

ADVERTISEMENT FOR ENGINEERING AND RELATED SERVICES
May 4, 2023

ADDENDUM NO. 1, MAY 16, 2023

CONTRACT NO. 4400026027
STATE PROJECT NO. H.003771.2
FEDERAL AID PROJECT NO. H003771
I-10 AT LA 74
ROUTES: I-10 AND LA 74
ASCENSION PARISH

DBE GOAL = 4%

Under the authority granted by Title 48 of Louisiana Revised Statutes, the Louisiana Department of Transportation and Development (DOTD) hereby issues this advertisement for consulting firms to provide engineering and related services. **Consultants who are a Louisiana or foreign LLC or corporation should be appropriately registered with the Louisiana Secretary of State, as contemplated by Title 12 of the Louisiana Revised Statutes, and with the Louisiana Professional Engineering and Land Surveying (LAPELS) Board under its rules for firms. If a consultant is not in good standing in accordance with those provisions, it may be subject to consequences contemplated in Title 12 and/or the LAPELS rules. All requirements of LAPELS must be met at the time the proposal is submitted. Prime consultants must be registered with the Louisiana Secretary of State and the Federal Government, using SAM.gov, prior to contract execution.**

One (1) proposal will be selected for the contract solicited per this advertisement. Only one (1) DOTD Form 24-102 proposal is required for this advertisement, and it represents the prime consultant's qualifications and those of any and all sub-consultants proposed to be used for the referenced contract(s). All identifying contract number(s) should be listed in Section 2 of the DOTD Form 24-102. **USE THE DOTD FORM 24-102, DATED JANUARY 1, 2023, PROVIDED WITH THE ADVERTISEMENT.**

Any questions concerning this advertisement must be sent in writing to DOTDConsultantAds80@la.gov no less than 48 hours (excluding weekends and holidays) prior to the proposal deadline.

SCOPE OF SERVICES

The general tasks to be performed by the consultant for this contract are described more specifically in Attachment A, which is incorporated herein by reference.

The consultant shall perform the work in accordance with the requirements of this advertisement and the resulting contract. Deliverables shall be in such format as required in Attachment A. The work performed by the consultant shall be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

MINIMUM PERSONNEL REQUIREMENTS (MPRs)

The requirements set forth in Attachment B must be met at the time the proposal is submitted.

EVALUATION CRITERIA

The criteria to be used by DOTD in evaluating responses for the selection of a consultant to perform these services are listed below:

1. firm experience on similar projects, weighting factor of three (3);
2. staff experience on similar projects, weighting factor of four (4);
3. firm size as related to the project magnitude, weighting factor of three (3);
4. past performance on similar DOTD projects, weighting factor of six (6)*;
5. current work load with DOTD, weighting factor of five (5);
6. approach and methodology, weighting factor of nine (9).

*The consultant is to identify in the table below those evaluation disciplines consistent with the approach and methodology proposed in Section 18 of the DOTD Form 24-102.

THE FOLLOWING TABLE MUST BE COMPLETED AND INCLUDED IN SECTION 12 OF THE DOTD FORM 24-102 PROPOSAL.

<p>Sub-consultants are allowed to be used for this proposal. Fill in the table by identifying only those evaluation disciplines consistent with the approach and methodology proposed in Section 18 of the DOTD Form 24-102*, the name of each firm that is part of the proposal, and the percentage of work in each past performance evaluation discipline to be performed by that firm. The percentage estimated for each evaluation discipline is for evaluation purposes only and will not control the actual performance or payment of the work. The percentages for the prime and sub-consultants must total 100% for each past performance evaluation discipline, as well as the overall total percent of the contract. (Add rows and columns as needed)</p>							
Past Performance Evaluation Discipline(s)	% of Overall Contract	Prime	Firm B	Firm C	Firm D	Firm E	Each Discipline must total to 100%
							100%
							100%
							100%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.							
Percent of Contract	100%						-----

*The past performance evaluation disciplines are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and/or Other (please specify).

If sub-consultants are used, the prime consultant can perform less than 50% of the work, but none of the sub-consultants can perform a larger percentage of the overall contract than the prime consultant.

Proposals will be evaluated as set forth in the “Evaluation Criteria” section of this advertisement. The evaluation will be by means of a point-based rating system. Each of the above criteria will receive a rating on a scale of one (1) through five (5). The rating will then be multiplied by the corresponding weighting factor. The rating in each category will then be added to arrive at the proposal’s final rating.

DOTD’s Project Evaluation Team (PET) will be responsible for performing the above described evaluation, and will present a shortlist of the three (3) (if three are qualified), highest rated consultants to the Secretary of DOTD. The Secretary will make the final selection.

COMPLIANCE WITH SUPPLEMENTAL ETHICS REQUIREMENTS

DOTD has established supplemental ethics requirements applicable to consultants and PET members. These requirements are found in the “Supplemental Ethics Requirements” article of the sample contract linked to this advertisement, which are incorporated herein by reference. Any firm that is found to have violated these requirements may not be considered for this selection.

By submission of a proposal to perform services pursuant to this advertisement, the consultant agrees to comply with DOTD’s Supplemental Ethics Requirements.

RULES OF CONTACT UPON ADVERTISEMENT

DOTD is the single source of information regarding the contract selection. Any official correspondence will be in writing, and any official information regarding the contract will be disseminated by DOTD’s designated representative via the DOTD website. The following rules of contact will apply during the contract selection process, commencing on the advertisement posting date and ceasing at the time of final contract selection. Contact includes face-to-face communication, the use of a telephone, facsimile, electronic mail (email), or formal or informal written communications with DOTD. Any contact determined to be improper, at the sole discretion of DOTD, may result in the rejection of the proposal (i.e., DOTD Form 24-102).

Consultants and consultant organizations shall correspond with DOTD regarding this advertisement only through the email address designated herein; DOTDConsultantAds80@la.gov and during DOTD sponsored one-on-one meetings.

No consultant, or any other party on behalf of a consultant, shall contact any DOTD employee, other than as specified herein. This prohibition includes, but is not limited to, the contacting of: department, office, or section heads, project managers, members of the evaluation teams, and any official who may participate in the decision to award the contract resulting from this advertisement.

DOTD will not be responsible for any information or exchange that occurs outside the official process specified above.

By submission of a proposal to perform services pursuant to this advertisement, the consultant agrees to the communication protocol herein.

PROJECT TIME

The overall time for the completion of the scope of services is estimated to be **3 years**.

COMPENSATION

The compensation payable to the consultant for all services rendered in connection with this contract is estimated at **\$1,097,933**. This estimate will be used for grading purposes only. Actual compensation will be determined by DOTD based on work hours negotiated between DOTD and the selected consultant. Within fifteen (15) calendar days of notification of selection, a kick-off meeting will be held with the selected consultant and appropriate DOTD personnel. The selected consultant will be required to submit a work hour proposal within thirty (30) calendar days following the notification of selection. All negotiations must be completed within the timeframe set forth in the Consultant Contract Services Manual.

Payment will be made based on cost plus fixed fee.

DIRECT EXPENSES

To the extent that the consultant is allowed to claim reimbursement for direct expenses, all direct expense items that are not paid for in the firm's indirect cost rate and are needed and will be consumed during the life of the contract must be identified by the consultant during contract development. The acquisition or rental of standard equipment or resources to be used in the provision of services rendered for this contract will not be considered for payment under direct expenses (e.g., vehicles for construction engineering and inspection (CE&I) inspectors).

The consultant should own most of the equipment required to provide the work and services. The cost of this equipment should be included in the consultant's indirect cost rate. Equipment may be considered "specialized" if it cannot be considered standard equipment for that particular consultant's normal operating business needs. If a consultant believes special equipment is needed for the contract, the consultant must inquire through the Question and Answer process, as provided herein, whether the identified item will be considered specialized equipment for the individual contract.

All travel related expenses will be compensated under direct expenses, and will be in accordance with the most current Louisiana Office of State Travel regulations as promulgated in the Louisiana Administrative Code under the caption "PPM No. 49", with the exception that compensation for vehicle usage will be based on actual miles traveled directly and exclusively related to project needs. Vehicle rental rates will require prior approval from the PM.

CYBERSECURITY TRAINING

In accordance with La. R.S. 42:1267(B)(3) and the State of Louisiana's Information Security Policy, if the Consultant, any of its employees, agents, or sub-consultants will have access to State government information technology assets, the Consultant's employees, agents, or sub-consultants with such access must complete cybersecurity training annually, and the Consultant must present evidence of such compliance annually and upon request. The Consultant may use the cybersecurity training course offered by the Louisiana Department of State Civil Service without additional cost or may use any alternate course approved in writing by the Office of Technology Services.

For purposes of this Section, "access to State government information technology assets," means the possession of credentials, equipment, or authorization to access the internal workings of State information technology systems or networks. Examples would include but not be limited to State-issued laptops, VPN credentials to credentials to access the State network, badging to access the State's telecommunications closets or systems, or permissions to maintain or modify IT systems used by the State. Final determination of scope inclusions or exclusions relative to access to State government information technology assets will be made by the Office of Technology Services.

QUALITY ASSURANCE/QUALITY CONTROL

DOTD requires the selected consultant and all sub-consultants to develop a Quality Assurance/Quality Control (QA/QC) program in order to provide a mechanism by which all deliverables will be subject to a systematic and consistent review. The selected consultant shall address in its plan the review of all sub-consultant work and deliverables. **Only the selected consultant must submit their QA/QC plan to the DOTD PM within 10 business days of the award notification to the consultant (do not include QA/QC plan in the DOTD Form 24-102).** Consultants must ensure quality and adhere to established DOTD policies, procedures, standards and guidelines in the preparation and review of all deliverables. DOTD may provide limited input and technical assistance to the consultant. Any deliverables to be transmitted by the consultant shall be transmitted with a DOTD Quality Assurance/Quality Control Checklist, and a certification that the deliverables meet DOTD's quality standards.

If Attachment A includes specific QA/QC requirements that contradict those set forth above, the requirements in Attachment A control.

TRAFFIC ENGINEERING PROCESS AND REPORT TRAINING REQUIREMENTS

As part of DOTD's on-going commitment to high quality traffic engineering reports, a traffic engineering training course must be taken by traffic engineering PEs and EIs in order to be eligible to work on DOTD projects. When traffic is included as a discipline on which past performance is evaluated, for consultants performing traffic engineering services (i.e., traffic analysis throughout all DOTD project stages and/or QC of traffic analysis), appropriate personnel must successfully complete the three (3) modules of the Traffic Engineering Process and Report Course offered by Louisiana Transportation Research Center (LTRC). This Course must be completed no later than the time the proposal is submitted or show proof of registration for the Course from the LTRC's Registration site. **Copies of training certificates or proof of registration are to be included in**

Section 20 of the proposal.” It will be the prime consultant’s responsibility to ensure their staff and sub-consultants complete the training. Copies of training records may be obtained from the LTRC website <https://registration.ltrc.lsu.edu/login>.

WORK ZONE TRAINING REQUIREMENTS

As part of DOTD’s on-going commitment to work zone safety, required work zone training courses must now be taken every four (4) years in order for personnel to remain eligible to work on DOTD projects. For consultants performing preconstruction services (e.g., design, survey, subsurface utility, geotechnical, traffic, bridge inspection, environmental services), appropriate personnel must successfully complete these courses. In general, the person in responsible charge of traffic control plans shall be required to have Traffic Control Supervisor training. For preconstruction field services performed within the clear zone, at least one (1) member of the field crew shall have Traffic Control Supervisor or Traffic Control Technician training. The consultant should identify all personnel listed in the staffing plan (Section 14) for the contract who have completed the appropriate work zone training courses. All preconstruction work zone training requirements shall be met **prior to contract execution**. It will be the prime consultant’s responsibility to ensure their staff and sub-consultants have the appropriate work zone training.

In addition to the above requirements, if the Scope of Services set forth in Attachment A includes Construction Engineering and Inspection (CE&I), the following training requirements shall be met **at the time the proposal is submitted**:

Field Engineers:	Traffic Control Technician Traffic Control Supervisor Flagger
Field Engineer Interns:	Traffic Control Technician Traffic Control Supervisor Flagger
Field Senior Technicians, Survey Party Chiefs, and SUE Worksite Traffic Supervisors*:	Traffic Control Technician Traffic Control Supervisor Flagger
Other Field Personnel*:	Traffic Control Technician Flagger

* excluding Asphalt Plant Inspector, Paint Managers, and Paint Inspectors

Approved courses are offered by ATSSA and AGC. Substitutes for these courses must be approved by the DOTD Work Zone Task Force. For more information, please contact DOTD HQ Construction at 225-379-1584. Specific training course requirements are:

Flagger:	Successful completion every four (4) years of a work zone flagger course approved by the Department. The “DOTD Maintenance Basic Flagging Procedures
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Workshop” is not an acceptable substitute for the ATSSA and AGC flagging courses.

Traffic Control Technician (TCT): Successful completion every four (4) years of a work zone traffic control technician course approved by the Department. After initial successful completion, it is not necessary to retake this course every four (4) years if Traffic Control Supervisor training is completed every four (4) years.

Traffic Control Supervisor (TCS): Successful completion of a work zone traffic control supervisor course approved by the Department. Following an initial completion, traffic control supervisors must either complete a one (1)-day TCS refresher course or retake the original two (2)-day TCS course every four (4) years.

ATSSA contact information: (877) 642-4637

*****ALL WORK ZONE TRAINING CERTIFICATIONS MUST BE ACTIVE*****

REFERENCES

All services and documents will meet the standard requirements as to format and content of DOTD and will be prepared in accordance with the latest applicable editions, supplements, and revisions of the following:

1. AASHTO Standards – The American Association of State Highway Transportation Officials
<https://www.transportation.org/>
2. AASHTO – A Policy on Geometric Design of Highways and Streets –
https://bookstore.transportation.org/collection_detail.aspx?ID=110
3. ASTM Standards – <https://www.astm.org/BOOKSTORE/BOS/index.html>
4. CyberSecurity Training –
<https://forms.gle/deZGAo5hUMWeSG4P6>
5. DOTD – Bridge Design and Evaluation Manual (BDEM) –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Bridge_Design/Pages/BD EM.aspx
6. DOTD – Complete Streets –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Highway_Safety/Complete_Streets/Pages/default.aspx
7. DOTD – Construction Contract Administration Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Pages/Engineering_Docs.aspx
8. DOTD – Consultant Contract Services Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Manuals/CCS%20Manual%20rev%20Dec%202020.pdf

9. DOTD – Hydraulics Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Public_Works/Hydraulics/Documents/Hydraulics%20Manual.pdf
10. DOTD – Location and Survey Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/LocationSurvey/Manuals%20and%20Forms/Location_and_Survey_Manual.pdf
11. DOTD – Addendum “A” to the Location & Survey Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/LocationSurvey/Manuals%20and%20Forms/Location%20and%20Survey%20Manual%20-%20Addendum%20A.pdf
12. DOTD – Louisiana Standard Specifications for Roads and Bridges –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Standard_Specifications/Pages/Standard%20Specifications.aspx
13. DOTD – Materials Sampling Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Materials_Lab/Pages/Menu_MSM.aspx
14. DOTD – Minimum Design Guidelines –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Road_Design/Memoranda/Minimum%20Design%20Guidelines.pdf
15. DOTD – Off-System Highway Bridge Program Guidelines –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Bridge_Design/Manuals/Other%20Manuals%20-%20Guidelines/2019%20Federal%20Aid%20Off-System%20Highway%20Bridge%20Program%20Guidelines.pdf
16. DOTD – Roadway Design Procedures and Details Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Road_Design/Pages/Road-Design-Manual.aspx
17. DOTD – Stage 1 Planning/Environmental Manual of Standard Practice –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Environmental/Pages/Stage_1.aspx
18. DOTD – Testing Procedures Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Materials_Lab/Pages/Menu_TPM.aspx
19. DOTD – Traffic Engineering Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Misc%20Documents/Traffic%20Engineering%20Manual.pdf
20. DOTD – Traffic Engineering Process and Report –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/ManualsPublications/Pages/TEPR.aspx
21. DOTD – Traffic Signal Manual –
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Traffic%20Control/Traffic%20Signal%20Manual%20V3%20-%207.1.20.pdf

22. e-CFR – Electronic Code of Federal Regulations (all applicable) –
<https://ecfr.io/>
23. FHWA – Bridge Inspector’s Reference Manual (BIRM) –
website: <https://www.fhwa.dot.gov/bridge/nbis.cfm>
manual: <https://www.fhwa.dot.gov/bridge/nbis/pubs/nhi12049.pdf>
24. FHWA – Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) –
<http://mutcd.fhwa.dot.gov/>
25. National Electrical Safety Code (NESC) –
<https://standards.ieee.org/products-services/nesc/index.html>
26. NFPA 70 – National Electrical Code (NEC) –
<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=70>
27. NEPA – National Environmental Policy Act –
<https://www.epa.gov/nepa>

CONTRACT EXECUTION REQUIREMENTS

The selected consultant will be required to execute the contract within ten (10) days after receipt of the contract.

A sample of the contract provisions can be found at the following link: http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Pages/Advertisements.aspx.

DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENT

This advertised contract has a Disadvantaged Business Enterprise (DBE) goal of **4%** of the contract fee. Credit for DBE participation will be limited to the firms certified pursuant to the Louisiana Unified Certification Program. For convenience, DOTD provides a list on its website (<http://www8.dotd.la.gov/UCP/UCPSearch.aspx>) of firms that have been certified as eligible to participate as DBEs on US DOT assisted contracts. This list is not an endorsement of the quality of performance of any firm but is simply an acknowledgment of the listed firms’ eligibility as a DBE. DOTD makes no representations of the accuracy or completeness of this list on any particular date or time. Prime consultants considering the use of a particular DBE sub-consultant are advised to obtain documentation of certification status from that sub-consultant prior to submission of DOTD Form 24-102.

Prime consultants must specify by firm name in Section 11 on the DOTD Form 24-102 all DBE firms which the prime intends will participate in providing services under the contract to meet the DBE goal and indicate for each the percent of the contract fee for the services that will be performed by each specified DBE firm. If the prime did not succeed in obtaining enough DBE participation to meet the goal, it must attach to the DOTD Form 24-102, behind Section 23, documentation of its good faith efforts to meet the goal.

REVISIONS TO THE ADVERTISEMENT

DOTD reserves the right to revise any part of the advertisement by issuing addenda to the advertisement at any time. Issuance of this advertisement in no way constitutes a commitment by DOTD to award a contract. DOTD reserves the right to accept or reject, in whole or part, all DOTD Form 24-102s submitted, and/or cancel this consultant services procurement if it is determined to be in DOTD's best interest. All materials submitted in response to this advertisement become the property of DOTD, and selection or rejection of a proposal does not affect this right. DOTD also reserves the right, at its sole discretion, to waive administrative informalities contained in the advertisement.

CLARIFICATIONS

DOTD reserves the right to request clarification of ambiguities or apparent inconsistencies found within any proposal, if it is determined to be in DOTD's best interest.

PROPOSAL REQUIREMENTS

The consultant's proposal for this advertisement must be submitted by email to DOTDConsultantAds80@la.gov. **USE THE DOTD FORM 24-102, DATED JANUARY 1, 2023, PROVIDED WITH THE ADVERTISEMENT.** Hard copies of the consultant's proposal are not required. All proposals must be in accordance with the requirements of this advertisement, and the Consultant Contract Services Manual. Unless otherwise stated in this advertisement, copies of licenses and certificates are not required to be submitted with the proposal.

If more than one (1) contract is to be selected based on this advertisement, no prime consultant is allowed to be a sub-consultant on any other consultant's 24-102. If a prime consultant is submitted as a sub-consultant on another consultant's 24-102, its proposal as a prime consultant may be deemed non-responsive.

ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

DOTD employees may not submit a proposal, nor be included as part of a consultant's proposal.

Contract and/or part-time employees are allowed. Such employees should be shown in Section 14 of the DOTD Form 24-102 with an asterisk denoting their employment status.

The DOTD Form 24-102 **PDF file shall be labeled** "Contract No. 4400026027, Consultant's name", and **must be received no later than 3:00 p.m. Central Time by** DOTDConsultantAds80@la.gov **via email on Thursday, ~~May 25~~ June 1, 2023.** **The PDF file must be attached in the email or as a hyperlink in the email or through third-party file transfer websites such as Dropbox or WeTransfer.**

Contract No. 4400026027

Please note that delivery failure may occur on email files exceeding 30MB uncompressed. In addition, all emails are scanned for cybersecurity threats prior to delivery to DOTDConsultantAds80@la.gov; therefore, allow sufficient time for this process to take place when submitting your proposal.

ATTACHMENT A – SCOPE OF SERVICES

The project time is typical.

The home office indirect cost rate shall be applicable to all services except as otherwise designated hereafter.

I. INTERCHANGE JUSTIFICATION REPORT (IJR):

The Consultant shall prepare and coordinate an interchange justification report (IJR) to analyze no build and future conditions to identify possible interchange alternatives at the location of I-10 at LA 74 with the proposed widening of I-10. Since this study area is adjacent to the I-10 at LA 429 Traffic Study (H.012311 Contract No. 4400026028), both Consultants shall coordinate with the each other throughout the projects' process. This interchange justification report will be prepared in conjunction with the environmental study and in accordance with *FHWA policy on Changes in Access to the Interstate System issued ~~May 17, 2022; August 18, 2009, published in Federal Register Volume 74 Issue 165 on August 27, 2009~~; the DOTD Engineering Directives and Standards Manual (EDSM) No: I.4.3.2: Request for New or Modified Access on Control of Access Facilities dated December 22, 2017 ; and the DOTD Engineering Directives and Standards Manual (EDSM) No: VI.1.1.2: Intersection Control Evaluation dated December 2, 2020.*

The Consultant shall analyze and tweak (if necessary) the following alternatives (see attached sketches) based on the traffic and environmental study:

1. Partial Cloverleaf A (2 Quad) Interchange in the northwest and southeast quadrants
2. Tight Urban Diamond Interchange (TUDI) with roundabouts or signals at the terminals
3. Tight Urban Diamond Interchange (TUDI) replacing the northeast ramp with a southeast loop ramp.

All alternative options shall be analyzed with and without auxiliary lanes to and from LA 74 as well as frontage roads along LA 74.

Objective and Limits

The objective is to relieve traffic congestion along LA 73 and its I-10 interchange, by diverting traffic to LA 74 via a new interchange at I-10. A significant right-of-way impacts to avoid are the superfund site in the northwest quadrant.

The study limits are as follows:

- I-10 (just west of LA 73 interchange to just east of LA 30 interchange)
- LA 74 (within 1300 feet of the alternative interchange terminals)

Info to be provided to Consultant by DOTD to be used in final report:

- H.003771.2 – I-10 from LA 73 to LA 429 Study

- Chapter 1
- Chapter 2
- VISSIM Model Calibration Report
- Appendix A – Initial Data Collection
- Appendix B – Final Data Collection
- Appendix C – Existing Safety Analysis
- Appendix D – VISSIM
- Build Volume Redistribution Files
- Tier 1

- H.009266 - I-10: LA 73 to LA 30 Project
- H.011160.1 – LA 73 (LA 74 to LA 621) Interchange Analysis Report
- H.010572.1 - LA 30: LA 3251 to LA 44 Study

Task 1.0 – Data Collection

The Consultant shall review and verify all previous studies and data provided by DOTD to ensure that they are warranted for the analyses of this project. Also, the Consultant shall verify that the FHWA Interstate Access Policy Points 1 and 2 can be answered.

If the previous studies and/or data are not acceptable, the Consultant shall notify DOTD. The Consultant shall subsequently develop a plan detailing count types with corresponding locations to collect this additional data and possibly a supplement if necessary. Hours may be negotiable during this process and must be approved before moving forward to Task 2.0.

Task 1.0 Deliverables (approval needed before proceeding to Data Collection Meeting):

- Chapter 1
- Appendix A and B (may consist of data and information from previous studies)
- QA/QC Deliverable
- Plan for additional data collection (if necessary)

Task 2.0 – Data Collection Meeting

This meeting is to discuss all verified data collection provided from previous studies and/or additional collected data.

Task 2.0 Deliverables:

- Data Collection Meeting Minutes – submitted to Task Manager within 3 days

Task 3.0 - Existing, No Build, Tier 1, and Preliminary Tier 2 Verification

The Consultant shall review and verify Tier 1 and preliminary Tier 2 performed in previous study to ensure that they are warranted for the analyses of this project.

Also, the Existing and No Build Analysis at the LA 73 and LA 30 ramp terminals must be redone to compare similar Measures of Effectiveness (MOEs) results to the Build analyses in this study.

The Existing (2018) and No Build (2038) analyses shall be performed in HCS7 during the design year (2038). A 15-minute multi-period analysis is required for the approved entire peak periods and shall include the following MOEs:

- For interchange terminals:
 - 95th percentile queue lengths (per movement per lane)
 - Delay (per lane)
 - v/c ratio (per lane)
- For the I-10 Mainline (per lane for all merge, diverge, weaving and basic segments):
 - Density
 - Speed
 - v/c ratio

Please note that these MOEs apply to Existing, No Build and Alternative analyses so that the results may be compared.

Task 3.0 Deliverables:

- Chapter 2 (compiled from previous studies and updated analyses)
- Appendix C (compiled from previous studies and updated crash data for mainline and ramp)
- Appendix D (compiled from previous studies and updated analyses)
- Draft Tier 1 and Preliminary Tier 2
- QA/QC Deliverable

Task 4.0 – Tier 1 and Preliminary Tier 2 Meeting *(must occur before proceeding to Tier 2 Analysis):*

The Consultant shall conduct a meeting with all parties. A stakeholder list will be provided by the Project Manager. The purpose of this meeting is to recap of the Tier 1 and preliminary Tier 2 progress that was completed in the previous I-10 from LA 73 to LA 429 (H.003771.2) Study. Also, the Consultant will present the recommended alternatives from the previous study which will be analyzed for this current project along with any other recommendations. This meeting will also establish the foundation for continued coordination, to develop a mutual understanding of the deliverables, agree on the procedures to follow, as well as the Measures of Effectiveness (MOEs) to be compared for analysis.

The following documents are required for the Consultant to provide during the meeting:

- Agenda
- Sign in Sheet
- Project Schedule
- Tier 1 and Preliminary Tier 2

Any requests or exchange of information from either party necessary to complete the scope of services should be done at this meeting. It is the Consultant's responsibility to take minutes for this meeting and distribute copies to all attendees within 3 days of the meeting.

Task 4.0 Deliverables:

- Agenda- submitted to DOTD one week prior to the meeting
- Tier 1 and Preliminary Tier 2 Meeting Minutes – submitted to Task Manager within 3 days

FINAL ALTERNATIVE ANALYSIS

Task 5.0 – Tier 2 Analysis

Operational Analysis

The Alternative analyses shall be performed in HCS7 during the design year (2038). A 15-minute multi-period analysis is required for the approved entire peak periods and shall include the following MOEs:

- For interchange terminals:
 - 95th percentile queue lengths (per movement per lane)
 - Delay (per lane)
 - v/c ratio (per lane)
- For the I-10 Mainline (per lane for all merge, diverge, weaving and basic segments):
 - Density
 - Speed
 - v/c ratio

Please note that these MOEs apply to Existing, No Build, and Alternative analyses so that the results may be compared.

If, during the analysis of the alternatives, it becomes evident that the selected alternatives are not viable due to unacceptable operations, critical geometry issues, or environmental issues that cannot be remedied, then DOTD must be notified of these developments ASAP.

Safety Analysis

The build safety analysis should consider impacts on the mainline, ramps, intersections of proposed access point, applicable portions of the local street network and then nearest adjacent interchange. The analysis shall include an assessment on the impacts and ability of the alternatives to safely and efficiently collect, distribute and accommodate traffic (see Policy Point 3 of FHWA 8 Policy Points). Mitigation may be needed to offset any safety concerns.

The alternatives safety analyses shall be compared among each other as well as the existing safety analysis. Figures should be used to illustrate each alternative.

Critical Geometry

This is the same geometry required for the environmental document. It is not the intent of DOTD to have this work duplicated. The traffic Consultant shall work in conjunction with the Environmental team during this process to ensure the geometry being developed reflects the traffic analysis results.

Task 5.0 Deliverables (approval needed before proceeding to Tier 3 Analysis):

- Appendix E:
 - a) 11 x 17 map(s) showing redistributed future year volumes of each alternative
 - b) 11 x 17 map(s) aerials of queues comparing alternatives and No Build (hard copy and pdf)
 - c) Electronic copy of No Build and Build Analysis for Operations
 - d) Software Reports/ Analysis Outputs – only relevant reports with inputs and Measures of Effectiveness (MOE) are needed, not every page of every report available (.pdf file)
 - e) Intersection Summaries
 - f) Safety Analysis software files
 - a. Summary and figures (to be included in Chapter 3 of Final Report)
 - g) Summary Table of Results compared to No Build and all other Alternatives (to be included in Chapter 3 of Final Report)
 - h) 11 x 17 Critical Geometry Layout with the following (hard copy, pdf, and CADD files) (provided by Environmental team):
 - a. Alternatives will be drawn on an aerial using a single sketch line technique. Each line shall represent each ramp and traveled way of the highway in the plan view. Number of lanes required and controlling horizontal curve information shall be noted in plan view. The alternatives shall also be drawn in profile using single lines indicating existing grade and each tier of the proposed interchange or alternative with relative elevations. These lines will be developed to scale and apply design criteria and operational characteristics. Both existing and proposed Right of Way (ROW) and Control of Access (COA) boundaries shall be shown.
 - i) Design Guideline Report and a list of any waivers/exceptions needed
 - j) Miscellaneous Analyses and Considerations
 - k) QA/QC Documentation

Task 6.0 – Tier 2 Meeting (must occur before proceeding to Tier 3 Analysis)

The purpose of this meeting is to present the alternatives to move forward to Tier 3 analysis. The Consultant shall conduct a meeting with the following parties:

- Local officials
- DOTD project team
- FHWA

Task 6.0 Deliverables:

1. Meeting minutes submitted within 3 days

Task 7.0 - Tier 3 Analysis

The selected alternatives identified as the Environmental preferred alternative(s) are developed further in geometric form in Tier 3.

- ***Geometric Layout***
The Line and Grade document is the same drawing required by the environmental document. It is not the intent of DOTD for this to be duplicated. The traffic Consultant shall work in conjunction with the Environmental team during this process to ensure that the Striping/Signing Layouts and Line and Grade reflect the traffic analysis results.
- ***Striping Layout***
A striping layout on plan view will be completed for alternatives advanced to Tier 3. The layout will include all applicable interstate and crossroad striping standards and show the appropriate measurements/distances.
- ***Signing Layout***
A signing layout on plan view will be completed for alternatives advanced to Tier 3. The layout will include all applicable interstate guide signs and show location and composition of each sign along interstate routes and cross roads. This should show all signs and supports along with existing signs.

Task 7.0 Deliverables:

- Appendix E (continuation of Task 5.0):
 - a) Geometric Layout with the following labels (from Environmental)
 - a. Utility conflicts
 - b. Label driveways and roadway connections
 - c. Label drainage structures and bridges
 - b) Striping Plan
 - c) Signing Layout
- Chapter 3 of Final Report
- QA/QC Documentation

Task 8.0 - FHWA 8 Policy Points

Additional information beyond the completed traffic report is needed to address the FHWA 8 Policy Points. The Consultant shall investigate, compile, analyze and document all necessary information required to address all 8 FHWA Interstate Access Policy Points in this study.

Task 8.0 Deliverables:

- FHWA 8 Policy Points

Task 9.0 – Final Report

The Final Report will be prepared to address the purpose & need of the project and will include the following reviewed and approved deliverables (Chapters and Appendices):

- FHWA 8 Policy Points (Task 8)
- Executive Summary
- Introduction
- Chapter 1: Data Collection
- Appendix A: Initial Data Collection (may consist of data and information from previous studies)
- Appendix B: Final Data Collection (may consist of data and information from previous studies)
- Appendix C: Existing Safety Analysis (compiled from previous studies)
- Chapter 2: Existing and No Build Analysis (compiled from previous studies and Task 3)
- Appendix D: Existing and No Build Network (compiled from previous studies and Task 3)
- Chapter 3: Alternative Analysis (Task 7)
- Appendix E: Final Alternative Analysis – Tier 1, Tier 2, and Tier 3 (compiled from previous studies, Task 5, and Task 7)
 - Tier 1 and CAP-X Analysis and Documentation
 - Tier 2 Analysis and Documentation
 - Tier 3 Analysis and Documentation
 - Geometric Layout (from Environmental)
 - Signing and Striping Layout

Upon review and approval, the three final hard copies of each of the reports will be submitted for acceptance contingent upon findings and shall be included in the appendix of the Environmental document as the traffic study.

Task 9.0 Deliverables:

- Sealed Report (Draft must be approved before final submission)
- 3 hard copies of reports
- 2 electronic copies

II. LINE AND GRADE STUDY:

Three alternates will be considered:

1. Partial Cloverleaf A (2 Quad) Interchange in the northwest and southeast quadrants.
2. Tight Urban Diamond Interchange (TUDI) with roundabouts or signals at the terminals.
3. Tight Urban Diamond Interchange (TUDI) replacing the northeast ramp with a southeast loop ramp.

A capacity analysis will partly determine geometry (such as the separation between ramp terminals and lane configurations.) The horizontal and vertical alignment will be accurately defined and a

new access point request will be prepared in accordance with the State's and FHWA's procedures for new Interstate access. The line and grade study shall include but not be limited to:

- Establishment of design criteria.
- Develop typical roadway and bridge sections.
- Develop horizontal geometry.
- Develop vertical geometry and set minimum roadway grade.
- Identify major drainage structure locations.
- Establish approximate required right of way limits.
 - Develop a list of impacted improvements and a Utility Conflict Matrix to be used in future stages of development.
- Cost estimates for right of way, engineering, utility relocation, construction, and mitigation measures. All cost estimates shall account for escalation, risk, inflation, etc. Consultant shall prepare the engineering estimate using all pay items that could reasonably be used in the project along with assumed quantities as applicable.

Specifics

A. Horizontal Alignment

A horizontal alignment study will be prepared for each alternate. The alignment should consider major utility conflicts, major drainage structures, existing roadway/bridge geometry, superelevation, and sight distance and be developed consistent with all applicable Access Management, Complete Streets and other Department policies and manuals. The final refinement to the alignment will be adjusted based on the performance of a constructability review. These reviews will assess if the proposed alignment can be constructed in accordance with Department standards (considering maintenance of traffic, etc). The location of the final alignment(s) should consider:

- Existing roadway conditions
- Maintenance of traffic
- Existing bridge
- Location of utilities
- Environmentally sensitive areas
- Topographic features
- Developed Properties
- Proposed future developments
- Railroad crossings

A plan view of the proposed horizontal alignment will be prepared for each alternate. At a minimum the following geometric data will be displayed on the plan:

- Curve Lengths (L)
- Tangent Lengths (T)
- Curve Radii (R)
- Superelevation rates and transition lengths
- Control of Access limits
- Existing and estimated r/w limits

In addition, intersection and interchange schematics will be shown on the plans.

B. Vertical Alignment

A vertical alignment study will be prepared for each alternate. The vertical alignment shall consider above ground and underground utility clearance, major drainage or structure locations, overpass clearances, etc.

A profile view of the proposed vertical alignments will be prepared for each alternate. The following geometric data will be displayed on the profile:

- P. V. I. Location
- Vertical Grades
- Length of Vertical Curve (V. C.)
- Headlight or Stopping Sight Distance (H. L. S. D. or S. S. D.)
- Vertical clearance

C. Deliverables

1. New access request document.
2. The line and grade study will be included as part of the environmental document and will contain the following:
 - Table of Design Criteria
 - Plan and profile displays as noted in sections A and B
 - Displays of typical roadway and bridge sections
 - Cost estimates for right of way, utility relocation, mitigation, engineering, and construction
 - Design Report(s) and design waivers and exceptions
 - Electronic files for all plan sheets and displays and others

III. ENVIRONMENTAL STUDY:

The Consultant shall evaluate the social, economic, and environmental consequences of the alternatives (including the No-Build) and present this information in the environmental document. Currently the environmental document is anticipated to be an Environmental Assessment (EA), but the environmental document type has not been determined and may change as the document develops. Preparation of environmental document (Stage 1 document) shall be in accordance with the National Environmental Policy Act (NEPA), applicable rules, laws, guidance and regulations, and other applicable federal and Louisiana Department of Transportation and Development (DOTD) publications.

In addition to the formal environmental document, the Consultant may be required to develop separate reports including, but not limited to: Wetland Finding, Phase I Environmental Site Assessment, Phase I Cultural Resources Survey Reports, Noise Analysis, Section 4(f) statement, and a Conceptual Stage Relocation Plan. A Scoping Meeting and up to two (2) Public Meetings shall be held to inform the public of the project, potential impacts of the project, and to obtain

comments and input from the public on the alternatives, design features, and impacts. If the environmental document is an EA or an EIS, a Public Hearing shall be held to inform the public of the results and conclusions of the EA or Draft EIS and to obtain input from the public. The Consultant shall obtain approval for the project by FHWA.

Stage 1 shall minimally require the consideration of the following:

- Develop a Project Work Plan with schedule, contacts, public and agency outreach details, etc.
- Engineering studies necessary to develop alternatives considered to the extent necessary to complete the environmental stage
- Technical studies to determine social, economic and environmental impacts at a level of detail consistent with the requirements of NEPA and other applicable laws and regulations
- An Environmental Inventory / Summary on the I-10 at LA 74 Project
- Preparation of the environmental document
- If necessary, the Preparation of a Finding of No Significant Impact (FONSI) or a Record of Decision (ROD) for an EA or EIS respectively.
- Preparation of a Mitigation Plan

TASK - PROJECT WORK PLAN & SCHEDULE

A Project Work Plan shall be developed that includes details on the participants, the project scope, public and agency participation, and the project schedule. The work plan shall require that a team member be responsible for creating a project decision log and recording all meeting minutes. An electronic copy of the Project Work Plan shall be provided to DOTD. The project work plan shall be presented within two (2) weeks after the project kick-off meeting following receipt of a Notice to Proceed.

Deliverable: An electronic copy of the Project Work Plan shall be provided to DOTD.

TASK - AGENCY AND PUBLIC COORDINATION

Agency and public input shall be gathered through a combination of the Scoping Meeting, SOV letters, interagency meetings, Public Meetings, Agency Meetings, and one (1) Public Hearing. Details of the public involvement process and plans shall be provided in the Project Work Plan. Agency and public input shall be considered in the final recommendations, and shall be gathered through a combination of stakeholder identification and involvement, interagency meetings and public involvement/public outreach efforts (including outreach to local public officials). The Consultant shall prepare a summary of the public participation for inclusion in the appropriate section of the environmental document.

SCOPING MEETING

A Scoping Meeting shall be held after receipt of the Notice to Proceed and after the development of the draft work plan. Federal and state agencies with a stake in the project shall be invited as well as any local stakeholders and planning commission.

SOLICITATION OF VIEWS (SOV)

DOTD shall provide the Consultant with a copy of the SOV project mailing list. The Consultant shall draft an SOV letter for review and comment by DOTD. The Consultant must compile an additional SOV project mailing list that includes stakeholders and landowners within the study area. Efforts shall be made to identify additional neighborhood associations, civic, business groups, church pastors, potentially affected commercial/industrial and residential properties, and special traffic generators.

A SOV packet shall be distributed to Federal, State, and local agencies, organizations, and individuals whose expertise may assist with the identification of possible adverse concerns (economic, social, or environmental) within the project area. This SOV packet shall describe the alternative alignments being studied in the environmental document and contained a preliminary project description and vicinity map. The responses to this SOV shall be provided by DOTD to the Consultant to review and incorporate into the environmental document. DOTD shall provide the Consultant with a current distribution list to be used in the SOV, and the Consultant shall be responsible for supplementing and maintaining it throughout the duration of the project.

The Consultant shall maintain a contact list of all persons expressing interest in the project. Upon DOTD approval of the project mailing list, the Consultant shall distribute the public meeting (scoping) announcement with a SOV letter to designated agencies, governments, and organizations.

All communications and coordination with other Federal, State and local agencies shall be closely coordinated with and approved by DOTD's Environmental Coordinator prior to contact.

Deliverables: A summary of all comments received from SOV and required coordination. A copy of the SOV and mailing list is also required.

AGENCY MEETINGS

The Consultant shall be responsible for setting up Agency Meetings addressing environmental issues including, but not limited to, coordinating meetings with other local, federal, and state agencies, public official meetings, DOTD/FHWA progress meetings, and conference calls. Early coordination will include the Consultant arranging, conducting, and summarizing a kick-off meeting with the project team within 10 days of receiving the Notice to Proceed.

The Consultant shall handle all arrangements associated with the Agency Meeting(s) including scheduling, reservation of venue, agenda, sign-in sheets, handouts, taking meeting minutes, distributing draft minutes for comments, and sending out final meeting minutes. All of these arrangements will be subject to DOTD Environmental Section's review and approval prior to distribution.

Deliverables: A paper copy and an electronic (PDF) format of draft and final meeting minutes for each agency meeting shall be provided to DOTD.

PUBLIC MEETINGS

Public Meetings are required during the environmental review process to ensure citizens have sufficient opportunity to provide input. At least one (1) Public Meeting will be required for this project. If additional Public Meetings are required, these will be added at the discretion of DOTD and FHWA. The meetings shall follow open house format to allow appropriate review of project information throughout the public meeting period.

The Consultant shall handle all arrangements associated with the Public Meeting(s) including the reservation of venue, preparation and mailing(s) of public notice, preparation of appropriate exhibits, preparation of the technical presentations, handouts, and all other meeting related tasks. All of these arrangements are subject to DOTD Environmental Section's approval. The Consultant shall advertise the notices of the Public Meetings in newspapers and inform local, state, and federal agencies and officials. The Consultant shall prepare and provide visualizations for public meetings. Visualizations shall include handouts, PowerPoint presentations, and various large scale exhibits depicting the proposed alternatives, existing ROW, and required ROW for each of the different alternatives. Exhibits depicting all alternatives and estimated right-of-way takings shall be prepared for the Public Meetings.

Deliverables: One (1) exhibit shall depict the entire project area at a scale of approximately 1 inch = 75 feet. One (1) draft copy of visualizations and all meeting materials shall be submitted to DOTD for review, comment and approval at least three (3) weeks prior to the public meetings. Upon revision, a paper copy and an electronic (PDF) format of all meeting materials shall be submitted to DOTD.

The notice for each of the Public Meetings shall be published two (2) weeks and one (1) week before the date of the Public Meeting. The text of the notice shall be provided to DOTD's Environmental Coordinator for review at least one (1) month prior to the first anticipated date of publication.

The Consultant shall conduct the Public Meetings and shall have knowledgeable informed staff present to address queries from the public of the environmental, engineering, and other project related issues. The Consultant shall prepare a transcript of each Public Meeting, including a verbatim transcript of recorded statements, copies of meeting materials, copies of official notice/press releases/and proof of publication, sign-in sheets, written comments, and other meeting materials. All comments received during the commenting period on the Public Meeting, including those received before the Public Meeting, shall be addressed by the Consultant in the Public Meeting Record. The comments shall be presented in a matrix that clearly identifies an appropriate response. Each public meeting transcript shall be provided to DOTD for review and approval prior to distribution. A paper copy of the meeting transcript shall be submitted as well as a copy in electronic (PDF) format on a labeled CD.

PUBLIC HEARING

If the environmental document is an EA or an EIS, a Public Hearing shall be held during the review period of the EA approved for distribution or the Draft EIS. This hearing shall be conducted using an open house format. All arrangements for the Public Hearing, including location, time, preparation and mailing of notice, preparation of appropriate exhibits,

preparation of the technical presentation, and handouts shall be made by the Consultant, subject to DOTD's review and approval.

Per DOTD and FHWA guidelines, the Consultant shall advertise the notice of the Public Hearing in the newspaper and inform local, state, and federal agencies and officials. The text of the Public Hearing notice as well as other meeting materials outlined below shall be provided to DOTD for review at least six (6) weeks prior to the anticipated Public Hearing date. DOTD shall review and approve all hearing materials prior to authorizing the advertisement and Public Hearing date. The Consultant shall prepare and provide hearing materials which shall include handouts, PowerPoint presentations, and various large scale exhibits depicting the proposed alternatives.

The Consultant shall advertise the notice of the Public Hearing (upon DOTD's approval of the notice) in official state and local newspapers, as well as with other media (radio, television, etc.) agreed upon by DOTD. The notice for the Public Hearing shall be published twice: the first shall be made thirty to forty (30 – 40) days before the date of the hearing, the second five to twelve (5 – 12) days before. The text of the notice, including the project map, shall be provided to DOTD Environmental Coordinator for review and approval at least six (6) weeks prior to the anticipated Public Hearing date. Public Hearing exhibits and materials, including a PowerPoint presentation, shall be submitted to DOTD Environmental Coordinator for review and approval.

The Consultant shall have knowledgeable staff present at the Public Hearing to address the queries from the public, on the environmental, engineering, and other project related issues. The Consultant shall record, prepare, and distribute a verbatim transcript for the Public Hearing, including a verbatim transcript of recorded statements. The final transcript document shall include, but is not limited to: a verbatim transcript of recorded statements, copies of meeting materials, copies of official notice/press releases/and proof of publication, sign-in sheets, written comments, and other meeting materials. A paper copy of the transcript shall be submitted for review and approval to DOTD as well as a copy in electronic (PDF) format on a labeled CD.

All comments received during the commenting period on the EA or the Draft EIS, including those received at the Public Hearing, shall be addressed by the Consultant in the EA or Final EIS. The comments shall be presented in a matrix that clearly identifies an appropriate response and provides information on required changes to the EA or EIS. After approval by DOTD's Environmental Section of the final documents and issuance by FHWA of the FONSI or ROD, the EA FONSI or EIS ROD shall be distributed by the Consultant. DOTD Environmental Section's Project Coordinator shall provide the mailing list to be used for distribution of the FONSI or ROD.

TASK - ENVIRONMENTAL ANALYSIS AND DOCUMENTATION

The environmental document shall be prepared in accordance with the NEPA, the current transportation plan, applicable rules, laws, guidance and regulations, and other applicable federal and the following DOTD publications:

- Location and Survey Manual
- Roadway Plan Preparation Manual
- Hydraulics Manual
- Bridge Design Manual
- Louisiana Standard Specifications for Roads and Bridges
- Stage 1 Manual of Standard Practice

The environmental document shall conform to all applicable DOTD policies. The environmental document shall include DOTD's environmental determination checklist and summary of commitments, mitigation, and required permits. The environmental documents shall be submitted in both Microsoft Word and PDF electronic formats, in addition to the paper copies required as outlined in Deliverables section. The environmental document shall incorporate relevant engineering, traffic, or other data derived from other tasks detailed in this scope of work.

SUMMARY OF PERMITS, MITIGATION, AND COMMITMENTS

A summary of all permits, mitigations, and commitments shall be provided at the beginning of the environmental document. The Consultant shall identify all applicable permits and certifications likely to be required for the proposed project alternatives and address the issues relevant to such permits or future coordination that may be needed. All qualitative data needed by DOTD to complete required permits shall be provided by the Consultant. The permits to be identified include but are not limited to:

- Clean Water Act, Section 404 Wetland Permit
- Construction National Pollutant Discharge Elimination System Storm Waters Permit
- Clean Water Act, Section 401 Water Quality Certification
- Rivers and Harbors Act, Section 10 Bridge Permit (USCG – Bridge Permit)
- Levee Permits
- Any permits associated with work within Wildlife Management Areas

Any mitigation measure or enhancement shall be included in the summary.

STUDY AREA AND LOGICAL TERMINI CONFIRMATION AND DOCUMENTATION

If the environmental document is an EA or EIS, the Consultant shall prepare a Logical Termini request that includes a map with project limits identified on the map. This request shall be approved by DOTD's Environmental Section prior to submission to FHWA for review and approval.

DOCUMENTATION OF PURPOSE AND NEED

The Consultant shall verify and refine the identified purpose and need for the project. The purpose and need shall be clearly described in accordance with FHWA guidance, coordination during the preparing of the IJR, and collaboration among DOTD, FHWA, and the project team. The following issues and other relevant supporting information may be included in the discussion of the project's purpose and need: vehicle capacity needs, system linkage needs, transportation

demand, social demands, economic development, modal interrelationships, congestion, safety, and roadway deficiencies.

The Consultant shall coordinate with local, regional, state and federal agencies to obtain available information concerning the proposed project's purpose and need.

ALTERNATIVES

All alternatives (including the No-Build) carried forward in the Interchange Justification Report, and if necessary, a NEPA derived alternative shall be discussed in the environmental document. Only viable alternatives that meet the project's purpose and need are considered reasonable. If any alternative is dismissed at an early stage, the reasons for the dismissal shall be discussed in the environmental document. The alternatives shall address the purpose and need of the project. These alternatives, including the No-Build, shall be described and analyzed in the environmental document. The Consultant shall develop typical sections and estimate the required right-of-way for the different alternatives. The estimated right-of-way takings shall be used in analyzing the various impacts of the alternatives and for estimating costs. Cost estimates shall be prepared for each alternative. Exhibits depicting the alternatives and estimated right-of-way takings shall be prepared for the Public Meeting and Hearing. The Preferred Alternative, and the justification for its selection as such, shall be identified in the environmental document.

IMPACTS

The environmental document shall include a detailed analysis of the environmental effects associated with the project alternatives, including the No-Build. Issues to be considered include, but are not limited to: traffic patterns, required permits, land use, community/social, economic, historic, cultural, recreational, archaeological, noise, air, hazardous waste/materials, wetlands, floodplains, farmland, and endangered or threatened species and/or their habitat. Some of these impacts may require separate documentation, the findings of which shall be incorporated in the environmental document. For all identified unavoidable adverse impacts, the Consultant shall define measures to minimize such impacts. As appropriate, adverse impacts that cannot be avoided or minimized shall be justified. Potential mitigation measures designed to reduce or alleviate impacts shall be identified in the environmental document.

Coordination (via meetings, e-mail, phone conversations and letters) with local officials and resource agencies shall be necessary through the impact identification process. DOTD Environmental Coordinator shall be kept informed of all coordination efforts prior to the Consultant making contacts with resource agencies. All such coordination and communication efforts shall be documented with DOTD Environmental Coordinator cc'd on all communication. Items of special or local interest shall be noted and evaluated within the context of the project.

Items to be discussed in the environmental document include, but are not limited to:

A. Land Use

Dominant land use in the project area shall be mapped and cataloged in terms of urban land (commercial, residential, or industrial), farmland, recreational land/facilities, natural (forested)

undeveloped, undeveloped, or water. Impacts per land use type shall be defined and quantified. The Consultant shall detail the project's consistency with land use plans adopted by Ascension Parish and identify any adverse impacts.

B. Farmland

Prime and other important farmlands have been identified by the U.S. Department of Agriculture (USDA) because they are of major importance in meeting the nation's short and long range needs for food and fiber. The project's impact on prime farmland soils in the project area shall be assessed. As necessary, consultation with the USDA's Natural Resources Conservation Service (NRCS) shall be conducted to quantify any impacts and to develop appropriate mitigation.

C. Wetlands

Potential wetlands within the study area shall be initially identified via desktop investigations using aerial and infrared photography, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory maps, U.S. Geological Survey quadrangle maps, NRCS soil maps, and other available resources.

A Wetlands Findings Reports delineating impacts to wetlands and Other Waters of the United States shall be prepared during the environmental process.

A field survey shall be conducted on all alternatives, within the required ROW and/or limits of construction, whichever is greater. Wetlands shall be delineated in accordance with the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual and the 2010 USACE Atlantic and Gulf Coastal Plain Regional Supplement. Field-delineated wetland boundaries shall be documented with sub-meter capable GPS units, then mapped using current USACE GIS/wetland mapping guidelines. Field-determined characteristics and delineation data for wetlands occurring within the study area of the alternatives shall be recorded on currently accepted USACE Wetland Determination Data Forms by the Consultant and provided within the Wetlands Finding Report. Ecological values and potential impact quantities for all wetlands and Other Waters of the United States identified within the study areas shall be calculated in acres in the report and provided to DOTD's Environmental Section for use in the subsequent permit application process, which is not included in this scope.

Deliverables: The Wetlands Finding Report, using the latest USACE criteria, shall be submitted to DOTD for review and comment. It shall include reproducible maps and photographs of each soil sample taken during wetland delineation activities. Soil sample photographs shall include appropriate Munsell soil chart pages for each sample. Quadrangle and layout maps provided in the report shall depict locations of delineated wetland areas and respective project station numbers. If wetland impacts are minor and the Wetlands Findings Report small, the report may be placed in an appendix of the environmental document as needed. The final document along with all associated GIS files/data shall also be provided to DOTD's Environmental Section. All potential permits and their requirements to implement the project shall be identified. All items necessary to obtain the permits (with concurrence of DOTD) shall be provided by the Consultant.

Five (5) paper copies of the draft wetland finding report and two (2) copies of each revision shall be submitted to DOTD's Environmental Section for review and approval. Once approved, five (5) copies of the final report shall be submitted to DOTD's Environmental Section, as well as one (1) electronic copy in PDF format on a labeled CD. Associated GIS files/data used in preparation of the documents shall also be provided to DOTD.

D. Wetland Reserve Program (WRP)

The Consultant shall coordinate with the NRCS to determine the location of any WRP properties in the project area. All WRPs shall be mapped in GIS and used as a constraint to avoid when evaluating alternatives. If the project impacts a WRP property, the Consultant shall immediately notify DOTD's Environmental Section.

E. Water Resources

The Consultant shall identify and quantify all impacts (particularly water quality) to water resources including surface water, groundwater, water wells, and sole source aquifers. Existing conditions of water resources shall be determined through research of Louisiana Department of Environmental Quality, DOTD, and U.S. Environmental Protection Agency databases and other relevant documents.

F. Endangered & Threatened Species

The Consultant shall define and describe the protected species associated with the subject project, if applicable. At minimum, species occurrence records shall be obtained from USFWS and the Louisiana National Heritage Program (LNHP), maintained by the Louisiana Department of Wildlife and Fisheries (LDWF), prior to the initiation of field surveys.

Field surveys shall be conducted to determine the presence (relative abundance) or absence of protected species and/or their habitat, if applicable. Surveys shall confirm the presence of suitable habitat for a particular Threatened and Endangered species and determine if there is a reasonable possibility that a local population of those Threatened and Endangered species are present in the area.

Deliverables: A Biological Survey Report documenting field survey methods, conclusions, and recommendations shall be written. Coordination with knowledgeable staff representing the U.S. Fish and Wildlife Service (USFWS) and LDWF shall be conducted in order to determine impacts by the project. Coordination with these agencies shall be made through DOTD's Environmental Section or with the express approval of DOTD. Maps showing the areas of concern to threatened and endangered species and their habitats shall be included in the biological report. However, the biological report documenting Threatened and Endangered Species in the project area shall not be distributed to the public nor shall the maps or the report be included as an appendix of the environmental document. Attempts shall be made to avoid impacts to any protected species or their habitats when planning the alternatives. Five (5) copies of the draft Biological Survey Report and two (2) copies of each revision shall be submitted to DOTD for approval. Once approved, (5) five copies of the final report shall be submitted to DOTD as well as an electronic copy (PDF) on a labeled CD.

If, through coordination with the appropriate agencies and from survey results, it is determined that a Biological Assessment is required to quantify project impacts to a threatened and/or endangered species, the Consultant shall develop a Biological Assessment (BA). The BA, shall include maps showing the areas of concern to threatened and endangered species and their habitats, shall document field survey methods, agency coordination, conclusions, and mitigation recommendations. Five (5) copies of the draft BA report and two (2) copies of each revision shall be submitted to DOTD for review, comment, and approval. Once approved, five (5) copies of the final report shall be submitted to DOTD as well as an electronic PDF copy on a labeled CD. This report shall not appear in the environmental document.

G. Aesthetics/Unique or Environmentally Sensitive Areas

The Consultant shall identify trees considered aesthetically important per the DOTD Office of Engineering in the Engineering Directives and Standards Manual (EDSM No: I.1.1.21) Treatment of Significant Trees in DOTD Right-of-Way as well as any other natural and/or community features identified as aesthetically important during field investigations, the SOV, and public outreach process. The Consultant shall evaluate changes in the visual context of the project area that may occur as a result of the proposed project. As necessary, visual simulation will be prepared to depicted changes in the aesthetic condition required from the alternatives.

H. Scenic Streams

The Consultant shall address impacts associated with any Scenic Stream and prepare a Class B Scenic Stream permit application, if required, for each scenic stream in the project area.

Deliverables: Five (5) copies of the Class B Scenic Stream permit application (all with original photos or color laser print copies) shall be provided to DOTD's Environmental Section.

I. Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) Report shall be prepared in accordance with the most recent ASTM International Standard E1527. If a Phase II ESA is required, additional services (research, testing, and documentation) may be conducted under a supplement to this agreement. The report shall include a statement of compliance with the standard and identification of specific deviations from the standard which may have occurred. The Phase I ESA shall have four components: Records Review, Site Reconnaissance, Interviews, and the Report. The Consultant shall meet with the project team if recognized environmental conditions are discovered. Results of site evaluations, findings, conclusions, and opinions concerning the site's impact shall be provided in the ESA Report. A Phase I ESA Report shall be submitted to DOTD for review and comment. A revised version of this report shall be prepared if changes are required. The final document shall also be provided to DOTD as a PDF file on a CD. The Consultant shall meet with the Environmental Section's Project Coordinator if Recognized Environmental Conditions (RECs) are discovered. Results of site evaluations, findings, conclusions, and opinions concerning the site's impact shall be provided in the ESA. A summary of the final report shall be included in the environmental document, and the full text shall be included in an appendix of the environmental document as directed by DOTD.

Deliverables: Five (5) paper copies, two (2) copies of each revision, and one (1) electronic PDF version of Phase I ESA Draft and Final report shall be submitted to DOTD.

J. Noise

A Traffic Noise Study shall be conducted for the project. Existing noise conditions shall be measured and the latest FHWA approved Traffic Noise Model (TNM) shall be used. DOTD's latest Highway Traffic Noise Policy shall be applied to the noise analysis. Prior to conducting any field measurements or modeling, the Consultant shall submit a protocol of the methodology that shall be used in the noise study to DOTD for approval. The Consultant shall submit the draft Noise Protocol to DOTD. A revised final Noise Protocol shall be submitted if required. Noise sensitive land uses such as potentially impacted residences, businesses, recreation areas, schools, and churches in the vicinity of the build alternatives shall be identified during a field survey. Additionally, the Consultant shall perform a document search to ascertain the existence of planned, designed, and programmed activities.

The Consultant shall produce a noise study documenting the noise monitoring results, identification of other noise sources in the corridor, calibration of the computer model, and a discussion of predicted noise levels for each alternative. The report shall include exhibits showing the locations of receptors and predicted noise contours of the build alternative which indicates the location of the 66 decibel and 71 decibel noise contour. The noise contour shall extend throughout the project study limits adjacent to build alternatives footprint. Traffic noise impacts shall be presented in a table with an accompanying discussion. The table shall include impacts during existing conditions and predicted impacts for the build and design years. The noise study shall also include an analysis of the reasonableness and feasibility of considered abatement measures. The noise study shall contain sufficient detail and background data (computer printouts) to allow for review of both the methodology and accuracy of all analyses. The noise study shall have appendices showing model input and output data sets for each scenario in addition to completed copies of the worksheets required by the latest DOTD Traffic Noise Policy.

The Consultant shall prepare and submit a Traffic Noise Report for DOTD and FHWA review/comments. Should changes be required following DOTD and FHWA review, the Consultant shall prepare and submit a final Noise Report. Up to three versions of the document shall be prepared. The final document shall also be provided to DOTD as a PDF file on a CD. A summary of the final noise analysis shall be included in the environmental document, and the full text shall be included in an appendix of the environmental document as directed by DOTD.

Deliverables: Four (4) copies of the Draft Noise Study, and three (3) copies of each revision, shall be submitted to DOTD Environmental Section. Upon review, comment and approval, five (5) copies of the Final Noise Study and one (1) electronic copy (PDF), shall be submitted to DOTD Environmental Section for distribution.

K. Air Quality

As the project is within a maintenance area for Ozone, a project level air quality analysis shall be performed using the latest NAAQS and EPA model. A conformity determination is required and the project must comply with the local metropolitan planning organization plans. The impacts of the proposed action to air quality in the region shall be considered and discussed in the environmental document. Also, the impact on air quality during construction of the project

shall be discussed in the environmental document. The full text of the air analysis shall be included in an appendix of the environmental document as directed by DOTD unless the entire report is given in the environmental document.

Deliverables: This information shall be presented in a separate technical document by the Consultant. Four (4) copies of the Draft Air Quality Study shall be submitted to DOTD's Environmental Coordinator. Upon review, comment and approval, five (5) copies of the Final Air Quality Study and one (1) PDF version, shall be submitted to the DOTD's Environmental Coordinator.

L. Cultural Resource Survey and Archaeological/Historic Properties (106 & 4(f))

The Consultant shall carry out research and documentation to assist FHWA in carrying out their responsibilities under NEPA, Section 106 and Section 4(f). All work carried out under this task must satisfy all related regulatory requirements.

All research and documentation related to Phase I surveying services, which are necessary to comply with Section 106 of the National Historic Preservation Act (NRHP) shall be prepared by the Consultant under this contract. If a Phase II or Phase III survey, 4(f) documentation or Section 106 Memorandum of Agreement (MOA) is required, additional services may be conducted under a supplement to this agreement. All coordination with the State Historic Preservation Officer (SHPO) shall be through DOTD's Environmental Section or with the express approval of the Environmental Section.

The research, analysis and documentation shall include, but is not limited to the following tasks:

Determine Area of Potential Effect (APE)

The Consultant shall consult with FHWA and DOTD to develop the APE (direct and indirect) of the project. After FHWA and DOTD have determined the APE, the agencies shall consult with the SHPO for concurrence. The direct APE is anticipated to be the existing right-of-way, required right-of-way and servitude for each alternative. For the standing structure survey, it is anticipated that the indirect APE will be considered the view-shed of the alternatives. No Phase I survey shall be conducted prior to the determination of the direct and indirect APE. Each alternative shall require an APE (direct and indirect). No archaeological fieldwork shall be conducted outside of the defined direct APE.

Identify Historic Properties and Background Research

Background research should be conducted on the history and cultural resources of the area. The Consultant shall review previous cultural resource survey reports and compile information on previously recorded archaeological sites, historic structures, and NRHP properties, on file at the Louisiana Division of Archaeology (DOA) and the Louisiana Division of Historic Preservation (DHP). In addition, historic maps and aerial photographs of the APE should be consulted to help document the history of land use. Historical and archival research on alternatives to be surveyed shall also be conducted.

Property Owner Contact and Permission

The Consultant, with DOTD approval, shall conduct the research necessary to obtain the names/addresses of property owners from whom additional ROW is required. The Consultant shall contact and obtain permission from the property owners prior to accessing their property. All letters should be sent to DOTD for review and approval prior to mailing. The Consultant shall acquire the landowner(s) permission to carry out the archaeological survey and receive written consent to remove, analyze, and curate artifacts. Written consent letters shall be forwarded to DOTD prior to fieldwork. If property owners do not grant access to their property, the Consultant shall prepare legal notification letters that shall be forwarded on behalf DOTD. These letters, reviewed by DOTD, shall be sent registered mail return receipt requested. Additionally, copies of any letter that is sent shall be forwarded to the appropriate Sheriff's Office and District Attorney.

Phase I Cultural Resources Survey

A Phase I archaeological survey shall be performed on the alignments of up to three (3) build alternatives to determine the presence of archaeological sites, standing structures approaching 50 years old/older, and other places or objects eligible for listing on the NRHP. The Consultant shall coordinate with DOTD prior to the initiation of the survey. Any preservation affiliated groups expressing interest in the project should be contacted for additional information prior to survey.

Archaeological Survey

The survey shall follow 2018 Louisiana Division of Archaeology (DOA) guidelines for Phase I surveys. The archaeological survey will consist of a pedestrian examination of the direct APE with systematic shovel testing of high probability areas at 30 m intervals. Any deviation from standard 30 meter interval testing must be discussed with DOTD and SHPO and agreed upon prior to initiation of fieldwork. If agreed upon, the deviations must be documented in report. All of the APE must be surveyed unless there is a prior agreement with DOTD and DOA. All shovel tests will be 30 cm in diameter and excavated to sterile subsoil or a depth of 50 cm, whichever comes first. If soil conditions permit, the fill of each shovel test will be screened through 1/4-in wire mesh. Soils with high clay content will be sorted with a trowel to search for artifacts. The location, stratigraphy, soil characteristics, Munsell color and a description of artifacts will be recorded for all shovel tests. All shovel tests and beginning and end of transects must be recorded with GPS coordinate, using device with minimum accuracy of 3-5 m. All shovel tests will be backfilled immediately upon completion of recordation. Any archaeological sites discovered during the survey, will be subjected to a specific set of investigative techniques, which will include surface collecting and systematic shovel testing to assess the site's horizontal and vertical limits per the Louisiana Division of Archaeology 2018 guidelines. This research shall, provide data relative to the age and cultural affiliation of the site, its stratigraphic context and integrity. Photographs, drawings, and sketch maps will be made to document the site. National Register of Historic Places (NRHP) eligibility determination will be provided (ineligible or eligible). If further Phase II testing is required to determine NRHP eligibility a recommendation will be made for further work. The Consultant will immediately contact the DOTD environmental section in the event that significant deposits are encountered that would require further Phase II testing.

Standing Structure Survey

Standing structures 45 years or older that are located within the direct APE and/or within the indirect APE will be recorded using photographs, a sketch map of their floor plan, and notes on construction details. Structure locations will be recorded using a handheld GPS unit with sub-meter accuracy. The Louisiana Historic Resource Inventory Standing Structure excel spreadsheet template available from the Louisiana Department of Culture, Recreation and Tourism, Division of Historic Preservation (LDHP) website will be completed for each structure 45 years or older within the direct or indirect APE. The spreadsheet will be submitted to the LDHP to obtain a Standing Structure Number. Louisiana Historic Resource Inventory Standing Structure forms will be completed. This information shall be sufficient to permit an evaluation of the structure's eligibility for the NRHP.

Delays in fieldwork, including weather related delays, should be conveyed to DOTD project manager immediately. DOTD will not supplement a contract due to weather related issues.

Processing and Analysis

Artifacts recovered during the fieldwork will be washed and catalogued according to the requirements of the DOA. Analysis of the artifacts and other data will follow currently acceptable scientific methods. All artifacts and associated project documents will be curated with the State Curation Facility and prepared using 2018 guidelines. A receipt of deposit will be required prior to the contract expiration date.

Report Preparation

An executive summary of the results of the survey will be submitted to DOTD within 5 days after completion of the fieldwork. Per DOA 2018 guidelines archaeological site forms and the LHRI forms must be finalized prior to acceptance of the draft report.

The Division has developed a checklist for federal agency reports. DOTD and SHPO report reviewers will be using these checklists during the review process. The Consultant will utilize the checklist during preparation of site forms.

In order to process LHRI forms, the following must be included: a map or shapefile of the properties, .pdf of the completed LHRI form, a database spreadsheet (which will be used to assign the Resource ID Number), and one printed color copy of the final form. The LHRI forms must be saved as individual pdf files and the file name must be the resource number with no additional characters (for example, "01-00001.pdf). These should be submitted via email or on a disk as digital copies or large files may be loaded into an online file sharing service.

The Division of Archaeology has developed a checklist for drafting site forms. DOTD and DOA Site form reviewers will be using these checklists during the review process. The Consultant will utilize the checklist during preparation of site forms.

Two hardcopies and one searchable PDF version of the draft report and draft archaeological and LHRI forms must be submitted concurrently to DOTD for review. DOTD, after reviewed and approval of draft site forms, LHRI forms, and draft report, will transmit documents to

FHWA for approval. If no further comments need to be addressed, DOTD will submit the site forms and LHRI forms to SHPO for site numbers, Resource ID Numbers, and acceptance. Site numbers and Resource ID Numbers will be forwarded to the Consultant for update of the forms and draft report.

After the Consultant receives the site numbers, Resource ID Numbers, and final acceptance of forms they will submit two hard copies (double sided) of the draft report and one searchable PDF version on disc, within 5 business days. Upon review and concurrence of the draft report by SHPO the Consultant will send the two hard copies of the final report (double sided); a CD of the final report in searchable PDF format; two hard copies of the final site forms and standing structure forms; and a PDF copy of final site and standing structure forms on CD will be submitted within five days after DOTD notifies the Consultant of SHPO concurrence. In addition a GIS shapefile (.shp) and all accompanying data files (e.g., .sbn, .dbf, .prj, .sbx, and .shx) for each new and updated site and structure as well as all surveyed areas must be submitted. Currently, all the SHPO_GIS data is projected in NAD_1983_UTM_Zone_15N and submitted files 4 should be in this format. If a shapefile is not possible, the DOA will accept .kmz or .kml files.

The final report and the archaeological forms shall not be distributed to the public nor shall the maps of archaeological sites or the report be included as an appendix of the environmental document.

M. Socio-Economic / Community Impacts

The Consultant shall evaluate the social and economic impacts, including any adverse effects of the proposed actions, on the local community. The Consultant shall collect compiled summary demographics on the project area. Discussion shall include anticipated permanent and temporary impacts of the proposed project on the established business districts, land uses, community services/facilities, and residents in the project vicinity, as well as impacts to planned developments known by public officials at the time of data collection. Projects in the study area shall be researched by the Consultant through contact with local planning officials, public safety officials, school officials, and organizations in an effort to determine other long-range plans, upcoming projects, or planned developments. Consistency with these plans shall be assessed and documented.

N. Environmental Justice

Available U.S. Bureau of the Census population and other source data shall be used as a basis to identify low-income, and minority populations in the entire study area. This data shall be augmented with “windshield” surveys and contacts with local officials and community leaders in the study area to determine if such communities are present in the study area. No household or resident interviews/surveys (i.e., face-to-face or telephone calls) are included in this scope of services. The Consultant shall identify likely minority and/or low-income communities within the study area and assess whether the project shall have any disproportionate adverse impacts to these populations in accordance with Executive Order 12898 and the Department of Transportation Order on Environmental Justice 5610.2(b). Any instances where Title VI populations bear the bulk of project-related impacts shall be reported to DOTD’s

Environmental Section, and the Consultant shall evaluate possible mitigation or enhancement measures to reduce or lessen adverse impacts, if any, on the community.

All reasonable and foreseeable adverse social, economic, and environmental effects on minority and low-income populations must be identified and addressed in the environmental document. Adverse effects include, but are not limited to:

- Air, noise, and water pollution and soil contamination.
- Destruction or disruption of man-made or natural resources.
- Destruction or diminution of aesthetic values.
- Destruction or disruption of community cohesion or a community's economic vitality.
- Destruction or disruption of the availability of public and private facilities and services.
- Vibration.
- Adverse employment effects.
- Displacement of persons, businesses, farms, or nonprofit organizations.
- Increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community.
- The denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities.

O. Relocations and Conceptual Stage Relocation Plan

The Consultant shall confirm whether the proposed alternatives result in any relocation of businesses or residences. In the event an alternative results in relocation impacts, the Consultant shall prepare a Conceptual Stage Relocation Plan in accordance with the requirements of the Louisiana DOTD's Office of Right of Way Operations Manual and 49CFR Part 24 § 24.205a. The results of the plan shall be summarized in the environmental document. The scope of the plan shall include:

- a. An estimate of the number of households to be displaced including information such as owner/tenant status, estimated value and rental rates of properties to be acquired, family characteristics, and special consideration of the impacts on minorities, the elderly, large families, and persons with disabilities when applicable. Environmental Justice considerations shall also be reviewed.
- b. The type of dwelling (mobile home, frame, brick) to be acquired or adversely impacted.
- c. The location and quantity of available comparable replacement housing; if none is available, the estimated cost to build new housing; or whether any displacements have sufficient remainder on which to move or build. Should comparable replacement housing not be available, other methods in addition to new construction, shall be evaluated as part of a possible Housing of Last Resort program as provided for under Section 206A of the Uniform Act.
- d. The location and types of businesses, farms and non-profit organizations to be displaced, the race of the owner, estimated number of employees, by race, bypassed businesses if applicable, and a listing of available commercial buildings and sites.
- e. An estimate of the availability of replacement business sites. When an adequate supply of replacement business sites is not expected to be available, the impacts of displacing the businesses shall be considered and addressed. An analysis of business moving problems for those displaced businesses which are reasonably expected to involve

complex or lengthy moving processes, or small businesses with limited financial resources and/or few alternative relocation sites shall be included.

- f. The functional replacement of a publicly-owned facility, if applicable, and the existence of publicly-owned recreation lands.
- g. The estimated cost of relocation assistance.
- h. Consideration of any special relocation advisory services that may be necessary from the displacing Agency and other cooperating Agencies.

The data collected for the plan shall be from secondary sources and field observations. Interviews shall not be conducted with those families and businesses potentially affected by the various alternatives.

The Consultant shall develop a preliminary cost estimate for each project alternative. The project costs shall include estimates for all right-of-way acquisition costs. Estimates for right-of-way shall include all land and improvements situated within the proposed right-of-way (all alternates considered). Additionally, the right-of-way estimate should include the estimated cost for land as well as improvements not in the required area, but possibly impacted by the proposed project. The right-of-way cost estimate should take into consideration damages, etc. that may accrue due to the proposed project (all alternates considered). Refer to the Real Estate Needs Checklist for Stage 1 Cost Estimates and Stage 1 Cost Estimate Appraiser Checklist.

If a proposed project shall not result in relocation impacts this must be documented within the environmental document. If a conceptual relocation plan is necessary, the acquisitions and relocations should be summarized in the environmental document, and the conceptual relocation plan should be included as an appendix of the environmental document.

Deliverables: Five (5) paper copies and one (1) PDF version of the conceptual relocation plan including completed Real Estate Needs Checklist and Cost Estimate Appraiser Checklist for study area.

P. Section 4(f) of the Department of Transportation Act

Research, analysis, and documentation of compliance with Section 4(f) of the Department of Transportation (DOT) Act shall be conducted for any publicly owned recreational and park land, wildlife, waterfowl refuges, and/or historic site affected by the build alternatives. The Consultant shall coordinate with agencies and entities with jurisdiction of any 4(f) property to develop appropriate mitigation. The Consultant shall draft appropriate Section 4(f) documentation for all such properties. Any such documentation shall be submitted to DOTD, FHWA and other necessary agencies for review, comments, and approval. Section 4(f) documentation for all Section 4(f) properties/structures must be developed according to FHWA rules, regulations, and guidelines. The approved Section 4(f) Statement shall be included in an appendix of the final environmental document. Up to two (2) meetings with federal, state, and local officials required for coordination regarding Section 4(f) and are included in this scope.

Deliverables: Five (5) paper copies and one (1) PDF version of 4(f) evaluation and 4(f) statement for all identified 4(f) properties within the project study area. Evaluations may include the following:

- De Minimis Impact Determination
- Programmatic Evaluation
- Individual Section 4(f) Evaluation

Q. Sections 6(f) of the Land and Water Conservation Fund Act Resources

Resources in the project area built using the Land and Water Conservation Act funds shall be identified by the Consultant. If such resources are present, the Consultant shall prepare all documentation for the coordination with the appropriate agencies in accordance with Section 6(f) of the Department of Transportation (DOT) Act. Up to two (2) meetings with state and local officials required for coordination regarding Section 6(f) are included in this scope.

R. Utilities Effects Summary

The Consultant shall identify all utilities within the study area and the need for relocation based on proposed alternatives. Any impact associated with the installation of new or relocation of existing utilities features shall be appropriately addressed in the environmental document.

S. Floodplains

The Consultant shall utilize Federal Emergency Management Agency (FEMA) published Flood Insurance Rate Maps (FIRMS) to assess the location of floodplains and conduct impact assessments. The Consultant shall also coordinate with the local floodplain administrator relative to quantifying impacts.

The Consultant shall need to coordinate and document coordination with the parish flood plain administrator on required permits.

T. Indirect, Cumulative, and Temporary Construction Effects

The Consultant shall analyze indirect, cumulative, and temporary construction effects associated with the various alternatives. This analysis shall assure that all project actions shall minimize future social, economic and environmental impacts.

U. Safety Analysis

The Consultant should summarize and present the results of the safety analysis completed in the traffic study. This should include a quantitative estimate of expected safety performance of each alternative. A relative comparison shall be provided to show the differences in expected safety performance between each alternative, including the existing conditions and the No-Build alternative.

V. Other Impacts

The Consultant shall consider and evaluate other issues that may be included in the impact discussion including but not limited to:

- Items of special or local interest should also be noted and evaluated within the context of the project.
- Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
- DOTD's Complete Streets Policy
- DOTD's Context Sensitive Solution (CSS) Policy
- Climate change
- Possible detours and their effect
- Sequence of construction and other construction impacts
- Special construction times needed to alleviate undue travel time during, harvest, congestion, etc.

As required, the Consultant shall prepare necessary documentation and conduct appropriate coordination with local, state, and/or federal agencies to thoroughly document project related impacts.

W. Environmental Inventory / Summary

The Consultant shall perform an Environmental Inventory of I-10 at LA 74 Study area. The Environmental Inventory shall consist of database searches that shall identify and map all major environmental concerns, issues, and sites within the corridor. The Inventory shall be based on secondary data, such as limited field surveys, EPA and state databases, traffic data, accident data, National Wetland Inventory maps, infrared photography, aerial photography, cultural resources data, wildlife areas, extensive literary research, coordination and interviews with local, state and federal agencies and officials, U.S. Geological Surveys, soil surveys, census data, etc. Areas of environmental concerns shall be delineated on exhibits.

TASK - COST ESTIMATE

The Consultant shall develop a preliminary cost estimate for each proposed project alternative. The project costs shall include estimates for all engineering design, ROW acquisition, construction, utility relocation, and mitigation costs. Estimates for ROW shall include all land and improvements situated within the proposed ROW. Additionally, the ROW cost estimate should include the estimated cost for land, as well as improvements not in the required ROW, but possibly impacted by the proposed project. The ROW cost estimate should take into consideration damages, etc. that may accrue due to the proposed project. All cost estimates shall account for escalation, risk, inflation, etc. Consultant shall prepare the engineering estimate using all pay items that could reasonably be used in the project along with assumed quantities as applicable.

TASK - PROJECT MAPPING AND GIS

The Consultant shall use Geographic Information Systems (GIS) to illustrate characteristics of the study area. All project mapping shall adhere to DOTD GIS guidelines (see Miscellaneous Section).

The Consultant shall collect available GIS data, establish the study area base map with aerial photography and incorporated collected project data.

Deliverables: One (1) electronic copy in PDF format on a labeled CD of the Consultant's Standard Operating Procedures (SOP) for the production and maintenance of GIS data. Five (5) paper copies, one (1) PDF of the study area maps generated and an (1) electronic copy of GIS data generated as part of study.

TASK - ENVIRONMENTAL DOCUMENTS

The Consultant shall prepare the environmental documents in accordance with FHWA's guidelines. Fifteen (15) copies of the draft document shall be provided to DOTD's Environmental Section for review, comment, and distribution. For each round of revision, an additional fifteen (15) documents shall be required. All comments, including those received at the Public Meeting(s), shall be addressed by the Consultant in the environmental document prior to DOTD's Environmental Section requesting approval from FHWA for public distribution.

Distribution of the environmental document shall be the responsibility of the Consultant. The Consultant shall submit the distribution list for review and approval to DOTD. For each round of review, the Consultant shall prepare a summary of the comments received on the document to facilitate review by DOTD. This summary shall also identify the changes made in order to address the comments.

The draft and final environmental documents shall be typed, single-spaced, on 8.5 x 11 inch paper with inside margins of not less than 1 inch wide. All pages shall be numbered. Photographs, plans, maps, drawings, and text must be clear and clean with typed or mechanically lettered captions. Exhibits utilizing the 8.5 x 11 inch format are preferred, but 11 x 17 inch folded pages are acceptable.

If the environmental document is an EA or EIS, the Consultant shall prepare the final environmental documents in accordance with FHWA's guidelines. Upon close of the Public comment period and Public Hearing, up to fifteen (15) copies of the EA or EIS addressing comments shall be submitted to DOTD for review and comment. After approval by DOTD's Environmental Section of the final documents and issuance by FHWA of the FONSI or ROD, the EA FONSI or EIS ROD shall be distributed by the Consultant.

Seventy (70) copies of the final approved environmental document, including the FONSI or ROD, shall be distributed by the Consultant. Five (5) labeled CDs with one (1) PDF electronic copy of the final document shall be provided. DOTD Environmental Coordinator shall provide the mailing list to be used for distribution.

The Consultant's name and logo shall not appear on the cover of the document; however, they may appear on the inside cover sheet in a size not to exceed DOTD's name and logo. A copy of all environmental documents produced shall be provided in the PDF file format.

MISCELLANEOUS

- On all correspondence with DOTD's Environmental Section, the Consultant shall use all applicable state project numbers (i.e., engineering and construction), along with the "H" number, Federal aid project number, project name, route number, and parish.
- All correspondence pertaining to the preparation of the environmental document shall be directed to DOTD's Environmental Coordinator with DOTD Project Manager and other DOTD Team member appropriately cc'd.
- The Consultant shall arrange, conduct, and summarize a kick-off meeting with the project team within 10 days of receiving the Notice To Proceed (NTP). The Consultant shall prepare and submit a progress schedule and coordination plan at the kick-off meeting reviewed by internal team members. Agenda items for this meeting shall include the review points and durations, time-frame assumptions built into the project schedules, invoicing procedures, progress reporting, and plans for early coordination of public involvement.
- The Consultant shall notify DOTD Environmental Coordinator a minimum of two (2) weeks prior to any fieldwork. The Consultant shall notify DOTD's Environmental Coordinator when fieldwork begins and ends. The Consultant shall also update DOTD's Environmental Coordinator bi-weekly as to their progress in the field.
- All reference materials utilized shall be noted and an accurate and complete bibliography supplied to DOTD with the draft and final documents. Accessibility and location of all reference material or otherwise not easily accessible material shall be noted (i.e., library location, etc.). Utilization of unpublished material or otherwise not easily accessible material shall be specifically coordinated with the Environmental Section prior to its use in the document. Copies of web-based data shall be appropriately collected at time of access. The full web address and date of access for such resources shall be accurately recorded in the bibliography.
- The Consultant shall provide the DOTD's Environmental Section with a detailed monthly progress report. This report shall be submitted with each invoice and shall include the estimated and actual date of completion of each task to be performed, work conducted during the reporting period, anticipated future work and issues of concerned.
- The Consultant shall use Geographic Information Systems (GIS) to illustrate characteristics of the study area and to assist in the assessment of the effects of alternatives under consideration. The Consultant shall compile metadata files for data used in the project and develop metadata files for new data layers in accordance with the Content Standard for Digital Geospatial Metadata, Vers. 2 (FGDC-STD-001-1998), the federal Metadata standard. Aerial photography shall be the preferred base map for exhibits to be used both in the Environmental Document and for presentation during the public meetings and hearing. This map shall be used to overlay environmental constraints and environmentally sensitive areas located within the study area. Readily available data and

field-determined data shall be mapped and collected for use in describing the existing conditions in the study area and to provide a baseline condition against which future impact projections shall be based.

- Prior to any fieldwork, the Consultant shall obtain required landowner permission. Property owners from whom additional ROW shall be required shall be contacted with a certified return receipt right-of-entry letter (template letter supplied by DOTD) prior to the fieldwork in order to notify landowner of proposed environmental work on their property. The Consultant shall contact LA One Call in advance of conducting fieldwork to locate underground utility lines in areas where subsurface testing shall be conducted.

Environmental Document Deliverables

The month and year of the submittal shall be identified on the report cover and on the transmittal document for all versions. Technical reports submitted for review shall not be identified as “DRAFT” and shall be considered “FINAL” if no revisions are required as determined by FHWA and DOTD. The month and year of the submittal shall be identified on the report cover and on the transmittal document for all versions. The Consultant shall prepare a draft and a revised version(s) of each deliverable that addresses one (1) consolidated list of comments on the deliverable, which has been compiled and/or approved by the Client for incorporation by the Consultant. Up to the noted number of copies of the following deliverables shall be provided during the contract performance period.

Description	Draft Copies	Revised Copies (During each round of review)	Final Copies	PDF on Labeled CD
Work Plan & Schedule	1	1	3	
Logical Termini Request	1	1	3	
Solicitation of Views	1	1	Up to 100	
Public Meeting(s) Summary/Transcript	4		Up to 50	1
Public Hearing Summary/Transcript (if required)	4		Up to 50	1
Bridge and Roadway Typical Sections	3 to 8	3 to 8	5	
Conceptual Alternatives' Geometric Layouts	1	1		
Alternatives Analysis Memorandum	3	1	10	
Wetlands Finding Report	5	2	5	1
Biological Field Survey Report	5	2	5	1
Biological Assessment (if required)	5	2	5	1
Phase I ESA Report	5	2	5	1
Noise Analysis Protocol	1			
Noise Study	4	3	5	1
Air Study	4	1	5	1
Cultural Resources Phase I Report	4	2	2	1
Cultural Resources Site Forms			2	1
Cultural Resources Standing Structure Form			2	1
Conceptual Stage Relocation Plan (if required)			5	1
4(f) Statement (if required)			5	1
Visual Renderings	2	2	2	1
Draft Environmental Document (if required)	15	15	up to 70	5
Final Environmental Document	15	15	up to 70	5

IV. QUALITY CONTROL / QUALITY ASSURANCE:

DOTD requires the Consultant to develop a Quality Control/Quality Assurance program, in order to provide a mechanism by which all contracted services can be subject to a systematic and consistent review. The Consultant must ensure quality and adhere to established design policies, procedures, standards, and guidelines in the preparation and review of all design products. DOTD shall provide limited input and technical assistance to the Consultant.

SERVICES TO BE PERFORMED / ITEMS TO BE PROVIDED BY DOTD

If available, DOTD will provide the following information as applicable:

- Traffic data
- Stage 0 Report
- Standard Plans and Special Details
- Access to General Files for viewing available plans, details, and records

ELECTRONIC DELIVERABLES

Consultant hereby agrees to produce electronic deliverables in conformance with DOTD Software and Deliverable Standards for Electronic Plans document in effect as of the effective date of the most recent contract action or modification, unless exempted in writing by the Project Manager. Consultant is also responsible for ensuring that sub-consultants submit their electronic deliverables in conformance with the same standards. DOTD Software and Deliverable Standards for Electronic Plans document and DOTD CAD Standards Downloads are available via links on DOTD web site.

Consultant shall apply patches to CAD Standard Resources and install incremental updates of software as needed or required. Consultant hereby agrees to install major updates to software versions and CAD Standard Resources in a timely manner. Major updates of CAD standards and software versions shall be applied per directive or approval of the DOTD Design Automation Manager. Such updates will not have a significant impact on the plan development time or project delivery date, nor will they require Consultant to purchase additional software. Prior to proceeding with plan development, Consultant shall contact the Project Manager for any special instructions regarding project-specific requirements.

In the event that any Digital Plan Delivery Standard conflicts with written documentation, including DOTD plan-development Manuals, the Digital Plan Delivery Standard governs. Consultant is responsible for contacting the Project Manager should questions arise.

Consultant shall upload (or check in) electronic deliverables directly into DOTD ProjectWise repository at each plan delivery milestone. Consultant are responsible for performing certain operations at each milestone including, but not limited to, the following:

- Upload (or check in) CAD plan deliverables to the discipline “Plans” folder
- Apply and maintain indexing attributes to CAD plans (and other deliverables as needed)

- Publish PDF format plan submittals in ProjectWise using automated publishing tools
- Digitally sign PDF format plan submittals in ProjectWise according to DOTD standards and procedures (Final Plans, Revisions and Change Orders). Signatures shall be applied in signature blocks provided with electronic seals and Title Sheets.

Additionally, after reviewing deliverables for each submittal milestone, the Project Manager shall notify Consultant regarding the availability of two automatically-generated informational reports in ProjectWise. These reports document the completion status and other information regarding indexing attributes and CAD standards. Consultant shall take these reports into account and make any necessary adjustments to plans before the next submittal milestone; or sooner, if directed by the Project Manager.

ATTACHMENT B – MINIMUM PERSONNEL REQUIREMENTS (MPRs)

The following requirements must be met at the time the proposal is submitted:

1. At least one (1) principal of the prime consultant shall be professionally competent in the preparation of environmental documents required for the project.
2. At least one (1) principal or responsible member of the prime consultant shall have a minimum of five (5) years of experience in responsible charge of or major expertise in NEPA documentation.
3. At least one (1) principal or responsible member of the prime consultant must have completed the “NHI course No. 142005, National Environmental Policy Act (NEPA) and Transportation Decision Making,” or an equivalent course and shall have a minimum of five (5) years experience in responsible charge of the preparation of NEPA documents (including Environmental Assessments) in accordance with the National Environmental Policy Act (NEPA) for the FHWA.
4. At least one (1) environmental professional shall have a minimum of three (3) years of experience with highway traffic noise analysis.
5. At least one (1) environmental professional shall have a minimum of three (3) years of experience with Phase I Environmental Site Assessments.
6. At least one (1) professional shall have a minimum of five (5) years of experience in performing Wetland Delineations (or Findings), possess a degree in Natural Science or a related field, and have completed a Wetlands Delineation Training Course that meets the criteria of the Corps of Engineers.
7. At least one (1) professional shall have a minimum of five (5) years of experience in performing Threatened and Endangered Species surveys and possess a degree in Natural Science or a related field.
8. At least one (1) principal investigator who meets the Archaeologist Qualifications as published in the Louisiana Register dated April 20, 1994, must have completed the course on Section 106 of the National Historic Preservation Act offered by the Advisory Council, or its equivalent training, and shall have a minimum of five (5) years of experience in Section 106 documentation.
9. At least one (1) professional for the standing structures work, meeting the Secretary of Interior’s Qualifications for historic preservation.
10. At least one (1) real estate professional responsible for the preparation of a Conceptual Stage Relocation plan.
11. At least one (1) professional civil engineer, registered in the state of Louisiana, shall have a minimum of five (5) years of experience in roadway design.
12. At least two (2) professional civil engineers, one of which shall be a professional traffic operations engineer (PTOE), registered in the state of Louisiana, shall have a minimum of five (5) years of traffic analysis experience with signal warrants and signal timing.

MPRS ARE TO BE MET BY SEPARATE INDIVIDUALS OF THE PRIME CONSULTANT, UNLESS STATED OTHERWISE BELOW.

MPR Nos. 1 through 3 may be met by the same person.

MPR Nos. 4 through 12 may be satisfied through the use of a sub-consultant(s).

NOTE: WHEN SATISFYING A MINIMUM PERSONNEL REQUIREMENT, PLEASE ENSURE THE RÉSUMÉ REFLECTS REQUIRED EXPERIENCE AS REQUESTED.

- Please note the number of MPRs are minimal; however, all relevant personnel necessary to perform the Scope of Services must be identified in Section 14 of the DOTD Form 24-102 and their resumes included in Section 16 of the DOTD Form 24-102.