ASSIGNMENT AND ASSUMPTION AGREEMENT

This Assignment and Assumption Agreement ("**Assignment**") dated as of February ___, 2024 ("**Effective Date**"), is entered into by and between THE PORT AUTHORITY OF KANSAS CITY, MISSOURI, a political subdivision of the State of Missouri created pursuant to Section 68.010 *et seq.,* RSMO ("**Port KC**" or "**Assignor**"), and THE CITY OF KANSAS CITY, MISSOURI, a constitutional charter city ("**City**" or "**Assignee**").

WHEREAS, Port KC and HNTB Corporation, a Delaware Corporation registered to transact business in the State of Missouri ("**HNTB**"), are parties to that certain Design Professional Services Contract dated December 14, 2022 ("**Contract**"), a true and complete copy of which is attached hereto as **EXHIBIT A**; and

WHEREAS, pursuant to the terms of the Contract, HNTB is to provide certain environmental and preliminary design services in connection with a project commonly referred to as the "South Loop Link Project" ("**Project**") for a sum not to exceed $5,694,642.00; and

WHEREAS, on June 8, 2023, the City adopted Committee Substitute for Ordinance No. 230477 ("**Ordinance**") wherein it appropriated $10,000,000 for the payment of Project expenses subject to the negotiation and execution of a Funding Agreement with the Downtown Council; and

WHEREAS, as of the Effective Date of this Assignment, invoices in excess of $2,000,000 remain due and owing HNTB and funding has not been provided by either DTC Community Development, Inc. or the City, despite repeated demands by Port KC; and

WHEREAS, as of the Effective Date of this Assignment, the City and DTC have not been able to negotiate and execute the Funding Agreement contemplated by the Ordinance and do not anticipate being able to do so for several additional months; and

WHEREAS, Part II, Section 7 of the Contract entitles Port KC to terminate said Contract, in whole or in part, upon notice to HNTB; and

WHEREAS, Port KC and City agree that the most effective management strategy for the Project moving forward would be for the City, as the primary funding entity and ultimate owner of the Project, to assume future contracting responsibilities; and

WHEREAS, Port KC has agreed to assign and the City has agreed to assume the Contract in its entirety, including without limitation, the obligation to make payment in full to HNTB for all goods and services rendered prior to the Effective Date of this Assignment; and

WHEREAS, such an assignment and assumption is consistent with the Ordinance inasmuch as it also reflects the City Council's expectation that contracting and revenues for the Project be handled by the City and the Downtown Council; and

WHEREAS, the City and HNTB intend to enter into Contract Amendment No. 1, increasing the contract amount by $650,000 and memorializing compliance with certain City contracting program requirements, including Affirmative Action and MBE/WBE; NOW, THEREFORE;

FOR AND IN CONSIDERATION of the sum of Ten and No/100 Dollars ($10.00) and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee hereby agree as follows:

Section 1. **Assignment and Assumption of Contract**. Assignor does hereby assign, transfer and convey unto Assignee, its successors and assigns, all of Assignor's rights and obligations in and to the Contract, including ownership of any work product previously completed pursuant to the Contract. Assignee does hereby accept the foregoing assignment, and does hereby assume and agree to perform,

fulfill and observe all of the duties, obligations and liabilities to be performed, fulfilled or observed by Assignor under the Contract as if the Assignee was the original named party under the Contract, regardless of whether such duties, obligations and liabilities arise before, on, or after the Effective Date. Assignee acknowledges that Assignor makes no representation or warranty with respect to the Contract except as specifically set forth in this Assignment.

Section 2. **Further Assurances**. From time to time, as and when requested by any party, each party shall execute and deliver, or cause to be executed and delivered all such documents and instruments and shall take, or cause to be taken, all such further or other actions, as such other party may reasonably deem necessary or desirable to consummate the transactions contemplated by this Assignment.

Section 3. **Successors and Assigns**. The provisions of this Assignment shall be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns.

Section 4. **Applicable Law**. All questions concerning the construction, validity and interpretation of this Assignment and the performance of the obligations imposed by this Assignment shall be governed by the laws of the State of Missouri, excluding the conflicts of laws provisions thereof.

Section 5. **Counterparts**. This Assignment may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which, when taken together, constitute one and the same document. The signature of any party to any counterpart shall be deemed a signature to, and may be appended to, any other counterpart. Facsimile and electronic PDF signatures shall be deemed original signatures for purposes of execution of this Assignment.

[Signature Page Follows]

PORT AUTHORITY OF KANSAS CITY, MISSOURI

By: _____
Jon D. Stephens
President & CEO

Approved as to form:

_____
Brian T. Rabineau
General Counsel

CITY OF KANSAS CITY, MISSOURI

By: _____
Brian Platt
City Manager

Approved as to form:

_____
City Attorney

HNTB

By: _____

EXHIBIT A

DESIGN PROFESSIONAL SERVICES CONTRACT

SOUTH LOOP LINK

I-670 FROM GRAND BOULEVARD TO WYANDOTTE STREET

THIS DESIGN PROFESSONAL SERVICES CONTRACT ("Contract") is entered into as of December 14, 2022, by and between **THE PORT AUTHORITY OF KANSAS CITY, MISSOURI**, a political subdivision of the State of Missouri created pursuant to Section 68.010 *et seq.,* RSMO ("Port KC"), and **HNTB CORPORATION**, a Delaware corporation registered to transact business in the State of Missouri ("Contractor"). Port KC and Contractor agree as follows:

PART I
SPECIAL TERMS AND CONDITIONS

Sec. 1. Compensation.

A. The amount Port KC will pay Contractor under this Contract will not exceed **five million six hundred ninety-four thousand six hundred forty-two dollars ($5,694,642.00) (**"Contract Maximum") unless an amendment to this Contract providing for additional compensation shall have been mutually executed by the parties. See attached EXHIBIT C for a fee summary of services to be performed.

B. Contractor will bill Port KC on a monthly basis in accordance with the services performed during the immediately preceding calendar month. Compensation shall be earned on a reimbursement basis only and Port KC shall have no obligation to remit payment for any portion of the services which have not yet been provided or for costs which have not yet been incurred.

C. It shall be a condition precedent to payment of any invoice from Contractor that Contractor is in compliance with, and not in breach or default of, all terms, covenants and conditions of this Contract.

D. No request for payment will be processed unless the request is in proper form, correctly computed, and is approved as payable under the terms of this Contract.

E. Port KC is not liable for any obligation incurred by Contractor except as approved under the provisions of this Contract.

Sec. 2. Responsibilities of Contractor.

Contractor shall perform the services identified in **EXHIBIT A**, attached hereto (collectively, the "Scope of Services").

Sec. 3. Notices.

All notices required by this Contract shall be in writing to the following:

Port KC: Port KC
Attn: President & CEO
110 Berkley Plaza
Kansas City, MO 64120

With copies to:

Port KC
Attn: South Loop Link Project Manager
110 Berkley Plaza
Kansas City, MO 64120

Port KC
Attn: General Counsel
110 Berkley Plaza
Kansas City, MO 64120

Downtown Council
Attn: President & CEO
1000 Walnut Street, Ste. 200
Kansas City, MO 64106

Downtown Council
Attn: Vice President
1000 Walnut Street, Ste. 200
Kansas City, MO 64106

City of Kansas City, Missouri
Attn: City Manager
414 E. 12th Street, 29th Floor
Kansas City, MO 64106

City of Kansas City, Missouri
Attn: City Engineer
414 E. 12th Street, 18th Floor
Kansas City, MO 64106

Missouri Department of Transportation
Attn: District Engineer, Kansas City District
600 NE Colbern Road
Lee's Summit, MO 64086

Contractor:

HNTB Corporation
Attn: Chris Handzel
715 Kirk Drive
Kansas City, MO 64105

All notices are effective upon the earliest to occur of the following: a) when delivered in person, b) upon receipt after dispatch by registered or certified mail, postage prepaid, c) on the next business day if transmitted by overnight courier (with confirmation of delivery), or d) three business days after the date of mailing via first class U.S. Mail, postage prepaid.

Sec. 4. Merger.

This Contract consists of **Part I, Special Terms and Conditions** ("Part I"), **Part II, Standard Terms and Conditions** ("Part II") as well any documents attached or otherwise incorporated by reference within any of the foregoing Parts I and II. This Contract constitutes the entire agreement between Port KC and Contractor with respect to this subject matter.

Sec. 5. Construction of Parts/Exhibits.

In the event of any conflict or ambiguity between Part I and Part II of this Contract, Part I will be controlling.

Sec. 6. Term of Contract.

The services to be provided by Contractor pursuant to this Contract shall begin on the Effective Date and shall be completed no later than September 29, 2023**.** Specific deliverables during the term of the Contract shall be completed in conformity with the timelines identified in **EXHIBIT B,** attached hereto.

Sec. 7. Subcontractors.

The team assembled by Contractor shall include those subcontractors identified in its Statement of Qualifications for Preliminary Design and Environmental Analysis Services as submitted to Port KC on or about October 3, 2022 ("SOQ"), and which document is incorporated herein by reference. Contractor shall retain the discretion to utilize the services of additional subcontractors not listed therein as it determines necessary for the performance of its services under this Contract but shall not substitute any of those entities identified in its Statement of Qualifications for Preliminary Design and Environmental Analysis Services without the written consent of Port KC, which consent shall not be unreasonably conditioned or withheld.

[Remainder of page intentionally left blank. Signature page follows.]

THIS CONTRACT CONTAINS INDEMNIFICATION PROVISIONS

PORT AUTHORITY OF KANSAS CITY, MISSOURI

DocuSigned by:
9261A9C70CA94B7...

Jon D. Stephens
President & CEO

Approved as to form:

DocuSigned by:
Brian Rabineau
F57667212EAA421...

Brian T. Rabineau
General Counsel

HNTB CORPORATION

DocuSigned by:
E69A209452F4490...

Kevin Wallace, P.E.
Vice President

PART II
STANDARD TERMS AND CONDITIONS

Sec. 1. Indemnification.

A. For purposes of Section 1 only, the following terms shall have the meanings listed:

a. **Claims** means all claims, damages, liability, losses, costs and expenses, court costs and reasonable attorneys' fees, including attorneys' fees incurred by Port KC in the enforcement of this indemnity obligation, of any kind of character (including consequential and punitive damages).

b. **Contractor's Agents** means Contractor's officers, employees, subcontractors, successors, assigns, invitees, and other agents.

c. **Port KC** means the Port Authority of Kansas City, Missouri and its agents, officials, officers and employees.

B. Contractor's obligations under this Section with respect to indemnification shall be limited to the coverage and limits of insurance that Contractor is required to procure and maintain under this Contract. Contractor affirms that it has had the opportunity to recover all costs of the insurance requirements imposed by this Contract in its contract price.

C. Contractor shall indemnify and hold harmless Port KC from and against all Claims to the extent caused by the negligent acts or omissions of Contractor in connection with this Contract, including but not limited to professional negligence, if applicable, caused in whole or in part by Contractor or Contractor's Agents, and regardless of whether or not caused in part by any act or omission, including negligence, of Port KC. Contractor is not obligated under this Section to indemnify Port KC for the sole negligence of Port KC. Defense obligation shall be in proportion to Design Professional's negligence as determined at the time of adjudication or settlement

D. In no event shall the language in this section constitute or be construed as a waiver or limitation of Port KC's rights or defenses with regard to sovereign immunity, governmental immunity, or other official immunities and protections as provided by the federal and state constitutions or by other provision of law.

E. The right to indemnification set forth in this Section shall survive the termination or expiration of this Contract.

Sec. 2. Insurance.

A. Contractor shall procure and maintain in effect throughout the term of this Contract insurance policies with coverage not less than the types and amounts specified in this Section. In the event that additional insurance, not specified herein, is required during the term of the Contract, Contractor shall supply such insurance at Port KC's cost.

1. Commercial General Liability Insurance Policy: with limits of $1,000,000 per occurrence and $2,000,000 annual aggregate, written on an "occurrence" basis. The policy shall be written or endorsed to include the following provisions:

a. Severability of Interests Coverage applying to Additional Insureds;

b. Contractual Liability;

c. Per Project Aggregate Liability Limit;

d. No Contractual Liability Limitation Endorsement;

e. Additional Insured Endorsement, ISO form CG20 10, current edition, or its equivalent.

2. Workers' Compensation Insurance: as required by statute, including Employers Liability with limits of:

Workers' Compensation: Statutory

Employers Liability:

$500,000 bodily injury by accident – each accident

$500,000 bodily injury by disease-policy limit

$500,000 bodily injury by disease-each employee

3. Commercial Automobile Liability Insurance Policy: with a limit of $1,000,000, covering owned, hired, and non-owned automobiles. The Policy shall provide coverage on an "any auto" basis and on an "combined single limit per accident" basis. This insurance policy will be written on a Commercial Automobile Liability form, or acceptable equivalent, and will protect against claims arising out of the operation of motor vehicles, as to acts done in connection with the Contract, by Contractor.

4. Professional Liability Insurance, if applicable, with limits Per Claim/Annual Aggregate of $2,000,000.

5. Umbrella or Excess Liability coverage with limits of $2,000,000.

B. The Commercial General, Automobile, and Umbrella Liability Insurance specified above shall provide that the Port KC and, officials, officers, and employees, while acting within the scope of their authority, shall be named as additional insured's for the services performed under the Contract. At or before execution of the Contract, the Contractor must deliver to the Port KC a certificate of insurance showing all required coverage, endorsements, and additional insured's, and which will declare that the respective insurer may not cancel or fail to renew the same in whole or in part without giving to Port KC written notice of its intention to cancel or not renew at least thirty (30) days in advance.

C. All insurance coverage must be written by companies that have an A.M. Best's rating of "A-VI" or better and are licensed or approved by the State of Missouri to do business in Missouri.

D. Contractor agrees that all insurance policies which it is required to carry pursuant to this Contract, will contain provisions to the effect that in the event of payment of any loss or damage, Contractor's insurers will have no rights of recovery against Port KC and its agents, officials, officers, and employees for loss or damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other insurance applicable to the work required pursuant to this Contract.

E. Contractor's failure to maintain the required insurance coverage will not relieve Contractor of its contractual obligation to indemnify the Port KC pursuant to Section 1. If the coverage afforded is cancelled or changed or its renewal is refused, Contractor shall give at least thirty (30) days prior written notice to Port KC. In the event Contractor fails to maintain the required insurance coverage in effect, Port KC may order Contractor to immediately stop work, and upon ten (10) days' notice and an opportunity to cure, may pursue its remedies for breach of this Contract as provided for herein and by law.

F. In no event shall the language in this Section constitute or be construed as a waiver or limitation of Port KC's rights or defenses with regard to sovereign immunity, governmental immunity, or other official immunities and protections as provided by the federal and state constitutions or by other provision of law.

Sec. 3. Independent Contractor.

Contractor is an independent contractor and is not Port KC's agent. Contractor has no authority to take any action or execute any documents on behalf of Port KC. Contractor accepts full and exclusive liability for the payment of any and all premiums, contributions or taxes for workers' compensation, social security, unemployment benefits, or other employee benefits now or hereinafter imposed under any state or federal law, which are measured by the wages, salaries or other renumeration paid to persons employed by Contractor on work performed under the terms of this Contract.

Sec. 4. Payment.

It shall be a condition precedent to payment of any invoice from Contractor that Contractor is in compliance with, and not in breach or default of, all provisions of this Contract. Contractor agrees that Port KC will not process Contractor's request for payment unless Port KC determines Contractor's request for payment is in proper form, correctly computed, and properly payable under the provisions of this Contract. Port KC shall pay HNTB within thirty (30) days of Client's receipt of a properly prepared invoice issued by HNTB.

Sec. 5. Governing Law.

This Contract shall be construed and governed in accordance with the laws of the State of Missouri without giving effect to Missouri's choice of law provisions. Port KC and Contractor: (1) submit to the jurisdiction of the state and federal courts located in Jackson County, Missouri; (2) waive any and all objections to jurisdiction and venue; and (3) will not raise *forum non conveniens* as an objection to the location of any litigation.

Sec. 6. Compliance with Laws.

Contractor shall comply with all federal, state and local laws, ordinances and regulations applicable to the work and this Contract, and shall, at its own expense, secure all occupational and professional licenses and permits from public or private sources necessary for the fulfillment of its obligations under this Contract.

Sec. 7. Termination for Convenience.

A. Port KC may, at any time upon ten (10) days' notice to Contractor specifying the effective date of termination, terminate this Contract, in whole or in part.

B. If Port KC terminates this Contract, Port KC shall only be liable for payment for services rendered before the effective date of termination. Contractor shall prepare an accounting of the services performed and direct costs incurred by Contractor up to the effective date of termination and shall return to Port KC any remaining sums within thirty (30) days of the effective date of termination. Upon payment therefore, all work or materials prepared or obtained by Contractor pursuant to this Contract shall become Port KC's property. Contractor shall not be liable for any errors or omissions contained in the deliverables which are incomplete as a result of a suspension or termination where Contractor is deprived of the opportunity to complete Contractor's services.

C. Contractor may terminate this contract upon written notice to Port KC in the event of a substantial failure by Port KC to perform in accordance with the terms of this contract.

Sec. 8. Default and Remedies.

A. If Contractor shall be in default or breach of any provision of this Contract, Port KC may terminate this Contract, suspend Port Kc's performance, or invoke any other legal or equitable remedy after giving Contractor fifteen (15) days written notice and opportunity to cure such default or breach.

B. If Port KC shall be in default or breach of any provision of this Contract, Contractor may terminate this contract or suspend Contractor's performance after giving Port KC fifteen (15) days written notice and opportunity to cure such default or breach.

C. All rights and remedies granted to Port KC herein and any other rights and remedies which Port KC may have at law and in equity are hereby declared to be cumulative and not exclusive.

Sec. 9. Acceptance.

No payment made under this Contract shall be proof of satisfactory performance, either wholly or in part, and no payment shall be construed as acceptance of deficient or unsatisfactory work.

Sec. 10. Resolution of Claims.

A. For purposes of this Section 10 only, the following terms shall have the meanings listed:

a. **Claims** means a demand or assertion by the Contractor seeking, as a matter of right, the adjustment of Contract price and/or times with respect to the terms of the Contract.

b. **Port KC's Representative** means a person designated to act for the President and CEO of Port KC.

B. The Contractor must give written notice to Port KC's Representative within fourteen (14) calendar days after the occurrence of the event giving rise to the Claim or within fourteen (14) calendar days after the first recognition of the conditions giving rise to the Claim. After the fourteen (14) day period for filing claims has expired, the Claim shall be considered waived unless Port KC's President and CEO grants an extension based on good cause shown by the Contractor that such additional time is warranted. The responsibility to substantiate Claims shall rest with the Contractor.

C. If the claim cannot be resolved by direct negotiation between Port KC's Representative and the Contractor, the Contractor must submit the Claim, in writing, to the President and CEO within five (5) calendar days after the Contractor and Port KC's Representative have agreed that they cannot resolve the Claim. The submittal shall succinctly state the issues and the respective position of the Contractor.

D. The President and CEO shall review the written statement and reply in writing within ten (10) business days. The President and CEO may extend this period if necessary by notifying the Contractor.

E. Absent fraud, gross mistake or bad faith, the President and CEO's decision shall be final and binding on Port KC and the Contractor.

F. All administrative procedures set forth in this Contract must first be exhausted before suit is filed.

G. The time frame for the President and CEO's decision may be tolled if the parties mutually agree to participate in mediation. Mediator selection and the procedures to be employed in the mediation shall be mutually acceptable to both parties. Cost of the mediation, including the mediator's fees, shall be shared equally among the parties.

H. If the Claim is not resolved during mediation, the Contractor agrees that it will file no suit based on facts or evidentiary materials that were not presented for consideration to Port KC during the mediation process or of which the Contractor had knowledge and failed to present during the administrative procedures.

Sec. 11. Waiver or Modification.

A. No provision of this Contract may be waived, modified or amended except in writing signed by the party against whom enforcement is sought.

B. If Port KC shall waive any provision of this Contract, it shall not operate as a waiver of the Contractor's subsequent breach or noncompliance with the provision. Port KC shall be entitled to invoke any contractual or legal remedy available to Port KC despite any of Port KC's previous waiver(s) of the Contractor's breach or noncompliance with the Contract provisions.

Sec. 12. Headings; Construction of Contract.

The headings of each section of this Contract are for reference only. Unless the context of this Contract clearly requires otherwise, all terms and words used herein, regardless of the number and gender in which used, shall be construed to include any other number, singular or plural, or any other gender, masculine, feminine or neuter, the same as if such words had been fully and properly written in that number or gender.

Sec. 13. Merger.

This Contract, including any referenced attachments, constitutes the entire agreement between Port KC and Contractor with respect to this subject matter, and supersedes all prior agreements, whether written or oral, between Port KC and Contractor with respect to this subject matter, and any such prior agreement shall be void and of no further force or effect as of the date of this Contract.

Sec. 14. Severability of Provisions.

Except as specifically provided in this Contract, all of the provisions of this Contract shall be severable. If any provision of this Contract is found by a court of competent jurisdiction to be unconstitutional or unlawful, the remaining provisions of this Contract shall be valid unless the court finds that the valid provisions of this Contract are so essentially and inseparably connected with and so dependent upon the invalid provision(s) that it cannot be presumed that the parties to this Contract could have included the valid provisions without the invalid provision(s); or unless the court finds that the valid provisions, standing alone, are incapable of being performed in accordance with the intentions of the parties.

Sec. 15. Records.

Contractor shall maintain and retain all documents, books, papers, photographs, maps, sound recordings or other materials, regardless of physical form or characteristics, made or received in connection with this Contract for a term of five (5) years that shall begin after the expiration or termination of this Contract. Port KC shall have a right to examine or audit all such records and Contractor shall provide access to Port KC within ten (10) calendar days' written notice from Port KC.

Sec. 16. Non-Discrimination.

Contractor shall not discriminate against any employee or applicant for employment because of race, color, creed or religion, ancestry or natural origin, sex, handicap or disability, age, familial status, marital status, sexual orientation or gender identity.

Sec. 17. Missouri Preference Policies.

Pursuant to Section 71.140 RSMo, Contractor shall give preference to materials, products, supplies and all other articles produced, manufactured, made or grown within the State of Missouri.

Sec. 18. Assignability & Subcontracting.

A. Contractor shall not assign or transfer any part or all of Contractor's obligation or interest in this Contract without prior written approval of Port KC. If Contractor shall assign or transfer any of its obligations or interests under this Contract without Port KC's prior written approval, it shall constitute a material breach of this Contract. This provision shall not prohibit contractor from subcontracting as otherwise provided for herein.

B. The utilization of subcontractors shall not relieve Contractor of any of its responsibilities under the Contract, and Contractor shall remain responsible to Port KC for the negligent acts, errors, omissions or neglect of any subcontractor and of such subcontractor's officers, agents and employees. Port KC shall have the right to reject, at any point during the term of this Contract, any subcontractor proposed to be utilized by the Contractor, and to require that any subcontractor cease working under this Contract. Port KC's right shall be exercisable in its sole and subjective discretion. Port KC shall not be obligated to pay or be liable for payment of any monies which may be due to any subcontractor. Contractor shall include in any subcontract a requirement that the subcontractor comply with all requirements of this Contract in performing Contractor's services hereunder.

Sec. 19. Contractor's Business Practices.

Contractor shall adopt and use generally accepted accounting principles in Contractor's operations. Contractor shall use its best efforts to obtain all equipment and materials for use in the performance of its services under this Contract at the lowest possible cost and to purchase the equipment and materials by competitive bidding whenever required by law or whenever practical. Contractor shall identify, label, protect and release to Port KC at the termination of this Contract, all non- expendable equipment purchased with funds provided under this Contract.

Sec. 20. Conflicts of Interest.

Contractor certifies that no officer or employee of Port KC has, or will have, a direct or indirect financial or personal interest in this Contract, and that no officer or employee of Port KC, or member of such officer's or employee's immediate family, either has negotiated, or has or will have an arrangement, concerning employment to perform services on behalf of Contractor in this Contract.

Sec. 21. Gratuities/Kickbacks.

A. Contractor certifies that it has not and will not offer or give any Port KC employee or officer a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation or preparation of any part of a contract, of any specification or procurement standard, rendering of advice, investigation, auditing or in any other advisory capacity to Port KC in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any contract or subcontract, or to any solicitation or proposal thereof.

B. Contractor certifies that no payment, gratuity, offer of employment or benefit has been or will be made by or on behalf of or solicited from a subcontractor under a contractor of a higher tier subcontractor or any person associated therewith as an inducement for the award of a subcontract or order.

Sec. 22. Tax Compliance.

Contractor shall remain in compliance with the license and tax ordinance administered by the City of Kanas City, Missouri during the term of this Contract and shall furnish Port KC sufficient evidence of the same if so requested.

Sec. 23. Rules of Contract Construction.

Port KC and Contractor agree that this Contract shall be construed without regard to any presumption or other rule requiring construction of the Contract against the party causing the contract to be drafted.

Sec. 24. Binding Effect.

This Contract shall be binding upon Port KC and Contractor and their successors in interest.

Sec. 25. Representations and Warranties.

Port KC and Contractor certify that they have the power and authority to execute and deliver this Contract, to use the funds as contemplated hereby and to perform this Contract in accordance with its terms.

Sec. 26. Employee Eligibility Verification.

Contractor shall execute and submit an affidavit, in a form prescribed by Port KC, affirming that Contractor does not knowingly employ any person in connection with the contracted services who does not have the legal right or authorization under federal law to work in the United States as defined in 8 U.S.C. § 1324a(h)(3). Contractor shall attach to the affidavit documentation sufficient to establish Contractor's enrollment and participation in an electronic verification of work program operated by the United States Department of Homeland Security (E-Verify) or an equivalent federal work authorization program authorized by the United States Department of Homeland Security to verify information of newly hired employees, under the Immigration Reform and Control Act of 1986. For those Contractors enrolled in E-Verify, the first and last pages of the E-Verify Memorandum of Understanding that Contractor will obtain upon successfully enrolling in the program shall constitute sufficient documentation for purposes of complying with this Section. Contractor shall submit the affidavit and attachments to Port KC prior to execution of the Contract, or at any point during the term of the Contract if requested by Port KC.

The same degree of care, skill, and diligence shall be exercised in the performance of Services as is ordinarily possessed and exercised by a member of the same profession, currently practicing, under similar circumstances.

Contractor may reasonably rely on any documents, information and materials provided by Port KC. Port KC represents that Contractor's use of such documents, information or materials will not infringe upon any third party's rights.

SCOPE OF SERVICES

South Loop Link

Preliminary Design and Environmental Analysis Services

December 9, 2022

Project Description

Port KC (Client) and HNTB Corporation (Consultant) have entered into an agreement to develop this Scope of Services for the South Loop Link deck park project in Kansas City, Jackson County, Missouri. Project limits include westbound and eastbound traffic lanes of Truman Road (15th Street) on the north and south, respectively, and Wyandotte Street to the west and Grand Boulevard to the east. This scope of services includes public involvement, preliminary design activities, and the preparation of a NEPA Environmental Assessment (EA) and associated social, economic, and natural environment analyses, and management activities to gain required MoDOT and FHWA environmental approvals to proceed with further project development. Preparation of the NEPA EA will build upon previous work with additional analyses performed as required to meet current MoDOT, CEQ, EPA, and FHWA requirements.

The EA will be prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations (CFR) Parts 1500-1508); FHWA's Environmental Impact and Related Procedures regulations (23 CFR 771), FHWA's Technical Advisory (TA) 6640.8A, Guidance for Preparing and Processing Environmental and Section 4(f) Documents; the guidance provided in Fixing America's Surface Transportation (P.L. No. 114-94) (FAST ACT), and other applicable Federal laws, regulations, and orders. A more detailed description of the process and requirements used by MoDOT for completion of the Study process may be found in the MoDOT Engineering Policy Guide (EPG, http://epg.modot.org/). The Consultant will review the appropriate sections of the EPG as a means to supplement the information contained in the scope of services and provide additional guidance in the requirements and expectations of MoDOT for completion of the Study.

The overall intent of this contract is that the consultant will provide the necessary services to produce the end product of an approved EA (i.e., one which fulfills the requirements of NEPA and anticipated issuance of a Finding of No Significant Impact (FONSI) by the FHWA) in the time specified. The contract will also result in preliminary plans representing a 30% design level for the project. It is assumed that the project will progress in future phases toward final design and Construction Manager At Risk (CMAR) delivery approach.

The following is a list of tasks to be performed for the Project:

Task 1 – Project Management and Initiation
Task 2 – Public Involvement
Task 3 – Existing Conditions
Task 4 – Park Design
Task 5 – Engineering Design
Task 6 – Environmental Assessment
Task 7 – Planning Support
Task 8 – Preliminary Design

TASK 1 – PROJECT MANAGEMENT AND INITIATION

The Consultant project manager will coordinate the diverse efforts of the Consultant team. Coordination among the diverse work groups, including environmental, traffic, public involvement and others, will be managed by the Consultant Project Manager in accordance with the project schedule. The diverse parties in the study, outside of the Consultant team, will be advised of developments by the Consultant team using the Client project manager as the conduit. The Consultant's project manager will document the progress of the study and the project decisions.

1.1 Meetings and Coordination

1.1.1 Consultant Coordination Meetings

The Consultant team will prepare for and attend weekly internal Consultant team progress meetings related to the EA, preliminary design, and public involvement activities (assumes 10-month project schedule for this scope of services). The meetings are assumed to be one-hour project progress meetings with the Consultant project manager and discipline task leads.

1.1.2 Client Coordination Meetings

The Consultant will prepare for and attend biweekly (22) progress meetings with the Client core team. The meetings are assumed to be one-hour in duration and virtual. The Consultant will prepare a meeting agenda, meeting materials and a meeting summary following each meeting.

The Consultant will also prepare for and attend up to ten (10) additional 1-hour meetings as needed and at the Client's discretion. These meetings are designed for interaction between Client and Consultant technical staff to coordinate and discuss issues in further detail than the planned biweekly meetings.

1.1.3 FHWA Coordination Meetings

The Consultant will prepare for and attend a total of four (4) milestone meetings with the Client core team and FHWA related to the EA (Project initiation/Purpose and Need, Initial Alternatives, Reasonable Alternatives, Preferred Alternative/Draft EA, Final EA/ROD). The meetings are assumed to be one-hour project milestone progress meetings to be held virtually. The Consultant will prepare a meeting agenda, meeting materials and a meeting summary following each meeting.

1.2 Quality Assurance/Quality Control (QA/QC)

The Consultant will conduct internal monthly project quality reviews involving the Project Manager, Project Quality Manager and Principal in Charge for project adherence to project controls, the Project Quality Plan and peer review of project work and deliverables.

The Consultant team will follow the quality assurance/quality control procedures outlined in the project quality plan for all deliverables prior to submission to the Client.

1.3 Project Management

The Consultant will prepare and maintain a project management plan that specifies the roles and responsibilities of the consultant, sub-consultants and other study participants, identifies

specific work tasks and subtasks, milestones, review/comment points, and provides a timeline/schedule of work.

Deliverables:

- Project Management Plan
- Project Schedule
- Project Quality Plan

TASK 2 – PUBLIC INVOLVEMENT

2.1 Engagement

The NEPA study will be developed with input from the Project Partners and key stakeholders with jurisdiction and interest in the Project area. The Consultant will identify key stakeholders who could be affected by changes in the study area, create and implement a targeted public involvement plan which builds on prior planning and outreach efforts. The plan will include three public meetings (one at the beginning of the process during purpose and need, one for alternatives development, and one after the EA is signed, but before the decision document) and what will be accomplished at each, the number of small group meetings, additional engagement activities outlined below.

The Consultant anticipates engagement with the following committees/groups in addition to the public meetings. These committees are:

- Founders Group – composed of adjacent property owners and private funding contributors. Up to three (3) meetings.
- Steering Committee – composed of the existing Community Engagement Committee that has previously supported the Downtown Council, members include an equitable mix of neighborhood associations, civic, business and community leaders. Up to three (3) meetings.
- Technical Committee – composed of technical advisors from the Project Partners and agency reviewers (i.e. Port KC development team, KCMO Public Works, MoDOT, etc)
- Government relations/briefings – up to four (4) elected officials and/or candidates.

The Consultant will prepare informational collateral to support each public engagement activity (e.g., newsletters, bulletins, fact sheets, graphical displays, videos, advertisements, notices, etc). The Consultant will also host and develop a project website through the duration of this contract. The website will be updated monthly with project content. The Consultant will also prepare social media content tied to engagement activities to assist the client with promoting project activities and feedback opportunities. The content shall include up to 3 brief videos organized with storyboards, production and editing and utilizing design content prepared by the design team. The Consultant will provide draft content to the Client to provide feedback and direction so a final version can be developed The Consultant will also provide translation for multi-ethnic groups.

The Consultant will document and respond to public inquiries about the project. The project will utilize social pinpoint software to collect and organize public comments. The use of this application will be supplemented by traditional and grassroots/direct engagement through street teams, pop-ups, and literature drops.

- Pop-Ups (up to three events per month)
- Lit Drops (2 lit drops)

- Survey – design alternative preferences

Deliverables:

- Public Involvement Plan
  - Outreach schedule of meetings to complete data gathering, presentation of concepts, and seek stakeholder input on Project alternatives
- Informational collateral – up to four (10) newsletters, bulletins, or fact sheets,
- Up to three (3) brief videos
- Three advertisements and notices for public meetings
- Monthly website and social media content updates
- Slide presentations for each identified meeting
- Presentation materials/graphical displays for each public meeting. Up to 8 boards for each meeting (24 total)
- Stakeholder database
- Public Involvement Appendix for EA.

2.2 Branding

The Consultant will coordinate with the Project Partners on a strategy to establish an identity for this project and distinct messaging to endure throughout this contract. The Consultant will develop templates for project information and collateral that will support engagements efforts and fundraising activities. Although the project branding will occur at the beginning of the project, the messaging may be refined as the concept design and engagement activities progress.

The Consultant will design a branded system including name, logo, visual and verbal language that will represent the project from beginning communication with stakeholders, potential investors, and the public through the project.

INTERIM BRAND

The Consultant will work in collaboration with the design team, Project Partners and the greater Kansas City community to create an interim brand identity for the project using a placeholder name. It will include a logo, simple brand identity system/kit of parts and core templates that resonate with all stakeholders. The purpose of the interim brand is for use in fundraising and community awareness efforts. Project team members will have access to the brand elements to use for rollout. Branding components will include:

- Align on Placeholder Name: South Loop Link, for example
- Interim Logo
- Interim Color Palette, Typography, Graphics Kit of Parts
- Simple Digital Presence: Determine where it will be hosted - DTC, KCMO, PortKC, stand alone
- Support Team with Templates/Assets for Community Meetings:
  - Postcard, Digital Graphic/Invitation, Public Meeting Boards, Stationery Template for Fact Sheets, PowerPoint Template, Ads

**This scope excludes assistance with permanent naming and and digital brand standard efforts.

Deliverables:

- Draft/Final project branding artwork
- Project branding technical memo
- Branding templates for project documents

TASK 3 – EXISTING CONDITIONS

3.1 Site Survey

The limits for the survey is along I-670 from Wyandotte Street to Grand Boulevard and from the north right of way limits of Truman Road north of I-670 to the south right of way limits of Truman Road south of I-670.

LIDAR will be required to capture vertical walls, existing bridges over I-670, and other features in the corridor. The existing elevations of I-670 will be used to determine minimum vertical clearances to proposed improvements.

The Consultant will perform the following surveying activities as stated below and per Port KC/KCMO criteria. Field data collection includes:

1. Establish horizontal and vertical control for roadways in the project area, to be based on Missouri State Plane Coordinate System, West Zone, NAD 83 and NAVD 88.
2. Provide topographic survey of the project area.
3. Coordinate utility locates with Missouri One Call.
4. Locate utilities as marked by Missouri One-Call.
5. Field check the area to identify location of all utilities (including water, storm, sanitary, power, steam tunnels, and communications – measuring top elevations, inverts and conduit sizes), fences, building corners, roads and other features within the project limits and provide in topographic survey.
6. Produce MicroStation survey base map that includes existing right of way limits, property lines and ownerships, section lines, township and ranges, any U.S. Surveys, city limits and other critical design items.
7. Re-establish centerline alignments and right of way within project limits, solely based on provided plans and existing roadways within project limits. (I-670, Truman Rd (north), Truman Rd (south), Wyandotte St, Baltimore Ave, Main St, Walnut St, and Grand Blvd.)
8. Deliver a MoDOT Survey Report Form (pdf), a survey coordinate file (text or .CVS file of the points) and an existing ground surface file (.dtm) compatible with SS10 Power InROADS.
9. MicroStation files to be in InROADS SS10.
10. T&B to provide quality review of the survey information contained in any of HNTB's Reference and Control Point plan sheets. HNTB to develop these sheets based on the provided survey data.
11. Secure the services of a MODOT approved traffic control provider.
12. Provide LIDAR scan of the project area to capture details of vertical walls, bridge structures and other areas not easily accessible by conventional survey methods.
13. Show ownership of parcels adjacent to the project area.

** No right of way acquisition is anticipated as part of this project.

Deliverables:

- Site survey base map
- MoDOT Survey Report Form
- Survey coordinate file
- Existing ground surface file
- LIDAR scan information will be delivered in .LAS or other common point clout format.

3.2 Geotechnical Data

Conduct a document search for existing subsurface geotechnical data in the project area for utilization by the team in performing engineering analysis. An inventory of existing foundation types and bearing pressures will be made as it relates to the study assessment of new foundations. A site review of existing structures will be made. Additional field explorations such as additional borings will not be made.

**No borings or potholing are planned as part of this project.

3.3 Structural Data

The Consultant will request/obtain a set of the existing as-built plans for bridges and retaining walls as well as the most current inspection report of each bridge from MoDOT/City of Kansas City, Missouri. This tasks includes a site visit to review of retaining walls and bridges.

3.4 Codes Review

The proposed project type of decking over the interstate is not specifically address by the Kansas City Rehabilitation Code. The most applicable standard for life safety design for this type of structure is NFPA 502, Standard for Roads, Tunnels, Bridges, and Other Limited Access Highways. The Consultant will perform a review of applicable codes and standards related to proposed project improvements. The review shall include codes related to site improvements, building structures, bridge structures, and tunnel requirements within the City of Kansas City, Missouri, and the State of Missouri including regulatory sections relating to construction features from the Missouri Department of Transportation Policy Guide. The findings of the review shall be documented in a code review technical memo and incorporated into the project's design criteria and concept plan report.

Deliverables:

- Applicable codes review memo

3.5 Safety and Traffic Data Collection

The safety and traffic study area will consist of Truman Road (north and south) from Baltimore Avenue to Grand Boulevard (eight intersections) and I-670 from the southwest corner to the southeast corner of the downtown loop, including the interior-facing ramps. The following safety and traffic data will be collected:

- Collect/obtain safety data from MoDOT for the safety study area for the most recent complete 5-year period. This is assumed to be 2017-2021. Including statewide crash rates based on roadway functional classification.
- Gather available roadway segment and truck percentages within the traffic study area from MoDOT and The City of Kansas City.

- Gather traffic signal timing and phasing information along Truman Road from MoDOT and/or The City of Kansas City
- Collect new intersection turning movement counts (including bicycles, pedestrians, and trucks) at the eight intersections along Truman Road between Baltimore Avenue and Grand Boulevard.
- Collect new roadway segment 48-hour counts and truck percentages at up to three locations along Truman Road.
- Obtain StreetLight origin-destination data for I-670 to understand local travel patterns
- Obtain National Performance Monitoring Research Database System (NPMRDS) within the traffic study area
- Obtain the most recent Replica synthetic population model
- Obtain traffic data and Dynameq model from Broadway and I-29/I-35/US-169 PEL studies from MoDOT

TASK 4 – PARK DESIGN

4.1 Inventory and Analysis

The Consultant shall perform the following activities to inform the park design and engage the public in the design process:

- Prepare site inventory and analysis documents for public presentation
- Prepare summary of potential program elements for Client review and public presentation
- Prepare graphic materials for landscape scope of work for public presentation
- Participate in Public Workshop #1 to solicit feedback on opportunities, constraints and priorities for program elements

Deliverables:

- Site inventory diagrams
- Opportunities & Constraints diagram
- Public Workshop #1 slideshow presentation

4.2 Park Concept Plan & Report

The Consultant shall perform the following activities to develop park concept alternatives and inform a recommended design:

- Prepare graphic materials summarizing public feedback on park programming collected via in-person and online park user surveys
- Develop three (3) park Conceptual Alternates illustrating various configurations of requested program elements on the project site
- Prepare slideshow presentation for landscape scope of work for public presentation
- Participate in Public Workshop #2 to solicit feedback on conceptual alternates
- Prepare a Recommended Park Concept Plan based on public feedback on Conceptual Alternate plans

Deliverables:

- Park design plan alternatives (up to 3)
- Public Workshop #2 slideshow presentation

- Recommended Park Concept Plan
- Preferred park concept renderings (up to 3)

4.3 Park Programming & Activation Study

The Consultant shall perform the following activities to program and activate the recommended park design:

- Work with Client to define and establish activation goals for the outdoor public realm spaces and confirm the metrics of success.
- Work with the OJB design team to align the design with programming and activation goals of the Client.
- Review and analyze existing programming and activation calendars of events.
- Conduct up to two (2) meetings with Client to generate new programming and activation ideas.
- Share best practices and national case studies of programmed and activated spaces.

Deliverables:

- Representative activation calendar for Year 1 of operation.
- Master programming and activation report, including:
    - Activation ideas for each program area
    - Estimated inventory needed for programming and activation
    - Estimated expense budget to self-produce programs and activation concepts
- Park programming and activation diagrams to show various event layouts, logistics and audience capacities.

4.4 Park Governance Study

The Consultant shall prepare a Park Governance Study to inform the client's governance and management model evaluation:

- Prepare case studies of highly activated parks, including organizational model, size, budget and staffing strategies.
- Meet with community open space operators to understand operational models, regional issues and best practices.
- Prepare recommendations based on Client feedback for park management entity including potential strategies for operations, activation and fundraising.
- Provide input to Client to identify decision-making stakeholders and outline process to formalize recommended governance and management model.
- Recommend a governance and annual management structure that aligns with the vision of the park, activation goals, and operations and revenue generation targets.

Deliverables:

- Governance structure recommendation that aligns activation, operations and revenue generation goals with the park
- Recommended schedule outlining process of creating park management entity
- Recommended organization chart, including staff roles, responsibilities and hiring timeline

4.5 Park Architecture

The Consultant shall prepare options for buildings and other vertical architecture within the park. It is anticipated the park design will include up to five (5) buildings/structures, this will be validated in the programming activities. The team will discuss these building programming options with the client during planned client coordination meetings and the public during public meeting #1 and document findings in the programming memo. The Consultant will prepare up to three (3) design alternatives in tandem with the park concepts and refine the concepts to align with the preferred alternative. This process will be documented in a chapter of the concept plan report and the preferred alternative will be refined during preliminary plan development.

Deliverables:

- Park design plan alternatives (up to 3) – in tandem with Park Design
- Preferred park concept renderings (up to 3) – assistance to Park Design

4.6 Park Sustainability

The Consultant shall assess opportunities throughout the development of concept alternatives to identify areas to promote sustainability. These opportunities will be captured and quantified in a Sustainability Feasibility Report and the team will collaborate to incorporate these features in the recommended alternative.

Deliverables:

- Sustainability Feasibility Report

TASK 5 – ENGINEERING DESIGN

5.1 Project Setup and Design Criteria

The Consultant team will prepare design criteria for major design disciplines (park design, architecture, roadway, drainage, utilities, lighting, geotechnical, structural, tunnel, and ITS) to guide the concept development activities for the project. The design criteria will incorporate the codes review from Task 3.4.

Deliverables:

- Conceptual Design Criteria memo

5.2 Roadway/Mobility

5.2.1 I-670 improvements

The Consultant team anticipates minimal impacts to I-670 lanes but will evaluate impacts due to the proposed design improvements. The evaluation will include:

- Requesting and reviewing MoDOT & KCMO as-built drawings, reports and studies.
- Verifying survey data and creating base files for utilities, existing contours, topo features, property lines, and right of way lines.
- Establishing existing roadway geometry from as-built drawings and survey data.
- Developing existing typical section exhibits of I-670 through the project area.
- Reviewing up to three (3) bridge depth options and the resulting vertical and horizontal clearances to the existing highway and street networks.
- Providing recommendations to address the SCOUT system and highway signage configuration into the designed improvements.

- Providing recommendations for ongoing maintenance of I-670 pavement after the construction of the proposed park improvements.

5.2.2 Street network improvements

The Consultant team will review and propose modifications to the existing surface street network. Street network design includes:

- Documenting existing surface street conditions and proposed plans for future street changes.
- Up to three (3) concepts for surface streets (sections and plan diagrams) including potential improvements for lane reductions, on-street bicycle accommodations, crosswalk and intersection ADA improvements, and geometric improvements to address Vision Zero objectives. Vehicular turning movements will also be analyzed for each of the three concepts.
- Preferred design alternative that integrates park design concept with the local street condition and urban fabric
  Identifying anticipated right of way impacts for preferred design alternative.

5.2.3 Mobility improvements

The Consultant team will review the surrounding mobility network including sidewalks, ADA accessibility, bicycle and transit infrastructure. The team will develop up to two (2) concepts showing improvements to the mobility systems based on the anticipated occupation of the park, current and future surrounding land uses and access to the public space using all modes of transportation. Such improvements may include dedicated bike infrastructure, sidewalk improvements, transit station location planning and ADA accessibility improvements. Preferred mobility improvements will be incorporated into the preferred design alternative.

5.2.4 Site Grading and 3D Modelling

The Consultant team will create conceptual 3d surfaces of the park and street networks improvements to coordinate with the various design disciplines. Surface modeling design includes:

- Coordinating bridge deck thicknesses with park soil depth and reviewing bridge vertical clearances to I-670.
- Reviewing ADA connections within the park and to the street network improvements.
- Surfaces will be used for setting conceptual top and bottom wall profiles
- Surfaces will be used to determine line of sight for overhead signs to I-670
- Assisting with conceptual profiles for park drainage systems.

5.2.5 Sequence of Construction and Maintenance of Traffic

The Consultant team will investigate a conceptual sequence of construction and how construction will impact the traffic on I-670 and the existing surface street network during construction. Sequence of construction and maintenance of traffic design include:

- Analyzing and documenting a conceptual construction sequencing plan
- Creating high-level exhibits of staged construction and temporary traffic control on I-670 and side streets.
- Creating high-level exhibits of permanent traffic control changes to I-670 and side streets.
- Analyzing overhead sign relocations along I-670 and vertical clearances
- Analyzing sight lines from I-670 to conceptual overhead sign locations.
- Developing a Construction Phasing Memo

5.2.6 Conceptual Cost Estimate

The Consultant team will provide a conceptual construction cost estimate of surface street modifications and permanent I-670 signing changes for the preferred alternative.

5.2.7 EA Exhibits and Narrative

The Consultant team will prepare an engineering narrative with an exhibit of I-670 and street network improvements for the preferred design alternative in the EA report.

Deliverables:
Draft and final roadway engineering narrative and supporting exhibits for the EA report

5.3 Safety and Traffic

The Consultant will perform safety and traffic analysis needed for input into the Alternatives Feasibility Analysis process and report. This will include a high-level Data-Driven Safety Analysis to evaluate the existing and future no-build safety conditions. The Consultant will utilize MoDOT's Dynameq model for the downtown region and develop VISSIM and VISTRO traffic models to evaluate traffic impacts and analyze a Future No-Build and up to three (3) reasonable Build alternatives within the traffic study area.

The traffic study area will consist of Truman Road (north and south) from Baltimore Avenue to Grand Boulevard (eight intersections) and I-670 from the southwest corner to the southeast corner of the downtown loop, including the interior-facing ramps. The existing analysis year for Truman Road will be 2022 since current data can be collected. Because of Buck O'Neil Bridge construction, traffic patterns on I-670 and the downtown loop are not typical. Comprehensive data collection took place in 2016 to complete the traffic analysis for the Buck O'Neil study, and the Dynameq model existing year is 2016; therefore 2016 will be used as the existing year for I-670. The future analysis year will be 2050. Traditional AM and PM peak periods will be analyzed. Weekend or weeknight event scenarios will not be analyzed.

5.3.1 Existing and Future No Build Safety Analysis

The safety study area will consist of Truman Road (north and south) from Baltimore Avenue to Grand Boulevard and I-670 from the southwest corner to the southeast corner of the downtown loop, including the interior-facing ramps. Additional roadways may be considered as potential improvements dictate. The existing and future No-Build safety conditions will be documented for the safety study area. Arterials will be analyzed as segments. No intersection analyses will be completed.

The safety analysis will include a summarization of various crash characteristics such as crash type, crash severity and other prevailing conditions. The safety analysis will also include a calculation of the corridor crash rates and compare these calculations to Missouri statewide averages/trends if available. Crash reports for each fatal crash will be reviewed if access to reports can be granted.

The existing and future No-Build scenarios will be analyzed following Highway Safety Manual (HSM) predictive crash analysis methodology utilizing the Interactive Highway Safety Design

Model (IHSDM) software. These will be used to show predicted increases in crashes and to compare no-build and build alternatives.

5.3.2 Future Safety Analyses

As part of the alternative analysis, up to three (3) build alternatives will be analyzed utilizing the HSM. HSM methodology will be utilized to determine predicted crashes for each alternative to be used during alternative screening. Alternatives will be compared against each other and against the existing and future no-build scenarios.

5.3.3 Existing and Future No Build Traffic Analysis

- Develop 2016 existing AM, PM, and daily traffic volumes and truck percentages for I-670 in the traffic study area
- Develop 2022 existing AM and PM peak hour turning movement counts at the eight (8) signalized intersections in the traffic study area
- Estimate origin-destination tables for the routes along I-670 using the StreetLight data from 2019. Up to fifteen (15) origins/destinations will be represented. More data is available for 2019 and it is assumed that relative traffic flows determined by the StreetLight data is consistent between 2016 and 2019.
- Analyze speed and travel time data within the traffic study area using National Performance Monitoring Research Database System (NPMRDS) where data is available.
- Analyze the movements by mode of downtown residents, workers, and visitors traveling through the traffic study area using Replica's synthetic population model
- Analyze 2022 existing signalized intersections in the traffic study area for the AM and PM peak hours using VISTRO software
- Analyze 2016 existing I-670 using VISSIM software
- Develop AM, PM, and daily future 2050 No-Build traffic forecasts for I-670 in the traffic study area (same as existing) using Dynameq model. Existing truck percentages will be maintained.
- Develop AM and PM peak hour 2050 turning movement count forecasts at the signalized intersections in the traffic study area
- Analyze future No-Build signalized intersections in the traffic study area for the AM and PM peak hours in 2050 (future signalized will be optimized in VISTRO)
- Analyze 2050 no-build I-670 using VISSIM software

5.3.4 Future Build Traffic Analysis

- Develop AM, PM, and daily 2050 future build traffic forecasts for I-670 in the traffic study area (same as existing) using Dynameq model for up to three (3) build alternatives.
- Develop AM and PM 2050 peak hour turning movement count forecasts at the signalized intersections in the traffic study area for up to three (3) build alternatives. Build alternatives could include lane reductions along Truman Road and/or the removal of Walnut Street across I-670.
- Analyze future Build 2050 signalized intersections in the traffic study area for the AM and PM peak hours using VISTRO software for up to three (3) build alternatives (future signals will be optimized in VISTRO)
- Analyze I-670 for up to three (3) build alternatives using VISSIM software

- Develop PM peak hour VISSIM models of the eight signalized intersections along Truman Road for up to three (3) build alternatives to visualize interactions between cars, bikes, pedestrians, buses, and the streetcar.

5.3.5 Safety and Traffic Analyses Documentation

The Consultant will develop a traffic and safety technical memorandum that documents the traffic and safety analyses methodologies, results, and interpretation of results. This technical memorandum will be appended to the Alternatives Feasibility Analysis Report, and its contents will be summarized with the NEPA documentation. An Access Justification Request (AJR) is not anticipated and is not included in this scope of services.

Deliverables:

- Draft and Final Traffic and Safety Technical Memorandum documenting analyses methodologies and results

5.4 Drainage

The Consultant will develop project-specific stormwater drainage criteria, which will cover interception, conveyance, connections to existing systems, and best management practices (BMPs). The criteria will be based on Kansas City, Missouri, requirements but also consider APWA Section 5600, the MARC BMP Manual, and the MoDOT drainage manual.

The Consultant will collect known drainage information for the project area, including for the existing I-670 highway, the existing Wyandotte St, Baltimore Ave, Main St, Walnut St, and Grand Blvd bridges crossing I-670 in the project area, the existing Grand Ballroom and Bartle Hall where they span I-670, and for the area within one city block north and south of the proposed deck park. They will use this information to develop a thorough understanding of the existing drainage patterns and problems in the project area.

The Consultant will coordinate the drainage design with the other design elements of the project and minimize impacts to existing drainage systems and other underground utilities. They will avoid impacts to Combination Sewer Overflow (CSO) systems conveying both stormwater runoff and sewage, other than by continuing to use existing capacity already directly utilized for drainage from the project area. This will include the consideration of green stormwater infrastructure.

The Consultant will develop a conceptual layout of drainage and BMPs and document the drainage design intent and order of magnitude costs in a summary memo to be included in the conceptual plan report.

Deliverables:

- Draft and Final conceptual drainage layout and narrative memo

5.5 Utilities

The Consultant will collect known utility information within the study area and evaluate impacts to adjacent properties and existing utilities by the design alternatives. This includes coordination with the various design consultants on projects adjacent to the study area and

utility companies for verification of impacts. The team will create a utility conflict list and review potential adjustments. Utilities to be collected include:

- Stormwater sewer
- Sanitary sewer
- Water
- Underground electric
- Underground gas lines
- Underground cable/fiber optic
- Overhead lighting
- Overhead traffic signal systems
- Overhead electric

The Consultant will provide coordination and oversight services for all public and private utilities that abut or cross the project site. The Consultant will identify, and catalogue conflicts and relocations required so as to allow continuance of those private and public utilities and to provide for the necessary infrastructure support for the South Loop Link Project, including preparing a utility conflict matrix.

The Consultant will coordinate with public and private utilities monthly to determine possible improvements, replacements or changes in alignment for utilities that may be done in concert with the South Loop Link project on an elective basis by the utility provider. The Consultant will attend the monthly Utility Liaison Coordination Committee (ULCC) meetings to learn about work that may impact the project limits. In the case of any utility changes as noted above, the Consultant will provide coordination and oversight services with outside consultants who may provide design services to relocate or otherwise improve public or private utilities.

- Based on survey, prepare a draft site utility plan and determine the location of existing public and private utilities across the site and evaluate relocations necessary to accommodate the proposed south Loop Link project.
- Coordinate utility needs with adjacent projects
- Attend team meetings
- Provide ongoing project administration
- QA/QC of work product.

Deliverables:

- Utility conflict matrix

5.6 Roadway/Park Power & Lighting

The Consultant will perform preliminary design of power distribution for buildings, structures, and pavilions located within the park, as well as distribution points for park lighting and electrical amenities. Preliminary design will include coordination with the electric utility and other Tasks within this scope. The work under this Task does not include power distribution within buildings, structures, or pavilions or work within 5’-0” of their boundaries.

The Consultant will develop preliminary one-line diagrams, distribution equipment sizes and locations, and conduit routing methodology.

The Consultant will perform a preliminary field check of the existing street lighting and traffic signal conditions at each of the surface-level streets within the project; namely, Wyandotte St, Baltimore Ave, Main St, Walnut St, and Grand Blvd. The field check of traffic signals is intended to verify that the new park and tunnel will not require moving or providing new signal equipment or fiber interconnect. After preliminary field check, the Consultant will meet with City of Kansas City, MO (KCMO) Street Lighting to review standard details, specifications, power sources in the project area, project concerns, and any special lighting considerations for the geographic area.

In conjunction with information from the field check, information furnished by KCMO, and survey data, existing power sources and conduits will be identified for extension to new street lighting elements.

Findings of the field check, results of coordination meetings, and preliminary design decisions will be reported in a preliminary design narrative.

Deliverables:

- Draft and final roadway/park power and lighting memo

5.7 Geotechnical and Structural Analysis and Design.

5.7.1 Geotechnical

The Consultant will retrieve and review existing geotechnical data as a basis for analysis and recommendations. Utilizing the existing plan and boring information, the Consultant will develop preliminary geotechnical design criteria for foundations and walls. Utilizing the preliminary geotechnical design criteria, up to three (3) alternatives for foundation types for the deck structure will be developed.

The Consultant will coordinate with the structural design team to review subsurface and foundation concepts and document recommendations in a geotechnical memorandum. The memo will also include recommendations to the maintenance of the existing I-670 pavement and retaining walls.

Deliverables:

- Foundation type alternatives
- Draft and final geotechnical memo

5.7.2 Structural

The Consultant will perform a review of existing geometrics using information collected from the survey and as-builts. The necessary data to use for the development of alternatives and perform geometry calculations to assess the requirements and limitations for the deck structure will be documented. The Consultant will then develop design criteria and load cases for design of the deck structure. Load cases and design criteria will be developed referencing the following design codes and specifications:

- AASHTO LRFD Bridge Design Specification, 9th Edition, 2020.
- AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges, 2nd Edition with 2015 Interims

- AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 1st Edition with 2022 Interim Revisions
- 2022 Missouri Standard Specifications for Highway Design, Division 700
- MoDOT Engineering Policy Guide

The Consultant will evaluate alternatives and structure types for the I-670 deck structure. Specific tasks include:

- Develop feasible structure type (total of 3)
- Develop memorandum – Structure Type Evaluation (Draft)
- Develop memorandum – Conceptual Constructability Draft)
- Client comment resolution
- Develop memorandum – Structure Type Evaluation (Final)
- Develop memorandum – Conceptual Constructability (Final)

This task will include conceptual structural analysis and development sufficient to establish adherence to design criteria and development of initial quantities to be produced in Task 8.1.7.

Deliverables:

- Draft and final structure type evaluation memo
- Draft and final conceptual constructability memo

5.8 Tunnel Systems Analysis and Design.

5.8.1 Structural Safety Measures

The Consultant will evaluate structural safety measures in the proposed deck structure and in the adjacent existing Convention Center and Ballroom spanning over the interstate. Considerations in the evaluation include:

- Adequate road alignment and geometry, e.g. avoidance of obstacles
- Addition of a center dividing wall separating westbound and eastbound I-670
- Emergency exit locations along the center dividing wall
- Possible additional emergency exits in side walls (e.g. connected to existing Convention Center)

5.8.2 Tunnel Infrastructure Systems

The Consultant will prepare a tunnel safety concept as a basis for the development of tunnel infrastructure system recommendations. These design considerations will include the development of a recommended electrical, mechanical, and fire and life safety systems, to include:

- Tunnel Lighting
- Traffic management and signals
- Tunnel ventilation
- Fixed Fire Fighting System (FFFS)
- Detection, Instrumentation and Control Systems
- SCADA
- Fire protection systems (standpipes, connections etc.)
- Tunnel Drainage

- Cross passage doors
- Auxiliary systems

The Consultant will perform preliminary design of power distribution for tunnel electrical systems. Preliminary design will include emergency power systems, emergency lighting for pedestrian-based egress, electrical service, power distribution, and conduit and wiring systems.

Up to three (3) alternatives for the emergency power system and for the power distribution method will be investigated during preliminary design. Investigation of alternatives will include coordination with the local electric utility, discussions with the Client, and internal coordination to determine the preferred alternative during the preliminary design phase.

Upon selection of the preferred alternatives discussed above, the Consultant will develop preliminary one-line diagrams, distribution equipment sizes and locations, and conduit routing methodology.

A Tunnel Asset Management Plan outline will be developed describing the required tunnel infrastructure to support the project such as lighting, ventilation, fire protection, and safety improvements. The outline will include a Life Cycle Approach for Inspection, Testing and Maintenance (ITM) of roadway and tunnel structure and equipment under minimal traffic obstructions. This outline will be refined into a Tunnel Asset Management Plan to be developed in detail in later phases of the project.

Deliverables:

- Draft and final safety concept memo with description of tunnel systems
- Tunnel Asset Management Plan outline

5.9 Concept Plan Report

The previously listed technical memos and park design report will be assembled into concept plan report. The report will include a background to the Project, development of alternatives, consideration of alternatives, and development of the preferred alternative.

Deliverables:

- Conceptual Plan Report

TASK 6 – ENVIRONMENTAL ASSESSMENT

6.1 Project Initiation

6.1.1 Project kickoff meeting

The project will be initiated via a kick-off meeting with the Project Partners and the Consultant to discuss and disseminate project details for the EA and to validate and confirm project termini and known details. We will document our project parameters understanding with a project parameters memorandum. The Consultant will prepare the meeting agenda, mapping, and other materials as appropriate for this meeting. The Consultant will document the meeting with meeting notes. A Notice of Intent will be prepared and filed in the Federal Register.

Deliverables:

- Kickoff meeting agenda, mapping, and other materials
- Kickoff meeting documentation & Project Parameters Memorandum
- Text for Notice of Intent to Prepare Environmental Assessment

6.1.2 Previous and ongoing related studies.

The Consultant will collect, review, and analyze ongoing and previously prepared reports, documents, and analyses that pertain to the project Study Area for incorporation of findings into the EA. These previous and any ongoing studies will be used as a baseline for development and analysis to avoid duplicative work products. These documents are assumed to includedata and work products prepared for the STIP and LRTP, previously prepared documents, reports, or analyses associated with early stages of the project, comprehensive land use plans for the City of Kansas City, Jackson County, and Long Range Plans prepared by Mid-America Regional Council (MARC).

Deliverables:

- None

6.1.3 Project coordination plan

The Consultant will develop a Project Coordination Plan for coordinating stakeholder and agency participation and comment during the environmental review process, including a project schedule. The Consultant will comply with the recent 2015 FAST Act which carries forward requirements of Section 6002 SAFETEA-LU Environmental Review Process Final Guidance and provisions of MAP 21 for early public and agency involvement. This plan will lay out the key methods and milestones for interaction and coordination between the various parties and the schedule will need to be agreed upon by the resource agencies. It is assumed that the Consultant will distribute the Project Coordination Plan to agencies per the updated 2022 MoDOT Agency List.

The Coordination Plan will identify coordination points, such as:

- Project initiation, scoping activities, and validation of the Purpose and Need
- Identification of Reasonable Alternatives
- Results of EA evaluations
- Completion of permits, licenses, or approvals (post NEPA)

For each milestone in the process, the Consultant will provide the Client with NEPA-related data and information. The Consultant, in coordination with MoDOT, will distribute any necessary data and information to agencies and local jurisdictions.

Deliverables:

- Project Coordination Plan

6.1.4 Agency and Tribal Early Coordination

The Consultant will prepare an agency Early Coordination package, including an agency coordination letter, project description, project study area map (prepared in Task 2), and draft Agency Coordination Plan announcing the beginning of the EA. The letter will solicit initial comments on the project regarding each agency’s expertise or area of jurisdiction. The Early

Coordination package will be sent by the Consultant, in coordination with MoDOT, to the list of federal, state and local agencies with a potential interest in the project.

A tribal coordination letter will be prepared for distribution to applicable tribes with a potential interest in the project and inquire if they have comments on the proposed project. The letter will be prepared by the Consultant, and MoDOT will forward the tribal letters to FHWA for distribution to the tribes.

Deliverables:

- Agency Coordination Letter
- Project Description
- Tribal Coordination Letter (prepared by Consultant, sent by MoDOT)

6.2 Data collection and mapping

The Consultant will utilize previously developed surveys, LIDAR, aerial photography, as well as other GIS and spatial data available from the Client or developed for previous studies provided to the team in the first thirty (30) days after Notice to Proceed. Based on the data available, the Consultant will collect and organize the necessary data and will develop a GIS base map for the Study Area.

The Consultant will review the mapping and make an initial one-day field visit to the project Study Area to update the information related to the socio-economic and environmental analysis of the project alternatives. The Consultant will prepare a GIS database of social and environmental data collected for use with project mapping and impact evaluation.

Deliverables:

- GIS Base Map for Study Area

6.3 Establish Purpose and Need & Screening Criteria

The Consultant will develop a Purpose and Need Statement for the project. Utilizing data and analyses developed for the project**,** the Consultant will review, validate and update the Purpose and Need as part of this process. The Consultant will develop summary traffic operations and safety tables, exhibits and corresponding narrative to describe the Purpose and Need Statement. Tables, exhibits, and narrative will be incorporated into and re-used for the NEPA EA documentation.

The Consultant, in coordination with the Client will establish screening criteria to guide the screening of the project alternatives. The Purpose and Need Statement will be used as a baseline for development of the screening criteria. The Consultant will provide the data and impact displays necessary to aid in the development and analysis of the criteria and the screening of the alternatives.

Deliverables:

- Narrative and summary tables for Purpose and Need validation and refinements to be incorporated into EA documentation
- Screening criteria to include traffic, safety, or environmental conditions.

6.4 Environmental Studies and Impact Evaluation

The Consultant will review available collected environmental data to determine whether it is still accurate and valid due to changes in environmental conditions. These data could include

economic factors, environmental justice/social equity, transportation/traffic circulation, natural resource data, and land use/development data.

If previous environmental analyses performed within the Study Area are provided to the Consultant in the first thirty (30) days after Notice to Proceed, they will be used as a baseline and will be updated and revised as needed due to changes in environmental conditions, project scope, proposed feasible alternatives and required NEPA re-evaluation documentation.

In conjunction with the impact analysis for certain resources, the Consultant will provide required documentation to the Client for approval from federal, state, and local agencies, and will prepare the appropriate documentation and supporting exhibits for inclusion in the Re-Evaluation Documentation as follows:

- U.S. Army Corps of Engineers (USACE) – WOTUS Delineation Report, including stream and wetland data forms, impacts and required mitigation
- U.S. Fish and Wildlife Service (USFWS), Missouri Department of Conservation (MDC) – Section 7 Consultation for Threatened and Endangered species
- State Historic Preservation Office (SHPO) – Section 106 Coordination for cultural resources
- Natural Resources Conservation Service (NRCS) – Farmland Conversion Impact Rating

6.4.1 Environmental Resource Evaluation.

The Consultant will perform the Tier 2 environmental analysis and impact documentation of the environmental resources listed below. This list includes the range of environmental resources that are typically anticipated to be evaluated within the NEPA process for an EA. The following list is for general resources not expected to be substantially impacted resulting from a Preferred Alternative due to the urbanized nature of the Study Area. Environmental resources requiring additional detailed study or field work are addressed separately after this list:

Environmental Resources:

- **Land use**
- **Prime and unique farmland** (includes preparation of USDA Farmland Conversion Impact Rating form if necessary)
- **Right of way acquisition**
- **Floodplains**
- **Parks and public lands** (review and validate Section 4(f)/6(f)) Note: No Section 4(f) de minimis or full Section 4(f) Statement is anticipated or included in this Scope of Services.
- **Transportation/traffic circulation** (includes specific evaluation related to truck, MOT & detours, and general vehicle diversion impacts)
- **Bicycle and pedestrian facilities** (Design will comply with PROWAG and ADA requirements)
- **Construction and emergency routes**
- **Utilities**
- **Energy**
- **Water quality**
- **Wildlife and habitat**
- **Threatened and Endangered Species**
- **Water Resources (wetlands, streams, and other surface waters)**

- **Geology and soils**
- **Secondary and cumulative impacts**
- **Environmental mitigation**

6.4.2 Community Effects Assessment

The Consultant will evaluate impacts to the following community resources or topic areas related to direct community impacts:

- *Displacement and relocation impacts* – The Consultant will evaluate displacement and relocation impacts. The Consultant will review relocation assistance programs administered by the state and discuss comparable available housing and business locations within the metropolitan area. Further define impacts to affected communities and neighborhoods. Include discussion of potential relocations and the federally mandated relocation assistance process in materials available at public meetings**.**

- *Community resources and protected population impacts* **–** The Consultant will develop a preliminary list of important community and social institutions and services such as schools, emergency services, hospitals, and shelters. The Consultant will identify sensitive and protected populations as defined by Title VI, Environmental Justice and Equity, Limited English Proficiency (LEP), and ADA (Americans with Disabilities Act) through desktop analysis and limited field reconnaissance.

- *Economic impacts* – The Consultant will evaluate potential tax-base impacts related to right-of-way acquisition and acquisitions of commercial and retail properties.
- *Visual Assessment* – The Consultant will describe the character of the visual environment and will identify existing sensitive visual resources, if any, and indicate if project is in a visually sensitive urban or rural setting. The Consultant will identify potential visual quality impacts, if any, by describing the relationship of the impacts to viewers from the roadway and of the roadway. Indicate the visual assessment methodology used, if any. Coordinate visual assessment with evaluation of indirect effects on NRHP-listed or eligible resources under Task 6.4.3.

The Consultant will develop a technical memorandum documenting data collection, methodologies, mapping, potential social and economic impacts to community resources and protected populations, and visual impacts.

Deliverables:

- Community Effects Technical Memorandum

6.4.3 Cultural resources (historic architectural, archaeological)

The results of the built environment (e.g., buildings, bridges, etc.) and archaeological investigations will be presented in single or separate reports. The Consultant will meet with the MoDOT Historic Preservation (HP) staff at the outset of the study to set expectations and discuss issues (e.g., project schedule, notification of potential Section 4(f) issues, current version of built environment methods, consultation and who is responsible for conducting it, etc.). If an agreement document is required (e.g., Memorandum of Agreement or Programmatic Agreement), the consultant shall develop one (1) document to address all adversely affected historic properties. Subtasks include:

- Consult with MoDOT HP to establish the area of potential effects (APE) for the archaeological and architectural surveys. MoDOT HP approval on the APE must be provided before any of the following steps are initiated.

- Develop a concise historic context early during the project to guide the investigations to identify and evaluate historic properties, or explain their absence, in the study area. The context shall:
  - Synthesize information from related disciplines, including history, architectural history, bridge history, and archaeology.
  - Include a review of archival sources and a summary of existing archaeological, architectural, and bridge records.
  - Identify types and likelihood of cultural resources.

- Pre-Survey Work
  - Submit a written Research Design to MoDOT HP, which will need to be approved before fieldwork is started
  - Verify that MoDOT HP has drafted a Tribal Notification and that Federal Highway Administration has submitted to interested Tribes.
  - Work with SHPO to contact identified consulting parties.
  - Develop a draft consultation plan. Consultation will continue throughout the project and will be driven by the type/number of historic properties and potential effects upon them. This scope assumes fifty (50) eligible historic properties.

- The architectural survey will follow the MoDOT Built Environment Resources Methods and will identify and document all architectural resources (i.e., buildings, structures, objects, sites, and districts/landscapes) that are forty or more years of age located within the APE.
  - Review and summarize the existing architectural records for the study area.
  - Record the location of cemeteries identified during the architectural investigations.
  - Develop Evaluations of Eligibility (EOEs) for all architectural resources forty or more years of age recommended as eligible for the National Register of Historic Places (NRHP) within the APE of each reasonable alternative for the Draft Environmental Document. The characteristics that make the property eligible should be identified to help make effect determinations. An EOE will be based on the evaluation of a resource's significance by the cultural resource consultant and MoDOT staff. The EOE shall include:
    - NRHP criteria
    - Area(s) of significance
    - Period(s) of significance
    - Recommended NRHP boundary
    - Contributing and non-contributing resources within the boundary
    - An evaluation of all elements within the setting
  - Determine the effect of the project (as defined by 36 CFR 800.5), if any, on the NRHP eligible property or properties, and the nature of the effect.

- The historic bridge survey, if necessary, will follow the MoDOT Built Environment Resources Methods and will identify and document all bridge resources (i.e., highway, railroad and pedestrian bridges, viaducts and culverts, excluding metal, plastic and reinforced concrete pipes) located within the APE

- Contact MoDOT's Architectural Historian at the beginning of the investigation as a large amount of data on bridge recourses is already available, including potential NRHP eligibility. A shape file of the project area should be provided to MoDOT so that all bridges within the study area can be identified. Work with MoDOT HP staff to determine if the Interstate Exemption, Program Comment for Post-1945 Concrete and Steel Bridges or if statewide or thematic Programmatic Agreements apply to bridges in the APE.
- Develop EOEs for all bridge resources within the APE.
- Determine the effect of the project (as defined by 36 CFR 800.5), if any, on the NRHP eligible bridge resources.

- The consultant will complete the archaeological investigation within the APE to identify prehistoric and historic sites. For archaeology, this current scope of services covers only consultant services through the Phase I survey and the subsequent Phase I survey report.
  - Record location of cemeteries identified during the archaeological investigations.
  - Prepare and submit new and updated site forms to MoDOT HP
  - Consult with MoDOT's Archaeologist following the completion of the survey on preliminary NRHP evaluations for each identified archaeological site.
  - For sites determined eligible for the NRHP, either previously or as a result of the current Phase I survey, establish the effect of the project (as defined by 36 CFR 800.5), if any, and the nature of the effect.
  - Draft a proposed Phase II testing plan (i.e., why the site may be NRHP eligible and the methods to test it) for those sites in the APE that are determined to be potentially NRHP eligible.

6.4.3.1 Cultural resources documentation

The results of the built environment (e.g., buildings, bridges, etc.) and archaeological investigations including effects on resources eligible for listing on the NRHP, will be presented in single or separate reports. MoDOT will provide two rounds of revisions to the report(s). MoDOT will forward an acceptable Phase I report to the Missouri State Historic Preservation Officer (SHPO) for their concurrence with the recommendations. If MoDOT and the Consultant cannot agree upon NRHP eligibility recommendations and/or project effects on historic properties, the report will be submitted with the consultant's recommendations, while MoDOT will present its own recommendations in a cover letter

Artifacts (prepared for curation), field notes and photographs, and digital data (e.g., databases, GIS shapefiles) shall be provided to MoDOT HP once SHPO concurs with the findings of the investigations.

6.4.3.2 Agreement Document

If an agreement document is required (e.g., Memorandum of Agreement or Programmatic Agreement), one document will be drafted to address all adversely affected historic properties. The Consultant will consult with MoDOT HP and SHPO to identify additional consulting parties. Consultation will continue throughout the project and will be driven by the type/number of historic properties and potential effects upon them. If required, the Consultant will develop a draft consultation plan, and will coordinate with MoDOT HP staff to setup a meeting with the SHPO and consulting parties to establish mitigation measures for adversely affected historic

properties. The Consultant will prepare a draft MOA/PA covering those historic properties affected by the project. A final MOA/PA covering those historic properties affected by the preferred alternative is required for approval of the Re-evaluation.

If Section 4(f) resources are present, the Consultant will prepare a Section 4(f) Evaluation, with an executed MOA/PA, covering those resources. An individual Section 4(f) evaluation must address all Section 4(f) resources, including parks, recreation areas and wildlife or waterfowl refuges, and *de minimis* uses. At this time, a Section 4(f) Evaluation is not expected to be required and is not included in this Scope of Services.

Deliverables:

- Phase I Historic Architecture and Archeological Study Report documenting archaeological investigations including effects on resources eligible for listing on the NRHP

6.4.4 Noise Study.

The Consultant will complete a traffic noise study in accordance with MoDOT's noise policy and CFR Part 772. The noise study will consist of using FHWA's Traffic Noise Model (TNM) version 2.5 to model future Build conditions of only one Preferred Alternative at noise sensitive receptors within the project area. Where traffic noise is currently not the dominant noise source, short-term field measurements will be taken to identify existing ambient noise levels. Where traffic noise is currently the dominant noise source, TNM modeling of existing conditions with short-term field measurements to validate the model may occur. Up to fifteen (15) total short-term field measurements will be collected. No long-term field measurements will be collected. Where noise impacts are identified, noise abatement will be analyzed for feasibility and reasonableness. TNM will be used to predict distances from the proposed edge of the nearest travel lane where design year sound levels approach the NAC to inform local officials and help prevent future noise impacts. The noise study will be documented in a comprehensive report that details the procedures used, the impacts identified, and all abatement measures analyzed.

The effect of noise reduction by the proposed tunnel will be considered.

Deliverables:

- Noise Study Report documenting procedures, impacts, and abatement measures analyzed for the Preferred Alternative expressway alignment.

6.4.5 Air Quality Assessment

The sample statement agreed to by MDNR, MoDOT and FHWA will be adhered to except in non-attainment areas. In non-attainment areas the project must conform to the TIP and the STIP as administered by the MPO. The agreement states: A detailed air quality analysis, for inclusion in an environmental document, will only be prepared on Federally Funded highway projects when the present or predicted Average Daily Traffic volume on the project exceeds 54,000 vehicles in the year of project construction or 72,700 vehicles in the 20th year following the project construction. [As identified in USEPAs Greenbook, Jackson County is in nonattainment for sulfur dioxide (February 13, 2017). Kansas City is in a maintenance area for ozone; new ozone standards were established by USEPA in 2015.]

A qualitative air quality assessment will be conducted to evaluate the air quality standards in the study area for the Existing Condition, No Build Condition, and the Build Condition and to

compare the results with the National Ambient Air Quality Standards (NAQQS). An air quality memorandum will address the requirements of the Clean Air Act Amendments of 1990 (CAAA90) section 196(c) and the conformity requirements of the State Implementation Plan (SIP), which is the attainment of the NAAQS. Recent measures by the U.S. Environmental Protection Agency (EPA) to improve air quality and general national trends in the region will also be discussed. No modeling or hot spot analyses will be conducted.

Mobile Air Toxics (MSAT) Analysis: This project is expected to have a low potential for MSAT effects and therefore no quantitative analysis is warranted. A qualitative assessment of emission projections will be conducted. This assessment will be in narrative form and will compare the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic, and the associated changes in MSATs for the project alternatives based on VMT, vehicle mix, and speed, in following FHWA's October 18, 2016 Updated Interim Guidance Update on Mobile Source Air Toxics Analysis in NEPA Documents. In addition to the qualitative assessment, a discussion of information that is incomplete or unavailable for a project specific assessment of MSAT impacts will be included. This discussion will contain a summary of current studies regarding the health impacts of MSATs.

Air Quality Findings: The results of the air quality analysis findings will be reported in the EA and the air quality technical memorandum. Potential air quality impacts resulting from construction-related activities (clearing and grubbing, burning, demolition), or other operations will also be addressed in the EA.

Based on experience, air quality in the proposed tunnel is expected to not be worse than in the ambient environment, and will not be evaluated in detail

Assessments of Greenhouse Gas Emissions and Climate Change are not included in this scope of services.

Deliverables:

- Air Quality Technical Memorandum

6.4.6 Hazardous Materials Assessment

The Consultant will obtain third-party data search (i.e., EDR) and review appropriate Environmental Protection Agency (EPA) and Missouri Department of Natural Resources (MDNR) lists of major known hazardous waste, hazardous material, or solid waste disposal locations within the study area. For example, superfund sites; hazardous waste treatment, storage, or disposal facilities; or solid waste landfills that could impact the transportation alternatives location. Petroleum underground storage tanks, hazardous waste generators, small rural dumps, etc. would not normally impact location of the transportation alternatives. The major sites shall be depicted on the environmental constraints map. A limited amount of non-intrusive field work (windshield surveys) may be required to determine the exact location and obvious limits of contamination to be shown on the constraints map.

After the reasonable alternatives have been selected the consultant shall identify all sites that impact the build alternatives. Also, the Consultant shall verify the potential presence or absence of unrecorded hazardous waste, hazardous material, or solid waste disposal sites through limited interviews and land record investigations.

The Consultant will prepare a Hazardous Materials Technical Report and a summary for the environmental document comparing the relative ease (e.g., low, medium or high) of avoiding the hazardous waste sites within each of the alternative corridors and the relative clean-up effort (e.g., low, medium or high) for each site. This information will be used in combination with other environmental and engineering constraints to select a preferred alternative.

Deliverables:

- Hazardous Materials Technical Report

6.4.7 Fire, Life and Safety – The consultant will evaluate potential impacts of the proposed project upon emergency services, access/response times to remediate emergency incidents, vehicular incidents, or other safety conditions that may result from the proposed project. The consultant will identify potential systems or improvements to minimize or eliminate potential threats to life and infrastructure from fires, vehicular incidents, or other threats to safety, with focus on efficiency. Future developments, like e.g. fires from electric and hydrogen powered vehicles, will be considered.

Deliverables:

- Technical memorandum discussing potential threats to fire, life, and safety from the proposed project, and identification of potential systems or improvements to minimize or eliminate threats (safety concept report as described in 5.8.2)

6.5 NEPA Documentation

6.5.1 Prepare Draft NEPA EA documentation

The Consultant will prepare the draft NEPA EA in the MoDOT EPG Section 127.14 format governing NEPA documents in Missouri. It is assumed that the Client and FHWA will NOT conduct concurrent reviews for this NEPA re-evaluation. Associated technical memorandums and study reports will be appended to the documentation.

6.5.2 Client Review

The draft EA documentation will be submitted to MoDOT's project manager and study team for initial review in electronic format. In addition, any technical memorandums or reports prepared for the study and related documentation will be provided in installments as soon as available for the Client's early review of study progress.

The Consultant will provide a comment review matrix for use by the Client to consolidate comments. The Client will prepare a list of comments on the draft EA within two (2) weeks of submittal. The Client reviewers will submit comments to the Client project manager who will consolidate comments. The Client will submit the consolidated list of comments to the Consultant for review. The Consultant and Client project managers will then discuss comments and clarify issues and comments that may contradict one another. The Consultant will revise the draft EA documentation per Client comments. The Client project manager will review the revisions prior to finalizing the draft EA for FHWA review.

6.5.3 FHWA Review

The draft EA will be provided to FHWA for review and comment. The Consultant will submit an electronic copy of the Re-evaluation documentation to FHWA after MoDOT has completed its reviews and has approved the documentation as ready for FHWA review. The Consultant will provide a comment review matrix for use by FHWA to consolidate comments. FHWA reviewers will submit comments to the Client who will consolidate comments. The Client will submit the consolidated list of comments to the Consultant for review. The Consultant, Client project managers, and FHWA will then discuss comments and clarify issues and comments that may contradict one another. The Consultant will revise the draft EA documentation per FHWA comments. The Client project manager will review the revisions prior to resubmitting the draft EA for FHWA review and approval to distribute the documentation to resource agencies and public for comment.

6.5.4 Distribution of the EA Documentation

For distribution of the EA documentation, the Consultant will: 1) work with the Client to determine the number of hard copies required (assumed to be up to 5 copies) for distributing the document to reviewing resource agencies, and 2) prepare/compile and publish the NEPA EA documentation to the website established by the Client for the project study.

6.5.5 Final EA and FONSI

The Consultant will prepare a draft and final EA documentation and related appendices.

Deliverables:

- Draft EA documentation and appendices
- Final EA and FONSI documentation and appendices

6.6 Administrative Record

In coordination with the Client, the Consultant will be responsible for preparing the project administrative record. At the Client's request, the Consultant will provide digital copies of papers, documents, memoranda and studies concerning this project, including agency letters, internal office memoranda, email, scientific reports and other research surveys, as part of the administrative record.

Deliverables:

- Administrative record digital package

TASK 7 – PLANNING SUPPORT

7.1 Grant Application Preparation

The Consultant will assist in the preparation of up to three (3) federal grant applications to secure future funding for the project. The applications will refine previously developed content from past applications and will include narrative descriptions, tables and graphics, and the update of benefit-cost analyses to align with the requirements for federal funding such as the RAISE, MEGA, and the Reconnecting Communities grant programs. The Consultant will also support the Project Partners in assembling letters of support. The grant applications will utilize existing available data as well as new data and visualizations produced during the NEPA and preliminary design project.

Deliverables:

- Up to three (3) federal grant applications
    - Support narratives aligned with the grant program evaluation criteria
    - Assembled letters of support
    - Draft and Final Benefit-Cost Analysis

7.2 TIP Application Support

The Consultant will assist the Project Partners in preparing the application and supporting documents to add the South Loop Link project to MARC's Transportation Improvement Program.

Deliverables:

- TIP application supporting documentation

TASK 8 – PRELIMINARY DESIGN

8.1 30% Plans

The Consultant will produce 30% design plans for the proposed improvements that represent the park design and related features, vertical architecture components, surface street improvements, drainage, utilities, and tunnel structure and infrastructure. Additional detail of activities and deliverables for each of these disciplines is provided below.

To accompany the 30% plans, the Consultant will also assemble an estimate of probable costs to provide the Project Partners with an updated assessment of project budget.

Deliverables:

- 30% design plans (plans/profiles)
- 30% estimate of probable costs

8.1.1 Park Design

Based on the requirements of the Project agreed upon with the Client, the Landscape Architect shall prepare and present for the Client's approval a preliminary design representing the scale and relationship of project components that integrates the work of the Project Team.

The Consultant shall prepare 30% drawings and other documents including a site plan and site sections and may include some combination of study models, perspective sketches or digital modeling. Preliminary selections of site systems and construction materials shall be noted on the drawings or described in writing. The team shall consider the value of alternative materials, site systems and equipment, together with other considerations based on the program and aesthetics in developing a design for the Project that is consistent with the Client's program, schedule and budget for the Cost of the Work. The Landscape Architect will review and comment on the Opinion of Probable Cost of the Work prepared by the team.

The Consultant shall provide park aesthetic lighting design consulting services for the 30% plans of this project. This work includes the following space types: public areas of restroom interiors, exterior building-mounted lighting, site and landscape lighting, shade structure lighting, and architectural performance pavilion lighting. The team will provide a design guideline report that includes a matrix of lighting strategies, target illuminance levels, lighting power loads, and

control recommendations for the typical areas. This will be used as the lighting design guidelines for the later phases. The lighting team shall furnish preliminary design sketches which may include rendered plans, sections or details and prepare a preliminary design presentation to document the park aesthetic lighting design recommendations. The team will also provide preliminary cost and wattage allowances based on square footage and provide input to the 30% cost estimate.

To refine landscape recommendations for the park, the Consultant will define horticultural soil volume requirements, explore opportunities for shared soil volumes, and define drainage requirements for planted areas. The team will establish planting soil requirements including saturated soil weight limits and horticultural parameters for planting soils for incorporation into the preliminary plans. The team will also conduct a Soil Resource study to identify and evaluate local sources of horticultural soils for the project and to obtain and test representative samples for selected horticultural parameters. A report will be prepared including a list of recommended soil suppliers with comments about their capabilities and materials.

For the vertical structures proposed in the park, the Consultant will prepare 30% plans and elevations to define the scale, character, and materials for the structures based on the project program. The team will also prepare of vertical structure 3D conceptual models in support of the development of overall project renderings.

To support the preliminary design of the park vertical structures, the Consultant will provide mechanical, electrical, and plumbing (MEP) and structural engineering support commensurate with 30% plan level of detail. This will include high-level conceptual diagrams and narrative to describe design intent of these systems.

The Consultant will provide a conceptual design for audio-visual and technology components for the park design. The team will outline recommendations for AVT systems sufficient to inform the 30% cost estimate and serve as a basis of design for future phases.

Deliverables:

- 30% park landscaping and architecture design plans
- Park aesthetic lighting design report
- Soil testing and supplier report

8.1.2 Roadway/Mobility

The surface street and mobility conceptual design will be analyzed in greater detail by refining 3D surfaces of the proposed street and park improvements. Preliminary horizontal and vertical design details of surface streets will be documented with preliminary intersection detail sheets. Curb adjustments for surface street modifications will be coordinated with the drainage design to identify localized low points, inlet modifications and curb openings for BMPs. Vertical analysis of pedestrian and trail connections will be vetted for ADA compliance.

The Consultant will also provide a preliminary plan to maintain traffic during construction as well as proposed changes to the permanent signing and pavement marking.

The preliminary roadway/mobility design will include:

- Creating proposed typical sections of I-670, Truman Road and Park
- Developing a preliminary grading surface for the proposed Park
- Developing a preliminary streetscape surface
- Identifying localized low points and coordinating with drainage design for inlets and curb cut openings.

- Evaluating pedestrian and trail connections for ADA compliance.
- Coordinating with geotechnical team to finalize preliminary horizontal and vertical wall geometries.
- Coordinating with bridge designers to finalize bridge profile study for vertical clearance and bridge depth.
- Providing profiles or cross-sections showing the existing and proposed surfaces for utility and storm coordination.
- Finalizing the construction staging memo
- Finalizing sight line calculations to permanent overhead signs on I-670
- 30% plan sheets that include proposed and existing typical sections, horizontal and vertical assumptions for surface street modifications and intersection detail sheets.
- 30% plan sheets for high-level temporary and permanent traffic control concepts.
- 30% Estimate of Probable Costs of grading, streetscape modifications, and temporary and permanent traffic control items.
- QA/QC of work products

Deliverables:

- 30% roadway/mobility plans
- Conceptual construction staging memo

8.1.3 Drainage

The Consultant will then perform a preliminary design that will review the conceptual park features and evaluate green stormwater infrastructure (GSI) opportunities for a more sustainable and resilient solution. This will result in a preliminary GSI report. The preliminary drainage design will distribute stormwater runoff to existing drainage systems such that flow peaks and volumes are at worst equivalent to those of pre-project flows at the connection points. Detention facilities will be located and designed as necessary to meet the flow peak and volume constraints. The Consultant will design stormwater BMPs that may reduce those flow peaks and volumes to less than the existing conditions and likewise improve the water quality of runoff drained from the proposed deck park, in accordance with the recommendations made in the preliminary GSI report. They will also investigate and incorporate, where feasible, means of capturing and storing stormwater runoff for re-uses such as irrigation.

The preliminary drainage design will include:

- evaluating green stormwater infrastructure concepts and preparation of a GSI report.
- assessing, locating and designing stormwater detention facilities as necessary to not adversely impact existing drainage systems.
- setting proposed inlet locations
- selection of inlet types
- coordination with underdrain design of park features, including design of connections to proposed surface drainage systems.
- sizing and profile elevations of drainage conduits
- connection methods and locations of tie-ins to existing systems
- configurations/layouts/key elevations of stormwater BMPs.
- preliminary drainage plans, showing locations of inlets, pipes, detention, BMPs and other elements of the stormwater systems. Pipe profiles will not be included in the plans.
- drainage quantities

- summary report documenting criteria, existing conditions, assumptions and the design of the proposed systems and BMPS

Deliverables:

- 30% drainage plans
- Summary drainage report

8.1.4 Utilities

In addition to the development of a 30% site utility plan, the Consultant shall provide the following activities:

- Send utility notices to utilities
- Attend monthly KCMO Utility Liaison Coordination Committee (ULCC) meetings for general coordination
- Organize up to five (5) coordination meetings with public and private utilities regarding opportunities for upgrades and modifications that may take place in concert with the South Loop Link project
- Coordinate directly with utilities interested in pursuing relocation or improvement opportunities monthly during the preliminary design phase. Coordination to include identifying available utility corridors, potential teaming partnerships, and construction schedule windows.
- Determine the location of existing public and private utilities across the site and evaluate relocations necessary to accommodate the proposed south Loop Link project.
- Coordinate utility needs with proposed development projects within one block of the project limits, to include Three Light residential development and the proposed Sky Real Estate development near Truman Road and Main Street.
- Perform technical peer review of utility provision plans, relocations and modifications proposed by others including the other team members.
- Provide support to other design team members with respect to utility connections from off site to offsite private and public utilities.
- Provide ongoing project administration
- QA/QC of work product.

Deliverables:

- 30% site utility plan

8.1.5 Roadway/Park Power & Lighting

The Consultant will prepare preliminary plans for power distribution for buildings, structures, and pavilions located within the park in coordination with the park aesthetic lighting design efforts.

The Consultant will perform preliminary design of power and control systems for site lighting and park amenities. Amenities may include convenience receptacles, show power, and maintenance equipment.

The Consultant will develop preliminary distribution diagrams, controls strategies, and conduit routing methodology. Preliminary plans will be developed showing proposed lighting and amenity locations and conduit runs.

Lighting calculations will be performed in order to verify that the Design Criteria is met. Preliminary lighting plans showing light pole locations, conduit routing, and power sources will be created. At this stage, the lighting plans will not include construction details for conduits, handholes, or light pole foundations; however, those elements will be studied in order to verify that those items can be accommodated in the bridge structure. If modifications to the existing traffic signal systems are required, the design narrative will include a description of the proposed changes – no traffic signal plans will be created at this time.

Quantities for the preliminary design will be calculated and tabulated.

Deliverables:

- 30% roadway lighting quantities
- 30% roadway lighting plans

8.1.6 Geotechnical

The Consultant will request from the Client and MoDOT all available paper information gathered from construction documents for existing bridges (5 structures) and retaining walls (north and south along I-670) as well as Bartle Hall construction. The data received within thirty (30) days of Notice to Proceed will be digitized to create up to fifty (50) electronic boring logs. Consultant will convert all previously collected boring locations (up to 50) to northing and easting coordinates to use on a boring location plan. Referencing the collected data, a site walk-through will be conducted to identify gaps in information.

Linear subsurface profiles, cross sections and a boring location plan will be developed using the data collected, with planned improvements added during preliminary design.

An analysis will be conducted to determine effects of foundation construction, including vibratory effects, on nearby structures. The Consultant will perform a constructability review of the foundations and walls. Quantities for each alternative will be calculated and a future subsurface exploration plan will be completed.

Deliverables:

- 30% geotechnical quantities
- Subsurface profiles, cross sections and boring location plan
- Subsurface exploration plan

8.1.7 Structural

The Consultant will perform the preliminary design and evaluation of alternatives for the I-670 deck structure. Specific tasks include:

- Preliminary Analysis and Design - Superstructure
- Preliminary Analysis and Design - Substructure
- Evaluate interface between existing bridge and proposed park edges and determine options for transition from street to park
- Preliminary design for utility, sign supports, drainage and other appurtenances related to tunnel safety
- Evaluate existing retaining wall

- Review existing bridge ratings and evaluate existing bridge conditions
- Develop quantities
- 30% plans to include general notes, general plan and elevation, and typical section(s)
- Review of 30% cost estimate

Deliverables:

- 30% structures quantities
- 30% structures plans to include general notes, general plan and elevation, and typical section(s)

8.1.8 Tunnel

The Consultant will perform a fire and life safety engineering analysis with simulations of dynamic smoke spread and egress for different scenarios, and proof of compliance with fire protection requirements, for approval by the authority having jurisdiction. This will be further developed into a Quantitative Risk Analysis (QRA) in future phases of the project to evaluate most efficient safety measures based on a probabilistic assessment according to NFPA 551, with the goal to optimize sustainability, safety and life cycle costs of the tunnel structure and equipment.

For structural analysis of the tunnel, the Consultant will review geometry and configuration of the tunnel and perform two (2) scenarios of thermal structural analysis to determine if progressive collapse of the tunnel can be prevented. Temperature on internal surface of concrete will be computed by using analytical formulae for the two scenarios described below.

Scenario 1
When the fire suppression system (FFFS) fails, a fire size with heat release rate (HRR) of 150 MW (HGV) will be used.

Scenario 2
When the FFFS system functions, a fire size with HRR of 20 MW will be used.

The Consultant will then provide an assessment of structural integrity of members after fire has subsided and suggest mitigation measures for prevention of fire damage to structural members, and, if necessary, for preventing progressive failure. The team will provide a technical memorandum summarizing methodology, assumptions, results, and conclusions of analyses, and recommendations.

Upon selection of the preferred alternatives discussed above, the Consultant will develop preliminary one-line diagrams, distribution equipment sizes and locations, and conduit routing methodology for power service to the tunnel. Preliminary plans will be developed in order to locate proposed distribution and emergency equipment, conduit runs, and emergency lighting for the tunnel concept.

Deliverables:

- Tunnel structural assessment technical memorandum

8.1.9 Intelligent Transportation System (ITS)

The Consultant will coordinate with MoDOT to collect as-built information on the MoDOT owned ITS infrastructure in the project area. The team will assess physical impacts to the ITS infrastructure and functional impacts to the system's ability to monitor and manage traffic along I-670 and develop a plan to adjust ITS infrastructure to accommodate the proposed project. The Consultant will conduct one (1) meeting with MoDOT ITS staff to review and obtain comments on the proposed adjustments and modify the plan to address MoDOT comments. The team will also develop a 30% design level cost estimate for the improvements.

Deliverables:

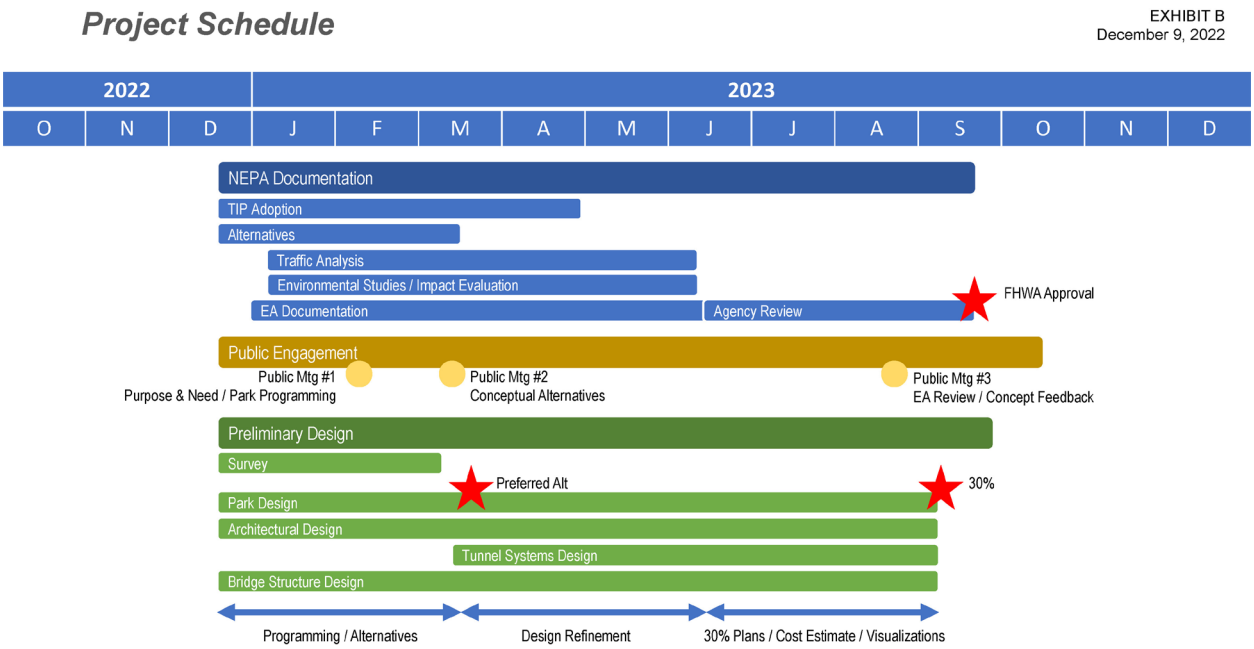
- ITS adjustment plan and cost estimate

SCHEDULE

South Loop Link

Preliminary Design and Environmental Analysis Services

December 9, 2022



FEE SUMMARY

South Loop Link

Preliminary Design and Environmental Analysis Services

December 9, 2022

Fee Summary

		HNTB	OJB	BNIM	Taliaferro & Browne	Parson & Associates	Willoughby Design	Historic	Hg Consult	FP&C	Total
Task 1	Project Management and Initiation	$376,029									$310,855
Task 2	Public Involvement					$212,945	$65,000				$277,945
Task 3	Existing Conditions	$152,591			$112,942					$21,047	$286,580
Task 4	Park Design	$14,265	$508,400	$175,066							$697,731
Task 5	Engineering Design	$969,752			$60,121						$1,029,873
Task 6	Environmental Assessment	$435,945						$55,910	$40,931		$532,786
Task 7	Planning Support	$39,914									$39,914
Task 8	Preliminary Design	$1,512,122	$453,470	$370,470	$96,164						$2,432,225
	Expenses	$21,560									$21,560
	Total	$3,522,177	$961,870	$545,536	$269,226	$212,945	$65,000	$55,910	$40,931	$21,047	**$5,694,642**