FAA Standards.

PRELIMINARY DESIGN

The services to be performed during this Phase consist generally of services required to furnish the COUNTY with a set of Preliminary Plans, Specifications, and Engineer's Report.

The specific services to be provided or furnished for this Phase of the Project are the following:

1. Using applicable forms or FAA ADIP tool, submit requests for Modifications to FAA Standards.
2. Conduct site inspections to verify topographic survey, to generally observe pavement distresses, document other existing physical features, including drainage structures and outfalls.

3. Finalize horizontal pavement geometrical layouts and place sufficient information on drawings to layout proposed pavements in field during construction.
4. Develop preliminary three-dimensional design in order to develop:
 - a. pavement centerline profiles
 - b. typical sections
 - c. grading details for the proposed work.
 - d. limited storm hydrology and hydraulic analysis of drainage elements within the project area
 - e. additional drainage structures or conveyance, if needed, to comply with requirements of FAA AC 150/5320-5, Airport Drainage Design
5. Develop preliminary airfield marking layouts. Analyze existing airfield markings, identify any deficiencies, and prepare revised marking recommendations. Develop preliminary tie-down layout.
6. Update draft CSPP based on preliminary design.
7. Develop a general draft of soil erosion control items that encompasses all phases of the project. These items will be used by others to develop a construction Storm Water Pollution Prevention Plan.
8. Prepare preliminary Contract Drawings (approximately 60% complete) providing sufficient detail for review of design concepts by the COUNTY, and FAA.
9. Develop general specifications using FAA standards from FAA AC 150/5370-10.
10. Develop technical specifications expected to be required for the proposed work using FAA standards from FAA AC 150/5370-10.
11. Update opinion of probable construction cost to reflect the outcomes of preliminary Project design.
12. Prepare written design report documenting items such as design concepts, assumptions, and alternative designs. Identify conflicts with or deviations from FAA standards for design items, and request a waiver from the FAA if necessary.
13. Perform an internal quality control review on all design documents.
14. Submit sufficient copies of preliminary design documents to the COUNTY, and FAA for their review and comment.
15. Schedule and conduct a preliminary design review meeting to discuss and resolve COUNTY and FAA comments.

DRAFT FINAL AND FINAL DESIGN PHASE

The services included under this Phase shall generally consist of services required to furnish the COUNTY with a complete set of Contract Documents for the Project, including Final Plans, Specifications, Engineer's Design Report, and opinion of probable construction costs. Services to be performed or furnished during this Phase may include revising the preliminary submittal information to comply with COUNTY and FAA comments and then completion of the final design. Plans and Specifications, suitable for unit price bidding, will be completed; final design will be coordinated with the COUNTY and FAA and a complete set of bid documents will be furnished to the COUNTY and FAA. A final opinion of probable construction cost and the final Design Report will also be prepared and submitted. A final Construction Safety and Phasing Plan will be included as part of the Contract Documents.

The specific services to be provided or furnished for this Phase of the Project are the following:

1. Finalize three-dimensional design in order to finalize:

- a. pavement centerline profiles,
 - b. typical sections
 - c. other grading details for the proposed work.
 - d. Drainage structures and conveyance features, if required
2. Finalize pavement designs.
 3. Detail and finalize pavement keyways, rehabilitation details and pavement sections.
 4. Finalize pavement marking layouts, tie-down layout, taxilane clearances, and detail installations, in accordance with FAA AC 150/5300-13 and 150/5340-1.
 5. Prepare final Contract Drawings on 22" x 34" or 11" x 17" Paper. It is anticipated that the final drawings include approximately 20 to 30 plan sheets, and will consist of the following:

Approx. Sheet Number	Name
1	Title Sheet
2	Quantities for Canvass of Bids and Sheet Index
3	General Notes and Legend
4	General Plan
5-9	Construction Safety Phasing Plans
10	Construction Safety Phasing Details
11-12	Demolition Plans
13-14	Soil Erosion and Sediment Control Plans
15-18	Geometry Plans
19-22	Grading Plans
23	Typical Sections
24	Pavement Details
25	Soil Erosion and Sediment Control Details
26-29	Marking Plans
30	Marking Details

6. Perform a detailed quantity takeoff of all bid items to be included on the Contract Drawings and in the General Specifications of the Contract Documents.
7. Finalize General Specifications
8. Finalize written Technical Specifications for all construction materials and installations. FAA standard technical specifications shall be used whenever possible, with supplemental specifications developed by the consultant.
9. Finalize CSPP and include in Specifications and on the Contract Drawings.
10. Prepare final opinion of probable construction costs based upon the actual bid items and quantity takeoffs.
11. Finalize design report to be consistent with the final design.
12. Submit both the construction safety phasing plan and 7460 form electronically to the FAA.
13. Perform final internal quality control review on all design documents.

14. Submit draft final documents to the COUNTY, and FAA for final review and comment.
15. Schedule and conduct draft final review meeting with the COUNTY and FAA to discuss and resolve final comments.
16. Reproduce and submit sufficient copies of bid documents to COUNTY for bidding purposes. Bid documents shall consist of the Contract Drawings and Specifications.

BID PHASE

The Bid Phase is that time frame between completion of the design process and beginning of actual construction when the COUNTY publicly advertises and receives bids, awards contracts to the lowest responsible bidder, and executes a construction contract to perform the work with the successful contractor(s). The CONSULTANT shall assist the COUNTY during this Phase as required.

The specific services to be provided or furnished for this Phase of the Project are the following:

1. Receive and respond as required to questions from potential bidders regarding the Contract Documents.
2. Schedule and facilitate a pre-bid conference by the COUNTY and advise the COUNTY on matters relating to design. COUNTY to prepare any items not directly related to the plans and technical specifications. Prepare draft meeting minutes of the pre-bid conference(s).
3. Prepare addenda to the bid documents after advertisement and prior to bidding as required upon the COUNTY's approval.
4. Upon receipt of bids, perform bid reviews. The bid review shall include items such as a check of the contractor's bid extensions, bid security, execution of bid, non-collusive bidding certificate, EEO certification, statement of surety's intent, addenda receipt, "Buy American" certificate, subcontractors and suppliers list, Disadvantaged Business Enterprise (DBE) certification, eligibility certification, corporate bidder's certification, non-discrimination statement and nonsegregated facilities certificate. Request evidence of competency and evidence of financial responsibility from the contractor. Review contractor's list of personnel, list of equipment, and financial statement. Formal contact of the contractor's references shall be made upon COUNTY's request or if the contractor has no past working relationship with the CONSULTANT, the COUNTY, or FAA.
5. Prepare final bid tabulation, recommendation/rejection of award to the COUNTY, and a sample award letter. Request concurrence of award from FAA.
6. Upon award of contract, prepare conformed copies of contracts; coordinate contractor's execution of contract; review contractor's bonds, insurance certificates, and DBE plan; review contractor's submission with COUNTY; coordinate COUNTY's execution of the contract; and assist in distributing electronic copies of executed contracts to the contractor, and FAA.

RESPONSIBILITIES OF THE COUNTY

1. During the Schematic Design phase, COUNTY to provide documentation of traffic use of the pavement.
2. During the Bid Phase, COUNTY to prepare any items not directly related to the plans and technical specifications.
3. COUNTY will supply any deeds, maps, recorded and unrecorded information and an up-to-date abstract of title that will assist in the progress of this project.
4. Adjacent ongoing project(s) drawings and/or CAD files will be provided by the COUNTY.

5. Access to the site for inspection, survey, and geotechnical investigation will be coordinated by the COUNTY. COUNTY will coordinate the necessary escort for the CONSULTANT and subcontractors to access the restricted areas located within "movement" areas of the airport.
6. COUNTY will advertise the Project and issuance of electronic bid documents.
7. Government agency fees for processing and permits are to be provided by COUNTY.
8. This proposal has been prepared under the assumption that necessary studies by others under separate contracts such as environmental, biological, traffic, survey, and geological studies shall be provided by the COUNTY for CONSULTANT's use when needed.

DESIGN ASSUMPTIONS (CIVIL/AIRFIELD)

The conditions and considerations in developing the scope and fee for the project described above include:

1. As-built drawings and/or CAD files are available and will be provided prior to field visit.
2. Previous survey and as-built 3D elevations (provided by others) will be transmitted to CONSULTANT.
3. The airport will provide access to the FAA ADIP website.
4. Access to the site for inspection, survey, and geotechnical investigation can be performed during normal daylight business hours. No-fee access to the site is provided.
5. The scope of services assumes that FAA will perform Safety Risk Management (SRM) review based on the draft CSPP, and that a Safety Risk Management Panel (SRMP) and safety risk mitigation will not be necessary. If SRMP is determined by FAA to be necessary, the cost of these services is not included in the CONSULTANT's original Scope of Services and shall therefore be an Additional Service.
6. The scope of services assumes that the topographic survey will not be required to follow FAA AC 150/5300-16, 17 and 18. If it is determined by FAA to be necessary, the cost of these services is not included in the CONSULTANT's original Scope of Services and shall therefore be an Additional Service.
7. Cost evaluations will be based on bid prices from recent project at the airport and other similar regional airports.
8. Advertisement, public bidding and award services will not be required of CONSULTANT.
9. Airport staff will confirm that the proposed boring locations are not in conflict with underground utilities.
10. The site is accessible to truck-mounted field equipment during normal working hours. No limitation on drill rig mast height.
11. Prevailing wage rules apply to field work.
12. Soil and groundwater are not contaminated.
13. Borings are backfilled with cuttings.
14. No additional pavement repair work shall be designed outside the footprint of the proposed project limits.
15. Construction support services including construction administration, materials testing, quality assurance services, and record drawings including mylar reproduction, will be provided under a separate task for additional fee.
16. Post construction design, including site-specific control measures, site design measures, and treatment measures (Low Impact Development techniques) will not be required. The project will be classified as a maintenance project, not requiring drainage quantity or quality treatment.
17. Any services not specifically identified in this scope of work are not anticipated and excluded.



ARCHITECTURAL/ENGINEERING COST SUMMARY SCHEDULE "B" DESIGN PHASE

PROJECT NAME: NORTH AND MIDDLE APRON
PROJ DESCRIPTION: PAVEMENT REHAB

CLIENT: COUNTY OF RIVERSIDE
CLIENT MANAGER: ANGELA JAMISON

DATE: 11-Aug-22
A/E: C & S ENGINEERS, INC.
PROJECT NO: K45.004.00X
C&S CONTACT: BRIAN SAULL

I. ESTIMATE OF DIRECT SALARY COSTS:

		AVERAGE			ESTIMATED	ESTIMATED
TITLE		RATE			HOURS	COST
		(\$/HR)	@			
A.	DEPARTMENT MANAGER	\$245.78	X	128	=	\$31,459.84
B.	PROJECT MANAGING ENGINEER	\$216.52	X	244	=	\$52,830.88
C.	PROJECT ENG	\$161.52	X	792	=	\$127,923.84
D.	ENGINEER	\$142.64	X	808	=	\$115,253.12
E.	CAD SENIOR DESIGNER	\$122.89	X	826	=	\$101,507.14
F.	GRANTS ADMINISTRATOR	\$108.99	X	64	=	\$6,975.36
G.	ASST ADMIN	\$108.99	X	94	=	\$10,245.06
						\$446,195.24

II. ESTIMATE OF DIRECT EXPENSES:

A.	TRAVEL, BY AUTO:					
		5	TRIPS @	120	MILES @	\$0.575 = \$345.00
B.	MISCELLANEOUS:					= \$1,791.24
	(Plan Printing, Field Supplies, Additional Requests)					
						\$2,136.24

III. SUBCONTRACTS:

A.	ESTIMATE OF TOPOGRAPHICAL SURVEYS:	\$30,000.00
B.	ESTIMATE OF SUBSURFACE INVESTIGATION & TESTS:	\$60,000.00
TOTAL ESTIMATED SUBSURFACE INVESTIGATION & TESTS:		\$90,000.00

IV. TOTALS:

A.	TOTAL COST FOR DESIGN SERVICES:	\$538,331.48
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C&S ENGINEERS, INC.
ENGINEERING DESIGN
WORK SUMMARY

PROJECT: NORTH AND MIDDLE APRON
 SERVICES: DESIGN
 CLIENT: COUNTY OF RIVERSIDE
 CLIENT MGR: ANGELA JAMISON

Date: 8/12/22
 Service Group Mgr: LANCE MCINTOSH
 Facility Manager: BRIAN SAULL
 Project Manager: BRIAN SAULL
 Project Number: K45.004.00X

CONT NO.	PHASE NO.	TASK	DEPT MAN	PROJ MAN ENG	PROJ ENG	ENG	CAD/SEN DES	GRANT ADMIN	ASST ADMIN	DIRECT COSTS	SERVICES BY OTHERS	TOTALS	TOTAL HOURS PER TASK
	100	Project Management Phase											
		Project Management	16	60					60			\$23,463.08	136
		Project Status Reports		16	32				8			\$9,504.88	56
	200	Administration Phase											
		Prepare Grant Applications		2				24	4			\$3,484.76	30
		Prepare FAA Quarterly Reporting and Grant Process		4				8				\$1,738.00	12
		Prepare Reimbursement Requests						24	8			\$3,487.68	32
		Coordination with County & FAA	4	8	24			8	4			\$7,899.84	48
	300	Schematic Design Phase (30%)											
		Predesign Meeting with County and FAA	4	4	4							\$2,495.26	12
		Acquire and Review Record Documents			8	16						\$3,574.40	24
		Site Inspection			8	8						\$2,433.28	16
		Acquire topographic survey			4		4					\$1,137.84	8
		Acquire geotechnical investigation			4		4					\$1,137.84	8
		Analyze subsurface investigation data		4	8							\$2,158.24	12
		Develop Pavement Designs		2	40	24						\$10,317.20	66
		Schematic Plans (30%)		8	32	60	80					\$25,260.40	180
		Schematic Quantities and Probable Costs		4	4	8	4					\$3,144.84	20
		Develop Construction Phasing & Safety Plan (CSPP)		4	24	16	8					\$8,007.92	52
		Submit CSPP to FAA		2		2			2			\$836.30	8
		Quality Assurance/Quality Control & Revisions	16	4	8	12	24					\$10,751.76	64
		Schematic Design Review Meeting	4	4	4							\$2,495.26	12
	400	Preliminary Design Phase (60%)											
		Site Inspection to Verify Topo			8	8						\$2,433.28	16
		Preliminary Horizontal & Vertical Geometric Layout			16	8	24					\$6,574.80	48
		Preliminary Marking Layout Design			4	16	24					\$5,877.68	44
		CSPP Updated to FAA OE/AAA System			4		2					\$681.86	6
		7480 Development and Submit to FAA OE/AAA System		4	4	4	16					\$4,048.96	28
		Preliminary Plans (60%)		16	80	140	200					\$80,833.52	436
		Preliminary Specifications		8	40	32						\$12,757.44	80
		Preliminary Opinion of Probable Construction Cost			8	16	8					\$4,557.52	32
		Preliminary Design Report		16	40	24						\$9,458.08	60
		Quality Assurance/Quality Control & Revisions	32	8	16	24	40					\$20,520.40	120
		Preliminary Design Review Meeting	4	4	4							\$2,495.26	12
	500	Draft Final Design Phase (90%)											
		Final Grading Design & Details			80	40	8					\$19,610.32	128
		Final Pavement Design & Details			8	16	24					\$6,523.76	48
		Final Marking Layout Design & Details			8	16	24					\$6,523.76	48
		Draft Final Plans		8	60	100	160					\$45,349.76	328
		Final Specifications		4	32	24						\$9,458.08	60
		Final Opinion of Probable Construction Cost			8	16	8					\$4,557.52	32
		Final Design Report		4	32	24						\$9,458.08	60
		Quality Assurance/Quality Control & Revisions	32	8	16	24	40					\$20,520.40	120
		Final Design Review Meeting	4	4	4							\$2,495.26	12
	510	Final Design Phase (Bid Docs)											
		Incorporate Final Plan Comments	4	4	24	32	60					\$17,863.56	124
		Incorporate Final Specification Comments	4	4	24	30						\$10,004.88	62
		Incorporate Final Probable Cost Comments	2	4	8	8						\$3,790.82	22
	520	Bid Phase											
		Respond as Required to Bidder Questions		8	24	24						\$8,032.00	56
		Attend Pre-bid Conference		4	4							\$1,512.16	8
		Prepare Addenda to the Bid Documents		8	16	24	32					\$11,672.32	80
		Review Apparent Low Bidder Documents	2		4	4		8				\$2,580.12	18
		Prepare Conformed Contract Documents		2	4	8	32					\$6,162.72	46
		Prepare final DTM for Bidder			8							\$1,292.16	8
		Direct Expenses											
	600	C&S								\$2,136.24		\$2,136.24	
	701	Topographical Survey									\$10,000.00	\$10,000.00	
	702	Subsurface Investigation & Tests (Geotechnical)									\$10,000.00	\$10,000.00	
			128	244	782	808	826	64	84	\$2,136.24	\$90,000.00	\$538,331.48	2956