ITEM # 18-0914

CITY OF SANTA FE

PROFESSIONAL SERVICES AGREEMENT

ENGINEERING SERVICES

THIS AGREEMENT is made and entered into by and between the City of Santa Fe (the "City") and Santa Fe Engineering Consultants (the "Contractor"). The date of this Agreement shall be the date when it is executed by the City and the Contractor, whichever occurs last.

1. <u>SCOPE OF SERVICES</u>

The Contractor shall provide engineering services for the City in connection with the construction of the <u>Agua Fria St. / South Meadows Intersection Safety Improvements</u> (the "Project") comprised of the following phases and tasks thereunder:

PHASE I – LOCATION STUDY (ALTERNATIVE ANALYSIS)

Tasks:

- 1. Alignment Study
- 2. Environmental Investigations and Documentation
- 3. Location Survey & Mapping
- 5. Coordination
- 6. Public Involvement

PHASE II – PRELIMINARY & FINAL DESIGN (TO BE NEGOTIATED)

Tasks:

- 1. Preliminary Property Ownership Maps
- 2. Utility Designation, Location, and Mapping
- 3. Drainage Analysis
- 4. Geotechnical Investigations
- 5. Preliminary Design Plans
- 6. Right-of-way Design
- 7. Final Design
- 8. Coordination
- 6. Public Involvement

PHASE III – Bidding Services (TO BE NEGOTIATED)

Tasks:

1. Construction Bid Documents

PHASE IV – CONSTRUCTION SERVICES (TO BE NEGOTIATED)

Tasks:

1. Construction Engineering and Management

The foregoing phases of the Project and specific tasks thereunder are more fully described in Exhibit "A" attached hereto and made a part hereof.

2. STANDARD OF PERFORMANCE; LICENSES

- A. The Contractor represents that Contractor possesses the personnel, experience and knowledge necessary to perform the services described under this Agreement.
- B. The Contractor agrees to obtain and maintain throughout the term of this Agreement, all applicable professional and business licenses required by law, for itself, its employees, agents, representatives and subcontractors.

3. COMPENSATION

- A. The City shall pay to the Contractor the sum of One Hundred Twenty Four Thousand, Six Hundred Eighty Nine dollars and 28/100 cents (\$ 124,689.28) plus applicable gross receipts taxes in full payment for completing all tasks under PHASE I [INTERSECTION ALTERNATIVE ANALYSIS], PHASE II [PRELIMINARY & FINAL DESIGN, RIGHT OF WAY SERVICES], PHASE III [BIDDING SERVICES] Compensation for PHASE IV [CONSTRUCTION MANAGEMENT SERVICES] may be negotiated and added by amendment to this Agreement if required.
 - B. The Contractor shall be responsible for payment of gross receipts taxes

- B. The Contractor shall be responsible for payment of gross receipts taxes levied by the State of New Mexico on the sums payable under this Agreement.
- C. Payment shall be made upon receipt and approval by the City of detailed statements containing a report of services completed and accepted for each phase of the Project. Compensation shall be paid only for services actually performed. Payment shall be made in accordance with the Engineering Cost Summary for each phase, EXHIBIT "B", attached hereto.

4. LIQUIDATED DAMAGES

- A. The Contractor shall perform the work within the time shown for each Phase of the Project, as shown in the Project Schedule in EXHIBIT "C", attached hereto and made a part hereof. Time is of the essence, and if the Contractor fails to complete the work for each phase in accordance with the Project Schedule in EXHIBIT "C", the Contractor agrees to pay the City the amount of one hundred twenty-five dollars (\$125) for each day any phase remains uncompleted, not as a penalty, but as liquidated damages for breach of this Agreement. The amount of liquidated damages shall be withheld from the final payment to the Contractor. If the amount of liquidated damages exceeds the amount due, the Contractor agrees to pay the City the additional amount within 60 calendar days.
- B. If the times for completion of any phase shown on the Project Schedule, EXHIBIT "C", attached hereto, are exceeded for reasons beyond the control of the Contractor, then the parties may agree to amend this Agreement to extend the time within which Contractor shall complete the project or phase thereof.
- C. If the Contractor's services for the project are delayed or suspended in whole or part by the owner for more than one year for reasons beyond the Contractor's control, the Contractor's fee for remaining work shall be subject to equitable adjustment.

- D. The parties agree that the Contractor is principally responsible for performing plan checks and verifications of quantities and computations before submitting final documents to the City. If, in the City's review of plans specifications, substantive errors and discrepancies are apparent, requiring the City to make detailed checks and verifications of the Contractor's work, the Contractor agrees to pay the City the rate of \$60.00 per hour for the time spent by the City checking and verifying the Contractor's work.
- E. The City shall issue to the Contractor a written authorization to proceed for each phase of the Project.

5. <u>APPROPRIATIONS</u>

The terms of this Agreement are contingent upon sufficient appropriations and authorization being made by the City for the performance of this Agreement. If sufficient appropriations and authorization are not made by the City, this Agreement shall terminate upon written notice being given by the City to the Contractor. The City's decision as to whether sufficient appropriations are available shall be accepted by the Contractor and shall be final.

6. TERM AND EFFECTIVE DATE

This Agreement shall be effective when the Notice to Proceed is signed by the City and the Contractor, whichever occurs last and terminate no later than four (4) years from the effective date, unless sooner pursuant to Article 7 below.

7. TERMINATION

A. This Agreement may be terminated by the City upon 10 days written notice to the Contractor.

- (1) The Contractor shall render a final report of the services performed up to the date of termination and shall turn over to the City original copies of all work product, research or papers prepared under this Agreement.
- (2) If compensation is not based upon hourly rates for services rendered, the City shall pay the Contractor for the reasonable value of services satisfactorily performed through the date Contractor receives notice of such termination, and for which compensation has not already been paid.
- (3) If compensation is based upon hourly rates and expenses, then Contractor shall be paid for services rendered and expenses incurred through the date Contractor receives notice of such termination.

8. <u>STATUS OF CONTRACTOR; RESPONSIBILITY FOR PAYMENT OF</u> EMPLOYEES AND SUBCONTRACTORS

- A. The Contractor and its agents and employees are independent contractors performing professional services for the City and are not employees of the City. The Contractor, and its agents and employees, shall not accrue leave, retirement, insurance, bonding, use of City vehicles, or any other benefits afforded to employees of the City as a result of this Agreement.
- B. Contractor shall be solely responsible for payment of wages, salaries and benefits to any and all employees or contractors retained by Contractor in the performance of the services under this Agreement.
- C. The Contractor shall comply with City of Santa Fe Minimum Wage,

 Article 28-1-SFCC 1987, as well as any subsequent changes to such article throughout the term

 of this contract.

9. DOCUMENTS

A. Ownership of Documents: All documents including, but not limited to tracings, drawings, estimates, field notes, investigations, design analysis, structural calculations and studies which are prepared in the performance of this Agreement are to be and remain the property of the City and are to be delivered to the City before the final payment is made to the Contractor. The Contractor is liable for their replacement if destroyed or lost prior to transferring possession to the City. Any use of these products by anyone other than the City for projects other than that which is the subject of this Agreement is strictly prohibited.

B. Reuse of Documents: All documents including drawings and specifications prepared or furnished by the Contractor (and the Contractor's independent professional associates and consultants) pursuant to this Agreement are instruments of service in respect of the Project. Such documents are not intended or represented to be suitable for reuse by the City on any other project.

10. CONFIDENTIALITY

Any confidential information provided to or developed by the Contractor in the performance of this Agreement shall be kept confidential and shall not be made available to any individual or organization by the Contractor without the prior written approval of the City.

11. CONFLICT OF INTEREST

The Contractor warrants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required under this Agreement. Contractor further agrees that in the performance of this Agreement no persons having any such interests shall be employed.

12. ASSIGNMENT; SUBCONTRACTING

The Contractor shall not assign or transfer any rights, privileges, obligations or other interest under this Agreement, including any claims for money due, without the prior written consent of the City. The Contractor shall not subcontract any portion of the services to be performed under this Agreement without the prior written approval of the City.

13. RELEASE

The Contractor, upon acceptance of final payment of the amount due under this Agreement, releases the City, its officers and employees, from all liabilities, claims and obligations whatsoever arising from or under this Agreement. The Contractor agrees not to purport to bind the City to any obligation not assumed herein by the City unless the Contractor has express written authority to do so, and then only within the strict limits of that authority.

14. INSURANCE

- A. The Contractor, at its own cost and expense, shall carry and maintain in full force and effect during the term of this Agreement, comprehensive general liability insurance covering bodily injury and property damage liability, in a form and with an insurance company acceptable to the City, with limits of coverage in the maximum amount which the City could be held liable under the New Mexico Tort Claims Act for each person injured and for each accident resulting in damage to property. Such insurance shall provide that the City is named as an additional insured and that the City will be notified within 10 days of cancellation for any reason. The Contractor shall furnish the City with a copy of a "Certificate of Insurance" as a condition prior to performing services under this Agreement.
- B. Contractor shall also obtain and maintain Workers' Compensation insurance, required by law, to provide coverage for Contractor's employees throughout the term of this Agreement. Contractor shall provide the City with evidence of its compliance with such requirement.

- C. Contractor shall maintain professional liability insurance throughout the term of this Agreement providing a minimum coverage in the amount required under the New Mexico Tort Claims Act. The Contractor shall furnish the City with proof of insurance of Contractor's compliance with the provisions of this section as a condition prior to performing services under this Agreement.
- D. Professional Responsibility and Liability: The Contractor shall sign and affix its seal to all reports, designs, plans specifications, estimates and all other engineering and land surveying data prepared by the Contractor. The Contractor shall be fully responsible for the accuracy of all work prepared by Contractor. In the event that errors or omissions are discovered in the Contractor's work, the Contractor's responsibility shall include, but not be limited to, the following:
- (1) Upon Notification by the City of an error or omission, immediately provide at no cost to the City all engineering services (and surveying services, if applicable) required to correct the error and/or omission.
- (2) Assume the cost of any reconstruction required as a result of an error and/or omission discovered in the Contractor's work.
- E. The Contractor agrees to procure and maintain errors and omissions insurance in the amount of \$250,000 per occurrence for the duration of this Agreement, plus five (5) years after completion of construction. This is not a reimbursable expense.

15. <u>INDEMNIFICATION</u>

The Contractor shall indemnify, hold harmless and defend the City from all losses, damages, claims or judgments, including payments of all attorneys' fees and costs on account of any suit, judgment, execution, claim, action or demand whatsoever arising from Contractor's performance

under this Agreement as well as the performance of Contractor's employees, agents, representatives and subcontractors.

16. THIRD PARTY BENEFICIARIES

By entering into this Agreement, the parties do not intend to create any right, title or interest in or for the benefit of any person other than the City and the Contractor. No person shall claim any right, title or interest under this Agreement or seek to enforce this Agreement as a third party beneficiary of this Agreement.

17. RECORDS AND AUDIT

The Contractor shall maintain, throughout the term of this Agreement and for a period of three years thereafter, detailed records that indicate the date, time and nature of services rendered. These records shall be subject to inspection by the City, the Department of Finance and Administration, and the State Auditor. The City shall have the right to audit the billing both before and after payment. Payment under this Agreement shall not foreclose the right of the City to recover excessive illegal payments.

18. APPLICABLE LAW; CHOICE OF LAW; VENUE

Contractor shall abide by all applicable federal and state laws and regulations, and all ordinances, rules and regulations of the City of Santa Fe. In any action, suit or legal dispute arising from this Agreement, the Contractor agrees that the laws of the State of New Mexico shall govern. The parties agree that any action or suit arising from this Agreement shall be commenced in a federal or state court of competent jurisdiction in New Mexico. Any action or suit commenced in the courts of the State of New Mexico shall be brought in the First Judicial District.

19. AMENDMENT

This Agreement shall not be altered, changed or modified except by an amendment in writing executed by the parties hereto.

20. <u>SCOPE OF AGREEMENT</u>

This Agreement incorporates all the agreements, covenants, and understandings between the parties hereto concerning the services to be performed hereunder, and all such agreements, covenants and understandings have been merged into this Agreement. This Agreement expresses the entire Agreement and understanding between the parties with respect to said services. No prior agreement or understanding, verbal or otherwise, of the parties or their agents shall be valid or enforceable unless embodied in this Agreement.

21. NON-DISCRIMINATION

During the term of this Agreement, Contractor shall not discriminate against any employee or applicant for an employment position to be used in the performance of services by Contractor hereunder, on the basis of ethnicity, race, age, religion, creed, color, national origin, ancestry, sex, gender, sexual orientation, physical or mental disability, medical condition, or citizenship status.

22. SEVERABILITY

In case any one or more of the provisions contained in this Agreement or any application thereof shall be invalid, illegal or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein and any other application thereof shall not in any way be affected or impaired thereby.

23. EXHIBITS

The following Exhibits are attached to and made part of this agreement:

- A. Exhibit A Scope of Work
- B. Exhibit B Unit Rate Schedule
- C. Exhibit C Project Schedule

24. NOTICES

Any notices required to be given under this Agreement shall be in writing and served by personal delivery or by mail, postage prepaid, to the parties at the following addresses:

City of Santa Fe:

Roadway & Drainage Section
Attn: David D. Quintana or Will Montoya

P.O. Box 909 Santa Fe, New Mexico 87504-0909

Contractor:

Santa Fe Engineering Consultants 1599 St. Francis Drive, Suite B Santa Fe, NM 87505 IN WITNESS WHEREOF, the parties have executed this Agreement on the dates set forth below.

CONTRACTOR:

DATE: 8/22

CRS # 03-06281009 City of Santa Fe Business Registration # 18-00003816

Santa Fe Engineering Consultants

32357.572960

Business Unit/Line Item



SCOPE OF SERVICES

BACKGROUND AND SUMMARY

In 2014, it was brought to the City of Santa Fe's attention that the streetlight at the intersection of Agua Fria and South Meadows would be severely degraded with the addition of the El Camino Real Academy.

Upon completion of the new school, the City had analyzed the intersection and found it has a LOS of F. Using Syncro, the City staff was able to find the best alternative to optimize the timing at the above-mentioned intersection. The Synchro analysis concluded that the best option at the time was to have a split phase during the morning peak time, which consisted of a green through light along with a left turn arrow on the eastbound lane. Thus, allowing several more vehicles to clear the queue.

The City is anticipating future growth in the area of Agua Fria Village, NM 599, and Airport Road. This RFP is to request further analysis of the intersection.

PROJECT OBJECTIVE & PROPOSED IMPROVEMENTS

- Conduct further engineering analysis at the location of Agua Fria / South Meadows to provide intersection improvement alternatives.
- Provide at least three alternatives for the above-mentioned project. The alternative that is the most suitable for this location will be chosen for preliminary final design and construction.
- Anticipated future growth of the area will need to be analyzed to determine the most suitable design alternative. A right-of-way feasibility review needs to be done to for potential relocations or needed takes. A final location recommendations needs to be developed, with public review.*
- Preliminary construction plans, along with right-of-way maps and taking descriptions, need to be prepared for the selected alignment and project.
- The design will be done in accordance with applicable standards set out in the AASHTO design guides and City standards
- Design and right-of-way surveys and mapping will be required to prepare construction plans and Right of Way maps.
- Permanent signing and construction detours and signing will be in accordance with the MUTCD.
- Biological, archeological and cultural resource reconnaissance, reporting and clearance as necessary will be required.
- As the project proceeds, 2 to 3 public review meetings are envisioned to permit area residents and other interested parties to gather input and review recommendations.

This project consists of preparing final design plans, specifications, estimates and construction bid documents, and may include construction management services. General improvements to the intersection may include, but are not be limited to, reconstruction of the Agua Fria / South Meadows Intersection project area; geometric and traffic capacity improvements; lighting and signalization improvements including signal interconnect; storm drainage improvements; pedestrian, bicycle and ADA improvements to include sidewalks, curb ramps and bicycle lanes; design of bus bays/lanes and permanent signing and striping. Horizontal and vertical alignments, intersection and driveway configurations, right-of-way needs, managed access, and other geometric properties of the roadway shall be evaluated.

BASIC FIRM QUALIFICATIONS

Consultants must clearly demonstrate they currently have the requisite staff and necessary engineering expertise for this project. All work must be done by or under the direct supervision of Engineers and surveyors registered to practice in New Mexico. The City fully anticipates the consultant immediately starts work on this project with the notice to proceed and expediently complete the design work within an approved schedule. Proponents need to demonstrate environmental sensitivity in design and ability to work with the public in project development.

Consultants will need to complete the design requirements in accordance with applicable codes, laws and standards, including but not limited to: City of Santa Fe, New Mexico Department of Transportation, American Association of State Highway and Transportation Officials (AASHTO) and the Manual on Uniform Traffic Control Devices.

Work plans should address critically timed tasks and the consultant's strategy and key staff to deal with them. Consultants need to explain their strategy to coordinate the efforts of any subconsultants on their team.

QUALITY CONTROL

Consultants must provide detailed internal quality control procedures for verification of plans, quantities and cost estimates. The City will not provide an extensive review of plans, however, if the City must do so, it will back charge consultants its actual costs. Errors and omissions will be the responsibility of the consultant. Consultants will not be liable for errors or omissions in owner furnished data.

TIMELY PERFORMANCE

The City expects the consultant to adhere to the negotiated schedule and perform in a timely manner. The consultant is expected to submit deliverables on or ahead of schedule. The City reserves the right to assess liquidated damages stipulated in the professional services agreement for consultant's failure to meet specific, contracted, milestone dates. Milestone dates will include but, may not be limited to, submission of Study, Preliminary & Final Design Report and Plans, submission of Right-of-Way Plans (if required), and submission of Bid Package including Construction Plans, Specifications and Estimates.

SCOPE OF WORK

The basic tasks the consultant will be expected to accomplish for the project are listed herein. The consultant shall submit a work plan, expanding in detail on the work items listed below, describing

its approach to the project, along with a schedule, to indicate how the work will be accomplished. This work plan should be prepared such that it can be incorporated, with only minor modification, as Exhibit "A" in an eventual professional services agreement. Further description of basic services is as follows:

PHASE I - STUDY

- 1. Intersection Alternative Analysis
- 2. Environmental Investigations and Documentation
- 3. Location Survey and Mapping
- 4. Coordination
- 5. Public Involvement

PHASE II - PRELIMINARY & FINAL DESIGN

- 1. Preliminary Property Ownership Maps
- 2. Utility Designation, Location, and Mapping
- 3. Preliminary and Final Drainage Report
- 4. Preliminary Roadway & Roundabout Design Plans
- 5. Coordination
- 6. Public Involvement

PHASE III - BIDDING SERVICES

- 1. Environmental Investigations and Documentation
- 2. Construction Bid Documents

PHASE IV - CONSTRUCTION SERVICES (If REQUIRED)

- 1. Construction Engineering and Management
- 2. Public Involvement

PHASE I - STUDY

1. Intersection Alternative Analysis

This work involves the development and preparation of an Intersection Alternative Analysis Report. The analysis shall be conducted in accordance with the latest edition of the NMSHTD Location Study Procedures and the NMSHTD Action Plan. The number of reports under this task shall be determined by the Project Manager during contract negotiations.

This task will include assembly, collection, and analysis of engineering, right-of-way, traffic, property ownership, drainage, and other data that will be considered in identifying the need for improvement and factors that could affect improvement alternatives. The data to be collected and analyses to be performed will include:

• Existing conditions consisting of geometric features and condition of the existing roadway including travel lanes, sidewalks, curb, driveways, turning lanes, signalization, access, drainage, structures, lighting, and horizontal and vertical alignment.

- Research and assessment of traffic data and recommendations regarding need for turning lanes, number of turning lanes and recommended lengths and managed access treatments, etc. for signalized and non-signalized intersections.
- Drainage investigations, analyses and recommendations for improvements.
- Identification and assessment of existing utilities.
- Assessment of available right-of-way and property ownership.
- Assessment of multimodal use. Existing bicycle, pedestrian, and transit use will be identified and evaluated.
- Assessment of land use and community conditions.
- Initial Site Assessment Update (if necessary). An Initial Site Assessment following NMDOT standards to be prepared for the project area and area adjacent to the project termini.
- Need to modify or reconstruct areas of the project in order to comply with the ADA requirements.

The findings of this task will be summarized in Design Report. Four (4) copies of this Design Report shall be submitted to the City. A Design Team meeting will be required to review and discuss the project evaluation.

2. Environmental Investigations and Documentation

Prepare environmental document that is appropriate for this project. The Consultant will select logical termini for addressing environmental concerns on a sufficiently broad scope. The environmental document shall be prepared in accordance with the NMSHTD Action Plan, FHWA Technical Advisory T 6640.8A, 23CFR Part 771 and other applicable guidelines and regulations. The environmental document shall address: the purpose of the assessment; the need for the project; project history; analysis of a range of alternatives including the no-build; impacts to the natural and human environment; appropriate mitigation measures; public involvement, and coordination with federal, state, city, and county agencies, railroad companies and other entities.

The environmental investigations must be conducted by an interdisciplinary team including qualified environmental and natural resources specialists. A qualified environmental professional will be responsible for preparation of the environmental document.

The environmental document summarizes the environmental investigations, agency coordination, and public involvement. The efforts must be commensurate with the potential for environmental impacts. Documents submitted to the City which are incomplete as determined by the Project Manager will not be reviewed. Documents that are considered to be complete shall be reviewed once and comments made to the Consultant. Complete documents will have a comprehensive discussion of purpose and need, alternatives as appropriate and environmental investigation as described in this RFP. Errors or omissions not adequately corrected from the first review will be subject to liquidated damages which will be withheld from final payment of the contract.

Environmental Assessment Outline

- 1. Executive Summary: A brief overview of the project, process, critical issues and conclusions
- Project Purpose and Need: Include an explanation of the planning requirements of TEA-21

- 3. Project Description: Include discussion of project history and alternatives considered
- Environmental Factors: Discuss environmental factors in proportion to the magnitude of concern. Critical issues will be treated in detail and other issues summarized and included by reference
 - Consistency with land use plans
 - Socioeconomic issues including discussion of Title VI and environmental justice as appropriate
 - Right-of-way, land transfers, and relocations
 - Natural, scenic, and visual resources including, as appropriate, discussion of general project setting, physiography, geology, seismicity, paleontology, and natural land forms
 - Air quality including, as appropriate, discussion of Clean Air Act, National Ambient Air Quality Standards, Air Quality Control Regions, and the State Implementation Plan
 - Noise impacts including discussion of the New Mexico State Highway Commission Policy on Noise Abatement
 - Surface water quality including, as appropriate, discussion of 404 permitting, section 404(b)(1) guidelines and requirements and 401 certification
 - Ground water quality including, as appropriate, discussion of detention/retention ponds and consultation with the New Mexico Environment Department Groundwater Bureau, Notice of Intent for a Discharge Plan
 - Wetlands including discussion of Executive Order 11990 and, as appropriate, 404 permitting and 401 certification
 - Flood plains including discussion of Executive Order 11988
 - Wildlife resources and wilderness areas including, as appropriate, discussion of Migratory Bird Treaty Act, Wild and Scenic Rivers Act, the Wilderness Act, consultation with management and regulatory agencies, etc
 - Threatened and endangered species including discussion of the Endangered Species Act and Section 7 consultation with the US Fish and Wildlife Service
 - Soils and vegetation including, as appropriate, discussion of the National Pollutant Discharge Elimination System, storm water pollution prevention plan, best management practices, etc
 - Farmland issues including, as appropriate, discussion of consultation with the Natural Resources Conservation Service and the Farmland Conversion Impact Rating (FCIR)
 - Historic and cultural resources including discussion of the National Historic Preservation Act and consultation with the State Historic Preservation Officer
 - Section 4(f) and Section 6(f) properties
 - Utility adjustments
 - Hazardous materials including, as appropriate, discussion of the RCRA, CERCLA, underground storage tanks, initial site assessments and other investigations consistent with the NMSHTD Hazardous Waste Handbook, etc
 - Construction impacts
 - Noxious weeds
 - Pedestrians, cyclists and equestrians
 - Secondary and cumulative impacts
 - Irreversible and irretrievable commitment of resources
 - Relation between short-term use of the human environment and maintenance of long-term productivity
 - Summary of environmental impacts

- Environmental commitments and mitigation measures
- Public involvement and agency coordination including discussion of the Public Involvement Plan, citizen advisory committees, cooperating agencies, etc
- References and list of preparers

Input Synopsis

The Input Synopsis and draft request of the Environmental Assessment, shall be submitted to the City. The Input Synopsis shall contain copies of the public involvement handouts and written comments. It shall also contain the EA circulation list, responses to verbal and written comments and the public involvement summary and transcript. All studies, commitments and recommendations must be summarized and finalized (cultural resources, agency permits, etc.).

Copies

The Consultant shall provide ten (10) copies of the approved EA to the City. The Consultant shall also produce sufficient copies of the EA and mail them for appropriate public and agency review of the document. The Consultant shall provide three bound copies of the Input Synopsis to the City.

Environmental Investigations

The environmental investigations will include, if appropriate, surveys and analyses in the following areas:

- Biological surveys conducted by qualified biologists including a biological survey report and biological evaluation for threatened and endangered species and, if necessary, an official Biological Assessment and Evaluation for Endangered Species Act compliance regulatory agency review and approval;
- Wetland determination and delineation including, if necessary, a Wetland Delineation Report for regulatory agency review and approval;
- Section 4(f) determination and evaluation including, if necessary, an official 4(f) Determination Report for land management agency and FHWA review and approval including avoidance options, alternative evaluations and measures to minimize harm;
- A visual impact assessment including, if necessary, a separate Visual Impact Assessment Report for City review and approval;
- A noise analysis including, if necessary, a separate Noise Analysis Report for City review and approval;
- An air quality analysis including, if necessary, a separate Air Quality Analysis Report for City review and approval;
- Other surveys, investigations, and analyses may be required as appropriate to the project.

Environmental investigations must include analyses of all issues mandated by the National Environmental Policy Act (NEPA) as well as other state and federal environmental legislation, including Executive Orders on Wetlands, Floodplains, and Environmental Justice. The environmental investigations shall include evaluations of all appropriate alignment and typical section alternatives, including the no-build option and avoidance options. Environmental investigations will also include, as appropriate, measures to

minimize harm, enhancement measures and measures to mitigate impacts. Cultural resource investigations shall include Historic Building Inventories and Tribal Consultations as required by the National Historic Preservation Act, Section 106.

The environmental investigations will include a cultural resources survey and preparation of a final report that meets all federal and state requirements. Four (4) copies of the final Cultural Resources Survey Report shall be submitted to the City. The cultural resources survey must be conducted by a qualified archaeologist.

All environmental reports submitted to the City are subject to City approval before investigations are accepted as complete. Based on engineering, cost, environmental and right-of-way impacts, the Consultant shall determine, recommend and obtain the City's concurrence on the preferred alternative to be used for location approval in the environmental document and for final design.

3. Location Survey & Mapping

The Consultant shall provide a location survey, controlled aerial photography, computer mapping services and digitized cross-sections. All surveying shall be performed under the direct supervision of a New Mexico Registered Professional Land Surveyor.

Photogrammetry

The Consultant shall be responsible for obtaining and preparing data needed to develop computer mapping described below and preliminary/final design plans.

Computer Mapping

Mapping limits should extend from approximately 200 yards west of the intersection of West Alameda Street and Calle Nopal; 200 yards north of the intersection of Calle Nopal and the Relief Route; 200 yards south and east of the intersection of St. Francis Drive and Alamo Drive; and 1000 yards north of the intersection of St. Francis Drive and Alamo Drive.

Graphics File

Provide a graphics file covering the complete project. The graphics file shall contain all planimetric, topographic, alignment data, and approximate locations of existing right-of-way limits. The following scales are suggested:

	Horizontal	Vertical
Urban	1" = 50'	1" = 10'

Note: The contour map scale should equal the horizontal scale used on the plan and profile sheets. Select the scales accordingly. Contour interval should be a one foot (1') interval in flat terrain.

Planimetric Plan and Profile Sheet Files

Provide Plan and Profile (P&P) Sheets with planimetric and topographic data at a horizontal scale of 1" = 100' and a vertical scale of 1" = 10'. Provide planimetric and topographic coverage for 300 feet left and right of each roadway or ramp centerline on a D-size sheet.

Provide baselines for all turnouts and side roads. It may be necessary to place angle points along the baseline to define the turnouts and side roads. Along major side roads, provide P&P sheets with planimetric and topographic data on both sides of side road centerline for 500 feet.

Contour Map Files

Provide contour maps at a scale of 1" = 100' with one foot contour intervals. Maps shall meet the US National Map Accuracy Standards. Provide planimetric and topography coverage for 500 feet left and right of each roadway and ramp centerline. Areas within the mapping corridor with steep slopes may be covered with 5 foot contour intervals or as directed by the Project Manager. Drainage areas which require a structure of 100 square feet (ft²) or more opening will require 1000 feet of planimetric and topographic data left and right of centerline beginning 500 feet before and continuing 500 feet after the structure. Provide a flow line baseline for 1000 feet from centerline up- and downstream with a tie to centerline on the contour map. Show flow line baseline on graphics files and planimetric P&P files.

Existing Structure Section Sheet Files

Provide existing structure sections at a scale of 1" = 10 'horizontal and 1" = 10' vertical on a D-size sheet with a maximum of three structures sections per sheet.

Turnout & Side Road Profile Sheet Files

Provide turnout and side road profile sheets at a scale of 1" = 10' horizontal and 1" = 10' vertical for 200 feet of profile left and right of mainline centerline and 500 feet of profile for major side roads.

Cross-Section Files

Provide cross-sections at 100 foot intervals at turnouts, and at all breaks for at least 200 feet left and right of centerline. In the event a cross-section cannot be completed for the specified 200 feet each direction from centerline, a cross-section at the next closest location where this can be done shall be provided.

Bridge/Structure Baseline Cross-Section Files

Provide cross-sections along the flow line baselines, 1000 feet up- and downstream, at 50 foot intervals and at all breaks. Cross-sections shall extend a minimum of 50 feet beyond the top of banks or to the apparent highest flood plain lines. In cases where a channel has a wide flood plain in flat terrain, extend coverage to the limits of the photo coverage left and right of flow line baseline. Show flow line baseline on graphics file, P&P sheets and contour maps.

Major Side Road Cross-Section Files

Provide cross-sections at 100 foot intervals for turnouts and at all breaks for at least 200 feet left and right of side road baselines, for a distance of 500 feet left and right of the mainline centerline. Show baselines on graphics file, contour maps and P&P sheets.

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Survey Notes Sheet File

Provide a Survey Notes/Control Sheet file; for sample sheet, contact Aaron Garcia, Surveying and Lands Engineering Section, at (505) 827-5670.

Reference Stakes

The Centerline of Survey or Centerline of Construction, as appropriate, shall be staked at 500 foot station pluses and at all PC's and PT's of curves. If the actual alignment cannot be staked or because of safety measures, the alignment may be staked on a parallel offset line.

Sheet Boundaries or Reference Marks

On all electronic files transmitted to the City wherein P&P or other sheets are extracted, the sheet boundaries or reference marks shall be left intact and shall remain in place as invisible or phantom lines. This is done to allow the exact duplication of coordinates when extracting and printing the P&P sheets.

Copies

Provide one hard copy of all planimetric Plan & Profile sheets, contour maps, Existing Structure Section sheets, Preliminary Property Ownership Layout Maps, and Turnout & Side Road Profile sheets to the City.

4. Coordination

The Consultant will be responsible for all coordination necessary to accomplish the work required by the contract. This responsibility shall include coordination with all property owners and federal, state, city, county, schools and other agencies having jurisdiction or interest in the project. This will include obtaining approvals and/or concurrence on all work that is to be completed by the Consultant including work completed by sub-contractors working under this contract.

This responsibility shall also include obtaining all initial informal (verbal) approvals. For any required formal (written) approvals, the Consultant will provide the City with all required data and draft letters of transmittal. In the event the Consultant is not successful in obtaining informal approvals, the Consultant shall promptly notify the City in writing, and the City will assist in resolving the matter.

In addition to the above, the Consultant shall be responsible for:

- Scheduling all design reviews
- Making distribution of plans and documents
- Writing design review reports
- Writing Design Team meeting reports
- Performing property owner interviews and documenting the interviews
- Scheduling PS&E Office Review
- Writing PS&E Office Review Report
- · Being the focal point, for the flow of all project activity, including the sub-contractor work

- Providing monthly progress reports for design, utility, environmental, right-of-way and construction
- Providing periodic presentations to the City. (i.e. City Councils, and Committees), Local or Regional Planning Organization(LPO/RPO), State, etc.

5. Alignment Study

Public involvement activities will be proposed by the Consultant in a Public Involvement Plan (PIP). The PIP will be submitted to the City for review and concurrence.

It is anticipated that a high level of public involvement will be required. This level of effort typically involves several public information meetings, a public awareness program and at least one public hearing. The Consultant shall be responsible for the implementation and cost of all public meeting coordination including advertisement of the meetings, arrangement and cost for required recording equipment; news media coordination; providing and arranging for the meeting facilities; responding to agency and public comments; preparation of handouts, exhibits and displays; coordination of meetings; preparation of reports of all meetings and contacts; preparation of transcripts and summaries of public meetings; and any coordination with the general public, property owners, or agency involvement that may be required before or after the public meetings. Property owner contacts shall be conducted in the field by arranging to meet with owners at their respective parcels. An overview of the project will be discussed and include preliminary access, drainage, and fencing issues. Also, the specifics on how the property owner's access, fencing, gates, drainage, etc., will be effected by the project are to be discussed.

PHASE II - PRELIMINARY & FINAL DESIGN

1. Preliminary Property Ownership Maps

Provide Preliminary Property Ownership Layout Maps. These maps may be prepared by research/investigation of county records. Maps shall be prepared at the same scale as the planimetric P&P sheets.

2. Utility Designation, Location, and Mapping

Scope of Subsurface Utility Engineering Services

The Subsurface Utility Engineering (SUE) process is to identify the type, size and the ownership of existing underground and overhead utilities and establish their exact/precise location within the proposed project limits of City proposed construction projects. The process shall include all necessary records research, field investigations (designation), potholing (locating), surveying and mapping, design analysis and recommendations relative to impacts on existing and/or proposed utility systems on City projects. The process may also include utility relocation design and estimates. Subsurface Utility Engineering services shall be provided by qualified, experienced SUE consultants, who must meet the minimum requirements/standards outlined below prior to providing services.

"Accurate" shall mean 0.30 meters to 0.60 meters (1.0 to 2.0 feet), unless a more precise tolerance is specified. The SUE Consultant shall also designate wells and septic systems. While performing the designating activity, the SUE Consultant may excavate test holes, at no expense to the City, for the purpose of determining the approximate depth of the utility. Any markings on sidewalks or roadways for survey identification shall be of a temporary nature. The SUE Consultant shall provide the Consultant and the City with all data secured in hard copy plan sheet(s) Micro-station) format. After completion of the designating phase, the SUE Consultant shall consult with the Project Manager, and the Consultant to discuss the findings, potential impacts and to establish the scope of additional SUE activities.

Utility Locating

For the purpose of this contract, "locating" shall mean to obtain exact/precise horizontal and vertical positions of utilities by excavating test holes. The test holes shall be done by vacuum excavation system and in a manner so as not to cause damage to utilities or other underground structures. This activity shall only be added in the event the design team determines this information is needed, and shall be added by an amendment (if necessary) to the City/Consultant contract. This activity shall be performed prior to the 60% completion design review and only on the basis of information secured during the designating activity and at the direction of the design team. This activity shall require the SUE Consultant to provide exact/precise three-dimensional plan and profile mapping, tied to City survey control, of utilities and related structures for making final design decisions. The SUE Consultant shall use City approved survey books to record all surveys, and shall also use City monuments and bench marks referenced in the book and control lines provided by the City. All surveying and designation of monumentation within the limits of the project shall be coordinated through and submitted to the Project Manager. All horizontal control shall be oriented to the New Mexico Grid System, and all elevations shall be based on the National Geodetic Survey (NGS) mean sea level datum of 1988.

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The survey information shall contain horizontal location and vertical elevation every 500 feet (150 meters) or as specified, and referenced to project datum at top and bottom of the utility, true elevation of existing grade over the utility at the test hole, outside diameter of utility and configuration of non-encased multi-conduit systems, utility structure material composition if ascertainable, paving thickness and type, and other pertinent information as is reasonably available from the test hole site.

References to project datum shall maintain vertical and horizontal tolerance to 2.5 centimeters(one inch), unless a more precise tolerance is specified for the specific location(s) being investigated.

Traffic Control

The City will strictly enforce its policies and procedures. All work in the City of Santa Fe shall be performed in accordance with the following:

- Latest edition of the NMSHTD Standard Specifications For Highway And Bridge Construction.
- Manual On Uniform Traffic Control Devices (MUTCD 1988 Edition).

For the purpose of traffic control and possible lane closures, before initiating any field surveys or test pits, the SUE Consultant shall be required to obtain a permit from the City.

The SUE Consultant shall be required to submit a Traffic Control Plan (TCP), which must be approved by the City before the permit can be issued. The SUE Consultant shall be responsible for providing all labor, materials and equipment necessary for TCP at the SUE Consultant's expense. The TCP shall include, but is not limited to: temporary traffic control signs, channeling devices, arrow panels, traffic barriers (i.e. attenuator barrels), impact attenuators, flaggers, temporary pavement markings, etc., and all other equipment and labor necessary to effectively implement the approved Traffic Control Plan.

Analysis, Recommendations and Design

When the SUE Consultant has performed all necessary research, designating and locating services, he/she shall determine to what extent the proposed roadway improvements will impact the utilities and prepare a report outlining avoidance alternatives, required adjustments and/or relocations and cost estimates to perform those relocations. This activity shall be planned and timed so as to occur within thirty (30) days of completion of the 60% completion design review. In certain instances the SUE Consultant may be asked to prepare utility relocation design plans and specifications for inclusion into the City's contract documents.

The SUE Consultant shall be capable of providing relocation design for telecommunications, water, gas, electrical and sanitary sewer facilities. Experience in utility design, roadway engineering and storm drainage design are important factors. Recommendations on how to resolve conflicts with utilities during highway design will be required so as to reduce utility relocation costs.

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The SUE Consultant shall prepare a report indicating the findings, recommendations and actions resulting from the work they performed. The report shall include, but not be limited, to a cost-benefit analysis of the Subsurface Utility Engineering process for this project, i.e., how many dollars were saved for each dollar expended. The SUE Consultant shall also submit a final financial tabulation for this project, including a breakdown of all costs associated with the SUE process on a per unit basis.

Certification of Work

In all cases the SUE Consultant must certify his/her work, and such certification shall include the signature and seal of a Professional Engineer and/or a Professional Licensed Surveyor, who is registered in the State of New Mexico.

Manpower

The SUE Consultant shall list four (4) key staff personnel. The key staff shall include:

- A Professional Engineer registered in the State of New Mexico with expertise in subsurface utility engineering
- A Professional Land Surveyor registered in the State of New Mexico with expertise in surveying utilities
- Qualified Geologist
- Project Manager/Liaison

The SUE Consultant shall provide all equipment, personnel and supplies required to perform it's research, designating, locating, design and other services. The SUE Consultant shall obtain all necessary permits from the state, city, county, or other municipal jurisdictions, to allow the company to work in existing streets, roads and right-of-way for the purpose of marking, measuring and recording of existing utilities. The SUE Consultant shall notify Blue Stake or One Call prior to any field work and shall be responsible for any fees incurred.

Equipment

The SUE Consultant shall list the quantity and different types of equipment that will be used for designating and locating services. This listing shall be in the technical proposal.

Professional Liability Coverage

The SUE Consultant shall have and maintain professional liability insurance that covers his/her subsurface utility operations and insurance for his/her professional services that will hold the City harmless for errors and omissions until construction of this project is complete.

Undersigned Sub Consultant Services

The SUE Consultant shall list all sub-consultants that are expected to provide services under this contract. The Contract shall also include a separate sum of money for undesignated sub-consultant services that may be required for unique circumstances.

In addition to the requirements outlined previously, the Subsurface Utility Engineering firm selected to perform services for the City must also meet the following minimum standards:

- Demonstrate (list of projects and contacts) a thorough knowledge and understanding of designating, locating and data management activities. The SUE Consultant must have five years minimum experience as a Subsurface Utility Engineering service provider.
- 2. Individuals assigned by the SUE provider to carry out the work assignments must be well trained. The SUE Consultant must provide an on-going training program to the City prior to being pre-qualified and accepted as a SUE service provider by the City.
- 3. Individuals assigned by the SUE provider to supervise daily operations on each crew must have a minimum of two years SUE crew experience.
- 4. The Project Manager must have previous experience in the management of two or more SUE contracts, and must be available to commit sufficient time to the project.
- 5. The SUE provider must demonstrate the capacity to pool resources and respond to the needs of the City in a timely manner.
- 6. The SUE provider must have vacuum excavation or comparable non-destructive locating equipment capable of successfully completing the task, considering the soil conditions for the geographic region and/or the depth of existing utilities.

Mapping And Data Management

After identifying existing and future utility locations as requested by the City, the SUE Consultant shall map utility locations onto plans and/or aerial photographs as directed by the City. The SUE Consultant shall also be required to provide the Consultant and the City all information in hard copy and electronic file or Micro-station format. All electronic files provided by the SUE Consultant shall ultimately be capable of successfully being merged into the city project plan and profile and cross-section sheets. The SUE Consultant may be required to record the locations of the utilities on a City approved form that will be used for prior rights determination. If a price proposal is requested for this activity, the Consultant shall propose a unit cost per activity as outlined in the rate schedule for subsurface utility mapping services. The unit cost shall include all equipment, the operator and other support personnel for each activity.

3. Preliminary and Final Drainage Report

Prepare Preliminary and Final Drainage Reports. The drainage reports will require a detailed study of the project area and recommendations are to be developed with alternate proposals to correct any of the problems.

Preliminary Drainage Report

Prior to performing a preliminary drainage study, the Consultant shall meet with the City's Project Manager to discuss the hydrologic analysis of existing and proposed

drainage structures. The Preliminary Drainage Report shall summarize the results of the preliminary drainage analysis. The report shall include:

- Discussion of soil types
- Vegetation and land use distribution
- Curve number or rational formula "C" calculations
- Time of concentration calculations
- Drainage area topographic map with existing structures inventory
- Drainage areas
- Design (50yr) and 100-year discharges and their corresponding headwater depths
- Summary of the drainage field inspection results including City personnel (public and other local agencies) interview and drainage structure field inspection forms
- CME's required to construct the structures
- Summary table of existing and recommended drainage structure sizes and types, and identification of sources used in the analysis
- Preliminary erosion protection and energy dissipaters design and preliminary details

For urban projects, the preliminary hydraulics shall be computed based on existing information to provide scope of drainage work and cost estimate that will be the basis for the Final Scope Report and the Final Drainage Report. The Preliminary Drainage Report shall include preliminary design and locations of drop inlets, trunk lines, other preliminary drainage data, and dimensions of CME's and ponds needed.

Final Drainage Report

The Final Drainage Report is basically a refinement of the Preliminary Drainage Report. A detailed hydraulic analysis such as: backwater profiles, flow velocities, scour calculations, and other hydraulic design data are required for major structures and design of permanent erosion protection.

In preparing the Final Drainage Report, the Consultant shall perform, on all major structures or channels, a hydraulic analysis using the HEC-2, HECRAS or WSPRO computer model to develop water surface profiles for the existing conditions and for the proposed conditions. An approved Final Drainage Report shall be prepared for the selected alternative which shall incorporate all pertinent design data into a concise document including: drainage map(s); inventory of existing drainage structures; detailed structure recommendations including drainage areas, design discharges, head water depths; and a Water Surface Profile Structure Layout Sheet for any major structures. If a retention pond is needed, the Consultant shall prepare and submit a Notice of Intent (NOI) groundwater application, as may be required. If Section 401 and 404 applications are required, the Consultant shall prepare and submit the necessary applications with the approval of the City. This work shall not be done prior to the completion and approval of the environmental documentation.

For urban projects, include in the Final Drainage Report the storm drain design data at each drop inlet and manhole such as design discharges, carry over discharges, intercept discharges, and other hydraulics data. The construction plans shall include storm drain system data such as hydraulic grade line for 100-year discharge, invert elevations, slopes, velocities, and discharges.

If the disturbed area is greater than 5 acres, or one acre if the scheduled letting date is after March 2003, the Consultant shall prepare a storm water pollution prevention plan (SWPPP). The Consultant shall also prepare temporary erosion and sediment control plans (TESCP). Additional information regarding the SWPPP and TESCP may be available from the NMSHTD Drainage Section.

The Consultant shall use the NMSHTD "Drainage Manual - Volume 1, Hydrology, 1995" or current revision, "Drainage Manual - Volume II Hydraulics, Sedimentation and Erosion 1998" or current revision, and "National Pollutant Discharge Elimination System Handbook, January 1997" or current revision for methodologies in preparation of the Final Drainage Report.

Copies

Furnish three (3) bound sets of the Preliminary and Final Drainage Reports to the City.

4. Preliminary Roadway & Roundabout Design Plans

The Consultant shall provide or conduct the following:

Preliminary Design Report

The Consultant shall prepare and print up to 12 copies of a final Phase I report, which shall include recommendations based on the work performed in the preparation of the drainage reports and the preliminary design plans. Also included in this report will be a detailed construction cost estimate by construction type, and location. The Consultant should contact the City to ascertain the required numbers of copies of the Preliminary Design Report.

Preliminary Field Review

The Consultant shall conduct a preliminary field review (PFR) after the location survey and mapping is complete. The PFR will be held to establish the preliminary scoping for the project.

Preliminary Roadway Design Plans

Provide preliminary roadway design plans (30% completion plans) for the project to be finalized, which shall include: geometrics, traffic control plan, plan and profile sheets, and a preliminary construction cost estimate by construction type. Project plans will include: recommended horizontal and vertical alignment, typical roadway sections, culvert sections, intersection layouts, drainage requirements, slope limits, right-of-way requirements, utility relocation/adjustment requirements, preliminary earthwork analysis, and structure requirements such as bridges, retaining walls, and major drainage structures. Project plans shall be prepared to the City's standards for general content and format. Plans shall be prepared for the alignment and typical sections, as approved by the City.

30% Completion Design Review

Schedule and conduct the 30% completion design review. The review shall include the preparation of the 30% completion review report. The review shall be held for the entire project or separate projects depending on the priority plan. The Consultant shall submit and distribute sixteen (16) bound sets of plans (50% reduced) for the review. The number of reviews to be held for the corridor will be dependent on the Consultant's project priority plan for design and construction.

5. Coordination

Agency coordination will include any agency with management responsibilities, all agencies with sensitive resource responsibilities and any agency that may have permit authority for project activities. The Consultant will determine and coordinate the environmental and cultural resource impacts and mitigation measures of the alternatives examined, including the consequences of the no-build alternative. The appropriate local, county, and state agencies, the public and other interested agencies will be contacted to insure that the community and governmental concerns are identified and considered for inclusion in the design development of the project. The Consultant shall be responsible for all coordination that is required to provide a satisfactory public involvement plan and environmental document. This responsibility further includes coordination with agencies who may have jurisdiction or interest in the project, local elected officials, coordination with property owners, members of the design team and preparation and distribution of minutes of meetings and interviews.

6. Public Involvement

Public involvement activities will be proposed by the Consultant in a Public Involvement Plan (PIP). The PIP will be submitted to the City for review and concurrence.

It is anticipated that a high level of public involvement will be required. This level of effort typically involves several public information meetings, a public awareness program and at least one public hearing. The Consultant shall be responsible for the implementation and cost of all public meeting coordination including advertisement of the meetings, arrangement and cost for required recording equipment; news media coordination; providing and arranging for the meeting facilities; responding to agency and public comments; preparation of handouts, exhibits and displays; coordination of meetings; preparation of reports of all meetings and contacts; preparation of transcripts and summaries of public meetings; and any coordination with the general public, property owners, or agency involvement that may be required before or after the public meetings. Property owner contacts shall be conducted in the field by arranging to meet with owners at their respective parcels. An overview of the project will be discussed and include preliminary access, drainage, and fencing issues. Also, the specifics on how the property owner's access, fencing, gates, drainage, etc., will be effected by the project are to be discussed.

PHASE III - BIDDING SERVICES

1. Environmental Investigations and Documentation

An environmental assessment was completed on January 7, 1998 with a subsequent FONSI on February 1, 2000. A reevaluation of the environmental document will need to be

prepared and all necessary permits obtained as deemed appropriate (e.g. NPDES, 401, 404, etc.) at such time it is known construction funds are approved and or allocated for use for project bidding. Coordination and approvals with all appropriate federal, state and local agencies and authorities will be required, as necessary. Reports must be prepared by qualified environmental and natural resource personnel (archeologists, biologists, etc.). The Consultant will select logical termini for addressing environmental concerns on a sufficiently broad scope. All environmental, cultural, or biological reports, as necessary, shall be prepared in accordance with applicable guidelines and regulations.

2. Construction Bid Documents

The Consultant shall submit to the City a final design (PS&E) package associated with construction bid documents for the project, or as requested by the City, based on funding limits and available budget. The final design packages shall include the following:

- 1. One (1) full-size set of stamped final design plans on mylar prints (36"x 24", signed by the City's Engineering Division Director, ADA Coordinator and Traffic Engineer);
- 2. Three (3) full-size copies of final design plans (36"x 24");
- 3. Thirty (30) half-size copies of final design plans (12"x 18");
- 4. Five (5) copies of the final cost estimate.
- 5. Two (2) bound final <u>draft</u> sets of complete bidding documents meeting all specifications in the City's Procurement Code for final City Review (see "Note" below).
- 6. Thirty (30) bound final sets of complete bidding documents, including signed advertisements.

Note: The Consultant shall prepare bidding documents for the final, selected design, setting forth in detail the requirements for the construction of the project, which shall at a minimum include bid advertisement, bid forms, the conditions of the contract for construction (general conditions and other conditions of the contract). The bidding documents shall be based on information contained in the design development drawings and other documents previously approved by the City.

PHASE IV – CONSTRUCTION SERVICES (IF REQUIRED)

1. Construction Engineering and Management

The City may require Construction Engineering and Management Services during construction. If required, a portion or all of the services listed below will be negotiated and added by an amendment to the original contract.

The construction phase will commence with the award of the construction contract and continues until the one year warranty inspection and report is submitted by the Consultant and approved by the City. The Consultant shall be the representative of the City during the construction phase and shall advise and consult with the City Project Manager regarding construction activities for the duration of the construction phase. Construction phase services will include the resolution of problems encountered during construction. Any additional design services not caused by errors and/or omissions, and requested by the City will be authorized by an amendment to the agreement. Any amendments to the agreement shall establish the additional work requirements, amend the contract as required and adjust the time schedules.

The Consultant shall fully execute and participate in the following tasks to implement the construction of the Project in conformance with the plans and specifications:

- 1. Preconstruction meeting with the Construction Contractor, Owner, Utilities;
- 2. Construction Contractor Notice to Proceed;
- 3. Daily construction observation, oversight, inspection and daily diary entry;
- 4. Construction management basic services including:
 - Review of Construction Contractor material submittals or shop drawings;
 - General project review and response to Construction Contractor's requests for information and clarification;
 - Verify structure drawings;
 - Change order review and preparation;
 - Claims review, documentation, and correspondence;
 - Provide As-Constructed Quantities:
 - Receive, review and approve progress payments (to be forwarded to the City);
 - Preparation and authorization of field inspections and punch lists;
 - Review of contractor submitted "As-Built plans", preparation and submittal of "As-Built" drawings on mylar prints (36"x 24) and on CD in AutoCAD format (version 2000 or more current); and
 - Two-year warranty inspection and report

2. Public Involvement

The City may require Public Involvement Services during construction. If required, a portion or all of the services listed below will be negotiated and added by an amendment to the original contract.

The Consultant shall be responsible for the implementation and cost of all public information coordination which may include, but is not limited to, providing construction updates and schedules through a project website and media (television, radio and newspaper) press releases and responding to agency and public concerns and comments. Attendance to periodic (most likely weekly) project meetings between the construction contractor, City personnel and other agencies will be required to obtain schedules and notify the public, property owners, businesses, emergency response, transit and other transportation users of road, lane or access closures, detours and other construction activities that may impact traffic. It is essential the Consultant maintain on-going communication with project construction personnel to ensure accurate dissemination of construction related activities to the public.

All of the work defined in this "Scope of Work", or as negotiated, will be incorporated in an eventual professional services agreement (PSA) attached as Exhibit A.

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