AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES FOR _____ (RFQ NO. _____)

THIS AGREEMENT made and entered into this ____ day of _____, 20___, by and between the City of Lee's Summit, Missouri (hereinafter "City"), and TranSystems Corporation (hereinafter "Engineer").

WITNESSETH:

WHEREAS, City intends to have engineering services for Pryor Road Improvements from Longview Road to Hook Road (hereinafter "Project"); and

WHEREAS, Engineer has submitted a proposal for the Project and an estimate of engineering costs to perform the Project; and

WHEREAS, the City Manager is authorized and empowered by City to execute contracts providing for professional engineering services; and

WHEREAS, City desires to enter into an agreement with Engineer to perform the Project; and

WHEREAS, Engineer represents that the firm is equipped, competent, and able to undertake such an assignment.

NOW THEREFORE, in consideration of the mutual covenants and considerations herein contained, **IT IS HEREBY AGREED** by the parties hereto as follows:

ARTICLE I
SCOPE OF BASIC SERVICES TO BE PROVIDED BY ENGINEER

Engineer shall provide the following professional engineering services to City ("Basic Services"):

Design services for Pryor Road from Longview Road to Hook Road Roadway Improvement Project.

Specific Tasks to be Completed-Refer to Exhibit "A"

ARTICLE II
OPTIONAL SERVICES TO BE PROVIDED BY ENGINEER

The following is a list of additional services which will be furnished by Engineer, if needed by City, upon receipt of written authorization by the Director of Public Works ("Optional Services"):

None

ARTICLE III
SCOPE OF SERVICES TO BE PROVIDED BY CITY

City shall provide the following services to Engineer:

- Ownership and Encumbrance Reports
- Available plans for water and sewer locations, size and materials
- Available reports, master plans, traffic studies, development plans, comprehensive plans, and travel demand modeling data.
- As-built plans
- Available drainage studies
- Available plats of adjacent properties
- EJCDC Contract Documents and Division One-Special Contract Provisions
- Payment of any fees associated with permits
- Assist Consultant in gaining right of entry to private property for geotechnical exploration

ARTICLE IV
PAYMENTS TO THE ENGINEER

For the services performed by Engineer pursuant to this Agreement, and as full compensation therefore, and for all expenditures made and all expenses incurred by Engineer in connection with this Agreement, except as otherwise expressly provided herein, subject to and in conformance with all provisions of this Agreement, City will pay Engineer a maximum fee for Basic Services and Optional Services in the sum of One Million One Hundred and Fourteen Thousand Five Hundred and Ninety-Eight Dollars ($1,114,598.00), according to the following provisions:

A. The cost of all Basic Services covered under Article I shall be billed hourly at the rates set forth in Exhibit A attached hereto and incorporated herein by reference. Expenses incurred to provide the Basic Services shall be billed as set forth in Exhibit A. The total fees (hourly fees and expenses) for the Basic Services shall not exceed the total sum of One Million One Hundred and Fourteen Thousand Five Hundred and Ninety-Eight Dollars ($1,114,598.00).

B. The cost of all Optional Services covered under Article II shall be billed hourly at the rates set forth in Exhibit A attached hereto and incorporated herein by reference. Expenses incurred to provide the Optional Services shall be billed as set forth in Exhibit A. The total fees (hourly fees and expenses) for the Optional Services shall not exceed the total sum of Zero Dollars ($0.00).

C. If so requested by Engineer, City will make payment monthly for Basic Services and Optional Services that have been satisfactorily completed. The City shall make payment to Engineer within a period not to exceed thirty (30) days from the date an invoice is received by City. All invoices shall contain the following information:

1. Project Name/Task Name/RFP Number/Description of Agreement.
2. Invoice Number and Date.
3. Purchase Order Number issued by City.
4. Itemized statement for the previous month of Labor (including Personnel Description, Title or classification for each person on the Project, Hours Worked, Hourly Rate, and Amount), Itemized Reimbursable Expenses, and Invoice Total.
5. Description of monthly progress detailing the amount of the services completed to date and projected completion time.
6. Project Billing Summary containing the Contract or Agreed Maximum Fee Amount, Cumulative Amount Previously Billed, Billing Amount this Invoice, Contract or Agreed Amount Remaining, and Percent of Maximum Fee Billed to Date.

All moneys not paid when due as provided herein shall bear interest at a per annum rate equal to one percent (1%) plus the average *Consumer Price Index for All Urban Consumers (CPI-U)-U.S. City Average* for the time period in which payment is past due; provided, however, that in no event will the amount of interest to be paid by the City exceed 9% per annum.

ARTICLE V
COMPLETION TIME

The Basic Services shall be completed in accordance with the following schedule:

- Final deliverables by September 22, 2021.

The Director of Public Works may, with the mutual consent of the parties, amend the deadlines contained in this Article by written authorization upon a showing of cause for amendment by Engineer.

The Optional Services shall be completed in accordance with the deadlines set by the Director of Public Works and accepted by Engineer at the time said Optional Services are authorized by the Director of Public Works.

ARTICLE VI
INSURANCE

A. General.

1. Insurer Qualifications. Without limiting any obligations or liabilities of Engineer, Engineer shall purchase and maintain, at its own expense, the minimum insurance set forth in this Section with insurance companies

authorized to do business in the State of Missouri, with an AM Best, Inc. rating of A or above, and with policies and forms satisfactory to the City. Failure to maintain insurance as specified herein may result in termination of this Agreement at the City's option.

2. No Representation of Coverage Adequacy. The City reserves the right to review any and all of the insurance policies and/or endorsements cited in this Agreement, but has no obligation to do so. Failure to demand such evidence of full compliance with the insurance requirements set forth in this Agreement or failure to identify any insurance deficiency shall not relieve Engineer from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Agreement.

3. Additional Insured. All insurance coverage, except Workers' Compensation/Employer Liability insurance and Professional Liability insurance, if applicable, shall name and endorse, to the fullest extent permitted by law for claims arising out of the performance of this Agreement, the City, its designated agents, representatives, officers, directors, officials and employees as Additional Insured as specified under the respective coverage sections of this Agreement.

4. Coverage Term. All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of this Agreement are satisfactorily performed, completed and formally accepted by the City, unless specified otherwise in this Agreement.

5. Primary Insurance. Engineer's insurance shall be endorsed to indicate its primary, non-contributory insurance with respect to performance of this Agreement and in the protection of the City as an Additional Insured for general liability, Auto, and Umbrella/Excess liability policies. Such coverage shall be at least as broad as ISO CG 20 01 04 13.

6. Claims Made. In the event any insurance policies required by this Agreement are written on a "claims made" basis, coverage shall extend, either by keeping coverage in force or purchasing an extended reporting option, for six (6) years past completion and acceptance of the services. Such continuing coverage shall be evidenced by submission of annual Certificates of Insurance citing applicable coverage is in force and contains the provisions as required herein for the six-year period.

7. Waiver. To the fullest extent permitted by law, all policies, except for Professional Liability, including Workers' Compensation and Employer's Liability insurance, shall contain a waiver of rights of recovery (subrogation) against the City, its agents, representatives, officials, officers and employees for any claims arising out of the work or services of Engineer. Engineer shall arrange to have such subrogation waivers incorporated into each policy via formal written endorsement.

8. Policy Deductibles and/or Self-Insured Retentions. The policies set forth in these requirements may provide coverage that contains deductibles or self-

insured retention amounts. Such deductibles or self-insured retention shall not be applicable with respect to the policy limits provided to the City. Engineer shall be solely responsible for any such deductible or self-insured retention amount.

9. The limits of liability for each policy coverage amount stated above shall be automatically adjusted upward as necessary to remain at all times not less than the maximum amount of liability set forth in Chapter 537.610 RSMo. applicable to political subdivisions pursuant to 537.600; provided that nothing herein or in any such policy shall be deemed to waive the City's sovereign immunity. The statutory waiver of sovereign immunity for 2019 is $2,865,330 for all claims arising out of a single accident or occurrence.

10. Use of Subcontractors. If any work under this Agreement is subcontracted in any way, Engineer shall execute written agreements with its subcontractors containing the indemnification provisions set forth in this Section and insurance requirements set forth herein protecting the City and Engineer. Engineer shall be responsible for executing any agreements with its subcontractors and obtaining certificates of insurance verifying the insurance requirements.

11. Notice of Claim. Engineer shall upon receipt of notice of any claim in connection with this Agreement promptly notify the City, providing full details thereof, including an estimate of the amount of loss or liability. Engineer shall also promptly notify the City of any reduction in limits of protection afforded under any policy listed in the certificate(s) of insurance in an amount such that the policy aggregate becomes less than the current statutory waiver of sovereign immunity regardless of whether such impairment is a result of this Agreement. A breach of this provision is material breach of the contract.

12. Evidence of Insurance. Prior to commencing any work or services under this Agreement, Engineer will provide the City with suitable evidence of insurance in the form of certificates of insurance and, if requested by the City, a copy of the declaration page(s) of the insurance policies as required by these requirements, issued by Engineer's insurance insurer(s) as evidence that policies are placed with acceptable insurers as specified herein and provide the required coverages, conditions and limits of coverage specified in these requirements and that such coverage and provisions are in full force and effect. The City shall reasonably rely upon the certificates of insurance and declaration page(s) of the insurance policies as evidence of coverage but such acceptance and reliance shall not waive or alter in any way these insurance requirements or obligations.

13. If any of the policies required by these requirements expire during the life of the Agreement, it shall be Engineer's responsibility to forward renewal certificates and declaration page(s) to the City 30 days prior to the expiration date. All certificates of insurance and declarations shall be identified by referencing the Agreement; certificates of insurance and declaration page(s) of the insurance policies submitted without referencing the Agreement, as

applicable, will be subject to rejection and may be returned or discarded. Certificates of insurance and declaration page(s) shall specifically include the following provisions:

a. The City, its agents, representatives, officers, directors, officials and employees are Additional Insureds as follows:

   i. Commercial General Liability – Under Insurance Services Office, Inc., ("ISO") Form CG 20 10 (07/04) for ongoing operations and CG 20 37 (07/04) for products/completed operations coverage.
   ii. Auto Liability – Under ISO Form CA 20 48 or equivalent.
   iii. Excess Liability – Follow Form to underlying insurance.

b. Engineer's insurance shall be primary, non-contributory insurance with respect to performance of the Agreement for general liability, Auto, and Umbrella/Excess liability policies.

c. All policies, except for Professional Liability, including Workers' Compensation and Employer's Liability, waive rights of recovery (subrogation) against City, its designated agents, representatives, officers, officials and employees for any claims arising out of work or services performed by Engineer under this Agreement.

d. ACORD certificate of insurance form 25 (2014/01) is preferred.

14. All Certificates of Insurance shall name the City of Lee's Summit as the certificate holder and send the certificate and any endorsements to:

    City of Lee's Summit
    220 SE Green Street
    Lee's Summit, MO 64063-2358

B. Required Insurance Coverage.

1. Commercial General Liability. Engineer shall maintain "occurrence" form Commercial General Liability insurance $3,000,000 Products and Completed Operations Annual Aggregate and a $3,000,000 General Aggregate Limit. The policy shall cover liability arising from premises, operations, independent contractors, products-completed operations, bodily injury, personal injury and advertising injury. Coverage under the policy will be at least as broad as ISO policy form CG 00 01 93 or equivalent thereof, including but not limited to, separation of insured's clause. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, officials and employees shall be endorsed as an Additional Insured under ISO, Commercial General Liability Additional Insured Endorsement forms CG 20 10 07 04 and CG 20 37 07 04, or their equivalents. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.

2. Vehicle Liability. Engineer shall maintain Business Automobile Liability insurance of at least $3,000,000 each occurrence on Engineer's owned, hired and non-owned vehicles assigned to or used in the performance of the Engineer's work or services under this Agreement. Coverage will be at least as broad as ISO coverage code "1" "any auto" policy form CA 00 01 12 93 or equivalent thereof. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, the City, its agents, representatives, officers, directors, officials and employees shall be endorsed as an Additional Insured under ISO Business Auto policy Designated Insured Endorsement form CA 20 48 or equivalent. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.

3. Professional Liability. If this Agreement is the subject of any professional services or work, or if the Engineer engages in any professional services or work adjunct or residual to performing the work under this Agreement, the Engineer shall maintain Professional Liability insurance covering negligent errors and omissions arising out of the Services performed by the Engineer, or anyone employed by the Engineer, or anyone for whose negligent acts, mistakes, errors and omissions the Engineer is legally liable, with liability insurance limit of at least $3,000,000 each claim and $3,000,000 annual aggregate. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.

4. Workers' Compensation Insurance. If Engineer employs anyone who is required by law to be covered by workers' compensation insurance, Engineer shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over Engineer's employees engaged in the performance of work or services under this Agreement and shall also maintain Employers Liability Insurance of not less than $500,000 for each accident, $500,000 disease for each employee and $1,000,000 disease policy limit.

C. Cancellation and Expiration Notice. Insurance required herein shall not expire, be canceled, without thirty (30) days' prior written notice to the City. In the event of a material change in coverage, Engineer shall provide thirty (30) days written notice of such material changes in insurance coverage.

ARTICLE VII
MISCELLANEOUS PROVISIONS

The following miscellaneous provisions are agreed to by both parties to this Agreement:

A. COVENANT AGAINST CONTINGENT FEES: Engineer warrants that Engineer has not employed or retained, and will not employee or retain for the duration of this

Agreement, any company or person, other than a bona fide employee working for the Engineer, to solicit or secure this Agreement, and that Engineer has not paid or agreed to pay any company or person, other than bona fide employee, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the City shall have the right to annul this Agreement without liability or, at its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee. Engineer further covenants that in the performance of this Agreement no person having such interest shall be employed.

B. OWNERSHIP OF ENGINEERING DOCUMENTS: Payment by City to Engineer as aforesaid in Article IV shall vest in City title to all drawings, sketches, studies, analyses, reports, models, and other paper, documents, computer files, and material produced by Engineer exclusively for the services performed pursuant to this Agreement up to the time of such payments, and the right to use the same without other or further compensation, provided that any use for another purpose shall be without liability to the Engineer. Any reuse without written verification or adaptation by Engineer for the specific purpose intended will be at City's risk and without liability or exposure to Engineer, and City shall indemnify and hold harmless, to the extent allowed by the Constitution and Laws of the State of Missouri, Engineer from all claims, damages, losses, expenses, including attorneys' fees arising out of or resulting therefrom.

C. MODIFICATIONS TO SCOPE OF WORK: In the event of any changes in the scope of services contained in this Agreement, prior to commencing the services City and Engineer shall enter into a modification of this Agreement describing the changes in the services to be provided by Engineer and City, providing for compensation for any additional services to be performed by Engineer, and providing completion times for said services.

D. EMERGENCY CHANGES IN SERVICES: The Director of Public Works, with the consent of the City Manager, is authorized to execute on behalf of the City modification agreements as provided for in subsection C. above where there is an emergency and the overall compensation authorized in Article IV above, and any supplements or modifications thereto, is not increased. For purposes of this subsection, an "emergency" shall mean those unforeseen circumstances that present an immediate threat to public health, welfare, or safety; or when immediate response is necessary to prevent further damage to public property, machinery, or equipment; or when delay would result in significant financial impacts to the City as determined by the Director of Public Works and the City Manager.

   In the event an emergency change in services is authorized by the Director of Public Works and the City Manager pursuant to this provision, the modification agreement shall be submitted to the City Council for ratification at its next available meeting.

E. TERMINATION: In the event of termination by City, if there are any services hereunder in progress but not completed as of the date of termination, then said

Agreement may be extended upon written approval of the City until said services are completed and accepted.

1. Termination for Convenience: The services called for by this Agreement or any supplements thereto may be terminated upon request and for the convenience of City upon thirty (30) days advance written notice. City shall pay Engineer for all services rendered up to the date of termination.

2. Termination for Cause: This Agreement may also be terminated for cause by City or Engineer. Termination for cause shall be preceded by a fourteen-(14) day correction period effective upon delivery of written notice. City shall pay Engineer for all services rendered up to the date of termination. In the event of termination for cause by City, compensation for services rendered by Engineer up to the date of termination shall be offset by City's cost to mitigate or correct the effects of such termination, including by not limited to damages resulting from breach or deficiencies in performance or breach of any obligation under this Agreement.

3. Termination Due to Unavailability of Funds in Succeeding Fiscal Years: When funds are not appropriated or otherwise made available to support continuation of the Project in a subsequent fiscal year, this Agreement shall be terminated and Engineer shall be reimbursed for the services rendered up to the date of termination plus the reasonable value of any nonrecurring costs incurred by Engineer but not amortized in the price of the services delivered under this Agreement.

F. COMPLIANCE WITH LAWS: Engineer shall comply with all Federal, State, and local laws, ordinances, and regulations applicable to the services. Engineer shall secure all licenses, permits, etc. from public and private sources necessary for the fulfillment of its obligations under this Agreement.

G. SUBLETTING ASSIGNMENT OR TRANSFER: Engineer shall not subcontract, sublet, assign, or transfer any interest in the services covered by this Agreement, except as provided for herein and except with the prior written and signed consent of City. The use of subcontractors shall in no way relieve Engineer of his/her primary responsibility for the services. No approval will be necessary for non-professional services such as reproductions, printing, materials, and other services normally performed or provided by others.

H. CONFERENCES, VISITS TO SITE, INSPECTION OF SERVICES: Upon reasonable advance notice and during normal business hours at Engineer's place of business, representatives of City shall have the privilege of inspecting and reviewing the services being performed by Engineer and consulting with him/her at such time. Conferences are to be held at the request of City or Engineer.

I. ENGINEER'S ENDORSEMENT: Engineer shall endorse all plans, specifications, estimates, and engineering data furnished by him/her.

J. INSPECTION OF DOCUMENTS: Engineer shall maintain all records pertaining to its services hereunder for inspection, upon reasonable advance notice and during normal business hours at Engineer's place of business, by a City representative during the contract period and for three (3) years from the date of final payment for each individual project performed pursuant to this Agreement.

K. INDEMNIFICATION AND HOLD HARMLESS: Engineer shall indemnify, defend, and hold harmless City and its officers, employees, elected officials, and attorneys, each in their official and individual capacities (the City and any such person being herein called an "Indemnified Party"), for, from and against any and all judgments, damages, claims, fines, penalties, losses, costs, and expenses (including reasonable attorneys' fees, court costs and the costs of appellate proceedings) to which any such Indemnified Party may become subject, under any theory of liability whatsoever (collectively "Claims"), insofar as such Claims (or actions in respect thereof) relate to, arise out of, or are caused by or based upon the intentional, reckless, or negligent acts, directives, errors, omissions, or willful misconduct, in the performance of Engineer's duties and services under this Agreement, or any supplements or amendments thereto, of Engineer, or its employees, officers, agents, or any tier of subcontractor or person for which Engineer may be legally liable in the performance of this Agreement

L. LIMITATION OF LIABILITY: In no event will City be liable to Engineer for indirect or consequential damages, and in no event will City's liability under this Agreement exceed the amount to be paid to Engineer pursuant to Article IV of this Agreement.

M. PROFESSIONAL RESPONSIBILITY: Engineer warrants that the Services rendered will conform to the requirements of this Agreement and with the care and skill ordinarily used by members of the same profession practicing under similar circumstances at the same time and in the same locality.

N. ENTIRE AGREEMENT: This Agreement constitutes the entire agreement between the parties with respect to its subject matter, and any prior agreements, understandings, or other matters, whether oral or written, are of no further force or effect. This Agreement may be amended, changed, or supplemented only by written agreement executed by both of the parties hereto.

O. CONFLICT: In the event of any conflict, ambiguity, or inconsistency between this Agreement and any other document that may be annexed hereto, the terms of this Agreement shall govern.

P. GOVERNING LAW: This Agreement shall be governed by and construed in accordance with the laws of the State of Missouri, and any suit pertaining to this Agreement may be brought only in courts in eastern Jackson County, Missouri. The Parties expressly and irrevocably consent to the exclusive jurisdiction and venue of such courts and expressly waive the right to transfer or remove any such action.

Q. OPINION OF PROBABLE CONSTRUCTION COST AND SCHEDULE: Since Engineer has no control over the cost of labor, materials, or equipment, or over contractor's(s') methods of determining prices, or over competitive bidding or market conditions, the estimate of construction cost and schedule provided for herein is to be made on the basis of Engineer's experience and qualifications and represents Engineer's best judgment as a professional engineer familiar with the construction industry, but Engineer cannot and does not guarantee that the bids or the Project construction cost or schedule will not vary from the opinion of probable construction cost and schedule prepared by Engineer.

R. TAX EXEMPT: City and its agencies are exempt from State and local sales taxes. Sites of all transactions derived from this Agreement shall be deemed to have been accomplished within the State of Missouri.

S. SAFETY: In the performance of its services, Engineer shall comply with the applicable provisions of the Federal Occupational Safety and Health Act, as well as any pertinent Federal, State and/or local safety or environmental laws and regulations.

T. ANTI-DISCRIMINATION CLAUSE: Engineer and its agents, employees, or subcontractors shall not in any way, directly or indirectly, discriminate against any person because of age, race, color, handicap, sex, national origin, or religious creed.

U. DELAY IN PERFORMANCE: Neither City nor Engineer shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the nonperforming party. For purposes of this Agreement, such circumstances include, but are not limited to, abnormal weather conditions, floods, earthquakes, fire, epidemics, war, riots, and other civil disturbances, strikes, lockouts, work slowdowns, and other labor disturbances, sabotage, judicial restraint, and delay in or inability to procure permits, licenses, or authorizations from any local, State, or Federal agency for any of the supplies, materials, accesses, or services required to be provided by either City or Engineer under this Agreement. Engineer and City shall be granted a reasonable extension of time for any delay in its performance caused by any such circumstances. Should such circumstances occur, the nonperforming party shall within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of the Agreement.

V. NON-EXCLUSIVE AGREEMENT. This Agreement is entered into with the understanding and agreement that it is for the sole convenience of the City. The City reserves the right to obtain like goods and services from another source when necessary.

W. TIME OF THE ESSENCE. Time is of the essence in this Agreement. Unless otherwise specifically provided, any consent to delay in Engineer's performance of

its obligation is applicable only to the particular transaction to which it relates, and is not applicable to any other obligation or transaction.

X. SIGNATORY AUTHORITY. Each person signing this Agreement represents that such person has the requisite authority to execute this Agreement on behalf of the entity the person represents and that all necessary formalities have been met.

Y. IMMIGRATION REQUIREMENTS. Pursuant to Section 258.530, RSMo. if Agreement exceeds five thousand dollars ($5,000.00), Engineer warrants and affirms to the City that (i) Engineer is enrolled and participates in a federal work authorization program with respect to the employees working in connection with the contracted services and (ii) Engineer does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

Engineer shall swear to and sign an affidavit declaring such affirmation, and provide the City with supporting documentation of its enrollment and participation in a federal work authorization program with respect to the employees working in connection with this Agreement. The required documentation must be from the federal work authorization program provider (e.g. the electronic signature page from the E-Verify program's Memorandum of Understanding); a letter from Engineer reciting compliance is not sufficient.

Z. RIGHTS AND REMEDIES. No provision in this Agreement shall be construed, expressly or by implication, as waiver by the City of any existing or future right and/or remedy available by law in the event of any claim of default or breach of this Agreement. The failure of the City to insist upon the strict performance of any term or condition of this Agreement or to exercise or delay the exercise of any right or remedy provided in this Agreement, or by law, or the City's acceptance of and payment for services, shall not release the Engineer from any responsibilities or obligations imposed by this Agreement or by law, and shall not be deemed a waiver of any right of the City to insist upon the strict performance of this Agreement.

AA. NO THIRD-PARTY RIGHTS: The services provided for in this Agreement are for the sole use and benefit of City and Engineer. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Engineer.

BB. CONFIDENTIALITY OF RECORDS. The Engineer shall establish and maintain procedures and controls that are acceptable to the City for the purpose of ensuring that information contained in its records or obtained from the City or from others in carrying out its obligations under this Agreement shall not be used or disclosed by it, its agents, officers, or employees, except as required to perform Engineer's duties under this Agreement. Persons requesting such information should be referred to the City. Engineer also agrees that any information pertaining to individual persons shall not be divulged other than to employees or officers of Engineer as needed for the performance of duties under this Agreement.

CC. PROVISIONS REQUIRED BY LAW. Each and every provision of law and any clause required by law to be in the Agreement will be read and enforced as though it were included herein and, if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either Party, the Agreement will promptly be physically amended to make such insertion or correction.

DD. SEVERABILITY. The provisions of this Agreement are severable to the extent that any provision or application held to be invalid by a Court of competent jurisdiction shall not affect any other provision or application of the Agreement which may remain in effect without the invalid provision or application.

EE. NOTICE: Whenever any notice is required by this Agreement to be made, given or transmitted to any party, it shall be enclosed in an envelope with sufficient postage attached to ensure delivery and deposited in the United States Mail, first class, with notices to City addressed to:

City Engineer
City of Lee's Summit
220 SE Green Street
Lee's Summit, MO 64063

Director of Public Works
City of Lee's Summit
200 SE Green Street
Lee's Summit, MO 64063

and notices to Engineer shall be addressed to:

TranSystems Corporation
Attn: Todd W. Thalmann, PE
2400 Pershing Road, Suite 400
Kansas City, MO 64108

or such place as either party shall designate by written notice to the other. Said notices may also be personally hand delivered by each party to the other, at the respective addresses listed above. If hand delivered, the date of actual completion of delivery shall be considered the date of receipt. If mailed, the notice shall be considered received the third day after the date of postage.

ARTICLE VIII
ALL OTHER TERMS REMAIN IN EFFECT

Reserved.

THIS AGREEMENT shall be binding on the parties thereto only after it has been duly executed and approved by City and Engineer.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the ___ day of_____, 20___.

CITY OF LEE'S SUMMIT

_____
Stephen A. Arbo, City Manager

ATTEST:

_____
City Clerk Trisha Fowler Arcuri

APPROVED AS TO FORM:

_____
Nancy K. Yendes,
Chief Counsel of Infrastructure and Planning
Office of City Attorney

ENGINEER:

_____
BY: _____
TITLE: _____

ATTEST:

_____

GENERAL INFORMATION

It is the intent of this project to improve Pryor Road from Hook Road to Longview Road. The existing two-lane roadway with shoulders and ditches will be upgraded to a four-lane divide arterial roadway, with a raised median, curb and gutter, storm drainage and related amenities.

At the outset of the project a brief traffic study will be conducted to establish intersection traffic volumes and lane configurations throughout the corridor. Permanent Traffic Signals are anticipated to be installed at Hook Road and Scherer Road. The existing signal at Longview Road may be modified as well depending on the results of the study. A more detailed description of the study tasks is included herein.

TranSystems anticipates using several sub-consultants on the project to complete our team. Surveys will be conducted by Taliaferro & Browne, Inc. as well as Wilson & Company, the City's on-call survey consultant. Additionally, we have Geotechnology, Inc. on our team to complete borings and evaluate site conditions. Our final partner is Utila Safe Construction. They will assist with non-destructive excavation to collect data on potential utility conflicts.

SURVEYS

Surveys will include aerial imagery, mobile LiDAR data and traditional ground surveys. Horizontal project control will be established referenced to Missouri State Plane Coordinate System (NAD83) Horizontal Datum (West Zone). Vertical project control will be referenced to North American Vertical Datum 1988 (NAVD88). The project is located in Township 47 North, Range 32 West, within Sections 11, 12, 13, 14, 23, 24, 25 and 26. The limits of the survey will be approximately ¼ mile south of Hook Road, to approximately 750-ft. north of Longview Road, and include approximately 100-ft. east and west of the center of right-of-way along Pryor Road. In addition, side roads will be surveyed per the approximate limits indicated in the following table:

Side Road	***Distance From Pryor Road***		***Distance Perpendicular to Side Road***	
	East	***West***	***Width North***	***Width South***
Hook Road	1,000 ft.	1,000 ft.	100 ft.	100 ft.
River Run Drive	375 ft.	n/a	100 ft.	100 ft.
Eagle Creek Drive (S)	n/a	250 ft.	100 ft.	100 ft.
Eagle Creek Drive (N)	n/a	250 ft.	100 ft.	100 ft.
Eagle View Drive	n/a	750 ft.	100 ft.	100 ft.
Scherer Road	1,000 ft.	1,000 ft.	100 ft.	100 ft.
Summit Hill Drive	750 ft.	n/a	100 ft.	100 ft.
Longview Road	1,000 ft.	1,000 ft.	100 ft.	100 ft.

A graphical representation of the survey boundaries are shown on the following page


N
N.T.S.
Longview Road
Summit Hill Dr.
Scherer Road
Pryor Road
Eagle View Dr.
Eagle Creek Dr. (N)
Eagle Creek Dr. (S)
River Run Drive
Hook Road

Topographic Surveys

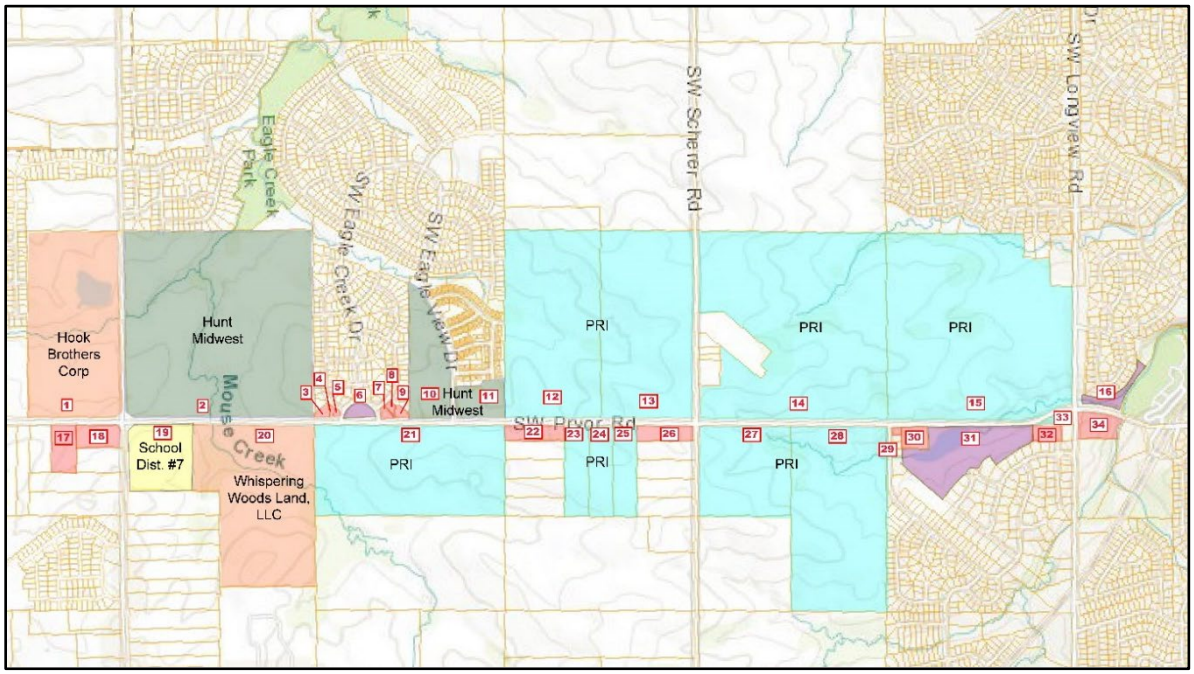
Field topographic surveys will include a horizontal traverse with reference ties, to establish horizontal project control, and a vertical bench loop with reference ties, to establish vertical project control. Topography shall include all visible features within this corridor, such as, but not limited to, pavement, driveways, buildings, poles, signs, fences and other such appurtenances. This information will be gathered using a combinations of methods. An aerial flight will be performed to obtain a current image of the area. This information will be supplemented by mobile LiDAR data as well. Finally, traditional survey methods will be employed to perform quality control on the data collected. This will consist of collecting hard shots on pavement areas along with cross section data at approximately 1,000 ft. intervals along Pryor Road. This data will be compared to the aerial and LiDAR data to ensure the accuracy of the data. (The Aerial data and the Mobil LiDAR data are being obtained by Wilson & Company via the City's on-call survey contract. The description of the data was included in this scope for reference, but no cost associated with the data collection is included in this agreement. Processing of the data is part of this agreement and costs associated therewith are part of this agreement.)

Existing Rights-of-way and Easements

Ownership, Easements and Encumbrances (OE&E) will be provide by the City for all parcels along the project. The last deed of record will be used to establish the existing rights-of-way and identify any existing easements that may be impacted by the project. All plats needed to establish the existing rights-of-way will be included with the OE&E documents.

All deeds and plats typically tie the property descriptions to existing section corners. Existing section corner ties will be obtained from the Missouri Department of Natural Resources, and will be tied into the project surveys. This information will then be used in conjunction with the deeds and plats to establish rights-of-way and easements for the existing property map. It is estimated there will be up to 15 section corners and 16 quarter corners needed to establish property boundaries.

It is estimated that there are 34 tracts adjacent to the project for which OE&E's will be required. The following is a map depicting these tracts:



Locate Existing Utilities

Existing utility information will also be gathered by field crews. Utilities will be located using Missouri's One Call System. Participating companies will mark the location of their facilities in the field, and survey crews will locate these for the base map. Survey crews will also look for signs or markers identifying other underground utilities. If these markers are found for a utility which does not participate in the One Call System, the company will be contacted directly using the information shown on the marker, and requested to mark their facilities for inclusion in the base map. Additionally, each utility owner will be contacted to request they provide as built plans or GIS data for their existing facilities.

There are four levels of Subsurface Utility Engineering (SUE):

Level D – locate by existing utility records or verbal discussions with the owner.
Level C – locate by surveying existing visible features.
Level B – locate by surface geophysical methods such as electromagnetic methods, magnetic methods or elastic wave methods.
Level A – physical location of the facility in three dimensions.

Our intention is to locate all facilities to a minimum Level C during the initial phases of the project, and to increase the accuracy of the utility locates in critical areas to Levels B and A as needed.

A spreadsheet will be created tracking all utilities contacted and whether they are in the corridor or not. This spreadsheet will be updated throughout the project as utilities are identified to facilitate discussion about potential impacts and relocations.

Create Base Maps

Three separate base map files will be created in Microstation for the project. The first will contain the topographic information. This will be a compilation of all LiDAR and aerial data, supplemented with the hard ground shots. This file will serve as the background for all plan sheets, and will be a rather static file. Once surveys are completed, this file will not change unless additional surveys are required due to an expansion of the scope of services or unless additional information is uncovered that was not originally surveyed.

The second Microstation file will compile all of the utility information gathered to date. This file will include a separate layer for each utility ownership. Additionally, the line styles will create labels on each utility containing ownership information and SUE locate level. For example, FO1-B would be a fiber optic line. The owner would be defined on a utility legend (e.g. FO1 = AT&T) and the "B" indicates the SUE level. This would allow us to depict the owner of all utilities on our exhibits and plans, and identified the accuracy of the locate. It would also allow us to isolate each individual utility owner on a series of PDF plots to facilitate utility coordination efforts. This helps focus owners on just their utility and eliminate the other background clutter when all utilities are shown together. Once this file is created, separate PDF files of each utility owner's facilities will be created and sent to the owner for review and confirmation that they are accurately shown in the file.

The third Microstation file will contain all property lines, easements and rights-of-way that exist at the time of the survey, as well as all section lines and corners used to establish this information. The file will establish all existing property features and serve as the basis for easement and right-of-way

acquisition in future phases of the project. This data will be established using the information from the OE&E's, Section Corners and Quarter Section Corners noted previously, and field data found during topographic surveys. No surveys are included in this scope of services to resolve disputes, conflicts, overlaps or gaps between properties described by plat or deed. Resolution of these issues is beyond the scope of this project. However, all such discrepancies will be noted on the plans. It is further assumed that all deeds and subdivision plats will have ties to existing section corners or lines using at least one distance and direction. Vague descriptions using nonexistent monuments will be resolved with the best knowledge and practice available to the surveyor, and be noted appropriately on the plans.

Create Surface TIN Model

In addition to the base map file, a Triangulated Irregular Network (TIN) Model will be generated. This file will be an electronic 3D representation of the existing ground within the survey limits, and will be used to develop all aspects of the existing ground shown on the plans. This will include, but not be limited to, existing ground profiles for roadways and storm sewers, existing ground lines on cross sections, construction limits and other similar plan features. TIN Models will be created to be compatible with GEOPAK Civil Design Software.

Field Check Base Maps

Once the TIN Model and CAD files for the base maps and property maps have been created, a field check will be conducted to verify the reasonableness of the efforts to date. Any areas that appear to be inconsistent with field conditions will be reevaluated, and if necessary survey crews will be sent to the site to gather additional information. The information will be updated and a final check of the CAD files versus actual conditions will be made.

GEOTECHNICAL INVESTIGATIONS

The initial phase of Geotechnical Investigations will be limited to an evaluation of the existing fly-ash treated subgrade. Our Geotechnical subconsultant will perform one site visit. Additionally, they will review plans and specifications the City provides related to where the fly-ash treated subgrade has been previously constructed, and what the specifications were, related to the fly-ash placement. Our Geotechnical subconsultant will make a general determination regarding its usefulness for the future construction of Pryor Road. The evaluation will include outlining the benefits and disadvantages of incorporating the existing base into the future construction, and general recommendations for base treatment on the construction of Pryor Road. The evaluation will also investigate the feasibility of using the existing pavement in the base of the new Pryor Road, or adding it to areas requiring additional fill material.

Based on that investigation and conversations with City staff, a technical memorandum will be provided outlining the general guidelines for subgrade preparation on the project. This information will be further vetted in the next phase of Geotechnical Investigations, but will provide general guidance for use in the concept development.

CONCEPT STUDY

The intent of the Concept Study is to collect data on existing conditions, estimate future growth and evaluate the needed intersection configurations throughout the corridor to provide adequate capacity and safe operating conditions for current and future conditions.

Data Collection

Data collection will be the first step in the concept study process. This will include traffic counts, speed data, development plans and master plans in the vicinity of the corridor. Traffic counts will consist of turning movement counts during the AM and PM peak hours at the following intersections along Pryor Road:

- Hook Road
- River Run Drive
- Eagle Creek Drive (north and south intersections)
- Eagle View Drive
- Scherer Road
- Summit Hill Drive
- Longview Road

These counts will include, left-turn, right-turn and through movements in 15-minute increments. Additionally, bicycle and pedestrian counts will be noted at the intersections.

Machine traffic volume counts will also be conducted at up to two locations along the corridor. Traffic counts at these locations will be for a minimum of 24 consecutive hours during a typical weekday. Vehicle speed and classification data will also be collected from the machine count data.

Approved master plans, traffic studies, development plans, and comprehensive plans will be provided by the City to TranSystems. This will include travel demand modeling from the Thoroughfare Master Plan. Additionally, TranSystems will work with the City to obtain a current version of the State Emergency Management Association (SEMA) study along Mouse Creek. If other plans are available, the City will either provide them to TranSystems or provide the appropriate contact information to allow TranSystems to request said plans. If the City has a general list of utility contacts, TranSystems will reach out to utility companies on that list that may not currently have facilities in the corridor, to see if they have plans to add facilities. Any companies with plans to install facilities will be documented in the previously noted utility spread sheet as well as the Concept Study.

Analyze Data

TranSystems will review the existing traffic volume data, plans, studies and travel demand modeling to develop future traffic volume projections for Pryor Road and each of the intersecting streets during the AM and PM peak hours. Land use assumptions will be made for undeveloped parcels along the corridor. Assumptions will also be made for the location of future collector streets to provide access from these parcels to Pryor Road. The location of intersections will be based on the Access Management Code and the future street network indicated in the Thoroughfare Master Plan. The future traffic volume projections and street connections will be reviewed with City staff.

Capacity analysis for existing and future conditions will be performed using the latest version of Synchro, using Highway Capacity Manual methodology. Synchro will be used to estimate 95th percentile queues to be used when determining the length of turn lanes. Synchro will also be used to evaluate different forms of intersection control, and the impact of potential strategies for access management.

Develop Preferred Concepts for Corridor

TranSystems will coordinate with City staff to determine the preferred typical cross-section and design criteria for Pryor Road. Design criteria will generally follow Section 5200 of the Lee's Summit Design and Construction Manual for a four-lane divided arterial street.

An initial look at potential utility conflicts will be identified, as well as potential relocation alternatives. Alternatives could include identifying a utility corridor to assist in relocation efforts. The need for water main and sanitary main upgrades and/or relocations will also be considered.

It is anticipated that the SEMA study currently underway in the project area, will address the current flood plain status at Mouse Creek. This will likely include revised mapping of the flood plain in this area. TranSystems will coordinate with this study to determine the adequacy of the existing structure under Pryor Road. It is expected there will be no modifications needed to the structure from a water conveyance perspective. However, as part of the Concept Study we will investigate the feasibility of a bicycle/pedestrian tunnel under Pryor Road to accommodate the trail crossing. This will be investigated in terms of the cost to construct the crossing, as well as its impacts on Mouse Creek. The addition will likely add conveyance capacity under Pryor Road which could have adverse impacts on downstream properties. Additionally, the clearance required for a bicycle accessible structure, may push it below the flow line of the existing RCB. In that case the low flow of Mouse Creek would naturally pass through the pedestrian facility rather than the existing structure. These elements will be investigated at a conceptual level to determine if a crossing structure is feasible and/or cost-effective.

Bicycle and pedestrian facilities will be evaluated as well. This includes a sidepath suitability assessment along with the HCM Multi-Modal LOS for bicycle facilities. The FHWA's Shared Use Path Level of Service Calculator may be used as a guide in determining appropriate width for the shared use path. Options for uncontrolled pedestrian crossings will also be evaluated at potential crossing locations along the corridor.

Other design elements such as the preferred type of median treatments, landscaping enhancements, and the possibility of including green solutions will be discussed with City staff.

Develop Concept Study Report

TranSystems will compile the data assembled in this phase into a Concept Study Report. This report will include illustrations of the portions of the roadway where horizontal and vertical roadway alignments modifications are recommended. It will also illustrate intersection geometry such as turn lanes with lengths and intersection corner radii. Intersection sight distances will be evaluated as the intersection layouts and alignments are developed. The Concept Report will include a brief narrative about the data collected and the reasons for the various recommendations along with the necessary graphics to clearly present the concepts. An access management exhibit will be prepared to illustrate

areas that would be acceptable for future access along the corridor. The type of access will be indicated in relation to design geometries and sight distances.

Prepare Cost Estimate

A cost estimate will be included with the report to update the anticipated construction costs of the project. This may include estimated right-of-way acquisition costs and utility relocation costs, if known.

Final Concept Study Report

The Concept Study Report will be submitted to the City for review and comment. Upon completion of the City's review, TranSystems will meeting with the City to discuss the comments and incorporate them into the final Concept Study Report.

STAKEHOLDER MEETINGS

Throughout the Concept Study and prior to the Public Meeting, various meetings will be conducted with the stakeholders along the project. Stakeholders could include the Lee's Summit R-7 School District, various property owners or the Fire Department and other emergency services coordinators. Up to 10 stakeholder meetings are included in this scope of services. Some may take place between the Concept Study and the first Public Meeting. Others may take place throughout the various plan development stages. Meetings are anticipated to be near the project site, or at City Hall.

PUBLIC HEARING NO. 1

Once a preferred alternative has been determined for the roadway, a public meeting will be conducted to inform interested parties of the progress. This meeting will be an Open House format as outlined in Section 129.11.2 of MoDOT's Engineering Policy Guide (EPG). The TranSystems' Team will assist the City by preparing exhibits for display at the open house meeting, preparing a handout and preparing an attendance sheet. TranSystems will also assist the City with preparation of comment cards to be made available at the meeting upon which interested parties may leave their thoughts about the information presented. TranSystems will prepare the transcript of the Public Hearing in accordance with Section 129.11.3 of the EPG. The City will be responsible for determining the location and time of the meeting and will schedule the necessary facilities. The City will also advertise and deliver invitations for the meeting.

PRELIMINARY PLANS

Upon completion of the public meeting, TranSystems will compile the preferred alternative into a plan set. This set will include the horizontal and vertical roadway alignments as well as access to the adjacent properties. These plans may include the following items:

- Cover Sheet (1)
- General Notes (1)
- Typical Sections (2)
- Miscellaneous Details (4)
- Summary of Quantities Tables (Tables Only – not completed) (2)

- Plan/Profile (25)
- Intersection Layouts (ADA Ramp Layouts – Not Detailed) (8)
    - Hook Road
    - River Run Drive
    - Eagle Creek Drive (north and south intersections)
    - Eagle View Drive
    - Scherer Road
    - Summit Hill Drive
    - Longview Road
- Driveway Layouts for up to 20 driveways (7)
- Retaining Wall Layouts (3)
- Storm Sewer Layout (10)
- Traffic Signals (Pole Layout and Power Supply Location) (9)
- Street Lighting (Pole Layout and Power Supply Location) (12)
- Pavement Marking Layout (10)
- Construction Sequencing MOT – General Approach not detailed traffic control (20)
- Erosion Control Plans (Preliminary Look for ROW Impacts) (10)
- Cross Sections (25-ft intervals) (190)

Total Sheets = 314±

All plans will be prepared in a format compatible with MoDOT LPA policies.

Cost Estimate

As Preliminary Plans are prepared a detailed cost estimate of probable construction costs will also be prepared. This will be based on the level of detail provided in the Preliminary Plans and will included contingencies deemed appropriate by the design team to cover unknown costs. The estimate will not include costs for utility relocations or property acquisitions, only estimated construction costs.

QA/QC Review

The plans and estimate will be reviewed for consistency with the City's design standards. This review will be conducted by the design team as well as TranSystems staff that is not familiar with the detailed design of the project. Red line mark ups will be prepared by the quality reviewers and then discussed with the design team. The plans will be updated per the mark ups and discussion prior to submittal to the City.

Submittal of Preliminary Plans

Upon completion of the internal QA/QC review, plans will be submitted to the City for review and comment. Assuming the project receives some form of Federal assistance, plans will also be submitted to MoDOT for their review. Printed sets will not be part of this submittal. A PDF of the Plans and Estimate will be prepared and submitted for review.

Preliminary Plan Review Meeting

After submittal of the Preliminary Plans and Estimate, the City and MoDOT will review the plans and provide written comments to TranSystems. It is assumed that the comments will be received within

one month of the submittal. Following receipt of the comments a meeting will be scheduled to discuss the comments and determine the appropriate resolution to each item noted. This meeting is expected to be at City Hall and will take place within two weeks of receipt of comments.

Utility Coordination

After the Preliminary Plan review meeting, plans will be prepared and distributed to all utilities known to be in the corridor. A PDF of the Preliminary Plans will be submitted along with a separate PDF file for each utility that shows the individual utilities isolated by ownership. Additionally, a cut/fill contour map will be provided in PDF format so that all utilities can see what is happening in the vicinity of their existing facilities without having to interpret cross sections and profiles.

Approximately 2 weeks after the distribution of plans a utility meeting will be held. All utilities to which the plans were distributed will be invited to the meeting. The purpose of the meeting will be to verify the accuracy of all utilities shown on the plans and to determine which utilities are impacted sufficiently to require relocation. Additional meetings with individual utilities to discuss specific relocations will be scheduled subsequent this general meeting. One (1) general meeting with all utilities is included, to be conducted at City Hall or TranSystems' offices. TranSystems will prepare and distribute meeting minutes to all invitees. Up to five (5) additional one-on-one meetings with individual utilities are included as well. It is anticipated that these will be conducted at TranSystems' offices.

If potholing of specific conflicts is needed, TranSystems will provide up to eight (8) pothole locations. This will include non-destructive excavation of the utilities, measuring/surveying the existing facilities once uncovered, and adding that information to the existing utility base map. It is anticipated that this work will be completed in no more than two (2) trips to the project site.

GEOTECHNICAL INVESTIGATIONS

A geotechnical investigation will be performed to provide information related to the roadway materials, both existing pavement types and thicknesses and parameters of existing soil conditions. This investigation will lead to recommendations related to subgrade stabilization methods to compliment the City's standard pavement section. It will enhance the initial overview previously completed in the Concept Study phase of the project.

Develop Boring Layout

TranSystems' team, along with the City will determine the location of all borings to be completed on the project. There are two specific areas of investigation.

First, will be the area of culvert extensions and areas of more significant cut or fill. It is anticipated that six (6) borings will be needed for this aspect of the project. These locations are anticipated to be sampled to a depth of 20-25 feet, using split-spoon and Shelby tube techniques at 2.5-foot intervals to 10-ft, followed by 5-foot intervals thereafter.

Second, borings to determine existing soil conditions and pavement thicknesses will be performed. This information will enhance the original overview completed in the Concept Phase of the project related to subgrade modification and preparation. It will also aid in more accurately quantifying existing pavement volumes to be removed by the contractor. An additional fifteen (15) borings are

expected to be drilled along the roadway. These locations are anticipated to be sampled to depths of approximately 10-ft. below the existing roadway surface or to refusal, whichever is shallower, using split-spoon and Shelby tube techniques at 2.5-foot intervals to 10-ft, followed by 5-foot intervals thereafter. At up to five (5) locations of auger refusal, the boring will be extended an additional 5-feet using NQ2 rock coring tools. Representative soil samples obtained during the field exploration program will be returned to the laboratory for classification. All boring will include pavement coring, and will be logged by a field engineer. Each pavement core will also be measured and a photograph included in the report. Borings will be backfilled with a dry mix concrete and topped with a thickness of quick set cement equal to the thickness of the pavement. Auger cuttings will be wasted along the shoulder area near the boring.

Geotechnology will complete the City's right-of-way permit, and it is anticipate that no fees or bonding costs will be required for the City's project and are therefore, not included in this agreement. Additionally, Geotechnology will contact Missouri One-Call prior to initiating any borings. All traffic control will be provided in accordance with the current MUTCD and work will be restricted to between the hours of 9:30 am and 2:30 pm.

Laboratory testing will include determination of moisture content, Atterberg limits, unconfined compressive strength, dry unit weight determination and free swell. Additionally, two (2) consolidation test to estimate the magnitude and duration of settlement due to the weight of the planned fill, and two (2) consolidated-underdrained triaxial shear strength test to evaluate global stability to slope and/or retaining wall locations. This information will be used to confirm the adequacy of the City's typical pavement section, or develop an alternative pavement solution. It will also allow for analysis of the subgrade materials to determine what type of base stabilization methods are needed for the project.

Each boring location will be noted in the boring log by Geotechnology using commercial grade GPS devices to establish the actual boring location. This will also enable the locations to be shown on the base map and project plans.

Geotechnical Report

Using the information from the borings and soil samples, the geotechnical engineer will develop a final geotechnical report. This report will include the boring logs for the borings outlined in the previous sections, as well as laboratory test results. The logs will depict groundwater levels, as well as information regarding soil stratification. This will include material type and depth at which it was encountered. It will also address the following specific items:

- A summary of the project information,
- A summary description of the site and subsurface conditions,
- An evaluation for the data as it relates to the proposed improvements,
- Recommendations for site preparation, including placement and compaction of fill soils,
- Asphaltic concrete and Portland cement concrete pavement section recommendations (or suitability of Lee's Summit, Missouri standard sections),
- Generalized subsurface drainage requirements,

- Comments and recommendations relating to other observed geotechnical conditions which could impact construction and project improvements,
- Comments and recommendations relating to any settlement and slope stability issues.

RIGHT-OF-WAY PLANS

This phase of the project will complete the design to a point where impacts to private properties can be identified and the areas needed for temporary and permanent acquisition can be defined.

Incorporate Comments from Preliminary Plans

The comments received from the Preliminary Plan review will be incorporated into the project. The focus will be on those items that have a potential impact on acquisition. Therefore, there could be some comments that are not fully addressed in the preparation of Right-of-way Plans. These will be addressed in subsequent submittals.

Define Rights-of-way and Easements

Once the comments from Preliminary Plans have been sufficiently addressed, TranSystems will define the necessary Rights-of-way and Easements (both temporary and permanent) required to facilitate construction of the project as well as access for long-term maintenance of the facilities.

Each property along the project will be assigned a Tract Number and this number will be shown on the plans along with the name of the owner of the property. In addition, a summary table will be prepared depicting the area the existing tract, the proposed takings (by type) and the area remaining after acquisition. This will be done in the table for each individual property ownership (approximately 34 tracts).

Cost Estimate

As Right-of-way Plans are prepared the estimate of probable construction costs will be updated to reflect the current project status. The estimate will not include costs for utility relocations or property acquisitions, only estimated construction costs.

QA/QC Review

As the Right-of-way Plans are completed, the plans and estimate will be reviewed for consistency with the City's design standards. This review will be conducted by the design team as well as TranSystems staff that is not familiar with the detailed design of the project. Red line mark ups will be prepared by the quality reviewers and then discussed with the design team. The plans will be updated per the mark ups and discussion prior to submittal to the City.

Submit Plans for Review

Upon completion of the internal QA/QC review, plans will be submitted to the City for review and comment. Assuming the project receives some form of Federal assistance, plans will also be submitted to MoDOT for their review. Printed sets will not be part of this submittal. A PDF of the Plans and Estimate will be prepared and submitted for review.

Right-of-way Plan Review Meeting

After submittal of the Right-of-way Plans and Estimate, the City and MoDOT will review the plans and provide written comments to TranSystems. It is assumed that the comments will be received within one month of the submittal. Following receipt of the comments a meeting will be scheduled to discuss the comments and determine the appropriate resolution to each item noted. This meeting is expected to be at City Hall and will take place within two weeks of receipt of comments.

Utility Coordination

After the Right-of-way Plan review meeting, plans will be prepared and distributed to all utilities known to be in the corridor. A PDF of the Right-of-way Plans will be submitted along with a separate PDF file for each utility that shows the individual utilities isolated by ownership. Additionally, a cut/fill contour map will be provided in PDF format so that all utilities can see what is happening in the vicinity of their existing facilities without having to interpret cross sections and profiles.

Approximately 2 weeks after the distribution of plans a utility meeting will be held. All utilities to which the plans were distributed will be invited to the meeting. The purpose of the meeting will be to verify the accuracy of all utilities shown on the plans and to determine which utilities are impacted sufficiently to require relocation. Additional meetings with individual utilities to discuss specific relocations will be scheduled subsequent this general meeting. One (1) general meeting with all utilities is included, to be conducted at City Hall or TranSystems' offices. TranSystems will prepare and distribute meeting minutes to all invitees. Up to five (5) additional one-on-one meetings with individual utilities are included as well. It is anticipated that these will be conducted at TranSystems' offices.

If potholing of specific conflicts is needed, TranSystems will provide up to eight (8) pothole locations. This will include non-destructive excavation of the utilities, measuring/surveying the existing facilities once uncovered, and adding that information to the existing utility base map. It is anticipated that this work will be completed in no more than two (2) trips to the project site.

Prepare Legal Descriptions and Tract Maps for Acquisition

Legal descriptions will be prepared for each individual taking shown on the Right-of-way Plans. The following table summarizes the estimated number of parcels affected and how many legal descriptions are anticipated:

Number of Tracts	Legal Descriptions			Tract Maps
	Right-of-way	Perm. Esmt.	Temp. Esmt.	
34	12	8	34	34

The above table is an estimate of what's anticipated for the project. Minor variations from these numbers are expected and included in this agreement. Should significant deviations from the number of legal descriptions be required, mutually agreed upon adjustments may be required to compensate for the additions.

The legal descriptions will be provided to the City in Word document format. The City will be responsible for incorporating these descriptions into the necessary legal documents for the acquisition of properties. Additionally, original signed and sealed documents will be provided to the

City. These will be sealed by a Registered Professional Land Surveyor with a current, valid license to practice surveying in the State of Missouri. PDF copies of all documents will also be provided.

Public Hearing No. 2 (Design Public Hearing)

While legal descriptions and tract maps are being prepared a Design Public Hearing will be conducted. The hearing will be an Open House format as outlined in Section 129.11.2 of MoDOT's Engineering Policy Guide (EPG). The TranSystems' Team will assist the City by preparing exhibits for display at the open house meeting, preparing a handout and preparing an attendance sheet. TranSystems will also assist the City with preparation of comment cards to be made available at the meeting upon which interested parties may leave their thoughts about the information presented. TranSystems will prepare the transcript of the Public Hearing in accordance with Section 129.11.3 of the EPG. The City will be responsible for determining the location and time of the meeting and will schedule the necessary facilities. The City will also advertise and deliver invitations for the meeting.

Request "A" Date

The request for and approval date to begin the right-of-way acquisition process will be accomplished by the City. TranSystems will provide any necessary information to assist the City in preparing the request. Once the "A" date is approved by MoDOT, the acquisition process will be undertaken by the City per Federal guidelines.

FINAL PLANS

Upon completion of the Right-of-way Plans, and the preparation of legal descriptions and tract maps, TranSystems will complete the final design and detailing of the project. The final plan set may include the following items:

- Cover Sheet (1)
- General Notes (1)
- Typical Sections (4)
- Miscellaneous Details (4)
- Summary of Quantities Tables (4)
- Plan/Profile (25)
- Intersection Plans (Including ADA Ramps) (8)
    - Hook Road
    - River Run Drive
    - Eagle Creek Drive (north and south intersections)
    - Eagle View Drive
    - Scherer Road
    - Summit Hill Drive
    - Longview Road
- Driveway Plan/Profile Sheets (up to 20 driveways) (7)
- Fencing Plan and Details (12)
- Retaining Wall Plans (9)
- Storm Sewer Design Tables (3)
- Storm Sewer Plan/Profiles (10)

- Traffic Signals Plans
  - Hook Road (6)
  - Scherer Road (6)
  - Longview Road (6)
- Street Lighting Plans and Details (18)
- Pavement Marking & Signing Plans and Details (16)
- Construction Sequencing and Traffic Control Plans (36)
- Erosion Control Plans and Details (15)
- Cross Sections (25-ft intervals) (190)

Total Sheets = 381±

All plans will be prepared in a format compatible with MoDOT LPA policies.

Cost Estimate

As Final Plans are prepared a detailed cost estimate of probable construction costs will also be prepared. This will be based on the level of detail provided in the Preliminary Plans and will included contingencies deemed appropriate by the design team to cover unknown costs. The estimate will not include costs for utility relocations or property acquisitions, only estimated construction costs.

Job Special Provisions (JSP's)

As Final Plans are being prepared, JSP's will be prepared for inclusion in the contract documents. This will cover any non-standard bid items along with standard bid requirement JSP's. These will be prepared as Word documents, formatted per MoDOT's JSP format.

QA/QC Review

The plans, estimate and JSP's will be reviewed for consistency with the City's design standards. This review will be conducted by the design team as well as TranSystems staff that is not familiar with the detailed design of the project. Red line mark ups will be prepared by the quality reviewers and then discussed with the design team. The items will be updated per the mark ups and discussion, prior to submittal to the City.

Submittal of Final Plans

Upon completion of the internal QA/QC review, plans will be submitted to the City for review and comment. Assuming the project receives some form of Federal assistance, plans will also be submitted to MoDOT for their review. Printed sets will not be part of this submittal. A PDF of the Plans, Estimate and JSP's will be prepared and submitted for review.

Final Plan Review Meeting

After submittal of the Final Plans, Estimate and JSP's, the City and MoDOT will review the plans and provide written comments to TranSystems. It is assumed that the comments will be received within one month of the submittal. Following receipt of the comments a meeting will be scheduled to discuss the comments and determine the appropriate resolution to each item noted. This meeting is expected to be at City Hall and will take place within two weeks of receipt of comments.

Utility Coordination

After the Final Plan review meeting, plans will be prepared and distributed to all utilities known to be in the corridor. A PDF of the Final Plans will be submitted to each owner.

Approximately 2 weeks after the distribution of plans a utility meeting will be held with the affected utilities. The purpose of the meeting will be to verify the relocation efforts are progressing as planned and that all relocations will be completed prior to the project being let for construction. One (1) general meeting with all utilities is included, to be conducted at City Hall or TranSystems' offices. TranSystems will prepare and distribute meeting minutes to all invitees.

FINAL PLANS, SPECS AND ESTIMATE

Incorporate Comments

Upon completion of the Final Plan Review Meeting, TranSystems will incorporate all requested changes into the final plan set. This will include the JSP's and cost estimate as well. If requested, TranSystems will provide a final set of Plans, Specs and Estimates to the City and MoDOT to show that all comments have been incorporated.

Create Final Deliverables

The final PS&E Submittal will include a Word Document of the proposed contract documents, a PDF of the Final Plans and a PDF of the final Engineer's Estimate of Probable Construction Costs. CAD Files will be made available as well for the contractor's convenience. The Final Plans will be the governing document.

Utility Coordination

A final Utility Coordination Meeting will be held to confirm all relocations are complete, or on schedule to be completed prior to the bid letting. The meeting will be held at City Hall. TranSystems will prepare and distribute meeting minutes to all invitees.

ENVIRONMENTAL SERVICES

This portion of the Scope of Work includes anticipated environmental efforts likely to be necessary for project construction. It is understood that an environmental evaluation under the National Environmental Policy Act (NEPA) will be necessary for this project. The project will likely be evaluated by MoDOT and the FHWA under the Categorical Exclusion 2 (CE2) category. MoDOT will make this determination after submittal of a request for environmental review (RER). The environmental effort is also anticipated to include completion of a Delineation of Waters of the U.S. in support of Section 404 and Section 401 Permitting. This effort will include supplementary items that are likely to be necessary to advance permitting, including a Phase I Cultural Resources Report. All relevant information will be updated to the MoDOT Request for Environmental Review (RER) system. The following tasks will be associated with the preparation of the CE2, and may be performed concurrent with the Preliminary Design tasks.

CE2 PREPARATION AND PRELIMINARY DATA REVIEW

The following coordination and data collection activities are anticipated for completion of the CE2:

Purpose and Need Statement

A Purpose and Need Statement will be developed utilizing project planning documents. The purpose and need will be utilized to define the scope CE2 review.

Preliminary Information Review and Coordination

Review of the planning documents to develop descriptions of previously considered alignments as well as that of the preferred alignment will be completed. Likely further coordination necessary for specific resource impacts based on the information review will be determined. The initial review will include, but is not limited to, the National Wetland Inventory (NWI) for wetland and stream information, Federal Emergency Management Agency (FEMA) floodplain maps for the location of regulated floodplains, and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system and the Missouri Department of Conservation (MDC) Heritage Review for threatened and endangered species.

Submittal and Updates of the RER

The project will be submitted to the RER system for review by MoDOT. As environmental data is further assessed and field surveys are completed the RER will be updated as necessary.

ENVIRONMENTAL IMPACT STUDIES

Waters of the U.S. Impacts and Permitting

A wetland delineation will be completed according to methods set forth in the *Corps of Engineers* Wetlands *Delineation Manual (1987)* and the *Midwest Regional Supplement (2010)*. The study area will focus on the potential project construction areas and vicinity. TranSystems will prepare and submit documentation appropriate to a Nationwide Permit under Section 404 of the Clean Water Act to the Kansas City District U.S. Army Corps of Engineers as part of project activities.

Water Quality Impacts

Water quality Impacts will be assessed in relation to Section 401 of the Clean Water Act and the National Pollutant Discharge Elimination System.

Floodplain

An overview and analysis of floodplain impacts will be completed. Mouse Creek has a FEMA designated Zone AE floodplain with a mapped floodway. It's possible the mapping in this area is based on out of date data. TranSystems Hydraulic Engineers will assess the flow and coordinate appropriately in order to obtain the necessary permits and fulfill the conditions of the CE2.

The project area will be assessed for the presence of FEMA buyout properties as part of the environmental review.

Phase I Cultural Resource Report

A Phase I Cultural Resource Report will be completed based on the Missouri State Historic Preservation Office (SHPO) guidelines. The deliverable will include both above ground and below ground resources. All above ground resources fifty years old and older within and adjacent to the

project area will be identified, photographed, and evaluated for historic integrity. The footprint of the project (including staging, construction, and utilities) will be evaluated for the potential of archaeological intact resources. This will include a maximum of 30 shovel tests by hand. A report will be completed with GIS data of notable resources, photographic evidence, historic mapping, and an historical evaluation of the above ground resources. A determination of effect for each historic resource will be included. All cultural resources work will be accomplished in accordance with Section 106 of National Historic Preservation Act, and following the guidance outlined in the MoDOT *Engineering Policy Guide Section 136.4.1 Section 106 (Cultural Resource) Compliance*.

Noise Study

A noise study will be completed to assess the project for compliance with the FHWA Noise Standard at 23 CFR Part 772 as outlined in MoDOT's *Engineering Policy Guide at 127.13.* This will include a noise report to assess impacts to sensitive receptors based on project plans and noise sampling data.

Section 4(*f*)/6(*f*) Involvement

The need for preparation of a Section 4(f) and/or 6(f) evaluations, as applicable and in accordance with 49 USC 303 and 16 USC4601-8(f), will be determined. Potential resource impacts will be documented.

Threatened or Endangered Species

The presence or possible presence of threatened or endangered species and/or habitat with the project area will be analyzed. This review will include analysis of potential roost trees for Indiana bat and northern long-eared bat.

Hazardous Waste Assessment

Database review will be completed to determine the likelihood of encountering hazardous waste in the project area. This phase of work will not include a Phase I review for hazardous wastes, as this is not anticipated to be necessary at this time.

ENVIRONMENTAL DOCUMENTS

Categorical Exclusion

A CE2 document will be prepared following the format set forth by MoDOT and the FHWA. All documentation will be provided in electronic formats. Physical copies will be available upon request. Upon receipt of final comments from MoDOT, the CE2 will be revised and submitted to FHWA for approval. A noise study will likely be necessary, as the proposed project may involve the use of highway funds. No displacements are anticipated to be part of project activities. Should plans change and displacements become necessary an analysis of displacement effects will be provided. Due to the projects location within city limits, no Farmland Conversion Rating is expected to be necessary, as required by the Farmland Protection Policy Act (FPPA). The CE2 will document mitigation measures necessary to ensure project activities minimize environmental impact.

Permits

Permits anticipated to be necessary and included in this scope of services include a 404 Nationwide Permit for impacts to Waters of the U.S., 401 Water Quality Certification, and a Stormwater Construction/Land Disturbance Permit if requested by the city of Lee's Summit.

Deliverables and Coordination

- Approved CE2;
- Section 404 Nationwide Permit;
- Section 401 Water Quality Certification;
- Required Floodplain Permits/Certificate of no-rise;
- A Phase I Cultural Resources Report and coordination with MoSHPO in support of permitting activities;
- Coordination with the U.S. Fish and Wildlife Service for potential impacts to threatened and endangered species in the project area under Section 7 of the Endangered Species Act;
- Stormwater Construction/Land Disturbance Permit;
- Noise Study Report for Assessment of Impacts.

Distribution

TranSystems will be responsible for circulating all approved documents to appropriate agencies.

Request for Environmental Review

Information appropriate to the RER system will be uploaded and updated as necessary.

PRE-CONSTRUCTION SERVICES

Bid Letting

As noted previously, TranSystems will supply the City with electronic copies of the plans (PDF Format) and specifications (Word Format) for distribution. Advertising for bids and distribution of plans will he completed by the City.

Pre-Bid Conference

TranSystems will attend a pre-bid conference with the City of Lee's Summit. The city will prepare the agenda for the meeting. The purpose of the meeting is to discuss the project scope and requirements, highlight any unusual contract or work requirements, note the completion date for the project, review the traffic control plans and answer any contractor/bidder questions.

Determine Contractor Qualifications

TranSystems will assist the City of Lee's Summit in evaluating the bidders and make a recommendation to the city regarding the lowest responsible bidder for the project.

Pre-Construction Conference

TranSystems will attend the pre-construction conference along with the City of Lee's Summit. TranSystems will be available at the meeting to answer any design questions related to the project.

Public Meeting No. 3

A final public meeting will be held once a contractor has been selected and prior to construction getting underway. The TranSystems' Team will assist the City by preparing exhibits for display at the open house meeting, preparing a handout and preparing an attendance sheet. TranSystems will also assist the City with preparation of comment cards to be made available at the meeting upon which interested parties may leave their thoughts about the information presented. The City will be responsible for determining the location and time of the meeting and will schedule the necessary facilities. The City will also advertise and deliver invitations for the meeting.

ENGINEERING DURING CONSTRUCTION

TranSystems is available to assist the city with shop drawing reviews, RFI's, Change Order, progress meetings and other items that occur during construction. However, since the scope of the construction project has yet to be determined no costs for these services has been included in this agreement. It is anticipated that a separate contract amendment will be prepared to cover services needed during construction around the time that final plans are completed.

PROJECT MANAGEMENT

Project management will include preparation of monthly invoices, creation and maintenance of a project schedule in Microsoft Project format and general coordination efforts between TranSystems, the City of Lee's Summit, MoDOT and other interested parties. Additionally, monthly progress meetings will be attended as part of this task, to keep all parties on task and the project on schedule.