

AGREEMENT
For
PROFESSIONAL ENGINEERING SERVICES
Between
THE CITY OF COLUMBIA, MISSOURI
And
ENGINEERING SURVEYS & SERVICES

THIS AGREEMENT by and between the City of Columbia, Missouri (hereinafter called "City"), and **Engineering Surveys & Services** (hereinafter called "Engineer"), is entered into on the date of the last signatory noted below (the "Effective Date").

WITNESSETH, that whereas City intends to make improvements as described below, hereinafter called the Project, consisting of the following:

**Forum Boulevard: Chapel Hill Road to Woodrail Avenue
Widening of Forum Boulevard to five lanes;
reconstructing/widening bridge over Hinkson Creek;
widening box culvert tunnel over MKT Trail;
nonmotorized improvements; traffic study; intersection
improvements; retaining walls where needed; public
involvement process.**

(Description of Project)

NOW, THEREFORE, in consideration of the mutual covenants set out herein the parties agree as follows:

Engineer shall serve as City's professional engineering, surveying or architecture contractor in those assignments to which this Agreement applies, and shall give consultation and advice to City during the performance of the services. All services shall be performed under the direction of a professional engineer, professional land surveyor or architect registered in the State of Missouri and qualified in the particular field.

SECTION 1 - AUTHORIZATION OF SERVICES

1.1 Engineer shall not undertake to begin any of the services contemplated by this agreement until directed in writing to do so by City. City may elect to authorize the Project as a whole or in parts.

1.2 Authorized work may include services described hereafter as Basic Services or as Additional Services of Engineer.

SECTION 2 - BASIC SERVICES OF ENGINEER

2.1 General

2.1.1 Perform professional engineering services as set forth in Exhibit A - "Scope of Basic Services," dated **August 22, 2022** (hereinafter referred to as "Scope of Basic Services").

2.1.2 Engineer will designate the following listed individuals as its project team with responsibilities as assigned. Engineer shall dedicate whatever additional resources are necessary to accomplish the Project within the specified time frame but will not remove these individuals from the assigned tasks for any reason within the control of Engineer without the written approval of City.

| <u>Name and Title</u> | <u>Assignment</u> |
|---|------------------------------------|
| Benjamin Ross, P.E., PTOE ES&S Vice-President, Engineering | Project Manager |
| Linda Moen, P.E., PTOE EFK Moen - President | EFK Moen Task Manager |
| Chris Linneman, P.E., SE EFK Moen – Structural Engineer | Project Structural Engineer |
| Fred Carroz, PLS ES&S Vice-President, Surveying | Project Land Surveyor |
| Zac Thomas, P.E. ES&S Ast. V.P. - Engineering | Project Civil Engineer |
| Mark Huebbe, P.E. EFK Moen – Traffic Engineer | Project Traffic Engineer |

All of the services required hereunder will be performed by Engineer or under its supervision and all personnel engaged in the work shall be fully qualified and authorized or permitted under state and local law to perform such services.

None of the work or services covered by this Agreement shall be subcontracted without the prior written approval of City and any work or services so subcontracted shall be subject to the provisions of this Agreement.

2.2 Engineer shall furnish such periodic reports as City may request pertaining to the work or services undertaken pursuant to this Agreement, the costs and obligations incurred or to be incurred, and any other matters covered by this Agreement.

2.3 Engineer shall maintain accounts and records, including personnel, property and financial records, adequate to identify and account for all costs pertaining to the Agreement and any other records as deemed necessary by City to assure proper accounting for all project funds. These records must be available to City or its authorized representatives, for audit purposes, and must be retained for three (3) years after expiration or completion of this Agreement.

SECTION 3 - ADDITIONAL SERVICES OF ENGINEER

3.1 General

If authorized in writing by City, and agreed to in writing by Engineer, Engineer shall furnish or obtain from others Additional Services of the following types which are not considered normal or customary Basic Services. The scope of Additional Services may include:

3.1.1 Financial Consultation

Consult with City's fiscal agents and bond attorneys and provide such engineering data as required for any bond prospectus or other financing requirements.

3.1.2 Property Procurement Assistance

Provide consultation and assistance on property procurement as related to professional engineering services being performed.

3.1.3 Obtaining Services of Others

Provide through subcontract the services or data set forth in Scope of Basic Services. Engineer is prohibited from holding a retainage on any payment to a subcontractor that provides any services or work on this Project.

3.1.4 Preliminary or final engineering design of capital facilities except as specifically identified herein.

3.1.5 Preparation of reports, data, application, etc., in connection with modifications to FEMA floodplain definition and/or mapping.

3.1.6 Extra Services

Services not specifically defined heretofore that may be authorized in writing by City.

SECTION 4 - RESPONSIBILITIES OF City

4.1 Provide full information as to City's requirements for the Project.

4.2 Assist Engineer by placing at Engineer's disposal available information pertinent to the assignment including previous reports and other data relative thereto, including the items outlined in Scope of Basic Services.

4.3 Guarantee access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform Engineer's services under this Agreement.

4.4 Examine all studies, reports, sketches, estimates, Bid Documents, Drawings, proposals and other documents presented by Engineer and render in writing decisions pertaining thereto.

4.5 Provide such professional legal, accounting, financial and insurance counseling services as may be required for the Project.

4.6 Designate **Allison Anderson, P.E.**, as City's representative with respect to the services to be performed under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to materials, equipment, elements and systems to be used in the Project, and other matters pertinent to the services covered by this Agreement. The City's designated representative may be changed during the duration of this Agreement by written notice from the City Manager, or City Manager's designee, to Engineer.

4.7 Give prompt written notice to Engineer whenever City observes or otherwise becomes aware of any defect in the Project.

4.8 Furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from others as may be necessary for completion of the Project.

4.9 Furnish Engineer data such as probings and subsurface explorations, with appropriate professional interpretations; property, boundary, easement, right-of-way, topographic and utility surveys; zoning and deed restriction; and other special data or consultations, all of which Engineer may rely upon in performing his services under this Agreement.

SECTION 5 - PERIOD OF SERVICE

5.1 This Agreement will become effective upon the first written notice by City authorizing services hereunder.

5.2 This Agreement shall be applicable to all work assignments authorized by City subsequent to the date of its execution and shall be effective as to all assignments authorized.

5.3 Services shall be started within 10 calendar days of Notice to Proceed and completed within **1460** calendar days from the issuance of the Notice to Proceed. City shall have the right to establish performance times for individual phases or elements of the Project by delivering a written schedule setting out the performance times to the Engineer.

SECTION 6 - PAYMENTS TO ENGINEER

6.1 Amount of Payment

6.1.1 For services performed, City shall pay Engineer the sum of amounts determined as follows:

6.1.1.1 For time spent by personnel, payment at the hourly rates indicated in the "Schedule of Hourly Labor Billing Rates" (attached). Such rates include overhead and

profit. The schedule may be revised annually if the term of this Agreement exceeds one (1) year. To be effective, any revision in the Schedule of Hourly Labor Billing Rates shall be provided by Engineer to City as least thirty (30) days prior to work performed under this Agreement to which such rates apply.

6.1.1.2 For outside expenses incurred by Engineer, such as authorized travel and subsistence, commercial services, and incidental expenses, the cost to Engineer.

6.1.1.3 For reproduction, printing, long-distance telephone calls, company vehicle usage, testing apparatus, computer services and computer-assisted drafting (CAD), amounts will be charged according to the Engineer's standard rates in effect at the time service is provided.

6.1.1.4 For professional services rendered by others as subcontractor(s) to Engineer such as surveying, real property descriptions, soil borings, subsurface investigations, laboratory testing, field quality control tests, progress photos, or other activities required or requested by City, will be billed at the cost to Engineer.

6.1.1.5 For time spent by outside individual professional consultants employed by Engineer in providing services to City, the cost to Engineer. Expenses incurred by such outside consultants in service to City shall be reimbursable in accordance with 6.1.1.2 above.

6.1.1.6 Total payment for Scope of Basic Services and all other expenses and costs to City under this Agreement and described herein **shall not exceed \$1,345,495.**

6.2 Payments

6.2.1 Engineer shall submit an invoice for services rendered to City not more than once every month. Upon receipt of the invoice and progress report, City will, as soon as practical, pay Engineer for the services rendered, provided City does not contest the invoice.

SECTION 7 - GENERAL CONSIDERATIONS

7.1 Insurance

7.1.1 **ENGINEER'S INSURANCE:** Engineer agrees to maintain, on a primary basis and at its sole expense, at all times during the life of this contract the following insurance coverages, limits, including endorsements described herein. The requirements contained herein, as well as City's review or acceptance of insurance maintained by Engineer is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by Engineer under this contract.

Commercial General Liability Engineer agrees to maintain Commercial General Liability at a limit of liability not less than **\$2,000,000** per occurrence and \$3,000,000

aggregate covering both bodily injury and property damage, including accidental death. Coverage shall not contain any endorsement(s) excluding nor limiting Contractual Liability or Cross Liability. If the contract involves any underground/digging operations, the general liability certificate shall include X, C and U (Explosion, Collapse and Underground) coverage.

Professional Liability Engineer agrees to maintain Professional (Errors & Omissions) Liability at a limit of liability not less than **\$2,000,000** per occurrence and **\$3,000,000** aggregate. For policies written on a “Claims-Made” basis, Engineer agrees to maintain a Retroactive Date prior to or equal to the Effective Date of this contract. In the event the policy is canceled, non-renewed, switched to an Occurrence Form, retroactive date advanced; or any other event triggering the right to purchase a Supplemental Extended Reporting Period (SERP) during the life of this contract, Engineer agrees to purchase a SERP with a minimum reporting period not less than two **(2)** years. The requirement to purchase a SERP shall not relieve Engineer of the obligation to provide replacement coverage.

Business Automobile Liability Engineer agrees to maintain Business Automobile Liability at a limit of liability not less than **\$2,000,000** per occurrence and **\$3,000,000** aggregate, covering both bodily injury, including accidental death, and property damage, to protect themselves from any and all claims arising from the use of the Engineer’s own automobiles, and trucks; hired automobiles, and trucks; and automobiles both on and off the site of work. Coverage shall include liability for Owned, Non-Owned & Hired automobiles. In the event Engineer does not own automobiles, Engineer agrees to maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Workers’ Compensation Insurance & Employers’ Liability Engineer agrees to take out and maintain during the life of this contract, Employers’ Liability and Workers’ Compensation Insurance for all of their employees employed at the site of the work, and in case any work is sublet, the Engineer shall require the subcontractor similarly to provide Workers’ Compensation Insurance for all the latter’s employees unless such employees are covered by the protection afforded by the Engineer. Workers’ Compensation coverages shall meet Missouri statutory limits. Employers’ Liability minimum limits shall be \$500,000 each employee, \$500,000 each accident and \$500,000 policy limit. In case any class of employees engaged in hazardous work under this contract is not protected under the Workers’ Compensation Statute, the Engineer shall provide and shall cause each subcontractor to provide Employers’ Liability Insurance for the protection of their employees not otherwise protected.

Excess/Umbrella Liability The above liability limits may be satisfied by any combination of primary and excess/umbrella liability policies.

Additional Insured Engineer agrees to endorse City as an Additional Insured with a CG 2026 Additional Insured – Designated Person or Organization endorsement, or similar endorsement, to the Commercial General Liability. The Additional Insured shall read “City of Columbia.”

Waiver of Subrogation Engineer agrees by entering into this contract to a Waiver of Subrogation for each required policy herein except professional liability. When required by the insurer, or should a policy condition not permit Engineer to enter into an pre-loss agreement to waive subrogation without an endorsement, then Engineer agrees to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition specifically prohibiting such an endorsement, or voids coverage should Engineer enter into such an agreement on a pre-loss basis.

Certificate(s) of Insurance Engineer agrees to provide City with Certificate(s) of Insurance evidencing that all coverages, limits and endorsements required herein are maintained and in full force and effect. Said Certificate(s) of Insurance shall include a minimum thirty **(30)** day endeavor to notify due to cancellation or non-renewal of coverage. The Certificate(s) of Insurance shall name the City as additional insured in an amount as required in this contract and contain a description of the project or work to be performed.

Right to Revise or Reject City reserves the right, but not the obligation, to review and revise any insurance requirement, not limited to limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work / specifications affecting the applicability of coverage. Additionally, City reserves the right, but not the obligation, to review and reject any insurance policies failing to meet the criteria stated herein or any insurer providing coverage due of its poor financial condition or failure to operating legally.

7.1.2 **HOLD HARMLESS AGREEMENT:** To the fullest extent not prohibited by law, Engineer shall indemnify and hold harmless the City of Columbia, its directors, officers, agents and employees from and against all claims, damages, losses and expenses (including but not limited to attorney's fees) arising by reason of any negligent act or failure to act, or willful misconduct, of Engineer, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with Engineer or a subcontractor for part of the services), of anyone directly or indirectly employed by Engineer or by any subcontractor, or of anyone for whose acts Engineer or its subcontractor may be liable, in connection with providing these services except as provided in this Agreement. This provision does not, however, require Engineer to indemnify, hold harmless or defend the City of Columbia from its own negligence, except as set out herein.

7.2 Professional Responsibility

7.2.1 Missouri Licensure & Certificate of Authority

Engineer certifies that it is currently in compliance, and agrees to maintain compliance for the duration of this Agreement, with all licensure requirements of the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects (hereinafter "APEPLSPLA") to practice in Missouri as a professional engineer as provided under chapter 327 of the Missouri Revised Statutes. To the extent required by Section 327.401 of the Missouri Revised Statutes, Engineer

understands and agrees that the person personally in charge and supervising the professional engineering services of Engineer under this Agreement shall be licensed and authorized to practice engineering in Missouri, and that Engineer will keep and maintain a valid certificate of authority from APEPLSPLA.

7.2.2 Engineer will exercise reasonable skill, care, and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted good professional engineering practices. If Engineer fails to meet the foregoing standard, Engineer will perform at its own cost, and without reimbursement from City, the professional engineering services necessary to correct errors and omissions which are caused by Engineer's failure to comply with above standard, and which are reported to Engineer within one year from the completion of Engineer's services for the Project.

7.2.3 In addition, Engineer will be responsible to City for damages caused by its negligent conduct during its activities at the Project site or in the field.

7.2.4 Professional Oversight Indemnification

Engineer understands and agrees that City has contracted with Engineer based upon Engineer's representations that Engineer is a skilled professional and fully able to provide the services set out in this Agreement. In addition to any other indemnification set out in this Agreement, Engineer agrees to defend, indemnify and hold and save harmless City from any and all claims, settlements and judgments whatsoever arising out of City's alleged negligence in hiring or failing to properly supervise Engineer. Engineer agrees to provide City with Certificate(s) of Insurance evidencing that all coverages, limits and endorsements are maintained and in full force and effect.

7.3 Estimates and Projections

Estimates and projections prepared by Engineer relating to construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are based on Engineer's experience, qualifications and judgment as a design professional. Since Engineer has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, competitive bidding or market conditions and other factors affecting such estimates or projections, Engineer does not guarantee that actual rates, costs, performance, schedules, etc., will not vary from estimates and projections prepared by Engineer.

7.4 On-Site Services

Project site visits by Engineer during construction shall not make Engineer responsible for construction means, methods, techniques, sequences or procedures; for construction safety precautions or programs; or for any construction contractor(s)' failure to perform its work in accordance with the plans and specifications.

7.5 Changes

City shall have the right to make changes within the general scope of Engineer's services, with an appropriate change in compensation and/or schedule, upon execution of a mutually acceptable amendment or change order signed by an authorized representative of City and the President or any Vice President of Engineer.

7.6 Suspension of Services

Should City fail to fulfill its responsibilities as provided under Section 4 to the extent that Engineer is unduly hindered in Engineer's services or if City fails to make any payment to Engineer on account of its services and expenses within ninety (90) days after receipt of Engineer's bill therefor, Engineer may, after giving seven (7) days' written notice to City, suspend services under this Agreement until City has satisfied his obligations under this Agreement.

7.7 Termination

Services may be terminated by the City at any time and for any reason, and by Engineer in the event of substantial failure to perform in accordance with the terms hereof by City through no fault of Engineer, by ten (10) days' notice. If so terminated, City shall pay Engineer all uncontested amounts due Engineer for all services properly rendered and expenses incurred to the date of receipt of notice of termination.

7.7.1 In the event of City's termination of this Agreement pursuant to the above section, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared under this Agreement, shall at the option of City become its property.

Further, Engineer shall not be relieved of any liability to City for any damages sustained by City by virtue of any breach of this Agreement by Engineer and City may withhold any payments due Engineer for the purpose of set-off until such time as the exact amount of damages to City, if any, is determined.

7.8 Publications

Recognizing the importance of professional development on the part of Engineer's employees and the importance of Engineer's public relations, Engineer may prepare publications, such as technical papers, articles for periodicals, and press releases, pertaining to Engineer's services for the Project. Such publications will be provided to City in draft form for City's advance review. City will review such drafts promptly and will provide comments to Engineer. City may require deletion of proprietary data or confidential information from such publications but otherwise will not unreasonably withhold its approval. The cost of Engineer's activities pertaining to any such publication shall be paid entirely by Engineer.

7.9 Nondiscrimination

During the performance of this Agreement, Engineer agrees to the following:

7.9.1 Engineer shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, national origin, ancestry, marital status, disability, sexual orientation, or gender identity. Engineer shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, age, national origin, ancestry, marital status, disability, sexual orientation, gender identity or expression, or any other protected category designated by local, state, or federal law. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. Engineer agrees to post notices in conspicuous places, available to employees and applicants for employment.

7.9.2 Engineer shall, in all solicitation or advertisements for employees placed by or on behalf of Engineer, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, national origin, ancestry, marital status, disability, sexual orientation, gender identity or expression, or any other protected category designated by local, state, or federal law.

7.9.3 Engineer shall comply with all provisions of local, state and federal laws governing the regulation of equal employment opportunity including Title VI of the Civil Rights Act of 1964.

7.10 Successor and Assigns

City and Engineer each binds themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement; except as above, neither City nor Engineer shall assign, sublet or transfer his interest in the Agreement without the written consent of the other.

7.11 Rights and Benefits

Engineer's services will be performed solely for the benefit of the City and not for the benefit of any other persons or entities.

7.12 Compliance with Local Laws

Engineer shall comply with all applicable laws, ordinances and codes of the state and city.

7.13 Law; Submission to Jurisdiction Governing

This Agreement shall be governed by, interpreted and enforced in accordance with the laws of the State of Missouri and/or the laws of the United States, as applicable. The venue for all litigation arising out of, or relating to this Agreement, shall be Boone County, Missouri or the United States Western District of Missouri. The parties hereto irrevocably agree to submit to the exclusive jurisdiction of such courts in the State of Missouri and waive any defense of forum non conveniens.

7.14 Employment of Unauthorized Aliens Prohibited

7.14.1 Engineer agrees to comply with Missouri State Statute section 285.530 in that they shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

7.14.2 As a condition for the award of this Agreement, Engineer shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Engineer shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

7.14.3 Engineer shall require each subcontractor to affirmatively state in its contract with Engineer that the subcontractor shall not knowingly employ, hire for employment or continue to employ an unauthorized alien to perform work within the state of Missouri. Engineer shall also require each subcontractor to provide Engineer with a sworn affidavit under the penalty of perjury attesting to the fact that the subcontractor's employees are lawfully present in the United States.

7.15 Missouri Anti-Discrimination Against Israel Act: To the extent required by Missouri Revised Statute Section 34.600, Engineer certifies it is not currently engaged in and shall not, for the duration of this Agreement, engage in a boycott of goods or services from the State of Israel; companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or persons or entities doing business in the State of Israel. If any provision of this paragraph, or the application of such provision to any person or circumstance, shall be held invalid, the remainder of this Agreement, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby. This paragraph shall not apply to contracts with a total potential value of less than one hundred thousand dollars (\$100,000.00) or to contractors with fewer than ten (10) employees.

7.16 No Waiver of Immunities

In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitutions or laws.

7.17 Counterparts and Electronic Signatures

This Agreement may be signed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same document. Faxed signatures, or scanned and electronically transmitted signatures, on this Agreement or any notice delivered pursuant to this Agreement, shall be deemed to have the same legal effect as original signatures on this Agreement.

7.18 Agreement Documents

This Agreement includes the following exhibits, which are incorporated herein by reference:

| <u>Exhibit</u> | <u>Description</u> |
|-----------------------|------------------------------|
| A | Scope of Work |
| B | Hourly Fee Schedule |
| C | Work Authorization Affidavit |

In the event of a conflict between the terms and conditions of this Agreement and any exhibit hereto, the terms contained in this Agreement shall prevail and the terms contained in any exhibit shall subsequently prevail in the order attached hereto.

7.19 Entire Agreement

This Agreement represents the entire and integrated Agreement between Engineer and City relative to the Scope of Basic Services herein. All previous or contemporaneous agreements, representations, promises and conditions relating to Engineer's services described herein are superseded.

[SIGNATURES ON FOLLOWING PAGE]

CITY OF COLUMBIA, MISSOURI

By: _____ ^{SSC}
De'Carlton Seewood, City Manager

Date: _____

ATTESTED BY:

Sheela Amin, City Clerk

APPROVED AS TO FORM:

Nancy Thompson, City Counselor

CERTIFICATION: I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. 44008830-604023-00771, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

By: _____
Director of Finance

ENGINEERING SURVEYS & SERVICES

By: By [Signature]

Date: 9/15/2022

ATTEST:

By: Benjamin A. Ross

Name: Benjamin A. Ross



Exhibit A – Scope of Basic Services

August 26, 2022

TASK A. Concept Plans

Design Team Kickoff Meeting

| | |
|---|---------------------------------|
| 1 | Preliminary site visit |
| 2 | Prepare kickoff meeting agenda |
| 3 | Design team kickoff Meeting |
| 4 | Prepare kickoff meeting minutes |

Information Collection

| | |
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| 5 | City LIDAR, aerial photo, GIS data |
| 6 | Existing utility data |
| 7 | Roadway plans (City) |
| 8 | Available drainage calculations, floodplain models |
| 9 | Traffic data, Synchro or SimTraffic models |
| 10 | Current traffic crash data - analysis and create displays |
| 11 | Property ownership information (County Assessor) |
| 12 | Plats and surveys (County Records) |
| 13 | Previous communications with corridor stakeholders (Wilson's; NW corner Chapel Hill) |
| 14 | Computer, Prints |

Prepare Design Criteria Memo

| | |
|----|--------------------------|
| 15 | Prepare memo |
| 16 | Submit draft memo to CPW |
| 17 | Address CPW comments |

Corridor Traffic Analysis

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| 18 | Traffic study scope meeting with City staff |
| 19 | Field reconnaissance for baseline traffic verification |
| 20 | Collect and process current traffic counts when Columbia Public Schools and MU are in session |
| 21 | MioVision - collect 14-hour traffic counts at 17 intersections (north of Greenmeadows RAB to Stadium) |
| 22 | Review Data/Identify peak hour for the Forum corridor |
| 23 | Build geometric corridor model in Synchro for Forum |
| 24 | Enter traffic counts and existing phasing sequence |
| 25 | 20-Year Traffic Projections based on information from City |

| | |
|----|---|
| 26 | Review each count location for queues; opportunities for spot improvements |
| 27 | Coordinate/optimize traffic signal sequence Forum and Chapel Hill |
| 28 | Coordinate/optimize traffic signal sequence Forum Katy Parkway (Movie Theater) |
| 29 | Coordinate/optimize traffic signal sequence Forum & Mills Drive (Schnuck's) |
| 30 | Coordinate/optimize traffic signal sequence Forum & Stadium Blvd (MoDOT 740) |
| 31 | Build geometric corridor model on Stadium (Upstream & Downstream influence area only) |
| 32 | Develop and evaluate access management alternatives (up to 3) |
| 33 | Highway Safety Model (HSDM) Forum corridor |
| 34 | Videos of Synchro Traffic running for alternatives |
| 35 | Evaluate North Forum intersections impacts and mitigation |
| 36 | Prepare Traffic Study Report |

Concept Plan of Preferred Option

| | |
|----|---|
| 37 | Prepare documents for NEPA programmatic CE |
| 38 | Phase 1 Cultural Resource Survey (by subconsultant) |
| 39 | Typical Cross Sections |
| 40 | Overall plan view drawings showing project limits and alternate access management possibilities |
| 41 | Evaluate bridge widening and culvert extension options |
| 42 | Plan view drawings showing initial grading limits and other details |
| 43 | Profile drawings showing initial vertical alignment with grades and curve lengths |
| 44 | Traffic Signal/Intersection layout drawings at Chapel Hill |
| 45 | Sidewalk/pedway/trail locations and connections, "sharrows", etc. |
| 46 | Coordinate with City Arborist |
| 47 | Intersection rendering |
| 48 | Prepare plan view drone photo exhibits for Interested Parties Meeting |
| 49 | Report to document options and costs |
| 50 | Design team internal review |
| 51 | Prints |
| 52 | Progress meeting (1) with Columbia Public Works (CPW) staff and EFK Moen |
| 53 | Prepare progress meeting minutes |
| 54 | Address CPW Comments |

Public Meetings

| | |
|----|--|
| | Targeted Early Outreach (MAC, Woodrail HOA #4 & Lake Woodrail Point HOA, CCMO, Katy Lake HOA, Victoria Park, Colonies) |
| 55 | Identify stakeholders and communicate meeting purpose |
| 56 | Prepare meeting displays |

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| 57 | Prints |
| 58 | Informal Stakeholder Meetings (up to 6 meetings) |
| 59 | Prepare meeting summary reports |
| 60 | Attend & brief Bicycle/Pedestrian Commission |
| | Open House IP Meeting |
| 61 | Plan and prepare displays and documents needed for meeting |
| 62 | Prepare traffic kiosk video presentation |
| 63 | Assist the City in conducting and attend an open house-style IP meeting. |
| 64 | Prints |
| 65 | Prepare meeting summary report. |
| | Communications |
| 66 | Provide project graphic identity to be used on materials (NOT NEEDED) |
| 67 | Prepare three project updates to be posted on BeHeardCoMO |
| 68 | Respond to misc. advocacy groups, other initiatives, etc. |

Preferred Alternative Concept Plan (20%)

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|----|---|
| 69 | Prepare final design report based on feedback from Interested Parties meeting |
| 70 | Prepare Preferred Alternative Concept Plans |
| 71 | Opinion of Probable Cost (OPC) for preferred option |
| 72 | Computer, Prints |
| 73 | Design team internal review |
| 74 | Submit report and preferred alternative concept plan to CPW |
| 75 | Address CPW Comments |

City Council Public Hearing

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|----|---|
| 76 | Prepare presentation materials |
| 77 | Review presentation with City staff |
| 78 | Present at Public Hearing (ES&S, EFK Moen Structural and Traffic) |

TASK B. PRELIMINARY PLANS

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| 79 | Task B kick off meeting (video conference call only) |
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Field Survey (completed prior to Concept Plans)

| | |
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| 80 | Set horizontal and vertical control |
| 81 | Topographic survey - Chapel Hill to south |
| 82 | Stadium Intersection R/W and topographic survey |
| 83 | Utility location collection |

| | |
|----|--|
| 84 | Property monumentation collection |
| 85 | Drone aerial photogrammetry |
| 86 | Stream cross sections for HEC-RAS |
| 87 | Title Search (43 Parcels @ \$400 per parcel) |

Geotechnical Investigation (32 Borings along Roadway) *12 borings for retaining walls (some with rock cores) *8 borings for the bridge structure *12 pavement evaluation borings

| | |
|----|---|
| 88 | Office preparation |
| 89 | Field reconnaissance |
| 90 | Temporary traffic control plan and TTC rental/setup with flaggers |
| 91 | Collect soil boring samples and prepare logs |
| 92 | Drill rig and vacuum truck rental and setup |
| 93 | Pavement and subgrade modification design |
| 94 | Prepare geotechnical report |
| 95 | Design team internal review |

Existing Pavement Condition Evaluation

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|----|--|
| 96 | Evaluate existing pavement and joint pattern |
| 97 | Evaluate existing pavement (Chapel Hill to new Green Meadows RAB pavement) |
| 98 | Prepare report recommending pavement repairs and or removal limits |

Utility Coordination Meetings (2)

| | |
|-----|---------------------------------------|
| 99 | Prepare concept plan-profile drawings |
| 100 | Conduct meetings (2) |
| 101 | Prepare meeting minutes (2) |
| 102 | Prints |

Prepare Preliminary Plans

| | |
|-----|---|
| | Environmental Clearances: |
| 103 | SHPO and 4(f) (MKT Trail work) |
| 104 | USACE 404 permit (Assumes Nationwide Permit) |
| 105 | USFWS and MDC threatened and endangered species consultations |
| 106 | FEMA Floodplain Permits (scope assumes No Rise and City Floodplain Development permit only, CLOMR not included) |
| 107 | Title sheet |
| 108 | General notes sheet |
| 109 | Survey control points and layout sheet |
| 110 | Typical cross sections |

| | |
|-----|---|
| 111 | Overall Plan View Sheets |
| | Plan-Profile Sheets with grading limits |
| 112 | Forum |
| 113 | Driveways and other side streets with Sight Distances noted |
| 114 | Special intersection layout sheets - Woodrail Ave and Crestwood Lane RAB |
| 115 | RAB grading, sidewalk ramp and drainage layout - Woodrail Ave RAB |
| 116 | Special intersection layout sheets - Katy Lane RAB |
| 117 | RAB grading, sidewalk ramp and drainage layout - Katy Lane RAB |
| 118 | Trail modifications Katy Lane to MKT |
| 119 | Existing pavement repair/replacement plan |
| 120 | Pavement joint plan |
| 121 | Pavement marking and signage plan |
| 122 | Pavement drainage system layout and profiles |
| 123 | Water Quality features |
| 124 | Cross road drainage design |
| 125 | Bridge HEC-RAS Analysis |
| 126 | Hinkson Creek Bridge Plans (Plan, Elevation, Cross Sections) |
| 127 | MKT tunnel extension plans (Plan, Elevation, Cross Sections) |
| 128 | Retaining Wall plans (up to 6, if required) (Plan, Elevation, Cross Sections) |
| 129 | Location design and profiles |
| 130 | Structural details and global stability analysis (up to three walls, if required) |
| 131 | Traffic Signal plans (includes quantity and phasing sheets, wiring diagram) |
| 132 | Chapel Hill and Forum geometrics |
| 133 | Street lighting plans |
| 134 | Coordinate with City Arborist |
| 135 | Temporary traffic control per MUTCD and construction phasing |
| 136 | Erosion control drawings and calculations |
| 137 | City of Columbia Standard Details |
| 138 | Cross sections every 50 feet and intersections/driveways |
| 139 | Field review |
| 140 | Opinion of Probable Cost |
| 141 | Design team internal review |
| 142 | Present to CPW Staff |
| 143 | Address CPW Comments |
| 144 | Prints |

TASK C. RIGHT-OF-WAY PLANS

| | Easement Descriptions |
|-----|--|
| 145 | Prepare Legal Descriptions (estimate 43 descriptions) |
| 146 | Individual Easement Displays |
| 147 | Attend City Council hearing to authorize easements |
| 148 | Respond to property owner technical questions |
| 149 | Stake easements and right of way (by City survey crew) |

Prepare Right-of-Way Plans (same requirements of Preliminary Plans)

| | |
|-----|---|
| 150 | Title Sheet |
| 151 | Overall Plan View Sheet |
| 152 | Parcel Tabulation |
| 153 | Plan profile sheets with grading limits, easements/right-of-way labels |
| 154 | Final pavement drainage system layout and profiles |
| 155 | Final cross road drainage design |
| 156 | FEMA No Rise documentation at Hinkson Creek bridge |
| 157 | Hinkson Creek Bridge Plans (Plan, Elevation, Cross Sections) |
| 158 | MKT tunnel extension plans (Plan, Elevation, Cross Sections) |
| 159 | Retaining Wall plans (up to 6, if required) (Plan, Elevation, Cross Sections) |
| | Traffic Signal plans (includes quantity and phasing sheets, wiring diagram) |
| 160 | Chapel Hill and Forum |
| 161 | Street lighting plans |
| 162 | Prints |
| 163 | Design team internal review |
| 164 | Present to CPW staff |
| 165 | Address CPW comments |

TASK D. FINAL PLANS, SPECS & ESTIMATES

Prepare Final Plans (After Right-of-way and easements are acquired)

| | |
|-----|---|
| 166 | Title sheet |
| 167 | General notes sheet |
| 168 | Summary of Quantities sheets |
| 169 | Survey control points and layout sheet |
| 170 | Typical cross sections |
| 171 | Overall plan view sheet |
| | Plan-Profile sheets with grading limits |
| 172 | Forum Boulevard |

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|-----|--|
| 173 | Trail modifications Katy Lane to MKT |
| 174 | Driveways and other side streets |
| 175 | Special intersection layout sheets - Woodrail Ave and Crestwood Lane RAB |
| 176 | RAB geometry - Woodrail Ave RAB |
| 177 | Special intersection layout sheets - Katy Lane RAB |
| 178 | RAB geometry plan - Katy Lane RAB |
| 179 | Existing pavement repair/replacement plan |
| 180 | Pavement joint plan |
| 181 | Pavement marking and signage plan |
| 182 | Pavement drainage system layout and profiles |
| 183 | Cross road drainage design |
| 184 | Water Quality features |
| 185 | MKT Tunnel Extension Plans |
| 186 | Culvert design |
| 187 | General plan and elevation |
| 188 | Removals, Notes and Quantities |
| 189 | Cross section and details |
| 190 | Wingwalls |
| 191 | Tunnel quantities |
| 192 | Tunnel Special Provisions |
| 193 | QA/QC |
| 194 | Hinkson Creek Bridge Plans |
| 195 | Final geometry/elevations |
| 196 | Deck slab design |
| 197 | Girder design |
| 198 | Bearing design |
| 199 | Int Bent design |
| 200 | End Bent design |
| 201 | General Plan & Elevation |
| 202 | General Notes and Quantities |
| 203 | Construction Staging |
| 204 | Details - End Bent 1 (3 Sheets) |
| 205 | Vertical Drain at End Bents |
| 206 | Details - Int Bents (2 Sheets) |
| 207 | Details - Int Bents (2 Sheets) |
| 208 | Details - End Bent 2 (3 Sheets) |
| 209 | Girder Details |
| 210 | Intermediate Diaphragms |
| 211 | Details of Precast Panels |

| | |
|-----|---|
| 212 | Camber/Haunch/Bottom of Slab Elev. |
| 213 | Plan of Slab Showing Top Reinf. |
| 214 | Plan of Slab Showing Bottom Reinf. |
| 215 | Slab Section and Details |
| 216 | Bridge Barrier |
| 217 | Barrier at End Bents |
| 218 | Fence |
| 219 | Approach Slab |
| 220 | Bill of Reinforcing Steel (2 Sheets) |
| 221 | As-Built Pile Data |
| 222 | Boring Data |
| 223 | Bridge Quantities |
| 224 | Bridge Special Provisions |
| 225 | QA/QC |
| 226 | Retaining Walls (up to 6) (3 CIP, 3 MSE) |
| 227 | Design for CIP Wall (assume up to 6' tall) |
| 228 | CIP General Plan and Elevation |
| 229 | CIP Wall Section, Notes |
| 230 | CIP Wall Detailed Plan and Elevations |
| 231 | CIP Details |
| 232 | CIP Barbill |
| 233 | MSE General Plan and Elevation |
| 234 | MSE Notes |
| 235 | MSE Details |
| 236 | QA/QC |
| 237 | Traffic Signal plans |
| 238 | Chapel Hill |
| 239 | Street lighting plans (combined sidewalk and road) |
| 240 | Coordinate with City Arborist |
| 241 | Temporary Traffic Control per MUTCD |
| 242 | Construction Phasing Plan |
| 243 | Erosion Control Drawings |
| 244 | Storm Water Pollution Prevention Plan (SWPPP using City blanket DNR permit) |
| 245 | City of Columbia Standard Details |
| 246 | Cross sections every 50 feet and intersections/driveways |
| 247 | Field Review |
| 248 | Send Final Plans to utility representatives for coordination |

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|-----|--|
| 249 | Opinion of Probable Cost and Bid Form |
| 250 | Technical specs and special provisions |
| 251 | Design Team internal review |
| 252 | Present to CPW Staff (unsigned and unsealed) |
| 253 | Address CPW Comments |
| 254 | Submit Final Plans (signed and sealed) |
| 255 | Computer, Prints |

TASK E. BID PHASE SERVICES

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|-----|--|
| 256 | Attend Pre-Bid Conference |
| 257 | Respond to Questions/Prepare Addendums |

TASK F. CONSTRUCTION PHASE SERVICES

| | |
|-----|---|
| 258 | Attend Pre-Construction Meeting |
| 259 | Site Visits (60 ES&S and 20 EFK Moen hours total – All other site visits will be Additional Services) |
| 260 | Review Shop Drawings and Materials Certifications |
| 261 | Attend semi-final inspection (punch list) |
| 262 | Attend final inspection (job walks) |

Project Management and Administration

| | |
|-----|--|
| 263 | General Communication with City and Project Team |
| 264 | Cost Control/Invoicing |
| 265 | Project Management and Schedule |



Hourly Fee Schedule

January 1, 2021

| SERVICE OF: | RATE: |
|--|----------------|
| Principal | \$ 158 / hour |
| Senior Professional Engineer | \$ 147 / Hour |
| Professional Engineer | \$ 136 / hour |
| Engineer Intern | \$ 95 / hour |
| Professional Land Surveyor | \$ 136 / hour |
| Survey Project Manager | \$ 95 / hour |
| Senior Design Technician | \$ 85 / hour |
| Technician (Survey or CAD) | \$ 72 / hour |
| Concrete Technician | \$ 58 / hour |
| Soils Technician | \$ 64 / hour |
| Special Inspector | \$ 85 / hour |
| AWS Certified Weld Inspector (Senior) | \$ 120 / hour |
| AWS Certified Weld Inspector | \$ 90 / hour |
| Chemist | \$ 75 / hour |
| Administrative Assistant | \$ 64 / hour |
| Laser Scanning Equipment | By Quote |
| UAS (Drone) w/ pilot | \$ 150 / hour |
| Survey - Stakes | \$ 0.30 / each |
| Survey – Iron Pins | \$ 3.50 / each |
| Survey – Fence Posts | \$ 7 / each |
| Drill Rig and other equipment | By Quote |
| Large Format Copies | \$ 4.00 / each |
| Photocopies - | |
| 8 ½" x 11" single-sided, black & white | \$ 0.30 / each |
| 8 ½" x 11" single-sided, color | \$ 0.60 / each |
| 11" x 17" single-sided, black & white | \$ 2.00 / each |
| Travel | \$ 0.62 / mile |
| Per Diem | \$ 30 / day |
| Lodging | Cost |

NOTES:

1. Overtime charges at 1.4 times above rates.
2. Scheduled construction phase services and/or field observations will be charged at a 2-hour minimum.
3. Weekend work will be charged at 2-hour minimum overtime.

CITY OF COLUMBIA, MISSOURI
WORK AUTHORIZATION AFFIDAVIT
PURSUANT TO 285.530 RSMo
(FOR ALL CONTRACTS IN EXCESS OF \$5,000.00)

County of BOONE)
) ss.
State of MISSOURI)

My name is Ross A. Kasmann. I am an authorized agent of ENGINEERING SURVEYS & SERVICES (Bidder). This business is enrolled and participates in a federal work authorization program for all employees working in connection with services provided to the City of Columbia. This business does not knowingly employ any person who is an unauthorized alien in connection with the services being provided.

Documentation of participation in a federal work authorization program is attached to this affidavit.

Furthermore, all subcontractors working on this contract shall affirmatively state in writing in their contracts that they are not in violation of Section 285.530.1 RSMo and shall not thereafter be in violation. Alternatively, a subcontractor may submit a sworn affidavit under penalty of perjury that all employees are lawfully present in the United States.

Ross A. Kasmann
Affiant

Ross A. Kasmann
Printed Name

Subscribed and sworn to before me this 17TH day of AUGUST, 2022.

JONATHAN CORY BERGTHOLD
Notary Public - Notary Seal
State of Missouri
Commissioned for Boone County
My Commission Expires: December 15, 2023
Commission Number: 19189480

[Signature]
Notary Public