

**PROFESSIONAL SERVICES
AGREEMENT BETWEEN
C&S ENGINEERS INC
AND THE CITY OF ANN ARBOR FOR
ENGINEERING SERVICES**

This agreement ("Agreement") is between the CITY OF ANN ARBOR, a Michigan municipal corporation, 301 E. Huron St. Ann Arbor, Michigan 48104 ("City"), and C&S ENGINEERS INC, a(n) Michigan corporation, 38777 Six Mile Road, Suite 202, Livonia, Michigan 48152 ("Contractor"). City and Contractor agree as follows:

1. DEFINITIONS

Administering Service Area/Unit means **Administration / Fleet and Facility**.

Contract Administrator means Matthew J Kulhanek, acting personally or through any assistants authorized by the Administrator/Manager of the Administering Service Area/Unit.

Deliverables means all documents, plans, specifications, reports, recommendations, and other materials developed for and delivered to City by Contractor under this Agreement.

Effective Date means the date this Agreement is signed by the last party to sign it.

Project means Box Hangar Taxilane and Box Hangar Apron Pavement Reconstruction .

Services means Engineering Services as further described in Exhibit A.

2. DURATION

- A. The obligations of this Agreement shall apply beginning on the Effective Date and this Agreement shall remain in effect until satisfactory completion of the Services unless terminated as provided for in this Agreement.

3. SERVICES

- A. Contractor shall perform all Services in compliance with this Agreement. The City retains the right to make changes to the quantities of Services within the general scope of the Agreement at any time by a written order. If the changes add to or deduct from the extent of the Services, the compensation shall be adjusted accordingly. All such changes shall be executed under the conditions of the original Agreement.
- B. Quality of Services under this Agreement shall be of the level of quality performed by persons regularly rendering this type of service. Determination of acceptable quality shall be made solely by the Contract Administrator.
- C. Contractor shall perform Services in compliance with all applicable statutory, regulatory, and contractual requirements now or hereafter in effect. Contractor shall

also comply with and be subject to City policies applicable to independent contractors.

- D. Contractor may rely upon the accuracy of reports and surveys provided by the City, except when a defect should have been apparent to a reasonably competent professional or when Contractor has actual notice of a defect.

4. INDEPENDENT CONTRACTOR

- A. The parties agree that at all times and for all purposes under the terms of this Agreement each party's relationship to any other party shall be that of an independent contractor. Each party is solely responsible for the acts of its own employees, agents, and servants. No liability, right, or benefit arising out of any employer-employee relationship, either express or implied, shall arise or accrue to any party as a result of this Agreement.
- B. Contractor does not have any authority to execute any contract or agreement on behalf of the City, and is not granted any authority to assume or create any obligation or liability on the City's behalf, or to bind the City in any way.

5. COMPENSATION OF CONTRACTOR

- A. The total amount of compensation paid to Contractor under this Agreement shall not exceed \$55,942.81, which shall be paid upon invoice by Contractor to the City for services rendered according to the schedule in Exhibit A. Compensation of Contractor includes all reimbursable expenses unless a schedule of reimbursable expenses is included in an attached Exhibit A. Expenses outside those identified in the attached schedule must be approved in advance by the Contract Administrator.
- B. Payment shall be made monthly following receipt of invoices submitted by Contractor and approved by the Contract Administrator, unless a different payment schedule is specified in Exhibit A.
- C. Contractor shall be compensated for additional work or Services beyond those specified in this Agreement only when the scope of and compensation for the additional work or Services have received prior written approval of the Contract Administrator.
- D. Contractor shall keep complete records of work performed (e.g. tasks performed, hours allocated, etc.) so that the City may verify invoices submitted by Contractor. Such records shall be made available to the City upon request and submitted in summary form with each invoice.

6. INSURANCE/INDEMNIFICATION

- A. Contractor shall procure and maintain from the Effective Date or Commencement Date of this Agreement (whichever is earlier) through the conclusion of this Agreement, such insurance policies, including those required by this Agreement, as will protect itself and the City from all claims for bodily injury, death, or property damage that may arise under this Agreement; whether the act(s) or omission(s) giving rise to the claim were

made by Contractor, Contractor's subcontractor, or anyone employed by Contractor or Contractor's subcontractor directly or indirectly. Prior to commencement of work under this Agreement, Contractor shall provide documentation to the City demonstrating Contractor has obtained the policies and endorsements required by this Agreement. Contractor shall provide such documentation in a form and manner satisfactory to the City. Currently, the City requires insurance to be submitted through its contractor, myCOI. Contractor shall add registration@mycoitracking.com to its safe sender's list so that it will receive necessary communication from myCOI. When requested, Contractor shall provide the same documentation for its subcontractors.

B. All insurance providers of Contractor shall be authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-authorized insurance companies are not acceptable unless approved in writing by the City.

C. To the fullest extent permitted by law, Contractor shall indemnify, defend, and hold the City and its officers, employees, and agents harmless from all suits, claims, judgments, and expenses, including attorney's fees, resulting or alleged to result, from an act or omission by Contractor or Contractor's employees or agents occurring in the performance or breach of this Agreement, except to the extent that any suit, claim, judgment, or expense are finally judicially determined to have resulted from the City's negligence, willful misconduct, or failure to comply with a material obligation of this Agreement. The obligations of this paragraph shall survive the expiration or termination of this Agreement.

D. Contractor is required to have the following minimum insurance coverage:

1. Professional Liability Insurance or Errors and Omissions Insurance protecting Contractor and its employees - \$1,000,000.

2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 04 13 or current equivalent. The City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy.

\$1,000,000	Each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined
\$2,000,000	Per project General Aggregate
\$1,000,000	Personal and Advertising Injury

3. Worker's Compensation Insurance in accordance with all applicable state and federal statutes; also, Employers Liability Coverage for:

Bodily Injury by Accident - \$500,000 each accident
Bodily Injury by Disease - \$500,000 each employee
Bodily Injury by Disease - \$500,000 each policy limit

4. Umbrella/Excess Liability Insurance shall be provided to apply in excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.
- E. Commercial General Liability Insurance and Motor Vehicle Liability Insurance (if required by this Agreement) shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Contractor agrees to waive any right of recovery by its insurer against the City for any insurance listed herein.
- F. Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional and unqualified 30-day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number(s); name of insurance company; name(s), email address(es), and address(es) of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions, which may be approved by the City in its sole discretion; (c) that the policy conforms to the requirements specified. Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. If any of the above coverages expire by their terms during the term of this Agreement, Contractor shall deliver proof of renewal and/or new policies and endorsements to the Administering Service Area/Unit at least ten days prior to the expiration date.

7. WAGE AND NONDISCRIMINATION REQUIREMENTS

- A. Nondiscrimination. Contractor shall comply, and require its subcontractors to comply, with the nondiscrimination provisions of MCL 37.2209. Contractor shall comply with the provisions of Section 9:158 of Chapter 112 of Ann Arbor City Code and assure that Contractor's applicants for employment and employees are treated in a manner which provides equal employment opportunity.
- B. Living Wage. If Contractor is a "covered employer" as defined in Chapter 23 of Ann Arbor City Code, Contractor must comply with the living wage provisions of Chapter 23 of Ann Arbor City Code, which requires Contractor to pay those employees providing Services to the City under this Agreement a "living wage," as defined in Section 1:815 of the Ann Arbor City Code, as adjusted in accordance with Section 1:815(3); to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this Agreement are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

8. REPRESENTATIONS AND WARRANTIES BY CONTRACTOR

- A. Contractor warrants that the quality of Services shall conform to the level of quality performed by persons regularly rendering this type of service.
- B. Contractor warrants that it has all the skills, experience, and professional and other licenses necessary to perform the Services.
- C. Contractor warrants that it has available, or will engage at its own expense, sufficient trained employees to provide the Services.
- D. Contractor warrants that it has no personal or financial interest in this Agreement other than the fee it is to receive under this Agreement. Contractor certifies that it will not acquire any such interest, direct or indirect, which would conflict in any manner with the performance of the Services. Contractor certifies that it does not and will not employ or engage any person with a personal or financial interest in this Agreement.
- E. Contractor warrants that it is not, and shall not become overdue or in default to the City for any contract, debt, or any other obligation to the City, including real and personal property taxes. Further Contractor agrees that the City shall have the right to set off any such debt against compensation awarded for Services under this Agreement.
- F. Contractor warrants that its bid or proposal for services under this Agreement was made in good faith, that it arrived at the costs of its proposal independently, without consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to such costs with any competitor for these services; and no attempt has been made or will be made by Contractor to induce any other person or entity to submit or not to submit a bid or proposal for the purpose of restricting competition.
- G. The person signing this Agreement on behalf of Contractor represents and warrants that they have express authority to sign this Agreement for Contractor and agrees to hold the City harmless for any costs or consequences of the absence of actual authority to sign.
- H. The obligations, representations, and warranties of this section 8 shall survive the expiration or termination of this Agreement.

9. OBLIGATIONS OF THE CITY

- A. The City shall give Contractor access to City properties and project areas as required to perform the Services.
- B. The City shall notify Contractor of any defect in the Services of which the Contract Administrator has actual notice.

10. ASSIGNMENT

- A. Contractor shall not subcontract or assign any portion of any right or obligation under this Agreement without prior written consent from the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises, and performances required of Contractor under the Agreement unless specifically released from the requirement in writing by the City.
- B. Contractor shall retain the right to pledge payments due and payable under this Agreement to third parties.

11. TERMINATION OF AGREEMENT

- A. If either party is in breach of this Agreement for a period of 15 days following receipt of notice from the non-breaching party with respect to the breach, the non-breaching party may pursue any remedies available against the breaching party under applicable law, including the right to terminate this Agreement without further notice. The waiver of any breach by any party to this Agreement shall not waive any subsequent breach by any party.
- B. The City may terminate this Agreement, on at least 30 days' advance notice, for any reason, including convenience, without incurring any penalty, expense, or liability to Contractor, except the obligation to pay for Services actually performed under the Agreement before the termination date.
- C. Contractor acknowledges that if this Agreement extends for several fiscal years, continuation of this Agreement is subject to appropriation of funds through the City budget process. If funds are not appropriated or otherwise made available, the City shall have the right to terminate this Agreement without penalty at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to Contractor. The Contract Administrator shall give Contractor written notice of such non-appropriation within 30 days after the Contract Administrator has received notice of such non-appropriation.
- D. The expiration or termination of this Agreement shall not release either party from any obligation or liability to the other party that has accrued at the time of expiration or termination, including a payment obligation that has already accrued and Contractor's obligation to deliver all Deliverables due as of the date of termination of the Agreement.

12. REMEDIES

- A. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege, power, obligation, duty, or immunity of the parties.
- B. All rights and remedies provided in this Agreement are cumulative and not exclusive, and the exercise by either party of any right or remedy does not preclude the exercise of any other rights or remedies that may now or subsequently be available at law, in equity, by statute, in any other agreement between the parties, or otherwise.
- C. Absent a written waiver, no act, failure, or delay by a party to pursue or enforce any

right or remedy under this Agreement shall constitute a waiver of that right with regard to any existing or subsequent breach of this Agreement. No waiver of any term, condition, or provision of this Agreement, whether by conduct or otherwise, shall be deemed or construed as a continuing waiver of any term, condition, or provision of this Agreement. No waiver by either party shall subsequently affect the waiving party's right to require strict performance of this Agreement.

13. NOTICE

All notices and submissions required under this Agreement shall be delivered to the respective party in the manner described herein to the address stated below or such other address as either party may designate by prior written notice to the other. Notices given under this Agreement shall be in writing and shall be personally delivered, sent by next day express delivery service, certified mail, or first class U.S. mail postage prepaid, and addressed to the person listed below. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; (2) the next business day when notice is sent next day express delivery service or personal delivery; or (3) three days after mailing first class or certified U.S. mail.

If Notice is sent to Contractor:

C&S ENGINEERS INC
ATTN: Aaron Aljets
38777 Six Mile Road, Suite 202
Livonia, Michigan 48152

If Notice is sent to the City:

City of Ann Arbor
ATTN: Matthew J Kulhanek
301 E. Huron St.
Ann Arbor, Michigan 48104

With a copy to: The City of Ann Arbor
ATTN: Office of the City Attorney
301 East Huron Street, 3rd Floor
Ann Arbor, Michigan 48104

14. CHOICE OF LAW AND FORUM

This Agreement will be governed and controlled in all respects by the laws of the State of Michigan, including interpretation, enforceability, validity and construction, excepting the principles of conflicts of law. The parties submit to the jurisdiction and venue of the Circuit Court for Washtenaw County, State of Michigan, or, if original jurisdiction can be established, the United States District Court for the Eastern District of Michigan, Southern Division, with respect to any action arising, directly or indirectly, out of this Agreement or the performance or breach of this Agreement. The parties stipulate that the venues referenced in this Agreement are convenient and waive any claim of non-convenience.

15. OWNERSHIP OF DOCUMENTS

Upon completion or termination of this Agreement, all Deliverables prepared by or obtained by Contractor as provided under the terms of this Agreement shall be delivered to and become the property of the City. Original basic survey notes, sketches, charts, drawings, partially completed drawings, computations, quantities, and other data shall remain in the possession of Contractor as instruments of service unless specifically incorporated in a Deliverable, but shall be made available, upon request, to the City without restriction or limitation on their use. The City acknowledges that the documents are prepared only for the Services. Prior to completion of the Services the City shall have a recognized proprietary interest in the work product of Contractor.

16. CONFLICTS OF INTEREST OR REPRESENTATION

Contractor certifies it has no financial interest in the Services to be provided under this Agreement other than the compensation specified herein. Contractor further certifies that it presently has no personal or financial interest, and shall not acquire any such interest, direct or indirect, which would conflict in any manner with its performance of the Services under this Agreement.

Contractor agrees to advise the City if Contractor has been or is retained to handle any matter in which its representation is adverse to the City and to obtain the City's consent therefor. The City's prospective consent to Contractor's representation of a client in matters adverse to the City, as identified above, will not apply in any instance where, as the result of Contractor's representation, Contractor has obtained sensitive, proprietary, or otherwise confidential information of a non-public nature that, if known to another client of Contractor, could be used in any such other matter by the other client to the material disadvantage of the City. Each matter will be reviewed on a case by case basis.

17. SEVERABILITY OF PROVISIONS

Whenever possible, each provision of this Agreement will be interpreted in a manner as to be effective and valid under applicable law. However, if any provision of this Agreement or the application of any provision to any party or circumstance is prohibited by or invalid under applicable law, that provision will be ineffective to the extent of the prohibition or invalidity without invalidating the remainder of the provisions of this Agreement or the application of the provision to other parties and circumstances.

18. EXTENT OF AGREEMENT

This Agreement, together with all Exhibits constitutes the entire understanding between the City and Contractor with respect to the subject matter of the Agreement and it supersedes, unless otherwise incorporated by reference herein, all prior representations, negotiations, agreements, or understandings, whether written or oral. Neither party has relied on any prior representations in entering into this Agreement. No terms or conditions of either party's invoice, purchase order, or other administrative document shall modify the terms and conditions of this Agreement, regardless of the other party's failure to object to such terms or conditions. This Agreement shall be binding on and shall inure to the benefit of the parties to this Agreement and their permitted successors and permitted assigns and nothing in this Agreement, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Agreement. This Agreement may only be

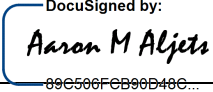
altered, amended, or modified by written amendment signed by Contractor and the City. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement.

19. ELECTRONIC TRANSACTION

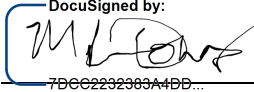
The parties agree that signatures on this Agreement may be delivered electronically or by facsimile in lieu of a physical signature and agree to treat electronic or facsimile signatures as binding.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; SIGNATURE PAGES FOLLOW]

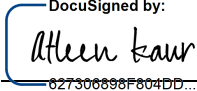
C&S ENGINEERS INC

By: 
Name: Aaron Aljets
Title: Managing Engineer
Date: 11/13/2024

CITY OF ANN ARBOR

By: 
Name: Milton Dohoney Jr.
Title: City Administrator
Date: 11/14/2024

Approved as to form:

By: 
Name: Atleen Kaur
Title: City Attorney
Date: 11/13/2024

October 2008

CONTRACT FOR PROFESSIONAL ENGINEERING SERVICE

This Contract is made and entered into this date of _____, 2024 by and between the Airport Owner, hereinafter referred to as SPONSOR,

City of Ann Arbor

301 E. Huron Street,

Ann Arbor, Michigan 48108

and the Engineer, hereinafter referred to as the CONSULTANT,

C&S Engineers, Inc.

38777 Six Mile Rd., Suite 202

Livonia, MI 48152

for the following PROJECT:

Location: _____
Ann Arbor Municipal Airport

Ann Arbor, Michigan

Description: _____
Project A – Reconstruct Hangar Apron – Reconstruct

Northwest T-Hangar Hangar Apron Adjacent to

Box Hangars

Project B – Reconstruct Hangar Apron – Reconstruct

Northwest T-Hangar Hangar Taxilane Adjacent to

Box Hangars

(See Attachment D - Sketch for Location of Work Areas.)

WHEREAS, the SPONSOR desires to engage the CONSULTANT to perform professional

engineering services for the described project;

WHEREAS, the SPONSOR has caused a review to be made of the qualifications of the CONSULTANT and is satisfied the CONSULTANT is competent and qualified;

WHEREAS, the CONSULTANT is willing and able to accomplish the services provided and set forth hereinafter in this Contract;

WHEREAS, the SPONSOR will compensate the CONSULTANT, in accordance with the terms and conditions set forth in this Contract.

NOW, THEREFORE, the parties agree to the following:

ARTICLE 1 – DESCRIPTION OF WORK TO BE DONE

The services to be furnished by the CONSULTANT to the SPONSOR, as set forth in Attachment E, Scope of Work/Services, together with obligations of the SPONSOR or the SPONSOR's Agent (Michigan Department of Transportation (MDOT), Aeronautics and Freight Services Bureau, Airports Division), hereinafter referred to as AERO, will contain certain information and data which will consist of the following described elements. Additional explanations are included in Attachment E.

DESIGN PHASE (1)

Element 1.11 - Pre-Design Conference

A pre-design conference called by the SPONSOR will be held between the SPONSOR, the CONSULTANT, and any other participating or regulatory governmental agency. This pre-design conference will be held for the express purpose of having the CONSULTANT ascertain from responsible representatives of each group, the SPONSOR and all participating governmental agencies, their individual project requirements affecting the scope of work, budget, design standards, presentation of final plans, and documents. The requirements set forth in this pre-design conference will be confirmed in writing by the CONSULTANT to the SPONSOR, with copies to each participating unit of government.

Element 1.12 - Engineering Survey

The CONSULTANT will determine the areas to be covered and make the necessary engineering field surveys to determine existing and topographical conditions, earth work, drainage, pavement conditions, structural elevations, and field testing as may be required to complete plans and specifications.

Element 1.13 - Detailed Construction Plans and Specifications

Plans and specifications will be certified by the CONSULTANT for compliance with current Federal Aviation Administration (FAA) and AERO requirements in effect at the time the plans and specifications are prepared. The CONSULTANT will prepare and furnish to the SPONSOR and AERO, in paper format, one copy of the final detailed construction plans and specifications for the work described above, presented on drawings (22" x 34") and other necessary

documentation (8-1/2" x 11"). This will include but is not limited to; grading, drainage, paving, lighting, turf establishment, structures, construction safety phasing, etc. The documents will set forth, in detail, requirements for prospective bidders to submit proposals and the successful bidder to construct the project. Plans and specifications will comply with the requirements established in the pre-design conference, if applicable, together with the common practice of design and ethical practices of professional engineers. The CONSULTANT will also furnish one set of review plans if requested.

All projects bid through the MDOT letting will also include two electronic files in portable document format (pdf) along with a signed and sealed paper title sheet. The electronic files will be set up to print clearly in scalable 11" x 17" and 22" x 34" plan sheets.

Element 1.14 - Estimate of Probable Construction Cost

The CONSULTANT will prepare and submit to both the SPONSOR and AERO one copy of a detailed estimate of construction costs based upon the detailed plans and specifications prepared under Element 1.13. This statement of probable construction cost prepared by the CONSULTANT represents the CONSULTANT's best judgment as a design professional at the time the estimate is finalized. This estimate will include the estimated amount for CONSULTANT services during construction. It is recognized, however, that neither the CONSULTANT nor the SPONSOR has any control over the cost of labor, materials, or equipment; over the contractor's method of determining bid prices; or over competitive bidding or market conditions. Accordingly, the CONSULTANT cannot and does not guarantee that bids will not vary from any statement of Probable Construction Cost or other cost estimates prepared by the CONSULTANT.

Element 1.15 - Engineering Report

The CONSULTANT will prepare and furnish to both the SPONSOR and AERO one copy of an engineering report which relates to the SPONSOR and participating governmental agencies the fundamental considerations and concepts used in design of the project. This report will include the basic design factors for drainage, pavement design, and scheduling of the various phases of the project during construction as may be required to maintain both ground and air traffic. Deviation in design and construction standards will be included in the engineering report.

Element 1.16 - Users Conference (if required)

The CONSULTANT will prepare for the SPONSOR an estimated time schedule to be followed during the construction period. This estimated time schedule of construction will be presented by the SPONSOR and the CONSULTANT in a meeting with airport users. The CONSULTANT will furnish one copy of the estimated time schedule to the SPONSOR for printing and disbursement to the users by the SPONSOR. However, it is recognized that neither the CONSULTANT nor the SPONSOR has absolute control over the estimated time schedule presented to any person, group, or organization.

Element 1.17 - Obligations of SPONSOR or AERO to CONSULTANT

When requested by the CONSULTANT, one copy of all existing data applicable to this project and in the possession of the SPONSOR or AERO or any other agency of government will be furnished at no cost to the CONSULTANT. Existing data will include but not be restricted to the

following:

- 1) As-constructed plans.
- 2) Pavement design data/pavement condition index.
- 3) Soil borings, analysis, and classification.
- 4) Drainage design data.
- 5) Topographic notes and maps.
- 6) Approach data and zoning maps.
- 7) Property maps, including fee ownership and easements, and land descriptions.
- 8) All local, state, federal ordinances, regulations, or laws affecting the project.
- 9) Aerial photography, prints, topographic maps, etc.

The SPONSOR or AERO will furnish for projects bid by MDOT, at no cost to the CONSULTANT, standard contract documents for bidders, including but not restricted to the following:

- 1) Notice to contractors (including advertising charges).
- 2) Instructions to bidders.
- 3) All federal, state, or local wage rates as applicable to this project.
- 4) General provisions of the contract.
- 5) Supplemental provisions of the contract.
- 6) Special provisions of the contract (except as may be supplemented by the CONSULTANT).
- 7) Standard construction specifications (except as may be supplemented by the CONSULTANT).
- 8) Standard supplemental specifications (except as may be supplemented by the CONSULTANT).
- 9) Standard testing requirements (except as provided by the CONSULTANT).
- 10) Proposal.
- 11) Construction contract.
- 12) Form of performance and lien bond.
- 13) Reproducible copies of all standard plans to be incorporated in the contract plans and documents.

The SPONSOR or AERO, at no cost to the CONSULTANT, will furnish the location for the receipt of bids, the tabulation and recording of bids, the disbursement of information before and after the bid process, and the award of construction contracts.

All such services, data, information, and documents furnished by the SPONSOR or AERO will be furnished at the SPONSOR's expense.

Element 1.18 - Conferences and Meetings

The following conferences and meetings will be attended by the CONSULTANT and the SPONSOR at the location indicated for the purpose of coordination, information, and understanding.

- 1) Pre-Design Conference as provided under Element 1.11 to be called by the SPONSOR and to be held at the project site.
- 2) Progress meetings to be determined by the SPONSOR will be held at the office of the SPONSOR and attended by the CONSULTANT to apprise the SPONSOR of progress, to resolve any problems, to answer questions, and for general coordination.
- 3) Upon completion by the CONSULTANT of final plans, specifications, cost estimates, and engineering report, the CONSULTANT will submit copies to the participating governmental agencies for approvals as required. After reasonable time for review by the SPONSOR and participating governmental agencies, a meeting called by the SPONSOR may be held to review final plans with the SPONSOR and participating governmental agencies at the project site.
- 4) Upon determination of the estimated construction time schedule, a users conference as provided under Element 1.16 is to be called by the SPONSOR, to be held at a location designated by the SPONSOR.
- 5) Upon advertising the project for bids, the CONSULTANT and the SPONSOR or AERO will hold a pre-bid meeting or briefing with the prospective bidders at the project site to explain the project to the bidders and answer questions from prospective bidders. Any addendum information necessary will be submitted in a timely manner to the bidding agency by the CONSULTANT. In addition, any bids over the engineers' construction estimate by ten (10) percent or more will be sufficiently justified before proceeding with award or recommended rejected by the CONSULTANT.

CONSTRUCTION PHASE (2)

Element 1.20 - Sufficient Personnel

The CONSULTANT will provide sufficient personnel and services necessary to comply with AERO Project Engineers Manual, the latest revision at the time this Contract is awarded.

Element 1.21 - Pre-Construction Conference

A pre-construction conference called by the SPONSOR or AERO will be held between the SPONSOR, the FAA (if applicable), AERO, any other participating or regulatory governmental agencies, the Contractor(s) and the CONSULTANT. This pre-construction conference will be held for the Contractor and CONSULTANT to receive instructions from the SPONSOR and participating/regulatory governmental units, to develop construction schedules, and to coordinate construction.

Element 1.22 - General Information and Coordination

The CONSULTANT will provide information and coordination to the SPONSOR and Contractor as to the understanding of the plans and specifications. The CONSULTANT will not guarantee the performance of the Contractor but will report to the SPONSOR any work and materials which, in the opinion of the CONSULTANT, do not meet the requirements of the plans and specifications. The CONSULTANT will not be responsible for any acts of the Contractor whatsoever but will only pay the contractor for work performed that meets the requirements of the plans and specifications.

Element 1.23 - Engineering Survey and Layout as May be Applicable

The CONSULTANT will take original ground elevations in areas of excavation for the purpose of determining pay quantities for excavation. The CONSULTANT will stake out the work for line and grade. The stake out will consist of one set of earth grade stakes spaced not more than one hundred feet apart, with cut or fill from top of stake to the earth grade marked on the stake; slope stakes around the perimeter of grade; one set of offset stakes for drainage spaced not more than twenty-five (25) feet apart with offset distance to center of pipe and flowline of pipe marked on the stake; one set of blue top stakes driven to grade spaced not more than fifty (50) feet apart for finish base course or pavement grade; and one offset line along the edge of pavement denoting location of each light fixture. All bench marks and alignment P.O.T.'s will be available to the Contractor for his reference and checking of the CONSULTANT's stakes. The CONSULTANT will not be responsible for setting stakes other than described above, for any stakes disturbed, and any stakes set by others including bench marks and P.O.T.'s.

Element 1.24 - Materials Testing and Shop Drawings

The CONSULTANT will review and approve material testing reports submitted by the Contractor to determine if test reports meet the requirements of the specifications and will submit two copies of material testing reports to the SPONSOR or AERO. The CONSULTANT will review and approve shop drawings to determine compliance with plans and specifications and will submit two copies of all shop drawings to the SPONSOR or AERO.

Element 1.25 - Field Tests and Grade Inspection as May be Applicable

The CONSULTANT will make periodic field tests and grade inspection at the project site to determine, in the opinion of the CONSULTANT, if materials and workmanship conform to the plans and specifications. Field tests will include compaction tests for soils in place; gradation tests for aggregates; extraction tests for bituminous mixtures and compaction tests for in-place bituminous pavements; and slump, entrained air, and yield tests for concrete pavement.

Element 1.26 - Cost Estimate and Change Orders/Contract Modifications

The CONSULTANT will prepare periodic cost estimates, change orders/contract modifications, and stop and start orders as may be applicable during the construction period and present three copies of the same to the SPONSOR or AERO for approval and processing. All projects bid through MDOT lettings will have all estimates and contract modifications processed using the FieldManager computer program.

Element 1.27 - Weekly Reports

The CONSULTANT will prepare FAA Form 5370-1, Construction Progress and Inspection Report or FieldManager inspector daily reports, and submit copies to the SPONSOR or AERO weekly during the construction period.

Element 1.28 - Final Inspection

The CONSULTANT will be present at final inspection, together with the SPONSOR, AERO, participating governmental units, and the Contractor.

Element 1.29 - Final Quantities - As-Constructed Plans

The CONSULTANT will compute final pay quantities, prepare as-constructed plans, and update all plan sheets of the current Airport Layout Plan (ALP) that shows work constructed under the project. The As-Constructed Plans will be submitted to the SPONSOR and AERO for approval in an electronic pdf file. The updated ALP will be submitted in paper (22"x 34") and in an electronic pdf file to the SPONSOR and AERO.

Element 1.30 - Equipment

The CONSULTANT will furnish all necessary surveying and field testing equipment to accomplish the above named work.

SUBCONSULTANT SERVICES (3)

Element 1.31 - Subconsultant Service

Any services to be provided by subconsultants will be provided for in a subconsultant agreement, which will meet the written approval of the SPONSOR. Costs of subconsultant services will be included in Element 3.1 – Fee. The CONSULTANT will not apply a fixed fee on any of the costs for subconsultant services.

ARTICLE 2 – TIME OF BEGINNING AND COMPLETION

DESIGN PHASE (1)

Element 2.11 - Time of Beginning

Upon acceptance of this Contract by both the SPONSOR and the CONSULTANT, the CONSULTANT will have seven (7) days from the date of notification to proceed in which to organize and actually commence work.

Element 2.12 - Time for Completion

The estimated time for the CONSULTANT to complete the work named in Element 1.11 through Element 1.18 of this Contract, and to submit final plans to the SPONSOR for the SPONSOR's approval is two hundred and forty (240) calendar days from the date the CONSULTANT actually starts work. The CONSULTANT will report his progress to the SPONSOR at the monthly progress meetings, as required under Element 1.18, to keep the SPONSOR informed of progress and any adjustments to the estimated time schedule which may be necessary because of information supplied to the CONSULTANT by the SPONSOR or AERO, as provided under Element 1.17, or any other reasons beyond the control of either the SPONSOR or the CONSULTANT. Changes in time for completion will be in accordance with Element 4.4.

CONSTRUCTION PHASE (2)

Element 2.21 - Time of Beginning

Provided the Notice to Proceed is issued sufficiently in advance of the start of construction, the CONSULTANT will begin work seven (7) days prior to the effective date of the Notice to Proceed

to the Contractor. If not, the CONSULTANT will coordinate the beginning of work with the work of the construction contractor.

Element 2.22 - Time for Completion

The CONSULTANT will finish all work under this Contract within thirty (30) days after final acceptance of the construction work by the SPONSOR.

ARTICLE 3 – PAYMENT

Element 3.1 - Fee

The SPONSOR agrees to pay the CONSULTANT as full compensation for services rendered as set forth in this Contract as follows:

Phase 1 Design

Elements 1.11, 1.12, 1.13, 1.14, 1.15, 1.16, 1.18 and 1.31 a firm fixed fee of \$55,942.81 (~~\$29,550.65~~ for Project A and \$26,392.16 for Project B). A breakdown of the cost is included as Attachment C.

The SPONSOR will compensate the CONSULTANT for requested printed materials in excess of those identified, in accordance with the following:

Black Print Plan sheets (22" x 34")	_____ /sheet
Black Print on White Paper (11" x 17")	_____ /sheet
Black Print on White Paper (8.5" x 11")	_____ /sheet

Phase (2) Construction

Elements 1.20, 1.21, 1.22, 1.23, 1.24, 1.25, 1.26, 1.27, 1.28, 1.29, 1.30, and 1.31 a firm fixed fee of (to be negotiated as an Amendment to this Contract, upon completion of design and advertising for bids).

The fee described above will be considered payment in full by the SPONSOR to the CONSULTANT for all services rendered except as hereinafter provided under Article 4 - Element 4.3 - Changes in Work and Element 4.4 - Delays and Extensions. Phase (2) Construction may not be needed if it is determined by the SPONSOR to terminate this Contract at the completion of Phase (1) Design.

Element 3.2 - Progress Payments

Phase (1) Design/Phase (2) Construction

Progress payments for completed work will be based on the following schedule of payments:

All charges for service will be due and payable upon receipt of invoice by SPONSOR. In the event Phase (1) Design is completed but bids are not received, final payment will be due and payable sixty (60) days after completion of Phase (1) Design.

The CONSULTANT will submit periodic invoices for services rendered. Each invoice will be based upon the proportion of the total service actually completed at the time of billing. The final invoice will be a minimum of 10% of the total contract amount. Payment on this invoice will be retained by AERO until all Contract requirements have been completed. The SPONSOR will make prompt payments in response to the CONSULTANT's periodic statements.

The CONSULTANT agrees to pay each subconsultant for the satisfactory completion of work associated with the subcontract no later than ten (10) calendar days from the receipt of each payment the CONSULTANT receives from the State of Michigan or SPONSOR. The CONSULTANT agrees further to return retainage payments to each subconsultant within ten (10) calendar days after the subconsultant's work is satisfactorily completed. Any delay or postponement of payment from these time frames may occur only upon receipt of written approval from the SPONSOR or AERO. These requirements are also applicable to all sub-tier subconsultants and will be made a part of all subconsultant agreements.

This prompt payment provision is a requirement of 49 CFR, Part 26, as amended, and does not confer third-party beneficiary right or other direct right to a subconsultant against the SPONSOR or the State of Michigan. This provision applies to both Disadvantaged Business Enterprise (DBE) and non-DBE subconsultants.

The CONSULTANT further agrees that it will comply with 49 CFR, Part 26, as amended, and will report any and all DBE subconsultant payments to AERO semi-annually in the format set forth in Attachment G, dated June 1, 2001, attached hereto and made a part hereof, or any other format acceptable to the SPONSOR or AERO.

At the end of the State of Michigan fiscal year, the CONSULTANT will submit estimated payment amounts for both the CONSULTANT and contractors working on projects the CONSULTANT is supervising. These amounts will be submitted to the State of Michigan to establish a payable account.

ARTICLE 4 – MISCELLANEOUS PROVISIONS

Element 4.1 - Miscellaneous Provisions

The CONSULTANT will follow, insofar as applicable and reasonable and as approved by the SPONSOR, current design standards set forth by the SPONSOR, AERO and other participating governmental agencies in effect at the time the work herein provided is started. In the event design standards change after the CONSULTANT has completed that portion of the work to which a particular standard may apply, and in the event the CONSULTANT is required by the SPONSOR to make revisions to completed work to meet revised standards and certification requirements, the CONSULTANT will be entitled to additional compensation as provided under Element 4.3 - Changes in Work.

Design standards, standard plans, specifications, special conditions, contract documents, and

requirements developed by the SPONSOR, AERO, or other participating governmental agency and required to be incorporated in the final plans and documents will not be the responsibility of the CONSULTANT. All liability to third parties, for loss or damage as a result of claims, demands, costs, or judgments arising out of activities, to be carried out by the SPONSOR in the performance of this contract will be the responsibility of the SPONSOR, and not the responsibility of the CONSULTANT, if the liability, loss, or damage is caused by or arises out of, the action or failure to act on the part of the SPONSOR, or any elected or appointed officer, employee or agent of the SPONSOR, provided that nothing herein will be construed as a waiver of any governmental immunity that has been provided to the SPONSOR, or any elected or appointed officer, employee or agent of the SPONSOR by statute or court decision.

Element 4.2 - Ownership of Documents

Completed original documents, such as final contract plans, maps and specifications prepared or obtained by the CONSULTANT as provided under the terms of this Contract will be submitted in final form. The final form of the originals will be delivered to and become the property of the SPONSOR. Original basic survey notes, sketches, charts, drawings, partially completed drawings, computations, quantities and other data will remain in the possession of the CONSULTANT as instruments of service but will be made available, upon request, to the SPONSOR without restriction or limitation on their use.

In the event any of the above documents are revised by the SPONSOR, the nameplates of the CONSULTANT will be removed and the SPONSOR will assume full responsibility for the reuse of these documents.

The original signed and sealed title sheet for projects bid through MDOT will be retained in AERO files. The CONSULTANT will be provided a scanned .tif electronic file for use in completing the as-constructed plan sheets.

Element 4.3 - Changes in Work

By mutual acceptance of both the SPONSOR and the CONSULTANT, changes in work from that work described in this Contract, including changes in original design standards and changes in previously completed final plans may be accomplished by amendment to this Contract. Each amendment will describe the revision or addition of work in detail. The associated cost of the revised or additional work will be defined in a fixed dollar amount, and an adjustment to the payment schedule (if applicable) contained in this Contract will be provided. Any change to the contract time will also be defined in each amendment. Each amendment must be signed and dated by both the SPONSOR and the CONSULTANT.

Element 4.4 - Delays and Extensions

Changes in the estimated time schedule as may be required by the SPONSOR or the CONSULTANT will be in writing, setting forth the reason for delay or extension, and the estimated time adjustment necessary or as provided in Element 4.3 - Changes in Work.

Element 4.5 - Insurance and Liability

The CONSULTANT will maintain worker's compensation and public liability insurance as required by law and will, upon request, show proof of compliance with this requirement.

Element 4.6 - General Compliance with Laws

Unless otherwise specified, this Contract will be governed by the laws of the principal address of the SPONSOR. The CONSULTANT agrees to comply with all federal, state and local laws applicable to the work.

Element 4.7 - Subletting, Assignment and Transfer

The SPONSOR and the CONSULTANT each binds themselves, their partners, successors, assignees and legal representatives to the other party to this Contract and to the partners, successors, assignees, and legal representatives of such other party with respect to all covenants of this Contract. Neither the SPONSOR nor the CONSULTANT will assign, sublet, or transfer their interest in this Contract without the written consent of the other.

Element 4.8 - CONSULTANT's Endorsement

The CONSULTANT will seal and sign all final plans and specifications furnished to the SPONSOR.

Element 4.9 - Disputes

All disputes concerning a question of fact in connection with work not disposed of by agreement between the SPONSOR and the CONSULTANT will be settled through standard court actions.

Element 4.10 - Responsibility for Claims and Liability

The CONSULTANT will save harmless the SPONSOR, AERO, FAA, or other governmental agencies from all claims and liability due to negligence of the CONSULTANT or its subcontractors, except as provided in Element 4.1.

Element 4.11 - Assignment of Antitrust Rights

With regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the SPONSOR or AERO under this Contract, the CONSULTANT hereby irrevocably assigns its right to pursue any claims for relief or causes of action for damages sustained by the State of Michigan or the MDOT due to any violation of 15 USC, Sections 1 - 15, and/or 1984 PA 274, MCL 445.771 - .788, excluding Section 4a, to the State of Michigan or MDOT.

The CONSULTANT will require any subcontractors to irrevocably assign their rights to pursue any claims for relief or causes of action for damages sustained by the State of Michigan or the MDOT with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the MDOT under this Contract due to any violation of 15 USC, Sections 1 - 15 and/or 1984 PA 274, MCL 445.771 - .788, excluding Section 4a, to the State of Michigan or MDOT as a third-party beneficiary.

The CONSULTANT will notify the SPONSOR if it becomes aware that an antitrust violation with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the SPONSOR or AERO under this Contract may have occurred or is threatened to

occur. The CONSULTANT will also notify the SPONSOR or AERO if it becomes aware of any persons intent to commence, or of commencement of, an antitrust action with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the SPONSOR or AERO under this Contract.

Element 4.12 - Prohibition of Discrimination in State Contracts

The CONSULTANT hereby agrees to comply with the requirements of Appendix A, attached hereto and made a part hereof.

Element 4.13 – Additional Provisions

Additional provisions of this Contract are included as Attachment B.

Element 4.14 – Non-Construction Requirements

The CONSULTANT hereby agrees to comply with the requirements of the Non-construction requirements of Attachment F, attached hereto and made a part hereof.

IN WITNESS WHEREOF the parties hereto have fixed their hand this day and date first written above.

ACCEPTED BY THE SPONSOR

Witness: _____
City of Ann Arbor
SPONSOR
301 E. Huron Street,
Street Address
Ann Arbor, Michigan 48108
City, State & Zip Code

BY: _____
Authorized Representative of SPONSOR

.....
ACCEPTED BY THE CONSULTANT

Witness: _____
C&S Engineers, Inc.
CONSULTANT
38777 Six Mile Road, Suite 202
Street Address
Livonia, MI 48152
City, State & Zip Code

BY: _____
Authorized Representative

INCLUDE THIS PAGE IN ALL CONTRACTS!!

Consultants are advised to use the following attachment schedule. Any additional clauses or requirements should be included in Attachment B. The preceding is the base contract; no changes may be made to the wordage or numbering without the written approval of the Airports Division, Bureau of Aeronautics and Freight Services.

SCHEDULE OF ATTACHMENTS

Attachment A	Prohibition of Discrimination in State Contracts
Attachment B	Additional Provisions
Attachment C	Cost Breakdown
Attachment D	Sketches
Attachment E	Scope of Work/Services
Attachment F	Non-construction (professional services) contract requirements
Attachment G	Prime CONSULTANT Statement of DBE Subconsultant Payments

**APPENDIX A
PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS**

In connection with the performance of work under this contract; the Contractor agrees as follows:

1. In accordance with Act No. 453, Public Acts of 1976, the Contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, or marital status. Further, in accordance with Act No. 220, Public Acts of 1976 as amended by Act No. 478, Public Acts of 1980, the Contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of a handicap that is unrelated to the individual's ability to perform the duties of a particular job or position. A breach of the above covenants will be regarded as a material breach of this contract.
2. The Contractor hereby agrees that any and all subcontracts to this contract, whereby a portion of the work set forth in this contract is to be performed, will contain a covenant the same as hereinbefore set forth in Section 1 of this Appendix.
3. The Contractor will take affirmative action to insure that applicants for employment and employees are treated without regard to their race, color, religion, national origin, age, sex, height, weight, marital status or a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. Such action will include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
4. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status or disability that is unrelated to the individual's ability to perform the duties of a particular job or position.
5. The Contractor or his collective bargaining representative will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the Contractor's commitments under this appendix.
6. The Contractor will comply with all relevant published rules, regulations, directives, and orders of the Michigan Civil Rights Commission which may be in effect prior to the taking of bids for any individual state project.

7. The Contractor will furnish and file compliance reports within such time and upon such forms as provided by the Michigan Civil Rights Commission, said forms may also elicit information as to the practices, policies, program, and employment statistics of each subcontractor as well as the Contractor himself, and said Contractor will permit access to his books, records, and accounts by the Michigan Civil Rights Commission, and/or its agent, for purposes of investigation to ascertain compliance with this contract and relevant with rules, regulations, and orders of the Michigan Civil Rights Commission.
8. In the event that the Civil Rights Commission finds, after a hearing held pursuant to its rules, that a contractor has not complied with the contractual obligations under this Contract, the Civil Rights Commission may, as part of its order based upon such findings, certify said findings to the Administrative Board of the State of Michigan, which Administrative Board may order the cancellation of the contract found to have been violated, and/or declare the Contractor ineligible for future contracts with the state and its political and civil subdivisions, departments, and officers, and including the governing boards of institutions of higher education, until the contractor complies with said order of the Civil Rights Commission. Notice of said declaration of future ineligibility may be given to any or all of the persons with whom the Contractor is declared ineligible to contract as a contracting party in future contracts. In any case before the Civil Rights Commission in which cancellation of an existing contract is a possibility, the contracting agency will be notified of such possible remedy and will be given the option by the Civil Rights Commission to participate in such proceedings.
9. The Contractor will include, or incorporate by reference, the provisions of the foregoing paragraphs (1) through (8) in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission, and will provide in every subcontract or purchase order that said provisions will be binding upon each subcontractor or seller.

March 1998

ATTACHMENT B

Additional Provisions

Project Figure:

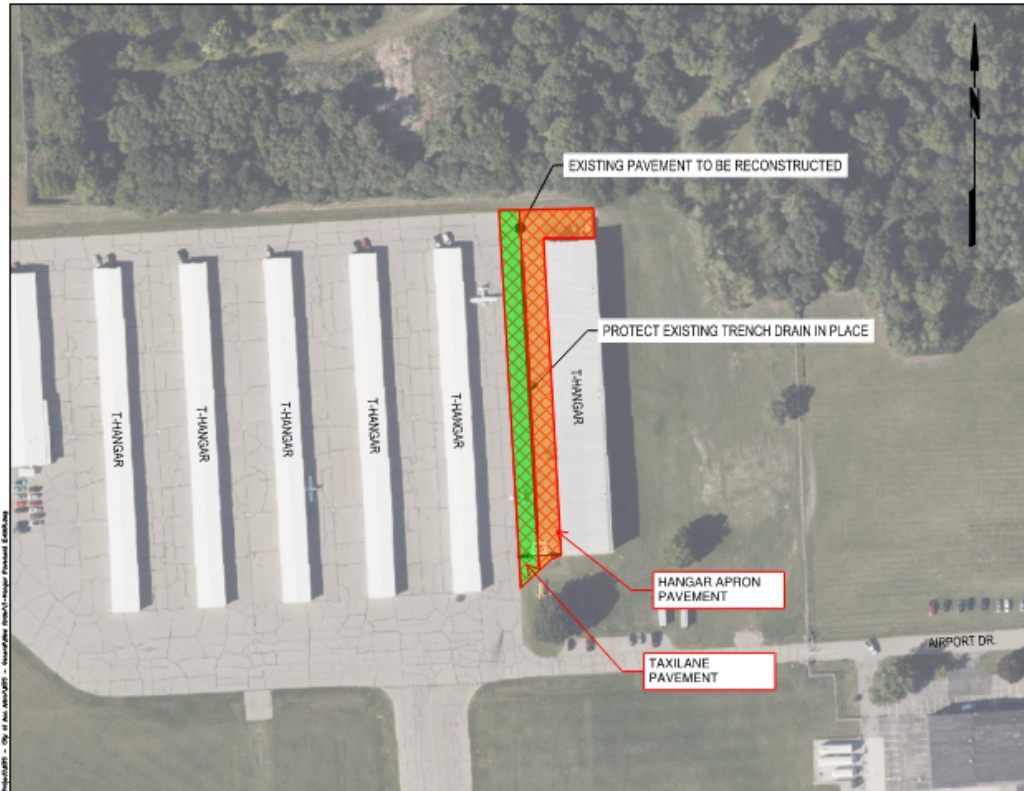


Figure 1-1
Reconstruct Hangar Apron

SCALE = 1" = 100'



ANN ARBOR MUNICIPAL AIRPORT
ANN ARBOR, MI

ATTACHMENT C

Cost Breakdown



ENGINEERING COST SUMMARY SCHEDULE "B" DESIGN PHASE

PROJECT NAME: Project A: Reconstruct Hangar Apron – Reconstruct Northwest
T-Hangar Hangar Apron Adjacent to Box Hangars

PROJ DESCRIPTION: Design and bidding services for apron reconstruction

CLIENT: City of Ann Arbor

CLIENT LEAD: Aaron Aljets, PE

DATE: 30-Oct-24

A/E: C & S ENGINEERS, INC.

PROJECT NO: N75005001

C&S CONTACT: AMA

I. ESTIMATE OF DIRECT SALARY COSTS:

	TITLE	AVERAGE RATE OF PAY (\$/HR)	@	ESTIMATED HOURS		ESTIMATED COST
F.	Principal Engineer	\$86.00	X	33	=	\$2,838.00
J.	Project Engineer	\$56.00	X	40	=	\$2,240.00
L.	Staff Engineer	\$44.00	X	66	=	\$2,904.00
TOTAL ESTIMATED DIRECT SALARY COST:						\$7,982.00

II. OVERHEAD EXPENSES & PAYROLL BURDEN PER SCHEDULE "C" -

(AGREED OVERHEAD EXPRESSED AS A PERCENTAGE
OF DIRECT SALARY COST):

170.00% \$13,569.40

III. SUBTOTAL OF ITEMS I & II:

\$21,551.40

IV. ESTIMATE OF DIRECT EXPENSES:

A.	TRAVEL, BY AUTO:					
		2	TRIPS @	40	MILES/TRIP @	\$0.670 = \$53.60
B.	MISCELLANEOUS:					= \$250.00
TOTAL ESTIMATE OF DIRECT EXPENSES:						\$303.60

V. FIXED FEE (PROFIT, LUMP SUM):

A.	LABOR PLUS OVERHEAD:	11%	(OF III.)	\$2,370.65
B.	DIRECT EXPENSES:	0%	(OF IV.)	\$0.00
TOTAL FIXED FEE:				\$2,370.65

VI. SUBCONTRACTS:

A.	ESTIMATE OF TOPOGRAPHICAL SURVEYS:		\$1,750.00
B.	ESTIMATE OF SUBSURFACE INVESTIGATION & TESTS:		
TOTAL ESTIMATED SUBSURFACE INVESTIGATION & TESTS:			\$3,575.00

VII. TOTALS:

A. MAXIMUM TOTAL COST FOR SERVICES, AGREEMENT TOTAL & FAA ELIGIBLE: \$29,550.65

**C&S ENGINEERS, INC.
ENGINEERING
WORK SUMMARY**

Date: 10/24/24

PROJECT: ARB Northwest T-Hangar Apron Pavement Reconstruction
 SERVICES: Design and bidding services
 CLIENT: City of Ann Arbor
 CLIENT LEAD: Aaron Aljets, PE

Service Group Mgr: KJJ
 Client Relations Manager: AMA
 Project Manager: AMA
 Project Number: N75005001

CONT NO.	PHASE NO.	TASK	PRINC ENG	PROJ ENG	STAFF ENG	DIRECT COSTS	SERVICES BY OTHERS	TOTALS	TOTAL HOURS PER TASK
		Project A - Reconstruct Hangar Apron – Reconstruct Northwest T-Hangar Hangar Apron Adjacent to Box Hangars							
		<u>Project Management</u>							
		During the Design Phase, to aid the Sponsor by acting as its liaison and Project coordinator with the funding agencies.	1					\$257.74	1
		The construction budget for the Project A is \$213,825.00. The Consultant shall evaluate the feasibility of this budget, based upon the Consultant's experience as a design professional, and keep the Sponsor apprised during each phase of the Project of the results of such evaluation. The Consultant shall advise the Sponsor 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.		1	1			\$299.70	2
		Perform project management duties such as project planning, invoice preparation, schedule coordination and coordination of design team.	1					\$257.74	1
		Provide to the Sponsor monthly project status reports.	1					\$257.74	1
		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 & MDOT review process.	1	1				\$425.57	2
		The design schedule is anticipated to be as shown in scope.							
		<u>Preliminary Design</u>							
		Schedule and conduct a pre-design meeting with the Sponsor, and MDOT to review the scope of services and become familiar with the Project requirements and operational concerns during the Project's construction.	1	1				\$425.57	2

Acquire and review record documents (such as plans, specifications, reports, and studies) to become familiar with data that is available for the Project.		1	1			\$299.70	2
Perform a preliminary Project site inspection to further familiarize the design team with Project areas. 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 Sponsor and supervise programs at the Project site as necessary.	1	1				\$425.57	2
Acquire the necessary topographic survey of and utility data for, the Project site, including related office computations and drafting. Costs split between Project A and B evenly.			1		\$1,750.00	\$1,881.87	1
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 include in situ testing to determine CBR values. Costs split between Project A and B evenly.			1		\$3,575.00	\$3,706.87	1
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.	1	1				\$425.57	2
Develop pavement design in accordance with FAA advisory circular 150/5320-6, latest edition. Pavement design to include [1] alternative for pavement reconstruction including asphalt concrete. Design will include documentation of traffic use of the pavement from the most recent Airport Layout Plan Update and extrapolated for the 20-year design period. CONSULTANT will use FAA software FAARFIELD to perform design analysis.		1	2			\$431.57	3
Prepare life-cycle cost analysis for pavement design alternatives.		1	2			\$431.57	3
Conduct site inspections to verify topographic survey.	1					\$257.74	1

Finalize horizontal pavement geometrical layouts and place sufficient information on drawings to layout proposed pavements in field during construction.	1	1	1			\$557.44	3
Update draft CSPP based on preliminary design.		1	4			\$695.30	5
Develop a draft soil erosion control plan that encompasses all phases of the project.		1	1			\$299.70	2
Prepare preliminary Contract Drawings (approximately 90% complete) providing sufficient detail for review of design concepts by the Sponsor and MDOT.		2	8			\$1,390.61	10
Develop general specifications using FAA standards from FAA AC 150/5370-10.		2	4			\$863.14	6
Develop technical specifications expected to be required for the proposed work using FAA standards from FAA AC 150/5370-10.		2	4			\$863.14	6
Develop contract quantities based on project design elements. Provide opinion of probable construction cost to reflect the outcomes of preliminary Project design.		2	2			\$599.40	4
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.		2	4			\$863.14	6
Perform an internal quality control review on all design documents.	4	1				\$1,198.80	5
Perform a constructability review on drawings, specifications and CSPP.	1	1				\$425.57	2
Submit sufficient copies of preliminary design documents to the Sponsor, and MDOT for their review and comment.	1	1	1			\$557.44	3
Schedule and conduct virtual preliminary design review meeting to discuss and resolve Sponsor and MDOT comments. Assume 2 hour virtual meeting.	1	1				\$425.57	2
<u>Final Design</u>							
Finalize pavement designs.		1				\$167.83	1
Detail and finalize pavement keyways, rehabilitation details and pavement sections.		1	2			\$431.57	3
Prepare final Contract Drawings on 22" x 34" or 11" x 17" Paper. It is anticipated that the final drawings will consist of the following sheets:		2	3			\$731.27	5
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.		1	3			\$563.44	4
Finalize General Specifications		2				\$335.66	2
Finalize written Technical Specifications for all construction materials and installations. FAA & MDOT standard technical specifications shall be used whenever possible, with supplemental specifications developed by the consultant .		1	2			\$431.57	3
Finalize CSPP and include in Specifications and on the Contract Drawings.		1	4			\$695.30	5

Prepare final opinion of probable construction costs based upon the actual bid items and quantity takeoffs.	1	1	2			\$689.31	4
Finalize design report to be consistent with the final design.	1	1	2			\$689.31	4
Prepare soil erosion control plan and stormwater pollution control plan and submit required documents to comply with soil erosion stormwater permit requirements for construction projects. The scope of services assumes \$500 permit review fee (split evenly between Project A and B)		1	1	\$250.00		\$549.70	2
Submit both the construction safety phasing plan and 7460 form electronically to the FAA.			1			\$131.87	1
Perform final internal quality control review on all design documents.	2					\$515.48	2
Perform a constructability review on drawings, specifications and CSPP.	2					\$515.48	2
Submit draft final documents to the Sponsor, and MDOT for final review and comment.		1	2			\$431.57	3
Schedule and conduct draft final review meeting with the Sponsor and MDOT discuss and resolve final comments.	1	1	2			\$689.31	4
Reproduce and submit sufficient copies of bid documents to Sponsor for bidding purposes. Bid documents shall consist of the Contract Drawings and Specifications.		1	1			\$299.70	2
<u>BID PHASE</u>							
Assist the Sponsor in the advertisement of the Project and issuance of bid documents.	2					\$515.48	2
Receive and respond as required to questions from potential bidders regarding the Contract Documents.	2					\$515.48	2
Schedule and conduct pre-bid conference(s) by the Sponsor and advise the Sponsor on matters relating to design. Prepare meeting minutes of the pre-bid conference(s).	2					\$515.48	2
Prepare addenda to the bid documents after advertisement and prior to bidding as required upon the Sponsor's approval.	2		2			\$779.22	4
Prepare final bid tabulation, recommendation/rejection of award to the Sponsor, and a sample award letter. Request concurrence of award from MDOT.	2					\$515.48	2
Prepare final design cross-sections and digital terrain model files to provide to successful bidder.			2			\$263.74	2
600 Direct Expenses					\$53.60	\$53.60	

33 40 66 \$ 303.60 \$5,325.00 \$29,550.65 139



ENGINEERING COST SUMMARY SCHEDULE "B" DESIGN PHASE

PROJECT NAME:	Project B: Reconstruct Taxilane – Reconstruct Northwest T-Hangar Taxilane Adjacent to Box Hangars	DATE:	30-Oct-24
PROJ DESCRIPTION:	Design and bidding services for apron reconstruction	A/E:	C & S ENGINEERS, INC.
CLIENT:	City of Ann Arbor	PROJECT NO:	N75005001
CLIENT LEAD:	Aaron Aljets, PE	C&S CONTACT:	AMA

I. ESTIMATE OF DIRECT SALARY COSTS:

	TITLE	AVERAGE RATE OF PAY (\$/HR)	@	ESTIMATED HOURS		ESTIMATED COST
F.	Principal Engineer	\$86.00	X	23	=	\$1,978.00
J.	Project Engineer	\$56.00	X	40	=	\$2,240.00
L.	Staff Engineer	\$44.00	X	62	=	\$2,728.00
TOTAL ESTIMATED DIRECT SALARY COST:						\$6,946.00

II. OVERHEAD EXPENSES & PAYROLL BURDEN PER SCHEDULE "C" -

(AGREED OVERHEAD EXPRESSED AS A PERCENTAGE
OF DIRECT SALARY COST):

170.00% \$11,808.20

III. SUBTOTAL OF ITEMS I & II:

\$18,754.20

IV. ESTIMATE OF DIRECT EXPENSES:

A.	TRAVEL, BY AUTO:					
		0	TRIPS @	40	MILES/TRIP @	\$0.670 = \$0.00
B.	MISCELLANEOUS:					\$250.00
TOTAL ESTIMATE OF DIRECT EXPENSES:						\$250.00

V. FIXED FEE (PROFIT, LUMP SUM):

A.	LABOR PLUS OVERHEAD:	11%	(OF III.)	\$2,062.96
B.	DIRECT EXPENSES:	0%	(OF IV.)	\$0.00
TOTAL FIXED FEE:				\$2,062.96

VI. SUBCONTRACTS:

A.	ESTIMATE OF TOPOGRAPHICAL SURVEYS:	\$1,750.00
B.	ESTIMATE OF SUBSURFACE INVESTIGATION & TESTS:	
TOTAL ESTIMATED SUBSURFACE INVESTIGATION & TESTS:		\$3,575.00

VII. TOTALS:

A.	MAXIMUM TOTAL COST FOR SERVICES, AGREEMENT TOTAL & FAA ELIGIBLE:	\$26,392.16
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**C&S ENGINEERS, INC.
ENGINEERING
WORK SUMMARY**

Date: 10/24/24

PROJECT: ARB Northwest T-Hangar Apron Pavement Reconstruction
 SERVICES: Design and bidding services
 CLIENT: City of Ann Arbor
 CLIENT LEAD: Aaron Aljets, PE

Service Group Mgr: KJJ
 Client Relations Manager: AMA
 Project Manager: AMA
 Project Number: N75005001

CONT NO.	PHASE NO.	TASK	PRINC ENG	PROJ ENG	STAFF ENG	DIRECT COSTS	SERVICES BY OTHERS	TOTALS	TOTAL HOURS PER TASK
		Project B: Reconstruct Taxilane – Reconstruct Northwest T-Hangar Taxilane Adjacent to Box Hangars							
		<u>Project Management</u>							
		During the Design Phase, to aid the Sponsor by acting as its liaison and Project coordinator with the funding agencies.	1					\$257.74	1
		The construction budget for the Project A is \$213,825.00. The Consultant shall evaluate the feasibility of this budget, based upon the Consultant's experience as a design professional, and keep the Sponsor apprised during each phase of the Project of the results of such evaluation. The Consultant shall advise the Sponsor 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.		1	1			\$299.70	2
		Perform project management duties such as project planning, invoice preparation, schedule coordination and coordination of design team.	1					\$257.74	1
		Provide to the Sponsor monthly project status reports.	1					\$257.74	1
		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 & MDOT review process.	1	1				\$425.57	2
		The design schedule is anticipated to be as shown in scope.							
		<u>Preliminary Design</u>							
		Schedule and conduct a pre-design meeting with the Sponsor, and MDOT to review the scope of services and become familiar with the Project requirements and operational concerns during the Project's construction.	1	1				\$425.57	2

Acquire and review record documents (such as plans, specifications, reports, and studies) to become familiar with data that is available for the Project.		1	1			\$299.70	2
Perform a preliminary Project site inspection to further familiarize the design team with Project areas. 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 Sponsor and supervise programs at the Project site as necessary.	1	1				\$425.57	2
Acquire the necessary topographic survey of and utility data for, the Project site, including related office computations and drafting. Costs split between Project A and B evenly.			1		\$1,750.00	\$1,881.87	1
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 include in situ testing to determine CBR values. Costs split between Project A and B evenly.			1		\$3,575.00	\$3,706.87	1
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.	1	1				\$425.57	2
Develop pavement design in accordance with FAA advisory circular 150/5320-6, latest edition. Pavement design to include [1] alternative for pavement reconstruction including asphalt concrete. Design will include documentation of traffic use of the pavement from the most recent Airport Layout Plan Update and extrapolated for the 20-year design period. CONSULTANT will use FAA software FAARFIELD to perform design analysis.		1	2			\$431.57	3
Prepare life-cycle cost analysis for pavement design alternatives.		1	2			\$431.57	3
Conduct site inspections to verify topographic survey.	1					\$257.74	1

Finalize horizontal pavement geometrical layouts and place sufficient information on drawings to layout proposed pavements in field during construction.	1	1	1			\$557.44	3
Update draft CSPP based on preliminary design.		1	4			\$695.30	5
Develop a draft soil erosion control plan that encompasses all phases of the project.		1	1			\$299.70	2
Prepare preliminary Contract Drawings (approximately 90% complete) providing sufficient detail for review of design concepts by the Sponsor and MDOT.		2	8			\$1,390.61	10
Develop general specifications using FAA standards from FAA AC 150/5370-10.		2	4			\$863.14	6
Develop technical specifications expected to be required for the proposed work using FAA standards from FAA AC 150/5370-10.		2	4			\$863.14	6
Develop contract quantities based on project design elements. Provide opinion of probable construction cost to reflect the outcomes of preliminary Project design.		2	2			\$599.40	4
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.		2	4			\$863.14	6
Perform an internal quality control review on all design documents.	4	1				\$1,198.80	5
Perform a constructability review on drawings, specifications and CSPP.	1	1				\$425.57	2
Submit sufficient copies of preliminary design documents to the Sponsor, and MDOT for their review and comment.	1	1	1			\$557.44	3
Schedule and conduct virtual preliminary design review meeting to discuss and resolve Sponsor and MDOT comments. Assume 2 hour virtual meeting.	1	1				\$425.57	2
Final Design							
Finalize pavement designs.		1				\$167.83	1
Detail and finalize pavement keyways, rehabilitation details and pavement sections.		1	2			\$431.57	3
Prepare final Contract Drawings on 22" x 34" or 11" x 17" Paper. It is anticipated that the final drawings will consist of the following sheets:		2	3			\$731.27	5
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.		1	3			\$563.44	4
Finalize General Specifications		2				\$335.66	2
Finalize written Technical Specifications for all construction materials and installations. FAA & MDOT standard technical specifications shall be used whenever possible, with supplemental specifications developed by the consultant .		1	2			\$431.57	3
Finalize CSPP and include in Specifications and on the Contract Drawings.		1	4			\$695.30	5

Prepare final opinion of probable construction costs based upon the actual bid items and quantity takeoffs.	1	1	2			\$689.31	4
Finalize design report to be consistent with the final design.	1	1	2			\$689.31	4
Prepare soil erosion control plan and stormwater pollution control plan and submit required documents to comply with soil erosion stormwater permit requirements for construction projects. The scope of services assumes \$500 permit review fee (split evenly between Project A and B)		1	1	\$250.00		\$549.70	2
Submit both the construction safety phasing plan and 7460 form electronically to the FAA.			1			\$131.87	1
Perform final internal quality control review on all design documents.	2					\$515.48	2
Perform a constructability review on drawings, specifications and CSPP.	2					\$515.48	2
Submit draft final documents to the Sponsor, and MDOT for final review and comment.		1	2			\$431.57	3
Schedule and conduct draft final review meeting with the Sponsor and MDOT discuss and resolve final comments.	1	1	2			\$689.31	4
Reproduce and submit sufficient copies of bid documents to Sponsor for bidding purposes. Bid documents shall consist of the Contract Drawings and Specifications.		1	1			\$299.70	2
<u>BID PHASE</u>							
Assist the Sponsor in the advertisement of the Project and issuance of bid documents.	INCLUDED IN PACKAGE A						
Receive and respond as required to questions from potential bidders regarding the Contract Documents.							
Schedule and conduct pre-bid conference(s) by the Sponsor and advise the Sponsor on matters relating to design. Prepare meeting minutes of the pre-bid conference(s).							
Prepare addenda to the bid documents after advertisement and prior to bidding as required upon the Sponsor's approval.							
Prepare final bid tabulation, recommendation/rejection of award to the Sponsor, and a sample award letter. Request concurrence of award from MDOT.							
Prepare final design cross-sections and digital terrain model files to provide to successful bidder.							
Direct Expenses							
600 Direct Expenses							

23 40 62 \$ 250.00 \$5,325.00 \$26,392.16 125

ATTACHMENT D

**Sketch Showing Location of Work to be
Performed as Part of this Contract**

ATTACHMENT E

Scope of Work/Services

ATTACHMENT A
SCOPE OF SERVICES

Project Title: Northwest T-Hangar Apron Pavement

Project A:

Reconstruct Hangar Apron –

Reconstruct Northwest T-Hangar Hangar Apron Adjacent to Box Hangars

Project B:

Reconstruct Taxilane –

Reconstruct Northwest T-Hangar Taxilane Adjacent to Box Hangars

Airport Name: Ann Arbor Municipal Airport

Services Provided: Design

Project Description:

The CONSULTANT shall provide required services to design the Northwest T-Hangar Apron Pavement project (the "Project"). The project will be broken into two separate elements, but bid as a single project, Project A which includes the hangar apron pavement and Project B which is the taxilane pavement. The Project will be performed and constructed by the SPONSOR with grant assistance from the Federal Aviation Administration (FAA) Airport Improvement Program (AIP) and the Michigan Department of Transportation (MDOT). It is assumed this project will be environmentally cleared with a categorical exclusion from MDOT. If any additional environmental work is required, it would be outside the scope of work and handled under a separate contract.

Project A: Reconstruct Hangar Apron – Reconstruct Northwest T-Hangar Hangar Apron Adjacent to Box Hangars

The project will include the reconstruction of a segment of the pavement identified as THWESTAA-20 on the Airport's Pavement Management Report. This segment of pavement has a PCI rating of 29 as of November 2023, the worst condition of pavement at the airport. The pavement was originally installed in 2009. This hangar apron gets heavy usage as it is adjacent to the larger row of sponsor owned box hangars. Many of these based aircraft are larger and more frequently used than the typical aircraft in the airport's t-hangars.

The hangar apron encompasses 33' of width within this pavement segment. The remaining 25' of pavement within the segment is part of a separate concept to reconstruct the taxilane located immediately to the west and adjacent to the hangar apron pavement.

The existing 33' of hangar apron pavement would be removed, the base would be inspected and modified as necessary. The hangar apron will be asphalt and will be designed to meet current FAA standards. The concrete trench drain will need minor repairs to ensure long term integrity of the drain structure.

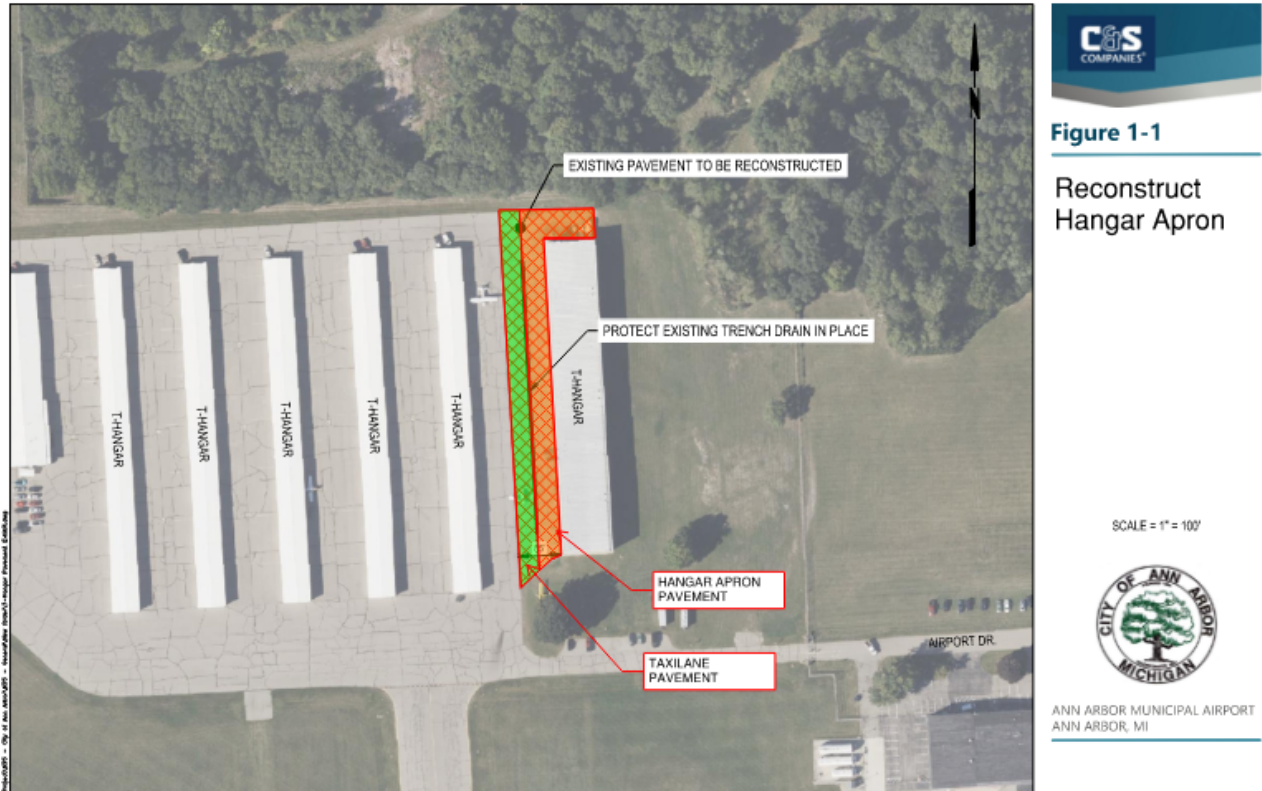
Project B: Reconstruct Taxilane – Reconstruct Northwest T-Hangar Taxilane Adjacent to Box Hangars

The project will include the reconstruction of the segment of the taxilane identified as THWESTAA-20 on the Airport's Pavement Management Report. This segment of pavement also has a PCI rating of 29 as of November 2023, comparable to the poor condition of the adjacent apron area. The pavement was originally installed in 2009. This taxilane gets heavy usage as it is adjacent to the larger row of sponsor owned box hangars. Many of these based aircraft are larger and more frequently used than the typical aircraft in the airport's t-hangars.

The taxilane encompasses a 25' width of pavement within this segment. The remaining 33' of width within this pavement segment is part of a separate concept to reconstruct the hangar apron pavement located between the taxilane and sponsor owned box hangars.

The existing 25' of taxilane pavement would be removed, the base would be inspected and modified as necessary. The taxilane will be asphalt and will be designed to meet current FAA standards.

Project Figure:



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 A

PROJECT MANAGEMENT PHASE

The CONSULTANT shall aid the SPONSOR by acting as its liaison and Project coordinator with FAA & MDOT during the Project's design. 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 Sponsor by acting as its liaison and Project coordinator with the funding agencies.
2. The construction budget for the Project A is \$213,825.00. The Consultant shall evaluate the feasibility of this budget, based upon the Consultant's experience as a design professional, and keep the Sponsor apprised during each phase of the Project of the results of such evaluation. The Consultant shall advise the Sponsor 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 SPONSOR 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 & MDOT 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		11/1/2024
Notice to Proceed (NTP)	0 days	11/1/2024
Preliminary Design - 90%	30 days	12/1/2024
Final Design – Bid Documents	45 days	1/15/2025
Advertise for Bids		01/15/2025
Bid Opening		02/15/2025
Bid Tabulation to MDOT AERO		03/01/2025

PRELIMINARY DESIGN PHASE

The Preliminary 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 SPONSOR, and MDOT 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. 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 SPONSOR and supervise programs at the Project site as necessary.
4. Acquire the necessary topographic survey of and utility data for, the Project site, including related office computations and drafting.
5. Acquire the necessary soils and existing pavement investigation data, including borings, pavement cores, as well as field and laboratory tests, to identify existing pavement conditions and subsurface soil characteristics. This project will include in situ testing to determine CBR values.
6. 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.
7. Develop pavement design in accordance with FAA advisory circular 150/5320-6, latest edition. Pavement design to include [1] alternative for pavement reconstruction including asphalt concrete. Design will include documentation of traffic use of the pavement from the most recent Airport

Layout Plan Update and extrapolated for the 20-year design period. CONSULTANT will use FAA software FAARFIELD to perform design analysis.

8. Prepare life-cycle cost analysis for pavement design alternatives.
9. Conduct site inspections to verify topographic survey.
10. Finalize horizontal pavement geometrical layouts and place sufficient information on drawings to layout proposed pavements in field during construction.
11. Prepare draft CSPP.
12. Develop a draft soil erosion control plan that encompasses all phases of the project.
13. Prepare preliminary Contract Drawings (approximately 90% complete) providing sufficient detail for review of design concepts by the SPONSOR and MDOT.
14. Develop general specifications using FAA standards from FAA AC 150/5370-10.
15. Develop technical specifications expected to be required for the proposed work using FAA standards from FAA AC 150/5370-10.
16. Develop contract quantities based on project design elements. Provide opinion of probable construction cost to reflect the outcomes of preliminary Project design.
17. 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.
18. Perform an internal quality control review on all design documents.
19. Perform a constructability review on drawings, specifications and CSPP.
20. Submit sufficient copies of preliminary design documents to the SPONSOR, AND MDOT for their review and comment.
21. Schedule and conduct a preliminary design review meeting to discuss and resolve SPONSOR AND MDOT comments.

FINAL DESIGN PHASE

The services included under this Phase shall generally consist of services required to furnish the SPONSOR 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 SPONSOR and MDOT 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 SPONSOR and MDOT and a complete set of bid documents will be furnished to the SPONSOR and MDOT. 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 pavement design.
2. Detail and finalize pavement keyways, rehabilitation details and pavement sections.

3. Prepare final Contract Drawings on 22" x 34" or 11" x 17" Paper. It is anticipated that the final drawings will consist of the following sheets:

Approx. Number of Sheets	Name
1	Title Sheet
1	Quantities for Canvass of Bids and Sheet Index
1	General Notes and Legend
2	General Plan & Construction Safety Phasing Plan
1	Construction Safety Phasing Details
1	Existing Conditions and Demolition Plans
1	Soil Erosion and Sediment Control Plans
1	Geometry Plans
1	Typical Sections
1	Soil Erosion and Sediment Control Details

4. 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.
5. Finalize General Specifications
6. Finalize written Technical Specifications for all construction materials and installations. FAA & MDOT standard technical specifications shall be used whenever possible, with supplemental specifications developed by the consultant.
7. Finalize CSPP and include in Specifications and on the Contract Drawings.
8. Prepare final opinion of probable construction costs based upon the actual bid items and quantity takeoffs.
9. Finalize design report to be consistent with the final design.
10. Prepare soil erosion control plan and stormwater pollution control plan and submit required documents to comply with soil erosion stormwater permit requirements for construction projects. The scope of services does not include any associated permit fees.
11. Submit both the construction safety phasing plan and 7460 form electronically to the FAA.
12. Perform final internal quality control review on all design documents.
13. Perform a constructability review on drawings, specifications and CSPP.
14. Submit draft final documents to the SPONSOR, and MDOT for final review and comment.
15. Schedule and conduct draft final review meeting with the SPONSOR and MDOT discuss and resolve final comments.
16. Reproduce and submit sufficient copies of bid documents to SPONSOR 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 SPONSOR 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 SPONSOR during this Phase as required.

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

1. Assist the SPONSOR in the advertisement of the Project and issuance of bid documents.
2. Receive and respond as required to questions from potential bidders regarding the Contract Documents.
3. Schedule and conduct pre-bid conference(s) by the SPONSOR and advise the SPONSOR on matters relating to design. Prepare meeting minutes of the pre-bid conference(s).
4. Prepare addenda to the bid documents after advertisement and prior to bidding as required upon the SPONSOR's approval.
5. Prepare final bid tabulation, recommendation/rejection of award to the SPONSOR, and a sample award letter. Request concurrence of award from MDOT.
6. Prepare final design cross-sections and digital terrain model files to provide to successful bidder.

Project B

PROJECT MANAGEMENT PHASE

The CONSULTANT shall aid the SPONSOR by acting as its liaison and Project coordinator with FAA & MDOT during the Project's design. 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 Sponsor by acting as its liaison and Project coordinator with the funding agencies.
2. The construction budget for the Project B is \$167,800.00. The Consultant shall evaluate the feasibility of this budget, based upon the Consultant's experience as a design professional, and keep the Sponsor apprised during each phase of the Project of the results of such evaluation. The Consultant shall advise the Sponsor 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 SPONSOR 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 & MDOT 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		11/1/2024
Notice to Proceed (NTP)	0 days	11/1/2024
Preliminary Design - 90%	30 days	12/1/2025
Final Design – Bid Documents	45 days	1/15/2025
Advertise for Bids		01/15/2025
Bid Opening		02/15/2025
Bid Tabulation to MDOT AERO		03/01/2025

PRELIMINARY DESIGN PHASE

The Preliminary 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 SPONSOR, and MDOT 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. 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 SPONSOR and supervise programs at the Project site as necessary.
4. 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.
5. Acquire the necessary soils and existing pavement investigation data, including borings, pavement cores, as well as field and laboratory tests, to identify existing pavement conditions and subsurface soil characteristics. This project will include in situ testing to determine CBR values.
6. 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.
7. Develop pavement design in accordance with FAA advisory circular 150/5320-6, latest edition. Pavement design to include [1] alternative for pavement reconstruction including asphalt concrete. Design will include documentation of traffic use of the pavement from the most recent Airport Layout Plan Update and extrapolated for the 20-year design period. CONSULTANT will use FAA software FAARFIELD to perform design analysis.
8. Prepare life-cycle cost analysis for pavement design alternatives.
9. Conduct site inspections to verify topographic survey.
10. Finalize horizontal pavement geometrical layouts and place sufficient information on drawings to layout proposed pavements in field during construction.
11. Prepare draft CSPP.
12. Develop a draft soil erosion control plan that encompasses all phases of the project.
13. Prepare preliminary Contract Drawings (approximately 90% complete) providing sufficient detail for review of design concepts by the SPONSOR and MDOT.
14. Develop general specifications using FAA standards from FAA AC 150/5370-10.
15. Develop technical specifications expected to be required for the proposed work using FAA standards from FAA AC 150/5370-10.
16. Develop contract quantities based on project design elements. Provide opinion of probable construction cost to reflect the outcomes of preliminary Project design.
17. 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.

18. Perform an internal quality control review on all design documents.
19. Perform a constructability review on drawings, specifications and CSPP.
20. Submit sufficient copies of preliminary design documents to the SPONSOR, AND MDOT for their review and comment.
21. Schedule and conduct a preliminary design review meeting to discuss and resolve SPONSOR AND MDOT comments.

FINAL DESIGN PHASE

The services included under this Phase shall generally consist of services required to furnish the SPONSOR 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 SPONSOR and MDOT 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 SPONSOR and MDOT and a complete set of bid documents will be furnished to the SPONSOR and MDOT. 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 pavement designs.
2. Detail and finalize pavement keyways, rehabilitation details and pavement sections.
3. Prepare final Contract Drawings on 22" x 34" or 11" x 17" Paper. It is anticipated that the final drawings will consist of the following sheets:

Approx. Number of Sheets	Name
1	Title Sheet
1	Quantities for Canvass of Bids and Sheet Index
1	General Notes and Legend
2	General Plan & Construction Safety Phasing Plan
1	Construction Safety Phasing Details
1	Existing Conditions and Demolition Plans
1	Soil Erosion and Sediment Control Plans
1	Geometry Plans
1	Typical Sections
1	Soil Erosion and Sediment Control Details

4. 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.
5. Finalize General Specifications
6. Finalize written Technical Specifications for all construction materials and installations. FAA & MDOT standard technical specifications shall be used whenever possible, with supplemental specifications developed by the consultant.
7. Finalize CSPP and include in Specifications and on the Contract Drawings.

8. Prepare final opinion of probable construction costs based upon the actual bid items and quantity takeoffs.
9. Finalize design report to be consistent with the final design.
10. Prepare soil erosion control plan and stormwater pollution control plan and submit required documents to comply with soil erosion stormwater permit requirements for construction projects. The scope of services does not include any associated permit fees.
11. Submit both the construction safety phasing plan and 7460 form electronically to the FAA.
12. Perform final internal quality control review on all design documents.
13. Perform a constructability review on drawings, specifications and CSPP.
14. Submit draft final documents to the SPONSOR, and MDOT for final review and comment.
15. Schedule and conduct draft final review meeting with the SPONSOR and MDOT discuss and resolve final comments.
16. Reproduce and submit sufficient copies of bid documents to SPONSOR 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 SPONSOR 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 SPONSOR during this Phase as required.

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

1. Assist the SPONSOR in the advertisement of the Project and issuance of bid documents.
2. Receive and respond as required to questions from potential bidders regarding the Contract Documents.
3. Schedule and conduct pre-bid conference(s) by the SPONSOR and advise the SPONSOR on matters relating to design. Prepare meeting minutes of the pre-bid conference(s).
4. Prepare addenda to the bid documents after advertisement and prior to bidding as required upon the SPONSOR's approval.
5. Prepare final bid tabulation, recommendation/rejection of award to the SPONSOR, and a sample award letter. Request concurrence of award from MDOT.
6. Prepare final design cross-sections and digital terrain model files to provide to successful bidder.

DESIGN ASSUMPTIONS (CIVIL/AIRFIELD)

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

1. SPONSOR 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.
2. As-built drawings and/or CAD files are available and will be provided prior to field visit.
3. Adjacent ongoing project(s) drawings and/or CAD files will be provided by the SPONSOR.
4. Access to the site for inspection/survey can only be performed during day hours and will be coordinated by the SPONSOR. SPONSOR will coordinate the necessary escort for the CONSULTANT and

subcontractors to access the restricted areas located within "movement" areas of the airport. No-fee access to the site is provided.

5. No badging or training necessary and if needed we will be escorted to the investigation location.
6. 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.
7. 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.
8. Preparation of FAA applications and reimbursement requests will be performed by others.
9. Cost evaluations will be based on bid prices from recent project at the airport and other similar regional airports.
10. Preparation of one (1) bid package for public bidding.
11. SPONSOR will advertise the Project and issuance of bid documents.
12. Advertisement, public bidding and award services will not be required of CONSULTANT.
13. Government agency fees for processing and permits are to be provided by SPONSOR.
14. Plans will be delivered to contractor or Architect to be submitted with fees paid by Contractor or SPONSOR.
15. SPONSOR to coordinate and submit permit application, if required.
16. Encroachment permits are provided by others. No permit required from FAA.
17. Airport staff will confirm that the proposed boring locations are not in conflict with underground utilities.
18. Prevailing wage rules apply to field work.
19. Soil and groundwater are not contaminated.
20. Borings are backfilled with cuttings.
21. Investigation derived waste (IDW), if any, spread onsite.
22. 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 SPONSOR for CONSULTANT's use when needed.
23. No additional pavement repair work shall be designed outside the footprint of the proposed project limits.

DESIGN EXCLUSIONS (AIRFIELD/CIVIL)

The scope and fee for the project described above excludes the following items, which can be provided for an additional fee, if requested:

1. Boundary survey.
2. Right-of-way or other deed research.
3. The placement of boundary monumentation.
4. Environmental review, NEPA and state, including the collection and review of available documents

such as published wetland maps, soil conservation survey maps, and previous master plan and environmental archaeological studies, to identify potential impacts the Project may have on the environment.

5. Wetland delineation and mapping; archaeological and other environmental investigations as required by governmental agencies during the environmental review process.
6. Investigations and/or soil sampling for contaminants, hazardous material testing, and remediation design.
7. NEPA or any other environmental compliance reports, studies, and environmental reviews, state or federal.
8. Underground utility locating (soft digs, potholing, etc.)
9. Underground utility inspections using a video camera.
10. Drainage studies, including hydrology or hydraulics unless otherwise identified above in scope of work.
11. Stormwater Quality Management Plan (SWQMP)
12. Electrical design, conductor wiring, cabling, or connections for electrical improvements.
13. Lighting and photometric design.
14. Commutations, security and access control systems, and/or fiber optic design.
15. Underground utility design including natural gas, sanitary sewer, and water.
16. Structural engineering unless otherwise specified in this scope of services.
17. Public improvement plan.
18. Government agency fees for processing and permits.
19. Certification fees or administrative efforts necessary to pursue an award through any sustainable rating system such as Envision.
20. Construction support services including construction administration, materials testing, quality assurance services, and record drawings including mylar reproduction.
21. Any services not specifically identified in this scope of work are not anticipated and excluded.

END OF SCHEDULE A



ENGINEERING COST SUMMARY SCHEDULE "B" DESIGN PHASE

PROJECT NAME: Project A: Reconstruct Hangar Apron – Reconstruct Northwest
T-Hangar Hangar Apron Adjacent to Box Hangars

PROJ DESCRIPTION: Design and bidding services for apron reconstruction

CLIENT: City of Ann Arbor

CLIENT LEAD: Aaron Aljets, PE

DATE: 30-Oct-24

A/E: C & S ENGINEERS, INC.

PROJECT NO: N75005001

C&S CONTACT: AMA

I. ESTIMATE OF DIRECT SALARY COSTS:

	TITLE	AVERAGE RATE OF PAY (\$/HR)	@	ESTIMATED HOURS		ESTIMATED COST
F.	Principal Engineer	\$86.00	X	33	=	\$2,838.00
J.	Project Engineer	\$56.00	X	40	=	\$2,240.00
L.	Staff Engineer	\$44.00	X	66	=	\$2,904.00
TOTAL ESTIMATED DIRECT SALARY COST:						\$7,982.00

II. OVERHEAD EXPENSES & PAYROLL BURDEN PER SCHEDULE "C" -

(AGREED OVERHEAD EXPRESSED AS A PERCENTAGE
OF DIRECT SALARY COST):

170.00% \$13,569.40

III. SUBTOTAL OF ITEMS I & II:

\$21,551.40

IV. ESTIMATE OF DIRECT EXPENSES:

A.	TRAVEL, BY AUTO:					
	2	TRIPS @	40	MILES/TRIP @	\$0.670	= \$53.60
B.	MISCELLANEOUS:					\$250.00
TOTAL ESTIMATE OF DIRECT EXPENSES:						\$303.60

V. FIXED FEE (PROFIT, LUMP SUM):

A.	LABOR PLUS OVERHEAD:	11%	(OF III.)			\$2,370.65
B.	DIRECT EXPENSES:	0%	(OF IV.)			\$0.00
TOTAL FIXED FEE:						\$2,370.65

VI. SUBCONTRACTS:

A.	ESTIMATE OF TOPOGRAPHICAL SURVEYS:					\$1,750.00
B.	ESTIMATE OF SUBSURFACE INVESTIGATION & TESTS:					
TOTAL ESTIMATED SUBSURFACE INVESTIGATION & TESTS:						\$3,575.00

VII. TOTALS:

A. MAXIMUM TOTAL COST FOR SERVICES, AGREEMENT TOTAL & FAA ELIGIBLE: \$29,550.65

**C&S ENGINEERS, INC.
ENGINEERING
WORK SUMMARY**

Date: 10/24/24

PROJECT: ARB Northwest T-Hangar Apron Pavement Reconstruction
 SERVICES: Design and bidding services
 CLIENT: City of Ann Arbor
 CLIENT LEAD: Aaron Aljets, PE

Service Group Mgr: KJJ
 Client Relations Manager: AMA
 Project Manager: AMA
 Project Number: N75005001

CONT NO.	PHASE NO.	TASK	PRINC ENG	PROJ ENG	STAFF ENG	DIRECT COSTS	SERVICES BY OTHERS	TOTALS	TOTAL HOURS PER TASK
		Project A - Reconstruct Hangar Apron – Reconstruct Northwest T-Hangar Hangar Apron Adjacent to Box Hangars							
		<u>Project Management</u>							
		During the Design Phase, to aid the Sponsor by acting as its liaison and Project coordinator with the funding agencies.	1					\$257.74	1
		The construction budget for the Project A is \$213,825.00. The Consultant shall evaluate the feasibility of this budget, based upon the Consultant's experience as a design professional, and keep the Sponsor apprised during each phase of the Project of the results of such evaluation. The Consultant shall advise the Sponsor 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.		1	1			\$299.70	2
		Perform project management duties such as project planning, invoice preparation, schedule coordination and coordination of design team.	1					\$257.74	1
		Provide to the Sponsor monthly project status reports.	1					\$257.74	1
		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 & MDOT review process.	1	1				\$425.57	2
		The design schedule is anticipated to be as shown in scope.							
		<u>Preliminary Design</u>							
		Schedule and conduct a pre-design meeting with the Sponsor, and MDOT to review the scope of services and become familiar with the Project requirements and operational concerns during the Project's construction.	1	1				\$425.57	2

Acquire and review record documents (such as plans, specifications, reports, and studies) to become familiar with data that is available for the Project.		1	1			\$299.70	2
Perform a preliminary Project site inspection to further familiarize the design team with Project areas. 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 Sponsor and supervise programs at the Project site as necessary.	1	1				\$425.57	2
Acquire the necessary topographic survey of and utility data for, the Project site, including related office computations and drafting. Costs split between Project A and B evenly.			1		\$1,750.00	\$1,881.87	1
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 include in situ testing to determine CBR values. Costs split between Project A and B evenly.			1		\$3,575.00	\$3,706.87	1
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.	1	1				\$425.57	2
Develop pavement design in accordance with FAA advisory circular 150/5320-6, latest edition. Pavement design to include [1] alternative for pavement reconstruction including asphalt concrete. Design will include documentation of traffic use of the pavement from the most recent Airport Layout Plan Update and extrapolated for the 20-year design period. CONSULTANT will use FAA software FAARFIELD to perform design analysis.		1	2			\$431.57	3
Prepare life-cycle cost analysis for pavement design alternatives.		1	2			\$431.57	3
Conduct site inspections to verify topographic survey.	1					\$257.74	1

Finalize horizontal pavement geometrical layouts and place sufficient information on drawings to layout proposed pavements in field during construction.	1	1	1			\$557.44	3
Update draft CSPP based on preliminary design.		1	4			\$695.30	5
Develop a draft soil erosion control plan that encompasses all phases of the project.		1	1			\$299.70	2
Prepare preliminary Contract Drawings (approximately 90% complete) providing sufficient detail for review of design concepts by the Sponsor and MDOT.		2	8			\$1,390.61	10
Develop general specifications using FAA standards from FAA AC 150/5370-10.		2	4			\$863.14	6
Develop technical specifications expected to be required for the proposed work using FAA standards from FAA AC 150/5370-10.		2	4			\$863.14	6
Develop contract quantities based on project design elements. Provide opinion of probable construction cost to reflect the outcomes of preliminary Project design.		2	2			\$599.40	4
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.		2	4			\$863.14	6
Perform an internal quality control review on all design documents.	4	1				\$1,198.80	5
Perform a constructability review on drawings, specifications and CSPP.	1	1				\$425.57	2
Submit sufficient copies of preliminary design documents to the Sponsor, and MDOT for their review and comment.	1	1	1			\$557.44	3
Schedule and conduct virtual preliminary design review meeting to discuss and resolve Sponsor and MDOT comments. Assume 2 hour virtual meeting.	1	1				\$425.57	2
<u>Final Design</u>							
Finalize pavement designs.		1				\$167.83	1
Detail and finalize pavement keyways, rehabilitation details and pavement sections.		1	2			\$431.57	3
Prepare final Contract Drawings on 22" x 34" or 11" x 17" Paper. It is anticipated that the final drawings will consist of the following sheets:		2	3			\$731.27	5
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.		1	3			\$563.44	4
Finalize General Specifications		2				\$335.66	2
Finalize written Technical Specifications for all construction materials and installations. FAA & MDOT standard technical specifications shall be used whenever possible, with supplemental specifications developed by the consultant .		1	2			\$431.57	3
Finalize CSPP and include in Specifications and on the Contract Drawings.		1	4			\$695.30	5

Prepare final opinion of probable construction costs based upon the actual bid items and quantity takeoffs.	1	1	2			\$689.31	4
Finalize design report to be consistent with the final design.	1	1	2			\$689.31	4
Prepare soil erosion control plan and stormwater pollution control plan and submit required documents to comply with soil erosion stormwater permit requirements for construction projects. The scope of services assumes \$500 permit review fee (split evenly between Project A and B)		1	1	\$250.00		\$549.70	2
Submit both the construction safety phasing plan and 7460 form electronically to the FAA.			1			\$131.87	1
Perform final internal quality control review on all design documents.	2					\$515.48	2
Perform a constructability review on drawings, specifications and CSPP.	2					\$515.48	2
Submit draft final documents to the Sponsor, and MDOT for final review and comment.		1	2			\$431.57	3
Schedule and conduct draft final review meeting with the Sponsor and MDOT discuss and resolve final comments.	1	1	2			\$689.31	4
Reproduce and submit sufficient copies of bid documents to Sponsor for bidding purposes. Bid documents shall consist of the Contract Drawings and Specifications.		1	1			\$299.70	2
<u>BID PHASE</u>							
Assist the Sponsor in the advertisement of the Project and issuance of bid documents.	2					\$515.48	2
Receive and respond as required to questions from potential bidders regarding the Contract Documents.	2					\$515.48	2
Schedule and conduct pre-bid conference(s) by the Sponsor and advise the Sponsor on matters relating to design. Prepare meeting minutes of the pre-bid conference(s).	2					\$515.48	2
Prepare addenda to the bid documents after advertisement and prior to bidding as required upon the Sponsor's approval.	2		2			\$779.22	4
Prepare final bid tabulation, recommendation/rejection of award to the Sponsor, and a sample award letter. Request concurrence of award from MDOT.	2					\$515.48	2
Prepare final design cross-sections and digital terrain model files to provide to successful bidder.			2			\$263.74	2
600 Direct Expenses					\$53.60	\$53.60	

33 40 66 \$ 303.60 \$5,325.00 \$29,550.65 139



ENGINEERING COST SUMMARY SCHEDULE "B" DESIGN PHASE

PROJECT NAME:	Project B: Reconstruct Taxilane – Reconstruct Northwest T-Hangar Taxilane Adjacent to Box Hangars	DATE:	30-Oct-24
PROJ DESCRIPTION:	Design and bidding services for apron reconstruction	A/E:	C & S ENGINEERS, INC.
CLIENT:	City of Ann Arbor	PROJECT NO:	N75005001
CLIENT LEAD:	Aaron Aljets, PE	C&S CONTACT:	AMA

I. ESTIMATE OF DIRECT SALARY COSTS:

	TITLE	AVERAGE RATE OF PAY (\$/HR)	@	ESTIMATED HOURS		ESTIMATED COST
F.	Principal Engineer	\$86.00	X	23	=	\$1,978.00
J.	Project Engineer	\$56.00	X	40	=	\$2,240.00
L.	Staff Engineer	\$44.00	X	62	=	\$2,728.00
TOTAL ESTIMATED DIRECT SALARY COST:						\$6,946.00

II. OVERHEAD EXPENSES & PAYROLL BURDEN PER SCHEDULE "C" -

(AGREED OVERHEAD EXPRESSED AS A PERCENTAGE
OF DIRECT SALARY COST):

170.00% \$11,808.20

III. SUBTOTAL OF ITEMS I & II:

\$18,754.20

IV. ESTIMATE OF DIRECT EXPENSES:

A.	TRAVEL, BY AUTO:					
		0	TRIPS @	40	MILES/TRIP @	\$0.670 = \$0.00
B.	MISCELLANEOUS:					= \$250.00
TOTAL ESTIMATE OF DIRECT EXPENSES:						\$250.00

V. FIXED FEE (PROFIT, LUMP SUM):

A.	LABOR PLUS OVERHEAD:	11%	(OF III.)		
B.	DIRECT EXPENSES:	0%	(OF IV.)		\$2,062.96
TOTAL FIXED FEE:					\$0.00
					\$2,062.96

VI. SUBCONTRACTS:

A.	ESTIMATE OF TOPOGRAPHICAL SURVEYS:				
					\$1,750.00
B.	ESTIMATE OF SUBSURFACE INVESTIGATION & TESTS:				
TOTAL ESTIMATED SUBSURFACE INVESTIGATION & TESTS:					\$3,575.00

VII. TOTALS:

A.	MAXIMUM TOTAL COST FOR SERVICES, AGREEMENT TOTAL & FAA ELIGIBLE:				\$26,392.16
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**C&S ENGINEERS, INC.
ENGINEERING
WORK SUMMARY**

Date: 10/24/24

PROJECT: ARB Northwest T-Hangar Apron Pavement Reconstruction
 SERVICES: Design and bidding services
 CLIENT: City of Ann Arbor
 CLIENT LEAD: Aaron Aljets, PE

Service Group Mgr: KJJ
 Client Relations Manager: AMA
 Project Manager: AMA
 Project Number: N75005001

CONT NO.	PHASE NO.	TASK	PRINC ENG	PROJ ENG	STAFF ENG	DIRECT COSTS	SERVICES BY OTHERS	TOTALS	TOTAL HOURS PER TASK
		Project B: Reconstruct Taxilane – Reconstruct Northwest T-Hangar Taxilane Adjacent to Box Hangars							
		<u>Project Management</u>							
		During the Design Phase, to aid the Sponsor by acting as its liaison and Project coordinator with the funding agencies.	1					\$257.74	1
		The construction budget for the Project A is \$213,825.00. The Consultant shall evaluate the feasibility of this budget, based upon the Consultant's experience as a design professional, and keep the Sponsor apprised during each phase of the Project of the results of such evaluation. The Consultant shall advise the Sponsor 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.		1	1			\$299.70	2
		Perform project management duties such as project planning, invoice preparation, schedule coordination and coordination of design team.	1					\$257.74	1
		Provide to the Sponsor monthly project status reports.	1					\$257.74	1
		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 & MDOT review process.	1	1				\$425.57	2
		The design schedule is anticipated to be as shown in scope.							
		<u>Preliminary Design</u>							
		Schedule and conduct a pre-design meeting with the Sponsor, and MDOT to review the scope of services and become familiar with the Project requirements and operational concerns during the Project's construction.	1	1				\$425.57	2

Acquire and review record documents (such as plans, specifications, reports, and studies) to become familiar with data that is available for the Project.		1	1			\$299.70	2
Perform a preliminary Project site inspection to further familiarize the design team with Project areas. 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 Sponsor and supervise programs at the Project site as necessary.	1	1				\$425.57	2
Acquire the necessary topographic survey of and utility data for, the Project site, including related office computations and drafting. Costs split between Project A and B evenly.			1		\$1,750.00	\$1,881.87	1
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 include in situ testing to determine CBR values. Costs split between Project A and B evenly.			1		\$3,575.00	\$3,706.87	1
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.	1	1				\$425.57	2
Develop pavement design in accordance with FAA advisory circular 150/5320-6, latest edition. Pavement design to include [1] alternative for pavement reconstruction including asphalt concrete. Design will include documentation of traffic use of the pavement from the most recent Airport Layout Plan Update and extrapolated for the 20-year design period. CONSULTANT will use FAA software FAARFIELD to perform design analysis.		1	2			\$431.57	3
Prepare life-cycle cost analysis for pavement design alternatives.		1	2			\$431.57	3
Conduct site inspections to verify topographic survey.	1					\$257.74	1

Finalize horizontal pavement geometrical layouts and place sufficient information on drawings to layout proposed pavements in field during construction.	1	1	1			\$557.44	3
Update draft CSPP based on preliminary design.		1	4			\$695.30	5
Develop a draft soil erosion control plan that encompasses all phases of the project.		1	1			\$299.70	2
Prepare preliminary Contract Drawings (approximately 90% complete) providing sufficient detail for review of design concepts by the Sponsor and MDOT.		2	8			\$1,390.61	10
Develop general specifications using FAA standards from FAA AC 150/5370-10.		2	4			\$863.14	6
Develop technical specifications expected to be required for the proposed work using FAA standards from FAA AC 150/5370-10.		2	4			\$863.14	6
Develop contract quantities based on project design elements. Provide opinion of probable construction cost to reflect the outcomes of preliminary Project design.		2	2			\$599.40	4
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.		2	4			\$863.14	6
Perform an internal quality control review on all design documents.	4	1				\$1,198.80	5
Perform a constructability review on drawings, specifications and CSPP.	1	1				\$425.57	2
Submit sufficient copies of preliminary design documents to the Sponsor, and MDOT for their review and comment.	1	1	1			\$557.44	3
Schedule and conduct virtual preliminary design review meeting to discuss and resolve Sponsor and MDOT comments. Assume 2 hour virtual meeting.	1	1				\$425.57	2
<u>Final Design</u>							
Finalize pavement designs.		1				\$167.83	1
Detail and finalize pavement keyways, rehabilitation details and pavement sections.		1	2			\$431.57	3
Prepare final Contract Drawings on 22" x 34" or 11" x 17" Paper. It is anticipated that the final drawings will consist of the following sheets:		2	3			\$731.27	5
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.		1	3			\$563.44	4
Finalize General Specifications		2				\$335.66	2
Finalize written Technical Specifications for all construction materials and installations. FAA & MDOT standard technical specifications shall be used whenever possible, with supplemental specifications developed by the consultant .		1	2			\$431.57	3
Finalize CSPP and include in Specifications and on the Contract Drawings.		1	4			\$695.30	5

Prepare final opinion of probable construction costs based upon the actual bid items and quantity takeoffs.	1	1	2			\$689.31	4
Finalize design report to be consistent with the final design.	1	1	2			\$689.31	4
Prepare soil erosion control plan and stormwater pollution control plan and submit required documents to comply with soil erosion stormwater permit requirements for construction projects. The scope of services assumes \$500 permit review fee (split evenly between Project A and B)		1	1	\$250.00		\$549.70	2
Submit both the construction safety phasing plan and 7460 form electronically to the FAA.			1			\$131.87	1
Perform final internal quality control review on all design documents.	2					\$515.48	2
Perform a constructability review on drawings, specifications and CSPP.	2					\$515.48	2
Submit draft final documents to the Sponsor, and MDOT for final review and comment.		1	2			\$431.57	3
Schedule and conduct draft final review meeting with the Sponsor and MDOT discuss and resolve final comments.	1	1	2			\$689.31	4
Reproduce and submit sufficient copies of bid documents to Sponsor for bidding purposes. Bid documents shall consist of the Contract Drawings and Specifications.		1	1			\$299.70	2
<u>BID PHASE</u>							
Assist the Sponsor in the advertisement of the Project and issuance of bid documents.	INCLUDED IN PACKAGE A						
Receive and respond as required to questions from potential bidders regarding the Contract Documents.							
Schedule and conduct pre-bid conference(s) by the Sponsor and advise the Sponsor on matters relating to design. Prepare meeting minutes of the pre-bid conference(s).							
Prepare addenda to the bid documents after advertisement and prior to bidding as required upon the Sponsor's approval.							
Prepare final bid tabulation, recommendation/rejection of award to the Sponsor, and a sample award letter. Request concurrence of award from MDOT.							
Prepare final design cross-sections and digital terrain model files to provide to successful bidder.							
Direct Expenses							
600 Direct Expenses							

23 40 62 \$ 250.00 \$5,325.00 \$26,392.16 125

Attachment F

PROFESSIONAL SERVICES CONTRACTS

ACCESS TO RECORDS AND REPORTS 2 CFR § 200.333 / 2 CFR § 200.336 / FAA Order 5100.38

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the sponsor, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives, access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

GENERAL CIVIL RIGHTS PROVISIONS 49 USC § 47123

SPONSOR CONTRACTS

The contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the contractor and subtier contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

SPONSOR LEASE AGREEMENTS AND TRANSFER AGREEMENTS

The tenant/concessionaire/lessee and its transferee agree to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport through the Airport Improvement Program.

In cases where Federal assistance provides, or is in the form of personal property; real property or interest therein; structures or improvements thereon, this provision obligates the party or any transferee for the longer of the following periods:

(a) The period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits; or

(b) The period during which the airport sponsor or any transferee retains ownership or possession of the property.

**CIVIL RIGHTS - TITLE VI SOLICITATION NOTICE:
49 USC § 47123 / FAA ORDER 1400.11**

The Sponsor, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

**TITLE VI CONTRACTS- COMPLIANCE WITH NONDISCRIMINATION REQUIREMENTS
49 USC § 47123 / FAA ORDER 1400.11**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts And Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**TITLE VI - LIST OF PERTINENT NONDISCRIMINATION ACTS AND AUTHORITIES
49 USC § 47123 / FAA ORDER 1400.11**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).

DISADVANTAGED BUSINESS ENTERPRISES 49 CFR PART 26

Contract Assurance (§ 26.13) - The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material

breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

Prompt Payment (§26.29) - The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than ten days from the receipt of each payment the prime contractor receives from Michigan Department of Transportation or the Sponsor. The prime contractor agrees further to return retainage payments to each subcontractor within ten days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Michigan Department of Transportation or the Sponsor. This clause applies to both DBE and non-DBE subcontractors.

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the sponsor to practice nondiscrimination based on race, color, sex or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

**ENERGY CONSERVATION REQUIREMENTS
2 CFR § 200, APPENDIX II(H)**

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201*et seq*).

**FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)
29 U.S.C. § 201, ET SEQ**

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The consultant has full responsibility to monitor compliance to the referenced statute or regulation. The consultant must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division

**OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970
20 CFR PART 1910**

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Contractor retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Contractor must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

**RIGHTS TO INVENTIONS
2 CFR 200, APPENDIX II(F) / 37 CFR 401**

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within in the 37 CFR §401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental or research work.

**TRADE RESTRICTION CERTIFICATION
49 USC 50104 / 49 CFR PART 30**

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror -

- a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (U.S.T.R.);
- b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the U.S.T.R; and
- c. has not entered into any subcontract for any product to be used on the Federal on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- (1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R. or
- (2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such U.S.T.R. list or
- (3) who incorporates in the public works project any product of a foreign country on such U.S.T.R. list;

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by U.S.T.R, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

VETERAN'S PREFERENCE 49 USC 47112(c)

In the employment of labor (excluding executive, administrative, and supervisory positions), the contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 U.S.C. 632) owned and controlled by disabled veterans. This

preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

**SEISMIC SAFETY
49 CFR PART 41**

In the performance of design services, the Consultant agrees to furnish a building design and associated construction specification that conform to a building code standard which provides a level of seismic safety substantially equivalent to standards as established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their building code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety. At the conclusion of the design services, the Consultant agrees to furnish the Owner a "certification of compliance" that attests conformance of the building design and the construction specifications with the seismic standards of NEHRP or an equivalent building code.

**TEXTING WHEN DRIVING
EXECUTIVE ORDER 13513 / DOT ORDER 3902.10**

For contracts exceeding \$3,500.

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), the FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$3,500 and involve driving a motor vehicle in performance of work activities associated with the project.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION to
ENSURE EQUAL EMPLOYMENT OPPORTUNITY
41 CFR PART 60-4 / EXECUTIVE ORDER 11246**

For all contracts containing construction work in excess of \$10,000:

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for female participation in each trade: 6.9%

Goals for minority participation for each trade:

(Vol. 45 Federal Register pg. 65984 10/3/80)

Geographical Area (By Counties)	Goals (Percent)
Lapeer, Livingston, Macomb, Oakland, St. Clair, Wayne	17.7
Sanilac	16.7
Saginaw	14.3
Genesee, Shiawassee	12.6
Muskegon, Oceana	9.7
Monroe	8.8
Washtenaw	8.5
Lenawee	7.3
Barry, Calhoun	7.2
Berrien, Cass, St. Joseph	6.2
Kalamazoo, VanBuren	5.9
Clinton, Eaton, Ingham, Ionia	5.5
Branch, Hillsdale	5.5

Alcona, Alpena, Arenac, Cheboygan, Chippewa, Clare, Crawford, Gladwin, Gratiot, Huron, Iosco, Isabella, Luce, Mackinac, Midland, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, Tuscola 5.2

Kent, Ottawa 5.2

Jackson 5.1

Allegan, Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Lake, Leelanau, Manistee, Mason, Mecosta, Missaukee, Montcalm, Newaygo, Osceola, Wexford 4.9

Bay 2.2

Gogebic, Ontonagon 1.2

Alger, Baraga, Delta, Dickinson, Houghton, Iron, Keweenaw, Marquette, Menominee, Schoolcraft 1.0

These goals are applicable to all of the contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is the Owner/SPONSOR as identified on page one of this contract.

EQUAL OPPORTUNITY CONTRACT CLAUSE

2 CFR 200, APPENDIX II(C) / 41 CFR § 60-1.4 / 41 CFR § 60-4.3 / EXECUTIVE ORDER 11246

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identify or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other

sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
2 CFR 200, APPENDIX II(C) / 41 CFR § 60-1.4 / 41 CFR § 60-4.3 / EXECUTIVE ORDER 11246**

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
- d. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the contractor has a collective bargaining agreement to refer either minorities or women shall excuse the contractor's obligations under these specifications, Executive Order 11246 or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the contractor during the training period and the contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the contractor may have taken.
- c. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or female sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and

female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.

- n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally,) the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract

Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

PROHIBITION of SEGREGATED FACILITIES
41 CFR 60

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

PROCUREMENT OF RECOVERED MATERIALS
2 CFR 200.322 / 40 CFR PART 247

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use of products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- a) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or,
- b) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at www.epa.gov/epawaste/consERVE/tools/cpg/products/.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

TERMINATION OF CONTRACT
2 CFR 200 APPENDIX II(B) / FAA ADVISORY CIRCULAR 150/5370-10, SECTION 80-09

For all contracts and subcontracts in excess of \$10,000:

FOR CONVENIENCE

The Owner may, by written notice to the Consultant, terminate this Agreement for its convenience and without cause or default on the part of Consultant. Upon receipt of the notice

of termination, except as explicitly directed by the Owner, the Contractor must immediately discontinue all services affected.

Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

TERMINATION FOR DEFAULT

Either party may terminate this Agreement for cause if the other party fails to fulfill its obligations that are essential to the completion of the work per the terms and conditions of the Agreement. The party initiating the termination action must allow the breaching party an opportunity to dispute or cure the breach.

The terminating party must provide the breaching party [7] days advance written notice of its intent to terminate the Agreement. The notice must specify the nature and extent of the breach, the conditions necessary to cure the breach, and the effective date of the termination action. The rights and remedies in this clause are in addition to any other rights and remedies provided by law or under this agreement.

a. Termination by Owner: The Owner may terminate this Agreement in whole or in part, for the failure of the Consultant to:

1. Perform the services within the time specified in this contract or by Owner approved extension;
2. Make adequate progress so as to endanger satisfactory performance of the Project;
3. Fulfill the obligations of the Agreement that are essential to the completion of the Project.

Upon receipt of the notice of termination, the Consultant must immediately discontinue all services affected unless the notice directs otherwise. Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

If, after finalization of the termination action, the Owner determines the Consultant was not in default of the Agreement, the rights and obligations of the parties shall be the same as if the Owner issued the termination for the convenience of the Owner.

b. Termination by Consultant: The Consultant may terminate this Agreement in whole or in part, if the Owner:

1. Defaults on its obligations under this Agreement;
2. Fails to make payment to the Consultant in accordance with the terms of this Agreement;
3. Suspends the Project for more than [180] days due to reasons beyond the control of the Consultant.

Upon receipt of a notice of termination from the Consultant, Owner agrees to cooperate with Consultant for the purpose of terminating the agreement or portion thereof, by mutual consent. If Owner and Consultant cannot reach mutual agreement on the termination settlement, the Consultant may, without prejudice to any rights and remedies it may have, proceed with terminating all or parts of this Agreement based upon the Owner's breach of the contract.

In the event of termination due to Owner breach, the Engineer is entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all justified reimbursable expenses incurred by the Consultant through the effective date of termination action. Owner agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

**CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT
2 CFR PART 180 (SUBPART C) / 2 CFR PART 1200 / DOT ORDER 4200.5**

For contracts of \$25,000 or greater:

BIDDER OR OFFEROR CERTIFICATION

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

**CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS
2 CFR § 200, APPENDIX II(E)**

For contracts exceeding \$100,000 and employs laborers, mechanics, watchmen and guards. This includes members of survey crews and expletory drilling operations.

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) of this clause, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this clause.

4. Subcontractors.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES
31 U.S.C. § 1352 – BYRD ANTI-LOBBYING AMENDMENT / 2 CFR PART 200, APPENDIX II(J)
/ 49 CFR PART 20, APPENDIX A

For contracts exceeding \$100,000.

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

BREACH OF CONTRACT TERMS
2 CFR § 200 Appendix II(A)

For all contracts in excess of \$150,000:

Any violation or breach of terms of this contract on the part of the contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Consultant written notice that describes the nature of the breach and corrective actions the Consultant must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Consultant must correct the breach. Owner may proceed with termination of the contract if the Consultant fails to correct the breach by deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

CLEAN AIR AND WATER POLLUTION CONTROL
2 CFR § 200, APPENDIX II(G)

Contractors and subcontractors agree for all contracts in excess of \$150,000:

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 U.S.C. § 740-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. § 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds \$150,000.

Prime CONSULTANT Statement of DBE Sub-CONSULTANT Payments

Information required in accordance with 49 CFR §26.37 to monitor progress of the prime CONSULTANT in meeting contractual obligations to DBEs.

PRIME CONSULTANT:	<input type="checkbox"/> CHECK IF PRIME IS MDOT-DBE CERTIFIED	AUTHORIZATION NO.	CONTRACT NO.
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BILLING PERIOD:	Check if Final Payment <input type="checkbox"/>	JOB NO.
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CERTIFIED DBE SUBCONSULTANT	SERVICES WORK PERFORMED	TOTAL CONTRACT AMOUNT	CUMULATIVE DOLLAR VALUE OF SERVICES COMPLETED	DEDUCTIONS	ACTUAL AMOUNT PAID TO DATE	ACTUAL AMOUNT PAID DURING THIS REPORTING PERIOD	DBE AUTHORIZED SIGNATURE (Final Payment Report Only)	DATE

As the authorized representative of the above prime CONSULTANT, I state that, to the best of my knowledge, this information is true and accurate.

PRIME CONSULTANT'S AUTHORIZED REPRESENTATIVE (SIGNATURE)	TITLE	DATE
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FOR MDOT USE ONLY

COMMENTS:

CONTRACT ADMINISTRATOR (SIGNATURE)	DATE
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MDOT 0165-R (12/06)

INSTRUCTIONS

PRIME CONSULTANT OR AUTHORIZED REPRESENTATIVE:

This statement reports the actual dollar amounts of the project cost earned by and paid to DBE subCONSULTANTS. Complete and submit to the Contract Administrator with each billing and within 20 days of receipt of final payment. Some forms may be blank if no payment was made since the previous billing.

For "Contract No., Authorization No.," and "Job No." as appropriate, use the numbers assigned by MDOT.

For "Period Covered," report the calendar days covered by the billing.

For "Services Work Performed" report the main service performed by the subCONSULTANT during the reporting period.

For "Total Contract Amount" report the total amount of the contract between the prime CONSULTANT and the subCONSULTANT.

For "Cumulative Dollar Value of Services Completed" report the total amount the subCONSULTANT has earned since beginning this project.

For "Deductions," report deductions made by the prime CONSULTANT to the subCONSULTANT's "Cumulative Dollar Value of Services Completed" for retainage, bond or other fees, materials, services or equipment provided to the subCONSULTANT according to mutual, prior agreement (documentation of such agreement may be required by MDOT).

For "Actual Amount Paid to Date," report cumulative actual payments made to the subCONSULTANT for services completed.

For "Actual Amount Paid During this Reporting Period" report actual payments made to the subcontractor for services during this reporting period.

Provide "DBE Authorized Signature" for final payment only.

Be sure to sign, title and date this statement.

MDOT CONTRACT ADMINISTRATOR:

Complete "Comments" if necessary, sign, date and forward to the Office of Business Development within seven (7) days of receipt.

MDOT Office of Business Development
P.O. Box 30050
Lansing, Michigan 48909

Questions about this form? call Toll-free, 1-866-DBE-1264