



BOARD OF SUPERVISORS AGENDA ITEM REPORT
CONTRACTS / AWARDS / GRANTS

Award Contract Grant

Requested Board Meeting Date: 02/18/20

* = Mandatory, information must be provided

or Procurement Director Award

***Contractor/Vendor Name/Grantor (DBA):**

Kimley-Horn and Associates, Inc. (Headquarters: Raleigh, NC)

***Project Title/Description:**

Design Engineering Services for Sahuarita Road and Wilmot Road Intersection Improvements (4SAHWI)

***Purpose:**

Award: Contract No. CT-TR-20-211. This award of contract is recommended to the highest qualified consultant in the amount of \$364,807.85 for a contract term from 02/18/20 to 12/31/21 for design engineering services for Sahuarita Road and Wilmot Road Intersection Improvements. Administering Department: Transportation

***Procurement Method:**

Solicitation for Qualifications No. SFQ-PO-2000007 was conducted in accordance with A.R.S. § 34-603 and Pima County Board of Supervisors Policy D 29.1. Seven (7) responsive statements of qualifications were received and evaluated by a four (4) member committee using qualifications and experience-based selection criteria. As a result of the scoring of the written statements of qualifications, the highest qualified consultant is recommended for award.

Attachments: Notice of Recommendation for Award and Contract.

***Program Goals/Predicted Outcomes:**

This program will increase the Sahuarita Road and Wilmot Road Intersection capacity to provide an improved level of service using year 2040 traffic volume projections. A signalized intersection will be installed to improve the turning movements in all directions.

***Public Benefit:**

This program will decrease the congestion and traffic delays at the Sahuarita Road and Wilmot Road intersection.

***Metrics Available to Measure Performance:**

The performance will be measured using the consultant evaluation process as outlined in BOS Policy D29.1(E)(II).

***Retroactive:**

No.

To: COB - 1-30-20
Ver. - 1
075-74(11)

Contract / Award Information

Document Type: CT Department Code: TR Contract Number (i.e.,15-123): 20-211

Effective Date: 02/18/20 Termination Date: 12/31/21 Prior Contract Number (Synergen/CMS): _____

Expense Amount: \$* 364,807.85 Revenue Amount: \$ _____

*Funding Source(s) required: Transportation Non-Bond Projects (RTA - 100%)

Funding from General Fund? Yes No If Yes \$ _____ % _____

Contract is fully or partially funded with Federal Funds? Yes No

If Yes, is the Contract to a vendor or subrecipient? _____

Were insurance or indemnity clauses modified? Yes No

If Yes, attach Risk's approval.

Vendor is using a Social Security Number? Yes No

If Yes, attach the required form per Administrative Procedure 22-10.

Amendment / Revised Award Information

Document Type: _____ Department Code: _____ Contract Number (i.e.,15-123): _____

Amendment No.: _____ AMS Version No.: _____

Effective Date: _____ New Termination Date: _____

Prior Contract No. (Synergen/CMS): _____

Expense or Revenue Increase Decrease Amount This Amendment: \$ _____

Is there revenue included? Yes No If Yes \$ _____

*Funding Source(s) required: _____

Funding from General Fund? Yes No If Yes \$ _____ % _____

Grant/Amendment Information (for grants acceptance and awards) Award Amendment

Document Type: _____ Department Code: _____ Grant Number (i.e.,15-123): _____

Effective Date: _____ Termination Date: _____ Amendment Number: _____

Match Amount: \$ _____ Revenue Amount: \$ _____

*All Funding Source(s) required: _____

*Match funding from General Fund? Yes No If Yes \$ _____ % _____

*Match funding from other sources? Yes No If Yes \$ _____ % _____

*Funding Source: _____

*If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)? _____

Contact: Matthew Sage, CPPB Matt S 1/17/20 1-21-2020

Department: Procurement May J 1/23/2020 Telephone: 724-8586

Department Director Signature/Date: [Signature] 1/23/2020

Deputy County Administrator Signature/Date: [Signature] 1/27/2020

County Administrator Signature/Date: [Signature] 1/27/2020
(Required for Board Agenda/Addendum Items)



NOTICE OF RECOMMENDATION FOR AWARD

Date of Issue: January 14, 2020

The Pima County Procurement Department hereby issues formal notice to respondents to Solicitation No. SFQ-PO-2000007 for Sahuarita Road and Wilmot Road Intersection Improvements (4SAHWI) that the following listed respondent will be recommended for award as indicated below. The award action is scheduled to be performed by the Board of Supervisors on or after February 4, 2020.

Award is recommended to the Most Qualified Respondent.

Kimley-Horn and Associates, Inc.

OTHER RESPONDENT FIRMS (Alphabetical Order)

EPS Group, Inc. Engineers, Planners & Surveyors

Kittelson & Associates, Inc.

Rick Engineering Company, Inc.

SCE Engineering

Solis Engineering Co., LLC

WSP USA

Issued by: */s/ Matthew Sage*

Telephone Number: (520) 724-8586

This notice is in compliance with Pima County Procurement Code §11.20.010(C).

Copy to: Pima County SBE via e-mail at SBE@pima.gov

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PROJECT: DESIGN ENGINEERING SERVICES FOR SAHUARITA ROAD AND WILMOT ROAD INTERSECTION IMPROVEMENTS (4SAHWI)
CONSULTANT: Kimley-Horn and Associates, Inc.
333 East Wetmore Road, Suite 280
Tucson, Arizona 85705
CONTRACT NO.: CT-TR-20-211
AMOUNT: \$364,807.85
FUNDING: Transportation Non-Bond Projects
(RTA – 100%)

CONSULTANT SERVICES CONTRACT

This Contract is entered into between Pima County, a body politic and corporate of the State of Arizona, hereafter called COUNTY, and Kimley-Horn and Associates, Inc., hereinafter called CONSULTANT, and collectively referred to as the Parties.

WITNESSETH

WHEREAS, COUNTY requires the services of a CONSULTANT registered in the State of Arizona and qualified to provide Design Engineering Services for the Sahuarita Road and Wilmot Road Intersection Improvements Project (4SAHWI); and

WHEREAS, CONSULTANT is willing, qualified, and properly registered within the State of Arizona to provide such services; and

WHEREAS, based on CONSULTANT's representations in response to Pima County Solicitation No. SFQ-PO-2000007, CONSULTANT was determined to be the most qualified for this Project; and

WHEREAS, CONSULTANT has proposed to perform the work at a price acceptable to COUNTY.

NOW, THEREFORE, in consideration of the foregoing recitals and other valuable and good consideration, the parties hereto agree as follows:

ARTICLE 1 – TERM AND EXTENSION/RENEWAL/CHANGES

This Contract, as approved by the Board of Supervisors, commences on February 18, 2020, and terminates on December 31, 2021, unless sooner terminated or further extended pursuant to the provisions of this Contract.

COUNTY has the option to extend the contract termination date for purposes of project completion. Any modification or extension of the contract termination date must be by formal written amendment executed by the Parties.

ARTICLE 2 – SCOPE OF SERVICES

CONSULTANT agrees to provide Architectural and Engineering Design Services for the COUNTY as described in **EXHIBIT "A" - SCOPE OF SERVICES** (11 pages), an attachment to this contract, and to complete such services within the term and value of this contract as it may be modified in accordance with **Article 5**. Amendments and changes to the Scope must be approved by the Board of Supervisors or the Procurement Director, as required by the Pima County Procurement Code, before the work under the amendment commences.



ARTICLE 3 - DEFINITIONS

Other Direct Costs. Other Direct Costs are those costs that can be specifically identified within this Contract, are required for performance of the Contract, and are actually incurred. This includes Subcontract or Subconsultant costs; reproduction, copy and printing costs; courier services; and similar costs specifically necessary for this Contract and approved by COUNTY.

Cost Plus Fixed Fee. The modified Cost Plus Fixed Fee (CPFF) is a compensation method that provides compensation to the Consultant for actual costs of Direct Labor, Indirect, and Other Direct Costs incurred up to a "not-to-exceed" amount, plus a fixed Fee amount for the successful performance of the work. The Fee amount may initially be determined as a percentage of the estimated not-to-exceed costs. Once negotiated, the Fee amount becomes fixed and does not vary with actual costs. The Fee may only be in accordance with **Article 5**.

Critical Path Method. The Critical Path Method (CPM) is a way of depicting the sequence of activities in a project, including interdependencies, and containing all activities needed for successful completion of the Work. Delay in the completion of activities on the critical path will extend the completion date.

Direct Labor Costs. Direct Labor Costs are the total number of allowable hours worked on the Project by each individual multiplied by the Labor Rate, identified in EXHIBIT "B" -COMPENSATION SCHEDULE.

Fee. Fee is the amount, independent of actual costs, that the CONSULTANT is allowed for assuming risk and to stimulate efficient contract performance. Fee includes compensation to CONSULTANT for both profit and unallowable costs. Efficient cost control will allow CONSULTANT to earn a higher profit margin without adjustment of the fee amount. Conversely, inefficient cost control will result in a lower profit margin.

Float. Float is the number of days by which an activity not on the critical path in a CPM network may be delayed before it extends the completion date.

Labor Rates. Labor rates are the actual cost of salary paid to employees of CONSULTANT and identified in EXHIBIT "B" - COMPENSATION SCHEDULE.

Not to Exceed Cost. The Not to Exceed Cost for a task is the sum of the agreed Direct Labor costs, indirect costs, and other reimbursable costs of the task defined in the original Project Baseline. Actual Direct Labor costs may be invoiced based on hours worked, per discipline, per task, or a percent complete by task for the period. CONSULTANT assumes all risk for providing the requested task/deliverables at or below the original estimated cost, unless an equitable adjustment to the scope and/or fee are made by amendment to the Contract. Any costs incurred by CONSULTANT beyond the not-to-exceed amount identified which are not attributable to any change in the project baseline are unallowable. Unallowable costs are compensated through the CONSULTANT's fixed Fee.

Indirect Costs. Indirect costs are at the overhead rate identified in EXHIBIT "B" - COMPENSATION SCHEDULE.

Project Baseline. The agreed Contract scope of services, total Not-to-Exceed CPFF, the allocation thereof among Contract tasks, and the accompanying schedule and expectations/assumptions upon which the scope of services and schedule are based, collectively constitute the Project Baseline.

ARTICLE 4 - COMPENSATION AND PAYMENT

In consideration of the services specified in this Contract, COUNTY agrees to pay CONSULTANT on a modified Not-to-Exceed CPFF basis, not to exceed the total amount of this Contract. Cost is comprised of CONSULTANT's Direct Labor Costs, Indirect Costs and Other Direct Costs. CONSULTANT's fee will remain fixed and may be adjusted only as provided in **Article 5** and **Article 6**.

The total of all payments to CONSULTANT for services provided under this Contract will not exceed Three Hundred Sixty-Four Thousand Eight Hundred Seven Dollars and Eighty-Five Cents (\$364,807.85).

CONSULTANT's total CPFF will be allocated among the major tasks contemplated by this Contract in such manner that each major deliverable will have associated with it a not-to-exceed cost, plus a fixed fee amount, incorporated herein as **EXHIBIT "B" – COMPENSATION SCHEDULE (41 pages)**. CONSULTANT may invoice monthly for the actual costs incurred plus a pro-rata portion of the fee amount for each task. CONSULTANT will calculate actual costs based on actual hours spent, to which the agreed overhead rate may be applied, plus Other Direct Costs. Actual Costs may then be represented as percentage of the "not to exceed" cost amount associated with that task on the CONSULTANT's invoice for billing purposes. Calculations and supporting data will be made available to COUNTY at any time, upon request. The cumulative payment for the actual costs of any task may not be more than the "not to exceed" cost amount associated with that task. Upon completion of the Scope of Work, (including acceptance by COUNTY of all associated deliverables), COUNTY will pay the balance of the fixed fee to CONSULTANT.

Hourly rates and all other rates included under this Contract will remain fixed throughout the term of the contract. COUNTY may consider adjustments to rates in connection with any extensions of the contract term or in accordance with EXHIBIT "B" – Compensation Schedule.

Unless otherwise agreed, CONSULTANT will submit invoices monthly. All invoices will be accompanied by a narrative description of the work performed during the period covered by the invoice, time accounting information, and an allocation of all direct costs, including reimbursable costs and subconsultant charges, to the tasks identified in the Scope of Services for which those costs were incurred. The time accounting information should be sufficient to show the workers and hours worked by day for the period covered by the invoice. Subconsultant charges must be supported by appropriate documentation with each separate invoice submitted.

For the period of record retention required under **Article 25**, COUNTY reserves the right to question any payment made under this Article and to require reimbursement therefor by setoff or otherwise for payments determined to be improper or contrary to the Contract or law.

CONSULTANT will not perform work in excess of the Contract Amount without prior authorization by an amendment executed by COUNTY. Work performed in excess of the Contract Amount without prior authorization by amendment is at CONSULTANT'S own risk. Additional Services identified in EXHIBIT "B" - COMPENSATION SCHEDULE, are services within the scope of this Contract but not included within the Tasks identified as of the effective date of this Contract. If ordered, CONSULTANT will invoice additional Services at the rates incorporated into this Contract as in EXHIBIT "B" - COMPENSATION SCHEDULE. COUNTY may add additional services throughout the term of the Contract by providing notice in writing to CONSULTANT. Hourly billable rates shown in EXHIBIT "B" - COMPENSATION SCHEDULE will only be adjusted by written amendment to the Contract. The Parties may add additional required professional classifications or disciplines to EXHIBIT "A" - SCOPE OF SERVICES by written amendment at any time.

COUNTY has ten (10) calendar days from the date of invoice to notify CONSULTANT of any invoicing discrepancies. COUNTY and CONSULTANT will meet to resolve any discrepancies before the invoice is approved or rejected for payment. Subconsultant charges must be supported by appropriate documentation upon request by COUNTY.

CONSULTANT will not perform work in excess of the Contract Amount without prior authorization by an amendment executed by COUNTY. Work performed in excess of the Contract Amount without prior authorization by amendment shall be at CONSULTANT'S own risk.

ARTICLE 5 – PROJECT BASELINE AND ADJUSTMENTS

A. COUNTY and CONSULTANT have agreed upon the Project scope and the total CPFF, and will prepare a CPM-based schedule for the performance of the work. The schedule is based on assumptions and expectations agreed upon by the Parties. Schedule estimates for the timeframes associated with outside party activities, i.e. design and other reviews, and/or permits or other clearances do not represent commitments made by either outside agencies or the permit-granting entities of County. This Project Baseline represents a firm commitment by the Parties to complete the work within the schedule and total cost identified in the Baseline, subject to schedule variations by outside parties and other factors beyond the control of the Parties.

- B. Although the Baseline reflects the best estimates and expectations of the Parties at the time of agreement, there is an element of uncertainty associated with the design process that makes the actual schedule and effort required to complete the work difficult or impossible to establish in advance. Unusual citizen input, litigation, regulatory changes, significant delays by utilities or others, unforeseen decisions or commitments by policy makers, or other unanticipated events or factors beyond the control of the Parties that differ materially from the expectations of the Parties may delay or disrupt the schedule and/or require a change in the level of resources or effort. The Project Baseline may be adjusted as follows:
1. A delay in the work attributable to a failure by COUNTY to adhere to its estimates with respect to schedule is an excusable delay for which an adjustment may be made to the schedule. In any such case affecting a task on the critical path, the schedule of the affected task or activity may be extended one (1) day for each day of COUNTY-caused delay; provided, however, that if the COUNTY-caused delay overlaps a period of delay attributable to any other cause, the extension for COUNTY-caused delay is limited to the number of non-overlapped days of COUNTY-caused delay.
 2. There is no adjustment for any delay in the work attributable to a failure by CONSULTANT to adhere to its commitments with respect to schedule. In the event of a significant delay attributable to a failure by CONSULTANT to adhere to its schedule expectations, CONSULTANT will provide a recovery plan to COUNTY within five (5) days of COUNTY's request. For the purposes of this paragraph, a delay arising from or attributable to a necessity for CONSULTANT to make more than two (2) submissions of plans or documents for approval is a failure by CONSULTANT to adhere to its schedule commitments. CONSULTANT's work associated with additional reviews is non-compensable.
 3. A delay in the work attributable to any other cause that differs materially from the expectations of the Parties regarding that cause is an excusable delay for which the Parties will negotiate an appropriate schedule adjustment. If the period of delay attributable to any cause under this paragraph overlaps a period of delay attributable to any other cause, the adjustment under this paragraph will be made first and the delay attributed to such other cause will be limited to that occurring outside of the overlap.
 4. If any of the causes of delay in Paragraphs 1 or 3 above affects a task or activity on the critical path, then the schedule adjustment may include adjustment to the completion date. If the cause does not affect a task or activity on the critical path, then the adjustment will be made from Float and the completion date will not change.
 5. If any of the causes of delay in Paragraphs 1 or 3 above results in material provable additional costs to the affected task or tasks as a result of disruption of the schedule, then the Parties will negotiate an equitable adjustment to the cost for the affected task or tasks, but not to the fee.
 6. The Parties will negotiate an equitable adjustment of cost and fee for any task or tasks for which there is any significant change in the level of effort arising from additional or changed work requested or directed in writing by COUNTY that materially deviates from or adds to the baseline expectations or assumptions of the Parties with respect to the work.
 7. If any action, comment, cause, decision, or other event attributable to any third party results in a change in requirements that differs materially from expectations, then the Parties will negotiate in good faith an equitable adjustment in the cost and fee for the affected task or tasks.
- C. CONSULTANT agrees to complete the work by the completion date in the schedule, as it may be adjusted under the preceding provisions of this Article. Costs incurred by CONSULTANT to complete the work after the completion date in the schedule are not reimbursable under this Contract.

ARTICLE 6 – REALLOCATION OF FUNDS

Given the magnitude and complexity of the scope required by this Contract, the Parties understand that the actual cost to perform specific tasks may vary from the estimates reflected in EXHIBIT "A" - SCOPE OF SERVICES and EXHIBIT "B" – COMPENSATION SCHEDULE.

If the actual cost to complete a task is less than the estimated amount for that task, the cost savings realized accrues to COUNTY. With the agreement of the Parties, COUNTY may reallocate the cost savings to other tasks in EXHIBIT "A" - SCOPE OF SERVICES and EXHIBIT "B" - COMPENSATION SCHEDULE as follows:

- A. Reallocation between subtasks in EXHIBIT "A" - SCOPE OF SERVICES under any one of the major task categories in EXHIBIT "B" - COMPENSATION SCHEDULE may be made between the COUNTY's department representative and the CONSULTANT's project manager by written agreement.
- B. County's Procurement Director may make a reallocation among the major tasks in EXHIBIT "B" - COMPENSATION SCHEDULE by a Contract amendment, provided that the transfer does not increase the total amount of the Contract.
- C. The Board of Supervisors may make any reallocation or adjustment in EXHIBIT "A" - SCOPE OF SERVICES or EXHIBIT "B" - COMPENSATION SCHEDULE that increases the total contract amount through a Contract Amendment.

Costs and Fee may not be reallocated from any task on which work has not progressed significantly and which does not include actual or demonstrable savings or reductions in required effort such that the task may be completed for less than the balance of the task remaining after the transfer.

ARTICLE 7 - INSURANCE

The Insurance Requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. COUNTY in no way warrants that the minimum limits contained herein are sufficient to protect the CONSULTANT from liabilities that arise out of the performance of the work under this Contract. The CONSULTANT is free to purchase additional insurance.

CONSULTANT'S insurance will be placed with companies licensed in the State of Arizona or hold approved non-admitted status on the Arizona Department of Insurance List of Qualified Unauthorized Insurers. Insurers will have an "A.M. Best" rating of not less than A- VII. COUNTY in no way warrants that the above-required minimum insurer rating is sufficient to protect the CONSULTANT from potential insurer insolvency.

7.1 Minimum Scope and Limits of Insurance:

CONSULTANT will procure and maintain, until all of their obligations have been discharged, coverage with limits of liability not less than those stated below.

- 7.1.1 General Liability (CGL) - Occurrence Form with limits of \$2,000,000 Each Occurrence and \$2,000,000 General Aggregate. Policy will include bodily injury, property damage, and broad form contractual liability coverage.
- 7.1.2 Automobile Liability - Bodily Injury and Property Damage for any owned, hired, and/or non-owned automobiles used in the performance of this Contract with a Combined Single Limit (CSL) of \$1,000,000.
- 7.1.3 Workers' Compensation and Employers' Liability - Statutory requirements and benefits. Coverage is compulsory for employers of one or more employees. Employer's Liability - \$1,000,000.
Note: The Workers' Compensation requirement will not apply to a CONSULTANT that is exempt under A.R.S. § 23-901, and when such CONSULTANT executes the appropriate COUNTY Sole Proprietor or Independent CONSULTANT waiver form.
- 7.1.4 Professional Liability (Errors and Omissions) Insurance - This insurance is required when soliciting work from licensed professionals. The policy limits will be not less than \$2,000,000 Each Claim and \$2,000,000 Annual Aggregate. The policy will cover professional misconduct or negligent acts for those positions defined in the Scope of Work of this contract.

In the event that the Professional Liability insurance required by this Contract is written on a claims-made basis, CONSULTANT warrants that any retroactive date under the policy will

precede the effective date of this Contract and, either continuous coverage will be maintained, or an extended discovery period will be exercised, for a period of two (2) years beginning at the time work under this Contract is completed.

7.2 Additional Insurance Requirements:

The policies will include, or be endorsed to include, as required by this written agreement, the following provisions:

- 7.2.1 Additional Insured Endorsement: The General Liability and Business Automobile Liability Policies will each be endorsed to include COUNTY and the City of Tucson, their departments, districts, boards, commissions, officers, officials, agents, and employees as additional insured's with respect to liability arising out of the activities performed by or on behalf of the CONSULTANT.
- 7.2.2 Subrogation Endorsement: The General Liability, Business Automobile Liability and Workers' Compensation Policies will each contain a waiver of subrogation endorsement in favor of COUNTY and the City of Tucson, and its departments, districts, boards, commissions, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the CONSULTANT.
- 7.2.3 Primary Insurance Endorsement: The CONSULTANT'S policies will stipulate that the insurance afforded the CONSULTANT will be primary and that any insurance carried by the Department, its agents, officials, employees or COUNTY will be excess and not contributory insurance, as provided by A.R.S. § 41-621 (E).
- 7.2.4 Insurance provided by the CONSULTANT will not limit the CONSULTANT'S liability assumed under the indemnification provisions of this Contract.

7.3 Notice of Cancellation:

For each insurance policy required by the insurance provisions of this Contract, the CONSULTANT must provide to COUNTY, within two (2) business days of receipt, a notice if a policy is suspended, voided, or cancelled for any reason. Such notice will be mailed, emailed, hand-delivered or sent by facsimile transmission to Pima County Procurement Department, 130 West Congress Street, Tucson AZ 85701, and Fax 520-724-4434.

7.4 Verification of Coverage:

CONSULTANT will furnish COUNTY with certificates of insurance (valid ACORD form or equivalent approved by COUNTY) as required by this Contract. An authorized representative of the insurer will sign the certificates.

7.4.1 All certificates and endorsements, as required by this written agreement, are to be received and approved by COUNTY before work commences. Each insurance policy required by this Contract must be in effect at, or prior to, commencement of work under this Contract. Failure to maintain the insurance coverages or policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract.

7.4.2 All certificates required by this Contract will be sent directly to the Department. COUNTY project or contract number and project description will be noted on the certificate of insurance. COUNTY reserves the right to require complete copies of all insurance policies required by this Contract at any time.

7.5 Approval and Modifications:

COUNTY Risk Management reserves the right to review or make modifications to the insurance limits, required coverages, or endorsements throughout the life of this contract, as deemed necessary. Such action will not require a formal Contract amendment but may be made by administrative action.

ARTICLE 8 – INDEMNIFICATION

To the fullest extent permitted by law, CONSULTANT will indemnify, defend, and hold harmless COUNTY and the City of Tucson, their officers, employees and agents from and against any and all suits, actions, legal administrative proceedings, claims or demands and costs attendant thereto, including reasonable attorney's fees and court costs, to the extent caused by any negligent, reckless or intentionally wrongful act or omission of the CONSULTANT, its agents, employees or anyone acting under its direction or control or on its behalf in

connection with performance of this Contract. The obligations under this Article shall not extend to the negligence of COUNTY, their agents, employees or indemnities.

All warranty and indemnification obligations under this contract shall survive expiration or termination of the contract, unless expressly provided otherwise. The Parties agree that any indemnification provision inconsistent with A.R.S. § 34-226 is, in all cases, not void, but will be interpreted and applied as if it were consistent with A.R.S. § 34-226.

Upon request, CONSULTANT may fully indemnify and hold harmless any private property owner granting a right of entry to CONSULTANT for the purpose of completing the project. The obligations under this Article do not extend to the negligence of COUNTY and the City of Tucson, their officers, agents, employees or indemnities.

ARTICLE 9 – COMPLIANCE WITH LAWS

CONSULTANT will comply with all applicable federal, state, and local laws, rules, regulations, standards and Executive Orders, without limitation to those designated within this Contract. The laws and regulations of the State of Arizona shall govern the rights of the parties, the performance of this Contract, and any disputes hereunder. Any action relating to this Contract must be brought and maintained in Superior Court in Pima County. Any changes in the governing laws, rules, and regulations during the term of this Contract apply, but do not require an amendment.

ARTICLE 10 – STATUS OF CONSULTANT

The status of the CONSULTANT is that of an independent contractor and CONSULTANT is not considered an employee of Pima County and is not entitled to receive any of the fringe benefits associated with regular employment, and will not be subject to the provisions of the merit system. CONSULTANT is responsible for payment of all Federal, State and Local taxes associated with the compensation received by CONSULTANT from COUNTY. CONSULTANT is responsible for program development and operation without supervision by COUNTY.

ARTICLE 11 – CONSULTANT'S PERFORMANCE

CONSULTANT will perform the work in accordance with the terms of the contract and with the degree of care and skill required of any similarly situated Arizona registrant. CONSULTANT will employ suitably trained and skilled professional personnel to perform all required services under this Contract. Prior to changing any key personnel, especially those key personnel COUNTY relied upon in making this contract, CONSULTANT will obtain the approval of COUNTY.

CONSULTANT is responsible for the professional quality, technical accuracy, timely completion, and the coordination of all its effort and other services furnished by CONSULTANT under this Agreement. Without additional compensation, CONSULTANT will correct or revise any errors, omission, or other deficiencies in all products of its efforts and other services provided. This includes resolving any deficiencies arising out of the acts or omissions of CONSULTANT found during or after the course of the services performed by or for CONSULTANT under this Agreement, regardless of COUNTY having knowledge of or condoning/accepting the products or the services. Correction of such deficiencies will be at no cost to COUNTY.

ARTICLE 12 – NON-WAIVER

The failure of COUNTY to insist in any one or more instances upon full and complete compliance with any of the terms and provisions of this Contract or to take any action permitted as a result thereof is not a waiver or relinquishment of the right to insist upon full and complete performance of the same or any other covenant or condition either in the past or in the future. The acceptance by either party of sums less than may be due and owing it at any time is not an accord and satisfaction.

ARTICLE 13 – SUBCONSULTANT

CONSULTANT will be fully responsible for all acts and omissions of its SUBCONSULTANT and of persons directly or indirectly employed by SUBCONSULTANT and of persons for whose acts any of them may be liable to

the same extent that CONSULTANT is responsible for the acts and omissions of persons directly employed by it. Nothing in this Contract creates any obligation on the part of COUNTY to pay or see to the payment of any money due any SUBCONSULTANT, except as may be required by law.

ARTICLE 14 – NON-ASSIGNMENT

CONSULTANT will not assign its rights to this Contract in whole or in part, without prior written approval of COUNTY. COUNTY may withhold approval at its sole discretion, provided that COUNTY will not unreasonably withhold such approval.

ARTICLE 15 – NON-DISCRIMINATION

CONSULTANT agrees to comply with all provisions and requirements of Arizona Executive Order 2009-09 which is hereby incorporated into this Contract as if set forth in full herein **including flow down of all provisions and requirements to any subconsultants**. During the performance of this contract, CONSULTANT and its SUBCONSULTANTS will not discriminate against any employee, client or any other individual in any way because of that person's age, race, creed, color, religion, sex, disability or national origin.

ARTICLE 16 – AMERICANS WITH DISABILITIES ACT

CONSULTANT will comply with all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and all applicable federal regulations under the Act, including 28 CFR Parts 35 and 36. If CONSULTANT is carrying out government programs or services on behalf of COUNTY, then CONSULTANT will maintain accessibility to the program to the same extent and degree that would be required of the COUNTY under 28 CFR Sections 35.130, 35.133, 35.149 through 35.151, 35.160, 35.161 and 35.163. Failure to do so may result in the termination of this Agreement.

ARTICLE 17 – CANCELLATION FOR CONFLICT OF INTEREST

This Contract is subject to the provisions of A.R.S. §38-511 which provides in pertinent part:

"The state, its political subdivisions or any department of either may, within three years after its execution, cancel any contract, without penalty or further obligation, made by the state, its political subdivisions, or any of the departments or agencies of either if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the state, its political subdivisions or any of the departments or agencies of either is, at any time, while the contract or any extension of the contract is in effect, an employee or agent of any other party to the contract in any capacity or a consultant to any other party to the contract with respect to the subject matter of the contract."

ARTICLE 18 – TERMINATION OF CONTRACT FOR DEFAULT

- A. Upon a failure by CONSULTANT to cure a default under this Contract within ten (10) days of receipt of notice from COUNTY of the default, COUNTY may, in its sole discretion, terminate this Contract for default by written notice to CONSULTANT. In this event, COUNTY may take over the work and complete it by contract or otherwise. In such event, CONSULTANT will be liable for any damage to the COUNTY resulting from CONSULTANT's default, including any increased costs incurred by COUNTY in completing the work.
- B. The occurrence of any of the following, without limitation to the named events, constitutes an event of default:
 - 1. Abandonment of or failure by CONSULTANT to observe, perform or comply with any material term, covenant, agreement or condition of this Contract, or to prosecute the work or any separable part thereof with the diligence that will insure completion within the time specified in this contract, including any extension, or a failure to complete the work (or the separable part of the work) within the specified time;

2. Persistent or repeated refusal or failure to supply adequate staff, resources or direction to perform the work on schedule or at an acceptable level of quality;
3. Refusal or failure to remedy defective or deficient work within a reasonable time;
4. Loss of professional registration or business or other required license or authority, or any curtailment or cessation for any reason of business or business operations that would substantially impair or preclude CONSULTANT's performance of this Contract;
5. Disregard of laws, ordinances, or the instructions of COUNTY or its representatives, or any otherwise substantial violation of any provision of the contract;
6. Performance of work hereunder by personnel that are not qualified or permitted under state law or local law to perform such services;
7. Commission of any act of fraud, misrepresentation, willful misconduct, or intentional breach of any provision of this Contract; or
8. If a voluntary or involuntary action for bankruptcy is commenced with respect to CONSULTANT, or CONSULTANT becomes insolvent, makes a general assignment for the benefit of creditors, or has a receiver or liquidator appointed in respect of its assets.

C. In the event of a termination for default:

1. All finished and unfinished drawings, specifications, documents, data, studies, surveys, drawings, photographs, reports and other information in whatever form, including electronic, acquired or prepared by CONSULTANT for this project become COUNTY's property and will be delivered to COUNTY not later than five (5) business days after the effective date of the termination;
2. COUNTY may withhold payments to CONSULTANT arising under this or any other Contract for the purpose of set-off until such time as the exact amount of damage due COUNTY from CONSULTANT is determined; and
3. Subject to the immediately preceding subparagraph 2., COUNTY's liability to CONSULTANT will not exceed the Contract value of work satisfactorily performed prior to the date of termination for which COUNTY has not previously made payment.

D. COUNTY will not terminate the Contract for default or charge CONSULTANT with damages under this Article, if—

1. Excepting item 8. in paragraph B above, the event of default or delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of CONSULTANT. Examples of such causes include—
 - (i) Acts of God or of the public enemy,
 - (ii) Acts of the COUNTY in either its sovereign or contractual capacity,
 - (iii) Acts of another Contractor in the performance of a contract with the COUNTY,
 - (iv) Fires,
 - (v) Floods,
 - (vi) Epidemics
 - (vii) Quarantine restrictions,
 - (viii) Strikes,
 - (ix) Freight embargoes,
 - (x) Unusually severe weather, or
 - (xi) Delays of subcontractors at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both CONSULTANT and the subcontractor(s); and
2. CONSULTANT, within seven (7) days from the beginning of any event of default or delay (unless extended by COUNTY), notifies COUNTY in writing of the cause(s) therefor. In this circumstance,

COUNTY will ascertain the facts and the extent of the resulting delay. If, in the reasonable judgment of COUNTY, the findings warrant such action, COUNTY may extend the time for completing the work.

- E. For the purposes of paragraph A above, "receipt of notice" includes receipt by hand by CONSULTANT's project manager, by facsimile transmission with notice of receipt, or under the Notices clause of this Contract.
- F. If, after termination of the Contract for default, COUNTY determines that the CONSULTANT was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if COUNTY had terminated the Contract for convenience.
- G. The rights and remedies of COUNTY in this Article are cumulative and in addition to any other rights and remedies provided by law or under this contract.

ARTICLE 19 – TERMINATION FOR CONVENIENCE OF COUNTY

COUNTY may terminate this Contract at any time by giving written notice to CONSULTANT of such termination and specifying the effective date thereof, at least fifteen (15) days before the effective date of such termination. In that event, all finished or unfinished documents and other materials will, at the option of the COUNTY, become its property. If COUNTY terminates the Contract as provided herein, COUNTY will pay CONSULTANT an amount based on the time and expenses incurred by CONSULTANT prior to the termination date, however, no payment will be allowed for anticipated profit on unperformed services.

ARTICLE 20 – NON-APPROPRIATION OF FUNDS

Notwithstanding any other provision in this Contract, this Contract may be terminated if for any reason the Pima County Board of Supervisors does not appropriate sufficient monies for the purpose of maintaining this Contract. In the event of such termination, COUNTY will have no further obligation to CONSULTANT, other than payment for services rendered prior to termination.

ARTICLE 21 – NOTICES

Any notice required or permitted to be given under this Contract must be in writing and be served by delivery or by certified mail upon the other party as follows:

COUNTY:

Ana Olivares, P.E. Director
Pima County Department of Transportation
201 North Stone Avenue
Tucson, Arizona 85701
Tel: (520) 724-6410

CONSULTANT:

Tim Rhine, P.E., PTOE
Kimley-Horn and Associates, Inc.
333 East Wetmore Road, Suite 280
Tucson, Arizona 85705
Tel: (520) 615-9191

ARTICLE 22 – OTHER DOCUMENTS

The Parties in entering into this Contract have relied upon information provided in SFQ-PO-2000007, and on representations and information in the CONSULTANT'S response to said SFQ. These documents are hereby incorporated into and made a part of this Contract as if set forth in full herein, to the extent not inconsistent with the provisions of this Contract. CONSULTANT will perform services in accordance with the terms of the Contract and at a level of care consistent with prevailing industry standards. In the event any provision of this contract is inconsistent with those of any other document, the contract provisions will prevail.

ARTICLE 23 – REMEDIES

Either party may pursue any remedies provided by law for the breach of this Contract, provided, however, that the procedures in **Article 27** are first exhausted. No right or remedy is intended to be exclusive of any other right or remedy and each is cumulative and in addition to any other right or remedy existing at law or at equity or by virtue of this Contract.

ARTICLE 24 – SEVERABILITY

Each provision of this Contract stands alone, and any provision of this Contract found to be prohibited by law is ineffective to the extent of such prohibition without invalidating the remainder of this Contract.

ARTICLE 25 – BOOKS AND RECORDS

CONSULTANT will keep and maintain proper and complete books, records and accounts, which will be open at all reasonable times for inspection and audit by duly authorized representatives of COUNTY.

CONSULTANT will retain all records relating to this contract at least five (5) years after its termination or cancellation or until any related pending proceeding or litigation has been closed, if later. Alternatively, CONSULTANT may, at its option, deliver such records to COUNTY for retention.

ARTICLE 26 – DELAYS

Neither party hereto will be considered in default in the performance of its obligations hereunder to the extent that the performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such party.

ARTICLE 27 – DISPUTES

In the event of a dispute between the Parties regarding any part of this Contract or the Parties' obligations or performance hereunder, either Party may request a special meeting between their respective representatives to resolve the dispute. If the dispute remains unresolved, then either Party may request escalation of the issue to a meeting between the Director of the Pima County Department administering this Contract and CONSULTANT'S counterpart official, such meeting to be held within one (1) week of the request, unless otherwise agreed. If the dispute is still not resolved after that meeting, then either Party may pursue such remedy or remedies as may be available to them under the laws of the State of Arizona.

The Parties will continue performance of their respective obligations under this Contract notwithstanding the existence of any dispute.

ARTICLE 28 – OWNERSHIP OF DOCUMENTS

All original drawings, field data, estimates, field notes, plans, specifications, documents, reports, calculations, and other information developed by CONSULTANT under this contract vest in and become the property of COUNTY and shall be delivered to COUNTY upon completion or termination of the services, but CONSULTANT may retain and use copies thereof. COUNTY agrees that the material will not be used for any project other than the project for which it was designed without the expressed permission of the CONSULTANT.

ARTICLE 29 – PUBLIC INFORMATION

Pursuant to A.R.S. § 39-121 et seq., and A.R.S. §§ 34-603(H), 604(H), in the case of construction or Architectural and Engineering services procured under A.R.S. Title 34, Chapter 6, all information submitted by CONSULTANT in any way related to this contract, including, but not limited to, pricing, product specifications, work plans, and any supporting data becomes public information and upon request, is subject to release and/or review by the general public including competitors.

Any information submitted related to this Contract that CONSULTANT believes constitutes proprietary, trade secret or otherwise confidential information must be appropriately and prominently marked as CONFIDENTIAL prior to submittal to COUNTY and be accompanied by an index specifically identifying and describing the general contents of each page so marked. The index is a Public Record and must not include any information considered confidential.

Notwithstanding the above provisions, in the event records marked CONFIDENTIAL are requested for public release pursuant to A.R.S. § 39-121 et seq., County will release records marked CONFIDENTIAL ten (10) business days after the date of notice to the CONSULTANT of the request for release, unless CONSULTANT

has, within the ten (10) day period, secured a protective order, injunctive relief or other appropriate order from a court of competent jurisdiction, enjoining the release of the records. For the purposes of this paragraph, the day of the request for release is not counted in the time calculation. COUNTY will notify CONSULTANT of any request for such release on the same day of the request for public release or as soon thereafter as practicable. County is not, under any circumstances, responsible for securing a protective order or other relief enjoining the release of records marked CONFIDENTIAL, nor is County in any way financially responsible for any costs associated with securing such an order.

ARTICLE 30 – LEGAL ARIZONA WORKERS ACT COMPLIANCE

CONSULTANT hereby warrants that it will at all times during the term of this Contract comply with all federal immigration laws applicable to CONSULTANT'S employment of its employees, and with the requirements of A.R.S. § 23-214 (A) (together the "State and Federal Immigration Laws"). CONSULTANT will further ensure that each subconsultant who performs any work for CONSULTANT under this contract likewise complies with the State and Federal Immigration Laws.

COUNTY has the right at any time to inspect the books and records of CONSULTANT and any subconsultant in order to verify such party's compliance with the State and Federal Immigration Laws.

Any breach of CONSULTANT'S or any subconsultant's warranty of compliance with the State and Federal Immigration Laws, or of any other provision of this section, is a material breach of this Contract subjecting CONSULTANT to penalties up to and including suspension or termination of this Contract. If the breach is by a subconsultant, and the subcontract is suspended or terminated as a result, CONSULTANT must take such steps as may be necessary to either self-perform the services that would have been provided under the subcontract or retain a replacement subconsultant, (subject to COUNTY approval if SBE or MWBE preferences apply) as soon as possible so as not to delay project completion.

CONSULTANT will advise each sub-consultant of COUNTY'S rights, and the sub-consultant's obligations, under this Article by including a provision in each subcontract substantially in the following form:

"SUBCONSULTANT hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to SUBCONSULTANT's employees, and with the requirements of A.R.S. § 23-214 (A). SUBCONSULTANT further agrees that COUNTY may inspect the SUBCONSULTANT's books and records to insure that SUBCONSULTANT is in compliance with these requirements. Any breach of this paragraph by SUBCONSULTANT is a material breach of this contract subjecting SUBCONSULTANT to penalties up to and including suspension or termination of this contract."

Any additional costs attributable directly or indirectly to remedial action under this Article are the responsibility of CONSULTANT. In the event that remedial action under this Article results in delay to one or more tasks on the critical path of CONSULTANT's approved construction or critical milestones schedule, such period of delay is excusable delay for which CONSULTANT is entitled to an extension of time, but not costs.

ARTICLE 31 - ISRAEL BOYCOTT CERTIFICATION:

Pursuant to A.R.S. § 35-393.01, if Contractor engages in for-profit activity and has 10 or more employees, and if this Contract has a value of \$100,000.00 or more, Contractor certifies it is not currently engaged in, and agrees for the duration of this Contract to not engage in, a boycott of goods or services from Israel. This certification does not apply to a boycott prohibited by 50 U.S.C. § 4842 or a regulation issued pursuant to 50 U.S.C. § 4842.

ARTICLE 32 - ENTIRE AGREEMENT

This document constitutes the entire agreement between the parties pertaining to the subject matter hereof, and all prior or contemporaneous agreements and understandings, oral or written, are hereby superseded and merged herein. This contract may be modified, amended, altered or extended only by a written Amendment signed by the Parties.

IN WITNESS WHEREOF, the Parties have affixed their signatures to this Contract on the dates written below.

PIMA COUNTY:

Chairman, Board of Supervisors

Date

ATTEST:

Clerk of the Board

APPROVED AS TO FORM:



Deputy County Attorney

KELL OLSON

Name (Please Print)

1/23/2020

Date

CONSULTANT:



Signature

BRENT C CROWTHER

Name and Title (Please Print)

vice president
Kimley-Horn and Associates, Inc.

Firm Name

January 30, 2020

Date

EXHIBIT "A" - SCOPE OF SERVICES (11 Pages)

During the term of this Agreement, the engineering consultant (CONSULTANT) shall perform professional services for Pima County (County) in connection with the above referenced project. This scoping document shall be used to plan, conduct, and complete the CONSULTANT's work on the project.

I. BACKGROUND

Sahuarita Road provides east-west mobility south of Tucson and also provides regional connectivity between I-19 and SR 83 (connecting to I-10). Sahuarita Road is classified as a Rural Principal Arterial and has a posted speed of 50 mph. South of David Monthan Air Force Base (DMAFB), Wilmot Road provides north-south connectivity from Valencia Road to Sahuarita Road. Wilmot Road is classified as a Rural Major Collector from south of the state prison facilities to Sahuarita Road and has a posted speed of 50 mph. The portion of Wilmot Road from south of the state prison facilities to Sahuarita Road was paved with the aid of Regional Transportation Authority (RTA) funding in 2017.

Residents of Corona De Tucson and Sahuarita use the intersection of Sahuarita Road and Wilmot Road for their daily commute to and from Tucson. Since Wilmot Road was paved, the average daily traffic (ADT) has increased from 531 vehicles per day (vpd) to 2,530 vpd. The ADT on Sahuarita Road is 6,618 vpd. Analysis has shown that a traffic signal at the Sahuarita Road and Wilmot Road intersection does meet Warrant No. 2 (Four-Hour Volume) and Warrant No. 3 (Peak Hour Volume) using traffic volumes obtained in November, 2017.

II. PROJECT DESCRIPTION

Increase the Sahuarita Rd and Wilmot Rd Intersection capacity to provide a level of service B/C using year 2040 traffic volume projections. The project shall include intersection control.

III. DESIGN CRITERIA

The design of this project shall proceed in general conformance with the current edition of the Pima County Roadway Design Manual (RDM), and other applicable design criteria as listed herein.

IV. PROJECT SCHEDULE

The project is estimated to be 24 months in duration. An estimated timeframe for completion of the Design effort is estimated to be 12 months. Post design services are then estimated to occur over the final 12 months of the contract.

V. ITEMS AND SERVICES TO BE FURNISHED BY THE COUNTY

The County will provide the items and services to the CONSULTANT per the Solicitation for Qualifications and as listed in this scope of work. County will also provide CONSULTANT with documents and data files received from previous reviews/studies of this corridor, which may or may not have been fully completed.

VI. ABBREVIATIONS

The following abbreviations may be referred to throughout this scope of work:

AASHTO	American Association of State Highway and Transportation Officials
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
AGFD	Arizona Game and Fish Department
Corps	U.S. Army Corps of Engineers
County	Pima County
DCR	Design Concept Report
EAMR	Environmental Assessment and Mitigation Report
EA	Environmental Assessment
EPG	Environmental Planning Group
ESR	Environmentally Sensitive Roadway
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GIS	Geographic Information System

LOS	Level of service
Manual	2013 Pima County Department of Transportation Roadway Design Manual
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
PAG	Pima Association of Governments
PCDOT	Pima County Department of Transportation
PCOCRHP	Pima County Office of Cultural Resources and Historic Preservation
PCRFC	Pima County Regional Flood Control District
PCRWRD	Pima County Regional Wastewater Reclamation Department
PLSS	Public Land Survey System
PS&E	Plans, specifications, and estimates
RDM	Roadway Design Manual
ROE	Right of Entry
SOQ	Pima County Solicitation
R/W	Right-of-way
TDM	Transportation Demand Management
USFWS	U.S. Fish and Wildlife Service

VII. PROJECT DOCUMENTATION

The documents listed as "**Deliverables**" in the Work Tasks; Section IX of this scope of work, and other exhibits or presentations for the work covered by this AGREEMENT and associated supplements, if necessary, will be furnished by the CONSULTANT to the County upon completion of the various tasks of work. Whether the documents are submitted in electronic media or in tangible format, any use of the materials on another project or on extensions of this project beyond the use for which they were intended, or any modification of the materials or conversion of the materials to an alternate system or format will be without liability or legal exposure to the CONSULTANT. The County will assume all risks associated with such use, modifications, or conversions. If the County uses materials other than how they were intended, then the CONSULTANT may remove from the electronic materials delivered to the County, all references to the CONSULTANT's involvement and will retain a tangible copy of the materials delivered to the County, which will govern the interpretation of the materials and the information recorded. Electronic files are considered working files only; the CONSULTANT is not required to maintain electronic files beyond 90 days after the project final billing and makes no warranty as to the viability of electronic files beyond 90 days from date of transmittal.

VIII. WORK TASKS

TASK A – DESIGN SERVICES

General Requirements:

1. *Design plans shall be developed using PCDOT CAD drafting standards. Final plan submittals shall be in electronic and hardcopy format.*
2. *Survey file submittals (monumentation, horizontal and vertical control, right-of-way plans) shall be in AutoCad 2016 or AutoCad 2018 format.*
3. *Unless specified within individual tasks, an original and 2 copies of each report will be submitted to the County.*
4. *All submittals will include an electronic pdf copy of the submittal.*

TASK A.1 PROJECT MANAGEMENT AND QUALITY CONTROL

Task A.1.1. Project Management. Develop project design by coordinating design efforts. The anticipated management activities are as follows:

- a. Coordinate with all stakeholders through all means necessary.
- b. Ensure that project team members are communicating and cooperating on project tasks.
- c. Generate and regularly update a project contact list.
- d. Establish and keep updated correspondence files for all correspondence, including electronic, phone, paper, etc.

Deliverables:

- Project Team Contact List.
- Responses to all review comments.

Task A.1.2. Quality Control Plan. Develop a project-specific quality control plan that identifies responsible personnel, technical review, checking procedures, and monitoring process. Submit within 15 days of notice to proceed. Each major submittal shall include verification of the quality control completed on said submittal.

Deliverables:

- Project-Specific Quality Control Plan.
- Verification of quality control shall be provided with each major submittal.
- Responses to all review comments.

Task A.1.3. Meetings and Communication. CONSULTANT will be responsible for coordinating meeting times, inviting meeting participants, creating an agenda, preparing graphics and handouts, facilitating meetings, and providing meeting summaries. The anticipated design team meetings and activities are as follows:

- a. Conduct monthly meeting with the project team.
- b. Conduct review comment meetings to discuss review comments and responses with the County and the project team and/or individual reviewers as needed.
- c. Conduct other meetings as needed or required.
- d. Provide meeting summaries within three working days after the meeting.

Deliverables:

- Meeting agendas and displays.
- Meeting summaries as required.
- Responses to all review comments.

Task A.1.4. Coordinate Between Participating Agencies. The CONSULTANT will coordinate with involved agencies as needed.

Task A.1.5. Schedule. Provide an initial schedule within 15 days of notice to proceed. Provide an updated schedule with each monthly invoice.

Deliverables:

- Initial Schedule
- Monthly schedule updates.
- Responses to all review comments.

Task A.1.6. Cost Estimating. CONSULTANT to develop a Base Estimate that identifies the major components of project scope and their cost, defines all components of scope, and describes all scope and cost assumptions within 15 days of notice to proceed. CONSULTANT will update the Cost by reviewing, updating and documenting assumptions and costs for each item, and including contingency information in the report during major plan submittals. Incorporate risk analysis and contingency information into all estimates, identifying all assumptions.

Deliverables:

- Base Estimate of Probable Cost

TASK A.2 TASK NOT USED

TASK A.3 PUBLIC PARTICIPATION

Task A.3.1. Public Participation Plan. County will be the primary contact for community inquiries and concerns. County will organize and lead all public participation activities. County will develop and implement the Public Participation Plan for the project. The CONSULTANT will provide graphics, displays and presentation assistance services in support of the Plan. Additional services may be requested through Task B.2 Other Services.

Task A.3.2. Public Meetings. County will lead the organizing and preparation for all public meetings. The CONSULTANT will attend one (1) public open house.

Task A.3.3. Quality Control Review. The CONSULTANT will provide quality control reviews of all the deliverables.

Deliverables:

- Displays/Graphics/Roll plots as needed.

TASK A.4 PUBLIC ART

Task A.4.1. Coordination with Artist. The COUNTY will provide an artist for this project. The CONSULTANT will include the project artist as part of the design team and will coordinate the location of the artwork with the overall design of the project. The CONSULTANT will incorporate the artist's concepts into the design documents as appropriate.

TASK A.5 UTILITY COORDINATION

Task A.5.1. Data Gathering, Utility Designation, Letter of Acceptance. The CONSULTANT will verify that utility base maps and prior rights documentation are complete for each utility. For consistency, a utility coordinator will be designated to be the main point of contact for all utility coordination work.

The CONSULTANT and County will establish a Utility Relocation Date whereby utilities will be required to clear the project of utility impacts identified in *Task A.5.2 Design Coordination, Utility Impact Identification*. All formal utility correspondence is to be reviewed and approved by the County prior to distribution. The CONSULTANT will initiate and conduct meetings as needed with any utilities present in the corridor. Prior to the completion of *Task A.7.8 Existing Conditions Surveys*, the CONSULTANT will request each utility provide electronic files of certified horizontal survey data associated with these ground surface markings and also their above grade facilities, including service connections, all of which being tied to an accepted County control and datum. CONSULTANT shall draft the certified horizontal survey data surveyed by CONSULTANT and as horizontally designated by CONSULTANT (if necessary) and provide the COUNTY with a Letter of Acceptance from each utility indicating that the representation of the utility's facilities is accurate. All utilities will be designated, located, and mapped according to ASCE Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02). The CONSULTANT will conduct a field review of utility information shown on the Existing Utilities Mapping Package for consistency with utility base maps and utility field survey data.

Task A.5.2. Design Coordination, Utility Impact Identification. The CONSULTANT will monitor the project's design for utility impacts, distribute progress design drawings to utilities for review and identification of utility impacts; and maintain a List of Utility Impacts, said list being available to the County upon request. The CONSULTANT will update the County as necessary on the status of utility activities and notify the County immediately of any utility unable to meet the Utility Relocation Date. Initial and Final Design Phase Plans will be provided to all utilities for their review and comments.

Task A.5.3. Utility Impact Mitigation. The CONSULTANT will initiate, coordinate and facilitate utility impact meetings with County, utility and appropriate team members to develop mitigation measures acceptable to the County that will clear the project of utility impacts by the Utility Relocation Date. The CONSULTANT will update utilities as to the status of all utility impacts by the Utility Relocation Date. The CONSULTANT will compile a List of Utility Impacts and Approved Mitigation Measures.

Task A.5.4. Quality Control Review. The CONSULTANT will provide quality control reviews of the deliverables listed below.

Deliverables:

- Utility Relocation Date
- Plans for distribution to utilities
- Letters of Acceptance
- Meeting minutes prepared, distributed to project team, and revised as needed.
- Design plans showing updated mapping of utility information, including potholing information.

- List of utility impacts and mitigation measures.
- Responses to all review comments.

TASK A.6 TASK NOT USED

TASK A.7 SURVEY AND MAPPING

Task A.7.1. Initial Planning and Reconnaissance. The CONSULTANT will hold a formal coordination meeting with County Survey prior to the start of any survey efforts to identify/discuss survey mapping project requirements and procedures and how the survey efforts will be coordinated with the CONSULTANT design team.

Task A.7.2. Horizontal Control. The CONSULTANT will run a Geodetic Control Survey based on NAD 83 and NAVD 88 datums by using PCDOT provided N.G.S. control points and tying to PC/COT approved GIS control points. The CONSULTANT will run a closed field traverse through, or incorporate into, the primary project controls provided by County Survey. The CONSULTANT will also field reference control points, and other found monuments, within the existing right-of-way, outside of the construction area. County Survey will review the closed field traverse run by the CONSULTANT and the field references.

Task A.7.3. Vertical Control Traverse. The CONSULTANT will establish a bench circuit originating from PCDOT provided GIS vertical control points to prescribed field accuracy. The work will include mathematically adjusting the remaining error. The work also includes setting construction benchmarks at 500' intervals outside of the proposed construction areas and on alternating sides of the roadway. County Survey will field verify all vertical control points set from the PCDOT approved GIS points.

Task A.7.4. Results of Survey Drawing. The CONSULTANT will prepare a Results of Survey Drawing showing existing section lines, right-of-way, ownership, and existing features for the length of the project. Approximate property lines will be included on the Results of Survey by the CONSULTANT. If necessary, for easement or RW acquisitions, the CONSULTANT will perform parcel survey(s) limited to the budget included in the Fee Calculation.

Task A.7.5. Survey Report. A Survey Report is required for this project.

Task A.7.6. Aerial Mapping. The CONSULTANT will provide photogrammetric mapping in AutoCAD 2016 or newer version, including a digital terrain model, ortho-photos, and digital files in County .tiff format. Aerial ground control will be provided by the CONSULTANT and will be field checked by the County Survey prior to the results being transmitted to the aerial company. The CONSULTANT will perform cross sections at 100-ft intervals along the existing roadway centerline and edges of pavement, and at critical drainage elements (v-ditches, culvert depressions, drainage break-lines, and all other drainage features) to enhance the aerial ground DTM so that it meets or exceeds 0.1 foot accuracy.

Task A.7.7. Utility Surveys. The CONSULTANT will locate underground utilities as identified and marked by others for the length of the project. Blue Staking and other utility features will be located during the culture survey. Coordination for underground utilities will be by the CONSULTANT.

Task A.7.8. Culture Surveys. The CONSULTANT will locate fences, mail boxes, culverts and manhole inverts, drainage features and flows, and match-in locations along the project length. The work will also include the CONSULTANT converting field results into AutoCAD 2016 or newer version format.

Task A.7.9. Right-of-way of Surveys. After analyzing the initial field survey, the CONSULTANT will field locate all relevant survey monuments including right-of-way centerline monuments, property corners and existing occupation, to determine the existing right-of-way lines. The CONSULTANT will coordinate with County Survey in defining the existing right-of-way for the project. The CONSULTANT will analyze the results and prepare Right-of-Way plans as part of this task.

Task A.7.10. Roadway Design Manual Survey Efforts. The CONSULTANT will complete other survey related tasks as identified and provided within the Design Manual.

Task A.7.11 Legal Descriptions & Reference Maps. Included in Task B.2.3.

Task A.7.12. Quality Control Review. County Survey and the CONSULTANT will provide quality control reviews of the Survey and Mapping deliverables listed below.

Task A.7.13 Boring Locations. The CONSULTANT will stake boring hole locations as provided by geotechnical investigation and provide existing ground elevations at said locations.

Deliverables:

- Digital black & white files (uncolored digital photo) to the County in .tif format and digital ASCII point files in comma delimited format.
- Results of survey drawings by the CONSULTANT.
- Results of survey will be provided in accordance with the Pima County RDM in strip map format showing right-of-way data (including existing and proposed right-of-way lines, parcel lot lines, parcel numbers, locations of buildings close to or within right-of-way takes, etc.) with the preliminary Right-of-Way Plan submittal. Potential acquisition and easements will be identified on the drawing.
- Field survey of drainage ways by CONSULTANT.
- Responses to all review comments.

TASK A.8 DRAINAGE

Task A.8.1. Drainage Analysis. The CONSULTANT will review available plans and reports. The Lee Moore Wash – West Floodplain Mapping Project, February 2019, Pima County Flood Control and JE Fuller, will be used as a basis for determining existing conditions flow distributions and floodplain limits. A more detailed, smaller scale, FLO-2D model will be generated specific to the project area. The more detailed model will utilize parameterization and inflows from the Lee Moore Wash West study and establish existing conditions to include flow depths, velocities, and flow distribution within the roadside channels/ditches and overtopping the roadways. The detailed existing conditions FLO-2D model will be revised for proposed conditions to verify that drainage conditions are not adversely impacted.

Task A.8.2. Drainage Memorandum. The CONSULTANT will prepare a memorandum to summarize the existing drainage conditions and provide drainage design recommendations.

Task A.8.3. Quality Control Review. The CONSULTANT will provide quality control reviews of the drainage memorandum for each submittal.

Deliverables:

- Drainage Memorandum
- Responses to all review comments.

TASK A.9 GEOTECHNICAL

Task A.9.1. Geotechnical Testing and Analysis and Report. The CONSULTANT will provide geotechnical testing, analysis, and report per Section 3.12 of the Design Manual and the Preliminary Engineering & Design (PE&D) manual of the ADOT Material Group. The geotechnical effort will correspond to 100% of the final design effort and will include investigations to develop concepts and final designs.

The scope of fieldwork includes appropriate soil borings and pavement corings.

The CONSULTANT will provide appropriate laboratory testing for representative soil samples. Recommendations will be developed based on applicable PCDOT and ADOT standards. The results of all investigations, as well as recommendations will be provided in one consolidated geotechnical report.

Prior to performing any fieldwork, Consultant will obtain applicable permits for the area being tested.

Task A.9.2. Quality Control Review. The CONSULTANT will provide a quality control review on the Geotechnical Report.

Deliverables:

- Geotechnical report
- Responses to all review comments.

TASK A.10 PAVEMENT DESIGN

Task A.10.1. Pavement Design Report. The CONSULTANT will perform pavement design following the current ADOT methodology. The CONSULTANT will prepare the Pavement Design Report per Section 3.13 of the Design Manual and include the following:

- A summary of the general geotechnical characteristics of the soil;
- Traffic data considerations being used for the development of the pavement structure;
- Discussion concerning the procedures and results of the pavement structure design;
- Recommended structural sections, including alternatives, with criteria such as cost, construction and other factors considered;

Task A.10.2. Quality Control Review. The CONSULTANT will provide a quality control review on the Pavement Design Report.

Deliverables:

- Pavement Design Report.
- Responses to all review comments.

TASK A.11 TRAFFIC ENGINEERING

Task A.11.1. Initial Traffic Engineering Memorandum. The CONSULTANT will collect traffic counts for a 24-hour period on each intersection approach. The CONSULTANT will collect peak hour turning movement counts (AM and PM peak periods). The CONSULTANT will prepare future traffic volumes for the opening year and the design year (2040). The CONSULTANT will prepare a traffic signal warrant analyses for the project-opening year for the Sahuarita Road/Wilmot Road intersection. CONSULTANT will document the required traffic-related improvements, including alternative transportation modes, for the Sahuarita Road/Wilmot Road intersection. Improvements will be identified for the opening year and the design year (2040).

The CONSULTANT will complete an Initial Traffic Report including a Traffic Signal Warrant Analysis.

Task A.11.2. Final Traffic Engineering Memorandum. The CONSULTANT will complete a Final Traffic Report and Traffic Signal Warrant Analysis.

Task A.11.3. Quality Control Review. The CONSULTANT will provide quality control review of the Traffic Engineering *Memorandum*.

Deliverables:

- Initial Traffic Report
- Final Traffic Report
- Responses to all review comments.

TASK A.12 Not Used

TASK A.13 DESIGN CONCEPT REPORT (DCR)

The DCR for this project is simplified from the DCR requirements of the Roadway Design Manual. It is intended to have a document on the level of a Scoping Letter or Project Assessment in order to clearly convey the Project recommended concept design agreed to by the Consultant and County.

Task A.13.1. Executive Summary/Project Overview and Description. The CONSULTANT will prepare the executive summary and project overview and description for the Design Concept Report.

Task A.13.2. Project Area Characteristics (Existing Conditions). The CONSULTANT will prepare the description of existing conditions, including traffic and crash data for the DCR. The COUNSULTANT will include descriptions of conditions that could result in design modifications within the project study area for the following topics:

- Topography and terrain

- Roadway
- Rights-of-Way
- Drainage
- Utilities, Signals and Lighting
- Biology
- Archaeological and Historical Resources
- Visual and Aesthetic Resources
- Existing and Future Land Use
- Intergovernmental Agreements
- Traffic and Crash Data (provided by PCDOT)

Task A.13.3. Design Standards, Criteria and Features/Alternatives. The CONSULTANT will prepare the description of design standards and criteria and description of major design features and alternatives considered for the DCR.

Task A.13.4. Social, Economic, and Environmental Considerations/Public Involvement Efforts & Agency Coordination. The CONSULTANT will prepare the description of social, economic, and environmental considerations, summarize public involvement efforts, and describe agency coordination for the DCR. This description will be consistent with the information necessary to evaluate design alternatives for an Environmentally Sensitive Roadway.

Task A.13.5. Design Concept Report with Conclusions and Recommendations. The CONSULTANT will compile information developed from this effort and from other studies and reports into a Design Concept Report. Additionally, the CONSULTANT will prepare the conclusions and recommendations. The CONSULTANT will identify, develop, evaluate, and describe roadway design and as and if applicable: project constraint avoidance alternatives; construction phasing concepts; and implementation strategy.

Task A.13.6. Cost Estimate. The CONSULTANT will prepare preliminary project estimate of probable cost, with quantity take-off calculations based on approximate quantities of major cost items. Right-of-way costs will be provided by PCDOT.

Task A.13.7. Quality Control Review of DCR. The CONSULTANT will provide a quality control review of the Design Concept Report.

Deliverables:

- Draft and Final Design Concept Report
- Estimate of probable cost and quantity take-off calculations.
- Responses to all review comments.

TASK A.14 ENVIRONMENTAL CLEARANCE MEMORANDUM

Task A.14.1. Cultural Resources Inventory and Report. The CONSULTANT will include the results of the Cultural Resources effort provided by the County in the report.

Task A.14.2. Biological Evaluation/Wildlife Habitat. The CONSULTANT will prepare a Biological Evaluation. The CONSULTANT shall conduct a Pima Pineapple Cactus (PPC) survey. The CONSULTANT shall include a summary of the Biological Evaluation and include the report in the Appendix. The CONSULTANT shall provide the Draft Biological Evaluation for County's review and comments. The Final Report shall be forwarded to County for their records.

Task A.14.3. Vegetation Sampling/Measurement. The CONSULTANT will conduct an inventory of vegetation and protected plant species using methods described in Chapter 4 of the RDM for an ESR. The CONSULTANT will develop a technical report detailing the methodology and outcome of said investigation, along with the appropriate mitigation requirements. The CONSULTANT shall include a summary of this effort and results in the Environmental Clearance Memo.

Task A.14.4. Clean Water Act Permitting. The CONSULTANT will prepare a Preliminary Jurisdictional Delineation (PJD) and identify Section 404 Permit requirements. The CONSULTANT shall prepare appropriate documents for a Pre-construction Notification (PCN) for Section 404 Nationwide Permit No. 14- Linear

Transportation Projects. The report and documents will be developed to meet U.S. Army Corps of Engineers (Corps) standards, County requirements and other agencies with jurisdiction.

CONSULTANT will attend Clean Water Act Section 404 pre-application meetings with County and the Corps. Meetings are anticipated prior to submittal of the Preliminary Jurisdictional Delineation and submittal of Nationwide Permit application. It is assumed that the Corps will lead consultation with the U.S. Fish and Wildlife Service (USFWS) during permitting.

Task A.14.5. Hazardous Materials Survey. The CONSULTANT will complete a Preliminary Initial Site Assessment (PISA) for hazardous materials within the current right-of-way, potential right-of-way, and easements associated with the project and provide a Draft and Final PISA Report. The PISA shall comply with ASTM E-1528-06 (Standard Practice for Limited Environmental Due Diligence). Include a Phase I ESA for any real property acquisitions. The ESA shall comply with ASTM 1527-13.

Task A.14.6. Quality Control Review. The CONSULTANT will provide a quality control review of the Environmental Clearance Memo.

Deliverables:

- Biological Evaluation
- Vegetation Inventory, including listing of protected plants.
- PJD
- PCN for Nationwide Permit No. 14
- PISA
- Phase I ESA
- Environmental Memo, draft and final
- Responses to all review comments

TASK A.15 NOT USED

TASK A.16 PREPARATION OF CONSTRUCTION DOCUMENTS

Task A.16.1. Initial Design Phase Plans. The CONSULTANT will prepare initial roadway, demolition, pavement marking, and traffic signal plans for Sahuarita Road and Wilmot Road. The Design Concept Plans will be at 1"=40' and will address horizontal and vertical alignment, cross sections, channelization, drainage, right-of-way, major and minor structures.

Task A.16.2. Final Design Phase Plans. The CONSULTANT will develop Final Design Plans per the checklist found in Chapter 3 of the RDM, including revisions from Initial Design Phase Plans from Task A.16.1, adding mitigation planting plans, and temporary irrigation plans to allow for vegetation establishment. Establish initial InRoads or Civil 3D templates, earthwork modeling, and updating project estimate of probable cost for the Final Design Phase.

Task A.16.3. Initial PS&E. The CONSULTANT will develop Initial PS&E Plans for the project per the checklist found in Chapter 3 of the RDM, including revisions from Final Design Phase Plan submittals from Task A.16.2, adding SWPPP, drainage details, staking plans, traffic signal details/schedules, erosion control plans, and updating estimate of probable cost for the Initial PS&E.

Task A.16.4. Final PS&E. The CONSULTANT will develop Final PS&E Plans per the checklist found in Chapter 3 of the RDM, including revisions from Initial PS&E, and updating estimate of probable cost for Final PS&E.

Task A.16.5. Quality Control Review of Plans. The CONSULTANT will provide a quality control review of the Stage I Design Concept Plans and Stage II Initial Construction Plans and Final Construction Documents.

Deliverables:

- Initial Design Plans per the Design Manual Checklist, including estimate of probable cost and quantity takeoff calculations.
- Final Design Plans per the Design Manual Checklist, including estimate of probable cost and quantity takeoff calculations.

- Initial PS&E Plans per the Design Manual Checklist, including estimate of probable cost and quantity take-off calculations.
- Final PS&E Plans per the Design Manual Checklist, including estimate of probable cost, special provisions, and quantity take-off calculations.
- Responses to all review comments.

TASK B – ADDITIONAL SERVICES

These Additional Services are optional services and will be authorized by the County on an as-needed basis.

TASK B.1 ADDITIONAL UTILITY INVESTIGATION

Task B.1.1. Utility Coordination and Survey. In the event a utility is unable to provide the ground marking and certified survey data requested in Task A.7.7, the CONSULTANT shall provide Utility Quality Level A information for the utility in accordance with ASCE Standard Guidelines for the collection and Depiction of Existing Subsurface Data (CI/ASCE 38-02), page 3.

TASK B.2 RIGHT-OF-WAY ACQUISITION SUPPORT

Real Property acquisition will be completed by the County. Should any right-of-way acquisition support be required it will be authorized as an additional service.

Task B.2.1. Existing Right-of-Way and Easements. The CONSULTANT will provide PCDOT with a list of parcels from which right-of-way or easements will be required. PCDOT will furnish any title reports required for this project based on the CONSULTANT's list. The CONSULTANT will review title reports and other recorded information to determine current right-of-way and easements. The CONSULTANT will perform any research, calculations, and additional survey needed to establish existing property and right-of-way lines to be affected by this project and integrate into mapping. Following the research, a Centerline and Right-of-Way survey will be conducted to identify and locate the controlling right-of-way monumentation, property lines, or fence lines that intersect the right-of-way.

Task B.2.2. Right-of-Way Plans. The CONSULTANT will prepare 1"=40' right-of-way plans for the project, as per Pima County RDM 3.19 and Appendix 3-O-1. In addition to existing information, all proposed right-of-way and/or easements required shall be shown with complete dimensions. Ownership data and areas required shall be shown. The CONSULTANT will coordinate with and incorporate feedback from PCDOT in identifying properties for potential acquisitions and easements. The CONSULTANT will coordinate with and incorporate feedback from County Survey in preparing drawings and descriptions for potential acquisitions and easements.

Task B.2.3 Legal Descriptions & Reference Maps. The CONSULTANT will prepare legal descriptions and maps for new right-of-way, drainage easements, temporary construction easements, and other land acquisition needs as requested by the County. Legal description reference maps will be 8.5"x11". The CONSULTANT shall include effort for the preparation of legal descriptions and associated reference maps and the probable need for determining parcel property lines.

Task B.2.4. Quality Control Review of Right-of-Way Documents. The CONSULTANT will provide a quality control review of the Right-of-way documents. County Survey will provide a quality assurance review of the right-of-way documents.

Deliverables:

- Right-of-Way and easement parcel list.
- Right-or-Way Plans.
- Responses to all review comments.

TASK B.3 OTHER SERVICES

Task B.3.1 Other Services. The CONSULTANT may be called upon to perform services unknown of or identified subsequent to the original scoping of the project. These efforts may be caused by unforeseen issues that arise after the development of this scope of work. Potential services could include the need to attend

additional meetings, provide displays or summaries, perform additional analysis, provide additional design (e.g. Section 404 individual permit, joint trench design), or other efforts associated with the project beyond those identified within this scope of work.

TASK C – POST DESIGN SERVICES

TASK C.1 PRE-BID SERVICES

Task C.1.1 Pre-Bid Services. County will coordinate all Pre-Bid Services and will act as the principal initial contact for pre-bid questions. However, the following additional efforts may be required by the CONSULTANT.

- Attending pre-bid meetings
- Assisting in the preparation of amendments
- Addressing questions on the plans and specifications
- Bid evaluations

TASK C.2 CONSTRUCTION SERVICES

Task C.2.1. Construction Services. County will coordinate all Construction Services and will act as the principal initial contact for construction questions. However, the following additional efforts may be required by the CONSULTANT.

- Attending the pre-construction meeting and partnering meetings if any
- Attending weekly construction meetings at the project site
- Making site observations of the work under construction
- Evaluating and/or recommending changes in the construction documents
- Providing design details and revised drawings as needed to support construction
- Reviewing shop drawings, erection procedure plans, form work details, and proposals for substitutions or "approved alternates"
- Evaluating value engineering proposals
- Preparing the "as-built" documents

TASK C.3 POST CONSTRUCTION SERVICES

Task C.3.1 Post Construction LiDAR. The CONSULTANT will provide the County a LiDAR scan and data extraction of the project limits in accordance with the requirements of the County.

Task C.3.2 Post Construction Electronic AS-Builts. The CONSULTANT will provide the County drafting services to incorporate the Contractors redlined record documents in an electronic as-built in accordance with the requirements of the County.

END OF EXHIBIT "A"

EXHIBIT "B" - COMPENSATION SCHEDULE (41 pages)

1. COST PLUS FIXED FEE SCHEDULE OF PAYMENTS

(Detailed by Major Milestone, Not to Exceed Cost by Task (Direct Labor, Indirect, and Other Direct Costs), and Fixed Fee)

2. COMPENSATION DETAILS

A. Cost Allocation and Ceilings

The compensation schedule will contain the negotiated cost allocations for each individual task. The compensation schedule will be used to monitor cost expenditures and sets the fixed price that can be charged for work pursuant to the specified task.

B. Cost Adjustments

If, for valid reason(s), CONSULTANT notifies the Project Manager that the requisite work cannot be performed within the task's compensation allocation, and the Project Manager (PM) concurs, PCRWRD will consider modifying cost allocations. The total compensation may be increased only by formal amendment to this agreement.

C. Progress Payments

It is anticipated certain elements of the Project may take longer than one (1) month to complete. These elements may be at considerable cost to CONSULTANT prior to their full completion and acceptance by COUNTY. In such cases, at the sole discretion of COUNTY, COUNTY may authorize interim progress payments to CONSULTANT. The invoice from CONSULTANT will be proportionate to the actual percentage of work completed through the period covered by the invoice, as accepted by the PM.

D. The Fixed Fee for each assignment will be negotiated on a case-by-case basis. The fee will be a percent of CONSULTANT or co-consultants level of effort cost estimate agreed to by the County excluding sub-consultants and other direct cost estimates. The fee will be fixed for the scope of work detailed in the contract. The fixed fee percentage will be based upon historical departmental percentages for similar assignments, published industry guidelines and magnitude and duration of the assignment. Fixed Fee for engineering sub-consultants will generally follow the same guidelines established for the prime consultants but can also be negotiated on a case-by-case basis as appropriate.

E. COST ITEMS

1. Hourly Billing

a. Hourly Billing Rates

- Actual Payroll Rates within published industry standards
- Actual payroll rates for each person anticipated to be performing services on the assignment will be provided in advance of execution of the contract. Said listing will be updated on an annual basis during the term of the contract
- Hourly fee schedules for various position titles are not allowed

b. Annual Salaried Professionals

- Annual Salary individuals working a normal forty (40) hour week will be divided by two thousand eighty (2,080) hours to arrive at hourly billing rates
- Annual Salary individuals working a normal thirty-seven and one-half (37.5) hour week will be divided by one thousand nine hundred fifty (1,950) to arrive at hourly billing rates

c. Allowable Annual Increases

- Reasonable annual salary increases within published industry standards will be allowed and approved in advance
- Unusually high proposed increases and increases above published industry standards will be agreed to on a case by case basis.

- d. Sub consultants
Specific billing arrangements will be negotiated with specialty sub-consultants such as the following:
 - Attorneys
 - Financial Advisors
 - Surveyors
 - Subsurface Consultants
 - Specialty Consultants
 - e. Vacation/Holidays
 - Included in firm's audited multiplier
 - f. Sick Time
 - Included in firm's audited multiplier
 - g. Billing for non-productive idle time
 - No billing for vehicle driving time (commuting time)
 - Allow billing during air travel to Pima County for actual time worked on Pima County projects
 - Short-term assignments are negotiable
2. Multipliers
 - a. Only audited multipliers following Generally Accepted Accounting Principles (GAAP) or Federal Single Audit principles are allowed
 - b. Corporate, Regional or Local Audited Multipliers of firms will be negotiated for each contract
 - c. Job Site multipliers will be negotiated in the event the County provides office space or job site trailers for CONSULTANT
 - d. County will consider annual audited multipliers or fixed multipliers for the contract period
3. Travel Time
 - a. Air Travel
 - Allow only for time spent on aircraft working on Pima County projects
 - b. Land Travel
 - Not allowed from Phoenix Metro Area to Pima County (both ways)
 - Not allowed to and from airports
 - c. Local Travel between meetings and job sites
 - Allowed
4. Expenses
 - a. Mileage (Between Phoenix Metro Area and Pima County)
 - Approve at the established County mileage rate
 - Included in firm's audited multiplier or as other direct cost
 - Mileage for commuting not allowed
5. Mileage – local
 - a.
 - Approve at the established County mileage rate
 - Included in firm's audited multiplier or as other direct cost
 - Mileage for commuting to and from work place not allowed
 - b. Car Rental/Lease/Corporate Vehicles
 - Included in firm's audited multiplier or as other direct cost

- c. Hotel/Meals
 - Allow only for infrequent call-in of an out of state consultant for a limited period of time
 - Establish daily limits in accordance with Federal Guidelines and negotiable for unusual circumstances
 - Allowed charges to be identified as other direct costs
 - d. IT/ Phone/Internal Delivery Charges/Normal Postage/ Miscellaneous/Other Administrative Charges
 - Include in firm's audited multiplier
 - e. Relocation, second domicile or subsistence expenses
 - Negotiable on a case by case basis
 - f. Reproduction Costs
 - Bill as other direct costs if not in audited multiplier
 - g. All other direct costs will be detailed in the contract billing
6. Unallowable Costs
- a. Bonus
 - Not allowed as a direct charge or in the multiplier
 - b. Entertainment Costs
 - c. Marketing Costs
 - Only as allowed in audited multipliers
 - d. Non-identifiable Costs
 - e. Donations
 - Only as allowed in audited multipliers
 - f. Mark-up on sub-consultants
 - g. Travel time from Phoenix Metro Area to Pima County (both ways)
 - h. Air travel for commuting purposes
 - i. Interest Expense
 - j. Political and Charitable Contributions
 - k. Lobbying Costs
 - l. Fines & Penalties
 - m. Alcohol
 - n. Contingencies
 - o. Bad Debt Expense
 - p. Profit Distribution
 - q. Public Relations and Related Advertising

- r. Accelerated Depreciation
- s. Losses on Other Contracts
- t. Organization / Reorganization
- u. Patents
- v. Goodwill
- w. Labor Relations
- x. Legal Expenses Caused by Negligence or Mistakes
- y. Personal Use of Company Assets (Vehicles, e.g.)
- z. Related Party Expenses that Exceed the Costs of Ownership
 - aa. Unreasonably High Executive Compensation
 - bb. Unreasonably High Indirect Labor
 - cc. Unreasonably High Rent

5. *INVOICING*

CONSULTANT will submit invoices monthly, at the Monthly Progress Meeting, to the Project Manager, with appropriate supporting data and documentation and in a format as prescribed by the Project Manager. (Acceptance of the invoice at this meeting is not mandatory. The Project Manager may delay approval for up to five (5) work days to review the Progress Report and invoice.). The invoice will tabulate the costs associated with each individual task. All Task (deliverables) and Subcontracted Service costs will be appropriately documented. The Project Manager will review and check the invoice to determine if it is complete and acceptable. If the Project Manager determines the invoice to be complete and acceptable, the Project Manager will approve the invoice and forward it for processing the payment.

Sahuarita Road and Wilmot Road Intersection Improvements (4SAHWI)

Fee Calculation - Task A & Task B

Kimley-Horn and Associates, Inc.
January 9, 2020

Direct Labor

<u>Classification</u>	<u>Total Hours</u>	<u>Hourly Rate</u>	<u>Labor Cost</u>
Sr. Professional	25	\$67.32	\$ 1,683.00
Project Manager/QC Manager	370	\$54.33	\$ 20,102.10
Sr. Environmental Professional/ Registered Landscape Architect	184	\$58.78	\$ 10,815.52
Engineer / Professional	302	\$54.22	\$ 16,374.44
Analyst/Sr. Designer	477	\$40.46	\$ 19,299.42
CADD / Designer	728	\$30.20	\$ 21,985.60
Admin Support I	28	\$44.72	\$ 1,252.16
Admin Support II	33	\$21.40	\$ 706.20
	2,147	Total Labor Cost:	\$ 92,218.44

Overhead

Overhead (Audited Overhead Rate)	193.59%	\$ 178,525.68
FCCM	0.69%	\$ 636.31
	Subtotal	\$ 271,380.43

Direct Expenses

<u>Type</u>	<u>Amount</u>	<u>Unit Costs</u>	<u>Cost</u>
SWPPP (CD copy)	1	\$50.00	\$ 50.00
SWPPP (bound hard copy)	1	\$13.16	\$ 13.16
Special Provisions (200 pages)	6	\$13.16	\$ 78.96
Construction Plans and Cross Sections (11"x17")	6	\$9.91	\$ 59.46
DCR Package (Report and 11"x17" Plans)	6	\$28.71	\$ 172.26
GeoSearch (Environmental Database Report)	1	\$235.15	\$ 235.15
Field Data Services (Traffic Counts)	1	\$635.00	\$ 635.00
Roll Plots	12	\$39.13	\$ 469.56
Total Estimated Direct Expenses:			\$ 1,713.55

Outside Services, Allowances, and Consultants

<u>Subconsultant</u>	<u>Service</u>	<u>Cost</u>
Task A Ninyo and Moore	Geotechnical	\$ 17,418.40
Task A Darling Geomatics (SBE)	Project Survey	\$ 25,120.00
Task B.1 T2 Utility Engineers	Allowance (SJE)	\$ 7,026.00
Task B.1 Kimley-Horn	Allowance (Utility Investigation)	\$ 873.21
Task B.2 Darling Geomatics (SBE)	Allowance (ROW Acquisition Support)	\$ 4,315.00
Task B.2 Kimley-Horn	Allowance (ROW Acquisition Support)	\$ 1,758.33
Task B.3 Kimley-Horn	Allowance (Other Services)	\$ 8,128.52
Total of Subconsultants		\$ 64,639.46

Fixed Fee (Direct labor + Overhead x Multiplier)(10%) \$ 27,074.41

Total Fee: \$ 364,807.85

Sahuarita Road and Wilmot Road Intersection Improvements (4SAHWI)

Fee Calculation- Task C

Kimley-Horn and Associates, Inc.
January 9, 2020

Direct Labor

<u>Classification</u>	<u>Total Hours</u>	<u>Hourly Rate</u>	<u>Labor Cost</u>
Sr. Professional	0	\$67.32	\$ -
Project Manager/QC Manager	26	\$54.33	\$ 1,412.58
Sr. Environmental Professional/ Registered Landscape Architect	0	\$58.78	\$ -
Engineer / Professional	18	\$54.22	\$ 975.96
Analyst/Sr. Designer	72	\$40.46	\$ 2,913.12
CADD / Designer	16	\$30.20	\$ 483.20
Admin Support I	0	\$44.72	\$ -
Admin Support II	0	\$21.40	\$ -
	132	Total Labor Cost:	\$ 5,784.86

Overhead

Overhead (Audited Overhead Rate)	193.59%	\$ 11,198.91
FCCM	0.69%	\$ 39.92
	Subtotal	\$ 17,023.69

Direct Expenses

<u>Type</u>	<u>Amount</u>	<u>Unit Costs</u>	<u>Cost</u>
SWPPP (CD copy)	0	\$50.00	\$ -
SWPPP (bound hard copy)	0	\$13.16	\$ -
Special Provisions (200 pages)	0	\$13.16	\$ -
Construction Plans and Cross Sections (11"x17")	0	\$9.91	\$ -
DCR Package (Report and 11"x17" Plans)	0	\$28.71	\$ -
GeoSearch (Environmental Database Report)	0	\$235.15	\$ -
Field Data Services (Traffic Counts)	0	\$635.00	\$ -
Roll Plots	0	\$39.13	\$ -
Total Estimated Direct Expenses:			\$ -

Outside Services, Allowances, and Consultants

<u>Subconsultant</u>	<u>Service</u>	<u>Cost</u>
	Geotechnical	\$ -
Task C	Project Survey	\$ 18,985.00
	Allowance (SUE)	\$ -
	Allowance (Utility Investigation)	\$ -
	Allowance (ROW Acquisition Support)	\$ -
	Allowance (ROW Acquisition Support)	\$ -
	Allowance (Other Services)	\$ -
Total of Subconsultants		\$ 18,985.00

Fixed Fee (Direct labor + Overhead x Multiplier)(10%) \$ 1,698.38

Total Fee: \$ 37,707.07

Sahuarita Road and Wilmot Road Intersection Improvements (4SAHWI)
Derivation of Hours

Task No.	Description	# Sheets	KH Budget	KH Hours	Sr. Professional	Project Manager/ QC Manager	Sr. Environmental Professional/ Registered Landscape Architect	Engineer / Professional	Analyst/Sr. Designer	CADD / Designer	Admin Support I	Admin Support II	Ninyo and Moore	T2 Utility Engineers	Darling Geomatics (SBE)	Total Cost (with KH Directs)
TASK A - DESIGN SERVICES																
	TASK A.1 - PROJECT MANAGEMENT AND QUALITY CONTROL		\$ 37,941.63	246	1	94	0	57	52	20	12	10	0	0	0	\$ 37,941.63
A.1.1	Project Management (Coord with stakeholders/team comm/proj contact list/record keeping)		\$ 2,525.55	18	0	12	0	0	0	0	0	6				\$ 2,525.55
A.1.2	Quality Control Plan (QC Plan/Submittal QC verification/response to comments)		\$ 2,114.72	13	1	10	0	0	0	0	0	2				\$ 2,114.72
A.1.3	Meetings and Communication		\$ -	0												\$ -
	Conduct Kick-off Meeting (1 @ 2-hr) / Roll Plot / Agendas / Meeting Summary		\$ 1,062.25	7	0	2	0	2	2	1	0	0				\$ 1,062.25
	Conduct monthly meetings @ County (Up to 11 total @ 2-hr) / Roll Plot / Agendas / Meeting Summaries		\$ 13,614.98	88	0	22	0	33	22	11	0	0				\$ 13,614.98
	Conduct review comment meetings (Up to 4 total @ 2-hr) / Meeting Summaries		\$ 4,248.99	28	0	8	0	8	8	4	0	0				\$ 4,248.99
	Miscellaneous Meetings (Up to 2 total @ 2-hr) / Meeting Summaries		\$ 1,929.02	12	0	4	0	4	4	0	0	0				\$ 1,929.02
	Prepare responses to review comments		\$ 703.33	4	0	4	0	0	0	0	0	0				\$ 703.33
	Conduct sub-consultant and in-house team meetings (30 minutes) (as needed/required)		\$ 1,929.02	12	0	4	0	4	4	0	0	0				\$ 1,929.02
A.1.4	Coordination Between Participating Agencies		\$ 703.33	4	0	4	0	0	0	0	0	0				\$ 703.33
A.1.5	Schedule (initial/monthly updates/response to comments)		\$ 1,055.00	6	0	6	0	0	0	0	0	0				\$ 1,055.00
	Monthly Invoicing		\$ 3,985.29	26	0	12	0	0	0	0	12	2				\$ 3,985.29
A.1.6	Cost Estimating (base estimate)		\$ 4,070.15	28	0	6	0	6	12	4	0	0				\$ 4,070.15
TASK A.2 - TASK NOT USED																
	NOT USED		\$ -	0	0	0	0	0	0	0	0	0	0	0	0	\$ -
TASK A.3 - PUBLIC PARTICIPATION																
			\$ 2,930.84	21	0	9	0	0	7	3	0	2	0	0	0	\$ 2,930.84
A.3.1	Public Participation Plan - Graphic Support		\$ 1,282.81	19	0	3	0	0	3	3	0	1				\$ 1,282.81
A.3.2	Public Meetings (one public open house @ 4-hr)		\$ 1,227.11	6	0	4	0	0	4	0	0	0				\$ 1,227.11
A.3.3	Quality Control Review		\$ 420.92	3	0	2	0	0	0	0	0	1				\$ 420.92
TASK A.4 - PUBLIC ART																
			\$ 1,266.40	10	0	2	0	0	4	4	0	0	0	0	0	\$ 1,266.40
A.4.1	Coordination with Artist		\$ 1,266.40	10	0	2	0	0	4	4	0	0				\$ 1,266.40
TASK A.5 - UTILITY COORDINATION																
			\$ 4,720.27	36	0	4	0	9	10	8	0	5	0	0	0	\$ 4,720.27
A.5.1	Data Gathering, Utility Designation, Letter of Acceptance		\$ 1,893.68	16	0	0	0	4	4	4	0	4				\$ 1,893.68
A.5.2	Design Coordination, Utility Impact Identification		\$ 1,352.10	11	0	0	0	1	6	4	0	0				\$ 1,352.10
A.5.3	Utility Impact Mitigation		\$ 877.74	5	0	1	0	4	0	0	0	0				\$ 877.74
A.5.4	Quality Control Review		\$ 596.76	4	0	3	0	0	0	0	0	1				\$ 596.76
TASK A.6 - TASK NOT USED																
	NOT USED		\$ -	0	0	0	0	0	0	0	0	0	0	0	0	\$ -
TASK A.7 - SURVEY AND MAPPING																
			\$ 1,868.76	12	0	8	0	0	3	0	0	1	0	0	\$ 25,120.00	\$ 26,988.76
A.7.1	Initial Planning and Reconnaissance		\$ 920.33	8	0	3	0	0	3	0	0	0			\$ 380.00	\$ 1,300.33
A.7.2	Horizontal Control		\$ -	0	0	0	0	0	0	0	0	0			\$ 3,225.00	\$ 3,225.00
A.7.3	Vertical Control Traverse		\$ -	0	0	0	0	0	0	0	0	0			\$ 2,530.00	\$ 2,530.00
A.7.4	Results of Survey Drawing		\$ -	0	0	0	0	0	0	0	0	0			\$ 1,335.00	\$ 1,335.00
A.7.5	Survey Report		\$ -	0	0	0	0	0	0	0	0	0			\$ 690.00	\$ 690.00
A.7.6	Aerial Mapping		\$ -	0	0	0	0	0	0	0	0	0			\$ 6,380.00	\$ 6,380.00
A.7.7	Utility Surveys		\$ -	0	0	0	0	0	0	0	0	0			\$ 2,530.00	\$ 2,530.00
A.7.8	Culture Surveys		\$ -	0	0	0	0	0	0	0	0	0			\$ 2,530.00	\$ 2,530.00
A.7.9	Right-of-Way Surveys		\$ -	0	0	0	0	0	0	0	0	0			\$ 1,335.00	\$ 1,335.00
A.7.10	Roadway Design Manual Survey Efforts		\$ -	0	0	0	0	0	0	0	0	0			\$ 2,530.00	\$ 2,530.00
A.7.11	Legal Descriptions & Reference Maps (included in Task B.2.3)		\$ -	0	0	0	0	0	0	0	0	0			\$ -	\$ -
A.7.12	Quality Control Review		\$ 772.59	5	0	4	0	0	0	0	0	1			\$ 440.00	\$ 1,212.59
A.7.13	Boring Locations		\$ 175.83	1	0	1	0	0	0	0	0	0			\$ 1,215.00	\$ 1,390.83

Task No.	Description	# Sheets	KH Budget	KH Hours	Sr. Professional	Project Manager/QC Manager	Sr. Environmental Professional/Registered Landscape Architect	Engineer/Professional	Analyst/Sr. Designer	CADD/Designer	Admin Support I	Admin Support II	Ninyo and Moore	T2 Utility Engineers	Darling Geomatics (SBE)	Total Cost (with KH Directs)
	TASK A.6 - DRAINAGE		\$ 34,514.10	208	2	50	0	115	39	0	0	0	0	0	0	\$ 34,514.10
A.8.1	Drainage Analysis		\$ 21,932.05	130	0	30	0	60	20	0	0	0				\$ 21,932.05
A.8.2	Drainage Memorandum		\$ 7,232.04	45	0	10	0	20	15	0	0	0				\$ 7,232.04
A.8.3	Quality Control Review		\$ 5,350.01	31	2	10	0	15	4	0	0	0				\$ 5,350.01
	TASK A.9 - GEOTECHNICAL		\$ 846.42	6	0	5	0	0	0	0	0	1	\$ 13,771.16	0	0	\$ 14,719.58
A.9.1	Geotechnical Testing and Analysis and Report		\$ 351.67	2	0	2	0	0	0	0	0	0	\$ 12,793.48			\$ 13,145.15
A.9.2	Quality Control Review		\$ 596.76	4	0	3	0	0	0	0	0	1	\$ 977.68			\$ 1,574.44
	TASK A.10 - PAVEMENT DESIGN		\$ 948.42	9	0	5	0	0	0	0	0	1	\$ 3,647.24	0	0	\$ 4,595.66
A.10.1	Pavement Design Report		\$ 351.67	2	0	2	0	0	0	0	0	0	\$ 2,845.04			\$ 3,196.71
A.10.2	Quality Control Review		\$ 596.76	4	0	3	0	0	0	0	0	1	\$ 862.20			\$ 1,998.98
	TASK A.11 - TRAFFIC ENGINEERING		\$ 10,362.14	65	22	0	0	0	42	0	0	1	0	0	0	\$ 10,362.14
A.11.1	Initial Traffic Engineering Memorandum		\$ 7,328.48	48	12	0	0	0	39	0	0	0				\$ 7,328.48
A.11.2	Final Traffic Engineering Memorandum		\$ 1,657.16	10	4	0	0	0	6	0	0	0				\$ 1,657.16
A.11.3	Quality Control Review		\$ 1,376.50	7	6	0	0	0	0	0	0	1				\$ 1,376.50
	TASK A.12 - TASK NOT USED		\$ -	0	0	0	0	0	0	0	0	0	0	0	0	\$ -
	NOT USED		\$ -	0	0	0	0	0	0	0	0	0	0	0	0	\$ -
	TASK A.13 - DESIGN CONCEPT REPORT		\$ 18,736.21	117	0	69	0	20	36	0	0	2	0	0	0	\$ 18,736.21
A.13.1	Executive Summary/Project Overview and Description		\$ 2,633.06	16	0	10	0	2	4	0	0	0				\$ 2,633.06
A.13.2	Project Area Characteristics (Existing Conditions)		\$ 4,644.41	30	0	10	0	6	14	0	0	0				\$ 4,644.41
A.13.3	Design Standards, Criteria and Features/Alternatives		\$ 1,405.24	8	0	4	0	4	0	0	0	0				\$ 1,405.24
A.13.4	Social, Economic, and Environmental Considerations/Public Involvement Efforts & Agency Coord		\$ 1,758.33	10	0	10	0	0	0	0	0	0				\$ 1,758.33
A.13.5	Design Concept Report with Conclusions and Recommendations		\$ 5,789.19	36	0	18	0	6	12	0	0	0				\$ 5,789.19
A.13.6	Cost Estimate		\$ 1,488.29	10	0	2	0	2	6	0	0	0				\$ 1,488.29
A.13.7	Quality Control Review of DCR		\$ 1,017.68	7	0	5	0	0	0	0	0	2				\$ 1,017.68
	TASK A.14 - ENVIRONMENTAL CLEARANCE MEMORANDUM		\$ 45,892.66	371	0	0	96	0	0	259	16	0	0	0	0	\$ 45,892.66
A.14.1	Cultural Resources Inventory and Report		\$ 385.71	3	0	0	1	0	0	2	0	0				\$ 385.71
A.14.2	Biological Evaluation/Wildlife Habitat		\$ 10,247.97	64	0	0	20	0	0	80	4	0				\$ 10,247.97
A.14.3	Vegetation Sampling/Measurement		\$ 9,669.04	80	0	0	20	0	0	60	0	0				\$ 9,669.04
A.14.4	Clean Water Act Permitting		\$ 11,687.84	94	0	0	25	0	0	65	4	0				\$ 11,687.84
A.14.5	Hazardous Materials Survey		\$ 8,345.62	74	0	0	10	0	0	60	4	0				\$ 8,345.62
A.14.6	Quality Control Review of Environmental Clearance Memo		\$ 5,556.49	36	0	0	20	0	0	12	4	0				\$ 5,556.49
	TASK A.16 - TASK NOT USED		\$ -	0	0	0	0	0	0	0	0	0	0	0	0	\$ -
	NOT USED		\$ -	0	0	0	0	0	0	0	0	0	0	0	0	\$ -
	TASK A.16 - PREPARATION OF CONSTRUCTION DOCUMENTS															
A.16.1	Initial Design Phase Plans		\$ 23,231.88	175	0	15	0	33	72	55	0	0	0	0	0	\$ 23,231.88
1	Cover Sheet	1	\$ 633.20	5	0	1	0	0	2	2	0	0				\$ 633.20
2	Design Sheets - (General and Utility)	2	\$ 895.09	7	0	1	0	0	4	2	0	0				\$ 895.09
3	Typical Sections	1	\$ 861.88	7	0	1	0	0	3	3	0	0				\$ 861.88
5	Geometric Control (Legend & Notes)	1	\$ 1,621.53	10	0	1	0	6	3	0	0	0				\$ 1,621.53
6	Demolition Plans (Double Banked, 40 Scale)	3	\$ 2,329.84	21	0	1	0	0	6	14	0	0				\$ 2,329.84
7	Civil Plans (Plan and Profile, 40 Scale)	5	\$ 8,434.87	62	0	2	0	20	20	20	0	0				\$ 8,434.87
12	Traffic Signal Plan (20 Scale)	1	\$ 1,618.07	12	0	4	0	0	4	4	0	0				\$ 1,618.07
14	Pavement Marking Plans (Double Banked, 40 Scale)	3	\$ 1,395.11	12	0	1	0	1	2	8	0	0				\$ 1,395.11

Task No.	Description	# Sheets	KH Budget	KH Hours	Sr. Professional	Project Manager/ QC Manager	Sr. Environmental Professional/ Registered Landscape Architect	Engineer / Professional	Analyst/Sr. Designer	CADD / Designer	Admin Support I	Admin Support II	Ninyo and Moore	T2 Utility Engineers	Darling Geomatics (SBE)	Total Cost (with KH Directs)
20	Cross Sections (4 per sheet)	18	\$ 3,410.57	24	0	2	0	4	18	0	0	0				\$ 3,410.57
	Update Cost Estimate and Quantity Take-Offs		\$ 2,031.71	15	0	1	0	2	10	2	0	0				\$ 2,031.71
A.16.2	Final Design Phase Plans		\$ 17,749.08	143	0	6	12	9	45	71	0	0	0	0	0	\$ 17,749.08
1	Cover Sheet	1	\$ 97.74	1	0	0	0	0	0	1	0	0				\$ 97.74
2	Design Sheets - (General and Utility)	2	\$ 719.26	6	0	0	0	0	4	2	0	0				\$ 719.26
3	Typical Sections	1	\$ 686.05	6	0	0	0	0	3	3	0	0				\$ 686.05
5	Geometric Control (Legend & Notes)	1	\$ 392.83	3	0	0	0	0	3	0	0	0				\$ 392.83
6	Demolition Plans (Double Banked, 40 Scale)	3	\$ 1,448.32	13	0	1	0	0	3	9	0	0				\$ 1,448.32
7	Civil Plans (Plan and Profile, 40 Scale)	5	\$ 4,004.58	32	0	2	0	5	10	16	0	0				\$ 4,004.58
12	Traffic Signal Plan (20 Scale)	1	\$ 861.88	7	0	1	0	0	3	3	0	0				\$ 861.88
14	Pavement Marking Plans (Double Banked, 40 Scale)	3	\$ 828.32	7	0	0	0	1	2	4	0	0				\$ 828.32
19	Landscaping Sheets (Double Banked, 20 scale)	8	\$ 5,390.82	43	0	1	12	0	0	30	0	0				\$ 5,390.82
20	Cross Sections (4 per sheet)	18	\$ 1,529.81	11	0	1	0	1	9	0	0	0				\$ 1,529.81
	Update Cost Estimate and Quantity Take-Offs		\$ 1,789.46	14	0	0	0	2	8	4	0	0				\$ 1,789.46
A.16.3	Initial PS&E		\$ 46,898.79	365	0	26	39	30	98	172	0	0	0	0	0	\$ 46,898.79
1	Cover Sheet	1	\$ 97.74	1	0	0	0	0	0	1	0	0				\$ 97.74
2	Design Sheets - (General and Utility)	2	\$ 424.16	4	0	0	0	0	1	3	0	0				\$ 424.16
3	Typical Sections	1	\$ 502.26	4	0	1	0	0	1	2	0	0				\$ 502.26
4	Special Details - (Civil and Drainage)	3	\$ 4,141.96	35	0	1	0	4	10	20	0	0				\$ 4,141.96
5	Geometric Control (Legend & Notes)	1	\$ 130.94	1	0	0	0	0	1	0	0	0				\$ 130.94
6	Demolition Plans (Double Banked, 40 Scale)	3	\$ 828.68	7	0	1	0	0	2	4	0	0				\$ 828.68
7	Civil Plans (Plan and Profile, 40 Scale)	5	\$ 2,250.20	17	0	2	0	3	6	6	0	0				\$ 2,250.20
8	Staking Sheets (Double Banked, 40 Scale)	3	\$ 2,954.02	25	0	1	0	3	6	15	0	0				\$ 2,954.02
9	Erosion Control Details	3	\$ 1,450.36	12	0	0	3	0	0	9	0	0				\$ 1,450.36
10	Erosion Control Sheets (40 scale) and Details	3	\$ 2,607.50	21	0	0	6	0	0	15	0	0				\$ 2,607.50
11	Traffic Signal Notes/Schedules/Detail	5	\$ 6,596.25	55	0	5	0	0	25	25	0	0				\$ 6,596.25
12	Traffic Signal Plan (20 Scale)	1	\$ 633.20	5	0	1	0	0	2	2	0	0				\$ 633.20
13	Pavement Marking Notes and Details	1	\$ 730.58	8	0	0	0	1	2	3	0	0				\$ 730.58
14	Pavement Marking Plans (Double Banked, 40 Scale)	3	\$ 1,754.74	15	0	1	0	1	4	9	0	0				\$ 1,754.74
15	Signing Notes	1	\$ 652.84	6	0	0	0	0	2	4	0	0				\$ 652.84
16	Signing Plans (Double Banked, 40 Scale)	3	\$ 2,551.73	21	0	1	0	2	8	10	0	0				\$ 2,551.73
17	Sign Summary Sheet	1	\$ 848.32	8	0	0	0	0	2	6	0	0				\$ 848.32
18	Landscaping Details	2	\$ 968.90	8	0	0	2	0	0	6	0	0				\$ 968.90
19	Landscaping Sheets (Double Banked, 20 scale)	6	\$ 2,900.71	24	0	0	6	0	0	18	0	0				\$ 2,900.71
20	Cross Sections (4 per sheet)	18	\$ 3,938.91	31	0	1	0	3	18	9	0	0				\$ 3,938.91
	Update Cost Estimate and Quantity Take-Offs		\$ 2,238.51	17	0	1	0	3	8	5	0	0				\$ 2,238.51
	Special Provisions		\$ 3,893.57	22	0	10	2	10	0	0	0	0				\$ 3,893.57
	SWPPP Book		\$ 3,804.70	20	0	0	20	0	0	0	0	0				\$ 3,804.70
A.16.4	Final PS&E		\$ 36,742.44	284	0	17	37	25	69	136	0	0	0	0	0	\$ 36,742.44
1	Cover Sheet	1	\$ 97.74	1	0	0	0	0	0	1	0	0				\$ 97.74
2	Design Sheets - (General and Utility)	2	\$ 424.16	4	0	0	0	0	1	3	0	0				\$ 424.16
3	Typical Sections	1	\$ 326.42	3	0	0	0	0	1	2	0	0				\$ 326.42
4	Special Details - (Civil and Drainage)	3	\$ 2,484.97	21	0	0	0	3	6	12	0	0				\$ 2,484.97
5	Geometric Control (Legend & Notes)	1	\$ 130.94	1	0	0	0	0	1	0	0	0				\$ 130.94
6	Demolition Plans (Double Banked, 40 Scale)	3	\$ 326.42	3	0	0	0	0	1	2	0	0				\$ 326.42
7	Civil Plans (Plan and Profile, 40 Scale)	5	\$ 1,669.85	13	0	0	0	3	5	5	0	0				\$ 1,669.85
8	Staking Sheets (Double Banked, 40 Scale)	3	\$ 2,309.49	20	0	0	0	2	6	12	0	0				\$ 2,309.49
9	Erosion Control Details	3	\$ 776.67	7	0	0	1	0	0	6	0	0				\$ 776.67
10	Erosion Control Sheets (40 scale) and Details	3	\$ 2,607.50	21	0	0	6	0	0	15	0	0				\$ 2,607.50
11	Traffic Signal Notes/Schedules/Detail	5	\$ 3,166.00	25	0	5	0	0	10	10	0	0				\$ 3,166.00

Task No.	Description	# Sheets	KH Budget	KH Hours	Sr. Professional	Project Manager/ QC Manager	Sr. Environmental Professional/ Registered Landscape Architect	Engineer / Professional	Analyst/Sr. Designer	CADD / Designer	Admin Support I	Admin Support II	Ninoy and Moore	T2 Utility Engineers	Darling Geomatics (SBE)	Total Cost (with KH Directs)
12	Traffic Signal Plan (20 Scale)	1	\$ 633.20	5	0	1	0	0	2	2	0	0				\$ 633.20
13	Pavement Marking Notes and Details	1	\$ 326.42	3	0	0	0	0	1	2	0	0				\$ 326.42
14	Pavement Marking Plans (Double Banked, 40 Scale)	3	\$ 828.32	7	0	0	0	1	2	4	0	0				\$ 828.32
15	Signing Notes	1	\$ 326.42	3	0	0	0	0	1	2	0	0				\$ 326.42
16	Signing Plans (Double Banked, 40 Scale)	3	\$ 1,840.79	16	0	0	0	1	6	9	0	0				\$ 1,840.79
17	Sign Summary Sheet	1	\$ 652.64	5	0	0	0	0	2	4	0	0				\$ 652.64
18	Landscaping Details	2	\$ 966.90	8	0	0	2	0	0	6	0	0				\$ 966.90
19	Landscaping Sheets (Double Banked, 20 scale)	6	\$ 2,900.71	24	0	0	6	0	0	18	0	0				\$ 2,900.71
20	Cross Sections (4 per sheet)	18	\$ 3,763.08	30	0	0	0	3	18	9	0	0				\$ 3,763.08
	Update Cost Estimate and Quantity Take-Offs		\$ 1,703.41	13	0	1	0	2	6	4	0	0				\$ 1,703.41
	Special Provisions		\$ 3,893.67	22	0	10	2	10	0	0	0	0				\$ 3,893.67
	SWPPP Book		\$ 4,586.61	28	0	0	20	0	0	8	0	0				\$ 4,586.61
A.16.5	Quality Control Review of Plans		\$ 13,702.80	84	0	70	0	4	0	0	0	10	0	0	0	\$ 13,702.80
	Initial Design		\$ 2,248.51	14	0	12	0	0	0	0	0	2				\$ 2,248.51
	Final Design		\$ 2,248.51	14	0	12	0	0	0	0	0	2				\$ 2,248.51
	Initial PS&E		\$ 3,303.51	20	0	18	0	0	0	0	0	2				\$ 3,303.51
	Final PS&E		\$ 3,303.51	20	0	18	0	0	0	0	0	2				\$ 3,303.51
	Response to all review comments		\$ 2,598.76	16	0	10	0	4	0	0	0	2				\$ 2,598.76
	TASK B - ADDITIONAL SERVICES															
	TASK B.1 - ADDITIONAL UTILITY INVESTIGATION		\$ 873.21	7	0	1	0	1	1	4	0	0	0	\$ 7,026.00	0	\$ 7,899.21
B.1.1	Utility Coordination and Survey (Level A)		\$ 873.21	7	0	1	0	1	1	4	0	0		\$ 7,026.00	\$ -	\$ 873.21
	TASK B.2 - RIGHT-OF-WAY ACQUISITION SUPPORT		\$ 1,758.33	10	0	10	0	0	0	0	0	0	0	0	\$ 4,315.00	\$ 6,073.33
B.2.1	Existing Right-of-Way and Easements		\$ 351.67	2	0	2	0	0	0	0	0	0			\$ 1,280.00	\$ 1,631.67
B.2.2	Right-of-Way Plans		\$ 351.67	2	0	2	0	0	0	0	0	0			\$ 475.00	\$ 826.67
B.2.3	Legal Descriptions & Reference Maps		\$ 351.67	2	0	2	0	0	0	0	0	0			\$ 1,920.00	\$ 2,271.67
B.2.4	Quality Control Review of Right-of-Way Documents		\$ 703.33	4	0	4	0	0	0	0	0	0			\$ 640.00	\$ 1,343.33
	TASK B.3 - OTHER SERVICES		\$ 8,128.52	45	0	30	15	0	0	0	0	0	0	0	0	\$ 8,128.52
B.3.1	Other Services		\$ 8,128.52	45	0	30	15	0	0	0	0	0				\$ 8,128.52
	TASK C - POST DESIGN SERVICES															
	TASK C.1 - PRE-BID SERVICES		\$ 1,929.02	12	0	4	0	4	4	0	0	0	0	0	0	\$ 1,929.02
C.1.1	Pre-Bid Services		\$ 1,929.02	12	0	4	0	4	4	0	0	0				\$ 1,929.02
	TASK C.2 - CONSTRUCTION SERVICES		\$ 12,775.71	88	0	16	0	12	60	0	0	0	0	0	0	\$ 12,775.71
C.2.1	Construction Services		\$ 12,775.71	88	0	16	0	12	60	0	0	0				\$ 12,775.71
	TASK C.3 - POST CONSTRUCTION SERVICES		\$ 4,017.34	32	0	6	0	2	8	16	0	0	0	0	\$ 18,985.00	\$ 23,002.34
C.3.1	Post Construction LIDAR		\$ 351.67	2	0	2	0	0	0	0	0	0			\$ 18,985.00	\$ 19,336.67
C.3.2	Post Construction Electronic As-Builts		\$ 3,665.67	30	0	4	0	2	8	16	0	0				\$ 3,665.67
	Total Labor Cost / Hours (TASK A):		\$ 298,454.84	2,147	25	370	184	302	477	728	28	33	\$ 17,416.40	\$ -	\$ 25,120.00	\$ 340,993.24
	Total Additional Labor Cost / Hours (TASK B):		\$ 10,760.06	62	0	41	15	1	1	4	0	0	\$ -	\$ 7,026.00	\$ 4,315.00	\$ 22,101.06
	Total Post Design Labor Cost / Hours (TASK C):		\$ 18,722.07	132	0	26	0	18	72	16	0	0	\$ -	\$ -	\$ 18,985.00	\$ 37,707.07

Exhibit B - ASSUMPTIONS

TASK A.8 DRAINAGE

Assumptions:

- All files including digital models and executables from the Lee Moore Wash West study will be provided to the consultant.
- Model parameterization in the detailed FLO-2D model will NOT be modified from the Lee Moore Wash West study, other than the smaller grid size.
- FLO-2D models will consist of grid flow only, 1D Streets, 1D Channels, Hydraulics Structures, Storm Drain will NOT be integrated into the models.

TASK A.13 DESIGN CONCEPT REPORT (DCR)

Assumptions:

- Alternative design studies in addition to the Standard Traffic Signal without Access Control concept are not included in the scope of work.
- A Value Engineering Review is not included in the scope of work.
- Three (3) copies of the Initial DCR and three (3) copies of the Final DCR will be provided.

TASK A.16 PREPARATION OF CONSTRUCTION DOCUMENTS

Assumptions:

- Lighting design, plans, and photometric analysis are not included in the scope of work.
- Project area is over 1 acre, requiring a Stormwater Pollution Prevention Plan (SWPPP).
- Maintenance of Traffic will be provided as a special provision and not included as a plan sheet.
- Formal earthwork report will not be prepared. Earthwork quantities will be provided in the plans.
- Reproduction services include three (3) copies of the Initial Special Provisions, three (3) copies of the Final Special Provisions, three (3) copies of the Initial PS&E Plans and Cross Sections (11"x17"), and three (3) copies of the Final PS&E Plans and Cross Sections (11"x17").
- Final SWPPP book will be provided on CD and one (1) hard bound copy.

KIMLEY-HORN AND ASSOCIATES, INC

CATEGORY RATE SCHEDULE DERIVATION

Labor Classification	Employee	Current Payroll Rate	Average Payroll Rate
Sr. Professional	Crowther, Brent	\$67.32	\$67.32
Project Manager/QC Manager	Hathcock, Allen Rhine, Tim	\$58.18 \$50.48	\$54.33
Sr. Environmental Professional/Registered Landscape Architect	Jennifer Simpkins Field, Rebeca	\$59.38 \$58.18	\$58.78
Engineer / Professional	Payne, Kevin Tapia, David	\$55.06 \$53.38	\$54.22
Analyst/Sr. Designer	Yurs, Bryan Raddeman, Terry Rodriguez, Vanessa Bacon, Daniel	\$41.84 \$40.88 \$39.68 \$39.44	\$40.46
CADD / Designer	Kellner, Jeff Chu, Vicki Vo, Michael Millick, Joe Iwicki, Dan Hemphill, Jeff Pittman, Melinda	\$33.90 \$33.18 \$30.78 \$29.34 \$29.34 \$28.86 \$25.98	\$30.20
Admin Support I	Walborn, Lyndee	\$44.72	\$44.72
Admin Support II	Blackmon, Patricia Griego, Melissa	\$23.56 \$19.24	\$21.40



Geotechnical & Environmental Sciences Consultants

December 19, 2019
Proposal No. 12TUC02-00970

Mr. Tim Rhine, PE
Kimley-Horn & Associates
333 East Wetmore Road, Suite 280
Tucson, Arizona 85705

Subject: Proposal to Provide Geotechnical Services
Sahuarita Road and Wilmot Road Intersection Improvements
Pima County, Arizona

Dear Mr. Rhine:

In accordance with your request, Ninyo & Moore is pleased to submit this proposal to provide geotechnical services for the Sahuarita Road and Wilmot Road Intersection Improvements project in Pima County, Arizona. This proposal outlines our scope of geotechnical services, an estimated fee, project assumptions, and anticipated schedule for the work associated with this project.

SITE/PROJECT DESCRIPTION

We understand that Pima County plans to reconstruct the existing Sahuarita Road and Wilmot Road intersection in Pima County, Arizona. The project will include the design of new turning lanes, new flexible pavements, and traffic signals. No new underground utilities are planned.

Engineering plans for the proposed improvements were not available for our review. However, we have assumed that the project construction will not involve any major grading operations and the final site grades will be within 2 feet of the currently existing grades.

SCOPE OF SERVICES

Ninyo & Moore will perform the following tasks as part of this project:

- Conduct a field trip to the project area to mark out field test locations.
- Apply for and obtain a right-of-way permit from Pima County.
- Contact Arizona 811 to evaluate utility locations prior to the field work.
- Perform a geotechnical exploration using a truck mounted drill rig, which will include drilling of seven exploratory borings to 5 feet depth below existing grade. The borings will be drilled to the target depths or refusal on very dense/cemented deposits. A Ninyo & Moore employee will observe the drilling field work and prepare the boring logs.

- Core the existing asphalt concrete (AC) pavement at the boring locations and collect the aggregate base (AB) material, if present.
- Collect bulk soils samples in the borings for laboratory testing and analysis. Ninyo & Moore personnel will log the borings in general accordance with the Unified Soil Classification System (USCS) and American Society for Testing and Materials (ASTM) D 2488 by observing cuttings and samples. Soil samples will be placed in large plastic bags and will be transported to a Ninyo & Moore laboratory for testing.
- Conduct laboratory testing on subgrade soil and AB samples that will generally include in-situ moisture and dry density, grain-size analysis, Atterberg limits, consolidation (response-to-wetting), and corrosivity (including sulfate and chloride contents, pH, and laboratory electrical resistivity).
- Attend 2 project coordination meetings.
- Prepare draft geotechnical evaluation and pavement design report in accordance with Pima County Roadway Design Manual to include classifications of the exploratory samples, the boring logs and results of the laboratory testing. The report will include a cover letter sealed by a Professional Engineer licensed in the State of Arizona, as well as the following information:
 - Description of work scope, laboratory, and field procedures;
 - Description of regional and site geology and geologic hazards;
 - Subsurface soil and groundwater conditions;
 - Maps and boring plans;
 - Description of the excavation characteristics of on-site soils;
 - Discussion of potential earthwork issues;
 - Evaluation of potential for re-use of on-site soils and AB material;
 - Subgrade preparation measures for new pavements;
 - New pavement sections in accordance with Pima County Roadway Design Manual;
 - Pavement reconstruction/rehabilitation options with re-use of the existing pavement materials; and
 - Soil corrosivity discussion and corrosion test results.
- Collect one round of comments to the draft report.
- Prepare a final geotechnical evaluation and pavement design report

ASSUMPTIONS

The following assumptions were made when developing the work scope:

- The site is accessible for a truck mounted drilling equipment and the site access will be provided.

- Any environmental/cultural clearances will be obtained by others.
- The work will be performed during normal work hours.
- Traffic control will include traffic lane closures.
- The borings will be terminated at the target depth or refusal on very dense/cemented deposits.
- The borings will be backfilled with drilling spoils.

SCHEDULE

We are prepared to initiate this project immediately upon receiving your authorization to proceed. We anticipate that the fieldwork will take two days and will be performed within two weeks after a notice to proceed. The draft report will be submitted within 6 weeks following the fieldwork completion. The final report will be submitted within 2 weeks following the comment collection period.

FEE ESTIMATE

We propose to perform the above scope of geotechnical services, for a not-to-exceed fee of \$17,418.40 (Seventeen Thousand Four Hundred Eighteen Dollars) broken down into the project tasks as presented in the following table.

Task No.	Description	Fee (\$)
A.9	Geotechnical	
A.9.1.	Geotechnical Testing and Analysis and Report	12,793.48
A9.1.2.	Quality Control Review	977.68
A.10	Pavement Design	
A.10.1	Pavement Design Report	2,845.04
A.10.2.	Quality Control Review	802.20

This estimated fee is based on the scope of services presented above and our understanding of the project. Any additional services not included in the aforementioned scope will be charged on a time and materials basis in accordance with our current schedule of fees.

We appreciate the opportunity to submit this proposal and look forward to working with you on this project.

Respectfully submitted,
NINYO & MOORE



Marek J. Kasztalski, PE
Senior Geotechnical Engineer



Fred Narcaroti
Principal/Tucson Office Manager

MJK/FFN/jom

Attachments: Fee Breakdown
Work Authorization and Agreement

Distribution: (1) Addressee (via e-mail)

FEE ESTIMATE FOR GEOTECHNICAL SERVICES
SAHUARITA ROAD AND WILMOT ROAD INTERSECTION IMPROVEMENTS, PIMA COUNTY, ARIZONA

Project Logistics/Coordination

Classification	Estimated Hours	Hourly Rate	Labor Costs
Principal	4.0	175.48	701.92
Project Manager	8.0	156.68	1,253.44
A/E	0.0	119.06	0.00
Prof Level I	4.0	59.96	239.84
CADD	0.0	88.98	0.00
Clerical/Admin	0.0	73.96	0.00
	<u>16.00</u>		<u>2,195.20</u>

Permit/Markout and bluestake

Classification	Estimated Hours	Hourly Rate	Labor Costs
Principal	0.0	175.48	0.00
Project Manager	0.0	156.68	0.00
A/E	4.0	119.06	476.24
Prof Level I	4.0	59.96	239.84
CADD	0.0	88.98	0.00
Clerical/Admin	0.0	73.96	0.00
	<u>8.00</u>		<u>716.08</u>

Field Exploration

Classification	Estimated Hours	Hourly Rate	Labor Costs
Principal	0.0	175.48	0.00
Project Manager	1.0	156.68	156.68
A/E	10.0	119.06	1,190.60
Prof Level I	10.0	59.96	599.60
CADD	0.0	88.98	0.00
Clerical/Admin	0.0	73.96	0.00
	<u>21.00</u>		<u>1,946.88</u>

Data Compilation/Analysis

Classification	Estimated Hours	Hourly Rate	Labor Costs
Principal	0.0	175.48	0.00
Project Manager	12.0	156.68	1,880.16
A/E	0.0	119.06	0.00
Prof Level I	0.0	59.96	0.00
CADD	0.0	88.98	0.00
Clerical/Admin	2.0	73.96	147.92
	<u>14.00</u>		<u>2,028.08</u>

Draft Report Preparation

Classification	Estimated Hours	Hourly Rate	Labor Costs
Principal	2.0	175.48	350.96
Project Manager	24.0	156.68	3,760.32
A/E	0.0	119.06	0.00
Prof Level I	0.0	59.96	0.00
CADD	2.0	88.98	177.96
Clerical/Admin	2.0	73.96	147.92
	<u>30.00</u>		<u>4,437.16</u>

FEE ESTIMATE FOR GEOTECHNICAL SERVICES
SAHUARITA ROAD AND WILMOT ROAD INTERSECTION IMPROVEMENTS, PIMA COUNTY, ARIZONA

Final Report Preparation

Classification	Estimated Hours	Hourly Rate	Labor Costs
Principal	1.0	175.48	175.48
Project Manager	8.0	156.68	1,253.44
A/E	0.0	119.06	0.00
Prof Level I	0.0	59.96	0.00
CADD	0.0	88.98	0.00
Clerical/Admin	2.0	73.96	147.92
	<u>11.00</u>		<u>1,576.84</u>

Direct Fees

Laboratory Testing			3,095.00
Permit Fees			500.00
			<u>3,595.00</u>
		Subtotal Direct Fees	3,595.00

Reimbursable Fees

Driller			1,500.00
Traffic control			1,000.00
			<u>2,500.00</u>
		Subtotal Reimbursable Fees	2,500.00
		Total Proposed Fee	17,418.40

WORK AUTHORIZATION AND AGREEMENT

Please Sign and Return One Copy to:

NINYO & MOORE
1991 East Ajo Way, Suite 145
Tucson, Arizona 85713

PROPOSAL NO. 12TUC02-00970

1. PROJECT ADDRESS: **Sahuarita Road and Wilmot Road Intersection, Pima County, Arizona**
2. PROJECT DESCRIPTION: **Geotechnical Services**
3. SCOPE OF STUDY: **Please refer to proposal dated December 19, 2019.**
4. FEE: **\$17,418.40 (Seventeen Thousand Four Hundred Eighteen Dollars and Forty Cents- Estimated Fee)**
5. PORTION OF FEE IN ADVANCE OF WORK: **None**
6. CLIENT: **Kimley-Horn & Associates** PHONE: **520-615-9191**
333 East Wetmore Road, Suite 280
Tucson, Arizona 85705
- CONTACT: **Mr. Tim Rhine** PHONE: **520-615-9191**
7. STATEMENT TO BE SENT TO: **Client**

CONDITIONS OF AGREEMENT BETWEEN CLIENT AND NINYO & MOORE

This AGREEMENT is made by and between: NINYO & MOORE GEOTECHNICAL AND ENVIRONMENTAL SCIENCES CONSULTANTS, hereinafter referred to as CONSULTANT, and **Kimley-Horn & Associates**, hereinafter referred to as CLIENT. This AGREEMENT between the parties consists of these TERMS, the attached Proposal identified as No. 12TUC02-00970 dated **December 19, 2019**, and any exhibits or attachments noted in the Proposal. Together, these elements will constitute the entire AGREEMENT superseding any and all prior negotiations, correspondence, or agreements either written or oral. Any changes to this AGREEMENT must be mutually agreed to in writing.

STANDARD OF CARE

CLIENT recognizes that subsurface conditions may vary from those observed at locations where borings, surveys, or explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by CONSULTANT will be based solely on information available to CONSULTANT. CONSULTANT is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.

Services performed by CONSULTANT under this AGREEMENT are expected by CLIENT to be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the geotechnical engineering profession practicing contemporaneously under similar conditions in the locality of the project. Under no circumstance is any warranty, expressed or implied, made in connection with the providing of geotechnical consulting services.

SITE ACCESS AND SITE CONDITIONS

CLIENT will grant or obtain free access to the site for all equipment and personnel necessary for CONSULTANT to perform the work set forth in this agreement. CLIENT will notify any and all possessors of the project site that CLIENT has granted CONSULTANT free access to the site. Client will protect all property, inside and out, including all plants and landscaping. CONSULTANT will take reasonable precautions to reduce the potential for damage to the site, but it is understood by CLIENT that, in the normal course of work, some damage may occur and the correction of such damage or alteration is not part of this AGREEMENT unless so specified in the Proposal.

CLIENT is responsible for accurately delineating the locations of all subterranean structures and utilities. CONSULTANT will take reasonable precautions to avoid known subterranean structures, and CLIENT waives any claim against CONSULTANT, and agrees to defend, indemnify and hold CONSULTANT harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, CLIENT agrees to compensate CONSULTANT for any time spent or expenses incurred by

CONSULTANT in defense of any such claim, with compensation to be based upon CONSULTANT's prevailing fee schedule and expense reimbursement policy.

SAMPLE DISPOSAL

CONSULTANT will dispose of remaining soil, rock, and water samples approximately thirty (30) days after submission of the report covering those samples. Further storage or transfer of samples can be made at CLIENT's expense upon CLIENT's prior written request.

MONITORING

If CONSULTANT is retained by CLIENT to provide a site representative for the purpose of monitoring specific portions of construction work or other field activities as set forth in the Proposal, then this phrase applies. For the specified assignment, CONSULTANT will report observations and professional opinions to CLIENT or CLIENT's agent. No action of CONSULTANT or CONSULTANT's site representative can be construed as altering any AGREEMENT between the CLIENT and others. CONSULTANT will report to CLIENT or CLIENT's agent any observed geotechnically related work which, in CONSULTANT's professional opinion, does not conform with plans and specifications. The CONSULTANT has no right to reject or stop work of any agent or subcontractor of CLIENT; such rights are reserved solely for CLIENT. Furthermore, CONSULTANT's presence on the site does not in any way guarantee the completion or quality of the performance of the work of any party retained by CLIENT to provide field or construction-related services.

If CONSULTANT is not retained by Client for the purpose of monitoring construction work or field activities, CONSULTANT will expressly not be held liable or responsible for such activities or for the geotechnical performance of the completed project. Monitoring of construction work or field activities and the geotechnical performance of the completed project is and will remain the sole and express responsibility of the CLIENT or other party designated by the CLIENT. CLIENT hereby agrees to indemnify and hold harmless CONSULTANT from and against any loss or judgment, suffered by the CONSULTANT as a result of a claim or lawsuit resulting from CLIENT's failure to monitor construction work or field activities for which CONSULTANT has not been retained.

CONSULTANT will not be responsible for and will not have control or charge of specific means, methods, techniques, sequences or procedures of construction or other field activities selected by any agent or agreement of CLIENT. It is mutually understood and agreed by CLIENT and CONSULTANT that CONSULTANT has no control or enforcement ability over any persons or parties who are not employees of CONSULTANT. CONSULTANT does not purport to be, nor is CONSULTANT responsible for, any safety precautions nor programs incident thereto for such non-employees of CONSULTANT.

OWNERSHIP AND MAINTENANCE OF DOCUMENTS

Unless otherwise specified in this Agreement or in an Addendum, and provided that CONSULTANT has been fully paid for the Services, CLIENT shall have the right to use the documents, maps, photographs, drawings and specifications resulting from CONSULTANT's efforts on the project, for purposes reasonably contemplated by the parties. CONSULTANT shall have the right, but shall not be obligated, to retain copies of all such materials and shall have the right to use the same for any purpose, unless such use would be expected to cause harm to CLIENT. CLIENT shall specify in advance, in writing, and be charged for all arrangements for special or extended-period maintenance of such materials by CONSULTANT. CONSULTANT retains the right of ownership with respect to any patentable concepts or copyrightable materials arising from its Services.

Reuse of any material described by CLIENT, including publication to third parties, on extension of this project or on any other project without CONSULTANT's written authorization, shall be at CLIENT's risk, and CLIENT agrees to indemnify, defend, and hold harmless CONSULTANT from all claims, damages, and expenses, including attorney's fees, arising out of such unauthorized reuse.

BILLING AND PAYMENT

CLIENT will pay CONSULTANT in accordance with the procedures indicated in the Proposal and its attachments. Invoices will be submitted to CLIENT by CONSULTANT, and will be due and payable upon presentation. If CLIENT objects to all or any portion of any invoice, CLIENT will so notify CONSULTANT in writing within fourteen (14) calendar days of the invoice date, identify the cause of disagreement, and pay when due that portion of the invoice not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. In the absence of written notification described above, the balance as stated on the invoice will be paid.

Invoices are delinquent if payment has not been received within thirty (30) days from date of invoice. CLIENT will pay an additional charge of three quarters of a percent (.75) per month (or the maximum percentage allowed by law, whichever is lower) on any delinquent amount, excepting any portion of the invoiced amount in dispute and resolved in favor of CLIENT. Payment thereafter will first be applied to accrued interest and then to the principal unpaid amount. All time spent and expenses incurred (including any attorney's fees) in connection with collection of any delinquent amount will be paid by CLIENT to CONSULTANT per CONSULTANT's current fee schedules. In the event CLIENT fails to pay CONSULTANT within sixty (60) days after invoices are rendered, CLIENT agrees that CONSULTANT will have the right to consider the failure to pay the CONSULTANT's invoice as a breach of this AGREEMENT and CONSULTANT may cease work on the project. At CONSULTANT's option, CONSULTANT may waive said major breach upon payment by CLIENT of all arrearages and outstanding invoices.

TERMINATION

This AGREEMENT may be terminated by either party seven (7) days after written notice in the event of any breach of any provision of this AGREEMENT or in the event of substantial failure of performance by either party, or if CLIENT suspends the work for more than three (3) months. In the event of termination, CONSULTANT will be paid for services performed prior to the date of termination plus reasonable termination expenses, including, but not limited to, the cost of completing analyses, records, and reports necessary to document job status at the time of termination.

RISK ALLOCATION

Many risks potentially affect CONSULTANT by virtue of entering into this AGREEMENT to perform professional consulting services on behalf of CLIENT. The principal risk is the potential for human error by CONSULTANT. For CLIENT to obtain the benefit of a fee which includes a nominal allowance for dealing with CONSULTANT's liability, CLIENT agrees to limit CONSULTANT's liability to CLIENT and to all other parties for claims arising out of CONSULTANT's performance of the services described in this AGREEMENT. The aggregate liability of CONSULTANT will not exceed \$50,000 for negligent professional acts, errors, or omissions, including attorney's fees and costs which may be awarded to the prevailing party, and CLIENT agrees to indemnify and hold harmless CONSULTANT from and against all liabilities in excess of the monetary limit established above.

Limitations on liability and indemnities in this AGREEMENT are business understandings between the parties voluntarily and knowingly entered into, and shall apply to all theories of recovery including, but not limited to, breach of contract, warranty, tort (including negligence), strict or statutory liability, or any other cause of action, except for willful misconduct or gross negligence. The parties also agree that CLIENT will not seek damages in excess of the limitations indirectly through suits with other parties who may join CONSULTANT as a third-party nor by an award of attorney's fees and costs to the prevailing party in excess of the aggregate liability agreed upon herein by the parties. Parties means CLIENT and CONSULTANT and their officers, employees, agents, affiliates, and subcontractors.

Both CLIENT and CONSULTANT agree that they will not be liable to each other, under any circumstances, for special, indirect, consequential, or punitive damages arising out of or related to this AGREEMENT.

INDEMNIFICATION

If any claim is brought against CONSULTANT, its employees, agents and subcontractors and/or CLIENT by a third party, relating in any way to the Services, the contribution and indemnification rights and obligations of CONSULTANT and Client, subject to the paragraph titled "Risk Allocation" above, such claim shall be determined as follows:

1. If any negligence, breach of contract, or willful misconduct of CONSULTANT caused any damage, injury, or loss claimed by the third party, then CONSULTANT and CLIENT shall each indemnify the other against any loss or judgement on a comparative negligence basis (CLIENT responsibility to include that of its agents, employees, and other contractors); and
2. Unless CONSULTANT was liable for negligence, breach of contract, or willful misconduct which in whole or in part, caused the damage, injury, or loss asserted in the third party claim, CLIENT shall indemnify CONSULTANT against the claim, liability, loss, legal fees, consulting fees, and other costs of defense reasonably incurred.

DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS

CLIENT represents that CLIENT has made a reasonable effort to evaluate if hazardous materials are on or near the project site, and that CLIENT has informed CONSULTANT of CLIENT's findings relative to the possible presence of such materials.

Hazardous materials may exist at a site where there is no reason to believe they could or should be present. CONSULTANT and CLIENT agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. CONSULTANT and CLIENT also agree that the discovery of unanticipated hazardous materials may make it necessary for CONSULTANT to take immediate measures to protect health and safety. CLIENT agrees to compensate CONSULTANT for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous materials.

CONSULTANT agrees to notify CLIENT when unanticipated hazardous materials or suspected hazardous materials are encountered. CLIENT agrees to make any disclosures required by law to the appropriate governing agencies. CLIENT also agrees to hold CONSULTANT harmless for any and all consequences of disclosures made by CONSULTANT which are required by governing law. In the event the project site is not owned by CLIENT, CLIENT recognizes that it is CLIENT's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.

Notwithstanding any other provision of the AGREEMENT, CLIENT waives any claim against CONSULTANT and, to the maximum extent permitted by law, agrees to defend, indemnify, and save CONSULTANT harmless from any claim, liability, and/or defense costs for injury or loss arising from CONSULTANT's discovery of unanticipated hazardous materials or suspected hazardous materials, including, but not limited to, any costs created by delay of the project and any cost associated with possible reduction of the property's value.

CLIENT will be responsible for ultimate disposal of any samples secured by CONSULTANT which are found to be contaminated.

DISPUTE RESOLUTION

If a dispute at law arises from matters related to the services provided under this AGREEMENT and that dispute requires litigation, then:

1. The claim will be brought and tried in judicial jurisdiction of the court of the county where CONSULTANT's principal place of business is located and CLIENT waives the right to remove the action to any other county or judicial jurisdiction, and;
2. The prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' and expert witness fees, and other claim-related expenses.

GOVERNING LAW AND SURVIVAL

If any of the provisions contained in this AGREEMENT are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Risk allocation and indemnities will survive termination or failure of this AGREEMENT for any cause.

The parties have read, or had the opportunity to read, the foregoing, including all attachments, addendums, and exhibits hereto, have had an opportunity to discuss the same, understand completely the terms, and willingly enter into this AGREEMENT which will become effective on the date signed below by CLIENT.

Printed Name of Client or Authorized Agent

Signature of Client or Authorized Agent

Date

Fred Narcaroti, Principal/Tucson Office Manager

Date

PM: MJK

PROJECT: Sahuarita Road & Wilmot Road Intersection Improvements (4SAHWI) DATE 12/11/19

PREPARED BY: Fred Narcaroti / Ninyo & Moore CONTRACT NUMBER _____

EFFECTIVE DATE 12/11/19 PRIME CONTRACTOR Kimley-Horn & Associates, Inc.

CONTRACT TIME _____ CONTRACT TYPE _____

ITEM NO.	FIRM	Discipline	A	B	C	D
			Direct Labor Rate	Overhead 137%	Profit 10%	Billing Rate
1	Ninyo & Moore	Principal	\$ 67.31	\$ 92.21	\$ 15.95	\$ 175.48
2	Ninyo & Moore	Project Manager	\$ 60.10	\$ 82.34	\$ 14.24	\$ 156.68
3	Ninyo & Moore	Senior A/E	\$ 51.92	\$ 71.13	\$ 12.31	\$ 135.36
4	Ninyo & Moore	A/E	\$ 45.67	\$ 62.57	\$ 10.82	\$ 119.06
5	Ninyo & Moore	Designer	\$ 42.79	\$ 58.62	\$ 10.14	\$ 111.55
6	Ninyo & Moore	CADD	\$ 34.13	\$ 46.76	\$ 8.09	\$ 88.98
7	Ninyo & Moore	Prof Level IV	\$ 67.31	\$ 92.21	\$ 15.95	\$ 175.48
8	Ninyo & Moore	Prof Level III	\$ 60.10	\$ 82.34	\$ 14.24	\$ 156.68
9	Ninyo & Moore	Prof Level II	\$ 27.50	\$ 37.68	\$ 6.52	\$ 71.69
10	Ninyo & Moore	Prof Level I	\$ 23.00	\$ 31.51	\$ 5.45	\$ 59.96
11	Ninyo & Moore	Clerical/Admin	\$ 28.37	\$ 38.87	\$ 6.72	\$ 73.96

Formulas

(A) Direct Labor Rate

(B) Overhead @ _____ % X (A)

(C) Profit @ _____ % X (A + B)

(D) Billing Rate (A+B+C)

Use only the discipline categories listed here when completing the fee summaries for prime and subconsultants.

Discipline Category	Common Titles
Principal	Principal Architect, Principal Engineer, President, Vice President, Managing Principal, Principal In Charge, Specialized Consultant
Project Manager	Project Principal, Principal Project Manager, Project Manager, Senior Project Manager, Project Director, Sr. Project Director, Project Administrator, Account Manager, Office Manager
Senior A/E	Project Architect, Project Engineer, Sr. Project Engineer/Architect, Sr. Engineer/Architect, Project Landscape Architect
A/E	Architect, Engineer, Engineering Consultant, Staff Engineer, Registered Land Surveyor, Landscape Architect, Field Engineer
Designer	Senior Designer, Engineering Designer, Design Engineer, Landscape Designer, Design Tech
CADD	CADD Designer, CADD Technician, CAD Operator, AutoCAD, Drafter, Senior Drafter, Junior Drafter, Draftsperson, Drafting Technician
Prof Level IV	Principal Scientist (Hydrologist, Chemist, Biologist, Geologist, Environmental Scientist), Principal Planner, Principal Scientist
Prof Level III	Senior Scientist (Hydrologist, Chemist, Biologist, Geologist, Environmental Scientist), Survey Manager, Survey Chief, Environmental Specialist, Estimator, Senior Planner, Accountant II
Prof Level II	Scientist I (Hydrologist, Chemist, Biologist, Geologist, Environmental Scientist), Planner, Survey Supervisor, Field Supervisor, Inspector, GPS, GIS, Engineering Aide, Accountant I, Project Coordinator
Prof Level I	Field Tech, Field Staff, Lab Tech, Intern, Project Assistant
Clerical/Admin	Clerical Staff, Word Processor, Administrator, Administrative Assistant, Support Staff
Survey Crew- 3 Man	
Survey Crew- 2 Man	

NINYO MOORE GEOTECHNICAL ENVIRONMENTAL CONSULTANTS, INC.

LABOR CLASSIFICATION	EMPLOYEE	AVERAGE PAY
Principal	Narcaroti, Fred; Nowaczyk, Steve	\$ 67.31
Project Manager	Kasztalski, Marek; Cope, Curtis	\$ 60.10
A/E	Petersen, Crystal; Chibwe, Collins	\$ 45.67
CADD	McClellan, Brett; Taylor, Evelyn	\$ 34.13
Prof Level I	Slingluff, Bethany; Morris, Patrick	\$ 23.00
Clerical/Admin	Harris, Tracy; Martinez, Jony; Flores, Heather	\$ 28.37



December 20, 2019

Kimley-Horn
333 East Wetmore Road, Suite 280
Tucson, Az. 85705

Attn: Tim Rhine
Sent via email: tim.rhine@kimley-horn.com

RE: Sahurita Road and Wilmont Road Intersection Improvements (Rev 4)
Survey Proposal

Tim,

I've reviewed the documents that were available for the referenced Project. I am pleased to forward this proposal for land surveying services to provide construction layout and office support. The following will outline an itemized, detailed scope of work, exclusions, fee schedule and miscellaneous language as it pertains to this Project. Darling Geomatics is an award winning certified DBE, WBE, WOSB and SBE land surveying company.

SCOPE OF WORK:

TASK LIST

TASK A.7 SURVEY AND MAPPING

Task A.7.1. Initial Planning and Reconnaissance. The CONSULTANT will hold a formal coordination meeting with County Survey prior to the start of any survey efforts to identify/discuss survey mapping project requirements and procedures and how the survey efforts will be coordinated with the CONSULTANT design team. **\$380.00**

Task A.7.2. Horizontal Control. The CONSULTANT will run a Geodetic Control Survey based on NAD 83 and NAVD 88 datums by using PCDOT provided N.G.S. control points and tying to PC/COT approved GIS control points. The CONSULTANT will run a closed field traverse through, or incorporate into, the primary project controls provided by County Survey. The CONSULTANT will also field reference control points, and other found monuments, within the existing right-of-way, outside of the construction area. County Survey will review the closed field traverse run by the CONSULTANT and the field references. **\$3,225.00**

Task A.7.3. Vertical Control Traverse. The CONSULTANT will establish a bench circuit originating from PCDOT provided GIS vertical control points to prescribed field accuracy. The work will include mathematically adjusting the remaining error. The work also includes setting construction benchmarks at 500' intervals outside of the proposed construction areas and on alternating sides of the roadway. County Survey will field verify all vertical control points set from the PCDOT approved GIS points. **\$2,530.00**

Task A.7.4. Results of Survey Drawing. The CONSULTANT will prepare a Results of Survey Drawing showing existing section lines, right-of-way, ownership, and existing features for the length of the project. Approximate property lines will be included on the Results of Survey by the CONSULTANT. If necessary, for easement or R/W acquisitions, the CONSULTANT will perform parcel survey(s) limited to the budget included in the Fee Calculation. **\$1,335.00**

Task A.7.5. Survey Report. A Survey Report is required for this project. **\$690.00**

Task A.7.6. Aerial Mapping. The CONSULTANT will provide photogrammetric mapping in AutoCAD 2016 or newer version, including a digital terrain model, ortho-photos, and digital files in County .tif format. Aerial ground control will be provided by the CONSULTANT and will be field checked by the County Survey prior to the results being transmitted to the aerial company. The CONSULTANT will perform cross sections at 100-ft intervals along the existing roadway centerline and edges of pavement, and at critical drainage elements (v-ditches, culvert depressions, drainage break-lines, and all other drainage features) to enhance the aerial ground DTM so that it meets or exceeds 0.1 foot accuracy. **\$6,380.00**

Task A.7.7. Utility Surveys. The CONSULTANT will locate underground utilities as identified and marked by others for the length of the project. Blue Staking and other utility features will be located during the culture survey. Coordination for underground utilities will be by the CONSULTANT. **\$2,530.00**

Task A.7.8. Culture Surveys. The CONSULTANT will locate fences, mail boxes, culverts and manhole inverts, drainage features and flows, and match-in locations along the project length. The work will also include the CONSULTANT converting field results into AutoCAD 2016 or newer version format. **\$2,530.00**

Task A.7.9. Right-of-way of Surveys. After analyzing the initial field survey, the CONSULTANT will field locate all relevant survey monuments including right-of-way centerline monuments, property corners and existing occupation, to determine the existing right-of-way lines. The CONSULTANT will coordinate with County Survey in defining the existing right-of-way for the project. The CONSULTANT will analyze the results and prepare Right-of-Way plans as part of this task. **\$1,335.00**

Task A.7.10. Roadway Design Manual Survey Efforts. The CONSULTANT will complete other survey related tasks as identified and provided within the Design Manual. **\$2,530.00**



Task A.7.11 Legal Descriptions & Reference Maps. Included in Task B.2.3

Task A.7.12. Quality Control Review. County Survey and the CONSULTANT will provide quality control reviews of the Survey and Mapping deliverables listed below. **\$440.00**

Task A.7.13 Boring Locations. The CONSULTANT will stake boring hole locations as provided by geotechnical investigation and provide existing ground elevations at said locations. **\$1,215.00**

Deliverables:

- Digital black & white files (uncolored digital photo) to the County in .tif format and digital ASCII point files in comma delimited format.
- Results of survey drawings by the CONSULTANT.
- Results of survey will be provided in accordance with the Pima County RDM in strip map format showing right-of-way data (including existing and proposed right-of-way lines, parcel lot lines, parcel numbers, locations of buildings close to or within right-of-way takes, etc.) with the preliminary Right-of-Way Plan submittal. Potential acquisition and easements will be identified on the drawing.
- Field survey of drainage ways by CONSULTANT.
- Responses to all review comments.

TASK "A" ESTIMATED TOTAL: \$25,120.00

TASK B – ADDITIONAL SERVICES

These Additional Services are optional services and will be authorized by the County on an as-needed basis.

TASK B.1 ADDITIONAL UTILITY INVESTIGATION

Task B.1.1. Utility Coordination and Survey. In the event a utility is unable to provide the ground marking and certified survey data requested in Task A.7.7, the CONSULTANT shall provide Utility Quality Level B information for the utility in accordance with ASCE Standard Guidelines for the collection and Depiction of Existing Subsurface Data (CI/ASCE 38-02), page 3

TASK B.2 RIGHT-OF-WAY ACQUISITION SUPPORT

Real Property acquisition will be completed by the County. Should any right-of-way acquisition support be required it will be authorized as an additional service.

Task B.2.1. Existing Right-of-Way and Easements. The CONSULTANT will provide PCDOT with a list of parcels from which right-of-way or easements will be required. PCDOT will furnish any title reports required for this project based on the CONSULTANT's list. The CONSULTANT will review title reports and other recorded information to determine current right-of-way and easements. The CONSULTANT will perform any research, calculations, and additional survey needed to establish existing property and right-of-way lines to be affected by this project and integrate into mapping. Following the research, a Centerline and Right-of-Way



survey will be conducted to identify and locate the controlling right-of-way monumentation, property lines, or fence lines that intersect the right-of-way. **\$1,280.00**

Task B.2.2. Right-of-Way Plans. The CONSULTANT will prepare 1"=40' right-of-way plans for the project, as per Pima County RDM 3.19 and Appendix 3-O-1. In addition to existing information, all proposed right-of-way and/or easements required shall be shown with complete dimensions. Ownership data and areas required shall be shown. The CONSULTANT will coordinate with and incorporate feedback from PCDOT in identifying properties for potential acquisitions and easements. The CONSULTANT will coordinate with and incorporate feedback from County Survey in preparing drawings and descriptions for potential acquisitions and easements. **\$475.00**

Task B.2.3 Legal Descriptions & Reference Maps. The CONSULTANT will prepare legal descriptions and maps for new right-of-way, drainage easements, temporary construction easements, and other land acquisition needs as requested by the County. Legal description reference maps will be 8.5"x11". The CONSULTANT shall include effort for the preparation of legal descriptions and associated reference maps and the probable need for determining parcel property lines. **\$1,920.00**

Task B.2.4. Quality Control Review of Right-of-Way Documents. The CONSULTANT will provide a quality control review of the Right-of-way documents. County Survey will provide a quality assurance review of the right-of-way documents. **\$640.00**

Deliverables:

- Right-of-Way and easement parcel list.
- Right-or-Way Plans.
- Responses to all review comments.

TASK "B" ESTIMATED TOTAL: \$4,315.00

TASK C – POST DESIGN SERVICES

TASK C.3 POST CONSTRUCTION SERVICES

Task C.3.1 Post Construction LiDAR. The CONSULTANT will provide the County a LiDAR scan and data extraction of the project limits in accordance with the requirements of the County. **\$19,185.00**

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TASK "C" ESTIMATED TOTAL: \$18,985.00

The fixed fee estimate for all work outlined in the Scope of Work shall be: \$ 48,420.00



Additional or re-staking will be billed at \$155.00/hr field and \$160.00/hr office.

EXCLUSIONS:

- 1) Irrigation and landscape layout.
- 2) Gas line staking, valves, meters and other related appurtenances not mentioned in the scope of work outlined above.
- 3) Electric trench staking, manholes, vaults, switches and other related appurtenances not mentioned in the scope of work outlined above.
- 4) Legal descriptions and/or legal exhibits unless otherwise specified within the scope of work above.
- 5) Any work due to changes in the documents used to generate this proposal.
- 6) Re-staking or re-setting any survey points previously set. All layout scope of work items are for a one-time stakeout.
- 7) Additional attendance of meetings.
- 8) Crew time lost (Down Time), as a result of waiting on contractor or sub-contractor crews.
- 9) Collection of As-Built information, and/or, preparation of As-builts drawings, unless otherwise specified within the scope of work above.

ADDITIONAL WORK:

Any work not defined in the Scope of Work as written above shall be considered additional work. Additional work shall be agreed upon in writing prior to its start or the additional field work can be completed upon request if it is agreed that a Darling Change Order Form will be signed by the Client's representative on site the day that the additional field survey services are provided. Additional work may include office support and supervision.

MISCELLANEOUS:

An electronic copy of the project plans in an AutoCAD format shall be required forty-eight hours prior to the initial request for layout. Twenty-four hour notice is required for additional layout requests.

Payment of invoices by the Client using a pay service, i.e. Textura, or a credit card, that both charge the payee a fee, shall not be an acceptable method of payment of Darling invoices without Darling charging the Client the fees that are associated with use of those services.

In performing its services, Darling Geomatics may receive information prepared or compiled by others, including plans, CAD files, and/or other information. Darling Geomatics is entitled to rely upon the accuracy and completeness of said information, without independent evaluation or verifications. Darling Geomatics will not be held liable for any errors or omissions resulting from the use of plans or data provided by the client or client's agents in completing the scope of work.



All work shall be performed under the direct supervision of an Arizona Registered Land Surveyor and shall conform to the current Standards for the practice of land surveying in the State of Arizona.

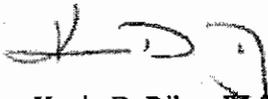
Should work be authorized and begin and then be terminated for any reason, all work completed prior to notice of termination shall be due and payable at the hourly rates in effect when the work was completed.

There are no understandings or agreements, written or verbal, other than those written herein.

In lieu of a separate subcontract agreement accepted by both parties, the Terms & Conditions outlined below shall apply.

Thank you for the opportunity to provide this proposal. Please call if you have any questions. If acceptable, you can sign where indicated below or forward a separate agreement for our review.

Yours truly,



Kevin D. Riley, RLS
Survey Division Manager

Darling Geomatics

Award Winning Certified DBE, WBE, WOSB, SBE 3D Scanning and Environmental Consulting Firm

Award Winning Certified WBE, WOSB and SBE Land Surveying Company

U of A Tech Park

9040 South Rita Road, Ste #2350, Tucson, AZ 85747

Ph (520) 298-2725 / Fax (520) 298-2767 / Cell (520) 954-2255 / Direct (520) 203-0326

www.darlingltd.com

ACCEPTANCE AND AUTHORIZATION TO PROCEED:

Accepted by: _____

On behalf of: _____

Date: _____

Terms and Conditions

Performance of Services: The Consultant shall perform the services outlined on page one (1) of this Agreement in consideration of the stated fee and payment terms.

Access to Site: Unless otherwise stated, the Consultant will have access to the site for activities necessary for the



performance of the services. The Consultant will take reasonable precautions to minimize damage due to these activities, but has not included in the fee the cost of restoration of any resulting damage and will not be responsible for such costs.

Retainer/Billing/Payment: The Client agrees to pay the Consultant for all services performed and all costs incurred. Prior to the provision of services, the Client shall deposit a retainer of \$N/A with the Consultant. Invoices for the Consultant's services shall be submitted, at the Consultant's option, either upon completion of such services or on a monthly basis. Invoices shall be due and payable upon receipt. If any invoice is not paid within 30 days, the Consultant may, without waiving any claim or right against the Client, and without liability whatsoever to the Client, suspend or terminate the performance of such services. The retainer shall be credited on the final invoice. Accounts unpaid 45 days after the invoice date may be subject to a monthly service charge of 1.5% (or the maximum legal rate) on the unpaid balance. In the event any portion of an account remains unpaid 60 days after the billing the consultant may institute collection action and the Client shall pay all costs of collection, including reasonable attorneys' fees.

Indemnification: The Client shall, to the fullest extent permitted by law, indemnify and hold harmless the Consultant, his or her officers, directors, employees, agents, and sub consultants from and against all damage, liability and cost, including reasonable attorneys' fees and defense costs, arising out of or in any way connected with the performance of the services under this Agreement, excepting only those damages, liabilities or costs attributable to the sole negligence or willful misconduct of the Consultant.

Waiver: In addition, the Client agrees, to the maximum extent permitted by law, to waive any claims against the Consultant arising out of the performance of these services, except for the sole negligence or willful misconduct of the Consultant.

Information for the Sole Use and Benefit of the Client: All opinions and conclusions of the Consultant, whether written or oral, and any plans, specifications or other documents and services provided by the Consultant are for the sole use and benefit of the Client and are not to be provided to any other person or entity without the prior written consent of the Consultant. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of any third party against either the Consultant or the Client.

Limitation of Liability: In recognition of the relative risks, rewards and benefits of the project to both the Client and the Consultant, the risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, the Consultant's total liability to the Client for any and all injuries, damages, claims, losses, expenses or claim expenses arising out of this Agreement from any cause or causes, shall not exceed the amount of the contract. Such causes include, but are not limited to, the Consultant's negligence, errors, omissions, strict liability, breach of contract or breach of warranty. Initialed _____.

Ownership of Instruments of Service: The Client acknowledges the Consultant's construction documents, including electronic files, as instruments of professional service. Nevertheless, the final construction documents prepared under this Agreement shall become the property of the Client upon completion of the services and payment in full of all monies due to the Consultant. The Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Consultant, its officers, directors, employees and subconsultants (collectively, Consultant) against any damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising from or allegedly arising from or in any way connected with the unauthorized reuse or modification of the construction documents by the Client or any person or entity that acquires or obtains the construction documents from or through the Client without the written authorization of the Consultant.

Dispute Resolution: Any claims or disputes between the Client and the Consultant arising out of the services to be provided by the Consultant or out of this Agreement shall be submitted to nonbinding mediation. The Client and the Consultant agree to include a similar mediation agreement with all contractors, subconsultants, subcontractors, suppliers and fabricators, providing for mediation as the primary method for dispute resolution among all parties.

Termination of Services: This Agreement may be terminated at any time by either party should the other party fail to perform its obligations hereunder. In the event of termination for any reason whatsoever, the Client shall pay the Consultant for all services rendered to the date of termination, and all reimbursable expenses incurred prior to termination and reasonable termination expenses incurred as the result of termination.

Upon default of terms and conditions, applicant agrees to pay any collection cost incurred by Darling Geomatics in the collection of the amount balance, including reasonable attorney fees.



It is agreed the above terms and conditions are incorporated into and made a part of the Agreement.

APPENDIX A:

COST BREAK DOWN:

1) 2-Man Survey Field Crew	92 hours @ \$155.00	\$ 14,260.00
2) RLS Project Management	43 hours @ \$160.00	\$ 6,880.00
3) Drafting and Computations	17 hours @ \$95.00	\$ 1,615.00
4) Aerial Mapping (Aerotech Mapping)		\$ 6,380.00
5) Digital Scanning	36 hours @ \$300.00	\$ 10,800.00
6) Post Processing	74 hours @ \$90.00	\$ 6,660.00
7) Administration	2 hours @ \$50.00	\$ 100.00
8) Mobilization	4 hours @ \$75.00	\$ 300.00
9) Travel Time	9 hours @ \$75.00	\$ 675.00
10) Shipping		\$ 750.00



RATE SUMMARY

PROJECT: _____ DATE _____
 PREPARED BY: Darling Geomatics CONTRACT NUMBER _____
 EFFECTIVE DATE _____ PRIME CONTRACTOR _____
 CONTRACT TIME _____ CONTRACT TYPE _____

ITEM NO.	FIRM	Discipline	Employee	Direct Labor Rate	Overhead <u>125</u> %	Profit <u>8</u> %	Billing Rate
1	Darling Geomatics	PRINCIPAL	Richard Darling	\$67.90	\$84.88	\$12.22	\$165.00
2	Darling Geomatics	PROJECT MANAGER	Seth Jones	\$51.44	\$64.30	\$9.26	\$125.00
3	Darling Geomatics	A/E		\$51.44	\$64.30	\$9.26	\$125.00
4	Darling Geomatics	CADD	Todd Olson, Seth Jones	\$39.09	\$48.87	\$7.04	\$95.00
5	Darling Geomatics	PROF. LEVEL IV	Kevin Riley	\$65.85	\$82.31	\$11.85	\$160.00
6	Darling Geomatics	PROF. LEVEL III		\$51.44	\$64.30	\$9.26	\$125.00
7	Darling Geomatics	PROF. LEVEL I		\$26.75	\$33.44	\$4.82	\$65.00
8	Darling Geomatics	CLERICAL/ADMIN	Michelle Luther	\$20.58	\$25.72	\$3.70	\$50.00
9	Darling Geomatics	SURVEY CREW - 3 MAN	Robert Whitaker, Seth Jones, Neil Juckett, Jesus Trujillo, Joel Kartchner, Jeff Schaner, Anthony Garcia, Josh Kimbell	\$76.13	\$95.16	\$13.70	\$185.00
10	Darling Geomatics	SURVEY CREW - 2 MAN	Robert Whitaker, Seth Jones, Neil Juckett, Jesus Trujillo, Joel Kartchner, Jeff Schaner, Anthony Garcia, Josh Kimbell	\$63.79	\$79.73	\$11.48	\$155.00
11	Darling Geomatics	SURVEY CREW - 1 MAN	Robert Whitaker, Seth Jones, Neil Juckett, Jesus Trujillo, Joel Kartchner	\$51.44	\$64.30	\$9.26	\$125.00
12	Darling Geomatics	3D LASER SCANNING - 2 MAN	Charles Warren, Jon Heidmann	\$123.46	\$154.32	\$22.22	\$300.00
13	Darling Geomatics	3D LASER SCANNING - 1 MAN	Charles Warren, Jon Heidmann	\$96.71	\$120.88	\$17.41	\$235.00
14	Darling Geomatics	POST PROCESSING	Charles Warren, Jon Heidmann	\$37.04	\$46.29	\$6.67	\$90.00
15	Darling Geomatics	MOBILIZATION	Charles Warren, Jon Heidmann	\$30.86	\$38.58	\$5.56	\$75.00
16	Darling Geomatics	TRAVEL TIME	Charles Warren, Jon Heidmann	\$30.86	\$38.58	\$5.56	\$75.00

Formula

(A) Direct Labor Rate

(B) Overhead @ 125 % X (A)

(C) Profit @ 08 % X (A + B)

(D) Billing Rate (A+B+C)



December 20, 2019

Tim Rhine, P.E., PTOE
Kimley-Horn and Associates, Inc.
333 East Wetmore Road
Suite 280
Tucson, AZ 85705

T2 Utility Engineers

4855 N. Shamrock Place
Suite 109
Tucson, AZ, 85705
USA

Phone +1 520 770 0021
Fax +1 520 408 3002

www.T2ue.com

**RE: Design Engineering Services for Sahuarita Rd & Wilmot Road Intersection Improvements (4SAHWI)
Revised Proposal for Subsurface Utility Engineering Services**

Dear Mr. Rhine,

T2 Utility Engineers (T2), (formerly Cardno, Inc.) is pleased to submit this proposal to provide professional Subsurface Utility Engineering (SUE) services for the above referenced project to Kimley Horn and Associates Inc. (Client). The scope of work and fee structure are as follows:

SCOPE OF WORK

The project limits for Subsurface Utility Engineering services include the intersection of Sahuarita Rd. and Wilmot Road. T2 will provide six (6) vacuum excavation utility potholes (testholes), with survey at locations yet to be determined within the project limits. It is anticipated that all of the requested potholes will be along existing paved roadways. The utility data obtained through our standard potholing procedure includes the depth, horizontal and vertical location tied to project datum via survey, size and material composition of the utility exposed. Our standard potholing procedure includes backfill of excavated potholes using compacted native material, 12" x 12" pavement restoration using "Perma-Patch" brand permanent asphalt cold patch for testholes excavated in existing pavement, and 12" x 12" concrete restoration of potholes excavated in concrete sidewalks using bagged pre-mixed concrete. Prior to beginning excavation T2 will request to be provided with horizontal and vertical survey control data in spreadsheet format for a minimum of three non-linear control points signed and sealed by an Arizona RLS adequate to stake the pothole locations utilizing RTK GPS technology along with a location map displaying the control points. The list shall identify point number, horizontal location in coordinate format, and a physical description of each monument. Please note, electronic CAD files from which the survey monument data must be extracted is not considered acceptable survey control. Also prior to beginning work, T2 will request a pothole request list identifying the pothole number, and the type of utility to be potholed along with 11" x 17" plan sheets displaying background topography, existing utilities, and pothole locations clearly marked and annotated with the corresponding pothole number.

DELIVERABLES

Pertinent utility data will be presented in electronic format on our standard "Testhole Data Summary" form sealed by an Arizona Registered Land Surveyor or Arizona Registered Professional Engineer that includes the depth, horizontal coordinates, vertical elevation, size,



and material composition of the utility line exposed at each pothole. Data will be submitted in both sealed hard copy format and electronic Excel format.

SCHEDULE

T2 will work closely with the project team to provide deliverables in a timeframe consistent with the overall project schedule. For scheduling purposes, please allow four weeks after receipt of applicable permits for submittal of deliverables.

ESTIMATED FEE

For the requested services, T2 proposes compensation as identified below.



**Design Engineering Services for Sahuarita Rd & Wilmot Road Intersection Improvements (4SAHWI)
Subsurface Utility Engineering Proposal - Revision 1**

PROJECT ESTIMATE			
Professional Services			
*Principal In Charge	0 hours @	\$250.00 per hour	\$0.00
*Project Manager	1 hour @	\$158.50 per hour	\$158.50
*Project Engineer	1 hour @	\$139.50 per hour	\$139.50
*Survey Manager	1 hour @	\$183.00 per hour	\$183.00
*Two Person Survey Crew	6 hours @	\$166.50 per hour	\$999.00
*Survey Truck & Equipment	6 hours @	\$44.00 per hour	\$264.00
*Two Person Vacuum Excavation Crew	12 hours @	\$138.25 per hour	\$1,659.00
*Vacuum Excavation Truck and Equipment	12 hours @	\$79.00 per hour	\$948.00
*SUE Supervisor	1 hour @	\$126.00 per hour	\$126.00
*CAD Technician	4 hours @	\$106.50 per hour	\$426.00
*Admin	1 hour @	\$73.00 per hour	\$73.00
Subtotal			\$4,976.00
Misc., Permits & Maintenance of Traffic			
**Permits: (assumed "zero" cost)	Billed Cost		\$500.00
**Maintenance of Traffic Set-ups, Traffic Plan Preparation & Traffic Plan Permit Submittals	Billed Cost		\$1,550.00
Subtotal			\$2,050.00
TOTAL			\$7,026.00

* Proposal estimate only, the cost may vary plus or minus do to unknown field conditions & jurisdictional requirements

** Note: Permits, Traffic control plans, Traffic barricade costs, etc, are estimated.

The fees identified above include project management, AZ 811 (Blue Stake) coordination, air-vacuum extraction excavation with two person crew, our standard backfill with compacted native material, our standard pavement restoration with asphalt cold patch procedures or standard 1 ft. x 1 ft. concrete restoration for potholes in sidewalks, and project deliverable submitted on our "Testhole Data Report" in scanned electronic format. Please note that above fee schedule does not include such reimbursable expenses as uniformed police officers (if required), special backfill requirements, compaction testing, traffic control flag-men, replacement of full sections of concrete sidewalk, and or asphalt hot patch paving replacement; if any of these items become required they shall be considered a



reimbursable item, submitted to client for pre-authorization, subcontracted, and billed separately. Reimbursable expenses for traffic control and traffic control plans will be invoiced at our cost plus ten percent.

T2 will not exceed the estimated fees without prior authorization from Client. **T2 will prepare an invoice upon completion for the hours worked plus reimbursable expenses up to the Total Estimated amount.** We appreciate this opportunity to provide subsurface utility investigation services for your project. Should you have any questions or require additional information, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Padilla'.

Dan Padilla
Senior Project Manager
for T2ue
Direct Line: 520-770-0021
Email: dan.padilla@t2ue.com

T2 UTILITY ENGINEERS RATE SUMMARY

PROJECT: Sahuarita Rd & Wilmot Road Intersection (4SAHWI) DATE: 12/11/2019
 PREPARED BY: Dan Padilla CONTRACT NUMBER _____
 EFFECTIVE DATE: _____ PRIME CONTRACTOR _____
 CONTRACT TIME _____ CONTRACT TYPE _____

ITEM NO.	FIRM	Discipline	A Direct Labor Rate	B Overhead 188.99%	C Profit 10%	D Billing Rate
1	T2 Utility Engineers	Principal	84.14	159.02	24.32	267.47
2	T2 Utility Engineers	Project Manager	49.86	94.23	14.41	158.50
3	T2 Utility Engineers	Survey Manager, Senior A/E	57.69	109.03	16.67	183.39
4	T2 Utility Engineers	Project Engineer, A/E	43.91	82.99	12.69	139.59
5	T2 Utility Engineers	SUE Supervisor, Prof Level IV	39.76	75.14	11.49	126.39
6	T2 Utility Engineers	Survey Crew 2 Person ***	52.48	99.18	15.17	166.83
7	T2 Utility Engineers	***Survey Truck & Equipment				44.00
8	T2 Utility Engineers	Designating Crew 2 Person **	52.08	98.43	15.05	165.56
9	T2 Utility Engineers	**Designating Truck & Equipment				31.00
10	T2 Utility Engineers	Vacuum Excavation Crew 2 person *	43.49	82.19	12.57	138.25
11	T2 Utility Engineers	*Vacuum Excavation Truck & Equipment				79.00
12	T2 Utility Engineers	CAD Technician	33.60	63.50	9.71	106.81
13	T2 Utility Engineers	Technical Support	23.00	43.47	6.65	73.11

***** These Truck & Equipment Rates to be used in conjunction with their respective 2 person crew rates.

Formulas

- (A) Direct Labor Rate
- (B) Overhead% x (A)
- (C) Profit % x (A+B)
- (D) Billing Rate (A+B+C)

Vehicle Rates (To be used in Conjunction with Survey, Designating, & Vacuum Excavating Crew Rates Above)

- *** Survey Truck & Equipment - \$44.00/hr.
- ** Designating Truck & Equipment - \$31.000/hr.
- * Vacuum Excavating Truck & Equipment - \$79.00/hr.



Dallas, TX 75397-5353

Estimate

Date	Estimate #
12/10/2019	4740

Name / Address
Kinley-Horn-Phoenix Attn: Accounts Payable 7740 N. 16th St., suite 300 Phoenix, AZ 85396

Project	Rep	Order By
	BP	Jeff Hemphill

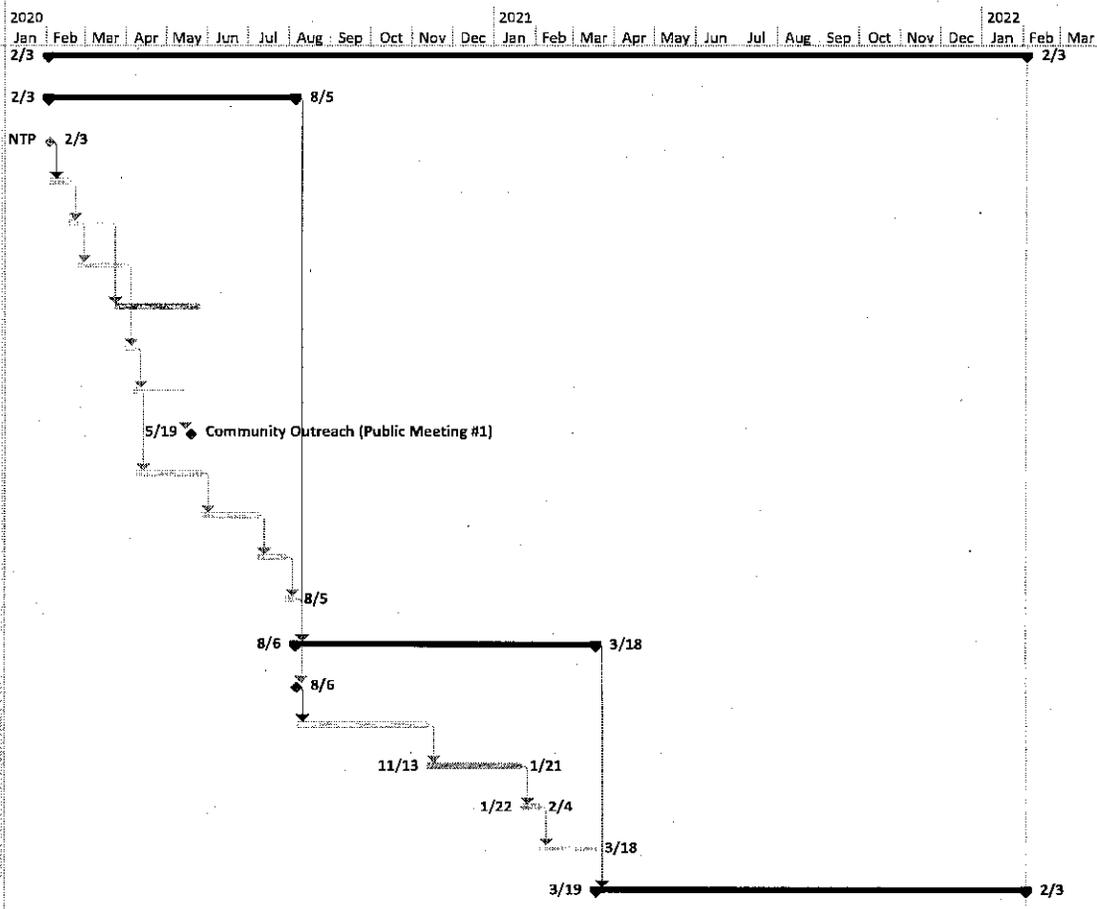
Description	Qty	Rate	Total
RecRural packages includes: RecSearch Report, Historical Aerial Photographs & Historical Topographic Maps. RecSearch report in rural area 0-3,000 acres RecSearch for corridors up to 1 mile Approx. 21.51 rural acres + Approx. 1 mile corridor Pima County Sahuarita – Wilmot Intersection Near Sahuarita, AZ	1.51	200.00 0.10 35.00	200.00T 0.15T 35.00T

Handwritten signature: Jay Weeks

Subtotal	\$235.15
Sales Tax (0.0%)	\$0.00
Total	\$235.15

4SAHWI - SAHUARITA ROAD AND WILMOT ROAD INTERSECTION IMPROVEMENTS

ID	Task Name	Duration	Start	Finish
1	PROJECT DURATION (24 MONTHS)	524 days	Mon 2/3/20	Thu 2/3/22
2	DCR AND ENVIRONMENTAL CLEARANCE PERIOD	133 days	Mon 2/3/20	Wed 8/5/20
3	NTP	1 day	Mon 2/3/20	Mon 2/3/20
4	Data Gathering (Initial Cost Model/Schedule)	10 days	Tue 2/4/20	Mon 2/17/20
5	Project Kick-Off	5 days	Tue 2/18/20	Mon 2/24/20
6	Survey & ROW Investigation	25 days	Tue 2/25/20	Mon 3/30/20
7	Asbestos and Lead Material Testing/Field Work	45 days	Tue 3/24/20	Mon 5/25/20
8	Conceptual Design Phase (15% plus Construction Footprint)	5 days	Tue 3/31/20	Mon 4/6/20
9	Cost Model Review - Verification	2 days	Tue 4/7/20	Wed 4/8/20
10	Community Outreach (Public Meeting #1)	1 day	Tue 5/19/20	Tue 5/19/20
11	Initial DCR & Initial Design Phase	35 days	Thu 4/9/20	Wed 5/27/20
12	Final DCR & Final Design Review/Seal DCR	30 days	Thu 5/28/20	Wed 7/8/20
13	Technical Docs: Environmental	15 days	Thu 7/9/20	Wed 7/29/20
14	Environmental Memo	5 days	Thu 7/30/20	Wed 8/5/20
15	FINAL DESIGN PERIOD	161 days	Thu 8/6/20	Thu 3/18/21
16	*****PCDDT Approval for Final Design NTP*****	1 day	Thu 8/6/20	Thu 8/6/20
17	Initial PS&E/QA-QC	70 days	Fri 8/7/20	Thu 11/12/20
18	Final PS&E/QA-QC	50 days	Fri 11/13/20	Thu 1/21/21
19	Sealed Bid Package	10 days	Fri 1/22/21	Thu 2/4/21
20	Procurement/Advertisement/Award	30 days	Fri 2/5/21	Thu 3/18/21
21	POST DESIGN PERIOD	230 days	Fri 3/19/21	Thu 2/3/22



Critical	Split	Duration-only	Milestone	Project Summary	Inactive Milestone
Critical Split	Task Progress	Baseline	Summary Progress	External Tasks	Inactive Summary
Critical Progress	Start-only	Baseline Split	Summary	External Milestone	Deadline
Task	Finish-only	Baseline Milestone	Manual Summary	Inactive Task	

DESCRIPTIONS (Continued from Page 1)

be cancelled by the issuing insurer before the expiration date thereof, 30 days' written notice (except 10 days for nonpayment of premium) will be provided to the Certificate Holder. Umbrella Follows Form with respects to General, Automobile & Employers Liability Policies. The above referenced liability policies with the exception of workers compensation and professional liability are primary & non-contributory where required by written contract.

ENDORSEMENT

This endorsement, effective 12:01 A.M. 04/01/2019 forms a part of

Policy No. 4489663

issued to **KIMLEY-HORN AND ASSOCIATES, INC.**

by **NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA**

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - WHERE REQUIRED UNDER CONTRACT OR AGREEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

SCHEDULE

ADDITIONAL INSURED:

ANY PERSON OR ORGANIZATION TO WHOM YOU ARE CONTRACTUALLY BOUND TO PROVIDE ADDITIONAL INSURED STATUS BUT ONLY TO THE EXTENT AS SUCH PERSON'S OR ORGANIZATIONS LIABILITY ARISING OUT OF USE OF A COVERED AUTO.

I. SECTION II - COVERED AUTOS LIABILITY COVERAGE, A. Coverage, 1. - Who Is Insured, is amended to add:

d. Any person or organization, shown in the schedule above, to whom you become obligated to include as an additional insured under this policy, as a result of any contract or agreement you enter into which requires you to furnish insurance to that person or organization of the type provided by this policy, but only with respect to liability arising out of use of a covered "auto". However, the insurance provided will not exceed the lesser of:

- (1) The coverage and/or limits of this policy, or
- (2) The coverage and/or limits required by said contract or agreement.



AUTHORIZED REPRESENTATIVE

ENDORSEMENT

This endorsement, effective 12:01 A.M. 04/01/2019 forms a part of

policy No. 4489663 issued to KIMLEY-HORN & ASSOCIATES, INC.

by NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

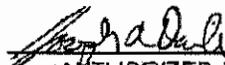
BUSINESS AUTO COVERAGE FORM

Section IV - Business Auto Conditions, A. - Loss Conditions, 5. - Transfer of Rights of Recovery Against Others to Us, is amended to add:

However, we will waive any right of recover we have against any person or organization with whom you have entered into a contract or agreement because of payments we make under this Coverage Form arising out of an "accident" or "loss" if:

- (1) The "accident" or "loss" is due to operations undertaken in accordance with the contract existing between you and such person or organization; and
- (2) The contract or agreement was entered into prior to any "accident" or "loss".

No waiver of the right of recovery will directly or indirectly apply to your employees or employees of the person or organization, and we reserve our rights or lien to be reimbursed from any recovery funds obtained by any injured employee.



AUTHORIZED REPRESENTATIVE

ENDORSEMENT

This endorsement, effective 12:01 A.M. 04/01/2019 forms a part of.

policy No. 4489663 issued to KIMLEY-HORN AND ASSOCIATES, INC.

by NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

INSURANCE PRIMARY AS TO CERTAIN ADDITIONAL INSURED

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

Section IV - Business Auto Conditions, B., General Conditions, 5., Other Insurance, c., is amended by the addition of the following sentence:

The insurance afforded under this policy to an additional insured will apply as primary insurance for such additional insured where so required under an agreement executed prior to the date of accident. We will not ask any insurer that has issued other insurance to such additional insured to contribute to the settlement of loss arising out of such accident.

All other terms and conditions remain unchanged.



Authorized Representative or
Countersignature (in States Where
Applicable)

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED - OWNERS, LESSEES OR
CONTRACTORS - SCHEDULED PERSON OR
ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location(s) Of Covered Operations
ANY PERSON OR ORGANIZATION WHOM YOU BECOME OBLIGATED TO INCLUDE AS AN ADDITIONAL INSURED AS A RESULT OF ANY CONTRACT OR AGREEMENT YOU HAVE ENTERED INTO.	PER THE CONTRACT OR AGREEMENT.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. Section II - Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than

that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to **Section III - Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
ANY PERSON OR ORGANIZATION WHOM YOU BECOME OBLIGATED TO INCLUDE AS AN ADDITIONAL INSURED AS A RESULT OF ANY CONTRACT OR AGREEMENT YOU HAVE ENTERED INTO.	PER THE CONTRACT OR AGREEMENT.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. Section II - Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that

which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to Section III - Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
 2. Available under the applicable Limits of Insurance shown in the Declarations;
- whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY - OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

The following is added to the **Other Insurance Condition** and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your

policy provided that:

- (1) The additional insured is a Named insured under such other insurance; and
- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:

PURSUANT TO APPLICABLE WRITTEN CONTRACT OR AGREEMENT YOU ENTER INTO.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of Section IV - **Conditions**:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached effective on inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy).

This endorsement, effective 12:01 AM 04/01/2019 forms a part of Policy No. 015893685 (AOS)

Issued to KIMLEY-HORN AND ASSOCIATES, INC.

By NEW HAMPSHIRE INSURANCE COMPANY

Premium INCLUDED

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

Schedule

**ANY PERSON OR ORGANIZATION TO WHOM YOU BECOME
OBLIGATED TO WAIVE YOUR RIGHTS OF RECOVERY
AGAINST, UNDER ANY CONTRACT OR AGREEMENT YOU ENTER
INTO PRIOR TO THE OCCURRENCE OF LOSS.**

This form is not applicable in California, Kentucky, New Hampshire, New Jersey, North Dakota, Ohio, Tennessee, Texas, Utah, or Washington.

WC 00 03 13
(Ed. 04/84)

Countersigned by _____



Authorized Representative