

AGREEMENT FOR ENGINEERING SERVICES BETWEEN THE TOWN OF ADDISON, TEXAS AND TEAGUE NALL AND PERKINS, INC.

I.

This Agreement for Engineering Services ("Agreement") is executed by and between the Town of Addison, Texas, a municipal corporation located in Dallas County, Texas, (hereinafter called "OWNER"), and Teague Nall and Perkins, Inc., a Texas corporation, (hereinafter called "ENGINEER") (OWNER and ENGINEER are sometimes referred to herein together as the "parties" and individually as a "party").

WITNESSETH, that OWNER desires to engage ENGINEER to provide professional engineering and surveying services in connection with Midway Road reconstruction and improvement project, and ENGINEER desires to provide such services, as set forth in this Agreement.

NOW, THEREFORE, OWNER and ENGINEER, in consideration of the mutual covenants and agreements herein contained, the sufficiency of which consideration is hereby acknowledged and agreed, do mutually agree as follows:

II. PROJECT

In this Agreement, the "PROJECT" means the reconstruction and revitalization of Midway Road within the Town of Addison, Texas as generally described in Exhibit A attached to this Agreement and incorporated herein.

III. BASIC AGREEMENT

OWNER retains ENGINEER to provide and perform, and ENGINEER agrees to provide and perform for OWNER, professional engineering, land surveying, and related services for and in connection with the PROJECT, as stated in the sections to follow (the "Services"). All Services shall be performed and provided with diligence and in accordance and consistent with the level of care and skill ordinarily exercised by reputable members of the engineering profession practicing in the Dallas, Texas metropolitan area at the time the Services are performed and under the same or similar circumstances and conditions. ENGINEER shall re-perform any Services not meeting this standard without further or additional compensation. ENGINEER shall provide and perform all Services ENGINEER shall perform all Services in accordance with, and shall comply with, any applicable law, rule, statute, ordinance, code, regulation, standard, policy or order of any federal, state or local governmental entity, agency, or authority (including OWNER) having jurisdiction over any matter related to this Agreement or the Services being provided by ENGINEER. ENGINEER shall be wholly and solely responsible for any Services provided by any owner, officer, employee, agent, representative, affiliate, contractor or subcontractor of



ENGINEER. For rendering such Services, OWNER agrees to pay ENGINEER as set forth in Section VII and Exhibit E: "Compensation" attached to this Agreement and incorporated herein.

IV. SCOPE OF ENGINEER'S SERVICES

ENGINEER shall render the professional services necessary for development of the PROJECT, in accordance with the schedule in Exhibit A: "Project Schedule and Description of the Project" and as detailed in Exhibit B: "Basic Engineering Services", said exhibits being attached hereto and incorporated herein for all purposes. ENGINEER shall be responsible to provide and perform the Services in accordance with the standard of set forth in Section III, above, and for professional and technical soundness, accuracy, and adequacy of all designs, drawings, specifications, and other work and materials furnished under this Agreement.

ENGINEER represents and warrants that it is authorized by the State of Texas, as may be required by applicable law, rule, or regulation, to practice and provide the Services set forth in this Agreement and that any necessary licenses, permits or other authorization to perform such Services have been acquired as required by such law, rule, or regulation and will be maintained at all times under this Agreement. ENGINEER and OWNER agree and acknowledge that OWNER is entering into this Agreement in reliance on ENGINEER's professional abilities with respect to performing the Services described herein.

V. SPECIAL ENGINEERING SERVICES

If OWNER requests, in writing, that ENGINEER perform the engineering services described in Exhibit C, "Special Engineering Services," attached hereto and incorporated herein, those Special Engineering Services shall become part of the "Services" hereunder and ENGINEER will provide and perform the same in accordance with the terms and provisions of this Agreement and the OWNER will pay the ENGINEER for those Special Engineering Services in accordance with the provisions of Exhibit C and as set forth herein.

VI. SCOPE OF OWNER SERVICES

The OWNER will furnish items and perform those services as identified in Exhibit F: "Services to be provided by the OWNER", attached hereto and made a part of this Agreement.

VII. COMPENSATION

A. In consideration of the Services to be performed and provided by ENGINEER as described herein, OWNER shall pay and ENGINEER shall receive compensation in accordance with Exhibit E: "Compensation" (amounts of such compensation are sometimes referred to herein as "Engineering Fees").



- B. Total payments including without limitation salary and reimbursable expenses, to ENGINEER by OWNER for the Basic Engineering Services stated in Section IV above shall not exceed (\$1,759,449.00). Total payments including without limitation salary and reimbursable expenses, to ENGINEER by OWNER for the Special Engineering Services stated in Section V above (if requested in writing by OWNER) shall not exceed (\$239,410.00).
- C. OWNER may authorize additional services to be provided by ENGINEER as mutually agreed upon by the parties, including compensation for the same. Any authorization for Additional Engineering Services shall be given to ENGINEER by OWNER in writing. If OWNER authorizes such Additional Engineering Services, those Additional Engineering Services shall become part of the "Services" hereunder and ENGINEER will provide and perform the same in accordance with the terms and provisions of this Agreement.
- D. Payment by OWNER for the performance and provision of the Services by ENGINEER will be in accordance with the following:
 - 1. ENGINEER will submit to OWNER, not later than the 20th day of each month, an invoice that describes and identifies the Services provided and performed by ENGINEER for the immediately prior month and a commensurate amount of Engineering Fees. The Engineering Fees include all compensation to be paid to ENGINEER, but each invoice shall identify each of the reimbursable expenses that are included as a part of the Engineering Fees. Each invoice shall further include the sum of all prior payments under this Agreement, and such other information or documentation as OWNER may require to verify the accuracy of the invoice. ENGINEER shall not be entitled to any compensation for any Services not actually performed or for any lost profits as a result of any abandonment or suspension of any portion of the Services by the OWNER.
 - 2. OWNER will pay each invoice within 30 days after its receipt of the invoice and all accompanying information as describe in subsection E.1., above.
 - 3. Notwithstanding any other provision of this Agreement, OWNER may withhold payment of compensation under this Agreement if:
 - (a) ENGINEER is in default of any of its obligations under this Agreement or any other documents in connection with the PROJECT (and payment may be withheld to the extent of any such default);
 - (b) Any part of such payment is attributable to any Services of ENGINEER which are not performed in accordance with this Agreement;



- (c) ENGINEER has failed to make payment promptly to subcontractors or consultants or other third parties used by ENGINEER in connection with ENGINEER's Services hereunder for which the OWNER has made payment to ENGINEER; or
- (d) If OWNER, in its good faith judgment and after consultation with ENGINEER, determines that the portion of the compensation then remaining unpaid will not be sufficient to complete the ENGINEER's Services under this Agreement, no additional payments will be due ENGINEER hereunder unless and until ENGINEER performs a sufficient portion of its Services so that such portion of the compensation remaining unpaid is determined by OWNER to be sufficient to complete the ENGINEER's Services.

VIII. OWNERSHIP OF DOCUMENTS

All completed or partially completed Plans prepared or developed by or for ENGINEER under this Agreement, whether in hard copy or in electronic form, including any original drawings, computer disks, mylars or blue lines, shall be and remain the sole property of OWNER, and may be used by OWNER in any manner it desires without further compensation and without any restrictions; provided, however, that ENGINEER shall not be liable for the use of such Plans for any project other than the PROJECT described in this Agreement. At the time of completion of the PROJECT, or upon completion of the Services of ENGINEER, at the time of any earlier termination of this Agreement, or at any time at the request of OWNER, ENGINEER shall provide such Plans (including the originals thereof if requested by OWNER) to OWNER (and such obligation shall survive the expiration or termination of this Agreement).

ENGINEER agrees to and does hereby grant and assign to OWNER all intellectual property rights (whether copyright or otherwise) in and to all Plans in which ENGINEER may have or claim a copyright or other intellectual property interest, and to all designs as to which ENGINEER may assert any rights or establish any claim under patent, copyright, or other intellectual property laws. ENGINEER represents that OWNER's use of such Plans will not infringe upon any third parties' rights.

IX. INDEMNITY, LIABILITY

A. ENGINEER'S INDEMNITY OBLIGATION. In consideration of the granting of this Agreement and notwithstanding any other provision of this Agreement, ENGINEER agrees to and shall FULLY DEFEND, INDEMNIFY AND HOLD HARMLESS OWNER and OWNER'S elected and appointed officials, its officers, employees, agents, representatives, and volunteers, individually or collectively, in both their official and private capacities (collectively, "OWNER Persons" and each being a "OWNER Person"), from and against any and all damages, including but not limited to damages for, related to, or arising out of injuries (including but not limited to death), losses, expenses, liability, penalties, proceedings, judgments, actions, demands, causes of action, suits, harm, and costs (including reasonable attorneys' fees and



costs of defense), of any kind or nature whatsoever, made upon or incurred by OWNER or by any other OWNER Persons, whether directly or indirectly, (collectively, "Damages"), that are caused by or result from an act of negligence, intentional tort, intellectual property infringement, or failure to pay a subcontractor or supplier committed by ENGINEER or by ENGINEER's employee or ENGINEER's agent, consultant under contract, or another entity over which the ENGINEER exercises control (the ENGINEER's employee, agent, consultant under contract, or such other entity being, collectively, "ENGINEER Persons").

SUCH DEFENSE, INDEMNITY AND HOLD HARMLESS OBLIGATION SHALL AND DOES INCLUDE DAMAGES ALLEGED OR FOUND TO HAVE BEEN CAUSED, IN WHOLE OR IN PART, BY THE NEGLIGENCE OR INTENTIONAL TORT OF AN ADDISON PERSON. However, when Damages arise out of the co-negligence or other co-liability of the OWNER or other OWNER Persons and the ENGINEER or any ENGINEER Persons, ENGINEER's liability under this Section shall be reduced by that portion of the total amount of the Damages (excluding attorneys' fees and costs incurred in defense of Damages) equal to the OWNER Person or Persons' proportionate share of the negligence or other liability that caused the loss attributable to such negligence or other liability. Likewise, in such instance, ENGINEER's liability, if any, for the OWNER Person's defense costs and attorneys' fees shall be reduced by that portion of the defense costs and attorneys' fees equal to the OWNER Person or Persons' proportionate share of the negligence or other liability that caused the loss attributable to such negligence or other liability.

The provisions in the foregoing defense, indemnity and hold harmless are severable, and if any portion, sentence, phrase, clause or word included therein shall for any reason be held by a court of competent jurisdiction to be invalid, illegal, void, or unenforceable in any respect (including, without limitation, for violating Section 271.904(a), Tex. Loc. Gov. Code, or Section 130.002(b), Tex. Civ. Prac. & Rem. Code), such invalidity, illegality, voidness, or unenforceability shall not affect any other provision thereof, and this defense, indemnity and hold harmless provision shall be considered as if such invalid, illegal, void, or unenforceable provision had never been contained in this Agreement.

ENGINEER shall promptly advise the OWNER in writing of any claim or demand against the OWNER or any other OWNER Person, ENGINEER, or ENGINEER Person related to or arising out of ENGINEER's activities under this Agreement and shall see to the investigation and defense of such claim or demand at ENGINEER's sole cost and expense. The OWNER Persons shall have the right, at the OWNER Persons' option and at own expense, to participate in such defense without relieving ENGINEER of any of its obligations hereunder.

The obligations set forth in this Section shall survive the expiration or termination of this Agreement.

B. Review, approval or acceptance by OWNER of, or payment by OWNER for, any Services hereunder, including review, approval or acceptance of any plans, drawings, documents, designs, surveys, evaluations, materials, reports, proposals, records, specifications, deliverables, or any other instruments representing ENGINEER's professional services prepared by or for



ENGINEER under or in connection with this Agreement (collectively, "Plans"), shall not constitute or be deemed to be a release of the responsibility and liability of ENGINEER, its owners, officers, agents, employees, contractors, and subconsultants, for the accuracy and competency of the Services, , nor shall such approval or acceptance be deemed to be an assumption of or an indemnification for such responsibility or liability by OWNER for any defect, error or omission in the same, it being understood that OWNER at all times is relying on ENGINEER's skill and knowledge in preparing and providing the Services, including Plans. ENGINEER shall be and remain liable to OWNER for all damages and injuries (including death) caused by ENGINEER's negligent or intentionally wrongful performance, acts or omissions, or willful misconduct, under this Agreement.

Notwithstanding OWNER's review, approval or acceptance of, or payment for, any Services, and including any Plans, ENGINEER represents that such Services, including any Plans: (i) shall be sufficient and adequate for the PROJECT for which the same is prepared and fit for the purposes for which they are intended, and (ii) shall, to the best of ENGINEER's knowledge, information and belief as an engineer performing the practice of engineering in accordance with the standards, duties, and obligations set forth herein, be free from material error shall be performed in a manner consistent with the standard of care identified above.

Review, approval, or acceptance by OWNER of, or payment by OWNER for, any Services (including any Plans) shall not be deemed to be an assumption of responsibility and liability by OWNER for any error, omission, defect, deficiency or negligence in the performance of ENGINEER's professional services or in the preparation of the Plans by ENGINEER, its owners, officers, agents, employees, contractors, and subconsultants, it being the intent of the parties that approval by OWNER signifies OWNER's approval of only the general design concept of the improvements to be constructed.

In this connection, ENGINEER and its subconsultants shall indemnify and hold OWNER and all of its officers, agents, servants, and employees harmless from any loss, damage, liability or expenses, on account of damage to property and injuries, including death, to any and all persons, including but not limited to officers, agents or employees of ENGINEER or its subconsultants, and all other persons performing any part of the work and improvements, which may arise out of any negligent act, error, or omission in the performance of ENGINEER's professional services or in the preparation of evaluations, reports, surveys, designs, working drawings, specifications and other engineering documents incorporated into any improvements constructed in accordance therewith. This indemnification provision shall not be construed as requiring ENGINEER to indemnify or hold OWNER or any of its officers, agents, servants or employees harmless from any loss, damages, liability or expense, on account of damage to property or injuries to persons caused by defects or deficiencies in design criteria and information furnished to ENGINEER by OWNER, or any deviation in construction from ENGINEER's designs, working drawings, specifications or other engineering documents.



X. INSURANCE

At all times in connection with this Agreement, ENGINEER shall purchase, provide and maintain in a company or companies lawfully authorized to do business in Texas such insurance coverages as set forth below:

- A. Worker's Compensation Insurance at statutory (Texas) limits, including employer's liability coverage at minimum limits of \$1,000,000 each-occurrence each accident/\$1,000,000 by disease each-occurrence/\$1,000,000 by disease aggregate.
- B. Commercial General Liability insurance at minimum combined single limits of \$1,000,000 per-occurrence and \$2,000,000 general aggregate for bodily injury and property damage, which coverage shall include products/completed operations (\$2,000,000 products/completed operations aggregate). Coverage for products/completed operations must be maintained for at least two (2) years after the construction work has been completed. Coverage must be amended to provide for an each-project aggregate limit of insurance and must include contractual liability for ENGINEER's indemnity obligations set forth herein.
- C. Commercial Automobile and Vehicle Liability insurance at minimum combined single limits of \$1,000,000 per-occurrence for bodily injury and property damage, including owned, nonowned, and hired car and vehicles coverage.
- D. Professional Liability coverage at minimum limits of \$2,000,000 covering claims resulting from acts, errors and omissions in the performance of professional services. This coverage must be maintained for at least four (4) years after any project for which professional services are provided is finally completed. If coverage is written on a claims-made basis, a policy retroactive date equivalent to the inception date of this Agreement (or earlier) must be maintained during the full term of this Agreement and during the four year period thereafter described herein.

With reference to the foregoing insurance, ENGINEER shall specifically endorse applicable insurance policies as follows:

- (a) The Town of Addison, Texas shall be named as an additional insured with respect to General Liability and Automobile Liability.
- (b) All liability policies shall contain no cross liability exclusions or insured versus insured restrictions applicable to the claims of the Town of Addison.
- (c) A waiver of subrogation in favor of the Town of Addison shall be contained in the Workers Compensation and all liability policies.
- (d) All insurance policies shall be endorsed to require the insurer to notify the Town of Addison Texas at least 30 days prior to any material change in the insurance coverage.



- (e) All insurance policies shall be endorsed to the effect that the Town of Addison, Texas will receive at least 30 days notice prior to cancellation or non-renewal of the insurance.
- (f) All insurance policies, which name the Town of Addison, Texas as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.
- (g) Required limits may be satisfied by any combination of primary and umbrella liability insurances.
- (h) Insurance must be purchased from insurers that are financially acceptable to the Town of Addison.

All insurance must be written on forms filed with and approved by the Texas Department of Insurance. Certificates of Insurance, satisfactory to OWNER, shall be prepared and executed by the insurance company or its authorized agent, delivered to OWNER simultaneously with the execution of this Agreement (and updated as needed), and shall contain provisions representing and warranting the following:

- (a) List each insurance coverage described and required herein. Such certificates will also include a copy of the endorsements necessary to meet the requirements and instructions contained herein.
- (b) Shall specifically set forth the notice-of-cancellation and termination provisions to the Town of Addison, Texas.

Upon request, ENGINEER shall furnish OWNER with complete copies of all insurance policies certified to be true and correct by the insurance carrier. OWNER reserves the right to review the insurance requirements contained herein and to adjust coverages and limits when deemed necessary and prudent by OWNER.

XI. TERMINATION AND SUSPENSION

- A. 1. OWNER may terminate this Agreement at any time for convenience (that is, for any reason, or for no reason, whatsoever) by a notice in writing to ENGINEER. Termination will be effective as set forth in such notice.
 - 2. Either OWNER or ENGINEER may terminate this Agreement in the event the other party fails to perform in accordance with the provisions of this Agreement and (i) such failure remains uncured for a period of ten (10) days after written notice thereof (which notice shall specifically identify the failure) is received by the failing party, or (ii) if the failure cannot with diligence be cured within the said ten (10) day period, if within such ten (10) day period the failing party provides the



non-failing party written notice of the curative measures which it proposes to undertake which are acceptable to the non-failing party, and proceeds promptly to initiate such measures to cure such failure, and thereafter prosecutes the curing of such failure with diligence and continuity, the time within which such failure may be cured shall be extended for such period as may be necessary to complete the curing of such failure with diligence and continuity, but in any event not to exceed twenty (20) days following the date the written notice is received by the failing party.

- 3. Upon receipt of such termination notice by ENGINEER, if OWNER issues the same, or upon issuance of such written notice by ENGINEER, ENGINEER shall immediately discontinue all services and work and the placing of all orders or the entering into contracts for supplies, assistance, facilities, and materials, in connection with the performance of this Agreement and shall proceed to cancel promptly all existing contracts insofar as they are chargeable to this Agreement.
- B. If OWNER terminates this Agreement under the foregoing Paragraph A, OWNER shall pay ENGINEER a reasonable amount for services performed prior to such termination, which payment shall be based upon the payroll cost of employees engaged on the work by ENGINEER up to the date of termination of this Agreement and for subcontract and reproduction in accordance with the method of compensation stated in Section VII hereof. In the event of termination, the amount paid shall not exceed the amount appropriate for the percentage of work (Services) completed.

XII. SUCCESSORS AND ASSIGNS

This Agreement shall be binding upon and inure to the benefit of OWNER and ENGINEER and their respective permitted successors and assigns. Neither OWNER nor ENGINEER shall, and shall have no power to, assign, convey, subcontract or otherwise transfer (collectively, "assignment"), in any manner whatsoever, any of their respective interests, rights, duties, or obligations in or under this Agreement without the prior written consent of the other. Any unauthorized assignment shall be void and unenforceable. Nothing herein shall be construed as creating any personal liability on the part of any official, officer, employee, representative, or agent of OWNER.

XIII. AUTHORIZATION, PROGRESS, AND COMPLETION

OWNER and ENGINEER agree that the PROJECT is planned to be completed in accordance with the Exhibit A: "Project Schedule and Description of the Project" which is attached hereto and made a part hereof. ENGINEER shall employ manpower and other resources and use professional skill and diligence to meet the schedule; however, ENGINEER shall not be responsible for schedule delays resulting from conditions beyond ENGINEER's control. With mutual agreement, OWNER and ENGINEER may modify the Project Schedule during the course of the PROJECT and



if such modifications affect ENGINEER's compensation, it shall be modified accordingly, subject to OWNER Council approval.

For Additional Engineering Services, the authorization by OWNER shall be in writing and shall include the definition of the services to be provided, the schedule for commencing and completing the services and the basis for compensation as agreed upon by OWNER and ENGINEER.

It is understood that this Agreement contemplates the full and complete Engineering Services for this PROJECT including any and all services necessary to complete the work as outlined in Exhibit B: "Basic Engineering Services". Nothing contained herein shall be construed as authorizing additional fees for Services to provide complete services necessary for the successful completion of this PROJECT.

XIV. SUBCONTRACTS

ENGINEER shall be entitled, only if approved by OWNER, to subcontract a portion of the Services to be performed by ENGINEER under this Agreement.

XV. RIGHT TO AUDIT

ENGINEER agrees that OWNER shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any directly pertinent books, design calculations, quantity take-offs, documents, papers and records of ENGINEER involving transactions relating to this Agreement (and all such books, design calculations, quantity take-offs, documents, papers and records shall be provided by ENGINEER for such purpose in Dallas County, Texas). ENGINEER agrees that OWNER shall have access during normal working hours to all necessary ENGINEER facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. OWNER shall give ENGINEER reasonable advance notice of intended audits.

ENGINEER further agrees to include in all its subconsultant and subcontractor agreements hereunder a provision to the effect that the subconsultant and subcontractor agrees that OWNER shall, until the expiration of three (3) years after final payment under the subcontract, have access to and the right to examine and photocopy any directly pertinent books, design calculations, quantity take-offs, documents, papers and records of such subconsultant, involving transactions to the subcontract (and all such books, design calculations, quantity take-offs, documents, papers and records shall be provided by the subconsultant and subcontractor for such purpose in Dallas County, Texas), and further, that OWNER shall have access during normal working hours to all subconsultant and subcontractor facilities, and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with the provisions of this article. OWNER shall give ENGINEER reasonable advance notice of intended audits of such subconsultants and subcontractors, and ENGINEER in turn will give its subconsultants and subcontractors such reasonable advance notice.



XVII. EXHIBITS

Both parties agree to the following exhibits and as such, the following exhibits are made a part of this Agreement:

Project Schedule and Description of the Project
Basic Engineering Services
Special Engineering Services
Additional Engineering Services
Compensation
Services to be provided by the Owner

XVIII. MISCELLANEOUS

- A. <u>Authorization to Proceed.</u> Signing this Agreement shall be construed as authorization by OWNER for ENGINEER to proceed with the Services described herein, including in the attached Exhibit A.
- B. <u>Confidentiality</u>. If OWNER request in writing that ENGINEER keep any records, documents, or other information under or in connection with this Agreement confidential, ENGINEER shall keep the same confidential and not divulge or release any such records, documents, or other information to the public or to any third party without OWNER's prior written consent.
- Notices. Any notice or correspondence required to be given or provided under this Agreement shall be in writing and shall be deemed to have been properly given or provided: (i) if sent by certified mail, return receipt requested, postage prepaid, on the third business day following the deposit of the same in the United States mail, (ii) if by personal delivery, on the actual date of delivery and receipt, or (iii) if sent by a nationally recognized overnight carrier for next business day delivery, on the first business day following deposit of such notice with such carrier unless such carrier confirms such notice was not delivered, then on the day such carrier actually delivers such notice. Addresses and addressees for any notice or correspondence are as follows:

If to ENGINEER: Teague Nall and Perkins, Inc.

Attn: Chris Schmitt, PE

17304 Preston Road, Suite 1340

Dallas, TX 75252

If to OWNER: Town of Addison, Texas

5300 Belt Line Road Dallas, Texas 75254 Attn: City Manager



From time to time either party may designate another address within the State of Texas and/or another addressee by giving the other party notice thereof in accordance with this provision.

- D. Independent Contractor. ENGINEER shall perform and provide Services hereunder as an independent contractor, and not as an officer, agent, servant or employee of the OWNER, and ENGINEER shall have the exclusive right to control Services performed and provided hereunder by ENGINEER, and all persons performing and providing same, and shall be solely responsible for the acts and omissions of its officers, agents, employees, subcontractors, and subconsultants. This Agreement does not create and shall not be construed as creating an employer-employee relationship, a partnership, joint venture, or a joint enterprise between OWNER and ENGINEER, its officers, agents, employees, subcontractors, and/or subconsultants; and the doctrine of respondent superior has no application as between OWNER and ENGINEER.
- E. <u>Venue</u>. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas, , without regard to choice of laws rules of any jurisdiction; and exclusive venue for or in any lawsuit, action, or proceeding relating to this Agreement shall be in Dallas County, Texas.
- F. <u>Entire Agreement.</u> This Agreement represents the entire and integrated agreement between OWNER and ENGINEER regarding the PROJECT and the Services and supersedes all prior negotiations, representations or agreements, either written or oral, regarding the same. This Agreement may be amended only by written instrument signed by both OWNER and ENGINEER.
- G. Severability. The terms and provisions of this Agreement are severable, and if any term or provision in this Agreement shall be held illegal, invalid, or unenforceable by a valid final judgment of a court of competent jurisdiction, the remaining provisions shall remain valid and enforceable. In lieu of any illegal, invalid or unenforceable provision herein, the parties agree to negotiate the insertion of and to insert a provision as similar in its terms to such illegal, invalid or unenforceable provision as may be possible, with the intent that such added provision is legal, valid and enforceable.
- H. Suspension, Delay, Interruption. OWNER may suspend, delay, or interrupt the Services of ENGINEER for the convenience of OWNER. In such event and if such suspension, delay or interruption extends for a period of more than 6 months (for a reason not the fault of ENGINEER), OWNER And ENGINEER agree to negotiate, if possible, contract price and schedule equitable adjustments. In the event the OWNER suspends ENGINEER's Services hereunder, OWNER shall give written



notice of such suspension to ENGINEER, and ENGINEER shall cease all work and labor being performed under this Agreement immediately upon receipt of said notice.

- Conflict of Interest. ENGINEER covenants and represents that ENGINEER will have no financial interest, direct or indirect, in the purchase or sale of any product, materials or equipment that will be recommended or required for the construction of the PROJECT.
- Rights and Remedies Cumulative; Non-Waiver; Survival of Rights. The rights and remedies provided by this Agreement are cumulative, and the use of any one right or remedy by either party shall not preclude or waive its right to use any or all other remedies. Said rights and remedies are given in addition to any other rights the parties may have by law statute, ordinance, or otherwise. Failure of either party hereto, at any time, to enforce a provision of this Agreement shall in no way or event constitute a waiver of that provision, nor in any way affect the validity of this Agreement, any part hereof, or the right of either party thereafter to enforce each and every provision hereof. No term or provision of this Agreement shall be deemed waived or any breached excused unless the waiver or excusing of the breach shall be in writing and signed by the party claimed to have waived or excused. Further, any consent to or waiver of a breach shall not constitute consent to or waiver of or excuse of any other different or subsequent breach. Any rights and remedies either party may have with respect to the other arising out of this Agreement shall survive the cancellation, expiration or termination of this Agreement.
- K. <u>Immunity</u>. Notwithstanding any other provision of this Agreement, nothing in this Agreement shall or may be deemed to be, or shall or may be construed to be, a waiver or relinquishment of any immunity, defense, or tort limitation to which the OWNER, its officials, officers, employees, representatives, and agents are or may be entitled, including, without limitation, any waiver of immunity to suit.
- L. <u>No Third-Party Beneficiaries</u>. This Agreement and each of its provisions are solely for the benefit of the parties hereto and are not intended to create or grant any rights, contractual or otherwise, to any third person or entity.
- M. Construction of Terms. For purposes of this Agreement, (i) "includes" and "including" are terms of enlargement and not of limitation or exclusive enumeration, and use of the terms does not create a presumption that components not expressed are excluded, and (ii) "day" or "days" means calendar days. The use of any gender in this Agreement shall be applicable to all genders, and the use of singular number shall include the plural and conversely. Section and subsection headings are for convenience only and shall not be used in interpretation of this Agreement.

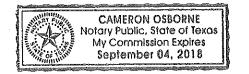


N. <u>Authorized Signatories</u>. The undersigned representatives of the parties hereto are the properly authorized representatives and have the necessary authority to execute this Agreement on behalf of each of the respective parties.

IN TESTIMONY WHEREOF, the parties hereto have executed this Agreement this the

This Agreement is executed in two (2) counterparts.

day of October 28, 2014	
(OWNER)	TEAGUE NALL AND PERKINS, INC. (ENGINEER)
By:	By: Chur Dihmak
	Principal
Date: 16/28/14	Date: 10/12/14
State of Texas County of Dallas	
Before me, Cameron Oslovne	, on this day personally appeared
Chris Schnitt	
Λ A	known to me (or proved to me on the oath of other document) to be the person whose name
is subscribed to the foregoing instrument and advan	
the purposes and consideration therein expressed	l.
·	
Given under my hand and seal of the office this	22 day of October, 2014.



Notary Public's Signature

EXHIBIT A - SCHEDULE for the

TOWN OF ADDISON



10/21/2014

Spring Valley Road to Keller Springs Road Midway Road Revitalization Project

Prepared by Teague Nall and Perkins, Inc.

BEGIN DATE
Wednesday, October 15, 2014 Wednesday, October 15, 2014
Prior to 1/30/2015
Wednesday, October 15, 2014
Monday June 15 2015
rilday, July U3, 2015 Monday, November 09, 2015
Monday, November 09, 2015 Friday, December 04, 2015
Friday, December 04, 2015 Monday, February 15, 2016
Monday, February 15, 2016
Friday, March 11, 2016
Monday, May 02, 2016
0.00 00.00
rilday, May ZU, ZU16
Monday, June 20, 2016
1444

TOWN OF ADDISON MIDWAY ROAD REVITALIZATION PROJECT (SPRING VALLEY ROAD TO KELLER SPRINGS ROAD)

EXHIBIT A: DESCRIPTION OF THE PROJECT

The "Project" shall mean the Midway Road Revitalization Project (Spring Valley Road to Keller Springs Road) also known as the TOWN of Addison Project # IDS 15-01. References to the "ENGINEER" shall mean Teague Nall and Perkins, Inc., references to the "TOWN" shall mean the Town of Addison, Texas.

The work to be performed by the ENGINEER under this Contract shall consist of providing engineering, surveying and landscape architecture services required for the preparation of plans, specifications and cost opinions for the reconstruction and revitalization of Midway Road, from Spring Valley Road to Keller Springs Road. It is anticipated that the reconstruction will begin at the north curb return of the Spring Valley intersection and extend to the south curb return of the Keller Springs intersection. The reconstruction of the Spring Valley or Keller Springs intersection is not included in the Project. The reconstruction of the Beltline Road intersection is also not included in the Project.

The scope of work to be performed under this Agreement shall generally consist of the following services:

- Concept studies and schematic plans
- Field surveying for design and easement/right-of-way (ROW) acquisition
- ROW/easement acquisition services
- Subsurface utility engineering
- · Franchise Utility coordination
- Pavement design for full depth reconstruction
- Design for storm drainage improvements
- Design for water and sanitary sewer improvements and replacements
- Construction traffic control and sequencing
- Design for signalization improvements and replacements
- Signing and pavement markings improvements
- · Design for median landscape improvements
- Design for pedestrian accessibility improvements including sidewalk, ramp and bus stop improvements
- Public outreach and coordination services
- Illumination design, details and coordination

This project will be developed utilizing English units of measure and all final plans sheets will be half size (11"x 17"). The Project scope anticipates preparation of one (1) plan set including all proposed improvements from Spring Valley Road to Keller Springs Road. It is also anticipated that the Project will be bid as a single project and not broken into more than one bid package.

TOWN OF ADDISON MIDWAY ROAD REVITALIZATION PROJECT (SPRING VALLEY ROAD TO KELLER SPRINGS ROAD)

EXHIBIT B: BASIC ENGINEERING SERVICES

The scope of services is organized as follows:

GENERAL PROJECT INFORMATION

1. General Project Design Parameters and Criteria

ENGINEER shall be represented by a Registered Professional Engineer licensed to practice in the State of Texas at meetings of any official nature concerning the Project, including but not limited to scope meetings, review meetings, pre-bid meetings, and preconstruction meetings, provided that ENGINEER has reasonable advance notice of the meeting. All Engineering documents released, issued, or submitted by or for a registered Engineering firm, including preliminary documents, must clearly indicate the Engineering firm name and registration number. Additionally, all completed documents submitted for final approval or issuance of a permit must bear the seal with signature and date adjacent thereto of a Registered Professional Engineer licensed to practice in the State of Texas associated with ENGINEER. The TOWN Design Standards to be used shall include the design criteria adopted by the TOWN as well as other design standards including the North Central Texas Council of Governments Standard Specifications for Public Works Construction, the TXDOT Roadway Design Manual and Bridge Design Guidelines, Highway Capacity Manual, the American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets (Green Book), AASHTO LRFD Bridge Design Specifications, AASHTO Guide for the Development of Bicycle Facilities, Texas Manual on Uniform Traffic Control Devices (TMUTCD), ADA Accessibility Guidelines, and the Texas Pollutant Discharge Elimination System (TPDES) Guidelines as appropriate for the most cost effective design. The minimum drawing standards to be used for construction document preparation include but are not limited to the following:

a. The Project shall follow the TOWN Design Standards, including latest revisions.

The Opinions of Probable Construction Costs (including land costs) shall be based on the current unit prices in Dallas County for similar work and include adjustments to reflect the ease or difficulty of constructing the Project. Estimated land costs should be included with the Probable Cost Opinions as a separate line item. Cost Opinions shall be updated and provided with the conceptual submittal, preliminary submittal, final submittal and prior to the bid plan submittal.

2. Permitting Services

a. ENGINEER shall be responsible for notifying the TOWN regarding any required permitting regulations imposed by any agency within the Project limits including



the DART rail line crossing or crossing of other ROW or easements with the Project limits.

At the TOWN's request the ENGINEER will prepare any necessary documentation, drawings, overlays, base maps, etc. required to receive said permit(s).

ENGINEER to provide for ADA plan review and inspections.

b. ENGINEER may be required to work in conjunction with other agencies requiring permits. TOWN shall be notified and fully involved in the permitting process. Should any additional design or plans be required as part of a permit, this work will be considered an additional service and may require an amendment to ENGINEER's contract with the TOWN.

CONCEPT STUDIES AND PRELIMINARY ENGINEERING (TASK A)

The ENGINEER shall perform Preliminary Engineering for this project consisting of a Design Summary Report and a concept schematic plan. The concept schematic shall conform to General Project Design Parameters and Criteria as stated previously. Any design exceptions necessary for concept schematic approval shall be identified and a "request for design exception" shall be prepared and submitted to the TOWN.

The ENGINEER shall organize and facilitate one (1) planning meeting with TOWN staff and other stakeholders to discuss the vision for the Project prior to preparation of the concept schematic. The purpose of the pre-concept planning meeting will be to collect revitalization ideas, goals and objectives for the Project.

The concept schematic shall include:

1. Data Collection and Review

The ENGINEER shall collect all pertinent project data from the TOWN including plans, as-builts, survey information and other reports. The ENGINEER shall review this data for use in design of the Project.

2. Collect Utility Plans from Municipalities and Franchise Utility Owners The ENGINEER shall collect all pertinent and readily available utility plans from municipalities and franchise/private utility owners who have utilities in the Project corridor.

3. Field Reconnaissance

The ENGINEER shall visit the Project site to record and photograph existing project conditions.

4. Develop Design Summary Report

The ENGINEER shall apply appropriate design criteria and provide a Design Summary Report (DSR) for the Project and will submit to the TOWN for review and approval. The

ENGINEER shall use the design criteria to identify the maximum and minimum values for all design elements and will identify the value preferred

5. Concept Schematic

The ENGINEER shall develop a concept schematic for the project that will be used to coordinate improvements within the Project corridor. The schematic will be prepared at a scale of 1" = 100' or smaller scale (i.e. 1" = 50') and shall include the following:

a. Geometric Layout, Plan Schematic

Using a combination of the design survey, existing aerial photography, general property research, utility research, site visits and the ENGINEER's experience, prepare a concept schematic depicting the proposed improvements for the project. The design elements to be shown will include the following:

- a. Available aerial imaging from NCTCOG or other compatible sources,
- b. Property ownership.
- c. Recommendations for ROW acquisition
- d. Control data.
- e. Horizontal alignment,
- f. Centerline curve data,
- g. lane configuration options and recommendations
- h. Signal improvements,
- i. Construction limits,
- j. Major culverts and drainage outfalls,
- k. Water and sanitary sewer considerations,
- I. Easements,
- m. Existing topography,
- n. Existing and proposed right of way,
- o. Utility information compiled from research, survey and SUE.
- p. Proposed utility improvement identification,
- q. Railroad crossing improvements,
- r. Existing ground profile and proposed vertical alignment.
- s. Include cross street centerline and profile (13 total intersections anticipated). Conceptual quantity take-offs and cost.

b. Preliminary Typical Sections

Prepare preliminary typical sections, which represent both the existing and proposed conditions. The typical sections shall incorporate the proposed pavement design. Typical sections shall include representations of the various conditions proposed, such as slopes, number of lanes, retaining wall locations (if applicable), shoulder widths, clear zones, border width and right-of-way width. This list is not all inclusive, and other information shall be added as needed to clarify the intent and purpose of the typical section.

c. Preliminary Design Cross Sections

In conjunction with the concept schematic, preliminary design cross sections will be developed for critical locations within the Project where constraints or grade issues may impact the preliminary typical sections. Each pavement layer and undercut, if any, will



be shown together with the right of way limits, side slopes, pavement cross slopes, curbs and any existing or proposed retaining walls.

6. Right of Way (ROW) Determination

Based on the concept schematic and design cross sections, the ENGINEER shall identify locations where additional right-of-way may be required. These locations and limits shall be depicted on the design schematic. The ENGINEER shall provide the TOWN a Right-of-Way map as soon as possible so the process of acquiring easements or ROW and be initiated if necessary.

7. Design Concept Review Meeting

The ENGINEER shall attend up to two (2) Design Concept Review Meetings to review the Concept submittals and to finalize the DSR and final Concept Plan and obtain consensus for the direction of the project. The ENGINEER shall not proceed with the Preliminary Engineering plans until the Concept Plans and DSR have been approved in writing by the TOWN.

8. Geotechnical and Materials Testing Services

ENGINEER shall submit a recommendation for the Project's geotechnical investigations to the TOWN. The TOWN will engage a Geotechnical Firm under a separate contract. ENGINEER shall coordinate with the TOWN's geotechnical consultant during the design phase to incorporate the geotechnical results and recommendations into the design of the Project including surveying of the bore locations. ENGINEER shall include the geotechnical test results, borings and recommendations in the Project specifications.

PUBLIC INVOLVEMENT (TASK B)

1. Public Meetings and Information

As directed by the TOWN, ENGINEER shall prepare necessary materials for use by the TOWN at up to two (2) public meetings. The ENGINEER may need to attend public meetings, including TOWN meetings, Council Meetings, etc. All contact with citizens shall be in a courteous and honest manner. All contacts with citizens shall be documented and provided to TOWN as soon as practical after the contact has been made. If necessary, ENGINEER shall discuss the issues raised by citizens with TOWN for a determination of how the issue should be addressed.

2. Public Outreach Media

The ENGINEER shall work with the TOWN to develop various formats and media options for interaction and notifications to the Public concerning the Project's status. The TOWN shall be responsible for implementing and administering the public outreach program. The ENGINEER shall work with the TOWN to prepare and provide the various materials (e.g. exhibits, schedules, updates) to be included in the outreach program.

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Town of Addison Project No. IDS 15-01

3. Project Newsletters Support

The ENGINEER shall provide the TOWN with supporting documentation including but not limited to: renderings, exhibits, schedules, progress narratives, up to eight (8) newsletters during the design process. Labels, postage and distribution will be furnished by the TOWN.

4. Reimbursable Costs

Reimbursable costs, such as color prints, renderings, copies, mail outs, etc. will be billed at cost.

5. Coordination with Stakeholders and TOWN ENGINEERs

- Throughout the design process, the ENGINEER shall assist the TOWN in coordinating with the various Project stakeholders. These include but are not limited to:
 - · City of Farmers Branch,
 - City of Carrolton
 - Franchise utility companies (e.g. Oncor, ATT, Atmos, etc.),
 - DART
 - Addison Airport

The ENGINEER will attend up to six (6) meetings with Project stakeholders.

- b. The ENGINEER will assist, when necessary, with describing design and Engineering requirements for the project at stakeholder meetings, TOWN coordination meetings and public meetings.
- c. The TOWN will be the principal contact for public and private inquiries regarding the project. The ENGINEER may be called upon to support the TOWN in responding to inquiries or researching/investigating questions or input from stakeholders.

UTILITIES (TASK C)

1. Ownership Data

The ENGINEER shall provide the TOWN with PDF's, CAD File(s), and Excel spreadsheet showing current ownership, address and volume and page to owners' deeds along entire project. Ownership will be based on Dallas County Appraisal District Records.

2. Utility Coordination

The ENGINEER shall coordinate and attend up to six (6) utility coordination meetings with the TOWN and the franchise utility companies. Utility coordination shall include the identification of utility conflicts, coordination, compliance with any applicable utility accommodation rules, and resolution of utility conflicts. The ENGINEER shall coordinate

all activities with the TOWN, or their designee, to facilitate the orderly progress and timely completion of the Project's design

3. Contact Local Utility Companies

ENGINEER shall coordinate with the utility companies throughout the Design Phase. Unless directed otherwise, the TOWN shall be present at all meetings with the Utility companies. ENGINEER shall deliver to each of the Utility Companies, a CD with pdf and electronic files (or other submittal requirements as dictated by the Utility Company) of each Project Submittal for their review and comments. (Including but not limited to the following Utility providers: Oncor Electric [aerial, major/minor underground & transmission], Atmos (Gas) and Telecommunication [AT&T {local, Metro, and long distance}, CATV], Pipelines, etc.)

Utility coordination shall include preparation of a utility conflict log to be submitted as required with each plan development milestone phase.

- a. ENGINEER shall compile, maintain, and update a Utility Conflict Log to include phone logs and all correspondence with all utility owners. Provide the most current copy of the conflict list to the TOWN at each milestone submittal, and coordinate with utility companies to resolve conflicts. The Utility Conflict Log should include the following information:
 - i. Owner of the facility, including the facility address and the name and telephone number of the contact person at the facility:
 - ii. Type of facility;
 - iii. Type and location of conflict, identified by station and offset
 - iv. Expected clearance date:
 - v. Status;
 - vi. Effect on construction:
 - vii. Type of adjustment required;
 - viii. Expected clearance date (if applicable).
- ENGINEER shall create an existing utility exhibit clearly reflecting existing utility locations, type of facility, and potential conflicts.
- 4. Subsurface Utility Engineering (SUE) including utility investigations subsurface and above ground prepared in accordance with AASHTO standards and Utility Quality Levels as follows.

ENGINEER shall submit a recommendation for the Level's A or B of Subsurface Utility Engineering Services for the Project, and receive approval from the TOWN prior to commencing said work. Work shall conform to the Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, CI/ASCE 38-02. This standard defines the following Quality Levels:

Quality Level A: Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed and survey ed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the



potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on plan documents.

Quality Level B: Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality Level B data should be reproducible by surface geophysics at any point of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.

Quality Level C: Information obtained by surveying and plotting visible aboveground utility features and by using professional judgment in correlating this information to Quality Level D information.

Quality Level D: Information derived from existing records or oral recollections.

The ENGINEER shall show the SUE information in the design and construction drawings. (Level of investigation will be determined based on Project requirements and proposed construction activities).

- 4.1 Locating Level A: Based on initial site investigations and research, ENGINEER anticipates performing up to 25 test holes for the Project. ENGINEER will dig an approximately 12" x 12" test hole, record the depth, take a digital picture of the identified utility and the tape measurement between the utility and the top of the ground, backfill and compact the hole, and restore the surface to its original condition. An iron rod with cap or "x-cut" will be set to mark the location of the test hole
- 4.2 Designating Level B: Based on initial site investigations and research, ENGINEER anticipates designating up to 58,400 linear feet of utilities, if tonable and/or accessible, in support of the proposed utility designs using geophysical prospecting equipment and reference to established survey control. Designating (Quality Level B) Services are inclusive of Quality levels C and D.
- Investigate, observe and annotate survey of existing utilities as located and marked by Quality Level "C" Subsurface Utility Engineering (SUE) for visible above ground utility features that are correlated to existing utility records. The Level will be performed per the standard of care guideline, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, CI/ASCE 38-02.
- 4.4 SUE Field Manager/Professional Engineer: A SUE Field Manager will be onsite for a portion of this project for field crew supervision, field quality control, and coordination with on-site personnel. A Professional Engineer will be responsible for QA/QC, management of the contract, sealing the final deliverables and coordination with the project team.

- 4.5 Traffic Control: ENGINEER will provide traffic control for the proposed SUE efforts. Traffic control will primarily consist of cones and signage. However, at locations where it is necessary to work within the paving limits of Midway Road or an adjacent side street, ENG INEER will coordinate with the TOWN for any necessary temporary lane closures. Appropriate lane closure traffic control facilities will be provided such as flag person(s), arrow board(s) and changeable message board(s), etc. ENGINEER will use standard Texas Manual on Uniform Traffic Control Devices (TMUTCD) traffic control details.
- 4.6 SUE Deliverables: The ENGINEER shall provide the following:
 - a. Two (2) signed and sealed sets of 11" x 17" colored drawings depicting all utility information collected.
 - b. Two (2) sets of 8 ½ " x 11" copies of ENGINEER test hole data forms, signed and sealed by a registered professional engineer depicting the utility information collected.
 - c. Two (2) CDs containing electronic Microstation (DGN) or CAD (DWG) files in US feet (2D) format, .pdf format, and scanned record information in .pdf format if received from each utility.

Franchise Utility Adjustment Design. It is anticipated that efforts and work related to the design of the actual franchise utility relocations shall be performed by the utility companies or under a separate agreement. The ENGINEER shall provide utility coordination as described in Items 1, 2 and 3 above.

PROJECT MANAGEMENT (TASK D)

1. Project Management

Provide general administration for the contracted work, including internal staffing and task assignments.

2. Project Initiation

Prior to kick-off meeting, the ENGINEER shall designate, in writing, one Registered Professional ENGINEER licensed to practice in the State of Texas to be the Project Manager throughout the duration of the project for project management and all communications, including billing, with the TOWN and Program Manager.

The ENGINEER shall not replace the designated Project Manager without the written approval of the TOWN.

3. Quality Control/Quality Assurance Plan

The ENGINEER shall submit a Quality Assurance/Quality Control Plan within fourteen (14) calendar days after the kick- off meeting for review and approval. The QA/QC Plan should include, as a minimum, the following:

- a. Project description, location, limits and minimum design criteria
- b. Project deliverables and schedules
- c. Organization chart showing responsibilities for design services and for quality control checks, which shall be conducted by an independent person qualified in the specific area of review



- d. Communications/coordination plan outlining the protocol for all communications related to the project
- e. Format and schedule for checking design reports, calculations, plans, and specifications for accuracy and completeness. The plan should make provisions for review of reports, plans, specifications, and estimates provided by sub-ENGINEERs. The ENGINEER shall ensure that sub-ENGINEER work is in accordance with their approved scope.
- f. Format and procedure for documenting all issues, design directions, design decisions, review comments, and review comment responses
- g. Format and procedures for certifying that all of the requirements of the QA/QC plan have been met and that all comments and issues have been resolved to the satisfaction of the reviewer
- h. Submit QA/QC documentation with all milestone plan submittals.

4. Project Schedule, Invoice, Progress Reports, and Progress Meetings

- a. Project Schedule The ENGINEER shall submit a Project schedule for TOWN approval within 14 calendar days after the kickoff meeting. The following minimum activities shall be included in the project schedule. The TOWN shall provide durations for review times.
 - i. Kickoff Meeting
 - ii. Pre-Concept Plan Meeting
 - iii. Concept Schematic Plans and DSR Submittal
 - iv. Concept Schematic Review Comments
 - v. Preliminary (60%) Plan Submittal
 - vi. Preliminary Review Comments
 - vii. Pre-Final (90%) Plan Submittal
 - viii. Pre-Final Plan Review Comments
 - ix. Final (100%) Plan Submittal
 - x. Final Review Comments
 - xi. Construction Bid plans Submittal
 - xii. Bidding and Award of the Project
- b. Invoice Submittals The ENGINEER shall submit its invoices of services completed and compensation due, arranged by tasks. The invoice submittal shall be submitted to the Program Manager monthly and include the following:
 - Invoice The budgeted and currently authorized amounts for each task, along with the invoiced and to-date amounts on the provided Program invoice forms.
 - ii. Project Schedule Updates An updated Project Schedule and related documents.
 - iii. Progress Reports A monthly report of the status of work performed through the end of the month. The ENGINEER shall summarize decisions or agreements made, and shall outline unresolved or pending issues requiring the TOWN's involvement or decision on the provided Program template.

- c. Meetings –The ENGINEER shall meet with the TOWN's Representative and shall prepare an agenda and sign-in sheet. The agenda must be submitted 24hours before the meeting. The ENGINEER shall prepare and distribute meeting minutes within three (3) working days of a meeting. The following is a summary of the meetings anticipated for the Project
 - i. Kickoff meeting
 - ii. Planning meeting with Town staff
 - iii. Design concept schematic plan review meeting (2)
 - iv. Public meeting (2)
 - v. Stakeholder meeting (6)
 - vi. Utility coordination meeting (6)
 - vii. Preliminary plan review meeting
 - viii. Final plan review meeting
 - ix. Miscellaneous design coordination meeting (4)

FIELD SURVEYING (TASK E)

ENGINEER shall obtain the services of a Registered Professional Land Surve yor to perform field surveys. All surveys shall comply with the latest revision of the Professional Land Surveying Practice Act of the State of Texas and shall be accomplished under the direct supervision of a currently licensed State of Texas Registered Professional Land Survey or. Survey services should include, but not be limited to the following:

- 1. Using Dallas County Appraisal District and Dallas County Clerk websites, ENGINEER shall gather ownership and deed information for base drawing.
- 2. Prepare Right-of-Entry agreements to adjacent landowners ENGINEER to provide draft agreement and owner list, TOWN to send and secure permissions to survey.
- 3. Research existing plats, Right-of-Way maps, deeds and survey for fence corners, monuments, iron pins, etc., within the existing Right-of-Way and analyze to establish apparent existing Right-of-Way. Apparent ROW is defined as the existing Right-of-Way with a plus/minus 1-foot tolerance. The preliminary base map will display the apparent Right-of-Way along with Dallas County Appraisal District records of lot or property lines, land ownership and addresses as publically available.
- 4. The ENGINEER shall prepare a ROW map, prepared by a Texas RPLS, depicting Ownership Data gathered, existing ROW and proposed ROW information. ROW information provided (both existing and proposed) must be of sufficient detail for the TOWN to make decisions regarding any proposed acquisitions.
- 5. Research and establish tract boundaries by field survey, calculations and adjustments and needed to create property line CADD file.
- 6. Survey for design and topographic mapping to create a TOPO base map CADD file. Prepare a final design and topographic drawing in digital format showing visible features located in the field, an ASCII coordinate file of all points located in the field and a hard copy of the coordinates and feature descriptions (Work Notes and Sketches). Provide cross-



sections of the existing roadway with shots being taken at the ROW, back of curb, edge of shoulder ,gutter, back of curb) and centerline. Provide structure details of all cross culverts and downstream channel cross sections. Locate visible existing features within the project limits, including but not limited to, manholes, water valves, concrete, fences and other utilities.

- 7. Prepare a Survey Control Map including but not limited to illustrating in graphical format the Rights-of-Way, proposed Permanent and Temporary Easements, project control line including all points of inflection, permanent and temporary Horizontal Control/Vertical Control Bench Marks (3 point tie details), coordinates of all horizontal/vertical control points and any other relevant data necessary to provide field parameters for construction. Survey Control Map shall be signed and sealed by the Registered Professional Land Surveyor responsible for the survey. Survey Control Map shall become part of the final construction documents.
- 8. Prepare metes and bounds for any proposed easements or right-of-ways, signed and sealed by an RPLS. The anticipated number of easements or right-of-way documents for the roadway and utility improvements is twelve (12). In addition, the prop osed hike and bike trail along the east side of Midway Road from Spring Valley to Arapaho Road will likely require the acquisition of approximately ten (10) right-of-way and/or easements from the property owners adjacent to the east side of Midway Road.
- 9. Easement and Right-of-Way Acquisition Services (See TASK Q).

ROADWAY DESIGN (TASK F)

Roadway design for this project shall include the full depth in place reconstruction of approximately 2 miles of Midway Road (existing 6-lane divided major arterial) including medians, sidewalks, driveways and street intersections. The southern design limit for the Project will be the north curb return of the Midway Road intersection with Spring Valley Road. The northern design limit for the Project will be the south curb return of the Midway Road intersection with Keller Springs Road. In addition, the design will **not** include the area between the southern and northern curb returns for the Beltline Road intersection. The reconstruction of that intersection is part of a separate design project for the TOWN. Intersection improvements at Spring Valley Road and Keller Springs Road are not included with this scope.

The street and driveway intersections include the following:

- Hornet Road
- Proton Road
- Beltwood Parkway
- Beltway Drive
- Centurion Way
- Arapaho Road
- Lindbergh Drive
- Wiley Post Road
- Midcourt Road
- · Wright Brothers Drive
- Boyington Drive/Dooley road
- Earhart Drive
- 38 (approximate) driveways north of Beltline Road
- 33 (approximate) driveways south of Beltline Road

It is assumed that the sidewalk improvements will consist of reconstructing sidewalks that are currently along the back of curb. Sidewalks not along the back of curb will remain unless grade adjustments to the Midway Road profile or that of the adjacent side streets requires the sidewalk to be reconstructed. Where possible, the ENGINEER will look for opportunities to reconstruct sidewalks to a minimum width of 6 feet. Unless required for ADA compliance, sidewalks will not be provided at locations where they do not exist today.

It is anticipated that the roadway will be reconstructed to generally conform to its current configuration (e.g. same number of through lanes, turn lanes, median breaks, etc.). A traffic study is not included in the ENGINEER's scope of services. The TOWN will provide the ENGINEER with any traffic study recommendations during the conceptual design phase of the Project so the recommendations can be incorporated into the concept plans and the DSR.

Specific design elements are further outlined as follows.

1. Finalize Design Elements

a. Finalize Vertical & Horizontal Alignments The ENGINEER shall base design on the approved concept schematic, finalize horizontal, vertical, and cross-sectional design elements for all roadways. All design shall be American Disabilities Act Accessibility Guidelines and Texas Accessibility Standards (ADAAG/TAS) compliant, as applicable.



- b. Traffic, Intersection, and Access Management Design Utilizing information provided by the TOWN or its traffic consultant, determine and develop proposed traffic element modifications such as turn lane limits and locations, median opening locations, driveway geometrics, and intersection geometrics.
- c. Typical Sections
 Develop final proposed typical sections for all roadways. Typical sections shall include representations of the various proposed conditions, such as pavement materials and thickness, cross-slopes, side slopes, number of lanes, lane widths, retaining wall locations, shoulder widths, clear zones, border width, sidewalk locations, and right-of-way width. This list is not all-inclusive, and other information shall be added as needed to clarify the intent and purpose of the typical sections.
- d. Driveway Profiles / Cross Sections Analyze all driveways within the project and develop driveway profiles as needed to ensure that driveways function as intended. (For example, residential driveways will be designed to accommodate passenger cars, commercial driveways will be designed to accommodate trucks). Delineate the limits of construction outside of the right-of-way as needed to secure an ad equate driveway profile. Driveways shall be ADAAG/TAS compliant, as applicable.
- Side Road Profiles
 Develop profiles for each side street and analyze each for accessibility to trucks and buses. Delineate the limits of construction necessary to develop a suitable profile.
- f. Intersection Layouts

 Develop plan layouts for each side street and an alyze each for positive drainage while identifying proposed elevations along each radius return to ensure acceptable intersection design.

2. Plan Development

- a. Develop Final Typical Section Sheets
 Prepare typical section sheets showing the existing typical section(s) and proposed typical section sections for all roadways
- Prepare Control Data Sheets
 Prepare a set of control data sheets listing horizontal and vertical control information. Coordinates, stations, and elevations of key alignment features and benchmarks shall be noted.
- c. Plan and Profile Sheets
 Using the approved preliminary geometric layout as the base drawing, prepare planprofile sheets for each roadway at 1" = 50' (or smaller scale) horizontal scale and 1"
 = 10' vertical scale (or smaller) on 11" x 17" plan sheets, unless otherw ise directed.

d. Roadway Cross-Sections

Provide design cross-sections that are annotated at all break points and are produced at a 1" = 10', 1" = 20' or other scale as directed, on 11" x 17" plan sheets or roll plots as directed. Original ground line, design subgrade line and finished grade line shall be shown. Provide three cross-section reports, one at the original ground line, one at the design subgrade line, and one at the finished grade line.

e. Cross Street Plan & Profiles

The ENGINEER shall develop cross street profiles using the same criteria as roadway plan & profiles.

f. Summary of Roadway Quantities

Compute quantities and summarize in the plans and prepare a bid item list and estimated prices for all roadway-related facilities.

g. Assemble Applicable Standards

Identify and acquire all applicable standards. Modify standards as needed. Plot sheets and incorporate into the plans.

DRAINAGE (TASK G)

The drainage analysis and design for the Project shall be in accordance with the TOWN's Drainage Criteria Manual and Drainage Master Plan and shall include an analysis of the existing and proposed drainage within the Project limits, and design of drainage improvement plans as necessary for compliance with current TOWN standards.

1. Preliminary Drainage Design

a. Drainage Area Mapping

Delineate drainage area boundaries based on United States Geological Survey (USGS), or other suitable topograph ic maps (if available). Compare watershed boundaries and limits to information found in the TOWN's latest Drainage Study, if available.

b. Calculate Discharges

Determine conveyance paths, channel slopes, time of concentration, and runoff coefficients and Soil Conservation Service (SCS) curve numbers and other factors as required to determine frequency-discharge relationships using hydrologic models.

c. Develop HEC-RAS Model of Channels

Develop water surface profiles for the existing Farmers Branch Creek crossing of Midway Road located between Spring Valley Road and Hornet Road. Determine profiles for design conditions and Federal Emergency Management Agency (FEMA) control conditions, including relevant conveyance features, (channels, culverts, slab bridges, encroachments) using HEC-RAS, HEC-2 or other models as approved by the TOWN The task is intended to support drainage infrastructure designs, and will be completed using means and methods that comply with FEMA standards. NOTE: FEMA Mapping is not included with this task.



- d. Hydraulic Summary Report
 Prepare a hydraulic summary report for Farmers Branch Creek for the
 purpose of obtaining a floodplain development permit's (FDP) from the Town
 of Addison and the City of Farmers Branch. The report will summarize
 analysis means, methods, and results, and will contain sufficient data, tables,
 exhibits, etc...necessary to support the FDP requests. TNP shall submit
 necessary permit applications to Town of Addison and/or Farmers Branch
 required for the FDP.
- Recommended Drainage Improvement
 Based on the model results and the TOWN's drainage criteria, provide recommendations for drainage improvements to be associated with the Project.
- f. Identify Easement Requirements
 The ENGINEER shall identify any required drainage easements needed to
 accommodate the recommended drainage improvements facilities.
- g.. Preliminary drainage analysis information will be compiled along with the recommended improvements and will be submitted to the TOWN with the Design Summary Report for review and approval.

2. Final Drainage Design

- a. Sub Area Mapping and Inlet Sizing (StormCAD or other approved method). Subdivide the overall drainage areas into sub-areas and calculate the discharge directed to each proposed inlet. Analyze inlet capacities and adjust inlet locations and sub-areas as needed to obtain acceptable water spread widths within the roadway. Prepare a drainage area map identifying all sub-areas.
- b. Storm Sewer Sizing (StormCAD or other approved method) Size a network of storm sewers to collect inlet flows and route the discharge to the outfall locations selected in the alternative development stage. Prepare hydraulic data sheets for inclusion in the plans.
- c. Culvert Sizing (HEC-RAS or other approved method)
 Size each cross culvert to pass the appropriate design-year storm without
 exceeding allowable headwater elevations. The TOWN's latest Drainage Study
 Report will be used to establish design controls. Applicable FEMA criteria will also
 be satisfied. Prepare hydraulic data sheets for inclusion in the plans.
- d. Storm Sewer Plan and Profile
 Prepare storm sewer plan and profile sheets depicting storm sewer, inlets and
 manholes necessary to drain the facility and convey the runoff to the designated
 discharge points. The storm sewer plan profiles will be consistent with the hydraulic
 computations developed using StormCAD or other approved method, and the
 TOWN's latest Drainage Study Report. Inlets, manholes and junctions will be in
 accordance with District standard details. Prepare layouts at 1" = 50' (or smaller
 scale) horizontal and 1" = 10' vertical (or smaller) on 11"x17" plan sheets unless
 otherwise directed.

e. Culvert Layouts

Prepare culvert crossing lay out sheets for each cross drainage structure in accordance with applicable standard details, the TxDOT Hydraulic Manual and the hydraulic computations developed utilizing HEC-RAS other approved method. Prepare layouts at 1" = 50' (or smaller scale) horizontal and 1" = 10' (or smaller) vertical on 11"x17" plan sheets unless otherwise directed.

f. Bridge Classification Culvert

The ENGINEER shall provide design calculations, layout sheets, structural details, quantities, and estimates for the culverts of sufficient size to be classified as a bridge. No bridge class culverts are anticipated for the Project.

- g. FEMA Coordination (Excluded)
- h. Special Inlet Details

Prepare custom details to clarify construction details of non-standard inlets, if needed.

Outfall Structure Details

Provide plan sheets and details to construct stor m sewer outfalls in the existing downstream channels.

j. Channel and Easement Grading

Determine outfall-grading requirements and provide plans, details and quantities to shape the outfall channel and stabilize the channel with slope protection or vegetation.

k. Miscellaneous Drainage Details

Prepare any and all necessary plan details necessary to clarify the construction requirements of the drainage facilities.

I. Hydraulic Data Sheets

Update Hydraulic Data Sheets to reflect the culvert designs.

m. Summary of Drainage Quantities

Compute quantities and summarize in the plans and prepare a bid item list and estimated prices for all drainage facilities.

n. Assemble Applicable Standards

Identify and acquire all applicable standards. Modify standards as needed. Plot sheets and incorporate into the plans.

SIGNING, MARKINGS AND SIGNALIZATION (TASK H)

1. Prepare Base Mapping

The ENGINEER shall prepare Base Mapping to be used by all ENGINEERs on the project.

2. Signing & Pavement Marking Layouts

Prepare signing and pavement marking layouts (1"=50' or smaller scale) in accordance with applicable design standards, and the TMUTCD. These layouts will depict signage, pavement marking, and delineator type on the same plan sheet.

3. Pavement Marking Details

Prepare any and all details necessary to clarify the construction requirements of the pavement marking plans.

4. Prepare Small Sign Details

Prepare small sign detail sheets for non-standard conditions. This sheet is intended to show the overall dimensions of the signs by determining letter size and spacing. Details will not be to scale.

5. Prepare Summary of Pavement Markings

Compute quantities and summarize in the plans and prepare a bid item list and estimated prices for all pavement markings.

6. Prepare Small Sign Summary

Determine the mounting requirements for each sign or sign cluster based on TM UTCD and/or other applicable standards. Provide a summary of all the signs together with totals for each mount type.

7. Signal Layouts and Design

Task 1.0 - Permanent Signal Design

The Engineer shall prepare permanent traffic signal modification plans for the proposed signalized intersections to be modified along Midway Road (Hornet, Proton, Beltway, Lindberg, and Dooley). Specific design elements include the following:

Midway Road at Hornet

- relocation of the northbound, eastbound, and westbound signal mast arm structures;
- remove northbound median left turn signal pole and foundation;
- remove southbound median signal pole;
- integration of flashing yellow arrow operations;
- · address ADA compliance due to signal improvements; and
- evaluate existing wiring and replace as necessary.

Midway Road at Proton

- · replace northbound and southbound signal mast arm structures;
- remove northbound median left turn signal pole and foundation;

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- remove southbound median left turn signal pole and foundation;
- integration of flashing yellow arrow operations;
- address ADA compliance due to signal improvements; and
- · evaluate existing wiring and replace as necessary.

Midway Road at Beltway

- replace northbound and southbound signal mast arm structures;
- remove northbound and southbound median left turn signal pole foundation;
- relocate existing signal cabinet from current location further west onto Beltway inside R.O.W.;
- remove existing cabinet foundation;
- install new signal cabinet, foundation, and raised base;
- integration of flashing yellow arrow operations;
- address ADA compliance due to signal improvements; and
- replace existing wiring for entire intersection.

Midway Road at Lindbergh

- · replace northbound signal mast arm structure;
- remove northbound median left turn signal pole and foundation;
- integration of flashing yellow arrow operations;
- address ADA compliance due to signal improvements; and
- evaluate existing wiring and replace as necessary.

Midway Road at Dooley

- replace traffic signal cabinet complete with controller, conflict monitor, Ethernet switch, video server, and preemption as per TOWN specifications;
- replace video detection equipment cameras and processor;
- replace all existing field wiring including wiring in signal poles/arms;
- · integration of flashing yellow arrow operations; and
- · address ADA compliance due to signal improvements.

It is assumed that the plan set for this contract will contain a quantity summary sheet; existing conditions layout (per intersection); two layout sheets (per intersection) show ing traffic signal and signing/pavement marking improvements with the appropriate conduit/cable schedule, signal sequence chart, detector assignment chart, signal cable termination chart; traffic signal foundation and hardware detail sheets; and up to ten TxDOT standard sheets and in accordance with TOWN or specifications and standards.

The ENGINEER shall coordinate removal of conflicts with existing aerial and underground utilities and the permanent and/or temporary signals with the TOWN.

Task 1.1 - Project Meetings

At the outset of the project, the ENGINEER will prepare for and attend one kick-off meeting to discuss the TOWN project requirements and any special design or coordination needs.

After the preliminary submittal, the ENGINEER will prepare for and attend one meeting with Town staff to receive comments.

Task 1.2 – Base Map and Specifications Assembly

The ENGINEER will assemble applicable design standards and specifications from the TOWN.

Using plans of existing or proposed utilities, the ENGINEER will verify the location of above-ground utilities and show the location of underground utilities as indicated on the plans. If utility plans cannot be furnished by the TOWN, the ENGINEER will coordinate with the TOWN to conduct a locate using DIGTESS.

Using plans of the existing or proposed intersection improvements, the ENGINEER will prepare a base map of existing roadway geometry and traffic control devices. This base map will be developed in an 11"x 17" format.

Task 1.3 - The ENGINEER shall prepare an Existing Condition Layout for Signalized Intersections

Task 1.4 - The ENGINEER shall prepare Signal Layout Plan Sheets, which are to include

- Existing Traffic Control
- Existing Utilities
- Proposed Roadway Improvements
- Proposed Installation
- Proposed Additional Traffic Control
- Proposed illumination attached to signal poles

Task 1.5 - The ENGINEER shall prepare Elevation Sheets.

Task 1.6 - The ENGINEER shall prepare Electrical Schedules for improvements.

Task 1.7 - The ENGINEER shall prepare Signal Detail Sheets which will include:

- Signal Poles
- Ground Boxes
- Wiring Diagrams
- Conduit and Conductor Tables
- Detectors
- Concrete Foundations
- · Vehicle and Pedestrian Signal Head Mounting Details
- Phasing Sheet
- ADA improvements
- Work Area Protection



- Task 1.8 The ENGINEER shall prepare traffic signal general notes and basis of estimate.
- Task 1.9 The ENGINEER shall prepare the summary of signal quantities.
- Task 1.10 The ENGINEER shall develop signal standards including foundation standards.

The ENGINEER shall coordinate electric service with the appropriate utility for permanent signal installation. The permanent signal plans will show the power source and the corresponding conduit runs.

Task 2.0 - Temporary Signal Design

- Task 2.1 The ENGINEER shall prepare temporary traffic signal plans to match proposed construction sequencing plans f or the proposed signalized intersections. It is assumed that 3 phases will be required at each intersection. These plans will illustrate the layout of the proposed signals and associated small signs attached to signal mast arms or span wires, phasing diagrams and details.
- Task 2.2 The ENGINEER will prepare a summary of temporary signal quantities.

Task 3.0 - Traffic Analysis

The Engineer shall evaluate turn-lane storage for the proposed signalized intersections to be modified along Midway Road (Hornet, Proton, Beltway, Lindberg, and Dooley). This evaluation will include analysis of existing storage provided at other unsignalized intersections currently in the corridor. The storage evaluation will be based on traffic demand during the AM, Midday, PM, and Saturday peak periods, and will assume that existing median access will remain for the future design. Any changes in median access (closing of current median openings) would trigger the need for further data collection and analysis, not included in this scope of services.

Task 3.1 - Traffic Data Collection

New turning movement count data will be collected, in the Fall of 2014, for the five signalized intersections in the project, following the beginning of public and private schools in Addison. This data will be collected and tabulated for 1.5 hour periods (six 15-minute intervals) during the AM, Midday, PM, and Saturday peak periods, identified using the Town's most recent arterial traffic count data.

Task 3.2 – Field Evaluation of Current Turn Storage and Demand

The Engineer will observe actual traffic operations on the street within the corridor during typical non-holiday AM, Midday, PM, and Saturday peak periods. The focus

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of these observations will be to determine where current turn-bays exceed demand, where traffic operations could be improved with additional turn storage capacity, and also to identify where other geometric enhancements could result in better overall traffic operations for the reconstructed roadway. Observations will also be used to calibrate and validate the SynchroTM model being used as part of this analysis.

Task 3.3 - Modeling and Queue Storage Evaluation

New traffic volumes will be integrated into AM, Midday, PM, and Saturday peak signal timing models. These models will be calibrated based on in-field observations, and used to develop recom mendations for the length of turn-bay storage to be provided in the new roadway design. These models can also be used for evaluating and recommending the most desirable lane configurations during various phases of construction, and for developing temporary traffic control strategies.

Task 3.4 - Technical Memorandum

A brief technical memorandum will be developed to summarize the analysis and recommendations. This memorandum will include a table of recommended storage lengths and other potential operational enhancements.

Task 3.5 - Meetings

It is anticipated that at least one meeting will take place to discuss preliminary findings with the Design Team, and one meeting to present findings to the Town of Addison. In addition, it is assumed that the Engineer will participate in up to three on-screen or telephone coordination meetings with the design team.

MISCELLANEOUS PLAN DEVELOPMENT (TASK I)

The ENGINEER shall develop the following for inclusion into the plans:

- a. Project Title Sheet
- b. Index of Sheets
- c. General Notes Sheets
- d. Project Layout Sheets
- e. Easement and ROW Layout Sheets
- f. Subsurface Utility Engineering Sheets
- g. Horizontal and Vertical Survey Control Sheets
- h. Horizontal Alignment Data Sheets
- i. Typical Sections
- j. Removal Plan
- k. Miscellaneous Layouts or Detail Sheets (if applicable)



TRAFFIC CONTROL AND SEQUENCING (TASK J)

1. Develop Traffic Control Typical Sections

In conjunction with the Traffic Control Layouts, the ENGINEER shall develop typical cross sections showing lane widths, edge conditions, channelization and proposed construction area.

2. Develop Sequence of Construction

The ENGINEER shall develop a sequence of construction for the proposed improvements.

3. Traffic Control Layouts

Prepare layouts (1" = 50' or smaller scale) showing the travel lanes and construction area for each phase of construction. Included in the layouts will be temporary signing and striping, channeliz ation devices, barricades and a narrative of the sequence of work. It is anticipated that the Project's construction contractor will be responsible for preparing the detailed traffic control plans for the Project. Those plans will conform to the ENGINEER's traffic control and sequencing plans and will be developed in accordance with TMUTCD standards and sealed by an Engineer licensed in the State of Texas.

4. Intersection Staging Plans

Develop typical intersection staging plans for similar intersections. Develop custom intersection staging layouts only for special conditions.

5. Driveway Staging Plans

Develop a typical driveway staging plan for similar driveways. Develop custom driveway staging layouts only for special conditions.

6. Bus Stop Staging Plans

Develop typical bus stop staging plans for any bus stops located along the project. Develop custom bus staging layouts for special conditions.

7. TCP Quantities Summary Sheet

The ENGINEER shall develop TCP Quantity Summary Sheets

8. Detour Plans

Develop horizontal and vertical alignments for any detours to be constructed. Prepare plan and profile sheets (1" = 50' or smaller scale on 11"x17" plan sheets) for proposed detours. For detour routings on existing streets, roads, or highways, provide layouts of proposed routing, showing "trail blazing" signs at intersections.



ILLUMINATION (TASK K)

- 1. Research and evaluate fixtures options (up to 4).
 - a. Identify criteria to be used in comparing fixtures/assembly configuration options.
 It is assumed that the TOWN wants to consider LED fixtures in addition to more traditional HPS and MH fixtures.
 - b. Model photometrics with current design spacing and Vi sual® 2012 Lighting Design Software.
 - c. Determine purchasing requirements and benefits.
 - d. Develop a spread sheet comparison of fixture/assembly configuration options based on above criteria and modeling.
- 2. Research and identify acceptable pole options.
 - a. Identify and investigate pole style options (up to 4).
 - b. Evaluate pole height and arm options.
- 3. Investigate anticipated power rates and determine the expected monthly and yearly power and maintenance costs.
 - a. Coordinate with the TOWN and the power company to verify the current rate and any applicable agreements.
 - b. Estimate expected monthly and yearly power costs per Illumination pole assembly for the Project for each of the fixture options.
 - c. Research and estimate the anticipated maintenance and replacement costs for each of the fixture options.
- 4. Evaluate Existing and Proposed Pole Locations
 - a. Evaluate existing pole locations and spacing.
 - Confirm compliance with Federal Aviation Administration (FAA) requirements for proximity to public airports or heliports; prepare and submit to TOWN any required FAA Airway-Highway Clearance forms and related documentation.
 - c. Develop conceptual pole layouts for the various fixture and pole options.
 - d. Determine locations for soil borings needed for foundation design.
- 5. Prepare Summary Report and Recommendation
 - a. Compile data from the above items.
 - b. Prepare a summary matrix for the various fixture pole combinations.
 - c. Prepare a brief summary report (to be included in the DSR) of the findings and make a recommendation to the TOWN for a fixture/pole assembly to be used on the Project.



- d. Meet with the TOWN to review and discuss the options and the ENGI NEER's recommendation.
- 6. Prepare Illumination Plans and Specifications
 - a. Prepare illumination pole layout sheets. Set pole locations to avoid conflicts with existing and proposed improvements.
 - b. Prepare conduit plans.
 - c. Prepare pole foundation plans and details.
 - d. Determine wiring requirements, calculate voltage drops and define circuits.
 - e. Develop wiring summary tables.
 - f. Coordinate with power company regarding power needs.
 - g. Prepare specifications and miscellaneous details.
 - h. Develop a summary of illumination quantities.
 - i. Prepare bid plans and contract documents.

ENVIRONMENTAL AND STORM WATER POLLUTION PREVENTION PLANS (TASK L)

1. Preparation of a Storm Water Pollution Prevention Plan (SW3P) in accordance with TCEQ Texas Pollutant Discharge Elimination System permit TXR150000.

Prepare SW3P data sheet in accordance with TOWN requirements.

2. Erosion Control Plan

Prepare erosion control layout sheets (1"=100' or smaller scale on 11" x 17" plan sheets) showing all necessary erosion control devices such as: seeding (temporary and permanent), sodding, sediment control fences, rock filter dams, soil retention blankets, riprap slope protection and other devices as required. Erosion control plan shall be coordinated with the Traffic Control Plan and Sequence of Work.

3. Miscellaneous SW3P and Erosion Control Details

Prepare miscellaneous plan details necessary to clarify the requirements of the storm water pollution prevention plans.

WATER & WASTEWATER IMPROVEMENTS (TASK M)

See Exhibit C: Special Engineering Services.



LANDSCAPE AND AESTHETIC IMPROVEMENTS (TASK N)

Provide landscape architecture and design services for the preparation of plans and specifications for the reconstruction of the existing Midway Road medians between Spring Valley Road to Keller Springs Road. This effort involves improvements for approximately twenty five (25) medians. The scope of work for this task of the Project includes evaluation of existing median improvements, removal of existing landscaping features and design of new landscaping features and irrigation systems. In addition, ENGINEER will design improvements for approximately ten (10) DART bus stops that exist within the Project limits. The ENGINEER will also design a hike and bike trail (8' to 10' wide) along the east side of Midway Road between Spring Valley Road and Arapaho Road.

- 1. Research and Data Collection
 - a. Coordinate and confirm intent of median improvements with TOWN staff.
 - b. Document existing conditions through photography.
 - c. Confirm inventory and catalog existing plant material in medians.
 - d. Gather project information using TOWN GIS, record documents, aerial photographs, plats or similar base map data resources.
 - e. Research TOWN ordinances and criteria for the proposed median improvements, (e.g. sight line visibility requirements, and pedestrian-vehicle interactions).
 - f. Identify existing landscape and irrigation improvements impacted by the proposed median improvements.
 - g. Confirm the TOWN's intent for gateway monumentation, and incorporation into the overall streetscape design concept.
 - 2. Conceptual Plans
 - a. Prepare conceptual median schematic design based on Project intent of streetscape guidelines and electronic data collection (aerial topography and photography), to include planting, shrub massing, hardscape layout, walks & trails, street furnishings, and street lights.
 - b. Prepare preliminary exhibit for utility coordination Acknowledge foreseeable issues, opportunities, and constraints associated with median alignment.
 - c. Identify potential median safety concerns and sight line visibility constraints.
 - d. Acknowledge median landscape maintenance challenges.
 - e. List preliminary details and notes as needed and related to the project.
 - f. Prepare an Opinion of Probable Construction Costs.
 - g. Submit Conceptual design docum ents for review and comment.
 - h. Receive Staff comments to incorporate into the design documents.



- 3. Preliminary Plans (60% drawings)
 - a. Develop the median landscape design based on the Schem atic Design and identified opportunities and constraints
 - b. Develop preliminary specifications for the proposed improvements
 - c. Evaluate median-safety concerns and sight line visibility constraints
 - d. Evaluate median landscape maintenance challenges
 - e. Coordinate the proposed median landscape with utility jurisdictions and TOWN
 - f. Update Opinion of Probable Construction Costs
 - g. Submit of preliminary plan documents for review and comment
 - h. Receive Staff comments to incorporate into Design Development documents
- 4. Final Plans (90% and 100% drawings)
 - a. Prepare specifications for the proposed improvements
 - b. Prepare plan set documents to include:
 - Hardscape horizontal and vertical control
 - Tree preservation and removal plan, if necessary
 - Tree preservation details and direction
 - · Median landscape planting plans
 - Irrigation design plans
 - · Bus stop improvement and furnishings plans
 - Hike and bike trail plans
 - · Miscellaneous details and notes
 - c. Update the Opinion of Probable Construction Cost

QUANTITIES, SPECIFICATIONS, ESTIMATE, AND BID DOCUMENTS (TASK O)

1. General Notes and Specification Data

Develop a complete set of General Notes and Specification Data, based on applicable bid items. Identify any Special Specifications and Special Provisions applicable to the project. Prepare any new Special Specifications or Special Provisions needed for the project and submit with appropriate justification.

2. Estimate

Prepare a construction cost estimate using locally preferred bid items and estimated unit prices, in Excel format.

3. Construction Contract Time Determination

Prepare a Construction Contract Time estimate.

4. Bid Package

Prepare a bid-ready package including contractor plan copies and a bound bid packet including general bidding requirements, bidding documents, bid proposal, specifications and provisions, applicable contractor bonding/insurance documents, and any other documents necessary for bidding of the project. ENGINEER must also provide electronic copies of all bidding documents in applicable Word/Excel format. It is assumed that the TOWN will be responsible for preparing and assembling the copies of the bid documents for distribution to prospective bidders.

BID PHASE SERVICES (TASK P)

1. Bid Services

a. Plan Distribution

ENGINEER will provide the TOWN with a master set of plans and specifications to be used by the TOWN for reproduction and distribution to bidder s.

b. Pre-Bid Meeting

ENGINEER shall attend up to two (2) Pre-Bid Conferences with TOWN representatives and prospective bidders prepare a sign-in sheet, and Pre- Bid Conference Minutes, prepare and issue addenda as appropriate to clarify, correct, or change the bidding documents.

c. Bidder Questions

Assist the TOWN in addressing and responding to bidder questions and requests.

d. Addenda

ENGINEER shall prepare and issue addenda as appropriate to clarify, correct, or change the bidding documents.

e. Bid Opening and Tabulation

ENGINEER shall attend the formal opening of bids and tabulate and furnish to TOWN an original CD with .xls file, and five (5) copies of the bid tabulation together with written recommendation regarding the award of the contract within seven (7) calendar days of receiving the bid documents from the TOWN. The recommendation for award should include contractor's past performance, experience and competence.

EASEMENT AND RIGHT-OF-WAY ACQUISITION (TASK Q)

1. Negotiation and Acquisition

- a. Engineer will provide negotiation and acquisition services for the proposed easements and right-of-way associated with the Project. It is anticipated that up to twelve (12) easement and/or right-of-way (ROW) parcels will be required for the roadway and utility improvements. In addition it is anticipated that up to ten (10) easement or ROW parcels will be required for the hike and bike trail improvements.
- b. ENGINEER will research property valves from tax records and readily available real estate information. Value estimates will be prepared for each property being considered for an easement or ROW taking.
- c. ENGINEER will meet with each property owner to discuss the project and the need to secure from him/her the easement and/or ROW to accommodate the proposed improvements. If property owner is not local, discussions will be by telephone, email or mail.
- d. ENGINEER will request that the property owner convey the easement and/or ROW with no compensation. If compensation is requested, a written offer will be prepared based on the tax value of the property and input from the TOWN.
- e. If owner does not agree to the offer, ENGINEER will try to negotiate a settlement if there is room for compromise. Any proposed settlement will be coordinated with the TOWN.
- f. After the easement or ROW documents are signed by the property owner, they will be presented to the TOWN for recording.
- g. If negotiations reach an impasse, ENGINEER will confirm with the TOWN that eminent domain (condemnation) action should be initiated. The following services will be performed as an Additional Services on an hourly reimbursable basis. The anticipated effort for each condemnation action is \$8,500 (Eight Thousand Five Hundred Dollars).
 - i. ENGINEER will secure a formal appraisal for the property interest.
 - ii. Using the appraisal, prepare and submit a written offer to the property owner for purchase of the easement or ROW.
 - iii. ENGINEER will negotiate with the property owner in good faith on all issues.
 - iv. If negotiations fail, coordinate with the TOWN to prepare and submit a Final Offer letter based on the appraisal value.
 - v. If the property owner rejects the Final Offer and negotiations fail, all files and reports will be delivered to the TOWN Attorney for legal condemnation proceedings.
 - vi. ENGINEER will meet with the TOWN Attorney to prepare for the hearing and testify at the hearing as required.



PROJECT DELIVERABLES

1. CONCEPT SCHEMATIC SUBMITTAL

This milestone submittal will primarily be for Program review only and shall include, at a minimum, the following conceptual documents and activities:

- a. Project Design Summary Report (DSR)
- b. Design Exceptions (if applicable)
- c. Concept Paving Plan/Profile Schematic
- d. Concept Paving Cross Section Schematic
- e. Concept Utility Plan Schematic (Water, Sanitary Sewer and Storm Drain)
- f. Concept Median Landscaping and Illumination Plan
- g. Traffic Control and Sequencing Concept
- h. ROW Ownership Map & Proposed Additional ROW/Easement Locations
- i. SUE (level D, C, & B)
- i. Opinion of Probable Construction Cost

Furnish TOWN with two (2) paper copies and two (2) CD's containing and Adobe Acrobat PDF copy of the above items.

Deliver all electronic files (models, spreadsheets, shape files, CADD files, etc.) on a CD. All files must be fully operational and located on the appropriate levels.

The ENGINEER shall submit the Concept Schematic design package through a short design meeting/workshop and allow 3 weeks for TOWN review and comment. ENGINEER shall not proceed with Preliminary Submittal design until provided with written TOWN approval of the Concept submittal.

2. PRELIMINARY SUBMITTAL (60%)

Submittal package shall contain/include but not be limited to at a minimum a written response to TOWN's CONCEPT SCHEMATIC review comments, the concept schematic review set with revisions based on the concept schematic review comments, and the following documents and activities:

- a. Title Sheet and Index
- b. General Notes
- c. Standard Details
- d. Typical Sections
- e. Traffic Control and Sequencing Plans
- f. Removal Layouts
- g. Control Sheets
- h. Roadway Plan & Profile Sheets (including Cross Streets)
- i. Driveway Profiles
- j. Retaining Wall Layouts
- k. Drainage Area Map (including summary of computations)
- I. Storm Sewer Plan & Profile (including summary of computations)
- m. Culvert Layouts (including hydraulic summary)
- n. Existing Utility Layouts
- o. Traffic Signal Layouts
- p. SW3P Data and Layouts

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- q. Cross Sections
- r. Signing & Pavement Markings
- s. Intersection Improvements
- t. Water Line Improvements
- u. Wastewater Line Improvements
- v. Illumination Layout
- w. Landscape Layout
- x. Specifications
- y. ROW Parcel Exhibits
- z. Opinion of Probable Construction Cost (60%)
- aa. Revise and Refine Designs based on TOWN Comments

Furnish TOWN with two (2) paper copies and two (2) CD's containing and Adobe Acrobat PDF copy of the above items associated with the 60% Submittal Package.

Deliver all electronic files (models, spreadsheets, shape files, CADD files, etc.) on a CD. All files must be fully operational and located on the appropriate levels.

The ENGINEER shall submit the 60% design package through a short design meeting/workshop and allow 4 weeks for TOWN review and comment. ENGINEER shall not proceed with Pre-Final Submittal design until provided with written TOWN approval of the Preliminary Submittal.

3. PRE-FINAL SUBMITTAL (90%)

Submittal package shall contain/include but not be limited to at a minimum a written response to TOWN's PRELIMINARY SUBMITTAL (60%) review comments, the 60% review set with revisions based on the 60% review comments, and the following documents and activities:

- a. Title Sheet and Index
- b. General Notes
- c. Standard Details
- d. Typical Sections
- e. Traffic Control Plans
- f. Removal Layouts
- g. Control Sheets
- h. Roadway Plan & Profile Sheets (including Cross Streets)
- i. Driveway Profiles
- j. Retaining Wall Layouts
- k. Drainage Area Map (including summary of computations)
- I. Storm Sewer Plan & Profile (including summary of computations)
- m. Culvert Layouts (including hydraulic summary)
- n. Existing Utility Layouts
- o. Traffic Signal Layouts
- p. SW3P Data and Layouts
- a. Cross Sections
- r. Signing & Pavement Markings
- s. Intersection Improvements
- t. Water Line Improvements

- u. Wastewater Line Improvements
- v. Illumination Layout
- w. Landscape Layout
- x. Specifications
- y. Opinion of Probable Construction Cost (90%)
- z. Bid Documents
- aa. Revise and Refine Designs based on TOWN Comments

Furnish TOWN with two (2) paper copies and two (2) CD's containing and Adobe Acrobat PDF copy of the above items associated with the 90% Submittal Package.

Deliver all electronic files (models, spreadsheets, shape files, CADD files, etc.) on a CD. All files must be fully operational and located on the appropriate levels.

The ENGINEER shall submit the 90% design package through a short design meeting/workshop and allow 4 weeks for TOWN review and comment. ENGINEER shall not proceed with Final Submittal design until provided with written TOWN approval of the Pre-Final Submittal.

4. FINAL SUBMITTAL (100%)

Submittal package shall contain/include but not be limited to at a minimum a written response to TOWN PRE-FINAL SUBMITTAL (90%) review comments, the 90% review set with revisions based on the 90% review comments. Submit 100% signed and sealed Bid-ready Drawings), Project Specifications/Bid Form, and Opinion of Probable Construction Cost estimate (excluding land costs) along with the reviewed Pre-Final drawings, specifications, and Opinion of Probable Construction Cost (if necessary). ENGINEER shall also submit the construction schedule and an estimate of construction duration. ENGINEER shall obtain all required utility approval signatures prior to the Final Submittal. Plans shall be submitted with the QA/QC Certification Form.

Furnish as a part of ENGINEER's basic fee not more than five (5) paper sets of bidding documents and not more than five (5) CDs with an Adobe Acrobat PDF copy of the bidding documents. CDs shall be separate from the paper set of the bidding documents. Bidding documents shall include but are not limited to the following:

- a. Title Sheet and Index
- b. General Notes
- c. Standard Details
- d. Typical Sections
- e. Traffic Control Plans
- f. Removal Layouts
- g. Control Sheets
- h. Roadway Plan & Profile Sheets (including Cross Streets)
- i. Driveway Profiles
- j. Retaining Wall Layouts
- k. Drainage Area Map (including summary of computations)
- I. Storm Sewer Plan & Profile (including summary of computations)
- m. Culvert Layouts (including hydraulic summary)

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- n. Existing Utility Layouts
- o. Traffic Signal Layouts
- p. SW3P Data and Layouts
- q. Cross Sections
- r. Signing & Pavement Markings
- s. Intersection Improvements
- t. Water Line Improvements
- u. Wastewater Line Improvements
- v. Illumination Layout
- w. Landscape Layout
- x. Specifications
- y. Opinion of Probable Construction Cost (100%)
- z. Construction Time Determination
- aa. Bid Documents
- bb. Revise and Refine Designs based on TOWN Comments

Furnish TOWN with one (1) CD containing and Adobe Acrobat PDF copy of the above items associated with the 100% Submittal Package.

Deliver all electronic files (models, spreadsheets, shape files, CADD files, etc.) on a CD. All files must be fully operational and located on the appropriate levels.

TOWN OF ADDISON MIDWAY ROAD REVITALIZATION PROJECT (SPRING VALLEY ROAD TO KELLER SPRINGS ROAD)

EXHIBIT C: SPECIAL ENGINEERING SERVICES

The scope of special engineering services is organized as follows:

WATER & WASTEWATER IMPROVEMENTS (TASK M)

It is assumed that all of the Town's water and wastewater lines within the pavement limits of Midway Road or within close proximity to the existing back of curb will be replaced as part of this roadway revitalization project. This assumption encompasses approximately 17,800 LF of water line ranging from 8" diameter to 16" diameter. Also included is approximately 10,000 LF of wastewater line ranging in size from 8" diameter to 18" diameter. The design of the replacement lines shall be in accordance with the Town's criteria as well as the requirements of TCEQ (i.e. TAC Title 30, Chapters 217 and 290). The water and wastewater improvements shall include the following:

1. Overall project water layout sheets

The water layout sheet shall identify the proposed water main improvement/ existing water mains in the vicinity and all water appurtenances along with pressure plane boundaries, valves, and fire hydrants.

2. Overall project sewer layout sheets

The sewer layout sheet shall identify the proposed sewer main improvement/ existing sewer mains in the vicinity and all sewer appurtenances

- 3. Coordinates on all P.C.'s, P.T.'s, P.I.'s, manholes, valves, mainline fittings, etc., in the same coordinate system as the Control Points.
- 4. Bearings will be given on all proposed centerlines, or basel ines.
- 5. Water Plan and Profile sheets which show the following:
 - a. proposed water plan/profile and recommended pipe size
 - b. fire hydrants
 - c. water service lines and meter boxes
 - d. gate valves and isolation valves
 - e. existing meter and sizes
 - f. existing fire line locations
 - g. existing utilities and utility easements



- h. legal description (Lot Nos., Block Nos., and Addition Names) along with property ownership shall be provided on the plan view.
- Sewer Plan and profile sheets which show the following:
 - a. proposed sewer plan/profile and recommended pipe size
 - b. manhole locations
 - c. existing service lines
 - d. existing utilities and utility easements
 - e. legal description (Lot Nos., Block Nos., and Addition Names) along with property ownership shall be provided on the plan view.
- 7. The ENGINEER shall make provisions for reconnecting all identifiable water and/or wastewater service lines which connect directly to any main being replaced, including replacement of existing service lines within TOWN right-of-way or utility easement. When the existing alignment of a water and sanitary sewer main or lateral is changed, provisions will be made in the final plans and/or specifications by the ENGINEER to relocate all service lines which are connected to the existing main and connect said service lines to the relocated main.
- 8. The ENGINEER will prepare special details for water and sewer line installation and/or replacement that are not already included TOWN's standard details. These may include connection details between various parts of the project, tunneling details, boring and jacking details, relocations, details unique to the construction of the project, trenchless details, and special service lateral reconnections.

TOWN OF ADDISON MIDWAY ROAD REVITALIZATION PROJECT (SPRING VALLEY ROAD TO KELLER SPRINGS ROAD)

EXHIBIT D: ADDITIONAL ENGINEERING SERVICES

EXCLUSIONS AND ADDITIONAL SERVICES

Services not specifically identified in Exhibit B: Basic Engineering Services shall be considered additional services and shall be performed on an individual basis upon written authorization by the TOWN.

Additional services shall include, but are not limited to, the following:

- 1. Any additional meetings, presentations and field visits not specified in this scope of services.
- 2. Design or coordination related to public art opportunities.
- 3. Attendance and preparation for meetings beyond those identified in the Scope of Services.
- 4. Construction staking.
- Special floodplain studies for off-site drainage or FEMA flood plain map amendments other than those listed in the Scope of Services.
- 6. Preparation of Traffic Control Plans other than those listed in the Scope of Services.
- 7. Storm Water Pollution Prevention Plans other than those listed in the Scope of Services.
- 8. Staking of floodplain and /or floodway limits.
- 9. Survey or design of improvements outside of the Project limits.
- 10. Traffic studies.
- 11. Landscaping and streetscaping plans for the existing parkways.
- 12. Pedestrian lighting plans or improvements.
- 13. Color marketing exhibits beyond the stated in the Scope of Services.
- 14. Demolition plans for any existing structures or facilities.
- 15. Geotechnical investigations, environmental impact statements, evaluation or permitting related to TCEQ or the United States Army Corps of Engineers.
- 16. Design of franchise utility relocations.
- 17. Value Engineering of layouts, designs or plans that have been approved for bidding by the TOWN.
- 18. Condemnation services.
- 19. Construction Administration Services
- 20. Construction Observation on-site project services.

TOWN OF ADDISON MIDWAY ROAD REVITALIZATION PROJECT (SPRING VALLEY ROAD TO KELLER SPRINGS ROAD)

EXHIBIT E: COMPENSATION

		Basic Services	ervices	Special Service
Manual Parket Control of the Control		Fixed Fee	Time and Expense	Time and Expense
Task A – Concept Studies and Preliminary Engineering:	ક	114,670.00		
Task B – Public Involvement:			\$ 24,640.00	
Task C – Utilities:			\$ 164,370.00	
Task D – Project Management:	\$	101,910.00		
Task E – Field Surveying:			\$ 234,830.00	
Task F – Roadway Design:	ક	297,550.00		
Task G – Drainage:	↔	132,680.00		
Task H – Signing, Markings and Signalization:	↔	118,770.00		
Task I – Miscellaneous Plan Development:	ঞ	55,390.00		
Task J - Traffic Control and Sequencing:	မှ	137,910.00		THE PARTY OF THE P
Task K – Illumination:	ક્ક	39,160.00		
Task L - Environmental and SWPPP:	s	21,710.00		
Task M – Water and Wastewater Improvements:				\$ 239 410 00
Task N – Landscaping and Aesthetics:	ω	134,460.00		
Task O - Quantities, Estimate, Specifications and Bid				
	₩	50,800.00		
Task P – Bid Phase Services:			\$ 13.970.00	
Task Q - Easement and ROW Acquisition:			\$ 99,029,00	TATAL TERMINATE
Direct Expenses			\$ 17,600.00	
TOTAL	↔	1,205,010.00	\$ 554,439.00	\$ 239,410.00
TOTAL MAX COMPENSATION	↔	1,998,859.00		

Exhibit E: Compensation for Midway Road Revitalization

TOWN OF ADDISON MIDWAY ROAD REVITALIZATION PROJECT (SPRING VALLEY ROAD TO KELLER SPRINGS ROAD)

EXHIBIT F: SERVICES TO BE PROVIDED BY THE OWNER

Responsibilities of the TOWN

The TOWN shall perform and/or provide the following in a timely manner so as not to delay the Services of the ENGINEER. Unless otherwise provide in this Scope of Services, the TOWN shall bear all costs incident to compliance with the following:

- 1. Furnish all documents for all existing and proposed facilities within the Project limits.
- 2. Furnish electronic or hard copy construction plans and documents for all existing facilities or those proposed by work outside the Scope of Services within the Project limits as information becomes available.
- 3. This scope of services anticipates that the TOWN or its representatives will provide base information for any other projects being designed within or adjacent to the Project limits. If possible, the information shall be provided in electronic format.
- 4. Furnish the TOWN's standard specification documentation.